6746

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

6746

Type of Survey Hydrographic

Field No. 1241 Office No. H-6746

LOCALITY

State Washington

General locality ~~South side San Juan Islands~~ San Juan Archipelago

Locality ~~Iceberg Pt. to Eagle Pt., San Juan Island~~ Middle Channel and Vicinity

1941-42-43

CHIEF OF PARTY

SURVEYOR EXPLORER

G. C. Mattison & J. H. Peters

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

Form 537
Ed. Dec. 1930

REG. NO. H6746

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.

Field No. 1241

REGISTER NO. H-6746

State Washington

General locality ~~South side, San Juan Islands~~ San Juan Archipelago

Locality ~~Iceberg Point to Eagle Point, San Juan Island~~ Middle Channel and Vicinity

Scale 1:10,000 Date of survey ~~Dec. 6, 1942 to Feb. 26 1943~~ Oct. 18, 1941 to Feb. 26, 1942

Vessel SURVEYOR EXPLORER

Chief of Party G. C. Mattison J. H. Peters

Surveyed by ~~E.B.Brown, H.S.Cole~~ J.C.Partington, C. LeFever, K.S.Ulm, C.J.Wagner,

Protracted by R. M. Sylar

Soundings penciled by R. M. Sylar

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by A.R. STIRNI

Verified by A.R. STIRNI

Instructions dated September 22, 1939
supplemental instructions dated Dec. 13, 1940

Remarks: ~~smooth sheet & plotting by Seattle Processing Office~~

U. S. GOVERNMENT PRINTING OFFICE

[redacted]

H6746

DESCRIPTIVE REPORT
to accompany

HYDROGRAPHIC SHEET FIELD NO. 1241

ICEBERG POINT TO SAN JUAN CHANNEL, WASHINGTON

Scale 1:10,000

U.S.C. & G.S.S. SURVEYOR - G. C. MATTISON, Comdg.

Project CS 241

INSTRUCTIONS:

Authority for this work is contained in The Director's Instructions dated September 22, 1939 and Supplemental Instructions dated December 13, 1940.

LIMITS:

This sheet extends from Iceberg Point on the east to longitude 123°08' on the west and from latitude 48°25.5' on the south to approximately 48°27.5' on the north.

CONTROL:

This sheet is on the North American 1927 datum. Triangulation stations were located in 1940 except for Iceberg 1854 and San Juan 1867. Topographic signals were located on topographic sheets of the current field season except for stations GUD, IN, TIL, OUT and NUB; these were obtained from topographic sheet, Field letter, "D" executed in the winter season 1939-40 by the Ship SURVEYOR, R. L. Schoppe, Commanding.

SURVEY METHODS:

Standard methods were used throughout. Positions were obtained by visual fixes on signals. Sounding lines were run using ranges on shore objects. Hydrography was done using ship's launches, length 32 feet, draft 3½ feet.

Depths were measured in fathoms by the 808A type depth recorder except for certain shoals where both leadline and depth recorder were used to obtain the least depths. The least depths were obtained with the launch stopped in the water and drifting over the shoal. It was the usual practice to take bar checks before starting hydrography in the morning, at noon and after completion of the day's work. At the same time the speed of the Stylus arm was measured with a stop watch and the revolutions per minute were found to be within the required accuracy when the middle reed was vibrating at a maximum. In all cases the "initial" was set to measure true depths below the water surface and not depths below the fish. Bar checks were made with the

bar lowered to two fathoms and four fathoms below the surface of the water.

DANGERS:

