FAA PROJECT # 3-02-0000-025-2020

Upper Tanana Airport Planning Study

Final Report

September 2023

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The preparation of this document was supported in part with financial assistance through the Airport Improvement Program from the Federal Aviation Administration AIP Grant Number 3-02-0000-025-2020 as provided under Title 49 USC § 47104. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein, nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

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ACRONYMS & ABBREVIATIONS

°F ..... degrees Fahrenheit
6K8 ..... Tok Junction Airport
AASP ..... Alaska Aviation System Plan
ACAIS ..... Air Carrier Activity Information System
AIP ..... Airport improvement Program
ALP ..... Airport Layout Plan
BLM ..... Bureau of Land Management
CBP ..... U.S Customs and Border Protection
CBUT ..... Copper Basin and Upper Tanana Valley Regional Airport Plan
CDP ..... Census Designated Place
DEC ..... Alaska Department of Environmental Conservation
DNR ..... Alaska Department of Natural Resources
DOL&WD ..... Alaska Department of Labor and Workforce Development
DOT&PF ..... State of Alaska Department of Transportation & Public Facilities
EAS ..... Essential Air Service
EPA ..... U.S. Environmental Protection Agency
FAA ..... Federal Aviation Administration
FSS ..... Flight Service Station
GA ..... General Aviation
GKN ..... Gulkana Airport
IFR ..... Instrument Flight Rules
LP ..... Localizer Performance
LPV ..... Localizer Performance with Vertical Guidance
M&O ..... Maintenance & Operations
NAVAIDS ..... Navigational Aids
NOAA ..... National Oceanic Atmospheric Administration
PAPI ..... Precision Approach Path Indicators
Park ..... Wrangell – St. Elias National Park and Preserve
PCI ..... Pavement Condition Index
PCL ..... pilot-controlled lighting
RDC ..... Runway Design Code
TAF ..... Terminal Area Forecasts
TSG ..... Tanacross Airport
U.S. Customs ..... U.S. Customs and Border Protection

USACE ..... U.S. Army Corps of Engineers
USDOT ..... U.S. Department of Transportation
UTAPS ..... Upper Tanana Airport Planning Study
VASI ..... visual approach slope indicators

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CHAPTER 1. INTRODUCTION

The Upper Tanana Airport Planning Study (UTAPS), funded by the State of Alaska Department of Transportation & Public Facilities (DOT&PF) and the Federal Aviation Administration (FAA), is a study of four airports, three in the Upper Tanana Region - Tok Junction, Tanacross, Northway, and Gulkana Airport in the Copper Basin. The purpose of the study is to determine the need and benefits of a regionally significant airport for the Upper Tanana region and to identify which airport should be the focal point for future development and expansion. The UTAPS study evolved from the 2003 Copper Basin and Upper Tanana Valley Regional Airport Plan, which recommended that a regionally significant airport be identified for the Upper Tanana area.

In 2021, a project consulting team led by DOWL began with a visit to each airport, conducted airport inventories and inspections, and interviewed stakeholders onsite (Figure 1). Next, the team developed evaluation criteria for a regionally significant airport, reviewed each airport against the list of evaluation criteria and conducted follow-up research into property ownership, site contamination, and other relevant topics.

In 2022, the team completed follow-up interviews with key stakeholders, distributed an airport user survey, and held an open house meeting in Tok and another virtual public open house. In late 2022, a preliminary regionally significant airport was recommended at the Tok Junction Airport, along with several preliminary layout options and a public meeting was held in Tok to discuss the options. Meeting attendees agreed that Tok Junction Airport was the logical site for a regionally significant airport.

In 2023, the team completed final interviews, developed a blended forecast showing how operations would change with the development of Tok Junction Airport as a regionally significant airport, and prepared a recommended layout, design standards, phasing, and cost estimates for the improvements. This report recaps the findings and results of this planning effort and recommends future actions.

This plan recommends an upgrade of Runway 7-25 to a B-II runway with a 5,000-foot by 75-foot runway length and width and construction of an adjacent ski/gravel strip of 1,900 feet by 60 feet. The plan also shows phased development of apron, taxiway, road, navigational aids (NAVAIDS) improvements and a long-term crosswind runway. Funding for the runway expansion will need to be a mix of state and federal funding. FAA Airport Improvement Program (AIP) funds will only cover a portion of the expansion due to project eligibility limitations. State or other non-AIP funding would be needed to pay for costs that are ineligible for FAA funding. An expansion of this magnitude would require a multi-phased project over several years to achieve the preferred alternative.

Even though Tok Junction is recommended as the regionally significant airport in the Upper Tanana area, DOT&PF has no plans to discontinue support for any DOT&PF-owned airport in this region.

Figure 1: UTAPS Timeline

CHAPTER 2. UPPER TANANA REGIONALLY SIGNIFICANT AIRPORT SITING EVALUATION

2.1 POPULATION, EMPLOYMENT, ROLES

Tok and its immediate surroundings contains the largest population (Table 1) in the study area (Figure 2). Tok is the transportation and services hub in the Upper Tanana Valley, and the Tok Census Designated Place has a 2020 population of 1,187. Northway and Tanacross have very small communities and few services. Gulkana and Glennallen Census District Places, have a combined population of 535 and contain many of the same services and facilities as Tok. The state demographer does not predict significant changes in population in the region.

Table 1. Airport Vicinity Population - 2020

AREA NAME	2020
GULKANA & GLENNALLEN CDPS	535
NORTHWAY CDP	251
TANACROSS CDP	117
TOK CDP	1,187

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.
CDP = Census Designated Place (a subcategory of Census Area and Census Subarea).

Federal, state, and local governments provide nearly 30 percent of the jobs in the region. Goods producing industries, mostly mining, provide 20 percent of the area's jobs. The remaining 50 percent of jobs are in service industries that support the local population as well as visitors to the area. Many of these jobs depend on air transportation to provide government services, access mines and tourist destinations, access medical care, and other activities. Continued growth in air transportation demand to support these economic sectors, in particular tourism, is likely.

Tok Junction and Gulkana airports are the bases for most of the air taxi and private general aviation traffic in the region and they host most of the enplanements, operations, and based aircraft at public airports in the study area. Northway, Gulkana, and Tanacross support seasonal firefighting operations. Northway also serves as a U.S. Customs and Border Protection (U.S. Customs) point of entry for aircraft entering Alaska from Canada.

More detail about population, employment and airport roles is discussed in Chapter 3 – Upper Tanana Airports Blended Forecasts.

Figure 2. UTAPS Airport Focus / Regional Map

2.2 REGIONAL AIRPORT FACILITY CRITERIA/NEEDS

Shortly after this study began, it became apparent that the scale of the regionally significant airport may be driven by the need to serve Alaska Department of Natural Resources (DNR) Forestry firefighting aircraft currently operating from the Tanacross Airport. DNR determined that the facilities at the Tanacross Airport either needed major maintenance and rehabilitation or DNR would need to find a new location for a regional firefighting base with at least a 5,000-feet by 75-feet runway. Therefore, the regionally significant airport evaluated in this study assumed the need for an approximately 5,000-feet by 75-feet runway (this is roughly what is available at Tanacross and Northway), a possible crosswind runway, taxiways to support these runways, and apron and lease areas suitable for DNR firefighting operations and other users.

A regionally significant airport would also likely need facilities to serve various aviation activities including scheduled and charter commercial passenger service, cargo, transient corporate aircraft, military and medevac flights, and general aviation. Aside from runways and taxiways, airport facilities and services proposed included:

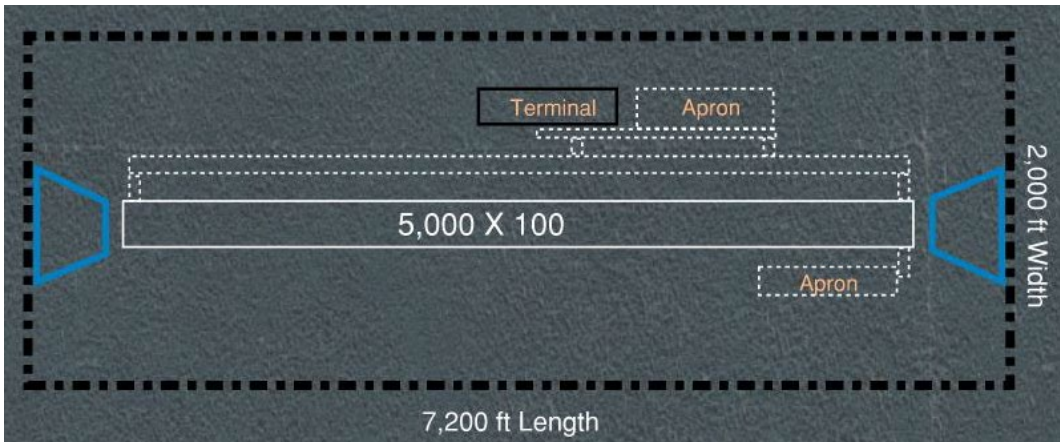
- Lease lots and tie downs
- Space for service providers (fueling, maintenance, pilots lounge)
- Airport maintenance facilities
- Certified weather, NAVAIDS, approaches
- Consideration of accommodating U.S. Customs and a possible floatplane landing area for floatplane customs processing
- Consideration of accommodating the regional FAA Flight Service Station (FSS) facilities

The airport selected should ideally be located within close proximity of population centers, airport users, and community services accessed by airport users. Airport land for future development should already be available or additional land acquisition should be feasible. Land required for development should be free of major contamination and other major development constraints.

Examples of hypothetical airport layouts with and without a crosswind runway are shown below to give an approximate picture of the size/acreage of airport that may be needed. The hypothetical airports would require an airport approximately 330 to 960 acres, depending on whether a crosswind runway is needed. This will be further vetted in the alternatives' evaluation.

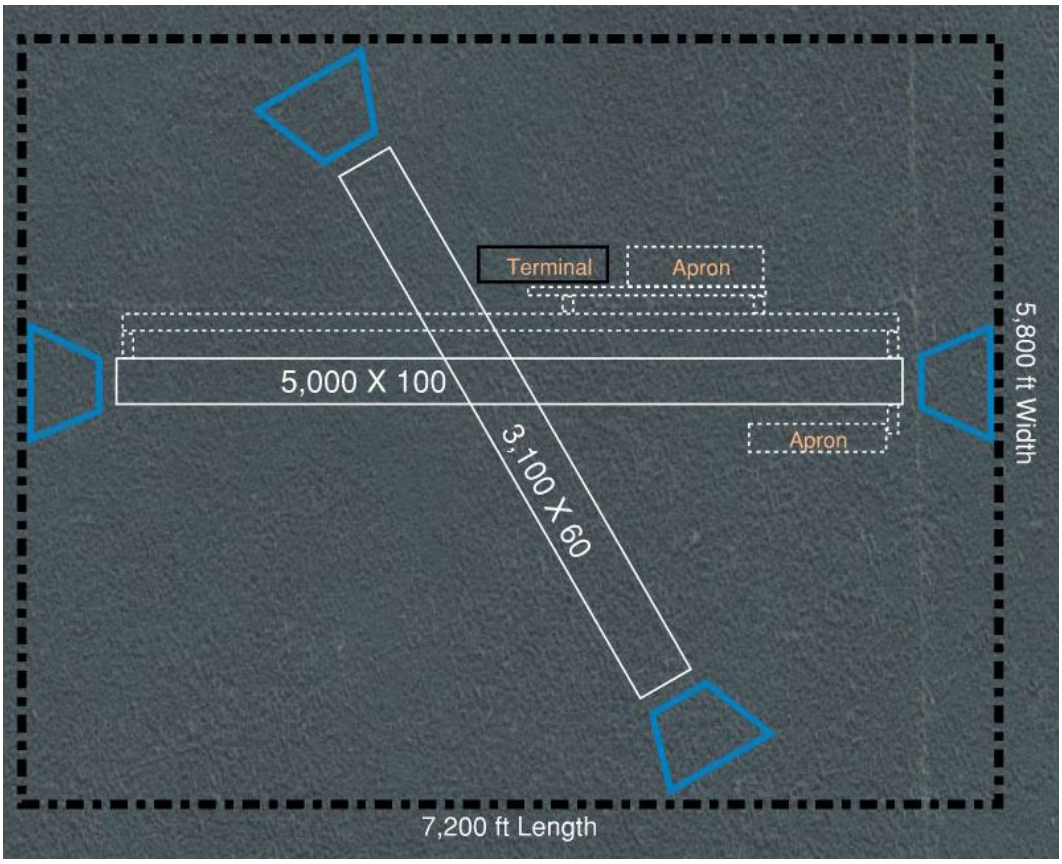
Hypothetical Site Dimensions – With No Crosswind Runway (Approximately 330 Acres)

- Site Length: 7,200-foot length includes 5,000-foot runway, 1,000-foot runway safety areas, 100 feet off each end for vehicle service road and fencing.
- Site Width: 2,000-foot width includes space for aprons, taxiway and associated safety areas and developable land.



Hypothetical Site Dimensions – With Crosswind Runway (Approximately 960 Acres)

- Site Length: 7,200-foot length includes 5,000-foot primary runway, a 3,100-foot crosswind runway, 1,000-foot runway safety areas, 100 feet off each end for vehicle service road and fencing.
- Site Width: 5,800-foot-width includes space for crosswind runway, apron, taxiway and associated safety areas and developable land.



2.3 AIRPORT INVENTORY, DEVELOPMENT OPPORTUNITIES/CONSTRAINTS, AND INITIAL PUBLIC COMMENTS

The following is a brief inventory of each airport, a discussion of development opportunities and constraints to future development and expansion, a recap of initial public comments heard during Phase 1 about each airport, and an analysis of the airport's ability to meet the regional airport needs defined above.

In addition to airport specific comments, stakeholders commented about the benefits and need for a regionally significant airport. They noted a strong airport system is essential to the region's rural lifestyle. They commented that airport improvements provide the following benefits:

- improved aviation safety
- improved medevac service
- better services for aircraft crossing into Alaska from Canada
- enhanced passenger travel and freight shipments
- fire control, law enforcement and other government services
- support for existing and future mining, tourism, hunting, fishing, and flightseeing.

They noted a regionally significant airport needs:

- runways capable of supporting aircraft in region with associated taxiways, lighting, weather, NAVAIDS and approaches
- aprons and lease space
- facilities and services for aviation users and the travelling public (aircraft fuel, aircraft maintenance, tie downs, pilots lounge, passenger terminal, nearby lodging, food, and services)
- possible consolidation of FAA and U.S. customs into the regionally significant airport
- more efficient Instrument Flight Rules (IFR) corridors in the region.

2.3.1 TOK JUNCTION AIRPORT

2.3.1.1 Overview

Tok Junction Airport (6K8) is a 350-acre airport located about one mile from the center of Tok, with convenient access to the adjacent Alaska Highway, nearby Glenn Highway, and to lodging, food, and services facilities at Tok.

Figure 3. Tok Junction Airport

The airport serves general aviation, small scheduled commercial and charter operators, transient military, and medevac flights. This airport is the busiest of the four airports in this study area, with an estimated 11,696 operations in 2019, and it is the closest airport to Tok, the region's population center. With 33 based aircraft, regular air traffic consists of smaller air taxis and general aviation aircraft with commercial flights generated by tours and hunting and for access to the Wrangell St. Elias National Park (Park) and other backcountry areas. Tok Junction Airport is the first fueling and service stop for small aircraft entering Alaska from Canada. It is also a critical surface transportation junction where vehicles transit when traveling between the U.S. and Canada and the lower 48 states.

2.3.1.2 Development Opportunities/Constraints

Infrastructure/Services

Tok Junction Airport has one asphalt runway, 2,509 feet long by 50 feet wide. An intersecting taxiway, Bravo, connects the runway to north and south aprons and is 500 feet long by 35 feet wide.

Runway length limits the size of aircraft using the airport, and 40 Mile Air and other airport users have expressed the need for a longer runway to accommodate higher performance aircraft. The current Airport Layout Plan (ALP) shows a future extension of the main runway to 4,000 feet to the east over flat undeveloped ground. The land appears to remain flat and undeveloped out to the 5,000 feet required for a regionally significant airport.

The airport's current wind coverage is less than 95 percent, but it does not have a crosswind runway. A 3,200-foot-long crosswind runway has been proposed on undeveloped land in the current ALP and has been supported by local pilots. Property acquisition would be required for a runway extension and crosswind runway.

Airport pavements are in fair to good condition and airport maintenance is from the DOT&PF Tok Maintenance Station about two miles away, with some equipment stored at the airport. Lighting, weather,

and visual approaches are available. Aircraft parking apron, tie downs, and lease lots are provided and more are proposed on the ALP.

40-Mile Air, operating from a lot adjacent to the airport under a boundary crossing permit, sells fuel and provides aircraft maintenance, public telephone, restrooms, showers, and courtesy transportation. Lodging, food, and other services are nearby in Tok.

Figure 4. Tok Fueling

Airport Ownership/Land Use/Expansion Potential

The Tok Junction Airport is owned and operated by DOT&PF. Primary on-airport land uses include the runway and taxiway, three lease lots, 28 tiedowns spaces, and a snow removal equipment building. The airport currently has ten active boundary crossing permits providing aircraft access to landowners located off the airport, such as 40 Mile Air.

The land immediately west of the airport is residential, while parcels to the north along the Alaska Highway are zoned for business and industry. Primary areas for airport expansion are on the undeveloped land to the east and south of the runway. Almost all remaining undeveloped land on the airport is on the south side of the runway, where the ALP shows some future lease lot expansion on the access road to the tie down area. Runway and apron expansions to the east, crosswind runway construction to the south, and minor apron expansion to the north on the ALP would require property acquisition. Land to the east and south of the airport is owned by Tanacross, Inc. The Tok Dog Musher Association's Dog Musher Hall is on the Alaska Highway northeast of the airport, and a small section of dog mushing trails extend eastward into possible future airport expansion.

Environmental Constraints

The primary environmental issue associated with expanded operations from a regionally significant airport at Tok are the potential noise and other impacts to adjacent residential and commercial development. There are no known contaminated sites on the airport.

Stakeholder and Public Comments About Tok Junction Airport

- The Fixed Wing Aviation Manager for DNR Forestry, who currently operates at Tanacross - Would

prefer to relocate to Tok with at least a 5,000-foot runway. Since major investments are needed to support firefighting in the region, it would make most sense to make them at Tok.

- Relocate Forestry to Tok only if longer runway is built and fixed and rotary aircraft operations are separated.
- 40 Mile Air – longer runway, visual approach slope indicators (VASI), more ramp space is an issue.
- Need to support regional air service by 40 Mile Air, based in Tok.
- Tok needs longer runway and new crosswind runway. Already shown on current ALP. Needed by existing 40 Mile Air, medevacs, and for relocated Forestry.
- Tok is preferred. There's a place to spend the night; everything needed is there. Much more attractive for fuel and everything needed. It would increase use if there was a hub that had more to offer.
- Fuel and maintenance services are already available.
- Relocate U.S. Customs to Tok. "Why does U.S. Customs even go to Northway? They (U.S. Customs staff) mostly live here and often just allow people to land in Tok, they go get a pizza at Fast Eddie's then fly on to Fairbanks to get cleared."
- Crosswind runway. "People get desperate and land on the apron at times or make dangerous approaches. Sometimes 40 Mile will notice a non-local trying to land (over and over) and contact the pilot on the radio and tell them to divert to Tanacross rather than continue to try unsafe approaches."
- Remove ditches along runway, but plan for occasional flooding potential.
- Needs improved access and parking. Customers drive across ramp. Main apron is crowded.
- Better NAVAIDS and approaches.
- Snow storage areas that do not inhibit access to businesses.
- Limited land inhibits growth. Land acquisition could be difficult.
- Mine at Tetlin Hills could generate air traffic at Tok.
- Desire to have a gravel/ski strip.
- Possibly start a new airport near Tok and make Tok Junction private or satellite airport.

2.3.2 TANACROSS AIRPORT

2.3.2.1 Overview

Tanacross Airport (TSG) is a public-use airport 11 miles west of Tok, along the Alaska Highway. The airport was originally built in 1943 during World War II for the purpose of flights to and from Russia, and has seen very limited maintenance since the mid 1960's. Aside from summer firefighting activity by DNR Forestry, it has very little other air traffic. The airport offers no services and has no based aircraft.

2.3.2.2 Development Opportunities/Constraints

Infrastructure/Services

Tanacross Airport has two asphalt runways, designated 6/24 and 12/30. Runway 6/24 is 4,963 feet long by 150 feet wide, and 12/30 is 4,871 feet long by 150 feet wide. The airport has not been maintained or monitored for many years. According to the DNR, the airport pavement is in very poor condition, with visible cracking (severe) and vegetation growth through the asphalt. Site observations and discussions with DNR Forestry staff indicate imminent pavement failure of the runways, taxiways, and the apron, which has caused DNR to seek other airport options. They indicate the airport will soon be unsafe and unusable as a seasonal DNR Forestry tanker base. Tancross Airport had an estimated 290 operations in 2019, mostly by DNR Forestry and general aviation aircraft.

A July 2022 pavement inspection report by DOT&PF confirmed the very poor condition of the Tanacross Airport pavements, with weighted average Pavement Condition Indexes (PCIs) for runway pavements at

13.79, weighted average PCIs for taxiways at 14.75, and the weighted average PCI for the apron at 14.41. This report indicates the last time most of the pavements were reconstructed or resurfaced was 1965. The report indicates reconstruction of all pavements is needed.

Figure 5. Tanacross Airport

The runways do not meet FAA airport design standards such as runway safety area and may not meet object free area and runway to taxiway separation standards. Tanacross Airport is the only airport with a crosswind runway in this study.

Nonparallel taxiways connect runway ends. The primary taxiway serves as the main access between the runway and apron areas at the airport, linking Runway 30 and Runway 24 to the south apron.

The airport does not have airfield lighting and weather equipment and has visual approaches. There are no fuel, aircraft maintenance, or other services and the airport is not generally used by non-firefighting air traffic. Minimal airport maintenance facilities are available. Food, lodging, and other services are 11 miles away in Tok.

Figure 6. Tanacross Apron

Airport Ownership/Land Use/Expansion Potential

Tanacross Airport is a 7,705-acre airport owned by the U.S. Department of the Interior, Bureau of Land Management (BLM). DNR Forestry currently operates a seasonal base for fire service aircraft under a right of way/temporary use permit issued by BLM. This permit was issued in 2003 and was extended in 2023. This airport is large enough for all facilities required for a regionally significant airport, so expansion off the current site would not likely be needed. The airport is mostly surrounded by vacant land, with the exception of the village of Tanacross at the northwest corner of the airport. The Tanana River is at the end of Runway 12.

BLM and the DNR Forestry are not interested in making necessary improvements to continue to operate Tanacross Airport as a regional firefighting base and as a regionally significant airport. Tanacross is not included in FAA's National Plan of Integrated Airport Systems, likely due to its proximity to Tok Junction Airport, just 11 miles away. Airports not in the NPIAS are not eligible to receive federal AIP funding for planning and developing airports.

Figure 7. Tanacross Airport

Environmental Constraints

Alaska Department of Environmental Conservation (DEC) lists four contaminated sites at the Tanacross Airport, a former site used by the military from 1941 to 1945 and used by several federal and state agencies since then (Figure 8). Contaminated soil cleanup activities at these sites mostly occurred from 2008 to 2012. Groundwater contamination was also found, and groundwater monitoring continues. Future development on or near the existing apron and taxiway has the potential to encounter soil or groundwater contaminated by hazardous materials.

