9401

Diag. Cht. Nos. 8201-3 & 8102-3.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC

Field No. RA-10-2-73

Office No. H-9401

LOCALITY

State Alaska

General Locality Clarence Strait

Locality Rocky Bay

1973

CHIEF OF PARTY
CDR K.W. Jeffers

LIBRARY & ARCHIVES

DATE Mar. 5, 1980

☆ U.S. GOV. PRINTING OFFICE: 1975—668-353

9401

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.: H-9401

FIELD NO.: RA-10-2-73

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: Clarence Strait

Locality: Rocky Bay

Scale: 1:10,000 Date of survey: 17 Sept - 6 Nov 1973

Instructions dated: 25 May 1973 Project No.: OPR-465-RA-73

Vessel: NOAA Ship RAINIER Launches RA-1, RA-4, RA-6 & RA-3

Chief of party: CDR K.W. Jeffers

Surveyed by: LT R. Schiro, LTJG R. Hendershot, LTJG S. Thorsen, ENS P. Gadd, ENS E. Seymour

Soundings taken by echo sounder, ~~xxxxxxxxxxx~~ Ross Digitizing Fathometer and Raytheon DE-723

Graphic record scaled by: Ship's Personnel

Graphic record checked by: Ship's Personnel

Positions verified by ~~xxxxxxxxxx~~ V.F. Flor, N. Lestenkof, Automated plot by: Xynetics Plotter (PMC)

Soundings verified by L.T. Deodato

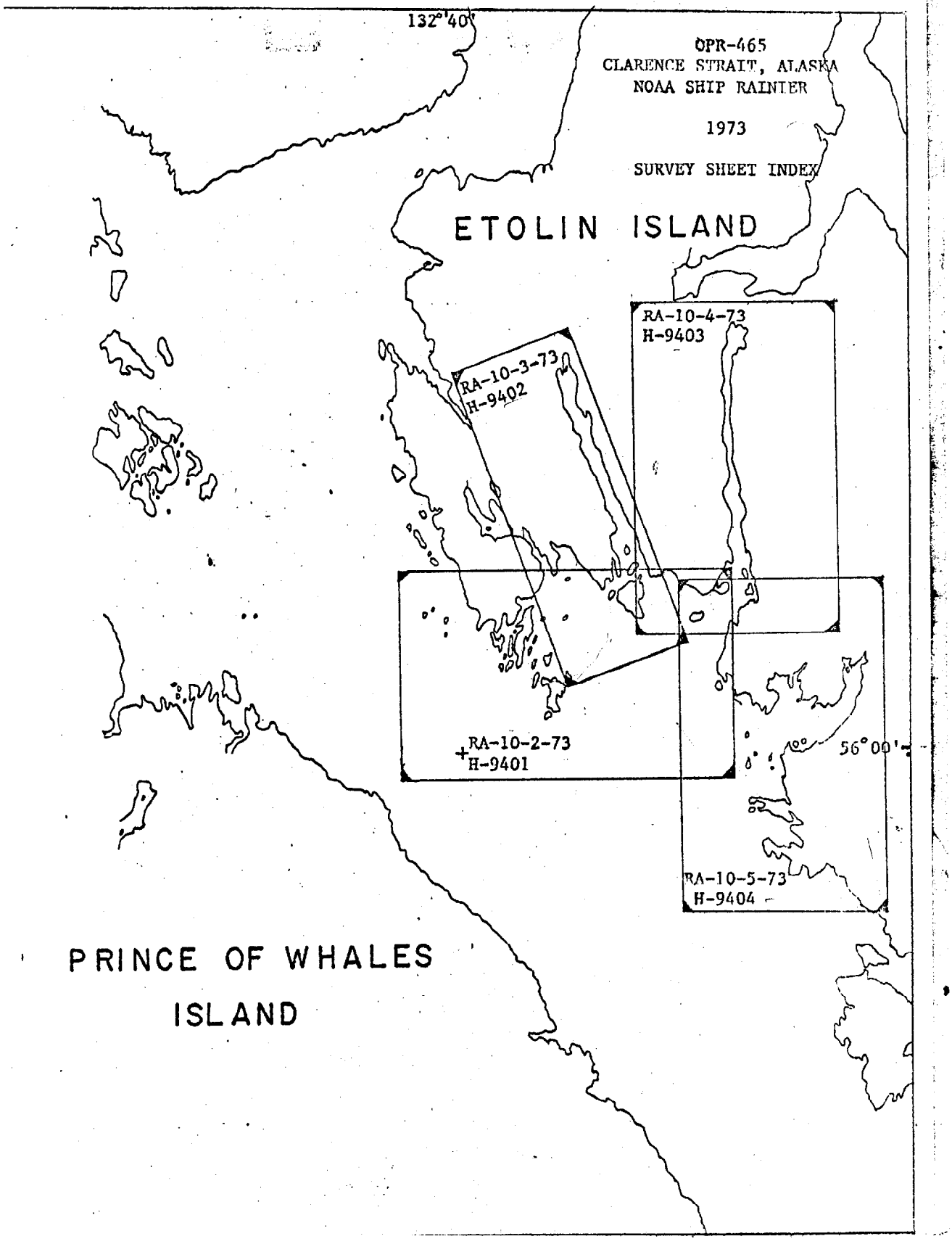
~~Verification by xxxxxxxxxx~~ N. Lestenkof, L.T. Deodato

Soundings in fathoms and tenths ~~xxxxx~~ at ~~xxxx~~ MLLW

REMARKS: Survey completed.

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

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—665-661/1222 REGION NO. 6


OPR-465
CLARENCE STRAIT, ALASKA
NOAA SHIP RAINIER
1973
SURVEY SHEET INDEX
ETOLIN ISLAND
RA-10-4-73
H-9403
RA-10-3-73
H-9402
RA-10-2-73
H-9401
RA-10-5-73
H-9404
132°40'
56°00'
PRINCE OF WHALES
ISLAND

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY

RA-10-2-73

H-9401

Scale 1:10,000

1973

NOAA SHIP RAINIER

CDR. K. William Jeffers
Commanding

A. PROJECT

This survey was conducted in accordance with PROJECT INSTRUCTIONS: OPR-465-RA-73, dated 25 May, 1973, change number 1, dated 31 May 1973, and change number 2, dated 31 May, 1973.

B. AREA SURVEYED

This survey includes the area of Rocky Bay, Three-Way Passage, southern Mosman Entrance, and the southwestern part of Burnett Inlet, (Refer to C & GS chart 8160). The area is bounded by Long. 132° 38.0'W to Long. 132° 29.5'W and Lat. 56° 0.8'N to Lat. 56° 4.0'N.

Sheet size limitations of the Hydroplot system necessitated dividing the boatsheet into two parts. The area south of triangulation station, COB, (signal number 502) was assigned field number RA-10-2B-73, and the remaining area to the north and east was assigned field number RA-10-2A-73. The approximate Latitude dividing the two sheets is 56° 02.0'N.

The survey began on 17 Sept. 1973 (JD 260) and ended on 6 Nov. 1973 (JD 310).

Prior surveys covering this area include:

REGISTRY NO.	SCALE	DATE	
H-3911	1:20,000	1916	Sect. J
H-3941	1:20,000	1916	

Junctions were made with the following contemporary surveys:

REGISTRY NO.	SCALE	DATE
H-9402	1:10,000	1973
H-9403	1:10,000	1973
H-9404	1:10,000	1973

Sect. I

C. SOUNDING VESSEL

Soundings were obtained by two Bertram launches, RA-3 (2123), RA-4 (2124), one uniflite launch, RA-6 (2126), and one motor whale boat, RA-1 (2121).

D. SOUNDING EQUIPMENT

All soundings were recorded on Ross Model 5000 fathometers and a Raytheon DE-723 fathometer. Launches RA-6, RA-3, RA-4 used Ross serial numbers 1040, 1041, 1042 respectively. Launch RA-1 used Raytheon serial number 834.

During the operation of the Ross fathometer the initial values on the fathogram was maintained near zero through continuous monitoring and periodic adjustment. The fathogram was scanned continuously in the field and compared to the digitized values. Any discrepancy between the digitized value and the scanned fathogram was resolved by correcting the digitized value to agree with the fathogram.

The blanking function was employed to eliminate spurious returns, and the fathometer was internally phased and adjusted

so as to have no phase corrections. Phase checks were made daily by setting the Ross switch to "Calibrate Phase Set" and entering a depth in order to assure no change in phasing.

During the operation of the Raytheon fathometer and Ross fathometer, without the aid of the computer to give comparing digitized values, the initial was maintained at zero by continuous scanning.

RA-6 used a 0.4 fm. Transducer Correction (TRA), RA-3 0.3 and 0.4 fm. and RA-4 a 0.3 fm. TRA, and RA-1 a 0.2 fm. TRA.

Bar checks down to 7 fm. were taken routinely, and the results abstracted.

All applicable corrections were incorporated on a TC/TI (Transducer Correction/Table Indicator) Tape for automated processing (see appendix).

Velocity corrections were computed from bar checks and Nansen casts taken on 24 Sept. 1973, 9 Oct. 1973, and 25 Oct. 1973.

The sounding equipment operated well during the survey with no noteworthy errors which would have an effect on the accuracy of the soundings. For further information on sounding corrections refer to CORRECTIONS TO ECHO SOUNDINGS, OPR-465-RA-73.

E. SMOOTH SHEET

The boatsheet's Transverse Mercator Projection and soundings were

plotted by RAINIER personnel using the onboard PDP 8/e Complot System. The central meridian of the projection is 132° 40.0'W, and the southern control latitude is 6,100,000 meters north of latitude zero. Position numbers, soundings, and signals were machine plotted. The final smooth sheet will be plotted by PMC's Electronic Data Processing Branch.

Main scheme sounding lines are plotted in black ink, crosslines are in red ink, and bottom samples are in green ink.

F. CONTROL

The entire survey was controlled by three-point sextants fixes. Due to questionable photo coverage, several methods were used to establish control.

SIGNALS	METHOD USED TO ESTABLISH CONTROL
501-504, 605-515	Recovered triangulation
139	AAAS triangle computation using a T-2 on triangulation station
111,121,143	ASA (intersection) using a T-2 on triangulation station
102-103,112,276-277	Resection on triangulation station using a T-2
278-279	Resection on triangulation station and photo-picked station using a T-2
161,175	Resection on photo-picked station using a sextant
Remaining signals	Photo-picked and scaled from manuscripts

All photo-picked signals were scaled and transferred from shoreline manuscripts, TP-00082, TP-00083, TP-00084.

G. SHORELINE

Shoreline details were transferred to the boatsheet directly from manuscripts TP-00582, TP-00583, and TP-00584. Field edit of these manuscripts was completed by ship Rainier personnel. The shoreline and field edit additions of RA-10-2-73 are considered accurate. For further details see the Field Edit Report, OPR-465-RA-73.

H. CROSSLINES

Crosslines amounted to 13.1 N.M. or 4.7% of the 279.0 N.M. of main scheme miles run. The crosslines show good agreement with the main scheme lines considering the very rugged nature of the bottom. With one exception, all soundings agree to within one fathom. The only discrepancy is located at Lat. 56° 03.8'N, Long. 132° 34.3'W. Here, a 19 fm. and a 26 fm. sounding are about 5 meters apart. Checking the fathogram, there is a steep drop-off in this area.

I. JUNCTIONS

Junctions were made with all of the contemporary surveys listed in section B of this report, and comparisons show very good junction, with all soundings agreeing to within 0-1 fm. There is only one discrepancy located at Lat. 56° 01.0'N, Long. 132° 34.15'W. Here, a 10 fm. and a 13 fm. sounding lie nearly on top of each other.

Checking the fathogram, a sharp 13 fm. "hole" exists in this area.

J. COMPARISON WITH PRIOR SURVEYS

This area is covered by the prior surveys listed in section B of this report, and all soundings show good comparisons. See VR

~~Eleven~~ Thirteen dashed unnumbered pre-survey review items exist on survey H-9401.

	POSITION	PRIOR DEPTH	SURVEYED DEPTH
1	Lat. 56° 02.9'N, Long. 132° 36.5'W	6.2 fm.	5.4~~9~~ fm.
2	Lat. 56° 03.8'N, Long. 132° 36.2'W	8 fm.	4.8~~10~~ fm.
3	Lat. 56° 02.3'N, Long. 132° 35.5'W	3.7 fm.	2.5~~4~~ fm.
4	Lat. 56° 02.4'N, Long. 132° 34.8'W	5.3 fm.	4.7 ~~5.9~~ fm.
5	Lat. 56° 03.5'N, Long. 132° 34.3'W	4.5 fm.	4.2~~5.4~~ fm.
WD 6	Lat. 56° 02.3'N, Long. 132° 33.1'W	7 fm.	7.4 ~~12~~ fm.
WD 7	Lat. 56° 02.6'N, Long. 132° 33.2'W	6.8 fm.	5 ~~15~~ fm. 50m. S
8	Lat. 56° 02.1'N, Long. 132° 33.4'W	9 fm.	7.3~~9~~ fm.
WD 9	Lat. 56° 02.2'N, Long. 132° 32.6'W	0.5 fm.	0.5 ~~11~~ fm. 20m. NW
10	Lat. 56° 02.8'N, Long. 132° 31.6'W	8 fm. →	8.2 fm. 60m. NNW not adequately surveyed
11	Lat. 56° 01.8'N, Long. 132° 30.1'W	44 fm. →	18fm. 70m. E not adequately surveyed now inside the 30fm. curve
12	Lat. 56° 01' 19"N, Long. 132° 34' 38"W	17 fm.	10fm.
13	Lat. 56° 01' 08"N, Long. 132° 35' 05"W	11 fm.	9.8 fm.

Considering the very irregular bottom character, pre-survey review items 1-5 and 8 show very good agreement with depths obtained in this survey. In reviewing item 6, the PSRI lies about 50 meters to the southwest of a shoal area and could very well lie within this area. Items 7 & 9 were incorrectly transferred from the prior survey to the boatsheet. Their correct position is about 80 meters to the east of their plotted position. Correct positioning of these items show good agreement.

K. COMPARISON WITH CHART

Since the largest scale chart of this area is 1:80,000 (C&GS Chart 8160), an accurate comparison cannot be made. However, the general depiction of the bottom contours appears good.

L. ADEQUACY OF SURVEY

Survey H-9401 (RA-10-2-73) is adequate for charting but incomplete. The incomplete area extends northwest from Pt. Stanhope to Lincoln Rocks.

M. AIDS TO NAVIGATION

There are no floating or non-floating aids existing within the limits of the area surveyed in 1973.

N. STATISTICS

Survey H-9401 (RA-10-2-73) contains 279.0 N.M. of soundings lines, covering an area of approximately 14.6 sq. N.M. A total of 2619 positions and 38 bottom samples were taken. A tabulation of statistics follows:

LAUNCH	MILES OF SOUNDINGS	NO. OF POS.	NO. OF B.S.
RA-6	31.4	166	0
RA-4	120.5	1040	25
RA-3	100.1	1124	0
RA-1	26.9	288	7
SHIP	0	0	7

O. DATA PROCESSING

Launches RA-6 and RA-3 were equipped with a NOS Hydrolog System which when used in conjunction with program AM174, with slope correction, allowed for all sounding data to be recorded in master tape format. Launch RA-4 used a manual logger which was later processed through AM330 which converted master logger to visual master. Sounding volumes were used on RA-1, and the data was later converted into master logger and visual master tapes. Corrector tapes were prepared using standard Hydroplot/Hydrolog format or visual format by scanning the fathogram for all peaks, deeps or sounding changes, and by making necessary control changes.

Separate master and corrector tapes were prepared for each day. Standard formats as specified in the Instruction Manual, Automated Hydrographic Surveys, were used for the TC/TI and velocity corrector tapes. TRA corrector values shown on the Hydroplot/Hydrolog Tapes are to be ignored for processing at PMC. The correct data is listed on the TC.TI Tapes.

P. REFERENCES TO REPORT

1. Corrections to Echo Soundings, OPR-465-RA-73.
2. Field Edit Report, OPR-465-RA-73.

respectfully submitted,

Garth Stroble

Garth Stroble, ENS. NOAA

SEPARATES FOLLOWING THE TEXT

1. Tide note
2. Abstract of Corrections To Echo Soundings
3. Description of Plotter Errors
4. Signal Tape Listing
5. Parameter Tape Listing
6. C&GS Form 733-M, Bottom Sediment Data
7. Project Sketch
8. Abstract of Position Numbers
9. Edat Form 1
10. Approval Sheet

TIDE NOTE

It is recommended that the tide station established on the west shore of Burnett Inlet, at Cannery Pt., at latitude 56° 04.4'N, longitude 132° 28.7'W, on September 13, 1973, be used to control the soundings on this survey. The gage operated on time meridian 105°W. Hourly heights will be furnished to the PMC Processing Division by the Ship. Reduction to MLLW and copies of the marigrams will be furnished by Tides Divisions, Rockville.

Predicted tides for boatsheet control were obtained from the tide tables, 1973, West Coast of North South America, using the Lake Bay, Clarence Strait subordinate station. The tides were machine generated, and applied directly to the data during computer plotting.

TC/TI TAPE LISTING
RA-10-2-73
FATHOMETER: RAYTHEON DE-723
VESSEL: 2121

091430 0 0002 0001 266 ~~000~~2121 000000
090000 0 0002 0001 267 000000 000000
090700 0 0002 0001 270 000000 000000
095500 0 0002 0001 274 000000 000000
093430 0 0002 0001 277 000000 000000
092830 0 0002 0001 278 000000 000000

TC/TI TAPE LISTING
RA-10-3-73
FATHOMETER: RAYTHEON DE-723
VESSEL:2121

105400 0 0002 0001 262 000000 000000
092000 0 0002 0001 263 000000 000000
091100 0 0002 0001 265 000000 000000
094830 0 0002 0001 275 000000 000000
102500 0 0002 0001 282 000000 000000
113730 0 0002 0001 285 000000 000000

TC/TI TAPE LISTING
RA-10-5-73
FATHOMETER: RAYTHEON DE-723
VESSEL: 2121

125030 0 0002 0001 269 000000 000000

TC/TI TAPE LISTING
RA-10-2-73
FATHOMETER: ROSS 1041
VESSEL: 2123

110100 0 0003 0002 260 ~~000~~2123 000000
101750 0 0003 0002 261 000000 000000
090326 0 0003 0002 262 000000 000000
090439 0 0003 0002 263 000000 000000
110618 0 0003 0002 264 000000 000000
085227 0 0003 0002 265 000000 000000
084037 0 0003 0002 267 000000 000000
085916 0 0003 0002 268 000000 000000
133500 0 0003 0002 277 000000 000000
085603 0 0004 0005 297 000000 000000
090318 0 0004 0005 305 000000 000000
085602 0 0004 0005 306 000000 000000
144238 0 0004 0005 310 000000 000000

TC/TI TAPE LISTING
RA-10-3-73
FATHOMETER: ROSS 1041
VESSSEL: 2123

084400 0 0003 0002 277 000000 000000
084934 0 0004 0005 288 000000 000000
102430 0 0004 0005 290 000000 000000
091155 0 0004 0005 291 000000 000000
084659 0 0004 0005 292 000000 000000

TC/TI TAPE LISTING
RA-10-4-73
FATHOMETER: ROSS 1041
VESSEL: 2123

110003 0 0003 0002 269 000000 000000
103640 0 0003 0002 277 000000 000000
091701 0 0004 0005 283 000000 000000
093529 0 0004 0005 284 000000 000000
084000 0 0004 0005 285 000000 000000
134738 0 0004 0005 288 000000 000000
092438 0 0004 0005 299 000000 000000
085741 0 0004 0005 310 000000 000000

TC/TI TAPE LISTING
RA-10-5-73
FATHOMETER: ROSS 1041
VESSEL: 2123

102749 0 0003 0002 270 000000 000000
092500 0 0003 0002 275 000000 000000
091040 0 0003 0002 276 000000 000000
092100 0 0003 0002 278 000000 000000
133720 0 0004 0005 288 000000 000000
114742 0 0004 0005 291 000000 000000
091018 0 0004 0005 298 000000 000000
094711 0 0004 0005 303 000000 000000
090818 0 0004 0005 304 000000 000000
085321 0 0004 0005 312 000000 000000

TC/TI TAPE LISTING
RA-10-2-73
FATHOMETER: ROSS 1042
VESSEL: 2124

105100 0 0003 0003 260 ~~000~~2124 000000
084030 0 0003 0003 261 000000 000000
083400 0 0003 0003 262 000000 000000
084830 0 0003 0003 263 000000 000000
085230 0 0003 0003 264 000000 000000
093530 0 0003 0003 265 000000 000000
094330 0 0003 0003 266 000000 000000
093330 0 0003 0003 267 000000 000000
092230 0 0003 0006 292 000000 000000
091830 0 0003 0006 297 000000 000000
091300 0 0003 0006 298 000000 000000
092830 0 0003 0006 304 000000 000000
085330 0 0003 0006 305 000000 000000
090100 0 0003 0006 309 000000 000000

TC/TI TAPE LISTING
RA-10-3-73
FATHOMETER: ROSS 1042
VESSIL: 2124

151230 0 0003 0006 309 000000 000000

TC/TI TAPE LISTING
RA-10-4-73
FATHOMETER: ROSS 1042
VESSEL: 2124

092100 0 0003 0006 299 000000 000000
084830 0 0003 0006 306 000000 000000

TC/TI TAPE LISTING
RA-10-5-73
FATHOMETER: ROSS 1042
VESSEL: 2124

091800 0 0003 0003 268 000000 000000
110300 0 0003 0003 269 000000 000000
131800 0 0003 0006 288 000000 000000
085100 0 0003 0006 289 000000 000000
101630 0 0003 0006 290 000000 000000
085840 0 0003 0006 310 000000 000000
085000 0 0003 0006 311 000000 000000
081900 0 0003 0006 312 000000 000000

TC/TI TAPE LISTING
RA-10-2-73
FATHOMETER: ROSS 1040
VESSEL: 2126

2126
103412 0 0004 0004 270 ~~000~~000 000000
101800 0 0004 0004 274 000000 000000

TC/TI TAPE LISTING
RA-A10-3-73
FATHOMETER: ROSS 1040
VESSEL: 2126

105501 0 0004 0004 276 000000 000000
090003 0 0004 0004 278 000000 000000
093725 0 0004 0007 282 000000 000000
095617 0 0004 0007 283 000000 000000

TC/TI TAPE LISTING
RA-10-4-73
FATHOMETER: ROSS 1040
VESSEL: 2126

084634 0 0004 0007 297 000000 000000

TC/TI TAPE LISTING
RA-10-5-73
FATHOMETER: ROSS 1040
VESSEL: 2126

095046 0 0004 0007 284 000000 000000
092758 0 0004 0007 289 000000 000000
090805 0 0004 0007 298 000000 000000
085638 0 0004 0007 303 000000 000000
083909 0 0004 0007 304 000000 000000
090645 0 0004 0007 305 000000 000000
085015 0 0004 0007 306 000000 000000
093440 0 0004 0007 309 000000 000000
091401 0 0004 0007 310 000000 000000
103028 0 0004 0007 311 000000 000000

VELOCITY CORRECTION TAPE LISTING

RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL: 2121
TIME PERIOD: 17 SEPTEMBER- 9 OCTOBER 1973
TABLE 0001

Vel. Table # 1 to 4. are the same.

9401

000035 0 0000 0001 000 ~~000000~~ 000000
000083 0 0001
000161 0 0002
000253 0 0003
000372 0 0004
000514 0 0005
000683 0 0006
000859 0 0007 → 001100 0 0008
001378 0 0009

Velocity Tables 1-4 are the same

Velocity Tables 5-7 are the same

VELOCITY CORRECTION TAPE LISTING
RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL: 2123
TIME PERIOD: 17 SEPTEMBER- 9 OCTOBER 1973
TABLE 0002

```
000035 0 0000 0002 000 000000 000000
000083 0 0001
000161 0 0002
000253 0 0003
000372 0 0004
000514 0 0005
000683 0 0006
000859 0 0007
001378 0 0009
```

VELOCITY CORRECTION TAPE LISTING
RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL:2124
TIME PERIOD: 17 SEPTEMBER- 9 OCTOBER 1973
TABLE 0003

000035 0 0000 0003 000 000000 000000
000083 0 0001
000161 0 0002
000253 0 0003
000372 0 0004
000514 0 0005
000683 0 0006
000859 0 0007
001378 0 0009

VELOCITY CORRECTION TAPE LISTING
RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL: 2126
TIME PERIOD: 17 SEPTEMBER- 9 OCTOBER 1973
TABLE 0004

000035 0 0000 0004 000 000000 000000
000083 0 0001
000161 0 0002
000253 0 0003
000372 0 0004
000514 0 0005
000683 0 0006
000859 0 0007
001378 0 0009

VELOCITY CORRECTION TAPE LISTING

RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL: 2123
TIME PERIOD: 10 OCTOBER- 7 NOVEMBER 1973
TABLE 0005

9401
000075 0 0000 0005 000 ~~000000~~ 000000
000227 0 0001
000367 0 0002
000508 0 0003
000653 0 0004
000806 0 0005
000970 0 0006
001600 0 0007

Vd Labbs for are the same

VELOCITY CORRECTION TAPE LISTUNG
RA-10-2-73
RA-10-3-72
RA-10-4-73
RA-10-5-73
VESSEL: 2124
TIME PERIOD: 10 OCTOBER- 7 NOVEMBER 1973
TABLE 0006

000075 0 0000 0006 000 000000 000000
000227 0 0001
000367 0 0002
000508 0 0003
000653 0 0004
000806 0 0005
000970 0 0006

VELOCITY CORRECTION TAPE LISTING

RA-10-2-73
RA-10-3-73
RA-10-4-73
RA-10-5-73
VESSEL: 2126
TIME PERIOD: 10 OCTOBER- 7 NOVEMBER 1973
TABLE 0007

000075 0 0000 0007 000 000000 000000
000227 0 0001
000367 0 0002
000508 0 0003
000653 0 0004
000806 0 0005
000970 0 0006

DESCRIPTION OF PLOTTER ERRORS

Two Houston Instrument Cal Comp plotters, model DP-3 were used as a part of the Hydroplot/Hydrolot system to plot the following boatsheets supplied to the Pacific Marine Center for verification: RA-10-2A-73, RA-10-2B-73, RA-10-3-73, RA-10-4-73, RA-10-5A-73, RA-10-5B-73. Certain plotting errors were found during the field work which may affect the accuracy of these sheets.

Apparent paper shrinkage and expansion was discovered and monitored throughout the survey operations. The distance between two latitudes was measured using a beam compass and a meter bar in mid-September, on November 7, 1973, and on November 16, 1973, with measurements of 37.115 cm., 37.005 cm., and 37.105 cm., respectively. This shrinkage would cause soundings plotted during the latter part of the project to be shifted with respect to the latitude/longitude grid lines plotted at the start of the project. Launch data was processed and plotted daily. Signals used for visual control were plotted at the completion of the project, while the shoreline was transferred from the manuscripts shortly after the grid lines were drawn. The shrinkage was noticed only in the pen axis direction (between the perforated edges). Since the bottom sprocket wheels of the plotter are fixed and the top sprocket wheels are moveable with respect to paper width, the paper shrinkage is progressive in the +y direction (pen axis).

A spare plotter wasinstalled in late September after the original plotter was suspected of error. After one day of use the sprocket wheels were twisted out of alignment, and were realigned as best as possible. However, any small change in alignment or any difference in alignment between the spare and the original plotter may have caused a slight shift in the soundings.

After cleaning and maintenance, the original plotter was reinstalled for the remainder of the project. The spare plotter was used for three days.

ASCII SIGNAL TAPE FOR RA-10-2-73

100	56	00	4436	132	36	1350
101	56	00	5412	132	35	5089
102	56	00	5910	132	35	4342
103	56	01	1163	132	35	4912
104	56	01	4915	132	36	0341
105	56	02	0217	132	36	0162
106	56	02	0611	132	36	1068
107	56	02	2386	132	36	1051
108	56	02	2709	132	36	4937
109	56	02	4009	132	36	5070
110	56	03	0556	132	36	2403
111	56	02	4813	132	35	0731
112	56	03	2407	132	36	2212
113	56	03	3734	132	36	2958
114	56	03	4986	132	36	4737
115	56	04	0572	132	36	2451
116	56	04	1591	132	36	2462
~~117~~	~~56~~	~~04~~	~~2477~~	~~132~~	~~36~~	~~3410~~
118	56	04	3156	132	36	2479
119	56	04	2289	132	36	0393
120	56	04	1232	132	35	4468
121	56	03	5708	132	35	1892
122	56	03	3941	132	34	5558
123	56	03	4229	132	34	4587
124	56	04	2024	132	35	1844
125	56	04	4594	132	35	2820
~~126~~	~~56~~	~~04~~	~~5096~~	~~132~~	~~35~~	~~1023~~
~~127~~	~~56~~	~~04~~	~~3569~~	~~132~~	~~34~~	~~5352~~
~~128~~	~~56~~	~~04~~	~~2580~~	~~132~~	~~34~~	~~3404~~
129	56	04	0188	132	34	0549
130	56	03	5461	132	33	4593
131	56	03	3786	132	33	1375
132	56	03	0773	132	33	4807
133	56	03	1500	132	33	1467
134	56	03	1377	132	32	3865
135	56	03	3052	132	32	0716
136	56	03	4481	132	32	1121
137	56	03	4562	132	33	3917
138	56	04	0685	132	32	1289
139	56	04	1644	132	32	1215
~~140~~	~~56~~	~~04~~	~~3851~~	~~132~~	~~32~~	~~2595~~
~~141~~	~~56~~	~~04~~	~~2768~~	~~132~~	~~31~~	~~0387~~
142	56	04	1953	132	30	4462

ASCII SIGNAL TAPE FOR RA-10-2-73 (CONT.)

143	56	04	0855	132	30	2600
144	56	04	5791	132	35	2069
145	56	04	3670	132	36	3161
146	56	04	4458	132	36	4040
147	56	04	5215	132	36	3849
148	56	02	4611	132	36	5694
149	56	02	4973	132	37	0156
150	56	02	4294	132	37	0987
151	56	02	3806	132	37	0295
152	56	02	3599	132	37	0918
153	56	02	3068	132	37	0941
154	56	02	2580	132	37	1669
155	56	02	2438	132	36	5197
156	56	02	2011	132	36	4366
157	56	02	1707	132	37	0381
158	56	02	0957	132	37	0959
159	56	01	5183	132	36	5472
160	56	01	2855	132	37	1108
161	56	02	0470	132	37	2929
162	56	02	0200	132	37	5613
163	56	04	0052	132	33	3624
164	56	03	5296	132	33	2317
165	56	03	5926	132	33	1739
166	56	04	1665	132	33	1907
167	56	04	1219	132	33	1376
168	56	04	1038	132	32	5259
169	56	04	1206	132	32	3653
170	56	04	1882	132	32	3635
171	56	04	1891	132	32	5861
172	56	04	2079	132	33	0127
173	56	04	3317	132	33	0064
174	56	04	3647	132	32	5936
175	56	04	4146	132	32	4405
176	56	04	4656	132	32	4595
177	56	04	5189	132	33	1595
200	56	10	2315	132	28	0429
201	56	10	1012	132	28	1767
202	56	09	5894	132	28	1877
203	56	09	4724	132	28	2595
204	56	09	4433	132	27	5468
205	56	09	2932	132	28	0915
206	56	08	3052	132	28	3016

ASCII SIGNAL TAPE FOR RA-10-2-73 (CONT.)

~~207~~	~~56~~	~~08~~	~~2179~~	~~132~~	~~28~~	~~1447~~
210	56	06	4397	132	28	1961
211	56	06	3592	132	27	5258
214	56	05	3398	132	28	1099
215	56	05	0685	132	28	1064
217	56	03	3110	132	29	4402
218	56	03	4801	132	29	1774
219	56	03	5461	132	28	4893
220	56	04	0866	132	28	4560
221	56	04	2774	132	28	2000
222	56	04	4759	132	28	0786
223	56	04	5312	132	27	3711
224	56	04	4187	132	27	3780
225	56	04	2105	132	27	4387
~~226~~	~~56~~	~~04~~	~~0655~~	~~132~~	~~27~~	~~3115~~
227	56	03	5351	132	27	4414
~~228~~	~~56~~	~~03~~	~~2363~~	~~132~~	~~27~~	~~5929~~
229	56	03	0886	132	28	2195
230	56	02	3776	132	28	3742
~~231~~	~~56~~	~~04~~	~~5926~~	~~132~~	~~36~~	~~5046~~
232	56	01	1542	132	35	4173
233	56	02	0100	132	36	2495
234	56	01	5125	132	36	3290
235	56	01	4966	132	36	4133
~~236~~	~~56~~	~~01~~	~~3091~~	~~132~~	~~36~~	~~4520~~
251	56	03	4963	132	27	4113
252	56	03	4303	132	27	1300
253	56	04	0440	132	27	2347
254	56	04	1455	132	27	1110
~~255~~	~~56~~	~~04~~	~~1655~~	~~132~~	~~27~~	~~2699~~
270	56	02	0110	132	36	3228
271	56	02	1135	132	36	3153
272	56	03	1077	132	36	3409
273	56	03	1801	132	36	5176
~~274~~	~~56~~	~~03~~	~~2014~~	~~132~~	~~36~~	~~5922~~
275	56	03	2671	132	36	4986
276	56	01	2497	132	35	3379
277	56	01	3249	132	35	3652
~~278~~	~~56~~	~~02~~	~~1371~~	~~132~~	~~36~~	~~3771~~
~~279~~	~~56~~	~~03~~	~~1237~~	~~132~~	~~36~~	~~5110~~
501	56	00	4229	132	36	2167

Stanhope 1915-2cf

ASCII SIGNAL TAPE FØR RA-10-2-73 (CONT.)

502	56 01 5639	132 35 3191	COB 1916
503	56 03 1594	132 35 3453	FIM 1916
504	56 04 1282	132 34 2119	COON 1916
505	56 03 4540	132 33 3870	GUT 1916
506	56 03 1646	132 32 0864	POINT 1916
507	56 04 2281	132 31 5269	BIG 1916
508	56 03 0987	132 30 0059	MAY 1913-16
509	56 01 3446	132 29 0325	HARD 1916
510	56 02 0904	132 28 5989	ISLE 1916
~~511~~	~~55 59 5338~~	~~132 26 1066~~	
~~512~~	~~55 58 5877~~	~~132 28 1066~~	
513	56 01 5904	132 38 2409	BRIGHT 05 1905
~~514~~	~~56 00 2030~~	~~132 27 4033~~	
~~515~~	~~56 00 5046~~	~~132 26 4166~~	

CONTROL PORT: C09401 DATE OF LISTING: 09-17-79 GEOGRAPHIC POSITIONS IN DEGREES, MINUTES, AND SECONDS

RECORD NUMBER	YR	STA NUM	CARTO CODE	LABEL ANGLE	VECTOR DISP.	PLOT CODE	..... NAME	STATION HEIGHT	FREQUENCY (KHZ)	LATITUDE -(S)	LONGITUDE -(E)
1	73	100	243	115.00	3.40	0		0.0	0.00	56 0 44.360	132 36 13.500
2	73	101	243	144.00	3.60	0		0.0	0.00	56 0 54.120	132 35 50.890
3	73	102	243	163.00	2.10	0		0.0	0.00	56 0 59.100	132 35 43.420
4	73	103	243	182.00	4.80	0		0.0	0.00	56 1 11.630	132 35 49.120
5	73	104	243	230.80	1.35	0		0.0	0.00	56 1 49.150	132 36 3.410
6	73	105	243	132.50	5.30	0		0.0	0.00	56 2 2.170	132 36 1.620
7	73	106	243	171.00	1.60	0		0.0	0.00	56 2 6.110	132 36 10.680
8	73	107	243	216.50	1.70	0		0.0	0.00	56 2 23.860	132 36 10.510
9	73	108	243	179.00	8.30	0		0.0	0.00	56 2 27.090	132 36 49.370
10	73	109	243	188.00	1.15	0		0.0	0.00	56 2 40.090	132 36 50.700
11	73	110	243	181.00	9.10	0		0.0	0.00	56 3 5.560	132 36 24.030
12	73	111	243	215.00	16.20	0		0.0	0.00	56 2 48.130	132 35 7.310
13	73	112	243	216.20	1.30	0		0.0	0.00	56 3 24.070	132 36 22.120
14	73	113	243	182.00	6.40	0		0.0	0.00	56 3 37.340	132 36 29.580
15	73	114	243	186.00	1.20	0		0.0	0.00	56 3 49.860	132 36 47.370
16	73	115	243	185.00	1.90	0		0.0	0.00	56 4 5.720	132 36 24.510
17	73	116	243	184.00	1.90	0		0.0	0.00	56 4 15.910	132 36 24.620
18	73	118	243	182.00	4.60	0		0.0	0.00	56 4 31.560	132 36 24.790
19	73	119	243	90.00	.60	0		0.0	0.00	56 4 22.890	132 36 3.930
20	73	120	243	181.00	9.90	0		0.0	0.00	56 4 12.320	132 35 44.680
21	73	121	243	63.50	14.40	0		0.0	0.00	56 3 57.080	132 35 18.920
22	73	122	243	63.00	14.35	0		0.0	0.00	56 3 39.410	132 34 55.560
23	73	123	243	42.50	11.00	0		0.0	0.00	56 3 42.290	132 34 45.870
24	73	124	243	232.00	1.40	0		0.0	0.00	56 4 20.240	132 35 18.440
25	73	125	243	307.00	.60	0		0.0	0.00	56 4 45.940	132 35 28.200
26	73	129	243	345.00	.60	0		0.0	0.00	56 4 1.880	132 34 5.490
27	73	130	243	354.50	1.50	0		0.0	0.00	56 3 54.610	132 33 45.930
28	73	131	243	39.00	1.00	0		0.0	0.00	56 3 37.860	132 33 13.750
29	73	132	243	39.50	13.00	0		0.0	0.00	56 3 7.730	132 33 48.070
30	73	133	243	26.00	7.50	0		0.0	0.00	56 3 15.000	132 33 14.670
31	73	134	243	14.00	2.50	0		0.0	0.00	56 3 13.770	132 32 38.650
32	73	135	243	174.00	5.20	0		0.0	0.00	56 3 30.520	132 32 7.160
33	73	136	243	185.00	2.00	0		0.0	0.00	56 3 44.810	132 32 11.210
34	73	137	243	65.50	.90	0		0.0	0.00	56 3 45.620	132 33 39.170
35	73	138	243	185.00	2.00	0		0.0	0.00	56 4 6.850	132 32 12.890
36	73	139	243	185.00	2.00	0		0.0	0.00	56 4 16.440	132 32 12.150
37	73	142	243	53.50	.90	0		0.0	0.00	56 4 19.530	132 30 44.620
38	73	143	243	345.00	.60	0		0.0	0.00	56 4 8.550	132 30 26.000
39	73	149	243	188.00	1.40	0		0.0	0.00	56 2 49.730	132 37 1.560
40	73	150	243	172.00	1.30	0		0.0	0.00	56 2 42.940	132 37 9.870
41	73	152	243	181.50	5.30	0		0.0	0.00	56 2 35.990	132 37 9.180
42	73	153	243	305.00	.80	0		0.0	0.00	56 2 30.680	132 37 9.410
43	73	154	243	185.00	1.80	0		0.0	0.00	56 2 25.800	132 37 16.690
44	73	155	243	181.00	8.10	0		0.0	0.00	56 2 24.380	132 36 51.970
45	73	156	243	181.00	9.90	0		0.0	0.00	56 2 20.110	132 36 43.660
46	73	157	243	181.00	6.80	0		0.0	0.00	56 2 17.070	132 37 3.810
47	73	158	243	182.00	5.50	0		0.0	0.00	56 2 9.570	132 37 9.590
48	73	159	243	346.00	.60	0		0.0	0.00	56 1 51.830	132 36 54.720
49	73	160	243	49.00	3.80	0		0.0	0.00	56 1 28.550	132 37 11.080
50	73	161	252	160.50	1.00	0		0.0	0.00	56 2 4.700	132 37 29.290

51	73	162	243	125.00	.85	0		0.0	0.00	56	2	2.000	132	37	56.130	
52	73	232	243	134.00	1.40	0		0.0	0.00	56	1	55.420	132	35	41.730	
53	73	233	243	65.50	2.90	0		0.0	0.00	56	2	1.000	132	36	24.950	
54	73	234	243	270.00	2.90	0		0.0	0.00	56	1	51.250	132	36	32.900	
55	73	235	243	188.00	1.20	0		0.0	0.00	56	1	49.660	132	36	41.330	
56	73	270	243	57.20	4.20	0		0.0	0.00	56	2	1.100	132	36	32.280	
57	73	271	243	340.20	.50	0		0.0	0.00	56	2	11.350	132	36	31.530	
58	73	272	243	111.00	.80	0		0.0	0.00	56	3	10.770	132	36	34.090	
59	73	273	243	181.50	4.40	0		0.0	0.00	56	3	18.010	132	36	51.760	
60	73	275	243	345.00	.60	0		0.0	0.00	56	3	26.710	132	36	49.860	
61	73	276	243	187.00	1.40	0		0.0	0.00	56	1	24.970	132	35	33.790	
62	73	277	243	186.40	1.70	0		0.0	0.00	56	1	32.490	132	35	36.520	
63	73	501	139	181.70	5.90	0	STANHOPE 1915-24	0.0	0.00	56	0	42.292	132	36	21.671	
64	73	502	139	213.50	9.70	0	COB 1916	0.0	0.00	56	1	56.390	132	35	31.906	
65	73	503	139	164.00	14.10	0	FIM 1916	0.0	0.00	56	3	15.936	132	35	34.531	
66	73	504	139	345.00	.60	0	COON 1916	0.0	0.00	56	4	12.820	132	34	21.190	
67	73	505	139	358.00	5.30	0	GUT 1916	0.0	0.00	56	3	45.400	132	33	38.700	
68	73	506	139	154.00	8.40	0	POINT 1916	0.0	0.00	56	3	16.457	132	32	8.635	
69	73	507	139	350.50	.90	0	BIG 1916	0.0	0.00	56	4	22.810	132	31	52.690	
70	73	508	139	76.00	2.50	0	MAY 1913-16	0.0	0.00	56	3	9.866	132	30	.591	
71	73	509	139	349.00	.80	0	HARD	0.0	0.00	56	1	34.465	132	29	3.250	
72	73	509	139	341.58	2.00	0	1916	0.0	0.00	56	1	34.465	132	29	3.250	
73	73	510	139	359.00	.80	0	ISLE 1916	0.0	0.00	56	2	9.038	132	28	59.888	
74	73	227	243	307.00	.60	0		0.0	0.00	56	3	53.510	132	27	44.140	
75	73	251	243	307.00	.60	0		0.0	0.00	56	3	49.630	132	27	41.130	
76	73	513	139	150.60	6.70	0	BRIGHT 05 1905	0.0	0.00	56	1	59.040	132	38	24.090	

PARAMETER TAPE FOR RA-10-2A-73

FEST=42000
CLAT=6100000
CMER=132/40/0
GRID=30
PLSCL=10000
PLAT=56/01/30
PLON=132/43/00
CENTLAT=55/55/55.14
CENTLON=132/24/08.37
DOUBLAT=55/56/41.61
DOUBLON=132/27/19.19
Q=1498.34995
VESNO=2120
YR=73

PARAMETER TAPE FOR RA-10-2B-73

FEST=42000
CLAT=6100000
CMER=132/40/0
GRID=30
PLSCL=10000
PLAT=55/59/30
PLON=132/43/00
CENTLAT=55/55/55.14
CENTLON=132/24/08.37
DOUBLAT=55/56/41.61
DOUBLON=132/27/19.19
Q=1498.34995
VESNO=2120
YR=73

FORM # 1

PARAMETERS FOR DIGITAL COMPUTING

POLYCONIC PROJECTION

(1) Project No. OPR-465-RA-73 (4) Requested by _____

(2) H No. H-9401 (5) Ship or Office RAINIER

(3) Field No. RA-10-28-73 (6) Date Required _____

(7) Visual [X] Pt.(0) or Fathoms (1) [1] (8) Electronic [ ] (fill out form #3)

(10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). (Origin) _____ Meters

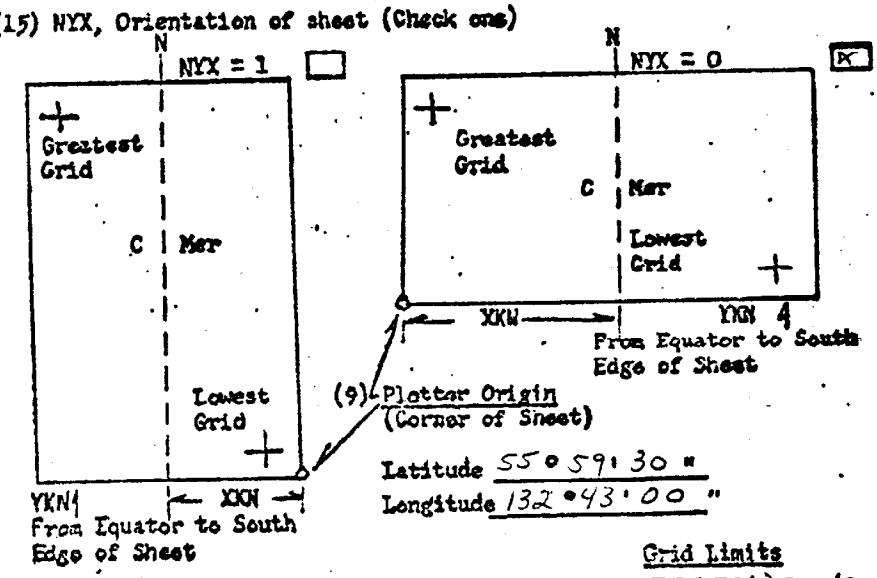
(11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) _____ Meters

(12) Central Meridian 132°40'00"

(13) Survey Scale 1:10,000

(14) Size of Sheet (Check one) 36x60 [ ] 42x60 [ ] 22x60. [X]

(15) NYX, Orientation of sheet (Check one)



(9) Plotter Origin (Corner of Sheet)

Latitude 55°59'30"

Longitude 132°43'00"

Grid Limits

(16) Greatest Latitude 55°59'30" (Projection Line Interval Page 4 Hydro Manual)

(17) Lowest Latitude 56°02'30"

(18) Difference ' "

(19) ' "

(20) YSN

(21) Greatest Longitude 132°43.00"

(22) Lowest Longitude 132°28'21"

(23) Difference ' "

(24) ' "

(25) XSN

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

(1) Project No. OPR-465-RA-73 (4) Requested by _____

(2) H No. H-9401 (5) Ship or Office RAINIER

(3) Field No. RA-10-2A-73 (6) Date Required _____

(7) Visual [x] Pt.(0) or Fathoms (1) [/] (8) Electronic [ ] (fill out form #3)

(10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). (Origin) _____ Meters

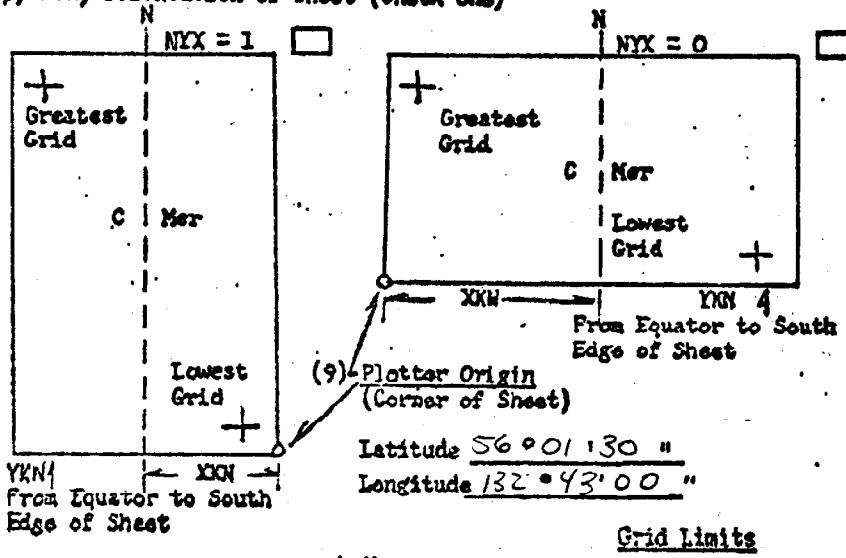
(11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) _____ Meters

(12) Central Meridian 132°40'00"

(13) Survey Scale 1:10,000

(14) Size of Sheet (Check one) 36x60 [ ] 42x60 [ ] 22x60 [x]

(15) NYX, Orientation of sheet (Check one)



Grid Limits

(16) Greatest Latitude 56°04'00" (Projection Line Interval Page 4 Hydro Manual)

(17) Lowest Latitude 56°01'30"

(18) Difference ' "

(19) "

(20) YSN

(21) Greatest Longitude 132°43'00"

(22) Lowest Longitude 132°37'21" (24) ' "

(23) Difference ' "

(25) XSN

ABSTRACT OF POSITION NUMBERS

VESSEL	JD	POSITION NOS,	REMARKS
RA-4	260	4000-4088	*RP(4005-06,4011-15,4034-35)
RA-3	260	3000-3075	RP(3042-47,3062-64)
RA-4	261	4089-4156	None
RA-3	261	3076-3144	RP(3099,3109,3118-21,3140)
RA-4	262	4157-4284	RP(4228)
RA-3	262	3145-3285	RP(3195,3248,3252)
RA-4	263	4285-4390	None
RA-3	263	3285-3452	RP(3395-97,3303,3309-11,3418-19)
RA-4	264	4391-4478	None
RA-3	264	3453-3527	RP(3461-63,3482,3518)
RA-4	265	4478-4571	RP(4502-03,4530-31,4539-43,4549-54)
RA-3	265	3528-3598	RP(3554-55,3562-64,3570-72,3586,3591)
RA-4	266	4583-4691	RP(4611,4615,4632,4638-39,4667-72)
RA-1	266	1216-1299	RP(1255,1290-91)
RA-4	267	4692-4731	None
RA-3	267	3599-3724	RP(3686-87)
RA-1	267	1300-1308	None
RA-3	268	3725-3858	RP(3811-13,3854-58)
RA-6	270	6000-6088	RP(6035-37)
RA-1	270	1309-1376	RP(1354-58)
RA-6	274	6089-6168	None
RA-1	274	1377-1406	RP(1392-95)
			**BS(1400-1406)
RA-3	277	3859-3885	None
RA-1	277	1407-1477	None
RA-1	278	1478-1522	None
RA-4	292	4738-4794	RP(4740,4758)
RA-4	297	4795-4895	None
RA-3	297	3886-3976	None
RA-4	298	4896-4932	None
RA-4	304	4933-4995	None
RA-3	305	3997-3999	None
		8000-8097	
RA-4	305	4996-5077	RP(5020,5023)
			BS(5060-77)
RA-3	306	8098-8190	None
SHIP	306	0000-0006	None
RA-4	309	5078-5119	RP(5091-92)
			BS(5111-16)
RA-3	310	8191-8197	None

FORM C&GS-733M (6-66)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

CHECKED BY Sheet 1 of 2 DATE CHECKED

VESSEL: RAINIER, NOAA SHIP | PROJ. NO.: OPR-RA-UA5-73 | YEAR: 1973 | RT-10-2R-73

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
5060	JUNE 73	56-03.9	132-36.7	5.5					Brk Sh, fine gn S		
5061		56-02.9	132-36.6	12.7					fine gn S, Brk Sh		
5062		56-02.5	132-36.6	11.3					fine gn S, P. Brk Sh		
5063		56-01.9	132-36.1	7.1					fine gn S, Brk Sh		
5064		56-01.9	132-35.2	5.6					Hd Bttm, Wd		
5065		56-02.3	132-35.7	12.2					fine gn S, Brk Sh		
5066		56-02.6	132-36.0	6.2					P		
5067		56-03.2	132-36.2	6.5					Hd Bttm, Brk Sh		
5068		56-03.1	132-35.7	6.0					Hd Bttm, P		
5069		56-02.7	132-35.3	5.0					P. Sh coarse S		
5070		56-02.3	132-34.6	10.6					Brk Sh. P fine gn S		
5071		56-02.4	132-34.4	6.9					Hd Bttm, Sea life		
5072		56-02.4	132-33.8	6.2					fine gn S, Brk Sh		
5073		56-02.8	132-34.4	13.3					fine gn S, Brk Sh		
5074		56-03.2	132-34.9	15.5					Brk Sh		
5075		56-03.7	132-35.8	12.8					fine gn S, Bsk Sh		
5076		56-03.7	132-36.6	5.8					fine gn S		

...se more than ...line per sample if necessary.

USCOMM 37019-P66

FORM C&GS-733M
(6-66)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

P.J

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA SHIP RAINIER	OPR-RA-115-73	1973	RA-10-2A-73	Sheet 2 of 2	

SERIAL NO.	DATE	SAMPLE POSITION		DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
		LATITUDE	LONGITUDE								
5077	8 NOV 73	56-04.0	132-36.4	15,1					fine sn S		

Use more than one line per sample if necessary.

USCOMM-DC 37019-P68

FORM C&GS-733M
(6)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
RAINIER	465	73	RA-10-2-73		

MATERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
000	2 NOV 73	56/02/05.12	132/30/57.16	93					brk Sh, gn M	RA-10-2A-73	
001	2 NOV 73	56/02/04.09	132/31/44.06	81					gn M, P		
002	2 NOV 73	56/01/57.95	132/33/10.63	33					St. gn M, brk Sh		
003	2 NOV 73	56/02/29.96	132/32/36.71	23					(SH) P, cra S		
004	2 NOV 73	56/02/41.05	132/31/18.32	26					gn M, Sh, S, (Gl) G		
005	2 NOV 73	56/02/32.65	132/30/26.83	29.2					gn M		
006	2 NOV 73	56/03/00.70	132/30/45.76	57					fine S, bkn Sh, and St		

more than one line per sample if necessary.

USCOMM-DC 37019-P68

FORM C&GS-733M
(6-66)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
2124	OPR-465	73	RA-10-2-73		11/5/73

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS INIT
5111	11/5/73	56° 02.0 N	132° 37.2 W	22.2					brk Sh Wd	TIME (120W): 1296	
5112	11/5/73	56° 03.0 N	132° 33.5 W	12.1					P fne gn S brk Sh	1314	
5113	11/5/73	56° 03.5 N	132° 33.1 W	14.5					fne gn S	1324	
5114	11/5/73	56° 03.7 N	132° 33.9 W	18.8					fne gn S brk Sh	1335	
5115	11/5/73	56° 03.7 N	132° 34.4 W	15.3					fne gn S brk Sh P	1341	
5116	11/5/73	56° 04.1 N	132° 34.6 W	23.8					gn M P	1349	

Use more than one line per sample if necessary.

USCOMM-DC 37019-P66

Ship

FORM C&GS-733M (6-66)

U.S. DEPARTMENT OF COMMERCE
ESS
COAST AND GEODETIC SURVE

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
2121	OPR-RA-465-73	1973	RA-10-2A-73		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)
1400	10/1	56/03/12.4	132/30/7.6	15.5					fne gn S, brk Sh, P	
1401	"	56/03/59.5	132/32/3.6	19.7					fne gn S, brk Sh	
1402	"	56/03/43.5	132/31/55.6	11.5					brk Sh, fne gn S	
1403	"	56/03/26.5	132/31/52	7.8					hard bottom - No Sample	
1404	"	56/03/2.3	132/31/54.5	6.9					"	
1405	"	56/02/59.6	132/32/36.6	9.5					"	
1406	"	56/03/34	132/33/21.5	9.0					brk Sh	

Use more than one line per sample if necessary.

USCG ...4-DC 3701

APPROVAL SHEET

H-9401 (RA-10-2-73)

OPR-465-RA-73

Clarence Strait, Alaska

In producing this sheet, standard procedures were observed in accordance with the Hydrographic Manual, PMC OPORDER, and the Instruction Manual for Automated Hydrographic Surveys. The data was examined daily during the execution of the survey.

The boatsheets and the accompanying records have been examined by me and are considered complete and adequate for the area surveyed and are approved.

K. William Jeffers
CDR., NOAA

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9401

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	KT-Sheet	
BURNETT INLET	8160								00584	1
CLARENCE STRAIT	8160								00582 00583	2
COONEY COVE	8160								00583	3
FAWN ISLAND	8160								00583 00584	4
MOSMAN ISLAND									00583	5
MOSMAN PT	8160								00583	6
PT STANHOPE	8160								00583	7
ROCKY BAY	8160								00583	8
STANHOPE ISLAND	8160								00583	9
THREE WAY PASSAGE	8160								00583	10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-9401

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	2&2
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS	3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	2 - with	printouts				
VOLUMES	4					
BOXES			1-Smooth & tides			

T-SHEET PRINTS (List) TP-00582-4

SPECIAL REPORTS (List) 1-tide plot, 1-contour plot

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS: PRE-VERIFICATION	AMOUNTS: VERIFICATION	AMOUNTS: TOTALS
POSITIONS ON SHEET			2652
POSITIONS CHECKED		2652	
POSITIONS REVISED		3	
SOUNDINGS REVISED		499	
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	11		
VERIFICATION OF CONTROL		47	
VERIFICATION OF POSITIONS		108	
VERIFICATION OF SOUNDINGS		439	
COMPILATION OF SMOOTH SHEET		91	
APPLICATION OF TOPOGRAPHY		73	
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS		16	
COMPARISON WITH PRIOR SURVEYS & CHARTS		79	
VERIFIER'S REPORT		43	
OTHER			
TOTALS	11	896	

Pre-Verification by A. E. Eichelberger and J.S. Green	*Beginning Date* 2/6/74	*Ending Date* 12/14/76
Verification by V.F. Flor, N. Lestenkof, L.T. Deodato	*Beginning Date* 4/15/74	*Ending Date* 11/30/79
Verification Check by J.S. Green and S. Otsubo	*Time (Hours)* 76	*Date* 12/28/79
Marine Center Inspection by	*Time (Hours)*	*Date*
Quality Control Inspection by	*Time (Hours)*	*Date*
Requirements Evaluation by	*Time (Hours)*	*Date*

PACIFIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO: H-9401 FIELD NO: RA-10-2-73

Alaska, Clarence Strait, Rocky Bay

SURVEYED: 17 September - 6 November 1973

SCALE: 1:10,000 PROJECT NO: OPR-465

SOUNDINGS: Ross Fineline and Raytheon DE-723 CONTROL: Visual

Chief of Party.....CDR K.W. Jeffers
Surveyed by.....LT R. Schiro, LTJG R. Hendershot, LTJG S. Thorsen ENS P. Gadd, ENS E. Seymour

Automated plot by.....Xynetics Plotter (PMC)
Verified by.....V.F. Flor, N. Lestenkof and L.T. Deodato
30 November 1979

1. INTRODUCTION

a. This is a basic hydrographic survey of Rocky Bay, Alaska, covering the area defined by the shoreline on the west, northern limits by Latitude 56°04.0'N east to Longitude 132°31.5'W south southeast to Latitude 56°03.5'N, eastern limit by Longitude 132°29.5'W, southern limits by Latitude 56°01.8'N west to Longitude 132°33.8'W south to Latitude 56°00.9'N west to the shoreline then north to Latitude 56°01.4'N west to Longitude 132°37.7'W and then northwest to the intersection with the shoreline. As this survey was incomplete in the western portion of the scheduled area, processing was delayed for higher priority surveys and the possible subsequent completion. It was subsequently assigned to HDEG Category II, process on a time available basis, by the Hydrographic Data Evaluation Group.

b. The following were unusual problems encountered during verification:

(1) For every TDC cast make in the area, a velocity table was made with the same velocity corrections for every vessel used with insignificant differences in draft. The final velocity table used was narrowed to two (2).

(2) The plotted soundings on the smooth field sheet on JD-297, vessel 2123, differed with the plotted soundings on the smooth sheet. It was found that the predicted tide used was on different time meridian to that of hydrography.

c. No non-standard procedure was used.

d. The following were revised during verification:

(1) Field projection parameters have been revised to meet PMC software requirementsents.

(2) The signal list from the field was revised to include only signals used to control hydrography.

(3) Predicted tide reductions were based on Ketchikan tides, corrected to Lake Bay. Approved tides from Burnett Inlet tide gage were utilized for soundings in the smooth sheet.

2. CONTROL AND SHORELINE

a. Horizontal control used on this survey is adequately described in Section F of the Descriptive Report.

b. Sources of shoreline on the smooth sheet are:

(1) Unreviewed Class I manuscripts with their respective dates of photography and field edit.

TP-00583	1972	1973
TP-00584	1972	1973

(a) The foul limit south of signal 114 was extended further south to take care of what appears to be sunken rocks from H-3941.

(b) The reef symbols south of signal 503, east of signal 111, east of Latitude 56°03'N, Longitude 132°36'W and south southeast of Latitude 56°02.5'N, Longitude 132°36.5'W were in conflict with the hydrography. They have been modified to be consistent with the hydrographic data.

(c) The PA notation on the rock at Latitude 56°01.49'N, Longitude 132°34.40'W was omitted for the position agrees with H-3941.

(2) Class III manuscript with date of photography.

TP-00582	1972

3. HYDROGRAPHY

a. Crossline soundings agree within 0 to 0.7 fm. at depths less than 20 fms and 0 to 1 fm. at greater depths.

b. Standard depth curves could be adequately drawn with the exception of depth curves close to the shoreline.

c. Development of the bottom configuration and the determination of least depths are adequate with the exception of the following:

(1) All shoal soundings on a 250 m. radius in the vicinity of Latitude 56°03.1'N, Longitude 132°31'5'W.

(2) All shoal soundings 270 m. NW and SE of Latitude 56° 03.4'N, Longitude 132° 34.2'W.

(3) Shoal soundings in the vicinity of:

	Latitude	Longitude
(a)	56°02.96'N	132°32.68'W
(b)	56°02.48'N	132°33.17'W
(c)	56°02.04'N	132°34.06'W
(d)	56°03.29'N	132°35.09'W
(e)	56°02.84'N	132°34.49'W
(f)	56°02.92'N	132°35.28'W
(g)	56°02.52'N	132°35.02'W
(h)	56°01.82'N	132°34.78'W
(i)	56°02.38'N	132°35.75'W

4. CONDITION OF SURVEY

With the exception of the following items, the smooth sheet and accompanying overlays, hydrographic records, and reports are adequate and conform to the requirements of the Hydrographic Manual.

a. The Raytheon fathogram used on JD-278, Vessel 2121, pos. # 1478-1522, has poor quality trace maybe due to the use of damp fathograms.

b. Signal Nos. 104, 106, 107, 108, 132, 135, 136, and 273 were detached from the shoreline and not described in the Descriptive Report nor on the smooth field sheet.

c. Rocks about 3/4 mile apart were annotated on the same time and day by the same vessel on the smooth field sheet.

