10243

Diagram 8502-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey ... Hydrographic

Field No. ... FA-10-4-87

Registery No. ... H-10243

LOCALITY

State ... Alaska

General Locality ... Alaska Peninsula

Sublocality ... Navy Island to Cape Providence

1987

CHIEF OF PARTY
CAPT J.W. Carpenter

LIBRARY & ARCHIVES

DATE ... October 11, 1988

☆U.S. GOV. PRINTING OFFICE: 1985—566-054

10243

16568
16560
16013
16006
530
530
530

CARTO SIGN OFF ON FM. IN BACK

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-10243

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 10-4-87

State Alaska

General locality Alaska Peninsula

Locality Navy Island to Cape Providence

Scale 1:10,000 Date of survey May 28 - Sept. 5, 1987

Instructions dated March 6, 1987 Project No. OPR-P180-FA-87

Vessel FAIRWEATHER S220 (2020), FA-3 (2023), FA-4 (2024), FA-5 (2025), FA-6 (2026) FA-7 (2027)

Chief of party CAPT John W. Carpenter

Surveyed by LCDR Kenny, LT Ruiz, ENS Cone, ENS Lynch, ENS Bernard, ENS Nodine, ENS Lemon, ENS Birk-Risheim, ENS Neander

Soundings taken by echo sounder, ~~hand lead pole~~ Raytheon DSF 6000N

Graphic record scaled by FAIRWEATHER Personnel

Graphic record checked by FAIRWEATHER Personnel

Verification by ~~Protracted by~~ P. Niland-Iwamoto, L. Deodato Automated plot by PMC Xynetics Plotter

Evaluation by ~~Verification by~~ S. Otsubo, I. Almacen

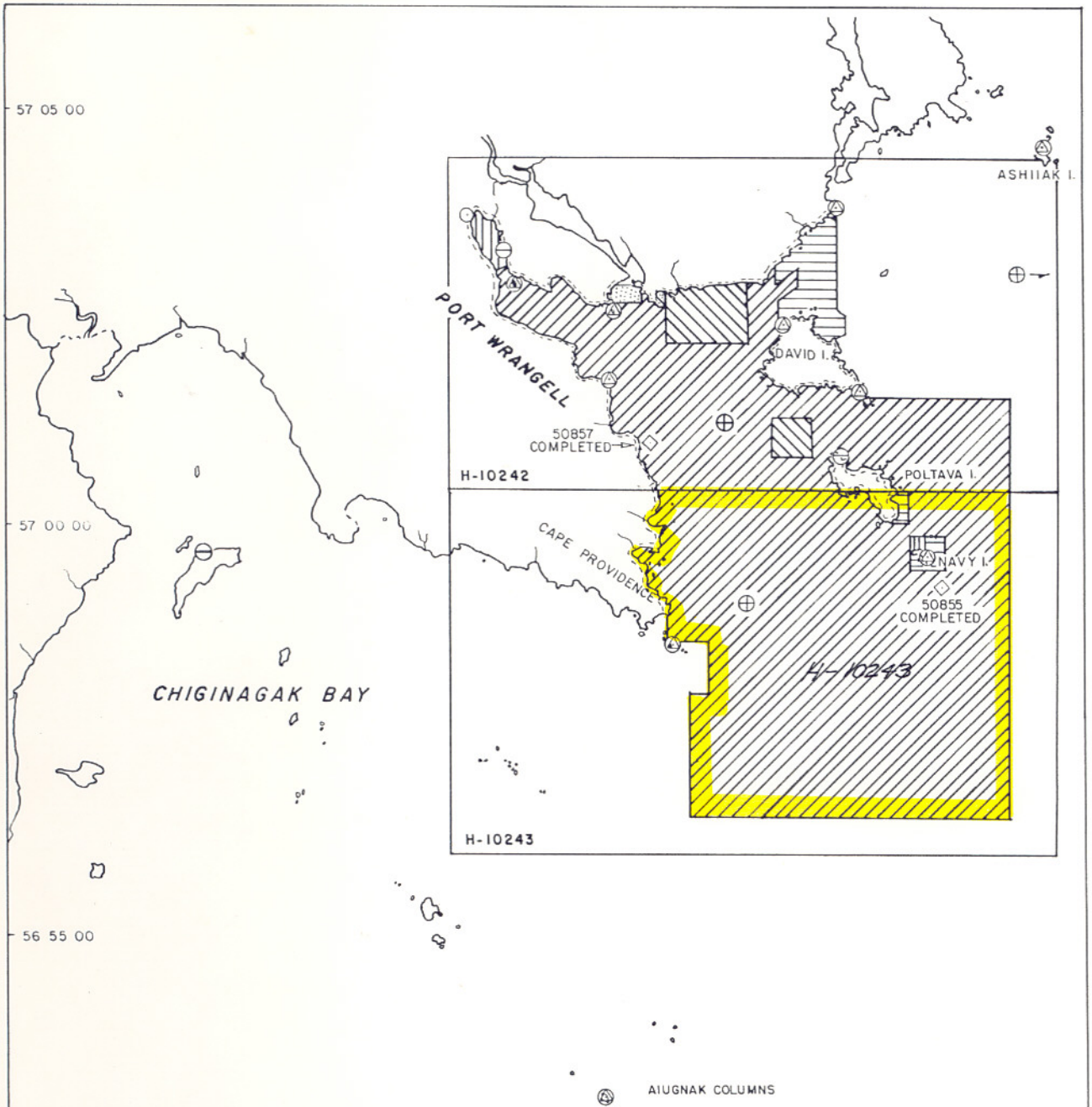
Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW and tenths of fathoms

REMARKS: All times UTC. Revisions and marginal notes in black generated during office processing. Separates are filed with the hydrographic data.

AWOIS / SURF MSM 12/6/88

SC 3-25-97

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-665-010-1174



	MAY	JUNE	JULY	AUG	SEPT
SQ NM SOUNDING LINE	7	13	5	1	0
LNM SOUNDING LINE	55	471	151	103	58
BOTTOM SAMPLE	0	44	0	17	33
HYDRO CONTROL STATIONS	6	3	1	0	1
SV/D-NANSEN CAST	1	1	1	1	1
TIDE GAGE INSTALLATIONS	2	0	1	0	0
HYDROGRAPHY					

⊕ SV/D NANSEN CAST
◇ AWOIS ITEMS
⊛ STA. RECOVERED
⊖ TIDE GAGE
S/L VERIFICATION

156 40 00
156 30 00

MONTHLY PROGRESS SKETCH

OPR-P180-FA-87

SOUTHERN ALASKA PENINSULA

DAVID ISLAND TO CHIGINAGAK BAY

NOAA SHIP FAIRWEATHER S-220

CAPT JOHN CARPENTER, CMDG

SCALE FROM NOS CHART 16568

MAY TO SEPTEMBER 1987

Descriptive Report
to Accompany Hydrographic Survey H-10243
Field Number FA-10-4-87, Scale 1:10,000
NOAA Ship FAIRWEATHER S220
Captain John W. Carpenter, Commanding
1987

A. Project

Survey H-10243 is a basic hydrographic survey conducted in accordance with Project Instructions OPR-P180-FA-87, dated March 6, 1987, Change Number 1, dated April 14, 1987, and Change Number 2, dated September 2, 1987. The Hydrographic Manual (fourth edition) through Change Number 3, PMC OPORDER, and Hydrographic Survey Guidelines also apply.

The purpose of this survey is to provide contemporary hydrography for 1:80,000-scale charts to be published in the future that cover portions of the southern Alaska Peninsula.

This sheet is designated "E" in the Project Instructions.

B. Area Surveyed

The survey was conducted in the state of Alaska on the southern Alaska Peninsula, south of Poltava Island and east of Cape Providence.

The northern survey limit is latitude 57/00/33N and the southern shoreline of Poltava Island. The shoreline north of Cape Providence bounds the survey on the west to longitude 156/33/38W. South of Cape Providence the western limit is longitude 156/32/00W; from 56/58/00N to 56/58/40N the western limit is 156/31/25W. The southern limit is latitude 56/56/30N. The eastern limit is longitude 156/25/15W.