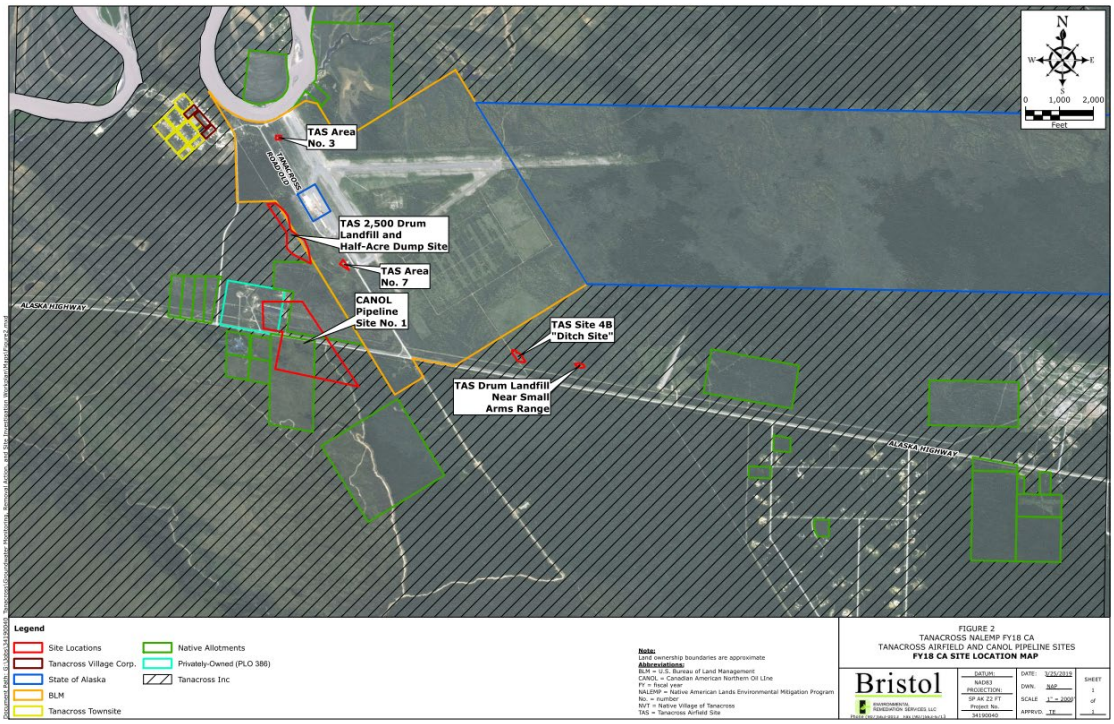


Figure 8. Tanacross Airport Contaminated Sites

Tanacross Airport Contaminated Sites - DEC Database

- #868 Tanacross Airfield Drum Landfills
- #25179 Tanacross Airfield Site - Former Alaska Communications Site Generator and Tower Supports
- #25180 Tanacross Airfield Site - Former Fuel Facilities
- #25181 Tanacross Airfield Site - Former Generator for Airport Beacon

Expanded operations from a regionally significant airport at Tanacross has the potential for noise and other impacts to adjacent residential development at the adjacent village of Tanacross. The Tanana River is next to the airport and the potential for flooding has been noted.

Stakeholder and Public Comments About Tanacross Airport

- DNR Forestry - Runway surface condition at Tanacross is horrible, BLM is unwilling to improve the runway, and DNR does not have funds to improve it – roughly estimated at about $18 million to resurface one runway. Without Tok improvements and without runway resurfacing of Tanacross, DNR would likely pull back operations to facilities in Fairbanks, which would greatly reduce firefighting response times and costs and consequently damage from fires in the region.
- Has available land and good soils but contaminated.
- BLM land ownership inhibits maintenance and development - “Not maintained and falling apart”.
- Facilities and services for non-Forestry users are lacking – aprons, tie downs, lease lots, fueling, maintenance.
- Environmental contamination will inhibit redevelopment.
- DOT&PF should take over the airport and fix it up.
- DNR provide maintenance, at least for short term.

- DNR Forestry should relocate to Delta (Greely).
- The Alaska Sports Car Club would like to continue to have races at Tanacross.

2.3.3 NORTHWAY AIRPORT

2.3.3.1 Overview

Northway Airport (ORT) is a 1,200-acre airport located about six miles south of the Alaska Highway, about 55 miles from Tok, and a mile from the small town of Northway.

Northway Airport is a U.S. Customs and Border Protection port of entry to Alaska. Airport use is primarily by aircraft entering the state and needing to clear U. S. Customs, by seasonal firefighting activity, some air taxi and general aviation traffic associated with hunting and tourism, and minor military training activity. The small adjacent local population generates very little of the air traffic, and there are no based aircraft. The airport had an estimated 6,298 operations in 2019. The airport hosts a seasonally staffed FAA FSS which provides pilot briefings, enroute communications, lost-aircraft assistance/emergency services, flight clearance relays, and weather and navigational aid status information to pilots in the region.

2.3.3.2 Development Opportunities/Constraints

Infrastructure/Services

Northway Airport's airfield generally meets the needs for a regionally significant airport. The airport has one asphalt runway designated 05/23, 5,100 feet long by 100 feet wide. Parallel to Runway 05/23 on the northwest end is a gravel ski-strip, 2,700 feet long by 75 feet wide. The airport has 97 percent wind coverage and does not have or need a crosswind runway. Three paved taxiways provide access to the 185,000-square-foot paved apron and lease lots. Apron/lease lot reconfiguration and expansion may be needed for a regionally significant airport. Airport pavements are in fair condition and airport maintenance equipment and buildings are located on site.

Figure 9. Northway Airport

The airport has runway and taxiway lighting, weather, and a high minimums non-precision instrument approach. There are no aircraft based at the airport. Airport terminal, fuel, and aircraft maintenance services are unavailable. Airport maintenance is from a DOT&PF maintenance station near the airport. The nearby town has a motel and restaurant.

Figure 10. Northway Airport Runway

When floatplanes enter Alaska, they are directed to stop at Yarger Lake, located eight miles east of Northway on the Alaska Highway in the Tetlin National Wildlife Refuge. A U.S. Customs Agent must travel to clear aircraft that land at Yarger Lake. If consideration is given to relocating U.S. Customs to a regionally significant airport, consideration should be given to how U.S. Customs clearance of floatplanes entering Alaska would be handled.

Airport Ownership/Land Use/Expansion Potential

Northway Airport is owned and operated by DOT&PF. Primary on-airport land uses include the runway and taxiways, and an apron with ten adjacent lease lots.

The airport is surrounded by mostly vacant land within the Tetlin National Wildlife Refuge. Private land in the area is mostly Native allotments and regional and local native corporation lands (Northway Natives, Inc. and Doyon, Ltd.). Northway Village is about a mile away. This 1,200-acre airport is large enough for all facilities required for a regionally significant airport, so expansion off the current site would not likely be needed. Some reconfigurations of aprons and lease lots on the airport site appears feasible but would need to consider environmental constraints discussed below.

Environmental Constraints

Northway Airport is located on the east bank of Nabesna Slough, within the environmentally sensitive Tetlin National Wildlife Refuge. Streams, wetlands, rivers, and lakes encompass nearly every side of the

airport property. While development off-site would probably be unnecessary, if needed it would be constrained by the presence of land and water resources and wildlife ecosystems in the Tetlin National Wildlife Refuge.

The U.S. Army Corps of Engineers (USACE) and DEC continue to monitor environmental contamination from multiple sites at Northway Airport (Figure 11). The former Northway Staging Field consists of approximately 6,335 acres that were used by the military from approximately 1944 to 1975, of which 38 acres contained potential contaminant sources. Fifty-two areas of concern were investigated, including a pipeline, several hundred 55-gallon petroleum, oil, and lubricant drums, aboveground and underground fuel tanks, mounds of tar-contaminated soil, and large quantities of hazardous debris. Much of the cleanup and removal actions occurred in in the mid-1990s, but studies and monitoring of groundwater continue, with particular focus on the Ham Lake former aboveground storage tank area. During a 2009 investigation, significant soil and groundwater contamination was identified throughout the lease lots. Future development on or near the existing apron and lease lots could encounter soil or groundwater contaminated by hazardous materials.

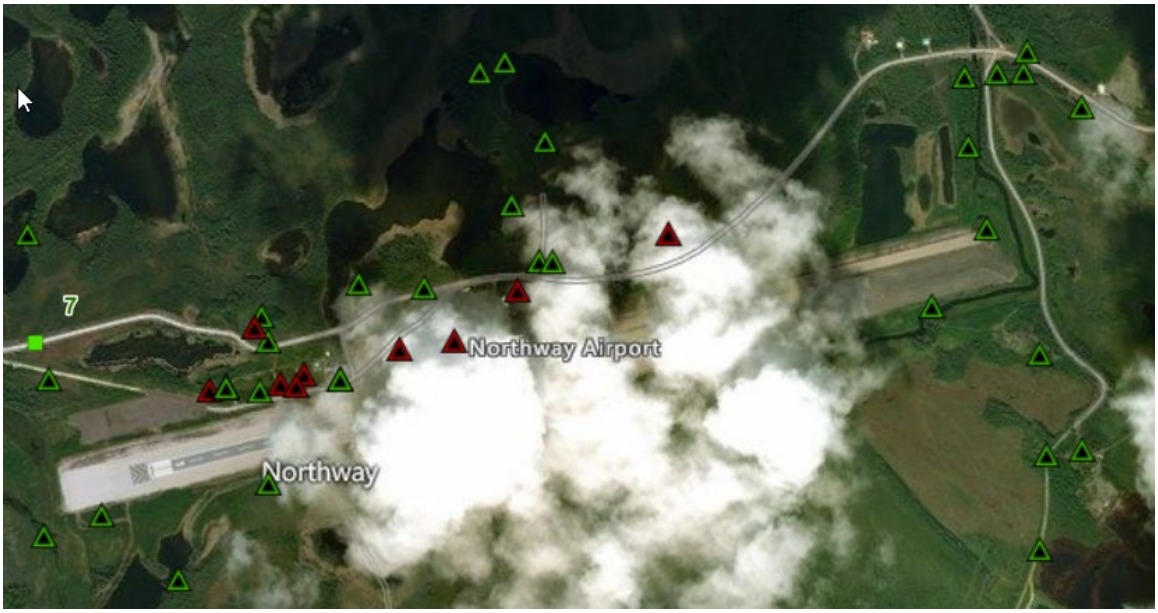


Figure 11. Northway Airport Contaminated Sites

Northway Airport Contaminated Sites - DEC Database

- DEC# 1698 FAA Northway (B) 52-A-1 Bldg. 601
- DEC# 2353 Northway Staging Field OU2, Areas 40&43-Ham Lake
- DEC# 4324 ADOT&PF Northway Airport Lease Lots Block 8
- DEC# 4704 FAA Northway Former Housing Apartment Bldg 110 Tank 52-A-15
- DEC# 4705 FAA Northway Utility Bldg 600 Tank 52-A-12
- DEC# 23343 FAA Northway (B) 52-A-17 Basketball Court
- DEC# 24354 FAA Northway (B) 52-A-2, A-3, A-4 and A-5 Tank Farm
- DEC# 25450 ADOT&PF Northway Airport Lot 7A Block 8 Former Aviation Fuel Dispensers
- DEC# 26616 FAA Northway Tank 52-A-14 Bldg 100

Stakeholder and Public Comments About Northway Airport

- Northway has been useful for emergency flights, Port of Entry (U.S. Customs), mail delivery, and hunting access.
- DNR Forestry: Northway is not an option. It is not centrally located in the fire response area – too far from fires, too far from Fairbanks where aircraft are dispatched from, and too far from firefighting personnel based in Tok. Northway does play a limited role during certain fires, primarily as a heli-base and logistics/supply base, but not for flights of firefighting aircraft.
- US Customs Service: "Northway, that's the closest to us. All staff is here."
- Lack of fuel available is a major issue, especially for aircraft entering Alaska and stopping at Northway to clear U.S. Customs.
- Northway's mostly unpopulated surroundings make it a good location for military operations.
- Resource development could generate aviation traffic at Northway.
- Northway has a good runway, but not community services. Northway has best IFR operations and runway length, but needs services such as fuel, pilot planning facilities and lodging.
- Mostly used for U.S. Customs. Not viable as a hub because of limited services (fuel, maintenance, lodging, food)
- Presence of U.S. Customs is important.

2.3.4 GULKANA AIRPORT

2.3.4.1 Overview

Gulkana Airport (GKN) is a 1,678-acre airport adjacent to the Richardson Highway about 5 miles from Glennallen and 133 miles from Tok.

Gulkana Airport's primary uses include scheduled and charter flights, military, medevac services, law enforcement, firefighting, recreation flying and flight training. Reeve Air Alaska currently has an Essential Air Service (EAS) subsidy for scheduled air service to and from Anchorage, and Copper Valley Air Service currently has an EAS subsidy and a mail contract between Gulkana and May Creek and McCarthy. Much of the air traffic at this Airport is generated by flights to the Wrangell – St. Elias National Park and Preserve and other back country areas, for tours, hunting, fishing, camping, hiking, and other back country activities. There are 12 private aircraft based at Gulkana Airport, accounting for much of the local General Aviation (GA) traffic there. During summer and fall hunting season, a large amount of GA traffic by aircraft not based at Gulkana Airport uses the airport to access fuel and other services. The airport had an estimated 10,110 operations in 2019.

2.3.4.2 Development Opportunities/Constraints

Infrastructure/Services

Gulkana Airport has two runways designated 15L/33R, which is 5,001 feet long by 100 feet wide, and 15R/33L, which is 2,300 feet long by 60 feet wide. The primary runway, 15L/33R is asphalt surface and listed in good condition during a recent survey. Runway 15R/33L, which is gravel surfaced, also is used by ski equipped aircraft in winter. The primary runway is designed to accommodate ARC B-II group aircraft. There are two taxiways that connect to the apron and both runways. Pavements are in good condition. The airport has 98 percent wind coverage and does not need a crosswind runway.

Figure 12. Gulkana Airport

Gulkana Airport has most facilities suited to meet the needs of a regionally significant airport. Primary needs would be for apron and lease lot expansion. Additional needs such as a relocated gravel/ski strip, float pond and runway extension are currently being considered in the 2023 Gulkana ALP update.

Figure 13. Gulkana Runway

Fuel, maintenance, tie downs, and other services are available at the airport. The airport has airport maintenance facilities, a weather station, airport lighting, and a non-precision instrument approach. Food, lodging, and other services are available within five miles in Gulkana and Glennallen.

Figure 14. Gulkana Fuel

Airport Ownership/Land Use/Expansion Potential

Gulkana Airport is owned and operated by DOT&PF. Primary on-airport land uses include the runways and taxiways, 18 lease lots, 26 tiedowns spaces, and airport Maintenance & Operations (M&O) buildings. Land immediately adjacent to the airport are mostly vacant, with the Richardson Highway and the Dry Creek State Recreation Area to the west and the Gulkana River to the east.

This 1,678-acre airport is large enough for all facilities required for a regionally significant airport, so major expansion off the current site would not likely be needed. Some expansion and reconfiguration of aprons, lease lots and taxiways on the existing airport would likely be needed and are being considered in an update to the ALP.

Environmental Constraints

Gulkana Airport has multiple sites listed in the U.S. Environmental Protection Agency (EPA) Contaminated Sites Database. There were three underground storage tanks identified on airport property as sources of contamination in 1997 that were removed via excavation later that same year.

Stakeholder and Public Comments About Gulkana Airport

- Gulkana is already a regionally significant airport, is not in the Upper Tanana Valley, and should have its own study.
- General satisfaction with airport facilities.
- Could use improved airport maintenance, particularly in winter.

2.4 Regionally Significant Airport Site Selection

2.4.1 SITING EVALUATION CRITERIA

Primary criteria used to evaluate sites for the regionally significant airport are summarized below.

Driving distance to population and services center at Tok – Tok has the largest population and contains more of the services (lodging, food, supplies) in the Upper Tanana region compared to other locations. Airport employees and users of a regionally significant airport would benefit from an airport located closer to these services in Tok. Also, the regionally significant airport is best located in proximity to the generators of aviation demand from many of the businesses, government agencies, and residents of Tok.

Aviation Infrastructure & Services Availability and Condition – Selection of a regionally significant airport should consider what existing infrastructure and services are already available at the airport, the condition of the infrastructure, and airport maintenance capability.

Land Ownership and Availability – Is the airport owned by DOT&PF or someone who has the capability of operating and maintaining a viable regional airport? Is the airport large enough for the facilities needed for a regionally significant airport? If not, can additional land be acquired?

Environmental Constraints – What environmental conditions could impact the development and operations at a regionally significant Airport?

2.4.2 SITING ALTERNATIVES EVALUATION

Table 2 summarizes the results of the site evaluation. Tok Junction Airport is recommended for further study as a regionally significant airport for the Upper Tanana Valley. Gulkana Airport also is a regionally significant airport but is not in the Upper Tanana Valley and mostly serves a separate geographic area. Further study of Gulkana Airport is being undertaken in an update to the Gulkana ALP. Northway Airport should continue to be owned and operated by DOT&PF, and the feasibility and benefits of relocating U.S. Customs and FSS services to Tok should be further examined. Tanacross Airport will likely continue to deteriorate and DNR wishes to relocate to Tok Junction Airport if it is improved to accommodate their needs.

Table 2. Airport Site Evaluation and Recommendations

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Tok Junction Airport (1,255)	1 Mile	• Approximately 2,500-foot runway extension needed, possible crosswind runway, taxiway extensions, and new apron needed • Most other infrastructure available • Existing pavements in good to fair condition • Superior maintenance staffing/equipment capability on-site or two miles away • Lighting, weather, visual approaches, potential for LPV/LP approaches	• 350 acres, owned by DOT&PF • Would require land acquisition for runway extension and crosswind runway • Land needed is undeveloped and owned by Tanacross, Inc. who expressed support for the airport expansion and a willingness to discuss property acquisition.	• Potential impacts to adjacent residential development to west and commercial development to north • Dog mushing trails to the east	Yes • Close to the population/services center at Tok • Many airport facilities and services already provided • An extended runway, crosswind runway, and apron expansion were proposed in the current ALP, but would likely need to be upgraded to higher FAA design standards • Land that would be acquired is undeveloped and owned by Tanacross Inc., who has expressed support for the airport expansion • More M&O staffing/equipment capability in Tok • Need to investigate feasibility and advantages of relocation of U. S. Customs and FSS to Tok

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Tanacross Airport (136)	11 Miles	• Runways, taxiways, and aprons already available, but in very poor condition and very expensive to reconstruct • BLM is unwilling to improve facilities • DNR will need to relocate because of facility condition • Other infrastructure and services needed for non DNR users are not available • Minimal maintenance equipment and facilities • No lighting, no weather, visual approaches	• 7,705 acres, owned by BLM • Additional land probably not needed	• Considerable on-site contamination • Flooding potential • Potential impacts to Village of Tanacross	No. • Existing pavements and buildings are in extremely poor condition and very expensive to reconstruct • BLM is not interested in making necessary improvements • DNR is unable to make necessary improvements • DOT&PF policy prevents them from assuming the financial burden of owning, operating and maintaining this airport • Airport improvements needed are unlikely to be eligible for FAA funding • Redevelopment could involve addressing contaminated soils

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Northway Airport (256)	55 miles	• Runway, taxiways, and aprons already available, and in fair condition • Some apron and lease lot expansion or reconfiguration would be necessary • 97% wind coverage; not likely need crosswind • No fuel, maintenance, tie downs or other services currently available • FSS and U.S. Customs services on-site • Maintenance equipment and buildings nearby but inadequate for regional airport • High minimums instrument approach	• 1,200 acres owned by DOT&PF • Additional land probably not needed	• Contamination on-site – extent not fully known • Sensitive surroundings of the Tetlin National Wildlife Refuge • Potential impacts to Northway Village	No • Isolated location, far from population center at Tok. Minimal local services. • No airport services • Most Tok/Tanacross tenants would be unlikely to relocate to this remote airport • Limited M&O services • Redevelopment would likely involve addressing contaminated soils

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Gulkana Airport (602)	133 miles	• Runway, taxiways, and aprons already available, and in good condition • 98 percent wind coverage; not likely need crosswind • Some apron and lease lot expansion would be necessary • Fuel, maintenance, tie downs and other services currently available • Maintenance equipment and buildings on-site • Non-precision approach	• 1,678 acres owned by DOT&PF • Additional land not needed	• Limited contamination on site on several lease lots	Yes, but not as a regional airport for the Upper Tanana region • Far from population center at Tok. Is in a separate service area outside the Upper Tanana region. • Gulkana Airport needs should be evaluated as part of an update to the Gulkana ALP.

2.4.3 TOK JUNCTION AIRPORT

Tok Junction Airport is recommended for further evaluation because it is within the population center of Tok which generates much of the aviation demand expected for the airport and it is near the lodging, food, supplies, and services used by airport employees and users. It is home to the DNR Forestry firefighting headquarters, which would like to relocate to Tok Junction Airport if improvements are made. While many aviation services and improvements are already available at Tok Junction, development of the regional airport would require considerable investment in an extension of the main runway to approximately 5,000 feet, a possible crosswind runway, associated taxiway expansions, and apron expansion. Some of these improvements are already proposed in the current ALP, but an ALP update would be needed to support the proposed expansion of the Tok Junction Airport. Some of the improvements can be made on the existing airport, but property acquisition would be needed from Tanacross, Inc. for the runway extension and crosswind runway. This site would benefit from the large presence of airport M&O staff and equipment at the airport and the nearby Tok Maintenance Station, about two miles away. Further study should include investigating the feasibility and benefits of relocating the U.S. Customs Service and FSS functions and staff to Tok and consideration of U.S. Customs clearance of floatplanes.

2.4.4 TANACROSS AIRPORT

Tanacross Airport is not recommended as a regionally significant airport. While Tanacross has the benefit of longer paved runways, taxiways, and land availability, the pavement and buildings are in extremely poor condition and are not built to FAA design standards. Major redevelopment of Tanacross Airport could involve environmental remediation. Because the present airport owner, BLM, has not conducted regular airfield maintenance and has no plans for pavement repair, reconstruction, or rehabilitation; it is likely that Tanacross will soon become unsuitable for aircraft use and, thus, unusable as a DNR Forestry seasonal firefighting base. Upgrade of the airport by DNR appears to be financially impractical due to the high costs (roughly estimated by DNR at over $18 million to resurface one runway/taxiway) and lack of state funding for airport improvements. An estimate by DOT&PF would likely be considerably higher than $18 million, would include more improvements than just resurfacing a runway and taxiway, and would include items such as design, construction administration, environmental cleanup, Indirect Cost Allocation Plan, and contingencies that were likely not included in DNR's rough estimate.

Ownership, operation, and maintenance by DOT&PF is not financially feasible or practical as Tanacross Airport is not eligible for the AIP funding that would be necessary to upgrade the airport. Furthermore, DOT&PF has a policy to not take on the fiscal responsibilities of owning and operating airports not already in DOT&PF ownership, unless funding is appropriated, which is very unlikely. More specifically, DOT&PF adopted a policy in 2013 that restricts increases to DOT&PF maintenance and operations efforts without a formal request from a petitioner, followed by stakeholder communications, research into services needed, cost estimates and plans before approval can be considered. Additionally, commensurate funding appropriations must be appropriated and in-place before services can commence.

2.4.5 NORTHWAY AIRPORT

Northway Airport is not recommended as a regionally significant airport. While much of the necessary infrastructure is in place and in fair condition, the airport offers no fueling, maintenance, or other aviation services. Northway Airport is in an isolated location far from Tok where much of the aviation demand is generated and where housing, services, and supplies are available for airport employees and users. This would also make it less attractive for businesses and employees to relocate to Northway. One advantage of Northway Airport is its proximity to the U.S. Customs and Border Patrol station, a generator of some of

Northway's traffic. Northway Airport has limited M&O personnel and equipment. Airport improvements at the airport will likely encounter environmental contamination. Airport improvements may impact sensitive environmental resources in the surrounding Tetlin National Wildlife Refuge and large increases in traffic could negatively impact residents of Northway Village.

2.4.6 GULKANA

While Gulkana Airport is a regionally significant airport, and has much of the infrastructure and services needed, it is not in the Upper Tanana Valley and mostly serves a separate geographic area south of the Alaska Range. Further study of Gulkana Airport needs should be accomplished as part of an update to the Gulkana ALP in 2023.

