

8456

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Diag. Cht. No. 8152-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PA-1258 Office No. H-8456

LOCALITY

State SOUTHEAST ALASKA

General locality SUKKWAN STRAIT

Locality NATZUHINI BAY

1958

CHIEF OF PARTY

LCDR. F. X. POPPER

LIBRARY & ARCHIVES

DATE FEB 2 1959

COMM-DC 61300

8456

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-8456

Field No. PA-1258

State SOUTHEAST ALASKA

General locality SUKKWAN STRAIT

Locality NATZUHINI BAY

Scale 1:10,000 Date of survey May 29 - June 24, 1958 Field Season

Instructions dated 7 Jan. 1955, 9 Dec. 1955, 1 Nov. 1957, 29 Jan. 1958

Vessel USC&GS SHIP PATTON

Chief of party F. X. POPPER

Surveyed by K. W. JEFFERS, S. C. MILLER

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

Fathograms scaled by MW, SCM, FXP

Fathograms checked by SCM, FXP

Protracted by K. W. JEFFERS

Soundings penciled by K. W. JEFFERS

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW

REMARKS:

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.....
.....
.....

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8456, (FIELD NO. PA-1258)

NATZUHINI BAY, S.E. ALASKA, 1958 FIELD SEASON

SCALE 1:10,000

U. S. C. & G. S. S. PATTON, F. X. POPPER, COMDG.

* * *

A. PROJECT:

This survey was carried out in accordance with Revised Instructions for Project CS-357, dated 7 January 1955; and additional Supplemental Instructions Project 1357 dated 9 December 1955, Project CS-357 dated 1 November 1957, and Instructions dated 29 January 1958. All instructions were addressed to Commanding Officer, Ship PATTON.

B. SURVEY LIMITS AND DATES:

This survey covers Natzuhini Bay, just north and west of the town of Hydaburg on the southwest end of Prince of Wales Island. The survey is bounded by longitude $132^{\circ}-53.5'W$ on the west. On the south, the survey is bounded by latitude $55^{\circ}-12.1'N$ to the west of longitude $132^{\circ}-50.5'W$, and by latitude $55^{\circ}-12.9'N$ to the east of longitude $132^{\circ}-50.5'W$.

Hydrography commenced on May 29 and ended on June 24.

The south end of this survey makes junctions with H-8325, 1:10,000 completed in 1956 and H-8326, 1:5,000 completed in 1956. JUNCTIONS WITH H-8455, 1:10,000, 1958, ON THE WEST.

C. VESSEL AND EQUIPMENT:

Hydrography was done with Launch No. 87, operating from the ship PATTON.

Soundings were taken with 808-A recording fathometers No. 110 and No. 51, calibrated for a velocity of 800 fathoms per second. Supplementary handlead soundings were taken on shoals and rocks. Bottom samples were taken by wire (registering sheave no. H-367) and handlead.

D. TIDE AND CURRENT STATIONS:

Two tide stations were located in the area: Hydaburg, Sukkwan Strait at Lat. $55^{\circ}-12.2'N$ Long. $132^{\circ}-49.4'W$, and Natzuhini Bay at Lat. $55^{\circ}-14.0'N$ Long $132^{\circ}-52'W$. Only the tides recorded at the Natzuhini Bay gage were used for the reduction of soundings. No time or range corrections were applied.

One current station was occupied in Sukkwan Narrows. This current station was designated Station No. 2, and was located at Lat. $55^{\circ}-12.2'N$ and Long. $132^{\circ}-49.84'W$.

E. SMOOTH SHEET:

The projection was made by hand at a temporary processing office set up at the Coast Guard Base in Ketchikan during the 1958 field season.

The shoreline and signals were transferred by usual methods.

The transfer of topographic details has been properly verified.

