

8131

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-1754 Office No. H-8131

LOCALITY

State S. E. Alaska

General locality Cordova Bay

Locality S. E. Sukkwan Island

194 54

CHIEF OF PARTY

J. Bowie

LIBRARY & ARCHIVES

DATE September 18, 1957.

B-1870-1 (1)

8131

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-8131

Field No. HO-1754

State S. E. Alaska

General locality Cordova Bay

Locality SE Sukkwan Island
~~West shore Cordova Bay, Jackson Island~~

Scale 1:10,000 Date of survey 8-19 August 1954

Instructions dated 17 March 1953 & 8 January 1954

Vessel Ship HODGSON

Chief of party John Bowie

Surveyed by J. Bowie, E. F. Hicks, Jr., J. Dermody

Soundings taken by fathometer, graphic recorder, hand lead, wire 808 fathometer

Fathograms scaled by H. Hildahl, R. Owens

Fathograms checked by Ship personnel

Protracted by C. R. Lehman (S.P.C.)

Soundings penciled by C. R. Lehman

Soundings in fathoms ~~100~~ at ~~MLLW~~ MLLW and are based on a velocity

REMARKS: of sound of 800 fms/sec.

lam

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY NO. H-8131 (FIELD NO. HO-1754)

SCALE 1:10,000 SHIP HODGSON J. BOWIE, COMDG.

SURVEYED BY J. BOWIE, E. F. HICKS, JR., J. DERMODY

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 that part of Cordova Bay north of Lat. $54^{\circ} 58' 25''$ and west of Long. $132^{\circ} 40' 15''$ to Lat. $55^{\circ} 01' 0''$ thence northward along Long. $132^{\circ} 39' 15''$ to Lat. $55^{\circ} 03' 15''$.

Field work on this survey began on 8 August 1954 and was completed 19 August 1954.

(1954) This survey is joined on the south and east by contemporary survey H-8134 (Field No. HO-2154). It is joined on the southwest by H-3416, Scale 1/20,000 surveyed in 1913. (1913)

C. VESSELS AND EQUIPMENT

This survey was executed with standard 30 foot hydrographic launch No. 98 and plane personnel boat, launch No. 134. Both launches had a turning radius of approximately 25 meters at standard speed.

808 Fathometers No. 62S and 150 SPX with reeds calibrated for a velocity of 800 fathoms per second were used for hydrography.

D. TIDE AND CURRENT STATIONS

A portable automatic tide gage was maintained in Mabel Bay, Lat. $54^{\circ} 59' 58.8''$, Long. $132^{\circ} 35' 30.6''$ (outside the limits of this sheet) during the period of this survey and was used without time or height correction for reduction of all soundings.

No current stations were occupied within the limits of this survey.

E. SMOOTH SHEET

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

F. CONTROL STATIONS

Triangulation stations LIME 2, 1954, MELLEN ROCK LIGHT 1954, GRASS 1905-18, GREEN 1907-18, JACK 1907 and HEN 1907 supplemented by photo hydro

of 1948-54,

signals from manuscripts T-11296 and T-11293, were used to control this survey.

Where signals were needed and there was no identifiable picture point nearby the stations were located by sextant fixes at the stations using signals mentioned in preceding paragraph.

A list of all signals and method of location is in Vol. No. 1 of the sounding record.

G. SHORELINE AND TOPOGRAPHY

All shoreline from manuscripts T-11296 and T-11293. *FP-1 Review*

No shoreline discrepancies were noted.

All shoreline except the general foul area vicinity Lat. 55° 01', Long. 132° 42' was examined during minus tides and visible rocks located.

On account of steep to, rocky coast it was impractical to delineate the low water line in all cases.

H. SOUNDINGS

All soundings except isolated hand lead soundings on shoals and rocks were made with 808 fathometers No. 62S and 150 SPX.

The fathometer initial was set so that with the bar at two fathoms the fathometer would read two fathoms eliminating any index correction. Since the fathometers were calibrated for a velocity of 800 fathoms per second no velocity correction was applied.

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.

Phase comparisons were made and corrections applied. Details of the phase comparisons and corrections are given in Table 2 following this report.

Bottom samples were taken at various intervals throughout the area of this sheet.

