

8475

Diag. Cht. No. 8252-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-49 (49) Office No. T-8475

LOCALITY

~~State~~ Territory of Alaska

General locality Sitka Sound

Locality Olga Strait, Krestof Island,

Halleck Island.

1948 & 1949

CHIEF OF PARTY

Glendon E. Boothe, Field 1948

J.C. Partington, Field 1949

Charles W. Clark, Photo. Office

LIBRARY & ARCHIVES

DATE MARCH 25, 1955

8-1870-1 (1)

8475

DATA RECORD

T-8475

Project No. (II): Ph-49(49) Quadrangle Name (IV):

Field Office (II): Ship "PATTON"

Chief of Party: Glendon E. Boothe (1948)

J.C. Partington (1949)

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Charles W. Clark

Instructions dated (II) (III): 5 August 1947 (Field) Project CS-247
17 August 1951 (Office)Copy filed in Division of
Photogrammetry (IV)

Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): None

Date received in Washington Office (IV): MAY 8 1952

Date reported to Nautical Chart Branch (IV): MAY 16 1952

Applied to Chart No.

Date:

Date registered (IV): 2 March, 1955

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): Mean ~~Sea Level~~ ^{High Water}

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): BARK 2, 1947

Lat.: 57° 11' 40.422" 1250.4m Long.:
(605.6m)862.8m Adjusted X
(144.8m) Unadjusted

Plane Coordinates (IV): UTM

State:

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): Ship "PATTON"

Date: Seasons 1948 & 1949

Planetable contouring by (II): None

Date:

Completion Surveys by (II): None

Date:

Mean High Water Location (III) (State date and method of location): Field inspection location during seasons 1948 & 1949 verified by stereoscopic inspection of photographs in photogrammetric office.

Projection and Grids ruled by (IV): Wash. office

Date:

Projection and Grids checked by (IV):

Date:

Control plotted by (III): J.L. Harris

Date: 9/20/51

Control checked by (III): H.J. Atkins

Date: 9/21/51

Radial Plot or Stereoscopic J.L. Harris & J.E. Deal
Control extension by (III):

Date: 10/24/51

Stereoscopic Instrument compilation (III):
Planimetry
Contours

Date:

Date:

Manuscript delineated by (III): Charles Bishop

Date: 2/21/52

Photogrammetric Office Review by (III): R.H. Barron

Date: 3/12/52

Elevations on Manuscript R.H. Barron
checked by (II) (III):

Date: 3/12/52

Camera (kind or source) (III): U.S.C. & G.S. - 9 lens - focal length 8.25 inches

Number	Date	Time	Scale	Stage of Tide
9341	7/4/42	10:50	1:10,000	1.5 ft. above MLLW
9456 to 9462 Incl.	7/8/42	10:25	1:10,000	6.6 ft. above M.L.L.W
9486 to 9491 "	"	10:44	1:10,000	6.7 " " " "
9520 to 9523 "	"	11:02	1:10,000	6.6 " " " "
9559 to 9561 "	"	11:43	1:10,000	6.3 " " " "

Tide (III)

Reference Station: Sitka, Alaska
 Subordinate Station: Olga Pt., Olga Strait, Alaska
 Subordinate Station: *Dog Pt. Lisianski Peninsula*

Washington Office Review by (IV): *Everett H. Ramey*

Final Drafting by (IV): *Robinson, A.T.*

Drafting verified for reproduction by (IV): *W.O. Halluin*

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 1.0
 Shoreline (More than 200 meters to opposite shore) (III): 45.1 statute miles
 Shoreline (Less than 200 meters to opposite shore) (III): 44.4 statute miles
 Control Leveling - Miles (II):
 Number of Triangulation Stations searched for (II):
 Number of BMs searched for (II):
 Number of Recoverable Photo Stations established (III): None
 Number of Temporary Photo Hydro Stations established (III): None

Remarks:

Diurnal		
Ratio of Ranges	Mean Range	Spring Range
	7.7	9.9
1.0	7.8	9.9
1.0	7.8	10.0

8 Feet

Date: *16 Dec 1952*

Date: *3-3-54*

Date: *6-11-54*

Date:

Summary to Accompany Descriptive Report T-8475

Shoreline survey T-8475 is one of seventeen similar surveys of Project Ph-49(49). It covers shoreline features in Olga Strait and portion of Sitka Sound and adjacent areas.

Project Ph-49(49) is a graphic control survey. Field work in advance of compilation included the establishment of some additional horizontal control and the inspection of shoreline. This work was done in conjunction with field operations of Project CS-247.

