

7674

Diag. Cht. No. 8252-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PA-05248 Office No. H-7674

LOCALITY

State S. E. ALASKA

General locality OLGA AND NEVA STRAITS

Locality N. END OLGA TO S. END NEVA STRAIT

1948

CHIEF OF PARTY

G. E. BOOTHE

LIBRARY & ARCHIVES

DATE 31 JULY 1950

7674

JUL 31 1950

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-7674

Field No. PA-05248

State S. E. Alaska ✓

General locality Olga and Neva Straits ✓

Locality N. End Olga Strait to S. End Neva Strait ✓

Scale 1 : 5,000 ✓ Date of survey 28 June - 9 Aug. 1948 ✓

Instructions dated 5 August 1947

Vessel PATTON - Launch No. 92

Chief of party Glendon E. Boothe ✓

Surveyed by Glendon E. Boothe and Ira R. Rubottom ✓

Soundings taken by fathometer, graphic recorder, hand lead, wire 808A Depth Recorder, Hand Lead and Wire (Bottom Samples)

Fathograms scaled by P. T. P.

Fathograms checked by A. L. W.

Protracted by Edwin C. Baum

Soundings penciled by Edwin C. Baum 90% Thos. G. Taxelius 10%

Soundings in fathoms ~~XXXX~~ at ~~MLW~~ MLLW Fathoms at M. L. L. W. ✓

REMARKS: _____

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-7674 (PA-05248)
OLGA STRAIT TO NEVA STRAIT
SCALE 1:5,000 - DATE 1948
USC&GSS PATTON, GLENDON E. BOOTHE, CMDG.

A. PROJECT:

Authority for field work is contained in the Instructions for Project GS-247 issued by The Director on 5 August 1947.

B. SURVEY LIMITS AND DATES:

This sheet covers the northern part of Olga Strait, the junction between Olga and Neva Straits, and the southern end of Neva Strait south of Whitestone Narrows.

Junction was made on the south with H-7673 (PA-05148) and on the north with H-7675 (PA-05348). *Review, par. 4.*

Field work was started on 28 June 1948 and was completed on 9 August 1948.

C. VESSEL AND EQUIPMENT:

All hydrography was done in Launch No. 92 operating from the PATTON. Soundings were taken with an 808-A recording fathometer, No. 51, supplemented by hand lead on shoals and in kelp.

Bottom samples in depths of over 20 fathoms were taken by the PATTON using an electric, wire sounding machine.

D. TIDE AND CURRENT STATIONS:

The tide station at Sitka was used for the reduction of soundings for the entire area.

Current stations were occupied in Olga Strait off Creek Point in Lat. $57^{\circ} 12.95'$, Long. $135^{\circ} 30.27'$, and in Neva Strait at the southern side of Whitestone Narrows in Lat. $57^{\circ} 14.53'$, Long. $135^{\circ} 33.68'$.

The Roberts Automatic Current Buoys were used and a separate report has been submitted covering these observations.

E. SMOOTH SHEET:

~~The smooth sheet will be constructed and plotted by personnel of the Seattle Processing Office.~~

F. CONTROL STATIONS:

Second Order triangulation was carried through Olga and Neva Straits during the current season. The records, computations, and a special report have been forwarded to the Washington Office.

Topographic stations were located by graphic control methods on aluminum mounted sheets, Nos. ~~T-7089a~~ (PA-C-48) and ~~T-7089b~~

(PA-D-48). *(to be destroyed after surveys in this area are reviewed)*
(Desc. Report attached to D. R. of H-7673 (1948-52))

G. SHORELINE AND TOPOGRAPHY: See T-8475 & T-8484 (1949)

The shoreline and topography will be compiled from air photographs of the area which were field inspected by this party. Short sections of shoreline were rodded in at the various plane table positions. Delineation of the shoreline will be difficult because of overhanging trees.

Review,
par. 1.

The low water line could not be established by hydrography in most places. The shoreline is very abrupt and rocky with overhanging trees. Sounding lines were run as close to the beach as circumstances would permit, and numerous detached positions were taken with the bow of the launch against the shoreline.

H. SOUNDINGS:

Soundings were taken with an 808 type recording fathometer, No. 51, operated on the fathom scale. Hand lead soundings were taken in critical areas, on shoals, in kelp and in areas under 20 fathoms, to obtain bottom samples. Bottom samples were obtained by the PATTON in deeper water using an electric, wire sounding machine.

