

6645

U. S. COAST & GEODETIC SURVEY
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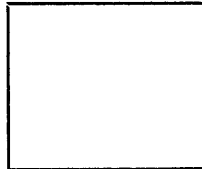
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Acc. No.

6645

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. Colbert *Director*



State: WASHINGTON

DESCRIPTIVE REPORT

Topographic } Sheet No. FIELD 5
Hydrographic }

LOCALITY

San Juan Islands, Reserion Strait
and Lopez Sound and Pass

1939-40

CHIEF OF PARTY

Ray L. Schoppe

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. 5

REGISTER NO. **H6645**

State WASHINGTON

General locality SAN JUAN ISLANDS, ROSARIO STRAITS.

Locality ~~West Side of Rosario Strait and Lopez Sound and Pass~~

Scale 1:10000 Date of survey Dec. 1939 to Apr. 1940.

Vessel Launch No. 3 of SHIP SURVEYOR.

Chief of Party Ray L. Schoppe

Surveyed by J. C. Partington and Alvin C. Thorson

Protracted by W. W. Husemeyer.

Soundings penciled by W. W. Husemeyer

Soundings in fathoms feet ⁴ by sixths of to ⁷ fathoms.
& quarters 7-11 fms

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by _____

Inked by R. H. Carstens

Verified by R. H. Carstens

Instructions dated September 22, 1939.

Remarks: _____

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 5 H-6645 (1939-40)
PROJECT HT-241
LAUNCH 3 - SHIP SURVEYOR.
1939-40

INSTRUCTIONS:

This survey was executed in accordance with Director's Instructions dated September 22, 1939, to the Commanding Officer SHIP SURVEYOR for Project HT-241.

LIMITS OF SURVEY:

This survey covers the area in Rosario Strait bounded as follows: From Fauntleroy Light at the east entrance to Thatcher Pass due east to Lat. $48^{\circ} - 39.5'$ and Long. $122^{\circ} - 45.7'$. Thence due south to Lat. $48^{\circ} - 30'$, thence due east to Long. $122^{\circ} - 45'$, thence south to Lat. $48^{\circ} - 28.45'$, thence due west to Long. $122^{\circ} - 46.7'$, thence south to Lat. $48^{\circ} - 26.8'$, thence due west to the shore at Kellek Point. This area covers the inshore work along portions of Decatur and Lopez Islands, around James Island, Belle Rock Light and Bird Rocks Islands.

This survey further covers the area in Lopez Sound from and including Mud Bay north to a line due west from Trump Island following Lat. $48^{\circ} - 30.2'$ and the area east of Trump Island from a line between topo signals SKI and OT. *Cape St. Mary*

GENERAL DESCRIPTION:

DECATUR ISLAND: For the most part wooded with rocky beaches. There is a sand beach in the small bay west of James Island inside of Decatur Head. Decatur Head is rocky and partly wooded, connected to Decatur Island by a sand spit. From Decatur Head southwest to Lopez Light, there are prominent yellow bluffs back of the shore line. The beach is sand and gravel, and boulder strewn. In Lopez Sound the shore line of Decatur Island is rocky except for sand beach between SIGNALS RAT and ABLE.

LOPEZ ISLAND: The outside coast of Lopez Island is rocky and wooded through out except for sand beach between Signals VIM and DER. The inside coast is rocky and wooded through out except for several small beaches in the vicinity of Signals FALL, IRE, and OFF.

JAMES ISLAND: Rocky and wooded through out.

FORTRESS ISLAND: A barren rock with steep rocky sides.

CENTER ISLAND: A heavily wooded island with rocky shoreline.

TRUMP ISLAND: Wooded on top, steep rocky shoreline.

RAM ISLAND: Just west of Lopez Pass there is a string of rocky islands. The most southerly and larger, Ram Island, is wooded.

SURVEY METHODS:

The signals and shoreline on this sheet in Rosario Strait are from Topographic Sheet Field No. "D" and "E". The signals shoreline in Lopez Sound are from Topographic Sheet Field No. "F". Topographic signals were located according to standard practise.

