

# 8036

Diag. Cht. No. 8152

Form 504

## U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1153 Office No. H-8036

#### LOCALITY

State S. E. Alaska

General locality Tuxekan Passage

Locality South End

1945

#### CHIEF OF PARTY

Charles A. Schanck

#### LIBRARY & ARCHIVES

DATE Januray 12, 1955

# 8036

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-8036

Field No. PA-1153

State S. E. Alaska

General locality Tuxekan Passage

Locality South end

Scale 1:10,000 Date of survey 26 Aug-8 Sept 1953

Instructions dated 11 June 1952, Supplemental 16 March 1953

Vessel USC&GSS PATTON

Chief of party Charles A. Schanck

Surveyed by C. A. Schanck, F. J. Bryant, W. D. Barbee

Soundings taken by fathometer, graphical recorder/hand read/vive

Fathograms scaled by C A S & W B B

Fathograms checked by H.C. Parsons (spot check)

Protracted by H.C. Parsons

Soundings penciled by H.C. Parsons

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

REMARKS: velocity of sound of

800 fms/sec

EGY  
J.H.F.

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY NO. H-8036 (PA-1153)  
TUXEKAN PASSAGE, S. E. ALASKA  
SCALE 1:10,000  
USC&GSS PATTON, CHARLES A. SCHANCK, CMDG.  
1953  
# # # # #

A. PROJECT:

Field work was accomplished in accordance with Instructions for Project CS-347, dated 11 June 1952, with Supplemental Instructions dated 16 March 1953.

B. SURVEY LIMITS AND DATES:

This survey covers the southern approaches to, and the southern end of, Tuxekan Passage. It extends westward to cover that portion of Karheen Passage directly east of Karheen Passage Daybeacon. The northern limit of the sheet is approximately  $55^{\circ} - 47' - 10''$ , the eastern and southern limits are formed by Prince of Wales Island. The western limit, beginning at the north, is formed by Tuxekan Island from  $55^{\circ} - 47' - 10''$  south to the tip of the island; survey limits then extend westward, following roughly latitude  $55^{\circ} - 46' - 30''$  to longitude  $133^{\circ} - 17' - 30''$ , then south to Latitude  $55^{\circ} - 46' - 10''$ , then northwest to  $55^{\circ} - 46' - 30''$ , longitude  $133^{\circ} - 19' - 00''$ , then south to latitude  $55^{\circ} - 46' - 00''$ , longitude  $133^{\circ} - 19' - 15''$ , then south<sup>east</sup> to latitude  $55^{\circ} - 45' - 30''$ , longitude  $133^{\circ} - 17' - 00''$  then south to Guktu Point, Prince of Wales Island.

Junction is made with C&GS survey H-3666 to the west.

In compliance with a Preliminary Review letter dated 17 March 1952, a considerable overlap was made with this survey. *Surveys on west planned in 1952-1953.*

Field work commenced on 26 August 1953, and was completed on 8 September 1953.

#### C. VESSELS AND EQUIPMENT:

Hydrography was accomplished by Launch No. 88, and Dory No. 604. Both units operated from the Ship PATTON.

The majority of the work was accomplished by the launch, using 808-A type recording fathometer No. 51, and running at approximately 7 knots. At this speed, the diameter of the smallest turn is approximately 25 meters.

Hydrography for the beach lines and in the smaller bights and coves was accomplished with the dory, using 808-A type recording fathometer No. 74. Various speeds were used, and the turning radius was governed by the speed.

Bottom samples were taken from both the launch and the dory, and in all cases, they were taken with a handlead.

#### D. TIDE AND CURRENT STATIONS:

Soundings were reduced from the records of the South Tuxekan Passage Portable Tide Gage, which operated continuously during this survey.

One current station was established within the limits of this survey. It was located approximately midway between Tuxekan and Prince of Wales Islands, and due <sup>east</sup>~~west~~ of the southern tip of Tuxekan Island.

E. SMOOTH SHEET:

The smooth sheet will be constructed and plotted by personnel of the Seattle Processing Office.

F. CONTROL STATIONS:

Basic control was derived from a scheme of second order triangulation executed by Ship LESTER JONES, Ross A. Gilmore, comdg., in 1952. This scheme connected third order work of 1914 to third order work of 1922.

Additional control was located by planetable topography on Sheet PA-A-53. *To be destroyed*

There were no signals located by photogrammetric or hydrographic means.

