

8486

Diag. Cht. Nos. 8802-3 and 8859.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC
Field No. FF-2359 Office No. H-8486

LOCALITY

State ALASKA
General locality NORTH SIDE OF ALASKA PENINSULA
Locality Franks Point to 12 miles east of
Vicinity of Franks Point

19 59

CHIEF OF PARTY

Ira. R. Rubottom, CAPT

LIBRARY & ARCHIVES

DATE JAN 29 1960

USCOMM-DC 5087

8486

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-8486

Field No. PF-2359

State ALASKA

General locality NORTH SIDE OF ALASKA PENINSULA

Locality Vicinity of Franks Pt
Franks Point to 12 miles east of Franks Point

Scale 1:20,000 Date of survey August 1959

Instructions dated 30 October 1958 & 12 February 1959

Vessel USC&GSS PATHFINDER

Chief of party Ira R. Rubottom

Surveyed by Phillip J. Taetz, Harold E. McCall, George M. Poor, James A. Ten Eyck

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

Fathograms scaled by Ship's Personnel

Fathograms checked by Ship's Officers

Protracted by Doyle D. Harper

Soundings penciled by Doyle D. Harper

Soundings in fathoms feet at MLLW MLLW

REMARKS:

282

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8486 (PF-2359)
NORTH SIDE OF ALASKA PENINSULA

Scale: 1:20,000
USC&GSS PATHFINDER

August, 1959
Ira R. Rubottom, Cmdg.

A. PROJECT

This survey is a part of Project CS-375. Revised Instructions were dated 30 October 1958 and cancelled all previous instructions. Supplemental Instructions were dated 12 February 1959.

B. SURVEY LIMITS AND DATES

This survey covers an area between Latitudes 55° 54'N and 56° 05'N and Longitudes 161° 28'W and 161° 54'W. Field work began on 31 July 1959 and ended on 17 August 1959.

Junctions were made only with contemporary surveys since there were no previous surveys in the area. Junctions were made with H-8485 (scale: 1:20,000) on the west, H-8488 (scale: 1:60,000) on the north, and H-8487 (scale: 1:20,000) on the east.

All Jcts. are unverified. All were run in 1959.

C. VESSEL AND EQUIPMENT

All hydrography was done with the Ship PATHFINDER and the Ship PATHFINDER Launches. The Ship (blue capitalized day letters) did the offshore hydrography. The Ship worked an area from 2.5 nautical miles to 6.0 nautical miles off the beach. Average hydrographic speed was 13 knots. The Ship PATHFINDER was equipped with an 808 Fathometer, number 130-S. Bottom Samples were obtained by use of a scoop fish with the Ship's Bathythermograph Winch number 848.

Launch #1 (blue lower case day letters) used an 808 Fathometer, number 74-S. Launch #2 (purple lower case day letters) used an 808 Fathometer, number 57-22. Launch #3 (green lower case day letters) used 808 Fathometers, number 46 and number 61. Number 61 was installed before the work day began on 8 August 1959. Launch #4 (red lower case day letters) used an 808 Fathometer, number 52.

All launches worked from the beach to approximately 2.5 nautical miles offshore. All launches operated from the Ship. Average hydrographic speed for the launches was 6 knots. All depth recorders were calibrated for 800 fathoms per second. Launch #4 was used solely for taking bottom samples.

D. TIDE AND CURRENT STATIONS

A standard tide gage was maintained at Port Moller for Tide Control. The area of this sheet was designated as zone "B" (See Tide Note). A minus 1 hour time correction and 1.2/1.4 range correction were used as instructed by the Washington Office.

No current stations were occupied.

E. SMOOTH SHEET

The projection was made by hand on the Ship PATHFINDER. The shoreline was transferred from blue line tracings of Advance Manuscripts furnished by the Washington Office. The Triangulation and topographic signals were plotted by the methods described in paragraph 7411 of the Hydrographic Manual.

F. CONTROL STATIONS

All triangulation stations ("MARK, 1950", "SURF, 1950", "DANDY, 1950") were established by J. H. Brittain in 1950.

Shoran station "MAR" was located over "MARK R. M. 2, 1950". The computed G. P. is Latitude $55^{\circ} 53' 31.263''$ - Longitude $161^{\circ} 48' 23.982''$. R. M. #2 was located by a second order traverse.

