**DESCRIPTIVE REPORT**

*Type of Survey* Shoreline (Photogrammetric)

<table>
<thead>
<tr>
<th>Field No.</th>
<th>Office No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph-87</td>
<td>T-10385</td>
</tr>
</tbody>
</table>

**LOCALITY**

State: ALASKA

General locality: El Capitan Passage

Locality: Tenass Pass to Sarheen Cove

1953-1957-1956

**CHIEF OF PARTY**

E. W. Richards, Chief of Field Party

William F. Deane, Baltimore District Officer

**LIBRARY & ARCHIVES**

DATE

---

* This is an "INCOMPLETE" MANUSCRIPT

** REFER TO PAGES 6 AND 6A
DATA RECORD

T-10385

Project No. (II): Ph-87
Quadrangle Name (IV):

Field Office (II): C&GS Ship HODERSON
Chief of Party: E. W. Richards
Photogrammetric Office (III): Baltimore, Md.
Officer-in-Charge: William F. Deane
Instructions dated (II) (III): 7 Nov. 1955
13 Nov. 1956
21 November 1956
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 (6) refer to sounding datum
i.e., mean low water or mean lower low water
Reference Station (III): TAN, 1922
Lat.: 56° 01' 21.097" (652.5m) Long.: 131° 15' 34.954" (605.5,)

Adjusted
Plane Coordinates (IV):
State: Alaska Zone: 8
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.
DATA RECORD

Field Inspection by (II): James P. Randall
Date: June 1956 1957

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): 1953, date of photography; Supplemented by field inspection in 1957. REFER TO PAGES 6 & 6A

Projection and Grids ruled by (IV): A. Riley Date: 2/15/56
Projection and Grids checked by (IV): A. Riley Date: 2/15/56
Control plotted by (III): J. E. Tolodziecki Date: 1/23/56
L. A. Senasack Date: 1/14/57

Control checked by (III): A. Queen Date: 1/25/56
1/15/57
Radial Plot or Stereoscopic Date: 4 April 1956
Stereoscopic Instrument compilation (III): E. L. Williams

Contour Planimetry

Contours

Manuscript delineated by (III): R. M. Whitson Date: 9/13/57

Photogrammetric Office Review by (III): R. Glaser Date: 9/24/57

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

* REFER TO PAGES 6 & 6A

Form T-Page 3 M-2610-12(40)
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>41599</td>
<td>8/22/53</td>
<td>1233</td>
<td>1:10,000</td>
<td>8.7' above MLLW</td>
</tr>
<tr>
<td>41636 thru 41639</td>
<td>&quot;</td>
<td>1257</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>41649 thru 41651</td>
<td>&quot;</td>
<td>1313</td>
<td>&quot;</td>
<td>8.1&quot;</td>
</tr>
</tbody>
</table>

Tide (III)

From Predicted Tide Tables

<table>
<thead>
<tr>
<th>Ratio of</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges</td>
<td>7.7</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>8.8</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Reference Station: Sitka, Alaska
Subordinate Station: Cyrus Cove

Washington Office Review by (IV):
Date: Dec. 1968

Final Drafting by (IV):
Date:

Drafting verified for reproduction by (IV):
Date:

Proof Edit by (IV):
Date:

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 5
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III): 1
Number of Temporary Photo Hydro Stations established (III):

Revised: Recovered: 4 Identified: 4
x

Remarks:
1957 Station "Kut" - Not Shown on Registered Map. Refer to pages 60 and 61.

Form T-Page 4
<table>
<thead>
<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compiled (INCOMPLETE)</td>
<td>1956</td>
<td>LOST</td>
</tr>
<tr>
<td>Compiled (ADVANCE)</td>
<td>Sept. 1957</td>
<td></td>
</tr>
<tr>
<td>Final Review</td>
<td>Dec. 1968</td>
<td></td>
</tr>
</tbody>
</table>

*INCOMPLETE MANUSCRIPT REVIEWED FOR REGISTRATION. REFER TO PAGE 686A.*
As discussed on page 6 the advance manuscript for this map was lost. The incomplete manuscript has been reviewed and forwarded for registration.

