

8311

Diaz. Cht. No. 8551-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. BO-1156² Office No. H-8311

LOCALITY

State ALASKA

General locality Prince William Sound

Locality Whale Bay and Vicinity

1956-57

CHIEF OF PARTY

Curtis Le Fever & F. Natella

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8311

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-8311

Field No. BO-1156

*see also
attached table
sheet*

State Alaska

General locality Prince William Sound

Locality Whale Bay

Scale 1:10000 ^{12,500} ₋₇ Date of survey 11 May - 7 June, 1956

Instructions dated 28 Dec. 1954, 10 Feb. 1955, 28 Nov. 1955, 20 Oct. 1956

Vessel s Ship Bowie, Launch 92, Launch 133

Chief of party Curtis Le Fever

Surveyed by Curtis Le Fever, H. R. Lippold, J. Frank May

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

Fathograms scaled by R. P. Laturnas, G. E. La Roche

Fathograms checked by J. E. Kelly

Protracted by W. M. Martin

Soundings penciled by W. M. Martin

Soundings in fathoms feet at MLW MLLW

REMARKS:

28

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H- 8311 (FIELD NO. BO-136)
PRINCE WILLIAM SOUND, ALASKA
WHALE BAY
PROJECT NO. 12770 1956

SCALE 1:10000

Curtis Le Fever

Commanding Officer, ship BOWIE

Curtis Le Fever

H. R. Lippold

Hydrographers

J. Frank May

A-PROJECT:

Authority for this Survey is contained in revised instructions dated 28 December, 1954, 10 February, 1955, and supplemental instructions dated 28 November, 1955, and 2 October, 1956 for project 12770.

B-SURVEY LIMITS AND DATES:

This survey covers Whale Bay, Prince William Sound, Alaska, between Lat. $60^{\circ} 08.8'N$ to $60^{\circ} 15.0'N$, and Long. $148^{\circ} 08.0'W$ to $148^{\circ} 18.0'W$. The survey began on 11 May 1956 and was completed 7 June 1956. There are no prior surveys of this area. Progress at the beginning of the job was retarded by floating ice and general foul weather conditions.

C-VESSEL AND EQUIPMENT:

Two launches and the Ship BOWIE were used to execute this survey. Launch No. 92, 32' standard Coast Survey hydro launch equipped with 808 fathometer No. S163, was used in the main part of the bay with launch No. 133, an ex-Navy 24', gasoline powered, plywood, personnel boat, used in the arms of the bay. No. 133 was equipped with 808 type fathometer 144S and both boats operated from the ship. The Ship BOWIE was used in deep water at the mouth of the bay where the launches were unable to obtain soundings. 808 type fathometer S111 and Edo fathometer model 185, Serial No. 2 were used on board ship. The turning radius of the BOWIE at standard speed is approximately 75 meters. Average depth for launch work was 35 fathoms and 135 fathoms for ship work.

D-TIDE AND CURRENT STATIONS:

Tide reducers used for this survey were obtained from a portable tide gage installed in the small cove at the northwest end of the west arm of Whale Bay at Lat. $60^{\circ} 14.1'N$ Long. $148^{\circ} 15.3'W$. A continuous record was obtained from 9 May to 8 June, 1956.

D- TIDE AND CURRENT STATIONS:(CONT.)

A range factor of -1.0 feet to high tide and no time correction were applied to Cordova, Alaska predicted tides for boat sheet soundings.

No current station was observed.

E-SMOOTH SHEET:

The smooth sheet is not constructed or plotted to date.

F-CONTROL STATIONS:

The control stations for the sheet are from triangulation established by A. M. Sobieralski in 1933, and photo hydro signals identified by G. A. Nelson in 1951 and recovered by Curtis Le Fever in 1956. Photo signals taken from manuscripts No. T- 9141 and T-9144. Refer to "List of Signals" appended to this report for station data. *Transferred to vol. I*

G-SHORE LINE AND TOPOGRAPHY:

The shoreline was taken from Advanced Manuscript No. T-9141 and Preliminary Manuscript No. T- 9144.

H-SOUNDINGS:

Soundings were taken with 808J fathometers equipped with 800 fath./sec. reeds and Edo fathometer model 185 on the Ship BOWIE. No phase correction was applied to 808 fathometer No. S163 for the Whale Bay project. A good scale comparison could not be obtained due to the contour of the bottom, and later in the season before one could be obtained, the fathometer was sunk with launch No. 92 which changed the correction considerably when it was repaired. During the 1955 season the correction was zero and this was carried over to the 1956 season in Whale Bay. Phase corrections for 808 fathometers S111 and 144S are abstracted to accompany this report and originated from Prince of Wales Sheet H-8205, 1956 Sounding volume 14, Pages 40 through 45. Initial correction for the launches was established by bar checks and for the Ship BOWIE by a measurement to the sound units from water line.

