8434

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. PF-6158 *Office No.* H-8434

LOCALITY

State ALASKA

General locality BRISTOL BAY
NORTH SHORE ALASKA PENINSULA

Locality Offshore-MOFFET POINT TO
CAPE LEONTOVICH

19 58

CHIEF OF PARTY

F.B. QUINN; IRA R. RUBOTTOM

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8434

Form 537
(Ed. June 1946)

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-8434

Field No. PF-6158

State Alaska

General locality North Side of Alaska Peninsula
Bristol Bay

Locality Offshore - Moffet Point to Cape Leontovich

Scale 1:60,000 Date of survey 30 June - 5 Sept 1958

Instructions dated 20 December 1954, Supplemental Instructions 13 Nov 1957

Vessel USC&GS Ship PATHFINDER

Chief of party F.B. Quinn until 12 Aug 1958; Ira R. Rubottom

Surveyed by Personnel, Ship PATHFINDER

Soundings taken by fathometer, graphic recorder, ~~hand lead~~ 130-S

Fathograms scaled by Personnel, Ship PATHFINDER

Fathograms checked by Harold E. McCall

Protracted by George M. Poor

Soundings penciled by George M. Poor

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 693019

HWP

DESCRIPTIVE REPORT OF ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8434 (PF-6158)

NORTH SIDE OF ALASKA PENINSULA, ALASKA

Scale: 1:60,000

Date: 30 June 1958-
5 Sept 1958

USC&GS Ship PATHFINDER

F.B. Quinn, Comdg
I.R. Rubottom, Comdg

A. PROJECT

This sheet is part of Project CS-375. The original instructions are dated 20 December 1954. Supplemental Instructions were issued 13 November 1957 which superceded all previous supplemental instructions.

B. SURVEY LIMITS AND DATES

The general locality of this survey is on the North Side of the Alaska Peninsula. The survey includes the polygon determined by the following points:

Lat 56° 00'	Lat 56° 04'	Lat 55° 50'	Lat 55° 34'
Long 162° 10'	Long 162° 22'	Long 162° 44'	Long 162° 44'
Lat 55° 34'	Lat 55° 50'		
Long 162° 34'	Long 162° 10'		

Hydrography began on 30 June 1958 and ended on 5 September 1958.

The survey's south side adjoins Sheets H-8432(1:20,000 1958) and H-8433(1:20,000 1958). The West side adjoins Sheet H-8304(1:100,000 1956). The Southwest corner adjoins Sheet H-8302(1:40,000 1956).

C. VESSELS AND EQUIPMENT

All Hydrography was done by the Ship PATHFINDER. A type 808 Fathometer (#130-S) was used for all soundings. A clam shell snapper was used to obtain Bottom Characteristics. Wire soundings were taken at the same time using registering sheave #H-393.

D. TIDE AND CURRENT STATIONS

Tide Stations consisted of a Standard Gage at Port Moller, Alaska, (Pacific Amaerican Cannery Pier, Latitude 55° 59.43' - Longitude 160° 33.65'); and a Portable Gage on the Southeast side of Amak Island (Latitude 55° 24.81' - Longitude 163° 06.90').

Time and Range corrections were computed by the Washington Office by comparison of Amak Island tides and Port Moller tides. Corrections

are functions of the Amak Island tides and are as follows:

RANGE RATIO	TIME	ZONE
1.0	+ 1 hr	Zone A (West of Longitude 162° 18.84')
1.2	+ 2 hrs	Zone B (East of Longitude 162° 18.84')

See Abstract of Smooth Tides attached to this report.

Three Current Stations: 6,7, and 8 were occupied with Robert's Radio Current Meters. The Positions were as follows:

Station No. 6 - Latitude 55° 45.06' - Longitude 162° 11.56'
Station No. 7 - Latitude 55° 46.74' - Longitude 162° 14.38'
Station No. 8 - Latitude 55° ~~49.68'~~ 48.85 - Longitude 162° ~~17.59'~~ 18.12

See attached letter

replot position on smooth sheet

E. SMOOTH SHEET

The projection was made by hand on board the Ship PATHFINDER. There is no shoreline shown on the sheet, in accordance with paragraph 751, Hydrographic Manual.

F. CONTROL STATION

Triangulation Stations MOFFET, 1952; STAG, 1952; and CASE, 1952 were plotted on the Smooth Sheet. These First Order stations were located by Norman E. Sylar. Shoran transmitting towers were located by traverse from the three previously mentioned triangulation stations. Distances, azimuths, and computed G.P.'s of the towers are listed below:

Mof - 35.05m on geodetic azimuth 49° 26' 00" from MOFFET, 1952
Latitude - 55° 27' 598.7m
Longitude-162° 34' 757.1m

Tag - 26.60m on geodetic azimuth 194° 06' 57" from STAG, 1952
Latitude - 55° 35' 604.1m
Longitude-162° 22' 981.4m

CAS - 52.46m on azimuth(geodetic) 354° 02' 25" from CASE, 1952
Latitude - 55° 46' 746.3m
Longitude-162° 04' 654.6m

G. SHORELINE

The sounding area of the sheet is considerably offshore and no shoreline or topography is required.

H. SOUNDINGS

Soundings were taken with a type 808 graphic recording fathometer (No. 130-S) calibrated at 800 fathoms/seconds. All soundings were taken in fathoms on the "A" scale. The "initial" setting was

2.0 fathoms. No velocity corrections were applied. See "Special Report-Fathometer Corrections for Ship PATHFINDER 1958 Field Season", which was forwarded to the Washington Office 9 March 1959.