2.5 TOK JUNCTION REGIONALLY SIGNIFICANT AIRPORT PRELIMINARY ALTERNATIVES

Two preliminary alternatives are presented below, showing how Tok Junction Airport could be expanded to become a regionally significant airport. These are preliminary concepts that merit further discussion with potential airport users about runway length and width and other design standards, crosswind runway requirements, apron and lease lot sizing, helicopter facilities, navaid and approaches improvements and space for other airport needs. Also land availability, potential for U.S. Customs Service and Flight Service Station to relocate to Tok need further research.

Design standards for the regional airport are defined by the FAA based on the "critical aircraft" – the most demanding aircraft type or grouping of aircraft that takeoff or land at least 500 times per year. Most demanding aircraft means the aircraft with the largest wingspan and approach speed. While DNR Forestry would operate the most demanding aircraft, those aircraft are not expected to meet the 500 operations per year critical aircraft criteria, and therefore cannot be classified as the critical aircraft for airport planning and design. DNR Forestry staff indicates they can operate on a 5,000 feet by 75 feet runway and this was used for the alternatives with the assumption that DNR Forestry would need to provide funding for the portion of the runway extension that exceeds the requirements of the critical aircraft. More details on the critical aircraft and funding are discussed later in this report. To support all-weather operations, an instrument approach with visibility minimums lower than one mile with a precision or non-precision approach with vertical guidance is desirable. Additionally desirable are medium intensity runway lights and onsite FAA-certified weather equipment.

2.5.1 ALTERNATIVE 1: TOK JUNCTION AIRPORT DEVELOPMENT WITHOUT A CROSSWIND RUNWAY

Alternative 1, includes widening of the runway from 60 feet to 75 feet and lengthening the runway from 2,905 feet to 5,000 feet. A parallel taxiway would provide a direct path to and from runway and apron areas, increasing safety and minimizing the risk of accidents. Additional safety features include the installation of pilot-controlled lighting (PCL) and Precision Approach Path Indicators (PAPIs). New lease lots are shown at the southwest portion of the airport, near the south apron and South Ramp Road (connector road to East D Street). Construction of additional lease lots allow for support of larger Forestry aircraft. Finally, lengthening the runway includes acquisition of the land to the east of the runway for the extension and safety zone beyond the extension.

Alternative 1:

1. Lengthen and widen runway to 5,000 feet by 75 feet
2. Build parallel taxiway
3. Install Pilot Controlled Lighting
4. Install PAPIs
5. Improved instrument approach
6. Develop lease lots and aprons
7. Acquire land

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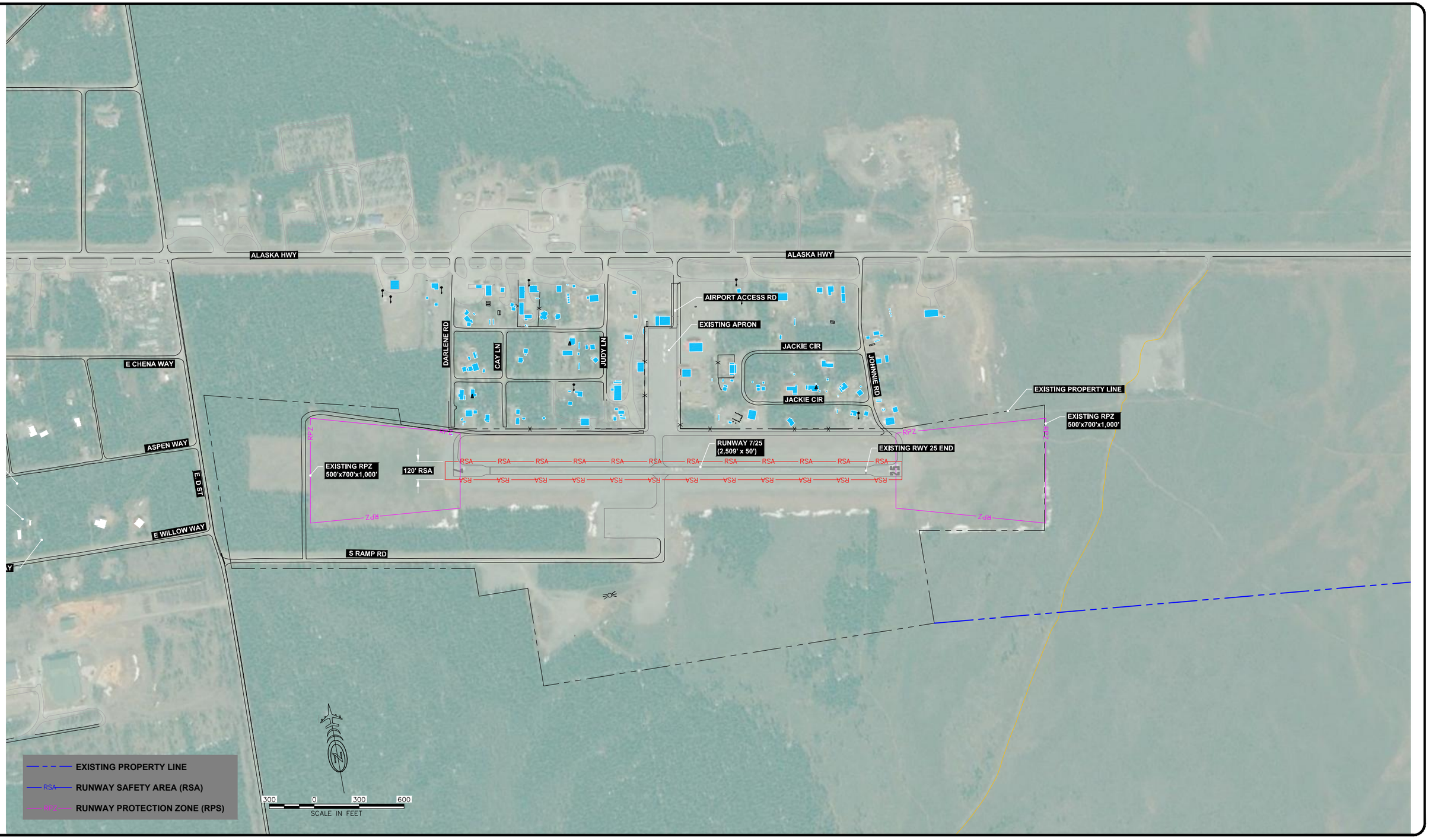

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

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ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

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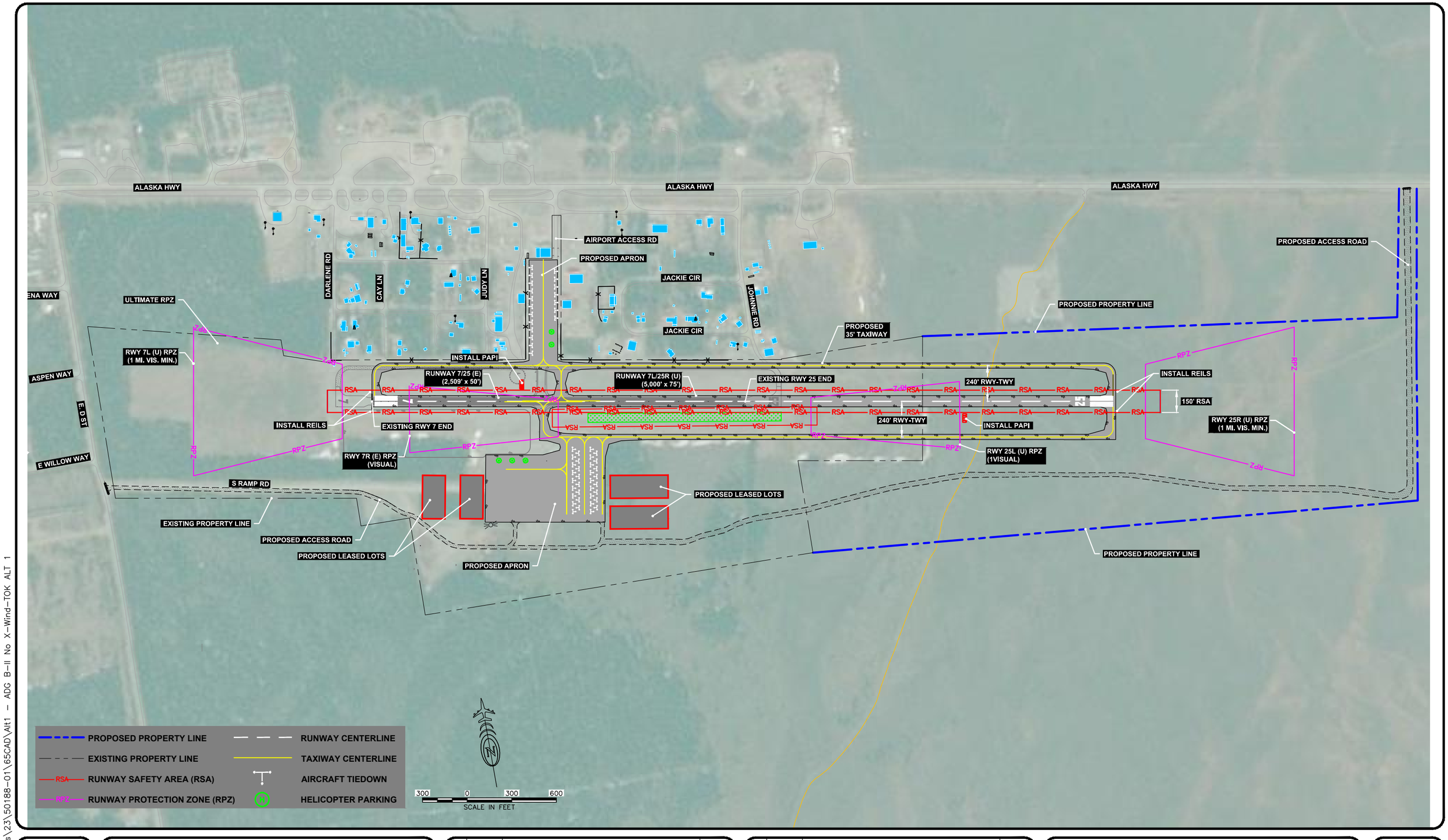
UPPER TANANA AIRPORT PLANNING STUDY

TOK AIRPORT EXISTING CONDITIONS

SHEET 1 OF 3



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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-AVIATION

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UPPER TANANA AIRPORT PLANNING STUDY

TOK AIRPORT ALTERNATIVE 1
ADG-II MAIN RWY

SHEET 2 OF 3

2.5.2 ALTERNATIVE 2: TOK JUNCTION AIRPORT DEVELOPMENT WITH A CROSSWIND RUNWAY

Alternative 2, includes all of the features of Alternative 1 plus the construction of a 3,200-foot by 60-foot crosswind runway at the end of Runway 25, as recommended in the last ALP and the 2003 Copper Basin Study. Without the crosswind runway, the airport has 93.5 percent wind coverage at 10.5 knots. With the crosswind runway, the wind coverage improves to 99.6 percent.

Alternative 2:

1. Lengthen and widen runway to 5,000 feet by 75 feet
2. Construct a 3,200-feet by 60-feet crosswind runway
3. Build parallel taxiway
4. Install Pilot Controlled Lighting
5. Install PAPIs
6. Improved instrument approach
7. Develop lease lots
8. Acquire land

2.5.3 PUBLIC REVIEW OF ALTERNATIVES

DOT&PF held a public meeting in Tok on December 1, 2022 to present and receive feedback on the evalation of regionally significant alternatives. Commenters expressed support for expanding the Tok Junction Airport as a regionally significant airport. They expressed the need for a longer runway to support medevac flights, they noted the importance of the gravel/ski strip, and expressed support for funding the expansion as soon as possible. The FAA explained that the entire 5,000 feet of runway extension would not be eligible for FAA AIP funding, so other funding sources would also be needed.

More detailed public meeting notes can be found in Appendix A.

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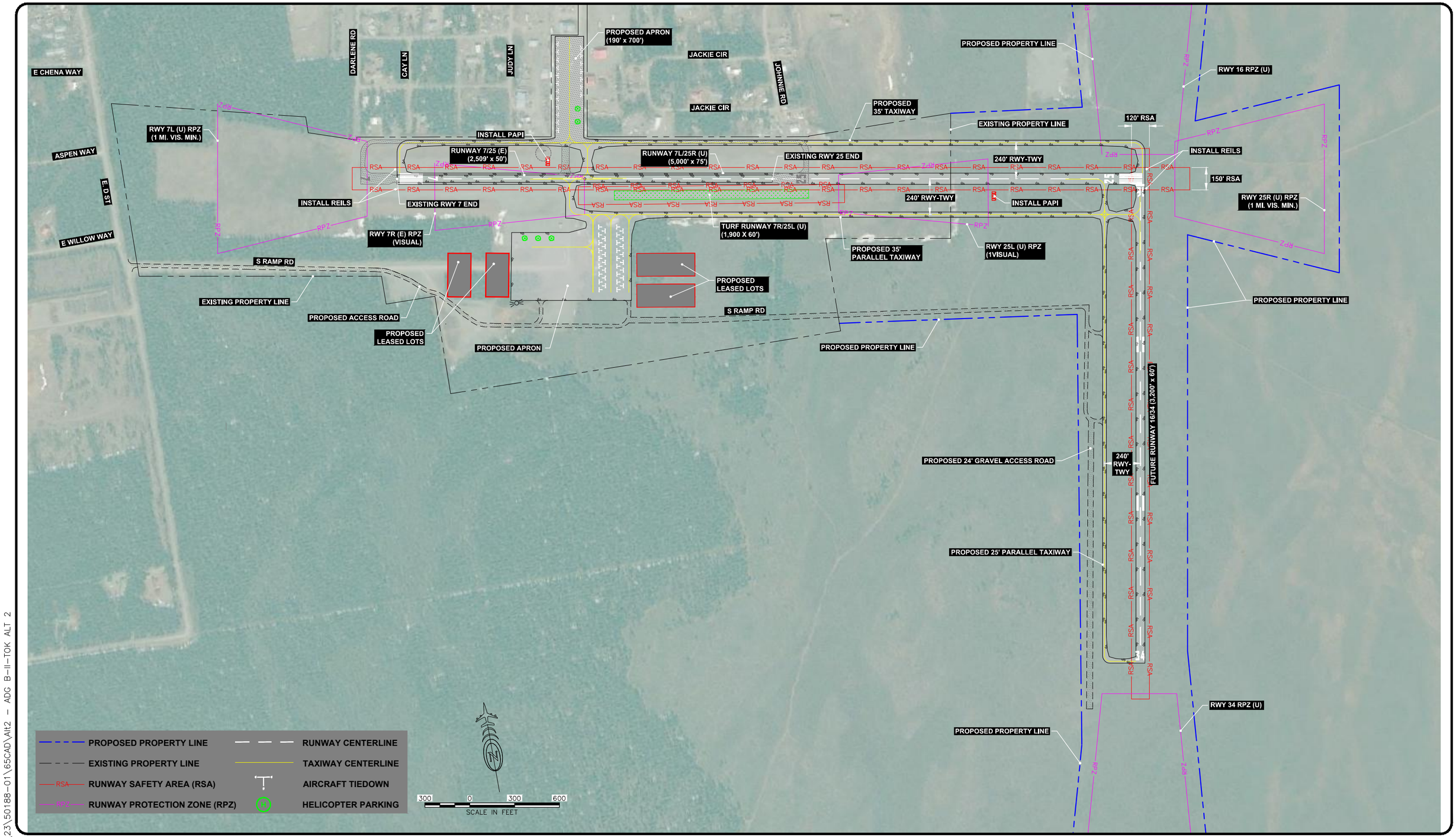

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UPPER TANANA AIRPORT PLANNING STUDY

TOK AIRPORT ALTERNATIVE 2
ADG–II MAIN RWY, NEW ADG–I X–WIND RWY

SHEET 3 OF 3

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CHAPTER 3. UPPER TANANA AIRPORTS BLENDED FORECAST

This chapter presents a "blended forecast" - a forecast of air traffic at the Tok Junction and Tanacross Airports resulting from development of the Tok Junction Airport as a regionally significant airport. These air traffic forecasts are consistent with the FAA AC 150/5070-6B, and a guidance paper prepared for the FAA entitled "Forecasting Aviation Activity by Airport." The forecast was developed using historic air traffic data, prior traffic estimates, and interviews with air carriers, aviation support businesses, airport management, and other parties knowledgeable of aviation activities at the airports, the adjacent areas, and the surrounding region. In addition, demographic and economic trends for the study area were used to develop these forecasts. Sources interviewed for this report often provided information based on their expertise and judgment. Judgment of the forecaster was also used to develop the air traffic forecasts. A list of sources used for this report is available in a Sources section at the end of the document, and in footnotes. Much of the background information was developed by Southeast Strategies in 2021 and early 2022, however this work has been edited and supplemented by DOWL with additional information since that time.

3.1 Service/Study Area

The study area considered for these air traffic forecasts is located in the east central portion of interior Alaska, between the Alaska Range and the Chugach Mountains. The area encompasses much of both the Copper River and the Tanana River valleys. While the study area boundaries do not exactly match those of the Southeast Fairbanks and Copper River Census Areas, they include most of the population of those two Census Areas. This report presents a socioeconomic overview of the study area, and for the areas around the four airports of particular interest – Gulkana, Northway, Tanacross, and Tok Junction Airports.

The main transportation infrastructure within the area includes State highways (including the Alaska Highway, the Glenn Highway, the Tok Cutoff, the Richardson Highway, and the Edgerton Highway) and public- and privately-owned aviation facilities. All the subject airports are located on the road system. Gulkana Airport is in the southern part of the study area on the Richardson Highway. Northway, Tanacross, and Tok Junction Airports are located in the northern part of the study area on or near the Alaska Highway. The Wrangell-St. Elias National Park and Preserve encompasses 13.2 million acres, most of it within the southeastern portion of the study area.

3.2 Socioeconomic Profile of Copper Basin – Upper Tanana Area

For purposes of socioeconomic overview and analysis in this report, the Copper Basin – Upper Tanana region is defined as the Southeast Fairbanks and the Copper River Census Subarea of the Valdez-Cordova Census Area. In some cases, 2020 socioeconomic data is available; however, in order to present a snapshot of the economy prior to the outbreak of the Covid-19 pandemic, the focus of this analysis is often 2019 data.

3.2.1 POPULATION

The estimated 2019 population of the study area was 9,670. 2020 population was estimated to be slightly lower at 9,636. Table 3 presents population in Alaska, the two parts of the study area, and the communities associated with the airports considered in this report. Both Gulkana and Glennallen communities are included here because the Gulkana Airport is located between the two communities.

Table 3. Study Area Population Change, 2010 to 2020

AREA NAME	2010	2019	2020	AVERAGE ANNUAL CHANGE 2010-2020
ALASKA	710,231	732,734	728,903	0.3%
Copper River CA	2,955	2,770	2,699	-0.9%
Gulkana CDP	119	111	114	-0.4%
Glennallen CDP	483	450	421	-1.4%
SE Fairbanks CA	7,026	6,900	6,937	-0.1%
Northway CDP	256	252	251	-0.2%
Tanacross CDP	136	100	117	-1.5%
Tok CDP	1,255	1,216	1,187	-0.6%
Full Study Area	9,981	9,670	9,636	-0.4%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

Notes: CA = Census Area. CDP = Census Designated Place (a subcategory of Census Area and Census Subarea).

Table 3 indicates that population in all portions of the study area has been in decline since 2010, while the population of the state has increased slightly. When considering 2020 population (impacted by Covid-19), population loss is greater in much of the study area, although Gulkana and Tanacross gained population between 2019 and 2020. The Department of Community and Regional Affairs reports a smaller drop of 15 people in Tok from 2010 to 2020.

Table 4 presents population forecasts developed by the State Demographer at the Alaska Department of Labor and Workforce Development (DOL&WD). These forecasts were developed in early 2020, when Covid 19 cases were just starting to be reported in Alaska. Net migration (people moving into the area minus people leaving the area) has resulted in a smaller population in Alaska in recent years, possibly due to the economic recession that began in 2015[1]. This trend of negative net migration was forecasted to continue in the study area into the future.

Table 4 indicates that, while population growth is expected to be static in the Southeast Fairbanks Census Area, continued population decline is expected in the Valdez-Cordova Census area.

[1] "Population Projections for 2019-2045", David Howell, Alaska Economic Trends Magazine, Alaska Department of Labor and Workforce Development, May 2020.[2] Interview with Brad Honerlaw, Chief Ranger and Aviation Manager, Wrangell-St. Elias National Park and Preserve, National Park Service, Copper Center, Alaska.

Table 4. Regional Population Forecasts - Components of Change, Average Annual 2019-2045

Valdez-Cordova Census Area

PERIOD IN YEARS	BIRTHS	DEATHS	NET MIGRATION	POPULATION CHANGE	GROWTH RATE	POPULATION AT PERIOD END
2019-2020	114	64	-140	-90	-1.0%	9,408
2020-2025	113	69	-76	-32	-0.3%	9,250
2025-2030	109	77	-67	-35	-0.4%	9,073
2030-2035	109	86	-56	-33	-0.4%	8,906
2035-2040	109	94	-46	-31	-0.4%	8,749
2040-2045	108	100	-41	-33	-0.4%	8,583

Southeast Fairbanks Census Area

PERIOD	BIRTHS	DEATHS	NET MIGRATION	POPULATION CHANGE	GROWTH RATE	POPULATION AT PERIOD END
2019-2020	102	53	-117	-68	-1.0%	6,823
2020-2025	99	54	-32	13	0.2%	6,886
2025-2030	96	61	-27	8	0.1%	6,924
2030-2035	96	68	-27	1	0.0%	6,929
2035-2040	97	75	-24	-2	0.0%	6,919
2040-2045	99	80	-21	-2	0.0%	6,911

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

Note: The Valdez-Cordova Census Area includes Valdez, Cordova, and Whittier, so may not accurately represent the change in the northern part of that Census Area. 2019 population estimates indicate that the Copper River Census Sub-Area (now Copper River Census Area) includes less than 1/3 the population of the full Valdez-Cordova Census Area.

3.2.2 ECONOMIC ACTIVITY

Because of the large economic shocks resulting from the Covid 19 pandemic beginning in early 2020, this review of economic activity considers 2019 as the base year. The economy of the study area is heavily influenced by visitors and economic activity from the 13.2 million-acre Wrangell St. Elias National Park and Preserve. In addition, there is strong mining potential in the area. The study area contains about 35 small communities, none of which are officially incorporated. While the tourism and mining activity in the study area is important, most of the existing economy is based on supporting the resident population. Strong recreational and subsistence hunting, fishing, and other off-road activities in the area also support aviation activity.

Table 5 presents 2019 population and income estimates developed by the U.S. Census Bureau for the study area. The lower portion of the study area (Copper River Census Area) tends to be more rural, where the upper portion (Southeast Fairbanks Census Area) is closer to the urban area of Fairbanks. The Southeast Fairbanks Census Area is smaller in size and has less population than the Copper River Census Area. In addition, the Southeast Fairbanks Census Area has a higher average per capita income, and a smaller percent of the population reported as Alaskan Native.

Table 5. 2019 Census Bureau Socioeconomic Estimates for the Upper Tanana Study Area

AREA	POPULATION	PER CAPITA INCOME	PERSONS PER HOUSEHOLD	PERCENT WHITE	PERCENT ALASKAN NATIVE
Copper River Census Area	2,770	$27,281	3.2	54%	36%
SE Fairbanks Census Area	6,900	$32,193	3.1	74%	14%
Full Study Area	9,670	$30,786	3.1	68%	20%

Source: U.S. Census Bureau estimates, available through the Alaska Department of Labor and Workforce Development, Research and Analysis Section.

