8230

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-1255 Office No. H-8230

LOCALITY

State S. E. Alaska

General locality Prince of Wales Island

Locality Approaches to Hetta Inlet

19~~4~~55

CHIEF OF PARTY

J. C. Partington

LIBRARY & ARCHIVES

DATE June 13, 1958

B-1870-1 (1)

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-8230, 8231, 8232~~

Field No. ~~PA-1255, 1355, 1495~~

State S.E. Alaska

General locality ~~South East Alaska~~ PRINCE OF WALES ISLAND

Locality ~~Hetta Inlet~~ Approaches to APPROACHES TO HETTA INLET.

Scale 1:10,000 Date of survey 16 May - ~~20 August~~ 28 June 1955

Instructions dated 7 January 1955

Vessel USCGCS Ship PATOKA

Chief of party J. C. Partington

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

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

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

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

Protracted by C.A.J. Pauw

Soundings penciled by C.A.J. Pauw

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW AND ARE BASED ON A

REMARKS: VELOCITY OF SOUND OF 800 FMS PER SECOND.

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

C-230 NWO

DESCRIPTIVE REPORT

TO ACCOMPANY

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

~~AND H-8232 (PA-1455)~~

PRINCE OF WALES ISLAND.

APPROACHES TO HETTA INLET, S. E. ALASKA

SCALE 1:10,000 - DATE 1955

U. S. C. & G. S. S. PATTON, J. C. PANTLETON, 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 (H-8134, 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° - 44.8'. (Northeast Junction H-8234)

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 ⊙ PIE	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 (These stations were not monumented and are not considered triangulation stations by Geodesy.)

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.

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.

See Notes by P.O. in this D.R.

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. Topo positions used RHC,

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.

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.

Not Applicable

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 (1955), H-8231 (1954), and H-8232 (1955) were checked by overlay tracing and found to be adequate. Junction of Sheet H-8230 (1955) with the northern limits of HODGSON H-8131 (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.

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.

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)		
Item 1 55 - 05.05 132 - 37.90	Sunken Rock	55 - 05.02 132 - 37.92	1.5 6 fms.	55-05.00 132-37.91 1.4 fms
2 55 - 09.17 132 - 43.12	2 rocks awash (CH-3690-1914) in this area	55 - 09.15 132 - 43.10	2 rock reefs uncovered 2 3 ft. at MLLW	pos 34t
3 55 - 07.78 132 - 41.73	Islet (CH-3690-1914)	55 - 07.80 132 - 41.80	Rock reef uncovered 9 ~~10~~ 12 ft. at MLLW	North end of general foul area pos 27t (13's center of foul area)
4 55 - 06.90 132 - 41.36	Rock bares 2' at MLLW	55 - 06.~~88~~ 93 132 - 41.35	Rock reef bare ~~2'~~ 15 at MLLW 14' highest point	S. end of foul area extending N. to shore pos 88p
5 55 - 06.73 132 - 41.58	Rock awash	55 - 06.75 132 - 41.58 5	Rock reef bare 14' at MLLW	E. side of general foul area pos 74, 75, 76p
6 55 - 06.50 132 - 42.50	Islet	55 - 06.53 132 - 42.48	Rock reef bare 5 ~~8~~ at MLLW	pos 71m
7 55 - 06.52 132 - 42.88	Sunken rock	55 - 06.55 132 - 42.85	Rock reef bare ~~8~~ 9' at MLLW	General foul area pos 73m
8 55 - 05.90 132 - 41.90	Islet	No trace found	2½ to 10½ fm	Delete from chart
9 55 - 05.90 132 - 42.36	Islet	No trace found	9 to 16 fm	Delete from chart
10 55 - 05.63 132 - 42.28	Islet	No trace found	9 - to 20 fm.	Delete from chart

M. COMPARISON WITH CHART - Contin.

CHARTED LOCATION	CHART DEPTH	NEW LOCATION	NEW DEPTH	REMARKS
Sheet H-8230 (PA-1255) Contin.				
11 55 - 05.35 / 132 - 41.40	Islet	No trace found 55 05.33 132°41.39	Islet	T-9435 Delete from chart. Rock ledge in area covered at HW
12 55 - 05.82 / 132 - 41.35	Three sunken rocks	55 - 05.78 132 - 41.39	One rock reef bare 8' at MLLW	Pos 79-80p
Sheet H-8231 (PA-1355)				
55 - 08.40 132 - 39.40	Two rocks awash	55 - 08.42 132 - 39.37	One rock reef awash at MLLW	
55 - 09.78 132 - 35.02	Rock awash	55 - 09.75 132 - 35.07	Rock reef uncovers 3' at MLLW	
55 - 10.18 132 - 34.90	Three sunken rocks	55 - 10.15 132 - 34.93	Rock ledges awash at MLLW	General foul area
55 - 10.1 132 - 34.7	Three sunken rocks	55 - 10.1 132 - 34.6	Rock reef and ledge awash at MLLW	General foul area
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
55 - 14.63 132 - 40.32	7 fms.	55 - 14.55 132 - 40.32	1 fm.	Investigation requested on preliminary review 1/26/53
55 - 15.40 132 - 40.12	Islet	No trace found		Delete from chart

