

8830

~~Original Copy~~

SPS 02

8830

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Photogrammetric Topographic
Field No.	Office No. T-8830
LOCALITY	
State	Alaska
General locality	Alaska Peninsula
Locality	Paul Island & Jacob Island
1945	
CHIEF OF PARTY	
Thos. B. Reed	
LIBRARY & ARCHIVES	
DATE	May 19, 1948

DATA RECORD

T-3830

Quadrangle (II):

Project No. (II): CS-319

Field Office: Seattle, Wash.

Chief of Party:

H. E. Finnegan

Compilation Office:

Baltimore, Md.

Chief of Party:

Thos. B. Reed

Instructions dated (II III):

Copy filed in Descriptive

29 Feb. 1944 (Supplemental); 27 Feb. 1945, 22 March 1945, 1 April 1946, (Field Supplement No. 1), 24 Feb. 1947

Report No. T- (VI)

Completed survey received in office:

Reported to Nautical Chart Section:

Reviewed:

Applied to chart No.

Date:

Redrafting Completed:

Registered: 22 May 1957

Published:

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927

Datum Plane (III): MLLW

Reference Station (III): LUM, 1914

Vol. 5, Pg. 100

Lat.:

Long.:

Adjusted
Unadjusted^x

State Plane Coordinates (VI):

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>150th meridian Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
06280-06282	8-7-41	1441	1:10,000	6.0' above MLLW
06284-06289	8-7-41	1446	1:10,000	5.9' above MLLW
06290-06293	8-7-41	1451	1:10,000	5.8' " "
06294-06297	8-7-41	1456	"	5.8' " "
06283	field print only			

Predicted tide tables. Pacific and Indian Oceans 1941.
Tide from (III): Reference station KODIAK, ALASKA with corrections to
Pirate Cove, Popof Island. *used for*

Mean Range: 5.4 Spring Range: Diurnal 7.4

Camera: (Kind or source)

U.S.Coast and Geodetic Survey nine lens camera-focal length 8 $\frac{1}{4}$ "

Field Inspection by: H.E. FINNEGAN date: May-Sept. 1945

Field Edit by: date:

Date of Mean High-Water Line Location (III): Same as date of photographs

Projection and Grids ruled by (III) T.L.Janson date: 5-29-47

" " " checked by: T.L.Janson date: 5-29-47

Control plotted by: W. Hughes date: 7-15-47

Control checked by: F.J.Tarcza date: 7-16-47

Radial Plot by: J.Steinberg date: 8/8/47 - 8/11/47

Instrument Compilation(9-lens plotter) O.N.Dalbey Sept 1947

Detailed by: O. Perkins date: 1/8/48 - 4/2/48

Reviewed in compilation office by: J.W.Vonasek date: 4/8/48 - 4/16/48

manuscript

Elevations on ~~Field Edit~~ Sheet

checked by: J.W.Vonasek date: 4/16/48

STATISTICS (III)

Land Area (Sq. Statute Miles): 16

Shoreline (More than 200 meters to opposite shore): 30 statute miles

Shoreline (Less than 200 meters to opposite shore): none

Number of Recoverable Topographic Stations established: 1

photo hydro
Number of ~~Temporary Hydrographic~~ Stations located by radial
plot: 107

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered
by, (II) Field Party, (III) Compilation Party, or, (VI) the
Washington Office.

When entering names of personnel on this record give the
surname and initials (not initials only).

Remarks:

FIELD REPORT

SURVEY NO. T-8830

DESCRIPTION OF THE AREA

T-8830 is one of 22 topographic surveys in Project No. CS-319 located on the Alaska Peninsula. The instructions for this project are dated:

29 February 1944 (supplemental)
27 February 1945
22 March 1945
1 April 1946 (Field Supplement No. 1)
24 February 1947

This survey includes the area of Paul island and Jacob Island. Paul Island is slightly hook shaped and has high sharp ridges and peaks. For a short distance along its north shore there is a low grass covered sand spit and inside the hook of the island forming the north shore of Kupreanof Harbor the beach is low sand and gravel.

