8319

Diag. Cht. No. 6380-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. LJ-1156 *Office No.* H-8319

LOCALITY

State WASHINGTON

General locality WASHINGTON COAST

Locality SOUTH BELLINGHAM BAY

19v56

CHIEF OF PARTY

K. B. Jeffers

LIBRARY & ARCHIVES

DATE August 5, 1959

USCOMM-DC 5087

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8319

Field No. LJ-1156

State WASHINGTON

General locality WASHINGTON COAST

Locality SOUTH BELLINGHAM BAY

Scale 1:10,000 Date of survey 5/19/56 - 8/13/56

Instructions dated 24 OCTOBER 1955

Vessel SHIP LESTER JONES

Chief of party K. B. JEFFERS

Surveyed by K. B. JEFFERS, P. A. STARK & J. J. DERMODY

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

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by SHIP PERSONNEL

Protracted by C. A. J. Pauw

Soundings penciled by C. A. J. Pauw

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

REMARKS: depths

U. S. GOVERNMENT PRINTING OFFICE 693019

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8319 (FIELD NO. LJ-1156)
SOUTH BELLINGHAM BAY, WASHINGTON
SCALE 1:10,000 SHIP LESTER JONES K. B. JEFFERS, COMDG.
SURVEYED BY: K. B. JEFFERS, P. A. STARK & J. J. DERMODY

A. PROJECT:

This survey is part of Project 12410 and was executed under supplemental instructions No. 22/MEK S-2-LJ dated 24 October 1955.

B. SURVEY LIMITS & DATES:

General Locality: South Bellingham Bay. (part of)

Field work began on 19 May and ended 13 August 1956.

This survey is joined on the south by H-8317 (HO-1355), on the west by H-8318 (HO-1555) and on the north by H-8320 (LJ-1256).

Progress of inshore work was impeded by lack of power and poor hull design of Launch 176.

C. VESSEL & EQUIPMENT:

This survey was done by Launch 176 and the Ship LESTER JONES.

Model 808 fathometers Nos. 75, 102-S and 107-S were used interchangeably on the ship and launch.

An electric sounding machine with Sheave No. 390 was used for wire soundings.

D. TIDE & CURRENT STATIONS:

A portable tide gage was maintained during the time of this survey (Not on smooth sheet) at the head of Whatcom Waterway, City of Bellingham, Lat. 48°-45'-04" N, Long. 122°-29'-02" W, and was used without time or height corrections to reduce all soundings.

Current Station No. 11, Lat. 48-39.08 N, Long. 122-33.62 W. was observed.

E. SMOOTH SHEET:

The smooth sheet has not been plotted at the time of this report.

F. CONTROL STATIONS: Triangulation position of Cart shown on S.S. Hydro. fixes plotted using topo. location of Cart.

Three new triangulation stations were established in 1956 to extend control: ABNER 1956, CANDY 1956, and INATI 2, 1956. Marked topographic station CART was also located by triangulation. Hydrographic signals were located on Graphic Control Sheets HO-I-55, LJ-B-56 and on manuscruipts T-5586 and T-5587. ~~No topographic stations were located by planetable.~~ A separate sheet listing all control, including hydrographic signals, is attached to sounding volume No. 1.

During the time of the survey, photos covering the eastern shore were sent to the Washington Office for other work and signals were located using only the map manuscripts. Questionable signals were cut in by sextants or relocated after the return of the photographs.

G. SHORELINE & TOPOGRAPHY:

Shoreline on the eastern shore of the survey is from photogrammetric surveys T-5587-N, T-5586-N&S.

Shoreline on the western shore of the survey is from topographic surveys T-1794 and T-1797. HWL from these old surveys was spot checked on graphic control sheets HO-I-55 and LJ-B-56. (Reference: 1956 Graphic Control Report and 1956 Photogrammetric Report).

Where possible and pertinent, the low water line was delineated by the hydrography.

H. SOUNDINGS:

With the exception of a relatively few wire soundings, depths were obtained with Model 808 fathometers calibrated for 800 fathoms per second. Fathometer corrections were based on bar checks and monthly serial temperatures. (Ref: 1956 FATHOMETER CORRECTION REPORT). Appended to this report is an abstract of monthly velocity corrections and also an abstract of the fathometer corrections employed.

