

8038

Diag. Cht. Nos. 3152-2 and 3201-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1353 Office No. H-3033

LOCALITY

State S. E. Alaska

General locality Tuxekan Passage

Locality Tahka Point to Kassin Islands

194 53

CHIEF OF PARTY

Charles A. Schanck

LIBRARY & ARCHIVES

DATE January 24, 1955

8038

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-8038

Field No. PA-1353

State S.E. Alaska

General locality Tuxekan Passage

Locality Tahka Pt. to Kasaan Islands  
North end

Scale 1:10,000 Date of survey 15 July-16 September 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, graphic recorder, hand lead, wire

Fathograms scaled by W. D. B. R. E. M.

Fathograms checked by C.A.J. Pauw (Spot checked)

Protracted by C.A.J. Pauw

Soundings penciled by C.A.J. Pauw

Soundings in fathoms feet at MHW MLLW and are based on a velocity of sound of 800 fms./sec.

REMARKS:

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY NO. H-8038 (PA-1353)

TUXEKAN PASSAGE, S. E. ALASKA

SCALE 1:10,000 DATE 1953

USC&GSS PATTON

CHARLES A. SCHANCK, COMDG.

A. PROJECT:

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

B. SURVEY LIMITS AND DATES:

This survey covers all of Tuxekan Passage, and all of the coves, bights, and bays opening off of the Passage from a line joining latitude 55°-50.9', longitude 133°-13.2', and latitude 55°-51.5', longitude 133°-11.6' north to the northern end of the Passage. It includes also those questionable soundings and undeveloped shoals from H-4329, (1923) reference Preliminary Review dated 17 March 1952.

Junction is made with H-8037 <sup>(1953)</sup> to the south, and H-4329 <sup>(1923)</sup> to the north. *Proj. 1347 (21 Nov. 1955) extends hydrographic surveys northward.*

C. VESSELS AND EQUIPMENT:

Hydrography was accomplished by Launch No. 88 and Dory No. 604, both operating from 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 beach lines and in small bights and coves was accomplished with the dory using recording fathometer No. 74. Various speeds were used and the turning radius varied with the speed.

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

D. TIDES AND CURRENTS:

Soundings were reduced from North Tuxekan, Tuxekan Narrows, and Naukati Bay Portable Tide Gages.

There were two current stations within the limits of this sheet, one in latitude 55°-46.8', longitude 133°-16.9', and the other at latitude 55°-53.15', longitude 133°-14.6'.

E. SMOOTH SHEET:

The smooth sheet <sup>was</sup> ~~will be~~ plotted and constructed by personnel of the Seattle Processing Office.

F. CONTROL STATIONS:

Basic control was derived from a scheme of second order triangulation executed by Ship PATTON, Charles A. Schanck, Comdg., in 1953. This scheme is a continuation of like work accomplished in 1952 by the Ship LESTER JONES, Ross A. Gilmore, Comdg. The combined scheme connects 1922 third order work with 1914 third order work.

Additional control was located by graphic methods on plane-table sheets PA-D & E-53. *(graphic control surveys marked for destruction.)*

G. SHORELINE AND TOPOGRAPHY:

Shoreline for boatsheet purposes was obtained from uncontrolled photo manuscript T-11100. Extensive shoreline was rodded in on planetable sheets PA-D & E-53, and it was recommended that this shoreline be incorporated into the final manuscript. This revised shoreline should be the authority. *Shoreline on smooth sheet revised to agree with reviewed surveys T-11100, T-11101 and T-11102 of 1953.*

H. SOUNDING:

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 are corrected and reduced in feet, then converted to fathoms for plotting.

Phase comparisons were obtained between necessary phases on fathometer 74. Fathometer No. 51 operated entirely on the A-scale.

Soundings from both fathometers were corrected for tide, initial deviation, phasing error, and index error as determined by bar checks. In addition, all soundings obtained from fathometer No. 51 were corrected for faulty radius of stylus arm. This error was detected, computed and corrected for as described in an article by LCDR David M. Whipp in the 1953 Journal.

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 considered to be adequate for charting.

Junctions with contemporary surveys H-8037 to the south is adequate, and depth curves can be delineated. *(1923)*

~~At the north, junction is made with H-4329. The greater density of soundings on the new survey has caused some change in the delineation of curves on the area of overlap, but in general, agreement is good at the junction.~~

*Junction on north deferred pending receipt of Project 1347, dated 21 Nov. 1955 survey.*



K. CROSSLINES:

Crosslines totaling 6.7% of all hydrography were run on this survey. Crossings are good on all parts of the sheet.

L. COMPARISON WITH PRIOR SURVEY:

There is no prior hydrographic survey of most of this area. The shoals and questionable soundings on H-4329 which were mentioned in the Preliminary Review will be covered under side heading "N".

M. COMPARISON WITH CHART NO. 8171:

Chart No. 8171 shows this area as unsurveyed.

N. DANGERS AND SHOALS:

Dangers:

1. A rock bearing 2 feet at MLLW was found in latitude 55°-51.61', longitude 133°-11.92'. ~~It is located by dory fix 32g.~~

2. A group of rocks and reefs, bearing from 2 feet at MHW to 7 feet at MLLW was found in latitude 55°-51.80', longitude 133°-11.90'. They are located by dory fixes 23-27g.  
12.35'

3. The small cove in latitude 55°-51. , longitude 133°-13.5' is generally foul, especially along the west side. Heights and delineation of rocks, etc, in this area are from photo manuscripts T-11100 and 11101.

4. Rocks, reefs and ledges almost completely clog the entrance to Little Naukati Bay, in latitude 55°-52.5', longitude 133°-13.5', and also extend well into the channel west of the entrance. These rocks, etc., which bare from 2 to 10 feet at MLLW, are located on PA-D-53, and verified by dory fixes 26-37e.

5. A rock ledge extends well offshore from an island in latitude 55°-52.13', longitude 133°-17.10'. It is delineated on PA-D-53.

52.4' 6. A reef and two rocks were found in latitude 55°-52.90', longitude 133°-16.55'. The highest of these which bares 2½ feet at MHW is the reef on which triangulation station NECK is located. These features are delineated on PA-D-53. T-11100 shows 6 ft at MHW

7. A small group of rocks and reefs baring from 2 to 8 feet at MLLW was found in latitude 55°-52.35', longitude 133°-16.35'. This group is delineated on PA-D-53 and by dory fixes 20-22d.

8. A small group of rocks in latitude 55°-52.00', longitude 133°-15.85' almost completely seals off the bight to the south. This group is sketched on the boat sheet. It bares at MLLW.

N. DANGERS AND SHOALS Contin.

9. A group of rocks and reefs, baring from  $5\frac{1}{2}$  feet at MHW to awash at MLLW, was found in latitude  $55^{\circ}-52.60'$ , longitude  $133^{\circ}-16.55'$ . These features are delineated by dory fixes 16-19d, and to an extent, on PA-D-53. Topo signal Wan is located on the highest of these. ( $5\frac{1}{2}'$ )

10. Three small reefs, baring from 3 to 6 feet at MLLW were found in latitude  $55^{\circ}-52.64'$ , longitude  $133^{\circ}-17.05'$ . They are delineated on PA-D-53.

11. The small bight in latitude  $55^{\circ}-52.6'$ , longitude  $133^{\circ}-15.25'$  is shot with rocks and reefs baring from 1 - 5 feet at MLLW. They are delineated by dory fixes 1 - 5d, and on PA-D-53.