There is a small salt water pond in this region, at the foot of the grass and alder covered slopes. Practically all of the rest of the shoreline is sheer rock cliffs.

Jacob Island is long and narrow with a knife edged ridge and jagged peaks which drop almost vertically along the eastern shore, and are very steep to along the western shore. On the north side the thickly covered slopes broaden out to form the south shore of Kupreanof Harbor. Most of this section of shoreline is sand and gravel.

For additional information refer to Season's Report 1945, Project No. CS-319, submitted by H. E. Finnegan.

COMPILATION REPORT

MAP MANUSCRIPT, SURVEY NO. T-8830

26. CONTROL

Refer to the radial plot report for a layout of control in this area. A list of stations on Form M-2388-12 is included in this report.

27. RADIAL PLOT

An individual radial plot for Survey No. T-8830 was made using vinylite templets and unmounted nine lens photographs. For details of this radial plot, see the Radial Plot Report for Survey No. T-8830 ~~submitted to the Washington Office, 15 August 1947.~~ *attached to this report*

28. DELINEATION

The compilation of this manuscript was made in accordance with written instructions pertaining to Project No. CS-319. Delineation is complete with the following exceptions and limitations.

X A. Shoreline

On the west side of Paul Island from photo hydro point 3004, northerly about 150 meters.

About 200 meters of the shoreline on the western shore of Paul Island just north of the recessed or concave section of the beach and south of Paul Island Navigation Light at photo hydro point No. 3010.

About 2000 meters of the shoreline on the east side of Paul Island between VINAL, 1945, and photo hydro point No. 3042.

In each of the above exceptions, the shoreline was not completely visible on the photographs due to layover of adjacent high terrain. Its approximate position has been shown by a dashed line.

B. Hydro Points

The following points, identified as photo hydro points on the field photographs have not been plotted on the manuscript:

Point No.	Description	Pricked on photo.	Reason for Omission
3005	Moss topped rock. Elev. 8 ft.	06294	Could be identified on only one photograph - 06287
3006	Bare smooth rock, face above slide.	"	" " " " " "
3045a	End of sharp ledge	06297	Proximity to and similarity of description with that of 3045
3046	Largest boulder near water in slide.	06297	Point on azimuth line. Intersection not possible.

28. DELINEATION (Continued)

In general, the number of horizontal control stations and pass points was sufficient to permit compilation of the manuscript. However, owing to the indented nature of the shoreline with very high bluffs, and insufficient photographic coverage on Jacob Island, some advantage would have been obtained from additional offshore photographs, both in the matter of identification and in horizontal accuracy.

29. SUPPLEMENTAL DATA

A. Preliminary Compilation, Survey No. T-8467

B. United States Coast and Geodetic Survey, planetable Survey, Register No. 3466, Kupreanof Harbor, dated 1914. T-8830 was compared with this survey and found to be in fair agreement with the following exceptions:

1. On the west side of the southern tip of Paul Island there is a discrepancy of 150 meters in the shoreline. T-8830 shows an indentation of the shoreline while the planetable survey shows a straight shoreline.
2. At the beach on the north shore of the Kupreanof Harbor, T-8830 shows the mean high water line about 50 meters farther offshore than on the planetable survey.
3. Directly south of vertical control station PAUL, 1914, the contours are in disagreement. T-8830 shows a ridge with highest elevation about 1000' which falls along the 500' contour on the planetable survey. The latter shows no indication of a ridge in this area.

30. MEAN HIGH WATER LINE

Except in a few instances, the exact position of the MHW line was not identified on the field photographs. In these cases the MHW line has been delineated in accordance with the field inspection. In general, however, the MHW line has been delineated from office photographs after stereoscopic inspection. As has been stated in paragraph 28 of this report, several sections of the shoreline were not visible on any photograph due to relief. In those areas the approximate position of the MHW line has been shown by a dashed line.

