

HB

447

"An Act making a special appropriation to the Alaska Educational Broadcasting Commission; and providing for an effective date."

# COMMITTEE REPORT

4/22/75

HOUSE

FINANCE

Mr. Speaker:

Date April 9, 1976

The Committee on HESS has had HB 447

under consideration. A Majority of the members of the Committee

recommends it DO PASS

recommends it DO NOT PASS

recommends it DO PASS WITH ATTACHED AMENDMENT(S)

recommends it BE REPLACED WITH CS FOR HB 447 AND THAT  
CS FOR HB 447 DO PASS

"and" recommends it BE REFERRED TO THE \_\_\_\_\_  
COMMITTEE

reports it back WITHOUT RECOMMENDATION

"other"

Members signing the Majority report:

Susan Sullivan \_\_\_\_\_

James E. Sullivan \_\_\_\_\_

Richard E. Sullivan \_\_\_\_\_

Ed. W. Sullivan \_\_\_\_\_

Members NOT concurring in the Majority report:

\_\_\_\_\_ recommends:

\_\_\_\_\_ recommends:

\_\_\_\_\_ recommends:

\_\_\_\_\_ recommends:

\_\_\_\_\_ recommends:

Susan Sullivan Chairman



JUNEAU ALASKA

# Alaska State Legislature

## House

HESS COMMITTEE MEETING

May 8, 1975

HB 4407

Members Present:

Beirne            Ostrosky  
Davis            Sullivan  
Hackney        Swanson  
Osterback

Chairman Sullivan called the meeting to order at 3:30pm. The first order of business was HB 415 & 419.

HB <sup>415</sup>~~514~~ & HB 419

Dr. Price: These measures are urgently needed. The 1972 Council considered the number one need to be School Health Education. A survey was taken in 1973, on the elementary level it was taught by individual teachers as they see fit, the administration is not aware of the curricula. In Junior High and High School there is some curricula taught by the physical education teachers but they rarely have training in Health Education specifically to teach the subject. 90% of the PE teachers have never taken first aid courses. We presently have 12 candidates for the position of School Health Educator, the money is not available after July 1, the funds will be lost. Funded through Federal D14 monies. SB66 (Congressional Bill) if passed, would be taking new monies into consideration.

Swanson Line 18, Is this just seed money or would this take care of the entire program?

Price This will take care of the program for the first year. We would like to see this as a collaboration between the two departments, H&SS and Education.

Jeffers One professional employee and one clerical, there will be contractual methods to do other things.

Swanson What to you class and Health Education in grades K-12?

Jeffers The intent is to structure so that the younger kids could benefit as well as the others. The more sophisticated problems are handled at a later age. These programs will be introduced when the students are old enough to benefit from them.

Hackney Couldn't <sup>we</sup> legislate something to insure that the individual school districts will hire trained Health Educational staff on the local level?

Jeffers We would provide some sort of training program so that they would get training as well. A Health Education Curriculum would be added for use on the local level.

Hackney Any Health Ed. taught today?

Page Two  
HESS Meeting  
5-8-75

Commissioner Lird Further explanation of the bills. Also expressed the Dept's concern and urged passage of these bills.

There was some discussion at this time as to the word "initial" development added to the bill.

Ostrosky Motion to add "Dept. of H&SS"

Swanson Objection.

Chairman Vote on the amendment, changing the bill back to its original form. (Unanimous)

Sullivan Move bill out with Individual recommendation.

No Objection , so ordered.

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HB 447

Richard Dowling, Ak. Educ. Broadcasting Commission

Handed out material, here to answer questions. The reason for this legislation is that KAKM will serve to the areas on the map, Kenai Pen., Turnigan Arm, Talkeetna, Palmer etc.

Parr Who would do this, the State or a privately funded operation?

Dowling The Television Station itself would contract with some individual to do the work.

Farr Question, the pay of the project coordinator?

Dowling Explained what the position was to do, prepare spec. for equipment; hire two man crew for installation; performance tests; system tests, and document the system so that it can be maintained, this has to all be completed in four months of work.

PBS, locally produced, KYUK-Bethel, KYAK-Fairbanks, Educational Programming coordinated with these stations. Most of these areas do not have commercial programming. 1/3 to 1/2 currently do not receive regular commercial television.

Sullivan Would like to hear Rep. Beirne's views on this bill before we take up a vote.

Ostrosky In favor of the program. Public television is an asset and quality of programs are quite beneficial in comparison with commercial television.

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HB 487

Parr Motion to move bill out with 'do pass'

Chairman No objection, so ordered.

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Adjourned at 5:00pm.



# Alaska State Legislature

## House

JUNEAU ALASKA

HOUSE HESS COMMITTEE MEETING

APRIL 9, 1976

Present: Parr Swanson Beirne  
Davis Sullivan

Testifying: Bill Mack, KAKM  
Frank Mengel,  
Larry Verable, Ak. Carriers Assoc.

### HB 447 Ak. Educational Broadcasting - Beirne

Bill Mack made opening presentation for K.A.K.M.

Frank Mengel, explained progress of the project and why more \$ was needed.

Charlie, line 10, delete "\$225,000", add "\$185,000"  
Change line 11 "13" to "11"

Hohman, explained situation of Bethel-Kuskokwim Com College, they would like to expand their T.V. system.

Red, move to have a new section add "\$140,000 for 15 translators, \$81,000 for talk back capability, SW Ak., KYUK, Kuskowim Com. College

Red, move out with do pass, as a C.S.HB 447  
unanimous

### HB 113 - Noise Pollution - Beirne

Robertson, presented Public Safety psotion.

Larry Verable, presented the Ak. Carriers Assoc. position.

Bill held over till Helen geta C.S.

The Legislature of the State of Alaska  
FISCAL NOTE

HB447

First Session - Ninth Legislature

I. REQUEST

Bill No. HB 447  
 Title: relating to making a special appropriation the the Educational Broadcast Com  
 Requested by: House Finance Date: 5/16/75  
 Return Date Requested: ASAP  
 Agency: education Program: Educational Broadcasting Commission

II. FISCAL DETAIL

Budget Request Unit(s) Affected: \_\_\_\_\_

A. EXPENDITURES: (Thousands of dollars)

OBJECT	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.		225,000				
TOTAL		225,000				

B. FUNDING: (Thousands of dollars)

GENERAL FUND		225,000				
FEDERAL FUNDS						
OTHER						

C. POSITIONS:

PERMANENT/TEMPORARY	/	/	/	/	/	/
MAN MONTHS (P./T.)	/	/	/	/	/	/

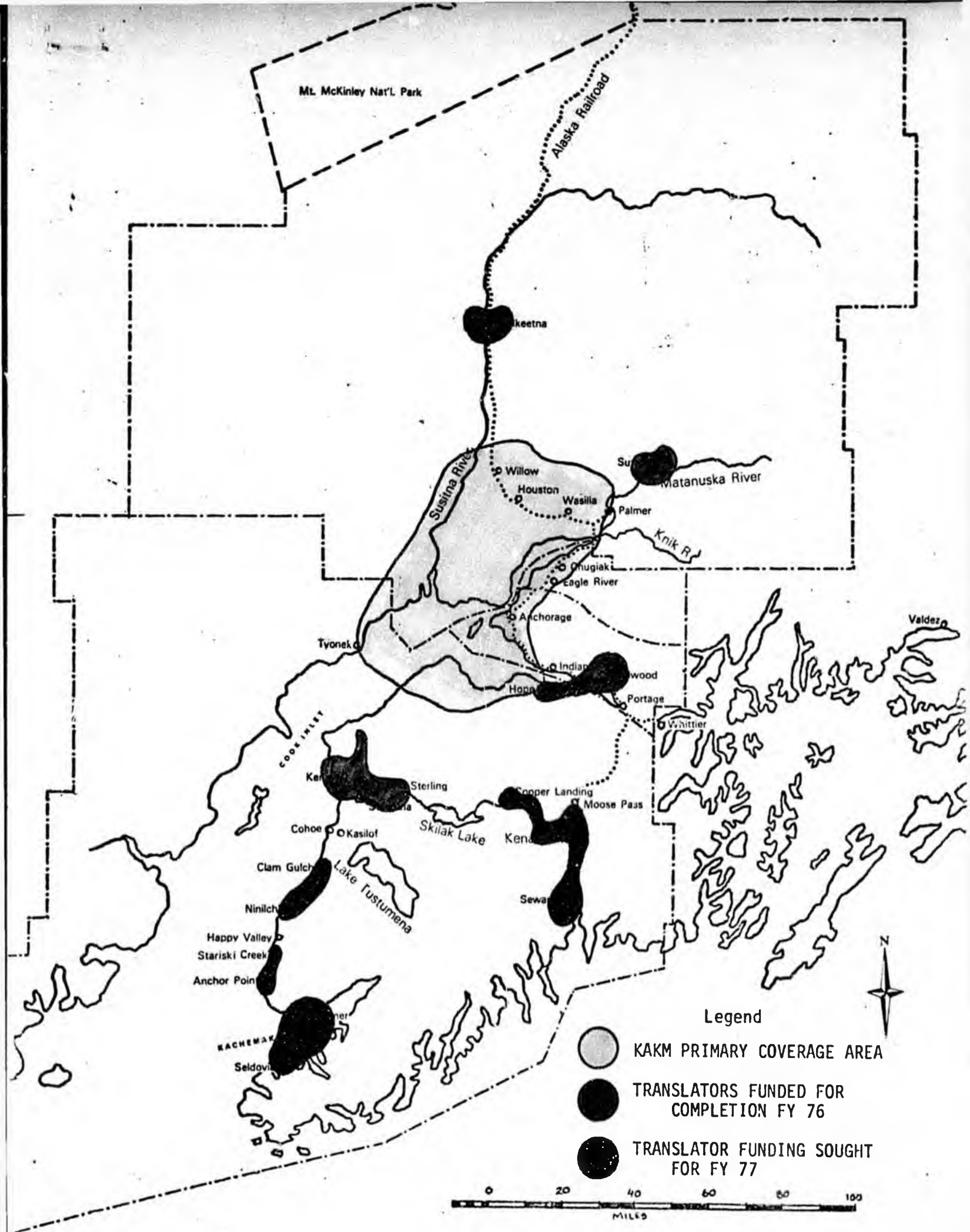
III. ANALYSIS (See Fiscal Note Preparation Instructions, Section: III)

See attached

IV. ATTACHMENTS

V. DATE: 5/19/75 PREPARED BY: William D. Thomas

Original: Legislative Finance  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named)



## FUNDING REQUIREMENTS IN FISCAL YEAR 77: TRANSLATOR PROJECT

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It has been the intent of Alaska Public Television from its inception to provide reception of KAKM throughout the boroughs of Anchorage, Kenai and Matanuska/Susitna. A system of translators is the logical means of achieving this goal. A total of \$160,000 in legislative appropriation for our translator project in fiscal year 76 has put us well on our way to achieving this goal.

The funds appropriated in fiscal year 76 for our translator project were directed by the Legislature to serve the areas of Sutton, Hope and Girdwood, Kenai and Seward. We are in the final completion phases now of providing translator service to all these areas except Seward. Feasibility studies have indicated that the fiscal year 76 translator budget is totally inadequate to service Seward directly by translator. These studies have indicated that an additional \$95,000 will be required for this service.

There are several large segments of the tri-borough population that are still not served by Channel 7's signals. These areas include:

- Talkeetna
- the western side of the Kenai Peninsula including the cities of Clam Gulch, Nirilchik, Anchor Point, Seldovia and Homer
- and a large area near the city of Palmer.