I. CONTROL OF HYDROGRAPHY

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

J. ADEQUACY OF SURVEY

This survey is complete and adequate for charting purposes. Junction with the adjoining sheet is satisfactory and no holidays exist. Depth curves can be adequately drawn at the junctions. *FP4 & FP9 Review*

K. CROSSLINES

There are approximately 24 miles of crosslines or approximately 8% of all lines are crosslines. All crossings appear to be satisfactory.

L. COMPARISON WITH PRIOR SURVEYS

This survey covered parts of old survey H-2787 a 1905, 1/40,000 survey and H-3416, a 1913, 1/20,000 survey. Both of these surveys were of a reconnaissance nature and all information from them was noted on the chart and items under this will be taken up under paragraph M. IP 5 re-view

M. COMPARISON WITH CHART

* This survey was compared with Chart 8147, Third Edition, Print date 12 May 1952. Locations are from boat sheet and depths are from predicted tides. These may be revised slightly when smooth plot is made.

See REVIEW IP-6

CHARTED LOCATIONS	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
1 54-58.43 132-43.32	Rock Awash	54-58.40 // 132-43.35 //	Rock uncovered 1 1/2 ft. MLLW. //	Vol. I pg. 64 pos 1 Shown on chart 8147, 4th Ed. 5-28-56 as a sunken rock.
2 54-58.47 132-43.23	1 1/2 fms.	54-58.41 // 132-43.25 //	Rock covered ^{awash} 0 1/2 ft. MLLW. //	Vol. I pg. 64 pos. 2 Also shown on 8147 as a sunken rock.
3 54-58.58 132-42.14	7 rocks Awash in this area	(a) 54-58.53 // 132-42.27 //	Rock uncovered 8 1/2 MLLW. //	There are only three large rocks in this area which are listed under sublocations a, b, c. These rocks are mentioned in Item 1 of review * dated 1/26/53.
4 * These features revised on Chart 8147 (10-7-57)		(b) 54-58.55 // 132-42.14 //	Rock covered ^{awash MLLW} 11-10' MLLW. //	
5		(c) 54-58.49 // 132-42.10 //	Rock uncovered 108' MLLW. //	
6 54-58.62 132-41.24	Two sunken rocks.	No trace found S.E. of Bob		Delete from chart. Survey shows no indi- cation, area was examined at minug tide.
7 54-58.91 132-41.01	Rock awash.	54-58.86 // 132-41.06 //	Rock awash MLLW. //	Seems likely that only one rock exists in this area. Suggest deletion of old charted location.
8 54-58.94 132-41.40	Rock awash.	54-58.89 // 132-41.22 //	Rock covered ^{awash} 1-4' MLLW. //	
9 54-58.97 132-41.50	Rock awash.	54-58.88 // 132-41.58 // 30	Rock uncovered 9 ft. MLLW. //	
10 54-58.98 132-41.52	Rock awash	54-58.93 // 132-41.49 //	7 Rock uncovered, 7 1/2 ft. MLLW //	
11 54-59.43 132-41.96	6 1/4 fms.	54-59.40 // 132-41.97 //	3 1/2 fms. //	Shoal sounding on large rock.
12 55-00-.59 132-42.86	rock awash	55-00.58 132-42.88 //	Rock uncovered 3 1/2 ft. MLLW. //	

CHARTED LOCATIONS	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
#13 55-00.71 132-42.92	Rock awash.	(a) 55-00.69 132-42.89	Rock uncovered 2 ft. MLLW	Two rocks in this area.
#14		(b) 55-00.71 132-42.91	Rock uncovered 2 ft. MLLW.	
#15 55-00.75 132-42.30	Kelp patch	(a) 55-00.84 132-42.25	Rock uncovered 2 ft. MLLW.	Two rocks and general shoal area.
#16		(b) 55-00.88 132-42.24	Rock awash MLLW.	
#17 55-01.00 132-42.0	6 sunken rocks.	55-01.00 132-42.25	Rocks awash to uncovered 3 ft. MLLW.	General foul area.
#18 55-01.20 132-41.18	Two sunken rocks.	No trace found.		Delete from chart. Numerous rocks awash 200 meters SW.
#19 55-03.16 132-40.80	Sunken rock	55-03.17 132-40.82	Rock uncovered 8 ft. MLLW.	○ Sip

N. DANGERS AND SHOALS

Listed below are dangers, shoals and critical soundings found in addition to those listed under paragraph M.