Field work commenced on May 28, 1987 (DN 148) and concluded on September 4, 1987 (DN 247).

C. Sounding Vessels

Hydrographic data for this survey was collected using two vessel types. Jensen survey launches FA-3, FA-4, FA-5, and FA-6 were designated vessel numbers 2023, 2024, 2025, and 2026, respectively. Shoreline verification was completed using a 17-foot MonArk, FA-7, designated as vessel number 2027. FAIRWEATHER (vessel number 2020) was used for all sound velocity casts and to collect bottom samples in depths greater than 55 fathoms. The remainder of the bottom samples were collected by FA-5.

D. Sounding Equipment and Corrections to Echo Soundings

FAIRWEATHER's four survey launches, equipped with dual-beam Raytheon DSF-6000N echo sounders, were used to obtain soundings for this survey. See Table I for a list of equipment by vessel and day number. A skiff equipped with a sounding pole was used for shoreline verification.

Table I

Sounding Equipment

RAYTHEON DSF-6000N SERIAL NUMBERS

Date (DN)	2023	2024	2025	2026
152-166	A113N	A121N	B049N	B048N
166-231	A104N	A121N	B049N	B048N
232-247	A104N	A113N	B049N	B048N

Echo-sounding equipment was monitored continuously while on line. All hydrographic data was scanned at least twice to insert peaks and deeps between soundings and to ensure proper depth digitization.

No mechanical problems that degraded data quality were encountered with the DSF-6000N echo sounders during this investigation. Bar checks at three fathoms were done daily to ensure that the Raytheon DSF-6000N echo sounders were operating properly. Sounding corrections determined for this survey apply to both the high- and low-frequency sounding data.

The high-frequency beam data was digitized except in a limited number of cases when, due to the steepness of the bottom, the high-frequency trace was lost. Also, if side echoes were obtained over peaks and reduced line spacing was not needed because of depth (e.g., in 80 fathoms of water), the low-frequency side-echo depth was recorded. This is noted on the raw computer printout with the annotation "low-frequency trace" or "LFT."

Diver's least depths were obtained using a pneumatic depth gauge manufactured by 3-D Instrument, Inc. (s/n 8302079 N). System calibration data can be found in the separate Corrections to Echo Soundings Data package.

All of FAIRWEATHER's survey launches were tested for settlement and squat on May 22, 1987, (DN 142) in Womens Bay, Kodiak, Alaska. The test results were used to plot settlement and squat curves for each launch. Measurements were conducted in accordance with Section 4.9.4.2 of the Hydrographic Manual. It was determined that there were no applicable settlement and squat corrections for any launch at speeds run while surveying in fathoms. Refer to the Corrections to Echo Soundings Data package for details concerning settlement and squat determinations.

An accurate determination of launch transducer depths was obtained through physical measurement. An oversized carpenter's square was constructed of angle iron, with foot and tenth markings noted on the rise. Divers held the foot of the carpenter's square flush against the transducer while the rise was leveled by personnel on the pier using a circular bubble level. On March 27, 1987, a transducer draft of 0.3 fathoms was recorded for all launches. All launch soundings on the final field sheet were plotted using this TRA value.

Table II

Velocity Casts

Cast No.	Date (DN)	Latitude	Longitude
5	151	57/05.5 N	156/21.3 W
6	166	56/59.0 N	156/31.5 W
7	189	57/01.3 N	156/31.5 W
15	236	57/01.2 N	156/31.5 W
16	249	57/01.7 N	156/32.0 W

Velocity correctors were determined from five SV/D casts in accordance with section 4.9.5.2 of the Hydrographic Manual. Table II shows the date and locations of the casts. Program VELTAB was used to compute tables from cast data. The results of SV/D casts 6 and 7 were similar enough to average and combine into one table (Velocity Table 2). Table III shows velocity tables determined from cast data. Velocity corrections were applied to echo sounder depths plotted on the final field sheets.

Table III

Velocity Tables

Table No.	Based on Casts	Dates (DN)
1	5	DN 149-155
2	6,7	DN 162-193
3	15	DN 232-239
4	16	DN 244-248

The SV/D casts were performed using a Plessy Model 9040 Environmental Profiling System (s/n 5647). This instrument was calibrated at the Northwest Regional Calibration Center (NRCC) on March 9, 1987, for the 1987 field season. XBTs and surface temperatures were taken during the SV/D casts as a check on the Plessy System.

TC/TI tapes were made in accordance with the PMC OPORDER. Printouts of TC/TI tapes are included in the separates following the text of this report.

Predicted tide correctors were applied to the soundings plotted on the final field sheets for this survey. The tide correctors used were from the 1987 West Coast of North and South America Tide Tables. Tide correctors use Kodiak, Alaska, as the reference station using a height correction range ratio of "x1.28" and a time correction of plus 0 hours 20 minutes at high water and plus 0 hours 40 minutes at low water. For further information refer to Separate II, Field Tide Note.

E. Hydrographic Sheets

Final field sheets were plotted onboard FAIRWEATHER using a PDP/8e computer and Houston Instruments DP-3 plotter. The survey consists of two mylar final field sheets and two mylar overlays.

Sheet	Scale	Skew	Dimensions (cm)
FA-10-4N-87	1:10,000	0	20 x 54
FA-10-4S-87	1:10,000	0	20 x 54

Survey data will be forwarded to Pacific Marine Center, Seattle, Washington, for verification and smooth plotting.

F. Control Stations

All horizontal control stations for this survey were recovered by FAIRWEATHER personnel. All geodetic positions are based on the North American Datum of 1927 and meet or exceed Third-order, Class I specifications. A list of all control stations used for this survey can be found in Separate V, List of Stations.

G. Hydrographic Position Control

Hydrographic position control was accomplished using the Motorola Mini-Ranger III system. The control configuration consisted of range/range and range/azimuth for all positioning. Table IV contains a list of console and R/T units for each sounding vessel. Mini-Ranger base-line calibrations (BLC's) were conducted in accordance with the PMC OPORDER.

Table IV

Mini-Ranger Equipment by Vessel

Vessel Number	DN	Console/RT Number
2020	246	703/B1108
2023	149-248	703/B1108
2024	149-248	506042/E2716
2025	149-248	716/C1875
2026	149-248	B0323/B1398

Beginning BLC's were performed on DN's 142 and 146 along a distance of 855.4 meters between two recoverable points in Womens Bay, Kodiak, Alaska. Additional calibrations were accomplished for some codes on DN's 226 and 229. These were performed between the same two recoverable points. Ending BLC's were performed on DN's 258 through 261 along a distance of 990.2 meters between two recoverable marks (Naval Reserve Pier to PMC Pier A) across Lake Union in Seattle, Washington.

All console/RT units were calibrated for all codes during opening calibrations for this project (DN's 142 and 146). The additional BLC's performed on DN's 226 and 229 calibrated all console/RT pairs for codes 8, A, B, and C. Codes 5, 6, 7, 9, and D were not calibrated at that time (see radio messages, Separate XI, Supplemental Information).

Ending calibrations were accomplished for all consoles. However, code 5 could not be calibrated due to a total failure of the unit on August 19 (DN 231). While this failure prevented a final BLC from being obtained, all critical and non-critical checks of code 5 were within acceptable limits until the unit's failure. In addition, code 6 showed signs of failure during ending calibrations (i.e., low maximum signal strength). Ending correctors were obtained for console/RT pairs 506042/E2716 and 703/B1108 before it was necessary to remove code 6 from service. As with code 5, all systems checks were within acceptable limits through the time of the unit's failure.

Because the differences between beginning and ending BLC's were 5 meters or less (for those that could be obtained), the beginning and ending calibrations were not averaged. The beginning correctors were used as the final correctors except for the codes that were calibrated on DN's 226 and 229 (8, A, B, and C). Beginning correctors were applied to codes 8, A, B, and C for data obtained through DN 225. For data obtained after DN 229, correctors obtained on DN's 226 and 229 for codes 8, A, B, and C were applied. For those codes that failed before ending BLC's could be obtained, the beginning correctors were also used as final correctors based on their accuracy as demonstrated in both critical and non-critical field calibrations.

