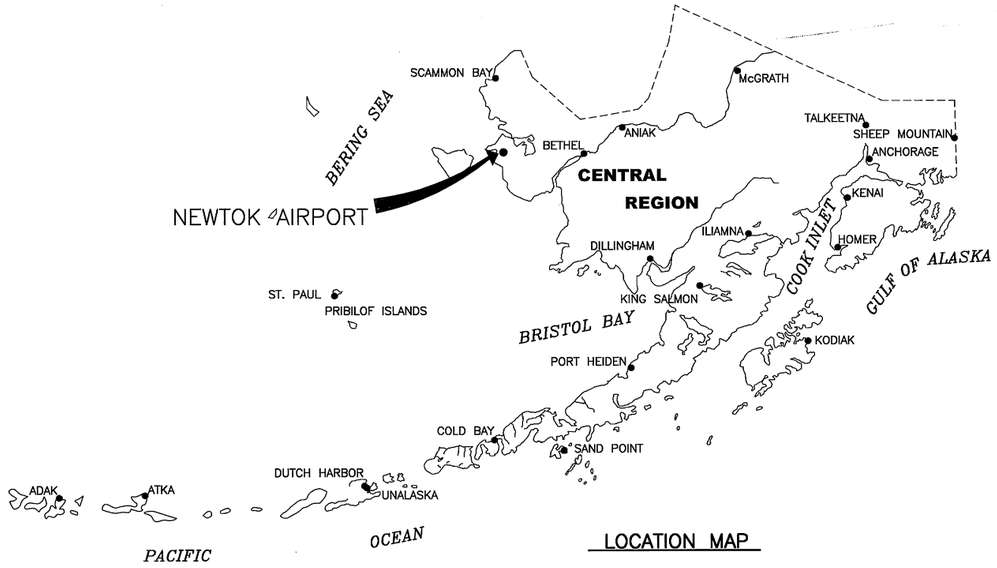
APPENDIX A

EXISTING AIRPORT LAYOUT & PROPERTY PLANS

2005 Airport Layout Plan
Existing Airport Property Plan

2005 Airport Layout Plan



LOCATION MAP

NOTES:

NO WIND DATA IS AVAILABLE.

GEOGRAPHIC COORDINATES, BEARINGS AND ELEVATIONS ARE ESTIMATED FROM 5010 SURVEY CONDUCTED 7/02, AIRPORT MASTER RECORD AND AVN DATA.

THRESHOLD PANEL LOCATIONS ARE ESTIMATED FROM PHOTOGRAPHY AND SITE VISIT 4/05

THIS ALP WAS PREPARED TO COMPLY WITH AIRPORT ASSURANCES RELATED TO THE PURCHASE OF SNOW REMOVAL EQUIPMENT.

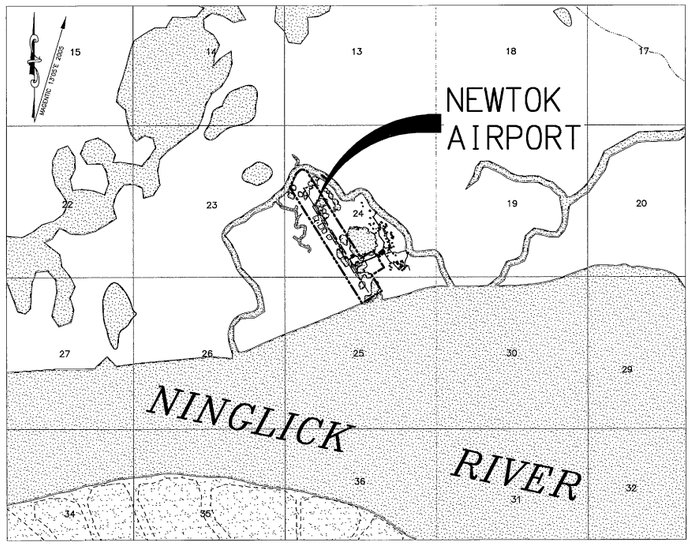
THE NEWTOK AIRPORT IS PLANNED TO BE RELOCATED WHEN THE COMMUNITY IS RELOCATED. NO SITE HAS BEEN CHOSEN FOR EITHER.

AFTER CONSTRUCTION WAS COMPLETED THE RW 33 THRESHOLD PANELS WERE MOVED, THERE ARE NO PLANS TO RELOCATE THE PANELS TO THE CORRECT LOCATION.

MODIFICATION TO STANDARDS/ NON STANDARD CONDITIONS

DESCRIPTION	STANDARD	EXISTING
RUNWAY WIDTH	60'	35'
RUNWAY CENTERLINE TO APRON	250'	180'
RUNWAY CENTERLINE TO WINDCONE / SEGMENTED CIRCLE	250'	200'
RSA RW 33 (SEE NOTE)	240'	191'
RUNWAY CENTERLINE TO WINDCONE 15 END	250'	232'
LANDFILL SEPARATION DISTANCE	5000'	~2800'

R.87 W
R.86 W



VICINITY MAP

1"=1/2 MILE
T 10 N, R 87 W, SEC. 24 & 25
SEWARD MERIDIAN
U.S.G.S. BAIRD INLET (D-8), ALASKA

LEGEND

ITEM	EXISTING	ULTIMATE
AIRPORT REFERENCE POINT (A.R.P.)		
ANTENNA		
BLUFF		
BUILDINGS		
BUILDING RESTRICTION LINE	BRL	BRL
FENCE	-X-X-X-	-X-X-X-
PAPI		
PROPERTY LINE		
REIL		
ROADWAYS		
ROTATING BEACON		
SHORELINE		
SURVEY MONUMENT		
THRESHOLD MARKERS/LIGHTS		
TOPOGRPHIC CONTOURS	100	100
TREE (LARGE SINGLE)		
TREELINE		
VASI		
WIND CONE		
WIND CONE AND SEGMENTED CIRCLE		

AIRPORT DATA TABLE

ITEM	EXISTING
ICAO IDENTIFIER	PAEW
NATIONAL AIRPORT IDENTIFIER	EWU
FAA SITE NUMBER	50529.*A
AIRPORT ELEVATION (MSL NAVD88) (ESTIMATED)	22.1'
AIRPORT REFERENCE CODE	A I
MEAN MAX. TEMPERATURE, HOTTEST MONTH	60 F° JULY
AIRPORT AND TERMINAL NAVIGATION AIDS	NONE
TAXIWAY LIGHTING/MARKING	NONE / NA
OBSTRUCTION SURVEY SOURCE & TYPE	NONE
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	13°5'E 2005 -0.1'

GEOGRAPHIC COORDINATES TABLE

ITEM	EXISTING LATITUDE	EXISTING LONGITUDE
ARP	N60°56'21"	W164°38'29"
THRESHOLD RW 15	N60°56'30.38"	W164°38'39.25"
THRESHOLD RW 33	N60°56'11.40"	W164°38'17.67"

RUNWAY 15/33 DATA TABLE

ITEM	EXISTING
RUNWAY TYPE ENTER UTILITY OR >UTILITY	UTILITY
FAR PART 77 APPROACH CATEGORY (V, NPI, P)	V / V
APPROACH SURFACES	20:1/ 20:1
VISIBILITY MINIMUM	V
RUNWAY SURFACE	GRAVEL
RUNWAY STRENGTH SW,DW,DTW,DDTW 1000lbs	UNKNOWN
AIRCRAFT APPROACH CATEGORY	A
AIRPLANE DESIGN GROUP	I
RUNWAY DIMENSIONS	35' X 2202'
TRUE BEARING (ESTIMATED)	N28° 56' 49"W
EFFECTIVE GRADE (ESTIMATED)	0.46 %
TOUCHDOWN ELEVATION (MSL NAVD88)(ESTIMATED)	22.1'
RUNWAY SAFETY AREA (RSA)	120'x2748'
LENGTH BEYOND R/W END	355' / 191'
RUNWAY PROTECTION ZONE (RPZ)	250' X 450' X 1000'
RUNWAY OBJECT FREE AREA (OFA)	250'x2602'
RUNWAY OBSTACLE FREE ZONE (OFZ)	250'x2682'
RUNWAY LIGHTING	NONE
RUNWAY MARKING TYPE	NONE
RUNWAY VISUAL APPROACH AIDS	NONE

BY	DATE	REVISION

DRAWING INDEX

APPROVED: DATE: 9.21.05
ROBERT A. CAMPBELL, P.E. PRECONSTRUCTION ENGINEER

RECOMMENDED: DATE: 21SEP05
HARVEY M. DOUTHIT, P.E. DESIGN SECTION CHIEF

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 11/3/2005
FAA AIRSPACE REVIEW NUMBER:

DATE: 11/3/05
FAA AIRPORTS DIVISION ALASKAN REGION, AAL-

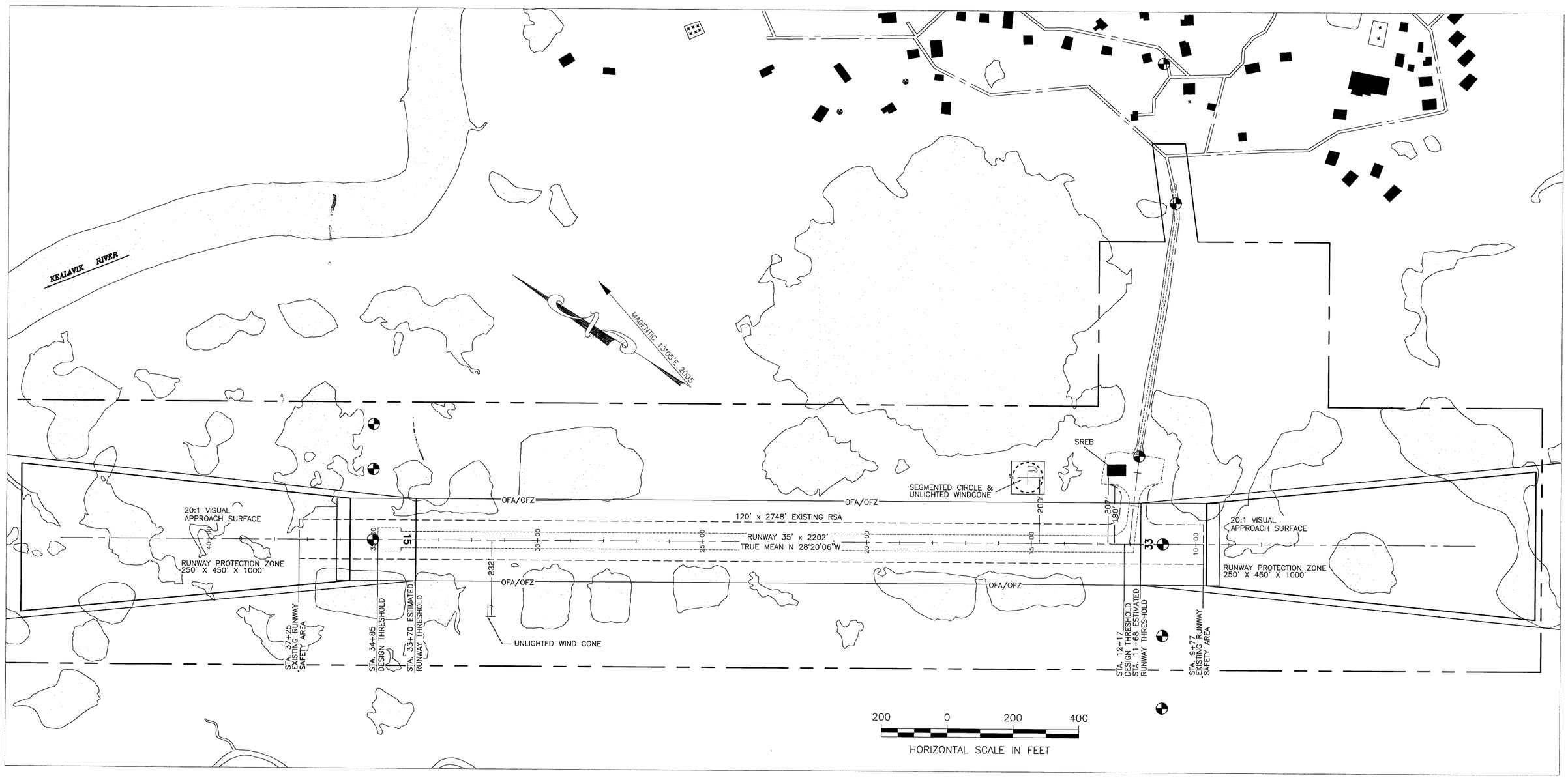
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

NEWTOK AIRPORT
NEWTOK, ALASKA
AIRPORT LAYOUT PLAN

AIRPORT DATA SHEET

DATE: 09/14/2005
SHEET: 1 OF 3

Drawn By: M. Tolman
Checked By:
Layout Name: 1=1, layout=
File Name: W:\Projects\Newtok\ALP 2005\Final Drawings\Newtok ALP 2005 Final.DWG



BUILDING DATA TABLE				
ID #	DESCRIPTION	STATION / OFFSET	TOP ELEV (MSL)	OBSTRUCT MARKING
1	SINGLE BAY SREB	12+50 / 207'	46' EST.	NONE

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

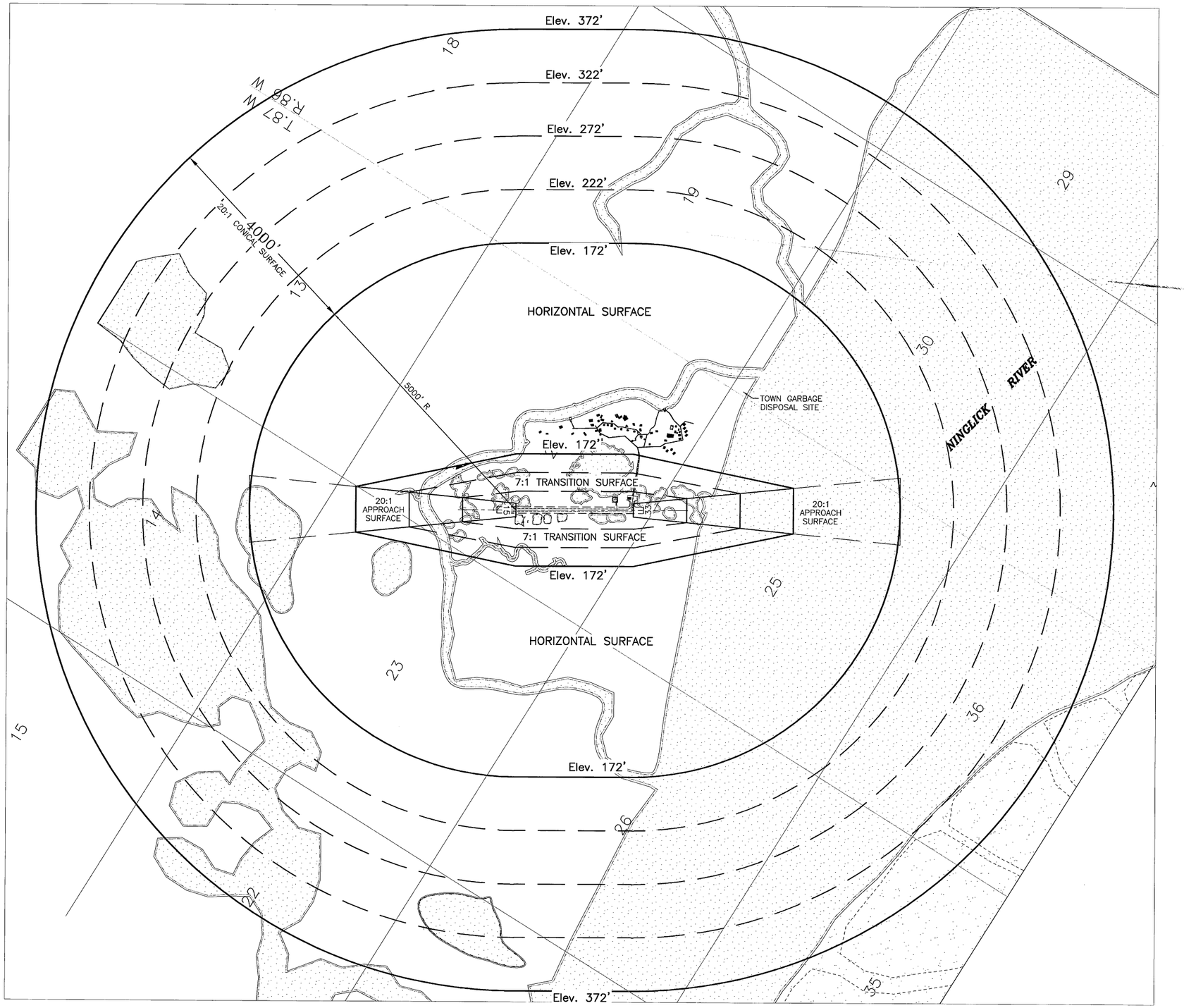
NEWTOK AIRPORT
NEWTOK, ALASKA
AIRPORT LAYOUT PLAN

AIRPORT LAYOUT PLAN EXISTING

DATE: 09/14/2005
SHEET: 2 OF 3

Designed By: B. Hanson
Drawn By: M. Tolman
Checked By:

Date Plotted: 9/19/2005, 9:24 AM
Layout Name: 11"x17"Layout
File Name: W:\Projects\Newtok\ALP 2005\Final Drawings\Newtok ALP 2005 Final.DWG



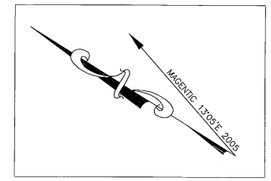
NOTES:

THERE ARE NO PENETRATIONS TO THE PART 77 SURFACES.

NO THRESHOLD SITING SURFACE PENETRATIONS

NO OFZ PENETRATIONS.

R/W ELEVATION IS ESTIMATED AT 22'.



WATER

1000' 0' 1000' 2000'

HORIZONTAL SCALE IN FEET

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

NEWTOK AIRPORT
NEWTOK, ALASKA
AIRPORT LAYOUT PLAN

AIRPORT AIRSPACE

DATE: 09/14/2005

SHEET: 3 OF 3

Designed By: B. Hanson
Drawn By: M. Tolman
Checked By:

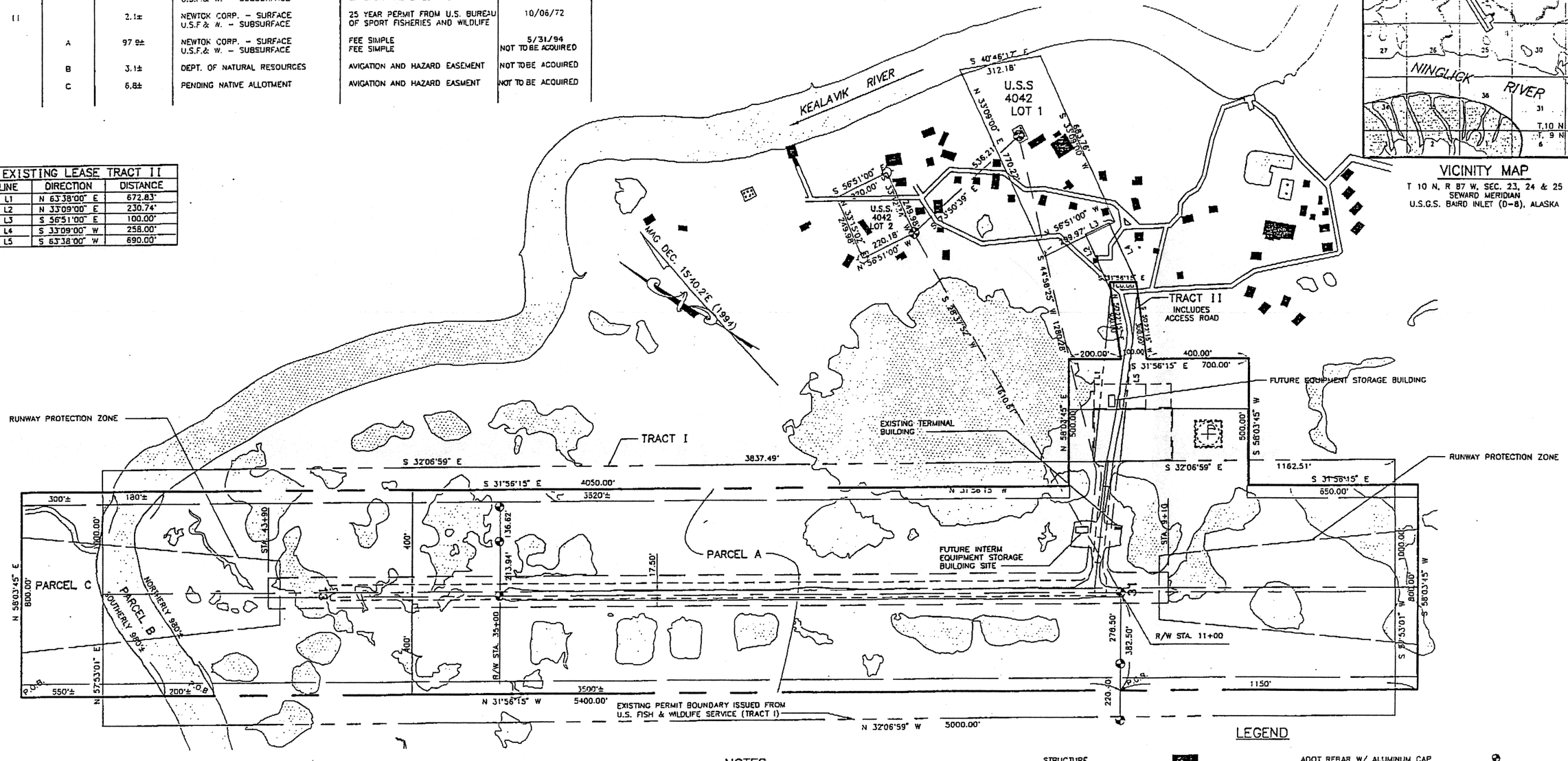
Layout Name: 1=1, layout=
File Name: W:\Projects\Newtok\ALP 2005\Final Drawings\Newtok ALP 2005 Final.DWG

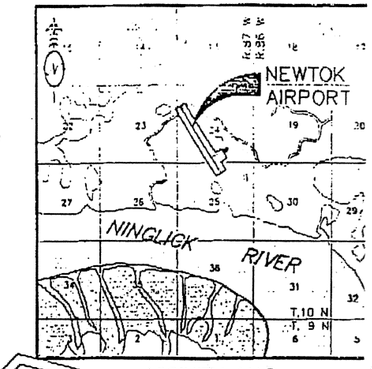
Existing Airport Property Plan

PROPERTY STATUS

TRACT	PARCEL	ACREAGE	OWNERSHIP	INTEREST	DATE ACQUIRED
I			NEWTOK CORP. – SURFACE U.S.F.& W. – SUBSURFACE	25 YEAR PERMIT FROM U.S. BUREAU OF SPORT FISHERIES AND WILDLIFE	10/06/72
II		2.1±	NEWTOK CORP. – SURFACE U.S.F.& W. – SUBSURFACE	25 YEAR PERMIT FROM U.S. BUREAU OF SPORT FISHERIES AND WILDLIFE	10/06/72
	A	97.9±	NEWTOK CORP. – SURFACE U.S.F.& W. – SUBSURFACE	FEE SIMPLE FEE SIMPLE	5/31/94 NOT TO BE ACQUIRED
	B	3.1±	DEPT. OF NATURAL RESOURCES	AVIGATION AND HAZARD EASEMENT	NOT TO BE ACQUIRED
	C	6.8±	PENDING NATIVE ALLOTMENT	AVIGATION AND HAZARD EASMENT	NOT TO BE ACQUIRED

EXISTING LEASE TRACT II		
LINE	DIRECTION	DISTANCE
L1	N 63°38'00" E	672.83'
L2	N 33°09'00" E	230.74'
L3	S 56°51'00" E	100.00'
L4	S 33°09'00" W	258.00'
L5	S 63°38'00" W	690.00'





VICINITY MAP
T 10 N, R 87 W, SEC. 23, 24 & 25
SEWARD MERIDIAN
U.S.G.S. BAIRD INLET (D-8), ALASKA

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)

NOTES:
1. CONSTRUCTION CENTERLINE IS 17.5' RIGHT (NORTHEAST) OF MONUMENTED CENTERLINE. PARCEL A IS CENTERED ON CONSTRUCTION CENTERLINE.

LEGEND
- STRUCTURE
- SEGMENTED CIRCLE
- WIND CONE
- EXISTING ROADWAY
- BLM BRASS CAP MONUMENT
- ADOT REBAR W/ ALUMINUM CAP
- PERMIT BOUNDARY
- ACQUISITION BOUNDARY
- PARCEL BOUNDARY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION–DESIGN AND CONSTRUCTION–AVIATION

DATE 5/12/94
DESIGN KES
DRAWN CDS

NEWTOK AIRPORT

PROPERTY PLAN

SHEET 1 OF

Ownership

TOWNSHIP 10N RANGE 87W OF THE SEWARD MERIDIAN, ALASKA

Alaska State Plane Zone 8
North American Datum 1927
1:31,680
1 inch equals 2,640 feet
(18" by 24" Plat)

0 0.25 0.5 1 1.5 Miles

State Owned, State Selected, DNR Managed

- State Tentatively Approved or Patented Land
- Other State Acquired Land
- State Selected Land
- ANILCA Top Filed Land
- Navigable Water
- RS2477 Route

Other Land Designation

- Mental Health Trust Land
- Municipal Entitlement and Municipal Tideland
- Native Allotment
- Other Federal Action
- Management Right
- Agreement, Settlement, or Reconveyance
- Land Disposal (Conveyed)

- Highway
- Secondary Road
- Trail
- Railroad
- Electrical
- Telephone
- Pipeline
- Borough Boundary
- Recording District
- ACMP District
- Protracted Section Line
- National Geodetic Survey Monument
- State Control Survey Monument
- State and Federal Survey Monument
- Airstrip
- Survey Boundary
- Hydrography
- Alaska Seaward Boundary
- Incorporated City Boundary

VIEW REMARKS COLUMN
VIEW LAS LAND FILE

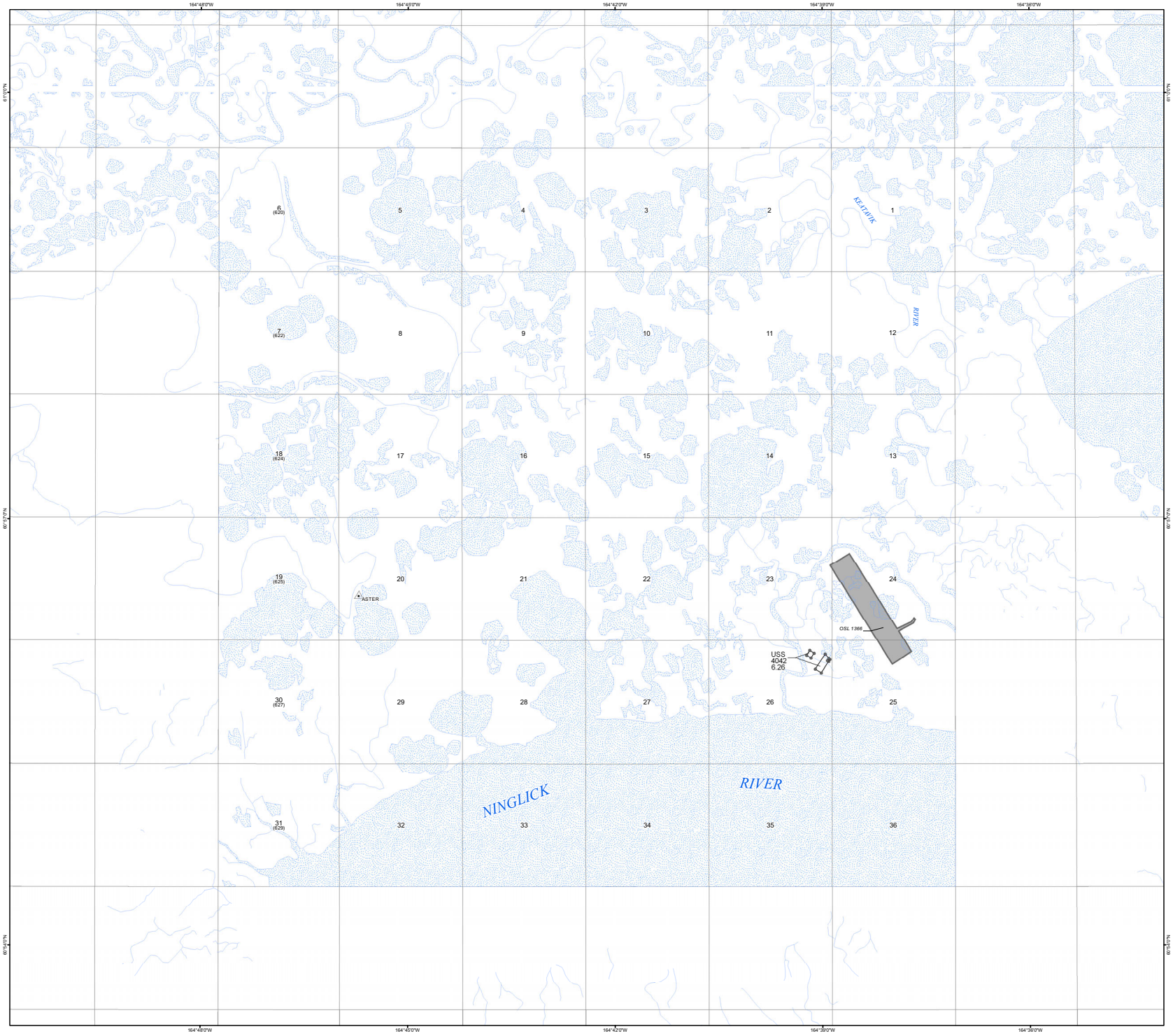
Vicinity Map

A PRODUCT OF THE
STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
LAND RECORDS INFORMATION SECTION

GRAPHIC ILLUSTRATION ONLY.
SOURCE DOCUMENTS REMAIN THE OFFICIAL RECORD.