LOCATION	DEPTH	REMARKS
#20 55-02.158 # 132-40.702	4 ¹ / ₂ fms.	Shoal sounding - 107-108e 99-100 d (brown)
#21 55-01.98 # 132-40.71 #	5 ¹ / ₂ fms.	Shoal sounding 121-122d (brown)
#22 55-00.35 # 132-40.06 #	2 ¹ / ₂ fms.	Shoal sounding. Pos. 45-46e. This shoal also developed on HO-2154. Shoal sndg in this area on H-8134 is 2 ¹ / ₂ fms. (purple)
#23 55-00.48 # 132-42.97 #	2 ¹ / ₂ fms.	Shoal sounding Pos. 74-75d. Hand lead sndg on this Shoal is 2 ¹ / ₂ fms. Pos 79e (purple)

In addition to the above there were numerous inshore rocks which were located but are not listed on account of being close inshore.

The small passages at Lat. 55° 00'85, Long. 132° 41'90; Lat. 55° 01'35, Long. 132° 42'00; Lat. 55° 01'10, Long. 132° 42'10 and Lat. 55° 00'60, Long. 132° 42'10 were too foul for launch hydrography.

O.Y COAST PILOT INFORMATION

Good anchorage may be found in twelve to fifteen fathoms east of Jackson Island, Lat. 55° 00'30, Long. 132° 42'50. The survey vessel anchored at this location during the course of the survey.

During the period of this survey the weather was good.

No current observations were made within the limits of this survey. ✓

P. AIDS TO NAVIGATION

One fixed aid to navigation, Mellen Rock Light, (Hydro signal LEM) ✓
maintained by U. S. Coast Guard is within the limits of this survey.

No floating aids to navigation are within the limits of this survey. ✓

Q. LANDMARKS FOR CHARTS

None recommended. ✓

R. GEOGRAPHIC NAMES

See Geographic Names Report submitted by this party.

It is recommended that the group of 3 rocks, Lat. $54^{\circ} 58' 15''$, Long. ✓
 $132^{\circ} 42' 12''$ be named THE TRIPLETS. (See Geographic Names)

S. SILTED AREAS

No significant silted areas were noted. ✓

T. MARKED STATIONS

The following stations other than triangulation stations were marked by
standard topographic disks TICK and GOLD. ✓

Z. TABULATION OF APPLICABLE DATA

Tidal Data ✓
Air Photographs

Approved and forwarded:

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

Respectfully submitted,

E. F. Hicks, Jr.
E. F. Hicks, Jr.
CDR, USC&GS

STATISTICS

for

HYDROGRAPHIC SURVEY H-8131, FIELD NO. HO-1754

VOL.	DAY	DATE	VESSEL	POS.	STAT. MI.	H. L.
1	a	9 Aug.	Launch 98	120	30.2	
1	b	10 Aug.	" "	118	28.7	
2	c	11 Aug.	" "	230	40.1	
2	d	12 Aug.	" "	118	24.9	
3	d	12 Aug.	" "	6	1.4	
3	e	19 Aug.	" "	226	42.6	<u>3</u>
		Total Launch 98	- - - -	818	167.9	<u>3</u>
4	a	8 Aug.	Launch 134	84	14.6	
4	b	9 Aug.	" "	146	26.9	
4	c	10 Aug.	" "	89	17.1	
5	c	10 Aug.	" "	92	19.6	
5	d	11 Aug.	" "	179	24.5	
5	e	12 Aug.	" "	100	12.5	
6	e	12 Aug.	" "	68	7.7	
6	f	19 Aug.	" "	164	17.1	
		Total Launch 134	- - - -	922	140.0	
1	a	9 Aug.	dinghy	3		3
1	b	10 Aug.	"	4		4
1	c	11 Aug.	"	21		21
1	d	12 Aug.	"	9		9
		Total dinghy	- - - -	37		<u>37</u>
1	a	12 Aug.	skiff	7		7
1	a	19 Aug.	Launch 169	7		7
		Total for sheet	- - - -	179 ₅	307.9	<u>54</u> ₈

