H10725

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-10-27-96

Registry No.: H-10725

LOCALITY

State: Alaska

General Locality: Southwest Prince William Sound

Sublocality: Central Portion of Dangerous Passage

1996

CHIEF OF PARTY
CAPT Dean R. Seidel, NOAA

LIBRARY & ARCHIVES

DATE: APR 20 1998

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.: H-10725

FIELD NO.: RA-10-27-96

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

State: Alaska

General locality: Southwest Prince William Sound

Locality: Central Portion of Dangerous Passage

Scale: 1:10,000 Date of survey: October 3 - October 20, 1996

Instructions dated: August 23, 1996 Project No.: OPR-P139-RA

Vessel: RAINIER (2120)
RA-2(2122), RA-3(2123), RA-4(2124), RA-5(2125), RA-6(2126)

Chief of party: CAPT Dean R. Seidel, NOAA

Surveyed by: CAPT D. Seidel, LT G.Noll, LT M.Larsen, LT S. Lemke, LT S.Meador, LTJG J. Crocker, LTJG E.Christensen, CST J.Fleischmann, SST J.Jacobson, ST.B.Roraback

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

Graphic record scaled by: RAINIER Personnel

Graphic record checked by: RAINIER Personnel

Evaluation by: B. Mihailov Automated plot by: HP Design Jet 650C

~~Protracted by~~

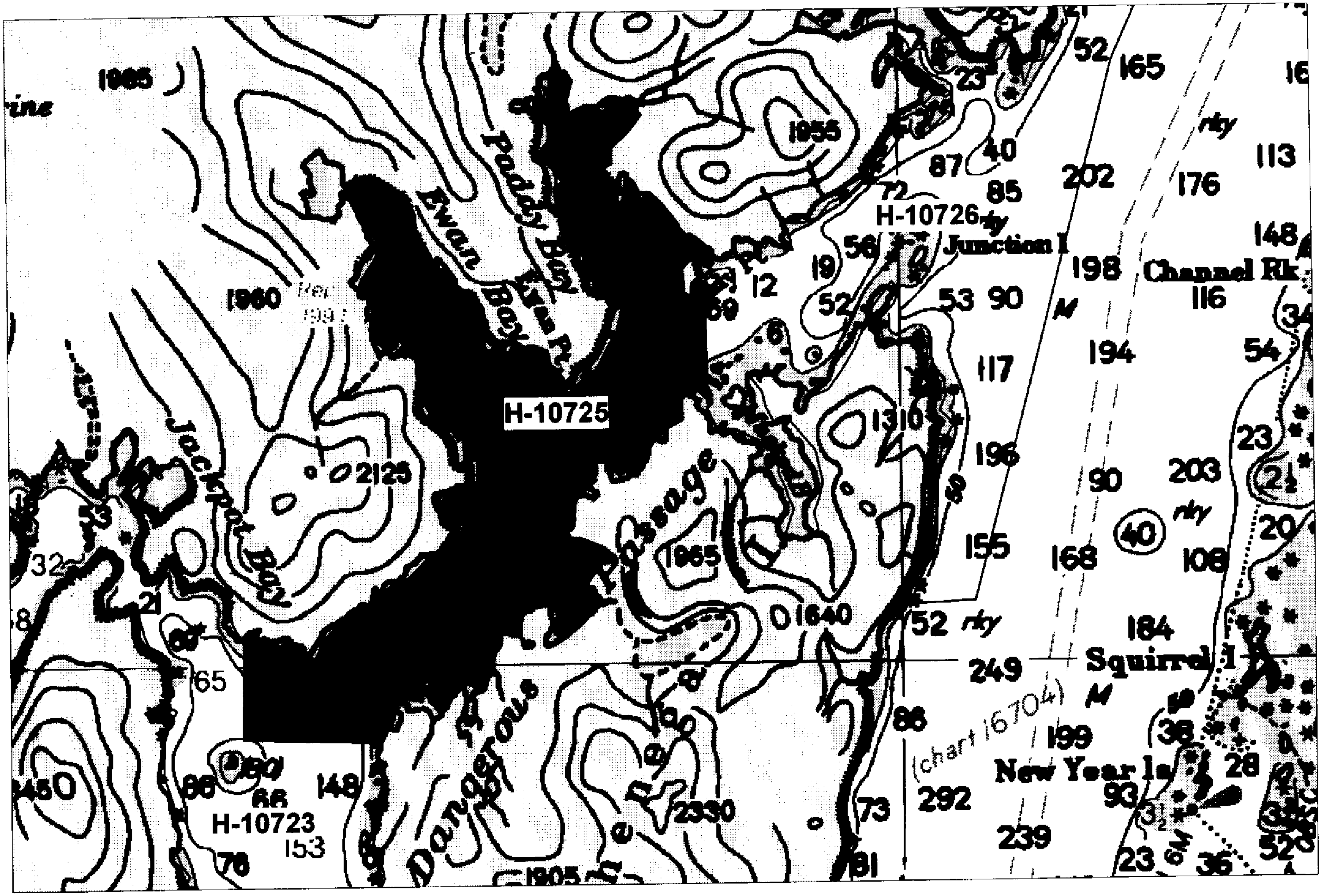
Verification by: M. Bigelow, R. Mayor, B. Mihailov

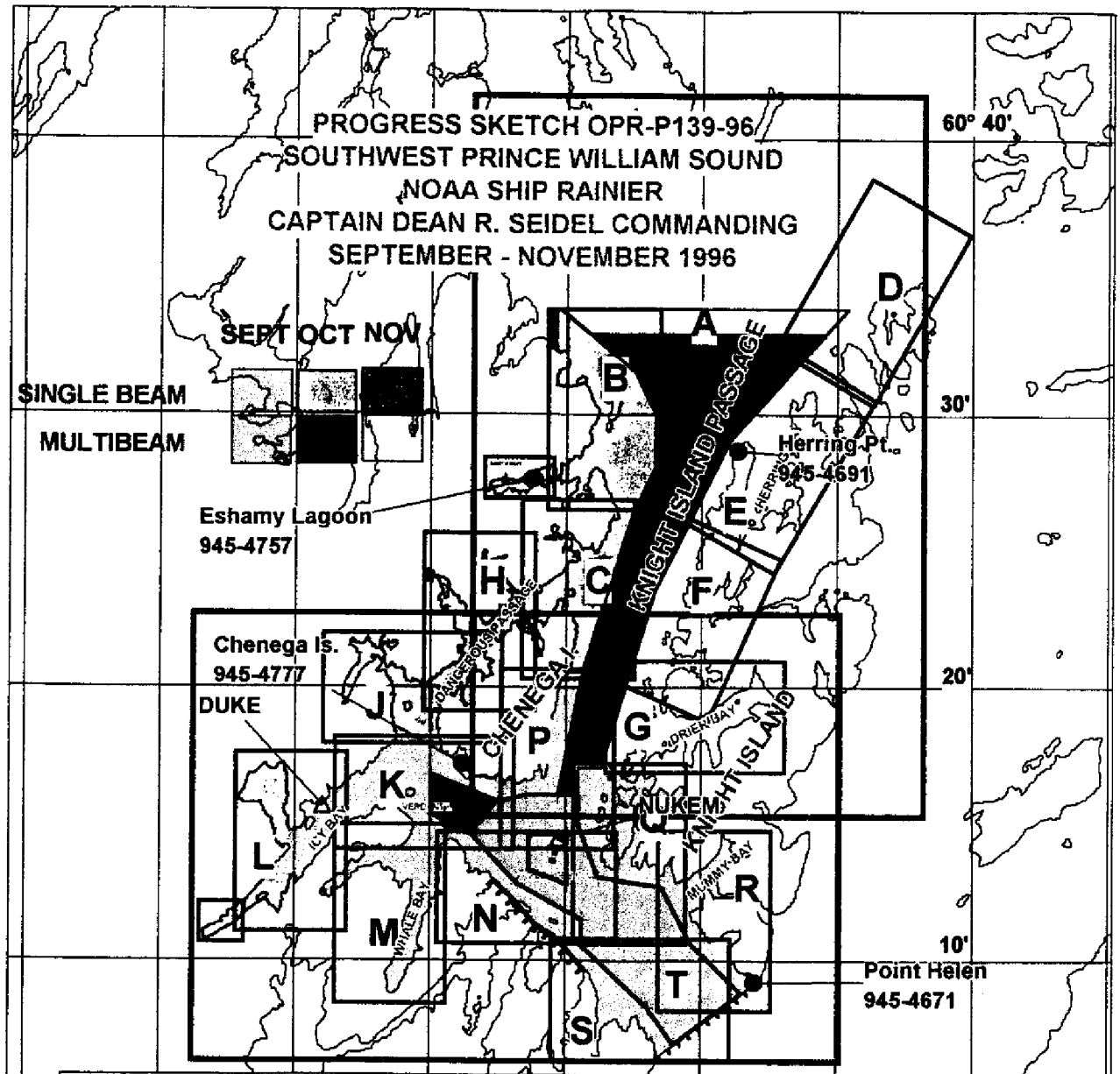
Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW and tenths

