Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Shoreline (photogrammetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Ph-40</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-11095</td>
</tr>
<tr>
<td>T-11096</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
</tr>
<tr>
<td>General locality</td>
</tr>
<tr>
<td>Locality</td>
</tr>
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<td></td>
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<table>
<thead>
<tr>
<th>1942-50</th>
</tr>
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<tbody>
<tr>
<td>CHIEF OF PARTY</td>
</tr>
<tr>
<td>J.H. Brittain, Chief of Field Party</td>
</tr>
<tr>
<td>E.H. Kirsch, Baltimore Photo, Office</td>
</tr>
<tr>
<td>LIBRARY &amp; ARCHIVES</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>DATE</th>
<th>May 15, 1958</th>
</tr>
</thead>
</table>

B-1270-1 (3)
DATA RECORD

Project No. (II): Ph-40

Field Office (II): Photogrammetric Office (III): Baltimore, Maryland

Chief of Party: J. H. Brittain Officer-in-Charge: E. H. Kirsch

instructions dated (II) (III):
Office: 12-16-52 11-29-54

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): MHW

Mean sea level except as follows:

Elevations shown as (25) refer to mean high water
Elevations shown as (25) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): JERK, 1950

Lat.: 55° 48' 30.927" (956.5m) Long. 160° 24' 51.816" (902.5m)

Adjusted

Plane Coordinates (IV):

State:

Zone: U.T.M. - Zone 4

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

Not applicable.
Field Inspection by (II): I. Zirpel, Jr.  Date: June to Sept. 1950

Completion Surveys by (II):  Date:

Mean High Water Location (III) (State date and method of location): 1950 field inspection on 1942 photography. Office interpretation on 1953 photos in Left Head.

Projection and Grids ruled by (IV): A. Riley  Date: 3/30/54

Projection and Grids checked by (IV): A. Riley  Date: 4/7/54

Control plotted by (III): J. J. Schleupner  Date: 12/21/54

Control checked by (III): J. Steinberg  Date: 12/22/54

Radial Plot by: L. A. Senasack  Date: 2/7/55

Control extension by (III):

Planimetry  Date:

Stereoscopic Instrument compilation (III):

Contours  Date:

Manuscript delineated by (III): R. Whitson  Date: 2/16/53
J. B. Phillips  Date: 2/18/55

Photogrammetric Office Review by (III): R. Glaser  Date: 2/23/55

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

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comp: oc-57842  8
Camera (kind or source) (III): USCGS nine-lens camera
U. S. Navy single lens camera

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1-00814 - 0088</td>
<td>6/22/53 ✓</td>
<td>1335</td>
<td>1:20,000</td>
<td>2.0 above NHW</td>
</tr>
<tr>
<td>11211 &amp; 11212</td>
<td>9/11/42 ✓</td>
<td>1010</td>
<td></td>
<td>7.0</td>
</tr>
<tr>
<td>11236 - 11239</td>
<td>✓</td>
<td>1039</td>
<td></td>
<td>7.7</td>
</tr>
<tr>
<td>11240 - 11242</td>
<td>✓</td>
<td>1046</td>
<td></td>
<td>7.7</td>
</tr>
<tr>
<td>11223 - 11228</td>
<td>✓</td>
<td>1024</td>
<td></td>
<td>7.3</td>
</tr>
<tr>
<td>11198 - 11202</td>
<td>✓</td>
<td>955</td>
<td></td>
<td>6.2</td>
</tr>
<tr>
<td>38469</td>
<td>7/23/52 ✓</td>
<td>1720</td>
<td></td>
<td>1.9</td>
</tr>
</tbody>
</table>

Tide (III)

From predicted tables

Reference Station: Nushagak Bay
Subordinate Station: Port Homer (Entrance Pt.)

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): 23 sq. mi.
Shoreline (More than 200 meters to opposite shore) (III): 64 miles
Shoreline (Less than 200 meters to opposite shore) (III): 1 mile
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): none
Number of BMs searched for (II): none
Number of Recoverable Photo Stations established (III): 4
Number of Temporary Photo Hydro Stations established (III): none

Remarks:

#3 stations established in 1950.
PHOTOGRAMMETRIC PLOT REPORT
Project Ph-40
Surveys T-11095, T-11096 and T-11571

21. AREA COVERED

This radial plot covers the area of surveys T-11095, T-11096 and T-11571. These are shoreline surveys that include the southeast arm of the bay on the north shore of the Alaska Peninsula known as Port Moller.

