

8226

Diag. Cht. Nos. 8802-3, 8359, & 9302

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PF-2355 Office No. H-8226

LOCALITY

State Alaska

General locality N. Side Alaska Peninsula

Locality Port Moller

19 55

CHIEF OF PARTY

K. G. Crosby

LIBRARY & ARCHIVES

DATE February 6, 1956

B-1870-1 (1)

8226

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-8226

Field No. PF-2355

State Alaska

General locality North Side Alaska Peninsula

Locality Port Moller

Scale 1:20,000 Date of survey July - August 1955

Instructions dated 20 December 1954

Vessel Ship PATHFINDER

Chief of party K. G. Crosby

Surveyed by J. O. Boyer, M. E. Natto

Soundings taken by fathometer, ~~single beam, hand lead, etc~~

Fathograms scaled by Larrabee, Saunders

Fathograms checked by J. P. Randall, K. E. Taggart

Protracted by C. D. Upham

Soundings penciled by C. D. Upham

Soundings in ~~xtions~~ feet at ~~MLLW~~ MLLW and are true depths

REMARKS: _____

JW?

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEET H-8226 (Field No. PF-2355)

NORTH SIDE ALASKA PENINSULA

Scale: 1:20,000

1955

USC&GS SHIP PATHFINDER

K. G. CROSBY, COMMANDING

A. PROJECT:

This hydrographic survey is a part of Project No. 1375. Original instructions were dated 20 December 1954.

B. SURVEY LIMITS AND DATES:

This sheet covers the head of Port Moller. It includes all of the bay east of longitude $160^{\circ}23'$ and south of latitude $55^{\circ}53'$.

Field work was started on 29 July and completed on 4 August 1955.

This survey joins contemporary survey H-8225 (Field No. PF-2255).

C. VESSELS AND EQUIPMENT:

PATHFINDER launches 1 and 3 were used for this survey. Their turning radius was about 20 meters.

Portable 808 type graphic recorders with keel-mounted acoustic units were used. The fathometers were calibrated for 800 fathoms per second. Launch 1 used fathometer No. 61 and launch 3 used fathometer No. 52.

The launches operated from the ship anchored off Entrance Point, this was as close as the Ship could get to the working grounds with safety. The launch run from the Ship to the working grounds was $1\frac{1}{2}$ to 3 hours depending on the velocity of the current. The small amount of hydrography to be done made it more practical to work several long days than to put in a shore camp.

D. TIDE AND CURRENT STATIONS:

Tide corrections were ^{partly} determined from tides recorded on the standard gage at Entrance Point. See TIDE NOTE attached to this report.

Tide Note
Pg 6.

No current stations were observed in the area of this survey. Currents with estimated velocities of two to three knots occur off signal GAL. ✓

E. SMOOTH SHEET:

The projection ⁽¹⁹⁴²⁻⁵⁴⁾ was made by hand by the ⁽¹⁹⁴²⁻⁵³⁾ Seattle Processing Office. The shoreline was transferred by the Processing Office from bluelines made from advance manuscripts Nos. 9573, 11095, and 11096 (PH-40).

F. CONTROL STATIONS:

LEFT, 1950 was the only triangulation station recovered. HIGHEST POINT ON RIDGE, 1950 was identified from a distance and used for hydrography. The triangulation was done under the direction of J. H. Brittain. ✓

Topographic stations Hole, 1950 and Port, 1950 established under the direction of J. H. Brittain.

Additional signals were located in the field with radial plots made on the blueline tracings. ✓

Two signals, PIN and DOG were located with sextant cuts taken from the launch at anchor. ✓

A few launch positions in Left Hand Bay were determined by using the tangent northeast of signal Gal. This was a steep ledge and no "jump" was noted. ✓

G. SHORELINE AND TOPOGRAPHY:

¹⁹⁴²⁻⁵² The position of ⁽¹⁹⁴²⁻⁵³⁾ the shoreline was determined on advance manuscripts Nos. 9573, 11095, and 11096 (PH-40) by photogrammetric methods. The field inspecting was done in 1950. No discrepancies were noted. ✓