31. MEAN LOW WATER LINE

The mean low water line was not identified on the field photographs and has not been delineated.

31A. SHOAL AND REEF LINES

A small reef extending about 30 meters along the coast of the northwesternmost end of Jacob Island has been delineated on the map manuscript as identified by the Field Inspection Party.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE

Offshore details consisting mainly of rocks and islets were delineated in accordance with the field inspection.

Stereoscopic inspection of the photographs taken of Paul Island reveals several reef or ledge areas existing along the east coast of this island north of station VINAL, 1945. No mention has been made of the existence of such areas on the field photographs, however, and no

attempt has been made to delineate them.

33. WHARVES AND SHORELINE STRUCTURES

All wharves and shoreline structures have been delineated in accordance with the field inspection data.

34. LANDMARKS AND AIDS TO NAVIGATION

Refer to form 567 included with this report.

A three point fix locating the position of a red nun buoy is given on the back of field photograph No. 06286. This buoy appears in the light list as "Egg Island Reef Buoy 2". Its position is shown on the manuscript.

35. HYDROGRAPHIC CONTROL

One hundred and eleven (111) photo-hydro points have been identified on field photographs. Of these, one hundred and seven (107) have been plotted on the manuscript. Reasons for failure to plot the remaining points are set forth in paragraph 28 of this report.

Photo hydro point No. 3044, off the southeast coast of Paul Island is described as a vertical sided high rock. Accordingly, that rock in the group which most accurately fitted this description has been taken as the hydro point rather than a small low diamond shaped rock which was identified on the field photograph.

A descriptive list of all photo hydro points has been compiled and is attached to this report.

36. LANDING FIELDS AND AERONAUTICAL AIDS

None

38. JUNCTIONS

Contemporary surveys are not contiguous with T-8830.

39. DIVISION OF WORK

The radial plot and shoreline compilation was completed in the Baltimore Field Office, and the contours were compiled in the Washington Office on the Reading Plotter.

40. QUALITY OF CONTOURS

All contours on this sheet conform to the National Standards of Accuracy for a contour interval of 200 feet, except the 100 foot contour above sea level which conforms to the National Standards of Accuracy for a contour interval of 100 feet.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

None available.

45. COMPARISON WITH NAUTICAL CHARTS

Minute comparisons with the following charts were not possible because of the great difference in scale:

U.S.Coast and Geodetic Survey Chart No. 8802, scale
1:1,039,000, published in August 1944, corrected to
20 July 1946.

U. S. Coast and Geodetic Survey Chart No. 8859, scale
1:300,000, published in March 1943, corrected to 7 July
1945.

The following topographic information shown on T-8830 is of sufficient importance to warrant immediate application to the chart:

None.

The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on the chart:

None.

Low water features are shown in part and will be completed by the hydrographic party.

Respectfully submitted
15 April 1948

Oliver O. Perkins

Engineering Aid
Compilation and Descriptive Report

Harry R. Randolph
Supervisor

Joseph W. Donack

Photogrammetric Engineer
Photogrammetric Office
Reviewer

Approved and forwarded
23 April 1948

Thos B. Rind

Officer in Charge
Baltimore Photogrammetric
Office

RADIAL PLOT REPORT

PROJECT NO. CS-319

SURVEY NO. T-8830

The radial plot for Survey No. T-8830, which is one of ²⁴16 maps in Project No. CS-319, includes the areas of Paul Island and Jacob Island, located on the southern side of Alaska Peninsula just southeast of Alexander Point.

The radial plot for this survey was accomplished in accordance with instructions for Project CS-319 dated 24 February 1947 and reference instructions for Project No. CS-317, dated 27 February 1945.

To control the photographs used in this plot, the field party recovered 14 stations. Of these 10 were identified, and the remaining 4 were circled on the photographs for use as vertical control. Attached to this report is a sketch showing the location of control stations and photographs, also a list of control identification.

