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

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-92 Office No. T-11478

LOCALITY

State Alaska

General locality North Shore Alaska Peninsula
Locality Entrance Bechevin Bay

1952-57

CHIEF OF PARTY
J. T. Bowles, Chief of Field Party
F. Natella, Portland Photog. Office

LIBRARY & ARCHIVES

DATE May 1961

USCOMM-DC 5087
Project No. (II): Ph-92  
Quadrangle Name (IV):  

Field Office (II):  
Photogrammetric Office (III): Portland, Oregon  
Instructions dated (II) (III): 16 August 1954  

Chief of Party:  
Officer-in-Charge: Fred Natella  
Copy filed in Division of Photogrammetry (IV)  

Method of Compilation (III): Graphic  
Manuscript Scale (III): 1:20,000 (Approx.)  
Stereoscopic Plotting Instrument Scale (III):  
Scale Factor (III):  
Date received in Washington Office (IV):  
Date reported to Nautical Chart Branch (IV):  
Applied to Chart No.  
Date:  
Date registered (IV):  
Publication Scale (IV):  
Publication date (IV):  

Geographic Datum (III): N.A. 1927  
Vertical Datum (III):  
Mean sea level except as follows: Elevations shown as (2) 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): PENIN 2, 1952  
Lat.: 55° 04' 28.889"  
893.4m (962.0m)  
Long.: 163° 23' 51.127"  
907.2m (157.4m)  
Adjusted X  
Unadjusted  

Plane Coordinates (IV):  
State:  
Zone:  

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.
DESCRIPTIVE REPORT - DATA RECORD

T = 11478

Project No. (II): PH 92

Quadrangle Name (IV):

Field Office (II):

Chief of Party:

Photogrammetric Office (III): Portland, Oregon

Officer-In-Charge: Fred Mastroi

Instructions dated (II) (III):

16 August 1956

26 October 1956 (Supplemental Instructions)

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic

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

Scale Factor (III):

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III):

Vertical Datum (III):

Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (3) refer to sounding datum
I.e., mean low water or mean lower low water

Reference Station (III): PHELIX 2, 1952

Lat. 55° 04' 28.689"

893.4m (962.0m)

Long. 169° 23' 51.127"

907.2m (157.4m)

Adjusted 1

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

Field Inspection by (II): None Preliminary Manuscript

for final manuscript see next page

Planetary contouring by (II):

Completion Surveys by (II):

Mean High Water Location (III) (State date and method of location): Delineated at photogrammetric Office by stereoscopic examination of 1952 office photographs.

Projection and Grids ruled by (IV):

Projection and Grids checked by (IV):

Control plotted by (III): J. E. Deal

Control checked by (III): D. N. Williams

Radial Plot J. L. Harris & J. E. Deal (uncontrolled) Date: 10/4/54

Stereoscopic instrument compilation (III):

Planimetry

Contours

Manuscript delineated by (III): D. N. Williams Date: 10/8/54

Photogrammetric Office Review by (III): J. E. Deal Date: 10/25/54

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

Form T-Page 3
Field Inspection by (II): W. E. Randall & K. L. Jeffers

The 1957 Field Inspection applied during Final Review (June 1960) then applied only to Planetable contouring by (II):

Completion Surveys by (II):

Mean High Water Location (III) (State date and method of location): Delineated at photogrammetric office by stereoscopic examination of 1952 office photographs and field inspection of 1956.

Projection and Grids ruled by (IV):

Projection and Grids checked by (IV):

Control plotted by (III): J. E. Deal

Control checked by (III): D. H. Williams

Radial Plot J. L. Harris

Stereoscopic Instrument compilation (III):

Manuscript delineated by (III): J. L. Harris

Photogrammetric Office Review by (III): J. E. Deal

Elevations on Manuscript checked by (II) (III):
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>37487 to 37490</td>
<td>6/11/52</td>
<td>15:52</td>
<td>1:20,000</td>
<td>0.8 ft. below M.L.L.W.</td>
</tr>
<tr>
<td>38643 &amp; 38644</td>
<td>8/13/52</td>
<td>15:34</td>
<td>1:20,000</td>
<td>2.5 ft. above M.L.L.W.</td>
</tr>
</tbody>
</table>

Tide (III)

<table>
<thead>
<tr>
<th>Reference Station:</th>
<th>Sweeper Cove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subordinate Station:</td>
<td>Bachevin Bay</td>
</tr>
</tbody>
</table>

