

8444

Diag. Cht. No. 8152-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. H0-1158 Office No. H-8144

LOCALITY

State S. E. Alaska

General locality Iphigenia Bay

Locality Iphigenia Bay

19 58

CHIEF OF PARTY

J. E. Waugh

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DATE

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8444

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-8114

Field No. HO-4158

State S. E. Alaska

General locality Iphigenia Bay

Locality Iphigenia Bay

Scale 1:40,000 Date of survey 24 June - 18 Sept. 1958
21 Nov. 1955 (Revised) and Supplemental Instructions dated
Instructions dated 1 October 1956 and 27 November 1957

Vessel Ship HODGSON

Chief of party J. E. Waugh

Surveyed by J. E. Waugh

Soundings taken by ~~echo sounder~~, graphic recorder, ~~hand soundings~~

Fathograms scaled by Various ship personnel

Fathograms checked by A. M. L., H. W. H., & R. E. A.

Protracted by J.E.W., G.L.S., R.D.B., H.H.D. & R.E.A.

Soundings penciled by R.E.A.

Soundings in fathoms ~~65X~~ at ~~MLLW~~ MLLW

REMARKS:

267

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY NO. H-8444 (FIELD NO. HO-4158)

Ship HODGSON

1958

J. E. WAUGH and
G. L. SHORT, COMDG.

A. PROJECT:

This survey was executed as part of Project CS-347 in accordance with revised instructions dated 21 Nov. 1955 and supplemental instructions dated 1 October 1956 and 27 November 1957.

B. SURVEY LIMIT AND DATES:

This survey covers part of Iphigenia Bay between Lat. $55^{\circ} 51' 4''$ N and $55^{\circ} 34'$ N and Long. $134^{\circ} 17' 0''$ W and $133^{\circ} 46' 0''$ W.

Field work was begun on 24 June and completed on 18 September 1958.

The survey connects on the northeastern side with Sheet H-8443.

Progress of work was interrupted by long weekends on Independence Day and Labor Day and by a wire-pipe drag project in Wrangell Narrows during the month of August.

C. VESSEL AND EQUIPMENT:

Hydrography was done entirely by the Ship HODGSON.

No soundings were recorded during turns of the ship.

The fathometers used were a 808, Model S, No. 104S (until Position No. 173, E day when it developed mechanical trouble) and a 808, Model S, No. 106, both calibrated at 800 fm/sec.

D. TIDE AND CURRENT STATIONS:

Two tide stations were maintained during the survey, in Port Alice, Lat. $55^{\circ} 48' 8''$ N., Long. $133^{\circ} 36' 2''$ W., and at Coronation Island, Lat. $55^{\circ} 54' 4''$ N., Long. $134^{\circ} 07' 10''$ W. Reductions were taken from the Port Alice gage except for a brief period when it was inoperative and the Coronation Island gage with reducers was used.

Two current stations were observed, in Cape Decision Passage and two miles south of Whale Head, Davidson Inlet.

E. SMOOTH SHEET:

The projection was made aboard ship by hand. No shoreline or topographic features were plotted. Signals were plotted by conventional methods.

F. CONTROL STATIONS:

TRIANGULATION CONTROL:

<u>NAME</u>	<u>SOURCE</u>	<u>CHIEF OF PARTY</u>
009 BAY ✓	BAY, 1903	E.F.D.
109 CAY ✓	CAY, 1922	N.D.
143 CLIFF ✓	CLIFF, 1903	E.F.D.
384 GULL ✓	GULL ROCK, 1903-21	(1903 - EFD 1922 - TJM)
787 SURF ✓	SURF, 1903	E.F.D.
835 TIM ✓	TIMBER, 1907-22	(1907 - E.FD 1921 - TJM)

TOPOGRAPHIC STATIONS:

467 LIE LOS	(T-10405, SHEET HO-1657.
761 ROC	(H-8443, Photo-Hydro Signals

NAVIGATION LIGHTS:

106 CAPE ✓	CAPE LYNCH LIGHT, 1958	J.E.W.
438 LITE ✓	SURF POINT LIGHT, 1957 by triangulation	E.W.R.

TRAVERSE:

483 JUG ✓	1958, HO-4158, H-8444
432 LIE	From Sheet HO-1657, H-8443, Sounding Volume No. 3, Page 3.

A list of all signals and their origin is pasted to the cover sheet of Sounding Volume No. 1

G. SHORELINE AND TOPOGRAPHY:

Not applicable.

H. SOUNDINGS:

All soundings were obtained with the depth recorders listed in Item C and tabulated under Statistics - Appendix I.

No bar checks were taken and phase comparisons were determined by comparing readings on overlapping scales as the ship was run over suitable bottom. Only one determination was made for each overlap of scales for the season, but subsequent revaluation of the fathograms during smooth

sheet plotting disclosed a slow change in these values, probably due to wear in the mechanism.

See Item U, Discrepancies on Smooth Sheet.

Speed checks were taken frequently by the hydrographer.

I. CONTROL OF HYDROGRAPHY:

Most of the hydrography of the sheet was run on shoran-controlled arcs. The northeast corner, however, is visually controlled, by shore established signals as the angles produced by the shoran arc intersections were too small for the accuracy required.

The visual control was executed by means of sextant fixes.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for the area. No additional field work is considered necessary at this time.

The junction with contemporary survey 8443 is satisfactory. Depth curves can be adequately delineated.