The compilation office was furnished a polyconic projection, on acetate, scale 1:10,000, and also a duplicate projection, on vinylite. Both projections were ruled with the ruling machine and checked in the Washington Office.

Vinylite templets were made for the 12 unmounted nine lens photographs that covered the area of this plot. A trial plot was run and from the results obtained it was deemed necessary to correct the templets for errors on the photographs due to paper distortion and printing transformation in order to get a plot with satisfactory results.

Since the photographs were taken prior to April 1946, fiducial marks in the four corners of each wing chamber and in the central octagon were not exposed on the photographic film when the photographs were taken. Therefore, the calibration templet furnished the compilation office could not be used to correct errors due to paper distortion; however, a templet of transparent vinylite was made of a metal mounted photograph that was scaled and found free of paper distortion. The fiducial marks, the principal point, and the four corners of the metal mounted photograph were shown on this vinylite templet.

The radial plotting templets were then superimposed on the newly

made vinylite master templet and radial lines were carefully traced through the fiducial marks and photograph corner marks. Each plotting templet was then centered on a photograph, orienting the templet so that a fiducial line coincided with the corresponding fiducial mark on the photograph. If the fiducial mark and a corner mark did not coincide simultaneously, the templet was de-centered radially to or from that corner of the photograph until the two pairs of marks coincided. All the radial lines for points in that area were then drawn. The templet was readjusted for each corner similarly and the radials traced.

The adjusted templets were laid and satisfactory results were obtained. In the course of laying the templets, however, rays in the center chamber were eliminated on several photographs because these chambers appeared to be displaced.

Upon completion of the plot all pass points and photograph centers were pricked through the templets onto the base projection. All prick points in the templets and base projection were circled with black ink.

The templets were taken up and the map projection was placed over the base projection and after matching common projection lines all photograph centers and pass points were pricked on the map projection.

Horizontal control stations BEND, 1945 and APPLE, 1945, could not be held on all photographs because of difficulty in identification. This was exceptionally so with station APPLE, where relief of adjacent bluffs made identification questionable.

The identification of stations circled for vertical control are in doubt because the steepness of terrain made stereoscopic perception difficult and quite often impossible. The images of some of the control stations on separate photographs in some instances, are dissimilar to such a marked degree that it was impossible to fuse them into a clear impression in three dimensions.

