

9718

9719

9720

Diag. Cht. No. 9302.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Topographic
Field No. Ph-56 Office No. T-9718 thru T-9720

LOCALITY

State Alaska
General locality Etolin Strait (Bering Sea)
Locality Pingurbek Island to Kuskokwim
Bay _____1950-51

CHIEF OF PARTY

M.J. Tonkel, Chief of Field Party
E.W. Kirsch, Balto. Photo. Office
L.W. Swanson, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES

DATE December 1960

USCOMM-DC 5087

9718 9719 9720
6126 6126 8126

DATA RECORD

T-9718

T-

T-9719

T-9720

Project No. (II): PH-56

Quadrangle Name (IV):

Field Office (II): Alaska

Baltimore, Md.

Chief of Party: M. J. Tonkel

E. W. Kirsch

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

Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III):

Sept. 1949

14 Dec. 1951

April 1951

21 Dec. 1951

21 May 1951

Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Reading nine-lens plotter and graphic

Manuscript Scale (III): 1:20,000

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

Scale Factor (III): 1.1

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 19 May 1959

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N. A. 1927

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.

W. Heinbaugh

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

DATA RECORD

Field Inspection by (II): (none)

Date:

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):

Projection and Grids ruled by (IV): Austin Riley

Date: 10-18-54

Projection and Grids checked by (IV): Austin Riley

Date: 10-26-54

Control plotted by (III): David Williams

Date: 6-28-55

Control checked by (III): Joseph Steinberg

Date: 6-28-55

Radial Plot ~~on Stereoscopic~~

Date: 2-21-58

Control extension by (III): Leroy A. Senasack

Stereoscopic Instrument compilation (III):
Planimetry W. Heinbaugh

Date: Sept. 1958

Contours W. Heinbaugh

Date: Sept. 1958

Manuscript delineated by (III):

W. Heinbaugh

Date: Sept. 1958

Photogrammetric Office Review by (III): L. Levin

Date: Sept. 1958

Elevations on Manuscript
checked by (II) (III):

L. Levin

Date: Sept. 1958

T-9718

Camera (kind or source) (III):

| Number | Date | Time | Scale | Stage of Tide |
|-------------|---------|-------|----------|----------------|
| 28701-28704 | 8/13/50 | 14:45 | 1:20,000 | 3.2 above MLLW |
| 28551-28553 | 8/13/50 | 12:20 | 1:20,000 | 3.6 above MLLW |

PHOTOGRAPHS (III)

Tide (III)

diurnal

Reference Station: Kodiak
 Subordinate Station: none-general area
 Subordinate Station:

| Ratio of Ranges | Mean Range | Spring Range |
|-----------------|------------|--------------|
| 1.3 | | 8.5 |
| | | 11.1 |

Washington Office Review by (IV): *J. D. Frazier*
 Final Drafting by (IV): *A. Goldin*
 Drafting verified for reproduction by (IV): *Wm. Hallin*
 Proof Edit by (IV):

Date: *April 1959*
 Date: *Jan 20, 1959*
 Date: *3-3-60*
 Date: *3-7-60*
 Date:

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):
 Number of BMs searched for (II):
 Number of Recoverable Photo Stations established (III):
 Number of Temporary Photo Hydro Stations established (III):

Recovered: Identified:
 Recovered: Identified:

Remarks:

Camera (kind or source) (III):

| Number | Date | PHOTOGRAPHS (III) | | Scale | Stage of Tide |
|-------------|---------|-------------------|--|----------|----------------|
| | | Time | | | |
| 28554-28557 | 8/13/50 | 12:40 | | 1:20,000 | 3.0 above MLLW |
| 28289-28291 | 8/8/50 | 11:55 | | 1:20,000 | 7.3 above MLLW |

Tide (III)

diurnal

Reference Station: Kodiak

Subordinate Station: none - general area

Subordinate Station:

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

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):

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

| Ratio of Ranges | Mean Range | Spring Range |
|-----------------|------------|--------------|
| | | 8.5 |
| 1.3 | | 11.1 |

Date:

Date:

Date:

Date:

Camera (kind or source) (III): T-9720

Number
28293-28297Date
8/8/50

PHOTOGRAPHS (III)

Time
11:55Scale
1:20,000Stage of Tide
6.4 above MLLW

Tide (III)

Reference Station: Kodiak
 Subordinate Station: none- general area
 Subordinate Station:

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

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):

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

diurnal

| Ratio of Ranges | Mean Range | Spring Range |
|--------------------|---------------|-----------------|
| | | 8.5 |
| 1.4 | | 11.9 |

Date:

Date:

Date:

Date:

Recovered:

Recovered:

Identified:

Identified:

TOPOGRAPHIC MAPPING PROJECT 6056

7

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

CHART MILEAGE FOR COST ACCOUNTS

Area sq.miles

46
91
68
96
12
103
80
46
91
17
103
86
103
40
23
34
80
34
103
6
110
23
112
80
112
57
103
40
108
68
91
17
108
6
91
112
108
40
68
80
3

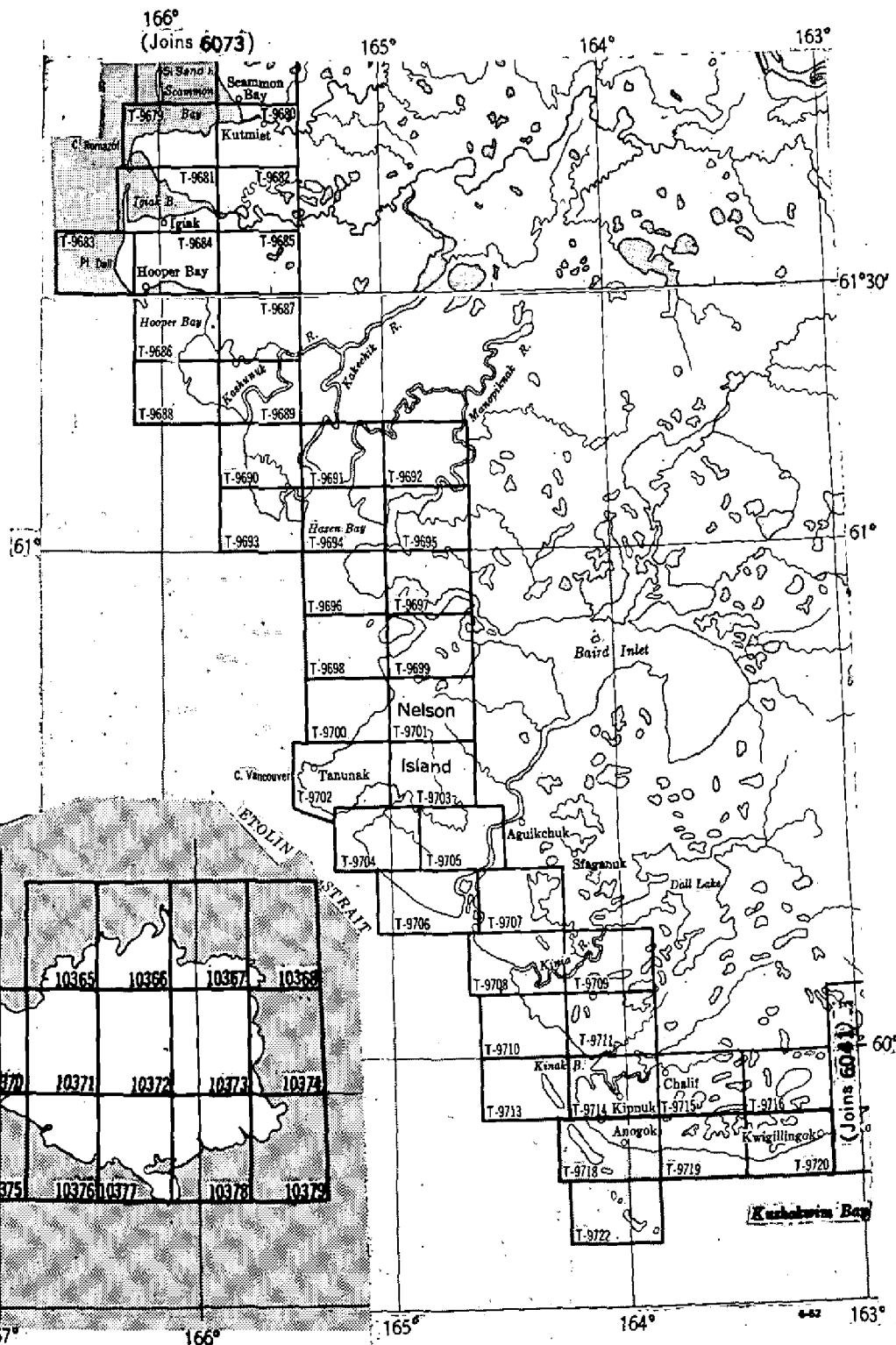
Total...2,685

Nunivak Island

49
112
70
8
47
195
220
228
228
37
114
101
158
109
35

total

1,614



Compiled 1:20,000 scale, from 1:20,000 scale nine-lens photographs taken August 1950 and June 1951

additional nine-lens photography to be taken Season 1952.

(Refer to Air-Photo Indexes B-42, 50, 51, 52 and E-10)

Summary

to accompany topographic surveys T-9718 thru T-9720

T-9718, 19 and 20 are part of Topographic Mapping Project PH-56 (24090). The project extends from Scammon Bay to Kuskokwim Bay on the west coast of Alaska and includes all of Nunivak Island as well. The three subject surveys cover Cape Avinof with offshore islands to a point of junction with project PH-41 to the east of PH-56 - near the projected line of longitude of 163°.

The low coastal area of subject surveys is marsh and tundra with numerous lakes, ponds and streams. Maximum ground elevation is less than 25 feet and subsequently, no contour could be delineated within the limits of the three charts.

Original instructions date from 1949. Nine-lens photography is from 1950. There is no field inspection available for the shoreline of this area. The radial plot was done at the Baltimore District Office in 1958 and the compilations completed the same year at the Washington Office by stereoscopic instruments (Reading Plotter) and graphically.