PUBLISHED DATE: 3/12/2007 REFER TO
PLAT INFORMATION MANAGEMENT SYSTEM
FOR NEW PENDING ACTIONS AFFECTING THIS MAP

CHECKED BY: Teri Moody



APPENDIX B

TECHNICAL REPORTS

Site Visit Report
Technical Memorandum No. 1
Soils Report
Preliminary Wetlands Determination

Site Visit Report

Subject:	Newtok Airport Relocation	**Date:**	July 27, 2005
RE:	Reconnaissance Trip Report	**PDC # Name:**	F05024 Newtok Airport Relocation Reconnaissance Study
Location:	Newtok/Takikchuk, AK		

1.0 INTRODUCTION

On July 26th, the project team embarked on trip to perform site inspections and conduct the public meeting at the community of Newtok. The project team consisted of:

Name	Organization	Project Responsibility
Rich Sewell	ADOT&PF	Project Manager
George Hitz	PDC Inc. Engineers	Environmental Review & Public Involvement
Ken Risse	PDC Inc. Engineers	Planning/Engineering
Pete Hardcastle	R&M Consultants, Inc.	Geotechnical Studies

Ken Risse and George Hitz departed for Newtok July 26th from Fairbanks, flying Frontier to Anchorage, thenAlaska Airlines to Bethel, where they spent the night. The following morning they interviewed Vance Sasinowski, Dean Lukin, and Mark Lewis, pilots working for Grant Air and Hagelund. In reviewing the map with the alternative sites, the pilots preferred the locations at the higher elevations and closest to the Baird Inlet (Sites 1 and 1A). They did not feel there was any advantage to the lower sites, even when the clouds were low: if the higher alternatives were obscured by clouds, it was unlikely they would have the required minimums to fly into the lower alternative sites. They were also concerned about poor visibility in winter due to snow completely covering the terrain. With no exposed features for contrast, it is difficult to fly over higher terrain and descend to the lower sites even with unobstructed approach slopes. The pilots indicated the closer the airport is to the community, the better. After speaking with the pilots, we flew into Newtok with Grant Air. The pilot adjusted the route to fly over the study area to allow us to observe and photograph the island from the air before landing in Newtok.

Pete Hardcastle flew into Newtok on the 26th and met up with Charley Tommy, who arranged for the project team to stay at the old Armory. Rich Sewell flew from Anchorage to Bethel on Alaska Airlines July 26th. The following morning Rich flew Hagelund to Newtok on Hagelund.

In Newtok, Charley Tommy (the Grant Air agent) met the plane and carried our meeting supplies to the Community Hall and our other bags to the armory. We arranged to have the Community Hall prepared for the public meeting. We attempted to obtain a charter boat to take us to the north side of Nelson Island for a site visit prior to the meeting, but the tides were too low until late in the day, and we decided to reschedule the trip to the following day. We observed the community and the existing airport.

We contacted Stanley Tom, who volunteered to translate at the public meeting.

The meeting was held July 27th at 7:00 PM (see separate Public Meeting Summary). After the meeting, we arranged for two charter boats to take us to the north side of Nelson Island the next morning.

1028 Aurora Drive
Fairbanks, AK 99709
T: 907.452.1414
F: 907.456.2707

2.0 SITE INSPECTION - TAKIKCHUK

The morning of July 28th, our two boat captains, Simeon Fairbanks and Tom John, met us at the armory. We gathered our equipment and supplies and loaded the two boats. We left Newtok at high tide, 6:30 AM, and made the trip to Nelson Island, landing near the area called Takikchuk in the ASCG relocation report about 7:00 AM. We set off on the island exploration, leaving the boat captains to reposition and anchor the boats for the next several hours while we investigated the island.

The weather was warm (50-60°F) and overcast with occasional light misting rain. We climbed the hill to Sites 1 and 1A (see Sheet 1). Along the way we observed the surface rock, which is described more fully in the geotechnical summary. The terrain at the top was relatively level, with ground elevation varying up to 5 feet in any direction within a 50-foot radius. The entire surface was covered with vegetation, from shrubs and short trees to dense mosses, grasses, and lichen. The main vegetation consisted of cottongrass and other sedges, blueberries, bog birch, crowberries, labrador tea, and patches of willows and grasses. There were a few areas of isolated surface water.

After looking over Site 1, the team split into two groups, with Ken and Rich heading in the direction of Site 3 and George and Pete going to Site 4. There was no water flowing in the seasonal creek of the drainage between Sites 1 and 3. There was also no evidence of high water marks, flooding, or bank erosion. It appears the precipitation runoff of the entire study area is attenuated by the deep mosses and marsh pockets.

On the way over to Site 3, Rich and Ken came upon a herd of musk oxen. Sensitive to the wildlife (and unarmed), we chose to divert our path to avoid them. We noted the terrain in the vicinity was nearly flat, providing a versatile site for airport consideration.

Rich and Ken then went on toward Site 6. The existing ground profile along the ridge at Site 6 was not as desirable as other sites. Either the center of the runway would have to be cut down or the ends built up considerably to achieve the required sight distance. The site is also constrained in the direction of the runway alignment. Potential apron sites and lease lot areas are limited and would likely require deep fill to meet taxiway and apron grading requirements. We did find some loose rocks in a 100-foot by 300-foot area approximately 1,000 feet to the north of Site 6.

Site 4 appeared to be fairly level, although the slope was steeper than previously thought. George and Pete estimated the slope to be between 4-7% in a southeastern direction. Vegetation was similar to the surrounding landscape. Permafrost near the surface seemed to be patchy throughout the area. No surface rocks were found at the site. There was evidence of moose and musk oxen in the area, and also a considerable number of ptarmigan. Another possible site, facing in a southwestern direction, was spotted on an adjacent slope approximately 1/4 mile to the west.

Next, George and Pete went to an area northwest of Site 4 (elevation 460 feet, per the USGS map) to investigate a potential material site. Some surface rocks were seen on the top of the hill. On the northern side of the hill there were more surface colluvial rocks and some poor exposures (described further in the geotechnical report).

After these overland walks, we returned to the boats around 4:30 PM. Rich returned to Newtok with Tom John's boat, and Ken, Pete, and George rode with Simeon Fairbanks to a potential material site approximately 3 miles east of Site 6 (see Sheet 2). Pete photographed and took a sample of the rock. Simeon then took us to the area of Site 5. Navigation was difficult, and the boat grounded several times. We observed the general area from the boat. No rock or other material sources were evident in the area of Site 5. We went on to the area near Site 2. We did not leave the boat in this area of Native allotments and known archeological sites; instead, we observed recent survey markers, probably from the BLM survey of Native allotments. Then we returned to Newtok, arriving about 7:20 PM with the high tide.

3.0 EXISTING CONDITIONS

Early on Friday (July 29th) Ken inspected the existing airport. The crushed aggregate runway surface was in good condition. Generally, the airport is as shown on the ALP, with a boardwalk access from the village to the apron. There is power to the SREB, no airport lighting, and the runway is marked with cones and threshold markers in poor condition. Minor discrepancies from the ALP include:

- The wind cone and segmented circle are nearer the apron than depicted on the ALP (and farther from the apron than what is shown in the Alaska Supplement)
- The "future" wind cone on the right side of Runway 13 exists
- The SREB is the only building on the apron
- There appeared to have been embankment placed in the safety area beyond the Runway 13 threshold, making it higher than the ground line shown on the ALP
- The garbage disposal site has been moved across the Kealavik River

4.0 SITE VISIT PHOTOS

Photo 1 – Surface Rock near Sites 1 and 1A

Photo 2 – Terrain at Sites 1 and 1A

Photo 3 – Musk Oxen near Site 3

Photo 4 – Terrain at Site 4

5.0 END OF TRIP

George and Ken departed Newtok for Fairbanks shortly after Ken finished inspecting the current airport.

NINGLICK RIVER

BAIRD INLET

GPS TRACKS FROM FIELD RECON

APPROXIMATE LOCATION OF NEWTOK RELOCATION

Sand and mud

YUKON DELTA NATIONAL WILDLIFE REFUGE

NELSON ISLAND

BOUNDARY OF LANDS CONVEYED TO NEWTOK NATIVE CORPORATION (NOTE 2)

Chakchak Creek

555 Front

Grass 578

T.9 N
T.8 N

R.87 W
R.88 W

MAP SOURCE
T8N, R86W, R87W, R88W
SEWARD MERIDIAN
BAIRD INLE (D-7, & D-8), ALASKA
DATE: 1954

NOTES:

1. SITES 1–6 WERE INITIAL SITES UNDER CONSIDERATION AND INVESTIGATED DURING THE JULY 2005 SITE VISIT.
2. BOUNDARY INCLUDES LANDS OF IC 602, 603 AND 1876.

2000 1000 0 2000 4000 6000
SCALE IN FEET

P:\2005\F05024\C\CD1-2RSF05024 RECON SHT01 11/28/2005 8:42 AM

CONSULTANT :

PROJECT :
NEWTOK AIRPORT RELOCATION RECONNAISSANCE STUDY
STUDY AREA
NEWTOK, ALASKA

SHEET TITLE :

DESIGN	KAR
DRAWN	KAR
CHECKED	RLC
DATE	JULY 2005

PROJECT No.
F05024

FIGURE
1

Technical Memorandum No. 1

NEWTOK AIRPORT RELOCATION RECONNAISSANCE STUDY
TECHNICAL MEMORANDUM NO. 1
November 28, 2005

The Alaska Department of Transportation & Public Facilities (ADOT&PF) has contracted PDC Inc. Engineers to complete a Reconnaissance Study for relocation of the Newtok Airport. Initial efforts for this study included an office study, public and agency coordination, and field reconnaissance. The purpose of this Technical Memorandum is to summarize the results of these tasks so the study can move forward into the next stage. This memo presents:

- Facility requirements and design criteria for layout of airport facilities on potential relocation sites
- Results of wind data research
- Identification and screening of initial site alternatives

More complete documentation of these tasks will be presented in the Draft Reconnaissance Study report.

Aviation Activity and Facility Requirements

Yukon-Kuskokwim Delta Transportation Plan Analysis

The Village of Newtok is located in the Lower Middle Coastal zone of the Yukon-Kuskokwim (Y-K) Delta and serviced from the hub airport at Bethel. According to the *Y-K Delta Transportation Plan* (Y-K Plan) and verified by interviews with air service providers, Newtok is served as part of a cluster of seven villages. Of the seven airports, three are proposed for upgrade to 4,000-foot runways. The other four, including Newtok, are recommended for immediate upgrade to 3,300 feet to service nine-passenger aircraft.

Aviation Activity

Existing Records

Enplanement, operations, and cargo volume data were collected from the Y-K Plan, the FAA Airport Planning Passenger Boarding website (http://www.faa.gov/planning/stats), and the Airport Master Record dated July 7, 2005. The data collected from these sources was updated with the pilot and air taxi interviews and does not indicate a need to modify the design criteria and facility requirements presented below. The Reconnaissance Study report will further document the aviation activity and forecast.

Air Carrier Interviews

- Arctic Circle Air, one of Newtok's main air cargo providers, says that the current runway length limits the fleet serving the village. Arctic Circle typically flies the Cessna 207 and 208 Caravan to Newtok. Occasionally, when they have enough cargo, they use the Sherpa/Shorts SD330. A 3,000-foot or longer runway is needed for going in heavy but coming out light. If cargo or equipment were coming out of Newtok, they would need 3,800 to 4,000 feet, especially in the summer.
- Lynden Air Cargo noted the need for a 4,000-foot runway to operate the Herc C-130. They fly by charter only, for fuel and cargo. Their questionnaire response indicated that they feel the State is unrealistic in only building 3,300-foot-long runways.
- Hageland provides scheduled service twice daily and generally carries 8-10 passengers per day. They currently use the Cessna 207 and 208, but would use the Beech 1900 for charters if the runway were long enough (4,000 feet).
- Grant Aviation provides medivac services with the Caravan. They also fly a Cessna 207 and the Navajo PA31 to Newtok to carry mail and up to 6-8 passengers daily. They are looking to fly larger planes (Beech 1900 or King Air). They could use these aircraft at Newtok if the runway were longer.
- ERA services Newtok with at least one flight per day. They fly Twin Otters and could continue to do so if the airport were relocated. They would prefer a 3,500-foot-long runway, but 3,300 feet is okay.

Facility Requirements

The ultimate airport facility for Newtok should be a 4,000-foot runway with FAA standard dimensions meeting Airport Reference Code (ARC) of B-II.

- Aircraft servicing this area (Cluster 10) require 4,000-foot runways, and 4,000-foot runways are planned at three of the seven airfields in the cluster.
- Over the next five to ten years, Newtok will receive larger than normal volumes of cargo and fuel related infrastructure development to support the village relocation. The Y-K Plan did not account for these extra passenger and cargo volumes.
- The air carriers feel longer is better, each providing a rationale for at least occasional use by aircraft requiring 4,000-foot-long runways.
- When considering a major investment such as relocation of an airport, it is prudent to consider longer-than-20-year plans.

The alternative evaluation process should also document each alternative's ability to support non-precision instrument (NPI) approach minimums. Furthermore, adequate apron area should be provided to allow maneuvering by the occasional large cargo aircraft as well as off-loading of the smaller daily service aircraft.

Design Criteria

The appropriate design standards by Airport Reference Code are specified in the FAA Advisory Circular (AC) 150/5300-13B, Change 8, *Airport Design*. Airspace criteria are established in Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*. The approach visibility design criteria were established for not lower than one-mile visibility for non-precision GPS approaches. Table 1 presents design criteria proposed for development at Newtok Airport.

Table 1 – Design Criteria

Airport Feature	Proposed for Recon Study
Design Aircraft	Sherpa/Short SD330 or Beech 1900
Airport Reference Code	B-II
Airport Facility Designation	Community
Runway Length	4,000'[1], 3,300' minimum
Runway Width	75'
Runway Safety Area	4,600' x 150'[1], 3,900' x 150' minimum
Taxiway Width	50'[2]
Taxiway Safety Area	118'[2]
Approach Visibility Minimums	Non-Precision and Not Lower than 1-Mile
Runway Protection Zone (RPZ)	1,700' Length, 500' Inner Width, 1,010' Outer Width[3]
Primary Surface	4,000' x 500', 3,300' x 500' minimum
Horizontal Surface	10,000' radius
Approach Slope	34:1
Parking Apron	250' x 400' (Stage 1); 250' x 800' (ultimate)
Aviation Support Area (Lease Lots)	2-4 lots 150' x 100' each (includes 50' apron frontage)
Parking Apron Offset from Runway Centerline	400'
Airport Lighting	Runway and Taxiway Lighting, Threshold Lighting
Navigation Aids	Rotating Beacon, Wind Cone & Segmented Circle

[1] Length required to accommodate the Beech 1900 and Sherpa/Short SD 330. Considered prudent based on pilot questionnaires and substantial air cargo traffic for community relocation.

[2] Taxiway and Taxiway Safety Area widths increased to the next higher Aircraft Design Group (III) to provide more snow storage area and to support occasional use by larger aircraft.

[3] RPZ dimension shown for Aircraft Approach Categories of C and D to provide on-ground and airspace protection to support occasional use by larger aircraft, such as the DC-3, DC-6, or C-130, for fuel or cargo operations.

Meteorological Data

There is no wind data available for Newtok, so we interviewed pilots to obtain anecdotal information and reviewed wind data from surrounding airports.

User and Air Taxi Information

Pilots indicate that the north side of Nelson Island has prevailing winds from the southeast in the fall and north-northeast to east in the winter. These winds can be 20 knots or higher. High winds predominantly occur in the fall-winter season, coinciding with the storms from Japan.

A pilot who has been flying the Y-K area out of Bethel for several years reported that the typical weather for the island is breezy from June through August, foggy in August through November, and fairly nice with some rain from December to May. This pilot reported the low ceiling cloud

cover occurs 40 percent of the time and can be as low as 200 feet in the Toksook Bay and Newtok area. When the ceiling is this low, clouds cover the tops of the hills.

A different pilot, also familiar with the area, stated whiteout conditions are not uncommon, especially during winter. This pilot felt an east–west oriented runway would be best for the strong northeast winds in the area. He stated the strongest winds occur during break-up and freeze-up.

Both pilots have cautioned that winds vary between communities and are influenced by local topography.

University of Alaska Anchorage Climate Center – Available Wind Data

The UAA Climate Center has no data for the Newtok Airport, but the following data is available from nearby villages.

Table 2 – Wind Data for Airports Near Newtok

Airports in Vicinity	Dates of Available Wind Data
Toksook Bay (24 miles SW)	August 1993 through March 1995
Chevak (57 miles NW)	August 1995 through June 1996
Nightmute (23 miles S)	August 1995 through December 1996
Tununak (26 miles SW)	January 1996 through March 1996
Bethel (90 miles E)	Tuntutuliak ALP presents a windrose using Bethel data from January 1984 through December 1993. More recent data (since installation of the AWOS) is available but not compiled.

The wind data used for the Toksook Bay ALP shows high winds predominantly from the northwest. The Bethel wind rose (shown on the Tuntutuliak ALP) shows high winds predominantly from the northeast and southwest. These two data sources show that the predominant winds are crosswind to each other, which supports the pilot reports (above).

Review of the Toksook Bay and Bethel wind roses suggests a need for two runways to achieve FAA recommended wind coverage of 95 percent.

We recommend wind data be collected from a site located on the north side of Nelson Island, near the proposed community, prior to selection of a final airport site or orientation. Based on

the USGS maps and our field reconnaissance, the intersection of the runways shown on Figure 1 as Sites 1 and 1A would be a good site for wind data collection.

Initial Alternative Identification and Analysis

Initial airport relocation alternatives were identified using transparent airport overlays on USGS mapping. Six relocation alternatives (see Figure 1) were identified based on the following considerations:

- Select relatively flat topography to minimize earthwork for construction
- Avoid fill into lakes or ponds
- Minimize airspace penetrations caused by surrounding hills – especially within the approach surfaces
- Locate the airport near the community relocation site

These initial sites were evaluated based upon information gathered during the office study, pilot interviews, and the field reconnaissance conducted on July 28 (see Trip Report, August 8, 2005). The goal of this initial screening was to identify sites that were reasonable for refinement and more detailed evaluation.

Eliminated Sites

Of the six initial sites, three are recommended for elimination.

Site 2

- Pilots in Bethel expressed concern with the nearby hills and approach up the valley. There are terrain penetrations of the FAR Part 77 Horizontal, Conical, and 34:1 Approach Surfaces.
- The airport would require property from Native Allotments. Acquisition of Native Allotments could prolong the project schedule and should be avoided.
- Topographically, there is little flexibility in the runway orientation for improving wind coverage.
- The runway overlays a drainage that would have to be either conveyed through a culvert under the runway or diverted to the end of the runway. Neither option is attractive.

Site 5

- Similar to Site 2, the Bethel pilots expressed concern with the nearby hills. There are terrain penetrations of the FAR Part 77 Horizontal and Conical Surfaces.
- The airport would require property from the Yukon Delta National Wildlife Refuge for the runway, taxiway, and apron and from the Newtok Native Corporation for an access road to the community. The access road would have to either go through the Native Allotments or climb the hill and cross to the south of them. In any case, land acquisition would be more difficult than for the three options being carried forward.
- This location is farther from the community than any of the other alternatives.
- This alternative has the lowest approach from the north over the Baird Inlet Island. Depending on the exact location of the runway, the approach may be over the island, which is a concern of the U.S. Fish and Wildlife Service (USFWS). Field investigation indicates that the island's shape has changed from what is shown on the 1954 USGS map.
- Topographically, the runway orientation is constrained by lakes and a parallel steep hillside, providing little flexibility for improving wind coverage.

Site 6

- The topography of this site would require either deep fills at each end of the runway or cutting out the hill near the center portion of runway to obtain the line of sight requirements and clearance of the FAR Part 77 primary surface.
- The site is not well-suited for lengthening the runway, as each end drops off considerably.
- Following the ridge offers little flexibility in the orientation of the runway for improving wind coverage.
- Flat terrain for apron and aviation support areas is limited and would require deep fills.

Site Alternatives for the Reconnaissance Study

The sites recommended for further evaluation, Sites 1, 1A, 3, and 4, all fall within the boundary of land conveyed to the Newtok Native Corporation. Sites 1 and 1A are the closest to the proposed Newtok Village relocation site.

Based upon the proposed design criteria, airport layouts will be developed for the runway, apron, taxiway and access routes at each site. These sites and layouts will then be evaluated as discussed below.

Evaluation Criteria

1) Orientation for Wind

Although no wind data for Newtok is presently available, pilot interviews indicated the stronger winds are from the northeast and a more east-west orientation would be best. Further, it seems from other data in the area that two runways may be needed. Thus, sites that allow for flexibility in runway orientation and/or crosswind runways are preferred.

2) Proximity to Community

The location of the airport needs to be coordinated with the community layout of roads, utilities, and other infrastructure and to meet separation requirements of landfills and sewage lagoons. The airport should be near the community, but far enough away to avoid being a safety concern, preventing ground traffic crossing and children playing on or near the runway. Further, the location should allow for future expansion of the community and airport.

3) FAR Part 77 Airspace

The airport should be clear of terrain penetrations of the primary, transitional, approach, conical and horizontal surfaces. If practicable, the PAPI Obstruction Clearance Slopes should be clear of terrain penetrations.

4) Environmental Overview

Impacts to known or potential resources should be minimized.

5) Bird and Wildlife Hazards

Avoidance of direct flight paths over the Baird Inlet Island is desirable. The USFWS has identified this as a concern because of the potential for disturbances to birds at critical stages in their life cycle as well as an increased risk of wildlife and aircraft collisions.

6) Suitable Topography and Soils

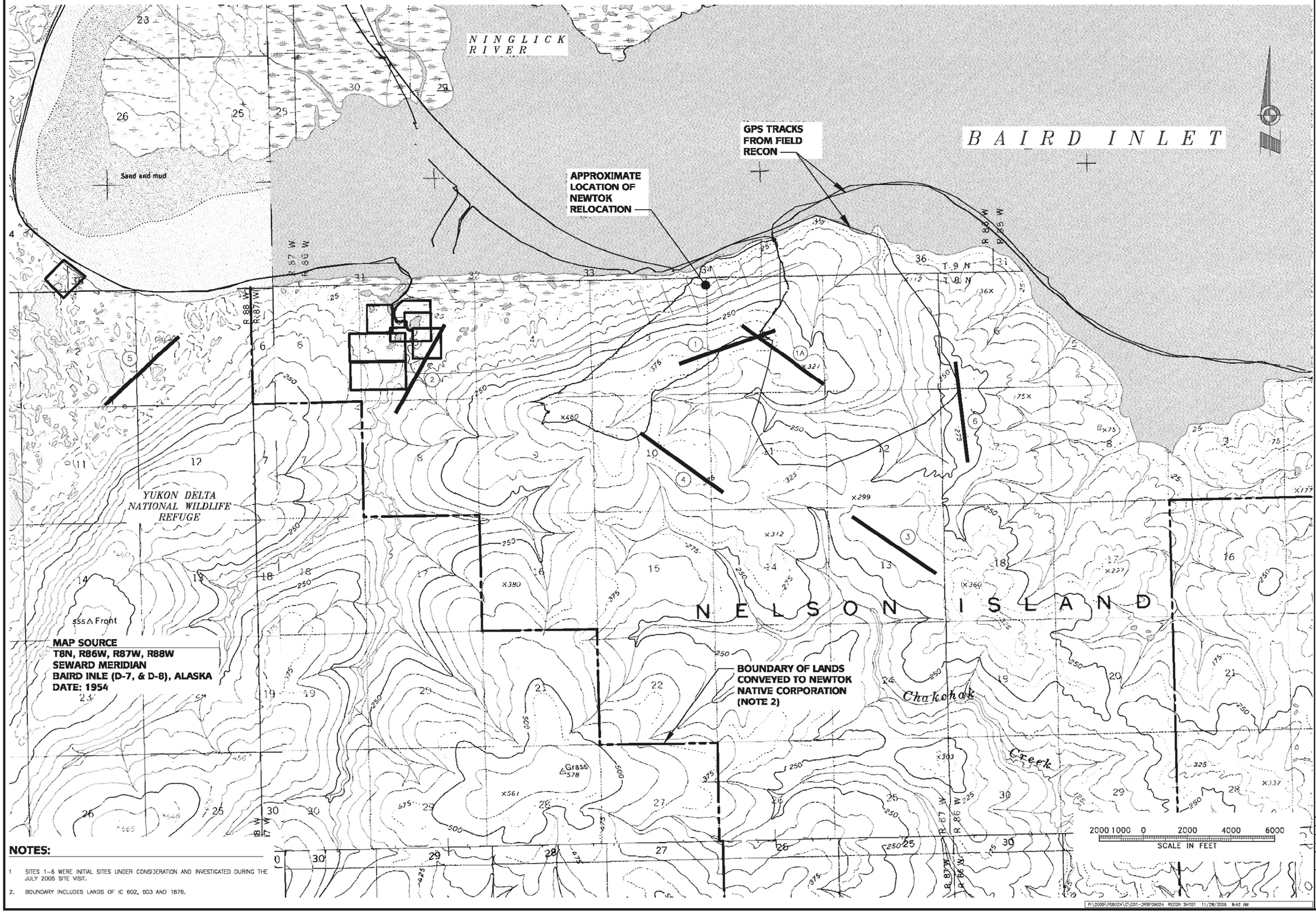
Topographic information from USGS mapping will be used to evaluate the compatibility of the existing topography for the required facilities. Soil conditions identified from the office and field reconnaissance work will be considered in the site evaluation. The Corps of Engineers is in the process of acquiring contour mapping, which is believed to cover Sites 1, 1A and 4. If this mapping is available soon enough, it will be utilized to complete the evaluation.

7) Costs

Site development and maintenance costs will be developed and compared.

8) Proximity to Materials and Barge Landing

The borrow material for the runway, taxiway, apron, and road embankments is likely to come from a source near the airport, while the surface course may come from farther away. Access roads will be required to the community, to the material site, and possibly to a barge landing for the construction equipment and materials.



NOTES:

1. SITES 1–6 WERE INITIAL SITES UNDER CONSIDERATION AND INVESTIGATED DURING THE JULY 2005 SITE VISIT.
2. BOUNDARY INCLUDES LANDS OF IC 602, 603 AND 1876.

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CONSULTANT :

PROJECT :
NEWTOK AIRPORT RELOCATION
RECONNAISSANCE STUDY
STUDY AREA
NEWTOK, ALASKA

SHEET TITLE :

DESIGN	KAR
DRAWN	KAR
CHECKED	RLC
DATE	JULY 2005

PROJECT No.
F05024

FIGURE
1

Soils Report

TECHNICAL APPENDIX B: SOILS

NEWTOK AIRPORT SITE RECONNAISSANCE STUDY

NELSON ISLAND, ALASKA

AKSAS Project No. 57405

April 2007

PREPARED BY:

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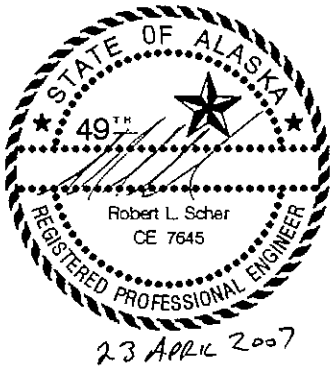

23 April 2007

REVIEWED BY:

CHARLES H. RIDDLE, C.P.G.
Vice President

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NEWTOK AIRPORT SITE RECONNAISSANCE STUDY[1]
NELSON ISLAND, ALASKA

PART 1: INTRODUCTION

The Village of Newtok, located on the north bank of the Ninglick River in southwest Alaska (Drawing A-01) is threatened by erosion. In the mid-1990s, the Newtok Traditional Council (NTC) initiated planning to relocate the village; ultimately selecting a preferred site approximately nine miles to the southeast on the north side of Nelson Island (Drawing A-01) (ASCG, 2001). Subsequently, the NTC, Bureau of Indian Affairs and U.S. Army Corps of Engineers (USACE) have sponsored several reconnaissance studies of the proposed village relocation site (ASCG 2004; USACE, 2002 & 2005).