I-CONTROL OF HYDROGRAPHY:

Hydrography was controlled throughout by three point fixes using standard hydrographic sextants.

J-ADEQUACY OF SURVEY:

This survey of Whale Bay is considered complete and adequate.

K-CROSS LINES:

Approximately 13 per cent crosslines were run with very satisfactory crossing.

L-COMPARISON WITH PRIOR SURVEYS:

There are no prior surveys of the area.

M-COMPARISON WITH CHART:

There is no existing chart showing soundings.

N-DANGERS AND SHOALS:

Two shoals and one low water rock were found;

1. A shoal is located in the east arm of Whale Bay at Lat. $60^{\circ} 11.22'N$, Long. $148^{\circ} 10.79'W$ with a least depth of $1\frac{1}{2}$ fathoms. *pos 92-93e* *applied chart 8515*
2. A rock is located at the entrance to a small cove, suitable for small vessel anchorage, in the east arm of Whale Bay. The rock, which is located at Lat. $60^{\circ} 10.47'N$ Long. $148^{\circ} 10.3'W$, Pos. 27, f day, launch 92, is bare at low water and is a danger to vessels entering the cove. *Position 1h shows this rock bare 5ft at MLLW.* *applied to chart 8515 at corrected position 148°27'*
3. A shoal is located just within the entrance of a sheltered cove at the north end of the west arm of Whale Bay. This cove, which is protected from all directions, is an excellent small boat anchorage. The shoal, which is located at Lat. $60^{\circ} 14.16'N$ Long. $148^{\circ} 14.5'W$ has a least depth of $1\frac{1}{2}$ fathoms. *pos 151h 04fms* *applied to chart 8515*

O-COAST PILOT INFORMATION:

No Coast Pilot report has been written to date.

P-AIDS TO NAVIGATION:

There are no aids to navigation in this area.

Q-LANDMARKS FOR CHARTS:

No deletions or additions are recommended.

R-GEOGRAPHIC NAMES:


No changes or additions recommended.

Z-TABULATION OF APPLICABLE DATA:

I. Attached to this report

1. List of signals
2. Statistics
3. Summary of bar checks
4. Abstract of phase corrections
5. Tidal note

Respectfully submitted,


H. R. Lippold Jr.
Lt. C&GS

Approved and Forwarded



Fred Natella

Comdr. C&GS

Commanding Officer, USC&GSS BOWIE

for Curtis Le Fever

STATISTICS
HYDROGRAPHIC SURVEY H-8311
FIELD NO. BO- 1156

VESSEL	DATE	DAY LTR.	VOLUME	NO.POS.	STAT. MILES	
					SDG. LINE	HAND LEAD
92	5-11-56	a	1	107	9.3	
"	5-14	b	1	13	1.9	
"	5-16	c	2	101 ⁹⁵	11.9	
"	5-17	d	2	87	14.1	
"	5-17	d	3	51	9.3	
"	5-18	e	3	75	12.2	
"	5-23	f	3	57	7.9	
"	5-24	g	4	35	6.9	
"	5-25	h	4	152	27.4	
"	5-31	j	5	123	15.5	
"	6-1	k	5	91 ³	14.1	
"	6-1	k	6	58	7.3	
"	6-2	l	6	146	18.0	
"	6-4	m	7	94	9.0	
"	6-5	n	7	58 ¹⁰¹	13.3	
"	6-5	n	8	23	4.5	
"	6-6	p	8	120	10.0	
"	6-7	q	8	4 ¹⁴³³	0.6	
133	5-31	a	9	111	11.0	
"	6-1	b	9	94	12.6	
"	6-1	b	10	53	9.5	
"	6-2	c	10	120	14.0	
"	6-2	c	11	71	12.9	
"	6-4	d	11	104	12.4	

STATISTICS (CONT.)