Service to these areas can be accomplished with an additional \$90,000. Appropriation of these additional amounts will insure public television service to approximately 90% of the tri-borough population.

ANTICIPATED FY77 FUNDING FOR TRANSLATOR PROJECTS

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Talkeetna

Serves city proper, pop. 300, 2% of borough.....\$ 15,500

Seldovia - Homer System

Serves Kachemak Bay, western side of Kenai Peninsula.....\$ 46,700

Palmer

Serves shadow areas only, pop. 1,900, 20% of borough.....\$ 19,800

Administration.....\$ 8,000

Additional funding required in FY77 to serve all large  
population centers in the tri-borough area that do not  
get our signal.....\$ 90,000

Adjustments to FY76 budget to provide service to  
Seward.....\$ 95,000

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TOTAL FY77 FUNDING REQUIRED.....\$185,000

SITE-BY-SITE COST ANALYSIS  
OF KAKM TRANSLATOR SYSTEM

<u>Sites</u>	<u>Equipment Cost</u>	<u>Total including installation</u>
North Kenai	\$ 15,860	\$ 19,160
Sterling	16,510	19,810
Clam Gulch	15,410	17,390
Stariski Creek	15,410	17,390
Seldovia	18,160	22,250
Cooper Landing #1	11,060	15,040
Cooper Landing #2	11,060	15,040
Seward/Moose Pass	20,560	25,190
Hope	13,450	15,430
Girdwood	7,610	9,590
Tyonek	12,760	16,610
Talkeetna	8,510	10,490
Palmer	17,410	20,710
	<hr/>	<hr/>
Total	\$183,770	\$224,100
Less 10% bid discount		<hr/> 18,377
		\$205,723
Project Coordinator 120 days @ \$150/da.		<hr/> 18,000
Grand Total		<hr/> <hr/> \$223,723

Mt. McKinley Nat'l. Park

Alaska Railroad

APPROXIMATE GRADE B CONTOUR

Talkeetna

Susitna River

Willow

Houston

Wasilla

Sutton

Matanuska River

Palmer

Knik R.

Chugiak

Eagle River

Anchorage

Tyone

Gridwood

Portage

Whittier

COOK INLET

Kenai

Big

Cooper Landing

Moose Pass

Cohoe

Sisilof

Skilak Lake

Kenai

Clam Gulch

Lake Tustumena

Seward

Ninilchik

Happy Valley

Stariski Creek

Anchor Point

ACHEMAK

Selkirk

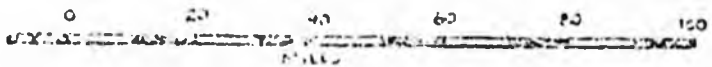
Valdez

PROPOSED KAKM TRANSLATOR SYSTEM

⊙ TRANSLATOR

● MAJOR COMMUNITIES SERVED

--- INCOMING SIGNAL



HB 447

361 Distin, #207  
Juneau, Alaska 99801

21 March 1975

Mr. Marvin R. Weatherly  
Executive Director  
Alaska Educational Broadcasting Commission  
308 G Street  
Anchorage, Alaska 99501

Dear Marv:

I have examined the KAKM translator cost analysis document and have talked with Frank Mengel, and make the following general observations:

1. The siting of translators and routes chosen to deliver signals to individual communities is generally sound. However, it is only a first approximation, and exact siting cost vs. performance analysis has not been done. Therefore, the hardware costs could go up or (possibly) down.
2. Installation costs have generally been underestimated by a factor of 2 to 5.
3. No funds have been included for such site development costs as buildings, power lines, earth work, etc.
4. Only an insignificant amount of money has been budgeted for licensing costs--which, in the case of a 100 watt VHF translator proposed for Seldovia will require a change in the table of assignments and will therefore be fairly costly.
5. Existing Division of Communications/commercial TV sites have been proposed by KAKM in some instances. The use of these sites may not be the most cost-effective approach.
6. Many less desirable UHF translations have been proposed, possibly made necessary by existing congestion in the available VHF band.

If the KAKM proposal is to be considered only on its own merits, in my estimation the budgeted amount should be raised to around \$225,000. This would cover the additional site survey, licensing, and installation costs.

Mr. Marvin R. Weatherly

-2-

21 March 1975

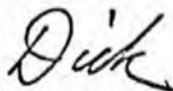
Because of the State of Alaska's involvement in bringing commercial TV to these same locations, it does not seem wise for KAKM to proceed independently. This should be a joint effort.

I recommend, if it is desired to deliver television to the four borough area, that the following actions be taken:

1. The areas to be served--and by whom--should be defined.
2. An exact engineering study should be made to examine alternatives such as:
  - A. Various translator-only configurations, i.e. different sitings to optimize initial cost vs. maintenance cost factors.
  - B. Combinations of microwave and translators.
  - C. Combinations of cable and translators.
3. The use of Channels 5 and 6 should be further explored to minimize the number of UHF translations--especially since Channel 5 is non-adjacent to Channel 4, and co-location would be practical.

I can provide more specific information on these points if needed, and I would be happy to undertake further investigation of possible alternatives in providing television to the areas surrounding Anchorage, at your request.

Regards,



Richard P. Dowling

8 May 1975

361 Distin #207  
Juneau, Alaska 99801

Mr. Marvin R. Weatherly  
Executive Director  
Alaska Educational  
Broadcasting Commission  
308 G Street  
Anchorage, Alaska 99501

Dear Marv:

As requested, I testified before the House Health, Education and Social Services Committee regarding HB 447, the KAKM translator funding appropriation.

Present on the committee were: Sullivan, Davis, Osterback, Swanson, Parr, Ostrosky. Mrs. Beirne was testifying before another committee and was unable to be present.

I outlined the system, and described why it was necessary and what service would be provided. I also handed out the attached two sheets, which give site-by-site cost estimates, and provide a map of the areas covered.

The coordinator position salary was questioned by Parr; he felt the figure was high. Osterback, on the other hand, felt that since it was a 7 day a week job it wasn't enough. I stated that this was a reasonable figure for this job.

I feel strongly that Frank Mengle needs someone to ram-rod this job, or he will never get everything properly installed this summer and next spring.

Rep. Sullivan asked what the program source would be, and I described the PBS programs briefly and stated that these would be augmented by local productions and program exchange with KUAC and KYUK. Rep. Ostrosky spoke of the need for this service and strongly supported it. Rep. Parr told of KUAC's programs and described them as appealing to the minority. He was not negative, though.

Mr. Marvin R. Weatherly

-2-

8 May 1975

Rep. Sullivan delayed further consideration of the bill until Rep. Beirne could be present, and I was dismissed.

Regards,

A handwritten signature in cursive script that reads "Dick".

Richard P. Dowling

HB 447

SITE-BY-SITE COST ANALYSIS  
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Susitna River

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Whittier

COON INLET

Kenai

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Moose Pass

Cohoe

Asiatic

Skilak Lake

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Clam Gulch

Lake Tustumena

Seward

Ninichik

Happy Valley

Stariski Creek

Anchor Point

KACHEMAK

Selkovic

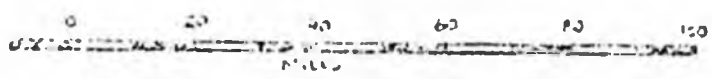
Valdez

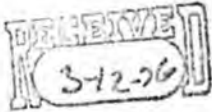
PROPOSED KAKM TRANSLATOR SYSTEM

⊙ TRANSLATOR

— MAJOR COMMUNITIES SERVED

— INCOMING SIGNAL





KUSKOKWIM COMMUNITY COLLEGE

University of Alaska  
P. O. Box 368 907-543-2047  
Bethel, Alaska 99559

March 5, 1976

Representative Phillip Guy  
State of Alaska  
House of Representatives  
Pouch V  
Juneau, Alaska 99811

Dear Guy:

The 1975 Alaska Legislature awarded \$154,000 to Kuskokwim Community College for the installation of translator sites to extend KYUK's signal to much of the Yukon-Kuskokwim delta. This was for the purpose of delivering instructional television programming to villages in this area. Kuskokwim Community College is currently delivering 27 hours per week of instructional television programming (mostly Tive) and hopes to continue this kind of effort in the coming school year. This delivery system is the most cost effective way we know of to extend our programs over our 60,000 square mile service area.

The initial appropriation was less than the amount needed to extend KYUK's signal to the entire region. Enclosed is a proposal for \$221,993 which would provide for the completion of the rest of the translator installations and the upgrading of installations at existing sites.

I have asked Senator Hohman to request a direct appropriation for this project. Any support you can give this region will be greatly appreciated by the residents of this area.

Sincerely,

Jan Gibson, Acting Director  
Kuskokwim Community College

cc: Senator George Hohman

JG:jd

Kushko CC

P. Day

Restricted to General Funds

HF  
Read from  
Committee  
Meeting

Kushokovin CC

Programs to be shifted from  
restricted to general funds

1. Instructional TV - 20 villages involved.  
 F 76 last year for \$74,777 grants from Fund for  
 Improvement of Postsecondary Education.  
 State Leg. provided funds (154,000) for installation  
 of equipment.  
 F 77 request will provide staff to deliver  
 ITV using station K-YUK.
2. Village Management Institute - 39.0  
 Business, management & accounting training  
 workshops & seminars adapted to needs of villages.  
 Previously funded by grants & contributions. No  
 obligations.
3. Vocational Maintenance Technician Training 39.0  
 General and vocational training -  
 carpentry, electricity, welding, engines, etc.  
 Currently a CETA <sup>station</sup> program through Yipitok  
 Point. No support in F 77.
4. Social Sciences M.A.F. 31.1  
 Two positions were provided by CETA <sup>station</sup>  
 funding in F 76. No funding in F 77.

5. ABE - Village Programs 19.4

P. Day

These restricted funds provide ABE in  
11 villages. Cut in funds for F 77  
anticipated

6. Eschima's Language Workshops

Lower support in F 77

15M

—

THE FOLLOWING PAGES WERE TREATED AS  
A UNIT IN THE ORIGINAL FILE.

