

9069

Diag. Cht. No. 8102-3.

9069

| | |
|---|---|
| FORM C&GS-504 | |
| U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY | |
| DESCRIPTIVE REPORT | |
| Type of Survey | HYDROGRAPHIC |
| Field No. | MA-10-2-69 |
| Office No. | H-9069 |
| LOCALITY | |
| State | Alaska |
| General locality | Nichols Passage South-East Alaska |
| Locality | Vicinity of Bestwick Inlet Nichols Passage |
| 1969 | |
| CHIEF OF PARTY | |
| Donald R. Tibbit, CDR, USESSA | |
| LIBRARY & ARCHIVES | |
| DATE | 9-18-72 |

USCOMM-DC 97022-P66

Charts 8075
8080
8102

HYDROGRAPHIC TITLE SHEET

H-9069

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

FIELD NO.

MA-1--2-69

State Alaska

General locality Nichols Passage
~~South East Alaska~~

Locality Vicinity of Bostwick Inlet
~~Nichols Passage~~

Scale 1:10,000

Date of survey 30 July-19 Oct. 1969

Instructions dated May 8, 1969

Project No. OPR-424

Vessel USC&GSS McARTHUR

Chief of party Donald R. Tibbit

Surveyed by D. M. Spillman, J. C. Albright, T. C. Howell, R. C. Husted,
R. A. Ganse, E. M. Gelb

Soundings taken by echo sounder, hand lead, pole All three, Echo sounders DE 723
Serial #'s 918, 920 and 931

Graphic record scaled by McARTHUR Personnel

Graphic record checked by McARTHUR Personnel

Protracted by Verified

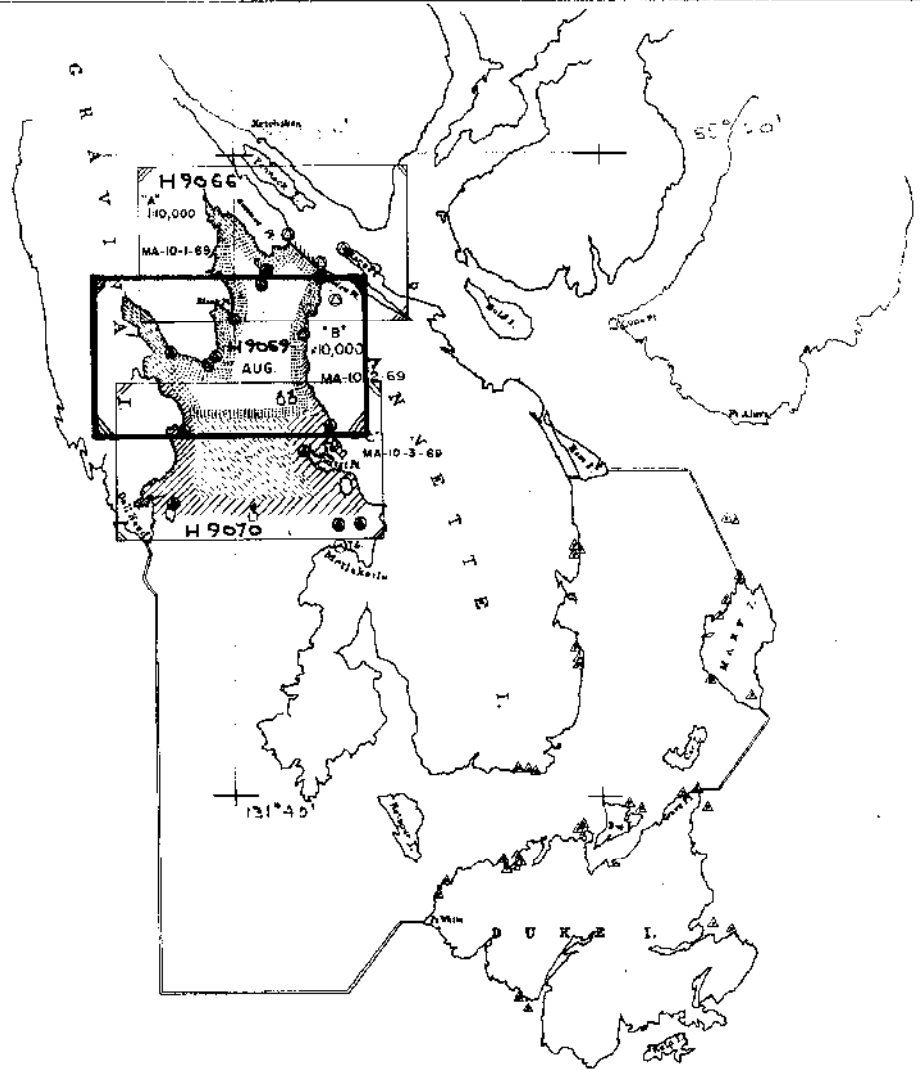
Automated plot by P. M. C.

Soundings penciled by MATTHEW G. SANDERS

Soundings in fathoms XXX at XXX MLLW

REMARKS: This survey was accomplished using Launch AR-1, Launch
AR-2, Skiff, and the McARTHUR.

Check for Notice to Mariners 10/13/72/B.B.
Applied to stds 10/14/72
CSB.



PROGRESS SKETCH
 SOUTHEAST, ALASKA
 PROJECT OPR-424
 HYDROGRAPHY
 NICHOLS PASSAGE & FELICE STRAIT
 1969
 USC&GS Ship McARTHUR
 DONALD R. TIBBIT CDR. USESSA, COMD'G.
 SCALE OF CHART 8102

- | | |
|--|---|
| <ul style="list-style-type: none"> □ NANSEN CAST ○ TIDE GAGE ⊗ RECOVERED TRIANGULATION STATIONS △ PREMARKING PHOTO CONTROL TRI-STATION — PROJECT LIMITS ▬ SHORELINE INSPECTION | <ul style="list-style-type: none"> □ AUG 1969 ▨ SEPT 1969 ▩ OCT 1969 |
|--|---|

Descriptive Report
To Accompany
Hydrographic Survey H-9069 (MA-10-2-69)

USC&GSS McARTHUR
Donald R. Tibbit, CDR, USESSA

Scale 1:10,000
1969

A. PROJECT:

Hydrography on this boatsheet was accomplished in accordance with Project Instructions OPR-424, Nichols Passage and Felice Strait, Southeast Alaska dated 8 May 1969. ✓

B. AREA SURVEYED:

The area surveyed is located in Nichols Passage in Southeast Alaska. It is bounded by latitudes 55° 12.0'N and 55° 15.4'W and the coastlines of Gravina Island on the West and Annette Island on the East and covers 12.8 square miles. The survey was performed between 30 July and 19 October 1969. The boatsheet overlaps prior surveys H-3711 (1:10,000, 1914), and H-3718 (1:20,000, 1914), and H-3687 WD (1:15,000, 1914), and junctions with contemporary surveys H-9066 (MA-10-1-69) and H-9070 (MA-10-3-69). ✓

C. SOUNDING VESSEL:

Hydrography performed by the McARTHUR is shown with red inked fix numbers on the boatsheet, that by Launch AR-1 in blue, by Launch AR-2 in violet, and by Skiff in green. ✓

D. SOUNDING EQUIPMENT:

Raytheon DE 723 fathometers were used throughout the survey, serial number 918 on the ship, serial number 931 on Launch AR-1 and serial number 920 on Launch AR-2. All Skiff soundings were taken with either a leadline or sounding pole. The fathometer initial was set at 2.0 fathoms on the ship and at zero on both launches.

Bar checks to seven fathoms were taken twice daily, (weather permitting) to determine instrument and transducer draft corrections for the launches. A combined instrument and transducer draft correction of -0.6 fathom was determined for the ship from two vertical cast comparisons. No phase corrections were necessary. No settlement or squat corrections were determined because of the great variety of speeds at which the sounding vessels, particularly the launches, were run. ✓

Velocity corrections were obtained from Nansen casts to 80 fathoms, which were extrapolated to 120 fathoms, taken in Nichols Passage on 12 August, 10 September, and 13 October 1969. Tide reducers were determined from actual tides observed with a bubbler tide gage at Metlakatla, Alaska.