K. CROSSLINES:

Crosslines were run at approximately 6% of the regular system of sounding lines. Discrepancies of 2 fathoms or more are noted in Item U, Discrepancies on Smooth Sheet.

L. COMPARISON WITH PRIOR SURVEYS:

Soundings are more closely spaced on the present survey and depth curves are much more accurately delineated.

M. COMPARISON WITH CHART:

This survey was compared with Chart No. 8152 and charted soundings are in general quite correct. However least depths on shoals are generally shoaler than previously charted, although a shoalest depth of 42 fathoms was found in an area where 37 fathoms is charted (Lat. 55° 35'6" N., Long. 133° 53'3" W). This may have been a 5 fathom error in reading the leadline.

This survey should supersede all charted data.

N. DANGERS AND SHOALS:

Shoalest depths found with locations were forwarded to Washington on 21 October 1958. No dangers exist in the area surveyed.

O. COAST PILOT INFORMATION:

No coast pilot information in the area surveyed.

P. AIDS TO NAVIGATION:

There are no aids to navigation within the ^{area surveyed on} ~~limits~~ of this sheet.

Q. LANDMARKS FOR CHARTS:

There are no landmarks within the limits of this sheet.

R. GEOGRAPHIC NAMES:

There are no changes or additions to the charted geographic names.

S. SILTED AREAS:

There are no silted areas within the limits of this sheet.

T. Not applicable.

U. DISCREPANCIES ON SMOOTH SHEET:

The following inconsistencies were found between regular and cross-line soundings and are listed here for attention of the verifier. All differences of 2 or more fathoms are listed. Differences less than that are disregarded as insignificant in the area surveyed.

It was noted that about "L" day, a phase difference between "A" and "B" scales on graphic recorder were one fathom more than originally calculated. Around P-Q-R days this difference became two fathoms and more. It is impossible to tell exactly where the difference becomes 2 fathoms, due to the irregular characteristics of the bottom.

This discrepancy becomes apparent again on crosslines across relatively flat bottom run on the latter days of the project. This also showed on other scales.

The reasons for this are not readily obvious, but suggests a wearing part in the graphic recorder. This error is not consistent either as crosslines show dubious crossline soundings of this nature were not plotted.

A large part of the following listed inconsistencies can be attributed to these scale differences.

1. An apparent error by checking the time spacing was uncovered between positions 70B - 77B.

The scale divider was calibrated by positions 77B, 78B, 79B, 80B and new locations of 76B-70B were plotted backwards. Position 71B checked

fairly close by this method and was held.

The discrepancy was held due to multiple blips on shoran signal from station LIN and the shoran operator choosing the wrong blip. This weak signal rectified itself when the ship passed position 77B. (See accompanying sketch).

2. One sounding back from position 17C does not check a crossline sounding.
17C = 76 fathoms
Crossline (159R) = 78 fathoms
3. Position 32C does not check time too well.
4. Soundings between 49F and 50F (89 fathoms) do not check crossline (157R+) - 86 fathom soundings.
5. Position 21J does not scale correctly, nor does sounding check. All soundings from 21J to 22J were not pencilled.
6. 132J + 2 minutes does not check 84C + 1½ minute (crossline). A two fathom difference.
7. Noticed a one fathom difference on L day between A-B scales. "A" scale is correct. Difference is regarded as insignificant.
8. At shoal area between 25L - 26 L, soundings suggest a shoaler depth than present 37 fathoms to the east of Line 25L - 26L.
9. From position 150L - Pos. 152L, some soundings were 2 fathoms deeper than adjacent ones. This is all on "A" scale.
10. On crossline 16M - 28M, a portion of the soundings are 2 fathoms shoaler than regular ones. None were plotted.
11. Between positions 52N - 55N, soundings are 2 fathoms less than crossline soundings 89C-90C. Fathogram at 52N + 50 seconds looks suspicious.
12. Crossline 3Q - 8Q does not check regular soundings. Speed check of fathometer disclosed nothing and it is assumed that all values on "D" scale here were erroneous because perhaps phase changer was not in slot.
13. Crossline soundings differ by two fathoms from the regular 113 fathoms depths at and around position 148R. Also 2 fathoms lower of the regular 118 fathom depth just beyond position 151R.
14. Also 2 fathoms lower from 156R - 157½R.
15. On "B" scale from 162R - 169½R, crossline soundings are 2 fathoms lower.

16. Crossline at 29W is questionable.
17. Crossline soundings 16Y - 19 Y are generally 2 fathoms low, and 20Y - 20 $\frac{1}{2}$ Y, and 21Y - 22Y, are some 3 fathoms low here.
18. 151Y - 154Y crossline soundings are generally 2 fathoms lower.
19. 155Y - 161Y crossline soundings are 1-2-3 fathoms low. Did not plot.
20. 172Y - 177Y crossline soundings are 3 fathoms low. 178Y - 182Y crossline soundings are generally 2 fathoms low.
21. 183Y - 188Y crossline soundings are generally 3 fathoms low.
22. 189Y - to end of "B" scale are low by 2 fathoms.
23. "A" scale readings check excellent. A switch to "B" makes them 2 fathoms too low in and around 200Y.
24. 227Y - 239Y crossline soundings are generally 3 fathoms low and with indication of being only 1 fathom low in latter half of line.

