

APPENDIX F

Background Information

Background

The community of False Pass is located on the eastern end of Unimak Island, the easternmost island of the Aleutian Chain in southwest Alaska (Figure 1). It is separated from the Alaska mainland by Isanotski Strait, a channel of water connecting the Gulf of Alaska to the Bering Sea. False Pass is located 646 air miles southwest of Anchorage and 32 air miles southwest of Cold Bay. The community lies approximately 13 feet above sea level at latitude 54° 50' 51" North and longitude 163° 24' 37" West. The Alaska Maritime National Wildlife Refuge and the Unimak Wilderness surround the community.

The False Pass Airport is located on an approximately 66-acre site just south of the city of False Pass, with an estimated elevation of 13 feet mean sea level (Figure 2). It is bordered on the east and south by Isanotski Strait and on the west by undeveloped grassy areas and wetlands. Roundtop Creek (also known as False Pass Creek) borders the Airport property to the north. High mountains surround False Pass, and frequent high winds, turbulence, and poor weather conditions make airport operations at False Pass challenging. Due to these factors, the Airport is marked as "Hazardous" on the Cold Bay sectional map published by the Federal Aviation Administration (FAA).

In the 1996 Alaska Aviation System Plan (AASP) Update, False Pass is classified as a community airport. Community airports are defined as "the primary land or water access points to small rural communities of at least 25 permanent residents without other reliable year-round access."

Currently, Peninsula Airways (PenAir) has regularly scheduled service to False Pass on Tuesdays, Thursdays, and Saturdays from its regional hub in Cold Bay. In addition to their regular schedule, the airline also makes unscheduled flights to the Airport for various reasons (i.e., to make up flights cancelled due to weather or for medevacs). Their schedule remains consistent throughout the year. PenAir uses Piper Navajos and Cherokees for airline operations and uses a Piper Cherokee Six or Saratoga for medevac operations.

Kenai Floatplane Service conducts unscheduled, on-demand charter flights to False Pass from its base located in Nelson Lagoon. The company has been flying into False Pass for approximately 15 years. The company charters on demand and uses Cessna 206s, 207s, and 180s.

In addition to air travel, False Pass is connected to other areas of Alaska by the Alaska Marine Highway System (AMHS). From April until October AMHS makes one trip a month from Cold Bay to False Pass. The AMHS does not travel to False Pass from October to April.

False Pass Airport is owned and operated by the State of Alaska Department of Transportation and Public Facilities (DOT&PF) with maintenance personnel located in Cold Bay and administrative staff based in Anchorage. The DOT&PF contracts out the basic maintenance duties at the Airport, such as snow removal, to the City of False Pass. The Airport is non-towered and is not certified for commercial aircraft with more than 30 seats in accordance with Federal Aviation Regulation (FAR) Part 139.

False Pass has one runway that was originally a narrow grass strip. In 1962, the runway was surfaced with gravel and was extended north over Roundtop Creek to a length of approximately 4,300 feet. Just one year later, in 1963, inadequate culverts caused a portion of the runway to wash out, reducing the runway to half its original length. The washed out section was not repaired. The south half of the runway continued to be used as a runway and the north portion was used primarily as a street.

In 1977, Peter Pan Seafoods requested that the runway be restored to 4,300 feet to improve access to fish processing operations in False Pass. However, this request was denied due to

difficulties anticipated for building a permanent runway across Roundtop Creek. In 1979 DOT&PF resurfaced 2,600 feet of runway south of Roundtop Creek with new gravel.

DOT&PF budgeted \$2 million for runway lengthening in the 1984 Capital Improvement Plan. However, it was determined that a runway bridge across Roundtop Creek would cost approximately \$3.1 million. Based on the fleet mix that the runway served at that time, DOT&PF determined the current runway length was adequate and the project was abandoned.

A project to upgrade the runway, apron, and access road was again funded in 1988 and constructed in 1990. This project brought the Airport to its current configuration. Items included in the 1990 project were:

- runway safety area expansion to 120 by 2,630 feet,
- runway expansion to 60 by 2,150 feet,
- visual runway markers,
- two unlighted windsocks,
- one segmented circle,
- 200- by 400-foot apron with 6 sets of tie downs,
- 14- by 1,650-foot road with a 14- by 120-foot bridge,
- 24- by 46-foot maintenance building,
- 1990 Champion Grader for snow removal and runway maintenance, and
- avigation and hazard easement of 0.5 acres north of Airport.

