



Alaska Department of Transportation & Public Facilities

Project Information
November, 2004

Noatak Road and Airport



Project Description

The Alaska Department of Transportation and Public Facilities is currently performing a preliminary engineering and economic study to evaluate the feasibility of these two transportation projects. The study area is between the Village of Noatak, and the existing Red Dog Mine Road.

This information booklet contains a variety of maps and data produced and collected for this project. All data should be considered preliminary, as no detailed design or environmental work has been performed.

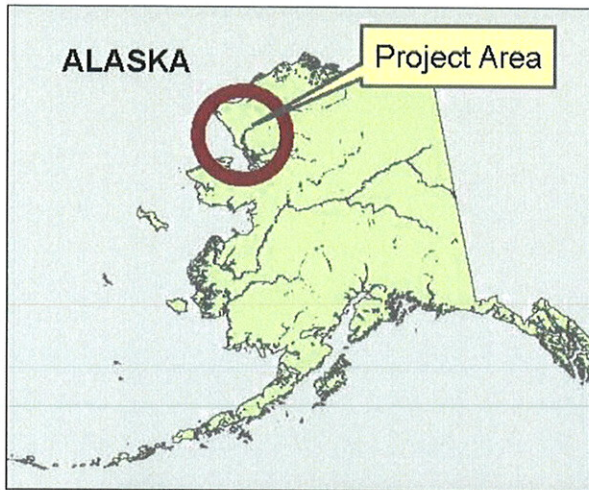
The road and airport projects evaluated in this study include:

- Constructing a road to connect the Village of Noatak with the Red Dog Mine Road
- Constructing a new airport in the vicinity of the Village of Noatak

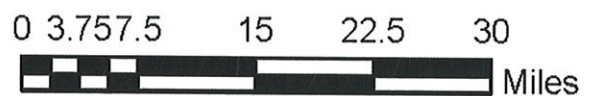
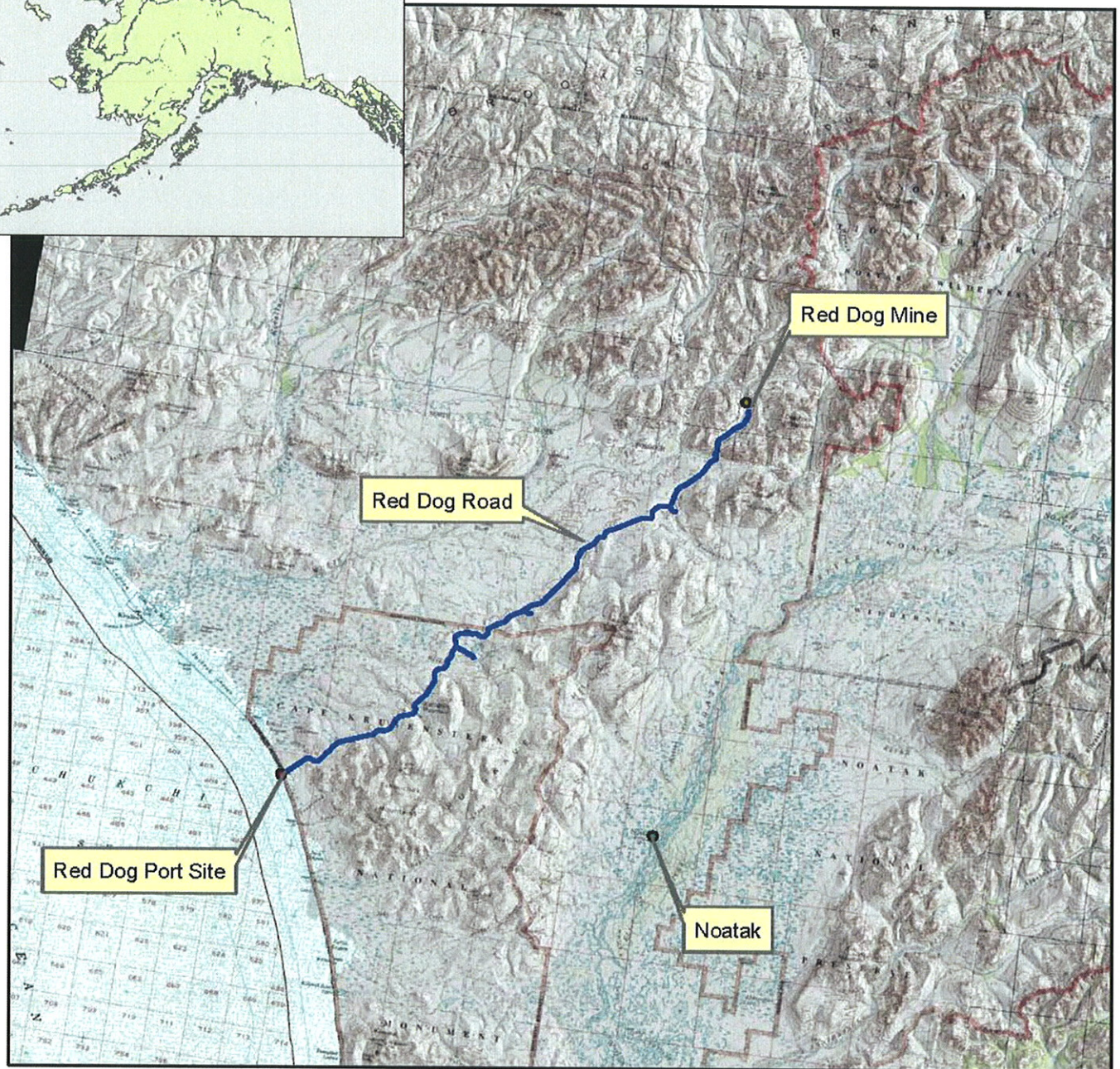
Project Contacts are:

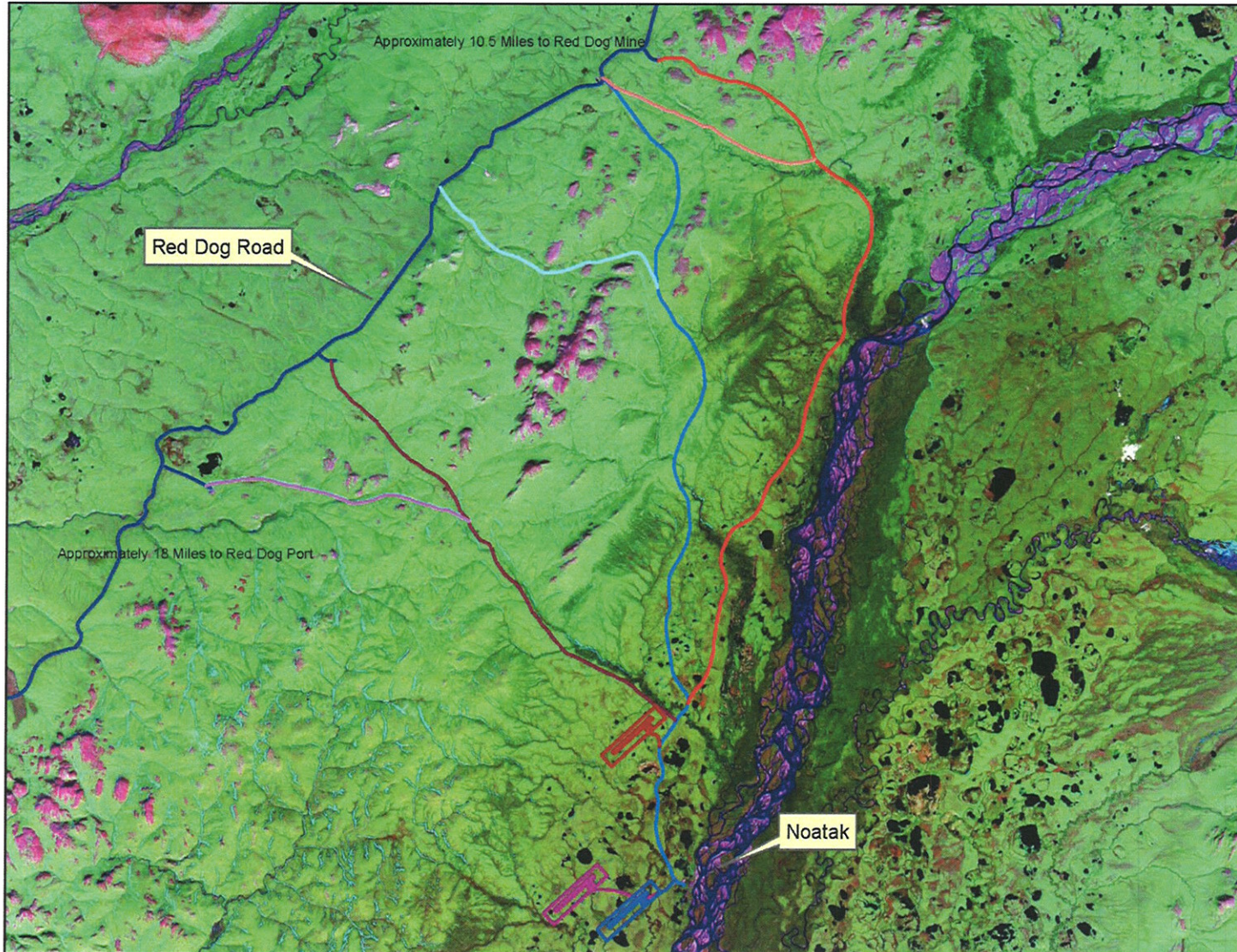
Ryan Anderson, P.E.	Ryan_anderson@dot.state.ak.us	907-451-5377
Patricia D. Miller, P.E.	Patty_miller@dot.state.ak.us	907-451-2275
Mike McKinnon	Mike_mckinnon@dot.state.ak.us	907-465-4069