Since shoran station "NEL" was outside the limits of this sheet, arcs were located using standard methods by plastic templates.

Topographic station "RAGE" was established in 1952 by Norman E. Sylar.

Hydrographic station "Lak" was located by a combination of T-2 and sextant cuts.

G. SHORELINE AND TOPOGRAPHY

All shoreline was transferred from blue line tracings from manuscripts T-11464 and T-11465. No revisions were made. The low water line was not determined by soundings because of the small tidal range and the breakers on the beach. *Minor revisions were made to cause the Smooth sheet to be in agreement with the T-sheets*

H. SOUNDINGS

All sounding was done in fathoms with the 808 type fathometer calibrated at 800 fathoms per second. in accordance with section 822 (Revised) of the Hydrographic Manual, no velocity corrections were computed. Initial settings were maintained at zero fathoms for the launches and 2 fathoms for the ship, however occasionally errors were found, and corrections were entered as separate items in the Sounding Records. The basic correction for the launches was derived from the 2 fathom bar check readings, taken with

conventional equipment. Bar check corrections were also determined for other depths when possible, as additional checks. Vertical casts were made with a hand sounding machine and registering sheave. Basic corrections for the Ship were obtained by vertical casts taken under good conditions. All vertical cast comparisons were reduced to a common draft of 14.5 feet for tabulation purposes, and then meaned. Corrections for variation from this draft were algebraically combined with the basic correction before being entered in the Sounding Record.

RPM checks on fathometers were made daily, and reed tachometers were carefully watched to insure operation at the proper calibration speed. Paper travel tests were also run to verify the calibration of the fix with a standard template.

An abstract of fathometer corrections is attached to this report.

I. CONTROL OF HYDROGRAPHY

See Special Report on Shoran Operations during the 1959 Field Season. The survey was controlled by Shoran only. Visual fixes were used solely for calibration of the Shoran. All launch work was done by using station "MAR" and the Ship as transmitting stations. The Ship was positioned by shoran distances from station "MAR" and station "NEL" during hydrography and as a transmitting station.

J. ADEQUACY OF SURVEY

The survey is considered adequate and complete. The depth curves were adequately drawn and no additional work is recommended. Junctions with contemporary surveys H-8485, 1:20,000; H-8488, 1:60,000; and H-8487, 1:20,000 are satisfactory. Depth curves can be adequately drawn at the junctions.

K. CROSSLINES

About 12% crosslines were run. The soundings at the crossings are satisfactory.

L. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys of the area. This survey makes a good junction with contemporary surveys H-8485 (1:20,000), H-8488 (1:60,000), and H-8487 (1:20,000).

M. COMPARISON WITH CHART

The largest scale chart of the area is Chart 8802 (C&GS) printed 12 December 1952 on a scale of 1:1,023,188. The scale of this chart is too small for an accurate comparison. ✓

N. DANGERS AND SHOALS:

An offshore shoal of 9.8 fathoms in a general surrounding depth of 13 fathoms exists near Latitude 55° 57'N - Longitude 161° 47'W. This area was developed by the Ship, Launch #1, and Launch #2. This shoal is not a danger to navigation. There were no dangers to navigation on this sheet.

O. COAST PILOT INFORMATION

There were no changes or additions to the Coast Pilot so no report will be submitted.

P. AIDS TO NAVIGATION

There are no aids to navigation on this sheet.

Q. LANDMARKS FOR CHARTS

There are no landmarks for charting.

R. GEOGRAPHIC NAMES

No additions or changes are recommended in the geographic names as they appear on the photo manuscripts and existing charts.

S. SILTED AREAS

The bottom is generally fine gray sand and broken shell. Lack of prior surveys prevents silting determination.

T. BY PRODUCT INFORMATION

Magnetic Observations were made at Triangulation Station "DANDY, 1950". Records were mailed 4 August 1959.

Z. TABULATION OF APPLICABLE DATA

1. Four copies of Boat Sheet PF-2359 - To be forwarded.
2. Fathograms - "D" day thru "G" day - Ship PATHFINDER - To be forwarded.
Fathograms - "a" day thru "e" day - PATHFINDER Launch No. 1 - To be forwarded.
Fathograms - "a" day thru "e" day - PATHFINDER Launch No. 2 - To be forwarded.

