10202

Diagram No. 8252-3

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-10-5-85

Registery No. H-10202

LOCALITY

State Alaska

General Locality Chatham Strait

Sublocality Point Thatcher to Entrance to Kelp Bay

1985

CHIEF OF PARTY
CAPT J.W. Carpenter

LIBRARY & ARCHIVES

DATE November 24,1986

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

10202

Area 5
Chs
17337
17338
17320
TO SIGN OFF SEE "RECORD OF APPLICATION"

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10202

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-10-5-85

State Alaska

General locality Chatham Strait

Locality Point Thatcher to Entrance of Kelp Bay

Scale 1:10,000 Date of survey October 3, 1985 (DN 276) to November 10, 1985 (DN 314)

Instructions dated August 29, 1985 Project No. OPR-0183-FA-85

Vessel FAIRWEATHER (2020), FA-3 (2023), FA-4 (2024), FA-5 (2025), FA-6 (2026), MonArk-8 (2028), Boston Whaler-10 (2030)

Chief of party John W. Carpenter, Captain, NOAA

Surveyed by Lt. Kenny, Lt. Moen, Lt.(jg) Timmons, Lt(jg) Hurst, Ens. Brezinski, Ens. Crozer, Ens. Abbott, Ens. Cone, CST Krick

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~~ Bill Johnson Automated plot by PMC Xynetics Plotter

Evaluation by ~~XXXXXXXXXX~~ Isagani Almacen

Soundings in fathoms feet at ~~MKW~~ MLLW and tenths of fathoms.

REMARKS: Separates are filed with the hydrographic data. Marginal notes in black are by the evaluator.

AWOIS and Surf ~ RWD 1/87

SC 1-31-97

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

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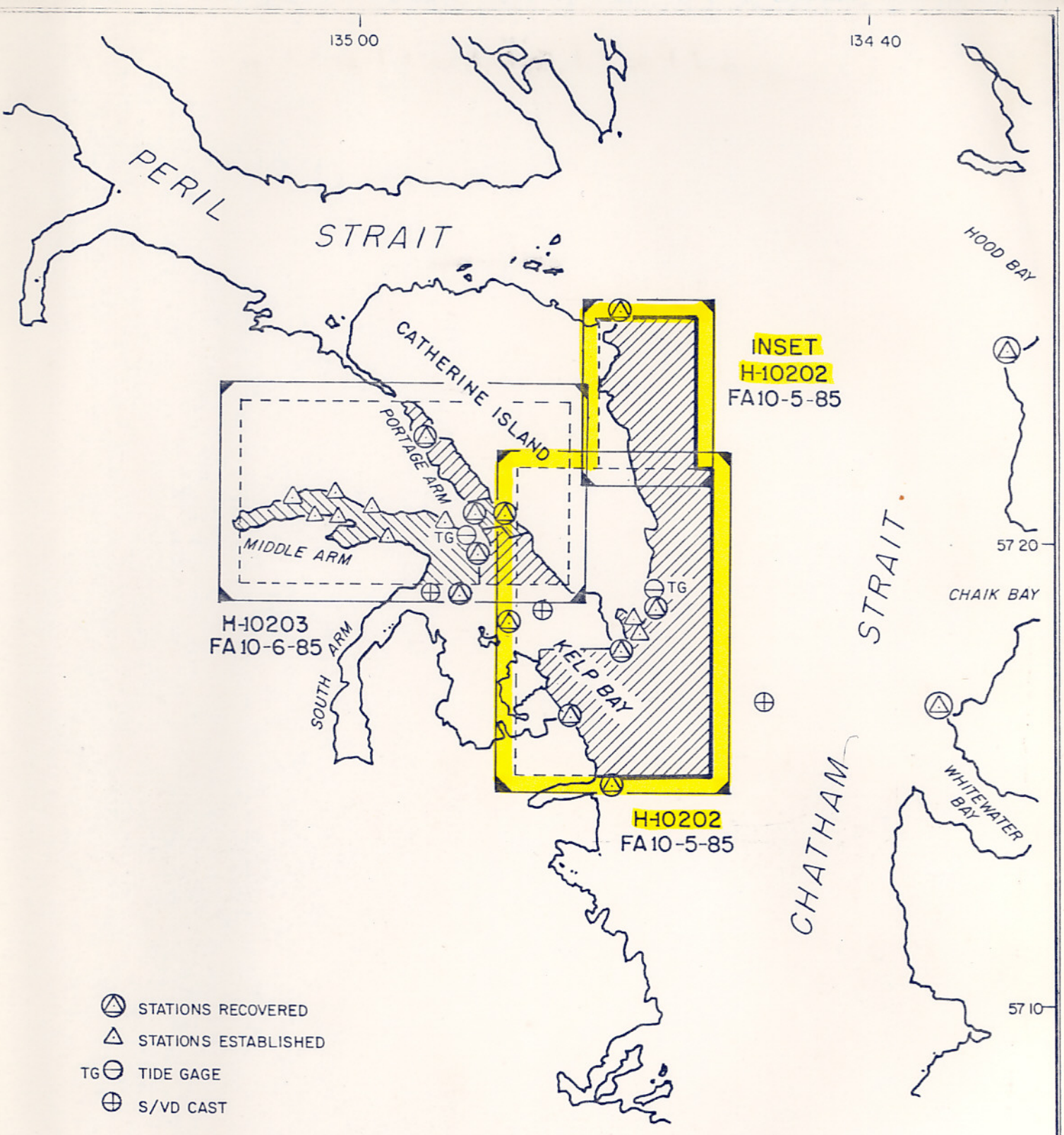


	OCT	NOV
SQ NM SOUNDING LINE	24.6	3.8
LNM SOUNDING LINE	495	145
BOTTOM SAMPLES	67	60
HYDRO CONTROL STATIONS	14	8
SV/D CAST	3	3
TIDE GAGE INSTALLATION	2	0
LNM SL VERIFICATION	24.5	12.6
HYDROGRAPHY		

MONTHLY PROGRESS SKETCH

OPR-0183-FA-85

—KELP BAY, ALASKA—

NOAA SHIP FAIRWEATHER S-220

CAPT JOHN W. CARPENTER, CMDG

SCALE OF NOS CHART 17320

October November 1985

DESCRIPTIVE REPORT
to Accompany Hydrographic Survey
H-10202 (FA-10-5-85)
NOAA Ship FAIRWEATHER S-220
Captain John W. Carpenter, Commanding

A. PROJECT

Hydrographic Survey H-10202 was conducted in accordance with Project Instructions OPR-0183-FA-85 dated August 29, 1985, and Change No. 1 dated September 11, 1985. PMC OPORDER, the Hydrographic Manual (fourth edition) and the Hydrographic Survey Guidelines are also applicable.

This sheet is designated as sheet A in the Project Instructions.

B. AREA SURVEYED

This survey was conducted in the general locality of Chatham Strait, Alaska, in the vicinity of Catherine Island. The northern limit is latitude 57/24/36N; the southern boundary is latitude 57/15/00N; the eastern boundary is longitude 134/46/30W; the western boundary is the shoreline of Chatham Strait from the northern limit of the survey south to latitude 57/18/00N where the western boundary extends to longitude 134/52/48W and the adjacent shoreline.

The field work for this survey commenced on October 3, 1985 (DN 276) and was completed November 10, 1985 (DN 314).

C. SOUNDING VESSELS

Hydrographic data for this survey was collected utilizing three 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-8, which was designated vessel number 2028 and a 17-foot Boston Whaler, FA-10, designated as 2030. The NOAA ship FAIRWEATHER (vessel number 2020) was used for all sound velocity casts and to collect bottom samples in depths greater than 65 fathoms. Bottom samples in depths less than 65 fathoms were collected by FA-5.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

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

Table I
Sounding Equipment

Vessel	Date	Instrument/Model	Recorder
FA-3 (2023)	DN 276 to DN 313	Raytheon DSF-6000N	A 121 N
FA-4 (2024)	DN 277 to DN 279	Raytheon DSF-6000N	B 048 N
	DN 279 to DN 309	Raytheon DSF-6000N	B 049 N
FA-5 (2025)	DN 282 to DN 307	Raytheon DSF-6000N	A 113 N
FA-6 (2026)	DN 276 to DN 279	Raytheon DSF-6000N	B 039 N
	DN 279	Raytheon DSF-6000N	A 104 N
	DN 280 to DN 295	Raytheon DSF-6000N	B 048 N
Skiffs (2028, 2030)	DN 278	Sounding Pole	-------

Echo-sounding equipment was monitored continuously while on line. All hydrographic data were scanned at least twice to insert peaks and deeps between soundings and to ensure proper depth digitization. The effects of excess wave and swell action were adjusted at this time.

Diver's least depths were obtained using a Lietz Fiberglass tape measure or pneumatic depth gauge manufactured by 3-D Instruments, Inc. (s/n 8302079 N). Data acquisition using this gauge consisted of the following procedure: the orifice of the gauge was attached to a 150-foot air hose which was held in place at the least depth position by divers. A surface tender, using air from a scuba tank, pressurized the system three times and then recorded the averaged gauge value. System calibration data can be found in the separate Corrections to Echo Soundings Report, OPR-0183-FA-85, H-10202 and H-10203.

FAIRWEATHER's four survey launches were tested for settlement and squat on March 12, 1985 (DN 71) in Shilshole Bay, Seattle, Washington. 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 when performing surveys in fathoms. Refer to the Corrections To Echo Soundings Report for details concerning methods used for settlement and squat.

One bar check was performed daily, wind and seas permitting. Bar checks were normally done at three fathoms, though in calm seas, a six- or seven-fathom check was done for the DSF-6000N.

Bar checks combined with the velocity correctors determined launch TRA values. For this survey, all launches were determined to have a TRA of 0.3 fathoms. All launch soundings on the final field sheet were plotted using this TRA value.

Sounding correctors for the DSF-6000N apply to both the narrow- and wide-beam depth soundings. Narrow-beam data was digitized for H-10202 except from approximately latitude 57/15/00 N to latitude 57/16/50 N where the extreme depth and steepness of the bottom necessitated switching to wide-beam digitization below approximately 150 fathoms. Wide-beam digitizing of the echo sounder allowed the bottom to be followed more consistantly and gave an acceptable trace.