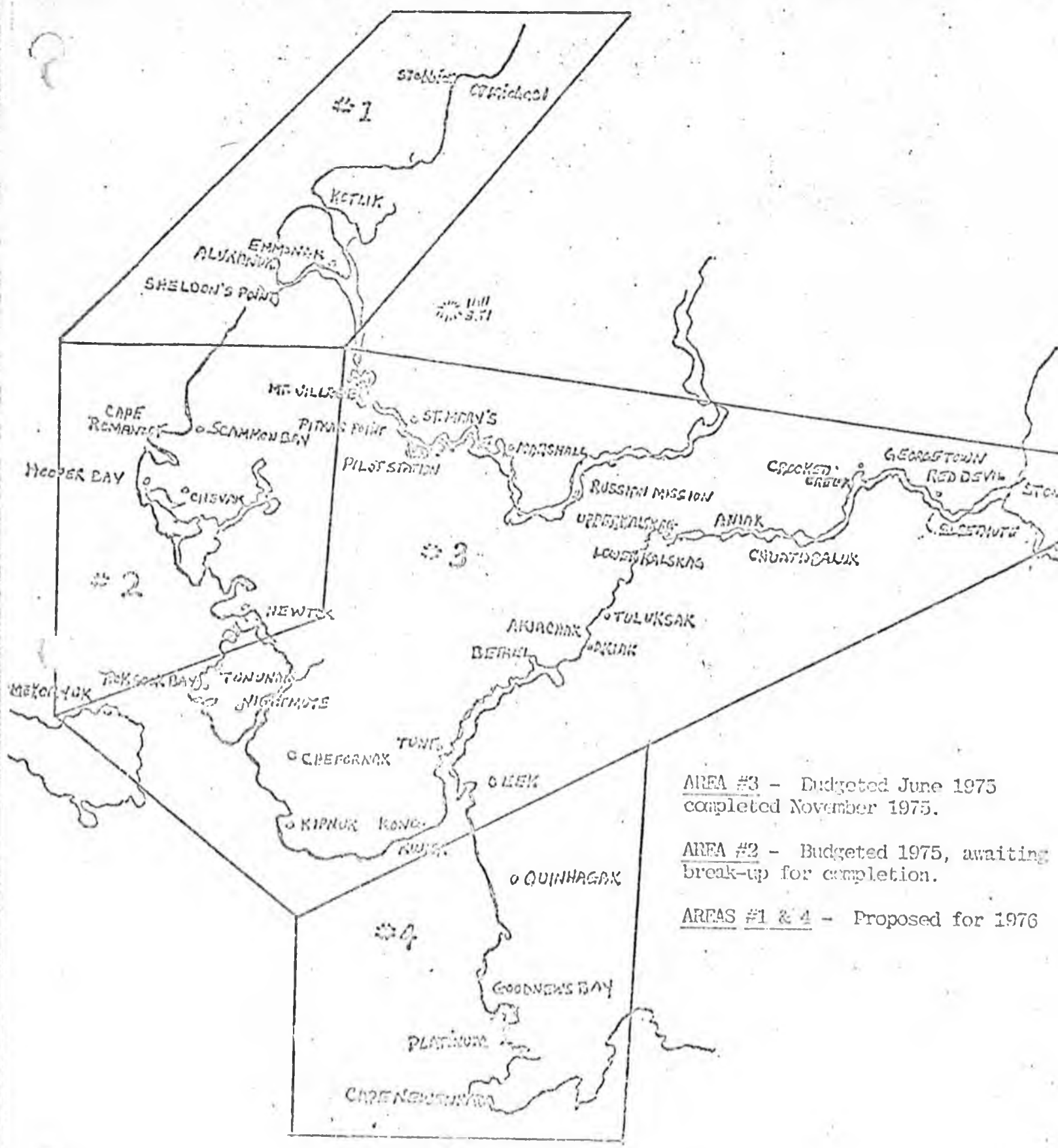
KUSKOKWIM COMMUNITY COLLEGE

TELEVISION TRANSLATOR

PROPOSAL

January 29, 1976

PORTER ELECTRONICS COMPANY  
P.O. Box 447  
Bethel, Alaska 99559  
(907) 543-2533



AREA #3 - Budgeted June 1975  
completed November 1975.

AREA #2 - Budgeted 1975, awaiting  
break-up for completion.

AREAS #1 & 4 - Proposed for 1976





EXPLANATION OF TERMS

Completion

Project began in FY75 or FY76, funds allocated enough to install and operate at a less than complete level. Project completion funds requested to finish site installation as original planned.

Upgrade

Projects completed in FY75 and FY76. After a year of operation it has become apparent that some additions will improve service in two major areas.

PROPOSAL FOR DESIGN, CONSTRUCTION, LICENSING, INSTALLATION, UPGRADING AND COMPLETION OF TELEVISION TRANSLATOR SYSTEM WITH INSTALLATIONS OF TALK-BACK FACILITY IN EACH OF THE REGION VILLAGES WHICH ARE POPULATED THROUGHOUT THE SCHOOL YEAR.

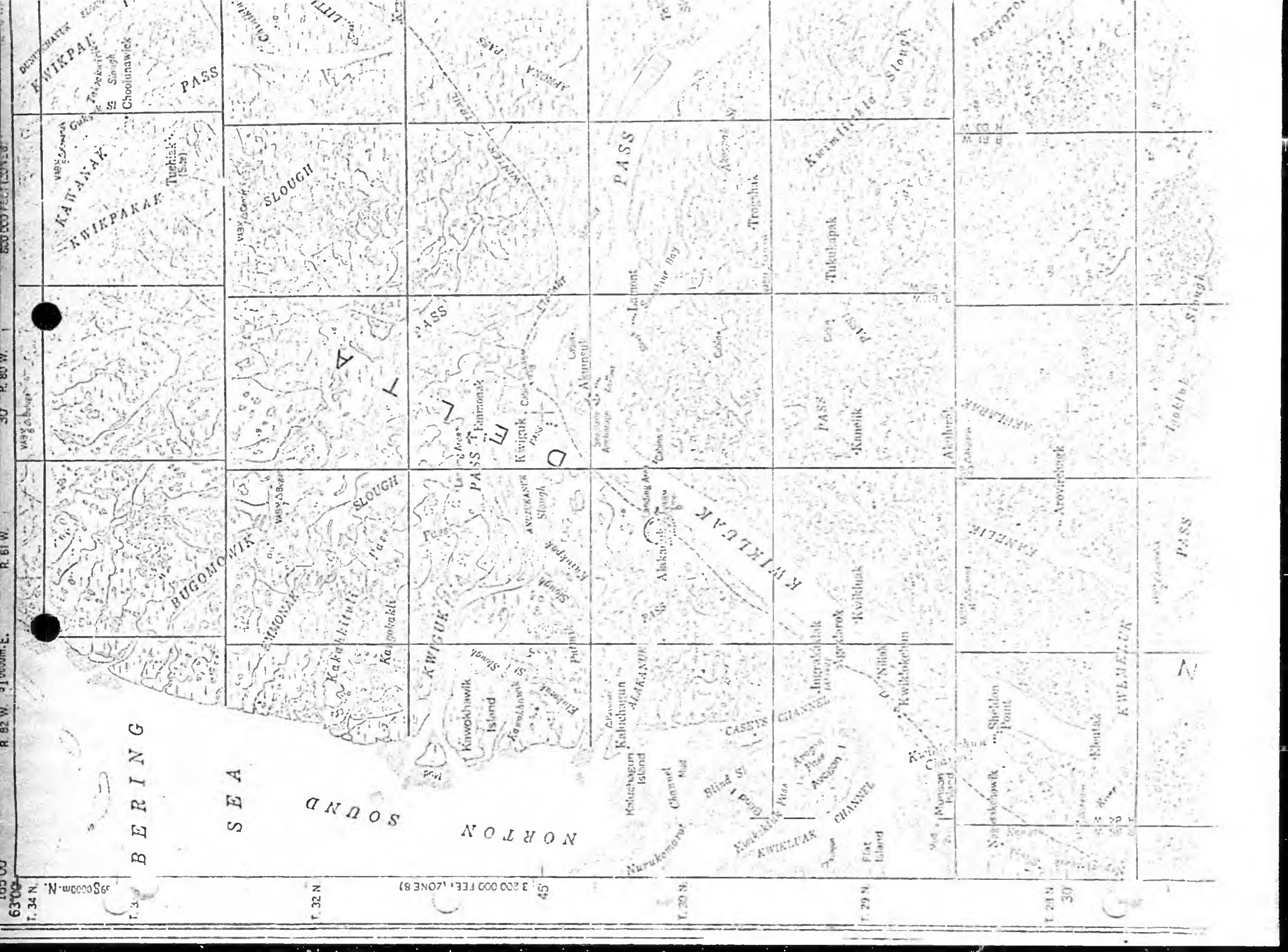
TOTAL COST OF INSTALLATIONS OF NEW SITE LOCATION TRANSLATORS FOR 9 LOCATIONS*.....	\$118,043.00
TOTAL COST OF INSTALLATION COMPLETION OF TRANSLATORS AT 3 LOCATIONS**.....	14,935.00
TOTAL COST OF UPGRADING INSTALLATIONS OF TRANSLATORS AT 3 LOCATIONS***.....	8,015.00
TOTAL COST OF TRANSLATORS	<u>\$140,993.00</u>
TOTAL COST OF TALK-BACK INSTALLATIONS IN THE REMAINING 27 VILLAGES****.....	81,000.00
TOTAL PROPOSAL FOR TALK-BACK AND TRANSLATORS	<u>\$221,993.00</u>

\*Alakanuk, Cape Newenham, Crooked Creek, Kotlik, Lower Yukon Feeder Hill 351, Platinum, Quinhagak and Tuluksak.  
 \*\* Kipnuk, Mt. Village and Red Devil.  
 \*\*\* Marshall, Nightmute and Tuntutuliak.  
 \*\*\*\*Tuluksak, Akiak, Tuntutulia, Eek, Pilot Station, Pitka's Point, Red Devil, Sleetmute, Stony River, Georgetown, Napamatte, Crooked Creek, Sheldon's Point, Alukanuk, Scamron Bay, Cape Romanzoff, Cape Newenham, Newtok, Platinum, Goodnews Bay, Quinhagak, Kwigillingok, Kongiganak, Kotlik and Lura Village.

ALUKANUK

A translator is needed between the villages of Alukanuk and Emmonak. These large progressive villages are located at the extreme fringe coverage area of the Cape Romanzoff translator, and within the service area of the low power installation on Hill 351, neither of which will afford enough signal strength to adequately serve the population.

This translator will incorporate sensitive receiving equipment, with a power output of 10-watts, located near Alukanuk with power beamed to Emmonak.



6300  
T. 34 N.  
1980000m N.

R. 82 W. - 910000m. E.  
SU R. 80 W.

B E R I N G

S E A

S O U N D

N O R T O N

45 3 200 000 FEET (ZONE 8)

T. 30 N.

T. 29 N.

T. 28 N.  
30

N

DISTRICT WATER  
K W I K P A K  
Tukukawituk  
Slough  
Choolinawituk  
PASS

K A T I N A K  
Tuchiak  
(S.S.)

B U G O M O W I K  
Slough

B E R I N G  
S E A

S L O U G H

P A S S

S L O U G H

K A W O K H A W I K  
Island  
Kawokhawik  
Slough

P A S S

P A S S

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K A W O K H A W I K  
Island  
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TRANSLATOR SITE: ALAKANUK

TRANSLATOR TV 10	\$6,000.00
TOWERS 2 X 70'	775.00
RECEIVING ANTENNA	240.00
TRANSMITTING ANTENNA	240.00
HARNES - RECEIVING	30.00
HARNES - TRANSMITTING	30.00
200' VOAX CABLE	60.00
TRANSMITTER HOUSING	400.00
500' LINE	90.00
REGULATING TRANSFORMERS	400.00
AIR TRANSPORTATION	540.00
CASUAL & REGULAR LABOR	900.00
OUT OF TOWN LODGING	450.00
FREIGHT	230.00
LICENSING	<u>150.00</u>
TOTAL	\$10,535.00

CAPE NEWENHAM

The Cape Newenham translator, to be located on the peak of Jagged Mountain, 2,395 feet above sea level, repeats a signal from Kipnuk, and serves the villages of; Platinua, Quinhagak, and the military site at Cape Newenham.

This signal will be re-translated into Goodnews Bay. This site may be received, and could be translated into the Togiak area and also via Clarks Pt. into Dillingham.

Right of way and stable power have been secured from the military.

162° 30'  
59° 00'

550000m.E.