Bar checks were taken by the launch twice daily, whenever weather and sea conditions permitted. Although no bar checks were taken on the ship, all the fathometers used on the ship were also used on the launch at various times. Hence all fathometers were bar checked during the season. The results (D-M) indicated that with the exception of phase, it was not necessary to differentiate between individual fathometers when making up the correction curves.

On the launch, the initial was held at zero and on the ship the initial was held at 1.0 fathoms. The ship sounded solely on the fathom scale. The draft of the launch and the ship was 1.5 ft. and 7.8 ft. (1.3 fms.) respectively.

I. CONTROL OF HYDROGRAPHY:

All hydrography was controlled by sextant fixes on shore signals. Micrometer-type sextants were used exclusively and these were checked daily.

No unusual methods were employed and no signals of sub-standard accuracy were used.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate to supersede all prior surveys.

Junctions with contemporary surveys are adequate, and depth curves can be joined.

There are no holidays.

K. CROSSLINES:

Approximately 8 percent of the lines run were crosslines and crossed soundings compare favorably.

L. COMPARISON WITH PRIOR SURVEYS:

Soundings from 1888 survey H-1815 & H-1887 (1:20,000) were transferred to the boat sheet and are generally in good agreement. A detailed analysis will be possible after completion of the smooth sheet.

M. COMPARISON WITH CHART:

Soundings from Chart 6378 were in good agreement with contemporary soundings. ✓

Item 16 of the Preliminary Review, Project CS-241 is a charted islet east of Eliza Id. It was definitely established that this feature covers at high water and should be charted with a rock-awash symbol.

The charted shoal north of Reil Harbor (48-40.15, 122-36.9) was confirmed by positions 14h-15h. ~~See Review~~ not confirmed. 2½ on 14h. ✓

The charted rock-awash at the entrance to Inati Bay was confirmed (48-40.5, 122-37.15). ✓ (C) ✓

The charted 1½ fathom shoal north of Eliza Id. exists but is deeper and further north (48-40.6⁸, 122-35.3)*. The shoalest sounding found during verification was 2¾ fms – Traces on fathogram between positions 116g-116h & 125a-126a are believed to be kelp – AKS. *The ~~reported position~~ feature not ~~substantiated~~ disproved – see the review.

✓ The 1-fathom sounding west of Eliza Id. was confirmed (48-39.3, 122-35.5). ✓
A further and more detailed analysis is dependent upon completion of the smooth sheet.

N. DANGERS & SHOALS:
No new dangers and shoals were found.

O. COAST PILOT INFORMATION:
See special Coast Pilot Report submitted by the Ship LESTER JONES in 1956.

P. AIDS TO NAVIGATION:
Bellingham Bay Rocks Buoy (CG 162, page 180) is approximately in its charted position, as is Pt. Frances Shoal Buoy #2 (page 180). Both were located by sextant fixes and the data recorded in the sounding volumes.
Pt Frances Shoal buoy 2 was not recorded in the records of this survey.

Q. LANDMARKS FOR CHARTS:
The charted tripod in the south bay of Eliza Island no longer exists; isolated piling mark its old location.
The north markers for the measured course are still in existence, but are not being maintained. Personnel of the Ship LESTER JONES made temporary repairs to these structures in 1956.
The building and piers on Eliza Island for the most part, no longer exist. The only remaining building is signal "DEL". The offshore end of the pier ruins is signal "COG". The small pier on the south side of the north bay is more or less maintained. See Graphic Control Sheet HO-I-55 for location of these features.

R. GEOGRAPHIC NAMES:
The charted geographic names are correct with the following exception:
Clayton Bay has been filled in to provide railroad and inter-urban right-of-way. Recommend to DELETE this name from all charts of the area (48-38.4, 122-28.9). Done 4-5-4-H

S. SILTED AREAS:
Practically the entire area of this survey is silted bottom. The smooth plot will adequately delineate this.

T - Y:
Not applicable.

