H10739

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.: RA-10-8-97

Registry No.: H-10739

LOCALITY

State: Alaska

General Locality: Northern Stephens Passage

Sublocality: Entrance to Taku Inlet

1997

CHIEF OF PARTY
CAPT Alan D. Anderson, NOAA

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-10739

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.

RA-10-8-97

State: Alaska

General locality: Northern Stephens Passage

Locality: Entrance to Taku Inlet

Scale: 1:10,000 Date of survey: April 10 - 28, 1997

Instructions dated: 12/20/96, Change #1 4/3/97 Project No.: OPR-0328-RA

Vessel: NOAA Ship RAINIER Launches (2121), (2122), (2123), (2124),(2126)

Chief of party: CAPT Alan D. Anderson, NOAA

Surveyed by: CAPT A.Anderson,LT G.Noll,LT S.Lemke, LT D.Baird,CST J. Fleischmenn, ST S.Baum,ENS E.Christensen,ENS N.Bennett,ENS J.Becker,ENS J.Crocker

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

Graphic record scaled by: RAINIER Personnel

Graphic record checked by: RAINIER Personnel

Evaluation by: R. Davies ~~Protracted by~~ Automated plot by: HP 650C Design Jet

Verification by: E. Domingo

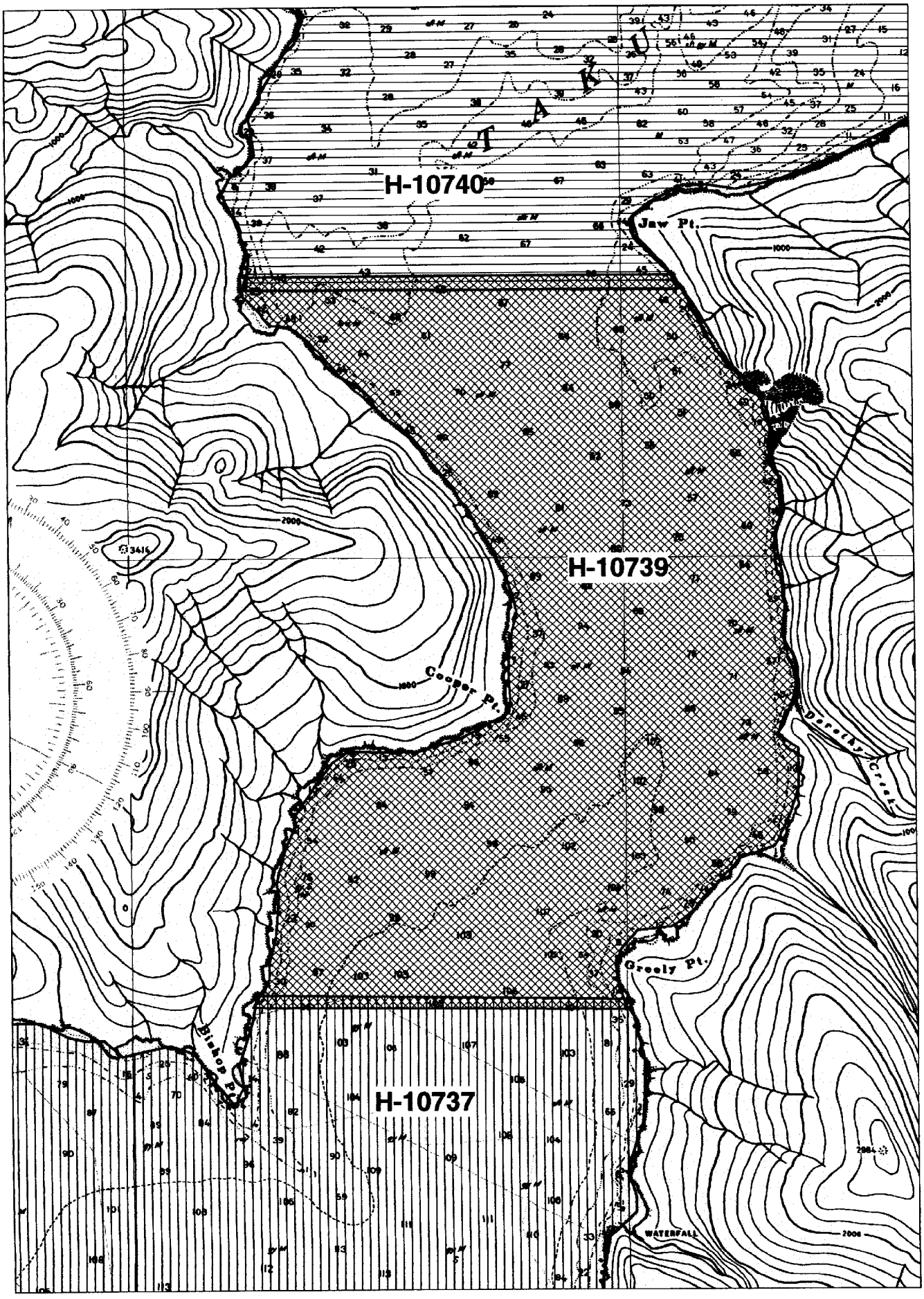
Soundings in fathoms ~~feet~~ at ~~MHW~~ MLLW and tenths

