8231

Diag. Cht. No. 8102-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1355 Office No. H-8231

LOCALITY

State S. E. Alaska

General locality Hetta Inlet

Locality Eek Point to Corbin Point

1955

CHIEF OF PARTY

J. C. Partington

LIBRARY & ARCHIVES

DATE December 8, 1958

B-1870-1 (1)

8231

Comb. with H-8230

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-8231

Field No. PA-1355

State S. E. Alaska

General locality ~~South East Alaska~~ Hetta Inlet

Locality ~~Hetta Inlet~~ Eek Point to Corbin Point

Scale 1:10,000 Date of survey 27 June - 21 July 1955

Instructions dated 7 January 1955

Vessel USC&GS Ship PATTON

Chief of party J. C. Partington

Surveyed by W. C. Russell and F. J. Tucker

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

Fathograms scaled by P. T. Pediangco and F. J. Tucker

Fathograms checked by D. A. Doe, W. L. Piner and B. W. Hayes

Protracted by C. R. Lehman

Soundings penciled by C. R. Lehman

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

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 693019

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEYS NOS. H-8230 (PA-1255), H-8231 (PA-1355),

AND H-8232 (PA-1455)

HETTA INLET, S. E. ALASKA

SCALE 1:10,000 - DATE 1955

U. S. C. & G. S. S. PATTON, J. C. PARTINGTON, COMDG.

# # # # #

A. PROJECT:

This survey was accomplished under Revised Instructions - Project 1357, dated 7 January 1955, issued by The Director.

B. SURVEY LIMITS AND DATES:

The three boat sheets join in consecutive order and cover that part of Hetta Inlet north of Latitude 55° - 05' and west of Longitude 132° - 40.5', at junction with HODGSON 1954 Field Season (HO-1754, HO-2154, and HO-1854) to the head of Portage Bay. The western limit, at the southeast end of Sukkwan Strait, is bounded by a north-south line at Longitude 132° - 44.0'.

Field work on all three sheets was started on 18 May 1955 and completed on 20 August 1955

C. VESSEL AND EQUIPMENT:

All hydrography was done in Launch No. 87 operating from the Ship PATTON. Soundings were taken with an 808-A recording fathometer No. 51, calibrated for a velocity of 800 fms/sec., supplemented by hand lead soundings on shoals and rocks. Bottom samples were taken by wire with hand sounding machine mounted on the launch.

D. TIDE AND CURRENT STATIONS:

Three portable automatic tide gages were established within the limits of the survey. The tidal data from each tide station applied to an entire sheet. The number of the sheets and the location of the tide station to which it applies, are as follows:

D. TIDE AND CURRENT STATIONS - Contin.

Sheet No.	Location	Latitude	Longitude
H-8230 (PA-1255)	Mud Bay	55° - 04.95'	132° - 37.90'
H-8231 (PA-1355)	Copper Harbor	55° - 12.65'	132° - 37.50'
H-8232 (PA-1455)	Sulzer	55° - 17.12'	132° - 37.20'

Current station was observed on a 9-fathom shoal in Latitude 55° - 06.75', Longitude 132° - 38.40'.

E. SMOOTH SHEETS:

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

F. CONTROL STATIONS:

Sheet H-8230 (PA-1255):

The following triangulation stations were used for hydrographic control:

BRET 1908-14, CEDAR$_2$ 1908, CLOSE 1908-14, EASY$_2$ 1908, FOG 1908, GRASS 1905, 1954, LIME$_2$ 1954, LOG 1908-14, POINT 1908, and ROUND 1908-14.

The following stations were first located as photo-hydro signals and later located by triangulation and their positions computed:

ABE, BIB, ERA, ICE, OAT 1954, PLY.

During hydrography, when shifting fixes from one side to the other side of Hetta Inlet, slight jumps occurred in the lines and in the locations of reefs on the west side of inlet, indicating a possibility that signals BIB, OAT 1954, ABE, and PLY were slightly out of relation with the other control. It is recommended that the computed positions of these signals be used for their location on the smooth hydrographic sheet.

Not Applicable

Stations ICE and ERA were cut in by triangulation after their location was made by photogrammetric methods. Their positions vary slightly from the photo-hydro locations. It is recommended that the computed positions of these signals be used for their location on the smooth hydrographic sheet.

Hydro signals SAL, TRY, VAN, WAR, and YET in Mud Bay were first located from photographs. At the start of hydrography in Mud Bay, jumps in the lines were noted. The above stations were then located by sextant cuts, holding photo-hydro signals BIB and PIE fixed. Using the sextant locations of these stations, no jumps in the lines occurred. On these stations, the sextant locations are recommended to be used on the smooth hydrographic sheets.