- Fathograms - "a" day thru "e" day - PATHFINDER Launch
No. 3 - To be forwarded.
Fathograms - "a" day thru "d" day - PATHFINDER Launch
No. 4 - To be forwarded.
3. Record of Magnetic Observations at Triangulation
Station "DANDY, 1950" - Mailed 4 August 1959.
 4. Blackline and blueline manuscripts T-11464 and T-11465 -
To be forwarded.
 5. Special Report on Shoran Operations - 1959 Field Season -
To be forwarded.
 6. Tide Station Report and level records for installation
and removal of Port Moller tide gage - Mailed 1 July 1959
and 9 September 1959.
 7. Photogrammetric Field Edit Report - Mailed 23 September
1959.

Respectfully submitted,

Doyle D. Harper

Doyle D. Harper
ENS, C&GS

APPROVED AND FORWARDED,

Ira R. Rubottom
CAPT, C&GS
Cmdg Ship PATHFINDER

STATISTICS TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8486 (PF-2359)

Day Letters	Volume	Date	No. of Positions	Naut. Mi. soundings
----------------	--------	------	---------------------	------------------------

Ship PATHFINDER (Blue-capitalized day letters)

D	7	11 Aug	150	60.3
E	7	12 Aug	276	116.3
F	7&8	15 Aug	418	173.9
G	8	17 Aug	<u>71</u>	<u>23.8</u>
			915	374.3

Launch #1 (blue-lower case day letters)

a	1	31 July	160	37.4
b	1	6 Aug	136	32.6
c	1	7 Aug	107	21.3
d	1&5	8 Aug	152	38.7
e	5	9 Aug	<u>119</u>	<u>31.8</u>
			674	161.8

Launch #2 (purple-lower case day letters)

a	2	31 July	139	30.8
b	2	6 Aug	97	22.2
c	2	7 Aug	134	32.4
d	2	8 Aug	190	49.6
e	6	9 Aug	<u>158</u>	<u>35.9</u>
			718	170.9

Launch #3 (green-lower case day letters)

a	3	31 July	98	26.3
b	3	6 Aug	49	11.5
c	3	7 Aug	113	30.6
d	4	8 Aug	165	46.6
e	4	9 Aug	<u>131</u>	<u>35.7</u>
			556	150.7

Launch #4 (red-lower case day letters)

a	9	6 Aug	14	0.0
b	9	7 Aug	17	0.0
c	9	8 Aug	30	0.0
d	9	9 Aug	<u>9</u>	<u>0.0</u>
			70	0.0

Totals for H-8486 (PF-2359) 2933 857.7
Hydrography for H-8486 (PF-2359) - 88.5 square naut. miles

TIDE NOTE

PROJECT CS-375
USC&GSS PATHFINDER

NORTH SIDE OF ALASKA PENINSULA
1959 FIELD SEASON

Hydrographic Surveys PF-2259 (H-8485), PF-2359 (H-8486), PF-2459 (H-8487), and PF-6159 (H-8488)

Tide reducers for all work done during the 1959 field season on Project CS-375 were obtained from a standard tide gage at Port Moller (Latitude $55^{\circ} 59.43'$ Longitude $160^{\circ} 33.65'$). Hourly heights were furnished by the Washington Office. 5.4 feet on the tide staff corresponded to MLLW.

The area surveyed was divided into two zones designated as zone "B" and zone "C", zone "B" lying to the west of longitude $161^{\circ} 27.2'W$, including PF-2259, PF-2359, and the westerly portion of PF-6159 and zone "C" lying to the east of longitude $161^{\circ} 27.2'W$ including PF-2459 and the easterly portion of PF-6159. Time and height corrections to be applied to Port Moller tides were furnished for these zones by the Tides and Currents Division (letter dated 31 July 1958, File No. 36-279-982 pat and letter dated 13 August 1959, File No. 36-300-982 pat). Corrections for tide "C", zero time and zero range.

Crossings were found to be consistently bad in tide zone "C" when using the above mentioned corrections. It was found that by using a minus (-) one hour time correction and zero range correction in this area that most of the crossing discrepancies were resolved. Permission was received from the Chief, Tides and Currents Division to use the latter correction for zone "C" in order to improve the crossings (letter dated 7 December 1959, File No. 36-466-982 pat).

was this correction applied to crossings only? If not, all areas would change by the same amt. it chg. is useless.

