8289

Diag. Cht. No. 8152.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HO-1456 Office No. H-8289

LOCALITY

State Southeast Alaska

General locality Davidson Inlet

Locality Marble Passage

1956

CHIEF OF PARTY

R. A. Earle

LIBRARY & ARCHIVES

DATE March 22, 1960

USCOMM-DC 5087

8289

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-8289

Field No. HO-1456

State Southeast Alaska

General locality Davidson Inlet

Locality ~~Davidson Inlet~~ - Marble Passage

Scale 1:10,000 Date of survey 13 July - 28 Aug. 1956

Instructions dated 21 November 1956

Vessel Ship HODGSON, Launch 98, MWB 169

Chief of party R. A. Earle

Surveyed by R. A. Earle, Paul Taylor

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

Fathograms scaled by H. W. H. & L. F. H.

Fathograms checked by E. E. M. & D. W.

Protracted by C. A. J. Pauw

Soundings penciled by C.A. J. Pauw

Soundings in fathoms ~~feet~~ and tenths at ~~MLLW~~ MLLW and are based on

REMARKS: a velocity of sound of 800 fms. per sec.

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

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY NO. H-8289 (FIELD NO. HO-1456)

Ship HODGSON R. A. EARLE, COMDG.

A. PROJECT:

This survey was executed as part of Project 13470 in accordance with Revised Instructions dated 21 November 1956.

B. SURVEY LIMITS AND DATES:

This survey covers part of Davidson Inlet and Marble Passage between Lat. 55° 55.2' North and Lat. 55° 59.8' North and from the west part of Orr Island to Long. 133° 32.2 West.

Field work was started on 13 July and completed on 28 August 1956.

This survey connects on the south with Survey H-8288 (1956), on the west with survey H-8287 (1956), and on the north with Survey H-8290 (1956).

C. VESSELS AND EQUIPMENT:

This survey was executed with Launch No. 98; Motor Whaleboat No. 169; and the Ship HODGSON.

That part of Davidson Inlet that falls within the limits of this sheet was surveyed by the Ship HODGSON and Motor Whaleboat 169, while Launch 98 was used exclusively in Marble Passage.

All soundings were taken with 808 fathometers Nos. 628 and 1048 (Aug 15-28, July 13-16), and portable EDO's Nos. 206 and 207. Fathometer soundings were supplemented by hand lead soundings on critical shoals.

D. TIDE AND CURRENT STATIONS:

A portable tide gage which was maintained at Tokeen Cove, Lat. 55° 59' 45" North, Long. 133° 27' 50" West, was used without time or range correction for the reduction of all soundings except for those taken on the 28th of August. On this date the Tokeen gage was inoperative so sounding reductions were made by using data from the New Tokeen Gage, Lat. 55° 56' 15" North, Long. 133° 19' 28" West, without time or range correction.

Both tide stations are off limits of smooth sheet

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

E. SMOOTH SHEET:

The smooth plotter's report will be included as an addendum to this report.

F. CONTROL STATIONS:

STATION	DATE
BEAR	1903-56
WOLF	1903-46
MAR	1913
POLE	1913
PINK	1903

H-8289 DESC. REPORT

TOPOGRAPHIC STATIONS

STATION	DATE	METHOD
NIPE	1956	Triang. (m)
LOUT	1956	Photo-topo (d.m.)
BLUE	1956	Triang. (m)

Other control stations were located from aerial photographs on manuscripts T-10389, T-10390, T-10398, and T-10399.

Where stations were needed and there were no identifiable picture points nearby, they were located by sextant angles at the station or cuts from the launch using objects located by photogrammetric methods.

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

G. SHORELINE AND TOPOGRAPHY:

All shoreline on the boat sheet was taken from preliminary manuscripts T-10388, T-10389, T-10390, T-10398, and T-10399. No shoreline discrepancies were noted by the hydrographer. The smooth sheet shoreline should be used from the completed manuscripts.

No special attempt was made, by the hydrographer, to define the low water line due to the numerous alongshore rocks and reefs. A sounding line was run, however, near the shore as feasible in an effort to develop the adjacent 5 fathom curve.

No attempt was made to place soundings in obviously foul areas, nor between rocks where they would have little or no value for charting purposes. (See Hydrographer Instruction 2, dated 30 November 1954.)

H. SOUNDINGS:

All soundings, with the exception of a few that were taken with the hand lead, were obtained with 808 fathometers Nos. 628 and 1048, and portable EDO fathometers Nos. 206 and 207.

The 808 fathometer used by the launch was set with the bar at two fathoms, so that the fathometer would read correct, thereby generally eliminating an index correction. This same procedure, except for the fact that the bar was lowered to four fathoms, was used with the portable EDO fathometers.

Bar checks for launch hydrography were made at least twice daily.

On the Ship HODGSON simultaneous comparisons were taken with a standardized leadline over an even bottom, usually between 8 and 15 fathoms, and the initial was set to read true. Both the initial reading and draft were recorded in order that corrections could be applied to the soundings where variations occurred.