Depths were determined by wire and leadline from Launch No. 3. Lines were run on ranges and positions determined by three point fixes. Methods was in accordance with hydrographic manual.

DISCREPENCIES:

A sounding of 8³/₄ fathoms was recorded on 9a day, Lat. 48°- 30.85' and Long. 122°- 47.07'. This must have been an erroneous reading on leadline or an error in recording. The depth was disapproved. In the plotting of smooth sheet the 8³/₄ fathom sounding was not plotted, but rather the 13 fathom sounding plotted as found in the investigation of the area on z-day, positions 100 to 108z.

Rejection accepted.

A sounding reducing to 1 5/6 fathoms in Lat. 48°- 30.97' and Long. 122°- 47.18' (Pos. 36 r) was believed to be an erroneous recording and thoroughly investigated but could not be verified. Lieut. Thorson recommended that it be removed from record. The sounding was however plotted on the smooth sheet even tho the investigation of the sounding seems complete and appears to disapprove the existence of such shoaling. Reduced soundings in this vicinity are 5¹/₂ to 5 5/6 fathoms.

sdg not
inserted as it
was considered
disproved
40-86, 5-day
R.H.C.

Rejection accepted.

This Descriptive Report to this point is verbatim from pencil notes of Lieut. Thorson, excepting where an addition has been made under Discrepancies and enclosed in single parenthesis.

Lieut. Thorson notes there were several days when soundings appear too deep or shoal when boat sheet ^{tide} reductions were made from predicted tides at Port Townsend corrected to Burrows Bay and Lopez Sound, and a note appears on the Boat Sheet with reference to "l" and "m" days, and probably attributed to by storm tides. Soundings as reduced for Smooth Sheet appear satisfactory as respect to cross lines and lines adjacent.

DANGERS:

Two additional shoals are located, one of 4¹/₂ fathoms (Lat. 48°- 27.01'; Long. 122°- 47.29') and the other of 8 1/8 fathoms (Lat. 48°- 26.98', Long. 122°- 47.14'), east southeast of Kellett Ledge.

COMPARISON WITH PREVIOUS SURVEYS:

The present survey in Lopez Sound compares favorably with the general bottom configuration secured in 1891, Register No. 2114, although it appears the datum of MLLW was assumed below the MLLW datum of the present survey since the old survey gives shoaler soundings.

The present survey offshore and east off Lopez and Decatur Islands in general gives a greater depth of water than shown in the survey of 1887, Register 1814. The exceptions are the two shoals developed to the ESE of Kellett Ledge, and a shoal developed in the vicinity of Lat. $48^{\circ} - 28.9'$, Long. $122^{\circ} - 47.75'$. Depths of the old survey appear to be about one fathom shoaler than those of the new survey. Fifty fathom deeps were found in the new survey to the west and the south southwest of Bird Rocks Island, and another extended over a larger area to the east of James Island. ✓ See Rev. par. 5b

This sheet is joined on the south by Sheet Field No. 3 and to the east by Sheet Field No. 5. ^{H-6577(1940)} The junctions of the respective sheets are very satisfactory. ✓

CROSSINGS:

The required number of cross lines were run and all crossings are in good agreement. ✓

TIDE GAGES:

Two tide gages were in operation, one located in Burrows Bay (in Lat. $48^{\circ} - 29.45'$; Long. $122^{\circ} - 40.88'$), and the other in Lopez Sound to the east of Trump Island (and in Lat. $48^{\circ} - 30.15'$, Long. $122^{\circ} - 49.35'$). ✓

As far as possible, all the soundings on the outside coast, east of the Lopez Pass entrance to Lopez Sound, are referred to the Burrows Bay tide gage, and those within the Sound being referred to the gage therein and identified as the Decatur tide gage. Some reducers had to be computed from other references on various days because of the inoperation of the respective gages. ✓

The instructions called for a gage to be located in Mud Bay but such a location was not desirable due to shoal water. ✓

TIDAL DATA:

Tide reducers for Dec. 14 and 15, 1939, a and b days, were computed using Anacortes (Wash.) tides as the reference, in accord with Directors letter of July 11, 1940 (File No. 30-CWS)

Tide reducers for c, d, e, f, g, h, j, l, part of m, p, q, r, s, t. days were computed directly from Burrow Bay tides.