Velocity corrections to fathometer soundings were computed from serial temperature and salinity observations made at the northern end of Olga Strait, off the entrance to Nakwasina Sound and at the northern end of Neva Strait.

I. CONTROL OF HYDROGRAPHY:

The hydrography is controlled by three point sextant fixes on signals ashore. No unusual or substandard methods were used for this purpose.

J. ADEQUACY OF SURVEY:

The survey is adequate to super^sede previous surveys of this area. The junction with surveys enumerated in "B" are good.

K. CROSSLINES:

The crosslines of this sheet constitute 11% of the total miles of soundings including development. The crossings are good.

L. COMPARISON WITH PREVIOUS SURVEYS:

The previous survey of this area was made in 1896 at a scale of 1:5,000, Sheet H-2289 in northern part of Olga Strait, and on a scale of 1:20,000, Sheet H-2287 in the area between Olga and Neva Straits. (*also H-2288(1896) in Whitestone Narrows*)

The sounding lines were widely spaced and some shoals were missed. The new survey is much more detailed and complete.

Comparison of Shoals shown on previous survey:

(1) The 2 fathom shoal located in the pass west of Olga Point in Lat. $57^{\circ} 13.58'$, Long. $135^{\circ} 32.68'$, Sheet H-2287.

A complete development of this area and a hand lead investigation at minus tide, revealed several spots in this locality with depths under 2 fathoms. A least depth of $1\frac{1}{10}$ fathoms at MLW was found at the above position. A least depth of $1\frac{2}{10}$ fathoms at M.L.L.W., was found in Lat. $57^{\circ} 13.64'$, Long. $135^{\circ} 32.67'$.

(2) $1\frac{3}{10}$ fathom shoal on west side of channel about 230 meters S.W. of Whitestone Point in Lat. $57^{\circ} 14.57'$ Long. $135^{\circ} 33.72'$, least depth of $1\frac{8}{10}$ fathoms at M.L.L.W., obtained on Position 1-h Sheet H-7675 (PA-05348).

(3) $2\frac{1}{2}$ fathom shoal located 180 meters south of Whitestone Point in Lat. $57^{\circ} 14.61'$, Long. $135^{\circ} 33.63'$, least depth of $1\frac{6}{10}$ fathoms at M.L.L.W., obtained on Position 5-h, Sheet H-7675, (PA-05348).

The shoals in (2) and (3) restrict the channel at the southern entrance to Whitestone Narrows.

There are no other shoals shown on the previous survey except very near the shoreline.

Additional Shoals not shown on Previous Survey:

(1) Shoal located near the shoreline about 250 meters S. W. of ^{Halleck} ~~Krestof~~ Point, Lat. $57^{\circ} 13.65'$, Long. $135^{\circ} 30.91'$.

Least depth of 8-8/10 fathoms at M.L.L.W., Position 78-j, plus .07 seconds. in $\phi 57^{\circ} 13.65'$, $\lambda 135^{\circ} 30.92'$

(2) Shoal located about 380 meters N.W. of ^{Halleck} ~~Krestof~~ Point in Lat. $57^{\circ} 13.90'$, Long. $135^{\circ} 31.11'$. Least depth of 16-2/10 fathoms at M.L.L.W., Position 45-j plus 45 seconds.

(3) Shoal located 450 meters N.W. of Olga Point in Lat. $57^{\circ} 13.91'$, Long. $135^{\circ} 32.42'$. A search with fathometer and hand lead showed a least depth of 5-7/10 fathoms at M.L.L.W., Position 151-b.

This shoal was reported to The Director in letter dated 17 July 1948. (A copy is attached hereto). C.L. 557 (1948)

(4) Shoal located about 80 meters north of triangulation station KRESTOF in Lat. $57^{\circ} 13.76'$, Long. $135^{\circ} 33.19'$, least depth 2.1 fathoms at M.L.L.W., Position 16-g.

Several other shoals and rocks were located near the shoreline.

M. COMPARISON WITH CHART NO. 8281: See Review, par. 6.

The comparisons drawn in "L" above are applicable when comparison is made between the new survey and the October 1947 edition of Chart No. 8281.

N. DANGERS AND SHOALS:

This subject is covered in "L".