Survey T-8475 was compiled at a scale of 1:10,000 using nine-lens photographs taken in 1942. It covers an area in latitude from $57^{\circ} 08'$ to $57^{\circ} 14'$ and in longitude from $135^{\circ} 25'$ to $135^{\circ} 32\frac{1}{2}'$.

Items registered under T-8475 will include a descriptive report and a lithographic print of the manuscript at a scale of 1:10,000.

FIELD INSPECTION REPORT
Map Manuscript No. T-8475
Project Ph-49(49)

Refer to special reports titled:

FIELD INSPECTION OF AIR PHOTOGRAPHS
S.E. ALASKA
OLGA STRAIT, NEVA STRAITS AND
SAINT JOHN BAPTIST BAY
U.S. COAST & GEODETIC SURVEY SHIP "PATTON"
PROJECT CS-247
GLENDON E. BOOTHE, CHIEF OF PARTY
1948

also

FIELD INSPECTION REPORT OF AIR PHOTOGRAPHS
S.E. ALASKA
NAKWASINA PASSAGE, NAKWASINA SOUND,
KRESTOF SOUND & KATLIAN BAY
U.S. COAST & GEODETIC SURVEY SHIP "PATTON"
PROJECT CS-247
J.C. PARTINGTON, CHIEF OF PARTY
1949

Above reports filed under Project Ph-49(49),
Div. of Photogrammetry.

PHOTOGRAMMETRIC PLOT REPORT
Map Manuscripts Nos. T-8475 and T-8819 to T-8821 Incl.
Project Ph-49(49)

21: AREA COVERED:

This radial plot covers an area just north of Sitka Sound, Alaska and includes the shorelines and the immediate adjacent land areas of Krestof Sound and Nakwasina Sound from Kresta Point to Nakwasina Passage, Olga Strait from Nakwasina Sound to Krestof Sound, Nakwasina Passage from Nakwasina Sound to Krestof Sound, Katlian Bay from Lisianski Point to its head. The radial plot comprises Map Manuscripts Nos. T-8475, T-8819, T-8820, and T-8821.

22: METHOD:

A polyconic projection (scale 1:10,000) in half minute intervals drawn on vinylite material was furnished this office for the area of each of the map manuscripts. Also shown on these sheets are the Universal Transverse Mercator Alaska grids for each respective area. Base grid sheets were not used.

Geographic positions of horizontal control stations and substitute stations falling in the area of each of these map manuscripts were plotted and the plotting was then verified.

The four map manuscripts were joined together by matching meridians and parallels common to adjoining sheets and then fastened with clear cellulose tape.

The area was adequately covered with nine lens photographs taken in July and August 1942 at a scale of approximately 1:10,000.

Preparation of the photographs in the area of this radial plot had been partially completed in the Washington Office previous to the assignment of this project to the Portland Photogrammetric Office. This work was verified by a stereoscopic examination of the photographs at this office. By use of the stereoscope additional azimuth lines were plotted on the photographs and additional pass points were selected where they were believed necessary and then transferred to all photographs on which they appeared. The pricking of identified horizontal control stations on all photographs on which they appeared was completed.

The nine lens photographs in this project do not contain fiducial marks for use in the correction of paper distortion and transforming errors when drawing templets. Because of this condition it was decided to prepare templets only for the photographs falling in a portion of the radial plot and then determine

if these templets could be oriented to the identified horizontal control stations. A more than adequately controlled area of the radial plot was selected for this test and after many unsuccessful attempts to orient the templets it was concluded that a satisfactory plot could not be made with the radial line templet method. Furthermore the personnel at this office were unable to ascertain which chambers or portions of the photographs were causing the difficulty.

Fortunately there were numerous horizontal control stations which were very closely spaced along the shorelines in the area. Many of these had been identified in the field by the substitute station method and also for many of the stations not identified in the field, good direct identifications could be made in the office from data contained in the station descriptions and from a stereoscopic study of the photographs.

In addition there were several field identified graphic control stations for which geographic positions had been scaled from the graphic control sheets. These positions were believed to be of a high accuracy in view of the many triangulation stations available for use when they were located.