Not Applicable
Not Applicable

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	Outside edge of rock ledge to HWL
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	1 fm.	General foul area

Not Appl.

*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	reef 3.0 Bare ~~2.5~~ ft. at MLLW	Rock reef - 70 m
55 - 04.42 132 - 41.13	0.9 fms.	Rock - 1 s
55 - 04.05 132 - 40.96	4½ fms	Shoal sounding 208 - 209 g
55 - 04.38 132 - 41.88	3½ fms.	Shoal sounding 3 - 4 s
	Sheet H-8231 (PA-1355)	
55 - 10.17 132 - 35.10	3 fms.	Shoal sounding 1 l
55 - 10.26 132 - 34.92	3 fms.	Shoal sounding 2 l

Not Applicable

N. DANGERS AND SHOALS - Contin.

LOCATION	DEPTH	REMARKS
	Sheet H-8232 (PA-1455)	
55 - 15.15 132 - 40.03	2 fms.	Shoal sounding 67 s
55 - 16.68 132 - 37.78	2 fms.	Shoal sounding 30 k
55 - 16.25 132 - 37.80	Islet uncovered 2 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 passage in Latitude 55° - 16.6', Longitude 132° - 35.6' was too foul for launch hydrography.

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".

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.

O. COAST PILOT INFORMATION - Contin.

Page 222, Line 23: Add to end of sentence - and should not 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 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: Noted 6-20-58 by HSH (L.H.)

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 (omit) - 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.

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):
None. FLUE 1954 was recovered, but was not used as a signal.

Sheet H-8231 (PA-1355):
None

Sheet H-8232 (PA-1455):
DIP, NOW

} Not Applicable

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. Jayman
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)

OPIC

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-8230 (PA-1255)

SIGNAL	SOURCE
ABE	Triangulation 1955 (See item 19 Verif. Rpt)
ACE	Photo-Hydro
BAG	~~Sextant Location~~ Photo-hydro
BIB	Triangulation 1955
BRETT 1908-14	"
CEDAR$_2$ 1908	"
CLOSE 1908-14	"
COD	Photo-hydro
CUT	"
DIP	"
DON	"
EASY$_2$ 1908	Triangulation
EGO	Photo-hydro
ERA 1955	Triangulation
FLY	~~Sextant location~~ Photo-hydro
FOG 1908	Triangulation
GAL	Photo-hydro
GRASS 1905,1954	Triangulation
HOD	Photo-hydro
HOW	"
ICE 1955	Triangulation
IVY	Photo-hydro
JAP	"
JAY	"
JIB	"
KEN	"
KEY	"
KIM	"
LAG	"
LAY	"
LEO	Sextant location ✓
LIVE$_2$	1954 triangulation
LIP	Sextant location ✓
LOG	1908-14 triangulation
LOW	Photo-hydro
MAG	"
MAX	"
MID	"
NED	"
NOD	"
NUT	"
OAK	Photo-hydro
OAT(Rec.)1955	1955 Triangulation
OIL	Photo-hydro
ORA	"
PAL	"
PEN	~~Sextant location~~ Photo-hydro
PIE	Photo-hydro
PLY 1955	Triangulation
POINT 1908	Triangulation
POT 1954	Photo-hydro
QUO	"
RAG	"
RAT	"
RIO	"
ROUND 1908-14	Triangulation
ROY	Photo-hydro
SAL	"
SAW	"
SIS	"
TAN	"
TOY	"
TRY	"
VAL	"
VAN	"
YET	"
WAR	"
WIG	"
YAK	"
YET	"

GEOGRAPHIC NAMES PENCILED ON H-8230

ALDER COVE

BLANKET ISLAND

EEK INLET

EEK POINT

FLAT ISLAND

HETTA INLET

LIME POINT

MUD BAY

PRICE OF WALES ISLAND
Round Point
SUKKWAN ISLAND

SUKKWAN STRAIT

PROCESSING OFFICE NOTES H-8230

SMOOTH SHEET

The smooth sheet was hand ruled by the Seattle Hydrographic Processing Unit. Standard methods of construction and checking were used for the projection and the transfer of shoreline and control.