Washington, Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Diurnal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.7</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td></td>
</tr>
</tbody>
</table>

Date: June 1960

Date: Oct. 54 - Nov. 56

Date: June 1960

Date: Oct. 1960

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:
SUMMARY
TO ACCOMPANY
SHORELINE MANUSCRIPTS
T-11478 thru T-11481

Subject manuscripts, four (4) shoreline surveys, represent the southern portion of project PH-92, which covers the west coast and offshore islands of the Alaska Peninsula in the State of Alaska between the lines of 54° 52' 30" and 55°. T-11478 thru T-11481 extend from the northwest part of Unimak Island eastward to Morzhovoi Bay.

The project was assigned to and completed by the Portland Photogrammetric Office from instructions of April 1952 and supplements. Subject manuscripts were compiled between October 1954 and November 1957 from photography of June-August 1952 and field inspection during seasons of 1952 to 1957. Advance shoreline and control was made available in support of hydrographic surveys.

Cronar film positives at the compilation scale of 1:20,000 and the Descriptive Reports will be registered and filed in the Bureau Archives.

June 1960
FIELD INSPECTION REPORT

Preliminary Manuscript T-11478

Project Ph-92

(None.)

See page 13.
PRELIMINARY PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-11478, T-11480 and T-11481

Project Ph-92

21. Area Covered:

This preliminary radial plot covers the shorelines of Bech-evin Bay and Isanotski Strait (North Shore Alaska Peninsula). It includes map manuscripts T-11478, T-11480 and T-11481.

22. Method:

Map manuscript T-11479 was included in this preliminary radial plot in order to have the benefit of several field identified horizontal control stations which were situated within its detail limits. This afforded excellent orientations for photographs No'd. 37486, 37487, 38592 and 38593 by utilizing field identified control stations as follows:

<table>
<thead>
<tr>
<th>SHORE</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITTLE</td>
<td>1952</td>
</tr>
<tr>
<td>SULA</td>
<td>1921</td>
</tr>
<tr>
<td>CABIN</td>
<td>1952</td>
</tr>
<tr>
<td>AXEL, 1952</td>
<td></td>
</tr>
<tr>
<td>GRASS, 1923</td>
<td></td>
</tr>
<tr>
<td>ISLAND, 1924</td>
<td></td>
</tr>
<tr>
<td>PENIN 2, 1952</td>
<td></td>
</tr>
</tbody>
</table>

From this beginning the radial plot was satisfactorily extended southwesterly across the joined manuscripts T-11478, T-11480 and T-11481 by holding strongly to azimutb lines and to two office identified horizontal control stations namely:

| SHOAL | 1924 |
| PETERSONS CABIN | S.W. GABLE, 1941 |

It can therefore be stated that along the north limits of T-11481 and along the east limits of T-11478 the results of this radial plot are quite accurate. Southwesterly from these places the radial plot is an extension based on office identified horizontal control stations and although the locations shown for pass points are correctly inter-related, their positions on the map projections are subject to errors in scale, azimuth and position.

After the radial plot was completed the locations of several peaks, for which geographic positions were available, were determined. Office identification of these peaks was attempted on several photographs and it was found that on these photographs they could be oriented to their plotted geographic positions along with
the results of the radial plot. Because these were only office identified it was not believed that better results could be obtained by again running the radial plot and including these peaks as horizontal control.

When drawing templates of the nine lens photographs taken in June and August of 1952 corrections for paper distortion and transforming errors were made by use of master calibration template No. 36269.

23. Adequacy of Control:

Refer to remarks in previous paragraph.

24. Supplemental Data:

None

25. Photography:

The photography was adequate as to coverage, overlap and definition. Numerous principal points were situated in water areas and these were difficult to accurately transfer to overlapping photographs.