During hydrography, certain photo-hydro signals were ascertained to be out in position, and were relocated by sextant cuts. The sextant location of the following stations was used:

BAG, FLY, LEO, LIP, PEN

F. CONTROL STATIONS - Contin.

All other signals were located from manuscripts (photo-hydro). All signals are listed in alphabetical order, together with their source, in the index sheet of Vol. 1. } Not Applicable

Sheet H-8231 (PA-1355):

The following triangulation stations were used for hydrographic control:

AMO 1955, ANTON 1955, BAT 1955, BRETT 1908-14, COPPER$_2$ 1908, EASY$_2$ 1908, ERA 1955, EVA 1955, FIG 1955, GAS 1955, HETTA 1955, HEX 1955, ICE 1955, IDA 1955, MAR 1955, PARKA 1955, POD 1955, POINT 1908, SIGN 1955, SIMON 1955, TALON 1955, YAM 1955.

Stations ERA, ICE, YAM, and MAR, above, were located as photo-hydro signals and used for hydrography prior to being located by triangulation. Their triangulation positions should be used on the smooth hydrographic sheet.

All other signals were located from manuscripts (photo-hydro). All signals are listed in alphabetical order, together with their source, in the index sheet of Vol. 1.

Sheet H-8232 (PA-1455):

All signals on this sheet were located from manuscripts (Photo-hydro stations) and are listed in alphabetical order in the index sheet of Vol. 1. } Not Applicable.

G. SHORELINE AND TOPOGRAPHY:

The shoreline and topography will be compiled from air photographs field inspected by this party during the current season. The delineation of the shoreline, ledges, and offlying rocks, as transferred to the boat sheets from the incomplete manuscripts, were checked during the hydrographic surveys. The shoreline which was dashed on the manuscripts appeared to be in good agreement to existing shoreline. No shoreline discrepancy was noted.

It was impractical to delineate the low water line in all cases due to steep and rocky shore. At the mouth of the larger creeks, there usually were tide flats which dropped off abruptly at the outer edge. The dotted line, taken from the manuscripts and shown on the boat sheets outside of high water line, delineates in general, the low water line. Sounding lines were run as close to the beach as circumstances would permit.

H. SOUNDINGS:

Soundings were taken with an 808 type recording fathometer No. 51, operated on the fathom scale. Hand lead soundings were made on shoals and isolated rocks. Wire soundings were taken when obtaining bottom samples.

H. SOUNDINGS - Contin.

The fathometer initial was set at zero on the fathogram and bar checks taken three times daily, at 2, 4, and 7 fathoms. The recorded index corrections together with the phase comparisons have been applied as one correction in the sounding volumes. A summary of the index and phase corrections for each sheet are given in Table 2, following this report.

The wire soundings, especially in deep water, did not in general, agree favorably with the corrected fathometer sounding, due principally to a soft mud bottom, and in some instances, due to currents, sloping the wire. As a result, the wire soundings were not considered for fathometer comparisons.

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled by three point sextant fixes on signals ashore, with the one exception in the narrow Gould Passage, H-8232 (PA-1455) where hydrography was controlled by estimating distances off signals, when three point sextant fixes could not be obtained. No unusual or substandard methods were used.

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 at the junctions between Sheets H-8230, H-8231, and H-8232 were checked by overlay tracing and found to be adequate. Junction of Sheet H-8230 with the northern limits of HODGSON 1954 season's work was found adequate.

K. CROSSLINES:

Sheet H-8230 (PA-1255):

Approximately 45 miles of crosslines or approximately 8% of all lines are crosslines. Not Applicable

Sheet H-8231 (PA-1355):

Approximately 36 miles of crosslines or approximately 10% of all lines are crosslines.

Sheet H-8232 (PA-1455):

Approximately 18 miles of crosslines, or approximately 9% of all lines are crosslines. Not Applicable

All crossings appear to be satisfactory.

L. COMPARISON WITH PRIOR SURVEYS:

Sheet H-8230 (PA-1255):

This survey covered parts of old surveys H-2787, a 1905, 1:40,000 survey, H-3690, a 1914, 1:10,000, and H-2788, a 1905, 1:20,000 survey. Not Applicable

L. COMPARISON WITH PRIOR SURVEYS - Contin.

Sheet H-8231 (PA-1355):

This survey covered parts of old survey H-2788, 1905, 1:20,000.

Sheet H-8232 (PA-1455):

This survey covered parts of old survey H-2788, 1905, 1:20,000. Not Applicable

The above old 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.

M. COMPARISON WITH CHART:

The three surveys were compared with Chart 6147, Third Edition, Print date 12 May 1952. Locations are from the boat sheets and depths are from predicted tides. These may be revised slightly when smooth plot is made.