F. CONTROL STATIONS:

Existing triangulation stations, established in 1956 by J. T. Jarman, were used to control the hydrography and to locate additional signals by graphic control methods. In the south end of the area, existing signals located on PATT-56-C by J. T. Jarman were used. Six hydrographic signals were located by sextant, and all additional signals were located by planetable on graphic control sheet PATT-58-A.

A complete list of control for this sheet is attached to this report.

G. SHORELINE AND TOPOGRAPHY:

The shoreline was obtained from manuscripts T-11493, T-11494, T-11497, T-11498. The hydrographic survey was in good agreement with the MHW line as indicated on the manuscripts.

Additional topographic detail giving position and elevation of rocks and delineation of reefs was transferred from graphic control sheet PATT-58-A. These details are in good agreement with the manuscripts and the hydrographic survey. Rod locations, delineating shoals, obtained by the topographer on sheet PATT-58-A were reduced to soundings by applying tide corrections, and the soundings subsequently transferred to the smooth sheet.

Some reefs are inked on the smooth sheet with no elevations given. These reefs were transferred from the manuscript and verified as to their location by the hydro party, but no elevations were obtained.

The low water line is defined by soundings in bights and areas of extensive flats. Elsewhere, the shoreline drops abruptly making it impossible to sound across the low water line. However, a sounding line was run along the entire beach at high water, and some minus soundings were obtained.

H. SOUNDINGS:

Soundings were obtained by standard procedure using 808-A recording fathometers No. 110 and No. 51. The initial was set at zero fathoms and bar checks were made daily at 2.0 fms and 4.0 fms. A mean bar check correction was computed and applied to all soundings.

All sounding was done on the "A scale" and no phase correction was necessary.

I. CONTROL OF HYDROGRAPHY:

The hydrography was entirely controlled by three point sextant fixes on signals ashore.

J. ADEQUACY OF SURVEY:

This survey is complete for charting purposes. Junctions with adjoining surveys are satisfactory and no holidays exist. Depth curves can be adequately drawn at the junctions.

K. CROSSLINES:

Approximately 10% of all sounding lines are crosslines. All crossings are in good agreement.

L. COMPARISON WITH PRIOR SURVEYS:

No prior surveys exist in the area.

M. COMPARISON WITH CHART:

The area is indicated as un^usurveyed on the existing charts.

N. DANGERS AND SHOALS:

All important dangers and shoals found during this survey are tabulated below:

Lat & Long.	Least Depth (fms)	Pos. No.	Remarks
55°-15.25' 132°-51.21'	0	Topo. sheet PATT-58-A	Rock awash marking NE limit of shoal extending off island ✓
55°-14.93' 132°-50.69'	0	22b	Center of shoal 200m x 100m in area ✓
55°-14.94' 132°-50.50'	0.3	pos. #81-82h	" ✓
55°-14.78' 132°-50.40'	0.5	81r	rock marking N limit of reefs extending off island. ✓
55°-15.20' 132°-50.12'	bares 6 ft at MLLW	129-130a	reef ✓
55°-14.53' 132°-49.61'	1.8	42s	rock ✓
55°-14.19' 132°-50.10	1.7	53r	rock ✓
55°-14.65' 132°-50.92'	3.4	188-189r	shoal ✓

N. (Continued)

Lat & Long.	Least Depth (fms)	Pos. No.	Remarks
55°-14.20' 132°-52.07'	0.6	71q	shoal ✓ ✓
55°-14.01' 132°-51.79'	1.1	123s	rock ✓ ✓
55°-13.8' 132°-51.55'	bares at MLLW 4.6	145d	shoal ✓ ✓
55°-13.46' 132°-50.90'	3.7	210-211 d	shoal ✓ ✓
55°-13.52' 132°-50.25	1.8	18-19q	shoal ✓ ✓
55°-13.32' 132°-50.80'	3.7	241-242d	shoal ✓ ✓
55°-13.09' 132°-51.34'	3.7	29-30p	shoal ✓ ✓
55°-12.47' 132°-51.60'	4.5	80n	shoal ✓ ✓
55°-12.32' 132°-51.20'	bares at MLLW		shoal ✓ ✓
55°-15.21' 132°-50.11'	bares 6ft at MLLW	129-130a	reef see 5th item supra
55°-12.85' 132°-52.06'	bares 4ft at MLLW	16p	reef foul area ✓ ✓
55°-13.60' 132°-52.50'	bares 2ft at MLLW	73g	reef ✓ ✓

The small bay, whose center is Lat. 55°-15', Long 132°-52.3', is a generally foul area with many reefs and shoals.