The 808 fathometer reeds were calibrated for 800 fathoms per second.

Speed checks were taken at regular intervals by the hydrographers.

The EDO fathometers are calibrated for a line frequency of 60 cycles per second with a tolerance of plus or minus 3%. (1.8) All variations were noted and a correction applied to the soundings. (See "Cycle Corrections EDO Fathometer NOs. 206-207", attached.) see verifiers notes

808 fathometer phase comparisons, and corrections which were applied, are listed and attached to this report. see verifiers notes

I. CONTROL OF HYDROGRAPHY:

All hydrography was visually controlled by sextant fixes taken on shore signals.

There are instances of changes in the sounding speed on or near shoals. These speed variations were due to either, or a combination of, current, kelp, rudder drag and slight changes of engine speed. Sufficient fixes were taken so that the soundings are not appreciably displaced.

Reference should be made to the boat sheet for line direction between fixes along beach lines.

J. ADEQUACY OF SURVEY:

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

All junctions with contemporary surveys on East H8287 (1956), South H8288 (1956) and North H8290 (1956) were satisfactory.

While numerous bottom samples were obtained over the area, it was considered unnecessary to adhere strictly to the specified spacing. (See paragraph 4 of Reference 3842, Hydrographic Manual.)

K. CROSSLINES:

Twenty seven miles, or about 8% of all sounding lines, are crosslines. All crossings appear to be satisfactory.

L. COMPARISON WITH PRIOR SURVEY:

The area of this survey is covered by prior surveys No'd 2732 (1904), Scale 1:20,000, and 3544 (1913), Scale 1:10,000.

The soundings taken during the present survey are in general agreement with those from former surveys; however, due to the ~~accuracy~~ greater sweeping of soundings,

depth curves can be more accurately delineated on the present survey sheets.

No rocks or shoals which were located during the previous survey were disproved by the present one; however, the least depths were seldom obtained on shoals, and many rocks were located which were not shown on the old survey. *see Review*

M. COMPARISON WITH CHART:

This survey was compared with Chart No. 8171 and charted soundings as shown, are more or less correct, although depth curves will be changed considerably. All rock symbols were verified. *see verifier's notes*

This survey should supersede all charted data.

Listed in the table below are some dangers, shoals and significant soundings that differ with charted data.

	CHART LOCATION	Prior CHART NOTATION	NEW LOCATION	NEW NOTATION	REMARKS
A	Lat. 55° 58!82 Long.133° 28!90	4-3/4 fm. shoal	55° 58!79 133° 28!91	2.5 fm. shoal	Shoalest sounding found during development *from pos 33-34*
B	Lat. 55° 58!79 Long.133° 29!29	5.5 fm. shoal	55° 58!~~79~~ 78 133° 29!~~38~~ 37	~~1~~ 4 fm. shoal	Hand lead investigation (Pos. 6h) (INV. 1 hour)
	Lat. 55° 56!81 Long.133° 31!58	13 fm. shoal	55° 56!~~81~~ 80 133° 31!65	5.8 fm. shoal	Shoalest sounding found during development. *pos.92-93c regular*
	Lat. 55° 56!45 Long.133° 30!69	16 fm. *carried forward from H-2732*	55° 56!514 133° 30!65	17 fm.	Shoalest sounding found during development. *pos.137-138 regular*
	Lat. 55° 56!04 Long.133° 30!01	1-3/4 fm. shoal	55° 56!05 133° 30!02	0.8 fm. shoal	Hand lead investigation. (Pos. 62g)
	Lat. 55° 55!85 Long.133° 29!00	10 fm. shoal	55° 55!85 133° 29!04	4.8 ~~0~~ fm. shoal	Shoalest sounding found during development. *pos.77h*
	Lat. 55° 55!78 Long.133° 28.76	9¾ fm. shoal *from H-2732*	55° 55!78 133° 28.74	~~10.6~~ 9.5 fm. shoal	Shoalest sounding found during development. *pos.44-45d*
	Lat. 55° 55!26 Long.133° 27!50	10 fm. shoal	55° 55!298 133° 27!5049	9.4 fm. shoal	Shoalest sounding found during regular development. *from 90-91g*
	Lat. 55° 55!95 Long.133° 25!75	1 fm.	55° 56!05 133° 25!69	0.~~6~~7 fm. shoal	Hand lead investigation. (Pos. 58f - 62f) *shoalest sndg. pos. 60f*
	No Indication	11 fm. shoal	55° 55!535 133° 28!~~03~~ 22	~~7.8~~ 8.0 fm. shoal	Shoalest sounding found during development. *8 fm from pos 153d*

The above soundings were taken from the boat sheet where predicted tides were used for reduction of soundings. They will change slightly when actual reducers are applied. *checked and revised in red during review EGF*

Particular attention should be given to the numerous rock locations and notes on the boat sheet and photo-manuscripts.

N. DANGERS AND SHOALS:

Refer to Section "M" above.

O. COAST PILOT INFORMATION:

Refer to Coast Pilot Report.

P. AIDS TO NAVIGATION:

There are no aids to navigation within the limits of this sheet.