VESSEL	DATE	DAYLTR.	VOLUME	NO. POS.	STAT. MILES SDG. LINE	HAND LEAD
133	6-4	d	12	55	9.2	
"	6-5	e	12	129	12.0	
"	6-5	e	13	41	9.4	
"	6-6	f	13	88	5.3	
BOWIE	5-25	A	14	7		7
"	6-5	B	14	94	20.5	
"	6-6	C	14	40		40
"	6-7	D	14	70	19.7	
"	6-7	D	15	36	2.6	8

1956 TOTALS

	HAND LEAD	NO. POS.	STAT. MILES SDG. LINE
Launch 92	0	144	193.2
Launch 133	0	866	108.3
Ship BOWIE	<u>55</u>	<u>247</u> ✓	<u>42.8</u>
TOTAL	55	2654 2547	344.3

BAR CHECKS—WHALE BAY

FATHOMETER 163

Vol.	Day	1	2	3	4	5	6	7	8	9	10
1	a			3.0	4.1	5.0	6.0	7.0	8.1		
					3.9	5.0	6.0	7.0			
					3.9						
1	b	0.9	1.7	2.7	3.8	4.9	5.8	6.9	7.9	8.9	10.0
			1.7	2.7	3.8	4.8	5.9	6.6	7.9	8.9	
2	c		1.9	2.8	3.9	4.9	5.9	7.0	7.9	8.9	9.9
2	d	1.0	1.9	2.9	3.8	4.8	5.8	6.8	7.7	8.7	
		0.8	1.8	2.8	3.8	4.8	5.7	6.7	7.7	8.7	9.8
3	e	0.9	1.8	2.9	3.9	5.0	6.0	6.9	7.9	8.9	
		0.9	1.9	2.8	3.9	5.0	5.9	6.9	7.9	8.8	9.9
3	f	0.9	1.9	2.9	4.0	4.9					
4	g	0.9	1.9	2.9	3.9	5.0	5.8	6.8	7.7	8.7	
		0.8	1.8	2.9	3.9	4.9	5.8	6.8	7.7	8.7	9.7
4	h	0.9	1.9	2.9	4.0	5.0	5.8	6.9	7.9	9.0	
		0.9	1.9	3.0	4.0	5.0	6.0	7.0	8.0	8.9	10.0
5	j		1.8	3.0	3.9	4.9	5.9	6.9	7.9	8.9	
			1.8	2.7	3.9	4.8	5.7	6.9	7.9	8.9	10.0
5	k		1.9	2.9	3.8	4.9	6.0	6.9	7.9		
		1.0	1.9	3.0	3.9	5.0	6.0	6.9	7.9	8.9	
6	l	0.7	1.7	2.7	3.7	4.7	5.5	6.6	7.6	8.7	
		0.6	1.7	2.7	3.8	4.7	5.6	6.7	7.7	8.5	9.6
7	m	0.8	1.9	2.9	3.8	4.9	5.9	6.8	7.8	8.8	
		0.9	1.7	2.8	3.8	4.9	5.8	6.8	7.8	8.7	9.6
8	p		1.8	2.9	3.9	4.9	5.8	6.9	7.8	8.9	
			1.9	3.0	3.9	4.9	5.9	6.9	7.9	8.8	10.0
TOTAL		13	40	66	97	118	134	158	172	176	98
MEAN		0.86	1.83	2.86	3.88	4.90	5.85	6.85	7.84	8.81	9.85
CORRECTION		0.14	0.17	0.14	0.12	0.10	0.15	0.15	0.16	0.19	0.15

MEAN CORRECTION \neq 0.133 Correction used \neq 0.1

A

DAY	1	2	3	4	5	6	7	8	9	10
a	1.0	2.0	3.0	4.0	5.0	5.9	6.8	7.8	8.8	
b	1.0	2.0	3.1	4.0	5.1	6.2	7.1	8.1	9.2	10.1
c	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.9
d	0.9	2.0	3.0	4.0	4.9	5.9	6.9	7.9	8.9	10.0
e	1.0	1.8	2.9	3.9	5.0	5.9	6.8			
Total	4.9	9.8	15.0	19.8	25.0	29.9	34.6	31.8	35.9	30.0
Mean	0.98	1.96	3.00	3.96	5.00	5.98	6.92	7.95	8.97	10.0
Corr y	0.02	0.04	0.00	0.04	0.00	0.02	0.08	0.06	0.03	0.00
Mean correction	/ 0.028									
Correction used	0.0									

ABSTRACT OF PHASE CORRECTIONS
HYDROGRAPHIC SURVEY H- 8311
FIELD NO. BO- 1156

	Scale B	Scale C	Scale D
Fathometer No. S111	-2.0	-2.6	-2.0
Fathometer No. S144	-0.1	-0.7	-0.3
Fathometer No. S163	-0.0	-0.0	-0.0

NOTE: Computations of phase corrections came from Survey
H-8205, Field No. BO-1355 (1956), Prince of Wales Passage,
Prince William Sound, Alaska, sounding volume 14, pages 40 - 45.