In lieu of the use of acetate templets each photograph was individually placed under the four joined map manuscripts and an orientation was obtained by holding to a majority of the identified horizontal control stations falling on that particular photograph. From this orientation it is believed that the principal point of the photograph was located in the radial plot with a sufficient accuracy from which to draw correct radials to photogrammetric points. After the location of its principal point was determined, the photograph was rotated chamber by chamber and radials were drawn directly on the face of the map manuscript to pass points in only those chambers containing identified horizontal control stations. Those photographs having the greatest number of identified control stations in their area were oriented first. After several photographs were oriented in this way it was noted that excellent locations for many pass points were being obtained and these were used to supplement the identified control when orienting photographs not having a great number of control stations in their area. In a few instances it was necessary to use pass point intersections of only two radials to orient certain chambers of sparsely controlled photographs. The radial plot progressed in this manner until all photographs in the plot had been oriented. Very good intersections to pass points were obtained and it is believed that the results of this plot will permit the compilation of shoreline detail that will be well within the limits of the horizontal accuracy requirements for the project.

23: ADEQUACY OF CONTROL:

The field identification of stations was satisfactory and with the additional stations identified in the office an adequate number of horizontal control stations were available for this radial plot.

24: SUPPLEMENTAL DATA:

Graphic control surveys falling in the area of this radial plot are as follows:

N.A.	1942	Topographic Survey	6890
PA-A-	48	"	" T-7088a
PA-B-	48	"	" T-7088b
PA-C-	48	"	" T-7089a
PA-D-	48	"	" T-7089b
PA-A-	49	"	" (T-7129?)
PA-C-	49	"	" (T-7130?)
PA-D-	49	"	" T-7131
PA-E	49	"	" T-7131
PA-F	49	"	" T-7132

Graphic control stations used to supplement the triangulation stations in controlling the orientation of photographs in the radial plot were as follows:

T-8475: GAD 1949, BAN 1949, DIX 1949, GAB 1949, ITS 1949, NUT 1949

T-8819: ARM 1949

T-8820: ICE 1949, OIL 1949, PEG 1949, RAT 1949

T-8821: ABLE 1949, LIZ 1949

There was some difficulty in holding stations OIL 1949 and PEG 1949 but because of the methods used in running the radial plot the accuracy of the graphic survey location could not be determined and the photographs were oriented so that in no instance were the radials to these two station held off the plotted positions by as much as 3.0 meters.

25: PHOTOGRAPHY:

The photography was adequate for coverage.

There were no fiducial marks on the photographs for use in correcting transforming errors and paper distortion.

A period of 10 years had elapsed between the time of photography and the running of the radial plot.

APPROVED:

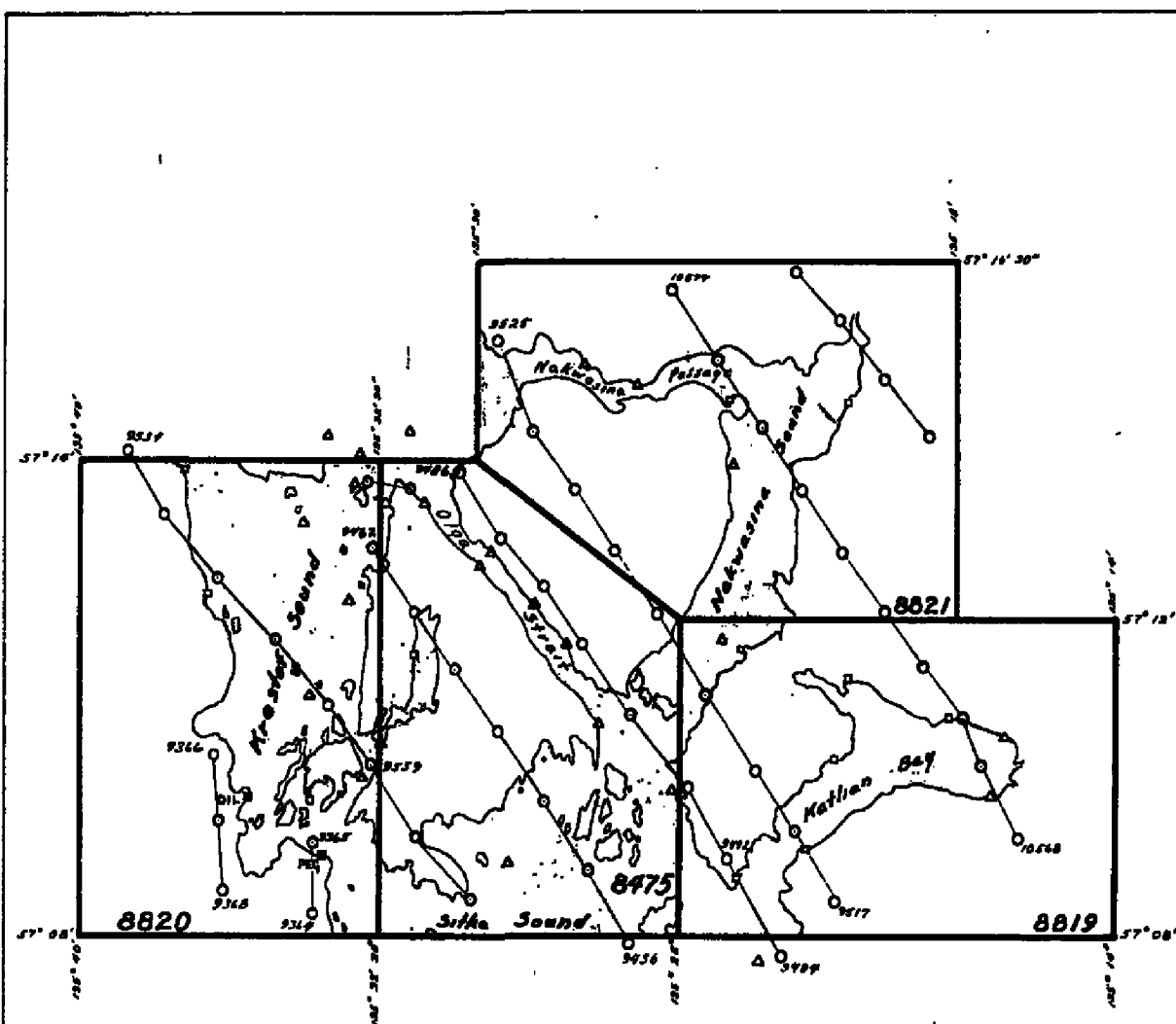
Fred A. Riddell

Fred A. Riddell
Officer-in-Charge
Portland Photogrammetric Office

Respectfully submitted:

J. Edward Deal, Jr.

J. Edward Deal, Jr.
Cartographer



- △ HORIZONTAL CONTROL
- Topographic Stations Discussed in descriptive Report
- Topographic Stations
- 1942 Nine Lens Photographs

PH-49 (49)
 RADIAL PLOT For 8820 T-8475 T-8819 & T-8821
 SITKA SOUND to NEVA STRAIT-ALASKA

MAP T-8475

PROJECT NO. Ph-42(42)

SCALE OF MAP 1:10,000

SCALE FACTOR NONE

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
EIDER, 1949	III 893	N.A. 1927	57° 10' 31.021"				959.6	(896.5)	
			135° 32' 29.994"				504.0	(504.2)	
CANT 2, 1948	875	"	57° 13' 27.833"				861.0	(995.1)	
			135° 31' 26.372"				442.5	(564.3)	
DIG 2, 1948	876	"	57° 12' 42.051"				1300.8	(555.2)	
			135° 30' 02.814"				47.2	(960.0)	
BIRD, 1896 - 1947	876	"	57° 12' 10.838"				335.3	(1520.8)	
			135° 28' 43.597"				732.0	(275.4)	
BARK 2, 1947	876	"	57° 11' 40.422"				1250.4	(605.6)	
			135° 27' 51.375"				862.8	(144.8)	
EAST, 1896	877	"	57° 10' 40.080"				1239.9	(616.2)	
			135° 27' 01.975"				33.2	(974.9)	
AID, 1896	875	"	57° 13' 33.951"				1050.3	(805.8)	
			135° 30' 44.425"				745.4	(261.3)	
OLGA 1896 - 1925	874	"	57° 13' 45.492"				1407.3	(448.8)	
			135° 32' 04.098"				68.8	(937.9)	
GAB 1896 - 1948	875	"	57° 13' 07.264"				224.7	(1631.4)	
			135° 30' 56.386"				946.3	(60.7)	
FLAW 2, 1948	875	"	57° 13' 01.199"				37.1	(1819.0)	
			135° 30' 44.361"				744.5	(262.5)	
GAG, 1896 - 1948	875	"	57° 12' 45.877"				1419.2	(436.9)	
			135° 30' 09.202"				154.5	(852.7)	
DRILL 1896	875	"	57° 12' 52.138"				1612.9	(243.2)	
			135° 29' 50.830"				853.2	(153.9)	

1 FT. = 3048006 METER

COMPUTED BY: H.J. Atkins

DATE 9/13/51

CHECKED BY: J.L. Harris

DATE 9/19/51

MAP T. 8475

PROJECT NO. Ph-49(49)