REMARKS: All times are 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 / SURF 1/9/98 mcr

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


H-10725
H-10726
H-10723
Paddy Bay
Ewan Bay
Ewan Pt.
Jackpot Bay
Junction I
Channel Rk
Squirrel I
New Year Is
Dangerous
Passage
(chart 16704)



Sheet	Reg_No	Started	Percent	Completed	Submitted	SQNM
Q	H-10713	SEP 3	100%	SEP 24	OCT 25	10.4
R	H-10712	SEP 3	100%	SEP 12	OCT 11	5.8
S	H-10715	SEP 6	100%	SEP 11	OCT 11	4.5
N	H-10716	SEP 9	100%	SEP 21	OCT 11	6.5
T	H-10718	SEP 12	100%	OCT 21		32.7
L	H-10721	SEP 23	100%	OCT 16	NOV 15	9.4
J	H-10723	SEP 28	100%	OCT 14		5.4
P	H-10719	SEP 21	100%	OCT 10	OCT 25	5.1
M	H-10717	SEP 18	100%	OCT 7	OCT 25	7.8
K	H-10722	SEP 19	100%	SEP 28	NOV 15	9.7
H	H-10725	OCT 3	100%	OCT 20		7.3
C	H-10726	OCT 8	100%	OCT 23		9.1
B	H-10730	OCT 18	100%	NOV 1		16.5
A	H-10729	OCT 17	100%	NOV 1		52.7

Downtime_Type	Sept	Oct	Nov
Weather - Days	2	0	0
Mechanical -Hr	14	2	0
Electronic -Hr	2	0	0

Accomplished	Sept	Oct	Nov
LNM Hydro	1621	1783	4.2
LNM SSS	0	0.4	0
SQ NM	79.9	87.2	15.7
AWOIS Invest.	5	1	0
Other Invest.	14	27	0
LNM Multibeam	107.4	210.2	60.8

Descriptive Report to Accompany Hydrographic Survey H-10725

Field Number RA-10-27-96
Scale 1:10,000
October, 1996
NOAA Ship RAINIER
Chief of Party: Captain Dean R. Seidel, NOAA

A. PROJECT

This basic hydrographic survey was completed in southwest Prince William Sound, Alaska as specified by Project Instructions OPR-P139-RA dated August 23, 1996. Survey H-10725 corresponds to sheet H as defined in the sheet layout included in the Project Instructions.

This survey provides contemporary hydrographic survey data for the Dangerous Passage area to update existing nautical charts derived from a hydrographic survey conducted sixty years ago. Significant changes in depths and shoreline may have occurred in this area as a result of the 1964 earthquake. Requests for hydrographic surveys and updated charts have been received from the Defense Mapping Agency, the U.S. Coast Guard, the Southwest Alaska Pilot's Association, cruise ship lines, and local fisherman.

B. AREA SURVEYED

See Eval Rpt., Section B

The survey area is Dangerous Passage, a moderately wide passage west of Chenega Island named for its numerous shoals and obstructions. The survey area also includes Paddy Bay and Ewan Bay to the north of the passage. The survey's northern limit is the northernmost shoreline of Paddy Bay, and its eastern limit is 148° 03' 30" W joining survey H-10726. Its southern and western limits are 60° 19' 23" N and 148° 11' 30" W, respectively, joining survey H-10723. Data acquisition was conducted from October 3, 1996 (DN 277) to October 20, 1996 (DN 294).

C. SURVEY VESSELS

Data were acquired by RAINIER, and by RAINIER survey launches as noted below:

Vessel	EDP #	Operation
RAINIER	2120	Sound Velocity Cast
RA-2	2122	Hydrography Shoreline Verification
RA-3	2123	Hydrography Shoreline Verification
RA-4	2124	Hydrography Shoreline Verification Dives

Vessel	EDP #	Operation
RA-5	2125	Hydrography Shoreline Verification Bottom Samples
RA-6	2126	Hydrography Shoreline Verification

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

All data were acquired and processed with HDAPS. A complete listing of software for HDAPS is included in Appendix VI. *

E. SONAR EQUIPMENT ✓

Sonar equipment was not used on H-10725. Neither Side Scan Sonar nor multi-beam echo sounder equipment were used on this survey.

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 problems which affect survey data were encountered. All DSF-6000N soundings were acquired using the High + Low, high frequency digitized setting.

G. CORRECTIONS TO ECHO SOUNDINGS ✓

Correctors for the velocity of sound through water were determined from the casts listed below:

Velocity Table #	Cast #	DN	Cast Position	Deepest Depth (m)	Applicable DN
8	23	276	60° 17' 06" N 148° 09' 54" W	358	277-281
11	26	282	60° 23' 11" N 148° 00' 58"W	182	282-294

The sound velocity casts were acquired with SBE SEACAT Profiler (S/N 219), calibrated January 16, 1996. Velocity correctors were computed using the PC programs SEACAT and VELOCITY, version 2.11 (1995), in accordance with Hydrographic Survey Guideline (HSG) No. 69. Casts 23 and 26 plot outside the survey limits.

A printout of the Sound Velocity Corrector Table used in the HDAPS Post Survey program is included in the "Separates to be Included with Survey Data, IV. Sounding Equipment Calibrations and Corrections". *

* Filed with the hydrographic data.

Static Draft ✓

A transducer depth was determined using FPM Fig 2.2 for vessels 2122-2126 in the spring of 1996. These values were entered into the offset tables* for each survey platform.

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-P139-RA. The data for vessels 2122-2126 were collected in Shilshole Bay, Washington in the Spring of 1996.

Offset Tables ✓

Offset tables contain offsets for the GPS antenna, static draft measurements, and settlement and squat data. Offset tables 2-6 correspond to the last digit of the vessel number. The offset tables are contained in the "Separates to be Included with Survey Data".*

Heave ✓

The launches are not equipped with heave, roll and pitch sensors. Concur

Bar Check and Lead Lines ✓

Bar check lines were calibrated by RAINIER personnel during Spring 1996. Calibration forms are included with project data for OPR-P139-RA. Bar checks were performed periodically and served as a functional check of the DSF-6000N.*

Tide Correctors ✓

Predicted tides for the project were provided on diskette by N/OES334 for the Cordova, Alaska reference station (945-4050). Tidal correctors as provided in the project instructions for H-10725 are:

Zone	Time Correction	Height Correction
34	0 hr 0 min	X0.93

HDAPS listings of the data used in generating tide corrector tables are included in Appendix V* of this report.

Cordova, Alaska (945-4050) and Valdez (945-4240) were used as the primary control stations for datum determination at all subordinate stations.

RAINIER personnel installed Sutron 8200 digital tide gages at Chenega Island (945-4777) on September 2, 1996, and at Herring Point (945-4691) on September 27, 1996. The Chenega Island station was removed on November 1, 1996, while the Herring Point station was removed on

* Filed with the hydrographic data.

November 2. The Chenega tide staff was connected to six bench marks, and the Herring Point tide staff was connected to five bench marks during the opening and closing level runs. The station descriptions, field tide records, preliminary field tide notes and data (Appendix V) have been forwarded to N/OES212 in accordance with HSG 50 and FPM 4.3. A request for approved tides was forwarded to N/OES23 in accordance with FPM 4.2.3.

Tide note dated January 16, 1997 is attached.

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

The horizontal datum for this project is NAD 83. The control stations used for this survey are listed in Appendix III. Third Order Class I station NUKEM was established on the small islet north of Pleiades light using GPS from First Order station ROCK. See the OPR-P139-RA-96 Horizontal Control Report for more information. control stations list is attached.

I. HYDROGRAPHIC POSITION CONTROL ✓ See Eval Rpt., Section I.

Method of Position Control

All soundings and features were positioned using differential GPS. Serial numbers for vessel GPS equipment are annotated on the raw data printouts. VHF differential reference stations were established at second order station DUKE and third order station NUKEM. No multi-path or other systemic error was indicated by program Monitor, version 3.0. The United States Coast Guard modulated radio reference station (i.e., DGPS beacon) at Cape Hinchinbrook was monitored and occasionally used for positioning when VHF correctors could not be received from stations DUKE or NUKEM.

Calibrations & Systems Check Methods ✓

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 (NUKEM and DUKE) or the U.S. Coast Guard Beacon at CAPE HINCHINBROOK 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. NUKEM or DUKE were compared to CAPE HINCHINBROOK during 12-hour daily comparisons and occasional performance checks. Some outliers were noted, but none indicated systematic or continuous errors in the CAPE HINCHINBROOK beacon. The SHIPDIM OUTLIER.SUM results are included in the project data for OPR-P139-RA.