There are no previous topographic surveys of this area nor contemporary hydrographic surveys.

A cronar film positive at the compilation scale of 1:20000 and the Descriptive Report will be registered and filed in the Bureau Archives.

April 1959

The Field Inspection Report is filed with the
Descriptive Report for T-9679.

PHOTOGRAMMETRIC PLOT REPORT
Project Ph-56
Surveys T-9711, T-9713 thru T-9716, T-9718
thru T-9720 & T-9722

21. AREA COVERED

This radial plot covers the area of Surveys T-9711, T-9713 thru T-9716, T-9718 thru T-9720 and T-9722. These topographic surveys cover the area of Cape Avinof on the Bering Sea between Kinak Bay and Kwigillingok on Kuskokwim Bay. The surveys will be compiled with the Reading Plotter.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vinylite sheets with polyconic projection in black and Universal Traverse 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 the 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.

Junction could not be made between map manuscripts with the U.T.M. Alaska Zone 3, 2000 meter grids. Some of the map manuscripts were ruled with odd numbered grids, while others with even numbered grids and others with a combination of odd and even-numbered grids. The map manuscripts were joined together for the radial plot using the projections only.

Photographs:

All photographs used were nine-lens metal mounted photographs at a scale of 1:20,000. Fifty-one (51) photographs were used in the plot, numbered as follows:

- 28284 thru 28297
- 28547 thru 28554
- 28695
- 28697 thru 28712
- 38159 thru 38162
- 38166 thru 38173

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 scratches were filled in with china marking wax 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:

This radial plot was laid directly on the map manuscripts, beginning with photograph 28712 and continuing southeasterly to photograph 28707. Then the other two adjoining flights were laid starting 38173 thru 38166 and 28547 thru 28549. At this point the plot was laid from survey T-9714 easterly to survey T-9716 and T-9720 and a junction was made with Project Ph-41. The flight of photographs on the western end of this plot, 28699 thru 29706, were laid last because there is no control in this area.

Several pass-points do not agree with the position of the pass-points on Project Ph-41. In many cases, it was difficult to decide what was previously pricked for a pass-point, because the same point was not pricked on all the adjoining photographs. A tight plot was laid and the position of the point as established in this radial plot was shown on the map manuscripts.

Transfer of Points:

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

23. ADEQUACY OF CONTROL

The horizontal control was adequate for a satisfactory radial plot in the area covered by this report with exception of the islands southwest of Cape Avinof. Refer to the Field Report Ph-56 (1951), page 4, item SUMMARY OF FIELD WORK NOT COMPLETED. All control stations were held, except as follows:

TEEL, 1949 - This station and substitute station was identified on a near vertical, hand held camera; photograph taken in 1949. The 17-foot stand was visible on the 1950 photographs and was verified by the ratioed print of the hand held camera. The radially plotted positions of both the station and sub. station fall approximately 0.6 mm to the west of the plotted position, or approximately 1 second in longitude. No reason could be found in this office for this discrepancy - other than the published position could be in error of one second.

24. SUPPLEMENTAL CONTROL

None.

25. PHOTOGRAPHY

The definition of the photographs was good and the coverage was adequate for the area of this report.

Though several tilted photographs were used in this plot, no tilt determination was necessary because the degree of tilt was not enough to affect the plot.

One of the fiducial marks was missing in chamber 4 and one in chamber 8, on all 1952 photographs. The center cross was missing on photograph 38168. It appears the negative was damaged and the definition has been erased in this area. All azimuth lines to this point are very weak.

26. VERTICAL CONTROL

None of the field identified vertical control points was pricked for the area of this report. The area in general is low tundra and lakes, all well below 25 feet high. The majority of the pass-points are "R" (Rectification) points.

27. RECOVERABLE TOPOGRAPHIC STATIONS

All recoverable topographic stations were pricked stereoscopically using the ratio prints of the hand held camera. The position of all recoverable topographic stations which were identified were established in the radial plot.

28. HYDROGRAPHIC STATIONS

Refer to Field Report, Ph-56 (49), page 5, "Hydrographic Stations", paragraph 2. This recommendation was not followed during the radial plot. If this is desired it should be done during the compilation of the manuscripts.

29. RECTIFICATION POINTS BELOW MHW

To get a radial plot in the area west and south of Cape Avinof, it was necessary to place points in the shallow water and on sand bars that cover at high tide. These rectification pass-points are labeled R (W) and should be used with caution.

