

ALEKNAGIK/NEW (5A8) AIRPORT LAYOUT PLAN

NARRATIVE REPORT

A. Purpose

The purpose of this Airport Layout Plan (ALP) is to describe existing development and constraints according to the Federal Aviation Administration (FAA) Advisory Circulars *Airport Design 150/5300-13* and *Airport Master Plans 150/5070-6B*. The format of the ALP follows the guidance of the Alaska Department of Transportation and Public Facilities (DOT&PF) publication *Preparation and Submittal Guide for Airport Layout Plan and Narrative Report* dated May 14, 2008. No prior FAA-approved ALP exists for the airport.

B. Introduction

Aleknagik is located at the head of Wood River on the southeast end of Lake Aleknagik, 16 miles northwest of Dillingham. The Aleknagik/New Airport is located on the north shore of Wood River. The airport includes a gravel runway, exit taxiway, and apron. Aleknagik's south shore is connected to Dillingham by a 25-mile paved road.

C. Airport Usage

1. Current Use

The 1996 Alaska Aviation System Plan (AASP) classifies this Airport as a Community Class Airport, which is defined as "the primary land or water access point to a small rural community of at least 25 permanent residents without other reliable year-round access." According to 2006 Division of Commerce, Community and Economic Development (DCCED) data, there are 241 permanent residents in Aleknagik.

The airport is primarily utilized by small, single engine A-I aircraft. A-II aircraft use the airport on occasion (approximately 20 operations per year). The majority of operations at the Aleknagik Airport are conducted by air taxis with occasional general aviation traffic. PenAir provides scheduled and chartered service between Dillingham and Aleknagik. The carrier conducts approximately 300 operations per year using small aircraft with less than 10 passenger seats.

With just under 300 operations in 2007 at the Aleknagik Airport, PenAir's Piper Saratoga, an A-I aircraft, is the most demanding aircraft regularly serving the airport. The runway is able to accommodate the Saratoga, which has a wingspan of 36.2 feet.

There is one based aircraft at the airport.

Table 1: Aleknagik Airport Yearly Operations

Airport Reference Code Aircraft	A-I Piper PA-32-301	A-I Cessna 207	A-I Cherokee 6	A-II Cessna 208
PenAir	300	--	--	20
Tucker Aviation	--	6	--	--
Mulchatna Air	--	4	--	--
Shannon's Air Taxi	--	40	10	--
Bristol Bay Air Service	--	30	--	--
Van Air	--	--	20	--
Operations / Year	300	80	30	20
TOTAL YEARLY OPERATIONS				430

2. Forecast Use

PenAir is the only operator offering scheduled service at the Aleknagik Airport. Based on discussions with PenAir, the type of aircraft that serves the airport will not change during the near-term. PenAir has recently (as of Spring 2008) dropped scheduled service to Aleknagik from 3 trips weekly to 1 trip weekly.

D. Design Rationale

1. ARC

This ALP proposes an airport reference code (ARC) of A-I, small aircraft, for this airport, and the forecast use supports that designation.

2. Airport and Terminal Nav aids

There are no published instrument approaches at the Aleknagik Airport.

3. Wind Coverage

There is no historic wind data available for the Aleknagik Airport.

4. Runway

The A-I design standard for runway width is 60 feet. The runway at the Aleknagik Airport is 60 feet wide and 2,030 feet long.

Based on Table A2-1 of Advisory Circular 50/5300-13, *Airport Design*, an analysis of the siting surfaces for each runway end follows:

- Runway 33 is able to support large airplanes (visual day/night); or instrument minimums \geq 1 statute mile (day only).
- Runway 15 is able to support small airplanes with approach speeds of 50 knots or more (visual runways only, day/night).

5. Taxiway

A taxiway connector located near Runway 33 provides access between the runway and apron. The taxiway is 50 feet wide by 100 feet long.

6. Apron

The unpaved apron shown on the 1997 Property Plan measures 115 feet by 300 feet, which provides ample parking room for the single based aircraft.

7. Access

A gravel road connects the airport to the community of Aleknagik.

E. Property Status

The Aleknagik Airport rests on two tracts of land totaling 55.9 acres. Tract I, the main tract totaling 45.5 acres, is a 30-year lease which is set to expire in 2011.