J. SHORELINE ✓ See section J of the Evaluation Report.

Photogrammetric survey CM-92012, flown in 1992 and compiled at 1:20,000 on NAD83, was provided in digital format through the Pacific Hydrographic Branch (N/CS34). The digital file was projected to the survey grid with OPR-P139-RA geodetic parameters using program SHORE version 2.0 (provided by N/CS32) and stored in HDAPS format. Shoreline was plotted at survey scale on boat sheets and processing sheets from HDAPS. Charted point features were manually transferred from 1:10,000 chart enlargement panels, which were also used for shoreline comparison. DM 10295, DM 10296 } Shoreline manuscripts applicable to H-10725.

* Filed with the hydrographic data.

Method of Shoreline Verification ✓

Limited shoreline verification was conducted in accordance with Project Instructions. For this survey, the general limit of safe navigation for a survey launch was 10-30 meters offshore of apparent low tide, or approximately 5-10 meters of depth at Mean Lower Low Water. This Navigational Area Limit Line (NALL) varied in distance from shore and depth of water based on the apparent usefulness of nearshore waters for navigation in the judgement of the hydrographer.

Detached positions and foul limit lines were acquired on manuscript features offshore of the NALL to verify positions and determine extent of rocks, reefs, and ledges which were not fully represented on the manuscript. Shoreline notes describing offshore features and the nature of the foreshore can be found in the detached position folder, and on the Detached Position and Bottom Sample final plot submitted with this survey. Features shown in pencil inshore of the NALL are the hydrographer's representation of the low water shoreline without hydrographic positioning. Features portrayed on the Detached Position Plot were analyzed during office processing and shown on the smooth sheet as warranted.
Field cartographic codes were assigned to detached positions based on predicted tides. Until their heights can be reduced in final processing, rocks have been assigned code 089 if near vertical datum and code 165 if submerged. Heights* are recorded in meters and decimeters and are corrected to predicted MLLW. All shoreline positions offshore of the NALL are plotted on the final field sheet and should supersede charted shoreline. Concur
* The heights of rocks located offshore of the NALL line are shown on the smooth sheet in feet and have been corrected for approved tides. Heights of rocks located inshore of the NALL line were not determined during this survey.

Charted Features ✓

Survey data was compared to 1:10,000 enlargements of Chart 16701, ~~15th~~ 16th Edition, July 21, 1990, 1:81,436 (NAD 83) and Chart 16705, ~~15th~~ 16th Edition, September 1, 1990, 1:80,000 (NAD 83). All charted features originated with a hydrographic survey of 1933. Charted rocks offshore of the NALL were either positioned hydrographically, identified as shoreline manuscript rocks, or disproved. Charted features which were well inshore of the NALL were not investigated and should therefore remain as charted. Concur The following table summarizes the charted feature investigations:

Latitude	Longitude	Depth(m) /FT*	Disposition	Fix Number
• 60° 20' 30"N ✓	148° 06' 43"W ✓	-2.1 (5)	Charted rock	20906
• 60° 20' 18"N ✓	148° 06' 07"W ✓	-1.0 (3)	Charted rock	20907
• 60° 22' 03"N ✓	148° 07' 44"W ✓	7.1	Charted rock disproval (rock is likely part of ledge/surrounding islet)	21247-51
• 60° 23' 35"N ✓	148° 08' 22"W	-1.4	Charted rock-Ledge on smooth sheet	21268
• 60° 23' 19"N ✓	148° 08' 58"W	-2.5	Charted rock-Ledge on smooth sheet	21270
• 60° 23' 22"N ✓	148° 09' 01"W	-1.4	Charted rock-Ledge on smooth sheet	21271
• 60° 21' 56"N ✓	148° 07' 28"W	-1.2 (4)	Charted rock	31040
• 60° 21' 52"N ✓	148° 07' 28"W	-3.3	Charted rock-Reef on smooth sheet	31041-42
• 60° 24' 22"N ✓	148° 05' 56"W	-2.0	Charted rock-Reef on smooth sheet	40530-31
• 60° 24' 04"N ✓	148° 04' 41"W	-2.1 (6)	Charted rock	40533
• 60° 20' 45"N ✓	148° 06' 06"W	-1.6 (4)	Charted rock	40544
• 60° 20' 47"N ✓	148° 06' 03"W	-6.2	Charted islet	40548
• 60° 19' 34"N ✓	148° 09' 06"W	-1.0 (4)	Charted islet	50429
60° 19' 51"N ✓	148° 08' 45"W	-2.2	Charted foul area-Reef on smooth sheet	50479-80

* Heights in feet on smooth sheet based on approved tides.

K. CROSSLINES ✓

Crosslines agreed within 1 meter with mainscheme hydrography. Total crossline mileage of 26.7 nautical miles amounted to 12.0% of total mainscheme hydrography.

L. JUNCTIONS ✓ See Evaluation Report, Section L.

This survey junctions with surveys H-10723, RA-10-26-96, 1:10,000 at the southern and western limits, and H-10726, RA-10-28-96 at the eastern limit. Soundings were found to be in good agreement. Final comparisons will be done at PHB after reduction to final sounding datum using tidal information collected concurrently with this survey.

M. COMPARISON WITH PRIOR SURVEYS ✓ See Evaluation Report, Section M.

One prior survey covers this project area, H-5408 (1:20,000, 1933). Soundings were generally found to be in good agreement, although shoaler depths were usually found by this survey due to greatly increased sounding densities. Shoreline features were found to be in good agreement. Final comparisons will be done at PHB after reduction to final sounding datum using tidal information collected concurrently with this survey.

N. ITEM INVESTIGATIONS ✓

Summary of AWOIS Items Assigned to this survey:

Number	Short Description	Search Used	Results	Fix Number
52323	Obstruction	Echo Sounder/Dive	Confirmed	50570-79/ 40534

Detailed Investigation Reports:

ITEM NO.:	AWOIS 52323 Obstruction	**CHART NO.:**	16701 (1:81,436)	16705 (1:80,000)
		EDITION:	15th Edition	15th Edition
		CHART DATE:	July 21, 1990	Sept. 1, 1990

DESCRIPTION AND SOURCE OF ITEM:

On June 24, 1991, Vessel MUSTANG reported running aground on an uncharted rock in Ewan Bay, approximate position 60° 23.2' N latitude, 148° 09.0' W longitude, or approximately 200 yards south of island. Rock was approximately 3 feet underwater.

SOURCE POSITION:		**FOUND POSITION:**
latitude	60° 23' 12" N	60° 23' 16.9" N
longitude	148° 09' 00" W (NAD 83)	148° 08' 44.7" W

Inverse from new position to reported position is 279 meters at 237° True.

SURVEY REQUIREMENTS: Echo Sounder and Visual Search: 100 meters from an axis along 60° 23' 12" N latitude, from 148° 08' 42" W to 148° 09' 06" W longitude (NAD 83).

METHOD OF INVESTIGATION:
Echo Sounder was used on DN 289, and visual search and dive operations were conducted on DN 291. 50 meter development was conducted in the specified area as defined in the Awois Survey requirements. 18 Fathom depths were found at the location of the charted rock.

RESULTS OF INVESTIGATION:

Dive investigation showed the obstruction to be a bedrock ridge, which exposes 0.4 meters at MLLW (Fix number 40534). This feature reduces to a rock awash at MLLW based on approved tides and is shown on the smooth sheet.

COMPARISON WITH PRIOR SURVEYS:

Survey H-5408 (1:20,000, 1933) shows no sounding or feature in the vicinity except a horizontal control position, suggesting that the ridge may have been used as a temporary control point. Due to the scale of the prior survey and the datum used, it is difficult to determine conclusively if this was the case. The most probable explanation is that the control symbol partially obliterated the shoreline for the southeastern corner of the island and that no feature was present.

COMPARISON WITH THE CHART AND CHARTING RECOMMENDATIONS:

The current chart gives no indication of an obstruction. The hydrographer recommends charting a rock symbol at position 60° 23' 16.9" N latitude, 148° 08' 44.7" W longitude. - CONCUR Chart as it.

O. COMPARISON WITH THE CHART ✓ See Evl Rpt., Section O.

This survey was compared in the field to NOS Chart 16701, ~~15th~~ 16th Edition, ~~July 21~~ June 1, ~~1998~~ 1996, 1:81,436 (NAD 83) and Chart 16705, ~~15th~~ 16th Edition, ~~September 1~~ April 24, ~~1998~~ 1996, 1:80,000 (NAD 83). In general, charted soundings were found to be in good agreement with those from the current survey. Least depths were often shoaler than charted soundings due to increased sounding densities.

In many instances, this survey found shoals extending into waters which are charted as fair. These areas should be charted more conservatively by extending the 10 fathom curve to indicate the extent of these shoals. Although too numerous to list here, some of the more noteworthy areas include the 8 1/4 fathom shoal near the charted 16 fathom sounding at 60° 19' 52" N latitude, 148° 09' 03" W longitude, the 9 ¼ fathom shoal near the charted 29 fathom sounding at 60° 20' 11" N latitude, 148° 09' 34" W longitude, and the 3 ½ fathom shoal near the charted 37 fathom sounding at 60° 20' ~~03~~ 07.5" N latitude, 148° 11' ~~24~~ 20.5" W longitude (DTON). ✓ - concur - 10 Fathom curve should be extended as shown on the SS.