V. TABULATION OF APPLICABLE DATA:

1. Tidal Data - forwarded previously.
2. Triangulation Data - ~~see accompanying shoran report~~ fwd. 3/25/59
3. Shoran Report - attached.
4. Phase comparison - attached.
5. Daily Statistics - attached.

Submitted,
Richard E. Alderman
Richard E. Alderman
ENS, C&GS

STATISTICS

HYDROGRAPHIC SURVEY H-8444 (1958)

SHIP HODGSON

PROJECT CS-347

DAY	DATE	VOL. NO.	NO. OF POSITIONS		NAUT. MILES SOUNDING LINE		BOTTOM SAMPLE POSITIONS
			SHORAN	VISUAL	SHORAN	VISUAL	
A	6/24	1	12		7.8		
B	6/25	1	141		94.8		1
C	6/26	2	101		62.9		1
D	7/8	2		87		49.0	
E	7/9	2&3	189	31	108.3	14.6	
F	7/10	4&5	169	20	107.6	9.7	
G	7/11	5	95	72	58.6	31.4	
H	7/14	5&6	69		40.5		
J	7/15	6&7	145	48	84.2	19.1	1
K	7/16	7	111		70.7		
L	7/17	8	131	87	71.9	26.2	3
M	7/18	9	133		69.9		6
N	7/21	9&10	126		83.1		
P	7/22	10&11	225		90.4		4
Q	7/23	11&12	186	35	101.3	20.0	2
R	7/24	12&13	194	33	84.6	14.1	7
S	8/26	13	117		68.5		1
T	8/27	14&15	177	33	95.9	16.3	
U	8/28	15	120	27	76.2	8.4	4
V	9/5	16	24		14.2		
W	9/8	16&17	201		116.4		1
X	9/9	17&18	240		109.6		4
Y	9/10	18&19	242		104.3		8
Z	9/15	19	77		21.7		1
AA	9/18	19&20	148		86.8		
		TOTALS	3373	473	1830.2	208.8	44

AREAS:

Visual = 10.0 sq. naut. mi.

Shoran = $203\frac{1}{2}$ sq. naut. mi.

TOTAL = $213\frac{1}{2}$ sq. naut. mi.

TIDE NOTE

SURVEY NO. H-8444 (1958)

TIDE STATIONS:

Port Alice

Lat. 55° 48!8 N

Long. 133° 36!2 W

MLLW on staff 3.9 ft

Cora Point

Lat. 55° 54!4 N

Long. 134° 07!0 W

MLLW on staff 2.7 ft.

PHASE COMPARISON RESULTS

SURVEY NO. H-8444 (1958)

FATHOMETER 808, S, 104S:

From Position 1A - 53C (808 Oscillator):

A = -0.2 fm.
B = -0.6 fm.
C = -3.2 fm.
D = -7.0 fm.

From Position 53C - 173E (NJ3 Transducer)

A = 0.0 fm.
B = -0.4 fm.
C = -3.0 fm.
D = -7.0 fm.

FATHOMETER 808, S, 106: (Pos. 173E to end)

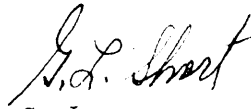
A = +0.2 fm.
B = +5.2 fm.
C = +7.0 fm.
D = +5.0 fm.
E = +1.5 fm.

APPROVAL SHEET

HYDROGRAPHIC SURVEY NO. H-8144

All field work on the sheet was done under the immediate supervision of CDR J. E. Waugh, who directed most of the processing of records until his detachment on 24 October 1958.

Forwarded - Approved.



G. L. Short
LCDR, C&GS

SHORAN REPORT, Project CS-347

Ship HODGSON, Iphigenia Bay, Southeast Alaska

This report covers the determination of corrections to shoran distances on Sheet Field Number HO-4158, Registry Number H-8444. Field work was accomplished between 24 June 1958 and 18 September 1958. The area covered was $55^{\circ} 51.4'N$ to $55^{\circ} 34.0'N$ and $134^{\circ} 17.0'W$ to $133^{\circ} 46.0'W$.

STATION LOCATION.

Shoran stations were established on Cape Lynch (Station LIN) and on the small wooded islet 0.7 mile south of Cora Point, Coronation Island (Station COR). These locations gave strong intersections of shoran arcs over most of the area sounded. The small area where intersections approached limits of good intersection was surveyed with visual control. The shoran towers were located by triangulation methods. The towers were erected on the highest tree stump in the vicinity and the location can be easily recovered at any time within the next few years by the spikes which secured the base plates and remain in the stump, but the stations were not otherwise marked.

CALIBRATION.

Three calibration points for determining corrections to shoran readings were selected, one near each station and one approximately mid-way between. Strongly intersecting ranges were chosen to enable the ship to be returned to the exact point for each calibration.

The calibration point near Station COR was the intersection of extended lines joining two pairs of triangulation stations. The location was computed and an inverse computation made for the distances to the two shoran stations.

The calibration point near Station LIN was a strong intersection of ranges formed by rocks and whitewash signals. A strong 3-point fix on triangulation stations was measured with sextants at the intersection of the ranges and the distances to shoran stations computed.

The calibration point midway between stations was an intersection of natural ranges on Warren Island. Since the ranges were not as sensitive as the other two, a sextant fix on three triangulation stations was taken at each calibration at the same time as the shoran distances were read. This fix was then computed.