Hydrographic positioning equipment was critically system checked at least once per week unless adverse weather conditions prohibited it (at which point it was accomplished as soon as weather allowed). Non-critical system checks were conducted once per day unless equipment malfunction prohibited it. All hydrographic positioning equipment was found to be accurate within the limits set forth by the PMC OPORDER. Critical system checks were accomplished using the theodolite cut method, or by theodolite and EDMI. Theodolites onboard the FAIRWEATHER are as follows: Wild T-1 theodolites with serial numbers 13008, 12932; Wild T-2 theodolites with serial numbers 26336, 85652, 257219, 276503; and Lietz TM1A theodolite with serial number 2151. The EDMI used was a Hewlett-Packard HP 3808A with serial number 1723A00172.

In all cases, the launch R/T units were located directly over the transducers, eliminating the need for ANDIST correctors.

H. Shoreline

The survey shoreline was taken from 1:10,000-scale mylar enlargements of two 1:20,000-scale Class III registered shoreline manuscripts. TP-01149 was used for shoreline north of latitude 57/00/00N; TP-01153 was used for shoreline to the south. Verified features from shoreline manuscripts are shown in black on the final field sheet, with changes in red. New features (e.g., new rocks and foul limits) are in black.

The shoreline manuscript was found to be compiled incorrectly on TP-01149 (See Separate XI, Supplemental Information). During aerotriangulation bridging, geodetic control based on a 1948 adjustment was used instead of the most recent 1976 adjustment. This resulted in a displacement of shoreline and features approximately 17.4 meters to the east and 2.3 meters to the south. Therefore, all manuscript data was shifted 1.7 millimeters (17 meters at the scale of the survey) to the west before application to the final field sheets. Hydrographic data at manuscript rock positions and along the shoreline verified this shift.

The shoreline of Poltava Island is characterized by caves and steep or overhanging cliffs. The shoreline was modified in areas where launches ran hydrography under overhanging cliffs. The final field sheet shows revised shoreline in red.

The manuscript shows a ledge centered at latitude 57/00/14N, longitude 156/33/04W. This area was found to be foul with rocks (see position numbers 5211, 5215, 5216, 5218) with no ledge present.

The following changes in manuscript rock locations were noted:

The manuscript shows a rock awash at latitude 57/00/21.5N and longitude 156/28/27W. The actual location of the rock was determined to be approximately 15 meters to the northeast (position number 7379) at latitude 57/00/~~22~~21.79N and longitude 156/28/~~26~~26.20W, covered 2 feet at MLLW.

The manuscript shows a rock awash at latitude 56/59/53N and longitude 156/27/06W. A sounding line over the manuscript location showed a depth of 2 fathoms. The actual location of the rock was determined to be approximately 20 meters to the south (position number 4460) at latitude 56/59/~~52~~52.09N and longitude 156/27/~~06~~05.97W, covered 2 feet at MLLW. ✓

The following manuscript disprovals were noted. It is recommended that the items not be charted. concur.

The manuscript shows a rock awash at latitude 57/00/05N and longitude 156/33/17W. No rock was found after a ten-minute visual and echo-sounder search (position number 5241). Kelp was present and the bottom was visible; a lead-line sounding of 3 feet was obtained. No eddies were evident. ✓

The manuscript shows a rock awash at latitude 56/59/34.5N and longitude 156/32/57W. No rock was found after a ten-minute visual and echo-sounder search (position number 5242). Kelp was not present and the bottom was not visible; water visibility was ten feet. A lead-line sounding of 33 feet was obtained. No eddies were evident. ✓

The manuscript shows a ledge centered at latitude 56/58/43.5N and longitude 156/32/57W. After a ten-minute visual and echo-sounder search of the area, no ledge was found. Kelp was present with water visibility of twelve feet. A lead-line depth of 16 feet was obtained (position number 5239). No eddies were evident. ✓

The manuscript shows a rock awash at latitude 57/00/18.5N and longitude 156/28/57.5W. No rock was found after a ten-minute visual and echo-sounder search. Kelp was present; the bottom was not visible. An echo-sounding depth of 9.5 fathoms was obtained (position number 6870). No eddies were evident. ✓

New features have been added to the shoreline throughout the survey area. Several rocks and areas foul with rocks not indicated on the manuscript were found. Some items appearing on the manuscript as rocks are islets or points on ledges (not necessarily prominent). ✓

Two control stations are located seaward of the shoreline. PRO 1944 is on a rocky islet southeast of Cape Providence, and NEAVY 1944 is on Navy Island. ✓

I. Crosslines

Crosslines were run at a minimum of 45 degrees to main-scheme lines and account for 8% of main-scheme coverage. Soundings agree to within one fathom except in areas of steep relief. No systematic problem is evident that would account for these differences.

In some cases, the vessel used for a main-scheme line did not run the corresponding crossline. Common soundings at these crossings agree to within one fathom except in areas of steep relief. No systematic problem is evident that would account for these differences.

J. Junctions

This survey junctions with surveys H-10225 (1986, 1:20,000 scale) to the east and H-10242 (1987, 1:10,000 scale) to the north. Common soundings agree to within one fathom except in areas of steep relief. No systematic problem is evident that would account for these differences. *H-10280 (1988) (1:10,000) junctions to the south of this survey.*

K. Comparison with Prior Surveys

The survey area falls within the boundaries of prior survey H-4518c (1925) and Additional Work (1934 - 1941), scale 1:1,000,000.

Three soundings from H-4518c fall within the limits of H-10243. Agreement is satisfactory considering the difference in scale. No significant discrepancies were found between this sparsely sounded prior survey and the present survey. H-10243 was conducted with more accurate positioning and determination of critical depths through closer line spacing than was accomplished during the prior survey.

There are no non-sounding features on H-4518c.

H-10243 is adequate to supersede the prior survey within common areas.

L. Comparison with the Chart

The 28 soundings on Preliminary Chart 16568 (5th Edition, December 9, 1978, 1:106,600 scale) falling within the boundaries of survey H-10243 were taken from three blueprint reconnaisance surveys run in 1944, and Russian surveys not otherwise identified. No soundings from prior survey H-4518c were used on Preliminary Chart 16568 in the area of this survey.

Most soundings from Preliminary Chart 16568 agree with soundings from H-10243. Those that do not agree are no more than 200 meters from a comparable depth.

Two rocks awash (heights unknown, displayed as dangers to navigation) that are charted in the vicinity of latitude 57/00/25N, longitude 156/30/45W, were investigated. A full echo-sounder search using 90-meter spacing was accomplished over a 800-meter radius around the above position [see junction survey H-10242 (1987) for data to the north]. Depths in the area range from 80 to 120 fathoms. It is recommended that these rocks be deleted from the chart. *concur.*

Five dangers to navigation were noted on this survey and were reported to Commander, USCG Seventeenth District, Juneau, Alaska, and DMAHTC. A copy of the Danger to Navigation Report, dated October 4, 1987, is included in Separate X, Dangers to Navigation. Descriptions, latitudes and longitudes, and position numbers are listed in the letter. *See EVAL RPT sec. 7(f)*

The following AWOIS item lies within the survey limits:

AWOIS Item #50855
(Submerged Rock, Position Approximate)
Latitude 56/59/17.1N
Longitude 156/26/41.6W

A full echo-sounder search (15-meter line spacing) was run over a one-half mile radius around the AWOIS position. Depths in the area range from 18 to 61 fathoms. There were no indications of a submerged rock. It is recommended that the submerged rock, position approximate, be removed from the chart at the position given above. *concur.*

M. Adequacy

This survey is complete and fully adequate to supersede all prior surveys in common areas. No additional field work is necessary. *concur.*

N. Aids to Navigation

No aids to navigation or landmarks fall within survey limits.

O. Statistics

	2020	2023	2024	2025	2026	Total
Positions	19	1702	1237	45	1391	4394
Nautical Miles	-	210	145	0	155	510
Square NM	-	-	-	-	-	15
Bottom Samples	19	-	-	31	-	50
Velocity Casts	5	-	-	-	-	5
Tide Stations	1	-	-	-	-	1
Days of Production (Hydrography only)	-	-	-	-	-	30

No current or magnetic stations were established during this survey.

