

6502

Acc. No.

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

### DESCRIPTIVE REPORT

Topographic }  
Hydrographic } Sheet No. 6352

State S. E. Alaska

LOCALITY  
~~Sitka Sound~~ Harbor  
Approaches to Sitka, ~~Alaska~~  
Eastern channel to Kasiana Is  
~~Sitka~~

S.E. Alaska.

1938

CHIEF OF PARTY

G. C. Jones

6502

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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.

Field No. 2

REGISTER NO. 6352

H 6352

State S. E. Alaska

General locality Approaches to Sitka Harbor  
~~Sitka Sound~~

Locality Eastern Channel to Kasiana Is.  
~~Approaches to Sitka, Alaska~~

Scale 1:5,000 Date of survey June-August, 1938

Vessel U.S.C. & G. S. S. EXPLORER

Chief of Party G. C. Jones

Surveyed by L. C. Wilder

Protracted by W. Weidlich

Soundings penciled by W. Weidlich

Soundings in fathoms & ~~feet~~ sixths

Plane of reference Mean lower low water

Subdivision of wire dragged areas by

Inked by Wallace A. Bruden

Verified by W. A. B.

Instructions dated March 7, 1938 Supplemental, May 5, 1938

Remarks:

DESCRIPTIVE REPORT  
TO ACCOMPANY HYDROGRAPHIC SHEET NO. 6352

APPROACHES TO SITKA, ALASKA

S. E. ALASKA

1-9-3-8

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET NO. 6352

APPROACHES TO SITKA, ALASKA

S. E. ALASKA

1 9 3 8

AUTHORITY:

This survey was made under instructions to the Commanding Officer, Ship EXPLORER, dated March 7, 1938 and Supplemental Instructions dated May 5, 1938. ✓

SCALE:

The scale is 1:5,000. ✓

LIMITS:

This survey covers the approaches to Sitka, Alaska, with the exception of the Sitka waterfront, from Latitude  $57^{\circ} 01\frac{1}{2}'$  to Latitude  $57^{\circ} 04\frac{1}{2}'$  and from the mainland of Baranof Island west at the north part of the sheet to Longitude  $135^{\circ} 23'$  and at the southern part of the sheet to Longitude  $135^{\circ} 22'$ . This includes the Northwest Channel, the Middle Channel and Whiting Harbor. ✓

METHODS:

Standard Coast Survey methods were used. A catamaran (two skiffs secured together) was used for a good share of the work, powered with an outboard motor. At the north end of the sheet lines were not run by ranges but by means of a constant sextant angle between a distant object and a point on the beach through which the projected sounding line passed. This gave a slightly curved line but the control of the vessel on the line was better than was possible by natural ranges. ✓

CONTROL:

Triangulation stations and hydrographic signals located by topography were used for all sextant fixes. ✓

GENERAL CHARACTERISTICS OF THE SHORELINE AND BOTTOM:

Shoreline about the high and low water lines is with ✓  
few exceptions boulders or ledge. Sand in a few of the small  
bights.

The bottom is mostly sand or gravel approaching the ✓  
shores and ledge or boulders around rocky points or foul areas.  
Well off the shoreline, a good majority of the bottom is mud but  
there are numerous areas of hard bottom, sand or gravel.

CURRENTS AND TIDE RIPS:

An attempt was made to obtain information regarding cur-  
rents during the course of the hydrography by drifting when calm  
etc., but currents are very small in this locality and no parti-  
cularly definite deductions could be made except as follow. I con-  
cluded that the flood set in from the west or southwest and car-  
ried thru the channel east of Japonski Id. and along the west  
shore of Japonski Id. from south to north. The flood does not ✓  
set to the southeast in the Northwest Channel. Tide ebbs to the  
southeast past Sitka and over an area reaching at least one half  
mile NW of Sitka; beyond this it may ebb to the north and north-  
west but such was not observed. It ebbs to the south and south-  
east in Hiting Harbor.

No heavy or moderate tide rips were observed except ✓  
about the off-lying islands which was caused by small currents  
flowing around these islets, in all probability.

