10089

Diagram No. 8502-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. FA-10-3-83

Office No. H-10089

LOCALITY

State Alaska

General Locality Shelikof Strait

Locality Northeast Portion of Wide Bay

1983

CHIEF OF PARTY
CAPT. C. Andreasen

LIBRARY & ARCHIVES

DATE April 16, 1985

☆U.S. GOV. PRINTING OFFICE: 1980—786-230

10089

Area 6
Chts
16570
16568
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16006

TO SIGN / F SEE
"RECORD OFF APPLICATION"

NOAA FORM 77-28 (11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTER NO.

H-10089

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

FA 10-3-83

State Alaska

General locality Shelikof Strait

Locality Northeast Portion of Wide Bay

Scale 1:10,000 Date of survey June 1 - August 4, 1983

Instructions dated March 11, 1983 Project No. OPR-P146-FA-83

Vessel FAIRWEATHER, 2020, 2023, 2024, 2025, 2026, 2028, 2030

Chief of party Capt C. Andreasen, NOAA

Surveyed by Lt Andreen, Ens Migaiolo, Ens Steel, Ens Koch, Ens Tisch

Soundings taken by echo sounder, hand lead, pole Ross Fineline 5000

Graphic record scaled by FAIRWEATHER Personnel

Graphic record checked by FAIRWEATHER Personnel

Verification by R.N. Mihailov Automated plot by PMC Xynetics Plotter

Evaluation by G.E. Kay

Soundings in fathoms ~~feet~~ at ~~MEAN~~ MLLW

REMARKS: Notations in black in the Descriptive Report were made during Evaluation of H-10089 at the Pacific Marine Center, Seattle, Washington. Separates are located in the raw records accordian file.

AWOIS + SURF MSM 6/11/85

SC 4-30-97

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

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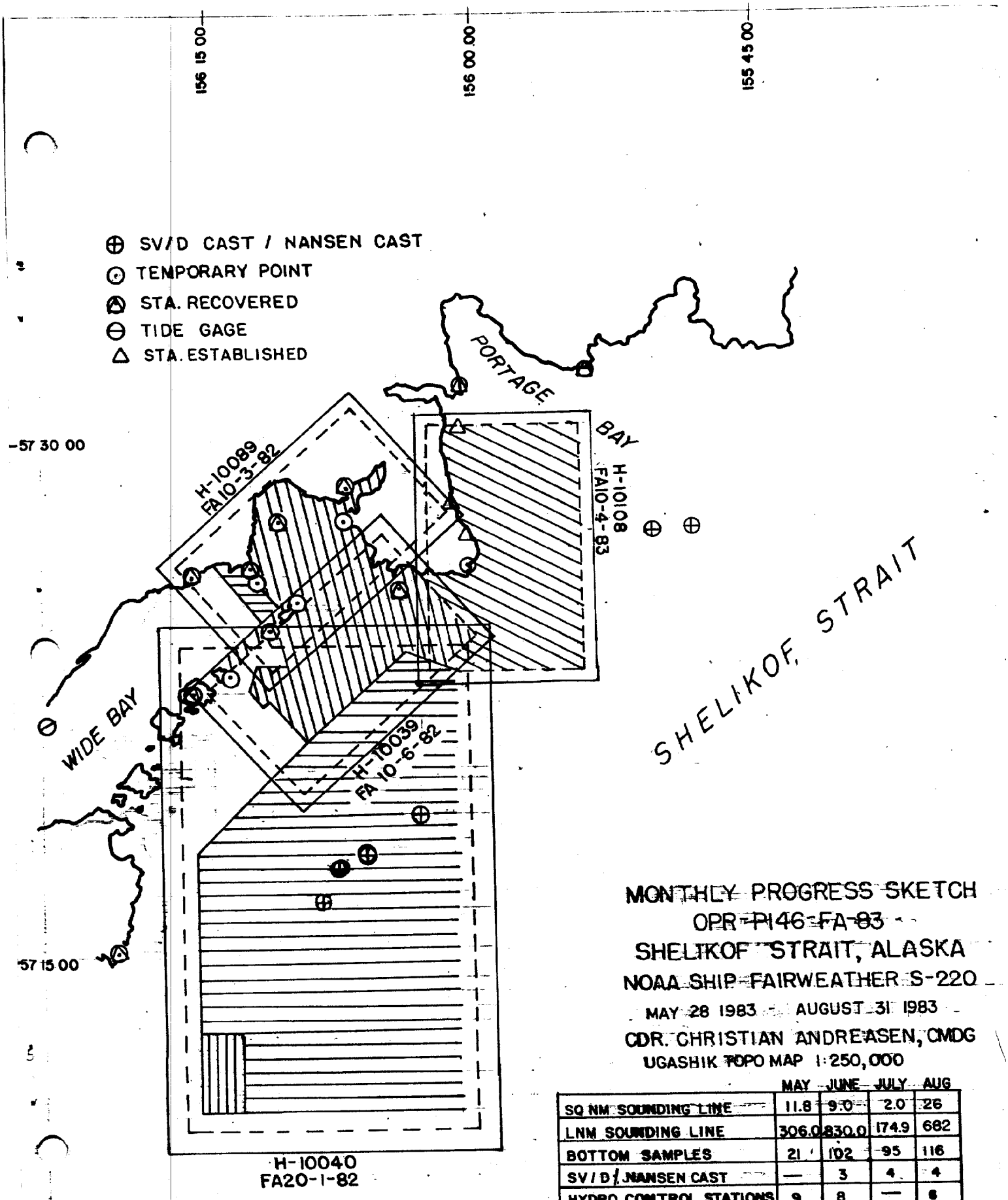

MONTHLY PROGRESS SKETCH
OPR-P146-FA-83
SHELIKOF STRAIT, ALASKA
NOAA SHIP FAIRWEATHER S-220
MAY 28 1983 - AUGUST 31 1983
CDR. CHRISTIAN ANDREASEN, CMDG
UGASHIK TOPO MAP 1:250,000

	MAY	JUNE	JULY	AUG
SQ NM SOUNDING LINE	11.8	9.0	2.0	26
LNM SOUNDING LINE	306.0	830.0	174.9	682
BOTTOM SAMPLES	21	102	95	116
SV/D/NANSEN CAST	—	3	4	4
HYDRO CONTROL STATIONS	9	8	—	8
WATER SAMPLES ANALYZED	—	5	7	—
HYDROGRAPHY				
LNM SIDE SCAN SONAR	—	—	4.4	—

A. Project

This hydrographic survey was conducted in accordance with Project Instruction OPR-P146-FA-83 dated 11 March 1983 and Change Number 1 dated 15 April 1983. The PMC OPORDER, Hydrographic Manual (4th Edition), and the Data Requirements Letter dated 14 April 1983 are also applicable.

B. Area Surveyed

This survey is bound on the northwest by a line extending from latitude 57°25'12"N, longitude 156°13'08"W to latitude 57°26'56"N, longitude 156°15'03"W and on the southeast by a line from latitude 57°25'12"N, longitude 156°13'08"W to latitude 57°27'35"N, longitude 156°07'51"W. The inshore limit was the shoreline of Wide Bay.

This survey was conducted between 1 June 1983 (JD 152) and 4 August, 1983 (JD 216).

C. Sounding Vessels

Hydrographic data for the survey was collected from the Jensen survey launches FA-3, FA-4, FA-5 and FA-6 designated vessel numbers 2023, 2024, 2025 and 2026 respectively. A 17' Boston Whaler (Whaler-2), designated vessel number 2028 and a 17' Monarch, designated vessel number 2030, were used for the purpose of collecting detached positions on rocks. The NOAA Ship FAIRWEATHER (vessel number 2020) was used for all the sound velocity casts of the survey.

D. Sounding Equipment and Corrections to Echo Soundings

All survey launches were equipped with Ross Fineline 5000 narrow beam echo sounders. See Table I, Sounding Equipment, for a list of equipment used by each launch and inclusive dates. Belt tension and phase checks were performed daily and when paper was changed. The fathometer initials were checked frequently during operation for correct paper alignment. All data was scanned, at least twice, to compare analog values to corresponding digitized values and to insert peak and deeps between soundings.