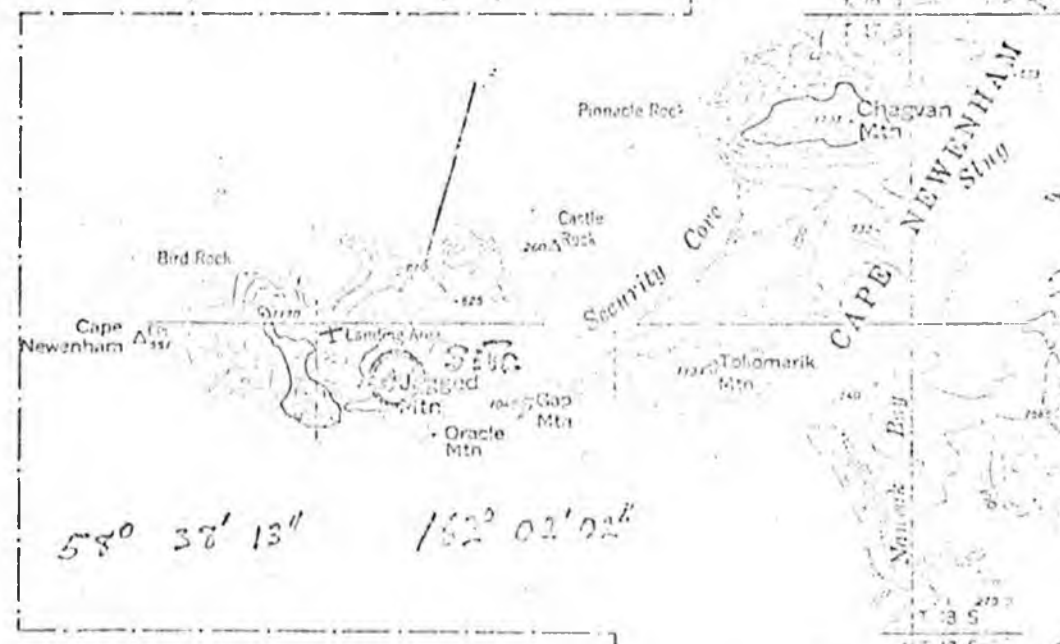
162°

330000m.E.

PLATINUM I M

5540000m.N.

KUSKOKWIM BAY



58° 38' 13"      162° 02' 02"

*lobe oriented 15°  
+ 14° from top*

SCALE 1:250000

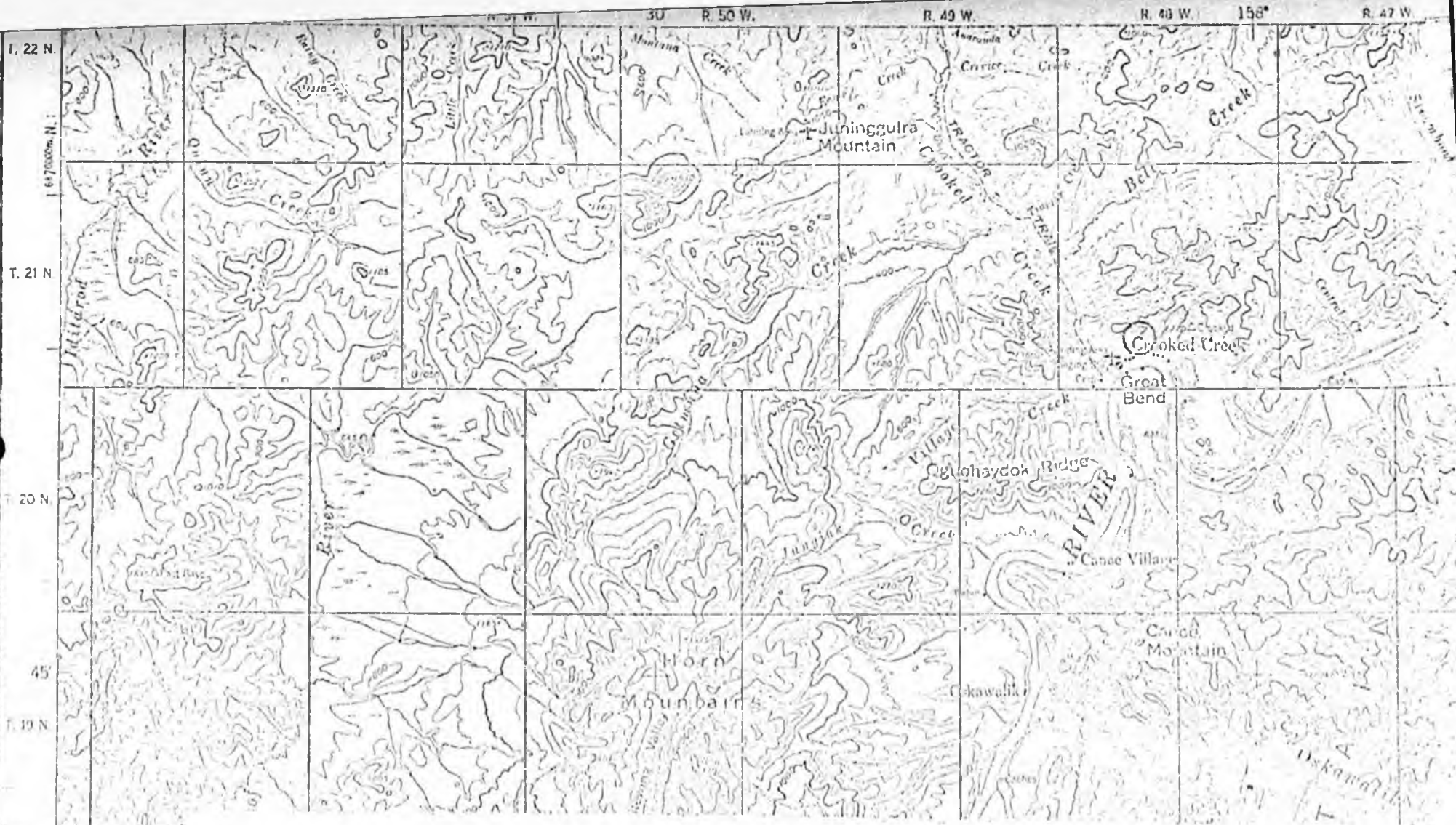


TRANSLATOR SITE: CAPE NEWENHAM

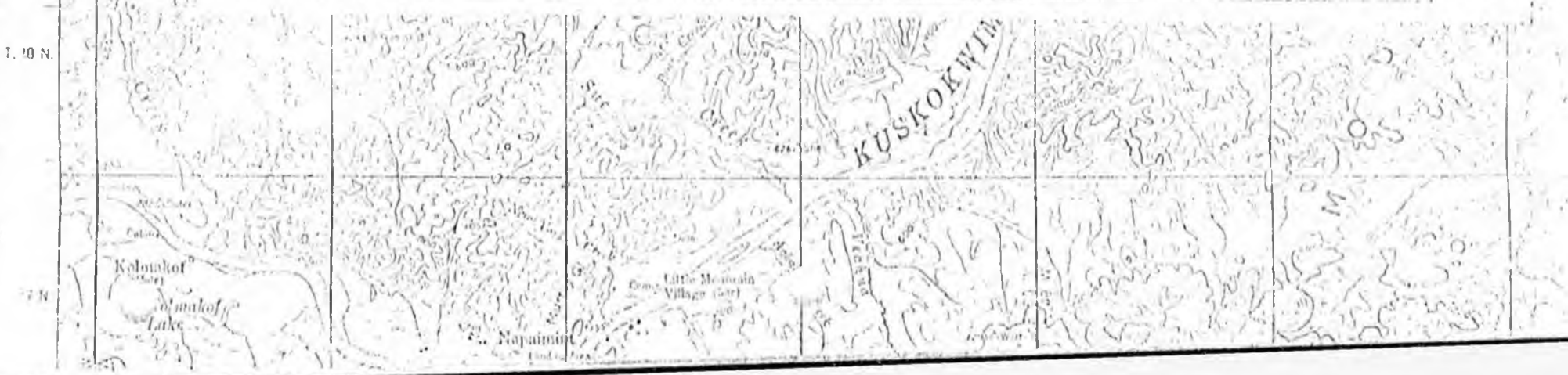
TRANSLATOR TV 10 V	\$6,000.00
TOWERS 2	170.00
RECEIVING ANTENNA 2 X	240.00
TRANSMITTING ANTENNA 2 X	240.00
RECEIVING ANTENNA HARNESS	30.00
TRANSMITTING HARNESS	30.00
200' COAX CABLE	60.00
TRANSMITTER HOUSING	400.00
16,000' POWER LINE	3,216.00
REGULATING TRANSFORMERS	520.00
AIR TRANSPORTATION	594.00
GROUND TRANSPORTATION	90.00
LABOR & CASUAL LABOR	1,400.00
OUT OF TOWN LODGING	460.00
LICENSING	150.00
FREIGHT	<u>120.00</u>
TOTAL	\$13,720.00

CROOKED CREEK

The Crooked Creek translator, to be located one mile from the village, 800 feet above sea level, repeats a signal from Red Devil and beams it down into the valley for old and new villages of Crooked Creek. It will serve between 250 and 300 people, who are otherwise blocked from reception by mountains.



SCALE 1:250 000



TRANSLATOR SITE: CROOKED CREEK

TRANSLATOR TV 1 V	\$4,000.00
TOWERS X 2	132.00
RECEIVING ANTENNA X 2	240.00
TRANSMITTING ANTENNA X 2	240.00
RECEIVING HARNESS	30.00
TRANSMITTING HARNESS	35.00
100' COAX	30.00
TRANSMITTER HOUSING	400.00
8,000' POWER LINE	2,200.00
REGULATING TRANSFORMERS	794.00
AIR TRANSPORTATION	540.00
GROUND TRANSPORTATION	50.00
LABOR & CASUAL LABOR	1,050.00
OUT OF TOWN LODGING	450.00
LICENSING	150.00
FREIGHT	160.00
TOTAL	<u>160.00</u> \$10,501.00

KIPNUK - Completion

The Kipnuk translator, located on the Bering Sea coast receive its signal from Nightmute, 60 miles to the West. Originally proposed as a 22-watt, multi-directional site to also serve Kwigillingok, Kongiganik, and to boost the signal to Cape Newenham, 104 miles across Kuskokwim Bay. Due to budgetary limits in FY'75, the site was established and is operating at 10-watts serving Kipnuk, and marginally Kwigillingok.

