

# 8605

Diag. Cht. Nos 8152-2 & 8201-3.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HO-20-1-61 Office No. H-8605

### LOCALITY

State S. E. Alaska

General locality Summer Strait

Locality Pt. St. Albans to Boulder Pt.

19 61

CHIEF OF PARTY

C. W. Clark

LIBRARY & ARCHIVES

DATE 4-24-62

USCOMM-DC 37022-P66

8605

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-8605

Field No. HO-20-1-61

State S. E. Alaska

General locality Sumner Strait

Locality Point St. Albans to Boulder Point

Scale 1:20,000 Date of survey 8/3/61 to 9/23/61

Instructions dated Supplemental Instructions 12/8/60  
Revised Instructions 1/28/60 Amended Instructions 2/5/60

Vessel SHIP HODGSON Launch 160

Chief of party Charles W. Clark

Surveyed by C. W. Clark, A. R. Benton, J. A. Yeager, R. K. Hanson

Soundings taken by fathometer, graphic recorder, hand lead, wire

Fathograms scaled by Fathometer operators

Fathograms checked by Ships officers

Protracted by ETK

Soundings penciled by ETK

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW and are true depths

REMARKS:

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.....  
.....  
.....  
.....  
.....

DESCRIPTIVE REPORT

Field No. HO-20-1-61

Registry No. H-8605

A. PROJECT

Project No. OPR-347 (Originally CS-347)

Instructions:

No. S-2-HO, Revised Instructions - Project CS-347, Sumner Strait, Southeast Alaska, dated 28 January 1960.

No. S-2-HO, Supplemental Instructions - Project OPR-347, Sumner Strait, Southeast Alaska, dated 8 December 1960.

No. S-2-HO, Amended Instructions, - Project CS-347, Sumner Strait, Southeast Alaska, dated 5 February 1960.

Letter No. 211/mmy, dated 21 March 1961, Coast Pilot Notes.

Letter No. 211/mmy, dated 17 March 1961, Subject: Project Limits, Project OPR-347.

Letter No. 211/mmy, dated 21 February 1961, Subject: Sheet Layout - Project OPR-347, Sumner Strait, Southeast Alaska.

Letter No. 2221-198-982ho, dated 22 August 1961, Tide Data.

Letter No. 2221-257-982ho, dated 19 October 1961, Tidal Data.

B. AREA SURVEYED

The area surveyed includes the central portion of Sumner Strait from Lat.  $56^{\circ}03.6'$  northward to Lat.  $56^{\circ}18.4'$ . ✓

Junctions with prior surveys:

H-6284 (1937) Scale 1:20,000 - along the westerly limits of this survey from Lat.  $56^{\circ}03.6'$  northward to Lat.  $56^{\circ}10'$ . ✓

H-6358 (1938) Scale 1:10,000 - along the westerly limits of this survey from Lat.  $56^{\circ}10'$  northward to Lat.  $56^{\circ}12.7'$ . ✓

B. AREA SURVEYED (cont'd.)

Junctions with prior surveys:

H-8150 (1954) Scale 1:10,000 - along the easterly limits of this survey from Lat. 56°13' northward to Lat. 56°18.4'. ✓

H-8151 (1955) Scale 1:10,000 - along the easterly limits of this survey from Lat. 56°07.5' northward to Lat. 56°13'. ✓

H-8244 (1955) Scale 1:10,000 - from the easterly limits of this survey west along Lat. 56°07.5' to Long. 133°47.5' thence south to Lat. 56°03.4'. ✓

Junctions with contemporary surveys:

HO-20-2-60 (H-8604) Scale 1:20,000 at Lat. 56°03.4'. [Unverified 9/23/66] ✓  
*← Verified as of 10/7/71*  
*→ Southward*

~~There are no junctions to date along the west limit of this survey north of Lat. 56°12.7' and along the north limit of this survey. This survey junctions along its Northwest limit with H-8653 (1961-62) (H-8689 [1961] Northward, and H-8604 [1960-61] unverified as of 9/23/66) ✓~~  
*→ Southward*  
*← Verified as of 10/7/71*