Wire Soundings were taken for fathometer comparison when obtaining bottom characteristics. The BT winch, recording sheave no. H-393, located on the port side of the Bridge deck was used.

Agreement between wire soundings and corrected fathometer soundings was within 2.3% at the worst(1 comparison) and generally within 0.4%.

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by Shoran. Two different sets of stations were used: Mof and Tag, Tag and Cas. This was for the convenience of 1:20,000 scale inshore sheets H-8432 and H-8433.

Shoran archswere inked on the Smooth Sheet at five (5) mile intervals. Archs were spot checked for accuracy by computed G.P.'s.

Calibrations were taken for each set of stations. See separate report on Shoran for a discussion of methods and results.

Abstracts of shoran corrections are attached to this report.

J. ADEQUACY OF SURVEY

The survey of the area is complete and adequate for charting purposes.

Junctions with adjoining surveys are satisfactory and depth curves can be adequately drawn through the junction.

K. CROSSLINES

14% of the sounding lines are crosslines.

Discrepancy of crossings is leas than 2½% of the depths.

L. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys of the area, only the scattered soundings which appear on C&GS Chart 8802.

The junctions with H-8302(1:40,000 - 1956), H-8304(1:100,000 - 1956), H-8432(1:20,000 - 1958), and H-8433(1:20,000 - 1958) compare very well with this survey. Tracings which show these junctions at the scale of the larger of the two involved are included with the Smooth Sheet.

The junction between this area and H-8433 is shown in the report for H-8433.

M. COMPARISON WITH CHART

The largest scale chart of the area is C&GS Chart 8802(7/9/1956). The soundings are not in agreement, in general, with this survey. The 20 fathom curve on the chart is shown too close to the beach. It is recommended that this survey replace all soundings and depth curves on this part of C&GS Chart 8802.

N. DANGERS AND SHOALS

No dangers or shoals were found within the area of the survey.

O. COAST PILOT INFORMATION

See separate Coast Pilot Report.

P. AIDS TO NAVIGATION

None

Q. LANDMARKS FOR CHARTS

None

R. GEOGRAPHIC NAMES

No new geographic names were assigned in the area.

S. SILTED AREAS

None

T. BY-PRODUCT INFORMATION

None

Z. TABULATION OF APPLICABLE DATA

1. Current Observation Records for Current Stations #6,7,&8 Mailed to Washington Office 7 November 1958

2. Report - Tide Station and Level Record - Installation of Amak Island Portable Tide Gage and Port Moller Standard Tide Gage- Mailed to Washington Office - 1 July 1958

3. Marigrams No. 1 & 2 - Amak Island - Mailed 1 July 1958
Marigrams No. 3,4, & 5 -Amak Island -Mailed 21 July 1958
Marigrams No. 6,7, & 8 -Amak Island -Mailed 4 August 1958
Marigrams No. 9 & 10 - Amak Island - Mailed 25 August 1958
Marigrams No. 11,12, & 13 - Amak Island - Mailed 10 Sept 1958

4. Report - Tide Station and Level Records - Removal of Amak Island Portable Tide Gage and Port Moller Standard Tide Gage Mailed 10 September 1958

5. Fathograms - A thru K day - To be forwarded

6. Special Report - Fathometer Corrections 1958 Field Season - Ship PATHFINDER - Mailed 9 March 1959

7. Special Report on Shoran Operations 1958 Field Season - To be forwarded.

Respectfully submitted,

Philip J. Taetz
LTJG, C&GS

APPROVED AND FORWARDED

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

STATISTICS TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8434(PF-6158)

Ship PATHFINDER(Capital blue day letters)

Day Letter	Volume	Date	Positions	Stat. Miles	Wire Sndgs
A	1	30 June	56	51.6	4
B	1	10 July	139	131.7	0
C	1 & 2	14 July	120	103.7	1
D	2	28 July	10	8.6	0
E	2	29 July	71	56.9	3
F	2	30 Aug	43	36.2	0
G	3	2 Sept	37	24.2	0
H	3	3 Sept	248	223.0	0
J	4 & 5	4 Sept	335	269.1	6
K	5	5 Sept	90	75.9	0
		Total -	1149	980.9	14

Total Area covered by Ship PATHFINDER = 470.0 square stat. miles

TIDE NOTE # PROJECT CS-375

The following Tide Gages were established in conjunction with Hydrographic Survey CS-375, North Side Alaska Peninsula:

Amak Island - Portable Tide Gage on southeast side of island.

Latitude 55° 24.81' - Longitude 163° 06.90'

MLLW = 6.4 feet on staff

Port Moller - Standard Tide Gage on Pacific American Fisheries Pier Latitude 55°59.43' - Longitude 160°33.65'

MLLW = 3.3 feet on staff

The following time and range corrections, furnished by the Washington Office, were used:

ZONE	RANGE RATIO	TIME CORRECTION
Zone A (West of 162° 18.8')	1.0	+ 1 hour
Zone B (Between 162°18.8' and 161°27.2')	1.2	+ 2 hours

These corrections are a function of the Amak Island tides.