Z. TABULATION OF APPLICABLE DATA:
1955 Descriptive Report forwarded to the Seattle Processing Office
1956 Triangulation Data " " " Washington Office
1956 Graphic Control Report " " " " "
Graphic Control Sheets HO-I-55 & LJ-B-56 forwarded to the Seattle Proc.Off.
* 1956 Photogrammetric Data ~~forwarded to the Portland Photogrammetric Office~~
1956 Tide Data, Whatcom Waterway, Bellingham, forwarded to the Wash. Office.
1956 Tide Curves, Hourly Heights and Reducers " " " " "
1956 Serial Temperatures " " " " "
1956 Velocity Correction Abstract appended to this report.
1956 Fathometer Report, forwarded to the Washington Office.
1956 Fathometer Correction Abstract appended to this report.

* included with 1956 hydrographic records.

1956 Magnetic Data on Station CHUCKANUT, 1887 forwarded to Washington Office.
1956 Current Data on Station No. 11, " " " "
1956 Coast Pilot Report " " " "
1956 Season's Report " " " "

Respectfully submitted,

P. A. Stark

P. A. STARK,
LIEUTENANT, C&GS

TIDE NOTE TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8319 (FIELD NO. LJ-1156)

Tide data was obtained from a portable tide gage maintained at Whatcom Waterway, Bellingham, Lat. 48-45.04 N, 122-29.02 W.

No time or range correction used.

The leveling records were sent to the Washington Office and the plane of MLLW on the staff is 3.4 ft.

Tide reducers were tabulated from curves based on hourly heights scaled from marigrams. For convenience and accuracy, the reducer intervals were 0.1 fm. and 0.2 ft. for all depths. The hourly heights, tide curves and reducers were forwarded to the Washington Office.

USC&GSS LESTER JONES
1956 VELOCITY CORRECTION ABSTRACT
FROM
SERIAL TEMPERATURES

Applicable Depth	April	May	June	July	Aug.	Sept.	Oct.	Nov.
	Corrections in Fathoms							
7	+ 0.02	+0.05	+0.05	+0.06	+0.09	+0.07	+0.06	+0.05
12	+0.04	+0.10	+0.10	+0.12	+0.16	+0.14	+0.12	+0.09
17	+0.05	+0.15	+0.15	+0.18	+0.23	+0.21	+0.17	+0.14
22	+0.07	+0.19	+0.20	+0.25	+0.30	+0.28	+0.23	+0.18
27	+0.09	+0.24	+0.25		+0.36	+0.34	+0.29	
32	+0.11	+0.29	+0.30		+0.43	+0.41	+0.35	
37	+0.13	+0.34	+0.35		+0.49	+0.47	+0.40	
42	+0.14	+0.38	+0.40		+0.56	+0.54	+0.46	
47	+0.16	+0.43	+0.45		+0.62	+0.60	+0.51	
52	+0.18	+0.47	+0.50		+0.68	+0.66	+0.56	
57		+0.52	+0.55		+0.75	+0.73	+0.61	
62		+0.56				+0.79	+0.66	
67		+0.61						

NOTE: The above values are velocity corrections based solely on monthly serials. They were combined with Bar Check and Draft data to obtain the final fathometer corrections.

SHIP LESTER JONES

1956 FATHOMETER CORRECTIONS

(Derived from Bar Check and Serial Data - 1956)

SHIP - FATHOMS

April

+ 0.3	0	to	16
+ 0.4	16	to	45
+ 0.5	45	to	70

MAY - JUNE

+ 0.3	0	to	7
+ 0.4	7	to	18
+ 0.5	18	to	28
+ 0.6	28	to	38
+ 0.7	38	to	48
+ 0.8	48	to	58
+ 0.9	58	to	68

JULY - SEPT.

+ 0.3	0	to	5
+ 0.4	5	to	11
+ 0.5	11	to	19
+ 0.6	19	to	27
+ 0.7	27	to	35
+ 0.8	35	to	43
+ 0.9	43	to	50
+ 1.0	50	to	58
+ 1.1	58	to	66
+ 1.2	66	to	74

OCT. - NOV.