In association with this effort to relocate the Village of Newtok, the Alaska Department of Transportation and Public Facilities (DOT&PF) contracted PDC, Inc., of Fairbanks, to perform a reconnaissance study to determine the optimal location(s) of a new airport on the north side of Nelson Island. In turn, PDC contracted R&M Consultants, Inc. to provide the geotechnical services associated with the Newtok airport site reconnaissance study (Consultant Agreement, dated 11 July 2005).

Briefly, six alternate runway alignments have been proposed, by others, on the north side of Nelson Island (Drawing A-02); including four locations on ridge tops south and southeast of the proposed village site, and two lowland locations to the west. For preliminary planning, we understand that the new airport would consist of a 4,000-foot runway, 400-foot taxiway and 100,000 square-foot apron; all completed with an aggregate surfacing.

The scope of R&M's geotechnical services included: researching existing geologic and past geotechnical information published for the area; conducting a brief site visit; and reporting. The following presents the results of R&M's geotechnical reconnaissance study: Part 2 summarizes the project setting (regional geology and climate); Part 3 reviews the geotechnical reconnaissance explorations previously completed by others on the north side of Nelson Island; Part 4 presents our preliminary interpretations of the general geotechnical conditions at the proposed alternate airport sites, as well as at a potential aggregate material source; and Part 5 presents some preliminary geotechnical considerations for conceptual planning of the new airport.

NOTE: The purpose of this investigation was to gain a preliminary understanding of the general geotechnical conditions within the project area. The level of work completed for this project was not sufficient for selecting anyone preferred airport site, based solely on geotechnical issues, and certainly was not sufficient for final design of a new airport; milestones that will require further reconnaissance and detailed geotechnical field explorations, laboratory testing and engineering.

[1] This report is identical to the draft dated October 2005, except that it is signed and the word "draft" was removed from the headers.

PART 2: PROJECT SETTING

2.1 Regional Geology

Nelson Island is an unnamed highland subdivision of the Yukon-Kuskokwim Coastal Lowland physiographic province (Wahrhaftig, 1965). The lowlands are characterized by relatively flat, poorly draining terrain dotted with numerous lakes, marshes, and meandering streams with extremely low gradients (Wahrhaftig, 1965); covered with generally interstratified, Holocene, Quaternary and Pleistocene age fine-grain eolian, alluvial, estuarine, beach, re-worked deposits (Biekman, 1974). The highlands are characterized by rolling terrain with gentle slopes (Wahrhaftig, 1965); cored with Quaternary and Tertiary age volcanic rock (Biekman, 1974) and covered generally with undifferentiated alluvium and slope deposits comprised mostly of volcanic rock particles, ash and pumice (Karlstrom, et al., 1964). The region is underlain by permafrost (Ferrains, 1965).

The bedrock on Nelson Island consists of Quaternary basalt overlying Cretaceous sedimentary rocks of the Kuskokwim Group (Biekman, 1974). These rock units are found throughout the Yukon-Kuskokwim Delta region, as far north as Grayling. There are reportedly eight to 20 basalt flows on Nelson Island with a combined thickness of more than 200 feet (Coonrad, 1957). These flows are flat lying and dip gently toward the east. A columnar structure is common. Based on our experiences in the region, sedimentary rocks from the Kuskokwim Group vary significantly in quality, ranging from completely weathered mudstones (silt and clay) to moderately weathered sandstones. However, no exposures of sedimentary rock have been mapped at the north end of Nelson Island.

Much of Nelson Island is mantled with loess. Beach deposits containing sand and gravel may be found along the coasts and minor gravel deposits can be found along the river and stream beds. Deposits of peat and organic materials are common.

This region of Alaska is characterized by low seismicity. No faults with interpreted displacements more recent than Pre-Neogene age are known within about 150 to 200 miles of Newtok (Plafker, et al., 1993). The Alaska Earthquake Information Center database[2] lists three seismic events within about 200 miles of Newtok with magnitudes greater than or equal to M_L5.0 between 1898 and 2004; the largest being an earthquake of M_L5.2 (19 August 1971) which occurred roughly 80 to 90 miles northeast of this community. Following a recent study by the U.S. Geologic Survey of the earthquake hazard in Alaska, the probabilistic peak horizontal acceleration with a 475-year mean return period predicted in bedrock at the north end of Nelson Island[3] is about 0.04g; generated by a shallow, random M5-7.3 event associated with a yet-unknown fault system.

[2] http://www.giseis.alaska.edu/Seis/

[3] http://eqint.cr.usgs.gov/eq/html/deaggint.html

2.2 Climate

The area around Newtok experiences a transitional climate (AEIDC, 1975?); characterized in the summer by relatively maritime conditions (i.e. moderate annual temperature variations with higher winds and precipitation), and in the winter by more continental conditions (i.e. greater annual temperature variations, with more moderate winds and precipitation). We are not aware of any historic climate records from Newtok. However, Table 1 summarizes the long-term climate data recorded at Bethel[4], about 100 miles to the east of Newtok; and at Mekoryuk (AEIDC, 1989), on Nunivak Island about 60 miles to the southwest of Newtok.

TABLE 1: NEWTOK REGION CLIMATE DATA

	Bethel (1949 – 2003) Elev 130 Ft	Mekoryuk (1923-1973) Elev 40 Ft
Mean Annual Air Temperature, °F	29.4	29.2
Mean Monthly Temperature, °F January / July-August	6.2 / 55.3	11.6 / 49.6
Record Daily Air Temperature, °F Low / High	-48 / 86	-48 / 76
Mean Annual Precipitation, in.	16.8	15
Mean Monthly Precipitation, in. Min (March-May) / Max (August-September)	0.7 / 3.4	0.6 / 2.2
High Monthly Precipitation, in.	12.4	--
Mean Total Snowfall, in. Annual / Max Monthly (December-January)	53.2 / 9.9	59 / 11
High Monthly Snowfall, in.	47	--
Average Monthly Winds, knots (AEIDC, 1975?)	9 to 12	--

[4] http://www.wrcc.dri.edu/summary/climsmak.html

PART 3: PREVIOUS GEOTECHNICAL/SITE RECONNAISSANCE

R&M is not aware of any geotechnical explorations on the north side of Nelson Island that involved mechanically-assisted test borings or test pits. However, the following lists four past visits to the north side of Nelson Island performed by others, since 1975, for the purpose of reconnoitring the general surface conditions and/or potential material sources (soil, aggregate and rock). Our interpretations of the specific locations visited during these past inspections are illustrated on Drawing A-02.

3.1 Alaska DOT&PF (1977)

In August and September 1975 the DOT&PF conducted two single day trips to reconnoiter two potential sources of aggregate at the north end of Nelson Island (Drawing A-02) to support reconstruction of the existing runway at Newtok. Based on their reconnaissance, the DOT&PF concluded that neither of these two sites was suitable for that airport project due to the apparent limited quantity and/or poor quality of the material, and due to anticipated access problems.

DOT&PF Site #1 consisted of several gravel bars along the Takikchak River where limited amounts of sand and gravel were observed. The site was difficult to reach by boat due to the shallow tidal flats that stretched out for more than a mile from the shoreline.

DOT&PF Site #2 consisted of a three mile stretch of beach where cobbles and boulders were encountered at the headlands, and sandy gravel was observed in the more protected areas. Much of the coarse-grained material found at Site #2 occurred in thin layers overlaying tidal silt deposits. The tidal flats did not stretch out from the shoreline as far as at Site #1; none the less they were still considered to be a substantial obstacle to accessing the site. A composite sample of coarse material collected from Site #2 was tested: the Los Angeles abrasion loss was 55%; and the sodium sulfate soundness loss was 29% and 41% for the plus #4 and minus #4 sized particles, respectively.

Note that this DOT&PF report mentioned inland bedrock exposures observed during their reconnaissance; although none were apparently inspected.

3.2 Woodward-Clyde Consultants (1984)

Woodward-Clyde Consultants (WCC) conducted a reconnaissance of several basalt rock outcrops on the north side of Nelson Island in early October 1984 for potential sources of riprap to support a proposed erosion control project at Newtok. A float plane was used to aerially survey the island and landings were made to reconnoiter two locations (Drawing A-02).

WCC Site 1 consisted of poorly exposed basalt flows apparently west of the Takikchak River, about 1.5 miles inland from the shoreline (see Part 4.1). WCC described the exposed rock as highly to slightly weathered, with specific gravities from 2.47 to 3.07. Petrographic analysis of one sample indicated the rock was a vesicular, holocrystalline olivine basalt with about 25 to 30 percent unfilled voids.

WCC Site 2 consisted of 15-foot high exposure of basalt along the shoreline roughly plus five miles east of the proposed village relocation site. WCC described the surficial rock exposures as highly variable, with the upper 10 feet being highly weathered. WCC further divided this site into smaller units, and reported the better quality rock was in "Area 2A". Specific gravities of rock from Site 2 varied from 2.30 to 2.59. A Los Angeles abrasion loss of 30.5% and a sodium sulfate soundness loss of 1.2% were reported for Site 2A. Petrographic analysis of one sample indicated the rock was a vesicular, olivine basalt with about 40% volcanic glass. WCC recommended Site 2A be further investigated due to its location close to the shoreline; although, to-date we are not aware of any such additional work.

3.3 U.S. Army Corps of Engineers (2002)

An engineer with the U.S. Army Corps of Engineers (USACE) Alaska District Soils and Geology Section visited the proposed village relocation site in the fall of 2002 for the purpose of reconnoitering the general geotechnical conditions. The USACE report provided a brief summary of the observed surface conditions, and a preliminary interpretation of the shallow soil and permafrost conditions. The USACE report also provided preliminary geotechnical recommendations for airport alternatives, water infiltration gallery, barge landing, roads and streets, structure foundations and further reconnaissance and design geotechnical explorations.

During that reconnaissance, the COE inspected runway Alternatives 1 and 2 (Drawing A-02). Additionally, the COE noted a potential basalt bedrock exposure, 30 to 60 feet thick, on top the bedrock ridge, about one mile inland from (above) the proposed village relocation site; although no materials were sampled.

3.4 U.S. Army Corps of Engineers (2005)

Two biologists of the USACE Alaska District visited the proposed village relocation site in early June 2005 to assess the potential impacts of the proposed village relocation project on the environment. During this visit, the USACE inspected the existing surface conditions (i.e. habitat) at proposed runway Alternatives 1/1A, 2 and 4.

PART 4: NORTH NELSON ISLAND SITE CONDITIONS

The following summarizes our preliminary interpretation of the surface and subsurface conditions at the alternate airport locations on the north side of Nelson Island. The approximate locations of all site names and alternative runway locations mentioned below are illustrated on Drawing A-02.

4.1 R&M Site Reconnaissance

On 28 July 2005, Pete Hardcastle, an R&M senior engineering geologist, visited Newtok to reconnoiter the project area; joined by Ken Risse and George Hitz of PDC, Inc., Fairbanks, and Richard Sewell and Valerie Fletcher-Mitchell of the DOT&PF, Central Region. The party reached the proposed village relocation site using two small boats, and then hiked up to runway Alternative 1. From there, Hitz and Hardcastle hiked to runway Alternative 4, and then to a rock outcrop just to the west (see Part 4.4, below); while the other members of the party looked at runway Alternatives 3 and 6. Alternatives 2 and 5 were not visited due to time constraints and because it was felt that they were very unlikely to be selected.

Additionally, a brief reconnaissance was conducted to locate and inspect the two bedrock sources reported by WCC (1984). Note that we were unable to find WCC "Site 1"; there were no pronounced outcrops observed in the area interpreted from the descriptions of this site in WCC's report. However, we did find WCC "Site 2"; although the rock appeared to be highly vesicular and not as durable as the rock on "Hill 460" (see Part 4.4, below).

4.2 General Conditions

The proposed village relocation site is on the north side of Nelson Island, along the south edge of Baird Inlet (Drawing A-01). The new village site lies on a topographic bench at the base of a gentle, north facing slope (Photo 1). This bench appeared to consist of wind blown and colluvium silts overlying bedrock that may be a part of an old marine platform from a period of higher sea-level.

At the shoreline, there is a narrow beach (Photo 2), comprised of fine-grained soil mantled with a thin layer of gravel and cobbles, over bedrock. The back of the beach is defined by a bluff, 10 to 30 feet high, cut into the core bedrock (Photo 3). At low tide, the shoreline reached out into Baird Inlet 100 or more feet near the proposed barge landing (Drawing A-02). The tidal flats consisted of fine-grained cohesive silt; which may overlie a marine platform formed on the bedrock. Nearer to the mouth of the Takikchak River the tide flats stretched out to Tunuirun Island in the Ninglick River (Drawing A-02).

There was evidence of periglacial processes (Photo 4) and slope movement along the upper slopes of the bedrock ridges, including soil steps and strips and solifluction lobes; as well as wave-induced and/or thermal erosion along the shoreline (Photo 5). There were occasional pieces of large rock on the slopes of the ridges, indicating the presence of bedrock underlying the silt.

PHOTO 1: View west across the proposed village relocation site (28 July 2005)

PHOTO 2: Narrow beach at the proposed village relocation site (28 July 2005)

PHOTO 3: Bedrock exposure in beach bluff; proposed village relocation site (28 July 2005)

PHOTO 4: Soil stripe near Hill 460; a periglacial feature associated with seasonal frost action (28 July 2005)

PHOTO 5: Wave-induced and/or thermal erosion in beach bluff near the proposed village relocation site (28 July 2005).

Vegetation covering the relocation site was reported to consist of tundra and sphagnum wetlands (USACE, 2005). Areas of willow shrub were noted along drainages and in depressions where snow persisted longer in the spring.

Permafrost at the site appeared to range from discontinuous on the lower benches near Baird Inlet, to sporadic on the ridges and hilltops. Ice rich soils, including ice wedges, may occur along the lower elevations in the coastal areas; particularly in the general vicinities of runway Alternatives 2 and 5.

Several small springs were noted along the shore of Baird Inlet. One of these springs was reportedly used for obtaining drinking water for people traveling through the area. The Takikchak River may also be at least partially spring fed. These springs were interpreted to be fed by the swales and small ponds observed on the ridges above (e.g. Photo 6). The water appeared to percolate down through unfrozen fractured bedrock. The flow from these springs may vary seasonally, or be dependant on rainfall.

4.3 Airport Locations

The four runway alternatives located on the ridge tops (1/1A, 3, 4 and 6) were visited during this reconnaissance. The ground across of these alternatives sloped gently in one direction or another, but there was little local relief along each of the individual alignments. The general surficial conditions, observed and interpreted, were similar at each of these locations (Photo 7). The vegetation consisted of grassy tussock tundra (USACE, 2005), with small ponds in depressions (Photo 6).

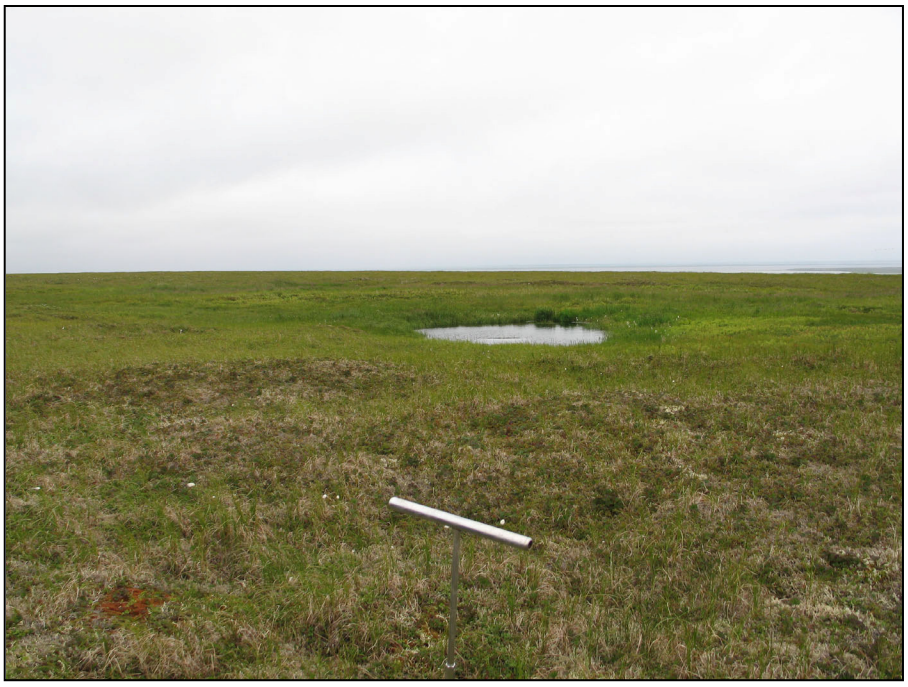

PHOTO 6: Small pond on the ridge near runway Alternative 1 (28 July 2005)

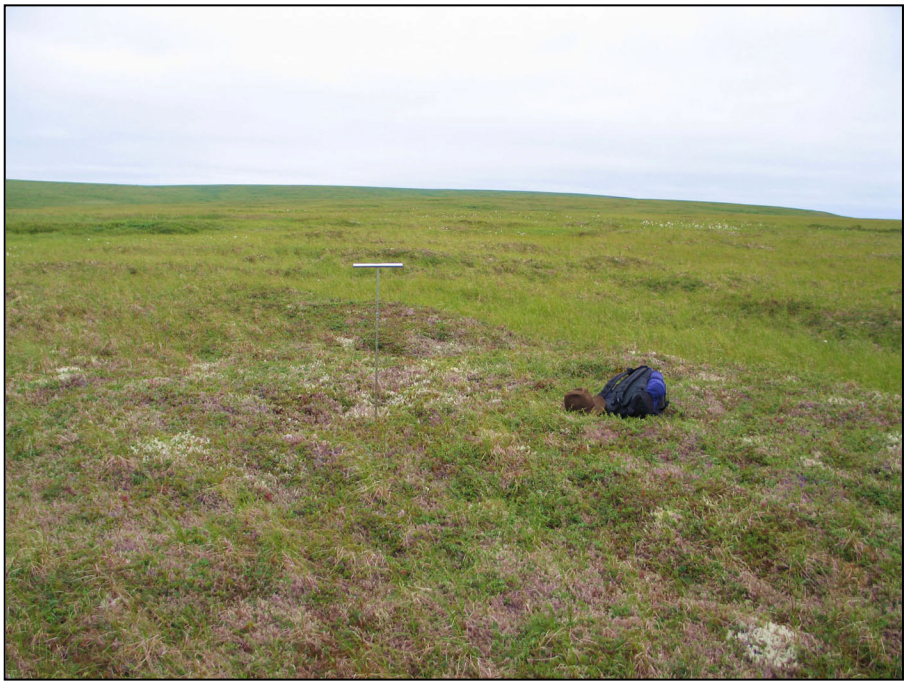

PHOTO 7: Approximate intersection of runway Alternatives 1/1A; characteristic of the browner, hummocky areas along the ridge tops (i.e. tussock tundra) (28 July 2005).

Based on limited hand probing, the surficial soils consisted of wet silts overlain by shallow organic mats. Bedrock was not exposed at any of these four runway sites. Hand auger probes at Alternative 1/1A suggested the presence of sporadic permafrost - one probe though the tussock tundra (visible in Photo 7) encountered frozen ground at a depth of about 1.5 feet; while a second probe, located in a grassy swale about 30 feet away, penetrated four feet without encountering frozen ground. There was no evidence of thermokarst features; which suggests the shallow soil column may not be ice-rich. However, what may have been small frost mounds were noted on the higher parts of the ridge (Photo 8): frost mounds are typically ice cored and transient features, dependent on annual temperature changes and snow cover.

PHOTO 8: Small, possible frost mounds (features typically cored with massive ice) near the wet end of runway Alternative 1 (28 July 2005).

Runway Alternative 2 was not visited during this reconnaissance program, but the area around the site was described in other reports (USACE, 2002 & 2005). Vegetative cover was reported to be wet tussock tundra similar to the hilltops but with less grassy areas. Soils were reported to be silt along the banks and gravel underlying the river channel. The area was interpreted to be underlain by permafrost.

There was no information collected for runway Alternative 5 during the subject investigation, or any of the previous reconnaissance programs described in Part 3. However, the runway site lies on flat, low-lying wetlands; terrain similar to that in the existing village of Newtok. As such, we anticipate that the subsurface conditions at Alternative 5 may be very similar to those found at the existing Newtok airport; i.e. organic-rich materials over silt and organic soil. Further the terrain around runway Alternative 5 is potentially underlain by discontinuous permafrost, and the shallow soils may be ice-rich.

4.4 Potential Rock Quarry Site (Hill 460)

A massive rock outcrop exists on top of the ridge, just south of the proposed village relocation site; hereafter designated "Hill 460" (Drawing A-02; Photo 9). This bedrock exposed was the only significant outcrop we observed in the immediate vicinity of the proposed village relocation site that appeared capable of providing sufficient quantities of borrow and aggregate materials potentially suitable for construction of the new airport and access road. Other bedrock outcrop sites previously visited on the north side of Nelson Island (Part 3) were either farther away (e.g. WCC Site 2), appeared to contain limited quantities (e.g. DOT&PF Site 1), and/or less suitable material (DOT&PF Site 2).

PHOTO 9: View south towards east end of the Hill 460 bedrock outcrop (28 July 2005).

The bedrock exposure at Hill 460 ranged from approximately 30 to 100 feet high along the northern flank, with the highest exposure along the western end (Photo 10). Elsewhere, there were very poor exposures of rock along the top and southern flank of the hill. The depth of overburden at this site may be greater than about 10 feet across portions of this site. Tabular boulders, up to five feet in length (Photos 11 & 12), and rubble originated from the bedrock exposure were along the top (Photo 13) and northwestern edge of the ridge. These boulders and rubble generally appeared to be a hard, massive dark gray to black vesicular basalt.

This exposure appeared to be a cap rock, consisting of a hard layer of basalt that has resisted erosion. It should be noted that basalt is often formed in layers, termed flows, one laid on top of another. Each of these flows may have different composition, structure and weathering characteristics. Thus, the rock may transition from hard and unweathered to softer and more

highly weathered with depth. This cap rock appeared to possibly be columnar; although there was not enough of an exposure to conclude with certainty. Petrographic identification of similar rock in the area indicated the material is olivine basalt (WCC, 1984). The basalt observed at Hill 460 was vesicular, with up to about 10% vesicular voids.

PHOTO 10: West end of bedrock outcrop on Hill 460 (28 July 2005).

PHOTO 11: Boulders on northern bedrock exposure at Hill 460;
Note rock hammer for scale (28 July 2005).

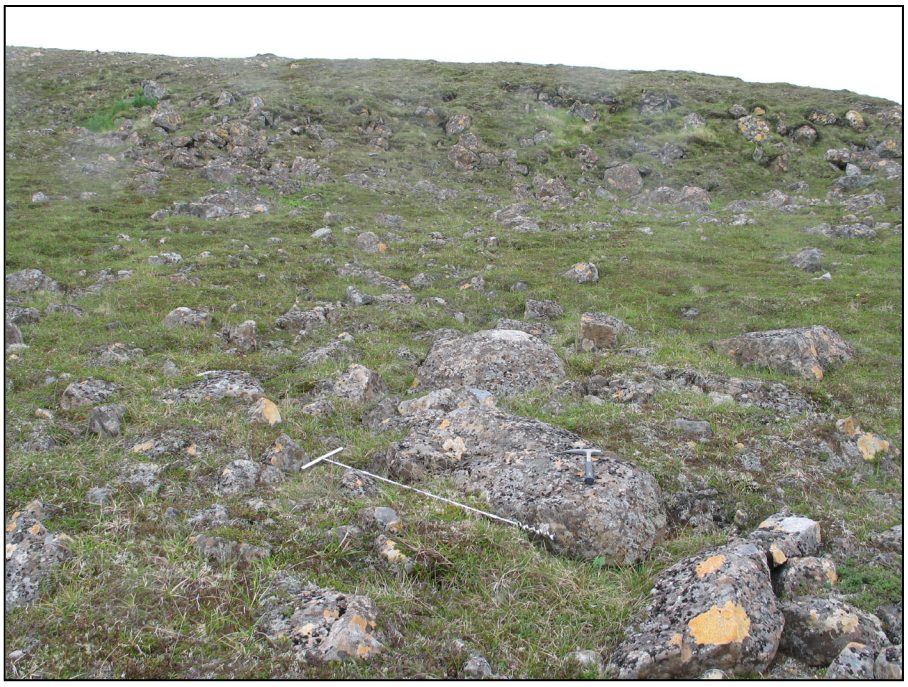

PHOTO 12: Boulder and rubble on northern bedrock exposure at Hill 460; the hand auger, in the foreground, is five feet long (28 July 2005).

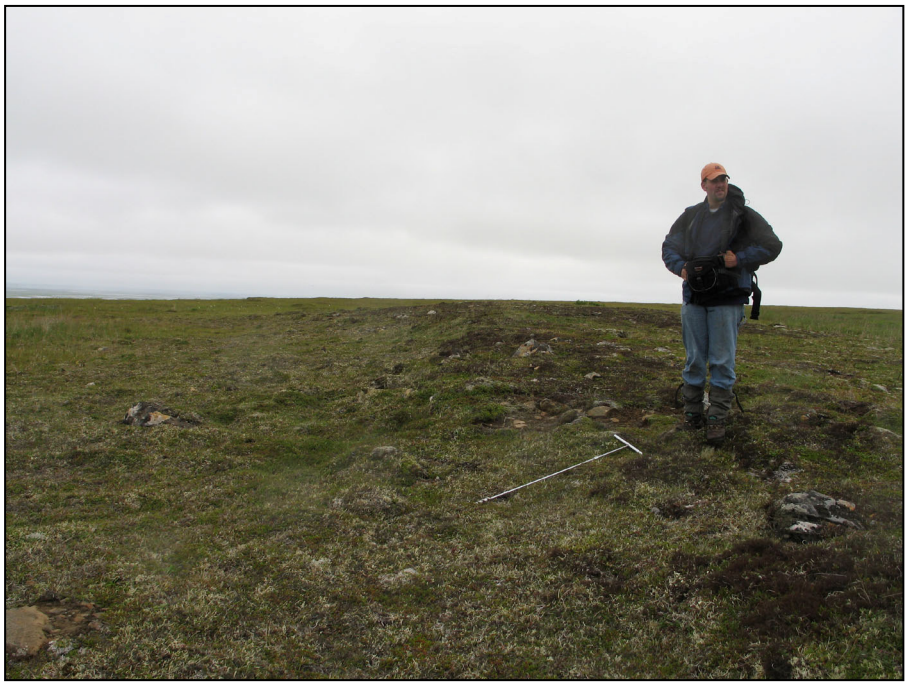

PHOTO 13: Rubble exposed along the top of Hill 460; occurring as narrow strips parallel to the northern face of the bedrock outcrop (28 July 2005).

PART 5: GEOTECHNICAL CONSIDERATIONS

The purpose of R&M's reconnaissance investigation was to gain a preliminary understanding of the general geotechnical conditions within the project area. The extent of this work was not sufficient for determining any one preferred airport location; and certainly not sufficient for design of a new airport. Additional geotechnical reconnaissance, consisting of more substantial subsurface explorations, should be performed prior to selecting the preferred runway location; such as advancing at least three to five test borings or test pits to depths on the order of at least 10 to 15 feet along the proposed runway alignment. Subsequently, a design level geotechnical exploration should be performed at the selected site, consisting of more thorough subsurface field explorations, laboratory testing and engineering. However, based on the findings of our reconnaissance, the following geotechnical aspects could be considered for conceptual planning of the new airport on the north side of Nelson Island.

5.1 Conceptual Airport Design

We understand that the new airport site will be selected considering a number of factors, not the least of which include weather (i.e. wind and fog), environmental issues, and the geotechnical conditions. In regards solely to the latter factor, our preliminary interpretation of the geotechnical conditions suggest that the foundation soils at runway Alternatives 1/1A, 3, 4 and 6 may be, for the most part, moderately stable where unfrozen, relatively ice-poor where frozen (i.e. limited excess ice), and only marginally susceptible to the detrimental effects of seasonal frost action (i.e. heave and thaw-weakening). Therefore, we consider that for conceptual planning the thickness of a runway embankment at these four locations may likely be controlled by the minimum grade and profile required for aircraft operations and to keep the surface free of drifting snow, versus geotechnical concerns pertaining to the foundation soils. However, the design of embankments at runway Alternative 2, and particularly Alternative 5 may be more affected by detrimental foundation soil conditions, such as shallow, ice-rich warm permafrost, thick surficial deposits of organic materials, and shallow groundwater.

For preliminary thermal modeling consider the most recent air temperature parameters reported for Bethel (Scher, 2002): i.e. the annual air temperatures vary in a sinusoidal pattern with amplitude of 26.9 °F about a mean of 29.9 °F; the mean air freeze and thaw indices are about 3,520 and 2,750 °F-Days, respectively; and the design air freeze and thaw indices are about 4,940 and 3,240 °F-Days, respectively.