Q. LANDMARKS FOR CHARTS:

There are no landmarks of note within the limits of this sheet.

R. GEOGRAPHIC NAMES:

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

S. SILTED AREAS:

No significant areas of deposition or alongshore shifting of silt, were noted.

T THROUGH X:

Not applicable.

Y. TABULATION OF APPLICABLE DATA:

1. Tidal Data - Forwarded 6/21, 6/22 and 10/30/56.
2. Air Photo Data - Forwarded 10/16 and 10/22/56.
3. Triangulation Data - Forwarded 9/4 and 10/16/56.
4. Coast Pilot Report - To be forwarded.
5. EDO Cycle Corrections - Attached.
6. Phase Comparison - Attached.
7. Daily Statistics - Attached.

Respectfully submitted,

James P. Randall

James P. Randall,
Lt.(jg), USC&GS

Approved and forwarded:

Robert A. Earle

Robert A. Earle,
CDR, USC&GS
Comdg., Ship HODGSON

DAILY STATISTICS

HYDROGRAPHIC SURVEY NO. H-8289 (FIELD NO. HO-1456)

SHIP HODGSON

DATE	DAY LETTER	VOL. NO.	NO. OF POS.	NAUT. MILES	H. L.
7/13	A	1	182.	39.8	
7/14	B	1&2	148	33.6	
7/16	C	2	166	28.6	16
		SHIP TOTAL	496	102.0	16
		LAUNCH 169			
7/20	a	3	39	4.1	
7/24	b	3	164	20.1	
7/25	c	3&4	214	25.2	9
7/27	d	4&5	190	26.4	
8/3	e	5	86	7.0	
8/4	f	5&6	207	16.8	
8/8	g	6	201	25.2	
8/9	h	6&7	98	10.2	27
8/10	j	7	110	13.3	
8/11	k	7	6		6
	LAUNCH 169 TOTAL		1315	148.3	42
		LAUNCH 98			
8/15	a	8	225	11.4	
8/16	b	8	87	6.4	2
8/17	c	8&9	118	10.0	
8/23	d	9	90	5.1	
8/24	e	9	187	21.4	
8/25	f	10	90	9.0	19
8/28	g	10	38	2.6	
	LAUNCH 98 TOTAL		835	65.9	21
	GRAND TOTAL		2646	316.2	79

AREA = 13.8 sq. nautical miles

CYCLE CORRECTION
EDO FATHOMETERS NOS. 206 & 207

unit setting 60.0 cps

CYCLE	+59.50 -60.50 DEPTHS FMS.
CORRECTION	
0.0	00 - 6.2
0.1	6.3 - 18.7
0.2	18.8 - 31.2
0.3	31.3 - 43.7
0.4	43.8 - 56.2
0.5	56.3 - 68.7
0.6	68.8 - 87.5
0.8	87.6 -112.5

CYCLE	+59.25 -60.75 DEPTHS FMS.
CORRECTION	
0.0	00 - 4.1
0.1	4.2 - 12.5
0.2	12.6 - 20.8
0.3	20.9 - 29.1
0.4	29.2 - 37.5
0.5	37.6 - 45.8
0.6	45.9 - 58.3
0.8	58.4 - 75.0
1.0	75.1 - 91.6
1.2	91.7 -108.3

CYCLE	+59.00 -61.00 DEPTH FMS.
CORRECTION	
0.0	00 - 3.1
0.1	3.2 - 9.3
0.2	9.4 - 15.6
0.3	15.7 - 21.8
0.4	21.9 - 28.1
0.5	28.2 - 34.3
0.6	34.4 - 43.7
0.8	43.8 - 56.2
1.0	56.3 - 68.7
1.2	68.8 - 81.2
1.4	81.3 - 93.7
1.6	93.8 -106.2

CYCLE	+58.75 -61.25 DEPTH FMS.
CORRECTION	
0.0	00 - 2.5
0.1	2.6 - 7.5
0.2	7.6 - 12.5
0.3	12.6 - 17.5
0.4	17.6 - 22.5
0.5	22.6 - 27.5
0.6	27.6 - 35.0
0.8	35.1 - 45.0
1.0	45.1 - 55.0
1.2	55.1 - 65.0
1.4	65.1 - 75.0
1.6	75.1 - 85.0
1.8	85.1 - 95.0
2.0	95.1 -105.00

CYCLE	+58.50 -61.50 DEPTH FMS.
CORRECTION	
0.0	00 - 2.0
0.1	2.1 - 6.2
0.2	6.3 - 10.4
0.3	10.5 - 14.5
0.4	14.6 - 18.7
0.5	18.8 - 22.9
0.6	23.0 - 27.0
0.7	27.1 - 31.2
0.8	31.3 - 37.5
1.0	37.6 - 45.8
1.2	45.9 - 54.1
1.4	54.2 - 62.5
1.6	62.6 - 70.8
1.8	70.9 - 79.1
2.0	79.2 - 87.5
2.2	87.6 - 95.8
2.4	95.9 -104.1