+ 0.3	0	to	7
+ 0.4	7	to	17
+ 0.5	17	to	26
+ 0.6	26	to	36
+ 0.7	36	to	46
+ 0.8	46	to	57
+ 0.9	57	to	67

LAUNCH - FATHOMS

April

+ 0.3	0	to	5
+0.2	5	to	25
+ 0.3	25	to	54
+ 0.4	54	to	75

MAY - JUNE

+ 0.2	0	to	15.3
+ 0.3	15.3	to	25.5
+ 0.4	25.5	to	35.7
+ 0.5	35.7	to	45.7
+ 0.6	45.7	to	55
+ 0.7	55	to	66
+ 0.8	66	to	76

JULY - SEPT.

+ 0.2	0	to	9.5
+ 0.3	9.5	to	18.0
+ 0.4	18.0	to	26.0
+ 0.5	26.0	to	35.0
+ 0.6	35.0	to	43.0
+ 0.7	43.0	to	51.0
+ 0.8	51.0	to	59.0
+ 0.9	59.0	to	67.0
+ 1.0	67.0	to	75.0

OCT. - NOV.

+ 0.2	0	to	6.0
+ 0.3	6.0	to	16.0
+ 0.4	16	to	26
+ 0.5	26	to	36
+0.6	36	to	46
+ 0.7	46	to	56
+ 0.8	56	to	66
+ 0.9	66	to	76

LAUNCH - FEET

April

+ 1.4	0	to	28
+ 1.6	28	to	75

MAY - JUNE

+ 0.8	0	to	14
+ 1.0	14	to	23
+ 1.2	23	to	32
+ 1.4	32	to	55

JULY - SEPT.

+ 1.0	0	to	7
+ 1.2	7	to	19
+ 1.4	19	to	31
+ 1.6	31	to	43
+ 1.8	43	to	55

OCT. - NOV.

+ 1.2	0	to	13
+ 1.4	13	to	25
+ 1.6	25	to	38
+ 1.8	38	to	Rest of A Scale

PHASE

Fathometer

Number	B "SCALE" (A-B)
75	- 0.3
102-S	- 2.5 fms.
107-S	- 1.5

STATISTICS FOR HYDROGRAPHIC SURVEY
H-8319 (LJ-1156) SEASON 1956
SHIP LESTER JONES PROJECT 12410

DATE	VOL. NO.	DAY LTR.	POS.	STAT MI.	L.L. SNDG.
LAUNCH 176 (JONES)					
19 May	10	a	222	35.5	2
20 May	1 & 2	b	207	31.2	5
21 May	2 & 3	c	160	22.5	4
22 May	3	d	128	17.5	-
23 May	3	e	131	19.2	-
24 May	4	f	119	19.7	-
25 May	4	g	171	22.3	3
7 June	5	h	51	6.7	-
10 June	5	j	96	11.6	-
12 June	5 & 6	k	225	32.0	-
13 June	6	l	160	16.2	3
14 June	6 & 7	m	159	16.3	-
20 June	7	n	241	28.0	-
21 June	8	p	148	13.4	-
22 June	8	q	60	8.5	-
13 Aug.	9	r	57	5.8	-
	TOTALS		2,335	306.3	17
SHIP LESTER JONES					
20 May	10	A	191	42.6	-
24 May	10 & 11	B	250	71.2	-
6 June	11 & 12	C	208	48.5	-
11 June	12 & 13	D	223	38.8	-
12 June	13 & 14	E	236	58.5	-
13 June	14	F	150	23.2	22
14 June	14	G	19	--.-	19
	TOTALS		1,277	282.8	41
SKIFF					
23 June	8	a	23	---	23
TOTALS FOR SHEET			3,635	589.1	81

APPROVAL SHEET

Field work was done under the supervision of the Chief of Party and the hydrography examined daily. The survey is complete and no further field work is required. All records, exclusive of the Smooth Sheet, are approved.

G. C. MAST,
COMMANDER, C&GS
CHIEF OF PARTY

PROCESSING OFFICE NOTES H- 8319

SMOOTH SHEET

The smooth sheet was hand constructed by the Seattle Hydrographic Processing Unit using standard methods of construction and checking.