164°

163°

162°

161°

K U S K O K W I N  
B A Y

EXHIBIT 5  
SECTION III  
Part 2

Principal Community

Cape Hewenham

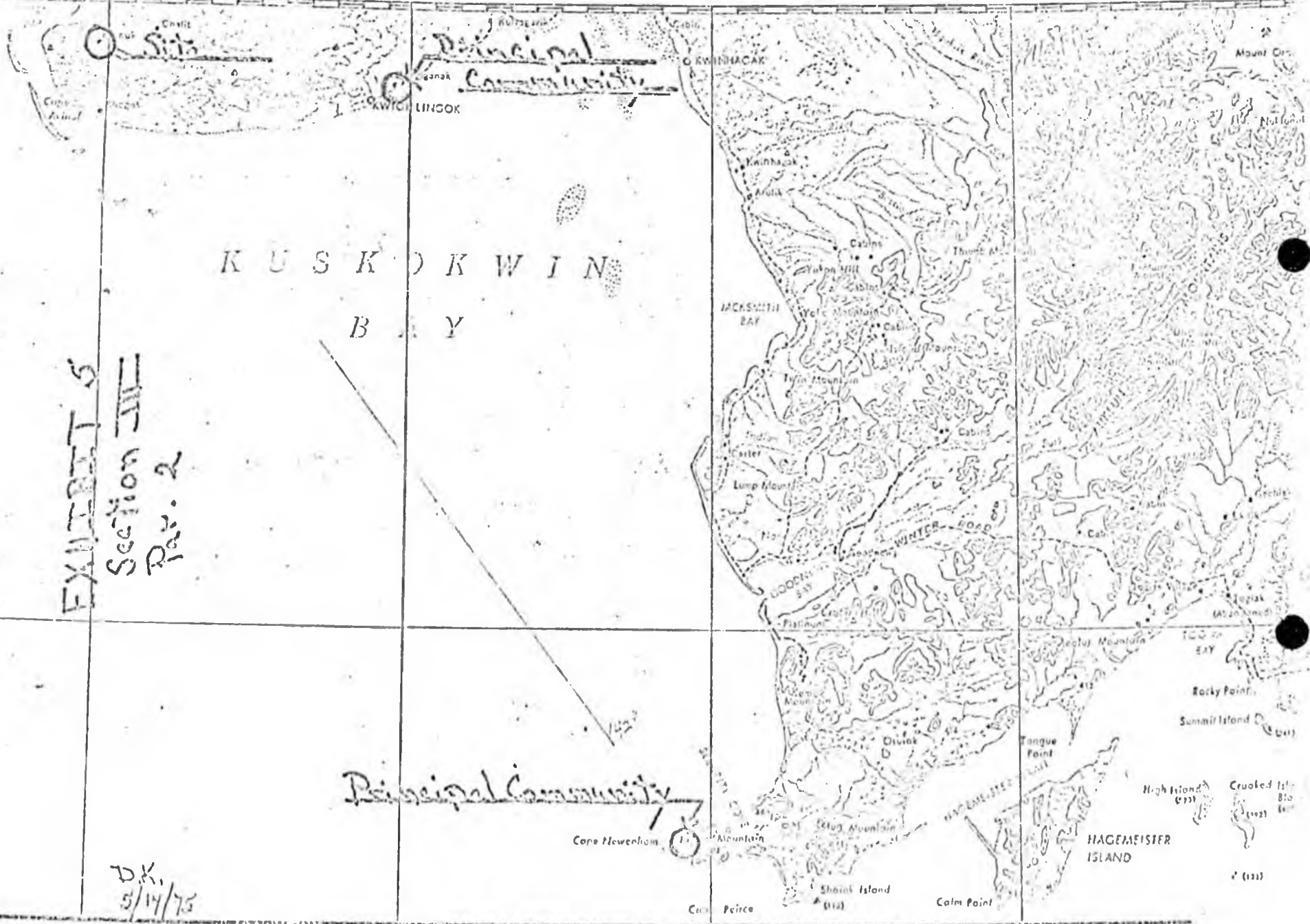
Cape Peirce

Calm Point

HAGEMEISER ISLAND

Scale 1:1,000,000

10 5 0 10 20 30 40 50 60 70 80 90 100 Statute Miles



D.K.  
5/14/75

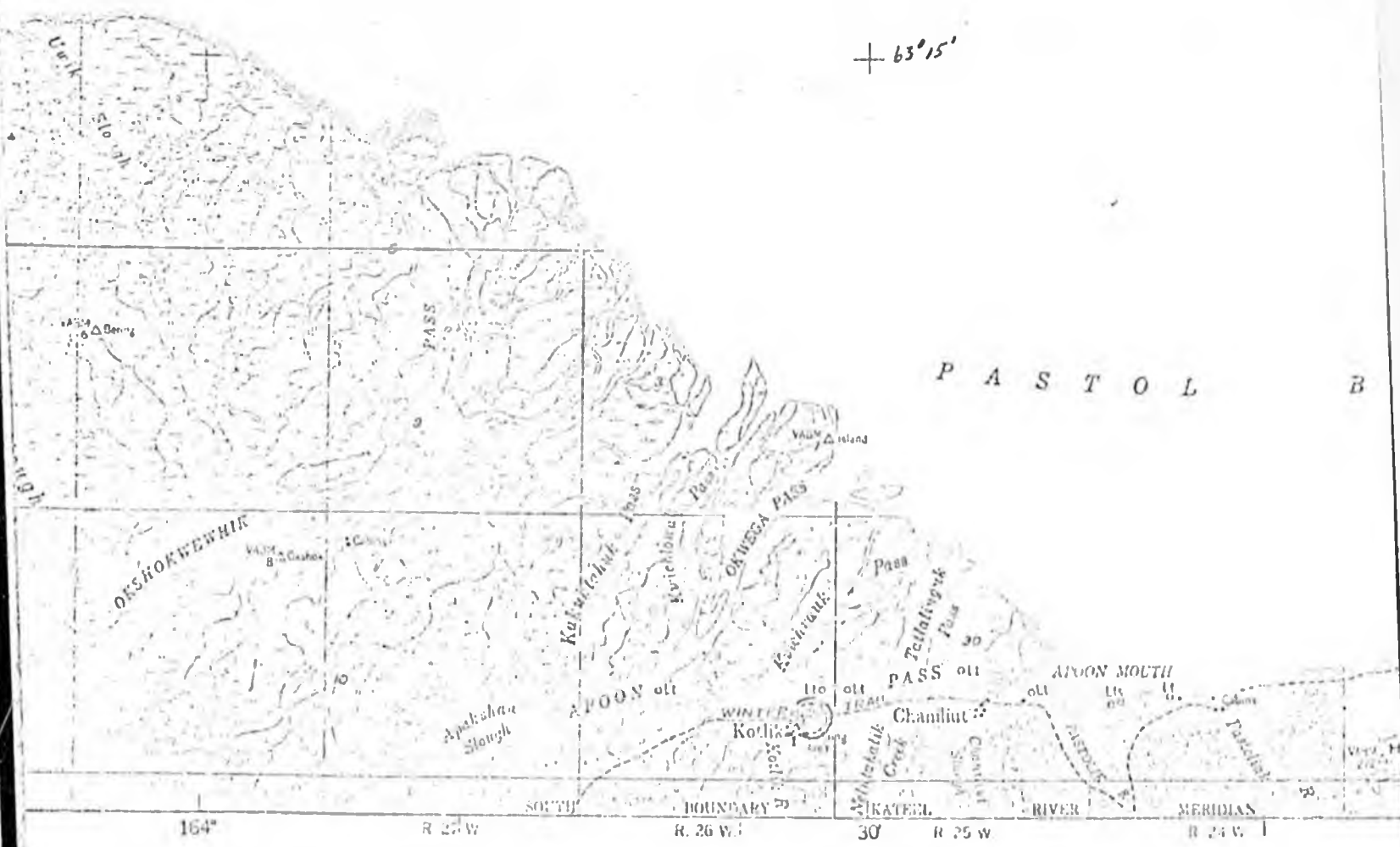
TRANSLATOR SITE: KIPNUK Completion

SPLIT 4 MKA	900.00
AMPLIFIERS TVA 10's	2,000.00
TRANSMITTING ANTENNAS	240.00
TRANSMITTING HARNESES	60.00
AIR TRANSPORTATION	405.00
LABOR & CASUAL LABOR	300.00
OUT OF TOWN LODGING	280.00
FREIGHT	100.00
TOTAL	<hr/> \$4,285.00

KOTLIK

A low powered station with a circular radiation pattern located in the village of Kotlik adjacent to the BIA school, employing a very sensitive receiving components to utilize the signal from Hill 351 and cover the village with a normal "rabbit ear" strength signal. In village sites such as this, in areas which would be otherwise 'fringe' reception', the translator is a safety factor, preventing a rash of tall, dangerous, and expensive driftwood poles around the village with welfare check financed \$300.00 antennas and pre-amps flapping in the wind.

+ 63° 15'



164° R. 27 W. SOUTH BOUNDARY R. 26 W. 30' R. 25 W. MERIDIAN R. 24 W. 1

SCALE 1:250000



CONTOUR INTERVAL 100 FEET  
DATUM IS MEAN SEA LEVEL

DEPTH CURVES IN FEET DATUM IS MEAN LOWER LOW WATER  
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

1955 MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET VARIES FROM 17' TO 19'30" EAST  
THIS MAP IS AVAILABLE IN BOTH SHADED RELIEF AND CONTOUR EDITIONS

FOR SALE BY U. S. GEOLOGICAL SURVEY  
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

TRANSLATOR SITE: KOTLIK

TRANSLATOR 1 Watt	\$4,000.00
TOWERS X 2	280.00
RECEIVING ANTENNAS	240.00
TRANSMITTING ANTENNA	130.00
RECEIVE HARNESS	30.00
BLONDER TONGUE PRE AM	120.00
100' COAX CABLE	40.00
TRANSMITTER HOUSING	400.00
200' POWER LINE	45.00
REGULATING TRANSFORMERS	395.00
AIR TRANSPORTATION	750.00
GROUND TRANSPORTATION	50.00
LABOR & CASUAL LABOR	900.00
OUT OF TOWN LODGING	350.00
LICENSING	150.00
FREIGHT	230.00
TOTAL	<u>230.00</u> \$8,110.00

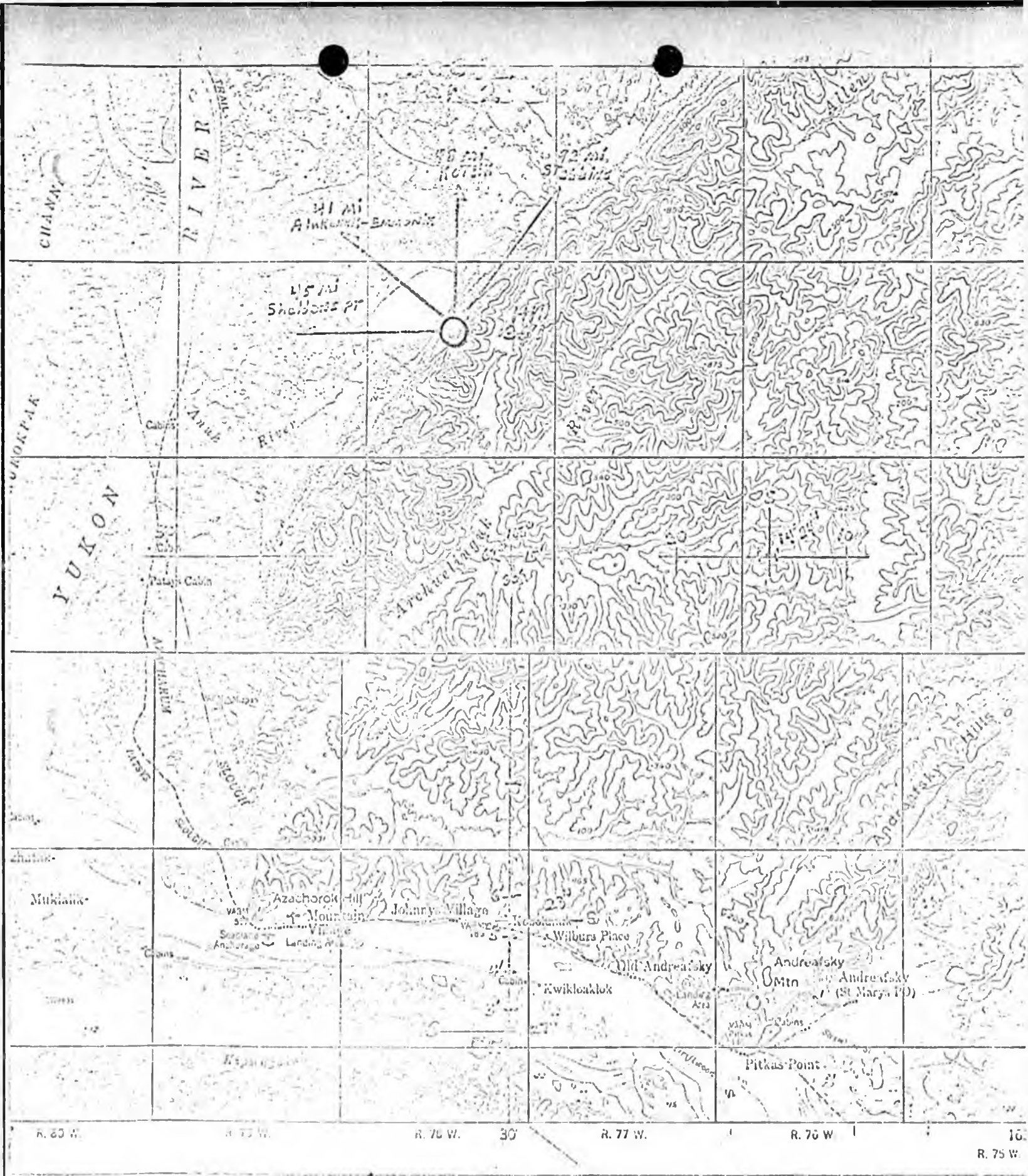
LOWER YUKON FEEDER, HILL 351

A remote mountain top installation located on Hill 351 in the Andrafsky Mountains, 1,142 feet above sea level, this translator, using solar power in summer and propane in winter, will receive its signal from the Marshall translator, which is now operating in the Ilivit Mountain Range.