O. COAST PILOT INFORMATION:

Refer to "Coast Pilot Report, Ship PATTON, 1958 Field Season".

P. AIDS TO NAVIGATION:

There are no aids to navigation in the area surveyed.

Q. LANDMARKS FOR CHARTS:

There are no landmarks for charts in area surveyed.

R. GEOGRAPHIC NAMES:

Refer to "Geographic Names Report, Ship PATTON, 1958 Field Season".

Z. TABULATION OF APPLICABLE DATA:

DATA:

Topographic Report, Sheet PATT-58-A

Date forwarded:

To be forwarded
at a later date.

Geographic Names Report, Ship PATTON,
1958 Field Season

"

(Forwarded
1-5-59)
Received
by 454.

Coast Pilot Report, Ship PATTON,
1958 Field Season

"

Data attached to this report are:

- Table of statistics
- Tide Note
- Summary of fathometer corrections
- List of signals.

Approved & Forwarded:

F. X. Popper

F. X. Popper
LCDR C&GS
Cmdg, Ship PATTON

Respectfully submitted,

K. William Jeffers

K. William Jeffers
LTJG C&GS

TIDE NOTE TO ACCOMPANY H-8456 (FIELD NO. PA-1258)

Two automatic portable tide gages were in operation in the area of this survey; the Hydaburg gage and the Natzuhini Bay gage. Time and range differences between the tides recorded at the two gages were relatively slight and could be disregarded. Because the Natzuhini Bay gage was more centrally located, the observed tides at this gage were used for the reduction of soundings.

The Natzuhini Bay gage was located at latitude $55^{\circ}-14.0'N$ and longitude $132^{\circ}-52.0'W$. Mean-lower-low-water corresponded to 2.1 feet on the staff. No time or height corrections were applied to the observed tides.

STATISTICS FOR HYDROGRAPHIC SURVEY

H-8456 PROJECT CS-357

USC&GSS PATTON

VOL. NO.	DAY	DATE	H.L. Sdgs.	No. of Positions	N. M. of Sdg. Line
1	a	29 May 1958	0	183	21.5
1	b	30 " "	0	68	7.0
1 & 2	c	2 June "	0	134	12.2
2 & 3	d	3 " "	0	245	27.0
3	e	4 " "	2	222	22.2
4	f	5 " "	0	209	20.5
4 & 5	g	6 " "	0	166	16.2
5 & 6	h	9 " "	0	242	24.3
6	j	10 " "	0	5	0.2
6 & 7	k	11 " "	0	227	20.5
7 & 8	e	12 " "	0	241	24.5
8	m	13 " "	3	198	16.8
9	n	17 " "	3	115	9.8
9 & 10	p	18 " "	3	239	15.0
10	q	19 " "	5	220	16.0
11	r	20 " "	13	210	16.9
11 & 12	s	23 " "	10	193	11.9
12	t	24 " "	2	48	4.9