CONTROL STATIONS

Several hydro signals, KNO,NAN,INA, GEM and BUG, all on T-5586S, did not give good results as to time and course. The boat sheet locations were transfered to the smooth sheet and the resulting sounding lines were much more satisfactory.

SHORELINE AND TOPOGRAPHY

From same sources as listed in the field report.

SOUNDINGS

A speed correction had been applied for soundings, positions 46j through 52j and 55j through 96j, which was probably caused by paper pile up - note torn holes and bumps on the fathogram paper. Soundings without any correction applied gave better crossings with lines from other days.

CONTROL OF HYDROGRAPHY

Approximately ten percent of the positions on this survey were protracted. The balance were transfered from film positives of the boat sheets.

ADEQUACY OF SURVEY

The survey appears complete and adequate for charting. The junctions with H-8317 and H-8318 have been compared and found satisfactory. Junctions to the north will be compared when those sheets are completed.

The depth curves at the junctions, compared, can be adequately drawn.

COMPARISON WITH CHART

The smooth sheet has been compared with Chart 6378 11th Ed. Revised 8/13/56.

The agreement appears to be generally satisfactory, in the deeper depths. Some shoaling, probably from silting, has occured over the flats on the eastern part of the survey.

The charted 1½ fathom shoal, north of Reil Harbor was not confirmed at that depth. 2½ fathoms was the least depth obtained, though no apparent was made to determine the least depth. Only a single line was run over the shoal. 1½ carried forward from H-1887 (1948)

On the 1½ fathom shoal north of Eliza Island a least depth of 1.6 fathoms was obtained, though approximately 100 meters NNE of the charted position. 1½ carried forward from H-1887 1-3/5fm shoalest sounding found - see note on page 2 column M - AHS

See section of Chart 6378, attached to this report, for notable differences shown in red.

Respectfully submitted

William M. Martin

William M. Martin
Supervisory Cartographer

Approved and forwarded

G. C. Mast

G. C. MAST
CAPTAIN, C&GS
SEATTLE DISTRICT OFFICER

GEOGRAPHIC NAMES PENCILED ON H-8319

BELLINGHAM BAY

CARTER POINT

CHUCKANUT BAY

CHUCKANUT ISLAND

Governors
CHUCKANUT POINT

ELIZA ISLAND

ELIZA ROCK

PT. FRANCES

INATI BAY

LUMMI ISLAND

OYSTER CREEK

PLEASENT BAY

REIL HARBOR

SAMISH BAY

VENDOVI ISLAND

WILDCAT COVE

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8319

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			(Title)						BGN	1
South Part Bellingham Bay			(preferable for title, since there is no feature known as South Bellingham Bay)							2
										3
Oyster Creek										4
Wildcat Cove										5
Pleasant Bay										6
Governors Point			(not Chuckanut Pt here)							7
Chuckanut Island										8
Chuckanut Bay										9
Pt. Frances										10
Eliza Island										11
Eliza Rock										12
Inati Bay										13
Reil Harbor										14
Lummi Island									BGN	15
Carter Point										16
Viti Rocks										17
Vendovi Island										18
Samish Bay	from Ch 6380		Names approved 9-29-59 L. Heck							19
Tide station off sheet:										20
Whatcom Waterway, Bellingham										21
										22
										23
										24
										25
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8319...

Records accompanying survey:

Boat sheets ..2..; sounding vols.. ..14.; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .8-Envelopes

special reports, etc. ..1-Smooth sheet and 1-Descriptive report.

....