TIDAL NOTE
FOR
HYDROGRAPHIC SURVEY NO. H- 8311
FIELD NO. BO-1156

The portable tide gage and staff used to obtain tidal data for this sheet were located in a small cove at the northwest end of the west arm of Whale Bay at Latitude $60^{\circ} 14.1'N$, Longitude $148^{\circ} 15.3'W$.

Mean lower low water is 6.1 feet above zero of the tide staff. (Directors letter 36-470- 982b, furnished by the Washington Office.

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 8311

Field No. BO-1256

State Alaska

General locality Prince William Sound

Locality Painbridge Passage, Southern End

Scale 1:10,000 ^{12,500} ₂ Date of survey July 1957

Instructions dated 28 December 1954, 10 February 1955, 28 November 1955

Vessel Launch No. 92

Chief of party Fred Natella

Surveyed by J. F. May, Jr., O. Beeman

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

Fathograms scaled by D. Thompson

Fathograms checked by O. Beeman

Protracted by W. M. Martin

Soundings penciled by W. M. Martin

Soundings in fathoms ~~100~~ at ~~MLLW~~ MLLW

REMARKS: Above survey is part of Survey BO-1256. The remainder of the
survey was completed in 1956 and is included in Descriptive Report
BO-1256 (Whale Bay) submitted in March 1957.

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8311 (FIELD NO. BO-1256)
BAINBRIDGE PASSAGE, SOUTHERN END

PROJECT NO. 12770

1957

SCALE 1:10000

F. Natella

Chief of Party

J. F. May, O. Beeman

Hydrographers

A. PROJECT:

This survey was done in accordance with instructions for Project CS 277 dated 28 December 1954, revised instructions for Project 1277 dated 10 February 1955 and supplemental instructions for Project 1277 dated 28 November 1955 and 6 January 1956.

B. SURVEY LIMITS AND DATES:

This survey covers the southern end of Bainbridge Passage beginning at Lat. $60^{\circ} 09.2'N$ where it joins BO-1156, 1:10000, 1957, and ending at Long. $148^{\circ} 18.6'W$ where it joins H-4692, 1:20000, 1927. This survey was begun on 7 July 1957 and completed on 30 July 1957. There are no prior surveys of this area.

C. VESSEL & EQUIPMENT:

Hydrography was accomplished from Launch 92. Ship BOWIE was used for bottom sampling. Launch 92 operated from Ship BOWIE. Fathometer No. 57-25 of the 808J was used for all hydrography.

D. TIDE AND CURRENT STATIONS:

One portable tide gage was maintained by the Ship BOWIE in conjunction with this survey. This gage was located at Point Waters (Lat. $60^{\circ} 06.7'N$ Long. $148^{\circ} 17.1'W$) and was maintained from 7 June 1957 to 31 July 1957. A range factor of $-0.9'$ for high tides and -05 minutes time correction for high and low tide were applied to predicted tides (Cordova) for boat sheet soundings. A current station was occupied for 100 hours at Lat. $60^{\circ} 07.3'N$ Long $148^{\circ} 13.1'W$ in the middle of the Bainbridge Passage. Launch 92 was anchored at this point for 100 hours while current pole and Price Current Meter observations were made in accordance with C&GS Special Publication 215.

E. SMOOTH SHEET:

No smooth sheet has been constructed at this date.

F. CONTROL STATIONS:

The control for this survey was obtained from triangulation graphic control photo cuts, and hydrographic signals. Triangulation was accomplished by R. W. Knox in 1948. Graphic control was done this year on manuscripts 9144 and 9146. Photo signals were obtained by using manuscripts 9144 and 9146. Hydrographic signals were obtained by taking sextant cuts from photo stations, graphic control stations and triangulation stations to the hydrographic signal. In some cases a three point fix plus a check angle were taken from the station. A list of signals will be found following this report. *Transferred to vol. I*

G. SHORELINE & TOPOGRAPHY:

Shoreline and topographic details were obtained from Blue Line Prints of manuscripts T9144 and T9146. Dashed shoreline on these manuscripts was filled in by plane table using the manuscripts as the sheet.