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
✓ BACK 2, 1948	875	NA 1927	57° 13' 20.340"				629.2	(1226.9)	
			135° 30' 32.404"				543.8	(463.1)	
✓ DRUG, 1896	875	"	57° 13' 06.499"				201.0	(1655.1)	
			135° 30' 23.972"				402.3	(604.7)	
✓ EARTH 2, 1948	875	"	57° 12' 59.624"				1844.5	(11.6)	
			135° 30' 14.616"				245.3	(761.7)	
✓ COURT 2, 1948	876	"	57° 12' 35.358"				1093.8	(762.3)	
			135° 29' 20.919"				351.2	(656.0)	
✓ BOSS, 1896 - 1947	876	"	57° 12' 22.758"				704.0	(1152.1)	
			135° 29' 00.306"				5.1	(1002.2)	
✓ GRAY 2, 1948	876	"	57° 11' 58.766"				1817.9	(38.2)	
			135° 28' 28.144"				472.6	(534.9)	
✓ DISK 2, 1948	876	"	57° 12' 25.523"				789.5	(1066.5)	
			135° 29' 39.645"				665.6	(341.7)	
✓ BAN, 1896, 1947	876	"	57° 12' 14.975"				463.2	(1392.8)	
			135° 29' 18.774"				315.2	(692.1)	
✓ DROVE 2, 1947	876	"	57° 11' 53.385"				1651.5	(204.6)	
			135° 28' 52.836"				887.2	(120.3)	
✓ CANE 2, 1947	876	"	57° 11' 31.138"				963.2	(892.8)	
			135° 28' 21.161"				355.4	(652.3)	
✓ DRESS 2, 1947	876	"	57° 11' 11.652"				360.5	(1495.6)	
			135° 27' 53.590"				900.2	(107.7)	
✓ BIN, 1896, 1947	877	"	57° 10' 58.795"				1818.8	(37.3)	
			135° 27' 25.760"				432.7	(575.2)	

Page 14

1 FT. = 3048006 METER

COMPUTED BY: H. J. Atkins

DATE 9/13/51

CHECKED BY: J.L.Harris

DATE 9/19/51

M-2388-12

MAP T. 8475

PROJECT NO. Ph-49(49)

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
✓ AN-2, 1947	877	N.A. 1927	57° 11' 20.001"				618.7	(1237.4)	
			135° 27' 33.950"				570.2	(437.5)	
✓ FAITH, 1896	877	"	57° 11' 06.132"				189.7	(1666.4)	
			135° 27' 05.194"				87.2	(920.6)	
✓ BEEF, 1897	III 882	"	57° 07' 44.471"		South of Sheet		1375.7	(480.4)	
			135° 25' 18.123"		"Not Plotted"		304.9	(704.5)	
✓ WISE, 1897	877	"	57° 10' 54.274"				1679.0	(177.1)	
			135° 25' 51.361"				2862.8	(145.1)	
✓ SPICA, 1941	III 882	"	57° 08' 31.603"				977.6	(878.4)	
			135° 31' 45.734"				769.1	(239.9)	
✓ HOPE, 1893	III 881	"	57° 08' 00.388"				12.0	(1844.0)	
			135° 31' 08.271"				139.1	(870.1)	
✓ KREST, 1928	372	"	57° 10' 19.903"				615.7	(1240.4)	
			135° 29' 26.16 9"				439.7	(568.5)	
✓ AQUILA, 1947	878	"	57° 11' 42.225"				1306.2	(549.9)	
			135° 25' 11.760"				197.5	(810.1)	
✓ GUNNER, 1896-1947	877	"	57° 11' 01.488"				46.0	(1810.1)	
			135° 26' 51.273"				861.3	(146.6)	
✓ FAIRY, 1949	III 892	"	57° 08' 56.316"				1742.1	(114.0)	
			135° 32' 21.430"				360.3	(648.5)	
✓ ROGAT, 1949	III 893	"	57° 10' 25.281"				782.1	(1074.0)	
			135° 32' 28.179"				473.5	(534.7)	
✓ SALTY, 1949	III 896	"	57° 10' 55.874"				1728.4	(127.6)	
			135° 31' 51.521"				865.5	(142.4)	

1 FT. = 3048006 METERS
COMPUTED BY: H.J. Atkins

DATE 9/13/51

CHECKED BY: J.L. Harris

DATE 9/19/51

MAP T. 8475

PROJECT NO. Ph 49(49)