5.2 Aggregate Borrow Source

The USACE (2002) recommended that the basalt outcrop (Hill 460; Drawings A-02 and A-03) on the ridge just to the south of the proposed village relocation area be investigated for development as a material source. Based on our preliminary findings, it appeared that the bedrock and rubble at Hill 460 may be suitable for the production of borrow and surface aggregates for roads and airports, as well as rip-rap for erosion protection. However, significant explorations will be required to prove the actual quantity and quality of material at this site. Such exploration should include test pits for direct observation of the rock structure, and rock coring to

investigate rock quality at depth and the thickness of the flow(s). Angle borings may be required to determine joint spacing if a vertical columnar structure is encountered.

Further, the apparent hardness of the rock indicate that blasting may be required to mine material from this site. All blasting plans and the potential for flyrock must be thoroughly evaluated prior to any development; as well as be considered when planning the layout of the new village. For example, the area effected by 1,000-foot and one-mile buffer zones are illustrated on Drawing A-03: facilities that can be temporarily evacuated and unlikely to be extensively damaged by fly rock could be built within these area; however, residences and other structures that could either sustain significant damage or are occupied should not be built within the buffer area (e.g. schools, offices, fuel and water tanks, etc).

5.3 Construction

For construction planning, the minimum daily temperatures are estimated to remain above freezing between about mid-May through late September.

Water depths may significantly limit the size of barge required to mobilize the airport construction equipment, especially if a dock-like structure is not first built from the shoreline. Further, the USACE (2002) reported scattered boulders strewn across the tidal flats exposed at low tide around the proposed village relocation barge landing site (Drawing A-02; Photo 14). Bathymetric surveys should be performed to map the water depth and identify other potential navigation hazards in the area.

PHOTO 14: Beach west of proposed barge landing site; within about two hours of low tide (28 July 2005).

PART 6: CLOSURE

The discussions of regional, local and project site conditions presented in this report have been based on the proposed improvements and development information listed herein. Alteration or deviation from any of these elements could substantially affect the foregoing geologic and geotechnical interpretations.

Additionally, because subsurface characteristics can change significantly within a given area, and/or with the passing of time, the possibility exists that important surface and subsurface conditions not observed during our site reconnaissance described herein may be discovered during subsequent explorations and construction. As such, we recommend that excavations and backfill procedures be inspected by a qualified engineer or engineering geologist to verify that conditions are as anticipated. Further, subsurface conditions revealed during construction that differ from those discussed herein should be investigated without delay to evaluate the influence of the new information on the project scope and plans.

R&M Consultants, Inc. has performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of study described within.

PART 7: REFERENCES

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ATTACHMENTS

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GRAPHIC SCALE (MILES)

Prepared By:
R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NEWTOK AIRPORT RELOCATION
GEOTECHNICAL RECONNAISSANCE STUDY

VICINITY MAP

SCALE	DESIGNED	DRAWN	DWG
AS SHOWN	PKH	PKH	A-01
	CHECKED RLS	DATE AUG. 2005	

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REFERENCES:

State of Alaska Department of Public Works Division of Aviation, "Newtok Surfacing Materials Reconnaissance", Feb. 1977,

U. S. Army Corps of Engineers (USACE), "Preliminary Getechnical Overview, Village Relocation Site, Newtok, Alaska", Nov. 2002.

Woodword Clyde Consultants, "Ninglick River Erosion Assessment Addendum", Prepared for the City of Newtok, Nov. 24, 1984.

NINGLICK RIVER

EXISTING VILLAGE OF NEWTOK

TUNUIRUN ISLAND

Sand and mud

Proposed Runway Alternatives

0 1/2 1 2

GRAPHIC SCALE (MILES)

Field Sample 3

PROPOSED BARGE LANDING SITE

B A I R D I N L E T

Field Sample 4

ADOT&PF - 1977 Site No. 1- Field Samples 1 & 2

PROPOSED VILLAGE RELOCATION SITE

ADOT&PF - 1977 Site No. 2

WOODWARD-CLYDE CONSULTANTS 1984 - Site 2

A

B

C

TAKIKCHAK RIVER

USACE-AK - 2002 Material Source Site

WOODWARD-CLYDE CONSULTANTS 1984 - Site 1

N E L S O N I S L A N D

Chakchak

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NEWTOK AIRPORT RELOCATION
GEOTECHNCIAL RECONNAISSANCE STUDY
AREA MAP
NORTH NELSON ISLAND

Prepared By:
R&M CONSULTANTS, INC.

SCALE	DESIGNED	DRAWN	DWG
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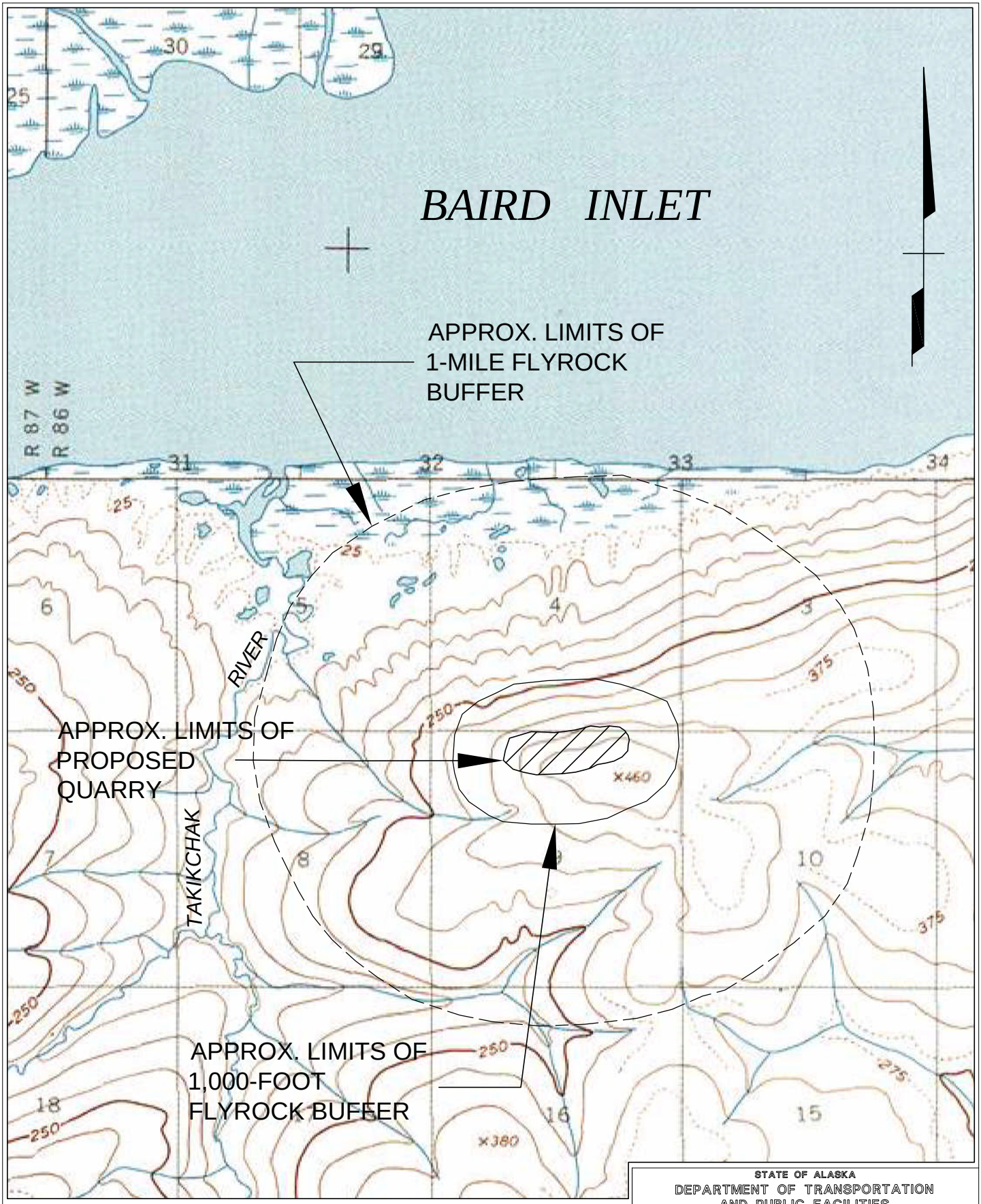

BASE MAP CREATED WITH TOPO!® © 2002 NATIONAL GEOGRAPHIC

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

NEWTOK AIRPORT RELOCATION
GETECHNICAL RECONNAISSANCE STUDY

POTENIAL QUARRY SITE
HILL 460

SCALE	DESIGNED	DRAWN		
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Preliminary Wetlands Determination

WETLAND DELINEATION

1.0 Introduction

This preliminary wetland determination was completed for the Newtok Airport Relocation Reconnaissance Study. A U.S. Army Corps of Engineers (USACE) wetland delineation is currently underway and will supersede this document when completed. This wetland delineation covers potential airport relocation areas (site alternatives 1, 3, and 4).

2.0 Location

The relocation area is located on the north end of Nelson Island (approximately 9 miles southeast of Newtok, Alaska) in an area called Takikchak; see Figure W-1. The site alternatives are located within the U.S. Geological Survey (USGS) Baird Inlet (D-7) quadrangle, Seward Meridian, in the following Sections:

- Site 1 - Sections 2 & 3, T8N, R87W
- Site 1a - Section 2, T8N, R87W
- Site 3 - Sections 12 & 13, T8N, R87W
- Site 4 - Sections 10 & 11, T8N, R87W

3.0 Determination Sources

☒ ***NRCS Soil Survey:***	Exploratory Soil Survey of Alaska, Sheet 18 (SCS, 1979)
☒ ***Aerial Photography:***	Aerial Photography (USACE, 2005)
☐ ***Corps Wetland Maps:***	Not Available
☐ ***NWI Maps:***	Not Available
☒ ***USGS Maps:***	Baird Inlet D-7, (USGS, 1954)
☐ ***Flood Plain Maps:***	Not Available
☒ ***Other Sources:***	• Site Visit (PDC, 2005) • Newtok Relocation Site Survey of Nelson Island, CEPOA-EN-CW-ER (1105-2-10b) (USACE, 2005) • Alaska District Trip Report (USACE, 2005) w/ Wetland Data Sheets • Technical Appendix B: Soils (R&M, 2005)

4.0 Methods

This preliminary wetland delineation was performed in accordance with the three-parameter method described in the U.S. Army Corps of Engineers Wetlands Delineation Manual (Corps 1987 Manual) and the Draft Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Corps 2005 Alaska Supplement).

Preliminary field observations (by USACE) and photos, topography, and photo-tone (color, texture, density) were used to determine wetland boundaries and type. Delineations were made on printouts of color aerial photography (at a scale of 1"=300' scale). Delineation boundaries include sufficient areas for potential runway orientation changes, as wind data and other information become available.

5.0 Results and Discussion

5.1 Soils

Soils information obtained from Technical Appendix B: Soils (R&M, 2005) and the Exploratory Soil Survey of Alaska (SCS, 1979) indicated that generally soils consisted of an organic materials over silt/organic soils and underlain by permafrost.

5.2 Wetland Habitat Types

5.2.1 Palustrine Emergent Wetlands

- **PEM1** – Palustrine Emergent Persistent wetlands are located along seasonally flooded drainages, small depressions and pond fringes on foothills. They are also found on summit/shoulder landscape positions, in low relief area or isolated depressions fed by snow accumulation and rainfall. These wetlands are part of a shallow drainage system that feed into local tributaries. Most of these tributaries are seasonally flooded and classify as intermediate streams. Dominant vegetation includes sedges, sphagnum, and blue joint grass.

5.2.2 Palustrine Scrub-Shrub Wetlands

- **PSS3/EM1** – Broad-Leaf Evergreen Scrub-Shrub wetlands are on summits/shoulder landscape positions with shallow dendritic drainages, generally located on slightly raised microtopography and form a wetland complex with palustrine emergent wetlands. They are established on boggy soils with shallow permafrost forming complexes of peat-like moss-lichen and broad-leaf evergreen scrub-shrub wetlands. Vegetation generally includes cottongrass, sphagnum, and dwarf shrubs.
- **PSS3/1 –** Palustrine Broad-Leaf Evergreen Scrub-Shrub wetlands are generally found on slope positions have more mesic conditions than other Palustrine Scrub-Shrub wetlands described. Low growing ericaceous shrub tundra makes up the dominant vegetation. Sphagnum moss is not abundant. These are generally found in depressions where snow persists until late in the spring and along drainages (PEM1C wetlands). Palustrine scrub-shrub wetlands are also found along drainages, where tall and low shrubs are commonly dominated by diamond-leaf willow.

5.2.3 Freshwater Ponds

- **PUBH** – Permanently flooded small open water bodies (ponds) generally lacking vegetation.

5.3 Extent of Wetlands

Based on this preliminary wetland delineation all of the potential relocation sites are dominated by wetlands. No Uplands were identified within the delineation boundaries. Willow/grass drainage areas in the vicinity of Site 4 classify as intermittent streams (IS) which are considered Waters of the U.S. Figures W-2 through W-4 show the mapped wetland areas.

6.0 Conclusions

Based on this preliminary wetland delineation, all of the site alternatives would impact wetlands under jurisdiction of the U.S. Army Corps of Engineers. Except for willow/grass drainage areas, which classify as intermittent streams (Waters of the U.S.) in the vicinity of Site 4, all of the relocation sites are wetlands.

7.0 References

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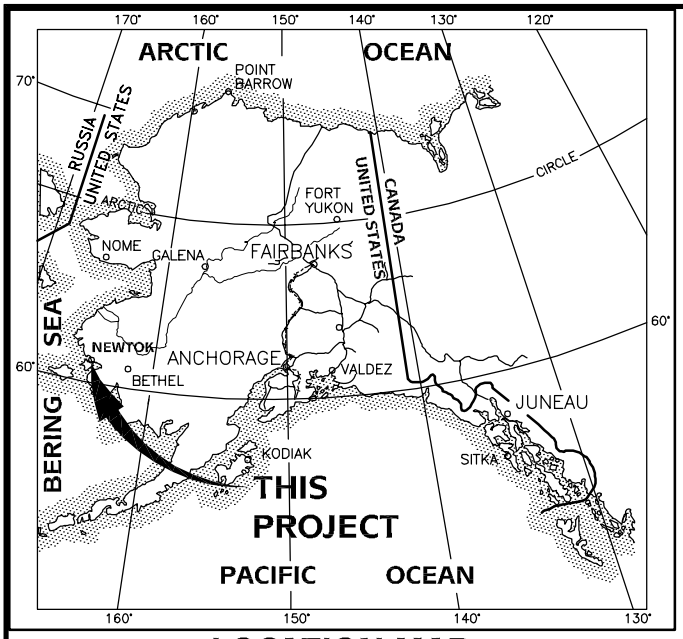

LOCATION MAP

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PDC INC. ENGINEERS
1028 Aurora Drive, Fairbanks, Alaska 99709-5529

NEWTOK AIRPORT RELOCATION
RECONNAISSANCE SURVEY
LOCATION AND VICINITY MAP
NEWTOK, ALASKA

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MAY 2006

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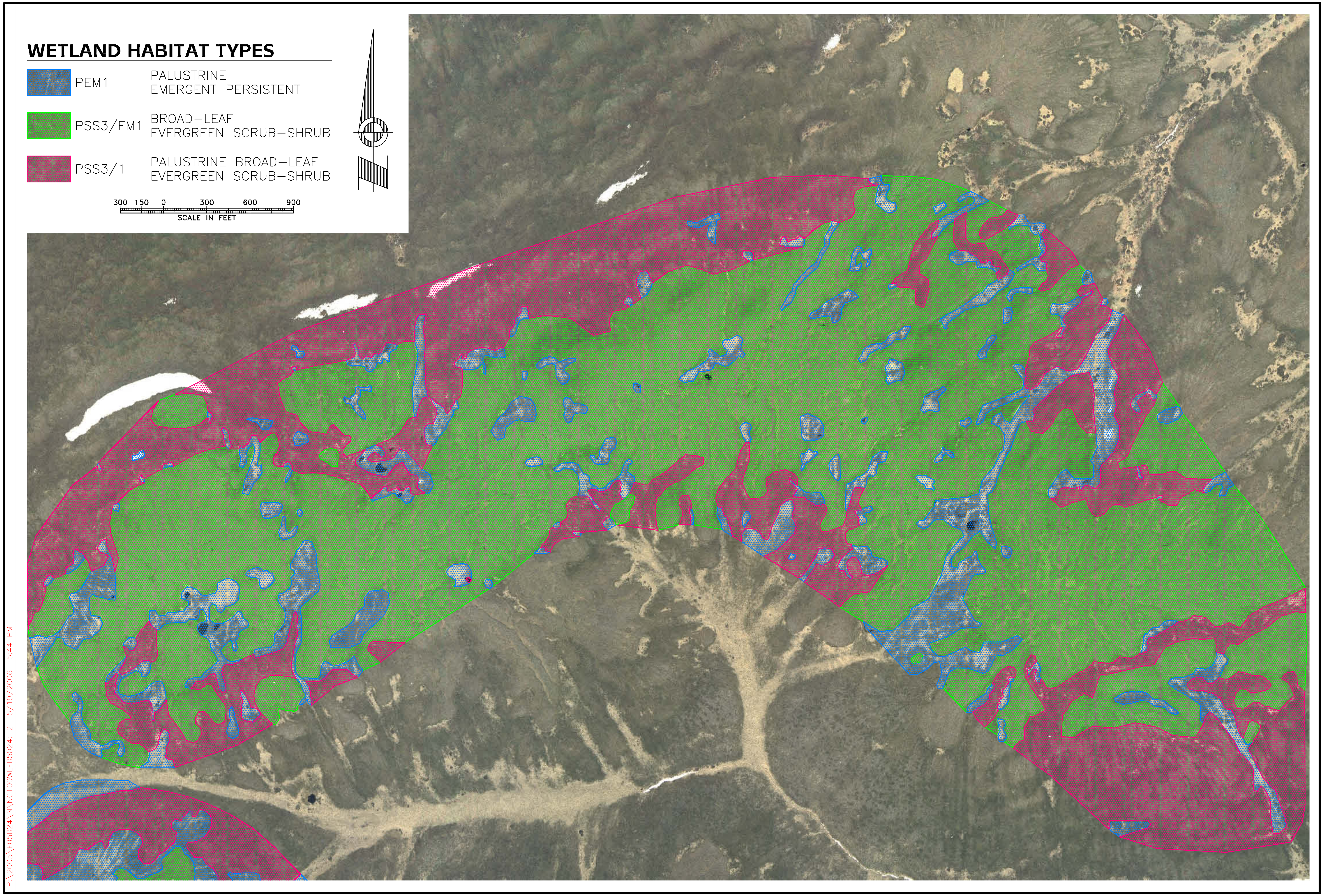
W-1



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NEWTOK AIRPORT RELOCATION
RELOCATION AREA 1
NEWTOK, ALASKA

DESIGN:
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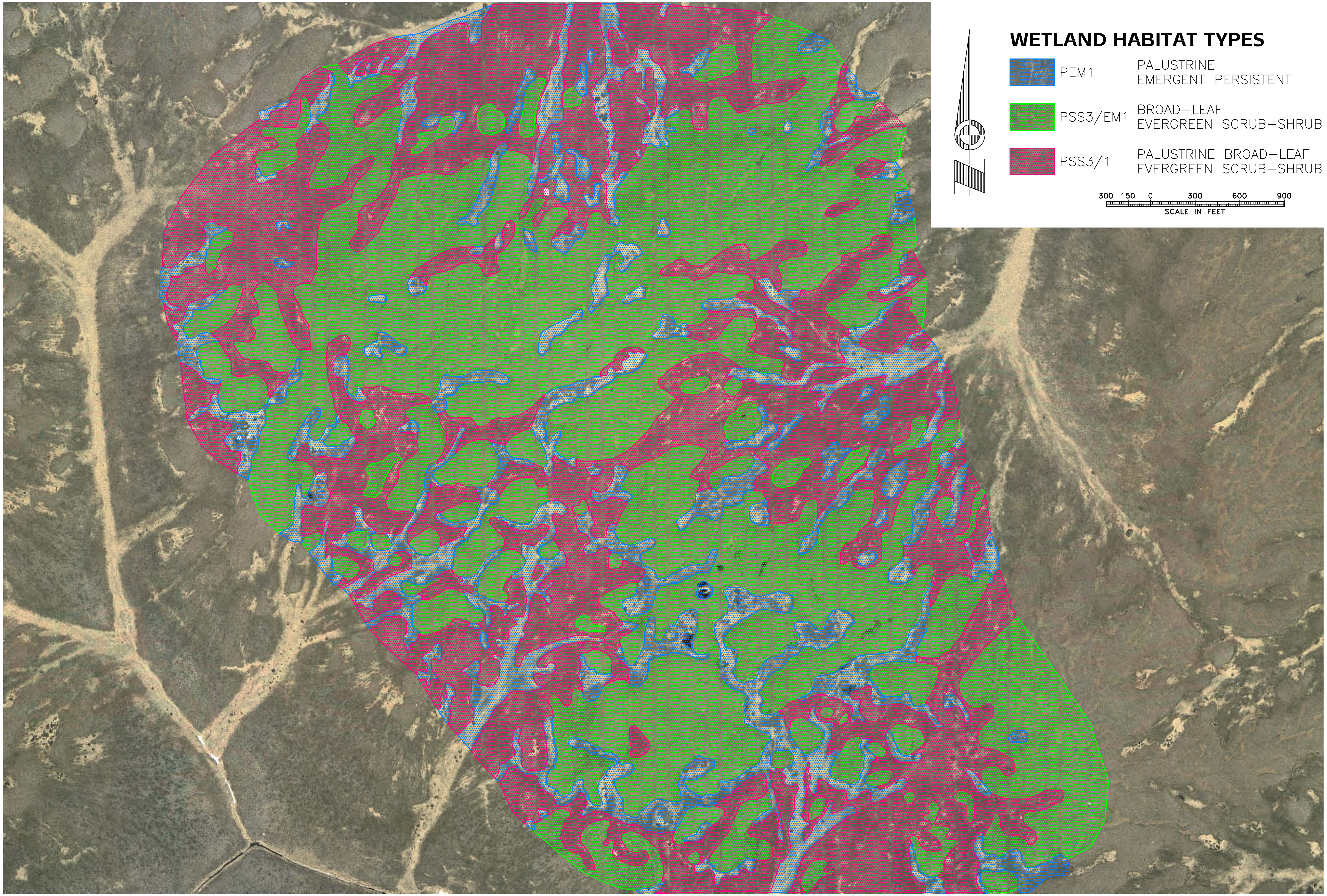
FIGURE
W-2



PDC INC. ENGINEERS

NEWTOK AIRPORT RELOCATION
RELOCATION AREA 3
NEWTOK, ALASKA

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FIGURE
W-3

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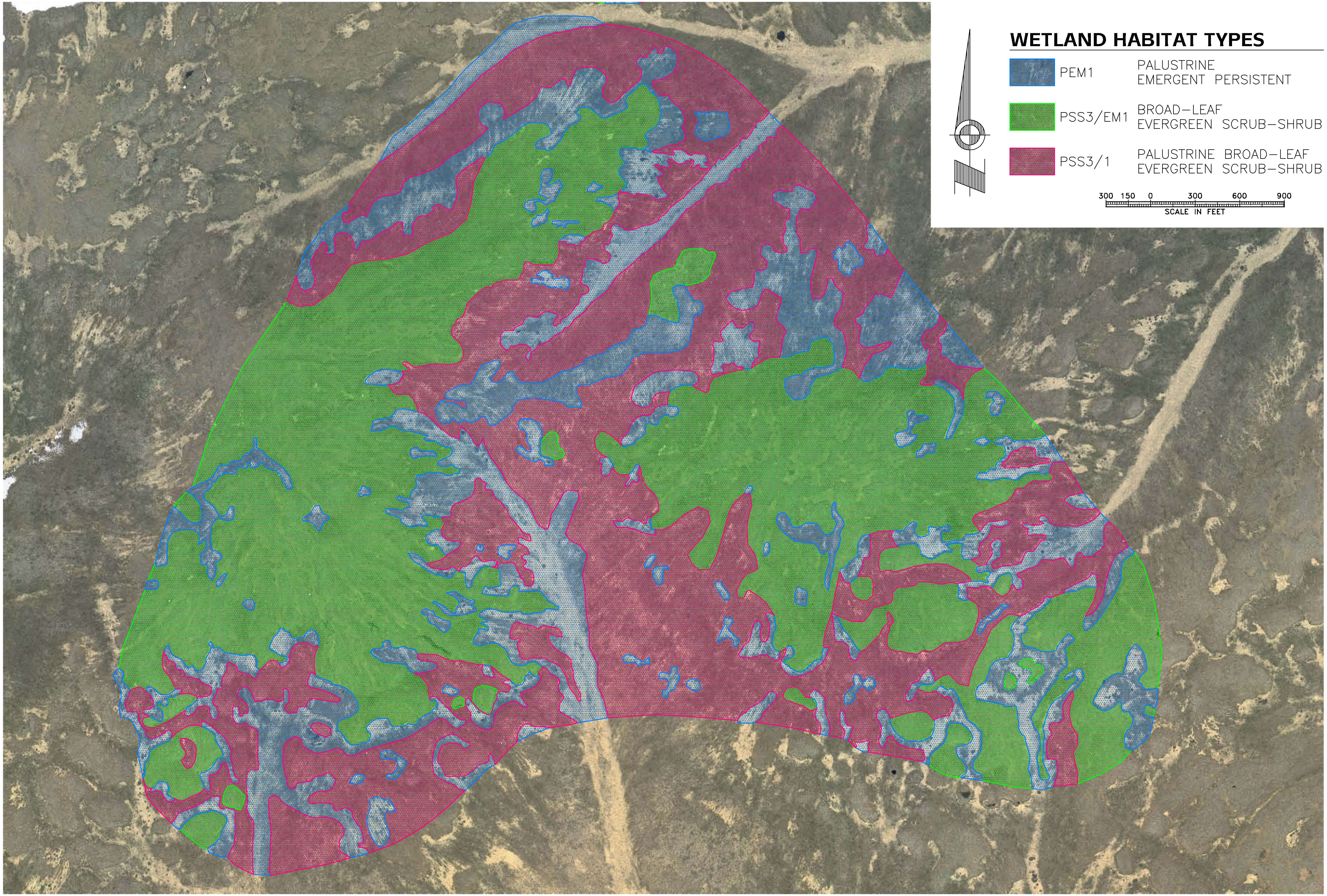

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NEWTOK AIRPORT RELOCATION
RELOCATION AREA 2

NEWTOK, ALASKA

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FIGURE W-4

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APPENDIX C

PUBLIC INVOLVEMENT

Agency Meeting
Public Meeting
Telephone Log & E-Mail Correspondence
Pilot Interviews

Agency Meeting

PDC INC. ENGINEERS

Transforming Challenges into Solutions

Anchorage
Fairbanks

KICK-OFF MEETING SUMMARY

Subject:	Newtok Airport Relocation	**Date:**	June 28, 2005
RE:	Kick-Off Meeting	**PDC # Name:**	F05024 **Newtok Airport Relocation Recon Study**
Location:	ADOT&PF, Anchorage Office		

Action Item	What, Who Does, and Comments
Introduction	• Rich Sewell began the meeting with introductions and need for project.
Presentation	• Royce Conlon gave a PowerPoint presentation which covered the planning process, location study considerations, and reconnaissance study project tasks, identified potential sites, project schedule, agency field trip, and opened the meeting to questions and input (see attached).

Agency	Questions, Comments, and Concerns:
USACE	• Expect to have aerial photography of relocation site soon, mapping in 6-8 months, and Satellite Imagery in 2-3 weeks. • A team of biologists recently surveyed the relocation area for a Programmatic EIS and reviewed some of the potential airport relocation sites. • Wetland delineation must be done to determine if it is jurisdictional. • An archeological review must be done for potential sites (Mr. Skinner). A preliminary archeological survey was done to support the Newtok land exchange and may cover some of the airport sites (Andrea provided a contact). • COE plans to do drilling next year, was holding off until they know more about location of airport. • COE to do hydro study next year for barge landing. • Mr. Skinner questioned if there was a history of military use in the area. Response: None known, but would research further.
Newtok Tribal Council	• Indicated 3 new housing units are planned to move to the new village site during the winter. • Rich has the GPS coordinates for the future barge-landing site; it is the same as shown in the ASCG 2004 Report.
BLM	• Concerns about the airports proximity to prime Brant Geese habitat, especially potential airport sites 2 and 5. No-Fly Zones are present from May 15th to July 15th; contact Mike Reardon (USF&W) for no-fly zone borders. Asked that the project consider the airport's proximity to the village, particularly, children's safety, dust pollution contaminating meat drying and causing general health concerns.
Calista Corp.	• Indicated that multiple native allotments were near potential airport site 2 and that this site was also the location for an ancient village. If we avoid the allotments we should avoid the ancient village as well. • Provided map of land status with approximate boundaries of native allotments being surveyed this summer.

Agency (continued)	Questions, Comments, and Concerns:
ADOT&PF	• Commented on storm surge events and possibility that site 5 could be within the area affected by storm events. Suggested identifying debris line with GPS during the field trip. • The relocated Village of Newtok is not going to be part of the Nelson Island Roads Project, too many miles and to much terrain to reasonably connect them up. Soils studies for this project however may be of value • Valerie requested a copy of the public involvement plan. Rich Sewell said he would provide a copy.
Other Comments	• Must coordinate with core facilities, access routes, docking facility, and airport relocation. • Concerns for the dock facility include water depth and coastal material composition. • Material site options. Cap rock on ridges may provide good quality material.
Attendees	Stanley Tom, Newtok Tribal Council (via teleconference) June McAtee, Calista Corp. James T. Sipary Sr., BLM, Tooksok Bay Mike Bennett, BLM, Realty Group Manager Gene Kane, USDARD Cindy Roberts, ADCCED / Denali Commission, Program Manager Shelley Stanchina, CVRF Marcia L. Heer, USACE Allan G. Skinner, USACE, Regulatory Specialist Andrea Elconin, USACE, Project Manager J. Larry Scudder, USACE, Study Coordinator Valerie Fletcher-Mitchell, ADOT&PF - Civil Rights Office, Title VI Specialist Rich Sewell, ADOT&PF, Planning Project Manager Mark Mayo, ADOT&PF, Aviation Planning Manager Ruth Carter, ADOT&PF, Coastal Engineer Butch Douthit, ADOT&PF Royce Conlon, P.E., PDC, Project Manager Ken Risse, P.E., PDC, Engineering Lead George Hitz, PDC, Environmental Analyst
Handouts	**PowerPoint Presentation** Large Scale Drawing of Figure 1 & 2 were laid out for review
Attachments	PowerPoint Presentation; Sign-In Sheet; Copy of Business Cards

Meeting Agenda

- Welcome and Meeting Purpose
- Introductions and Interest
- Need for Relocation
- Airport Planning Process
- Airport Location Study Considerations
- Airport Reconnaissance Study
  - Project Tasks
  - Schedule
- Agency Field Trip Invitation
- Progress and Studies
- Questions and Input

Need for Relocation

Graphic compliments of the Newtok Background for Relocation Report, January 2004

Need for Relocation

Airport Planning Process

- **Airport Reconnaissance Study**
- Airport Master Plan
- Environmental Documentation and Permitting
- Airport Layout Plan
- Airport Design
- Right of Way Acquisition
- Construction

Airport Location Study Considerations

- Proximity to Community and Access
- Orientation for Wind
- Terrain/Airspace
- Weather Conditions – Fog, Clouds, etc.
- Environmental Considerations – Wetlands, Migratory Bird Protection
- Landfill location and other Bird Strike Hazards
- Geotechnical
- Material Sources and Access
- Airport Requirements

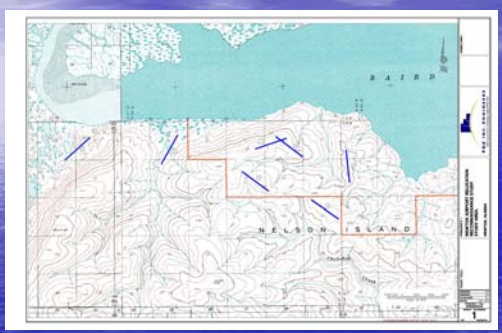
Recon. Study Project Tasks

- Public Involvement
- **Kick-off Meeting**
- Data Gathering:
  - Office Studies, Pilot Questionnaires – Community
    - Community Profile
    - Socioeconomic Evaluations
    - Aviation Facility Inventory
    - Regional Transportation Facilities
    - Environmental Conditions
    - Land Use Inventory and Base Maps
    - Aviation Activity and Forecast
    - Airspace Conflicts
- Field Reconnaissance

Recon. Study Project Tasks
(continued)

- Alternative Development and Analysis
  - Determine Airport Facility Requirements
  - Identify Potential Airport Sites

Identify Potential Airport Sites



Recon. Study Project Tasks
(continued)

- Alternative Development and Analysis
  - Determine Airport Facility Requirements
  - Identify Potential Airport Sites
  - Conduct Preliminary Alternatives Evaluation
    - Environmental Overview
    - Potential Operational Issues
    - Costs
  - Study Report
    - Viable Alternatives for Further Studies
    - Transition Plan with Milestones tied to Village Relocation

Project Schedule Highlights

Community Meeting and Field Reconnaissance	July 26-28
Alternatives Evaluation	September – October
Draft Study Report for Public/Agency Review	January 2006
Final Study Report	February 2006

Field Recon. Trip

- If you are interested in joining us on the Field Reconnaissance trip, please contact Royce Conlon for assistance with logistical arrangements, no later than July 15, 2005

Phone: (907) 452-1414
E-mail: RoyceConlon@pdceng.us

Agencies responsible for their own travel costs

Progress and Studies

- Input from other agencies
  - What studies are being conducted?
  - What are the schedules?

Questions / Input

Newtok Airport Relocation

STATE PROJECT NO. 57405

KICK-OFF MEETING
June 28, 2005

Attendance Sheet

Please sign in. Your attendance and comments are important to the development of this project. Thank you!

NAME	ADDRESS	PHONE NUMBER
GENE KANE, USDA RD	510 L STREET, Ste 410 Anchorage, AK 99501 gene.kane@ak.usda.gov	(907) 271-3025
Mike Bennett, BCM	6881 Abbott Loop Rd Anch. AK 99507	(907) 267-1252
Valerie Fletcher-Mitchell	ADOT/PF Civil Rights	269-0845
James T. Sparks BLM SR. ORS	P.O. Box 37134 Tok, Alaska 99737	907-427-7816 427-7021 543-3157
June McAtee	301 Calista Court Anchorage AK 99518	279-5516
Ruth Carter, ADOT&PF	5800 E. Tudor Rd Anchorage, Ak 99507	269-6241
Shelley Stanchina-CVRF	711 H Street Ste 200 Anchorage AK 99501	278-5151
Ken Risse - POC	1028 Aurora Drive FAIRBANKS AK 99709	907-452-1414
MARCIA L. HEER	Elmendorf AFB Anchorage, AK	907-753-2716
Allan G. Skinner	"	"
Andrea Elconin	Corps of Engineers P.O. Box 6898 Elmendorf AFB, AK 99506	907-753-5680
Cindy Roberts	DCCED/ Denali Commission	907/271-3018
MARK MAYO	DOT&PF PLANNING	907-261-0519

Newtok Airport Relocation

STATE PROJECT NO. 57405

KICK-OFF MEETING
June 28, 2005

Attendance Sheet

Please sign in. Your attendance and comments are important to the development of this project. Thank you!

NAME	ADDRESS	PHONE NUMBER
J. Larry Scudder	Corps of Engineers P.O. Box 6898 Elmendorf AFB 99506	(907) 753-5710
Butch Douthit	Harvey_Douthit@dot.state.ak.us	269-0619
George Hitz, PDC	1028 Aurora Drive Fairbanks, AK 99709	907-452-1414
Rich Sewell	DOT+PF Planning	269-0516

Donna Greenslade

Sent: Monday, June 27, 2005 3:27 PM
To: Amanda_Henry@dnr.state.ak.us; andrew.oxford@ak.usda.gov; Andy_concepcion@hud.gov; bcharles@calistacorp.com; bill_ferguson@lksd.org ; bob_herron@stevens.senate.gov; bob_loeffler@dnr.state.ak.us ; Bob_Stewart@ak-prepared.com; brichert@eda.doc.gov; Carl_berger@ddc-alaska.org; Christy_Miller@dced.state.ak.us; cmello@aidea.org; combes.marcia@epamail.epa.gov; croberts@denali.gov; Dana_Hall@ykhc.org; David.Broadfoot@tetratech.com; david_a@coastalvillages.org ; David_Vought@hud.gov; Don.R.Rice@poa02.usace.army.mil; DonnaGreenslade@pdceng.us; Gary_Hanson@lksd.org; Greg_Risdahl@fws.gov; J.Larry.Scudder@poa02.usace.army.mil; Jeanne.Hanson@noaa.gov; jhelfinstine@cgalaska.uscg.mil; Jim_Patterson@dec.state.ak.us; jmcatee@calistacorp.com; John.Lovett@faa.gov; Marie_Steele@dec.state.ak.us; Mark@avcphousing.org; Mark_Kuwada@fishgame.state.ak.us; Michael_Reardan@fws.gov; Mike.Grunst@ak.ngb.army.mil; Myron_Naneng@avcp.org; paul_chimiugak@commerce.state.ak.us; realnews@deltadiscovery.com; Rich_Sewell@dot.state.ak.us; robert.beans@ak.usda.gov; Roger Seavoy ; RoyceConlon@pdceng.us; ryan.maroney@ak.usda.gov; stanleytom@starband.net; Stefaniel@dnr.state.ak.us; SteveBecker@pdceng.us; stewart_seaberg@dnr.state.ak.us; suzy_wooliver@nps.gov; ted_w@coastalvillages.org; terry_smith@ak.blm.gov; Tracie_Krauthoefer@fishgame.state.ak.us; tundradrums@gci.net
Subject: F05024 - Newtok Airport Relocation - Kick-Off Meeting Reminder

Attachments: Agency Kick-off Meeting_Agenda.doc

Attached is the agenda for the meeting tomorrow June 28, 2005 at 3pm.

Agency Kick-off Meeting_Agenda...

Donna B. Greenslade, CAP, CDT
PDC, Inc.
1028 Aurora Drive
Fairbanks, AK 99709
Phone (907) 452-1414
Fax (907) 456-2707
DonnaGreenslade@pdceng.us

Agenda

Newtok Airport Relocation

June 28, 2005
3:00 to 5:00pm
ADOT Central Region Conference Room
4111 Aviation Avenue
Anchorage, AK 99519

Meeting called by:	AK DOT/PF
Type of meeting:	Kick-Off

Agenda Topics

Welcome and Meeting Purpose
Introductions and Interest
Need for Relocation
Airport Planning Process
Airport Location Study Considerations
Airport Reconnaissance Study
Project Tasks
Schedule
Agency Field Trip Invitation
Progress and Studies
Questions and Input

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

CENTRAL REGION - PLANNING

FRANK H. MURKOWSKI, GOVERNOR

4111 AVIATION AVENUE
P.O. BOX 196900
ANCHORAGE, ALASKA 99519-6900
(TDD 269-0473)
(907) 269-0520 (FAX 269-0521)

June 16, 2005

RE: Newtok Airport Site Reconnaissance Study
Project No. 57405
Invitation to Project Kick-off Meeting

Amanda Henry
Office of Project Management & Permitting
Alaska Department of Natural Resources
550 W. 7th Ave., Suite 1660
Anchorage, AK 99501

Dear Ms. Henry:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Aviation Administration (FAA), is preparing to conduct a reconnaissance study of potential airport relocation sites in support of efforts by the village of Newtok to relocate to Takikchak on Nelson Island (Figure 1). Recognizing that the relocation of the village is an interagency endeavor, we invite you to a Project Kick-off Meeting to be introduced to the project team, to discuss the upcoming project, and to identify any issues, concerns, or ideas you may have concerning relocation of the airport to Nelson Island.

Background
The village of Newtok, Alaska is being threatened by the advance of the Ninglick River. High erosion rates at the riverbank adjacent to the village prompted the Newtok Traditional Council (NTC) to begin a relocation planning process in 1994. The NTC analyzed six potential village relocation sites, and selected Takikchak on the northern end of Nelson Island. The new village site is approximately 9 miles southwest of the present village. In 2000, the NTC developed relocation plans, with the USACE and BIA included as funding partners. NTC completed a site layout and transportation plan for the selected site in 2001. The USACE performed a preliminary geotechnical overview of the site in 2002 and considers the site feasible for community development. Further information on the village relocation project can be found in the Newtok Background for Relocation Report (ASCG 2004).

Project Purpose
The purpose of this study is the collection of data, analysis of aviation needs and identification of conceptual alternatives to determine the optimal location of a community airport to support the relocation as well as long term aviation needs of the village of Newtok. The study will include an inventory of the existing airport facility and any area planning efforts that may affect future development.

The study will examine environmental factors, the draft site plan for the proposed relocated village, future airport access needs, material sources, site development costs and land title. The study will document issues and comments received on airport alternative(s) and make recommendations on which alternative(s) should be carried for further evaluation prior to selection of a preferred alternative. The study will also present a guiding set of benchmarks and strategies to aid ADOT&PF as the village of Newtok moves forward with relocation initiative.

Project Kick-off Meeting
ADOT&PF is hosting an agency kick-off meeting to be held on:

June 28, 2005
3:00 – 5:00 PM
ADOT Central Region Conference Room
4111 Aviation Avenue
Anchorage, AK 99519

The purpose of this meeting is to:

- Introduce the Newtok Airport Site Reconnaissance Study and team members
- Discuss project schedule
- Identify available information resources
- Solicit agency feedback and input on the airport relocation

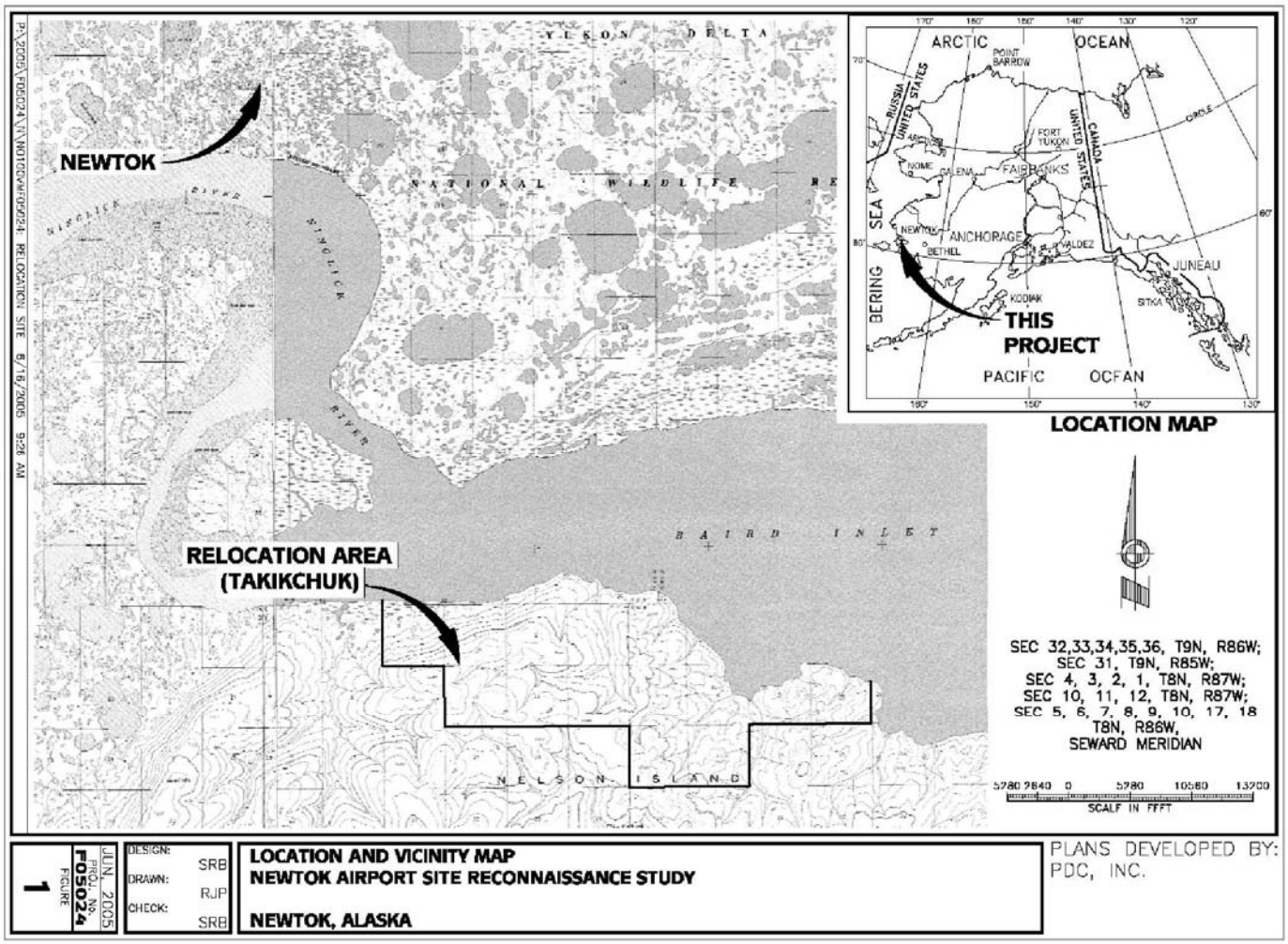
Thank you for your time and consideration. If you or others in your agency have any questions or require additional information, please feel free to contact Royce Conlon at (907) 452-1414 or by email at royceconlon@pdceng.us. **Please RSVP no later than June 24, 2005.**

Sincerely,

Rich Sewell
Project Manager

Enc: Figure 1 – Location and Vicinity Map

cc: Royce Conlon, P.E., PDC Inc. Project Manager, 1028 Aurora Drive, Fairbanks, AK 99709



NOTE: Above Figure can be downloaded from the PDC Inc. Engineers FTP site at the address listed below.
FTP://www.pdceng.us/05y06m16d/Newtok/

Kickoff Meeting Mailing List.xls
Kickoff Mtg. Mailing List

Organization	Department or Div.	FirstName	LastName	Title	Greeting	Address	CityStateZIP	Phone	Fax	EMail	Type	Comments	RSVP
Alaska Army National Guard	Innovative Readiness Training Program	Mike	Grunst		Dear Sergeant Grunst	P.O. Box 5800	Fort Richardson, AK 99505	428-6358		Mike.Grunst@ak.ngb.army.mil	Agency		No, out of state.
Alaska Department of Commerce, Community and Economic Development		Christy	Miller		Dear Ms. Miller	550 W. 7th Ave., Suite 1770	Anchorage, AK 99501	269-4567		Christy_Miller@dced.state.ak.us	Agency		
Alaska Department of Commerce, Community and Economic Development	Division of Community Advocacy	Paul	Chimiugak	Local Government Specialist III	Dear Mr. Chimiugak	P.O. Box 348	Bethel, AK 99559-0348	(907) 543-3475	(907) 543-4152	paul_chimiugak@commerce.state.ak.us	Agency		added to list but not sure if attending
Alaska Department of Environmental Conservation	Div. of Facility Construction & Operation	Marie	Steele	Engineering Assistant	Dear Ms. Steele	555 Cordova St.	Anchorage, AK 99501	269-7604	269-7509	Marie_Steele@dec.state.ak.us	Agency		
Alaska Department of Environmental Conservation	Village Safe Water Program	Jim	Patterson	Primary Engineer	Dear Mr. Patterson	555 Cordova Street	Anchorage, AK 99501	269-7611		Jim_Patterson@dec.state.ak.us	Agency		No, but send copy of presentation documents
Alaska Department of Fish & Game	Sport Fisheries Division	Mark	Kuwada		Dear Mr. Kuwada	333 Raspberry Road	Anchorage, AK 99518-1599	267-2277		Mark_Kuwada@fishgame.state.ak.us	Agency		
Alaska Department of Fish & Game	Subsistence Division, Bethel Office	Tracie	Krauthoefer	Subsistence Resource Specialist	Dear Ms. Krauthoefer	P.O. Box 1789	Bethel, AK 99559	543-3100	543-2021	Tracie_Krauthoefer@fishgame.state.ak.us			
Alaska Department of Fish & Game	Wildlife Conservation, Bethel Office	Roger	Seavoy		Dear Mr. Seavoy	P.O. Box 1467	Bethel, AK 99559-1467	(907) 543-2979 phone	(907) 543-2021 fax	Roger Seavoy (roger_seavoy@fishgame.state.ak.us)	User		
Alaska Department of Natural Resources	Div. of Mining, Land & Water	Bob	Loeffler	Director	Dear Mr. Loeffler	550 West 7th Ave., Suite 1070	Anchorage, AK 99501-3579	269-8600	269-8904	bob_loeffler@dnr.state.ak.us	Agency		
Alaska Department of Natural Resources	Office of Habitat Management & Permitting	Stewart	Seaberg		Dear Mr. Seaberg	333 Raspberry Road, Ste. A247	Anchorage, AK 99518-1599	267-2285		stewart_seaberg@dnr.state.ak.us	Agency		
Alaska Department of Natural Resources	Office of History and Archaeology	Stefanie	Ludwig		Dear Ms. Ludwig	555 W. 7th Ave., Suite 1310	Anchorage, AK 99501	269-8720		Stefaniel@dnr.state.ak.us	Agency		

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Organization	Department or Div.	FirstName	LastName	Title	Greeting	Address	CityStateZIP	Phone	Fax	EMail	Type	Comments	RSVP
Alaska Department of Natural Resources	Office of Project Management & Permitting	Amanda	Henry		Dear Ms. Henry	550 W. 7th Ave., Suite 1660	Anchorage, AK 99501	907-269-7468		Amanda_Henry@dnr.state.ak.us	Agency		
Alaska Department of Transportation and Public Facilities	Central Region	Rich	Sewell		Dear Mr. Sewell	P.O. Box 196900	Anchorage, AK 99519	269-0516		Rich_Sewell@dot.state.ak.us	Project Team	ADOT PM	
Alaska Division of Homeland Security and Emergency Management		Bob	Stewart		Dear Mr. Stewart	P.O. Box 5750	Fort Richardson, AK 99505	428-7060		Bob_Stewart@ak-prepared.com	Agency		Yes (1)
Alaska Industrial Development and Export Authority	Alaska Energy Authority	Chris	Mello		Dear Mr. Mello	813 West Northern Lights Blvd.	Anchorage, AK 99503	269-3000		cmello@aidea.org	Agency		
Association of Village Council Presidents	Housing Division	Mark	Charlie		Dear Mr. Charlie	P.O. Box 767	Bethel, AK 99559	543-3121 x243		Mark@avcphousing.org	IHA		
Association of Village Council Presidents		Myron	Naneng	President	Dear Mr. Naneng	P.O. Box 219	Bethel, AK 99559	543-7300		Myron_Naneng@avcp.org	Native Non-profit		
Calista Corporation	Land and Natural Resources	June	McAtee	Vice President	Dear Ms. McAtee	301 Calista Cort, Suite A	Anchorage, AK 99518	279-5516	272-5060	jmcatee@calistacorp.com	Native Corp.		Yes (1)
Calista Corporation		Bob	Charles		Dear Mr. Charles	301 Calista Cort, Suite A	Anchorage, AK 99518	279-5516	272-5060	bcharles@calistacorp.com	Native Corp.		added to list but not sure if attending
Coastal Villages Region Fund		Ted	Wittenberger	Community Development Specialist	Dear Mr. Wittenberger	711 H Street, Sutie 200	Anchorage, AK 99501			ted_w@coastalvillages.org	Native Org.		No
Coastal Villages Region Fund		Shelley	Stanchina		Dear Ms. Stanchina	711 H Street, Sutie 200	Anchorage, AK 99501			shelley_s@coastalvillages.org	Native Org.		Yes (1)
Coastal Villages Region Fund		David	Albert	Community Liaison	Dear Mr. Albert	P.O. Box 5591	Newtok, AK 99559	237-2310	237-2311	david_a@coastalvillages.org	Native Org.		
Denali Commission		Cindy	Roberts		Dear Ms. Roberts	510 L Street, Suite 410	Anchorage, AK 99501	271-3018		croberts@denali.gov	Agency		
Lower Kuskokwim Economic Development Council		Carl	Berger	Executive Director	Dear Mr. Berger	P.O. Box 202	Bethel, AK 99559	543-5967	543-3130	Carl_berger@ddc-alaska.org	Econ. Dev. Org.		
Lower Kuskokwim School District	Facilities	Gary	Hanson		Dear Mr. Hanson	P.O. Box 305	Bethel, AK 99559	543-4888		Gary_Hanson@lksd.org	School		
Lower Kuskokwim School District		Bill	Ferguson	Superintendent	Dear Mr. Ferguson	P.O. Box 305	Bethel, AK 99559	543-4800	543-4904	bill_ferguson@lksd.org	School		

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Organization	Department or Div.	FirstName	LastName	Title	Greeting	Address	CityStateZIP	Phone	Fax	EMail	Type	Comments	RSVP
Newtok Corporation		Larry	Charles	President	Dear Mr. Charles	P.O. Box 5528	Newtok, AK 99559	237-2512	237-2227		Village Corp.		
Newtok Traditional Council		Moses	Carl	President	Dear Mr. Moses	P.O. Box 5545	Newtok, AK 99559	237-2314	237-2428		Native Corp.		
Newtok Traditional Council		Stanley	Tom	Administrator	Dear Mr. Tom	P.O. Box 5545	Newtok, AK 99559	237-2314		stanleytom@starband.net	Tribal Gov't		No - responded to reminder
PDC		Royce	Conlon			1028 Aurora Drive	Fairbanks, AK 99709			RoyceConlon@pdceng.us	cc		
Tetra Tech, Inc.		David	Broadfoot	Project Manager	Dear Mr. Broadfoot	1925 Post Alley	Seattle, WA 98101	206-728-9655 xt 101	206-728-9670	David.Broadfoot@tetratech.com			
The Delta Discovery				Editor	Dear Editor	P.O. Box 1028	Bethel, AK 99559	543-4113	543-4116	realnews@deltadiscovery.com	Local Newspaper		
The Tundra Drums				Editor	Dear Editor	P.O. Box 868	Bethel, AK 99559	543-3500		tundradrums@gci.net	Local Newspaper		
U.S. Army Corps of Engineers	Alaska District	Larry	Scudder	Project Manager	Dear Mr. Scudder	P.O. Box 6898	Elmendorf AFB, AK 99506	753-5710		J.Larry.Scudder@poa02.usace.army.mil	Corps PM		Yes (1)
U.S. Army Corps of Engineers	Alaska District	Andrea	Elconin		Dear Ms. Elconin	P.O. Box 6898	Elmendorf AFB, AK 99506	753-5710			Corps PM		Yes (1)
U.S. Army Corps of Engineers	Alaska District Regulatory Branch	Don	Rice		Dear Mr. Rice	P.O. Box 6898	Elmendorf AFB, AK 99506	753-2716		Don.R.Rice@poa02.usace.army.mil	Agency		Yes (1)
U.S. Bureau of Indian Affairs	Alaska Region	Kristin	K'eit	Regional Environmental Scientist	Dear Ms. K'eit	P.O. Box 25520	Juneau, AK 99802	586-7423			Agency		
U.S. Bureau of Land Management		Henri	Bisson	Alaska State Director	Dear Mr. Bisson	222 W. 7th Ave., #13	Anchorage, AK 99504	271-5080	271-4596	terry_smith@ak.blm.gov	Agency		
U.S. Coast Guard	17th Coast Guard District Aides to Navigation	James	Helfinstine		Dear Mr. Helfinstine	P.O. Box 25517	Juneau, AK 99802-5517	463-2025	463-2023	jhelfinstine@cgalaska.uscg.mil	Agency		
U.S. Congress	Alaska Delegation	Bob	Herron	Staff Assistant	Dear Mr. Herron	P.O. Box 1030	Bethel, AK 99559	543-1638	543-1637	bob_herron@stevens.senate.gov	Gov't		
U.S. Department of Agriculture	Lower Kuskokwim Resource Conservation and Development Council	Ryan	Maroney	RC&D Coordinator	Dear Mr. Maroney	P.O. Box 1869	Bethel, AK 99559	543-7157	543-3855	ryan.maroney@ak.usda.gov	Agency		
U.S. Department of Agriculture	Natural Resources Conservation Service	Andrew	Oxford	District Conservationist	Dear Mr. Oxford	P.O. Box 1869	Bethel, AK 99559	543-7155	543-3855	andrew.oxford@ak.usda.gov	Agency		

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Organization	Department or Div.	FirstName	LastName	Title	Greeting	Address	CityStateZIP	Phone	Fax	EMail	Type	Comments	RSVP
U.S. Department of Agriculture	Rural Development	Robert	Beans	Area Director	Dear Mr. Beans	P.O. Box 1869	Bethel, AK 99559	543-3858	543-3855	robert.beans@ak.usda.gov	Agency		Responded, but no confirmation of attendance "yet"
U.S. Department of Housing and Urban Development		Andy	Concepcion		Dear Mr. Concepcion	3000 C Street, Suite 401	Anchorage, AK 99503	677-9887		Andy_concepcion@hud.gov	Agency		
U.S. Department of Housing and Urban Development		David	Vought		Dear Mr. Vought	3000 C Street, Suite 401	Anchorage, AK 99503	677-9862		David_Vought@hud.gov	Agency		
U.S. Economic Development Administration		Berney	Richert		Dear Mr. Richert			271-2272		brichert@eda.doc.gov	Agency		
U.S. Environmental Protection Agency	Alaska Operations Office	Marcia	Combes	Director	Dear Ms. Combes	222 W. 7th Ave., # 19	Anchorage, AK 99513-7588	271-5083	271-3424	combes.marcia@epamail.epa.gov	Agency		
U.S. Federal Aviation Administration Alaska Region	Airports Division	John	Lovett	Capacity Planner	Dear Mr. Lovett	P.O. Box 14	Anchorage, AK 99513	271-3665		John.Lovett@faa.gov	Agency		
U.S. Fish & Wildlife Service	Western Alaska Ecological Services	Greg	Risdahl		Dear Mr. Risdahl	605 W. 4th Ave., Room G-61	Anchorage, AK 99501	271-2807		Greg_Risdahl@fws.gov	Agency		
U.S. Fish and Wildlife Service	Yukon Delta National Wildlife Refuge	Michael	Reardan	Refuge Manager	Dear Mr. Reardan	P.O. Box 346	Bethel, AK 99559	543-3151		Michael_Reardan@fws.gov	Agency		
U.S. National Marine Fisheries Service	Habitat Conservation Division	Jeanne	Hanson		Dear Ms. Hanson	222 West 7th Ave. #43	Anchorage, AK 99513-7577	271-6354		Jeanne.Hanson@noaa.gov	Agency		
U.S. National Park Service	Alaska Region	Marcia	Blaszak	Regional Director	Dear Mr. Amberger	250 W. 5th Ave., Room 114	Anchorage AK 99501	644-3513		suzy_wooliver@nps.gov	Agency		
Ungusraq Power Company		Rita	Kilongak	Manager	Dear Ms. Kilongak	P.O. Box 5564	Newtok, AK 99559	237-2129	237-2130		NativeUtility		
Yukon-Kuskokwim Health Corporation		Dana Lee	Hall		Dear Ms. Hall	P.O. Box 528	Bethel, AK 99559	543-6000	543-6006	Dana_Hall@ykhc.org	Native Health Corp.		

Public Meeting

PDC INC. ENGINEERS

Transforming Challenges into Solutions

Anchorage
Fairbanks

PUBLIC MEETING SUMMARY

Subject:	Newtok Airport Relocation	**Date:**	July 27, 2005
RE:	Public Meeting Minutes	**PDC # Name:**	F05024 Newtok Airport Relocation Recon. Study
Location:	Newtok, AK		

Item	Description
Opening Prayer	A Newtok elder opened the meeting with a prayer at approximately 7:00 PM.
Introduction	Rich Sewell began the meeting with introductions (Stanley Tom translated throughout the meeting).
Presentation	Ken Risse gave a presentation, outlined in the attached public meeting agenda. The presentation covered the reconnaissance process, location study considerations (airport requirements, proximity to the village, weather, terrain, environmental concerns, landfill location, and material sources), project schedule, and the upcoming reconnaissance trip. The full size color versions of the attached graphics were set up in the front and on each side of the community hall.
Q & A	Ken opened the meeting to questions, comments, and concerns (see below).
Raffle	A drawing was held for the door prizes (4 calling cards, a cooler, and a case of outboard engine oil). The project team thanked the community members for their interest and attendance.
End Meeting	Closed presentation for one-on-one sessions. The meeting closed at approximately 9:00 PM.

Topic	Questions, Comments, and Concerns:
Proximity to the Village	• Ken asked if there were any concerns about the airport's proximity to the village? Children's safety? Dust on drying meat? • Mark Tom indicated that children's safety was a concern and they didn't want to see kids on the on the runway like in Quinhagak. Community members indicated that the current airport's location did not create problems with dust on drying foods, and they didn't think there would be a problem with it at any of the locations presented. • The general consensus of the community members was that they did not want the airport a great distance from the village. The community members do not always have access to ATV's, and elders would not be able to make a long walk, especially in the winter.
Wind Data	• Joseph John, Sr. asked what we knew about the winds – if there had been or would be any studies for wind at the potential sites. • Ken said the pilots that had been interviewed indicated that wind direction was pretty unpredictable in that area. One of the next steps would be to collect wind data for one to two years.

1028 Aurora Drive
Fairbanks, AK 99709
T: 907.452.1414
F: 907.456.2707

Access Road/ Trail Steepness	• Michael John issued concern about the steepness of the road from the village to the airport. Four-wheelers are not always available, and some of the elders might have problems if the road is too steep. Also, winter conditions could be treacherous. • Ken informed the residents that there were several ways to reduce the steepness of the access road.
Migration Routes	• George asked Stanley Tom if he knew of any wildlife migration routes in or around the village/airport relocation area. • Stanley said that there were no migration routes through that area.
Airport Location	• The community members indicated that the council looked at airport locations, but would prefer to let the engineers select the best and safest place for the airport.
Population Changes	• Paul Chimiugak of DCCED and a community member were asked if emigration had increased since the village knew relocation was imminent, and whether they expected immigration to increase after the new relocation site was established. Both indicated that there was not a substantial increase of emigration, nor were they expecting a substantial amount of immigration. The population was expected to stay about the same.

Attendees
38 – Public
4 – Project Team

Joanne Active	Angela George	Betty Ann Tom
David Albert	Joeseph Inakok	Eliza Z. Tom
Minnie M. Andy	Bernice John	George Tom
Norma Andy	Joseph John Sr.	Lisa Tom
Steven Andy	Josephine John	Lucy Tom
William Andy	Mary L. John	Mark Tom
Alice Atchan	Michael John	Nick Tom Sr.
Cyril Carl	Tom John	Stanley Tom
Marie P. Carl	Ann Marie Matthias	Agnes Tommy
Moses Carl	Elaine Moses	Mick H.
Paul Carl	Priscilla Paniyak	Rich Sewell - DOT
Albert Charles	Christine Patrick	Ken Risse - PDC
Ben Charles	Gabrial Patrick	George Hitz - PDC
Paul Chimiugak - DCCED	Joseph Patrick	Pete Hardcastle – R&M
G. J. Earviak Sr.		
*See attached sign-in sheet		

Handouts

Public Meeting Agenda
Figures 1 & 2
Comment Sheet
Raffle Tickets

2146
Joanne Active
NAME
PO Box 5578
ADDRESS
Newtok, AK 99559
237 2870
PHONE

2195
Paul Albert
NAME
ADDRESS
237-2310
PHONE

2397
Minnie M Andy
NAME
Bx 5526
ADDRESS
Newtok, AK 99559
(907) 237-2525
PHONE

2295
Norma Andy
NAME
Newtok, Ak
ADDRESS
907-237-2035
PHONE

2347
Steven Andy
NAME
P.O. Box 5583
ADDRESS
Newtok AK 99559
(907) 257-2386
PHONE

2096
William Andy
NAME
PO Box 5524
ADDRESS
Newtok
237-2035
PHONE

2045
Alice Atchak
NAME
ADDRESS
237-2035
PHONE

2398
Cyril Carl
NAME
Bx 5526
ADDRESS
Newtok, AK
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PHONE

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Mary P Carl
NAME
P.O. Box 5515
ADDRESS
Newtok
907) 237-2529
PHONE

2245
Moses Carl
NAME
P.O Box 5515
ADDRESS
Newtok, Ak-
907-237-2529
PHONE

2196
Paul Carl
NAME
ADDRESS
Newtok, AK 99559
237-2615
PHONE

2394
Albertina Charles
NAME
P.O Box 5505
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PHONE

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Ben Charles
NAME
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PHONE

2199
G.J. Earuiak Sr
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Joseph Iwktok
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Bernice John
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Joseph John Sr
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Josephine John
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Newtok AK
237 2797
PHONE

2344
Mary L. John
NAME
Newtok AK
ADDRESS
PHONE

2346
Michael John
NAME
ADDRESS
PHONE

2145
Tom John
NAME
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ADDRESS
Newtok, AK
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PHONE

2149
Elaine Moses
NAME
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PHONE

2049
Priscilla Paniyak
NAME
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ADDRESS
Newtok, AK 9955
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PHONE

2296
Christine Patrick
NAME
Box 5507
ADDRESS
Newtok, AK
(907) 237-2879
PHONE

2396
Gabriel Patrick
NAME
P.O. Box 5507
ADDRESS
Newtok AK 99559
(907) 237-2879
PHONE

2246
Joseph Patrick
NAME
Newtok AK
ADDRESS
237-2879
PHONE

2395
Betty Ann Tom
NAME
ADDRESS
237-2735
PHONE

2294
Eliza C. Tom
NAME
342 E. 15 Terrace
ADDRESS
Anch AK 99501
222-3480
PHONE

2194
George Tom
NAME
P.O. Box 5506
ADDRESS
Newtok. AK
907-237-2426
PHONE

2345
Lisa Tom
NAME
ADDRESS
237-2735
PHONE

2249
Lucy Tom
NAME
Newtok AK
ADDRESS
237.2497
PHONE

2348
Mark Tom
NAME
Newtok AK
ADDRESS
237-2497
PHONE

2247
~~Mark~~ Nick Tom Sr.
NAME
Newtok. AK
ADDRESS
PHONE

2299
Stanley Tom
NAME
ADDRESS
PHONE

2244
Agnes Tommy
NAME
Newtok. AK
ADDRESS
237-2417
PHONE

2248
Annmarie Matthias
NAME
PO Box 90041
ADDRESS
Nightmute, AK 99690
(907) 647-6204
PHONE

*This information is **voluntary**. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NEWTOK AIRPORT RELOCATION
PROJECT NUMBER 57405
PUBLIC MEETING
SIGN IN SHEET

PROJECT NAME: NEWTOK AIRPORT RELOCATION **Project Number 57405** **DATE: JULY 27, 2005**

NAME	MAIL ADDRESS & EMAIL ADDRESS	PHONE NUMBER	*GENDER (M/F)	*RACE (W, AN, N, B, H, A, P, O)
Paul Chimiugak	SOA/RUBA DCCED Box 348	543-3475	M	AN
Michael John	Bethel AK 99559	x230		
Joanne Active	PO Box 5578 Newtok AK 99559	237-2870	F	AN
[illegible] Patrick	P.O. Box 5507 Newtok AK 99559	237-2879	M	
[illegible] Tom	P.O. Box 5506 Newtok AK	237-2426	F	AN
Paul Carl	Newtok AK 99559	237-2615	M	AN
William Andy	Box 5526 Newtok	237-2035	M	AN
Joseph John Jr	Newtok	237-2079	M	AN
Joseph Patrick	Newtok	2372879		
Christine Patrick	Newtok AK			
Lisa Tom	Newtok	237-2735	F	AN 1/2
Bettyann Tom	Newtok	237-2535	F	AN
Joseph [illegible]	Newtok			
Moses Carl	Newtok.	237-2529	M	AN

RACE CATEGORIES: WHITE (W), ALASKA NATIVE (AN), NATIVE AMERICAN (N), BLACK (B), HISPANIC (H), ASIAN (A), PACIFIC ISLANDER (P), AND OTHER (O)

Effective: December 2004

PROJECT NAME: NEWTOK AIRPORT RELOCATION | Project Number 57405 | DATE: JULY 27, 2005

NAME	MAIL ADDRESS & EMAIL ADDRESS	PHONE NUMBER	*GENDER (M/F)	*RACE (W, AN, N, B, H, A, P, O)
Norma Andy	Bx ~~Box~~ 5526 Newtok	237 2035	F	AN
Alice Atchak	Bx 5526 Newtok	"	F	AN
[illegible]	Box Newtok	237-2860	M	AN
Agnes Tommy	Newtok	237-2617	F	AN
Eliza [illegible]	342 E. 13 Terrace Apt 4, Anch AK 99501	222-3480	F	Ek. [illegible]
Mary [illegible]	Newtok		F	AN
[illegible] T. [illegible]	[illegible]	237-2212	F	[illegible]
RICH SEWELL	DOT CR-Planning	269-0516	M	W
Mick Hardenberg	26 rue de la [illegible] 67450 Lampertheim FRANCE mick2703@wanadoo.fr	03 88 20 15 24	F	W
George Hitz	PDC 1028 Aurora Dr. Fairbanks AK		M	W

RACE CATEGORIES: WHITE (W), ALASKA NATIVE (AN), NATIVE AMERICAN (N), BLACK (B), HISPANIC (H), ASIAN (A), PACIFIC ISLANDER (P), AND OTHER (O)

Effective: December 2004

PROJECT NAME: NEWTOK AIRPORT RELOCATION Project Number 57405 DATE: JULY 27, 2005

NAME	MAIL ADDRESS & EMAIL ADDRESS	PHONE NUMBER	*GENDER (M/F)	*RACE (W, AN, N, B, H, A, P, O)
Minnie Andy	Newtok	237-2525	F	AN
Mark Tom	Newtok		M	AN
Cyril Carl	Newtok	237-2525	M	AN
Steven Andy	Newtok	237-2386	M	AN
Lucy Tom	Newtok	237-2497	F	AN
[illegible]	PO Box 5546 Newtok AK 99559	237-2921	M	AN
Josephine John	Newtok, AK	237 2797	F	an
Bernice John	Bx 5536 Newtok, AK 99559	237-2860	F	an
Priscilla Paniyak	Bx 5563 Newtok	237-2481	F	AN
Angela George	Bx 5541 Newtok, AK 99559	237-2510	F	AN

RACE CATEGORIES: WHITE (W), ALASKA NATIVE (AN), NATIVE AMERICAN (N), BLACK (B), HISPANIC (H), ASIAN (A), PACIFIC ISLANDER (P), AND OTHER (O)

PROJECT NAME: NEWTOK AIRPORT RELOCATION Project Number 57405 DATE: JULY 27, 2005

NAME	MAIL ADDRESS & EMAIL ADDRESS	PHONE NUMBER	*GENDER (M/F)	*RACE (W, AN, N, B, H, A, P, O)
[illegible]	P.O. Box 53 / Newtok, AK 99559-5512	237-2083	M	100% Eskimo
Marie P Carl	P.O. Box 5515 / Newtok, AK. ~~(907) 23~~	237-2529	F	100% Eskimo
Annmarie Matthias	POBox 90041 / Nightmute, AK 99690	647-6204	F	100% Eskimo
Ken Risse	PDC INC. 1028 AURORA DR / FBKS AK 99709	452-1414	M	W

RACE CATEGORIES: WHITE (W), ALASKA NATIVE (AN), NATIVE AMERICAN (N), BLACK (B), HISPANIC (H), ASIAN (A), PACIFIC ISLANDER (P), AND OTHER (O)

Effective: December 2004

PUBLIC MEETING

NEWTOK AIRPORT RELOCATION STUDY

WEDNESDAY
JULY 27, 2005

7:00 P.M.
AT THE
NEWTOK COMMUNITY HALL

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Aviation Administration (FAA), is conducting a reconnaissance study of potential airport relocation sites in support of the Village's effort to relocate to Takikchak on Nelson Island. We invite you and other interested community members to the public meeting to discuss potential airport relocation sites. During this meeting we will be looking for input regarding:

- Airport relocation sites
- Local site conditions
- Subsistence & Land Use issues
- Any other issues, concerns, or ideas you may have about the project

If you are unable to attend the meeting, would like more information, or wish to provide us with comments concerning the project, please contact us at:

Rich Sewell, ADOT&PF Project Manager
phone: 907-269-0516
email: Rich_Sewell@dot.state.ak.us

Royce Conlon, P.E., PDC Inc. Project Manager
phone: 907-452-1414
email: RoyceConlon@pdceng.us

Ken Risse, P.E., PDC Inc. Project Engineer
phone: 907-452-1414
email: KenRisse@pdceng.us

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phone: 907-269-0516
email: Rich_Sewell@dot.state.ak.us

Royce Conlon, P.E., PDC Inc. Project Manager
phone: 907-452-1414
email: RoyceConlon@pdceng.us

Ken Risse, P.E., PDC Inc. Project Engineer
phone: 907-452-1414
email: KenRisse@pdceng.us

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phone: 907-269-0516
email: Rich_Sewell@dot.state.ak.us

Royce Conlon, P.E., PDC Inc. Project Manager
phone: 907-452-1414
email: RoyceConlon@pdceng.us

Ken Risse, P.E., PDC Inc. Project Engineer
phone: 907-452-1414
email: KenRisse@pdceng.us

PDC Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709

NEWTOK AIRPORT RELOCATION STUDY
Invitation to Public Meeting ✸ Wednesday, July 27th, 7:00 PM ✸ Newtok Community Hall

Donna Greenslade

From: Donna Greenslade
Sent: Thursday, July 14, 2005 11:32 AM
To: drumsads@gci.net
Subject: Reissue of Display Ad Request

Attachments: PublicMeetingNewspaperDisplayAd.pdf

Sonya;
Attached is another PDF, please advise if you can open this file. We will need an affidavit once it's published.

PublicMeetingNews paperDisplayA...

Donna B. Greenslade, CAP, CDT
PDC, Inc.
1028 Aurora Drive
Fairbanks, AK 99709
Phone (907) 452-1414
Fax (907) 456-2707
DonnaGreenslade@pdceng.us

ALASKA NEWSPAPERS INC.

301 CALISTA COURT, SUITE B
ANCHORAGE, ALASKA 99518-3028
☎(907) 272-9830 * 🖷(907) 272-9512

DATE: July 25, 2005

PDC, INC.
ADONNA GREENSLADE
1028 AURORA DR
FAIRBANKS, AK 99709

CASE# / PO#:

INVOICE NUMBER: TD214853

AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA, STATE OF ALASKA, THIRD DIVISION. BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC THIS DAY PERSONALLY APPEARED **SHANNON MOONEY** WHO, BEING FIRST DULY SWORN, ACCORDING TO LAW, SAYS THAT SHE IS THE BILLING CLERK FOR:

THE **TUNDRA DRUMS,**

PUBLISHED AT ANCHORAGE IN SAID DIVISION THREE AND STATE OF ALASKA AND THAT THE ADVERTISEMENT, OF WHICH THE ANNEXED IS A TRUE COPY, WAS PUBLISHED IN SAID PUBLICATION ON **7/21/2005** AND THEREAFTER FOR A TOTAL OF **1** CONSECUTIVE ISSUE(S), THE LAST PUBLICATION APPEARING ON **7/21/2005**, AND THAT THE RATE CHARGED THEREON IS NOT IN EXCESS OF THE RATE CHARGED TO PRIVATE INDIVIDUALS.

STAMP

SHANNON D. MOONEY
BILLING CLERK, ALASKA NEWSPAPERS

SUBSCRIBED AND SWORN TO ME ON July 25, 2005

CHRISTINA RITTER
MY COMMISSION EXPIRES ON MARCH 24, 2009

Matter of Record

Alaska State Troopers

June 4, St. Marys

• At 4:15 p.m., Alaska State Troopers in St. Marys arrested Charlie Sallison, 46, of Pitka's Point, on a $1,000 outstanding warrant on original charge of fourth-degree sexual abuse of a minor. Sallison was transported to Yukon-Kuskokwim Correctional Center and remanded without further incident.

June 11, Mountain Village

• At 11:30 a.m., state troopers in St. Marys arrested William Jones, 44, of Mountain Village, on a $10,000 outstanding warrant on original charges of two counts of second-degree sexual abuse of a minor, and two counts of third-degree sexual assault. Jones was transported to YKCC and remanded without incident.

June 15, Tuluksak

• At 10:28 a.m., Nelson Alexie, 45, of Tuluksak, reported that his boat had been stolen during the night.

Update – This boat was located in Bethel and disabled by the Alaska State Troopers. The boat was stolen again on June 15, prior to Alexie arriving in Bethel to recover it. On June 17, while in Tuluksak, the boat was recovered undamaged by the owner and the Alaska State Troopers.

The Troopers investigation in this case is ongoing. Anyone with information regarding the incident please call the Bethel Troopers at (800) 478-9112 and speak with Trooper Merrill.

Search and rescue efforts

Photos by Ben Beaver / [illegible]

[illegible] search and rescue crews, left, were joined by Village Public Safety Officers Ben Beaver and Carl Andrew last week to look for [illegible], presumed drowned on July 4. Crews dredged the Kuskokwim River below Crooked Creek but were unable to locate [illegible]. They make special lines used to drag the river.

[illegible]

the Alaska State Troopers to report a burglary at the Tribal Council office.

On June 21, the Alaska State Troopers responded at Atmautluak for investigation. It was determined that the incident occurred between June 17 and 20.

Damage to the building was estimated at $150 and a total of $[illegible] in cash was taken from a storage container in the tribal [illegible]'s office.

Anyone with information regarding the incident is requested to contact Trooper Merrill at (800) 478-[illegible] Alaska State Trooper's

June 24, Scammon Bay

• Bethel WAANT investigators, along with Bethel Alaska State Troopers, served two search warrants and two arrest warrants in the village of Scammon Bay. The search warrants were in response to an investigation involving the purchase of marijuana from Herman Ulak, 66, and Roberta Bell, 32, both of Scammon Bay.

Items seized from the residences included multiple firearms, cash, camera equipment and marijuana.

Herman Ulak and Roberta Bell were both arrested on misconduct involving controlled substance

[illegible] and was seen by a neighbor walking through the house.

Alaska State Trooper [illegible] and Sgt. [illegible] responded in the State Trooper Caravan. [illegible] was contacted at the McGrath Pub and arrested without further incident. [illegible] was then transported and remanded to Yukon-Kuskokwim Correctional Center without further incident.

June 26, Pitka's Point

• Alaska State Troopers in St. Marys responded to Pitka's Point to investigate a report of a domestic violence assault.

June 17, Tuluksak

• While on patrol in Tuluksak, the Alaska State Troopers received information about a possible intoxicated driver in a boat on the Kuskokwim River near the mouth of the Tuluksak River.

Troopers responded with the local Village Police Officer in the state boat to the area.

Troopers patrolled the Tuluksak River and made contact with Andrew Kameroff, 51, of Lower Kalskag, on the bank of the river. Investigation determined that Kameroff was driving a 14-foot skiff returning to Lower Kalskag with his wife, Alice Kameroff, 50, of Lower Kalskag, and George

• At 5:02 p.m., while on foot patrol, the Alaska State Troopers contacted Nelson Alexie, 45, of Tuluksak. Nelson was arrested on a warrant, and then was transported and remanded at the Yukon-Kuskokwim Correctional Center without further incident.

• At 5:10 p.m., while on foot patrol, the Alaska State Troopers contacted Nicholai Alexie, 39, of Tuluksak. Nicholai was arrested on a warrant, and then was transported and remanded at Yukon-Kuskokwim Correctional Center without further incident.

June 20, Atmautluak

• At 10:30 a.m., Atmautluak Village Police Officers contacted

[illegible]

Nick additionally was charged with third-degree criminal mischief after she poured oil into the gas tank of her husband's four-wheeler and pried the front door of the residence open with an ice pick, causing substantial damage.

Nick was later transported to the St. Marys jail where she was held until appearing before the St. Marys Court.

See Record, page 17

[illegible]

Sunshine Summer Hoelscher (Cimiun, Quvyaqarlek)

Bernice and Nicky Hoelscher are pleased to announce the birth of their daughter, Sunshine Summer Hoelscher (Cimiun, Quvyaqarlek), on Oct. 14, 2004, at 1:18 p.m. at the Yukon-Kuskokwim Delta Regional Hospital in Bethel. The baby weighed 6 pounds, 15 ounces and measured 19 1/2 inches long at birth. She joins her four brothers and four sisters at home in Scammon Bay and Hooper Bay.

Jenna Madison Lapp

Crystal Kameroff and Thomas Lapp are pleased to announce the birth of their daughter, Jenna Madison Lapp, on June 19, 2005, at 11:36 p.m. at the Alaska Native Medical Center in Anchorage. The baby weighed 8 pounds, 3 ounces and measured 20 inches long at birth. She joins her big brother, Scott, and big sister, Halle, at home

[illegible]

[illegible] Alfreda Kristy Greene

[illegible] Greene are [illegible] the birth of [illegible] Alfreda [illegible] 30, 2005, at [illegible] Kuskokwim [illegible] in Bethel.

The baby weighed 9 pounds, 2 ounces and measured 20 1/4 inches long at birth. She joins siblings Jerome, Stefan, Dominic and Richard at home in Pilot Station.

Denise Natalia Susie Mamie Kalila (Asgillaq, Pavian, Cup'aq)

Juliana and Alexie Kalila are pleased to announce the birth of their daughter, Denise Natalia Susie Mamie Kalila (Asgillaq, Pavian, Cup'aq), on July 5, 2005, at 6:33 a.m. at the Providence Alaska Medical Center in Anchorage. The baby weighed 5 pounds, 14 ounces and measured 17 1/2 inches long at birth. She joins her proud family at home in Kasigluk.

Richard Larry Evon White (Angutkar, Iqalluk, Angap'ak)

Lady and Roland White are

See Births, page 15

Donna Greenslade

From: Donna Greenslade
Sent: Thursday, July 14, 2005 4:16 PM
To: jmahar@eraaviation.com
Subject: Newtok Airport Relocation - Public Meeting Notice

Attachments: Public Meeting Notice - Poster.pdf

Attached is a PDF of the Public Meeting Notice mailed today 7/14/05. Please pass this notice on to your BET pilots. We have also sent you a copy via US Mail.

Public Meeting Notice - Poster...

Thanks!

Donna B. Greenslade, CAP, CDT
PDC, Inc.
1028 Aurora Drive
Fairbanks, AK 99709
Phone (907) 452-1414
Fax (907) 456-2707
DonnaGreenslade@pdceng.us

Donna Greenslade

From: Donna Greenslade
Sent: Wednesday, July 13, 2005 4:55 PM
To: realnews@deltadiscovery.com
Subject: Display Ad request

Attachments: PublicMeetingNewspaperDisplayAd.doc

Please publish the attached as a display ad in your paper for week of July 21.

Please send invoice to the address listed below.
Our billing contact person is Lynda Vice at the same address and phone number.
Please forward an affidavit to my attention.

PublicMeetingNews paperDisplayA...

Donna B. Greenslade, CAP, CDT
PDC, Inc.
1028 Aurora Drive
Fairbanks, AK 99709
Phone (907) 452-1414
Fax (907) 456-2707
DonnaGreenslade@pdceng.us

Transforming Challenges into Solutions

FILE COPY

PDC INC. ENGINEERS

Anchorage
Fairbanks

TRANSMITTAL LETTER

To: **Title:**	Postmaster	**PDC #** **Name:**	F05024 Newtok Airport Relocation
Firm:	US Postal Service Newtok, AK 99559	**Date:**	July 14, 2005
RE:	Public Meeting Notices for Distribution to Boxholders		

We are sending you the following via: US Mail ER77175256 3US

Quantity	Description
66	Public Meeting Notices

REMARKS:

Please distribute the enclosed newsletters to all of the local boxholders.
Thank you!

SIGNED:

Donna Greenslade

Donna Greenslade, CAP, CDT

1028 Aurora Drive
Fairbanks, AK 99709
T: 907.452.1414
F: 907.456.2707

Donna Greenslade

From: Donna Greenslade
Sent: Monday, July 18, 2005 9:31 AM
To: angela@kyuk.org
Subject: F05024 Newtok Airport Relocation - PSA Request

Attachments: Public Meeting Notice - Poster.pdf

Angela,

We would like to request service via the "Tundra Drums" messages, I have attached the public meeting notice that was mailed on July 14, 2005, for your reference, this may also be represented as a news item.

The message could read as follows:

Alaska Department of Transportation and Public Facilities will hold a public meeting to discuss Newtok Airport potential relocation sites, local site conditions, subsistence and land use, and any other issues or concerns regarding the project. The meeting will be held on July 27, 2005 starting at 7:00 PM, at the Newtok Community Hall. Please contact Rich Sewell, DOT Project Manager at 907-269-0516, if you would like more information or wish to comment on this project.

Public Meeting Notice - Poster...