REMARKS: Time in UTC, revisions and marginal notes in black were generated during office processing. All separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.

All depths listed in this report are referenced to mean lower low water unless otherwise noted.

AWOIS and SURF ✓ RWD 1/98

U.S. GOVERNMENT PRINTING OFFICE: 1986 - 652-007/41215


H-10740
H-10739
H-10737
Jaw Pt.
Cooper Pt.
Dorothy Creek
Grooly Pt.
Bishop Pt.
WATERFALL
3414
2984

Descriptive Report to Accompany Hydrographic Survey H-10739

Field Number RA-10-8-97
Scale 1:10,000
April 1997
NOAA Ship RAINIER
Chief of Party: Captain Alan D. Anderson, NOAA

A. PROJECT ✓

This hydrographic survey was completed as specified by Project Instructions OPR-O328-RA dated December 20, 1996, and change number 1 dated April 3, 1997. Survey H-10739 corresponds to sheet L as defined in the sheet layout. This survey will provide contemporary hydrographic survey data as part of a continuing program to improve chart coverage of the Inside Passage in southeast Alaska. Requests for hydrographic surveys and updated charts in this area have been received from the United States Coast Guard (USCG), Southeastern Alaska Pilot's Association (SEAPA), the Alaska Department of Transportation, and the Alaska Department of Environment and Conservation in support of cruise line, commercial fishing, mining, and logging industries.

B. AREA SURVEYED ✓ See Eval Rpt., Section B

The survey area is in Taku Inlet from ~~Cooper~~ Greely Point to Jaw Point. The survey's northern limit is latitude 58° ~~15' 40~~ 16' 21"N and the southern limit is latitude 58° ~~13' 30~~ 12' 36"N. The survey is bound by the shoreline of Taku Inlet to the east and to the west. Data acquisition was conducted from April 10 - 28, 1997 (DN 100-118).

C. SURVEY VESSELS ✓

Data were acquired by RAINIER and her survey launches as noted on the survey information summary provided with this report.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

All data were acquired and preliminary processing was accomplished using the Hydrographic Data Acquisition and Processing System (HDAPS). Using exported HDAPS data in MapInfo facilitated charted and prior survey comparisons. Final Detached Positions and Soundings based on predicted tides were saved in MapInfo 4.1 format. A complete listing of software for HDAPS is included in Appendix VI. *

E. SONAR EQUIPMENT ✓

Neither Side Scan Sonar nor multi-beam echo sounder equipment was used on this survey. Concur

F. SOUNDING EQUIPMENT ✓

The Raytheon DSF-6000N is a dual frequency (100 kHz, 24 kHz), paper trace echo sounder. Serial numbers are included on the headers of the daily Raw Master Printouts.* No new problems, which affect survey data, were encountered. All DSF-6000N soundings were acquired in meters using the High + Low, high frequency digitized setting.

G. CORRECTIONS TO ECHO SOUNDINGS

One sound velocity cast was acquired within the survey limits. Refer to the survey information summary.

The sound velocity cast was acquired with SBE SEACAT Profiler (S/N 219), calibrated December 15, 1996. Velocity correctors were computed using the PC programs SEACAT and VELOCITY, version 3.3 (1997), in accordance with Hydrographic Survey Guideline (HSG) No. 69. A printout of the Sound Velocity Corrector

* Filed with the hydrographic data.