Two inadequately charted submerged ridges exist in Dangerous Passage. The 5 3/4 fathom shoal charted at position 60° 20' 57" N latitude, 148° 06' 40" W longitude is actually an extensive submerged ridge, and the 10 fathom contour should be revised to indicate its extent. ✓ In addition, the islet charted at 60° 20' 26" N latitude, 148° 07' 16" W longitude is part of an extensive ridge, with shallow submerged ledges extending both north and south from the islet. The hydrographer recommends charting danger limits for this feature to fully indicate its extent. CONCUR Revise charted sounding data and ten fathom blue tint area based on the present survey information. Non-sounding features are fully discussed in Section J. Final comparisons will be made at PHB after application of real tide correctors.

Dangers to Navigation ✓

Twenty-seven dangers to navigation within the limits of H-10725 were reported to the Seventeenth Coast Guard District on October 25, 1996 and November 18, 1996. Copies of the correspondence ~~can be found in Appendix I.~~ is attached.

P. ADEQUACY OF SURVEY ✓

Survey H-10725 is complete and adequate to supersede prior soundings and features. Concur

Q. AIDS TO NAVIGATION ✓

No aids to navigation exist within the survey area. Concur

R. STATISTICS ✓

NM Hydrography	416.0
Velocity Casts	2
Detached Positions	33
Selected Soundings	22992
Bottom Samples	40
Tide Stations	2
NM^2 Hydrography	7.3
Dives	6

S. MISCELLANEOUS ✓

Bottom samples were collected and sent to the Smithsonian Institution in accordance with Project Instructions. No unusual tidal currents were found during the time of this survey. Secchi disk observations were performed during hydrographic data operations, and results will be forwarded upon completion of this project.

T. RECOMMENDATIONS ✓

Dangerous Passage is appropriately named and would provide a challenging transit to any large, deep-draft vessel. In addition, many of the small embayments within Paddy Bay and Ewan Bay contain shoals, rocks, and other potential dangers to navigation. The hydrographer recommends that this entire area be charted at a larger scale, if possible. At a minimum, the critical portion of Dangerous Passage around Delenia Island should be charted at 1:40,000, perhaps as an inset to chart 16705 as there appears to be insufficient space on chart 16701. Evaluator recommends that Marine Chart Division consider this proposal for future charting requirements.
The hydrographer recommends charting an anchor symbol (N-10) to identify the large vessel anchorage at approximate position 60° 21' 10" N latitude, 148° 07' 10"W longitude. This position plots in almost the center of Dangerous Passage. Evaluator recommends that Marine Chart Division not depict an anchor symbol at the position listed above.

U. REFERRAL TO REPORTS

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

Title	Date Sent	Office
1996 Horizontal Control Report for OPR-P139-RA.	November, 1996	N/CS34
1996 Coast Pilot Report for OPR-P139-RA.	November, 1996	N/CS26
Project related data for OPR-P139-RA.	Incremental	N/CS34
Secchi Disk Observations for OPR-P139-RA	November, 1996	N/CS31

Respectfully Submitted,

Stephen Meador
Lieutenant, NOAA

Approved and Forwarded,

Dean R. Seidel
Captain, NOAA
Commanding Officer

CONTROL STATIONS as of 28 Oct 1996 ✓

No	Type	Latitude	Longitude	H	Cart	Freq	Vel	Code	MM/DD/YY	Station Name
1	G	060:14:26.408	148:00:42.205	18	250	0.0	0.0		09/03/96	NUKEM
2	G	060:15:37.435	148:18:06.007	18	250	0.0	0.0		10/07/96	DUKE
3	L	060:09:11.260	147:45:58.680	27	257	0.0	0.0		10/07/96	PT. HELEN LIGHT LL#25925
4	L	060:18:46.233	147:55:04.532	23	257	0.0	0.0		10/07/96	NEW YEAR ISLAND LIGHT LL#25915
5	L	060:14:22.912	148:00:37.765	26	257	0.0	0.0		10/07/96	PLEIADES LIGHT LL#25920
6	B	060:14:18.000	148:38:48.000	0	250	0.0	0.0		00/00/00	CAPE HINCHINBROOK USCG BEACON
7	B	061:03:24.000	146:41:48.000	0	250	0.0	0.0		00/00/00	POTATO POINT USCG BEACON

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of NOAA Corps Operations
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

NOAA Ship RAINIER

October 25, 1996

Commander
Seventeenth Coast Guard District
Post Office Box 3-5000
Juneau, Alaska 99802

ADVANCE
INFORMATION

Dear Sir:

During the processing of hydrographic survey H-10725 in Knight Island Passage, Prince William Sound, twenty dangers to navigation has been discovered. These dangers affect the following charts:

Number	Edition	Date	Scale	Datum
16700	24th ED.	92/01	1:200,000	NAD83
16701	16th ED.	96/06	1:81,436	NAD83
16705	15th ED.	90/09	1:80,000	NAD83

It is recommended that these dangers to navigation be included in the Local Notice to Mariners.

Questions concerning this report should be directed to the Pacific Hydrographic Branch at (206) 526-6835.

Sincerely,

Dean R. Seidel
Captain, NOAA
Commanding Officer
NOAA Ship RAINIER

Enclosure

cc: DMA/HTC
PMC
N/CS262

DANGERS TO NAVIGATION

OPR-P139-RA SOUTHWEST PRINCE WILLIAM SOUND, AK

REGISTRY NUMBER: H-10725

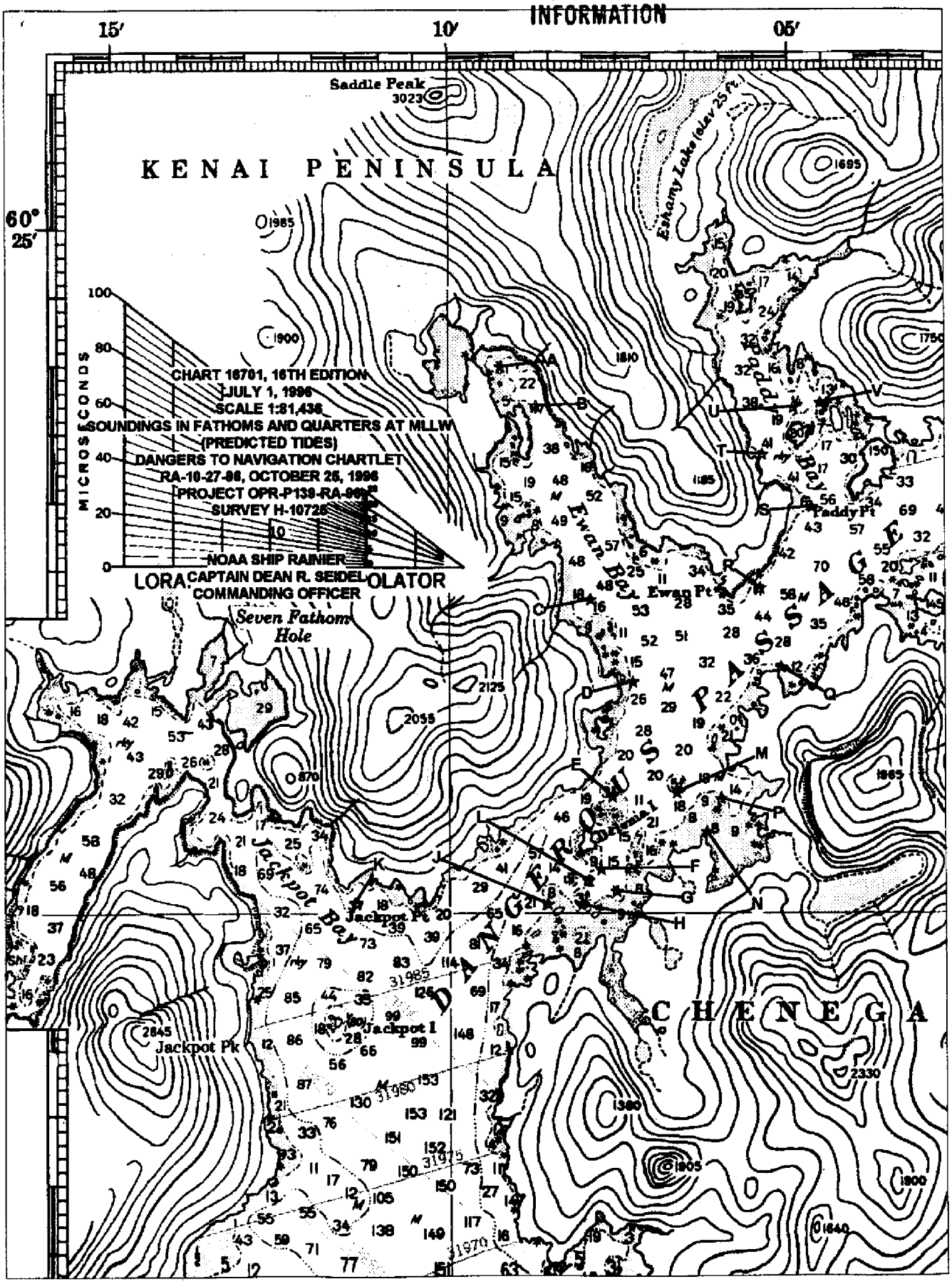
AFFECTED CHARTS:

CHART	EDITION NUMBER	DATE	SCALE
16700	24 TH ED.	92/01	1:200,000
16701	16 TH ED.	96/06	1:81,436
16705	15 TH ED.	90/09	1:80,000

ADVANCE INFORMATION

ITEM	FIX #	DANGER	CHART DEPTH	DEPTH (M)	LATITUDE (N)	LONGITUDE (W)
A	50541+3	ROCK	COVERS 1/2 FM	1.1	060:24:01.846	148:09:13.953
B	50521+2	SHOAL	8 1/4 FM	15.4	060:23:44.707	148:08:42.907
C	50580+5	SHOAL	7 FM	13.2	060:22:19.927	148:07:54.739
D	50598+2	SHOAL	2 1/4 FM	4.5	060:21:43.790	148:07:17.633
E	40535+0	SHOAL	1 3/4 FM	3.2	060:20:53.480	148:07:35.931
F	30642+4	SHOAL	5 FM	9.4	060:20:21.922	148:07:46.102
G	30614+2	SHOAL	4 3/4 FM	9.1	060:20:12.096	148:07:32.153
H	40538+0	SHOAL	1 3/4 FM	3.4	060:20:06.240	148:08:03.149
J	31181+4	SHOAL	5 1/4 FM	9.8	060:20:06.538	148:08:33.516
K	40619+2	SHOAL	3 1/4 FM	6.2	060:20:07.264	148:11:22.547
L	50608+2	SHOAL	6 FM	11.2	060:20:16.935	148:07:57.124
M	40539+0	SHOAL	4 FM	7.4	060:20:55.279	148:06:39.777
N	20950+1	ROCK	COVERS 3/4 FM	1.5	060:20:38.042	148:06:13.543
P	21034+2	SHOAL	3 1/2 FM	6.4	060:20:52.579	148:06:01.116
Q	50356+3	SHOAL	4 1/4 FM	7.8	060:21:49.917	148:05:07.727
R	20166+3	SHOAL	1 3/4 FM	3.2	060:22:24.484	148:05:26.311
S	40540+0	SHOAL	2 1/2 FM	4.6	060:23:00.037	148:04:40.163
T	21132+2	SHOAL	1 1/4 FM	2.3	060:23:23.215	148:05:23.647
U	21180+2	SHOAL	5 1/4 FM	9.7	060:23:43.760	148:04:56.448
V	60758+0	ROCK	COVERS 1/2 FM	1.3	060:23:45.874	148:04:32.756

ADVANCE INFORMATION



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of NOAA Corps Operations
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

NOAA Ship RAINIER

November 18, 1996

Commander
Seventeenth Coast Guard District
Post Office Box 3-5000
Juneau, Alaska 99802

ADVANCE
INFORMATION

Dear Sir:

During the processing of hydrographic survey H-10725 in Knight Island Passage, Prince William Sound, seven additional dangers to navigation has been discovered. These dangers affect the following charts:

Number	Edition	Date	Scale	Datum
16700	24th ED.	92/01	1:200,000	NAD83
16701	16th ED.	96/06	1:81,436	NAD83
16705	15th ED.	90/09	1:80,000	NAD83

It is recommended that these dangers to navigation be included in the Local Notice to Mariners.

Questions concerning this report should be directed to the Pacific Hydrographic Branch at (206) 526-6835.

Sincerely,

Alan D. Anderson

Alan D. Anderson
Captain, NOAA
Commanding Officer
NOAA Ship RAINIER

Enclosure

cc: DMA/HTC
PMC
N/CS262

ADVANCE
INFORMATION

DANGERS TO NAVIGATION

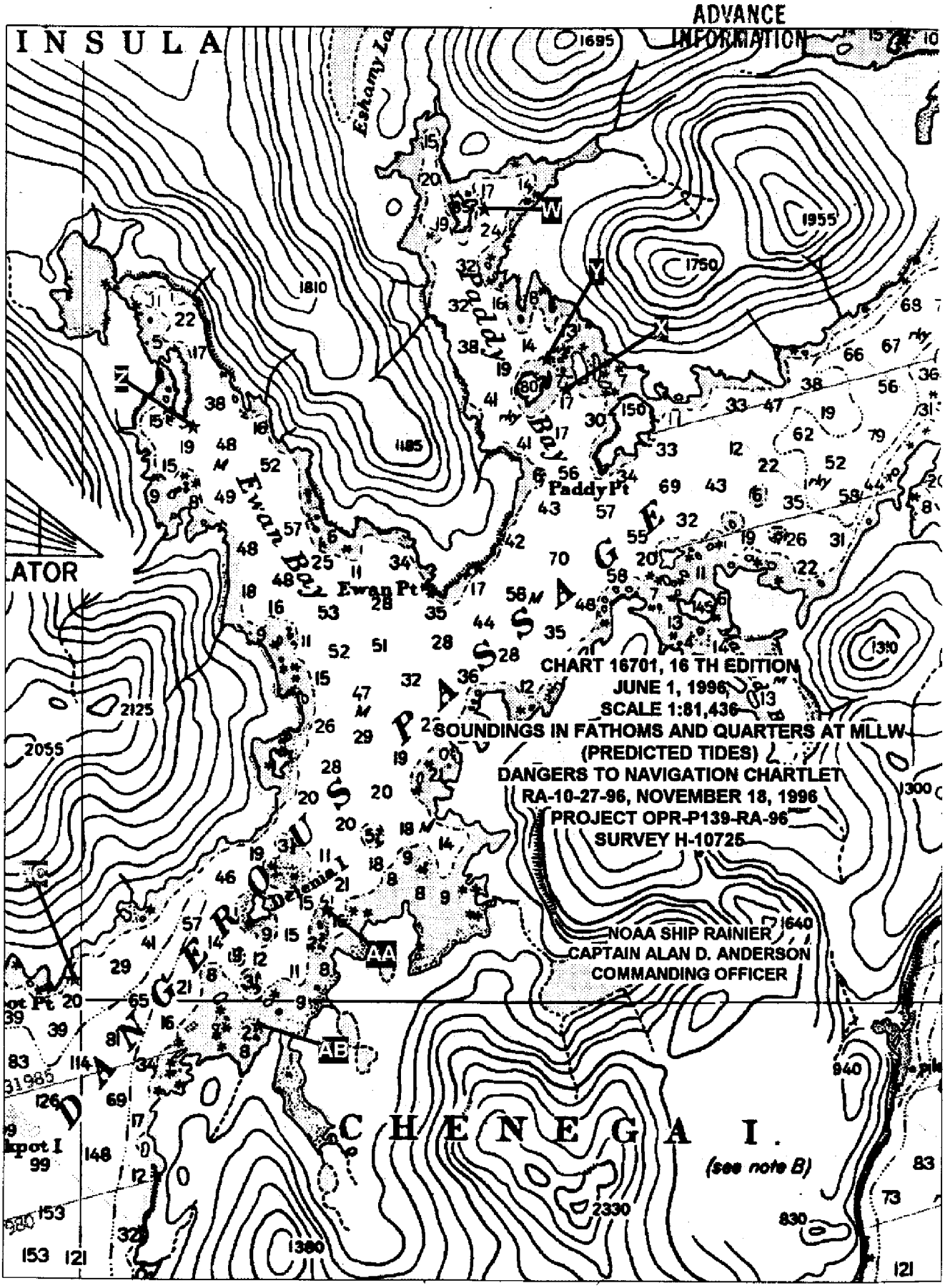
OPR-P139-RA SOUTHWEST PRINCE WILLIAM SOUND, AK

REGISTRY NUMBER: H-10725

AFFECTED CHARTS:

CHART	EDITION NUMBER	DATE	SCALE
16700	24 TH ED.	92/01	1:200,000
16701	16 TH ED.	96/06	1:81,436
16705	15 TH ED.	90/09	1:80,000