On k day Decatur tide reducers were used as computed from Burrows Bay tides, and Decatur tide reducers used for part of m day, for n day, x, y, bb, part of aa, and ee days directly as computed from Decatur tides.

On March 19, z day, Burrows Bay reducers were used as computed from Decatur tides, and for operations on v and w days, Decatur tide reducers were computed from Burrow Bay tides. For April 1 and 4th, cc and dd days for Burrows Bay and Decatur respectively, reducers were computed from Aleck Bay tides.

Copy of Director's letter of July 11, 1940 to Officer in Charge of Oakland Processing Office - File Reference No. 30-CWS, Subject: Tide Data.

Reference is made to your letter of July 3 requesting hourly heights from the tide gages at Burrows Bay and Decatur Island for the reduction of soundings in Rosario Straits.

The gage at Burrows Bay was not in operation on December 14 and 15, 1939 and for these days it will be necessary to use Anacortes tides with necessary allowances for differences in time and range. Hourly heights and high and low waters for Anacortes for these days are enclosed.

The gage at Decatur Island was not in operation on the dates requested, between February 28 and March 15, 1940, making it necessary to use Burrows Bay tides with necessary allowances for differences in time and range. High and low waters for Burrows Bay for the days needed are enclosed. Hourly heights for this station are already available in your office.

No tide observations are available for Burrows Bay for the dates requested, between March 18 and April 4, 1940, making it necessary to use Decatur Island tides and Aleck Bay tides with necessary allowances for differences in time and range. High and low waters for Decatur and Aleck Bay for the days needed are enclosed. Hourly heights are already available in your office.

Time differences and range ratios between the different stations can be determined from the following relationship.

	HWI	LWI	Mean Range	MLLW on staff
Aleck Bay	3.83 hours	9.70 hours	3.9 feet	1.1 feet
Decatur Island	4.50 "	10.54 "	4.2 "	0.8 "
Burrows Bay	3.95 "	9.81 "	4.5 "	2.8 "
Anacortes	4.26 "	10.24 "	4.8 "	8.6 "

/s/ J. H. Hawley,
Acting Director.

GEOGRAPHIC NAMES:

For Geographic Names see Descriptive Reports for topographic sheets D, E, and F, SHIP SURVEYOR 1939 and 1940.

LANDMARKS FOR CHARTS:

Form 567, Landmarks for Charts has previously been supplied, accompanying triangulation data sent in by this Office in 1940 and consisted principally of Coast Guard maintained lighthouses and navigation lights.

STATISTICS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 5 H-6645 (1939-40)

DATE	DAY	HAND LINE			WIRE		
		NUMBER POSITIONS	NUMBER SOUNDINGS	STATUTE MILES	NUMBER POSITIONS	NUMBER SOUNDINGS	STATUTE MILES
1939							
Dec. 14	a	46	172	5.5	6	12	0.2
15	b	11	47	1.5	40	108	5.1
1940							
Jan. 17	c	80	288	8.7	97	266	11.3
18	d	99	398	10.6	81	221	9.9
20	e	86	302	8.8	78	170	8.0
22	f	91	288	9.1	102	269	12.1
23	g	68	270	7.5	108	287	13.9
24	h	69	255	8.2	105	287	12.7
25	j	45	153	4.3	170	349	15.2
26	k	108	440	13.3	17	52	2.0
Feb. 27	l	233	731	20.1			
28	m	99	390	7.0	102	271	10.3
29	n	96	334	9.9			
Mar. 2	p	15	43	1.6	166	431	14.0
5	q	223	710	18.5	10	23	0.8
6	r	143	514	11.7	103	247	6.6
7	s	76	238	4.6	10	29	1.2
8	t	144	476	11.5	41	99	3.2
13	u	43	142	2.0	173	354	16.6
14	v	38	135	3.3	183	495	16.3
15	w	205	868	19.5	5	10	0.1
16	x	190	886	17.5			
18	y	158	502	11.0	45	125	4.3
19	z	105	428	5.2	90	224	8.2
20	aa	155	561	12.2	82	210	4.6
21	bb	186	708	16.8	21	63	2.4
Apr. 1	cc	11	33	0.7	94	227	9.0
4	dd	218	780	23.1			
5	ee	46	136	2.6	38	94	3.4