Tables used in the HDAPS Post Survey program is included in the "Separates to be Included with Survey Data, IV. Sounding Equipment Calibrations and Corrections".*

A static transducer depth was determined using FPM Fig 2.2 for vessels 2121, 2122, 2123, and 2125 in the spring of 1997. The static draft and offsets for RAINIER, 2120, were collected in 1995. Settlement and squat correctors were computed in accordance with Hydrographic Manual Section 4.9.4.2, using FPM Fig. 2.3, and are included with project data for OPR-O328-RA. The data for vessels 2121, 2122, and 2123 were collected in Shilshole Bay, Washington in March 1997. The data for 2124 and 2126 were collected in 1996. The data for vessel 2125 were collected in Young Bay, Alaska in March 1997. All offset tables contain offsets for the GPS antenna, as well as static draft measurements, and settlement and squat data. Offset tables 0-6 correspond to the last digit of the vessel number. The offset tables are included with project data for OPR-O328-RA. The launches are not equipped with heave, roll and pitch sensors.

The Coastal and Estuarine Oceanography Branch (N/OES334) through N/CS31 provided predicted tides for the project on diskette for the Juneau, Alaska reference station (945-2210). HDAPS listings of the data used in generating tide corrector tables are included in Appendix V* of this report. Tidal correctors as provided in the project instructions for H-10739 are listed in the survey information summary.

Juneau, Alaska (945-2210) and Ketchikan, Alaska (945-0460) are the primary control stations for datum determination at all subordinate stations. RAINIER personnel installed Sutron 8200 tide gages at Point Young (945-2249) on March 19, 1997, which was removed on May 15, 1997, and at Annex Creek (945-2141) on April 10,1997, which was removed on April 29, 1997.

On April 11, 1997 (DN 101), while downloading the data files from the Annex Creek gage, the files were garbled. In the event the data is unusable, the sounding scheme from DN 100 was repeated offset 50 m.

Refer to the Field Tide Notes and supporting data in Appendix V* for individual gage performance and level closure information. This information and the boundaries of the survey have been forwarded to N/OES212 in accordance with the project instructions. A request for approved tides was forwarded to N/OES23 in accordance with FPM 4.2.3. Approved tide note dated September 11, 1997 is attached.

H. CONTROL STATIONS ✓ See Evel Rpt., Section H.

The horizontal datum for this project is NAD 83. The control stations used for this survey are listed in ~~Appendix III~~ this report. See the OPR-O328-RA-96 Horizontal Control Report for more information.

I. HYDROGRAPHIC POSITION CONTROL See Evel Rpt., Section I

All soundings were positioned using differential GPS. Primary control was SCULL 2, the VHF differential reference station. The US Coast Guard Beacon at GUSTAVUS was used when not using the VHF station. Launch-to-launch DGPS performance checks* were performed in accordance with Section 3.4.4 of the FPM. Two observations of position were made from two different DGPS base stations, SCULL 2 and GUSTAVUS, while the launches were rafted together with their GPS antennae within 2-3 meters of each other. RAINIER also used SHIPDIM, version 2.2R (April 1996) with a Trimble Centurion P-code receiver and an Ashtech sensor (both differentially-corrected) to monitor the performance of the USCG Beacon. SCULL 2 was compared to GUSTAVUS during 8-hour daily comparisons and occasional performance checks. Some outliers were noted, but none indicated systematic or continuous errors in the GUSTAVUS beacon. The SHIPDIM OUTLIER.SUM results are included on a floppy in the project data for OPR-O328-RA.

J. SHORELINE See Final Report, section J

The shoreline manuscript from Coastal Mapping survey CM-8904 was supplied by N/CS341 in Standard Digital Data Exchange Format (SDDEF). The digital files from DM-10097 were projected to the survey grid with OPR-O328-RA-97 geodetic parameters using program Shore version 2.0, provided by N/CS32, and

* Filed with the hydrographic data

plotted on the survey using HDAPS.