Depths on this survey ranged from -0.9 fathoms to 10.4 fathoms.

Table I
Sounding Equipment

Launch/Date	Instrument	Model	Recorder	Digitizer	Inverter	Transceiver
FA-3 (2023)						
JD 152-165	Ross	Fineline 5000	1047	1047	1046	1046
JD 166-190	Ross	Fineline 5000	1046	1047	1046	1046
JD 191-216	Ross	Fineline 5000	1054	1047	1046	1046
FA-4 (2024)						
JD 152-161	Ross	Fineline 5000	1097	1046	1054	1048
JD 162	Ross	Fineline 5000	1036	1046	1054	1048
JD 163-216	Ross	Fineline 5000	1097	1046	1054	1048

FA-5 (2025)						
JD 152-216	Ross	Fineline 5000	1036	1036	1103	1054
FA-6 (2026)						
JD 152-165	Ross	Fineline 5000	1046	1054	1053	1047
JD 166-172	Ross	Fineline 5000	None			
JD 173-190	Ross	Fineline 5000	1054	1054	1053	1047
JD 191-216	Ross	Fineline 5000	1046	1054	1053	1047

On JD 162, the fathometer (1097) on FA-4 began producing a wavering trace and could not be calibrated. The recorder was replaced by the unit from FA-5 (1036) and the collection of survey data continued. The problem was traced to a defective belt and stylus.

On JD 191, the initial and analog trace of the recorder (1046) in FA-3 was found to be out of adjustment and was replaced by a recorder (1054) from FA-6. Upon completion of repairs onboard the FAIRWEATHER, fathometer (1046) was installed in FA-6. No data was lost due to this problem.

No other fathometer problems occurred and no data had to be rejected as a result of a fathometer malfunction.

Velocity corrections were obtained from five SV/D casts taken in Shelikof Strait using a Plessy Model 9040 profiling system. See Table II, Velocity Casts.

Table II
Velocity Casts

Cast #	Date	Latitude	Longitude
I	15 June (152)	57°19'12"	156°00'24"
II	22 June (173)	57°18'00"	156°07'30"
V	6 July (187)	57°17'00"	156°07'42"
VI	27 July (208)	57°16'30"	156°09'18"
VIII	10 Aug (222)	57°17'30"	156°07'54"

The Plessy 9040 profiling system, serial number 5638, was calibrated at the Northwest Regional Calibration Center, Seattle in April, 1983. Calculations for velocity and depth were done using the second order equations from this calibration. See the Velocity Corrector Tables in Appendix D, and Corrections to Echo Soundings Report, OPR-P146-83 for applicable correctors.

Bar checks throughout the project period were used to confirm proper fathometer system function and to provide data to compute TRA correctors. Bar checks were performed twice daily when possible. There were some launch days when only one check was made due to various reasons, i.e. weather and sea conditions, equipment failures, etc. Bar check data confirmed a 0.3 fathom TRA corrector for launches FA-3 and FA-5 and a 0.4 fathom corrector for FA-4. FA-6 was found to have a 0.4 fathom TRA between JD 148 and JD 187 and a 0.3 fathom corrector after JD 187.

All soundings on the final field sheet were plotted using a 0.3 fathom TRA. Corrections have been made to the appropriate corrector tapes to reflect the applicable TRA correctors. Smooth Sheet plotted using the corrected TRA values

Weather conditions during this survey were variable, winds ranged from calm

to 30 knots and seas from flat to three feet. Corrections for heave were applied during the scanning of the fathograms when required, as per Section 4.9.8.2 of the Hydrographic Manual.

Settlement and Squat for all launches was determined in Shilshole Bay, Seattle in March, 1983. The tests were performed in accordance with Section 4.9.4.2 of the Hydrographic Manual, 4th Edition. Launches were tested at speeds from idle to 2700 RPM, in 200 RPM increments. A Zeiss Ni 2 level was used to read a stadia rod held over the transducer when the launch speed was attained. A tide staff was read simultaneously with the stadia level to correct for tidal influences. The test results were used to plot settlement and squat curves. As explained in Section 4.9.2 of the Hydrographic Manual, restrictive speeds for all launches were determined using 0.1 fathom as a maximum corrector. See Table III, Restricted Launch Speeds, for settlement and squat correctors to be applied to data collected in fathoms.

For more information, see the Corrections to Echo Sounding Report for this project.

Table III
Restrictive Launch Speeds
(For surveys in fathoms)

Launch	Restrictive Speeds
FA-3 (2023)	None
FA-4 (2024)	Above 2650
FA-5 (2025)	Above 2530
FA-6 (2026)	None

Leadlines were used to measure least depths over shoal areas. All leadlines and bar check lines were calibrated in Seattle, Washington in April, 1983. Bar check lines were also calibrated in Kodiak, Alaska on 24 July and 1 August 1983. No leadline correctors were applicable to soundings collected during this project.

E. Hydrographic Sheets

The field sheet was plotted aboard the FAIRWEATHER using the PDP 8 Computer (09524) and two Complot Plotters (5848-17 and 6166-22). All the hydrographic data for this survey will be forwarded to the Pacific Marine Center in Seattle, Washington for verification and smooth plotting.

The final field sheet is plotted on mylar, dimensions are 21.5 by 54 inches with a skew of 40°at a scale of 1:10,000.

F. Control Stations

Horizontal control for this survey began in 1982 and was completed in 1983. All work was conducted by FAIRWEATHER personnel. For details on stations established in 1982, see Horizontal Control Report, OPR-P146-FA-82.

Three control stations were established in 1983. These were: O TIME (triangulation), CAL POLE (intersection), and TP-13 (resection). Station O TIME, 1983 was monumented, CAL POLE and TP-13 were temporary points that were removed at the completion of the project. All control was based on the North American 1927 Datum. All field measurements and calculations were completed to Third Order,

Class I accuracy or better. For further details, see Horizontal Control Report, OPR-P146-FA-83. A list of control stations used on this survey may be found in Table IV, Control Stations.

Table IV
Control Stations

Note: See definitions of Abbreviations below

Station Name	Signal Number
LEE 1944 r.m.	251
COAL 1982 r.m.	252
EAST CHANNEL 1923 r.m.	276
TERRACE 1923 r.m.	310
GUANO 1982 r.m.	400
O TIME 1983 d.m.	406
CAL POLE 1983 n.d.n.m.	410
FLAT 1982 r.m.	412
TP-13 1983 n.d.n.m.	414

r=Recovered m=Marked (Monumented) n=Not d=Described

The following stations were located outside the limits of this survey: LEE 1944; EAST CHANNEL 1923; TERRACE 1923; O TIME 1983; and TP-13 ~~1983~~.

No unconventional survey methods were used; no anomalies in control adjustment or in closures and ties were encountered.

G. Hydrographic Position Control

Hydrographic positioning control was accomplished using the Motorola Mini-Ranger III system in standard range-range and range-azimuth configurations. Three point sextant fixes and Mini-Ranger range-range control was used for all detached positions.

Table V, Mini-Ranger Equipment by Vessel, is a listing of console and R/T units for each sounding vessel. There were no Mini-Ranger equipment failures during the course of the survey.

Table V
Mini-Ranger Equipment by Vessel

Vessel	Console-R/T Unit
FA-3 (2023)	B0323/1649
FA-4 (2024)	703/1419
FA-5 (2025)	701/1538
FA-6 (2026)	506042/1398
WH-2 (2028)	506042/1398

With the exception of data collected on JD 216, Mini-Ranger electronic correctors for this survey were obtained from two baseline calibrations performed in conjunction with this survey. Initial correctors were determined from a baseline calibration performed on JD 139 (console 703) in Washington Bay, Alaska and JD 140 (consoles B0323 and 701) and JD 143 (console 506042) in Juneau, Alaska. Final baseline correctors were determined by averaging the initial correctors with those of the final baseline calibration. The final baseline calibration

was performed in Kodiak, Alaska on JD 196 (consoles B0323 and 703) and JD 199 (consoles 701 and 506042).