ITEM	FIX #	DANGER	CHART DEPTH	DEPTH (M)	LATITUDE (N)	LONGITUDE (W)
AA	40536+0	SHOAL	3 1/4 FM	6.3	060:20:31.224	148:07:11.692
AB	30598+3	ROCK	COVERS 3/4 FM	1.6	060:19:51.814	148:07:58.619
AC	31176+2	SHOAL	3 1/2 FM	6.6	060:20:07.230	148:10:04.404
W	30775+3	ROCK	COVERS ~~3/4~~ 1/2 FM	1.4	060:24:31.973	148:05:23.340
X	20407+5	SHOAL	1 ~~1/2~~ 1/4 FM	2.7	060:23:30.407	148:04:27.092
Y	20377+0	ROCK	UNCOVERS 3 FT	-0.9	060:23:40.745	148:04:40.345
Z	40534+0	ROCK	UNCOVERS 1 FT	-0.4	060:23:16.930	148:08:44.722


ADVANCE
INFORMATION
INSULA
LATOR
Eshamy La
Paddy Bay
Paddy Pt
Ewan Bay
Ewan Pt
PASSAGE
DANGEROUS
CHENEGA I.
(see note B)
NOAA SHIP RAINIER
CAPTAIN ALAN D. ANDERSON
COMMANDING OFFICER
CHART 16701, 16 TH EDITION
JUNE 1, 1996
SCALE 1:81,436
SOUNDINGS IN FATHOMS AND QUARTERS AT MLLW
(PREDICTED TIDES)
DANGERS TO NAVIGATION CHARTLET
RA-10-27-96, NOVEMBER 18, 1996
PROJECT OPR-P139-RA-96
SURVEY H-10725

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
Seattle, Washington 98115-0070

December 15, 1997

ADVANCE INFORMATION

Commander (OAN)
Seventeenth Coast Guard District
P.O Box 25517
Juneau, AK 99802

Dear Sir:

During office review of hydrographic survey H-10725, Alaska, Southwest Prince William Sound, Central Portion of Dangerous Passage one shoal sounding was found and is considered a potential danger to navigation affecting the following charts.

Chart	Edition/date	Datum
16701	16th, 6/01/96	NAD 83
16705	16th, 8/24/96	NAD 83

It is recommended that the enclosed Report of Dangers to Navigation be included in the Local Notice to Mariners.

Questions concerning this report should be directed to the Pacific Hydrographic Branch at (206) 526-6853.

Sincerely,

Kathy A. Timmons

Kathy A. Timmons
Commander, NOAA
Chief, Pacific Hydrographic Branch

Enclosure

cc: NIMA
NCS/261

ADVANCE INFORMATION

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10725

Survey Title: State: ALASKA
Locality: SOUTHWEST PRINCE WILLIAM SOUND
Sublocality: CENTRAL PORTION OF DANGEROUS PASSAGE
VICINITY

Project Number: OPR-P139-RA, NOAA Ship Rainier

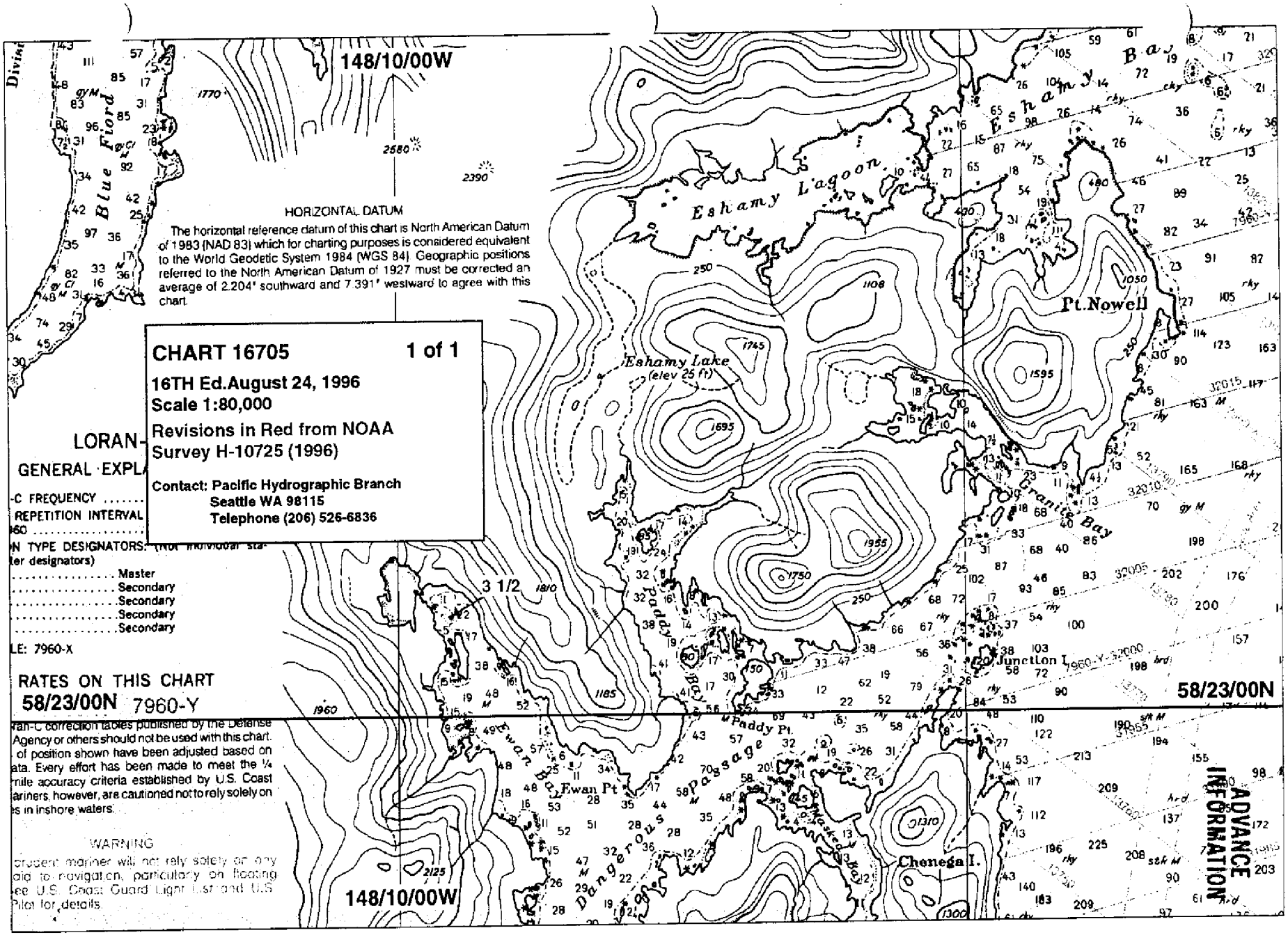
Survey Date: October 3 – October 20, 1996

Features are reduced to Mean Lower Low Water using approved tides and are positioned on NAD 83.

Chart affected: 16701 16th Edition/June 1, 1996, scale 1:81,436, NAD 83
16705 16th Edition/August 24, 1996, scale 1:80,000, NAD 83

DANGER TO NAVIGATION	LATITUDE(N)	LONGITUDE(W)
Shoal, covers 3 1/2 fathoms	60/23/51.9	148/09/04.6

Questions concerning this report should be directed to the Chief, Pacific Hydrographic Branch at (206)526-6853.


148/10/00W
HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.204" southward and 7.391" westward to agree with this chart.
CHART 16705 1 of 1
16TH Ed.August 24, 1996
Scale 1:80,000
Revisions in Red from NOAA Survey H-10725 (1996)
Contact: Pacific Hydrographic Branch
Seattle WA 98115
Telephone (206) 526-6836
LORAN-
GENERAL EXPL
-C FREQUENCY .....
REPETITION INTERVAL
60 .....
N TYPE DESIGNATORS: (Not individual sta-
ter designators)
..... Master
..... Secondary
..... Secondary
..... Secondary
..... Secondary
LE: 7960-X
RATES ON THIS CHART
58/23/00N 7960-Y
an-C correction tables published by the Defense Agency or others should not be used with this chart. of position shown have been adjusted based on ata. Every effort has been made to meet the ¼ mile accuracy criteria established by U.S. Coast ariners, however, are cautioned not to rely solely on s in inshore waters.
WARNING
rudent mariner will not rely solely on any aid to navigation, particularly on floating ee U.S. Coast Guard Light List and U.S. Pilot for details.
Eshamy L'agoon
Eshamy Lake
(elev 25 ft)
Blue Fiord
Bay
Pt.Nowell
Granite Bay
Paddy Bay
Paddy Pt.
Passage
Ewan Bay
Ewan Pt
Dangerous
Chenega I.
Junction I.
3 1/2
ADVANCE INFORMATION
58/23/00N
148/10/00W

Limited Shoreline Verification: The New Rules

First, understand that the fundamental difference between last year and this year is that the amount of shoreline we must verify is determined by US, not strictly specified in the Project Instructions.