ABSTRACT OF SMOOTH TIDE REDUCERS

PROJECT CS-375

SURVEY SHEETS H-8432 (PF-2158),
H-8433 (PF-2258), & H-8434 (PF-6158)

File with figures

Tide Zone "A", West of Longitude 162 18.8'W
(Time Correction +1.0 hr., Range Ratio 1.0)

6/30

To:		
	0912	-0.5 Faths
	0931	-0.4
	0952	-0.3
	1015	-0.2
	1040	-0.1
	1108	0.0
	1136	+0.1
	1220	+0.2
	1255	+0.3
	1342	+0.2
	1412	+0.1
	1435	0.0
	1455	-0.1
	1515	-0.2
	1534	-0.3
	1553	-0.4
	1612	-0.5
	1630	-0.6
	1648	-0.7

7/8

To:		
	0944	-0.4 Fath.
	1024	-0.5
	1100	-0.6
	1145	-0.7
	1235	-0.8
	1553	-0.9
	1642	-0.8
	1730	-0.7

7/9

To:		
	0910	-0.2
	0952	-0.3
	1030	-0.4
	1108	-0.5
	1143	-0.6
	1222	-0.7
	1313	-0.8
	1425	-0.9
	1600	-1.0
	1715	-0.9

7/10

To:		
	0840	-0.2 Fath.
	1000	-0.1
	1050	-0.2
	1126	-0.3
	1200	-0.4
	1232	-0.5
	1305	-0.6
	1338	-0.7
	1415	-0.8
	1510	-0.9
	1720	-1.0
	1840	-0.9

7/11

To:		
	1120	-0.2
	1205	-0.3
	1238	-0.4
	1311	-0.5
	1340	-0.6
	1410	-0.7
	1441	-0.8
	1518	-0.9
	1600	-1.0
	1850	-1.1

Copy ✓ R/T

7/12

To:	0925	-0.3Fath.
	1200	-0.2
	1240	-0.3
	1306	-0.4
	1334	-0.5
	1404	-0.6
	1431	-0.7
	1500	-0.8
	1530	-0.9
	1605	-1.0
	1715	-1.1

7/14

To:	0920	-0.3
	0952	-0.2
	1030	-0.1
	1132	0.0
	1230	∕0.1
	1322	0.0
	1355	-0.1
	1422	-0.2
	1452	-0.3
	1520	-0.4
	1550	-0.5
	1618	-0.6
	1650	-0.7
	1725	-0.8
	1800	-0.9
	2000	-1.0

7/15

To:	0912	-0.4
	0942	-0.3
	1015	-0.2
	1055	-0.1
	1150	0.0
	1312	∕0.1
	1405	0.0
	1435	-0.1
	1505	-0.2
	1530	-0.3
	1552	-0.4
	1612	-0.5
	1638	-0.6
	1705	-0.7

7/16

To:	0915	-0.6Faths
	0942	-0.5
	1010	-0.4
	1040	-0.3
	1110	-0.2
	1145	-0.1
	1250	0.0
	1335	∕0.1
	1430	0.0
	1505	-0.1
	1535	-0.2
	1600	-0.3
	1625	-0.4
	1645	-0.5
	1713	-0.6

7/17

To:	0905	-0.8
	0937	-0.7
	1010	-0.6
	1042	-0.5
	1110	-0.4
	1135	-0.3
	1210	-0.2
	1250	-0.1
	1505	0.0
	1540	-0.1
	1605	-0.2
	1635	-0.3
	1655	-0.4

7/24

To:	0845	∕0.1
	0925	0.0
	0950	-0.1
	1012	-0.2
	1034	-0.3
	1052	-0.4
	1115	-0.5
	1135	-0.6
	1155	-0.7
	1218	-0.8
	1245	-0.9
	1315	-1.0
	1355	-1.1

To:	1535	-1.2Fath.
	1622	-1.1
	1705	-1.0
	1736	-0.9

7/25

To:	0950	∕0.1
	1022	0.0
	1045	-0.1
	1105	-0.2
	1128	-0.3
	1146	-0.4
	1205	-0.5
	1225	-0.6
	1245	-0.7
	1305	-0.8
	1328	-0.9
	1352	-1.0
	1421	-1.1
	1510	-1.2
	1625	-1.3
	1720	-1.2

7/26

To:	0805	-0.2
	0830	-0.1
	0905	0.0
	1045	∕0.1
	1115	0.0
	1140	-0.1
	1205	-0.2
	1222	-0.3
	1240	-0.4
	1258	-0.5
	1318	-0.6
	1338	-0.7
	1358	-0.8
	1418	-0.9
	1442	-1.0
	1505	-1.1
	1540	-1.2
	1810	-1.3

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7/28

To:		
	0808	-0.7Fath.
	0826	-0.6
	0846	-0.5
	0907	-0.4
	0928	-0.3
	0952	-0.2
	1016	-0.1
	1047	0.0
	1245	+0.1
	1312	0.0
	1335	-0.1
	1355	-0.2
	1411	-0.3
	1430	-0.4
	1448	-0.5
	1507	-0.6
	1525	-0.7
	1545	-0.8
	1608	-0.9
	1632	-1.0
	1700	-1.1

7/29

To:		
	0805	-1.0
	0830	-0.9
	0850	-0.8
	0912	-0.7
	0935	-0.6
	0955	-0.5
	1012	-0.4
	1035	-0.3
	1100	-0.2
	1132	-0.1
	1225	0.0
	1325	+0.1
	1407	0.0
	1432	-0.1
	1452	-0.2
	1510	-0.3
	1530	-0.4
	1550	-0.5
	1608	-0.6
	1628	-0.7
	1648	-0.8
	1707	-0.9

8/19

To:		
	0818	-0.7Fath.
	0842	-0.8
	0910	-0.9
	0938	-1.0
	1012	-1.1
	1225	-1.2
	1300	-1.1
	1331	-1.0
	1400	-0.9
	1428	-0.8
	1455	-0.7
	1526	-0.6
	1605	-0.5
	1815	-0.4