CONTROL STATIONS

The computed positions of topo signals ABE, BIB, ERA, ICE, OAT, 1954 and PLY were plotted, as recommended by the hydrographer, and were found to be in agreement with the photo topo locations on the later prints.

Photo locations for signals in Mud Bay were used. The agreement between these and the sextant locations appears satisfactory. No jumps in the sounding lines were noted.

hydrography from weak fixes (6) Mud Bay adjusted

Sextant locations for signal LEO, a mile south of Round Point and for signal LIP, on the north shore of Sukkwan Strait, were used.

SHORELINE AND TOPOGRAPHY

The shoreline and offshore detail was transferred from manuscripts T-9435, T-9903, T-11293, T-11294, T-11501 and T-11502. (1948-56) (1953-55) (1948-55) (1948-54) (1954-56) (1953-55)

ADEQUACY OF SURVEY

The survey is complete and adequate for charting. In several places along the shoreline it appears that, from the depth of water, it might have been possible to have gone closer inshore. The junctions with H-8231 and H-8232 will be compared when those sheets have been plotted. No copies of H-8131 or H-8134 are in the Processing Office but comparison with soundings, from those surveys, transferred to the boat sheet show the junction to be satisfactory.

COMPARISON WITH CHART

The survey was compared with Chart 8147, 4th Ed. Revised 10/7/57 which was made from the boat sheet. Except for one shoreline discrepancy, no important differences were noted. The shoreline about a mile south of Round Point, Lat. 55° 06'.5 N, Long. 132° 41'.7, does not agree with that shown on T-9435. Smooth sheet values have been added in ink to the field report on notations under this heading. H-8230(1955) and T-9435 are in agreement - Chart should be corrected. L.S.S. 7/1960.

DANGER AND SHOALS

Covered in hydrographers report.

Respectfully submitted,

William M. Martin
William M. Martin
Supervisory Cartographer, C&GS

Approved and Forwarded:

E. H. Kirsch
E. H. Kirsch, Capt., Seattle District Officer

GEOGRAPHIC NAMES PENCILED ON H-8230

ALDER COVE

BLANKET ISLAND

EEK INLET

EEK POINT

FLAT ISLAND

HETTA INLET

LIME POINT

MUD BAY

PRICE OF WALES ISLAND

SUKKWAN ISLAND

SUKKWAN STRAIT

GEOGRAPHIC NAMES

Survey No. H-8230

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	
Alaska			(title)							1
Southeast Alaska			"							2
Prince of Wales Island										3
Hetta Inlet										4
Lime Point										5
Mud Bay										6
Alder Cove										7
Flat Island										8
Blanket Island										9
Round Point										10
Eek Point										11
Eek Inlet										12
Sukkwan Strait									BGN	13
Sukkwan Island										14
				Names approved 6-20-58 L. Heck						15
										16
										17
										18
										19
										20
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										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8230

Records accompanying survey:

Boat sheets 1; sounding vols. 17; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 5-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		3165
Number of positions checked		368
Number of positions revised		112
Number of soundings revised (refers to depth only)		15 *
Number of soundings erroneously spaced		19
Number of signals erroneously plotted or transferred		0
Topographic details	Time	40
Junctions	Time	40
Verification of soundings from graphic record	Time	5

Verification by F.P. SAULSBURY Total time 497 Date 10-20-59

Reviewed by [signature] Time 39 Date 17 Nov 1960.

* Approx. 50 intermediate s'dgs. were added.

DRE

DIVISION OF CHARTS

REVIEW SECTION -- NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8230 FIELD NO. PA-1255

S. E. Alaska, Prince of Wales Island, Approaches to Hetta Inlet

SURVEYED: May-June 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. A. J. Pauw
Soundings plotted by ---------- C. A. J. Pauw
Verified and inked by -------- F. P. Saulsbury
Reviewed by ---------- L. S. Straw DATE: 17 Mar 1960
Inspected by ---------- R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-9435 (1948-55), T-9903 (1953-55), T-11293 (1948-55), T-11294 (1948-54), T-11501 (1954-56) and T-11502 (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 and in foul areas, where development of the low-water line as well as portions of the 1,2,3,5 and 10 fathom curves was not practical.

The bottom is fairly even in depths over 50 fathoms. On the west side of the inlet from Round Point southward to the small island $\frac{1}{4}$ mile offshore in lat. 55°03.42', long. 132°40.77', irregular bottom predominates with isolated rocky shoals covered by 1 to $3\frac{1}{2}$ and $4\frac{1}{2}$ fathoms. On the east side of Hetta Inlet, a ridge

extends from lat. 55°06.10' to lat. 55°07.60'. The shoaler depths on this ridge vary from about 9½ fathoms to 17 fathoms.