Table 6 presents number of businesses, average annual employment, and earnings by industry for the study area in 2019. A majority of the jobs are within the service producing industries, some of the largest industries being retail sales and health care. These support industries can serve visitors as well as the existing resident population.

Table 6. Employment and Earnings in the Upper Tanana Study Area 2019

INDUSTRY	NUMBER OF BUSINESSES	EMPLOYMENT	ANNUAL EARNINGS	AVERAGE MONTHLY WAGES	PERCENT OF TOTAL
TOTAL GOVERNMENT	89	977	$59,734,902	$5,095	29.9%
Service-producing	216	1,634	$84,490,077	$4,309	50.1%
Trade, Transportation., and Utilities	75	543	$26,704,045	$4,098	16.6%
Retail Trade	45	286	$8,548,914	$2,491	8.8%
Food and Beverage Stores	7	86	$2,255,505	$2,186	2.6%
Gas Stations	7	50	$1,277,699	$2,129	1.5%
Transportation and Warehousing	19	148	$8,628,423	$4,858	4.5%
Financial Activities	11	55	$2,750,007	$4,167	1.7%
Leisure and Hospitality	45	282	$7,209,021	$2,130	8.6%
Goods Producing	42	652	$77,416,429	$9,895	20.0%
TOTAL PRIVATE INDUSTRY	258	2,286	$161,906,506	$5,902	70.1%
TOTAL ALL INDUSTRIES	**347**	**3,263**	**$221,641,408**	**$5,660**	**100.0%**

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

Government (Federal, State, and local government entities) provides nearly 30 percent of the jobs in the study area. Goods producing industries, mostly mining, provide 20 percent of the area's jobs. The remaining 50 percent of jobs are located in service industries that support the local population as well as visitors to the area. More detail about the region's major industries of Recreation and Tourism, Mining, and Government is presented below.

3.2.3 RECREATION AND TOURISM

While recreation and tourism seems like a distinctive industry group, in reality, jobs serving visitors are spread across the economy in areas such as restaurants, air transportation, lodging, and retail trade. Without in-depth study, it is difficult to say how many jobs recreation and tourism create in the study area, but anecdotal evidence suggests that visitors fuel a lot of economic activity and aviation activity in this region. Even though visitors mainly enter the study area by road, many of them use aviation services for tours, and to access the Wrangell St. Elias National Park and Preserve and other back-country areas for activities such as recreational hunting and fishing, hiking, camping, and accessing off-road cabins.

Table 7 and Figure 18 show the number of visitors to the Park. While the average annual growth in visitors to the Park between 2000 and 2019 was 5.2 percent, growth dropped to about 0.2 percent between 2010 and 2019.

Table 7. Recreation Visitors at Wrangell-St. Elias National Park and Preserve 2000 to 2020

YEAR	RECREATION VISITORS	PERCENT CHANGE
2000	28,331	
2001	28,643	1.1%
2002	40,352	40.9%
2003	43,311	7.3%
2004	57,221	32.1%
2005	56,224	-1.7%
2006	50,336	-10.5%
2007	61,085	21.4%
2008	65,693	7.5%
2009	59,966	-8.7%
2010	73,170	22.0%
2011	65,225	-10.9%
2012	87,158	33.6%
2013	69,984	-19.7%
2014	74,722	6.8%
2015	80,366	7.6%
2016	79,047	-1.6%
2017	68,292	-13.6%
2018	79,450	16.3%
2019	74,518	-6.2%
2020	16,655	-77.6%

Source: NPS Stats, Park Reports, Wrangell-St. Elias National Park and Preserve, National Park Service Webpage (https://irma.nps.gov/STATS/)

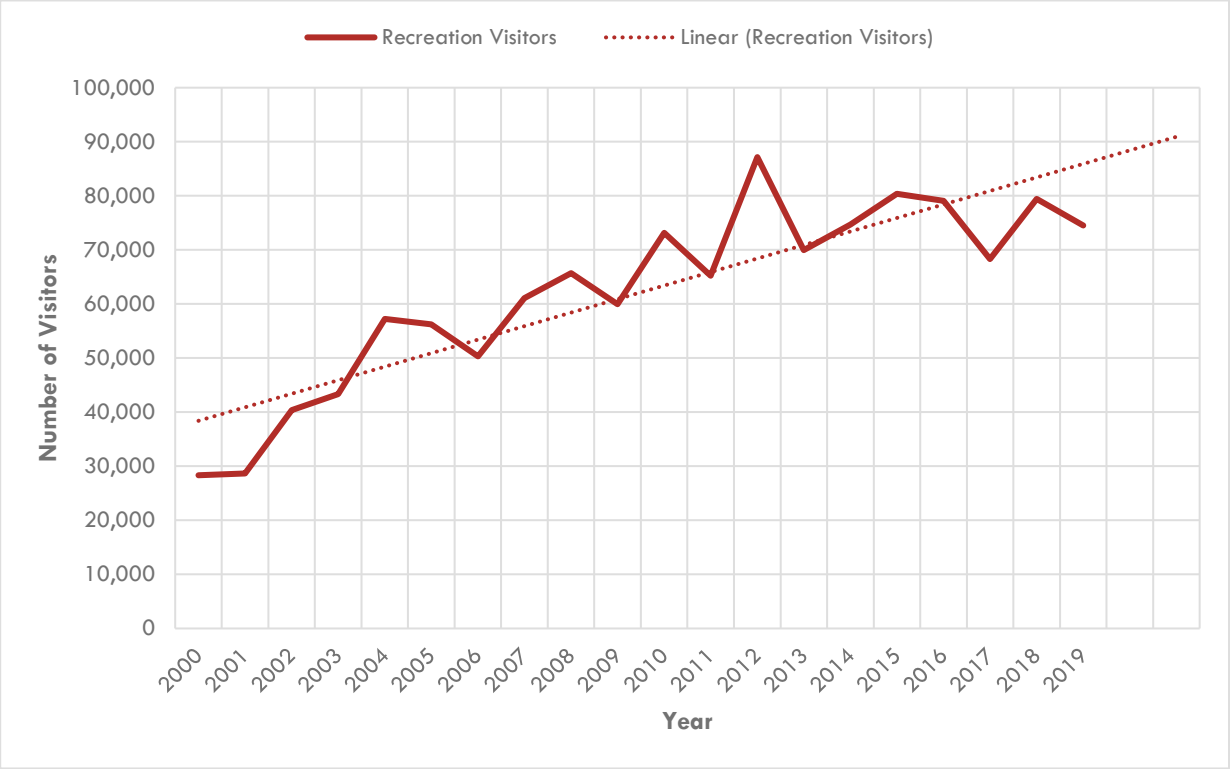
In summer 2021, local Alaskans took advantage of light visitor traffic to see their state, including this region and the Park. In 2021, visitation to the Park from U.S. Citizens increased over 2020, and international visitation was expected to increase as restrictions on international travel subside[2]. Air traffic within the Park includes flightseeing and hunting/fishing and other charters by commercial aircraft, as well as flights by private and agency aircraft. In 2020, private and commercial aircraft took about 800 flights into the Park[3]. Air carriers in the area and Park staff suggest that air traffic associated with the Park had been increasing

[2] Interview with Brad Honerlaw, Chief Ranger and Aviation Manager, Wrangell-St. Elias National Park and Preserve, National Park Service, Copper Center, Alaska.

[3] Interview with Brad Honerlaw, Chief Ranger and Aviation Manager, Wrangell-St. Elias National Park and Preserve, National Park Service, Copper Center, Alaska.

at a fast pace in the years prior to Covid-19[4,5,6].

Figure 18 presents the number of visitors to the Park by year between 2000 and 2019. The figure also includes a linear trend line that forecasts number of visitors into 2021. That trendline indicates that without the drop in visitors in 2020, growth had been expected to be robust into the future (in 2020 number of visitors could have been just under 90,000 without Covid-19 impacts). Growth is still expected to rebound as Covid-19 impacts continue to diminish.



Source: NPS Stats, Park Reports, Wrangell-St. Elias National Park and Preserve, National Park Service Webpage (https://irma.nps.gov/STATS/)

Figure 18. Recreation Visitors at Wrangell-St. Elias National Park and Preserve 2000 to 2019

Representatives of the visitor industry in Alaska report double digit growth in passenger counts at Alaska's international airports in 2022, a sharp increase in hotel occupancy and a resurgence in cruise ship traffic, all indicators of a strong rebound of Alaska's tourism industry. There appears to be pent up demand for recreational travel, and Alaska has always been a popular destination.

[4] Interview with Mike Reeve, Owner and Pilot, Reeve Air Alaska, Anchorage, Alaska.

[5] Interview with Austin Robel, Director of Operations, Wrangell Mountain Air/McCarthy Air, McCarthy, Alaska.

[6] Interview with Brad Honerlaw, Chief Ranger and Aviation Manager, Wrangell-St. Elias National Park and Preserve, National Park Service, Copper Center, Alaska.

3.2.4 MINING

In the early 20th century, the region's main economic activity was in the mining sector. While major mining activity mostly died out by 1950, current exploration may revive area mining. Kinross Gold Company purchased a 70 percent share in the Manh Choh Gold Project in the region (formerly called Peak Project, but recently renamed to refer to the Upper Tanana Athabaskan name for nearby Tetlin Lake)[7]. Kinross Gold also owns the Fort Knox Mill and other mining infrastructure in the Fairbanks area.

The Manh Choh project is a polymetallic plot with high grade ore (containing mostly gold and silver), with an expected low cost to access that ore. This new project can provide low-risk leverage of the Fort Knox infrastructure already in place. If the project is deemed feasible and permits are obtained, production could begin by 2024. Possible reserves at the site include 846,000 ounces of gold and 2,940,000 ounces of silver. Current plans are for ore to be trucked from the mine area 250 miles to the Fort Knox mill near Fairbanks for processing.[8] A 2021 progress report from Kinross estimated that 400 to 600 jobs will be created by this project in the Upper Tanana area, particularly in the communities of Tanacross, Northway, Tok, and Delta.[9] While most transportation activity from the mine would be by road, the mine could generate some air passenger and freight demand from the mine development and operation, from companies providing services and supplies to the mine, and from medevac providers.

3.2.5 GOVERNMENT

In 2019, all Government agencies (federal, state, and local governments) employed just under 30 percent of the workers in the region (see Table 6). The Park accounts for much of that employment, both directly and indirectly. Federal and state fish and wildlife agencies have a presence in the study area. DNR Division of Forestry manages firefighting from a headquarters in Tok with flight operations at the Tanacross Airport which accounts for some of the state jobs in the area. Examples of other government agencies with offices in the region, particularly in Tok and Glennallen, include the Alaska Department of Fish and Game, Alaska Department of Labor, Tok Public Health Center, Alaska Gateway School District, Alaska State Troopers, and BLM.

There are about 35 small communities within the study area. Although none of these communities are organized with official government leaders and staff, these communities often have local government elements such as schools and health care facilities. Tribal governments and even some Native corporation elements also report employment within the local government category.

[7] "Kinross Announces Renaming of 'Peak' Project in Alaska to Manh Choh," Kinross Gold Corporate Press Release, March 2021.

[8] Kinross Company 2020 Annual Report.

[9] "Kinross to Give Manh Choh Progress Report, Seek Public Input", Tim Ellis, KUAC Radio, Fairbanks, Alaska, October 13, 2021.

3.2.6 ALASKA'S ECONOMY

The Alaska economy was in recession from 2015 through 2018, mainly due to reduced state revenues from the oil and gas industries because of waning production and lower prices. Oil revenues provide more than 70 percent of total state of Alaska unrestricted revenue (not including Permanent Fund transfers). Table 4 shows that the population in most communities in the study area had begun to decline even before the recession began in 2015. As the state economy was beginning its slow rebound, Covid-19 spread around the world, and created major disruptions to the economy, from the international to the local levels. Some impacts to the Alaska economy have resulted from:

- Covid-related shut-downs and job losses, especially in the services industries.
- Major slowdown and then rebound in all forms of travel, with impacts to the visitor industry.
- Changes in oil prices and production, impacting state of Alaska revenues.
- Supply chain disruptions and imbalances.
- Worker shortages and imbalances.
- Downsizing and in some cases, closing of business due to loss of patrons because of Covid-19.
- Federal stimulus funds to state and local governments, businesses, and individuals.
- Inflation resulting from the increased stimulus funds, supply chain disruption, and other factors.
- Alaska is an international cargo route, and as such, is benefiting from the cargo boom fueled by the pandemic.

3.3 Historic Data and Prior Aviation Forecasts

The following section presents historic air traffic data and air traffic forecasts where available for the four subject airports.

3.3.1 HISTORIC AVIATION DATA

Table 8 presents aviation activity at the four subject airports for 2019 as reported in the FAA Terminal Area Forecasts (TAF). For small communities in Alaska, FAA TAF data is not updated often, so Table 8 should not be viewed as an accurate representation of current airport activity. Operations data in TAF for Gulkana Airport was last updated in 2005. TAF operations data for Northway Airport was last updated in 1994, and for Tok Junction Airport, in 1995. TAF data is not available for Tanacross Airport, but 5010 data for the current year is available.

The following definitions will help to differentiate types of air traffic as reported by FAA and U.S. Department of Transportation (USDOT) Air Carrier Activity Information System (ACAIS).

Air Carrier - Airline certified under FAR Part 121. If offering scheduled service, must have nine or more seats. If offering on-demand services, must have 30 or more seats.

Commuter - An airline certified under FAR Part 135 offering scheduled service with fewer than nine seats.

Air Taxi - An airline providing on-demand service certified under FAR Part 121 (if more than 30 seats) or FAR Part 135 (if fewer than 30 seats).

General Aviation - All civil aviation operations other than scheduled air services and non-scheduled on-demand.

Enplanements - Passengers boarding a commercial air carrier or commuter aircraft at the subject airport.

Operations – The number of takeoffs and landings at the subject airport. Each flight generally accounts for two operations (one take off and one landing).

Table 8. 2019 Aviation Statistics from FAA Terminal Area Forecasts and Airport Master Records (not representative of actual 2019 activity levels)

	GULKANA – LAST UPDATED IN 2005	NORTHWAY – LAST UPDATED IN 1994	TANACROSS* - NO TAF DATA – USED 5010	TOK JUNCTION – LAST UPDATED IN 1995
Enplanements	352	0	0	0
Air Carrier	0	0	0	0
Commuter	352	0	0	0
Operations	5,122	15,800	800	2,700
Itinerant	3,546	12,300	800	1,700
Air Carrier	996	0	0	0
Air Taxi & Commuter	540	4,000	0	1,500
General Aviation	1,855	8,000	800	200
Military	155	300	0	0
Local	1,576	3,500	0	1,000
Civil	1,576	3,500	0	1,000
Military	0	0	0	0
Based Aircraft	21	0	0	33
Single Engine	21	0	0	31
Multi Engine	0	0	0	2
Jet	0	0	0	0
Helicopters	0	0	0	0
Other	0	0	0	0

Source: Federal Aviation Administration, Airport Master Records (5010), and Terminal Area Forecasts (TAF).

Table 9 presents historic passenger enplanements at Gulkana, Northway, Tanancross, and Tok Junction Airports for 2010 through 2019.

Table 9. Passenger Enplanements, 2010-2019 from Air Carrier Activity Information System Data

YEAR	GULKANA	NORTHWAY	TANACROSS	TOK JUNCTION	TOTAL	ANNUAL CHANGE
2010	141	55	97	214	507	
2011	136	3	11	227	377	-25.6%
2012	205	7	0	243	455	20.7%
2013	198	9	0	462	669	47.0%
2014	218	21	6	553	798	19.3%
2015	147	15	43	382	587	-26.4%
2016	354	0	0	419	773	31.7%
2017	327	0	57	346	730	-5.6%
2018	406	0	0	224	630	-13.7%
2019	381	0	47	202	630	0.0%
Average Annual Change	**11.7%**	**-100.0%**	**-7.7%**	**-0.6%**	**2.4%**	

Source: USDOT Air Carrier Activity Information System (ACAIS).

The enplanement data in Table 9 is reported in the USDOT ACAIS and is more dependable than indicators of rural Alaska aviation activity reported in the TAF. This count only includes passengers on scheduled air carriers reporting into the system, and often misses enplanements by air taxi companies. However, the parameters of the data over time remain the same, allowing trend analysis. While enplanements at these airports tend to fluctuate over time, the trend between 2010 and 2019 shows an annual average increase of about 2.4 percent per year. Gulkana Airport enplanements increased by an annual average of 11.7 percent over that time period, while Tok Junction Airport enplanements fluctuated up and down.

Table 10 presents FAA TAF historic data for based aircraft at Gulkana, and Tok Junction Airports. While based aircraft at these airports tend to fluctuate over time, the trend since 2010 has been increasing at an average rate of about 0.4 percent per year. Currently, there are no based aircraft at Tanacross or Northway Airports. As with enplanements, Gulkana Airport shows a positive annual average change (4.9 percent), and Tok Junction Airport shows a negative annual average change (-1.5 percent) during this time period.

Table 10. Based Aircraft, 2010-2019 from Federal Aviation Administration Terminal Area Forecast Data

YEAR	GULKANA	TOK JUNCTION	TOTAL	ANNUAL CHANGE
2010	13	39	52	-1.9%
2011	13	39	52	0.0%
2012	13	39	52	0.0%
2013	13	39	52	0.0%
2014	13	39	52	0.0%
2015	13	38	51	-1.9%
2016	13	38	51	0.0%
2017	13	34	47	-7.8%
2018	13	34	47	0.0%
2019	20	34	54	14.9%
Average Annual Change	4.9%	-1.5%	0.4%	

Source: Federal Aviation Administration Terminal Area Forecast Data.

Table 11 presents commercial scheduled air carrier activity reported through the USDOT ACAIS. Activity reported here is for scheduled air traffic, usually by air carriers or commuter airlines. Air taxi traffic is sometimes reported here if that air taxi provides scheduled service somewhere, and so reports in the system. In general, though, air taxi traffic is not reported in ACAIS data.

Table 11 shows that for Gulkana Airport between 2015 and 2019, scheduled operations declined slightly (-0.2 percent), while passengers increased by 21.0 percent. For Tanacross Airport, scheduled operations declined by 10.6 percent while enplaned passengers increased slightly by 1.8 percent. For Tok Junction Airport, both operations (-11.6 percent) and enplaned passengers (-12.0 percent) declined over that four-year period. Commercial traffic at Northway had stopped completely by 2019.

Table 11. Scheduled Commercial Air Traffic Activity from Air Carrier Activity Information System 2015 - 2019

	2015	2016	2017	2018	2019	CHANGE 2015 - 2019
Gulkana Airport						
Commercial Operations	648	612	594	758	654	0.2%
Enplaned Passengers	147	354	327	406	381	21.0%
Deplaned Freight & Mail (lbs)	10,712	2,321	3,036	4,889	3,394	-20.5%
Northway Airport						
Commercial Operations	20	2	2	8	-	-100.0%
Enplaned Passengers	15	-	-	-	-	-100.0%
Deplaned Freight & Mail (lbs)	136	-	-	-	-	-100.0%
Tanacross Airport						
Commercial Operations	28	26	10	-	16	-10.6%
Enplaned Passengers	43	-	57	-	47	1.8%
Deplaned Freight & Mail (lbs)	32	-	-	-	-	-100.0%
Tok Junction Airport						
Commercial Operations	902	800	464	440	488	-11.6%
Enplaned Passengers	382	419	346	224	202	-12.0%
Deplaned Freight & Mail (lbs)	33,376	26,853	18,165	16,566	16,149	-13.5%

Source: USDOT Air Carrier Activity Information System (ACAIS).

3.3.2 PRIOR AVIATION FORECASTS

Prior forecasts for these four airports and the region in general are presented here. For rural airports in Alaska in general and these four subject airports in particular, the FAA TAF system does not forecast growth, so this data is not presented here. Table 12 presents the 2003 air traffic forecast for the study area from the Copper Basin and Upper Tanana Valley Regional Airport Plan (CBUT). This plan did not forecast each airport within the study area individually, but for the region as a whole.

Table 12. Air Traffic Forecast from the Copper Basin and Upper Tanana Valley Regional Airport Plan, 2003

	BASE YEAR 2002	2008	2013	2023	FORECAST ANNUAL GROWTH RATES
Enplaned Passengers					
Low	4,153	3,832	3,644	3,296	-1.0%
Medium	4,153	4,828	5,304	6,403	1.9%
High	4,153	6,374	8,330	14,229	5.5%
Total Operations					
Low	57,652	52,300	49,300	43,700	-1.2%
Medium	57,652	61,400	63,900	69,200	0.8%
High	57,652	70,800	80,500	104,000	2.6%
Based Aircraft					
Low	150	148	146	143	-0.2%
Medium	150	160	166	180	0.8%
High	150	174	192	231	1.9%

Source: Copper Basin and Upper Tanana Valley Regional Airport Plan, November 2003, by ASCG Incorporated for Alaska Department of Transportation and Public Facilities.

Tables 13 through 16 present forecasted data from the 2011 Alaska Aviation System Plan (AASP) developed by DOT&PF. Individual airport data is not available in every case, so census area data is presented where airport data is not available. While the AASP data is old, it represents one of the few forecasts available and shows the relative strength of aviation in the Southeast Fairbanks and Valdez-Cordova census areas that likely persists today. Table 13 presents enplanement growth forecasts in the Southeast Fairbanks and Valdez-Cordova Census Areas.

Table 13. Forecast of Enplaned Passengers by Census Area From the Alaska Aviation System Plan, 2011

CENSUS AREA	BASE YEAR 2008	2020	2030	AVERAGE ANNUAL CHANGE
Southeast Fairbanks	867	1,246	1,529	2.6%
Valdez-Cordova	31,892	36,185	39,100	0.9%

Source: Forecast Report, Alaska Aviation System Plan, by DOWL Engineers for Alaska Department of Transportation and Public Facilities, 2011.

Table 14 presents AASP total aircraft operations forecasts in the Southeast Fairbanks and Valdez-Cordova Census Areas, as well as airport data for Tok Junction and Gulkana Airports.

Table 14. Forecast of Total Aircraft Operations by Airport from the Alaska Aviation System Plan, 2011

CENSUS AREA	AIRPORT	BASE YEAR 2008	2020	2030	AVERAGE ANNUAL CHANGE
Southeast Fairbanks	Tok Junction	2,700	3,065	3,545	1.2%
Census Area Total		23,379	25,649	30,167	1.2%
Valdez-Cordova	Gulkana	5,122	4,812	5,005	-0.1%
Census Area Total		48,628	45,793	47,128	-0.1%

Source: Forecast Report, Alaska Aviation System Plan, by DOWL Engineers for Alaska Department of Transportation and Public Facilities, 2011.

Table 15 presents AASP Based Aircraft forecasts in the Southeast Fairbanks and Valdez-Cordova Census Areas, as well as airport data for Tok Junction and Gulkana Airports.

Table 15. Forecast of Total Based Aircraft by Airport from the Alaska Aviation System Plan, 2011

CENSUS AREA	AIRPORT	BASE YEAR 2008	2020	2030	AVERAGE ANNUAL CHANGE
Southeast Fairbanks	Tok Junction	39	43	49	1.0%
Census Area Total		56	61	69	1.0%
Valdez-Cordova	Gulkana	14	13	13	-0.3%
Census Area Total		83	86	90	0.4%

Source: Forecast Report, Alaska Aviation System Plan, by DOWL Engineers for Alaska Department of Transportation and Public Facilities, 2011.

Table 16 presents AASP forecasts of critical aircraft for the Tok Junction, and Gulkana Airports. This forecast provides both standard and high forecasts of the type of aircraft expected to be critical aircraft at these airports in the future.

Table 16. Forecast of Critical Aircraft from the Alaska Aviation System Plan, 2011

CENSUS AREA	AIRPORT	BASE YEAR 2008	2020	2030	STANDARD/ HIGH
Southeast Fairbanks	Tok Junction	C-207	C-207	C-207	Standard
	Tok Junction	BCH-200	BCH-200	BCH-200	High
Valdez-Cordova	Gulkana	C-185	C-185	C-185	Standard
	Gulkana	BCH-200	BCH-200	BCH-200	High

Source: Forecast Report, Alaska Aviation System Plan, by DOWL Engineers for Alaska Department of Transportation and Public Facilities, 2011.