(1) Latitude 56°00'55.5"N, Longitude 132°35'31.5"W
Latitude 56°01'29.5"N, Longitude 132°34'24.5"W

(2) Latitude 56°03'11.5"N, Longitude 132°32'38.6"W
Latitude 56°03'44.0"N, Longitude 132°33'22.5"W

d. One bottom sample (Pos. #1406) was not plotted correctly on the smooth field sheet.

5. JUNCTIONS

a. H-9402 (1973) 1:10,000
H-9403 (1973) 1:10,000
H-9404 (1973) 1:10,000

The above surveys which were already forwarded to Headquarters junction satisfactorily with this survey. Only slight adjustments in depth curves is needed on these surveys. Junction notes and depth curves have been inked.

b. There is no contemporary survey on the southern and western sides of this survey.

6. COMPARISON WITH PRIOR SURVEYS

a. H-3523 (1913) 1:10,000
H-3911 (1916) 1:20,000
H-3941 (1916) 1:20,000

(1) The present survey is generally shoaler and agrees within 0-11 fms.

(2) The shoreline has either moved offshore or inshore by an average amount of 40 m. This could be due to natural changes and to less accurate method used to delineate the prior shoreline.

(3) Although the dashed unnumbered PSR items were not properly developed in this survey, the soundings in the present survey on these items in all cases were shoaler. Data from this survey should be charted.

(4) Many rocks and several soundings not superseded by data from this survey have been transferred to the smooth sheet.

(5) With the transferances of the above items, the present survey is adequate to supersede the above prior surveys in the common area.

b. H-3793 WD and 3793 a WD (1915-26) 1:40,000

(1) No wire drag survey was used to verify the dashed unnumbered PSR items that originate from this survey.

(2) The 4 ft. which was charted as 0.5 fm. was developed by hydrograpy and a 0.5 fm. was found at Latitude 56° 02'09.33"N, Longitude 132° 32'31.85"W.

(3) The following were not developed by hydrography:

(a) 44 ft. charted as 7 fms. at Latitude 56° 02'16.5"N, Longitude 132° 33'07.0"W.

(b) 40 ft. charted as 6 3/4 fms. at Latitude 56° 02'30.2" N, Longitude 132° 33'09.0"W.

(c) 50 ft. charted as 8 fms. at Latitude 56° 02'48.0"N, Longitude 132° 31'36.5"W.

(4) All of the above soundings were transferred to the smooth sheet in green ink.

7. COMPARISON WITH CHARTS

Comparison was made with Chart #8160 (7th Edition, July 4, 1970).

a. Hydrography

(1) Charted soundings that originate from the previously discussed prior surveys were disposed of in Section 6 of this report.

(2) Charted soundings of unknown origin were deeper by 4-12 fms. than the present survey.

(3) The source of some charted rocks is unknown.

(4) The information of the present survey is adequate to supersede the charted data.

b. Aids to Navigation

There are no aids to navigation applicable to this survey.

8. COMPLIANCE WITH PROJECT INSTRUCTIONS

This survey adequately complies with the Project Instructions dated May 25, 1973 and Change No. 1 dated May 31, 1973 but not with Change No. 2 dated May 31, 1973. Only one least depth was determined by lead line.

9. ADDITIONAL FIELD WORK

This is a fair basic survey and all shoal soundings mentioned in paragraph 3 c (1)-(3) should be verified further for least depths should the field work in the area be continued.

Submitted by,

Leonardo T. Deodato
Leonardo T. Deodato
Cartographic Technician
November 30, 1979

Examined and approved,

James S. Green
Chief, Verification Branch

11/25/74

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for FORM 362

Tide Station Used (NOAA Form 77-12): Burnett Inlet

Period: September 14 - November 7, 1973

HYDROGRAPHIC SHEET: H9401

OPR: 465

Locality: Clarence Strait

Plane of reference (mean ~~lower~~ low water): 2.6 ft.

Height of Mean High Water above Plane of Reference is 15.1 ft.

Remarks: Zone direct.

James R. Hubbard
for Chief, Tides Branch

APPROVAL SHEET

FOR

SURVEY H-9401

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position print-out has been made. A new final sounding print-out has been made.

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the verifier's report.

Date: 1/30/80

Signed: [signature]

Title: Chief, Verification Branch

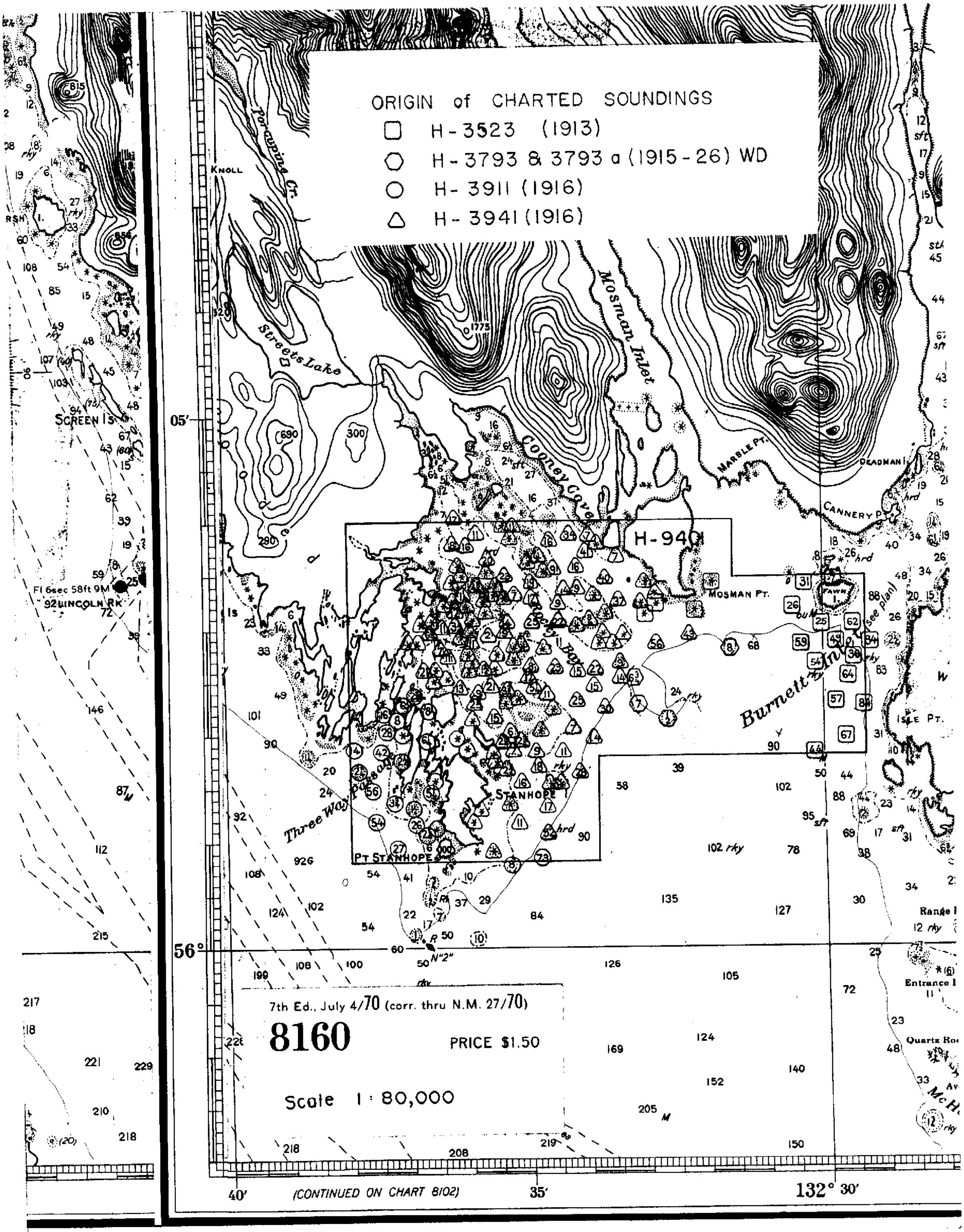
SUBMISSION STATEMENT
H-9401

Verification has been completed on Survey H-9401 and it is hereby submitted for review.

This survey was placed in Category II, verification to be completed on a time available basis, by the Hydrographic Data Evaluation Group (HDEG) in 1975. As a result of its HDEG status, it has not been examined by the PMC Hydrographic Survey Inspection Team and has not received administrative approval.

John W. Carpenter
Chief, Processing Division
Pacific Marine Center

FEB 1 1980
Date


ORIGIN of CHARTED SOUNDINGS
□ H-3523 (1913)
⬡ H-3793 & 3793 a (1915-26) WD
○ H-3911 (1916)
△ H-3941 (1916)
H-9401
Porcupine Cr.
Streets Lake
Mosman Inlet
Cooney Cove
Mosman Pt.
Marble Pt.
Deadman I.
Cannery Pt.
Fawn I.
Burnett Inlet
Three Way Passage
Stanhope
Pt Stanhope
Screen Is
Fl 6sec 58ft 9M
Lincoln Rk
Knoll
Isle Pt.
Range I
Entrance I
Quartz Ro
05′
56°
7th Ed., July 4/70 (corr. thru N.M. 27/70)
8160
PRICE $1.50
Scale 1 : 80,000
40′
(CONTINUED ON CHART 8102)
35′
132° 30′

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

Hydrographic Index No. 110K

FORM C&GS-8352
(3-28-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9401

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
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63