



# ALP NARRATIVE REPORT

Nenana Municipal Airport – Nenana, Alaska

Project # 50209.01

November 2023

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## ACRONYMS & ABBREVIATIONS

5010 .....	Form 5010 Airport Master Record
AAC.....	Aircraft Approach Category
AASP .....	Alaska Aviation System Plan
AC .....	Advisory Circular
ACAIS.....	Air Carrier Activity Information System
ACUASI .....	Alaska Center for UAS Integration
ADG .....	Airplane Design Group
ADS-B .....	Automatic Dependent Surveillance Broadcast
ADF.....	Automatic Direction Finder
ADF&G.....	Alaska Department of Fish and Game
AFS .....	Alaska Fire Services
AIP .....	Airport Improvement Program
ALP .....	Airport Layout Plan
ARC.....	Airport Reference Code
ASOS.....	Automated Surface Observing System
ASSET.....	General Aviation Airports: A National Asset
ATP .....	Airline Transport Pilot
AWOS.....	Automated Weather Observing System
BLM .....	Bureau of Land Management
BRL .....	Building Restriction Line
CCR.....	Constant Current Regulator
CIP .....	Capital Improvement Plan
CTAF .....	Common Traffic Advisory Frequency
CWA .....	Clean Water Act
DNR .....	Department of Natural Resources
DOLWD.....	Department of Labor and Workforce Development
EEB .....	Electrical Equipment Building
ENN .....	Nenana Municipal Airport
EPA .....	Environmental Protection Agency
ERAM.....	En Route Automation Modernization
eVTOL.....	Electric Vertical Takeoff and Landing
FAA.....	Federal Aviation Administration
FAI .....	Fairbanks International Airport
FAR .....	Federal Aviation Regulation
FBO.....	Fixed Base Operator
FSS.....	Flight Service Station
GA.....	General Aviation
GARD .....	General Audio Recording Device
GPS.....	Global Positioning System
helo .....	Helicopter General Aviation Aircraft
IAP .....	Instrument Approach Procedure
IFR .....	Instrument Flight Rules
IMC.....	Instrument Meteorological Conditions

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LPV .....	Localizer Performance with Vertical Guidance
MIRL .....	Medium Intensity Runway Lights
NAAQS .....	National Ambient Air Quality Standards
NAS .....	National Airspace System
NDB .....	Non-Directional Beacon
NEPA .....	National Environmental Policy Act
NOAA .....	National Oceanic and Atmospheric Administration
NOTAM .....	Notice to Air Mission
NPI .....	Non-Precision Instrument
NPIAS .....	National Plan of Integrated Airport Systems
OFA .....	Object Free Area
PAPI .....	Precision Approach Path Indicators
PCI .....	Pavement Condition Index
RDC .....	Runway Design Code
RCRA .....	Resource Conservation and Recovery Act
REIL .....	Runway End Identifier Lights
ROFA .....	Runway Object Free Area
ROFZ .....	Runway Obstacle Free Zone
ROW .....	Right-of-Way
RPZ .....	Runway Protection Zone
RSA .....	Runway Safety Area
RW or RWY .....	Runway
SGCN .....	Species of Greatest Conservation Needs
SPB .....	Seaplane Base
SRE .....	Snow Removal Equipment
SREB .....	Snow Removal Equipment Building
STOL .....	Short Takeoff and Landing
TAF .....	Terminal Aera Forecast
TDG .....	Taxiway Design Group
TFMSC .....	Traffic Flow Management System Counts
TRACON .....	Terminal Radar Approach Control
UAF .....	University of Alaska Fairbanks
UAS .....	Unmanned Aircraft Systems
USDOT .....	United States Department of Transportation
USFS .....	United States Forest Service
USFWS .....	U.S. Fish and Wildlife Service
VOR .....	VHF Omni-Directional Range
VORTAC .....	VHF Omni-Directional Range/Tactical Air Navigation System
VFR .....	Visual Flight Rules

# EXECUTIVE SUMMARY



## EXECUTIVE SUMMARY

This narrative report presents the updated Airport Layout Plan (ALP) for Nenana Municipal Airport. An ALP update is a comprehensive study of an airport that describes the short-, medium-, and long-term development plans to ensure the airport continues to meet design and safety standards and to meet future aviation demand. This project is an update to the 2002 Nenana Airport ALP. This ALP narrative report and the ALP drawings present a guide to the orderly development of the Nenana Municipal Airport (ENN) over the next 20 years.

ENN is a city-owned, public use airport located one mile south of the central business district of Nenana, accessible via the George Parks Highway, and roughly 50 air miles southwest of Fairbanks. The airport has three runways – the primary paved, lighted runway (4,600 ft x 100 ft), a lighted turf/ski strip (1,980 ft x 80 ft), and a water lane (3,601 ft x 100 ft). The airport facilitates robust use of its three runways, seeing aviation activity from recreation and backcountry access, hunting, forestry/fire response, state and federal agency business, flight training, unmanned aircraft systems (UAS) testing and development, military training, medevac flights, and diverted flights during weather events.

The community of Nenana has interest in the airport from both aviation *and* non-aviation users. Fuel sales at the airport support the city through the fuel tax collected. The airport is part of community life in many ways, as local residents have long used the airport to access local trails, to access the river, and for berry picking. Aviators, non-aviators, locals, and visitors enjoy ENN in various ways, and this ALP update considered the needs and desires of all stakeholders through the course of the ALP update development. The project team balanced the community's vision of the airport, stakeholder input, current airport use, and projected future demand in creating a development plan that ensures the airport will thrive and continue its vitality for all users.

The ALP update was developed over the December 2021 to November 2023 time period. This ALP narrative documents the ALP update process and ultimate recommendations through the following chapters:

- **Inventory of Existing Conditions** – establishes the current airport conditions and use
- **Aviation Demand Forecast** – evaluates forecasted aviation activity and aircraft expected to use the airport
- **Facility Requirements** – identifies airport needs to meet design and safety standards and to meet forecasted use
- **Alternatives Development and Evaluation** – presents the suite of projects considered by the public, stakeholders, advisory committee, and project team and describes how input contributed to the recommended alternative
- **Airport Capital Improvement Plan** – presents the recommended airport development alternative projects with proposed project timing and cost estimates

# EXECUTIVE SUMMARY



- **Airport Layout Plan** – the set of drawings that show the current airport layout and the ultimate airport layout that would result from the recommended improvements and developments

Following the 2002 ALP, the airport underwent a series of improvements – runway rehabilitation, safety area improvements, acquiring snow removal equipment and constructing an equipment storage building, perimeter fencing, and fuel farm/tank replacement. Until this ALP update and the 2023 pavement project, the airport hadn’t seen any significant work since 2012. In the 20 years since the previous ALP was developed, the 10+ years since the last major project, and changes to airport requirements in that time, the airport has naturally acquired a list of needed work. The Airport Capital Improvement Plan and ALP included herein detail a development plan to preserve existing infrastructure in a state of good repair, improve infrastructure to meet design and safety standards, and develop portions of the airport that enhance its safety and usability. The turf/ski and water runways, which were previously ineligible for Federal Aviation Administration Airport Improvement Program funding, are now eligible due to their justified use and roles at the airport, and improvement plans for these runways are part of the ALP.

The ALP recommends the following suite of projects intended to maintain this great facility, to ensure it continues to meet design and safety standards, and to enhance the current infrastructure to provide better airport experience for users of all types.

<b>Projects Underway (Completion by FY2025)</b>	
<ul style="list-style-type: none"> <li>• 2023 Pavement Maintenance</li> <li>• 2024/2025 Airport Lighting &amp; Signage</li> </ul>	<ul style="list-style-type: none"> <li>• Segmented Circle &amp; Wind Cone Replacement</li> </ul>
<b>Short-Term Projects (Proposed for 1-5 Year Short Term)</b>	
<ul style="list-style-type: none"> <li>• Runway 4L-22R Mill &amp; Overlay and Pavement Maintenance on Taxiways and Apron</li> </ul>	<ul style="list-style-type: none"> <li>• Snow Removal Equipment Building</li> <li>• Snow Removal Equipment</li> <li>• Improved Airport Signage</li> </ul>
<b>Medium Term Projects (Proposed for 5-10 Year Medium Term)</b>	
<ul style="list-style-type: none"> <li>• Partial Parallel Taxiway at Runway End 22R</li> <li>• Runway 4R-22L Turf Surface Repair and Maintenance</li> <li>• Runway 4W-22W Dredging/ Vegetation Removal</li> <li>• Obstruction Removal</li> <li>• Water/Sewer/C St Utilities Extension</li> <li>• Pilot Lounge Improvements</li> <li>• RSA Grading and Shoulder Reinforcement</li> </ul>	<ul style="list-style-type: none"> <li>• Construct Helicopter Parking Area</li> <li>• Reroute Service Roads from Runway 4L-22R RSA</li> <li>• Airport Entrance &amp; Road Reconfiguration</li> <li>• Float Pond Parking</li> <li>• Lease Lot Improvements</li> <li>• Apron Improvements</li> <li>• Fencing, Electronic Gates, and Cameras</li> <li>• Float Pond Fuel System</li> </ul>
<b>Long-Term Projects (Proposed for the 10-20 Year Term)</b>	
<ul style="list-style-type: none"> <li>• Runway 4L-22R Full Parallel Taxiway</li> </ul>	<ul style="list-style-type: none"> <li>• Aviation Campground</li> </ul>



## CHAPTER 1. INVENTORY OF EXISTING CONDITIONS

### 1.1 INTRODUCTION

The following narrative report is an update to the 2002 Nenana Airport Layout Plan (ALP). This ALP update uses existing conditions and other airport data to serve as a guide in the orderly development of the Nenana Municipal Airport (ENN) over the next 20 years.

ENN is a city-owned public use airport located one mile south of the central business district of Nenana, and roughly 50 air miles southwest of Fairbanks. It is located on the George Parks Highway, a thoroughfare running 323 miles from the Glenn Highway north of Anchorage to Fairbanks. Other general aviation (GA) airports in the region include Manley Hot Springs Airport to the west and Clear Airport to the south. With a 2020 population of 358 people, Nenana has had a slow decline in population since 2000, when the population was 402. Employers in the region include public schools, barge lines, fuel distributors, small businesses, and local government.



Figure 1.1: Nenana Location Map



Figure 1.2: Nenana Aerial

# CHAPTER 1. INVENTORY OF EXISTING CONDITIONS



## 1.2 CURRENT FACILITY

### 1.2.1 Airport Reference Code & Design Aircraft

The Federal Aviation Administration (FAA) has established an Airport Reference Code (ARC) that is used to relate design criteria to the operational and physical characteristics of the aircraft intended to operate at a specific airport. The ARC has two components: airport approach category (AAC) and airplane design group (ADG). The approach category is based on the speed of the aircraft as it approaches the runway to land and is represented by a letter, A through E, as shown in Table 1.1. The design group is based on airplane wingspan and is represented by a roman numeral, I through VI, also shown in Table 1.1. ENN is classified as a B-III airport on the 2002 ALP, with the most common aircraft using the airport being a fixed-wing single engine aircraft.

Table 1.1: FAA Airport Reference Code Components

Aircraft Approach Category (AAC)		Airplane Design Group (ADG)		
Category	Approach Speed (Knots)	Group	Wingspan (feet)	Tail Height (feet)
<b>A</b>	<91	<b>I</b>	<49	<20
<b>B</b>	91 to 120	<b>II</b>	49 to <79	20 to <30
<b>C</b>	121 to 140	<b>III</b>	79 to <118	30 to <45
<b>D</b>	141 to 165	<b>IV</b>	118 to <171	45 to <60
<b>E</b>	≥166	<b>V</b>	171 to <214	60 to <66
		<b>VI</b>	214 to <262	66 to <80

### 1.2.2 Airport Classification and Role

ENN is classified by the FAA as a "General Aviation Airport" with a "Basic" role per the National Plan of Integrated Airport Systems (NPIAS). As a general aviation airport, the primary purpose of ENN is to serve the aviation interests and needs of the community in its geographical area. ENN is part of the NPIAS, and operates as a public use, non-primary, non-towered airport. To be included in the NPIAS, an airport is required to achieve a set of criteria set forth by the FAA. Inclusion into the NPIAS is an important step in providing long term growth and development at airports such as ENN.

ENN is one of the larger airports in the region, providing essential aviation operations daily, with operations mainly consisting of charter and recreational flights. Transient aircraft routinely use the airport for a wide variety of public and private purposes, including medical flights, recreational flying, and small charter operations.

The Alaska Aviation System Plan (AASP) classifies ENN as "Local - High Activity" within the

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aviation system. The local airport classification varies widely in size, scope, and dimension. Therefore, the AASP divides the classification into three sub-categories: Local High Activity, Local Low-Activity, and Local Non-NPIAS. High-Activity airports have at least 20 based aircraft.

## 1.2.3 ENN History

The City of Nenana gets its name from the Athabaskan language. Nenana means “a good place to camp between rivers.” In the late 1800s, the native Athabascans settled on the land that is now the townsite of Nenana. Roughly 20 years later, the non-native settlers had the area surveyed and lots sold for auction. The lots would later be used for residential properties and start the development of the downtown area. The city was incorporated in 1921; the airport was acquired by the city from the FAA in 1964.

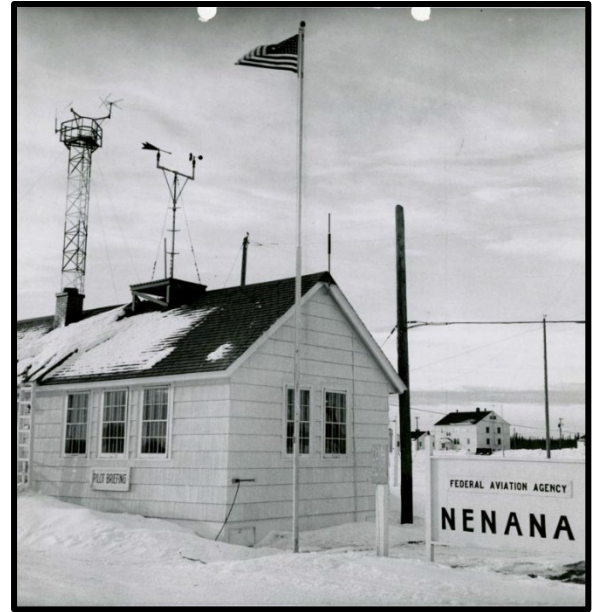


Figure 1.3: Historic Flight Service Station

## 1.3 AIRSIDE FACILITIES

### 1.3.1 Airside Description

ENN is located at 64° 32' 50.28" N LAT and 149° 04' 26.13" W LONG at an elevation of 367.7 feet above sea level. ENN has one asphalt runway (4L-22R), one gravel/ski strip (4R-22L), and one water lane (4W-22W). The paved runway (4L-22R) is 4,600 feet long and 100 feet wide. The turf/ski strip (4R-22L) is 1,980 feet long and 80 feet wide. This runway is used for small wheel operations in the summer and ski operations in the winter, and it is referred to interchangeably as the turf, gravel, or ski strip. The paved runway and turf/ski strip are lighted runways. The water lane (4W-22W) is 3,601 feet long and 100 feet wide and is not lighted.

The ramp is accessible via Taxiway A at the Runway 4L-22R threshold and Taxiway B located approximately 1,000 feet from the Runway 4L-22R threshold. Taxiways A and B are 50 feet wide per Taxiway Design Group (TDG) 3 standards. Taxiway C is 25 feet wide and connects the Runway 4L-22R threshold to a turf apron located approximately 800 feet east of the runway.

The paved apron is 1,275 feet by 200 feet and is located northwest of Runway 4L-22R. The turf apron is 400 feet by 200 feet and is southeast of Runway 4L-22R and the ski strip. Floatplanes can be parked adjacent to the water lane, at the two basins utilizing 1,400 feet of shoreline.

ENN currently does not have a Fixed Based Operator (FBO). However, a passenger shelter is being constructed with planned amenities that may include sleeping quarters, restrooms,

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weather information, a flight planning computer, and a courtesy car for local use. The airport is accessed off Airport Road to the north and Airport Service Road to the south. The airport is divided into two blocks of land, with 22 lease lots, a terminal reserve area, and parcels set aside for FAA use and navigational aids. The main apron contains 28 tiedowns for lease, day or overnight use. Maintenance and snow removal equipment (SRE) buildings are located at the south end of the airport. No water or wastewater facilities reside at the airport at this time.



Figure 1.4: ENN Runways and Apron (Top: View from West, Bottom: Aerial)



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## 1.3.2 Paved Areas

The Alaska Department of Transportation & Public Facilities inspected the pavement at ENN in November 2019. During the inspection they identified and inspected nine paved areas. Most sections of pavement were rated at a score of 65 or above on the Pavement Condition Index (PCI). Figure 1.5 highlights the PCI ratings for each pavement surface.

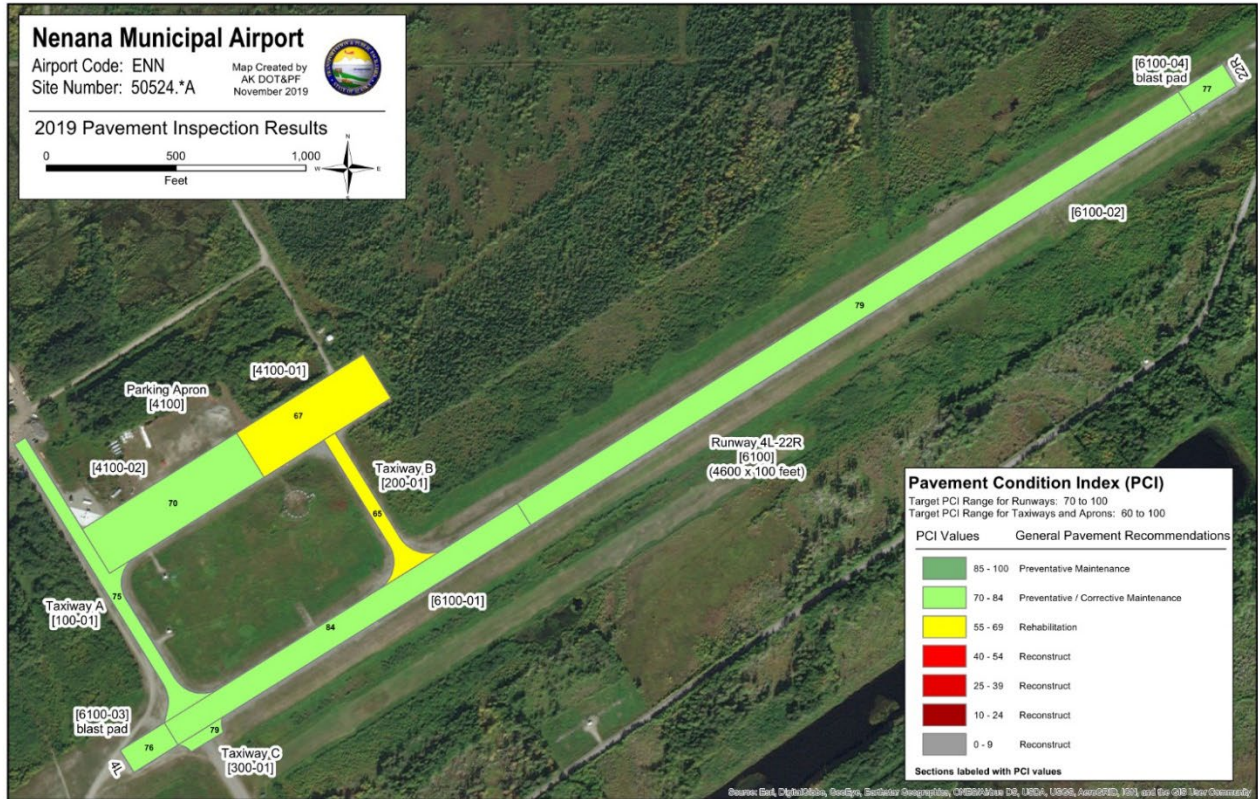


Figure 1.5: ENN Pavement Condition Index (PCI) Ratings, 2019

## 1.3.3 Airspace and Communications

ENN does not have an air traffic control tower and is encompassed in Class E airspace, meaning the airspace is uncontrolled. The airspace surrounding ENN has no communication requirements prior to entry but does have a Common Traffic Advisory Frequency (CTAF) associated with the airport. ENN CTAF is 122.1 MHz, with the Fairbanks Air Route Traffic Control Center (ARTCC) accessed on 125.35 MHz for approach and departure services. Flight service is provided by Fairbanks Flight Service Station (FSS).



Figure 1.6: ENN PAPI

# CHAPTER 1. INVENTORY OF EXISTING CONDITIONS

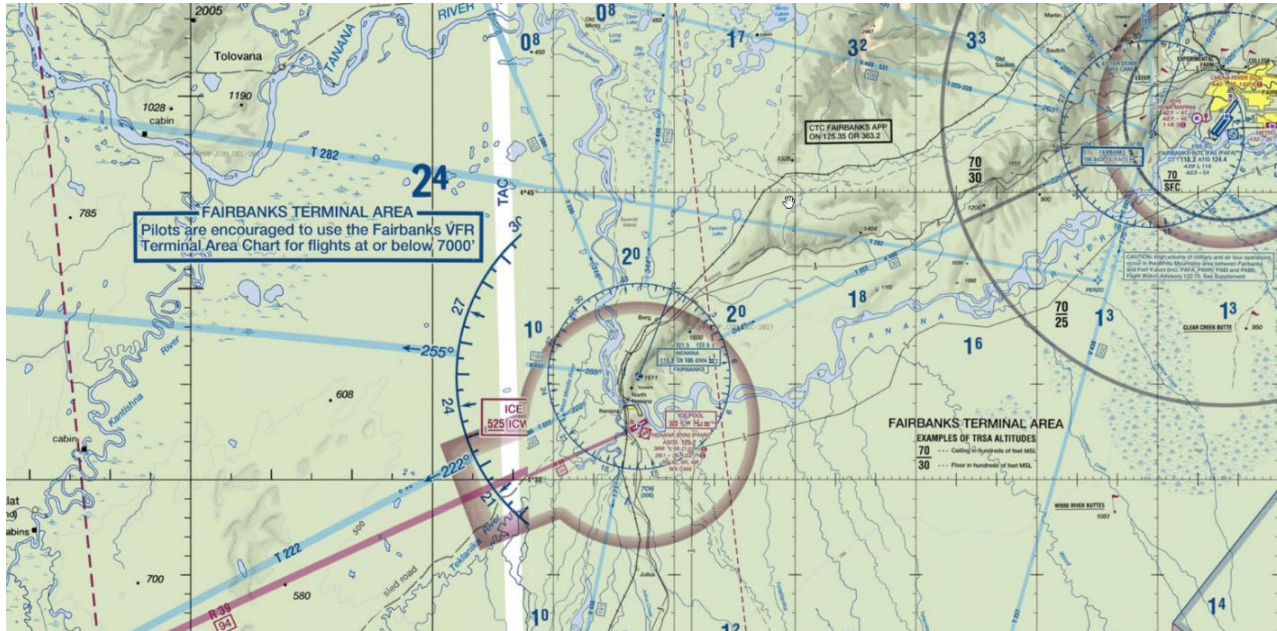


Figure 1.7: ENN Section Map

## 1.3.4 Navigation

Navigational aids assist pilots in multiple aspects of flight including takeoff, cross country, local flying, and landing. ENN has a non-directional beacon, a rotating beacon, segmented circle, and a lighted wind cone. The primary runway, 4L-22R, has Medium Intensity Runway Lights (MIRL) and, on both ends of the runway, Runway End Identifier Lights (REIL) and Precision Approach Path Indicators (PAPI). The PAPIs assist aircraft in providing visual reference through the use of lights and red colored lenses so pilots can maintain a 3-degree glide slope to the runway when following the lighted signals, as seen in Figure 1.8. The ski strip has MIRL and an unlighted wind cone. The water lane does not have lights, but there is an unlighted wind cone for guidance.

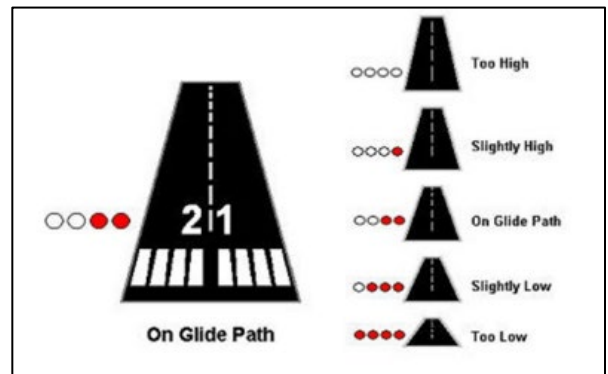


Figure 1.8: PAPI Approach Indicators

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## 1.4 LANDSIDE FACILITIES

### 1.4.1 Roads and Access Points

ENN is conveniently located along the Parks Highway. Access to the paved apron is off Airport Road from the highway. Maintenance and snow removal equipment buildings are located on the south end of the airport adjacent to the Parks Highway. There is a secondary access point from the Parks Highway on the south end, a gravel road that leads to the water lane and connects to other airport service roads.

### 1.4.2 Storage, Lease Lots, and Tiedowns

Nenana has one privately owned hangar in use with an adjacent outdoor wood-fired boiler building. The airport maintains 23 lease lots, on two divided blocks of land, which are suitable for future hangar development. In addition to the aircraft hangar, other buildings on airport property include three maintenance equipment and SRE buildings, and several abandoned FAA buildings used for employee housing and a flight service station in the 1960s, one of which is being repurposed on the apron as a pilot's lounge/passenger facility.

Currently, four of the 23 lease lots are rented. ENN has a total of 20 tiedown spaces available on the apron, and two of these spaces have lease agreements.

### 1.4.3 Non-Aeronautical Uses

Currently, no non-aeronautical uses take place on airport property.

### 1.4.4 Security & Fencing

ENN is partially surround by 6-foot-tall wildlife fence protecting the active airport area from unapproved access and wildlife threats in the area. The fence runs along the southern portion of the airport, near the water lane, and runs west alongside the Parks Highway and the airport access roads. ENN has one securable gate to access the lease lots and apron.

## 1.5 SUPPORT FACILITIES

### 1.5.1 Emergency Response

The airport is periodically used for medical transport and regional firefighting activities, and it serves as a staging area for forest firefighting activities and a supply depot for tankers. Its location is easily accessible from nearby areas, and ENN can provide quick air transport to hospitals in Fairbanks and Anchorage.

### 1.5.2 SRE/Bulk Storage & Maintenance

The SRE and maintenance equipment storage buildings are located at the south end of the

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airport. The newer two-bay SRE building is heated with heating oil, while the older four-bay building is not. The single bay storage building houses city-owned equipment, but is in need of significant repair. These buildings are accessible via a gravel service road from the apron around the Runway 4L-22R threshold, and a gravel service road that connects to Taxiway C between the ski strip and water lane area. A gravel road provides access from the Parks Highway on the public side.

ENN currently has three pieces of airfield equipment; a Kubota track loader with a 72-inch brush cutter attachment, a Stewart & Stevenson Snow Blower Truck, and a CAT Road Grader VHP Plus with Grader Wing. The overall equipment is deficient for the level of operations needed to safely and effectively remove snow. One of the two loaders is a 1980s model and in need of replacement. A new loader with V-plow and snow broom attachments would allow ENN to move snow off the runway faster and decrease the amount of time the equipment is on the runway.

Heavy winds are common in Nenana and cause snow drifts near the runway. A 6x4 dump truck is needed to move large quantities of snow away from the runway in a timely manner. A KUBOTA compact track loader with a severe duty brush cutter is used for airfield maintenance and brush cutting.

SRE being used for airfield maintenance are stored appropriately in the SRE building (SREB).



Figure 1.9: Grader



Figure 1.10: Snow Blower

## 1.6 AIRPORT ENVIRONMENT

### 1.6.1 Topographical Information

The City of Nenana occupies approximately 5.95 square miles of land at the confluence where

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the Nenana tributary flows into the Tanana River, with 0.29 square miles of that being water. Nenana lies at the border of two physiographic provinces: the Yukon-Tanana Uplands to the north and the Tanana-Kuskokwim Lowlands to the south.

## 1.6.2 FAR Part 77 Protections & Zoning

Federal Aviation Regulation (FAR) Part 77 creates a basis for height restrictions around an airport using imaginary surfaces. Objects that penetrate these surfaces are studied to determine whether they are hazards to navigable airspace for aircraft and pilots within the vicinity of the airport. A 5010 Airport Master Record inspection report from August 2020, a product of work contracted through the FAA to collect airport data, listed several tree obstructions at both runway ends for 4L-22R and 4R-22L. ENN's primary runway is non-precision, which uses existing instrument approach procedures and navigational aids for guidance.

## 1.6.3 Land Use & Surrounding Area

Land use planning and management is an effective means to ensure that activities nearby the airport are compatible with aviation. Directly to the north of ENN are undeveloped privately owned lots. Beyond the undeveloped lots is the City of Nenana, where the majority of development resides. Property to the south of ENN belongs to the State of Alaska and is administered by the Department of Natural Resources (DNR). This area is largely undeveloped and used for recreational purposes with several recreational hiking trails along the Tanana River. The land directly adjacent to the west of the airport is owned by the City of Nenana. Directly across the Parks Highway to the west, train tracks for the Alaska Railroad run parallel alongside the Nenana River. Alaska Railroad has right-of-way ownership for this land, extending 100 feet on either side of the track.

## 1.7 ENVIRONMENTAL DATA

This section describes the surrounding environmental conditions of the airport as of January 2022. The inventory included adheres to FAA guidelines, and briefly examines the impact categories identified in FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, which are based on the National Environmental Policy Act (NEPA). Sections from the guidelines are listed below.

### 1.7.1 Air Quality

The U.S. Environmental Protection Agency (EPA) sets air quality standards for six pollutants known to impact human health. The FAA cannot approve any action that is not in conformance with National Ambient Air Quality Standards (NAAQS). The standards evaluate several criteria pollutants, which include: carbon monoxide (CO), particulate matter (PM), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and nitrogen oxide (NO<sub>x</sub>). ENN and the surrounding area are listed as "non-classified" according to NAAQS standards; air quality is not generally a concern in this area.

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## 1.7.2 Biological Resources

Wetlands in the vicinity of Nenana include freshwater emergent wetland and freshwater pond designations. Birch, aspen, and white spruce trees are prevalent in the area, along with lower ground cover and shrubs. Wildlife in the area consists of moose, black bear, fox, coyote, waterfowl, shorebirds, and fish in the nearby Tanana and Nenana Rivers.

The Alaska Department of Fish and Game's (ADF&G's) Species of Greatest Conservation Needs (SGCN) was reviewed to determine potential occurrences of state-listed SGCN near the airport. At this time, ENN does not reside in an area of conservation, but it should be noted that there is a wildlife refuge directly to the north of the airport, across the Tanana River from downtown Nenana. Minto Flats State Game Refuge is approximately 500,000 acres. Minto Flats is a large wetland complex lying along a northerly loop of the Tanana River and has one of the highest concentrations of waterfowl habitats in Alaska. It supports high density duck nesting, producing more than 150,000 ducks annually. Sandhill cranes, loons, bald eagles, geese, and peregrine falcons also nest near the refuge.

According to the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation database, there are no endangered or threatened species within the vicinity of the airport.

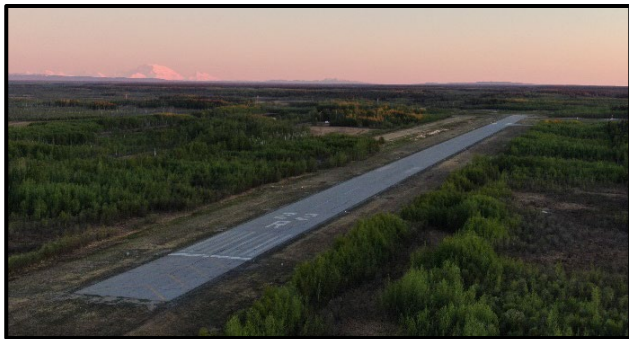


Figure 1.11: Runway Aerial



Figure 1.12: Water Lane Aerial

## 1.7.3 Climate

This region is known for low precipitation, warm summers, and intensely cold winters. The area is noted for its northerly and easterly winds, which can sometimes be stronger and more persistent than surrounding areas regionally. The mean daily temperature can range from -16° F to 72°F, depending on the season. Rain averages less than 10 inches annually, and snow averages 50 inches yearly.

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## 1.7.4 Section 4(f)

Section 4(f) of the U.S. Department of Transportation Act of 1966 (now codified at 49 U.S.C. Chapter 303) protects publicly owned land including public parks, recreational areas, or wildlife refuges of national, state, or local significance. Land immediately surrounding the airport that may be used for future development does not currently include Section 4(f) properties.

## 1.7.5 Farmland

ENN does not reside on or near any designated farmland categories.

## 1.7.6 Hazardous Materials and Pollution Prevention

The Resource Conservation and Recovery Act (RCRA) of 1976 directs the EPA to protect the environment and human health and welfare from improper hazardous waste management practices. ENN follows RCRA guidelines, as various hazardous waste and substances, such as petroleum, are used at the airport.

## 1.7.7 Historic and Cultural Resources

The National Historic Preservation Act of 1966 is rulemaking intended to preserve archeological and historic sites. Section 106 of the Act requires federal agencies to assess the impact of all federally funded projects. ENN does not have any buildings of historic or cultural significance.

## 1.7.8 Noise and Compatible Land Use

The FAA has determined that the cumulative exposure of individuals to noise resulting from aviation activities must be established in terms of yearly day/night average sound level. Noise exposure is considered significant if 65 decibels or greater encroaches on any noise sensitive area. A noise analysis is required by the FAA for airport proposals which involve annual operations exceeding 90,000 propeller operations or 700 jet operations. A noise analysis will likely not be required as part of the NEPA process for proposed airport improvement projects.

## 1.7.9 Natural Resources

FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, asserts that airport improvement projects will be examined to identify effects on local energy supplies or natural resources. Use of renewable energy is encouraged (FAA Executive Order 13123). ENN uses electricity to power navigational aids, airfield lighting, fueling station electronics and lighting, and maintenance buildings. Petroleum fuels are used to power aircraft, maintenance vehicles, and other equipment. Other natural resources affected by the airport are discussed in the water resources, wetlands, and biological resource sections of this report.

## 1.7.10 Socioeconomic and Demographics

Airport development has the potential to impact the natural and human environments. These

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impacts are evaluated based on significance to residents, businesses, and the surrounding community. The City of Nenana is located north of the airport and is home to many of Nenana's residents. Government buildings, a library, a school, and businesses are also located in the main city center. The impacts of proposed projects on the surrounding community will need to be evaluated as part of any future NEPA process.

## 1.7.11 Visual Effects – Light Emissions and Visual Impacts

Runway 4L-22R has MIRL and each end is equipped with REIL and a four-light PAPI on the left side of the runway. The airport also has lighting on the turf runway, a rotating beacon, and a lighted primary windsock. The airport lighting is generally contained to on-site and does not spill over into the neighboring properties or cause disruption to local residences. Any airport improvement projects that change the current lighting or increase the visibility into the surrounding community should be evaluated as part of the NEPA process.

## 1.7.12 Water Resources

### 1.7.12.1 Wetlands

Executive Order 11990, Protective Wetlands, requires the FAA to protect, preserve, or enhance wetlands. In addition, Section 404 of the Clean Water Act (CWA) requires a permit from the U.S. Army Corps of Engineers for any fill in wetlands or other Waters of the United States. According to the USFWS's National Wetland Inventory, the airport and its vicinity have Freshwater Emergent and Freshwater Pond designations, as seen in Figure 1.13. An evaluation of the impact of proposed airport improvements on wetland resources should be included in the future NEPA process.

### 1.7.12.2 Floodplains

Noting floodplains is critical for proposed development, as it analyzes the risk and impact of floods on human safety, health, and welfare, and preserves the natural and beneficial values served by the floodplain. A review of the Federal Emergency Management Agency's Flood Map shows that the Nenana community has not been mapped for flooding risk. However, the airport does lie within the floodplain of the Tanana and Nenana Rivers, at an elevation of about 360 feet. The lowland areas consist of vegetated floodplains and low benches which form localized uplands with generally less than ten feet of relief.

### 1.7.12.3 Water Quality

Water quality regulations are governed by the Federal Water Pollution Control Act, as amended by the CWA and other amendments. Section 303(d) of the CWA authorizes the EPA to assist states, territories, and authorized tribes in listing impaired waters. A body of water is considered "impaired" if it fails to meet one or more water quality standards. According to the EPA none of the waterways in the vicinity of ENN are 303(d) listed. The primary water quality concern for



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airports is runoff generated from the creation of impervious surfaces, as well as potential impacts from oil or fuel spillage and de-icing chemicals. ENN does not generally use de-icing chemicals; however, oil and fuel are used in airport maintenance equipment and aircraft operations. Proper disposal and/or containment of oil and fuel will limit runoff to nearby waterways.

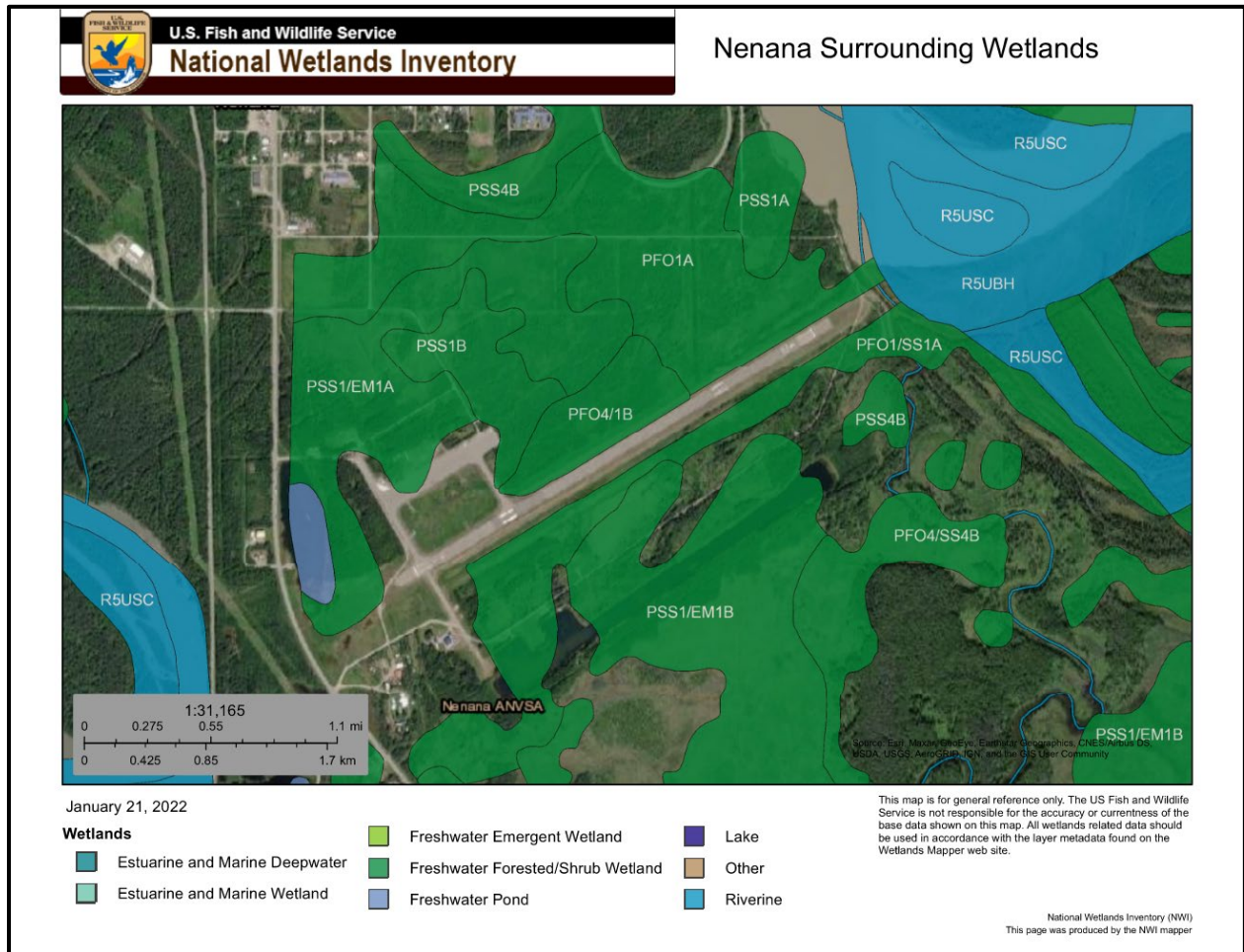


Figure 1.13: Nenana Surrounding Wetlands

## 1.7.12.4 Rivers

The National Wild and Scenic Rivers Act preserves certain rivers with natural, cultural, and recreational significance for future generations. ENN is located adjacent to the Tanana River, which is a 584-mile-long tributary of the Yukon River, and the Nenana River. The Tanana and Nenana Rivers do not carry the designation of recreational significance, but general consideration for the rivers should be evaluated with any future airport development.

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## 1.8 SOLID WASTE RECYCLING

Section 132 (b) of the FAA Modernization and Reform Act of 2012 identifies resources for the recycling of solid waste in a more efficient manner. ENN generates typical solid waste such as paper, cardboard, and some hazardous waste such as oil and paint cans. The Airport uses city managed waste services to dispose of standard solid waste at the local land fill three miles north. A dumpster is located at the Airport. The City of Nenana maintains a small recycling program for residents, with recycled items dropped off at the city building. They currently accept aluminum cans, cardboard, plastic bottles, glass containers, and newspapers/magazines.

## 1.9 AIRPORT FINANCIAL DATA

### 1.9.1 City Structure

Nenana, incorporated in 1921, is a first-class city with home rule, which allows the city to self-govern without receiving charter from the state. The city has a mayor and council and is not part of an Alaskan borough. Other city staff include the administrator, safety officer, airport manager, and public works employee, who oversee daily city needs. The airport manager oversees concerns and daily operations of the airport.

### 1.9.2 ENN Budget

Revenues generated at the airport are reinvested at the airport. The city maintains the airport budget throughout the year. Tiedown fees generate the majority of revenue, with \$350 collected yearly per tiedown. The city currently collects 4% on all fuel sales, with the airport collecting 10 cents per gallon.

### 1.9.3 Capital Improvements

Historically, several airport improvement projects have been completed with the assistance of FAA Airport Improvement Program (AIP) grants. When airport owners accept AIP funds, they are obligated to comply with grant assurances. These grant assurances require that recipients maintain and operate their facilities safely and efficiently. From 2003 to 2021, ENN accepted approximately \$7.9 million dollars in AIP funding. There have been no significant AIP funded development projects since 2012, and this Airport Layout Plan update is the first use of AIP grant funding since then. Table 1.2 lists FAA AIP grants accepted by ENN for FY2003 through FY2021.

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Table 1.2: Nenana AIP Grant History (FY2003-FY2021)

Nenana Airport (ENN) AIP Grant History (FY2003 – FY 2021)		
<b>Fiscal Year (FY)</b>	<b>Description of Work</b>	<b>Federal Funding Amount</b>
2021	Develop New Airport Master Plan or Study	\$450,000
2012	Construct Fuel Farm/Replace Fuel Tank w/Fuel Depot	\$153,558
2010	Acquire Safety/Security Equipment Perimeter Fencing	\$736,900
2010	Rehabilitate Runway 4L-22R (Construction)	\$634,702
2007	Rehabilitate Runway 4L-22R (Design)	\$33,074
2007	Acquire Snow Removal Equipment	\$253,705
2007	Install Perimeter Fencing (Design)	\$25,000
2005	Acquire Snow Removal Equipment	\$191,546
2004	Construct Snow Removal Equipment Building	\$917,749
2003	Improve Runway 3L-21R Runway Safety Area	\$750,000
2003	Acquire Snow Removal Equipment	\$386,368
2003	Rehabilitate Runway 3L-21R	\$3,369,291

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## CHAPTER 2. AVIATION DEMAND FORECAST

### 2.1 INTRODUCTION

#### 2.1.1 Forecasting Summary

Forecasts are just one of several crucial elements necessary in the creation of a viable master plan for the Nenana Municipal Airport (ENN), and will assist with decisions regarding management, maintenance, and development of the facility. A forecast is a prerequisite step in the determination of facility needs, which aids in the decisions of how to allocate capital resources to meet current and future demand. If a forecast leads to the conclusion that an airport is poised to see exploding growth, steps can be taken to ensure capital development is accomplished in lock step with that demand. Conversely, if a forecast indicates a relatively stable or slightly regressive amount of activity, valuable resources can then be allocated toward ensuring the facility can continue serving its role and avoid falling into disrepair. These considerations are important pieces of the multi-part development process of an Airport Layout Plan (ALP) and Capital Improvement Plan (CIP).

The ENN forecast is conducted within the parameters of the FAA Advisory Circular (AC) 150/5070-6B, "Airport Master Planning", FAA guidance entitled "Forecasting Aviation Activity by Airport.", and other industry standards. The forecast chapter is usually one of two elements of a master plan that must be approved by the FAA prior to adoption of the plan, the other being the ALP. The FAA requires stringent adherence to federal guidance for some aspects of a master plan, while allowing flexibility for other items, depending on the planning needs of the facility. Non-towered General Aviation (GA) airports, like ENN, provide some unique challenges to forecasting, due to the wide range of roles they may serve, and the limited amount of data that may be available. Reliance upon the airport sponsor, representatives, and other stakeholders to provide information related to infrastructure, fleet mix, operations and roles of the facility is especially important in developing a forecast. Other industry and non-industry influences will vary in their impacts to airport projections, and the forecaster must weigh them appropriately.

Information used in the creation of the ENN forecast is filtered to include or omit data based on its relevance. The information is then compared and augmented in relation to likely local, regional, and national impacts, and then developed into a forecast using FAA approved methodologies to create projections. The ENN forecasts are developed primarily from data extrapolation and regression trend analyses with exponential smoothing and adjusted for direct and non-direct impacts likely to have influence on the projections. Because of the relatively small sampling of data available, and wide variations within that data over time, final trend percentage multipliers are augmented by reasonable judgement of the forecaster, as appropriate.

## CHAPTER 2. AVIATION DEMAND FORECAST



Baseline data for ENN is also developed via blending extrapolated data with other reliable sources. For continuity, specific items are organized in the forecasts and mirrored to existing FAA standard historical, baseline and forecast tables. Other elements examined within the forecast, but not traditionally included in these types of forecasts, are also imbedded within the tables, as appropriate.

Due to the varied types of operations at ENN, particular emphasis was placed on determining reliable operation numbers for fleet mix and determining critical aircraft. Determining proper airport facility design requirements to accommodate fleet mix at smaller GA airports can be more difficult than those of larger, commercial service airports, which have easily identifiable roles and fleet mixes. The critical design aircraft enables the sponsor and FAA to determine appropriate design criteria for development of the airport. The ENN forecast uses several sources for data, including existing historical data and forecasts, sponsor and user discussions, demographic information, likely economic impacts, and a variety of aviation industry trend data.

By its very nature, forecasting is not an exact science, and the methodology for developing a forecast varies between studies depending upon the intent, data available, complexity of facility, and type of plan. Collecting appropriate information, applying approved forecast methodologies, and using reasonable judgement helps to ensure an appropriate prognostication. Sound forecasts include impactful data, while omitting information that is meaningfully irrelevant, unstable, repeated, or simply unnecessary. Determining which data to include or omit is determined by the scope, industry standards, and forecaster's judgement. Information analyzed and included within a reliably developed forecast should be summarily presented in a way that has the best chance of providing meaningful input to the other elements of an associated plan and the sponsor.



### 2.1.2 Nenana Airport Summary



*Figure 2.1: Aerial of Nenana Airport (ENN)*

ENN (Figure 2.1) is located immediately adjacent to the small, local home rule city of Nenana, and is officially included in the Yukon-Koyukuk Census Area of the Unorganized Borough in the Interior of the U.S. state of Alaska. The community is located approximately 55 miles southwest of Fairbanks near the Tanana River and very close to the heavily travelled Glenn Highway corridor between Fairbanks, Anchorage, and Denali National Park. The airport is also located just a few miles southeast of the Clear Space Force Base, which also has an aviation facility of its own. The airport is administered and operated by the City of Nenana, with assistance from the State of Alaska. The airport has three very different runways. The most active runway is 4L-22R, which is 4,600 feet by 100 feet and paved. There are also two adjacent smaller runways, 4R-22L, which is 1,980 feet by 80 feet with a turf surface, (intended for use by aircraft equipped with skis in the winter and tires when not snow covered), and 4W-22W, which is 3,601 feet by 100 feet with a water surface solely for aircraft equipped with floats.

The primary runway at ENN was originally much smaller many years ago, and today the old runway is now used as a taxiway at the facility. ENN now meets FAA design standards that are today considered a B-III Runway Design Code (RDC). The history behind this increase reflects a series of events, including the transitioning of the original runway to the existing taxiway. During the 1960s, the transfer of ENN to the local home rule city was discussed between various agencies, including the FAA. At the time, the company Nenana Fuel was operating several larger aircraft in and out of the facility, including DC-3s, DC-4s and C-47s. The FAA, and other

## CHAPTER 2. AVIATION DEMAND FORECAST



supporting agencies, allowed design developments at ENN to best accommodate these aircraft and related operations.

The airport does not have advertised scheduled commercial passenger service, however, air taxi operators routinely use the facility. The airport is used by a wide variety of aircraft, for a wide range of purposes. Some of the routine operators at the field include traditional local and transient operators, but some other unique operators as well, including:

- Government agencies, including State of Alaska Fire Services (AFS), Bureau of Land Management (BLM) / Department of Natural Resources (DNR), and the United States Forest Service (USFS). Although ENN is relatively close to the large firefighting tanker base operations at Fairbanks International Airport (FAI) and the BLM base at Fort Wainwright, ENN is routinely used for fire suppression activities and support by different agencies, and for occasional refueling. This is especially relevant since the decision to transfer most firefighting operations from retardant to water scoopers, allowing additional use of the ENN float pond. The USFS also uses the airport, primarily for helicopter operations, mostly for non-fire related forestry purposes.
- University of Alaska Fairbanks (UAF) and Partners – A federally funded partnership between the University and other private and public agencies, known as ACUASI (Alaska Center for UAS Integration), is leading an ambitious effort to develop, test, and implement autonomous drone / unmanned aerial aircraft use. The FAA Modernization and Reform Act of 2012 ultimately developed seven Unmanned Aircraft System (UAS) test sites to support the FAA in integrating UAS into the National Airspace System (NAS). This includes the ACUASI program. The objective of the program is to provide verification of the safety of public and civil UAS operations, and related navigation procedures before their integration into the NAS, including development of certification standards, air traffic requirements, and partnering research with NASA, FAA NextGen, Department of Defense, and other Federal agencies. ENN is currently an active site for ACUASI operations, supporting both fixed wing and helo UAS operations. ACUASI is planning to rapidly expand operations at ENN (further discussed in more detail in the critical aircraft chapter of the ENN forecast). Permission to operate UAS aircraft, especially beyond line of sight, requires significant efforts to secure FAA airspace. The ACUASI team currently works very closely with the FAA and other agencies to secure those airspace permissions.
- Medevac Services – The air service group LifeMed uses the airport quite often for transport of medical patients to and from the airport, often during lifesaving, medical emergencies. Aircraft used for these purposes routinely include Beechcraft King Air variants.
- In addition to regular operators, ENN hosts a wide variety of aircraft that use the facility as an alternative during periods when weather drops below Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) minimums at other nearby airports, especially in relation to



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Fairbanks (FAI). As an example, during one day in late October 2022, aircraft parked at ENN, due to weather related issues at other airports, included seven Cessna Caravans, a Pilatus PC12, and a McDonnell Douglas DC series aircraft (Figure 2.2).



*Figure 2.2: Everts DC Series Aircraft at ENN, October 2022*

The airport also has Non-Directional Beacon (NDB) and Global Positioning System (GPS) instrument approach procedures (IAPs) available to Runway 4L. ENN provides an essential aviation link for the local community and region as part of the Alaska aviation system. The airport routinely has daily activity, mainly consisting of general aviation (GA) operations. Transient aircraft often use the airport for a variety of public and private purposes, and the airport sees numerous operations related to instrument training activity by both civilian and military aircraft.

Records gathered for the forecast indicate use of ENN by a variety of operators, including air taxi outfits, common local and transient GA operators, and itinerant military traffic, most likely for training purposes. There are presently 16 GA aircraft based at ENN, however, as addressed in depth in the critical aircraft section of the forecast report, ENN is used by a wide range of sizes and types of aircraft not represented by the typical type aircraft based at the facility. Due to the lack of available data, which is a common hurdle for GA airport planning, there is no known specific aircraft that records 500 or more annual operations, as referenced within FAA recommended guidance related to critical aircraft determination; however, there is substantial related data to support the designation of a certain class of aircraft, known as an Airplane Design Group (ADG) that likely meets the minimum 500 operations requirement for FAA designation.

Both VFR and IFR operations are commonly conducted at ENN by GA, government, medevac,

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and commercial operators. The existing infrastructure at ENN currently allows for a wide variety of aircraft that support these varied flight operations. Although the total number of flight operations, especially those that support patient transport, can often be low at GA facilities, their impact to people’s lives cannot be overstated.

ENN was included in the original FAA study of GA airports, which produced the 2012 *General Aviation Airports: A National Asset* report (ASSET). The study included most GA airports considered to be of higher importance at that time. The purpose of the FAA ASSET was to emphasize the importance of the roles GA airports serve, and to better classify them according to their function. ENN is classified by the 2021-2025 NPIAS as a General Aviation - Basic Airport. Figures 2.3 and 2.4, sourced from the 2012 ASSET Study, further illustrate the specific characterizations of the FAA ASSET classifications.

**General Aviation Airport Categories**

Role	Description
<b>National</b>	Supports the national and state system by providing communities with access to national and international markets in multiple states and throughout the United States.
<b>Regional</b>	Supports regional economies by connecting communities to statewide and interstate markets.
<b>Local</b>	Supplements communities by providing access to primarily intrastate and some interstate markets.
<b>Basic</b>	Links the community with the national airport system and supports general aviation activities (e.g., emergency services, charter or critical passenger service, cargo operations, flight training and personal flying).
<b>Unclassified</b>	Provides access to the aviation system.

Figure 2.3: FAA ASSET Report General Aviation Roles

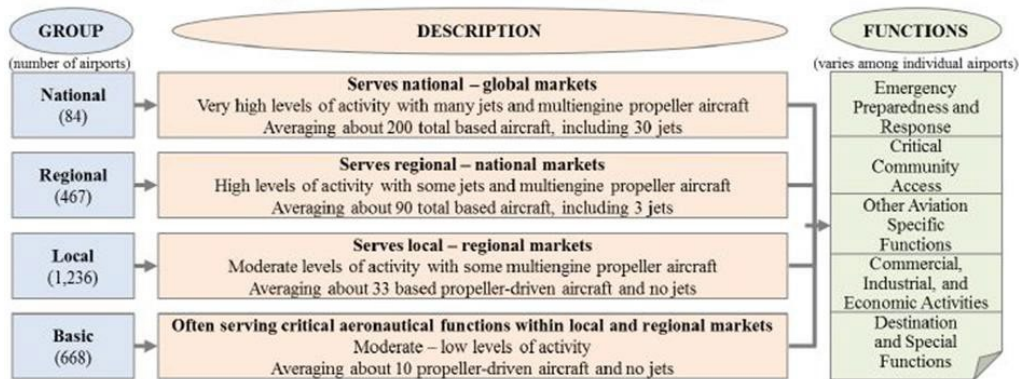


Figure 2.4: FAA ASSET Report General Aviation Category Details



## 2.2 HISTORICAL OPERATIONS AND BASED AIRCRAFT

### 2.2.1 Aircraft Operations

#### 2.2.1.1 Federally Reportable Operations

Historical information regarding federally reportable operations, activity, and based aircraft can be gleaned from a variety of sources, including those identified within the ENN forecast; however, most official data usually comes from the five sources listed and further described below:

- FAA 5010 Airport Master Record program
- FAA Terminal Area Forecast (TAF)
- FAA Traffic Flow Management System Counts (TFMSC)
- USDOT Air Carrier Activity Information System (ACAIS)
- Previous planning studies

**FAA 5010 Airport Master Records** are part of an FAA mandated airport safety inspection program which is used to collect and document similar reportable safety and operation information from airports, and includes elements related to ownership, infrastructure, hazards, activity, and based aircraft. All of this data is commonly referred to as "5010 data." Numerous government, public, and private entities use and disseminate the information collected within the master records for various public and private purposes, especially related to airport directory and information publications. 5010 data is usually collected by trained inspectors (both private and public) that the FAA contracts with to perform 5010 Airport Master Record updates at all public use airports, usually once every three years. Data collected for the 5010 at GA airports is usually a combination of visual inspection, discussion with airport managers or sponsors, and estimates by the inspector. Local managers', sponsors', and tenants' knowledge of the operations at the airport is often used to help supplement estimated numbers and types of aircraft operations and based aircraft. For non-towered GA airports, the reliability and accuracy of the information collected can vary significantly from facility to facility. Selected excerpts of the current FAA ENN 5010 Airport Master Record are included later in the report. The Form 5010 Airport Master Record for ENN (publication date 12/02/2021) can be referenced in Appendix 1.

**FAA TAF** (Terminal Area Forecast) is the official FAA forecast of aviation activity for all U.S. airports that are included in the FAA's National Plan of Integrated Airport Systems (NPIAS). It includes forecasts for all federal contract-towered airports, non-federal towered airports, and non-towered airports. Very specific elements are forecasted within the TAF, including various types of enplanements, operations, and based aircraft. The forecasts are intended to provide information for use by state and local authorities, the aviation industry, and the public. For GA

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airports, the method used to provide the forecasts are far simpler than those of larger, towered facilities. Data included in the TAF related to GA airports is almost exclusively derived from FAA 5010 Airport Master Record data. TAF forecasts for GA airports are usually developed by extrapolation of current 5010 baseline data, without adjustment, forward to the end of the forecast period. This usually results in a “flatline” forecast for each element. An annual executive summary report is developed in conjunction with the TAF forecasts, both of which are available at [https://www.faa.gov/data\\_research/aviation/taf](https://www.faa.gov/data_research/aviation/taf). Table 2.1 displays TAF data from the previous 20-year period (2001 to 2020) for ENN.

**FAA TFMSC** (Traffic Flow Management System Counts) is a searchable repository for all federally reportable aircraft operation activity (<https://aspm.faa.gov/tfms/sys/main.asp>). The data usually only includes information related to flights operating under IFR. Data is captured by FAA en route computers, and by data reported to the FAA. Most VFR operations and some non-en route IFR traffic is excluded. TFMSC source data is created when flight plans are filed or when flights are detected by the National Airspace System (NAS), via RADAR. TFMSC records are assembled by the FAA NAS Data Warehouse by combining electronic messages transmitted to the En Route Automation Modernization (ERAM) system for each flight into a complete record of that flight. Data captured includes various information, including aircraft ownership, design characteristics, points of departure and arrival, types of operations, and other useful information. Due to the nature of how the data is collected, the TFMSC data is much more relevant to commercial traffic operations (air carriers and air taxis), as opposed to GA. Tables 2.2 and 2.3 display the 2021 TFMSC data for ENN, as well as a summary of combined total operations for selected activities over the previous 20-year period.

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Table 2.1: FAA ENN TAF

FAA TAF Operations & Based AC for ENN														
	Enplanements			Itinerant					Local			Totals	Total Tracon	Based Aircraft
Year	air carrier	commuter	sub total	Air Carrier	Air Taxi	GA	military	sub total	civil	military	sub total			
2001	1	6	7	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2002	6	6	12	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2003	6	4	10	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2004	6	53	59	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2005	0	67	67	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2006	0	49	49	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2007	0	36	36	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2008	0	33	33	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2009	0	143	143	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2010	0	84	84	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2011	0	68	68	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2012	0	69	69	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2013	0	271	271	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2014	0	29	29	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2015	0	22	22	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2016	0	26	26	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2017	0	4	4	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2018	0	29	29	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2019	0	0	0	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	15
2020	0	0	0	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13

Due to the nature of how FAA TAF forecasts are generated for small airports, the % change over time is not statistically relevant to the forecasts

Source: FAA 2021 to 2045 TAF

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Table 2.2: FAA ENN TFMSC Selected Data – Source: FAA Traffic Flow Management System Counts

TFMSC Selected Data 2021 with 5 yr interval data with % change over period						
Category & Subcategory / Period of Time						
USER	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Air Carrier	50	73	149	127	25%	8
GA	236	137	152	355	11%	33
Military	230	138	115	65	-27%	7
Air Taxi		2	1			
Other	48	33	28	11	-31%	2
WEIGHT	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Heavy	2	8	6	7	37%	2
Large Jet	4	2	1			0
Large Commuter	23	11	103	84	10%	6
Medium Commuter	27	59	45	40	38%	3
Small Equip	306	207	214	392	6.40%	27
Other	202	96	76	35	-35%	2
PHYSICAL	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Jet	19	36	13	30	12.10%	7
Piston	268	143	130	315	4.12%	22
Turbine	70	115	223	175	25.80%	17
Other	207	99	79	38	-35%	4
AAC / ADG	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
A-I	221	129	122	308	8.66%	26
A-II	3	2	17	12		
A-III	2					
B-I	15	14	4	13		
B-II	64	110	181	84	7.00%	8
B-III	3	2	9	62		3
B-IV		5	3	5		2
C-I		1		3		
C-II			3	13		2
C-III			1			
C-IV	11	8	21	8		2
D-I	1	1	1	3		1
Unknown	244	111	83	47		6

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Table 2.3: FAA ENN TFMSC Selected Data – Source: FAA Traffic Flow Management System Counts

TFMSC Data / Physical Class / ENN /Total Ops 2001 thru 2021 AND 5 year groupings				
Year	Total Ops		5 yr grps	# of ops
2001	145		01 to 05	564
2002	195		06 to 10	383
2003	68		11 to 15	445
2004	78		16 to 20	558
2005	78		% change	-0.30%
2006	125			
2007	88			
2008	54			
2009	62			
2010	54			
2011	66			
2012	69			
2013	146			
2014	61			
2015	103			
2016	177			
2017	89			
2018	143			
2019	103			
2020	46			
2021	50			
total	2000			

Note: Highlighted percentage is considered for forecasting trends later in chapter, specifically in Table 2.21.

**ACAIS** (Air Carrier Activity Information System) is an FAA database that contains revenue passenger boarding and cargo data. The data is collected via mandatory reporting requirements by scheduled and nonscheduled certificated air carriers, commuter air carriers, and small certificated air carriers. In addition, the FAA also conducts an annual survey of air taxi/commercial operators who report their nonscheduled activity. The usefulness of ACAIS information in relation to forecasts depends upon the amount of commercial activity at an airport. ENN does have some reportable ACAIS activity; however, due to the wide fluctuation of the relatively small amount of data available to date, it has limited value for trending purposes. Table 2.4 displays condensed ACAIS information for annual enplanements at ENN over the

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previous 20-year period. Appendix 2 includes annual FAA enplanement data for 2001 to 2021, as reported through the AASP online facilities database.

Table 2.4: FAA ENN ACAIS – Source: Air Carrier Activity Information System

ACAIS Enplanements 5 yr intervals	
Year	Total
2021	24
2016	26
2011	71
2006	52
2001	32
% dif not relevant	

**Previous Master Plans** and airport forecasts may also be relevant in the development of forecast projections. The last known planning effort that included a forecast for ENN was an ALP update conducted in 2002. The forecast included within the update was very limited, and provided only some very basic information and estimates, and does not provide direct impacts to the current ENN forecast. The 2002 forecast is included later in the report.

### 2.2.2 Instrument Operations

IFR activity constitutes a significant portion of the total number of operations at ENN. The airport currently has two instrument approach procedures (IAPs), an NDB approach and a GPS approach, both to Runway 4L. The IAPs usually serve flights during instrument meteorological conditions (IMC), commercial operations, and instrument flight training. An IAP is a coveted addition to an airport and greatly expands use of the facility, especially for commercial operations. Forecasting data associated with IFR operations are often not part of GA master plans, but are addressed in this forecast. IFR data is especially useful in providing clear examples of aircraft operations and fleet mix data that would not have been possible without an approach and also provide valuable supplementary information in developing trends at a facility over time.

Towered airports keep detailed records of IFR operations, but airports like ENN have no operative way on-field to track IFR traffic. IFR operations are recorded by the FAA within the NAS, which tracks the flights and archives the information. Nuances that make available FAA IFR data a bit more difficult to track by airport usually involve instances when an IFR flight had both VFR and IFR segments in the flight, or flights to an airport that is not the original point of origin or the ultimate destination. Because of this, different sources of IFR operations data sometimes reflect different totals. These anomalies are usually not an impediment; however, in relation to



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airport forecasting efforts, the discrepancies are either negligible or provide other insights.

FlightAware is a private company that is widely known in the aviation community for providing historical and real time flight and airport information. FlightAware has developed algorithms to search large FAA databases, such as the FAA’s TFMSC, for very specific information, including IFR operations and activity at individual airports. When comparing TFMSC data to similar FlightAware data, there can be significant differences. The primary reason for the variation is due to the different sources that each one captures, including FlightAware’s ability to include relevant Automatic Dependent Surveillance Broadcast (ADS-B) and radar information.

FlightAware products are used to supplement the ENN forecast. Data reflecting a 2-year history of IFR traffic at ENN is summarized in Table 2.5. The full list of IFR records provided by FlightAware for the ENN can be found in Appendix 3. IFR operations presented within the data do not necessarily correlate to an actual takeoff or landing at ENN and could be a result of an instrument approach to ENN being just a part of a flight plan, with a different point of origin or destination.

Two very interesting things were revealed in analyzing the available ENN IFR data. One was the large number of different types and sizes of aircraft that use the facility, which has a significant impact on facility needs, and also corroborates information relayed to the forecaster from stakeholders. The second is that the data reveals a significant annual flux in total IFR operations throughout the year, as depicted in Table 2.5 and Figure 2.5.

*Table 2.5: FlightAware Selected Summary Information – Source: FlightAware*

<b>FlightAware IFR Operations August 2020 to August 2022</b>			
<b>Month</b>	<b>Totals</b>	<b>Month</b>	<b>Totals</b>
2020 Aug*	63	2021 Sept	80
2020 Sep	79	2021 Oct	24
2020 Oct	58	2021 Nov	19
2020 Nov	11	2021 Dec	7
2020 Dec	5	2022 Jan	26
2021 Jan	4	2022 Feb	10
2021 Feb	0	2022 Mar	31
2021 Mar	13	2022 April	51
2021 April	59	2022 May	113
2021 May	198	2022 June	174
2021 June	254	2022 July	87
2021 July	129	2022 Aug*	60
2021 Aug	113		

\*estimated from partial data provided

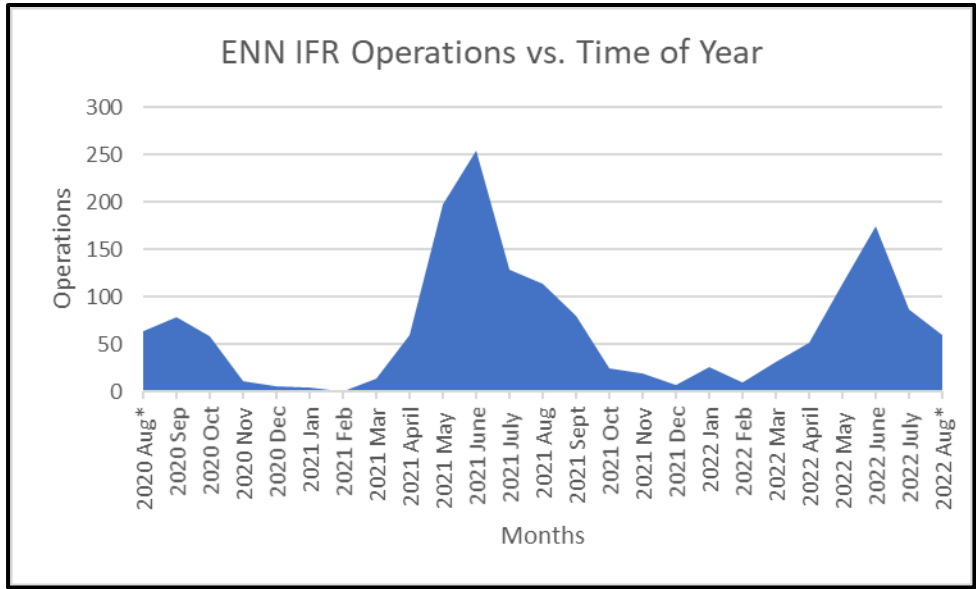


Figure 2.5: FlightAware ENN IFR Operations vs. Time of Year

### 2.2.3 Based Aircraft

Very little historical data exists regarding totals of based aircraft at ENN. Based aircraft inventory is updated as part of the FAA 5010 Airport Master Record Program. In the early 2000s, the FAA needed a more reliable and accurate way of reporting based aircraft. There were several reasons for this, including the ability to allow federal agencies to clearly track and tie aircraft end numbers to specific facilities. This change was primarily a result of enhanced homeland security efforts. One of the other reasons was the sheer unreliability of the traditional reporting methods. Since this change, the FAA mandates sponsor use of a secure online reporting portal known as basedaircraft.com. The site allows airport representatives to enter detailed information regarding based aircraft, including N number and specific type. The database can only be accessed by authorized federal agencies and authorized sponsor representatives given authority. The FAA, however, still collects based aircraft information through the 5010 inspection program as well. 5010 inspectors update the number of based aircraft while updating the 5010 form data; however, the information does not contain aircraft identification information. Currently, the FAA ENN 5010 lists 13 aircraft based at the facility (Table 2.6); however, inspections performed as part of recent planning efforts identify 16 based aircraft.

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Table 2.6: FAA ENN Based Aircraft – Source: FAA 5010 Airport Master Record, Last Inspection Date 08/13/2020

<b>Based Aircraft</b>	
<b>Single Engine (SE):</b>	13
<b>Multi Engine (ME):</b>	0
<b>Jet (J):</b>	0
<b>Helicopters:</b>	0
<b>TOTAL FIXED WING:</b> (SE + ME + J + H)	13
<b>Gliders:</b>	0
<b>Military:</b>	0
<b>Ultra-Light:</b>	0

### 2.3 CURRENT BASELINES

Establishing a baseline for forecast data allows a firm jumping off point to start projections. At non-towered airports, developing a baseline can be elusive with so many different sources of information. The ENN forecast scope sets a target of calendar FY 2021 to establish baseline data. FAA baseline operations included within the TAF are drawn directly from the 5010 Airport Master Record (Table 2.7). Using just the 5010 for baseline data is often highly inaccurate for non-towered GA airports. The current ENN TAF (Table 2.8) reflects the 5010 data. TFMSC data, which draws upon IFR data, indicates **50 operations**, and represents a limited sample of total operations. To illustrate the variability of available data, FlightAware data, which also uses IFR operations, but from a different combination of sources, indicates of total of **924 operations** over the same period. This number, however, likely reflects some operations that did not actually land or takeoff at ENN. A small sampling of the FlightAware data can be viewed in Table 2.9, and the full report is in Appendix 3. ACAIS data, which primarily relates to enplanements, shows a total of 24 enplanements in 2021, relative to commercial operations.

Table 2.7: FAA ENN 5010 Airport Master Record Selected Data

<b>Operations</b>	
<b>Air Carrier:</b>	0
<b>Air Taxi:</b>	2,500
<b>General Aviation Local:</b>	1,500
<b>General Aviation Itinerant:</b>	2,000
<b>Military:</b>	0
<b>TOTAL OPERATIONS:</b>	6,000
<b>Operations for 12 Months Ending: 12/31/2019</b>	

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Table 2.8: FAA ENN TAF 2021

FAA TAF Operations & Based AC for ENN														
Year	Enplanements			Itinerant					Local			Totals	Total Tracon	Based Aircraft
	air carrier	commuter	sub total	Air Carrier	Air Taxi	GA	military	sub total	civil	military	sub total			
2021	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13

Table 2.9: FlightAware ENN Selected Data

FlightAware IFR Operations Data / Selected Random Sample							
Ident	Type	Owner	Origin City	Destination	Departure Time	Arrival Time	Enroute
BLK1	P46T	Blocked by owner	Nenana, AK	PAMR	9/27/2020 16:40	9/27/2020 17:52	1:11
N1598H	C185	CAREY PHILIP J TRUSTEE	Nenana, AK	59AK	9/28/2020 13:53	9/28/2020 16:00	2:07
CON405	C212	Conoco Phillips	Nenana, AK	PANC	9/30/2020 18:15	9/30/2020 19:35	1:20
N915HG	R44	HILINE AVIATION LLC	Talkeetna, AK	PANN	10/1/2020 9:49	10/1/2020 10:47	0:58
N915HG	R44	HILINE AVIATION LLC	Nenana, AK	L 63.60000 - 1	10/1/2020 11:32		n/a
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	PANN	10/1/2020 12:37	10/1/2020 13:14	0:36
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	PANN	10/1/2020 13:34	10/1/2020 15:00	1:26
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	PAFA	10/1/2020 17:17	10/1/2020 17:37	0:20
N3395D	C180	FITZGERALD JOHN A JR	Fairbanks, AK	PANN	10/4/2020 12:02	10/4/2020 12:37	0:34
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	L 64.83791 - 1	10/4/2020 12:56		n/a
N182JE		GAUSTAD ANDERS	Fairbanks, AK	PANN	10/5/2020 12:47	10/5/2020 13:05	0:18
N546LM	BE20	AERO AIR LLC	Fairbanks, AK	PANN	10/5/2020 13:12	10/5/2020 13:24	0:12
N546LM	BE20	AERO AIR LLC	Nenana, AK	PANC	10/5/2020 13:39	10/5/2020 14:33	0:53
N182JE		GAUSTAD ANDERS	Nenana, AK	PAFA	10/5/2020 16:06	10/5/2020 16:30	0:24
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	PANN	10/5/2020 16:27	10/5/2020 17:05	0:38
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	L 64.81514 - 1	10/5/2020 17:17	10/5/2020 17:40	0:23
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	PAFA	10/7/2020 16:24	10/7/2020 16:48	0:23
N5004A		FAGRE DAVID A	Fairbanks, AK	PANN	10/11/2020 14:25	10/11/2020 15:12	0:46
N5004A		FAGRE DAVID A	Nenana, AK	PAFA	10/11/2020 15:32	10/11/2020 15:58	0:25
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	PAFA	10/13/2020 15:50	10/13/2020 16:47	0:57
N544LM	LJ35	CORSAIR TWO LLC	Nenana, AK	PANC	10/13/2020 18:20	10/13/2020 19:30	1:10
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	PAFA	10/16/2020 14:56	10/16/2020 15:29	0:33
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	PAFA	10/16/2020 15:23	10/16/2020 16:18	0:55
N111AK	AS50	ROTAK LLC	Anchorage, AK	PANN	10/22/2020 10:20	10/22/2020 12:24	2:03
N111AK	AS50	ROTAK LLC	Nenana, AK	L 65.68333 - 1	10/22/2020 12:46		n/a
N6294Y	C182	CARLSON ERNEST C JR	Healy, AK	PANN	10/22/2020 14:39	10/22/2020 15:10	0:31
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	PAFA	10/22/2020 15:32	10/22/2020 16:05	0:32
N756PF	C206	TAIGA MINING CO INC	Tanana, AK	PANN	10/23/2020 11:04	10/23/2020 12:03	0:58
N756PF	C206	TAIGA MINING CO INC	Nenana, AK	PALH	10/23/2020 12:29	10/23/2020 14:33	2:04
N567L		US DEPARTMENT OF THE INTERIO	Minchumina, AK	PANN	10/24/2020 11:58	10/24/2020 13:04	1:06

## CHAPTER 2. AVIATION DEMAND FORECAST



To better determine current operations at ENN, data was obtained from a private firm, Invisible Intelligence, which installs equipment at non-towered airports that helps to determine types and numbers of airport operations. The system, known as General Audio Recording Device (GARD), uses a computer and radio receiver system to record communications at ENN through the local CTAF frequency. The system can record CTAF communications as .WAV files. The system will generate reports, such as transmissions per day, daily and monthly operations, and types of aircraft, if equipped with ADS-B. The area recorded is approximately four miles wide, and up to 5,000 feet above ground level. The system collects the radio information and combines it with the ADS-B information to produce the data. GARD data was captured at ENN between January and June of 2022. A summary of operations by class is shown in Table 2.10, and complete data collected is included in Appendix 4. FlightAware data demonstrated that operations at ENN can fluctuate significantly from winter to summer; however, since the GARD data captured both the apparent low activity and high activity times of the year, it is reasonable that simply doubling the GARD data would provide a reliable estimate for the entire year of **1,510 operations**. Due to how the GARD system works, it is likely that some portions of total operations were not captured.