Practically all of the shoals on this sheet are marked with kelp which is visible at slack water. Between the islands and in the entrance to San Juan channel there are strong currents which tow the kelp under. Most of the shoal indications were investigated by anchoring a buoy on or near the shoal. By drift sounding with fathometer and lead line the least depth was found. A note in the sounding volume describes the method used. There are numerous rocks awash and sunken rocks which are within 200 meters and 100 meters of the shore line. At the entrance to Outer Bay, position 45, d day, sounding least depth 3-1/6 fathoms, Latitude 48°25.78', Longitude 122°53.43', is well marked with kelp. In the entrance to the little bay (Jones Bay) east of Richardson Light are two sunken rocks, one least depth of ½ fathom, position 11, d day; the other least depth 5/6 fathoms, position 12, d day; the ½ fathom sounding a little west of entrance and the 5/6 fathoms a little east of entrance. It is about 90 meters between the soundings. In the little passage between Secar Rock and ~~St~~ Charles Island is a rock ~~awash~~ bares ~~½~~ 3 foot at M.L.L.W., middle sounding between positions 149 and 150 k day and 115 meters south of signal "Sue". A little less than 0.2 mile SSE of Hall Island is a shoal, least depth 1-~~½~~/6 fathoms and just inside the 10 fathom curve, it marks the edge of a very irregular bottom which extends from Hall Island ~~from~~ to this shoal to 0.2 mile SW of Hall Island and extends North to a little islet 0.15 mile WNW from Hall Island. About 0.13 mile 175° south of Signal "Ira" are two rocks awash, one position 46 p day, bares 3 feet MLLW and the other position 47, p day, bares ~~1½~~ 2 feet MLLW. Fifty meters SE of these rocks awash is a sunken rock, position 48, p day, least depth 1-~~3~~/6 fathoms. All of these are marked by kelp. The shoal north of Long Island at Latitude 48°26.72', Longitude 122°55.45; position 91, p day and least depth of ~~2~~ 1¾ fathoms, the chart shows least depth of 1¼ fathoms, it is recommended that the chart sounding be accepted for least depth of this shoal as there were strong currents and the water was rather choppy at the time this sounding was taken. At Mummy Rocks a rocky reef extends about 110 meters to the NW from signal "My" with rocks awash and sunken rocks and about 150 meters to the SE, rocks awash and sunken rocks. (Davis Pt) One hundred and eighty meters south of signal "Pod" and 80 meters ahead of position 169, m day a rock bares ~~½~~ 6 feet at MLLW. About 90 meters astern of position 170, (east of "Pod") m day, a rock bares about 6 feet at MLLW.

83

φ 48-24.4 λ 122-53'

φ 48-28.1 λ 122-54.6

φ 48-27.0' λ 122-55.7'

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It is recommended that the following shoals should have more development to determine the least depth.

The second sounding after position 78, j day, 2-4/6 fathoms, Latitude 48°26.33', Longitude 122°54.39' Development accomplished in 1942-43 on this sheet

The 3-5/6 fathom sounding on position 141, j day, Latitude 48°26.32', Longitude 122°54.48' "

The 4 fathom sounding, 5th sounding after position 155 j day, Latitude 48°26.29', Longitude 122°54.81' and the first sounding before position 156, j day, 4-1/6 fathoms, Latitude 48°26.21', Longitude 122°54.80' "

The third sounding after position 157, m day, 8-4/6 fathoms, Latitude 48°26.15', Longitude 122°55.85' "

The first sounding before position 56, l day, ~~8-2/6~~ 7 1/4 fathoms, Latitude 48°26.95', Longitude 122°55.17' "

The fifth sounding after 116 l day, 7 3/4 fms, at Lat 48°26.99 Long 122° 55.40

From old sheet rocks bare at low tide, Latitude 48°27.22', Longitude 122°55.2' were not investigated by the launch. Investigated in 1942

ANCHORAGES:

A good anchorage for large ships is in 11 fathoms sand bottom approximately 600 meters SE of Richardson ~~light~~. Smaller craft can run up in Mackaye Harbor and anchor in most any depth.

Respectfully submitted,

V. M. Gibbens

V. M. GIBBENS
H. & G. Engineer
U.S.C. & G. Survey

Approved and Forwarded:

G. C. Mattison

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

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TABLE OF STATISTICS
to accompany

LAUNCH HYDROGRAPHIC SHEET FIELD NO. 1241

ICEBERG POINT to SAN JUAN CHANNEL, WASHINGTON

Scale 1:10,000

Date	Day Letter	Number of Soundings	Number of Positions	Statute Miles
Oct. 18, 1941	a	810	103	23.5
Oct. 19, 1941	b	1019	128	25.4
Oct. 20, 1941	c	809	121	17.1
Oct. 21, 1941	d	280	42	6.6
Oct. 22, 1941	e	1177	169	21.3
Oct. 29, 1941	f	894	123	17.0
Oct. 30, 1941	g	854	145	16.3
Oct. 31, 1941	h	547	89	9.4
Nov. 1, 1941	j	1039	161	17.3
Nov. 2, 1941	k	977	164	18.5
Nov. 4, 1941	l	939	139	15.4
Nov. 5, 1941	m	1361	176	21.1
Dec. 15, 1941	n	722	143	15.0
Feb. 26, 1942	p	520	91	9.6
Totals		11948	1794	233.5