DISCREPANCIES:

No discrepancies were noted. ✓

COMPARISON WITH OTHER SURVEYS:

Sheet No. 2174, 1893, 1:10,000. The scale and lack of  
development of this older survey render comparison of little  
value. Many of the shoals in and adjacent to Middle Channel and  
to the northwest thereof were entirely missed or not developed on  
the 1893 survey. On the two shoals (4 1/6 and 4 2/6 fms., 1938  
survey) mid channel at the north entrance to Hiting Harbor,  
slightly less water was obtained on the old survey but this must  
be in error as extreme care was taken on the present survey to  
obtain the least depths.

30  
Old survey  
shows 4 fms.  
on each spot  
but old soundings  
were read to  
nearest fathom.  
See review.

Comparison with Chart 8244 - 1:10,000. All the shoals

on this chart were carefully developed on the present survey. Many shoals not indicated on the chart were found. Chart shows a 3 fm. spot at buoy S-1 which was disproved on the present survey. The detached 5 fm. curve (showing a 4 3/4 and 3 3/4 fm. sounding) close off the west shore of Japonski Island is not extant. It was not found on the 1938 survey. <sup>4 3/4 (actually 5) falls near similar depths on present survey. 3 and 3 1/4 discussed in review.</sup>

CHANNELS, ANCHORAGES AND AIDS TO NAVIGATION

The fixed aids to navigation in the surveyed area of this sheet are Channel Rock Light and the several (4) buoys shown at the NW approach to the Sitka waterfront and Harbor Rock Light and *Black Spar S-1*. Also Harbor Rock Light. Buoys are not fixed.

There are two anchorages in this area for the larger ships; any number for fishing vessels and small craft provided local knowledge is had regarding off-lying rocks and dangers.

One ship anchorage, and it is the better of the two, is just off the channel course in the Northwest Channel approach to Sitka, mud bottom in about 8 fms. with Channel Rock Light bearing 289° T (259 Mag.), distant 1/4 mile. Depending upon the amount of swinging room and shelter required, anchorage can be had to the southeast (closer to Sitka) or to the northwest (NW of Channel Rock Light) of this anchorage position. The bottom to the north and northwest of Channel Rock Light is not a good holding bottom as it is mostly hard, gravel, or rocky.

In Whiting Harbor, anchorage can be had in about 12 fms. of water, mud bottom, with the SW tangent of Japonski Id. bearing 110° T (80° Mag.) distant about 1/4 mile and the group of bare rocky islets off the west shore of Japonski Id. bearing 200° T (350° Mag.). This position can be changed to the NW or SE depending on the shelter required. (In mid-channel off the group of bare rocky islets above mentioned, is a rocky shoal middle ground of 4 2/6 fms. least depth.) Shelter afforded in Whiting Harbor in severe weather is only fair, somewhat exposed to wily winds and swell.

The course into Sitka by the Northwest Channel is 132 T (102 Mag.) to pass 60 yds. off black spar S-1 and 300 yds. off Channel Rock Light, with Harbor Rock Light ahead, and hold this course until abeam the first black spar buoy approaching Harbor Rock Light.

Coming into Sitka Harbor from the southeast, pass about 50 yds. off the Mills Dock (abreast Harbor Id.) or about 1/3 the distance from Mills dock to the high water rocks and islets off

Harbor Island. There is a 1 5/6 fms. rock about 90 yds. off Mills dock. Opposite side of channel.

Coming into Whiting Harbor, give the north end of Sasedia Id. a berth of 400 yds. and come down the middle of Whiting Harbor on a course of 140 T (110 Mag.) to an anchorage above specified. This mid-channel course will pass over the 4 2/6 fms. middle ground mentioned above.

Directions for the Middle Channel into Sitka will not be written as this channel is not recommended. Shoals and dangers are so numerous that only small vessels with thorough local knowledge should use it.

LANDMARKS:

The only landmarks on this sheet are the aids to navigation. It is understood that the radio towers at the Air Base are to be removed.

SHOALS, OBSTRUCTIONS AND DANGERS:

The shoals and obstructions on this sheet are very numerous and only those of importance will be noted. (Those which might be important for piloting purposes for vessels other than small fishing vessels and launches).

Shoals in the vicinity of Middle Channel:

1.	Shoal	57-01.45 135-22.05	6 5/6 fms.	Rky	between 93- 5 $\frac{1}{2}$ on H-6356 W.D. 94g blue
2.	"	57-01.4 135-21.0	3 1/6 "	Rky	130u green ✓ ✓
3.	"	57-01.4 135-20.75	2 2/6 "	Rky	129u green ✓ ✓
4.	"	57-01.6 135-21.05	5/6 "	Rky	133u green ✓ ✓
5.	Pritchard Rk	57-01.75 135-20.9	See Topo Sheet ✓		
6.	Shoal	57-01.9 135-22.1	1 2/6 fms.	Rky	1d red ✓ ✓
7.	"	57-02.0 135-21.0	5 $\frac{1}{6}$		22v green 4 $\frac{5}{6}$ on H-6356 W.D.
8.	"	57-02.3 Near Rose Rk 135-20.65	5/6 "	Rky	31v green ✓ ✓
9.	Shoal	57-02.45 135-20.5	2 2/6 "	Rky	93d green ✓ ✓

- |     |       |           |       |      |     |           |                 |      |
|-----|-------|-----------|-------|------|-----|-----------|-----------------|------|
| 10. | Shoal | 57-02.35  |       |      |     |           |                 |      |
|     |       | 135-20.35 | 1 1/6 | fms. | Rky | 33v green | 1 fm. on H-6356 | W.D. |
| 11. | "     | 57-02.55  | 0     | "    | Rky | 96l green | Plotted as rock |      |
|     |       | 135-20.2  |       |      |     |           | awash MLLW.     |      |

Shoals in vicinity of Sitka Waterfront

- |     |               |           |  |      |      |            |               |   |   |
|-----|---------------|-----------|--|------|------|------------|---------------|---|---|
| 12. | Ledge         | 57-03.15  | 2  | fms. | Rky  | 7t green   | ✓             | ✓ | ✓ |
|     |               | 135-20.6  | (a danger in coming alongside Conway dock) <sup>4/6</sup>          |      |      |            |               |   |   |
| 13. | Shoal         | 57-03.05  | 3 3/4  | fms. | Hard | 126a green | ✓             | ✓ |   |
|     |               | 135-20.55 | (also found by wire drag - very small in area - possibly boulders) |      |      |            |               |   |   |
| 14. | Rock          | 57-03.05  | 2 1/6  | fms. | Rky  | 125a green | ✓             | ✓ | ✓ |
|     |               | 135-20.44 |  |      |      |            |               |   |   |
| 15. | Rock          | 57-03.03  | 1 2/6  | "    | Rky  | 5t green   | See par. 7, 2 | ✓ | ✓ |
|     | (Indian Rock) | 135-20.4  |  |      |      |            | review.       |   |   |
| 16. | Rock          | 57-02.9   | 1 5/6  | "    | Rky  | 1b red     | ✓             | ✓ | ✓ |
|     |               | 135-20.4  |  |      |      |            |               |   |   |

Other Important Shoals

- |     |             |           |       |      |     |                           |   |   |  |
|-----|-------------|-----------|-------|------|-----|---------------------------|---|---|--|
| 17. | End of spit | 57-03.45  | 2     | fms. | Rky | 7c red                    | ✓ | ✓ |  |
|     |             | 135-22.35 |       |      |     |                           |   |   |  |
| 18. | Shoal       | 57-03.35  | 2 1/6 | fms. |     | 120n green                | ✓ | ✓ |  |
|     |             | 135-22.7  |       |      |     |                           |   |   |  |
| 19. | "           | 57-03.2   |       |      |     |                           |   |   |  |
|     |             | 135-22.75 | 4 1/6 | "    |     | 121n green                | ✓ | ✓ |  |
| 20. | "           | 57-02.2   | 2 2/6 | "    | Rky | 17v blue <sup>green</sup> | ✓ | ✓ |  |
|     |             | 135-21.85 |       |      |     | 49h                       |   |   |  |
| 21. | "           | 57-02.35  | 2 1/6 | "    |     | 19n blue                  | ✓ | ✓ |  |
|     |             | 135-22.05 |       |      |     |                           |   |   |  |

W.A.B.  
6/2/39

There are numerous other shoals and rocks, dangers to small boats, which have not been noted here. ✓

Respectfully submitted,

*L. C. Wilder*

L. C. Wilder  
H. & G. Engineer  
U. S. C. & G. S.

APPROVED AND FORWARDED:

*G. C. Jones*  
G. C. Jones  
Chief of Party



POST-OFFICE ADDRESS: 601 Federal Office Bldg., Seattle, Wn.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

*20*  
*280*  
*WBR*

10:17 MAY 1 PM 12:11

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY  
U.S.C. & G.S.S. EXPLORER  
Seattle, Washington  
April 27, 1939

*acknowledged May 3, 1939*

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

From: The Commanding Officer,  
U.S.C. & G.S.S. EXPLORER,  
Seattle, Wn.

Thru: The Inspector,  
U.S. Coast & Geodetic Survey,  
601 Federal Office Bldg.  
Seattle, Wn.

Subject: Hydrographic Sheet Register No. 6352.

Enclosed are additional notes to be attached to the Descriptive Report for Hydrographic Sheet Register No. 6352.

These notes were received from Lieut. Wilder, at Astoria, Ore., after the sheet and report had been forwarded, and are therefore being submitted separately.

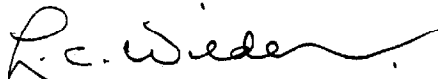
*F. H. Hardy*  
F. H. Hardy,  
H. & G. E.  
Chief of Party.

SUPPLEMENTAL NOTES to be attached to Descriptive Report  
for Hydrographic Sheet No. 6352 (reg. no.)

No curves have been drawn in pencil in the Southeast Channel approaching Sitka as to do so would obliterate penciled soundings. Most of the soundings on the Sitka waterfront in the vicinity of signal LAN, have also been plotted on Sheet 6351 (fixes common to the two sheets were used) The shoals in this area were defined on sheet 6351.

Sounding of 4 4/6 fms in Lat. 57-02.4 Long 135-20.45 was searched for very carefully with pipe drag, 23 minute search. Was not found the second time. Recommend that it be retained.

Extreme care was taken in sounding shoals for least water. Most of the shoals in positions which might make them dangers, were examined with a 16' pipe drag. ( these shoals are marked "P" in red on the boat sheet.

  
L.C. Wilder.

STATISTICS

Sheet 6352

Statute miles of soundings .....	198.6
Number of soundings.....	9580
Number of positions.....	3161

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ~~L-6352~~.

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

Number of positions on sheet	3,161
Number of positions checked	262
Number of positions revised	28
Number of soundings recorded	9,580
Number of soundings revised	57
Number of soundings erroneously spaced	21
Number of signals erroneously plotted or transferred	0

Date:

Verification by *Wallace A. Bruder*

Time: 189<sup>h</sup> 30<sup>m</sup> (including 30 hrs revision as per report)

Review by *J. A. McCormick 8/31/39*

Time: 35 hr.

HYDROGRAPHIC SURVEY NO. M-6352

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 9 Vols., Wire Drag     Vols., Bomb     Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) None

Statistics Total Statistics only

Approved by Chief of Party D. R. only

Recoverable Station Cards (Form 524) -----

Special Chart for Lighthouse Service Yes  
(Circular Nov.30, 1933)

Hydrography: Total Days 33 ; Last Date Aug, 23, 1938

Remarks \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

H-6352

# 1

Remarks

Decisions

	Remarks	Decisions
1		570353
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		" U S G B
18		"
19		"
20		"
21		"
22		" U S G B
23		"
24		"
25		"
26		"
27		"
M 234		

GEOGRAPHIC NAMES

Survey No. M-6352

# 1

Name on Survey

	A	B	C	D	E	F	G	H	K
	On Chart No.	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	
<u>Rockweed Island</u>									1
<u>Beardslee Islands</u>	✓								2
<u>Middle Channel</u>	✓	✓							3
<u>Pritchard Rock</u>									4
<u>Bamdoroshri Island</u>	✓								5
<u>Whale Island</u>	✓								6
<u>Passage Islands</u>	✓								7
<u>Kayak Islands</u>	✓								8
<u>Japonski Island</u>	✓								9
<u>Battery Island</u>	✓								10
<u>Line Island</u>	✓								11
<u>Whiting Harbor</u>	✓								12
<u>Smith Island</u>	✓								13
<u>Stewart Island</u>									14
<u>Charcoal Island</u>	✓								15
<u>Alice Island</u>	✓								16
<u>Sitka</u>	✓								17
<u>Aleutski Island</u>									18
<u>Turning Island</u>									19
<u>Kutken Island</u>	✓								20
<u>Breast Island</u>	✓								21
<u>Galankin Island</u>	✓								22
<u>Keene Rock</u>									23
<u>Channel Rock</u>									24
<u>Harbor Island</u>									25
<u>Nepovorotni Rocks</u>									26
<u>Nevaki Islands</u>									27

H-6352

#2

Remarks

Decisions

	Remarks	Decisions
1		570353
2		570353
3	For title	570353
4		570353
5	For Title only	570354 U S G B
6		570350 U.S.G.B.
7		570353
8		570353
9		570353
10		570353
11		570353
12		570353
13		570353
14		"
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		



GEOGRAPHIC NAMES

Survey No. H-6352

# 2

Name on Survey

On Chart No. A  
 On previous survey No. B  
 On U. S. Quadrangle Maps C  
 From local information D  
 On local Maps E  
 P. O. Guide or Map F  
 Rand McNally Atlas G  
 U. S. Light List H  
 K

Name on Survey	A	B	C	D	E	F	G	H	K
<del>Indian Rock</del> <i>Don't include J.A.M.</i>									1
<u>Griffith Island</u>									2
<u>Sitka Harbor</u>									3
<u>Eastern Channel</u>	✓								4
<u>Kasiana Islands</u>									5
<u>Baranof Island</u>	✓								6
<u>Reshimosti Islands</u>									7
<u>Volga Island</u>									8
<u>Fritz Island</u>									9
<u>Fruit Islands</u>									10
<u>Love Island</u>									11
<u>Alexander Rock</u>									12
<u>Mitchell Rock</u>									13
<u>Harbor Rock</u>									14
<u>Sasedni I.</u>	✓								15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

Names underlined in red approved  
 by L. Beck on 5/24/39

# MEMORANDUM IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTATIC COPY~~

No. H -6352

~~No. 1~~

received May 1, 1939  
registered May 12, 1939  
verified  
reviewed  
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24	✓		
25	✓	HSC	Pages 3, 4 and 5
26			
30	✓	JSH	Page 2
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ JSH

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 26, 1939.

Division of Hydrography and Topography:

Division of Charts: Attention: Mr. E. P. Ellis

Plane of reference approved in  
10 volumes of sounding records for

HYDROGRAPHIC SHEET 6352

Locality Eastern Channel to Kasiana Islands, Approaches to Sitka Harbor

Chief of Party: G. C. Jones in 1938  
Plane of reference is mean lower low water reading  
5.0 ft. on tide staff at Sitka, Standard Oil Dock  
13.1 ft. below B. M. 1