Procedures:

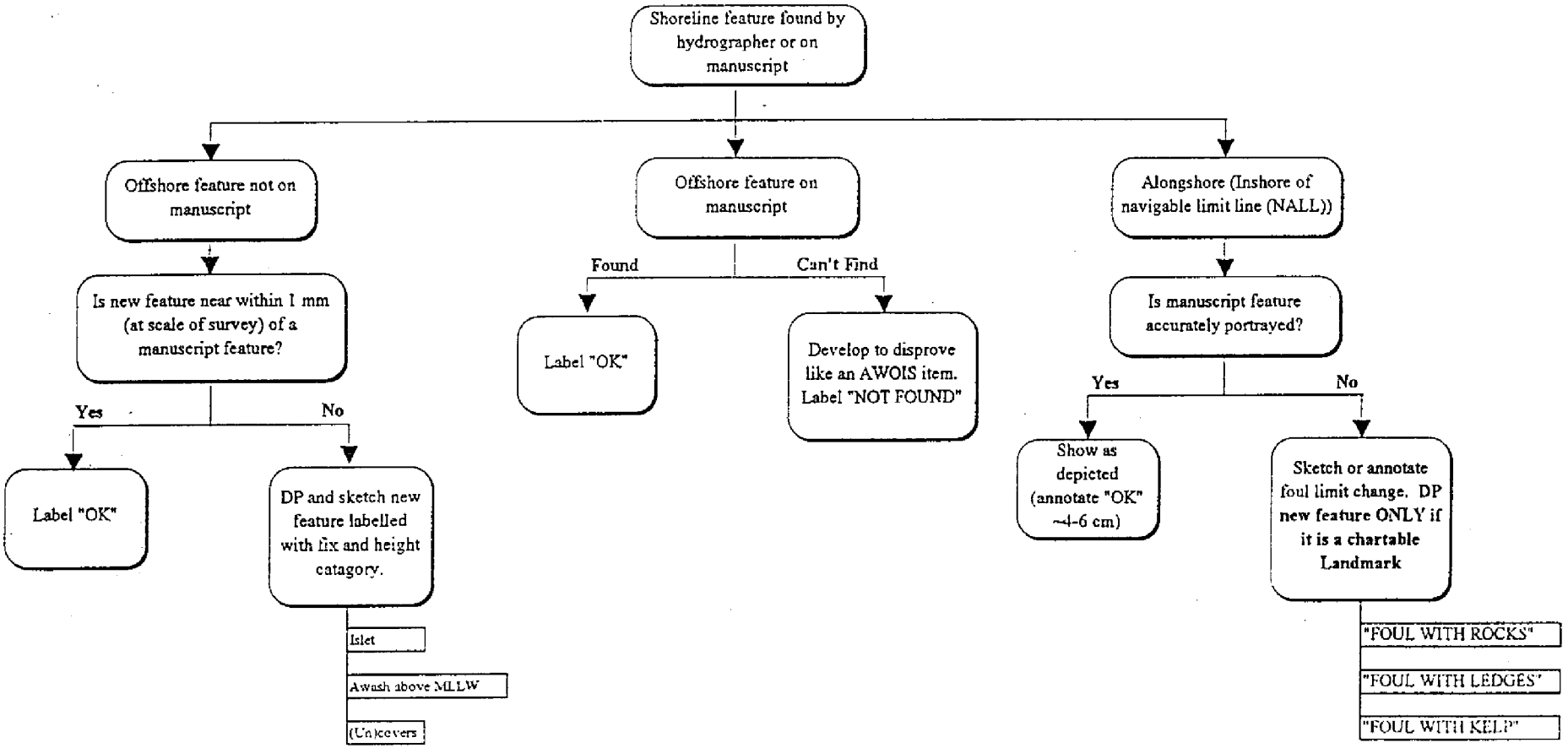
1) Determine distance from shore that is the MINIMUM working distance necessary for the survey. Take into account likely vessel traffic, bathymetry, complexity of the shoreline from prior surveys and the chart, and weather (sea) conditions experienced in the area. Use greater distances if shallow depths prevail, or if swell is severe. Even in steep foreshore bathymetry, do not go closer than 3 launch lengths (30 meters), unless vessel usage indicates that the area is used (e.g. a landing ramp is on shore, or an extremely narrow passage is used by fishing vessels to reach a certain bay.)

2) Draw the inshore limit determined in (1) on the boat sheet. Collecting data along this line may or may not be feasible, due to tides and project logistics, but the boat sheet line may be used to delimit mainscheme and development hydrography until such a "buffer" line is or may be needed.

3) Search for and develop all features seaward of the line drawn in (2). Use low water for this search, if possible. Combining this search with the acquisition of the data along the "buffer" line may be possible in areas which are not too complex. Detached positions are required only if a feature is found offshore of the NALL line and either more than 1 mm away from any manuscript feature or is mis-represented by the manuscript. If a charted or manuscript feature located offshore of the line is NOT found, a full disproval is required.

4) Annotate the field copies of the boat sheet (which by definition includes the charted, manuscript, and significant prior survey features) showing that the shoreline features offshore of the NALL each have a full disposition. These copies are bound and used to create the final field sheet, and submitted as official survey records.

Shoreline Decision Tree



Prepared by Mark S. Larsen

APPROVAL SHEET

for

H-10725

RA-10-27-96

Standard procedures were followed in accordance with the Hydrographic Manual, Fourth Edition; the Hydrographic Guidelines; and the 1994 version of the Field Procedures Manual in producing this survey. The data were examined daily during data acquisition and processing.

The field sheet and accompanying records have been examined by me, are considered complete and adequate for charting purposes, and are approved.

Dean R. Seidel
Captain, NOAA
Commanding Officer

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: January 16, 1997

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P139-RA
HYDROGRAPHIC SHEET: H-10725

LOCALITY: Central Portion of Dangerous Passage, Southwest Prince William Sound, Alaska

TIME PERIOD: October 3 - 20, 1996

TIDE STATION USED: 945-4777 Chenega Island, Southwest End, AK
Lat. 60° 17.2'N Lon. 148° 07.2'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.300 meters

TIDE STATION USED: 945-4671 Point Helen, Knight Island, AK
Lat. 60° 09.2'N Lon. 147° 46.0'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.240 meters

TIDE STATION USED: 945-4691 Herring Point, Knight Island Passage, AK
Lat. 60° 28.5'N Lon. 147° 47.5'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.362 meters

TIDE STATION USED: 945-4240 Valdez, AK
Lat. 61° 07.5'N Lon. 146° 21.7'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.389 meters

REMARKS: RECOMMENDED ZONING

Use zones identified as: PWS33, PWS34, PWS35 & PWS38

Refer to attachment(s) for zoning information.

Note: Provided time series data are tabulated in metric units (meters) and on Greenwich Mean Time.

CHIEF, TIDAL ANALYSIS BRANCH

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-10725

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 16705, 16701, 16708	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
CHENEGA ISLAND	X		X							2
DANGEROUS PASSAGE	X		X							3
DELENIA ISLAND	X		X							4
EWAN BAY	X		X							5
EWAN POINT	X		X							6
JACKPOT POINT	X		X							7
MASKED BAY	X		X							8
PADDY BAY	X		X							9
PADDY POINT	X		X							10
PRINCE WILLIAM SOUND	X		X							11
(title)										12
										13
										14
										15
										16
										17
										18
										19
				Approved						20
										21
				Chief Geographer						22
				APR 10 1973						23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

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

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10725

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

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

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	2					
ENVELOPES						
VOLUMES						
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List): DM 10295 and DM 10296

PHOTOBATHYMETRIC MAPS (List): NA

NOTES TO THE HYDROGRAPHER (List): NA

SPECIAL REPORTS (List): NA

NAUTICAL CHARTS (List): 16701 16th Ed., June 1, 1996, 16705 16th Ed., August 24, 1996

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			
SOUNDINGS 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	95.0		95.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS		8.0	8.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		40.0	40.0
GEOGRAPHIC NAMES			
OTHER*			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	95.0	48.0	143.0

Pre-processing Examination by Pacific Hydrographic Branch	*Beginning Date* 12/3/96	*Ending Date* 2/10/97
Verification of Field Data by M. Bigelow, R. Mayor, B. Mihailov	*Time (Hours)* 95.0	*Ending Date* 9/19/97
Verification Check by B. Olmstead	*Time (Hours)* 8	*Ending Date* 10/10/97
Evaluation and Analysis by B. Mihailov	*Time (Hours)* 48.0	*Ending Date* 10/2/97
Inspection by B. Olmstead	*Time (Hours)* 5	*Ending Date* 10/20/97

EVALUATION REPORT

H-10725

A. PROJECT

Project information is discussed in the hydrographer's report.

B. AREA SURVEYED

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 gray mud with components of medium pebbles, medium gravel and broken shingles. Depths range from 0 to 147.5 fathoms

C. SURVEY VESSELS

Survey vessel information is found in the hydrographer's report.

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), AutoCad (Version 13.0) 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 was created with .dbf (extension) and enhanced using the MicroStation system, are filed both in the MicroStation drawing format, .dgn (extension); and in the more universally recognized graphics transfer format, .dxf (extension). 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

Sonar equipment was not used on survey H-10725.

