

9686
9688

9687
9689

Diag. Cht. No. 9302.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-56 Office No. T-9686 thru T-9689.

LOCALITY

State Alaska

General locality Bering Sea

Locality Hooper Bay to Angyoyararak

1950-51

CHIEF OF PARTY

M.J.Tonkel, Chief of Field Party

E.H.Kirsch, Balto. Photo. Office

L.W.Swanson, Div. of Photo. Wash, D.C.

LIBRARY & ARCHIVES

DATE Nov. 7, 1958

DATA RECORD

T

9686 - ISSOROTULIK SLOUGH
9687 - KEOKLEVIK RIVER
9688 - ANGYOYARAVAK BAY
9689 - KASHUNUK RIVER

Project No. (II): Ph-56

Quadrangle Name (IV):

Field Office (II): Portland, Oregon

Chief of Party: M. U. Tonkel

Photogrammetric Office (III): Baltimore, Md.
Washington, D.C.

Officer-in-Charge: E. H. Kirsch
L. W. Swanson

Instructions dated (II) (III):

8 Sept. 1949 14 Dec. 1951
2 April 1951 21 Dec. 1951
21 May 1951

Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Reading Nine-lens Plotter

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III): 1:20,000

Scale Factor (III): 1.0

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 9/2/58

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N A 1927 adj.

Vertical Datum (III):

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.:

Long.:

Adjusted
Unadjusted

Plane Coordinates (IV):

State:

Zone:

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

T-9686, T-9687, T-9688, T-9689

W. Heinbaugh

Areas contoured by various personnel
(Show name within area)
 (II) (III)

T-9686, 9687, 9688, 9689

DATA RECORD

Field Inspection by (II): V. E. Serena

Date: May-Sept. 1951

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): From office photos corrected with 1951 Field Inspection

Projection and Grids ruled by (IV): A. Riley

Date:

Projection and Grids checked by (IV): A. Riley

Date:

Control plotted by (III): J. J. Schleupner

Date: 5/6/55

Control checked by (III): J. Steinberg

Date: 5/6/55

Radial Plot of ~~Stereoscopic~~ E. L. Williams
Control extension by (III):

Date: 9/21/55

Stereoscopic Instrument compilation (III):
Planimetry W. Heinbaugh
Contours

Date:

9/23/56

Date:

Manuscript delineated by (III): W. Heinbaugh

Date: 8/26/56

J. B. McDonald

Photogrammetric Office Review by (III): L. Levin

Date: 10/22/56

Elevations on Manuscript L. Levin
checked by (II) (III):

Date: 10/22/56

Camera (kind or source) (III): Nine Lens "B"

Number	Date	Time	Scale	Stage of Tide *
28502 - 508	8/13/50	11:10	1:20,000	
29044 - 049	8/14/50	17:10		
29044 - 049	8/14/50	17:10		

This list includes both field and metal mounted office photos. See index on following page.

Tide (III)

Reference Station: Kodiak
Subordinate Station: *
Subordinate Station:

Washington Office Review by (IV):

T-9686 Carter
T-9687 Harrington
Final Drafting by (IV): *T-9688 Harrington*
T-9689 Daugherty

Drafting verified for reproduction by (IV): *W.O. Hallum*

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III):

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Recovered:

Identified:

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

* See sketch on following page for tide data.

Diurnal

Ratio of Ranges	Mean Range	Spring Range
		8.5

Date:

6/24/58

Date:

6/26/58

Date:

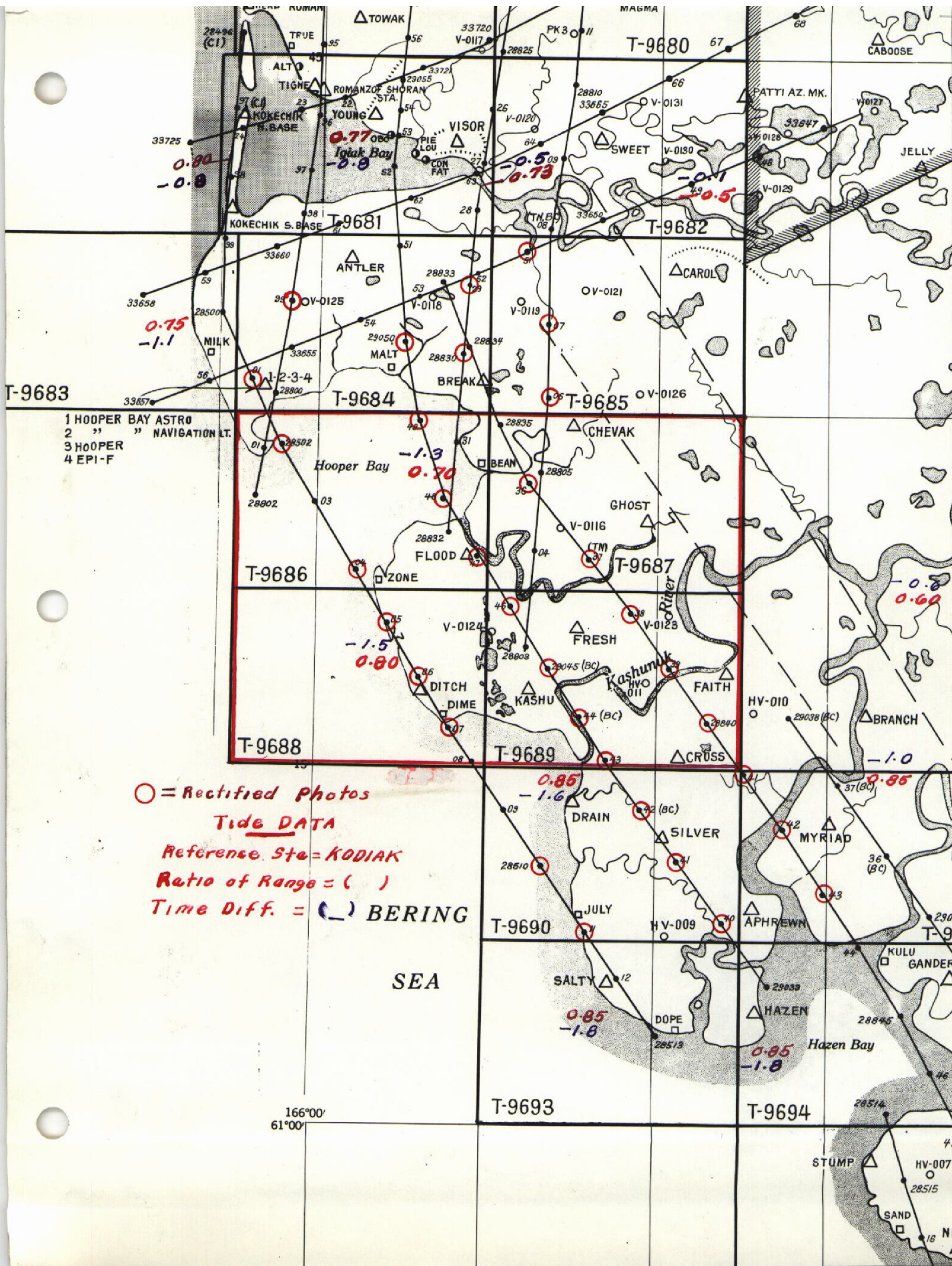
6/20/58

Date:

5/29/58

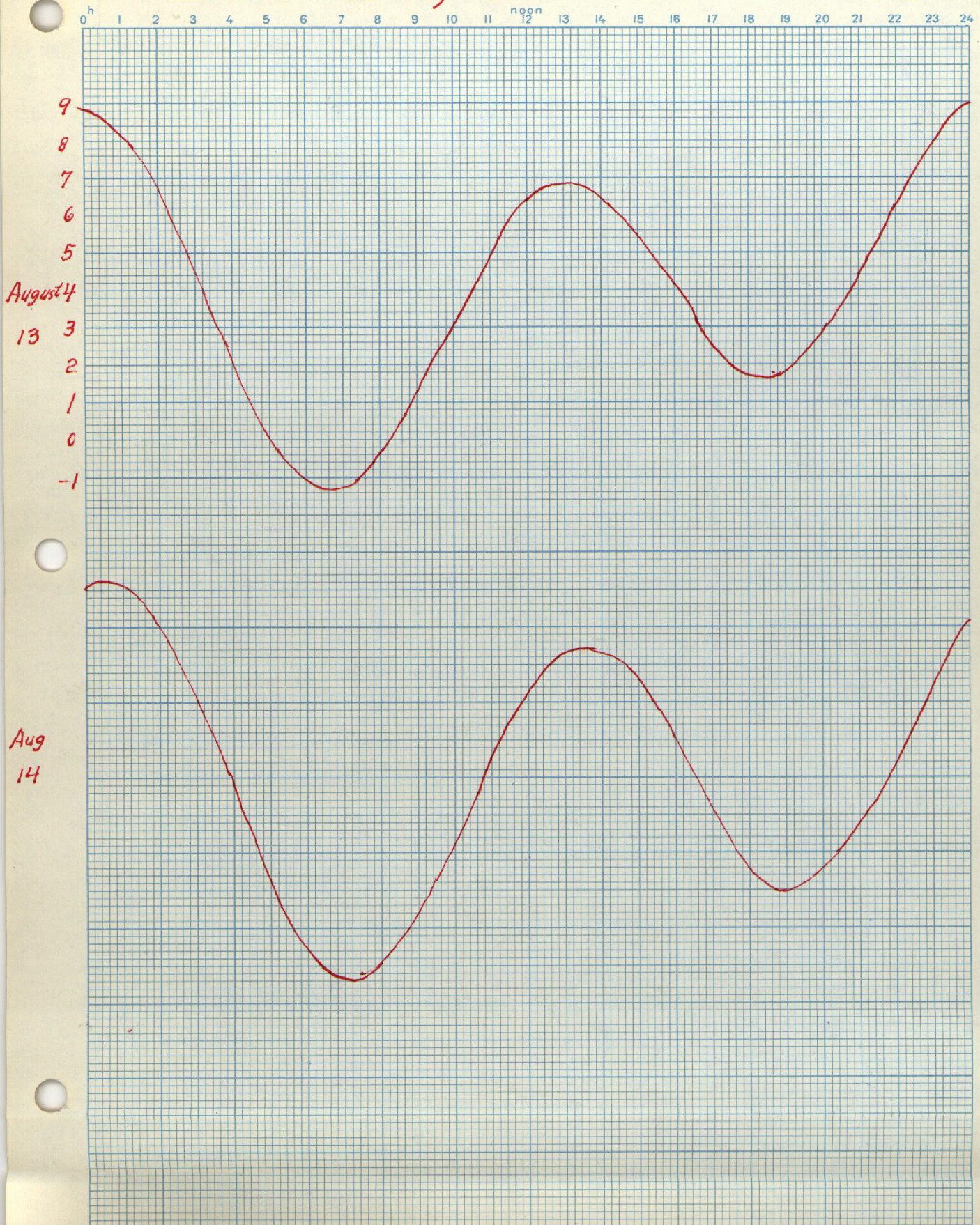
Date:

6/28/58



Tide Curves

Station: Kodiak Alaska, 1950



Field Inspection Report

T-9686 thru T-9689

The field inspection report for the entire project is filed with the Descriptive Report for T-9679.

PHOTOGRAMMETRIC PLOT REPORT
Project 6056
Surveys T-9686 thru T-9690 and T-9693

21. AREA COVERED:

This radial plot covers the area of Surveys T-9686 thru T-9690 and T-9693. These surveys cover the area between Hooper Bay and Hazen Bay along the Bering Sea, on the west coast of Alaska. The surveys will be compiled with the Reading Plotter.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vinylite sheets with polyconic projections in black and Universal Transverse Mercator grids in red, at a scale of 1:20,000, were furnished by the Washington Office.

All control stations and substitute stations were plotted using beam compass and meter bar.

A sketch showing the layout of these surveys and the distribution of photograph centers and control is attached to this report.

Photographs:

All photographs used were nine-lens metal mounted at a scale of 1:20,000. The forty-seven (47) photographs used in the radial plot were numbered as follows:

28503 thru 28513
28831 and 28832
28836 thru 28845
29039 thru 29048
38080 thru 38085
38103 thru 38107

Templets:

Vinylite templets were made from all photographs using a master templet to adjust for errors due to chamber displacement. Radial lines were scratched on the templets and filled in with china marking pencils. Red pencil was used for all shoreline (rectification) pass points and black pencil was used for all other radial lines.

Closure and adjustment to control:

The radial plot was laid on the map manuscripts starting with photograph 29048 and continuing southeastward to photograph 29039. Then the flight starting with photograph 28836 was laid extending it southeastward. The first two flights were well controlled and continuous, offering a good starting point for the plot. The other flights, to the west and east were then laid. No difficulties were encountered laying the plot.

22. METHOD - RADIAL PLOT

Transfer of Points:

The positions of all centers, pass points, and control stations were pricked on the top templates and circled with a 3 mm circle. They were then established on the remaining templates and map manuscripts by drilling down through them with a small (.01 inch) jeweler's drill. All points were circled on each template, as it was removed, and on the map manuscripts.

