# Descriptive Report

**Type of Survey**: Shoreline (Photogrammetric)

**Field No.**: Ph-117  
**Office No.**: T-11497

**Locality**

- **State**: Alaska
- **General locality**: Sukkwan Strait
- **Locality**: North Pass and South Pass

**Chief of Party**

- F. X. Popper, Chief of Field Party
- W. F. Deane, Baltimore District Officer

**Library & Archives**

**Date**: 

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*Form 804  
U. S. Department of Commerce  
Coast and Geodetic Survey*
DESCRIPTIVE REPORT - DATA RECORD

T - 11497

Project No. (II): Ph-117

Quadrangle Name (IV):

Field Office (II): Ship PATTON

Chief of Party: J. T. Jarman (1956)

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: F. X. Popper (1958)

Instructions dated (II) (III):
(11 Oct. 1954)
(7 Jan. 1955)
(9 Dec. 1955)
(1 Nov. 1957)

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

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. Date:

Date registered (IV):

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 (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): TERRY, 1958

Lat.: 55° 12' 37.85" (1159.2 m)
Long.: 132° 51' 35.223" (622.9 m)

Adjusted

Plane Coordinates (IV):

State: Alaska-UTM Zone: 8

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)
DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): G. E. Haraden
K. W. Jeffers

Date: 1956 Field Season

Planetable contouring by (II): None

Date: 1958 Field Season

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): Office interpretation of 1954 photographs supplemented by field inspection in 1956 and 1958.

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

Date: 10/25/54

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

Date: 10/26/54

Control plotted by (III): B. Wilson

Date: 12/1/54

3/5/59

Control checked by (III): H. R. Rudolph

Date: 12/14/54

3/6/59

Radial Photogrammetry:

Date: 3/18/55

Contouring by (III): E. L. Williams


Stereoscopic Instrument compilation (III):

Date:

Contours

J. B. Phillips

Date: 3/16/59

Manuscript delineated by (III): R. M. Whitson

B. Wilson

Date: 3/18/59

Photogrammetric Office Review by (III): R. Glaser

Date:

Elevations on Manuscript

checked by (II) (III):

COMM. DC. 57842
Camera (kind or source) (III): Single lens "0"

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>54-0-34 thru 36</td>
<td>6/4/54</td>
<td>1041</td>
<td>1:10,000</td>
<td>1.8' below MLLW</td>
</tr>
<tr>
<td>54-0-47 thru 51</td>
<td>&quot;</td>
<td>1055</td>
<td>&quot;</td>
<td>1.6' &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>54-0-54 thru 57</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>1.6' &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>54-0-220 thru 224</td>
<td>&quot;</td>
<td>1637</td>
<td>&quot;</td>
<td>12.2' above MLLW</td>
</tr>
</tbody>
</table>

Tide (III) From predicted tables

Reference Station:  Sitka, Alaska
Subordinate Station:  South Pass, Sukkwan Strait
Subordinate Station:  North Bay, Tlevak, Strait

Washington Office Review by (IV):  6/21/64 A M T

Final Drafting by (IV):
Drafting verified for reproduction by (IV):
Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):  45
Shoreline (More than 200 meters to opposite shore) (III):  10
Shoreline (Less than 200 meters to opposite shore) (III):  10
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): *

* 1956 CONTROL STATISTICS
   Triangulation Stations established: 19
   Recovered and identified: 2 - 1925 triangulation stations

* 1958 CONTROL STATISTICS
   Triangulation Stations established: 11 - 2nd order and 2 - 3rd order
   Recovered: 2 - 1956 triangulation stations
   Photo Hydro Stations established: 0
Summary to Accompany
Descriptive Report
All T-Numbers
PH-117

September 1970

This project is comprised of twenty-nine shoreline surveys compiled at 1:10,000 scale. It covers an area in the vicinity of Cordova Bay in southeast Alaska. The purpose for the compilation of these shoreline surveys was to provide a base for hydrographic survey operations and to update marine charts of the area.

The shoreline area was covered with single-lens and nine-lens photography. Field inspection prior to compilation consisted only of recovery and identification of control. Control was extended by radial plot method in the Baltimore District Office prior to graphic compilation. The shoreline was delineated from office interpretation of the photographs.

Copies of the manuscripts and the ratio photographs were sent to the hydrographic parties (ships HODGSON and PATTON) for hydro support use. Hydro signals were identified and described. Corrections and additions to the shoreline and offshore details were made from field annotated photographs. This has been treated as field inspection throughout this project, but actually it is field edit.

The application of field inspection and photogrammetric office review was done in the Baltimore District Office.

Map Accuracy

The extension of control (radial plots) for the subject maps was considered to be sub-standard in accuracy (refer to radial plot reports). However, the maps were used to provide shoreline and control for hydrographic surveys and were found by the hydrographer to be generally satisfactory for this purpose. A new project is planned for this area.

(Continued)
Differences Between Contemporary Hydrographic and Topographic Surveys

Field inspection was done during hydrography (refer to the field inspection report). Where the application of field inspection (additions and corrections) was not applied to the hydrographic surveys, they were called to the attention of the hydrographic verification and review activities by the following means:

1. For an unverified smooth sheet a "Notes to the Verifier" page was inserted in the Hydrographic Survey Descriptive Report.

2. For an unreviewed smooth sheet a "Notes to the Reviewer" page was inserted in the Hydrographic Survey Descriptive Report.

3. For reviewed hydrographic surveys the Chief, Hydrographic Data Branch was notified.

The remaining discrepancies were disposed of in conference with the Hydrographic Review Branch.

Rock Elevations

Differences in some rock elevations were found during final review between a number of the photogrammetric surveys and the contemporary hydrographic surveys. It was decided in conference with the Hydrographic Review Branch that since the rock elevations were from predicted tides they would be removed in most cases from the photogrammetric surveys and the elevations on the hydrographic surveys would be used because of more accurate tide data. An ozalid copy of all manuscripts showing the rock elevations computed from predicted tides will be filed along with available field inspection photographs in the Federal Records Center.

