

8126

Diag.Cht. No. 8102-3.

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HQ-1254 Office No. H-8126

LOCALITY

State S. E. Alaska

General locality Gordova Bay

Locality Tah Bay

194/54

CHIEF OF PARTY

J. Bowie

LIBRARY & ARCHIVES

DATE July 3, 1957

B-1870-1 (1)

8126

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-8126

Field No. HO-1254

State S. E. Alaska

General locality Cordova Bay

Locality Tah Bay

Scale 1:10,000 Date of survey 21 Apr. - 22 May 1954

Instructions dated 17 March 1953 and 8 Jan. 1954

Vessel Ship HODGSON

Chief of party John Bowie

Surveyed by J. Bowie & J. J. Dermody

Soundings taken by fathometer, ~~graphic recorder, hand lead wire~~ 808 Fath.

Fathograms scaled by H. Hildahl

Fathograms checked by J. Bowie

Protracted by C. R. Lehman

Soundings penciled by C. R. Lehman

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

REMARKS:

Hwb

DESCRIPTIVE REPORT

to

ACCOMPANY HYDROGRAPHIC SURVEY

NO. H-8126 (FIELD NO. HO-1254)

SCALE 1:10,000 SHIP HODGSON J. BOWIE, COMDG.

SURVEYED BY: J. BOWIE & J. J. DERMODY

A. PROJECT

This survey was executed as part of Project CS-357 under Instructions 22/MEK, S-2-HO dated 17 March 1953 and Supplemental Instructions 22/MEK, S-2-HO dated 8 January 1954. ✓

B. SURVEY LIMITS AND DATES

Survey includes TAH BAY and two small guts just east of The Narrows. ✓

Field work on this survey began 4/21/54 and was completed 5/22/54.

At the NW entrance to Tah Bay, this survey joins with Sheet HO-1353 (Registry No. H-8067); and to the south of here by Sheet HO-1253 (Registry No. H-8066). ✓

← 1953-54

C. VESSELS AND EQUIPMENT

Survey was executed by Launch No. 134, and a dinghy, operating from the Ship HODGSON. The launch has a turning radius of about 25 meters at sounding speed. ✓

808 Fathometer No. 150 SPX with reeds calibrated for a velocity of 800 fms/sec. was used for all hydro except where pole and/or hand lead soundings were taken from the dinghy in several unimportant places. ✓

D. TIDE AND CURRENT STATIONS

A portable automatic tide gage was maintained near Tah Bay, Lat. $54^{\circ} 49.70'$, Long. $132^{\circ} 19.98'$, during the entire period of this survey and was used without time or range correction for the reduction of soundings. (Shown on H-8066) ✓

There are no current stations.

E. SMOOTH SHEET

All work on the smooth sheet will be done by the Seattle Processing Office, and will be covered by their report which will be an addenda to this report. ✓

F. CONTROL STATIONS

One triangulation station: LITTLE 1909, was used for hydrographic control. ✓

All other signals are from 1953 hydrographic surveys, or located this

season by air-photogrammetric methods from air-photo sheets T-11302, 11303, supplemented by sextant location of additional signals as required. These signals are listed and referenced in the index page of Vol. 1 of the sounding records. ✓

A few hand lead soundings in several unimportant isolated places were spotted by eye from adjacent topographic features. ✓

G. SHORELINE AND TOPOGRAPHY

All shoreline is from MS NOs. T-11302 and T-11303, furnished by the Washington Office. No outstanding shoreline discrepancies were noted, except in places the HWL is too high. (One such place is the shoreline south of signal LIT. Another place is a mile of shoreline NW of signal USE. → *shoreline in areas noted is "approx." on T-sheets - actual revisions not made on Boat sheet.* & T-11305, of 1953-54 ✓

On account of the steep-to rocky shore, the high and low water line overlapped in many places and it was impractical to delineate the low water line in all cases. ✓

H. SOUNDINGS

All soundings except a few hand lead soundings in isolated places and on a few rocks were made with 808 fathometer No. 150 SPX. ✓

The fathometer initial was set so that with the check bar at 2 fathoms, the fathometer would read 2 fathoms thus eliminating any index correction. ✓

Bar checks were made 3 times daily at 2 fathoms only in accordance with letter 22/MEK, S-1-HO dated 15 June 1953 to Commanding Officer, Ship HODGSON. ✓