Limited shoreline verification was conducted in accordance with the Project Instructions. For this survey the limit of safe navigation of a survey launch is 1-5 meters offshore of apparent low tide, generally 3-40 meters of depth at Mean Lower Low Water. Features shown inshore of the NALL are the hydrographer's representation of the shoreline while slowly transiting along the shore, and are intended to aid chart compilation. Shoreline manuscript and field features were compared to an enlargement of chart 17315, which is included in the submittal. There were no non-sounding features found offshore of the NALL on this survey. Generally, the charted features matched the shoreline as observed. Discrepancies between charted and field shoreline should be resolved in favor of the manuscript shoreline and fieldwork as shown on the submitted MapInfo digital file. A list of the MapInfo tables and their contents is appended to this report. * Features and notes portrayed on the Fields detached position/shoreline plot were analyzed during office processing and shown on the Smooth Sheet as warranted.

K. CROSSLINES ✓

Crosslines agreed within 1 meter with mainscheme hydrography. There was a total of 35.34 nautical miles of crosslines, comprising 25.5% of mainscheme hydrography.

L. JUNCTIONS See Evaluation Report, section L

This survey junctions with H-10737, 1:10,000, 1997 on the south, and H-10740, 1:10,000, 1997 on the north. Soundings and contours on these surveys were found to be in good agreement based on predicted tides. Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after reduction to final vertical datum.

M. COMPARISON WITH PRIOR SURVEYS See Evaluation Report, section M

Prior surveys H-6275, 1:10,000, 1937, H-6276, 1:10,000, 1937, and H-8785, 1:10,000, 1964 cover the area surveyed. Most data from the current survey was found to be 2-3 fathoms shoaler than the priors due to silting from Taku Glacier and Taku River. Final comparisons will be done at PHB after reduction to final sounding datum using tidal information collected concurrently with this survey.

N. ITEM INVESTIGATIONS ✓

No AWOIS or Pre-Survey review items were assigned to this survey. Concur

O. COMPARISON WITH THE CHART See Evaluation Report, section O

Chart 17315, 1:40,000, 21st Edition, 8/3/91 is the largest scale chart covering the survey area. Comparison of soundings is described in Section M. There were no non-sounding features. Final sounding comparisons will be made at PHB after reduction to final vertical datum.

Dangers to Navigation ✓

No dangers were found. Concur

P. ADEQUACY OF SURVEY ✓

Survey H-10739 is complete and adequate to supersede prior soundings and features in their common areas. Concur
Considering the close proximity of the NALL line to shore on this survey, and the scale of the chart, the present survey is adequate to supersede the charted inshore area between the NALL line and the low water line
Do not Concur

Q. AIDS TO NAVIGATION ✓

No aids to navigation were located on this survey. Concur

* Filed with the hydrographic data.

R. STATISTICS

Refer to the survey information summary.

S. MISCELLANEOUS

Bottom samples were collected and sent to the Smithsonian in accordance with Project Instructions. In Taku Inlet, tidal currents have greater velocity on the ebb than on the flood. The conformation of Taku Inlet is such that north winter gales sweep down the inlet and across Stephens Passage with great force. Tidal currents opposing the strong winds in this area were observed to result in waves potentially hazardous to navigation for small craft. Unusual magnetic variation was not observed. Secchi disk observations were not performed on this survey because of the poor visibility due to glacial silt.

T. RECOMMENDATIONS

Add the following note to Chart 17315 on or about Greely Point: Caution: It is common for this area to have strong winds and waves that are hazardous to small craft when surrounding waters are relatively calm. The Evaluator recommends Marine Chart Division consider this note on the next chart edition.

U. REFERRAL TO REPORTS

The following supplemental reports contain additional information relevant to this survey:

Title	Date Sent	Office
OPR-O328-RA Horizontal Control Report	1997	N/CS34
OPR-O328-RA 1997 Coast Pilot Report	1997	N/CS26
Project related data for OPR-O328-RA	Incremental	N/CS34