Approved and forwarded: Respectfully submitted:

Fred Natella J. Edward Deal, Jr.
Comdr., USC&GS Cartographer
Officer-in-Charge USC&GS
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>LATITUDE OR Y-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>
<th>SCALE FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LONGITUDE OR X-COORDINATE</td>
<td>FORWARD (BACK)</td>
<td>FORWARD (BACK)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G 10050</td>
<td>55 04</td>
<td>58.489</td>
<td>893.4 (962.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P 1V295</td>
<td>163 23</td>
<td>21.127</td>
<td>997.2 (1574.6)</td>
<td></td>
</tr>
<tr>
<td>PETERSON'S CABIN</td>
<td></td>
<td>55 02</td>
<td>19.288</td>
<td>596.5 (1258.9)</td>
<td></td>
</tr>
<tr>
<td>S.W. GAHLER, 1941</td>
<td>P V 721</td>
<td>163 60</td>
<td>39.062</td>
<td>693.7 (371.9)</td>
<td></td>
</tr>
<tr>
<td>SILVER, 1940</td>
<td></td>
<td>55 00</td>
<td>16.082</td>
<td>497.3 (1358.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163 38</td>
<td>11.772</td>
<td>209.2 (857.3)</td>
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<tr>
<td>SWANSON, 1940</td>
<td></td>
<td>55 02</td>
<td>30.660</td>
<td>918.7 (906.7)</td>
<td></td>
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<tr>
<td></td>
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<td>163 36</td>
<td>47.128</td>
<td>836.9 (228.6)</td>
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<tr>
<td>CHUNAK 2, 1940</td>
<td></td>
<td>55 01</td>
<td>53.763</td>
<td>1662.5 (192.9)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>163 26</td>
<td>55.099</td>
<td>978.7 (87.1)</td>
<td></td>
</tr>
<tr>
<td>WIND, 1924</td>
<td></td>
<td>55 00</td>
<td>34.947</td>
<td>1080.7 (774.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163 30</td>
<td>37.088</td>
<td>659.1 (407.2)</td>
<td></td>
</tr>
<tr>
<td>TRAPPER'S CABIN</td>
<td></td>
<td>55 03</td>
<td>58.42</td>
<td>1806.6 (48.8)</td>
<td></td>
</tr>
<tr>
<td>R. GAHLER, 1941</td>
<td>P V 722</td>
<td>163 24</td>
<td>02.64</td>
<td>171.1 (893.7)</td>
<td></td>
</tr>
<tr>
<td>ST. CATHERINE</td>
<td></td>
<td>55 02</td>
<td>21.886</td>
<td>676.8 (1178.6)</td>
<td></td>
</tr>
<tr>
<td>R. BASE, 1941</td>
<td>P V 715</td>
<td>163 27</td>
<td>32.445</td>
<td>576.2 (489.3)</td>
<td></td>
</tr>
<tr>
<td>MUST, 1940</td>
<td></td>
<td>55 02</td>
<td>49.077</td>
<td>1517.6 (597.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163 33</td>
<td>12.303</td>
<td>218.5 (846.9)</td>
<td></td>
</tr>
<tr>
<td>KATY, 1940</td>
<td></td>
<td>55 02</td>
<td>42.553</td>
<td>1315.9 (539.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163 31</td>
<td>18.517</td>
<td>329.3 (726.1)</td>
<td></td>
</tr>
<tr>
<td>ST. CATHERINE</td>
<td></td>
<td>55 02</td>
<td>48.170</td>
<td>1689.6 (365.8)</td>
<td></td>
</tr>
<tr>
<td>W. BASE, 1941</td>
<td>P V 715</td>
<td>163 31</td>
<td>12.442</td>
<td>220.9 (846.4)</td>
<td></td>
</tr>
<tr>
<td>BEACON, 1923</td>
<td></td>
<td>55 02</td>
<td>42.999</td>
<td>1329.6 (525.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163 31</td>
<td>18.315</td>
<td>325.2 (740.2)</td>
<td></td>
</tr>
</tbody>
</table>
31. Delineation:

Graphic methods were used for the compilation of this manuscript.

There was no field inspection except for the sand spit running easterly from Cape Krenitzin where field inspection in 1952 on a 1942 nine lens photograph and on a K-20 photograph taken in 1952 was available. For the remainder of the manuscript the mean high-water line and alongshore features were interpreted by stereoscopic examination of the office photographs. Reference was made to nautical charts of the area in an effort to locate individual rocks shown on the charts and also to assist in the determination of the type of alongshore feature at any given place.

32. Control:

Refer to Item 22 "Method", in the Preliminary Photogrammetric Plot Report which is included in this Descriptive Report. Except as stated in the above reference the triangulation stations shown on this manuscript were plotted after the radial plot was completed. This was done so that an approximate verification might be made of the radial plot as to its accuracy for scale, azimuth and position. From comparison with data contained in many of the descriptions for these triangulation stations it appears that the planimetry of the manuscript is in good relation to the location of the station on the projection. It is not believed, however, that any photo-hydro station that might be subsequently located by use of the pass points on this manuscript, can be used during the hydrographic survey in conjunction with a triangulation station that may be recovered and flagged in the field. If this is attempted slight jumps will probably occur at the triangulation station location.

33. Supplemental Data:

None

34. Contours and Drainage:

Drainage has been shown along the shoreline where it empties into the main body of water. Contours are not applicable.
35. Shoreline and Alongshore Features:

For the most part the mean high-water line and alongshore features have been delineated by office examination of the photographs. Refer to Item 31 "Delineation" of this report.

The offshore limits of mud or sand flats could be easily seen because the photographs were taken at about mean lower low-water. These have been shown with the approximate low-water line symbol.

Foreshore areas have been symbolized as interpreted by office examination of photograph detail.

36. Offshore Details:

None.

37. Landmarks and Aids:

Not applicable.

38. Control for Future Surveys:

Refer to remarks under Item 49, "Notes to the Hydrographer".

39. Junctions:

A satisfactory junction has been made between T-11478 and T-11480.

40. Horizontal and Vertical Accuracy:

Not applicable. Refer to remarks in Photogrammetric Plot Report.

41 thru 48.

Not applicable.

Approved and forwarded: Respectfully submitted:

Fred Natella
Comdr., USC&GS
Officer-in-Charge

J. Edward Deal, Jr.
Cartographer
USCGS
Field Inspection Report
Sheet T-11476
Alaska Peninsula, North Side
Vicinity Bechevin Bay
Project Ph-92
1956

2. Areal Field Inspection

The area inspected includes that portion of T-11476 west of the entrance to Bechevin Bay with the exception of the shoreline on the west side of St. Catherine Cove lying south of latitude 55° 01.5'N. Inspection was limited to the shoreline visible from a launch except from MUST, 1940 to the east end of CHUNAK POINT where walking was feasible. Inland areas were viewed but not visited.

The eastern portion of sheet T-11476 was inspected in 1952 by photogrammetrists attached to the geodetic party of W. E. Sylar. (See Seasons Report and Field Inspection Report, 1952, Sylar, Ph-92.)

The terrain is gently rolling, rising gradually from the water to the mountains inland. Along the Bristol Bay coast, sand dunes and ridges rise from 20 to 50 feet and parallel the beach. In general these features are grass covered. Some of those nearest the shore are bare on the seaward slopes where they bluff away to the storm high waterline.

Inland from the dunes the ground is similar to tundra, with scattered ponds and spongy soil. Further up the slopes inland the soil is more firm and less damp.

The shore is sand except for the short section between MUST 1940 and BEASON 1923 where scattered boulders from one to four feet in size extend offshore for at least 200 meters from the KWH line. Whether the boulders extend further offshore under water was not determined. Nearby, to the east is a small section where the foreshore consists of pebbles. These areas are delineated.

The field inspection is substantial along the north shore from MUST 1940 to PETERSON, 1941. The launch remained approximately one-quarter mile offshore except while landing at the two above-mentioned stations. No search was made for the rock in the vicinity of 55° 02.5', 163-34.1'. Also substantial is the south shore of Chunak Point west of 163-27.3' where inspection was accomplished from a distance of one-eighths to one-half mile while searching for various control stations.
This unimportant area is shallow with extensive mud flats.

No inspection was done on the west shore of St. Catherine Cove, south of 55° 01' 51"K. Personnel engaged in shore camp building and maintenance at WIND, 1924, agreed that the waterline shown on photo number 38595 closely approximates MHW in this area.

Photography is of good quality.

Vegetation for this area is similar to that described in the Field Inspection Report submitted by Sylar (C. H. Bishop) for Ph-92.