G. SHORELINE AND TOPOGRAPHY:

*H-8036*  
Shoreline and topography for boat sheet purposes was obtained from an advance print of photo manuscript T-11103. Shoreline for the smooth sheet will be obtained from the same source, except for small revisions near triangulation stations GREEN 1952 and THOMAS 1952 which were effected on PA-A-53. In these small areas, PA-A-53 should be the authority. *revisions made part of T-11103.*

H. SOUNDINGS:

Soundings were taken with 808-A type recording fathometers operating on a sounding velocity of 800 fathoms/second. Fathometer No. 51 was used on all launch work, and operated on the fathom scale; fathometer No. 74 was used for all dory work, and operated on the foot scale. Soundings in feet were corrected and reduced in feet, then converted to fathoms for plotting.

Phase comparisons were obtained between necessary scales on both fathometers.

Soundings from both fathometers were corrected for tide, initial deviation, phasing error, and for the index error as determined by bar checks. In addition, all soundings obtained from fathometer No. 51 were corrected for erroneous stylus arm radius and on <sup>d</sup>"~~e~~" day for faulty paper alignment. These errors were detected, computed and corrected for as described in an article by LCDR David Whipp in the 1952 Journal.

Since a total of four corrections were made to soundings and sounding volumes contain only three columns for corrections, a column was allotted to phase correction only when B & C scales were used; i.e., the zero correction on A scale was deleted.

I. CONTROL OF HYDROGRAPHY:

All hydrography was controlled by three point sextant fixes on signals ashore, No unusual or sub-standard methods were employed.

J. ADEQUACY OF SURVEY:

This survey is adequate for charting.

Junctions with contemporary survey H-8037 to the north and with H-3666 to the southwest are adequate and depth curves can be delineated at said junctions. *Jcts on west deferred.*

K. CROSSLINES:

Crosslines totaling 5.5% of total hydrography were run on this survey. Crossings were good in all parts of the survey. A closer check will be made concerning crossings after the smooth plot.

L. COMPARISON WITH PRIOR SURVEY:

Although there is no prior survey over most of the

area within this sheet, a considerable overlap was made with H-3666, scale 1:10,000 to the southwest. The area of overlap will be considered in this paragraph.

The extreme and abrupt relief of the area together with the sparsity of soundings on H-3666 make that survey misleading in some places. Therefore, although most individual soundings on the two surveys are compatible, the close spacing of soundings on H-8036 has made possible more accurate delineation and has changed depth curves considerably.

In addition to differences as outlined above, an inexplicable difference in some individual soundings of as much as four fathoms was noted. Since no error could be found in the 1953 work, and since control, equipment, etc., on that survey was good, it was assumed by the field party that the errors in soundings were on H-3666, or that the bottom has changed.

No important hydrographic features delineated on H-3666 were disproved. *2 snags disproved during review*

#### M. COMPARISON WITH CHARTS NO. 8157 and 8171:

Since survey H-3666 appears to be the sole authority for the affected area of Charts Nos. 8157 & 8171 the above paragraph applies. *present survey applied.*

#### N. DANGERS AND SHOALS:

##### Dangers:

1. A semi-detached reef which bares <sup>2</sup>/<sub>3</sub> feet at MLLW. was found at 55°-46'-27", 133°-16'-<sup>41</sup>/<sub>28</sub>". This reef is delineated by dory fixes 1 - 3a.

2. There is a generally foul area centering at Latitude  $55^{\circ}-46'-17''$ , Longitude  $133^{\circ}-17'-00''$ . These rocks awash are delineated by dory fixes 4 - 12a. Closely estimated heights are given in soundings volume No. 6, and these are recommended for charting. *on smooth sheet.*

3. A bare rock was found at Latitude  $55^{\circ}-46'-10''$ , Longitude  $133^{\circ}-17'-03''$ , which bares <sup>2</sup> ~~11~~ feet at <sup>MHW (T-11103)</sup> ~~M.L.L.W.~~. This is the rock on which triangulation station MARS (Signal MAR) is located. Fixes 13 - 16 delineate this reef.

4. A <sup>reef</sup> ~~rock~~ awash was found at Latitude  $55^{\circ}-45'-36''$ , Longitude  $133^{\circ}-15'-25''$  and is located by dory fix 1d. It bares 1 foot at M.L.L.W.

5. A rock awash <sup>and reef</sup> was found at Latitude  $55^{\circ}-45'-41''$ , Longitude  $133^{\circ}-15'-31''$ . This rock is noted in sounding volume No. 2, at Launch Position 75 + 45 seconds. This rock bares 1 foot at M.L.L.W.

6. A reef was found at Latitude  $55^{\circ}-45'-56''$ , Longitude  $133^{\circ}-14'-35''$  which bares <sup>5</sup> ~~6~~ feet at M.L.L.W. This reef is delineated by dory fixes 1, 2, and 3b.