SHIP HODGSON 808 FATHOMETER 628

4-23-56

A	B	A-B
44.0	43.3	+0.7
44.0	43.3	+0.7
43.9	43.3	+0.6
44.0	43.4	+0.6
44.0	43.4	+0.6
44.0	43.3	+0.7
44.0	44.4	+0.6
44.0	43.4	+0.6
43.8	43.4	+0.4
43.8	43.4	+0.4
		+5.9
	Mean	+0.59

B	C	B-C
79.0	76.5	+2.5
79.5	77.0	+2.5
80.5	78.0	+2.5
80.9	78.3	+2.6
81.0	78.6	+2.4
81.2	79.0	+2.2
81.3	79.0	+2.3
81.9	79.2	+2.7
82.0	79.5	+2.5
82.2	79.7	+2.5
		+24.7
	Mean	+2.47

A-B	=	+0.59
B-C	=	+2.47
		+3.06

RESULTS

A	B	C
0.0	+0.6	+3.0

PHASE COMPARISON

Ship HODGSON 808 FATHOMETER 1045

A	B	A-B
46.0	45.8	+0.2
46.8	46.4	+0.4
47.6	47.6	0.0
49.0	48.9	+0.1
50.0	49.6	+0.4
50.5	50.4	+0.1
51.7	51.5	+0.2
52.3	52.1	+0.2
53.0	53.0	0.0
53.7	53.1	+0.6
	Sum	+2.2
	Mean	+0.22

B	C	B-C

C	D	C-D
118.8	126.4	-7.6
119.0	126.8	-7.8
119.0	127.2	-8.2
120.0	127.8	-7.8
120.0	128.2	-8.2
120.4	128.8	-8.4
120.8	129.0	-8.2
121.0	129.3	-8.3
121.0	129.8	-8.8
121.0	129.4	-8.4
	Sum	-81.7
	Mean	-8.17

5-29-56

A	B	A-B
40.1	39.6	+0.5
40.3	38.8	+0.5
40.6	40.0	+0.6
40.6	39.9	+0.7
40.8	40.0	+0.8
40.8	40.0	+0.8
41.0	40.1	+0.9
41.0	40.2	+0.8
41.0	40.2	+0.8
41.0	40.2	+0.8
	Sum	+7.2
	Mean	+0.72

B	C	B-C
85.5	89.6	-4.1
85.8	89.8	-4.0
85.9	90.0	-4.1
85.8	90.0	-4.2
85.8	89.9	-4.1
86.0	90.0	-4.0
86.0	90.0	-4.0
86.1	90.2	-4.1
86.2	90.2	-4.0
86.2	90.3	-4.1
	Sum	-40.7
	Mean	-4.07

C	D	C-D
122.8	131.0	-8.2
123.0	131.1	-8.1
123.0	131.0	-8.0
123.0	131.0	-8.0
122.8	130.8	-8.0
122.8	130.8	-8.0
122.7	130.7	-8.0
122.8	130.9	-8.1
122.8	130.9	-8.1
122.7	130.7	-8.0
	Sum	-80.5
	Mean	-8.05

7-16-56

A	B	A-B
50.0	50.0	0.0
50.0	49.9	+0.1
49.0	49.0	0.0
49.0	49.0	0.0
48.8	48.7	+0.1
48.8	48.6	+0.2
49.0	48.6	+0.4
48.0	48.0	0.0
47.0	47.0	0.0
46.0	46.0	0.0
	Sum	+0.8
	Mean	+0.08

8-27-56

A	B	A-B
48.0	47.4	+0.6
47.6	47.4	+0.2
47.4	47.2	+0.2
47.2	47.0	+0.2
45.2	45.0	+0.2
45.2	45.0	+0.2
45.0	44.8	+0.2
44.9	44.7	+0.2
44.9	44.7	+0.2
44.8	44.4	+0.4
	Sum -	+2.6
	Mean	+0.26

B to C = -4.07
A to B = +0.32
C = -3.75

RESULTS

A	B	C	D
0.0	+0.3	-3.8	-11.9

EDO

CYCLE	+58.25 -61.75 DEPTHS
CORRECTION	FMS.
0.0	00 - 1.7
0.1	1.8 - 5.3
0.2	5.4 - 8.9
0.3	9.0 - 12.5
0.4	12.6 - 16.0
0.5	16.1 - 19.6
0.6	19.7 - 23.2
0.7	23.3 - 26.7
0.8	26.8 - 32.1
1.0	32.2 - 39.2
1.2	39.3 - 46.4
1.4	46.5 - 53.5
1.6	53.6 - 60.7
1.8	60.8 - 67.8
2.0	67.9 - 75.0
2.2	75.1 - 82.1
2.4	82.2 - 89.2
2.6	89.3 - 96.4
2.8	96.5 -103.5

CYCLE	+57.75 -62.25
CORRECTION	DEPTH FMS.
0.0	0.0 - 1.3
0.1	1.4 - 4.1
0.2	4.2 - 6.9
0.3	7.0 - 9.7
0.4	9.8 - 12.5
0.5	12.6 - 15.2
0.6	15.3 - 18.0
0.7	18.1 - 20.8
0.8	20.9 - 23.6
0.9	23.7 - 26.3
1.0	26.4 - 29.1
1.1	29.2 - 31.9
1.2	32.0 - 36.1
1.4	36.2 - 41.6
1.6	41.7 - 47.2
1.8	47.3 - 52.7
2.0	52.8 - 58.3
2.2	58.4 - 63.8
2.4	63.9 - 69.4
2.6	69.5 - 75.0
2.8	75.1 - 80.5
3.0	80.6 - 86.1
3.2	86.2 - 91.6
3.4	91.7 - 97.2
3.6	97.3 -102.7

CYCLE	+58.00 -62.00
CORRECTION	DEPTH FMS.
0.0	0.0 - 1.5
0.1	1.6 - 4.6
0.2	4.7 - 7.8
0,3	7.9 - 10.9
0.4	11.0 - 14.0
0.5	14.1 - 17.1
0.6	17.2 - 20.3
0.7	20.4 - 23.4
0.9	23.5 - 29.6
1.0	29.7 - 34.3
1.2	34.4 - 40.6
1.4	40.7 - 46.8
1.6	46.9 - 53.1
1.8	53.2 - 59.3
2.0	59.4 - 65.6
2.2	65.7 - 71.8
2.4	71.9 - 78.1
2.6	78.2 - 84.3
2.8	84.4 - 90.6
3.0	90.7 - 96.8
3.2	96.9 -103.1

PHASE COMPARISONS

LAUNCH 98 808 FATHOMETER 62S

A	B	A-B
46.0	45.4	+0.6
45.6	45.2	+0.4
45.5	45.0	+0.5
45.2	44.7	+0.5
45.0	44.6	+0.4
45.0	44.5	+0.5
44.8	44.3	+0.5
44.6	44.2	+0.4
44.3	44.1	+0.2
44.3	43.8	+0.5
	Sum	+4.5
(31 May 1956)	Mean	+0.45

B	C	B-C
75.1	73.3	+1.8
74.8	73.0	+1.8
74.7	72.8	+1.9
74.8	72.8	+2.0
74.0	72.7	+1.3
74.6	72.6	+2.0
74.6	72.6	+2.0
74.6	72.5	+2.1
74.4	72.4	+2.0
74.4	72.4	+2.0
	Sum	+18.9
(31 July 1956)	Mean	+1.89

48.6	48.3	+0.3
48.7	48.4	+0.3
48.8	48.6	+0.2
49.0	48.5	+0.5
49.0	48.6	+0.4
49.0	48.8	+0.2
49.0	48.8	+0.2
49.0	48.8	+0.2
49.0	48.7	+0.3
49.0	48.7	+0.3
	SUM	+2.9
(10 Aug. 1956)	Mean	+0.29

RESULTS

A	B	C	D
0.0	+0.3	+2.2	+3.7

PHASE COMPARISON

LAUNCH 98 - FATHOMETER NO. 1048 (808) - 4/25/56

FATHOMS		
A Scale	B Scale	Corr.
42.6	42.8	-0.2
42.7	42.8	-0.1
42.6	42.7	-0.1
43.0	43.2	-0.2
42.9	43.1	-0.2
42.5	42.7	-0.2
42.3	42.4	-0.1
42.0	42.3	-0.3
42.0	42.2	-0.2
42.0	42.3	-0.3
	Sum	-1.9
	Mean	-0.19

TIDAL NOTE

The Tokeen Cove, Alaska tide gage, Lat. 55° 59' 45" North, Long. 133° 27' 50" West was used without time or range corrections for the reduction of all soundings excepting those obtained on the final day of the survey. On this date the New Tokeen, Alaska tide gage, Lat. 55° 56' 15" North, Long. 133° 19' 28" West, was used without time or range corrections.

Tokeen Cove = 2.7 feet on staff corresponds to MLLW

New Tokeen = 2.5 feet on staff corresponds to MLLW

APPROVAL SHEET

HYDROGRAPHIC SHEET H-8289

The boat sheet and field records for this survey, when the hydrography was not done by the writer, were examined daily during the field season. As the survey is considered complete and adequate, no additional field work is deemed necessary.

The person plotting the smooth sheet should write an addendum to this report.

Robert A. Earle,
CDR, USC&GS
Comdg., Ship HODGSON

SMOOTH SHEET

The projection was hand drawn by personnel of the Ship HODGSON.

CONTROL STATIONS

The triangulation stations were plotted and checked by personnel of the Ship HODGSON. The topographic signals were transferred from shoreline manuscripts by personnel of the Seattle Processing Unit. The hydrographic signals were located from sextant cuts as recorded in the sounding records by personnel of the Seattle Processing Unit.

SHORELINE AND TOPOGRAPHY

All shorelines and topography originate from manuscripts T-10388, 89, 90, 98 and 10399. Elevations of rocks and reefs per topo except where in conflict with hydrographic data as recorded in the sounding volumes, whence hydrographic data was used and shown in pencil.