3175
6

237.1

SUMMARY OF BAR CHECK CORRECTIONS

<u>Fath. #110</u>			<u>Fath. #51</u>		
<u>Date</u>	<u>Correction (+) at</u>		<u>Date</u>	<u>Correction (+) at</u>	
	<u>2.0 fms.</u>	<u>4.0 fms</u>		<u>2.0 fms</u>	<u>4.0 fms</u>
	0.2	0.2		0.4	0.5
May 29	0.2	0.2	June 17	0.5	0.5
" "	0.2	0.2	" 18	0.4	0.4
" "	0.2	0.2	" 18	0.4	0.4
" 30	0.3	0.3	" 19	0.4	0.5
" "	0.3	0.3	" 19	0.4	0.5
June 2	0.2	0.3	" "	0.5	0.5
" "	0.4	0.3	" "	0.4	0.5
" 3	0.3	0.3	" 20	0.5	0.5
" "	0.6	0.6	" "	0.3	0.4
" "	0.6	0.7	" "	0.4	0.4
" "	0.2	0.3	" "	0.5	0.5
" 4	0.4	0.3	" 23	0.5	0.5
" "	0.3	0.4	" "	0.4	0.3
" "	0.3	0.4	" "	0.4	0.3
" 5	0.3	0.3	" 24	0.5	0.5
" "	0.2	0.3			
" "	0.2	0.2	Total	7.9	8.2
" "	0.3	0.2	Mean	0.44	0.45
" 6	0.3	0.4	Correction =	0.44	
" "	0.4	0.4			
" "	0.3	0.3			
" "	0.4	0.3			
" 9	0.2	0.3			
" "	0.3	0.3			
" "	0.3				
" "	0.4				
" 10	0.2	0.3			
" "	0.3	0.3			
" 11	0.3	0.3			
" "	0.3	0.3			
" 12	0.3	0.4			
" "	0.3	0.4			
" "	0.3	0.4			
" "	0.4	0.5			
" 13	0.4	0.5			
" "	0.5	0.4			
Total	11.8	12.1			
Mean	0.31	0.34			

Correction = 0.32

A mean fathometer correction of +0.4 fms was applied to all soundings. All soundings were on "A" scale, making phase corrections inapplicable.

LIST OF SIGNALS FOR HYDROGRAPHIC
SURVEY H-8456, (PA-1258)

NAME	SOURCE	NAME	SOURCE
Abe	PATT-58-A	Cop	PATT-58-A
Ace	"	CRAB	CRAB, 1956
Act	PATT-56-C	CRIB	CRIB, 1956
Add	PATT-58-A	CROW	CROW, 1956
Ado	"	Cue	PATT-58-A
		Cut	PATT-56-C
Alp	PATT-56-C	Daw	PATT-58-A
Amy	PATT-58-A	Day	"
Ave	"	Deb	"
Bag	"	DEER	DEER, 1956
Bah	PATT-56-C	Dip	PATT-58-A
Bat	PATT-58-A	Dix	PATT-56-C
BEAR	BEAR, 1956	Doc	PATT-58-A
Bed	PATT-58-A	Dog	"
BOAR	BOAR, 1956		
Bob	PATT-58-A	DUCK	DUCK, 1956
Bon	"	Ear	PATT-56-C
		Eat	PATT-58-A
Bus	"	Eel	"
CALF	CALF, 1956	Egg	"
Cam	PATT-58-A	Ego	"
Car	"	Elf	"
Cat	"	Elm	"
CLAM	CLAM, 1956	Emo	"
COLT	COLT, 1956	Far	"

LIST OF SIGNALS (Contin.)

NAME	SOURCE	NAME	SOURCE
Fat	PATT-58-A	Ivy	PATT-58-A
Fed	"	Jap	"
Fig	PATT-56-C	Jar	"
Fit	PATT-58-A	Jaw	PATT-56-C
		Jut	PATT-58-A
Fog	PATT-56-C	Ked	"
Fop	PATT-58-A	Ken	"
Fro	"	Lad	"
FROG	FROG, 1956	Leg	"
Fun	PATT-58-A	LION	LION, 1956
Gad	"	Liz	PATT-58-A
Gag	"	LOON	LOON, 1956
Gal	PATT-56-C	Lug	PATT-58-A
Gas	PATT-58-A	Mag	"
		MINK	MINK, 1956
GOAT	GOAT, 1956	Mum	PATT-58-A
Gum	PATT-58-A	New	"
Guy	"	Nut	Hydro. Vol. 8
Hag	"	Nux	PATT-58-A
Hat	"	Oak	"
Hem	"	Ohm	Hydro. Vol. 8
HOOK	HOOK, 1956	Oil	"
Hut	PATT-58-A	Orb	PATT-58-A
Ice	"	Owl	"
Ida	"	Pad	"
Irk	PATT-56-C	Pit	PATT-56-C

LIST OF SIGNALS (Contin.)