	<u>HANDLINE</u>	<u>WIRE</u>	<u>COMBINED</u>
Total Number Positions	3077	1967	5044
Total Number Soundings	11228	4923	16151
Statute Miles Sounding	276.3	191.4	467.6

Area in square statute miles - 15.5

FIELD SHEET 5 H-6645 (1939-40)

TRIANGULATION SIGNALS

Boulder 1854
Cent 1939
Chute, E. Mud Bay 1939
Fortress, 1889 -1939
Jam 1939
Jon 1939
Kellett 1889
Lopez Lite 1939
Nob 1939
Rip 1939
Spar 1939
 Lopez Sound, ww tel. pole 1939

Bird Rocks 2 1885
Center Id. Flag 1939 (Chet)
Crab 1889
Belle Rock Lite 1939
Decatur Id., banner on tree (Ner) 1939
Fin 1939
Hunters Bay, east gable (Yes) 1939
Fauntleroy L. H. 1939
Plow 2 1939
Rock 1889
Triple 1939

TOPOGRAPHIC SIGNALS

FROM TOPO SHEET NO. "D"

T-6803 (1939-40)

Chim	Der	End	Far	If	Job	Mut	Quit
Root	SO	Tar	Flag	War	Wil	Zo	

FROM TOPO SHEET NO. "E"

6804
 T-~~6803~~ (1939-40)

Abe	Awa	Art	Ale	Bow	Ban	Big	Box
Bit	Boo	Car	Cor	Cat	Dog	Del	Dolphin
Don	Elm	Erg	Fog	Gas	Gap	Ham	Ida
In	Jip	Keg	Kit	Ker	Lon	Las	Lag
Mir	Mum	Nag	Nite	Owl	Old	Out	Oar
Pile	Pole	Post	Pas	Quo	Rug	Rap	Red
Sam	Shed	Stu	Sap	Sok	Shack	Tim	Top
Urp	Vol	Vim	Yel				

FROM TOPO SHEET NO. "F"

T-6737 (1939-40)

Able	Ace	Act	Alf	Am	Amy	An	Aro
Ara	Axe	Bag	Bil	Brik	Bo	Bud	Can
Cairn	Cow	Chi	Cul	Coon	Doc	Did	Dirt
Dor	Dum	Es	Eno	Erg	Fee	Fil	Fall
Fish	For	Flo	Finis	Fuz	Ga	Gip	Gene
Gro	Gal	Gee	Gul	Go	Heart	Hus	He
Him	Had	Ira	Ire	Ink	Jew	Jos	Jo
Jil	Kite	Ko	Kurt	Ken	Kis	Lep	Lot
Lu	Lux	Lo	Lip	Lug	Lee	Love	Lem
Lie	Mum	Meg	Mas	Men	Me	Mis	Mel
Mil	Nig	Nox	Nick	No	Nut	Ox	Ole
Ot	Once	Off	Op	One	Pro	Poi	Pus
Pen	Pal	Pier	Pot	Quiz	Quel	Reed	Rut
Ro	Rat	Rot	Rit	Rex	Slim	School	San
Six	Sic	Ski	She	Tor	To	Tut	Tip
Ten	Tee	Tog	Tri	Tis	Ump	Um	Vi
Voo	Viv	Vent	We	Whiz	Wet	Wop	Wo
Wik	Xi	Xo	You	Yo	Yor	Zel	Zip

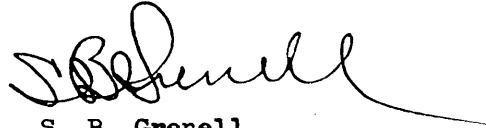
STATEMENT, to accompany
Descriptive Report
HYDROGRAPHIC SHEET FIELD NO. 5 H-6645(1939-40)

H6645

The smooth plotting on this sheet, and the penciling of soundings was done by William W. Husemeyer, Engineering Draftsman, under the general supervision of Lieut. (jg) Walter J. Chovan, and Lieut. S. B. Grenell at the Oakland Processing Office.