Electronic correctors for data obtained on JD 216 were obtained by averaging the baseline calibration values of JD 196/199 with a baseline performed in Seattle, Washington on JD 251/252.

Baseline calibrations and systems checks were conducted in accordance with Appendices M and S of the PMC OPORDERS. Systems checks using the CAL POLE technique were performed at least once daily and confirmed the baseline corrector values. Critical checks showed a mean variation of 1.5 meters with the maximum value of six meters from the baseline calibration.

Range-azimuth positioning control was used to obtain the hydrography within the lagoon located on the north end of Wide Bay. After completion of this survey, it was found that one of the theodolites used for the majority of that range-azimuth work had a severe collimation error. While continuing operations on the FA-10-4-83 survey, problems were encountered whenever T-1 #13063 was used in conjunction with critical calibrations for Mini-Ranger equipment. These difficulties lead to the discovery that this instrument contained collimation errors that varied from 1 to ~~17~~ 17.3 minutes of arc.

Evidently, at some point during the field season theodolite #13063 was damaged such that the trunnion was bent along with the horizontal plate. From that time on, as the plate and trunnion were clamped together at various positions, the distortion combined to produce repeatable collimation errors. As it is not known when the instrument was damaged, data collected using this T-1 from the beginning of this field season until the problem was found, it questionable as to its accuracy.

For this survey, if the T-1 was damaged the collimation errors would have ranged up to approximately ~~14~~ 17.3 minutes with the launch operating at distances up to 2350 meters from the T-1 thus producing control positional discrepancies up to nine meters. (actual 9.7 meters)

Examining the area affected by this possible problem, the maximum displacement in the hydro would occur at the inshore end of the lagoon, whereas the central area and mouth of the lagoon would only experience a 2-4 meter change. With this in mind, along with the fact that the controlling depth to the entrance is approximately 3.0 feet and foul with rocks and kelp, it is recommended that the hydro be accepted as is with no further additional work. see Analytic Report Section 1

For further information concerning the difficulties experienced with this theodolite, refer to the Special Report Collimation Error in T-1 #13063 in the appendicies following the text. Separates are included in rear of Cabinet

No unusual weather conditions adversely affected positional accuracy on this survey. No hydrography was conducted with weak or less than minimum required control geometry. All signal strengths were recorded automatically or manually annotated on line to insure that all hydrography run with less than minimum required signal strengths was plotted using time and course methods.

In all cases, the launch's Mini-Ranger R/T unit is located over the transducer thus eliminating the need for ANDIST correctors to be applied to the data.

The Abstract of Correctors to Electronic Position Control is included in

the appendicies that follow the text.

For additional details, consult the Electronic Control Report, OPR-P146-FA-83 dated November, 1983.

H. Shoreline

Shoreline for this survey is adequate and should be used for charting purposes.

Shoreline was taken from a 1:10,000 scale mylar enlargement of TP-00927, a 1:20,000 scale Class III registered shoreline manuscript.

Field edit was not performed on this survey as registered manuscripts were available, however, shoreline verification was conducted by hydrographic means.

All features from the shoreline manuscript are in black ink on the final field sheet with hydrographic changes indicated in red ink.

Comparing hydrography to the shoreline manuscript showed excellent agreement with the mean high water line whereas reef and ledge areas had generally poor agreement. Hydrography found the ledge and reef system to be less extensive than the manuscript between longitudes 156°08'00"W and 156°13'00"W and more extensive in the small lagoon on the north end of the survey. This is especially apparent with the ledge that extends outward from Coal Point (latitude 57°26'20"N, longitude 156°12'48"W) and the offshore reefs between latitudes 57°26'39"N and 57°27'51"N, longitudes 156°10'30"W and 156°12'42"W.

Not all rocks shown on the manuscript were verified by hydrography. Only those rocks visible and reachable by small skiff at low tide were hydrographically located. All others were carried forward from the manuscript to the final field sheet since they were located by photogrammetry.

There was one control station used during this survey that was located seaward of the shoreline. Station GUANO 1982 is located on a prominent, 40 feet high, lone island lying in the bight on the western shore near the north end of Wide Bay. The island is approximately one mile from the northeastern shore of Wide Bay. The disk is near the center of a flat plateau on the island. A rock pinnacle about five meters high rises from the west face of the plateau.

I. Crosslines

Crosslines were run at least 45° to the main scheme sounding lines and amounted to eight per cent of the principal sounding lines. Crossline agreement was excellent with all crossline soundings agreeing to within 0.2 fathoms of the main scheme lines. This exceeds the Hydrographic Manual's requirement of 0.5 fathoms for crossline agreement for depths less than 20 fathoms.

J. Junctions

This survey junctions with H-10025 (FA-10-4-82) to the west and H-10039 (FA-10-6-82) to the south. Agreement between adjacent soundings is excellent with all soundings agreeing to within 0.4 fathoms and 60% of the soundings agreeing to within 0.2 fathoms.

K. Comparison with Prior Surveys

This survey area is covered by two prior surveys, H-4296, a 1:20,000 scale survey performed in 1923 and H-4140, a 1:20,000 scale reconnaissance survey performed in 1920. In order for comparisons to be made it was necessary to shift the datum of H-4296 approximately 480 meters in a direction of 45°T. (The 1927 NAD was not marked on the ship's copy of H-4296.). The H-4140 survey contained no grid and few distinctive points hence comparisons were made by aligning the two shorelines as nearly as possible.

There were no pre-survey review items applicable to this survey.

Overall agreement between this survey and survey H-4296 is generally good with 95% of the soundings meeting the requirement of Section 1.1.2, Part B of the Hydrographic Manual, 4th Edition. The prior survey soundings in disagreement are generally ten per cent deeper than this survey indicating possible difficulties with the older lead-line technique. Errors in positioning may have also contributed to these discrepancies, especially along the steep slopes of the shoal areas. Table VI lists discrepancies found between this survey and H-4296.

The rock awash charted on the prior survey H-4296 and the current chart 16570 at latitude 57°26'38"N, longitude 156°11'19"W was found not to be present following an extensive investigation (position numbers 2551-2568, JD 216). It is recommended that this rock be removed from the chart.

Overall agreement between this survey and H-4140 was very poor with 90% of the soundings failing to meet the requirement of Section 1.1.2, Part B of the Hydrographic Manual. The prior soundings in disagreement are generally 20% deeper than this survey again indicating possible difficulties in measuring depth and obtaining accurate positions. Due to the large number of disagreements, discrepancies were not individually listed.

The low density of soundings from these prior surveys failed to reveal the true topography of the bottom and six shoal areas were not located. For information concerning these areas, refer to Section L, Comparison with the Chart.

For all discrepancies it is recommended that this survey supersede the two prior surveys.

Table VI
Discrepancies with Prior Surveys

Latitude (North)	Longitude (West)	H-4296 (Fm @ MLLW)	H-10089 (Fm @ MLLW)	Position Number
57°26'46"	156°10'36"	3 1/2	0.8	2439 + 2
57°27'15"	156°10'09"	6 5/6	5.0	4619 + 5 - 4620
57°26'58"	156°09'22"	10	8.0	4048 + 1 - 4071
57°27'29"	156°09'14"	4 4/6	3.1	7241
57°26'31"	156°10'08"	6 2/6	1.3 *	
57°26'57"	156°10'31"	6	2.9	7243

* Note: 1.3 fm shoal is on the junction of this survey and FA-10-6-82 (H-10039).

L. Comparison with the Chart

Comparisons were made between this survey and Chart 16570, 8th Edition, 18 FEB 1978. Eighty-seven per cent of the soundings meet the requirement of Section 1.1.2, Part B of the Hydrographic Manual, 4th Edition. Table VII, Discrepancies with the Chart list discrepancies between this survey and Chart 16570. For further information regarding sounding discrepancies, refer to Section K, Comparison with Prior Surveys.