Noatak Road and Airport



Vicinity Map





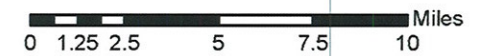
Road Options

- R1
- R1a
- R2
- R2a
- R3
- R3a

Airport Options

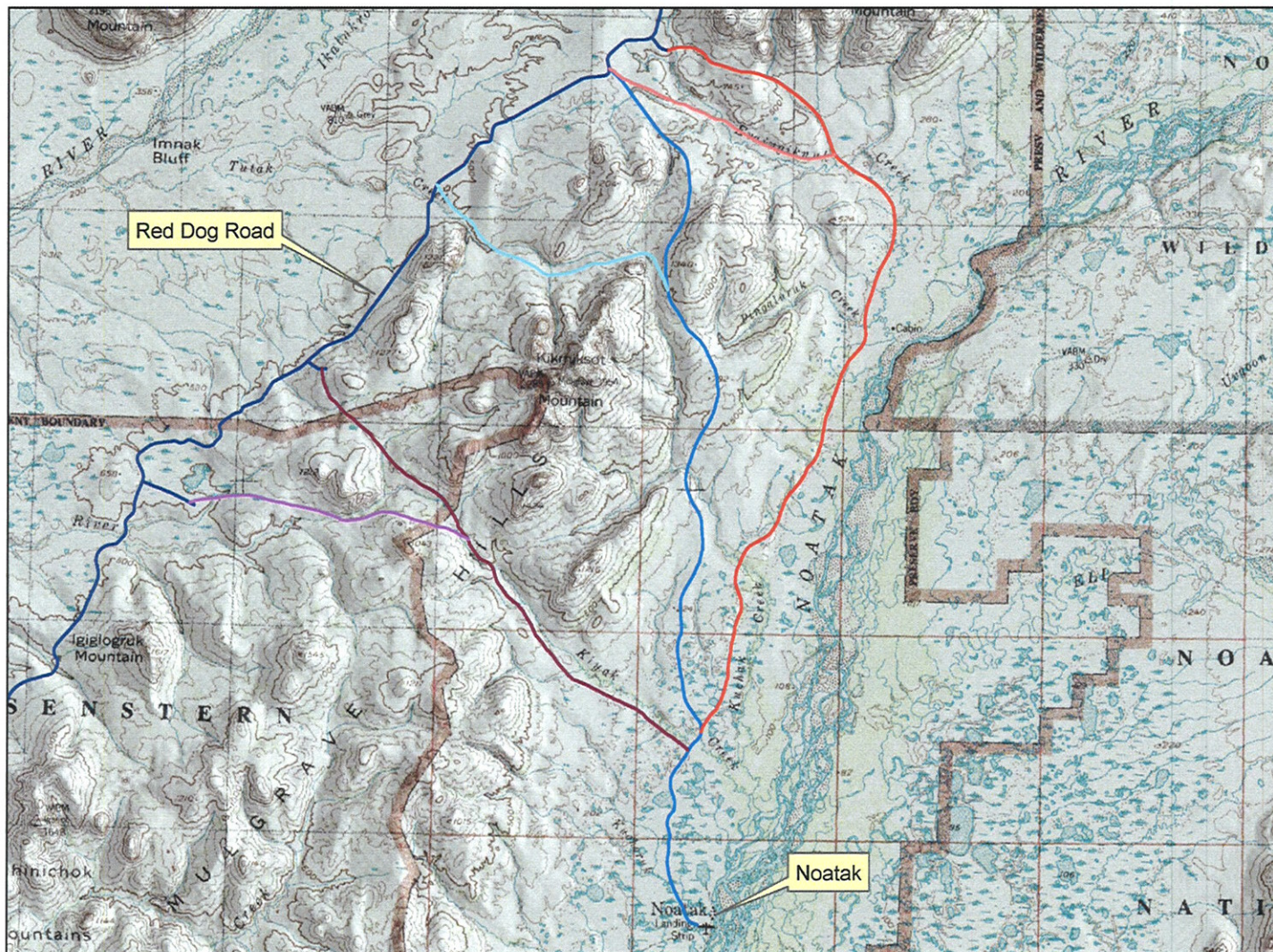
- A1
- A2
- A3

Source of Data: 2000 Landsat Imagery (NASA)



Road Options

Preliminary Road Corridor Overview



Road Options

- R1
- R1a
- R2
- R2a
- R3
- R3a



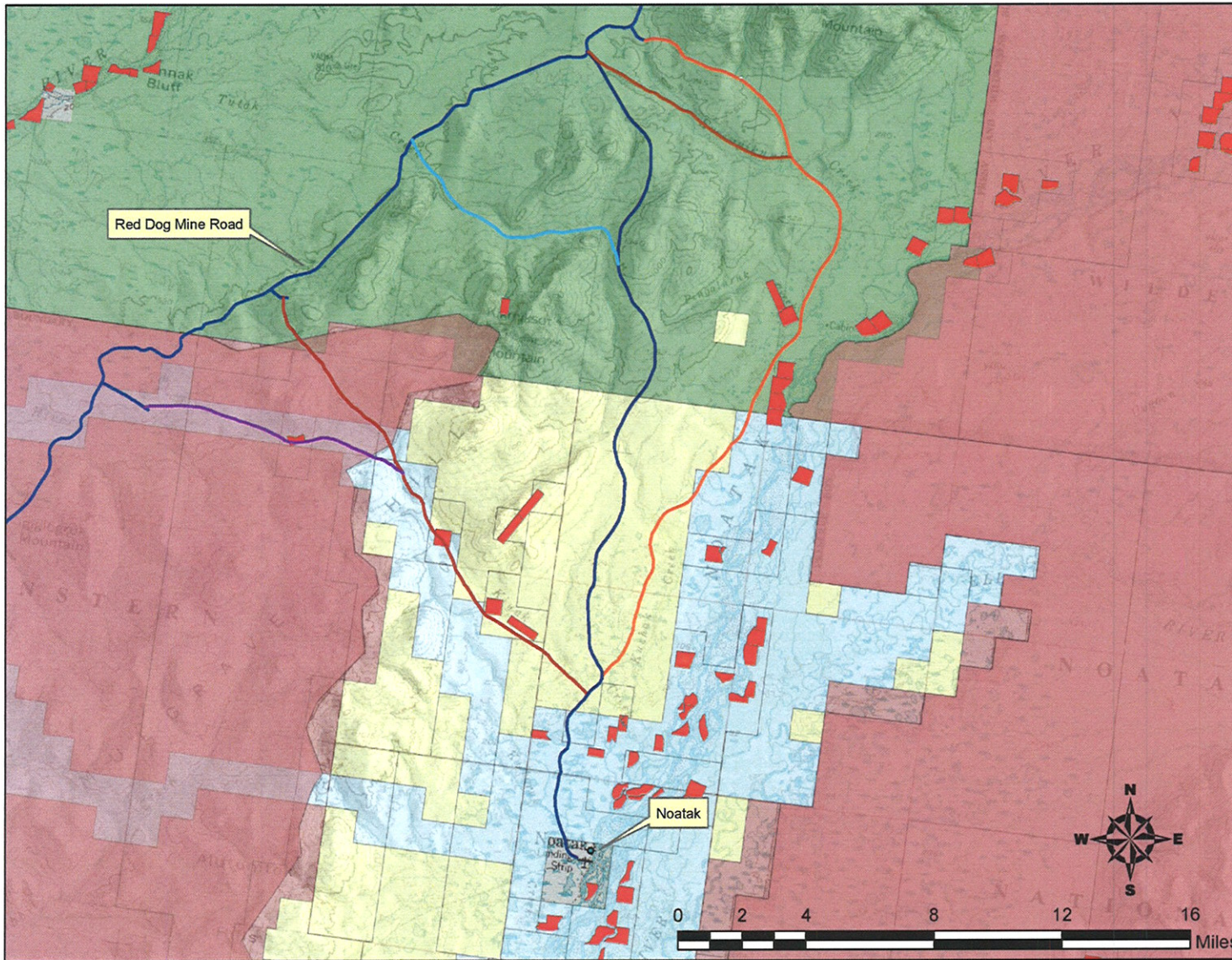
Preliminary Road Options Comparison Matrix

		R1	R1a	R2	R2a	R3	R3a
Road Length	Miles	21.6	23.3	31.8	33.1	27.8	28.8
Starting Elevation ¹	Feet (MSL)	70	70	70	70	70	70
Ending Elevation ¹	Feet (MSL)	760	570	500	610	610	1000
Highest Pass Elevation ¹	Feet (MSL)	860	790	590	610	1050	1040
Maximum Grade ¹		8.0%	8.0%	6.0%	8.0%	8.0%	8.0%
Length of Road Above 400' Elevation (MSL) ¹	Miles	9.8	9.8	5	6.3	12.75	13.75
Turnouts		22	23	32	33	28	29
Major Water Crossings ²		2	2	7	6	5	3
Minor Water Crossings ²		15	20	21	24	6	14
Icing Hazards Along Route ³		Mile 6 to Mile 11	Mile 6 to Mile 11	Mile 24 to Mile 30	Mile 24 to Mile 28	Mile 14 to 15	Mile 14 to 15
Preliminary Estimated Construction Cost ⁴	Dollars per Mile	\$1,600,000	\$1,600,000	\$1,750,000	\$1,730,000	\$1,770,000	\$1,680,000