Table 2.10: Invisible Intelligence, Inc. GARD ENN Data January through June 2022

GARD ENN Data Jan thru June 2022	
Physical Class	Total Operations
Turbine	36
Jet	4
Piston	349
Unknown	203
Helicopter	163
Other	0
Total	755

Another widely used method of estimating operations at non-towered airports is a formula based upon the original FAA Order 5090.3C, chapter 3-2(c). This method approximates the relationship between based aircraft and the total number of operations. This is especially helpful when reliable aircraft operations data is not available, and when testing the validity of developed projections. This method is obviously dependent on the type of facility being considered, and the usefulness of the estimation it provides in developing baselines and forecasts must be tempered with knowledge of the facility and types of operations. Guidelines suggest the following:

- 250 operations per based aircraft for rural general aviation airports with little itinerant traffic
- 350 operations per based aircraft for busier general aviation airports with more itinerant operations

## CHAPTER 2. AVIATION DEMAND FORECAST



- 450 operations per based aircraft for busy reliever airports
- 750 operations for busy airports with unusual circumstances or high itinerant operations

With a current inventory of 16 based aircraft at ENN, this loosely translates to a baseline of approximately **4,500 annual operations**. Table 2.11 summarizes the different information collected and provides a reasonable final baseline.

*Table 2.11: Summary of Available Baseline Data – Source: DOWL*

Selected Baseline Data and Source (all AC Single engine) (GARD extrapolated and estimated)											
Source	Enplanements Onlt		Itinerant Ops				Local Ops		Total Ops	IFR Ops	Based AC
	air carrier	commuter	air carrier	air taxi	GA	military	civil	military			
5010			0	2,500	2,000	0	1,500	0	6,000		13
TAF	1	6	0	2,500	2,000	0	1,500	5	6,000		15
TFMSC	8	0		9	37	5				50	
ACAIS	24										
Flt Aware										924	
GARD									1,510		
AC vs Ops									4,500		
Inspection											16
<b>Baseline</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>1,000</b>	<b>2,000</b>	<b>50</b>	<b>500</b>	<b>0</b>	<b>3,550</b>	<b>800</b>	<b>16</b>

The ENN forecast scope identifies a group of subcategories specifically relating to medical / flight training / corporate / recreational uses of the airport. There are no reportable statistics collected that specifically estimate numbers related to these types of operations. The relevance of these operations to ENN can only be ascertained through discussions with the airport sponsor, stakeholders, and users of the airport. To assist in determining these impacts, a survey was conducted as part of overall planning efforts. Unfortunately, only three surveys were returned; however, the surveys that were returned provided some limited insight into how the respondents valued some of these items. Survey information is located in Appendix 5. In addition, discussions with some common local ENN operators revealed some additional limited insight into these elements.

The scope also identifies another subcategory relating to specific information desired for single engine / multi engine / turboprop / turbojet / rotorcraft. Some of that information is reportable and scattered within the 5010, TAF, TFMS, FlightAware, and GARD data presented within this forecast. Relevant information for these items can be found throughout the forecast chapter and within the appendices.



### 2.4 SELECTED IMPACTS TO FORECASTS

When forecasting future operations and based aircraft at non-towered GA airports, it is prudent to examine some key demographic and industry impacts from local, regional, and national sources. Analysis of the information may be considered in skewing of extrapolated trends. As the recent COVID pandemic illustrated, there are very few facilities that are not impacted by large scale indirect events; however, smaller GA airports (like ENN) usually are less affected to some degree by large shifts in economic and demographic influences as larger facilities.

Many economic and demographic considerations have metrics that are difficult to quantify for trending purposes, while others may factor directly into the forecast multipliers. It is incumbent upon the forecaster to use professional judgement when considering these variables, as well as sponsor and stakeholder opinions. Forecasting operations at larger, commercial airports have very specific challenges due to their complexity and the sheer amount of data available, but small GA airport forecasts have their own challenges for exactly the opposite reason and are often more dependent upon local input and forecaster discretion.

When considering impacts to ENN, it is important to stick primarily to very basic demographic, economic, and general trends within the aviation industry. Demographic and economic impacts considered in the ENN forecast include basic regional census data, energy costs, and selected forecasted industry-wide aviation impacts.

#### 2.4.1 Local Considerations

##### 2.4.1.1 *Direct Local Aviation Impacts to Forecast*

**ENN TAF** - The FAA TAF is the fundamental starting point when developing aviation forecasts. TAF forecasts are completed for each NPIAS airport, as well as for regions, states, and the nation as a whole. For most GA airports, including ENN, the data is usually derived directly from the FAA 5010 airport master records. Since the FAA lacks the ability to provide independent detailed forecasts for every airport, the FAA simply flatline projects forward current FAA 5010 data when developing the TAF forecasts. The current FAA ENN TAF forecast (Table 2.12) follows this same method. As a result, no trend percentage can be developed from the TAF.

# CHAPTER 2. AVIATION DEMAND FORECAST



Table 2.12: FAA ENN TAF Data – Source: FAA 2021 to 2045 TAF

FAA TAF Operations and Based AC for ENN															
	Enplanements			Itinerant					Local			Totals	Total Tracon	Based Aircraft	
2021	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2022	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2023	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2024	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2025	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2026	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2027	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2028	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2029	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2030	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	
2031	0	24	24	0	2,500	2,000	0	4,500	1,500	0	1,500	6,000	0	13	

### 2.4.1.2 Existing Forecasts

Existing planning studies and forecasts must be considered when developing projections. As previously mentioned, ENN had an ALP update completed in 2002, and as part of that effort, a very abbreviated forecast was included within an ALP plan sheet. The forecast (Figure 2.6) included some very basic information, but because of its age and very limited scope, no influencing trend percentage can be taken from the data.



# CHAPTER 2. AVIATION DEMAND FORECAST

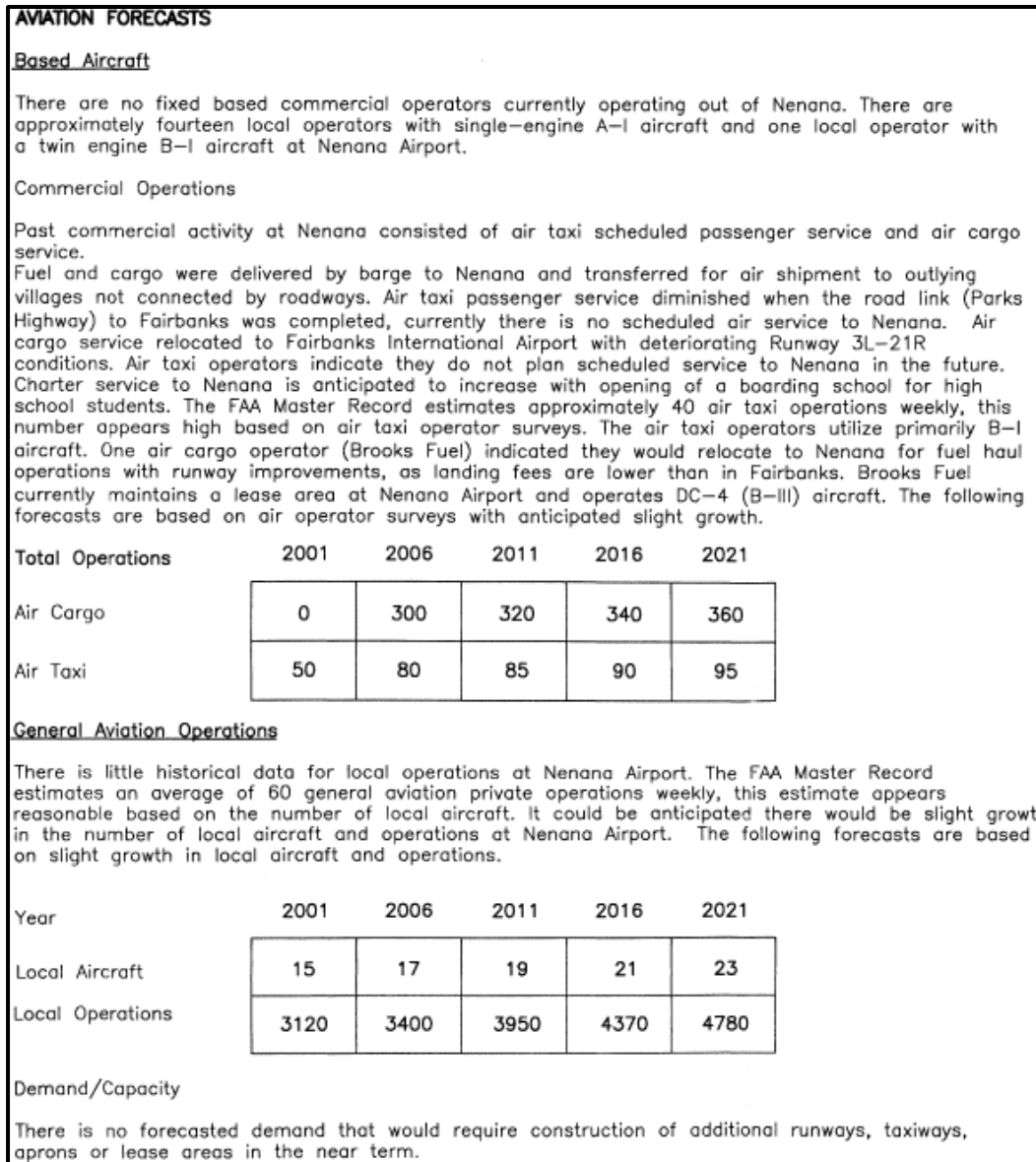


Figure 2.6: 2002 ENN ALP Update Forecast- Source: Nenana Airport 2002 ALP

### 2.4.1.3 Stakeholder Interviews / Survey Data

Other local sourced information to consider are user and sponsor discussions and surveys of stakeholders. Discussions with various ENN representatives regarding the type of operations and other information proved exceedingly valuable, especially concerning the current role of the airport and especially the fleet mix. The results of some of these discussions yielded some valuable points, many of which need to be taken into consideration as to their influence in augmenting upward operations estimates, based on reportable operations and fleet mix data. Some of these points include:

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- Although TFMSC, FlightAware, and GARD data capture very relevant information, it seems notable that much of it relies upon either IFR related information, or information dependent upon aircraft being equipped with ADS-B, Transponders, or activating radio monitoring equipment in specific ways. Alaska has unique rules for aircraft, and as a result, it is estimated that less than 25 percent of aircraft are equipped with ADS-B technology.
- Visual recollections of different aircraft that operate out of ENN do not necessarily match types of aircraft reported to operate at ENN with the reportable data collected, and operations for B-II or similar aircraft may be under-reported.
- Lease activity at ENN is recently burgeoning, and at least six new hangar leases or commercial developments are in some stage of development or planning. This includes a soon to be completed facility developed for ACUASI that will support a much greater amount of activity.
- Fuel sales data (Table 2.13) shows a generally upward trend of activity at the airport.

Table 2.13: ENN Fuel flowage 2019 thru 2022

	Jet	Avgas	Total Gallons
2019	8,364.0	10,386.4	18,750.4
2020	6,759.5	10,593.0	17,352.5
2021	7,000.8	14,104.2	21,105.0
2022	8,816.6	11,687.2	20,503.8

Due to the small sample of returned paper surveys, no significant conclusions or quantifiable trend influences were produced from those efforts, however, the limited responses that were received help to confirm the role the airport serves in the region.

### 2.4.1.4 Indirect Local Aviation Impacts to Forecast

Local factors that may broadly influence airport forecasts vary from airport to airport and from one area to another. Specific local or regional demographics or economic influences that might affect one airport significantly, such as the price of corn to a smaller GA airport in the mid-west, might have little or no effect on a more urban airport in the same region. An important local consideration with indirect impacts to ENN is the current census projections for the area. Nenana is located within the Alaska interior region, Yukon-Koyukuk census area. Current census projections covering the forecasted period (Table 2.14) indicate a slight downward trend of the population in the area, that gradually tapers off to near constant level at the end of the 10-year forecast period.

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Table 2.14: AK Census Data for Borough

<b>Yukon-Kuyokuk Census Area Population Change: 2021 to 2035</b>		
<i>Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section</i>		
<b>July 1, 2021 Estimate</b>		
Total	5,255	
<b>July 1, 2025 Projected</b>		
Total	4,976	% change -1.40%
<b>July 1, 2030 Projected</b>		
Total	4,766	-0.90%
<b>July 1, 2035 Projected</b>		
Total	4,563	-0.009%
Average Trend		-0.70%

Note: Highlighted percentage is considered for forecasting trends later in chapter, specifically in Table 2.21.

## 2.4.2 State / Regional Considerations

### 2.4.2.1 Direct State / Regional Aviation Impacts to Forecast

Conversely to the FAA TAF developed specifically for ENN, the TAF developed for the State of Alaska (Table 2.15) is very relevant to trending influences for the ENN forecast. Although smaller GA airports play virtually no influencing role in the overall state TAF (due to their flatline forecasts), the other airports included are meticulously examined and their forecast projections combined into the Alaska FAA TAF. The Alaska TAF therefore yields a large influence on forecast trend percentages for ENN.

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Table 2.15: FAA State of Alaska TAF – Source FAA 2021 to 2045 TAF

FAA TAF Operations & Based AC for State of Alaska														
Year	Enplanements			Itinerant					Local			Totals	Total Tracon	Based Aircraft
	air carrier	commuter	sub total	Air Carrier	Air Taxi	GA	military	sub total	civil	military	sub total			
2001	2,791,273	987,945	3,779,218	182,208	970,451	753,423	31,226	1,937,308	521,810	18,377	540,187	2,477,495	440,292	5,194
2002	2,876,295	525,549	3,401,844	258,340	879,661	725,589	31,026	1,894,616	504,976	17,818	522,794	2,417,410	437,959	5,175
2003	2,687,924	1,084,045	3,771,969	188,123	984,409	729,904	29,874	1,932,310	540,588	18,604	559,192	2,491,502	429,524	5,178
2004	2,841,837	1,165,942	4,007,779	190,943	1,032,209	719,123	30,128	1,972,403	510,816	20,697	531,513	2,503,916	443,979	5,273
2005	2,955,888	1,290,681	4,246,569	192,703	740,297	576,781	27,923	1,537,704	344,138	18,930	363,068	1,900,772	428,546	5,236
2006	2,936,102	1,333,567	4,269,669	209,810	726,232	540,255	25,915	1,502,212	318,245	18,940	337,185	1,839,397	422,289	5,275
2007	3,047,337	1,357,238	4,404,575	209,874	719,457	494,776	21,310	1,445,417	298,403	16,966	315,369	1,760,786	404,681	5,317
2008	3,191,104	1,361,035	4,552,139	202,992	709,240	459,256	23,247	1,394,735	295,206	17,058	312,264	1,706,999	384,103	4,604
2009	2,845,617	1,234,375	4,079,992	177,042	685,712	464,707	22,499	1,349,960	293,597	15,016	308,613	1,658,573	352,795	4,597
2010	2,893,577	1,270,859	4,164,436	190,018	701,048	460,813	22,447	1,374,326	268,606	13,241	281,847	1,656,173	376,723	4,379
2011	2,994,193	1,338,199	4,332,392	198,655	767,290	522,172	22,419	1,510,536	321,233	12,970	334,203	1,844,739	372,753	4,283
2012	2,996,583	1,337,788	4,334,371	201,574	775,916	514,813	21,173	1,513,476	316,265	12,142	328,407	1,841,883	367,648	4,567
2013	3,047,867	1,341,173	4,389,040	199,199	773,565	509,196	21,629	1,503,589	320,359	12,065	332,424	1,836,013	358,581	4,698
2014	2,949,185	1,511,990	4,461,175	208,232	765,718	513,038	20,853	1,507,841	319,934	11,785	331,719	1,839,560	359,662	4,728
2015	3,007,537	1,731,593	4,739,130	209,745	798,104	466,265	21,321	1,495,435	354,588	9,589	364,177	1,859,612	370,069	4,656
2016	3,121,305	1,701,188	4,822,493	206,894	765,384	468,849	22,213	1,463,340	360,378	10,109	370,487	1,833,827	365,668	4,693
2017	3,187,366	1,616,221	4,803,587	206,404	769,504	478,685	20,393	1,474,986	371,750	8,429	380,179	1,855,165	358,680	4,724
2018	3,536,045	1,402,267	4,938,312	208,392	782,994	490,401	22,467	1,504,254	382,026	11,159	393,185	1,897,439	364,077	4,718
2019	3,740,541	1,315,323	5,055,864	209,299	787,573	537,443	22,183	1,556,498	356,319	12,216	368,535	1,925,033	370,837	5,007
2020	2,178,524	659,583	2,838,107	201,414	650,296	540,049	22,396	1,414,155	358,350	7,964	366,314	1,780,469	322,046	4,898
Data Below is "forecasted" data within the current TAF														
2021*	2,575,571	842,640	3,418,211	226,703	669,719	580,527	24,457	1,501,406	377,918	9,739	387,657	1,889,063	376,612	4,914
2022*	3,073,168	992,858	4,066,026	232,167	708,905	589,317	24,457	1,554,846	377,674	9,739	387,413	1,942,259	395,025	4,928
2023*	3,494,826	1,114,391	4,609,217	244,860	758,324	590,776	24,457	1,618,417	378,298	9,739	388,037	2,006,454	421,194	4,943
2024*	3,626,319	1,171,873	4,798,192	250,588	804,354	592,237	24,457	1,671,636	379,007	9,739	388,746	2,060,382	437,207	4,960
2025*	3,707,393	1,190,976	4,898,369	255,207	811,816	593,732	24,457	1,685,212	379,771	9,739	389,510	2,074,722	444,637	4,973
2026*	3,792,946	1,211,003	5,003,949	258,479	816,730	595,230	24,457	1,694,896	380,314	9,739	390,053	2,084,949	449,841	4,987
2027*	3,883,743	1,232,240	5,115,983	262,281	823,129	596,732	24,457	1,706,599	380,857	9,739	390,596	2,097,195	455,208	5,001
2028*	3,973,510	1,253,379	5,226,889	266,308	830,023	598,265	24,457	1,719,053	381,402	9,739	391,141	2,110,194	462,893	5,015
2029*	4,057,767	1,273,462	5,331,229	271,968	837,783	599,801	24,457	1,734,009	381,947	9,739	391,686	2,125,695	473,018	5,029
2030*	4,143,335	1,293,783	5,437,118	275,319	842,994	601,371	24,457	1,744,141	382,493	9,739	392,232	2,136,373	478,488	5,043
2031*	4,224,979	1,313,408	5,538,387	278,581	848,079	602,944	24,457	1,754,061	383,040	9,739	392,779	2,146,840	483,816	5,057
Trend % (Overall Ops trends for all categories at ENN are likely to be statistically very similar to total Ops)												1.17%		0.26%

Note: Highlighted percentage is considered for forecasting trends later in chapter, specifically in Table 2.21.

### 2.4.2.2 Indirect State / Regional Aviation Impacts to Forecast

Similar to the forecast census data specific to ENN, the State of Alaska Census projections also impact ENN forecasting trends. The reason this has a similar impact as local census information is because airport operations are obviously not constrained to a local area. As the State of Alaska goes, so does some of the impacts to ENN. As the Alaska census data reveals, Alaska is only forecasted to experience very modest growth over the forecast period (Table 2.16).

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Table 2.16: AK Census Data for State of Alaska

State of Alaska Census Area Population Change: 2021 to 2035		
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section		
<b>July 1, 2021 Estimate</b>		
Total	734,323	
<b>July 1, 2025 Projected</b>		
Total	740,369	0.20%
<b>July 1, 2030 Projected</b>		
Total	749,942	0.30%
<b>July 1, 2035 Projected</b>		
Total	755,972	0.20%
Average Trend		0.28%

Note: Highlighted percentage is considered for forecasting trends later in chapter, specifically in Table 2.21.

## 2.4.3 National Considerations

### 2.4.3.1 Direct National Aviation Impacts to Forecast

It is very important to gauge impacts forecasted to affect airports and the aviation industry nation-wide when developing individual airport forecast trends. Two of the most reliable and useful tools for this purpose are the information presented within the annual FAA Aerospace Forecast and the FAA TAF summary reports. (Figures 2.7 and 2.8)

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Figure 2.7: 2021 FAA Terminal Area Forecast Executive Summary Cover



Figure 2.8: 2022 FAA Aerospace Forecast Cover

The FAA TAF executive summary report, produced annually by the FAA, includes information from 264 FAA-towered airports, 258 FAA contract-towered airports, 153 terminal radar approach control facilities, and 2,770 non-towered facilities. The TAF is prepared to assist the FAA, and other users, for planning, budgeting, staffing requirements and planning airport improvements. The airport activity data contained in the TAF consist of enplanements (sum of originating and connecting passengers) for air carriers and regionals, itinerant operations for air carriers, commuters and air taxis, general aviation, military aircraft, local operations for civil and military aircraft, and Terminal Radar Approach Control (TRACON) operations for aircraft operations under radar control.

Highlights within the 2021 report include the following projections that are applicable to the ENN forecast. The highlighted percentages are considered for forecasting trends later in this chapter (Table 2.21):

- Total operations for all towered airports are forecast to increase at an average annual rate of **1.6%** from 2021 to 2045. The growth rates for this period by user group are as follows: air carrier, 3.6%; air taxi/commuter, 0.8%; itinerant general aviation, **0.7%**; and local civil, **0.7%**. Although ENN is not a towered airport, industry averages for all non-towered GA airports tend to move in tandem with forecasts for towered airports.
- The forecast for the Alaska region projects a **3.5%** average annual increase in enplanements over the forecast period (Table 2.17). Although ENN has very few enplanements, this average often influences the aviation industry within the region.

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Table 2.17: FAA TAF Enplanement Forecasts – Source: FAA TAF Summary Report

### Enplanements at Tower Airports (000's)

Region	Name	Airports in 2021	2019	2020	2021e	Rate 2020 - 2021e	2045	Annual rate 2021e - 2045
ASO	Southern	112	217,017.8	126,980.5	150,168.6	18.3%	378,990.0	3.9%
AWP	Western - Pacific	81	190,459.9	102,572.2	100,923.7	-1.6%	333,163.7	5.1%
ASW	Southwest	77	106,595.1	63,121.6	74,506.4	18.0%	178,939.7	3.7%
AEA	Eastern	61	143,857.5	73,322.6	67,596.6	-7.8%	227,523.8	5.2%
AGL	Great Lakes	80	115,650.6	63,201.4	65,757.4	4.0%	183,015.3	4.4%
ANM	Northwest Mountain	51	91,848.5	53,493.0	63,166.8	18.1%	161,580.1	4.0%
ANE	New England	25	29,183.4	14,503.6	13,003.3	-10.3%	49,652.2	5.7%
ACE	Central	27	20,183.1	11,262.2	12,037.5	6.9%	31,383.3	4.1%
AAL	Alaskan	8	3,966.7	2,170.6	2,733.9	25.9%	6,215.6	3.5%
<b>TOTAL</b>		<b>522</b>	<b>918,762.6</b>	<b>510,627.9</b>	<b>549,894.3</b>	<b>7.7%</b>	<b>1,550,463.6</b>	<b>4.4%</b>

The annual FAA Aerospace forecast provides a very detailed analysis of all direct and indirect impacts affecting the aviation industry, and provides numerous projections related to them. The report is considered the authoritative source for overall analysis and trends within the aviation industry. The 2022 report suggests that conditions and outlooks have brightened considerably (Table 2.18). In the longer term, previous industry strengths and capabilities will become evident again. For most countries, economic growth rates will settle back to their long-run trends in about 2023. In the long-term, aviation demand is driven by economic activity, and a growing U.S. and world economy will provide the basis for aviation to grow. The 2022 FAA forecast calls for U.S. carrier domestic passenger growth over the next 20 years to an average 4.7 percent per year and includes double-digit growth years in 2022 and 2023, as activity climbs out from a very low base. Following the recovery period, trend rates resume with average growth through the end of the forecast of 2.6 percent. Domestic passengers are forecast to return, on an annual basis, to 2019 levels in 2023.

## CHAPTER 2. AVIATION DEMAND FORECAST



Table 2.18: FAA 2022-2042 Aerospace Forecast Economic Forecasts

TABLE 2

### U.S. LONG-TERM ECONOMIC FORECASTS

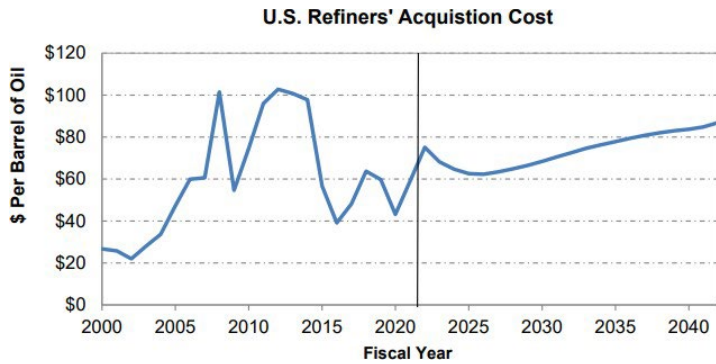
FISCAL YEAR	REAL GROSS DOMESTIC PRODUCT (Billions 2012 \$)	REAL PERSONAL CONSUMPTION EXPENDITURE PER CAPITA (2012 \$)	CONSUMER PRICE INDEX (1982-84=1.00)	REFINERS' ACQUISITION COST AVERAGE (Dollars per barrel)
<u>Historical</u>				
2010	15,542	34,429	2.17	74.61
2015	17,310	36,750	2.37	56.69
2018	18,501	38,869	2.50	63.72
2019	18,912	39,548	2.54	59.77
2020	18,493	38,357	2.58	43.15
2021E	19,164	40,376	2.67	59.08
<u>Forecast</u>				
2022	20,024	42,095	2.78	75.13
2027	22,881	47,491	3.10	63.42
2032	25,475	53,157	3.48	72.60
2037	28,032	58,666	3.90	80.84
2042	30,919	64,785	4.37	86.94
<u>Avg Annual Growth</u>				
2010-21	1.9%	1.5%	1.9%	-2.1%
2021-22	4.5%	4.3%	4.3%	27.2%
2022-32	2.4%	2.4%	2.3%	-0.3%
2022-42	2.2%	2.2%	2.3%	0.7%

Source: IHS Markit

The future direction of oil prices presents another considerable uncertainty in producing the forecast. Longer term, the forecasts are generally aligned, projecting a price of about \$72 per barrel in 2030 and about \$88 per barrel by the end of the forecast period in 2042. Oil prices averaged \$55 per barrel over the five years ending in 2021 but are forecast to rise to \$75 per barrel in 2022 (forecast prior to the war in Ukraine) before rising steadily to \$87 by the end of the forecast period (Figures 2.9 and 2.10 and Table 2.19). However, there are other oil price forecasts that are considerably more aggressive than the FAA base forecast such as the latest Energy Information Administration Annual Energy Outlook released in March 2022. By 2030, it anticipates the spot price of oil will reach \$88 per barrel and by 2042, \$132 per barrel, considerably above the FAA base forecast of \$88. Over the long run, lower oil prices give consumers an impetus for additional spending, including air travel, and should enhance industry profitability. In the case where oil prices turn out to be higher than the FAA forecast, we would expect lower spending on air travel by consumers, higher costs for fuel to airlines and reduced industry profitability. Conversely higher oil prices translate to higher state revenues and more income and employment in the Alaska economy, which can positively influence spending on air travel, shipping, and recreational flying.

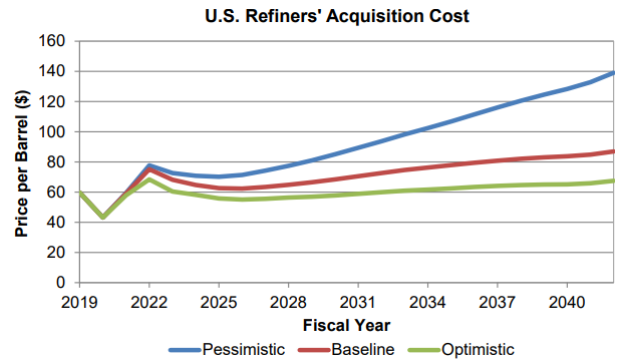


# CHAPTER 2. AVIATION DEMAND FORECAST



Source: FAA 2022-2042 Aerospace Forecast

Figure 2.9: U.S. Refiner's Acquisition Cost Per Barrel of Oil – Historic & Forecast



Source: FAA 2022-2042 Aerospace Forecast

Figure 2.10: Oil Price Per Barrel Forecast Scenario

Table 2.19: FAA 2022-2042 Aerospace Forecast Aviation Fuel Data

## TOTAL JET FUEL AND AVIATION GASOLINE FUEL CONSUMPTION

### U.S. CIVIL AVIATION AIRCRAFT (Millions of Gallons)

FISCAL YEAR	JET FUEL					AVIATION GASOLINE			TOTAL FUEL CONSUMED
	U.S. AIR CARRIERS <sup>1,2</sup>			GENERAL AVIATION	TOTAL	AIR CARRIER	GENERAL AVIATION	TOTAL	
	DOMESTIC	INT'L.	TOTAL						
<u>Historical</u>									
2010	12,036	6,315	18,351	1,435	19,786	2	221	223	20,009
2015	12,834	6,541	19,374	1,383	20,757	2	196	198	20,955
2018	14,580	7,121	21,701	1,820	23,521	2	232	234	23,755
2019	14,648	7,043	21,691	1,510	23,202	2	200	202	23,404
2020	10,527	4,723	15,249	1,342	16,592	2	204	206	16,797
2021E	11,548	4,813	16,361	1,519	17,880	2	205	207	18,087
<u>Forecast</u>									
2022	12,686	6,087	18,773	1,680	20,453	2	206	208	20,661
2027	16,652	8,326	24,979	2,058	27,037	2	203	205	27,242
2032	17,967	9,176	27,143	2,292	29,435	2	197	199	29,634
2037	19,566	10,051	29,617	2,505	32,122	2	194	196	32,318
2042	21,476	10,978	32,454	2,707	35,161	2	194	196	35,357
<u>Avg Annual Growth</u>									
2010-21	-0.4%	-2.4%	-1.0%	0.5%	-0.9%	0.0%	-0.7%	-0.7%	-0.9%
2021-22	9.9%	26.5%	14.7%	10.6%	14.4%	0.0%	0.6%	0.6%	14.2%
2022-32	3.5%	4.2%	3.8%	3.2%	3.7%	0.0%	-0.5%	-0.4%	3.7%
2022-42	2.7%	3.0%	2.8%	2.4%	2.7%	0.0%	-0.3%	-0.3%	2.7%

Source: Air carrier jet fuel, Form 41, U.S. Department of Transportation; all others, FAA APO estimates.

<sup>1</sup>Includes both passenger (mainline and regional air carrier) and cargo carriers.

<sup>2</sup>Forecast assumes 1.0% annual improvement in available seat miles per gallon for U.S. Commercial Air Carrier

# CHAPTER 2. AVIATION DEMAND FORECAST



General aviation forecasts are robust. The FAA uses estimates of fleet size, hours flown, and utilization rates from the General Aviation and Part 135 Activity Surveys as baseline figures to forecast the GA fleet and activity. In 2021, deliveries of the general aviation aircraft manufactured in the U.S. increased to 1,670, 7.4% higher than in CY 2020 (still 5.7% lower than the 2019 level but has been improving). Deliveries of single-engine piston aircraft were up 2.3%, while the much smaller segment of multi-engine piston deliveries were down by 51.6% (summing to a 0.5% increase in the fixed engine piston deliveries). Business jet deliveries increased by 14.7% and turboprop deliveries were up 18.6%, amounting for a 16.6% increase in fixed wing turbine shipments.

The GA sector, which was not as severely affected by the pandemic as the airlines, is expected to recover sooner to its 2019 levels than the other sectors. The long-term outlook for general aviation, driven by turbine aircraft activity, remains stable. The active general aviation fleet, which showed a decline of 3.2% between 2019 and 2020, is projected to increase from its 2021 level of 204,405 aircraft to 208,905 by 2042, as the declines in the fixed-wing piston fleet were offset by increases in turbine, rotorcraft, experimental, and light sport fleets. The total active general aviation fleet will grow by a small increase of 0.1% annually. When measured from pre-COVID-19 levels in 2019, the active GA fleet of 210,981 experiences an annual decline of 0.04% on average. Representative graphs from the report are shared in Figures 2.11 and 2.12.

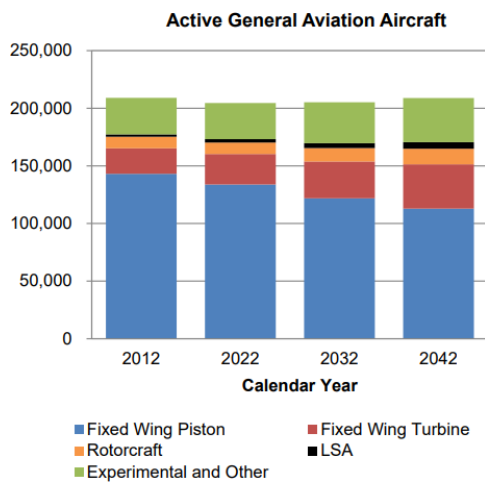


Figure 2.11: FAA 2022-2042 Aerospace Forecast GA Data – Active General Aviation Aircraft

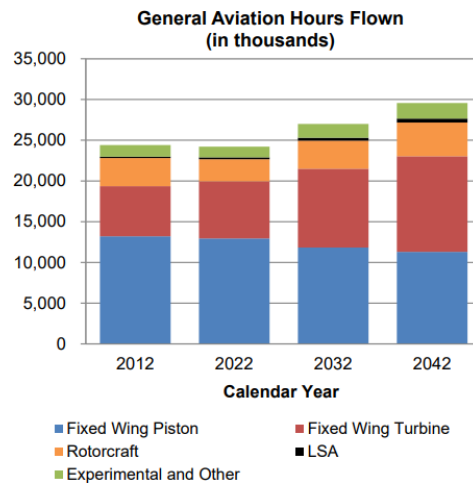


Figure 2.12: FAA 2022-2042 Aerospace Forecast GA Data –General Aviation Hours Flown

The number of active general aviation pilots (excluding students and Airline Transport Pilots [ATPs]) is projected to remain flat between 2021 and 2042 at around 306,400. The ATP category is forecast to increase by 30,360 (up 0.8% annually). The much smaller category of sport pilots is predicted to increase by 2.7% annually over the forecast period. Commercial pilot certificates, which have been on an increase for five consecutive years, are projected to increase at an average annual rate of 0.1% between 2021 and 2042. On the other hand, private pilot

## CHAPTER 2. AVIATION DEMAND FORECAST



certificates are projected to decrease at an average annual rate of 0.6% over the forecast horizon. (Figure 2.13)

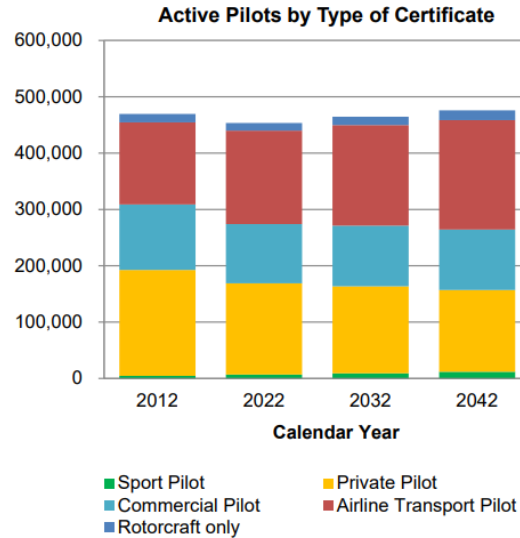


Figure 2.13: FAA 2022-2042 Aerospace Forecast Pilot Data

Other highlights of the 2022 FAA Aerospace Forecast that have direct bearing on ENN forecast trend percentages include the following (highlighted percentages are considered for forecasting trends later in chapter, specifically in Table 2.21):

- The active GA fleet is forecast to increase by just **0.1%** between 2022 and 2042, after recording a slight increase of 0.1% in 2021 from the year before, and is essentially unchanged from its 2019 level.
- The number of GA hours flown is projected to increase by an average of **1.2%** per year. When the period of 2022 to 2042 is compared, the total hours flown within the GA fleet is forecast to increase by an average of **1.0%** per year, after declining by 12.0% between 2019 and 2021 and recovering partially, with a growth of 4.0% recently.

### 2.4.3.2 Indirect Aviation Impacts

The State of Alaska Department of Labor and Workforce Development (DOLWD), Research and Analysis group, produces a wide variety of forecasts for the State of Alaska, utilizing both state specific and nationwide data. Their forecasts related to the sectors that have significant influence aviation (Table 2.20) show some robust growth, but ultimately show a decline in the service industry related to air transportation. The percentage trend they predict is relevant to the ENN forecast, but must be tempered with the age of the forecast, and other contributing factors not considered.

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Table 2.20: Alaska Industry Forecast, Selected Sectors

Alaska Industry Forecast			
2018 - 2028			
Industry Description 1			% Change 2018 to 2028
<b>Total Employment, All Jobs</b>			5.50%
<b>Goods-Producing</b>			12.00%
	<b>Natural Resources and Mining</b>		15.20%
		<b>Agriculture, Forestry, Fishing and Hunting</b>	37.20%
		<b>Mining</b>	13.00%
	<b>Construction</b>		10.70%
	<b>Manufacturing</b>		9.90%
<b>Services-Providing</b>			4.50%
	<b>Trade, Transportation, and Utilities</b>		3.10%
		<b>Transportation and Warehousing</b>	3.70%
		Air Transportation	-1.90%

Source: Alaska DOLWD, Research and Analysis

Note: Highlighted percentages are considered for forecasting trends later in chapter, specifically Table 2.21. Percentages highlighted in green are the “non aviation” factors and the average of these percentages are used in Table 2.21 as the “non aviation avg”

## 2.5 TREND ANALYSIS

Table 2.21 summarizes numerous specific average annual percentage trends addressed within the ENN forecast. This data is considered in determining average annual multipliers used in the ENN projections over the forecast period. Due to the limited number of operations – of all types – at ENN, it would be inconsequential to slightly adjust specific categories of operations based on individual multipliers. In addition, the total estimated operations over the relatively short forecast period of 10 years do not warrant a separation of estimates into low, medium, and high groups. The final percentage multiplier adjusts average annual increases for all items included within the total operations. Two small adjustments were made to the determination of the sub-averages as presented. Due to the relatively rapid recovery of the aviation industry, it would not be prudent to underestimate average annual increases due to the influences of the last two years, and it would be equally imprudent to overestimate operations, as a result of anticipated rapid recovery in the short term. In light of all considerations, the final rate of the average annual multiplier was increased overall by 0.5%. This change also better reflects likely industry impacts to ENN given its relatively stable and secure base of operators and the role the airport serves.

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Table 2.21: ENN Selected Forecast Data percentage Metrics – Source: DOWL

<b>Regression Trends &amp; Existing Projections</b>	
<b>% Avg Impact Determination</b>	
<b>Cited Reference</b>	<b>% change</b>
<b>Historical Trending (Operations)</b>	
TAF Historical Trend	0.0%
TFMSC Historical Trend	-0.3%
FlightAware IFR Ops Trends	N/A
ACAIS Historical Trend	N/A
<b>Reasonable Est Impact Avg (1)</b>	<b>-0.3%</b>
<b>Historical Trending (Based Aircraft)</b>	
TAF Historical Trend	0.0%
<b>Reasonable Est Impact Avg (2)</b>	<b>0.0%</b>
<b>Existing Projections (Ops &amp; Based AC)</b>	
Direct Aviation	
TAF Forecast for ENN	0.0%
TAF Forecast for AK Ops	1.5%
TAF Forecast for AK Based AC	0.3%
TAF Report Towered Ops	1.6%
TAF Report GA Ops	0.7%
TAF Report Local Civil Ops	0.7%
TAF Report Alaska Region Enplanements	3.5%
Aerospace Report GA Fleet	0.1%
Aerospace Report GA Hours	1.2%
Aerospace Report GA Hours in Fleet	1.0%
<b>Reasonable Est Impact Avg (3)</b>	<b>1.3%</b>
<b>Indirect Aviation</b>	
Census Data for Borough	-0.7%
Census Data for AK	0.3%
AK DOLWD Non Aviation Avg.	11.9%
AK DOLWD Aviation	-1.9%
<b>Reasonable Est Impact Avg (4)</b>	<b>-0.8%</b>
<b>Interviews / survey data Impacts</b>	
	N/A
<b>Reasonable Estimated Impact Average (5)</b>	<b>N/A</b>
<b>Trend % Applied to All Forecast Categories</b>	<b>0.60%</b>



Throughout the ENN forecast report, various table and text values were highlighted. Table 2.22 below identifies this color coding to allow a better understanding of how various impacts presented in the data were considered when developing trends and multipliers.

Table 2.22: ENN Forecast Data Color-Coding – Source: DOWL

% change relevant to trend development
Data statistically irrelevant
Data relevant, but not the % change

## 2.6 FORECASTS

FAA AC 150/5070-6B allows a wide latitude in the types and application of different methods that can be used when developing airport forecasts. The reason for this flexibility is to account for the large variations in types and complexities of airports. Professional judgement is used in determining the best methodology and criteria to apply, within the confines of federal guidance. There are several common methodologies that the FAA recognizes as appropriate to use in forecasts, including some of the methods below that were used in various ways to help develop projections for ENN.

**Regression trend analysis with impact adjustment** – This common technique relies on interpreting and then extrapolating historic trends into the future, and the development of a multiplier to be used over time as an independent variable. It is a fundamental technique used to analyze and forecast aviation activity. This method is frequently used due to its ability to be adjusted for complexity and has been proven reliable over time, especially for GA airports. It is often augmented with analysis of market or industry impacts at various levels, and ties single or combined dependent variables, such as enplanements, to other impacts (independent variables), such as population trends, demographics, economics, and industry impacts.

**Market share analysis or ratio analysis** – This technique assumes a top-down relationship between national, regional, and local forecasts. Local forecasts are a market share (percentage) of regional forecasts, which are a market share (percentage) of national forecasts. Historical market shares are calculated and used as a basis for projecting future market shares. Reliance on this method is especially useful when the activity to be forecasted has a constant share of a larger aggregate forecast.

**Smoothing** – A statistical technique applied to historical data, often giving greater weight to the latest trend and conditions at an airport; it can be effective in generating short and medium term forecasts.

The ENN forecast used, in some manner, all the techniques described above. Current and historic data, coupled with existing forecast data from external sources, and augmented with

## CHAPTER 2. AVIATION DEMAND FORECAST



direct and indirect impacts are used to create a trending average annual percentage multiplier that is influenced (smoothing) to create a forecasting average. This methodology takes advantage of the known historical trends of the airport, current operations and based aircraft data, and other impacts likely to influence the forecast. Percentages were statistically rounded to a tenth of a percent, since relatively low integer values that are being equated into formulas with high statistical variation obviate rounding.

Table 2.23 depicts the projections forward from current baselines for ENN for the forecast periods of 2021 to 2026 (short-term) and 2027 to 2031 (intermediate).

Table 2.23: ENN Forecasts for Periods Identified – Source DOWL

ENN Forecasts - 2021 through 2031 (Presented in Same Format as Industry Reportable Categories)											
Period	Enplanements			Itinerant			Local		Totals	Based AC	IFR Ops
	air carrier	commuter	air carrier	air taxi	GA	military	civil	military			
<b>Baseline</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>1000</b>	<b>2000</b>	<b>50</b>	<b>500</b>	<b>0</b>	<b>3550</b>	<b>16</b>	<b>800</b>
2022	25	-	-	1060	2120	50	530	-	3760	16	848
2023	27	-	-	1123	2247	50	562	-	3982	16	899
2024	29	-	-	1191	2382	50	596	-	4219	16	953
2025	30	-	-	1262	2525	50	631	-	4468	17	1010
<b>2026</b>	<b>32</b>	<b>-</b>	<b>-</b>	<b>1338</b>	<b>2676</b>	<b>50</b>	<b>669</b>	<b>-</b>	<b>4733</b>	<b>17</b>	<b>1071</b>
2027	34	-	-	1418	2837	50	709	-	5014	17	1135
2028	36	-	-	1504	3007	50	752	-	5313	17	1203
2029	38	-	-	1594	3188	50	797	-	5629	17	1275
2030	41	-	-	1689	3379	50	845	-	5963	17	1352
<b>2031</b>	<b>43</b>	<b>-</b>	<b>-</b>	<b>1791</b>	<b>3582</b>	<b>50</b>	<b>895</b>	<b>-</b>	<b>6318</b>	<b>18</b>	<b>1433</b>

### 2.7 TAF COMPARISON

As stated in FAA Advisory Circular 150/5070-6B, the general requirement of FAA approval of a master plan forecast is ensuring acceptable forecasting analysis and consistency with the FAA TAF. Any significant differences are to be investigated, explained, and documented within the report. Master plan forecasts for operations and based aircraft are consistent with the TAF if they meet the following criteria for non-hub airports:

- Forecasts differ by less than 10 percent in the five-year forecast period
- Forecasts differ by less than 15 percent in the ten-year forecast period.

The ENN forecast is not consistent with the TAF, as it differs by 41%. Although it is generally

## CHAPTER 2. AVIATION DEMAND FORECAST



common to have inconsistencies between the FAA TAF and forecasts developed for non-towered GA airports, the large discrepancy was evaluated. The FAA’s TAF forecast for ENN was developed, as previously described, by taking the current 5010 operations and based aircraft database, and flatline projecting the data forward. Contributing to the large variance is a history of unreliable 5010 data at ENN, with no means to verify the information.

Until the very recent employment of the GARD system at ENN, no reasonable way of measuring operations was used at the facility. Table 2.24 contrasts the two sets of data. Due to the nature of how the FAA TAF is developed, and the efforts taken to determine current operations and based aircraft within the ENN forecast, the data within the TAF should be regarded as unreliable.

Table 2.24: ENN Forecast vs FAA TAF for Periods Identified – Source DOWL

ENN Forecasts vs FAA TAF Industry Reportable Categories										
Period	Enplanements			Itinerant			Local		Totals	Based AC
	air carrier	commuter	air carrier	air taxi	GA	military	civil	military		
Baseline										
TAF	0	24	0	2500	2000	0	1500	0	6000	13
Forecast	24	0	0	1000	2000	50	500	0	3550	16
<b>% Diff</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>60%</b>	<b>0%</b>	<b>0%</b>	<b>67%</b>	<b>0%</b>	<b>41%</b>	<b>19%</b>
2026										
TAF	0	24	0	2500	2000	0	1500	0	6000	13
Forecast	32	0	0	1338	2676	50	669	0	4733	17
<b>% Diff</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>46%</b>	<b>25%</b>	<b>0%</b>	<b>55%</b>	<b>0%</b>	<b>21%</b>	<b>24%</b>
2031										
TAF	0	24	0	2500	2000	0	1500	0	6000	13
Forecast	43	0	0	1797	3582	50	895	0	6324	18
<b>% Diff</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>28%</b>	<b>44%</b>	<b>0%</b>	<b>40%</b>	<b>0%</b>	<b>5%</b>	<b>28%</b>

### 2.8 CRITICAL AIRCRAFT

The current and future “Critical Aircraft” determinations are an important aspect of an airport forecast as it impacts design requirements for an airport, such as runway length, distances between runways and taxiways, safety areas, and many others. There are thousands of different types of aircraft with different dimensions and performance characteristics. To organize them into meaningful groups for airport design considerations, the FAA has classified aircraft into specific categories related to various dimensions and performance characteristics, such as wingspan, tail heights, and approach speeds. The different Aircraft Approach Categories (AACs)



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and Airplane Design Groups (ADGs) contribute to determining the Airport Reference Code (ARC) for individual airports. Airport Reference Codes are presented by a series of alphabetical and roman numeral characters, such as A-I, B-II, C-III, and so forth. The smaller the letter and number, generally the slower and smaller the aircraft represented. GA design standards vary widely, but it is common to see most GA airports fall into ARC designations ranging from A-I to C-II. ENN is currently identified with an ARC of group B-III.

FAA guidance in determining a critical aircraft is usually based upon reportable data indicating the largest and fastest aircraft using the facility, with at least 500 forecast operations annually. In the case of non-towered GA airports, like ENN, available data must be augmented with other information to provide the most reasonable estimate of which type or class of aircraft satisfies FAA guidance. No reportable data is currently available that would clearly identify an aircraft with the required 500 operations to meet the critical aircraft designation at ENN; however, in lieu of this, other information that is available does support forecast recommendations for an existing and future design aircraft at ENN.

Determining the fleet mix at non-towered airports like ENN can be challenging. One reliable method is to combine available public and private data, and couple it with reliable sponsor, tenant, and user input. Official data relating to fleet mix for non-towered airports is available from a variety of sources, including FAA TFMSC, private sources such as FlightAware, and sponsor provided data, such as the GARD system.

With an existing primary runway length of 4,600 feet and an elevation of just over 200 feet, ENN is well suited to handle aircraft within its current B-III design standards. There is a very diverse range of aircraft currently using ENN, commonly ranging from small single engine piston type aircraft to medium sized twin-engine turboprop and even jet aircraft. Current and anticipated operations at ENN heavily influence facility design needs.

In addition to reportable data, several user and stakeholders of the airport were interviewed to assist in determining type and level of activity. The interviews indicate that actual operations and type of aircraft utilizing ENN are likely under-represented by available public and commercial data. In addition, planned future operations are rather substantial, especially concerning ADG B-II aircraft. Aircraft exceeding this category are also utilizing the ENN airport as well, but probable existing and future operational numbers of these larger aircraft will likely not exceed the 500 operations. Some of the highlights of the operator discussions include:

ACUASI – Representatives from the ACUASI team (discussed earlier in the chapter) are already utilizing the ENN airport for a significant number of operations that are likely under-reported by conventional data available thru the FAA and FlightAware. ACUASI has also begun actively planning, designing, and working with local ENN representatives to develop a new operational facility at ENN to expand and further its efforts. This development already includes an initial plan for an 80 feet by 60 feet hangar with a 100 feet by 40 feet concrete pad to support initial

## CHAPTER 2. AVIATION DEMAND FORECAST



operations. A recent similarly developed facility in Oregon, also developed as part of the UAF efforts, began inaugural flights in 2019 of beyond line-of-sight missions. These Oregon efforts, as well as those of similar test facilities, are currently utilizing increasingly larger aircraft for UAS testing. ACUASI plans to begin testing converted UAS Cessna Caravans (A-II) and Beechcraft King Airs (B-II) at ENN. If current trends continue, as evidenced by the Oregon operation, ACUASI representatives expect ENN to see more than 500 operations by B-II aircraft in the near future, just for testing and support roles alone. ACUASI members are also actively planning on establishing radar services at the airport to support not only their efforts, but to assist local aircraft as well.

State of Alaska Fire Services (AFS) – Discussion with AFS yielded information that supports the notion that available reported information available for ENN likely falls significantly short of actual operations. Information provided by AFS also did not identify, nor support, any aircraft operations that may be considered as meeting the minimum 500 annual operations, either now or in the future.

### 2.8.1.1 *Current ADG Information*

There is no existing reportable data related to recent and current operations at ENN that directly identifies an aircraft that meets or exceeds the 500 operations designated by the FAA for critical aircraft. This is not unusual for non-towered, GA airports, with limited reported information available regarding operations. When sufficient direct reportable data is unavailable, the forecaster must rely on the available data, augmented with interviews and reasonable assumptions. Supplemental verbal information provided directly by the users, for the purposes of this forecast, infers that the current critical aircraft at ENN may fall within the B-II ADG category, when coupled with available data. This is supported by the comparatively large number of B-II operations, in comparison to other categories, as identified by the FlightAware information (Tables 2.25).

Also supporting this, Table 2.26 reflects selected FAA TFMSC data depicting the wide variation of aircraft operations at ENN. In addition, GARD data (Figure 2.14) further shows a significant number of turbine and/or jet aircraft using ENN in the last six months. This data is coupled with the fact that available data is likely under-reported, as per user and stakeholder discussions. It also emphasizes the very diverse mix of aircraft utilizing ENN. B-II ADG designation also fits well within the existing roles that the airport currently serves, especially related to training, air taxi, firefighting, and LifeMed medevac services, which also use B-II King Air aircraft.

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Table(s) 2.25: FAA ENN TFMSC, Selected Aircraft Fleet Mix Data

TFMSC Data / AAC & ADG / ENN Total Ops 2001 thru 2021	
AAC / ADG	# of Ops
Unknown	492
A-I	805
A-II	34
A-III	2
B-I	46
B-II	447
B-III	79
B-IV	15
C-I	4
C-II	18
C-III	1
C-IV	50
D-I	7

TFMSC Data / Weight Class / ENN / Total Ops 2001 thru 2021	
Weight Class	# of Ops
Heavy Eqpt	25
Large Jet Eqpt	7
Large Commuter Eqpt	227
Medium Commuter Eq	174
Small Eqpt	1,156
Other	411

TFMSC Data / Physical Class / ENN Total Ops 2001 thru 2021	
Physical Class	# of Ops
Jet	95
Piston	878
Turbine	600
Unknown	427

# CHAPTER 2. AVIATION DEMAND FORECAST



Table 2.26: FAA ENN TFMSC, Selected Aircraft Fleet Mix Data - Source: FAA TFMSC

TFMSC Selected Data 2021 with 5 yr interval data with % change over period						
Category & Subcategory / Period of Time						
USER	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Air Carrier	50	73	149	127	25%	8
GA	236	137	152	355	11%	33
Military	230	138	115	65	-27%	7
Air Taxi		2	1			
Other	48	33	28	11	-31%	2
WEIGHT	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Heavy	2	8	6	7	37%	2
Large Jet	4	2	1			0
Large Commu	23	11	103	84	10%	6
Medium Com	27	59	45	40	38%	3
Small Equip	306	207	214	392	6.40%	27
Other	202	96	76	35	-35%	2
PHYSICAL	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
Jet	19	36	13	30	12.10%	7
Piston	268	143	130	315	4.12%	22
Turbine	70	115	223	175	25.80%	17
Other	207	99	79	38	-35%	4
AAC / ADG	2001-2005	2006-2010	2011-2015	2016-2020	interval %	2021
A-I	221	129	122	308	8.66%	26
A-II	3	2	17	12		
A-III	2					
B-I	15	14	4	13		
B-II	64	110	181	84	7.00%	8
B-III	3	2	9	62		3
B-IV		5	3	5		2
C-I		1		3		
C-II			3	13		2
C-III			1			
C-IV	11	8	21	8		2
D-I	1	1	1	3		1
Unknown	244	111	83	47		6

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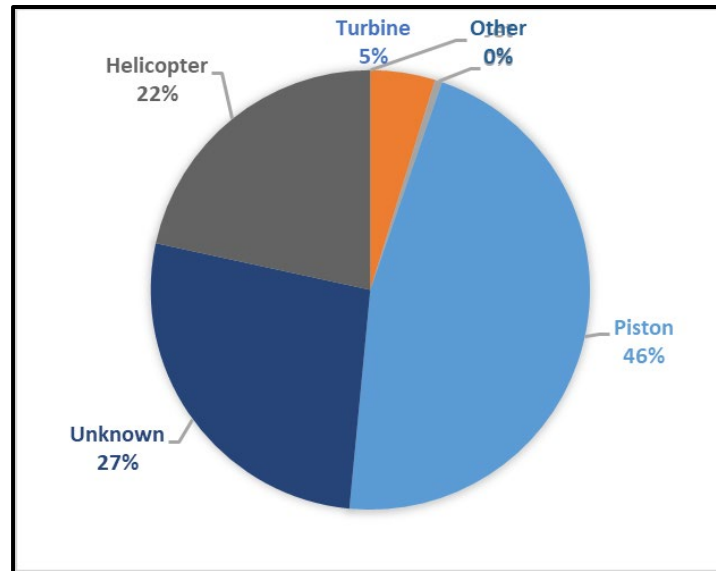


Figure 2.14: GARD Selected aircraft Fleet Mix Data - Source: Invisible Intelligence, Inc.

In addition to TFMSC and GARD data, aircraft types were also captured within the FlightAware data. The data shows very specific aircraft type information, including those associated with military operations using the approaches, air ambulances, high performance aircraft in support of commercial operations, and many more. The entire FlightAware data set with all individual operations can be found in Appendix 3. Although individual operations numbers for the aircraft identified are not available or reliable, and cannot be used to directly support an ADG designation, the numbers support information gathered through interviews with the sponsor and various users. Some of the aircraft types that were captured in the FlightAware data include the following (\*denotes those aircraft that are a B-II ADG or higher):

- A119 Agusta Helo
- AC90 Rockwell Turbocommander\*
- AS50 Eurocopter
- AT8T Air Tractor
- B06 Bell 206 JetRanger
- B190 Beech 1900\*
- B212 Bell 212 Helo
- B407 Bell Helo
- B412 Huey
- BE20 Beech Super King Air\*
- BE35 Bonanza
- Cessna 172 Skyhawk
- Cessna 177 Cardinal
- Cessna 180 Skywagon
- Cessna 182 Skylane
- Cessna 185 Skywagon
- Cessna 206 Stationair
- Cessna 208 Caravan

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- CH7B Bellanca Citabria
- DHC6 DeHavilland Twin Otter\*
- DH8A DeHavilland Dash 8 / Q 100
- DH8D DeHavilland Dash 8 / Q 400
- E120 Embraer Brasillia\*
- H60 Sikorsky helo
- H500 Howard 500 Helo
- HUSK Aviat Husky
- KODI Quest Kodiak
- L8 Luscombe
- LJ35 Learjet 35\*
- M4 Maule
- M5 Maule
- M7 Maule
- PA22 Piper Tri-Pacer
- PA28 Cherokee
- PA31 Piper Navajo
- PA32 Cherokee
- PA46T Piper Malibu
- PA18 Supercub
- PC12 Pilatus
- R44 Robinson Helo
- R66
- R66 Robison Helo
- S22T Cirrus
- SF50 Cirrus VisionJet
- U21 Beech Ute
- UH1 Bell Iroquois

### 2.8.1.2 Forecast Critical Aircraft

The current roles ENN serves have both common and uncommon characteristics in terms of typical GA airports. ENN has an actively expanding number of local GA aircraft stationed at the field. The airport also provides regional support for uses that allow operations by larger, faster, and heavier aircraft than are typically seen at GA airports. Data collected and presented within the ENN forecast reflect significant use of the airport by aircraft within the B-II ADG, as seen in the AAC and ADG numbers reported in Table 2.25. This “bell shape” in Table 2.25 that shows a significant number of operations primarily by both A-I and B-II ADG aircraft is very typical for GA airports with similar roles to ENN with significant use by smaller aircraft, while having the infrastructure and need to support substantial numbers of B-II aircraft. This same data also identifies a small, but significant number of operations by larger, faster aircraft, some of which even fall within B-III, B-IV, all of the C categories, and even an operation by a D category aircraft. Although these types of operations by larger, faster aircraft do not support a higher critical aircraft ADG than B-II, as per FAA requirements, it emphasizes the varied use.

The TFMSC data captured within Table 2.25 can be further adjusted for an approximate number of ADG operations each year. As previously discussed, the TFMSC data is overwhelmingly driven by the capture of IFR related data. The vast majority of VFR related flights are not represented within the data. It can be reasonably estimated that aircraft ADG grouping data reflected within

## CHAPTER 2. AVIATION DEMAND FORECAST



Table 22.25 represents 5% of the total number of operations by each of the aircraft ADG categories. Table 2.25 also shows a large number of aircraft identified in the “unknown” ADG category. Since the data in Table 2.25 shows the vast majority of known ADG groups proportionally falling within the A-I and B-II category, it can also be reasonably assumed that approximately 25% (123) of the 492 “unknown” ADG operations can be attributed to the B-II ADG (or above).

To determine an approximate number of B-II operations using the B-II ADG data described above and in Table 2.25, the following calculations apply:

- B-II IFR (TFMSC) ops reported from 2001 thru 2021 = 570 IFR Operations
  - 447 B-II ADG + 123 (25% of unknown ADG)
- $570 \div 20$  (years) = 28.5 IFR Operations per Year
  - appx. 5% of total reported B-II ops per year
- $28.5 \div 0.05$  = 570 Total Annual B-II operations (approximate – this calculation was made with the assumption that IFR operations are only 5% of total operations)
  - VFR (estimated 95% of total B-II operations) = appx. 541.5 operations/year
  - IFR (estimated 5% of total B-II operations) = appx. 28.5 operations/year

The most significant information suggesting the appropriate future ADG designation is the likelihood that the airport currently meets at least 500 operations per year of B-II ADG, as reflected by the calculations above. The ENN forecast also clearly shows the probability of positive growth at ENN, with no indications of future contraction, and several local indicators possibly suggesting even robust growth, including recent fuel sale trends and current lease lot demand. In addition, information has been provided by active stakeholders of ENN regarding active plans to expand the use of B-II aircraft. As previously described earlier in the forecast, ACUASI specifically stated that their near future expansion plans include a significant number of operations of both the Cessna Caravan (A-II) and the Beech King Air (B-II) at the facility. These combined factors support a reasonable conclusion of B-II as the future ADG designation for ENN.

## CHAPTER 2. AVIATION DEMAND FORECAST



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### CHAPTER 3. FACILITY REQUIREMENTS

The purpose of the Facility Requirements chapter in the Nenana Airport Master Plan is to identify and prioritize current and future development needs for the airport. This includes an evaluation of whether current facilities meet FAA standards, addressing any necessary maintenance and potential expansion to support current and projected demand, and considering input from airport staff, users, the FAA, and other stakeholders. The critical aircraft, or the most frequently used aircraft with at least 500 annual operations, also plays a pivotal role in determining design standards and layout considerations. Ultimately, this planning process aims to address any existing non-standard issues and ensure the long-term sustainability and growth of Nenana Airport as it fulfills its role in the community and region.

#### 3.1 CRITICAL (DESIGN) AIRCRAFT

This section discusses the different types of aircraft that regularly use Nenana Municipal Airport (ENN) and what facility requirements they have in accordance with FAA planning guidelines. As mentioned earlier in the Forecast Chapter, the majority of the operations are conducted by A-I and B-II aircraft, at 805 and 447 annual operations respectively. The data also provides information on a small number of operations done by larger, faster aircraft that are classified as B-III, B-IV, all categories under C, and even one operation done by a D category aircraft. Although these types of operations by larger, faster aircraft do not support a higher critical Airplane Design Group (ADG), it merely emphasizes the varied use.

The current Runway Design Code (RDC), regardless of the past designation and existing dimensions, is an A-I due to it being the only class of aircraft that presently conducts more than 500 operations annually. The anticipated operations of Beechcraft King Air, an ADG-B-II aircraft, could surpass the 500 operations threshold. Therefore, this Airport Layout Plan Update proposes Runway 4L-22R be updated to a B-II runway with Non-Precision Instrument Approaches with visibility minimums greater than 3/4 miles to meet the future critical aircraft, a Beechcraft King Air. These Runway Design Codes of A-I (existing) and B-II (ultimate) were approved by the FAA in an October 27, 2022 forecast approval email.

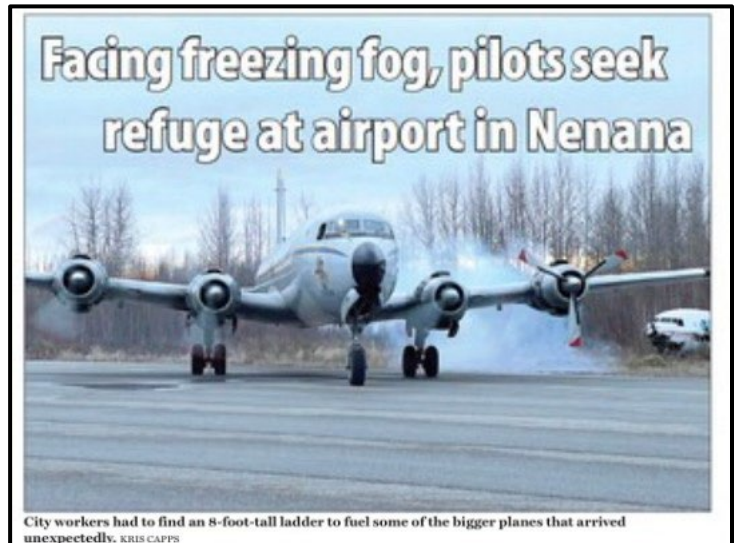
## CHAPTER 3. FACILITY REQUIREMENTS



In October 2022, approximately 17 commuter sized aircraft including a DC-6, depicted in Figure 3.1, were diverted to ENN from Fairbanks International Airport (FAI) due to heavy freezing fog in the Tanana Valley. Nenana’s runway length and geographic location make it a viable alternate or divert airport for smaller commuter sized aircraft being diverted from Fairbanks International.

The B-II RDC designation is consistent with some of the existing operations at this airport, prominent among them being air taxi services, firefighting efforts, and LifeMed medevac services—which use B-II King Air or larger aircraft. It should be noted that provisions should be made to allow for the use of faster and heavier aircraft on occasion. It was reported from interviews of airport users that there was a significant reduction in leisure and corporate jet operations when the runway was shortened from 5,000 to 4,600 feet (a project recommended by the 2002 ALP and accomplished with a 2003 AIP grant).

In the 2002 Airport Layout Plan, Runway 4L-22R was classified as a B-III runway with Non-Precision Instrument Approaches with visibility minimums greater than 3/4 miles, and the airfield was developed to those B-III standards. Even though the existing A-I and ultimate B-II classifications approved by the FAA in the recent Nenana Airport forecast (Chapter 2 of this report) have smaller dimensions than B-III, the FAA will consider future investment in the airfield’s current B-III dimensions at the time a reconstruction project may be required and as long as the project is reasonable and justified. At the time a future reconstruction project is needed, the FAA and airport will reference Section 3-24 of the Airport Improvement Program (AIP) Handbook to ensure eligibility for FAA AIP funding.



*Figure 3.1: Divert Aircraft at Nenana Airport - Newspaper image of aircraft diverted to ENN due to weather*



## 3.2 AIRFIELD AND AIRSPACE REQUIREMENTS

### 3.2.1 Runway Requirements

#### 3.2.1.1 Runways

Nenana Airport has three runways: Runway 4L-22R (the primary, paved runway), Runway 4R-22L (the turf/ski strip), and Runway 4W-22W (water lane). The two land-based runways are parallel at an orientation of approximately 044°-224° magnetic and Runway 4W-22W is skewed approximately 3° NW. The past design aircraft for the main runway was the Douglas DC-6, a B-III aircraft. This Airport Layout Plan Update proposes Runway 4L-22R be updated to a B-II runway with Non-Precision Instrument Approaches with visibility minimums greater than 3/4 miles to meet the ultimate critical aircraft, a Beechcraft King Air. The turf/ski strip and water lane should remain at the A-I designation as shown in the 2002 Airport Layout Plan. According to FAA AC 150-5300, when a runway provides less than 95 percent wind coverage for any aircraft forecasted to use the airport on a regular basis, a crosswind runway is required. The runways at Nenana Airport have wind coverage of more than 99 percent at 16 knots which is well within the FAA guidelines.

#### 3.2.1.2 Runway Length, Width, and Surface

This section addresses the ability of Runway 4L-22R at to meet FAA design standards for the RDC B-II design aircraft mix described in Section 3.1 and Runways 4R-22L and 4W-22W to meet the A-I RDC.

#### Runway 4L-22R

Some considerations when determining appropriate runway length include airport elevation, prevailing winds, average maximum temperature for the hottest month, and design aircraft performance at maximum operating weight. According to the National Oceanic and Atmospheric Administration (NOAA), the warmest month in Nenana, Alaska is July, with an average maximum temperature of 72°F. The elevation of Runway 4L-22R is 367 feet. A runway length analysis performed using the criteria in FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design* to determine the runway length requirements for various aircraft configurations is shown in Table 3.1.

# CHAPTER 3. FACILITY REQUIREMENTS



Table 3.1: Runway Length Analysis

Runway 4L-22R	
Mean Daily Max Temp. of the Hottest Month of Year:	72°F (July)
Airport Elevation:	367 feet (MSL)
Service:	Small Aircraft (less than 12,500 lbs.)
Aircraft Category	FAA Recommended Runway Length
Small airplanes with less than 10 passenger seats:	
95 percent of these small airplanes	2,950'
100 percent of these small airplanes	3,500'
Small airplanes with 10 or more passenger seats	3,900'

Source: FAA Advisory Circular 150/5325-4B, Runway Length Requirements for Airport Design

This analysis indicates that the present runway length of 4,600 feet is more than adequate to meet current and future operational demands for all small airplanes. However, larger aircraft currently using Nenana Airport, such as the diversions from Fairbanks and LifeMed, benefit from its 4,600-foot runway length. FAA AC 150/5300-13B *Airport Design* requires that runways intended for B-II aircraft have a width of 75 feet with 10-foot turf shoulders as a minimum. Runway 4L-22R is currently 100 feet wide with no shoulders. For a more comprehensive list of runway requirements, refer to Table 3.2 in Section 3.2.1.3.

The existing runway surface, reconstructed in 2003, is an asphalt surface with a pavement strength sufficient to support aircraft with single-wheel main gear and gross weights up to 160,000 pounds per the 2002 ALP. The most recent Alaska Airport Pavement Inspection Report, dated November 2019, reports the runway surface is in good condition with Pavement Condition Index value of 80.4. This index is at a preventative/corrective maintenance level and an on-site inspection identified numerous longitudinal cracks in need of repair. Acceptable PCI values for runways are between 70 and 100; any values lower require rehabilitation or reconstruction dependent on the present damage. Regular pavement maintenance should be performed to maximize useful life and a pavement rehabilitation project should be expected and constructed during the 20-year planning horizon. Although the existing runway dimensions exceed the standard, it is advised they remain in place due to the large number of aircraft more demanding than the B-II ADG. The forecast denotes approximately 174 annual operations from aircraft larger or faster than a category B-II aircraft.

## CHAPTER 3. FACILITY REQUIREMENTS



### Runway 4R-22L

Runway 4R-22L has a turf surface, is 1,980 feet in length and 80 feet wide, and is classified as an A-I RDC runway in the 2002 Airport Layout Plan. The primary use of this surface is aircraft using tundra tires or outfitted with skis, depending on the season. For these aircraft, operating on paved runways can be difficult, dangerous, or even impossible depending on surface conditions. Therefore, a gravel/turf runway surface for small aircraft is recommended. The operators of these small aircraft indicated a strong preference for gravel/turf surfacing on the runway for wheeled and ski operations.

The 2002 ALP published the length of Runway 4R-22L as 2,520 feet. However, the turf/ski strip has long been using a lighting system providing only 2,000 feet of lighting. When Woolpert conducted its 2021 aeronautical survey, the survey team set new runway end monuments at the trim line of the runway end lights (10 feet on touchdown side of each inboard runway end light, in accordance with AC 150/5300-18B), and reported the new runway end coordinates to the FAA. The updated runway end coordinates and current length of 1,980 feet are now published.

The required 95 percent/100 percent dimensions for small aircraft listed in Table 3.1 are not applicable to Runway 4R-22L, as most aircraft using these surfaces are considered Short Takeoff and Landing (STOL) or have significantly lower approach speeds. This means their approach speed is categorized as either below 30 knots or between 30 and 50 knots. The existing length is adequate to meet current and future operational demands for all small airplanes.

FAA AC 150/5300-13B *Airport Design* requires that runways intended for A-I aircraft have a width of 60 feet with 10-foot turf shoulders as a minimum. Runway 4R-22L is currently 80 feet wide with no shoulders. The ENN FAA form 5010, the Airport Master Record, identifies a drainage concern during summer operations:

"In summer full length may not be available due to being soft, available for ski use when frozen."

The gravel surface should be reconstructed to correct the soft conditions and allow full length summertime operations. For a more comprehensive list of runway requirements for Runway 4R-22L, refer to Table 3.3 in Section 3.2.1.4.

### Runway 4W-22W

Planning and design of seaplane bases is guided by FAA's 2018 Seaplane Base Advisory Circular AC 150/5395-1B, which is less detailed than guidance for land airport facilities. The FAA recognizes that floatplanes have unique operational requirements which differentiate them from ground-maneuvered aircraft. Floats create additional weight and drag compared to wheels. Maneuvering floatplanes on water is also more challenging and requires additional space, especially in windy conditions.

## CHAPTER 3. FACILITY REQUIREMENTS



According to the 2002 ALP, Runway 4W-22W is 3,601 feet long and 100 feet wide. The water lane length exceeds the minimum recommended length of small aircraft requirements noted in Table 3.1. However, the Table data does not account for aircraft on floats which typically require 10-20 percent more landing and takeoff distance. As an example, the takeoff distance on water with a Cessna Stationair is 1,770 feet and takeoff over 50-foot obstacle is 2,850 feet. Based on the takeoff lengths of the diverse mix of floatplanes using and expected to use the water lane, Seaplane Base (SPB) Advisory Circular guidance, and water lane lengths of 4,541 feet at Lake Hood and 5,400 feet at Fairbanks International (bases used by Nenana floatplane pilots), a water lane length of at least 3,500 feet is recommended. Discussions with airport users indicate the length of the float pond is adequate as long as the obstructions in the approach and departure slopes are maintained. As excessive surrounding vegetation growth has developed, it has made approaches more difficult.

As depicted in Table 3.4, the Seaplane Base AC recommends at least a 200-foot-wide water lane but recognizes this may not be feasible where a water lane is within a purpose-built float pond like at ENN. The width of 100 feet is sufficient for the small aircraft that frequently use it and because of limited crosswind conditions, as long as trees/brush along the width are cleared.

The Chart Supplement and Airport Master Record report shallow water depth in proximity to the ramp area. This report was corroborated by users at an Advisory Committee meeting. Large woody debris and long reed type grasses are present at both ends of the runway due to beavers and other wildlife habitats. The water lane should be dredged and maintained to a four foot to six foot depth, and woody debris and reeds should be removed.

### 3.2.1.3 Runway Separation and Safety Standards – Runway 4L-22R

Runway safety and separation standards are established by the FAA with the purpose of preventing conflicts between two aircraft passing on surfaces such as runways and taxiways, as well as preventing conflicts between aircraft and other objects such as ground vehicles, people, infrastructure, or vegetation. A summary of these and other characteristics regarding airfield geometry are provided in Table 3.2.

A Runway Safety Area (RSA) is a defined, graded area surrounding the runway that, in the event of the departure of an aircraft from the runway, must be capable under normal (dry) conditions of supporting the aircraft without causing structural damage to it or injury to its occupants. The Runway 4L-22R RSA is 300 foot wide centered on the runway centerline. The RSA extends beyond Runway 4L and Runway 22R thresholds by 600 feet. However, the Runway 22R safety area is traversed by a service road. Operators and maintenance staff noted that the required gradient is insufficient; the RSA contains numerous holes and uneven areas, not only raising safety concerns, but also making it difficult to maintain. The RSA should be regraded per FAA AC 150/5300-13B standards.

## CHAPTER 3. FACILITY REQUIREMENTS



Runway blast pads provide resistance to jet blast erosion beyond runway ends, and do not add to the effective length of the runway. ENN has a 200-foot by 100-foot paved blast pad at each end of the runway marked by yellow chevrons. Per AC 150/5300-13B, paved blast pads are required for runways accommodating ADG IV and larger aircraft and recommended for ADG III runways. Stabilized blast pads are required for ADG I, II, and III runways. The standard B-II blast pad dimensions are 150 feet long by 95 feet wide. Although the existing blast pads exceed the standard, it is advised they remain in place due to the number of aircraft larger than the B-II ADG arriving and departing.

Runway Object Free Areas (ROFA) and Runway Obstacle Free Zones (ROFZ) enhance aircraft safety by providing clearance around runways and providing adequate airspace. The ROFA is centered on the runway centerline at ground level. Objects non-essential for air navigation or aircraft ground maneuvering must not be placed within the ROFA. This includes parked aircraft. The existing ROFA is 800 feet wide and extends beyond the ends of the runway by 600 feet, exceeding the FAA standards of 300 feet. Although the ROFA exceeds the standard, it is advised it remains in place due to the large number of aircraft larger than the B-II ADG operating in and out of Nenana.