Hill 351, located on the Western fringe of the Andrafskies is 6,000 feet from Lake Arlokovik, which provides a landing area, summer and winter for light planes and affords line of site to the entire Yukon Mouth, including Sheldon's Point, Alukanuk, Emmonak, Kotlik and the Stebbins - St. Michael area.

Because of the practical limitations of solar powered sites, this signal is proposed as a feeder, rather than village coverage, but the signal could be used by isolated groups along the river such as Hamilton, Bill Moore's and the new cannery sites which do not qualify as villages.

The propane unit will be located on the lake shore with power line running to the mountain top, eliminating the otherwise expensive helicopter lifting of propane bottles to the site.



TRANSLATOR SITE: LOWER YUKON FEEDER, HILL 351

TRANSLATOR	\$4,000.00
AMPLIFIER	2,000.00
TOWERS X 2	160.00
antennas	370.00
COAX CABLE	40.00
TRANSMITTER HOUSING	400.00
HOUSING POWER UNIT	400.00
POWER LINE	2,200.00
SOLAR UNIT	5,824.00
PROPANE UNIT	927.00
PROPANE FOR 2 YEARS	400.00
LABOR & CASUAL LABOR	1,400.00
AIR TRANSPORTATION	600.00
ON SITE SUSTENANCE	400.00
LICENSING	150.00
FREIGHT	<u>260.00</u>
TOTAL	\$19,531.00

MARSHALL - Upgrade

The Marshall translator, on the peak of Pilcher Mountain is 1,700 feet above sea level, and uses 6 miles of power line. It was first installed on a temporary basis in January 1975, and finished in July of 1975. It covers Marshall, Pilot Station and Saint Mary's, and has been off the air a total of nine days in 13 months of operation. All of the down time to date has been caused by structural failure of the receiving antennas due to unusually heavy icing and wind combinations.

During this period three antennas have been totally destroyed, and one severely damaged, even though the types used are the most rugged available, and are serving trouble-free throughout Alaska.

It has been determined that the wooden housing structures on the site do not collect ice, and have sustained no damage. It is therefore recommended that a wooden housing structure be erected to cover and shield the antennas. The total cost of the shielding structure, to approximately equal the amount already expended in replacing and repairing antennas.



TRANSLATOR SITE: MARSHALL - Upgrade

HOUSING MATERIALS	950.00
GUYS & DEAD MEN	300.00
LABOR & CASUAL LABOR	900.00
LODGING OUT OF TOWN	400.00
AIR TRANSPORTATION	350.00
GROUND TRANSPORTATION	400.00
FREIGHT	175.00
TOTAL	<hr/> \$3,475.00

MOUNTAIN VILLAGE - Completion

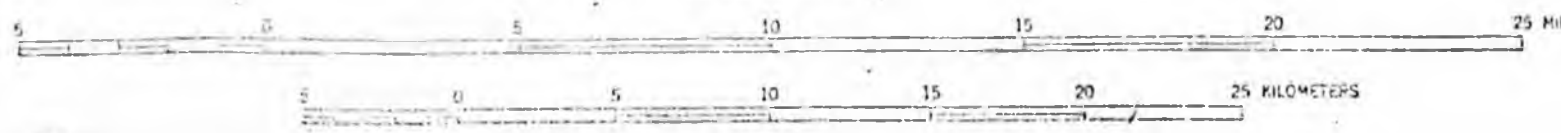
The Mountain Village translator, originally proposed as a 22-watt station was cut back to 4-watts by budgetary limitations.

Installed in June of 1975, it serves Mountain Village and Pitka's Point. Service is adequate at Mountain Village, but marginal at Pitka's Point which is 20 miles distant. Bringing this station up to the original design power will provide excellent coverage to both villages as well as isolated individuals in the area.

Exhibit 5



SCALE 1:250000



TRANSLATOR SITE: MOUNTAIN VILLAGE - Completion

TVA AMPLIFIER 10 WATT	\$2,500.00
SPLIT 4 MXA	900.00
TRANSLATOR HOUSING	100.00
AIR TRANSPORTATION	300.00
GROUND TRANSPORTATION	90.00
LABOR & CASUAL LABOR	300.00
OUT OF TOWN LODGING	360.00
FREIGHT	75.00
TOTAL	<u>\$4,625.00</u>

NIGHTMUTE - Upgrade

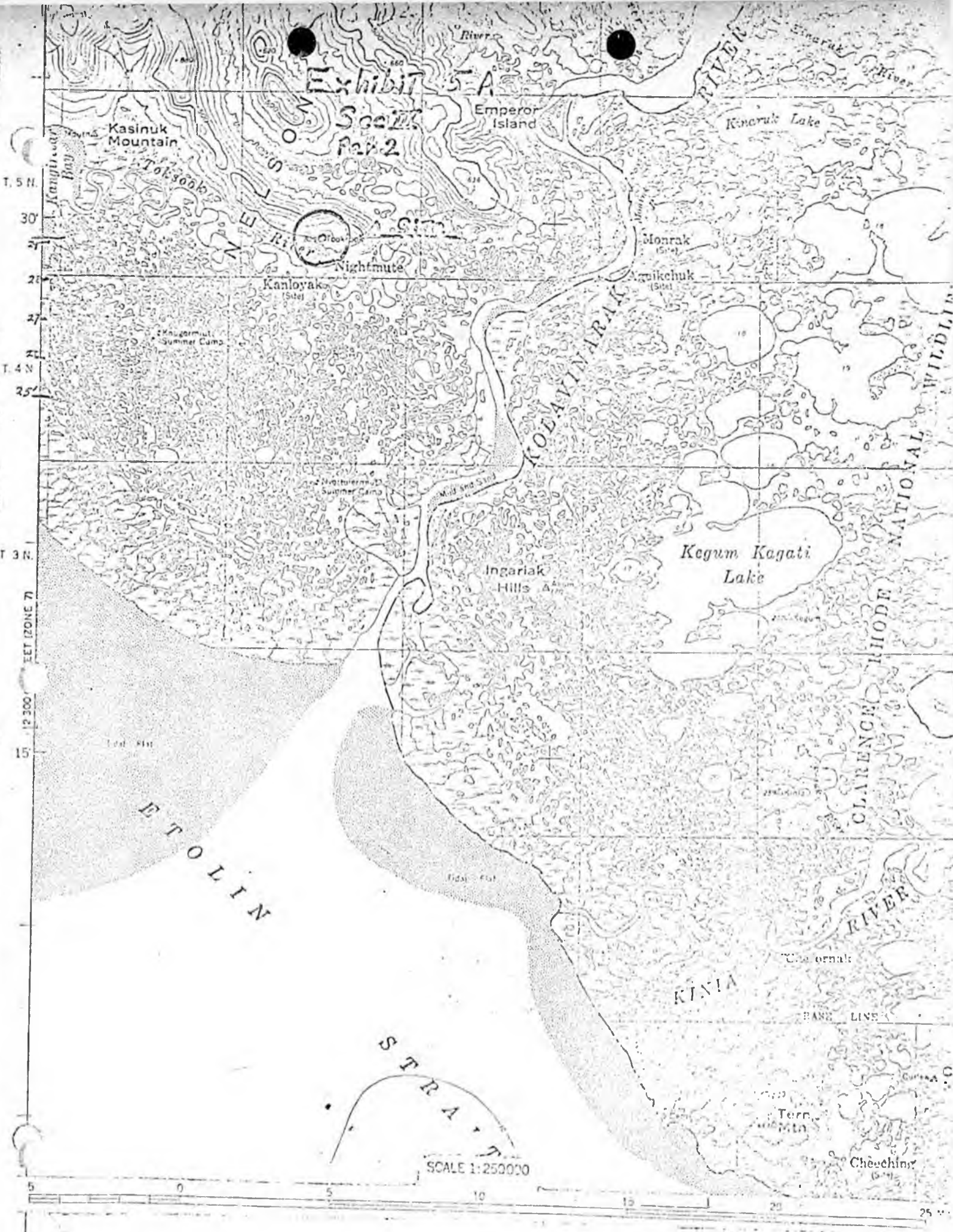
The Nightmute translator was first installed on a temporary basis in December of 1974 and brought up to original design standards in 1975. It serves directly the villages of Nightmute, Chifornak, Toksook Bay, and Mekoryuk, and is re-translated into Tununak and Kipnuk with planned expansion into the Cape Newenham area.

During the 14 months of service the system has been off the air 8 days due to equipment failure, 4 days of which were caused by equipment received defective from the factory.