A complete Geographic Names Investigation was made and a final names sheet is a part of this report.

Field records were incomplete at the time of final review. Available field data was used at this time.

A registration manuscript copy for all surveys, except T-11301 and T-11321 which are lost, will be registered in the Bureau Archives under their respective T-numbers.

Submitted by

Donald M. Brant
FIELD INSPECTION REPORT
T-11492, T-11493, T-11496

2. AREAL FIELD INSPECTION

This report covers the shoreline from Negros Island on the northwest side of Tlevak Narrows to just south of Farallon Bay in Tlevak Strait, including Soda Bay. The inspection was made from a skiff, with landings being made at frequent intervals.

The shoreline is generally rocky with trees overhanging the high water line in many areas. The region is cluttered with small islands, reefs, and foul areas.

Cultural features are virtually absent; there being only a few trappers' shacks and a logger's camp present in the entire region.

Photo coverage is fair with the exception of the Lively Islands and Guide Is. These islands are visible only on the fringe of a few photographs, and are quite blurred. Shadows obscure the high water line and recoverable horizontal control points in some cases.

3. HORIZONTAL CONTROL

(a) The following stations were established in 1950 to control the photographs in Soda Bay

<table>
<thead>
<tr>
<th>Second Order</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>APEX SBC</td>
<td></td>
</tr>
<tr>
<td>FIRSTS</td>
<td></td>
</tr>
<tr>
<td>INTER</td>
<td></td>
</tr>
<tr>
<td>LIKOF S</td>
<td></td>
</tr>
<tr>
<td>NATAL</td>
<td></td>
</tr>
<tr>
<td>PHOTOS</td>
<td></td>
</tr>
<tr>
<td>ROUNDS</td>
<td></td>
</tr>
<tr>
<td>SOMA S</td>
<td></td>
</tr>
<tr>
<td>SHEL LI</td>
<td></td>
</tr>
<tr>
<td>SUNRI S</td>
<td></td>
</tr>
<tr>
<td>TROUTS</td>
<td></td>
</tr>
<tr>
<td>WALES S</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Order (Intersection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Island Light</td>
</tr>
<tr>
<td>Lively Island Light</td>
</tr>
</tbody>
</table>

*Stations identified on the photographs.*
3. HORIZONTAL CONTROL (Contin.)

To control the photographs in the vicinity of Halibut Nose, Station ST38, 1950 was established and identified on the photographs. The triangulation data for this station is included with the report. This station will be incorporated in the triangulation scheme through North Pass at a later date.

(b) All horizontal control is computed on the NA 1927 Datum and no datum adjustments are necessary.

(c) All control was established by the U. S. Coast and Geodetic Survey.

(d) All control called for in the instructions was established and/or identified on the photographs.

(e) All Coast and Geodetic Survey stations in the area were thoroughly searched for. The following stations were reported as searched for, not found, and presumed lost:

RIG 1907
BAK 1907
GUIN 1907
ISLE 1907
NORTH BASE (North Bay) 1907
OUT 1907
SOUTH BASE (North Bay) 1907
TURN 1907

4. VERTICAL CONTROL

Inapplicable

5. CONTOURS AND DRAINAGE

Inapplicable

6. WOODLAND COVER

The area is covered with a dense growth of trees composed mainly of spruce, cedar and hemlock. The tree line and high water line coincided or are very close in many places.
7. SHORELINE AND ALONGSHORE FEATURES

(a) The mean high water line is indicated at various places on the photographs. In general it appears as the seaward side of a distinct white line on the photographs. This white area is caused by grass covered rock or the jumble of driftwood lining the beach. In some areas the high water line is obscured by shadows or overhanging trees; however, a comparison with the manuscripts indicated that the office interpretation was correct for charting purposes.

In the region of Tlovak Narrows where extensive areas bare at low water, a visual inspection on the ground was made and the high water line sketched on the photographs.

(b) The low water line is dotted on the photographs at various places. This line will be better defined after the hydrographic survey has been completed.

(c) The foreshore is characterized by boulders in the greater part of the area. Bedrock is exposed in many places, and some stone and gravel beaches are present. There are no beaches composed of sand and gravel such as shown on the manuscripts. The foreshore is labeled at various locations on the photographs.

(d) There are no high bluffs or cliffs along the shore line. The southern shore of Shelikof Island has a few low cliffs (10 to 20 feet) and rock ledges that rise from the water's edge.

(e) There are no docks, wharves, piers, or landings in the area.

(f) There are no submarine cables in the area.
8. OFFSHORE FEATURES:

The only offshore features are rocks, reefs, shoals, and kelp beds. Heights of rocks and reefs above the water surface were estimated and noted on the photos along with the time (120th meridian) and date. Hand lead soundings were made and depth noted on some shoals and foul areas that were covered by water at the time of inspection. Kelp beds visible on the photos were noted as such, and the kelp symbol was used in other areas.

9. LANDMARKS AND AIDS:

There are no landmarks in the area. Three fixed aids to navigation in the area are: Meares Island Light, Block Island Light, and Lively Islands Light. Meares Island Light will be located by planetable. The other two were located by intersection using a theodolite.

The only floating aid to navigation is the red buoy on the northwest side of Tlevak Narrows. It will be located by plane table.

None of these aids were pricked on the photographs.

10. BOUNDARIES, MONUMENTS, AND LINES:

Inapplicable.

11. OTHER CONTROL:

No other control was established at this time. A planetable graphic control sheet will be made of the area north of Tlevak Narrows prior to the hydrographic survey.

12. OTHER INTERIOR FEATURES:

None.

13. GEOGRAPHIC NAMES:

Geographic names will be covered in a special report, to be submitted later.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA:

Data forwarded separately from this report are:
14. SPECIAL REPORTS AND SUPPLEMENTAL DATA (Contin.):

- Field and Office Photographs,
- Control Station Identification Cards,
- Descriptions of Recoverable Triangulation Stations.
- Complete triangulation data for stations established.

15. LIST OF CONTROL STATIONS IDENTIFIED:

A complete list of horizontal control stations and the photographs on which they were identified follows:

<table>
<thead>
<tr>
<th>Station</th>
<th>Manuscript</th>
<th>Plot No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEDAR, 1907</td>
<td>T-11492</td>
<td>55A9090</td>
</tr>
<tr>
<td>EAST, 1907</td>
<td>T-11496</td>
<td>55A9090</td>
</tr>
<tr>
<td>FIRST, 1958</td>
<td>T-11496</td>
<td>55A9711</td>
</tr>
<tr>
<td>KNOB, 1907</td>
<td>T-11496</td>
<td>55A9100</td>
</tr>
<tr>
<td>LIKOF, 1907</td>
<td>T-11496</td>
<td>55A9712</td>
</tr>
<tr>
<td>MID, 1907</td>
<td>T-11492</td>
<td>55A9713</td>
</tr>
<tr>
<td>MOSS, 1907</td>
<td>T-11492</td>
<td>55A9090</td>
</tr>
<tr>
<td>MOJO, 1958</td>
<td>T-11493</td>
<td>55A9710</td>
</tr>
<tr>
<td>ROUND, 1958</td>
<td>T-11493</td>
<td>55A9710</td>
</tr>
<tr>
<td>SAW, 1907</td>
<td>T-11492</td>
<td>55A9090</td>
</tr>
<tr>
<td>SODA, 1958</td>
<td>T-11496</td>
<td>55A9711</td>
</tr>
<tr>
<td>STEEP, 1958</td>
<td>T-11496</td>
<td>548-0-35</td>
</tr>
<tr>
<td>SUNNY, 1958</td>
<td>T-11493</td>
<td>55A9710</td>
</tr>
<tr>
<td>THOUT, 1958</td>
<td>T-11493</td>
<td>55A9710</td>
</tr>
<tr>
<td>WAILS, 1958</td>
<td>T-11496</td>
<td>55A9711</td>
</tr>
</tbody>
</table>

Respectfully submitted,

K. W. Jeffers
EWS O&G
Ship PATTON

Approved & Forwarded:

Francis X. Popper
LCDR O&G
Cmdg., Ship PATTON
2. **AREAL FIELD INSPECTION:**

   This report covers the shoreline of the northern part of Sukkwan Strait and all of South Pass and the adjacent area to the north.

   The shoreline is generally rocky with trees overhanging the high water line almost everywhere. North of Saltery Point there are numerous small islands, shoals, and flats which are at various stages of the tide.

   The only cultural features are in the village of Hydaburg. There are several native cemeteries on the small islands immediately north of Sukkwan Narrows.

   Photo coverage is adequate for the entire area. The photographs are somewhat "fuzzy" causing most of the boulder detail to appear as smooth, sand beaches. Shadow in some cases obscures the high water line. The approximate shoreline on the preliminary manuscripts was checked on the ground, and except as noted, is adequate for charting purposes.

3. **HORIZONTAL CONTROL:**

   (a) The following supplemental stations were established in 1956 to control the photographs in the area northeast of North Pass.

<table>
<thead>
<tr>
<th>Second Order</th>
<th>Third Order (Intersection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAM</td>
<td>CALF</td>
</tr>
<tr>
<td>MINK</td>
<td>LION</td>
</tr>
<tr>
<td>PONY</td>
<td></td>
</tr>
<tr>
<td>TOAD</td>
<td></td>
</tr>
<tr>
<td>SEAL</td>
<td></td>
</tr>
<tr>
<td>LOON</td>
<td></td>
</tr>
</tbody>
</table>

   All of the above stations, with the exception of Station LOON, were identified on the photographs.

   In addition to the above triangulation stations, the following hydrographic signals, located by graphic control, were identified on the photographs and can be used for control if desired.

<table>
<thead>
<tr>
<th>ASK</th>
<th>CAB</th>
<th>LEO</th>
<th>SOW</th>
<th>FAT</th>
<th>IVY</th>
<th>LOG</th>
<th>TEE</th>
<th>FUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>NOR</td>
<td>TIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. **HORIZONTAL CONTROL (Contin.):**

   (b) All horizontal control is computed on the NA 1927 Datum and no datum adjustments are necessary.

   (c) All control was established by the U. S. Coast and Geodetic Survey.

   (d) All control called for in the Instructions was established and identified as far as the field work was carried.

   A new second order triangulation scheme was carried from Hydaburg to North Pass. An attempt was made to identify all these stations, but lack of ground detail made some stations impossible to identify.

   It is considered that a sufficient number of stations was identified to control the radial plot adequately.

   (e) A thorough search was made for all stations in the project area.

4. **VERTICAL CONTROL:**

   Inapplicable.

5. **CONTOURS AND DRAINAGE:**

   Inapplicable.

6. **WOODLAND COVER:**

   The entire area is covered with a dense growth of coniferous trees extending down to and overhanging the high water line in most places.

7. **SHORELINE AND ALONGSHORE FEATURES:**

   (a) Shoreline inspection was completed in the area north of latitude 55° 09' and east of longitude 132° 55'. All shoreline was inspected from a launch or skiff running close inshore. The highwater line is indicated on various places on the photographs. Some areas are in shadow and the highwater line is not visible on the photographs. Some of these areas are not defined in detail on the photographs, however, by comparison with the preliminary manuscript, few errors in the interpretation were found and for charting purposes, the high-water line is entirely adequate as shown.

   (b) The low-water line is sketched on the photographs at various places. In areas where extensive flats exist, the low-water line is defined by the hydrography.
7. SHORELINE AND ALONGSHORE FEATURES (CONTIN.):

(c) The foreshore is characterized by boulders extending from a few feet to several hundred feet in bights. In some cases grassy islets and spits which cover only in extreme storms were misinterpreted as sand bars which cover at MHW. These have been clarified on the photographs. It is noted that almost the entire shoreline is labeled as sand and gravel on the preliminary manuscripts. It should be mentioned here that there are very few sand beaches in the project area. Most all of the foreshore is boulders, except as noted. The different types of foreshore are indicated on the photographs.

(d) There are no high bluffs or cliffs along the shoreline. Bedrock is exposed up to the storm waterline above which there is top soil and vegetation.

(e) The only waterfront structures are at Hydaburg and are evident on the pictures. Ellis Airlines maintains a small float on the north side of the cannery pier. There is a small pier in the basin at the northern edge of the village and a float secured to a dolphin just offshore from this pier. The objects on the highwater line at the head of this basin are floats which are used alongside the cannery pier during the fishing season and stored on the beach at other times.

(f) There are no submarine cables in the area.

8. OFFSHORE FEATURES:

There are some piles off the cannery at Hydaburg which are indicated on the photographs. The only other offshore features are rocks and shoals. All rocks visible at the time of inspection were noted on the photographs. Heights of rocks were estimated above the water surface at the time of inspection and the time and date is noted.

The area north of Hydaburg Harbor was not covered as thoroughly as should be because of lack of time. Some rocks were probably missed because it was impossible to complete all the inspection at low tide. A hydrographic survey would be required to locate all the rocks in this area.

Kelp areas are outlined approximately.

9. LANDMARKS AND AIDS:

Two new landmarks for nautical charts were located by planetabe and were identified on the photographs. One of these, Hydaburg Presbyterian Church Spire, was later intersected with a theodolite. Of the five fixed aids to navigation in the area, three of them, Sukkwan Narrows Light, Goat Island Light, and Turn Rock Daybeacon, were used as sub-points for triangulation station identification. The Hydaburg Daybeacon is identified direct. The small uncharted and privately maintained daybeacon on the north side of the bar west of Hydaburg is not indicated on the photographs. It is located by planetable on topographic sheet P&T-56-B.

All floating aids were located by planetable and none are identified on the photographs.
10. **BOUNDARIES, MONUMENTS, AND LINES:**

   Inapplicable.

11. **OTHER CONTROL:**

   In addition to the hydrographic stations listed in Paragraph 3, the following recoverable topographic stations were located for hydrographic signals, but are not identified on the photographs: SKY, JIM, NAT, and PEP.

12. **OTHER INTERIOR FEATURES:**

   There is a bridge over the creek at Hydaburg. There are no landing strips or other interior features.

13. **GEOGRAPHIC NAMES:**

   Geographic names will be covered in a special report, to be submitted.

14. **SPECIAL REPORTS AND SUPPLEMENTAL DATA:**

   Data forwarded separately from this report are:

   - Field and Office Photographs
   - Control Station Identification Cards
   - Descriptions of Recoverable Topographic Stations

   Complete triangulation data will be forwarded to the Washington Office in the near future.

15. **COMMENTS:**

   All hydrographic signals were located graphically by planetable on Sheets PATT-56-A, B, and C. Sheets A and C are at a scale of 1:10,000 and cover the northern part of Sukkwan Strait and South Pass respectively. Sheet B is at a scale of 1:5,000 and covers Hydaburg Harbor.

   Short sections of shoreline were rod'd in at various places and are so indicated on the topographic sheets. All rock detail visible at low water was either cut in or located by sextant fixes. Rocks are shown with their heights above mean lower low water.

   On sheet C, all shoreline shown as dotted on the preliminary manuscripts was rod'd in. The shoreline on both 10,000 scale sheets is in generally good agreement with the manuscripts.

   Some discrepancies between the manuscript and topographic sheet B are apparent by inspection. The shoreline of the small islands north of Saltery Point is not in agreement with the manuscripts. The shoreline in this area was rod'd in and is shown on the topographic sheet.

   It is also apparent that the shoreline as per boat sheet PA-05156 should be shifted to the north slightly to agree with the graphic control. The shoreline for this boat sheet was blown up, using a Saltzman Projector, from 1:10,000 to 1:5,000. It is possible that some of the discrepancy was introduced in the process of enlarging the manuscripts to 1:5,000 scale.
15. COMMENTS (Contin.):

In compiling the final manuscripts, reference should be made to the graphic control sheets.

Because of the overhang of the trees and the lack of detail on the ground, it would have been difficult to locate, with certainty, sufficient signals to control the hydrography. The area surveyed was particularly well suited for graphic control in that there was ample triangulation on both sides of Sukkwan Strait and South Pass. For these reasons, photo-hydro control was not used and it is felt that control by planetable was justified.

16. LIST OF CONTROL STATIONS IDENTIFIED:

A complete list of horizontal control stations and the photographs on which they were identified follows:

<table>
<thead>
<tr>
<th>STATION</th>
<th>MANUSCRIPT</th>
<th>PHOTO NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 1925</td>
<td>T-11500</td>
<td>540-47</td>
</tr>
<tr>
<td>ARK 1907,11</td>
<td>T-11500</td>
<td>540-38</td>
</tr>
<tr>
<td>BEACH 1925</td>
<td>T-11198</td>
<td>540-57</td>
</tr>
<tr>
<td>BLUFF 1908</td>
<td>T-11501</td>
<td>540-58</td>
</tr>
<tr>
<td>BOAR 1956</td>
<td>T-11197</td>
<td>540-55</td>
</tr>
<tr>
<td>CALF 1956</td>
<td>T-11193</td>
<td>540-223</td>
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<tr>
<td>CLAM 1956</td>
<td>T-11197</td>
<td>540-224</td>
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<tr>
<td>COLT 1956</td>
<td>T-11197</td>
<td>540-51</td>
</tr>
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<td>CRAB 1956</td>
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<tr>
<td>CRIB 1956</td>
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<td>540-55</td>
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<tr>
<td>FORT 1908,25</td>
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<tr>
<td>FROG 1956</td>
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<td>HIP 1907,27</td>
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<td>MINK 1956</td>
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<td>OAR 1908,27</td>
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16. **LIST OF CONTROL STATIONS IDENTIFIED (Contin.)**:

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<td>540-49</td>
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<tr>
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**TOPOGRAPHIC STATIONS IDENTIFIED**

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<th>PHOTO NO.</th>
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<td>T-11497</td>
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<td>540-57</td>
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<td>FUN</td>
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<td>GAB</td>
<td>PATT-56-B</td>
<td>T-11498</td>
<td>540-57</td>
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<tr>
<td>IVY</td>
<td>PATT-56-C</td>
<td>T-11500</td>
<td>540-48</td>
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<td>LEG</td>
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<td>T-11501</td>
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<td>LEO</td>
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<td>LOG</td>
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<td>PATT-56-B</td>
<td>T-11498</td>
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<tr>
<td>TIN</td>
<td>PATT-56-B</td>
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<td>540-57</td>
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Respectfully submitted,

Gerard E. Haraden  
LT C&GS

Approved and Forwarded:

J.T. Jarman  
CDR USCGS  
Cmdg., Ship PATTON
<table>
<thead>
<tr>
<th>Name</th>
<th>Latitude &amp; Longitude</th>
<th>Meters</th>
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<td>GAB</td>
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<td>NOR</td>
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<td>SOW</td>
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<td></td>
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<td>TDR</td>
<td>55 12</td>
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<td>TIN</td>
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<td>548</td>
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<tr>
<td>ASK</td>
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<td>1055</td>
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<td>FUN</td>
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<td>1714</td>
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<td>132 47</td>
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<td>284</td>
</tr>
<tr>
<td></td>
<td>132 47</td>
<td>596</td>
</tr>
</tbody>
</table>
2. **AREAL FIELD INSPECTION**

   This report covers the shoreline in Tlevak Strait and the west end of North Pass; from Longitude 132° 55' West. The remainder of the manuscript was field inspected in 1956. The inspection was made from a launch or a skiff, with landings being made at frequent intervals.

   The shoreline is generally rocky. Near the west entrance to North Pass are a group of reefs marking a large foul area.

   The only cultural feature present is the house and adjacent tilled land at the NE end of the bay due north of the west entrance to North Pass.

   Photo coverage is good, but the inspection party lacked photos in the NW area of the manuscript. The area not covered by the photos was inspected using a paper copy of the manuscript.

3. **HORIZONTAL CONTROL**

   (a) The following stations were established in 1958 to control the photographs from the middle of North Pass west into Tlevak Strait.

<table>
<thead>
<tr>
<th>SECOND ORDER</th>
<th>THIRD ORDER INTERSECTION</th>
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</thead>
<tbody>
<tr>
<td>BEANS</td>
<td>PATSY</td>
</tr>
<tr>
<td>FINIS</td>
<td>TERRY*</td>
</tr>
<tr>
<td>KATHY</td>
<td>TIMMY*</td>
</tr>
<tr>
<td>KELLY</td>
<td>WORRY</td>
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<td>MIKEL</td>
<td>YOMAN*</td>
</tr>
<tr>
<td>Mami*</td>
<td></td>
</tr>
<tr>
<td>NORTH</td>
<td></td>
</tr>
</tbody>
</table>

   *Stations identified on photographs

   The triangulation data is included in the triangulation report.

   (b) All horizontal control is computed on the NA 1927 Datum and no datum adjustments are necessary.

   (c) All control was established by the U. S. Coast and Geodetic Survey.

   (d) All control called for in the project instructions was established and/or identified on the photographs.

   (e) There was no prior control in the area field inspected. The two stations on the west end of the 1956 triangulation scheme in North Pass were recovered.
4. **VERTICAL CONTROL**

In applicable.

5. **CONTOURS AND DRAINAGE**

Inapplicable.

6. **WOODLAND COVER**

The area is covered with a dense growth of trees composed mainly of spruce, cedar, and hemlock. The tree line and high water line coincide or are very close in some places.

7. **SHORELINE AND ALONGSHORE FEATURES**

(a) The mean high water line is indicated at various places on the photographs. In general it appears as the seaward side of a distinct white line on the photographs. This white area is caused by the jumble of driftwood lining the beach. In some areas the mean high water line is obscured by shadows, or overhanging trees; however, a comparison with the manuscript indicated that the office interpretation was correct for charting purposes.

(b) The low water line is dotted on the photographs only in a few places. A comparison with the manuscript indicated that the office interpretation was correct. The low water line in North Pass was delineated by the hydrographic survey PA-1158.

(c) The foreshore is characterized by bedrock or boulders in most of the area. Some gravel and boulder beaches are present. The foreshore is labeled at various locations on the photographs.

(d) There are no high bluffs or cliffs along the shore-line.

(e) There are no docks, wharves, piers, or landings in the area.

(f) There are no submarine cables in the area.

8. **OFFSHORE FEATURES**

The only offshore features are rocks, reefs, shoals, and kelp beds. Heights of rocks and reefs above the water surface were estimated and noted on the photos along with the time (120th Meridian) and date. In the NW part of the area two reefs indicated as baring at MHW, and one reef indicated as not baring at MHW are shown on the manuscript. These have been corrected on the paper copy of the manuscript used in the field inspection. The west entrance of North Pass is shoal and lined with reefs, and so may generally be called foul, although fishing boats use the Pass at high tide.

9. **LANDMARKS AND AIDS**

There are no landmarks or aids in the area.
10. **BOUNDARIES, MONUMENTS, AND LINES**
   
   Inapplicable.

11. **OTHER CONTROL**

   A plane table graphic control sheet was made of the area.

12. **OTHER INTERIOR FEATURES**

   None

13. **GEOGRAPHIC NAMES**

   Geographic names will be covered in a special report.

14. **SPECIAL REPORTS AND SUPPLEMENTAL DATA**

   Data forwarded separately from this report are:

   - Field and Office Photographs
   - Control Station Identification Cards
   - Descriptions of Recoverable Triangulation Stations
   - Complete triangulation data for stations established
   - Graphic Control Report
   - Coast Pilot Report

15. **LIST OF CONTROL STATIONS IDENTIFIED**

   A list of horizontal control stations and the photographs on which they were identified follows:

<table>
<thead>
<tr>
<th>Station</th>
<th>Photo No.</th>
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</thead>
<tbody>
<tr>
<td>MMT 1958</td>
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<tr>
<td>TERRY 1958</td>
<td>54-0-36</td>
</tr>
<tr>
<td>TIMMY 1958</td>
<td>54-0-36</td>
</tr>
<tr>
<td>YOMAN 1958</td>
<td>54-0-36</td>
</tr>
</tbody>
</table>

   Respectfully submitted,

   [Signature]

   K. W. Jeffers
   LTJG C&GS
   Ship PATTON

   Approved & Forwarded:

   [Signature]

   Francis X. Popper
   LCDR C&GS
   Cmdg., Ship PATTON
PHOTOMETRIC PLOT REPORT
PROJECT PH-117
SURVEYS T-11492 thru T-11502

21. AREA COVERED

This radial plot covers the area of shoreline surveys T-11492 thru T-11502 in the vicinity of Sukkwan Strait and Hetta Inlet on Prince of Wales Island, Alaska. This radial plot at 1:20,000 scale was used to establish pass points to control a radial plot with single lens photographs at a scale of 1:10,000.

22. METHOD - RADIAL PLOT

Map Manuscripts:
Vinylite sheets with polyconic projections in black at a scale of 1:10,000, and Universal Transverse Mercator Alaska, Zone 8, grids in red, were furnished by the Washington Office. Base sheets were prepared in this office, at a scale of 1:20,000.

All control was plotted using the meter bar and beam compass.
A sketch showing photograph centers, distribution of control, and layout of surveys is attached to this report.

Photographs:
Fifteen (15) unmounted nine lens photographs at a scale 1:20,000 were used in this radial plot, with the following numbers: 45392, 45393, 45396 thru 45400, and 45412 thru 45419.

Templets:
Vinylite templets were made for all photographs using a master templet to make adjustments for paper and film distortion and chamber displacement.

Closure and adjustment to control:
All control was transferred graphically to the 1:20,000 scale base sheets, the plot was begun at the southwestern end of the two flights where a fix could be obtained on 45392. The northern flight was extended northward to control station TIP, 1924. The southern flight was extended eastward holding control stations FLOAT, 1908-14, and ROUND, 1908. At the eastern end of the flight in surveys T-11499 and T-11502 the plot was adjusted to pass points established in a previous plot. The previous plot was a long bridge between control stations in Cordova Bay and identified control in Clarence Strait on the east side of Prince of Wales Island. At the northern end of Hetta Inlet in T-11495 there was very little side lap between the two flights. It was not possible to hold Sub Pt. TIP, 1924, and the pass points from the previous plot on the southern flight and at the same time get good intersections in this area. After considerable adjustment of templets it was decided to hold slightly off TIP, 1924, in order to get a more rigid plot in the northern tip of HETTA INLET.
Transfer of points:
All pass points which were common on both the nine lens and single lens, 1:10,000 scale, photographs were transferred to 1:10,000 scale base sheets, using small transparent templet. A templet was made for each pass point drawing radial lines to four grid intersections on the 1:20,000 scale base sheet. The position of the point was established on the 1:10,000 scale base sheet by holding the same grid intersection and pricking the position of the point through to the base sheet. In survey T-11496, in the area where there was no coverage with single lens photographs, the positions were transferred in similar manner to the map manuscripts. These points are to be used for delineation of shoreline, using the 1:20,000 scale nine lens photographs in the vertical projector.

ADEQUACY OF CONTROL

Except in the southern and southwestern side of the plot, control was inadequate for an accurate radial plot. There was no control in the northern part of Hetta Inlet in surveys T-11495 and T-11499. The purpose of this plot was to establish control points to be used in a radial plot at a scale of 1:10,000 with single lens photographs. The positions of pass points in this survey are known to be quite weak because of the long bridge between control stations; and because control station TIP, 1924, was not held exactly. The identification of Sub Pt. TIP, 1924, is doubtful because of shadows and trees and may be up to 0.5mm in error. It is believed, the positions of these pass points may be in error by 0.5mm or more in this plot. When transferred to 1:10,000 scale base sheets this error would be doubled. This means that the positions of Pass points on the map manuscripts may possibly be in error by 1.0mm or more. The results obtained are not considered to be satisfactory due to the lack of control, however they are the best that can be obtained at the present time. Several tilted photographs in the uncontrolled area added to the difficulty of getting a satisfactory plot. (See paragraph 25)

An attempt was made to identify MID, 1907, in the office to strengthen the plot, but it could not be held. The radially plotted position fell 30 meters southeast of the true position. All other identified control stations, including those identified in the office, were held satisfactorily in the radial plot.

SUPPLEMENTAL DATA

No supplemental data was used in this radial plot.

PHOTOGRAPHY

Photographic coverage and overlap is adequate and definition is good. The side lap in T-11495 is quite small, and to the eastward there is none. The following photographs were tilted, but no tilt determination was made: 45396, 45400, 45414 and 45416.

Respectfully submitted
23 March 1956

[Signature]
Frank J. Taraza
Supervisory Cartographer
PHOTOGRAMMETRIC PLOT REPORT
PROJECT PH-117
SURVEYS T-11492, T-11493, T-11494
T-11496, T-11497, T-11498
T-11500, T-11501, T-11502

21. AREA COVERED

This radial plot report covers: (1) The entire area of Surveys Nos. T-11493, T-11497, T-11500 and T-11501; (2) The portions of Surveys Nos. T-11492 and T-11496 which are covered by photography; (3) The western portions of Surveys T-11494 and T-11498; (4) The south west corner of Survey No. T-11502.

Another radial plot report for Hetta Inlet deals with the portions of Surveys Nos. T-11494, T-11498, and T-11502 which are east of the limits of this plot.

This radial plot is for shoreline surveys located along Sukkwan Strait, South Pass, North Pass, Tlevak Strait, and Soda Bay, near the southern end of Prince of Wales Island, Alaska.

22. METHOD - RADIAL PLOT

Map Manuscripts:
Vinylite sheets with polyconic projections in black and Universal Transverse Mercator, Alaska, Zone 8, grids in red, at a scale of 1:10,000 were furnished by the Washington office.
The positions of all control and substitute stations were plotted on the manuscripts using the beam compass and meter bar.
A sketch showing the layout and the distribution of control and photograph centers is attached to this report.

Photographs:
Single lens photographs taken 4 June, 1954 with the "O" camera at a scale of 1:27,500 and ratioed to a scale of 1:10,000 were used in this plot.
Thirty-nine single lens photographs were used, numbered as follows:
54-0-32 thru 40
54-0-43 thru 61
54-0-63
54-0-75 thru 77
54-0-219 thru 225

Templets:
Vinylite templets were made for all photographs. The master templet was used to make adjustments for film and paper distortion.

Closure and adjustment of control:
Vinylite base sheets were prepared in this office. All control was transferred to the base sheets from the manuscripts.
Supplementary pass points established in a 1:20,000 scale radial plot of the area was transferred graphically to the 1:10,000 scale base sheets. This was done by means of transparent templets made for each point to be transferred. Four rays were drawn radially from the point through the grid intersections on the 1:20,000 base sheets. Then the templet was oriented over the corresponding grid intersections on the 1:10,000 base sheets and the point pricked through to the base sheet.

For additional information about this supplementary control see the photogrammetric plot report for the 1:20,000 radial plot of the area with 9-lens photographs.

The plot was laid in three parts. The first part extended from ROUND, 1908-14, northwest along Sussex Strait to NOW, 1925. This includes all of Survey T-11501 and parts of T-11498 and T-11502 in this area, in addition to control identified in the field; some stations were identified in this office by referring to the descriptions.

This portion of the plot started with photographs 54-0-43 and 54-0-62 holding to ROUND, 1908-14 and pass points established in a radial plot for Surveys T-9435, to the south. The flight of photographs Nos. 54-0-43 through 54-0-48 was laid first because it was a continuous flight. Photographs 54-0-63, 61, and 60 were then laid. There was less than 50% overlap between photographs 58 and 59, and 59 and 60. Therefore, this flight was not continuous and could be laid holding only to the few common points established by the other flight. Both of these flights, however, were tied in to NOW, 1925. After these flights were laid photographs 54-0-75 through 77 were laid holding to BRETT, 1908-14. This was done at that time to establish sufficient points to compile Survey No T-11501 in its entirety.

The second part of this radial plot consisted only of laying photographs 54-0-37 through 54-0-40 which are on Survey T-11500. These were laid holding to points established by the photographs 54-0-47 and 48 in the first part of the plot and to control stations which were identified in the office.

The third part of the plot was an extension of the three flights of single lens photographs northwestward into the area where the only control was that established in the 1:20,000 scale radial plot. It was extremely difficult to get a tight plot chiefly because of insufficient overlap between photographs in line of flight. Specifically, breaks occur in all three flights at the following places:

Between photographs 54-0-48 and 49;

54-0-58 and 59;

54-0-59 and 60; and in the flight from 54-0-32 through 40 all of the centers are in water areas except photographs 34, 39, and 40.

A tight plot in this area was finally achieved after considerable adjustment between the three flights. In this area, substitute station SUN, 1927 was held. Of the supplementary control points transferred from the 1:20,000 radial plot about two-thirds of them were held within 0.5 mm. This can be attributed to three causes: (1) The points selected
on the 1:20,000 photographs are not exactly the same as those on the 1:10,000 photographs. (2) In transferring the points from a 1:20,000 scale to a 1:10,000 scale discrepancies occurred. (3) The points are the product of two different plots using different photographs and base sheets.

Finally after the three flights were laid, the flight numbered 54-0-219 through 225 was laid. No great difficulty was encountered here, although again a break occurred in the flight line where photograph 54-0-221 and 222 did not have 50% overlap along the flight line.

The positions of all the pass points and photograph centers in the area north of HOW, 1925 and FORT, 1908-25 are weak. It is difficult to estimate how far off the points may be on Survey T-11493 and the areas immediately adjacent. It is felt, however, that they are not in error by more than 1.5 mm.

Transfer of points:
The positions of all photograph centers and pass points were transferred to the manuscripts by superimposing the manuscripts on the plot and matching common grid intersections. All the supplementary control points were treated as pass points; i.e. where the positions of the points established in the 1:20,000 scale plot were not held, the positions established in this 1:10,000 scale plot were shown on the manuscript.

23. ADEQUACY OF CONTROL

With the points established in the 1:20,000 plot, the control should have been adequate, however, because of the inadequate 1:10,000 photography too much dependance had to be placed on the control from the 1:20,000 plot. If more of the established control had been identified in the field along the 54-0-32 through 40 flight then that flight could have been strengthened and the plot extended to the east to hold the supplemental 1:20,000 control points.

All of the control identified in the field was held except Sub Pt. "B" ROUND, 1908-14. The radially plotted position of Sub Pt. "B" is 0.7 mm N of the plotted position. Sub Pt. "A" was held.

Of the 17 control stations identified in this office from descriptions, 10 were held within 0.5 mm and all but two were off less than 1.0 mm.

24. SUPPLEMENTAL DATA

Supplementary control established in a 1:20,000 scale radial plot was used as control for this radial plot Reference should be made to the 1:20,000 scale plot report for Surveys Nos. T-11492 thru T-11502.

25. PHOTOGRAPHY

The photography was inadequate in that too many of the photographs had less than 50% overlap in line of flight. In some areas definition
was poor; quite possibly because of the enlargement process.

Respectfully submitted
14 March, 1955

E.L. Williams
Carto. Photo. Aid
SUPPLEMENTARY
Photogrammetric Plot Report
Project Ph-117

Surveys T-11493, T-11494, T-11497, T-11498, T-11500 & T-11501

During the 1956 field season the triangulation network was extended northward from Hydaburg with 30 new stations. 22 of these were identified, as well as 17 existing control stations. All new control and identified points were plotted and used to verify the radial plot.

Except at stations PASS, 1925 and END,1925, where minor local corrections in shoreline were needed, and in the Hydaburg area, the radial plot was found to be reasonably accurate in position. In the northern part of Natshini Bay, where the radial plot was considered weakest, the error was only about 0.3 mm.

At Hydaburg, Survey T-11498, the entire area from POINT, 1925 to HOOK, 1956 was moved northerly about 0.6 mm. The adjustment was made using the photographs under the map manuscript. It was not considered necessary to make templates and reassemble the radial plot.

Respectfully submitted
June 1957

Elmer L. Williams
Carto. (Photo.)
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CHECKED BY: Harry R. Rudolph
DATE: 5 March 1959
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The field inspection report covering Soda Bay, a small portion of which falls in the northwest corner of this survey, is a part of Descriptive Report, T-11492.

The 1956 and 1958 field inspection reports pertaining to the balance of this survey as well as the photogrammetric plot reports covering the area are a part of this descriptive report.

31. Delineation

The manuscript was delineated by graphic methods.

In areas where the shoreline was obscured by shadows or relief displacement of trees, the shoreline was shown with a broken line.

32. Control

The identification, density and placement of horizontal control was satisfactory.

33. Supplemental Data

Chart 8151, the Coast Pilot and triangulation station descriptions were used for geographic names.

34. Contours and Drainage

Contours: Not applicable.
Drainage: No comment.

35. Shoreline and Alongshore Details

Originally the shoreline was delineated by office interpretation of the photographs aided in some measure by control station descriptions in the southeastern part of this survey. Field data eventually verified most of the office delineation, furnished inspection for corrections and supplied foreshore classification and rock elevations.

The low-water and foul lines were based on office interpretation of the low-stage photographs. Where field inspection became available, much of this was verified and supplemented by inspection which included identification of kelp areas.

The ledge symbol was shown only in areas where there was positive interpretation of ledge. This was neither verified nor corrected by field data.
36. **OFFSHORE DETAILS**

Conflicting field inspection was furnished by the 1958 field party for a group of rocks and reefs at the western edge of the manuscript. After comparison of the inspection on the photograph with that on the paper copy of the manuscript, (see item 8 of the 1958 field report) it was decided that the inspection on the photograph was more complete and correct.

37. **LANDMARKS AND AIDS**

Sukkwan Narrows Light was identified by the field party as the sub point for station ROW, 1925 but no Form 567 was received in the compilation office.

38. **CONTROL FOR FUTURE SURVEYS**

Forms 524 for two recoverable topographic stations in the area of this survey have been previously submitted. These two stations, NAT, 1956 and SKY, 1956 were transferred to the manuscript from a copy of Graphic Control Sheet, FATT-56-C.

Hydrography in this area is believed to have been completed during the 1958 field season; therefore item b9 is omitted from this report.

39. **JUNCTIONS**

Junctions have been made and are in agreement with:

- T-11498 to the east,
- T-11496 to the west,
- T-11493 to the north,
- T-11500 to the south.

40. **HORIZONTAL AND VERTICAL ACCURACY**

In the western half of this survey (west of 132° 55'), a new triangulation network was established in 1958. Four stations were identified. The new stations proved that the radial plot was accurate.

Also, see Supplemental Plot Report (page 25) for accuracy of the east half.
41 through 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS


47. COMPARISON WITH NAUTICAL CHARTS

Chart 8151, scale 1:40,000, published September 1929, and corrected to 6/9/52.

Items to be applied to nautical charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
20 March 1959

R. Glaser
Carto. (Photo.)

Approved and forwarded

By direction of

William F. Deane,
CDR, C&GS
Baltimore District Officer
August 17, 1970

GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-117 (Alaska)
T-11497

Comma Island
Entrance Island
Fishhook Island
Goat Island
Goat Mouth Inlet
Horn Point
Horseshoe Island
Middle Island
Mushroom
Natzuhini Bay
North Pass

Panhandle Island
Prince of Wales Island
Scrag Islands
Snag Island
Soda Bay
South Pass
Signal Island
Spook Island
Sukwan Island
Sukwan Narrows
Tlevak Strait

Approved by:
A. Joseph Wright
Chief Geographer

Prepared by:
Frank W. Picketz
Cartographic Technician
PHOTOGRAMMETRIC OFFICE REVIEW

1. Projection and grids  
2. Title  
3. Manuscript numbers  
4. Manuscript size  

CONTROL STATIONS  
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  
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. Planetary contours  
23. Stereoscopic instrument contours  
24. Contours in general  
25. Spot elevations  
26. Other physical features  

CULTURAL FEATURES  
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 overlay  
37. Descriptive Report  
38. Field inspection photographs  
39. Forms  

Reviewer:  
Supervisor, Review Section or Unit:  

41. 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. Information is not available.

Compiler  
Supervisor:  

43. Remarks:
Review Report T-11497
Shoreline Mapping

August 1970

61. General Statement

The registration manuscript copy for T-11497 was made from the negative of the Advanced Manuscript. The original manuscript is lost.

Differences in some rock elevations were found between photogrammetric survey T-11497 and hydrographic surveys 8455, 8457 and 8458 (refer to Summary, 'Rock Elevations'). These elevations were removed from T-11497.

The following field data was used during final review:

Field photographs 54-0-35, 47, 55, 56 and 57.
Graphic Control Surveys Patt-58-A and E.

62. Comparison with Registered Topographic Surveys

Comparison was made with T-3314, 1:20,000 scale, dated 1912 and T-3325, 1:5,000 scale, dated 1912. These surveys are superseded for charting by T-11497.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Craig (A-3), Alaska, quadrangle, scale 1:63,360, dated 1948. No significant differences were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Survey T-11497 was used as a base for new hydrography. The contemporary unverified hydrographic surveys, 8325, dated 1954, 8456, dated 1958 and 8457, dated 1958, all 1:10,000 scale, were used for comparison. The agreement is good. There is no contemporary hydrographic survey available at this time for the southwest portion of T-11497.
65. **Comparison with Nautical Charts**

Comparison was made with Chart 8151, 1:40,000 scale, 9th Edition, corrected to February 26, 1968. No significant differences were found in the comparison.

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

(Refer to Summary, "Map Accuracy").

Reviewed by,

Donald M. Brant

Approved by,

Charles T. McCay

Chief, Photogrammetric Branch

Jack E. Guth

Chief, Photogrammetry Division