NAME	SOURCE	NAME	SOURCE
PONY	PONY, 1956	Via	PATT-56-C
Pup	PATT-58-A	Vim	PATT-58-A
Put	"	Wad	"
Quo	"	Wig	PATT-56-C
Rag	"	Wit	PATT-58-A
Rat	"	Woo	"
Rig	PATT-56-C	Yak	"
Rio	PATT-58-A	Yes	"
Rip	Hydro. Vol. 8	Yet	"
Rum	PATT-58-A	Zag	"
SEAL	SEAL, 1956	Zig	"
Ski	PATT-58-A		
Sky	PATT-56-C		
SNAG	SNAG, 1956		
STEEPLE	PRESBYTERIAN CHURCH STEEPLE, HYDABURG, 1956		
Sub	Hydro. Vol. 8		
Sue	PATT-58-A		
Tar	PATT-56-C		
Tax	PATT-58-A		
TOAD,	TOAD, 1956		
Toy	Hydro. Vo. 8		
Try	PATT-58-A		
Tub	"		
Use	"		
Vex	"		

GEOGRAPHIC NAMES

Survey No. H-8456

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
Scutheast Alaska			(title)							1	
Sukkwon Strait			"						BGN	2	
Prince of Wales Island										3	
Natzuhini Bay										4	
Sukkwon Island										5	
Sukkwon Narrows										6	
Hydeburg			(Tide Station)							7	
Spook Island										8	
Mushroom Island										9	
Crab Trap Cove										10	
Goat Island									BGN	11	
Horn Point										12	
North Pass									BGN	13	
Middle Island			(Tide Station)							14	
										15	
			Names approved 2-16-59								16
			L. HECK								17
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8456.....

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..12..; 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		282
	
Number of positions revised		44
	
Number of soundings revised (refers to depth only)		240
	
Number of soundings erroneously spaced		12
	
Number of signals erroneously plotted or transferred		1
	
Topographic details	Time	32 hrs.
	
Junctions	Time	22 hrs.
	
Verification of soundings from graphic record	Time	33 hrs.
	

Verification by *Charles Meador*..... Total time 342 hrs. Date 5/2/74

Reviewed by..... Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8456

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. ✓ The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. ✓ Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. ✓ All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. ✓ Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. ✓ All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. ✓ All positions verified instrumentally were check marked in the sounding records.
7. ✓ All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months. PLASTIC CHECKED 2/4/74
9. ✓ The protracting and plotting of all bad crossings were verified.
10. ✓ All detached positions locating critical soundings, rocks or buoys were verified. POSITION 290 (VOL. X, p. 24) A DETACHED POSITION ON A ROCK WAS REPLOTTED BECAUSE OF THE CHANGE IN THE POSITION OF SIGNAL "OHM".
11. ✓ The boat sheet was compared with the smooth sheet. THE POSITION OF A REEF, LOCATED AT LAT. $55^{\circ}13.6'N$, LONG. $132^{\circ}49.86'W$ WAS TAKEN FROM THE BOAT SHEET. THERE IS NO OTHER REFERENCE FOR THIS REEF.