- 1) All elevation and grade data is preliminary - based on USGS maps.
- 2) Major and minor water crossings are based on USGS maps and guidance. Major water crossings assume bridges are needed, minor water crossings assume pipes are needed.
- 3) Icing data was collected from past field surveys done by the Alaska Division of Geological and Geophysical Surveys.
- 4) Road Template is 24' wide, 8' deep at centerline, and has 2:1 slopes, with 12" crushed surfacing. Environmental, Design, ROW, Construction Engineering, and administrative costs are not included.

Noatak Road and Airport

Preliminary Land Status



Legend

Land Status

- Cape Krusenstern National Monument
- Noatak National Preserve
- Native Selected (BLM)
- Native Interim Conveyed
- State Tentatively Approved
- Native Allotment

Road Options

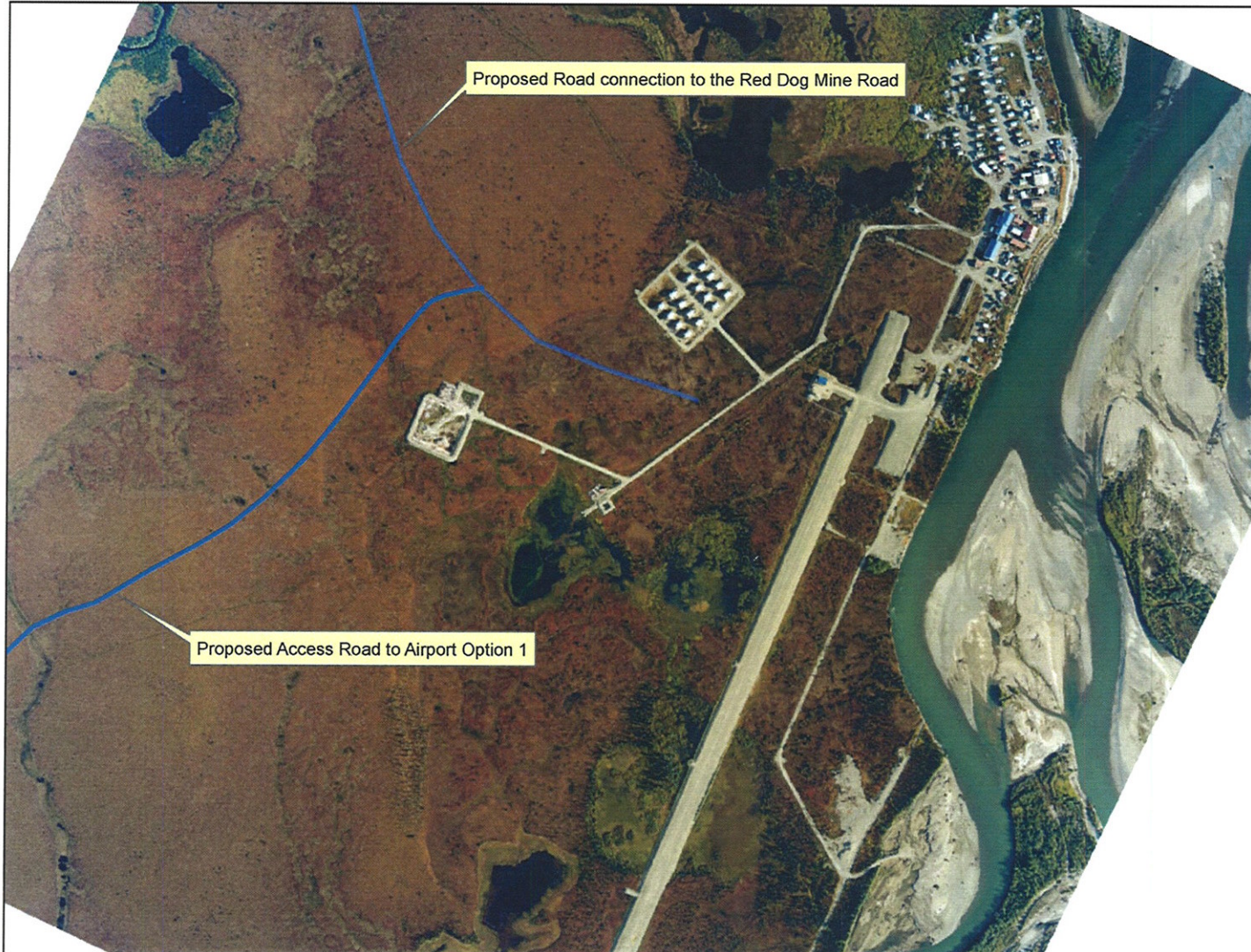
- R1
- R1a
- R2
- R2a
- R3
- R3a

Sources of Data:
Alaska Department of Natural Resources,
Land Records Information Section
"General Land Status Clipped to 1 to 63,360
Coastline"

Preliminary Land Status Comparison Matrix - Road Options

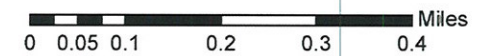
	R 1		R 1a		R2		R2a		R3		R3a	
	miles	%	miles	%	miles	%	miles	%	miles	%	miles	%
Native Interim Conveyed	9	42%	9	39%	7.2	23%	7.2	22%	4.8	17%	4.8	17%
Native Selected	6.1	28%	6.2	27%	9.1	29%	9.1	27%	10.7	38%	10.7	37%
State Tentatively Approved	1.4	6%	0	0%	15.5	49%	16.8	51%	12.3	44%	13.3	46%
Cape Krusenstern National Monument Lands	4.5	21%	7	30%	0	0%	0	0%	0	0%	0	0%
Native Allotments	0.6	3%	1.1	5%	0	0%	0	0%	0	0%	0	0%
Total Miles	21.6		23.3		31.8		33.1		27.8		28.8	

Proposed Connection



Where is the best place to tie into the community?