E. SMOOTH SHEET:

The smooth sheet is to be plotted by the Gerber Plotter at the Electronic Data Processing Division, Pacific Marine Center.

F. CONTROL:

All hydrography on the boatsheet was controlled by visual three point sextant fix methods. Horizontal control consisted of existing triangulation and topographic stations, Photo-hydro stations, and signals located by sextant cuts. The photo-hydro signals were located using 1:10,000 scale incomplete manuscripts T-10612, T-10613, T-10619, T-10620 and T-10621.

There are two signals, named KLI and KLY, that are in approximately the same location. Signal KLI was built first and then washed away by a storm. Since a signal was needed in this area, it was rebuilt, but in a slightly different location, and was renamed signal KLY.

G. SHORELINE:

Shoreline was transferred to the boatsheet by blue line from the above five 1:10,000 scale manuscripts. The transfer of shoreline and topographic details was verified. There were only minor changes to the shoreline and these changes are shown and noted on both the boatsheet and the ozalid field-edit copies of the manuscripts. The low water line was not defined by the hydrographer in some areas due to the steeply sloping bottom and irregular, rocky shoreline.

H. CROSSLINES:

There were 379.8 nautical miles of hydrography in the basic system of sounding lines of which 37.1 were crosslines. This constitutes about 10% of the total. There were no significant discrepancies.

I. JUNCTIONS:

This survey agrees well in depth with the two contemporary surveys listed in Section B. No adjustment was necessary.

J. COMPARISON WITH PRIOR SURVEYS:

There were no pre-survey review items applicable to the area surveyed on this sheet.

There were three prior surveys of the area covered by this boatsheet. Survey H-3687 WD (1:15,000, 1914) was a wire drag survey showing only deepest unobstructed water checked by the wire drag, therefore, permitting no comparison with this survey. Surveys H-3711 (1:10,000, 1914) and H-3718 (1:20,000, 1914) were both in good general agreement with the present survey.

K. COMPARISON WITH THE CHART:

Results of this survey were compared with C&GS Chart 8080, scale 1:40,000, 1st Edition, April 28, 1969. Agreement in general was good. A rock submerged 3 ft. at MLLW was found at Latitude 55° 13.4'N. Longitude 131° 43.7'W position number 5625 which could be pertinent to small fishing boats navigating Bostwick Inlet. No other new hazards to navigation were found.

L. ADEQUACY OF SURVEY:

This survey is complete and adequate to supercede prior surveys for charting this area.

M. AIDS TO NAVIGATION:

There were no navigational aids shown on the largest scale chart, or in the Light List, for the area covered by this boatsheet.

N. STATISTICS:

McARTHUR

| | |
|-------------------------------|-------|
| Nautical miles sounding lines | 136.5 |
| Number of positions | 681 |

Launch AR-1

| | |
|-------------------------------|------|
| Nautical miles sounding lines | 22.5 |
| Number of positions | 233 |

Launch AR-2

| | |
|-------------------------------|-------|
| Nautical miles sounding lines | 257.2 |
| Number of positions | 2314 |

Skiff

| | |
|-------------------------------|-----|
| Nautical miles sounding lines | 0.0 |
| Number of positions | 61 |

Total

| | |
|-------------------------------|-------|
| Nautical miles sounding lines | 416.9 |
| Number of positions | 3289 |
| Area in square nautical miles | 12.8 |
| Bottom samples | 98 |

O. MISCELLANEOUS:

None.

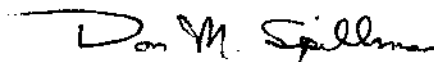
P. RECOMMENDATIONS:

None.

Q. REFERENCES TO REPORTS:

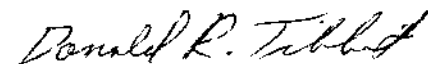
Pre-survey review, OPR-424, Southeast Alaska.
Velocity Correction Report, OPR-424, 1969.
Geographic Name Report, OPR-424, 1969.
Field Edit Report for Manuscripts T-10620 and T-10621.
Form #251, Vol. I, submitted with records of H-9066.
Manuscripts submitted with records of H-9070, T-10620 -
2 copies and T-10621 - 3 copies.

Submitted By:



Don M. Spillman
ENS, USESSA

Approved and Forwarded:



Donald R. Tibbit, CDR, USESSA
Commanding Officer, USC&GSS McARTHUR

Enclosures: Tide Note
Abstract of Corrections to Echo Soundings
List of Signals
Abstract of Position Numbers
List of Basic Field Records
Approval Sheet

VERIFIER'S REPORT

H-9069

E. SMOOTH SHEET

The smooth sheet and position number overlay were plotted by the digital plotter with all finished work being done by the Verification Branch at the Pacific Marine Center.

F. CONTROL

See Descriptive Report

G. SHORELINE

See Descriptive Report

H. CROSSLINES

See Descriptive Report

I. JUNCTIONS

The junction with H-9066, 1969 and H-9070, 1969 have been made and are complete.

J. COMPARISON WITH PRIOR SURVEYS

See Descriptive Report

K. COMPARISON WITH THE CHART

See Adjoining Sheet

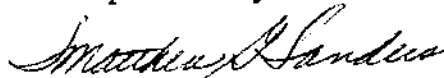
L. ADEQUACY OF SURVEY

This survey is considered complete and adequate for charting.

M. AIDS TO NAVIGATION

See Descriptive Report

Respectfully submitted,



Matthew G. Sanders
Carto. Tech.

COMPARISON WITH THE CHART

This survey was compared with USC&GS Chart 8080, 1st Edition, April 28, 1969.

| Chart Sndg. | S.S. Sndg | Latitude | Longitude |
|----------------|----------------|-----------|------------|
| 6 ₃ | 9 ³ | 55°14.5' | 131°36.5' |
| 6 | 2 ⁶ | 55°14.8' | 131°36.2' |
| 12 | 9 ⁹ | 55°13.2' | 131°36.3' |
| 26 | 16 | 55°13.05' | 131°36.4' |
| 32 | 36 | 55°15.15' | 131°37.6' |
| 73 | 79 | 55°14.25' | 131°40.3' |
| 89 | 85 | 55°14.35' | 131°39.7' |
| 30 | 36 | 55°12.0' | 131°40.4' |
| 56 | 60 | 55°12.4' | 131°41.1' |
| 55 | 58 | 55°12.75' | 131°40.95' |
| 31 | 37 | 55°12.95' | 131°42.0' |
| 5 ₃ | 7 | 55°12.65' | 131°43.45' |
| 5 ₁ | 8 ₁ | 55°13.8' | 131°44.0' |

A rock appears on the chart at Latitude 55°13.35' and Longitude 131°41.7', that is not verified by the Hydrography or the Advance Manuscript T-10620.

Tide Note
To Accompany
H-9069 (MA 10-2-69)

| | |
|--------------------|---|
| Tide Station | Metlakatla Harbor Metlakatla, Alaska Lat. 55° 07.7' Long. 131° 34.0' |
| Plane of Reference | MLLW = 9.7 on staff |
| Time Meridian | 105° W |
| Time Correction | None |
| Height Correction | None |
| Time of Coverage | Entire Survey |
| Area of Coverage | Entire Survey |

*Tide corrector printout
filed in cahier*

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 2, 1970

~~Natural Conditions~~ Division: Pacific Marine Center

Plane of reference approved by
~~the Bureau of Oceanographic Surveys~~ for Tide tape Printout

HYDROGRAPHIC SHEETS 9066, 9069, and 9070

Locality: Metlakatla Harbor, Annette Island, Alaska

~~Year~~ Year: 1969

Plane of reference is mean lower low water

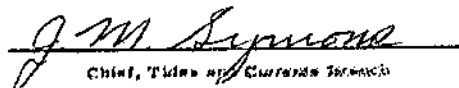
Tide Station Used (Form C&GS-681):

Metlakatla

Height of Mean High Water above Plane of Reference is as follows:

13.7 feet

Remarks


Chief, Tides and Currents Branch

ABSTRACT OF VELOCITY CORRECTIONS
TO ECHO SOUNDINGS

H-9069 (MA 10-2-69)