8/20

To:		
	0825	-0.5
	0848	-0.6
	0910	-0.7
	0935	-0.8
	1000	-0.9
	1030	-1.0
	1102	-1.1
	1145	-1.2
	1300	-1.3
	1350	-1.2
	1424	-1.1
	1454	-1.0
	1525	-0.9
	1600	-0.8
	1635	-0.7
	1715	-0.6

8/21

To:		
	0820	-0.2
	0840	-0.3
	0857	-0.4
	0915	-0.5
	0932	-0.6
	0950	-0.7
	1010	-0.8
	1030	-0.9
	1050	-1.0
	1115	-1.1
	1142	-1.2Fath.
	1220	-1.3
	1410	-1.4
	1450	-1.3
	1528	-1.2
	1600	-1.1
	1625	-1.0
	1652	-0.9

8/27

To:		
	1010	-0.4
	1040	-0.3
	1110	-0.2
	1200	-0.1
	1250	0.0
	1340	-0.1
	1408	-0.2
	1435	-0.3
	1456	-0.4
	1520	-0.5
	1541	-0.6
	1602	-0.7
	1625	-0.8
	1650	-0.9

8/28

To:		
	0815	-1.0
	0850	-0.9
	0920	-0.8
	0945	-0.7
	1010	-0.6
	1035	-0.5
	1105	-0.4
	1138	-0.3
	1225	-0.2
	1405	-0.1
	1440	-0.2
	1508	-0.3
	1535	-0.4
	1600	-0.5
	1622	-0.6
	1648	-0.7
	1712	-0.8

Copy ~ PJT

8/29

To:		
	0837	-1.0Fath.
	0922	-0.9
	0953	-0.8
	1020	-0.7
	1050	-0.6
	1125	-0.5
	1205	-0.4
	1300	-0.3
	1455	-0.2
	1525	-0.3
	1555	-0.4
	1625	-0.5
	1655	-0.6
	1725	-0.7
	1750	-0.8

8/30

To:		
	0940	-1.0
	1025	-0.9
	1105	-0.8
	1140	-0.7
	1220	-0.6
	1300	-0.5
	1400	-0.4
	1535	-0.3
	1620	-0.4
	1655	-0.5
	1725	-0.6
	1755	-0.7
	1830	-0.8
	1900	-0.9
	1942	-1.0

9/1

To:		
	0730	-0.7
	0815	-0.8
	0910	-0.9
	1205	-1.0
	1300	-0.9
	1345	-0.8
	1437	-0.7
	1555	-0.6
	1700	-0.5
	1807	-0.6

9/2

To:		
	0732	-0.6Fath.
	0812	-0.7
	0900	-0.8
	1000	-0.9
	1300	-1.0
	1400	-0.9
	1455	-0.8
	1542	-0.7
	1638	-0.6
	1800	-0.5

9/3

To:		
	0740	-0.4
	0815	-0.5
	0850	-0.6
	0921	-0.7
	1000	-0.8
	1047	-0.9
	1410	-1.0
	1510	-0.9
	1615	-0.8
	1730	-0.7
	1840	-0.6
	1947	-0.7
	2032	-0.8
	2122	-0.9
	2238	-1.0
	2400	-1.1

9/4

To:		
	0025	-1.1
	0130	-1.0
	0215	-0.9
	0251	-0.8
	0325	-0.7
	0355	-0.6
	0428	-0.5
	0512	-0.4
	0735	-0.3
	0820	-0.4
	0900	-0.5
	0932	-0.6
	1005	-0.7
	1040	-0.8
	1125	-0.9Fath.
	1220	-1.0
	1420	-1.1
	1525	-1.0
	1625	-0.9
	1715	-0.8
	1815	-0.7
	1935	-0.6
	2045	-0.7
	2140	-0.8
	2240	-0.9
	2400	-1.0

9/5

To:		
	0140	-1.0
	0230	-0.9
	0312	-0.8
	0348	-0.7
	0420	-0.6
	0450	-0.5
	0525	-0.4
	0605	-0.3
	0812	-0.2
	0845	-0.3
	0917	-0.4
	0948	-0.5
	1020	-0.6
	1054	-0.7
	1126	-0.8
	1205	-0.9
	1600	-1.0
	1708	-0.9
	1800	-0.8
	2000	-0.7

Copy - PUT

Tide Zone "B", East of Longitude 162 18.8'W
(Time Correction ±2.0 hr., Range Ratio 1.2)

6/30

To:	1010	-0.6Fath.
	1028	-0.5
	1045	-0.4
	1105	-0.3
	1124	-0.2
	1145	-0.1
	1204	0.0
	1226	±0.1
	1252	±0.2
	1418	±0.3
	1450	±0.2
	1512	±0.1
	1531	0.0
	1550	-0.1
	1605	-0.2
	1622	-0.3
	1638	-0.4
	1655	-0.5
	1710	-0.6

7/10

To:	1045	-0.1
	1130	-0.2
	1205	-0.3
	1237	-0.4
	1304	-0.5
	1330	-0.6
	1354	-0.7
	1420	-0.8
	1451	-0.9
	1528	-1.0
	1616	-1.1
	1815	-1.2

7/14

To:	1008	-0.4
	1032	-0.3
	1100	-0.2
	1134	-0.1
	1218	0.0
	1340	±0.1
	1420	0.0
	1448	-0.1
To:	1511	-0.2Fath.
	1535	-0.3
	1557	-0.4
	1620	-0.5
	1642	-0.6
	1705	-0.7