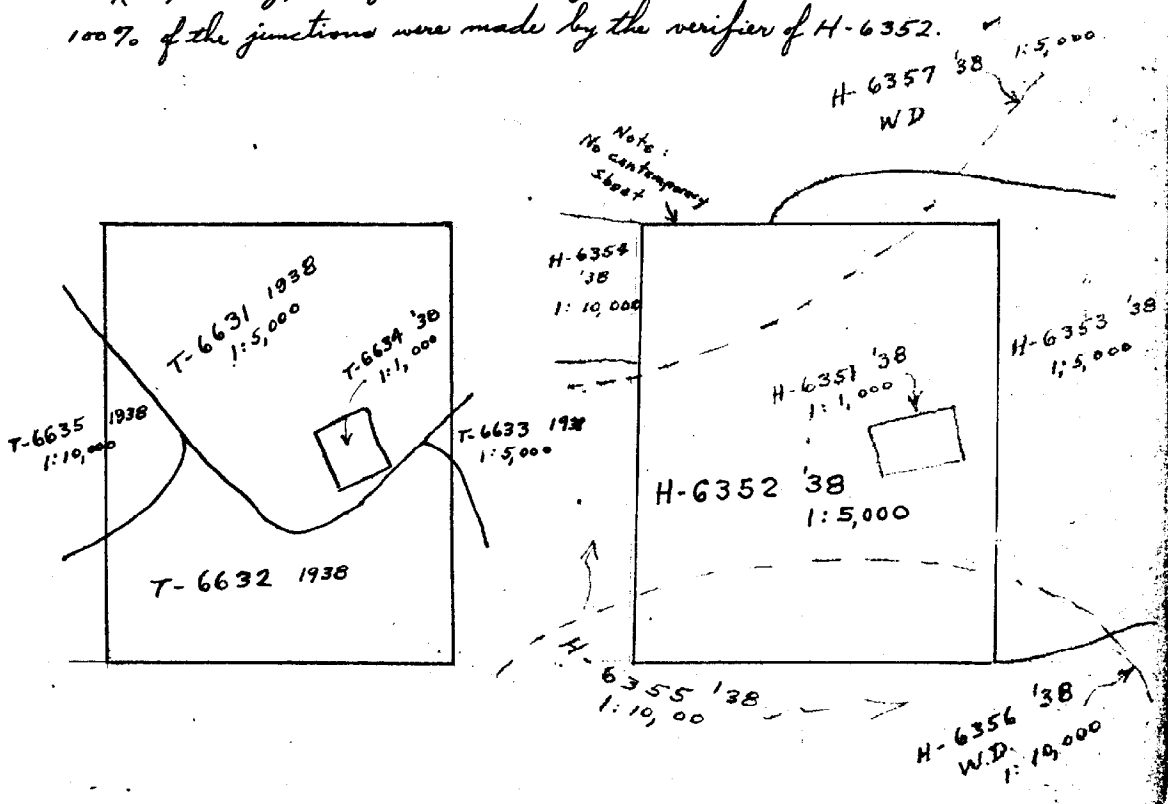
Height of mean high water above plane of reference is 9.1 feet.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

1. The records conform very well to the requirements of the General Instructions. ✓
2. The usual depth curves ~~could and~~ were completely drawn.  
 The low water line was not defined by soundings very frequently, because of the shoreline being boulders or ledge. Similarly, all curves were omitted between sounding and shoreline of some unimportant isle, where the distance was approximately 100 meters or greater.
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual with the following exceptions: ✓
  - a. Special orders for this sheet said to plot all bottoms characteristics taken. However only 75% were penciled on the sheet, necessitating the office draftsman to plot 25%.
4. The office draftsman had to go over every rock awash symbol as they were poorly drawn. The wreck symbol was slightly changed in order to agree with the accepted standard, that is, ~~the line~~ ~~no cross line on the mast of the hull and no vertical~~; ~~∩~~ and not ~~∩~~.  
 The remainder of the drafting was very good. No comment in review.
5. The junctions with contemporary adjacent sheets are satisfactory. ✓  
 All topo and hydro sheets show below have been applied and junctions made, (respectively) In general this agreement was excellent.  
 100% of the junctions were made by the verifier of H-6352. ✓



## © Remarks

100% of the shoreline of T-6635 falling on H-6352 was plotted and inked by the verifier.

Noted in review.

100% of the ledge and reef symbols shown on H-6352 were plotted and inked by the verifier.

Noted.