Zone C - Not applicable to area of Survey

Verifger

FATHOMETER CORRECTION ABSTRACT

HYDROGRAPHIC SURVEY H-8486 (PF-2359)

- Ship PATHFINDER - FATHOMETER NO. 130-S
Correction is ~~0.4~~ fathoms for all depths at
a Ship draft of 14.5 feet midship.
- LAUNCH NO. 1 - FATHOMETER NO. 74-S
Correction is ~~0.4~~ fathoms for all depths.
- LAUNCH NO. 2 - FATHOMETER NO. 57-22
Correction is ~~0.3~~ fathoms for all depths.
- LAUNCH NO. 3 - FATHOMETER NO. 46
Correction is ~~0.3~~ fathoms for all depths.
- FATHOMETER NO. 61 (Installed 8 August 1959)
Correction is ~~0.4~~ fathoms for all depths.
- LAUNCH NO. 4 - FATHOMETER NO. 52
Correction is ~~0.4~~ fathoms for all depths.

APPROVAL SHEET

REG. NO. H-8486 (PF-2359)

The field work on this survey was inspected daily. The records and smooth sheet have been examined and are approved.

The survey is considered complete and adequate for charting purposes and no additional field work is recommended.



Ira R. Rubottom,
Captain, C&GS
Comdg., Ship PATHFINDER

GEOGRAPHIC NAMES

Survey No. H-8486

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. 8802</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">B.G.N.</div> </div>										
	A	B	C	D	E	F	G	H	K		
Alaska Peninsula	x									x	1
Bristol Bay	x									x	2
Franks Point											3
											4
TIDE STA. Port Moller	x									x	5
											6
											7
											8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

George D. Bore
GEOGRAPHIC NAMES SECTION
7 MARCH 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO.8486....

Records accompanying survey: Smooth sheets ...1...;
 boat sheets ...4...; sounding vols. ...10...; wire drag vols.;
 Descriptive Reports ..1...; graphic recorder envelopes .5...;
 special reports, etc.2-Boat sheet overlays.....

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

Number of positions on sheet	2933
Number of positions checked	.174.
Number of positions revised	.27.
Number of soundings revised (refers to depth only)	.29.
Number of soundings erroneously spaced	.217.
Number of signals erroneously plotted or transferred
Topographic details	Time ..2 hrs
Junctions	Time
Verification of soundings from graphic record	Time 100.
Special adjustments	Time

Verification by *KARIN MALYCKE*..... Total time *112*.. Date ...*9/3*....

Reviewed by Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8486

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

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering. ✓
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings. ✓
8. The metal protractor has been checked within the last three months.
An odyssey protractor was used.
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓

12. The spacing of soundings as recorded in the records was closely followed.
✓
13. The bottom characteristics were shown on outstanding shoals.
 not given on the shoal itself. λ (55° 57')
 ϕ (161° 47')
14. The reduction and plotting of doubtful soundings were checked.
✓
15. The transfer of contemporary topographic information was carefully examined.
✓
16. All junctions were transferred and overlapping curves made identical.
 no junctions were made
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
✓
20. Heights of rocks were checked against range of tide.
 no rocks
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
 no rocks
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
 none
24. The low water line and delineation of shoal areas have been properly shown.
✓
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.
✓

27. Source of shoreline and signals (when not given in report).
included in D.R.
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
none
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
No junctions were verified.
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
The boat sheet and the smooth sheet are in disagreement for the plotting of positions between Dandy - Surf. The boat sheet was chosen as correct.
36. Notes to reviewer:

Verified by *Karin Malyche*Date *9/3*

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

30 March 1960

~~Division of Hydrography and Topography~~

Division of Charts: R. H. Carstens

Plane of reference approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8486

Locality Alaska Peninsula (North Side), Alaska

Chief of Party: I. R. Rubottom in 1959
Plane of reference is mean lower low water, reading
5.4 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:



Chief, Tides Branch

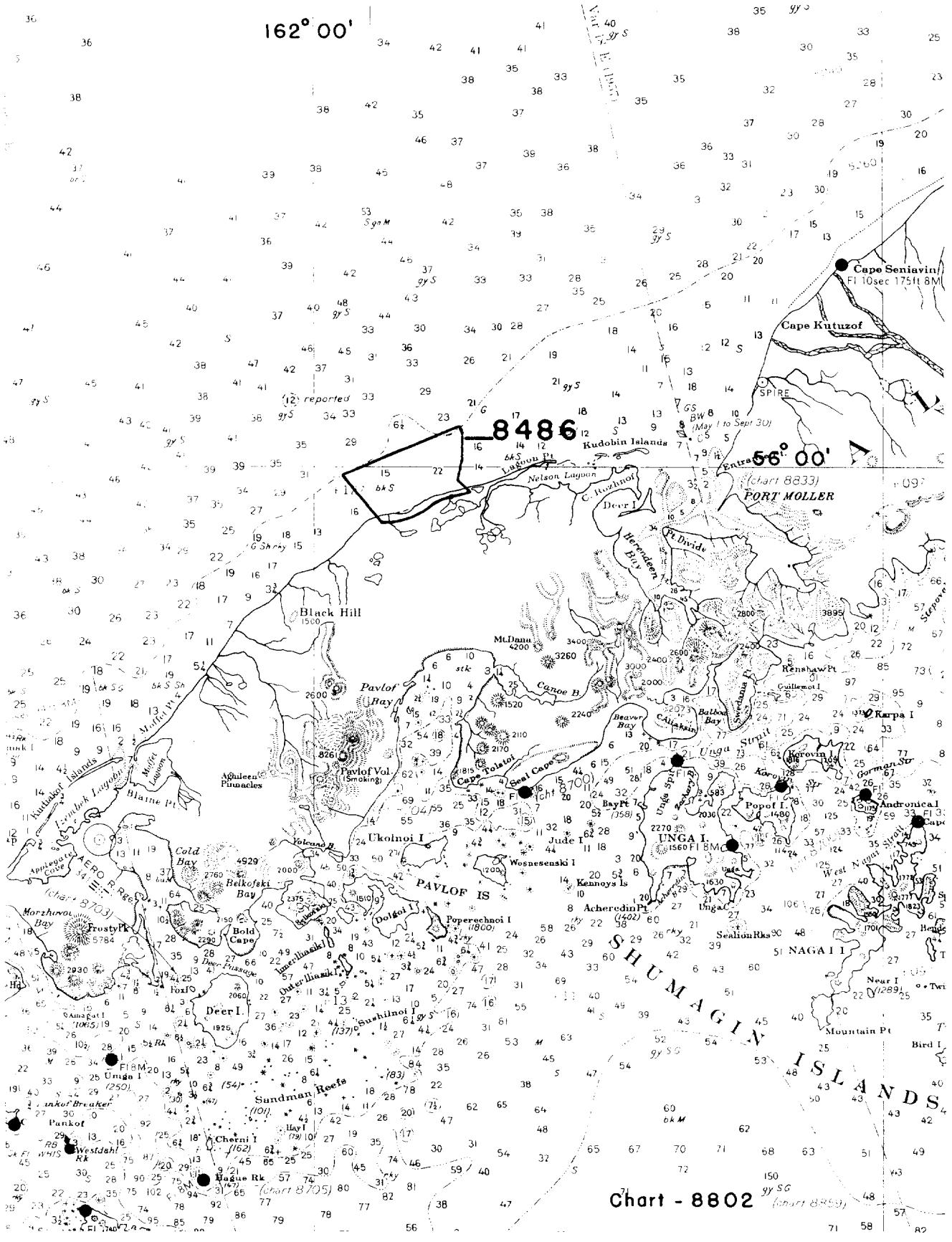
~~Chief, Division of Tides and Currents~~

162° 00'

8486

56° 00' PORT MOLLER (Chart 8833)

Chart - 8802 (Chart 8850)



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8486

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2-27-61	8802	F.M. Albert	<i>Completely</i> Before After Verification and Review
3-2-61	9302	<i>F.M.A.</i>	<i>Completely via 8802</i> Before After Verification and Review
3-20-61	9000	<i>F.M.A.</i>	<i>Completely via 9302</i> Before After Verification and Review
5-30-89	530	R.A. Lillis	Before After Verification and Review ^{Drg. #34} <i>consider</i> <i>category 1 survey</i> <i>fully applied</i>
1606 ⁴⁻¹⁰⁻⁹⁰	1606L	DM McALPIN	Before After Verification and Review CONSIDER ADEQUATELY APPLIED 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
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.