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

Number of positions on sheet		3635
Number of positions checked		80
Number of positions revised		14 / G.M.
Number of soundings revised - (refers to depth only)		350
Number of soundings erroneously spaced		......
Number of signals erroneously plotted or transferred		......
Topographic details H-8320, H-8321	Time	......
Junctions H-8317 G. Merrill / H-8317 J. Gallahan	Time	8 hr. G.M. / 4 hr
Verification of soundings from graphic record	Time	37 hours

Verification by George F. Merrill / Allan B. Schuessel ..... Total time 54 hr. / 200 hrs Date 10/19/62 G.F.M. / 2/12/62

Reviewed by .... Thomas .... Time ...... Date 1/30/64

M-2232-1

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

8 September 1959

Chart Division: R. H. Carstens

Plane of reference approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 8319

Locality Bellingham Bay, Washington

Chief of Party: K. B. Jeffers in 1956

Plane of reference is mean lower low water, reading

3.4 ft. on tide staff at Bellingham

28.0 ft. below B.M. 2 (1914)

Height of mean high water above plane of reference is 7.8 feet.

Condition of records satisfactory except as noted below:

William Shafer
Signature

Comm-DC 34330

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8319 FIELD NO. LJ-1156

Washington, South Part of Bellingham Bay

SURVEYED: May - August 1956

SCALE: 1:10,000 PROJECT NO.: 12410

SOUNDINGS: 808 Depth Recorders, Lead line CONTROL: Sextant fixes on shore signals

Chief of Party..... K. B. Jeffers
Surveyed by..... K. B. Jeffers
..... P. A. Stark
..... J. J. Dermody
Protracted by..... C. A. J. Pauw
Soundings Plotted by..... C. A. J. Pauw
Verified and Inked by..... A. K. Schugeld
..... G. F. Merrill
Reviewed by..... E. E. Thomas
..... Date: 01/30/64
Inspected by..... R. H. Carstens

1. Description of the Area

The present survey covers the southern portion of Bellingham Bay, and the northern portion of Samish Bay. The bottom is, for the most part, generally smooth and covered with mud. Some abrupt gradients occur adjacent to areas of rocky shoreline and along the banks of the deep configuration off Eliza Island.

The inshore portion of Samish Bay on this survey is relatively shoal and consists of mud flats when exposed at low tides.

2. Shoreline and Signals

The signals are adequately discussed in the Descriptive Report. The smooth sheet is the authority for the signals transferred from HO-I-SS and LJ-B-56 which are destroyed.

2.

The shoreline originates with the reviewed photogrammetric surveys T-5587-N and T-5586-N&S of 1949-54 together with prior topographic surveys T-1794 and T-1797 of 1887 in the remaining areas.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated. Many portions of the low-water curve originates with the contemporary photogrammetric surveys and the prior topography.

C. The development of the bottom configuration was not adequate in portions of the inshore areas. Prior soundings were brought forward to complete the coverage for bottom delineation.

D. The adequacy of the investigation of least depths is generally good, but further discussed in section six.

4. Condition of the Survey

The field plotting, sounding records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual. It was necessary for the Washington Office to re-ink about 85% of the shoreline because of extreme generalization during transfer; application of the N.A. 1927 datum change; and sheet dislocation of the prior surveys through the reproduction copies used for transfer to the smooth plot.

5. Junctions

An adequate junction was effected with H-8320(1956) on the north and H-8321(1956) on the northwest.

The junctions with H-8318(1955-56) on the west and H-8317(1955-56) on the south will be considered in the review of those surveys.

6. Comparison With Prior Surveys

H-405	(1855)	Reconnaissance
H-1815	(1887)	1:20,000
H-1887	(1888)	1:20,000

These surveys comprise the prior coverage of the area for comparison with the present survey. A comparison reveals that the area of the survey has a relatively stable bottom. Minor differences which are attributed to the applied surveying and cartographic techniques and the smaller scale of the prior survey are in evidence. The differences are generally displacement of least depths in shoal areas of irregular bottom configuration.

The character of the bottom sediment previously discussed in the review of H-8320(1956), with respect to a change in the color from green to gray, occurs also on this survey. The change occurs in the area northwest of Governors Point and in the deeper depths east of the entrance to Inati Bay. The remainder of the bottom has retained its prior color characteristics.

Attention is directed to the following items carried forward to the present smooth sheet from the prior survey:

1. The detached position of the offshore extreme of the ledge shown on H-1887(1888) in lat. 48°39.2', long. 122°35.3' was not developed on the present survey.

The prior information related to the ledge has been carried forward to the present smooth sheet.