All depths and corrections are in fathoms and tenths.
Corrections of table 0001 apply to all Ship soundings
of the survey. Corrections of table 0002 apply to all
Launch AR-1 and Launch AR-2 soundings of the survey.
For more information see the Fathometer Correction
Report OPR 424. The 0 in the first column of the velo-
city correction table indicates positive corrections.

| DEPTH | VEL | VEL | | | | | | | |
|--------|------|------|------|-----|---|--------|--------|----------|--|
| | CORR | TAB | | | | | | | |
| 000035 | 00 | 0000 | 0001 | 000 | 0 | 000000 | 000000 | SHIP | |
| 000108 | 00 | 0001 | | | | | | | |
| 000204 | 00 | 0002 | | | | | | | |
| 000306 | 00 | 0003 | | | | | | | |
| 000440 | 00 | 0004 | | | | | | | |
| 000570 | 00 | 0005 | | | | | | | |
| 000694 | 00 | 0006 | | | | | | | |
| 000808 | 00 | 0007 | | | | | | | |
| 000920 | 00 | 0008 | | | | | | | |
| 001022 | 00 | 0009 | | | | | | | |
| 001118 | 00 | 0010 | | | | | | | |
| 001210 | 00 | 0011 | | | | | | | |
| 001293 | 00 | 0012 | | | | | | | |
| 000018 | 00 | 0000 | 0002 | 000 | 0 | 000000 | 000000 | LAUNCHES | |
| 000082 | 00 | 0001 | | | | | | | |
| 000171 | 00 | 0002 | | | | | | | |
| 000280 | 00 | 0003 | | | | | | | |
| 000408 | 00 | 0004 | | | | | | | |
| 000540 | 00 | 0005 | | | | | | | |
| 000668 | 00 | 0006 | | | | | | | |
| 000784 | 00 | 0007 | | | | | | | |
| 000893 | 00 | 0008 | | | | | | | |
| 000997 | 00 | 0009 | | | | | | | |
| 001094 | 00 | 0010 | | | | | | | |
| 001188 | 00 | 0011 | | | | | | | |
| 001270 | 00 | 0012 | | | | | | | |

Tape with H-9070

ABSTRACT OF TRANSDUCER DRAFT AND
INSTRUMENT CORRECTIONS TO ECHO SOUNDINGS

H-9069 (MA 10-2-69)

LAUNCHES AR-1 and AR-2

Transducer Draft and Instrument corrections are in fathoms and tenths and apply to all Launch soundings of the survey. For more information see the Fathometer Correction Report OPR 424. The 0 in the first column of the TRA& INST CORR table indicates a positive correction

| TIME | TRA& | VEL | DAY | | | |
|--------|------|------|------|---|--------|--------|
| | INST | TAB | | | | |
| | CORR | | | | | |
| 000000 | 00 | 0002 | 0002 | 0 | 000000 | 000000 |
| 200000 | 00 | 0002 | 0002 | 0 | 000000 | 000000 |

ABSTRACT OF TRANSDUCER DRAFT AND
INSTRUMENT CORRECTIONS TO ECHO SOUNDINGS

H-9069 (MA 10-2-69)

LAUNCHES AR-1 and AR-2

Transducer Draft and Instrument corrections are in fathoms and tenths and apply to all Launch soundings of the survey. For more information see the Fathometer Correction Report OPR 424. The 0 in the first column of the TRA& INST CORR table indicates a positive correction

| TIME | TRA& | VEL | DAY | | | | |
|--------|------|------|------|---|--------|--------|--|
| | INST | TAB | | | | | |
| | CORR | | | | | | |
| 000000 | 00 | 0002 | 0002 | 0 | 000000 | 000000 | |
| 200000 | 00 | 0002 | 0002 | 0 | 000000 | 000000 | |

APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved,

Cornelius A. J. Pauw

for

William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded,

Walter L. Bradley

Walter L. Bradley, CDR, NOAA
Chief, Processing Division
Pacific Marine Center

LIST OF SIGNALS ON H-9069
(MA 10-2-69)

| <u>Number</u> | <u>Name</u> | <u>Origin of Signal</u> |
|---------------|-------------|---------------------------------|
| 001 | BIA | Blank Is. It. Hse. 1914 |
| 002 | LIT | T-10613 |
| 003 | SPI | Form # 215 Vol. 1 H-9066 pp.1-3 |
| 004 | MAN | Form # 215 Vol. 1 pp.1-3 |
| 005 | BUD | Form # 215 Vol. 1 pp.1,2,&4 |
| 006 | PLU | Plug 1914 |
| 007 | BED | T-10621 |
| 008 | COR | Corn 1914 |
| 009 | RUG | T-10621 |
| 010 | POD | Vol. 4 p. 67 |
| 011 | KLI | Vol. 20 p. 30 |
| 012 | KLY | Vol. 5 p. 4 |
| 013 | ROT | T-10621 |
| 014 | EGO | T-10621 |
| 015 | PEK | Vol. 5 p.4 |
| 016 | HUR | Hurt 1914 |
| 018 | ARM | Arm 1914 |
| 019 | LUV | T-10620 |
| 020 | BOX | T-10620 |
| 021 | FUG | Vol. 19 p.62 |
| 022 | PUB | T-10620 |
| 023 | SAK | T-10620 |
| 024 | CAN | Vol. 19 p.61 |
| 025 | RAT | T-10620 |
| 026 | SCO | Vol. 19 p. 61 |
| 027 | TUM | T-10619 |
| 028 | GUS | T-10620 |
| 029 | MUF | T-10620 |
| 030 | SHE | T-10620 |
| 031 | WIC | Wick 2, 1957 |
| 032 | BOS | Bos 1914 |
| 033 | MON | Mon 1914 |
| 034 | NUT | Vol. 19 p.60 |
| 035 | GOT | Vol. 19 p.60 |
| 036 | PIK | T-10620 |
| 037 | YOR | Vol. 19 p.60 |
| 038 | NOS | T-10612 |
| 039 | TIP | T-10612 |
| 040 | BAR | Bare 1914 |
| 041 | NED | T-10612 |
| 042 | MIK | T-10612 |

ABSTRACT OF POSITION NUMBERS
on H-9066 (MA-10-2-69)

| <u>Vessel</u> | <u>Day</u> | <u>Date</u> | <u>Julian Day</u> | <u>Positions</u> |
|---------------|-------------|--------------|-------------------|------------------|
| McARTHUR | A | 30 July 1969 | 211 | 3001-3049 |
| | B | 31 July 1969 | 212 | 3050-3204 |
| | C | 1 Aug 1969 | 213 | 3205-3238 |
| | D | 5 Aug 1969 | 217 | 3239-3419 |
| | E | 6 Aug 1969 | 218 | 3435-3536 |
| | F | 8 Aug 1969 | 220 | 3537-3641 |
| | G | 9 Aug 1969 | 221 | 3642-3667 |
| | H | 10 Aug 1969 | 222 | 3668-3681 |
| | J | 12 Aug 1969 | 224 | 3682-3701 |
| | K | 10 Sept 1969 | 253 | 3702-3708 |
| | Launch AR-1 | a | 24 Aug 1969 | 236 |
| b | | 12 Sept 1969 | 255 | 1085-1109 |
| c | | 16 Sept 1969 | 259 | 1110-1137 |
| d | | 20 Sept 1969 | 263 | 1138-1245 |
| Launch AR-2 | a | 14 Aug 1969 | 226 | 2001-2048 |
| | b | 15 Aug 1969 | 227 | 2049-2142 |
| | c | 18 Aug 1969 | 230 | 2147-2167 |
| | d | 19 Aug 1969 | 231 | 2168-2304 |
| | e | 20 Aug 1969 | 232 | 2305-2427 |
| | f | 21 Aug 1969 | 233 | 2428-2494 |
| | g | 22 Aug 1969 | 234 | 2497-2611 |
| | h | 23 Aug 1969 | 235 | 2612-2731 |
| | j | 26 Aug 1969 | 238 | 2737-2850 |
| | k | 27 Aug 1969 | 239 | 2851-2928 |
| | l | 3 Sept 1969 | 246 | 2929-2992 |
| | " | " " " | " | 4000-4029 |
| | m | 4 Sept 1969 | 247 | 4030-4135 |
| | n | 5 Sept 1969 | 248 | 4136-4202 |
| | p | 15 Sept 1969 | 258 | 4203-4305 |
| | q | 17 Sept 1969 | 260 | 4305-4388 |
| | r | 18 Sept 1969 | 261 | 4390-4520 |
| | s | 19 Sept 1969 | 262 | 4521-4629 |
| | t | 21 Sept 1969 | 264 | 4630-4694 |
| | u | 22 Sept 1969 | 265 | 4695-4804 |
| | v | 23 Sept 1969 | 266 | 4805-4888 |
| | w | 24 Sept 1969 | 267 | 4892-4972 |
| | x | 25 Sept 1969 | 268 | 4979-5042 |
| | y | 26 Sept 1969 | 269 | 5043-5094 |
| | z | 29 Sept 1969 | 272 | 5100-5107 |
| | aa | 30 Sept 1969 | 273 | 5113-5140 |
| bb | 1 Oct 1969 | 274 | 5155-5287 | |
| cc | 2 Oct 1969 | 275 | 5288-5397 | |
| dd | 3 Oct 1969 | 276 | 5401-5513 | |
| ee | 5 Oct 1969 | 278 | 5514-5557 | |
| ff | 6 Oct 1969 | 279 | 5558-5637 | |
| gg | 13 Oct 1969 | 286 | 5641-5653 | |