7/28

To:	0914	-0.8
	0930	-0.7
	0946	-0.6
	1004	-0.5
	1020	-0.4
	1038	-0.3
	1056	-0.2
	1120	-0.1
	1145	0.0
	1228	±0.1
	1305	±0.2
	1348	±0.1
	1410	0.0
	1430	-0.1
	1448	-0.2
	1504	-0.3
	1519	-0.4
	1532	-0.5
	1548	-0.6
	1604	-0.7
	1618	-0.8
	1634	-0.9
	1651	-1.0
	1710	-1.1

7/29

To:	0905	-1.2
	0921	-1.1
	0939	-1.0
	0956	-0.9
	1015	-0.8
	1032	-0.7
	1050	-0.6
	1110	-0.5
	1128	-0.4
To:	1146	-0.3Fath.
	1208	-0.2
	1235	-0.1
	1315	0.0
	1435	±0.1
	1505	0.0
	1523	-0.1
	1540	-0.2
	1557	-0.3
	1614	-0.4
	1630	-0.5
	1648	-0.6
	1705	-0.7

8/19

To:	0808	-0.5
	0828	-0.6
	0848	-0.7
	0906	-0.8
	0925	-0.9
	0948	-1.0
	1010	-1.1
	1035	-1.2
	1104	-1.3
	1149	-1.4
	1253	-1.5
	1333	-1.4
	1404	-1.3
	1430	-1.2
	1452	-1.1
	1515	-1.0
	1538	-0.9
	1605	-0.8
	1631	-0.7
	1704	-0.6

Copy - PIT

8/20

To:	0810	-0.2Fath.
	0830	-0.3
	0848	-0.4
	0906	-0.5
	0925	-0.6
	0945	-0.7
	1005	-0.8
	1022	-0.9
	1043	-1.0
	1105	-1.1
	1128	-1.2
	1155	-1.3
	1228	-1.4
	1416	-1.5
	1448	-1.4
	1520	-1.3
	1550	-1.2
	1618	-1.1
	1645	-1.0
	1713	-0.9

8/21

To:	0816	0.0
	0844	-0.1
	0906	-0.2
	0925	-0.3
	0942	-0.4
	0958	-0.5
	1012	-0.6
	1026	-0.7
	1041	-0.8
	1057	-0.9
	1115	-1.0
	1130	-1.1
	1148	-1.2
	1208	-1.3
	1230	-1.4
	1255	-1.5
	1332	-1.6
	1452	-1.7
	1535	-1.6
	1608	-1.5
	1636	-1.4
	1702	-1.3

8/27

To:	1108	-0.5Fath.
	1128	-0.4
	1151	-0.3
	1220	-0.2
	1313	-0.1
	1342	0.0
	1430	-0.1
	1453	-0.2
	1515	-0.3
	1535	-0.4
	1555	-0.5
	1614	-0.6
	1634	-0.7
	1652	-0.8
	1711	-0.9

8/28

To:	0828	-1.3
	0910	-1.2
	0940	-1.1
	1008	-1.0
	1030	-0.9
	1050	-0.8
	1110	-0.7
	1132	-0.6
	1155	-0.5
	1222	-0.4
	1255	-0.3
	1342	-0.2
	1450	-0.1
	1528	-0.2
	1552	-0.3
	1612	-0.4
	1635	-0.5
	1655	-0.6
	1717	-0.7

8/29

To:	0935	-1.2
	1014	-1.1
	1045	-1.0
	1110	-0.9
	1135	-0.8
	1155	-0.7Fath.
	1221	-0.6
	1250	-0.5
	1325	-0.4
	1415	-0.3
	1530	-0.2
	1605	-0.3
	1635	-0.4
	1700	-0.5

8/30

To:	0805	-1.1
	1038	-1.2
	1117	-1.1
	1150	-1.0
	1221	-0.9
	1250	-0.8
	1320	-0.7
	1356	-0.6
	1443	-0.5
	1645	-0.4
	1721	-0.5
	1750	-0.6
	1820	-0.7
	1845	-0.8

9/1

To:	0815	-0.8
	0850	-0.9
	0930	-1.0
	1015	-1.1
	1255	-1.2
	1342	-1.1
	1427	-1.0
	1510	-0.9
	1550	-0.8
	1700	-0.7

Copy / RVT

9/2

To:		
	0820	-0.7Fath.
	0855	-0.8
	0932	-0.9
	1012	-1.0
	1105	-1.1
	1351	-1.2
	1441	-1.1
	1528	-1.0
	1610	-0.9
	1654	-0.8
	1800	-0.7

9/3

To:

To:		
	0812	-0.4
	0846	-0.5
	0917	-0.6
	0942	-0.7
	1010	-0.8
	1035	-0.9
	1108	-1.0
	1145	-1.1
	1248	-1.2
	1407	-1.3
	1516	-1.2
	1602	-1.1
	1643	-1.0
	1733	-0.9
	2030	-0.8
	2107	-0.9
	2144	-1.0
	2230	-1.1
	2330	-1.2
	2400	-1.3

9/4

To:		
	0130	-1.3
	0226	-1.2
	0308	-1.1
	0338	-1.0
	0408	-0.9
	0430	-0.8
	0458	-0.7
	0528	-0.6
	0610	-0.5