Area: 8.2 sq. stat. miles

TABLE 2

FATHOMETER CORRECTIONS - (PHASE)

808 FATHOMETER NO. 62S

Feet		Fathoms		Fathoms	
A	B	A	B	A	B
44.9	44.5	39.5	39.1	37.3	37.0
45.0	44.5	39.0	39.0	38.2	37.8
45.0	44.3	38.0	38.3	39.0	38.5
44.6	44.0	37.3	37.7	39.9	39.2
44.3	44.0	36.6	36.8	39.9	39.7
44.2	44.0	35.8	36.0	39.5	39.3
44.3	44.0	35.0	35.1	37.0	39.1
44.4	44.0	Mean 37.3	37.4	36.9	37.0
44.2	44.0			37.0	37.0
44.0	43.6			Mean 38.3	38.3
Mean 44.5	44.1				

Fathoms		Fathoms	
B	C	C	D
78.9	77.2	111.0	109.5
79.0	77.2	111.0	109.5
79.0	77.2	110.0	108.5
79.1	77.3	109.0	107.0
79.2	77.4	107.5	106.0
79.1	77.2	107.0	105.0
79.0	77.1	107.0	105.0
78.9	77.0	107.0	105.0
78.9	77.0	107.0	106.0
Mean 78.6	76.9	Mean 107.0	105.0
Mean 79.0	77.2	Mean 108.4	106.6

A-B	+0.4
	-0.1
	0.0
Mean	+0.1

B-C	+1.8
C-D	+1.8

Correction A Scale	0.0
B Scale	+0.1
C Scale	+1.9
D Scale	+3.7

TABLE 3

808 FATHOMETER 150 SPX

7 June 1954 - j day Sheet 1354

PHASE COMPARISON

A	B	B	C
42.3	44.3	74.4	74.8
41.6	43.2	73.6	74.4
40.4	42.0	73.5	74.0
40.0	41.3	73.0	73.5
39.9	41.2	72.8	73.3
40.0	41.0	73.0	73.5
40.0	41.0	72.0	72.5
40.1	41.2	71.9	72.1
40.0	41.3	71.7	72.3
<u>40.4</u>	<u>41.6</u>	25.9	30.4
4.7	18.1	72.9	73.4 Mean
40.5	41.8 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
<u>121.5</u>	<u>120.0</u>
18.2	10.9
121.8	121.1 C-D 0.7

TIDE NOTE

to accompany

HYDROGRAPHIC SURVEY H-8131, FIELD NO. HO-1754

TIDE STATION

MABEL BAY

Lat. $54^{\circ} 59' 58.8''$ (off sheet)
Long. $132^{\circ} 35' 30.6''$

MLLW on staff = 4.9 feet

PROCESSING OFFICE NOTES H-8131 (HO-1754)

SMOOTH SHEET

The smooth sheet was hand constructed in the Seattle Hydrographic Processing Unit, using standard methods of construction and transfer.

CONTROL STATIONS

A three point problem was solved for signal "TUT" and the position was computed.

Photo topo signal "VET" was moved approximately 10 meters to the SSW to agree with check angles on various fixes in the area. This move improved the crossings on lines using this signal.

SHORELINE AND TOPOGRAPHY

The shoreline and offshore detail was transferred from T-11293 and T-11295 and checked according to standard practice.

ADEQUACY OF SURVEY

The survey is complete and adequate for charting. The junction with H-8134 ⁽¹⁹⁵⁴⁾ has not been compared except to check for holidays, which do not exist. The comparison will be made on H-8134 when that sheet is complete. *TP4 Review*

COMPARISON WITH CHART

Comparison was made with chart 8147, 4th Ed. dated 5-28-56. Changes to smooth sheet values were made in ink in the field report under this heading. *PG Review*

DANGERS AND SHOALS

Inked corrections made in field report under this heading.

Shapes for two high water rocks are shown on the smooth sheet in pencil, one a (12) rock at Lat. 55° 01.'12, Long. 132° 41.'35 (pos 12c green), the other a (15) rock at Lat. 55° 01.'32, Long. 132° 41.'40 (pos 6c green) signal "VEE" is on the latter rock.