Shoals:

1. The <sup>3 1/4</sup> ~~3 1/2~~ fathom wire sounding in Latitude  $55^{\circ}-45'9''$ , Longitude  $133^{\circ}-17.50'$  as listed in preliminary review letter dated 17 March 1952, was searched for and not found. Lines were run on a twenty meter spacing, and no indication of the shoal was found. It is recommended that this survey supercede H-3666 in this area and that the <sup>3 1/4</sup> ~~3 1/2~~ fathom sounding be deleted from charts.

2. The  $5 \frac{1}{2}$  fathom sounding in Latitude  $55^{\circ}-46.02'$ , Longitude  $133^{\circ}-17.62'$  mentioned in the preliminary review letter was searched for. A least depth of <sup>3</sup> ~~5.4~~ fathoms on Launch Position

*This sdg. deleted from Ch. 815.7 8/24/55 HNB and from Ch. 815.2 6-22-56 V 3712*

*Added to Ch. 815.2*



140-140 e

293d + 30 seconds was found. No change is recommended.  $5^2 (5\frac{1}{4})$  charted ✓

3. In the southeastern portion of this sheet, there are extensive salt flats. These flats are indicated on the air photographs, and the M.L.L.W. line is developed on this survey. ✓

There are several ledges and detached rocks within the limits of this survey which were located by hydrographic means, but which have not been mentioned in this paragraph. It is felt that, since these features are not important to navigation, their entries in sounding volumes are adequate. ✓

O. COAST PILOT INFORMATION:

A special report on Coast Pilot Information has been submitted. ✓

P. AIDS TO NAVIGATION:

The only floating aid to navigation, Karheen Passage Buoy "N2" was located by hydrographic fix 287d (launch) on 2 September 1953. It is located in Latitude  $55^{\circ}-46.24'$ , Longitude  $133^{\circ}-18.73'$  in 7.6 fathoms of water.

The only fixed aid to navigation within the limits of this sheet is Karheen Passage Daybeacon. This daybeacon was located by triangulation during the 1952 field season, and has been reported on Form 567. ✓

Q. LANDMARKS FOR CHARTS:

There were no features in the area which were considered suitable by this party to be designated as landmarks.

The donkey engine boiler noted by the 1952 field party was investigated. It was found that this boiler was not permanently grounded and so is not suitable for designation as a landmark. ✓

R. GEOGRAPHIC NAMES:

A special report on Geographic Names has been submitted. *on file 854. V.H.*

S. SILTED AREAS:

Almost all deeps within the limits of this survey are filled to some extent with green mud. Investigation of fathograms was inconclusive in determining depth of silt in these deeps except that it was determined that the mud was several fathoms deep. Since there was no previous survey as a basis of comparison, the possibility of, and the rate of change could not be determined.

There are extensive mudflats in the southeast portion of the sheet. These flats, which form at the mouths of, and are formed by Shakeen and other creeks, seem to be changing to a small extent.

T. - Y.

No information for these headings.

Z. TABULATION OF APPLICABLE DATA:


The following special reports are applicable:

1. Field Inspections of Air Photographs, 1952
2. Field Inspection of Air Photographs, 1953
3. Radial Plot Report and Compilation Report to Accompany T-11103.
4. Triangulation Report, 1952.
5. Geographic Names Report, Tuxekan Passage, 1953.
6. Coast Pilot Notes, Tuxekan Passage, 1953.
7. Descriptive Topographic Report to Accompany PA-A,B,C,D,E-53


The following applicable data are attached to this report:

1. Table of Statistics.
2. Tide Note.
3. Abstract of Bar Checks & Computation of Index Error.
4. Abstract of Phase Comparisons and Computation of Phase correction.
5. Table of faulty radius corrections.
6. Table showing applicable tide correction.

Respectfully submitted:

  
William D Barbee  
Lt. (j.g.) USC&GS

Approved and forwarded:

  
Frank G. Johnson  
CDR USC&GS  
Comdg. Ship PATTON

TIDE NOTE

The portable tide gage at South Tuxekan Passage was used to reduce soundings for the entire sheet. No corrections were applied for either time or range.

The plane of reference--~~MLLW~~--was 2.9 feet on the staff as per Director's Letter dated 12 October 1953, Reference No. 36-rjb.