CONTROL OF HYDROGRAPHY

All hydrographic positions were three point fixes protracted with the courts protractor by personnel of the Seattle Processing Unit. No problems of any kind were encountered - this was an easy survey to process. see verifiers notes

CROSSLINES

Soundings at crossings are in good agreement without exception.

DEPTH CURVES

This survey develops the 5 fathom curve adequately. Very few extensive shallow waters exist. The 3 fathom curve is shown only where practical. Because of the steep-to-shore beaches no attempt was made to delineate the zero fathom curve. The standard deeper curves, 10 through 50 fathoms, are shown. Their pattern is very irregular because of the broken nature of the bottom.

COMPARISON WITH CHART

This survey was compared with Chart 8171 (5th Ed. Revised 1/14/57). The most prominent differences were shown in red ink upon a "cut-out" of the above chart and is addended to this report.

THE HYDROGRAPHIC REPORT

The descriptive report submitted by the field party adequately covers all other phases not mentioned in these Processing Notes.

Respectfully submitted,

Cornelius A. J. Pauw
Cartographer

Examined and Approved:

William M. Martin
Supervisory Cartographer

Approved and Forwarded:

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

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~xDivision of Coast Surveys:x~~ June 16, 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8289

Locality Davidson Inlet, Alaska

Chief of Party: R. A. Earle in 1956
Plane of reference is mean lower low water, reading
2.7 ft. on tide staff at Tokeen Cove
19.1 ft. below B. M. 1 (1956)

Height of mean high water above plane of reference is 9.9 feet.

Condition of records satisfactory except as noted below:

William Shofnos
Chief, Tides Branch
~~xChief, Division of Tides and Currents~~

U. S. GOVERNMENT PRINTING OFFICE 877933

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8289

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	
Cyprus Cove (after)	x									1
Davidson Inlet	x									2
Kosciusko Island	x									3
Marble Island	x								x	4
Marble Passage	x									5
Van Sant Cove	x									6
White Cliff Island	x									7
White Cliff Passage	x									8
										9
Marble Passage(Title)										10
										11
Tide Sta. Tokeen Cove	off	survey limits								12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
						ch	8171			27

George D. Baer
GEOGRAPHIC NAMES SECTION
1 April 1960

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8289..

Records accompanying survey: Smooth sheets ..1..;

boat sheets ..1..; sounding vols. ..10..; wire drag vols. .....;

Descriptive Reports ..1..; graphic recorder envelopes ..6..;

special reports, etc. ....

....

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

Number of positions on sheet		2646
Number of positions checked		250
Number of positions revised		5
Number of soundings revised (refers to depth only)		318 *
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		1
Topographic details	Time	40
Junctions	Time	20
Verification of soundings from graphic record	Time	25
Special adjustments	Time	......

Verification by John T. Gallagher Total time 520. Date June 22, 1962

Reviewed by Ernest E. Thomas... Time 54... Date 1/15/63

* 140 sdgs revised because of erroneous identification of fathom, Cycle/s correction in error on 90 sdgs

5 pos per hour
265 pos per vol
52 hrs per Vol.

US COMM C&GS DC

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8289 FIELD NO. HO-1456

Southeast Alaska, Davidson Inlet - Marble Passage

SURVEYED: July-August 1956 SCALE: 1:10,000

PROJECT NO. 13470

SOUNDINGS: 808 Depth Recorder
EDO Depth Recorder
Leadline

CONTROL: Sextant Fixes on shore objects

Chief of Party----------R. A. Earle
Surveyed by----------R. A. Earle, P. Taylor
Protracted by----------C. A. J. Pauw
Soundings plotted by----------C. A. J. Pauw
Verified and inked by----------J. Gallahan
Reviewed by----------E. E. Thomas
Inspected by----------R. H. Carstens

Date: 2/4/63

1. Description of the Area

This survey develops that portion of Davidson Inlet south and west of Marble Island, and a large portion of Marble Passage.

The bottom configuration is generally, very irregular with the bottom in the inshore areas and narrow passages congested by numerous rocks, shoals and kelp. Several offshore pinnacles, with depths less than 5 fms are surrounded by depths of 15 to 20 fms.

2. Shoreline and Signals

The shoreline originates with advanced photogrammetric manuscripts of T-10388 and T-10389 of 1953-56; T-10390, T-10398 and T-10399 of 1953-57.

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

REVIEW REPORT

The high water rock in lat. 55°55.20', long. 133°26.48' from T-10398 was revised to a rock awash on the present smooth sheet from information of the present survey.

3. Hydrography

a. Depths at the crossings are in good agreement.

b. Several shoal indications from regular sounding lines were not investigated further to determine the least depth. An example is the 5.8 fm sounding in lat. 55°56.8' long. 133°31.65' recorded in an area of 100-meter spaced sounding lines. A crossline 40 meters north, an another 40 meters south indicated continuation of the feature.

c. The usual depth curves were adequately delineated, except close inshore where the foul character of the bottom prevented development to the low-water line.