23. ADEQUACY OF CONTROL

The horizontal control was adequate for a satisfactory radial plot. All control stations were held.

24. SUPPLEMENTAL CONTROL

None

25. PHOTOGRAPHY

The definition of the photographs was good and the coverage was adequate in all surveys except the northeast corner of T-9687 where there was no coverage.

Photographs 29047 and 38082 were found to be tilted. No tilt determination was made for the tilted photographs as it is unnecessary to correct for it in the plot.

Photographs 29042 and 29044 had chamber I blank, but this caused no serious difficulty in the radial plot.

26. VERTICAL CONTROL

After the plot was completed, azimuths to vertical control points were checked with field identified points and elevations computed.

Vertical control stations HV-010 and HV-011 are points on lakes in marsh and can be used without adjustment, similar to shoreline points, for rectification.

27. RECOVERABLE TOPOGRAPHIC STATIONS

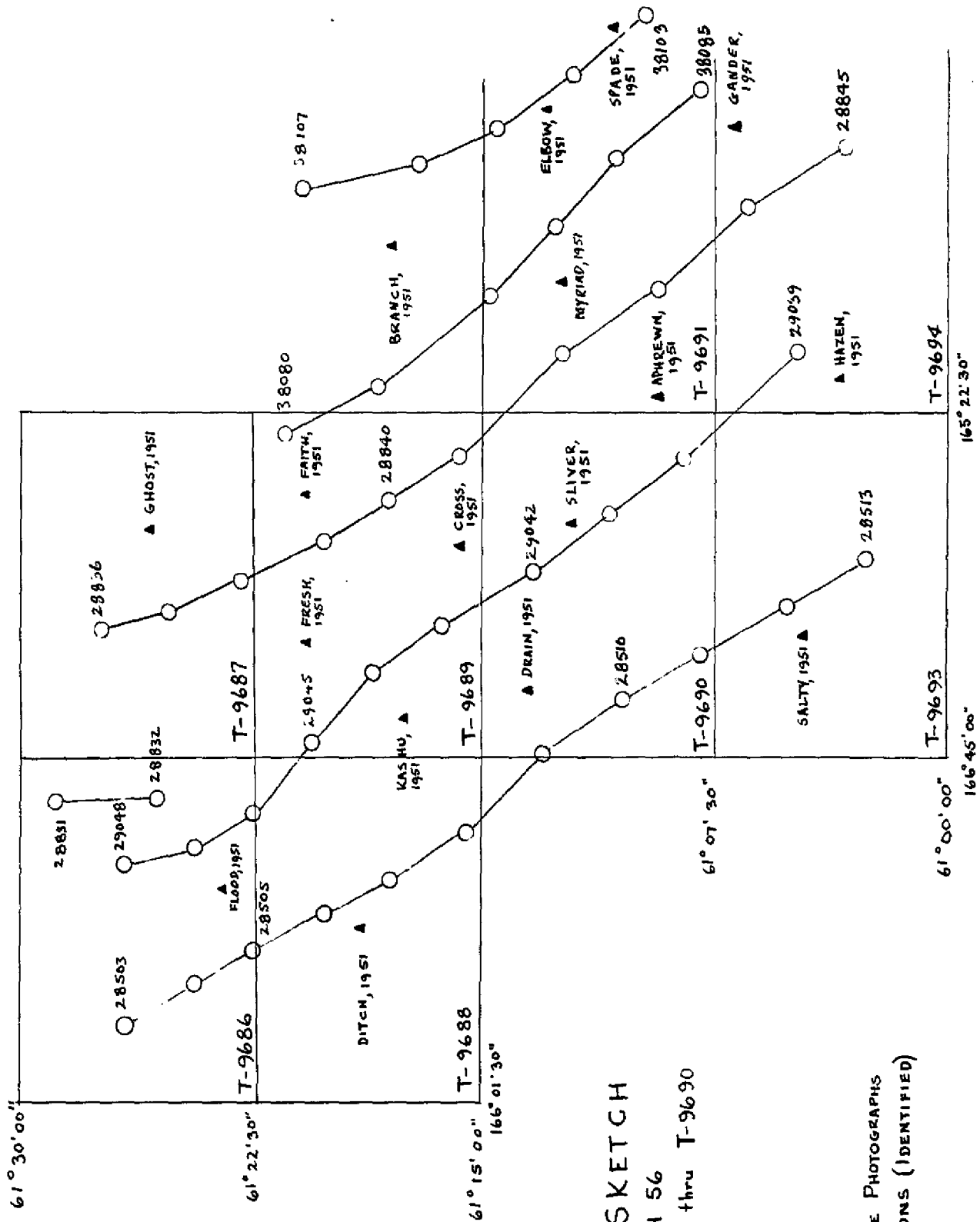
All identified recoverable topographic stations were established in the radial plot. Those identified by a substitute station were plotted with a steel protractor before the manuscripts were disassembled.

Approved and forwarded

E. H. Kirsch
E. H. Kirsch
Comdr. USC&GS
Officer in charge
Baltimore District Office

Respectfully submitted
21 September 1955

Albert Queen, Jr.
Albert Queen, Jr.
Carto. Photo. Aid



LAYOUT SKETCH

PROJECT PH 56

SURVEYS T-9686 thru T-9690
T-9693

- NINE-LENS OFFICE PHOTOGRAPHS
- ▲ CONTROL STATIONS (IDENTIFIED)

MAP T. 9686

PROJECT NO. 6056

SCALE OF MAP 1:20,000

SCALE FACTOR

[illegible]

1 FT. = 3048006 METER
COMPUTED BY: L.

L. C. Lande

DATE:

9/8/54

CHECKED BY: C. O. DeMart

DATE:

9/13/54

COMM-DC-57846

Sub. Pt. B
CHOST, 1951

NA
1927

61	26	23.226
165	31	34.452

FORWARD (BACK)

N.A. 1927-DATUM
DISTANCE
FROM GRID OR PROJECTION L
IN METERS
FORWARD (BACK

FACTOR DISTANCE
FROM GRID OR PROJECTION LINE
IN METERS

FORWARD (BACK)

CHECKED BY: C. O. Demart

DATE:

9/13/64

RESTRICTED

SCALE FACTOR

SCALE OF MAP 1:20,000

6056

PROJECT NO.:

9688

MAP T-...

[illegible]

1 FY. = 3046006 METER

COMPUTED BY: C. O. DeMarr

9/13/54

DATE.

CHECKED BY: **A. Queen**

DATE 4/15/54

COMM-DC-5784

RESTRICTED

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT
CONTROL RECORD

MAP T 9689 PROJECT NO. 6056 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR x -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			•	•	FORWARD	(BACK)		FORWARD	(BACK)	
FRESH, 1951	IV 384	NA 1927	61	22	04.583			141.9	(1715.4)	
			165	35	44.366			659.1	(232.3)	
Sub. Pt. A FRESH, 1951			61	22				93.1	(1764.2)	
			165	35				644.2	(247.2)	
Sub. Pt. B FRESH, 1951			61	22				175.9	(1681.4)	
			165	35				569.0	(322.4)	
FAITH, 1951	IV 383	"	61	20	29.498			913.1	(944.2)	
			165	23	35.379			526.1	(366.1)	
Sub. Pt. A FAITH, 1951			61	20				938.3	(919.0)	
			165	23				543.9	(348.3)	
Sub. Pt. B FAITH, 1951			61	20				854.9	(1002.4)	
			165	23				410.7	(481.5)	
KASHU, 1951	IV 383	"	61	19	02.853			88.3	(1769.0)	
			165	42	14.132			210.3	(682.5)	
Sub. Pt. A KASHU, 1951			61	19				93.4	(1763.9)	
			165	42				208.5	(684.3)	
Sub. Pt. B KASHU, 1951			61	19				72.4	(1784.9)	
			165	42				209.3	(683.5)	
CROSS, 1951	IV 383	"	61	16	43.141			1335.4	(521.9)	
			165	27	51.788			771.5	(122.5)	
Sub. Pt. A CROSS, 1951			61	16				1330.9	(526.4)	
			165	27				789.5	(104.5)	
Sub. Pt. B CROSS, 1951			61	16				1260.9	(596.4)	
			165	27				765.6	(128.4)	

1 FT. = 3048006 METER

COMPUTED BY: C. O. DeMarr

DATE 9/13/54

CHECKED BY: A. Queen

DATE 4/18/55

COMM-DC-57843

MAP T. 9689

PROJECT NO.

6056

SCALE OF MAP 1:20,000

SCALE FACTOR

[illegible]

3 FT - 3048006 MEYER

YFV-3048006 METER
E.L.W. 11.ams
COMPUTED BY:

DATE 5/9/55

CHECKED BY: **A. Queen**

DATE 5/9/55

COMM-DC-5784

MAP T. 9690

PROJECT NO.