2. The 1.5 charted in lat. 48°40.6', long. 122° 35.32' and the 1.5 fathoms charted in lat. 48°40.15', long. 122°36.87' from H-1887(1888) are the least depths on known shoals. The present development is inadequate to verify or disprove the prior depths which have been carried forward.

3. The pier ruins in lat. 48°39.29', long. 122° 35.25' are charted through Chart Letter No. 25 of 1957. The delineation of the pier as shown on T-1797a of 1887 was transferred to the smooth sheet as ruins.

4. Additional soundings and some bottom characteristics from H-1887 and H-1815 have been carried forward to areas of sparse development on the present smooth sheet.

5. The 5¼ charted in lat. 48°38.80', long. 122° 35.2' from H-1887 falls in present depths of 7-8

fathoms. The 5¼ is considered discredited by the present hydrography and should be disregarded.

With the addition of the prior information noted above, the present survey is considered adequate to supersede the prior surveys in the common area.

7. Comparison With Chart 6378 (latest print date 05/22/61)

A. Hydrography

The charted hydrography originates with the previously discussed surveys, supplemented by partial application of the present survey through the unverified smooth sheet.

This sdg. already removed from chart 6378 15th ED. 6/30/69

1. The 1.5-fathom sounding charted in lat. 48° 40.68', long. 122°35.3' from the unverified smooth sheet was revised during verification and the sounding should be removed from the chart.

2. The pier charted in lat. 48°39.1', long. 122° 35.44' from Chart Letter No. 25 of 1957 is ambiguously described in that record. The feature should be charted as ruins as described in the sounding records of the present survey. Chart Letter No. 25 originates with information from the present survey.

The present survey is adequate to supersede the charted hydrography in the common area.

B. Aids to Navigation

Eliza Island Beacon shown on the smooth sheet in lat. 48°38.97', long. 122°35.07' is described as a pile and has been reported through Chart Letter No. 25 of 1957.

The charted aids to navigation adequately mark the features intended. The northern markers for the measured mile are reported to exist but as not being maintained.

8. Compliance With Instructions

The survey adequately complies with the project instructions.

5.