Respectfully submitted,

William M. Martin
WILLIAM M. MARTIN
Supervisory Cartographer

APPROVED & FORWARDED:

Curtis Le Fever
CURTIS LE FEVER, Capt., C&GS
Seattle District Officer

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

α	2	HAS	to 8	11413	03	47	56.1	03	47	56.1
β	2	HAS	to 8	11413	03	47	56.1	03	47	56.1
α	2	HAS	to 8	11413	03	47	56.1	03	47	56.1
$\Delta\alpha$										
α'	1		to 2		252	40	04.9			

First Angle of Triangle

ϕ	55	01	51.912	2	HAS	λ	132	35	45.333
$\Delta\phi$	-	01	02.673			$\Delta\lambda$	+	05	50.400
ϕ'	00	49.239	1	TUT	λ'	41	35.733		

s	3.814	263	Logarithms	55	01	20.6	Values in seconds
$\cos\alpha$	9.472	139	Logarithms	55	01	20.6	Values in seconds
B	8.509	708	Logarithms	55	01	20.6	Values in seconds
h	1.796	110	Logarithms	55	01	20.6	Values in seconds
s^2	7.628	53	Logarithms	55	01	20.6	Values in seconds
$\sin^2\alpha$	9.960	01	Logarithms	55	01	20.6	Values in seconds
C	1.558	26	Logarithms	55	01	20.6	Values in seconds
h^2	9.146	80	Logarithms	55	01	20.6	Values in seconds
D	2.366	59	Logarithms	55	01	20.6	Values in seconds
	5.958	1	Logarithms	55	01	20.6	Values in seconds

COMPUTATION OF TRIANGLES

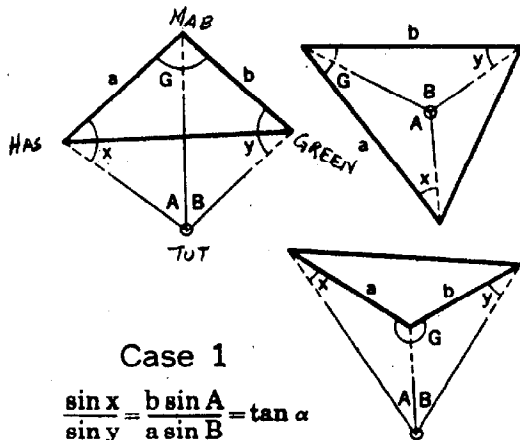
State: _____

11-0121

NO.	STATION	OBSERVED ANGLE	CORR'N	SPHER'L ANGLE	SPHER'L EXCESS	PLANE ANGLE AND DISTANCE	LOGARITHM
	2-3						3.482 196
	1 TUT	27 33 00					0.334 867
	2 HAS	68 56 56					9.970 003
	3 MAB	(83 30 04)					9.997 200
	1-3						3.787 066
	1-2						3.814 263
		180 00 00					
	2-3						3.796 610
	1 TUT	73 37 -					0.018 002
	2 MAB	(36 34 30)					9.775 155
	3 GREEN	69 48 30					9.972 454
	1-3					3888.4	3.589 767
	1-2						3.787 066
		180 00 00					
	2-3						
	1						
	2						
	3						
	1-3						
	1-2						
	2-3						
	1						
	2						
	3						
	1-3						
	1-2						

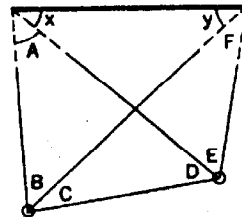
Do not write in this margin

SPECIAL ANGLE COMPUTATION



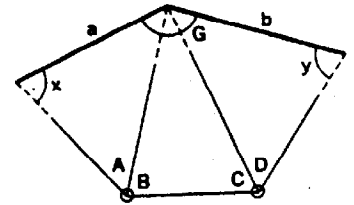
Case 1

$$\frac{\sin x}{\sin y} = \frac{b \sin A}{a \sin B} = \tan \alpha$$



Case 2

$$\frac{\sin x}{\sin y} = \frac{\sin A \sin C \sin E}{\sin B \sin D \sin F} = \tan \alpha$$