H. SOUNDINGS:

Soundings were taken with the 808J type fathometer. Adequate bar check comparisons were taken during the survey. Phase comparisons were made aboard ship. BOWIE in areas of relatively flat bottom. Bar checks and phase summaries are attached to this report.

I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled throughout by three point fixes taken with U. S. Navy hydrographic sextants.

J. ADEQUACY OF SURVEY:

This survey is a complete and adequate survey of this area. The junction with survey H-4692, 1927 is considered satisfactory.

K. CROSSLINES:

Approximately 15% crosslines were run with very satisfactory crossing.

L. COMPARISON TO PRIOR SURVEY:

There are no prior surveys of this area.

M. COMPARISON TO CHART:

There is no chart showing depths in this area. However, the charts show certain dangers in this passage. These are

described under Paragraph "N" DANGERS & SHOALS. Extensive investigation at minus tides failed to disclose the rock charted as RFP. just south of Pt. Waters in mid-channel. There was no shoal indication in sounding lines. The shoreline shown on Charts 8515 and 8523 needs re-plotting.

N. DANGERS & SHOALS:

The rock charted in the passage was located. Its location is Lat. 60° 06.88'N Long. 148° 14.50'W and bares 4 feet at MLLW. This correction to present chart would be of little value because the shoreline is not correct.

O. COAST PILOT INFORMATION:

No Coast Pilot information has been written to date.

P. AIDS TO NAVIGATION:

There are no Aids to Navigation in the area.

Q. LANDMARKS TO CHARTS:

No landmarks for charts are recommended.

R. GEOGRAPHIC NAMES:

No additions or changes are recommended.

U. MISCELLANEOUS INFORMATION:

Investigation of two reported dangers in this area was called for in a Preliminary Review issued by T. A. Dinsmore in January 1955.

Item 2 of this Review is a sunken rock that was reported in Chart Letter 602 (1951). As stated in M: COMPARISON TO CHART, extensive investigation at minus tides failed to reveal subject rock. Sounding lines failed to show any shoal indication in the area. The hydrographer believes that from a distance west of Pt. Waters it is possible that the rock listed in N: DANGERS AND SHOALS could appear to be off Pt. Waters in mid-channel.

Item 3 of this Review is a ledge awash at minus tide reported in Chart Letter 602 (1951). Extensive investigation at minus tide failed to reveal any said ledge. Sounding lines in this area failed to reveal any indication of subject ledge.

Z. TABULATION OF APPLICABLE DATA:

1. Attached to this report:
 - a. List of signals

- b. Statistics
- c. Summary of bar checks
- d. Abstract of phase corrections
- e. Tidal note

Respectfully submitted,

Ogden Beeman

Ogden Beeman
ENS, C&GS

Approved & forwarded:

Fred Natella

Fred Natella
CDR, C&GS
Commanding Ship BOWIE

BAR CHECKS
SHEET 1256
FATHOMETER 57-25

<u>VOLUME</u>	<u>DAY</u>	<u>2</u>	<u>5</u>	<u>8</u>	<u>10</u>
9	r	1.6	4.6	7.6	9.6
		1.6	4.6	7.6	
10	s	1.8	4.8	7.6	9.6
		1.8	4.8	7.6	
		1.6	4.6	7.6	9.5
		1.6	4.6	7.6	
11	t	1.6	4.5	7.4	9.2
		1.6	4.5	7.5	
12	u	1.8	4.6	7.6	9.5
		1.8	4.6	7.6	
		1.8	M	7.6	9.5
		1.8	4.6	7.6	
13	v	1.6	4.8	7.8	9.8
		1.8	4.8	7.8	
13	w	1.8	4.8	7.6	9.5
		1.6	4.8	7.6	
<hr/>					
TOTAL		27.2	70.0	121.7	76.2
MEAN		1.76	4.67	7.61	9.54
CORRECTION		+ 0.24	+ 0.33	+ 0.39	+ 0.46

MEAN CORRECTION = + 0.355 = + 0.4

TIDAL NOTE
FOR
HYDROGRAPHIC SURVEY H-8311
FIELD NO. BO-1256

The portable tide gage and staff used to obtain tidal data for this sheet was located at the west end of Painbridge Passage, near Pt. Waters
Lat $60^{\circ} 06.75'N$ Long $148^{\circ} 17.2'W$.

Mean lower low water is 3.3 feet on the tide staff (Chief, Tides and Currents letter 36-281-982L).