3. Horizontal Control

a) The following supplemental control stations were established by sextant outs, as follows:

At KATY, 1940

Cabin, NW Gable St. Catherine E. Base - Gable 80-26.0
80-25.5
80-26.0
Mn 80-25.8

Gable - KATY, 1940
96-15.2
96-15.0
96-16.0
96-16.0
Mn 96-15.6

Gable, NE Gable Gable - KATY, 1940
24-14.0
24-15.0
24-14.5
Mn 24-14.5

At KATY, 1940

Cabin, NW Gable NEACOM, 1923 - Gable 57-54.5
57-54.0
57-53.5
Mn 57-54.0

Gable, NE Gable NEACOM, 1923 - Gable
16-15.8
16-15.2
16-16.0
Mn 16-15.7

b) No datum adjustments were made.

c) All available control is by USCGS.

d) A list of control stations to be recovered was not furnished this party. The following control was recovered in the area west of the
entrance to Beechirn Bay) (Control to the east was recovered in 1952)

**BASE**
- **BEACON, 1923**
  - Pinched
  - Direct, on office photo 38643 (not on 37000 photos; use 38000 series photos)

- **KATT, 1940**
  - Not pricked (adjacent to BEACON)

- **NUST, 1940**
  - Direct, on Field photos 37490 and 38644

- **PETEerson, 1941**
  - Not pricked (near Peterson's cabin)

- **PETEson's CABIN, SW gable 1941**
  - Direct, on Field photo 38644

- **ST. CATHARINE E. BASE 1941**
  - Not pricked

- **WIND, 1924, Al**
  - Not pricked (near sextant-located cabin SW gable in 3a.)

**NOTE:** CSI cards submitted.

1) The stations searched for were those necessary for hydrographic survey purposes. The photogrammetry was incidental except on 4 September after the completion of all other field work. This day was devoted exclusively to inspection and identification of control.

2) Two control stations were positively identified on the photographs - Peterson's Cabin 1941 and Beacon 1923. However, Beacon does not show on the 37000 series photos. Since it does show on photo 38643, it is assumed the beacon was down during the earlier photography but rebuilt in time for the 38000 series (August 1952) photography. To control the plot in this vicinity it is recommended that photos 38640, -41 and -42 be prepared and used in addition to those photos already used.

The cabin located near WIND 1924 (see 3a) offers some control for the south central portion of the sheet. It is felt that although the amount of control identified is less than desirable, it is sufficient to permit a final plot to be made.

4. **Vertical Control**

   No vertical control was established.

5. **Contours and Drainage**

   Not applicable.

6. **Woodland Cover**

   None.
7. Shoreline and Alcove shore Features

a) The HW line was identified on photos 37486, 37490 and 38644 along most of the shoreline.

b) The low water line was not inspected because time was not available. The low waterline depicted on the preliminary manuscript is adequate until hydrographic surveys are conducted.

e) The foreshore is sand along the exposed beaches except in the pebble and boulder areas noted Northwest of BEACON.

In Beecheyin Bay the foreshore was not inspected. It is recommended the notes on the preliminary manuscript be accepted until a comprehensive field edit is made.

d) There are no cliffs in this area. The only steep features are sand dunes some of which are bare toward the beach. No specific feature warrants description. Generalized statements are made on the inspected photographs.

e) There are no cultural features in the area other than unimportant cabins.

f) There are no submarine cables in the area.

g) There are no shoreline structures in the area.

8. Offshore Features

No offshore features were visited. Shoal areas, evident by breakers, can be hydrographically located without photogrammetric aid.

The rocks shown on chart 8701 and noted on the preliminary manuscript were not searched for. The notes should be carried on the manuscript until a final edit is completed.

9. Landmarks and Aids

a) No landmarks exist in the area.

b) Interior landmarks consist of mountain peaks - usually concealed by clouds - none of which are in the sheet area.

e) No aeronautical aids exist in the area.

f) The only fixed aid to navigation is CHUNAK POINT DAYBEACON, a white, slatted wood beacon on top of an 80 foot dune.

g) No official floating aids are in the area. Fifty-gallon drum buoys are established from time to time by fishermen to define the channel into Beecheyin Bay.
10. **Boundaries, Monuments and Lines**

    Not Applicable.

11. **Other Control**

    No marked stations were established. Two cabins were located by
cuts (no check) to help control the plot, but due to the intersection
angles of the cuts, these stations are only "fair". (See 3a and 3f)
The cabins are marked on office photo 3643.

12. **Other Interior Features**

    There are no cultural features other than three cabins (the two
mentioned in (11) and Peterson's Cabin 1941). The natural features
are all evident on the photographs.

13. **Geographic Names**

    No investigation was made. The hydrographic party or photogram-
metrist who completes sheets T-11480 and -31 will make a complete report.