4. Junctions with Contemporary Surveys

Adequate junctions were effected on the northeast with H-8231 (1955), and with H-8131 (1954), H-8134 (1954) and H-8132 (1954) on the south. The present survey extends to long. 132°44.5' into Sukkwan Strait where it joins H-8325 (1955) which has not as yet been received in the Washington Office. The depths at the western limit are in reasonable agreement with those charted.

5. Comparison with Prior Surveys

H-2787 (1905), 1:40,000
H-2788 (1905), 1:20,000
H-3690 (1914), 1:10,000

The 1905 surveys, H-2787 and H-2788, are sparsely developed, and fail to reveal the bottom configuration, which is adequately shown on the present survey. The prior survey covering Sukkwan Strait, H-3690 (1914), contains about ¼ as many soundings as the present work. There are minor differences in depths, of a fathom or less, in a few instances.

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

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

A. Hydrography

The charted information originates with Bp 57786 which is a reproduction of the boat sheet of the present survey. Although no important differences between the charted depths and the present survey were noted, the shoreline detail pertaining to reefs and rocks should be corrected because of changes made during verification. The present survey supersedes the charted information.

B. Aids to Navigation

There are no 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. It was necessary to correct a considerable number of positions and soundings on the smooth sheet during verification. On 'p' day, the plotting of 70 positions did not check the recorded

angles. These were weak fixes using distant signals Era and Cedar with angles generally less than 17°. In Mud Bay about 12 positions based on weak fixes were replotted by adjusting the hydrography to lines controlled by stronger fixes. Northwest of Blanket Island about 25 weak fixes were replotted or adjusted to more strongly controlled lines.

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

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: 10 July 1958

Plane of reference approved in
17 volumes of sounding records for

HYDROGRAPHIC SHEET 8230

Locality Hetta Inlet, Southeast Alaska

Chief of Party: J. C. Partington in 1955

Plane of reference is mean lower low water, reading

3.9 ft. on tide staff at Mud Bay

15.3 ft. below B.M. 1 (1955)

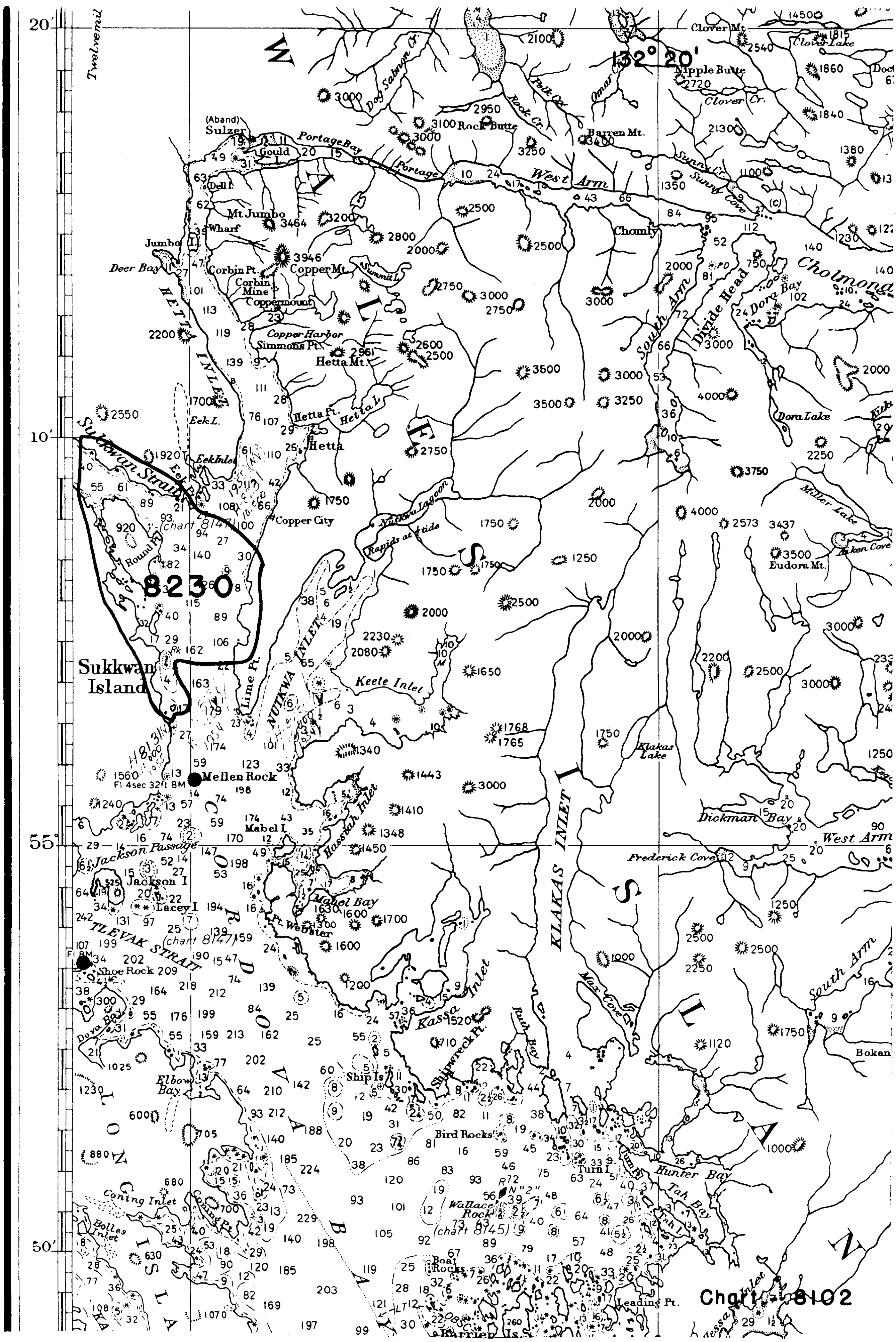
Height of mean high water above plane of reference is 11.9 feet.