# CHAPTER 3. FACILITY REQUIREMENTS



Table 3.2: Runway 4L-22R Separation and Safety Standards

Runway	Existing Standard*	Ultimate Standard*	Existing Condition	Compliance Condition If Met (☑)
<b>Runway 4L-22R (NPI/Visual)</b>	<b>A-I (small) &gt;3/4mi</b>	<b>B-II (small) &gt;3/4mi</b>	<b>B-III &gt;3/4mi</b>	☑
Runway Length	3,500' (72°, 367'MSL)	3,900' (72°, 367'MSL)	4,600'	☑
Runway Width	60'	75'	100'	☑
Runway Shoulder Width	10'	10'	0'	
Blast Pad Width	80'	95'	100'	☑
Blast Pad Length	60'	150'	200'	☑
Runway Safety Area Width	120'	150'	300'	Trees
Runway Safety Area Length Beyond RW End	240'	300'	600'	Roads
Obstacle Free Zone Width and Length	250' x 5,000'	250' x 5,000'	400' x 5,000'	Trees
Runway Object Free Area Width	250'	500'	800'	Trees
Runway Object Free Area Length Beyond RW End	240'	300'	600'	Trees
Runway Protection Zone Length Approach/Departure	1,700'/1,000'	1,700'/1,000'	1,700'/1,000'	☑
Runway Protection Zone Inner Width App/ Dep	1,000'/250'	1,000'/500'	1,000'/500'	☑
Runway Protection Zone Outer Width App/ Dep	1,510'/450'	1,510'/700'	1,510'/700'	☑
Runway Protection Zone Land Uses Runway 4L	Owned by the City No roadways Clear of structures	Owned by the City No roadways Clear of structures	Parks Highway Railroad ROW Powerlines	
Runway Protection Zone Land Uses Runway 22R	Owned by the City No roadways Clear of structures	Owned by the City No roadways Clear of structures	Airport Access Rd.	
<b>Runway Separation, Runway centerline to:</b>				
Holding position	125'	125'	200'	☑
Parallel Runway centerline	300'	300'	300' (to RWY 4R)	☑
Parallel taxiway/taxilane centerline	150'	240'	No Parallel Taxiway	☑
Aircraft parking area	250'	500'	800'	☑
Building restriction line	Varies	Varies	850' NW 670' SE	☑

Source: FAA AC 150/5300-13B | \*Standards determined by FAA Forecast Approval, October 27th, 2022



## CHAPTER 3. FACILITY REQUIREMENTS



A Runway Protection Zone (RPZ) is an area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground. The FAA has identified land use standards for Runway Protection Zones. FAA Advisory Circular 150/5300-13B *Airport Design* guidance states that it is desirable to clear the entire RPZ of all above-ground objects. Where this is impractical, airport owners, as a minimum, should maintain the RPZ clear of all facilities supporting incompatible activities. Examples of incompatible uses include buildings, recreation uses, roads and parking, fuel and hazardous material storage, and above ground utilities. Ideally, land containing RPZ areas will be owned by the airport sponsor and will be cleared and kept clear of incompatible objects and activities.

The Parks Highway, a two-lane road west of the airport, is the main throughfare from Anchorage to Fairbanks. To the west of the Parks Highway, high voltage power transmission lines and a railroad Right-of-Way (ROW) exist within the RPZ. The FAA's guidance on land uses within RPZs recommends avoiding introducing new uses, modifying/expanding existing incompatible uses, and removing or mitigating the incompatible uses, if practical. The dimensions of the RPZ do not allow for the rerouting of Parks Highway, the power lines, or the railroad ROW between the Tanana and Nenana Rivers. The road and railroad ROW do not have elevation above runway surface grade and do not create an area of high concentrations of people therefore are not an immediate land use hazard. If they are being reconfigured in the future, the airport should work with the owners and FAA to examine options to mitigate risk to people and property on the ground.

Service roads cross the RPZs on the north and south side of the airfield; these roads should be rerouted away from approach ends to ensure safest crossing possible. Other objects such as trees and vegetation, discussed later in Section 3.2.4, should be removed.

A Building Restriction Line (BRL) indicates where buildings must not be in relation to aircraft movement areas and overlying airspace. It is a reference to developers and airport management as to how close buildings can be placed to different airport surfaces and at what height they can be constructed to not penetrate the imaginary surfaces. The existing Primary Surface width is 500 feet centered on the runway centerline; the Transitional Surface then rises at a 7:1 ratio for distance to height of future buildings. Notable classifications of this airspace are explained in Section 3.2.4.1 *Part 77 Surfaces*. On the west side of the runway the BRL lines up with the west edge of the paved parking apron, 850 feet from centerline whereas the east side is 670 feet from the centerline. These distances provide ample building heights of 85 and 60 feet beyond those BRLs. It is important to note that each runway has its own BRLs, and buildings need to be configured with multiple BRLs in mind.

Runway centerline separation is typically 700 feet to parallel runway centerlines for independent flight operations. With an operating control tower, the minimum separation between the centerlines of parallel runways for dependent landings and takeoffs using Visual Flight Rules is 300 feet. However, the 300-foot separation configuration may be suitable for a paved runway

## CHAPTER 3. FACILITY REQUIREMENTS



paired with a turf runway. This avoids operating in the RSA of the paved runway for aircraft that prefer to use a turf/gravel surface. There is a 300-foot separation between the runway centerlines of the paved Runway 4L-22R and the turf Runway 4R-22L.

### 3.2.1.4 Runway Separation and Safety Standards – Runway 4R-22L

Runway 4R-22L is the turf/ski strip, currently classified as an A-I exclusive runway with Visual Flight Rule Approaches. The Runway Safety Area for Runway 4R-22L is 120 feet by 3,000 feet, meeting or exceeding the 240 feet beyond each end of the runway as required by A-I design standards. The existing ROFA is 250 feet wide and extends beyond the ends of the runway by at least 240 feet, satisfying current requirements.

The dimensions of some of Runway 4R-22L's safety and protected areas exceed minimum standards, primarily due to the condition that the runway length used and currently published is only the lighted length (1,980 feet), but the originally constructed runway length was 2,520 feet, with safety/protected areas based on that length.

The RPZ for Runway 4R-22L is a trapezoid surface that extends 1,000 feet beyond both ends of the runway. The Runway 4R approach and 22L Departure RPZs are crossed by Taxiway C approximately 300 feet from the runway threshold. Special precautions should be taken to prevent conflict between landing/arriving aircraft and taxiing aircraft. The BRL is located 370 feet east of runway 4R-22L. The Primary surface for this runway is 250 feet centered on the runway, allowing a 35-foot structure beyond the BRL.

# CHAPTER 3. FACILITY REQUIREMENTS



Table 3.3: Runway 4R-22L Separation and Safety Standards

Runway	FAA Design Standard	Existing Condition	Compliance Condition If Met (☑)
<b>Runway 4R-22L (Visual)</b>	<b>A-I</b>	<b>A-I</b>	<input checked="" type="checkbox"/>
Runway Length	311'(<30kts) 830'(30-50kts)	1,980'	<input checked="" type="checkbox"/>
Runway Width	60'	80'	<input checked="" type="checkbox"/>
Runway Shoulder Width	10'	0'	
Runway Safety Area Width	120'	120'	Trees
Runway Safety Area Length Beyond RW End	240'	≥240'	Trees, Taxiway C
Obstacle Free Zone Width and Length	120'x 2,920' (App Spd <50knts)	120'x2,920'	Trees
Runway Object Free Area Width	250'	250'	Trees
Runway Object Free Area Length Beyond RW End	240'	≥240'	Trees
Runway Protection Zone Length Approach/ Departure	1,000'/1,000'	1,000'/1,000'	<input checked="" type="checkbox"/>
Runway Protection Zone Inner Width App/ Dep	250'/250'	250'/250'	<input checked="" type="checkbox"/>
Runway Protection Zone Outer Width App/ Dep	450'/450'	450'/450'	<input checked="" type="checkbox"/>
Runway Protection Zone Land Uses Runway 4R	Owned by the City No roadways Clear of structures	Taxiway C Service Road	
Runway Protection Zone Land Uses Runway 22L	Owned by the City No roadways Clear of structures	Owned by the City No roadways Clear of structures	<input checked="" type="checkbox"/>
<b>Runway Separation, Runway centerline to:</b>			
Holding position	125'	250'	<input checked="" type="checkbox"/>
Parallel Runway centerline	300'	300' (RWY 4L) 1,000' (RWY 4W)	<input checked="" type="checkbox"/>
Parallel taxiway/taxilane centerline	150'	No Parallel Taxiway	<input checked="" type="checkbox"/>
Aircraft parking area	250'	250'	<input checked="" type="checkbox"/>

Sources: FAA AC 150/5300-13B

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### 3.2.1.5 Runway Separation and Safety Standards – Runway 4W-22W

Water lane 4W-22W is currently classified on the 2002 ALP as an A-I exclusive runway with Visual Flight Rule Approaches. This runway currently meets the needs of and has a length adequate for the aircraft projected to use this water lane. The water lane only serves visual approaches, therefore the distance to a controlling obstacle is based on a 20:1 visual approach and departure slope. There are currently numerous trees that penetrate this slope. To ensure maximum and safe use of the runway, these trees need to be removed. These same trees also crowd the turning basin and should be removed. To establish proper ROFA boundaries and prevent approach and departure penetrations, it is recommended to extend the ROFA to 240 feet at each end of Runway 4W-22W.

Table 3.4: Runway 4W-22W Separation and Safety Standards

Airfield Components	A-I - Small	Existing	Standards Met
<b>Water Lane Design</b>			
Water Lane Width	200'	100'	
Water Lane Length	3,500'	3,600'	<input checked="" type="checkbox"/>
Water Operating Area Depth	4' to 6'	Variable	
Water Lane Turning Basin	200'	200'	<input checked="" type="checkbox"/>
Water Lane Turning Basin to Nearest Object	50'	0'	Trees
<b>Runway Safety Area (RSA)</b>			
Runway Safety Area Width	120'	120'	<input checked="" type="checkbox"/>
Runway Safety Area Length Beyond RW End	240'	240'	<input checked="" type="checkbox"/>
<b>Runway Object Free Area (ROFA)</b>			
Length beyond runway end	240'	200'	Trees
Length prior to threshold	240'	200'	Trees
Width	250'	250'	Trees
<b>Approach Runway Protection Zone (RPZ)</b>			
Length	1,000'	1,000'	<input checked="" type="checkbox"/>
Inner Width	250'	250'	<input checked="" type="checkbox"/>
Outer Width	450'	450'	<input checked="" type="checkbox"/>
Acres	8	8	<input checked="" type="checkbox"/>
<b>Departure Runway Protection Zone (RPZ)</b>			
Length	1,000'	1,000'	<input checked="" type="checkbox"/>
Inner Width	250'	250'	<input checked="" type="checkbox"/>
Outer Width	450'	450'	<input checked="" type="checkbox"/>
Acres	8	8	<input checked="" type="checkbox"/>

Sources: FAA AC 150/5300-13B, FAA AC 150/5395-1B



### 3.2.2 Taxiways and Helicopter Operations

#### 3.2.2.1 Taxiways

Taxiways and taxilanes are surfaces that provide aircraft with safe and efficient transitions from lease lots and tiedown areas to runways. Airplane Design Group (ADG) dimensions, in conjunction with Taxiway Design Group (TDG) standards, are used to create safe aircraft taxi routes. The FAA sets standards for width, safety areas, and object free areas along with appropriate geometry for turns and intersections. The taxiway and taxilane Object Free Areas (OFA) provide clear space around taxiing aircraft free of vehicle service roads, parked aircraft, and other objects (except for necessary air or ground navigation facilities). Nenana Airport has three taxiways (shown in Figure 3.2) with different specifications depending on their use.

Taxiway A and Taxiway B are positioned perpendicular to the runway connecting the runway to the paved parking apron. This configuration creates situational awareness issues with pilots and could allow an inadvertent runway incursion. AC 150/5300-13B Chapter 4 *Taxiway and Taxilane Design* illustrates preferred taxiway routes from parking aprons to the runway. The taxiway structure should be changed to prevent direct access from the apron to the runway. These taxiways were previously designed to meet TDG- 3 aircraft requirements which exceed the requirements for a King Air (TDG-2A). Although these taxiways exceed the standard, it is advised they remain in place to support the 174 aircraft operations in and out of Nenana from aircraft more demanding than TDG-2 as indicated in the forecast chapter. A comparison of these Taxiway standards is shown in Table 3.5.

Taxiway B connects to the runway at the touchdown point on Runway 4L. There is no taxiway to access the approach end of Runway 22R. As per Chapter 4 of the Airport Design AC, a parallel taxiway should be constructed to eliminate using the runway for taxiing, thus increasing runway capacity, and protecting the runway under low visibility conditions. It is recommended that ENN construct a full length parallel taxiway to access the approach end of 22R. When the parallel taxiway is constructed, reconfiguration of Taxiways A and B will prevent direct access from the parking apron to the runway.

Taxiway A connects from just east of Airport Road to the paved parking apron and continues to the approach end of Runway 4L. Excessive trees on the south side of Taxiway A restrict line of sight from aircraft crossing the approach end and on final approach. These trees should be removed to reduce incursions and improve visibility for aircraft on approach.

From the approach end of Runway 4L, Taxiway C extends east across the RPZ of Runway 4R to a turf apron and terminates just before the approach end of 4W. Taxiway C is a TDG-1 gravel taxiway because the gravel runway or water lane are not designed for ADG-2 or higher aircraft. Requests for paving Taxiway C were acknowledged during an Advisory Committee meeting. Paving this taxiway is possible, but consideration of aircraft using tundra tires and skis should be

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taken. It is not advised that Taxiway C be paved at this time unless an alternative route to parking for ski-equipped aircraft is established.

Table 3.5: Taxiway and Taxilane Requirements

Taxiway/Taxilane	Applicable FAA Standard – ADG, TDG	Existing Condition – ADG, TDG	Compliance Condition If Met (☒)
<b>Taxiway A</b>	<b>B-II, 2A</b>	<b>B-III, 3</b>	
Width	35'	50'	☒
Taxiway Safety Area	79'	118'	☒
Taxiway Object Free Area	124'	186'	☒
<b>Taxiway B</b>	<b>B-II, 2A</b>	<b>B-III, 3</b>	
Width	35'	50'	☒
Taxiway Safety Area	79'	118'	☒
Taxiway Object Free Area	124'	186'	☒
<b>Taxiway C</b>	<b>A-I, 1A</b>	<b>A-I, 1A</b>	
Width	25'	25'	☒
Taxiway Safety Area	49'	49'	☒
Taxiway Object Free Area	89'	89'	☒



Figure 3.2: Nenana Airport Movement Areas

### 3.2.2.2 Helicopter Operations

There is currently no designated helicopter landing area, although firefighting, medical, and military helicopters routinely operate on and use the paved apron. No current need for a designated helicopter operations area is identified at this time; however, it is recommended to monitor the use of the current parking ramp and helicopter operations for future designation. If more aircraft park on the large, paved apron, then it could impede helicopter operations and/or cause damage to the parked aircraft. Due to airspace and obstruction dimension requirements, location of helicopter operations require specific distance attributes. Potential future sites will be shown in the ALP as optional and reference locations for future planning.

### 3.2.3 NAVAIDs, Weather, Lighting, Marking, Signage

#### 3.2.3.1 NAVAIDs and Weather Reporting Equipment

Runway 4L and Runway 22R are both served by a four-light Precision Approach Path Indicator (PAPI) that is owned and maintained by the FAA. It has a visual glide path aiming angle of three degrees to allow approaching aircraft to clear the controlling obstructions (trees).

Nenana Airport has a recently upgraded rotating beacon located at the Northwest corner of the paved apron, approximately 1,000 feet west of the runway centerline near the lighting control building. There are four wind cones on the airfield. The primary wind cone is lighted and is located in the center of the segmented circle which is in the infield between the parking apron and runway. There is also a secondary lighted windsock mounted on the beacon tower at the

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north side of the parking apron. The segmented circle is significantly damaged and neither lighted sock is operable. These discrepancies should be repaired, and the segmented circle and wind cones should be maintained to ensure brush and vegetation do not restrict or damage the socks.

The airport also has two unlighted wind cones, one located 300 feet east of the extended centerline, about 400 feet beyond the departure end of Runway 4L. Aircraft approaching Runway 22R at night are not able to see this windsock because it is unlighted. Another wind cone is located between the two float ramp areas. Wind speed and direction can be markedly different at each of the wind cone locations, and line of sight issues have been reported. The removal of brush and trees is required for better visibility and operation.

The weather-reporting equipment at ENN is an Automated Surface Observing System (ASOS). The ASOS is located at the approach end of Runway 4L, approximately 500 feet west of the runway centerline. The National Weather Service owns and operates the ASOS. Requests of upgrading to an Automated Weather Observing System Type III (AWOS-III) were heard from users due to possible deviation in altimeter reports (compared to FAI). It is recommended to coordinate with the National Weather Service to fix the issue or replace the ASOS with an AWOS-III, if needed.

Nenana is serviced by two electronic NAVAIDs: a Non-Directional Beacon (NDB) and a VHF Omni-Directional Range/Tactical Air Navigation System (VORTAC). The NDB is located on the field between the turf runway and water lane, 600 feet from the centerline of Runway 4L. The "Ice Pool" NDB is accessible via the South Access Road. Many NDBs have been decommissioned due to more modern and accurate navigation systems being available. The beacon at ENN was reported as not being used despite having a published approach. "Nenana" VORTAC is located 2.6 nautical miles to the north of the field, situated on the Mount Nenana ridgeline north of the Tanana River. Additional navigation infrastructure needs for the UAS Cargo operations are currently being defined. It is recommended that ENN continue communications with the stakeholders to ensure needs are met.

### 3.2.3.2 *Airside Lighting, Markings, and Signage*

The runway lighting systems and markings at Nenana Airport vary depending on the runway and its use. The Runway 4L-22R lighting system, installed in the 1970s, is comprised of Medium-Intensity Runway Lighting (MIRL) with Runway End Identifier Lights (REILs). Runway markings are non-precision markings and in fair condition; repainting should be included in a preventative maintenance schedule. Runway 4L-22R lighting, taxiway lighting, and parking apron lighting was installed in 2003.

The turf runway has a MIRL system as well, however issues have been reported in its configuration and operation. The lighting system is currently inoperable because only three



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lights in the system work (> 10 percent requires Notice to Air Missions (NOTAMs)). Additionally, the lighting configuration ultimately – though probably unintentionally – reduced the runway length, as these lights were given to ENN from a neighboring airport project, and there was only 2,000 ft of lighting, rather than the 2,520 ft needed to light the full length of the original turf runway. Operations at the turf/ski runway are difficult as there are no ‘on-pavement’ markings. Also many of the lights in place have sunk below grade and are no longer visible. Using approved above ground markers and/or replacing the lights as appropriate to ensure runway edges/ends can be adequately observed could be beneficial in preventing incursions and excursions.

Airfield signage consists of lighted runway signs providing aircraft with runway location information. These signs are not operational and do not have the proper information displayed or are missing in several locations. Proper wayfinding and signage are beneficial to safety and efficiency on the airfield.

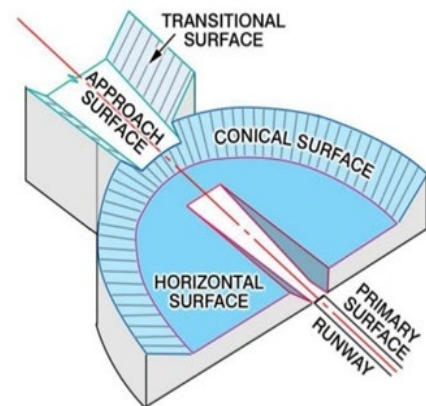
In 2014, the entire lighting system failed due to the regulator resulting in a long-term removal from service. In December of 2020, the regulator was replaced with a borrowed unit, and lighting was restored. It is important to note a lighting design project is underway to upgrade the aging parts of the system, mainly Runway 4L-22R lighting, airport signage, and a new regulator. It is recommended that inspection and attention should be given to the entire lighting system (including previously mentioned windsocks and turf runway lighting) to ensure adequate performance reliability and adherence to regulation. If possible, inclusion of these additional lighting improvements should be considered in the currently underway project.

### 3.2.4 Airspace Requirements

#### 3.2.4.1 Part 77 Surfaces

Part 77 of Title 14 of the Code of Federal Regulations (14 CFR Part 77) is the federal code governing navigable airspace. This code classifies airspace in the United States into various categories of surfaces based on dimensions, use, allowable penetrations, etc. The different kinds of airspace are collectively referred to as Part 77 surfaces. The Part 77 surfaces affecting an airport include the Primary Surface, Approach Surfaces to the runways, Transitional Surfaces, Horizontal Surfaces, and Conical Surfaces. These surfaces are graphically shown in Figure 3.3. Table 3.6 contains information on the dimensions of the various surfaces for the existing and planned conditions.

Figure 3.3: Part 77 Surfaces - Imaginary surfaces need to be protected for safe approaches and departures.



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Protecting the airspace around ENN by preventing obstructions within and beyond the airport property is important to the safety of aircraft operations. When an object penetrates the imaginary surfaces, it is an obstruction. Approach paths, visibility requirements, and altitudes are based off obstructions in the vicinity of the airport. Nenana has multiple obstructions, primarily trees (up to 50 feet tall), in the vicinity of the runways penetrating the 7:1 transitional surface, and powerlines traverse the RPZ (these lines are marked with orange obstruction balls).

Due the expanse of the horizontal and conical surfaces, some obstacles are immovable terrain. Mount Nenana and associated land features penetrate the Part 77 surfaces to the north. When feasible, it is recommended that obstructions penetrating the Part 77 surfaces should be removed or marked/lighted for pilot navigation.

Table 3.6: Part 77 Surfaces

Component	Identified Need or FAA Standard	Existing Condition	Standards Met
<b>RWY 4L: Non-Precision Instrument Approach, &gt;3/4 mile</b>			
Length of Primary Surface	200' beyond runway end	200' beyond runway end	<input checked="" type="checkbox"/>
Width of Primary Surface	500'	500'	Trees
Radius of Horizontal Surface	10,000'	10,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	3,500'	3,500'	<input checked="" type="checkbox"/>
Approach Surface Length	10,000'	10,000'	<input checked="" type="checkbox"/>
Approach Slope	34:1	34:1	Trees
<b>RWY 22R: Non-Precision Instrument Approach, &gt;3/4 mile</b>			
Length of Primary Surface	200' beyond runway end	200' beyond runway end	<input checked="" type="checkbox"/>
Width of Primary Surface	500'	500'	Trees
Radius of Horizontal Surface	10,000'	10,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	3,500'	3,500'	<input checked="" type="checkbox"/>
Approach Surface Length	10,000'	10,000'	<input checked="" type="checkbox"/>
Approach Slope	34:1	34 :1	Trees
<b>RWY 4R: Visual Approach, Utility</b>			
Width of Primary Surface	250'	250'	Trees
Radius of Horizontal Surface	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	1,250'	1,250'	<input checked="" type="checkbox"/>
Approach Surface Length	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Slope	20:1	20 :1	Trees Taxiway C

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Component	Identified Need or FAA Standard	Existing Condition	Standards Met
<b>RW 22L: Visual Approach, Utility</b>			
Width of Primary Surface	250'	250'	Trees
Radius of Horizontal Surface	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	1,250'	1,250'	<input checked="" type="checkbox"/>
Approach Surface Length	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Slope	20:1	20 :1	Trees
<b>RW 4W: Visual Approach, Utility</b>			
Width of Primary Surface	250'	250'	Trees
Radius of Horizontal Surface	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	1,250'	1,250'	<input checked="" type="checkbox"/>
Approach Surface Length	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Slope	20:1	20 :1	Trees
<b>RW 22W: Visual Approach, Utility</b>			
Width of Primary Surface	250'	250'	Trees
Radius of Horizontal Surface	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Surface Outer Width	1,250'	1,250'	<input checked="" type="checkbox"/>
Approach Surface Length	5,000'	5,000'	<input checked="" type="checkbox"/>
Approach Slope	20:1	20 :1	Trees

### 3.2.4.2 Instrument Procedures

ENN has two Instrument Approach Procedures (IAPs) consisting of an NDB and a GPS approach. NDBs transmit Omni-directional signals to an antenna on board the aircraft/ship. An automatic direction finder (ADF) then uses the signal to determine the aircraft's bearing and display its position in relation to the NDB transmitter. GPS, a type of satellite navigation system, is becoming the most common type of area navigation and is replacing older equipment that uses ground-based nav aids such as VOR, VORTAC, and NDB stations.

The two instrument approach procedures at ENN are the NDB RWY 4L approach and the RNAV RWY 4L approach (Figures 3.4 and 3.5, respectively). Both approach procedures have non-standard minimum criteria for takeoff operations and circling procedures. Circling is only to the east due to obstructions and not authorized to any other runway or at night. When local altimeter setting is unavailable, minimum decent altitudes are increased by 100 feet.

Established approach options are limited at ENN. Multiple approaches would be beneficial for opposite direction runway flow and landing at alternative runways. Approaches to other runways have been requested along with the request to add approaches with Localizer



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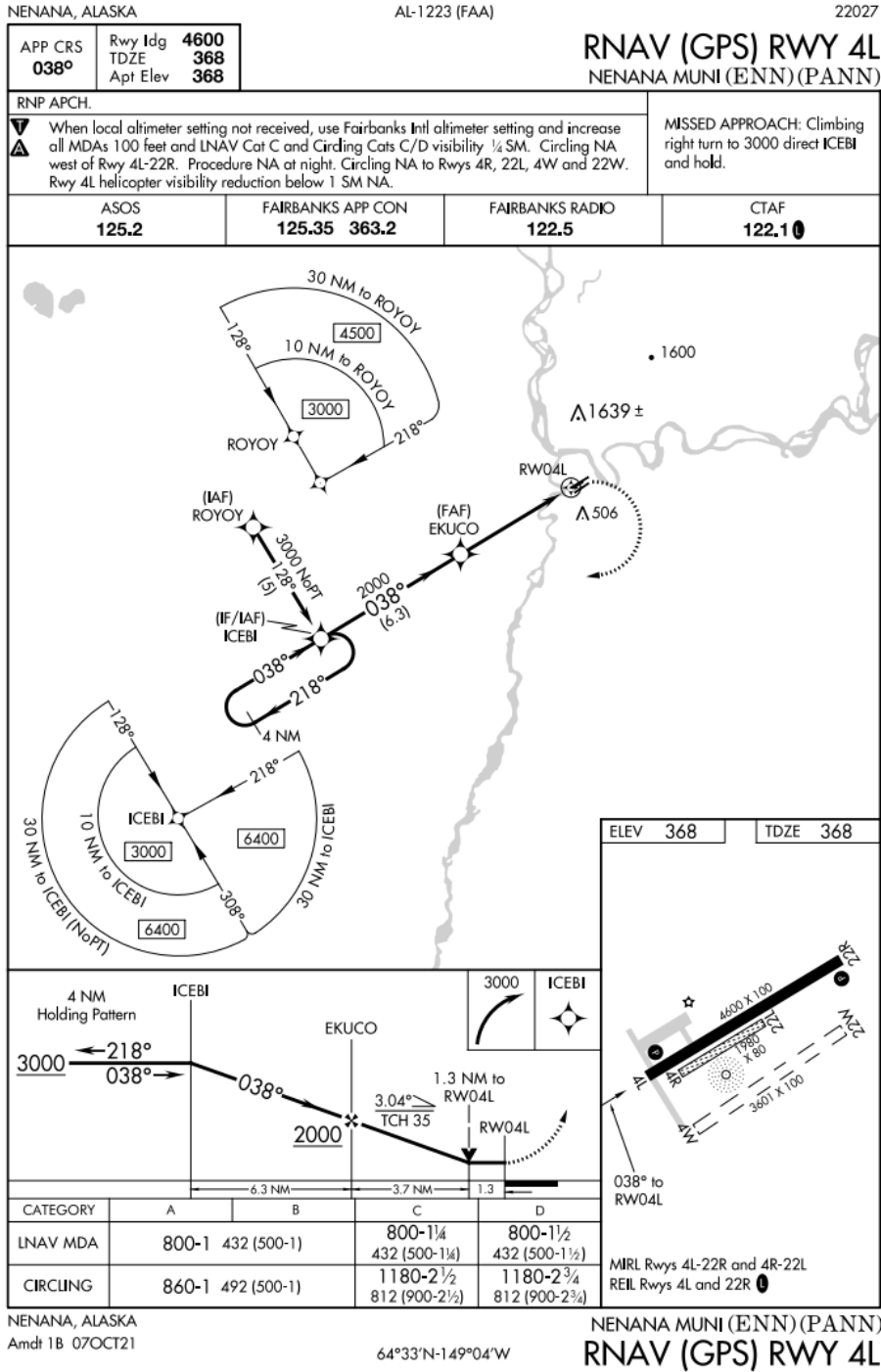


Figure 3.5: RNAV (GPS) RWY 4L Approach Plate



### 3.3 AIRPORT SUPPORT FACILITIES AND REQUIREMENTS

#### 3.3.1 Lease Lots

Nenana Airport currently has 23 lease lots, 15 of smaller size, 8 of larger size. Only four lots have been developed, the largest development being a medium-sized box hangar at the east end of Taxiway C. The other developments/occupancies are the fuel farm west of the paved parking apron and a storage area in the adjacent lot. Significant land is available west of the paved parking apron for further development to the north. The lease lots are undeveloped land without a subbase or utilities. There is a large “cost of entry” in development of lease lots for tenants, as materials and utility work costs are high. The airport should consider ways to reduce the up-front costs of lease lot development by minimally developing some of the smaller lots by grading and graveling, by establishing an on-airport gravel source tenants can use, and/or looking for opportunities to dispose of good material from on-airport and off-airport projects. The airport should add additional lots along the apron and future parallel taxiway to the north if additional space is required.

#### 3.3.2 Aircraft Hangars, Aprons, and Tie-Down Facilities

There is a need for additional hangars for both based aircraft and transient aircraft. There is only one privately owned hangar currently onsite. The large, paved parking apron has 28 designated tiedowns. Many of the ski/tundra tire equipped aircraft use the turf lot and a clearing on the north side of Taxiway C for parking. Due to the extreme temperatures, having power routed to the parking areas is crucial to preheating engines. It is recommended electricity be extended in phases to apron and float plane tiedown areas and undeveloped lease lots.

Additional development of lease lots along the apron and float pond will benefit from these services being accessible. The airport should consider isolating tiedown electrical from airfield lighting to prevent outages of critical operations equipment. The tiedown power use can be managed by the airport, or the airport could have meters installed so users who want electricity may arrange this service directly with the local power company.

In addition to developing full service lots with utilities, the airport should clear and level several lots for air camping with reduced utility infrastructure. The significant number of hunters that use the airport would benefit from this amenity, and the overall infrastructure costs to provide power to more inaccessible lots will be substantially lower. The Airport is currently constructing a pilot’s lounge building, which will consist of restrooms, sleeping quarters, and a seating area. With the construction of a terminal building/pilot lounge, convenient tiedowns (preferably with electricity) and appropriate signage should be installed to direct and inform transient pilots of the designated parking.



### 3.3.3 Maintenance Facilities and Equipment

ENN has three pieces of airfield equipment; a Kubota track loader with a 72-inch brush cutter attachment, a Stewart and Stevenson Snow Blower Truck, and a CAT Road Grader VHP Plus with Grader Wing. This equipment is only adequate for heavy vegetation maintenance but is not large enough to be efficient at maintaining the infields. Once the large brush is cleared, it is recommended the airport find a better solution to maintaining the grass and turf areas that will not create ruts and other damage.

The grader and snow blower are capable pieces of equipment, but they are slow. It has been reported that it takes approximately four hours to clear the runway during a snow event. ENN has been used as a medevac airport when the Parks Highway has been closed due to snow. The Airport should purchase a snow broom, designated snowplow, or equivalent equipment in the future to ensure clearing times are more appropriate. The equipment is currently kept in a building on the south side of the airfield near the maintenance facility. Storage facilities for the maintenance equipment are currently adequate, but with any expansion of the fleet, a new Snow Removal Equipment Building (SREB) will need to be constructed. It is a requirement to have a location to store snow equipment if purchased through AIP funding. The airport should expand or build a new SREB and purchase additional snow equipment.

### 3.3.4 Aircraft Deice Building

Nenana Airport does not have any deicing facilities. With the future increase of regular traffic, ENN may desire to construct an aircraft deice facility to serve such aircraft and increase revenue. At this point, a deicing facility is not needed, but could be considered if increases in passenger or cargo traffic are expected.

### 3.3.5 Cargo Facilities

There are currently no designated cargo facilities at ENN; however, there are discussions regarding cargo aircraft based out of Nenana. When this program starts, it may be advantageous to have a dedicated cargo area accessible to trucks and a cargo apron accessible by aircraft. It is recommended to ensure roads and lease lots are developed to provide ample access for cargo operations.

### 3.3.6 Surface Access

There are two access roads to the airport, North Airport Access Road, and South Airport Access Road, both providing access from the Parks Highway. Both access roads use or cross taxiways for vehicles to access aircraft parking and are also used as service roads beyond developable lease lots. On the northwest side, Taxiway A forms a three-way intersection (T intersection) with North Access Road. This configuration implies that Taxiway A is and should be used as a vehicle access point, which is also perpetuated by the road designation depicted on Google Maps which traverses the taxiway, crosses the runway, and continues to South Airport Access Road via

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Taxiway C. Vehicles should not be able to directly access the taxiway but should continue to the road leading to the airport beacon and parking apron. Reconfiguration and proper signage should be installed to promote this traffic flow.

South Airport Access Road connects the Parks Highway to the maintenance facility then crosses Taxiway C to continue beyond the NDB building as a service road. This service road goes to the edge of the Tanana River, crosses the runway RPZ, and connects to a non-airport controlled road (Front Street).

An undesignated road crosses the RPZ of Runway 4L, and multiple historic dog sled trails used for cross-country skiing, snow machining, and dog sledding also cross the airport in various locations.

It is recommended that action be taken to reroute and reestablish appropriate controlled access roads and trails by providing appropriate signage to assist public navigation. Realigning and marking a road transiting from the north to south side of the field at the approach end of 4L, rerouting the southern access road to the turf apron while not crossing Taxiway C, and clearly marking wayfinding signage would eliminate a large portion of incursion concerns.

### 3.3.7 Security and Fencing

The airport is mostly fenced with wildlife fencing along the airport property boundary starting at the north side of Runway 4L-22R. This fence line continues to follow the Parks Highway, surrounding the maintenance facility, then running parallel to 4W-22W and back to the approach end of Runway 22R. The approach end of Runway 22R has a dike in place and the fence line does not continue on the river front, causing a gap in the fence. This fence meets up with Front Street with a locked vehicle gate which someone destroyed by pulling it open with a truck shortly after it was installed. This is likely due to the want of public access to the trail that runs along the Tanana River.

This fence is mainly for wildlife control and a designation of landside and airside components is not clearly established. The fence line contains manual vehicle gates which typically remain open allowing access to the general public. It would be beneficial to Nenana Airport to clearly define public use areas and controlled operations areas. Adding a security fence with electronic gates around the operations area could resolve a large portion of the incursions. This would allow the community to enjoy the use of the airport property while maintaining the safety and security needed for aircraft operations. This may be difficult on the South Airport Access Road due to the proximity and location of the runways. It is recommended that airside and landside delineation be better defined to allow public access but support operational safety.

Multiple reports of vandalism and theft have been conveyed during Advisory Committee meetings and open houses. It would be advantageous for Nenana Airport to consider the



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implementation of a security camera system to monitor operations and prevent damages to aircraft and airport systems. It is understood that this project is of significant cost. This system and the automatic gate system could be installed concurrently to reduce infrastructure costs.

### 3.3.8 Vehicle Parking

There is currently no designated vehicle parking at Nenana Airport. When approving development, the City should consider the impacts to access points and ensure adequate parking space is established. Tenants should provide designated parking on their lease lots in appropriate areas (landside vs. airside). A new pilots' lounge has been constructed near the fuel farm. Vehicle parking for the courtesy van and personal vehicles should be identified with clearly marked signage. Access to public vehicle parking lots should be accessed from landside and not cross active surface areas such as taxiways or aprons.

### 3.3.9 Utilities

Much of the airport does not have any utility infrastructure. Potential tenants have voiced concerns that the lease lots require larger infrastructure additions such as water, wastewater, electric, and communications utilities. As discussed in Section 3.3.2, electric connections in common tiedown areas are also needed for aircraft preheating operations in the winter months. It is recommended that the airport install main lines (for some or all listed utilities) along identified lease lots for later individual tenant tie-ins and electrical connections to common parking areas for preheat operations. It is suggested the Airport investigate the feasibility of the installation of water and sewer mains to support development. Alternatively, the airport tenants can use a combination of septic systems, pump out systems, wells, and water tanks to establish on-site utilities. In order to relieve some of the burden on tenants, the airport could set up seasonal outhouse/restroom facilities in strategic locations for airport users.

### 3.3.10 Fuel Storage Facilities

Nenana Airport has multiple fuel storage tanks located on the northwest side of the paved parking apron. These systems are owned by Alaskan Aerofuel, with Jet-A and 110LL fuels available. 110LL is available 24 hours a day via a self-service pump station. Although this system is adequate for land-based aircraft, there is no ability for float or ski planes to fuel. During the months of August and September, there are approximately 50 to 60 seaplane operations daily due to the hunting season. Pilots walk or use the courtesy van to transport five-gallon containers from the existing fuel farm to their aircraft. It is recommended an additional fueling system (temporary/movable/seasonal or permanent) should be located nearer the pond and ski strip for fueling of float/ski planes. Although structures are not allowed, some type of covering would be beneficial to prevent injury during harsh weather conditions.

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### 3.4 SUMMARY

This chapter has outlined the facilities required to meet the forecasted demand over the 20-year planning horizon. Table 3.7 summarizes the corrective actions to meet design standards, existing and forecasted capacity, and needed services. These needs and corrective actions will be addressed in *Chapter 4. Alternatives*.

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Table 3.7: Facility Requirements Summary

Component	Identified Need or FAA Standard	Existing Condition	Corrective Action
<b>Runway 4L-22R - RDC B-II, Greater Than ¾ Mile</b>			
Alignment	95% Crosswind Coverage At 16kts	99.9% Crosswind Coverage	None
Length	3,900'	4,600'	Maintain Existing
Width	75'	100'	Maintain Existing
Condition	PCI 70-100	PCI 80.4	Fix Longitudinal Cracking, Preventive Maintenance, Long Term Rehabilitation
Safety Area Width	150'	300'	Level And Reinforce
Safety Area Length Beyond Runway End	300'	600'	Maintain Existing
Object-Free Area Width	500'	800'	Remove Trees
Object-Free Area Beyond Runway End	300'	600'	Remove Trees
Runway Protection Zone	1,700'x1,000'x1,510'	1,700'x1,000'x1,510'	Remove Trees, Address Powerlines
<b>Runway 4R-22L - RDC A-I, Visual</b>			
Alignment	95% Crosswind Coverage At 13kts	99.9% Crosswind Coverage	None
Length	830'	1,980'	Maintain Existing
Width	60'	80'	Maintain Existing
Condition	Graded, Drained	Soft, Poor Drainage	Level And Reinforce
Safety Area Width	120'	120'	Add Shoulders
Safety Area Length Beyond Runway End	240'	240'	Maintain Existing
Object-Free Area Width	250'	250'	Remove Trees

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Component	Identified Need or FAA Standard	Existing Condition	Corrective Action
Object-Free Area Beyond Runway End	240'	240'	Remove Trees
Runway Protection Zone	1,000'x250'x450'	1,000'x250'x450'	Remove Trees, Taxiway C, Service Road
<b>Runway 4W-22W - RDC A-I, Visual</b>			
Alignment	95% Crosswind Coverage At 13kts	99.9% Crosswind Coverage	None
Length	3,500'	3,600'	Maintain Existing
Width	Preferably 200'	100'	Maintain Existing
Condition	4-6' Depth	Debris And Shallow Vegetation	Dredge And Clear Vegetation
Safety Area Width	120'	120'	Maintain Existing
Safety Area Length Beyond Runway End	240'	240'	Maintain Existing
Object-Free Area Width	250'	160'	Remove Trees
Object-Free Area Beyond Runway End	240'	200'	Remove Trees
Runway Protection Zone	1,000'x250'x450'	1,000'x250'x450'	Maintain Existing
<b>Taxiways</b>			
Taxiway Width			
TDG-II Taxiways Twy A And B	35'	50'	Maintain Existing
TDG-I Taxiways Twy C	25'	25'	Maintain Existing
Taxiway Safety Area			
ADG -II Taxiways	79'	118'	Maintain Existing
ADG -I Taxiways	49'	49'	Maintain Existing
Taxiway OFA			
RDC-II Taxiways	124'	186'	Maintain Existing

# CHAPTER 3. FACILITY REQUIREMENTS



Component	Identified Need or FAA Standard	Existing Condition	Corrective Action
RDC-I Taxiways	89'	89'	Maintain Existing
Other Taxiway Needs	Limited Taxi Conflicts, Minimize Runway Crossings	No Full Length Parallel Twy, Twy C Conflicts with Approach	Construct Full Length Parallel Twy, Reroute or Add Hold Short on Twy C
<b>Miscellaneous</b>			
On-Airport NAVAIDS	Various	PAPI On Runway 4L-22R, NDB, Beacon, Seg Circle, Windsocks	Remove NDB, Repair Segmented Circle, And Windsocks
Runway Edge Lighting			
4L-22R	MIRL, REILS	MIRL, REILS	Rehab or Replace
4R-22L	MIRL	MIRL	Rehab or Replace, Add Markers for Winter Operations
Runway Markings (4L-22R)	Non-Precision Approach Markings	Non-Precision Approach Markings	Repaint Markings
Airfield Signage	Standard Signage	Standard Signage	Rehab Or Replace, Improve Wayfinding
Erosion Control and Drainage	Protect Airfield	Rutting And Softness on Runway	Resurface And Improve Drainage
<b>Airspace</b>			
Helicopter Ops	Helipad Away from Fixed Wing	Helicopters Use Apron	Identify Future Landing and Parking Areas for Helicopters
Instrument Approach	Non-Precision	Non-Precision	Request FAA Perform Study to Add More Approaches. LPV, To Lower Mins.

# CHAPTER 3. FACILITY REQUIREMENTS



Component	Identified Need or FAA Standard	Existing Condition	Corrective Action
Part 77 Surfaces	Free Of Obstacles or Otherwise Marked	Obstacles In Horizontal, Primary, And Transitional Surfaces	Remove Trees
<b>Landside</b>			
Lease Lots	Expand With Aprons	19 Vacant Lots, Other Underused Lease Lots	Look For Opportunities to Help with Lease Lot Development. Fill/Grade, Gravel Sources
Terminal Building	Preserve Option for Future Public Terminal	No Public Terminal	Identify And Reserve Space for Future Public Terminal
Parking	Adequate Vehicle Parking	Adequate Vehicle Parking Needed	Identify And Reserve Space for Future Public Parking
Access Roads	Safe, Efficient Access	Separate Access Roads for North and South, Traversing/Crossing Taxiways, No Signage for Direction Finding or Safety	Improve and/or Re-Route Pedestrian and Vehicular Access to Gain Access to Lease Lots Without Accessing Movement Areas. Install Signage So People Know What Is Authorized
Facilities and Equipment	Adequate Facilities and Equipment	Needs Better Mowing and Snow Equipment	Acquire Snow Broom and Large Area Mower
Snow Storage	Adequate Space	Adequate Space	Expand SREB As Needed
Utilities - Water	Potable Water	No Water	Investigate Piped Water Service
Utilities - Wastewater	Municipal Sewage System	Flush-Haul System	Investigate Piped Sewer System

# CHAPTER 3. FACILITY REQUIREMENTS



Component	Identified Need or FAA Standard	Existing Condition	Corrective Action
Utilities - Comms	Available At All Lease Lots	No Comms	Investigate Telecom Service
Utilities - Electric	Available At All Lease Lots; Backup Generation for Runway Lights and NAVAIDs	No Electrical at Most Lease Lots	Expand To Parking Aprons, And Lease Lots
Fencing And Security	Secure Airport Perimeter Fencing; Adequate Lighting	Open Fencing by River, Multiple Public Trails Entering AOA, Manual Gates, No Definitive Separation of Airside and Landside Areas	Ensure Landside and Airside Are Marked and Secured. Install Camera System and Electronic Gates. Ensure Fence Line Is Accessible for Inspection. Install Lighting for Apron and Common Use Areas.

## CHAPTER 3. FACILITY REQUIREMENTS



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### CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

This chapter presents the development alternatives considered for Nenana Municipal Airport (ENN), the evaluation of those alternatives, and the resulting recommended alternative. The alternatives were guided by facility requirements from the previous chapter and the concerns, issues, and solutions expressed by stakeholders. Stakeholder views were from a broad cross-section of interests and wide-ranging – from avid aviation users to non-aviation citizens, and those who want to maintain existing facilities to those who prefer major expansion. Each of the alternatives presents a collection of individual projects and recommendations of similar purpose. Through the stakeholder involvement process, each alternative – and each of the projects within – were considered and refined to develop the preferred, recommended alternative. The recommended alternative for Nenana Airport is not the selection of a single alternative – it is a refinement, blend, and merger of the three alternatives considered, with individual projects appropriately identified for phasing and funding options.

#### 4.1 ALTERNATIVES OVERVIEW

The original three alternatives were presented at the January 25-26, 2023 public open house and advisory committee meetings. This section outlines the alternatives, projects, and cost estimates, as they were first shared to the public and stakeholders. Alternatives were developed to provide a range of complexity, scope, and cost of development. Alternatives were not developed with the intent that a single alternative would ultimately be selected; rather, each of the alternatives presents a group of projects similar in purpose (e.g., maintaining standards, enhancements) to identify ways to meet various airport needs and goals. Within each alternative, the individual projects were intended to be refined, modified, or dropped after stakeholders were given the opportunity to evaluate them. The alternatives are briefly outlined below and described in greater detail in the sections that follow:

- **Alternative 1:** Current Improvements - Minor maintenance and updates to existing facilities (Figure 4.1)
- **Alternative 2:** Maintain Standards - Major maintenance requiring capital projects to maintain airport standards and resolve FAA standards deficiencies (Figure 4.2)
- **Alternative 3:** Airport Enhancements - Improve existing land and operational facilities and expand amenities and services (Figure 4.3)



### 4.1.1 Alternative 1: Current Improvements

Alternative 1 presented existing projects currently underway (Figure 4.1) as of January 2023. The purpose of Alternative 1 was to identify work already in development and to explore opportunities to include other needed work within the scope of existing projects. Nenana Airport currently has two capital improvement projects in progress – one to maintain and improve current pavement and the other to improve lighting and signage infrastructure. These projects are in various stages of design and engineering, and project completion for both is expected by FY2025.

#### 4.1.1.1 2022 Pavement Maintenance Project

This project consists of the sealing of pavement cracks and joints on Runway 4L-22R in accordance with FAA specifications. Additionally, this project includes application of sealcoat to Runway 4L-22R and the connector taxiways, up to the existing hold markings. After repair and sealcoat, new pavement markings will be applied to Runway 4L-22R, the taxiways, and apron in accordance with current FAA standards and specifications. This project was underway at the time of the January 2023 meetings, with expected completion in Summer 2023.

#### 4.1.1.2 2023 Airport Lighting and Signage Project

The originally presented scope of this project included removal and replacement of all runway edge and threshold lighting on Runway 4L-22R, all existing runway and taxiway signage, and associated conduit for each system. The new lighting system will be a Medium Intensity Runway Edge Lighting (MIRL) system along with new signage. Additionally, a new Constant Current Regulator (CCR) for the new runway lighting and signing system would be installed along with a replacement beacon and electrical equipment building (EEB). It was expected that the scope of this project might be expanded to include runway lighting for the turf runway (Runway 4R-22L), a new segmented circle, and a new lighted wind cone, pending determination of AIP funding eligibility for Runway 4R-22L and funding sufficient to include additional elements. Discussion of how the Airport Lighting and Signage project has been modified since originally presented is found in Section 4.2.1.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

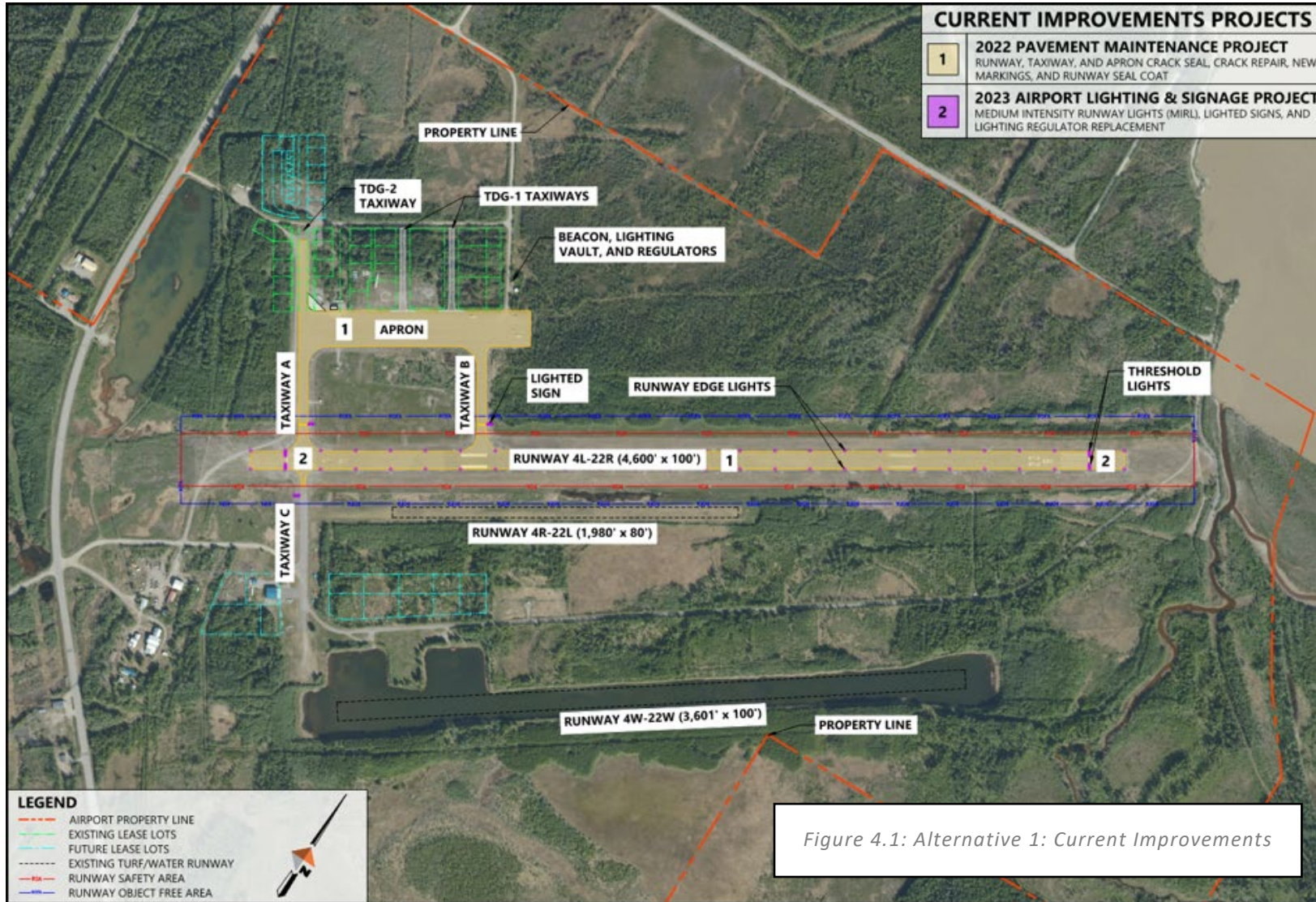


Figure 4.1: Alternative 1: Current Improvements



### 4.1.2 Alternative 2: Maintain Standards

Alternative 2 proposed projects to address FAA standards deficiencies and to maintain airport standards (Figure 4.2). The purpose of Alternative 2 projects is to maintain and preserve existing airport conditions and/or to bring airport features into compliance with FAA standards. Many of these projects are considered major maintenance items but are of such scope and cost that they cannot be accomplished within airport staff or operating budget limits. Larger maintenance projects typically involve more detailed design and construction work and are better managed under the capital program and budget. The originally presented Alternative 2 project names, scopes, and costs are presented in this section. Discussion of how the projects were evaluated and modified is found in Section 4.2.2.

#### 4.1.2.1 *Long Term Rehabilitation*

This project proposes a long-term rehabilitation plan to maintain pavement and runway/apron markings. Nenana has done well to preserve the airport pavement conditions. The 2022 Pavement Maintenance Project underway is good practice and will extend the life of existing pavements. However, seal coating alone does not indefinitely preserve pavement, and a long-term preventative maintenance program would prevent conditions from worsening and improve longevity of existing surfaces. The existing pavement on Runway 4L-22R was last rehabilitated in 2010 or 2011. Continued funding should be budgeted for long-term/high-cost pavement maintenance and repairs such as future mill and overlay and remarking.

#### 4.1.2.2 *Runway 4R-22L Turf Surface Repair and Maintenance*

The ENN FAA Form 5010, the Airport Master Record, identifies a drainage concern during summer operations stating, "In summer full length may not be available due to being soft, available for ski use when frozen." This project would reconstruct/rehabilitate the turf/gravel surface to correct the soft conditions and allow full published length (1,980 ft) summertime operations.

#### 4.1.2.3 *Runway 4R-22L Lighting Rehab*

The Runway 4R-22L lighting system is currently inoperable and in an advanced state of disrepair. This project proposes to remove and replace all runway edge and threshold lighting, associated conduit, and signage. The new lighting system will be a Medium Intensity Runway Edge Lighting (MIRL) system along the currently published runway configuration. This project was originally presented distinctly from the underway Airport Lighting and Signage Project due to a pending determination of AIP eligibility for Runway 4R-22L. It was anticipated that, should the runway be determined eligible for AIP funding, the lighting work for Runway 4R-22L might be added to the scope of work of the project underway.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

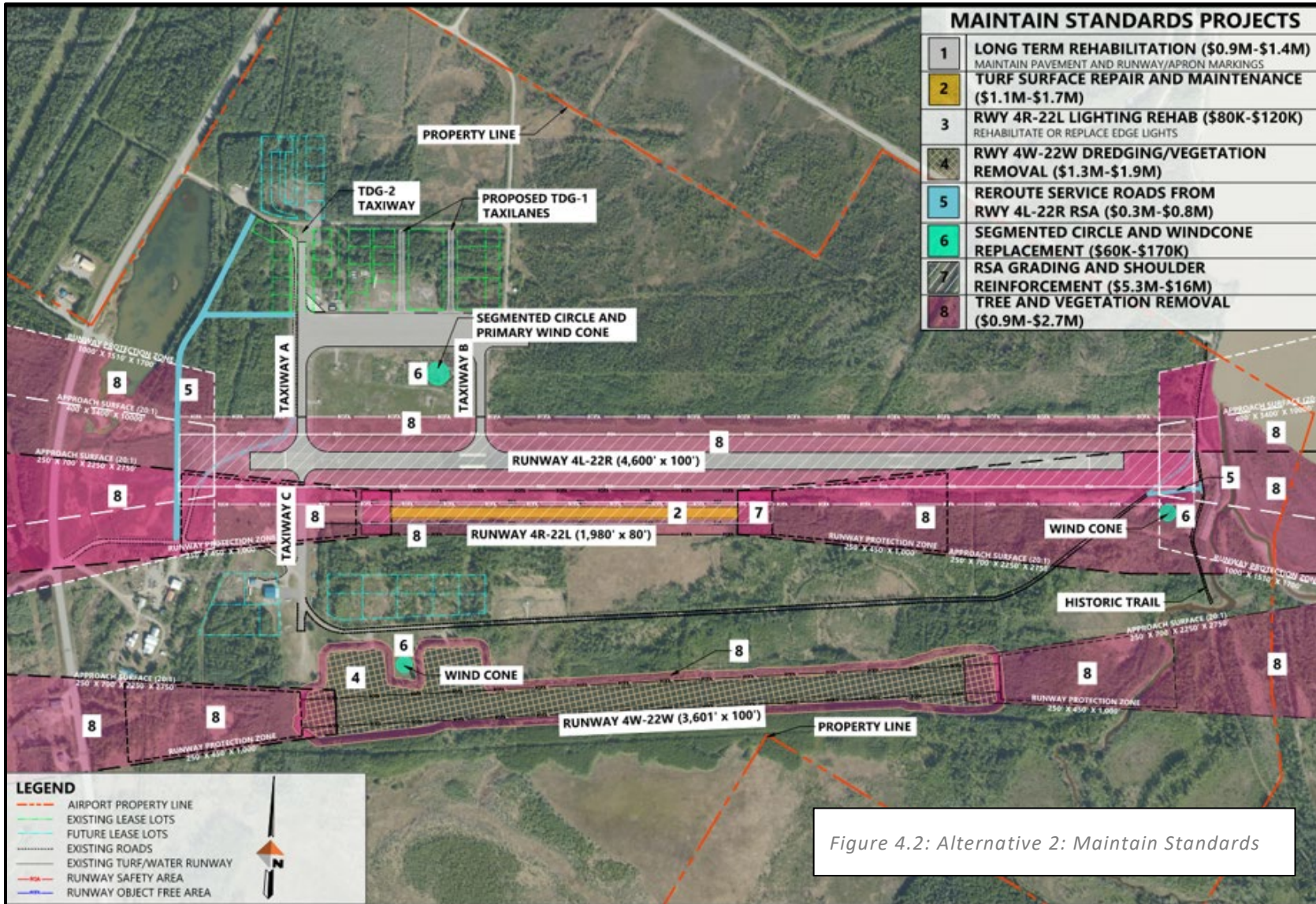


Figure 4.2: Alternative 2: Maintain Standards

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.1.2.4 *Runway 4W-22W Dredging/Vegetation Removal*

The Chart Supplement and Airport Master Record report shallow water depth in proximity to the ramp area. Large woody debris and long reed type grasses are present at both ends of the runway due to beavers and other wildlife habitats. This project would dredge the water lane to a four- to six-foot depth and remove the woody debris and reeds. Taking advantage of the geotechnical studies needed for the design of this project, investigation of alternative water lane configurations should be conducted at the same time. While water lane reconfiguration is not recommended as part of this alternative, Alternative 3 includes proposed water lane modifications, and the geotechnical work for this Alternative 2 project could support and guide that future work.

### 4.1.2.5 *Reroute Service Roads From Runway 4L-22R RSA*

The Runway Safety Area extends beyond Runway 4L and Runway 22R thresholds by 300 ft. Both RSAs are traversed by service roads. This project would relocate the service roads outside of the RSA. Efforts should be made to adhere to B-III RSA standards (600 ft separation from runway threshold) as much as the airport configuration allows to prevent possible future infrastructure conflicts.

### 4.1.2.6 *Segmented Circle and Wind Cone Replacement*

The segmented circle is significantly damaged, and the lighted cone is inoperable. These deficiencies should be addressed, and these navigational aids should be maintained to ensure brush and vegetation do not restrict or damage the sock. The airport has two unlighted wind cones, one between the two float ramp areas and one located 300 ft east of the extended Runway 4L-22R centerline, about 400 ft beyond the Runway 22R threshold. Aircraft approaching Runway 22R at night are not able to see the wind cone at this runway end because it is unlighted. Wind speed and direction can be markedly different at each of the wind cone locations, and line of sight issues have been reported. It is important that all three wind cones be operational and clearly visible. This project, as originally scoped, would replace the segmented circle and existing lighted wind cone, replace the Runway 22R wind cone with a lighted wind cone, and clear vegetation at all wind cone sites. It was anticipated that some or all of the elements of this project might ultimately be added to the scope of work of the Airport Lighting and Signage Project underway. Discussion of how the scope of these projects were modified after evaluation is included in Sections 4.2.1 and 4.2.2.

### 4.1.2.7 *RSA Grading and Shoulder Reinforcement*

The Runway 4L-22R RSA gradient is currently insufficient and contains numerous holes and uneven areas. These conditions have led to poor drainage in some areas, present operational safety concerns, and make the RSA difficult to maintain. This project would regrade the RSA per FAA AC 150/5300-13B standards. Some mowing, disking/leveling of the RSA, and brush removal

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



could be done in-house depending on the severity of conditions of the distressed section(s). However, the full scope of recommended work calls for a contracted effort.

### 4.1.2.8 Tree and Vegetation Removal

Significant tree and vegetation growth has encroached and penetrated various protected surfaces, including Part 77 transitional surfaces, approach slopes, Runway Object Free Areas, Runway Protection Zones, Runway Safety Areas, and clear areas around wind cones. Line of sight concerns are also noted, especially on the south side of Taxiway A, where vegetation blocks the view of aircraft crossing the approach end to aircraft on final approach. Although the critical aircraft is a B-II, multiple more demanding B-III aircraft frequently use Nenana. It is recommended that efforts be made to clear and maintain to B-III standards where practical to create a safe operating environment for these larger airframes. This project would remove encroaching trees and vegetation and temporarily store the debris for future chipping and processing.

### 4.1.2.9 Alternative 2 Project Cost Estimates

Table 4.1 presents the cost estimates for Alternative 2 projects, as originally shared with the public and stakeholders in January 2023.

Table 4.1: ENN Master Plan Alternative 2 Project Cost Estimates			
Project		Cost	Description
2.1	Long Term Rehabilitation	\$0.9M - \$1.4M	Maintain pavement and runway/apron markings
2.2	Runway 4R-22L Turf Surface Repair and Maintenance	\$1.1M - \$1.7M	Reconstruct/rehabilitate the turf/gravel surface
2.3	Runway 4R-22L Lighting Rehab	\$80K - \$120K	Remove and replace all runway edge and threshold lighting, associated conduit, and signage
2.4	Runway 4W-22W Dredging/Vegetation Removal	\$1.3M - \$1.9M	Dredge water lane to four- to six-foot depth, remove woody debris and reeds
2.5	Reroute Service Roads From Runway 4L-22R RSA	\$0.3M - \$0.8M	Relocate service roads outside of the RSA
2.6	Segmented Circle and Wind Cone Replacement	\$60K - \$170K	Replace the segmented circle and lighted wind cone; replaced Runway 22R wind cone with a lighted wind cone; clear vegetation at all wind cone sites
2.7	RSA Grading and Shoulder Reinforcement	\$5.3M - \$1.6M	Regrade the Runway 4L-22R RSA and repair damaged areas per FAA AC 150/5300-13B standards
2.8	Tree and Vegetation Removal	\$0.9M - \$2.7M	Remove encroaching trees and vegetation outside of ROFA, RSA, and Part 77 surfaces, temporarily store the debris for future processing



### 4.1.3 Alternative 3: Airport Enhancements

Alternative 3 proposed projects to upgrade existing facilities and to improve and add services and amenities. Proposed projects include a parallel taxiway, a helicopter parking area, lease lot improvements, terminal/building area improvements, SREB expansion, apron improvements, lighting and access improvements, an aviation campground, and various float pond improvements (Figure 4.3). The purpose of Alternative 3 projects is to meet development and improvement goals of the airport. The originally presented Alternative 3 project names, scopes, and costs are presented in this section. Discussion of how the projects were evaluated and modified is found in Section 4.2.3.

#### 4.1.3.1 *Runway 4L-22R Parallel Taxiway Construction*

There is currently no taxiway that provides access from the apron to the approach end of Runway 22R. As per Chapter 4 of the Airport Design AC, a parallel taxiway should be constructed to eliminate use of the runway for taxiing. This project proposes construction of a full-length parallel taxiway to access the approach end of Runway 22R. When the parallel taxiway is constructed, reconfiguration of Taxiways A and B should be conducted to remove direct access to the runway from the apron.

#### 4.1.3.2 *Construct Helicopter Pad/Landing Area*

Firefighting and military helicopters frequently operate out of Nenana Airport. The firefighting sling load equipment needs a substantial laydown area away from fixed wing aircraft. Additionally, ACUASI has expressed the need for a large helicopter operations area to study Electric Vertical Takeoff and Landing (eVTOL) aircraft integration. Figure 3 depicts the first of three different helicopter operating area configurations that were ultimately considered. Stakeholder input provided justification for considering the three different configurations described below and shown in Figure 4.4.

- A. West Small – This project consists of the construction of a helipad south of the current lease lots with a taxiway connecting to the west side of Taxiway A. This helipad would provide separation of helicopter parking from parked fixed wing aircraft.
- B. West Large – This project, similar in location to A. West Small, constructs a larger helicopter parking area which maximizes the space between the lease lots to the north, Taxiway A and the paved apron to the east, and Runway 4L’s RPZ to the south.
- C. East Apron – This project expands the current paved apron to the east to assist in deconflicting helicopter parking from fixed wing operations and to provide a laydown area for firefighting equipment.



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### 4.1.3.3 *Lease Lot Improvements*

Lease lots have been designated in multiple sections of the airport, focusing on two primary areas: the south side for access of float and ski equipped aircraft, and the north side for conventional type landing gear and helicopters. This project involves filling and grading these designated lease lots with a focus and prioritization of developable land. This project recommends that utilities also be installed along the entrance road and arterials in preparation for development.

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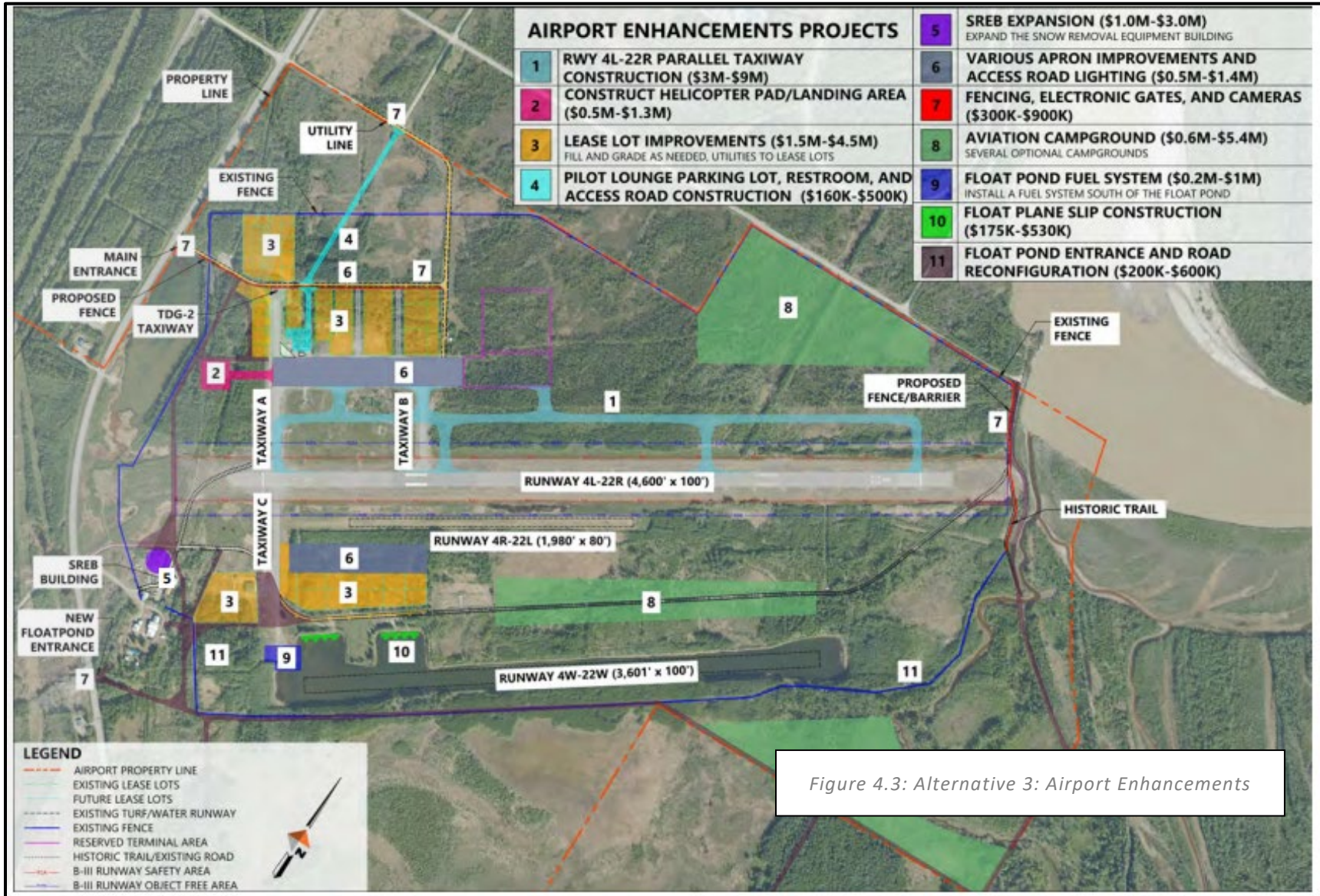


Figure 4.3: Alternative 3: Airport Enhancements

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

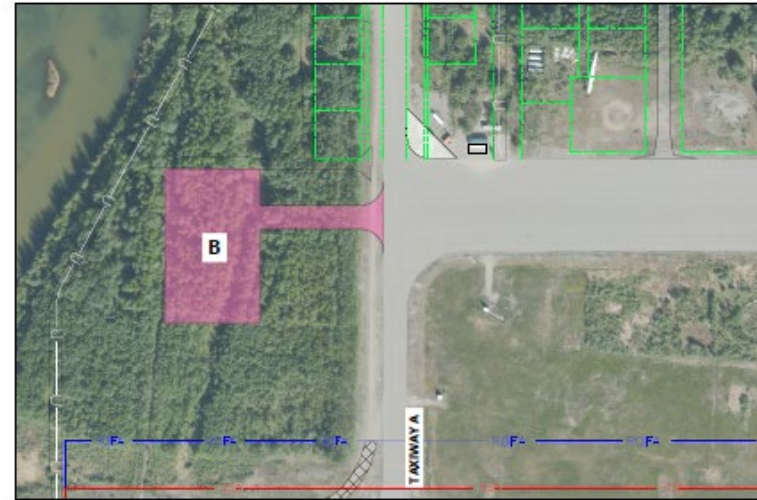


Figure 4.4: Helicopter Parking Pad Alternatives

HELICOPTER PAD ALTERNATIVES	
<b>A</b>	ALTERNATIVE A - WEST SMALL
<b>B</b>	ALTERNATIVE B - WEST LARGE
<b>C</b>	ALTERNATIVE C - EAST APRON

**LEGEND**

- AIRPORT PROPERTY LINE
- EXISTING LEASE LOTS
- FUTURE LEASE LOTS
- EXISTING TURF/WATER RUNWAY
- EXISTING FENCE
- UTILITIES EXTENSION
- HISTORIC TRAIL/EXISTING ROAD
- B-III RUNWAY SAFETY AREA
- B-III RUNWAY OBJECT FREE AREA



## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.1.3.4 *Pilot Lounge Parking Lot, Restroom, and Access Road Construction*

Pilots and transient aircraft have long been without designated amenities at Nenana. The Airport recently repurposed a building to serve as a pilot lounge, however there is no defined access or parking lot for transient parking and the provided pilot van, and the building lacks restroom facilities. This project proposes construction of a parking lot, restroom facilities, and the extension of an access road and water/sewer utilities to support the facility.

### 4.1.3.5 *SREB Expansion*

Per the Advisory Circular 150/5220-20A, Airport Snow and Ice Control Equipment, airports with less than 10,000 operations and over 30 inches of annual snowfall are to provide a minimum of one high-speed rotary plow supported by two snowplows of equal snow removal capacity. This AC goes on to state that other types of supporting equipment such as front wheel loaders or ice-melters may be needed to assist in the removal of snow from areas AC 150/5200-30 classifies as Priority 2 or Priority 3 areas. Nenana does not meet these snow removal equipment requirements, as it currently has only one snow blower truck and one CAT road grader to use for snow removal operations. The airport is anticipating purchase of new equipment (a new CAT 980 Loader) in the near term, and a new Snow Removal Equipment Building (SREB) will be required. Although the current building is in relatively good condition for its age, it does not have the capacity to house the required fleet of snow removal equipment. If any of the airport equipment is stored outdoors, the temperatures and harsh environments would quickly deteriorate that equipment, reducing its useful life and requiring replacement more frequently. This project is to construct a new SREB in a new location, capable of housing the snow equipment fleet outlined in AC 150/5220-20A to the specifications in AC 150/5220-18, Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials. The existing SREB will remain in place.

### 4.1.3.6 *Various Apron Improvements and Access Road Lighting*

This project proposes improvements at two separate apron areas. Operating conditions are cold and dark much of the year. Due to the frigid temperatures, aircraft parked outside need to have engine preheating capabilities and a power source to run the heaters. The limited daylight at Nenana's latitude during most seasons also constitutes the need for improved apron lighting. This project adds electrical outlets for engine block heaters and improved lighting which adheres to FAA standards to the apron area west of Runway 4L-22R. Additionally, the project includes the development of a new gravel parking area for ski planes with the same amenities on the south side of the airport because ski equipped aircraft cannot traverse the paved surfaces to access the existing apron.

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.1.3.7 *Fencing, Electronic Gates, and Cameras*

Most of the airport property is fenced, but the air operations areas are not clearly designated, and this presents conflicts with passengers and other vehicles using airport property. Overall, the airport is not well signed or lit for aircraft, vehicle, or pedestrian use. This project proposes access road lighting, the installation of a camera monitoring system, and automatic electronic gates that allow passage of vehicles but prevent inadvertent access to the air operations area by unauthorized persons and wildlife.

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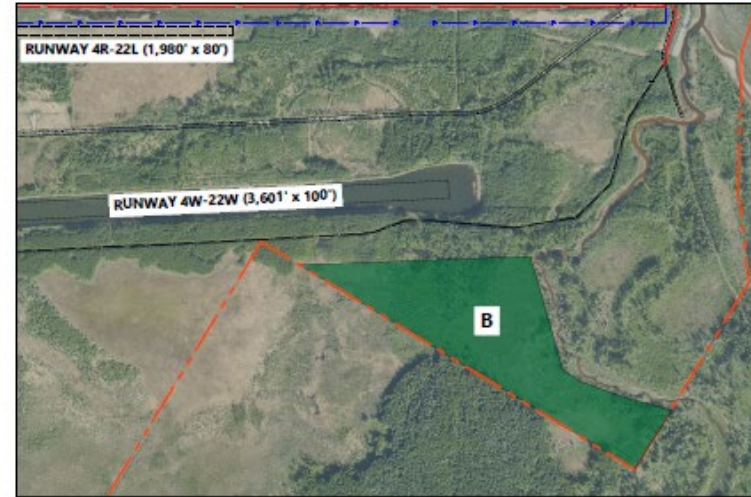
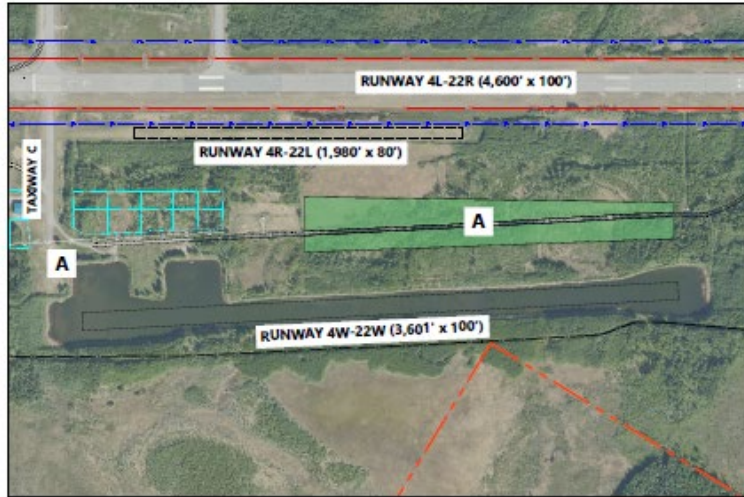
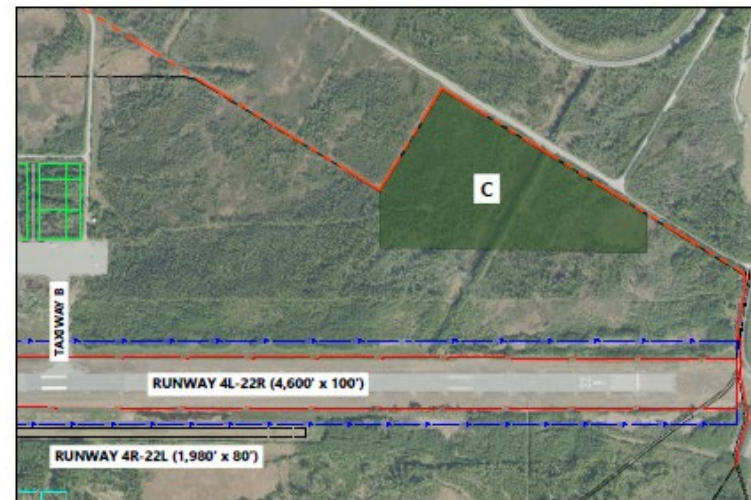


Figure 4.5: Aviation Campground Alternatives

AVIATION CAMPGROUND	
<b>A</b>	ALTERNATIVE A - ALONG AIRPORT SERVICE ROAD
<b>B</b>	ALTERNATIVE B - SOUTH AREA
<b>C</b>	ALTERNATIVE C - NORTH AREA

LEGEND	
	AIRPORT PROPERTY LINE
	EXISTING LEASE LOTS
	FUTURE LEASE LOTS
	EXISTING TURF/WATER RUNWAY
	EXISTING FENCE
	UTILITIES EXTENSION
	HISTORIC TRAIL/EXISTING ROAD
	B-III RUNWAY SAFETY AREA
	B-III RUNWAY OBJECT FREE AREA





### 4.1.3.8 *Aviation Campground*

Many transient pilots, hunters, and outfitters use Nenana as a “stepping off point” to backcountry recreation while staying in or traveling through Fairbanks. An aviation campground would allow for these individuals to travel to and stay at Nenana rather than at Fairbanks’ campground. Three areas were considered for location of the proposed aviation campground (Figure 5):

- A. Along Airport Service Road – This project would construct camping sites and possible primitive style cabins on either side of the Airport Service Road. This would afford the opportunity to serve ski/turf tire equipped aircraft along with float planes directly from the ski/turf runway and water lane (with additional dredging proposed below).
- B. South Area – This project would construct camping sites and possible primitive style cabins south of the approach end of 22W. This area would be accessible by a future service road along the perimeter of the airport property or through the dredging of a float pond parking basin on the south side of the approach end of 22W. No direct access from the ski/turf runway would be available.
- C. North Area – This project would construct camping sites and possible primitive style cabins north of the approach end of 22R. This area would be accessible by a future parallel taxiway. No direct access from the ski/turf runway or float pond would be available.