H. SOUNDINGS:

All soundings, except for a few hand-lead bottom specimens, were taken with 808 type graphic recorders. Corrections were applied for tide, initial error, and fathometer error. The determination of fathometer error will be the subject of a separate report. ✓

All soundings were recorded in feet. ✓

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled by 3-point sextant fixes. ✓

J. ADEQUACY OF SURVEY:

There are several places where all depth curves cannot be drawn with accuracy. The most noticeable place being northwest of latitude $55^{\circ}49'$ and longitude $160^{\circ}19'$. The survey does outline the channels and shoals and shows what depths can be expected. ✓

see
7.3 of
REVIEW

The area is rarely visited by even small fishing boats and there is no reason to believe that it will be much used in the foreseeable future. Because of its lack of importance this survey is believed to be complete and adequate.

K. CROSSLINES:

About 10 percent of the lines are crosslines. All crossings are satisfactory.

L. COMPARISON WITH PRIOR SURVEYS:

This is the first hydrographic survey made of the area.

M. COMPARISON WITH CHART:

Chart 8833 shows no soundings in this area.

N. DANGERS AND SHOALS:

This region is characterized by large extensive areas of mud flats. There are no detached dangers or shoals that are not evident on the smooth sheet. Because of these large shoal areas and the lack of landmarks or aids, the area should be navigated with caution and preferably with someone having a local knowledge of the area.

O. COAST PILOT INFORMATION:

A separate Coast Pilot Record has been submitted for the Port Moller area. There are no good anchorages in the area of this survey. It was noted that weather makes up very quickly and winds may change direction by 180 degrees in a very few minutes. The winds cause a very heavy chop.

These are numerous sources of fresh water throughout the whole south end of the bay.

P. AIDS TO NAVIGATION:

There are no aids to navigation in this area.

Q. LANDMARKS FOR CHARTS:

There are no landmarks recommended for charting in this area.

R. GEOGRAPHIC NAMES:

See attached geographic name list.

S. SILTED AREAS:

Most of the area is covered by mud flats. This mud is black, of volcanic origin, and has been washed down by the many small streams emptying into the bay.

T-Y. MISCELLANEOUS:

Not applicable.

Z. TABULATION OF APPLICABLE DATA:

1. Coast Pilot Notes - forwarded 13 October 1955.
2. Fathometer correction Report.
3. Tide Records, Port Moller.
4. Photogrammetric Descriptive Reports (project PF-40)

K. G. Crosby 1955/131

Respectfully submitted,

John O. Boyer
JOHN O. BOYER
LCDR, USC&GS

Approved and forwarded:

K. G. Crosby
K. G. CROSBY
Captain, USC&GS
C. O., Ship PATHFINDER

STATISTICS FOR HYDROGRAPHIC SURVEY H-8226

FIELD NO. PF-2355

SHIP PATHFINDER

PROJECT NO. 1375

<u>VOL. NO.</u>	<u>DAY LETTER</u>	<u>DATE 1955</u>	<u>NUMBER OF POSITIONS</u>	<u>STAT. MI. SOUNDING</u>
<u>Launch No. 1</u>				
3	a (blue)	4 August	180	21.6
<u>Launch No. 3</u>				
1	a (green)	29 July	127	26.8
1	b	3 August	111	24.3
2	c	4 August	149	26.4
Total Launch No. 3			387	77.5
Total for sheet			567	99.1

Total area of sheet = 35 sq. stat. mi.

TIDE NOTE

HYDROGRAPHIC SURVEY H-8226

A standard tide gage was in operation at Entrance Point, Port Moller (latitude 55°59'2, longitude 160°34'3) throughout the period of this survey. Hourly heights from this gage were furnished by the Washington Office.

*yes but
lost record*

The August marigram was ^{lost} delayed in mail. Because these tides were delaying processing, the office inferred the necessary August hourly heights from the best available sources (see letter reference 36-196-982 pat dated 4 November 1955).

*Tide records
for Aug 3 & 4
1955 reported
lost by LCN.
of tides &
currents*

It was noted that high and low water occurred about 1/2 hour later in the area of this survey than at Entrance Point. In reducing the soundings to MLLW, Entrance Point tides were used with no correction for range and minus 1/2 hour for time.