12. A group of rocks baring from 0 - 11 feet at MLLW was found in latitude  $55^{\circ}-52.75'$ , longitude  $133^{\circ}-16.45'$ . They are delineated on PA-D-53; signal ITS is located on the highest and most southerly of these.

13. A group of rocks and reefs baring from 0 -  $\frac{6}{8}$  feet at MLLW was found in latitude  $55^{\circ}-52.8'$ , longitude  $133^{\circ}-15.7'$ . They are delineated by dory fixes 7-11d and on PA-D-53.

14. Two rocks, <sup>awash</sup> one awash, and one baring  $\frac{6}{8}$  feet at MLLW were found in latitude  $55^{\circ}-52.95'$ , longitude  $133^{\circ}-16.28'$ . <sup>One</sup> ~~They~~ are located on PA-D-53. ~~and the other by the hydrographer.~~

15. A rock baring 3 feet at MHW was found in latitude  $55^{\circ}-52.95'$ , longitude  $133^{\circ}-16.72'$ . Signal EVA is on this rock.

16. A reef, which bares  $\frac{6}{8}$  feet at MLLW was <sup>found</sup> in latitude  $55^{\circ}-53.18'$ , longitude  $133^{\circ}-16.22'$ . It is delineated by dory fix 14.d.

17. A shoal was found in latitude  $55^{\circ}-53.30'$ , longitude  $133^{\circ}-15.50'$ . A least depth of  $3\frac{1}{2}$  fathoms was found on launch position 2 and 9f.

18. A reef was found in latitude  $55^{\circ}-53.37'$ , longitude  $133^{\circ}-15.28'$ . This reef is delineated on PA-D-53, and again by dory fixes 1-3b. Village Rock Daybeacon is on this rock.

19. A rock, awash at MLLW, was found in latitude  $55^{\circ}-53.54'$ , longitude  $133^{\circ}-15.16'$ . This rock, which is roughly the outer end of a bar that extends southeast to Prince of Wales Island, is located by dory fix 4b.

20. A large reef was found in latitude  $55^{\circ}-53.\frac{6}{8}'$ , longitude  $133^{\circ}-15.1'$ . It is delineated on PA-D-53.

21. A reef, baring 1 foot at MLLW was found in latitude  $55^{\circ}-53.80'$ , longitude  $133^{\circ}-15.03'$ . It is delineated by dory fixes 1 and 2c.

N. DANGERS AND SHOALS Contin.

22. A reef was found in latitude  $55^{\circ}-54.04'$ , longitude  $133^{\circ}-15.60'$ . It is delineated by starboard dory fixes 2-7a.

23. A reef baring 4 feet at MLLW and a rock awash at MLLW were found in latitude  $55^{\circ}-54.1'$ , longitude  $133^{\circ}-15.8'$ . They are delineated by starboard dory fixes 8 - 13a and port dory fix 5b.

24. Two reefs and a rock baring  $1\frac{1}{2}$  to  $3\frac{1}{2}$  feet at MLLW were found in latitude  $55^{\circ}-54.0'$ , longitude  $133^{\circ}-16.2'$ . They are delineated by starboard dory fixes 14-18a.

25. An extensive reef, baring <sup>8</sup> feet at MLLW, was found in latitude  $55^{\circ}-53.8'$ , longitude  $133^{\circ}-16.3'$ . It is delineated by starboard dory fixes 19-26a.

26. Two reefs and a rock awash from 0 to 5 feet at MLLW were found in latitude  $55^{\circ}-54.4'$ , longitude  $133^{\circ}-15.1'$ . They are delineated by dory fixes 4-6c.

27. Three rocks, bare 0-2 feet at MLLW, were found in latitude  $55^{\circ}-54.8'$ , and longitude  $133^{\circ}-15.8'$ . They are located by dory fixes 10-12c. (*smooth plotted as part of ledge and 1 offshore rock awash.*)

28. A rock, baring 1' at MLLW, was found in latitude  $55^{\circ}-55.06'$ , longitude  $133^{\circ}-16.09'$ . It is located by dory fix 6b.

29. The small cove and passage in the northeast corner of this survey is extremely foul; rocks, reefs, and ledges abound. These hydrographic features are delineated by dory fixes on b and c days.

30. A shoal was found in latitude  $55^{\circ}-54.10'$ , longitude  $133^{\circ}-15.59'$ . A least depth of 1.0 fathoms with handlead, and 1.3 with fathometer were found on launch position 230d. The handlead sounding of 1.0 fms is recommended for charting.

31. A shoal was found in latitude  $55^{\circ}-54.43'$ , longitude  $133^{\circ}-15.65'$ . A least depth of 2.1 fms was found with fathometer and 2.0 fms by handlead on launch position 226d. The handlead sounding is recommended for charting.

32. A shoal was found in latitude  $55^{\circ}-54.56'$ , longitude  $133^{\circ}-15.92'$ . A least depth of 1.4 fathoms by handlead and 1.5 fathoms by fathometer was found on launch position 217d. The handlead sounding is recommended for charting.

33. Two slightly spaced shoals were found in latitude  $55^{\circ}-54.66'$ , longitude  $133^{\circ}-15.92'$ . On the shoaler and more westerly of these, a least depth of 0.34 fathoms was found with handlead on launch position 206d; a least depth with fathometer of 0.5 fms was recorded on launch position 205d. The handlead sounding of 0.14 fathoms is recommended, for charting.

N. DANGERS AND SHOALS Contin.

Shoals

1. A shoal was found in latitude  $55^{\circ}-53.23'$ , longitude  $133^{\circ}-14.81'$ . A least depth of 4.5 fathoms was recorded on launch position 16f.
2. A shoal was found in latitude  $55^{\circ}-54.70'$ , longitude  $133^{\circ}-16.42'$ . A least depth of ~~5.2~~ <sup>4.6</sup> fms was recorded on launch position 25e.

The following shoals and investigations are those investigations which were called for in the Preliminary Review dated 17 March 1952.

3. An undeveloped 10 fathoms sounding <sup>was investigated</sup> in latitude  $55^{\circ}-55.05'$ , longitude  $133^{\circ}-18.28'$ . This shoal was closely developed and a least depth of ~~9~~ <sup>10.9</sup> fms was found on position 142a + 15 seconds. This sounding is recommended for charting.

4. An undeveloped 5.7 fathom sounding was investigated in latitude  $55^{\circ}-55.35'$ , longitude  $133^{\circ}-17.35'$ . A least depth of 5.3 fathoms was found on position 26h + 22 seconds. This sounding is recommended for charting.

5. Two soundings, one of 4.7 fms and the other of 11 fathoms were investigated in latitude  $55^{\circ}-55.65'$ , longitude  $133^{\circ}-18.05'$ . At the 4-3/4 fms spot, a least depth of 4.2 fathoms was recorded at position 93a + 15 seconds. The 4.2 fms is recommended for charting. No sounding shoaler than 16 fathoms was recorded in the vicinity of the charted 11 fathoms. It appears that there may have been a 5-fathom bust in the original survey; it is recommended that the 11 fathoms be deleted from the chart.

6. A charted 16 fathom sounding in latitude  $55^{\circ}-55.98'$ , longitude  $133^{\circ}-17.32'$  was investigated. A least depth of 13.1 fathoms was found on position 77a. It is recommended for charting.