Area: 6.8 square statute miles

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TIDAL DATA

to accompany

LAUNCH HYDROGRAPHIC SHEET, Field No. 1241

ICEBERG POINT to SAN JUAN SHANNEL

Washington

Scale 1:10,000

ALECK BAY PORTABLE GAGE

M.L.L.W.....3.54 feet

February 26, 1942, p-day, Anacortes tides were used, corrected to Aleck Bay tides by Simultaneous comparison.

For reducing soundings on the boat sheet predicted tides from Port Townsend were used.

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DESCRIPTIVE REPORT

Sheet - H-6746

Soundings were made by the Ship's launch using the 808 type fathometer. Bar checks were made at 2 fathoms to set and check the initial three times each work day whenever possible. The results of these bar checks are shown in the record books at the time they were taken.

The initial corrections have been entered and checked in the records. This correction is determined by a comparison with the position of the initial line at the time of the bar checks. When the initial has varied from the values at the time of the bar checks, the proper corrections have been applied also. Slight variations in the value of the initial were believed to have been caused by worn contacts or wear in the range selector system.

The speed of the fathometer was kept at the proper value by adjusting the governor so that the proper reed was vibrating. A check was made frequently by the officer on the launch. No attempts to check the speed by counting revolutions with a stop watch were made.

The signal name for the Cattle Point Light is CAT in all work done by Brown and Cole, Wagner and others used TEL. Name in records by Brown and Cole changed in record to Tel. E.D.S. (no buoy charted)

The area just inside the buoy on the shoal off Cattle Point is covered with scattered kelp growth.

In shoal areas 50 meter spacing for the lines was attempted. Close development was made in some areas where shoal indications were obtained on the regular line system.

The currents in the vicinity of Cattle Point made it difficult to keep to any rigid system of lines.

The small channel on the inside of the shoal area off Cattle Point was developed by 50 meter lines in approximately the axis of the channel. The 2 1/6 fathom spot in this channel 400 meters SW of the Cattle Point Light was verified and cleared by the wire drag party. H-6820 W.D. not verified at present time 4/4/46

φ 48°-26.83' λ 122°-56.5'

The kelp patches south and southeast of signal WHALE 1940 were investigated by running a system of lines through them using ranges.

Similarly were the shoal soundings at Lat. 48° 26.2' Long. 122° 57.1' and Lat. 48° 26.8' Long. 122° 57.2' investigated. Both of these 3 1/6 fathom spots were subsequently cleared by the wire drag party.

The 1 1/6 fathom area 250 meters SE of the Cattle Point Light was verified and investigated by a series of lines run on strong ranges.

φ 48°-27.2' λ 123°-00.5'

The kelp patch 400 meters south of signal NOSE was investigated by a series of lines on ranges, and also by wandering around through the kelp area on a clear smooth day when any rocks or obstructions would be visible. Nothing was found in either investigation.

MLLW φ 48°-27.35' λ 123°-00.7' 180

The ~~1/2 foot~~ rock in the kelp patch ~~380~~ meters south of signal FAN was investigated on a clear smooth day, and the shoalest depth obtained was by hand lead. The rock was plainly visible at the time the sounding was made. No sounding could be made by fathometer because the tide was too low at the time to allow the launch to pass over the rock.

φ 48-27.28 λ 122-59.15'

The rock just outside the highwater line between signals POLE and HIGH was noted on a sounding line. No other location was obtained. Fix near rock

φ 48°-27.65' λ 123°-01.8'

The small cove just east of signal SAN JUAN is a good small boat anchorage with sand bottom close to shore. The western side of the cove is the best part of the area.

No great discrepancies were noted in the crossings as denoted by the crosslines.

The splits and areas recommended for further development by the Seattle Processing Office were completed.

H. S. Cole, Lieut. jg.,
U.S. Coast and Geodetic Survey.

Approved:

J. H. Peters, Comdg.,
U.S.C. & G.S.S. EXPLORER.

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H-6746

SEATTLE PROCESSING OFFICE NOTES

This sheet was started by the SURVEYOR in the Fall and Winter of 1941-42 and was completed by the EXPLORER in the Winter of 1942-43.