Wind and sea conditions occasionally made it necessary to visually average the depth profile to correct for heave action. When heave averaging was required, soundings were corrected in accordance with Section 4.9.3.2 of the Hydrographic Manual, and Hydrographic Survey Guideline #31.

Velocity correctors were determined from six SV/D casts. Table II contains the dates and locations of all casts. Two velocity tables were determined for these surveys from the six casts (see Table III). No velocity corrections were applied to echo sounder depths plotted on the final field sheets.

Table II
Velocity Casts

Cast No.	Date (DN)	Latitude	Longitude
1	279	57/16.6 N	134/44.3 W
2	294	57/18.5 N	134/57.2 W
3	294	57/16.6 N	134/44.0 W
4	308	57/16.9 N	134/50.8 W
5	314	57/18.8 N	134/56.9 W
6	314	57/18.6 N	134/52.0 W

Table III
Velocity Tables

Table No.	Based on Casts	Dates (DN)
1	1,2,3,4	DN 276-310
2	5,6	DN 311-314

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) in February 1985. An onboard PDP8/e FOCAL computer program was used to convert the frequency readings of the SV/D system to engineering units for determination of sound velocity profiles. Two Nansen bottles - one at the surface and one at depth - and/or surface temperatures were also taken during SV/D casts as a check on the Plessy system; these were not used in the determination of the velocity tables. Calibration data for the reversing thermometers and salinometer can be found in the Corrections to Echo Soundings Report.

TC/TI tapes were made in accordance with PMC OPORDER, Appendix Q, dated April 16, 1985. Printouts of TC/TI tapes are included in Appendix D of this report. (Incorrect TC/TI format used, See Preprocessing Critique, paragraph e.)

Predicted tide correctors were applied to the soundings plotted on the field sheets for this survey. The tide correctors used were from the 1985 West Coast of North and South America Tide Tables. H-10202 tide correctors are from Juneau, Alaska and are corrected to Kelp Bay per section 5.9 of the project instructions. The height correction range ratio is "x 0.84"; time correction equals minus 0 hours 15 minutes at high water and minus 0 hours 10 minutes at low water. For further information refer to Appendix B, "Field Tide Note".

E. HYDROGRAPHIC SHEETS

The final field sheets were plotted aboard the FAIRWEATHER using a PDP/8e computer and Houston Instruments DP-3 plotter. This survey consists of three final field sheets and five development sheets. The north, east and west sheets are plotted on mylar. The development sheets (A-E) are plotted on paper. The following table shows the scale, skew and dimensions of each sheet.

SHEET	SCALE	SKEW	DIMENSIONS
FA-10-5N-85	1:10,000	90	21 X 36
FA-10-5E-85	1:10,000	90	21 X 58
FA-10-5W-85	1:10,000	90	21 X 28
DEV. A	1:5,000	90	11 X 26
DEV. B	1:2,500	90	12 X 12
ENL. C	1:5,000	0	13 X 10
DEV. D	1:5,000	0	11 X 9
DEV. E	1:2,500	90	12 X 12

To allow for easier processing of the range-azimuth data collected in Echo Cove, a 1:5,000 scale enlargement was plotted of this area. This is a working copy only as the general terrain of Echo Cove does not warrant a subplan of the area; the 1:10,000 scale survey is sufficient.

All hydrographic data for this survey will be forwarded to the Pacific Marine Center in Seattle, Washington for verification and smooth plotting. All data north of latitude ~~57/21/36.5N~~* is to be plotted as an inset on the final smooth sheet so as not to exceed hydrographic sheet limits as defined in the Hydrographic Manual and PMC radio message R 111850Z OCT 85 (see Separate XII).

* 57°22'00"N.

F. CONTROL STATIONS

All horizontal control stations used on this survey were recovered and/or established by FAIRWEATHER personnel. All geodetic positions were based on the North American 1927 Datum. Conventional traverse and triangulation methods were used throughout this survey. No anomalies in control, adjustment or in closures were encountered. All positions meet or exceed Third Order, Class I specifications.

Stations used in support of the survey are shown on Table IV.

Table IV
Hydrographic Control Stations

Station Name	Signal Number
*DISTANT 2 r,d	103
ECHO m,d	129
ECHO AZ m,d	131
*HOME 2 r,d	101
KELP 2 r,d	105
NORTH PT. r,d	109
POINT LULL LIGHT 17 r,d	110
SOUTH PT. r,d	107
THATCHER 2 r,d	115
YELLOW r,d	117

r=recovered, m=monumented, d=described
*=Stations located outside limits of survey sheet

For additional information refer to the Horizontal Control Report, OPR-0183-FA-85.

G. HYDROGRAPHIC POSITION CONTROL

Hydrographic positioning control was accomplished using the Motorola Mini-Ranger III System. The control configurations consisted of range-range and range-azimuth for all positioning control including detached positions.

The following table (Table V) is a listing of console and R/T units for each sounding vessel.

Table V
Mini-Ranger Equipment by Vessel

Vessel Number	DN	Console Number	R/T Number
2023	276-313	B0323	B1398
2024	276-313	716	C1875
2025	276-278	506042	B1108
	282-313	703	E2716
2026	276-281	703	E2716
	282-313	506042	B1108
2020	279	506042	B1108
	294	703	E2716
	302	716	C1875
	308	703	E2716

Mini-Ranger electronic correctors were determined from baseline calibrations (BLC). The initial BLC was performed on DNs 266 and 268 from the Coast Guard Pier to the Union 76 Fuel Depot in Juneau, AK. The final BLC was performed on DNs 324, 330 and 336 from Lake Union Pier B to Lake Union Naval Reserve Pier in Seattle, WA. Final correctors were determined by using beginning BLC data only as all ending BLC correctors agree within 4 meters of the beginning correctors. For more detailed information see Electronic Control Report, OPR-0183-FA-85; H-10202, H-10203.

On DN 304 transponder code 9 had a modulator short, field repairs were not possible and the transponder was returned to PMC. Therefore, no ending baseline calibration was possible for this code.

Hydrographic positioning equipment was critically system checked at least once per week using either theodolite cuts or sextant angles. All hydrographic positioning equipment was found to be accurate within the limits set forth by the PMC OPORDER.

No hydrography was performed with weak or less than minimum required control geometry. In all cases, the launch R/T units were located directly over the transducers thus eliminating the need for ANDIST correctors.

H. SHORELINE

Shoreline details for this survey are from two 1:10,000 scale mylar enlargements of TP-01167, a 1:20,000 scale, class III, registered shoreline manuscript. All verified features from the shoreline manuscript are in black ink on the final field sheet with changes recorded in red ink. New features are displayed in black ink.

There were no conflicts between hydrography and the manuscript high water line except at latitude 57/17/53N, longitude 134/49/57W. In this area hydrography showed the actual shoreline to be approximately five meters east of the manuscript shoreline. There are trees on shore in this area that overhang the high water line; this could account for the shift.

Reef and ledge investigations showed numerous discrepancies. Toward the northern limit of the survey between latitudes 57/22/30N and 57/24/05N, the majority of the reefs as depicted on the shoreline manuscript do not exist. Hydrography indicated shoaling and kelp in most of these areas; however, negative soundings were acquired in only one location (see Development D). This occurred at latitude 57/23/32N, longitude 134/49/38W, at the northwest end of the reef shown on the shoreline manuscript. The area surrounding this reef was fully developed as shown on the 1:5,000 scale development sheet D. The ledge in the vicinity of latitude 57/22/30N, longitude 134/49/45W, was more extensive than depicted on the shoreline manuscript. This was also the case for ledges in the vicinity of Point Lull Light 17. Two rocks at latitude 57/21/20N, longitude 134/49/01W (reference number 118), were found to be an extension of the ledge, as was another rock shown at latitude 57/20/55N, longitude 134/48/31W (reference number 114). A small reef at latitude 57/20/15N, longitude 134/48/09W, was also found to be a ledge. Other changes to ledge limits (shown in red on the final field sheet) are minor in nature.

The following manuscript rocks were not found. Visual searches of five to twenty minutes were conducted in primarily clear water (10-20 foot visibility) and at low tidal levels. The bottom was visible in many instances. DSF-6000N echo sounders were also used in attempting to locate these rocks. Detached positions were taken at each manuscript location along with lead line or echo sounding depths. It is recommended that these rocks not be charted. *concur.*

POSITION NUMBER	APPROXIMATE LATITUDE (N)	APPROXIMATE LONGITUDE (W)
4675	57/24/00	134/49/30
4571	57/23/23	134/49/~~34~~40
4568	57/22/40	134/49/02
4570	57/22/41	134/49/21
1731	57/20/52	134/48/18
3904	57/18/53	134/48/19
3942	57/16/14	134/51/28
3941	57/15/51	134/51/06

A submerged rock shown on the manuscript (reference number 707) at the north-west end of Echo Cove was found to be a prominent dead head and was moved to shore by a FAIRWEATHER skiff. This feature should not be charted. *concur.*

Some new rocks were located during this survey. Most of these were found along the shoreline north of latitude 57/18/20N. They are shown on the final field sheet in black ink.

I. CROSSLINES

All crosslines were run at a minimum of 45 degrees to main scheme lines and account for 11.4 percent of the total coverage. Agreement between crosslines and main sheme soundings is good with differences greater than one fathom being attributable to irregular and steep bottom contours.

J. JUNCTIONS

This survey junctions with H-9121 to the north. Agreement is good to within one fathom except in deep water over ninety fathoms where a steep slope is present.