22. METHOD - RADIAL PLOT

Map manuscripts:
Vinylite sheets with polyconic projections in black and U.T.M. Alaska Grids in red, at a scale of 1:20,000, were furnished by the Washington office.

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

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

Photographs:
A total of twelve (12) nine-lens photographs, at a scale of 1:20,000 were used in this plot and are numbered as follows:
11198, 11200, 11202 and 11204
11212, 11223, 11225 and 11228
11236, 11237, 11239 and 11241

Template:
Vinylite templates were made of all 1942 photographs. There is no master template for these photographs.

Closure and Adjustment to Control:
Vinylite sheets with 2,000 meter grids were used as base sheets. All identified control was transferred to the base sheets by matching common grid lines. Pass points at the north end, established in a previous plot, were also transferred.

The radial plot was started with the western flight and extended eastward. While laying the plot sub pt. for JERK, 1950 could not be held. The photographs were studied with the aid of the stereoscope and another point was pricked and held in the plot.

Transfer of points:
The positions of all photogrammetric points were pricked directly on the map manuscripts by superimposing the manuscript on the completed plot and matching common grid lines.
23. ADEQUACY OF CONTROL

The density and distribution of control was adequate for a normal radial plot for shoreline compilation. The radial plot in the area around control stations HEAD, V-16 and MUD is considered weak because of the unadjusted and tilted photographs.

V-16, 1950 - No radially plotted position is shown on the map manuscript because of the weak geographic position and also unadjusted and tilted photographs.

MUD, 1950 - There is only one sub. pt. for this station and that point is a weak point to identify. It is on a rounded projection of the ridge of mountain.

24. SUPPLEMENTARY DATA

No supplementary data was used in this radial plot.

25. PHOTOGRAPHY

Photographic coverage was adequate, and definition was good, but all photographs were unadjustable and in many cases the outside chambers did not match the center chamber. There was either a double image or an area missing between chambers.

Respectfully submitted
23 February 1955

Leroy A. Senasack
Carto. Photo. Aid
LAYOUT SKETCH
Project PH-40
Surveys T-11095, T-11096 & T-11571

- Nine lens photographs
- Control stations (identified)
- Control stations (not held in plot)
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y-COORDINATE</th>
<th>LONGITUDE OR X-COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>G-10049 p. 280</td>
<td>N.A. 1927</td>
<td>55</td>
<td>51</td>
<td>12,074</td>
<td>373.4 (1,182.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>160 29 58.259</td>
<td>1013.6 (30.2)</td>
</tr>
<tr>
<td>Sub. Pt. &quot;A&quot; SPRING, 1950</td>
<td>Comp.</td>
<td>n</td>
<td>55</td>
<td>51</td>
<td></td>
<td>390.2 (1,165.5)</td>
</tr>
<tr>
<td>Sub. Pt. &quot;B&quot; SPRING, 1950</td>
<td>n</td>
<td>n</td>
<td>55</td>
<td>51</td>
<td></td>
<td>0.5 (10.33)</td>
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<tr>
<td>JERK, 1950</td>
<td>G-10049 p. 288</td>
<td>n</td>
<td>55</td>
<td>48</td>
<td>30,927</td>
<td>956.5 (899.2)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>160 24 51.816</td>
<td>902.5 (112.5)</td>
</tr>
<tr>
<td>Sub. Pt. JERK, 1950</td>
<td>Comp.</td>
<td>n</td>
<td>55</td>
<td>48</td>
<td></td>
<td>977.2 (878.5)</td>
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<td></td>
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<td></td>
<td>160 24</td>
<td>856.4 (188.6)</td>
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1 FT. = 0.3048006 METER