- - - - - - - - - - -

DISCREPANCIES:

In the SURVEYOR's 1941-42 work, vicinity below Hall Island at Latitude 48° 26!0 and Longitude 122° 54!6, the bottom is so broken that it was practically impossible to pick out any discrepancies although a few soundings did appear to be so.

No notable discrepancies were found in the EXPLORER's 1942-43 work.

At Latitude 48° 26!04 Longitude 122° 58!09 Chart #6380 shows a 4 3/4 fm. sounding where a 9 3/4 fm. sounding appears on the sheet. At Latitude 46° 26!40 Longitude 122° 58!42 a 1 1/2 fm. sounding appears on Chart #6380 where a 2 ~~1~~/6 fm. sounding about ~~100~~ 80 meters to the ~~northwest~~ south of this point is the shoalest depth obtained on the ~~sheet~~ bank.

OVERLAY:

Due to the numerous soundings in the shoal areas on this sheet, an overlay was made to show the kelp patches. This was done in preference to putting the kelp on the smooth sheet and obscuring many of the soundings.

Kelp patches transferred to smooth sheet in Washington office

STATISTICS:

Ship	Soundings	Positions	Miles Line	Area Sq.St.Mi.
SURVEYOR	11,948	1,794	233.5	6.8
EXPLORER	7,379	1,748	291.3	9.5
Total	19,327	3,542	524.8	16.3

LEAST DEPTHS ON SHOALS: (See pages following)

Attached to verifiers report.

Approved and Forwarded:

F.H. Hardy, Officer in Charge,
Seattle Processing Office.

Edgar E. Smith

E. E. Smith
Assoc. Cartographic Engineer
Seattle Processing Office.

H6746

COPY

FIELD NOTES ON TIDE REDUCERS

Tide observations in conjunction with the winter season's work (1942-43) of the Ship EXPLORER were made at Richardson, Lopez Island, and Kanaka Bay, San Juan Island. A portable type tide gage was operated at Richardson from December 4, 1942 to February 27, 1943. At Kanaka Bay a tide staff was established on December 10, 1942 and was observed only while work was being done in the area in which the station was considered needed. The staff at Kanaka Bay was destroyed by storm during the period January 12 to February 3, 1943, and was not replaced.

Wire drag work done on sheet 2142 at the 5 fathom bank off Pile Point, Middle Bank, and all ship and launch sonk development on this same sheet will be reduced according to the staff at Kanaka Bay up to the time the staff was destroyed January 12, 1943. Work done at these places after February 12, 1943 to February 27, 1943 is to be reduced to the Richardson gage, the difference between Richardson and Kanaka Bay being so small that the results did not warrant re-establishment of the staff at Kanaka Bay. A comparison of the two stations shows a difference of time of approximately 10 minutes and little or no difference in the range.

Other work on this project not listed above as being reduced to Kanaka Bay tides are reduced to Richardson tides.

Richardson staff reading of M.L.L.W. . . . . 0.2' feet

Latitude, approximate. . . . . 48° 27'

Longitude, approximate . . . . . 122° 54'

(Signed) J. N. Peters, Comdg.,
U.S.C.& G.S.S. EXPLORER

H6746

Copy in Orig Reports

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

COPY

EXPRESS ADDRESS:

Reference 36-mlh

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

April 27, 1943

To: Officer in Charge
Seattle Processing Office
1500 Westlake Avenue No.,
Seattle, Washington

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

Subject: Tide Reducers - Project CS 241.

Reference is made to your letter of April 21, 1943, requesting verification of tide reducers from field tabulations of tide records for Richardson, Washington for 1942 and 1943.

An examination of the original tide records for Richardson shows that due to the relatively high elevation of the zero of the tide staff, the field party found it necessary to increase staff readings by two feet to accommodate them to the height scale of the marigrams. In subsequent field tabulations of hourly heights two different datums were used, accounting for the difference of two feet in the planes of reference for different dates.

Tabulated heights for December 1942, with the exception of December 11th, were referred to the zero of the marigrams which corresponds to an elevation of 2.24 feet below mean lower low water. Tabulated heights for January and February 1943 and for the single date of December 11, 1942 were referred to the zero of the tide staff which corresponds to an elevation of 0.24 foot below mean lower low water. The reducers determined by the field party have been verified from office tabulations and are returned herewith.