K. COMPARISON WITH PRIOR SURVEYS

The survey area is covered by the following prior surveys:

H-2240	1:20,000	1895
H-2233	1:80,000	1895

In accordance with the project instructions, comparisons were also made with reconnaisance survey number 124987 (1:20,000, 1983) conducted by the DAVIDSON. BP

Sounding by sounding comparison with H-2233 is good, with overall agreement within two fathoms. One discrepancy of note occurs at latitude 57/18/19N, longitude 134/48/12W, where an 8.7 fathom sounding is shown on the prior survey. Main scheme hydrography was split in this area which produced soundings from twelve to twenty-five fathoms. No indications of an 8.7-fathom depth were found. It is recommended that this 8.7 fathom sounding be deleted. *concur.*

The present survey is much more complete in coverage than H-2233. The portion of the prior survey which falls within the current survey limits consists primarily of only two parallel sounding lines running north-south along the shoreline. As a result, a number of peaks and shoals were found which are not shown on H-2233. Significant shoaling with depths of less than two fathoms occurs along the inshore area between latitudes 57/19/00N and 57/20/00N. Two other shoals were discovered in the vicinity east of Point Lull light. One is located approximately at latitude 57/18/00N, longitude 134/48/00W, where hydrography and diver investigation (position 9000) showed a least depth of 5.6 fathoms (Development A). The other shoal in this area at latitude 57/17/51N, longitude 134/48/02W, has a least depth of 7.7 fathoms (Development B). Another large shoal was found in the vicinity of latitude 57/23/30N, longitude 134/49/35W (Development D). The significant shoals were reported as dangers to the Coast Guard. ✓

A rock shown on H-2233 near the shoreline at latitude 57/19/40N, longitude 134/48/15W, was found by the present survey to be a small reef and should be charted accordingly. A submerged rock appearing near the shoreline on the prior survey at latitude 57/22/28N, longitude 134/49/18W, was not found. This position, when plotted on the field sheet, falls on a ledge. It is therefore recommended that this prior survey rock be removed from the chart and the ledge be charted. *concur.*

Comparison with H-2240 was made using a 1:10,000 scale enlargement covering the western limit of the current survey. Overall, the high water line does not match well between the two surveys. Comparison was made by affecting alignment along specific shoreline segments, rather than grid lines. There is good general sounding agreement within two fathoms. Locations where differences are greater than two fathoms occur only in areas where steep slopes or deep, irregular bottom exist. ✓

Comparison with the reconnaissance survey done by the DAVIDSON is also good with general agreement within two fathoms. A few soundings south of North Point disagree by as much as four fathoms. These differences are likely due to the highly irregular bottom present in this area. ✓

The following AWOIS items are within survey limits.

AWOIS ITEM #	DESCRIPTION
50968	Rock Awash Lat. 57/16/20N Long. 134/51/29W

✓

See H-Sheet

50970	Foul Area (Rocks) Extends 0.6 NM South of Lat. 57/17/17N Long. 134/48/40W
50971	Foul Area (Rocks) Extends 0.2 NM South of Lat. 57/17/25N Long. 134/49/54W
50980	Rock Awash Lat. 57/21/16N Long. 134/48/54W

AWOIS DESCRIPTIONS

50968 - This item was visually searched for at low tide; no rock was visible. A one-hundred meter radius circle using nine-meter spacing was also run at the position utilizing both wide and narrow beams of the DSF-6000N echo sounder (Development E). An irregular bottom was found with depths ranging from 4.2 to 15 fathoms. No bottom drag was attempted due to the rocky nature of the sea floor. At latitude 57/16/20.3N, longitude 134/51/35.2W, a shoal with a least depth of 2[3] feet was found approximately 105 meters from the AWOIS position (dive position 9053). It is recommended that this shoal depth be charted in lieu of the charted rock. concur (chart as OSRk)

A second charted rock (from prior survey H-2240) near AWOIS item number 50968 at latitude 57/16/25N, longitude 134/~~15~~51/35W, was within the limits of Development E. Fifteen meter line spacing was accomplished over this area. Depths ranging from eight to fifteen fathoms were acquired. There were no indications of a rock awash at this location. A diver's least depth of 1.4 fathoms was found approximately 105 meters south of the charted position. Rock considered disproven.

50970 - Echo-sounder development was accomplished in this area. Numerous shoal areas were found with least depths determined by diver investigations (positions 9013, 9016-9018, 9021-9024, and 9050). These shoals were within the limits reported as foul with rocks by the DAVIDSON. Although reefs and shoals exist within these limits the area is not foul with rocks. It is recommended that this area be charted as determined by hydrography on H-10202. (See EVAL Rpt. sec. 6)
(a) The area is foul with ledges, rocks, reefs and kelp.
(b) Concur. This area should be charted according to SS

50971 - Echo-sounder development was accomplished in this area. Shoals were found to extend further south from North Point (0.4 nautical miles) than noted by the DAVIDSON. Least depths and positions of these shoals were determined by diver investigations (positions 9014-9015, 9049, and 9051). The geographic locations and least depths were reported to the Coast Guard as dangers to navigation (refer to Separate XI). This area was found not to be foul with rocks although reefs and shoals were found. This area should be charted as determined by hydrography on H-10202. (See EVAL RPT sec. 6) (same comments as AWOIS item 50970)

✓50980 - Three rocks are shown within the circle indicating this item on the AWOIS chart. The southern most rock at latitude 57/21/16N, longitude 134/48/54W, is mentioned in the AWOIS description. Only this feature is discussed here. The other two rocks (reference number 118) are addressed in section H of this report. ✓

This area was visually searched (position 1730) and investigated by divers. No rock was found. Bottom drag, side scan, and full echo-sounder searches were not conducted due to the rocky sea floor and close vicinity to shore. A ledge was found by echo sounder and diver investigation (position 9043) to extend from shore to within 40 meters of the AWOIS position. It is recommended that the ledge be charted in lieu of the rock. concur.
(Incorporate *(3) as high point of ledge.)

L. COMPARISON WITH THE CHART

Comparisons were made between this survey and two 1:10,000 scale enlargements of chart 17337, 1:40,000, seventh edition, February 26, 1977. The survey was also compared with a 1:10,000 scale enlargement of chart 17338, 1:40,000, eleventh edition, September 26, 1981. Sounding agreement with these charts is good being generally within two fathoms except as noted. ✓

One discrepancy occurs off Point Lull at latitude 57/17/56N, longitude 134/48/20W, where a 2-fathom sounding appears on ~~both~~ chart 17337. This sounding is shown on the chart mark up as being derived from prior survey H-2233; yet the sounding does not appear on that survey. Line spacing was reduced over this area with no indications of shoaling found. Depths of 22 fathoms were found in this area. It is therefore recommended that this two-fathom sounding be deleted from the chart. All other soundings originate from the prior surveys. Discrepancies with these surveys have been discussed in sections H and K of this report and will not be repeated. concur.

A prominent ridge south of Point Lull extends further south than depicted on the charts. The southern boundary of this feature is approximately at latitude 57/16/00N, longitude 134/47/50W. Depths rise from over one hundred fifty fathoms to less than forty fathoms along the extent of this ridge. Another rise, south of the ridge, is located at latitude 57/15/33N, longitude 134/47/48W, where a least depth of fifty-one fathoms was found. ✓

A rock shown on the chart at latitude 57/23/36N, longitude 134/50/01W, was not verified. This rock was not observed while running a line of hydrography ~~10~~ ~50 meters south of the charted position. The source of the rock is a Class III manuscript, T-11942, 1967.* It is recommended this rock be retained unless review of the 1967 manuscript shows it not to exist. concur.
* Field Edit – May 1970, Reviewed – July 1978

The following charted rocks were not found. Visual circle searches of approximately 50 meters were conducted at these locations, in water with 10 to 15 feet of visibility. The source of these rocks is the Class III manuscript (T-11942, 1967) mentioned above. It is recommended that these rocks not be charted. concur.

POSITION NUMBER	LATITUDE (N)	LONGITUDE (W)
2089	57/23/20	134/49/58
2090	57/23/17	134/49/59
2072	57/22/40	134/49/12

A charted rock (from H-2240 (1895)) at latitude 57/17/46N, longitude 134/48/40W, was not found at this location. Shoaling occurs in this area and hydrography produced a sounding of 0.8 fathoms approximately 50 meters northwest of the charted position. It is recomended that the rock be deleted and chart the area as shown on the present survey.

Two submerged rocks at latitude 57/17/~~36~~35.6N, longitude 134/48/~~30~~33.7W, and latitude 57/17/~~20~~20.9N, longitude 134/48/~~34~~35.7W, were found by diver investigations (positions 9023 and 9017) to be high points of an extensive shoal located in this area. Least depths of 1.~~7~~0 fathoms and 1.~~3~~2 fathoms were produced at these locations. Rock position adequate for charting sans PA note.

A rock with an approximate position of latitude 57/23/20N, longitude 134/50/08W, is plotted on the final field sheet. The plotted position was derived from a line of hydrography which gapped to avoid this rock (position 4412).

Three foul areas depicted on charts 17337 and 17338 in the vicinity of latitude 57/23/00N, longitude 134/~~50~~49/50W, were found not to be foul by the results of the current survey. However, some rocks and reefs were found in this area. It is recommended that these areas be charted as indicated by hydrography. concur.

Diver least depths over areas investigated during this survey were determined using a pneumatic depth gauge or tape measure.

Copies of Dangers to Navigation reports sent to the Coast Guard and DMAHTC are located in Separate XI. Included are latitudes, longitudes, position numbers and least depths.

M. ADEQUACY

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

N. AIDS TO NAVIGATION

There is one fixed aid to navigation within the limits of this survey. Point Lull Light 17 (Light List No. 3253.50) with a flashing white four-second characteristic at latitude 57/18/34.950N, longitude 134/48/17.578W, was verified by single direct observation from station Kelp 2 (see Horizontal Control Report; OPR-0183-FA-85; H-10202, H10203).

Review of the Summary of Corrections dated June 1985, Volume 3, showed an error in the listed position of Point Lull Light 17. A letter was sent to DMAHTC noting the correct position (see Separate XII).

O. STATISTICS

Vessel	2020	2023	2024	2025	2026	Total
Positions	24	1394	1612	282	458	3770
Nautical Miles	0.0	162.8	176.5	2.4	51.2	393
Square Miles	-	-	-	-	-	20.0
Bottom Samples	23	0	0	59	0	82
Velocity Casts	6	-	-	-	-	6
Tide Stations	-	-	-	-	-	2

P. MISCELLANEOUS

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

Currents of up to two knots were observed throughout the survey area.