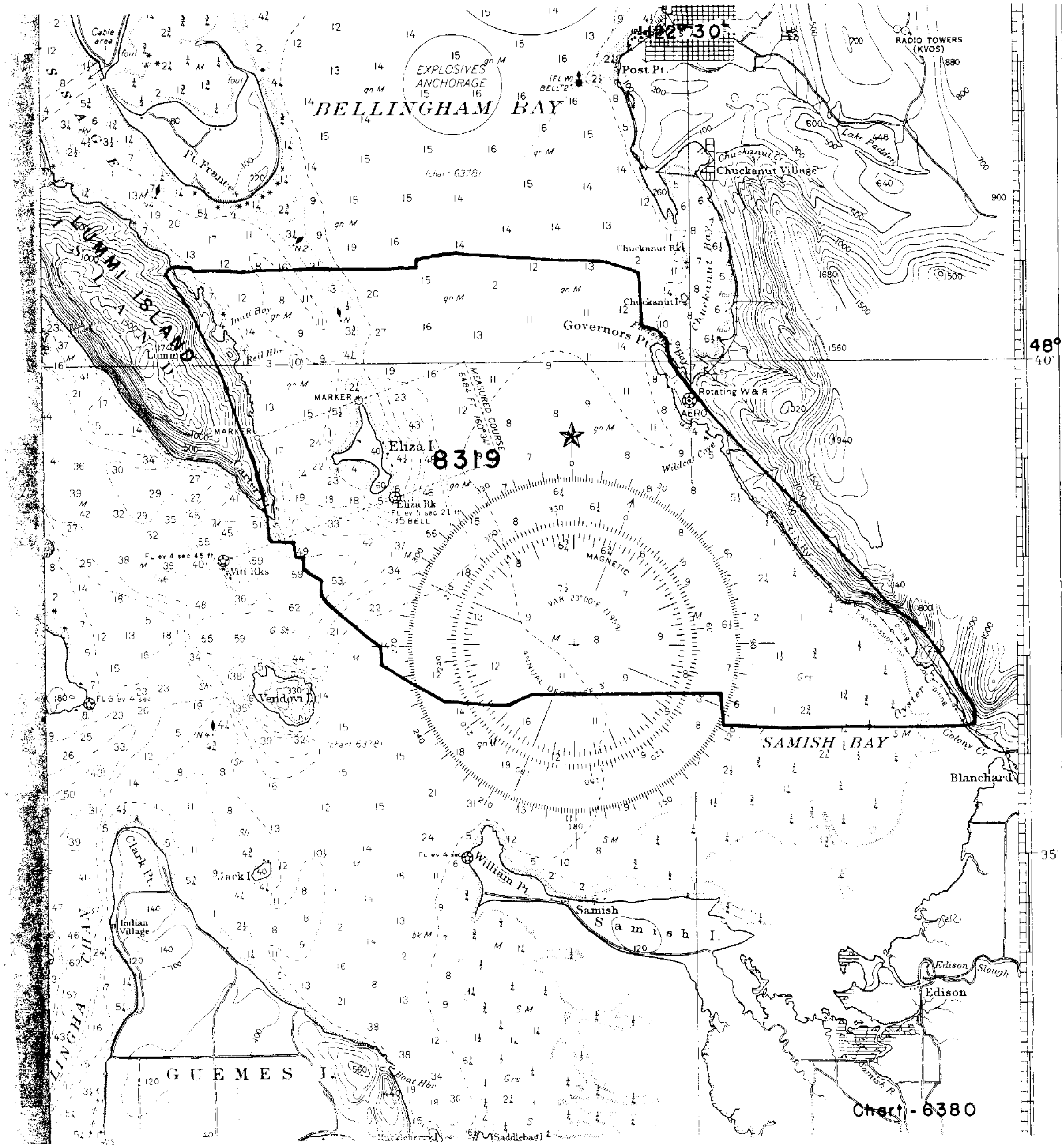
9. Additional Field Work

Together with the additional soundings carried the present survey is considered basic and no additional work is required.

Examined and Approved:

Chief
Marine Chart Division

Associate Director
Office of Hydrography
and Oceanography


BELLINGHAM BAY
EXPLOSIVES ANCHORAGE
LUMMI ISLAND
Lummi
Pt. Frances
Inati Bay
Reil Hbr
Post Pt.
Chuckanut Village
Chuckanut Bay
Chuckanut I.
Chuckanut Rk
Lake Padden
RADIO TOWERS (KVOS)
Governors Pt.
Wildcat Cove
Rotating W & R
AERO
MARKER
Eliza I.
Eliza Rk
8319
MEASURED COURSE
MAGNETIC
Viti Rks
Vendovi I.
SAMISH BAY
Oyster Cr.
Colony Cr.
Blanchard
William Pt.
Samish
Samish I.
Jack I.
Clark Pt.
Indian Village
GUEMES I.
Boat Hbr
Saddlebag I.
Edison
Edison Slough
Chart 6378
Chart - 6380
48°
40'
35'
122° 30'

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8319

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1959 11 Aug	6300	Nichols	Before ~~After~~ Verification and Review Part. appl.
20 Aug	6378	Do	~~Before~~ Before ~~After~~ Verification and Review Part. appl.
3-2-60	6380	M. Rogers	Partially appld Before ~~After~~ Verification and Review thru chart 6378 JRKD 3-9-60
2-21-68	6380	W H Thiel	~~Before~~ After Verification and Review Before Inspect. Exam Review. No corr
4/24/69	6378	F.W. McEvoy	~~Before~~ After Verification and Review before Inspection No significant changes made during inspection PHC 7/25/69
7/25/69	6380	O. Svendsen	~~Before~~ After Verification and Review App. thru Chart 6378 on Dwg #35
10/23/69	184	R.A. Lillis	Fully appld Before ~~After~~ Verification and Review appl'd thru charts 6378 Dwg #18 and 6380 Dwg #35
9-8-70	6300 #33	J.T. Gallahan	~~Before~~ After Verification and Review consider fully appld thru reduction of Cht. 6380 (17th Ed.)
			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.