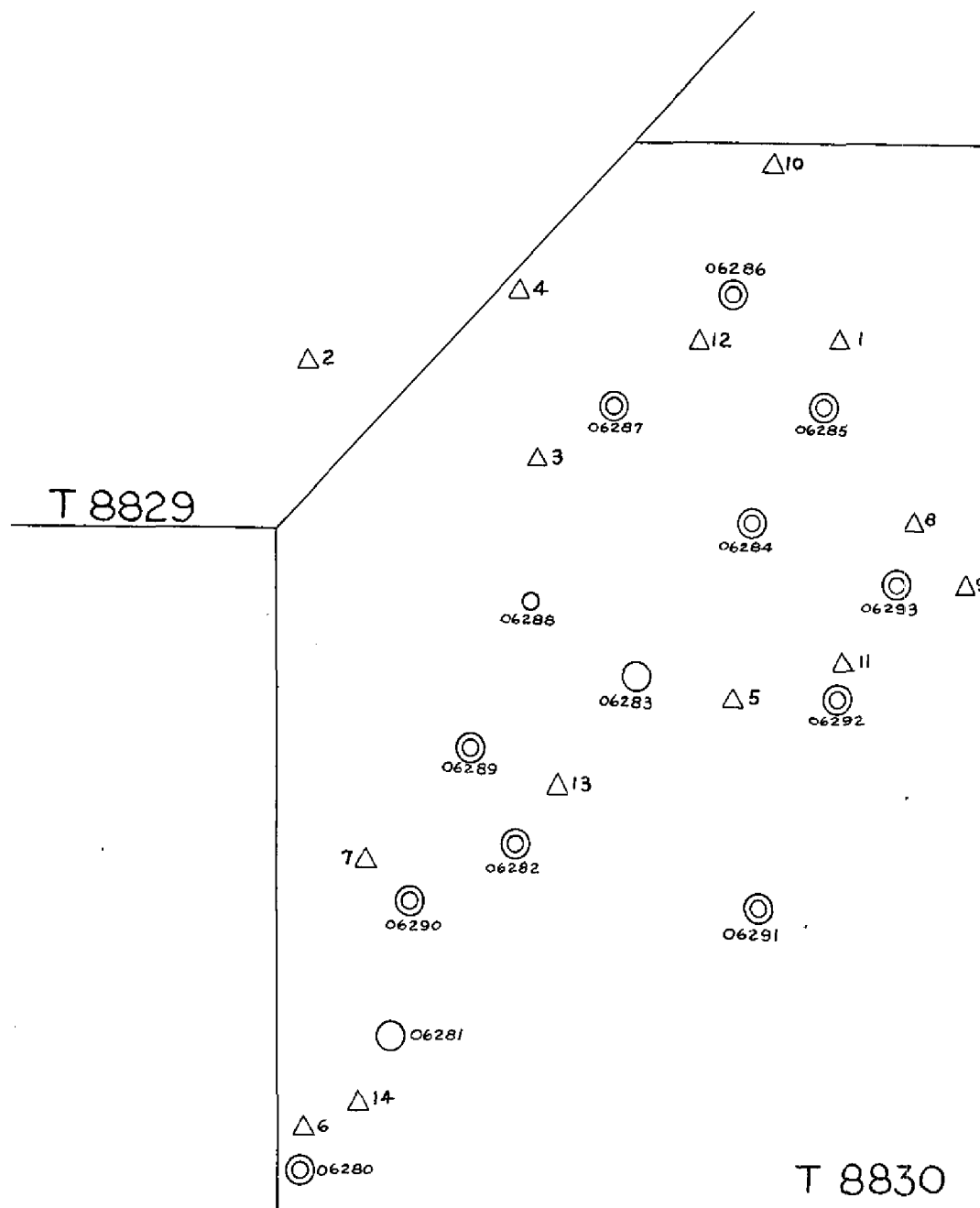
Considering the amount of error due to paper distortion in the photographs and printing transformations, it is believed that the radially plotted positions of all pass points and photograph centers are within 0.5 mm of their correct geographic positions.

Approved and Forwarded
15 August 1947

Respectfully submitted
14 August 1947

Thos B. Reid

Joseph Steinberg



○ Office Photograph

○ Field Photograph

△ Triangulation Station (see list of names)

LAYOUT SKETCH for part of PROJECT NO. C.S. 319
SURVEY No. T-8830

LIST OF CONTROL STATIONS

PROJECT NO. CS-319

SURVEY NO. T-8830

No.	Name of Station	Method of Identification
1.	ROCK EAST OF PAUL ISLAND, 1914	Pricked direct
2.	ROCK OFF ALEXANDER POINT, 1914	Pricked direct
3.	LUM, 1914	Pricked by arcs
4.	PAUL ISLAND NAVIGATION LIGHT, 1945	Pricked direct
5.	SANDE, 1945	Pricked by arcs
6.	NOON, 1945	Pricked direct
7.	APPLE, 1945	Pricked by arcs
8.	VINAL, 1945	Substitute station
9.	EPAU, 1945	Pricked direct
10.	BEND, 1945	Pricked by arcs
11.	AUL, 1945	Circled for vertical control only
12.	PAUL, 1914	Circled for vertical control only
13.	JACOB, 1914	" " "
14.	RID (PEAK NOON POINT), 1914	" " "