SCALE OF MAP 1:10,000

SCALE FACTOR

None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
BEEHIVE, 1949	III 890	N.A. 1927	57° 11' 09.063" 135° 25' 54.868"			280.4 (1575.7) 921.6 (86.2)	
✓ SPICE, 1947	878	"	57° 10' 11.699" 135° 27' 00.259"			361.9 (1494.2) 4.4 (1003.9)	
✓ NAKA, 1897	877	"	57° 09' 55.138" 135° 26' 22.011"			1705.7 (150.4) 369.9 (638.4)	
✓ LIS 2, 1947	877	"	57° 09' 49.463" 135° 25' 12.440"			1530.1 (326.0) 209.1 (799.3)	
✓ SIG, 1897	877	"	57° 09' 36.676" 135° 25' 59.501"			1134.6 (721.5) 1000.2 (08.4)	
✓ VEGA, 1941	III 882	"	57° 08' 55.457" 135° 29' 21.278"			1715.6 (140.5) 357.8 (651.1)	
✓ FAR, 1897	574	"	57° 07' 42.653" 135° 26' 10.214"	South of Sheet "Not Plotted"		1319.4 (536.6) 171.8 (837.6)	
✓ COMB 2, 1941	III 882	"	57° 09' 10.549" 135° 27' 29.572"			326.3 (1529.8) 497.2 (511.6)	
✓ DOG, 1897	572	"	57° 10' 10.6 08" 135° 25' 21.384"			328.2 (1527.9) 359.4 (648.9)	
✓ SALTY, RM#1 '49	III 896	"	57° 10' 53.420" 135° 31' 50.159"			1652.5 (203.6) 842.6 (165.3)	
"X" on beach north of station Disk 2 (USCG)	III 879	"	57 12 28.201 135 29 48.381			872.4 (983.7) 812.2 (195.1)	Page 16
"X" on tree at station Disk 2 (USCG) 1948	III 879	"	57 12 25.671 135 29 39.897			794.1 (1062.1) 669.8 (537.5)	

1 FT. = 3048006 METER
COMPUTED BY: H.J. Atkins

DATE 9/13/51

CHECKED BY: J.L. Harris

DATE 9/19/51

M-2388-12

COMPILATION REPORT
Map Manuscript No. T-8475
Project Ph-49(49)

31: DELINEATION:

Graphic methods only were used for the compilation of this map manuscript and the field inspection was satisfactory for the delineation of shoreline details.

No attempt was made to locate prominent landmark peaks and other interior landmark areas of high relief because of the methods used in running the radial plot and because of the lack of horizontal control stations within the interior land areas.

32: CONTROL:

The density and placement of horizontal control stations were satisfactory. Refer to side heading 23. "Adequacy of Control" of the Photogrammetric Plot Report.

33: SUPPLEMENTAL DATA:

Graphic control surveys used to supplement the photographs are as follows:

PA-A-48	Topographic Survey	T-7088a
PA-B-48	" "	T-7088b
PA-C-48	" "	T-7089a
PA-A-49	" "	T-7129
PA-C-49	" "	T-7130
PA-D-49	" "	T-7131
PA-E-49	" "	T-7131

These graphic control surveys were used principally to transfer to the map manuscript the rocks awash and covered rocks not indicated on the photographs by field inspection and for comparison of shoreline details. See side heading 46 of this Compilation Report.

34: CONTOURS AND DRAINAGE:

The drainage emptying into the main bodies of water was indicated in many cases by notes on the field inspection photographs. In all instances the drainage was delineated by stereoscopic study of the photographs and then detailed.

See item 66

Contours are inapplicable.

35: SHORELINE AND ALONGSHORE DETAILS:

The location of the mean high-water line is indicated on the field inspection photographs with a dashed line in red ink. The office photographs were carefully studied with the aid of the stereoscope and by using this field inspection location as a guide, a refined delineation of the high-water line was made. The line could be seen fairly well on the photographs and in addition much data relative to its location were obtained from the descriptions of triangulation stations and from the pricking cards of the identified control stations. Most of the shoreline consists of steep rocky tree covered slopes where the adjacent water is deep. Another factor contributing to a correct delineation for this type of shoreline was that the predicted height of tide at the time of photography was about 6.5 ft. above M.L.L.W. and the mean high-water line is believed to be about 7.5 ft. above M.L.L.W.. The mean high-water line shown on the map manuscript has been detailed just in-shore and immediately adjacent to the water limits on the photographs.