Table VII
Discrepancies with the Chart
actual tides applied

Latitude (North)	Longitude (West)	16570 (Fm @ MLLW)	H-10089 (Fm @ MLLW)	Position Number
57°28'37"	156°06'49"	2 1/4	1.6-1.9 2.1-2.0	7095 - 7095 + 1
57°26'31"	156°10'08"	6 1/4	1.8*	
57°25'58"	156°11'50"	4 1/4	3.4	4285 + 5
57°26'18"	156°14'44"	2 1/4	3.2	4474 + 3
57°26'22"	156°14'51"	3/4	1.8	4475 + 1
57°26'11"	156°13'58"	2 3/4	4.0	4818 + 3
57°26'05"	156°13'51"	4 1/4	5.5	2047 + 1
57°26'27"	156°11'42"	6 1/2	4.8	4345 + 4
57°28'17"	156°11'59"	3/4	0.7	4439 + 5

* Note: 1.8 fm shoal is on the junction of this survey and FA-10-6-82 (H-10039).

For all discrepancies it is recommended that the soundings from this survey (H-10089) supersede the charted depths within their common areas. see Evaluation Report section 7.

Least depths over three shoals discovered during the course of the survey were determined by divers using lead lines. Diver determined least depths are tabulated in Table VIII, Diver Least Depths.

Table VIII
Diver Least Depths
actual tides applied

Latitude (North)	Longitude (West)	Depth (Ft @ MLLW)	Position Number
57°27'29"	156°09'14"	18.9 19.8	7241
57°27'11"	156°10'08"	28.9 28.8	7242
57°26'57"	156°10'31"	17.5 17.4	7243

Table IX, Newly Found Dangers to Navigation, lists six shoals considered to be dangers to navigation found during this survey. Copies of all reports sent to the Coast Guard regarding these dangers are included in the appendices following the text.

Table IX
Newly Found Dangers to Navigation
see attached letters for dangers to navigation letters submitted to the U.S. Coast Guard

Latitude (North)	Longitude (West)	Depth (Fm @ MLLW)	Position Number
57°27'29"	156°09'14"	3.3	7241

57°27'11"	156°10'08"	4.8	7242
57°27'14"	156°10'14"	4.~~8~~9	~~4093 + 4~~ 4628+3
57°27'21"	156°10'08"	4.~~8~~7	4067 + 3
57°26'57"	156°10'31"	2.9	7243
57°26'31"	156°10'08"	1.~~3~~5*	

* Note: 1.~~3~~5 fm shoal is on the junction of this survey and FA-10-6-82 (H-10039).

Rocks awash charted at the following locations were determined to be within the foul limits of the survey and were not specifically jnvestigated. It is recommended that they continue to be charted. *see Evaluation Report Section 7.*

57°28'17"N	156°08'57"W
57°27'15"N	156°12'41"W
57°26'12"N	156°12'53"W
57°27'40"N	156°12'25"W

For additional detail concerning non-sounding features, refer to Section H, Shoreline.

M. Adequacy

This survey is complete and fully adequate to supersede all prior surveys in their common areas. There is no incomplete or sub-standard portion. No additional field work is necessary.

N. Aids to Navigation

There were no aids to navigation within the limits of this survey.

O. Statistics

Vessel	2020	2023	2024	2025	2026	2028	2030	Total
Positions	-	~~547~~ 552	~~965~~ 951	47	15~~8~~7	21	1	173~~4~~29
Nautical Miles	-	63.0	113.7	-	12.7	-	-	189.4
Square Miles	-	2.2	4.0	-	.5	-	-	6.7
Bottom Samples	-	5	-	47	-	-	-	52
Velocity Casts	6	-	-	-	-	-	-	6
Tide Stations	-	-	-	-	-	-	-	1

P. Miscellaneous

None

Q. Recommendations

None

R. Automated Data Processing

All range-range and range-azimuth hydrography was processed in accordance with the Hydrographic Data Requirements Letter (Appendix Q), Change 2 dated April 14, 1983. For range-range hydro, all peaks, deeps, and sounding corrections were put on the corrector tape. With range-azimuth data, all peaks and deeps that were inserted on arcs were edited onto the master tape with an interpolated range assigned to them. For range-azimuth inserts that were not located

on arcs, the inserts were either edited onto the master as a short word or onto the corrector tape being positioned by time and course.

The following list of hydroplot programs were used for data acquisition and processing during this survey.

Number	Program Name	Versions Dates
FALOGH. BN	R/R + R/AZ Hydrologger	04/08/83
RK 112	R/R Real Time Plot	08/04/81
RK 201	Grid, Signal and Lattice Plot	04/18/75
RK 211	R/R Non Real Time Plot	02/02/81
RK 212	Visual Station Table Load	04/01/74
RK 216	R/AZ Non Real Time Plot	02/09/81
RK 407	Geodetic Inverse/Direct Computations	09/25/78
RK 300	Utility Computations	10/21/81
RK 330	Reformat and Data Check	05/04/76
PM 360	Electronic Corrector Abstract	02/02/76
AM 500	Predicted Tide Generator	11/10/72
RK 530	Layer Corrections for Velocity	05/10/76
RK 561	H/R Geodetic Calibration	12/01/82
AM 602	Elinore	12/08/82

S. Referral to Reports

The following is a list of the reports for OPR-P146-FA-83 that are to be submitted separately from the descriptive report and hydrographic records:

Report	Date of Submission
Horizontal Control Report	November 1983
Electronic Control Report	November 1983
Coast Pilot Report	November 1983
Corrections to Echo Soundings Report	November 1983

Field Tide Note
OPR-P146-FA-83
Wide Bay, Alaska

The primary tide gauge (945-7283) Kodiak, Alaska served as reference station for the predicted tides for the entire Wide Bay project as stated in the Project Instructions, OPR-P146-FA-83. Leveling and periodic maintenance of this station are performed by the Pacific Tide Party.

Predicted tide correctors were interpolated aboard the FAIRWEATHER using the program AM 500 dated 10 Nov 72.

All times of both predicted and recorded tides are expressed in Universal Coordinated Time. All predicted tides were acceptable for hydrography with no discrepancies in data attributable to tide errors.

Tide station (945-8461) Wide Bay, Alaska located at Latitude 57°21'54"N, Longitude 156°24'07"W was the field tide gauge in support of this project. Opening levels were run on 28 May 83 between the tide staff mounted on the pier ruins, and five bench marks established by FAIRWEATHER personnel (one of which was established on 27 May 83). A closure of four millimeters was obtained for the entire run of approximately 0.6 nautical miles.

A second tide staff was mounted on the pipe casing with the tide gauge on 27 May 83 (JD 147). The purpose of the additional staff was to allow gauge to staff comparisons during times when the pier staff was dry or in the surf zone. Gauge to pipe staff comparisons from 27 May 83 to 24 Aug 83 established a gauge reading of 11.02 feet for the zero elevation of this staff. A series of simultaneous staff comparisons made on 9 July 83 (JD 190) found a difference of 8.16 feet to exist between the staff mounted on the standpipe and the shallower staff mounted on the pier ruins. These comparisons established a gauge reading of 19.18 feet for the zero mark on the pier staff. Tide gauge records from 27 May 83 to 24 Aug 83 indicate that the gauge reading for the pier staff zero should be 19.34 feet.. The reason for this is probably due to errors introduced by reading a staff in a surf zone as well as time delays associated with transiting from the gauge to the pier staff.

Closing levels were run on 24 Aug 83 (JD 236) to the same five bench marks with a closure of four millimeters. A comparison of opening to closing levels showed no sign of any vertical movement in the marks or tide staff.

Operational Problems

Fisher Porter ADR gauge 73C4A1380M17 operated without a problem from the date of installation until 4 Aug 83 (JD 216) when the punch block jammed while removing data. High winds and seas prevented the repairing of the gauge until 6 Aug 83(JD 218). During this period of approximately 45 hours when tidal data was not collected, some hydrography was conducted. Interpolation can be used to provide a tidal record for the period of the gauge malfunction. No hydrographic data was lost due to this malfunction.