C. SOUNDING VESSEL

All soundings were obtained with the Ship HODGSON and Launch 160. ✓

Day letters for all ship hydrography are purple capital letters. ✓

Day letters for all launch hydrography are purple lower case letters. ✓

D. SOUNDING EQUIPMENT

EDO Model 255C Depth Recorder, Serial No. 44 was used for all ship hydrography. ✓

In most of the area of ship hydrography EDO Model 255C and EDO Model 185 Depth Recorders operated simultaneously. EDO Model 185, Serial No. 22, C&GS No. 57-210 was used. ✓

808 Fathometer No. 147 was used on all launch hydrography. ✓

E. SMOOTH SHEET

The projection was made by the Washington Office. The remainder of the processing was done by Junior Officers. ✓

F. CONTROL

Control is based on recovered triangulation stations for which data are published. No new triangulation stations were established. ✓

All hydrography was controlled by shoran using two stations - HAWK and BETA. ✓

Shoran station BETA was located by third-order triangulation methods. See Descriptive Report for H-8604 (HO-20-2-60). ✓

Shoran station HAWK was located by tape measured distance and theodolite direction from Station EAGLE, 1954. ✓

Shoran stations used on this survey are:

<u>Name</u>	<u>Latitude</u>	<u>Longitude</u>
BETA, 1961	56°06'21.298"	133°40'44.390"
HAWK, 1961	56°17'07.475"	133°39'30.615"

✓  
✓

South of Lat. 56°11.4' the main system of sounding lines was run on HAWK arcs. Close to dangers along the west limit of the survey a series of straight lines was run to provide more maneuvering room. ✓

North of Lat. 56°11.4' the main system of sounding lines was run on BETA arcs. ✓

Variations from the arcs and variations in distances between fixes were mostly caused by course changes to avoid drifting logs and other drifting debris, which was abundant in the area. ✓

Triangulation stations on the sheet were used for shoran calibration and to fix the position of Current Sta. No. 3. ✓

G. SHORELINE

Shoreline was transferred to the smooth sheet from 1:20,000 scale blue-line prints of Photogrammetric Manuscripts T-10721, T-10726, T-10727, T-10731, T-10735 and T-10888. ✓

There is no inshore hydrography on this survey. ✓

H. CROSSLINES

Crosslines consisted of 14% of the regular system of sounding lines. There was general agreement at all crosslines. ✓

I. JUNCTIONS

Junctions appeared to be generally satisfactory. At junctions with older surveys (H-6284, H-6358) along the west limit of this survey there appeared to be some possible discrepancies. In irregular bottom more detail on this survey caused apparent discrepancies, but depth curves appeared to be reasonable, therefore no adjustment is required. No conflict.

J. COMPARISON WITH PRIOR SURVEYS

The only prior survey of the entire area of this survey is H-1754 (1886) Scale 1:80,000. Lack of detail and doubtful positioning on H-1754 makes a comparison with that survey impractical. This survey completely supercedes H-1754 in the common area. There are no features on H-1754 which should be retained for charting purposes.

Features in the vicinity of Amelius Island Shoal Buoy, surveyed on H-6358 (1938) and on wire drag survey H-3791 (1915), were verified and surveyed in more detail. This survey supercedes older surveys in that area.

A least depth of  $4\frac{1}{2}$  fms. was found at  $56^{\circ}10.1'$ ,  $133^{\circ}49.65'$  near  $4\frac{2}{6}$  fm. sounding on H-6358 (1938) and  $4\frac{3}{4}$  fm. sounding on H-3791 (W.D.) (1915). An additional  $4\frac{5}{8}$  fm. sounding was found at  $56^{\circ}10.3'$ ,  $133^{\circ}49.7'$  in the vicinity of a 7 fm. sounding on H-6358 (1938). See Launch 160, - 29-30 "a", and 21 "c".

K. COMPARISON WITH THE CHART

In the area of this survey Chart 8201 is apparently based entirely on prior surveys discussed in preceding paragraphs. There are no known features on this chart to be considered separately from surveys discussed in preceding paragraphs.

L. ADEQUACY OF SURVEY.

This survey is considered complete and adequate in all respects to supercede prior surveys for charting purposes. No part of this survey is considered substandard. Along the west limits of this survey, north of the junction with H-6358 (1938) at approximate Lat.  $56^{\circ}12.6'$ , the survey was extended westward to define the 100-fm. curve and to square off the edge. Except for the area of shoaling directly east of Beauclerc Island, no attempt was made for any necessary development inside the 100-fm. curve. The area of shoaling east of Beauclerc Island is considered adequately developed to the west limit of this survey.