Note: C-185 = Cessna 185 (ARC A-I), C-207 = Cessna 207 (ARC A-I), and BCH-200 = Beechcraft King Air 200 (ARC B-II).

3.4 Current Airport Character – Gulkana and Northway

3.4.1 GULKANA AIRPORT

The Gulkana Airport is located just off the Glenn Highway near the community of Glennallen. The airport has a 5,001-foot paved runway and a 2,300-foot gravel runway. The airport also offers fuel sales and minor aircraft repair services. Because Glennallen and other nearby communities are on the road system, most freight, mail, and passenger traffic movement is by road. However, Gulkana Airport does have an EAS subsidy (Reeve Air Alaska), and currently receives twice weekly service from Anchorage under that subsidy. Other EAS Subsidy service at Gulkana includes flights between Gulkana and May Creek and McCarthy (Copper Valley Air Service). The airport's proximity to the Park is partially responsible for high air taxi operations. Flightseeing, tours, and back country access for hunting, fishing, and other recreation fuel much of the summer traffic at Gulkana. In addition to a busy summer season, the fall hunting season is quite busy at this airport. Table 9 presents scheduled commercial air traffic into Gulkana between 2015 and 2019.

Air Carrier/Commuter Traffic – Scheduled air carrier/commuter traffic at Gulkana consists of twice weekly service from Anchorage under an Essential Air Service contract, and two or more trips weekly under a U.S. mail contract to nearby communities off the road system (mainly McCarthy and Chitina). Aircraft used for this service are King Air 200s, Cessna 172s, Cessna 185s, Cessna 206s, and De Havilland Beavers. Carriers providing both services expressed plans to increase the number of flights at this airport substantially in 2022.

Air Taxi Traffic - Air taxi traffic into Gulkana Airport is robust, and includes mostly flight seeing, access to recreation, fishing, and hunting in the Park and other back country areas. Backcountry access for goldmine camps, fish hatcheries, remote cabins, remote utility sites, and other off-road areas also create air taxi traffic at this airport. In 2019, only one air taxi had based aircraft at Gulkana, but several air taxis frequently stop at the airport. Charter helicopters connect Gulkana Airport to remote mining camps and other facilities and back country locations in the region. One of the air taxis that frequently uses this airport had planned to increase the number of aircraft in their fleet but dropped those plans due to the Covid-19 economic slowdown. Air taxi operators sometimes convert to skis or wheel skis in winter, and at least one aircraft uses floats in the summer season. One air taxi operator expressed plans to increase their fleet and operations at Gulkana.

General Aviation Traffic - GA traffic includes private aircraft as well as agency aircraft such as fire-fighting tankers, medevacs, and corporate aircraft. There are 12 private aircraft based at Gulkana Airport, accounting for much of the local GA traffic there. The Alaska State Wildlife Troopers and the National Park Service account for three aircraft based at Gulkana Airport. A helicopter based at the airport is chartered to a resource industry and takes nearly daily flights from Gulkana.

During summer and fall hunting season, a large amount of GA traffic by aircraft not based at Gulkana Airport uses the airport to access fuel and other services. Aircraft traveling to and from fly-ins and air shows also use the airport. Medevac flights with King Air 200s account for more than weekly itinerant GA traffic at Gulkana. Agency and corporate aircraft not based at Gulkana also use the airport. These aircraft can include Canadian Air jets, Gulfstream V corporate jets, and Q-400s and Convair fire tankers.

Military Traffic - Military traffic at Gulkana Airport consists mostly of helicopter stops (Blackhawks, Chinooks, and sometimes Apaches). They often arrive in groups and perform touch and goes. Infrequently, military C-130's may visit this airport.

Based Aircraft and Fleet Mix - According to FAA TAF data and anecdotal evidence, the number of aircraft

based at the Gulkana Airport had been decreasing over time[10]. In 2019, there were about 23 aircraft based at Gulkana Airport. Of those craft, 22 are single-engine fixed wing aircraft, and one is a helicopter. Of the single-engine aircraft, seven are commercial air taxis (such as Cessna 172, 185, and 206, and DHC2 Beavers), three are agency aircraft (PA 18 and Cessna 185), and 12 were private aircraft (such as PA 12, PA 18, Cessna 185, and Citabria). The one helicopter (Bell 407) is leased to a corporation from an air taxi company. One air taxi operator expressed plans to increase their fleet and operations at Gulkana. This increase is reflected by adding one single engine aircraft into to the base year based aircraft count at Gulkana Airport.

3.4.1.1 Base Year (2019) Activity Estimates

As discussed at the beginning of this report, base year aviation estimates for Gulkana, Northway, Tanacross, and Tok Junction were developed by Southeast Strategies in 2021 and 2022 using historic data, interviews with airport users and other knowledgeable parties, as well as the judgement of Southeast Strategies. Base year data is estimated because there is no reliable published data for all of the base year categories.

Table 17 presents base year 2019 air traffic estimates for Gulkana Airport.

Table 17. Base Year (2019) Air Traffic Estimates at Gulkana Airport

Enplanements	481
Operations	10,110
Air Carrier/Commuter	738
Air Taxi	2,478
Military	240
Total GA	6,654
GA Local	3,720
GA Itinerant	2,934
Based Aircraft	24
Single Engine	23
Multi Engine	0
Helicopters	1

Source: Southeast Strategies, 2021.

3.4.2 NORTHWAY AIRPORT

Northway Airport is located on the road system a few miles from the Alaska Highway. The airport has a 5,100 foot asphalt runway and a 2,700 foot gravel runway. No fuel or aircraft repair services are available at the airport, but a fuel vendor from Tok Junction will bring in fuel if needed. The area surrounding the airport has a small population and very few services, so does not generate much air traffic. The airport serves as a U.S Customs and Border Protection (CBP) entry point for flights into the state. There are no services at this airport and no based aircraft and the main reason for traffic there is to access CBP

[10] Interview with Christina Weimer, Administrative Assistant, Gulkana Airport, Alaska Department of Transportation and Public Facilities, Glennallen, Alaska.

for entry into and out of Alaska from Canada. Commercial air traffic and air taxi volume is second to transient general aviation traffic volume at this airport.

In addition, the airport receives infrequent traffic from scheduled carriers, and some air taxi and GA traffic, mainly during the summer, and during fall hunting season. Military aircraft include helicopters doing touch and goes, and the occasional C-130 aircraft. Table 9 presents scheduled commercial air traffic into Northway between 2015 and 2019. There was no scheduled traffic in 2019.

The airport hosts an FAA FSS, which keeps track of air traffic that contacts the FSS station at Northway Airport. While not every aircraft landing at Northway contacts the FSS, and not every aircraft contacting FSS lands at the airport, the counts gathered at this airport by FSS are a good representation of air traffic at this airport. FSS staff estimated an average of 10 to 15 operations per day in non-winter months, when there is no firefighting activity.

Air Carrier/Commuter Traffic – Only infrequent commercial traffic lands at Northway, and they may land there in case of emergency or for training.

Air Taxi Traffic – Air taxi traffic at Northway Airport is fairly robust, especially during the summer season, and the fall hunting season. Some of the reasons for this traffic include fishing, hunting, and other recreational activities in the back country, and access to cabins, camps, and other areas off the road system. Some air support for gold exploration and oil drilling takes place from this airport. In addition, Northway Airport is the closest to Chisana Airport, and is often the departure point for flights into Chisana, which is one of the key historic communities in the Park.

General Aviation Traffic – GA traffic during the summer at Northway Airport is reported to be about half for CBP visits and half for recreational opportunities. U.S. Customs reported 172 contacts with aircraft at Northway Airport in 2019. Other GA traffic occurs during the fall hunting season, with a little traffic in winter. Agency aircraft like firefighting and medevacs, as well as corporate aircraft are considered GA. DNR staff report small amounts of firefighting logistics support aircraft sometimes land in Northway if fires are nearby, but tanker aircraft do not typically operate from there.

Military Traffic – Military traffic consists mainly of Blackhawk and Chinook helicopters training with landings and touch and goes. In addition, military C-130s land there on occasion.

Based Aircraft and Fleet Mix – There are no aircraft based at Northway Airport. Considering air taxi and GA aircraft traffic, the Cessna 206 (ARC A-I) is likely the most demanding aircraft at the Northway Airport.

3.4.2.1 Base Year (2019) Activity Estimates

Table 18 presents base year 2019 air traffic estimates for Northway Airport.

Table 18. Base Year (2019) Air Traffic Estimates at Northway Airport

Enplanements	0
Operations	6,298
Air Carrier/Commuter	0
Air Taxi	2,082
Military	474
Total GA	3,742
GA Local	0
GA Itinerant	3,742
Based Aircraft	0
Single Engine	0
Multi Engine	0
Helicopters	0

Source: Southeast Strategies, 2021.

3.5 Current Airport Character – Tanacross and Tok Junction Airports

3.5.1 TANACROSS AIRPORT

The Tanacross Airport is owned by BLM and managed by DNR Division of Forestry. The airport is only open during the summer fire season and serves as a base to refill air tankers with fuel and water/chemical solutions for firefighting. The airport has two paved runways, 4,963 and 4,871 feet long. There are no based aircraft, and no scheduled commercial traffic is available at this airport. While this is technically a public airport, it does not have fuel or other services available for public use and is not generally used by non-firefighting air traffic. However, occasional commercial, air taxi, and GA aircraft use the airport. Table 9 presents the minimal commercial air traffic into Tanacross between 2015 and 2019.

Air Carrier/Commuter Traffic – No commercial scheduled service is available at this Airport. Infrequently, air carriers may land at Tanacross Airport on an emergency basis or for training.

Air Taxi Traffic – Air taxi traffic does not generally use Tanacross Airport. However, air taxis may infrequently use the runway at this airport for emergencies or training. Some air taxi and general aviation users also land at Tanacross to switch gear from wheels to floats and use the adjacent boat ramp to access the Tanana River.

General Aviation Traffic – Since there is no fuel or other services available to the public at Tanacross Airport, and the runway can be busy with large firefighting tankers, GA traffic here is low. Technically, agency aircraft like fire-fighting tankers are considered GA, so tanker traffic is counted in this category.

Military Traffic – Military aircraft generally do not stop at Tanacross Airport.

Based Aircraft and Fleet Mix – There are no based aircraft at the Tanacross Airport. No aircraft landing at Tanacross reach the criteria (500 annual operations) to be considered Critical Aircraft. However, large firefighting air tankers such as the De Havilland Dash 8 (ARC B-III), Q-400 (ARC C-III), MD-87 (ARC C-III), RJ-85 (ARC C-III), BAE-146 (ARC C-III), C-130 (ARC C-IV) and the Convair 580 (ARC B-III) are likely the most demanding aircraft at this airport. The Convair 580 is being phased out. According to the firefighting

management staff the large tanker aircraft made from 0 to 70 landings per year over the last 10 years, with an average of 15.4 per year. They estimated an average of about seven landings of smaller support aircraft, for a total average of about 23 aircraft landings (46 operations) per year over the last 10 years.

3.5.1.1 Base Year (2019) Activity Estimates

Table 19 presents base year 2019 air traffic estimates for Tanacross Airport.

Table 19. Base Year (2019) Air Traffic Estimates at Tanacross Airport

Enplanements	47
Operations	290
Air Carrier/Commuter	16
Air Taxi	20
Military	0
Total GA	254
GA Local	0
GA Itinerant	254
Based Aircraft	0
Single Engine	0
Multi Engine	0
Helicopters	0

Source: Southeast Strategies, 2021.

3.5.2 TOK JUNCTION AIRPORT

The Tok Junction Airport is located in the community of Tok, just off the Alaska Highway near the junction with the Glenn Highway (Tok Cutoff). The area has a much higher population and a larger number of visitors than the Gulkana Airport area, so although it has a smaller runway, Tok Junction Airport has more air traffic than Gulkana Airport, Northway, and Tanacross Airports. Tok Junction Airport has one paved 2,509-foot runway. The length of the runway limits the size of the aircraft using the airport. The gravel runway shoulder is used informally for takeoffs and landings by tundra-tired aircraft and is maintained with snow for ski operations in the winter. 40 Mile Air indicates there are more operations on the gravel surface than the paved surface during hunting season. They estimated about 4,500 gravel operations and 210 ski operations over the course of an average year.

Fuel sales are available at the airport through a private business, but no aircraft repair services for public use. Because Tok is on the road system, most freight, mail, and passenger traffic movement is by road. However, Tok Junction Airport does receive contract air mail service between Fairbanks and Tok Junction, and between Tok Junction and off-road communities such as Chicken, Chisana, and Healy Lake. Flight seeing, tours, and back country access for hunting, fishing, and other recreation fuel much of the summer traffic at Tok Junction, in particular to access both the Yukon Charlie Rivers National Preserve and the Wrangell St. Elias National Park. In addition to a busy summer season, the fall hunting season is quite busy at this airport.

Because of its short runway, air traffic at the Tok Junction Airport is generally made up of smaller aircraft, but a larger volume of them. Pre-covid trends were for strong traffic growth at this airport. Table 9 presents

scheduled commercial air traffic into Tok Junction between 2015 and 2019.

Air Carrier/Commuter Traffic – Scheduled air carrier/commuter traffic at Tok Junction consists of two or more trips weekly under a U.S. mail contract from Fairbanks, and to nearby communities on and off the road system (mainly Chicken, Chisana, and Healy Lake). Aircraft used for this service are mainly Cessna 206s.

Air Taxi Traffic - Air taxi traffic includes mostly flight seeing, access to recreation in the Yukon Charlie Rivers National Preserve, Wrangell St. Elias National Park, and other back country areas. Backcountry travel to goldmine camps, fish hatcheries, remote cabins, remote utility sites, and other off-road areas also creates air taxi traffic. In 2019, only two air taxis had based aircraft at Tok Junction, but several regional air taxis stop at the airport. Air taxi operators sometimes convert to skis or wheel skis in winter, and floats in summer season.

General Aviation Traffic – GA traffic at Tok Junction Airport includes private aircraft as well as agency aircraft, medevacs, Civil Air Patrol, and corporate aircraft. During summer and the fall hunting season, a large amount of GA traffic by aircraft not based at Tok Junction Airport uses the airport to access fuel and other services. Agency and corporate aircraft not based at Tok Junction also use the airport. Because Tok Junction is close to the Northway and Tanacross Airports, both of which generally have no fuel available for the general public, much of that itinerant GA traffic also lands at the Tok Junction Airport for fuel and other services. In addition, groups of private planes land at Tok Junction during fly-ins, for travel from the Lower 48 or on the way to and from airshows. Because of its higher population and volume of visitors, frequent medevac flights by one based air taxi and other companies not based at Tok add to the GA traffic at the airport.

Military Traffic - Military traffic at Tok Junction Airport consists mostly of helicopter stops (Blackhawks and Chinooks). They often arrive in groups and perform touch and goes.

Based Aircraft and Fleet Mix - In 2019, 30 aircraft were based at Tok Junction Airport. Of those aircraft, 27 are single-engine fixed wing, one is a twin-engine fixed wing, and two are helicopters. Of the single-engine aircraft, 15 are operated by commercial air taxis, two are agency aircraft, and ten are private aircraft. These single-engine aircraft are mainly Cessna 185s, Cessna 206s, Cessna 207s, and PA18 Super Cubs. Two helicopters and a twin-engine air ambulance (PA 31 Navajo) are also based at the airport. The U.S. Fish and Wildlife Service and the Civil Air Patrol account for two single-engine aircraft based at Tok Junction Airport.

The current critical aircraft at Tok Junction Airport is estimated to be the Cessna 207 (ARC A-I). The Cessna 206 and 207s are used by air taxis and agencies landing at Tok Junction Airport, and while an exact count of those operations is not available, that number is likely 500 or more. Other larger aircraft reported to use the airport include the Pilatus PC 12 (ARC A-II), Navajo Chieftain (ARC B-I), Beechcraft King Air 200 (ARC B-II) and Cessna Conquest (ARC B-I). The Tok Ambulance Service reported 332 medevac operations in 2021 using Beechcraft King Air 200 and Navajo Chieftain aircraft.

3.5.2.1 Base Year (2019) Activity Estimates

Table 20 presents base year 2019 air traffic estimates for Tok Junction Airport.

Table 20. Base Year (2019) Air Traffic Estimates at Tok Junction Airport

Enplanements	202
Operations	11,696
Air Carrier/Commuter	488
Air Taxi	6,056
Military	280
Total GA	4,872
GA Local	1,330
GA Itinerant	3,542
Based Aircraft	30
Single Engine	27
Multi Engine	1
Helicopters	2

Source: Southeast Strategies, 2021.

3.6 Air Traffic Forecasts – Tanacross and Tok Junction Airports

3.6.1 AVIATION TRENDS AND ASSUMPTIONS

The main drivers of aviation growth in the study area are population, visitor growth, and the Manh Choh mine.

3.6.1.1 Population

- Population in the study area declined slightly over the last ten years and was forecasted by the DOL&WD to remain mostly flat (see Tables 1 and 2). However, population would likely trend upward if the Manh Choh mine moves from exploration to development, and even more if further exploration uncovers more recoverable minerals. The mine is expected to hire 400 to 600 new employees, many of whom would move to Tok, increasing the communities' population from mine employees and from employees of businesses that serve the mine and its employees.
- The population of pilots in the region and in Tok Junction have increased in the last five to ten years, though 40 Mile Air reports some difficulty recruiting enough pilots to keep up with demand.

3.6.1.2 Tourism

- Alaska had strong growth in visitor numbers between 2016 and 2019 and during Covid-19 saw reduced numbers. Anchorage, Fairbanks, and Juneau International Airport now report double digit growth in passenger counts in 2022 compared to 2021 and the respective communities report a seven to nine percent increase in hotel occupancy. Cruise passengers in 2022 were approaching levels seen in 2019 and more cruise ships are forecasted to visit Alaska in 2023.
- Recent growth in visitor volume at the Wrangell St. Elias National Park and Preserve has been robust (annual average increase of 5.2 percent between 2000 and 2019), though it slowed some between 2010 and 2019 (0.2 percent annual average increase). Aviation and visitor industry representatives

with knowledge of the study area expect strong growth of visitor volume in the study area into the future. 40 Mile Air reports that visitor traffic has picked up and they expected tourism traffic to be back to pre-pandemic levels in the next few years.

3.6.1.3 Mining

- 40 Mile Air and others have provided air support for the Mahn Choh Mine from the Tok Junction Airport during the mine's exploration phase. Today aviation support is mostly provided by helicopters to sites not accessible by the road that has been built to the site.
- If the Mahn Choh Mine moves to the production phase, most transportation activity from the mine would be on the road system. However, the Tok Junction Airport could see some air passenger and freight demand from local residents working at the mine and local residents providing services to mine workers, from flying in urgent mine parts/equipment, and from mine executives and employees not living in the region. Some residents earning high mine wages will also likely be pilots who would want to base their private aircraft at the Tok Junction Airport.
- Some residents reported that they would fly to Fairbanks to avoid the large mine trucks hauling ore on the highway.

3.6.1.4 Other

- 40 Mile Air predicts hunting traffic and adventure flights will continue to grow and then flatten as demand begins to exceed the supply of high-quality hunting/adventure locations in the region. The high cost of these types of charter flights also limits demand.
- Medevac operations have increased from an average of 260 operations per year from 2014 to 2018 to an average of 300 operations per year from 2019 to 2022 and will continue to grow slowly. The Mahn Choh Mine should also increase medevac demand. A longer runway would allow 40 Mile Air to upgrade to a larger, faster medevac aircraft and allow for more flights by larger aircraft from Lifemed and Guardian, the other medevac providers. Lifemed and Guardian have sometimes been unable to serve this airport with their King Air aircraft due both to weather conditions as well as the short/narrow runway.
- Tok Junction has a relatively new regional clinic that serves Tok as well as outlying communities. Clinic employees and 40 Mile Air report the additional air travel by doctors and nurses and residents of outlying communities is somewhat offset by the fact that some local patients now can obtain medical services at this clinic instead of having to fly to Fairbanks.
- 40 Mile Air reports that overall airport operations by all users have increased slowly, including over the last 10 years. 40 Mile Air has more operations and more aircraft than they had 10 years ago, and they expect this trend to continue.

3.6.2 GROWTH RATES

Table 21 to Table 24 present historic and forecasted growth rates in air traffic indicators, population, and visitor volume that are considered in developing these forecasts.

Table 21 presents historic growth trends for aviation indicators and drivers (in particular, population and visitor volume). All of these time frames either end pre-Covid, or they were developed prior to the pandemic.

Table 21. Estimated Historical Annual Growth in Aviation Indicators from Various Sources

INDICATOR	STUDY/SOURCE	TIME PERIOD	TANACROSS AIRPORT	TOK JUNCTION AIRPORT
Enplanements	AASP	2008-2030	2.6%	2.6%
Enplanements	ACAIS	2010-2019	-7.7%	-0.6%
Commercial Operations	ACAIS	2010-2019	-4.4%	-2.6%
Total Operations	AASP	2008-2030	1.2%	1.2%
Based Aircraft	AASP	2008-2030	NA	1.0%
Park Visits	NPS	2000-2019	5.20%	5.20%
Medevac Operations	Tok EMS	2014 - 2021	N/A	2.9%
Population forecast	DOL&WD	2025-2045	-0.2%	-0.2%

Source: Southeast Strategies, 2021.

AASP = Alaska Aviation System Plan Forecasts, 2008.
Current = Estimates developed for this report.
ACAIS = Air Carrier Activity Information System.
NPS = National Park Service
DOL&WD = Alaska Department of Labor and Workforce Development

3.6.3 AIR TRAFFIC GROWTH RATES AND FORECASTS

3.6.3.1 Tanacross - Assumptions

- Relocating firefighting operations to Tok Junction between 2025 and 2030 eliminates an average of 46 operations per year
- The airport shows a steady decline in use but remains open.

3.6.3.2 Tanacross - Growth Rates

Enplanements – Remain flat and then steadily decrease (-3.0 percent) after 2028 as the airport deteriorates and Tok Junction offers a better facility with services.

Scheduled Commercial Operations - Remain flat and then steadily decrease (-3.0 percent) after 2028 as the airport deteriorates and Tok Junction offers a better facility with services.

Total Operations – Remain flat and then decrease (-15.0 percent) in 2028 after fire operations relocate to Tok Junction. Continue to decrease by two percent per year as the airport deteriorates and Tok Junction

offers a better facility with services.

Based Aircraft – No aircraft base at this airport.

Table 22. Tanacross Airport Forecasts, 2019 to 2045

	2019 BASE YEAR	2025	2030	2035	2045
Enplanements	47	47	44	37	29
Scheduled Commercial Operations	16	16	15	13	11
Total Operations	290	290	247	214	175
Based Aircraft	0	0	0	0	0

Source: DOWL.

3.6.3.3 Tok Junction – Assumptions

- Health impacts of the Covid-19 pandemic will be under control by 2022, but because of continued economic imbalances, inflation, potential recession, and other factors, the local economy will not completely return to 2019 levels until 2024.
- Population will remain flat until 2024, when the Mahn Choh Mine has proposed beginning operations, after which population will increase for at least five to ten years.
- DNR fire response activities leave Tanacross and move to the Tok Junction Airport by 2028, after the Tok Junction runway is extended and other improvements are made, which shifts an average of 46 operations per year to Tok Junction.
- A full rebound to 2019 visitor levels will occur by 2024. Post-2024 growth in visitor volume will be similar to the growth rates of the last 20 years.
- Mine operations increase local population and generates growth in aviation demand from local employees, non-local employees, visiting mine executives, and an increase in time sensitive air freight deliveries.
- A longer runway with improved approaches at Tok Junction stimulates a small amount of additional enplanements and commercial operations
- Medevac operations at Tok Junction will continue to grow at about two percent per year. Opening of the mine could also increase medevac operations.
- Based aircraft changes at Tok Junction will have strong correlation to population changes.