14. **Special Reports and Supplemental Data**

    None

Respectfully submitted

William E. Randall
LDR, C&GS

Approved and forwarded:

John Bowles
CAPT, C&GS
Commanding Ship PATHFINDER
PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-11478
PH 92
Project 23368

21. Area Covered:

This radial plot covers a shoreline area along the Bering Sea from a point about three miles east of Cape Krenitsin to a point about eight miles west of Chunak Point. A portion of the shoreline of Beecheyin Bay in the vicinity of St. Catherine Cove is also included.

22. Method:

Refer to the preliminary photogrammetric plot report of 1952.

A final photogrammetric plot was made by the hand templet method using office photographs Nos. 37487 thru 37490, 38593, 38594, 38643 and 38644.

Field identification of three control stations was made in 1956 by personnel of the Ship PATHFINDER. One of these confirmed the office identification made in the preliminary plot for PETERSON'S CABIN S.W. GABLE, 1941. The 1956 identification furnished for station MUST, 1940 was poor and could not be accurately transferred to the office photographs. It was not rigidly held to during the orientation of the templates. BEACON, 1923 could only be seen on photograph No. 38643. It was transferred to other photographs by use of the stereoscope and office measurements. Photographs 38640, 38641 and 38642 on which this beacon apparently appears were not furnished for this plot as recommended by the field unit. The station as identified was rigidly held.

One other station was office identified namely: TRAPPER'S CABIN E GABLE, 1941. This station was held to in preference to PENIN 2, 1952 which was doubtfully identified during the original field inspection.

Two supplemental control stations located by sextant cuts were also used to control this photogrammetric plot namely:

CABIN N.W. GABLE
CABIN N.E. GABLE

These sextant cuts are listed in the 1956 field inspection report. Excellent intersections of radials from office photographs were obtained at the locations established by these sextant cuts.

The results of this radial plot moved slightly three of the pass points located in the preliminary plot. These are situated along the shoreline of Bering Sea between Longitude 163° 35' and Longitude 163°
37'. The locations of all other pass points established in the preliminary plot were verified.

The results of this final radial plot will meet the accuracy requirements for the compilation of shoreline map manuscripts.

23. Adequacy of Control:
Refer to remarks in previous paragraph.

24. Supplemental Data:
None.

25. Photography:
The photography was adequate as to coverage, overlap and definition except for a positive identification of Station BRACON, 1923 on more than one office photograph.

Approved:                              Respectfully submitted:

Fred Natella  
Comdr., C&G Survey  
Officer-in-Charge

J. Edward Deal  
Cartographer  
C&GS
COMPILATION REPORT
Map Manuscript T-11478
Project 27090

31. Delineation:

Refer to the Preliminary Compilation Report of 1952.

Graphic methods were used for the compilation of this map manuscript.

Because of the relocation of three pass points from results of the final radial plot a minor change was made in the mean high-water line location between SWANSON, 1940 and MUST, 1940. Elsewhere changes were made in the preliminary compilation in accordance with field inspection made in 1956 by personnel of the Ship PATHFINDER. All changes have been shown with red plastic ink. Additions required to bring the manuscript to the status of an advance shoreline compilation consisted of lakes and ponds. These have been shown in black plastic ink.

Field photograph No. 11363, referred to in the Field Edit Report T-11478 (Part), was not furnished the compilation office. The bluff visible in the stereoscopic model 37487 and 37488 has been shown. An appropriate note indicating the character of land on the spit at PENIN 2, 1952 has been lettered on the manuscript.

The planimetry as compiled is adequate for charting and for the shoreline of hydrographic survey boat sheets. A detailed final field edit will probably reveal changes in the shape of the shoreline which have occurred since time of photography.

32. Control:

Refer to Item 22, "Methods" in the Photogrammetric Plot Report.

33. Supplemental Data:

None

34. Contours and Drainage:

Drainage shown on the manuscript has been delineated by office examination of the photographs. Contours are not applicable.

35. Shoreline and Alongshore Features:

Except as stated in Item 31, "Delineation" the shoreline and along-
shore features have been determined by office examination of the photographs.

36. Offshore Details:

The boulder area offshore between MUST, 1940 and ST. CATHERINE W. BASE, 1941 should be more accurately determined during future surveys.

37. Landmarks and Aids:

Not applicable.

38. Control for Future Surveys:

Two natural objects which have been located by a combination of sextant cuts and radial resection are adequate for future hydrographic survey signals. They are located along the west shore of St. Catherine Cove and are as follows:

CABIN N.W. GABLE
CABIN N.E. GABLE

39. Junctions:

The junction made in the preliminary compilation between T-11478 and T-11480 is satisfactory.