L. ADEQUACY OF SURVEY (cont'd.)

The adjoining 1:10,000 scale sheet should be extended east to a proper junction and should include all necessary development inside the 50 fm. curve north and south of Beauclerc Island.  
*See H-8653 (1961-62)*

M. AIDS TO NAVIGATION

There is one fixed aid to navigation within the area of this sheet:

H-8653 → BEAUCLERC ISLAND LIGHT was located by triangulation in 1922.  
*(Fixed light added at South Reach of Calder Rocks in 1965.)* *Par. 3103.11 Light List 1966*  
 There are three floating aids to navigation on this survey:

- Calder Rocks Lighted Whistle Buoy 4 *Light List # 2464, year 1961*
- Amelius Island Shoal Lighted Buoy *Light List # 2466, year 1961*
- Point St. Albans Reef Lighted Whistle Buoy 1 *{changed to "BELL" Light List # 3107, year 1964*

All three buoys were located by shoran fix with the ship or launch alongside the buoys.

Placement of Amelius Island Shoal Lighted Buoy appears to be incorrect for marking danger properly. Better placement would be on the east side of the southerly 4-fm. shoal about 450 meters south of the present position of the buoy.  
*Feature sufficiently marked considering nature of present-day traffic.*

N. STATISTICS

	<u>No. Positions</u>	<u>Miles</u>
Ship HODGSON - Shoran Control	1881	632.3
Ship HODGSON - Visual Control	3	—
Launch 160 - Shoran Control	182	44.9
Totals	2066	677.2
TOTAL AREA - SQ. NAUT. MILES	63.5	
NO. OF TIDE STATIONS	2	
NO. OF CURRENT STATIONS	2	
NO. OF SERIAL TEMPERATURE OBSERVATIONS	2	
NO. OF BOTTOM <sup>M</sup> SAMPLES	47	

O. MISCELLANEOUS

P. RECOMMENDATIONS

Make complete survey on adjoining 1:10,000 scale sheet to 50-fm. curve or to junction with this survey in deeper water north of junction with H-6358 (1938) at Lat. 56°12.6'.  
*See H-8653 (1961-62)*

Q. REFERENCES TO REPORTS

<u>Reports</u>	<u>Date Fwded.</u>	<u>Trans. Ltr. No.</u>
Shoran Report - 1960	11/30/60	HODG-60-33
Shoran Report - 1961	1/10/62	HO-3-62
Fathometer Report - 1961	1/8/62	HO-2-62

Records Forwarded Separately

Location of Shoran Station BETA	8/25/61	HO-29-61
Location of Shoran Station HAWK	11/9/61	HO-40-61
Field Edit Data	11/9/61	HO-45-61
Photographs	11/14/61	HO-46-61
Temperature and Salinity Data	1/8/62	HO-2-62
Point St. Albans Tide Marigrams	8/14/61	HO-26-61
	9/19/61	HO-33-61
Port Beauclerc Tide Marigrams	9/19/61	HO-33-61
	10/4/61	HO-38-61

Records Forwarded With Sheet

2 Boat Sheets, HO-20-1A-61, HO-20-1B-61  
 9 Sounding Volumes, HO-20-2-60  
 Shoran Plotting Abstracts  
 EDO 255C Fathograms  
 EDO 185 Fathograms  
 808 Fathograms  
 Tide Curves and Tabulated Tide Reducers



134°

133° 40'

HYDROGRAPHIC SHEET LAYOUT  
 SHIP HODGSON 1961 SEASON  
 PROJECT OPR 347  
 SCALE OF CHART 8201

Descriptive Report H-8605

30'

36'

20'

20'

10'

10'

KOUI I.

PRINCE OF WALES I.

KOSCIUSKO I.

WARREN I.