ABSTRACT OF POSITION NUMBERS
on H-9069 (MA-10-2-69)

| <u>Vessel</u> | <u>Day</u> | <u>Date</u> | <u>Julian</u> | <u>Day</u> | <u>Positions</u> |
|---------------|------------|-------------|---------------|------------|------------------|
| Skiff # 1 | a | 13 Oct 1969 | 286 | 1 | - 3 |
| | b | 14 Oct 1969 | 287 | 4 | - 12 |
| | c | 16 Oct 1969 | 289 | 13 | - 18 |
| | d | 17 Oct 1969 | 290 | 19 | - 29 |
| | e | 18 Oct 1969 | 291 | 30 | - 35 |
| | f | 19 Oct 1969 | 292 | 44 | - 61 |

LIST OF BASIC FIELD RECORDS TO ACCOMPANY

H 9069 MA 10-2-69

- 1 Boatsheet
 - 20 Form #275, Sounding Volumes
 - 45 Envelopes of DE723 Fathograms
 - 2 Manuscripts T-10619
 - 7 C&GS Form 733-M Bottom Sample Log Sheets
 - 44 Pages Tide Tape printout - *filed in earlier*
 - 1 Revised Signal Tape and printout
 - 1 Velocity tape and printout
 - 1 TC/Tl Tape and 1 page printout Launches
 - 1 TC/Tl Tape and 1 page printout Ship
 - 1 Form #1 Parameters For Digital Computing Polyconic Projection
 - 13 Boxes of Position-Sounding Tapes and Envelopes of Printouts
-

APPROVAL SHEET FOR H 9069 MA 10-2-69

Field work on this survey was accomplished under my general supervision. Frequent inspections of the field data and boatsheet were made by me as the survey progressed. The sounding records have been inspected by me and are approved. This survey is complete and adequate and is hereby approved.

Donald R. Tiboit

Donald R. Tiboit
Cdr, USESSA
Commanding Officer
USC&GSS McARTHUR

GEOGRAPHIC NAMES

ANNETTE ISLAND

BLANK POINT

BOSTWICK INLET

BOSTWICK POINT

GRAVINE ISLAND

NICHOLS PASSAGE

GEOGRAPHIC NAMES

Survey No. **11-9069**

| Name on Survey | Source of Name | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---|--|--|----|
| | A | B | C | D | E | F | G | H | K | | | |
| Annette Island | | | | | | | | | | | | 1 |
| Blank Point | | | | | | | | | | | | 2 |
| Bostwick Inlet | | | | | | | | | | | | 3 |
| Bostwick Point | | | | | | | | | | | | 4 |
| Gravine Island | | | | | | | | | | | | 5 |
| Nichols Passage | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | 9 |
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| | | | | | | | | | | | | 17 |
| | | | | | | | | | | | | 18 |
| | | | | | | | | | | | | 19 |
| | | | | | | | | | | | | 20 |
| | | | | | | | | | | | | 21 |
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| | | | | | | | | | | | | 23 |
| | | | | | | | | | | | | 24 |
| | | | | | | | | | | | | 25 |
| | | | | | | | | | | | | 26 |
| | | | | | | | | | | | | 27 |

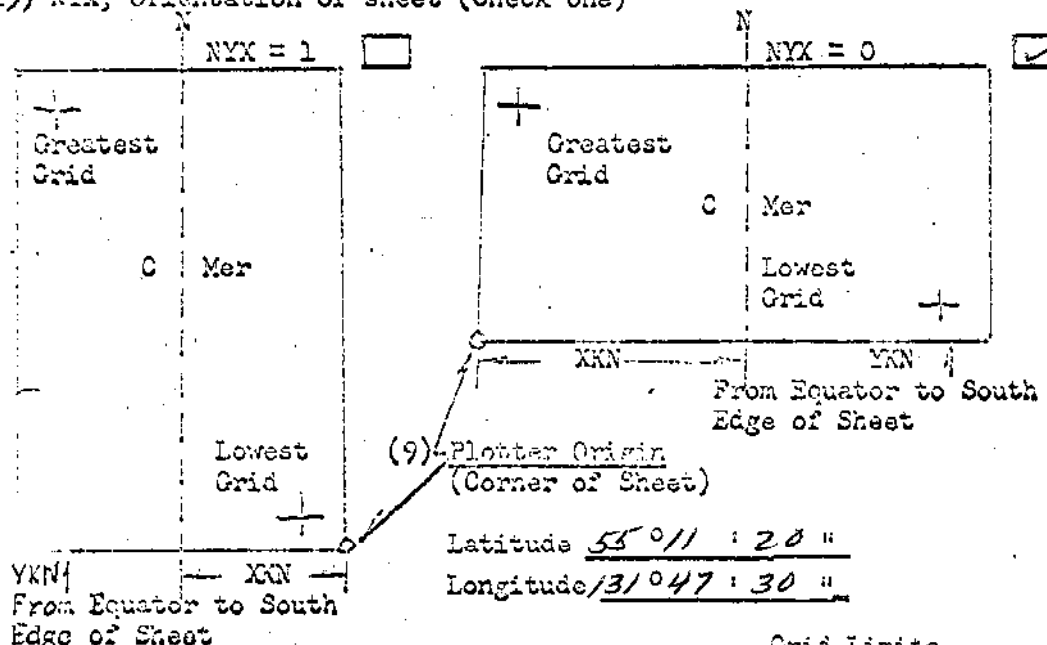
*Names approved
10-13-72
A. J. Wright*

03059

Revised 10/1/67

PARAMETERS FOR DIGITAL COMPILING
CYLINDRICAL PROJECTION

- (1) Project No. OPR-424
- (2) H No. 03059
- (3) Field No. "B"
- (4) Requested by R. L. NEWSON
- (5) Ship or Office MCARTHUR
- (6) Date Required 20 JUNE 1969
- (7) Visual Ft.(0) or Fathoms (1) (8) Electronic (fill out form #3)
- (10) XKN (SP 5) Distance from CYER to East Edge (NYX = 1) or West Edge (NYX = 0). 7962.8³⁰⁰ Meters
- (11) YKN (SP 241) Distance from Equator to South Edge of Sheet. 6,118,043.268 Meters
- (12) Central Meridian 131°40'00"
- (13) Survey Scale 1:10,000
- (14) Size of Sheet (Check one) 36x60 42x60
- (15) NYX, Orientation of sheet (Check one)



| Grid Limits | |
|-------------------------|---|
| (16) Greatest Latitude | <u>55°16'00"</u> (Projection Line Interval Page 4 Hydro Manual) |
| (17) Lowest Latitude | <u>55°11'30"</u> |
| (18) Difference | <u>04'30"</u> |
| (19) | <u>0 30"</u> |
| (20) | <u>9 YSN</u> |
| (21) Greatest Longitude | <u>131°47'00"</u> |
| (22) Lowest Longitude | <u>131°33'30"</u> |
| (23) Difference | <u>013'30"</u> |
| (24) | <u>0 30"</u> |
| (25) | <u>27 XSN</u> |