Calibrations were made on each of the three stations at the beginning of the weeks work. These calibrations were computed immediately and the corrections determined to allow final positions to be pricked through a plastic overlay directly to the smooth-boat sheet as sounding proceeded. Results were fairly consistent

CALIBRATION.(Contin.):

throughout and well within the scale accuracy of the sheet. For the last three days work on the sheet, it was desirable to obtain correctors after the sounding was done. These were averaged with correctors obtained toward the end of the previous week. No difference of more than 0.005 mile was found from the correctors used in plotting the sheet. This is considered negligible at the 1:40,000 scale in use and the positions should be accepted as plotted.

In calibrating, all sets were warmed up for at least one hour, antennae correctly pointed and voltages adjusted. Zero checks were taken before and after the readings on the stations. The ship was coned on one range at reduced speed until the other range was lined up. At that instant, a "mark" was called and the shoran readings taken. Calibrations were always made for both positions of the "rate-drift" switch to provide for the possibility of operating that way. However, all hydrography was done with Station LIN as the rate station and Station COR as drift and the other values are not included in this report.

METHODS OF USE.

During hydrography, zero checks were made at least once each watch and hourly as the practise became more ingrained on readers. a zero set of 9.850 on LIN and 9.835 on COR was used on "A" day only, then changed to 9.825 on LIN and 9.820 on COR to reduce the arithmetical correction to each distance due to the difference in zero set used and zero check obtained. No sudden shifts in zero check values were obtained and, as each zero check was obtained, the calibration corrections were adjusted by the difference between zero set and zero check obtained.

EQUIPMENT USED.

	Ship	Station LIN (001)	Station COR (002)
Indicator	1216	905	1194
Transmitter	35	736	629
Receiver	1111	888	1552

WWV CHECK.

A check of frequency of adjustment against WWV was made during the latter part of the season and the results reported to Washington.

SPECIAL FEATURES.

As far as is known, these stations are the first to be used by the Coast and Geodetic Survey in such heavily wooded locations. Less operational difficulty due to reflection of shoran signals on surrounding trees was encountered than was feared, although a

SPECIAL FEATURES. (Contin.):

minimum of clearing was done. Some "ghosts" in the form of multiple signals were received, but little difficulty was experienced in selecting the true signal after a very short initial period of confusion. However, it is strongly recommended that ample time be allowed for sufficient clearing before attempting to begin building the camp. A poorly toppled tree at a partially completed camp could be disastrous. Power saws are a necessity and the most experienced personnel should be assigned to falling the trees and clearing the camp area. A minimum of personnel should be around the camp site during the process of falling trees, for reasons of safety. All trees higher than the reflectors in a direction toward the working area should be downed.

Paths in the wooded area became quite soggy due to ground water before the camp was dismantled with the constant traffic carrying fuel, food, water and other supplies from the landing beach to the camp. More time should have been spent rigging high-line tramways to eliminate the heavy back-packing up the hill from the landing area to the camp. The heavy back-packing over uncertain ground constituted a hazard that should not be neglected, particularly when the time spent rigging the high-line would be saved in building and removing the camp.

All foreshores at Station COR were too steep and rocky for any but light supplies to be handled by hand and a high-line was rigged over a natural opening in the rocks so that the supplies could be hoisted directly from the dory which usually brought them in. They were hoisted to a level spot on the hillside about 40 feet above the water and back-packed on to the top where the camp was located. Seven men were required to hoist a drum of fuel, two in the dory, one on the beach directing the operation and four heaving on the lines. About one and one-half hours were necessary for the entire operation, landing personnel from the ship on the beach, returning to the ship for supplies, hoisting them, securing the hoisting equipment and returning to the ship. Surge in the opening made it difficult to keep the dory off the rocks during the hooking-up of the loads and it was usually necessary to clear kelp or floating debris or both before the dory could enter the cove.

At Station LIN, it was possible to land supplies on the rocks in a quiet cove, hand carry them over the rocks to the base of a high-line and then hoist them to a level quite near the camp. Fuel drums were left on the beach and fuel handled in 5-gallon cans from that point. Less time was required by ship personnel to deposit supplies on the rocks.

The two attendants at each station put in time considerably in excess of 40 hours a week keeping the station on the air, hauling fuel and other supplies, working on the camp site and shoran

SPECIAL FEATURES. (Contin.):

equipment and cooking and cleaning house. During a protracted dry period, water became a major problem and had to be provided by the ship and rationed in use. With normal rainfall, sufficient water was obtained in catch basins. Shore station personnel during this season worked diligently to keep their stations on the air for 12 to 14 hours a day and then usually worked far in to the night tuning and adjusting equipment so that operational difficulties were almost nil. CET Hildahl kept the ship equipment in top condition and he and his department deserve commendation for a job well done.

Living quarters at both stations were 12 x 14-foot tents erected on plywood floors and lifted on wooden sidewalls and rafters to provide somewhat more adequate headroom. The tents were very wet and cold during the frequent rains (except for the dry spell) and did not provide adequate shelter for personnel or equipment. The generator tents were not floored or framed, but were erected on cut poles. The soggy ground and moss and leaves underfoot made mechanical work on the generators difficult when trouble had to be remedied.

For comfort and health of personnel and proper safeguarding of valuable equipment from the weather, it is recommended that shacks with plywood floors, roofs and walls be a minimum requirement for living quarters and generator shelters. Prefabricated panels to be bolted together at the camp site should be considered. Due to rough terrain often encountered these should be no larger than 4' x 8' for ease of handling. Stiffeners and framing members should probably be 2" x 3".