NOAA FORM 76-155
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SURVEY NUMBER

H-10089

GEOGRAPHIC NAMES

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	
Coal Point	X	X	X							1
Wide Bay	X	X	X							2
Big Creek	X		X							3
Cape Igvak	X	X	X							4
										5
										6
										7
										8
										9
										10
										11
										12
										13
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										21
										22
										23
										24
										25

SIGNAL LISTING

FOR

FA-10-3-83 (H-10089)

OPR-P146-FA-83

LEE 1944 NGS QUAD 571562 1013
251 0 57 26 11656 156 15 51538 250 0018 000000

COAL 1982 NGS QUAD 571562 FAIRWEATHER 1982
252 0 57 26 19655 156 12 45413 250 0017 000000

EAST CHANNEL 1923 NGS QUAD 571562 1006
276 0 57 24 34100 156 11 55721 250 0026 000000

TERRACE 1923 NGS QUAD 571562 1022
310 3 57 22 48321 156 16 12267 250 0095 000000

GUANO 1982 NGS QUAD 571562 FAIRWEATHER 1982
400 0 57 27 32529 156 11 00676 250 0005 000000

OTIME 1983 NGS QUAD 571562 FAIRWEATHER 1983
406 0 57 25 26434 156 10 20233 250 0001 000019

CAL POLE 1983 NGS QUAD 571562 FAIRWEATHER 1983
410 0 57 26 07317 156 13 00010 254 0000 000000

FLAT 1982 NGS QUAD 571562 FAIRWEATHER 1982
412 0 57 28 23026 156 07 37960 250 0001 000000

TP-13 ~~1983~~ NGS QUAD 571562 FAIRWEATHER 1983
414 0 57 27 44854 156 08 04078 243 0015 000000

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
NOAA Ship FAIRWEATHER S220
1801 Fairview Ave. East
Seattle, WA 98102

24 July 83

AWOIS 6/11/85 MSM (13 Items)

Commander
Seventeenth Coast Guard District
P.O. Box 3-5000
Juneau, AK 99802

Dear Sir:

The following dangers to navigation have been discovered by the NOAA Ship FAIRWEATHER during hydrographic survey operations in the Wide Bay vicinity of Shelikof Strait.

1. Shoal, covered by 3.3 fathoms at Mean Lower Low Water (MLLW); Chart No. 16570 and 16568; latitude 57°27'27"N; longitude 156°09'14"W; distance 2.17 nautical miles (nm), bearing 060°T from Coal Point. → REVISED TO * 57/27/29

2. Shoal, covered by 4.8 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°27'10"N, longitude 156°10'13"W; distance 1.63 nm, bearing 060°T from Coal Point. → REVISED TO * 57/27/11 156/10/14

3. Shoal, covered by 3.1 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°26'56"N, longitude 156°10'31"W; distance 1.3 nm, bearing 064°T from Coal Point. → REVISED TO * 57/26/57

4. Shoal, covered by 1.8 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°26'33"N; longitude 156°10'06"W; distance 1.4 nm; bearing 081°T from Coal Point.

5. Shoal, covered by 1.9 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°26'04"N; longitude 156°08'54"W; distance 2.08 nm, bearing 097°T from Coal Point.

6. Shoal, covered by 1.7 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°26'42"; longitude 156°08'07"W; distance 2.5 nm, bearing 082°T from Coal Point.

7. Shoal, covered by 3.3 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°24'04"N; longitude 156°12'26"W; distance 0.5 nm; bearing 088°T from Channel Rock.

* REVISED AFTER DIVER INVESTIGATIONS.
COAST GUARD NOT INFORMED DUE TO SUCH MINOR REVISIONS.

8. Shoal, covered by 2.0 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°23'37"N, longitude 156°11'07"W; distance 1.29 nm, bearing 110°T from Channel Rock.

9. Shoal, covered by 7.3 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°23'11"N, longitude 156°13'23"W; distance 0.88 nm, bearing 181°T from Channel Rock.

10. Shoal, covered by 1.9 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°23'06"N, longitude 156°13'12"W; distance 0.95 nm, bearing 175°T from Channel Rock.

11. Shoal, covered by 7.3 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°22'58"N, longitude 156°13'24"W; distance 1.1 nm, bearing 181°T from Channel Rock.

12. Shoal, covered by 3.7 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°22'48"N, longitude 156°12'29"W; distance 1.34 nm, bearing 159°T from Channel Rock.

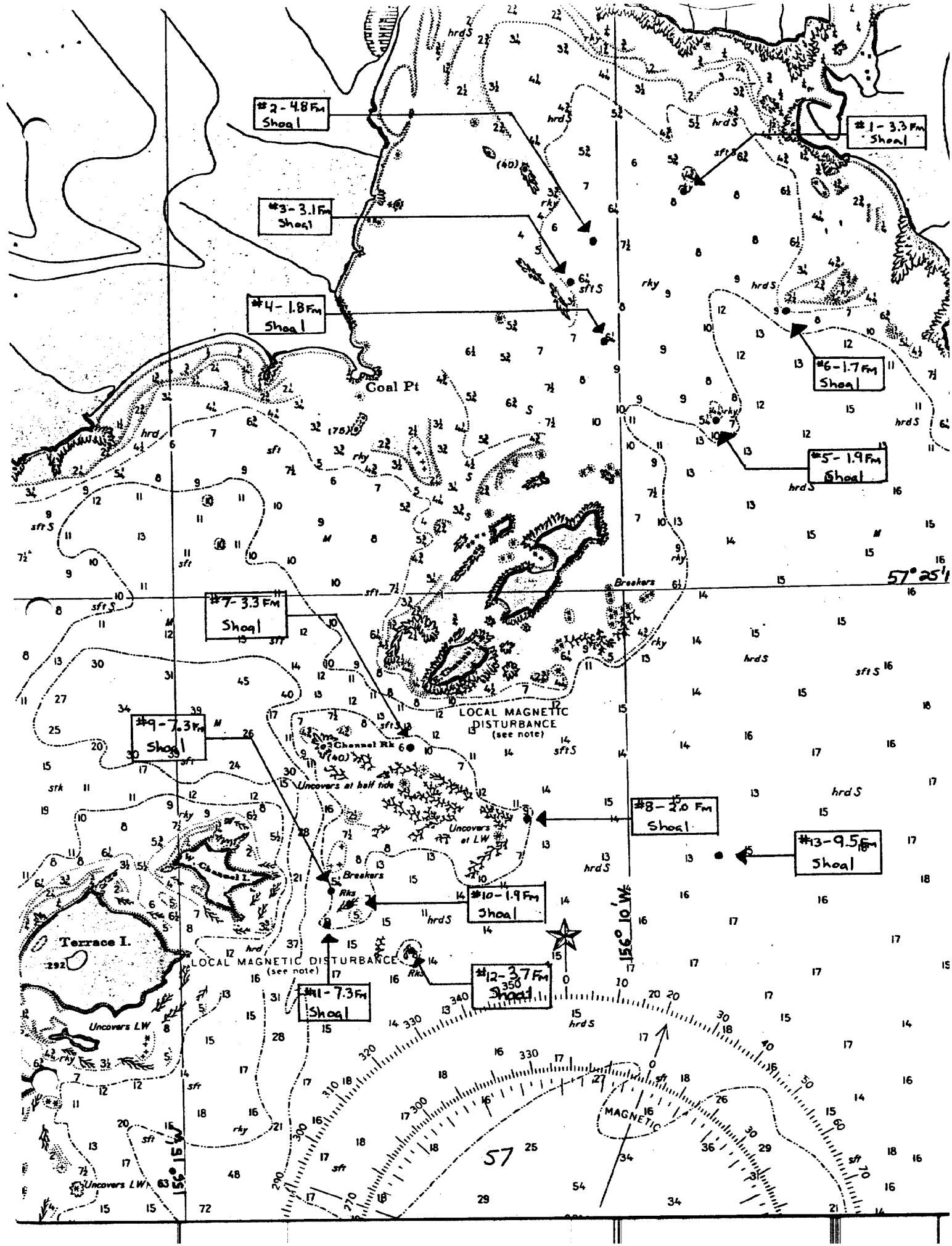
13. Shoal, covered by 9.5 fathoms at MLLW; Chart No. 16570 and 16568; latitude 57°23'22"N, longitude 156°08'54"W; distance 2.5 nm, bearing 106°T from Channel Rock.