F. Waste Disposal Facilities

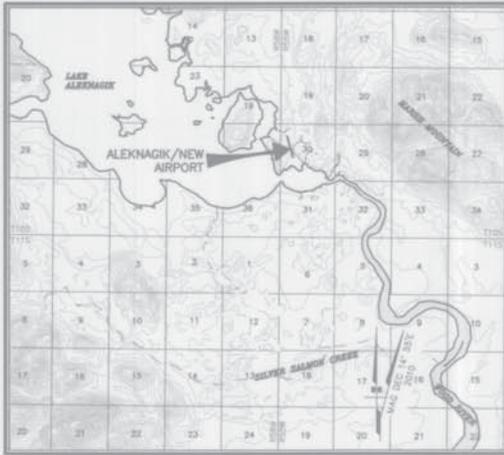
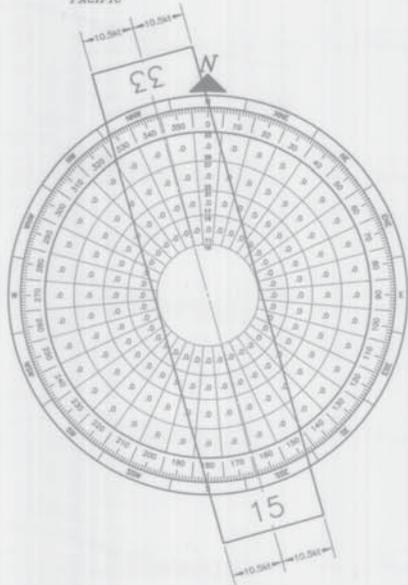
The community landfill is approximately 5,980 feet north of the runway along the North Shore Landfill Road. The sewage facility is located approximately 1,820 feet west of the runway.

G. Non-Standard Conditions

A standard A-I RSA is 120 feet wide and extends 240 feet beyond each runway end. The RSA at the Aleknagik Airport was constructed to a width of 100 feet and extends 35 feet beyond the end of Runway 15 and 30 feet beyond the end of Runway 33. The southerly RPZ extends beyond the airport property limits. Current standards require that the airport control the property within the RPZ.

H. Part 77 Surface Penetrations

Trees penetrate the Approach and Transitional Surfaces along both sides and at the ends of the runway. Terrain penetrates the Primary, Horizontal, and Conical Surfaces on the east side of the runway. An isolated area of high terrain penetrates the Horizontal Surface on the west side of the runway.



VICINITY MAP
 WITHIN PROTRACTED SECTION 30
 T10S, R55W, SEWARD MERIDIAN, ALASKA
 U.S.G.S. DILLINGHAM (8-7) AND (8-8)

LEGEND		
ITEM	EXISTING	ULTIMATE
AIRPORT REFERENCE POINT (A.R.P.)	▲	▲
ANTENNA	▲	▲
BLUFF	—	—
BUILDINGS	■	■
BUILDING RESTRICTION LINE	—	—
FENCE	—	—
PAV. PROPERTY LINE	—	—
ROADWAYS	—	—
ROTATING BEACON	—	—
SHORELINE	—	—
SURVEY MONUMENT	—	—
THRESHOLD MARKERS/LIGHTS	—	—
TOPOGRAPHIC CONTOURS	—	—
TREE (LARGE SINGLE)	—	—
TREELINE	—	—
VASI	—	—
WIND CONE	—	—
WIND CONE AND SEGMENTED CIRCLE	—	—

GEOGRAPHIC COORDINATES TABLE				
ITEM	EXISTING LATITUDE	EXISTING LONGITUDE	ULTIMATE LATITUDE	ULTIMATE LONGITUDE
ARP	58°19'57.25"N	158°37'04.33"W		
THRESHOLD RW 15	58°17'08.83"N	158°37'09.55"W		
THRESHOLD RW 33	58°18'47.57"N	158°38'58.08"W		

AIRPORT DATA TABLE		
ITEM	EXISTING	ULTIMATE
ICAO IDENTIFIER	NONE	
NATIONAL AIRPORT IDENTIFIER	5AR	
FAR PART 77 NUMBER	50027.53A	
AIRPORT ELEVATION NAVD83	63	
AIRPORT REFERENCE CODE	A-1	
MEAN MAX. TEMPERATURE, HOTTEST MONTH	81°F, JULY	
AIRPORT AND TERMINAL NAVIGATION AIDS	NONE	
TAXIWAY LIGHTING/MARKING	NONE	
OBSTRUCTION SURVEY SOURCE & TYPE	NONE	
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	14°58'E, 2010, -0'14"W / YEAR	