12. ✓ The spacing of soundings as recorded in the records was closely followed. IT WAS NECESSARY TO RESPACE THE SOUNDINGS ON LINES 129-130 a (Vol. I, p.27) AND 183-184 a (VOL. XII, p.21)
13. ✓ The bottom characteristics were shown on outstanding shoals.
14. ✓ The reduction and plotting of doubtful soundings were checked.
15. ✓ The transfer of contemporary topographic information was carefully examined. TOPOGRAPHIC INFORMATION WAS POORLY TRANSFERRED FROM T-11497. APPROXIMATELY 75% OF SHORELINE HAD TO BE REDRAWN. ALSO, SHORELINES SHOWN AS DASHED LINES ON T-11497 T-11498 AND T-11493 HAD BEEN DRAWN AS SOLID LINES ON SMOOTH SHEET. SHORELINE IN RED TRANSFERRED FROM GRAPHIC CONTROL PATT-58-A.
16. ✓ All junctions were transferred and overlapping curves made identical.
17. ✓ The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. ✓ The depth curves have been inspected before inking.
INSPECTED BY FRANK SAULSBURY.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked. SIGNAL OHM, LOCATED ON "SIGNAL ISLAND", WAS REPLOTTED USING THE BOAT SHEET POSITION.
20. ✓ Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have ~~a dotted curve where shown thereon.~~ Rocks located accurately by hydrographer are ~~encircled by dotted red curve.~~
22. ✓ Unnecessary pencil notes have been removed.
23. ✓ Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. ✓ The low water line and delineation of shoal areas have been properly shown.
25. ✓ Degree and minutes values and symbols have been checked.
26. ✓ Questionable soundings have been checked on the fathograms. THE PERSON WHO SCANNED THE FATHOGRAMS READ SHOALER DEPTHS WHICH FELL CLOSE TO AN EVEN TIME INTERVAL AS BEING ON THE EVEN TIME INTERVAL.

27. Source of shoreline and signals (when not given in report).
28. ✓ All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. ✓ All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
 BECAUSE OF THE CHANGE IN THE POSITION OF SIGNAL "OHM", THE FOLLOWING POSITIONS WERE REPLOTTED: 173-180, 189-194, 205-206, 222-241 L; 175-179, 196-197 m; 4, 5, 7-10 n; 23, 24, 29 q; 15-20, 178 s.
 POSITION 161 p WAS REPLOTTED TO AGREE WITH JUNCTION WITH H-8455 (1958). THIS MOVED A LINE OF NEGATIVE SOUNDINGS CLOSER TO SHORE.
 POSITION 165 K WAS REPLOTTED.
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:
 A REEF SHOWN ON T-11493 AT LAT. 55° 15.2' N, LONG. 132° 50.12' W, WAS SHOWN BY LINES 129-130 a (VOL. I, p. 27) AND 89-90 r (VOL. II, p. 22) NOT TO BE AS LARGE AS INDICATED.

Verified by Charles Meador.

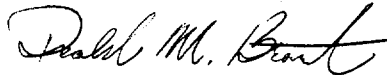
Date 5/2/74

Notes to the Verifier ✓ CDM
H-8456 (unverified)
August 1970

~~UPPER~~

A feature located in the waters of Natzuhini Bay between latitudes $35^{\circ}16'00''$ and $55^{\circ}16'30''$ and between longitudes $132^{\circ}51'00''$ and $132^{\circ}51'30''$ (southwesterly of two reefs) is shown on Advanced Manuscript T-11493 as a reef (awash MHW). This feature is shown on hydrographic survey 8456 (unverified as a bare rock). Apparently the hydrographer took this feature from the Incomplete Manuscript before field inspection was applied. It is recommended that the feature be applied to the hydrographic survey from the final photogrammetric survey. ✓

Respectfully submitted,



Donald M. Brant

RHC

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 8456

Locality Sukkwan Strait, Alaska

Chief of Party: F. X. Popper in 1958

Plane of reference is mean lower low water, reading
2.1 ft. on tide staff at Natzuhini Bay
14.1 ft. below B.M. 1 (1958)

Height of mean high water above plane of reference is 12.1 feet.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch

Sci

SOUND AT ME

For Symbols ant

Hydrograc Survey with

Ter are not a buoy Marin