COMPUTED BY: J. Steinberg  DATE: 2/2/55  CHECKED BY: G. E. Varndoe  DATE: 2/4/55
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR y-COORDINATE</th>
<th>LONGITUDE OR x-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<tr>
<td>SUNDEAN, 1950</td>
<td>G-10049 p. 280</td>
<td>55 49</td>
<td>09 128</td>
<td>291.6</td>
<td>290.3</td>
<td>1564.1</td>
<td>154.5</td>
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<tr>
<td>SUNDEAN, 1950</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Sub. Pt. &quot;B&quot;</td>
<td></td>
<td>55 49</td>
<td>180 18</td>
<td>298.1</td>
<td>985.0</td>
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<td>59.8</td>
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</tbody>
</table>

1 FT. = 0.3048006 METER

COMPUTED BY: J. Steinberg    DATE: 12/14/54
CHECKED BY: H. R. Rudolph   DATE: 12/23/54
A 1953 Descriptive Report is available for delineation in the vicinity of Port Moller done previously to 1955.

For the field report, refer to Project Report, Aerial Photograph Control and Inspection, North Shore Alaska Peninsula, Project Ph-40(49) June - September, 1950.

31. **DELINEATION**

Graphic methods were used to delineate these manuscripts.

The 1955 work comprises all delineation southeast of topographic station BOLD, 1950 on T-9573, T-11096 in its entirety, and compilation southeast of SPRING AZ MK on T-11095.

The MLLWL on these sheets is incomplete, due to insufficient coverage by low water photography.

32. **CONTROL**

Refer to Photogrammetric Plot Report.

33. **SUPPLEMENTAL DATA -**

None.

34. **CONTOURS AND DRAINAGE**

Contours: Inapplicable

Drainage: No comment

35. **SHORELINE AND ALONGSHORE DETAILS**

The shoreline inspection was adequate. The MHW line was delineated where possible from the most recent photographs, based on field information on the nine-lens photographs dated 1942-43.

Except for some description in the field report, no low water line was furnished. An approximate low water line was delineated by office interpretation on the most recent photographs having the lowest computed tides.

36. **OFFSHORE DETAILS**

No comment.
37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

See paragraph No. 49 for the list of recoverable topographic stations within the area.

Forms 521 for recoverable topographic stations CONE, 1950 (T-11095); PORT, 1950 (T-11096); and HOLE, 1950 (T-11096) have been prepared by the field party.

Form 524 is submitted for one azimuth mark, SPRING AZ MK, 1950.

39. JUNCTIONS

Junction is in agreement between these sheets (T-11095 and T-11096). Also, junction has been made and is in agreement with the following:

T-11095
To the north with T-9573.
To the west with T-11094.
To the south, Survey T-11571 requires no junction.

T-11096
To the west with T-11095.
To the north, east and south no junction is required. This survey overlaps the limits of Surveys T-8834 and T-8835 (Ph-111), but only shoreline in Port Moller area is required at this time.

40. HORIZONTAL AND VERTICAL ACCURACY

See Photogrammetric Plot Report.

41 - 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

None were available at this office.
47. COMPARISON WITH NAUTICAL CHARTS

These manuscripts have been compared with Nautical Chart No. 8833, scale 1:79, 798, published February 1917, and corrected to 6/11/54.

Items to be applied to Nautical Charts immediately:

None.

Items to be carried forwards

None.

Respectfully submitted
21 February 1955

Jacqueline E. Phillips
Carto. Photo. Aid

Approved and forwarded

E. H. Kiessch
E. H. Kiessch,
Comdr. USCGGS
Officer in Charge
Balto. Photo. Office
46. GEOGRAPHIC NAME LIST

T-11095

Alaska Peninsula
Hot Spring
Mud Bay
Port Moller

* Right Head (Known locally as Frying Pan).

T-11096

Alaska Peninsula
Frying Pan

* Left Head (Known locally as Mike Mundsen Bay)

* Right Head (Known locally as Frying Pan)

* See page 42 of Project Report, Aerial Photograph Control and Inspection North Shore, Alaska Peninsula, Project Ph-40(49), June - September 1950.
49. NOTES FOR THE HYDROGRAPHER

The following are the recoverable topographic stations established:

T-11095: CONE, 1950
SPRING AZ MK, 1950

T-11096: FORT, 1950
HOLE, 1950

The character of the foreshore area adjacent to the MHWL has been designated where available from the field inspection notes. However, the limits of the areas have not been delineated due to the extensive areas of mud flats which bare at MLLW. The approximate limits of the Mud Flats have been given where low water photographs were available.