6056

SCALE OF MAP.

SCALE OF MAP 1:20,000

SCALE FACTOR

[illegible]

157 - 3048006 METER

COMPUTED BY: C. O. DeMarr

DATE:

3/13/54

CHECKED BY: A. Queen

DATE:

4/18/55

COMM-DC-57843

RESTRICTED

MAP T. 9693

PROJECT NO.

6056

SCALE OF MAP:

1:20,000

SCALE FACTOR

[illegible]! FT. = .3048006 METER
COMPUTED BY: C.

DeMarr

DATE

9/13/54

CHECKED BY: A. Queen

DATE:

55/51/7

COMM-DC-57843

Compilation Report
T-9686, T-9687, T-9688, T-9689

31. Delineation:

These manuscripts were delineated both graphically, *and* on the Reading nine-lens plotters using rectified metal mounted photographs. The MHWL on the coast and on the large streams was delineated on the Reading plotter. All of the other detail such as ponds and small streams were delineated graphically from the rectified prints.

32. Control:

See Radial Plot Report for discussion of horizontal control. The vertical control was adequate. There were sufficient tidewater streams to enable the instrument operator to use water level exclusively to orient all stereo models.

33. Supplemental Data: - None

34. Contours & Drainage

There were no contours on any of these maps.

35. Shoreline & Alongshore Details:

The field inspection of the MHWL was adequate. An approximate low water line was drawn, using the 29,000 series photos which were taken near low water. Nuok Spit on T-9686 and the outer coast on T-9688 were not covered by low water photos and consequently no approximate LWL has been delineated in these areas.

36. Offshore Details: No comment.

37. Landmarks and Aids: None

38. Control for Future Surveys:

Form 524 cards have been submitted for topographic stations ZONE and CHEN - T-9686, BEAN T-9687 and DIME T-9688. Notes to the hydrographer are appended for all manuscripts.

39. Junctions:

All junctions were made with adjoining maps as shown on the index. The northeast corner of T-9687 was not mapped due to insufficient photography.

40. Horizontal & Vertical Accuracy - No comment.

46. Comparison with Existing Maps:

The largest scale topographic map available is
"Hooper Bay", USGS, 1:250,000 scale, 1945.

47. Comparison with Nautical Charts:

Chart No. 9302 corrected to 6/15/53.

Items to be applied to nautical charts
immediately - none.

Items to be carried forward - none.

Submitted by:

Louis Levin

Louis Levin,
Supervisory Cartographer

Approved by:

K. N. Maki

K. N. Maki
Cartographic Engineer

GEOGRAPHIC NAMES

Survey No. T-9686

ALASKA

BERING SEA

NUOK SPIT

HOOPER BAY

NINGLIKFAK RIVER

KEOKLEVIK RIVER

PAINOROYUN SLOUGH

ISSOROTULIK SLOUGH

Names approved:


L. Heck

GEOGRAPHIC NAMES

Survey No. T-9687

^N
NIGLIKFAK RIVER (see T-9686)

^A
KEOKLEVIK RIVER

KASHUNUK RIVER

Names approved:
J. H. Hach

GEOGRAPHIC NAMES

Survey No. T-9688

ALASKA

BERING SEA

ANGYOYARAVAK BAY

PUNOARAT POINT

Names approved:


L. Heck

GEOGRAPHIC NAMES

Survey No. T-9689

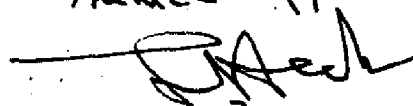
ALASKA

ANGYOYARAV^{AK} BAY

KASHUNUK

KASHUNUK RIVER

Names approved:

A handwritten signature, possibly reading "J. A. ...", is written over a horizontal line.

Notes to the Hydrographer

T-9686

The following topographic stations were established:

ZONE, 1951

CHEN, 1951 (Position determined by triangulation
and listed in G.P.'s)

No photo hydro stations were established.

Notes to the Hydrographer

. T-9687

One topographic station, BEAN, 1951 was established and located by radial plot.

No photo hydro stations were established.

Notes to the Hydrographer

T-9688

One topographic station, DIME, 1951 was established.

No photo hydro stations were established.

Notes to Hydrographer

T-9689

No topographic stations nor photo hydro stations have been established.