STATISTICS, SHEET 1153

DATE	DAY	VOL. NO.	H. L.	POSITIONS	STAT. MI. SNDGS.
<u>LAUNCH 88</u>					
26 Aug.	(blue) a	1 & 2	--	394	44.3
27 "	b	2 & 3	1	368	38.8
28 "	c	3	--	34	4.3
2 Sept.	d	3 & 4	1	380	41.7
3 "	e	<u>4 &amp; 5</u>	<u>10</u>	<u>329</u>	<u>31.5</u>
	Totals	5	12	1505	160.6
<u>PORT DORY</u>					
26 Aug.	(red) a	6	--	50	1.8
27 "	b	7	--	18	0.0
4 Sept.	c	7	1	106	8.9
6 "	d	7	3	79	5.2
8 "	e	7	<u>--</u>	<u>4</u>	<u>--</u>
	Totals		4	257	15.9
Grand Totals			16	1762	166.5

Area surveyed in square statute miles: 8.1

✓

TIDESTABLE SHOWING GAGE USED

DATE	TIME		POSITION & DAY LETTER	TIDE GAGE	FMS/FT	VESSEL
	FROM	TO				
26 Aug.	0820	1643	1-395a	SOUTH	Fms	Launch 88
27 "	0826	1700	1-368b	"	"	"
28 "	0854	1230	1-34c	"	"	"
2 Sept.	0816	1648	1-380d	"	"	"
3 "	0800	1629	1-329e	"	"	"
26 Aug.	0833	1159	1-50a	SOUTH	FT.	Port Dory
27 "	0905	1155	1-18b	"	"	"
4 Sept.	1100	1649	1-106c	"	"	"
6 "	0833	1347	1-79d	"	"	"
8 "	0820	0843	1-5e	"	"	"

ABSTRACT OF BAR CHECKS, 1953 (Fms.)

LAUNCH 88. FATHOMETER NO. 51

SHEET PA--1153

14 Bar Checks

Ave. M = 1.64 fms.

SHEET PA--1253

24 Bar Checks

Ave. M = 1.667

SHEET PA--1353

16 Bar Checks

Ave. M = 1.70

SUMMARY OF BAR CHECKS, ALL SHEETS

<u>SHEET</u>	<u>AVE.</u>	<u>CORRECTION</u>
1153	M = 1.64	+0.36 fms
1253	M = 1.667	+0.333 "
1353	M = 1.70	+0.30 "

Combined M = 1.672. Correction +0.328 fms

For all work on fathom scale; Index Error = +0.3 fm.

✓

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ABSTRACT OF BAR CHECKS (IN FEET 1953)

SHEET PA-1153

8 Checks at 6 feet  
7 Checks at 12 feet

Ave. corr. = 0.3 ft.  
Ave. corr. = 0.5 ft.

Ave. corr. = 0.42 ft.

SHEET PA-1253

12 Checks at 6 feet  
11 Checks at 12 feet

Ave. corr. = 0.17 ft.  
Ave. corr. = 0.44 ft.

Ave. corr. = 0.31 ft.

SHEET PA-1353

19 Checks at 6 feet  
21 Checks at 12 feet

Ave. corr. = +0.20 ft.  
Ave. corr. = +0.27 ft.

Ave. corr. = +0.23 ft.

FOR SEASON

Ave. for 6 ft. = +0.21 ft.  
Ave. for 12 ft. = +0.37 ft.  
Ave. = +0.29 ft.

For all work on foot scale;

Index Error = +0.3 ft.



# TABLES OF FAULTY RADIUS CORRECTIONS

FATHOMETER 51 LAUNCH 88

1. This table for use on a-day - Sheet PA-1353

$$R/R_1 = 1.011$$

$$A = 0$$

Depth A Scale	Corrections (Fms.)
0 - 2.5 fms.	0
2.6 - 7.8	+0.1
7.9 - 15.5	+0.2
15.6 - 25.5	+0.3
25.6 - 35.5	+0.4
35.6 - 42.2	+0.5
42.3 - 47.9	+0.6
48.0 - 55.0	+0.7

2. This table for use on a-day

b-day

1-214c-day, PA-1253

A scale	Depth B scale	C scale	Correction (Fms.)
0-2.5 fms.	35.0 - 37.5	70.0 - 72.5	0
2.6-7.5	37.6 - 42.5	72.6 - 77.5	+0.1
7.6-13.9	42.6 - 48.9	77.6 - 83.9	+0.2
14.0-19.5	50.0 - 54.5	84.0 - 89.5	+0.3
19.6-30.0	54.6 - 65.0	89.6 - 100.0	+0.4
30.1-38.5	65.1 - 73.5	100.1 - 108.5	+0.5
38.6-45.0	73.6 - 80.0	108.6 - 115.0	+0.6
45.1-50.5	80.1 - 85.5	115.1 - 120.5	+0.7
50.6-55.0	85.6 - 90.0	120.6 - 125.0	+0.8