CHARTED LOCATION	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
		Sheet H-8230 (PA-1255)		
55 - 05.05 132 - 37.90	Sunken Rock	55 - 05.02 132 - 37.92	1.5 fms.	
55 - 09.17 132 - 43.12	2 rocks awash in this area	55 - 09.15 132 - 43.10	2 rock reefs uncovered 2 ft. at MLLW	
55 - 07.78 132 - 41.73	Islet	55 - 07.80 132 - 41.80	Rock reef uncovered 10 ft. at MLLW	North end of general foul area
55 - 06.90 132 - 41.36	Rock bares 2' at MLLW	55 - 06.88 132 - 41.35	Rock reef bare 8' at MLLW	S. end of foul area extending N. to shore
55 - 06.73 132 - 41.58	Rock awash	55 - 06.75 132 - 41.58	Rock reef bare 14' at MLLW	E. side of general foul area
55 - 06.50 132 - 42.50	Islet	55 - 06.53 132 - 42.48	Rock reef bare 5' at MLLW	Not Applicable.
55 - 06.52 132 - 42.88	Sunken rock	55 - 06.55 132 - 42.85	Rock reef bare 9' at MLLW	General foul area
55 - 05.90 132 - 41.90	Islet	No trace found		Delete from chart
55 - 05.90 132 - 42.36	Islet	No trace found		Delete from chart
55 - 05.63 132 - 42.28	Islet	No trace found		Delete from chart

M. COMPARISON WITH CHART - Contin.

CHARTED LOCATION	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
	Sheet H-8230 (PA-1255) Contin.			
55 - 05.35 132 - 41.40	Islet	No trace found		Delete from chart. Rock ledge in area covered at HW. Not Applicable
55 - 05.82 132 - 41.35	Three sunken rocks	55 - 05.73 132 - 41.33	One rock reef bare 8' at MLLW	
	Sheet H-8231 (PA-1355) Comparison with prior issue of Chart 8147, 5/12/52.			
Item 1 55 - 08.40 132 - 39.40	Two rocks awash	55 - 08.42 132 - 39.37	One rock, awash (3) and reef awash at MLLW around it.	
2 55 - 09.78 132 - 35.02	Rock awash	55 - 09.75 132 - 35.07	Rock reef uncovers 3' at MLLW	highest part shown with rock awash symbol.
3 55 - 10.18 132 - 34.90	Three sunken rocks	55 - 10.15 132 - 34.93	Rock ledges awash at MLLW	General foul area
4 55 - 10.1 132 - 34.7	Three sunken rocks	55 - 10.15 132 - 34.6	Rock reef and ledge awash at MLLW	General foul area
5 55 - 12.75 132 - 37.80	Rock awash	55 - 12.72 132 - 37.80	Rock ledge awash at MLLW	
	Sheet H-8232 (PA-1455)			
55 - 16.85 132 - 34.48	Sunken rock	No trace found		Delete from chart. Rocky beach in vicinity is bare at MLLW
55 - 16.81 132 - 34.80	Rock awash	*55 - 16.68 132 - 34.68	Rock ledge uncovers 4' at MLLW	Outside of general foul area
55 - 15.05 132 - 40.20	4 fms.	55 - 15.01 132 - 40.20	4 fms.	Investigation requested on preliminary review 1/26/53 Not Applicable
55 - 14.63 132 - 40.32	7 fms.	55 - 14.55 132 - 40.32	1 fm.	Investigation requested on preliminary review 1/26/53 Position OK'd
55 - 15.40 132 - 40.12	Islet	No trace found		Delete from chart

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M. COMPARISON WITH CHART - Contin.

CHARTED LOCATION	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
		Sheet H-8232 (PA-1455) Contin.		
55 - 17.26 132 - 36.33	Sunken rock	*55 - 17.14 132 - 36.31	Rock reef uncovered 2' at MLLW	E. edge of General foul area
55 - 17.31 132 - 36.52	Rock awash	*55 - 17.22 132 - 36.53	Rock ledge uncovered 2' at MLLW 3'	Outside edge of rock ledge to MHL
55 - 17.28 132 - 37.01	Rock awash	*55 - 17.16 132 - 37.00	Rock reef awash at MLLW	General foul area
55 - 17.25 132 - 37.08	Sunken rock	*55 - 17.12 132 - 37.10	1½fm.	General foul area

Not Applicable

*The above new locations noted with asterisks, are slightly south of the charted locations due to a displacement of the topography between the chart and the boat sheet.