STATISTICS
HYDROGRAPHIC SURVEY H-8311
FIELD NO. BO-1256
Launch #92

<u>DATE</u>	<u>DAY LTR.</u>	<u>VOLUME</u>	<u>NO. POS.</u>	<u>NAUT MILES SDG. LINE</u>	<u>STAT MILES SDG. LINE</u>	<u>P. S.</u>
7/16/57	r	9	266	36.5	40.1	
7/17/57	s	10	243	34.9	38.4	
7/18/57	t	11	143	19.1	21.0	
7/27/57	u	12	188	24.0	27.6	
7/28/57	v	12 - 13	168	19.0	21.8	
7/29/57	w	13	98	9.0	10.9	5
7/30/57	x	13	45	4.5	5.4	
			1121	117.0	134.6	5

SHIP BOWIE

8/1/57	A(1957)	1	8		8
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Total

1129

PHASE CORRECTIONS FATHOMETER 57-25

<u>A</u>	<u>B</u>	<u>DIFF</u>	<u>B</u>	<u>C</u>	<u>DIFF</u>	<u>C</u>	<u>D</u>	<u>DIFF</u>
52.3	53.0	-0.7	41.2	41.8	-0.6	120.0	120.3	-0.3
52.4	53.4	-1.0	41.3	42.2	-0.8	120.0	120.7	-0.7
52.6	53.4	-0.8	41.5	42.7	(-1.2)R	120.1	120.8	-0.7
52.7	53.5	-0.8	42.0	42.7	-0.7	119.8	120.8	-1.0
52.8	53.6	-0.8	42.0	42.9	-0.9	120.0	119.7	(0.3)R
52.9	53.7	-0.8	42.0	42.9	-0.9	119.4	120.0	-0.6
52.8	53.7	-0.9	42.6	43.7	(-1.1)R	119.8	120.1	-0.3
		-0.8	43.8	44.4	-0.6	119.8	120.3	-0.5
			45.0	46.0	-1.0	120.0	120.8	-0.8
			44.2	45.0	-0.8			-0.6
			44.3	45.0	-0.7			
			44.3	45.0	-0.7			
			44.6	45.3	-0.7			
			45.5	46.5	-1.0			
					-0.8			

<u>D</u>	<u>E</u>	<u>DIFF</u>
147.5	148.0	-0.5
148.0	148.5	-0.5
148.6	148.9	-0.3
148.7	149.1	-0.4
149.0	149.2	-0.2
149.3	149.5	-0.2
149.5	149.6	-0.1
149.7	149.9	-0.2
149.7	149.9	-0.2
149.7	150.0	-0.3
150.0	150.0	0.0
150.0	150.2	-0.2
150.0	150.2	-0.2
		-0.3

PHASE CORRECTIONS

<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
-0.8	-1.6	-2.2	-2.5

PROCESSING OFFICE NOTES H-8311

SMOOTH SHEET

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

The projection was made at the scale of 1/12,500 so as to include Whale Bay and Bainbridge Passage on one sheet. The surveys were made on scales of 1/10,000. Both areas using 42 inch paper for boat sheets.

CONTROL STATIONS

In addition to the triangulation and topographic stations used for control, there were 55 hydrographic stations located. This appears to be a super-abundance of hydro signals, particularly since several of the 27 located in the West arm of Whale Bay weren't used, but were included in the list of signals.

SHORELINE AND TOPOGRAPHY

Shoreline and topography were transferred from blue-line prints of T-9141, T-9144 and T-9146 reduced to 1/12,500 scale.

The shoreline in most of this area is very steep with deep water up to the beach.

SOUNDINGS

Soundings in deep water on the 808 fathograms were very hard to read because of the low gain that was used. Many of the rescanned soundings entered by the field scanners were rejected by the smooth plotter because they were too indistinct to verify and didn't agree with crossings or adjacent soundings anyway.

It is felt that this has little, if any, effect on the adequacy of the survey since the effected soundings are all in depths of more than fifty fathoms.

Soundings by the EDO fathometer are somewhat suspect. They appear to be too deep. In checking the vertical casts and fathometer comparisons it was noted that the EDO was deeper than either the wire soundings or the 808. The differences are not so apparent on the sounding line, probably because of the usually steep bottom at the junction of the EDO and 808 sounding. It appears possible that the wrong corrections might have been used for the EDO.

ADEQUACY OF SURVEY

This survey appears complete and adequate for charting.

The junction with H-8388 in Bainbridge Passage has been compared and found satisfactory.

The depth curves at the junction can be adequately drawn.