Bottom samples were taken throughout the area surveyed. ✓

Soundings in the lagoon north of signal APE were made at high tide to avoid any time error in tide corrections. ✓

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by visual sextant angles on shore objects or signals except in a few isolated spots where positions were spotted by eye from adjacent topographic features. ✓

J. ADEQUACY OF SURVEY

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

K. CROSSLINES

Crosslines are in good agreement and constitute about 8%. ✓

L. COMPARISON WITH PRIOR SURVEYS

Area unsurveyed prior to 1954. *see review*

M. COMPARISON WITH CHART

The shore outline of the surveyed area resemble the chart, otherwise

not enough data existed to compare. See review.

N. DANGERS AND SHOALS

Listed in the table below are dangers to navigation located during the survey.

<u>LOCATION</u>	<u>DEPTH</u>	<u>POSITION</u>	<u>REMARKS</u>
54-50.91 ✓ 132-18.98 89	Rock Islet ✓	--	Signal HOT. Uncovered 4 ft. MHW ✓
54-50.854 ✓ 132-18.87 ✓	Uncovers 3 ft. ✓ MLLW	21-23 "b"	Rock C
54-50.60 ✓ 132-18.50	3 high pts. of reef uncover 4, 4, & 1 ft. MLLW	37-45 "b"	Foul area, high points of 3 reefs located. ✓
54-50.27 ✓ 132-18.72 ✓	Covers 7 ft. (1.2 fm) MLLW	7, 78 "d"	Sunken rock
54-50.29 ✓ 132-18.06 ✓	Awash MLLW	38-40 "c"	High point at end of reef
54-50.5 ✓ 132-17.3	Head of Navigation at signal END. Rapids opposite signal APE and signal END on rise and fall of tide. Channel bares at low water.		✓

O. COAST PILOT INFORMATION

(referred to Coast Pilot Section, 10/14/57-97E)

The following paragraph is from the Coast Pilot Report:

"Tah Bay, east of Tah Island, has depths up to 40 fathoms. Several rocks and reefs near the center of the bar bare at low water stages of the tide. The best entrance is to the northward of Tah Island. The entrance southward of Tah Island is partially obstructed by a rock covered 7 feet (1 1/2 fm) at MLLW. No good anchorages are available although small craft can anchor near the beach at the southern part of the bay."

Additional information is as follows: The Ship HODGSON did not enter Tah Bay. Currents are negligible and fresh water is not available. Several small fishing craft were seen in the bay for short periods at various times during the season.

A small arm extends northward from the southern part of the bay. In this arm, the northern limit of navigation is at signal END. (See Boat Sheet). Rapids exist W of signal END and E of signal APE on the rise and fall of tide. The channel bares at low water. At high water slack the hydro launch was taken into the upper lagoon for a few random lines. Navigation thru the reefs is not recommended for any type of craft except skiffs and rowboats.

P. AIDS TO NAVIGATION

NONE. ✓

Q. LANDMARKS FOR CHARTS

None ✓

R. GEOGRAPHIC NAMES

A separate report on Geographic Names has been submitted. In it is recommended one new name: TAH ISLAND. Also the name TAH BAY does not appear in its proper place on the chart. ✓

S. SILTED AREAS

None. ✓

T. BY-PRODUCTS INFORMATION

None. ✓

U. MISCELLANEOUS

Signal HOT was marked with a standard topographic station disk. ✓

*Description
filed in
Photogrammetry
(T-11303)*

All fathometer soundings were made on A-Scale. Phase corrections do not apply. ✓

Z. TABULATION OF APPLICABLE DATA

Statistics and Tidal Note are attached.

The photogrammetric field inspection report was mailed to the Washington Office in mid-season. All photographs were forwarded at the same time. ✓

Sounding records, fathograms and boat sheet are on hand and will be transferred to the Seattle Processing Office this winter.

