

8820

Diagram Chart 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-8820

### LOCALITY

~~State~~ Alaska

General locality Sitka Sound

Locality Krestof Sound

194 8 and 1949

### CHIEF OF PARTY

Glendon E. Boothe, Field

J.C. Partington, Field

Charles W. Clark, Photo. Office

LIBRARY & ARCHIVES

DATE May 4, 1955

## DATA RECORD

T-8820

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):

22 March 1955

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): ~~Mean Sea Level~~Mean sea level except as follows: ~~MHW~~

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): HAMAN, 1949

Lat.: 57° 10' 21.108" 653.0m Long.: 135° 35' 03.873" 65.1 m Adjusted X  
(1203.1 m) (943.2 m) 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.

A full-page sheet of white graph paper with a black grid. The grid consists of 10 columns and 10 rows of squares, forming a large square area. There are no margins or additional markings on the page.

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



## DATA RECORD

Field Inspection by (II): Ship "PATTON"

Date: Seasons 1948 &amp; 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. Identified in field on 1942 photographs. EHR

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

Date:

Projection and Grids checked by (IV): " "

Date:

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

Date: 9/24/51

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

Date: 9/28/51

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

Date: 10/24/51

Stereoscopic Instrument compilation (III):  
Planimetry

Date:

Contours

Date:

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

Date: 12/28/51 ✓

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

Date: 2/27/52

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

Date: 2/27/52



Camera (kind or source) (III): U.S.C. &amp; G.S. - 9 Lens - Focal length 8.25 inches

## PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
9340	7-4-42	10:50	1:10,000	1.5' above M.L.L.W
9364 to 9368	7-8-42	8:53	1:10,000	5.2' " " " "
9462	7-8-42	10:26	1:10,000	6.6' " " " "
9554 to 9559	7-8-42	11:40	1:10,000	6.3' " " " "

## Tide (III)

Reference Station: Sitka, Alaska  
 Subordinate Station: Olga Pt., Olga Strait, Alaska  
 Subordinate Station:

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

Washington Office Review by (IV): *Everett H. Ramey*Date: *29 Dec 1952*Final Drafting by (IV): *Robinson, A.T.*Date: *3--June 1954*Drafting verified for reproduction by (IV): *W. J. Ballin*Date: *6-11-54*

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): *1.5*Shoreline (More than 200 meters to opposite shore) (III): *41.4 Statute miles*Shoreline (Less than 200 meters to opposite shore) (III): *6.3 " "*

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): *None* Recovered:

Identified:

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): *None*Number of Temporary Photo Hydro Stations established (III): *None*

Remarks:

Summary to Accompany Descriptive Report T-8820

Shoreline survey T-8820 is one of seventeen similar surveys of Project Ph-49(49). It covers shoreline along portions of Hayward Strait and Krestof Sound between Krestof Island and Partofshikof Island.

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 field work was done in conjunction with field operations of Project CS-247.

Survey T-8820 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  $135^{\circ} 32\frac{1}{2}'$  to  $135^{\circ} 40'$ .

Items registered under T-8820 will include a descriptive report and a cloth-backed lithographic print of the manuscript at a scale of 1:10,000.



FIELD INSPECTION REPORT  
Map Manuscript No. T-8820  
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 in the Division of Photogrammetry  
under project number.*

PHOTOGRAMMETRIC PLOT REPORT  
Map Manuscript No. T-8820  
Project Ph-49(49)

The radial plot for this map manuscript is described in a combined Photogrammetric Plot Report for Map Manuscripts Nos. T-8475 and T-8819 to T-8821 Incl. which is included in the Descriptive Report for T-8475.



MAP T-8820

PROJECT NO. Ph-49(49)

SCALE OF MAP 1:110,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\mu$ -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)	
✓ ORBIT 1949	III 893	N.A. 1927	57° 10' 30.153"				932.8	(923.3)	
			135° 32' 48.250"				810.7	( 197.4)	
✓ NOTEL 1949	III 893	"	57° 10' 35.419"				1095.7	( 760.4)	
			135° 33' 00.298"				5.0	(1003.1)	
✓ GROFF 1949	III 893	"	57° 10' 54.300"				1679.8	( 176.3)	
			135° 32' 59.572"				1000.8	( 7.2)	
✓ BRADY 1949	III 893	"	57° 10' 57.445"				1777.0	( 79.0)	
			135° 33' 15.373"				258.3	( 749.7)	
✓ LYNE 1949	III 894	"	57° 11' 04.314"				133.5	(1722.7)	
			135° 34' 14.390"				241.7	( 766.2)	
✓ LIPON 1949	III 894	"	57° 12' 52.690"				1630.0	( 226.1)	
			135° 33' 29.366"				492.9	( 514.1)	
✓ CZAR 1949	III 894	"	57° 13' 49.037"				1517.0	( 339.1)	
			135° 33' 18.633"				312.6	( 694.2)	
✓ PARTOF 1949	III 894	"	57° 13' 42.625"				1318.6	( 537.5)	
			135° 34' 02.302"				38.6	( 968.1)	
✓ TOMAS 1949	III 895	"	57° 13' 48.350"				1495.7	( 360.4)	
			135° 35' 44.997"				754.9	( 251.7)	
✓ ZOMBIE 1949	III 895	"	57° 13' 50.511"				1562.6	( 293.5)	Page
			135° 37' 22.036"				369.7	( 636.9)	9
✓ SUGAR 1949	III 894	"	57° 13' 12.974"				401.3	(1454.8)	
			135° 37' 15.879"				266.5	( 740.5)	
✓ VICAR 1949	III 894	"	57° 12' 13.857"				428.7	(1427.4)	
			135° 36' 23.846"				400.4	( 607.0)	