LIST OF PHOTO-HYDRO POINTS FOR SURVEY NO. T-8830

No.	Description	Pricked on Photo. No.
3001	Detached rock, elev. 4 ft.	06294
3002	Detached rock, elev. 6 ft.	"
3003	Detached rock, elev. 3 ft.	"
3004	Western Sharp Corner on vertical ledge	"
3005	Moss topped rock, elev. 8 ft. (rejected)	"
3006	Bare smooth rock face above slide (rejected)	"
3007	Most northerly high point on ledge projecting from beach; elevation 5 ft.	"
3008	Moss covered sharp topped rock at edge of slide; elev. 4'	"
3009	Detached rock just outside HWL. Elev. 5 ft.	"
3010	Large boulder near HWL	"
3011	Low rock ledge on grass line	06286
3012	Boulder projecting from talis slope at grass edge	"
3013	Large round boulder on HWL	"
3014	Large boulder at base of smallslide just west of larger slide.	"
3015	Ledge just west of stream. Dist. about 12 ft.	"
3016	Small grass topped pinnacle. Elev. about 18 ft.	"
3017	Large boulder on eastern edge of slide, just west of point on water edge. Elev. 12 ft.	"

No.	Description	Pricked on Photo. No.
3043	Large boulder grass topped on HWL. Elev. 16 ft.	06291
3044	Vertical sided high rock	06291
3045	Face of low ledge on S edge of small rock slide	"
3045a	End of sharp ledge (rejected).	06297
3046	Largest boulder near water in slide (rejected)	06297
3047	Large boulder lying on ledge to W of smooth ledge	06297
3048	Highest point of detached rock. 4 ft.	06297
3049	Grass hump on projecting ledge. Elev. about 27 ft.	06298
3050	Sharp projection on rock bluff. Low pinnacle formation on its top. Top of pinnacle marked.	"
3051	Sharp pinnacle. Elev. 20 ft.	"
3052	Large boulder at base of bluff	"
3053	Top of detached grass topped pinnacle. Elev. about 32 ft.	06295
3054	Largest and highest of several boulders lying at base of vertical cliff and face of projecting large nodule on bluff. (Small waterfall in back). Elev. of rock about 16 ft.	"
3055	Seaward face of detached grass topped rock at edge of grass. Sharp rock projection. Elev. 26 ft.	"
3056	Sharp point on face of grass topped pinnacle	"
3057	Detached rock, high point. Elev. 18 ft.	"
3058	Face of brush topped detached ledge. Elev. 36 ft.	"
3059	Sharp pinnacle on face of bluff. Grass on seaward face	"
3060	Large boulder at base of vertical bluff. Elev. 8 ft.	06294
3061	End of small wharf.	"
3062	Detached grass topped rock. Elev. 10 ft.	"
3063	Grass topped end of ledge. Elev. 7 ft.	"
3064	Black rock between high and low water. Elev. above HW 5 ft.	06295
3065	End of vertical narrow ledge	"
3066	Gable end of white building on wharf. Elev. about 25 ft.	"
3067	Sharp corner of rock ledge, grass covered.	"
3068	End of sharp rock ledge with cave underneath	"
3069	Outer high point on rock. Elev. 4 ft.	"
3070	Seaward face of 8 ft. rock	"
3071	Large rock lying on detached ledge	06296
3071	Large rock lying on detached ledge	06296
3072	Large boulder in slide	"
3073	Sharp corner on loose part of ledge. Elev. 18 ft.	"
3074	Detached rock. Elev. 8 ft.	"
3075	Base of vertical bluff on end of sharp point directly below grass spot on vertical face.	06281
3076	Section of broken ledge leaning against base of bluff.	"
3077	Very large boulder at base of slide. Elev. 18 ft.	"
3078	30 ft. grass topped pinnacle	"
3079	Point of vertical ledge at north end of small beach.	"
3080	Highest point on outer detached rock. Elev. about 28 ft.	"
3081	Attached pinnacle. Elev. about 60 ft.	"
3082	Detached rock. Elev. 12 ft.	"
3083	Detached rock. Elev. 18 ft.	"
3084	Grass topped rounded topped pinnacle. Elev. about 20 ft.	"
3085	Detached boulder. Elev. 11 ft.	"
3086	Very large boulder at base of slope. Elev. about 20 ft.	"