3.6.3.4 Tok Junction - Growth Rates

Enplanements – Initially use ACAIS from 2010 to 2019 (-0.6% percent) since it represents actual trend data and adjust upward to 0.5 percent after 2025 to account for growth in population, visitors, and mine operations.

Scheduled Commercial Operations – Initially use ACAIS from 2010 to 2019 (-2.6 percent) since it represents actual trend data and adjust upward to .5% after 2025 to account for growth in population, visitors, and mine operations.

Total Operations – Initially use 0.5 percent estimate and adjust upward to 1.0 percent after 2025 to account for growth in population, visitors, and mine operations and an estimated annual increase in firefighting operations (average increase of 46 operations per year) and medevac flights (average increase of nine flights per year)

Based Aircraft – Use 1.0 percent to account for growth in population, visitors, and mine operations.

Table 23. Tok Junction Airport Forecasts, 2019 to 2045

	2019 BASE YEAR	2025	2030	2035	2045
Enplanements	202	195	201	207	219
Scheduled Commercial Operations	488	428	441	452	475
Total Operations	11,696	12,051	12,666	13,312	14,703
Based Aircraft	30	32	34	37	43

Source: DOWL

3.6.4 CRITICAL AIRCRAFT FORECASTS

The current critical aircraft at Tok Junction Airport is estimated to be the Cessna 207 (ARC A-I). While this existing critical aircraft is consistent with the ultimate critical aircraft in the most recent airport layout plan, that airport layout plan identifies the existing and ultimate runway design code as B-I. Scheduled commercial operations reported on ACAIS show the Cessna 172 having the most air carrier/commuter operations at this airport in 2019, accounting for 350 scheduled operations in that year. The Cessna 206 and 207s are used by air taxis and agencies landing at Tok Junction Airport, and while an exact count of those operations is not available, that number is likely 500 or more. Other larger aircraft reported to use the airport include the Pilatus PC 12 (ARC A-II), Navajo Chieftain (ARC B-I), Beechcraft King Air 200 (ARC B-II) and Cessna Conquest (ARC B-I). The Navajo and King Air are used for approximately 300 operations per year for medevac flights.

Once the Tok Junction runway is extended, over 300 medevac operations per year will be by Beechcraft King Air sized aircraft, as that is what Guardian and Lifemed currently use, and 40 Mile Air has plans to

acquire that or a similar aircraft if the runway is extended. 40 Mile Air reports they would also likely continue operations with their Navajo Chieftain for non-medevac flights, likely charter flights. Large firefighting air tankers such as the De Havilland Dash 8 (ARC B-III), Q-400 (ARC C-III), MD-87 (ARC C-III), RJ-85 (ARC C-III), BAE-146 (ARC C-III), and the C-130(ARC C-IV) are proposed to move operations to the Tok Junction airport, once the runway is extended and other improvements are made. According to the firefighting management staff the large tanker aircraft made from 0 to 70 landings over the last ten years at Tanacross, with an average of 15.4 per year. They estimated an average of about seven landings of smaller support aircraft, for a total average of about 23 aircraft landings (46 operations) per year over the last ten years at Tanacross. This same number of operations are expected at Tok Junction. Increased global warming could cause corresponding increases in fires and firefighting aircraft operations at Tok Junction and elsewhere in Alaska.

The combined operations of medevac flights (over 300 per year and growing by about nine per year), firefighting operations (an average of about 50 per year), and other corporate, air taxi, and other corporate and air taxi flights expected following the runway extension, and ongoing visitor, mining, and population growth, support the Beechcraft King Air as the ultimate critical aircraft within the next five to ten years. This is also consistent with critical aircraft forecasted in the Alaska Aviation System Plan.

Table 24. Critical Aircraft Forecast, 2019 to 2045 - Tok Junction Airport

TOK JUNCTION AIRPORT	AASP FORECAST THROUGH 2030	2019 BASE YEAR/EXISTING	ULTIMATE
Standard	Cessna 207	Cessna 207	BCH King Air 200
High	BCH King Air 200		

Source: DOWL

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- Vanessa Thompson, Operations Manager, 40-Mile Air Service, Tok, Alaska.
- Zack Knaeble, Owner, Tok Air Service, Tok, Alaska.
- Sam Jennings, Tok Junction Airport Manager, Alaska Department of Transportation and Public

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- Christina Weimer, Administrative Assistant, Gulkana Airport, Alaska Department of Transportation and Public Facilities, Glennallen, Alaska.
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- Randy Warren, Tanacross Fire Service Base Manager/Airport Manager, Division of Forestry, Alaska Department of Natural Resources, Tanacross, Alaska.
- Jason Jordet, Fixed Wing Aviation Manager, Division of Forestry, Alaska Department of Natural Resources, Palmer, Alaska.
- Officer Mitchell, U.S. Customs and Border Protection, Alcan, Alaska.
- Taryn Hughes, Business Development Specialist, Guardian Flight, Fairbanks, Alaska.

CHAPTER 4. RECOMMENDED TOK JUNCTION REGIONALLY SIGNIFICANT AIRPORT

4.1 CRITICAL AIRCRAFT AND RUNWAY DESIGN CODE

According to the existing airport layout plan, the current existing Runway Design Code (RDC) for Runway 7-25 and proposed crosswind runway 16-34 is B-I and for the Runway 7R-25L ski strip is B-I (Small). Based on the forecast in this report the King Air, an ADG-B-II aircraft, is the ultimate critical aircraft. Therefore, this report proposes Runway 7-25 be updated to a B-II runway to meet the ultimate critical aircraft, a Beechcraft King Air. The critical aircraft for the gravel/ski strip is the Cessna 207 with an A-1 RDC.

According to FAA AC 150-5300 13B Section 2.3.2, 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 recommended. According to the current ALP, Runway 7-25 has 93.5 percent wind coverage using 10.5 knots and a B-I RDC, so a crosswind runway is recommended. However, if the RDC is revised to B-II with a 13 knots crosswind component, a crosswind runway may no longer be justified according to the AC. A new windrose should be developed with the next airport layout plan to confirm eligibility/need for the crosswind runway. As an alternative to a crosswind runway, Runway 7-25 may be widened to the next widest classification, to the B-III standard, to improve operations during crosswind conditions.

4.2 RUNWAY LENGTH/REQUIREMENTS - RUNWAY 7-25

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 Tok, Alaska is July, with an average maximum temperature of 74 degrees Fahrenheit (°F). The elevation of Runway 7-25 is 1,642.75 feet. A runway length analysis performed using the criteria in FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design* is shown in Table 25. This analysis indicates that the present runway length of 2,509 feet should be extended to 4,050 feet to meet future operational demands for all small airplanes. The King Air 200, the proposed ultimate critical aircraft, is used by medevac providers, who also indicated this aircraft should operate on a minimum paved runway length of 4,000 feet, considering Tok Junction Airport's elevation and temperatures.

FAA AC 150/5300-13B *Airport Design* advises that runways intended for B-II aircraft have a width of 75 feet with 10-foot shoulders as a minimum. Runway 7-25 is currently 50 feet wide. For a more comprehensive list of Runway 7-25 requirements refer to Table 26.

Table 25. Runway 7-25 Length Analysis

Runway 7-25	
Mean Daily Max Temp. of the Hottest Month of Year: Airport Elevation: Service:	74°F (July) 1,642.75 feet (MSL) 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 **100 percent of these small airplanes**	 3,500' **4,050'**
Small airplanes with 10 or more passenger seats	4,250'
Department of Natural Resources aircraft	**5,000' (minimum)**

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

DNR Forestry firefighting staff indicate a minimum 5,000 by 75 feet of runway length is needed for their existing and proposed fleet. Because DNR firefighting aircraft are not expected to have at least 500 annual operations, this additional 950 feet of runway length is unlikely to be eligible for FAA AIP funding and would have to be paid for from other funding sources. However, this does increase the proposed runway length to 5,000 feet.

Table 26. Runway 7-25 Requirements

Runway	**Ultimate Standard***	**Existing Condition**
Runway 7-25 (NPI/Visual)	**B-II <1 SM**	**B-I >1 SM**
Runway Length	4,050' (74°, 1642.75'MSL) **5,000' (DNR need)**	2,509'
Runway Width	75'	50'
Runway Safety Area Width	150'	120'
Runway Safety Area Length Beyond RW End	300'	240'
Runway Object Free Area Width	500'	400'
Runway Object Free Area Length Beyond RW End	300'	240'
Runway to Parallel taxiway/taxilane centerline	240'	No Parallel Taxiway

Sources: FAA AC 150/5300-13B

4.3 RUNWAY LENGTH/REQUIREMENTS - RUNWAY 7R-25L

Pilots currently takeoff and land on an informal gravel surface along the south shoulder of Runway 7-25. The current ALP shows a proposed 1,900-feet by 60-feet gravel/ski runway along the south side of Runway 7-25. As noted in the forecast, this runway is used year-round by commercial, government, and private aircraft, and is especially busy during fall hunting season. The proposed dimensions for the gravel/ski runway are shown in Table 27.

Table 27. Proposed 7R/25L Runway Requirements

Runway	FAA Design Standard
Runway 7R-25L (Visual)	**A-I (Small)**
Runway Length	1,900 feet
Runway Width	60 feet
Runway Shoulder Width	10 feet
Runway Safety Area Width	120 feet
Runway Safety Area Length Beyond RW End	240 feet
Runway Object Free Area Width	250 feet
Runway Object Free Area Length Beyond RW End	240 feet
Parallel taxiway/taxilane centerline	150 feet
Aircraft parking area	250 feet

Sources: FAA AC 150/5300-13B

4.4 OTHER PLANNING ISSUES

During the evaluation of the alternatives and public review additional research was completed for several topics related to expansion of the Tok Junction Airport.

4.4.1 RUNWAY APPROACHES/LOWER MINIMUMS

The FAA Air Traffic Organization completed a preliminary analysis of the feasibility of improved approaches with lower minimums at the Tok Junction Airport. They reported that a Localizer Performance with Vertical Guidance (LPV) approach (vertical and lateral aircraft guidance) with 300-foot minimums appeared to be feasible on Runway 7. They also reported that a Localizer Performance (LP) approach (lateral guidance only) with 400-foot minimums appeared to be feasible for Runway 25.

During the preparation of the Airport Layout Plan, an aeronautical survey should be completed to facilitate FAA's formal evaluation of improved approaches.

4.4.2 LAND OWNERSHIP

Tanacross Inc. was contacted about their interest in selling land to the DOT&PF for expansion of the Tok Junction Airport. Their response was they would like to support airport expansion by providing land, would prefer to lease rather than sell land, and that they would like the expansion to allow the corporation to have ready access to the airport for adjacent businesses that might support the airport with fuel sales, warehousing etc. Leasing land for future airport expansion may not be supported by the FAA, and this will need to be discussed further with Tanacross Inc. and the FAA when the property acquisition process begins.

4.4.3 FORESTRY

The Department of Natural Resources Forestry firefighting staff examined the Tok Junction Airport alternatives shown in Chapter 2 of this report. They requested that "elephant ear" turnarounds be added to both ends of Runway 7-25 to facilitate turnarounds by the Bombardier Q400 aircraft that would use the runway. The taxiways and apron layout should also consider the wide landing gear spread of this aircraft. The tie downs on the existing apron may need to be relocated to permit taxiing by this and other larger aircraft. They indicated a minimum apron and lease lot size of 300 feet by 300 feet would be needed.

4.4.4 US CUSTOMS SERVICE AND BORDER PROTECTION

Airport users noted that some aircraft are allowed to fly directly to Tok Junction and bypass U.S. Customs clearance at Northway. After refueling at Tok Junction they are required to clear U.S. Customs in Anchorage or Fairbanks. Some also choose to fly to Tok Junction because the U.S. Customs operating hours in Northway are 9 AM to 3 PM and there is no gas or other services in Northway.

The U.S. Customs Service and Border Protection was asked whether it would make sense to relocate customs staff to the Tok Junction Airport once it was upgraded and had a greater regional role. U.S. Customs staff suggested that the current arrangement works well because the border station is near the Northway Airport, making it easy to shift staff from the border station to the airport when needed. They indicated the amount of air traffic crossing the border and needing to clear U.S. Customs is not high enough to station a dedicated staff person at Tok.

The Infrastructure Bill included a new border station. A site selection and environmental document for a new border station is underway. That site selection currently proposes a new border station at or within several miles of the current border station, and a site near Tok is not currently being considered. A rail connection between Alaska and Canada has also been studied. If built, it includes a proposed new U.S. Customs border station near Tok to handle rail shipments.

4.4.5 FLIGHT SERVICE STATION

FAA's regional Flight Service manager was asked if it made sense to relocate the FSS operations at the Northway Flight Service Station to an upgraded Tok Junction Airport. He noted that the FAA has invested in a FSS office and housing at Northway that would have to be replaced, and that relocation is unlikely and would be decided at FAA Headquarters.

4.4.6 DOG MUSHING TRAILS

The Tok Dog Musher Association's Dog Musher Hall is on the Alaska Highway northeast of the airport, and dog mushing trails extend eastward from the hall, as shown in Figure 19 below. A small section of the trail may need to be rerouted with the proposed extension of the runway.

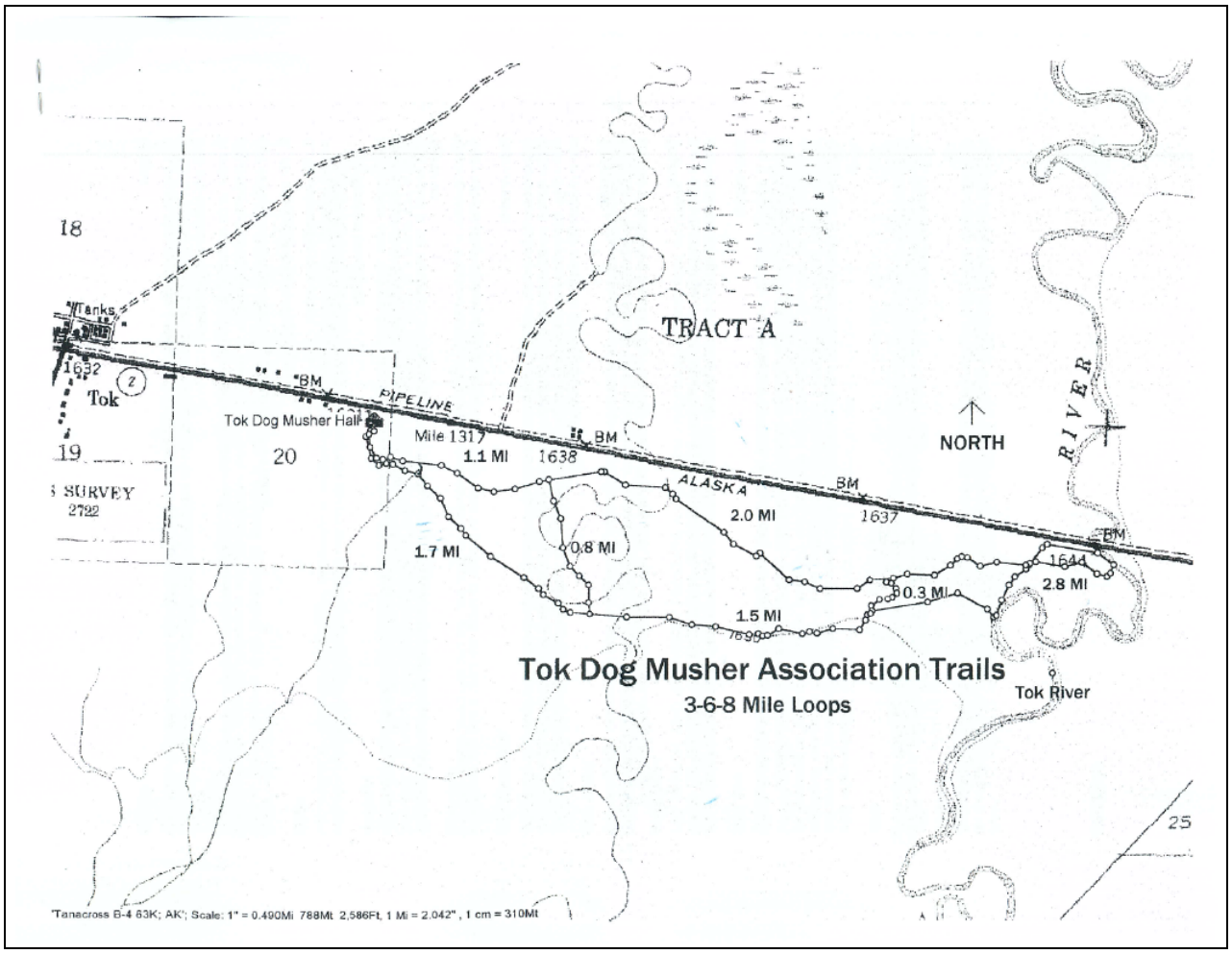


Figure 19: Tok Dog Musher Hall and Trails

4.5 RECOMMENDED TOK JUNCTION AIRPORT LAYOUT AND COSTS

4.5.1 TOK JUNCTION AIRPORT RECOMMENDED PLAN

Figure 20 depicts a recommended plan that addresses public and DOT&PF comments. It shifts the runway slightly to the east, widens the runway to 75 feet and extends the runway to 5,00 feet to accommodate the King Air critical aircraft and aircraft flown by DNR Forestry firefighting aircraft. It provides turnarounds at both runway ends. The extended runway would have a new lighting system and PAPIs. Indirect taxiway access is provided to the runway from the north and south aprons. The south apron is expanded with more lease lots, relocated tie downs, and space for a 300-foot by 300-foot DNR Forestry apron and lease lot.

The recommended plan is an ultimate layout that also includes elements like full parallel taxiways and a crosswind runway that are unlikely to be funded and built for many years. This plan is very similar to the current ALP and contains elements of Aviation Project Evaluation Board projects nominated in 2014 and 2018 that showed a runway extension to 4,000 feet.

DOT&PF M&O staff in Tok indicate that, aside from a new snowblower, the expansion of the airport should not require additional equipment, a new snow removal equipment building, or relocation of airport

maintenance and operations staff and facilities to the airport from the current off-airport location. However, they advise that maintaining the expanded facility may require additional M&O staff.

4.5.2 TOK JUNCTION AIRPORT DEVELOPMENT PHASING AND COSTS

Figure 21 shows how the Recommended Plan can be phased and Appendix B shows the costs for each phase of the Recommended Plan. The phased plan begins with an airport layout plan and possibly an airport master plan, an aeronautical survey, and an environmental assessment in phase 1.

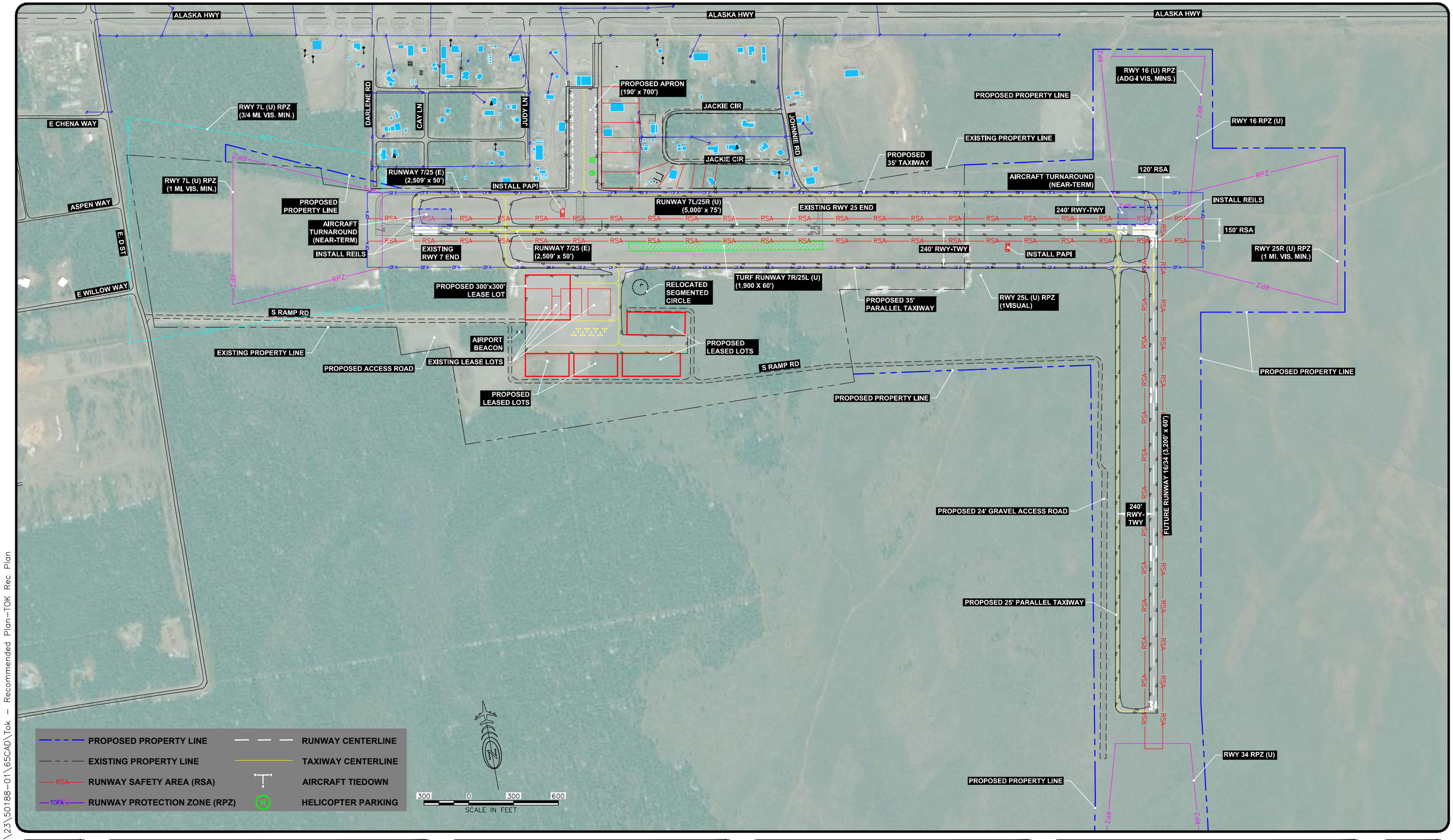
Phase 2A includes property acquisition, extending the runway to 4,050 feet and widening it to 75 feet, new electrical service to the airport and a new runway and taxiway lighting system, a gravel/ski runway, relocated taxiway connectors to the north and south aprons, taxiway connection to runway, a partial parallel taxiway connection from the north apron to Runway 7L, PAPI's and segmented circle, and apron and road expansion.

Phase 2B includes most of the elements of Phase required to extend the runway to 5,000 feet to meet DNR Forestry requirements. Funding for this phase is likely to come from sources outside of DOT&PF and FAA.

Phase 3 adds a full parallel taxiway on the north side of the runway.

Phase 4 includes a crosswind runway, parallel taxiways, and a road extension.

Appendix B shows cost estimates for each of these phases.



