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Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. RALTON, DIRECTOR

L. O. Colbert

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. H-6617
(field 1440)

State Washington

LOCALITY

Rosario Strait

Vicinity of Deception Pass
~~West Coast, Whidbey Island~~

1940-41

CHIEF OF PARTY

Robert W. Knox

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6617

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. 1440

REGISTER NO. H-6617

State Washington

General locality Rosario Strait

Locality Vicinity of Deception Pass
~~West Coast of Whidbey Island~~

Scale 1:10,000 Date of survey Dec. 1940 - Jan., 1941

Vessel U.S.S. SURVEYOR

Chief of Party Robert W. Knox

Surveyed by A. C. Thorson and V. M. Gibbens

Protracted by Wm. M. Martin

Soundings penciled by Wm. M. Martin

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by C.E. Dennis 4/16/42

Verified by " "

Instructions dated Sept. 22, 1939 and Sept. 27, 1940

Remarks: Projection and smooth plotting by Seattle

Processing Office.

DESCRIPTIVE REPORT

to accompany

Hydrographic Sheet H-6617 (Field No. 1440)

H6617

U.S.C. & G.S.S. SURVEYOR

Project HT-241

Robert W. Knox, Commanding
Winter Season, 1940-41

AUTHORITY

This survey was executed under authority of the Director's instructions of September 22, 1939 and September 27, 1940. ✓

LOCALITY

This sheet covers the inshore area of the western shore of Whidkey Island from latitude 48°21' to 48°25', or abeam of Deception Pass, and extends offshore from the shoreline an average of about 4 miles. ✓

JUNCTION WITH OTHER SHEETS

This sheet joins H-6615 (1940) on the south and H-6607 (1939-40) and H-6477 (1939) on the north; there are no recent surveys to the westward. ✓ ✓

CONTROL

The shoreline and signals are from contemporary topographic sheets, registry numbers T-6769 and two triangulation stations to the northward - Deception 1854 and Cat 1939. ✓

METHOD OF SURVEY

This is a combination of ship and launch work. Standard methods, sextant and protractor, were used for locating the vessel's position throughout. The Dorsey Fathometer was used on the ship and the 808 recording fathometer on the launch. Difficulty in keeping the initial constant was had with the 808 recorder. In shifting from fathoms to feet or vice versa a jump of about 4 feet was noticed in the initial. ✓

PREVIOUS SURVEYS

The entire area is covered by two surveys - H-433 (1854) and H-1886 (1888). In the northwest corner of the survey there have been, in addition to the above, three previous surveys - H-1129 (1871) and H-4606 (1926), both of Lawson Reef, and H-5929 (1935) W.D. ✓

A detailed comparison was made with H-1886⁽¹⁸⁸⁸⁾, and no important differences were noted. In the shoaler area, i.e., within the 10-fathom curve, the agreement is excellent, and whereas there are many sounding-for-sounding agreements in the offshore area, a considerable number of differences in the amount of 1 and 2 fathoms were noted; in every case but one the present survey showing more water than the previous. ✓

Differences in the order of 3 or more fathoms were noted:

Latitude

Longitude

~~48°22.3'~~

~~122°42.8'~~

~~51,847 fms.~~ ✓

23.4'

42.1'

55
54,848 fms. ✓

55 clearly erroneous. Remove from chart.

GENERAL DESCRIPTION

Bottom slopes are gradual and uniform with sand bottom predominating. Kelp is general along the few rocky sections of coast; these being near the southern end of H-6615⁽¹⁹⁴⁰⁻⁴⁾ except for the one rocky outcrop at Station FINGER 1939 at latitude 48°19.7'. ✓

Kelp reference not applicable to present survey.

OFF-LYING DANGERS

There are none within the limits of the survey. ✓

BOTTOM CHARACTERISTICS

Specimens were obtained on cross lines run by the launch. ✓

CROSS LINES

All cross lines but two were run by the launch for two reasons other than the classic one: (1) to obtain bottom characteristics and (2) to check the 808 fathometer against the Dorsey III, previous experience having shown that some method of check other than the bar check was desirable. The cross lines were satisfactory. ✓

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DISCREPANCIES

None were noted; junctions with other sheets of ✓
this and the past season appear satisfactory.

This descriptive report was written from the boat
sheet.