O. COAST PILOT NOTES:

See Special Report on Coast Pilot for Sitka Sound to Salisbury Sound.

P. AIDS TO NAVIGATION:

See letters to The Director dated 24 July 1948, and 29 September 1948, copies of which are attached hereto. (See triangulation data for positions of Neva Point Reef Light and White-stone Point Light).

Q. LANDMARKS FOR CHARTS:

None.

R. GEOGRAPHIC NAMES:

There are no new names or changes in charted names of geographical features.

S. SILTED AREAS:

None.

Z. TABULATION OF APPLICABLE DATA:

The following listed Special Reports are pertinent to this survey and report:

1. Air Photo Inspection Report
2. Descriptive Reports to Accompany ^{graphic control} Topographic Sheets
~~#-7089a~~ (PA-C-48) and ~~#-7089b~~ (PA-D-48) Attached to H-7673 (1948-52)
3. Temperature and Salinity Observations
4. Coast Pilot Notes
5. Current Report
6. Triangulation Report

Applicable Data attached to this report:

1. Table of Statistics
2. Tide Note
3. List of Signals
4. Tables of Velocity Corrections (3)
5. Letters to The Director (copies) dated 17 July 1948, 24 July 1948, and 29 September 1948, subject - Positions of Floating Aids to Navigation, Olga and Neva Straits and Dangers to Navigation. C.L. 557
(1948)

Submitted by



Ira R. Rubottom
Lt. Comdr., US&GS
Ship PATTON

LIST OF HYDROGRAPHIC SIGNALS

SHEET H-7674 (PA-05248)

OLGA AND NEVA STRAITS, S. E. ALASKA

Hydrographic Name	Source	Hydrographic Name	Source
Abe	PA-C-48	Lad	PA-D-48
Aid	Tri. Sta. AID 1896-1948	Leg	PA-D-48
Ail	Tri. Sta. AIL 2 1948	Max	PA-D-48
Alp	Tri. Sta. ALPHA 1948	Mug	PA-D-48
Art	Tri. Sta. EARTH 2 1948	Ned	PA-D-48
Back	Tri. Sta. BACK 2 1948	Nig	PA-D-48
Band	Tri. Sta. BAND 2 1948	Oil	PA-D-48
Bon	PA-C-48	Olga	Tri. Sta. OLGA 1896-1925
Cant	Tri. Sta. CANT 2 1948	Ora	PA-D-48
Car	PA-D-48	Our	Tri. Sta. COURT 2 1948
Coo	PA-C-48	Peg	PA-D-48
Dig	Tri. Sta. DIG 2 1948	Ran	PA-D-48
Disk	Tri. Sta. DISK 2 1948	Ree	Tri. Sta. NEVA PT. REEF LIGHT 1948
Dot	PA-D-48	Sir	PA-D-48
Drug	Tri. Sta. DRUG 1896	Tof	Tri. Sta. KRSTOF 1896-1925
Dye	Tri. Sta. DYE 2 1948	Tom	PA-D-48
East	Tri. Sta. EAST BASE 2 1948	Ton	Tri. Sta. WHITESTONE Pt. LIGHT 1948
Era	PA-D-48	Vim	PA-D-48
Face	Tri. Sta. FACE 2 1948	Zoo	PA-C-48
Few	PA-D-48		
Flaw	Tri. Sta. FLAW 2 1948		
Gab	Tri. Sta. GAB 1896-1948		
Gag	Tri. Sta. GAG 1896-1948		
Gem	PA-D-48		
Graze	Tri. Sta. GRAZE 1896-1948		
Hex	PA-D-48		
Hit	PA-D-48		
Ill	Tri. Sta. DRILL 1896-1948		
Ink	Tri. Sta. DRINK 2 1948		
Ivy	PA-D-48		
Jim	PA-D-48		
Kid	PA-D-48		

*G.C. Sheets PA-C&D-48
to be destroyed
Desc. Report attached
to H-7673 (1948-52)*

L. 557 (1948)

SHIP PATTON

P.O. Box 158, Sitka, Alaska.

17 July 1948.

To: The Director,
U.S. Coast and Geodetic Survey,
Washington 25, D.C.

Subject: Positions of Floating Aids to Navigation - Olga Strait, Alaska.
Dangers to Navigation.