7. Two soundings, one of 10 fathoms, one of 15 fathoms were investigated in latitude  $55^{\circ}-55.8'$ , longitude  $133^{\circ}-17.5'$ . On the 10 fm sounding, a least depth of 9.7 fms on position 49a + 45 seconds was found; it is recommended for charting. On the 15 fms spot a least depth of 13.2 fms was found on position 56a + 1 minute; it is recommended for charting.

O. COAST PILOT INFORMATION:

A special report on Coast Pilot Information has been submitted.

P. AIDS TO NAVIGATION:

There are two fixed aids to navigation within the limits of this survey--Village Rock Daybeacon, and Aikens Rock Daybeacon. Both were located by triangulation methods, and descriptions and geographic positions were submitted. They were also submitted on form 567.

The only floating aid to navigation--from Pacific Coast Light List, "El Capitan Passage Buoy No. 1"--was located by position 85a in 5.5 fathoms of water. It is in latitude 55°-55.71', longitude 133°-18.03'.

Q. LANDMARKS FOR CHARTS:

There are no features within the limits of this survey considered suitable for designation as landmarks.

R. GEOGRAPHIC NAMES:

A special report on Geographic Names has been submitted.

on file 854  
L.H.

S. SILTED AREAS:

Of special importance under this classification is the large shoal bay to the southwest of Tuxekan Village. Examination of the fathogram together with bottom samples showed that a green mud covering of several fathoms depths extends throughout the bay, and only the shoalest rocks break through the covering. Since there was no previous survey, the existence of an appreciable rate of change was not determined.

T. - Y.

No information for these headings.

Z. TABULATION OF APPLICABLE DATA:

The following special reports are applicable.

1. Field Inspection of Air Photographs 1953
2. Radial Plot and Compilation Report to Accompany T-11100
3. Triangulation Report, Tuxekan Passage 1953
4. Geographic Names Report, Tuxekan Passage 1953
5. Coast Pilot Notes, Tuxekan Passage 1953
6. 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 and Computation
4. Abstract of Phase Comparisons and Computation of Phase Correction

Z. TABULATION OF APPLICABLE DATA(Contin.)

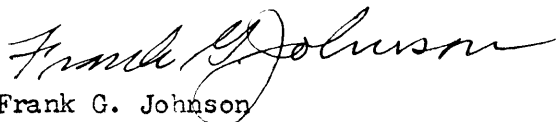
5. Table of Faulty Radius Corrections
6. Table showing Applicable Tide Correction

Respectfully submitted by



William D. Barbee  
Lieut. (j.g.)  
USC&GSS PATTON

Approved and Forwarded:



Frank G. Johnson  
CDR C&GS  
Cmdg., Ship PATTON

### TIDE NOTE

Portable tide gages at North end, Tuxekan Passage, Tuxekan Narrows, and Naukati Bay were used to reduce soundings on this sheet. All soundings north of a line passing through signals Kim and Aiken in latitude  $55^{\circ}-54.1$  were reduced from data on the North end gage. From that line south to a line connecting signals GUA - BUCK, in latitude  $55^{\circ}-52.1$ , the Narrows gage was used. The Naukati Bay gage was used from the GUA-BUCK line south to the limits of the sheet. No time or range corrections were made.

The plane of reference--MLLW--was 2.7 feet on the North end gage, 3.3 feet on the Narrows gage, and 4.1 feet on the Naukati gage as per Director's letter dated 12 October 1953, reference number 36-rjb.

STATISTICS, SHEET 1353

DATE	DAY	VOL.NO.	H.L.	POSITIONS	STAT.MI. SMDG.
<u>Launch 88</u>					
	(blue)				
16 July	a	1	2	298	35.3
17 July	b	1 & 2	3	310	34.2
21 July	c	2	6	147	14.8
22 July	d	3	32	232	17.7
29 July	e	4	3	106	12.9
31 July	f	4	9	143	13.8
7 Aug.	g	4	4	157	16.9
16 Sept.	h	5	0	29	2.4
Totals:			59	1422	148.0
<u>Port Dory</u>					
	(red)				
25 July	a	6	0	30	2.0
26 July	b	6	1	151	7.5
27 July	c	6	1	135	8.0
28 July	d	6 & 7	0	153	10.5
30 July	e	7	2	154	12.5
5 Aug.	f	7	1	49	4.3
6 Aug.	g	7	2	91	6.4
Totals:			7	763	51.2
<u>Starboard Dory</u>					
	(green)				
15 July	a	5	--	26	--
Grand Totals:			66	2211	199.2

Area surveyed in square statute miles: 10.6



TIDES  
TABLE SHOWING  
GAGE USED

DATE	TIME FROM	TO	POSITION & DAY LETTER	TIDE GAGE	FMS/FT	VESSEL
15 July	0958	--	Grn 1a	Narrows	ft.	stbd.dory
"	1009	1056	2-12a	North	ft.	"
"	1112	1202	14-26a	Narrows	ft.	"
16 July	0839	0856	1-6a	Narrows	fms	Launch 88
"	0857	1334	6a-157a	North	"	"
"	1335	1341	157-162a	Narrows	"	"
"	1341	1408	162-185	North	"	"
"	1411	1412	186-187	Narrows	"	"
"	1412	1638	187-291	North	"	"
"	1638	1650	291-298a	Narrows	"	"
17 July	0825	0944	1b-68b	North	"	"
"	0945	0949	68-72b	Narrows	"	"
"	0950	1050	72-98b	North	"	"
"	1051	1108	98-109b	Narrows	"	"
"	1109	1118	110b-114	North	"	"
"	1118	1528	114b-278b	Narrows	"	"
21 July	1530	1613	279b-303b	North	"	"
"	1613	1622	303b-309b	Narrows	"	"
GKN 21 July	1309	1656	1c-147c	Narrows	"	"
22 July	0812	0934	1d-68d	Narrows	"	"
"	0935	1326	68d-178d	North	"	"
"	1326	1345	178d-195d	Narrows	"	"
"	1412	1643	196d-231	North	"	"
"		1700	232d	Narrows	"	"
29 July	1309	1335	1e-14e	Narrows	"	"
"	1336	1404	14e-27e	North*	"	"
"	1432	1529	28e-50e	Narrows	"	"
"	1530	1548	50e-66e	Naukati**	"	"
"	1549	1610	66e-82e	Narrows	"	"
"	1611	1623	82e-93e	Naukati**	"	"
"	1624	1646	93e-106e	Narrows	"	"
31 July	0824	0940	1f-29f	Narrows	"	"
"	0940	1141	30-132f	Naukati	"	"
"	1142	1154	133-143f	Narrows	"	"
7 Aug.	0811	0910	1g-48g	Naukati	"	"
"	0910	0919	48g-57g	Narrows	"	"
"	0920	0925	57g-61g	Naukati	"	"
"			113g-115g	Naukati	"	"
"	0926	1136	61g-146g	Narrows	"	"
"	1136	1148	146-157g	Naukati	"	"
16 Sept.	1343	1411	1-29h	North*	"	"
25 July	1522	1645	red 1a-30a	North	ft.	Port Dory
26 July	0813	0823	1b-4b	Narrows	"	"
"	0833	1630	5b-151b	North	"	"
27 July	0821	0823	1c-2c	Narrows	"	"
"	0833	1446	3c-85c	North	"	"
"	1446	1630	85c-135	Narrows	"	"
28 July	0820	1637	1d-153d	Narrows	"	"
30 July	0840	0902	1e-16e	Narrows	"	"
"	0903	0926	16e-21e	Naukati*	"	"

\*Gage removed; use NARROWS

\*\*Gage not in; use NARROWS

DATE	TIME FROM	TO	POSITION & DAY LETTER	TIDE GAGE	FMS/FT	VESSEL
30 July	0926	1622	21e-154	Narrows	Ft.	Port Dory
5 Aug.	1351	1647	1f-49f	Narrows	"	"
6 "	1000	1036	1g-17g	Narrows	"	"
6 "	1046	1459	18g-91g	aukati	"	"

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 "
<u>1353</u>	M = 1.70	+0.30 "

Combined M = 1.672. Correction +0.328 fms

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

ABSTRACT OF BAR CHECKS (IN FEET 1953)SHEET PA-1153

8 Checks at 6 feet

Ave. corr. = 0.3 ft.