Q. RECOMMENDATIONS

None

R. AUTOMATED DATA PROCESSING

All range-range and range-azimuth hydrography was processed in accordance with PMC OPORDER, Appendix Q, dated April 16, 1985. Scanning corrections for peaks and deeps as well as other sounding corrections were included on corrector tapes for range-range control. In most cases for range-azimuth control, inserts were added on the master tapes. In all cases inserts were made according to time and course.

The following hydroplot programs were used for processing or data acquisition.

Number	Program Name	Version Date
RK 112	R/R Real Time Plot	4/23/84
RK 116	R/Az Real Time Plot	10/01/84
RK 201	Grid, Signal and Lattice Plot	4/18/75
RK 211	R/R Non Real Time Plot	2/13/84
RK 212	R/Az Non Real Time Plot	2/12/84
RK 300	Utility Computations	10/21/80
RK 330	Reformat and Data Check	5/04/76
PM 360	Electronic Corrector Abstract	2/02/76
RK 407	Geodetic Inverse/Direct Computation	9/25/78
AM 500	Predicted Tide Generator	11/10/72
RK 530	Layer Corrections for Velocity	5/10/76
RK 562	Theodolite Calibration	9/05/84
AM 602	ELINORE - Line Oriented Editor	12/08/82
Falogh	R/R + R/Az Hydrologger	8/04/83

5. REFERRAL TO REPORTS

The following reports will be submitted separately.

Report	Date
Horizontal Control Report	January 1986
Electronic Control Report	January 1986
Correction to Echo Soundings Report	January 1986
Coast Pilot Report	January 1986

SIGNAL LISTING
OPR-0183-FA-85
KELP BAY, ALASKA
FA-10-6-85
H-10203

HOME 2 1925
101 0 57 16 26401 134 37 14122 250 0014 000000

DISTANT 2 1925
103 0 57 24 04048 134 34 39281 250 0011 000000

KELP$_{\wedge}^{2}$ 1925
105 0 57 14 40530 134 50 05284 250 0006 000000

SOUTH PT 1983
107 0 57 16 17939 134 51 42464 250 0003 000000

NORTH PT 1983
109 0 57 17 35920 134 49 48665 250 0009 000000

POINT
~~PT.~~ LULL LIGHT 17
110 0 57 18 34950 134 48 17578 250 0013 000000

COVE 2 1925
111 0 57 18 34618 134 48 17453 250 0007 000000

THATCHER 2 1925
115 0 57 25 00582 134 49 49458 250 0006 000000

YELLOW 1983
117 0 57 18 15792 134 54 01704 250 0006 000000

PLOVER 1983
119 0 57 18 56704 134 56 01017 250 0003 000000

~~PORTAGE 1983~~
~~121 0 57 19 42748 134 55 09249 250 0003 000000~~

GENE 1983
123 0 57 20 32314 134 54 18844 250 0002 000000

PARM 1983
125 0 57 20 37156 134 55 15047 250 0002 000000

~~MARD 1983~~
~~127 0 57 22 13630 134 57 31287 250 0004 000000~~

ECHO 1985
129 0 57 17 57220 134 48 58658 250 0003 000000

ECHO AZ. 1985
131 0 57 18 29981 134 49 28194 250 0001 000000

~~MARM 1985~~
~~133 1 57 20 21104 134 56 24854 250 0006 000000~~

~~KRICK 1985~~
~~135 6 57 20 07205 134 58 49740 250 0002 000000~~

~~STONE PT. 1985~~
~~137 2 57 20 39559 134 57 29729 250 0002 000000~~

~~RO 1985~~
~~139 2 57 20 59249 135 00 44767 250 0002 000000~~

~~MOSS 1985~~
~~141 5 57 20 35930 135 01 31767 250 0002 000000~~

~~COXSN 1985~~
~~143 0 57 20 55845 135 02 28037 250 0002 000000~~

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- ☐ HYDROGRAPHIC PARTY
- ☐ GEODETIC PARTY
- ☐ PHOTO FIELD PARTY
- ☒ COMPILATION ACTIVITY
- ☐ FINAL REVIEWER
- ☐ QUALITY CONTROL & REVIEW GRP.
- ☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

☐ TO BE CHARTED
☒ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Coastal Mapping Unit, PPS, Rockville Office	Alaska	Kelp Bay	8/85

The following objects HAVE ☐ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	CM-8204	TP-01167	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LT 17	(Point Lull Light 17)	57-18-	34.950	134-48-	17.578		Triang. Rec. May, 1983	17320 17337 17338
	NC-L-771(85)							

130

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

November 10, 1985 1703-01.05:MRK

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

Dear Sir:

This letter confirms my radio message, R 081710Z NOV 85.

The following items were noted by the NOAA Ship FAIRWEATHER during survey operations in the vicinity of Catherine Island, Chatham Strait, Alaska (survey H-10202) 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:

1. "An uncharted rock covered by 3.5 fathoms (MLLW based on predicted tides) is at latitude 57/20/52.3N, longitude 134/48/11.9W (Charts 17337 and 17320)."

2. "An uncharted shoal has been located extending from latitude 57/19/43.2N, longitude 134/47/57.5W, (depth of 3.4 fathoms) south to latitude 57/19/29.4N, longitude 134/47/52.3W, (depth of 2.0 fathoms) with a least depth of 0.7 fathoms at latitude 57/19/36.3N, longitude 134/47/51.7W (Charts 17337 and 17320)."

3. "An uncharted shoal covered by 3.3 fathoms (MLLW based on predicted tides) is at latitude 57/19/22.0N, longitude 134/48/12.9W (Charts 17337 and 17320)."

4. "An uncharted rock covered by 1.6 fathoms (MLLW based on predicted tides) is at latitude 57/19/10.9N, longitude 134/48/17.7W (Charts 17337 and 17320)."

5. "An uncharted shoal covered by 5.6 fathoms (MLLW based on predicted tides) is at latitude 57/18/00.0N, longitude 134/48/02.3W (Charts 17337 and 17320)."

6. "An uncharted shoal covered by 2.1 fathoms (MLLW based on predicted tides) is at latitude 57/17/25.0N, longitude 134/49/37.5W (Charts 17337 and 17320)."

7. "An uncharted shoal covered by 3.9 fathoms (MLLW based on predicted tides) is at latitude 57/17/17.2N, longitude 134/49/30.0W (Charts 17337 and 17320)." #50971

Sincerely,

John W. Carpenter
Captain, NOAA
Commanding Officer

cc: N/CG222 - Chart Information Section
N/MOP21 - Nautical Chart Branch

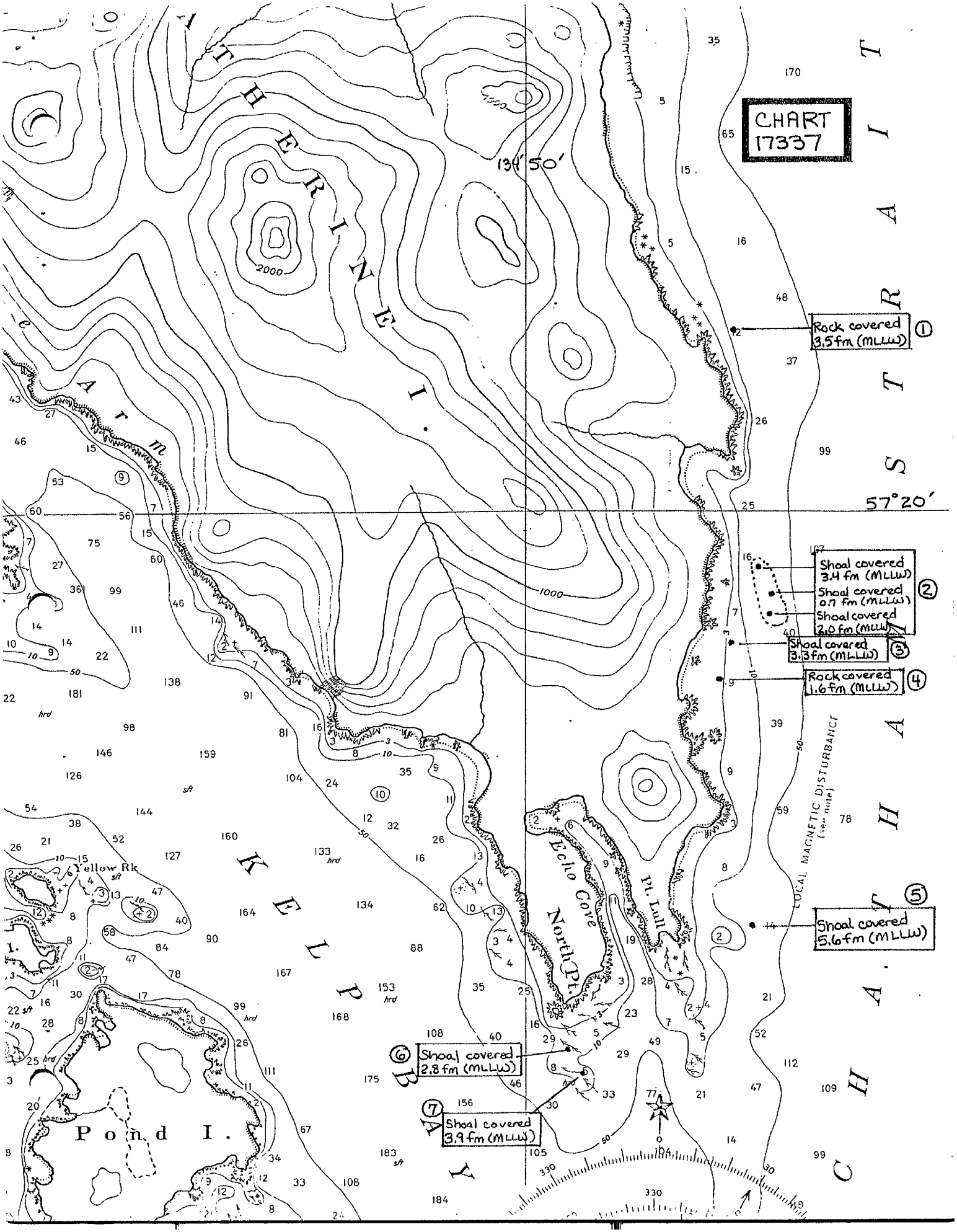


CHART 17337
134° 50′
57° 20′
Rock covered 3.5 fm (MLLW) ①
Shoal covered 3.4 fm (MLLW)
Shoal covered 0.7 fm (MLLW)
Shoal covered 2.0 fm (MLLW) ②
Shoal covered 3.3 fm (MLLW) ③
Rock covered 1.6 fm (MLLW) ④
Shoal covered 5.6 fm (MLLW) ⑤
⑥ Shoal covered 2.8 fm (MLLW)
⑦ Shoal covered 3.9 fm (MLLW)
LOCAL MAGNETIC DISTURBANCE
Yellow Rk
Pond I.
Echo Cove
North Pt.
Pt. Lull
KELP BAY
SITKA SOUND
Arm
1000
2000

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

December 2, 1985 1703-01.05:MRK

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

Dear Sir:

This letter confirms my radio messages, P 191749Z NOV 85 and P 261548Z NOV 85.