SHORAN CORRECTIONS
 Station LIN - (Rate)
 1958

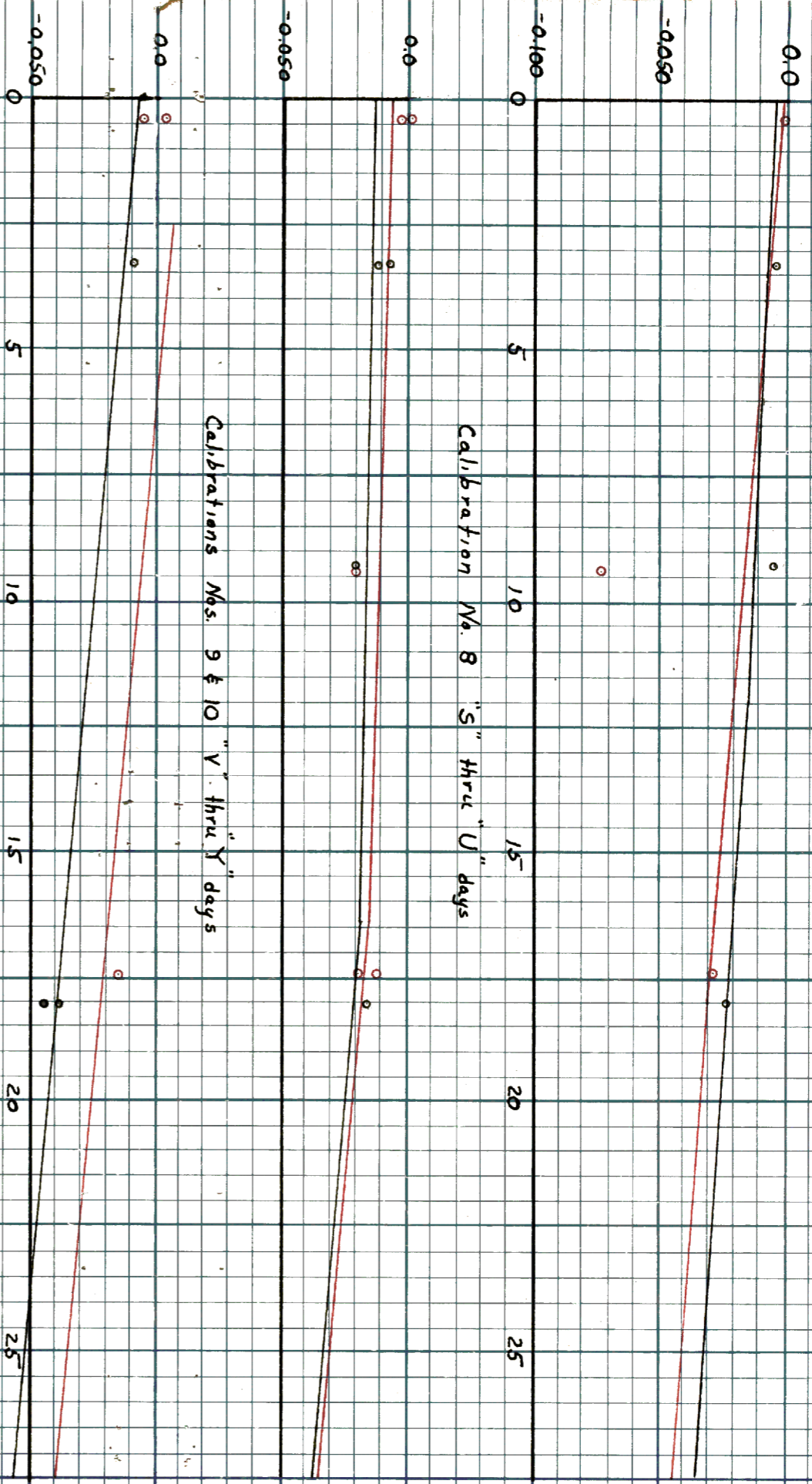
	Cal. No. & Date	Average Zero Ck.	Zero Set	Corr'n	Distance Readings	Corrected Readings	True Distance	Shoran Corr'n	
	1 6/23	99.844 ✓	99.850 ✓	+0.006 ✓	18.065 ✓	18.071 ✓	18.018 ✓	-0.053 ✓	
		99.845 ✓		+0.005 ✓	18.070 ✓	18.075 ✓		-0.057 ✓	
		99.848 ✓		+0.002 ✓	18.066 ✓	18.068 ✓		-0.050 ✓	Nos. 1 &
		99.851 ✓		-0.001 ✓	9.317 ✓	9.316 ✓	9.278 ✓	-0.038 ✓	2 meaned
		99.855 ✓		-0.005 ✓	3.833 ✓	3.828 ✓	3.780 ✓	-0.048 ✓	& applied
									"A" thru
	2 6/26	99.853 ✓		-0.003 ✓	3.395 ✓	3.392 ✓	3.338 ✓	-0.054 ✓	"C" days
		99.849 ✓		+0.001 ✓	9.332 ✓	9.333 ✓	9.278 ✓	-0.055 ✓	
		99.847 ✓		+0.003 ✓	18.068 ✓	18.071 ✓	18.018 ✓	-0.053 ✓	
		99.848 ✓		+0.002 ✓	18.066 ✓	18.068 ✓		-0.050 ✓	
		99.832 ✓	99.827 ✓	-0.005 ✓	18.056 ✓	18.051 ✓		-0.033 ✓	
	3 7/8	99.826 ✓		+0.001 ✓	18.093 ✓	18.094 ✓		-0.076 ✓	Nos. 3 &
		99.841 ✓		-0.014 ✓	9.312 ✓	9.298 ✓	9.278 ✓	-0.020 ✓	4 meaned
		99.834 ✓		-0.007 ✓	9.325 ✓	9.318 ✓		-0.040 ✓	& applied
		99.828 ✓		-0.001 ✓	3.368 ✓	3.367 ✓	3.338 ✓	-0.029 ✓	"D" thru
									"J" days
	4 7/14	99.833 ✓		+0.006 ✓	9.317 ✓	9.323 ✓	9.278 ✓	-0.045 ✓	
		99.842 ✓		-0.015 ✓	3.393 ✓	3.378 ✓	3.338 ✓	-0.040 ✓	
	5 7/16	99.818 ✓	99.820 ✓	+0.002 ✓	18.031 ✓	18.033 ✓	18.018 ✓	-0.015 ✓	"K" thru
		99.816 ✓		+0.004 ✓	9.280 ✓	9.284 ✓	9.278 ✓	-0.006 ✓	"M" days
		99.824 ✓		-0.004 ✓	3.354 ✓	3.350 ✓	3.338 ✓	-0.012 ✓	
	6 7/21	99.815 ✓		+0.005 ✓	18.030 ✓	18.035 ✓	18.018 ✓	-0.017 ✓	Nos. 6 &
		99.815 ✓		+0.005 ✓	3.333 ✓	3.338 ✓	3.338 ✓	0.000 ✓	7 meaned
									& applied
	7 7/24	99.818 ✓		+0.002 ✓	3.339 ✓	3.341 ✓	3.338 ✓	-0.003 ✓	"N" - "R"
	8 8/26	99.825 ✓		-0.005 ✓	3.347 ✓	3.342 ✓	3.338 ✓	-0.004 ✓	
		99.825 ✓		-0.005 ✓	9.287 ✓	9.282 ✓	9.278 ✓	-0.004 ✓	"S" thru
		99.825 ✓		-0.005 ✓	18.045 ✓	18.040 ✓	18.018 ✓	-0.022 ✓	"U" days
	9 9/4	99.826 ✓	99.825 ✓	-0.001 ✓	18.034 ✓	18.033 ✓		-0.015 ✓	Nos. 9 &
		99.826 ✓		-0.001 ✓	3.346 ✓	3.345 ✓	3.338 ✓	-0.007 ✓	10 meaned
									& applied
	10 9/11	99.816 ✓		+0.009 ✓	3.340 ✓	3.349 ✓		-0.011 ✓	"V" thru
		99.818 ✓		+0.007 ✓	9.291 ✓	9.298 ✓	9.278 ✓	-0.020 ✓	"Y" days
		99.816 ✓		+0.009 ✓	18.036 ✓	18.045 ✓	18.018 ✓	-0.027 ✓	
	11 9/18	99.814 ✓		+0.011 ✓	18.045 ✓	18.056 ✓		-0.038 ✓	"Z" thru
		99.817 ✓		+0.008 ✓	18.054 ✓	18.062 ✓		-0.044 ✓	"AA" days
		99.819 ✓		+0.006 ✓	3.341 ✓	3.347 ✓	3.338 ✓	-0.009 ✓	✓ am

A-Sperry

Sheran Calibration Curves

Sheet HO-4158 — Ship HODGSON

All data from Station LIN in black
COR "red."



Calibration No. 8

LIN - Rate	COR - Drift
6.01 to 6.00 -0.005	to 04.00 -0.005
12.01 to 12.00 -0.010	4.01 to 07.20 -0.010
15.61 to 15.60 -0.015	7.21 to 10.00 -0.015
18.61 to 18.60 -0.020	10.01 to 13.20 -0.020
21.81 to 21.80 -0.025	13.21 to 16.20 -0.025
24.41 to 24.40 -0.030	16.21 to 19.50 -0.030
	19.51 to 22.40 -0.035

Calibrations Nos. 9 & 10

LIN - Rate	COR - Drift
16.41 to 16.40 -0.015	to 11.60 -0.010
19.41 to 19.40 -0.020	11.61 to 18.00 -0.015
22.41 to 22.40 -0.025	18.01 to 20.80 -0.020
25.41 to 25.00 -0.030	20.81 to 23.60 -0.025
	23.61 to 26.40 -0.030
	26.41 to 29.20 -0.035

Calibration No. 11

LIN - Rate	COR - Drift
0.0 to 2.80 -0.010	to 10.00 -0.005
2.81 to 5.40 -0.015	10.01 to 12.80 -0.010
5.41 to 8.00 -0.020	12.81 to 15.40 -0.015
8.01 to 11.00 -0.025	15.41 to 18.20 -0.020
11.01 to 13.60 -0.030	18.21 to 21.00 -0.025
13.61 to 16.40 -0.035	21.01 to 23.80 -0.030
16.41 to 19.20 -0.040	23.81 to 26.60 -0.035
19.21 to 22.00 -0.045	
22.01 to 25.00 -0.050	

GEOGRAPHIC NAMES

Survey No. H-3444

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>Southeast Alaska</u>			(title)							1
<u>Iphigenia Bay</u>			"							2
										3
										4
										5
<u>Tide Stations off sheet:</u>										6
<u>Coronation Island</u>										7
<u>Port Alice</u>										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names approved 12-17-59

- Heck

SURVEY #08444

VOLUME #

VESSEL

BLOCK #'s

1-20

Hodgson

0001-3826

ABSTRACT FOR SURVEY #08444

MANUAL

AUTOMATED

<u>DAY</u>	<u>POSITION #'s</u>	<u>JULIAN DAY</u>	<u>POSITION #'s</u>
	<u>Hodgson</u>		
"A" Day 6/24/58	1-012	175	0001-0012
"B" Day 6/25/58	1-141	176	0013-0153
"C" Day 6/26/58	1-101	177	0154-0254
"D" Day 7/08/58	1-087 (2R)	189	0255-0339
"E" Day 7/09/58	1-220 (3R)	190	0340-0556
"F" Day 7/10/58	1-189 (1R)	191	0557-0744
"G" Day 7/11/58	1-167	192	0745-0910
"H" Day 7/14/58	1-069	195	0911-0979
"J" Day 7/15/58	1-191	196	0980-1170
"K" Day 7/16/58	1-112	197	1171-1282
"L" Day 7/17/58	1-218	198	1283-1500
"M" Day 7/18/58	1-133	199	1501-1633
"N" Day 7/21/58	1-126	202	1634-1759
"P" Day 7/22/58	1-225	203	1760-1984
"Q" Day 7/23/58	1-221	204	1985-2205
"R" Day 7/24/58	1-227	205	2206-2432
"S" Day 8/26/58	1-117	238	2433-2549
"T" Day 8/27/58	1-206D	239	2550-2755D
"U" Day 8/28/58	1-147 (1R)	240	2756-2901
"V" Day 9/05/58	1-023	248	2902-2924
"W" Day 9/08/58	1-201	251	2925-3125
"X" Day 9/09/58	1-240 (2R)	252	3126-3363
"Y" Day 9/10/58	1-242 (4R)	253	3364-3601
"Z" Day 9/15/58	1-077	258	3602-3678
"AA" Day 9/18/58	1-148	261	3679-3826

CROSS REFERENCE FOR SURVEY #08444

<u>VOLUME #</u>	<u>VESSEL</u>	<u>POSITION #'s</u>
1	Hodgson	0001-0153
2	Hodgson	0154-0357
3	Hodgson	0358-0556
4	Hodgson	0557-0732
5	Hodgson	0733-0932
	Hodgson	0933-1140
7	Hodgson	1141-1282
8	Hodgson	1283-1500
9	Hodgson	1501-1695
10	Hodgson	1696-1934
11	Hodgson	1935-2131
12	Hodgson	2132-2356
13	Hodgson	2357-2549
14	Hodgson	2550-2752
15	Hodgson	2753-2901
16	Hodgson	2902-3079
17	Hodgson	3080-3286
18	Hodgson	3287-3501
19	Hodgson	3502-3734
20	Hodgson	3735-3826

CROSS REFERENCE FOR SIGNAL NAMES
AND THEIR ASSIGNED NUMBERS

SURVEY #08444

<u>SIGNAL NAME</u>	<u>NUMBER</u>
BAY	009
<u>CAPE</u>	106
CAY	109
<u>CLIFF</u>	143
<u>GULL</u>	384
JUG	483
LIE	432
LITE	438
LOS	467
<u>ROCK</u>	761
<u>SURF</u>	787
TIM	835

CROSS REFERENCE OF POSITION NUMBERS
AND CONTROL TYPE

#08444

<u>POSITION #'s</u>	<u>TYPE OF CONTROL</u>
0001-0254	Electronic
0255-0353	Visual
0354-0539	Electronic
0540-0576	Visual
0577-0744	Electronic
0745-0800	Visual
0801-0895	Electronic
0896-0910	Visual
0911-0979	Electronic
0980-1022A	Visual
1023-1282	Electronic
1283-1369A	Visual
1370-1984	Electronic
1985-2019	Visual
2020-2205	Electronic
2206-2238	Visual
2239-2549	Electronic
2550-2582	Visual
2583-2755D	Electronic
2756-2782	Visual
2783-3826	Electronic

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~.....~~ 8444.....

Records accompanying survey:

Boat sheets ~~1~~...; sounding vols. ~~20~~...; wire drag vols.; bomb vols.; graphic recorder rolls ~~8~~-Envelopes special reports, etc. ~~1-Smooth sheet; 1-Descriptive report;~~ 1 Cahier-Shoran Abstracts "A" thru "AA" days & 1 Cahier-Record Volume triangulation; ~~1-Sketch book and Misc. computation, locations of stations and calibration computations.~~

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
Verification by.....	Total time Date
Reviewed by.....	Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8444

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

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~COAST AND GEODETIC SURVEY~~

29 December 1959

Division of Charts: R. H. Carstens

Plane of reference approved in
20 volumes of sounding records for

HYDROGRAPHIC SHEET 8444

Locality Iphigenia Bay, Alaska

Chief of Party: J. E. Waugh in 1958
Plane of reference is mean lower low water, reading
2.7 ft. on tide staff at Cora Point, Coronation I.
18.7 ft. below B. M. 1 (1958)

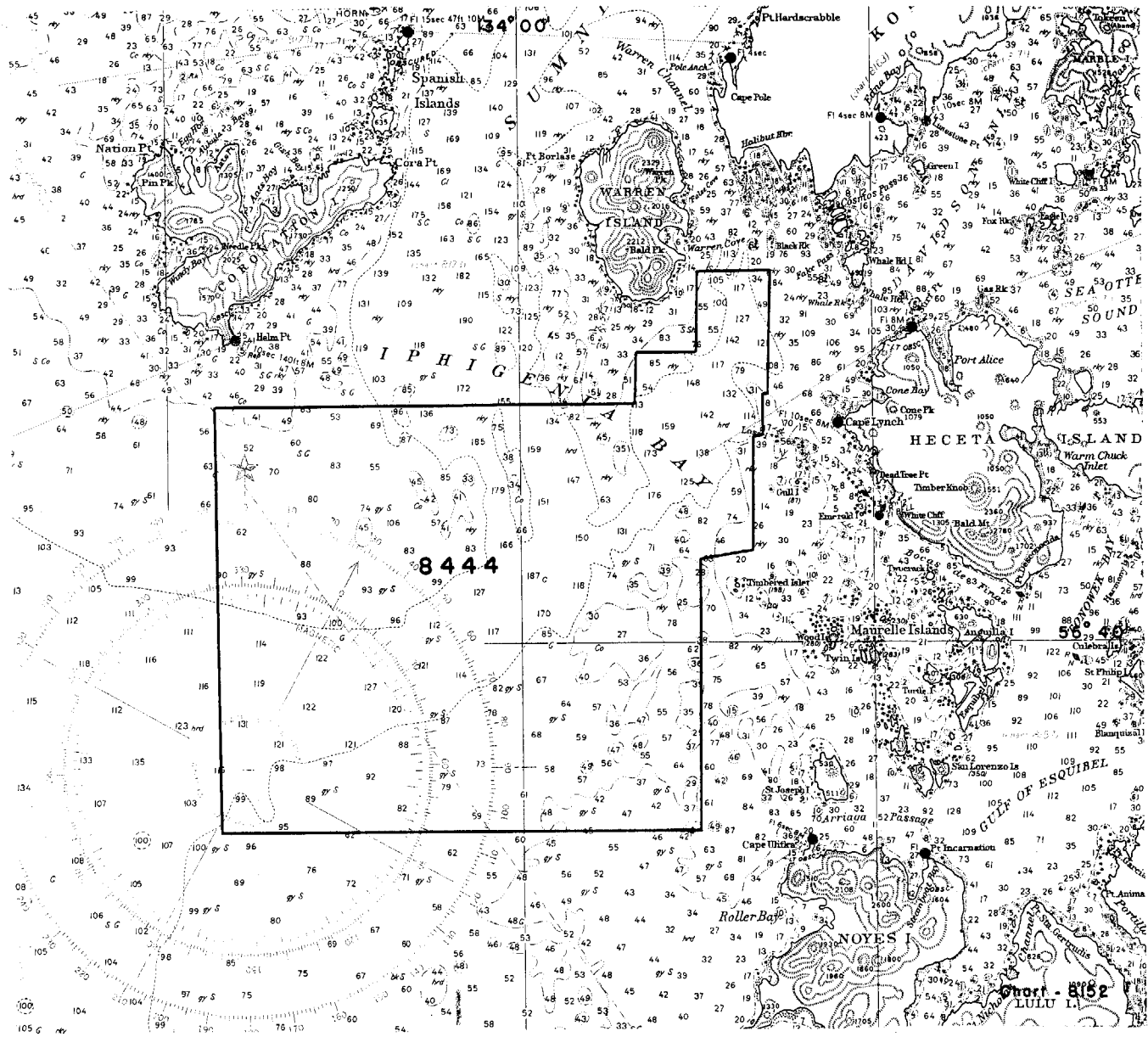
3.9 ft. on tide staff at Port Alice
11.8 ft. below B.M. 4 (1957)

Height of mean high water above plane of reference is 10.0 feet.

Condition of records satisfactory except as noted below:


Chief, Tides Branch

~~CHIEF, DIVISION OF CHARTS AND COAST SURVEY~~



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8444

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/19/60	8173	<i>Holmes</i>	Before After Verification and Review <i>Partial</i>
10-24-60	8152	R. E. Elkins	Before After Verification and Review <i>Partly app. - thru chrt 8173 drg #6 and thru smooth sheet.</i>
13 Mar 61	8002	<i>Earl M. Gray</i>	Before After Verification and Review <i>Partly app'd</i> <i>thru chrt 8152 Drg #12</i>
13 Mar 61	8201	<i>J. H. Eaton</i>	<i>Part app'd thru 8173 drg #6</i> Before After Verification and Review
Sept 65	8157	<i>Clarence Musfeldt</i>	Before After Verification and Review
8-24-72	8201	<i>James Graham</i>	<i>Drg #13</i> Before After Verification and Review <i>Examined, no corr.</i> <i>status of sheet unchanged since last application</i>
8-30-83	17402	L. A. Simmons	Before After Verification and Review <i>Drg #12</i> ^(agree w/17401) <i>Final application. Consider this Category I survey as fully app'd.</i>
8-30-83	17404	L. A. Simmons	Before After Verification and Review <i>Drg #11</i> ^(agree w/17402) <i>Final examination. Consider this Cat. I survey as fully app'd. No Corr.</i>
			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
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			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.