Respectfully submitted
21 February 1958

Approved and Forwarded

William F. Deane
William F. Deane,
CDR C&GS
Baltimore District Officer

Leroy A. Senasack

Leroy A. Senasack
Carto. Photo. Aid

SCALE FACTOR

1 FT. = 3048006 METER
COMPUTED BY J. Steinberg
DATE 6/8/55
CHECKED BY H. R. Rudolph
DATE 6/8/55
COMM-DC-57843 4

SCALE FACTOR

1 FT = 3048006 METERS

COMPUTED BY: 3048006 M

J. Steinberg

DATE _____

6/8/55

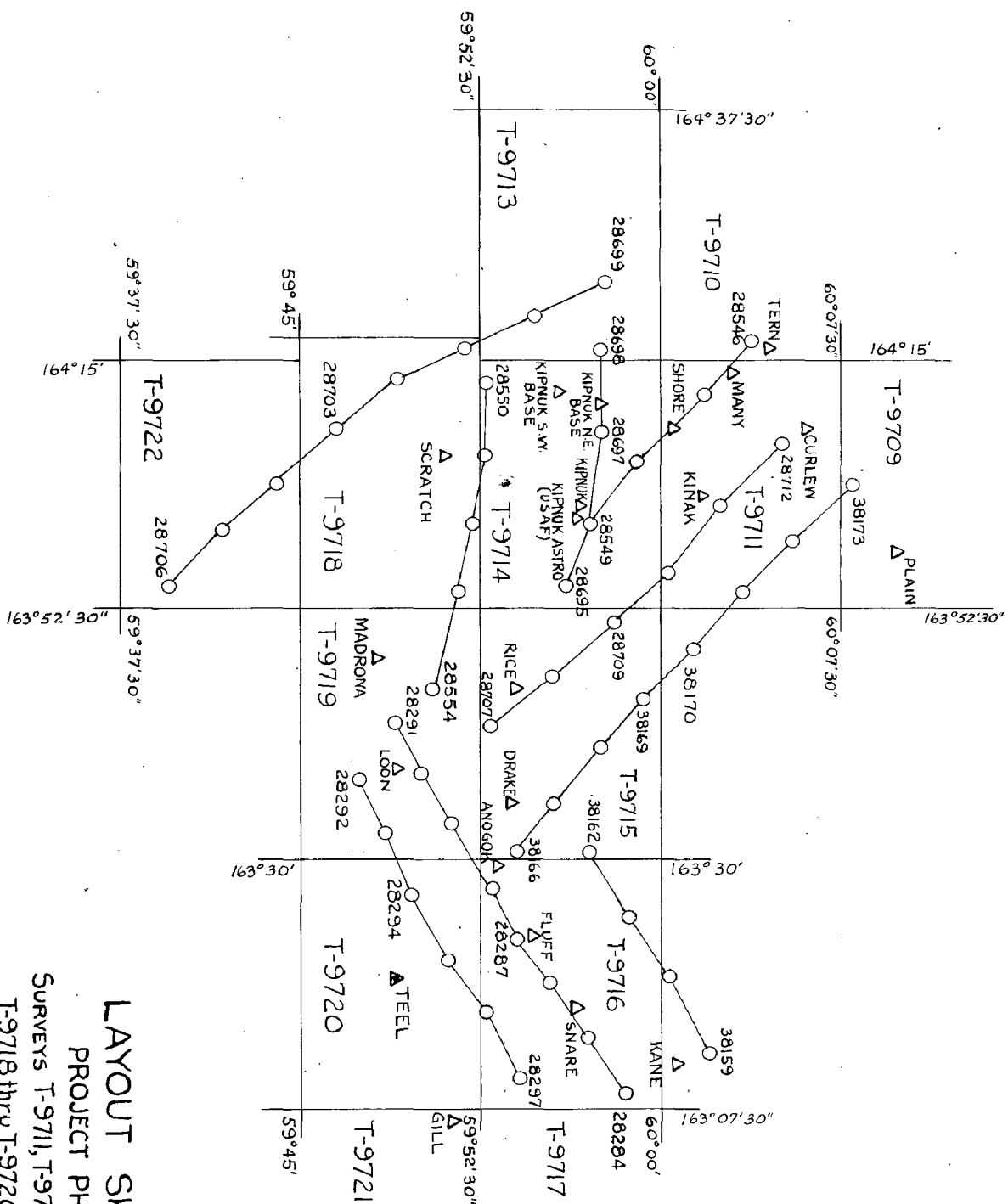
CHECKED BY:

H. R. Rudolph

DATE _____

6/8/55

COMM-DC-57843



LAYOUT SKETCH

PROJECT PH-56

SURVEYS T-9711, T-9713 thru T-9716

T-9718 thru T-9720 & T-9722

○ Nine lens office photographs

△ Control stations identified

△ not held

COMPILATION REPORT

T-9718, T-9719, T-9720

31. Delineation

With the exception of drawing the shoreline and obtaining spot elevations all details were drawn using graphic methods on rectified nine-lens photographs.

No beneficial field inspection was available for these three map manuscripts.

32. Control

See Radial Plot Report included in this report.

33. Supplemental data

None

34. Contours and drainage

No comment

35. Shoreline and alongshore details

No shoreline field inspection was available but it is felt that the office interpretation of the photographs is satisfactory. No effort was made to draw the low-water line, except in the vicinity of Pingurbek Island, because of the tide stage at the time of photography.