The following items were noted by the NOAA Ship FAIRWEATHER during survey operations in the vicinity of Catherine Island, Chatham Strait, Alaska (survey H-10202) and in Portage and Middle Arms, Kelp Bay, Alaska (survey H-10203) 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:

1. "An uncharted rock covered by 0.6 fathoms (MLLW based on predicted tides) is at latitude 57/22/31.8N, longitude 134/57/18.3W (Charts 17337 and 17320)."

2. "An uncharted rock covered by 2.7 fathoms (MLLW based on predicted tides) is at latitude 57/22/11.8N, longitude 134/57/13.7W (Charts 17337 and 17320)."

3. "An uncharted shoal has been located extending from latitude 57/20/14.4N, longitude 134/56/42.9W, (depth of 4.3 fathoms) to latitude 57/20/15.8N, longitude 134/56/51.2W, (depth of 6.1 fathoms) (Charts 17337 and 17320)."

4. "An uncharted shoal covered by 8.0 fathoms (MLLW based on predicted tides) is at latitude 57/19/09.5N, longitude 134/56/35.9W (Charts 17337 and 17320)."

5. "An uncharted shoal covered by 9.7 fathoms (MLLW based on predicted tides) is at latitude 57/19/11.7N, longitude 134/56/44.0W (Charts 17337 and 17320)."

6. "An uncharted shoal covered by 3.4 fathoms (MLLW based on predicted tides) is at latitude 57/20/14.3N, longitude 134/53/53.6W (Charts 17337 and 17320)."

7. "An uncharted rock baring 4 feet (MLLW based on predicted tides) is at latitude 57/18/40N, longitude 134/55/59W (Charts 17337 and 17320)."

8. "An uncharted rock baring 3 feet (MLLW based on predicted tides) is at latitude 57/18/44N, longitude 134/55/51W (Charts 17337 and 17320)."

9. "An uncharted rock baring 2 feet (MLLW based on predicted tides) is at latitude 57/18/47N, longitude 134/55/52W (Charts 17337 and 17320)."

10. "Within the charted 10-fathom curve extending south from Portage Point in Kelp Bay in the vicinity of latitude 57/19/30N, longitude 134/54/45W, numerous rocks and shoals exist. Shoal depths range from 0.7 fathoms to 4.1 fathoms thoughout the area (MLLW based on predicted tides). Extreme caution should be exercised when transiting this area (Charts 17337 and 17320)."

11. "An uncharted rock baring 3 feet (MLLW based on predicted tides) is at latitude 57/19/36.7N, longitude 134/55/05.2W (Charts 17337 and 17320)."

12. "An uncharted rock covered 2.6 fathoms (MLLW based on predicted tides) is at latitude 57/16/31.3N, longitude 134/51/55.8W (Charts 17337 and 17320)."

13. "An uncharted rock covered 0.1 fathoms (MLLW based on predicted tides) is at latitude 57/17/52.2N, longitude 134/50/08.3W (Charts 17337 and 17320)."

14. "An uncharted rock covered 0.8 fathoms (MLLW based on predicted tides) is at latitude 57/17/53.3N, longitude 134/50/14.4W (Charts 17337 and 17320)."

H-10202

Sincerely,

John W. Carpenter
Captain, NOAA
Commanding Officer

cc: N/CG222 - Chart Information Section
N/MOP21 - Nautical Chart Branch

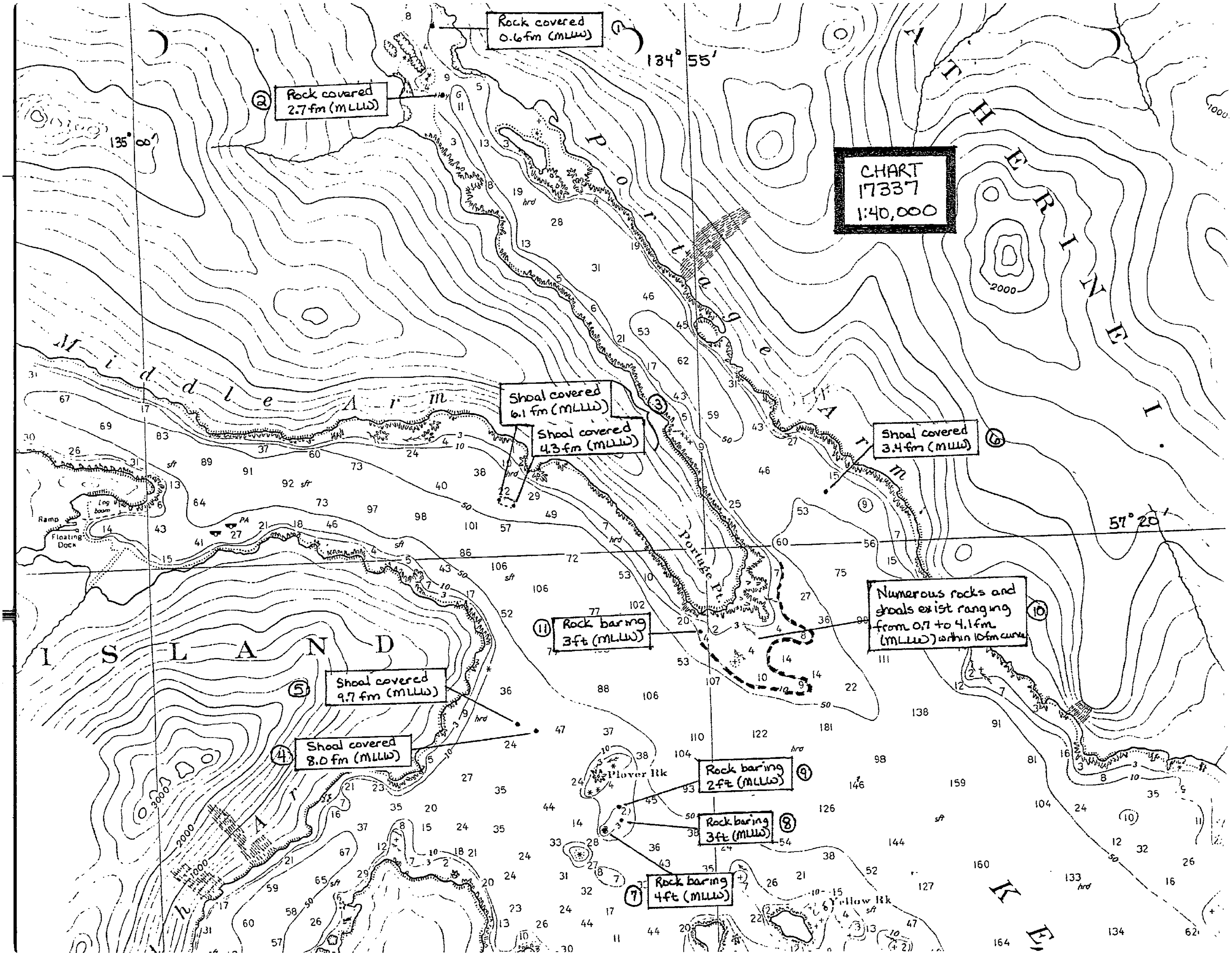
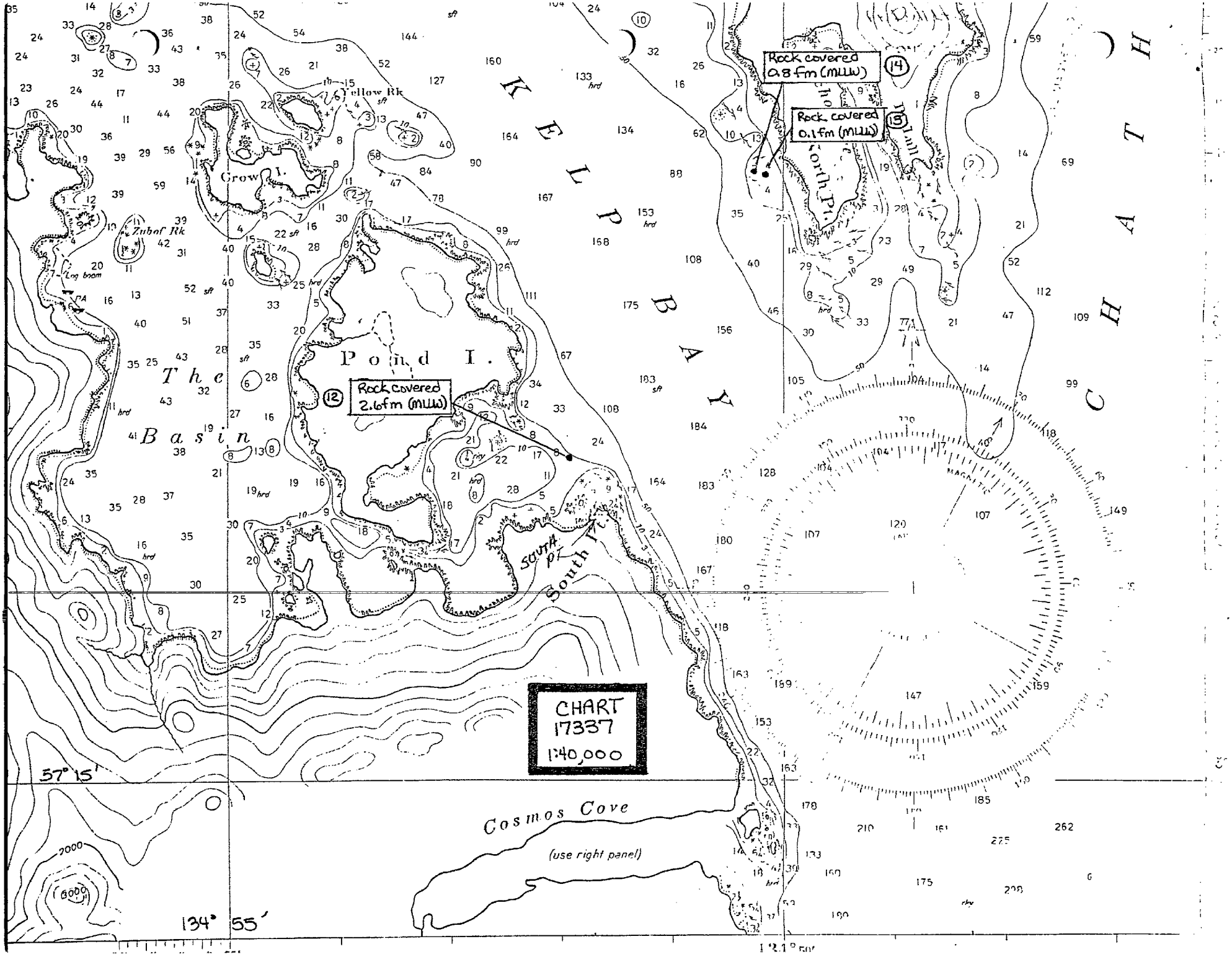