N. DANGERS AND SHOALS:

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

LOCATION	DEPTH	REMARKS
	Sheet H-8230 (PA-1255)	
55 - 06.43 132 - 42.35	Bare 2.5 ft. at MLLW	Rock reef - 70 m
55 - 04.43 132 - 41.11	0.9 fms.	Rock - 1 s
55 - 04.05 132 - 40.98	4½ fms	Shoal sounding 208 - 209 g
55 - 04.32 132 - 41.18	3½ fms.	Shoal sounding 3 - 4 s
	Sheet H-8231 (PA-1355)	
55 - 10.17 132 - 35.10	2½ fms. 2¼ "	Shoal sounding 1 " " 110 - 113
55 - 10.26 132 - 34.92	2 fms.	Shoal sounding 2

Not Applicable

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N. DANGERS AND SHOALS - Contin.

LOCATION	DEPTH	REMARKS
	Sheet H-8232 (PA-1455)	
55 - 15.15 132 - 40.03	2 fms.	Shoal sounding 87 ø f
55 - 16.68 132 - 37.78	2½ fms.	Shoal sounding 30 k
55 - 16.25 132 - 37.80	Islet uncovered 2½ ft. at MHW	Position of outside of ledge of Islet 84 g
55 - 17.15 132 - 36.65	Rock reef awash at MLLW ✓	Position 3 h. West edge of foul area

Not Applicable

In addition to the above, there are numerous small reefs and ledges which were located but are not listed on account of being close inshore.

The small (Gould Passage) passage in Latitude 55° - 16.6', Longitude 132° - 35.6' was too foul for launch hydrography. See H-8232(1955)

O. COAST PILOT INFORMATION:

Additions and corrections to U. S. Coast Pilot - Southeast Alaska - 1952:

Page 221, Line 27: Delete - "including Portage Bay at the head". H-8232

Page 221, Line 34: Add sentence - There is a sunken rock, covers by 1-1/2 fathom, 100 yards north of the north end of islet on south side of Mud Bay.

Page 221, Line 37: Delete - "either Mud Bay or".

Page 221: Add - Y Bay (recommended geographic name), the small bay on the west side of Hetta Inlet 1.5 miles southwest of Round Point is seldom used for anchorage, and only by those fishermen with local knowledge. The bay is divided by a chain of islands. The north portion is narrow and dangers exist. By steering mid channel courses between the small rock island and the north shore, at the entrance to the bay, into the south portion of the bay, good anchorage in mud bottom for small craft can be obtained near the head and midway of the south portion of the bay, in 5 to 8 fathoms.

Page 221, Line 41 through Line 43: Delete and add - Eek Inlet, on the west side of Hetta Inlet, at the northern side of Sukkwan Strait Entrance has been used by fishermen in small craft, with local knowledge. Mid channel courses should be steered to anchorage in 8 fathoms, midway in the inlet, about 0.3 mile northwest of the narrow entrance.

Page 222, Line 2: Add to the sentence - by fishermen who have local knowledge of the area. There are numerous reefs and shoal soundings in the cove.

Page 222, Line 5: Add - after "there is anchorage in" - 10 to 20 fathoms.

Page 222, Line 16: Add sentence: The west channel should be attempted only at high water, since there is a 1 fathom shoal in mid-channel at the south entrance. H-8232

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O. COAST PILOT INFORMATION - Contin.

Page 222, Line 23: Add to end of sentence - and should not (Gould Passage) be attempted at any stage of the tide as a through passage into Portage Bay, because of tidal current and numerous rocks and dangers at the east end of the passage.

Page 222, Line 25: Add sentence - It (Sulzer Passage) should be navigated by only those who have thorough local knowledge.

The survey vessel anchored in Mud Bay, Copper Harbor, and off Sulzer, during the course of the survey.

During the period of this survey the weather was good to bad, with strong southerly breezes preventing field work for four days.

P. AIDS TO NAVIGATION:

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

Q. LANDMARKS FOR CHARTS:

None recommended.

R. GEOGRAPHIC NAMES: See Notes by Mr. Heck 6/20/58 in DR H-8230 page 9.

On 22 July 1955, Mr. James Edenso, whose address is Hydaburg, Alaska, was interviewed, and was at that time employed as a watchman at Eek Inlet for the U. S. Fish and Wildlife Service. Mr. Edenso, a member of the Indian race, was born at Howkan village in Kaigani Strait, and is about 60 years old. He has fished most of his life in and around Cordova Bay. Mr. Edenso stated that the following geographic names are in local use:

Blanket Island - The island at the southeast entrance to Sukkwan Strait whose northeast point is charted as Round Point. No specific reason was given for this name.

Y Bay amit - The small bay on the west side of Hetta Inlet and just south of the above Blanket Island. The name Y Bay is used to denote this body of water because of a slide at the head of the bay shaped like the letter Y.

Mud Bay - On the east side of Hetta Inlet, about 2-1/2 miles north of Lime Point. The Coast Pilot mentions this name although the name is not charted. Local fishermen call this Mud Bay because of its usefulness as an anchorage.