No.	Description	Pricked on Photo. No.
3087	Large rock on beach	06280
3088	6 ft. rock	06280
3089	15 ft rock on beach grass topped	06280
3090	Large light colored rock on beach	06290
3091	Outer corner ledge	06290
3092	Large boulder	"
3093	Top of 15 ft. ledge	"
3094	40 ft. grass topped pinnacle	"
3095	Needle pinnacle	"
3096	60 ft. connected pinnacle	"
3097	8 ft. rock on beach	"
3098	10 ft. rock	"
3099	10 ft. rock	06289
30100	Number not used.	
30101	4 ft. rock	06289
30102	8 ft. grass topped rock on beach	"
30103	7 ft. rock	"
30104	10 ft. rock	"
30105	Cabin SW corner	"
30106	Top 12 ft. rock	"
30107	Light colored rock 5 ft. x 3 ft. on slide	"
30108	West corner 20 ft. rock	"
30109	8 ft. rock on HWL	"
30110	Top sheer drop 12 ft. ledge	"
30111	15 ft. grass topped pinnacle	"

NOTES
FOR
HYDROGRAPHIC PARTIES
ALASKA PENINSULA

MAP MANUSCRIPT

SURVEY NO. T-8830

The 2½ millimeter circles, accompanied with a number are the positions of the photo hydro stations. Two copies of the list of descriptions of the photo hydro stations have been furnished for your use.

Minute comparisons with the following charts were not possible because of the great difference in scale:

U.S. Coast and Geodetic Survey Chart No. 8802, scale 1:1,039,000 published in August 1944, corrected to 20 July 1946.

U. S. Coast and Geodetic Survey Chart No. 8859, scale 1:300,000 published in March 1943 corrected to 7 July 1945.

The following topographic information shown on T-8830 is of sufficient importance to warrant immediate application to the chart:

None.

The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on the chart:

None.

Low water features are shown in part and will be completed by the hydrographic party.

Respectfully submitted:
15 April 1948

Oliver O. Perkins
Engineering Aid

Approved and forwarded
23 April 1948

Thos B. Runk
Officer in Charge
Baltimore Photogrammetric
Office

NAUTICAL CHARTS BRANCH

SURVEY NO. T-8830

Record of Application to Charts

[illegible]

M.2168-1

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

Review Report T-8830
Topographic Map
April 24, 1953

62. Comparison with Registered Topographic Surveys. - None
63. Comparison with Maps of other Agencies.

U.S.G.S. Topographic map Stepovak Bay, Alaska 1:250,000
1951.

Comparison not satisfactory because of great difference
in scale.

64. Comparison with Contemporary Hydrographic Surveys. - None
65. Comparison with Nautical Charts.

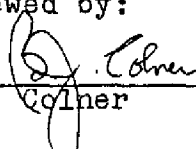
Not possible with the following charts because of the
great difference in scale:

8502	1:969,761	Sept. 1950
8802	1:1,023,188	Dec. 1952
9302	1:1,534,076	Dec. 1952
8859	1:300,000	Aug. 1951

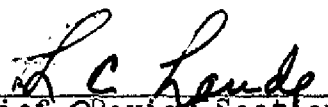
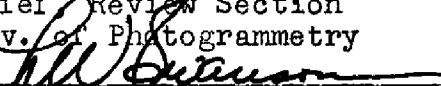
66. Adequacy of Results and Future Surveys.

This map complies with project instructions and is
adequate as a basis for hydrographic surveys and the con-
struction of nautical charts.


Reviewed by:

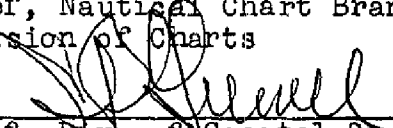

B. J. Colner

APPROVED:


Chief, Review Section
Div. of Photogrammetry

Chief, Div. of Photogrammetry

Aug 16, 1957

for 
Chief, Nautical Chart Branch
Division of Charts


Chief, Div. of Coastal Surveys