The three (3) buoys located in Olga Strait, Alaska were located at or near slack water by sextant angles to signals located on triangulation stations, with the launch tied alongside the buoy in each case. These locations were plotted on Boat Sheet PA-05148 and positions scaled and checked.

Olga Strait Buoy 1 (USCG Light List, 1948, Page 419 - Black, 2d-cl. can).
Located 8 July 1948. Position 75c. Depth at buoy 8.5 fathoms.
Lat. 57° - 11' 20.7" (611 meters) N.
Long. 135° 27' 52.5" (882 meters) W.

Middle Shoal Buoy 3 (USCG Light List, 1948, Page 419 - Black, 2d-cl. can)
Located 7 July 1948. Position 63b. Depth at buoy 6.4 fathoms.
Lat. 57° 12' 16.2" (501 meters) N.
Long. 135° 29' 07.0" (118 meters) W.

This buoy is some 0.2 mile off station but until a new chart is published of this channel it is not recommended that it be placed in its charted position, as its present location adequately protects ships from crossing the shoal area; gives a wider spacing of the buoys than formerly; and in some respects is at a better location than formerly.

Olga Strait. Middle Shoal Lighted Buoy 5 (USCG Light List, 1948, Page 338, No. 2395, Black buoy, Fl.W., 4 sec.)
Located 7 July 1948. Position 1b. Depth 3.7 fathoms.
Lat. 57° 12' 35.1" (1086 meters) N.
Long. 135° 29' 36.8" (617 meters) W.

Predicted tides were used for reduction of soundings. The datum is North American 1927 - field computations. All data subject to Office verification.

The following Dangers to Navigation are listed for your information. The first listed is not a danger to vessels navigating this area but large vessels often pass over or near this shoal when proceeding southward from Neva Strait and possibly will discover this shoal with fathometers. The shoal sounding is on the eastern edge of an area about 40 meters east and west with a general depth under 7 fathoms. It was searched with fathometer and handlead.

Located 29 June 1948. Sheet PA-05248. Position 151b.
Depth 5.7 fathoms.
Lat. 57° - 13' 54.7" (1691 meters) N.
Long. 135° - 32' 25.3" (424 meters) W.

L. 557 (48)

This shoal is not a danger to ships but could be to fishing boats at low tides, if this point was cut too closely.

Located 13 July 1948. Sheet PA-05148. Position 190f. Depth - 0.9 Fathoms.

Lat. 57 10' 40.1" (1240 meters) N.

Long. 135 26' 56.7" (952 meters) W.

The shoal is very small, visible at low water, and without kelp. Good water of 4 fathoms is between this rock and the point.

The information contained in this letter has not been supplied to any other source.

Glendon E. Boothe,
Comdr., USCGC,
Comdg. USC&GSS PATTON.

C O P Y

SHIP PATTON

P.O.Box 158, Sitka, Alaska

24 July 1948.

To: The Director,
U. S. Coast and Geodetic Survey,
Washington 25, D. C.

Subject: Positions of Floating Aids to Navigation - Neva Strait, Alaska.

The buoys listed below were located at or near slack water by sextant angles to signals located on triangulation stations. The launch was held alongside the buoy in each case. The locations were plotted on Boat Sheet PA-05348, and positions scaled and checked. Predicted tides were used for reduction of soundings. The datum is North American 1927 - field computations. All data subject to Office verification. All buoys are on Chart 8281.

Neva Strait. Whitestone Narrows Rock Lighted Buoy 1. (Fl.G.)
(USCG Light List, 1948. No. 2397. Page 338.)
Located 16 July 1948. Position 329a. Depth at buoy - 10.2 fathoms.
Lat. 57 14' 33.4" (1033 meters) N.
Long. 135 33' 42.0" (705 meters) W.

Neva Strait. Whitestone Narrows Buoy 3. (USCG Light List, 1948, Page 419 -
Black, 2d-cl. iron spar)
Located 16 July 1948. Position 330a. Depth at buoy - 6.9 fathoms.
Lat. 57 14' 48.7" (1508 meters) N.
Long. 135 33' 47.1" (790 meters) W.

Neva Strait. Whitestone Narrows West Channel Buoy 5.
(USCG Light List, 1948, Page 420. Black 2d-cl. iron spar)
Located 16 July 1948. Position 333a. Depth at buoy 6.4 fathoms.
Lat. 57 14' 54.8" (1697 meters) N.
Long. 135 33' 52.5" (880 meters) W.