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION–AVIATION

APPROVED: _____ DATE _____
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

BY	DATE	REVISIONS	FAA

BY	DATE	REVISIONS	FAA

UPPER TANANA AIRPORT PLANNING STUDY

FIGURE 20: TOK JUNCTION AIRPORT RECOMMENDED PLAN

SHEET 1 OF 1

PROPOSED APRON (190' x 700')

PROPOSED PROPERTY LINE

EXISTING PROPERTY LINE

PROPOSED 35' TAXIWAY

AIRCRAFT TURNAROUND (NEAR-TERM)

PROPOSED PROPERTY LINE

RUNWAY 7L/25R (U) (5,000' x 75')

EXISTING RWY 25 END

EXISTING RWY 7 END

RUNWAY 7/25 (E) (2,509' x 50')

PROPOSED 300'x300' LEASE LOT

RELOCATED SEGMENTED CIRCLE

TURF RUNWAY 7R/25L (U) (1,900 X 60')

PROPOSED 35' PARALLEL TAXIWAY

AIRPORT BEACON

EXISTING PROPERTY LINE

PROPOSED PROPERTY LINE

PROPOSED PROPERTY LINE

FUTURE RUNWAY 16/34 (3,200' x 60')

PROPOSED 24' GRAVEL ACCESS ROAD

PROPOSED 25' PARALLEL TAXIWAY

PROPOSED PROPERTY LINE

Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT/FAA Funding)

Phase 2A: Property Acquisition

Phase 2B: Runway Extension & Widening (Not DOT&PF/FAA Funding)

Phase 2B: Property Acquisition

Phase 3: Full Parallel Taxiway

Phase 4: Crosswind Runway & Parallel Taxiway

Phase 4: Property Acquisition

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SCALE IN FEET

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NORTHERN REGION-AVIATION

APPROVED:

DATE

ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

BY	DATE	REVISIONS	FAA

BY	DATE	REVISIONS	FAA

UPPER TANANA AIRPORT PLANNING STUDY

FIGURE 21: TOK JUNCTION AIRPORT RECOMMENDED PLAN - PHASING

SHEET 1 OF 1

4.6 ITEMS TO BE INVESTIGATED DURING ALP

The first phase of the Recommended Plan includes preparation of an airport layout plan. There are several remaining issues that should be investigated during the ALP phase. Some of these items, like the location of the ski runway, would benefit from more user input.

- **Windrose.** Update the wind rose for RDC B-II with a 13-knot crosswind component and determine whether a crosswind runway is eligible under this RDC and crosswind component. Consider whether a wider runway is a better option than a crosswind runway.
- **Ski/Gravel Runway.** Determine whether the informal ski/gravel runway should remain on the south side of the paved runway or if a location on the north side closer to most of the existing airport users is more advantageous.
- **Dog Mushing Trails.** The Tok Dog Mushers Association should be consulted with about potential relocation of a segment of their dog mushing trails.
- **Property Acquisition.** Tanacross Inc., DOT&PF, and the FAA should have an initial discussion about property acquisition required, and the feasibility of leasing versus a fee simple acquisition. DOT&PF should also determine whether property acquisition for all phases should be completed during phase 2A.
- **North and South Apron Lease Lots and Tie Downs.** The new ALP should confirm whether property acquisition on the east side of the North Apron should be proposed. The new ALP should confirm the number and location of tie downs on the South Apron and whether they should be closer to the gravel/ski strip. The new ALP should reconfirm the timing, demand, and configuration of apron/road/lease lot expansion on the South Apron.

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Appendix A
Public Meeting Records

MEETING OUTCOME SUMMARY

Participating Groups:	**DOT&PF, DOWL, Uqaqti Consulting, FAA, Alaska Division of Forestry, Copper Valley Development Association, 40 Mile Air, Copper Valley Chamber of Commerce, Doyon Ltd, Office of Rep. David Eastman, Mendas Cha-ag Native Corporation, Alaska Gatway School District, Alaska Power & Telephone, Upper Tanana Region Residents**
Meeting Subject:	**UTAPS Project**
Public Meeting Date:	**December 1, 2022**
Communication Method:	**In-person Open House & Teleconference Line**
Location:	**Tok Senior Center**
Logged Date:	**12/6/2022**

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Judy Chapman	Chief Planner, DOT&PF	Sara Lucey	Project Manager, DOT&PF
Melissa Osborn	Project Manager, DOWL	Tom Middendorf	Assistant Project Manager, DOWL
Joy Huntington	Public Lead, Uqaqti Consulting		

AGENDA

Item	Agenda Item	Lead Person	Duration
1.	Welcome	Melissa Osborn	
2.	Presentation (during the presentation, DOWL shared the findings of their research – the only plausible regionally significant airport would be the Tok Junction Airport). Several Tok Junction Airport alternatives were presented.	Melissa Osborn and Tom Middendorf	
3.	Questions/Comments	All	

DISCUSSION OUTCOMES

1. Tok Junction Airport Comments:
   - Tok Junction is important for both medivac and regular medical appointment flights.
   - The US Customs staff have to drive on a narrow road to get to Northway and aircraft can't always get to Northway. They would be better served at Tok.
   - Will these improvements to Tok Junction Airport score high for funding or not? **Response:** *DOT&PF submitted a project for this airport about 5 years ago. It scored a bit low and did not move ahead.*

	• The ski/gravel runway at Tok is very important for commercial and private users. It handles a large share of the flights at the airport. DOT has done a good job with making this runway available. • The new clinic in Tok is a center for flying patients in and out from the region. This should increase priority for funding. • Funding decisions should also consider Tok Junction Airport's role in serving drivers who transit through Tok. Example of a busload of tourists who needed to be flown out because of Covid issues. • Would the US Customs or Flight Service Station relocation to Tok Junction Airport influence funding for airport improvements? **Response:** *It could have some influence, but would not make or break funding decisions.* • Are there plans to fence the Tok Airport? **Response:** *None at this time* • The crosswind airstrip would be beneficial to existing Tok users. Mixed opinions on whether it should be gravel or paved, maybe initially gravel, and paved later. • The crosswind runway would not be long enough to serve air tankers. **Response:** *No, it will not.* • Would Temporary Flight Restrictions (TFR's) developed for firefighting affect the Tok airport? • How many operations would there be by Fire Service if relocated to Tok? **Response:** *Based on averages from the last 10 years at Tanacross, there would an average of 23 landings and 23 takeoffs per year. Each year, operations numbers would depend on the number and intensity of fires in the region.* • How will tanker aircraft fill up with water at the Tok Airport? • There formerly was a large fire on the land where the runway extension would occur. • The Tok Mushers Association may have trails in the area of the runway extension. • A year-round airport in Tok is better than trying to get to Northway. • TCC Healthcare center – a new clinic in Tok – add to the report. It's drawing more regional patients in, more medevacs out, too but runway length hampers this.
2.	<u>Tanacross Airport Comments:</u> • Tanacross deterioration is bad and unusable. • There have been car races at Tanacross Airport that should be allowed to continue.
3.	<u>Division of Forestry Comments:</u> • Tanacross Airport is deteriorating dramatically and will become unusable in the next 5 years. We have estimated it would cost $18 million to resurface just one runway. We may have to relocate operations to Fairbanks, with much longer response times to fires in the Upper Tanana area.
4.	<u>General Questions and Feedback:</u> • The team needs to reach out to Tanacross Inc. **Response:** *We have and a Tanacross Inc. member is on the phone.* • The mine will generate ore trucks on the highway about every 15 minutes. This will cause more people to choose to fly to Fairbanks from Tok Junction Airport, to avoid mixing with heavy truck traffic. • FAA reported that the planning, funding and development process is lengthy. Commenter does not see how FAA would fund a 5,000 foot runway since the runway length would be based on needs of the critical aircraft – the most demanding aircraft

	with at least 500 operations per year. **Response:** *Agree. We think we could justify FAA funding for about 4,000 feet. The additional 1,000 feet would likely have to come from other funding sources.* • Underground power on the airfield has failed in the winter in the past. Will this be replaced? **Response:** *Yes. We are also aware of issues with the regulator building.* • Will taxiways be gravel or paved? **Response:** *Paved* • What is the definition of Census Designated Place? **Response:** *It is an area defined by the US Census from which data is collected about population, employment and other statistics. It often includes unincorporated areas that have undefined boundaries.* • How many flights per year does Customs handle at Northway? **Response:** *Did not have the information in the meeting but subsequently checked interview notes where US Customs reported 172 contacts from aviators in 2019.* • What are the funding sources? What is the timeline for the funding? • A ski strip is important because asphalt is impossible for ski equipped aircraft and can be difficult for tundra tired aircraft. • What is the preliminary scoring? I have seen a proposed crosswind runway in the plans for 30 years. • 7 miles of narrow road limits practicality for Northway. • Will there be a crosswind survey completed? • Will the ski strip go away? • Helicopters are an issue. • Leif Wilson added medivacs out of Manh Choh will be a need. • DOT&PF needs to initiate tribal consultation. • Civil Air Patrol has a 206/182/172 and 15 cadets. Looking for hangar space.
5.	Comments submitted following the open house via email from the Copper Valley Development Association: Good Evening All, I participated in the meeting last night, there was a lot of good information, comments, and further clarification for this project. The TOK Airport seems to be the best choice as the Regional HUB, given the evaluation criteria for the UTAPS. The meeting provided info on the process and insight that would/could/should help us move forward with an updated GKN Plan. 1. GKN Planning is part of the Alaska Interior Plan, through this planning exercise the DOT was looking at a regional airport for the Upper Tanana Region - GKN cannot serve this area, too far and is its own regional Airport for the CRV. 2. For FAA Funding the system for obtaining money is as follows (Judy please let me know if this is accurate) • Annual funding is pooled from all FAA/DOT airports and goes into one pot. • DOT calls for airport projects, DOT planners from each region (?) take those packaged project's and score them. • Then they go to the Aviation Board and each regions planners presents their own projects.

	• Based on the 16-point criteria the highest scoring projects get funded. Safety, Economic, Quality of Life, Aviation Hazards, Erosion, Maintenance, etc. Judy, I didn't catch them all. Would you fill in the blanks? • The Aviation Board is looking for scores of 120+ • Typically, about 5-6 from each region get funded. Judy, I assumed the funding is for the actual work not additional planning, yes? NOTES: • Typically, airports on the road system score lower • The number of flights they look are currently not flights we plan on in the future • Positive Project Impacts: Life Flights/Forestry - Firefighting (requires a minimum 5000' runway to support airtankers). I am sure there are more. • FAA funding for a 5000' runway is unlikely, think about implementing runway length in phases. • Boarder Station - It is not likely they want to move. I am not sure if GKN would be a candidate for this • Other funding sources are likely to be required, monies earmarked through appropriations or private companies willing to invest. • Are there other federal or State agencies that can provide funding? I believe our next step for the airport is to put together an MOA for a GKN updated Master plan through the Alaska Interior Plan, yes? My general sense is this will require partnerships with many agencies, private industry and the community coming together to bring this to fruition.
6.	Comments submitted following the open house via Email from the Copper Valley Chamber of Commerce and board member of the Copper Valley Development Association: Greetings and thank you all for a very well planned and organized descript of the UTAP Project Proposed and presented this eve. I am the Pres. of the Greater Copper Valley Chamber of Commerce as Well as a Board member of the CVDA, and I have a Chamber member seated on the newly organized RPO committee that DOT Commissioner Mr. Ryan Anderson proposed we organize and we accomplished this year as the first in Alaska, that has a DOT board member (Judy Chapman) seated as required . We have Very Much Interest and questions yet in the Scope of Your Survey and I would like to receive updates via emails on the progress of this project to XXX. I personally support the concept of the Tok location in its design and effectiveness, however I would like to encourage the needs of and/or, express the similar needs within the Copper Basin as mentioned in the comments made during the meeting tonight in respect to medical emergencies. My last comment would be to ask if there has been any consideration of diversifying the development of this scope of work and improvements and developing the advantages between communities and to balance the needs of outlying areas in relation to distance and lack of infrastructure that may work better in developing your planning of designs that may work better in some locations than others?? There are many desperately needed

	transportation needs in Interior Rural Alaska. Each community has very relative needs and very significant advantages to each of their locations, I like to compliment the areas that are better suited and more likely to succeed in respect to be better at taking care of our daily needs (and each other) and Alaska's Top Notch natural punches that she can and will show us when least expected. Respect!

COMMITMENTS/ACTIONS/TASKS:		PERSON RESPONSIBLE	Target Date	Completion Date
1.	None.			
MATERIALS DISTRIBUTED				
1.	12.01.22 - UTAPS Update Presentation			

The following email thread contains communication between the Copper Valley Development Association, Sean Solie of Uqaqti Consulting, and Judy Chapman of DOT&PF Northern Regions Office:

On Fri, Dec 2, 2022 at 8:01 AM Chapman, Judy (DOT) <judy.chapman@alaska.gov> wrote:

No worries, I am so sorry for all the confusion on this one! Thanks for reaching out.
Judy

Sent: Thursday, December 1, 2022 6:08 PM
To: Chapman, Judy (DOT) <judy.chapman@alaska.gov>
Cc: Thomas Middendorf <TMiddendorf@dowl.com>
Subject: Re: Reminder: Open House - Upper Tanana Airport Planning Study

Thank you so much Judy. No need to be sorry, I appreciate your information and edification for me. It is I that is sorry for pestering you with my lack of understanding. Be well and talk to you soon.

On Dec 1, 2022, at 5:00 PM, Chapman, Judy (DOT) <judy.chapman@alaska.gov> wrote:

Hi,

The main study question from the 2003 study was whether Tok or Tanacross would be the regional airport for the upper Tanana region – Tok is small but in an in-town location close to businesses and industry. Tanacross is 12 miles away and has two 5,000 foot runways, but is not state owned and has degradation and contamination issues, so the study recommended a closer look at these two airports in particular. Then it wrapped in Northway and Gulkana to look at whether Gulkana could serve as the sub-region's regional airport (from afar) or if Northway could – it's also 5000' and 40 miles from Tok.

I don't have the report in front of me right now (I'm in Tok) but we'll look at the population numbers and make sure they are accurate and clear!

The designation of an Upper Tanana area airport as the "regional" airport won't detract from Gulkana being the regional airport for the Copper Basin sub-region, there can be two regional airports. The report ultimately found the distance between the upper Tanana and Gulkana to be too great for Gulkana to adequately serve the Upper Tanana subregion in addition to the Copper Valley area.

The regional airport determination for the Upper Tanana won't, in any case, affect funding currently earned by Gulkana and distributed on projects system wide.

I apologize this is confusing! I would have done the outreach and talking points differently in retrospect.
Judy

Sent: Thursday, December 1, 2022 10:46 AM
To: Chapman, Judy (DOT) <judy.chapman@alaska.gov>
Cc: Thomas Middendorf <TMiddendorf@dowl.com>
Subject: Re: Reminder: Open House - Upper Tanana Airport Planning Study

Judy,

Thank you for the clarification and I guess I misunderstood this. So the distance is between Gulkana and Tok, correct? And the population is only Glennallen and Gulkana?? Not Copper Center, Gakona or any of the other communities? Is Gulkana Airport even in consideration for the two areas?? It should be considered for the entry airport into the State and Country given its size and condition, but is the Upper Tanana airport consideration something completely separate and are we not in running for anything??

Sorry I am confused and trying to figure this out. I have some important mtgs next week regarding Gulkana AP

On Thu, Dec 1, 2022 at 10:36 AM Chapman, Judy (DOT) <judy.chapman@alaska.gov> wrote:

Hi, Gulkana is a regional hub right now for the Copper River valley region. That's documented in the 2003 Copper Valley Upper Tanana Regional Airport System Plan. What is lacking is a regional hub for the upper Tanana region, which the focus of this study. There are regional hubs all throughout Alaska, depending on the area, and they are meant to serve the main population centers in their areas. Thanks for the feedback on the population and distances – we will look into those and make sure they are accurate!

(cc-ing our contractor Tom here, in case he wants to offer more background on the study).

Judy

Judy Chapman, CM, ACE

Deputy Director of Planning
Division of Planning & Program Development
(907) 451-5150

Sent: Thursday, December 1, 2022 9:43 AM
Cc: Chapman, Judy (DOT) <judy.chapman@alaska.gov>
Subject: Re: Reminder: Open House - Upper Tanana Airport Planning Study

Maybe I'm missing something, but the numbers here do not seem to reflect the population of the area around Gulkana, the improvements they need in Tok, etc. still would barely bring those airports to the existing Gulkana Airport, and distances are skewed.

Why would the State of Alaska even consider the costs associated with the renovations on those airports when it makes more sense to utilize the existing Gulkana Airport as a regional hub airport with minimal money? What gives here and what am I missing? This has been an exclusionary and selective vetting process, without proper consultation or consideration, much less accurate data, for the evaluation of Gulkana Airport as the HUB airport and entry-way into Alaska via Canada.

Can someone enlighten me? Thank you.

Begin forwarded message:
From: Sean Solie <sean@uqaqti.com>
Date: November 30, 2022 at 4:31:49 PM AKST
Cc: Project Team <info@uppertananaairport.com>
Subject: Reminder: Open House - Upper Tanana Airport Planning Study

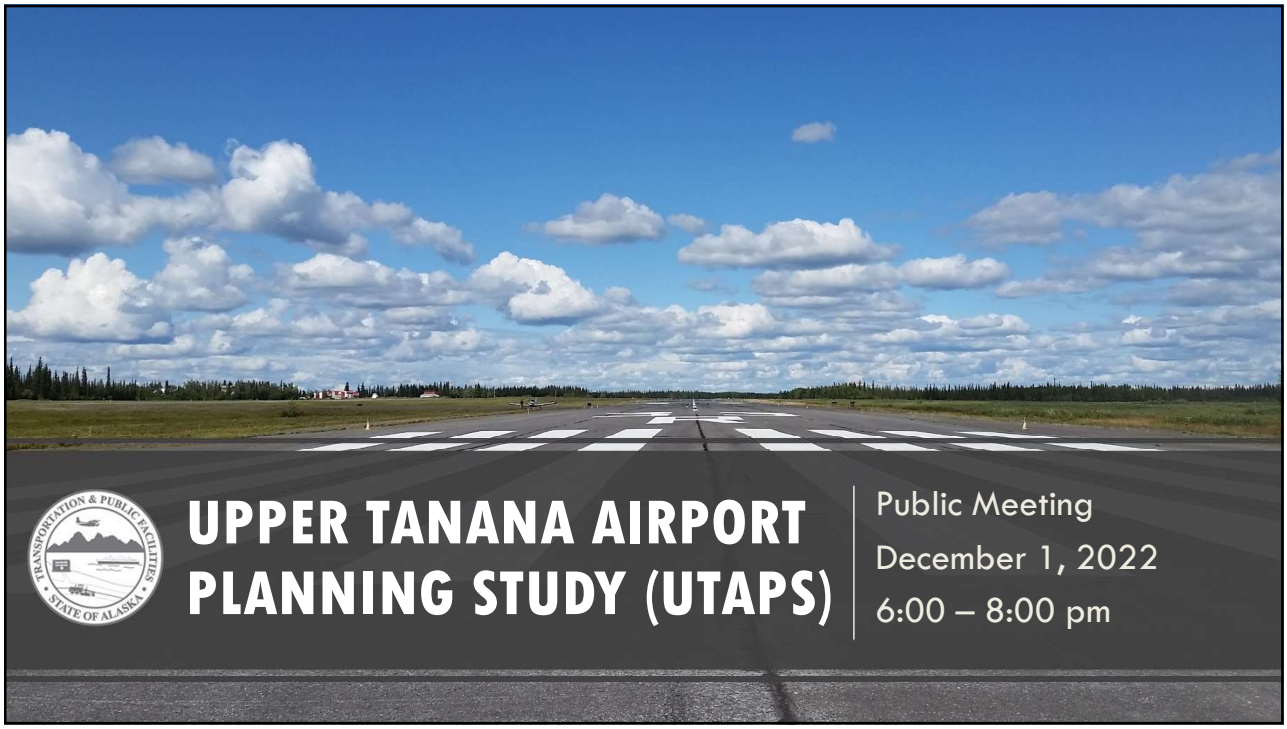
Good Afternoon,

Just a friendly reminder that the Upper Tanana Airport Planning Study (UTAPS) Open House is **tomorrow, Thursday, December 1st from 6 PM to 8 PM at the Tok Senior Center**. Please see the attached flyer for more meeting details. There is also an option to attend via telephone for those of you unable to attend in person. For those attending via phone, the conference line info is: **+1 (888) 585-9008, conference room #: 629-796-293.** For technical assistance, contact: Lindsay Johnson at (907) 378-1335.
Lastly, the presentation for tomorrow is also attached to this email. If you are unable to join in the meeting but would like to provide comments, please do not hesitate to connect with us via the UTAPS project email at info@UpperTananaAirport.com.
We hope to see you there!

Thank you,
Sean Solie

Project Manager
Uqaqti Consulting
sean@uqaqti.com

(M): 1-907-687-1184
www.uqaqti.com



1

UTAPS Agenda and Team

- Timeline
- Regional Airport Evaluation
- Regional Airport Alternatives
- Next Steps
- Questions & Comments

Project Team

Sara Lucey
DOT&PF Project Manager

Melissa Osborn
DOWL Project Manager

Tom Middendorf
DOWL Lead Planner

Joy Huntington
Uqaqti Consulting

2

Timeline

2021 SUMMER - FALL	2022 SPRING	2022 SUMMER - WINTER	2023 SPRING - FALL
Inventory of current airport conditions	Stakeholder survey	Follow up interviews with key stakeholders	Final data collection
Forecasting future regional airport needs	Public Meeting #1	Public Meeting #2	Findings and recommendations reported
Interviews with key stakeholders			

3

Regional Airport Evaluation

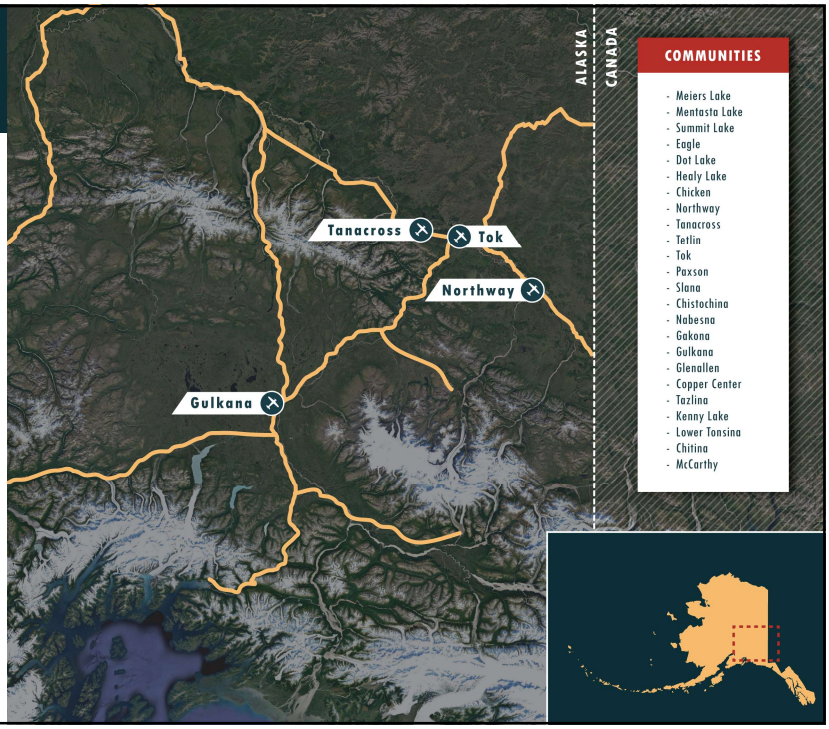
4

Study Area

Airport Vicinity Population

Area	2020 Population
Gulkana and Glennallen CDPS	602
Northway CDP	256
Tanacross CDP	136
Tok CDP	1,255

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.
CDP = Census Designated Place (a subcategory of Census Area and Census Subarea).



5

Some Comments Received

Benefits of a regionally significant airport:

- improved aviation safety
- improved medivac service
- better services for aircraft crossing into Alaska from Canada
- enhanced passenger travel and freight shipments
- supports law enforcement, fire control and other government services
- supports existing and future mining, tourism, hunting, fishing, and flightseeing.

Desired elements of a regionally significant airport:

- runways, taxiways, lighting, weather, NAVAIDS and approaches suitable for the region's aircraft
- aprons and lease space
- facilities and services for aviation users and the travelling public (aircraft fuel, aircraft maintenance, tie downs, pilots lounge, passenger terminal, nearby lodging, food and services)
- possible consolidation of FAA and U.S. Customs into the regionally significant airport
- more efficient Instrument Flight Rules (IFR) corridors in the region.