Respectfully Submitted,

Steven A. Lemke
Lieutenant, NOAA

Approved and Forwarded,

Alan D. Anderson
Captain, NOAA
Commanding Officer

CONTROL STATIONS as of 24 Apr 1997 ✓

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	MM/DD/YY	Station Name
1	F	058:31:42.000	134:56:00.000	0	0	0.0	0.0	03/01/92	POUNDSTONE LIGHTLIST
2	F	058:31:42.860	134:56:03.680	0	0	0.0	0.0	03/01/92	POUNDSTONE HDAPS
3	F	058:30:16.042	134:52:09.349	2	250	0.0	0.0	03/20/96	GULL
4	F	058:17:04.466	134:44:25.552	0	0	0.0	0.0	04/05/97	COLT ISLAND LT LL#23792
5	F	058:18:55.499	134:42:02.285	0	0	0.0	0.0	04/05/97	GEORGE RK LT LL#23795
6	F	058:25:06.000	135:41:48.000	0	250	0.0	0.0	03/01/97	GUSTAVUS DGPR ID#892
7	F	058:12:16.867	134:38:44.450	6	250	0.0	0.0	03/01/97	SKULL DGPS
8	F	058:09:29.640	134:10:36.025	0	0	0.0	0.0	03/01/97	PT. ARDEN LT LL#23655
9	F	058:07:12.193	134:04:56.697	0	250	0.0	0.0	03/01/97	CIRCLE DGPS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: September 11, 1997

HYDROGRAPHIC BRANCH: Pacific

HYDROGRAPHIC PROJECT: OPR-O328-RA
HYDROGRAPHIC SHEET: H-10739

LOCALITY: Northern Stephens Passage, AK. (Sheet L)

TIME PERIOD: April 10 - April 28, 1997

TIDE STATION USED: 945-2141 ~~Annex~~ Creek Entrance, AK.
Lat. 58° ~~19.1~~ 19.7'N Lon. 134° 06.8'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 4.589 meters

TIDE STATION USED: 945-2249 Young Bay, AK.
Lat. 58° 11.0'N Lon. 134° 35.2'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 4.690 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: SEA7 & SEA8
Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (Meters), relative to MLLW and on Greenwich Mean Time.

Note 2:
Juneau, AK was used as control for datum determination for all subordinate tide stations for this survey. Relative sea level trends show that the areas of Juneau Alaska are undergoing continual uplift. The relative sea level trend observed at Juneau for the time period 1950 through 1993 is -0.0114 m/yr. with a standard error of 0.0005 m/yr. As a result of high rate of sea level change, the 1960 to 1978 Tidal Epoch value of Mean Lower Low Water (MLLW) used as chart datum and reference datum for NOS tidal predictions does not reflect present conditions. The data are under review to determine an updated value of MLLW. An interim value was computed for Juneau, based on the series of data from 1989 to 1991 and controlled by the 1960-1978 Epoch datums at Ketchikan which is more stable. The provided values adjust the chart datum to a more realistic level and in a direction that is more conservative for navigation purposes.

CHIEF, TIDAL ANALYSIS BRANCH

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10739

Name on Survey	A ON CHART NO. 17315, 17300	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 (title)	X		X							1
COOPER POINT	X		X							2
DOROTHY CREEK	X		X							3
GREELY POINT	X		X							4
JAW POINT	X		X							5
STEPHENS PASSAGE (title)	X		X							6
TAKU INLET	X		X							7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
					Approved					20
										21
					Chief Geographer					22
										23
					AUG 7 1997					24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27(H) (9-83) | U.S. DEPARTMENT OF COMMERCE | REGISTRY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-10739

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

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

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

SHORELINE DATA

SHORELINE MAPS (List): DM-10050

PHOTOBATHYMETRIC MAPS (List): NA

NOTES TO THE HYDROGRAPHER (List): NA

SPECIAL REPORTS (List): NA

NAUTICAL CHARTS (List): Chart 17315 21st Edition August 3, 1991

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			
POSITIONS REVISED			
JNDINGS REVISED			
CONTROL STATIONS REVISED			

	TIME-HOURS VERIFICATION	TIME-HOURS EVALUATION	TIME-HOURS TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS			
VERIFICATION OF SOUNDINGS			
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION VERIFICATION			
COMPILATION OF SMOOTH SHEET	85		85
COMPARISON WITH PRIOR SURVEYS AND CHARTS			
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		16	16
GEOGRAPHIC NAMES			
OTHER*			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	85	16	101

Pre-processing Examination by M. Bigelow	*Beginning Date* 7/7/97	*Ending Date* 8/6/97
Verification of Field Data by E. Domingo, R. Davies	*Time (Hours)* 85	*Ending Date* 11/26/97
lication Check by B. Olmstead	*Time (Hours)* 1	*Ending Date* 11/26/97
Evaluation and Analysis by R. Davies	*Time (Hours)* 16	*Ending Date* 11/26/97
Inspection by B. Olmstead	*Time (Hours)* 5	*Ending Date* 11/28/97

EVALUATION REPORT

H-10739

A. PROJECT

The hydrographer's report contains a complete discussion of the Project information.