The sites of Copper City, Coppermount, Corbin Mine, and Sulzer no longer exist. They are abandoned and in complete ruins. The aerial tramway and pipeline shown on the chart at Coppermount, together with the aerial tramway leading to Copper Mt., and the flume at Sulzer, are no longer in existence and should be removed from Chart No. 8147.

1C

S. SILTED AREAS:

What appeared to be silted areas on the fathograms was found to be soft green mud obtained by bottom samples. No significant silted areas were noted in this survey.

T. BY-PRODUCT INFORMATION:

No significant by-product information was noted in this area.

U. MARKED STATIONS:

The following stations were marked by standard topographic disks:

Sheet H-8230 (PA-1255): *not applicable*
None. FLUE 1954 was recovered, but was not used as a signal.

Sheet H-8231 (PA-1355):
None

Sheet H-8232 (PA-1455): *Not applicable.*
DIP, NOW

Z. TABULATION OF APPLICABLE DATA:

Photogrammetric Report and data, Project 6117, 1955 Season
Triangulation Report, Project 1357, 1955 Season

Applicable data attached to this report:

Table of Statistics
Fathometer Corrections
Tidal Notes

Respectfully submitted by

William C. Russell

William C. Russell
CDR USC&GS

Forwarded:

J. T. Jarman
CDR USC&GS
Cmdg., USC&GSS PATTON

TABLE NO. 1

STATISTICS FOR HYDROGRAPHIC SURVEY

SHEET H-8230 (PA-1255)

VOL.	DAY	DATE	VESSEL	POS.	STAT.MI.	H. L. & WIRE SOUNDINGS
1	a	18 May	Launch 87	82	8.8	10
1 & 2	b	26 "	"	149	26.8	--
2 & 3	c	27 "	"	198	48.5	--
3 & 4	d	28 "	"	206	44.5	--
4 & 5	e	29 "	"	168	33.1	--
5	f	30 "	"	24	--	24
5 & 6	g	31 "	"	93	19.7	--
6 & 7	h	2 June	"	176	29.8	5
7	j	8 "	"	141	21.5	1
7 & 8	k	9 "	"	170	29.3	3
8 & 9	l	10 "	"	184	24.6	1
9 & 10	m	11 "	"	162	23.7	9
10 & 11	n	12 "	"	205	31.2	-
11 & 12	p	13 "	"	147	22.6	4
12 & 13	q	14 "	"	215	33.3	2
13 & 14	r	16 "	"	87	15.9	-
14	s	21 "	"	183	30.1	4
15	t	22 "	"	146	16.2	2
15 & 16	u	23 "	"	180	27.6	1
16 & 17	v	24 "	"	201	33.5	1
17	w	26 "	"	27	—	27
17	x	28 "	"	10	0.3	7
		TOTALS:		3,165	521.0	101

Area = 18.1 sq. stat. miles

SHEET H-8231 (PA-1355)

1 & 2	a	27 June	Launch 87	202	39.7	1
2	b	28 "	"	88	17.7	-
2 & 3	c	6 July	"	154	30.5	1
3 & 4	d	11 "	"	173	32.2	2
4 & 5	e	12 "	"	208	33.3	2
5 & 6	f	13 "	"	195	27.8	2
6 & 7	g	14 "	"	188	25.0	5
7 & 8	h	15 "	"	196	29.4	1
8 & 9	j	16 "	"	186	33.0	2
9 & 10	k	18 "	"	220	31.0	-
11	l	19 "	"	191	28.9	4
12	m	20 "	"	64	5.5	30
12	n	21 "	"	25	- -	24
		Totals:		2090	334.0	74

Area = 13.9 sq. stat. miles

TABLE NO. 2

FATHOMETER CORRECTIONS - (PHASE AND INDEX)

808 FATHOMETER NO. 51

Same corrections apply to Sheets H-8230 (PA-1255), H-8231 (PA-1355) and H-8232 (PA-1455) and are as follows:

Average of Index Corrections on A scale =	+0.4 fathom
Average of Phase Corrections on A - B scale	+1.0 fathom
Average of Phase Corrections on B - C scale	0.0 fathom
Average of Phase Corrections on C - D scale	-0.4 fathom

Index and Phase Corrections applied to the soundings:

Index Correction to A scale =	+0.4 fathom
Index and Phase Correction to B scale =	+1.4 fathoms
Index and Phase Correction to C scale =	+1.4 fathoms
Index and Phase Correction to D scale =	+1.0 fathom

TIDE NOTES FOR HYDROGRAPHIC SURVEYS

SHEET H-8230 (PA-1255)

Tide Station located in Mud Bay on southwest side of small island, Latitude 55° - 04.95', Longitude 132° - 37.90'

MLLW on staff = 3.9 feet

SHEET H-8231 (PA-1355)

Tide Station - Hydrographic Signal EBB on south side of Copper Harbor, Latitude 55° - 12.65', Longitude 132° - 37.50'.