36. Offshore details

No comment

37. Landmarks and aids

Field party indicates no landmarks or aids. However, at location of SALT (Azimuth) 1951, there is a town or campsite composed of three or more buildings with the gable of one of these buildings being SALT (Az). No geographic name was available for the camp site.

38. Control for future surveys

The following topographic stations were established:

| | | |
|-------|------|--------|
| RAIN, | 1951 | T-9718 |
| SAND, | 1951 | T-9718 |
| BAND, | 1951 | T-9719 |
| RATE, | 1951 | T-9719 |
| SALT, | 1951 | T-9719 |
| SALT, | 1951 | T-9719 |
| (AZ) | | |
| BAIT, | 1951 | T-9720 |
| FEED, | 1951 | T-9720 |
| FLIP, | 1951 | T-9720 |

No hydro stations were established.

A list of topographic stations has been prepared and entered in paragraph 49 of this report.

39. Junctions

All sheet junctions were made on all adjoining sheets indicated by the project layout diagram included in this report.

40. Horizontal and vertical accuracy

No comment - see Radial Plot Report

46. Comparison with existing maps

USGS map, Baird Inlet, Alaska, N-6000-W16200/60x180,
1:250,000, 1951 Edition

USGS map, Kuskokwim Bay, Alaska, N-5900-W16200/60x180,
1:250,000, 1951 Edition

47. Comparison with nautical charts

The manuscript was compared with chart 9302.
Items to be applied to nautical charts immediately - none.
Items to be carried forward - none.

48. Geographic Name list

See appended lists

Approved:

Louis Levin

Louis Levin
Supervisory Cartographer

Submitted:

Wallace Heinbaugh

Wallace Heinbaugh
Cartographer (Photo)

49. Notes to the hydrographer

RAIN, 1951

SAND, 1951

BAND, 1951

RATE, 1951

SALT, 1951

SALT, 1951
(AZ)

BAIT, 1951

FEED, 1951

FLIP, 1951

Review Report of
Topographic Surveys T-9718 thru T-9720
April 1959

62. Comparison with Registered Topographic Surveys:

There are no registered topographic surveys of this area.

63. Comparison with Maps of Other Agencies:

KUSKOKWIM BAY, ALASKA, 1:250000, Ed. of 1951, US Geological Survey
Pingurbek Island, several miles southwest of Cape Avinof is shown as one island on the Geological Survey topographic map and as a group of several islands on survey T-9718. Any other possible disagreement is difficult to determine because of scale difference.

64. Comparison with Contemporary Hydrographic Surveys:

None!

65. Comparison with Nautical Charts:

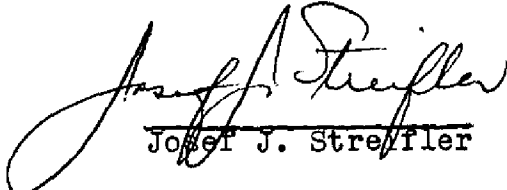
9302 1:1534076 Revised to 9/29/58

There is no other nautical chart coverage of subject area and scale difference precludes a detailed comparison.


66. Adequacy of Results and Future Surveys:


These surveys comply with project instructions and meet the requirements for adequacy and accuracy.


Reviewed by:

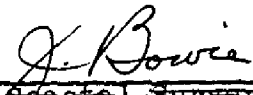

Joseph J. Streifler

Approved by:


Chief, Review & Drafting Section
Photogrammetry Division


Chief, Nautical Chart Branch
Charts Division 12/27/60


Chief, Photogrammetry Division
22 Nov 1960


Chief, Coastal Surveys Division
OPERATIONS

T-9718

Geographic Name List

ANOGOKCAPE AVINOFETOLIN STRAITPINGURBEK ISLAND

Names approved 1-20-59
L. Heath

T-9719

Geographic Name List

KUSKOKWIM BAY

Name approved 1-20-59
L. Heck

T-9720

Geographic Name List

KUSKOKWIM BAYKwigillingok (for title)Names approved 1-20-59
L. HeckKwigillingok✓ gmsB
4-9-59

NAUTICAL CHARTS BRANCH

SURVEY NO. T-9718 thru T-9720

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.