P. Miscellaneous

Bottom samples were collected and forwarded to the Smithsonian Institution, Washington, D.C..

No anomalous tidal conditions or potentially dangerous currents were observed.

Q. Recommendations

Survey H-10243 lies within the limits of sheet "E" and is in itself a complete survey; however, the western portion of sheet "E" remains to be surveyed. It is recommended that this work be accomplished during the 1988 field season and submitted as a separate survey. concur.

R. Automated Data Processing

The following programs were used for data acquisition or processing:

Number	Program	Version Date
RK 112	Range-Range Real Time Plot	04/23/84
RK 116	Range-Azimuth Real Time Plot	03/01/86
RK 201	Grid, Signal, and Lattice Plot	04/18/75
RK 221	Range-Range Off-line Plot	07/25/86
RK 226	Range-Azimuth Off-line Plot	07/25/86
RK 300	Utility Computations	10/21/80
RA 362	330 / 602 Combined	08/20/84
AM 500	Predicted Tide Generator	11/10/72
AM 602	Elinore	12/08/82
	VELTAB	02/01/85

S. Referral to Reports

The following reports will be submitted separately:

Horizontal Control Report	November 1987
Electronic Control Data	October 1987
Corrections to Echo Soundings Data	October 1987
Coast Pilot Report	October 1987

A LORAN-C Calibration Form was completed during ship bottom sampling operations. This form was forwarded to DMAHTC on September 24, 1987.

PROVISIONAL SIGNALS
OPR-P180-FA-87

419	0	57	04	36933	156	24	32675	250	0066	000000	ASH 1944
470	0	56	59	43183	156	27	16748	250	0028	000000	NEAVY 1944
485	0	57	03	52078	156	29	14348	250	0047	000000	ALDER 1986
500	0	56	58	33386	156	32	48468	250	0011	000000	PRO 1944
505	0	57	01	29130	156	28	26323	250	0022	000000	BRUNO 1986
510	0	57	02	25344	156	30	22015	250	0046	000000	DAVID 1986
515	0	57	02	36242	156	34	08364	250	0006	000000	FLAT 1986
520	0	57	02	53984	156	36	14589	250	0013	000000	FAIR 1986
525	0	57	01	42845	156	34	12048	250	0009	000000	WEATHER 1986
530	0	56	53	03001	156	34	16924	250	0031	000000	AIUGNAK 1944
535	0	57	03	37012	156	37	13174	~~250~~ 254	0001	000000	TP 1

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA Ship FAIRWEATHER
1801 Fairview Avenue East
Seattle, Washington 98102

October 4, 1987 1703-01.05

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

Dear Sir:

This letter confirms my radio message, R 012300Z OCT 87.

The following items were noted by NOAA Ship FAIRWEATHER during survey operations in the vicinity of Port Wrangell and Cape Providence, Alaska Peninsula, Alaska (hydrographic surveys H-10242 and H-10243) and are considered dangers to navigation. Questions concerning this survey may be directed to Chief, Nautical Chart Branch, telephone (206) 526-6835.

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

The following depths in the vicinity of Port Wrangell and Cape Providence, Alaska Peninsula, Alaska should be added to Preliminary Chart 16568 (NAD 27 Datum). (All depths are reduced to MLLW based on predicted tides.)

	DEPTH	LATITUDE	LONGITUDE	POS. NUMBER
A.	4.0 fathoms	56/59/59N	156/28/54W	9025
B.	7.6 fathoms	56/59/42N	156/28/14W	9000
C.	5.5 fathoms	56/58/20N	156/30/54W	9023
D.	4.6 fathoms	56/57/45N	156/30/39W	9017
E.	7.2 fathoms	56/56/49N	156/30/21W	HYDRO
F.	4.2 fathoms	57/01/20N	156/28/53W	SURVEY H-10242

The following rocks in the vicinity of Port Wrangell and Cape Providence, Alaska Peninsula, Alaska should be added to Preliminary Chart 16568 (NAD 27 Datum). (All elevations are reduced to MLLW based on predicted tides.)

	ELEVATION	LATITUDE	LONGITUDE	
G.	Rock bares 2 feet	57/00/36N	156/27/30W	} SURVEY H-10242
H.	Rock bares 2 feet	57/01/32N	156/28/12W	

Sincerely,

Glen R. Schaefer
Captain, NOAA
Commanding Officer

bc: N/CG222 w/chartlet
N/MOP21 w/chartlet

Enclosure: Copy of message R 012300Z OCT 87

CO
XO
OPS –

RTTUZYUW RUHPTEB0354 2742300-UUUU--RUHPSUU.
ZNR UUUUU
R 012300Z OCT 87
FM NOAAS FAIRWEATHER
TO CCGDSEVENTEEN JUNEAU AK
INFO NOAAMOP SEATTLE WA
DMAHTC WASHINGTON DC//NVS//
ACCT CM-VCAA
BT
UNCLAS
PA-PMC-245-226
DANGER TO NAVIGATION
1. The following items were noted by NOAA Ship FAIRWEATHER during survey operations in the vicinity of Port Wrangell and Cape Providence, Alaska Peninsula, Alaska (hydrographic surveys H-10242 and H-10243) and are considered dangers to navigation.

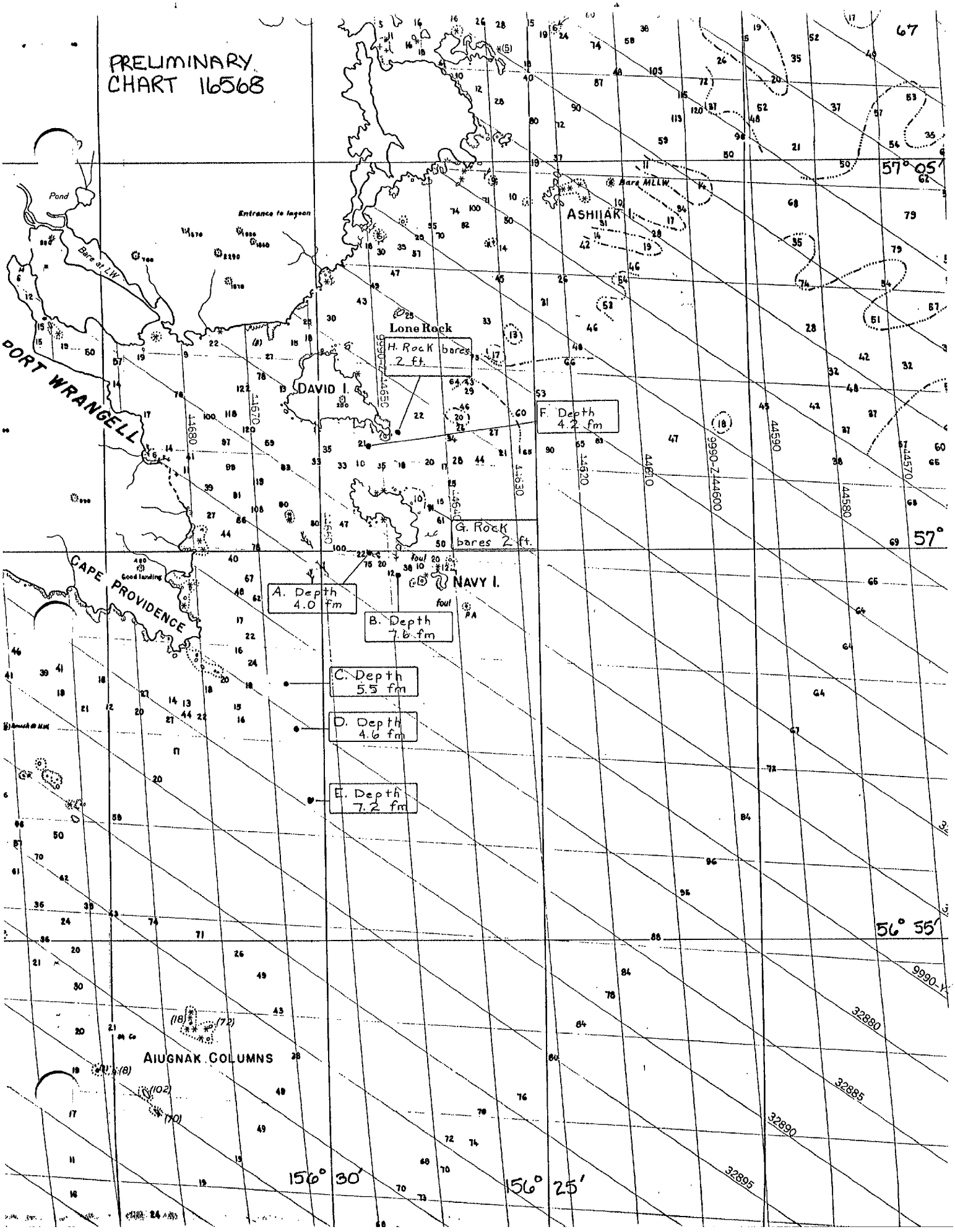
	DEPTH	LATITUDE	LONGITUDE
A.	4.0 fathoms	56/59/59N	156/28/54W
B.	7.6 fathoms	56/59/42N	156/28/14W
C.	5.5 fathoms	56/58/20N	156/30/54W
D.	4.6 fathoms	56/57/45N	156/30/39W
E.	7.2 fathoms	56/56/49N	156/30/21W
F.	4.2 fathoms	57/01/20N	156/28/53W