Sincerely,

Christian Andreasen

Christian Andreasen
Commander, NOAA
Commanding Officer

cc: N/MOP - Director, Pacific Marine Center
N/CG22 - Chart Information Section


#2 - 4.8 Fm Shoal
#3 - 3.1 Fm Shoal
#4 - 1.8 Fm Shoal
#1 - 3.3 Fm Shoal
#6 - 1.7 Fm Shoal
#5 - 1.9 Fm Shoal
#7 - 3.3 Fm Shoal
#9 - 7.3 Fm Shoal
#8 - 2.0 Fm Shoal
#13 - 9.5 Fm Shoal
#10 - 1.9 Fm Shoal
#12 - 3.7 Fm Shoal
#11 - 7.3 Fm Shoal
Coal Pt
Terrace I.
LOCAL MAGNETIC DISTURBANCE (see note)
LOCAL MAGNETIC DISTURBANCE
(see note)
Channel Rk
Uncovers at half tide
Uncovers at LW
Uncovers LW
Breakers
Rks
57° 25' N
156° 10' W
MAGNETIC

NOJ DE WTEB

T

RTTUZYUW RUHPTEB0092 2080030-UUUU--RUHPSUU.
ZNR UUUUU
R 270030Z JUL 83
FM NOAAS FAIRWEATHER
TO CCGDSEVENTEEN JUNEAU AK
INFO NOAAMOP SEATTLE WA
DMAHTC WASHINGTON DC/NVS//
ACCT CM-VCAA
BT
UNCLAS
NOAAMOP SEATTLE WA PASS TO CHART INFORMATION SECTION N/CG222

CO
40
F00

THE FOLLOWING DANGERS TO NAVIGATION HAVE BEEN DISCOVERED BY THE NOAA SHIP FAIRWEATHER DURING HYDROGRAPHIC SURVEY OPERATIONS IN THE WIDE BAY VICINITY OF SHELIKOF STRAIT.

1. SHOAL, COVERED BY 3.3 FATHOMS AT MEAN LOWER LOW WATER (MLLW): CHART NO. 16570 AND 16568: LATITUDE 57 DEG 27 MIN 27 SEC N, LATITUDE 156 DEG 09 MIN 14 SEC W: DISTANCE 2.17 NAUTICAL MILES (NM), BEARING 060 DEG T FROM COAL POINT.

2. SHOAL, COVERED BY 4.8 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 27 MIN 10 SEC N, LONGITUDE 156 DEG 10 MIN 13 SEC W: DISTANCE 1.63 NM, BEARING 060 DEG T FROM COAL POINT.

3. SHOAL, COVERED BY 3.1 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 26 MIN 56 SEC N, LONGITUDE 156 DEG 10 MIN 31 SEC W: DISTANCE 1.3 NM, BEARING 064 DEG T FROM COAL POINT.

4. SHOAL, COVERED BY 1.8 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 26 MIN 33 SEC N, LONGITUDE 156 DEG 10 MIN 06 SEC W: DISTANCE 1.4 NM, BEARING 081 DEG T FROM COAL POINT.

5. SHOAL, COVERED BY 1.9 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 26 MIN 04 SEC N, LONGITUDE 156 DEG 08 MIN 54 SEC W: DISTANCE 2.08 NM, BEARING 097 DEG T FROM COAL POINT.

6. SHOAL, COVERED BY 1.7 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 26 MIN 42 SEC, LONGITUDE 156 DEG 08 MIN 07 SEC W: DISTANCE 2.5 NM, BEARING 082 DEG T FROM COAL POINT.

7. SHOAL, COVERED BY 3.3 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 24 MIN 04 SEC N, LONGITUDE 156 DEG 12 MIN 26 SEC W: DISTANCE 0.5 NM, BEARING 088 DEG T FROM CHANNEL ROCK.

8. SHOAL, COVERED BY 2.0 FATHOMS AT MLLW: CHART NO.16570 AND 16568: LATITUDE 57 DEG 23 MIN 37 SEC N, LONGITUDE 156 DEG 11 MIN 07 SEC W: DISTANCE 1.29 NM, BEARING 110 DEG T FROM CHANNEL ROCK.

9. SHOAL, COVERED BY 7.3 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 23 MIN 11 SEC N, LONGITUDE 156 DEG 13 MIN 23 SEC W: DISTANCE 0.88 NM, BEARING 181 DEG T FROM CHANNEL ROCK.

10. SHOAL, COVERED BY 1.9 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 23 MIN 06 SEC N, LONGITUDE 156 DEG 13 MIN 12 SEC W: DISTANCE 0.95 NM, BEARING 175 DEG T FROM CHANNEL ROCK.

11. SHOAL, COVERED BY 7.3 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 22 MIN 58 SEC N, LONGITUDE 156 DEG 13 MIN 24 SEC W: DISTANCE 1.1 NM, BEARING 181 DEG T FROM CHANNEL ROCK.

12. SHOAL, COVERED BY 3.7 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 22 MIN 48 SEC N, LONGITUDE 156 DEG 12 MIN 29 SEC W: DISTANCE 1.34 NM, BEARING 159 DEG T FROM CHANNEL ROCK.

13. SHOAL, COVERED BY 9.5 FATHOMS AT MLLW: CHART NO. 16570 AND 16568: LATITUDE 57 DEG 23 MIN 22 SEC N, LONGITUDE 156 DEG 08 MIN 54 SEC W: DISTANCE 2.5 NM, BEARING 106 DEG T FROM CHANNEL ROCK.
BT
#0092

NNNN

Approval Sheet

During field operations, the Commanding Officer inspected all field sheets and data on a daily basis. All survey sheets, reports and records are accurate. This survey is complete and shall require no additional field work.

Submitted by:
Kathy Andrews, LT.

for Timothy D. Rulon
LT NOAA

Approved by:

Christian Andreasen

Christian Andreasen
CDR NOAA
Commanding Officer

H-10089

HYDROGRAPHIC SURVEY STATISTICS

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	2
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	2

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDIAN FILES	1					
ENVELOPES						
VOLUMES	3					
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS(List):

PHOTOBATHYMETRIC MAPS(List):

NOTES TO THE HYDROGRAPHER(List):

SPECIAL REPORTS(List):

NAUTICAL CHARTS(List): Enlargement 1:10,000 of Chart 16570 8th Ed.

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET			1729
POSITIONS REVISED	1243		1243
SOUNDINGS REVISED	270		270
CONTROL STATIONS REVISED			
	TIME-HOURS VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION			2.0
VERIFICATION OF CONTROL	20.0		20.0
VERIFICATION OF POSITIONS	42.0		42.0
VERIFICATION OF SOUNDINGS	121.0		121.0
VERIFICATION OF JUNCTIONS	4.5		4.5
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	44.0		44.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS		20.5	20.5
EVALUATION OF SIDESCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT /Verifiers Report	12.0	24.0	36.0
OTHER Familiarization/Rework	3.0	65.5	68.5
DIGITIZATION	8.0		8.0
TOTALS	256.5	110	366.5

Pre-processing Examination by: J.S. Green	Beginning Date:	Ending Date:
Verification of Field Data by: R.N. Mihailov	Time(Hours): 4/5/84 Begin	Ending Date: 2/26/85
Verification Check by: S. Otsubo, J.S. Green	Time(Hours): 95	Ending Date: 3/14/85
Evaluation and Analysis by: G.E. Kay	Time(Hours): 2/4/85 Begin	Ending Date: 3/12/85
Inspection by: D.J. Hill	Time(Hours): 2	Ending Date: 3-22-85

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10089

1. INTRODUCTION

H-10089 is a basic hydrographic survey conducted by NOAA Ship FAIRWEATHER (S-220) in accordance with the following:

Project instructions OPR-P146-FA-83, dated March 11, 1983.
Change Number 1, dated April 15, 1983.