DANGERS AND SHOALS

Corrections to smooth sheet values have been made in ink to the field reports under this heading.

In addition to the above, a photo rock at Lat. $60^{\circ} 14'.27$ Long. $148^{\circ} 15'.15$ coincides with a 13 fathom sounding on the smooth sheet. The rock was erased and the sounding shown. The rock was probably misplaced.

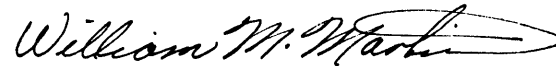
no connection to
chart 8515
rock shown on T-9141
CES

A 9.4 fathom shoal was found in the approximate position of the charted "REP" sunken rock at Lat. $60^{\circ} 06'.65$, Long. $148^{\circ} 18'.33$. off chart 8515

A photo rock awash in the vicinity of Lat. $60^{\circ} 06'.70$, Long. $148^{\circ} 18'.10$ was moved to agree with the hydro. off chart 8515

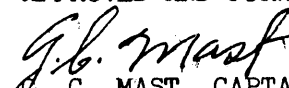
A rock awash shown at Lat. $60^{\circ} 06'.88$, Long. $148^{\circ} 14'.50$ comes from the boat sheet and the field report. There was a mention of rocks on the sounding line at pos. 34t of the line passing between rocks, but no distances or heights were given. Hence the boat sheet location and report height were used. applied to 8515

Respectfully submitted



WILLIAM M. MARTIN
Supervisroy Cartographer

APPROVED AND FORWARDED:


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

GEOGRAPHIC NAMES

Survey No. H-8311

Name on Survey	<div>On Chart No. 8551</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div> <div>B&N</div>										
	A	B	C	D	E	F	G	H	K		
Alaska (Title)	x								x	1	
Prince William Sound (Title)										2	
Bainbridge Island	x								x	3	
Bainbridge Passare	x								x	4	
Dual Head	x								x	5	
Point Waters	x									6	
Whale Bay	x								x	7	
										8	
										9	
										10	
										11	
										12	
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										27	

George M. Bass

Geographic Names Section
19 Jan. 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8311....

Records accompanying survey:

Smooth sheets 1....;
 boat sheets 1- to be forwarded with H-8388; sounding vols. 21...; wire drag vols.;
 Descriptive Reports .1...; graphic recorder envelopes .12...;
 special reports, etc.

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

Number of positions on sheet
Number of positions checked
Number of positions revised
Number of soundings revised (refers to depth only)
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details	Time
Junctions	Time
Verification of soundings from graphic record	Time
Special adjustments	Time

Verification by Total time Date

Reviewed by Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8311

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting 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 and are a little larger than the adjacent soundings.
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 and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
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.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

FEB 29 1960

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

Plane of reference approved in
21 volumes of sounding records for

HYDROGRAPHIC SHEET 8311

Locality Prince William Sound, Alaska

Plane of reference is mean lower low water, reading

6.1 ft. on tide staff ~~xx~~ (1956) at Whale Bay

14.3 ft. below B. M. 1 (1956)

3.3 ft. on tide staff (1957) at Point Waters, Bainbridge Passage

14.7 ft. below BM 1 (1957)