Original signed George A. Nelson
Jr. H. & G. Engr.

Forwarded:
Robert Wilson
1st Asst Engr.
Commanding Ship Surveyor

TIDAL NOTE

H6617

The reducers used in the reduction of the soundings on this sheet were obtained from records of the auto portable gage in Reservation Bay, near Deception Pass.

Latitude 48°25.0'
Longitude 122°39.7'
Values of M.L.L.W. on staff(not available)

LIST OF SIGNALS USED, Sheet H-6617Triangulation Stations:

BERT 1939
 CAF 1939
 DESCRIPTION 1854 - 1926
 FINGER 1939
 TRAP 1939

Topographic Signals from Sheet T-6769:

Als	Gal	Hay	Sap
Atc (Spot)	Cross	Kis	Shin
Ban	Flag	Lat	Sla
Bang	Gal	Log	Stein
Bot	Sin	Hob	Tar
Bug	Gray	Rip	Tree
Bus	Good		Tri
	Guy		Wit

STATISTICS

H6617

Register No. 6617

DATE	DAY	VESSEL	MILES (Stat.)			NO. SDGS.			POS.	VOLS.	AREA
			Fath.	V.C.	Total	Fath.	V.C.	Total			
1940											
Dec. 19	A	Ship	57.0		57.0	1111	1	1112	189		
20	B	"	57.0		57.0	1263		1263	226		
23	C	"	8.0		8.0	166	1	167	31		
1941 Jan. 4	D	"	7.4		7.4	234		234	41		
Sub total	4		129.4		129.4	2774	2	2776	487	2 8.0	
1941 Jan. 7	a	Launch No. 2	32.3		32.3	1474		1474	183		
8	b	"	3.9		3.9	150		150	20		
9	c	"	44.1		44.1	1599		1599	224		
10	d	"	12.3		12.3	531		531	78		
Sub total	4		92.6		92.6	3754		3754	505	3 3.5	
TOTAL	8				222.0	6528	2	6530	992	5 11.5	

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APPROVAL OF CHIEF OF PARTY

Hydrographic sheet H-6617 and accompanying records have been inspected and approved by me. The work was accomplished under my immediate supervision. No additional work is considered necessary. ✓

CURRENTS

The SURVEYOR anchored close to the western shore of Whidby Island, between latitude 48°18' and 48°22' on various nights. These anchorages were about one-half mile offshore. Current observations were taken with a current pole during the night watches. ✓

It was found that the current near the shore seldom exceeded one-half knot even when currents of six or seven knots were predicted for Deception Pass, which is situated about three miles north of the anchorages. It was noted that the current set in a general southwesterly direction both when the current was flooding and when the current was ebbing in Deception Pass. The currents at the anchorages must therefore be eddy currents and not part of the main tidal stream. ✓

Respectfully submitted,



Robert W. Knox
H. & G. Engineer
Commanding Ship SURVEYOR

GEOGRAPHIC NAMES

Survey No. **H6617**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Deception Pass</u>											1
<u>Rosario Strait</u>											2
<u>Whidbey Island</u>											3
<u>Lawson Reef</u>											4
											5
											6
											7
<u>Reservation Bay</u>											8
<u>Fort Worden</u>											9
											10
											11
											12
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											14
											15
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											24
											25
											26
											27

by L. Heck on 5/5/42

LAC
HRC

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 22, 1942.

~~Division of Hydrography and Topography~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6617

Locality Vicinity of Deception Bass, Rosario Strait, Washington.

Chief of Party R. W. Knox in 1940-1941

Plane of reference is mean lower low water reading

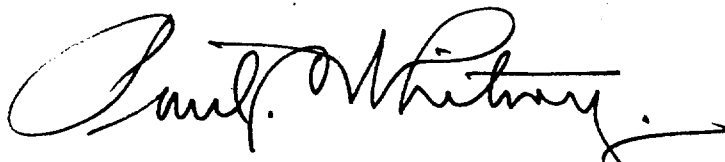
0.5 ft. on tide staff at Reservation Bay

20.5 ft. below B. M. "FLAG"

Height of mean high water above plane of reference is 70 feet.