Records —

Records for this survey were found to be incomplete at the time of final review. Existing records are contradictory.

Although replotting was recommended through the preliminary radial plot report, the advance manuscript may have been based on the preliminary plot assembled in 1956. Radial plotting subsequent to the preliminary plot is indirectly accounted for through the statement "See supplemental photogrammetric plot report," included under heading 40, page 19 of this report.

The only supplementary plot report found is concerned with other maps.

No datum problems were discussed in the field inspection report. Refer to the final review report (heading 64, page 22) concerning comparison with contemporary surveys H-7987.

[Signature]
SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-10385

Shoreline survey T-10385 is one of 58 similar surveys in project PH-87. It covers part of El Capitan Passage north of Tenass Island. The primary purpose of the survey was to provide new shoreline for nautical charts and photo-hydro support data for hydrographic surveys.

This survey was compiled as an Incomplete Manuscript. According to the data in the Descriptive Report the survey was field inspected in June 195%. The manuscript was then corrected from the field inspection notes. See page/ of the compilation report. The original manuscript was not received with the final review data for this project. The cronaflex copy of the manuscript which had been used for photo-hydro support was received. This was classified as an Incomplete Manuscript and bare no evidence of ever having been corrected from field inspection notes. All field photographs had become lost prior to final review.

The manuscript was a vinylite sheet 3 3/4 minutes in latitude by 5 minutes in longitude which was smooth drafted and reproduced on cronaflex. One cronaflex positive and one negative are forwarded for record and registry.

See Page 6 A
2. AREAL FIELD INSPECTION

The southern part of El Capitan Passage is an ill defined and broken waterway that is used by fishermen, gypgo logging outfits and the packet vessels that tend the Tokeen Ice and Cold Storage Company.

Tokeen, located on the west side of El Capitan Island, is the only habitation in the area.

Camp Taylor is in complete ruins.

A trapper's cabin and fur shed are located on a small high water islet, on the southeast side of San Island.

Two Indian cabins are located on the westernmost of the Kassan Islands.

Rock outcrops are metamorphic limestones and shales and are covered by a black scale at and above mean high water, for a vertical span of from 2 to 4 feet.

Densities and tones were not, in general, inspected inshore of the storm high water line.

Shoal and kelp areas were noted, where discernible, on the photographs.

3. HORIZONTAL CONTROL

(a) TAY 2, 1957 was established on the sight of lost station TAY, 1922.

(b) The 1956 identification of Burnt Island Light was in error. It was reidentified and a Control Station Identification Card submitted.

4. VERTICAL CONTROL

Inapplicable.

5. CONTOURS AND DRAINAGE

Contours - inapplicable.

Within the limits of this survey there are a number of perennial streams
the more important of which have been noted on the photographs.

6. WOODLAND COVER

All land areas not covered by storm high water are densely forested with the exception of muskegs, logged areas, and the higher mountains.

Conifers - hemlocks, spruce and cedar, comprise the major portion of the cover, with the cedars favoring low wet areas.

Many small logging operations have been conducted in this area and though they span a number of years all but the oldest are well defined.

Scattered patches of alder and crab apple can be found along the beaches, and show as a dark globular mass against the lighter conifers.

7. SHORELINE AND ALONGSHORE FEATURES

The shoreline was inspected from the beach at all photo-hydro signals locations and from the boat in all other areas.

(a) The office interpretation of the mean high water line was, in general, quite accurate, even in the heavily shadowed areas. In all the large areas of shadowed shore, the mean high water line was located by sextant angles taken to photo-hydro signals. The angles were recorded on the back of the photographs. In the smaller areas the shoreline was readily discernable and was delineated directly on the photographs.

(b) The low water line corresponds closely with the darker color tone at the offshore edge of alongshore and offshore features.

(c) The foreshore consist of rock outcrops and boulders, with exception of deltaic muds and gravels at the mouths of the larger streams.

(d) There are no noteworthy bluffs or cliffs.