Respectfully submitted,

John Bowie
John Bowie,
CDR, USC&GS
Comdg., Ship HODGSON

STATISTICS FOR HYDRO SURVEY H-8126 (FIELD NO. HO-1254)

TAH BAY

Vol.	Day	Date	Vessel	Pos.	Stat. Mi.	H.L.	Remarks
1	a	4/21	dinghy	73	2.0	60	
1	a	5/4	No.134	13	1.4		
1	b	5/5	"	167	19.0		
1-2	c	5/6	"	174	21.3		
2	d	5/7	"	127	12.7	5	
2	e	5/10	"	36	3.2	2	
2	b	5/10	dinghy	15	--	15	Detached sdgs.
2	a	5/22	No.98	11	--		Bottom samples
TOTALS - -				616	59.6	82	

Area: 1.4 sq. statute miles

TIDAL NOTE

HYDROGRAPHIC SURVEY H-8126(FIELD NO. HO-1254)

TIDE STATION: Tah Bay

Lat. 54° 49.70'
Long. 132° 19.98'

MLLW on staff = 3.2 ft.

PROCESSING OFFICE NOTES H-8126 (HO-1254)

Smooth Sheet

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

Shoreline and Topography

Shoreline transferred from T-11302, T-11303 and T-11305.

In three places, where the high water line appeared too high, the penciled shoreline on the boat sheet was transferred and added in pencil to the smooth sheet. (North shore of island N.W. of TAH ISLAND, part of north shore of TAH ISLAND and the shoreline south of signal "Lit")

*Approx.
MHWL
retained
from
T-sheets*

Control of Hydrography

Seventy positions taken from the dinghy by estimating the locations were transferred from the boat sheet and shown in green ink.

Dangers and Shoals

In addition to the rocks and shoals noted by the hydrographer, one other shoal of 4.4 fms is noted at Lat. $54^{\circ} 50' .65$, Long. $132^{\circ} 18' .75$.

Two rocks ("A" and "B") at Lat. $54^{\circ} 50' .8$, Long. $132^{\circ} 17' .5$ (approx) located in volume 1, pages 11 and 12 have no elevations on them because the tidal data for the date they were located is not available, in Processing Office, for ²⁵ April 1954. The predicted tide for the times given on the positions locating the rocks and the elevations are not in agreement with the sounding or note on pos. 116b page 38 vol. 1. Position 116b indicates that rock "A" is uncovered more than 6 ft. at MLLW while the predicted tide for ²⁵ April 1954 shows the rock to be uncovered approximately 4 ft. at MLLW. For this reason the elevation of both rocks appears to be questionable.

*Rk. "A": sdg.
at 116 b
confirms
"7" noted
on T-11303
(Adv. print);
Rk. "B": hydro.
elev. reduced
by inferred
tides.*

Respectfully submitted,

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

Approved and Forwarded:

Curtis Le Fever
CURTIS LE FEVER, Captain
Seattle District Officer

GEOGRAPHIC NAMES PENCILED ON H-8126

ANCHOR ISLAND

GUIDE ROCKS

PRINCE OF WALES ISLAND

RHEA ROCKS

TAH BAY

TAH ISLAND

GEOGRAPHIC NAMES

Survey No. H-8126

Name on Survey	Source										Number	
	A	B	C	D	E	F	G	H	K			
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List				
<u>Southeast Alaska</u>			(for title)								1	
<u>Cordova Bay</u>											2	
<u>Prince of Wales Island</u>											3	
<u>Guide Rocks</u>									BGN		4	
<u>Anchor Island</u>											5	
<u>Rhea Rocks</u>											6	
<u>Tah Bay</u>			(tide station)								7	
<u>Tah Island</u>											8	
			Names approved 7-17-57.									9
											10	
											11	
											12	
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											27	

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8126

Records accompanying survey:

Boat sheets 1; sounding vols. 2; wire drag vols.;
 bomb vols.; graphic recorder rolls 1-Envelope
 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		<u>616</u>	
Number of positions checked		<u>2075</u>	
Number of positions revised		<u>5+0</u>	
Number of soundings revised (refers to depth only)		<u>25</u>	
Number of soundings erroneously spaced		<u>60</u>	
Number of signals erroneously plotted or transferred		
Topographic details	Time	<u>8</u>	
Junctions	Time	<u>6</u>	
Verification of soundings from graphic record	Time	<u>3hrs + 1</u>	
Verification by <u>A.J. Hoffman</u> <u>Chester F. Kupiec</u>	Total time	<u>42</u> } <u>103</u>	Date <u>Sept. 30, 1957</u>
			Date <u>Sept. 3, 1957</u>
Reviewed by <u>[Signature]</u>	Time	<u>25</u>	Date <u>10/14/57</u>

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

22 July 1957

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 8126

Locality Cordova Bay, Alaska

Chief of Party: J. Bowie in 1954

Plane of reference is mean lower low water, reading

3.2 ft. on tide staff at Tah Bay

12.6 ft. below B.M. 2 (1909)

Height of mean high water above plane of reference is 11.7 feet.