40. Horizontal and Vertical Accuracy:

There are no areas of subnormal horizontal accuracy. Vertical accuracy is not applicable.

46. Comparison with Existing Maps:

Maps available during the preliminary compilation were not returned for comparison with advance compilation.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart 8701 Scale 1:80,660 at Lat. 54° 50' published Feb. 1943 (6th Edition), last corrected 3/17/52.

"Items to be applied to nautical charts immediately."

None.

"Items to be carried forward"

None.
Approved:

Fred Natella
Comdr., C&G Survey
Officer-in-Charge

Respectfully submitted:

J. Edward Deal
Cartographer
C&GS
GEOGRAPHIC NAMES LIST

*Alaska Peninsula *(Title)
*Bechevin Bay
*Bering Sea

Cape Krenitzin
Chunak Point

Hobk Bay

St. Catherine Cove
Slime Bank
Swanson Lagoon

*Unimak Island

* B.G.N. Decision

George W. Bean
GEOGRAPHIC NAMES SECTION
16 MARCH 1960
49. **Notes to the Hydrographer:**

The double circles in red ink with a number lettered adjacent thereto indicate the location of the principal point of a nine lens photograph as located in the preliminary radial plot.

The large circles in red ink (6.0 mm dia.) are pass points located during the running of the preliminary radial plot. These are the points which should be used to control each individual chamber of a nine lens photograph when locating photo-hydro signals in the field.

The small circles in red ink (2.5 mm dia.) are minor pass points which were located by the compiler for use in detailing the planimetry shown on the manuscript.

These pass points and minor pass points may be adapted as photo-hydro signals provided that the photograph image which has been located may be positively found in the field and then marked with a suitable signal.

Stations located that may be used as hydrographic signals are:

- CABIN N.W. GABLE
- CABIN N.E. GABLE

Refer to Item 38 of the Compilation Report.
FIELI EDIT REPORT  
T-11479 (Part)

51. Methods - The eastern portion of this preliminary sheet had been field inspected prior to the radial plot and compilation. Because of sufficient recovered control in this area, the final (advance) plot will not be disturbed appreciably from its present arrangement. Consequently, this part of the manuscript was field edited.

a) Planimetry - The manuscript was visually compared with the shoreline while parallelizing the shore in a launch. Interior editing was accomplished visually from FFMN 2, 1952 while recovering the control station.

b) Contours - Not applicable.

e) Field Edit Sheet - A paper copy of the manuscript served as the field edit sheet.

52. Adequacy of Compilation - The compilation where edited is satisfactory. The opening in the coast at Lat 55° 05'15" N, Long 16° 20'15" W is practically the same shape as compiled. Since hydrographic surveys are scheduled here in 1957 and since T-11479, to the east, must be edited in this vicinity, no attempt was made to revise the shoreline. The field-inspected K-20 photographs were not available, so no comment is possible regarding the compilation of features inspected thereon. The 10-15 ft. sand bank alongshore at FFMN 2, 1952 should be shown, as should the other banks, etc., shown on the field-inspected 9-13mm photograph 11048.

53. Map Accuracy - No accuracy surveys were made.

54. Recommendations - The western portion must be edited after the final plot is made. At that time, the southern side of Cape Krenitsen and the opening referred to in 52, should be re-edited for any possible changes. The final edit should entirely supersede and replace this report.

55. Examination of Proof Copy - The cannery at False Pass should be contacted for this step. It was not visited in 1956.

William B. Randall  
LODR, CGS

Approved:

John Bowes  
Captain, CGS  
Commanding Ship PATHFINDER
FIELD EDIT REPORT
2-11478
PROJECT NO. 13750
1957

(51.) METHODS OF FIELD EDITING

Field editing was done in conjunction with hydrographic field surveys number FF-2157, FF-2257, and FF-2357. A paper print of the manuscript served as the edit sheet, but the hydrographic surveys should be consulted for final shoreline changes, and offshore features.

On the spot editing was made while recovering stations PETERSON 1941, MIST 1940, ST. CATHERINE E. BASE 1941, PENINS 2, 1952, AKIL 1952, and while building a supplemental sextant located signal, MAN, near SWANSON 1940. All other editing was done from launches during the hydrographic survey.