This site has been plagued, however, by signal fades caused by tidal action of inland water systems in the path of the incoming signal. This defect can be eliminated with the installation of a diversity receiving system, located such that, as the signal fades from the primary receivers it increases in the secondary receivers, with the translator automatically accepting the stronger of the two inputs. |\*

Exhibit 5-A

South Part 2



SCALE 1:250000

TRANSLATOR SITE: NIGHTMUTE - Upgrade

2 TOWERS	420.00
RECEIVING ANTENNAS	240.00
RECEIVING HARNESS	75.00
150' COAX CABLE	45.00
DIVERSITY SENSING	520.00
AIR TRANSPORTATION	540.00
GROUND TRANSPORTATION	120.00
LABOR & CASUAL LABOR	600.00
OUT OF TOWN LODGING	370.00
TOTAL	<hr/> \$2,930.00

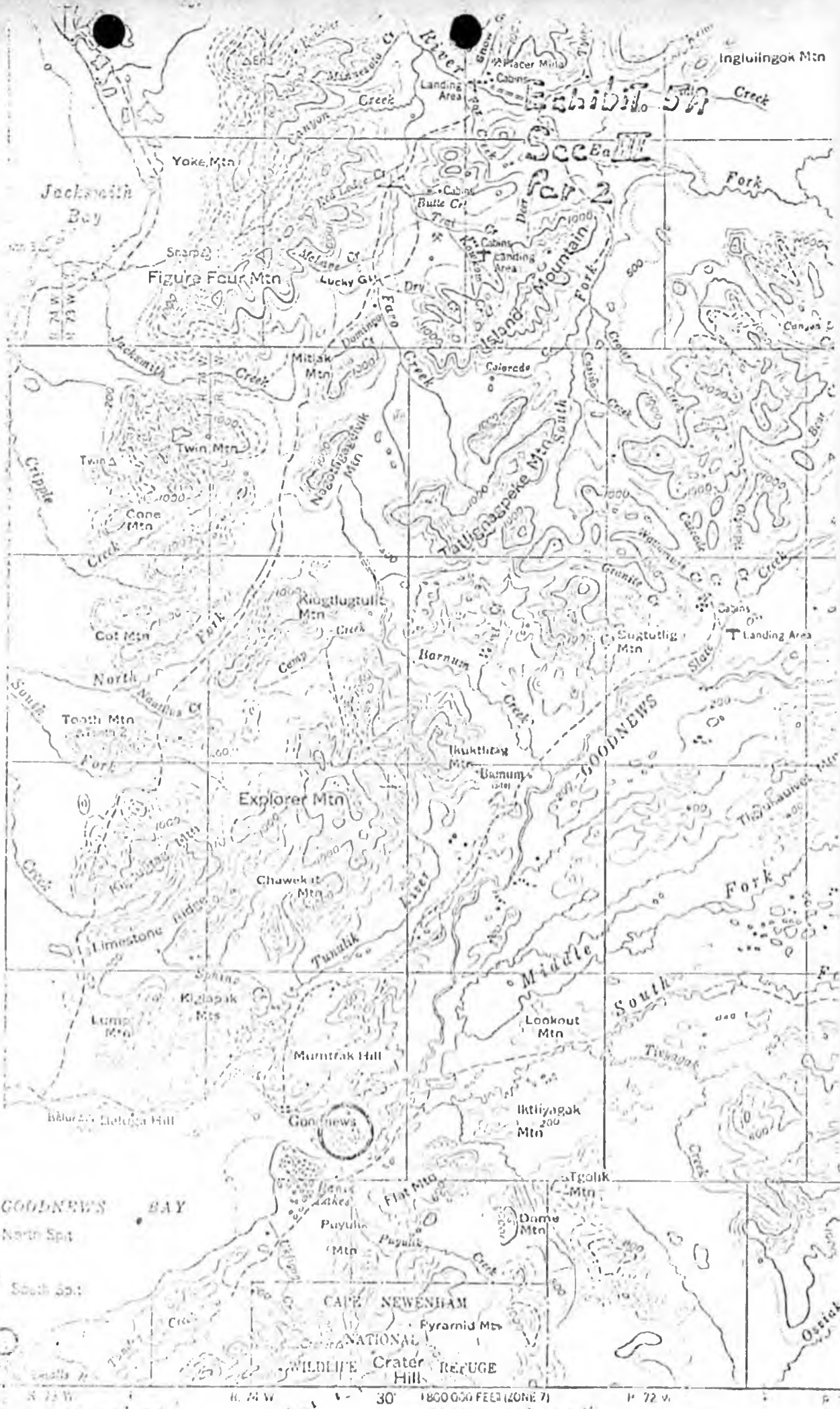
PLATINUM

The Platinum translator will receive a signal from Cape Newenham and repeat it 'around the corner' into Goodnews Bay. It will also give a 'rabbit ear' picture to the village of Platinum where reception otherwise would require expensive outside antennas and boosters.

K U S K O K W I M

25 MI

SCALE 1:250 000



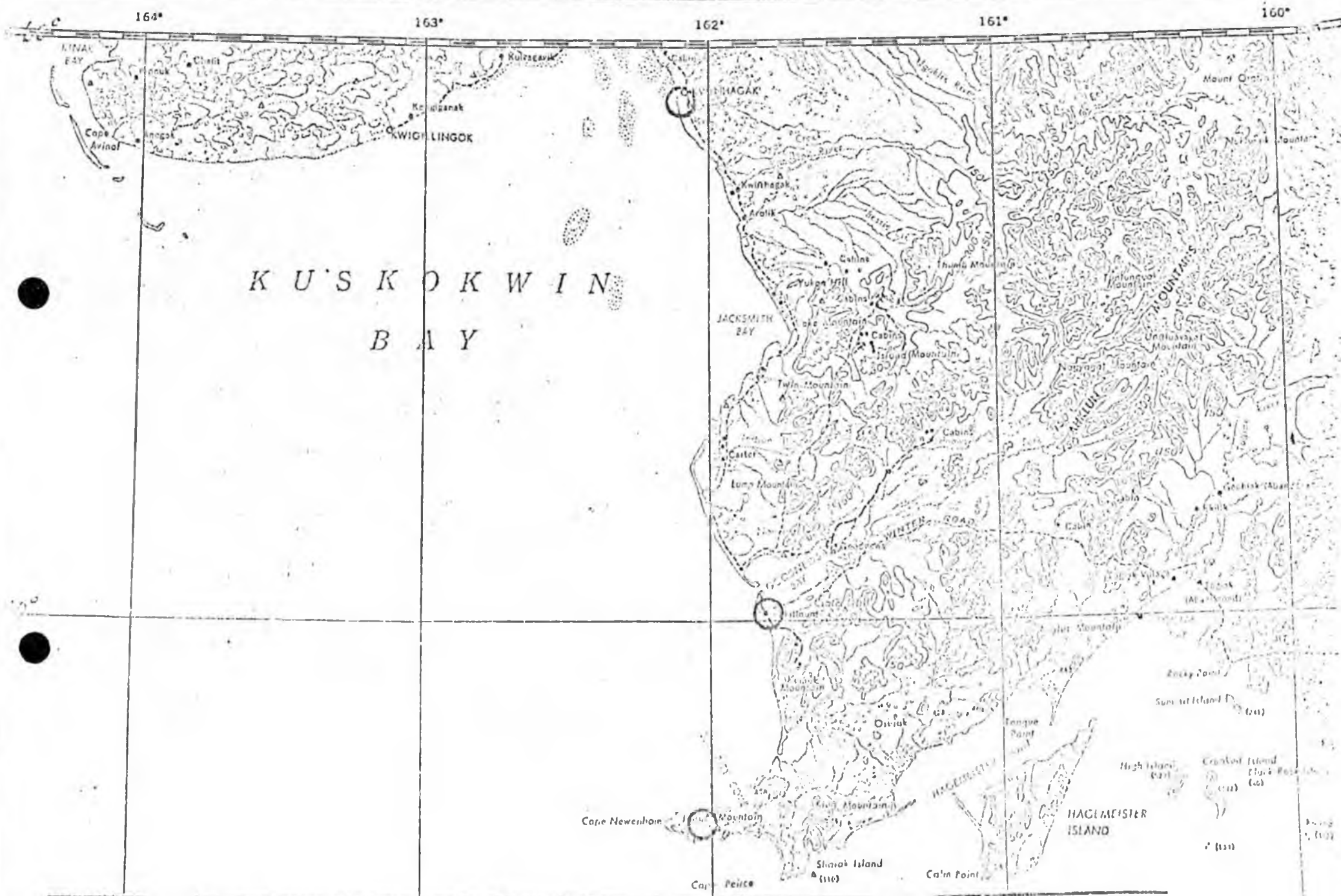
161° 49' 00"

TRANSLATOR SITE: PLATINUM

TRANSLATOR TV 10	\$6,000.00
50' TOWERS	820.00
RECEIVING ANTENNAS X 2	240.00
TRANSMITTING ANTENNAS X 2	240.00
RECEIVING HARNESS	30.00
TRANSMITTING HARNESS	30.00
200' COAX CABLE	90.00
TRANSLATOR HOUSING	400.00
POWER LINE 1,000'	240.00
REGULATING TRANSFORMER	400.00
AIR TRANSPORTATION	540.00
LABOR & CASUAL LAEOR	900.00
OUT OF TOWN LODGING	400.00
LICENSING	150.00
FREIGHT	<u>160.00</u>
TOTAL	\$10,640.00

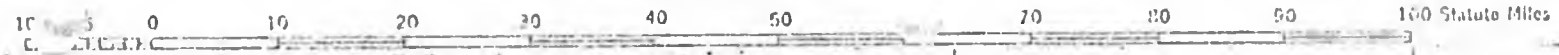
QUINHAGAK

The village of Quinhagak located on the coast of Kuskokwim Bay, approximately 70 miles South of Bethel, has no high ground which can be used for direct reception. It can, however, be served from the opposite direction, repeating a signal from 2,400 foot Jagged Mountain at Cape Newenham. This will make Quinhagak the longest single path in the entire region, about 364 miles, via Nightmute, Kipnuk and Cape Newenham.



K U S K O K W I M  
B A Y

Scale 1:1,000,000



TRANSLATOR SITE: QUINHAGAK

TRANSLATOR TV 10	\$6,000.00
50' TOWERS X 2	820.00
RECEIVING ANTENNA	280.00
TRANSMITTING ANTENNA	280.00
RECEIVING HARNESS	40.00
TRANSMITTING HARNESS	40.00
200' COAX CABLE	90.00
TRANSLATOR HOUSING	400.00
POWER LINE 1,000'	240.00
REGULATING TRANSFORMERS	400.00
AIR TRANSPORTATION	540.00
LABOR & CASUAL LABOR	1,200.00
OUT OF TOWN LODGING	480.00
LICENSING	150.00
FREIGHT	240.00
TOTAL	<u>\$11,200.00</u>

RED DEVIL - Completion

The Red Devil translator, 2,500 feet above sea level and using 5 miles of power line, is located on the peak of Barometer Mountain. Originally designed as a directional station, it was limited by the budget to a single direction.

The Eastern Lobe was put on air in August 1975, and has been continuously serving Red Devil, Sleetmute and Stony River, as well as Homesteaders on the Holitna River. It is now proposed to add the Western transmitting lobe which will serve Georgetwon, Crooked Creek, and numerous isolated families along the Kuskokwim.

R. 46 W.

R. 45 W. 30'

R. 34 W.

R. 43 W.

157° R. 42 W.