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8126

FIELD NO. HO-1254

S. E. Alaska, Cordova Bay, Tah Bay

PROJECT NO. CS-357

Surveyed - April - May 1954

Scale 1:10,000

Soundings:

Control:

808 Depth Recorder

Sextant fixes on shore
signals

Chief of Party - J. Bowie

Surveyed by - J. Bowie & J. J. Dermody

Protracted by - C. R. Lehman

Soundings plotted by - C. R. Lehman

Verified and inked by - C. F. Kupiec & A. J. Hoffman

Reviewed by - L. V. Evans, III

Date 14 Oct. 1957

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed photogrammetric surveys T-11302, T-11303 and T-11305, of 1953-54.

The sources of control are given in the Descriptive Report.

2. Sounding Line Crossings

Depths are in satisfactory agreement at crossings.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately defined except for the low-water line and portions of the shoal curves which could not be developed because of the steep ~~fore~~ shore.

The bottom in this inshore area is quite rugged, with steep slopes and sharply-rising pinnacle rocks and reefs. The

"reversing falls" (rapids, actually) at lat. $54^{\circ}50.5'$ long. $132^{\circ}17.4'$ and at lat. $54^{\circ}50.77'$ long. $132^{\circ}17.57'$ are interesting side lights.

4. Junctions with Contemporary Surveys

A satisfactory junction was made with H-8067 (1953-54) to the Northwest. The only other junction, to the West and Southwest with H-8066 (1953-54), will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-3043 (1909) 1:20,000

H-3043 provides only reconnaissance information in a portion of the present survey. The few soundings reveal nothing of cartographic interest. The present survey supersedes the prior survey within the common area.

6. Comparison with Chart 8145 (print date 7/29/57)

A. Hydrography

By Oct 24 1955

The charted hydrography originated entirely with the boat sheet (Bp. 52089-90) of the present survey. A few minor changes in depths and curves were made in smooth plotting and verification. The present survey supersedes the charted hydrography.

B. Aids to Navigation

There are no aids to navigation charted within the area of the present survey.

7. Condition of Survey

- a. The field records are complete and comprehensive.
- b. The smooth plotting was well done.


8. Compliance with Project Instructions

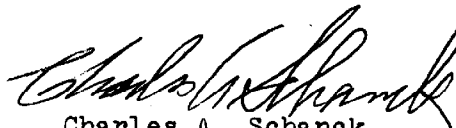
This survey adequately complies with the project instructions.

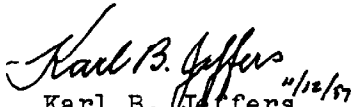
9. Additional Field Work Recommended

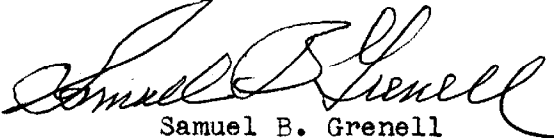
This is a good basic survey and no additional field work is recommended.

Examined and approved:


Max G. Ricketts
Chief, Nautical Chart Branch


Charles A. Schanck
Chief, Division of Charts


Karl B. Jeffers ^{11/12/57}
Chief, Hydrography Branch


Samuel B. Grenell
Chief, Division of Coastal Surveys

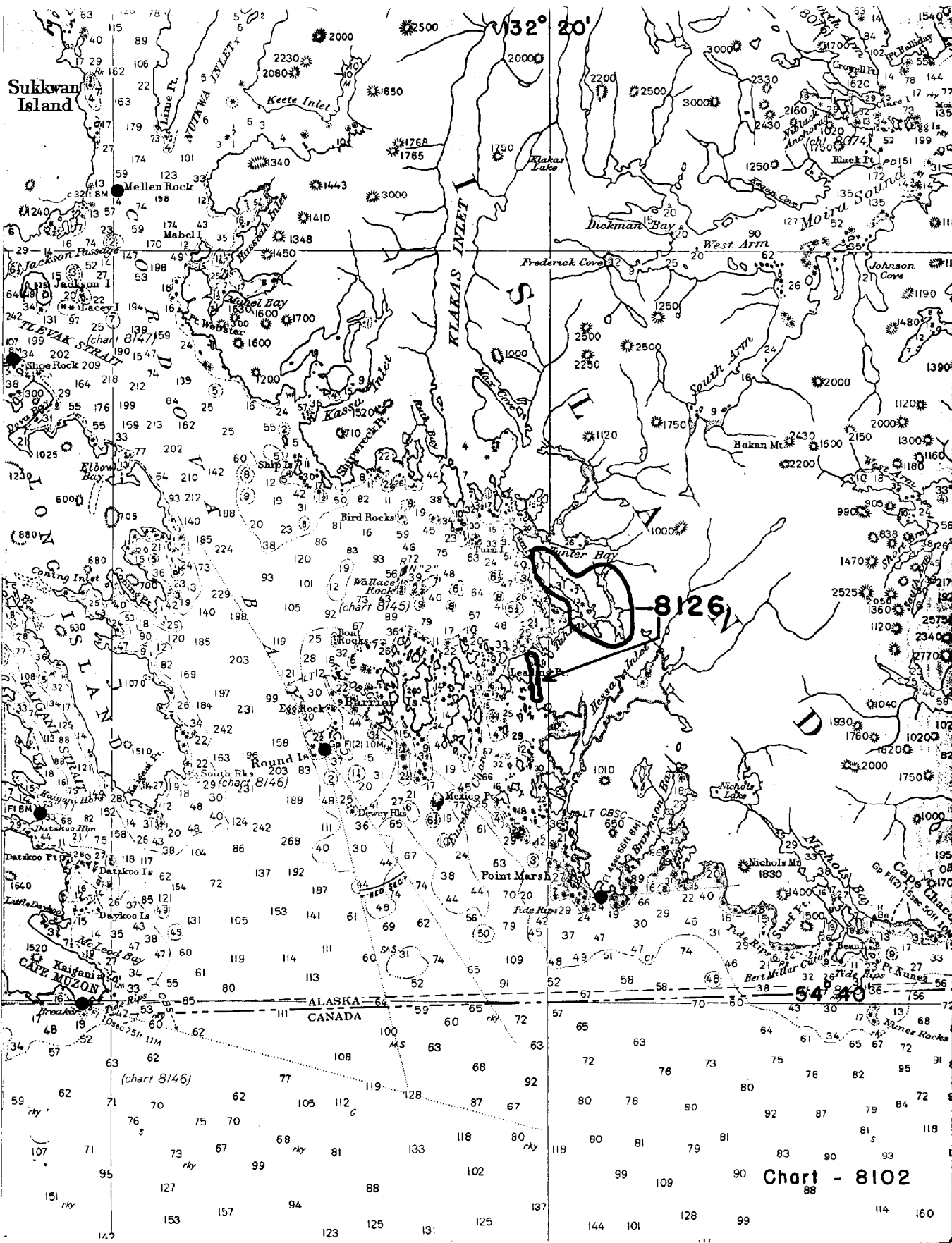


Chart - 8102

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8126

Reviewed 10-14-57

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-15-58	^{1.229,376} 8102	R.E. Elkins	<i>Examined - Partly applied</i> Before After Verification and Review <i>At revision.</i>
10-17-58	^{1.229,376} 8152	R.E. Elkins	<i>Partly applied</i> Before After Verification and Review <i>off thru ch't 8102 dng. 11</i>
4/29/59	8145	C.R. Helmer	Before After Verification and Review <i>Fully Applied</i>
10-29-59	8102	R. K. DeSpelder	Before After Verification and Review <i>Thru ch't 8145</i>
10-26-60	8152	R.E. Elkins	Before After Verification and Review <i>Fully applied</i> <i>thru ch't 8102 dng #13.</i>
5/22/75	8145	M.D. KANIS	<i>Fully Applied</i> Before After Verification and Review + signature - re-ex- <i>amined only in conjunction with reviewed T-11303</i> Before After Verification and Review
			Before After Verification and Review
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			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.