(52.) ADEQUACY OF COMPILATION

The compilation is fair, except for the entrance to Bochevin Bay at latitude 55° 05.5' N., longitude 163° 20.5' W., and the entrance to Swanson Lagoon at latitude 55° 02.7' N., longitude 163° 36.1' W. Both of these areas are subject to extreme change from year to year, especially the Swanson Lagoon entrance.

The entrance to Swanson Lagoon has shifted approximately two miles west, as may be seen on hydrographic survey sheet number FF-2257.

The small entrance to Bochevin Bay has not changed appreciably in location, but has changed shape. Its present shape may be seen on hydrographic survey sheet number FF-2357.

Other minor shoreline changes have been noted by the hydrographic surveys.

(53.) MAP ACCURACY

No accuracy surveys were made.
54. RECOMMENDATIONS

None.

55. EXAMINATION OF PROOF COPY

The cannery at False Pass should be contested for this stop. It was not visited in 1957.

E. William Jeffers
EHS, C&OS

Approved:

F. B. Quimby
Captain, CGCS
Cmdg. Ship PATHFINDER
FIELD EDIT DATA APPLICATION
Map Manuscript T-11478
Project Ph-92

The field edit data shown on an ozalid print of T-11478 was examined carefully for application to the previously compiled advance map manuscript.

All changes shown northeast of the Bechevin Bay Entrance have been applied.

Those shown west of Bechevin Bay Entrance were not applied. A new mean high water line could not be located that would agree with the low-water lines shown on the ozalid print.

Approved: Respectfully submitted:

V. Ralph Sobieralski J. Edward Deal
LDDR C&D Survey Cartographer
Officer-in-Charge C&GS
62. Comparison with Registered Topographic Surveys

<table>
<thead>
<tr>
<th>Survey Code</th>
<th>Scale</th>
<th>Date</th>
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<tbody>
<tr>
<td>T-4028</td>
<td>1:10,000</td>
<td>1923</td>
</tr>
<tr>
<td>T-4046</td>
<td>1:20,000</td>
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<tr>
<td>T-4078</td>
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<tr>
<td>T-8536</td>
<td>1:20,000</td>
<td>1943</td>
</tr>
</tbody>
</table>

Minor differences exist between these surveys. They are not in excess of normal expectations of time interval. Subject surveys are to supersede above-listed topographic surveys of identical areas for nautical charting purposes.

63. Comparison with Maps of Other Agencies


These topographic maps were compiled from plane-table surveys of 1929 and aerial photography of 1942 and 1943. Some differences exist between these surveys.

64. Comparison with Contemporary Hydrographic Surveys

<table>
<thead>
<tr>
<th>Survey Code</th>
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<tr>
<td>H-8373</td>
<td>1:20,000</td>
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<tr>
<td>H-8374</td>
<td>1:20,000</td>
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</tr>
<tr>
<td>H-8375</td>
<td>1:20,000</td>
<td>1957</td>
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</table>

The shoreline has not been added to H-8374. The hydrographic information shown does interfere slightly in 2 places with the corresponding shoreline as shown on the T-sheet. However, the shoreline involved is on a sand spit of shifting sand dunes, where even greater deviations may be expected. Other than this, there is good agreement between these surveys.
65. Comparison with Nautical Charts

<table>
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<td>8860</td>
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<td>8802</td>
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<td>12/21/59</td>
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There is good agreement.

66. Adequacy of Results and Future Surveys

Of the four (4) subject surveys T-11478 and T-11479 were partially field edited by the hydrographic party in 1957, which resulted in several revisions to be applied to the effected T-sheet5.

T-11478 thru T-11481 were completed according to project instructions and no deficiencies in accuracy or adequacy are indicated.

Reviewed by:

Joseph J. Streifler

Nautica Chart Division

Chief, Review & Drafting Sec.
Photogrammetry Division

Chief, Nautical Chart Branch
Charts Division 5/8/61

L. S. Loomer

Chief, Photogrammetry Division

K. W. Truex

Chief, Coastal Surveys Division

W. E. McPherson

Assistant Director for Oceanography
### NAUTICAL CHARTS BRANCH

**SURVEY NO. T-11478**

Record of Application to Charts

<table>
<thead>
<tr>
<th>DATE</th>
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<th>REMARKS</th>
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<tr>
<td>2/19/64</td>
<td>14535</td>
<td>Paterno &amp; Ass</td>
<td>Before After Verification and Review</td>
</tr>
<tr>
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</tbody>
</table>

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.