### 4.1.3.9 *Float Pond Fuel System*

The current fuel system is located on the north side of the paved apron near Taxiway A. Floatplanes cannot traverse land, and aircraft equipped with skis cannot cross paved surfaces; neither have good access to this fuel source. To get fuel, floatplane and ski equipped users must fill five-gallon containers and transport them across the field. This project proposes the installation of an additional fueling system within the gravel apron near water lane end 4W, allowing fueling of floatplanes from the anchorage area, and ski planes with access via Taxiway C (which is gravel but retains a snow covering during winter months).

### 4.1.3.10 *Float Plane Slip Construction*

Increased amounts of floatplane traffic have raised parking and operational concerns at the float pond. The current anchorage areas lack the parking capacity for the number of aircraft, and the location of the anchorage area raises concerns with visibility while entering/exiting the water runway. This project proposes keeping the current anchorage configuration and adding parking docks to accommodate more efficient loading and offloading of aircraft.

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### 4.1.3.11 *Float Pond Entrance and Road Reconfiguration*

The current float pond entrance on the south side of the airport is commonly confused with the main entrance due to its size and approach to the Parks Highway. The float pond entrance is also difficult to navigate because it routes to the maintenance building, the old school building, and travels over Taxiway C. The main entrance at the northern end of the airport is narrow and lacks lighting and signage to indicate that it is the main access point. This project would reconfigure the road system to allow access to the float pond while keeping vehicular traffic off Taxiway C. Additionally, this project proposes to widen and add signage and lighting to the main entrance to encourage more traffic to use this access point rather than enter on the south side and cross the approach end of Runway 4L.

### 4.1.3.12 *Alternative 3 Project Cost Estimates*

Table 4.2 presents the cost estimates for Alternative 3 projects, as originally shared with the public and stakeholders in January 2023.



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Table 4.2: ENN Master Plan Alternative 3 Project Cost Estimates

Project		Cost	Description
3.1	Runway 4L-22R Parallel Taxiway Construction	\$3M - \$9M	Construct a full-length parallel taxiway to access the approach end of 22R
3.2A	Construct Helicopter Pad/Landing Area- West Small	\$0.5M - \$1.3M	Construct a smaller helipad south of the current lease lots with a taxiway connecting to the west side of Taxiway A
3.2B	Construct Helicopter Pad/Landing Area- West Large		Construct a larger helicopter operations area, maximizing the space between the lease lots to the north, Taxiway A and the paved apron to the east, and Runway 4L's RPZ to the south
3.2C	Construct Helicopter Pad/Landing Area- East Apron		Expand the current paved apron to the east to assist in deconflicting helicopter operations from fixed wing and provide a laydown area for firefighting equipment
3.3	Lease Lot Improvements	\$1.5M - \$4.5M	Fill and grade these designated lease lots with a focus and prioritization of developable land
3.4	Pilot Lounge Parking Lot, Restroom, and Access Road Construction	\$160K - \$500K	Construct a parking lot, restrooms, and access road/utilities extension
3.5	SREB Expansion	\$1.0M - \$3.0M	Construct a SREB capable of housing the required snow equipment
3.6	Various Apron Improvements and Access Road Lighting	\$0.5M - \$1.4M	Add electrical outlets and improved lighting to paved apron; construct a new, gravel apron with electrical outlets and lighting to serve users of the ski/turf runway and float pond
3.7	Fencing, Electronic Gates, and Cameras	\$0.3M - \$0.9M	Install signage, a camera monitoring system, and establish landside/airside areas with automatic electronic gates
3.8A	Aviation Campground- Along Airport Service Road	\$0.6M - \$5.4M	Construct camping sites and primitive style cabins on either side of the airport access road
3.8B	Aviation Campground- South Area		Construct camping sites and primitive style cabins south of the approach end of 22W
3.8C	Aviation Campground- North Area		Construct camping sites and primitive style cabins north of the approach end of 22R
3.9	Float Pond Fuel System	\$0.2M - \$1.0M	Install an additional fueling system near ski/turf runway and float pond
3.10	Float Plane Slip Construction	\$175K - \$530K	Construct parking docks in existing anchorage areas
3.11	Float Pond Entrance and Road Reconfiguration	\$0.2M - \$0.6M	Reconfigure entrance/access road system and widen, add signage and lighting to entrance road



### 4.2 ALTERNATIVES EVALUATION

This section includes the discussion of how the original alternatives, as presented in Section 4.1, were evaluated and modified to create the ultimate project recommendations for ENN. The original set of alternatives was developed by evaluating airport needs previously identified, development plans shown on the 2002 ALP, and stakeholder comments provided early in the planning process. After providing opportunity for public and advisory committee review of the original alternatives, projects were modified, refined, and even separated into new projects to incorporate public and stakeholder input, advisory committee assessments, and professional evaluation. Opportunities for the public and stakeholders to comment and provide input on airport development included:

- Public Open House and Airport Advisory Committee Meeting #1 (June 23, 2022) – The ALP update project, process, and schedule were introduced to both the advisory committee and the general public; public involvement and advisory committee roles and duties were shared; and existing conditions, forecast data, and current airport issues were discussed.
- Public Open House #2 (January 25, 2023) – The project team presented project status, forecast results, facility requirements, and airport project alternatives. The alternatives were developed over the June 2022-January 2023 period and incorporated public and advisory committee input from Meeting #1, needs identified through evaluation of existing conditions and issues, aviation forecasts, and facility requirements. 22 people attended this open house and rated the priority of alternatives projects high, medium, or low priority using colored dots (Figures 4.6 and 4.7).
- Airport Advisory Committee Meeting #2 (January 26, 2023) – Alternatives were evaluated based on the airport’s current and future regulatory and economic needs by airport staff, the FAA, and stakeholders on the committee. Committee members discussed public input received then rated projects within each alternative as high, medium, or low priority using colored dots added to the Public Open House ratings (Figures 4.6 and 4.7), indicating any additions or modifications needed for the projects to be most effective. Following the public meeting and input, alternatives and project recommendations were evaluated through the advisory committee, with input from the consultant, the airport, and the FAA. The collective professional judgement and knowledge of the airport and community was applied to each proposed project, resulting in the ultimate project recommendations.
- Website Comments – The public had the opportunity to submit comments through the project website (<https://www.portofnenana.gov/>) Airport Layout Plan Feedback Form. No comments were received through the website feedback form.
- Email Comments – The public was invited to submit comments via email at [Info@portofnenana.gov](mailto:Info@portofnenana.gov). No comments were received at this email.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

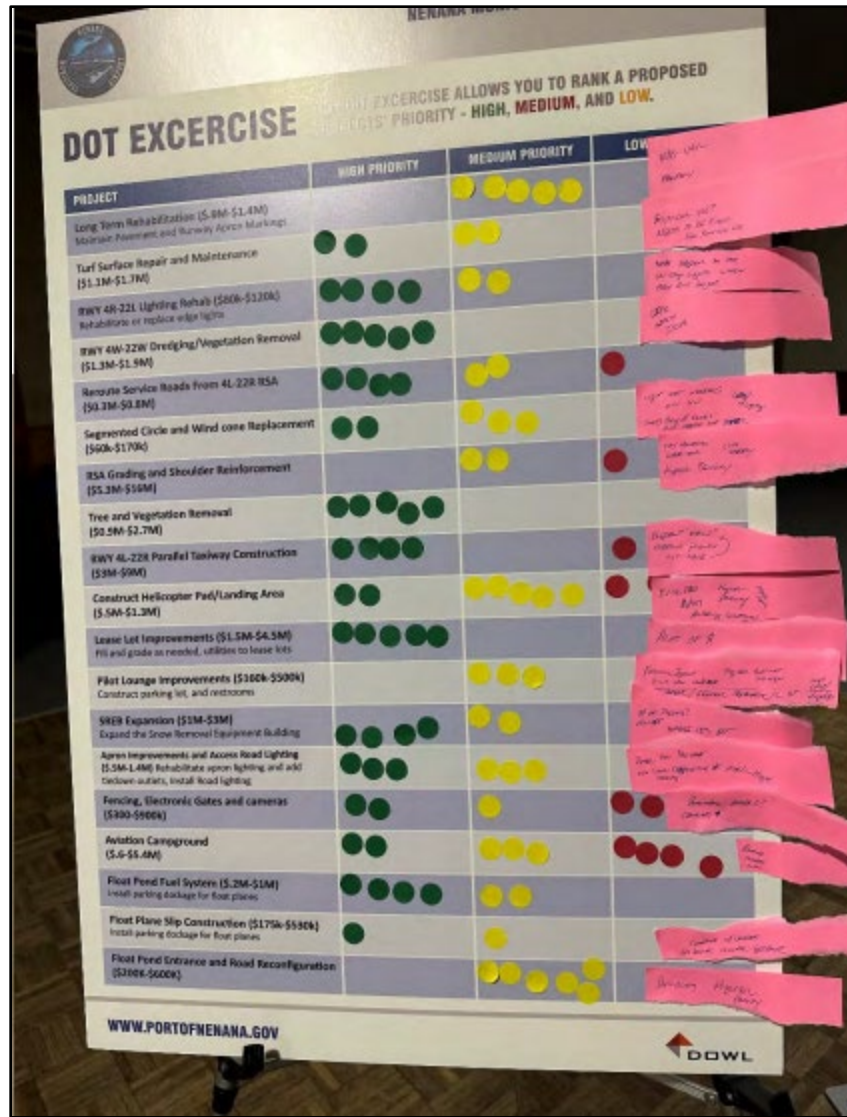


Figure 4.6: Dot Exercise Results from the Second Public Open House and Advisory Committee Meeting

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Project	High Priority	Medium Priority	Low Priority	Notes (AAC)
Long Term Rehabilitation (\$.9M-\$1.4M) Maintain Pavement and Runway Apron Markings	0	5	0	Maintaining the pavement is important for long term care, funds should be reserved to ensure preventative maintenance
Turf Surface Repair and Maintenance (\$1.1M-\$1.7M)	2	2	0	Needs to be fixed for summer use
RWY 4R-22L Lighting Rehab (\$80k-\$120k) Rehabilitate or replace edge lights	4	2	0	What happens to the ski strip lighting when the main runway is worked on/complete? Compatible systems?
RWY 4W-22W Dredging/Vegetation Removal (\$1.3M-\$1.9M)	5	0	0	Life Safety Issue
Reroute Service Roads From 4L-22R RSA (\$0.3M-\$0.8M)	4	2	1	
Segmented Circle and Wind cone Replacement (\$60k-\$170k)	2	3	0	Lighted socks not needed at Waterlane, but a service loop should be put in at the East end Need good bright socks, full rehab not super important, might be able to do mostly in house with maintenance
RSA Grading and Shoulder Reinforcement (\$5.3M-\$16M)	0	2	1	Needs Higher Priority, Life Safety Issue, Manly needs blade work, costs are not a good indicator. Level out and use for hay harvesting
Tree and Vegetation Removal (\$0.9M-\$2.7M)	5	0	0	
RWY 4L-22R Parallel Taxiway Construction (\$3M-\$9M)	4	0	1	Medium Priority, add elephant ears as an interim solution
Construct Helicopter Pad/Landing Area (\$.5M-\$1.3M)	2	5	4	Should be a high/med priority, EVTOL Pad for Advanced Air Mobility, Altering location to either same site but larger, or a different location for more room and better access.
Lease Lot Improvements (\$1.5M-\$4.5M) Fill and grade as needed, utilities to lease lots	5	0	0	High priority, but a lot of money. Prioritize lots
Pilot Lounge Improvements (\$160k-\$500k) Construct parking lot, and restrooms	0	3	0	Higher priority (but not too high) important for Transient Pilots/Female Pilots, Pilot van is used A LOT, Economic impact (Water/Sewer/C St extension should be separate project (See Below)
SREB Expansion (\$1M-\$3M) Expand the Snow Removal Equipment Building	4	2	0	How many pieces are needed? What is eligible? Grader? When new building in constructed move to new location
Apron Improvements and Access Road Lighting (\$.5M-1.4M) Rehabilitate apron lighting and add tie-down outlets, Install Road lighting	3	3	0	Med-High Priority Power for Preheat is important Change the color temperature/intensity to FAA Reg/Shielding its Blinding
Fencing, Electronic Gates and cameras (\$300-\$900k)	2	1	2	Cameras should be priority in this project, followed by Automatic gates that allow passage but closed to wanderers/animals
Aviation Campground (\$.6-\$5.4M)	2	3	4	Remove North Option, double width of Floatpond for access (See Below)
Float Pond Fuel System (\$.2M-\$1M) Install Fuel System near Float Pond	4	2	0	
Float Plane Slip Construction(\$175k-\$530k) Install parking dockage for float planes	1	1	0	Combine w/ Dredge...no docks, just more parking basin/ parallel water taxi lane
Float Pond Entrance and Road Reconfiguration (\$200K-\$600K)	0	6	0	Higher priority, Reuse temporary bridges and put in footers for permanent install
Water/Sewer/C St Extension				high priority, but a lot of money.

Figure 4.7: Tabulated Dot Exercise Results from the Second Public Open House and Advisory Committee Meeting

## 4.2.1 Evaluation of Alternative 1: Current Improvements

### 4.2.1.1 Pros and Cons of Alternative 1 Projects

The following table includes a discussion of the pros and cons of Alternative 1 projects. The table also includes the recommended action for each project in development of the recommended alternative.

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Table 4.3: Evaluation of Alternative 1: Current Improvements

<b>Project: 2022 Pavement Maintenance</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Extends the life of existing pavement</li> <li>• Provides new pavement markings</li> </ul>	<p><b>CONS:</b></p>
<p><b>Recommendation:</b> All work for the project was completed in 2023. Crack sealing and repairs were accomplished, a seal coat application was applied to the paved runway, and new markings were applied to the runway, apron, and taxiways. Originally titled “2022 Pavement Maintenance,” this project should reflect the actual construction year of 2023 and be noted as complete.</p>	
<b>Project: 2023 Airport Lighting and Signage</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Complete, new lighting system and conduit</li> <li>• New runway and taxiway signage, conduit</li> <li>• New Constant Current Regulator, beacon, and EEB</li> <li>• Planned work may present opportunity to add scope elements to efficiently address other needs, including the segmented circle, lighted wind cone, and runway lighting for the turf runway</li> </ul>	<p><b>CONS:</b></p>
<p><b>Recommendation:</b> Add to the scope of work the following: replacement of the segmented circle and lighted wind cone and installation of runway lighting on Runway 4L-22R (the turf runway). AIP grant funding and project efficiencies support the inclusion of these work items, originally considered in the Alternative 2 projects. A determination letter from the FAA Office of Airports Planning and Programming, dated June 8, 2023, confirms the eligibility of Runway 4L-22R to receive AIP grant funding (Appendix 6). Continue work on this project, with the additional scope elements and expected completion in FY2025.</p>	

## 4.2.1.2 Alternative 1 Summary and Recommendations

The two improvement projects are already underway and are part of the recommended alternative. Due to project timeline changes, both projects’ names will be updated to reflect actual project work years (as opposed to when originally anticipated to begin). The scope of the 2024/2025 Airport Lighting and Signage project will include elements that were proposed as separate projects in the earlier stages of alternatives development. The addition of Runway 4L-22R lighting, replacement of the segmented circle, and new lighted wind cone are supported by public and advisory committee input, project efficiencies, and eligibility of the turf runway to receive AIP grant funding.

## 4.2.2 Evaluation of Alternative 2: Maintaining Standards

### 4.2.2.1 Pros and Cons of Alternative 2 Projects

The following table includes a discussion of the pros and cons of Alternative 2 projects. The table also includes the recommended action for each project in development of the recommended alternative.

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Table 4.4: Evaluation of Alternative 2: Maintaining Standards

<b>Project: Long Term Rehabilitation</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Preserves paved surfaces, extends life</li> <li>• Increases time before full resurfacing project is needed</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Low/medium priority to AAC</li> <li>• Cost of minor preservation work would come out of operating budget</li> <li>• Work efforts would be added to existing airport management job duties</li> </ul>
<p><b>Recommendation:</b> Better define the work efforts needed – and when – as part of a long-term pavement rehabilitation plan. Much of the work may be considered AIP eligible and would relieve the local budget and staff of the total cost and responsibility for conducting pavement preservation efforts. Include this work in the recommended alternative in the short- or medium-term period.</p>	
<b>Project: Runway 4R-22L Turf Surface Repair and Maintenance</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Medium/high priority to AAC</li> <li>• Restores full published length (1,980 ft) use of turf runway</li> <li>• Improves safety for turf operations</li> </ul>	<p><b>CONS:</b></p>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the short- or medium-term period.</p>	
<b>Project: Runway 4R-22L Lighting Rehab</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Medium/high priority to AAC</li> <li>• Complete, new lighting system, signage, and conduit</li> <li>• Improves safety for turf and ski operations</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Existing lighting and electrical conduits must be completely replaced</li> </ul>
<p><b>Recommendation:</b> A determination letter from the FAA Office of Airports Planning and Programming, dated June 8, 2023, confirms the eligibility of Runway 4L-22R to receive AIP grant funding. Include this work in the scope of the 2024/2025 Airport Lighting and Signage Project.</p>	
<b>Project: Runway 4W-22W Dredging/Vegetation Removal</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Life/safety issue - Improves safety of water lane operations</li> <li>• High priority to AAC</li> <li>• Creates opportunity to investigate alternative future water lane configurations</li> </ul>	<p><b>CONS:</b></p>
<p><b>Recommendation:</b> This is a life/safety issue and needs to be addressed. Include this work in the recommended alternative in the short- to early medium-term period.</p>	
<b>Project: Reroute Service Roads From Runway 4L-22R RSA</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Medium/high priority to AAC</li> <li>• Improves safety of paved runway operations</li> <li>• Improves safety of vehicle operations at ends of runways</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• River at Runway 22R approach limitations</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the short- or medium-term period.</p>	
<b>Project: Segmented Circle and Wind Cone Replacement</b>	
<p><b>PROS:</b></p>	<p><b>CONS:</b></p>

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<ul style="list-style-type: none"> <li>• Medium/high priority to AAC</li> <li>• Improves safety of all airport operations</li> </ul>	<ul style="list-style-type: none"> <li>• Higher maintenance costs in winter months</li> </ul>
<p><b>Recommendation:</b> Project funding and efficiencies support the inclusion of the new segmented circle and lighted wind cone in the 2024/2025 Airport Lighting and Signage Project work. These elements will become part of that project scope, and the replacement of the other wind cones is recommended to be a smaller standalone project or included in other, future airport work. Include the replacement of the unlighted wind cones in the recommended alternative in the short- to early medium-term period.</p>	
<p><b>Project: RSA Grading and Shoulder Reinforcement</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Life/safety Issue - Improves safety of paved runway operations</li> <li>• Makes RSA easier to maintain</li> <li>• Possibility of some improvements being completed by airport management</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Medium/low priority to AAC</li> <li>• Improper grading may cause drainage and ponding</li> </ul>
<p><b>Recommendation:</b> This is a life/safety issue and needs to be addressed. Include this work in the recommended alternative in the short- to early medium-term period.</p>	
<p><b>Project: Tree and Vegetation Removal</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• High priority to AAC</li> <li>• Improves safety of airspace and operations</li> <li>• Improves visibility on airfield</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Debris from vegetation removal on-site</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the short- or medium-term period. Redesignate as "Tree and Obstruction" removal for purposes of AIP funding consideration.</p>	

## 4.2.2.2 Alternative 2 Summary and Recommendations

The projects presented in Alternative 2 are of high need and value to improving safety and operations at Nenana Airport. All eight projects are proposed to be part of the recommended alternative for programming in the short-term period (1-5 years) or medium-term period (6-10 years), depending on funding and reasonable project programming expectations. Elements of some of the Alternative 2 projects (specifically, Runway 4R-22L lighting, a new segmented circle, and a new lighted wind cone) are recommended to be included in the scope of work of projects underway.

## 4.2.3 Evaluation of Alternative 3: Airport Enhancements

### 4.2.3.1 Pros and Cons of Alternative 3 Projects

The following table includes a discussion of the pros and cons of Alternative 3 projects. The table also includes the recommended action for each project in development of the recommended alternative.

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Table 4.5: Evaluation of Alternative 3: Airport Enhancements

<b>Project: Runway 4L-22R Parallel Taxiway Construction</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• High priority to AAC</li> <li>• Prescribed by FAA guidance</li> <li>• Improves safety of runway operations</li> <li>• Improves turnaround operations, especially for larger aircraft</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Cost to develop full-length parallel taxiway</li> <li>• Project is not a near-term solution</li> </ul>
<p><b>Recommendation:</b> Retain the full-length parallel taxiway as a project in the ultimate design of the airport (long-term period). Recommend a short- to medium-term project to develop a partial parallel taxiway to allow turnaround at the Runway 22R end.</p>	
<b>Project: Construct Helicopter Pad/Landing Area</b>	
<p><b>A – WEST SMALL PROS:</b></p> <ul style="list-style-type: none"> <li>• Lowest cost of 3 options</li> <li>• Near amenities/services on west side of airport</li> <li>• Easily identifiable as helicopter operating area</li> </ul>	<p><b>A – WEST SMALL CONS:</b></p> <ul style="list-style-type: none"> <li>• Insufficient space for firefighting helicopter operations (too small for laydown)</li> <li>• Insufficient space for eVTOL operations</li> </ul>
<p><b>B – WEST LARGE PROS:</b></p> <ul style="list-style-type: none"> <li>• Adequate space for firefighting and eVTOL operations</li> <li>• Space for multiple pads</li> <li>• Near amenities/services on west side of airport</li> </ul>	<p><b>B – WEST LARGE CONS:</b></p> <ul style="list-style-type: none"> <li>• Potential for conflicts with helicopter/eVTOL operations and fixed-wing operations</li> </ul>
<p><b>C – EAST APRON PROS:</b></p> <ul style="list-style-type: none"> <li>• Adequate space for firefighting and eVTOL operations</li> <li>• Space for multiple pads</li> <li>• Minimizes potential for conflicts with fixed-wing operations</li> </ul>	<p><b>C – EAST APRON CONS:</b></p> <ul style="list-style-type: none"> <li>• Separated from amenities/services on west side of airport</li> <li>• Area intended to be a reserve for future terminal ramp</li> </ul>
<p><b>Recommendation:</b> Option B – West Large is recommended for development in the medium-term period. This project received mixed priority ratings by the AAC, but this study recommends it as a high priority due to the types of operations the airport currently supports and expectations of future helicopter and eVTOL operations. Redesignate project as “Construct Helicopter Parking Area” to avoid confusion over how space is intended to be used and accessed.</p>	
<b>Project: Lease Lot Improvements</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• High priority to AAC</li> <li>• Airport development opportunities for future tenants</li> <li>• More sources of income for the airport to fund maintenance and future projects</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• High cost of development</li> <li>• Utilities extensions needed</li> <li>• Some proposed lots fall within BRLs and will require height restrictions</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the medium-term period. Develop phasing plans for development and utilities extensions.</p>	
<b>Project: Pilot Lounge Parking Lot, Restroom, and Access Road Construction</b>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>• Medium priority to AAC</li> <li>• Provides parking near pilot lounge</li> <li>• Parking for pilot van, which is used frequently</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>• Pilot lounge seldom used by based pilots</li> <li>• Access road/utilities extensions need to be considered separately</li> </ul>



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<ul style="list-style-type: none"> <li>Restrooms important for transient and female pilots</li> </ul>	
<p><b>Recommendation:</b> Include this project, modified to separate the access road and utilities extensions into a distinct project, in the recommended alternative in the medium-term period. Consider inclusion of a car port for the courtesy van, handicap access, and lighting in the ultimate design.</p>	
<p><b>Project: SREB Expansion</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>Accommodates the FAA-recommended fleet of snow removal equipment</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Space for equipment not purchased with AIP funding is not considered/not eligible</li> <li>Existing non-AIP equipment would not have an indoor parking space</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the short-term period, possibly designated as new construction rather than expansion. Determine whether the existing building can be deemed at end of design life but retained for non-AIP use.</p>	
<p><b>Project: Various Apron Improvements and Access Road Lighting</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>Lighting improvements increase safety on apron areas and Airport Road</li> <li>Provides outlets for aircraft requiring engine heating</li> <li>Provides a new parking area with electricity and lighting for aircraft using the ski/turf runway and float pond</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Planes still need to taxi across runway for fuel until a new fuel system is installed south of Runway 4L-22R</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the medium-term period. Add construction of a new, gravel apron near the ski/turf runway and float pond to include the same lighting and electrical outlet amenities. Move access road improvement elements from the scope and include instead in the short-term airport entrance and road configuration project.</p>	
<p><b>Project: Fencing, Electronic Gates, and Cameras</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>Medium/high priority to AAC</li> <li>Signage is inexpensive</li> <li>Cameras allow remote monitoring of airport</li> <li>Mitigates unauthorized airside operations area access</li> <li>Combats vandalism</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Maintenance of new electronic systems</li> <li>Requires installation of power and communications utilities to undeveloped parts of the airport</li> </ul>
<p><b>Recommendation:</b> Include this work in the recommended alternative in the medium-term period. Electric utility extension would be needed to support other proposed projects, so the effort and expense would benefit multiple airport goals and needs. Develop utilities extension plans as a separate project, or phase appropriately with other projects. Consider runway end 22R separately and in the short-term – the airport would prefer this end have a barrier such as a ditch rather than a fence, to facilitate access to existing trails but hinder access to the runway. Recommend improved signage in the short-term.</p>	
<p><b>Project: Aviation Campground</b></p>	
<p><b>A – Along Airport Service Road PROS:</b></p> <ul style="list-style-type: none"> <li>Direct access from ski/turf runway and water lane</li> <li>Aircraft parking adjacent to campgrounds</li> </ul>	<p><b>A – Along Airport Service Road CONS:</b></p> <ul style="list-style-type: none"> <li>Limited area for development due to proximity to BRLs</li> <li>Limited ground transportation for transient pilots</li> </ul>
<p><b>B – South Area PROS:</b></p> <ul style="list-style-type: none"> <li>Large campground area</li> </ul>	<p><b>B – South Area CONS:</b></p> <ul style="list-style-type: none"> <li>No direct access from ski/turf runway</li> <li>Requires access road development</li> </ul>

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<ul style="list-style-type: none"> <li>Potential use as a public campground for both transient pilots and general public (revenue generator)</li> </ul>	<ul style="list-style-type: none"> <li>Direct access from water lane assumes dredging channel</li> </ul>
<p><b>C – North Area PROS:</b></p> <ul style="list-style-type: none"> <li>Can be accessed by ground transportation on 9<sup>th</sup> street</li> <li>Less development cost than the South Area campground</li> </ul>	<p><b>C – North Area CONS:</b></p> <ul style="list-style-type: none"> <li>Land may be needed as part of lease lot development</li> <li>Requires construction of parallel taxiway for direct access</li> <li>No direct access from ski/turf runway or water lane</li> </ul>
<p><b>Recommendation:</b> Option A – Develop aviation campground space along the Airport Service Road as part of the recommended alternative in the long-term period.</p>	
<p><b>Project: Float Pond Fuel System</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>Provides fuel service to ski/turf runway and water lane users</li> <li>Decreases traffic taxiing across Runway 4L-22R</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Original proposed location lies within the BRL</li> <li>Float planes will still need to taxi out of the water to access the fuel system</li> </ul>
<p><b>Recommendation:</b> Include this project in the recommended alternative in the medium-term period. Identify a more suitable location for a fuel system that accounts for protected surfaces and still provides adequate convenience for ski/turf runway and float pond users.</p>	
<p><b>Project: Float Plane Slip Construction</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>No changes to configuration</li> <li>Low cost and effort to implement</li> <li>More efficient loading and offloading</li> <li>Is of high value to the airport</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Seasonal traffic is higher than existing capacity</li> <li>Does not create additional capacity</li> <li>Does not correct line of sight/visibility issues</li> </ul>
<p><b>Recommendation:</b> Constructing docks at the existing anchorage areas does not solve the capacity or line of sight issues. Other possible solutions, suggested during stakeholder involvement, should be considered. Once a satisfactory solution is identified, include this project in the recommended alternative in the medium-term period. See Table 4.6 for further discussion of the Float Pond Parking.</p>	
<p><b>Project: Float Pond Entrance and Road Reconfiguration</b></p>	
<p><b>PROS:</b></p> <ul style="list-style-type: none"> <li>Reduces confusion for vehicular traffic accessing airport</li> <li>Eases vehicular navigation on airport property</li> <li>Improves safety of operations for vehicles and aircraft</li> </ul>	<p><b>CONS:</b></p> <ul style="list-style-type: none"> <li>Does not prevent unauthorized landside traffic from accessing Taxiway C</li> </ul>
<p><b>Recommendation:</b> Include this project in the recommended alternative in the medium-term. Consider ways to sign and designate air operations areas (such as Taxiway C) appropriately to allow unrestricted access for aircraft moving between operating areas but deter vehicular traffic from using surfaces intended for aircraft. Redesignate as “Airport Entrance and Road Reconfiguration” and include improvements to lighting and signage at both entrances.</p>	

### 4.2.3.2 Float Pond Parking Alternatives

The float pond project presented during stakeholder involvement does not solve the issues of capacity or visibility/line of sight. Following the January public meeting and AAC meeting, the project team developed and considered three Float Pond Parking Alternatives (Figure 4.8) and selected one for inclusion in the recommended alternative.

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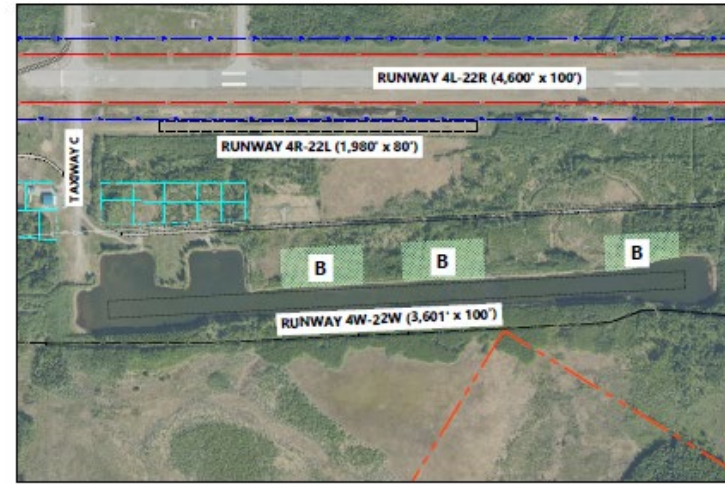
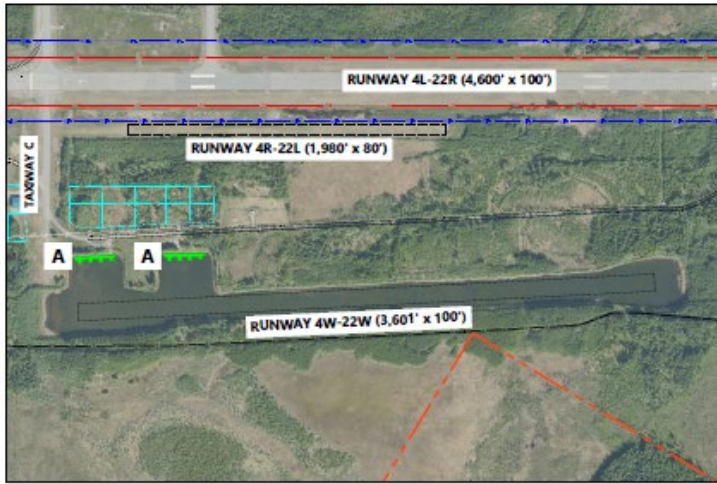
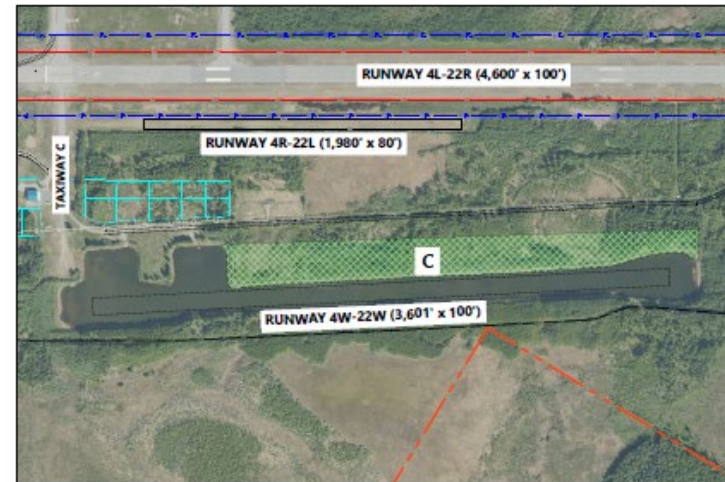


Figure 4.8: Float Pond Parking Alternatives

FLOAT POND PARKING	
<b>A</b>	ALTERNATIVE A - FLOAT POND DOCKS
<b>B</b>	ALTERNATIVE B - ADDITIONAL ANCHORAGE AREAS
<b>C</b>	ALTERNATIVE C - FULL LENGTH CHANNEL

LEGEND	
	AIRPORT PROPERTY LINE
	EXISTING LEASE LOTS
	FUTURE LEASE LOTS
	EXISTING TURF/WATER RUNWAY
	EXISTING FENCE
	UTILITIES EXTENSION
	HISTORIC TRAIL/EXISTING ROAD
	B-III RUNWAY SAFETY AREA
	B-III RUNWAY OBJECT FREE AREA



# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



Table 4.6: Float Pond Parking Alternatives

<b>Project: Float Pond Parking</b>	
<p><b><u>A – Float Plane Docks PROS:</u></b></p> <ul style="list-style-type: none"> <li>• No changes to configuration</li> <li>• Lowest cost and effort to implement</li> <li>• More efficient loading and offloading</li> </ul>	<p><b><u>A – Float Plane Docks CONS:</u></b></p> <ul style="list-style-type: none"> <li>• Seasonal traffic is higher than existing capacity</li> <li>• Does not create additional capacity</li> <li>• Does not correct line of sight/visibility issues</li> </ul>
<p><b><u>B – Adding Anchorage Areas PROS:</u></b></p> <ul style="list-style-type: none"> <li>• Adds capacity to float pond parking</li> </ul>	<p><b><u>B – Adding Anchorage Area CONS:</u></b></p> <ul style="list-style-type: none"> <li>• Does not correct line of sight/visibility issues</li> <li>• Potential for confusion of aircraft transiting from area to area</li> <li>• Multiple entrances to water lane</li> </ul>
<p><b><u>C – Full Length Channel PROS:</u></b></p> <ul style="list-style-type: none"> <li>• Adds capacity to float pond parking</li> <li>• Addresses visibility and line of sight issues</li> <li>• Would provide direct access to proposed campground</li> <li>• Provides a water taxiway</li> <li>• Could create enough space to construct a berm/barrier separating the water runway from a water taxiway, further improving operational safety</li> </ul>	<p><b><u>C – Full Length Channel CONS:</u></b></p> <ul style="list-style-type: none"> <li>• Highest cost and largest effort to develop</li> </ul>
<p><b><u>Recommendation:</u></b> Include Option C as a project in the recommended alternative in the medium-term. Option C – Dredging a full-length anchorage area is recommended to address the capacity needs and the visibility issues. This option also supports the recommended aviation campground development option.</p>	

### 4.2.3.3 Alternative 3 Summary and Recommendations

The projects presented in Alternative 3 are all desirable to be included in the ultimate development plans for Nenana Airport. Because many projects are dependent on other improvements, and because some desired improvements are more critical than others to improving operations and services at the airport, Alternative 3 projects will be appropriately identified for phased development in the recommended alternative.

## 4.3 RECOMMENDED ALTERNATIVE

The recommended alternative for Nenana Airport is not the selection of a single alternative – it is a refinement, blend, and merger of all three alternatives considered, with individual projects appropriately identified for phasing and funding options. Each of the alternatives considered includes a collection of individual projects and recommendations of similar purpose or category to meet the various airport needs and goals. The recommended alternative includes projects from all three of the alternatives, shown graphically by category in Figures 4.9-4.11 and described below. The complete collection of recommended projects, sorted by short (1-5 years), medium (5-10 years), and long (10-20 years) term development periods, is presented at the end of this chapter.



### 4.3.1 Recommended Current Improvement Projects

Current Improvement projects are shown in Figure 4.9. Figure 4.9 reflects the ultimate recommended scope of each current improvement project and updated cost estimates. These projects are included in the recommended alternative, as they are already underway and are expected to be completed by FY2025. The current improvement projects are described again below, with project names updated to reflect current project timing and with descriptions of any additional scope elements ultimately included.

#### 4.3.1.1 2023 Pavement Maintenance Project

All work for the project was completed in 2023. This project consisted of sealing or repair of pavement cracks and joints on Runway 4L-22R in accordance with FAA specifications. Additionally, this project included application of sealcoat to Runway 4L-22R and the connector taxiways, up to the existing hold markings. After repair and sealcoat, new pavement markings were applied to Runway 4L-22R, the taxiways, and apron in accordance with current FAA standards and specifications.

#### 4.3.1.2 2024/2025 Airport Lighting and Signage Project

This project includes removal and replacement of all runway edge and threshold lighting on Runway 4L-22R and 4R-22L, all existing runway and taxiway signage, and associated conduit for each system. The new lighting systems will be Medium Intensity Runway Edge Lighting (MIRL) along with new signage. Additionally, a new segmented circle, lighted wind cone, and a Constant Current Regulator (CCR) for the new runway lighting and signing system will be installed along with a replacement beacon and electrical equipment building (EEB). The name of this project has been updated to reflect currently anticipated years of grant funding and construction. The new lighting system for Runway 4R-22L, the new segmented circle, and the new lighted wind cone are work elements added to the original project due to stakeholder input, funding opportunities, and the eligibility determination for the turf runway to receive AIP funding.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

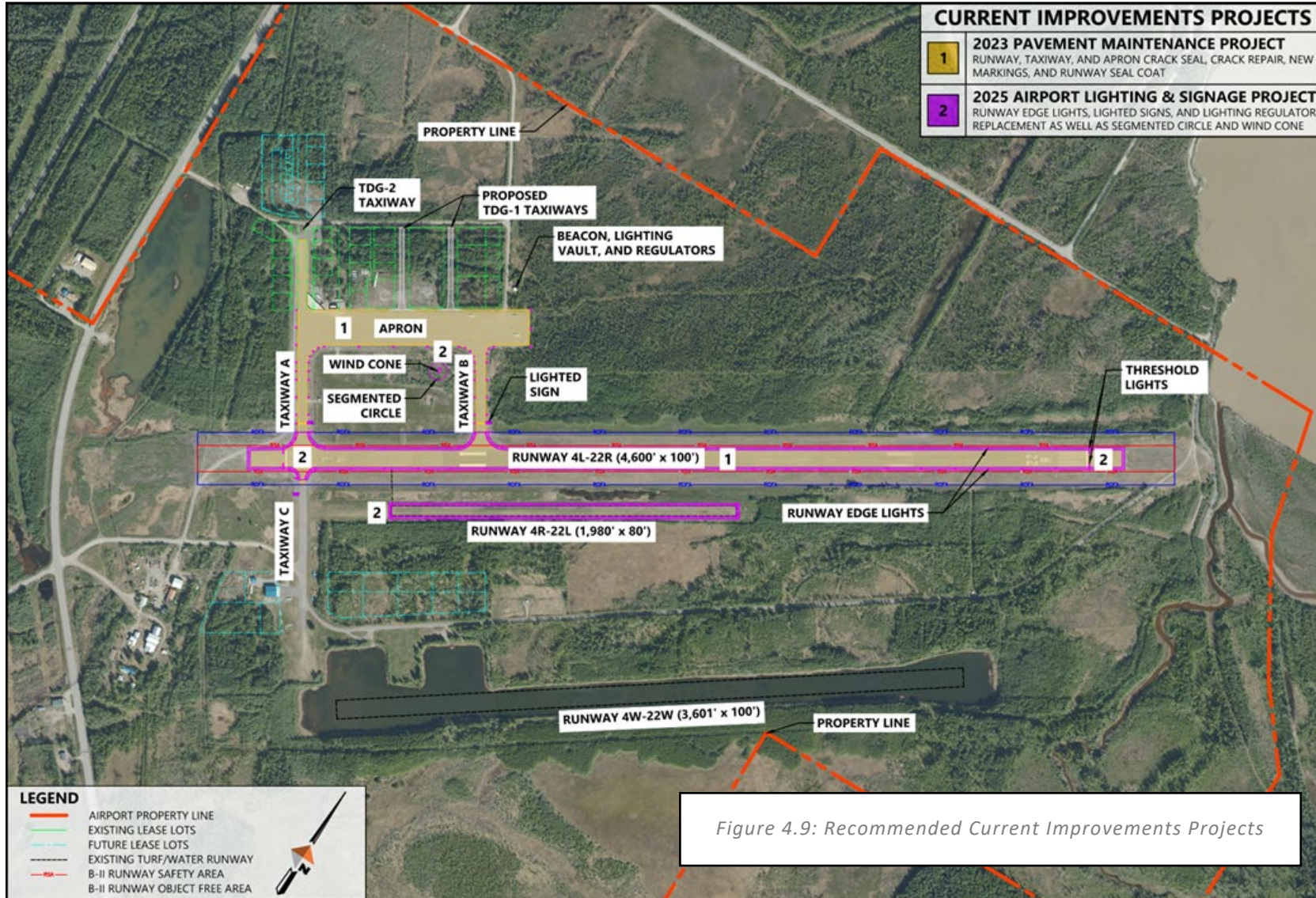


Figure 4.9: Recommended Current Improvements Projects



### 4.3.2 Recommended Projects to Maintain Standards

The recommended projects intended to maintain airport standards and bring airport features into compliance with FAA standards are from Alternative 2, with modifications based on the evaluation of each project (Section 4.2.2). These projects address maintenance needs that cannot be accomplished within airport staff or operating budget limits and propose projects to address FAA standards deficiencies. Recommended project to maintain standards are displayed in Figure 4.10, which reflects the ultimate recommended scope of each “Maintain Standards” project and updated cost estimates. The projects to maintain standards included in the Recommended Alternative are described below.

#### 4.3.2.1 *Runway 4L-22R Mill and Overlay and Pavement Maintenance on Taxiways and Apron*

Originally considered as a generic “Long Term Rehabilitation” project, the recommended project includes more specificity about what work will be needed to rehabilitate or preserve paved surfaces. Three to five years after completion of the seal coat project, the airport will undertake another pavement preservation project to extend the life of paved surfaces. This will include a 2.5-inch mill and overlay on Runway 4L-22R and the approaches to Taxiways A-C. The preservation work will include seal coat, crack sealing, and reapplication of painted markings on the apron and taxiways. Runway numbering is anticipated to change sometime between 2026 and 2028, due to magnetic declination change. Timing of this pavement preservation work would be well-timed to coincide with runway re-numbering.

#### 4.3.2.2 *Runway 4R-22L Turf Surface Repair and Maintenance*

The reconstruction/rehabilitation of the turf/gravel surface will correct the soft conditions currently limiting full-time use of the runway during summertime operations. The full length and width of the runway plus shoulders will be reconstructed, with vegetation clearing, to restore use of the published 1,980 ft length of Runway 4R-22L. This work is recommended for the near medium-term period.

#### 4.3.2.3 *Runway 4W-22W Dredging/Vegetation Removal*

This project will dredge the water lane to a four- to six-foot depth and remove woody debris and reeds. This is a life/safety issue that needs to be completed in the short-term or early medium-term period. Taking advantage of the geotechnical studies needed for the design of this project, investigation of alternative water lane configurations should be conducted at the same time in support of the float pond parking project (an Airport Enhancements recommended project, also recommended for the medium-term period).

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### 4.3.2.4 *Reroute Service Roads From Runway 4L-22R RSA*

It is a high priority of the airport to keep vehicle traffic off the aircraft operating areas, and this project is recommended for the early medium-term period. This project will relocate the service roads that traverse Runway 4L-22R RSAs to fall outside of the RSA at either runway end. It is recommended that design of the roads assume B-III RSA standards (600 ft separation from runway threshold) to the extent that the airport configuration allows to prevent possible conflicts in the future between roadway infrastructure and larger aircraft that may use the runway.



# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION

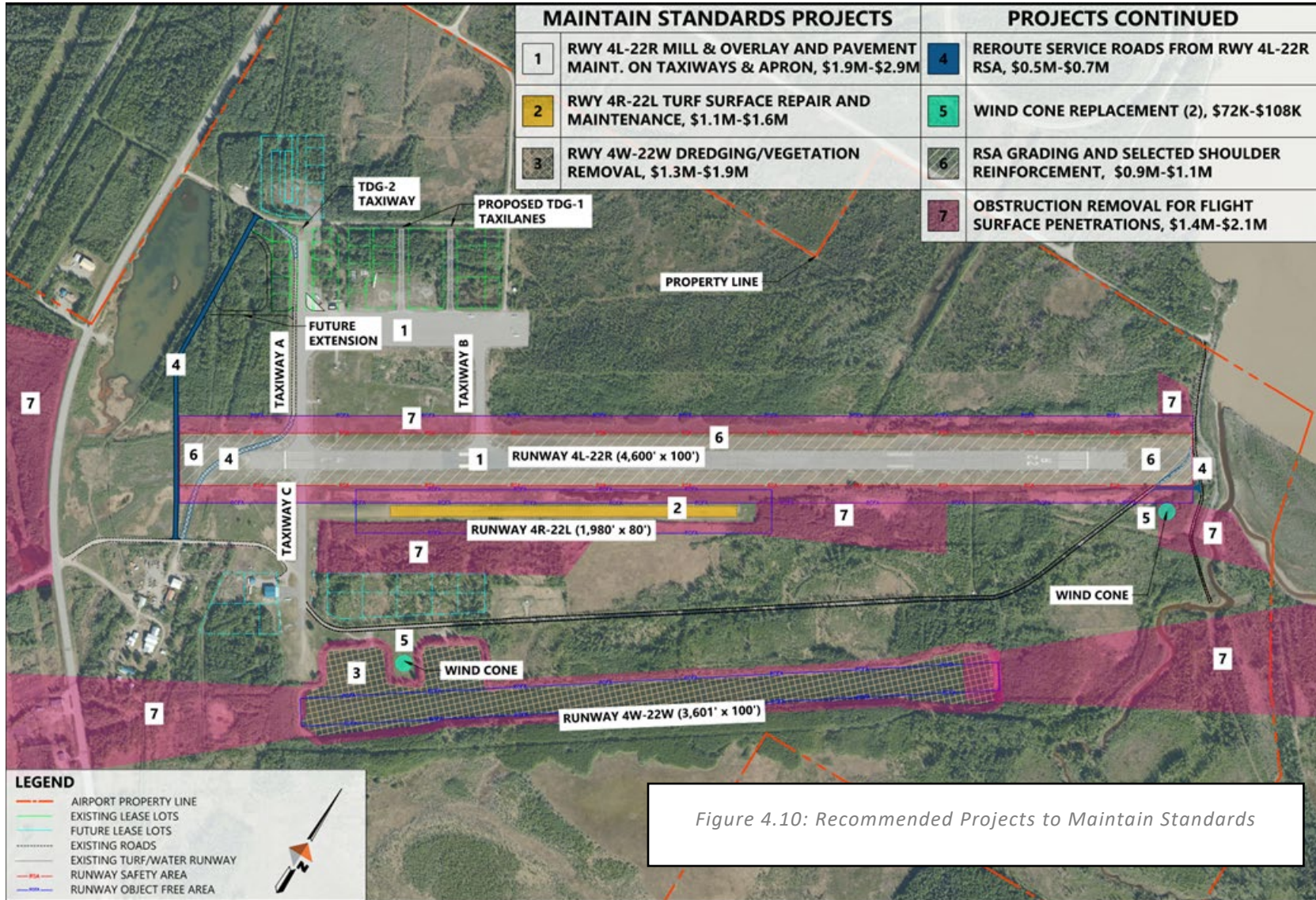


Figure 4.10: Recommended Projects to Maintain Standards

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.3.2.5 *Wind Cone Replacement*

This project will replace the Runway 22R wind cone with a lighted wind cone and clear vegetation at all three wind cone sites at the airport. The work will improve the operability and visibility of wind cones and improve navigational safety for all runways. This project is recommended for the early medium-term period.

### 4.3.2.6 *RSA Grading and Shoulder Reinforcement*

This project will regrade the RSA per FAA AC 150/5300-13B standards and correct drainage issues. Some mowing, disking/leveling of the RSA, and brush removal could be done in-house depending on the severity of conditions of the distressed section(s), but it is anticipated that a rebuild of the shoulders is necessary for safety and structural soundness. This is a life/safety issue that should be corrected in the early medium-term period. Additionally, it is recommended that this work also include the construction of a ditch-type barrier at Runway 22 approach to deter vehicle traffic from using the runway to access trails near the river.

### 4.3.2.7 *Obstruction Removal*

This is a short- to medium-term project which will remove trees and vegetation that create obstructions, encroaching and penetrating the protected surfaces of all three runways at the airport. Trees/vegetation will be cleared from the transitional surfaces, approach slopes, Runway Objects Free Areas, Runway Protection Zones, Runway Safety Areas, and clear areas around wind cones. The debris will be temporarily stored on airport property for future chipping and processing.

### **4.3.3 Recommended Airport Enhancements Projects**

The recommended projects intended to enhance the airport with new/improved infrastructure and services are from Alternative 3. These projects include major new infrastructure to improve safety and efficiency of airport operations, development of lease lots and other areas to provide revenue generation opportunities, and the provision of services or amenities to improve the airport user experience. Recommended airport enhancement projects are displayed in Figure 4.11, which reflects the ultimate recommended scope of each enhancement project and updated cost estimates. The airport enhancement projects included in the Recommended Alternative are described below.

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### 4.3.3.1 *Runway 4L-22R Parallel Taxiway Construction*

This project entails the ultimate (long-term) construction of a full-length parallel taxiway to access the approach end of Runway 22R. When the parallel taxiway is constructed, reconfiguration of Taxiways A and B should be conducted to remove direct access from the apron. With the understanding that the full-length parallel taxiway is a major undertaking, a temporary solution proposed for the nearer term is the construction of a partial parallel taxiway to provide a turnaround area at the approach end of Runway 22R. This would facilitate easier turning for larger aircraft and improve runway operations. The phased development plan at the end of this chapter presents these two developments as separate projects – the partial parallel taxiway in the short-term period and the full-length parallel taxiway in the long-term period.

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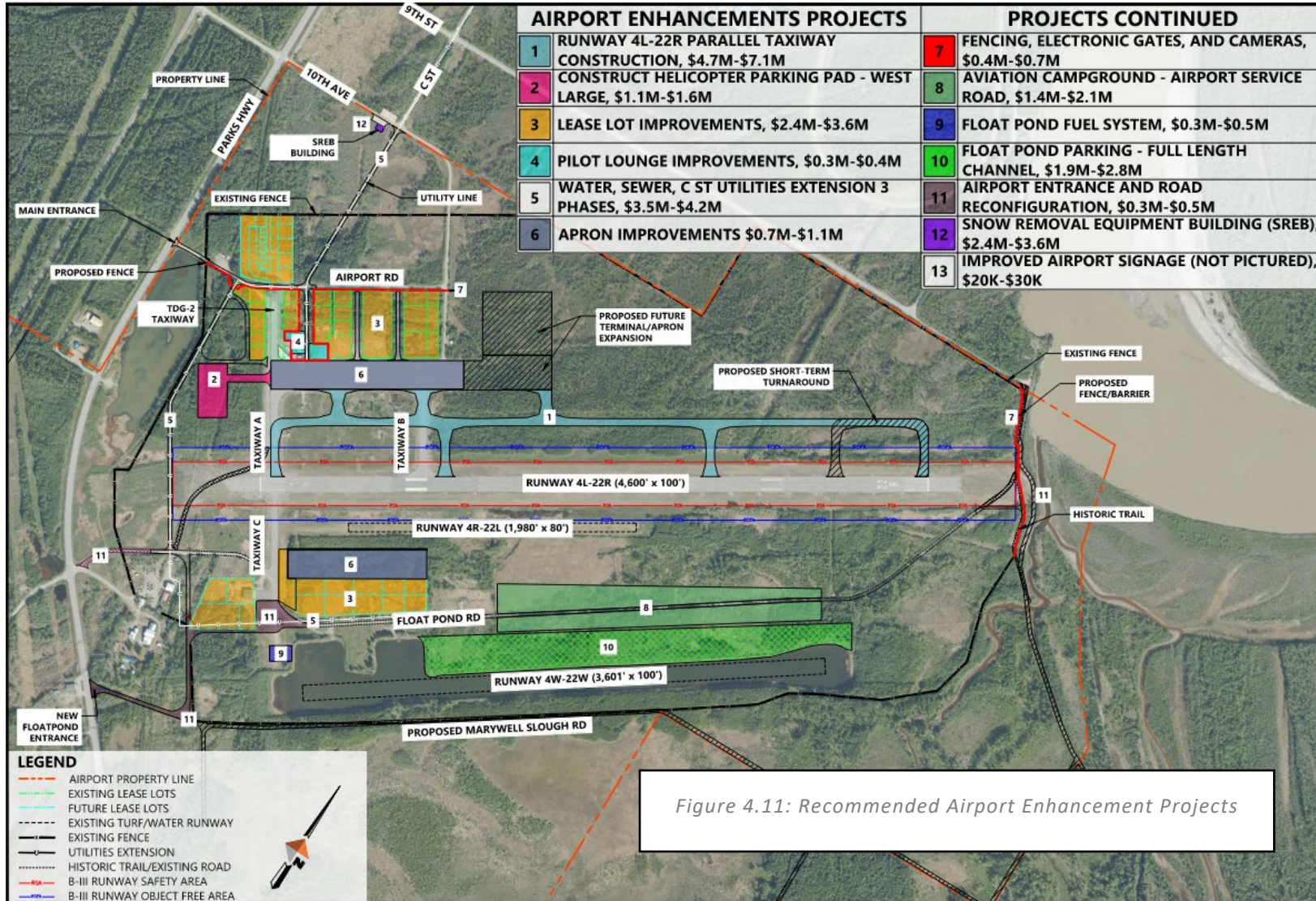


Figure 4.11: Recommended Airport Enhancement Projects

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.3.3.2 *Construct Helicopter Parking Pad – West Large*

This medium-term project will construct a helicopter parking area south of the current lease lots with a taxiway connecting to the west side of Taxiway A. This configuration is the option B. West Large, presented in the originally considered alternatives (Section 4.1.3). This configuration will provide separation of helicopter operations from parked fixed wing aircraft and adequate room for helicopter and eVTOL operations. If the area to the east of the existing paved apron is determined not to be needed for a future terminal build, it may be worth reconsidering use of this area for helicopter operations and parking, provided the use by firefighting and eVTOL aircraft warrants it.

### 4.3.3.3 *Lease Lot Improvements*

This project involves filling and grading the designated lease lots on the south side of the airport for access of float and ski equipped aircraft and the north side for conventional type landing gear aircraft and helicopters. Access to the north side lots will be addressed with the construction of Taxiway Design Group 1 (TDG-1) taxiways in a north-south configuration between the lease lots. This project recommends that utilities also be installed along the entrance road and arterials in preparation for development. The work is recommended in the medium-term period.

### 4.3.3.4 *Pilot Lounge Improvements*

This medium-term project involves construction of a parking lot adjacent to the pilot lounge, construction of a carport for the courtesy van, construction of restroom facilities, handicap access, lighting, and construction of a road from Airport Road terminating at the new parking lot to provide access to the building.

### 4.3.3.5 *Water/Sewer/C St Utilities Extension – Three Phases*

The closest water and sewer system is located at the intersection of 8<sup>th</sup> Street and C Street. This project brings water and sewer services to the airport in three phases. The first phase would extend utilities from the intersection of 8<sup>th</sup> Street and C Street to the pilot lounge, supporting that improvement project. The second phase would extend utilities from Airport Road to the existing SREB. The third phase would extend utilities from the SREB to the lease lots near the float pond anchorage areas. The work is recommended to occur over the medium-term period.

### 4.3.3.6 *Apron Improvements*

This medium-term project will make improvements at two separate apron areas – the existing paved apron west of Runway 4L-22R and the proposed new gravel apron between the ski/turf runway and the float pond. Electrical outlets for engine block heaters and improved lighting which adheres to FAA standards will be added to the apron area west of Runway 4L-22R. A new gravel parking area for ski planes will be constructed in between the ski/turf runway and the float pond, with electrical outlets and lighting for ski equipped aircraft, which cannot traverse the runway or

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



apron pavement to access amenities in other areas of the airport.

### 4.3.3.7 *Fencing, Electronic Gates, and Cameras*

This medium-term project will mark and secure air operations areas to distinguish them from landside operational areas with the installation of signage, a camera monitoring system, and automatic electronic gates that allow passage of vehicles but prevent inadvertent access to the air operations area by unauthorized persons, vehicles, and wildlife. It is recommended that some signage be installed in the short-term period to better direct vehicle and pedestrian traffic to use appropriate areas. The fencing section proposed near Runway 22 approach is recommended to be a barrier such as a ditch rather than a fence.

### 4.3.3.8 *Aviation Campground – Airport Service Road*

This project would construct camping sites and possible primitive style cabins on either side of Float Pond Road, the airport service road (option A presented in Section 4.1.3). This will provide the opportunity to serve both ski/turf tire equipped aircraft and float planes directly from the ski/turf runway and water lane (in consideration of the float pond parking improvements described in section 4.3.3.10). This work is recommended for the long-term period.

### 4.3.3.9 *Float Pond Fuel System*

This medium-term project will install an additional fueling system in the vicinity of the existing float pond anchorage areas and ski/turf runway, allowing efficient and convenient fueling of floatplanes and ski planes. The new fueling location will be accessible from Taxiway C.

### 4.3.3.10 *Float Pond Parking – Full Length Channel*

This medium-term project (option C of the Float Pond Parking Alternatives) will dredge a full-length anchorage area/turning basin to allow additional float plane maneuvering and parking. This project will also add a full-length taxi channel to accommodate aircraft landing and transiting to the ramp and the future proposed fueling area. Design of the facility should consider the inclusion of a berm or barrier to separate water lane landing/takeoff operations from taxiing aircraft. Visibility line of sight concerns between aircraft transitioning from parking and aircraft landing/departing are anticipated to be mitigated by this development.

### 4.3.3.11 *Airport Entrance and Road Reconfiguration*

This medium-term project will reconfigure the road system at the float pond entrance to allow access to the float pond while keeping vehicular traffic off Taxiway C. Additionally, this project will widen and add signage and lighting to the main entrance to encourage more traffic to use this access point rather than enter at the float pond side and cross the approach end of Runway 4L to access the main operational area of the airport.

## CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



### 4.3.3.12 *Snow Removal Equipment Building (SREB)*

This short-term project will construct a new SREB capable of housing the snow equipment fleet outlined in AC 150/5220-20A to the specification in AC 150/5220-18, Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials. The new SREB is proposed to be located near the intersection of 10<sup>th</sup> Avenue and C Street.

## 4.4 RECOMMENDED ALTERNATIVE DEVELOPMENT PLAN

Table 4.7 presents the complete collection of projects in the recommended alternative for Nenana Airport. They are presented by phases of development:

- Imminent – Projects already underway with expected completion by FY2025
- Short-term – Projects to be completed within the next 1-5 years
- Medium-term – Projects to be completed within the next 5-10 years
- Long-term – Projects to be completed within the next 10-20 years

A more detailed description of each project, with cost estimates for the short-term projects, and drawings that show proposed phases of development can be found within the Airport Capital Improvement Plan.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



Table 4.7: Recommended Alternative Projects Phased Development Plan

Phase	Project	Description
<b>IMMINENT (COMPLETION BY FY2025)</b>		
<b>IMMINENT</b>	2023 Pavement Maintenance	Seal pavement cracks on Runway 4L-22R. Apply seal coat to Runway 4L-22R and taxiways. New pavement markings on runway, taxiways, and apron.
	2024/2025 Airport Lighting and Signage	Remove and replace all runway edge and threshold lighting on Runway 4L-22R, Runway 4R-22L, all existing runway and taxiway signage, and all conduit. Install new MRL, new signage, and new CCR.
	Segmented Circle and Lighted Wind Cone Replacement	Added to the scope of the 2024/2025 Airport Lighting and Signage project. Replace the segmented circle and existing lighted wind cone.
<b>SHORT-TERM (1-5 YEARS)</b>		
<b>SHORT-TERM</b>	Improved Airport Signage	Install signage to designate entrances from the Parks Hwy. Install airfield signage to better direct aircraft, vehicle, and pedestrian traffic to appropriate areas of use.
	Runway 4L-22R Mill and Overlay and Pavement Maintenance on Taxiways and Apron	Mill and overlay on Runway 4L-22R and the approaches to Taxiways A-C. Seal coat, crack sealing, and reapplication of painted markings.
	Snow Removal Equipment Building	Construct a new SREB, capable of housing the required snow equipment.
<b>MEDIUM-TERM (5-10 YEARS)</b>		
<b>MEDIUM-TERM</b>	Construct Partial Parallel Taxiway at Runway End 22R	Construct a partial parallel taxiway to provide a turnaround area at the approach end of Runway 22R. This is a temporary improvement to make easier turning for larger aircraft and improve safety of runway operations until the full-length parallel taxiway can be constructed.
	Runway 4R-22L Turf Surface Repair and Maintenance	Reconstruct/rehabilitate the turf/gravel surface.
	Wind Cone Replacement	Replace the Runway 22R wind cone with a lighted wind cone, clear vegetation at all wind cone locations.



# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



Runway 4W-22W Dredging/ Vegetation Removal	Dredge water lane to 4- to 6-foot depth, remove woody debris and reeds. Conduct geotechnical work in support of proposed float plane slip construction.
Obstruction Removal	Remove encroaching trees and vegetation outside of ROFA, RSA, and Part 77 surfaces; temporarily store the debris for future processing.
Water/Sewer/C St Utilities Extension	Extend C Street, water, and sewer services to the airport in three phases. 1 <sup>st</sup> Phase: extend C St and the utilities from the intersection of 8th Street and C Street to the pilot lounge. The 2 <sup>nd</sup> Phase: extend utilities from Airport Road to the existing SREB. 3 <sup>rd</sup> Phase: extend utilities from the SREB to the lease lots near the float pond anchorage areas.
Pilot Lounge Improvements	Construct a parking lot, carport for the courtesy van, restrooms, handicap access, and lighting for the pilot lounge.
RSA Grading and Shoulder Reinforcement	Regrade the RSA per FAA AC 150/5300-13B standards. Construct a barrier at RUNWAY 22R end to deter vehicle traffic from using runway to access trails.
Construct Helicopter Parking Area	Construct a helicopter parking area south of the current lease lots with a taxiway connecting to the west side of Taxiway A. This configuration is the option B. West Large, presented in the Alternatives section.
Reroute Service Roads from Runway 4L-22R RSA	Relocate service roads outside of the RSA.
Airport Entrance and Road Reconfiguration	Reconfigure the road system at the float pond entrance to allow access to the float pond while deterring vehicular traffic from using Taxiway C. Widen and add signage and lighting to the main entrance to encourage more traffic to use this access point rather than the float pond entrance.
Float Pond Parking	Dredge a full-length anchorage area/turning basin to allow additional float plane maneuvering and parking. Add a full-length taxi channel. Construct a barrier to separate water lane runway and taxiway.
Lease Lot Improvements	Fill and grade lease lots to promote tenant occupation and support development.
Apron Improvements	Add electrical outlets and improved lighting to paved apron. Construct a new, gravel apron with electrical outlets and lighting to serve users of the ski/turf runway and float pond.
Fencing, Electronic Gates, and Cameras	Install signage and a camera monitoring system. Establish landside/airside areas with automatic electronic gates. Clearly distinguish aircraft operations areas from vehicle operations areas.

# CHAPTER 4. ALTERNATIVES DEVELOPMENT & EVALUATION



	Float Pond Fuel System	Install an additional fueling system near ski/turf runway and float pond. Identify a location that is sited for convenience and also remains outside of protected surfaces.
<b>LONG-TERM (10-20 YEARS)</b>		
<b>LONG-TERM</b>	Runway 4L-22R Parallel Taxiway Construction	Construct a full-length parallel taxiway to access the approach end of 22R.
	Aviation Campground	Construct camping sites and primitive style cabins on either side of Airport Service Road.

## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN

The recommended development alternative for Nenana Airport consists of 24 named projects. The *Alternatives* chapter grouped these projects by similar purpose for presentation and evaluation. The Airport Capital Improvement Plan (ACIP) presents these projects by proposed development timeframe. The complete collection of recommended projects is laid out in this working paper, according to proposed development periods of:

- Imminent – Projects already underway, with expected completion by FY2025
- Short-term – Projects to be completed within the next 1-5 years
- Medium-term – Projects to be completed within the next 5-10 years
- Long-term – Projects to be completed within the next 10-20 years

Cost estimates and more detailed phasing plans are provided for the short-term development projects. The medium- and long-term development projects are described herein, but only general information about cost and phasing is provided.

#### 5.1 IMMEDIATE DEVELOPMENT PROJECTS

The projects listed below are already underway and are expected to be completed by FY2025.

##### 5.1.1 2023 Pavement Maintenance Project

All work for the project was completed in 2023. This project consisted of sealing or repair of pavement cracks and joints on Runway 4L-22R in accordance with FAA specifications. Additionally, this project included application of sealcoat to Runway 4L-22R and the connector taxiways, up to the existing hold markings. After repair and sealcoat, new pavement markings were applied to Runway 4L-22R, the taxiways, and apron in accordance with current FAA standards and specifications.

##### 5.1.2 2024/2025 Airport Lighting and Signage Project

This project includes removal and replacement of all runway edge and threshold lighting on Runway 4L-22R and Runway 4R-22L, all existing runway and taxiway signage, and associated conduit for each system. The new lighting systems will be Medium Intensity Runway Edge Lighting (MIRL) along with new signage. Additionally, a new segmented circle, lighted wind cone, and a Constant Current Regulator (CCR) for the new runway lighting and signing system will be installed along with a replacement beacon and electrical equipment building (EEB).

##### 5.1.3 Segmented Circle & Wind Cone Replacement

These elements were originally considered separately from the 2024/2025 Airport Lighting and Signage Project, but the scope of that work has been expanded to now include the replacement of the segmented circle and existing lighted wind cone, as indicated in the project description above.

## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### 5.2 SHORT-TERM DEVELOPMENT PROJECTS (1-5 YEARS)

Three of the recommended projects are proposed for the short-term development timeframe, in consideration of funding expectations that will support airport development work in the near future.

#### 5.2.1 Runway 4L-22R Mill & Overlay and Pavement Maintenance on Taxiways and Apron

Three to five years after completion of the seal coat project, the airport will undertake another pavement preservation project to extend the life of paved surfaces at the Airport. This will include a 2.5-inch mill and overlay on Runway 4L-22R and the approaches to Taxiways A-C. The preservation work will include seal coat, crack sealing, and reapplication of painted markings on the apron, and taxiways. Runway numbering is anticipated to change sometime between 2026 and 2028, due to magnetic declination change. Timing of this pavement preservation work would be well-timed to coincide with runway re-numbering.

#### 5.2.2 Snow Removal Equipment Building and new Snow Removal Equipment

This project will construct a new SREB on the corner of 10<sup>th</sup> and A Street capable of housing a new snow equipment fleet outlined in AC 150/5220-20A to the specification in AC 150/5220-18, Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials. ENN is anticipating the addition of a new CAT Loader with broom and plow attachments to its snow removal equipment.

#### 5.2.3 Improved Airport Signage

A number of the airport development projects are intended to improve access control and appropriate use of the airfield infrastructure. These projects span the short- to medium-term development phases. This signage project is not intended to be a standalone project due to its small size and is being worked on to be incorporated into another short-term medium-term project. Signage will be installed on the Parks Highway to better designate appropriate airport access points. Signage will be installed throughout the airfield to designate appropriate operating areas more clearly for aircraft, vehicles, and pedestrians.

The following photos are examples of signage posted at Birchwood Airport (BCV) and Lake Hood (LHD). Installing signage such as this at Nenana will improve access control in the near term at minimal cost.

# CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



Figure 5.1: Examples of Signage at Birchwood and Lake Hood

## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### 5.3 MEDIUM-TERM DEVELOPMENT PROJECTS (5-10 YEARS)

The bulk of the recommended projects (16 of the 24) are proposed for the medium-term development timeframe. Most of the work to maintain airport standards and some of the enhancement work are included in the medium-term recommendations.

#### 5.3.1 Construct Partial Parallel Taxiway at Runway End 22R

The construction of a full parallel taxiway for Runway 4L-22R is proposed for the long-term development phase. This project is a temporary infrastructure solution to improve safety and ease of aircraft operations on the paved runway until such time as the full parallel taxiway is built. The short partial parallel taxi will create a turnaround area at the Runway 22R approach end. This feature will make turning easier for larger aircraft at this end of the runway.

#### 5.3.2 Runway 4R-22L Turf Surface Repair and Maintenance

The reconstruction/rehabilitation of the turf/gravel surface will correct the soft conditions currently preventing full-length use of the runway during summertime operations. The full length and width of the runway plus shoulders will be reconstructed, with vegetation clearing, to restore use of the published 1,980 ft length of Runway 4R-22L.

#### 5.3.3 Wind Cone Replacement

This project will replace the Runway 22R wind cone with a lighted wind cone and clear vegetation at all three wind cone sites at the airport. The work will improve the operability and visibility of wind cones and improve navigational safety for all runways. This project is recommended for the early medium-term period.

#### 5.3.4 Runway 4W-22W Dredging/Vegetation Removal

This project will dredge the water lane to a 4- to 6-foot depth and remove the woody debris and reeds. Taking advantage of the geotechnical studies needed for the design of this project, investigation of alternative water lane configurations should be conducted at the same time in support of the float pond parking project (also recommended for the medium-term period, but near the later end).

#### 5.3.5 Obstruction Removal

This project will remove trees and vegetation that create obstructions, encroaching and penetrating the protected surfaces of all three runways at the airport. Trees/vegetation will be cleared from the transitional surfaces, approach slopes, Runway Objects Free Areas, Runway Protection Zones, Runway Safety Areas, and clear areas around wind cones. The debris will be temporarily stored on airport property for future chipping and processing.

## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### 5.3.6 Water/Sewer/C St Utilities Extension

This project will bring water and sewer services to the airport in three phases.

- The first phase would extend utilities from the intersection of 8<sup>th</sup> Street and C Street, ideally in collaboration with the SREB Expansion project on 10<sup>th</sup> and A Street, south to the pilot lounge, supporting that improvement project. This work is proposed for the near term within the medium-term phase.
- The second phase would extend utilities from Airport Road to the existing SREB. This work is proposed for later within the medium-term phase
- The third phase would extend utilities from the existing SREB to the lease lots near the float pond anchorage areas. It is likely that this phase would happen late in the medium-term period.

### 5.3.7 Pilot Lounge Improvements

Improvements to the pilot lounge include construction of a parking lot adjacent to the pilot lounge, construction of a carport for the courtesy van, construction of restroom facilities, constructing Americans with Disabilities (ADA) compliant access, lighting installation, and construction of an access road from Airport Road terminating at the new parking lot.

### 5.3.8 RSA Grading and Shoulder Reinforcement

This project will regrade the RSA per FAA AC 150/5300-13B standards and correct drainage issues. Some mowing, disking/leveling of the RSA, and brush removal could be done in-house depending on the severity of conditions of the distressed section(s), but it is anticipated that a rebuild of the shoulders is necessary for safety and structural soundness. Additionally, this work will include the construction of a ditch-type barrier at Runway 22R approach to deter vehicle traffic from using the runway to access trails near the river.

### 5.3.9 Construct Helicopter Parking Area

This project will construct a helicopter parking area south of the current lease lots with a taxiway connecting to the west side of Taxiway A. The dimensions of the parking area are proposed to be 370 feet by 190 feet. This configuration will provide separation of helicopter parking from parked fixed wing aircraft.

### 5.3.10 Reroute Service Roads From 4L-22R RSA

It is a high priority of the airport to keep vehicle traffic off the aircraft operating areas. This project will relocate the service roads that traverse Runway 4L-22R's RSA to fall outside of the RSA at either runway end. The design of the roads assumes B-III RSA standards (600 ft separation from runway threshold) to the extent that the airport configuration allows to prevent possible conflicts in the future between roadway infrastructure and larger aircraft that may use the runway.

## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### 5.3.11 Airport Entrance and Road Reconfiguration

This project will reconfigure the road system at the float pond entrance to allow access to the float pond while keeping vehicular traffic off Taxiway C. Additionally, this project will widen and add signage and lighting to the main entrance to encourage more traffic to use this access point rather than enter at the float pond side and cross the approach end of Runway 4L to access the main operational area of the airport.

### 5.3.12 Float Pond Parking

This project will dredge a full-length anchorage area/turning basin to allow additional float plane maneuvering and parking. This project will add a full-length taxi channel to accommodate aircraft landing and transiting to the ramp and the future proposed fueling area. Visibility line of sight concerns between aircraft transitioning from parking and aircraft landing/departing are anticipated to be mitigated by this development.

### 5.3.13 Lease Lot Improvements

This project involves filling and grading the designated lease lots on the south side of the airport for access of float and ski equipped aircraft and the north side for conventional type landing gear aircraft and helicopters. Access to the north side lots will be addressed with the construction of Taxiway Design Group 1 (TDG-1) taxiways in a north-south configuration between the lease lots. Utilities will also be installed and extended along the entrance road and arterials in preparation for development.

### 5.3.14 Apron Improvements

This project will make improvements at two separate apron areas – the existing paved apron west of Runway 4L-22R and the proposed new gravel apron between the ski/turf runway and the float pond. Electrical outlets for engine block heaters and improved lighting which adheres to FAA standards will be added to the apron area west of Runway 4L-22R. A new gravel parking area for ski planes will be constructed in between the ski/turf runway and the float pond, with electrical outlets and lighting for ski equipped aircraft, which cannot traverse the runway or apron pavement to access amenities in other areas of the airport.

### 5.3.15 Fencing, Electronic Gates, and Cameras

This project will mark and secure air operations areas to distinguish them from landside operational areas with the installation of signage, a camera monitoring system, and automatic electronic gates that allow passage of vehicles but prevent inadvertent access to the air operations area by unauthorized persons, vehicles, and wildlife. Some signage is proposed to be installed in the short-term to better direct vehicle and pedestrian traffic to use appropriate areas, but the ultimate project will also include new signage.



## CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



### 5.3.16 Float Pond Fuel System

This project will install an additional fueling system in the vicinity of the existing float pond anchorage areas and ski/turf runway, allowing efficient and convenient fueling of floatplanes and ski planes. The new fueling location will be accessible from Taxiway C.

## 5.4 LONG-TERM DEVELOPMENT PROJECTS (10-20 YEARS)

### 5.4.1 Runway 4L-22R Parallel Taxiway Construction

This project entails the ultimate construction of a full-length parallel taxiway to access the approach end of Runway 22R. When the parallel taxiway is constructed, reconfiguration of Taxiways A and B should be conducted to remove direct access from the apron.

### 5.4.2 Aviation Campground

This project will construct camping sites and possible primitive style cabins on either side of the Float Pond Road. This will provide the opportunity to serve both ski/turf tire equipped aircraft and float planes directly from the ski/turf runway and water lane.

## 5.5 DEVELOPMENT PLAN

The table below presents the complete collection of projects in the recommended development alternative for Nenana Airport. They are presented by phases of development:

- Imminent – Projects already underway with expected completion by FY2025
- Short-term – Projects to be completed within the next 1-5 years
- Medium-term – Projects to be completed within the next 5-10 years
- Long-term – Projects to be completed within the next 10-20 years

# CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



Table 5.1: 5 Year Nenana Airport Development Plan

5 Year Nenana Airport Development Plan			
Phase	Project	Description	Cost (\$)
<b>IMMINENT (COMPLETION BY FY2025)</b>	2023 Pavement Maintenance	Seal pavement cracks on Runway 4L-22R. Apply seal coat to Runway 4L-22R & taxiways. New pavement markings on runway, taxiways, & apron.	\$1,212,850
	2024/2025 Airport Lighting & Signage	Remove & replace all runway edge & threshold lighting on Runways 4L-22R and 4R-22L, all existing runway & taxiway signage, & all conduit. Install new MIRL, new signage, & new CCR.	\$1,431,260
	Segmented Circle & Wind Cone Replacement	Added to the scope of the 2024/2025 Airport Lighting & Signage project. Replace the segmented circle & existing lighted wind cone.	
<b>SHORT-TERM (1-5 YEARS)</b>	Runway 4L-22R Mill & Overlay and Pavement Maintenance on Taxiways and Apron	Mill and overlay of Runway 4L-22R as well as crack repair and seal coat on all taxiways and apron 3 years after the 2023 Pavement Maintenance project.	\$2,889,381
	Snow Removal Equipment Building	Construct a new SREB on the corner of 10 <sup>th</sup> and A St., capable of housing the required snow equipment.	\$3,600,000
	Snow Removal Equipment	The procurement of new snow removal equipment as well as the purchase of additional parts for the equipment.	\$831,758
	Improved Airport Signage	Install signage to designate entrances from the Parks Hwy. Install airfield signage to better direct aircraft, vehicle, & pedestrian traffic to appropriate areas of use.	\$27,456

# CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



Table 5.2: Nenana Airport Development Plan – Medium Term and Beyond

Nenana Airport Development Plan – Medium Term and Beyond		
Phase	Project	Description
<b>MEDIUM-TERM (5-10 YEARS)</b>	Construct Partial Parallel Taxiway at Runway End 22R	Construct a partial parallel taxiway to provide a turnaround area at the approach end of Runway 22R. This is a temporary improvement to make easier turning for larger aircraft and improve safety of runway operations until the full-length parallel taxiway can be constructed.
	Runway 4R-22L Turf Surface Repair and Maintenance	Reconstruct/rehabilitate the turf/gravel surface.
	Runway 4W-22W Dredging/Vegetation Removal	Dredge water lane to 4- to 6-foot depth, remove woody debris and reeds. Conduct geotechnical work in support of proposed float plane slip construction.
	Obstruction Removal	Remove encroaching trees & vegetation outside of ROFA, RSA, & Part 77 surfaces; temporarily store the debris for future processing.
	Water/Sewer/C St Utilities Extension	Extend C Street, water, & sewer services to the airport in three phases. 1 <sup>st</sup> Phase: extend C St & the utilities from the intersection of 8th Street & C Street to the pilot lounge. The 2 <sup>nd</sup> Phase: extend utilities from Airport Road to the existing SREB. 3 <sup>rd</sup> Phase: extend utilities from the SREB to the lease lots near the float pond anchorage areas.
	Pilot Lounge Improvements	Construct a parking lot, carport for the courtesy van, restrooms, handicap access, & lighting for the pilot lounge.
	RSA Grading and Shoulder Reinforcement	Regrade the RSA per FAA AC 150/5300-13B standards. Construct a barrier at Runway 22R approach end to deter vehicle traffic from using runway to access trails.
	Construct Helicopter Parking Area	Construct a helicopter parking area south of the current lease lots with a taxiway connecting to the west side of Taxiway A. This configuration is the option B. West Large, presented in the Alternatives section.
	Reroute Service Roads from Runway 4L-22R RSA	Relocate service roads outside of the RSA.
	Airport Entrance and Road Reconfiguration	Reconfigure the road system at the float pond entrance to allow access to the float pond while deterring vehicular traffic from using Taxiway C. Widen & add signage & lighting to the main entrance to encourage more traffic to use this access point rather than the float pond entrance.
	Float Pond Parking	Dredge a full-length anchorage area/turning basin to allow additional float plane maneuvering & parking. Add a full-length taxi channel. Construct a barrier to separate water lane runway & taxiway.

# CHAPTER 5. AIRPORT CAPITAL IMPROVEMENT PLAN



	Lease Lot Improvements	Fill and grade lease lots to promote tenant occupation & support development.
	Apron Improvements	Add electrical outlets & improved lighting to paved apron. Construct a new, gravel apron with electrical outlets & lighting to serve users of the ski/turf runway & float pond.
	Fencing, Electronic Gates, and Cameras	Install signage & a camera monitoring system. Establish landside/airside areas with automatic electronic gates. Clearly distinguish aircraft operations areas from vehicle operations areas.
	Float Pond Fuel System	Install an additional fueling system near ski/turf runway & float pond. Identify a location that is sited for convenience and also remains outside of protected surfaces.
<b>LONG-TERM (10-20 YEARS)</b>	Runway 4L-22R Parallel Taxiway Construction	Construct a full-length parallel taxiway to access the approach end of 22R.
	Aviation Campground	Construct camping sites and primitive style cabins on either side of Float Pond Road, the airport service road.

## **CHAPTER 6. AIRPORT LAYOUT PLAN**



## **CHAPTER 6. AIRPORT LAYOUT PLAN**

## CHAPTER 6. AIRPORT LAYOUT PLAN



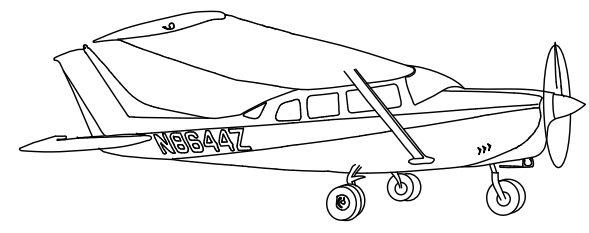
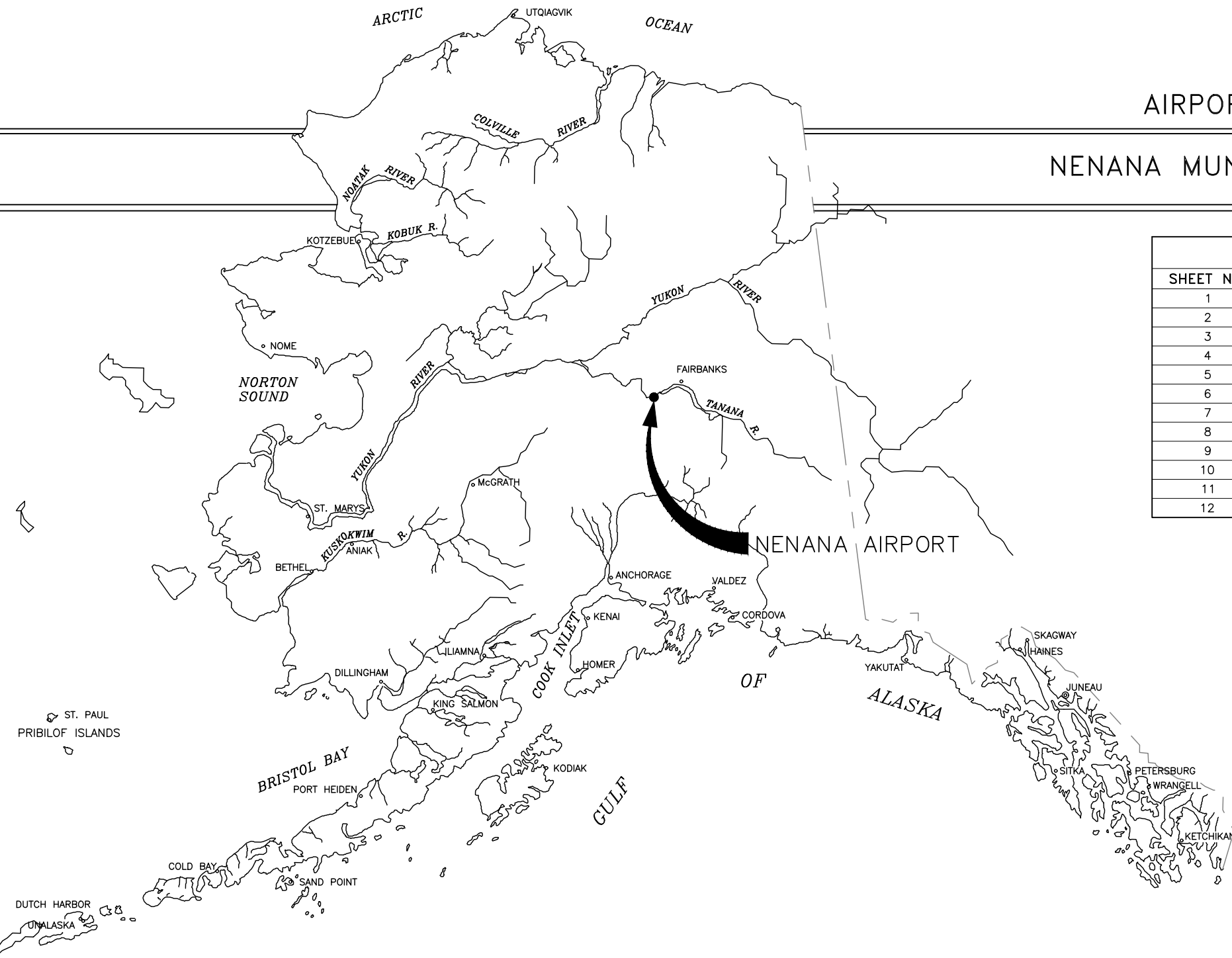
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# DRAFT

## AIRPORT LAYOUT PLAN

### NENANA MUNICIPAL AIRPORT (ENN)

DRAWING INDEX	
SHEET NO.	DRAWING TITLE
1	COVER SHEET
2	AIRPORT DATA SHEET
3	EXISTING AIRPORT LAYOUT PLAN
4	ULTIMATE AIRPORT LAYOUT PLAN
5	TERMINAL AREA DRAWING
6	AIRPORT AIRSPACE DRAWING
7	RW 4L-22R INNER PORTION OF THE APPROACH PLAN & PROFILE
8	RW 4R-22L INNER PORTION OF THE APPROACH PLAN & PROFILE
9	RW 4W-22W INNER PORTION OF THE APPROACH PLAN & PROFILE
10	RW 4L-22R DEPARTURE SURFACE DRAWING PLAN & PROFILE
11	ON-AIRPORT LAND USE DRAWING
12	EXHIBIT 'A' AIRPORT PROPERTY MAP



#### ABBREVIATIONS

AC	ADVISORY CIRCULAR	EL	ELEVATION	NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988	RPZ	RUNWAY PROTECTION ZONE
ALP	AIRPORT LAYOUT PLAN	FAA	FEDERAL AVIATION ADMINISTRATION	NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	RRC	RUNWAY REFERENCE CODE
ALS	APPROACH LIGHTING SYSTEM	FBO	FIXED BASE OPERATOR	NOS	NATIONAL OCEAN SERVICE	RSA	RUNWAY SAFETY AREA
APRC	APPROACH REFERENCE CODE	FG	FINISHED GRADE	NPI	NON-PRECISION INSTRUMENT	RW	RUNWAY
ARC	AIRPORT REFERENCE CODE	GA	GENERAL AVIATION	NOTAMS	NOTICE TO AIRMEN	RVZ	RUNWAY VISIBILITY ZONE
ARP	AIRPORT REFERENCE POINT	LAT	LATITUDE	NTS	NOT TO SCALE	TBD	TO BE DETERMINED
ARPZ	APPROACH RUNWAY PROTECTION ZONE	LDA	LANDING DISTANCE AVAILABLE	OCS	OBSTACLE CLEARANCE SURFACE	TERPS	TERMINAL INSTRUMENT PROCEDURES
ASDA	ACCELERATE STOP DISTANCE AVAILABLE	LONG	LONGITUDE	PACS/SACS	PRIMARY AND SECONDARY AIRPORT CONTROL	TDG	TAXIWAY DESIGN GROUP
AWOS	AUTOMATED WEATHER OBSERVATION SYSTEM	MAX	MAXIMUM	STATIONS		TODA	TAKE OFF DISTANCE AVAILABLE
BLDG	BUILDING	MIN	MINIMUM	PAPI	PRECISION APPROACH PATH INDICATOR	TOFA	TAXIWAY OBJECT FREE AREA
BRL	BUILDING RESTRICTION LINE	MIRL	MEDIUM INTENSITY RUNWAY LIGHTS	PCN	PAVEMENT CLASSIFICATION NUMBER	TORA	TAKE OFF RUN AVAILABLE
☉	CENTERLINE	MSL	MEAN SEA LEVEL	POFZ	PRECISION OBSTACLE FREE ZONE	TSS	THRESHOLD SITING SURFACE
DPRC	DEPARTURE REFERENCE CODE	N/A	NOT APPLICABLE	R	RADIUS	TW	TAXIWAY
DRPZ	DEPARTURE RUNWAY PROTECTION ZONE	NAD83	NORTH AMERICAN DATUM OF 1983	RDC	DESIGN CODE	TYP	TYPICAL
E	EXISTING			REIL	RUNWAY END IDENTIFIER LIGHTS	TSA	TAXIWAY SAFETY AREA
EG	EXISTING GROUND			ROFA	RUNWAY OBJECT FREE AREA	U	ULTIMATE
				ROFZ	RUNWAY OBSTACLE FREE ZONE	USGS	U.S. GEOLOGICAL SURVEY

PREPARED FOR:  
**NENANA MUNICIPAL AIRPORT**  
 AIRPORT MANAGER: DAN SMITH  
 PO BOX 70  
 NENANA, AK 99760

PREPARED BY:

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REV	DATE	DESCRIPTION

FAA APPROVAL

DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

LAST EDIT: 5/16/23

PLOT DATE: 11/16/23

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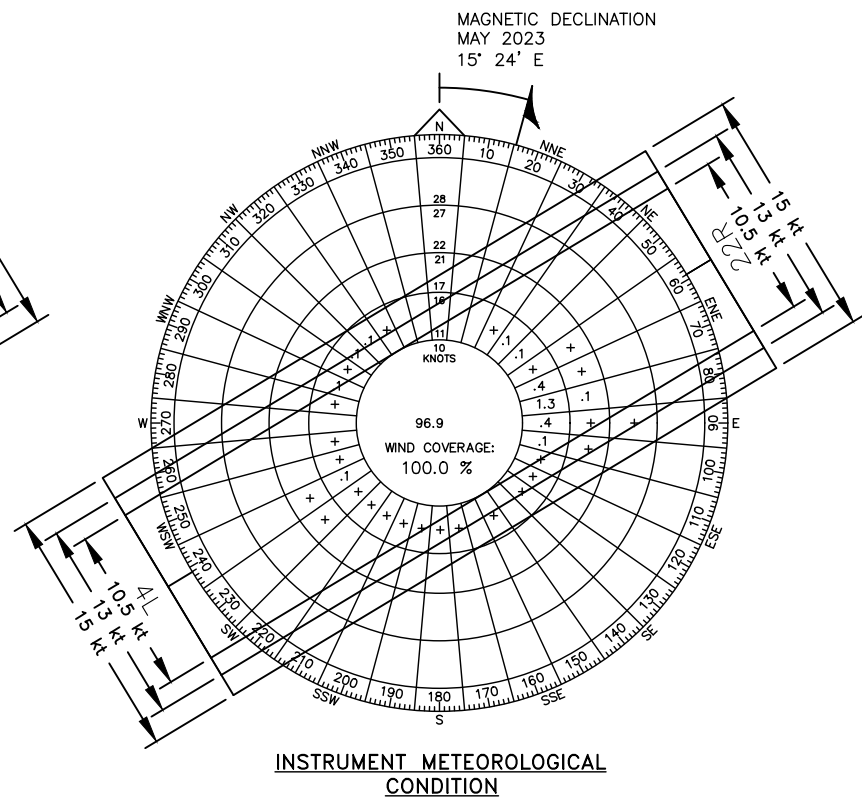
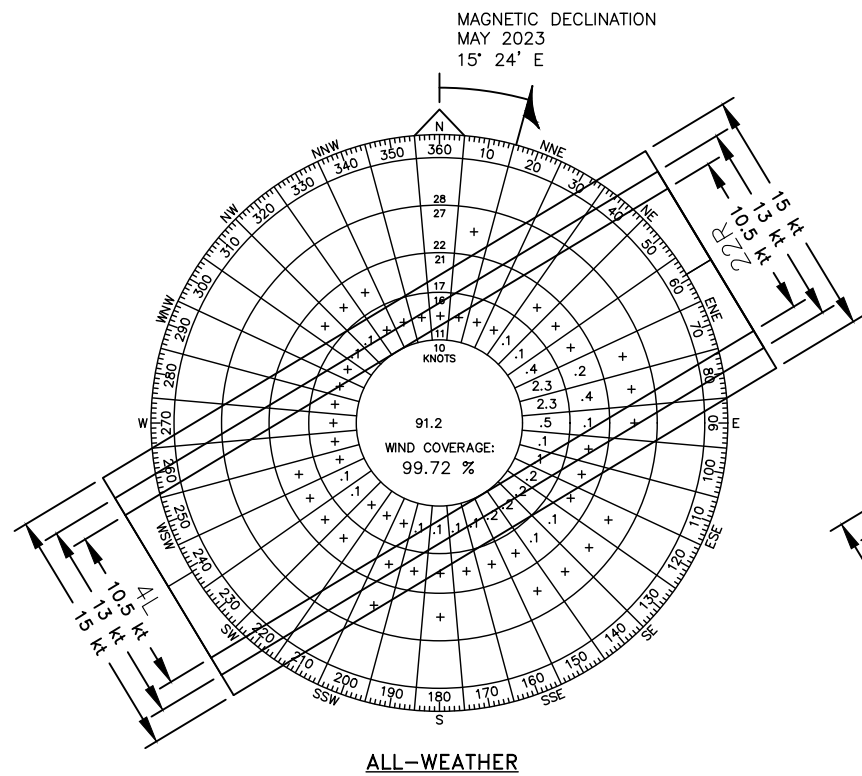
NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 COVER SHEET

PROJECT	50209.01
DATE	##/##/20##
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SHEET	
1 OF 12	

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# DRAFT



- ### NOTES
- TEMPORARY PROPOSED PARALLEL TAXI TURNAROUND ON 22R APPROACH END. FULL LENGTH PARALLEL TAXIWAY PROPOSED FOR A FUTURE PROJECT.
  - PER AC 150-5300-13B SECTION 3.9.2.2 A 300' RUNWAY CENTERLINE TO RUNWAY CENTERLINE SEPARATION CONFIGURATION MAY BE SUITABLE FOR A PAVED RUNWAY PAIRED WITH A TURF RUNWAY.

MODIFICATION TO STANDARDS					
DESCRIPTION	STANDARD	EXISTING	ULTIMATE	AIRSPACE #	APPROVAL DATE
FULL LENGTH PARALLEL TAXIWAY TO THRESHOLD <sup>1</sup>	FULL LENGTH	NONE	FULL LENGTH		

SOURCE: 702600 NENANA MUNICIPAL AIRPORT  
 STATION NAME: PANN  
 PERIOD 2013-2022  
 SAMPLED IN MILES PER HOUR

NONSTANDARD CONDITIONS			
ITEM	STANDARD	EXISTING	ULTIMATE
PARALLEL RUNWAY SEPARATION (RUNWAY 4L-22R / 4R-22L) <sup>2</sup>	700'	300	300

WIND DATA			
RUNWAY	10.5 kt (A-I)	13 kt (A-I)	15 kt (A-I)
4L-22R (ALL)	98.33%	99.06%	99.55%
4L-22R (IFR)	99.71%	99.88%	99.97%

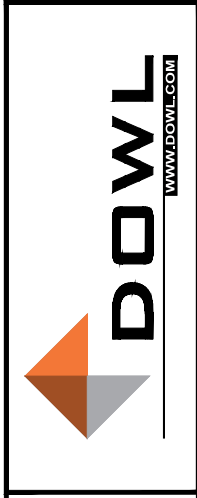
PACS & SACS (OR OTHER CONTROL)								
PID	DESIGNATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	NORTHING	EASTING	ELEVATION	DESCRIPTION

GEOGRAPHIC COORDINATES (NAD83) & ELEVATIONS (NAVD88)						
ITEM	EXISTING LATITUDE	EXISTING LONGITUDE	EXISTING ELEVATION	ULTIMATE LATITUDE	ULTIMATE LONGITUDE	ULTIMATE ELEVATION
AIRPORT REFERENCE POINT	064° 32' 50.28" N	149° 04' 26.13" W	367.7'	SAME	SAME	SAME
THRESHOLD RW 4L	064° 32' 44.1687" N	149° 05' 13.4018" W	367.6'	SAME	SAME	SAME
THRESHOLD RW 22R	064° 33' 07.5298" N	149° 03' 43.2638" W	365.2'	SAME	SAME	SAME
THRESHOLD RW 4R	064° 32' 44.7375" N	149° 04' 57.9072" W	363.8'	SAME	SAME	SAME
THRESHOLD RW 22L	064° 32' 54.7942" N	149° 04' 19.1067" W	363.5'	SAME	SAME	SAME
THRESHOLD RW 4W	064° 32' 33.5300" N	149° 04' 50.6300" W	352.1'	SAME	SAME	SAME
THRESHOLD RW 22W	064° 32' 53.3600" N	149° 03' 42.3700" W	352.1'	SAME	SAME	SAME

AIRPORT DATA		
ITEM	EXISTING	ULTIMATE
ICAO IDENTIFIER	PANN	SAME
NATIONAL AIRPORT IDENTIFIER	ENN	SAME
FAA SITE NUMBER	50524.*A	SAME
AIRPORT REFERENCE CODE (ARC)	B-III	SAME
NPIAS SERVICE LEVEL (P, CS, R, GA)	GA	SAME
AIRPORT ELEVATION (NAVD88)	362 FT. MSL	SAME
MEAN MAX. TEMPERATURE, HOTTEST MONTH (JULY)	72°F	SAME
OBSTRUCTION SURVEY SOURCE & TYPE	VERTICALLY GUIDED	SAME
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	15° 24', 2023, 0° 18' W/YR	
AIRPORT AND TERMINAL NAVIGATION AIDS	REILS/VASI/NDB	SAME

DECLARED DISTANCES					
	RUNWAY	TORA	TODA	ASDA	LDA
ULTIMATE	4L	4600'	4600'	4600'	4600'
	22R	4600'	4600'	4600'	4600'
	4R	1980'	1980'	1980'	1980'
	22L	1980'	1980'	1980'	1980'
	4W	3601'	3601'	3601'	3601'
	22W	3601'	3601'	3601'	3601'
EXISTING	4L	SAME	SAME	SAME	SAME
	22R	SAME	SAME	SAME	SAME
	4R	SAME	SAME	SAME	SAME
	22L	SAME	SAME	SAME	SAME

REV	DATE	DESCRIPTION	BY



NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 AIRPORT DATA SHEET

PROJECT 50209.01  
 DATE ##/##/20##

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# DRAFT

## RUNWAY DATA TABLE

ITEM	RUNWAY 4L-22R		RUNWAY 4R-22L		RUNWAY 4W-22W	
	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE
FAR PART 77 APPROACH CATEGORY (UTILITY, OTHER THAN UTILITY)	OTHER THAN UTILITY	SAME	UTILITY	SAME	UTILITY	SAME
FAR PART 77 APPROACH TYPE (V, C, NPA, PA)	C / V	SAME	V / V	SAME	V / V	SAME
RUNWAY DESIGN CODE (RDC)	B-III	A-1B	A-I	SAME	A-I	SAME
RUNWAY REFERENCE CODE (RRC)	B-III	SAME	A-I	SAME	A-I	SAME
CRITICAL AIRCRAFT	UNKNOWN	BE9T	<12,000 lb	SAME	<12,000 lb	SAME
FAR PART 77 APPROACH SLOPE	34:1 / 20:1	SAME	20:1 / 20:1	SAME	20:1 / 20:1	SAME
APPROACH TSS SLOPE	34:1 / 20:1	SAME	20:1 / 20:1	SAME	20:1 / 20:1	SAME
RUNWAY SURFACE	ASPHALT	SAME	TURF/GRASS	SAME	WATER/ICE	SAME
PAVEMENT STRENGTH (SW, DW, DTW x1000lbs)	160 SW	SAME	N/A	SAME	N/A	SAME
TRUE MEAN BEARING	59° / 239°	SAME	59° / 239°	SAME	59° / 239°	SAME
MAXIMUM ELEVATION ABOVE MSL	367.6'	SAME	364.5'	SAME	352.1'	SAME
EFFECTIVE GRADE	0.03%	SAME	0.01% / -0.01%	SAME	0.0% / 0.0%	SAME
RUNWAY TOUCHDOWN ZONE ELEVATIONS (NAVD88)	367.7' / 367.7'	SAME	364.5' / 364.5'	SAME	352.1' / 352.1'	SAME
RUNWAY DIMENSIONS	100' x 4600'	SAME	60' x 1980'	SAME	100' x 3601'	SAME
RUNWAY SAFETY AREA (RSA) DIMENSIONS	300' x 5800'	SAME	120' x 2460'	SAME	120' x 4081'	SAME
RSA LENGTH BEYOND RW ENDS	600' / 600'	SAME	240' / 240'	SAME	240' x 240'	SAME
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS	1000' x 1510' x 1700'	SAME	250' x 450' x 1000'	SAME	250' x 450' x 1000'	SAME
RUNWAY OBJECT FREE AREA (ROFA) DIMENSIONS	800' x 5800'	SAME	250' x 2460'	SAME	250' x 4081'	SAME
ROFA LENGTH BEYOND RW ENDS	600' / 600'	SAME	240' / 240'	SAME	240' / 240'	SAME
RUNWAY OBSTACLE FREE ZONE (ROFZ) DIMENSIONS	400' x 5800'	SAME	120' x 2460'	SAME	120' x 2460'	SAME
PRECISION OBJECT FREE ZONE (POFZ) DIMENSIONS	N/A	SAME	N/A	SAME	N/A	SAME
RUNWAY LIGHTING TYPE	MIRL	SAME	MIRL	SAME	NONE	SAME
RUNWAY MARKING TYPE (P, NP, NONE)	NPI / NPI	SAME	NONE	SAME	BUOY	SAME
RUNWAY VISUAL APPROACH AIDS	NDB/REIL/PAPI	SAME	NONE	SAME	NONE	SAME
RUNWAY LANDING AIDS	NDB/REIL/PAPI	SAME	NONE	SAME	NONE	SAME

## NOTES

1. ALL ULTIMATE TAXIWAYS ASSUMED TO BE TAXI DESIGN GROUP 1B (TDG-1B) BASED ON THE CRITICAL AIRCRAFT (BE9T), WITH THE EXCEPTION OF TAXILANES K AND L, WHICH ARE TDG-1B.
2. TAXIWAY C RENAMED TO TAXIWAY I FOR THE ULTIMATE LAYOUT. AS SUCH, TAXIWAY C ULTIMATE DATA IS FOR THE NEW PARALLEL TAXIWAY CONNECTOR; SEE TAXIWAY I FOR EXISTING TAXIWAY C ULTIMATE DATA.
3. TAXIWAY E NOT TO BE INCLUDED IN ULTIMATE PARALLEL TAXIWAY CONFIGURATION; IT IS CONTINGENT ON AN APRON EXPANSION.

## TAXIWAY DATA TABLE

ITEM	TAXIWAY A		TAXIWAY B		TAXIWAY C <sup>2</sup>		TAXIWAY D		TAXIWAY E <sup>3</sup>		TAXIWAY F		TAXIWAY G	
	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE
TAXIWAY DESIGN GROUP	TDG-3	TDG-1B	TDG-3	TDG-1B	TDG-1B	SAME	-	TDG-1B	-	TDG-1B	-	TDG-1B	-	TDG-1B
TAXIWAY DIMENSIONS	50' x 800'	25' x 4749'	50' x 700'	25' x 337'	25' x 773'	25' x 337'	-	-	-	25' x 337'	-	25' x 337'	-	25' x 337'
TAXIWAY SHOULDER WIDTH	20'	10'	20'	10'	10'	SAME	-	10'	-	10'	-	10'	-	10'
SEPARATION FROM PARALLEL RUNWAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TAXIWAY (TSA) WIDTH	118'	49'	118'	49'	49'	SAME	-	49'	-	49'	-	49'	-	49'
TAXIWAY OBJECT FREE AREA (TOFA) WIDTH	171'	89'	171'	89'	89'	SAME	-	89'	-	89'	-	89'	-	89'
TAXIWAY LIGHTING	NO	YES	NO	YES	NO	YES	-	YES	-	YES	-	YES	-	YES
TAXIWAY MARKING	YES	SAME	YES	SAME	NO	YES	-	YES	-	YES	-	YES	-	YES

## TAXIWAY DATA TABLE CONTINUED

ITEM	TAXIWAY H		TAXIWAY I		TAXILANE J		TAXILANE K		TAXILANE L		-		-	
	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	EXISTING	ULTIMATE	-	-	-	-
TAXIWAY DESIGN GROUP	-	TDG-1B	-	TDG-1B	-	TDG-1B	-	TDG-1A	-	TDG-1A	-	-	-	-
TAXIWAY DIMENSIONS	-	25' x 337'	-	25' x 773'	-	25' x 475'	-	25' x 473'	-	25' x 473'	-	-	-	-
TAXIWAY SHOULDER WIDTH	-	10'	-	10'	-	10'	-	10'	-	10'	-	-	-	-
SEPARATION FROM PARALLEL RUNWAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TAXIWAY (TSA) WIDTH	-	49'	-	49'	-	49'	-	49'	-	49'	-	-	-	-
TAXIWAY OBJECT FREE AREA (TOFA) WIDTH	-	89'	-	89'	-	79'	-	79'	-	79'	-	-	-	-
TAXIWAY LIGHTING	-	YES	-	YES	-	YES	-	YES	-	YES	-	-	-	-
TAXIWAY MARKING	-	YES	-	YES	-	YES	-	YES	-	YES	-	-	-	-

REV	DATE	SHEET INFO					BY
		DESIGNED	DRAWN	CHECKED	APPROVED	LAST EDIT	
		KP	RT	JG	MO	5/16/23	
						11/16/23	



NENANA MUNICIPAL AIRPORT (ENN)  
NENANA, ALASKA  
AIRPORT LAYOUT PLAN  
AIRPORT DATA SHEET 2

PROJECT 50209.01  
DATE ##/##/20##

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SHEET

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\\dowl.com\Projects\23\50209-01\65CAD\Aviation\Production\50209-01\_ALP\_3.dwg PLOT DATE 2023-11-16 11:11 SAVED DATE 2023-11-16 10:59 USER: kpyeatt

NENANA RIVER

RAILROAD R.O.W.

START EXISTING RUNWAY SAFETY AREA  
STA 12+00 ELEV = 361.55  
EXISTING RUNWAY THRESHOLD  
STA 18+00 ELEV = 365.67

NORTH AIRPORT  
ACCESS RD

AIRPORT BOUNDARY

RAILROAD

**DRAFT**

SCALE IN FEET (HORIZONTAL)  
0 300 600

MAG. DECL.: 15° 24' E  
RATE OF CHANGE: 0° 18' W PER YEAR  
DATE: MAY 2023

MAGNETIC

LIGHTED WIND CONE & SEGMENTED CIRCLE  
AIRPORT LIGHTING CONTROL BLDG.  
ROTATING BEACON & LIGHTED CONE

FUELING STATION  
PILOT'S LOUNGE

100' BRL

100' BRL

EXISTING AND ULTIMATE  
RUNWAY THRESHOLD  
STA 64+00 ELEV = 365.30

ULTIMATE RUNWAY SAFETY AREA  
STA 70+00 ELEV = 364.47

PAVED APRON  
1200' X 200'

EXISTING 800'X5800' ROFA  
EXISTING 400'X5800' ROFZ  
EXISTING 300'X5800' RSA

400'X5000' RUNWAY  
OBSTACLE FREE ZONE  
NO PENETRATIONS

80' BRL

ASOS

TW A

TW B

100'X4600' RUNWAY 4L-22R N58°56'00"E

PAPI

SOUTH ACCESS RD

1000'X1510'X1700' RPZ

250'X450'X1000' RPZ

60'X1980' SKI STRIP 4R-22L N58°56'00"E

SKI STRIP 120'X2460' RSA/ROFZ

250'X450'X1000' RPZ

100'X200' BLAST PAD (TYP)

SKI STRIP 250'X2460' ROFA

1000'X1510'X1700' RPZ

60' BRL

60' BRL

NDB TOWERS

35' BRL

EXISTING MAINTENANCE  
& SREB BUILDINGS

UNLIGHTED WIND CONE

W.S.=356.0

100' X 3601' WATER LANE 4W-22W N55°59'00"E

250'X450'X1000' RPZ

250'X450'X1000' RPZ

35' BRL

FLOATPOND 120'X4081' RSA/ROFZ  
FLOATPOND 250'X4081' ROFA

HISTORIC TRAIL

AIRPORT BOUNDARY

POWER LINE

REV	DATE	DESCRIPTION



NENANA MUNICIPAL AIRPORT (ENN)  
NENANA, ALASKA  
AIRPORT LAYOUT PLAN  
EXISTING AIRPORT LAYOUT PLAN

PROJECT 50209.01  
DATE ##/##/20##

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NENANA RIVER

**DRAFT**  
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0 300 600

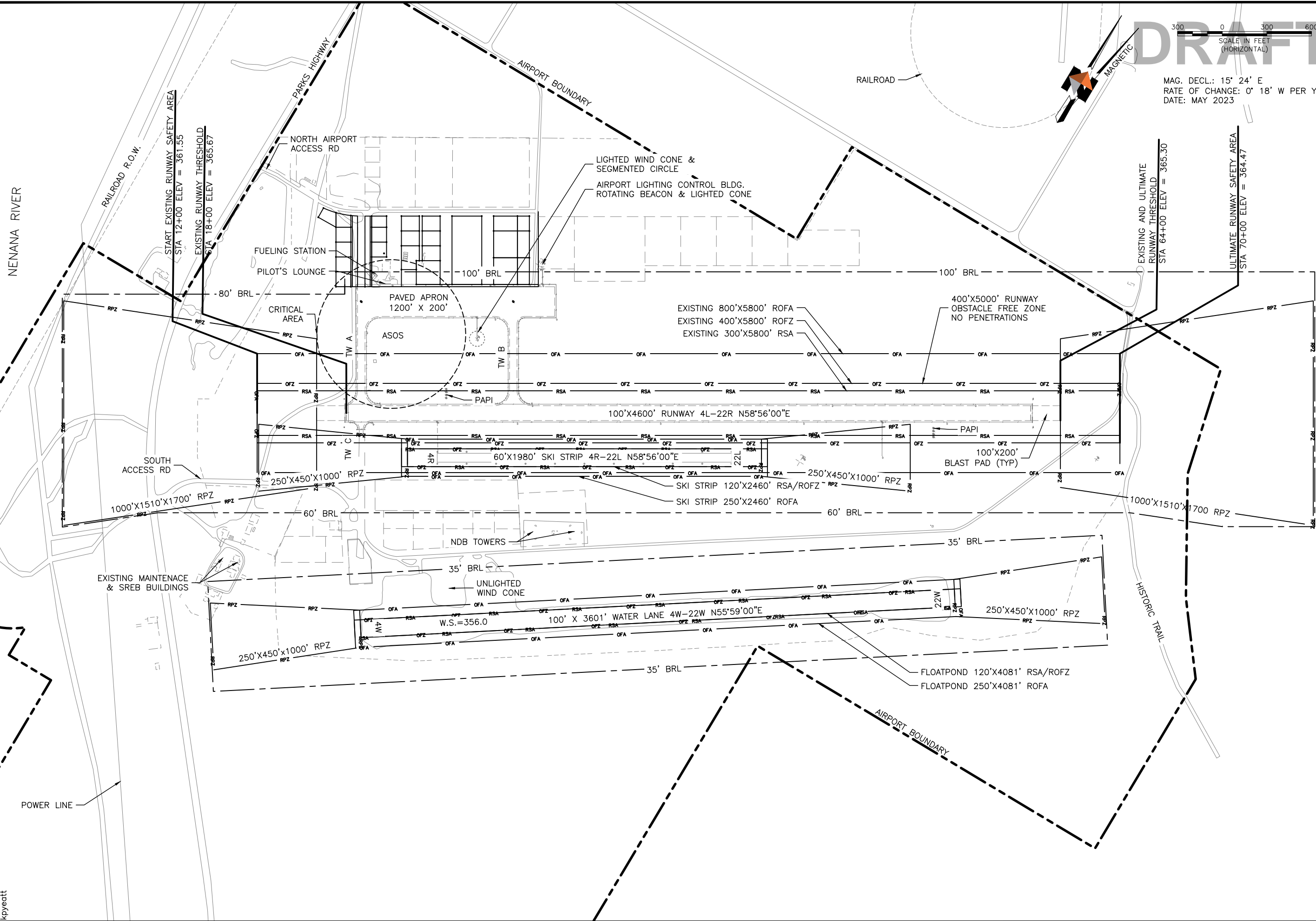
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RATE OF CHANGE: 0° 18' W PER YEAR  
DATE: MAY 2023

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CHECKED	JG
APPROVED	MO
LAST EDIT	5/16/23
PLOT DATE	11/16/23

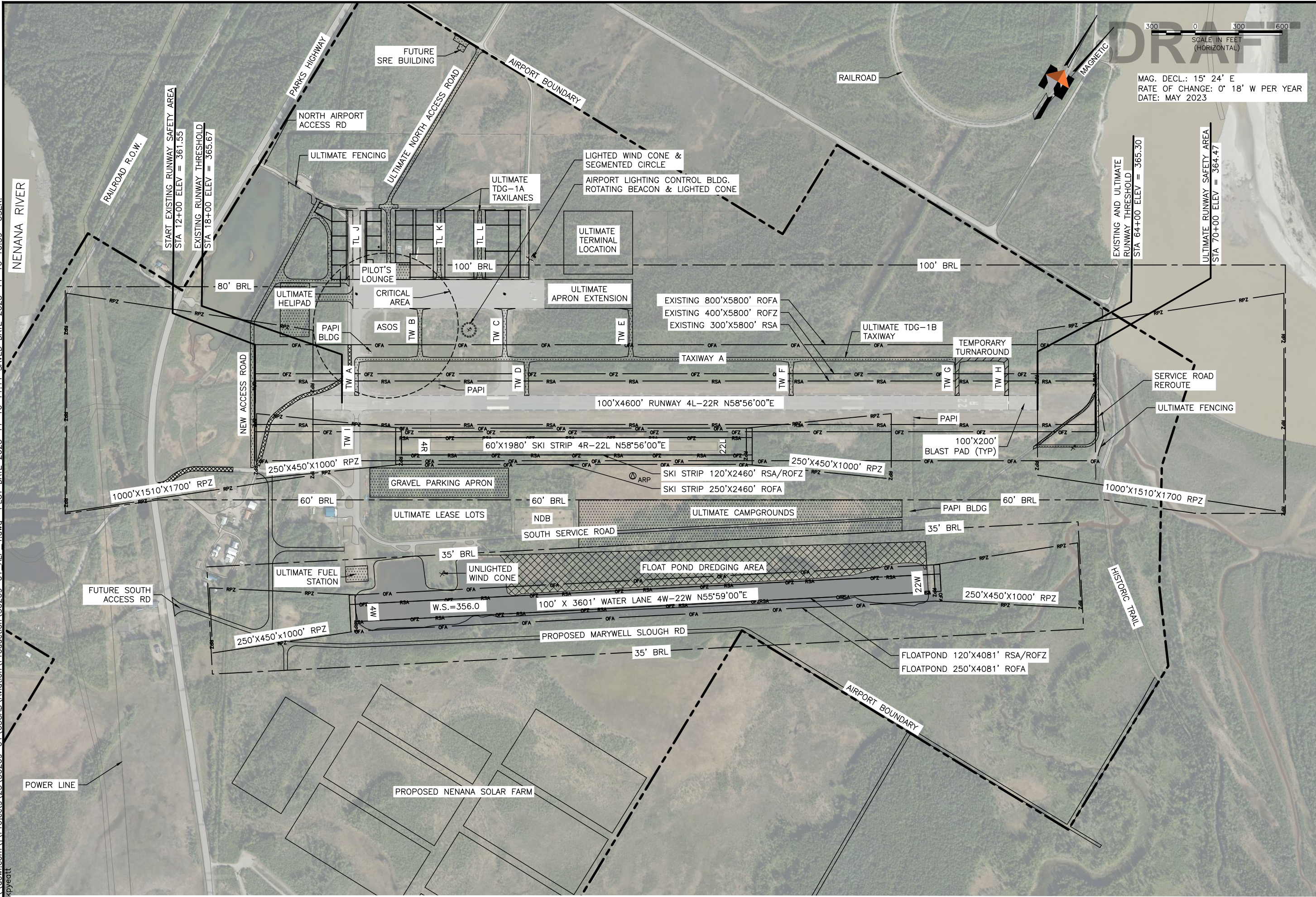
  
**DOWL**  
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 NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 EXISTING AIRPORT LAYOUT PLAN

PROJECT	50209.01
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4B	OF 12



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NENANA RIVER



300 0 300 600  
 SCALE IN FEET  
 (HORIZONTAL)

MAG. DECL.: 15° 24' E  
 RATE OF CHANGE: 0° 18' W PER YEAR  
 DATE: MAY 2023

REV	DATE	DESCRIPTION

SHEET INFO	DESIGNED	DRAWN	CHECKED	APPROVED	MO	LAST EDIT	PLOT DATE

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NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 ULTIMATE AIRPORT LAYOUT PLAN

PROJECT 50209.01  
 DATE ##/##/20##

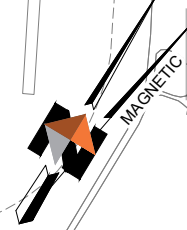
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NENANA RIVER

DRAFT  
SCALE IN FEET  
(HORIZONTAL)

MAG. DECL.: 15° 24' E  
RATE OF CHANGE: 0° 18' W PER YEAR  
DATE: MAY 2023



REV	DATE	DESCRIPTION

SHEET INFO	
DESIGNED	KP
DRAWN	RT
CHECKED	JG
APPROVED	MO
LAST EDIT	5/16/23
PLOT DATE	11/16/23

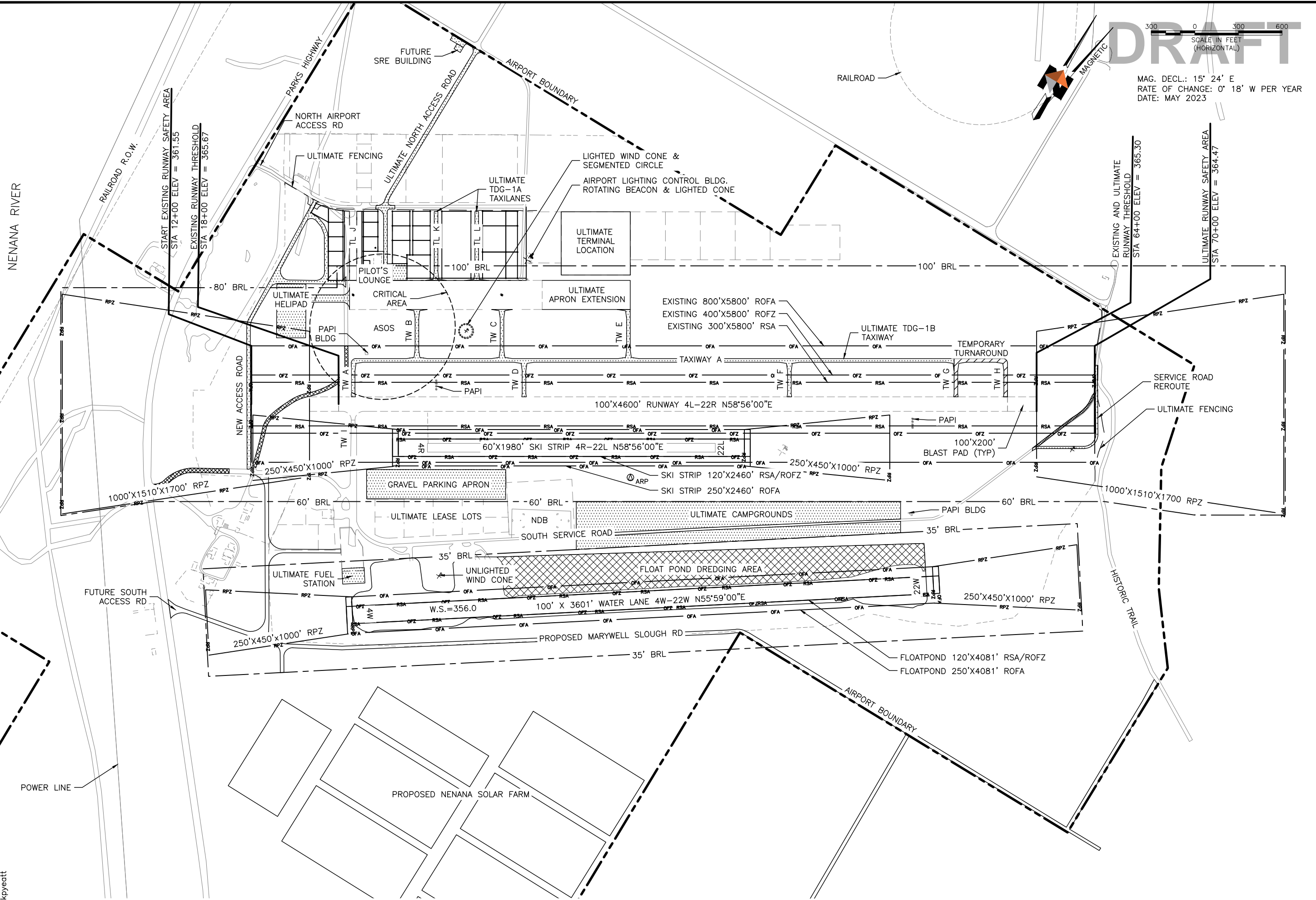


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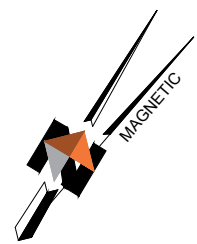
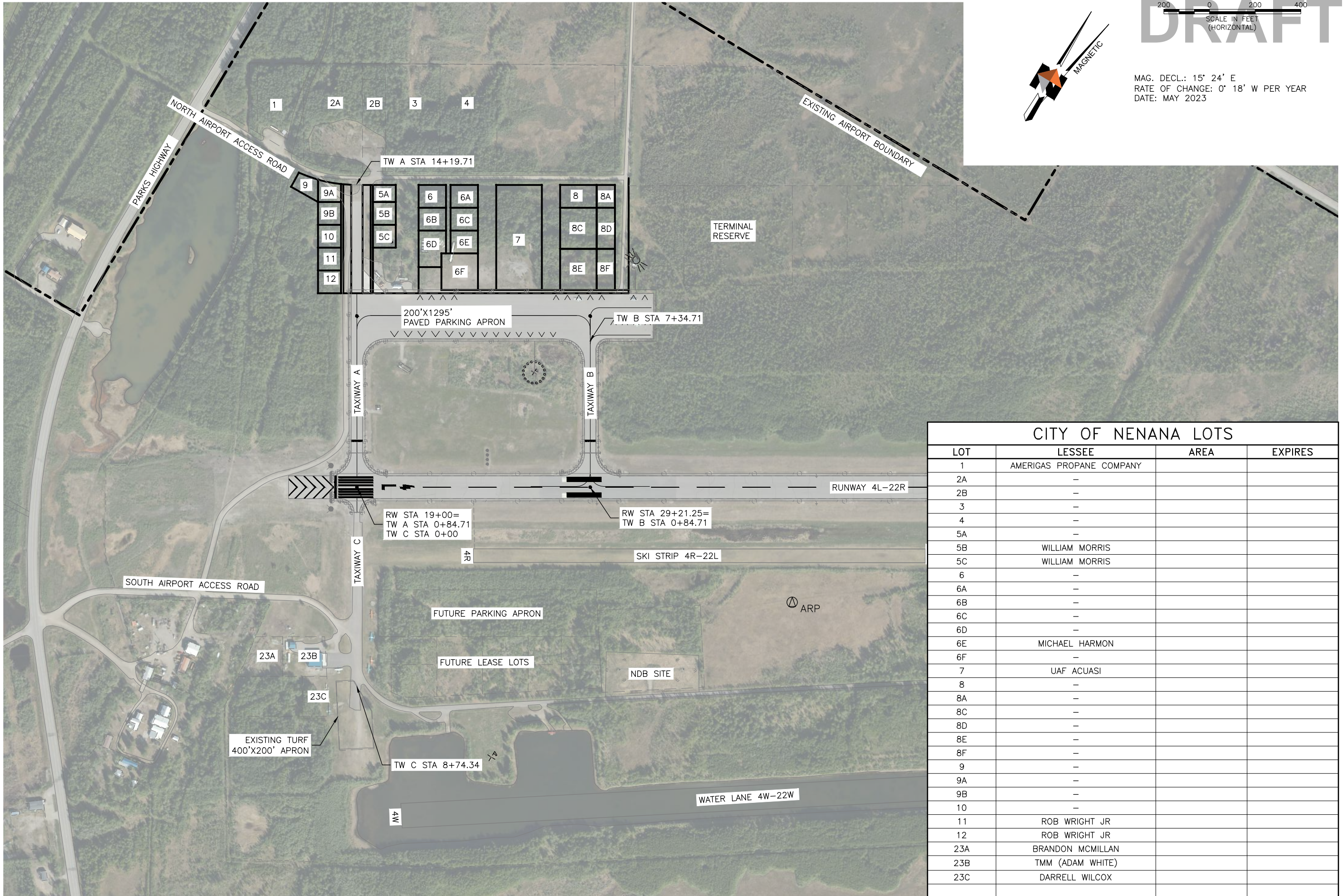
NENANA MUNICIPAL AIRPORT (ENN)  
NENANA, ALASKA  
AIRPORT LAYOUT PLAN

ULTIMATE AIRPORT LAYOUT PLAN

PROJECT	50209.01
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58	OF 12



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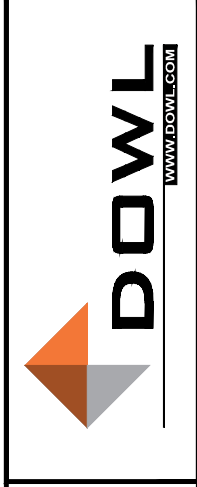


200 0 200 400  
SCALE IN FEET  
(HORIZONTAL)

MAG. DECL.: 15° 24' E  
RATE OF CHANGE: 0° 18' W PER YEAR  
DATE: MAY 2023

CITY OF NENANA LOTS			
LOT	LESSEE	AREA	EXPIRES
1	AMERICAS PROPANE COMPANY		
2A	-		
2B	-		
3	-		
4	-		
5A	-		
5B	WILLIAM MORRIS		
5C	WILLIAM MORRIS		
6	-		
6A	-		
6B	-		
6C	-		
6D	-		
6E	MICHAEL HARMON		
6F	-		
7	UAF ACUASI		
8	-		
8A	-		
8C	-		
8D	-		
8E	-		
8F	-		
9	-		
9A	-		
9B	-		
10	-		
11	ROB WRIGHT JR		
12	ROB WRIGHT JR		
23A	BRANDON MCMILLAN		
23B	TMM (ADAM WHITE)		
23C	DARRELL WILCOX		

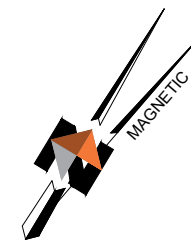
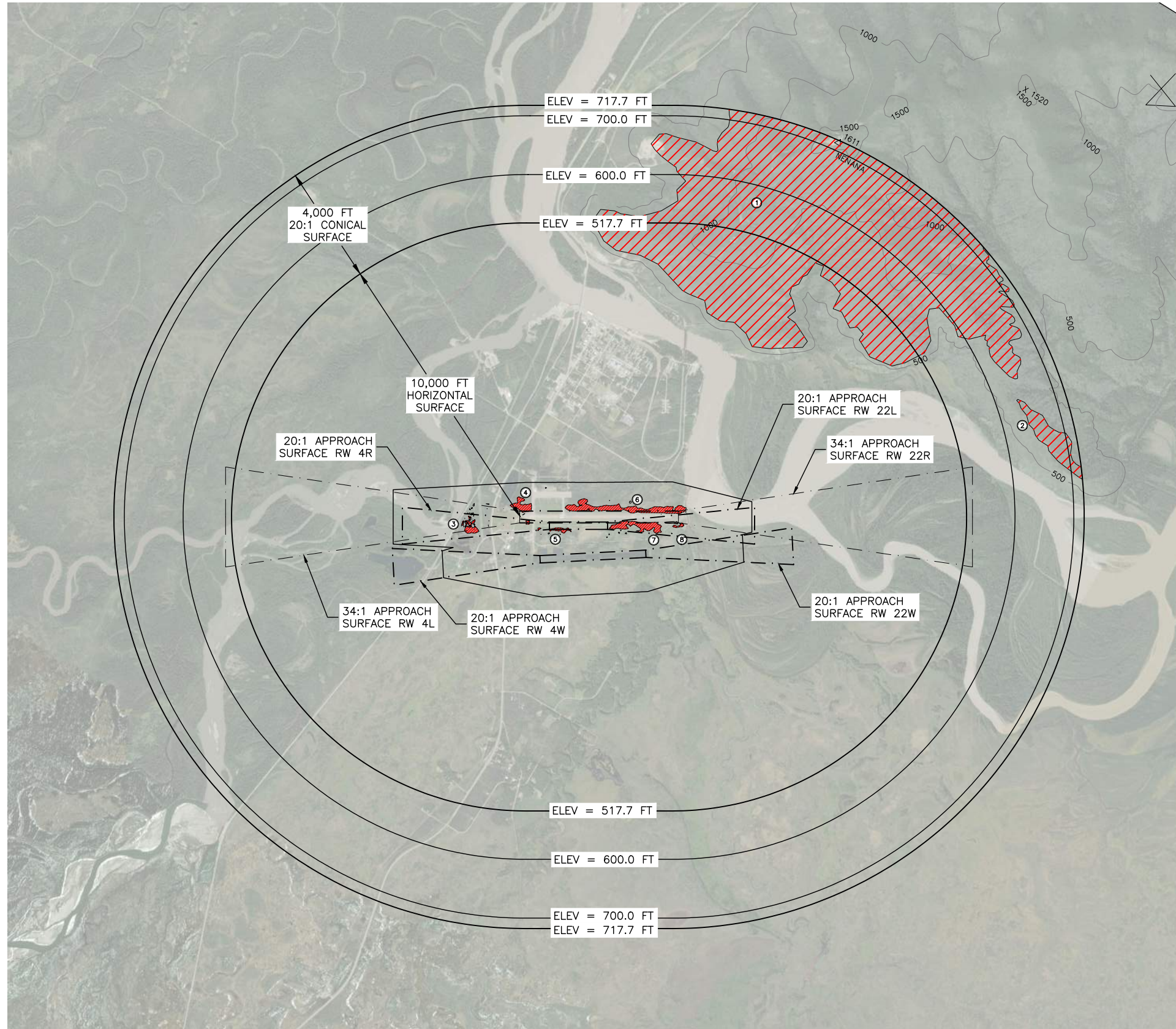
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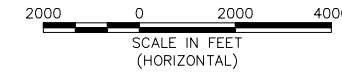
NENANA MUNICIPAL AIRPORT (ENN)  
NENANA, ALASKA  
AIRPORT LAYOUT PLAN  
TERMINAL AREA DRAWING

PROJECT	50209.01
DATE	##/##/20##
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6	OF 12

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**DRAFT**  
 MAG. DECL.: 15° 24' E  
 RATE OF CHANGE: 0° 18' W PER YEAR  
 DATE: MAY 2023



OBSTRUCTION	DESCRIPTION	HEIGHT OF PENETRATION	RECOMMENDATION
①	MOUNT NENANA	1,000 FT±	TO REMAIN
②	MOUNTAIN	100 FT±	TO REMAIN
③	TREE CLUSTER	100 FT±	REMOVE
④	TREE CLUSTER	100 FT±	REMOVE
⑤	TREE CLUSTER	100 FT±	REMOVE
⑥	TREE CLUSTER	100 FT±	REMOVE
⑦	TREE CLUSTER	100 FT±	REMOVE
⑧	TREE CLUSTER	100 FT±	REMOVE

**NOTE:**

- ALL ELEVATIONS AND CONTOURS ARE IN FEET BASED ON NAVD 88.
- DESIGNATED AIRPORT ELEVATION IS 367.3.
- USGS QUADRANGLE FAIRBANKS (A-5), ALASKA.

**LEGEND:**



TERRAIN OBSTRUCTION

REV	DATE	DESCRIPTION	BY

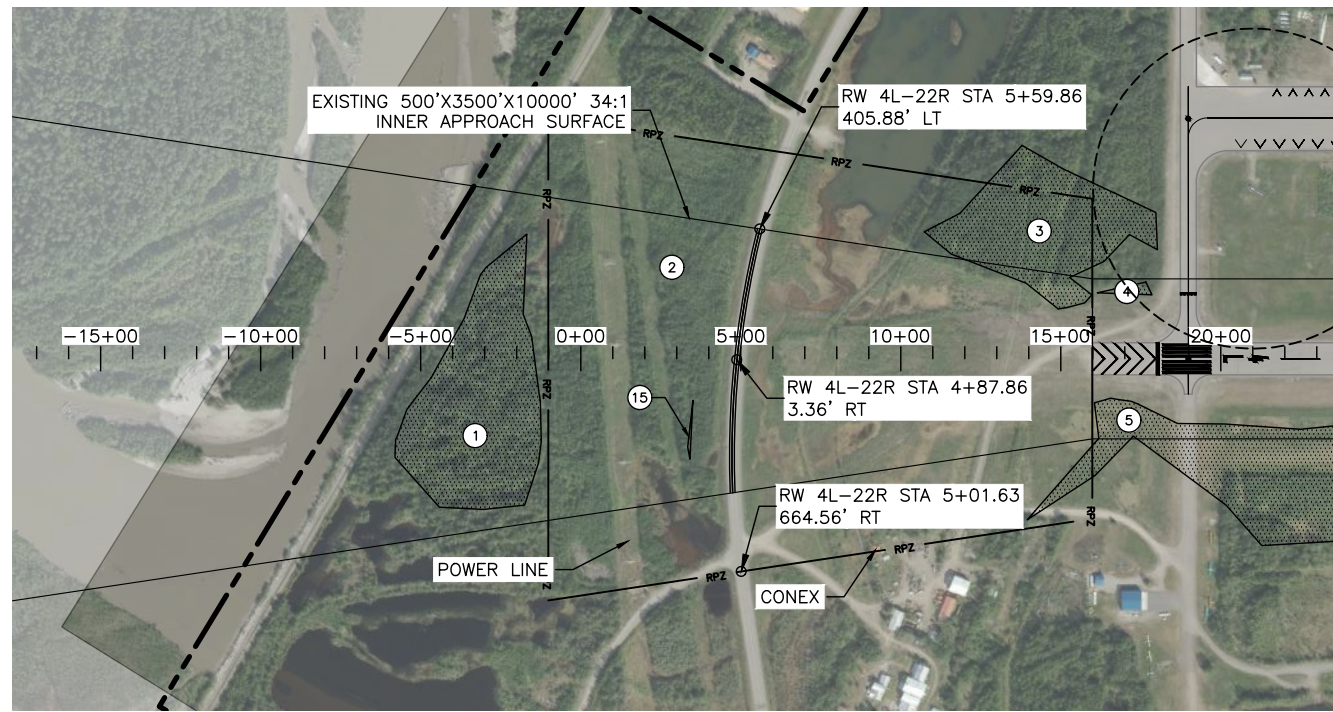
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DESIGNED	KP
DRAWN	RT
CHECKED	JG
APPROVED	MO
LAST EDIT	5/16/23
PLOT DATE	11/16/23

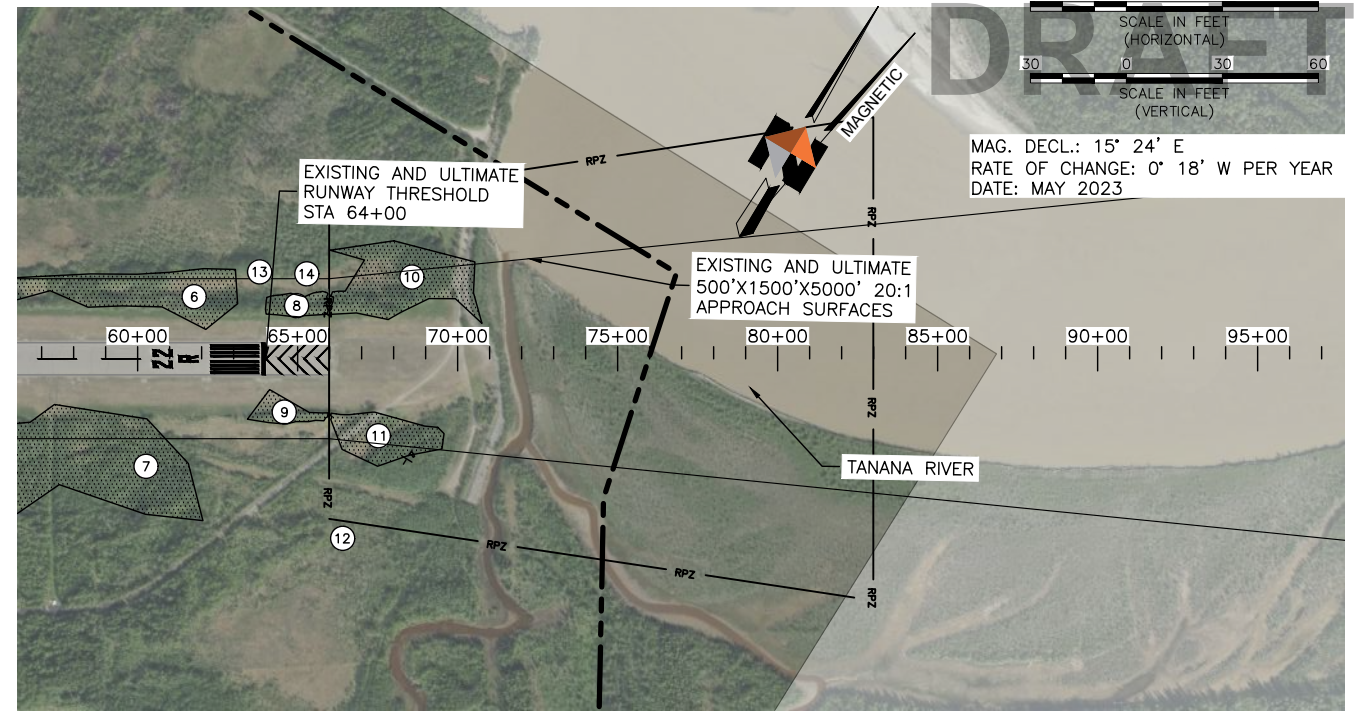
NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 AIRPORT AIRSPACE DRAWING

PROJECT	50209.01
DATE	##/##/20##
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7	OF 12

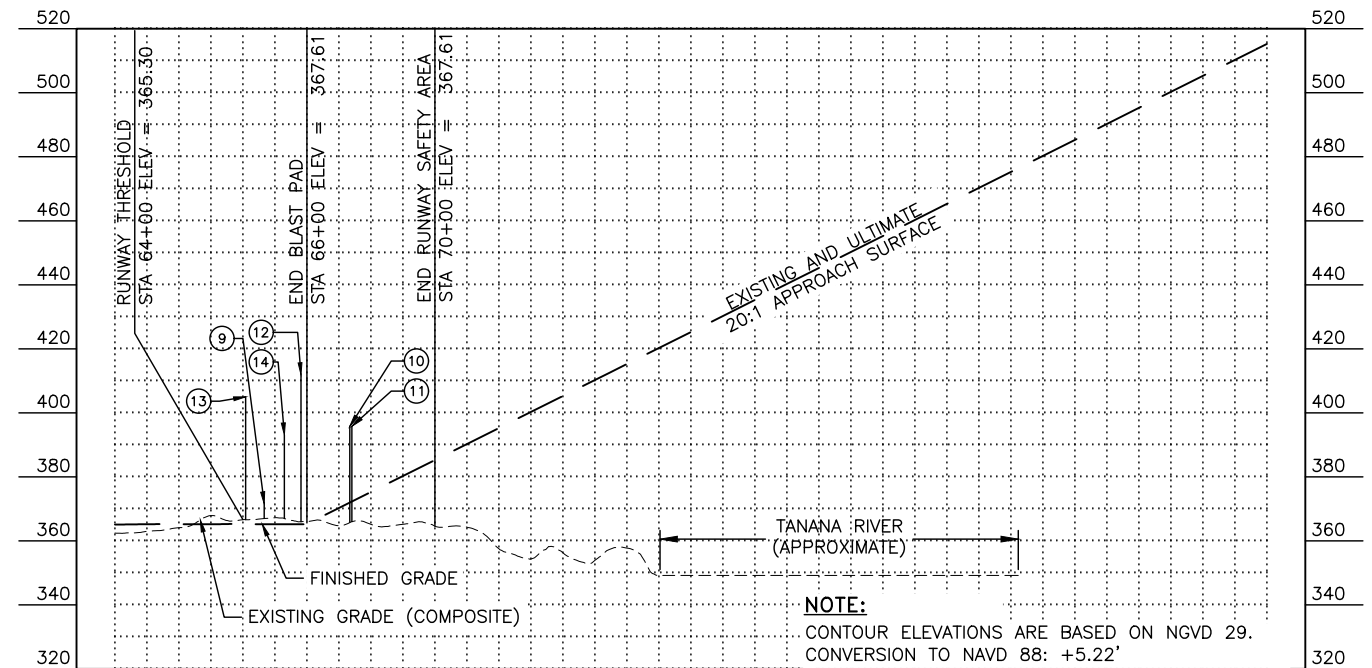
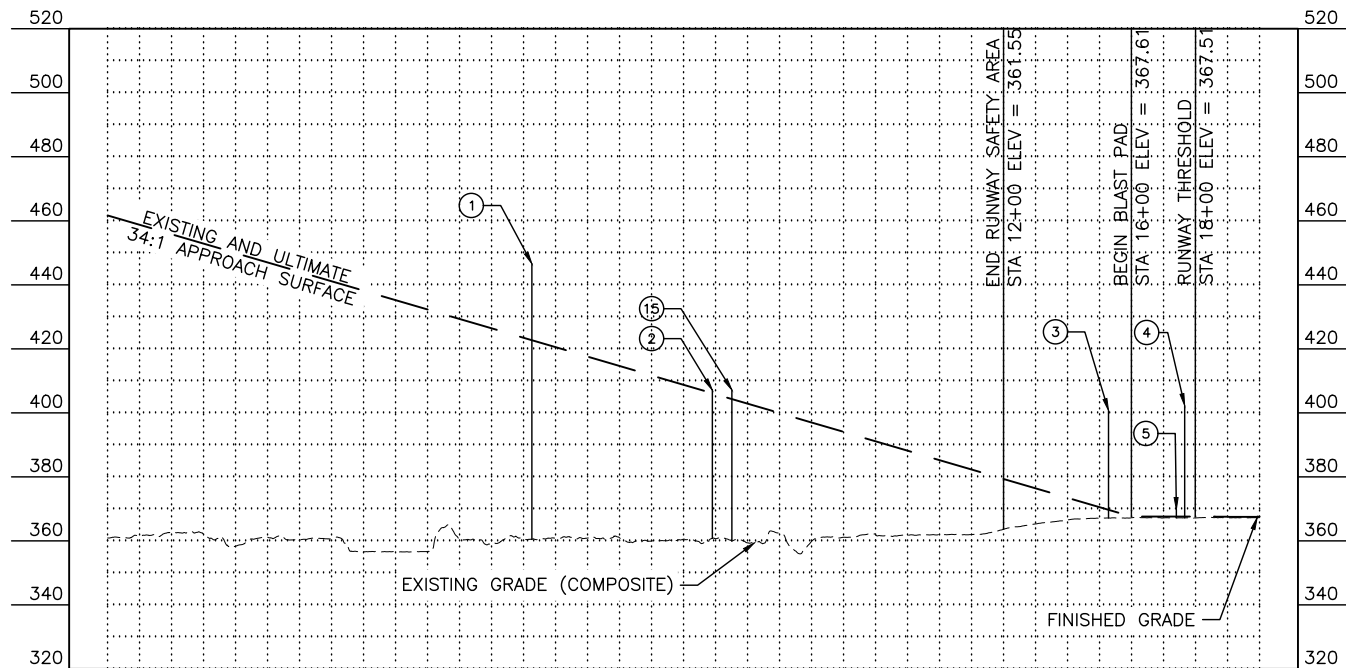
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**RUNWAY 4L**



**RUNWAY 22R**



**NOTE:**  
 CONTOUR ELEVATIONS ARE BASED ON NGVD 29.  
 CONVERSION TO NAVD 88: +5.22'

**OBSTRUCTION TABLE**

OBSTRUCTION	DESCRIPTION	STATION	OFFSET	OBSTRUCTION ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATED	DISPOSITION	STAGE TO CORRECT
1	TREE CLUSTER								
2	TREE CLUSTER								
3	TREE CLUSTER								
4	TREE CLUSTER								
5	TREE CLUSTER								

REV	DATE	DESCRIPTION

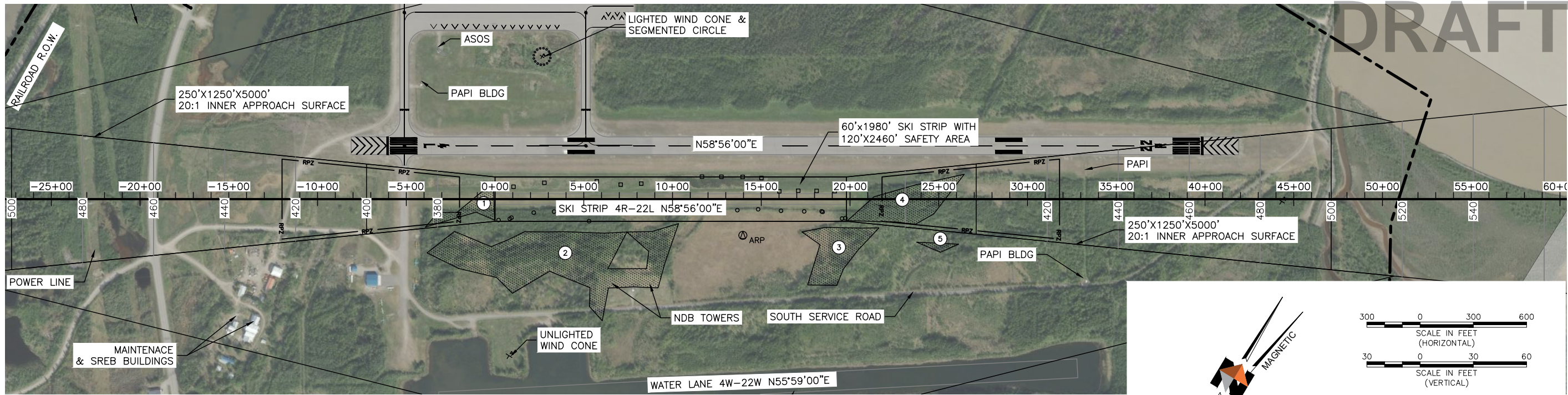


NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 RW 4L-22R INNER PORTION OF THE  
 APPROACH PLAN & PROFILE

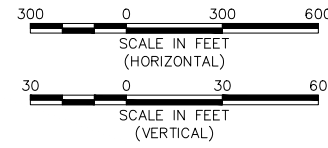
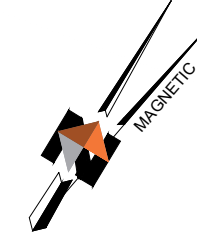
PROJECT	50209.01
DATE	##/##/20##
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SHEET	
8 OF 12	



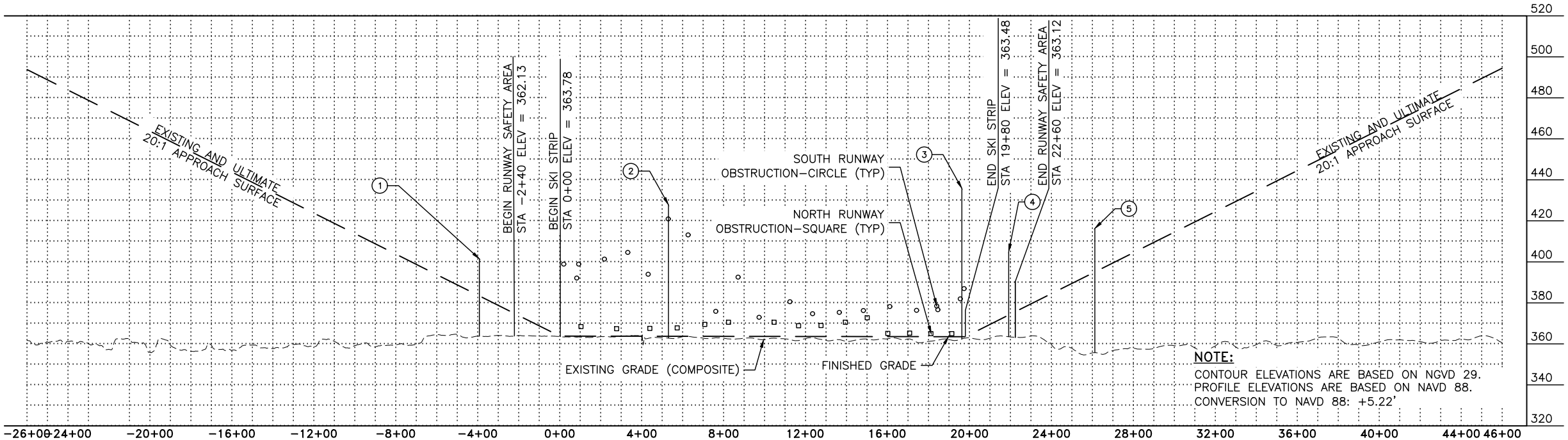
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**GRAVEL/SKI STRIP 4R-22L**



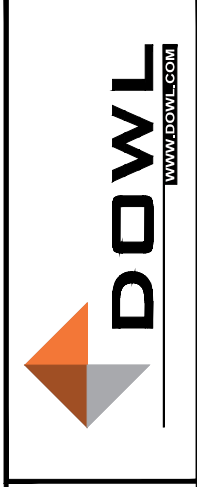
MAG. DECL.: 15° 24' E  
 RATE OF CHANGE: 0° 18' W PER YEAR  
 DATE: MAY 2023



**OBSTRUCTION TABLE**

OBSTRUCTION	DESCRIPTION	STATION	OFFSET	OBSTRUCTION ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATED	DISPOSITION	STAGE TO CORRECT
1	TREE CLUSTER	-3+91.97' / -0+02.86'	157.78' / 118.57' RT	401.47'	APPROACH	383.38'	18.09'	REMOVE	NEAR TERM
2	TREE CLUSTER	-3+83.57' / 10+33.81'	303.21' / 137.95' RT	373.82'	TRANSITIONAL	382.66'	8.84'	REMOVE	NEAR TERM
3	TREE CLUSTER	17+28.17' / 21+63.27'	185.12' / 162.01' RT	435.83'	TRANSITIONAL	402.26'	33.57'	REMOVE	NEAR TERM
4	TREE CLUSTER	19+85.47' / 26+43.96'	121.45' RT / 139.73' LT	404.95'	APPROACH	374.74'	30.21'	REMOVE	NEAR TERM
5	TREE CLUSTER	23+75.33' / 26+12.09'	242.50' / 253.90' RT	416.26'	TRANSITIONAL	404.50'	11.76'	REMOVE	NEAR TERM