(e) A detailed schematic was made of Tokaan Ice and Cold Storage Company's piers and floats, and a copy was placed on the back
of photo 41531 (wing).

The float shown in the first cove north of Tokean still exists though, it is in poor condition. The float house that was tied to the northeast end of the float has been moved.

8. OFFSHORE FEATURES

All offshore features were visited. All shoal and foul areas were indicated on the photographs.

Visible rocks were indicated and their heights or depths, times and dates were noted.

All rocks not visible on the photographs were located by sextant angles to photo-hydro signals. The fixes were recorded on the back of the photos along with the height or depths, times, and dates.

9. LANDMARKS AND AIDS

Landmarks - none.

Within the limits of this survey there are two fixed and one floating aid to navigation. They are:

El Capitan Passage Buoy No. 1
Burnt Island Light
Hub Rock Marker

10. BOUNDARIES, MONUMENTS

Inapplicable.

11. OTHER CONTROL

Many marked hydrographic stations from the 1922 survey were recovered and located on the photographs, thereby, exceeding the required spacing for recoverable topographic stations.

One new station, FYRE 1957 was established on the site of a concrete monument of unknown origin.

The following is a list of recoverable topographic stations:
NAME
RIT 1922
BY 1922
LOW 1922
TRIF 1922
LIF 1922
GEE 1922
IF 1922
PIE 1922
MOC 1922
EGX 1922
BOT 1922
PAT 1922
RUT 1922
CHET 1922
LOT 1922
BIG 1922
PYRE 1957
RUB 1922

MANUSCRIPT
T-10384-5
T-10385
T-10390
T-10391

NOME 1922 (This station was known as NOME on 1922 survey H-4,330 but was called BUG on H-4,329.)

REEF 1922
ROZ 1922
BUD 1922
SLIM 1922
EX 1922
MOO 1922
HEBE 1922
WAS 1922
BI 1922
PASS 1922

T-10391
T-10399

13. GEOGRAPHIC NAMES

Geographic names will be covered in a separate report.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

a. Forwarded to the Director:

1. Tidal Data, El Capitan Tide Gage via transmittal letter 11 July.
3. Nine Lens Field and Office Photographs, scale 1:10,000 via transmittal letter 26 July.
5. Control Station Identification Cards via transmittal letter 10 Aug.
b. Forwarded with this report:

1. Control Station Identification Cards.
2. Descriptions of Recoverable Topographic Stations.
3. Nine lens field and office photographs, Scale 1:10,000.

---

To be forwarded to the Director:

1. Hydrographic Sheet HO-1357.
2. Descriptive Reports HO-1257 and HO-1357.
3. Description of Triangulation Stations.
5. Coast Pilot Notes.

---

Respectfully submitted,

James P. Randall
LTJG, C&GS

Approved and forwarded:

E. W. Richards,
LCDR, C&GS
Comdg., Ship HODGSON
21. AREA COVERED

This preliminary radial plot covers the area of the surveys listed above.

The geographic area encompassed by these shoreline surveys includes Tokeen Bay on the north, Davidson Inlet on the west, El Capitan Passage on the east, and Sea Otter Sound on the south.

22. METHOD - RADIAL PLOT

Map Manuscripts:
Vinylite sheets with polyconic projections in black and U.T.M.
Alaska grid in red at a scale of 1:10,000 were furnished by the Washington Office.

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

Base sheets were prepared in this office.

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

Photographs:
There are forty-six (46) nine-lens, unmounted photographs at a scale of 1:10,000 used in this plot, numbered as follows:

41183 thru 41390
41514 thru 41521
41529 thru 41537
41594 thru 41602
41637 thru 41641
41618 thru 41622
52034 and 52035

Templets:
Vinylite templets were made for all the photographs using a master templet to correct for errors due to paper distortion and chamber displacement.