The survey H-10089 is situated in the northeast portion of Wide Bay located off Shelikof Strait, Alaska.

The following changes were made during office processing.

a. Projection parameters were changed to center the hydrography on the smooth sheet and to change the projection to polyconic.

b. Tide level reducers are from observed tides, see attached Form 712.

c. Field corrected TRA values were applied to the sounding data.

The ship reported a possible collimation error of up to 15 minutes (actually calibrated error is 17.3 minutes) for a Wild T-1 theodolite #13063. This instrument was used in the range/azimuth control conducted during the survey of H-10089. However, no corrections were applied to this survey for two reasons.

a. The dates and times that the error was in effect could not be determined.

b. There are numerous occasions when the identity of the theodolite used was not recorded.

Had the possible collimation correction been applied, the maximum discrepancy would be in the cove in the northeast corner of H-10089. Comparing the prior survey and chart with H-10089 reveals no major discrepancy at the survey scale. Additionally, the plotted survey data indicate no unusual anomalies in areas where the instrument may have been used.

2. CONTROL AND SHORELINE

Horizontal control and hydrographic positioning are adequately discussed on Descriptive Report paragraphs F and G, and in the Horizontal and Electronic Control report for OPR-P146-FA-83.

The smooth sheet was plotted using published and preliminary adjusted field positions on the North American Datum of 1927.

Applicable registered shoreline manuscript and dates are as follows:

TP-00927 Class III, Final Map

Date of Photography	June 1976
Date of Field Edit	None
Date of Final Review	December 1982

Shoreline is not shown on H-10089 in accordance with N/CG memorandum, "Reduction of Marine Center Hydrographic Processing Backlog", dated February 16, 1984.

3. HYDROGRAPHY

Soundings at crosslines are in good agreement. The hydrography contained within this survey is adequate to determine the bottom configuration and least depths. Depth curves could be adequately and completely drawn.

4. CONDITION OF SURVEY

Except as noted in the Preprocessing Examination Report, dated December 21, 1983 the hydrographic records and final report adequately conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3.

5. JUNCTIONS

H-10089 junctions the following:

Survey	Year	Scale	Note	Color	Junctions
H-10025	1982	1:10,000	Joins	Red	Southwest
H-10039	1982-83	1:10,000	Joins	Orange	East

The junctions have been adequately effected.

6. COMPARISON WITH PRIOR SURVEYS

H-4140 (1920) 1:20,000 This reconnaissance survey compares poorly with the present survey. Differences are attributed to poor control and no projection on this prior.

H-4296 (1923) 1:20,000 Present survey data compares well with this prior survey.

However, H-10089 contains more information of better quality (due to changes in survey technology) than the above priors. H-10089 is adequate to supersede H-4140 and H-4296 over the areas of common coverage.

7. COMPARISON WITH CHART

Chart 16570, 8th Ed., Feb. 18, 1978

a). Hydrography - Charted soundings and other information originate with the before mentioned prior surveys. For an adequate item comparison see Descriptive Report paragraph L. The following exception is noted.

The Descriptive Report paragraph L discusses four charted rocks that were not located but determined to be within the foul limits of this survey. One rock charted at latitude 57°27'15" North, longitude 156°12'41" West is confirmed by a photogrammetrically located rock at the same position. The three remaining rocks are located well within the foul area limits and lie relatively near the confirmed ledges or zero fathom curve. It is recommended that the three remaining charted rocks as discussed in the Descriptive Report paragraph L be removed from the chart.

b). Controlling Depths - There are no controlling depths located within the limits of H-10089.

c). Aids to Navigation - There are no fixed or floating aids within the limits of H-10089.

The following dangers to navigation reports (copy attached) have been submitted.

Originator	Date
NOAA Ship FAIRWEATHER	July 24, 1983
Pacific Marine Center	December 22, 1983

Geographic names appearing on the smooth sheet originate with the chart.

H-10089 is adequate to supersede the charted information over its common area.

8. COMPLIANCE WITH INSTRUCTIONS

H-10089 adequately complies with the instructions and changes listed in section 1 of this report.

9. ADDITIONAL FIELD WORK

H-10089 is an adequate basic hydrographic survey. Additional field work is not recommended at this time.

Respectfully submitted,

Gordon E. Kay
Cartographer
March 12, 1985

This survey has been verified and evaluated. I have examined the survey and it meets Charting and Geodetic Services survey standards and requirements for use in nautical charting. The survey is recommended for approval.

Bruce A. Ommsted
for Dennis J. Hill
Chief, Hydrographic Section

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Charting & Geodetic Services
National Geodetic Survey Division
Instrumentation and Equipment Section
P.O. Box 1
Corbin, VA 22446

N/CG163:WVM

June 29, 1984

TO: Lt. Cmdr. David W. Yeager, MOP 21
7600 Sand Point Way, NE
Bin - C15700 Bldg. 3
Seattle, WA 98115-0070

FROM: Richard L. Wright
NOAA, NOS, NGSD

SUBJECT: Theodolite, T1 s/n 13063 Circle Error

This instrument was serviced and tested in 1982 by this facility and returned to Pacific Marine Center in good condition.

The instrument was sent to us in 1983 for calibration of plate readings to salvage surveys performed with the instrument after it had been damaged.

A system of calibration was devised and the data was plotted on a graph. These graph plots were then put on a computer, which generated a correction table.

After the plots and correction tables were made it was discovered that all signs of corrections were reversed. The plots and computer correction tables are good except the correction signs should be reversed.

By William V. Mast
For Richard L. Wright

Per telephone call with Dick Wright on July 27, 1984 the T1 (SN-13063) was last serviced March 1983. M. Kenny

National Ocean Service
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

DEC 22 1983

AWOIS
6/11/85
MSM
(4 items)

Commander (OAN)
Seventeenth Coast Guard District
P. O. Box 3-5000
Juneau, Alaska 99802

Dear Sir:

During preliminary office review of hydrographic survey H-10089, NE portion of Wide Bay, Shelikof Strait, Alaska, four uncharted features were noted and are considered dangers to navigation. Questions concerning the survey may be directed to Capt. Ned C. Austin, Chief, Nautical Chart Branch, telephone (206) 527-6835.

The following statements are recommended for inclusion in the Local Notice to Mariners:

"An uncharted rock covered 1 foot at MLLW (based on predicted tides) is at latitude 57°25'42"N, longitude 156°12'10"W, bearing 154 degrees true, 0.7 nautical miles from Coal Pt. (Charts 16570 and 16568).

"An uncharted shoal covered by 4.6 fathoms (MLLW based on predicted tides) is at latitude 57°27'21"N, longitude 156°10'08"W, bearing 54 degrees true, 1.7 nautical miles from Coal Pt. (Charts 16570 and 16568).

"An uncharted shoal covered by 1.6 fathoms (MLLW based on predicted tides) is at latitude 57°27'55"N, longitude 156°09'12"W, bearing 50 degrees true, 2.47 nautical miles from Coal Pt. (Charts 16570 and 16568).

"An uncharted shoal covered by 3.6 fathoms (MLLW based on predicted tides) is at latitude 57°27'42"N, longitude 156°09'22"W, bearing 53 degrees true, 2.3 nautical miles from Coal Pt. (Charts 16570 and 16568)."

Review of the dangers to navigation radio message dated R270030Z Jul 83 and letter dated July 24, 1983, for NOAA Chart 16570 (Portage and Wide Bays) and 16568 (Wide Bay to Cape Kumlik) submitted by the NOAA Ship FAIRWEATHER, indicates revision of the following items:

Item 1: Least depth confirmed by divers on the shoal is 3.1 fathoms (MLLW based on predicted tides).