The depth curves on the sheet, and this descriptive report was written by Willaim W. Husemeyer.

The completed smooth sheet has been inspected and is approved.



S. B. Grenell,
H. and G. Engineer,
Officer in Charge,
Oakland Processing Office.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6645**

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

Number of positions on sheet <i>5044</i>
Number of positions checked <i>116</i>
Number of positions revised <i>51</i>
Number of soundings recorded <i>14151</i>
Number of soundings revised <i>275</i>
Number of soundings erroneously spaced <i>27</i>
Number of signals erroneously plotted or transferred <i>9</i>

Date: *June 26, 1941*

Verification by *R.H. Carstens*

Time: *180* hrs

Review by *Harold W. Murray*

Time: *17 hrs.*

HYDROGRAPHIC SURVEY NO. H6645

Smooth Sheet One

Boat Sheet One

Records; Sounding 14 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

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

Hydrography: Total Days 29 ; Last Date Apr. 5, 1940

Remarks _____

Remarks

Decisions

	Remarks	Decisions
1		484227
2		"
3		484228
4		"
5		485227
6		485228
7		484228
8		485227
9		484227
10	Not used for Cape St. Mary elsewhere: dis- regard as there is a Kellett Bluff to N.W of Henry I.	
11		484228
12		"
13	For title	485228
14		484228
15		484228
16	For title	484227 U.S.G.B
17		484228
18		"
19		485227
20		485228
21		485227
22		484227
23	For title	485229
24	Location of tide staff - off sheet.	484226 U.S.G.B
25		
26		
27		

GEOGRAPHIC NAMES
Survey No. **H6645**

Name on Survey	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	
	A.	B.	C.	D.	E.	F.	G.	H.	K.							
<u>Belle Rock</u>																1
<u>Bird Rocks</u>																2
<u>Cape St. Mary</u>																3
<u>Center Island</u>																4
<u>Decatur Head</u>																5
<u>Decatur Island</u>																6
<u>Hunter Bay</u>																7
<u>James Island</u>																8
<u>Kellett Ledge</u>																9
Kellett Point																10
<u>Lopez Island</u>																11
<u>Lopez Pass</u>																12
<u>Lopez Sound</u>																13
<u>Mud Bay</u>																14
<u>Ram Island</u>																15
<u>Rosario Strait</u>																16
<u>Shoal Bight</u>																17
<u>Small Island</u>																18
<u>Thatcher Pass</u>																19
<u>Trump Island</u>																20
<u>Fauntleroy Pt.</u>																21
<u>Dot Rock</u>																22
<u>San Juan Islands</u>																23
<u>Burrows Bay</u>																24
																25
																26
																27
																28

Names underlined in red approved
by L. Heck on 7/1/41

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H **H6645**

Verified and Inked by *R.H. Carstens*

Date *June 26, 1941*

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering.
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓
12. The spacing of soundings as recorded in the records was closely followed. ✓
13. The bottom characteristics were shown on outstanding shoals. ✓
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
16. All junctions were transferred. ✓
17. The notation "JOINS H" was added for all contemporary adjoining or overlapping sheets now registered. ✓
18. The depth curves have been drawn to include the significant depths. ✓
19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
20. Heights of rocks were checked against range of tide. ✓
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. *All rock awash symbols were erased and reinked to secure the desired legibility* ✓
22. Unnecessary pencil notes have been removed. ✓
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. ✓
24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
25. Degree and minutes values and symbols have been checked. ✓
26. Source of shoreline and signals (When not given in report).
Given in report
27. Depth curves were satisfactory ~~except as follows:~~

28. Sounding line crossings were satisfactory ~~except as follows:~~

29. Junctions with contemporary surveys were satisfactory ~~except as follows:~~

30. Condition of sounding records was satisfactory ~~except as follows:~~

31. The protracting was satisfactory ~~except as follows:~~

32. The field plotting of soundings was satisfactory except as follows:
*sdgs from 1-25 fms were plotted in fms and sixths by field party
necessitating changings sdgs to fms and quarters
between 7 and 11 fms and dropping sixths to 1/6
from 11-25 fms*

33. Notes to reviewer:

msc

80-AB

July 3, 1941.