3. This table for use on d-day PA-1153

$$R/R_1 = 1.020$$

$$A = +0.5$$

Depth	A-scale	B-scale	Correction (Fms.)
0	- 1.0 fm.	35.0 - 36.0	0
1.1	- 2.8	- 38.8	+0.1
	- 4.5	- 39.5	+0.2
	- 7.0	- 42.0	+0.3
	- 10.0	- 45.0	+0.4
	- 12.2	- 47.2	+0.5
	- 15.0	- 50.0	+0.6
	- 18.9	- 53.9	+0.7
	- 23.0	- 58.0	+0.8
	- 27.0	- 62.0	+0.9
	- 32.5	- 67.5	+1.0
	- 38.5	- 73.5	+1.1
	- 44.5	- 79.5	+1.2
	- 50.0	- 85.0	+1.3
	- 55.0	- 90.0	+1.4

# TABLES OF FAULTY RADIUS CORRECTIONS (Contin.)

4. This table for use on a-day

$$R/R_1 = 1.020 \checkmark$$

$$A = 0 \checkmark$$

b-day  
c-day  
e-day - PA-1153

215 - 360c-day

d-day  
e-day  
f-day  
g-day  
h-day  
j-day  
k-day  
l-day - PA-1253

b-day  
c-day  
d-day  
e-day  
f-day  
g-day  
h-day - PA-1353

DEPTH		CORRECTION		
A-scale		B-scale	C-scale	
0	- 1.5 fms.	35.0 - 36.5	70.0 - 71.5	0
1.6	- 4.5 fms.	- 39.5	- 74.5	+0.1
	- 7.5	- 42.5	- 77.5	+0.2
	- 12.0	- 47.0	- 82.0	+0.3
	- 15.5	- 50.5	- 85.5	+0.4
	- 20.0	- 55.0	- 90.0	+0.5
	- 25.5	- 60.5		+0.6
	- 29.5	- 64.5		+0.7
	- 35.0	- 70.0		+0.8
	- 39.5	- 74.5		+0.9
	- 43.5	- 78.5		+1.0
	- 47.0	- 82.0		+1.1
	- 51.0	- 86.0		+1.2
	- 55.0	- 90.0		+1.3

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ABSTRACT OF  
PHASE COMPARISONS  
PORT DORY  
FATHOMETER 74

SHEET	DATE	DAY	VOL.	CORRECTION	
				A-B	B-C
1353	27 July	—	6	+0.39 ft.	
1153	6 Sept.	—	7	<u>+0.39 ft.</u>	<u>-1.0 ft.</u>
Average				+0.39 ft.	-1.0 ft.

B scale correction = +0.39 ft.

C scale = +0.39 -1.0  
= -0.61 ft.

For all foot work this season:

B scale correction = +0.4 ft.

C scale correction = -0.6 ft.

GEOGRAPHIC NAMES PENCILED ON H-8036

Ahtun Point

<sup>a</sup>  
Das<sup>i</sup>ni Islands

Gaohi Islands

Guktu Point

Gunei Flats

Kaguk Cove

Karheen Passage

<sup>w</sup>  
Kawda Point

Point Swift

Point Swift Rock

Prince of Wales Island

<sup>n</sup>  
Shakeen Creek

<sup>h</sup>  
Shakeen Flats

Suhti Island

<sup>o</sup>  
Ton<sup>o</sup>wek Narrows

Tuxekan Island

Tuxekan Passage

Winter Harbor

## PROCESSING OFFICE NOTES

H-8036

### Smooth Sheet

The projection was hand drawn on Whatman paper in the Seattle Processing Office. The triangulation signals were plotted by dms and dps, the hydrographic signals were transferred from a negative print of the planetable plate. The shoreline was transferred from bromoil prints of the photo-topo sheets.

### Control Discrepancy

Topo-signal "DON" (BOIL, 1952) had two locations, one on the topo-plate PA-A-53 and the other on the photo-topo sheet T-11103. Both locations were tried in all fixes using this signal, including many check angles, and no appreciable difference was found to influence a choice. The topographer was quoted as having noted the discrepancy and double checked the planetable location. The boiler may have moved between the time of the photo survey and the planetable survey. The planetable location was held. *SS position agrees with PA-A-53*

Topo-signal OLD (PA-A-53) was shown 30 meters west on the boat sheet. Both locations were tried on the smooth sheet and no conclusive evidence could be found to question the planetable location. The planetable location was held.

### Hydrography

Difficulty was found in plotting positions in KAGUK COVE. Lines 193-201a, Vol. 1 were rejected. Although the discrepancy was small, the fixes had been questioned in the field and the lines re-run using the same objects for control. There already were sufficient sounding lines in the area and therefore the questioned lines were rejected. Crosslines were good in all parts of this survey. *adjusted and replotted in verification*

### Rocks and Reefs

There is a confusion in the highest point of a rocky area at Lat.  $55^{\circ} 45' 41''$ , Long.  $133^{\circ} 15' 31''$ , (item 5, Section N in hydrographer's report). A note on page 45, Vol. 7 gives the highest point of this rock as being 50 meters south and covered 1 ft. at MLLW. *corrected on S.S.*

A rock at Lat.  $55^{\circ} 46' 51''$ , Long.  $133^{\circ} 15' 02''$ , bares  $2$  ft. MLLW. This rock was spotted from the boat sheet because the sextant fix, locating it, will not plot. *replotted using revised fix and distance from "Ted"*

Geographic Names

The Geographic Names Report (Tuxekan Passage CS-367) and Chart 8171 are the sources of the geographic names penciled on the smooth sheet. ✓

Junctions

The junction to the southwest is already discussed under item L and N (shoals). The junction with contemporary survey H-8037 to the north is satisfactory except an apparent 2 fathom difference at the 70 fathom depth in mid-channel. Jct with H-6037 satisfactory ✓

Respectfully submitted

*Harvey C. Parsons*

Harvey C. Parsons,  
Cart. Aid (Gen.) USC&GS

Approved:

*William M. Martin*

William M. Martin,  
Cartographer, C&GS

Approved and forwarded

*Charles Fierce*

Charles Fierce, Captain,  
Supervisor NW District.

## GEOGRAPHIC NAMES

Survey No. H-8036

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	
<u>Southeastern Alaska</u>										1
<u>Tuxekan Passage</u>										2
<u>Tuxekan Island</u>										3
<u>Prince of Wales Island</u>										4
										5
<u>Gurktu Point</u>										6
<u>Kaguk Cove</u>										7
<u>Dasani Islands</u> (include also large island to south of island named on smooth sheet)										8
<u>Shaheen Flats</u>										9
<u>Shaheen Creek</u>										10
<u>Gunei Flats</u>										11
<u>Gaochi Islands</u>										12
<u>Winter Harbor</u>										13
<u>Ahtun Point</u>										14
<u>Suhti Island</u>										15
<u>Kauda Point</u>										16
<u>Karheen Passage</u>									B.G.M.	17
<u>Point Swift</u>										18
<u>Point Swift Rock</u>										19
<u>Tanowek Narrows</u>									B.G.M.	20
										21
										22
										23
										24
										25
										26
										27

Names approved

1-12-55. L. Heck

# Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~H-8036~~..

## Records accompanying survey:

Boat sheets .1...; sounding vols. 7....; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls ....;  
 special reports, etc. 1 smooth sheet, 2 envelopes of fathograms.....  
 .....

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

Number of positions on sheet	.....	1764
Number of positions checked	.....	71
Number of positions revised	.....	4
Number of soundings revised (refers to depth only)	.....	25
Number of soundings erroneously spaced	.....	15
Number of signals erroneously plotted or transferred	.....	6
Topographic details	E. Thomas Time .....	24 7/59
Junctions	Time .....	8
Verification of soundings from graphic record	Time .....	8

Verification by J. E. Gearhart..... Total time 158 Date 5-7-56

Reviewed by A. R. STIRN..... Time 66 hrs Date 5/24/56



DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8036

FIELD NO. PA-1153

S. E. Alaska, Tuxekan Passage, South End

Project No. CS-347

Surveyed - Aug., Sept. 1953

Scale 1:10,000

Soundings:

Control:

808 Fathometer

Sextant fixes on  
shore signals

Chief of Party - C. A. Schanck

Surveyed by - C. A. Schanck, J. J. Bryant, W. D. Barbee

Protracted by - H. C. Parsons

Soundings plotted by - H. C. Parsons

Verified and inked by - J. E. Gearhart

Reviewed by - A. R. Stirni 5/24/56

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the manuscripts of reviewed air-photographic surveys T-11102 (1948-53) and T-11103 (1948-53).

Graphic control survey PA-A-53 has been marked for destruction. All pertinent data located thereon has been transferred to the present survey.

The sources of the signals are given in the Descriptive Report.

2. Sounding Line Crossings

The sounding-line crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The bottom is marked with numerous shoals, reefs and islets. The usual depth curves can be adequately delineated except in a few places close inshore where soundings do not completely define the depth curves.

4. Junctions with Contemporary Surveys

A satisfactory junction was effected with survey H-8037 (1953) on the north. On the west junctions are deferred pending project surveys scheduled to be made in the 1957 season.

5. Comparison with Prior SurveysH-3666 (1914), 1:10,000 (Wire Drag Accompanying)

This prior survey covers the area west of a line drawn between Kauda Point and Guktu Point. A comparison between the prior survey and the present survey reveals greater development of shoal detail and bottom features on the present survey. Many shoal depths on the present survey were not previously revealed, as exemplified by the following tabulation:

<u>Latitude</u>	<u>Longitude</u>	<u>H-8036</u>	<u>H-3666</u>
55°46.39'	133°17.08'	4.7 fms.	10-15 fms
55°46.18'	133°16.57'	9.2 "	13-15 "
55°45.60'	133°17.10'	8.8 "	14 "
55°46.17'	133°17.47'	7.2 "	18-19 "

There are no conflicts between the present survey soundings and the effective wire-drag depths shown on the wire-drag survey accompanying survey H-3666.

With the addition of the 4 soundings carried forward from survey H-3666 to supplement present depths the present survey is adequate to supersede the prior survey in the common area.

6. Comparison with Chart 8157 (print date 1/16/56)A. Hydrography

The charted hydrography originates with the present survey before verification and review, supplemented by 2 soundings from prior survey H-3666. The 7 fm. sounding charted in lat. 55°45.97', long. 133°17.76' from survey H-3666 was erroneously plotted on that survey and should be removed from the chart. Charted soundings differ with the verified present survey soundings in only a few instances by one fm. or less.

The present survey with the addition of the 4 soundings brought forward from survey H-3666 is adequate to supersede the charted information.

B. Aids to Navigation

The only aid to navigation located on the present survey is Red Nun buoy 2, which is in agreement with the charted position and adequately marks the feature intended.

7. Condition of Survey

- (a) The sounding records and Descriptive Report are complete and comprehensive.
- (b) The smooth plotting was accurately done.
- (c) Much of the high-water line was re-linked because of the fine line weight originally shown.
- (d) The least depths were not determined and adequate development was not made in the area of several shoals as noted in paragraph 9.

8. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions except as noted in item 7d.

9. Additional Field Work Recommended

This is a very good survey. However, when surveys are resumed in this vicinity additional development is recommended in the following areas:

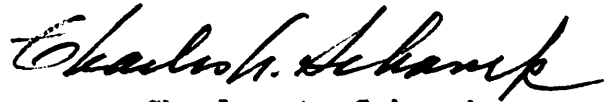
- (1) On the shoal in lat.  $55^{\circ}44.95'$ , long.  $133^{\circ}16.50'$  where the extent of the shoal and the least depth should be determined.
- (2) On the shoals in lat.  $55^{\circ}45.25'$ , long.  $133^{\circ}17.2'$  and lat.  $55^{\circ}45.45'$ , long.  $133^{\circ}17.2'$  where the least depths should be determined.
- (3) In the vicinity of lat.  $55^{\circ}46.15'$ , long.  $133^{\circ}17.3'$  where widely spaced lines indicate an area of irregular bottom.
- (4) On the undeveloped 8.3 fm. shoal in lat.  $55^{\circ}46.37'$ , long.  $133^{\circ}15.9'$ .

A shoal falling within the junctional limits of the present survey in the vicinity of lat.  $55^{\circ}46.5'$ , long.  $133^{\circ}17.3'$  remains to be developed when surveys are resumed on the west.

Examined and Approved:



H. R. Edmonston  
Chief, Nautical Chart Branch



Charles A. Schanck  
Chief, Chart Division



J. C. Bull  
Chief, Hydrography Branch



Samuel B. Grenell  
Chief, Division Coastal Surveys

RHC

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

19 January 1955

Division of Charts: R. H. Carstens

Plane of reference approved in  
7 volumes of sounding records for

HYDROGRAPHIC SHEET

8036

Locality South Tuxekan Passage, Alaska

Chief of Party: C. A. Schanck in 1953

Plane of reference is mean lower low water, reading  
2.9 ft. on tide staff at Tuxekan Passage (South End)  
11.3 ft. below B. M. 1 (1953)