7 Checks at 12 feet

Ave. corr. = 0.5 ft.

Ave. corr. = 0.42 ft.SHEET PA-1253

12 Checks at 6 feet

Ave. corr. = 0.17 ft.

11 Checks at 12 ft.

Ave. corr. = 0.44 ft.

Ave. corr. = 0.31 ft.SHEET PA-1353

19 Checks at 6 feet

Ave. corr. = +0.20 ft.

21 Checks at 12 feet

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. '

# TABIES OF FAULTY RADIUS CORRECTIONS

FATHOMETER 51 LAUNCH 88

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

$$R/R_1 = 1.011 \checkmark \quad \text{Stylus Arm Length} = 11.1 \text{ cm}$$

$$A = 0 \checkmark$$

Depth A Scale	Corredtions (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

	Depth B scale	C scale	Correction (Fms.)
A scale 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

b-day

$R/R_1 = 1.020$  (11.000)

A = 0

c-day

e-day - PA-1153

215 - 360 c-day

d-day

e-day

f-day

g-day

h-day

j-day

k-day

l-day - PA-1253

b-day corrections from table 1 should have been applied (11.1)

c-day

d-day

e-day

f-day

g-day

h-day

11.0 beginning of day ; 11.1 end of day

corrections from table 1 should have been applied (11.1)

11.0 beginning of day ; 11.1 end of day

11.0 OK.

11.0 OK.

PA-1353

## DEPTH

## CORRECTION

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

ABSTRACT OF  
PHASE COMPARISONS  
PORT DORY  
FATHOMETER 74

SHEET	DATE	DAY	VOL.	DORRECTION	
				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.

6

ABSTRACT OF  
PHASE COMPARISONS  
LAUNCH 88

FATHOMETER 51

SHEET	DATE	DAY	VOL.	CORRECTION	
1253	7 Sept.	1	9	A-B 0	B-C -0.18
1153	3 "	e	5	<u>-0.16</u>	

$$\begin{aligned}\text{Ave. A-B} &= \underline{0.08} \\ \text{A-C} &= \underline{-0.08} - 0.18 \\ &= \underline{-0.26}\end{aligned}$$

Note: Since these phase comparisons were taken at a time when the radius of the stylus arm was incorrect, these comparisons must be corrected for that fault.

On 7 Sept.:		A scale	B scale
Radius correction (R) for 44 fms		+1.1 fm.	+0.3
On 3 Sept.	R for 47 fms =	+1.1	+0.3
		<u>B scale</u>	<u>C scale</u>
B scale correction	R for 73 fms	+0.9	+0.1

$$= \text{A-scale} - \text{B-scale} + R_A - R_B$$

$$= -0.08 + 1.1 - 0.3$$

$$\begin{aligned}\text{B-scale correction} &= -0.08 + 0.8 \\ &= \underline{+0.72 \text{ fms}}\end{aligned}$$

$$\text{C-scale correction} = \text{B-scale correction} + \text{B-scale} - \text{C-scale}$$

$$+ R_B - R_C$$

$$= +0.72 + -0.18 + 0.9 - 0.1$$

$$= +1.34$$

For all fathom work this season:

$$\text{B scale correction} = \underline{+0.7 \text{ fms}}$$

$$\text{C scale correction} = \underline{+1.3 \text{ fms}}$$



GEOGRAPHIC NAMES  
Penciled on Smooth Sheet H-8038

Aikens Rock	Kwati Point
Dargun Point	Little Naukati Bay
Elghi Island	Nichin Cove
El Capitan Island	Nikini Flats
El Capitan Passage	Prince of Wales Island
Guhao Inlet	Sangao Island
Istku Point	Shikat Point
Jinhi Bay	Sigh Islands
Kahli Cove	Tahka Point
Kaishi Point	<i>Tuxekan Islands</i>
<sup>S</sup> Kasaan Islands	Tuxekan Island
Kinani Point	Tuxekan Narrows
Klinau Island	Tuxekan Passage
Kutegi Point	Tuxekan Village
	Village Rock

Smooth Sheet

The projection was drawn by hand in the Seattle Processing Office. The triangulation stations were plotted by dms and dps; and the hydrographic signals were transferred from bromide prints of the planetable plates. Shoreline shown in black ink was transferred from bromo-oil photo-topo sheets. Shoreline left in pencil was transferred from prints of the 1922 surveys; these prints showed very large and erratic paper distortions and it was thought best not to ink these until verified for exactness of placement against the original topo plates.

*7.1  
Review.*

Control Discrepancy

Errors in position of triangulation stations on HEAD and TURN and projection error in PA-D-1953 were discovered. See telegram 285 B WY 218 - SE WAS 45 C - CGS, Washington D.C., 9/15/54, 358. The triangulation stations are shown correctly on the smooth sheet - no adjustment was made to topo signal or shoreline.

Hydrography

All positions were controlled by sextant fixes on visual signals. This was a very easy sheet to plot and nothing unusual was encountered. Sounding lines made excellent crossings throughout the sheet.

Rocks and Reefs

Rocks and Reefs are very numerous - the hydrographers report listing each of the major rocks and reefs was used as a check-off list - and a few penciled corrections entered on the original report. Rocks mentioned by hydrographer were also frequently located by the photo-topo bromo-oil transfer. A few rocks are shown only on the boat sheet and not mentioned in the hydro volumes. These were transferred to smooth sheet. Differences in height above MLLW on rocks were reconciled; otherwise the lower value is shown on the smooth sheet.

One rock <sup>awash</sup> Lat. 55° 53'.27, Long. 133° 15'.20 from the photo-topo bromo-oil is not verified and believed not to exist - it should be deleted if no other data substantiates this rock. *Retained pending investigation. (Review TP9)*  
*Rock awash disproved by add. WK. in 1957.*

Geographic Names

Twenty-six Geographic names originate with the Geographic Names Report (Tuxekan Passage, Project CS-367). Three Geographic names originate with Chart 8171.

Aids to Navigation

EL Capitan Buoy No. 1 shown from sextant location and labeled.  
Daybeacons on Vikings and Village Rocks labeled - no symbols shown.  
These daybeacons were located by triangulation - it is not known to  
us if the beacons and the stations are the identical points.

*As are day  
bns. and are  
so shown on  
Smooth sheet.*

Junctions

The junction to the northward with Chart 8171 appears to be  
satisfactory - large differences in scale make this comparison inconclusive.

Junction to the south with the contemporary survey H-8037 is *see TPS Review*  
satisfactory.

Respectfully submitted,

*Cornelius A. Pauw*  
Cornelius A. Pauw  
Cartographer

Approved:

*William M. Martin*  
William M. Martin  
Cartographer

Forwarded by:

*Charles F. Fenn*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

Each Topographic and Graphic Control Sheet, and each Air Photographic Drawing should be accompanied by this form, completed so far as practicable, when forwarded to the Washington office.

REGISTRY No. ....

Field No. PA-A, B, C, D, & E-53

Scale 1:10,000

State S. E. Alaska General locality Tuxekan Passage

Specific locality South end Tuxekan Island to El Capitan Passage

Dates: Survey began 30 June 1953 Completed 23 September 1953

Photography ....., Supplemented by ground surveys to .....

Project No. CS-347 Instructions dated .....

Vessel } or PATTON Chief of party Charles A. Schanck  
Party } C A Schanck

Field work by F. J. Bryant Office work by C. A. Schanck, F. J. Bryant, W. D. Barbee  
W D Barbee

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

Ground elevations } in feet above { M. H. W.  
Treetop elevations } or { .....

Contours } by { Planetable } Interval ..... ft.  
Approximate contours } { Multiplex }  
Form lines } { .....

REMARKS Graphic control sheets. Some MHWL on PA-D-53 and PA-E-53  
(PA-D-53 and PA-E-53)

These surveys were applied to H-8038 and then were  
marked for destruction.

Magnetic variations shown on graphic control surveys PA-B-C-D&E,  
1953, are in agreement with the charted variations.

PA-B and C-53 were applied to H-8037 and then were marked for  
destruction.

PA-A-53 was applied to H-8036 and marked for destruction  
May variation in agreement with chart 8157

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC CONTROL SHEETS

PA- A,B,C, D, & E-53

TUXEKAN PASSAGE

USC&GSS PATTON, CHARLES A SCHANCK, CHIEF OF PARTY

1953

AUTHORITY

Field work was accomplished in accordance with Director's Instructions for Project OS-347, dated 11 June 1952, and Supplemental Instructions dated 16 March 1953

PURPOSE

The primary purpose of these surveys was to locate signals for hydrography. Because the air photographs of the area were poor in definition and coverage, it was necessary to rod in a considerable portion of the MHWL on PA-D-53, and PA-E-53. The areas in which MHWL was delineated by planetable methods and recommendations thereto have been covered at length in the Field Inspection Report for this project, and this report may be referred to.

*PA-D & E-53 app-  
plied to H-8038  
(1953) and then  
destroyed.*

Although some rocks awash and other features below the MHWL were located on these sheets, in general these features were located by hydrographic means.

LOCALITY

This survey covers Tuxekan Passage in its entirety.

GENERAL DESCRIPTION

The entire area surveyed is heavily wooded. Trees overhang the high water line over much of the area. The foreshore is, in general, steep and rocky. The nature of the foreshore was covered comprehensively in the Field Inspection Report, and foreshore characteristics for the area were noted on the field prints of the air photographs.

## CONTROL

Adequate control was provided by a scheme of Second Order Triangulation which extended through the area surveyed.

## DETAILS OF SURVEY

Field work began 30 June 1953, and was completed 23 September 1953.

Standard graphic triangulation methods were employed in locating most of the signals. No substandard or unusual methods were used in this operation. Because of the constricted nature of the three inlets in the southwest part of PA-D-53, it was necessary to locate the signals in these inlets by traverse. A traverse was run into each of these inlets, and closed back on its point of origin. The closing error on these traverses was not plottable, and so no adjustment of signal locations was necessary.

## SHORELINE

As previously stated, a considerable amount of shoreline was rodged in on PA-D-53 and PA-E-53.<sup>H-8038 (1953)</sup> This shoreline has been inked on the sheets, and should be incorporated into the final photographic manuscript, since it was not possible for the field inspection party to delineate these segments of shoreline satisfactorily. Other shoreline, which is shown in pencil on the sheets, is from the advance manuscripts T-11100 through T-11103.

## GEOGRAPHIC NAMES

A special report on geographic names for this season will be submitted.

## LANDMARKS FOR CHARTS

The lone landmark in the surveyed area, BOIL 1952, was located and submitted in 1952. T-11103

## COMPARISON WITH PREVIOUS SURVEYS

There are no prior surveys of this area.

#### MAGNETIC DECLINATION

Wissler Declinatoire No. 2486 was used to draw magnetic meridians at a total of fourteen stations within this survey. Since there was a concurrent magnetic survey using a transit magnetometer, no great importance was attached to these values, and no Declinatoire error was determined.

#### RECOVERABLE TOPOGRAPHIC STATIONS

Due to the plethora of geodetic control in the area, no recoverable topographic stations were established.

#### REGISTRY NUMBERS

No registry numbers were assigned for these sheets. See Director's letter of 12 August 1953, referenced 223 MEK S-1-PA.

Submitted by

*William D. Barbee*  
William D. Barbee

Approved and Forwarded

*Charles A. Schanck*  
Charles A. Schanck  
CDR USC&GS  
Comdg. Ship PATTON

## GEOGRAPHIC NAMES

Survey No. H-8038

Name on Survey #1

	A	B	C	D	E	F	G	H	K	
<u>Southeastern Alaska</u>										1
<u>Prince of Wales Island</u>										2
<u>Tuxekan Passage</u>										3
<u>Tuxekan Island</u>										4
										5
<u>Klinau Island</u>										6
<u>Kaishi Point</u>										7
<u>Tahka Point</u>										8
<u>Nichin Cove</u>										9
<u>Tuxekan Narrows</u>										10
<u>Tukanis Islands</u>										11
<u>Little Naukati Bay</u>										12
<u>Tuxekan Village</u> (Abandoned) 1954 B.G.N. decision = "locality" B.G.N.										13
<u>Kinani Point</u>										14
<u>Village Rock</u>										15
<u>Istku Point</u>										16
<u>Guhao Inlet</u>										17
<u>Nikini Flats</u>										18
<u>Tinhi Bay</u>										19
<u>Sigh Islands</u>										20
<u>Kwati Point</u>										21
<u>Elghi Island</u>										22
<u>Kutegi Point</u>										23
<u>Aikens Rock</u>										24
<u>Shikat Point</u>										25
<u>Dargun Point</u>										26
<u>Kahli Cove</u>										27



## GEOGRAPHIC NAMES

Survey No. H-8038

Name on Survey

#2

	A	B	C	D	E	F	G	H	K	
Kassan Islands										1
										2
Sangao Island										3
El Capitan Island									BEH	4
El Capitan Passage									"	5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names approved

1-12-55. L. Heck

# Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~H-8038~~...

Records accompanying survey:

Boat sheets .2...; sounding vols. 7.....; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls ....;  
special reports, etc. 1 smooth sheet, 3 envelopes of fathograms.....  
.....

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

Number of positions on sheet	.....	2211
Number of positions checked	.....	195
Number of positions revised	.....	4
Number of soundings revised (refers to depth only)	.....	136
Number of soundings erroneously spaced	.....	11
Number of signals erroneously plotted or transferred	.....	1
Topographic details	Time .....	32
Junctions	Time .....	8
Verification of soundings from graphic record	Time .....	40

Verification by *J. E. Gearhart* ..... Total time *323* ..... Date *1-31-56*

Reviewed by *Lu J. G. G. G.* ..... Time *40* ..... Date *2-16-56*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8038

FIELD NO. PA-1353

S. E. Alaska, Tuxekan Passage, Tahka Point to Kassan Islands

Project CS-347

Surveyed - July - September, 1953

Scale 1:10,000

Soundings:

Control:

808 Fathometer  
Leadline

Sextant fixes on  
shore signals

Chief of Party - C. A. Schanck  
Surveyed by - C. A. Schanck, F. J. Bryant and W. D. Barbee  
Protracted by - C. A. J. Pauw  
Soundings plotted by - C. A. J. Pauw  
Verified and inked by - J. E. Gearhart  
Reviewed by - I. M. Zeskind 2-16-56  
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed manuscripts of air-photographic surveys T-11100, T-11101 and T-11102 of 1953.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The depth curves are adequately delineated.