	ELEVATION	LATITUDE	LONGITUDE
G.	Rock bares 2 feet	57/00/36N	156/27/30W
H.	Rock bares 2 feet	57/01/32N	156/28/12W

2. All items refer to Preliminary Chart 16568 (NAD 27 Datum). Depths are referenced to MLLW based on predicted tides.
3. CONFIRMATION LETTER CONTAINING SAME INFORMATION WILL BE MAILED NEXT INPORT.
BT
#0354

NNNN

TOD
NOJ | 0200 30 OCT 87
YYS | 8.4550 MHZ RTTY


PRELIMINARY
CHART 16568
Pond
Entrance to lagoon
Bare at LW
PORT WRANGELL
Lone Rock
H. Rock bares 2 ft.
DAVID I.
ASHIIAK I.
Bare MLLW
F. Depth 4.2 fm
G. Rock bares 2 ft.
NAVY I.
foul
CAPE PROVIDENCE
Good landing
A. Depth 4.0 fm
B. Depth 7.6 fm
C. Depth 5.5 fm
D. Depth 4.6 fm
E. Depth 7.2 fm
AIUGNAK COLUMNS
57° 05'
57°
56° 55'
156° 30'
156° 25'

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

ATTACHMENT A

N/MOP21x2/MM

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

Update the list

Dear Sir:

During office review of hydrographic surveys H-10242 and H-10243, Southern Alaska Peninsula, Port Wrangell to Navy Island, the following changes affecting chart 16568 (1978, 5th edition, NAD27 datum) were noted. Questions concerning the surveys may be directed to Cdr. Thomas W. Richards, Chief, Nautical Chart Branch, telephone (206) 526-6835.

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

A. "An uncharted rock covered by 1.8 fathoms (MLLW based on predicted tides) is at latitude 57°01'54"N, longitude 156°28'26"W."

B. "An uncharted rock covered 1.1 fathoms (MLLW based on predicted tides) is at latitude 57°01'45"N, longitude 156°28'25"W."

C. "An uncharted shoal covered 5.3 fathoms (MLLW based on predicted tides) is at latitude 57°01'13"N, longitude 156°28'52"W."

H-10243

D. "An uncharted shoal covered 4.6 fathoms (MLLW based on predicted tides) is at latitude 57°00'34"N, longitude 156°32'41"W."

E. "An uncharted rock covered 1.$\frac{5}{3}$ fathoms (MLLW based on predicted tides) is at latitude 56°59'01"N, longitude 156°32'30"W."

F. "An uncharted rock covered 2.$\frac{6}{3}$ fathoms (MLLW based on predicted tides) is at latitude 56°58'43"N, longitude 156°32'09"W."

G. "An uncharted rock bares $\frac{5}{4}$.0 feet (MLLW based on predicted tides) is at latitude 57°00'17"N, longitude 156°27'36"W."

Sincerely,

Robert L. Sandquist
Rear Admiral, NOAA
Director, Pacific Marine Center

Enclosure

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

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

AUG 19 1988 N/MOP21x2/IAA

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

Dear Sir:

During office review of hydrographic survey H-10243, Navy Island to Cape Providence, Southern Entrance to Shelikof Strait, Alaska, the following additional changes affecting Chart 16568 were noted. Questions concerning the survey may be directed to Cdr. Thomas W. Richards, Chief, Nautical Chart Branch, telephone (206) 526-6835.

The following rocks and shoal in the vicinity of Cape Providence and Navy Island, Shelikof Strait, should be added to Chart 16568. (Depths are reduced to MLLW based on actual tides and the positions are on NAD 1927.)

FEATURE	DEPTH (FMS)	DIST. (NM)	BEAR(T) (DEG)	TO	LAT(N)	LONG(W)
Rock	1.4	3.0	282	N.Tangent Navy I.	57/00/27.0	156/32/42.8
Rock	4.7	2.7	259	N.Tangent Navy I.	56/59/14.0	156/32/13.4
Rock	2.2	0.3	261	S.Tangent Navy I.	56/59/29.8	156/27/45.1
Rock	0.9	0.2	084	N.Tangent Navy I.	56/59/47.6	156/27/00.6
Rock	2.1	0.8	001	W.Tangent Navy I.	57/00/29.5	156/27/22.0
Shoal	9.8	2.9	222	S.Tangent Navy I.	56/57/21.4	156/30/33.6

Sincerely,

Robert L. Sandquist
Rear Admiral, NOAA
Director, Pacific Marine Center

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

OCT 8 1986 N/MOP21/TWR

RECEIVED
BY

OCT 20 1986
NOAA FAIRWEATHER (S220)
Seattle, Washington

TO: Commanding Officer
NOAA Ship FAIRWEATHER

FROM: N/MOP - Robert L. Sandquist

SUBJECT: Aerotriangulation Stations and Shoreline Accuracy for OPR-P180-FA-86.

REF: NOAA Ship FAIRWEATHER Memorandum Dated 8/19/86 Same Subject

REF: N/CG2311 Memorandum Dated 8/19/86 Same Subject

The Photogrammetry Branch has determined that the shoreline map discrepancy reported by FAIRWEATHER was due to photogrammetry using geodetic control based upon a 1948 adjustment during aerotriangulation bridging rather than using the most recent 1976 adjustment. They recommend mean adjustment values of 17.4 meters in longitude and 2.3 meters in latitude be used when applying data from these manuscripts.

Your proposed solution of shifting all manuscript data 1.8 millimeters to the west before applying them to your 1:10,000 scale final field sheets is totally acceptable. The recommended values proposed by the Photogrammetry Branch will be used by the Nautical Chart Branch when compiling the smooth sheets for these surveys.

Further instructions for the future use of data from Job CM8200 will be contained in your 1987 project instructions for OPR-P180.

You are commended for your diligence in uncovering this discrepancy in the field. Well done.

w/Attachment (Ref. 2)
cc: N/CG24
N/MOP211

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

September 18, 1986 N/CG2311:PD

TO: N/MOP - Robert L. Sandquist

FROM: N/CG2 - J. Austin Yeager

SUBJECT: Aerotriangulation Stations and Shoreline Accuracy for OPR-P180-FA-86

REF: Memorandum to N/MOP from Commanding Officer, NOAA Ship FAIRWEATHER, Same Subject, dated August 19,1986

The Commanding Officer, NOAA Ship FAIRWEATHER S220, has established that the control points furnished by the Aerotriangulation Unit, Photogrammetry Branch (PB), for Job CM-8200, Cape Kilokak to Cape Kumlik, Alaska, have a datum shift of approximately 18 meters. PB investigated this discrepancy and found it correct. When this project was bridged by aerotriangulation, the control points used were based on a 1948 geodetic adjustment. A new geodetic adjustment was performed in 1976. This adjustment caused a datum shift in longitude of approximately 1 second and .05 to .1 second in latitude.