CHART
17337
1:40,000
Rock covered 0.6 fm (MLLW)
Rock covered 2.7 fm (MLLW)
Shoal covered 6.1 fm (MLLW)
Shoal covered 4.3 fm (MLLW)
Shoal covered 3.4 fm (MLLW)
Numerous rocks and shoals exist ranging from 0.7 to 4.1 fm (MLLW) within 10 fm curve
Rock baring 3ft (MLLW)
Shoal covered 9.7 fm (MLLW)
Shoal covered 8.0 fm (MLLW)
Rock baring 2ft (MLLW)
Rock baring 3ft (MLLW)
Rock baring 4ft (MLLW)
134° 55'
135° 00'
57° 20'
Portage Arm
Middle Arm
Portage Pt.
Plover Rk
Yellow Rk
Log boom
Ramp
Floating Dock
ISLAND


K E L P B A Y
C H A T H
Grow I.
Yellow Rk
Zubof Rk
Pond I.
The Basin
Rock covered
2.6fm (MLLW)
Rock covered
0.8fm (MLLW)
Rock covered
0.1fm (MLLW)
North Pt.
South Pt.
CHART
17337
1:40,000
57° 15'
134° 55'
Cosmos Cove
(use right panel)

T

RTTUZYUW RUHPTEB0369 3121710-UUUU--RUHPSUU.
ZNR UUUUU
R 0817107 NOV 85
FM NOAAS FAIRWEATHER
TO CCGDSEVENTEEN JUNEAU AK
INFO NOAAMOP SEATTLE WA
DMAHTC WASHINGTON DC//NVS//
ACCT CM-VCAA
BT
UNCLAS
DANGERS TO NAVIGATION
1. THE FOLLOWING DANGERS WERE NOTED BY THE NOAA SHIP FAIRWEATHER DURING SURVEY OPERATIONS IN THE VICINITY OF CATHRINE ISLAND. CHATHAM STRAIT. ALASKA (SURVEY H-10202). ALL ITEMS PERTAIN TO CHARTS 17337 AND 17320. DEPTHS ARE REFERENCED TO MLLW BASED ON PREDICTED TIDES.

A. AN UNCHARTED ROCK COVERED BY 3.5 FM IS AT LAT. 57/20/52.3N. LONG. 134/48/11.9W.

B. AN UNCHARTED SHOAL HAS BEEN LOCATED EXTENDING FROM LAT. 57/19/43.2N, LONG. 134/47/57.5W. (DEPTH OF 3.4 FM) SOUTH TO LAT. 57/19/29.4N, LONG. 134/47/52.3W, (DEPTH OF 2.0 FM) WITH A LEAST DEPTH OF 0.7 FM AT LAT. 57/19/36.3N, LONG. 134/47/51.7W.

C. AN UNCHARTED SHOAL COVERED BY 3.3 FM IS AT LAT. 57/19/22.0N, LONG. 134/48/12.9W.

D. AN UNCHARTED ROCK COVERED BY 1.6 FM IS AT LAT. 57/19/10.9N, LONG. 134/48/17.7W.

E. AN UNCHARTED SHOAL COVERED BY 5.6 FM IS AT LAT. 57/18/00.0N. LONG. 134/48/02.3W.

F. AN UNCHARTED SHOAL COVERED BY 2.1 FM IS AT LAT. 57/17/25.0N. LONG. 134/49/37.5W.

G. AN UNCHARTED SHOAL COVERED BY 3.9 FM IS AT LAT. 57/17/17.2N. LONG. 134/49/30.0W.

2. CONFIRMATION LETTER CONTAINING SAME INFORMATION WILL BE SENT.
BT
#0369

NNNN

HHHHSSC
SS DE OA
ISN-OA/64
RIXT
P 191749Z NOV 85
FM NOAAS FAIRWEATHER
TO CCGDSEVENTEEN JUNEAU AK
INFO NOAAMOP SEATTLE WA
DMAHTC WASHINGTON DC//NVS//
ACCT CM-VCAA
BT
UNCLAS
DANGERS TO NAVIGATION

1. THE FOLLOWING DANGERS WERE NOTED BY THE NOAA SHIP FAIRWEATHER DURING SURVEY OPERATIONS IN THE VICINITY OF CATHERINE ISLAND, CHATHAM STRAIT, ALASKA (SURVEY H-10202) AND PORTAGE AND MIDDLE ARMS, KELP BAY, ALASKA (SURVEY H-10203). ALL ITEMS PERTAIN TO CHARTS 17337 AND 17320. DEPTHS ARE REFERENCED TO MLLW BASED ON PREDICTED TIDES.

A. AN UNCHARTED ROCK COVERED BY 0.6 FM IS AT LATITUDE 57/22/31.8N, LONGITUDE 134/57/18.3W.

B. AN UNCHARTED ROCK COVERED BY 2.7 FM IS AT LATITUDE 57/22/11.8N, LONGITUDE 134/57/13.7W.

C. AN UNCHARTED SHOAL HAS BEEN LOCATED EXTENDING FROM LATITUDE 57/20/14.4N, LONGITUDE 134/56/42.9W, (DEPTH OF 4.3 FM) TO LATITUDE 57/20/15.8N, LONGITUDE 134/56/51.2W, (DEPTH OF 6.1 FM).

D. AN UNCHARTED SHOAL COVERED BY 8.0 FM IS AT LATITUDE 57/19/09.5N, LONGITUDE 134/56/35.9W.

E. AN UNCHARTED SHOAL COVERED BY 9.7 FM IS AT LATITUDE 57/19/11.7N, LONGITUDE 134/56/44.0W.

F. AN UNCHARTED SHOAL COVERED BY 3.4 FM IS AT LATITUDE 57/20/14.3N, LONGITUDE 134/53/53.6W.

ACTION.....REPLY BY:(LTR/MSG).....ADD'L FOLLOW-UP.....

CC: MOP/X2/1/2/.../.../.../...IN DATE..11/19/85..MSG RELEASE

G AN UNCHARTED ROCK BARING 4 FT IS AT LATITUDE 57/18/40N, LONGITUDE 134/55/59W.

H. AN UNCHARTED ROCK BARING 3 FT IS AT LATITUDE 57/18/44N, LONGITUDE 134/55/51W.

I. AN UNCHARTED ROCK BARING 2 FT IS AT LATITUDE 57/18/47N, LONGITUDE 134/55/52W.

J. WITHIN THE CHARTED 10-FM CURVE EXTENDING SOUTH FROM PORTAGE POINT IN KELP BAY IN THE VICINITY OF LATITUDE, 57/19/30N, LONGITUDE 134/54/45W, NUMEROUS ROCKS AND EXIST. SHOUAL DEPTHS RANGE FROM 0.7 FMS THROUGHOUT THE AREA. EXTREME CAUTION SHOULD BE EXERCISED WHEN TRANSITING THIS AREA.