In the shallow flat areas, usually found in coves, the delineation of the mean high-water line was quite difficult but it is believed that a good location of the line has been determined in these places. Refer to side heading "FIELD OPERATIONS" of the "Field Inspection Report of Air Photographs" Ship "PATTON" (1949).*

* *Report filed under project data, Div. of Photogrammetry.*

All rocks indicated by field inspection were detailed and many of the more prominent ones were radially plotted. In addition, rocks not indicated by field inspection but shown on the graphic control surveys, have been transferred to the map manuscript. Several of these could not be seen on the photographs. Other rocks believed visible on the photographs but not indicated either by field inspection or on the graphic control surveys were detailed and because of lack of height data were shown with the rock awash symbol.

There was no field inspection of rocks nor were there data from other surveys for the shoreline of Krestof Island between Hayward Strait and Olga Strait and along the shorelines of the Siginaka Islands and Big Gavanski Island. Rocks in these areas were delineated by stereoscopic study of the photographs and the

height which those rocks, believed to be awash, bare at M.L.L.W. and the height which those, believed to be bare rocks, extend above the plane of M.H.W. could not be ascertained.

Foreshore areas visible on the photographs have been detailed.

Low-water lines have been detailed as indicated by field inspection. There were no photographs taken at a stage of tide near low-water, *except Photograph #9341 which was used.*

36: OFFSHORE DETAILS:

A few small kelp areas indicated by field inspection have been detailed and are the only offshore features shown.

37: LANDMARKS AND AIDS:

Refer to "Field Inspection Report of Air Photographs" Ship "PATTON" (1949) side heading "Landmarks for Charts".

See item 67

This office was not furnished any data relative to fixed aids to navigation in the area.

38: CONTROL FOR FUTURE SURVEYS:

Topographic stations ^{GAD 1949} shown on this map manuscript ^{was} were plotted from geographic positions which had been scaled from the graphic control surveys. ~~They were~~ ^{it was} used to supplement the triangulation stations in the radial plot and ^{is} are listed in the Photogrammetric Plot Report, *item 24.*

Forms 524 are not submitted and the stations have not been listed under side heading 49: "Notes to the Hydrographer" which is inapplicable to this project.

See item 67

39: JUNCTIONS:

Satisfactory junctions have been made with T-8819 on the east, T-8820 on the west, and T-8821 on the north. There were no surveys on the south available to this office for junction purposes.

40: HORIZONTAL AND VERTICAL ACCURACY:

There are no shoreline areas of this map manuscript believed to be of sub-normal horizontal accuracy.

See item 66

Interior horizontal accuracy and vertical accuracy are not applicable.

46: COMPARISON WITH EXISTING MAPS:

A detailed comparison was made between Map Manuscript T-8475 and graphic control surveys listed in side heading 33. Disagreement in the location of the mean high-water line was found with PA-A-48 in the vicinity of station EAST; with PA-C-48 in the vicinity of stations GAB, BAN, and DISK 2; with PA-C-49 northeast of Halleck Point; and with PA-D-49 west and south of station SALTY.

See item 64

Because most of the shoreline consists of steep, tree covered, rocky, slopes it is not believed that changes as large as are evident in the comparison would have taken place since the time the photographs were made.

47: COMPARISON WITH NAUTICAL CHARTS:

Comparison was made by use of the vertical projector with Nautical Chart No. 8281, Scale, 1:40,000, Published June 1943 (5th Edition) last printed 3/5/51, hand corrected 4/23/51.

Disagreements in the location of the mean high-water line of the map manuscript and the shoreline shown on the chart are numerous. The largest of these occur along the northwest shoreline of Hayward Strait; along the Southeast shoreline of Krestof Island between Longitudes 135°-27' and 135°-29'; and at the entrance and in De Groff Bay.

Rocks awash shown on the chart which cannot be verified by office examination of the photographs are located as follows:

See item 65

At, ★ Lat. 57° 08' 58" and Long. 135° 26' 18"

★ Lat. 57° 09' 24" and Long. 135° 26' 34"

★ Lat. 57° 09' 30" and Long. 135° 27' 45"

★ Lat. 57° 09' 04" and Long. 135° 31' 02"

★ Lat. 57° 08' 36" and Long. 135° 31' 50"

★ Lat. 57° 11' 27" and Long. 135° 28' 15"

ENR
ENR
ENR
Rks added during review

The above locations are approximate and apply to the position of the rocks in reference to the map manuscript.