Five geodetic control stations were selected from Job CM-8200 extending over the whole project. A comparison was made between the 1948 and 1976 adjustments.

Station	1948 Adjustment	1976 Adjustment	Datum Shift	Meters
Lagoon	57°06'02.626"	57°06'02.722"	.096"	2.97
1944	156°30'28.250"	156°30'29.290"	1.040"	17.50
Port	57°00'40.699"	57°00'40.792"	.093"	2.87
1944	156°35'41.795"	156°35'42.836"	1.041"	17.57
Yant	56°50'45.505"	56°50'45.579"	.074"	2.29
1944	157°06'22.039"	157°06'23.072"	1.033"	17.51
Sut	56°34'17.611"	56°34'17.673"	.062"	1.92
1925	157°12'56.916"	157°12'57.916"	1.000"	17.08
Lag	56°40'38.729"	56°40'38.779"	.050"	1.55
1954	157°31'53.263"	157°31'54.285"	1.022"	17.40

The mean value of this adjustment is 17.4 meters in longitude and 2.3 meters in latitude. This should be taken into consideration when applying these manuscripts.

A copy of this Memorandum will be inserted in each Descriptive Report for Job CM-8200.

cc;
N/MOP21 - Richards ✓
N/CG22 - Nortrup
N/CG23 - Brewer
N/CG24 - Matsushige

The final field sheets and accompanying records have been reviewed for accuracy, completeness, compliance with project instructions, and adherence to required standards and procedures. This survey is complete and requires no additional field work. The data are forwarded for final review and processing.

Submitted by:

Michael R. Lemon
Ensign, NOAA

Reviewed by:

Maureen R. Kenny
Lieutenant Commander, NOAA
Field Operations Officer

Approved by:

Glen R. Schaefer
Captain, NOAA
Commanding Officer

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 24, 1987

MARINE CENTER: Pacific

OPR: P180

HYDROGRAPHIC SHEET: H-10243

LOCALITY: Southern Alaska Peninsula, Alaska

TIME PERIOD: June 1 - September 4, 1987

TIDE STATION(S) USED: 945-8471 Poltava Island, AK

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 945-8471 = ~~3.91~~ - 0.49 ft. *

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 945-8471 = 9.7 ft.

REMARKS: RECOMMENDED ZONING

1. Zone Direct

* = FROM PHONE CONV. W/ JOE M. ON 12-10-87

James R. Hubbard
CHIEF, TIDAL DATUM QUALITY
ASSURANCE SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10243

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, SOUTHERN ENTRANCE TO SHELIKOF STRAIT NAVY ISLAND TO CAPE PROVIDENCE										
ALASKA (TITLE)										1
CAPE PROVIDENCE (TITLE										2
NAVY ISLAND (TITLE)										3
POLTAVA ISLAND										4
SHELIKOF STRAIT (TITLE)										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
				Approved:						18
										19
				Charles E. Harrington						20
				Chief Geographer - N/C62x5						21
				FEB 26 1988						22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

DEC 16 1987 N/MOP21x2/MM

TO: Commanding Officer
NOAA Ship FAIRWEATHER

FROM: N/MOP - Robert L. Sandquist

SUBJECT: Preprocessing Examination of
H-10242, Alaska, Alaska Peninsula, Port Wrangell and Approaches
H-10243, Alaska, Alaska Peninsula, Navy Island to Cape Providence

Hydrographic surveys H-10242 and H-10243 have been reviewed in accordance with Hydrographic Survey Guideline No. 15, and the Preprocessing Examination Critique for these surveys is attached. Hydrographic surveys H-10242 and H-10243 are accepted for Pacific Marine Center processing.

The Preprocessing Examination Critique is designed to provide information which will be useful to the Command for maintaining the quality of future hydrographic surveys. I encourage you to use this information constructively. Your comments on specific critique items are welcome.

Attachment

cc: N/MOP2x1
N/MOP21x2
N/MOP211
N/CG2

National Oceanic and Atmospheric Administration
National Ocean Service
Pacific Marine Center
Nautical Chart Branch
7600 Sand Point Way NE
Seattle, Washington 98115-0070

December 14, 1987 N/MOP21x2/MM

TO: N/MOP - Robert L. Sandquist

FROM: N/MOP21 - Thomas W. Richards

SUBJECT: Preprocessing Examination for H-10242 and H-10243

I. SURVEY INFORMATION

A. Field No. FA-10-3-87
FA-10-4-87

Registry No. H-10242
H-10243

B. State: Alaska

General Locality: Alaska Peninsula

Sublocality: Port Wrangell and Approaches
Navy Island to Cape Providence

C. Project Instructions: OPR-P180-FA-87

Original dated: March 6, 1987

Change No. 1 dated: April 14, 1987
No. 2 dated: September 2, 1987

D. Dates:

	H-10242	H-10243
Field Work Commenced:	May 29, 1987	May 28, 1987
Field Work Completed:	Sept 5, 1987	Sept 5, 1987
plus 6 weeks:	Oct 17, 1987	Oct 17, 1987
Data received at Marine Center:	Oct 22, 1987	Oct 22, 1987
plus 1 month:	Nov 23, 1987	Nov 23, 1987

Examination critique transmitted to field December 16, 1987

Target date for completion of Marine Center processing June 16, 1988

II. PREPROCESSING EXAMINATION CRITIQUE

Hydrographic surveys H-10242 and H-10243 were performed by personnel of the NOAA Ship FAIRWEATHER, Captain John W. Carpenter, Commanding Officer. The following personnel supervised portions of the data acquisition: Lieutenant Commander Kenny, Lieutenant Ruiz, Ensigns Cone, Lynch, Bernard, Nodine, Lemon, Birk-Risheim, Neander and Chief Survey Technician Krick.

In accordance with the Preprocessing Examination System set forth in Hydrographic Survey Guideline (HSG) No. 15, Section III, the following items are brought to your attention:

A. Danger to Navigation Report:

FAIRWEATHER reported 3 and 5 dangers to navigation within the limits of H-10242 and H-10243, respectively.

Seven additional dangers to navigation were found during the preprocessing examination. Three and four dangers were found within the limits of H-10242 and H-10243, respectively (see Attachments A, B).

B. Compliance with Instructions:

Hydrographic surveys H-10242 and H-10243 generally comply with applicable instructions. Two AWOIS items were investigated by FAIRWEATHER (#50857, H-10242; #50855, H-10243).

C. Final Field Sheet:

Reference numbers and heights of verified islets do not appear on the final field sheets for either survey. The sounding volumes for H-10242 contain no reference numbers or heights for these features but there are notes stating the features do exist. The sounding volumes for H-10243 do contain reference number and height information. All verified shoreline features are required to have reference or position numbers and heights/depths assigned to them; this information should also appear on the final field sheets [HSG 57, Section 2.d; PMC OPORDER Section 3.5.1].

A ledge containing two islets is shown on shoreline map TP-01149 at 57-02-48N, 156-36-08W. On survey H-10242, the hydrographer assigned a height and reference number to the northern of the two islets and noted that the northern islet is the high point on the ledge. The existence of the southern islet, however, was not addressed in the survey data. Features on shoreline maps which are within the proximity of the shoreline should be verified or disproved [HSG 57, Section 2.d].

D. Descriptive Report:

The station listing found in Appendix V of both Descriptive Reports shows the same stations were used for both surveys. Examination of the Abstract of Positions reveals that four of the stations listed were not utilized on H-10243. A master station listing may be submitted with a survey provided that the signals not used are crossed out. The source of the control station positions should also be included [PMC OPORDER Figure 3.5-1, Separate VI].

E. Echograms:

The echograms reviewed during this examination were well-annotated and contained all applicable stamp information.