K. AN UNCHARTED ROCK BARING 3 FT IS AT LATITUDE 57/19/36.7N LONGITUDE 134/55/05.2W.

L. AN UNCHARTED ROCK COVERED 2.6 FM IS AT LATITUDE 57/16/31.3N, LONGTITUDE 134/51/55.8W.

M. AN UNCHARTED ROCK COVERED 0.1 FM IS AT LATITUDE 57/17/52.2N, LONGITUDE 134/50/08.3W.

N. AN UNCHARTED ROCK COVERED 0.8 FM IS AT LATITUDE 57/17/53.3N, LONGITUDE 134/50/14.4W.

2. CONFIRMATION LETTER CONTAINING SAME INFORMATION WILL BE SENT.
BT
TOD-11:19:18:15

HHHHSSC
SS DE OA
ISN-OA/67
RIXT
P 261548Z NOV 85
FM NOAAS FAIRWEATHER
TO CCGDSEVENTEEN JUNEAU AK
INFO NOAAMOP SEATTLE WA
DMAHTC WASHINGTON DC//NVS//
ACCT CM-VCAA
BT
UNCLAS
CORRECTION TO DANGER TO NAVIGATION
A. MY 191749Z NOV 85
1. PARA 1. J. OF REF A HAS AN ERROR. THE CORRECT DANGER TO NAVIGATION ITEM IN ITS ENTIRETY IS LISTED BELOW
2. PARA 1. J. SHOULD READ AS FOLLOWS:
   WITHIN THE CHARTED 10-FM CURVE EXTENDING SOUTH FROM PORTAGE POINT IN KELP BAY IN THE VICINITY OF LATITUDE 57/19/30N, LONGITUDE 134/54/45W, NUMEROUS ROCKS AND SHOALS EXIST. SHOAL DEPTHS RANGE FROM 0.7 FMS TO 4.1 FMS THROUGHOUT THE AREA. EXTREME CAUTION SHOULD BE EXERCISED WHEN TRANSITING THIS AREA.
BT
TOD-11:26:15:58 RA
NNNN

CD
XD
OPS

NC DE OJ
NC T WTEB

RTTUZYUW RHWISGG5490 2842035-UUUU--RUWMBBA.
ZNR UUUUU
R 111850Z OCT 85
FM NOAAMOP SEATTLE WA
TO RUWMBBA/NOAAS FAIRWEATHER
ACCT CM-VCAA
BT
UNCLAS
FA180//MOP2X1
A. YOUR R 071730Z OCT 85
B. YOUR R 071735Z OCT 85
1. SHEET LIMIT FOR SHEET A, OPR-0183, SHEET LAYOUT DATED 7/15/85, IS IN ERROR. HOLD SOUTHERN LIMIT AT LATITUDE 57 DEG 15 MIN NORTH, AND MAKE SHEET 122 CM LONG. EASTERN LIMIT IS AT LONGITUDE 134 DEG 46 MIN 15 SEC WEST. SHEET IS 76 CM WIDE.
2. EASTERN SHEET LIMIT FOR SHEET B IS IN ERROR ALSO. HOLD WESTERN LIMIT FIXED AS INDICATED ON 7/15/85 SHEET LAYOUT (COVERING SOUTH ARM), AND MAKE SHEET 122 CM LONG.
3. SHEETS A AND B SHOULD JUNCTION ALONG A LINE CONNECTING NORTH POINT AND SOUTH POINT AT ENTRANCE TO KELP BAY.
4. SHEET D AREA IS AN INSET ON SHEET A, AND ITS

WTEB

PAGE 02 RHWISGG5490 UNCLAS
DESIGNATION AS A SEPARATE SHEET SHOULD BE DROPPED.
THE NORTHERN LIMIT OF THIS AREA IS DEFINED BY JUNCTION REQUIREMENTS WITH H-9121.
5. MOP2X1 HAS MAILED A REVISED SHEET LAYOUT TO YOU.
6. REGISTRY NUMBER CANNOT BE ASSIGNED UNTIL TUESDAY, OCT 15. APOLOGIES FOR DELAY.
BT
#5490

TOD 120618Z OCT 85 CB

NNNN

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

January 20, 1986 1703-01.08

Defense Mapping Agency
Hydrographic/Topographic Center
Washington, D.C. 20315-0030

Dear Sir:

During hydrographic field operations by the NOAA Ship FAIRWEATHER in the vicinity of Catherine Island, Chatham Strait, Alaska (survey H-10202), a discrepancy was noted in your Summary of Corrections (Subregion 17, Chart 17337) dated June 1985, Volume 3. An incorrect position is listed for Point Lull Light 17. The Coast Guard Light List, Volume III, dated 1985 gives the correct position: latitude 57/18.6N, longitude 134/48.3W (light list no. 3253.50).

In May 1983 NOAA Ship DAVIDSON personnel located Point Lull Light 17 to Third Order, Class I accuracy. This position was verified by the FAIRWEATHER in October 1985. The field position was determined to be latitude 57/18/34.950N, longitude 134/48/17.578W. The incorrect position noted in the Summary of Corrections is shown as having a source of "(32/82 CG17)"; a source prior to the DAVIDSON's work.

It appears the corrected position published by the Coast Guard was never received by DMAHTC. Therefore, it is recommended that a notice correcting the location of Point Lull Light 17 be issued in the Weekly Notice To Mariners.

Sincerely,

John W. Carpenter
Captain, NOAA
Commanding Officer

cc: N/MOP - Director, Pacific Marine Center

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

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

May 12, 1986 N/MOP211/DJH

TO: N/CG24 - Roy Matsushige

FROM: N/MOP21 - Thomas W. Richards

SUBJECT: Oversized Smooth Sheet

The plotted dimensions of hydrographic survey smooth sheet H-10202, ORP-0183-FA-85, exceed those for a "standard" sheet as specified in section 1.2.4 of the Hydrographic Manual. Approval is requested to plot the survey on a smooth sheet that is 104 centimeters wide by 147 centimeters long. Plotting the survey on a sheet of this size does not compromise the quality of the survey and is within the "maximum" limits specified in the Hydrographic Manual.

cc: N/MOP211
C.O. FAIRWEATHER

Approval Sheet

The final field sheets and the accompanying records have been reviewed for accuracy, completeness, compliance with project instructions, and adherence to required standards and procedures. The Commanding Officer monitored field work and inspected selected portions of the data on a daily basis. This survey is complete and requires no additional field work. The data is forwarded for final review and processing.

Submitted by:

Paul D. Moen
Lieutenant, NOAA

Reviewed by:

Maureen R. Kenny
Lieutenant, NOAA
Field Operations Officer

Approved by:

John W. Carpenter
Captain, NOAA
Commanding Officer

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

DATE: March 5, 1986

Marine Center: Pacific

OPR: 0183

Hydrographic Sheet: H-10202

Locality: Chatham Strait and Kelp Bay, AK

Time Period: October 3 - November 10, 1985

Tide Station Used: 945 1779 Point Lull, AK

Plane of Reference (Mean Lower Low Water): -0.13 ft.

Height of Mean High Water Above Plane of Reference: 13.3 ft.

Zone #2

Remarks: Recommended Zoning:

(1) In Chatham Strait north of latitude 57°22.5' apply x0.98 range ratio to all heights.

(2) South of latitude 57°22.5' Chatham Strait and into Kelp Bay, Zone Direct.

Zone #1

for Brick K. Cox
Chief, Tidal Datum Quality
Assurance Section

(11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

GEOGRAPHIC NAMES

H - 10202

Name on Survey Point Thatcher to Entrance of Kelp Bay FA-10-5-85	A ON CHART NO. 17337	B ON CHART 17338	C ON CHART 17320	D ON PRIOR SURVEY 2233	E ON PRIOR SURVEY 2240	F ON MANUSCRIPT TP-01667	G U.S. QUAD SITKA B-3	H	K	
Baranof Island	X		X			X	X			1
Catherine Island	X		X			X	X			2
Chatham Strait	X	X	X	X		X	X			3
Echo Cove	X					X	X			4
Kelp Bay	X	X	X	X		X	X			5
North Point	X	X	X		X	X	X			6
Point Lull	X		X	X		X	X			7
Point Thatcher		X	X	X		X	X			8
Pond Island	X		X		X	X	X			9
South Point	X		X		X	X	X			10
Yellow Rock	X					X				11
Alaska (Title)										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

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

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10202

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	8
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	8

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-01167

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List): Charts 17337 and 17338

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			3578
POSITIONS REVISED			42
SOUNDINGS REVISED			73
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	125.0		125.0
VERIFICATION OF SOUNDINGS	223.0		223.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	111.5		111.5
COMPARISON WITH PRIOR SURVEYS AND CHARTS		16.0	16.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT			43.0
GEOGRAPHIC NAMES			
OTHER* Digitizing			24.0
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	459.5		

Pre-processing Examination by J. Wilder	*Beginning Date* 3/6/86	*Ending Date* 3/21/86
Verification of Field Data by B. Johnson, P. Niland	*Time (Hours)* 459.5	*Ending Date* 8/28/86
Verification Check by S. Otsubo, J. Green, B. Olmstead	*Time (Hours)* 42.0	*Ending Date* 8/28/86
Evaluation and Analysis by I. Almacen	*Time (Hours)* 59.0	*Ending Date* 9/25/86
Inspection by Dennis Hill	*Time (Hours)* 4	*Ending Date* 9/26/86

☆ U.S. GOVT. PRINTING OFFICE 1983: 764-006/6061

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10202

1. INTRODUCTION

H-10202 was accomplished by NOAA Ship FAIRWEATHER in accordance with the following project instructions:

OPR-0183-FA-85, dated August 29, 1985
Change Number 1, dated September 11, 1985

This is a basic hydrographic survey covering approximately 1.5 nautical miles along the southwestern coast of Chatham Strait, from Point Thatcher to Point Lull including the entrance to Kelp Bay.

The coast is generally steep and rugged with isolated beaches of sand, gravel, stone and boulders. The nearshore area is mostly foul with ledges, reefs, isolated rocks and kelp. Inshore, the bottom is rocky, particularly the area off North Point and Point Lull while offshore is composed mostly of sand and mud. Depths range from 0 to 311 fathoms.

Predicted tides based on the Juneau, Alaska gage were used during field processing. Tide correctors used for the reduction of final soundings reflect approved hourly heights zoned from Point Lull, Alaska tide station.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. North of latitude 57°22'00"N data was plotted as an inset to keep the length of the sheet within the limit specified in the Hydrographic Manual. The final plotted dimensions still exceeded those of a standard size sheet. Approval for an oversized sheet was requested May 12, 1986. Changes to velocity correction table 1 were made to reflect the correct values listed in the Corrections to Echo Sounding Report. An electronic corrector for vessel 2023 on DN 302 was added during office processing. The revised data is listed in the smooth position/sounding printout.

Some of the line weights for inked shoreline detail on the smooth sheet may exceed specifications. This problem was determined to result from an inferior matte coating on the polyester drafting film. In no way has data quality been compromised by this deficiency.

A digital file for this survey has been generated and 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 included 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

Hydrographic control and positioning are adequately discussed in sections F and G of the hydrographer's report and in the Horizontal and Electronic Control Reports for OPR-0183-FA-85.

Horizontal control station positions used during hydrography are field and NGS published positions based on North American Datum of 1927.

The applicable shoreline manuscript is TP-01167, at 1:20,000 scale enlarged to the scale of the survey. This map is registered Class III, and originates from photography dated July and August 1983.

There are no significant changes to the high water line shown on TP-01167. There are, however, some changes to ledge configuration and location of rocks noted during this survey and mentioned in section H of the hydrographer's report. Foul limits are drawn to reflect the hydrographer's comments and labelled as shown on the field sheet.