MLLW on staff = 3.4 feet

SHEET H-8232 (PA-1455)

Tide station located at Sulzer, Latitude 55° - 17.12', Longitude 132° - 37.20'

MLLW on staff = 5.8 feet

LIST OF SIGNALS - SHEET H-8231 (PA-1355)

SIGNAL	SOURCE
ALP	Photo-hydro
AMO 1955	Triangulation
ANTON 1955	"
ARM	Photo-hydro
ASK	"
BAG	"
BAT 1955	Triangulation
BOB	Photo-hydro
BOX	"
BRETT 1908-14	Triangulation
CAB	Photo-hydro
$COPPER_2$ 1908	Triangulation
COW	Photo-hydro
CUT	"
DAY	"
DON	"
DOT	"
$EASY_2$ 1908	Triangulation
EAT	Photo-hydro
EBB	"
END	"
ERA 1955	Triangulation
EVA 1955	"
FAT	Photo-hydro
FIG 1955	Triangulation
FLY	Photo-hydro
FUN	"
GAB	"
GAG	"
GAS 1955	Triangulation
GUS	Photo-hydro
HAT	"
HETTA 1955	Triangulation
HEX 1955	"
HOD	Photo-hydro
HOW	"
ICE 1955	Triangulation
IDA 1955	"
IRK	Photo-hydro
JOB	"
JUG	"
KED	"
KEY	"
LAY	Photo-hydro
LUG	"
MAL	"
MAR 1955	Triangulation
MOE	Photo-hydro
NAT	"
NIP	"
OAK	"
OLD	"
PAD	"
PARKA 1955	Triangulation
POD 1955	"
POINT 1908	"
REV	Photo-hydro
SIGN 1955	Triangulation
SIMON 1955	"
SOL	Photo-hydro
TALON 1955	Triangulation
TUB	Photo-hydro
USE	"
WAG	"
WED	"
YAM 1955	Triangulation
YUM	Photo-hydro
ZOA	"
ZOO	"

PROCESSING OFFICE NOTES H-8231

SMOOTH SHEET

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

SHORELINE AND TOPOGRAPHY

The shoreline and offshore detail was transfered advance manuscripts from T-11498, T-11499, T-11501 and T-11502.

ADEQUACY OF SURVEY

The survey is complete and adequate for charting. The junctions with H-8230 (1955) and H-8232 (1955) have been compared and except for an area at the junction with H-8230 (1955) in the vicinity of Lat. 55° 07!75 N, Long. 132° 38!75 W., where there are some differences of 2 to 4 fathoms in deep water, the junctions are satisfactory and the depth curves can be adequately drawn. The junction is satisfactory as shown on H-8231 L.S.S. 2/29/60.

COMPARISON WITH CHART

The survey was compared with Chart 8147, 4th Ed. Revised 10/7/57, which was made from the boat sheet. (Bp 52780) Except for two charted 49 fathom soundings, which are noted on the smooth sheet, no discrepancies were found. See Review P 6A.

DANGERS AND SHOALS

Covered in the field report with smooth sheet values shown as corrections in ink.

Respectfully submitted

William M. Martin

WILLIAM M. MARTIN
Supervisory Cartographer

APPROVED AND FORWARDED

E. H. Kirsch

E. H. KIRSCH
Captain, C&GS
Seattle District Officer

GEOGRAPHIC NAMES PENCILED ON H-8231

COPPER HARBOR

CORDOVA BAY

EEK INLET

EEK POINT

HETTA

HETTA INLET

HETTA POINT

REYNOLDS CR.

SIMMONS CR

WRIGHT CR.

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

25 February 1959

Plane of reference approved in
12 volumes of sounding records for

HYDROGRAPHIC SHEET 8231

Locality Hetta Inlet, Alaska

Chief of Party: J. C. Partington in 1955

Plane of reference is mean lower low water, reading
3.4 ft. on tide staff at Copper Harbor
12.7 ft. below B.M.1 (1955)

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

Condition of records satisfactory except as noted below:

William Shofnos
Signature

Chief, Tides Branch

Comm-DC 34330

DIVISION OF CHARTS

REVIEW SECTION -- NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8231 FIELD NO. PA-1355

S. E. Alaska, Hetta Inlet, Eek Point to Corbin Point

SURVEYED: June-July 1955 SCALE: 1:10,000

PROJECT NO. 1357

SOUNDINGS: 808 Depth Recorder
Hand Lead
Wire (Bottom Samples)

CONTROL: Sextant fixes on shore signals

Chief of Party ---------- J. C. Partington
Surveyed by ---------- W. C. Russell and F. J. Tucker
Protracted by ---------- C. R. Lehman
Soundings plotted by ---------- C. R. Lehman
Verified and inked by ---------- J. C. Chambers
Reviewed by ---------- L. S. Straw DATE: 1 Mar 1960
Inspected by ---------- R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-9903 (1953-55), T-11498 (1954-56), T-11499 (1954-56), T-11501 (1954-56), T-11502 (1953-55), and T-9903 (1953-55).