To: The Commanding Officer,
U.S.C. & G.S. Ship SURVEYOR,
601 Federal Office Building,
Seattle, Washington.

Through: Inspector, Seattle Field Station.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Information concerning water signals.

During the verification of hydrographic survey No. H-6645, no information could be found in the hydrographic or topographic records concerning signals FAR and QUIT which stood in the water a considerable distance offshore. A tracing showing the location of the signals is enclosed.

It is believed that the officers who worked in that locality may be able to recall the signals and it is requested that, if possible, you inform this office whether the signals were on piles or other objects which should be charted or whether they were of a temporary nature.

The topographic survey was made by Lieut. (jg) C. R. Reed and the hydrographic survey by Lieutenants Thorson and Partington.

Acting Director.

Enclosure

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY NO. 6645 (1939-40) FIELD NO. 5

Washington, San Juan Islands, Lopez Sound and Pass
Surveyed in December 1939 - April 1940, Scale 1:10,000
Instructions dated September 22, 1939 (SURVEYOR)

Soundings: Hand Lead
and Machine

Control: Three-Point Fixes
on Shore Signals

Chief of Party - Ray L. Schoppe
Surveyed by - J. C. Partington and Alvin C. Thorson
Protracted by - W. W. Husemeyer
Soundings plotted by - W. W. Husemeyer
Verified and inked by - R. H. Carstens
Reviewed by - Harold W. Murray, June 28, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

The shoreline and signals originate with 1939-40 plane table surveys T-6737, T-6803, and T-6804.

Signals Far and Quit in Lat. $48^{\circ} 27.3'$, Long. $122^{\circ} 48.7'$ falling 200 to 300 meters offshore in depths of 2-1/2 fathoms and originating with T-6803 (1940) are undescribed. Other off-lying signals on the sheet are usually on piles or anchored floats. This matter has been referred to the field party.

On pile's bare
10' MHW. See
Letter dated
July 19, 1941
attached to
D.R.
HWM 8/29/40

2. Sounding Line Crossings

Agreement of sounding line crossings is excellent.

3. Depth Curves

The usual depth curves may be satisfactorily drawn including portions of the low water line.

4. Junctions with Contemporary Surveys

The junctions on the southeast with H-6577 (1940) and on the east with H-6607 (1939-40) are satisfactory.

Junctions on the north will be considered when that work is received from the field.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTATS~~

No. H **H6645**
~~BOOK~~

received Apr. 9, 1941
 registered Apr. 15, 1941
 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	✓	<i>HR</i>	<i>Pages 1 & 2</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

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

✓ *TBR*

L.A.C.
H.C.

TIDE NOTE FOR HYDROGRAPHIC SHEET

Coastal Surveys

May 12, 1941

Division of ~~Hydrography and Topography~~

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

Plane of reference approved in
14 volumes of sounding records for

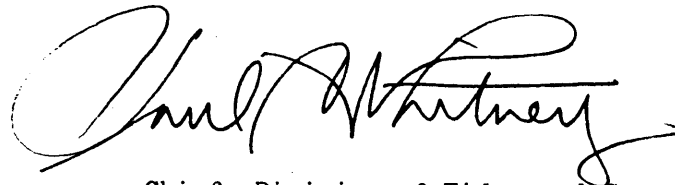
HYDROGRAPHIC SHEET 6645

Locality Lopez Sound and Pass, San Juan Islands

Chief of Party: R. L. Schoppe, 1939-1940
Plane of reference is mean lower low water reading
0.8 ft. on tide staff at Decatur Island
8.6 ft. below B. M. 1
(0.8 ft. on tide staff 1 at Burrows Bay
(2.8 ft. on tide staff 2 at Burrows Bay
11.4 ft. below B. M. 1

Height of mean high water above plane of reference is 6.8 feet at
Decatur Island; 7.1 feet at Burrows Bay.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

5. Comparison with Prior Surveys

- a. H-333 (1852) and H-433 (1854), Scales 1:214,240 and 1:100,000

These are early small scale reconnaissance surveys. They reveal no information that needs specific consideration in this review.