3. HYDROGRAPHY

Hydrography within the limits of the sheet is adequate to:

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

b. show that the survey had been properly controlled and soundings are correctly plotted.

c. mention that there are no significant discrepancies or anomalies found on this survey requiring further field investigation.

4. CONDITION OF SURVEY

The hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change Three, except as noted in the Preprocessing Examination Report, dated March 20, 1986.

5. JUNCTIONS

H-10202 junctions with the following surveys:

Survey	Year	Scale	Note	Area
H-9121	1970	1:20,000	Adjoins	North

The junction have been adequately effected.

The H-9121 smooth sheet was previously forwarded to Rockville for charting. Junction comparisons were made using a file copy. Soundings are in good

agreement, however, portions of the depth curves should be adjusted to conform with H-10202.

There are no contemporary surveys to the south and east; however, a comparison with charted depths reveals good agreement with the present survey.

6. COMPARISON WITH PRIOR SURVEYS

H-2233 (1895) 1:80,000
H-2240 (1895) 1:20,000

The soundings from the 1895 prior surveys are generally in good agreement with the present survey. The present survey was accomplished with better determination of critical depths through closer line spacing, supplemented by dive investigations. It also provides adequate position and height determination of rocks which was not accomplished during the prior surveys. However, these prior surveys lack complete coverage of the area, leaving behind some significant features which were not investigated in the field as noted in section K of the hydrographer's report.

H-10202 was compared with the 1983 reconnaissance survey conducted by NOAA ship DAVIDSON (BP-124987). Agreement is generally good except in the area mentioned in section K of the hydrographer's report.

AWOIS items 50968, 50970, 50971 and 50980 are adequately discussed in section K of the hydrographer's report, except as follows:

> The portions covered by AWOIS Items 50970 and 50971 are shoal areas generally rocky with most of the high points located and least depths determined by dive investigations. The fact is, these two (2) areas are foul in nature with rocks and/or part of submerged reefs, contrary to the hydrographer's comment that these particular areas are not foul at all.

H-10202 is adequate to supersede the prior surveys within their common areas.

7. COMPARISON WITH CHART

Chart 17337, 7th Edition, dated February 26, 1977; scale 1:40,000
Chart 17338, 11th Edition, dated September 26, 1981; scale 1:40,000

a. Hydrography - Most charted information originates from the prior surveys discussed in section 6 of this report. Other soundings and charted features originate from miscellaneous sources. For more detail see section L of the hydrographer's report.

Geographic names appearing on the smooth sheet are plotted in accordance with this chart.

H-10202 is adequate to supersede charted hydrography within the common area.

Two (2) Dangers to Navigation Reports (copies appended) concerning uncharted rocks and shoals located within the limits of this survey were submitted by the hydrographer on November 10 and December 2, 1985 to the 17th Coast Guard District in Juneau, Alaska.

No additional dangers were identified during office processing.

b. Controlling Depths - There are no charted channels with controlling depths within the limits of this survey.

c. Aids to Navigation - Point Lull Light 17 located at latitude 57°18'34.35"N, longitude 134°48'17.58"W is the only fixed aid to navigation that falls within the limits of this survey. The present location of the aid was determined in the field. It was found to be in good condition and adequately serves its intended purpose.

A letter (copy appended), dated January 20, 1986 was sent to DMAHTC concerning the position of the light which was erroneously listed on their Summary of Corrections file dated June 1985.

8. COMPLIANCE WITH INSTRUCTIONS

H-10202 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is a good basic 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. The survey is recommended for approval.

Dennis Hill
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10202

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.

Thomas W Richey

Chief, Nautical Chart Branch (Date)

CLEARANCE:

SIGNATURE AND DATE:

N/MOP2:LWMordock

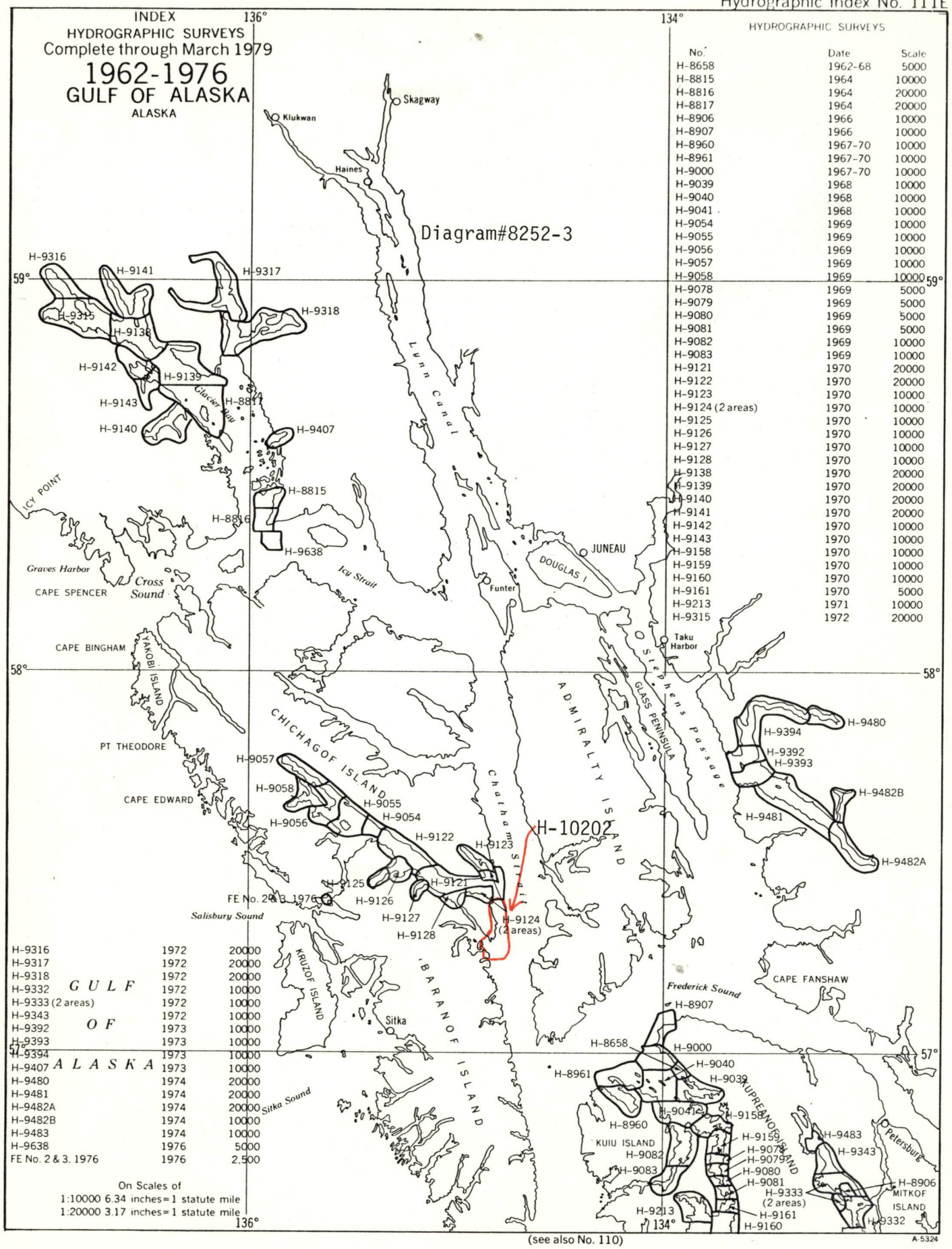
After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards with only the exceptions as noted above. The above recommendations are forwarded with my concurrence.

Robert L. Sandifer

Director, Pacific Marine Center (Date)

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

Hydrographic Index No. 111E



HYDROGRAPHIC SURVEYS

No.	Date	Scale
H-8658	1962-68	5000
H-8815	1964	10000
H-8816	1964	20000
H-8817	1964	20000
H-8906	1966	10000
H-8907	1966	10000
H-8960	1967-70	10000
H-8961	1967-70	10000
H-9000	1967-70	10000
H-9039	1968	10000
H-9040	1968	10000
H-9041	1968	10000
H-9054	1969	10000
H-9055	1969	10000
H-9056	1969	10000
H-9057	1969	10000
H-9058	1969	10000
H-9078	1969	5000
H-9079	1969	5000
H-9080	1969	5000
H-9081	1969	5000
H-9082	1969	10000
H-9083	1969	10000
H-9121	1970	20000
H-9122	1970	20000
H-9123	1970	10000
H-9124 (2 areas)	1970	10000
H-9125	1970	10000
H-9126	1970	10000
H-9127	1970	10000
H-9128	1970	10000
H-9138	1970	20000
H-9139	1970	20000
H-9140	1970	20000
H-9141	1970	20000
H-9142	1970	10000
H-9143	1970	10000
H-9158	1970	10000
H-9159	1970	10000
H-9160	1970	10000
H-9161	1970	5000
H-9213	1971	10000
H-9315	1972	20000

H-9316		1972	20000
H-9317		1972	20000
H-9318		1972	20000
H-9332	GULF	1972	10000
H-9333 (2 areas)		1972	10000
H-9343		1972	10000
H-9392	OF	1973	10000
H-9393		1973	10000
H-9394		1973	10000
H-9407	ALASKA	1973	10000
H-9480		1974	20000
H-9481		1974	20000
H-9482A		1974	20000
H-9482B		1974	10000
H-9483		1974	10000
H-9638		1976	5000
FE No. 2 & 3, 1976		1976	2,500

On Scales of
1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile

(see also No. 110)

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-10202

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
17337	11-1-88	Russell P Kennedy	~~Full~~ Part ~~Before~~ After Marine Center Approval Signed Via
			Drawing No. 9
17338	5/13/89	P. Hunt	Full ~~Part Before After~~ Marine Center Approval Signed Via
			Drawing No. 12 Ed
17337	10/31/90	Dan Clark	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 10
17320	11/1/90	Dan Clark	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 24 APP'D THRU 17337 + 17338
			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
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			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.

appd to Std. 11-25-86 [illegible]