H 1754  
1886

H 8189  
1954

H 8150  
1954

H 6358  
1938

H-8605  
HO-20-1-61

H 8151  
1954-55

H 8244  
1955

H 6284  
1937

H-8604  
HO-20-2-60

H 6283  
1937

H 6283  
1937

134°

133° 40'

56'

TIDE NOTE

PROJECT OPR-347

SUMNER STRAIT, S. E. ALASKA

SHEET NO. H-8605

FIELD NO. HO-20-1-61

Tide stations used on this survey:

<u>Station</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Time</u> <u>Meridian</u>	<u>Height</u> <u>MLLW on</u> <u>staff- feet</u>
Point St. Albans	56° 04.9'	133° 58.2'	120° W	1.6
Port Beauclerc	56° 17.2'	133° 56.7'	120° W	4.7

Tide zones:

Point St. Albans gage: Positions 1A thru 28Q and all launch hydrography - all hydrography south of the line defined below except for overlap area.

Port Beauclerc gage: Positions 29Q thru 7X - all hydrography north of the line defined below except for overlap area.

Line dividing tide zones - East-west line along Lat. 56° 11.5' to Long. 133° 50.6' thence northwesterly along HAWK shoran arc 9.72 to west limit of survey.

No time or height corrections were made within each tide station zone.

Tide station zones were approved by W70 letter No. 2221-219-982ho, dated 13 September 1961.

All hourly heights were scaled directly from the marigrams for each of the tide stations. No hourly heights were furnished by the Washington Office.



ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

PROJECT OPR-347

SUMNER STRAIT, S. E. ALASKA

SURVEY NO. H-8605

FIELD NO. HO-20-1-61

LAUNCH NO. 160 808 FATHOMETER NO. 147 8/20/61 thru 8/22/61

COMBINED BAR CHECK, VELOCITY AND PHASE CORRECTIONS

<u>Depth Range</u> <u>Fms.</u>	<u>Corrections - Fms.</u>			
	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>	<u>D Scale</u>
0 to 4.8	/ 0.5			
4.9 to 6.8	/ 0.6			
6.9 to 15.2	/ 0.7			
15.4 to 27.0	/ 0.8			
27.2 to 31.0	/ 0.9			
31.5 to 39.0	/ 0.8	- 4.6		
39.5 to 62.5	/ 1.0	- 4.4		
63.0 to 86.5		- 4.2	- 9.8	
87.0 to 101		- 4.0	- 9.6	
102 to 151			- 9.5	- 9.5
152 to Max				- 9.0



ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

PROJECT OPR-347

SUMNER STRAIT, S. E. ALASKA

SHEET NO. H-8605

FIELD NO. HQ-20-1-61

SHIP HODGSON

EDO 255C DEPTH RECORDER NO. 44  
EDO 185 DEPTH RECORDER NO. 22 (57-210)

VELOCITY CORRECTIONS

8/3/61 thru 9/1/61		9/9/61 thru 9/23/61	
Depth Range Fms.	Corr'n. Fms.	Depth Range Fms.	Corr'n. Fms.
Min. to 6.5	0.0	Min. to 6.5	0.0
6.6 to 17.4	∓ 0.1	6.6 to 17.4	∓ 0.1
17.6 to 28.6	∓ 0.2	17.6 to 29.4	∓ 0.2
28.8 to 31.0	∓ 0.3	29.6 to 31.0	∓ 0.3
31.5 to 40.0	∓ 0.2	31.5 to 41.5	∓ 0.2
40.5 to 64.0	∓ 0.4	42.0 to 65.8	∓ 0.4
64.5 to 89.5	∓ 0.6	65.5 to 89.5	∓ 0.6
90.0 to 101	∓ 0.8	90.0 to 101	∓ 0.8
102 to 164	∓ 1.0	102 to 158	∓ 1.0
165 to 219	∓ 1.5	159 to 208	∓ 1.5
220 to Max.	∓ 2.0	209 to Max.	∓ 2.0

PHASE CORRECTIONS

Phase corrections for Edo 255C Depth Recorder No. 44 were adjusted to zero and remained at zero for the entire sheet.

DRAFT CORRECTIONS

The depth of the EDO 255C transducer was computed from a mean of all draft measurements throughout the season.

Depth - fms.	Correction - fms.
Min. to 31	∓ 1.1
31 to maximum	∓ 1.0

? what has been done  
of water got to do  
with transducer depth

Just rounding off  
to nearest even  
tenth of a fm.

DW

ABSTRACT OF SHORAN CORRECTIONS

PROJECT OPR-347

SUMNER STRAIT, S. E. ALASKA

SHEET H-8605

FILED NO. HO-20-1-61

LAUNCH 160

Applicable to all launch hydrography 8/20/61 thru 8/22/61

<u>Shoran Dist.</u> <u>Stat. Mi.</u>	<u>Corr'n</u> <u>Stat. Mi.</u>	<u>Shoran Dist.</u> <u>Stat. Mi.</u>	<u>Corr'n</u> <u>Stat. Mi.</u>
<u>STATION HAWK</u>		<u>STATION BETA</u>	
Min. to 8.75	- 0.010	Min. to 6.70	- 0.045
8.75 to 10.48	-0.015	6.70 to 8.35	- 0.050
10.48 to 12.05	- 0.020	8.35 to 10.10	- 0.055
		10.10 to 11.60	- 0.060



ABSTRACT OF SHORAN CORRECTIONS

PROJECT OPR-347

Sumner STRAIT, S. E. ALASKA

SHEET NO. H-8605

FIELD NO. HO-20-1-61

SHIP HODGSON

Date Position	Shoran Dist. Stat. Mi.	Corr'n. Stat. Mi.	Shoran Dist. Stat. Mi.	Corrn. Stat. Mi.
<u>STATION HAWK</u>		<u>STATION BETA</u>		
8/9/61 1B to 48B	Min. to 13.4 13.4 to 16.00 16.0 to 18.6	≠ 0.005 0.000 - 0.005	5.8 to 7.9 7.9 to 10.1 10.1 to 12.3	≠ 0.010 ≠ 0.005 0.000
8/9/61 49B to 82B	Min. to 9.4 9.4 to 11.9 11.9 to 14.5 14.5 to 17.1	- 0.010 - 0.015 - 0.020 - 0.025	2.6 to 4.8 4.8 to 7.0 7.0 to 9.2 9.2 to 11.3	- 0.005 - 0.010 - 0.015 - 0.020
8/10/61 Pos. 1C thru 9/1/61 Pos. 60M	Same as above		Min. to 4.0 4.0 to 6.2 6.2 to 8.4 8.4 to 10.5	- 0.045 - 0.050 - 0.055 - 0.060
9/9/61 1N to 5N	Same as above		2.6 to 4.8 4.8 to 7.0 7.0 to 9.2 9.2 to 11.3	- 0.005 - 0.010 - 0.015 - 0.020
9/10/61 Pos. 1P thru 9/11/61 Pos. 28Q	Same as above		Min. to 4.0 4.0 to 6.2 6.2 to 8.4 8.4 to 10.5	- 0.045 - 0.050 - 0.055 - 0.060
9/11/61 29Q to 185Q	Min. to 4.5 4.5 to 7.0 7.0 to 9.6	- 0.015 - 0.020 - 0.025	Min. to 5.8 5.8 to 8.0 8.0 to 10.2 10.2 to 12.4	≠ 0.005 0.000 - 0.005 - 0.010
9/12/61 Pos. 1R thru 9/23/61 Pos. 7X	Same as above		2.6 to 4.8 4.8 to 6.9 6.9 to 9.1 9.1 to 11.3 11.3 to 13.5 13.5 to 15.7 15.7 to 17.9	≠ 0.045 ≠ 0.040 ≠ 0.035 ≠ 0.030 ≠ 0.025 ≠ 0.020 ≠ 0.015



LIST OF STATIONS ON H-8605 (HO-20-1-61)

<u>Name used in Hydrographic Survey</u>	<u>Origin of Station</u>
BAN	ALBANS, 1886-1899
BEAUCLERC LIGHT	BEAUCLERC 2 (LIGHT), 1922
BETA (Shoran Sta.)	H-8604 (1961)
EVE	CLEVE, 1886-1922
HAWK (Shoran Sta.)	H-8605 (1961)
LOUISE COVE BEACON	LOUISE COVE BEACON, 1937
MACK	MACK, 1937

Additional stations used for shoran calibration only.  
All are triangulation stations.