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

DATE 9/17/21

CHECKED BY: J.L. Harris

DATE 9/21/51

MAP T-8820

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
✓ IVORY 1949	III 894	N.A. 1927	57° 11'	29.765"				920.8	( 935.3)	
			135° 36'	04.714"				79.2	( 928.5)	
✓ GONOF 1949	III 896	"	57° 10'	22.406"				693.1	(1163.0)	
			135° 36'	08.134"				136.7	( 871.6)	
✓ KAPOK 1949	III 896	"	57° 10'	10.005"				309.5	(1546.6)	
			135° 36'	07.084"				119.0	( 889.3)	
✓ HAMAN 1949	III 896	"	57° 10'	21.108"				653.0	(1203.1)	
			135° 35'	03.873"				65.1	( 943.2)	
✓ JACOB 1949	III 896	"	57° 10'	10.017"				309.9	(1546.2)	
			135° 35'	13.367"				224.6	( 783.7)	
✓ QUILL 1949	III 896	"	57° 09'	38.571"				1193.2	( 662.9)	
			135° 35'	13.088"				220.0	( 788.5)	
✓ MONEL 1949	III 895	"	57° 09'	32.670"				1010.6	( 845.5)	
			135° 35'	23.807"				400.2	( 608.4)	
✓ LAPIN 1949	III 895	"	57° 09'	24.985"				772.9	(1083.2)	
			135° 35'	24.305"				408.6	( 600.1)	
✓ PADRE 1949	III 895	"	57° 09'	23.163"				716.5	(1139.6)	
			135° 35'	15.507"				260.7	( 748.0)	
✓ NOMAD 1949	III 895	"	57° 09'	19.409"				600.4	(1255.7)	
			135° 35'	13.301"				223.6	( 785.1)	
✓ OLIVE 1949	III 895	"	57° 09'	08.880"				274.7	(1581.4)	
			135° 35'	26.948"				453.1	( 555.6)	
✓ BALAS 1949	III 892	"	57° 09'	21.823"				675.1	(1181.0)	
			135° 34'	07.987"				134.3	( 874.4)	

1 FT. = 3048008 METERS

COMPUTED BY: H.J. Atkins

DATE 9/17/51

CHECKED BY:

J.L. Harris8

DATE 9/21/51



P-3

MAP T. 8820

PROJECT NO. Ph-49(49)

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\phi$ -COORDINATE LONGITUDE OR $\lambda$ -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)	FORWARD	(BACK)
✓ XRAY 1949	III 892	N.A. 1927	57° 09' 59.278"				1833.7	( 22.3)		
			135° 33' 00.727"				12.2	( 996.1)		
✓ HAVEN 1949	III 894	"	57° 12' 14.314"				442.8	(1413.3)		
			135° 33' 18.030"				302.7	( 704.7)		
✓ METRO 1949	III 894	"	57° 13' 13.438"				415.7	(1440.4)		
			135° 34' 29.277"				491.3	( 515.6)		
✓ KRESTOF 1896	III 874	"	57° 13' 43.050"				1331.7	( 524.3)		
			135° 33' 11.310"				189.8	( 816.9)		
✓ KAM 1941	III 883	"	57° 08' 07.848"				242.8	(1613.3)		
			135° 33' 24.860"				418.1	( 591.1)		
✓ IMAGE 1949	III 892	"	57° 08' 35.683"				1103.8	( 752.2)		
			135° 33' 14.955"				251.5	( 757.4)		
✓ ZEBRA 1949	III 892	"	57° 09' 07.519"				232.6	(1623.5)		
			135° 33' 55.426"				931.9	( 76.9)		
✓ EGRET 1949	III 892	"	57° 09' 21.673"				670.4	(1185.7)		
			135° 33' 20.083"				337.6	( 671.1)		
✓ CAHLK 1949	III 892	"	57° 09' 26.570"				821.9	(1034.1)		
			135° 33' 21.439"				360.4	( 648.3)		
✓ ACTIN 1949	III 892	"	57° 09' 43.222"				1337.1	( 519.0)		
			135° 33' 04.195"				70.5	( 938.0)		
✓ URTAH 1949	III 892	"	57° 09' 59.215"				1831.8	( 24.3)		
			135° 32' 45.086"				757.7	( 250.6)		
✓ DEUCE 1949	III 893	"	57° 10' 07.135"				22 0.7	(1635.4)		
			135° 32' 32.231"				541.7	( 466.7)		

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

DATE 9/18/51

CHECKED BY: J.L. Harris

DATE 9/21/51





COMPILATION REPORT  
Map Manuscript No. T-8820  
Project Ph-49(49)

Side headings 31, 32, 34, 35, 36, 37, 38, and 40 of the Compilation Report for Map Manuscript No. T-8475 are applicable to T-8820.

33: SUPPLEMENTAL DATA:

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

PA-D-48	Topographic Survey No.	T-7089b
PA-D-49	" " "	T-7131
PA-E-49	" " "	T-7131
PA-F-49	" " "	T-7132

They were used in the same manner as described in the Compilation Report for T-8475.

39: JUNCTIONS:

Satisfactory junctions were made on the east with T-8475 and on the north with T-8484. There were no surveys on the west and south available to this office for junction purposes.

46: COMPARISON WITH EXISTING MAPS:

A detailed comparison was made between Map Manuscript T-8820 and graphic control surveys listed in side heading 33 of this compilation report.

Disagreement in the location of the mean high-water line was found between the map manuscript and PA-E-49 along the west shoreline of Krestof Island between Latitudes  $57^{\circ} 12' 15''$  and  $57^{\circ} 12' 30''$ ; along the east shoreline of Kruzof Island between Latitudes  $57^{\circ} 12' 15''$  and  $57^{\circ} 12' 30''$ ; and the shoreline of Mud Bay at about Latitude  $57^{\circ} 10' 40''$ . *See Item 64*

The conclusion is believed to be the same as stated in side heading 46 of the Compilation report for T-8475.



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, and hand corrected 4/23/51.

Only a few small portions of the shoreline of the chart and the mean high-water line of the map manuscript are in agreement as to location and form.

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

At	Lat.	57°	08'	15"	and Long.	135°	33'	17"	
	Lat.	57°	08'	15"	and Long.	135°	33'	25"	
	Lat.	57°	08'	28"	and Long.	135°	33'	31"	<i>nearly foul area added. ENR</i>
	Lat.	57°	08'	31"	and Long.	135°	33'	45"	
	Lat.	57°	09'	08"	and Long.	135°	34'	42"	<i>mapped as foreshore. ENR</i>
	Lat.	57°	13'	35"	and Long.	135°	34'	31"	

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

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-3820

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.

. Brady Island ✓  
 . Brown Point ✓  
 . Double Island ✓  
 . East Channel ✓  
 . Hayward Strait ✓  
 . Kamenoi Point ✓  
 . Krestof Island ✓  
 . Krestof Sound ✓  
 . Kruzof Island ✓  
 . Magoun Islands ✓  
 . Mills Island ✓  
 . Mud Bay ✓  
 . Partof Point ✓  
 . Partofshikof Island ✓  
 . Port Krestof ✓  
 . Rob Point ✓  
 ✓ Sound Islands (applies to group)  
 ✓ West Channel

For title:

Alaska  
 Peril Strait  
 Sitka Sound

Names underlined  
 in red are approved  
 12-8-52



Review Report T-8820  
Shoreline Survey  
29 December 1952

62. Comparison with Registered Topographic Surveys.-

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

There are numerous small differences between these prior surveys and T-8820. It is believed that a higher plane was chosen to locate the high-water line in these prior surveys. As a consequence some features were shown as detached whereas they are shown connected in this survey. These differences are of small significance to nautical charting. Survey T-8820 should supersede these prior surveys for nautical charting purposes for common detail because T-8820 presents a much more accurate portrayal of this area. Also see Item 66.

63. Comparison with Maps of Other Agencies.- None

64. Comparison with Contemporary Hydrographic Surveys.-

H-7789	1:10,000	1949 (unverified)
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Not all offshore rocks are shown on T-8820 because they could not be identified on the photographs or were not field inspected. Shoreline on H-7789 taken from the graphic control boards and other sections of shoreline which were changed during this review should be corrected by this survey. Except for differences of one foot in datum references on a few rocks no discrepancies exist between this hydrographic survey and T-8820.

H-7789  
revised  
during  
verification  
in 1953

65. Comparison with Nautical Charts.-

8281	1:40,000	1943	Corrected to 51- 3/5
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Refer to item 47. Changes made to the manuscript during this review are shown in red.

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 some detail. Also it would have been desirable to have had a greater amount of field inspection in some areas. However, errors resulting from these causes are small.

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

67. Topographic Stations.-Stations shown on this survey were taken from the graphic control boards. At the time of this review, accompanying forms 524 could not be found.

68. Landmarks: A land slide at latitude  $57^{\circ} 13.3'$  and longitude  $135^{\circ} 38'$  was recommended as a landmark by the "Field Inspection Report of Air Photographs, 1949" and is shown on this survey.

Reviewed by:

Everett H. Ramey  
Everett H. Ramey

APPROVED

L. C. Lande  
Chief, Review Section  
Div. of Photogrammetry

May Skellett  
Chief, Div. of Photogrammetry

W. E. Moulton  
Chief, Nautical Chart Branch  
Div. of Charts & P.

Carl O. Hanson  
Chief, Div. of Coastal Surveys

## NAUTICAL CHARTS BRANCH

SURVEY NO. 8820

### Record of Application to Charts

[illegible]

M-216A-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.*