Case 3

$$\frac{\sin x}{\sin y} = \frac{b \sin A \sin C}{a \sin B \sin D} = \tan \alpha$$

$$\frac{1}{2} (x + y) = \begin{cases} \text{Case 1: } 180^\circ - \frac{1}{2} (A + B + G) = & 69^\circ \quad 22' \quad 43'' \\ \text{Case 2: } \frac{1}{2} (C + D) = & \\ \text{Case 3: } 270^\circ - \frac{1}{2} (A + B + C + D + G) = & \end{cases}$$

A 27 33 00
 B 73 37 -
 G 120 04 34

Leave blanks below here for values not involved in the CASE used.

log b = 3.796 610
 log sin A = 9.665 133
 log sin C =
 log sin E =
 * ① Sum = 3.461 743
 - ② -
 log tan α =
 α =
 $\alpha - 45^\circ$ =

log a = 3.482 196
 log sin B = 9.981 998
 log sin D =
 log sin F =
 * ② Sum = 3.464 194
 - ① - 3.461 743
 log tan α = 0.002 451
 α = 45° 09' 42"
 $\alpha - 45^\circ$ = 09 42

log tan $\frac{1}{2}(x+y)$ =
 log tan $(\alpha - 45^\circ)$ =
 Sum = log tan $\frac{1}{2}(x-y)$ =
 $\frac{1}{2}(x-y)$ =
 $\frac{1}{2}(x+y)$ =
 x
 y

log tan $\frac{1}{2}(x+y)$ = 10.424 464
 log tan $(\alpha - 45^\circ)$ = 7.450 499
 Sum = log tan $\frac{1}{2}(y-x)$ = 7.874 963
 $\frac{1}{2}(y-x)$ = 0 25 46.6
 $\frac{1}{2}(y+x)$ = 69 22 43
 y = 69 48 29.6
 x = 68 56 56.4

α is an auxiliary angle needed only for the computation: it is always between 45° and 90°

* Where ① is greater than ② use only the left side of the form below here, and vice-versa.

GEOGRAPHIC NAMES
 Survey No. H-8131

Name on Survey											
	A	B	C	D	E	F	G	H	K		
<u>Southeast Alaska</u>				(title)							1
<u>Prince of Wales Island</u>											2
<u>Cordova Bay</u>											3
<u>Lacey Island</u>											4
<u>Triplet Rocks</u>											5
<u>Jackson Island</u>											6
<u>Jackson Passage</u>											7
<u>Tlevak Strait</u>										BGN	8
<u>Hellen Rock</u>											9
<u>Sukkwan Island</u>											10
											11
											12
Tide station off sheet:											12
<u>Mabel Bay</u>											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names approved 9-27-57
 L. Heck

GEOGRAPHIC NAMES

PRINCE OF WALES ISLAND

SUKKWAN ISLAND

CORDOVA BAY

TLEVAK STRAIT

MELLON^E ROCK

JACKSON PASSAGE

JACKSON ISLAND

LACEY ISLAND

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens:

30 September 1957

Plane of reference approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 8131

Locality Cordova Bay, Alaska

Chief of Party: J. Bowie in 1954

Plane of reference is mean lower low water, reading

4.9 ft. on tide staff at Mabel Island

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

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

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8131..

Records accompanying survey:

Boat sheets ..2..; sounding vols. ..6..; wire drag vols.; bomb vols.; graphic recorder rolls 2; Envelopes special reports, etc. .1-Smooth sheet and 1-Descriptive report.

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

Number of positions on sheet	.....	1795
Number of positions checked	.....	45
Number of positions revised	.....	13
Number of soundings revised (refers to depth only)	.....	234 *
Number of soundings erroneously spaced	.....	12
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	..... 8
Junctions	Time	..... 8
Verification of soundings from graphic record	Time	..... 8

Verification by *C.R. Helmer* Total time 273 Date 2/3/58

Reviewed by *H.W. Jeske* Time 55 Date 2/20/58

**Includes numerous sdgs added to show continuity of deeps*

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8131

FIELD NO. HO-1754

S. E. Alaska, Cordova Bay, S. E. Sukkwan Island

Surveyed: August 1954

Scale 1:10,000

Project No. CS-357

Soundings:

Control:

Fathometer
Leadline

Sextant fixes on
shore objects

Chief of Party - John Bowie
Surveyed by - J. Bowie, E. F. Hicks, Jr., J. Dermody
Protracted by - C. R. Lehman
Soundings plotted by - C. R. Lehman
Verified and inked by - C. R. Helmer
Reviewed by - I. M. Zeskind
Inspected by - R. H. Carstens

Date: 2-20-58

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic Surveys T-11293 (1948-54) and T-11296 (1948-54).