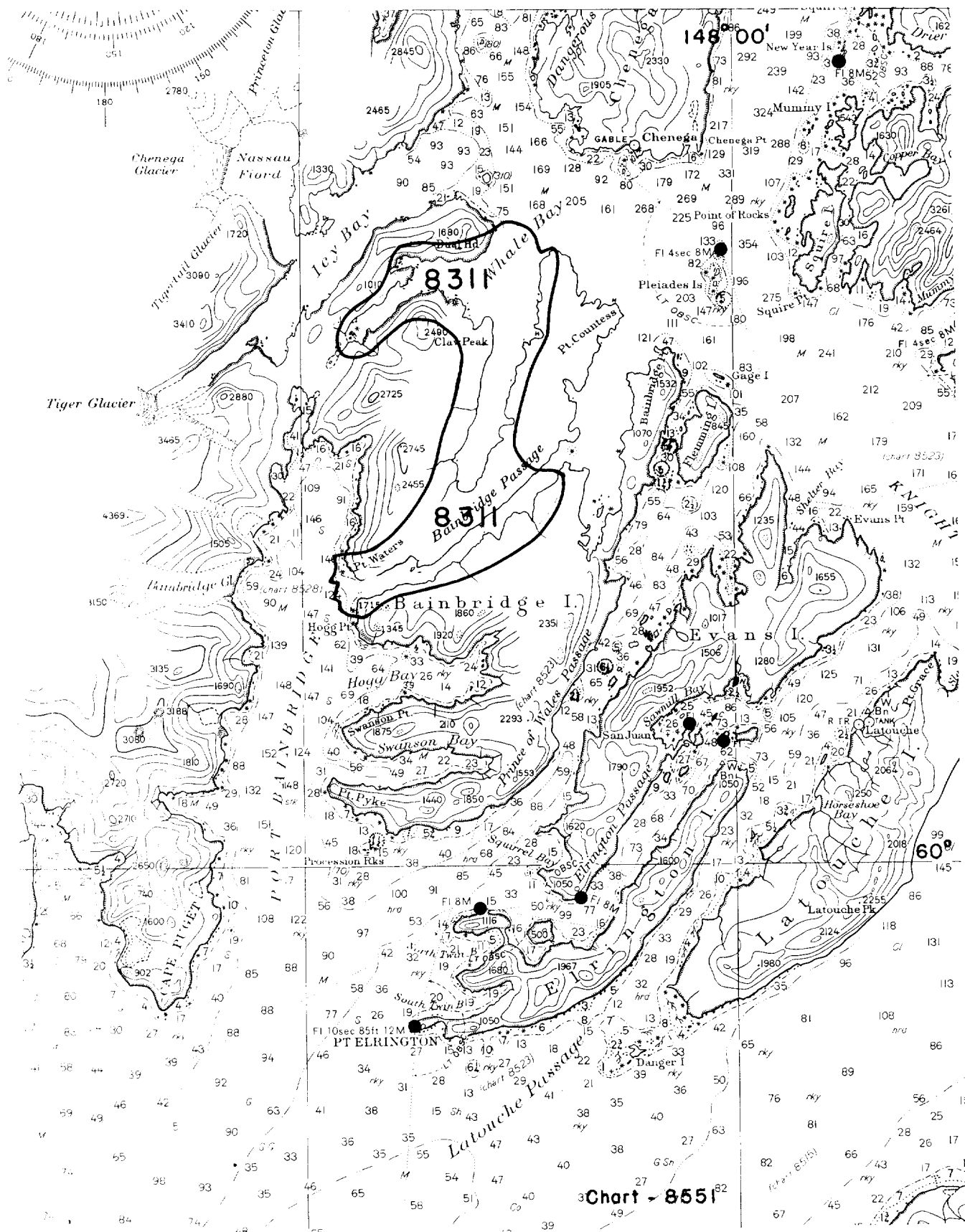
Height of mean high water above plane of reference is as follows:

Whale Bay = 10.6 feet

Point Waters = 9.7 feet

Condition of records satisfactory except as noted below:

William Hobbes
Chief, Division of Taxes and Currents
Chief, Taxes Branch.



NAUTICAL CHARTS BRANCH

SURVEY NO. E-8311

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/29/60	8515	Helmer	Before After Verification and Review Fully applied.
2/15/60	8551	Helmer	Before After Verification and Review Fully applied thru chart 8515.
7-25-61	8502	E. M. Hagan	Before After Verification and Review Fully appl thru chrt 8551
10-27-62	8552	Hebe Adam Radden	Before After Verification and Review Fully Applied thru chart 8551
6-19-63	8528	D. E. Westbrook	Before After Verification and Review Added corr's. thru Dwg. #3, Cht 8515, No further corr's. req'd.
12/65	8523	Clarence Muefeldt	Before After Verification and Review
4/12/71	8551	R. S. Forber	Before After Verification and Review appl 100 fm. curve
7/6/76	8528	Kennan, D. J.	Before After Verification and Review A Revised one sdg. from 17 to 15 60° 06' 45" 148° 15' 15" Class I Survey
11-10-77	8523	Stembel	Before After Verification and Review Class I Survey
		Kennan, D. J.	examined - consider fully applied
			Before After Verification and Review
1/25/79	8551	Sager	Before Verification & review. Re applied
	(16700)	Kennan	Revised portion of 10 fm. curve and 2 sdgs. consider fully applied
9/3/80	16680	Sager	Before Ver & Review - Examined - Consider Fully appl. Revised (12) sdgs from 17 to 15 fms. 60° 06' 45" 148° 15' 15" thru chrt 8551 (16700)
3-26-90	16683	D. McRANDELL	CONSIDER ADEQUATELY APPLIED CATT

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.