B. AREA SURVEYED

An adequate discussion of the survey area is found in the hydrographer's report.

The hydrographer has determined the inshore limits of safe navigation by defining a Navigable Area Limit Line throughout the survey area. Charted features and soundings inshore of this limit line have not been specifically addressed during survey operations and should be retained as charted. A page-size plot of the charted area depicting the limits of supersession accompanies this report as Attachment 1.

The bottom consists mainly of green mud. Other bottom sample components include medium pebbles, fine to coarse gravel, broken shingles and green silt. Depths range from 0 to 106 fathoms.

C. SURVEY VESSELS

The hydrographer's report contains information relating to survey vessels.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

Survey data were processed using the same Hydrographic Data Acquisition/Processing System (HDAPS) software used by the hydrographer, the Hydrographic Processing System (HPS), and MicroStation 95.

At the time of the survey certification the format for transmission of digital data had not been formally approved. In the interim, digital data for this survey exists in the standard HPS format that is a database format using the .dbf extension. In addition, the sounding plot is filed in the MicroStation 95 format (.dgn). Copies of these files will be retained at PHB until data transfer protocols are developed and approved.

The drawing files necessarily contain information that is not part of the HPS data set such as geographic names text, line-type data, and minor symbolization. In addition, those soundings deleted from the drawing for clarity purposes remain unrevised in the HPS digital files to preserve the integrity of the original hydrographic data set. Cartographic codes used to describe the digital data are those authorized by Hydrographic Survey Guideline No. 35 and No. 75.

The field sheet parameters have been revised to center the hydrography on the office plot. The data is plotted using a Modified Transverse Mercator projection and are depicted on a single sheet.

E. SONAR EQUIPMENT

Neither Side Scan Sonar nor Multibeam Echo Sounder was used on survey H-10739.

F. SOUNDING EQUIPMENT

The hydrographer's report contains an adequate discussion on sounding equipment.

G. CORRECTIONS TO SOUNDINGS

The sounding data have been reduced to Mean Lower Low Water (MLLW). The reducers include corrections for an actual tide, dynamic draft, and sound velocity. These reducers have been reviewed and are consistent with NOS specifications.

Predicted tides were used for reduction of soundings during field processing. During office processing, tide reductions were derived from approved hourly heights zoned direct from the following tide gages: Young Bay, Alaska, gage 945-2249, and Annex Creek Entrance, Alaska, gage 945-2141.

H. CONTROL STATIONS

Section H and I of the hydrographer's report contain adequate discussions of horizontal control and hydrographic positioning.

The positions of horizontal control stations used during hydrographic operations are published values based on NAD 83. The geographic positions of all survey data are based on NAD 83. The smooth sheet is annotated with an NAD 27 adjustment tick based on values determined with the NGS program NADCON. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections:

Latitude:	-1.172 seconds	(-36.272 meters)
Longitude:	6.310 seconds	(102.956 meters)

The year of establishment of control stations originate with the horizontal control records for this survey.

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used to control this survey. A horizontal dilution of precision (HDOP) not to exceed 3.75 was computed for survey operations. The quality of several positions exceeds limits in terms of horizontal dilution of precision (HDOP). These positions are isolated and occur randomly throughout the survey area. A review of the data, however, suggests that none of these fixes are used to position dangers to navigation. The features or soundings located by these fixes are consistent with the surrounding information. These fixes are considered acceptable.

NAD 83 is used as the horizontal datum for plotting and position computations.

Additional information concerning calibrations and system checks can be found in the hydrographer's report and in the separates related to horizontal position control and corrections to position data.