To:		
	0700	-0.4Fath.
	0800	-0.3
	0850	-0.4
	0925	-0.5
	0955	-0.6
	1025	-0.7
	1052	-0.8
	1120	-0.9
	1151	-1.0
	1226	-1.1
	1315	-1.2
	1535	-1.3
	1625	-1.2
	1705	-1.1
	1744	-1.0
	1840	-0.9
	2118	-0.8
	2210	-0.9
	2255	-1.0
	2345	-1.1
	2400	-1.2

9/5

TO:		
	0235	-1.2
	0320	-1.1
	0355	-1.0
	0428	-0.9
	0451	-0.8
	0520	-0.7
	0545	-0.6
	0610	-0.5
	0640	-0.4
	0726	-0.3
	0840	-0.2
	0922	-0.3
	0954	-0.4
	1020	-0.5
	1045	-0.6
	1112	-0.7
	1140	-0.8
	1205	-0.9
	1235	-1.0
	1312	-1.1
	1410	-1.2
	1535	-1.3

To:		
	1653	-1.2Fath.
	1750	-1.1
	1835	-1.0
	1935	-0.9
	2055	-0.8

Copy ✓ RVT

COMBINED CALIBRATION AND ZERO CHECK CORRECTIONS
SHIP PATHFINDER MOBILE SET NO. 1192
SHEET PF-2158 and SHEET PF-6158(A thru E day)

DAY	STATIONS	RANGE(Stat. miles)	CORR.
All days	Tag	0 - 1.400	±0.01
	Mof	1.401 - 9.400	0.00
		9.401 - 17.400	-0.01
		17.401 - 25.400	-0.02
		25.401 - 33.400	-0.03

Copy ✓ HEM

COMBINED CALIBRATION AND ZERO CHECK CORRECTIONS
SHIP PATHFINDER MOBILE SET NO. 1192
SHEET 6158 (F thru K day)

DAY	STATIONS	RANGE(Stat. miles)	CORR.
F,G,H,and K - - - - -	Tag	0 - 2.500	-0.01
		2.501 - 7.500	-0.02
H(pos. 225 to end of		7.501 - 12.500	-0.03
day), J, and K - - - -	Cas	12.501 - 17.500	-0.04
		17.501 - 22.500	-0.05
		22.501 - 27.500	-0.06
		27.501 - 32.400	-0.07
		32.401	-0.08
F, G, and H(pos. 1 to		0 - 2.500	-0.02
225) - - - - - - - - - -	Cas	2.501 - 7.500	-0.03
		7.501 - 12.500	-0.04
J - - - - - - - - - - -	Tag	12.501 - 17.500	-0.05
		17.500 - 22.500	-0.06
		22.501 - 27.500	-0.07
		27.501 - 32.400	-0.08
		32.401 -	-0.09

Copy of NEM

Form 27 a
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

(For calculating machine computation)

Geodesy

			°	′	″				°	′	″
α	2 CASE	to 3 CHASE	47	26	51 —	α	3	to 2			
2d ∠	CHASE	& CAS	+ 306.	35	34 —	3d ∠		&	—		
α	2 CASE	to 1 CAS	354	02	25 —	α	3	to 1			
Δα						Δα					
			180	00	00.0				180	00	00.0
α′	1	to 2				α′	1	to 3			

First Angle of Triangle

	°	′	″			°	′	″			°	′	″
φ	55	46	25.824	2 CASE	λ	162	04	37.858	φ				3	λ			
	—		1.69	s= 52.46	Δλ		—	0.31					s=	Δλ			
φ′	55	46	24.13	1 CAS	λ′	162	04	37.55	φ′				1	λ′			

M-2601-2 (1)

	746.3 ✓ 746.5 (1109.4) ✓ (1.09.1) 1855.6		(Thousands) 654.5 (391.5)	654.6 ✓ (391.4) 1046.2		(Thousands)	
sin α —	0.103 8293	y_o	6183.1		sin α		y_o
cos α +	0.994 5951	y	—		cos α		y
x = s sin α	- 5.45	y_1	6183.1		x = s sin α		y_1
y = −s cos α	- 52.18	$\frac{1}{2}(y_o+y_1)$	6183.1		y = −s cos α		$\frac{1}{2}(y_o+y_1)$
Va —	—				Va —		
Δ y	- 52.18	H	0.0573 61677		Δ y		H
diff. per sec.	30.9275	Hx = Δλ″	- 0.31		diff. per sec.		Hx = Δλ″
V	11.49677	sin φ			V		sin φ
a = (x /10,000)^2	—	sin φ′			a = (x /10,000)^2		sin φ′
Δφ″ = Δy / diff. per sec.	- 1.69	−Δα″ = $\frac{1}{2}$(sin φ + sin φ′) Δλ″			Δφ″ = Δy / diff. per sec.		-- Δα″ = $\frac{1}{2}$(sin φ + sin φ′) Δλ″
		✓ PJT	Compttn				

Form 27 a
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

(For calculating machine computation)

Geodesy

			°	′	″				°	′	″
α	2 STAG	to 3 BLACK HILL	237	05	44.	α	3	to 2			
2d ∠		&	+ 317	01	13	3d ∠		&	−		
α	2	to 1	194	06	57	α	3	to 1	49	26	00
Δα						Δα					
		−	180	00	00.0				180	00	00.0
α′	1	to 2				α′	1	to 3			

First Angle of Triangle

	°	′	″			°	′	″			°	′	″			°	′	″
φ	55	35	18.700	2 STAG 1952	λ	162	22	56.393	φ	55	27	20.095	3 MOFFET 1952	λ	162	34	41.558
		+	0.833	s= 26.6 mete.	Δλ		−	0.371				− 0.737	s= 35.05	Δλ		+	1.515
φ′	55	35	19.533	1 STAG 1952	λ′	162	22	56.022	φ′	55	27	19.358	1 MOF	λ′			43.073