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

2. Sounding Line Crossings

The depths at sounding line crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated, except close inshore where the steep shore and rock bottom prevented development of the low-water line as well as portions of the 1, 2, 3, and 5 fathom curves.

The bottom of the deeper portion of Hetta Inlet is even and generally slopes uniformly toward the center from the 50 fathom curve to depths varying from 90 to 140 fathoms, whereas from the 40 fathom curves to the steep - to shoreline the bottom is irregular.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8232 (1955) on the north at Corbin Point and with H-8230 (1955) on the south at Eek Point.

5. Comparison with Prior Surveys

H-2788 (1905), 1:20,000

Survey H-2788 (1905) which contains both topography and hydrography is the only prior survey made by this Bureau in the area covered by the present work. The development on a scale of 1:20,000 is so sparse that the 1905 work is considered little more than a reconnaissance survey. Differences in depths generally do not exceed 1 fathom.

The present survey which covers the area in greater detail is adequate to entirely supersede the prior survey within the common area.

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

A. Hydrography

The charted information originates with Bp. 52787, which is a reproduction of the boat sheet of the present survey. In several instances, there are differences in depths of 1 fathom between the charted soundings and the present survey depths. The present survey supersedes the charted information.

B. Aids to Navigation

There are no official fixed or floating aids to navigation within the limits of the present survey.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is necessary.

Examined and Approved:

Chief, Nautical Chart Branch

Chief, Division of Charts

Chief, Hydrography Branch

Chief, Division of Coastal Surveys

GEOGRAPHIC NAMES

Survey No. H-8231

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Southeast Alaska			(title)							1
Jumbo Island			(title only: just off sheet)							2
Cordova Bay										3
Eek Point										4
Eek Inlet										5
Hetta Inlet										6
Hetta (Abandoned)										7
Hetta Point										8
Wright Creek										9
Simmons Point										10
Copper Harbor			(tide station)							11
Reynolds Creek										12
Hetta Cove										13
			Names approved 12-17-58							14
			L. Heck							15
Corbin Point	(title might well be changed to "Eek Point to Corbin Point")									16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8231

Records accompanying survey:

Boat sheets 1; sounding vols. 12; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 3-Envelopes

special reports, etc. 1-Smooth sheet and 1-Descriptive report.

.....