By recommendation of the Asst. Chief of F.R. the verifier made a special case for the junction with H-6351 (1:1,000 scale). In view of the fact the scales differ by five times, the soundings were actually plotted on the 1:1,000 sheet from the records of the 1:5,000 sheet, wherever possible. If not possible to plot even one angle, the soundings were stepped up by proportional dividers. The upper side of H-6351 was taken care of only by a note on H-6352 indicating the area was best determined by using H-6351.

There are three detached soundings at Sitka  $\left\{ \begin{array}{l} 57^{\circ} 03.2' \\ 135 20.6' \end{array} \right.$  that appear only in the records of H-6352, vol. 2, pg 3. These were inked on H-6352. (verifier's field plotting)

They are 1e, 2e, 3e, red.

Thirty hours of the verifier's time on this sheet was used to change approximately 1,000 soundings (very close approximation) in order to conform to the special order of plotting in fathoms and sixths up to, but not including 15 fathoms. It also meant re-verifying 3 complete volumes.

Respectfully submitted

Wallace A. Bruder 8/10/39

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6352 (1938) FIELD NO. 2

Eastern Harbor to Kasiana Island, Approaches to Sitka  
Harbor, S. E. Alaska

Surveyed in June-August, 1938, Scale 1:5,000

Instructions dated March 7 and May 5, 1938 (EXPLORER)

Hand Lead and Machine Soundings. 3 Point fixes on shore signals.

Chief of Party - G. C. Jones  
Surveyed by - L. C. Wilder  
Protracted by - W. Weidlich  
Soundings plotted by W. Weidlich  
Verified and inked by - W. A. Bruder

1. Shoreline and Signals.

Shoreline and topographic signals are from T-6631, T-6632, T-6633, T-6634 and T-6635 of 1938.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Satisfactory.

4. Junctions with Contemporary Surveys.

Junctions with H-6353 (1938) on the east, H-6354 (1938) on the northwest and H-6355 (1938) on the west and south are satisfactory. There is no new work on the north nor is any called for in the instructions for the present project. The area off the east end of Japonski Island was developed on a special survey, H-6351 (1938), scale 1:1,000. Overlaps with the present survey show satisfactory agreement.

5. Comparison with Prior Surveys.

a. H-1439 (1879), 1:15,000; H-1626 (1884), 1:20,000.

These are reconnaissance surveys; the former, fairly comprehensive; the latter containing but a few soundings in Sitka Harbor. They should be disregarded in future charting of the common area.

b. H-2174 (1893), 1:10,000.

This survey covers the entire area of the present survey. As brought out in the reviews of the adjoining 1938 surveys, depths on the old survey are unreliable. Sounding equipment is stated in the old records to be wire reel and 5 pound lead (sometimes 7

pound) and many of the soundings were read only to the nearest fathom even in depths of 1 and 2 fathoms. Some of the notable differences are:

- (1) The 6 1/4 fathom depth (charted 6) in lat. 57°02.8', long. 135°22.2' on the old survey is an erroneous plotting of a 10 1/4 fathom sounding, the latter depth being in good agreement with the present survey.
- (2) The 5 and 6 fathom soundings (charted 4 3/4 and 5 3/4) in lat. 57°01.68', long. 135°20.85' on the old survey fall in depths of 10 1/2 and 10 2/6 fathoms on the present survey. The 5 and 6 occur on the same line and are followed by two 11 fathom soundings which fall well inside the 10 fathom curve on the present survey. As there is obviously something radically wrong with the old survey in this vicinity, the 5 and 6 have not been carried forward.
- (3) The 4 fathom sounding (charted 3 3/4) in lat. 57°03.2', long. 135°22.3' on H-2174 (1893) falls in 7 4/6 fathoms on the present survey. Following the 4 on line is a 7 fathom sounding which falls in 4 fathoms on the present survey, leading to the conclusion that the soundings on the old survey may have been reversed by the recorder. The present field investigation of the old 4 is sufficient to warrant disregarding it.