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9069

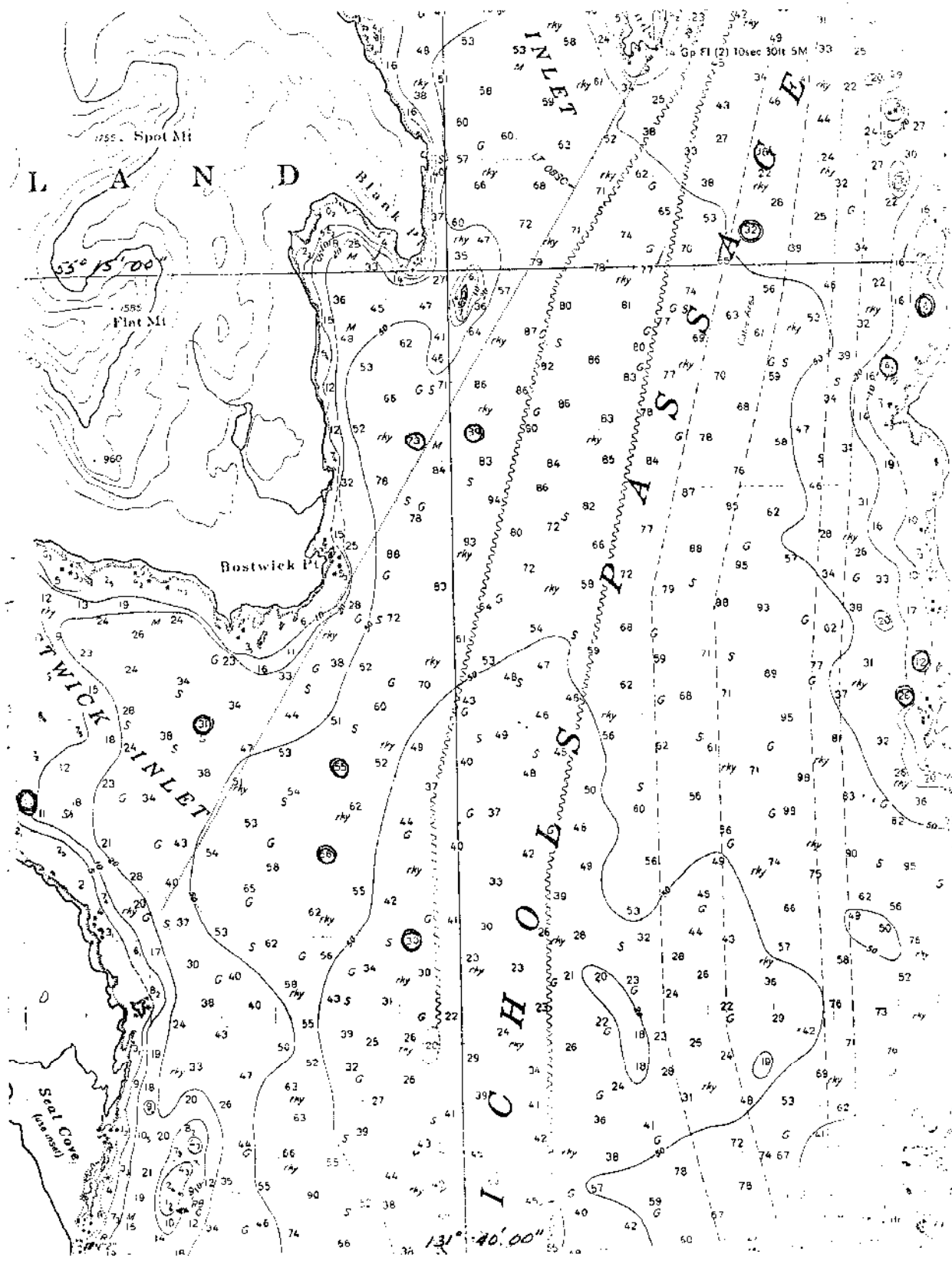
RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

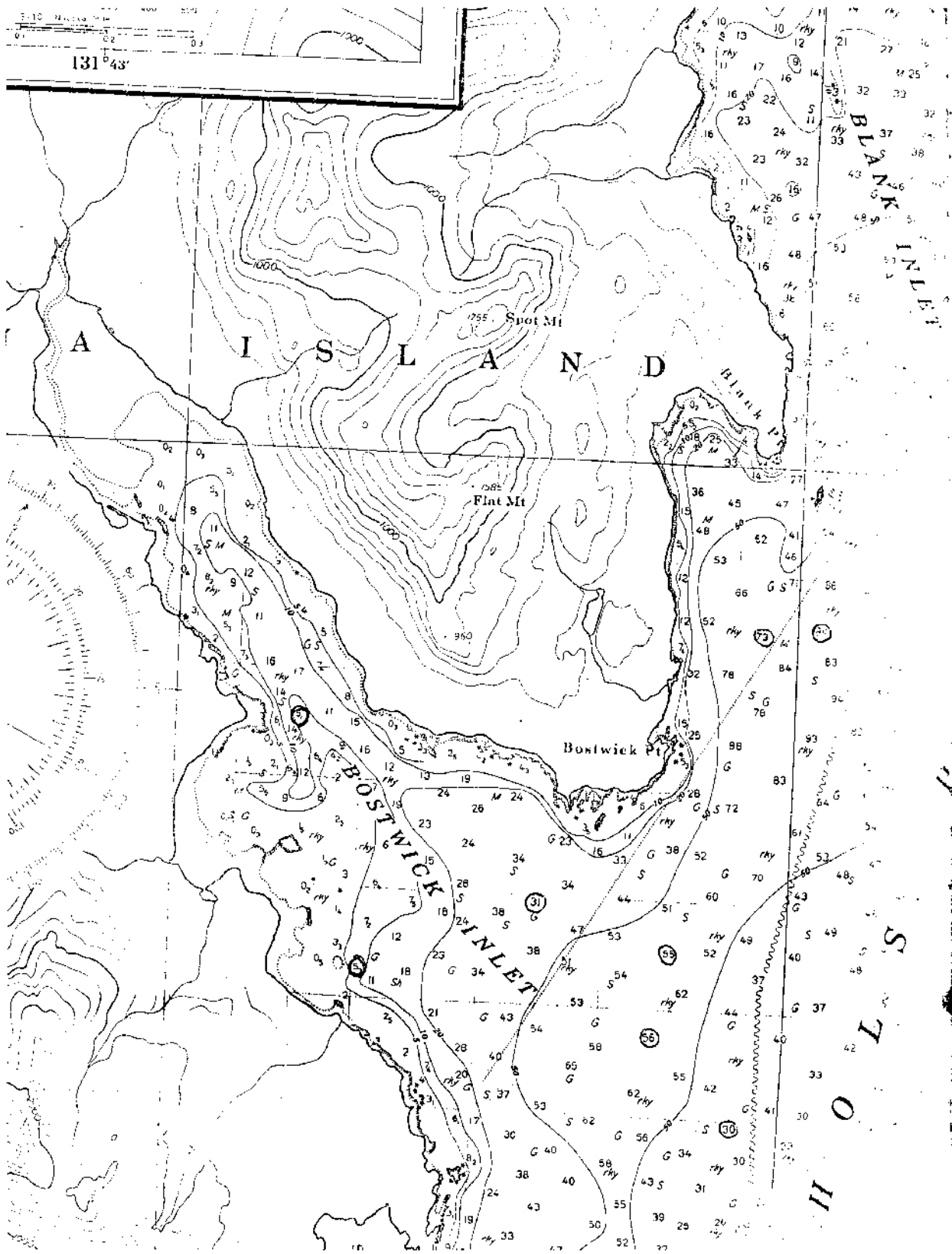
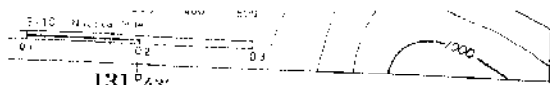
| RECORD DESCRIPTION | | AMOUNT | RECORD DESCRIPTION | | AMOUNT | |
|---|---------------|----------------------|--------------------|------------|---------------|------------------------------|
| SMOOTH SHEET <u>4 PNO</u> | | <u>1</u> | BOAT SHEETS | | <u>1</u> | |
| DESCRIPTIVE REPORT | | <u>1</u> | OVERLAYS | | <u>4</u> | |
| DESCRIPTION | DEPTH RECORDS | HORIZ. CONT. RECORDS | PRINTOUTS | TAPE ROLLS | PUNCHED CARDS | ABSTRACTS / SOURCE DOCUMENTS |
| ENVELOPES | | | | | | |
| CAHIERS | <u>1</u> | | | | | |
| VOLUMES | <u>20</u> | | | | | |
| BOXES | | | <u>1</u> | | | |
| T-SHEET PRINTS (List) <u>F-4662, F-4663, F-70619, F-70620, F-70621</u> | | | | | | |
| SPECIAL REPORTS (List) | | | | | | |

OFFICE PROCESSING ACTIVITIES

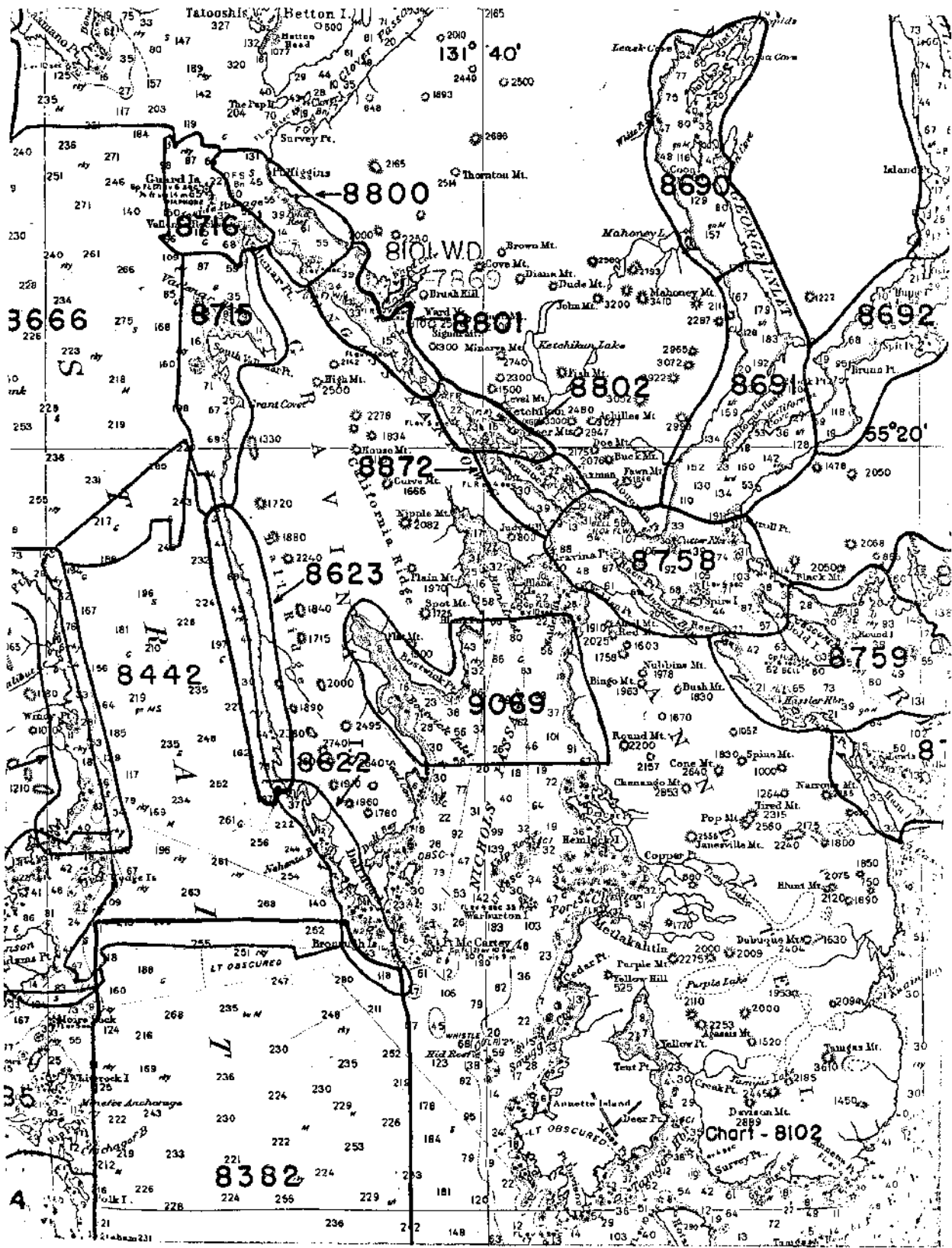
The following statistics will be submitted with the cartographer's report on the survey

| PROCESSING ACTIVITY | AMOUNTS | | | |
|--|------------------|--------------|----------------|--------|
| | PRE-VERIFICATION | VERIFICATION | REVIEW | TOTALS |
| POSITIONS ON SHEET | | | | |
| POSITIONS CHECKED | | <u>3331</u> | | |
| POSITIONS REVISED | | <u>302</u> | | |
| DEPTH SOUNDINGS REVISED | | <u>225</u> | | |
| DEPTH SOUNDINGS ERRONEOUSLY SPACED | | <u>153</u> | | |
| SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED | | <u>1</u> | | |
| | TIME (MANHOURS) | | | |
| TOPOGRAPHIC DETAILS | | <u>64</u> | | |
| JUNCTIONS | | <u>32</u> | | |
| VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS | | <u>473</u> | | |
| SPECIAL ADJUSTMENTS | | | | |
| ALL OTHER WORK | | <u>200</u> | | |
| TOTALS | | <u>769</u> | | |
| PRE-VERIFICATION BY | BEGINNING DATE | | ENDING DATE | |
| VERIFICATION BY <u>Madden A. Sanders</u> | 18 November 1970 | | 25 August 1972 | |
| REVIEW BY | BEGINNING DATE | | ENDING DATE | |





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VERIFIER'S REPORT
HYDROGRAPHIC SURVEY, H-9069

INSTRUCTIONS - This form serves to identify items of a checklist in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

| Part I - DESCRIPTIVE REPORT | CL | R | Part III - JUNCTIONS (Continued) | CL | R |
|--|----|---|---|----|---|
| <p>Note: The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p> | ✓ | | <p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED.</p> | ✓ | |
| <p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p> | ✓ | | <p>Part IV - VOLUMES</p> <p>11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None</p> | ✓ | |
| <p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p> | ✓ | | | | |
| <p>Part II - SHORELINE AND SIGNALS</p> <p>4. Source of shoreline signals Remarks Required: -- List all surveys</p> <p>a. Give earliest and latest dates of photographs</p> <p>b. Field inspection date</p> <p>c. Field Edit date</p> <p>d. Reviewed-Unreviewed</p> | ✓ | | <p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:</p> <p>(a) rocks</p> <p>(b) line turns</p> <p>(c) position values of beginning and ending of lines</p> <p>(d) bar check or velocity correctors</p> <p>(e) time recording</p> <p>(f) notes or markings on bathograms</p> <p>(g) was reduction of soundings accurately done?</p> <p>(h) was scanning accurate?</p> <p>(i) were peaks at uneven intervals missed?</p> <p>(j) were stamps completed?</p> <p>(k) references to adjacent features</p> | ✓ | |
| <p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p> | ✓ | | | | |
| <p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p> | ✓ | | | | |
| <p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p> | ✓ | | <p>Part V - PROTRACTING</p> <p>13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None</p> | ✓ | |
| <p>Part III - JUNCTIONS</p> <p>Note: Make a cursory comparison preliminary to inking soundings in area of overlap.</p> <p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p> | ✓ | | <p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p> | ✓ | |
| <p>9. The notation in slanted lettering "JOINS H---- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None</p> | ✓ | | <p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None</p> | ✓ | |