F. Sounding Volumes and Raw Data Printouts:

One sounding volume for H-10243 states that an islet originating from shoreline map TP-01153, at 56-59-50N, 156-33-02W, is a rock that bares five feet (Ref #757); the final field sheet shows the same feature in red ink as a rock which bares 7 feet (Pos #5225). Since the map feature was changed and located by detached position, the reference number should have been rejected from the sounding volume [HSG 57].

The raw data printouts which were examined contained complete annotations.

K. Special and/or Ancillary Reports:

The Corrections to Echo Soundings Report was briefly reviewed. The computations for final correctors versus engine rpms for settlement and squat data does not take into account the change in water level during the actual observations. Corrections for changes in water level vary from 0.0 to +0.09ft. Although, in this case, the lack of water level changes does not affect the resultant correctors (in fathoms or feet), changes in observed water levels should be applied prior to graphing the settlement and squat curves [HM 4.9.4.2].

L. Automated Data Check:

No significant problems were encountered during the spooling of either survey.

N. Survey Acceptance:

The preprocessing examination of H-10242 and H-10243 was conducted under the time constraints of HSG 15. Therefore, all comments contained herein are based on a spot check of the data. It is possible that some problem areas have not been addressed.

Hydrographic surveys H-10242 and H-10243 are in compliance with all applicable instructions. I recommend that H-10242 and H-10243 be accepted for Nautical Chart Branch processing.

Prepared by:

Marlene Mozgala

Marlene Mozgala

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10243

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	6
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	4

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	3					
ENVELOPES						
VOLUMES	5					
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List): TP-01149, TP-01153

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List): Preliminary Chart 16568

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS VERIFICATION	AMOUNTS EVALUATION	AMOUNTS TOTALS
POSITIONS ON SHEET			3663
POSITIONS REVISED			11
SOUNDINGS REVISED			86
CONTROL STATIONS REVISED			
	TIME-HOURS VERIFICATION	TIME-HOURS EVALUATION	TIME-HOURS TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	84.0		84.0
VERIFICATION OF SOUNDINGS	92.5		92.5
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION VERIFICATION			
COMPILATION OF SMOOTH SHEET	80.0		80.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS		15.0	15.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		38.0	38.0
GEOGRAPHIC NAMES			
OTHER* Digitizing			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	256.5	53.0	

Pre-processing Examination by: LT M. Mozgala	*Beginning Date*: 10/22/87	*Ending Date*: 12/16/87
Verification of Field Data by: L. Deodato, P. Niland-Iwamoto, S. Otsubo	*Time (Hours)*: 256.5	*Ending Date*: 5/12/88
Verification Check by: S. Otsubo, B. Olmstead	*Time (Hours)*: 56.5	*Ending Date*: 5/26/88
Evaluation and Analysis by: I. Almacen	*Time (Hours)*: 53.0	*Ending Date*: 6/17/88
Inspection by: D. Hill	*Time (Hours)*: 4	*Ending Date*: 8/25/88

U.S. GOVT. PRINTING OFFICE 1983 764-008/6061

PACIFIC MARINE CENTER
Evaluation Report
H-10243

1. INTRODUCTION

Survey H-10243 is a basic hydrographic survey accomplished by the NOAA Ship FAIRWEATHER under the following Project Instructions.

OPR-P180-FA-87, dated March 6, 1987
CHANGE No. 1, dated April 14, 1987
CHANGE No. 2, dated September 2, 1987

This survey is in Alaska and covers the area along Shelikof Strait south of Poltava Island and Navy Island to Cape Providence. The survey is bounded by latitude 57°00'30"N and a portion of the southern shore of Poltava Island to the north, latitude 56°56'30"N to the south, longitude 156°25'15"W to the east, longitude 156°32'00"W to the west and the eastern shore of Cape Providence. The shores around the cape, Poltava Island and Navy Island are generally steep and rocky. They are characterized by ledges, isolated rocks, reefs and off-lying rocky islets with some portions of sand and gravel beaches. The bottom is made up mostly of mud, sand and gravel with some patches of rocky areas. Depths range from 0 to 153 fathoms.

Predicted tides for Kodiak, Alaska, were used for the reduction of soundings during field processing. Approved hourly heights zoned from the Poltava Island gage, 945-8471, were used during office processing.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. The TRA, sound velocity and electronic control correctors are adequate. An accompanying computer printout contains the parameters and the correctors.

A digital file, generated for this survey, includes categories of information required to comply with N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

2. CONTROL AND SHORELINE

Sections F and G of the hydrographer's report and the Horizontal and Electronic Control Reports for OPR-P180-FA-87 contain adequate discussions of horizontal control and hydrographic positioning.

Positions of horizontal control stations used during hydrography are 1944 NGS published and 1986 field values based on NAD 27. These values were used during office processing for the computation of positions. The smooth sheet and accompanying overlays are annotated with NAD 83 adjustment ticks based on

values determined by N/CG121. Geographic positions based on NAD 83 may be plotted on the smooth sheet utilizing the NAD 27 projection by applying the following corrections:

latitude: + 2.638 seconds (+ 81.6 meters)
longitude: - 7.404 seconds (- 125.4 meters)

The year of establishment of control stations shown on the smooth sheet originates with the hydrographer's signal list and is subject to change pending certification of the data by NGS.

There are 20 geometrically weak fixes (angles of intersection less than 30 degrees or more than 150 degrees) noted on this survey. However, there are no significant plotting differences between the soundings located by these fixes and those in adjacent areas. Two (2) of these fixes, with good check angles, are used to position rocks located close to shore. These fixes are considered acceptable.

The following shoreline maps apply to this survey.

	Photo Date	Class
TP-01149	July 1982, August 1983	III
TP-01153	July 1982, August 1983	III

On this survey, like the rest of the 1986 surveys in the area, a shift of approximately 18.0 meters was discovered in both the shoreline and the aerotriangulated control points. This discrepancy was the result of an error in aerotriangulation bridging, where the 1948 rather than the most recent 1976 adjustment was used. The mean adjustment values of 2.3 meters in latitude and 17.4 meters in longitude were used in compiling the smooth sheet as recommended by the Photogrammetry Branch in the attached memo from N/CG2, dated September 18, 1986.

The shoreline and features from the above listed maps with applicable changes determined during this survey have been applied to the smooth sheet.

3. HYDROGRAPHY

Hydrography is adequate to:

a. delineate the bottom configuration, determine least depths, and draw the standard depth curves;

b. reveal there are no significant discrepancies or anomalies requiring further investigation; and

c. show the survey was properly controlled and soundings are correctly plotted.

4. CONDITION OF SURVEY

The hydrographic records and reports received for processing are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3; the Hydrographic Survey Guidelines; and the PMC OPORDER, except as noted in the attached copy of the Preprocessing Examination dated March 23, 1987.

5. JUNCTIONS

Survey H-10243 junctions with the following surveys.

Survey	Year	Scale	Area
H-10225	1986	1:20,000	East and Southeast
H-10242	1987	1:10,000	North
H-10280	1988	1:10,000	South

The junction with survey H-10225 has not been formally completed since this survey was previously processed and forwarded for charting. The junction comparison was made using a copy. Comparison is good; however, some soundings have been transferred to H-10243 to better portray the bottom configuration and delineate the depth curves in the common area. Portions of the depth curves on survey H-10225 should be adjusted to conform with those on survey H-10243.

Comparison with survey H-10242 is satisfactory. Soundings were transferred from this survey to delineate the depth curves and to portray shoaler information within the junction area. The junction has been adequately effected.

H-10280 (1988) junctions to the south of this survey. The hydrographer had not completed H-10280 at the time of this report. The junction will be addressed in the Evaluation Report for that survey.

There are no contemporary surveys to the west; however, comparison with the few charted depths along this area reveals good agreement.

6. COMPARISON WITH PRIOR SURVEYS

H-4518c (1925-41) 1:1,000,000

Survey H-4518c covers part of the western area of the present survey. Taking into consideration the differences in the scales of the surveys and the methods of surveying, comparison with this sparsely sounded prior survey is satisfactory. Survey H-10243 was accomplished with more accurate positioning and determination of critical depths through closer line spacing, supplemented by dive investigations.

There are no AWOIS items originating from H-4518c applicable to the present survey.