Donna B. Greenslade, CAP, CDT
PDC, Inc.
1028 Aurora Drive
Fairbanks, AK 99709
Phone (907) 452-1414
Fax (907) 456-2707
DonnaGreenslade@pdceng.us

Telephone Log &
E-Mail Correspondence

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
7/12/2006 4:22 PM by Shawna Laderach	Marylynn Nation, USFWS Anchorage Field Office, 1-800-272-4174	EN	Y	Marylynn said that she has not had to deal with Coastal Barriers in Alaska. She does not believe that AK is part of the system and that maps have never been generated for here. She is not positive though and will call me back on Friday with a number for someone to talk with in WA DC. She believes the Act mostly refers to the southeastern states.
6/27/2006 8:27 AM by Shawna Laderach	Dave Mierzejewski, USACE, C.W./H.H., 753-2670	EN	Y	Message received: He looked at map I faxed to him last week and believes we are not in the floodplain.
6/23/2006 4:50 PM by Shawna Laderach	Estrella Campellone, USACE, wetlands, 753-2518	EN	Y	Estrella said that the wetlands maps are finished and the functions and values still needs to be done. They did a photo interpretation for the areas that have images of. They covered sites 1 and 4 by foot and the delineation for those areas is based on 75% direct observation and 25% interpolation. She looked at ortho-rectified photos of site 3 and she said they look very similar to vegetation types in site 4. She said there are wetlands in the areas due to shallow permafrost. The tops of the hills have peat lands. She believes that getting the individual permit for the airport will not be a problem. She will send the latest wetlands document via email.
6/21/2006 3:01 PM by Shawna Laderach	Chris Hoffman, wildlife biologist, USACE, 753-2634	EN	Y	Chris reiterated the need for the specific comment and documentation of that comment by USFWS. I explained that it has not been located. He said that concern for disturbance to Baird Island may be reasonable but that there is no way to know at this time what the impacts might be. He said that detailed documentation will be needed to make a determination. Surveys should be conducted during different seasons. He is putting together a disk to send to me with every report with respect to wildlife that he has. We talked about the report I have of his (June 2005). I noticed that the numbers of his alternative airport sites are not congruent with ours. He looked at sites 1 and 4. He did not get to site 3, he thinks it's reasonable to assume that it is similar to the other sites. He is willing to survey whatever we want when he goes back out there this August. During his survey, he saw geese on hillsides; he was at the river and did not hike up to see if they were specifically in the airport sites. He will look for geese in August. I asked about T&E species. He said that the only potential T&E species in the area are eiders. He did not see any eiders or their nests. He also said that they do not go on hillsides because they prefer low lying tundra ponds. EFH would not be affected by the construction of an airport at any of the sites. The access road could be an issue if it crosses a drainage. He said that many of the drainages on the topo are dry. He said there is no totally unique habitat there; Nelson island is very large. We also talked about bird strikes and he said there are some small deep ponds near the airport sites. They are so deep that they would only accommodate diving ducks. He also said that they only attract a few birds.
6/21/2006 1:24 PM by Shawna Laderach	Margan Grover, Archaeologist, USACE, 753-2887 X-5670	EN	Y	Margan surveyed Nelson Island in Sept 2002 and Aug 2005. In her professional opinion, the proposed airport sites are cleared of archeological/cultural resources potential. She physically surveyed sites 1 an 4. She said that there is "extremely low probability" that they have any cultural resources. Because Site 3 is even farther in the hills, she is sure it has "extremely low probability" also. She mentioned that she saw no karens at any of the sites. She will recommend to SHPO that all sites be cleared as soon as she has money to continue her work for the project. She also surveyed the gravel source area and cleared it of cultural resources.

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
5/9/2006 10:54 AM by George Hitz	Mike Mungoven, USDA-NRCS (Western Alaska) 235-8177 x105			I called Mike to see if there was any soils mapping done for the relocation area. He stated that there was no soil survey for that area, but he would check and see if any project or site specific work has been done for the area.
7/25/2005 3:38 PM by Ken Risse	Charlie Tommy 237-2594	CE	Y	I called Charlie to see if we could stay at the Armory. He said sure, they have plenty of room. He asked how much stuff we'd be bringing, I told him a couple of bags apiece.
7/25/2005 10:02 AM by Ken Risse	Charlie Tommy 237-2594	CE	Y	I called Charlie, an agent for Grant, Yute and England Aviation. He calls in weather to the Bethel bases. He said the low clouds are generally in the spring and fall. At Newtok, the winds are predominately from the North, but sometimes from the South and Southeast. When he gets water from the area of the new village, the winds are mostly from the Southwest. He said the high tide today would be at 2:00 PM. Gas for our trip is available at Tom's store $3/gal or from the Corporation $2.69/gal
7/14/2005 3:57 PM by Ken Risse	Vivian Grant Aviation 1-800-764-7607	CE	Y	I called in reservations for Pete, George and myself to leave Bethel for Newtok on July 26 on the afternoon flight and include Pete on the morning return flight of July 28. She noted that our reservation had a special note to meet the Frontier flight.
7/14/2005 3:42 PM by Ken Risse	James Grant Aviation 1-800-764-7607	CE	Y	I called Grant Aviation to see about a charter flight for the return from Newtok so we could get a flyover the north end of Nelson Island. James suggested we instead use the scheduled flight and they could fly over the island. I booked the flight for George and I, and James noted in the booking that we want to fly over the island and return in time to meet the Frontier flight. There are three other seats available on that flight.
7/14/2005 11:34 AM by Royce Conlon	Paul Newtok Native Corp	EN	Y	Paul called and indicated that they had received our fax and approved our Right of Entry.
7/13/2005 10:44 AM by Ken Risse	Stanley Tom Newtok Tribal Council 237-2314	CE	Y	Stanley called me back about the meeting time and place. He said an evening meeting would be better with the community and we set the time for 7 PM. On July 27. We will plan the day trip to the island and arrange the charter boat(s) the night we come in, July 26. Stanley said we should fax the notice to his office and ask that it be posted at the stores and post office. We will also send out notices, he said we could send them to all the boxholders.
7/7/2005 4:58 PM by Ken Risse	Billy Grant Aviation 1-800-764-7607	CE	Y	I priced several charter aircraft, for a trip to Newtok from Bethel. Cessna 207 - $628, for $700 includes flyover of Nelson Island for photos. Navajo - $989 without flyover Caravan - $1398 without flyover Also checked the ticket cost of scheduled flights - $70 each way, $140 round trip.
7/7/2005 3:30 PM by George Hitz	Jim Patterson ADEC (269-7611)	EN	Y	Called Jim to ask about progress in relocation of the landfill, new studies. The issue has been tabled until a community location/grid has been established.
7/7/2005 3:21 PM by Ken Risse	Paul Charles Newtok Native Corporation 237-2512-work 237-2618-home	CE	Y	I called Paul to set up a room reservation. We have the room reserved for four people for the nights of July 26 and 27. Room includes beds, but bring sleeping bags. Water has to be hauled. There is an electric stove, small freezer and monitor heater. Two grocery stores are open in town. Hours are 9-12, 1-5, and 7-9. If additional rooms or bedspace is needed, call Mary of UPC (Utility Company) at 237-2177.

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
7/7/2005 11:37 AM by Ken Risse	Damian Miller, Inland Aviation 543-5050	CE	Y	Damian called me back to discuss the pilot questionnaire. He did not fill it out, but had some comments. The runways in that area are almost all north/south runways, he would expect this should be as well. The only one that is different is Toksook, but there have been a couple of plane accidents there due to winds, an Otter and a Caravan. They have scheduled flights into Newtok every other day, but do not always fly them. Damian felt the airport should be as close as possible to the community. He felt a 3300' runway was more than adequate, Newtok is a small community, and the runway they have is sufficient for the CASA. Damian gave me the names of agents in Newtok - Charlie Tommy 237-2594 and Mark George 237-2510. They may be able to give us more info on the weather and air freight.
7/7/2005 1:44 PM by Ken Risse	Stanley Tom Newtok Tribal Council 237-2314	CE	Y	I called Stanley and talked to him about the upcoming meeting. • He said they always use a translator at the meetings. He may be the translator, or it could be Nick Tom. • The community hall is available for our meeting on any of the days July 26-28. Stanley felt it would be best to schedule the meeting for after we visit the island so we are more informed. • Boats are available to take us across, figure a 30 minute trip. Trips can only be made when the tide is in. • There is a place to stay in Newtok that is run by the Newtok Corporation. For arrangements, call 237-2512. They have plenty of room, no restrooms. • The council had a meeting prior to the meeting we held in Anchorage, and they sketched up some possible airport locations. Stanley will fax that to me.
7/7/2005 1:27 PM by Ken Risse	Mark George 237-2510	CE	Y	Mark is an agent for Alaska Central Express. He lets the pilots know what the weather is doing in Newtok. I asked about fog and clouds. He said in the summer the clouds are high and fog is not a problem, fog is mostly in the fall. He didn't think it would be a big problem for any site on the north side of Nelson Island; it is more of a problem in Toksook and Tununak. He thought the fog would be worse in the valleys.
7/6/2005 2:10 PM by George Hitz	Patrick Snow FWS (543-1027)	EN	Y	Patrick called in response to a message left for Mike Rearden inquiring about the no-fly zone. Indicated that the no-fly zone was from the coast – 10miles inland from May 15th to July 15th.
7/6/2005 9:45 AM by George Hitz	Chris Hoffman USACE Wildlife Biologist (907-753-2634)			Chris called. A waterfowl and botany survey was done in the relocation area. Visited 3 alternative airport relocation sites (1,2,3?), did not visit site 5 (didn't cross the river). Site 2 will probably have bird hazard issues due to the high number of birds taking off and landing in the area. Large number of ptarmigans in the general area. Other sites not likely to be a big breeding area for waterfowl. COE paid F&W survey to a nest plot of the area, but after walking the site it was deemed unnecessary. No formal wetlands work was done….suppose to be done this summer but COE ran into funding issues. Did look at wetlands area near the barge landing site - concerned with fuel spills. USACE will send a copy of the report to PDC.
7/5/2005 1:35 PM by George Hitz	Margan Grover USACE Archeologist (753-2887 ext. 5670)	EN	Y	Called to find out if potential airport relocation sites were cleared of archeological potential, additional surveys in the area? Response: only the area near the alternative 2, with the native allotments has been surveyed and it has cultural potential. The potential relocation sites were planned to be done this summer, but there were USACE funding problems. If the money arrives this will probably happen. All of the sites have potential for cultural/historic resources. Higher elevation sites are more likely to be clear of cultural resources.

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
7/5/2005 1:35 PM by Steve Becker	Margan Grover USACE Archeologist (753-2887 ext. 5670)	EN	Y	Called to find out if potential airport relocation sites were cleared of archeological potential, additional surveys in the area? Response: only the area near the alternative 2, with the native allotments has been surveyed and it has cultural potential. The potential relocation sites were planned to be done this summer, but there were USACE funding problems. If the money arrives this will proprobly happen. All of the sites have potential for cultural/historic resources. Higher elevation sites are more likely to be clear of cultural resources.
6/8/2005 9:45 AM By George Hitz	Roger Seavoy ADF&G – Wildlife Conservation (543-2979)	EN	Y	I called to identify any pilots on staff, other pilots, or groups that are familiar with the Newtok relocation area to contact for a pilot survey. He indicated that he was a new pilot and would be willing to participate in the pilot survey but not familiar with anyone else that would be an appropriate contact.
6/7/2005 10:30 AM By George Hitz	Mike Rearden USFWS -Yukon Delta Wildlife Refuge (543-3151)	EN	Y	I called to identify any pilots on staff, other pilots, or groups that are familiar with the Newtok relocation area to contact for a pilot survey. He indicated that himself, Mike Hoffman (543-4376) with Era Aviation, and the chief pilots with the air taxis would be an appropriate contact.
6/29/2005 2:03 PM by Ken Risse	Chris Hoffman –COE Biologist	CE	Y	Chris called me to let me know a little about the field conditions and logistics at the Newtok airport relocation site. They hired a boat to take them across, paid $65 -80 each way. They used a VHS radio – Channel 23 to request the pickup. He was out there from June 1-8, tenting on Nelson Island doing bird surveys among other things. The terrain is very wet and slow walking. At higher elevations, the willows were thick. They took about 12 hours to walk from the tent site near where the proposed barge landing is shown on the ASCG report to the creek with the native allotments and returning by way of the hill at elevation 460. (This is roughly 8 air miles.) Bug nets are a must. Chris carried a shotgun for bears, but never saw any. The COE realty specialist provided them with the right of entry/land use permits from Calista and Newtok Native Corp.

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
6/27/2005 10:20 AM by Ken Risse	George Walters 543-1016	CE	Y	George does not fly in and out of Newtok on wheels; he is on floats from May to October. There is a good area to land with floats in the area of the proposed barge landing. George noted that there was a survey crew in that area a couple of weeks ago. The island is a tricky place to get into; they go in at high tide only. There are strong SE winds and the hills on the island make their own weather. George recommended that I call the pilots of ERA (Mike Hoffman), Grant Aviation, Hagelund, and Inland Aviation (Damien), as they fly into Newtok daily. In addition to the hazards of the fog and winds, the island is completely covered in snow in the winter and total whiteouts are common. George knew of nine pilots that have hit the hills in the last 40 years. A site visit should be done in the winter to see the potential sites with snow cover. Some areas drift 30-40 feet deep. Fog is common in the hills, and a lower site may be preferable, but there are violent storms from the southwest, when combined with high tide flood the low ground. He has seen the Baird Inlet Island covered by more than 2 feet of water. F&W is planning to put in a camp (for study of the bird on Baird Inlet Island), on the bank of the slough opposite the southwest corner of Baird Inlet Island if funding is available.
6/24/2005 2:12 PM by Ken Risse	Tom George 455-9000 Tom.George@aopa.org	CE	Y	Tom called yesterday with suggestions of other ways to reach pilots with our questionnaires. If we had a website hosting the questionnaire and sent out notices with a link to the website, the notice could go out to all the organizations pilots belong to for inclusion in their newsletters, including: Aircraft Owners and Pilots Association, Alaska Region Alaska Air Carriers Association Alaska Airmen's Association Tom also suggested I contact George Walter who flies for Fish & Wildlife in that area.
6/17/2005 2:01 PM by Steve Becker	Stanley Tom, Newtok Traditional Council	EN	Y	Mr. Tom called for Royce to let her know that he had received the email letter, and would be meeting with the elder's council this evening to let them know about the letter and meeting. He was concerned about the meeting location, and I informed him that we would be conducting a meeting in Newtok, likely in late July or early August. Mr. Tom stated that he will send us a FAX response to the invitation letter.
6/16/2005 4:27 PM By George Hitz	Moses Carl Newtok Traditional Council (237-2314)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. Left message to call back with contact information.
6/16/2005 4:26 PM By George Hitz	Mike Reardan USFWS - Yukon Delta Wildlife Refuge (543-3151)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer
6/16/2005 4:24 PM By George Hitz	Rita Kilongak Ungusraq Power Co. (237-2129)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer
6/16/2005 4:20 PM By George Hitz	Marcia Blaszak USNPS – AK Region (644-3513)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. Can be reached through her assistant at suzy_wooliver@nps.gov

Date/Time NEW E NTRY	Contact/Phone	Disc.	Pub.	Comments
6/16/2005 4:15 PM By George Hitz	Corey Rossi USDA – Wildlife Services (745-7200)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Longer employed there.
6/16/2005 4:09 PM By George Hitz	Bob Herron U.S. Congress – Alaska Delegation (543-1638)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. Can be reached at bob_herron@stevens.senate.gov
6/16/2005 4:06 PM By George Hitz	Henri Bisson BLM (271-5080)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. Can be reached through his assistant at terry_smith@ak.blm.gov
6/16/2005 4:05 PM By George Hitz	Kristin K'eit BLM – Alaska Region (586-7423)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer, machine indicated she was out of the office and would return on June 20th
6/16/2005 4:03 PM By George Hitz	Larry Charles Newtok Corp. (237-2512)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer
6/16/2005 4:02 PM By George Hitz	Bob Loeffler ADNR – Div. of Mining Land & Water (267-2285)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer
6/16/2005 4:00 PM By George Hitz	Mark Kuwada ADF&G – Sport Fisheries Division (267-2277)	EN	Y	Called to identify e-mail for distribution of Invitation to Project Kick-off Meeting. No Answer

Kathryn Knorr

From: stanley tom [stanley_tom2003@yahoo.com]
Sent: Monday, July 10, 2006 10:38 AM
To: Kathryn Knorr
Cc: richard sewell
Subject: RE: Newtok

Hi,Kathryn
Sorry for mix-up on the map,Rich sewell might have information.
Stanley

Kathryn Knorr <KathrynKnorr@PDCENG.US> wrote:

> Stanley,
>
> Based on the GPS NAD83 coordinates you provided the landfill location is still east of town and the lagoon is now in town. Is this correct? Also, where is the barge landing? By the landfill?
>
> I'll send you a fax so the locations are easier to verify.
>
> Thanks,
> Kat
>
> ---
>
> **From:** stanley tom [mailto:stanley_tom2003@yahoo.com]
> **Sent:** Friday, July 07, 2006 4:53 PM
> **To:** Kathryn Knorr
> **Subject:** RE: Newtok
>
> Kathryn,
> I gave you the location for landfill and lagoon site GPS NAD83.
> Stanley
>
> ***Kathryn Knorr <KathrynKnorr@PDCENG.US>*** wrote:
>
> > Stanley,
> >
> > I received your fax, but it came in black. Could you resend it on a lightened mode or provide me the information some other way?
> >
> > Could you open the graphic I sent you? If so, is where I indicated the lagoon and landfill correct? Is that also where the barge landing is expected to go?
> >
> > Sorry for the inconvenience,
> > Kat
> >
> > ---
> >
> > **From:** stanley tom [mailto:stanley_tom2003@yahoo.com]
> > **Sent:** Friday, July 07, 2006 3:04 PM
> > **To:** Kathryn Knorr
> > **Subject:** Re: Newtok
> >
> > Hi,Kathryn
> > I'm faxing you a map of the new village site,here are the GPS NAD83 location

N60'49.46,W164'28.93, N60'49.126, W164'31.652, I think i'll call the village "stanley'sville".It'll still be called "Newtok".
Stanley

Kathryn Knorr <KathrynKnorr@PDCENG.US> wrote:

> Stanley,
> I've attached a graphic that shows the airport alternatives we are looking at. Please indicate the current planned location for the new lagoon, landfill, and barge landing. If any material sites for construction have been identified please indicate where they're located. Also, is the new community in the Takikchak relocation area going to be called Newtok, Takikchak or something else? I would like to refer to the new community correctly.
> Thanks,
> Kat
> Kathryn Knorr, EIT
> PDC, Inc. Engineers
> 1028 Aurora Drive
> Fairbanks, Alaska 99709
> Ph: 907-452-1414
> Fax: 907-456-2707
>
> <>

Pilot Interviews

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name ERA
Address Mike Hoffman

Phone (907) - 543 - 3905/3906 for Operations; 543-3907 for Cargo

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

❑ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?	N-NW in winter SE during fall	same as Tooksok
What is the intensity of these winds?	10-20 knots	
How often do the high winds occur? From which direction?	seasonal - winter/fall storms from Japan (NW)	
Are the high winds particular to a time of year? When?		
What is the typical weather for the area in the summer? Winter?	Summer: nice (May) breezy (June-Aug) Winter: rain (Aug-Nov) foggy (Dec)	
What is the ceiling height of the cloud cover?	low ceiling 200'	Tooksok/Newtok area covers tops of hills
How often is there fog in the area? What's its intensity?		40% of the time

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile ____ 1 to 2 miles ____ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? _____

3. What is your frequency of service to Newtok?

Examples: Once a day, three times a week. Please specify: _____

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? _____

5. What type of aircraft might you use? _____

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)**

USPS Mail:	☐	**Scheduled Passenger Service:** (minimum once (1) / day)	☐
Pounds per month?		# of Passengers per month?	25/week ave.
Cargo Shipment: will get us #'s	☐	May - September	hardly any
Pounds per month?		October - April	Dividend & Christmas 35/week
Fuel Shipment:	☐	**Travel/Recreation:**	☐
Type / Pounds per month?		# of monthly trips?	
Business:	☐	**Medivac:**	☐
Type of business?		# of Operations per year?	
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

☐ Increase ☐ Decrease

By How Much? ☐ 5% ☐ 10% ☐ 20% ☐ Other ___%

8. **Please list any other pilots who may have information on the area?** Era, Grant, Hageland, Yute Air (Ron Duddly) For mail & cargo JATS & Arctic Circle

Please provide any additional input and comments you may have regarding this project in the space below.

Twin Otters - same for relocation

3500' needed; 3300' okay

THANK YOU FOR YOUR INPUT!

Should you have any questions regarding this project, please feel free to contact either of the following project team members:

Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907- 269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907- 452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name Yute Air
Address Ron Duddly referred to by Mike Hoffman (ERA)
Phone (907)-543-3003; Anc # (907)-342-3008

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

☐ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?	E-NE winds; NE winds hazardous (20knots)	Breakup & freeze times have strong winds
What is the intensity of these winds?	20knots or higher	
How often do the high winds occur? From which direction?		
Are the high winds particular to a time of year? When?		
What is the typical weather for the area in the summer? Winter?		
What is the ceiling height of the cloud cover?		
How often is there fog in the area? What's its intensity?	ceiling can get down to 100'-200'; Hills on Nelson Island are maybe 1700'	

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile ____ 1 to 2 miles ____ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? _____

3. What is your frequency of service to Newtok?

Examples: Once a day, three times a week. Please specify: _____

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? _____

5. What type of aircraft might you use? _____

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)** commuter (50%), mail (50%), cargo (< 1%)

USPS Mail:	☐	**Scheduled Passenger Service:**	☐
Pounds per month?	NOT A BIG	# of Passengers per month?	
Cargo Shipment:	☐ PLAYER	May - September	
Pounds per month?	FLIES TO SOUTHERN	October - April	
Fuel Shipment:	☐ VILLAGES	**Travel/Recreation:**	☐
Type / Pounds per month?		# of monthly trips?	
Business:	☐	**Medivac:**	☐
Type of business?		# of Operations per year?	
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

☐ Increase ☐ Decrease

By How Much? ☐ 5% ☐ 10% ☐ 20% ☐ Other ___%

8. **Please list any other pilots who may have information on the area?** Ron has (had?) a friend Shaply Hall "Mr. Nelson Island" who could get in when no one else could in a 207. Not sure if he's still living.

Frank Ness with Arctic Circle & Will Jonson teaches Native Flight School in Bethel

Please provide any additional input and comments you may have regarding this project in the space below.

- Yute only flies the Cessna 207 and like the smaller airport
- they are trying to get involved with the school district (ISKO)
- Ron said weather for flying is rather grussom with white outs - high risk factor & the west side of Nelson Island is worse than the North side
- RW orientation - should be E-W for North side of Nelson Island
- Nelson Island gets a few blizzards and has whiteout conditions in winter

(See extra sheet for additional comments)

THANK YOU FOR YOUR INPUT!

Should you have any questions regarding this project, please feel free to contact either of the following project team members:

Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907- 269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907- 452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

- Tununak RLW oriented E-W & when wind's really blowing he land on T/W

- Toksook RLW Orientated N-S & has strong E winds; he doesn't think the unsettled air that Toksook gets will be a problem on the north side of Nelson Island

- The minimum 500' ceiling is hard to find around Nelson Island when there is low ceiling conditions

- On schedule

# of passangers	100/day for area
May - September	10/month - Newtok
October - April	10/month - Newtok
Mail	Not much to Newtok

PDC INC. ENGINEERS
1028 Aurora Drive
Fairbanks, AK 99709
Ph. (907) 452-1414
FAX (907) 456-2707

Project Newtok Recon
Proj. No. F05024 Date
Subject Pilot Questionnaire - Yute Air
By Page of

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name GRANT AVIATION
Address Keith Ham
Phone 907-543-2000 (OR 1800)

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

❑ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?		NW-SE, no quite down the numbers; winter winds crosswind, E-W
What is the intensity of these winds?		Winter has winds upto 25-30knots
How often do the high winds occur? From which direction?		E-W
Are the high winds particular to a time of year? When?		winter, near surface
What is the typical weather for the area in the summer? Winter?	hillside on west best option	
What is the ceiling height of the cloud cover?		300' to 400' ceiling over river
How often is there fog in the area? What's its intensity?	relocation not high enough to get above clouds	not very thick

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile ____ 1 to 2 miles ____ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? _____

3. What is your frequency of service to Newtok?
Examples: Once a day, three times a week. Please specify: _____

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? _____

5. What type of aircraft might you use? _____

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**

suggest contacting Woody in Anchorage (Mark "Woody" Richardson, Director of Operations) - (907) - 243-3592 OR (907)-644-4309

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)**

USPS Mail:	☐	**Scheduled Passenger Service:**	☐
Pounds per month?	1000#/day	# of Passengers per month?	6-8/day
Cargo Shipment:	☐	May - September	max 18/day
Pounds per month?		October - April	
Fuel Shipment:	☐	**Travel/Recreation:**	☐
Type / Pounds per month?		# of monthly trips?	
Business:	☐	**Medivac:** Cessna 208	☑
Type of business?		# of Operations per year?	in a 10day period every other day
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

☐ Increase ☐ Decrease

By How Much? ☐ 5% ☐ 10% ☐ 20% ☐ Other ___%

8. **Please list any other pilots who may have information on the area?**

Please provide any additional input and comments you may have regarding this project in the space below.

WOODY:
Cessna 207, 208; Navajo Chieftan PA-31 350; Cessna 172; Casa 212 (different company); King Air C-90 are currently flown

Plan to acquire a Beech 1900 by 2006-2007 & potentially bigger planes in the future

4000' RW not long enough

THANK YOU FOR YOUR INPUT!

Should you have any questions regarding this project, please feel free to contact either of the following project team members:

Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907- 269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907- 452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name HAGELAND
Address Steve (Pilot for Hageland)
Phone 1-800-478-2110; (907)-543-3800

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

❑ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?	from the west	
What is the intensity of these winds?	blows alot	
How often do the high winds occur? From which direction?		
Are the high winds particular to a time of year? When?		
What is the typical weather for the area in the summer? Winter?	August: rain Nov.-Dec: storms	
What is the ceiling height of the cloud cover?	Yes	
How often is there fog in the area? What's its intensity?	Yes	

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile ____ 1 to 2 miles ____ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? _____

3. What is your frequency of service to Newtok?

Examples: Once a day, three times a week. Please specify: _____

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? _____

5. What type of aircraft might you use? _____

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)**

USPS Mail:	❑	**Scheduled Passenger Service:**	❑
Pounds per month?	1000 Tons/day (?)	# of Passengers per month?	8-10/day
Cargo Shipment:	❑	May - September	8-10/day
Pounds per month?		October - April	8-10/day
Fuel Shipment:	❑	**Travel/Recreation:**	❑
Type / Pounds per month?		# of monthly trips?	
Business:	❑	**Medivac:**	❑
Type of business?		# of Operations per year?	
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

❑ Increase ❑ Decrease

By How Much? ❑ 5% ❑ 10% ❑ 20% ❑ Other ___%

8. **Please list any other pilots who may have information on the area?** Era, Grant, Arctic Circle, and ATS

Please provide any additional input and comments you may have regarding this project in the space below.

He believed Newtok doesn't like white people

flights scheduled twice (2) / day

Cessna 207, 208; would fly Beech 90 charter (4000')

THANK YOU FOR YOUR INPUT!

Should you have any questions regarding this project, please feel free to contact either of the following project team members:

Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907- 269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907- 452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

Transforming Challenges into Solutions

Anchorage
Fairbanks

PDC INC. ENGINEERS

FAX TRANSMISSION

To: **Title:**	Mike Hart President	**From:**	Kathryn Knorr
Firm:	Lynden Air Cargo	**Date:**	June 22, 2005
Fax #:	(907) 245-0213	**PDC #:** **Name:**	F05024 Newtok Airport Relocation Recon Study
Number of Pages:	4	**Original to be Sent?**	No
RE:	Newtok Airport Relocation – Pilot Survey		

Pilots/Dispatchers:

PDC has been contracted by ADOT&PF to conduct a recon study of potential airport relocation sites at Takikchuk, on the north side of Nelson Island (Figure 1). There is currently little or no weather data for the relocation area.

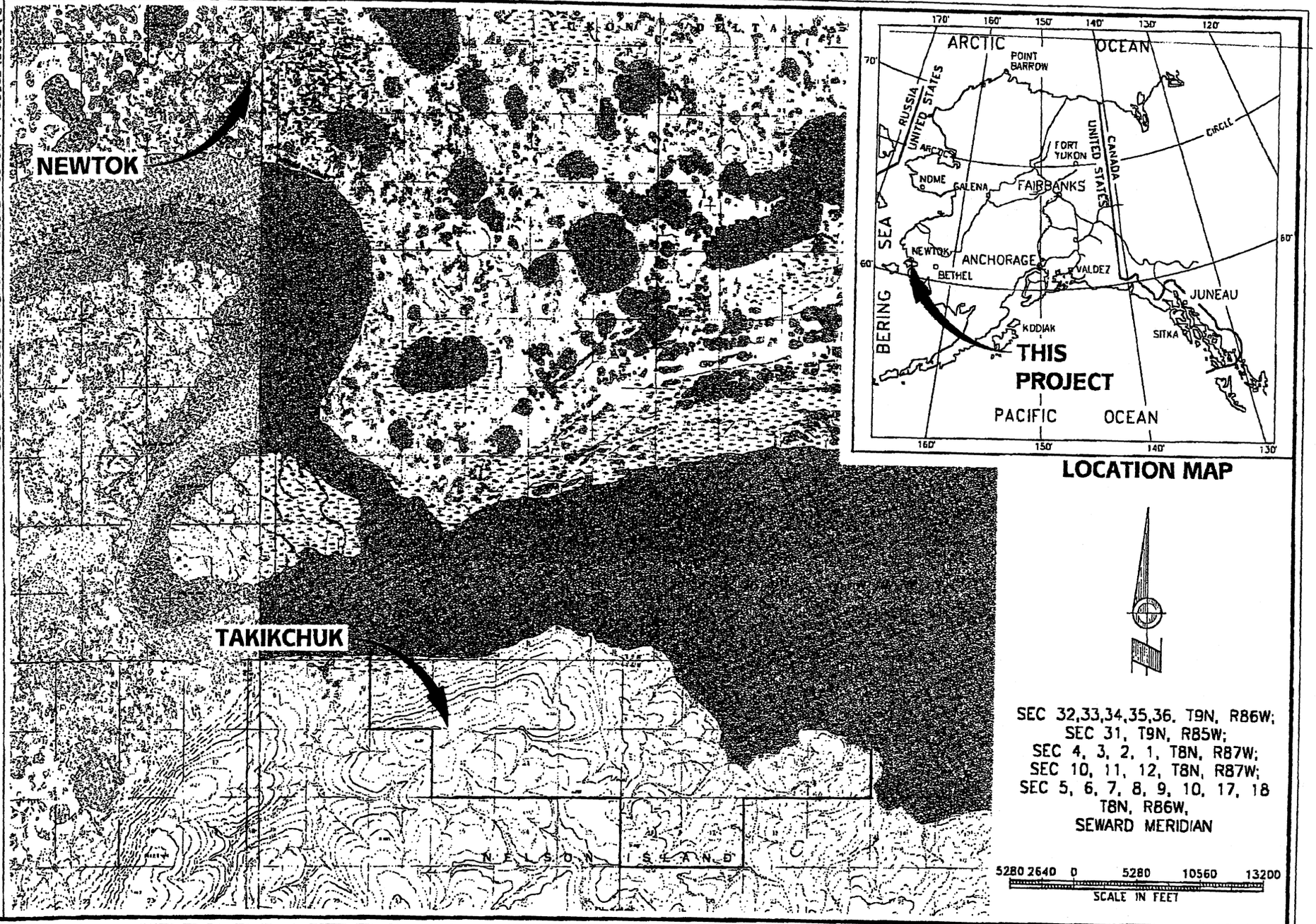
We would appreciate your input on the following questionnaire. This information will assist us in identifying reasonable alternative sites and in forecasting future airport demands.