| Part V - PROTRACTING (Continued) | CL | R | Part VIII - AIDS TO NAVIGATION | CL | R |
|--|----|---|--|----|-------------------------------|
| 16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable reploting or adjustments. | ✓ | | 26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed. | ✓ | |
| 17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number. | ✓ | | 27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None | ✓ | |
| Part VI - SOUNDINGS | | | Part IX - BOAT SHEET | | |
| 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None | ✓ | | 28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None | ✓ | |
| 19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments. | ✓ | | 29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information. | ✓ | |
| 20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None | ✓ | | Part X - GENERAL | | |
| 21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None | ✓ | | 30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None | ✓ | |
| 22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning. | ✓ | | 31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None | ✓ | |
| Part VII - CURVES | | | 32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None | ✓ | |
| 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected. | ✓ | | 33. The bottom characteristics are adequately shown. Remarks Required: -- None | ✓ | |
| 24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None | ✓ | | Part XI - NOTES TO THE REVIEWER | | |
| 25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient. | ✓ | | 34. Unresolved discrepancies and questionable soundings. | ✓ | |
| Verified by <i>Matthew R. Sanders</i> | | | 35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy. <i>file tide corrector</i> 36. Supplemental information. <i>printout in color etc</i> | ✓ | Date <i>25 August 1972</i> |



TC/TI TAPE (DUAL INDICATOR)

H-9069

MA 10-2-69 McARTHUR

000000 00 1006 0001 211 0 000000 000000
200000 00 1006 0001 253 0 000000 000000





TC/TI TAPE (DUAL INDICATOR)

H-9069

MA 10-2-69

LAUNCHES AR-1 & AR-2

000000 00 0002 0002 226 0 000000 000000

200000 00 0002 0002 286 0 000000 000000

174000 00 1015

175200 00 1014

180400 00 1013

181600 00 1012

183100 00 1011

184300 00 1010

185800 00 1009

190900 00 1008

192000 00 1007

193000 00 1006

194000 00 1005

195000 00 1004

200000 00 1003

142200 00 1021 0000 211 0 141900 000000

143500 00 1022

144900 00 1023

150900 00 1024

154000 00 1025

162000 00 1026

164100 00 1025

165700 00 1024

171000 00 1023

172000 00 1022

173100 00 1021

174200 00 1020

175500 00 1019

180300 00 1018

181300 00 1017

182400 00 1016

183200 00 1015

184100 00 1014

184900 00 1013

Tide corrector printout

Reviewer - file in cahier

109000 00 0000

190600 00 1011

191500 00 1010

192600 00 1009

193500 00 1008

194600 00 1007

195600 00 1006

080500 00 1002 0000 212 0 091500 000000

081500 00 1001

082600 00 1000

083600 00 0001

084700 00 0002

090000 00 0003

091300 00 0004

093400 00 0005

103000 00 0006

105600 00 0005

111200 00 0004

112600 00 0003

113700 00 0002

115000 00 0001

120000 00 1000

121100 00 1001

122000 00 1002

122900 00 1003

123800 00 1004

124500 00 1005

125100 00 1006

125900 00 1007

130600 00 1008

131400 00 1009

132200 00 1010

133700 00 1012
134500 00 1013
135200 00 1014
140000 00 1015
140900 00 1016
141800 00 1017
142800 00 1018
143800 00 1019
144900 00 1020
150000 00 1021
151000 00 1022
152300 00 1023
153800 00 1024
160000 00 1025
171200 00 1026
173400 00 1025
174600 00 1024
175900 00 1023
181000 00 1022
182200 00 1021
183100 00 1020
184100 00 1019
185000 00 1018
185800 00 1017
101200 00 0003 0000 213 0 103400 000000
112800 00 0004
115000 00 0003
120500 00 0002
121800 00 0001
122800 00 1000
123800 00 1001
124700 00 1002
125500 00 1003

152900 00 1021
153900 00 1022
155000 00 1023
160200 00 1024
091900 00 1016 0000 217 0 092100 000000
095000 00 1015
101500 00 1014
104000 00 1013
110000 00 1012
112400 00 1011
114800 00 1010
121900 00 1009
130800 00 1008
140500 00 1007
145100 00 1008
152200 00 1009
154600 00 1010
160800 00 1011
103000 00 1015 0000 218 0 093000 000000
112100 00 1014
120000 00 1013
123200 00 1012
130900 00 1011
140000 00 1010
154000 00 1009
090700 00 1013 0000 219 0 090500 000000
093900 00 1014
101900 00 1015
121500 00 1016
130000 00 1015
133900 00 1014
141500 00 1013
145100 00 1012

160800 00 1011
103000 00 1015 0000 218 0 093000 000000
112100 00 1014
120000 00 1013
123200 00 1012
130900 00 1011
140000 00 1010
154000 00 1009
090700 00 1013 0000 219 0 090500 000000
093900 00 1014
101900 00 1015
121500 00 1016
130000 00 1015
133900 00 1014
141500 00 1013
145100 00 1012
091000 00 1011 0000 220 0 093500 000000
093000 00 1012
095100 00 1013
101500 00 1014
104200 00 1015
112000 00 1016
130000 00 1017
134200 00 1016
142000 00 1015
145500 00 1014
152800 00 1013
160000 00 1012
080000 00 1004 0000 221 0 085000 000000
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083900 00 1006
085500 00 1007

090800 00 1008

091000 00 1008

092600 00 1009

094100 00 1010

095800 00 1011

101400 00 1012

103300 00 1013

105000 00 1014

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150000 00 1016

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154500 00 1014

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094900 00 1007

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101700 00 1009

103000 00 1010

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105800 00 1012

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112600 00 1014

114200 00 1015

120500 00 1016

122300 00 1017

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150800 00 1018
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090400 00 0001
092500 00 1000
094100 00 1001
095800 00 1002
101100 00 1003
102500 00 1004
103600 00 1005
104800 00 1006
110000 00 1007
111000 00 1008
112200 00 1009
113300 00 1010
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115600 00 1012
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123200 00 1015
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125400 00 1017
130600 00 1018
132300 00 1019
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143000 00 1021
150500 00 1022
154500 00 1021
160600 00 1020
105500 00 1002 0000 226 0 111000 000000
110800 00 1003
111900 00 1004
112800 00 1005

113800 00 1006
114900 00 1007
120000 00 1008
121000 00 1009
122000 00 1010
123000 00 1011
124000 00 1012
125100 00 1013

130000 00 1014
130900 00 1015
131800 00 1016
132800 00 1017
134000 00 1018
135300 00 1019
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142500 00 1021
144500 00 1022
151200 00 1023
155400 00 1024

085400.00 1000 0000 227 0 093500 000000

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105100 00 1000
110500 00 1001
111800 00 1002
113100 00 1003
114300 00 1004
115500 00 1005
120600 00 1006
121700 00 1007
122800 00 1008
123700 00 1009

130700 00 1012
131800 00 1013
133000 00 1014
134100 00 1015
135400 00 1016
140800 00 1017
142200 00 1018
143500 00 1019
145000 00 1020
151000 00 1021
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131600 00 1007
132900 00 1008
134200 00 1009
135500 00 1010
140900 00 1011
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092700 00 1012
094200 00 1011
095600 00 1010
101100 00 1009
102900 00 1008
105100 00 1007
111600 00 1006
124200 00 1005
130800 00 1006
132700 00 1007
134500 00 1008
140200 00 1009
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143200 00 1011

145800 00 1013
151200 00 1014
152400 00 1015
153500 00 1016
154800 00 1017
160200 00 1018
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110500 00 1011
112600 00 1010
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125000 00 1008
133000 00 1007
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170500 00 1018
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173800 00 1020
181000 00 1021
182500 00 1022
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195000 00 1024

095000 00 1017 0000 233 0 092400 000000

102500 00 1016

105200 00 1015

111800 00 1014

114500 00 1013

121100 00 1012

123900 00 1011

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162700 00 1012

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135500 00 1019
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101100 00 1006