Item 3: Least depth confirmed by divers on the shoal is 2.9 fathoms (MLLW based on predicted tides).

Item 4: Least depth on the shoal is 1.3 fathoms (MLLW based on predicted tides).

Sincerely,

/s/ Robert L. Sandquist
for Charles K. Townsend
Rear Admiral, NOAA
Director, Pacific Marine Center

Attachment

bc: N/CG222 (w/attachments)

March 23, 1984

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Pacific

OPR: P146

HYDROGRAPHIC SHEET: H - 10089

Locality: Wide Bay, Alaska

Time Period: June 1 - August 4, 1983

Tide Station Used: 9458461 Wide Bay, Alaska

Plane Of Reference (Mean Lower Low Water): 0.48 Ft.

Height Of Mean High Water Above Plane Of Reference: 11.0 Ft.

Remarks: Recommended Zoning:

Zone Direct

James R. Hubbard
Chief, Tidal Datum Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10089

I have reviewed the smooth sheet, accompanying data, and reports of this hydrographic survey. Except as noted in the Evaluation Report, the hydrographic survey meets or exceeds Charting and Geodetic Services (C&GS) standards, complies with instructions, and is accurately and completely represented by the smooth sheet and digital data file for use in nautical charting.

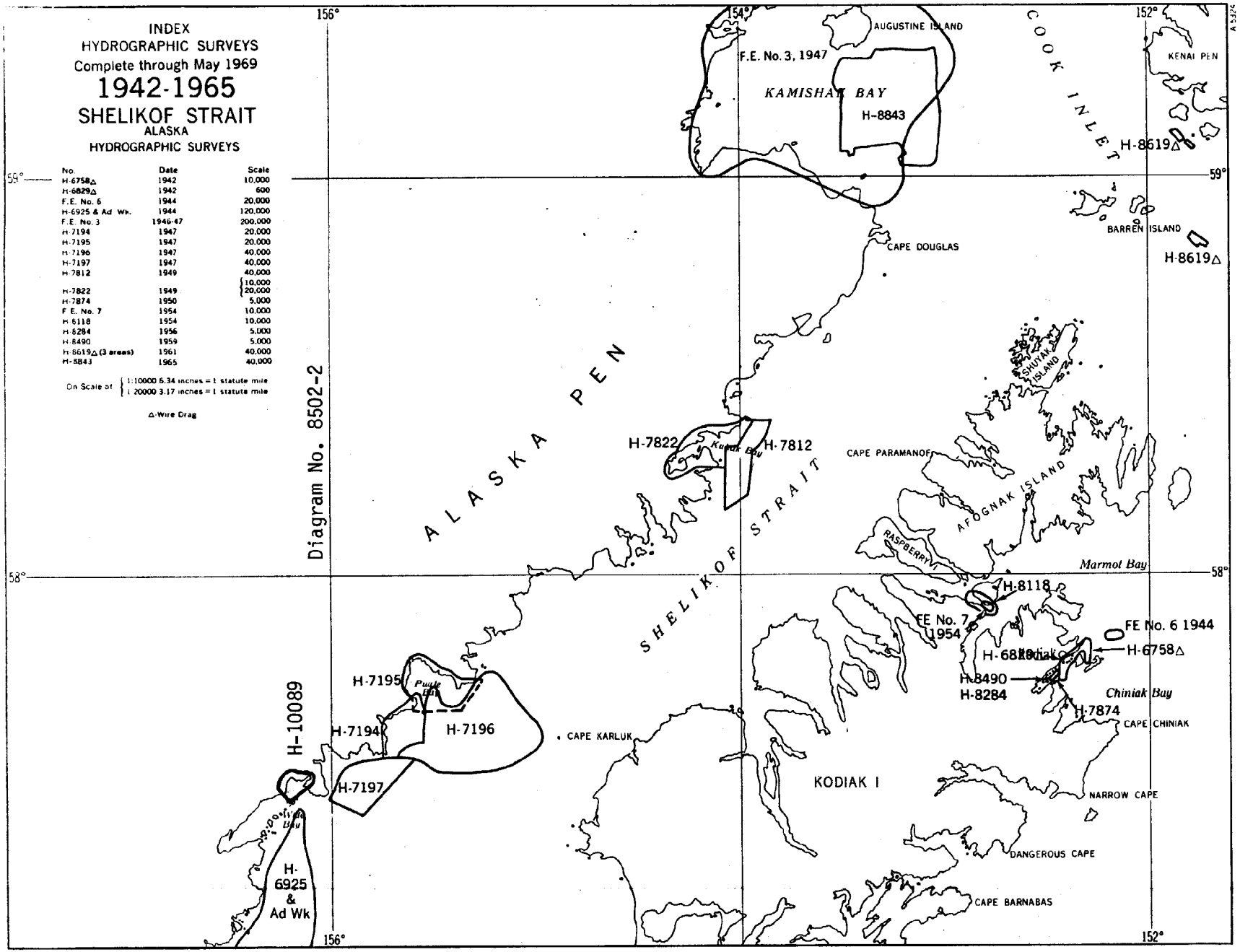
David W. Yeager 3/27/85
Chief, Nautical Chart Branch (Date)

CLEARANCE: SIGNATURE AND DATE:

N/MOP2:LWMordock Larry W. Mordock 3/27/85

After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards with only the exceptions as noted above. The above recommendations are forwarded with my concurrence.

Robert L. Sandt 3/29/85
Director, Pacific Marine Center (Date)


INDEX
HYDROGRAPHIC SURVEYS
Complete through May 1969
1942-1965
SHELIKOF STRAIT
ALASKA
HYDROGRAPHIC SURVEYS
No. Date Scale
H-6758△ 1942 10,000
H-6829△ 1942 600
F.E. No. 6 1944 20,000
H-6925 & Ad Wk. 1944 120,000
F.E. No. 3 1946-47 200,000
H-7194 1947 20,000
H-7195 1947 20,000
H-7196 1947 40,000
H-7197 1947 40,000
H-7812 1949 40,000
H-7822 1949 10,000 / 20,000
H-7874 1950 5,000
F.E. No. 7 1954 10,000
H-8118 1954 10,000
H-8284 1956 5,000
H-8490 1959 5,000
H-8619△ (3 areas) 1961 40,000
H-8843 1965 40,000
On Scale of 1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile
△-Wire Drag
Diagram No. 8502-2
156°
154°
152°
59°
58°
AUGUSTINE ISLAND
F.E. No. 3, 1947
KAMISHAK BAY
H-8843
COOK INLET
KENAI PEN
H-8619△
BARREN ISLAND
H-8619△
CAPE DOUGLAS
ALASKA PEN
SHELIKOF STRAIT
H-7822
Kukak Bay
H-7812
CAPE PARAMANOF
SHUYAK ISLAND
AFOGNAK ISLAND
RASPBERRY I.
Marmot Bay
H-8118
FE No. 7 1954
FE No. 6 1944
H-6758△
H-8490
H-8284
Chiniak Bay
H-7874
CAPE CHINIAK
H-7195
Puale Bay
H-7194
H-7196
CAPE KARLUK
H-10089
H-7197
KODIAK I
NARROW CAPE
DANGEROUS CAPE
CAPE BARNABAS
H-6925 & Ad Wk

NOAA FORM 75-86
(10-83)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10089

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
16570	2-25-87	Ralph B. Ross	(Full) Part Before (After) Marine Center Approval Signed Via
			Drawing No. 10 appld in Full (Ref. LNM 2/84)
16568	3-11-87	Joseph Pinner	(Full) Part Before (After) Marine Center Approval Signed Via
			Drawing No. 7 Applied in full
16013	2-17-89	ED MARTIN	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 28, EXAM, NO CORR'S @ SCALE
16006	7/8/93	Kenny O'Dell	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 27. NO CORRECTION FROM C-16013 # 30.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			STANDARDS CK'D 4-17-85 C. Loy

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.