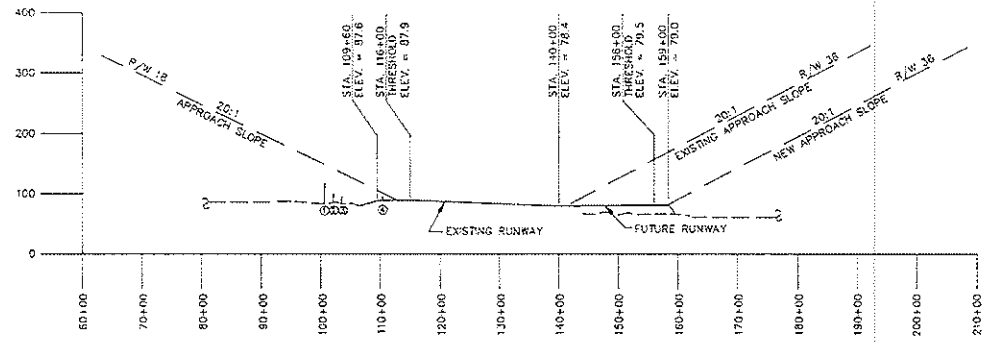
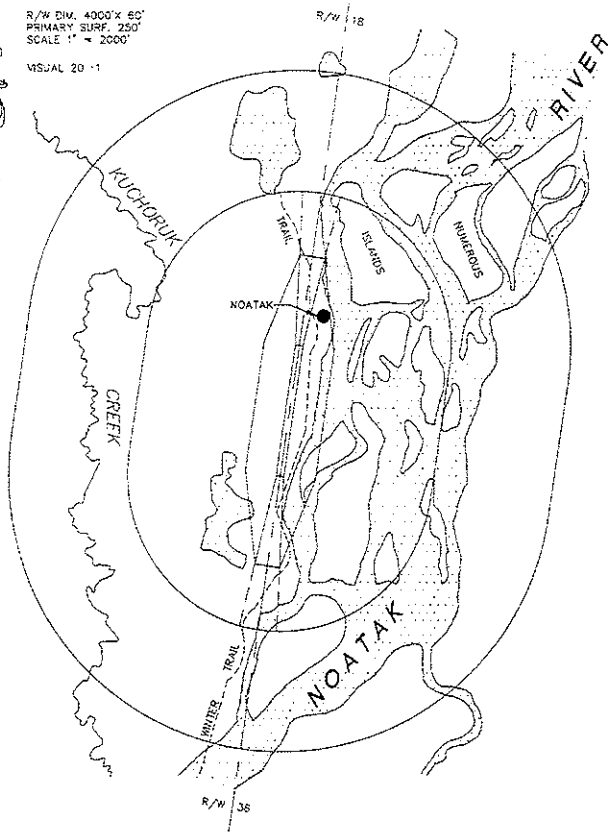
Source of Data: 2000 AeroMap Photography



Airport Options

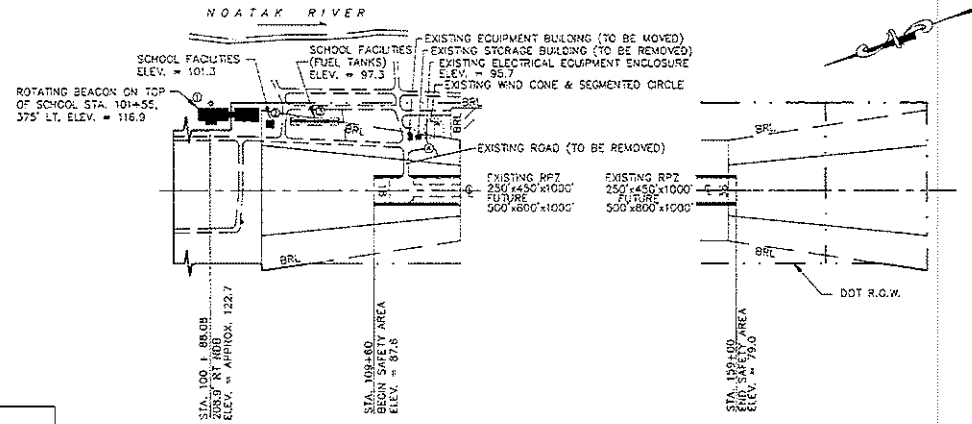
R/W DIV. 4300' x 60'
PRIMARY SURF. 250'
SCALE 1" = 2000'

VISUAL 20:1



RUNWAYS 18 & 36 APPROACH SLOPES

SCALE: HORIZ. 1" = 1000'
VERT. 1" = 100'



PLAN VIEW OF RPZ'S

SCALE: 1" = 300'

FAR PART 77 PENETRATIONS				
NO.	STRUCTURE	R/W LOCATION	ELEV.	PENETRATIONS

DEVIATIONS FROM STANDARD			
ITEM	STANDARD	EXISTING	ULTIMATE

* NOTE: HORIZONTAL CONTROL BASED ON NAD 1927.

DESIGN G.R. _____
 DRAWN C.A.B. _____
 CHECKED J.H. _____
 BY DATE _____
 E11/95 FAA APPROVED _____
 REVISIONS _____

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 NORTHERN REGION-WESTERN DISTRICT-DESIGN & CONSTRUCTION-AVIATION
 APPROVED *Daniel D. Urbach* DATE *5.3.98*
 DANIEL D. URBACH, P.E. AIRPORT DESIGN GROUP CHIEF