4. Condition of Survey

The field plotting, sounding records and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual. Minor errors were found in the application of correctors to 220 soundings.

5. Junctions

An adequate junction was effected on the west with H-8287 (1956); on the south with H-8288 (1956) and with H-8290 (1956) on the north.

6. Comparison with Prior Surveys

H-2732 (1904) 1/20,000
H-3544 (1913) 1/10,000

These two surveys are the basic prior coverage of the area for comparison with the present survey. A comparison reveals differences in the position and delineation of shoreline features on H-3544 which are attributed to inaccuracies in the prior survey where only two triangulation stations were available to control the determination of the signals and the shoreline. Survey H-2732 at 1:20,000 provides sparse development of the very irregular bottom in this area. However, several soundings were carried forward from these prior surveys to supplement the present development.

Attention is directed to the following differences with the present survey:

a. The 2 1/4 fms charted in lat. 55°56.9' long. 133°28.87' from H-2732 is on a weakly controlled line. The sounding is considered to be out of position and probably falls near the present reef 100 meters to the northwest.

b. The 1 1/2 fms charted in lat. 55°56.14' long. 133°28.7' from H-2732 was plotted in error on that survey. In its correct position it falls in comparable depths on the present survey.

c. The 1/4 fm charted in lat. 55°58.45', long. 133°23.08' from H-2732 is on a line controlled entirely by estimated distances from shore. The sounding is considered to be out of position and probably falls on the present survey reef 100 meters to the southwest.

d. The sunken rock charted in lat. 55°58.35', long. 133°23.8' from T-2691 (1904) 1/20,000 is considered to be part of the alongshore configuration of the western side of the adjacent island. The present survey adequately defines the bottom with this area for charting.

e. The 8 fm sounding charted in lat. 55°56.45', long. 133°28.89' and the 6 1/2 fm sounding charted in Lat. 55°56.37', long. 133°28.78' were erroneously plotted on smooth sheet of H-2723 and were revised in position from the information recorded in the volumes of that survey. In the revised positions, the soundings are in adequate agreement with comparable depths on the present survey.

The -3 ft. sounding from H-3544 charted in lat. 55°57.20', long. 133°25.68' as a low-water spot has been transferred to the present survey as a rock awash.

The present survey, together with a few supplementary soundings and bottom characteristics, is considered adequate to supersede the prior soundings in the common area.

7. Comparison with Chart 8171 (latest print date 12/19/60)

A. Hydrography

The charted hydrography originates with previously discussed prior surveys supplemental by partial application of information from the boat sheet and the present survey prior to verification and review.

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

B. Aids to Navigation

There are no aids located within the limits of the present survey.

8. Compliance with Instructions

This survey adequately complies with the project Instructions, except investigation of the charted Pile in lat. 55°57.19, long. 122°26.03'.

9. Additional field work

This survey is considered to be a good basic survey and no additional field work is recommended. Future surveys in the area should be adequate to verify or disprove the several shoal soundings carried forward to the present survey from prior sources.

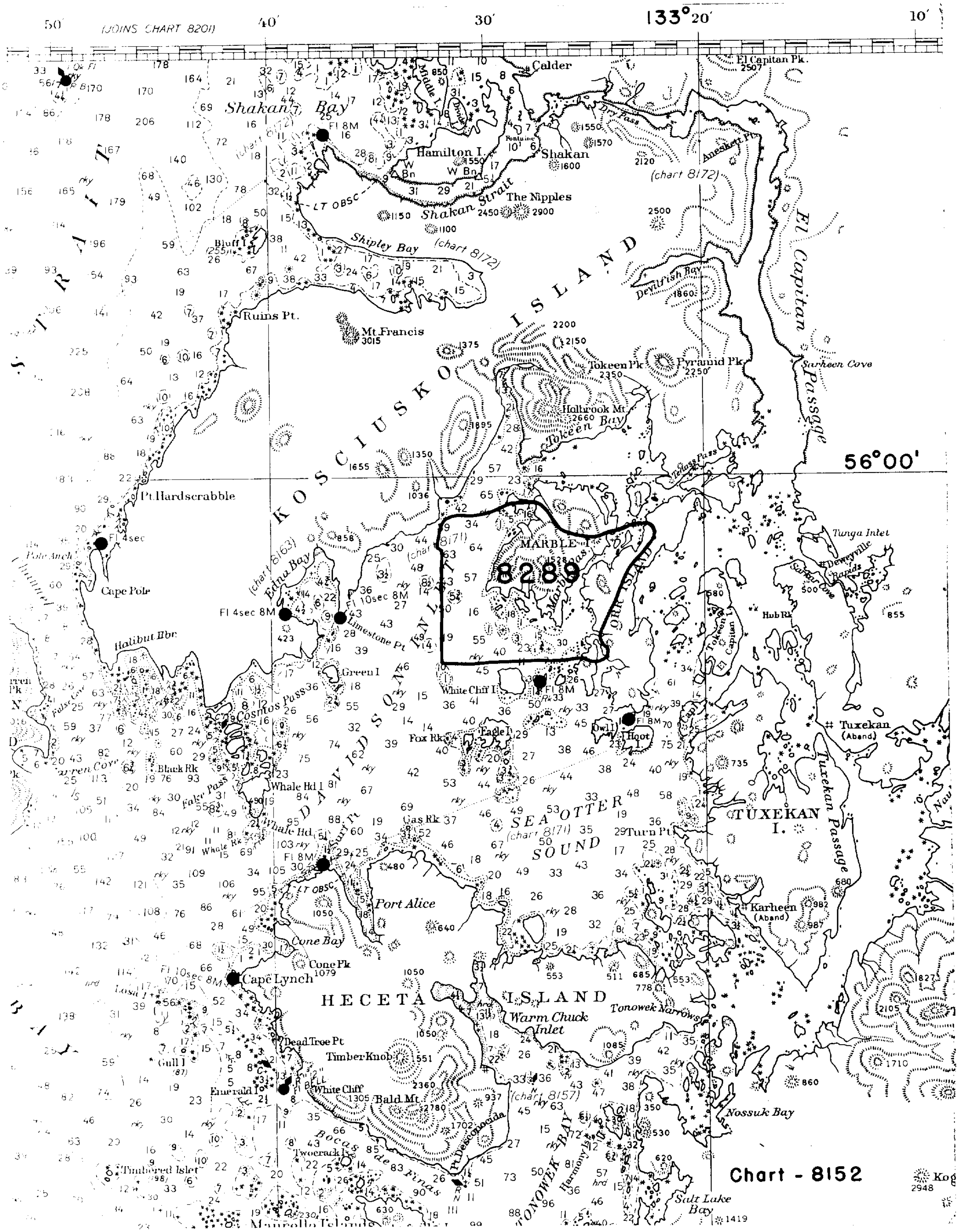
Examined and Approved:

Chief,
Nautical Chart Division

Assistant Director,
Office of Cartography

Projects Officer,
Operations Division

Assistant Director,
Office of Oceanography



(JOINS CHART 8201)
133°20′
56°00′
Shakan Bay
Calder
El Capitan Pk.
Dry Pass
Hamilton I.
Shakan
Shakan Strait
The Nipples
Aneskett Pt
Shipley Bay
Devilfish Bay
El Capitan Passage
Ruins Pt.
Mt Francis
KOSCIUSKO ISLAND
Tokeen Pk
Pyramid Pk
Holbrook Mt
Tokeen Bay
Sarkeen Cove
Pt Hardscrabble
Cape Pole
Edna Bay
Limestone Pt
MARBLE
8289
Tunga Inlet
Deweyville
Halibut Hbr
Green I
White Cliff I
Cosmos Pass
DAVIDSON INLET
Fox Rk
Eagle I
Owl I
Hoot
Tuxekan
Black Rk
Whale Hd I
Fake Pass
Gas Rk
SEA OTTER SOUND
Turn Pt
TUXEKAN I.
Tuxekan Passage
Port Alice
Karheen
Cone Bay
Cone Pk
Cape Lynch
HECETA ISLAND
Warm Chuck Inlet
Tonowek Narrows
Dead Tree Pt
Timber Knob
Gull I
Emerald I
White Cliff
Bald Mt.
Nossuk Bay
Twocrack Is
Bocas de Finas
Pt Desconocida
TONOWEK BAY
Harmony Is
Salt Lake Bay
Timbered Islet
Maurelle Islands
Chart - 8152

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8289

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5-25-60	8171	R.K. DeSaussure	Part appld to hide over drawing. Before ~~After~~ Verification and Review. Chart corr only.
10-28-60	8152	R.E. Elkins	Before ~~After~~ Verification and Review Partly Applied from chart 8171 drg #9
13 Mar 61	8002	Eric Grayzik	Before ~~After~~ Verification and Review Partly appl from chart 8152 drwg #12
13 Mar 61	8201	J.H. Eaton	Part app'd from chart 8171 drg 9 Before ~~After~~ Verification and Review
1-30-63	Reconstr 8171	R.K. DeSaussure	Completely applied before ~~Before~~ After Verification and Review. Marked part appd on history until review is complete.
2-14-63	Reconstr 8171	R.K. DeSaussure	Untyped chart examined. No corr. ~~Before~~ After Verification and Review
4-24-63	8002	h.j. keeler	Part appd. ~~Before~~ After Verification and Review before inspection. pending complete application to large scale charts
5/27/64	8201	G.R. Johnson	~~Before~~ After Verification and Review Partly Applied
6/6/64	Reconstr 8171	G.R. Johnson	~~Before~~ After Verification and Review & Insp. Fully App'd.
12/14/64	8201	G.K. Myers	~~Before~~ After Verification and Review & Insp. Fully appl from cht 8171 dwg 11.
12/14/64	8152	G.K. Myers	Fully appld after verification + review from cht 8171 dwg 11
6/17/69	8002	J.S. Stuart	Fully applied After Verification + Review. - No Correction (Hydro Deleted from Area.

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.