VGMD		604.1m (1251.5)		(Thousands)	981.8m (69.7) 1051.1		3987 (12548)	M-2601-2(1) 757.6 (297.5) 1054.6 (Thousands)
sin α	(−)	0.243 883 02	y_o	6162.5		sin α (+)	0.759 649 78	y_o 6147.6
cos α	(−)	0.969 804 66	y			cos α (+)	0.650 332 38	y
x=s sin α		− 6.49	y_1			x=s sin α	+ 26.63	y_1
y= −s cos α		+ 25.80	$\frac{1}{2}(y_o+y_1)$			y= −s cos α	− 22.79	$\frac{1}{2}(y_o+y_1)$
Va	−	✓				Va	− ✓	
Δy		+ 25.80	H	0.0570 92149		Δy	− 22.79	H 0.0568 99355
diff. per sec.		30.92662	$Hx = \Delta\lambda''$	− 0.371		diff. per sec.	30.92594	$Hx = \Delta\lambda''$ + 1.515
V		11.41743	sin φ			V	11.36051	sin φ
$a = (x/10{,}000)^2$		✓	sin φ′			$a = (x/10{,}000)^2$	✓	sin φ′
$\Delta\phi'' = \Delta y$ / diff. per sec.		0.833	$-\Delta\alpha'' = \frac{1}{2}(\sin\phi + \sin\phi')\Delta\lambda''$			$\Delta\phi'' = \Delta y$ / diff. per sec.	− 0.737	$-\Delta\alpha'' = \frac{1}{2}(\sin\phi + \sin\phi')\Delta\lambda''$
			✓ PJT				Carth	✓ PJT

APPROVAL SHEET

HYDROGRAPHIC SURVEY H-8434(PF-6158)

SEASON - 1958

The entire survey was personally supervised by CAPT F.B. Quinn during the first half of the survey and by CAPT Ira R. Rubottom during the remaining period. The boat sheet was examined daily and durthe course of each days work.

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

The Smooth Sheet and the records have been examined and are approved.

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
SHIP PATHFINDER
705 FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

PATH/PJT/gwg
Serial: 165
File No. 700
9 April 1959

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

Subject: Correction to be applied to hydrographic survey sheet H-8434 (PF-6158), Project CS-375 - North Side of Alaska Peninsula.

Reference: (a) Section D - Descriptive Report for Hydrographic Survey H-8433 (PF-2258).

"Current stations No. 6, 7 and 8 were plotted on hydrographic survey sheet PF-6158 (H-8434) 1:60,000 1958 by fixes which are recorded in PF-2258 (H-8433) sounding volumes. The positions were plotted on PF-2258 after PF-6158 had already been forwarded. It was found that the position of current station No. 8 as scaled from PF-2258 does not check with the position scaled from PF-6158 as listed in the Descriptive Report for that sheet."

The position listed in the Descriptive Report for PF-2258 was checked and is correct. The plot on PF-6158 should be corrected by the verifier. The shoran fix is CAS 9.25 st.mi. and TAG 15.93 st.mi. The scaled position from PF-2258 is Lat. 55° 48.85' and Long. 162° 18.15'.

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

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8434

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Alaska										1
Bristol Bay									BGN	2
Alaska Peninsula		Offshore, all names used in title only							"	3
Moffet Point										4
Cape Ieontovich									BGN	5
				Names approved 4-8-59 L. Heck						6
Tide stations off sheet:										7
Fort Moller										8
Amak Island										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens 2 June 1959

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8434

Locality Bristol Bay, Alaska

Chief of Party: F. B. Quinn in 1958

Plane of reference is mean lower low water, reading

6.4 ft. on tide staff at Amak Island

16.4 ft. below B.M. 2 (1941)

Height of mean high water above plane of reference is 6.9 feet.

Condition of records satisfactory except as noted below:

William Shofnos
Signature

Chief, Tides Branch

Comm-DC 34330

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8434..

Records accompanying survey:

Boat sheets .1...; sounding vols. ..5..; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 3-Envelopes

special reports, etc. 1-Smoothsheet, 1-Descriptice report,....

1-Special report on Shoran Operations.(filed in the library.)

1-Overlay of soundings of sheet junction.(filed with H-8433).

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

Number of positions on sheet		.....
Number of positions checked		.....
Number of positions revised		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Verification by.....Total time ..... Date .....

Reviewed by..... Time ..... Date .....

M-2232-1

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8434

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.

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.

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.

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.

21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.

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.

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).

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.

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:

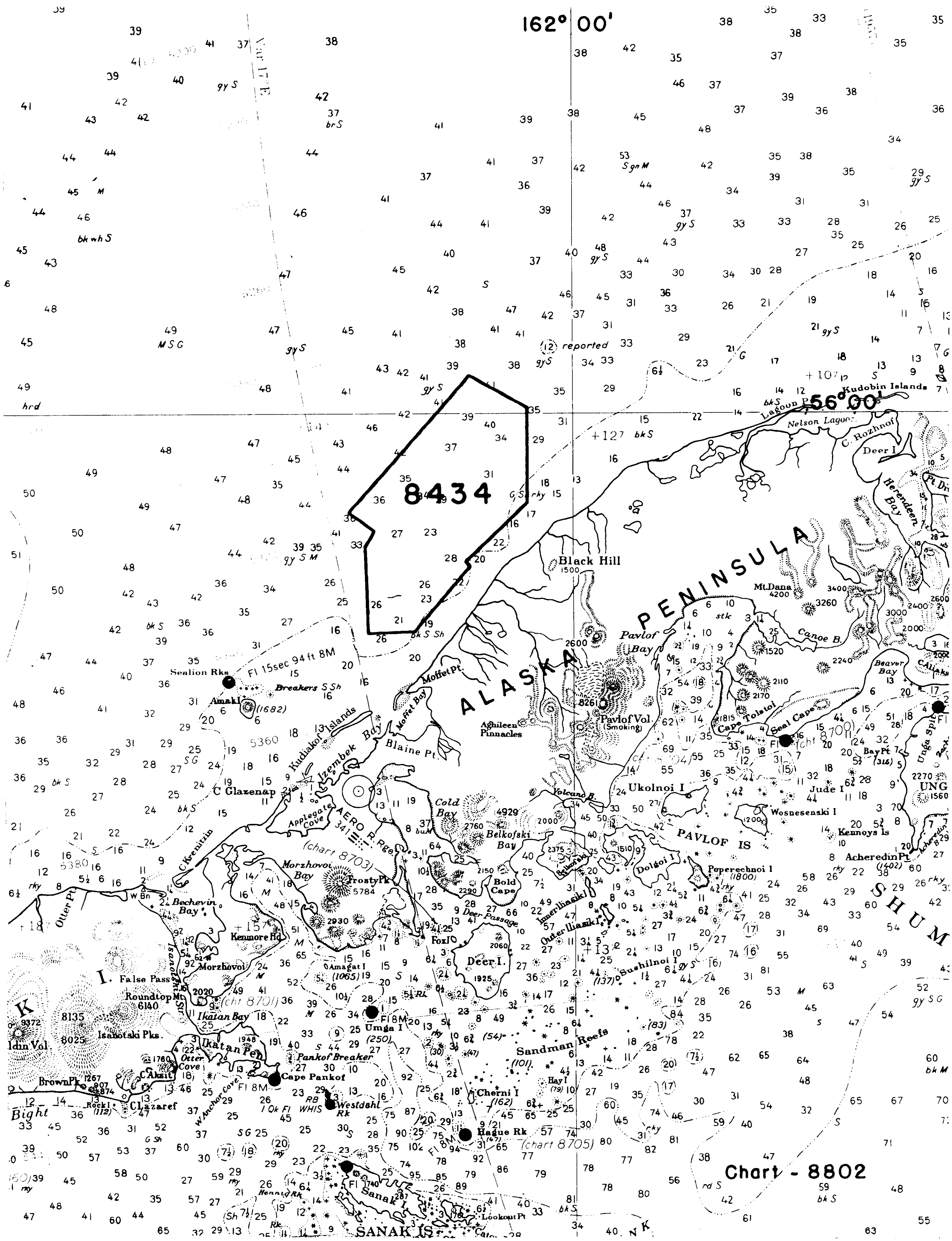
33. Condition of sounding records was satisfactory except as follows:

34. The protracting was satisfactory except as follows:

35. The field plotting of soundings was satisfactory except as follows:

36. Notes to reviewer:

Verified by Date


162° 00'
56° 00'
8434
ALASKA PENINSULA
Black Hill
Kudobin Islands
Nelson Lagoon
C. Rozhnoi
Deer I
Herendeen Bay
Mt.Dana
Pavlof Bay
Pavlof Vol. (Smoking)
Aghileen Pinnacles
Moffet Pt.
Moffet Bay
Blaine Pt.
Kudiakof Islands
Izembek Bay
Sealion Rks
Fl 15sec 94ft 8M
Breakers
Amak I
C Glazenap
Applegate Cove
AERO R. Rge
(chart 8703)
Cold Bay
Belkofski Bay
Bold Cape
Morzhovoi Bay
Frosty Pk
C Krenitzin
Otter Pt
Bechevin Bay
Kenmore Hd
Morzhovoi
False Pass
Isanotski Str
Roundtop Mt
Isanotski Pks.
Ikatan Bay
Ikatan Pen
Otter Cove
C Aksit
Brown Pk
C Lazaref
Rock I
Cape Pankof
Pankof Breaker
Westdahl Rk
Amagat I
Umga I
Deer I.
Deer Passage
Fox I
Cherni I
Hague Rk
(chart 8705)
Sandman Reefs
Sushilnoi I
Inner Iliasik I
Outer Iliasik I
Dolgoi I
Poperechnoi I
PAVLOF IS
Ukolnoi I
Volcano B.
Wosnesenski I
Jude I
Kennoys Is
Acheredin Pt
Seal Cape
Cape Tolstoi
(cht 8700)
Canoe B.
Beaver Bay
C Aliaksin
Bay Pt
Unga Spit
UNG
SHUM
Sanak I.
SANAK IS
Lookout Pt
(cht 8701)
Chart - 8802

NAUTICAL CHARTS BRANCH

SURVEY NO. H8434

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4-15-59	8802	R.K. de Saussure	Part appld Before ~~After~~ Verification and Review.
3-3-61	9302	F.M. Albert	Before ~~After~~ Verification and Review via 8802 dwg #16
~~1-30-78~~	~~8802~~	~~C.S. Forbes~~	
1-30-78	8802	C.S. Forbes	Fully appd Before ~~After~~ Verification and Review. Consider application as final. No additional corrections.
			Before After Verification and Review
4/10/90	16006	DM MCLINDEN	CONSIDER ADEQUATELY APPLIED
			Before After Verification and Review
			Before After Verification and Review
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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.