Review Report
of Topographic Maps T- 9686 thru T-9689

February 1957

62. Comparison with Registered Topographic Surveys

T-2336	1:200,000	1898
T-2432	1:120,000	1899

These reconnaissance-type topographic surveys are inadequate for comparative evaluation.

63. Comparison with Maps of other Agencies:

See Item 46

64. Comparison with Contemporary Hydrographic Surveys

H-7936	1:20,000	1951
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This small hydrographic survey of the entrance to Hooper Bay is the only contemporary hydrographic survey of the subject manuscripts area. The shoreline has not been detailed on H-7936; but hydrography will readily accommodate shoreline of corresponding topographic surveys.

65. Comparison with Nautical Charts

9302	1:1,534,076	1952 corr. to 12-24-56
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This is the only nautical chart covering all topographic surveys of this project.

66. Adequacy of Results and Future Surveys

Shoreline inspection appears adequate. Lack of in-shore inspection (except for control) may have resulted in minor inaccuracies in office interpretation. Other than these, no deficiencies in accuracy and adequacy were indicated.

Reviewed by:

Joseph A. Streifver
Joseph A. Streifver

Approved by:

L. C. Lande
Chief, Review & Drafting Sec.
Photogrammetry Division

W. Swanson
Chief, Photogrammetry Division

Chief, Nautical Chart Branch
Charts Division

J. B. Munnell
Chief, Coastal Surveys

7 Nov 1958

History of Hydrographic Information for AMS Quadrangle

A small area of hydrography (portion of entrance of Hooper Bay) was available. This information was added to manuscript T-9686 in accordance with AMS Technical Instructions.

Depth curves and soundings are in fathoms at mean lower low water and originate with

H-7936 1:20,000 1951

Hydrography was compiled by J. J. Streifler in December 1956.

Summary to Accompany Topographic Maps T-9686 thru T-9689

This covers the area between Hooper Bay and Angyoyararak Bay, Bering Sea of Ph-24090 (6056). See accompanying project index.

Extensive low marsh areas were compiled graphically and direct from rectified photographs. All other features were compiled on the Reading nine-lens plotters.

After addition of limited hydrographic information, a portion of subject manuscripts will be published by the Army Map Service as a standard topographic quadrangle at scale of 1:50,000 - see accompanying project index.

A "Cronar" film positive at manuscript scale and the descriptive report, as well as a cloth-backed print of the AMS quadrangle in color after final tinting, will be registered and filed in the Bureau Archives.

February 1957

GEOGRAPHIC NAMES

Survey No.

T-9686

Name on Survey

On Chart
No.

On previous survey
No.

On U. S. quadrangle
Maps

From local
information

On local Maps

P. O. Guide or Map

Rand McNally Atlas

U. S. Light List

A

B

C

D

E

F

G

H

K

Alaska

Bering Sea

Nuak Spit

Hooper Bay

Ningliktak River

Keekleik River

Painarayun Slough

Issaretulik Slough

1

2

3

4

5

6

7

8

9

10

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27

Names approved

11-29-56. L. Hock

Survey No.

~~44-38861~~ T-9687

Name on Survey

[illegible]

GEOGRAPHIC NAMES

Survey No.
T-9688

Name on Survey

	A	B	C	D	E	F	G	H	K	
✓ <u>ALASKA</u>										1
✓ <u>BERING SEA</u>										2
✓ <u>ANGYDYARANAK BAY</u>										3
<u>Punogarat Point</u>										4
										5
										6
										7
										8
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										24
										25
										26
										27

Names approved
11-29-56
L. Heck

GEOGRAPHIC NAMES

Survey No.

T-9689

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A	B	C	D	E	F	G	H	K	
Alaska									1
Angoyarak Bay									2
Kashunuk									3
Kashunuk River									4
									5
									6
									7
									8
									9
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									11
									12
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									M 234

S 00 9689
 ← All caps

TOPOGRAPHIC MAPPING PROJECT 6056 240.90

ALASKA-BERING SEA, Scammon Bay to Kuskokwim Bay and Nunivak Island

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No. Area sq.miles

967	46
968	91
9681	68
9682	96
9683	12
9684	103
9685	80
9686	46
9687	91
9688	17
9689	103
9690	86
9691	103
9692	40
9693	23
9694	34
9695	80
9696	34
9697	103
9698	6
9699	110
9700	23
9701	112
9702	80
9703	112
9704	57
9705	103
9706	40
9707	108
9708	68
9709	91
9710	17
9711	108
9713	6
9714	91
9715	112
9716	108
9718	40
9719	68
9720	80
9722	3