The bottom is very irregular. Submarine features such as reefs, ledges, shoals and deeps contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

The junction with H-8037 (1953) on the south will be considered in the review of that survey. The project survey on the north has not as yet been received in the Washington Office.

5. Comparison with Prior Surveys

H-4329 (1923), 1:10,000

The prior survey joins the present survey on the north and covers the several shoals developed on the present survey in that area which lies north of lat.  $55^{\circ}55.0'$ , and west of long.  $133^{\circ}16.0'$ . Only minor differences in depths between the prior and present surveys are noted. The 11-fm sounding charted in lat.  $55^{\circ}55.60'$ , long.  $133^{\circ}18.05'$ , from H-4329 (1923) falls on a shoal on the present survey in depths of 16 - 22 fms. The 11 is a single shoal sounding on line between two 22-fm. soundings and is probably recorded 5 fms. in error. The prior sounding is discredited by the close development on the present survey and should be disregarded.

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

6. Comparison with Chart 8171 (latest print date 1-9-56)

A. Hydrography

The charted hydrography originates with the present survey prior to verification and review. A comparison between the charted information and the present survey reveals only minor differences of 0.2 to 2 fms in depths.

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

B. Aids to Navigation

The present survey positions of aids to Navigation are in substantial agreement with the charted positions and adequately mark the features intended.

7. Condition of Survey

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

(b) The smooth plotting was accurately done.

(c) The high-water line applied by the smooth plotter from advance prints of the topographic surveys was revised extensively to correct for changes made during the review of the topographic surveys.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is a very good survey. Additional development is desirable, however, in the following areas:

(1) In the passage in the vicinity of lat.  $55^{\circ}52.38'$ , long.  $133^{\circ}13.88'$ , where shoal indications of 4.4 fms., 5.7 fms., and 5.8 fms. are not developed. *Accomplished by add. WK. in 1957*

(2) In the passage in the vicinity of lat.  $55^{\circ}53.37'$ , long.  $133^{\circ}15.15'$ , eastward of Village Rock Daybeacon where split lines are desirable to more accurately delineate the extent of the shoal area off Kinani Point and determine least depths through the passage. *Accomplished by add. WK. in 1957* ✓

(3) In the vicinity of the rock awash shown on the present survey in lat.  $55^{\circ}53.27'$ , long.  $133^{\circ}15.2'$ , which was transferred from air-photographic survey T-11100 (1953). The rock awash originates with a questionable indication on the photographs and was not verified by field inspection. A single line of soundings crossing the rock reveals no indication of the feature. The detached rock awash falling in depths of 9 fms. is considered questionable and should be investigated. *RK. dis-proved add. WK. 1957*

Examined and Approved:

*H. R. Edmonston*

H. R. Edmonston  
Chief, Nautical Chart Branch

*E. R. McCarthy*

E. R. McCarthy  
Chief, Chart Division

*J. C. Bull*

J. C. Bull  
Chief, Hydrography Branch

*Earl O. Heaton*

Earl O. Heaton  
Chief, Division of 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

8038.

Locality North Tuxekan Passage, Alaska

Chief of Party: C. A. Schanck in 1953

Plane of reference is mean lower low water, reading  
2.7 ft. on tide staff at Tuxekan Passage (North End)

12.8 ft. below B. M. 1 (1953)

3.3 ft. on tide staff at Tuxekan Narrows

11.2 ft. below B.M. 1 (1953)

4.1 ft. on tide staff at Naukati Bay

11.4 ft. below B.M. 1 (1953)

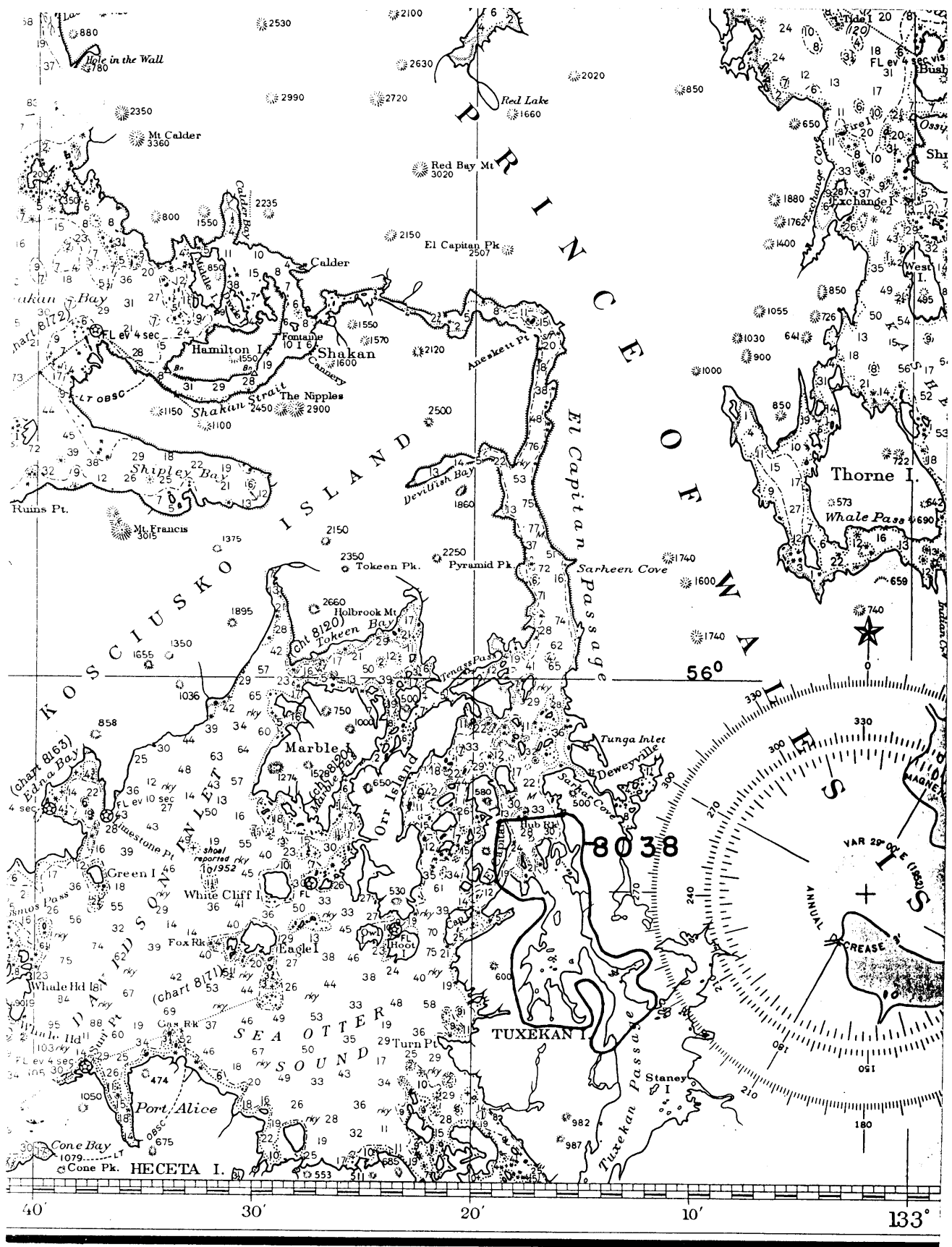
Height of mean high water above plane of reference is as follows:

Tuxekan Passage (North End)	=	10.0 feet
Tuxekan Narrows	=	10.0 feet
Naukati Bay	=	10.1 feet

Condition of records satisfactory except as noted below:

*E.C. McKay*  
Tides Branch

Chief, Division of Tides and Currents.



# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8038

## Record of Application to Charts

[illegible]

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.



# 8038

Additional work

Diag. Cht. Nos. 8152-2 and 8201-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1353 Office No. H-8038 Ad.Wk.

### LOCALITY

State S. E. Alaska

General locality Tuxekan Passage

Locality Tahka Point to Kassan Islands

194 57

CHIEF OF PARTY

E. W. Richards

LIBRARY & ARCHIVES

DATE September, 1957

B-1870-1 (1)

8038  
Additional work

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-8038 Ad. Wk. 1957

Field No. ....

State S. E. Alaska

General locality Tuxekan Passage

Locality Tahka Point to Kassan Islands

Scale 1 : 10,000 Date of survey 8 May - 13 July, 1957

Instructions dated Director's letters 1 Oct., 1956 and 6 June, 1957.

Vessel HODGSON

Chief of party E. W. Richards

Surveyed by E. W. Richards

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

Fathograms scaled by H.H. and A.S.

Fathograms checked by C. Helmer

Protracted by C. Helmer

Soundings penciled by C. Helmer

Soundings in fathoms ~~1000 1000 1000 1000 1000~~ MLLW and are true depths.

REMARKS: .....

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

20-2183  
2-2400  
23 83  
23  
DEPARTMENT OF COMMERCE  
RECEIVED  
MAIL ROOM  
COAST AND GEODETIC SURVEY  
Ship HODGSON  
Edna Bay, Alaska

535  
(1957)

L.M.C.  
7/15

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

JUL 22 12 04 PM

EXPRESS ADDRESS:

COAST & GEODETIC SURVEY

16 July 1957

To: The Director  
Coast and Geodetic Survey  
Washington 25, D. C.

Subject: Investigation of Charted Rock

Reference: (a) Supplemental Instructions - Project 13470, dated  
1 Oct. 1956.  
(b) C. O., HODGSON's Ltr. dated 17 May 1957.  
(c) Director's Ltr. dated 6 June 1957, File No. 22/AEK  
S-1-EO.

An additional examination on Survey H-8038 for a charted rock  
has been completed and no trace was found.

See attached  
letter dated  
17 May 1957

The blue-line boat sheet, fathogram, sounding volume and tidal in-  
formation are forwarded under separate cover.

CC: Seattle District Officer

*E. W. Richards*  
E. W. Richards,  
Lt., C&GS  
Comdg., Ship HODGSON

Chart 8171

JUL 26 1957



150 YEARS OF SERVICE  
1807 - 1957

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

Ship HODGSON  
Edna Bay, Alaska

MAY 28 10 34 AM

COAST & GEODETIC SURVEY 17 May 1957

To: The Director  
Coast and Geodetic Survey  
Washington 25, D. C.

Subject: Development on Sheet H-8038

Data for additional hydrographic development requested in your instructions, dated 1 Oct. 1956, for Project 13470 is being forwarded under separate cover.

Additional sounding lines were run on two overlays and the important soundings transferred to the bluesline print. The rock reported awash off Kinani Pt. was located. It is only 2½ to 3 feet in diameter and is the most prominent rock in the immediate area. On May 16th between 0900 and 0930 the LWL was checked for additional evidence of rocks. The tide at this time was about -2.0 ft. The point was rocky out to the waterline and contains numerous boulders from 1 to 2 ft. in diameter.

Tide reducers were obtained from staff readings on the New Token staff which was installed during the 1956 field season. MLLW on the staff is 2.5 ft. Levels were run between existing B.M.'s and the staff. The differences in elevations were the same as last year.

The initial on the fathometer was set at 0.3 on the fathogram with the bar at 2 fathoms to indicate 2 fathoms. Index corrections were applied when applicable. The fathometer was operated at 800 fm/sec and the stylus speed was checked at 60 revolutions in 33 seconds.

Development on H-8036 will be undertaken when our work progressed to the vicinity of Karheen.

Eugene W. Richards,  
Lt., C&GS  
Comdg., Ship HODGSON

Wrong rock investigated.  
Coastal Survey notified 6/3/57  
and sheet to be returned to  
field. EHC

Wrong rock  
investigated  
See copy  
attached  
letter dated  
16 July 1957



55° 53'  
133° 14'

133° 13'

TUXEKAN

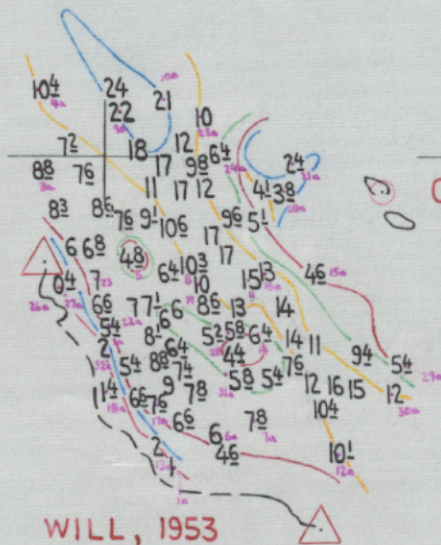
△ MONK, 1953

BRUSH, 1953

NARROWS



TRIP, 1953



Coy

△ BURN, 1953

WILL, 1953

H-8038 (ad. w.k.)

1:10,000 (1957)



H-8038 (ad.wk.)

1:10,000 (1957)

133°  
16'

133°  
15'

133°  
14'  
30"

55°  
54'



AIKENS, 1953

△ NAZI, 1953

55°54'

VILLAGE,  
1953

△ SHALLOW, 1953

boulders

△ RUIN, 1953

△ TUXEKAN,  
1953

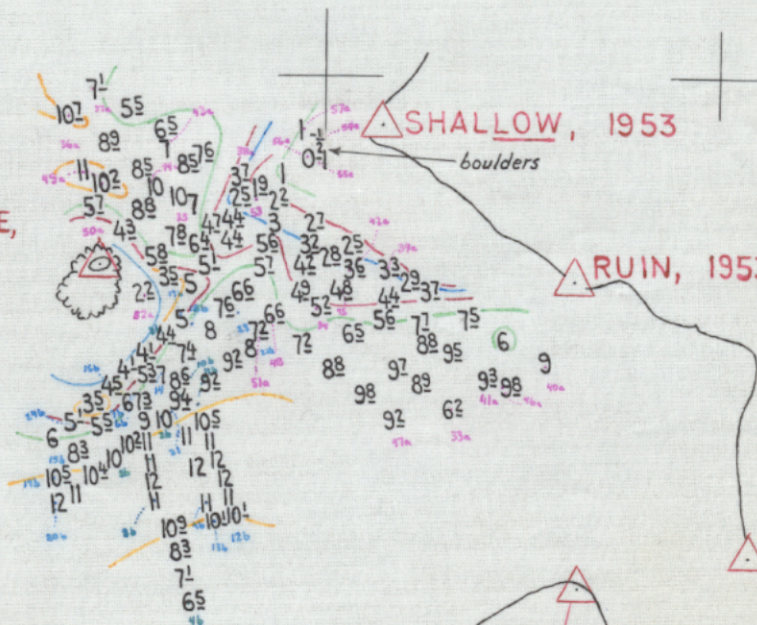
133°  
16'

55°53'

POINT, 1953

NARROW, 1953

55°53'





H-8038 Additional Work 1957

1. The Following additional work was accomplished in May and July 1957 in accordance with the Director's letters dated 1 October 1956 and 6 June 1957.
2. The additional work consists of the hydrographic development in the following areas which were not adequately developed during the 1953 season's work of H-8038.
  - a. In the passage in the vicinity of lat.  $55^{\circ}52.38'$ , long.  $133^{\circ}13.88'$  where shoal indications of 4.4 fms., 5.7 fms., and 5.8 fms.
  - b. In the passage in the vicinity of lat.  $53^{\circ}53.35'$ , eastward of Village Rock Daybeacon where split lines were desired to more accurately delineate the extent of the shore off Kinani Point and to determine the least depths through the passage
  - c. To verify or disprove the existence of the rock awash shown on T-11100 lat.  $55^{\circ}53.27'$ , long.  $133^{\circ}15.2'$ .
3. The following results were obtained:
  - a. The passage mentioned in paragraph 2a was adequately developed and additional shoal soundings were obtained.
  - b. Split lines were run to adequately develop the passage and shore mentioned in paragraph 2b above.
  - c. The existence of the rock awash mentioned in paragraph 2c above was disproved.
4. The 1957 work has not been charted.
5. The additional work is plotted on the 2 cloth tracings attached to the Descriptive Report. Supplementary soundings have been added to the smooth sheet.

# Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *H-8038 ad. wk.*

## Records accompanying survey:

Boat sheets .....; sounding vols. <sup>1</sup>.....; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls .....;  
special reports, etc. ....  
.....

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

Number of positions on sheet	.....	<i>82</i>
Number of positions checked	.....	<i>82*</i>
Number of positions revised	.....	<i>0</i>
Number of soundings revised (refers to depth only)	.....	<i>0</i>
Number of soundings erroneously spaced	.....	<i>0</i>
Number of signals erroneously plotted or transferred	.....	<i>0</i>
Topographic details	Time	<i>0</i>
Junctions	Time	<i>8</i>
Verification of soundings from graphic record	Time	<i>1 hr</i>

Verification by *ep Helmer* ..... Total time *24 hrs* Date *12/1/57*

Reviewed by *du Jeske* ..... Time *6* Date *12/16/57*

*\* smooth plotted, verified, and inked smooth sheet additional work. Then transferred selective to H-8038 smooth sheet off*



839  
RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

13 August 1957

Plane of reference approved in  
1 volumes of sounding records for

HYDROGRAPHIC SHEET 8038 Ad. wk.

Locality Tuxekan Passage, Alaska

Chief of Party: E. W. Richards in 1957

Plane of reference is mean lower low water

ft. on tide staff at

ft. below B.M.

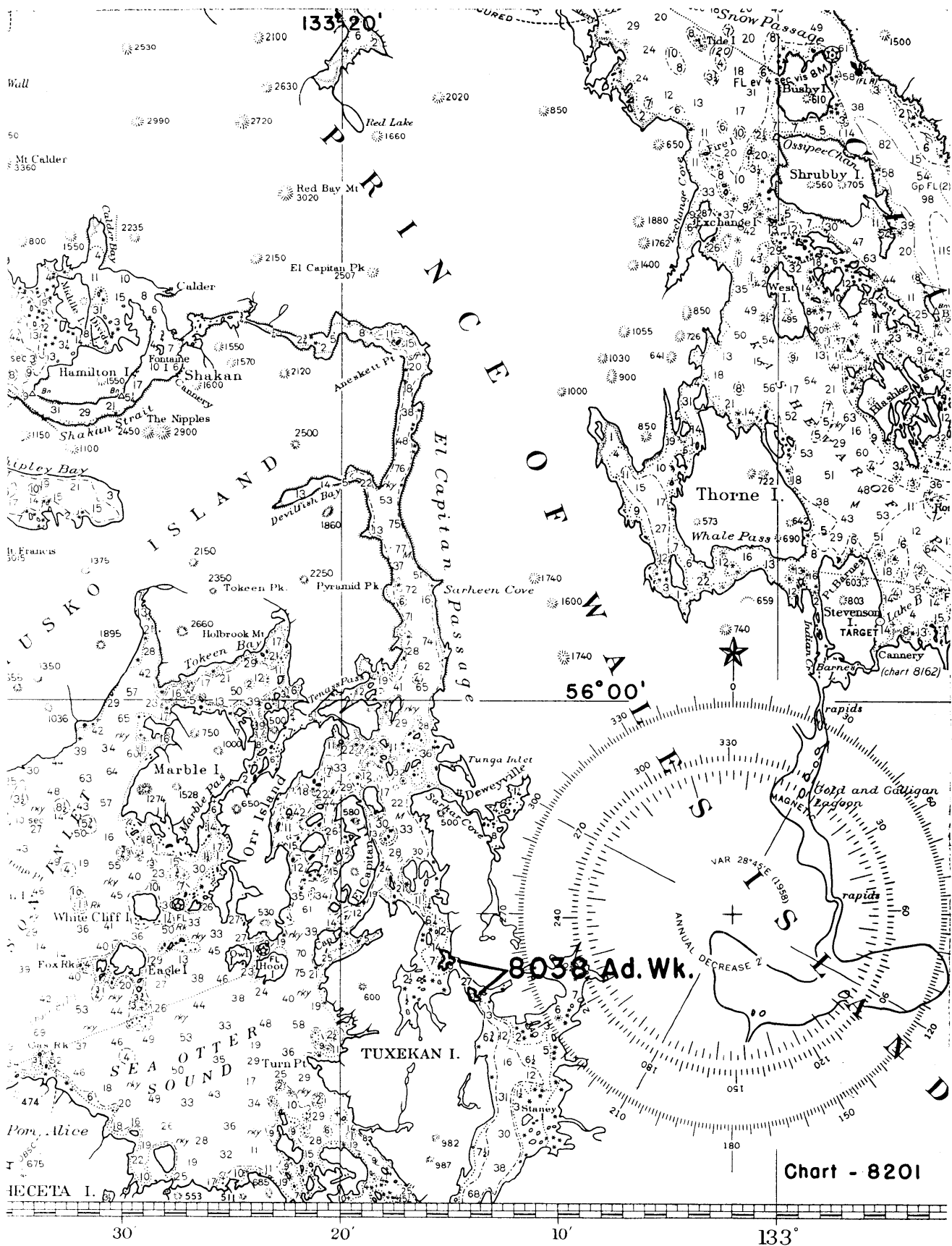
Height of mean high water above plane of reference at the  
working grounds is 9 feet.

NOTE: Tide reducers were verified by means of Ketchikan  
observations with a range ratio of 0.7.

Condition of records satisfactory except as noted below:

  
Signature

Acting Chief, Tides Branch



8038 Ad. Wk.

Chart - 8201

## NAUTICAL CHARTS BRANCH

SURVEY NO. H-8038 Ad. Wk. 1957

## Record of Application to Charts

[illegible]

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.