★ On Recenter 8281

APPROVED:

Fred A. Riddell
Fred A. Riddell
Officer-in-Charge
Portland Photogrammetric Office

Respectfully Submitted:

J. Edward Deal Jr.
J. Edward Deal, Jr.
Cartographer

48: GEOGRAPHIC NAMES LIST:

T-8475

According to the field inspection reports submitted by the Ship "PATTON" for the seasons of 1948 and 1949 Project CS-247 no new geographic names or changes in geographic names are recommended. The geographic names shown on this map manuscript were obtained from Nautical Chart No. 8281. An alphabetical list follows:

- ✓ • Beehive Island •
- ✓ • Big Gavanski Island •
- ✓ • Crosswise Islands •
- ✓ • De Groff Bay •
- ✓ • Dog Point •
- ✓ • Eastern Point •
- ✓ • Guide Island •
- ✓ • Halleck Island •
- ✓ • Halleck Point •
- ✓ • Hayward Strait •
- ✓ • Kresta Point •
- ✓ • Krestof Island •
- ✓ • Krestof Sound •
- ✓ • Krugloi Point •
- ✓ • Lisianski Peninsula •
- ✓ • Nakwasina Sound •
- ✓ • Olga Point •
- ✓ • Olga Strait •
- ✓ • Promisla Bay •
- ✓ • Siginaka Islands •
- ✓ • Sitka Sound •

to contact Point
Creek Point ✓

Middle Shoal (submerged) *

Dog Cove ✓

Eastern Cove ^{Bay} (add this name, used for
 Seaplane anchorage
 on WAC-138)

*Bay of Peter Neck
 5-19-59*

Names underlined in
 red are approved.

12-8-52

L. Heck

For title:

Alaska

Paril Strait

Sitka Sound

* Not positioned by this survey.
 Name not shown. ENR

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Shoreline Survey
17 December 1952

62. Comparison with Registered Topographic Surveys.-

T-2249	1:20,000	1896
T-2289	1:40,000	1896-97
T-2304	1:20,000	1897

There are numerous minor differences between survey T-8475 and the above surveys. Although the field inspection and office interpretation of T-8475 did not secure accuracy of detailing for some features (see item 66), the survey is definitely superior to the above surveys and should supersede them for nautical charting purposes for common detail.

63. Comparison with maps of other Agencies.- None

64. Comparison with Contemporary Hydrographic Surveys.-

H-7673	1:5,000	1948-52	PV
H-7674	1:5,000	1948	PV
H-7787	1:10,000	1949	PV
H-7789	1:10,000	1949	(unverified survey)

The shoreline added from the graphic control surveys, referred to under item 33 and 46 should be corrected by this survey. There are small differences in the position of the low-water line, in which cases the hydrographic surveys are more reliable. Otherwise no discrepancies exist. (To be corrected during final verification 1873 Surveys, GPU.)

65. Comparison with Nautical Charts.-

8281 1:40,000 1943 Corrected to 51 - 3/5

See Items 47 and 62. It should not be inferred from the statement under item 47 that the rocks do not exist. Changes made in the manuscript during this review are shown in red. See also item 67.

66. Adequacy of Results and Future Surveys.-Exact detailing of some shoreline features was probably not accomplished because photo-interpretation was difficult due to overhang and shadows obscuring shoreline and streams in small bays. These errors are small and are of little consequence to nautical charting. Only by a more detailed field inspection of these areas could these errors have been eliminated.

A large portion of the survey had no field inspection. See fourth paragraph of item 35.

This survey is adequate for nautical charting purposes and complies with project instructions.

67. Landmarks and Aids.—Three landmarks or aids in Olga Strait were located during the field operations and are included in Nautical Chart Letter 220 (1949), filed in the Nautical Chart Branch. "'X' on Beach N. of Station Disk 2" and "'X' on Tree N. of Station Disk 2" are described triangulation stations and "'X' on Tree near Station An-2" is described on Form 524 filed in the Div. of Photogrammetry under T-8475. All are built of white painted boards in the form of a cross.

These are shown on Nautical Chart 8281, but it is believed that the charting names should be more descriptive. "Cross on Tree" or "X on Tree" is recommended instead of "Tree" because the area is heavily wooded.

Reviewed by:

Everett H. Ramey
Everett H. Ramey

Approved:

L. C. Hardy 14 Mar 1955
Chief, Review Section
Div. of Photogrammetry

Wallace A. Bruder
Actg. Chief, Nautical Chart Branch
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NAUTICAL CHARTS BRANCH

SURVEY NO. T.8475

Reviewed 17 Dec, 1952

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.