6

Evaluation Criteria

- **Driving distance to population and services center at Tok** – Tok has largest population and more of the services (lodging, food, supplies) in Upper Tanana. Tok businesses, agencies, and residents generate much of the aviation demand.
- **Aviation Infrastructure & Services Availability and Condition –** What existing infrastructure and services are already available, their condition, and airport maintenance capability? Are airport improvements eligible for FAA funding?
- **Land Ownership and Availability –** Is the airport owned by DOT&PF or someone who has the capability of operating and maintaining a viable regional airport? Land available for airport expansion if needed?
- **Environmental Constraints –** What environmental conditions could hinder the airport development and operations?

7

Evaluation: Gulkana Airport

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Gulkana Airport (602)	133 miles	▪ Runway, taxiways, and aprons already available, and in good condition. ▪ 98% wind coverage; not likely need crosswind. ▪ Some apron and lease lot expansion would be necessary. ▪ Fuel, maintenance, tie downs and other services currently available. ▪ Maintenance equipment and buildings on-site. ▪ Non-precision approach	▪ 1,678 acres owned by DOT&PF. ▪ Additional land not needed.	Limited contamination on site on several lease lots.	Yes, but not as a regional airport for the Upper Tanana region. ▪ Far from population center at Tok. Is in a separate service area outside the Upper Tanana region. ▪ Gulkana Airport needs should be evaluated as part of the Interior Transportation Plan.

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Evaluation: Northway Airport

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Northway Airport (256)	55 miles	▪ Runway, taxiways and aprons already available, and in fair condition. ▪ Some apron and lease lot expansion or reconfiguration would be necessary. ▪ 97% wind coverage; not likely need crosswind. ▪ No fuel, maintenance, tie downs or other services currently available. ▪ FSS and U.S. Customs services on-site. ▪ Maintenance equipment and buildings nearby but inadequate for regional airport. ▪ High minimums instrument approach	▪ 1,200 acres owned by DOT&PF. ▪ Additional land probably not needed.	▪ Contamination on-site – extent not fully known. ▪ Sensitive surroundings of the Tetlin National Wildlife Refuge. ▪ Potential impacts to Northway Village.	No. ▪ Isolated location, far from population center at Tok. Minimal local services. ▪ No airport services. ▪ Most Tok/Tanacross tenants would be unlikely to relocate to this remote airport. ▪ Limited M&O services. ▪ Redevelopment would likely involve addressing contaminated soils.

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Evaluation: Tanacross Airport

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Tanacross Airport (136)	11 Miles	▪ Runways, taxiways, and aprons already available, but in very poor condition. ▪ BLM is unwilling to improve facilities. ▪ DNR will need to relocate because of facility condition. ▪ Other infrastructure and services needed for non DNR users are not available. ▪ Minimal maintenance equipment and facilities. ▪ No lighting, no weather, visual approaches.	▪ 7,705 acres, owned by BLM. ▪ Additional land probably not needed.	▪ Considerable on-site Contamination. ▪ Flooding potential. ▪ Potential impacts to Village of Tanacross.	No. ▪ Existing pavements and buildings are in extremely poor condition ▪ BLM is not interested in making necessary improvements. ▪ DNR unable to make necessary improvements ▪ DOT&PF policy prevents them from assuming the financial burden of owning, operating and maintaining this airport. ▪ Airport improvements needed are unlikely to be eligible for FAA funding. ▪ Redevelopment could involve addressing contaminated soils.

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Evaluation: Tok Junction Airport

AIRPORT (POPULATION OF CENSUS DESIGNATED PLACE)	DRIVING DISTANCE TO POPULATION & SERVICES CENTER AT TOK	REGIONAL AIRPORT INFRASTRUCTURE & SERVICES AVAILABILITY & CONDITION	LAND OWNERSHIP & AVAILABILITY	ENVIRONMENTAL CONSTRAINTS	SUITABLE SITE FOR FURTHER STUDY?
Tok Junction Airport (1,255)	1 Mile	▪ Approximately 2,500-foot runway extension needed, probable crosswind runway, taxiway extensions, and new apron needed ▪ Most other infrastructure available ▪ Existing pavements in good to fair condition ▪ Superior maintenance staffing/equipment capability onsite or 2 miles away ▪ Lighting, weather, visual approaches	▪ 350 acres, owned by DOT&PF ▪ Would require land acquisition for runway extension and crosswind runway ▪ Land needed is undeveloped and mostly owned by Tanacross Inc. – availability unknown	▪ Potential impacts to adjacent residential development to west and commercial development to north	Yes. ▪ Close to the population/services center at Tok. ▪ Many airport facilities and services already provided. ▪ An extended runway, crosswind runway, and apron expansion are needed and were already proposed in the current ALP but would likely need to be upgraded to higher FAA design standards. ▪ Land that would be acquired is undeveloped, but availability is unknown ▪ Superior M&O staffing/equipment capability in Tok ▪ Need to investigate feasibility/advantages of relocation of U.S. Customs and FSS to Tok

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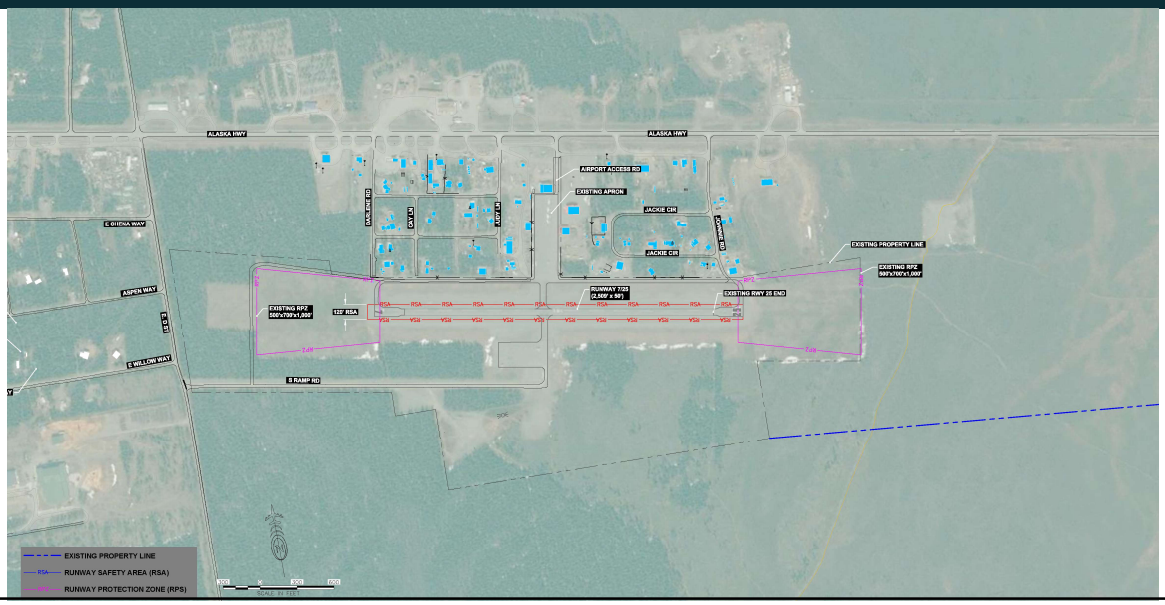
Existing Tok Junction Airport



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Regional Airport Alternatives

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Alternative 1: Tok Junction Airport – Without Crosswind Runway

Alternative 1:

1. Lengthen and widen runway to 5,000 feet by 75 feet
2. Build parallel taxiway
3. Install pilot controlled lighting (PCL)
4. Install visual approach slope indicators (VASI)
5. Improved instrument approach
6. Develop lease lots and aprons
7. Acquire land

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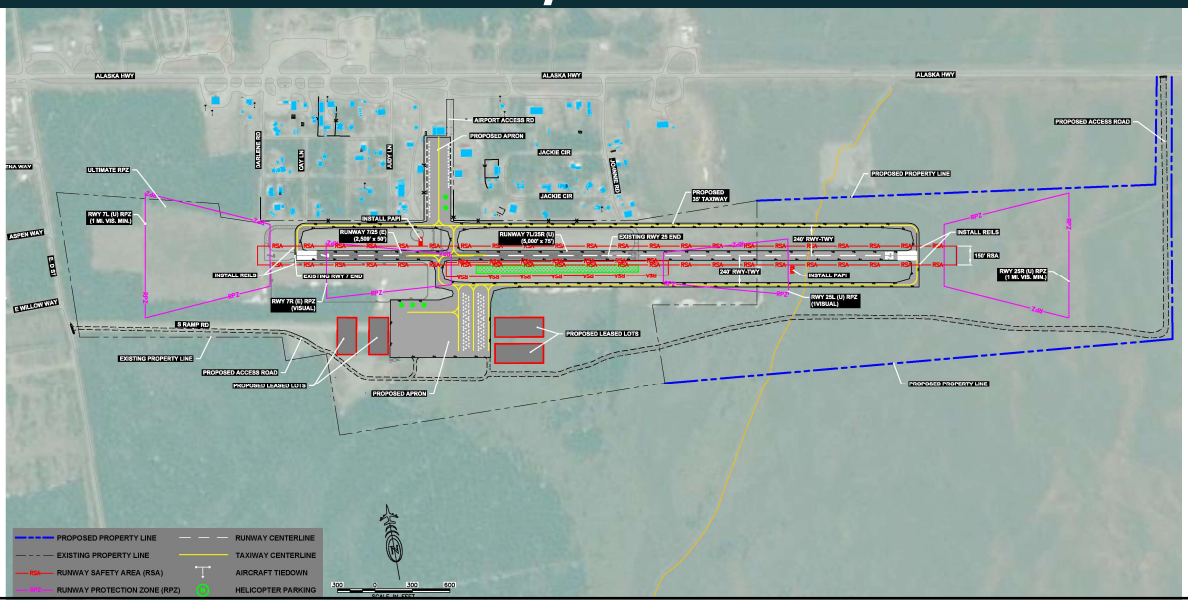
Alternative 1: Tok Junction Airport – Without Crosswind Runway

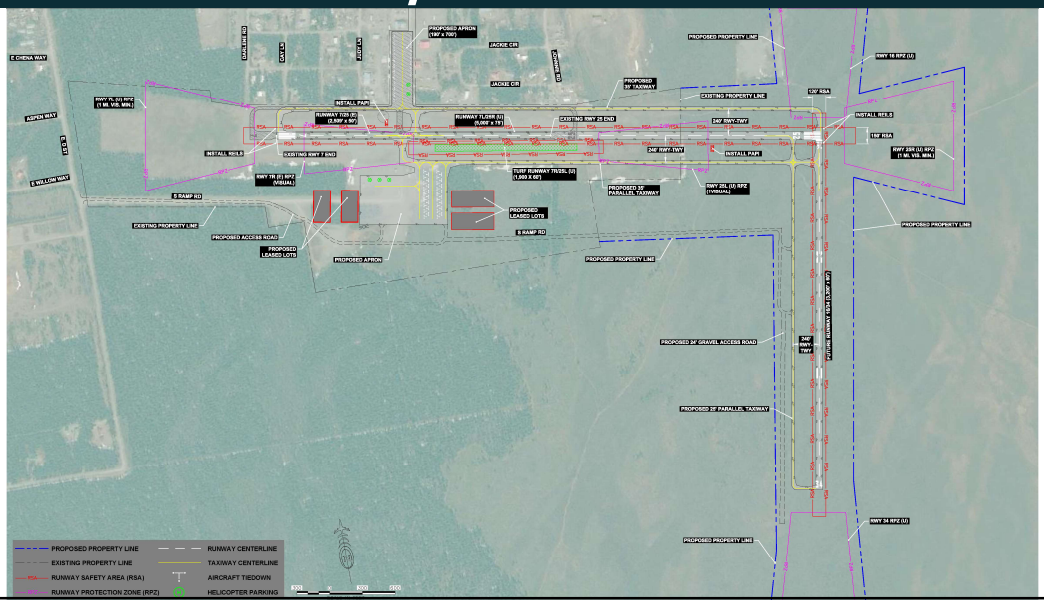


Alternative 2: Tok Junction Airport - With Crosswind Runway

Alternative 2:

1. Lengthen and widen runway to 5,000 feet by 75 feet
2. Construct a 3,200 feet by 60 feet crosswind runway
3. Build parallel taxiway
4. Install pilot controlled lighting (PCL)
5. Install visual approach slope indicators (VASI)
6. Improved instrument approach
7. Develop lease lots
8. Acquire land

Alternative 2: Tok Junction Airport - With Crosswind Runway



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Next Steps

- Accept public comments through January 15, 2023.
- Select and refine the preferred alternative, with a proposed timeline and costs.
- Discussions with Tanacross, Inc. about land availability.
- Discuss with U.S. Customs and the FSS the feasibility and benefits of relocating to Tok.
- Investigate improved approaches.
- Prepare a draft/final report.

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Questions & Comments

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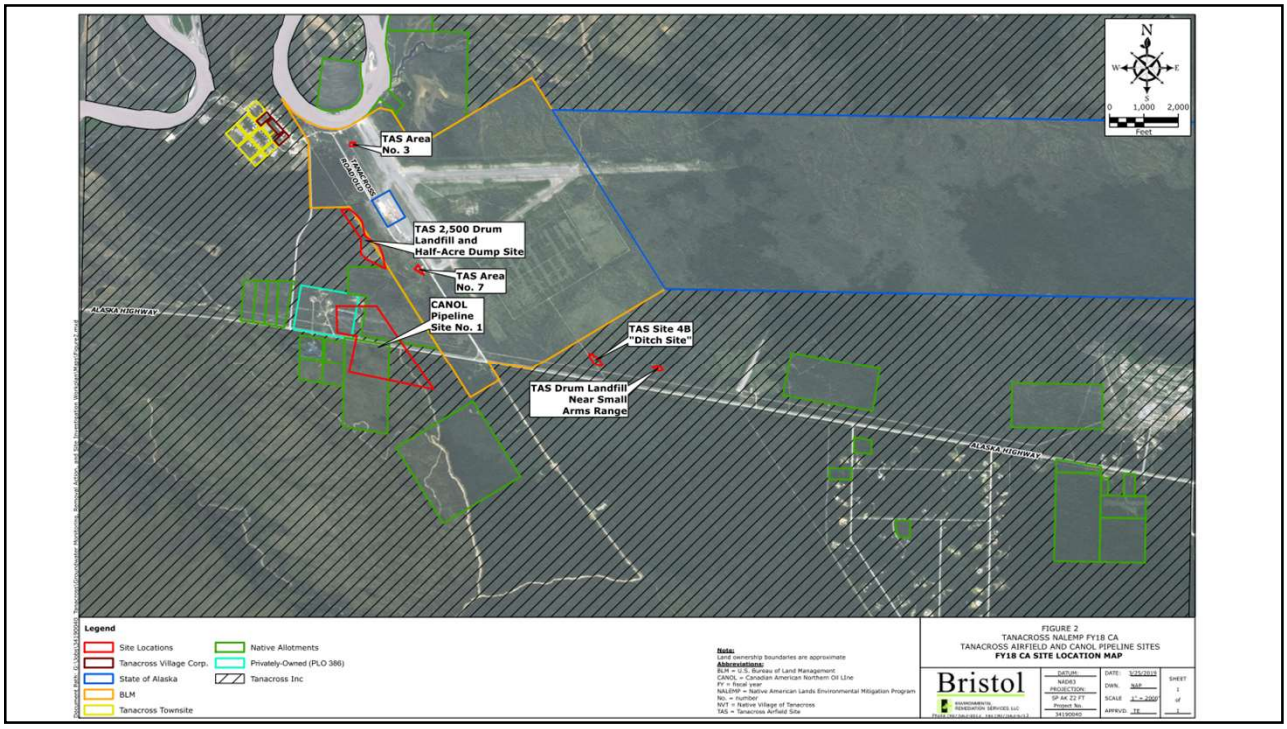

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Appendix B
Tok Cost Estimate

Table 28 - Tok Junction Airport Recommended Plan - Cost Estimates

Client: Alaska DOT&PF
Project: Upper Tanana Airport Planning Study - Tok Junction Airport (6K8)
Date: 8/3/2023

Prepared By: NEV
Reviewed By: NBS

Phase 1: ALP Update/Planning & Enviromental Assessment						
Number	**Section**	**Item**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
1	-	ALP Update, Airport Planning, and Aeronautical Survey	1	LS	$ 250,000	$ 250,000
2	-	Environmental Assessment (EA)	1	LS	$ 500,000	$ 500,000
Subtotal Phase 1						**$ 750,000**
Total - Phase 1: ALP Update/Planning & Enviromental Assessment						**$ 750,000**

Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT&PF/FAA Funding)						
Number	**Section**	**Item**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
1	-	Property Acquisition	1.7	ACRE	$ 1,000	$ 1,700
2	-	Snow Blower	1	LS	$ 800,000	$ 800,000
3	L-107	Relocate Segmented Circle & Primary Wind Cone	1	LS	$ 100,000	$ 100,000
4	L-125	Precision Approach Path Indicator (PAPI)	2	EA	$ 200,000	$ 400,000
5	L-125	Medium Intensity Runway Lighting System with Runway Alignment Indicator Lights (MALSR) and TW Edge Lights	1	LS	$ 350,000	$ 350,000
6	P-152	Borrow	196,385	TON	$ 12	$ 2,356,619
7	P-152	Unclassified Excavation	109,000	CY	$ 10.00	$ 1,090,000
8	P-152	Re-Grade Turf Runway	1	LS	$ 100,000	$ 100,000
9	P-154	Subbase Course	32,500	TON	$ 30	$ 975,000
10	P-207	Full Depth Pavement Reclamation	34,000	SY	$ 3.00	$ 102,000
11	P-208	Crushed Aggregate Surface Course	12,913	TON	$ 40	$ 516,520
12	P-209	Crushed Aggregate Base Course	48,230	TON	$ 40	$ 1,929,200
13	P-401	Hot Mix Asphalt	15,700	TON	$ 175	$ 2,747,500
14	P-620	Runway and Taxiway Paint Markings	13,100	SF	$ 8.00	$ 104,800
15	P-681	Geotextile for Separation	138,700	SY	$ 3.00	$ 416,100
16	U-500	New Electrical Service to Airport	1	LS	$ 500,000	$ 500,000
Subtotal Phase 2A						**$ 11,989,439**
Contingency					20%	$ 2,397,900
Soft Costs such as general provisions, CSPP, ESCP, etc.					35%	$ 3,916,400
Total Construction						**$ 18,303,739**
Engineering Design (Preliminary Engineering for EA)					15%	$ 2,745,561
Construction Management					15%	$ 2,745,561
ICAP					8%	$ 1,464,299
Total - Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT&PF/FAA Funding)						**$ 25,259,160**
Total - Phase 2A: Project Rounded Total						**$ 25,260,000**

Client: Alaska DOT&PF
Project: Upper Tanana Airport Planning Study - Tok Junction Airport (6K8)
Date: 8/3/2023

Prepared By: NEV
Reviewed By: NBS

Phase 2B: Runway Extension & Widening (Non-DOT&PF/FAA Funding)						
Number	**Section**	**Item**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
1	-	Property Acquisition	56.3	ACRE	$ 1,000	$ 56,300
2	L-125	Medium Intensity Runway Lighting System with Runway Alignment Indicator Lights (MALSR)	1	LS	$ 50,000	$ 50,000
3	P-152	Borrow	36,038	TON	$ 12	$ 432,456
4	P-152	Unclassified Excavation	11,200	CY	$ 10	$ 112,000
5	P-154	Subbase Course	6,050	TON	$ 30	$ 181,500
6	P-208	Crushed Aggregate Surface Course	2,572	TON	$ 40	$ 102,860
7	P-209	Crushed Aggregate Base Course	6,050	TON	$ 40	$ 242,000
8	P-401	Hot Mix Asphalt	1,500	TON	$ 175	$ 262,500
9	P-620	Runway and Taxiway Paint Markings	7,600	SF	$ 8.00	$ 60,800
10	P-681	Geotextile for Separation	25,500	SY	$ 3.00	$ 76,500
Subtotal Phase 2B						**$ 1,576,916**
Contingency					20%	$ 315,400
Soft Costs such as general provisions, CSPP, ESCP, etc.					35%	$ 552,000
Total Construction						**$ 2,444,316**
Engineering Design (Preliminary Engineering for EA)					15%	$ 366,647
Construction Management					15%	$ 366,647
ICAP					8%	$ 195,545
Total - Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT&PF/FAA Funding)						**$ 3,373,156**
Total - Phase 2A: Project Rounded Total						**$ 3,380,000**

Phase 3: Full Parallel Taxiway						
Number	**Section**	**Item**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
1	L-125	Taxiway Lighting System	1	LS	$ 100,000	$ 100,000
2	P-152	Borrow	76,035	TON	$ 12	$ 912,420
3	P-152	Unclassified Excavation	24,500	CY	$ 10	$ 245,000
4	P-154	Subbase Course	11,300	TON	$ 30	$ 339,000
5	P-208	Crushed Aggregate Surface Course	3,220	TON	$ 40	$ 128,800
6	P-209	Crushed Aggregate Base Course	11,300	TON	$ 40	$ 452,000
7	P-401	Hot Mix Asphalt	4,000	TON	$ 175	$ 700,000
8	P-620	Runway and Taxiway Paint Markings	1,900	SF	$ 8.00	$ 15,200
9	P-681	Geotextile for Separation	30,600	SY	$ 3.00	$ 91,800
Subtotal Phase 3						**$ 2,884,220**
Contingency					20%	$ 576,900
Soft Costs such as General Provisions, CSPP, ESCP, etc.					35%	$ 1,009,500
Total Construction						**$ 4,470,620**
Engineering Design (Preliminary Engineering for EA)					15%	$ 670,593
Construction Management					15%	$ 670,593
ICAP					8%	$ 357,650
Total - Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT&PF/FAA Funding)						**$ 6,169,456**
Total - Phase 2A: Project Rounded Total						**$ 6,170,000**

Client: Alaska DOT&PF
Project: Upper Tanana Airport Planning Study - Tok Junction Airport (6K8)
Date: 8/3/2023

Prepared By: NEV
Reviewed By: NBS

Phase 4: Crosswind Runway & Parallel Taxiway						
Number	**Section**	**Item**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
1	-	Property Acquisition	103.1	ACRE	$ 1,000	$ 103,100
2	L-125	Medium Intensity Runway Lighting System with Runway Alignment Indicator Lights (MALSR) and TW Edge Lights	1	LS	$ 350,000	$ 350,000
3	P-152	Borrow	254,190	TON	$ 12	$ 3,050,280
4	P-152	Unclassified Excavation	63,950	CY	$ 10	$ 639,500
5	P-154	Subbase Course	35,500	TON	$ 30	$ 1,065,000
6	P-208	Crushed Aggregate Surface Course	20,091	TON	$ 40	$ 803,640
7	P-209	Crushed Aggregate Base Course	35,500	TON	$ 40	$ 1,420,000
8	P-401	Hot Mix Asphalt	8,700	TON	$ 175	$ 1,522,500
9	P-620	Runway and Taxiway Paint Markings	21,900	SF	$ 8.00	$ 175,200
10	P-681	Geotextile for Separation	95,920	SY	$ 3.00	$ 287,759
Subtotal Phase 4						**$ 9,416,979**
20% Contingency					20%	$ 1,883,400
Soft Costs such as general provisions, CSPP, ESCP, etc.					35%	$ 3,296,000
Total Construction						**$ 14,596,379**
Engineering Design (Preliminary Engineering for EA)					15%	$ 2,189,457
Construction Management					15%	$ 2,189,457
ICAP					8%	$ 1,167,710
Total - Phase 2A: Runway Extension and Widening, Partial Parallel Taxiway (DOT&PF/FAA Funding)						**$ 20,143,004**
Total - Phase 2A: Project Rounded Total						**$ 20,150,000**