Several soundings have been carried forward to be on the safe side and, with these additions, the present survey is adequate to supersede the old survey in the common area.

c. H-2174a (1920), 1:5,000.

This survey contains a few soundings along the Sitka waterfront. The information it contains in the common area is adequately covered by the present survey and it should be superseded by the latter.

d. H-2174b (1924), 1:2,000.

This is a detailed development of a small area off the piers in approximate lat. 57°02.9', long. 135°20.2'. Depths are in good agreement with those on the present survey and may be used, if necessary, to supplement the present development in future charting of the common area.

6. Comparison with Wire Drag Surveys.

H-6356 (1938) W.D., H-6357 (1938) W.D.

Comparisons with these surveys have been made in their respective reviews.

7. Comparison with Chart 8244 (New Print dated June 11, 1937)  
Chart 8255 (New Print dated May 24, 1939)  
Chart 8281 (New Print dated June 2, 1939)

a. Hydrography.

Within the area of the present survey the charts are based principally on surveys discussed in the foregoing paragraphs. Because different reference planes were used on different editions of the charts many of the charted depths in the shoaler areas are 1/4 fathom less than the soundings with which they originate on the old surveys. Where such differences exist, the charts are erroneous. The matter is discussed in more detail in par. 6a, review of H-6351 (1938).

The rock awash charted in lat. 57°04.3', long. 135°23.5' originates with Chart Letter 1766 of 1897 according to H-2174. The present survey correctly locates it about 150 meters to the north.

The 3/4 fathom depth charted on Indian Rock (lat. 57°03.02', long. 135°20.42') is from the text of H. R. Document 108 (71-1). H-2174a (1920) shows a depth of 6 feet, and the present survey, several depths of 1 1/6 to 2 fathoms. There is some evidence that the U. S. Engineers have worked in this area, Chart Letter 451 of 1937 stating that the project which included removal of the rock had been completed. The descriptive report, page 7, for H-6351 (1938) also states that the Engineers had partly removed the rock. Depths should be charted as shown on the present survey and in view of the absence of any outstanding pinnacle it is recommended that the name "Indian Rock" be omitted.

Miscellaneous information from other chart letters and H. R. Documents concerning Sitka Harbor is adequately covered by the present <sup>survey</sup> and should be disregarded in future charting.

b. Aids to Navigation.

Survey positions of navigational aids are in substantial agreement with charted positions and adequately mark the features intended.



8. Condition of Survey.

- a. Sounding records are neat and legible.
- b. The descriptive report should have stated that the supplemental instructions called for plotting of soundings in fathoms and sixths to 15 fathoms. The report is otherwise satisfactory.
- c. The office verifier added considerable shoreline and reef detail to the smooth sheet from the topographic surveys. Field drafting was otherwise satisfactory.

9. Compliance with Instructions for the Project.

The 4 5/6 fathom shoal indication in lat. 57°01.8', long. 135°20.85' should have been developed. Otherwise, the survey satisfies the instructions for the project.

10. Additional Field Work Recommended.

None recommended for immediate consideration. See preceding paragraph.

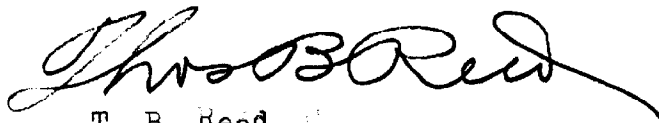
11. Superseded Surveys.

H-1439 (1879)	in part.
H-1626 (1844)	" "
H-2174 (1893)	" "
H-2174a(1920)	" "

12. Reviewed by J. A. McCormick, August 31, 1939.

Inspected by H. R. Edmonston

Examined and Approved:



T. B. Reed,  
Chief, Section of Field Records.

K.T. Adams  
Chief, Division of Charts.



Fred L. Peacock  
Chief, Section of Field Work.

Chief, Division of H. & T.

Applied to reconstruction of Chart 8244 - 11/8/37 - JFW  
Applied to Chrt. 8281 Feb. 26, 1940 K.R.  
" " " " Board. Mar 1959 ERW.

3702