(Signed) J. H. Hawley
Acting Director

Enclosure

COPY

TIDAL NOTE - H-6746

(Field No. 1241)

South side San Juan Islands
Iceberg Point to Eagle Point
Washington

Aleck Bay Portable Gage
(used by the SURVEYOR)

M.L.L.W. . . . . 3.54 feet

February 26, 1942, "p" day: Anacortes tides were used, corrected to Aleck Bay tides by Simultaneous Comparison.

For reducing soundings on the boat sheet, predicted tides from Port Townsend were used.

Richardson, Lopez Island, Portable Automatic Gage
(used by the EXPLORER)

Latitude . . . . . 48° 27'

Longitude. . . . . 122° 54'

Staff reading of M.L.L.W.. . . . . 0.24 feet

See Director's letter 36-mlh of April 27, 1943 to Officer in Charge, Seattle Processing Office.

H6746

LIST OF SIGNALS
to accompany

HYDROGRAPHIC SHEET, FIELD No. 1241

6746

Triangulation Stations

San Juan 1867 - 1940
Cattle Pt. Light 1940 (Tel)
Tide Rip 1940
Whale 1940
Har 1940
Do 1940
Light 1940
Richardson Light 1940
Long 1940
Hall 1940
Duck 1940
Windy 1940
Small 1940
Noisy 1940
Iceberg Pt. Light 1940
Jen 1940
Iceberg 1854

Topographic Stations
Current field season sheet T-6900 (1941) ~~T-6906 (1941)~~

Aah	Ike	Gray
Box	Hex	Min
Can	Kit	Oil
Dab	Jim	Rik
Egg	Jig	Plane
Fin	Mag	Lux
Gal	Mal	Fig
Joy	Fox	Mar
Hit	My	Ira
Ivy	Bn	Tom
Pod	Tap	Big
Ben	Air	Now
Chy	Loy	Hat
Cow		

Gus	Mud	Mac
Oar	Nor	Kay
Sow	Mum	Pile
Car	Amy	Hog
Nix	Gas	Gin
Sue	Keg	Cal
Ham	Jax	Don
Gab	Met	Mow
Fog	Nan	Not
Eva	Cop	Wax
Set	Yel	Shag
Cog	Rag	Stu
Pat	Sam	Bug
Tar	Up	Rat
Rus	Tan	Foo
Ole	Low	Run
Tex	Bar	Root

Topographic Stations T-6893
Sheet field letter "D" ~~1939-40~~

Gud
In
Til
Out
Mub

Hydrographic Station
from Vol. 1, Sheet 1241

Hum

Topo T-6906 location used

See next sheet for additional signals.

H-6746

H6746

Additional

LIST OF SIGNALS

Topographic

T-6906 (1942-43)

Ash	Egg	High	Prep	Way
Able	Ear	Ike	Rip	
Beg	Easy	Int	Rag	
Box	Fin	Jim	Red	
Can	Fan	Led	South	
Cloth	Gal	Last	Spot	
Corn	Gul	Leg	Sam	
Cab	Hex	North	Silk	
Cast	Hit	Nose	Tree	
Dab	Hat	Old	Tee	
Door	Har	Pole	Try	
Dry	Hum	Pup	Will	

Hydrographic

none

Triangulation Stations

Cattle Point 2 1940
Trap 1897 (See Report H-6818
Harbor Rock 1897
Avenue 1940 (Re)
San Juan 1940
Tide Rip

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H67[illegible]

Records accompanying survey:

Boat sheets ..1..; sounding vols. 14...; wire drag vols. .0...;

bomb vols. 0.....; graphic recorder rolls 6.....;

special reports, etc. Tracing of Kelp Beds | Transferred to smooth sheet

.....