Prior to construction of a bridge by DOT&PF, residents would access the Airport by driving across Roundtop Creek or use makeshift bridges that the community had built. In 1979, DOT&PF constructed a bridge across Roundtop Creek. This bridge was repaired several times before eventually being destroyed by erosion in 1982. Approximately 150 feet of the north end of the runway was also destroyed in 1982. In 1984, the residents of False Pass requested that a new bridge be built because the temporary culvert crossings installed after the 1982 flood were in such poor condition. In 1990, DOT&PF constructed another bridge that has been repaired several times since.

Air Traffic Forecast

Cold Bay, about 32 air miles to the east of False Pass, serves as the hub airport for King Cove, False Pass, Nelson Lagoon, Pauloff Harbor/Sanak Island, and Port Moller airports. The flight between False Pass and Cold Bay takes about 20 minutes. Penair is currently the only scheduled carrier serving False Pass. Charter service is available from Penair, Kenai Float Plane Service, and Evergreen Helicopters. Charters are used mainly for school trips and occasionally to transport film crews and a group of scientists who work in the area some summers. Medical evacuations are mostly flown by Penair. General aviation traffic is mostly made up of hunting guides and outfitters. Coast Guard helicopters land at False Pass a few times a year to transport crew and equipment to their buoy tenders when docked in the community. Future air activity is generally expected to be similar to existing activity, but with some additional operations due to the new harbor.

Table 1 summarizes the air traffic forecast for the Airport.

Table 1: Air Traffic Forecast Summary

Category	2003 (Base)	2008	2013	2018	2023
Aircraft Operations					
Low Forecast	490	490	490	490	490
Moderate Forecast	490	541	598	659	728
High Forecast	490	626	725	800	883
Enplaned Passengers (includes charters)					
Low Forecast	520	520	520	520	520
Moderate Forecast	520	574	633	700	773
High Forecast	520	664	770	850	938
Mail/Freight (enplaned and deplaned)					
Low Forecast	114,000	114,000	114,000	114,000	114,000
Moderate Forecast	114,000	125,865	138,965	153,429	169,398
High Forecast	114,000	145,496	168,670	186,225	205,608
Based Aircraft					
Low Forecast	1	1	1	1	1
Moderate Forecast	1	1	1	1	1
High Forecast	1	1	1	2	2

Source: Southeast Strategies, January 2004.

Fleet Mix and Design Aircraft

The air traffic forecast presented in the Master Plan predicts a mix of A-I, A-II, and B-I aircraft operations at the Airport during the 20-year planning period. Table 2 shows the predicted fleet mix. The A-I aircraft are most likely to have at least 500 operations per year and is used for planning purposes for this airport. In the early stages of the master planning process, an airport built to B-II standards was considered to provide the greatest flexibility for possible future changes in fleet mix and the potential for instrument approaches. However due to the costs and environmental impacts of this larger footprint, the proposed action was later scaled back to A-I.

Table 2: Predicted Fleet Mix

Airport Reference Code (ARC)	Aircraft	Manufacturer
N/A	A-Star, L-3, and H-60 Helicopters	N/A
A-I	Piper Super Cub	Piper
	Piper Aztec	Piper
	Cessna 185	Cessna
	Cessna 180	Cessna
	Cessna 206	Cessna
	Piper Cherokee Six, Piper Saratoga	Piper
	Cessna 207	Cessna
	Caravan 208A	Cessna
A-II	Grand Caravan 208B	Cessna
B-I	Piper Navajo	Piper

Runway

In the early stages of the master planning process, a 3,300-foot runway with a 3,780-foot runway safety area length was considered because it would meet Alaska Aviation System Plan standards and would accommodate more aircraft without payload restrictions. However, after completing

a hydrographic survey, detailed cost estimates, and environmental studies, a runway length of 3,100 feet with a 3,580-foot runway safety area was selected. This length will serve all of the aircraft forecast to use the Airport. However, some of the larger aircraft may be subject to weight restrictions. It would avoid construction risks and costs of construction in 120-foot-deep waters on a sloping bottom and will minimize environmental impacts.

Although historical wind data does not exist for the Airport, anecdotal reports indicate that the runway does not provide 95 percent crosswind coverage and is subject to turbulence caused by the surrounding terrain. To increase the safety margin during crosswind operations, the runway would be constructed slightly wider than standard. The runway safety area (RSA) surrounding the runway would be the standard width of 120 feet, but the actual runway would be 75 feet wide instead of the standard 60 feet wide.