The source of the control is described in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated, except in depths less than 5 fms. where the foul character of the bottom sometimes prevented development to the low water line.

The bottom is very irregular. Submarine features such as reefs, ledges, deeps and shoals contribute to the bottom irregularity.

4. Junction with Contemporary Surveys

Survey H-8134 (1954) joins the present survey on the north, east and south. The junction of H-8134 with the present survey will be considered in the review of that survey. The present survey extends to the limits of the Project on the west where it makes adequate junction with the charted hydrography.

5. Comparison with Prior Surveys

H-2787 (1905), 1-40,000

H-3416 (1913), 1-40,000

These prior reconnaissance surveys cover the area of the present survey. In general, only minor differences in depths of 1-2 fms. are noted. However, in several areas differences in depths as much as 4 fms. are noted. These latter differences are attributed to inaccuracies in control and the improper spacing of soundings on the prior surveys. The rock awash and sunken rock symbolization on the prior surveys is generalized in a number of areas and disagrees with the more accurate delineation shown on the present survey. These symbols are, therefore, not being carried forward to the present survey. A few bottom characteristics have been carried forward to the present survey from prior survey H-3416.

The present large-scale survey is adequately developed to reveal all hydrographic information necessary to supersede the prior surveys.

6. Comparison with Chart 8147 (Latest print date 10-7-57)

A. Hydrography

The charted information originates principally with the boat sheet of the present survey, supplemented by rocks awash and sunken rocks from the prior surveys previously discussed which need no further consideration.

Only minor differences of 0.3 to 1.0 fms. between the charted and present survey depths after verification and review are noted, except for the 21-fm. sounding charted in lat. $55^{\circ}02.37'$, long. $132^{\circ}40.44'$, which was erroneously shown on the boat sheet. The sounding is actually 32 fms.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth-plotting was accurately done.
- c. Numerous soundings were added during verification to show continuity of deeps and to reduce the wide spacing of soundings in areas affecting depth curves.


8. Compliance with Project Instructions

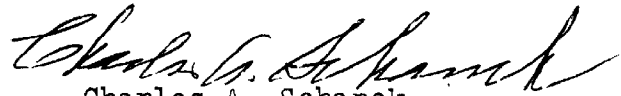
The survey adequately complies with the Project Instructions.

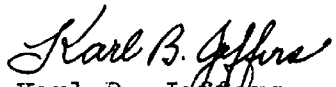
9. Additional Field Work Recommended

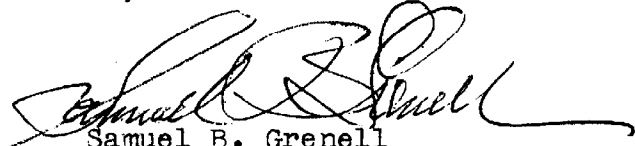
The survey is considered basic and no additional field work is recommended.