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

Number of positions on sheet		3542.	
Number of positions checked		181.	
Number of positions revised		8	
Number of soundings recorded		20,000	(Estimate)
Number of soundings revised (refers to depth only)		51	
Number of soundings erroneously spaced		30	
Number of signals erroneously plotted or transferred		.....	
Topographic details	Time	24	
Junctions	Time	16	
Verification of soundings from graphic record	Time	32 32	Scanning graphs (smaller interval)

Verification by A.R. STIRNI Total time 239. Date Mar. 27, 1946

Review by R.H. Carstens Time 54... Date April 10, 1946

H6746

	Remarks	Decisions
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M 234

GEOGRAPHIC NAMES
Survey No. H6746

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Washington									U.S.G.B	1
San Juan Islands										2
Iceberg Point									U.S.G.B	3
Eagle Point										4
Middle Channel										5
Outer Bay										6
Barlow Bay										7
Mackaye Harbor										8
Jones Bay										9
Richardson		(location of tidestaff)								10
Charles I.										11
Secar Rk										12
Long I										13
Davis Bay										14
Davis Pt									USGB	15
Cattle Pt.										16
Inner Passage										17
Eagle Cove										18
Salmon Bank										19
Lopez I										20
San Juan Channel										21
San Juan Archipelago	(suggest this for title, since it applies to entire group, and much of this sheet is South of Lopez I.) L.H.								U.S.G.B	22
										23
										24
Aleck Bay	(location of tidestaff)									25
										26
										27

Names recommended in reconnaissance 4/24/46 L. Heck

M 234

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 21, 1943.

Division of Hydrography and Topography:

Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 6746

Locality South Side of San Juan Islands, Iceberg Point to
Eagle Point, Washington

Chief of Party: G. C. Mattison and J. H. Peters 1941-1943
Plane of reference is mean lower low water reading
3.5 ft. on tide staff at Aleck Bay
9.2 ft. below B. M. 1
0.2 ft. on tide staff at Richardson
15.3 ft. below B.M. 1

Height of mean high water above plane of reference is 6.7 feet at Aleck Bay; 6.6 ft. at Richardson.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT } No. H H6746
PHOTOSTAT OF } No. T

received July 18, 1943
registered July 20, 1943
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			
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40			
62			
63			
82			
✓ 83	Pg 2, 3 & 6 to 13	J.F.R	Examined for land cover.
88			
90			

RETURN TO

82	R.W.Knox

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6746

FIELD NO. 1241

Washington, South of San Juan I., Middle Channel and Vicinity
Surveyed in Oct. 1941 - Feb. 1943 Scale 1:10,000
Project No. CS-241

Soundings:

Handlead
808 Fathometer

Control:

Sextant fixes on shore signals

Chief of Party - J. H. Peters and G. C. Mattison
Surveyed by - J. C. Partington, C. J. Wagner, E. B. Brown and H. S. Cole
Protracted by - R. M. Sylar
Soundings plotted by - R. M. Sylar
Verified and inked by - A. R. Stirni
Reviewed by - R. H. Carstens, April 10, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and signals originate with planetable surveys T-6803 (1940), T-6900 (1941), and T-6906 (1942-43). Additional rock and ledge details were carried forward from T-2302 (1897).

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were drawn satisfactorily.

The numerous, small reefs and pinnacle rocks rising sharply from much deeper water make the bottom very irregular. Inshore there are many rocks awash.

Salmon Bank in contrast to other shoal areas is gently sloping and relatively large. The shoaler spots on the bank are the tops of boulders, 3 to 6 ft. in height.

4. Adjoining Surveys

Satisfactory junctions were effected with H-6818 (1942-43) on the southwest, with H-6747 (1941) on the south, and with H-6577 (1940) on the southeast.

There are no contemporary adjoining surveys in San Juan Channel on the north and in the inshore area on the west.

5. Comparison with Prior Surveys

A. H-433 (1854) 1:100,000

The reconnassaince survey is in poor agreement with the present survey and should be disregarded for charting purposes.

B. H-1629 (1884) 1:80,000
H-2212 (1894) 1:40,000

H-1629 covering Salmon Bank was replotted on H-2212. Development on the prior surveys is relatively sparse and reveals only the generalized configuration of the bottom.

Agreement with the present survey is fair. Some soundings from the prior surveys are probably out of position and should be disregarded, as for example, the 6-3/4 - , 6-, and 4-1/2-fm. soundings (uncharted) in the vicinity of lat. 48° 25.5', long. 122° 58.95' falling in present depths of 8-1/4 to 6-1/2 fms.