Closure and Adjustment to Control:
This radial plot is an extension to the east of the plot for surveys T-9629, T-9630, T-10392, T-10393, T-10366, T-10393 thru T-10396, T-10400, and T-10401. Although much dependence had to be placed on the office-identified control throughout the plot, it was possible to effect a
bridge from field-identified control on surveys T-10383 and T-10384 in the northwest to field-identified control on survey T-11100 in the southeast corner of the plot. This is a somewhat lengthy bridge and additional field-identified control is essential in order to ensure satisfying the horizontal accuracy requirements, particularly on surveys T-10304 and T-10305.

A comparison between the radially plotted positions of the office-identified control and the geographic positions indicates that the probable horizontal error does not exceed 1.0 m in the weakest portions of the plot.

Transfer of Points:
Each map manuscript was placed over the finished plot, oriented, and the positions of all pass points and photograph centers were then pricked on the manuscript.

Of these manuscripts, only surveys T-10383, T-10384, T-10385, and T-11100 were inked and passed on to the compilers. The pass points and photograph centers on the other surveys were not inked. Unless further instructions are received from the Washington office, these surveys numbered T-10384, T-10385, T-10386, T-10390, and T-10391 will not be inked or compiled until field-identified control is available and the plot is verified.

23. ADEQUACY OF CONTROL

This was a preliminary radial plot based for the most part on office-identified control. A layout on which is indicated the control stations which should be identified was submitted to the field party. With these stations identified, there should be adequate control for a final radial plot.

24. SUPPLEMENTAL DATA

None.

25. PHOTOGRAPHY

The photographic coverage and definition of photographs used in this plot were good.

26. CONTROL STATION OFFICE NOTES

A cahier numbered "No. 2 of 2" containing a card for each office-identified station within the limits of this plot was submitted to the field party. These cards should aid the field man in recovering and identifying the triangulation stations. On each card is a sketch of the area near the probable location of the station, as well as photographic data and the published description.
The sketch on the card is generalized. A sketch made by the field man while at the station site is preferred.

Respectfully submitted
4 April 1956

E. L. Williams
Carto. (Photo.)
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>DATUM</th>
<th>LATITUDE OR U-COORDINATE</th>
<th>LONGITUDE OR X-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL, 1922</td>
<td>G-609 p. 311</td>
<td>N.A. 1927</td>
<td>56 02</td>
<td>57.688</td>
<td>1784.2 (71.5)</td>
<td></td>
</tr>
<tr>
<td>TAY, 1922</td>
<td>G-609 p. 313</td>
<td>N.A. 1927</td>
<td>56 02</td>
<td>22.711b</td>
<td>132 17</td>
<td>27.408</td>
</tr>
<tr>
<td>TAN, 1922</td>
<td>G-609 p. 311</td>
<td>N.A. 1927</td>
<td>56 01</td>
<td>21.097</td>
<td>133 15</td>
<td>49.086</td>
</tr>
<tr>
<td>CAP, 1922</td>
<td>G-609 p. 313</td>
<td>N.A. 1927</td>
<td>56 01</td>
<td>35.181</td>
<td>133 16</td>
<td>57.158</td>
</tr>
<tr>
<td>LOR, 1922</td>
<td>G-609 p. 313</td>
<td>N.A. 1927</td>
<td>56 03</td>
<td>38.183</td>
<td>133 16</td>
<td>43.440</td>
</tr>
</tbody>
</table>

1 FT. = 30.48006 METER
COMPUTED BY: H. R. Rudolph DATE 17 January 1956
CHECKED BY: A. Queen DATE 20 January 1956
The Photogrammetric Plot Report is a part of Descriptive Report, T-10382 thru T-10364.

31. **DELINEATION**

This map manuscript was delineated by graphic methods. Shoreline and offshore details were interpreted in the office on nine-lens photographs and verified or corrected by field inspection during hydrographic survey work (1957).

32. **CONTROL**

Horizontal control was adequate.

33. **SUPPLEMENTAL DATA**

A copy of Boat Sheet HO-1257 was available for comparison.

34. **CONTOURS AND DRAINAGE**

Contours - inapplicable.
Drainage - No comment.

35. **SHORELINE AND ALONGSHORE DETAILS**

The shoreline was inspected at places where it was obscured by shadows and where necessary to correct the office interpretation.

Low water lines were field inspected.