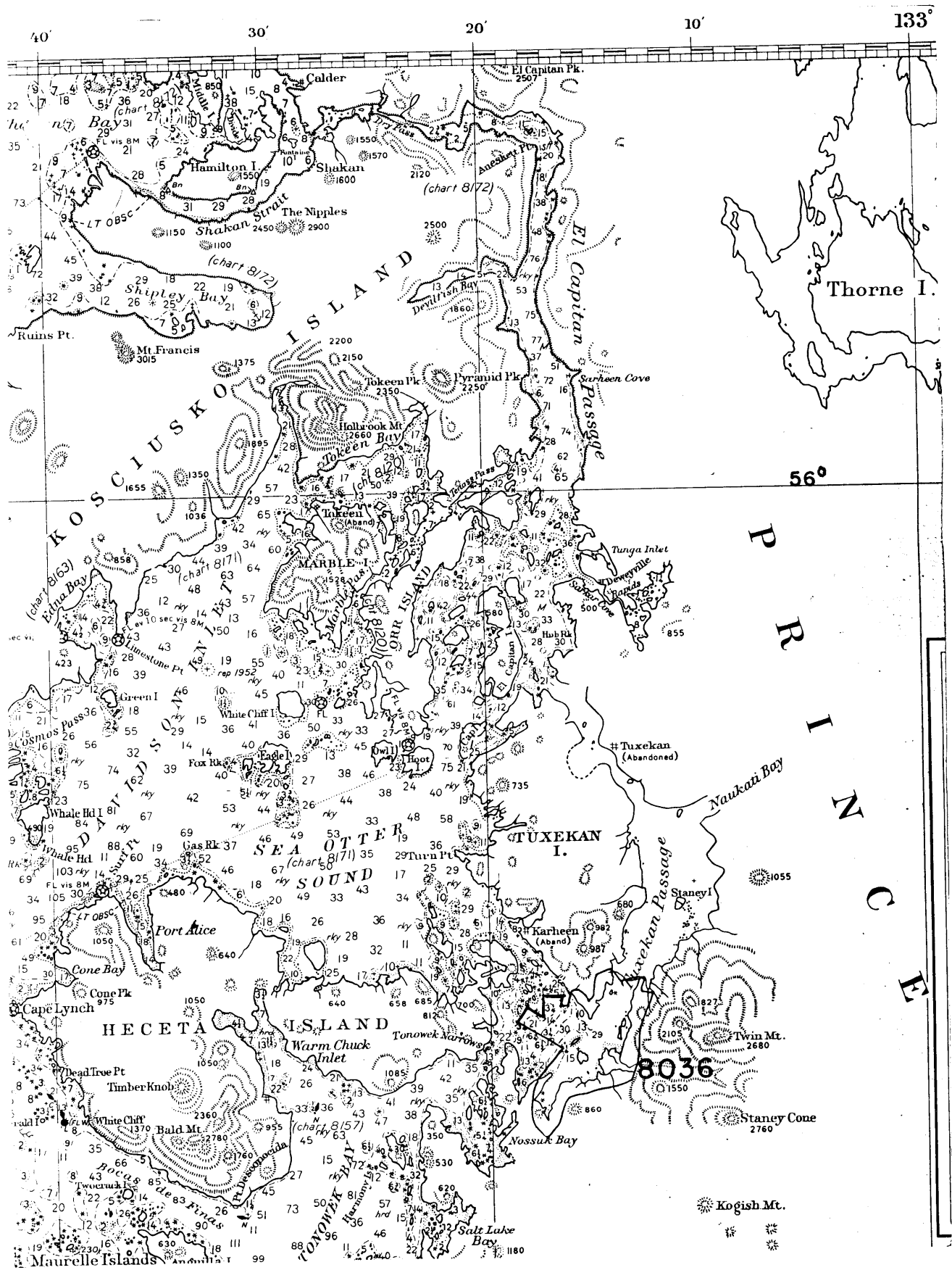
Height of mean high water above plane of reference is 9.9 feet.

77  
2.2' T-shed

Condition of records satisfactory except as noted below:

E. C. McKay  
Tides Branch

Chief, Division of Tides and Currents.



**SURVEY NO. H-8036**

DATE	CHART	CARTOGRAPHER	REMARKS
8/8/55	8171	H.W. Burgoyne	complete application Y Before <del>After</del> Verification and Review
8/22/55	8157	H.W. Burgoyne	complete application Y Before <del>After</del> Verification and Review
6-21-56	8152	J.T.W.	Before <del>After</del> Verification and Review Review read and applied. SMA 6-22-56 Consider as fully applied.
3-14-56	8157	R.K. de Landier	<del>Before</del> After Verification and Review Long. appl. Made changes from review - Consider completely applied.
3-19-59	8171	R.K. de Landier	Reconst. Before After Verification and Review
1-5-60	817	R.K. de Landier	Part appl. Before After Verification and Review then reconst. done. but, correct, no only for tide-over print. Consider fully appl. pending publication of reconst.
3/8/61	8201	J.H. Eaton	Before After Verification and Review then Reconst 8171
			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.**