Condition of records satisfactory except as noted below:

William Shofner
Signature

Chief, Tides Branch

Comm-DC 34330



Clover Mt.
Clover Lake
Nipple Butte
Clover Cr.
Dog Salmon Cr.
Rock Cr.
Polk Cr.
Omar Cr.
Rock Butte
Barren Mt.
(Aband)
Sulzer
Portage Bay
Gould I.
Portage
West Arm
Sunny Cr.
Sunny Cove
Dell I.
Mt Jumbo
Wharf
Jumbo I.
Deer Bay
Corbin Pt.
Copper Mt.
Summit L.
Corbin Mine
Coppermount
Copper Harbor
Simmons Pt.
Hetta Mt.
HETTA INLET
Chomly
South Arm
Divide Head
Dora Bay
Cholmondeley
Dora Lake
Eek L.
Eek Inlet
Eek Pt.
Hetta Pt.
Hetta L.
Hetta
Sukkwan Strait
Round Pt.
Copper City
Nutkwa Lagoon
Rapids at ½ tide
Miller Lake
Aiken Cove
Eudora Mt.
8230
(chart 8147)
Sukkwan
Island
NUTKWA INLET
Lime Pt.
Keete Inlet
Klakas Lake
KLAKAS INLET
Mellen Rock
Fl 4sec 32ft 8M
Mabel I.
Hassiah Inlet
Dickman Bay
West Arm
Frederick Cove
Jackson Passage
Jackson I.
Lacey I.
Mabel Bay
Pt. Webster
TLEVAK STRAIT
Shoe Rock
Fl 8M
Max Cove
South Arm
Dova Bay
Kassa Inlet
Shipwreck Pt.
Ruth Bay
Bokan
Elbow Bay
Ship Is.
Bird Rocks
Hunter Bay
Turn I.
Tah Bay
Turn Pt.
Coning Inlet
Bolles Inlet
Wallace Rock
(chart 8145)
Boat Rocks
Barrier Is.
Leading Pt.
Kassa Inlet
CORDOVA BAY
LONG ISLAND
PRINCE OF WALES ISLAND
132° 20'
20'
10'
55°
50'
Chart 8102

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8230

Reviewed 3-17-60

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-15-58	8102	R. E. Elkins	Before ~~After~~ Verification and Review
			Examined - no revisions
10-17-58	8152	R. E. Elkins	Before ~~After~~ Verification and Review
			Examined - no revisions
11-2-60	8152	R. E. Elkins	~~Before~~ After Verification and Review Completely applied
			without going thru the large scale chart 8147 (Prelim)
1/9/61	8102	E E Thomas	~~Before~~ After Verification and Review
			Fully applied thru 8152 above.
13 Mar 61	9002	[illegible signature]	~~Before~~ After Verification and Review
			Fully appd thru chart 8102 drwg #14
6/28/62	8147	H. Radden	~~Before~~ After Verification and Review Fully Applied
8-10-63	8147	L. j. keeler	~~Before~~ After Verification and Review ~~Appd. thru cht. 8151~~
			but 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

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.