REV	DATE	DESCRIPTION	BY

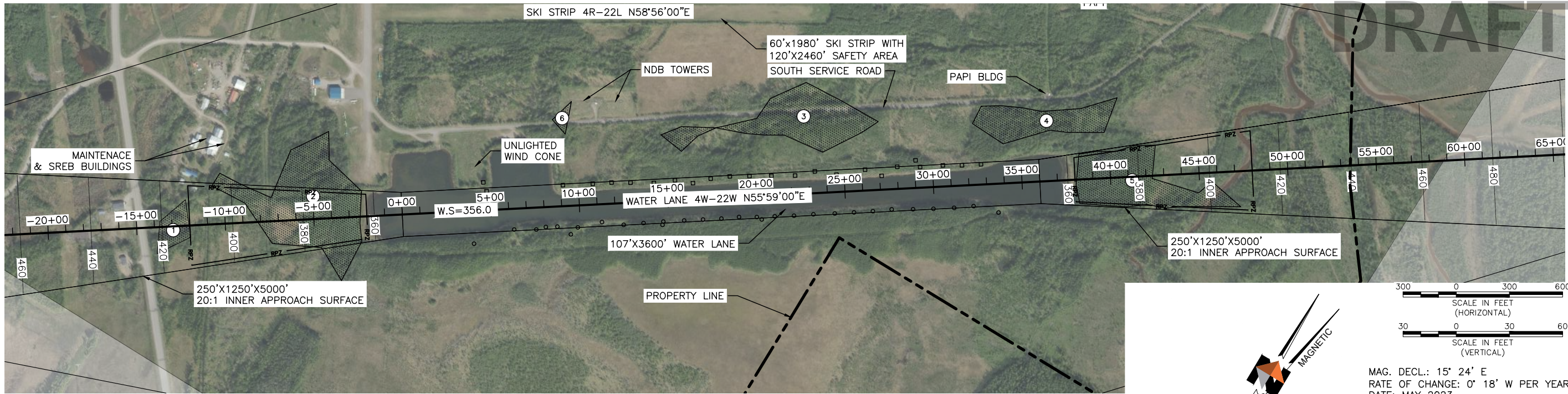


NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 RW 4R-22L INNER PORTION OF THE  
 APPROACH PLAN & PROFILE

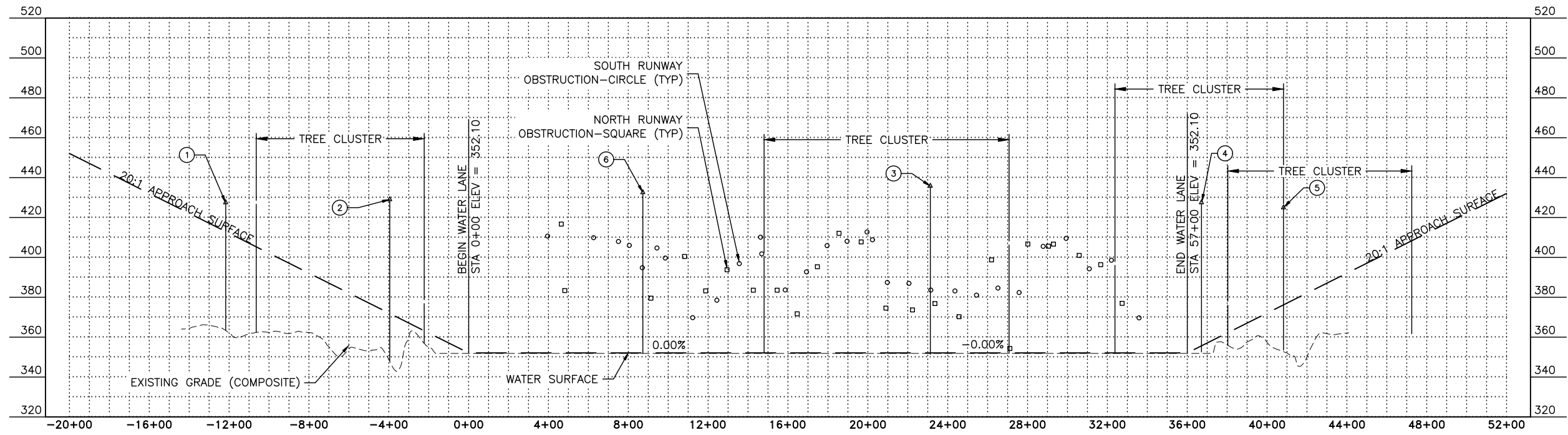
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 DATE: ##/##/20##

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**WATER LANE 4W-22W**



**NOTE:**  
 CONTOUR ELEVATIONS ARE BASED ON NGVD 29.  
 PROFILE ELEVATIONS ARE BASED ON NAVD 88.  
 CONVERSION TO NAVD 88: +5.22'

**OBSTRUCTION TABLE**

OBSTRUCTION	DESCRIPTION	STATION	OFFSET	OBSTRUCTION ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATED	DISPOSITION	STAGE TO CORRECT
1	TREE CLUSTER	-12+17.15	149.50' RT/146.60' LT	427.59'	APPROACH	416.82'	10'-9.24"	REMOVE	NEAR TERM
2	TREE CLUSTER	-10+64.33' / -2+22.87'	355.45' RT/489.51' LT	429.05'	APPROACH	368.07'	60'-11.76"	REMOVE	NEAR TERM
3	TREE CLUSTER	14+80.16' / 27+07.98'	228.82' LT/627.01' LT	435.83'	TRANSITIONAL	367.81'	68'-0.24"	REMOVE	NEAR TERM
4	TREE CLUSTER	32+38.31' / 40+82.99'	222.96' LT/450.13' LT	427.57'	TRANSITIONAL	383.03'	44'-6.48"	REMOVE	NEAR TERM
5	TREE CLUSTER	36+71.79' / 47+25.09'	200.86' RT/143.09' LT	424.61'	APPROACH	362.34'	62'-3.24"	REMOVE	NEAR TERM
6	TREE CLUSTER	9+29.73'	490.64' RT	427.78'	TRANSITIONAL	404.39'	23'-4.68"	REMOVE	NEAR TERM

REV	DATE	DESCRIPTION

SHEET INFO	DESIGNED	DRAWN	CHECKED	APPROVED	MO	LAST EDIT	PLOT DATE
	KP	RT	JG	MO		5/16/23	5/15/23

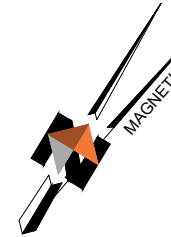
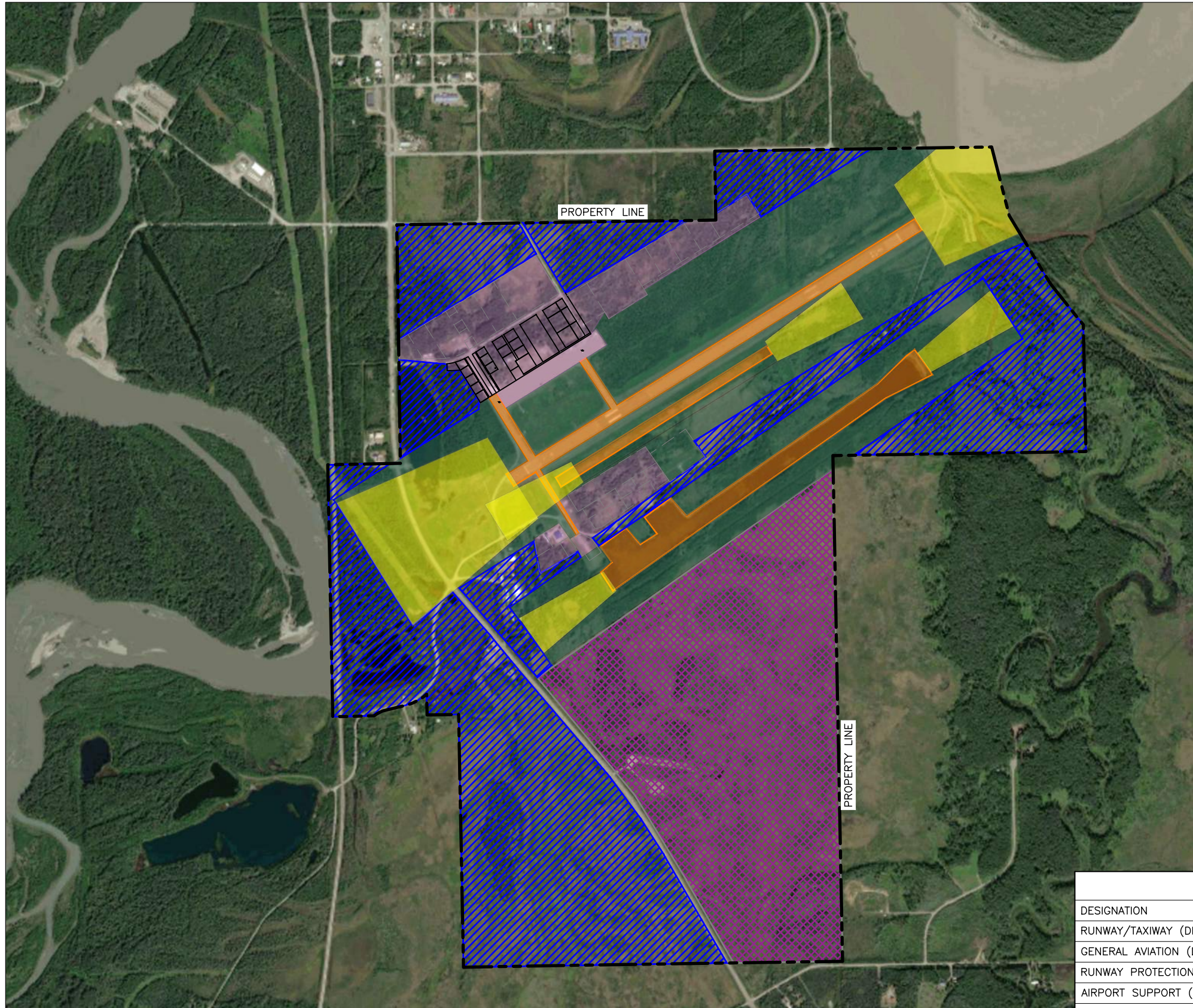


NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 RW 4W-22W INNER PORTION OF THE  
 APPROACH PLAN & PROFILE

PROJECT 50209.01  
 DATE ##/##/20##

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# DRAFT

MAG. DECL.: 15° 24' E  
 RATE OF CHANGE: 0° 18' W PER YEAR  
 DATE: MAY 2023

LEGEND	
DESIGNATION	
RUNWAY/TAXIWAY (DIRECT AVIATION)	
GENERAL AVIATION (DIRECT AVIATION)	
RUNWAY PROTECTION ZONE (DIRECT AVIATION)	
AIRPORT SUPPORT (REMAIN AS OPEN SPACE)	
AIRPORT NON-AERONAUTICAL USE	
CITY OF NENANA PROPOSED SOLAR FARM	

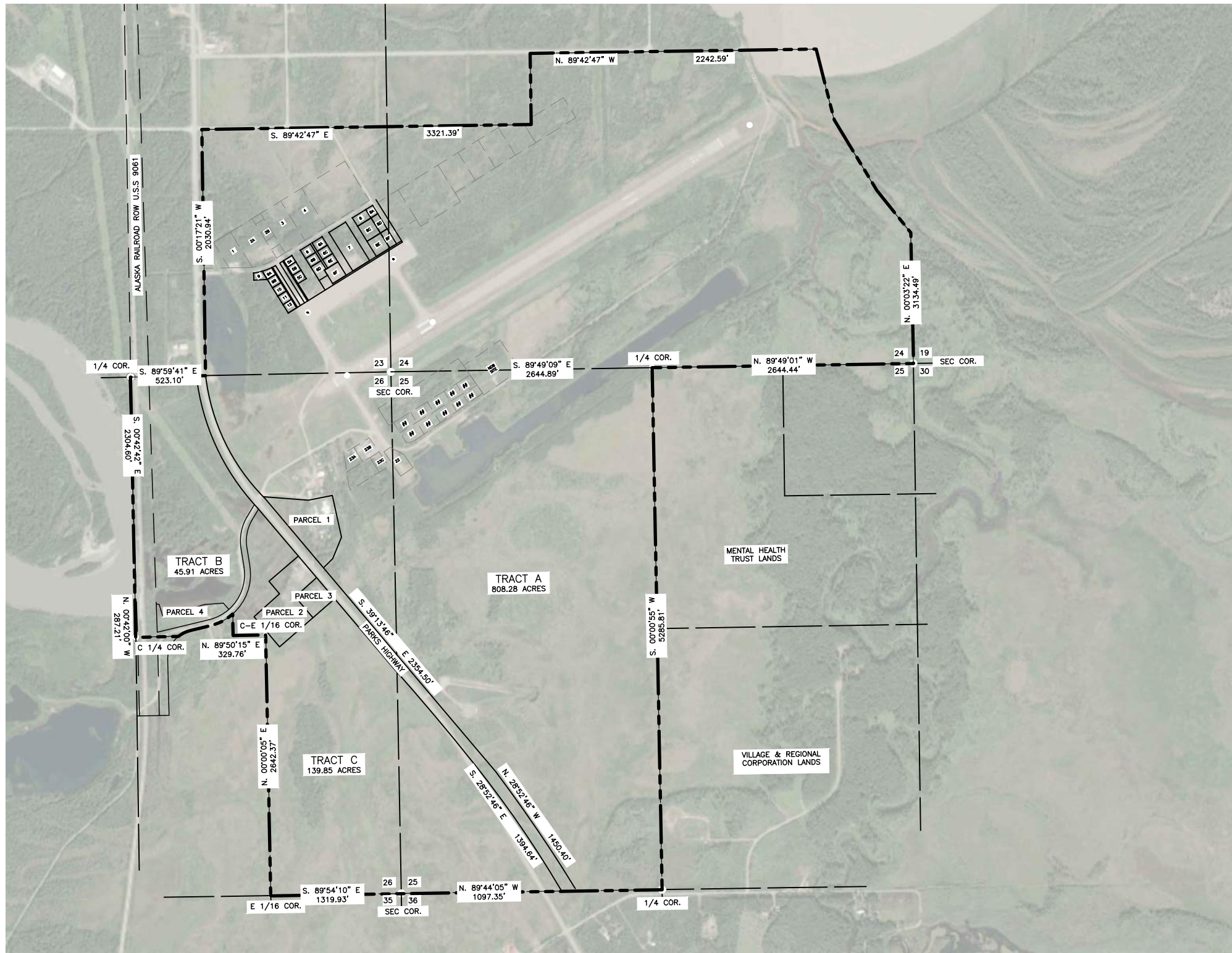
REV	DATE	DESCRIPTION	BY



NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 ON-AIRPORT LAND USE DRAWING

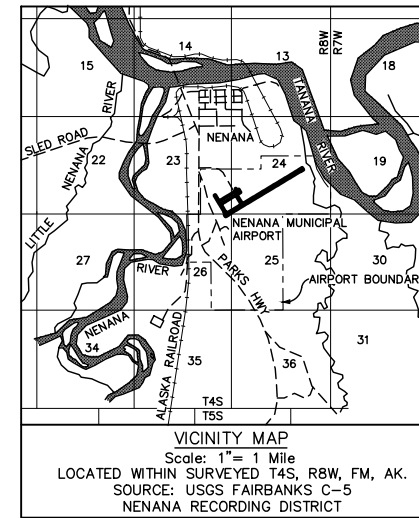
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DATE	##/##/20##
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11	OF 12

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**MAGNETIC** **DRAFT**

MAG. DECL.: 15° 24' E  
 RATE OF CHANGE: 0° 18' W PER YEAR  
 DATE: MAY 2023



**NOTE:**

1. THE PROPERTY INFORMATION SHOWN IS BASED ON THE CITY OF NENANA DRAWING TITLED "PROPERTY PLAN, EXHIBIT A, AIP-06, CITY OF NENANA, ALASKA, MUNICIPAL AIRPORT" BY WINCE-CORTHELL-BRYSON, DATED JULY 1992.
2. THE PROPERTY BOUNDARY LINES AND EASEMENTS SHOWN ARE BASED ON RECORD INFORMATION.
3. THE RUNWAY 4L-22R CENTERLINE MONUMENTS WERE RESET BY AMTECH IN SEPTEMBER, 2004 AFTER RUNWAY RECONSTRUCTION.

**CITY OF NENANA LAND LEASE PARCELS**

ID#	INTEREST	GRANTOR	GRANTEE	PARCEL SIZE (ACRES)	DATE ACQUIRED	RECORDED DOC. NO.	FINAL JUDGEMENT	ADA NO.	AIP GRANT NO.	REMARKS
A	QUITCLAIM DEED	UNITED STATES GOVERNMENT	CITY OF NENANA	808.28 ACRES	07/01/1964				-	
B	QUITCLAIM DEED	STATE OF ALASKA	CITY OF NENANA	45.91 ACRES	03/19/1964				-	
C	WARRANTY DEED	MISSING INFORMATION	CITY OF NENANA	139.85 ACRES	9/20/1964				-	
PARCEL 1	QUITCLAIM DEED	CITY OF NENANA	KOYOKUK SCHOOL DISTRICT	7.025 ACRES	9/22/1983				-	
PARCEL 2	LEASE	CITY OF NENANA	GOLDEN VALLEY ELECTRIC ASSOC	6.520 ACRES	7/01/1970				-	
PARCEL 3	LEASE	CITY OF NENANA	GLACIER STATE TELEPHONE CO.	1.928 ACRES	08/26/1969				-	
PARCEL 4	LEASE	CITY OF NENANA	ROBERT BECK	2.575 ACRES	MISSING				-	
NDB SITE	LEASE	CITY OF NENANA	FAA	3.719 ACRES	MISSING				-	

REV	DATE	DESCRIPTION	BY

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NENANA MUNICIPAL AIRPORT (ENN)  
 NENANA, ALASKA  
 AIRPORT LAYOUT PLAN  
 EXHIBIT 'A' AIRPORT PROPERTY MAP

PROJECT	50209.01
DATE	##/##/20##
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SHEET	
12 OF 12	

**APPENDIX 1:**  
**FAA FORM 5010 AIRPORT MASTER**  
**RECORD**





> 1 ASSOC CITY: NENANA 4 STATE: AK LOC ID: ENN FAA SITE NR: 50524.\*A  
 > 2 AIRPORT NAME: NENANA MUNI 5 COUNTY: YUKON-KOYUKUK AK  
 3 CBD TO AIRPORT (NM): 01 S 6 REGION/ADO: AAL/NONE 7 SECT AERO CHT: FAIRBANKS

**GENERAL**

10 OWNERSHIP: PUBLIC  
 > 11 OWNER: CITY OF NENANA  
 > 12 ADDRESS: BOX 70  
 NENANA, AK 99760  
 > 13 PHONE NR: 907-832-5441  
 > 14 MANAGER: JOSH VERHAGEN  
 > 15 ADDRESS: BOX 70  
 NENANA, AK 99760  
 > 16 PHONE NR: 907-888-5036  
 > 17 ATTENDANCE SCHEDULE:  
 UNATTND

**SERVICES**

> 70 FUEL: 100LL A  
 > 71 AIRFRAME RPRS: NONE  
 > 72 PWR PLANT RPRS: NONE  
 > 73 BOTTLE OXYGEN: NONE  
 > 74 BULK OXYGEN: NONE  
 75 TSNT STORAGE: TIE  
 76 OTHER SERVICES:

**BASED AIRCRAFT**

90 SINGLE ENG: 13  
 91 MULTI ENG: 0  
 92 JET: 0  
 93 HELICOPTERS: 0  
 TOTAL: 13  
 94 GLIDERS: 0  
 95 MILITARY: 0  
 96 ULTRA-LIGHT: 0

**FACILITIES**

> 80 ARPT BCN: CG  
 > 81 ARPT LGT SKED: SEE RMK  
 BCN LGT SKED: SS-SR  
 > 82 UNICOM:  
 > 83 WIND INDICATOR: YES-L  
 84 SEGMENTED CIRCLE: YES  
 85 CONTROL TWR: NO  
 86 FSS: FAIRBANKS  
 87 FSS ON ARPT: NO  
 88 FSS PHONE NR: 907-474-0788  
 89 TOLL FREE NR: 1-866-248-6516

**OPERATIONS**

100 AIR CARRIER: 0  
 102 AIR TAXI: 2,500  
 103 G A LOCAL: 1,500  
 104 G A ITNRNT: 2,000  
 105 MILITARY: 0  
 TOTAL: 6,000  
 OPERATIONS FOR  
 12 MONTHS  
 ENDING: 12/31/2019

18 AIRPORT USE: PUBLIC  
 19 ARPT LAT: 64-32-50.3851N ESTIMATED  
 20 ARPT LONG: 149-04-26.3107W  
 21 ARPT ELEV: 368.0 ESTIMATED  
 22 ACREAGE: 1,030  
 > 23 RIGHT TRAFFIC: 04L, 04R, 04W  
 > 24 NON-COMM LANDING: NO

25 NPIAS/FED AGREEMENTS: NGPY  
 > 26 FAR 139 INDEX:

**RUNWAY DATA**

> 30 RUNWAY INDENT:  
 > 31 LENGTH:  
 > 32 WIDTH:  
 > 33 SURF TYPE-COND:  
 > 34 SURF TREATMENT:  
 35 GROSS WT: S  
 36 (IN THSDS) D  
 37 2D  
 38 2D/2D2  
 > 39 PCN:

	04L/22R	04R/22L	04W/22W
> 30 RUNWAY INDENT:	4,600	2,520	3,601
> 31 LENGTH:	100	60	100
> 32 WIDTH:	ASPH-G	TURF-G	WATER
> 33 SURF TYPE-COND:	160.0		
> 34 SURF TREATMENT:			
35 GROSS WT: S			
36 (IN THSDS) D			
37 2D			
38 2D/2D2			
> 39 PCN:			
<b>LIGHTING/APCH AIDS</b>			
> 40 EDGE INTENSITY:	MED	MED	
> 42 RWY MARK TYPE-COND:	NPI - G / NPI - G	- / -	- / -
> 43 VGSF:	P4L / P4L	/	/
44 THR COSSING HGT.:	35 / 35	/	/
45 VISUAL GLIDE ANGLE:	3.00 / 3.00	/	/
> 46 CNTRLN-TDZ:	- / -	- / -	- / -
> 47 RVR-RVV:	- / -	- / -	- / -
> 48 REIL:	Y / Y	/	/
> 49 APCH LIGHTS:	/	/	/
<b>OBSTRUCTION DATA</b>			
50 FAR 77 CATEGORY	C / B(V)	A(V) / A(V)	A(V) / A(V)
> 51 DISPLACED THR:	/	/	/
> 52 CTLG OBSTN:	TREES / TREES	TREES / TREES	/
> 53 OBSTN MARKED/LGTD:	/	/	/
> 54 HGT ABOVE RWY END:	30 / 31	30 / 23	/
> 55 DIST FROM RWY END:	201 / 360	0 / 0	/
> 56 CNTRLN OFFSET:	220L / 142L	65R / 70L	/
57 OBSTN CLNC SLOPE:	0:1 / 5:1	0:1 / 0:1	20:1 / 20:1
58 CLOSE-IN OBSTN:	N / N	N / N	N / N
<b>DECLARED DISTANCES</b>			
> 60 TAKE OFF RUN AVBL (TORA):	/	/	/
> 61 TAKE OFF DIST AVBL (TODA):	/	/	/
> 62 ACLT STOP DIST AVBL (ASDA):	/	/	/
> 63 LNDG DIST AVBL (LDA):	/	/	/

(P) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS

A 031 RY 04R/22L IN SUMMER FULL LENGTH MAY NOT BE AVBL, DUE TO BEING SOFT; AVBL FOR SKI USE WHEN FROZEN.  
 A 040 RWY 04L/22R LIGHTS OTS INDEF.  
 A 040 RWY 04R/22L LIGHTS OTS INDEF.  
 A 070 SELF-SVC FUEL AVBL 24/7 VIA CARD LOCK.  
 A 081 ACTVT REIL RWY 04L & 22R; PAPI 04L & 22R; MIRL RWY 04L/22R - CTAF.  
 A 084 SEGMENTED CIRCLE DAMAGED.  
 A 110-001 SHALLOW WATER NEAR FLOAT POND RAMP AREA.  
 A 110-002 WX CAMERA AVBL ON INTERNET AT HTTP://AVCAM.S.FAA.GOV  
 A 110-004 RWY COND NOT MONITORED; RCMD VISUAL INSPECTION PRIOR TO USE.

111 INSPECTOR: (S) 112 LAST INSP: 08/13/2020 113 LAST INFO REQ:





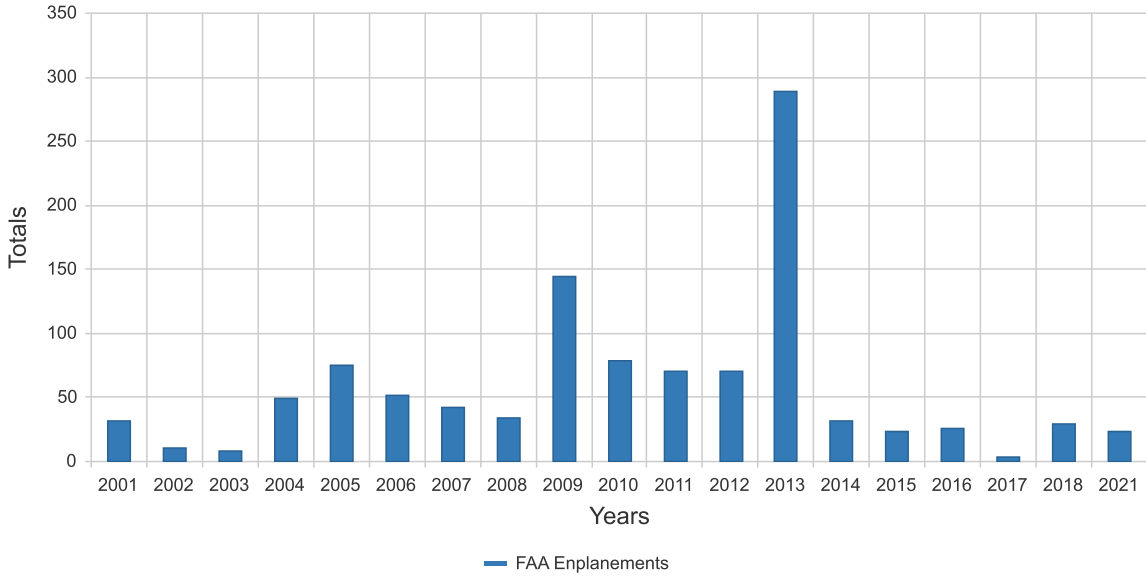
**APPENDIX 2:**  
**ACAIS FAA ENPLANEMENTS**



Base Information

Owner:	CITY OF NENANA	FAA Associated City:	NENANA
NPIAS:	02-0191	DOT&PF Region:	---
Airport Use:	Public	DOT Owned:	False
Type:	Airport	Facility Status:	Active

- FAA Enplanements ?
- FAA Cargo ?
- T-100 Data ?
- Annual Revenue & Operational Expenses ?



Source: Federal Aviation Administration the Air Carrier Activity Information System (ACAIS)

Add Data +/-

Facility Statistics

		Year	Type	Amount	Source	Notes
Edit	Delete	2022	Deplaned Freight	11,826	T-100 Data Import	
Edit	Delete	2022	Deplaned Mail	153	T-100 Data Import	
Edit	Delete	2022	Deplaned Passengers	107	T-100 Data Import	
Edit	Delete	2022	Enplaned Freight	1	T-100 Data Import	
Edit	Delete	2022	Enplaned Mail	0	T-100 Data Import	
Edit	Delete	2022	Enplaned Passengers	0	T-100 Data Import	
Edit	Delete	2021	Deplaned Freight	525	T-100 Data Import	
Edit	Delete	2021	Deplaned Mail	0	T-100 Data Import	
Edit	Delete	2021	Deplaned Passengers	28	T-100 Data Import	
Edit	Delete	2021	Enplaned Freight	0	T-100 Data Import	
Edit	Delete	2021	Enplaned Mail	0	T-100 Data Import	
Edit	Delete	2021	Enplaned Passengers	24	T-100 Data Import	
Edit	Delete	2021	FAA Enplanements	24	Import Tool	Preliminary
Edit	Delete	2019	Deplaned Freight	500	T-100 Data Import	
Edit	Delete	2019	Deplaned Mail	0	T-100 Data Import	
Edit	Delete	2019	Deplaned Passengers	6	T-100 Data Import	
Edit	Delete	2019	Enplaned Freight	950	T-100 Data Import	
Edit	Delete	2019	Enplaned Mail	0	T-100 Data Import	
Edit	Delete	2019	Enplaned Passengers	10	T-100 Data Import	
Edit	Delete	2018	Deplaned Freight	2,490	T-100 Data Import	
Edit	Delete	2018	Deplaned Mail	0	T-100 Data Import	
Edit	Delete	2018	Deplaned Passengers	230	T-100 Data Import	
Edit	Delete	2018	Enplaned Freight	0	T-100 Data Import	
Edit	Delete	2018	Enplaned Mail	0	T-100 Data Import	
Edit	Delete	2018	Enplaned Passengers	29	T-100 Data Import	

Edit	Delete	2018	FAA Enplanements	29	Import
Edit	Delete	2017	Deplaned Freight	27,295	T-100 Data Import
Edit	Delete	2017	Deplaned Mail	0	T-100 Data Import
Edit	Delete	2017	Deplaned Passengers	36	T-100 Data Import
Edit	Delete	2017	Enplaned Freight	0	T-100 Data Import
Edit	Delete	2017	Enplaned Mail	0	T-100 Data Import
Edit	Delete	2017	Enplaned Passengers	4	T-100 Data Import
Edit	Delete	2017	FAA Enplanements	4	Import
Edit	Delete	2016	Deplaned Freight	361	T-100 Data Import
Edit	Delete	2016	Deplaned Mail	0	T-100 Data Import
Edit	Delete	2016	Deplaned Passengers	186	T-100 Data Import
Edit	Delete	2016	Enplaned Freight	0	T-100 Data Import
Edit	Delete	2016	Enplaned Mail	0	T-100 Data Import
Edit	Delete	2016	Enplaned Passengers	26	T-100 Data Import
Edit	Delete	2016	FAA Enplanements	26	Import
Edit	Delete	2015	Deplaned Freight	0	T-100 Data Import
Edit	Delete	2015	Deplaned Mail	0	T-100 Data Import
Edit	Delete	2015	Deplaned Passengers	9	T-100 Data Import
Edit	Delete	2015	Enplaned Freight	0	T-100 Data Import
Edit	Delete	2015	Enplaned Mail	0	T-100 Data Import
Edit	Delete	2015	Enplaned Passengers	19	T-100 Data Import
Edit	Delete	2015	FAA Enplanements	24	Import
Edit	Delete	2014	Deplaned Freight	1,860	T-100 Data Import
Edit	Delete	2014	Deplaned Mail	0	T-100 Data Import
Edit	Delete	2014	Deplaned Passengers	66	T-100 Data Import
Edit	Delete	2014	Enplaned Freight	675	T-100 Data Import
Edit	Delete	2014	Enplaned Mail	0	T-100 Data Import
Edit	Delete	2014	Enplaned Passengers	32	T-100 Data Import
Edit	Delete	2014	FAA Enplanements	32	Import
Edit	Delete	2013	Deplaned Freight	2,118	T-100 Data Import
Edit	Delete	2013	Deplaned Mail	0	T-100 Data Import
Edit	Delete	2013	Deplaned Passengers	333	T-100 Data Import
Edit	Delete	2013	Enplaned Freight	315	T-100 Data Import
Edit	Delete	2013	Enplaned Mail	0	T-100 Data Import
Edit	Delete	2013	Enplaned Passengers	289	T-100 Data Import
Edit	Delete	2013	FAA Enplanements	289	Import
Edit	Delete	2012	FAA Enplanements	71	Import
Edit	Delete	2011	FAA Enplanements	71	Import
Edit	Delete	2010	FAA Enplanements	79	Import
Edit	Delete	2009	FAA Enplanements	144	Import
Edit	Delete	2008	FAA Enplanements	34	Import
Edit	Delete	2007	FAA Enplanements	42	Import
Edit	Delete	2006	FAA Enplanements	52	Import
Edit	Delete	2005	FAA Enplanements	75	Import
Edit	Delete	2004	FAA Enplanements	49	Import
Edit	Delete	2003	FAA Enplanements	8	Import
Edit	Delete	2002	FAA Enplanements	11	Import
Edit	Delete	2001	FAA Enplanements	32	Import

**APPENDIX 3:**  
**FLIGHTWARE DATA**



### Appendix 3: FlightAware Data for ENN (August 7, 2020 - August 7, 2022)

Ident	Type	Owner	Origin City	Arrival Time
N966FS		TUMBLEWEED LEASING CO INC	Clear, AK	8/7/2020 12:51
N8644Z		MASTERS MISSION	Nenana, AK	8/7/2020 9:35
N8644Z		MASTERS MISSION	Fairbanks, AK	8/7/2020 12:56
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 13:03
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 13:31
N225PZ		FIEDLER LINWOOD W	Healy, AK	8/7/2020 14:06
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 14:09
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 14:43
N225PZ		FIEDLER LINWOOD W	Nenana, AK	
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 15:06
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 15:39
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 16:10
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 16:49
N966FS		TUMBLEWEED LEASING CO INC	Rampart, AK	8/7/2020 17:59
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/7/2020 17:43
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	8/8/2020 12:48
N369KG	M7	PRIDMORE BROWN JULIAN N	Nenana, AK	8/9/2020 18:49
N58337		TEMSCO HELICOPTERS INC	Manley Hot Springs, AK	8/10/2020 15:37
N5227R	C185	AVIATION EXPEDITIONS LLC	Clear, AK	8/10/2020 16:02
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/10/2020 16:44
N279CH		COASTAL HELICOPTERS INC	Minchumina, AK	8/12/2020 15:46
N412BD	PA46	ROZZELL SCOTT E	Anchorage, AK	8/13/2020 13:02
N412BD	PA46	ROZZELL SCOTT E	Nenana, AK	8/13/2020 14:04
N225PZ		FIEDLER LINWOOD W	Fairbanks, AK	8/13/2020 15:00
N225PZ		FIEDLER LINWOOD W	Nenana, AK	8/13/2020 17:51
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Fairbanks/Ft Wainwright,	8/14/2020 17:42
N99676	AS50	ALPINE AIR ALASKA LLC	Rampart, AK	8/16/2020 12:32
N602RA	H500	HELI 602 LEASING LLC	Summit, AK	8/19/2020 10:02
N332F	HUSK	KUKOWSKI RAYMOND N	Anchorage, AK	8/19/2020 12:53
N332F	HUSK	KUKOWSKI RAYMOND N	Nenana, AK	
N383AK	AS50	ALPHA AVIATION LLC	Fairbanks, AK	8/20/2020 9:13
N383AK	AS50	ALPHA AVIATION LLC	Nenana, AK	
N383AK	AS50	ALPHA AVIATION LLC	Clear, AK	8/20/2020 15:19
CAP5013		CIVIL AIR PATROL	Healy, AK	8/21/2020 11:10
CAP5013		CIVIL AIR PATROL	Nenana, AK	8/21/2020 12:06
N182JE		GAUSTAD ANDERS	Fairbanks, AK	8/21/2020 14:03
N182JE		GAUSTAD ANDERS	Nenana, AK	
N27532	C185	SHADOW AVIATION INC	Nenana, AK	
N27532	C185	SHADOW AVIATION INC	Clear, AK	8/21/2020 16:32
N27532	C185	SHADOW AVIATION INC	Nenana, AK	
N27532	C185	SHADOW AVIATION INC	Mizan Teferi	8/21/2020 15:25
N1661P	PA18	FROST JOHN DAVID TRUSTEE	Talkeetna, AK	8/22/2020 11:16
N8314X	C172	MORISSETTE MATTHEW A	Fairbanks, AK	8/22/2020 11:46
N1661P	PA18	FROST JOHN DAVID TRUSTEE	Nenana, AK	
N8314X	C172	MORISSETTE MATTHEW A	Nenana, AK	8/22/2020 17:43

N347AE	AS50	NORTHERN PIONEER HELICOPTERS LLC	Nenana, AK	8/23/2020 10:19
N347AE	AS50	NORTHERN PIONEER HELICOPTERS LLC	Nenana, AK	8/23/2020 12:31
N34WM	PA31	70 NORTH LLC	Nenana, AK	8/23/2020 19:37
N4798S	PA32	ELLER DONALD B	Wasilla, AK	8/24/2020 18:48
N4798S		ELLER DONALD B	Nenana, AK	
CAP5013		CIVIL AIR PATROL	Fairbanks, AK	8/25/2020 16:17
CAP5013		CIVIL AIR PATROL	Nenana, AK	8/25/2020 17:08
N5227R	C185	AVIATION EXPEDITIONS LLC	Clear, AK	8/26/2020 12:55
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/26/2020 13:38
N4319R	C185	WOODLAND WILLIAM B	Anchorage, AK	8/28/2020 15:25
N4319R	C185	WOODLAND WILLIAM B	Nenana, AK	8/28/2020 16:14
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	8/29/2020 13:57
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Nenana, AK	8/29/2020 15:46
BLK1	P46T	Blocked by owner	Anchorage, AK	8/31/2020 7:05
BLK1	P46T	Blocked by owner	Nenana, AK	8/31/2020 11:07
N182JE		GAUSTAD ANDERS	Fairbanks, AK	8/31/2020 13:02
N182JE		GAUSTAD ANDERS	Nenana, AK	8/31/2020 15:30
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	9/2/2020 13:38
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Nenana, AK	9/2/2020 14:59
N911AA	AS50	STATE OF ALASKA	Fairbanks, AK	9/3/2020 9:36
N911AA	AS50	STATE OF ALASKA	Nenana, AK	
N3121Y		HAASS GARY W	Talkeetna, AK	9/3/2020 15:59
N911AA	AS50	STATE OF ALASKA	Clear, AK	9/3/2020 15:45
N911AA	AS50	STATE OF ALASKA	Nenana, AK	9/3/2020 16:29
BLK1	P46T	Blocked by owner	Anchorage, AK	9/4/2020 9:34
BLK1	P46T	Blocked by owner	Nenana, AK	9/4/2020 11:51
N3121Y		HAASS GARY W	Fairbanks, AK	9/4/2020 16:04
N1415H		GULLICKSON GREGORY D	Cantwell, AK	9/4/2020 16:10
N1415H		GULLICKSON GREGORY D	Nenana, AK	9/4/2020 17:56
N3121Y	C182	HAASS GARY W	Nenana, AK	9/4/2020 19:33
BLK1	P46T	Blocked by owner	Anchorage, AK	9/5/2020 11:16
BLK1	P46T	Blocked by owner	Nenana, AK	9/5/2020 14:34
BLK1	P46T	Blocked by owner	Nenana, AK	9/5/2020 16:25
N3395D	C180	FITZGERALD JOHN A JR	Fairbanks, AK	9/6/2020 12:07
N7735B	R44	EVERGREEN INVESTMENTS LLC	Big Lake, AK	9/6/2020 14:24
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	9/6/2020 13:24
N7735B	R44	EVERGREEN INVESTMENTS LLC	Nenana, AK	
N27532	C185	SHADOW AVIATION INC	Nenana, AK	
N157HF	C206	KILO ROMEO LLC	Yakutat, AK	9/7/2020 19:26
N27532	C185	SHADOW AVIATION INC	Mizan Teferi	9/7/2020 10:33
N32521	P28R	PROFLITE OF ALASKA LLC	Fairbanks, AK	9/8/2020 22:37
N8644Z		MASTERS MISSION	Nenana, AK	9/10/2020 11:56
N8644Z		MASTERS MISSION	Fairbanks, AK	9/10/2020 15:12
CAP5013		CIVIL AIR PATROL	Fairbanks, AK	9/11/2020 13:35
CAP5013		CIVIL AIR PATROL	Nenana, AK	9/11/2020 14:34
N157HF	C206	KILO ROMEO LLC	Manley Hot Springs, AK	9/12/2020 8:05
N157HF	C206	KILO ROMEO LLC	Nenana, AK	



N756PF	C206	TAIGA MINING CO INC	Anchorage, AK	9/12/2020 10:48
N756PF	C206	TAIGA MINING CO INC	Nenana, AK	
N816SS	B212	HILCORP EQUIPMENT LLC	Talkeetna, AK	9/12/2020 12:43
N816SS	B212	HILCORP EQUIPMENT LLC	Nenana, AK	
N72094		GIBERTONI JAMES E	Fairbanks, AK	9/12/2020 14:30
N72094		GIBERTONI JAMES E	Nenana, AK	9/12/2020 15:59
N1011K		GROVES STEPHEN W	Talkeetna, AK	9/12/2020 17:19
N7735B	R44	EVERGREEN INVESTMENTS LLC	Central, AK	9/13/2020 13:22
N815SS	B212	HILCORP EQUIPMENT LLC	Quail Creek, AK	9/13/2020 13:58
N7735B	R44	EVERGREEN INVESTMENTS LLC	Nenana, AK	9/13/2020 15:47
N1011K		GROVES STEPHEN W	Nenana, AK	9/13/2020 16:34
N815SS	B212	HILCORP EQUIPMENT LLC	Nenana, AK	9/13/2020 16:23
N27PD		SCHULTZ MIKEL W	Willow, AK	9/14/2020 10:39
N225PZ		FIEDLER LINWOOD W	Willow, AK	9/14/2020 10:38
N225PZ		FIEDLER LINWOOD W	Nenana, AK	
N27PD		SCHULTZ MIKEL W	Nenana, AK	
N911AA	AS50	STATE OF ALASKA	Fairbanks, AK	9/16/2020 16:41
N357LC		SKYDANCE AVIATION LLC	Manley Hot Springs, AK	9/16/2020 15:51
N27532	C185	SHADOW AVIATION INC	Clear, AK	9/16/2020 14:38
N27532	C185	SHADOW AVIATION INC	Nenana, AK	
N911AA	AS50	STATE OF ALASKA	Nenana, AK	9/16/2020 17:39
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	9/17/2020 15:01
N4666B	C180	STANFIELD FRANCIS T	Fairbanks, AK	9/17/2020 15:29
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/17/2020 15:43
N27987	PA31	ALASKA AIR TAXI LLC	Nenana, AK	9/17/2020 21:30
N733KV	C172	BAKER TIMOTHY J P	Fairbanks, AK	9/18/2020 9:26
N84330		CARON PAUL B	Fairbanks, AK	9/18/2020 11:59
N84330		CARON PAUL B	Nenana, AK	9/18/2020 15:35
N4666B	C180	STANFIELD FRANCIS T	Nenana, AK	9/18/2020 15:35
N225PZ		FIEDLER LINWOOD W	Stevens Village, AK	9/19/2020 13:26
N27PD		SCHULTZ MIKEL W	Nenana, AK	9/19/2020 13:25
N225PZ		FIEDLER LINWOOD W	Nenana, AK	9/19/2020 16:35
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	9/19/2020 17:06
N58191		TEMSCO HELICOPTERS INC	Healy, AK	9/20/2020 13:53
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	9/23/2020 14:43
N1598H		CAREY PHILIP J TRUSTEE	Manley Hot Springs, AK	9/23/2020 18:33
NOAA56	DHC6	UNITED STATES DEPARTMENT OF COMMERCE	Nenana, AK	9/24/2020 16:04
N4798S		ELLER DONALD B	Stevens Village, AK	9/25/2020 13:37
CAP5013		CIVIL AIR PATROL	Fairbanks, AK	9/26/2020 14:38
N915HG	R44	HILINE AVIATION LLC	Clear, AK	9/26/2020 14:30
CAP5013		CIVIL AIR PATROL	Nenana, AK	9/26/2020 15:16
N915HG	R44	HILINE AVIATION LLC	Nenana, AK	
N201PA	B06	BANK OF UTAH TRUSTEE	Manley Hot Springs, AK	9/26/2020 17:15
N201PA	B06	BANK OF UTAH TRUSTEE	Nenana, AK	9/26/2020 18:21
BLK1	P46T	Blocked by owner	Ambler, AK	9/27/2020 14:51
N182JE		GAUSTAD ANDERS	Fairbanks, AK	9/27/2020 13:53
N182JE		GAUSTAD ANDERS	Nenana, AK	9/27/2020 14:49

BLK1	P46T	Blocked by owner	Nenana, AK	9/27/2020 17:52
N1598H	C185	CAREY PHILIP J TRUSTEE	Nenana, AK	9/28/2020 16:00
CON405	C212	Conoco Phillips	Nenana, AK	9/30/2020 19:35
N915HG	R44	HILINE AVIATION LLC	Talkeetna, AK	10/1/2020 10:47
N915HG	R44	HILINE AVIATION LLC	Nenana, AK	
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	10/1/2020 13:14
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	10/1/2020 15:00
N186CT	C180	G SQUARED AVIATION LLC	Nenana, AK	10/1/2020 17:37
N3395D	C180	FITZGERALD JOHN A JR	Fairbanks, AK	10/4/2020 12:37
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	
N182JE		GAUSTAD ANDERS	Fairbanks, AK	10/5/2020 13:05
N546LM	BE20	AERO AIR LLC	Fairbanks, AK	10/5/2020 13:24
N546LM	BE20	AERO AIR LLC	Nenana, AK	10/5/2020 14:33
N182JE		GAUSTAD ANDERS	Nenana, AK	10/5/2020 16:30
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	10/5/2020 17:05
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	10/5/2020 17:40
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/7/2020 16:48
N5004A		FAGRE DAVID A	Fairbanks, AK	10/11/2020 15:12
N5004A		FAGRE DAVID A	Nenana, AK	10/11/2020 15:58
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	10/13/2020 16:47
N544LM	LJ35	CORSAIR TWO LLC	Nenana, AK	10/13/2020 19:30
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/16/2020 15:29
N3395D	C180	FITZGERALD JOHN A JR	Nenana, AK	10/16/2020 16:18
N111AK	AS50	ROTAK LLC	Anchorage, AK	10/22/2020 12:24
N111AK	AS50	ROTAK LLC	Nenana, AK	
N6294Y	C182	CARLSON ERNEST C JR	Healy, AK	10/22/2020 15:10
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/22/2020 16:05
N756PF	C206	TAIGA MINING CO INC	Tanana, AK	10/23/2020 12:03
N756PF	C206	TAIGA MINING CO INC	Nenana, AK	10/23/2020 14:33
N567L		US DEPARTMENT OF THE INTERIOR	Minchumina, AK	10/24/2020 13:04
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/24/2020 14:01
N58316	C185	LABELLE-HAMER BRENDAN T	Fairbanks, AK	10/24/2020 15:02
N58316	C185	LABELLE-HAMER BRENDAN T	Nenana, AK	10/24/2020 15:06
N58316	C185	LABELLE-HAMER BRENDAN T	Nenana, AK	10/24/2020 15:22
N567L		US DEPARTMENT OF THE INTERIOR	Central, AK	10/25/2020 14:22
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/25/2020 15:05
N8644Z		MASTERS MISSION	Nenana, AK	
N567L		US DEPARTMENT OF THE INTERIOR	Fairbanks, AK	10/28/2020 13:02
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:24
N568SW	E120	ARCTIC ONE LLC	Fairbanks, AK	10/28/2020 14:05
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:30
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:35
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:39
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:44
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:49
N8644Z		MASTERS MISSION	Utopia Creek, AK	10/28/2020 14:39
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 13:52

N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:12
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:16
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:20
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:24
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:28
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:33
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:45
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:49
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:53
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 14:57
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 15:01
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 15:05
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 15:09
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	10/28/2020 16:43
N59826	PA31	AIR ARCTIC INC	Fairbanks, AK	10/30/2020 16:54
N111AK	AS50	ROTAK LLC	Manley Hot Springs, AK	11/1/2020 12:05
N9150D	PA18	FITZGERALD LARRY	Fairbanks, AK	11/1/2020 13:03
N9150D	PA18	FITZGERALD LARRY	Nenana, AK	11/1/2020 15:50
N111AK	AS50	ROTAK LLC	Nenana, AK	11/1/2020 15:21
N111AK	AS50	ROTAK LLC	Nenana, AK	11/1/2020 17:25
N8644Z		MASTERS MISSION	Utopia Creek, AK	11/4/2020 17:51
BLK2	BE20	Blocked by owner	Fairbanks, AK	11/5/2020 14:36
BLK2	BE20	Blocked by owner	Nenana, AK	11/5/2020 15:12
N203PA	B06	REGISTRATION PENDING	Summit, AK	11/16/2020 15:22
N67370	C152	BAKER TIMOTHY J P	Manley Hot Springs, AK	11/22/2020 12:12
N733KV	C172	BAKER TIMOTHY J P	Fairbanks, AK	11/22/2020 16:42
N75740	C172	KINGDOM AIR CORPS	Palmer, AK	11/24/2020 12:30
N8644Z		MASTERS MISSION	Nenana, AK	
N111AK	AS50	ROTAK LLC	Fairbanks, AK	12/12/2020 11:53
N111AK	AS50	ROTAK LLC	Nenana, AK	12/12/2020 16:15
N203PA	B06	REGISTRATION PENDING	Fairbanks, AK	12/29/2020 10:53
N203PA	B06	REGISTRATION PENDING	Nenana, AK	12/29/2020 13:26
N56581		UNITED STATES DEPARTMENT OF INTERIOR	Fairbanks, AK	1/13/2021 12:52
N59826	PA31	AIR ARCTIC INC	Coldfoot, AK	1/15/2021 15:58
N32521	P28R	PROFLITE OF ALASKA LLC	Healy, AK	1/16/2021 10:27
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	1/20/2021 14:00
N4624U	C180	RUBY MARINE INC	Tanana, AK	3/2/2021 17:20
N4624U	C180	RUBY MARINE INC	Nenana, AK	3/2/2021 18:08
N911AA	AS50	STATE OF ALASKA	Nenana, AK	3/3/2021 13:39
N911AA	AS50	STATE OF ALASKA	Nenana, AK	3/3/2021 14:06
N3893		RHYNARD ANDREW	Nenana, AK	
N70AE		Unknown Owner	Anchorage, AK	3/7/2021 15:09
N70AE		Unknown Owner	Nenana, AK	3/7/2021 15:57
N22563		DAVIS MICHAEL A JR	Fairbanks, AK	3/8/2021 17:54
N350SH		REGISTRATION PENDING	Clear, AK	3/11/2021 15:47
BLK3	BE20	Blocked by owner	Fairbanks, AK	3/18/2021 14:41
N756PF	C206	TAIGA MINING CO INC	Tanana, AK	3/27/2021 9:17

N756PF	C206	TAIGA MINING CO INC	Nenana, AK	3/27/2021 12:10
N756LC	C206	TAIGA MINING COMPANY INC	Anchorage, AK	3/27/2021 15:42
N756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	
N810J	R66	ZATZWORKS INC	Talkeetna, AK	4/5/2021 10:55
N810J	R66	ZATZWORKS INC	Nenana, AK	
N810J	R66	ZATZWORKS INC	Tanana, AK	4/5/2021 17:26
N810J	R66	ZATZWORKS INC	Nenana, AK	4/5/2021 17:57
N5227R	C185	AVIATION EXPEDITIONS LLC	Fairbanks, AK	4/9/2021 13:56
N574ST		STATE OF ALASKA	Fairbanks, AK	4/9/2021 17:51
N70333	C185	NORTHLAND AIRCRAFT SALES LLC	Fairbanks, AK	4/12/2021 15:14
N70333	C185	NORTHLAND AIRCRAFT SALES LLC	Nenana, AK	4/12/2021 17:06
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	4/13/2021 8:45
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	4/13/2021 10:04
N350SH		JC AIRCRAFT LEASING PARTNERSHIP	Rampart, AK	4/13/2021 14:47
N70333	C185	NORTHLAND AIRCRAFT SALES LLC	Fairbanks, AK	4/13/2021 14:57
N208CE	C208	ARCTIC ONE LLC	Fairbanks, AK	4/13/2021 15:34
N208CE	C208	ARCTIC ONE LLC	Nenana, AK	4/13/2021 17:05
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	4/13/2021 17:00
N70333	C185	NORTHLAND AIRCRAFT SALES LLC	Nenana, AK	4/13/2021 16:58
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	4/14/2021 13:49
N72094		GIBERTONI JAMES E	Fairbanks, AK	4/14/2021 15:56
N72094		GIBERTONI JAMES E	Nenana, AK	4/14/2021 17:17
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	4/16/2021 8:20
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	4/16/2021 9:41
N30753	C177	EPISCOPAL WINGS MINISTRY INC	Fairbanks, AK	4/16/2021 14:41
N30753	C177	EPISCOPAL WINGS MINISTRY INC	Nenana, AK	4/16/2021 15:49
N6471V		SCHRAGE HOLDINGS LLC	Fairbanks, AK	4/17/2021 10:14
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	4/17/2021 11:56
N6471V		SCHRAGE HOLDINGS LLC	Nenana, AK	4/17/2021 12:12
N756LC	C206	TAIGA MINING COMPANY INC	Delta Junction, AK	4/17/2021 14:12
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	4/17/2021 14:19
N756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	4/18/2021 17:20
N35707		AIRCRAFT INC	Fairbanks, AK	4/18/2021 20:59
N9380N		ALASKA DEPARTMENT OF PUBLIC SAFETY	Fairbanks, AK	4/19/2021 10:51
N9380N		ALASKA DEPARTMENT OF PUBLIC SAFETY	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	4/19/2021 14:43
N35707		AIRCRAFT INC	Nenana, AK	4/19/2021 15:46
N35707		AIRCRAFT INC	Fairbanks, AK	4/20/2021 13:24
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	4/20/2021 15:41
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	4/20/2021 16:30
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	4/21/2021 14:18
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	4/21/2021 14:37
N35707		AIRCRAFT INC	Fairbanks, AK	4/21/2021 17:03
N35707		AIRCRAFT INC	Fairbanks, AK	4/21/2021 20:53
N46109	C172	SOUTH DELTA AVIATION INC	Fairbanks, AK	4/22/2021 9:19
N5512Z	PA18	SHADOW AVIATION INC	Nenana, AK	4/22/2021 23:29

N46109	C172	SOUTH DELTA AVIATION INC	Fairbanks, AK	4/22/2021 13:41
N5512Z	PA18	SHADOW AVIATION INC	Mizan Teferi	4/22/2021 10:08
N35707		AIRCRAFT INC	Fairbanks, AK	4/23/2021 16:43
N35707		AIRCRAFT INC	Fairbanks, AK	4/23/2021 20:15
N721NR	C206	US DEPARTMENT OF THE INTERIOR	Fairbanks, AK	4/24/2021 11:02
N35707		AIRCRAFT INC	Fairbanks, AK	4/24/2021 12:48
N30753	C177	EPISCOPAL WINGS MINISTRY INC	Utopia Creek, AK	4/25/2021 17:31
N30753	C177	EPISCOPAL WINGS MINISTRY INC	Nenana, AK	4/25/2021 18:34
N61473	C185	U S DEPARTMENT OF INTERIOR	Fairbanks, AK	4/26/2021 15:12
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	4/27/2021 12:30
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	4/28/2021 11:49
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	4/28/2021 13:08
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	4/28/2021 13:53
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	4/28/2021 15:37
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	4/29/2021 14:47
N700FW	KODI	UNITED STATES DEPT OF THE INTERIOR	Fairbanks/Ft Wainwright,	4/30/2021 12:54
CAP5040	C182	CIVIL AIR PATROL INC	Fairbanks, AK	5/1/2021 12:16
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 13:21
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 13:48
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 14:09
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 14:51
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 15:18
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 15:43
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 16:13
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 16:50
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 17:16
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/1/2021 17:55
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/1/2021 18:28
N672CC	C172	PRAY AVIATION INC	Nenana, AK	5/1/2021 20:20
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/2/2021 15:41
N4846D	C182	YOUNG JASON	Anchorage, AK	5/3/2021 14:13
N72094		GIBERTONI JAMES E	Fairbanks, AK	5/3/2021 12:42
N4846D	C182	YOUNG JASON	Nenana, AK	5/3/2021 16:30
N756LC	C206	TAIGA MINING COMPANY INC	Anchorage, AK	5/4/2021 13:27
N756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	
N4846D	C182	YOUNG JASON	Tanana, AK	5/4/2021 16:06
N4846D	C182	YOUNG JASON	Nenana, AK	5/4/2021 18:39
N35707		AIRCRAFT INC	Fairbanks, AK	5/5/2021 9:58
N35707		AIRCRAFT INC	Nenana, AK	5/5/2021 10:25
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	5/5/2021 13:36
N35707		AIRCRAFT INC	Fairbanks, AK	5/5/2021 13:39
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/6/2021 12:08
N672CC	C172	PRAY AVIATION INC	Healy, AK	5/6/2021 13:48
N35707		AIRCRAFT INC	Nenana, AK	5/7/2021 10:31
N2163B	L8	MONTGOMERY DOUGLAS R	Fairbanks, AK	5/7/2021 11:19
N2163B	L8	MONTGOMERY DOUGLAS R	Nenana, AK	5/7/2021 12:40
N182JE		GAUSTAD ANDERS	Fairbanks, AK	5/7/2021 17:14

N182JE		GAUSTAD ANDERS	Nenana, AK	5/7/2021 18:02
BLK4	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	5/8/2021 10:14
BLK4	AS50	Blocked by owner	Nenana, AK	
N35707		AIRCRAFT INC	Nenana, AK	5/9/2021 9:23
N35707		AIRCRAFT INC	Nenana, AK	5/9/2021 9:48
N2163B	L8	MONTGOMERY DOUGLAS R	Fairbanks, AK	5/9/2021 12:07
N35707		AIRCRAFT INC	Fairbanks, AK	5/9/2021 12:29
N35707		AIRCRAFT INC	Fairbanks, AK	5/10/2021 9:54
N35707		AIRCRAFT INC	Fairbanks, AK	5/10/2021 12:41
N35707		AIRCRAFT INC	Nenana, AK	5/10/2021 12:56
N35707		AIRCRAFT INC	Nenana, AK	5/10/2021 13:13
BLK4	AS50	Blocked by owner	Clear, AK	5/10/2021 13:43
BLK4	AS50	Blocked by owner	Nenana, AK	5/10/2021 14:19
N35707		AIRCRAFT INC	Fairbanks, AK	5/11/2021 12:28
N35707		AIRCRAFT INC	Fairbanks, AK	5/11/2021 15:53
N35707		AIRCRAFT INC	Nenana, AK	5/11/2021 16:04
N35707		AIRCRAFT INC	Fairbanks, AK	5/12/2021 11:36
N35707		AIRCRAFT INC	Nenana, AK	5/12/2021 11:48
N35707		AIRCRAFT INC	Nenana, AK	5/12/2021 12:05
N35707		AIRCRAFT INC	Nenana, AK	5/12/2021 12:27
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	5/12/2021 15:35
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	5/12/2021 16:26
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/13/2021 9:45
N46109	C172	SOUTH DELTA AVIATION INC	Fairbanks, AK	5/13/2021 12:20
N35707		AIRCRAFT INC	Fairbanks, AK	5/13/2021 13:24
EGA4F	C180	ROWE BENJAMIN STRATTON	Central, AK	5/13/2021 13:37
N46109	C172	SOUTH DELTA AVIATION INC	Nenana, AK	5/13/2021 13:23
N35707		AIRCRAFT INC	Nenana, AK	5/13/2021 13:41
N567L		US DEPARTMENT OF THE INTERIOR	Fairbanks, AK	5/13/2021 15:07
N3125W	C180	ROWE BENJAMIN STRATTON	Nenana, AK	
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	5/13/2021 15:55
N35707		AIRCRAFT INC	Fairbanks, AK	5/14/2021 7:58
N35707		AIRCRAFT INC	Nenana, AK	5/14/2021 8:11
N35707		AIRCRAFT INC	Nenana, AK	5/14/2021 8:24
N35707		AIRCRAFT INC	Nenana, AK	5/14/2021 8:49
N2163B	L8	MONTGOMERY DOUGLAS R	Fairbanks, AK	5/14/2021 10:08
N2163B	L8	MONTGOMERY DOUGLAS R	Nenana, AK	5/14/2021 11:17
CAP5051	C182	CIVIL AIR PATROL	Fairbanks, AK	5/15/2021 11:07
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/15/2021 11:51
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/15/2021 16:58
N672CC	C172	PRAY AVIATION INC	Nenana, AK	5/15/2021 18:02
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	5/16/2021 10:18
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	5/16/2021 10:51
N35707		AIRCRAFT INC	Fairbanks, AK	5/16/2021 18:56
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/17/2021 11:00
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/17/2021 12:48
N1468M	C206	ARCTIC BARNABAS MINISTRIES	Kenai, AK	5/18/2021 9:56

N35707		AIRCRAFT INC	Fairbanks, AK	5/18/2021 12:30
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/18/2021 18:03
N35707		AIRCRAFT INC	Fairbanks, AK	5/18/2021 19:05
N672CC	C172	PRAY AVIATION INC	Nenana, AK	5/18/2021 19:53
N27917	PA31	WARBELOWS AIR VENTURES INC	Fairbanks, AK	5/18/2021 19:55
N27917	PA31	WARBELOWS AIR VENTURES INC	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	5/19/2021 10:30
N35707		AIRCRAFT INC	Nenana, AK	5/19/2021 10:55
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	5/19/2021 13:24
N111AK	AS50	REGISTRATION PENDING	Fairbanks, AK	5/19/2021 14:55
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	5/19/2021 14:56
N500D	C180	GRAHAM DOUGLAS R	North Pole, AK	5/19/2021 16:39
N111AK	AS50	REGISTRATION PENDING	Nenana, AK	
N500D	C180	GRAHAM DOUGLAS R	Nenana, AK	5/19/2021 19:03
N4079H	PA31	WARBELOW'S AIR VENTURES INC	Fairbanks, AK	5/20/2021 11:01
N546LM	BE20	AERO AIR LLC	Fairbanks, AK	5/20/2021 14:50
N546LM	BE20	AERO AIR LLC	Nenana, AK	5/20/2021 15:15
N4079H	PA31	WARBELOW'S AIR VENTURES INC	Fairbanks, AK	5/20/2021 20:18
N4079H	PA31	WARBELOW'S AIR VENTURES INC	Nenana, AK	5/20/2021 20:53
N2163B	L8	MONTGOMERY DOUGLAS R	Nenana, AK	5/21/2021 10:40
BLK1	P46T	Blocked by owner	Fairbanks, AK	5/21/2021 12:20
N4624U	C180	RUBY MARINE INC	Fairbanks, AK	5/21/2021 12:39
BLK1	P46T	Blocked by owner	Nenana, AK	5/21/2021 13:41
N574ST		STATE OF ALASKA	Manley Hot Springs, AK	5/22/2021 13:48
N574ST		STATE OF ALASKA	Nenana, AK	5/22/2021 14:26
N4624U	C180	RUBY MARINE INC	Nenana, AK	
BLK1	P46T	Blocked by owner	Anchorage, AK	5/23/2021 8:38
CAP5032	C172	CIVIL AIR PATROL	Fairbanks, AK	5/23/2021 9:20
BLK1	P46T	Blocked by owner	Nenana, AK	5/23/2021 13:00
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/23/2021 11:24
N4798S	PA32	ELLER DONALD B	Palmer, AK	5/23/2021 14:17
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/23/2021 12:26
N4798S		ELLER DONALD B	Nenana, AK	
N70715	C208	STATE OF ALASKA	Fairbanks, AK	5/24/2021 11:33
N35707		AIRCRAFT INC	Fairbanks, AK	5/25/2021 13:39
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	5/25/2021 14:26
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	5/25/2021 18:00
N5227R	C185	AVIATION EXPEDITIONS LLC	Fairbanks, AK	5/25/2021 15:47
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	5/25/2021 17:03
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	5/25/2021 18:36
N5004A		FAGRE DAVID A	Fairbanks, AK	5/25/2021 18:29
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	5/25/2021 19:55
N5004A		FAGRE DAVID A	Nenana, AK	5/25/2021 19:18
N35707		AIRCRAFT INC	Fairbanks, AK	5/26/2021 8:01
N35707		AIRCRAFT INC	Nenana, AK	5/26/2021 8:28
N35707		AIRCRAFT INC	Nenana, AK	5/26/2021 8:47
N35707		AIRCRAFT INC	Nenana, AK	5/26/2021 9:19

CAP5040	C182	CIVIL AIR PATROL INC	Fairbanks, AK	5/26/2021 13:17
N35707		AIRCRAFT INC	Fairbanks, AK	5/26/2021 18:24
N35707		AIRCRAFT INC	Nenana, AK	5/26/2021 18:53
N5651T	C172	PETERSON LEIF E	Homer, AK	5/27/2021 0:25
N35707		AIRCRAFT INC	Fairbanks, AK	5/27/2021 9:33
N5651T		PETERSON LEIF E	Nenana, AK	
N215KA	B212	DELAWARE TRUST CO TRUSTEE	Fairbanks/Ft Wainwright,	5/27/2021 10:19
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/27/2021 10:24
N215KA	B212	DELAWARE TRUST CO TRUSTEE	Nenana, AK	5/27/2021 12:28
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/27/2021 11:33
N376PA	B212	BANK OF UTAH TRUSTEE	Central, AK	5/27/2021 19:39
N376PA	B212	BANK OF UTAH TRUSTEE	Nenana, AK	5/27/2021 21:51
N644TC	R44	CHENA RIVER AVIATION INC	Fairbanks, AK	5/28/2021 7:56
N5651T		PETERSON LEIF E	Fairbanks, AK	5/28/2021 8:38
N644TC	R44	CHENA RIVER AVIATION INC	Nenana, AK	5/28/2021 10:20
N5651T		PETERSON LEIF E	Nenana, AK	
N320PA	AS50	NS AIR LEASING LLC	Clear, AK	5/29/2021 19:20
N320PA	AS50	NS AIR LEASING LLC	Nenana, AK	5/29/2021 20:10
N35707		AIRCRAFT INC	Fairbanks, AK	5/30/2021 9:09
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	5/30/2021 10:22
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	5/30/2021 10:40
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/30/2021 10:24
N35707		AIRCRAFT INC	Nenana, AK	5/30/2021 10:05
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	5/30/2021 12:05
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/30/2021 11:40
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/30/2021 12:11
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/30/2021 12:09
N35707		AIRCRAFT INC	Fairbanks, AK	5/30/2021 12:20
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/30/2021 13:18
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/30/2021 14:55
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/30/2021 14:40
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/30/2021 15:05
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	5/30/2021 15:23
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	5/30/2021 16:25
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	5/30/2021 15:02
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/30/2021 15:17
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/30/2021 16:10
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/30/2021 15:58
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/30/2021 16:45
N4624U	C180	RUBY MARINE INC	Tanana, AK	5/30/2021 16:39
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	5/30/2021 16:19
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	5/30/2021 16:44
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	5/30/2021 16:57
N35707		AIRCRAFT INC	Fairbanks, AK	5/30/2021 17:38
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	5/31/2021 9:46
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Wasilla, AK	5/31/2021 10:40
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	5/31/2021 9:17



CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	5/31/2021 9:54
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	5/31/2021 10:10
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/31/2021 10:14
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 10:31
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 11:11
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/31/2021 11:40
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/31/2021 11:37
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Nenana, AK	
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 12:17
N35707		AIRCRAFT INC	Fairbanks, AK	5/31/2021 12:06
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 12:34
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/31/2021 13:25
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 13:23
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 13:57
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/31/2021 14:33
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 14:20
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/31/2021 14:17
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 15:19
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 15:18
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/31/2021 14:48
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	5/31/2021 14:57
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 15:16
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	5/31/2021 15:53
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/31/2021 15:36
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 16:46
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	5/31/2021 17:15
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	5/31/2021 16:30
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	6/1/2021 9:52
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	6/1/2021 9:49
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	6/1/2021 9:44
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	6/1/2021 10:25
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	6/1/2021 10:57
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/1/2021 10:56
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 11:20
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/1/2021 11:33
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 12:03
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/1/2021 11:57
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 12:19
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 12:52
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/1/2021 14:12
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 14:10
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/1/2021 14:30
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 15:18
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/1/2021 15:27
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/1/2021 15:02
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/1/2021 15:11
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/1/2021 15:53

CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/1/2021 15:42
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/1/2021 15:44
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	6/2/2021 9:35
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	6/2/2021 9:27
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	6/2/2021 9:58
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	6/2/2021 10:13
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	6/2/2021 10:44
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/2/2021 10:23
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 11:13
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/2/2021 11:06
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 11:52
CAP5034	C172	CIVIL AIR PATROL INC	Healy, AK	6/2/2021 11:33
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 12:22
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/2/2021 12:20
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 12:44
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/2/2021 14:02
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/2/2021 14:33
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 14:47
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 14:55
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 14:44
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/2/2021 15:05
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/2/2021 16:08
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/2/2021 15:50
N72094		GIBERTONI JAMES E	Clear, AK	6/2/2021 15:57
N182JE		GAUSTAD ANDERS	Fairbanks, AK	6/2/2021 16:13
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/2/2021 16:52
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/2/2021 16:26
N72094		GIBERTONI JAMES E	Nenana, AK	6/2/2021 16:39
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/2/2021 16:32
N9CT	P337	SANDY 9 LLC	Fairbanks, AK	6/2/2021 17:26
N182JE		GAUSTAD ANDERS	Nenana, AK	6/2/2021 17:16
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/2/2021 17:13
N85DT	C185	COYOTE AIR LLC	Mizan Teferi	6/2/2021 11:19
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	6/3/2021 9:55
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	6/3/2021 10:48
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	6/3/2021 9:40
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	6/3/2021 10:39
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	6/3/2021 9:59
N441CJ	C441	QUANTUM SPATIAL INC	Fairbanks, AK	6/3/2021 12:32
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/3/2021 10:45
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 11:29
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 11:32
N5227R	C185	AVIATION EXPEDITIONS LLC	Fairbanks, AK	6/3/2021 12:54
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 12:57
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 13:02
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 13:06
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	6/3/2021 13:38

CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 13:36
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/3/2021 14:19
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 14:45
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/3/2021 14:33
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 15:12
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 15:22
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/3/2021 15:09
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 15:24
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 15:20
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 15:29
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 15:59
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/3/2021 16:53
N4798S		ELLER DONALD B	Rampart, AK	6/3/2021 20:47
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	6/3/2021 22:00
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/3/2021 22:34
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	6/4/2021 9:42
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	6/4/2021 9:26
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	6/4/2021 9:24
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	6/4/2021 9:07
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	6/4/2021 9:01
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/4/2021 9:41
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	6/4/2021 11:33
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/4/2021 11:24
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/4/2021 11:30
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/4/2021 11:48
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/4/2021 11:46
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/4/2021 12:48
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/4/2021 13:06
N376PA	B212	BANK OF UTAH TRUSTEE	Mc Grath, AK	6/4/2021 15:20
N376PA	B212	BANK OF UTAH TRUSTEE	Nenana, AK	
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/4/2021 17:32
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/4/2021 18:12
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/4/2021 18:21
N672CC	C172	PRAY AVIATION INC	Fairbanks, AK	6/5/2021 9:44
CAP5032	C172	CIVIL AIR PATROL	Clear, AK	6/5/2021 9:52
CAP5034	C172	CIVIL AIR PATROL INC	Clear, AK	6/5/2021 11:49
N672CC	C172	PRAY AVIATION INC	Nenana, AK	6/5/2021 10:45
CAP5032	C172	CIVIL AIR PATROL	Nenana, AK	6/5/2021 10:30
CAP5037	C172	CIVIL AIR PATROL	Clear, AK	6/5/2021 12:46
N418SP	U21	MISSIONARY AVIATION REPAIR CENTER	Tanana, AK	6/5/2021 13:07
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/5/2021 13:09
CAP5033	C172	CIVIL AIR PATROL	Clear, AK	6/5/2021 13:49
N418SP	U21	MISSIONARY AVIATION REPAIR CENTER	Nenana, AK	6/5/2021 14:56
CAP5037	C172	CIVIL AIR PATROL	Nenana, AK	6/5/2021 14:02
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	6/5/2021 14:27
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/5/2021 16:17
CAP5033	C172	CIVIL AIR PATROL	Nenana, AK	6/5/2021 17:12

CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/5/2021 17:01
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/5/2021 18:00
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/5/2021 18:33
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	6/7/2021 8:52
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	6/7/2021 12:14
N756PF	C206	TAIGA MINING CO INC	Anchorage, AK	6/7/2021 15:53
N44997	R44	REDPOLE LLC	Nenana, AK	6/7/2021 14:34
N44997	R44	REDPOLE LLC	Nenana, AK	6/7/2021 14:44
N756LC	C206	TAIGA MINING COMPANY INC	Tanana, AK	6/7/2021 15:22
N574ST		STATE OF ALASKA	Fairbanks, AK	6/7/2021 15:28
N44997	R44	REDPOLE LLC	Nenana, AK	6/8/2021 2:22
N756PF	C206	TAIGA MINING CO INC	Nenana, AK	
X756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	6/7/2021 18:13
BLK5	AS50	Blocked by owner	Healy, AK	6/7/2021 18:10
BLK5	AS50	Blocked by owner	Nenana, AK	6/7/2021 18:12
BLK5	AS50	Blocked by owner	Nenana, AK	6/7/2021 18:47
BLK5	AS50	Blocked by owner	Nenana, AK	6/7/2021 19:05
BLK5	AS50	Blocked by owner	Nenana, AK	6/7/2021 19:24
BLK5	AS50	Blocked by owner	Nenana, AK	6/7/2021 20:08
BLK5	AS50	Blocked by owner	Nenana, AK	
N44997	R44	REDPOLE LLC	Mizan Teferi	6/7/2021 14:29
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	6/8/2021 7:53
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/8/2021 14:55
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/9/2021 11:05
N141ME	PA31	FOX HEATHER J	Bettles, AK	6/9/2021 11:49
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/9/2021 12:24
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/10/2021 1:00
N59826	PA31	AIR ARCTIC INC	Coldfoot, AK	6/9/2021 18:32
N27532	C185	SHADOW AVIATION INC	Mizan Teferi	6/9/2021 10:01
N4798S	PA32	ELLER DONALD B	Palmer, AK	6/10/2021 13:50
N4798S		ELLER DONALD B	Nenana, AK	
N4079H	PA31	WARBELOW'S AIR VENTURES INC	Fairbanks, AK	6/10/2021 16:58
N59826	PA31	AIR ARCTIC INC	Coldfoot, AK	6/10/2021 18:22
N4079H	PA31	WARBELOW'S AIR VENTURES INC	Nenana, AK	6/10/2021 17:21
N46109	C172	SOUTH DELTA AVIATION INC	Fairbanks, AK	6/11/2021 8:34
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	6/11/2021 9:31
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	6/11/2021 10:35
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	6/11/2021 14:00
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	6/11/2021 15:08
N2124R	C182	KOKJER KENNETH J	Fairbanks, AK	6/12/2021 11:17
N886M		MILLER JOHN A	Fairbanks, AK	
N886M		MILLER JOHN A	Nenana, AK	6/12/2021 13:55
N2124R	C182	KOKJER KENNETH J	Nenana, AK	6/12/2021 14:08
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	6/12/2021 16:21
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	6/12/2021 17:13
N27663	PA31	WARBELOW'S AIR VENTURES INC	Coldfoot, AK	6/13/2021 18:16
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/13/2021 20:29