F. SOUNDING EQUIPMENT

Sounding equipment is discussed in the hydrographer's report.

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: Chenega Island, Southwest End, Alaska, gage 945-4777. Point Helen, Knight Island, Alaska, gage 945-4671, Herring Point, Knight Island Passage, Alaska, gage 945-4691 and Valdez, Alaska, gage 945-4240 listed in the Tide Note were not used.

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:	-2.138 seconds	(-66.176 meters)
Longitude:	7.430 seconds	(113.880 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. DGPS performance checks were conducted in the field and found adequate.

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 maps DM 10295 and DM 10296, Scale 1:20,000 were compiled on NAD83 and applied to this survey. These manuscripts were supplied in digital form by the Coastal Mapping Program and were merged during MicroStation processing.

Changes to alongshore and offshore features shown on the shoreline manuscripts were verified and revised as warranted. Shoreline changes were transferred from the final field sheet to the smooth sheet in dashed red, without supporting positional information. These revisions are considered adequate to supersede the common photogrammetrically delineated shoreline.

Feature	Latitude(N)	Longitude(W)
MHWL	60/19/59	148/07/15
MHWL	60/21/50	148/07/45
MHWL	60/24/35	148/05/35

The hydrographer found several new rocks inshore of the NALL line and near the mean high water line. However, these features were not positioned during survey operations and are insignificant at chart scale. These rocks are of no navigational importance and have not been shown on the smooth sheet.

K. CROSSLINES

Crosslines are discussed in the hydrographer's report.

L. JUNCTIONS

Survey H-10725 junctions with the following surveys:

Survey	Year	Scale	Area
H-10723	1996	1:10,000	Southern and Western Limits
H-10726	1996	1:10,000	Eastern Limit

The junctions with H-10723 (1996) and H-10726 (1996) are complete, soundings and depth curves are in good agreement within the common area. A "Joins" note has been shown on the survey.

M. COMPARISON WITH PRIOR SURVEYS

H-5408 (1933) 1:20,000

Prior survey H-5408 covers the entire area of the present survey. Sounding agreement is good with the present survey depths shoaler between 1 and 5 fathoms. These differences may be attributed to greater sounding coverage, improved positioning and sounding methods and relative accuracy of the data acquisition techniques. All critical depths and features originating from the prior survey were adequately addressed during survey operations.

In accordance with the Hydrographic Guideline No. 39, the effect of the 1964 Prince William Sound earthquake were considered in the comparison of this survey. Prince William Sound experienced a bottom uplift of 4-32 feet during the 1964 earthquake. Based on the changeability of the survey area and the differences in data acquisition, no reasonable adjustment value for prior soundings could be determined.

Survey H-10725 is adequate to supersede the prior survey within the common area.

N. ITEM INVESTIGATIONS

There was one AWOIS item assigned to this survey. AWOIS Item number 52323 was determined to be an uncharted rock which exposes 0.0 meters at MLLW in Ewan Bay.

O. COMPARISON WITH CHART

Survey H-10725 was compared with the following charts:

Chart	Edition	Date	Scale	Datum
16701	16th	June 1, 1996	1:81,436	NAD83
16705	16th	Aug. 24, 1996	1:80,000	NAD83

a. Hydrography

Charted hydrography originates with the previously discussed prior survey. The prior survey have been adequately addressed in section M and requires no further discussion.

Survey H-10725 is adequate to supersede charted hydrography within the common area.

b. Dangers To Navigation

Twenty seven dangers to navigation were discovered during survey operations and reported to the USCG , NIMA and N/CS262 on October 25, 1996 and November 18, 1996. One new shoal was discovered during office processing and reported to the USCG , NIMA and N/CS262. Copies of the reports are attached.

P. ADEQUACY OF SURVEY

Hydrography contained on survey H-10725 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.

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.

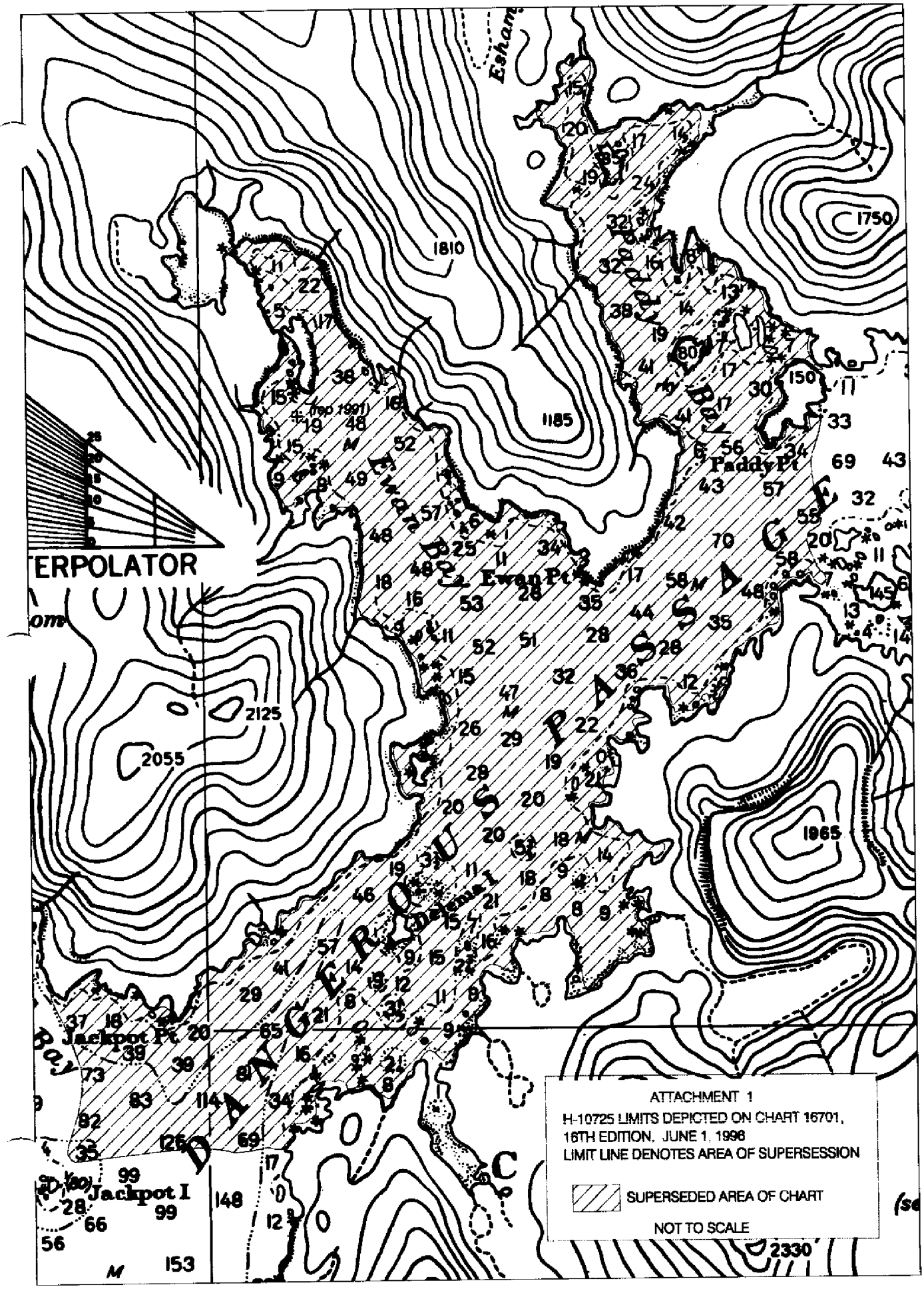
T. RECOMMENDATIONS

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

U. REFERRAL TO REPORTS

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

Bob Mihailov
Cartographer


ERPOLATOR
Eshamy
1810
1750
1185
2125
2055
1965
2330
Paddy Pt
Ewan Pt
Jackpot Pt
Jackpot I
PASSAGE
DANGEROUS
ATTACHMENT 1
H-10725 LIMITS DEPICTED ON CHART 16701,
16TH EDITION, JUNE 1, 1996
LIMIT LINE DENOTES AREA OF SUPERSESSION
SUPERSEDED AREA OF CHART
NOT TO SCALE

APPROVAL SHEET
H-10725

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: 11/20/97
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: 12/19/97
Kathy Timmons
Commander, NOAA
Chief, Pacific Hydrographic Branch

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Final Approval

Approved:

Jack L. Wallace ACTG FOR Date: APRIL 9, 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-10725

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
16705	11/13/97	B.Mihaefer	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via
			Drawing No. Full application to soundings and Features From smooth sheet
16701			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.
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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.

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

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CHART	DATE	CARTOGRAPHER	REMARKS
16701	10/9/97	B. Mihaufer	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via Full application of
			Drawing No. Soundings and features from smooth sheet thru Chart 16705.
			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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			Drawing No.

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