GEOGRAPHIC NAME LIST
HYDROGRAPHIC SURVEY H-8226

Hot Spring

Mud Bay

Port Moller

Left Head

Right Head

Frying Pan

Egg Island

ECHO CORRECTIONS

HYDROGRAPHIC SURVEY H-8226

Launch 1, Fathometer 61, initial set 3.0 ft.

<u>Fathometer depth</u> from 0 to 6.0 ft	<u>Correction</u> -0.8 ft	<u>Fathometer Depth</u> from 65.1 to 70.0 ft	<u>Correction</u> /1.8 ft.
11.0	-0.6	76.0	2.0
16.0	-0.4	80.0	2.2
20.0	-0.2	85.0	2.4
25.0	0.0	90.0	2.6
30.0	/0.2	95.0	2.8
36.0	0.4	100.0	3.0
40.0	0.6	105.0	3.2
45.0	0.8	110.0	3.4
50.0	1.0	115.0	3.6
55.0	1.2	120.0	3.8
60.0	1.4	125.0	4.0
65.0	1.6	130.0	4.2
		135.0	4.4
		140.0	4.6

Phase Correction:

For "B" scale add minus 0.4 ft.

For "C" scale add minus 2.8

For "D" scale add minus 5.8

ECHO CORRECTIONS

HYDROGRAPHIC SURVEY H-8226

Launch 3, Fathometer 52, Initial set 1.0 ft.

Fathometer Depth 0 to 10.5 ft	A & B Scale	Correction	
		C Scale	D Scale
	0.2		
22.5	0.4		
35.0	0.6		
46.5	0.8		
59.0	1.0		
71.0	1.2	-0.2	
83.0	1.4	0.0	
95.5	1.6	0.2	
107.5		0.4	-2.0
119.5		0.6	-1.8
132.5		0.8	-1.6
end			-1.4

CONTROL STATIONS

HYDROGRAPHIC SURVEY H-8226

<u>Hydro Name</u>		<u>Source</u>	
Abe	Photo	T-11096	radial plot
Bad	Photo	T-11095	radial plot
Cat	Photo	T-9573	radial plot
Dog	Hydro	Vol. 1, pg. 5, 6, 40	
Ear	Photo	T-11096	radial plot
Gal	Photo	T-11096	radial plot
Hole	Topo.	Hole, 1950	
H. P.	Trig.	HIGHEST POINT ON RIDGE, 1950	
Left	Trig.	LEFT, 1950	
Pin	Hydro.	Vol. 1, pg. 5	
Port	Topo	Port, 1950	

GEOGRAPHIC NAMES

Survey No. H-8226

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
Alaska			(title)								1
Alaska Peninsula			(")						BGN		2
Port Moller			(")						"		3
Egg Island											4
Left Head											5
Right Head											6
Frying Pan											7
Mud Bay											8
Hot spring											9
											10
											11
											12
											13
											14
Entrance Point			(tide station)								15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

} use these old names
Pending B.G.N. decision

Names approved
2-24-56
L Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~3226~~.....

Records accompanying survey:

Boat sheets ..2.; sounding vols. 3...; wire drag vols.; bomb vols.; graphic recorder rolls ~~4~~-Envelopes; special reports, etc. ~~1-Descriptive report, and 1-Smooth sheet~~.....

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

Number of positions on sheet	.....	<u>567</u>
Number of positions checked	.....	<u>5</u>
Number of positions revised	.....	<u>None</u>
Number of soundings revised (refers to depth only)	.....	<u>30</u>
Number of soundings erroneously spaced	.....	<u>None</u>
Number of signals erroneously plotted or transferred	.....	<u>None</u>
Topographic details	Time	.....<u>3</u>
Junctions	Time	.....<u>2</u>
Verification of soundings from graphic record	Time	.....<u>5</u>

Verification by.....Ray E. Elkins.....Total time 50 hr..... Date 11-22-57

Reviewed by.....[Signature].....Time 12..... Date 12/18/57

APPROVAL SHEET

HYDROGRAPHIC SURVEY H-8226 (PF-2355)

PORT MOLLER, ALASKA

This survey was done under my supervision, the boat sheet being inspected daily during the period of hydrography.