Neva Strait. Whitestone Narrows West Channel Buoy 2.
(USCG Light List, 1948, Page 419. Red 2d-cl. nun.)
Located 16 July 1948. Position 331a. Depth at buoy - 4.2 fathoms.
Lat. 57 14' 52.8" (1631 meters) N.
Long. 135 33' 48.5" (814 meters) W.

Neva Strait. Whitestone Narrows Buoy 5.
(USCG Light List, 1948. Page 420. Black, 2d-cl. can)
Located 16 July 1948. Position 332a. Depth at buoy - 8.0 fathoms.
Lat. 57 14' 56.2" (1740 meters) N.
Long. 135 33' 44.2" (742 meters) W.

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Neva Strait. Whitestone Sand Spit Buoy 2.

(USCG Light List, 1948. Page 420. Red, 2d-cl. Nun.)

Located 16 July 1948. Position 157a. Depth at buoy - 7.7 fathoms.

Lat. 57 15' 04.4" (137 meters) N.

Long. 135 33' 57.0" (955 meters) W.

This information has not been supplied to any other source.

Glendon E. Boothe,
Comdr., USC&GS,
Comdg. USC&GSS PATTON.

C O P Y

C O P Y

SHIP PATTON

P.O. Box 158, Sitka, Alaska.

29 September 1948.

To: The Director,
U.S. Coast and Geodetic Survey,
Washington 25, D. C.

Subject: Positions of Floating Aids to Navigation - Olga and
Neva Straits.

The buoys listed below were located at or near slack water by sextant angles to signals located on triangulation stations. The launch was held alongside the buoy in each case. The locations were plotted on Boat Sheets PA-05248 and PA-05348, and positions scaled and checked. Predicted tides were used for the reductions of soundings. The datum is North American 1927 - field computations. All data subject to Office verification. All buoys are located on Chart 8281.

Neva Strait. Whitestone Narrows Buoy 3. (USCG Light List, 1948, Page 419 - Black, 2d-cl. iron spar)
Located 18 September 1948. Depth at buoy - 7.8 fathoms at MLW.
Lat. 57 14' 48.5" (1502 meters) N.
Long. 135 33' 46.4" (776 meters) W.

This buoy was placed by the USCG Tender CITRUS and is some 14 meters into the old channel, which makes this turn very difficult for vessels of any size. The old buoy was either hit or rusted out as settled for well over a week before sinking, but is still visible about 1 foot at MLW. It was not removed when the new buoy was placed. See my letter of 24 July 1948 for location of former buoy.

Olga Strait. Middle Shoal Buoy 3 (USCG Light List, 1948, Page 419 - Black 2d-cl. can)
Located 23 September 1948. Depth at buoy 5.4 fathoms at MLW.
Lat. 57 12' 25.3" (782 meters) N.
Long. 135 29' 23.4" (392 meters) W.

This buoy was moved from its former position - see my letter of 17 July 1948 - by the USCG Tender CITRUS and placed in its charted position on Chart 8281. The buoy at present is in back of a large kelp patch and ships running from Buoy 1 to 3 would pass thru this kelp, and while not dangerous as to depth gives the operator a most unpleasant feeling as kelp is regarded as a danger sign. The writer not only made the survey of this area but

C O P Y

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runs this channel twice a week, normally, and still this buoy being in its present position causes an unpleasant sensation when this kelp patch shows up on the course between the buoys. In your letter of 3 August 1948, 557 (1948) 83-bjm it was stated that this buoy would be left in its former position. As now located it causes a question as to whether or not it has been dragged out of position.

Glendon E. Boothe,
Comdr. USC&GS,
Comdg. USC&GSS PATTON.

C O P Y

APPROVAL SHEET TO ACCOMPANY

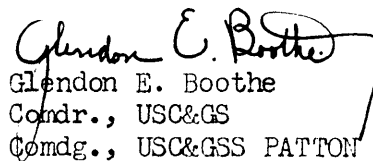
SHEET PA-05248 (H-7674)

The hydrography on this sheet was executed under my direct supervision as a member of the hydrographic party.