BLK4	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	6/13/2021 20:31
BLK4	AS50	Blocked by owner	Nenana, AK	6/13/2021 21:47
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/13/2021 21:58
BLK4	AS50	Blocked by owner	Nenana, AK	6/13/2021 22:38
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/13/2021 23:12
BLK4	AS50	Blocked by owner	Nenana, AK	6/13/2021 23:03
N27663	PA31	WARBELOWS AIR VENTURES INC	Coldfoot, AK	6/14/2021 0:37
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/14/2021 12:19
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/14/2021 14:41
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/14/2021 16:33
N111AK	AS50	REGISTRATION PENDING	Fairbanks, AK	6/14/2021 20:05
N111AK	AS50	REGISTRATION PENDING	Nenana, AK	6/14/2021 21:52
BLK5	AS50	Blocked by owner	Healy, AK	6/15/2021 13:27
BLK5	AS50	Blocked by owner	Nenana, AK	6/15/2021 14:30
BLK5	AS50	Blocked by owner	Nenana, AK	6/15/2021 15:37
BLK5	AS50	Blocked by owner	Nenana, AK	6/15/2021 16:44
BLK5	AS50	Blocked by owner	Nenana, AK	6/15/2021 17:33
BLK5	AS50	Blocked by owner	Nenana, AK	
BLK5	AS50	Blocked by owner	Healy, AK	6/16/2021 11:23
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	6/16/2021 12:02
BLK5	AS50	Blocked by owner	Nenana, AK	6/16/2021 12:11
BLK5	AS50	Blocked by owner	Nenana, AK	6/16/2021 13:16
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	6/16/2021 13:39
BLK5	AS50	Blocked by owner	Nenana, AK	6/16/2021 15:12
BLK5	AS50	Blocked by owner	Nenana, AK	
N4798S		ELLER DONALD B	Rampart, AK	6/16/2021 20:43
N4798S		ELLER DONALD B	Nenana, AK	6/16/2021 22:12
N559SH	AS50	DELAWARE TRUST CO TRUSTEE	Wasilla, AK	6/17/2021 8:37
N559SH	AS50	DELAWARE TRUST CO TRUSTEE	Nenana, AK	
BLK5	AS50	Blocked by owner	Healy, AK	6/17/2021 11:39
BLK5	AS50	Blocked by owner	Nenana, AK	6/17/2021 12:29
BLK5	AS50	Blocked by owner	Nenana, AK	6/17/2021 13:04
BLK5	AS50	Blocked by owner	Nenana, AK	6/17/2021 14:09
BLK5	AS50	Blocked by owner	Nenana, AK	
N201PA	B06	BANK OF UTAH TRUSTEE	Anchorage, AK	6/17/2021 21:20
N8644Z		MASTERS MISSION	Fairbanks, AK	
N201PA	B06	BANK OF UTAH TRUSTEE	Nenana, AK	6/17/2021 22:15
BLK5	AS50	Blocked by owner	Eva Creek, AK	6/18/2021 11:32
BLK5	AS50	Blocked by owner	Nenana, AK	6/18/2021 12:25
BLK5	AS50	Blocked by owner	Nenana, AK	6/18/2021 12:58
BLK5	AS50	Blocked by owner	Nenana, AK	6/18/2021 14:03
BLK5	AS50	Blocked by owner	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	6/18/2021 15:31
N35707		AIRCRAFT INC	Nenana, AK	6/18/2021 15:53
N35707		AIRCRAFT INC	Nenana, AK	6/18/2021 16:07
BLK5	AS50	Blocked by owner	Eva Creek, AK	6/19/2021 11:24
BLK5	AS50	Blocked by owner	Nenana, AK	6/19/2021 13:44

N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	6/19/2021 15:30
BLK5	AS50	Blocked by owner	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	6/20/2021 10:14
N35707		AIRCRAFT INC	Nenana, AK	6/20/2021 11:55
N4846D	C182	YOUNG JASON	Anchorage, AK	6/21/2021 10:40
N4846D	C182	YOUNG JASON	Nenana, AK	
N4846D	C182	YOUNG JASON	Hogatza, AK	6/21/2021 16:51
N35707		AIRCRAFT INC	Fairbanks, AK	6/22/2021 7:26
N8644Z		MASTERS MISSION	Nenana, AK	6/22/2021 13:50
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	6/22/2021 18:11
N8644Z		MASTERS MISSION	Nenana, AK	
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	6/23/2021 12:35
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	6/23/2021 13:42
N8644Z		MASTERS MISSION	Tanana, AK	6/23/2021 16:18
N35707		AIRCRAFT INC	Fairbanks, AK	6/23/2021 19:56
N35707		AIRCRAFT INC	Nenana, AK	6/23/2021 20:23
N77554	C206	U S DEPARTMENT OF THE INTERIOR	Fairbanks, AK	6/24/2021 10:39
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	6/24/2021 13:32
N35707		AIRCRAFT INC	Fairbanks, AK	6/25/2021 16:04
CAP5034	C172	CIVIL AIR PATROL INC	Fairbanks, AK	6/25/2021 18:33
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	6/26/2021 11:50
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	6/26/2021 13:55
N8314X	C172	MORISSETTE MATTHEW A	Fairbanks, AK	6/26/2021 16:13
N8314X	C172	MORISSETTE MATTHEW A	Nenana, AK	6/26/2021 17:14
N407RH	B407	MARITIME HELICOPTERS INC	Nenana, AK	
N35707		AIRCRAFT INC	Fairbanks, AK	6/27/2021 10:59
N407RH	B407	MARITIME HELICOPTERS INC	Mizan Teferi	6/27/2021 7:07
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	6/28/2021 9:22
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	6/29/2021 11:57
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	6/29/2021 13:49
N8292Q	C185	FITZGERALD JOHN A JR	Fairbanks, AK	6/29/2021 14:41
N8644Z		MASTERS MISSION	Nenana, AK	6/29/2021 15:11
N8292Q	C185	FITZGERALD JOHN A JR	Nenana, AK	6/29/2021 15:16
N8644Z		MASTERS MISSION	Nenana, AK	6/29/2021 15:31
N8644Z		MASTERS MISSION	Nenana, AK	6/29/2021 16:36
N8644Z		MASTERS MISSION	Nenana, AK	6/29/2021 21:43
N8644Z		MASTERS MISSION	Nenana, AK	6/29/2021 22:40
N8644Z		MASTERS MISSION	Nenana, AK	
N4624U	C180	RUBY MARINE INC	Nenana, AK	
TXH5149		PREMIER FUNDING AND MANAGEMENT LLC	Valdez, AK	6/30/2021 15:28
N35707		REGISTRATION PENDING	Fairbanks, AK	6/30/2021 16:55
TXH5149		PREMIER FUNDING AND MANAGEMENT LLC	Nenana, AK	6/30/2021 16:53
TXH5149		PREMIER FUNDING AND MANAGEMENT LLC	Nenana, AK	6/30/2021 17:27
N4624U	C180	RUBY MARINE INC	Tanana, AK	6/30/2021 18:21
N8644Z		MASTERS MISSION	Tanana, AK	6/30/2021 21:17

N8644Z		MASTERS MISSION	Nenana, AK	7/1/2021 12:41
TXH5149		PREMIER FUNDING AND MANAGEMENT LLC	Nenana, AK	7/1/2021 11:52
TXH5149		PREMIER FUNDING AND MANAGEMENT LLC	Nenana, AK	7/1/2021 16:55
N320MH	A119	MARITIME HELICOPTERS INC	Nenana, AK	
N320MH	A119	MARITIME HELICOPTERS INC	Mizan Teferi	7/2/2021 9:46
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Tok, AK	7/4/2021 18:10
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/4/2021 20:18
N75740	C172	KINGDOM AIR CORPS	Chickaloon, AK	7/5/2021 13:01
N75740		KINGDOM AIR CORPS	Nenana, AK	
N377PA	B212	COPTER LEASE LLC TRUSTEE	Mc Grath, AK	7/7/2021 15:47
N8644Z		MASTERS MISSION	Nenana, AK	7/7/2021 16:19
N377PA	B212	COPTER LEASE LLC TRUSTEE	Nenana, AK	
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	7/7/2021 20:47
N8644Z		MASTERS MISSION	Nenana, AK	
N777CQ	PC12	ARCTIC ONE LLC	Fairbanks, AK	7/8/2021 10:28
N777CQ	PC12	ARCTIC ONE LLC	Nenana, AK	7/8/2021 11:37
BLK6	PA18	Blocked by owner	Willow, AK	7/8/2021 13:55
BLK6	PA18	Blocked by owner	Nenana, AK	
X4846D	C182	YOUNG JASON	Anchorage, AK	7/8/2021 17:01
N8644Z		MASTERS MISSION	Utopia Creek, AK	7/8/2021 16:41
N4846D	C182	YOUNG JASON	Nenana, AK	
N14407	C185	HANSON ROD D	Birchwood, AK	7/10/2021 16:43
N14407	C185	HANSON ROD D	Nenana, AK	
BLK7		Blocked by owner	Rampart, AK	7/11/2021 13:07
N323DH	PA18	KLEINSMITH STACEE F	Rampart, AK	7/11/2021 13:14
BLK7		Blocked by owner	Nenana, AK	
N323DH	PA18	KLEINSMITH STACEE F	Nenana, AK	7/11/2021 16:38
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	7/12/2021 8:14
N2805K	C180	NORTHSTAR E & C LLC	Anchorage, AK	7/12/2021 10:28
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/12/2021 12:44
N357LC	C185	SKYDANCE AVIATION LLC	Anchorage, AK	7/12/2021 12:01
N2805K	C180	NORTHSTAR E & C LLC	Nenana, AK	7/12/2021 15:35
N357LC		SKYDANCE AVIATION LLC	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/12/2021 15:06
N9CT	P337	SANDY 9 LLC	Fairbanks, AK	7/13/2021 14:49
N35707		REGISTRATION PENDING	Fairbanks, AK	7/13/2021 16:15
N375F	C206	DEPARTMENT OF THE INTERIOR	Tanana, AK	7/13/2021 16:13
N375F	C206	DEPARTMENT OF THE INTERIOR	Nenana, AK	7/13/2021 18:53
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Nenana, AK	7/13/2021 23:45
N5373Y	PA18	BUSH DAN S	Wasilla, AK	7/14/2021 11:05
N3372B	PA18	MIELKE ROBERT D TRUSTEE	Healy, AK	7/14/2021 10:41
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	7/14/2021 12:11
N3372B	PA18	MIELKE ROBERT D TRUSTEE	Nenana, AK	7/14/2021 12:43
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	7/14/2021 13:02
N5373Y	PA18	BUSH DAN S	Nenana, AK	

N3372B	PA18	MIELKE ROBERT D TRUSTEE	Nenana, AK	
N5373Y	PA18	BUSH DAN S		7/14/2021 12:40
N35707		REGISTRATION PENDING	Fairbanks, AK	7/15/2021 7:22
N332F	HUSK	KUKOWSKI RAYMOND N	Summit, AK	7/15/2021 8:58
N332F	HUSK	KUKOWSKI RAYMOND N	Nenana, AK	
N8644Z		MASTERS MISSION	Nenana, AK	7/15/2021 12:30
N377PA	B212	COPTER LEASE LLC TRUSTEE	Fairbanks, AK	7/15/2021 11:45
N377PA	B212	COPTER LEASE LLC TRUSTEE	Nenana, AK	7/15/2021 14:02
N185JE		ECKERT JOHN E	Fairbanks, AK	7/15/2021 14:27
N8644Z		MASTERS MISSION	Nenana, AK	7/15/2021 15:38
N35707		REGISTRATION PENDING	Fairbanks, AK	7/15/2021 16:30
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	7/16/2021 10:38
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	7/17/2021 9:22
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/17/2021 12:13
N35707		REGISTRATION PENDING	Fairbanks, AK	7/18/2021 7:27
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Fairbanks/Ft Wainwright,	7/18/2021 13:22
N185CL	C185	YUKON AIR SERVICE INC	Fairbanks, AK	7/18/2021 22:22
N185CL	C185	YUKON AIR SERVICE INC	Nenana, AK	7/18/2021 22:58
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/19/2021 11:20
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/19/2021 14:23
N75740		KINGDOM AIR CORPS	Rampart, AK	7/19/2021 12:50
N75740		KINGDOM AIR CORPS	Nenana, AK	7/19/2021 15:57
N575JD	C208	ARCTIC ONE LLC	Fairbanks, AK	7/19/2021 14:31
N708RE	PC12	TATONDUK OUTFITTERS LTD	Fairbanks, AK	7/19/2021 14:37
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/19/2021 18:11
N708RE	PC12	TATONDUK OUTFITTERS LTD	Nenana, AK	7/19/2021 15:26
N575JD	C208	ARCTIC ONE LLC	Nenana, AK	7/19/2021 15:34
N215MC	C208	TATONDUK OUTFITTERS LTD DBA	Fairbanks, AK	7/19/2021 15:19
N215MC		TATONDUK OUTFITTERS LTD DBA	Nenana, AK	7/19/2021 16:14
N35707		REGISTRATION PENDING	Fairbanks, AK	7/19/2021 19:00
N3097J	C150	FLAT LAKE AIR LLC	Talkeetna, AK	7/20/2021 16:20
N3097J	C150	FLAT LAKE AIR LLC	Nenana, AK	7/20/2021 19:59
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	7/21/2021 11:49
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	7/21/2021 13:35
N8644Z		MASTERS MISSION	Nenana, AK	7/21/2021 19:18
N2821Q	C185	HATTAN RICHARD A	Clear, AK	7/22/2021 10:51
N377PA	B212	COPTER LEASE LLC TRUSTEE	Mc Grath, AK	7/22/2021 12:37
N316MH	B06	MARITIME HELICOPTERS INC	Nenana, AK	
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	7/22/2021 12:05
N8644Z		MASTERS MISSION	Nenana, AK	7/22/2021 13:17
N377PA	B212	COPTER LEASE LLC TRUSTEE	Nenana, AK	
X46551	C172	STRANDBERG JAMES S	Anchorage, AK	7/22/2021 16:35
N234CE	PA31	AIR ARCTIC INC	Fairbanks, AK	7/22/2021 16:10
N234CE	PA31	AIR ARCTIC INC	Nenana, AK	7/22/2021 17:07
N8644Z		MASTERS MISSION	Nenana, AK	



N46551	C172	STRANDBERG JAMES S	Nenana, AK	
N316MH	B06	MARITIME HELICOPTERS INC	Mizan Teferi	7/22/2021 10:54
N8644Z		MASTERS MISSION	Fairbanks, AK	7/23/2021 0:34
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	7/23/2021 10:27
N8644Z		MASTERS MISSION	Nenana, AK	7/23/2021 13:43
N1314X	C208	WRIGHT AIR SERVICE INC	Fairbanks, AK	7/23/2021 19:01
N22CW	S22T	WRIGHT CHARLES	Bettles, AK	7/24/2021 10:41
N22CW	S22T	WRIGHT CHARLES	Nenana, AK	7/24/2021 13:31
N46298	C180	HODGES JAY F	Fairbanks, AK	7/25/2021 9:23
N46298	C180	HODGES JAY F	Nenana, AK	7/25/2021 12:22
N3483Y	C180	GRIMES WILLIAM H	Fairbanks, AK	7/25/2021 10:39
N3483Y	C180	GRIMES WILLIAM H	Nenana, AK	7/25/2021 11:18
N234CE	PA31	AIR ARCTIC INC	Fairbanks, AK	7/25/2021 13:20
N234CE	PA31	AIR ARCTIC INC	Nenana, AK	7/25/2021 14:10
N5004A		FAGRE DAVID A	Fairbanks, AK	7/25/2021 14:13
N5004A		FAGRE DAVID A	Nenana, AK	7/25/2021 15:27
N9146M		JC AIRCRAFT LEASING LLC	Wasilla, AK	7/26/2021 11:19
N234CE	PA31	AIR ARCTIC INC	Fairbanks, AK	7/26/2021 13:10
N234CE	PA31	AIR ARCTIC INC	Nenana, AK	7/26/2021 14:12
N9146M		JC AIRCRAFT LEASING LLC	Rampart, AK	7/26/2021 14:47
N155SG	SF50	ZETROZ SYSTEMS LLC	Fairbanks, AK	7/27/2021 12:09
N155SG	SF50	ZETROZ SYSTEMS LLC	Nenana, AK	7/28/2021 13:51
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	7/29/2021 13:30
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	7/29/2021 16:06
N46298	C180	HODGES JAY F	Fairbanks, AK	7/30/2021 19:52
N46298	C180	HODGES JAY F	Nenana, AK	7/30/2021 20:35
N1234		Unknown Owner	Palmer, AK	7/31/2021 12:04
N2992P	PA18	LOWE DANNY D	Palmer, AK	7/31/2021 12:02
N22563		DAVIS MICHAEL A JR	Fairbanks, AK	7/31/2021 10:41
N8644Z		MASTERS MISSION	Nenana, AK	
N2992P	PA18	LOWE DANNY D	Nenana, AK	7/31/2021 13:35
N1234		Unknown Owner	Nenana, AK	
N177RC	C177	COMBELICK RODNEY A	Fairbanks, AK	7/31/2021 18:27
N8644Z		MASTERS MISSION	Talkeetna, AK	7/31/2021 19:32
N177RC	C177	COMBELICK RODNEY A	Nenana, AK	7/31/2021 22:34
N575D		SINGDAHLSSEN KRYNN	Fairbanks, AK	8/1/2021 12:46
N575D		SINGDAHLSSEN KRYNN	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	8/1/2021 16:19
N2008W	BE35	SIAMESE CAT LLC	Ambler, AK	8/2/2021 20:09
N2008W	BE35	SIAMESE CAT LLC	Nenana, AK	8/2/2021 20:44
BLK8	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	8/3/2021 10:46
BLK8	AS50	Blocked by owner	Nenana, AK	
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Fairbanks/Ft Wainwright,	8/3/2021 15:21
N120SH		TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	Nenana, AK	8/3/2021 17:29
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Tanana, AK	8/3/2021 19:42
BLK8	AS50	Blocked by owner	Nenana, AK	8/3/2021 20:09

BLK8	AS50	Blocked by owner	Nenana, AK	8/3/2021 20:54
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	8/4/2021 12:14
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	8/4/2021 13:00
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	8/4/2021 14:07
N70052	C172	HASTINGS HEIDI	Palmer, AK	8/4/2021 16:20
N70052	C172	HASTINGS HEIDI	Nenana, AK	8/4/2021 18:58
N1123E	PA18	VONIMHOF RUDOLPH F	Anchorage, AK	8/4/2021 19:55
N1123E	PA18	VONIMHOF RUDOLPH F	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Mc Grath, AK	8/5/2021 8:10
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	8/5/2021 15:56
N46551	C172	STRANDBERG JAMES S	Minchumina, AK	8/5/2021 13:45
N30285	C172	GALENA CITY SCHOOL DISTRICT	Fairbanks, AK	8/5/2021 14:10
X45551	C172	STRANDBERG JAMES S	Nenana, AK	8/5/2021 16:35
N30285	C172	GALENA CITY SCHOOL DISTRICT	Nenana, AK	8/5/2021 15:08
N407RH	B407	MARITIME HELICOPTERS INC	Nenana, AK	
N407RH	B407	MARITIME HELICOPTERS INC	Mizan Teferi	8/9/2021 13:53
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	8/11/2021 12:30
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	8/11/2021 14:08
N35707		REGISTRATION PENDING	Fairbanks, AK	8/11/2021 18:31
BLK8	AS50	Blocked by owner	Nenana, AK	8/11/2021 20:10
BLK8	AS50	Blocked by owner	Nenana, AK	8/11/2021 20:45
BLK8	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	8/12/2021 11:05
BLK8	AS50	Blocked by owner	Nenana, AK	
BLK8	AS50	Blocked by owner	Nenana, AK	8/12/2021 14:22
BLK8	AS50	Blocked by owner	Nenana, AK	
N35707		REGISTRATION PENDING	Fairbanks, AK	8/13/2021 10:11
N35707		REGISTRATION PENDING	Nenana, AK	8/13/2021 10:23
N8644Z		MASTERS MISSION	Nenana, AK	8/13/2021 11:44
BLK8	AS50	Blocked by owner	Manley Hot Springs, AK	8/13/2021 12:13
N8644Z		MASTERS MISSION	Nenana, AK	8/13/2021 12:26
BLK8	AS50	Blocked by owner	Nenana, AK	
N35707		REGISTRATION PENDING	Tanana, AK	8/13/2021 16:38
N3927Z	PA18	NORDSTROM ELOISE F	Nenana, AK	
N8644Z		MASTERS MISSION	Fairbanks, AK	8/14/2021 18:21
RVF8009	DH8A	FLOAT ALASKA HOLDINGS LLC	Bethel, AK	8/14/2021 21:21
RVF8010	DH8A	FLOAT ALASKA HOLDINGS LLC	Nenana, AK	8/14/2021 22:50
N541LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	8/16/2021 20:36
N13WD	H500	WOODS ELY A	Anchorage, AK	8/17/2021 16:04
N13WD		WOODS ELY A	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	8/18/2021 8:50
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	
BLK1	P46T	Blocked by owner	Anchorage, AK	8/18/2021 12:17
N182JE		GAUSTAD ANDERS	Fairbanks, AK	8/18/2021 13:52
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Tanana, AK	8/18/2021 14:29
N567L		US DEPARTMENT OF THE INTERIOR	Fairbanks, AK	8/18/2021 15:42
N3927Z	PA18	NORDSTROM ELOISE F	Rampart, AK	8/18/2021 16:05

N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	8/18/2021 17:08
N5227R	C185	AVIATION EXPEDITIONS LLC	Fairbanks, AK	8/18/2021 16:02
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/18/2021 17:11
N3927Z	PA18	NORDSTROM ELOISE F	Nenana, AK	8/18/2021 19:15
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/18/2021 18:12
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/18/2021 19:31
N30285	C172	GALENA CITY SCHOOL DISTRICT	Fairbanks, AK	8/19/2021 14:18
BLK9	BE20	Blocked by owner	Fairbanks, AK	8/20/2021 10:24
BLK9	BE20	Blocked by owner	Nenana, AK	8/20/2021 12:12
N1468M		ARCTIC BARNABAS MINISTRIES	Manley Hot Springs, AK	8/20/2021 18:22
N13WD		WOODS ELY A	Rampart, AK	8/21/2021 17:19
N35707		REGISTRATION PENDING	Fairbanks, AK	8/22/2021 9:12
N2163B	L8	MONTGOMERY DOUGLAS R	Fairbanks, AK	8/22/2021 9:50
N35707		REGISTRATION PENDING	Nenana, AK	8/22/2021 9:36
N2163B	L8	MONTGOMERY DOUGLAS R	Nenana, AK	
N8292Q	C185	FITZGERALD JOHN A JR	Fairbanks, AK	8/24/2021 14:27
N8292Q	C185	FITZGERALD JOHN A JR	Nenana, AK	8/24/2021 15:00
N6727A	PA18	ALASKA DALL SHEEP GUIDES LLC	Big Lake, AK	8/24/2021 17:31
N6727A	PA18	ALASKA DALL SHEEP GUIDES LLC	Nenana, AK	
N5227R	C185	AVIATION EXPEDITIONS LLC	Fairbanks, AK	8/25/2021 15:22
N5227R	C185	AVIATION EXPEDITIONS LLC	Nenana, AK	8/25/2021 16:50
N3934B		MAHONEY ANDREW R	Fairbanks, AK	8/26/2021 18:32
N3934B		MAHONEY ANDREW R	Nenana, AK	8/26/2021 19:35
N2054U	M4	MERRELL JARED E	Wasilla, AK	8/27/2021 16:18
N8644Z		MASTERS MISSION	Nenana, AK	
N2054U	M4	MERRELL JARED E	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	8/27/2021 18:50
N60134	C206	PAZSINT HOLLY G	Big Lake, AK	8/28/2021 11:37
N12721	C172	GREDIAGIN WAYNE S	Fairbanks, AK	8/28/2021 10:58
N12721	C172	GREDIAGIN WAYNE S	Nenana, AK	8/28/2021 11:47
N201PA	B06	BANK OF UTAH TRUSTEE	Talkeetna, AK	8/28/2021 13:34
N295CS	T206	LARSEN LEVITATION LLC	Wasilla, AK	8/28/2021 13:43
N60134	C206	PAZSINT HOLLY G	Nenana, AK	
N7735B	R44	EVERGREEN INVESTMENTS LLC	Summit, AK	8/28/2021 13:04
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	8/28/2021 13:51
N7735B	R44	EVERGREEN INVESTMENTS LLC	Nenana, AK	
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	8/28/2021 15:09
N201PA	B06	BANK OF UTAH TRUSTEE	Nenana, AK	
N295CS	T206	LARSEN LEVITATION LLC	Nenana, AK	8/28/2021 15:04
N12721	C172	GREDIAGIN WAYNE S	Fairbanks, AK	8/29/2021 1:32
N12721	C172	GREDIAGIN WAYNE S	Nenana, AK	8/29/2021 3:29
N369KG	M7	PRIDMORE BROWN JULIAN N	Fairbanks, AK	8/29/2021 11:54
N369KG	M7	PRIDMORE BROWN JULIAN N	Nenana, AK	8/29/2021 12:46
CAP5034	C172	CIVIL AIR PATROL INC	Fairbanks, AK	8/29/2021 12:58
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	8/29/2021 13:54
N12721	C172	GREDIAGIN WAYNE S	Fairbanks, AK	8/29/2021 22:27
N4624U	C180	RUBY MARINE INC	Nenana, AK	

N4624U	C180	RUBY MARINE INC	Manley Hot Springs, AK	8/30/2021 15:17
N35707		REGISTRATION PENDING	Fairbanks, AK	8/30/2021 20:42
N35707		REGISTRATION PENDING	Nenana, AK	8/30/2021 21:20
N2054U	M4	MERRELL JARED E	Fairbanks, AK	8/31/2021 12:10
N8314X	C172	MORISSETTE MATTHEW A	Fairbanks, AK	8/31/2021 12:32
N2054U	M4	MERRELL JARED E	Nenana, AK	8/31/2021 14:44
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Valdez, AK	8/31/2021 17:12
N8314X	C172	MORISSETTE MATTHEW A	Nenana, AK	8/31/2021 15:32
N35707		REGISTRATION PENDING	Nenana, AK	8/31/2021 21:36
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	9/1/2021 10:10
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Fairbanks, AK	9/1/2021 16:51
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	9/2/2021 14:28
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/2/2021 15:00
N911NT	AS50	STATE OF ALASKA	Manley Hot Springs, AK	9/2/2021 19:18
N911NT	AS50	STATE OF ALASKA	Nenana, AK	9/2/2021 20:02
N35707		REGISTRATION PENDING	Fairbanks, AK	9/2/2021 22:21
N35707		REGISTRATION PENDING	Nenana, AK	9/2/2021 22:46
N72094		GIBERTONI JAMES E	Fairbanks, AK	9/3/2021 14:43
N72094		GIBERTONI JAMES E	Nenana, AK	9/3/2021 16:20
N545LM	BE20	AERO AIR LLC	Fairbanks, AK	9/5/2021 23:15
N545LM	BE20	AERO AIR LLC	Nenana, AK	9/5/2021 23:45
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	9/6/2021 11:35
N7735B	R44	EVERGREEN INVESTMENTS LLC	Central, AK	9/6/2021 12:35
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	9/6/2021 12:33
N5004A		FAGRE DAVID A	Fairbanks, AK	9/6/2021 12:47
N7735B	R44	EVERGREEN INVESTMENTS LLC	Nenana, AK	9/6/2021 15:37
N5004A		FAGRE DAVID A	Nenana, AK	9/6/2021 14:26
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	9/7/2021 15:04
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	9/8/2021 9:59
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	9/8/2021 14:27
N2413X	R44	CLEMENTINE LLC	Nenana, AK	9/9/2021 1:46
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/8/2021 14:41
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/8/2021 15:12
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/8/2021 16:18
N2413X	R44	CLEMENTINE LLC	Mizan Teferi	9/8/2021 14:10
N75740	C172	KINGDOM AIR CORPS	Palmer, AK	9/9/2021 9:35
N75740	C172	KINGDOM AIR CORPS	Nenana, AK	9/9/2021 10:42
N473YC	C206	U S DEPARTMENT OF THE INTERIOR	Fairbanks, AK	9/9/2021 13:26
N75740	C172	KINGDOM AIR CORPS	Bettles, AK	9/9/2021 17:32
N72094		GIBERTONI JAMES E	Fairbanks, AK	9/9/2021 17:53
N72094		GIBERTONI JAMES E	Nenana, AK	9/9/2021 19:12
N756PF	C206	TAIGA MINING CO INC	Fairbanks, AK	9/10/2021 9:57
N756PF	C206	TAIGA MINING CO INC	Nenana, AK	
N2054U	M4	MERRELL JARED E	Fairbanks/Ft Wainwright,	9/10/2021 13:09
N2054U	M4	MERRELL JARED E	Nenana, AK	9/10/2021 15:16
N70AE		Unknown Owner	Stevens Village, AK	9/11/2021 14:08
N320PA	AS50	NS AIR LEASING LLC	Stevens Village, AK	9/11/2021 14:07

N70AE		Unknown Owner	Nenana, AK	9/11/2021 17:19
N320PA	AS50	NS AIR LEASING LLC	Nenana, AK	9/11/2021 17:18
N4260L		TRUEMAN JEFFREY A	Clear, AK	9/11/2021 16:56
N4401L	C172	JEWETT CLINTON B	Fairbanks, AK	9/13/2021 11:29
N4401L	C172	JEWETT CLINTON B	Nenana, AK	9/13/2021 13:41
N32PX	C206	UNITED STATES DEPARTMENT OF INTERIOR	Manley Hot Springs, AK	9/13/2021 17:07
X32PX	C206	UNITED STATES DEPARTMENT OF INTERIOR	Nenana, AK	9/13/2021 19:30
N27663	PA31	WARBELOWS AIR VENTURES INC	Coldfoot, AK	9/14/2021 12:36
N332F	HUSK	KUKOWSKI RAYMOND N	Tanana, AK	9/16/2021 12:17
X332F	HUSK	KUKOWSKI RAYMOND N	Nenana, AK	9/16/2021 15:21
N60134	C206	PAZSINT HOLLY G	Nenana, AK	9/17/2021 12:54
N907W		RHODES STEVEN D	Minchumina, AK	9/17/2021 15:55
N907W		RHODES STEVEN D	Nenana, AK	
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	9/17/2021 17:48
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	9/18/2021 14:23
N4624U	C180	RUBY MARINE INC	Nenana, AK	9/19/2021 14:44
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	9/19/2021 15:51
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	9/20/2021 13:28
N1598H		CAREY PHILIP J TRUSTEE	Nenana, AK	
N70565		LANGWORTHY GUSTOF L	Fairbanks, AK	9/20/2021 19:03
N70565		LANGWORTHY GUSTOF L	Nenana, AK	9/20/2021 19:42
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	9/23/2021 13:11
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	9/23/2021 14:19
N233AJ	H60	BILLINGS FLYING SERVICE INC	Healy, AK	9/23/2021 16:28
N233AJ	H60	BILLINGS FLYING SERVICE INC	Nenana, AK	9/23/2021 19:03
CAP5034	C172	CIVIL AIR PATROL INC	Fairbanks, AK	9/23/2021 19:20
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	9/23/2021 20:23
N9205D	PA22	HAYDEN SCOTT D	Minchumina, AK	9/25/2021 17:06
N9205D	PA22	HAYDEN SCOTT D	Nenana, AK	9/25/2021 17:46
N8292Q	C185	FITZGERALD JOHN A JR	Fairbanks, AK	9/26/2021 16:06
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	9/28/2021 11:58
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	9/28/2021 15:43
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	9/28/2021 14:26
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	9/28/2021 15:15
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	9/28/2021 18:12
N2163B	L8	MONTGOMERY DOUGLAS R	Manley Hot Springs, AK	9/28/2021 17:17
N2163B	L8	MONTGOMERY DOUGLAS R	Nenana, AK	9/28/2021 18:05
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	9/29/2021 13:30
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/29/2021 14:18
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	9/29/2021 14:57
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	9/30/2021 12:44
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	9/30/2021 14:00
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	10/6/2021 13:28
N208CE	C208	ARCTIC ONE LLC	Fairbanks, AK	10/6/2021 14:59
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/6/2021 14:30
AER95	B190	TAILWIND INVESTMENTS LLC	Anchorage, AK	10/6/2021 16:46

AER95	B190	TAILWIND INVESTMENTS LLC	Nenana, AK	10/6/2021 18:03
BLK10	BE20	Blocked by owner	Fairbanks, AK	10/6/2021 18:58
N531LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	10/8/2021 17:19
N531LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	10/9/2021 11:45
N531LM	BE20	CORSAIR TWO LLC	Nenana, AK	10/9/2021 13:32
N531LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	10/10/2021 10:23
N531LM	BE20	CORSAIR TWO LLC	Nenana, AK	10/10/2021 11:47
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	10/13/2021 13:29
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/13/2021 14:29
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	10/20/2021 12:50
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	10/20/2021 14:10
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	10/20/2021 13:59
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/20/2021 15:16
N2413X	R44	CLEMENTINE LLC	Nenana, AK	10/27/2021 12:15
N556C	HUSK	SCOSKIE PAUL RICHARD JR	Soldotna, AK	10/27/2021 13:40
N2413X	R44	CLEMENTINE LLC	Nenana, AK	10/27/2021 15:10
N556C	HUSK	SCOSKIE PAUL RICHARD JR	Nenana, AK	10/27/2021 14:40
N2413X	R44	CLEMENTINE LLC	Nenana, AK	10/28/2021 3:42
N2413X	R44	CLEMENTINE LLC	Mizan Teferi	10/27/2021 10:12
N6294Y	C182	CARLSON ERNEST C JR	Fairbanks, AK	10/30/2021 13:24
N6294Y	C182	CARLSON ERNEST C JR	Nenana, AK	10/30/2021 14:56
N575JD	C208	ARCTIC ONE LLC	Fairbanks, AK	11/4/2021 16:12
N182JE		GAUSTAD ANDERS	Fairbanks, AK	11/4/2021 16:01
N182JE		GAUSTAD ANDERS	Nenana, AK	11/4/2021 16:54
N575JD	C208	ARCTIC ONE LLC	Nenana, AK	11/4/2021 17:20
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Venetie, AK	11/8/2021 14:05
N30285	C172	GALENA CITY SCHOOL DISTRICT	Fairbanks, AK	11/9/2021 13:37
N30285	C172	GALENA CITY SCHOOL DISTRICT	Nenana, AK	11/9/2021 14:28
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Beaver, AK	11/11/2021 13:31
N53977	CH7B	FITZGERALD LARRY S	Fairbanks, AK	11/22/2021 10:10
N53977	CH7B	FITZGERALD LARRY S	Nenana, AK	11/22/2021 11:52
N53977	CH7B	FITZGERALD LARRY S	Nenana, AK	11/22/2021 13:10
R08226		Unknown Owner	Fairbanks/Ft Wainwright,	11/22/2021 15:06
N715HE	C208	TATONDUK OUTFITTERS LTD DBA	Fairbanks, AK	11/28/2021 13:05
N715HE		TATONDUK OUTFITTERS LTD DBA	Nenana, AK	11/28/2021 13:19
N777CQ	PC12	ARCTIC ONE LLC	Fairbanks, AK	11/28/2021 15:06
N777CQ	PC12	ARCTIC ONE LLC	Nenana, AK	11/28/2021 15:53
N546LM	BE20	AERO AIR LLC	Fairbanks, AK	11/30/2021 16:30
N546LM	BE20	AERO AIR LLC	Nenana, AK	11/30/2021 16:56
N545LM	BE20	AERO AIR LLC	Fairbanks, AK	12/14/2021 13:58
N545LM	BE20	AERO AIR LLC	Nenana, AK	12/14/2021 14:40
N545LM	BE20	AERO AIR LLC	Fairbanks, AK	12/16/2021 10:25
N545LM	BE20	AERO AIR LLC	Nenana, AK	12/16/2021 11:36
N545LM	BE20	AERO AIR LLC	Fairbanks, AK	12/20/2021 0:05
N545LM	BE20	AERO AIR LLC	Nenana, AK	12/20/2021 0:52

N545LM	BE20	AERO AIR LLC	Fairbanks, AK	12/21/2021 12:41
N545LM	BE20	AERO AIR LLC	Nenana, AK	12/21/2021 13:13
CAP5034	C172	CIVIL AIR PATROL INC	Fairbanks, AK	1/10/2022 11:00
CAP5034	C172	CIVIL AIR PATROL INC	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Nenana, AK	1/16/2022 2:50
CAP5024	C172	CIVIL AIR PATROL	Fairbanks, AK	1/15/2022 15:59
CAP5024	C172	CIVIL AIR PATROL	Nenana, AK	1/15/2022 17:09
N2413X	R44	CLEMENTINE LLC	Mizan Teferi	1/15/2022 11:21
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/17/2022 12:37
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/22/2022 12:20
N4401L	C172	REGISTRATION PENDING	Nenana, AK	1/22/2022 15:03
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/22/2022 21:19
N4401L	C172	REGISTRATION PENDING	Nenana, AK	1/22/2022 23:34
N907LB		HICKER LEO P	Nenana, AK	
N3578P	PA18	TIRRELL DANIELLE J	Nenana, AK	
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/23/2022 16:36
N4401L	C172	REGISTRATION PENDING	Nenana, AK	1/23/2022 17:40
N4401L	C172	REGISTRATION PENDING	Nenana, AK	1/23/2022 18:17
N907LB		HICKER LEO P	Mizan Teferi	1/23/2022 9:38
N3578P	PA18	TIRRELL DANIELLE J	Mizan Teferi	1/23/2022 9:40
N2457D	C170	SPINDLER MICHAEL A	Fairbanks, AK	1/24/2022 13:18
N2457D	C170	SPINDLER MICHAEL A	Nenana, AK	1/24/2022 14:36
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/26/2022 13:19
N2413X	R44	CLEMENTINE LLC	Nenana, AK	1/27/2022 2:42
N4401L	C172	REGISTRATION PENDING	Nenana, AK	1/26/2022 14:52
N2413X	R44	CLEMENTINE LLC	Mizan Teferi	1/26/2022 12:51
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	1/27/2022 14:45
N27663	PA31	WARBELOWS AIR VENTURES INC	Fairbanks, AK	1/29/2022 14:42
N27663	PA31	WARBELOWS AIR VENTURES INC	Nenana, AK	1/29/2022 15:19
N574ST		STATE OF ALASKA	Fairbanks, AK	2/1/2022 14:17
N574ST		STATE OF ALASKA	Nenana, AK	2/1/2022 14:49
N2413X	R44	CLEMENTINE LLC	Manley Hot Springs, AK	
N574ST		STATE OF ALASKA	Fairbanks, AK	2/3/2022 13:42
N574ST		STATE OF ALASKA	Nenana, AK	2/3/2022 15:06
R08480		Unknown Owner	Fairbanks/Ft Wainwright,	2/16/2022 19:00
R08480		Unknown Owner	Nenana, AK	
N376PA	B212	BANK OF UTAH TRUSTEE	Anchorage, AK	2/23/2022 10:15
N376PA	B212	BANK OF UTAH TRUSTEE	Nenana, AK	2/23/2022 11:39
N541LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	2/26/2022 20:24
N541LM	BE20	CORSAIR TWO LLC	Nenana, AK	2/26/2022 20:58
R08480		Unknown Owner	Fairbanks/Ft Wainwright,	3/1/2022 20:24
N316MH	B06	MARITIME HELICOPTERS INC	Nenana, AK	3/3/2022 23:17
N30285	C172	GALENA CITY SCHOOL DISTRICT	Manley Hot Springs, AK	3/3/2022 22:56
N316MH	B06	MARITIME HELICOPTERS INC	Nenana, AK	
N316MH	B06	MARITIME HELICOPTERS INC	Manley Hot Springs, AK	3/4/2022 15:35
N316MH	B06	MARITIME HELICOPTERS INC	Nenana, AK	3/5/2022 4:21
N316MH	B06	MARITIME HELICOPTERS INC	Mizan Teferi	3/4/2022 8:14

N907LB		HICKER LEO P	Nenana, AK	3/9/2022 3:02
N907LB		HICKER LEO P	Mizan Teferi	3/8/2022 14:02
N182JE		GAUSTAD ANDERS	Nenana, AK	3/14/2022 18:18
R08224		Unknown Owner	Fairbanks/Ft Wainwright,	3/17/2022 7:44
R08224		Unknown Owner	Nenana, AK	3/17/2022 9:21
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	3/18/2022 16:46
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	3/18/2022 17:13
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	3/21/2022 14:18
N4401L	C172	REGISTRATION PENDING	Nenana, AK	3/21/2022 14:22
N4401L	C172	REGISTRATION PENDING	Fairbanks, AK	3/21/2022 19:48
N4401L	C172	REGISTRATION PENDING	Nenana, AK	3/21/2022 20:31
N4401L	C172	REGISTRATION PENDING	Nenana, AK	3/21/2022 21:28
N3589B	PA31	AIR ARCTIC INC	Fairbanks, AK	3/22/2022 10:35
N3589B	PA31	AIR ARCTIC INC	Nenana, AK	3/22/2022 11:12
N567L		US DEPARTMENT OF THE INTERIOR	Fairbanks, AK	3/23/2022 18:01
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	3/23/2022 18:05
N567L		US DEPARTMENT OF THE INTERIOR	Nenana, AK	3/23/2022 18:54
N27663	PA31	WARBELOWS AIR VENTURES INC	Fairbanks, AK	3/24/2022 10:30
N27663	PA31	WARBELOWS AIR VENTURES INC	Nenana, AK	3/24/2022 11:02
N2457D	C170	SPINDLER MICHAEL A	Fairbanks, AK	3/24/2022 15:11
CAP5047	C185	CIVIL AIR PATROL INC	Fairbanks, AK	3/26/2022 10:43
CAP5047	C185	CIVIL AIR PATROL INC	Nenana, AK	3/26/2022 12:45
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	3/30/2022 18:59
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	3/30/2022 21:22
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	3/30/2022 22:04
N4401L	C172	WARBELOWS AIR VENTURES	Stevens Village, AK	4/5/2022 19:08
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	4/6/2022 13:09
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	4/6/2022 13:30
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/6/2022 13:37
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/6/2022 13:49
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/6/2022 15:12
ICY83		Unknown Owner	Fairbanks/Ft Wainwright,	4/7/2022 11:49
ICY83		Unknown Owner	Nenana, AK	4/7/2022 12:53
N756LC	C206	TAIGA MINING COMPANY INC	Anchorage, AK	4/7/2022 15:31
N756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	4/8/2022 18:07
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	4/8/2022 20:31
N4401L	C172	WARBELOWS AIR VENTURES	Anchorage, AK	4/9/2022 21:11
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	4/9/2022 21:47
N14407	C185	HANSON ROD D	Wasilla, AK	4/10/2022 12:36
N14407	C185	HANSON ROD D	Nenana, AK	4/10/2022 13:22
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	4/10/2022 15:24
N4401L	C172	WARBELOWS AIR VENTURES	Rampart, AK	4/10/2022 22:45
R08232		Unknown Owner	Fairbanks /Ft Wainwright	4/12/2022 1:20
R08232		Unknown Owner	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	4/13/2022 11:50



N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	4/13/2022 13:37
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/13/2022 13:46
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/13/2022 15:03
N2413X	R44	CLEMENTINE LLC	Nenana, AK	4/13/2022 15:03
N5512Z	PA18	SHADOW AVIATION INC	Nenana, AK	4/16/2022 22:30
N777CQ	PC12	ARCTIC ONE LLC	Fairbanks, AK	4/16/2022 14:13
N777CQ	PC12	ARCTIC ONE LLC	Nenana, AK	4/16/2022 15:14
N5512Z	PA18	SHADOW AVIATION INC	Mizan Teferi	4/16/2022 9:01
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Manley Hot Springs, AK	4/19/2022 10:00
N2610J		TROTZKE SAMUEL P	Fairbanks, AK	4/19/2022 11:13
N2610J		TROTZKE SAMUEL P	Nenana, AK	4/19/2022 13:25
N182JE		GAUSTAD ANDERS	Fairbanks, AK	4/21/2022 14:56
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	4/23/2022 9:45
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	4/23/2022 10:59
N715HE		TATONDUK OUTFITTERS LTD DBA	Fairbanks, AK	4/26/2022 9:56
N644TC	R44	CHENA RIVER AVIATION INC	Clear, AK	4/27/2022 12:51
N644TC	R44	CHENA RIVER AVIATION INC	Nenana, AK	4/27/2022 13:19
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	4/28/2022 9:41
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	4/28/2022 11:21
N715HE	C208	TATONDUK OUTFITTERS LTD DBA	Fairbanks, AK	4/28/2022 12:42
N3097J	C150	FLAT LAKE AIR LLC	Birchwood, AK	4/29/2022 14:05
N3097J	C150	FLAT LAKE AIR LLC	Nenana, AK	4/29/2022 15:53
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	4/29/2022 16:21
N182JE		GAUSTAD ANDERS	Fairbanks, AK	
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	4/29/2022 17:44
N182JE		GAUSTAD ANDERS	Nenana, AK	4/29/2022 17:29
N2531Q	C185	GEORGE THOMAS H	Fairbanks, AK	4/30/2022 12:11
N6047B		OLIVER ROSS C TRUSTEE	Mckinley Park, AK	4/30/2022 12:39
N2531Q	C185	GEORGE THOMAS H	Nenana, AK	4/30/2022 12:43
N8644Z	C206	MASTERS MISSION	Nenana, AK	5/1/2022 18:08
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Wasilla, AK	5/2/2022 13:52
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Nenana, AK	
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/4/2022 9:36
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/4/2022 11:18
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Rampart, AK	5/4/2022 12:03
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Nenana, AK	5/4/2022 13:51
N206KW	C206	COYOTE AIR LLC	Nenana, AK	5/6/2022 21:35
N206KW	C206	COYOTE AIR LLC	Mizan Teferi	5/6/2022 9:46
BLK4	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	5/7/2022 12:38
BLK4	AS50	Blocked by owner	Nenana, AK	
N384AK		Unknown Owner	Anchorage, AK	5/8/2022 15:00
N384AK		Unknown Owner	Nenana, AK	5/8/2022 17:54
N59826	PA31	AIR ARCTIC INC	Fairbanks, AK	5/8/2022 18:02
N59826	PA31	AIR ARCTIC INC	Nenana, AK	5/8/2022 18:48
N384AK		Unknown Owner	Nenana, AK	5/8/2022 19:06
FLC27	B350	FAA Flight Program	Nenana, AK	5/10/2022 11:04

N8644Z	C206	MASTERS MISSION	Soldotna, AK	5/11/2022 17:44
N4260L		TRUEMAN JEFFREY A	Clear, AK	5/11/2022 18:08
N4443R	C185	COLD REGION AIR LLC	Fairbanks, AK	5/11/2022 19:30
N4443R	C185	COLD REGION AIR LLC	Nenana, AK	5/11/2022 20:10
R08227		Unknown Owner	Fort Wainwrite, AK	5/12/2022 11:52
R08227		Unknown Owner	Nenana, AK	5/12/2022 12:38
N320PA	AS50	NS AIR LEASING LLC	Anchorage, AK	5/13/2022 14:27
N320PA	AS50	NS AIR LEASING LLC	Nenana, AK	5/13/2022 15:16
N8644Z		MASTERS MISSION	Nenana, AK	
BLK4	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	5/14/2022 9:59
BLK4	AS50	Blocked by owner	Nenana, AK	
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/14/2022 12:03
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/14/2022 13:05
N8644Z		MASTERS MISSION	Mckinley Park, AK	5/14/2022 21:11
N5004A		FAGRE DAVID A	Fairbanks, AK	5/15/2022 14:33
N5004A		FAGRE DAVID A	Nenana, AK	5/15/2022 16:06
N907LB		HICKER LEO P	Fairbanks, AK	5/16/2022 21:01
N907LB		HICKER LEO P	Nenana, AK	5/17/2022 8:58
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	5/18/2022 9:48
N2413X	R44	CLEMENTINE LLC	Nenana, AK	5/18/2022 10:52
N541LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	5/18/2022 18:51
N541LM	BE20	CORSAIR TWO LLC	Nenana, AK	5/18/2022 19:12
N802CE	AT8T	ARTIC ONE LLC	Fairbanks, AK	5/19/2022 9:06
N802CE	AT8T	ARTIC ONE LLC	Nenana, AK	5/19/2022 9:22
N802CE	AT8T	ARTIC ONE LLC	Nenana, AK	5/19/2022 9:40
N802CE	AT8T	ARTIC ONE LLC	Nenana, AK	5/19/2022 10:02
N541LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	5/19/2022 12:20
CAP5040	C182	CIVIL AIR PATROL INC	Fairbanks, AK	5/19/2022 12:25
N541LM	BE20	CORSAIR TWO LLC	Nenana, AK	5/19/2022 13:38
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/19/2022 15:31
N541LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	5/19/2022 16:35
N541LM	BE20	CORSAIR TWO LLC	Nenana, AK	5/19/2022 17:30
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/20/2022 11:00
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/20/2022 11:48
N27917	PA31	WARBELOWS AIR VENTURES INC	Fairbanks, AK	5/20/2022 12:07
N27917	PA31	WARBELOWS AIR VENTURES INC	Nenana, AK	5/20/2022 14:03
N512PA	B212	PATRIOT AVIATION INC	Fairbanks, AK	5/20/2022 18:45
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	5/20/2022 21:13
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	5/21/2022 14:05
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	
N8644Z	C206	MASTERS MISSION	Willow, AK	5/21/2022 16:56
BLK1	P46T	Blocked by owner	Petersburg, AK	5/23/2022 11:59
N99603	R44	ALPINE AIR ALASKA LLC	Girdwood, AK	5/23/2022 11:45
N99603	R44	ALPINE AIR ALASKA LLC	Nenana, AK	5/23/2022 12:39
BLK1	P46T	Blocked by owner	Nenana, AK	5/23/2022 15:36
CAP5024	C172	CIVIL AIR PATROL	Fairbanks, AK	5/23/2022 17:27
CAP5024	C172	CIVIL AIR PATROL	Nenana, AK	5/23/2022 17:39

CAP5024	C172	CIVIL AIR PATROL	Nenana, AK	5/23/2022 18:23
N4624U	C180	RUBY MARINE INC	Fairbanks, AK	5/24/2022 11:14
N4773B	C180	LANCE GREGORY D	Fairbanks, AK	5/24/2022 11:26
N4773B	C180	LANCE GREGORY D	Nenana, AK	5/24/2022 12:10
N546LM	BE20	AERO AIR LLC	Fairbanks, AK	5/24/2022 20:47
N546LM	BE20	AERO AIR LLC	Nenana, AK	5/24/2022 21:31
N4624U	C180	RUBY MARINE INC	Nenana, AK	
N5600B	C182	PARKS DARRYL D	Birchwood, AK	5/25/2022 9:55
N5600B	C182	PARKS DARRYL D	Nenana, AK	5/25/2022 12:33
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	5/25/2022 11:32
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	5/25/2022 13:03
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	5/25/2022 12:47
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	5/25/2022 13:20
N8644Z		MASTERS MISSION	Nenana, AK	5/25/2022 16:23
CAP5051	C182	CIVIL AIR PATROL	Anchorage, AK	5/25/2022 18:30
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/25/2022 19:07
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/26/2022 10:58
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/26/2022 11:39
N21132		HOLMBERG DARLENE R PERSONAL REPRES	Mc Grath, AK	5/26/2022 13:47
N8644Z		MASTERS MISSION	Nenana, AK	
N52083	C180	GORN ANTHONY S	Nome, AK	5/27/2022 15:15
N8644Z		MASTERS MISSION	Utopia Creek, AK	5/27/2022 13:07
N52083	C180	GORN ANTHONY S	Nenana, AK	5/27/2022 16:34
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	5/27/2022 19:37
N8896	CH7B	GRIFFIN MARGARET J	Clear, AK	5/27/2022 20:07
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/27/2022 20:14
N8896	CH7B	GRIFFIN MARGARET J	Nenana, AK	5/27/2022 20:59
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	5/28/2022 9:31
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	5/28/2022 10:32
N5210L	P28A	DEWILDE LEE RAY	Tanana, AK	5/28/2022 15:30
N2610J		TROTZKE SAMUEL P	Fairbanks, AK	5/28/2022 15:49
N2610J		TROTZKE SAMUEL P	Nenana, AK	5/28/2022 16:43
N5210L	P28A	DEWILDE LEE RAY	Nenana, AK	
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/28/2022 20:22
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	5/28/2022 20:25
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/28/2022 21:00
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	5/28/2022 21:14
N8896	CH7B	GRIFFIN MARGARET J	Clear, AK	5/29/2022 16:39
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/29/2022 17:00
N8896	CH7B	GRIFFIN MARGARET J	Nenana, AK	5/29/2022 17:38
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/29/2022 17:35
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/30/2022 20:01
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/30/2022 20:32
N531LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	5/30/2022 22:37
N531LM	BE20	CORSAIR TWO LLC	Nenana, AK	5/30/2022 23:23
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	5/31/2022 8:44
N2413X	R44	CLEMENTINE LLC	Nenana, AK	5/31/2022 14:53

N2413X	R44	CLEMENTINE LLC	Nenana, AK	5/31/2022 17:08
CAP5051	C182	CIVIL AIR PATROL	Clear, AK	5/31/2022 20:29
CAP5051	C182	CIVIL AIR PATROL	Nenana, AK	5/31/2022 21:20
N4624U	C180	RUBY MARINE INC	Tanana, AK	6/1/2022 2:32
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/1/2022 8:09
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/1/2022 10:58
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	6/1/2022 11:49
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	6/1/2022 12:08
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	6/1/2022 12:56
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Wasilla, AK	6/1/2022 16:36
N357SH		JC AIRCRAFT LEASING LLC	Wasilla, AK	6/1/2022 16:36
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/1/2022 18:00
N539SH	AS50	DELAWARE TRUST CO TRUSTEE	Nenana, AK	
N357SH		JC AIRCRAFT LEASING LLC	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/2/2022 9:57
N8644Z		MASTERS MISSION	Utopia Creek, AK	6/2/2022 10:38
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/2/2022 11:06
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/2/2022 20:50
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/2/2022 22:40
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/2/2022 23:06
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	6/3/2022 8:23
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/3/2022 7:53
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/3/2022 10:07
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	6/3/2022 10:45
N8644Z		MASTERS MISSION	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	6/3/2022 12:40
N8644Z		MASTERS MISSION	Utopia Creek, AK	
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/3/2022 12:36
N349PA	AS50	BANK OF UTAH TRUSTEE	Anchorage, AK	6/3/2022 14:05
N349PA	AS50	BANK OF UTAH TRUSTEE	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/3/2022 16:51
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/3/2022 20:20
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/3/2022 21:01
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/4/2022 7:56
N8644Z		MASTERS MISSION	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/4/2022 11:27
N3349S	C172	FLIGHT SAFETY ALASKA INC	Anchorage, AK	6/4/2022 13:46
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/4/2022 13:47
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/4/2022 17:18
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/5/2022 7:59
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/5/2022 10:54
CAP5042	C182	CIVIL AIR PATROL INC	Clear, AK	6/5/2022 10:29
CAP5042	C182	CIVIL AIR PATROL INC	Nenana, AK	6/5/2022 11:10
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/5/2022 11:56
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/5/2022 15:20
N72WD	R44	ZATZWORKS INC	Rampart, AK	6/5/2022 16:24
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/5/2022 17:01

N72WD	R44	ZATZWORKS INC	Nenana, AK	6/5/2022 18:45
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/6/2022 8:01
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/6/2022 9:45
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/6/2022 10:41
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/6/2022 16:33
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/6/2022 17:27
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/7/2022 7:53
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/7/2022 9:33
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/7/2022 12:01
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/7/2022 11:13
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/7/2022 12:24
N27532	C185	SHADOW AVIATION INC	Nenana, AK	6/8/2022 1:04
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/7/2022 13:19
N27532	C185	SHADOW AVIATION INC	Mizan Teferi	6/7/2022 9:59
N2413X	R44	CLEMENTINE LLC	Fairbanks, AK	6/10/2022 8:04
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/10/2022 9:04
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/10/2022 11:12
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/10/2022 12:11
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/10/2022 14:37
N2413X	R44	CLEMENTINE LLC	Nenana, AK	6/10/2022 16:42
N1820Z	C205	FELLMAN JACOB M	North Pole, AK	6/11/2022 7:31
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	6/11/2022 8:00
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	6/11/2022 9:27
N530LM	BE20	CORSAIR TWO LLC	Fairbanks, AK	6/12/2022 4:34
N530LM	BE20	CORSAIR TWO LLC	Nenana, AK	6/12/2022 5:27
N8644Z		MASTERS MISSION	Nenana, AK	
BLK5	AS50	Blocked by owner	Nenana, AK	6/13/2022 13:32
BLK5	AS50	Blocked by owner	Nenana, AK	
MHF311	B06	MARITIME HELICOPTERS INC	Nenana, AK	6/13/2022 17:02
N8644Z		MASTERS MISSION	Nenana, AK	
N375F	C206	DEPARTMENT OF THE INTERIOR	Anchorage, AK	6/13/2022 18:18
N4260L		TRUEMAN JEFFREY A	Clear, AK	
MHF311	B06	MARITIME HELICOPTERS INC	Mizan Teferi	6/13/2022 14:32
N375F	C206	DEPARTMENT OF THE INTERIOR	Nenana, AK	
N17HX	UH1	HELICOPTER EXPRESS INC	Fairbanks/Ft Wainwright,	6/14/2022 17:08
N17HX	UH1	HELICOPTER EXPRESS INC	Nenana, AK	
ICY55		Unknown Owner	Fairbanks/Ft Wainwright,	6/15/2022 10:52
N77554	C206	U S DEPARTMENT OF THE INTERIOR	Fairbanks, AK	6/15/2022 12:00
N77554	C206	U S DEPARTMENT OF THE INTERIOR	Nenana, AK	6/15/2022 12:27
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	6/15/2022 12:53
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	6/15/2022 13:29
N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	6/15/2022 14:35
N575JD	C208	ARCTIC ONE LLC	Fairbanks, AK	6/17/2022 11:46
N575JD	C208	ARCTIC ONE LLC	Nenana, AK	6/17/2022 12:24
N208CE	C208	ARCTIC ONE LLC	Fairbanks, AK	6/17/2022 14:57
N208CE	C208	ARCTIC ONE LLC	Nenana, AK	6/17/2022 15:19
N208CE	C208	ARCTIC ONE LLC	Nenana, AK	6/17/2022 15:42

N689H	UH1	HILLCREST AIRCRAFT CO INC	Fairbanks/Ft Wainwright,	6/17/2022 16:05
N689H	UH1	HILLCREST AIRCRAFT CO INC	Nenana, AK	6/17/2022 18:44
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	6/18/2022 11:29
N886M		MILLER JOHN A	Fairbanks, AK	6/18/2022 12:47
N4434D	PA31	AIR ARCTIC INC	Fairbanks, AK	6/18/2022 13:23
WAV34D	PA31	Warbelows Air Ventures	Fairbanks, AK	6/18/2022 12:53
N5506J	PA32	SOARING FOR CHRIST LLC	Big Lake, AK	6/18/2022 14:39
N886M		MILLER JOHN A	Nenana, AK	6/18/2022 15:08
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	6/18/2022 15:16
N8644Z	C206	MASTERS MISSION	Willow, AK	6/18/2022 20:17
N575JD	C208	ARCTIC ONE LLC	Fairbanks, AK	6/19/2022 11:50
N575JD	C208	ARCTIC ONE LLC	Nenana, AK	6/19/2022 13:14
N4443R	C185	COLD REGION AIR LLC	Nenana, AK	6/20/2022 1:31
N4443R	C185	COLD REGION AIR LLC	Mizan Teferi	6/19/2022 12:47
CAP5013		CIVIL AIR PATROL	Fairbanks, AK	6/20/2022 17:10
CAP5013		CIVIL AIR PATROL	Nenana, AK	6/20/2022 17:39
N444CE	DC6	EVERTS AIR FUEL INC	Fairbanks, AK	6/21/2022 9:20
N8644Z		MASTERS MISSION	Tanana, AK	
N2124R	C182	KOKJER KENNETH J	Fairbanks, AK	6/21/2022 10:54
N2124R	C182	KOKJER KENNETH J	Nenana, AK	6/21/2022 11:41
N8644Z		MASTERS MISSION	Tanana, AK	
BLK4	AS50	Blocked by owner	Fairbanks/Ft Wainwright,	6/21/2022 18:57
JMP92	DH8D	Business Wings	Fairbanks/Ft Wainwright,	6/21/2022 18:26
FGD688		Unknown Owner	Fairbanks, AK	6/21/2022 21:28
N512PA	B212	PATRIOT AVIATION INC	Palmer, AK	6/21/2022 20:39
BLK4	AS50	Blocked by owner	Nenana, AK	6/21/2022 21:51
BLK5	AS50	Blocked by owner	Rampart, AK	6/21/2022 19:44
BLK5	AS50	Blocked by owner	Nenana, AK	
FGD677		Unknown Owner	Nenana, AK	
BLK4	AS50	Blocked by owner	Nenana, AK	6/21/2022 22:31
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/21/2022 23:08
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/21/2022 23:57
N512PA	B212	PATRIOT AVIATION INC	Fairbanks, AK	6/22/2022 11:48
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 13:27
BLK5	AS50	Blocked by owner	Clear, AK	6/22/2022 14:53
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 16:33
BLK5	AS50	Blocked by owner	Nenana, AK	6/22/2022 16:27
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 17:17
BLK5	AS50	Blocked by owner	Nenana, AK	6/22/2022 17:56
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 19:26
BLK5	AS50	Blocked by owner	Nenana, AK	6/22/2022 19:15
BLK5	AS50	Blocked by owner	Nenana, AK	6/22/2022 20:53
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 20:33
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 20:58
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 21:28
BLK5	AS50	Blocked by owner	Nenana, AK	6/22/2022 21:42
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 21:58

BLK5	AS50	Blocked by owner	Nenana, AK	
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 22:47
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 23:16
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/22/2022 23:33
MHR328	B412	MARITIME HELICOPTERS INC	Clear, AK	6/23/2022 11:06
N512PA	B212	PATRIOT AVIATION INC	Clear, AK	6/23/2022 11:21
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	6/23/2022 12:09
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/23/2022 13:48
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	6/23/2022 13:11
N72WD	R44	ZATZWORKS INC	Willow, AK	6/23/2022 15:03
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	6/23/2022 13:38
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	6/23/2022 14:24
WRF764		Wright Air Service	Nenana, AK	6/23/2022 15:12
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/23/2022 15:32
N72WD	R44	ZATZWORKS INC	Nenana, AK	
N3589B	PA31	AIR ARCTIC INC	Fairbanks, AK	6/23/2022 16:26
N3589B	PA31	AIR ARCTIC INC	Nenana, AK	6/23/2022 17:00
N3589B	PA31	AIR ARCTIC INC	Nenana, AK	6/23/2022 17:45
FGD688		Unknown Owner	Fairbanks, AK	
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/24/2022 17:44
N8644Z		MASTERS MISSION	Nenana, AK	
LZB205	AT8T	AERO SPRAY INC	Fairbanks/Ft Wainwright,	6/25/2022 15:32
LZB210	AT8T	AERO SPRAY INC DBA	Clear, AK	6/25/2022 15:32
SCPR262		DELAWARE TRUST CO TRUSTEE	Fairbanks, AK	
LZB210	AT8T	AERO SPRAY INC DBA	Nenana, AK	6/25/2022 19:28
LZB205	AT8T	AERO SPRAY INC	Nenana, AK	6/25/2022 19:28
N8644Z		MASTERS MISSION	Nenana, AK	
LZB205	AT8T	AERO SPRAY INC	Nenana, AK	
LZB210	AT8T	AERO SPRAY INC DBA	Nenana, AK	6/25/2022 21:52
N8644Z		MASTERS MISSION	Tanana, AK	6/25/2022 21:13
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	6/26/2022 9:06
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	6/26/2022 9:41
N512PA	B212	PATRIOT AVIATION INC	Eva Creek, AK	6/27/2022 16:39
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/27/2022 19:18
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/28/2022 14:20
N512PA	B212	PATRIOT AVIATION INC	Clear, AK	6/28/2022 21:30
N512PA	B212	PATRIOT AVIATION INC	Nenana, AK	6/29/2022 12:55
N864H	B407	HILLCREST AIRCRAFT CO INC	Fairbanks/Ft Wainwright,	7/4/2022 11:56
N864H	B407	HILLCREST AIRCRAFT CO INC	Nenana, AK	
N1501T	PA32	GREAT COMMISSION ALASKA	Nenana, AK	7/5/2022 15:44
N690TG	AC90	9FX LLC	Nenana, AK	7/6/2022 18:56
N60134	C206	REGISTRATION PENDING	Nenana, AK	7/8/2022 14:06
N620TJ		TIMBERLINE HELICOPTERS INC	Palmer, AK	7/8/2022 16:40
N620TJ		TIMBERLINE HELICOPTERS INC	Nenana, AK	7/8/2022 18:26
N545LM	BE20	AERO AIR LLC	Anchorage, AK	7/8/2022 20:38
N545LM	BE20	AERO AIR LLC	Nenana, AK	7/8/2022 22:09
N59826	PA31	AIR ARCTIC INC	Fairbanks, AK	7/10/2022 9:49

N59826	PA31	AIR ARCTIC INC	Nenana, AK	7/10/2022 10:20
N8264	C208	WRIGHT AIR SERVICE INC	Ruby, AK	7/10/2022 11:56
N452T	C208	WRIGHT AIR SERVICE INC	Hughes, AK	7/10/2022 12:57
N8264	C208	WRIGHT AIR SERVICE INC	Nenana, AK	7/10/2022 12:27
N1204F	C185	MONRONEY AVIATION LLC	Fairbanks/Ft Wainwright,	7/10/2022 12:34
N1204F	C185	MONRONEY AVIATION LLC	Nenana, AK	7/10/2022 13:31
N976E	C208	WRIGHT AIR SERVICE INC	Ruby, AK	7/10/2022 13:44
N452T	C208	WRIGHT AIR SERVICE INC	Nenana, AK	7/10/2022 13:34
N976E	C208	WRIGHT AIR SERVICE INC	Nenana, AK	7/10/2022 14:16
N8264	C208	WRIGHT AIR SERVICE INC	Hughes, AK	7/10/2022 16:42
N8264	C208	WRIGHT AIR SERVICE INC	Nenana, AK	7/10/2022 17:11
N5210L	P28A	DEWILDE LEE RAY	Utopia Creek, AK	7/11/2022 10:20
N5210L	P28A	DEWILDE LEE RAY	Nenana, AK	7/11/2022 12:14
HAG20U		Hageland Aviation Services	Mc Grath, AK	7/11/2022 14:09
MHR328	B412	MARITIME HELICOPTERS INC	Clear, AK	7/11/2022 15:56
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 17:01
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 17:27
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 18:19
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 18:45
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 19:12
MHR328	B412	MARITIME HELICOPTERS INC	Nenana, AK	7/11/2022 19:29
N13WD	H500	WOODS ELY A	Clear, AK	7/12/2022 19:02
N13WD	H500	WOODS ELY A	Nenana, AK	
N838GV	C208	TATONDUK OUTFITTERS LTD DBA	Nenana, AK	7/13/2022 13:28
N12721	C172	PRAY AVIATION INC	Fairbanks, AK	7/14/2022 9:39
N12721	C172	PRAY AVIATION INC	Nenana, AK	7/14/2022 10:28
N12721	C172	PRAY AVIATION INC	Nenana, AK	7/14/2022 11:14
LZB243	AT8T	BANK OF UTAH TRUSTEE	Minchumina, AK	
LZB244	AT8T	BANK OF UTAH TRUSTEE	Minchumina, AK	
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	7/15/2022 7:10
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	7/16/2022 19:48
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	7/16/2022 20:11
N12721	C172	PRAY AVIATION INC	Fairbanks, AK	7/18/2022 16:55
N12721	C172	PRAY AVIATION INC	Nenana, AK	7/18/2022 17:39
N75740		KINGDOM AIR CORPS	Talkeetna, AK	7/18/2022 22:01
N75740		KINGDOM AIR CORPS	Nenana, AK	
N129NB	AS50	ALTA AIR 2 LLC	Fairbanks, AK	7/19/2022 9:07
N129NB	AS50	ALTA AIR 2 LLC	Nenana, AK	7/19/2022 11:21
N208WB	C208	ALGOT BERNHARD LTD	Utqiagvik, AK	7/19/2022 19:10
N208WB	C208	ALGOT BERNHARD LTD	Nenana, AK	7/19/2022 21:28
N9486B	C72R	MCCOY MICHAEL R	Fairbanks, AK	7/20/2022 14:46
N9486B	C72R	MCCOY MICHAEL R	Nenana, AK	7/20/2022 15:49
N75740		KINGDOM AIR CORPS	Prospect Creek, AK	7/20/2022 18:38
N75740		KINGDOM AIR CORPS	Nenana, AK	
WRF2WA	C208	Wright Air Service	Nenana, AK	7/21/2022 12:25
N6294Y	C82S	CARLSON ERNEST C JR	Fairbanks, AK	7/21/2022 12:52



N6294Y	C82S	CARLSON ERNEST C JR	Nenana, AK	7/21/2022 13:36
N574ST		STATE OF ALASKA	Tanana, AK	7/21/2022 17:21
CAP5040	C182	CIVIL AIR PATROL INC	Clear, AK	7/22/2022 15:17
CAP5024	C172	CIVIL AIR PATROL	Clear, AK	7/22/2022 15:22
CAP5024	C172	CIVIL AIR PATROL	Nenana, AK	7/22/2022 16:24
CAP5040	C182	CIVIL AIR PATROL INC	Nenana, AK	7/22/2022 16:22
N1820Z	C205	FELLMAN JACOB M	Nenana, AK	7/23/2022 17:41
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	7/24/2022 9:40
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	7/24/2022 10:42
R08230		Unknown Owner	Nenana, AK	
N756LC	C206	TAIGA MINING COMPANY INC	Anchorage, AK	7/27/2022 11:19
N756LC	C206	TAIGA MINING COMPANY INC	Nenana, AK	
N2413X	R44	CLEMENTINE LLC	Manley Hot Springs, AK	7/27/2022 13:14
N2413X	R44	CLEMENTINE LLC	Nenana, AK	7/27/2022 14:25
N2413X	R44	CLEMENTINE LLC	Nenana, AK	7/27/2022 15:59
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	7/27/2022 15:34
N4401L	C172	WARBELOWS AIR VENTURES	Fairbanks, AK	7/27/2022 17:01
N4401L	C172	WARBELOWS AIR VENTURES	Nenana, AK	7/27/2022 18:29
N1598H		CAREY PHILIP J TRUSTEE	Nenana, AK	
N1598H		CAREY PHILIP J TRUSTEE	Minchumina, AK	
N5004A		FAGRE DAVID A	Nenana, AK	7/28/2022 15:25
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Wasilla, AK	7/29/2022 8:06
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	
N5506J		SOARING FOR CHRIST LLC	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Stevens Village, AK	7/29/2022 14:20
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/29/2022 19:18
N5506J		SOARING FOR CHRIST LLC	Manley Hot Springs, AK	7/29/2022 16:42
N5506J		SOARING FOR CHRIST LLC	Nenana, AK	
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	7/29/2022 21:20
N2821Q	C185	HATTAN RICHARD A	Fairbanks, AK	7/30/2022 13:57
N2821Q	C185	HATTAN RICHARD A	Nenana, AK	7/30/2022 14:48
N503MD		CHRISTY JOHN R	Tanana, AK	8/1/2022 11:46
N4666B	C180	STANFIELD FRANCIS T	Nenana, AK	
N75740		KINGDOM AIR CORPS	Rampart, AK	8/1/2022 15:45
N75740		KINGDOM AIR CORPS	Nenana, AK	8/1/2022 18:37
N115RH		REGIONAL HELICOPTERS LLC	Fairbanks, AK	8/2/2022 9:35
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Birchwood, AK	8/3/2022 8:30
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Nenana, AK	8/3/2022 11:47
N4666B	C180	STANFIELD FRANCIS T	Deadhorse, AK	8/3/2022 20:21
N4666B	C180	STANFIELD FRANCIS T	Nenana, AK	8/3/2022 22:33
N5AR	M5	CRAIG WILLIAM O	Fairbanks/Ft Wainwright,	8/4/2022 8:07
N5AR	M5	CRAIG WILLIAM O	Nenana, AK	8/4/2022 10:05
N4906N	C182	KMQ DATA ACQUISITIONS LLC	Stevens Village, AK	8/4/2022 22:20
N8644Z		MASTERS MISSION	Nenana, AK	
N8644Z		MASTERS MISSION	Tanana, AK	8/5/2022 10:59
N27532	C185	SHADOW AVIATION INC	Nenana, AK	8/7/2022 13:23
N27532	C185	SHADOW AVIATION INC	Nenana, AK	8/8/2022 1:53

N27532 C185

SHADOW AVIATION INC

Mizan Teferi

8/7/2022 12:04

**APPENDIX 4:**

**GARD DATA**



General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

Date	Time	ICAO	Manufacturer	Model	Wingspan	Length	Tail height	Max takeoff weight	AAC	ADG	Weight Cat	Engine type	Owner
44927	#2022-01-01 07:43:43#	A761C8	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ARCTIC ONE LLC
44927	#2022-01-01 07:58:25#	A761C8	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ARCTIC ONE LLC
44927	#2022-01-01 08:15:18#	A761C8	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ARCTIC ONE LLC
44933	#2022-01-07 09:04:18#	A9A73C	CESSNA	U206D	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GIBERTONI JAMES E
44937	#2022-01-11 05:53:28#	AD8084	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
44937	#2022-01-11 06:01:01#	AD8084	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
44939	#2022-01-13 07:48:10#	A73D07	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	UNITED STATES DEPARTMENT OF INT
44939	#2022-01-13 10:05:53#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44940	#2022-01-14 05:47:34#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44940	#2022-01-14 06:10:24#	A6F6AA	LEARJET INC	31A	No Data	No Data	No Data	No Data	No Data	No Data	12,500 - 19,999 LBS	Fixed Wing Multi Engine	AERO AIR LLC
44940	#2022-01-14 09:18:05#	A80103	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	U S DEPARTMENT OF INTERIOR
44941	#2022-01-15 11:37:30#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44941	#2022-01-15 12:47:44#	AC7121	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	WRIGHT AIR SERVICE INC
44942	#2022-01-16 06:18:20#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
44942	#2022-01-16 07:00:04#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
44942	#2022-01-16 07:21:13#	A7FA23	GIPPSLAND	GA-8	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44942	#2022-01-16 07:28:16#	A7FA23	GIPPSLAND	GA-8	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44942	#2022-01-16 10:57:50#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44942	#2022-01-16 11:01:17#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44943	#2022-01-17 13:00:30#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:09:53#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:15:37#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:21:04#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:26:15#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:35:15#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:40:29#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:45:27#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44943	#2022-01-17 13:59:35#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44944	#2022-01-18 07:35:53#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44945	#2022-01-19 11:16:54#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44945	#2022-01-19 07:17:13#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44946	#2022-01-20 05:47:46#	A9A73C	CESSNA	U206D	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GIBERTONI JAMES E
44947	#2022-01-21 12:37:19#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44948	#2022-01-22 06:54:06#	A021A0	RAYTHEON AIRCRAFT COM	B200	No Data	No Data	No Data	No Data	No Data	No Data	12,500 - 19,999 LBS	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
44948	#2022-01-22 07:22:01#	A021A0	RAYTHEON AIRCRAFT COM	B200	No Data	No Data	No Data	No Data	No Data	No Data	12,500 - 19,999 LBS	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
44948	#2022-01-22 05:45:44#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 09:46:30#	26CC7C	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
44949	#2022-01-23 07:15:47#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 09:33:46#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 16:17:16#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 16:32:01#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 16:54:04#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 17:14:44#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 17:37:55#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 17:59:57#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44949	#2022-01-23 09:03:03#	A783A7	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	EXECUTIVE HOLDINGS LLC
44949	#2022-01-23 10:37:42#	AC98A0	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	STATE OF ALASKA
44950	#2022-01-24 05:02:21#	A4024C	PIPER	PA-18-150	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TIRRELL DANIELLE J
44950	#2022-01-24 10:10:44#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44950	#2022-01-24 11:35:21#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44950	#2022-01-24 12:01:18#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44950	#2022-01-24 12:38:27#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44950	#2022-01-24 12:50:59#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
44950	#2022-01-24 04:35:51#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	HICKER LEO P
44950	#2022-01-24 05:01:11#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	HICKER LEO P
44951	#2022-01-25 08:17:16#	A245E3	CESSNA	170B	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SPINDLER MICHAEL A
44951	#2022-01-25 08:58:56#	A245E3	CESSNA	170B	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SPINDLER MICHAEL A
44951	#2022-01-25 07:14:46#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC



General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

44987	#2022-03-02 15:05:11#	AE6998	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
44989	#2022-03-04 11:12:15#	A134A8	CESSNA	177B	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	COMBELLICK RODNEY A
44989	#2022-03-04 05:17:34#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44989	#2022-03-04 05:47:38#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44989	#2022-03-04 11:42:15#	A3EA15	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
44989	#2022-03-04 12:09:53#	A3EA15	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
44989	#2022-03-04 08:46:45#	A9A73C	CESSNA	U206D	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GIBERTONI JAMES E
44990	#2022-03-05 10:01:09#	A32A4E	CESSNA	172M	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GALENA CITY SCHOOL DISTRICT
44990	#2022-03-05 03:10:27#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44990	#2022-03-05 03:27:12#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44990	#2022-03-05 10:31:52#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44990	#2022-03-05 10:55:25#	A35E36	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	MARITIME HELICOPTERS INC
44991	#2022-03-06 12:14:13#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44991	#2022-03-06 12:25:02#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44991	#2022-03-06 12:52:33#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44992	#2022-03-07 13:00:48#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44992	#2022-03-07 13:26:17#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44992	#2022-03-07 13:35:18#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44992	#2022-03-07 13:55:37#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44992	#2022-03-07 14:14:12#	1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44993	#2022-03-08 13:28:47#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44993	#2022-03-08 13:32:06#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44994	#2022-03-09 04:23:52#	AB4A09	TEXTRON AVIATION INC	208B	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WRIGHT AIR SERVICE INC
44994	#2022-03-09 08:37:14#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	HICKER LEO P
44994	#2022-03-09 09:14:23#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	HICKER LEO P
44994	#2022-03-09 12:19:25#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44994	#2022-03-09 12:26:23#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44994	#2022-03-09 12:30:28#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44994	#2022-03-09 12:35:13#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44994	#2022-03-09 12:40:47#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
44997	#2022-03-12 08:39:45#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
44997	#2022-03-12 08:44:48#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
44998	#2022-03-13 09:01:48#	AE4E1F	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
44999	#2022-03-14 07:50:32#	C2B55D	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45000	#2022-03-15 13:15:02#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45000	#2022-03-15 13:20:47#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45001	#2022-03-16 12:46:02#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45002	#2022-03-17 11:40:12#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45002	#2022-03-17 08:21:25#	A783A7	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	EXECUTIVE HOLDINGS LLC
45002	#2022-03-17 08:25:10#	A783A7	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	EXECUTIVE HOLDINGS LLC
45002	#2022-03-17 08:37:23#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
45002	#2022-03-17 08:43:16#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
45002	#2022-03-17 08:48:24#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
45002	#2022-03-17 08:53:47#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR	
45003	#2022-03-18 12:59:40#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:04:07#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:09:25#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:14:48#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:19:27#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:23:22#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:29:04#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:34:30#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 13:40:14#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45003	#2022-03-18 02:32:32#	AESA1A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45003	#2022-03-18 02:41:05#	AESA1A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45003	#2022-03-18 02:58:12#	AESA1A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45003	#2022-03-18 03:18:40#	AESA1A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45003	#2022-03-18 03:26:28#	AESA1A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45004	#2022-03-19 11:43:28#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A





General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

45022	#2022-04-06 14:05:29#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45022	#2022-04-06 14:19:50#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45023	#2022-04-07 08:22:15#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45023	#2022-04-07 08:31:11#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45023	#2022-04-07 08:35:52#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45023	#2022-04-07 08:41:44#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45023	#2022-04-07 08:52:48#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45024	#2022-04-08 12:02:17#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45024	#2022-04-08 10:28:52#	AA3150	CESSNA	U206G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TAIGA MINING COMPANY INC
45024	#2022-04-08 10:48:35#	AA3150	CESSNA	U206G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TAIGA MINING COMPANY INC
45024	#2022-04-08 13:30:13#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45024	#2022-04-08 13:37:09#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45024	#2022-04-08 13:41:04#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45024	#2022-04-08 06:46:11#	AE6A2F	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45024	#2022-04-08 07:03:00#	AE6A2F	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45025	#2022-04-09 13:04:37#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45025	#2022-04-09 13:20:39#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45026	#2022-04-10 07:02:26#	A1AFF2	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ARCTIC ONE LLC
45026	#2022-04-10 07:19:35#	A1AFF2	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ARCTIC ONE LLC
45026	#2022-04-10 16:09:32#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45026	#2022-04-10 16:25:33#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45026	#2022-04-10 08:16:02#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45026	#2022-04-10 08:19:44#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45026	#2022-04-10 11:11:22#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45026	#2022-04-10 15:08:25#	AD46DB	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45027	#2022-04-11 08:00:07#	A08A04	CESSNA	185C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HANSON ROD D
45027	#2022-04-11 08:59:48#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45027	#2022-04-11 12:18:40#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45027	#2022-04-11 17:13:21#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45027	#2022-04-11 17:22:22#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45028	#2022-04-12 20:16:37#	AESA23	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45028	#2022-04-12 20:28:18#	AESA23	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45028	#2022-04-12 08:06:51#	AE6998	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45028	#2022-04-12 08:11:28#	AE6998	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45028	#2022-04-12 08:21:20#	AE6998	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45030	#2022-04-14 06:07:43#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45030	#2022-04-14 06:23:44#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45030	#2022-04-14 06:36:45#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45030	#2022-04-14 09:39:40#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45030	#2022-04-14 08:35:20#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 08:40:10#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 08:44:31#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 08:48:26#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 08:52:44#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 09:03:41#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45030	#2022-04-14 09:12:03#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45031	#2022-04-15 12:57:05#	A18859	CESSNA	172M	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	C & R LEASING LLC
45031	#2022-04-15 06:23:38#	A1CBC8	CESSNA	182P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ALEXANDER DAVID L
45031	#2022-04-15 06:29:53#	A1CBC8	CESSNA	182P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ALEXANDER DAVID L
45031	#2022-04-15 10:02:54#	A783A7	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	EXECUTIVE HOLDINGS LLC
45033	#2022-04-17 05:58:24#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45033	#2022-04-17 03:58:36#	A705D8	PIPER	PA-18-150	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45033	#2022-04-17 04:26:46#	A705D8	PIPER	PA-18-150	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45033	#2022-04-17 05:54:34#	A705D8	PIPER	PA-18-150	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45033	#2022-04-17 08:57:04#	A875C3	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	CHENA RIVER AVIATION INC
45033	#2022-04-17 09:07:33#	AA8349	PILATUS AIRCRAFT LTD	PC-12/47	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	LSAC ENTERPRISES LLC
45033	#2022-04-17 09:11:50#	AA8349	PILATUS AIRCRAFT LTD	PC-12/47	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	LSAC ENTERPRISES LLC
45033	#2022-04-17 09:15:13#	AA8349	PILATUS AIRCRAFT LTD	PC-12/47	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	LSAC ENTERPRISES LLC
45033	#2022-04-17 09:22:42#	AA8349	PILATUS AIRCRAFT LTD	PC-12/47	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	LSAC ENTERPRISES LLC

General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

45039	#2022-04-23 05:37:40#	A1CBC8	CESSNA	182P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ALEXANDER DAVID L
45039	#2022-04-23 05:46:17#	A1CBC8	CESSNA	182P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ALEXANDER DAVID L
45039	#2022-04-23 05:50:06#	A1CBC8	CESSNA	182P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ALEXANDER DAVID L
45039	#2022-04-23 14:20:16#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45040	#2022-04-24 04:42:13#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45040	#2022-04-24 05:32:49#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45040	#2022-04-24 07:00:12#	A8E69E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
45040	#2022-04-24 10:59:16#	A8E69E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
45041	#2022-04-25 10:33:35#	A8E69E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
45042	#2022-04-26 10:16:37#	A8E69E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	GUARDIAN FLIGHT LLC
45060	#2022-05-14 09:25:07#	A36F96	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45060	#2022-05-14 09:45:22#	A36F96	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45061	#2022-05-15 07:42:57#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45061	#2022-05-15 07:48:52#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45061	#2022-05-15 06:57:09#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45061	#2022-05-15 07:35:25#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45061	#2022-05-15 03:52:30#	A71174	CESSNA	170A	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SALE REPORTED
45061	#2022-05-15 03:45:50#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45061	#2022-05-15 16:10:10#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45061	#2022-05-15 08:08:34#	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45061	#2022-05-15 04:56:16#	AC9AA8	EUROCOPTER	AS 350 B3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	TEMSCO HELICOPTERS INC
45061	#2022-05-15 05:11:18#	AC9AA8	EUROCOPTER	AS 350 B3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	TEMSCO HELICOPTERS INC
45062	#2022-05-16 06:23:35#	26CD0D	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45062	#2022-05-16 09:28:37#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45062	#2022-05-16 09:35:07#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45062	#2022-05-16 09:40:48#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45062	#2022-05-16 09:45:01#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45062	#2022-05-16 09:50:30#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45062	#2022-05-16 10:38:02#	A63CD5	CESSNA	172	36.08	27.17	8.92	2650	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	YEMM DAVID WEST
45063	#2022-05-17 09:24:16#	A46A30	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45063	#2022-05-17 15:59:15#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	HICKER LEO P
45063	#2022-05-17 16:14:17#	AC8A29	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	HICKER LEO P
45064	#2022-05-18 07:30:08#	26C916	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45064	#2022-05-18 09:19:26#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45064	#2022-05-18 09:22:32#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45064	#2022-05-18 08:56:37#	C0711A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45065	#2022-05-19 05:45:58#	26C13F	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45065	#2022-05-19 03:28:16#	26C839	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45065	#2022-05-19 06:32:13#	26CEF1	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45065	#2022-05-19 04:29:43#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45065	#2022-05-19 04:35:19#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45065	#2022-05-19 05:16:42#	A2368D	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALASKA LAND EXPLORATION LLC
45065	#2022-05-19 05:39:56#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45065	#2022-05-19 11:34:07#	A693B9	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	AVIATION EXPEDITIONS LLC
45065	#2022-05-19 13:58:24#	A6DCA9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45066	#2022-05-20 07:18:04#	A6DCA9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45066	#2022-05-20 07:43:07#	A6DCA9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45066	#2022-05-20 11:33:20#	A6DCA9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45066	#2022-05-20 11:46:01#	A6DCA9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45066	#2022-05-20 07:22:39#	A82F86	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45066	#2022-05-20 09:50:29#	A82F86	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45066	#2022-05-20 03:57:50#	AAE982	AIR TRACTOR INC	AT-802	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	ARTIC ONE LLC
45067	#2022-05-21 07:04:26#	A2CA86	PIPER	PA-31-350	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Multi Engine	WARBELOWS AIR VENTURES INC
45067	#2022-05-21 07:18:30#	A2CA86	PIPER	PA-31-350	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Multi Engine	WARBELOWS AIR VENTURES INC
45067	#2022-05-21 05:55:55#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45067	#2022-05-21 06:25:26#	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45067	#2022-05-21 13:42:27#	A66A23	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	PATRIOT AVIATION INC
45067	#2022-05-21 14:15:39#	A66A23	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Rotorcraft	PATRIOT AVIATION INC
45068	#2022-05-22 09:03:08#	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC

General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

45068	#2022-05-22 09:40:57H	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45069	#2022-05-23 03:10:23H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45069	#2022-05-23 06:25:10H	AESA18	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45070	#2022-05-24 07:37:18H	A83FOD	PIPER	PA46-500TP	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	COLVILLE HOLDING LLC
45070	#2022-05-24 12:19:45H	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45070	#2022-05-24 12:24:56H	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45070	#2022-05-24 12:31:29H	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45070	#2022-05-24 12:36:52H	AC4594	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45070	#2022-05-24 06:42:41H	ADEB61	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALPINE AIR ALASKA LLC
45070	#2022-05-24 07:04:17H	ADEB61	ROBINSON HELICOPTER CO	R44 II	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Rotorcraft	ALPINE AIR ALASKA LLC
45071	#2022-05-25 06:23:49H	A5DDDE	CESSNA	180	35.83	25.63	7.75	2800	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	MELTER JOHN D
45071	#2022-05-25 06:48:30H	A5DDDE	CESSNA	180	35.83	25.63	7.75	2800	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	MELTER JOHN D
45071	#2022-05-25 15:44:48H	A6EF3C	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	AERO AIR LLC
45071	#2022-05-25 15:51:09H	A6EF3C	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Multi Engine	AERO AIR LLC
45071	#2022-05-25 03:24:36H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 07:44:18H	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45072	#2022-05-26 07:56:02H	A54D23	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WINDRIVER SKYHAWK LLC
45072	#2022-05-26 02:24:12H	A5A400	CESSNA	180G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	RUBY MARINE INC
45072	#2022-05-26 06:14:51H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 06:21:59H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 06:29:22H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 07:04:36H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 07:08:16H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 07:17:20H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45072	#2022-05-26 13:27:24H	AB099C	CESSNA	182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45072	#2022-05-26 13:54:22H	AB099C	CESSNA	182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45073	#2022-05-27 05:54:44H	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45073	#2022-05-27 06:18:22H	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45074	#2022-05-28 10:12:05H	A68C7A	CESSNA	180J	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GORN ANTHONY S
45074	#2022-05-28 10:43:00H	A68C7A	CESSNA	180J	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GORN ANTHONY S
45074	#2022-05-28 14:34:18H	A82FB6	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45074	#2022-05-28 15:00:52H	A82FB6	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45074	#2022-05-28 05:25:50H	A8CF82	PIPER	PA-46-310P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SAMARDZICH LLC
45074	#2022-05-28 05:33:51H	A8CF82	PIPER	PA-46-310P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SAMARDZICH LLC
45074	#2022-05-28 05:45:17H	A8CF82	PIPER	PA-46-310P	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SAMARDZICH LLC
45074	#2022-05-28 15:04:59H	AC426E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	GRIFFIN MARGARET J
45074	#2022-05-28 15:23:01H	AC426E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	GRIFFIN MARGARET J
45075	#2022-05-29 07:36:22H	26C6C7	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45075	#2022-05-29 08:08:00H	26C6F7	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45075	#2022-05-29 07:49:35H	26C9E9	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45075	#2022-05-29 08:11:00H	26CF95	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45075	#2022-05-29 10:41:45H	A28515	CESSNA	150G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TROTZKE SAMUEL P
45075	#2022-05-29 10:47:02H	A28515	CESSNA	150G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TROTZKE SAMUEL P
45075	#2022-05-29 11:13:17H	A28515	CESSNA	150G	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TROTZKE SAMUEL P
45075	#2022-05-29 04:27:39H	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45075	#2022-05-29 05:11:10H	A2D7F3	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	HATTAN RICHARD A
45075	#2022-05-29 10:26:07H	A68F08	PIPER	PA-28-180	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	DEWILDE LEE RAY
45075	#2022-05-29 11:30:43H	A68F08	PIPER	PA-28-180	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	DEWILDE LEE RAY
45075	#2022-05-29 15:22:35H	A82FB6	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45075	#2022-05-29 16:02:57H	A82FB6	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45075	#2022-05-29 15:19:07H	AB099C	CESSNA	182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45075	#2022-05-29 15:48:59H	AB099C	CESSNA	182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45076	#2022-05-30 04:45:29H	26C26E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data		
45076	#2022-05-30 04:25:16H	A0706B	CESSNA	172M	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GREDIAGIN WAYNE S
45076	#2022-05-30 04:36:09H	A0706B	CESSNA	172M	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	GREDIAGIN WAYNE S
45076	#2022-05-30 02:59:24H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45076	#2022-05-30 03:04:01H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45076	#2022-05-30 03:08:20H	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45076	#2022-05-30 11:57:38H	AB099C	CESSNA	182T	36	29	9.33	3100	A	I		Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL

General Audio Recording Device (GARD) Data for ENN (January 1, 2022 - June 9, 2022)

45076	#2022-05-30 12:22:33#	AB099C	CESSNA	182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45076	#2022-05-30 11:37:00#	AC426E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	GRIFFIN MARGARET J
45076	#2022-05-30 12:04:33#	AC426E	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Fixed Wing Single Engine	GRIFFIN MARGARET J
45076	#2022-05-30 07:23:29#	AC6CD2	BOMBARDIER INC	CL-600-2B16	No Data	No Data	No Data	No Data	No Data	No Data	20,000 LBS and over	Fixed Wing Multi Engine	FEDERAL AVIATION ADMINISTRATIO
45077	#2022-05-31 09:34:42#	26C461	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45077	#2022-05-31 17:34:38#	A6B52A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45077	#2022-05-31 17:40:53#	A6B52A	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45077	#2022-05-31 14:58:37#	AB099C	CESSNA	182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45077	#2022-05-31 15:19:30#	AB099C	CESSNA	182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL
45079	#2022-06-02 12:17:47#	26CB09	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45079	#2022-06-02 11:34:21#	A40066	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45079	#2022-06-02 11:57:40#	A40066	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45079	#2022-06-02 11:33:48#	A6D374	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45079	#2022-06-02 11:57:21#	A6D374	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45079	#2022-06-02 06:39:04#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45079	#2022-06-02 06:47:11#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45079	#2022-06-02 06:59:00#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45079	#2022-06-02 12:24:46#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45079	#2022-06-02 14:37:14#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45080	#2022-06-03 18:03:22#	A3E003	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45080	#2022-06-03 18:32:34#	A3E003	No Make Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	
45080	#2022-06-03 21:53:08#	A5144C	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WHITT JAMES D
45080	#2022-06-03 22:17:07#	A5144C	CESSNA	172G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	WHITT JAMES D
45080	#2022-06-03 22:02:48#	A54349	PIPER	PA-28-181	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MANOS NICHOLAS DAVID
45080	#2022-06-03 12:22:32#	A6134F	CESSNA	182Q	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	KMQ DATA ACQUISITIONS LLC
45080	#2022-06-03 13:00:58#	A6134F	CESSNA	182Q	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	KMQ DATA ACQUISITIONS LLC
45080	#2022-06-03 14:43:20#	A6134F	CESSNA	182Q	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	KMQ DATA ACQUISITIONS LLC
45080	#2022-06-03 15:03:41#	A6134F	CESSNA	182Q	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	KMQ DATA ACQUISITIONS LLC
45080	#2022-06-03 13:46:06#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45080	#2022-06-03 16:08:44#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45080	#2022-06-03 00:47:56#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45080	#2022-06-03 01:11:17#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45080	#2022-06-03 01:30:14#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45080	#2022-06-03 02:39:54#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45080	#2022-06-03 02:55:13#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45081	#2022-06-04 15:32:14#	A1F6DA	CESSNA	150H	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	DAVIS MICHAEL A JR
45081	#2022-06-04 15:35:11#	A28515	CESSNA	150G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	TROTZKE SAMUEL P
45081	#2022-06-04 17:46:46#	A3A84F	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	FLIGHT SAFETY ALASKA INC
45081	#2022-06-04 18:26:27#	A3A84F	CESSNA	172P	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	FLIGHT SAFETY ALASKA INC
45081	#2022-06-04 11:19:48#	A83AA7	CESSNA	T182T	36	29	9.33	3100	A	I	Up To 12,499 LBS	Fixed Wing Single Engine	CARLSON ERNEST C JR
45081	#2022-06-04 11:52:03#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45081	#2022-06-04 14:10:57#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45081	#2022-06-04 14:52:19#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45081	#2022-06-04 17:34:04#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45081	#2022-06-04 19:48:08#	ABE0AF	CESSNA	P206C	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	MASTERS MISSION
45081	#2022-06-04 00:19:42#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45081	#2022-06-04 00:49:24#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45082	#2022-06-05 14:28:21#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45082	#2022-06-05 14:59:15#	AD2DDA	CESSNA	182R	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	CIVIL AIR PATROL INC
45083	#2022-06-06 22:21:18#	A98F54	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ICECAP LLC TRUSTEE
45083	#2022-06-06 22:26:06#	A98F54	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ICECAP LLC TRUSTEE
45083	#2022-06-06 22:34:31#	A98F54	CESSNA	208B	52.08	41.58	17.42	9062	A	II	Up To 12,499 LBS	Fixed Wing Single Engine	ICECAP LLC TRUSTEE
45083	#2022-06-06 19:07:32#	AD3AE9	CESSNA	U206G	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	BREWER WILLIAM B
45084	#2022-06-07 13:56:56#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45084	#2022-06-07 14:31:46#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45084	#2022-06-07 15:11:50#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45084	#2022-06-07 15:32:39#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45084	#2022-06-07 16:23:56#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC
45084	#2022-06-07 16:53:15#	A2BBEB	CESSNA	A185F	No Data	No Data	No Data	No Data	No Data	No Data	Up To 12,499 LBS	Fixed Wing Single Engine	SHADOW AVIATION INC





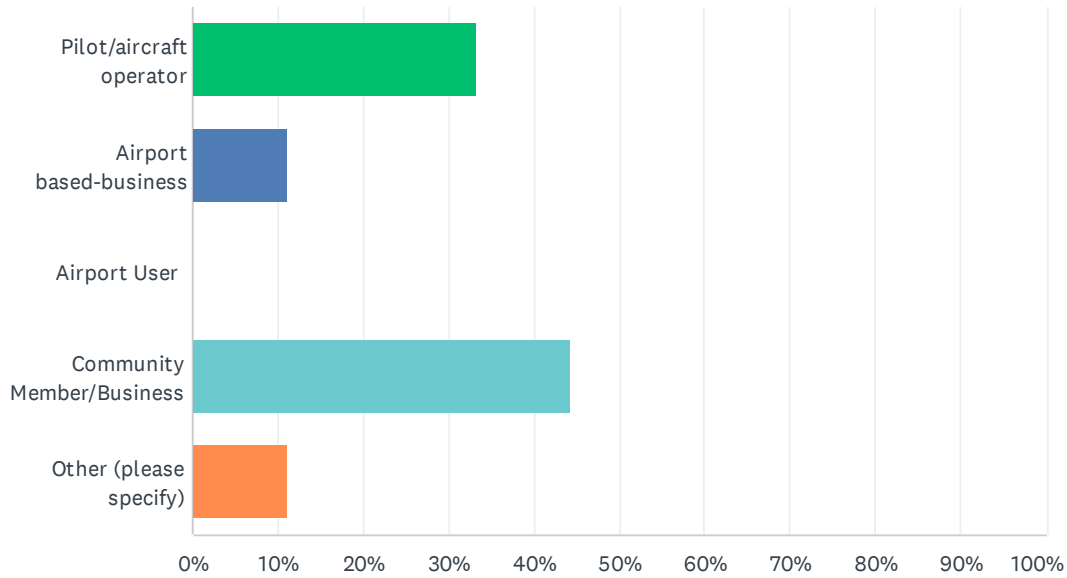
**APPENDIX 5:**  
**ENN STAKEHOLDER SURVEY RESULTS**





## Q1 How do you use the Nenana Municipal Airport

Answered: 9 Skipped: 0



ANSWER CHOICES	RESPONSES	
Pilot/aircraft operator	33.33%	3
Airport based-business	11.11%	1
Airport User	0.00%	0
Community Member/Business	44.44%	4
Other (please specify)	11.11%	1
<b>TOTAL</b>		<b>9</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	I have an aircraft based at Nenana Airport, but also have helped maintain the grassy areas of the airport by mowing and making cow hay for the past 14 years. Started initially by brush hogging the brush, then have been able to keep the brush in remission with once or twice a summer cuttings of hay, which then gets baled either as square or big round bales.	6/22/2022 8:34 PM

## Q2 What make/model of aircraft do you or your organization fly?

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Piper pa-14	6/22/2022 5:59 PM
2	PA31-350 Navajo Chiefrans	6/6/2022 8:54 AM
3	Pa-18 and 172	4/19/2022 8:38 PM

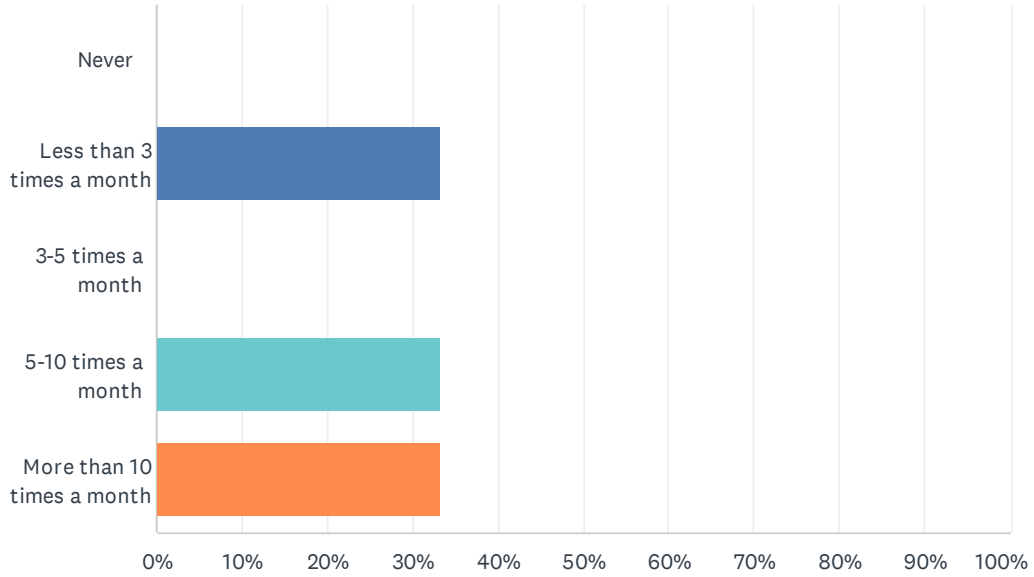
### Q3 At what airport is your aircraft based?

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Pann	6/22/2022 5:59 PM
2	Fairbanks	6/6/2022 8:54 AM
3	Fai	4/19/2022 8:38 PM

## Q4 If not based in ENN, how often do you fly into Nenana Municipal Airport?

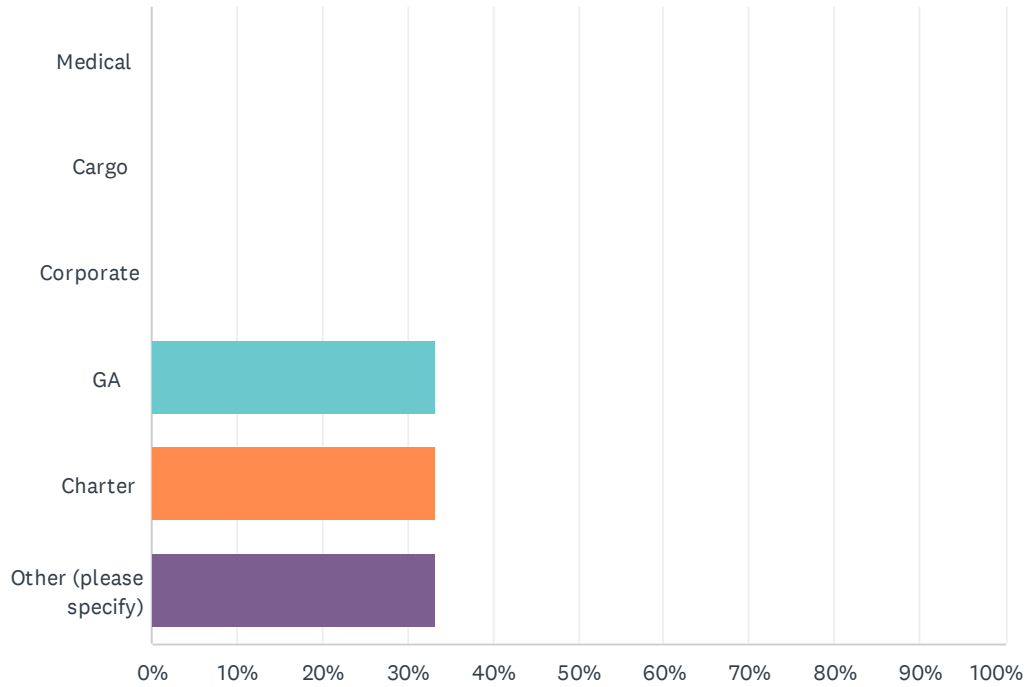
Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
Never	0.00%	0
Less than 3 times a month	33.33%	1
3-5 times a month	0.00%	0
5-10 times a month	33.33%	1
More than 10 times a month	33.33%	1
<b>TOTAL</b>		<b>3</b>

## Q5 What is the purpose of your activity?

Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES
Medical	0.00% 0
Cargo	0.00% 0
Corporate	0.00% 0
GA	33.33% 1
Charter	33.33% 1
Other (please specify)	33.33% 1
<b>TOTAL</b>	<b>3</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	Training	4/19/2022 8:38 PM

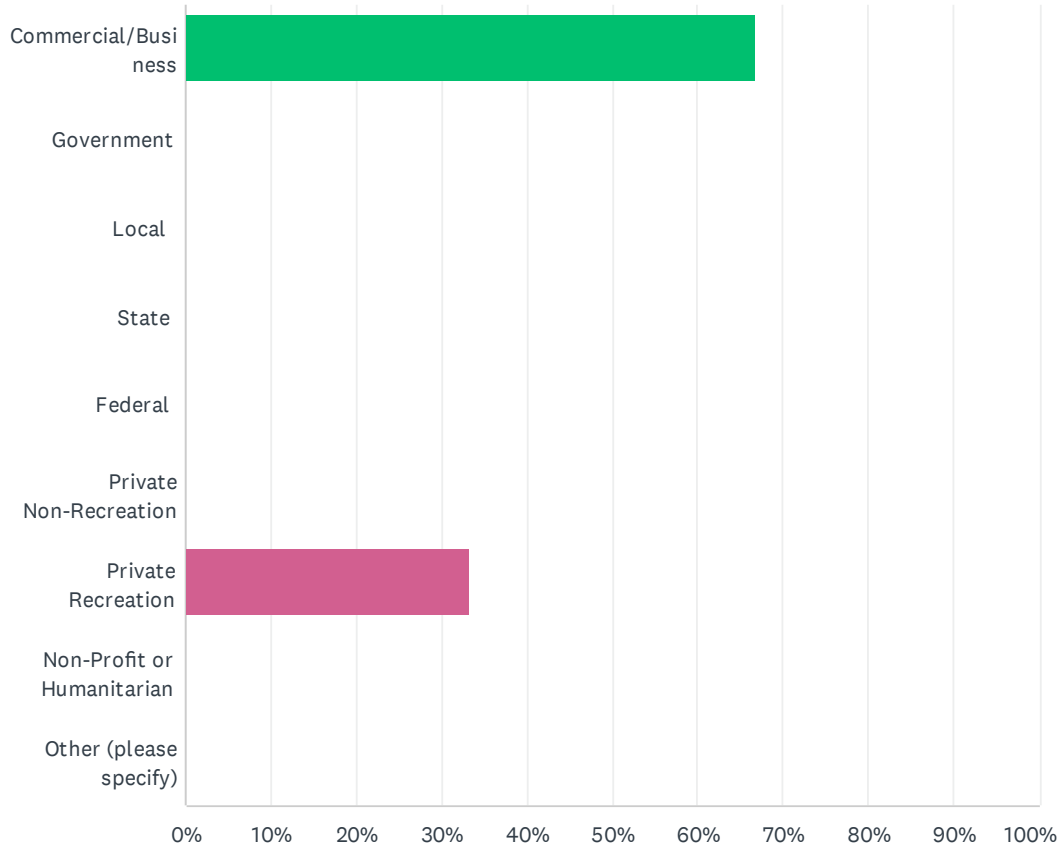
## Q6 Where else do you fly in the general area?

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Ak28 and other bush strips	6/22/2022 5:59 PM
2	All over the Interior	6/6/2022 8:54 AM
3	Every where within a fuel tank of fairbanks	4/19/2022 8:38 PM

## Q7 What percent of the categories below represents best your total use of ENN?

Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
Commercial/Business	66.67%	2
Government	0.00%	0
Local	0.00%	0
State	0.00%	0
Federal	0.00%	0
Private Non-Recreation	0.00%	0
Private Recreation	33.33%	1
Non-Profit or Humanitarian	0.00%	0
Other (please specify)	0.00%	0
<b>TOTAL</b>		<b>3</b>

#	OTHER (PLEASE SPECIFY)	DATE
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There are no responses.

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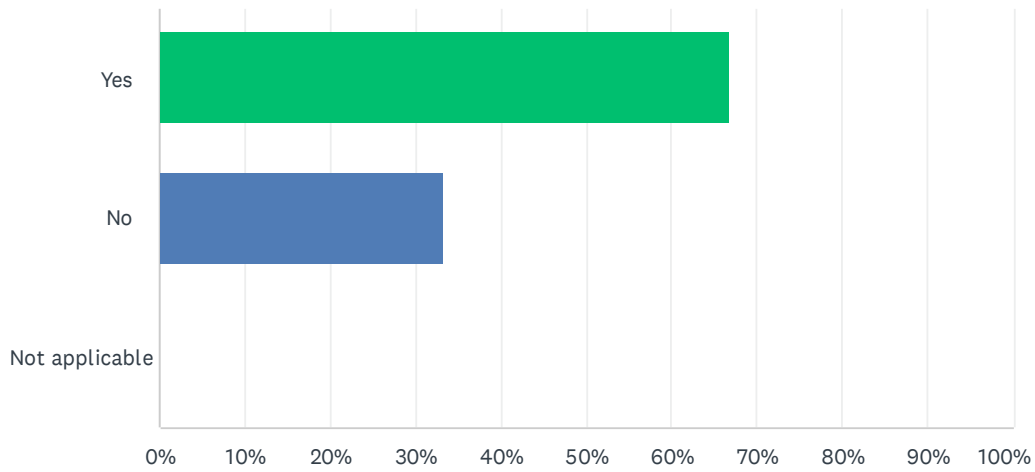
## Q8 Do you have a Private or Commercial rating? Please specify.

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Private	6/22/2022 5:59 PM
2	ATP	6/6/2022 8:54 AM
3	Commerical land and sea CFI	4/19/2022 8:38 PM

### Q9 If you possess an instrument rating, do you practice approaches?

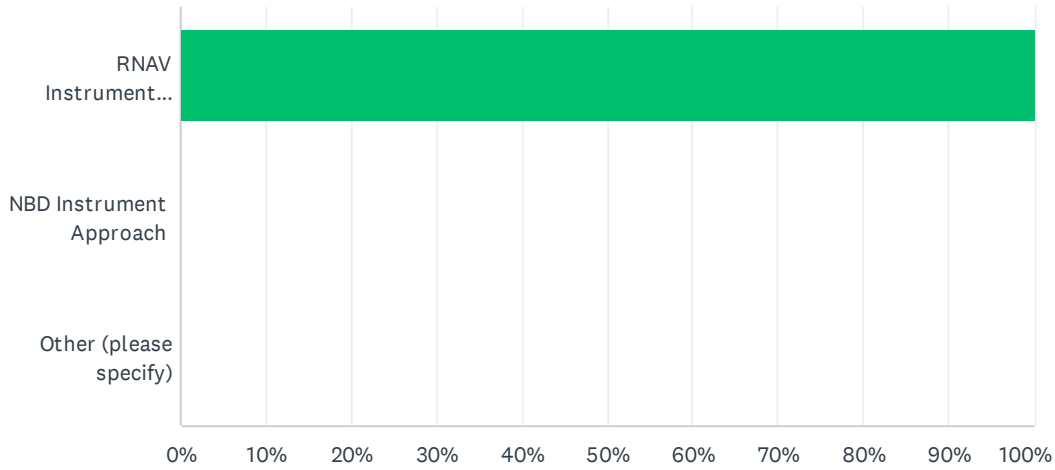
Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	66.67%	2
No	33.33%	1
Not applicable	0.00%	0
<b>TOTAL</b>		<b>3</b>

## Q10 Do you use ENN's RNAV or NBD instrument approaches?

Answered: 2 Skipped: 7

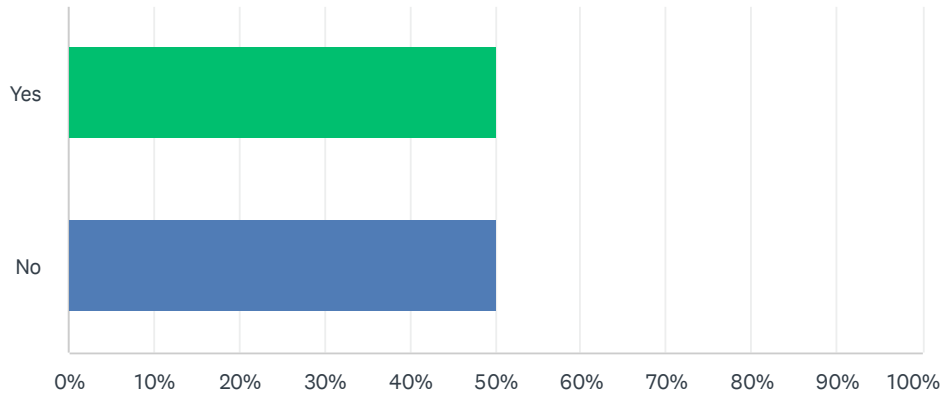


ANSWER CHOICES	RESPONSES
RNAV Instrument Approach	100.00% 2
NBD Instrument Approach	0.00% 0
Other (please specify)	0.00% 0
<b>TOTAL</b>	<b>2</b>

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

### Q11 If yes, do you consider the current approaches sufficient?

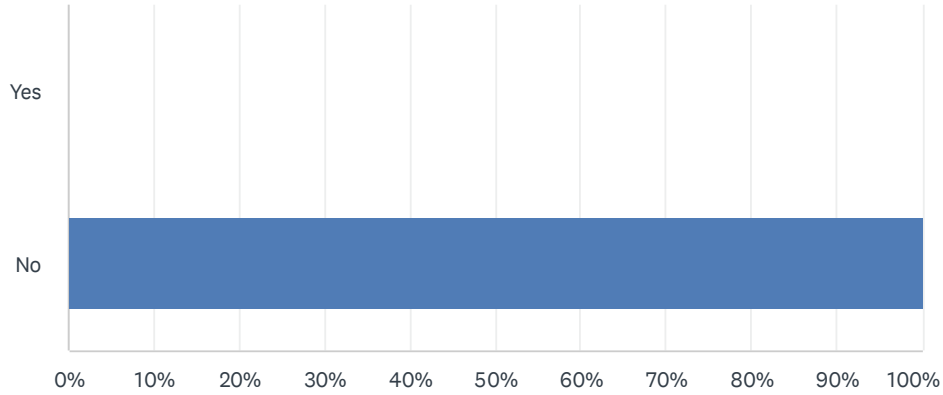
Answered: 2 Skipped: 7



ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
TOTAL		2

Q12 The FAA is continuing to decommission NDB navigation systems as the aviation industry transitions to a GPS based system. Do you use the NDB?

Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	3
TOTAL		3

## Q13 What is your preferred minimum runway length?

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	2500	6/22/2022 6:05 PM
2	4000	6/6/2022 9:00 AM
3	4000 is fine	4/19/2022 8:50 PM

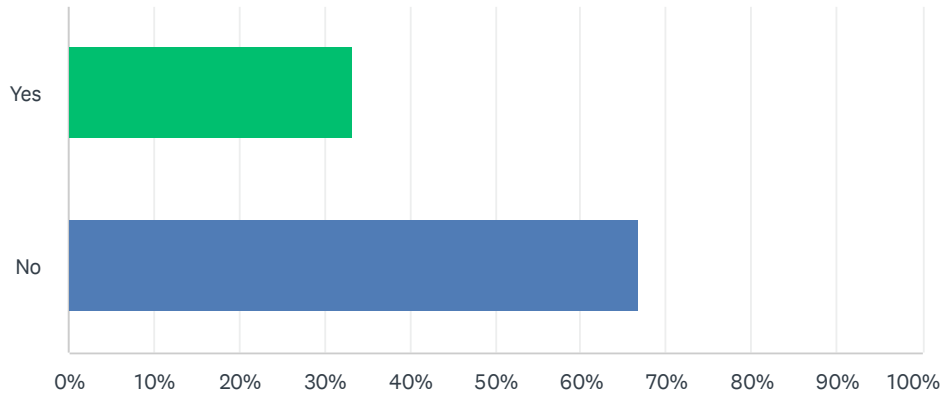
**Q14 Do you feel the ground-based communication capabilities are adequate at ENN (aircraft radio/cell phone)? If no, please explain how it may be improved.**

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Yes	6/22/2022 6:05 PM
2	Yes	6/6/2022 9:00 AM
3	Yes. It seems fine. Some power to charge devices would be nice	4/19/2022 8:50 PM

### Q15 Do you store your aircraft at ENN?

Answered: 3 Skipped: 6

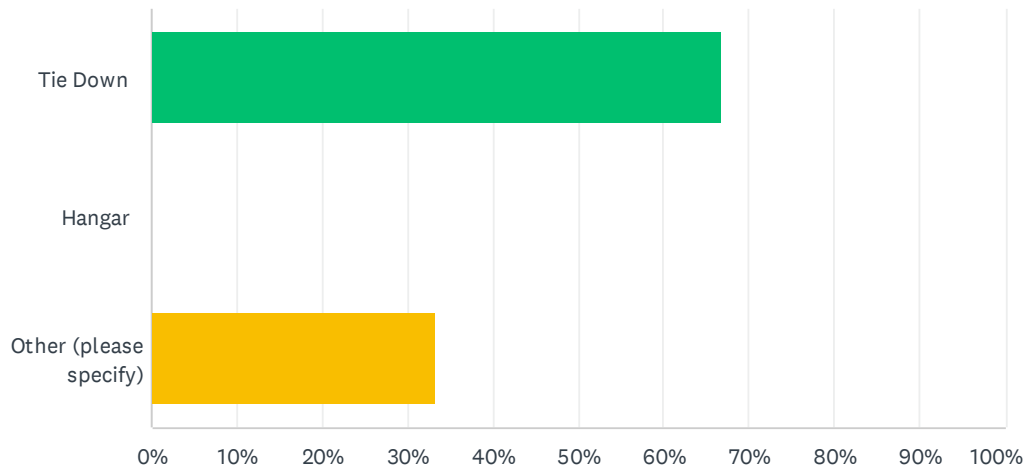


ANSWER CHOICES	RESPONSES	
Yes	33.33%	1
No	66.67%	2
TOTAL		3



## Q16 Do you use a tie down or hangar for aircraft storage?

Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES
Tie Down	66.67% 2
Hangar	0.00% 0
Other (please specify)	33.33% 1
<b>TOTAL</b>	<b>3</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	Nine	4/19/2022 8:50 PM

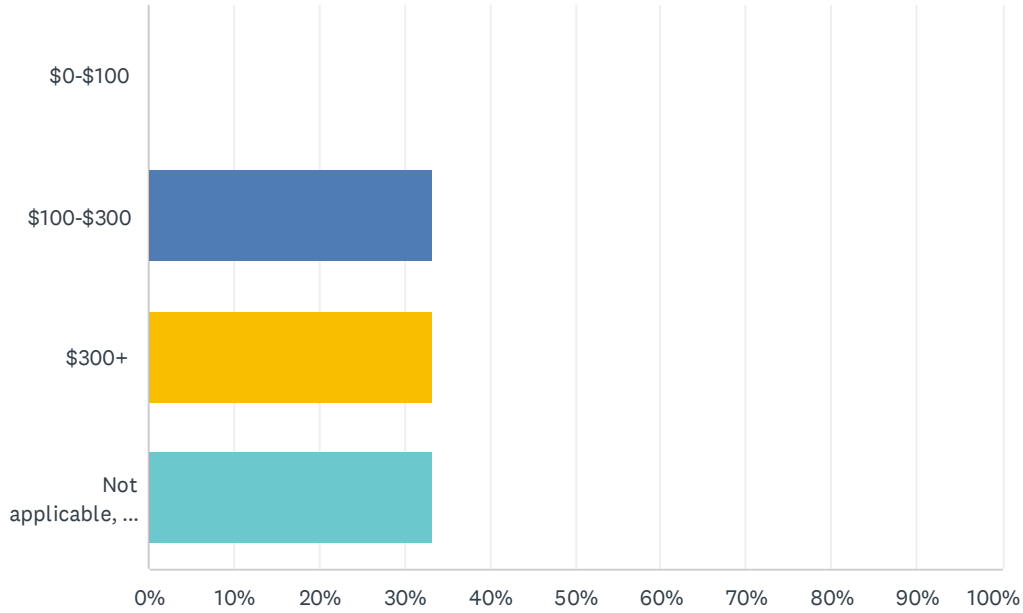
Q17 If you store your aircraft at ENN, but do not hangar your aircraft, what amenities would help you securely and safely store your aircraft? (security cameras, automatic gates, improved tiedowns, etc.)

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Cameras and plug in for preheat in winter	6/22/2022 6:05 PM
2	Cameras	6/6/2022 9:00 AM
3	Tiedown ropes available at marked transient spots	4/19/2022 8:50 PM

### Q18 If unheated hangar space were available for your use at ENN, what is a reasonable monthly rental cost?

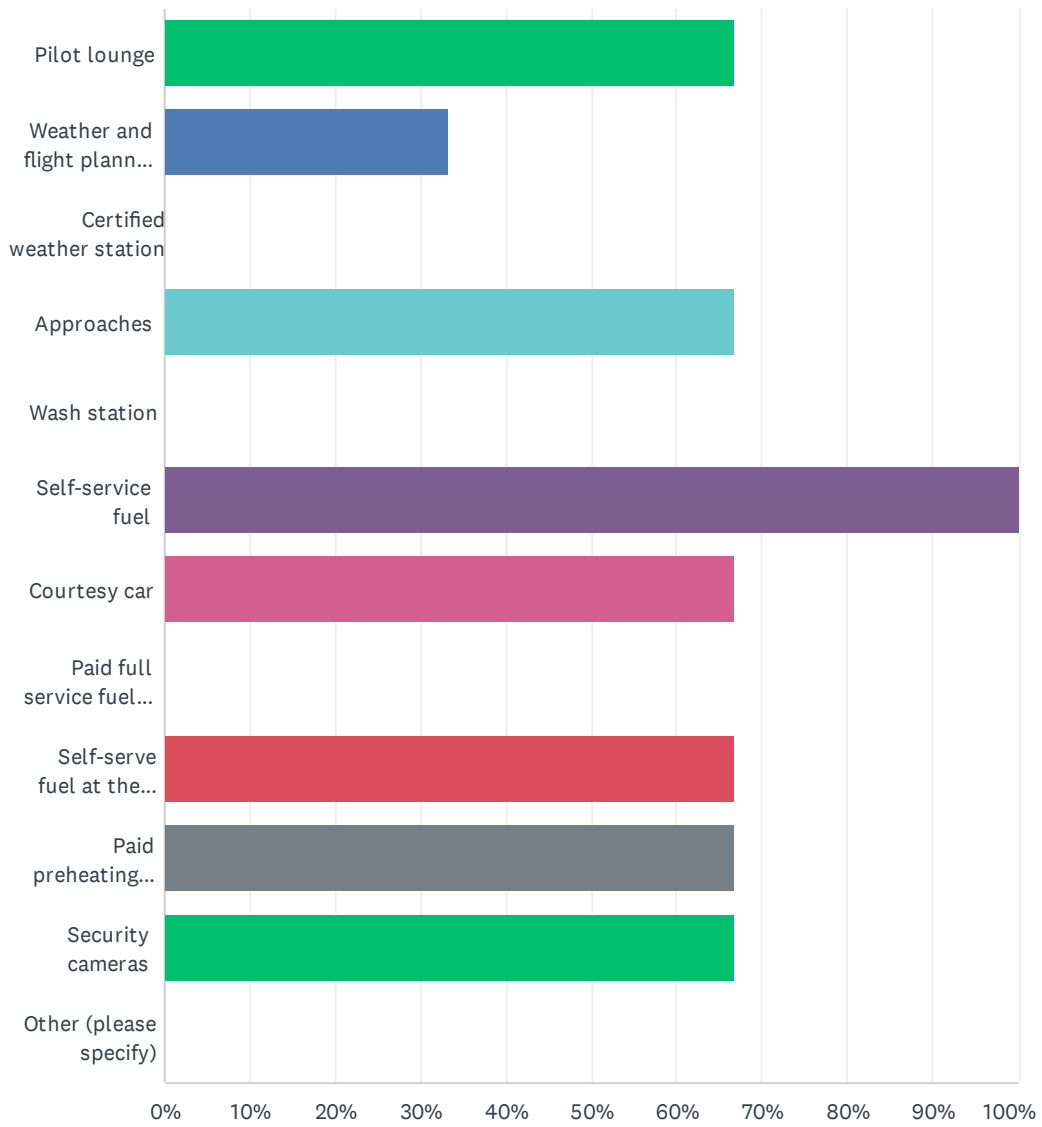
Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
\$0-\$100	0.00%	0
\$100-\$300	33.33%	1
\$300+	33.33%	1
Not applicable, I already hangar my aircraft at ENN	33.33%	1
<b>TOTAL</b>		<b>3</b>

## Q19 What types of amenities do you prefer at ENN?

Answered: 3 Skipped: 6



## Nenana Municipal Airport Survey

ANSWER CHOICES	RESPONSES	
Pilot lounge	66.67%	2
Weather and flight planning computer	33.33%	1
Certified weather station	0.00%	0
Approaches	66.67%	2
Wash station	0.00%	0
Self-service fuel	100.00%	3
Courtesy car	66.67%	2
Paid full service fueling truck	0.00%	0
Self-serve fuel at the float pond	66.67%	2
Paid preheating service such as a 120V plugin station	66.67%	2
Security cameras	66.67%	2
Other (please specify)	0.00%	0
Total Respondents: 3		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q20 Do you anticipate a change in the level of activity or aircraft types that you fly into ENN in the future? Yes/No? If yes, please explain.

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	Yes more fly ins and aircraft stored at pann due to land availability	6/22/2022 6:05 PM
2	Yes. May be planning tour activities	6/6/2022 9:00 AM
3	Increase. Nice change of space. Need a bathroom availble during training	4/19/2022 8:50 PM

Q21 Is there anything at ENN you dislike or would like to see changed? If yes, please provide a short list of changes you would like to see at ENN.

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	How the hanger lot lines are drawn between pond and grass strip	6/22/2022 6:05 PM
2	Approach procedure to runway 22	6/6/2022 9:00 AM
3	Restrooms shoveled out	4/19/2022 8:50 PM

## Q22 Do you have any additional comments?

Answered: 3 Skipped: 6

#	RESPONSES	DATE
1	No	6/22/2022 6:05 PM
2	No	6/6/2022 9:00 AM
3	Work with FAa to get minimums on instrament approach changed to be higher at night so I can use it as an approach if fairbanks is low ifr. The pond could use some vegetation cleaning. Keep ski and grass runway open. Grass could use some holes filled. A VOR based approach would be awesome for practice although it is not likely to be fit wit clear and terrain. Please keep working on the lounge area as just a place to stop and rest	4/19/2022 8:50 PM



## Q23 May we contact you with questions about this user survey?

Answered: 3 Skipped: 6

ANSWER CHOICES	RESPONSES
If no, thank you!	33.33% 1
If yes, please provide: Name/contact info/company (if applicable)	100.00% 3

#	IF NO, THANK YOU!	DATE
1	Yes	6/6/2022 9:00 AM

#	IF YES, PLEASE PROVIDE: NAME/CONTACT INFO/COMPANY (IF APPLICABLE)	DATE
1	Brandon mcmillan	6/22/2022 6:05 PM
2	Warbelow's Air 907-474-3550	6/6/2022 9:00 AM
3	Chris miller. Profite of alaska. 9073787346	4/19/2022 8:50 PM

## Q24 May we contact you with questions about this pilot survey?

Answered: 1 Skipped: 8

ANSWER CHOICES		RESPONSES
If no, thank you!		0.00% 0
If yes, please provide: Name/contact info/company (if applicable)		100.00% 1

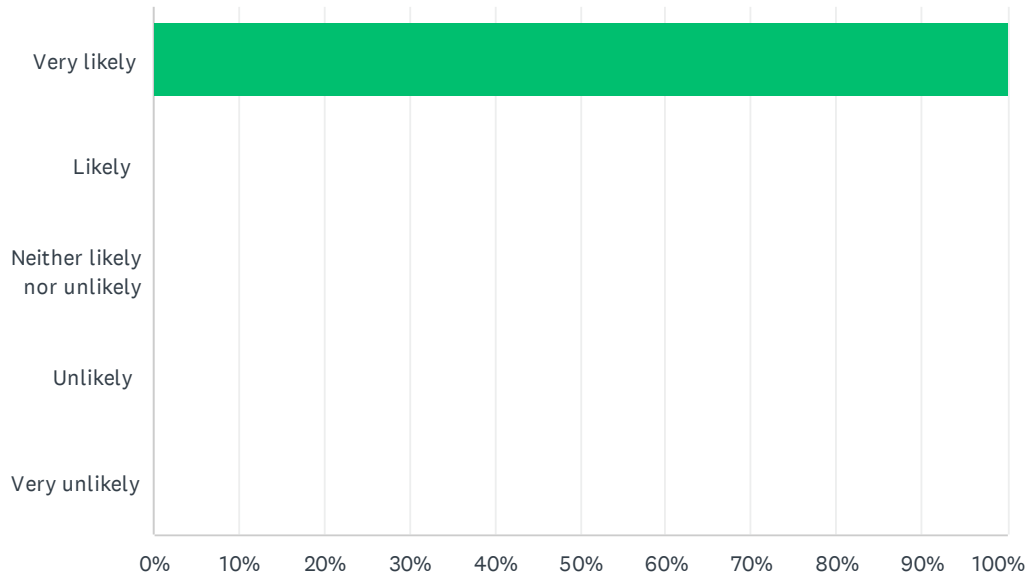
#	IF NO, THANK YOU!	DATE
	There are no responses.	

#	IF YES, PLEASE PROVIDE: NAME/CONTACT INFO/COMPANY (IF APPLICABLE)	DATE
1	Yes	6/22/2022 6:05 PM

## Q25 How likely are you to recommend this survey to someone you know?

Answered: 3 Skipped: 6



ANSWER CHOICES	RESPONSES	
Very likely	100.00%	3
Likely	0.00%	0
Neither likely nor unlikely	0.00%	0
Unlikely	0.00%	0
Very unlikely	0.00%	0
<b>TOTAL</b>		<b>3</b>

Q26 Would airport development at Nenana (i.e. runway extension, hangar development, etc.) and use of aviation-related travel allow your business to grow or expand operations?

Answered: 5 Skipped: 4

ANSWER CHOICES	RESPONSES
Yes, please explain.	60.00% 3
No, please explain.	40.00% 2

#	YES, PLEASE EXPLAIN.	DATE
1	Service to the Nenana Airport for freight delivery would be great.	6/24/2022 3:19 PM
2	Our EMS need the airport to be in good shape for air transport of critical patients.	6/22/2022 6:15 PM
3	Better maintained landing surfaces and lower minimums for the approach would increase my ability to travel for my business.	4/11/2022 3:20 PM

#	NO, PLEASE EXPLAIN.	DATE
1	No	6/23/2022 12:58 PM
2	Not at this time, making hay is just dependent on maintaining the grassy areas.	6/22/2022 8:59 PM

## Q27 Are there facility or service deficiencies at ENN that impact you use today or in the foreseeable future?

Answered: 4 Skipped: 5

ANSWER CHOICES	RESPONSES	
Yes, please explain.	75.00%	3
No.	25.00%	1

#	YES, PLEASE EXPLAIN.	DATE
1	With my airplane that is at the airport, it is in need of an annual inspection and some repair work. Adam White, while he is an A&P mechanic, does not operate a repair facility per say. His airplanes make use of his hanger, so the deficiency is the lack of hanger space to be used by the general aviation community for dedicated aircraft repair purposes. An open air pavilion by the fuel pumps and perhaps an airplane camping area would make a stop over at the Nenana Airport more enjoyable.	6/22/2022 8:59 PM
2	We lack the proper equipment for snow removal during winter	6/22/2022 6:15 PM
3	Fuel accessible on the float pond and ski strip.	4/11/2022 3:20 PM
#	NO.	DATE
1	No.	6/23/2022 12:58 PM

## Q28 Is there anything at ENN you dislike or would like to see changed?

Answered: 5 Skipped: 4

ANSWER CHOICES	RESPONSES	
Yes. please explain.	100.00%	5
No.	0.00%	0

#	YES. PLEASE EXPLAIN.	DATE
1	Too many low flying military helicopters	6/23/2022 12:58 PM
2	From a hay making standpoint, the grassy areas are very rough with depressions and holes, makes it dangerous driving my tractors over certain areas, (rollover) hard on the equipment, and makes for slow cutting. I have thought about disking and leveling these rough areas, which would be a safety improvement for any airport that would by accident have a runway departure accident. It's something I would be willing to do on my own at my own expense, as long as it would be determined not to affect any airport infrastructure, ie, buried cables, electrical boxes, lights. As a private pilot, I'm cognizant of the importance of the airport infrastructure so wouldn't want to do any ground improvements without minimally the ok of the airport manager.	6/22/2022 8:59 PM
3	We look forward to finishing/expanding our pilot's accomodations	6/22/2022 6:15 PM
4	Improved maintenance of existing infrastructure.	4/11/2022 3:20 PM
5	Residents shouldn't walk their dogs around the airport	4/5/2022 11:47 AM
#	NO.	DATE
	There are no responses.	

## Q29 Do you have any additional comments?

Answered: 5 Skipped: 4

#	RESPONSES	DATE
1	None	6/24/2022 3:19 PM
2	Too many low flying military helicopters.	6/23/2022 12:58 PM
3	I like how the airport is valued by many people in Nenana as a quiet place to go and walk their dog, or walk for exercise. On clear days, it's a great place for viewing Denali, the open spaces keeps insects at a minimum. Jesse Holmes used to run his dog team out at the airport on training runs. While making hay, I enjoy watching the wildlife that lives near the airport, I see moose, foxes, waterfowl, hawks and owls. I know all these animals can be problematic with aircraft operations. The Civil Air Patrol has run glider operations from the Nenana airport. The general low traffic density makes for safe operations, and with fuel available, makes refueling the tow planes simple.	6/22/2022 8:59 PM
4	I'd like to see that Douglas DC 4 wreckage parked out there all these years be converted into a snack bar.	6/22/2022 6:15 PM
5	Nenana is a hidden gem in the interior.	4/11/2022 3:20 PM

## Q30 May we contact you with questions about this user survey?

Answered: 5 Skipped: 4

ANSWER CHOICES	RESPONSES	
If no, thank you!	20.00%	1
If yes, please provide: Name/contact info/company (if applicable)	80.00%	4

#	IF NO, THANK YOU!	DATE
1	No	6/23/2022 12:58 PM

#	IF YES, PLEASE PROVIDE: NAME/CONTACT INFO/COMPANY (IF APPLICABLE)	DATE
1	ParksHighwayTowing@gmail.com	6/24/2022 3:19 PM
2	David Poppe, 907-378-7470	6/22/2022 8:59 PM
3	Kat McElroy 907-378-6609 city assembly	6/22/2022 6:15 PM
4	Adam White, 907-322-1098, The Master's Mission	4/11/2022 3:20 PM



**APPENDIX 6:**  
**ENN SECONDARY RUNWAY**  
**DETERMINATION**





# Federal Aviation Administration

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## Memorandum

Date: 6/8/23

To: Kristi Warden, AAL-600

From: Jesse Carriger, APP-1 (Acting)

Michael Hines, APP-400

Dave Cushing, APP-500

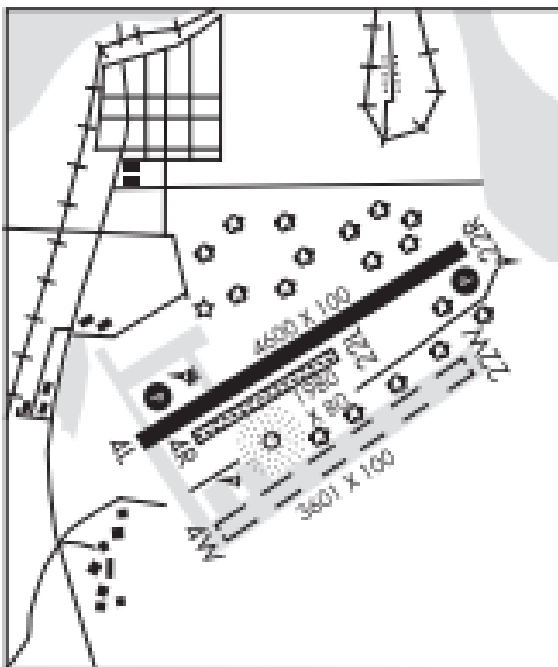
Prepared by: Kent Duffy, APP-400

Subject: Nenana Municipal Airport Ski/Turf Runway (4R-22L) and Waterlane (4W-22W) Justification

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### Purpose

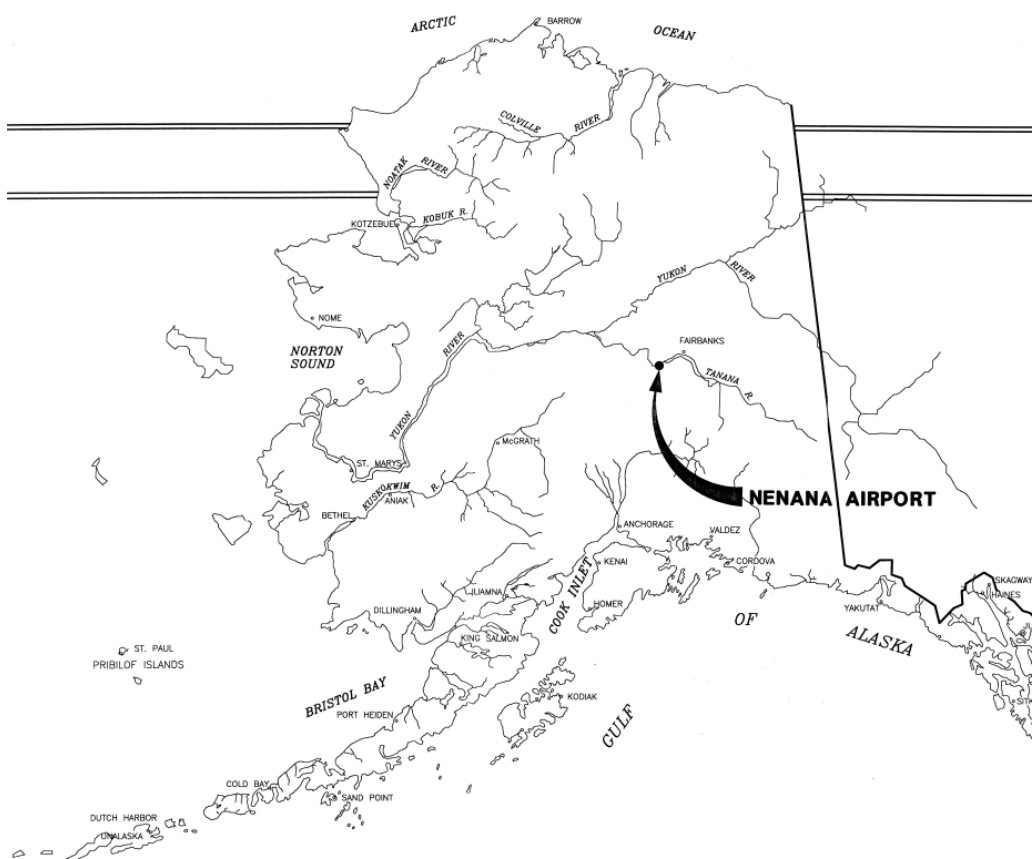
Nenana Municipal Airport (ENN) is seeking designation of runways 4R-22L and 4W-22W as secondary runways so that they are eligible for federal funding through the Airport Improvement Program (AIP); Runway 4L-22R is considered the airport's primary runway and is therefore eligible. Below is a diagram showing the existing airport.



In accordance with FAA Order 5100.38D Change 1, AIP Handbook<sup>1</sup>, APP-400 and APP-500 must make a specific determination that these runways are required for the operation of the airfield. The airport sponsor's request has been reviewed by the Alaska Regional Office, who is in support of the designation.

### Background

Nenana is located on the Nenana River approximately 55 miles southwest of Fairbanks on the George Parks Highway and 304 miles north of Anchorage. It is at mile 412 of the Alaska Railroad. The Nenana River is ice-free from early May to late October. According to the 2020 Census the encompassing Yukon Koyukuk census area has a population of 420, however due to rail, highway, river and aviation uses being located in Nenana, it is a hub of activity for accessing the Interior of Alaska. Because of the multimodal location of Nenana, the Airport plays an important role in providing goods and services to Interior Alaska's remote villages.



<sup>1</sup> Appendix G, Section G-2, Secondary, Crosswind, and Additional Runways and Appendix G, Table G-1.

**Airport Runway Length Needs**

The existing Nenana Municipal Airport is classified as a basic service airport under NPIAS criteria. ENN is owned and operated by the City of Nenana, Alaska. There is no scheduled service to/from ENN, but several Part 135 operators use the airport to resupply residents and communities that are inaccessible by any other modes of transportation. These Part 135 operators primarily use aircraft that are equipped with skis and/or large balloon tires that operate into and out of the backcountry areas in remote Alaska. In winter months, ski-equipped aircraft land and take off from Nenana's 4R-22L (ski/turf runway) to access frozen rivers, lakes, snowfields and unmonitored/unmaintained paved runways. In summer months, 4W-22W is used by float-equipped aircraft to access lakes and other bodies of water to provide transportation to parts of Interior Alaska without road access. The Alaska Department of Fish and Game aircraft use 4W-22W during summer months to transport trout fingerlings to restock remote lakes promoting ecologically sound and sustainable waterways.

The sponsor has estimated that the 4R-22L (ski/turf runway) currently supports an average of 749 annual ski-equipped operations (1,409 total annual operations) and the 4W-22W (water lane) supports an average of 1,084 annual float operations. These operations can't take place on the paved primary runway, which is plowed in the winter for wheeled aircraft. The operations estimates establish that regular use occurs on each runway.

Ski and float equipped aircraft are a primary mode of transportation for those living, recreating, transporting goods, and doing business in remote areas of Alaska's roadless interior. Since a paved and plowed runway can't support aircraft with straight skis or floats, Ski/turf runways and water landing areas like those found at ENN are of utmost importance for fundamental subsistence in homesteading and rural logistics.

**Determination**

APP concurs that both runways, 4R-22L and 4W-22W, as secondary, eligible runways. The main rationale for this determination is the aeronautical, operational need for a turf and water runway at this location, in addition to the primary turf runway. Both runways enable float and ski aircraft to provide services to the remote villages and interior Alaska.

This determination is effective throughout the lifecycle of the two runways so long as regular use is maintained on an annual basis on each runway.

Attachments:

1. AAL support Email and request
2. Nenana Ski-Float Justification 2-15-23

CC:

Catherine Cason, APP-2 (acting)

Luis Loarte, APP-410

Bernard Green, APP-410

## Reinhardt, William (FAA)

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**From:** Linquist, Jonathan (FAA)  
**Sent:** Tuesday, March 21, 2023 12:12 PM  
**To:** Hines, Michael (FAA)  
**Cc:** Moss, Katrina (FAA); Warden, Kristi (FAA); Clark, Rodney (FAA); Sanches, David J (FAA); Reinhardt, William (FAA); Duffy, Kent (FAA)  
**Subject:** FW: Nenana Airport (ENN) Secondary runway eligibility request  
**Attachments:** Nenana Ski-Float Justification 2-15-23.pdf

Good afternoon Mike,

The Alaskan Region Airports Division requests concurrence from APP-400 to identify both the ski/turf runway (4R-22L) and waterlane (4W-22W) at the Nenana Municipal Airport (ENN) as eligible secondary runways.

The City of Nenana (airport sponsor) is currently developing an Airport Master Plan and ALP update, as well as designing a runway lighting reconstruction project. During a Master Plan public meeting held in January 2023, the public requested improvements to the ski/turf runway and waterlane. Both landing areas are currently designated as “additional” runways, making them ineligible for AIP, as they are not needed from the traditional standpoints of wind coverage or runway capacity. The City of Nenana Mayor recently sent a request for AIP eligibility for the ski/turf runway and waterlane (attached).

The airport sponsor has presented a strong argument for AIP eligibility of these landing areas. The Alaskan Region Airports Division finds this argument to be valid due to the unique nature of the operations each landing area supports, the location of the Nenana Airport, and its role in aviation infrastructure in the Alaskan interior. A brief summary of the main points are presented below:

- ENN is a vital resource for uniquely equipped aircraft (skis and floats) and plays a critical role for transportation in the region. There is no scheduled service to/from ENN, but several Part 135 operators use the airport to resupply residents and communities that are inaccessible by any other modes of transportation.
- The sponsor has determined that the turf runway currently supports an average of 749 annual ski-equipped operations (1,409 total annual operations) and the water lane supports an average of 1,084 annual float operations. These operations can't take place on the paved primary runway, which is plowed in the winter for wheeled aircraft.
- Ski and float equipped aircraft are a primary mode of transportation for those living, recreating, transporting goods, and doing business in remote areas of Alaska's interior where the road system is nonexistent. Since a paved and plowed runway can't support aircraft with straight skis or floats, Ski/turf runways and water landing areas like those found at ENN are of utmost importance for fundamental subsistence in homesteading and rural logistics.
- The City of Nenana requests that the FAA consider AIP funding eligibility for the Turf/Ski Runway (4R-22L) and the Waterlane (Runway 4W-22W) at ENN due to the unique aviation activities they support, the significant number of uniquely equipped operations, and the overall benefit to aviation infrastructure in the Alaskan interior. A positive determination of eligibility will enhance the City's ability to invest in repair of existing infrastructure and ongoing development to accommodate these current and future aviation needs.

Alaskan Region Airports Division personnel have visited ENN on several occasions and believe that the City's request for AIP eligibility is legitimate and should be considered.

Please let us know if you have questions or require additional information.

Thanks,

//Signed//

JONATHAN LINQUIST

Lead Community Planner

FAA Alaskan Region Airports Division

Tel: 907-271-5040





*City of Nenana*  
PO Box 70, Nenana, Alaska 99760  
907-888-5036  
www.cityofnenana.com

February 15, 2023

Mr. David Sanches  
Community Planner  
FAA Alaska Region  
222 W 7<sup>th</sup> Avenue  
Anchorage, AK 99513

Dear Mr. Sanches,

Nenana Municipal Airport's Ski/Turf Runway(4R-22L) and Waterlane (4W-22W) are unique and valuable assets to Alaska's Interior. More than 80% of Alaskan communities are not accessible by road. Reaching interior communities and wilderness/recreation areas often requires uniquely equipped aircraft with skis and/or floats. These aircraft require locations to base from and Nenana is presently using these surfaces to meet this need.

Ski and float equipped aircraft are a primary mode of transportation for those living, recreating, transporting goods, and doing business in remote areas of Alaska's interior regions where the road system and airport infrastructure is sparse or nonexistent. Ski/turf runways and water landing areas like those found at Nenana Airport are of utmost importance for fundamental subsistence in homesteading and rural logistics. There are no scheduled service providers to/from Nenana Airport, but several Part 135 operators use Nenana to resupply residents and communities in locations inaccessible by other modes of transportation. Beyond those living in extremely remote locations, tourism and other businesses in the form of hunting outfits, sightseeing, and transportation to interior Alaska commonly use the Ski/turf Runway and Waterlane.

Nenana Airport is a vital resource for these uniquely equipped aircraft (skis and floats) participating in the transportation of hunters as a 'jumping off point' during the fall and winter seasons. Its location places users outside congested airspace and 40 miles closer to hunting areas than Fairbanks while still being connected to the road system.

Nenana Municipal Airport sells between 18,000-20,000 gallons of avgas each year.

In winter months, ski-equipped aircraft land and take off from Nenana's ski/turf runway to access frozen rivers, lakes, snowfields and unmonitored/ unmaintained paved runways. In summer months, float-equipped aircraft use lakes and other bodies of water to provide transportation to parts of Interior Alaska without road access. Alaska Department of Fish and Game aircraft use the Waterlane during summer months to transport trout fingerlings to restock remote lakes promoting ecologically sound and sustainable waterways.

These uniquely equipped aircraft play a vital role for transportation in the interior. Nenana's ability to provide fuel and easy access, compared to Fairbank's busy airspace, is a critical aspect of its growing operations.

The Ski/Turf Runway sees most of its use in the wintertime when the ground hardens. Nenana based operators report an average of 5-6 aircraft a day using the Ski/Turf Runway during the months of August and September with an additional 1-2 aircraft a day during the early winter months. Towards the end of the winter flying season, March and April, the flights increase again to approximately 5 aircraft daily. This variation in operations is due to the available daylight; airport users interviewed feel the traffic would be more consistent throughout the long dark winter if the lighting system on this visual runway was consistently operational. With this data, the average number of turf tire operations during the months of August and September (non-ski season) are approximately 660 operations (11 ops x 60 days = 660 total ops). The average number of early wintertime (November-February) operations is 189 operations (1.5 ops x 126 days = 189 total ops) with an additional 560 operations (10 ops x 56 days = 560) happening during March and April for a total average estimate of 749 ski equipped operations annually.

Unlike the Ski/Turf Strip, the Waterlane sees most of its traffic during the warmer months, May through September, when the landing surface is thawed. However, it is just as critical to the hunting season operators with an average number of daily aircraft reported at 7-8 floatplanes during the months of August and September. The remainder of the floatplane flying year, May through July, Runway 4W-22W sees lesser (but still significant) traffic, about an aircraft a day. With these reports, the hunting season traffic (Aug-Sept.) is approximately 946 operations (15.5 ops x 61 days = 945.5 total ops), and the remaining flying season has a reported 138 operations (1.5 ops \* 92 days = 138 total ops).

Uniquely Equipped Runway Operations			
Runway 4R-22L		Runway 4W-22W	
Nov-Feb	189	Aug- Sept	946
Mar- Apr	560	May-July	138
<b>Total Ski Ops</b>	<b>749</b>	<b>Total Float Ops</b>	<b>1,084</b>
Turf Tire (Aug-Sept)	660		
<b>Total 4R-22L RWY Ops</b>	<b>1,409</b>		

These distinct types of flights lend themselves to VFR flights, with conventional and tricycle landing geared aircraft operating to and from the paved surface of Runway 4L-22R and benefiting from its RNAV and NDB approaches. Due to the primarily VFR nature of these flights, filed flight plans are not common and little official data is representative. Yet, although there is little official data the 660 turf, 749 ski, and 1,084 float operation totals have been collaborated with multiple long time airport users to establish trending data.

The Turf/ Ski runway has surface softness and rutting which have been documented in the 5010 Master Record and Chart Supplements. Another documented concern is the condition of the lighting system. For several years Nenana Airport has had to address multiple issues regarding their lighting system with the priority being the paved surface. There is high confidence and probability that the use of the Turf/Ski Strip would drastically increase when lighting is available through the dark winter months and when the surface is reconditioned to support aircraft when warmer temperatures thaw the subbase. Continuing the trending operations, it is expected to add an additional 300 ski operations to account for low light in early winter and approximately the same addition to the turf tire operations.

Beyond the current demand, Nenana has recently issued twelve new leases, one of the largest being Alaska Center for Unmanned Aerial Systems Integration (ACUASI) for large scale UAS operations. . No less than two of these leases are predicted to increase the use specifically to the Ski/Turf Runway and Waterlane with frequent operations of smaller Cub/Super Cub aircraft seasonally fitted with turf tires, skis, and floats. Once airport infrastructure is developed for these leases, more airport services will be established, increasing the overall use of the airport, amplifying these unique aircraft operations.

The FAA is currently in the process of evaluating IFR approaches into Nenana Airport including the addition of an LPV Approach to Runway 4L-22R and a designated approach to the Waterlane. When this approach is in place float equipped aircraft would be able to operate to and from Nenana below VFR minimums, further increasing its usefulness and operational numbers.

The rural interior of Alaska is well known for its hunting, fishing, and outdoor recreation and access can often be difficult due to the lack of transportation infrastructure in this region. Ski and Float equipped aircraft are critical to the transportation residents and tourists and the delivery of goods and services to these remote locations. Currently, other Ski/Turf Runways in Alaska are known to have received FAA/AIP funding in the past - Runway 16S/34S in Palmer (PAQ) and Runway 5/23 at Merrill Field (MRI), both in southcentral Alaska. Along with the Ski/Turf strips, many airports including Fairbanks International Airport have requested eligibility for their waterlane due to the number of operations exceeding the FAA's 'regular use' operational requirement.

The City of Nenana requests that the FAA consider AIP funding eligibility for the Turf/Ski Runway (4R-22L) and the Waterlane (Runway 4W-22W) at Nenana Airport due to the significant number of these uniquely equipped operations and their overall benefit to aviation infrastructure in the interior. A determination of eligibility will allow Nenana Airport to invest in repair of existing infrastructure and ongoing development to accommodate the current and future operational needs of float and ski equipped flying community and bolster access to interior Alaska.

Sincerely,

Joshua Verhagen  
City of Nenana – Mayor

A handwritten signature in black ink, appearing to read "Josh Verhagen", with a long, sweeping flourish extending to the right.