NOATAK AIRPORT
 OBSTRUCTIONS &
 AIRPORT AIRSPACE

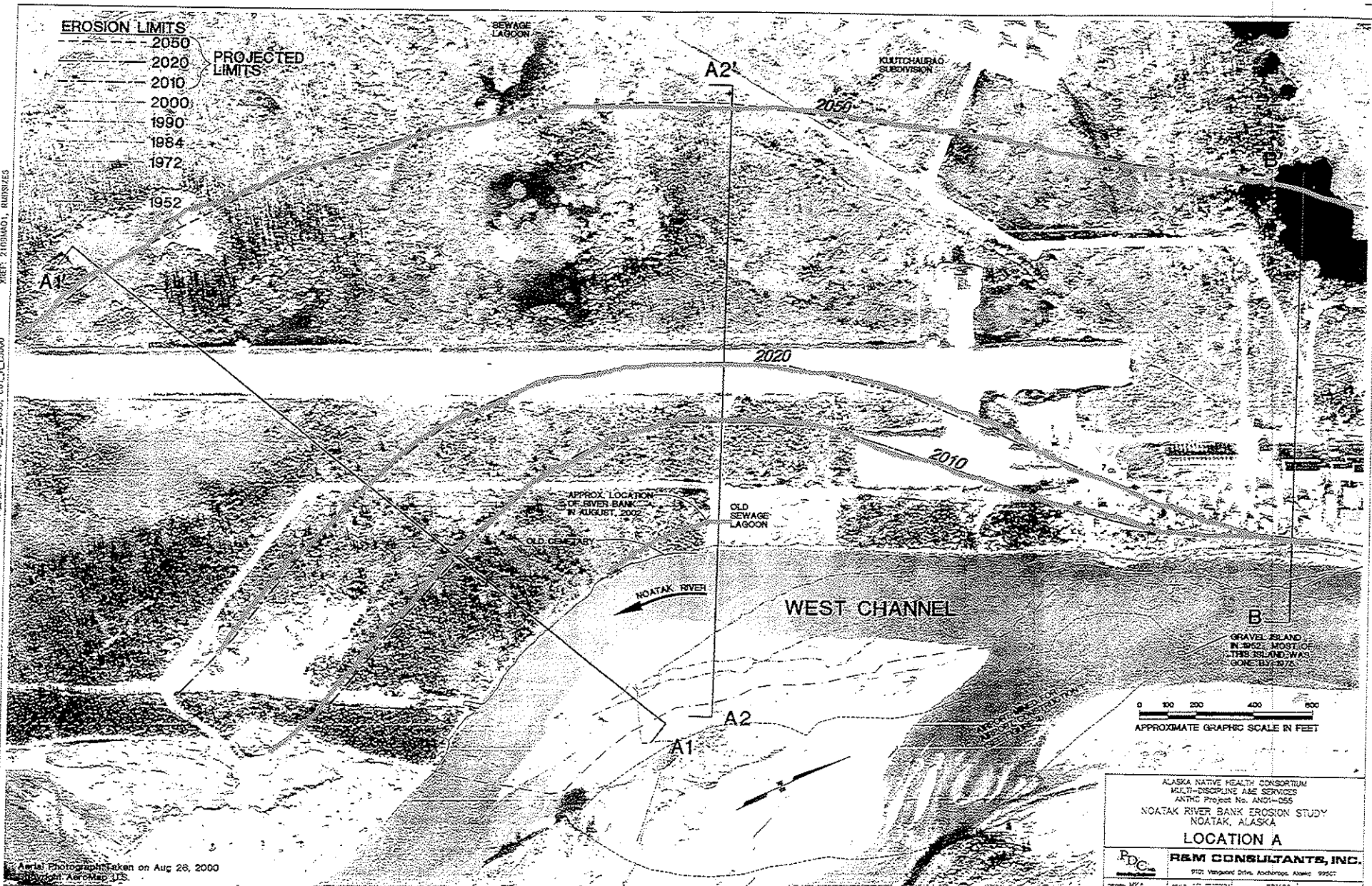
SHEET
 2
 OF
 3

REF: 2100HANO1, RURNSKES
VIEW: CO_L_E_007955_091_L_P10015, CO_L_IL10000
PROJECT: 2011051_GEO3109-003, 1-00, 09/11/02 at 12:01 by nhs

EROSION LIMITS

- 2050
- 2020
- 2010
- 2000
- 1990
- 1984
- 1972
- 1952

PROJECTED LIMITS



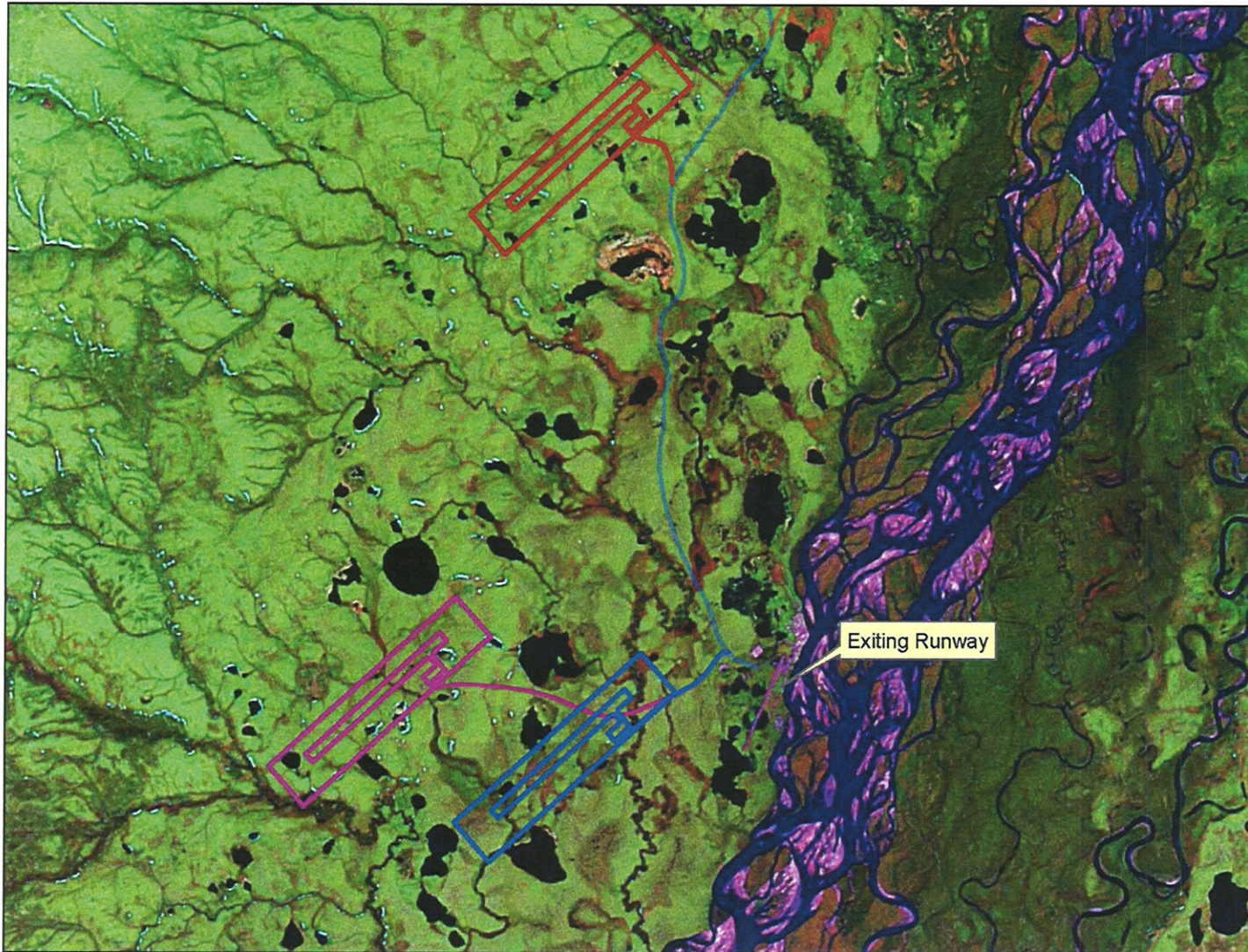
Aerial Photograph taken on Aug 28, 2000
Digitized by Aeromap, LLC