Pass points have been selected every three inches along the shoreline to facilitate location of photo hydro stations, and in compliance with project instructions.
PHOTOGRAMMETRIC OFFICE REVIEW

1. Projection and grids
2. Title
3. Manuscript numbers
4. Manuscript size
5. Horizontal control stations of third-order or higher accuracy
6. Recoverable horizontal stations of less than third-order accuracy (topographic stations)
7. Photo hydro stations
8. Bench marks
9. Plotting of sextant fixes
10. Photogrammetric plot report
11. Detail points

ALONGSHORE AREAS
(Nautical Chart Data)
12. Shoreline
13. Low-water line
14. Rocks, shoals, etc.
15. Bridges
16. Aids to navigation
17. Landmarks
18. Other alongshore physical features
19. Other alongshore cultural features

PHYSICAL FEATURES
20. Water features
21. Natural ground cover
22. Planar contours
23. Stereoscopic
24. Instrument contours
25. Contours in general
26. Spot elevations
27. Roads
28. Buildings
29. Railroads
30. Other cultural features

BOUNDARIES
31. Boundary lines
32. Public land lines

MISCELLANEOUS
33. Geographic names
34. Junctions
35. Legibility of the manuscript
36. Discrepancy over lay
37. Descriptive Report
38. Field inspection photographs
39. Forms

Reviewer

Supervisor, Review Section or Unit

40. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler

Supervisor

43. Remarks:
62. **Comparison with Registered Topographic Surveys**

T-3089  1:20000  1910

Shoreline and forshore features have changed considerably since this survey of 1910 and is superseded by T-3099 of common areas for nautical charting purposes.

63. **Comparison with Maps of Other Agencies:**

M. MILLER, ALASKA  1:250000  1953 U.S. Geological Survey. Agreement is as good as scale differences permit.

64. **Comparison with Contemporary Hydrographic Surveys:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Scale</th>
<th>Year</th>
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<tbody>
<tr>
<td>E-8224</td>
<td>1:20000</td>
<td>1955</td>
</tr>
<tr>
<td>E-8225</td>
<td>1:20000</td>
<td>1955</td>
</tr>
<tr>
<td>E-8226</td>
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<tr>
<td>E-8228</td>
<td>1:20000</td>
<td>1955</td>
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</table>

Subject Shoreline Surveys furnished shoreline, forshore and offshore detailing for aforementioned hydrographic surveys prior to review. Only limits of shallow and shoal limits were altered in some instances to fit the hydrographic information. A few additions and changes were applied to the shoreline manuscripts during review; however, these did not interfere with corresponding hydrographic surveys or were resolved.

65. **Comparison with Nautical Charts:**

8833  1:50000  1956  (30 April)

For the fifth edition of this nautical chart subject shoreline manuscripts were used in its recompilation and there is complete agreement except for scale.

66. **Adequacy of Results and Future Surveys:**

Control and Field Inspection for these shoreline surveys are adequate also for nautical chart purposes. No inaccuracies were indicated.

Reviewed by:

[Signature]

Joye J. Streifler

[Signature]
APPROVED:

L. A. Landis
Chief, Review and Drafting
Section, Photogrammetry Division

Reviewed by: (NOTE)

Maurice Chittick
Chief, Nautical Chart Branch

Chief, Coastal Surveys

J. B. B. (Chief, Photogrammetry Division)
Summary to accompany Shoreline Surveys
T-11091, 11092, 11094, 11095, 11096, 9573, 11563, 11571

These eight shoreline surveys are in the vicinity of Port Moller, Bristol Bay, Alaska, and represent the southernmost portion of Project 25020—Ph 40—[below 56° of latitude]. The accompanying index shows the subject shoreline surveys also in relation to adjoining Project 27160. Limits of T-11096 and T-11571 were changed with effected sheets of Project 27160 to form common junctions. A small portion of shoreline and adjacent marsh area in the northeast corner of T-11093 represented all detailing on that manuscript. This information was transferred to T-11094 and T-11093 has been dropped.

Final "Cronar" film positives of these manuscripts as well as the descriptive report will be filed in the Bureau Archives.