*When the Reservation Bay gage was not working, Fort Worden
tides were used.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Remarks

Decisions

	Remarks	Decisions
1		484 226
2		484 227 U.S.G.B.
3		482 226
4		484 227
5		
6		
7		
8	Location of tide staff	484 226
9	" " " "	481 227
10		
11		
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M 234		

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6617**

Records accompanying survey:

Boat sheets 999.; sounding vols. (5)...; wire drag vols.;
 bomb vols.; graphic recorder rolls (2)....;
 special reports, etc. (1) report of Fathometer corrections.....

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

Number of positions on sheet	.992.
Number of positions checked	..8..
Number of positions revised	..1..
Number of soundings recorded	6530..
Number of soundings revised (refers to depth only)	..11..
Number of soundings erroneously spaced	..9..
Number of signals erroneously plotted or transferred	..0..
Topographic details	Time ..1hr..
Junctions	Time ..7hr..
Verification of soundings from graphic record	Time

Verification by *C.F. Dennis*..... Total time *40hr* Date *4/16/42*..

Review by *J.A. McQuinn*..... Time *7 hrs.* Date *4/24/42*..

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT

~~PHOTOSTAT OF~~

No. H **H6617**

~~No. H~~

received December 30, 1941
registered January 20, 1942
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			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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RWK.

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTER NO. 6617
Field No. 1440

Washington; Rosario Strait; Vicinity of Deception Pass
Surveyed in December 1940, January 1941; Scale 1:10,000
Instructions dated Sept. 22, 1939; Sept. 27, 1940
(SURVEYOR)

Soundings:

Control:

Dorsey III Fathometer
808 Recorder

Sextant Fixes on Shore Signals

Chief of Party - R. W. Knox
Surveyed by - A. C. Thorson; V. M. Gibbens
Protracted by - W. M. Martin
Soundings plotted by - W. M. Martin
Verified and inked by - C. E. Dennis
Reviewed by - J. A. McCormick, April 24, 1942
Inspected by - H. R. Edmonston

1. Shoreline and Signals

Shoreline and topographic signals are from T-6769 (1940).

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory.

4. Adjoining Surveys

Satisfactory junctions were effected with H-6477 (1939) and H-6607 (1939-40) on the north. H-6615 (1940-41) on the south had not been verified at the date of this review. The area on the west was not surveyed during the 1940-41 season.

5. Previous Surveys

H-433 (1854), 1:100,000; H-1129 (1871), 1:10,000;
H-1886 (1888), 1:20,000; H-4606 (1926), 1:40,000

The few soundings on reconnaissance survey H-433 agree fairly well with those of the present project. H-1129 and H-4606 do not differ materially from the present work in the vicinity of Lawson Reef. The descriptive report, page 2, comments on the absence of important differences between H-1886 (covering the entire area) and the present survey. Bottom characteristics on the old surveys should be used to supplement those obtained on the present survey. Otherwise, the present survey is complete and supersedes the overlapped portions of the older work.

6. Wire Drag Surveys

A single drag strip on H-5929 (1935) W.D. traverses the northwest corner of the newly surveyed area and grounds in Lat. $48^{\circ}23.7'$, Long. $122^{\circ}43.3'$ with an effective depth of 60 feet. The 60-ft. grounding has been added to the present survey.

7. Comparison with Chart 6380 (New Print of 3-6-42)

Depths charted in this area are from surveys discussed in the foregoing paragraphs. Further discussion is unnecessary.

8. Compliance with Project Instructions

Satisfactory.

9. Additional Field Work Recommended

None.

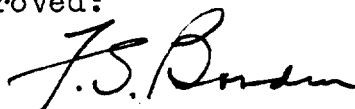
10. Superseded Surveys

H- 433 in part
H-1129 " "
H-1886 " "
H-4606 " "

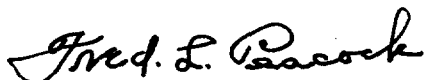
Examined and approved:




Chief, Surveys Section



Chief, Division of Charts


acting Chief, Section of Hydrography


Chief, Division of Coastal Surveys

Applied to Chart 6300

5/11/42

S.R.

" " " 6380

5/11/42

S.R.

Chart 7002 No correction

10/20/42

G.R.

" 5052 "

1/18/43

G.R.

Applied to chart 6376-

10/3/44

JTW

Applied fully to chart 18429

December 6, 1977 B. Hamilton RCS