Please fill out this pilot survey questionnaire and either fax or mail it back to our office by June 24, 2005. If you have any questions or would like to discuss the airport relocation project further, feel free to call me or send an e-mail to kathrynknorr@pdceng.us. Your input is essential to establish the facility needs and will be used to assist us in the relocation of the Newtok Airport.

Thanks,

Kathryn Knorr, EIT

1028 Aurora Drive
Fairbanks, AK 99709
T: 907.452.1414
F: 907.456.2707



LOCATION MAP

SEC 32,33,34,35,36, T9N, R86W;
SEC 31, T9N, R85W;
SEC 4, 3, 2, 1, T8N, R87W;
SEC 10, 11, 12, T8N, R87W;
SEC 5, 6, 7, 8, 9, 10, 17, 18
T8N, R86W,
SEWARD MERIDIAN

5280 2640 0 5280 10560 13200
SCALE IN FEET

P:\2005\F05024\N\N0100WF05024: LAYOUT1 6/22/2005 10:58 AM

FIGURE 1

PROJ. No. F05024

JUN 2005

DESIGN: SRB
DRAWN: RJP
CHECK: SRB

LOCATION AND VICINITY MAP
NEWTOK AIRPORT SITE RECONNAISSANCE STUDY

NEWTOK, ALASKA

PLANS DEVELOPED BY:
PDC, INC.

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name _____

Address _____

Phone _____

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

☐ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?		
What is the intensity of these winds?		
How often do the high winds occur? From which direction?		
Are the high winds particular to a time of year? When?		
What is the typical weather for the area in the summer? Winter?		
What is the ceiling height of the cloud cover?		
How often is there fog in the area? What's its intensity?		

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile __X__ 1 to 2 miles __X__ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? N/A

3. What is your frequency of service to Newtok?

Examples: Once a day, three times a week. Please specify: Charters

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? N/A

5. What type of aircraft might you use? N/A

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**
YES - WOULD LIKE 4000 FEET TO ACCOMMODATE HERC

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)**

USPS Mail:	☐	**Scheduled Passenger Service:**	☐
Pounds per month?		# of Passengers per month?	
Cargo Shipment:	☒	May - September	
Pounds per month?	CHARTER	October - April	
Fuel Shipment:	☒	**Travel/Recreation:**	☐
Type / Pounds per month?	CHARTER	# of monthly trips?	
Business:	☐	**Medivac:**	☐
Type of business?		# of Operations per year?	
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

☐ Increase ☐ Decrease

By How Much? ☐ 5% ☐ 10% ☐ 20% ☐ Other ___%

8. **Please list any other pilots who may have information on the area?** _____

Please provide any additional input and comments you may have regarding this project in the space below.

THE STATE IS UNDERSTANDING ONLY BUILDING 3300 FOOT LONG RUNWAYS

THANK YOU FOR YOUR INPUT!

Should you have any questions regarding this project, please feel free to contact either of the following project team members:

Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907-269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1026 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907-452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

NEWTOK AIRPORT RELOCATION
RECON SURVEY PROJECT
PILOT QUESTIONNAIRE

Name ARCTIC CIRCLE AIR
Address Frank Ness per Ron Duddly (Yute Air)
Phone (907)-543-5906

Please complete the following questionnaire. This information will help better determine Newtok's airport needs and is essential in the development of the airport relocation study. Please complete this questionnaire and fax it back to PDC, Inc. (Fax number provided on the back of this form).

❑ Please check if you wish to be included in future project mailings.

Please provide comments to the following questions particularly for the relocation area. However if you have information for the existing airport in Newtok feel free to include that as well.

QUESTIONS	RELOCATION AREA (see attached map for location)	NEWTOK
What have you observed to be the prevailing wind directions in Newtok in the summer? Winter?		
What is the intensity of these winds?		
How often do the high winds occur? From which direction?		
Are the high winds particular to a time of year? When?		
What is the typical weather for the area in the summer? Winter?		
What is the ceiling height of the cloud cover?		
How often is there fog in the area? What's its intensity?		

1. How close to the relocated community do you feel the airport should be?

____ Less than ½ mile ____ ½ to 1 mile ____ 1 to 2 miles ____ 2 miles plus

2. In your experience, how many passengers travel to Newtok per trip? _____

3. What is your frequency of service to Newtok?

Examples: Once a day, three times a week. Please specify: _____

4. For school functions are multiple trips provided to transport a group of students or are multiple aircraft flown out to transport the group together? _____

5. What type of aircraft might you use? _____

6. **Per DOT standards a minimum runway length would be 3300 feet. Is a longer runway required? Why?**

3000' RIW plus needed

7. **What are your reasons for flying to Newtok? (Please check appropriate boxes and complete the following questions based on an annual average.)**

USPS Mail:	❑	**Scheduled Passenger Service:**	❑
Pounds per month?		# of Passengers per month?	
Cargo Shipment:	❑	May - September	
Pounds per month?		October - April	
Fuel Shipment:	❑	**Travel/Recreation:**	❑
Type / Pounds per month?		# of monthly trips?	
Business:	❑	**Medivac:**	❑
Type of business?		# of Operations per year?	
# of monthly trips?			

Would you expect these numbers to increase or decrease if the community is relocated?

❑ Increase ❑ Decrease

By How Much? ❑ 5% ❑ 10% ❑ 20% ❑ Other ___%

8. **Please list any other pilots who may have information on the area?** _____

Please provide any additional input and comments you may have regarding this project in the space below.

flies Frieghter, Cessna 207, single engine caravan, Sherpa SH 30 Skyvan

one of the main cargo providers

occationally flies Sherpa direct to Newtok when there's enough cargo

THANK YOU FOR YOUR INPUT!

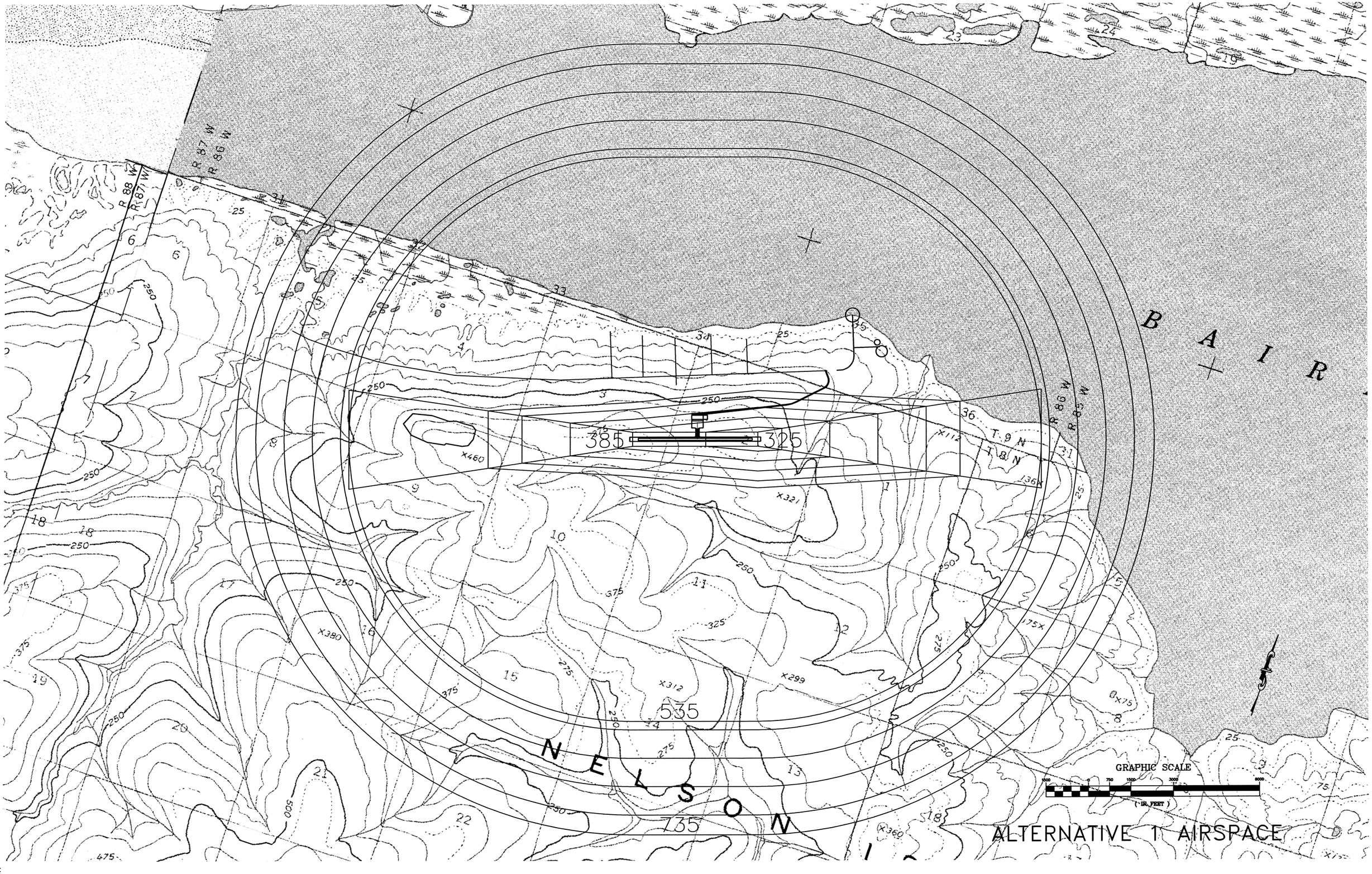
Should you have any questions regarding this project, please feel free to contact either of the following project team members:

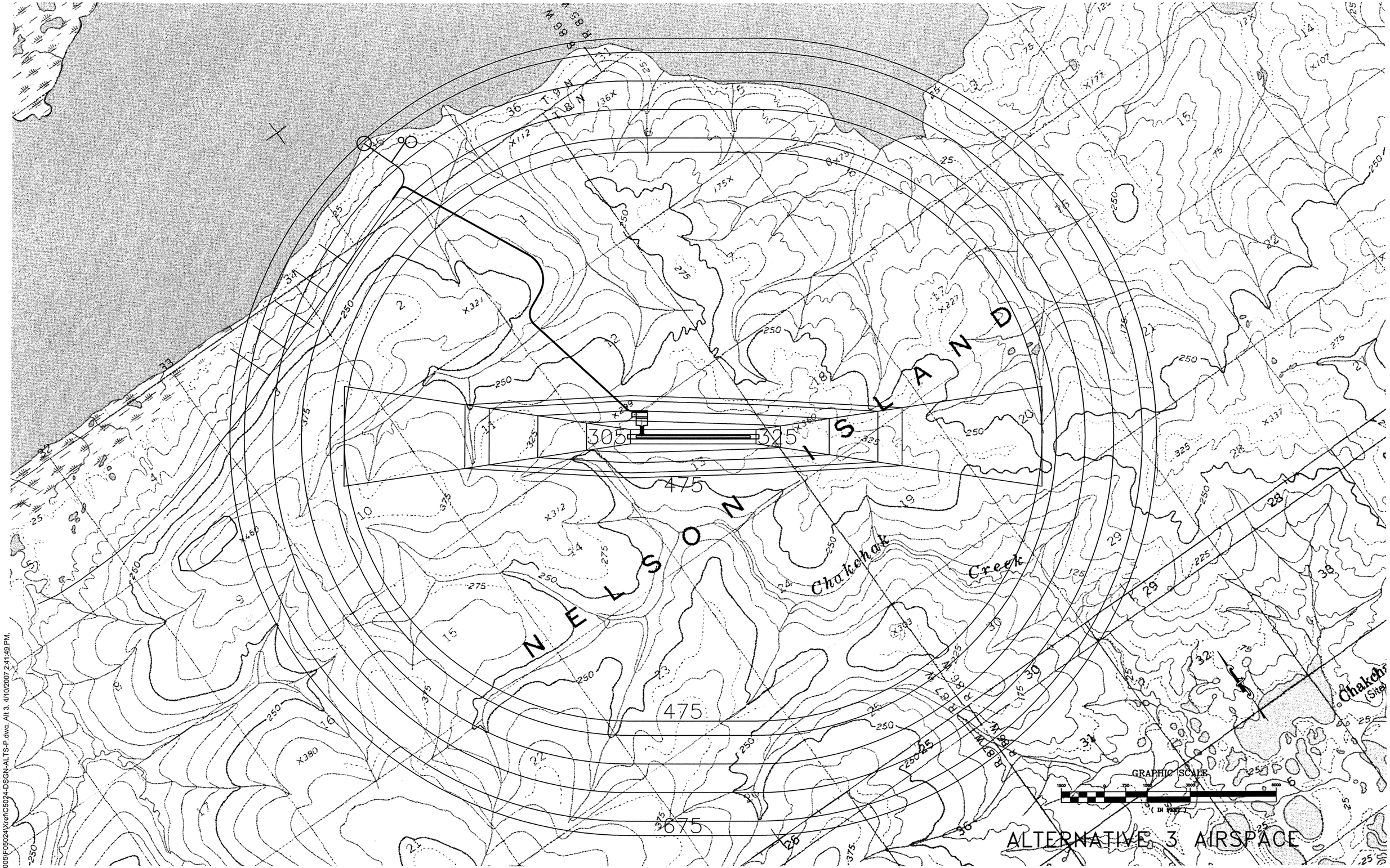
Rich Sewell, Project Manager
Alaska DOT&PF
4111 Aviation Avenue
PO Box 196900
Anchorage, AK 99519-6900
Phone: 907- 269-0516
E-mail: rich_sewell@dot.state.ak.us

Ken Risse, Design Engineer
PDC, Inc. Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709
Phone: 907- 452-1414
Fax: 907-456-2707
E-mail: KenRisse@fbx.pdceng.com

APPENDIX D

AIRSPACE





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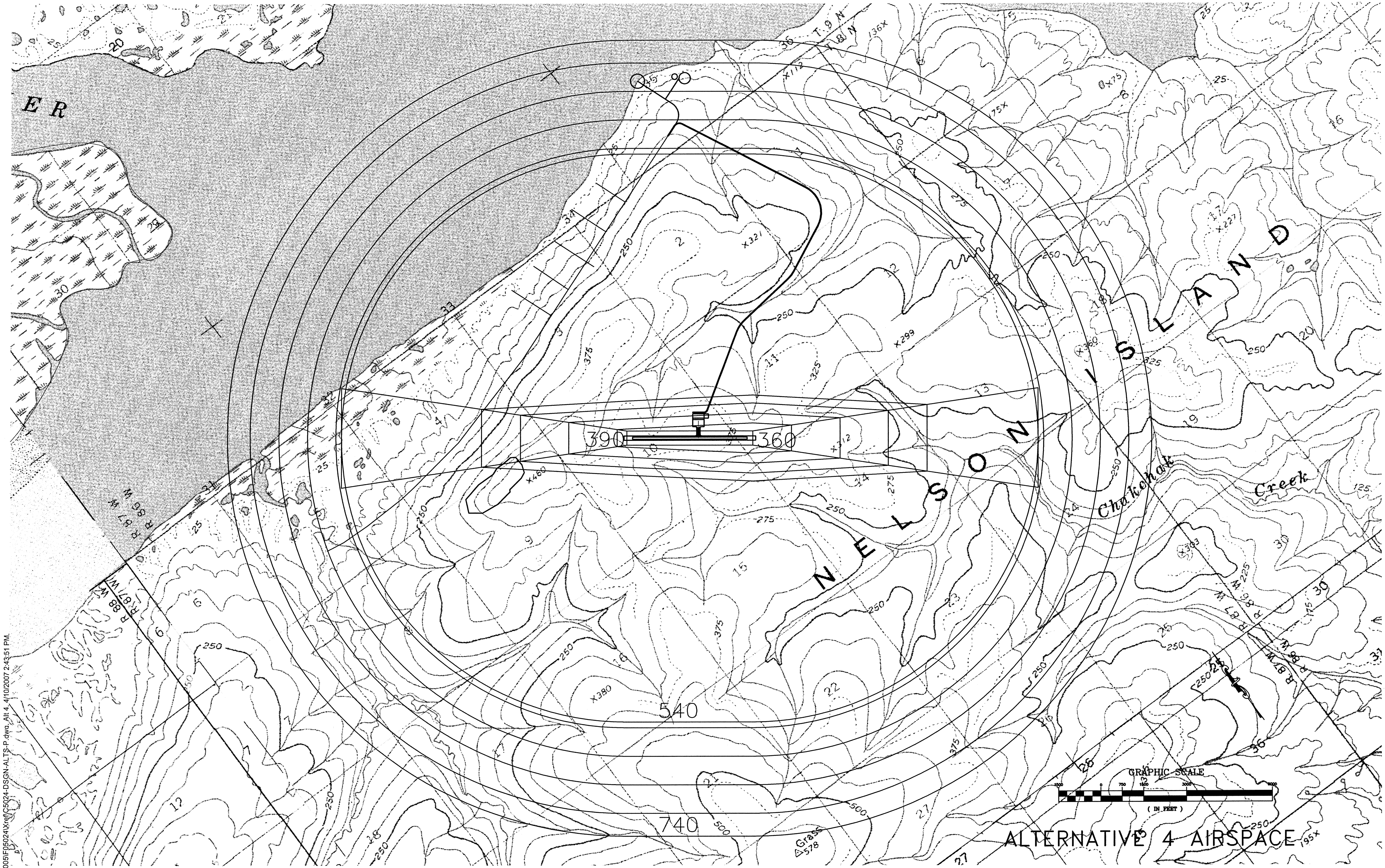

ALTERNATIVE 4 AIRSPACE

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APPENDIX E

COST ESTIMATES

Newtok Airport Relocation Cost Estimate
Alternative 1

Item #	Description	Quantity	Unit	Unit $	Total
D-701a	Corrugated Steel Pipe, 24 inch	350	LF	$93.00	$32,550.00
G-100a	Mobilization and Demobilization	1	LS	$700,000.00	$700,000.00
G-115a	Worker Meals and Lodging, or Per Diem	1	LS	$210,000.00	$210,000.00
G-130a	Field Office	1	LS	$35,000.00	$35,000.00
G-130b	Field Laboratory	1	LS	$16,000.00	$16,000.00
G-130g	Nuclear Testing Equipment Storage Shed	1	Each	$7,000.00	$7,000.00
G-131a	Engineering Transportation (truck)	1	Each	$19,000.00	$19,000.00
G-131b	Engineering Transportation (ATV)	1	Each	$6,500.00	$6,500.00
G-135a	Construction Surveying by the Contractor	1	LS	$80,000.00	$80,000.00
G-135b	Conditional Survey Party	50	Hour	$250.00	$12,500.00
G-710a	Highway Traffic Maintenance	1	LS	$20,000.00	$20,000.00
G-710b	Highway Flagger	1	CS	$20,000.00	$20,000.00
G-710c	Highway Traffic Price Adjustment	1	CS	$0.00	$0.00
G-710d	Highway Traffic Control	1	CS	$25,000.00	$25,000.00
L-100a	Airport Lighting	1	LS	$600,000.00	$600,000.00
P-152h	Borrow Embankment	335,900	CY	$15.00	$5,038,500.00
P-154a	Subbase Course	48,000	CY	$30.00	$1,440,000.00
P-157a	Erosion and Pollution Control Administration	1	LS	$8,000.00	$8,000.00
P-157b	Temporary Erosion and Pollution Control	1	CS	$25,000.00	$25,000.00
P-208a	Crushed Aggregate Surface Course	29,900	CY	$140.00	$4,186,000.00
P-640b	Segmented Circle (Panel Type)	1	LS	$30,000.00	$30,000.00
P-650a	Soil Anchor Tie Downs	4	SET	$500.00	$2,000.00
P-660b	Reflective Marker, Type II	75	Each	$60.00	$4,500.00
P-660c	Reflective Marker, Type III	20	Each	$104.00	$2,080.00
P-661a	Standard Sign	80	SF	$93.00	$7,440.00
S-142a	Equipment Storage Building (Concrete Floor)	1	Each	$500,000.00	$500,000.00
S-143a	Fuel Tank, 3,000-Gallon	1	Each	$20,000.00	$20,000.00
S-143b	Fuel	1	LS	$12,500.00	$12,500.00
S-143d	Electric Dispensing System	1	Each	$1,500.00	$1,500.00
S-143e	Motor Vehicle Fuel-dispensing Tank	1	Each	$11,400.00	$11,400.00
S-143f	Spill Prevention Control and Contermeasure Plan	1	LS	$5,000.00	$5,000.00
T-901a	Seeding	13	Acre	$2,400.00	$31,200.00
T-901c	Water for Maintenance	1000	M-Gal	$10.00	$10,000.00
		Subtotal			$13,118,670.00
		20% Contingency			$2,623,734.00
		Subtotal			$15,742,404.00
		18.76% Const. Eng'g & ICAP			$2,953,274.99
		Project Total			$16,071,944.99

Newtok Airport Relocation Cost Estimate
Alternative 3

Item #	Description	Quantity	Unit	Unit $	Total
D-701a	Corrugated Steel Pipe, 24 inch	1100	LF	$93.00	$102,300.00
G-100a	Mobilization and Demobilization	1	LS	$700,000.00	$700,000.00
G-115a	Worker Meals and Lodging, or Per Diem	1	LS	$210,000.00	$210,000.00
G-130a	Field Office	1	LS	$35,000.00	$35,000.00
G-130b	Field Laboratory	1	LS	$16,000.00	$16,000.00
G-130g	Nuclear Testing Equipment Storage Shed	1	Each	$7,000.00	$7,000.00
G-131a	Engineering Transportation (truck)	1	Each	$19,000.00	$19,000.00
G-131b	Engineering Transportation (ATV)	1	Each	$6,500.00	$6,500.00
G-135a	Construction Surveying by the Contractor	1	LS	$80,000.00	$80,000.00
G-135b	Conditional Survey Party	50	Hour	$250.00	$12,500.00
G-710a	Highway Traffic Maintenance	1	LS	$20,000.00	$20,000.00
G-710b	Highway Flagger	1	CS	$20,000.00	$20,000.00
G-710c	Highway Traffic Price Adjustment	1	CS	$0.00	$0.00
G-710d	Highway Traffic Control	1	CS	$25,000.00	$25,000.00
L-100a	Airport Lighting	1	LS	$600,000.00	$600,000.00
P-152h	Borrow Embankment	442,800	CY	$15.00	$6,642,000.00
P-154a	Subbase Course	60,300	CY	$30.00	$1,809,000.00
P-157a	Erosion and Pollution Control Administration	1	LS	$8,000.00	$8,000.00
P-157b	Temporary Erosion and Pollution Control	1	CS	$25,000.00	$25,000.00
P-208a	Crushed Aggregate Surface Course	35,100	CY	$140.00	$4,914,000.00
P-640b	Segmented Circle (Panel Type)	1	LS	$30,000.00	$30,000.00
P-650a	Soil Anchor Tie Downs	4	SET	$500.00	$2,000.00
P-660b	Reflective Marker, Type II	75	Each	$60.00	$4,500.00
P-660c	Reflective Marker, Type III	20	Each	$104.00	$2,080.00
P-661a	Standard Sign	110	SF	$93.00	$10,230.00
S-142a	Equipment Storage Building (Concrete Floor)	1	Each	$500,000.00	$500,000.00
S-143a	Fuel Tank, 3,000-Gallon	1	Each	$20,000.00	$20,000.00
S-143b	Fuel	1	LS	$12,500.00	$12,500.00
S-143d	Electric Dispensing System	1	Each	$1,500.00	$1,500.00
S-143e	Motor Vehicle Fuel-dispensing Tank	1	Each	$11,400.00	$11,400.00
S-143f	Spill Prevention Control and Contermeasure Plan	1	LS	$5,000.00	$5,000.00
T-901a	Seeding	22	Acre	$2,400.00	$52,800.00
T-901c	Water for Maintenance	1000	M-Gal	$10.00	$10,000.00
		Subtotal			$15,913,310.00
		20% Contingency			$3,182,662.00
		Subtotal			$19,095,972.00
		18.76% Const. Eng'g & ICAP			$3,582,404.35
		Project Total			$19,495,714.35

Newtok Airport Relocation Cost Estimate
Alternative 4

Item #	Description	Quantity	Unit	Unit $	Total
D-701a	Corrugated Steel Pipe, 24 inch	1250	LF	$93.00	$116,250.00
G-100a	Mobilization and Demobilization	1	LS	$700,000.00	$700,000.00
G-115a	Worker Meals and Lodging, or Per Diem	1	LS	$210,000.00	$210,000.00
G-130a	Field Office	1	LS	$35,000.00	$35,000.00
G-130b	Field Laboratory	1	LS	$16,000.00	$16,000.00
G-130g	Nuclear Testing Equipment Storage Shed	1	Each	$7,000.00	$7,000.00
G-131a	Engineering Transportation (truck)	1	Each	$19,000.00	$19,000.00
G-131b	Engineering Transportation (ATV)	1	Each	$6,500.00	$6,500.00
G-135a	Construction Surveying by the Contractor	1	LS	$80,000.00	$80,000.00
G-135b	Conditional Survey Party	50	Hour	$250.00	$12,500.00
G-710a	Highway Traffic Maintenance	1	LS	$20,000.00	$20,000.00
G-710b	Highway Flagger	1	CS	$20,000.00	$20,000.00
G-710c	Highway Traffic Price Adjustment	1	CS	$0.00	$0.00
G-710d	Highway Traffic Control	1	CS	$25,000.00	$25,000.00
L-100a	Airport Lighting	1	LS	$600,000.00	$600,000.00
P-152h	Borrow Embankment	485,100	CY	$15.00	$7,276,500.00
P-154a	Subbase Course	62,800	CY	$30.00	$1,884,000.00
P-157a	Erosion and Pollution Control Administration	1	LS	$8,000.00	$8,000.00
P-157b	Temporary Erosion and Pollution Control	1	CS	$25,000.00	$25,000.00
P-208a	Crushed Aggregate Surface Course	36,200	CY	$140.00	$5,068,000.00
P-640b	Segmented Circle (Panel Type)	1	LS	$30,000.00	$30,000.00
P-650a	Soil Anchor Tie Downs	4	SET	$500.00	$2,000.00
P-660b	Reflective Marker, Type II	75	Each	$60.00	$4,500.00
P-660c	Reflective Marker, Type III	20	Each	$104.00	$2,080.00
P-661a	Standard Sign	100	SF	$93.00	$9,300.00
S-142a	Equipment Storage Building (Concrete Floor)	1	Each	$500,000.00	$500,000.00
S-143a	Fuel Tank, 3,000-Gallon	1	Each	$20,000.00	$20,000.00
S-143b	Fuel	1	LS	$12,500.00	$12,500.00
S-143d	Electric Dispensing System	1	Each	$1,500.00	$1,500.00
S-143e	Motor Vehicle Fuel-dispensing Tank	1	Each	$11,400.00	$11,400.00
S-143f	Spill Prevention Control and Contermeasure Plan	1	LS	$5,000.00	$5,000.00
T-901a	Seeding	25	Acre	$2,400.00	$60,000.00
T-901c	Water for Maintenance	1000	M-Gal	$10.00	$10,000.00
		Subtotal			$16,797,030.00
		20% Contingency			$3,359,406.00
		Subtotal			$20,156,436.00
		18.76% Const. Eng'g & ICAP			$3,781,347.39
		Project Total			$20,578,377.39