The sounding records and boatsheet have been examined and approved by me. These records were inspected daily during the survey. It is my opinion that the survey is adequate, and that no additional work is required. ✓

The smooth sheet is to be constructed, and plotted by the Seattle Processing Office. The tidal data was supplied by the Washington Office from the records of the standard tide gage at Sitka.

The area covered by this survey is in general uniform, except for a number of shoals. The entire area was closely developed and on shoals, danger areas, and in kelp, the drift hand lead was used extensively. Ample cross lines were run throughout the area. ✓


Glendon E. Boothe
Comdr., USC&GS
Comdg., USC&GSS PATTON

H 7674
Pa 05248

SE Alaska
Olga Strait and Neva Strait.

Processing Office Notes.

Smooth sheet.

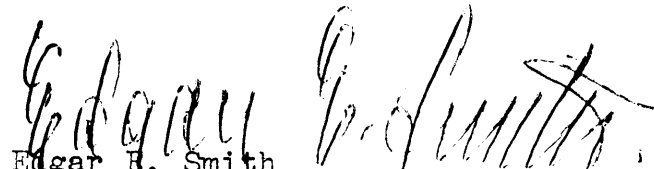
The projection was made by hand on Whatman paper. The triangulation data was taken from the lithographed pages 373,4,5 & 6 of the adjusted triangulation for SE Alaska, Vol. 3. Topographic signals are from graphic control plate* T 7089 a & b. No shore line is shown on the smooth sheet except the short lengths found on the graphic control sheets. ✓
Review,
part.

** G.C. sheets PA-C & D-48 (subsequently destroyed)*

Plotting.

The positions and about 90% of the soundings were plotted by Lt. Comdr. Edwin C. Baum. On his retirement the sheet was completed by Mr. Thos.G. Taxelius. ✓

Other subjects are discussed in the report of the field party.


Edgar B. Smith
Cart. Engr.

7/19/50

H 7674
Pa 05248

Olga Strait and Neva Strait.

List of geographic names
penciled on smooth sheet.

Neva Strait

Olga Strait

Whitestone Point

Neva Point

Olga Point

Krestof Island

Halleck Island

Creek Point

STATISTICS FOR HYDROGRAPHIC SURVEY H-7674 (PA-05248)

U. S. C. & G. S. S. PATTON - PROJECT CS-247

Date 1948	Day Letter	Vol. No.	Hand Lead & Wire Soundings	Positions	Statute Miles of Soundings
28 June	a	1		309 ✓	30.4
29 June	b	2 & 3	5	381 ✓	35.1
30 June	c	3		237 ✓	19.8
1 July	d	4 & 5		438 ✓	41.4
8 July	e	5		100 ✓	4.3
9 July	f	5 & 6	3	188 ✓	12.2
10 July	g	6	12	24 ✓	0.8
17 July	A(Ship)	6	11	11 ✓	
21 July	h	6	63	68 ✓	0.4
24 July	B(Ship)	6	9	9 ✓	
2 Aug.	j	6 & 7	10	148 ✓	9.3
4 Aug.	k	7	4	151 ✓	5.5
6 Aug.	l	7	2	48 ✓	1.4
9 Aug.	m	7	5	36 ✓	
Totals:			124	2148 ✓	161.3

Area: 1.95 square statute miles

7674

TIDE NOTE

TYPE OF GAGE: STANDARD AUTOMATIC

LOCATION: SITKA, BARANOF ISLAND, S. E. ALASKA
LAT. 57 02.9'; LONG. 135 20.3'

PLANE OF REFERENCE: MEAN LOWER LOW WATER

The gage was operated and maintained by personnel of the Sitka Magnetic Observatory. The hourly heights of the tide were furnished by the Washington Office.

GEOGRAPHIC NAMES

Survey No. H-7674

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Southeastern Alaska</u>												1
<u>Neva Strait</u> ✓												2
<u>Olga Strait</u> ✓												3
<u>Whitestone Point</u> ✓												4
<u>Neva Point</u> ✓												5
<u>Olga Point</u> ✓												6
<u>Krestof Island</u> ✓											USGB	7
<u>Halleck Island</u> ✓												8
<u>Creek Point</u> ✓												9
												10
												11
												12
												13
												14
<u>Sitka</u>											(location of tide staff)	15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names underlined in red are approved. 8-16-50 L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7674

Records accompanying survey:

Boat sheets ¹.....; sounding vols. ⁷.....; wire drag vols.;
 bomb vols.; graphic recorder rolls ² envel.;
 special reports, etc.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		2148
Number of positions checked		156
Number of positions revised		3
Number of soundings revised (refers to <u>depth only</u>)		55
Number of soundings erroneously spaced		165
Number of signals erroneously plotted or transferred		None
Topographic details	<i>Shoreline transferred and inked</i>	Time 12 hrs
Junctions		Time
Verification of soundings from graphic record		Time 2 hrs
Verification by	<i>making CAS PAUL</i>	
	<i>Prelim. verif. O. Svendsen 22 hrs Apr 9 '52</i>	Total time
	<i>Additional verif. (not of sounding lines) D.R. Engle 30 hrs.</i>	Date 9-5-52
Reviewed by <i>J.A. Dinius move</i>		Time 28 hrs Date 1 Oct. 1952
Addendum by <i>D.W. Jones, Sr.</i>		Time 64 HRS. Date 7/23/64
<i>Addend Insp Storni 8 hrs</i>		
<i>Position Numbers moved because of conflict with shoreline</i>		64
<i>Position Numbers clarified</i>		38

Addendum to Review
H-7674 (1948)

Verified and inking by-----C. A. J. Pauw
Review addendum by-----D. W. Jones, Sr.
Inspected by-----I. M. Zeskind

The verification of H-7674 has been completed.

DEPTH CURVES

The usual depth curves are adequately delineated, except close inshore where kelp and the foul character of the bottom sometimes prevented development to the low-water line. The curves have been completely inked.

SHORELINE

The shoreline originates with the reviewed photogrammetric surveys T-8475 (1942-49), T-8484 (1942-50) and H-8820 (1942-49).

JUNCTIONS WITH CONTEMPORARY SURVEYS

The junctions have been completely inked with the exception of H-7788 (1949) on the northeast. The junction of H-7788 with the present survey will be considered in the review of H-7788.

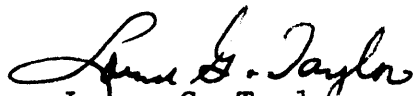
COMPARISON WITH CHART NO. 8281 (PRINTED DATE 7thED. APRIL 4/60, REVISED 6/15/64)

The charted hydrography originates with the present survey after preliminary verification and review. Charted soundings agree with the reviewed survey depths. The aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended. Red nun buoy No. 2 charted in lat. $57^{\circ}14.6'$, long. $135^{\circ}33.62'$ subsequent to the present survey originates with HON to M 25, 1956 and adequately marks the feature intended.

CONDITION OF SURVEY

The completion of verification of the present survey reveals that the smooth-plotting was well done.

Approved:



Lorne G. Taylor
Chief, Nautical Chart Division

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7674

FIELD NO. PA-05248

S. E. Alaska, Portions of Olga and Neva Straits

Project No. CS-247

Surveyed in June - August 1948

Scale 1:5,000

Soundings:

808 Fathometer
Hand lead
Wire

Control:

Sextant fixes on shore signals

Chief of Party - G. E. Boothe
Surveyed by - G. E. Boothe & I. R. Rubottom
Protracted by - E. C. Baum
Soundings plotted by - E. C. Baum & T. G. Taxelius
Preliminary Verification by - O. Svendsen & D. R. Engle
Verified and inked by - C. A. J. PFAUW
Reviewed by - T. A. Dinsmore, 1 October 1952
Inspected by - R. H. Carstens

1. Shoreline and Signals

Shoreline transfer completed

The application of shoreline from surveys T-8475 and T-8484 of 1949 has been deferred pending complete verification and inking of the smooth sheet. The short sections of inked shoreline originate with graphic control surveys PA-C and D (1948) which will be destroyed subsequent to the preliminary verification and review of the surveys in this area.

The signals also originate with the above-mentioned graphic control surveys.