ADEN, 1937  
 BETS, 1937  
 BLUFF, 1886-1916  
 FLY, 1886-1922  
 HOLM, 1937  
 ISLE, 1929  
 MILT, 1937  
 NOR, 1929  
 RUINS, 1937  
 ROCK, 1929  
 RUTH, 1937  
 SHIP 2, 1915  
 SHAKAN BAY LIGHT (STATION ISLET LIGHT, 1954)  
 VENT, 1937

APPROVAL SHEET

PROJECT OPR-347

SUMNER STRAIT, S. E. ALASKA

SHEET NO. H-8605

FIELD NO. HO-20-1-61

A large percentage of the field work was done under the direct supervision of the chief of party. On other parts of the survey the boat sheets ~~XXXX~~ and records were examined daily or oftener by the chief of party.

The survey is considered complete and adequate and no additional field work is recommended except for any necessary splits or development inside the 50-fm. curve north and south of Beauclerc Island as discussed in Par. 1, Adequacy of Survey. See H-8653 (1961-'62)

The boat sheets, sounding records, other field records, preliminary processing, special reports and descriptive report are approved.

The smooth sheet was not plotted at the time of this approval.

*Charles W. Clark*  
Charles W. Clark  
CDR., C&GS.  
Comdg. SHIP HODGSON



GEOGRAPHIC NAMES

Survey No. H-8605

Name on Survey	Source										K	B&W
	A	B	C	D	E	F	G	H	I	J		
	On Chart No. 8201	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List				
<sup>NOT USED</sup> <del>Beaulegere Island</del>	✓										✓	1
Boulder Point	✓											2
Kuiu Island	✓										✓	3
<sup>NOT USED</sup> <del>Louise Cove.</del>	✓											4
Point Amelius	✓											5
Point St. Albans	✓											6
Port Beaulegere	✓											7
Summer Strait	✓											8
AMELIUS I.	✓											9
												10
												11
												12
												13
												14
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												27

← Added 11/26/71 *REW*

*George W. Base*  
*Geographic Names*  
*8 May 1962*

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8605...

Records accompanying survey: Smooth sheets ...1...;  
 boat sheets ...2...; sounding vols. ...9...; wire drag vols. ....;  
 Descriptive Reports .1...; graphic recorder envelopes .1<sup>3</sup>...;  
 1-Cahier 2-Temperature & Salinity Observations &  
 special reports, etc. Computations of Corrections to Echo Sound-  
 ings 1960 and 1961; ~~1~~ Shore Plotting Abstracts.  
 1-Smooth Overlay Sheet, 6-Blue line prints. T-10721, T-10726.....  
 T-10727, T-10731, T10715 and T-10888.

The following statistics will be submitted with the cartog-  
 rapher's report on the sheet:

	Verification	Review
Number of positions on sheet	2066	
Number of positions checked	252	7
Number of positions revised	1	0
Number of soundings revised (refers to depth only)	3	0
Number of soundings erroneously spaced	1	0
Number of signals erroneously plotted or transferred	0	0
Topographic details	Time ..1...	1/2 hr.
Junctions	Time ..137..	17 hrs.
Verification of soundings from graphic record	Time ..8....	7 hrs.
Special adjustments	Time .....	0

Note: See Item 35 of Check List

Verification by *Frederick R. Scavella* Total time 3.84 Date *Nov. 18, 1964*

Reviewed by *S. Rose* Time 77 hrs. Date *Oct. 6, 1966*

Inspected by: *Dale E. Westbrock* Time: 43 hrs, Date: *9/17/71*  
*Carstens* " " *11/24/71*

H-8605 (1961)

Items for Future Presurvey Reviews

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
560	1335	0	1	50 yrs.
560	1340	1	1	50 yrs.
561	1335	1	1	50 yrs.
561	1340	0	1	50 yrs.

The bottom in this area is relatively stable. Differences between present survey depths and those on the prior surveys are believed to be due to the differences in survey methods rather than in bottom changes.

*plw*

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8605

FIELD NO. HO-20-1-61

Southeast Alaska -- Sumner Strait -- Pt. St. Albans to  
Boulder Pt.

SURVEYED: August 3, 1961, through September 23, 1961

SCALE: 1:20,000

PROJECT NO.: OPR-347

SOUNDINGS: Type 808 and  
Type EDO Depth  
Recorders

CONTROL: Shoran

Chief of Party.....	C. W. Clark
Surveyed by.....	C. W. Clark
.....	A. R. Benton
.....	J. A. Yeager
.....	R. K. Hanson
Protracted by.....	B. F. K.
Soundings Plotted by.....	B. F. K.
Verified and Inked by.....	F. R. Scarcella
Reviewed by.....	S. Rose
.....	Date: October 5, 1966
Inspected by.....	D. E. Westbrook

1. Description of the Area

This survey covers a portion of the offshore area of Sumner Strait, from Pt. St. Albans to Boulder Pt. The survey includes Pt. St. Albans Reef and Amelius Island Shoal; it excludes Amelius Island, Beauclerc Island and Calder Rocks, all of which fall on adjoining inshore surveys.

The bottom is stable but extremely uneven. Several peaks rise abruptly from general depths of deeper than 100 fathoms; two peaks are close enough to the water-surface to be considered navigational dangers and are marked by buoys.

## 2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

The survey is offshore, but shoreline has been added to the smooth sheet west of the surveyed area for orientation purposes. The shoreline is from blue-line prints reduced from T-10721, T-10727, and T-10735 which are incomplete; and T-10726, T-10731 and T-10888 which are advance manuscripts. None of these have been reviewed.

## 3. Hydrography

A. Depths at sounding line crossings are in good agreement.

B. The usual depth curves were adequately delineated. A number of dashed and brown curves have been added to emphasize important bottom features.

C. The development of the bottom configuration and investigation of least depths are considered adequate.

## 4. Condition of the Survey

The field-plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual.

However, the following verification deficiencies were noted:

A. No degree and minute symbols had been drafted on the latitude and longitude numerals.

B. Where possible, the color green should not be used for a junctional color, particularly where wire-drag surveys exist. Green is usually reserved for wire-drag.

C. Two adjoining junctional survey notes were improperly drafted using the same color.

## 5. Junctions

Adequate junctions were effected with H-8604 (1960-61) on the south; H-6284 (1937), H-6358 (1938), and H-8653 (1961-62)

all on the west; H-8150 (1954) and H-8151 (1954-55) both on the east; and H-8244 (1955) on the southeast.

The junction with unverified survey H-8689 (1962, 65) on the north will be discussed in the review of that survey.

#### 6. Comparison with Prior Surveys

A.	H-1749	(1886)	1:80,000
	H-1753	(1886)	1:80,000
	H-1754	(1886)	1:80,000
	H-6358	(1938)	1:10,000

Taken together, these surveys comprise the prior sounding coverage of the area of the present survey. The first three surveys listed above are little more than reconnaissance surveys with weak control. Survey H-6358 (1938) is actually a survey which joins the present survey on the west. However, Amelius Island Shoal appears on it as a portion of hydrography detached from the main body of the survey.

Although H-6358 (1938) was done at a larger scale than the present survey, its portrayal of Amelius Island Shoal is sparsely developed. A substantial amount of difference exists in that area between some soundings on the two surveys, apparently caused by a control problem on the older survey. However, two soundings were brought forward from H-6358 in this area to supplement the present survey.

With the addition of the two soundings noted above, the present survey is adequate to supersede these prior surveys within the common area.

B.	H-3916	(1916)	WD	1:20,000
	H-3791	(1915)	WD	1:20,000
	H-3791a	(1916)	WD	1:20,000
	H-3811	(1915-16)	WD	1:20,000

The effective depths shown on these wire-drag surveys do not conflict with depths on the present survey. One sounding on Amelius Island Shoal, from H-3791 (1915) W.D., and one sounding on St. Albans Reef, from H-3916 (1916) W.D., have been carried forward to supplement present survey depths.

7. Comparison with Chart No. 8201, 12th Ed., July 4, 1966A. Hydrography

The charted hydrography in the area of the present survey is principally from the boat sheet of the present survey, with a few soundings charted from the prior surveys which require no further consideration.