R. 41 W.

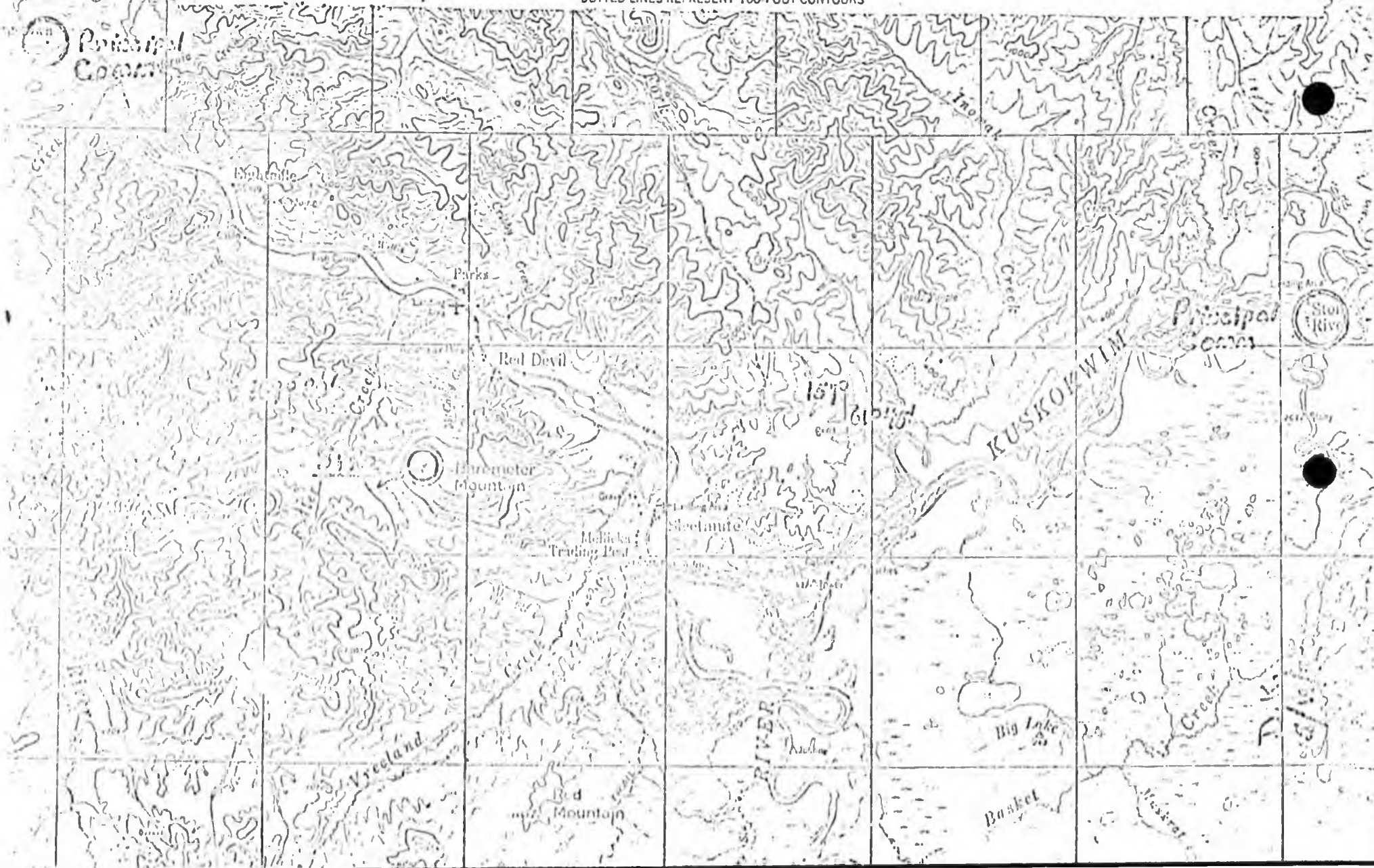
R. 40 W.

East

SCALE 1:250 000



CONTOUR INTERVAL 200 FEET  
DOTTED LINES REPRESENT 100 FOOT CONTOURS



TRANSLATOR SITE: RED DEVIL - Completion

AMPLIFIER 10 WATT	\$2,500.00
SPLITTER	900.00
TOWERS	170.00
TRANSMITTING ANTENNAS	240.00
TRANSMITTING HARNESS	30.00
AIR TRANSPORTATION	630.00
GROUND TRANSPORTATION	180.00
LABOR & CASUAL LABOR	800.00
OUT OF TOWN LODGING	500.00
FREIGHT	75.00
TOTAL	<u>\$6,625.00</u>

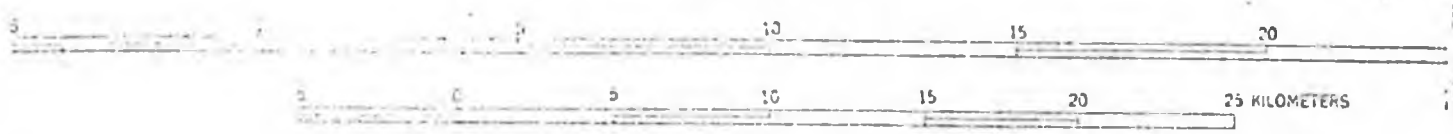
STEBBINS, ST. MICHAEL, UNALAKLEET

A mountain top installation on St. Michael Island utilizing the signal from Hill 351 will directly cover villages of Stebbins and St. Michael, will be receivable in Unalakleet and Shaktoolik.

This site will cover the South East 1/3 of Norton Sound, completing the logical North Westerly expansion of the Yukon/Kuskokwim system by abutting the area which geographically, economically and culturally should be considered the Nome area.



SCALE 1:250000



CONTOUR INTERVAL 100 FEET  
 DATUM IS MEAN SEA LEVEL

TRANSLATOR SITE: STEBBINS, ST. MICHAEL, UNALAKLEET

TRANSLATOR TV 10	\$6,000.00
SPLITTER	1,000.00
AMPLIFIERS	6,700.00
TOWERS X 4	920.00
ANTENNAS & HARNESSSES	1,360.00
COAX CABLE	70.00
TRANSMITTER HOUSING	400.00
24,000' POWER LINE	4,320.00
AIR TRANSPORTATION	1,100.00
GROUND TRANSPORTATION	450.00
LABOR & CASUAL LABOR	3,500.00
OUT OF TOWN LODGING	740.00
LICENSING	150.00
FREIGHT	260.00
TOTAL	<u>\$26,970.00</u>

TULUKSAK

The village of Tuluksak located 50 miles North East of Bethel is a fringe area, in which antenna installations cost up to twice as much as the television sets, putting TV out of reach for many and creating a hazard with 30-foot poles scattered throughout the village. Most of them are inadequately secured, and results are normally poor.

A 1-watt translator located in the woods, about 200 feet from the edge of the village at the point furthest from the airport will provide a rabbit ear picture to the entire village.

EXHIBIT 5  
SEC. III  
PAR. 2

APPROXIMATE BOUNDARY

River

Johnson

Phillips

Tundra George

Phillips Bros

Rig Fritz

River

Gweek

USKOKWIM

RIVER

33.3  
To KRS  
XLAT

Uknavik

Bogus

Yukonituk

Talukak

SITE  
ALTIMETER 30'

Principal Contour

SCALE 1:250000



Stony

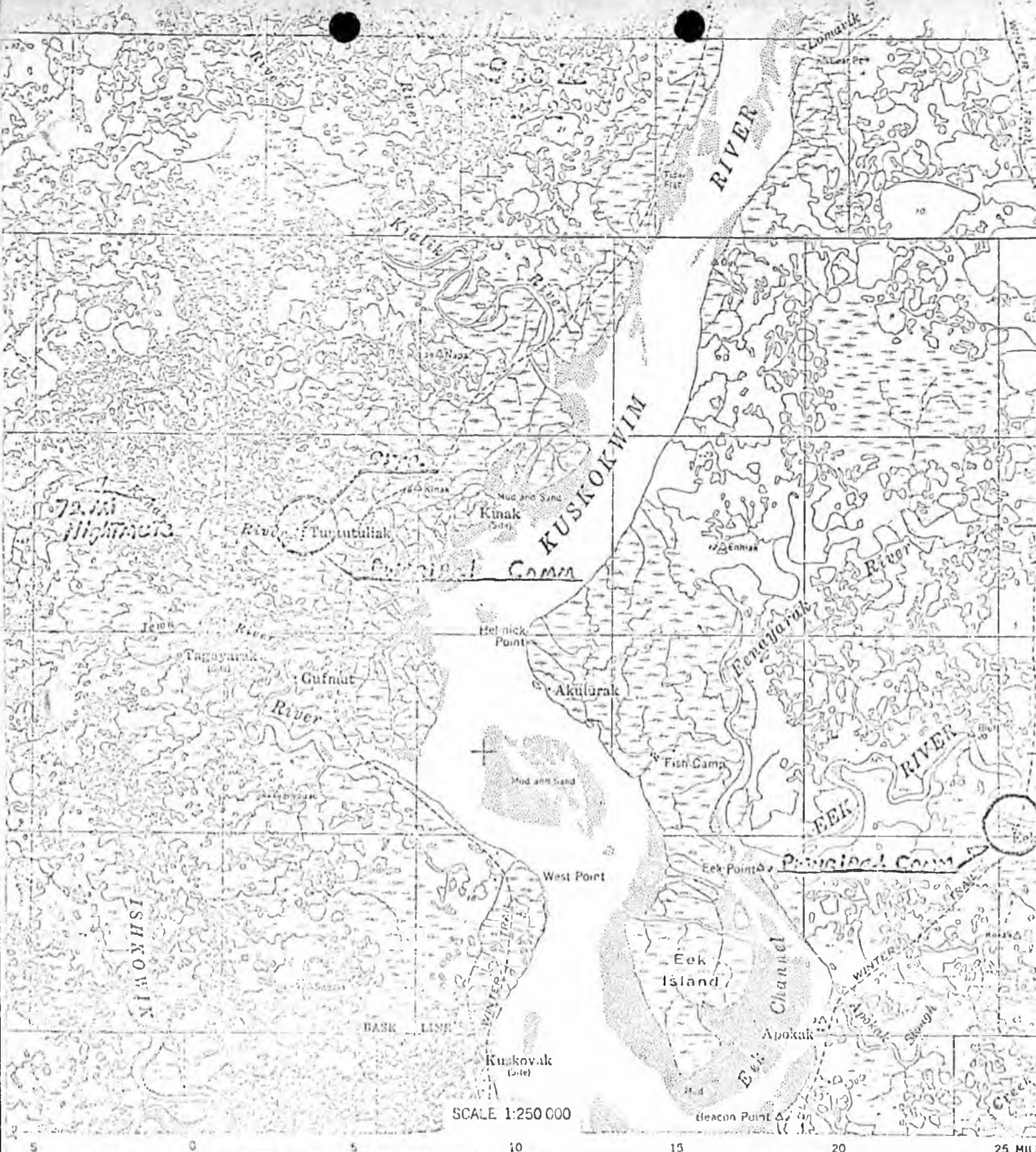
TRANSLATOR SITE: TULUKSAK

TRANSLATOR TVIV	\$3,800.00
RHONE 30' TOWERS	200.00
RECEIVING ANTENNA	100.00
TRANSMITTING ANTENNAS	240.00
HARNESS	30.00
GUYS	50.00
100' COAX CABLE	50.00
TRANSLATOR HOUSING	400.00
200' POWER LINE	400.00
AIR TRANSPORTATION	400.00
LABOR & CASUAL LABOR	840.00
OUT OF TOWN LODGING	190.00
FREIGHT	130.00
TOTAL	<u>\$6,836.00</u>

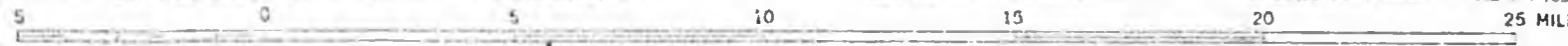
TUNTUTULAIK - Upgrade

The Tuntutuliak translator has been operating since October of 1974 with the only down time caused by a record flood in the Fall of 1975.

This translator was underfunded originally, and was not included in the FY75 budget. The original receiving antennas, which are still in use were damaged 'cast-offs' of KYUK-TV, repaired with clothes hangers and tapes, they have performed adequately but should be replaced.



SCALE 1:250 000



TRANSLATOR SITE: TUNTUTULIAK - Upgrade

RECEIVING ANTENNAS X 2	220.00
TRANSMITTING ANTENNAS X 2	240.00
AIR TRANSPORTATION	250.00
LABOR & CASUAL LABOR	600.00
OUT OF TOWN LODGING	<u>300.00</u>
TOTAL	\$1,610.00

THE PRECEDING PAGES WERE TREATED AS  
A UNIT IN THE ORIGINAL FILE.