2. Sounding Line Crossings

Depths at sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

A prominent detached shoal with a least depth of 5.7 fms. rises abruptly from 15-fm. depths in lat. $57^{\circ} 13.94'$, long. $135^{\circ} 32.42'$. This together with the conspicuous ledge a-wash at M.H.W. in lat. $57^{\circ} 13.82'$, long. $135^{\circ} 33.32'$, and the 1.8-fm. shoal marked by a lighted buoy in lat. $57^{\circ} 14.55'$, long. $135^{\circ} 33.73'$ comprise the more important offshore bottom

features in the area. Except as noted, and for numerous inshore irregularities, the bottom is generally smooth.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7788 (1949) on the northeast and H-7673 (1948-52) on the southeast. The junctions with H-7789 (1949) on the southwest and H-7675 (1948) on the northwest will be considered in the reviews of those surveys.

5. Comparison with Prior Surveys

a. H-1626 (1884) 1:20,000

This early reconnaissance survey shows only a few scattered soundings within the common area. The paucity of information does not afford a comparison of any cartographic value.

b. H-2287 (1896) 1:20,000 H-2289 (1896) 1:5,000
H-2288 (1896) 1:5,000

These prior surveys taken together cover the area of the present survey. A comparison between the prior and present depths indicates that no appreciable changes in the bottom have taken place. The present survey, however, obtained many shoal depths not revealed by the sparse development on the prior surveys.

Specific mention is made of the following discrepancies:

- (1) The 5 $\frac{1}{2}$ -fm. sounding charted in lat. 57° 14.52', long. 135° 33.82', from H-2288 falls in 9-to 10-fm. depths on the present survey. Closely spaced sounding lines on the present survey indicates smooth bottom with no shoal indications. The prior sounding which was recorded as 7 fms. (unreduced) was probably recorded in error and should actually have been 11 fms. The prior sounding should be disregarded.
- (2) The 28-fm. sounding charted in lat. 57° 13.88', long. 135° 33.14', from H-2287 falls in 38-fm. depths on the present survey. Adequate development on the present survey clearly indicates smooth bottom in the above locality. The prior sounding is considered to be 10 fms. in error and should be disregarded.
- (3) The 4-1/4-fm. sounding charted in lat. 57° 12.92', long. 135° 30.18', from H-2289 should be disregarded. Falling in 7-fm. depths on the present survey, the prior sounding was found to be on a line of soundings which had been plotted in reverse order. In their correct positions, the prior soundings are in excellent agreement with present depths.

- (4) The 33-fm. sounding charted in lat. $57^{\circ} 14.36'$, long. $135^{\circ} 33.70'$, from H-2287 should be disregarded. Adequate development on the present survey shows a smooth bottom with depths of 23 fms. in the above locality. The prior sounding is considered to be 10 fms. in error.

The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 8281 (Latest print date 3/5/51)

A. Hydrography

Charted hydrography originates principally with the previously discussed surveys supplemented by a few critical soundings from the present survey prior to verification and review.

The charted information is entirely superseded by the present survey.

B. Aids to Navigation

The aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended.

7. Condition of Survey


- a. The sounding records are complete; the Descriptive Report covers all matter of importance.
- b. The preliminary inspection and verification of the survey sheet indicates that the smooth plotting was generally accurate.
- c. The development of shoals together with drift sounding and use of the hand lead where necessary were exceptionally thorough on this survey. Coverage of the area for bottom characteristics was unusually complete.

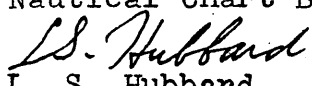
8. Compliance with Project Instructions

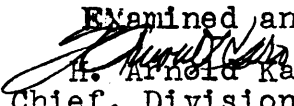
The survey adequately complies with the Project Instructions.

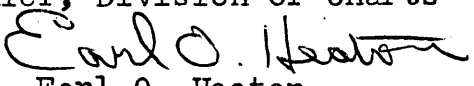
9. Additional Field Work

This is an excellent basic survey and no additional field work is necessary.


H. R. Edmonston
Chief, Nautical Chart Branch


L. S. Hubbard
Chief, Section of Hydrography

Examined and approved:

H. Arnold Karo
Chief, Division of Charts


Earl O. Heaton
Chief, Division of Coastal Surveys

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Oceanography~~

18 August 1950

Division of Charts: R. H. Carstens

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 7674

Locality Olga - Neva Straits, Alaska

Chief of Party: G. E. Boothe in 1948
Plane of reference is mean lower low water, reading
5.0 ft. on tide staff at Sitka
13.1 ft. below B. M. 8 (1924)

Height of mean high water above plane of reference is 9.1 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division of Tides and Currents.~~