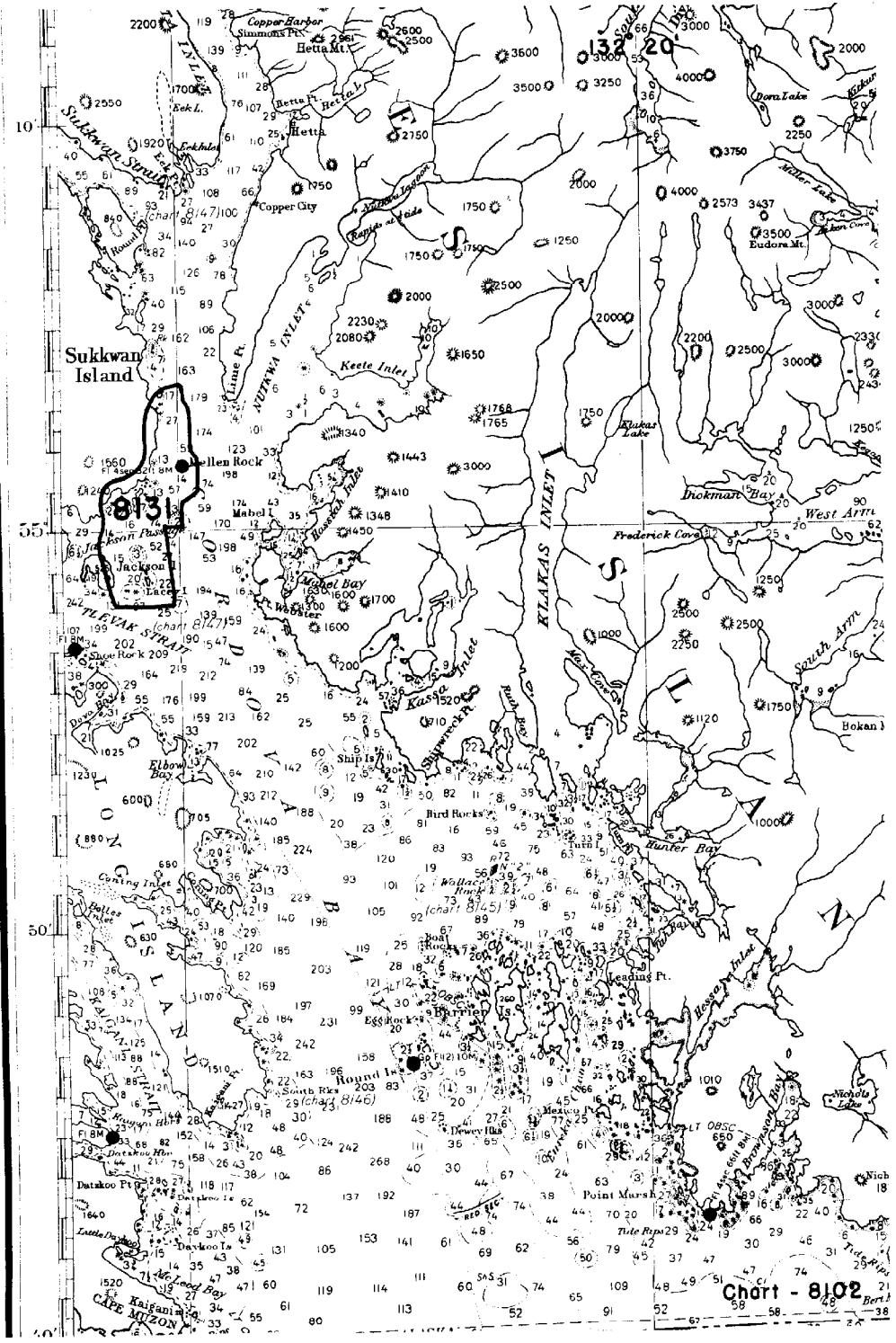
Examined and approved:


Max G. Ricketts
Chief, Nautical Chart Branch


Charles A. Schanck
Chief, Division of Charts


Karl B. Jeffers
Chief, Hydrography Branch


Samuel B. Grenell
Chief, Division of Coastal Surveys



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8131

Reviewed 2-20-58

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-15-58	8102	R. E. Elkins	<i>Examined - partly applied. Before After Verification and Review One rock awash added</i>
10-17-58	8152	R. E. Elkins	<i>Before After Verification and Review Partly applied - off thru chart 8102 dig 11</i>
11-1-60	8152	R. E. Elkins	<i>Before After Verification and Review Completely applied without going thru the large scale chart 8147 (Preley)</i>
1/14/61	8102	E. E. Thomas	<i>Before After Verification and Review Completely Applied thru Dig 12, 8152</i>
6/6/62	8147	H. Radden	<i>Before After Verification and Review Fully App'd</i>
8-10-63	8147	h. Keeler	<i>Before After Verification and Review App'd thru chart 8152 but con. only for T.O. print. RKO</i>
2/3/75	8147	M. D. Kanis	<i>Before After Verification and Review, inspection + signature - Re-examined for critical corrections</i>
			<i>Before After Verification and Review</i>
			<i>Before After Verification and Review</i>

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.