Extending the runway at the current elevation of the existing runway will expose the runway extension to overtopping by waves during storm events. This will likely increase maintenance costs due to removal of debris and damage to the runway surface from waves. Therefore, the runway should also be raised from its current elevation of approximately 3 to 5 feet on the south end to an elevation of approximately 12 feet above mean lower low water (MLLW) and erosion protection should be installed at the north end of the runway along Roundtop Creek. The erosion protection would prevent damage to the runway that could occur if the creek channel continues its migration toward the south. In some areas, water is seeping under the runway. Therefore, additional culverts should be installed beneath the runway to facilitate surface drainage towards Isanotski Strait.

When the runway is raised, it would be resurfaced with gravel and regarded to correct soft spots and improve drainage.

Airfield Safety Standards

The dimensions of the existing RSA and obstacle free zone generally meet FAA standards as outlined in Advisory Circulatory 150/5300-13 *Airport Design* for an A-I visual runway. However, the runway object free area (ROFA) contains small obstructions such as bushes and gravel berms that should be removed.

Access Road/Bridge

The bridge across Roundtop Creek is generally in good condition, but often requires repair to the erosion protection beneath the bridge following large flood events. The existing gabions should be replaced with spur dikes to reduce future maintenance expenses. Also, the wooden bridge decking is becoming worn and should be replaced and the access road should be resurfaced.

Airport Lighting/Navigational Aids

The FAA is currently in the process of installing Runway End Identifier Lights (REIL) on the existing runway. Should the runway be extended, these lights would need to be relocated/raised to match the runway improvements. The community has also requested other lighting upgrades to improve safety and reliability of the Airport. These upgrades include an airport beacon, lighted windsock, and runway edge lighting. The existing segmented circle is in very poor condition and should be replaced.

Snow Removal Equipment Building

The existing snow removal equipment building (SREB) is old and does not have heat or electricity. A new two-bay SREB with heat and lights should be constructed on the west side of the apron and new equipment purchased. Electricity should be extended to this building from the

Automated Weather Observation System (AWOS) being installed by FAA at the north end of the Airport.

Summary

The purpose and need for the proposed Airport improvements is summarized in Table 3.

Table 3: Summary of Purpose and Need

Component	Identified Need, FAA Standard or AASP Recommendation	Existing Condition	Corrective Action
Runway			
Alignment	95% crosswind coverage	Likely < 95%	Realign or widen runway
Length	3,300 feet	2,150 feet	Lengthen runway
Width	75 feet	60 feet	Widen runway
Capacity	Forecast of 883 operations/year in 2023	Capacity for 230,000 operations/year	None
Safety Area Width	120 feet	120 feet	None
Safety Area Length Beyond Runway End	240 feet	240 feet	None
OFA Width	400 feet	Bushes and gravel berms in OFA	Remove bushes and gravel berms
OFA Length Beyond Runway End	240 feet	Bushes and gravel berms in OFA	Remove bushes and gravel berms
Surface Condition	Firm, graded runway	Gravel runway with soft spots and standing water on runway in spring	Resurface with gravel, remove large rocks on north end of runway
RPZ	Own or avigation easement	Partly owned	Obtain avigation easement
Taxiway and Apron			
Taxiway Width	25 feet	25 feet	None
Taxiway Safety Area Width	49 feet	85 feet	None
Aircraft Apron Location	200 feet from runway centerline	150 feet from runway centerline	Demolish portion of apron in runway OFA
Aircraft Apron Size	60,000 square feet	80,001 square feet	None
Tie Downs	2 locations to secure aircraft	None	Create 2 tie-down locations
Miscellaneous			
Automated Weather Observation System (AWOS)	Requested by community	FAA installing AWOS	None
Navigational Aids on Airport	Basic navigational aids	2 windsocks, segmented circle	Light windsocks, replace segmented circle, install beacon
Lighting	Requested by community	FAA installing REILs	Install runway lights
Runway Markings, Signage	Basic runway markings	Threshold markings, runway midpoint sign	Repair/replace as needed
Access Road/Bridge	Reliable access	Fair condition, erosion potential	Erosion protection and minor repairs to bridge, resurface road with gravel
Airspace			
Part 77 Surfaces	Clear of obstacles	Major terrain penetration of both approach surfaces and primary surface	Remove bushes and gravel berms
Landside			
Terminal Building	None	None	None
Lease Lots	2 lease lots	2 available lots	None
Parking	Space for 4 to 5 vehicles	Currently park on apron, lease lots, access road	None
DOT&PF Facilities and Equipment	Heated building and 2 pieces of equipment	Unheated maintenance building, old grader	Replace building and grader, new loader
Fencing and Security	None	None	None
Utilities			
Electric	Available at all lease lots and runway	FAA extending electricity to AWOS on Airport	Extend electricity to apron
Water	Not needed	Not Available	None
Wastewater	Not needed	Not Available	None