Attention is directed to the following:

The Point St. Albans Reef Lighted Buoy "1" charted in lat.  $56^{\circ}05'3''$ , long.  $133^{\circ}54'5''$  marks a 7.6 fm. shoal shown on the present survey in lat.  $56^{\circ}05'2''$ , long.  $133^{\circ}54'61''$  from H-3916 (1916) W.D. The chart, however, shows no sounding in that vicinity. ✓ DJK

Notice to Mariners No. 42 of 1962, which established a new position of the buoy, states that the buoy marks a "recently discovered 6-fm. shoal." ✓ DJK

The chart, therefore, should show a note (6-fm. Rep. 1962) referring to the spot where the buoy is charted. The Aids to Navigation section has indicated that this will be noted on the Aid Proof for Chart 8201.\* ✓ DJK

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area. ✓ DJK

B. Aids to Navigation

Two floating aids to navigation, both lighted, fall within the area of the present survey. One of them marks Amelius Island Shoal, while the other one marks Pt. St. Albans Reef. Calder Rocks Buoy "4" was also located on the survey sheet. Each one is in substantial agreement with its charted position and adequately marks the feature intended.

8. Compliance with Instructions

The survey adequately complies with project instructions.

\* This problem was resolved by a special investigation. See BP 85716 and

9. Additional Field Work


Notice to Mariners No. 42 of 1962 reports a 6-fm. depth on the shoal in lat.  $56^{\circ}05'21''$ , long.  $133^{\circ}54'62''$ . The present survey shows a 7.6-fm. from H-3916 (1916) W.D. The wire-drag survey shows the shoal to have been cleared by 45-ft. but there is now doubt that the drag actually covered the shoal.

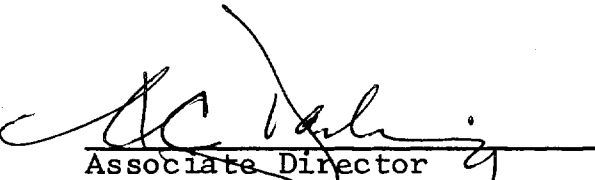
V D 112  
6 1/2 retained  
on chart

Additional work to verify or disprove the reported 6-fm. depth on the shoal has been requested.

Otherwise, this is an excellent basic survey.

Examined and Approved:

  
\_\_\_\_\_  
Chief  
Marine Chart Division

  
\_\_\_\_\_  
Associate Director  
Office of Marine Surveys  
and Maps



RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

May 17, 1962

Division of Charts: R. H. Carstens

Plane of reference approved in  
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8605

Locality Pt. St. Albans to Boulder Pt., Southeast Alaska

Chief of Party: C. W. Clark (1961)

Plane of reference is mean lower low water reading

- 1.6 ft. on tide staff at Point St. Albans
- 24.2 ft. below B. M. No. 1 (1961)
- 4.7 ft. on tide staff at Port Beauclerc
- 14.6 ft. below B.M. No. 1 (1961)

Height of mean high water above plane of reference is:

- Point St. Albans 10.3 ft.
- Port Beauclerc 11.1 ft.

Condition of records satisfactory except as noted below:

*J. M. Symons*  
Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents~~



# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8605

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/13/62	8201	Helmert	Before <del>After</del> Verification and Review Revised critical sds & curves
11/6/62	8252	Helmert	Before <del>After</del> Verification and Review Revised sds thru chart 8201 Aug 15
4-24-63	8002	h.j. Keeler	App'd. thru chart 8201 Before <del>After</del> Verification and Review,
12-10-64	8152	George Myers	Before <del>After</del> Verification and Review App'd thru chrt 8201
7-30-70	8201	Eric Frey	Part app'd before inspection <del>Before</del> After Verification and Review Revised <sup>3</sup> time
			Reviewed D.I.K. 8-18-70 soundings from descriptive report
1-26-71	8002	Charles S. Forben	<del>Before</del> After Verification and Review No correction. Area cleared of hydro. consider Fully applied.
8-30-72	8201	James Graham	<del>Before</del> After Verification and Review & Inspection Fully app'd hydro after final inspection
5-18-73	8174	E Frey	<del>Before</del> After Verification and Review Fully app'd hydro after final inspection
3/31/75	8152	D.I.K.	<del>Before</del> After Verification and Review signature - Deleted 40 added 39 fm sdy - added <sup>11.7"</sup> <del>at</del> <del>Both Surveyed</del>
10/25/78	17320	Naitor	Fully app'd thru 8201 after signature
2-8-79	17386	O. Stembel	Fully applied to new chart after signature.

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.