Survey H-10243 is adequate to supersede the prior survey within the common area.

7. COMPARISON WITH CHART

Preliminary Chart 16568, 5th Edition, dated December 9, 1978; scale 1:106,600.

a. Hydrography Most of the information on the preliminary edition of chart 16568 originates from 1944 reconnaissance surveys, supplemented by information from miscellaneous sources. Comparison with depths as depicted on the chart is satisfactory. No data from survey H-4518c were used in the compilation of the preliminary edition of this chart.

Survey H-10243 is adequate to supersede charted hydrography within the common area.

b. AWOIS Item 50855 is a submerged rock (position approximate) charted at latitude 56°59'17.1"N, longitude 156°26'41.6"W. An adequate 15-meter line spacing echo-sounder search was accomplished with no indication of a submerged rock or any obstructions found in the area. It is therefore recommended that this rock be deleted from the chart. The disposition of this item is also discussed in section L of the hydrographer's report.

c. Controlling Depths

There are no charted channels with controlling depths within the area of this survey.

d. Aids to Navigation

There are no fixed or floating aids located within the limits of this survey.

e. Geographic Names

Names appearing on the smooth sheet and in the survey title have been approved by the Chief Geographer.

f. Dangers to Navigation

The hydrographer reported six (6) submerged rocks to USCG (and N/CG222). Ten (10) additional dangers were discovered during office processing and were reported to the USCG and DMA. Copies of the message/reports are attached.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10243 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is a good hydrographic survey. No additional field work is recommended.

Isagani A. Almacen
Cartographer

This survey has been examined and it meets Charting and Geodetic Services' standards and requirements for use in nautical charting. Approval is recommended.

Dennis Hill
Chief, Hydrographic Section

APPROVALS

I have reviewed the smooth sheet, accompanying data, and reports associated with hydrographic survey H-10243. This survey meets or exceeds Charting and Geodetic Services' standards for products in support of nautical charting.

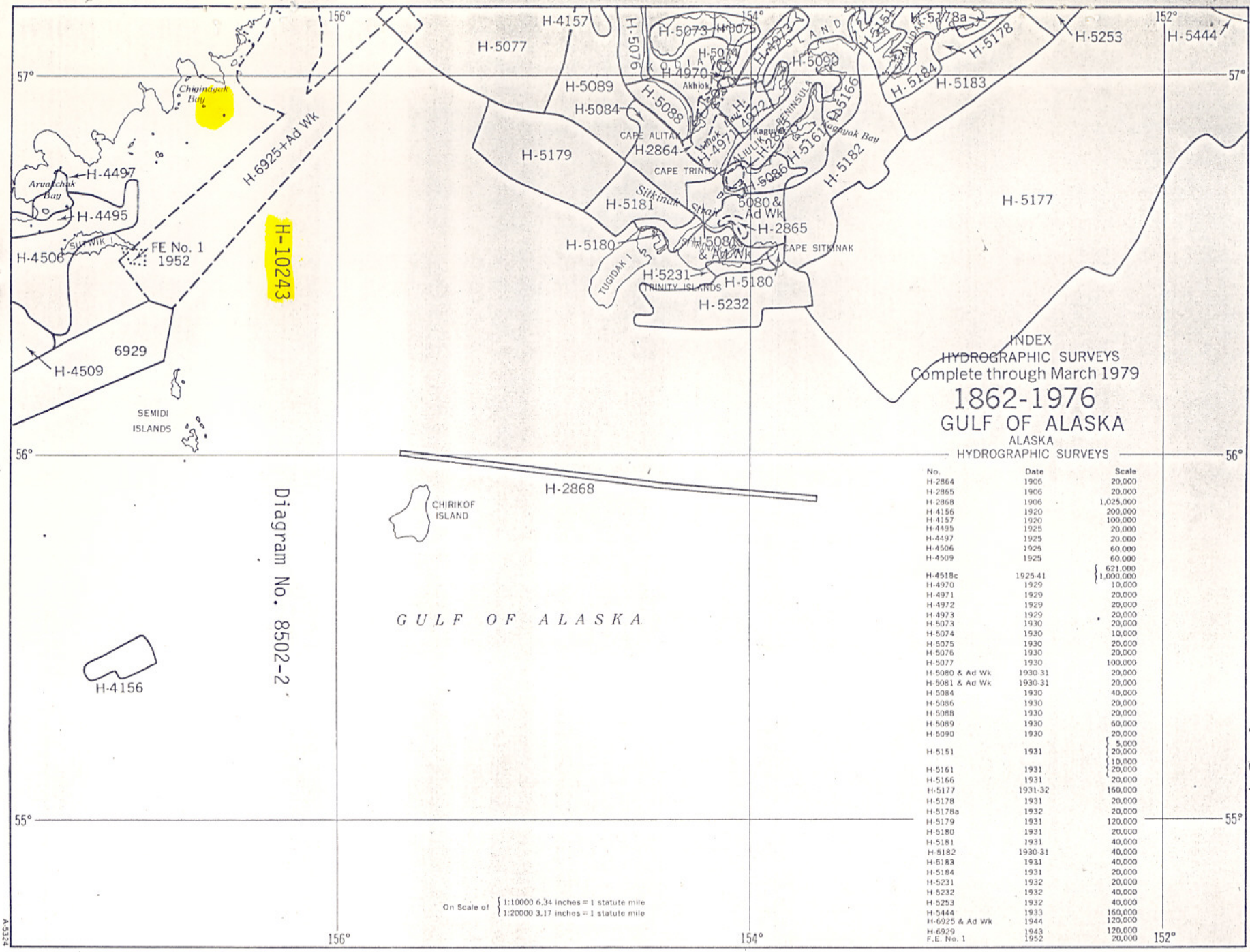
8-30-88
Chief, Nautical Chart Branch (Date)

CLEARANCE: SIGNATURE AND DATE:

N/MOP2:LWMordock 8-30-88

After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards.

For 8-30-88
Director, Pacific Marine Center (Date)



No.	Date	Scale
H-2864	1906	20,000
H-2865	1906	20,000
H-2868	1906	1,025,000
H-4156	1920	200,000
H-4157	1920	100,000
H-4495	1925	20,000
H-4497	1925	20,000
H-4506	1925	60,000
H-4509	1925	60,000
H-4518c	1925-41	621,000 1,000,000
H-4970	1929	10,000
H-4971	1929	20,000
H-4972	1929	20,000
H-4973	1929	20,000
H-5073	1930	20,000
H-5074	1930	10,000
H-5075	1930	20,000
H-5076	1930	20,000
H-5077	1930	100,000
H-5080 & Ad Wk	1930-31	20,000
H-5081 & Ad Wk	1930-31	20,000
H-5084	1930	40,000
H-5086	1930	20,000
H-5088	1930	20,000
H-5089	1930	60,000
H-5090	1930	20,000
H-5151	1931	5,000 20,000 10,000
H-5161	1931	20,000
H-5166	1931	20,000
H-5177	1931-32	160,000
H-5178	1931	20,000
H-5178a	1932	20,000
H-5179	1931	120,000
H-5180	1931	20,000
H-5181	1931	40,000
H-5182	1930-31	40,000
H-5183	1931	40,000
H-5184	1931	20,000
H-5231	1932	20,000
H-5232	1932	40,000
H-5253	1932	40,000
H-5444	1933	160,000
H-6925 & Ad Wk	1944	120,000
H-6929	1943	120,000
F.E. No. 1	1952	20,000

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Survey
Washington, D.C.

Hydrographic Index No. 117A

A-5324

NOAA FORM 75-96
(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-10243

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
PH 531	3/89	ED Martin	~~Full~~ Part Before ~~After~~ Marine Center Approval Signed Via
			Drawing No. 19
16568	3-15-89	R.A. Lillis	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 7
16013	9-14-89	Eric Johnston	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 28
16568	10/2/89	[illegible]	Full ~~Part Before~~ After Marine Center Approval Signed Via Due to CL 722/89
			Drawing No. 8 reapplied hydro
16006	3-20-90	[illegible]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 26 Applied through chart 16013
			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.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED