8134

Diag. Cht. No. 8102-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HO-2154 *Office No.* H-8134

LOCALITY

State S. E. Alaska

General locality Cordova Bay

Locality Central and Northern Parts

19 54

CHIEF OF PARTY

J. Bowie

LIBRARY & ARCHIVES

DATE October, 1957

B-1870-1 (1)

8134

4wB

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-8134

Field No. HO-2154

State S. E. Alaska

General locality Cordova Bay

Locality ~~Cordova Bay,~~ Central and Northern Parts

Scale 1/20,000 Date of survey 18 June - 27 Aug. 1954

Instructions dated 17 March 1953 and 8 Jan. 1954

Vessel Ship HODGSON

Chief of party John Bowie

Surveyed by J. Bowie and E. F. Hicks

Soundings taken by fathometer, ~~graphic recorder, hand lead, wire~~ NMC-1 & 808 Fath.

Fathograms scaled by H. Hildahl and R. Owens

Fathograms checked by J. Bowie and E. F. Hicks

Protracted by H. C. Parsons S.P.O.

Soundings penciled by H. C. Parsons

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW and are based on a velocity of sound of 800 fms/sec

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DESCRIPTIVE REPORT

to

ACCOMPANY HYDROGRAPHIC SURVEY

NO. H-8134 (FIELD NO. HO-2154)

SCALE 1:20,000 SHIP HODGSON J. BOWIE, COMDG.

SURVEYED BY: J. BOWIE AND E. F. HICKS

A. PROJECT

This survey was executed as part of Project CS-357 under Instructions 22/MEK, S-2-HO dated 17 March 1953 and Supplemental Instructions 22/MEK, S-2-HO dated 8 January 1954.

B. SURVEY LIMITS AND DATES

This survey covers the central and northern parts of Cordova Bay.

Field work began 6/18/54 and was completed 8/27/54.

Survey limits are as follows:

North - Joins Hetta Inlet. ~~No contemporary surveys exist. Survey to be extended northward next season.~~ Joins H-8230 (1955)

East - Joins with the following sheets:
Field No. HO-1854 (Reg. No. H-8132) (1954)
Field No. HO-1654 (Reg. No. H-8130) (1954)
Field No. HO-1454 (Reg. No. H-8128) (1954)

South - Joins with the following sheets:
Field No. HO-1353 (Reg. No. H-8067) (1953-54)
Field No. HO-2153 (Reg. No. H-8064) (1953)

West - Joins with Survey H-4535 (1925) on the east side of Long Island. In the Jackson Island area, joins with Tlevak Strait and Jackson Passage where no contemporary surveys exist. H-8131 (1954) on West.

C. VESSELS AND EQUIPMENT

The inshore areas were surveyed by Launches 98. The deep water area was surveyed by the Ship HODGSON. The launch has a turning radius of approximately 25 meters at standard speed. The Ship HODGSON has the following turning radius at 1000 RPM:

Full rudder:	65 meters
1/2 rudder:	90 meters
1/3 rudder:	125 meters

The launch sounded with 808 fathometer No. 62S. The ship sounded with NMC-1 fathometer Type CBM-55113 Serial No. 289 supported by 808 fathometer No. 62S for depths registering on the A-scale. All fathometers were calibrated for a velocity of 800 fms/ sec.

D. TIDE AND CURRENT STATIONS

For reduction of tides, portable automatic tide gages were maintained at the following locations:

Tah Bay (Lat. 54° 49.70', Long. 132° 19.98') (not on H-8134)
Kassa Inlet Entrance (Lat. 54° 59.68', Long. 132° 31.32')
Mabel Bay (Lat. 54° 59.98'), Long. 132° 35.51')

The Kassa gage was used for the southern part of the sheet and the Mabel gage for the northern part. The Tah Bay gage was maintained to substitute for the Kassa gage in case anything went wrong. The dividing line for the Kassa and Mabel gages is approximately Lat. 54° 58'. Records of the gages were used without time or range corrections for the reduction of all soundings.

A 75 hour series of current observations in Cordova Bay was made in June from the Ship HODGSON anchored at Lat. 54° 52.7', Long. 132° 33.5'.

E. SMOOTH SHEET

All work on the smooth sheet ~~will be~~ was done by the Seattle Processing Office and ~~will be~~ was covered by an addenda to this report.

F. CONTROL STATIONS

The following triangulation stations were used for hydrographic control: CON 1925, MARBLE 2 1908-25, ROUGH 2 1908-25, BREEZE 1907-25, TRIM 1925, JACK 1907, GREEN 1907, MELLON RK. LT. 1954, GRASS 1905-18, FOG 1908, LIME 2 1954, ATA 1918, LIT 1918, HAS 1918, MAB 1918, CLUMP 1907-25, LEDGE 2 1908, SHIP 2 1908-25, BIRD 1909-53. Triangulation station NEW 2 1954 was used to locate signal NEW only. (See sketch in Vol. 1, sounding record for Sheet HO-1654).

Other signals were transferred from adjacent 1/10,000 sheets. These are listed in alphabetical order in the index sheet of Vol. 1.

G. SHORELINE AND TOPOGRAPHY

None. Shoreline covered by adjacent 1/10,000 sheets.

T-9435 Ad Man. (1952)
T-9903 Incomp. Man. (1954)
T-11035 " " (1956)
T-11293 to T-11300 Ad. Man. ('52 & '56)
T-4183 (1925)

H. SOUNDINGS

All soundings except a few hand lead soundings on the shoal south of Mellen Rock Light were made with 808 fathometers No. 62S (mounted in both launch 98 and Ship HODGSON) and 150 SPX (mounted in HODGSON only) and NMC 1 fathometer Type CBM 55113 serial No. 289. All fathometefs were calibrated for a velocity of 800 fathoms per second and no velocity corrections were applied.

In the launch the fathometer initial was set so that with the bar at two fathoms the fathometer would read two fathoms eliminating any index or draft correction. Bar checks were made three times daily at two fathoms only in accordance with letter 22/MEK, S-1-HO dated 15 June 1953 to Commanding Officer, Ship HODGSON.

With the 808 fathometers mounted in the Ship HODGSON the index correction was determined by the method described by Comdr. Healy in Vol. 2, April 1949 of the Journal where one transducer was lowered on a cable and connected to

the 808 and the depth measured on the fathometer. With a correction to the depth due to the fact that the lowered unit is not directly under the ship mounted unit and doubling the fathometer depth since the sound travels through the water in only one direction it was a comparatively simple matter to compute the index correction.

All data for ship 808 corrections are recorded in Vol. 5 of the sounding record.

All measurements were made on the fathom scale and converted to feet except an additional determination was made on 2 Aug. on the foot scale.

Abstract of 808 index corrections - No. 62S

Date	True Distance Ship Transducer to lowered Transducer - Feet	Distance Measured on Fath. (Doubled) Feet	Initial Corr. Feet	Mean For Day Feet	Fathoms
28 July (AM)	53.5	52.8	+0.7		
(PM)	53.5	52.8	+0.7	+0.7	+0.1
2 Aug. (AM)	53.5	56.4(Port)	-1.9) -1.2		
(PM)	53.5	54.0(Stbd)	-0.5)		
(PM)	53.5	54.0(Port)	-0.5) -1.1	-1.0	-0.2
	53.5	55.2(Stbd)	-1.7)		
(Feet) (PM)	53.5	53.6(Port)	-0.1) -0.5	-0.8	
	53.5	54.4(Stbd)	-0.9)		
26 Aug. (AM)	53.5	54.0	-0.5		
(PM)	53.5	54.0	-0.5	-0.5	-0.1
808 No. 150 SPX					
27 Aug. (AM)	53.5	52.8	+0.7		
)PM)	53.5	51.6	+1.9	+1.3	+0.2

The 808 initial was set at one fathom and since the mean draft of the units for this instrument was 1.3 fathoms a draft correction of +0.3 fathom must be appllied to the 808 soundings.

In order to determine the index correction for the NMC fathometer both instruments were run when approaching shoals and when the same peak registered on both fathograms the depth was taken on both fathograms and a comparison made between the two instruments.

POSITION	A DAY NMC	808	808 CORRN. DRAFT	PHASE	INDEX	NMC DRAFT	NMC LESS INDEX	NMC INDEX CORRN	CORRECT 808 SDG
43-44	74	73.5(B)	+0.3	+0.1	+0.1	+1.1	75.1	+1.1	74.0
112-113	27	26.0(A)	+0.3	0	+0.1	+1.1	28.1	+1.7	26.4
119-120	54	54.2(B)	+0.3	+0.1	+0.1	+1.1	55.1	-0.4	54.7
194-195	60	59.0(B)	+0.3	+0.1	+0.1	+1.1	61.1	-1.6	5915
232-233	68	66.8(B)	+0.3	+0.1	+0.1	+1.1	69.1	+1.8	67.3
248-249	39	38.0(B)	+0.3	+0.1	+0.1	+1.1	40.1	-1.6	38.5
253-254	37	36.5(B)	+0.3	+0.1	+0.1	+1.1	38.1	-1.1	37.0

POSITION	NMC	808	808 CORRN. DRAFT	808 CORRN. PHASE	808 CORRN. INDEX	NMC DRAFT	NMC LESS INDEX	NMC INDEX CORRN	CORRECT 808 SDG
B Day									
1-2	44.	44.0(B)	+0.3	+0.1	-0.2	+1.1	45.1	-0.9	44.2
12-13	28	28.0(A)	+0.3	0	-0.2	+1.1	29.1	-1.0	28.1
37-38	58	57.9(B)	+0.3	+0.1	-0.2	+1.1	59.1	-1.0	58.1
47-48	53	52.8(B)	+0.3	+0.1	-0.2	+1.1	54.1	-1.1	53.0
60	39	39 (A)	+0.3	0	-0.2	+1.1	40.1	-1.0	39.1
93-94	49	48.8(B)	+0.3	+0.1	-0.2	+1.1	50.1	-1.1	49.0
119-120	43	43.3(B)	+0.3	+0.1	-0.2	+1.1	44.1	-0.6	43.5
132	42	41.0 (B)	+0.3	+0.1	-0.2	+1.1	43.1	-1.9	41.2
126-127	28	28.3(A)	+0.3	0	-0.2	+1.1	29.1	-0.7	28.4
D Day									
49-50	71	72 (B)	+0.3	+0.1	-0.1	+1.1	72.1	(+0.2)R	72.3
68-69	69	67.0(B)	+0.3	+0.1	-0.1	+1.1	70.1	(-2.8)R	67.3
118-119	63	63.0(B)	+0.3	+0.1	-0.1	+1.1	64.1	-0.8	63.3
120	66	65.3(B)	+0.3	+0.1	-0.1	+1.1	67.1	-1.5	65.6
143-144	40	40.8(B)	+0.3	+0.1	-0.1	+1.1	41.1	(+0.0)R	41.1
157-158	30	29.7(A)	+0.3	+0.0	-0.1	+1.1	31.1	-1.2	29.9
171	42	42.3(B)	+0.3	+0.1	-0.1	+1.1	43.1	-0.5	42.6
E Day	808 No. 150 SPX								
19-20	42	43.0(B)	+0.3	-1.3	+0.2	+1.1	43.1	-0.9	42.2
39-40	44	45.0(B)	+0.3	-1.3	+0.2	+1.1	45.1	-0.9	44.2
42-43	52	52.1(B)	+0.3	-1.3	+0.2	+1.1	53.1	-1.8	51.3
52-53	43	44.0(B)	+0.3	-1.3	+0.2	+1.1	44.1	-0.9	43.2
74-75	43	44.0(B)	+0.3	-1.3	+0.2	+1.1	44.1	-0.9	43.2
					Mean NMC Index	- - -		-1.1	

(1953 Index -0.4) Combined NMC Draft & Index 0.0

The NMC initial was set at zero initial and a draft correction of 1.1 fathom must be applied to these soundings.

Phase comparisons for 808 fathometers were made and details are given in table following this report.

NMC Corrections	Draft	+1.1 fms.
	Index	-1.1 fms.
Combined Fath. Correction		0.0 fms.

808 No. 62S Corrections (Ship Installation)

28 July	Draft	+0.3	A-B = +0.1, B-C = +1.8
	Index	+0.1	C-D = +1.8

Combined Correction A= +0.4, B = +0.5, C = +2.3, D = +4.1

2 Aug.	Draft	+0.3	Phase same
	Index	-0.2	

Combined Correction A = +0.1, B = +0.2, C = +2.0, D = +3.8

26 Aug. Draft +0.3 Phase same
Index -0.1

Combined Correction A = +0.2, B = +0.3, C = +2.1, D = +3.9

808 No. 150 SPX (Ship installation)

27 Aug. Draft = +0.3 A-B = -1.3, B-C = -0.5
Index = +0.2 C-D 3 +0.7

Combined Correction A = +0.5, B = -0.8, C = -1.3, D = -0.6

Bottom samples were taken at regular intervals throughout the area of the survey.

Development by launch hydro were made on adjoining 1/10,000 sheets of the following:

1 - The 2 fathom rock 1¼ mi. S of Mellen Rk. Lt. (Sheet HO-1754) H-8131
2 - Areas S of Lime Pt. (Sheet HO-1854) (H-8132, 1954)
3 - Area SE of Lacey Island (Sheet HO-1754) (H-8131, 1954)
4 - Areas SW of signal SIN (Sheet HO-1654) (H-8130, 1954)
5 - Area SW of signal BIG (Sheet HO-1454) (H-8128, 1954)

I. CONTROL OF HYDROGRAPHY

All hydro was controlled by visual sextant angles on shore objects or signals.

J. ADEQUACY OF SURVEY

This survey is complete and is adequate to supersede prior surveys for charting. Junctions with adjoining sheets are satisfactory and no holidays exist. Depth curves can be adequately drawn at the junctions. (P-5 Re-view)

K. CROSSLINES

Approximately 8% of crosslines are constituted in the hydrographic survey. These crossings are in satisfactory agreement.

L. COMPARISON WITH PRIOR SURVEYS

Prior surveys in Cordova Bay are H-2787 (1905), H-3043 (1909) and H-4535 (1925). The 1905 and 1909 surveys were of a reconnaissance nature and no attempt was made to develop underwater features. Soundings in the early surveys, although few and far between, are accurate and in general agreement with depths obtained in the 1954 survey. These early soundings are inked on the boat sheet in an amber color. The 1925 (shown in red ink) soundings are in good agreement with the present survey. The overlap area is on a steep slope off Long Island. Comparison with these earlier surveys will be shown in more detail under Item "N". (See P6 Review)

In the Jackson Island area, surveyed in 1954 - H-8131, this survey joins with H-3416(1913). Like the 1905 and 1909 surveys, the 1913 survey is sketchy and scheduled for resurvey in the near future. It is reasonable to assume that modern surveys in Tlevak Strait will disclose uncharted features similar to those found by the 1953 and 1954 survey of Cordova Bay.

M. COMPARISON WITH CHART

This survey was compared with Charts 8145 (51-5/14), 8146 (51-7/16) and 8147 (49-8/8). Except for the area close to Long Island, soundings on the chart are few and far between. These early soundings agree substantially with the 1954 survey but do not delineate bottom features or mark the least depths on shoals, and in some instances, show deep water where shoals exist. Comparison with the chart will be shown in more detail under Item "N". See Re-view

N. DANGERS AND SHOALS

Listed below are newly found dangers, shoals and significant soundings:

ITEM	LOCATION	DEPTH	CHARTED DEPTH	POS.	REMARKS
1.	55-02.5 132-37.6				Development of shoal S of Lime Point.
2.	55-00.8 132-39.7	7⅜ fm.	Nearest depth 57 fms.	28-29h	Shoal sdg.
3.	55-00.35 132-40.05	2⅘ fm.	Nearest depth 23 fms.	1-2k	Uncharted rock. H. L. sdg. obtained.
4.	54-58.15 132-40.05	6⅞ fms.	On 100 fm. curve	6-7g	Shoal sdg.
5.	54-58 132-40.5		58,32, 25, 35 and 58 fms.		Development of shoals SSE of Lacey Island.
6.	54-57.2 132-38.9	15 fms.	Between 74,80, 86 & 135 fms.	78-79f	
7.	54-56.2 132-35.3		15,7, 27		Shoal developed. See report for H-8130, Page 3.
8.	54-54.0 132-34.0	8⅔ fms.	11 fms.	100-101b	Shoal sdg.
9.	54-53.35 132-33.95	10¼ fms.	15 fms.	50-51b	Shoal sdg.
10.	54-54.6 132-32.8		Blank		Shoal developed on H-8128, See that report.

O. COAST PILOT INFORMATION

The following paragraph is taken from the Coast Pilot Report:

"Mellen Rock, 2 miles southwest of Lime Pt., is marked by a light

visible 9 miles. A dangerous rock, covered 2 fathoms at MLLW, is located 1¼ mile south of Mellen Rock. In the summer months, large masses of jelly fish are common in the bay proper and adjacent bays and inlets. In 1954 jelly fish masses were observed up to 100 yards in diameter and, when traveling below the surface, resemble shoal water because of their light color."

P. AIDS TO NAVIGATION

The only Aid to Navigation in the area surveyed is the light on Mellen Rock. The position of this light was determined by triangulation in 1954. The following is the computed position of Mellen Rock Light:

Lat. 55° 01' 37.048"
Long. 132° 35' 51.789"

Form 567 has been submitted for this light.

Q. LANDMARKS FOR CHARTS

None, other than Mellen Rock.

R. GEOGRAPHIC NAMES

A Geographic Name Report has been submitted. There is no additional information. No important previously unnamed feature exist.

S. SILTED AREAS

None.

Z. TABULATION OF APPLICABLE DATA

Attached are the following:

1. Statistics, field work
2. Tidal Note
3. Fathometer Report.

Respectfully submitted,

John Bowie

John Bowie,
CDR, USC&GS
Comdg., Ship HODGSON

STATISTICS FOR HYDRO SURVEY H-8134 (Field No. HO-2154)

VOL.	DAY	DATE	VESSEL	POS.	STAT. MI.	H.L.	REMARKS
1	a	6/18	98	153	56.4		
1&2	b	6/19	98	147	29.4		
2	c	7/13	98	29	10.2		
2	d	7/14	98	78	25.0		
2	e	7/23	98	49	15.9		
2	f	8/~~8~~3	98	80	17.4		
3	g	8/8	98	172	58.4		
3	h	8/9	98	79	18.2		
4	j	8/10	98	61	13.8		
4	k	8/12	98	27	4.6		
4	l	8/21	98	149	23.9		
	Totals for Launch 98			1024	273.2		
5&6	A	7/29	HODGSON	324	170.8		
6	B	8/2	"	133	41.7		
6	C	8/7	"	22		22	Bottom Samples
7	D	8/26	"	245	104.6		
7	E	8/27	"	87	27.4	4	
	Totals for Ship - - - - - -			811	344.5	26	
	Totals for Sheet - - - - - -			1835	617.7	26	

Area = 41.2 sq. stat. miles

TIDAL NOTE

KASSA INLET ENTRANCE

Lat. 54° 55' 36.0"
Long. 132° 31' 19.2"

MLLW = 3.9 on staff

MABEL BAY (Siggal TEE)

Lat. 54° 59' 58.8"
Long. 132° 35' 30.6"

MLLW = 4.9 on staff

TABLE 3

808 FATHOMETER 150 SPX

7 June 1954 - 3 day Sheet 1354

PHASE COMPARISON

A	B
42.3	44.3
41.6	43.2
40.4	42.0
40.0	41.3
39.9	41.2
40.0	41.0
40.0	41.0
40.1	41.2
40.0	41.3
40.4	41.6
4.7	18.1
40.5	41.8 Mean

B	C
74.4	74.8
73.6	74.4
73.5	74.0
73.0	73.5
72.8	73.3
73.0	73.5
72.0	72.5
71.9	72.1
71.7	72.3
25.9	30.4
72.9	73.4 Mean

A-B = -1.3

B - C = -0.5

A	= 0.0
B corrn	= -1.3
C corrn	= -1.8
D corrn	= -1.1

17 Sept. - Sheet 1854

C	D	
122.0	122.0	
122.0	121.0	
121.6	121.0	
121.8	121.0	
121.8	121.0	
121.5	121.0	
122.0	121.2	
122.0	121.2	
122.0	121.5	
121.5	120.0	
18.2	10.9	
121.8	121.1	C-D 0.7

PHASE COMPARISONS

808 Fathometer No. 62S - Launch 98

8 June 1954

	B	C	(Feet) A	B	Fathoms A	B
	78.9	77.2	44.9	44.5	39.5	39.1
	79.0	77.2	45.0	44.5	39.0	39.0
	79.0	77.2	45.0	44.3	38.0	38.3
	79.1	77.3	44.6	44.0	37.3	37.7
	79.2	77.4	44.3	44.0	36.6	36.8
	79.1	77.2	44.2	44.0	35.8	36.0
	79.0	77.1	44.3	44.0	35.0	35.1
	78.9	77.0	44.4	44.0	16.2	17.0
	78.9	77.0	44.2	44.0	2.3	2.4
	78.6	76.9	44.0	43.6		
	9.7	1.5	4.9	.9		
Mean	78.97	77.15	44.49	44.09	37.3	37.4

B - C = +1.82

A-B = +0.4
-0.1
0.0
+0.3
A-B = +0.1

B	C
37.3	37.0
38.2	37.8
39.0	38.5
39.9	39.2
39.9	39.7
39.5	39.3
37.0	39.1
36.9	37.0
37.0	37.0
11.6	11.4
1.3	1.3
38.3	38.3

17 Sept.

C	D
111.0	109.5
111.0	109.5
110.0	108.5
109.0	107.0
107.5	106.0
107.0	105.0
107.0	105.0
107.0	105.0
107.0	106.0
107.0	105.0
83.5	66.5
108.4	106.6

C-D = +1.8

Corrn		
	A	0.0
	B	+0.1
	C	+1.9
	D	+3.7

PROCESSING OFFICE NOTES - H-8134 HO-2154

E. SMOOTH SHEET

The smooth sheet was made by hand in the Seattle Hydrographic Processing Unit.

G. SHORELINE & TOPOGRAPHY

The topo and hydro signals were scaled from adjoining sheets and manuscripts. The shoreline was reduced from the manuscripts T-11293 through T-112300 by use of a ratio projector. Shoreline for LONG ISLAND was taken from T-4183.

H. SOUNDINGS

Launch development of the previously mentioned shoals was also done on this 1:20,000 sheet. Because of the close spacing of the lines and the roughness of the bottom, the soundings on the primary system of lines were first plotted and then only a few soundings from the other systems were added. No attempt could be made to show all of the breaks in grade, deepest depths, or pinnacles deeper than 15 fathoms. The least depth in each development, found on this sheet, was shown.

J. ADEQUACY OF SURVEY

Junctions with sheets H-8128, H-8130, H-8131, H-8132 and H-8067 were satisfactory and depth curves can be adequately drawn. H-8230 joins H-8134 on north

See FP4 of Review.

Junction with H-8064 on the south fails to agree in depths of 200 fms and over. This could be because of poor recording of the fathometer, or a displacement of the sounding lines at the junction. All of these sounding lines depend on a small right angle for their location. There was some confusion in the identification of the center object in this fix (triangulation station MARBLE 1908). No solution to the discrepancies was found. See note in Verifiers Report

Respectfully submitted,

Harvey C Parsons

HARVEY C. PARSONS
Cartographer, C&GS

EXAMINED AND APPROVED

William M. Martin

WILLIAM M. MARTIN
Supervisory Cartographer

APPROVED AND FORWARDED

Curtis Le Fever

CURTIS LE FEVER, Capt., Seattle District Officer

LIST OF GEOGRAPHIC NAMES

ABALONE ~~(LIME)~~ ISLAND
BARBARA ROCK
BIRD ROCKS
CONING INLET
CONING POINT
CORDOVA BAY
DOVA ~~DAVO~~ BAY (BGN decision)
ELBOW BAY
HASSIAH INLET
HETTA INLET
JACKSON ISLAND
KASSA INLET
KASSA POINT
KEETE ISLAND
LACEY ISLAND
LIME POINT
LONG ISLAND
MABEL BAY
MABEL ISLAND
MELLEN ROCK
NATOMA BAY
NATOMA POINT
NUTKWA INLET
POINT WEBSTER
PRINCE OF WALES ISLAND
SHIP ISLANDS (applies to group, not to a single island)
SHIP ISLAND PASSAGE
SHIPWRECK POINT
SUKKWAN ISLAND
TLEVAK STRAIT
TRIPLET ROCKS

All of above names are approved, as amended in red. Names applying particularly to H-8134 are listed on Form 234.

10-17-57
L. Heck

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

30 October 1957

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 8134

Locality Cordova Bay, Alaska

Chief of Party: J. Bowie in 1954

Plane of reference is mean lower low water, reading

3.9 ft. on tide staff at Kassa Inlet Entrance

13.8 ft. below B.M. 1 (1954)

4.9 ft. on tide staff at Mable Bay
16.7 ft. below B.M. 1 (1954)

Height of mean high water above plane of reference is:

Kassa Inlet Ent. .... 11.7 ft.
Mabel Bay ..... 11.9 ft.

Condition of records satisfactory except as noted below:

Signature

Chief, Tides Branch

Comm-DC 34330

GEOGRAPHIC NAMES

Survey No. H-8134

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	
Southeast Alaska										1
Prince of Wales Island										2
Cordova Bay										3
Abalone Island										4
Point Webster										5
Kassa Inlet			(tide station)							
Mabel Bay			(tide station)							6
Mutkwa Inlet										7
Lime Point										8
Mellen Rock										9
Lacey Island										10
~~Tlevak Strait~~									BGN	11
Dova Bay									"	12
Elbow Bay									"	13
Long Island										14
Triplet Rks			Names approved 10-17-57							15
Jackson Island						L. Heck				16
Tide station off sheet:										17
Tah Bay										18
										19
Hassiah Inlet			These names are							20
Mabel Island			all approved, if							21
Keefe Island			using them is							22
Kassa Point			deemed desirable							23
Ship Island Passage			July 24, 1958							24
Ship Islands			L. Heck.							25
Natoma Pt										26
Coning Pt										27
Abalone I.										

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8134..

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..7...; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 2-Envelope

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		1835
Number of positions checked		43
Number of positions revised		1
Number of soundings revised (refers to depth only)		46 *
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	12
Junctions	Time	48
Verification of soundings from graphic record	Time	30

Verification by F. P. SAULSBURY ....Total time 275 Date 6-18-58

Reviewed by... [signature] ..... Time 34 Date 7/21/58

About 115 intermediate deeps & shoals also added

M-2232-1

GEOGRAPHIC NAMES

PRINCE OF WALES ISLAND

SUKKWAN ISLAND

CORDOVA BAY

TLEVAK STRAIT

MELLON ROCK

JACKSON PASSAGE

JACKSON ISLAND

LACEY ISLAND

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8134 FIELD NO. HO-2154

S.E. Alaska, Cordova Bay, Central and Northern Parts

Surveyed June-August, 1954 Scale 1:20,000

Project No. CS-357

Soundings:

808 Depth Recorder
NMC-1 Depth Recorder
Hand lead

Control:

Sextant fixes on shore signals

Chief of Party - J. Bowie
Surveyed by - J. Bowie and E. F. Hicks
Protracted by - H. C. Parsons
Soundings plotted by - H. C. Parsons
Verified and inked by - F. P. Saulsbury
Reviewed by - I. M. Zeskind
Inspected by - R. H. Carstens

Date: 7/22/58

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys:

T-9435 (1948-54)	T-11295 (1953-54)
T-9903 (1953-54)	T-11296 (1948-54)
T-11035 (1954)	T-11297 (1948-54)
T-11293 (1948-54)	T-11298 (1953-54)
T-11294 (1948-53)	T-11299 (1953-54)
	T-11300 (1953-54)

and with planetable survey T-4183 (1925).

The control is adequately described in the Descriptive Report.

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

The bottom is very irregular in depths less than 100 fms. and fairly irregular in greater depths. Submarine features such as shoals, pinnacles, ridges and troughs contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8132 (1954) on the northeast, with H-8128 (1954) and H-8067 (1953-54) on the southeast, with H-4535 (1925) on the southwest and with H-8131 (1954) on the northwest. The junctions with H-8230 (1955) on the north, with H-8130 (1954) on the east, and with H-8064 (1953) on the south will be considered in the reviews of those surveys.

5. Comparison with Prior Surveys

H-2787 (1905), 1:40,000
H-3043 (1907), 1:20,000

These prior reconnaissance surveys cover the area of the present survey. A comparison between the prior and present surveys reveals in general only minor 1 to 4 fm. differences in depths, except in several areas where greater differences are noted. An example of these latter differences, which are attributed to improper spacing of soundings, occurs in lat. 54°57.9', long. 132°41.9', where a prior depth of 135 fms. falls in present depths of 100 fms.

The present survey is considered adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 8146 (Latest print date 11-1-54)
Chart 8147 (Latest print date 10-7-57)

A. Hydrography

The charted hydrography originates principally with the boat sheet of the present survey (Bps. 52097-98) and the prior surveys previously discussed which need no further consideration. The following charted soundings falling on shoals were revised to shoaler depths during verification and review of the present survey:

Charted depth fms.	Location Latitude	Longitude	Revised depth Present Survey-fms.
36	54°57.23'	132°38.35'	31
32	54°58.0 '	132°41.15'	23
15	54°57.85'	132°40.6 '	13

In general, only minor differences of 0.2 fm. to 4.0 fm. between the charted and present survey depths after verification and review were noted, except in lat. 54°57.0', long. 132°39.2', where a charted 108-fm. sounding was revised to 122 fms.

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

B. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

7. Condition of Survey

a. The sounding records are complete; the Descriptive Report covers all matters of importance.

b. The smooth plotting was accurately done. However, over 100 additional deep and shoal soundings were scanned from the fathograms to more completely reveal the configuration of the bottom.

c. It was necessary to reject soundings on portions of several sounding lines in the vicinity of lat. 54°51.7', long. 132°35.5' because the fathogram traces were unreadable. The elimination of these soundings on the smooth sheet caused a holiday here of about 3/4 mile in length and 1/4 mile in width. For charting purposes the holiday is of little significance considering the even slope of the bottom and depths of 150 to 200 fms.

8. Compliance with Project Instructions

The survey adequately complies with the project instructions.

9. Additional Field Work Recommended

The survey is considered basic and no additional field work is recommended. As a matter of record, attention is directed to the holiday referred to in paragraph 7c above.

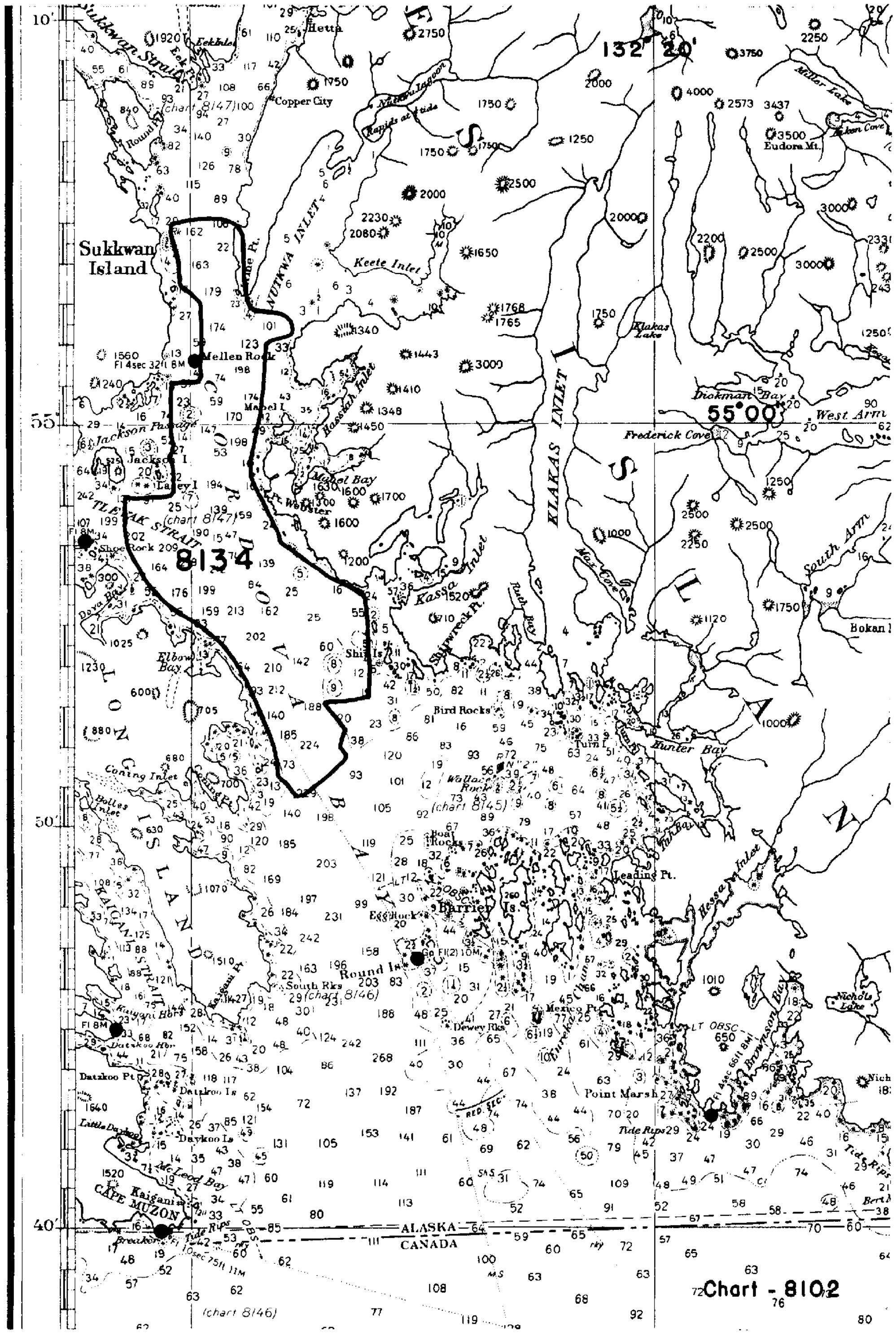
Examined and approved:

Max G. Ricketts
Chief, Nautical Chart Branch

Ernest B. Lewey
Chief, Division of Charts

Karl B. Jeffers
Chief, Hydrography Branch

Samuel B. Grenell
Chief, Division of Coastal Surveys


Sukkwan Island
Sukkwan Strait
Hetta
Copper City
Mellen Rock
Jackson Passage
Mabel I
Mabel Bay
Pt. Webster
Kassa Inlet
Klakas Inlet
Klakas Lake
Dickman Bay
Frederick Cove
West Arm
South Arm
Eudora Mt.
Keete Inlet
Nutkwa Inlet
Hessa Inlet
Shoe Rock
Elbow Bay
Ship Is
Bird Rocks
Hunter Bay
Turn I
Wallace Rock
Boat Rocks
Barrie Is
Egg Rock
Round Is
South Rks
Dewey Rks
Mexico Pt
Leading Pt.
Point Marsh
Tide Rips
Coning Inlet
Kaigani Hbr
Datzkoo Pt
Datzkoo Is
Daykoo Is
McLeod Bay
Little Daykoo
Cape Muzon
Kaigani Pt
ALASKA
CANADA
8134
132° 20'
55°00'
(chart 8147)
(chart 8145)
(chart 8146)
Chart - 8102

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8134

Reviewed 7-22-58

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-31-60	8152	R.E. Elkins	~~Before~~ After Verification and Review Completely applied without going thru the large scale chart 8147 (Pacific)
1/14/61	8102	E.E. Thomas	~~Before~~ After Verification and Review Completely applied thru Dwg #12 chart 8152
6/8/61	8146	Helmer	~~Before~~ After Verification and Review completely applied. Examchart 8152 Dwg #12.
4/30/62	8147	H. Radle	~~Before~~ After Verification and Review Fully appld Exam. Chart 8146 for overlap
8-10-63	8147	h. keeler	~~Before~~ After Verification and Review ~~Appld. thru chl. 8151~~ last corr only for T.O. print RKD
2/5/75	8147	M.D. KANIS	~~Before~~ After Verification and Review, inspection + signature - re-examined for critical corrections
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.