- b. H-1814 (1887) and H-2114 (1891), Scales 1:20,000

These surveys taken together cover the entire area of the present survey. The plane of reference on H-1814 is 1.3 feet below the plane on the present survey.

General agreement of soundings is quite good. It is noted, however, that many hand lead least depths on the shoal areas on the old surveys vary about 1 to 2 feet shoaler. An example is the 4-2/6 fathoms on H-1814 in Lat. 48° 30.96', Long. 122° 47.0' which falls near a 4-4/6 fathom on the present survey. Several factors may contribute to these consistent differences, one of which is the possibility that the lead line was read in the bottom of the wave trough. Most of these shoal soundings are therefore not necessarily considered the true least depths and are not being carried forward.

Several conflicts were noted in the comparison. The two 3-3/4-fathom soundings (one charted) on H-2114 in Lat. 48° 30.15', Long. 122° 51.7' are incorrectly reduced. The correct depths, 5 fms., agree with the present survey. The charted 8-fm. sounding in Lat. 48° 29', Long. 122° 51' originating with an 8-3/4-fathom depth on H-2114 is actually 8 fathoms 5.6 feet and could normally be plotted as 9 fathoms which agrees with the present survey. No information could be found on these old surveys regarding an indication of the reported sunken rock (P.D.) noted by the topographer on T-6737 (1939-40) in Lat. 48° 29.5', Long. 122° 49.2'. This rock falls in depths of 1-2/6 fathoms and is only 140 meters from a 1/2-fathom depth on H-2114. This sounding was not carried forward since all the depths in this area are slightly shoaler than the present survey. The present survey with the indicated additions supersedes these surveys.

6. Comparison with Chart 6380 (New Print date 4-13-40)

a. Hydrography

Hydrography shown on the chart originates with surveys discussed in previous paragraphs of this review.

b. Aids to Navigation

The fixed aids agree closely with their charted positions, and satisfactorily mark the features intended.

7. Compliance with Instructions for the Project

The survey complies with the Instructions for the Project.

8. Condition of Survey

a. The sounding records are neat and legible.

b. The protracting and plotting were quite accurate. Soundings between depths of 1 to 25 fathoms were plotted in fathoms and sixths instead of the units prescribed by the Hydrographic Manual. These were revised. Symbols of rocks awash or sunken were not legibly inked and were revised.

c. The Descriptive Report was clear and satisfactorily covers all matters of importance.

9. Additional Field Work Recommended

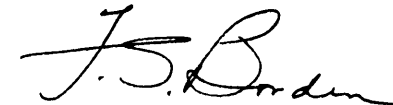
This is a very satisfactory survey. When convenient, it may be desirable to investigate the reported rock (P.D.) in Lat. $48^{\circ} 29.5'$, Long. $122^{\circ} 49.2'$ with a wire drag. (See par. 5b, above) This rock was transferred from T-6737 (1939-40). The present survey does not indicate any kelp in this area.

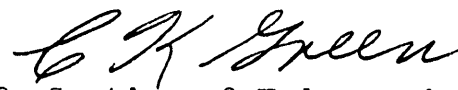
10. Superseded Surveys


H- 333 (1852)	In part
H- 433 (1854)	" "
H-1814 (1887)	" "
H-2114 (1891)	" "

Examined and approved:


Chief, Surveys Section


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of Coastal
Surveys

8
POST-OFFICE ADDRESS:

Commanding Officer
U.S.C. & G.S.S. SURVEYOR
601 Federal Office Bldg.
Seattle, Washington

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY
Kodiak, Alaska
July 19, 1941

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

From: The Commanding Officer
U.S.C. & G.S.S. SURVEYOR

Subject: Information concerning water signals

Reference: 80-AB

Referring to your letter dated July 3,
1941, the two signals FAR and QUIT were on single
piles projecting about ten feet above high water.
Sketch returned herewith.

✓
noted as being
10' at M.H.W.

G.C. Mattison

G. C. MATTISON
Commanding Officer
U.S.C. & G.S.S. SURVEYOR

Enclosure

GCM:EHB:tg