Sub-total... 2,685

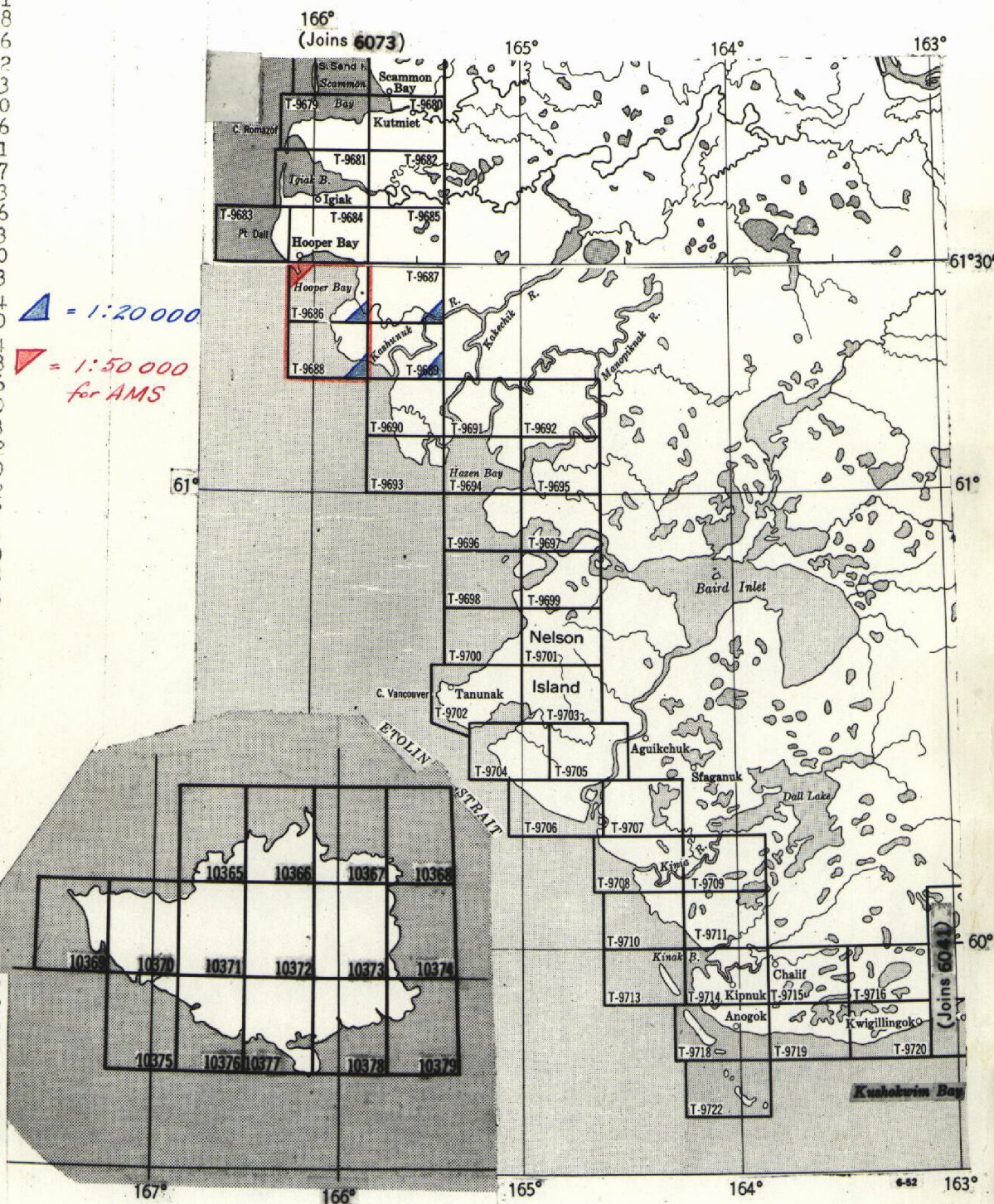
Nunivak Island

10365	49
10366	112
10367	70
10368	8
10369	47
10370	195
10371	220
10372	228
10373	228
10374	37
10375	14
10376	104
10377	158
10378	109
10379	35

Sub-total 1,614

Sub-total 2,685

TOTAL... 4,299



(Refer to Air-Photo Indexes B-42, 50, 51, 52 and E-1)