ALASKA NATIVE HEALTH CONSORTIUM
MULTI-DISCIPLINE A&E SERVICES
ANTHC Project No. ANHC-055
NOATAK RIVER BANK EROSION STUDY
NOATAK, ALASKA




LOCATION A

R&M CONSULTANTS, INC.
9120 Vantage Drive, Anchorage, Alaska 99507

Preliminary Airport Options

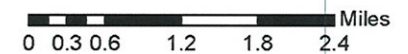


Airport Options

-  A1
-  A2
-  A3

Source of Data: 2000 Landsat Imagery (NASA)

All Runway Alignments are preliminary - based on 1986 wind data. Recent wind data has been collected and archived by the National Climate Data Center since 1998. DOT&PF is currently acquiring this data. The recent data will be used in determining the best alignment for the proposed runway.



Airport Comparison Matrix

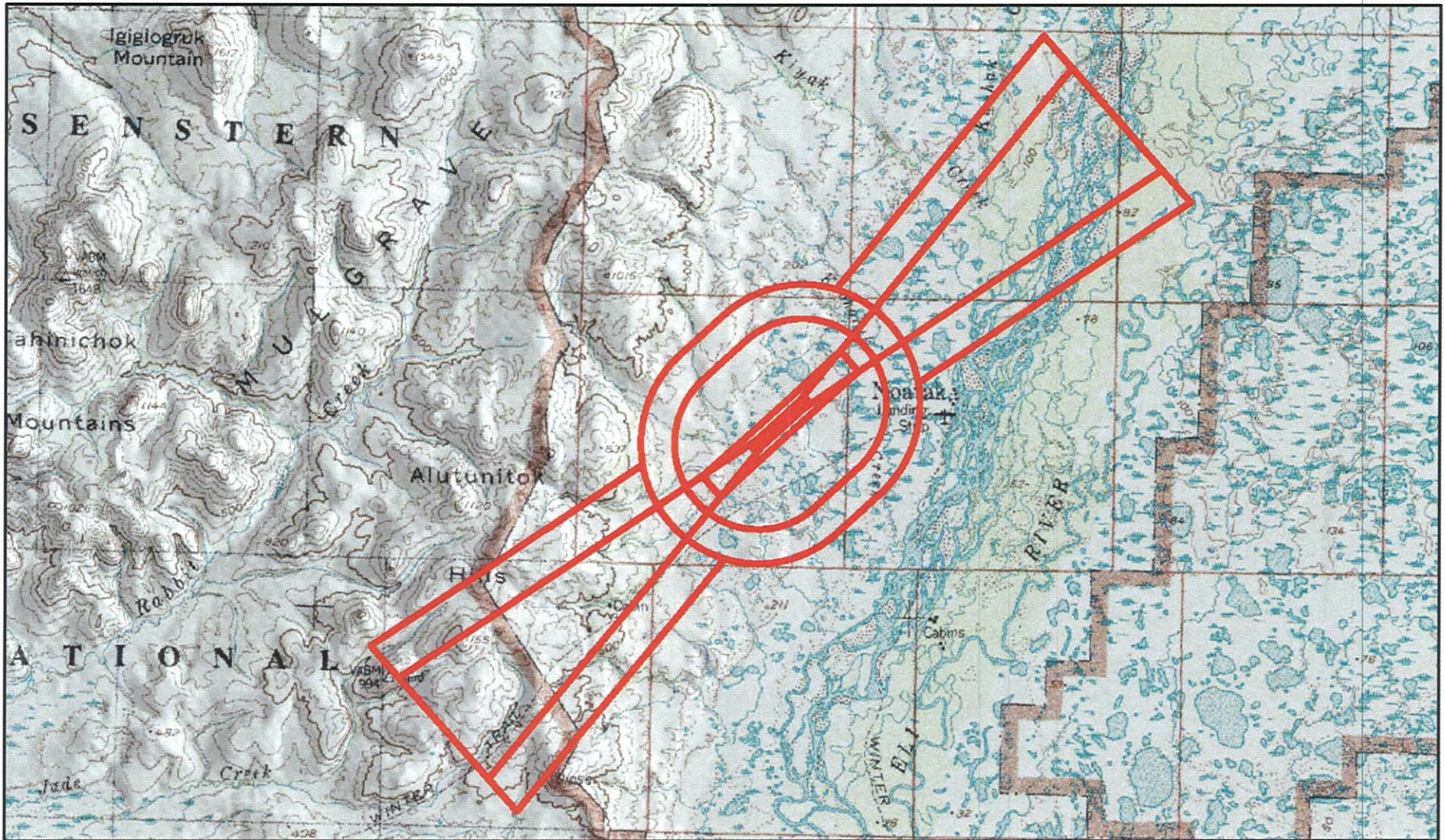
	Existing Runway	Red Dog Mine Runway	Option 1	Option 2	Option 3
Airport Class	B-I		C-IV (Ultimate)	C-IV (Ultimate)	C-IV (Ultimate)
Ultimate Runway Dimensions	4000' x 60' (Gravel)	5,753 x 120' (Gravel)	Paved 6500' x 150'	Paved 6500' x 150'	Paved 6500' x 150'
Ultimate Safety Area Dimensions	4880' x 120'		8500' x 500'	8500' x 500'	8500' x 500'
Approximate Airport Elevation	88' (MSL)	974' (MSL)	175' (MSL)	175' (MSL)	95' (MSL)
Obstructions to Airspace	No	Yes	No	No	No
Lowest Visibility Approach ¹	Visual Runway		Precision < 3/4 mile	Precision < 3/4 mile	Precision < 3/4 mile
Access Road Length from Noatak to Apron	1/4 Mile	N/A	3.5 Miles	5.4 Miles	1.7 Miles
Distance from C/L of Approach to Noatak at closest point	North Approach over Village	N/A	2.1 Miles	4.7 Miles	0.5 Miles
Minimum Embankment Height	10'		14'	14'	14'
Land Status	State Owned and Operated	Owned by NANA - Operated by TeckCominco	Interim Conveyed/Native Selected	Interim Conveyed/Native Selected	Interim Conveyed/Native Selected
Wind Coverage ²	Meets FAA Criteria		Meets FAA Criteria	Meets FAA Criteria	Meets FAA Criteria
Floodplain Impact	In the Floodplain	None	Needs Further Study	Needs Further Study	Needs Further Study
Footprint			170 Acres	150 Acres	140 Acres
Property	126 Acres		Approx. 700 Acres	Approx. 700 Acres	Approx. 700 Acres