36. **OFFSHORE DETAILS**

Foul lines were inspected by the hydrographic party. Sextant fixes were obtained for rocks which were not visible on the photographs.

37. **LANDMARKS AND AIDS**

None.

* THIS REPORT DOES NOT PERTAIN TO THE MAP TO BE REGISTERED - REFER TO PAGES 6 & 6 A.
38. **CONTROL FOR FUTURE SURVEYS**

A form 524 is being submitted for one recoverable topographic station. One signal, LUX, used as an azimuth for establishing this station, was plotted on the manuscript.

39. **JUNCTIONS**

Junctions have been made with T-10381 to the north, T-10384 to the west and T-10391 to the south. There is no contemporary survey to the east.

40. **HORIZONTAL AND VERTICAL ACCURACY**

See supplementary photogrammetric plot report.

41. - 45.

Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

None are available.

47. **COMPARISON WITH NAUTICAL CHARTS**


Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted
15 November 1957

Ruth M. Whitson,
Carto. Photo. Aid

Approved and forwarded

William F. Deane
CDR QG
Baltimore District Officer
GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-87 (Sumner Strait, Alaska)

T-10385

Camp Taylor
El Capitan Passage
Kosciusko Bay
Kosciusko Island
Prince of Wales Island
Sarheen Cove
Spanberg Island
Tenass Island
Tenass Pass

Approved by:

A. Joseph Wright
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician
49. NOTES FOR THE HYDROGRAPHER

One recoverable topographic station, RUT (1922), 1957 and one photohydro station, LUX, were established.
PHOTOGRAMMETRIC OFFICE REVIEW
T-1038

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 hydra stations [ ] 8. Bench marks [ ]

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines [ ] 32. Public land lines [ ]

MISCELLANEOUS

40. [Signature: R. Shallen]
Reviewer

[Signature: Joseph Stilton]
Supervisor, Reviews Section of 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.

[Signature: ]
Compiler

[Signature: ]
Supervisor

43. Remarks:
REVIEW REPORT T-10385
SHORELINE
DECEMBER 10, 1968

61. GENERAL STATEMENT:

See Summary accompanying the Descriptive Report.

There is no field edit sheet or field edit report for this survey.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Comparison was made with copies of Registered Survey No. L011, 1:10,000 scale made in 1922 and No. L053, 1:10,000 scale made in 1922-1923. The shoreline of these two surveys is not in good agreement with the shoreline of T-10385.

Shoreline survey T-10385 supersedes the two older surveys for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS PETERSBURG (A-4), ALASKA, 15 x 20 minute 1:63,360 scale quadrangle, edition of 1949 with minor revisions in 1964. The two surveys are in good general agreement, the quadrangle being somewhat generalized because of its scale.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with a copy of reviewed survey H-7987. The shoreline of these two surveys is in good agreement. It does not appear that the hydrographer made any corrections to the MRL on the hydrographic survey. The rocks on the hydrographic survey that are not visible on the photographs of the area have been indicated on the comparison print which is bound with this report.
65. **COMPARISON WITH NAUTICAL CHARTS:**

Comparison was made with charts 8171, 8th edition, June 10, 1968 and 8172, 5th edition November 23, 1964. It was noted that the shoreline of chart 8172 is not in good agreement with the shoreline of T-10385. There appears to be a difference in datum.

In addition to the rocks on the hydrographic survey, rocks appearing on the chart that are neither on the hydrographic survey, "on survey T-10385 and are not visible on the photographs have been indicated on the comparison print.

66. **ADEQUACY OF RESULTS AND FUTURE SURVEYS:**

This survey complies with project instructions and meets the National Standards of Map Accuracy.

Office photographs 41637 thru 41639 and 41649 thru 41651 were used during final review. All rocks located by the hydrographer were searched for on these photographs.

Approved by: 

Howard S. Cole, CAPT USESSA 
Director, Atlantic Marine Center

Reviewed by:

Leo F. Beugnet

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

Chief, Nautical Chart Division

This is an **INCOMPLETE** survey. Refer to pages 6A of this report.