RUNWAY 15/33 DATA TABLE			
ITEM	EXISTING	NEAR TERM	ULTIMATE
RUNWAY TYPE - UTILITY OR OTHER THAN UTILITY	UTILITY		
FAR PART 77 APPROACH CATEGORY (V, NPS, P)	N/A		
APPROACH SURFACES	2517.20(1)		
VISIBILITY MINIMUM	3.1 SM		
RUNWAY SURFACE	GRAVEL		
EMPALEMENT STRENGTH (SL/BL/RT/WT/WT) ±10000#	N/A		
AIRCRAFT APPROACH CATEGORY			
AIRPLANE DESIGN GROUP	I		
TRUE BEARING	N19°27'48"W		
EFFECTIVE GRADE	0.58%		
TOUCHDOWN ELEVATION NAVD83 (ESTIMATED)	63 / 63		
RUNWAY DIMENSIONS	80' x 2020'		
LENGTH BEYOND R/W END	100' x 2020'		
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS	250' x 450' ± 1000'		
RUNWAY OBJECT FREE AREA (ROFA) DIMENSIONS	250' x 2510'		
LENGTH BEYOND R/W END OR SIDEPAY	240' x 240'		
RUNWAY OBSTACLE FREE ZONE (ORFZ) DIMENSIONS	250' x 3430'		
RUNWAY LIGHTING	NONE		
RUNWAY MARKING TYPE	NONE		
RUNWAY VISUAL APPROACH AIDS	NONE		

- NOTES
1. THE INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY DOWL ENGINEERS ON MARCH 11, 2008.
 2. THE HORIZONTAL DATUM IS NAD83(CORS83) (EPOCH 2003.56000) AS DETERMINED BY STATIC GPS OBSERVATIONS USING LEICA DUAL FREQUENCY GPS RECEIVERS AND PROCESSED USING THE NGS OPUS UTILITY. CONTROL CORRS STATIONS USED FOR THE POSITION SOLUTION WERE TSEA, POTS AND CHS.
 3. THRESHOLD COORDINATES WERE DETERMINED USING A STATIC GPS NETWORK. THE TOPOGRAPHIC MAPPING IN THE AIRPORT VICINITY WAS DIGITIZED FROM USGS QUAD DILLINGHAM (8-7).