J. SHORELINE

Shoreline map DM-10050, scale 1:20,000 was compiled on NAD 83 and applies to this survey. Shoreline drawn on the smooth sheet originates from a 1:20,000 scale digital file provided by the Coastal Mapping Program. The digitized file and the survey file were merged during MicroStation processing.

There is one MHWL revision on this survey. It is centered at latitude 58/14/42N, longitude 134/06/07W. This revision has been depicted on the smooth sheet in dash red and is adequate to supersede the photogrammetric shoreline map.

The shoreline map and results of the fieldwork as portrayed on the smooth sheet should supersede charted shoreline.

K. CROSSLINES

Crosslines are discussed in the hydrographer's report.

L. JUNCTIONS

Survey H-10739 junctions with the following surveys:

Survey	Year	Scale	Area
H-10737	1997	1:10,000	South
H-10740	1997	1:10,000	North

The junction with surveys H-10737 and H-10740 is complete. There is good agreement between depth curves and sounding within the common area. A "Joins" note has been shown on the survey.

M. COMPARISON WITH PRIOR SURVEYS

H-6275(1937)	1:10,000
H-6276(1937)	1:10,000
H-8785(1964)	1:10,000

Prior surveys H-6275, H-6276 and H-8785 cover the entire area of the present survey. Sounding agreement is fair with the present survey depths shoaler between 1 and 7 fathoms. These differences can be attributed to the general shoaling in Taku Inlet and to a lesser degree, greater sounding coverage, improved positioning, and sounding methods and relative accuracy of the data acquisition techniques.

Survey H-10739 is adequate to supersede the prior surveys within the common area.

N. ITEM INVESTIGATIONS

There were no AWOIS items assigned to this survey.

O. COMPARISON WITH CHART

Survey H-10739 was compared with the following chart:

Chart	Edition	Date	Scale	Datum
17315	21st	Aug. 3, 1991	1:40,000	NAD83

a. Hydrography

Charted hydrography originates with the previously discussed prior surveys and miscellaneous source data. The prior surveys have been adequately addressed in section M and require no further discussion.

Survey H-10739 is adequate to supersede charted hydrography within the common area.

b. Dangers To Navigation

No dangers to navigation were discovered during survey operations or office processing.

P. ADEQUACY OF SURVEY

Except as noted below, hydrography contained on survey H-10739 is adequate to:

a. Delineate the bottom configuration, determine least depths, and draw the required 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.

Holidays exist in the following areas:

Latitude(N)	Longitude(W)
58/13/57	134/06/45
58/14/04	134/06/15
58/13/04	134/05/15
58/13/05	134/04/36

These holidays do not meet the specified line spacing requirement, although, the sounding information from the present survey is adequate to supersede prior information in the area.

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 Field Procedures Manual, April 1994 Edition.

Q. AIDS TO NAVIGATION

There are no fixed and floating aids to navigation within the survey area.

There were no features of landmark value located within the area of this survey.

R. STATISTICS

Statistics are itemized in the hydrographer's report.

S. MISCELLANEOUS

Miscellaneous information is discussed in the hydrographer's report. No additional miscellaneous items were noted during office processing.

T. RECOMMENDATIONS

This is an adequate hydrographic survey. Additional work is recommended on a low priority basis to fill in the holiday areas mention in section P of this report..