The 6-1/4-fms. sounding in lat. 48° 26.78', long. 122° 57.36' falling in present depths of 8-3/4 to 11 fms. is considered disproved by present development. Present depths of 7-1/4 fms. fall about 130 m. to the south.

The 4-1/4-fms. in lat. 48° 26.4', long. 122° 58.18' falling in present depths of 8 to 9 fms. is not considered disproved and has been carried forward pending additional work. (The 4-1/4 was erroneously plotted on H-1629 and H-2212 as 4-3/4 and is charted as 4-3/4).

The present survey with the addition of the 4-1/4 is considered adequate to superseded these prior surveys within the common area.

C. H-2641 (1903-04) 1:10,000
H-4592 (1926) 1:10,000
H-4607 (1926) 1:20,000

A few soundings from the surveys of 1926 fall at the eastern and western inshore limits of the present survey. H-2641 covers almost the whole area of the present survey.

Prior depths are in good agreement with present depths.

The 1-1/6 fms. in lat. 48° 26.75', long. 122° 55.48', from H-2641,

falling in present depths of 1-5/6 fathoms, was not considered disproved and has been carried forward as recommended by the hydrographer on page 2 of the Descriptive Report.

With the addition of the 1-1/6 fms. the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 6380 (Latest print date September 15, 1945)

A. Hydrography

Depths charted in this area are mainly from the previously discussed surveys. Supplementary least depths are from the present survey before verification and review.

The 1-1/2-fms. in lat. 48° 26.40', long. 122° 58.42', falling in present depths of about 2-5/6 fms. originates with H. O. Chart 1769. Inasmuch as the bottom in this area is strewn with boulders, there may be depths less than those revealed by the present survey. The 1-1/2 should be retained.

No source was found for the indistinct bare rock or sanding charted in lat. 48° 26.05', long. 122° 53.15'. The chart edition of 1920 has kelp charted at this spot. The symbol probably originates with an imperfection in the reproduction of the kelp symbol. The symbol should therefore be revised to conform to the present survey.

B. Aids to Navigation

The survey positions of aids to navigation are in satisfactory agreement with the charted positions and adequately mark the features intended.

7. Condition of Survey

Intermediate soundings were scanned from the fathograms and added to the smooth sheet in the Washington Office to adequately delineate the bottom in the western half of the survey.

The protracting was accurately accomplished.

The condition of the sounding records and the descriptive report is satisfactory.

8. Compliance with Project Instructions

The survey satisfactorily complies with the instructions.

9. Additional Field Work Recommended

It is recommended that closer development or preferably a wire drag examination be made of Salmon Bank in depths less than 3 fms. and that additional development be accomplished to verify the 4-1/4 fms. in lat. 48° 26.04', long. 122° 58.18', carried forward from H-1629.

Examined and approved:

Robert W. Knox
Chief, Nautical Chart Branch

Earl O. Heaton
Chief, Section of Hydrography

J. S. Gordon
Chief, Chart Division

Raymond B. Eyman
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H-6746

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/23/46	6380	N.J. Stegman	~~Before~~ After Verification and Review Completely applied
5/1/46	6382	N.J. Stegman	~~Before~~ After Verification and Review " "
4/11/47	6300	H.Mae Swen	~~Before~~ After Verification and Review
12-20-77	18429	B. Hamilton/RCS	Fully applied ~~Before~~ After Verification and Review
1.15.85	18434	L. SHUMAR	Fully Applied ~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.

Partially applied before verification (inking) to ch. 6380 12/2/43 GHE.

following sdgs used on chart:

3¼ fm	48°-25.8' ;	122°-53.4'
1¼ "	-25.9' ;	-54.5'
2¾ "	-26.2' ;	-54.5'
3½ "	-26.3' ;	-54.8'
½ "	-26.8 ;	-54.8'
6½ "	-27.0' ;	-55.4'
5 "	-26.6' ;	-56.1
2¼ "	-26.5 ;	-56.4
6½ "	-26.1' ;	-55.8
7½ "	-26.7' ;	-57.4

9 " so. of Iceberg I. & 21 S.E. Hall I. added to fill in space

Partially applied before verification (inking) to ch. 6382 12/18/43 PLM.

See form M 2168-1

Appld to Small Craft Chart 184 1:25,000 mark 11-6-61 RKD.

6382 Revised Rock Symbols through 1968 memo
Strait 7-12-72