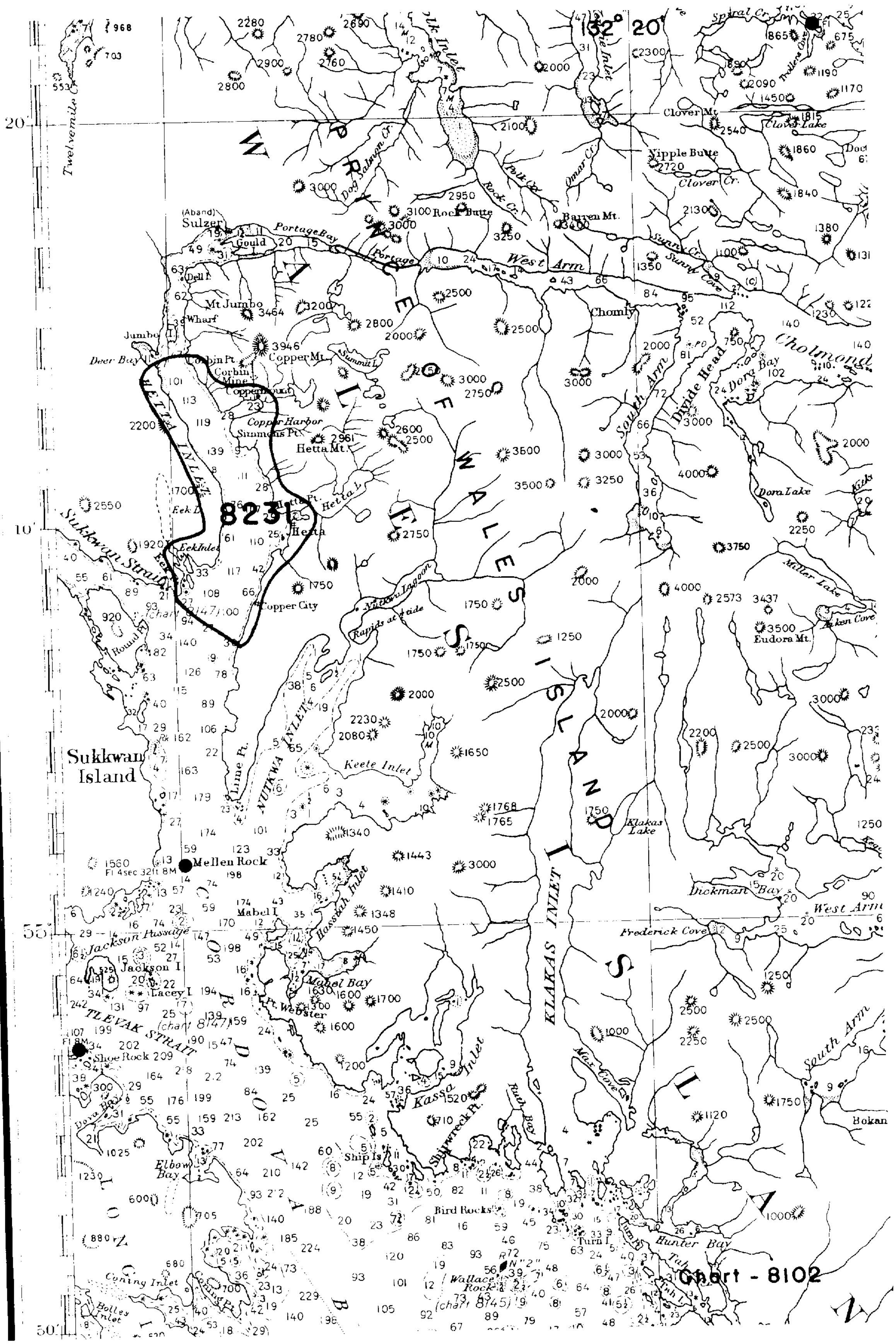
The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		2090
Number of positions checked		193
Number of positions revised		0
Number of soundings revised (refers to depth only)		0
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	2
Junctions	Time	4
Verification of soundings from graphic record	Time	2

Verification by J. C. Chambers Total time 181 Date 12/25/59

Reviewed by [signature] Time 22 hr. Date 3/1/60

M-2232-1


132° 20'
PRINCE OF WALES ISLAND
8231
Chart - 8102
Twelvemile
Sulzer
Gould
Portage Bay
Portage
West Arm
Rock Butte
Barren Mt.
Nipple Butte
Clover Mt.
Clover Cr.
Clover Lake
Mt Jumbo
Jumbo
Deer Bay
Wharf
Corbin Pt
Corbin Mine
Copper Mt.
Summit L.
Copper Harbor
Hetta Mt.
Hetta L.
Hetta Pt.
Hetta
Hetta Inlet
Eek Inlet
Copper City
Sukkwan Strait
Sukkwan Island
Nutkwa Lagoon
Rapids at tide
Nutkwa Inlet
Lime Pt.
Keete Inlet
Mellen Rock
Mabel I
Mabel Bay
Hassiah Inlet
Pt. Webster
Jackson Passage
Jackson I
Lacey I
Tlevak Strait
Shoe Rock
Elbow Bay
Coning Inlet
Bolles Inlet
Ship Is
Bird Rocks
Wallace Rock
Kassa Inlet
Shipwreck Pt.
Ruth Bay
Klakas Inlet
Klakas Lake
Max Cove
Turn I
Hunter Bay
Chomly
South Arm
Divide Head
Dora Bay
Dora Lake
Miller Lake
Eudora Mt.
Dickman Bay
Frederick Cove
West Arm
Cholmondeley

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8231

Reviewed 3-1-60

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5-22-59	8102	M. Rogers	Examined Before ~~After~~ Verification and Review Soundings added, Soundings used - Not critical but much smaller than charted
10-28-60	8152	R. E. Elkins	~~Before~~ After Verification and Review Fully applied without going thru the large scale chart 8147 (Prelim).
1/9/61	8102	E E Thomas	~~Before~~ After Verification and Review Thru 8152 above. 5-3-61
14 Mar 61	8002	[illegible]	~~Before~~ After Verification and Review Revised 100 fm curve ~~[illegible]~~ consider as fully appl
7/16/62	8147	H. Radde	~~Before~~ After Verification and Review Part App'd
6-14-63	8147	H. Radde	Fully App'd
8-10-63	8147	h. j. keeler	~~Before~~ After Verification and Review ~~App'd. thru cht. 8151~~ Crit corr only for T.O. print RKO
2/6/75	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

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.