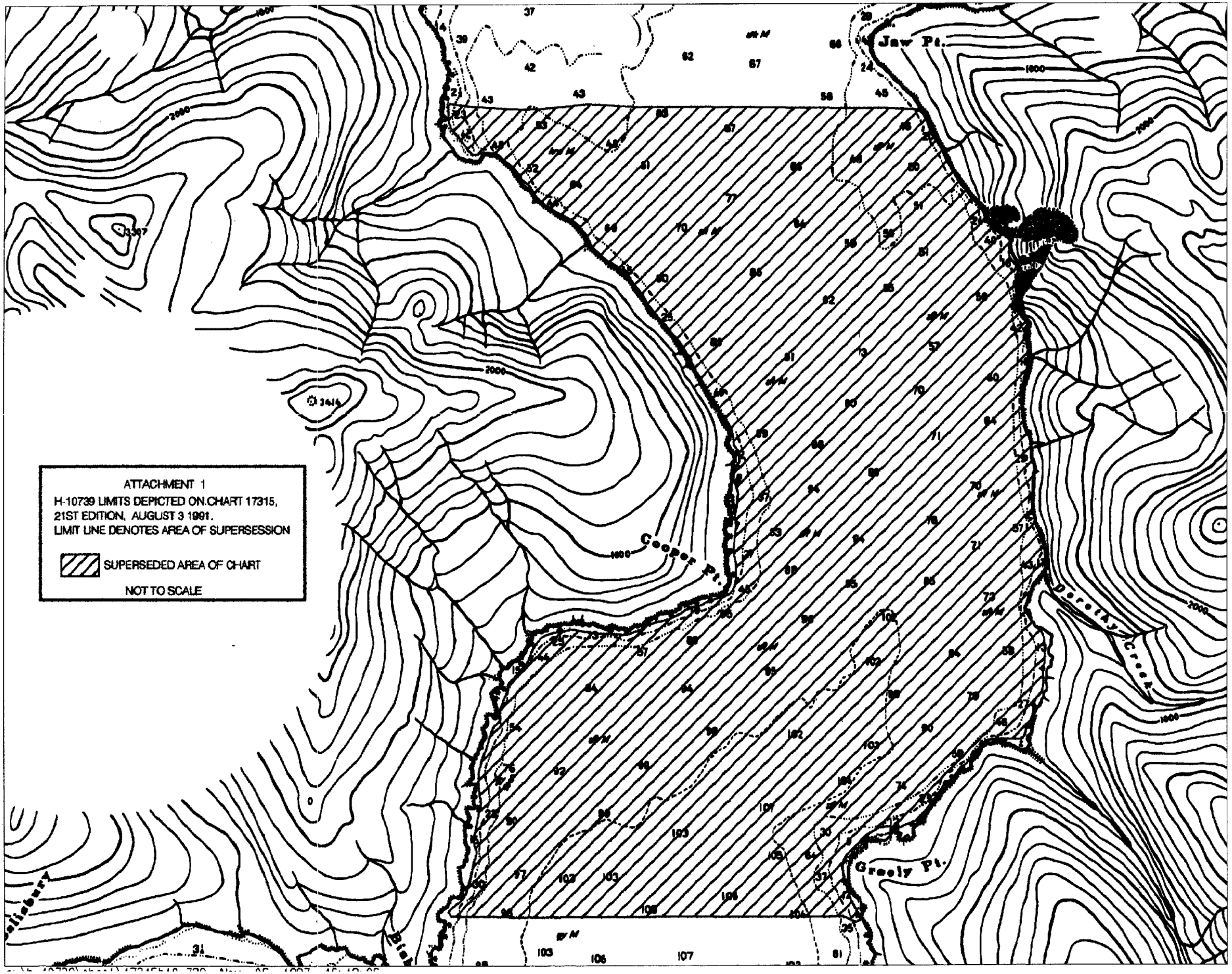
U. REFERRAL TO REPORTS

Referral to reports is discussed in the hydrographer's report.

Charles R. Davies
Cartographer

Numerous charted rocks awash along shoreline from H-10739 originate from ledge as shown on the smooth sheet.

GK. Myers
1-8-98


ATTACHMENT 1
H-10739 LIMITS DEPICTED ON CHART 17315,
21ST EDITION, AUGUST 3 1991.
LIMIT LINE DENOTES AREA OF SUPERSESSION
SUPERSEDED AREA OF CHART
NOT TO SCALE
Jaw Pt.
Cooper Pt.
Dorothy Creek
Greely Pt.
3307
3414

APPROVAL SHEET
H-10739

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproval of charted data. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Bruce A. Olmstead Date: 11/28/97
Bruce A. Olmstead
Senior Cartographer, Cartographic Section
Pacific Hydrographic Branch

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Kathy Timmons Date: 12/2/97
Kathy Timmons
Commander, NOAA
Chief, Pacific Hydrographic Branch

****

Final Approval

Approved:

Andrew A. Armstrong III Date: Jan 8, 1998
Andrew A. Armstrong III
Captain, NOAA
Chief Hydrographic Surveys Division

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-10739

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
17315	10/23/97	Charles R. Davies	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. Full application of soundings and features from smooth sheet.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			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