1) Precision approaches assume FAA Navaid installation, and airspace protection requirements acceptable to FAA.

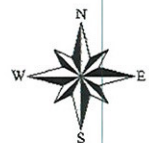
2) Wind Coverage has been determined using 1986 wind data. A wind study will be performed using current data, and alignments may change.

All data is preliminary - based on quad map level studies.

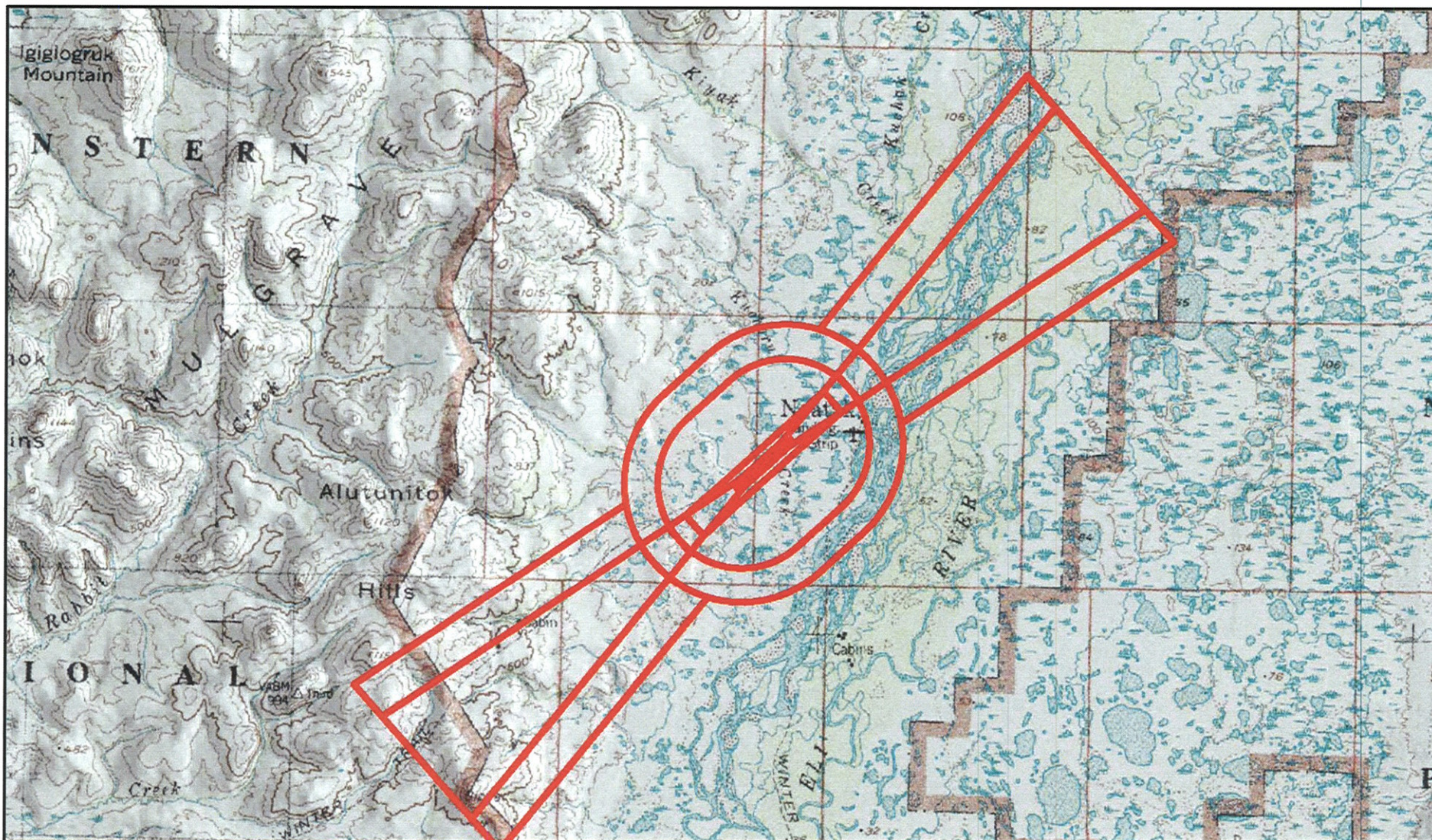
Preliminary Airspace Option 1



Note:
This drawing details the FAR Part 77 Airspace surfaces required for the proposed option. These surfaces are based on Quad-Map level data, and should be considered preliminary.



Preliminary Airspace Option 3



Note:
This drawing details the FAR Part 77 Airspace surfaces required for the proposed option. These surfaces are based on Quad-Map level data, and should be considered preliminary.