I consider this survey adequate for the charting of this area. No additional work is recommended within the area covered.



K. G. CROSBY
Captain, USC&GS
Comdg. Ship PATHFINDER

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

REGISTRY NO. H-8226

FIELD NO. PF-2355

Alaska, North side Alaska Peninsula, Port Moller

Surveyed: July-August 1955

Scale 1:20,000

PROJECT NO. 1375

Soundings:

Control:

808 Fathometer

Sextant fixes on shore
signals

Chief of Party - K. C. Crosby
Surveyed by - J. O. Boyer and M. E. Natto
Protracted by - C. D. Upham
Soundings plotted by - C. D. Upham
Verified and inked by - R. E. Elkins
Reviewed by - I. M. Zeskind
Inspected by - R. H. Carstens

Date: 12-18-57

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-9573 (1942-54), T-11095 (1942-53) and T-11096 (1942-53).

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 usual depth curves in some areas are not adequately developed. However, because the area is rarely visited by even small fishing boats, further development of the depth curves is not considered of importance. The 24-ft and 36-ft. depth curves have been added to more clearly define the bottom configuration.

The bottom is very irregular. Mud flats, sand ridges, channel deeps, and shoals contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8225 (1955) on the north-east.

West?

5. Comparison with Prior Surveys

No prior surveys by the Bureau fall within the area of the present survey.

6. Comparison with Chart 8833 (Latest print date 4-30-56)

A. Hydrography

The charted hydrography originates with the boat sheet of the present survey (Bps. 52862-3). Only minor differences of 1-3 ft. in depths are noted.

B. Aids to Navigation

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

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done.
- c. As noted in paragraph 3 above and in paragraph J, page 3, of the Descriptive Report, there are several areas which are not sufficiently developed to permit the accurate drawing of depth curves.

8. Compliance with Project Instructions

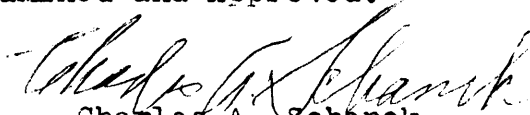
Except as noted in paragraph 7c above, the present survey adequately complies with the Project Instructions.


9. Additional Field Work Recommended

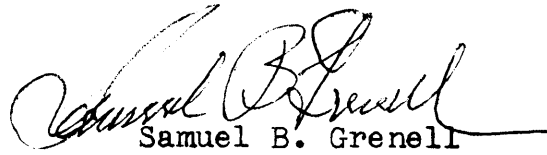
The survey is not considered basic, because several areas are not adequately developed. It is, however, sufficiently developed for charting purposes, considering the infrequent use of the area even by small fishing vessels. (See paragraph 7c above and paragraph J, page 3 of the Descriptive Report.) No additional work in the area is, therefore, recommended.

Examined and Approved:


Max G. Ricketts
Chief, Nautical Chart Branch


Charles A. Schanck
Chief, Division of Charts


Karl B. Jeffers 1/2/58
Chief, Hydrography Branch


Samuel B. Grenell
Chief, Division of Coastal Surveys

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

9 March 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 8226

Locality Port Moller, Alaska

Chief of Party: K. G. Crosby in 1955
Plane of reference is mean lower low water, reading
2.4 ft. on tide staff at Port Moller
17.7 ft. below B. M. 1 (1939)