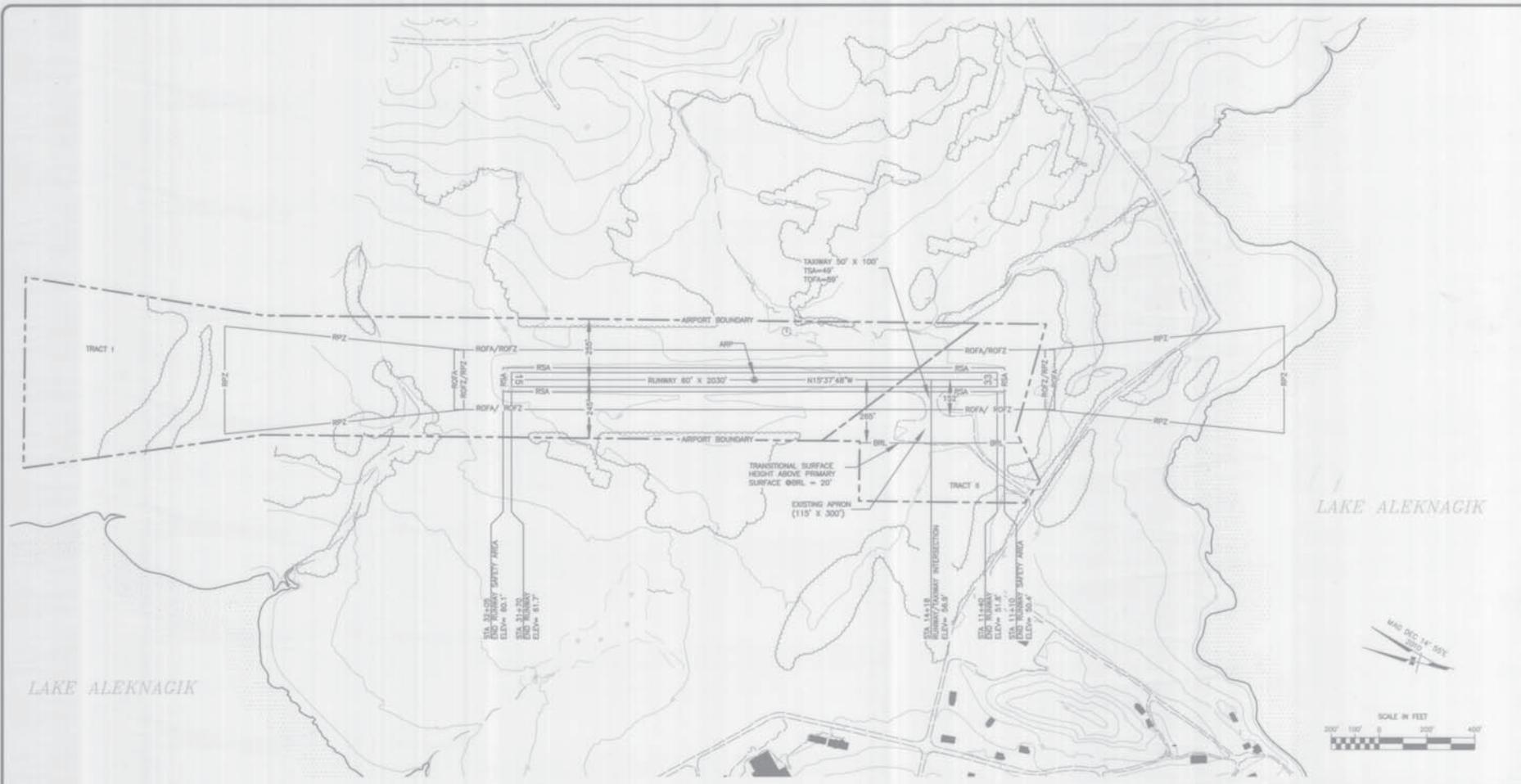
DRAWING INDEX	
SHT #	TITLE
1	DATA
2	EXISTING LAYOUT
3	AIRPORT AIRSPACE, 14 CFR, PART 77

BY / DATE	REVISION
APPROVED: <i>K. W. Rice</i>	DATE: 10/15/2010
RECOMMENDED: <i>K. W. Rice</i>	DATE: 10/14/2010
REVIEWED: <i>Harvey M. Souffrey</i>	DESIGN SECTION CHIEF

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	
ALEKNAGIK/NEW AIRPORT	
ALEKNAGIK, ALASKA	
AIRPORT LAYOUT PLAN	
DATE: 10/20/2010	
SHEET: 1 OF 3	

FILE NO. 220-84-2

DATE: 10/20/2010 10:20 AM
 DRAWN BY: J. J. JENSEN
 CHECKED BY: J. J. JENSEN
 PROJECT: ALEKNAGIK/NEW AIRPORT
 SHEET: 2 OF 3



LAKE ALEKNAGIK

LAKE ALEKNAGIK



PROPERTY STATUS						
ID #	INTEREST	GRANTOR	GRANTEE	PARCEL SIZE	DATE ACQUIRED	ACQUIRED AIP NO.
TRACT 1	30 YEAR LEASE-SURFACE ESTATE	CITY OF ALEKNAGIK		45.58 AC	08-13-81	3-01-0178-03
TRACT 2	30 YEAR LEASE-SURFACE ESTATE	CITY OF ALEKNAGIK		10.44 AC	02-27-88	3-02-0178-02

PROPERTY AND TRACT LINES ARE UNSURVEYED AND BASED ON 2002 CDED DATA AND 1997 PROPERTY PLAN.

BUILDING DATA TABLE			
ID #	DESCRIPTION	STATION/OFFSET	TOP ELEV (NAVD88)

NOTE:
 1. RUNWAY STATIONING APPROXIMATED FROM THE 1981 AIRPORT PROPERTY PLAN.
 2. THERE ARE NO OZ OBJECT PENETRATIONS.

BY	DATE	REVISION	DATE

ALEKNAGIK/NEW AIRPORT
 ALEKNAGIK, ALASKA
 AIRPORT LAYOUT PLAN
 EXISTING LAYOUT

DATE: 10/20/2010
 SHEET: 2 OF 3