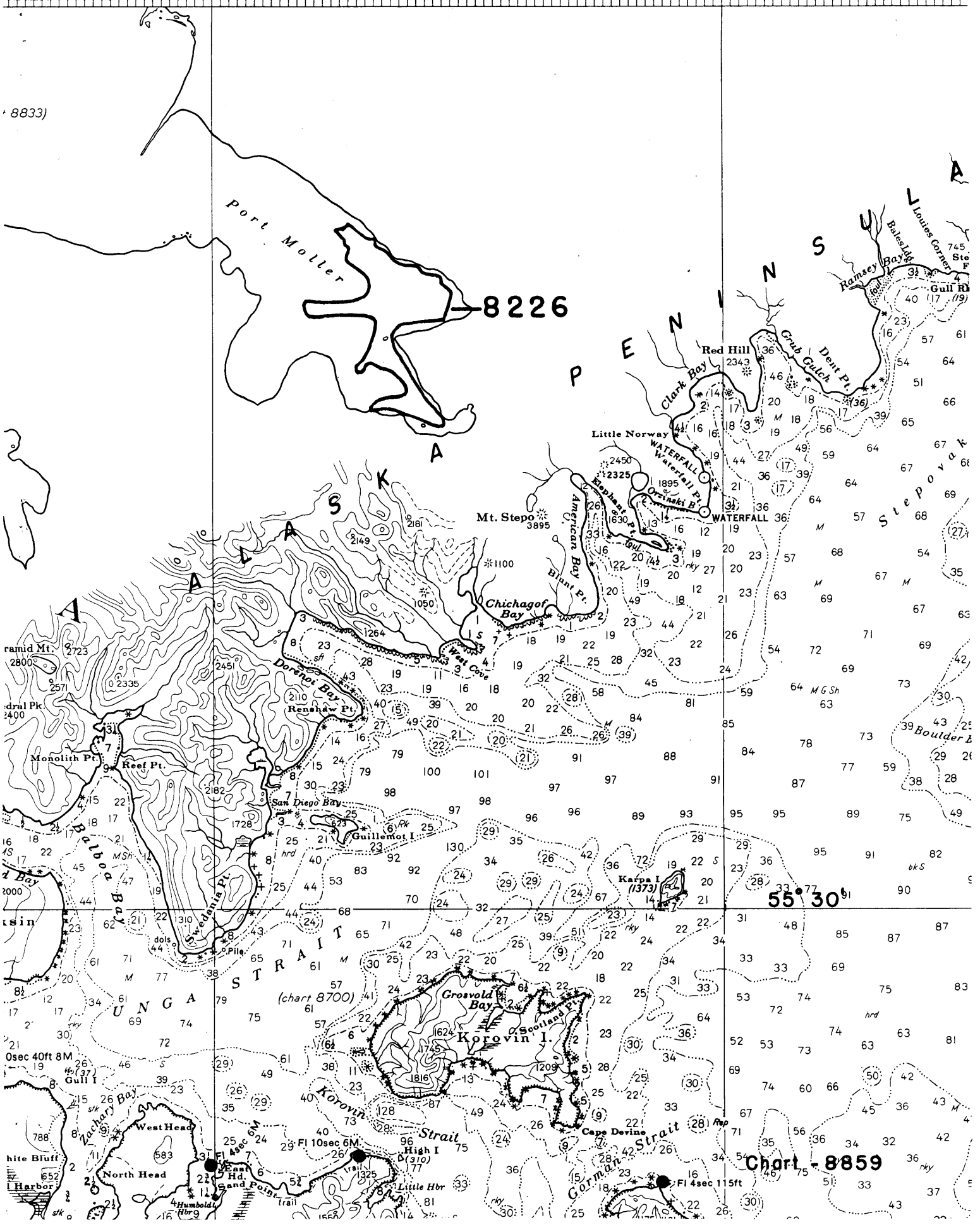
Height of mean high water above plane of reference
is 9.8 feet.

Condition of records satisfactory except as noted below:

Branch
Chief, ~~Division of~~ Tides ~~and~~ ~~Currents~~

✓

8833)



8226

55°30'

Chart - 8859

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8226

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2-28-56	8833 <i>Reconstr.</i>	<i>R. H. DeLander</i>	<i>Examined</i> Before After Verification and Review. <i>Hydro on reconstr.</i>
2-25-61	8802	<i>J. M. Albert</i>	<i>applied from print of boat sheet. (852862)</i> <i>via 8833 and smooth sheet. Consider complete until applied</i> Before After Verification and Review <i>to 8833 finally</i>
3-2-61	9302	<i>J. M. A.</i>	<i>via 8802</i> Before After Verification and Review
5-29-63	8833	<i>J. J. Streifler</i>	<i>Complete application</i> Before After Verification and Review <i>for reconstr. ✓</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			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.