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153500 00 1022
154700 00 1021
155700 00 1020
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092300 00 0003
093700 00 0002
095000 00 0001
100000 00 1000
101100 00 1001
102000 00 1002
102900 00 1003
103700 00 1004

104400 00 1005
105100 00 1006
105900 00 1007
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145600 00 1027
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095600 00 0003
101200 00 0002
102600 00 0001
103700 00 1000

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110500 00 1003
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142200 00 1010
144300 00 1011
150000 00 1012
151500 00 1013
153000 00 1014
154500 00 1015
155700 00 1016
090000 00 1017 0000 246 0 095500 000000
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100200 00 1015
102300 00 1014
104400 00 1013
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112500 00 1011
115700 00 1010
135400 00 1009
142200 00 1010
144200 00 1011
150100 00 1012
151700 00 1013
153000 00 1014
154500 00 1015
155800 00 1016
100000 00 1015 0000 247 0 084200 000000
104800 00 1014

114000 00 1013
124000 00 1012
153000 00 1011
161500 00 1012
080600 00 1012 0000 248 0 084200 000000
083500 00 1013
091000 00 1014
100600 00 1015
110500 00 1016
121500 00 1015
130500 00 1014
140200 00 1013
160000 00 1012
082500 00 1011 0000 249 0 084200 000000
085100 00 1012
091500 00 1013
093600 00 1014
095700 00 1015
102500 00 1016
110700 00 1017
122000 00 1018
120200 00 1018 0000 251 0 123900 000000
124000 00 1019
132500 00 1020
140800 00 1019
143500 00 1018
145700 00 1017
151700 00 1016
153500 00 1015
155200 00 1014
085500 00 1004 0000 252 0 090100 000000
091100 00 1005

103000 00 1005 0000 255 0 103000 000000

104000 00 1006 0000

105100 00 1007

110000 00 1008

111200 00 1009

111800 00 1010

113000 00 1011

113800 00 1012

130000 00 1021
080000 00 1000 0000 256 0 102900 000000
092300 00 0001
094200 00 0000
095600 00 1001
100900 00 1002
102100 00 1003
103200 00 1004
104300 00 1005
105300 00 1006
110400 00 1007
111400 00 1008
112300 00 1009
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114200 00 1011
115100 00 1012
120000 00 1013
121100 00 1014
122000 00 1015
123000 00 1016
123900 00 1017
124800 00 1018
125800 00 1019
130800 00 1020
132000 00 1021
133300 00 1022
135200 00 1023
142000 00 1024
153000 00 1025
081100 00 1008 0000 258 0 094900 000000
082500 00 1007
083000 00 1006

093200 00 1003
104200 00 1002
110500 00 1003
112100 00 1004
113500 00 1005
114700 00 1006
120000 00 1007
121200 00 1008
122300 00 1009
123500 00 1010
124600 00 1011
125600 00 1012
130500 00 1013
131400 00 1014
132300 00 1015
133400 00 1016
134400 00 1017
135400 00 1018
140500 00 1019
141800 00 1020
142900 00 1021
144100 00 1022
145300 00 1023
150800 00 1024
080500 00 1014 0000 259 0 094900 000000
081800 00 1013
082900 00 1012
084100 00 1011
085400 00 1010
090800 00 1009
092100 00 1008
093800 00 1007

100000 00 1006
114300 00 1005
120900 00 1006
122800 00 1007
124400 00 1008
125700 00 1009
130900 00 1010
132200 00 1011
133300 00 1012
134500 00 1013
135600 00 1014
140700 00 1015
141800 00 1016
142900 00 1017
144100 00 1018
145300 00 1019
150600 00 1020
151900 00 1021
153200 00 1022
154600 00 1023
160000 00 1024
090600 00 1014 0000 260 0 090100 000000
092100 00 1013
093500 00 1012
095200 00 1011
101100 00 1010
103800 00 1009
124200 00 1008
131000 00 1009
132900 00 1010
134600 00 1011
140000 00 1012

144400 00 1015
145600 00 1016
150900 00 1017
152400 00 1018
153700 00 1019
155000 00 1020
160400 00 1021
084800 00 1018 0000 261 0 092800 000000
090800 00 1017
092700 00 1016
094600 00 1015
100800 00 1014
103000 00 1013
105400 00 1012
112500 00 1011
121000 00 1010
130000 00 1009
134800 00 1010
141500 00 1011
143600 00 1012
145500 00 1013
151200 00 1014
152800 00 1015
154300 00 1016
160000 00 1017
091200 00 1018 0000 262 0 091900 000000
100000 00 1017
103000 00 1016
110000 00 1015
112700 00 1014
115700 00 1013
123200 00 1012
150000 00 1011

100000 00 1006
080500 00 1014 0000 263 0 084200 000000
080500 00 1014
083000 00 1015
085600 00 1016
094000 00 1017
105100 00 1018
113800 00 1017
121000 00 1016
123800 00 1015
130400 00 1014
133600 00 1013
141100 00 1012
165000 00 1011
172200 00 1012
175000 00 1013
181400 00 1014
183500 00 1015
185600 00 1016
191700 00 1017
193600 00 1018
195600 00 1019
202200 00 1020
205600 00 1021
090000 00 1014 0000 264 0 092800 000000
091600 00 1015
093200 00 1016
095000 00 1017
101000 00 1018
103800 00 1019
122800 00 1020
130000 00 1019
132300 00 1018

140200 00 1016
075700 00 1006 0000 265 0 083400 000000
081100 00 1006
082300 00 1007
083600 00 1008
084900 00 1009
085900 00 1010
091000 00 1011
092100 00 1012
093200 00 1013
094300 00 1014
095600 00 1015
100900 00 1016
102100 00 1017
103500 00 1018
105000 00 1019
110800 00 1020
113000 00 1021
120000 00 1022
130000 00 1023
133200 00 1022
135300 00 1021
140900 00 1020
142400 00 1019
144000 00 1018
145500 00 1017
150900 00 1016
152200 00 1015
153500 00 1014
154800 00 1013
160200 00 1012
080000 00 1001 0000 266 0 082300 000000
081500 00 1002

082700 00 1003
083900 00 1004
085000 00 1005
090000 00 1006
091000 00 1007
092100 00 1008
093100 00 1009
094100 00 1010
095200 00 1011
100000 00 1012
101000 00 1013
102000 00 1014
103000 00 1015
104000 00 1016
105100 00 1017
110400 00 1018
111800 00 1019
113100 00 1020
115000 00 1021
121000 00 1022
122900 00 1023
125200 00 1024
135000 00 1025
141000 00 1024
142900 00 1023
144300 00 1022
145800 00 1021
151000 00 1020
152200 00 1019
153300 00 1018
154300 00 1017
155400 00 1016
160000 00 1015

090700 00 1002 0000 267 0 090400 000000

091800 00 1003

092800 00 1004

093900 00 1005

094800 00 1006

095700 00 1007

100500 00 1008

101400 00 1009

102300 00 1010

103200 00 1011

104000 00 1012

104800 00 1013

105700 00 1014

110600 00 1015

111500 00 1016

112200 00 1017

113000 00 1018

114000 00 1019

114900 00 1020

115900 00 1021

121000 00 1022

122400 00 1023

123800 00 1024

125700 00 1025

084100 00 0002 0000 268 0 085000 000000

091100 00 0001

092700 00 1000

093900 00 1001

095000 00 1002

100200 00 1003

101100 00 1004

102100 00 1005

102900 00 1006

083900 00 1004

103800 00 1007

104700 00 1008

105400 00 1009

110300 00 1010

111200 00 1011

111900 00 1012

112800 00 1013

113500 00 1014

114300 00 1015

115100 00 1016

120000 00 1017

120900 00 1018

121800 00 1019

122700 00 1020

123600 00 1021

124600 00 1022

125600 00 1023

130600 00 1024

131700 00 1025

132900 00 1026

134600 00 1027

152300 00 1028

154100 00 1027

155300 00 1026

160100 00 1025

160700 00 1024

080000 00 1000 0000 269 0 84500 000000

082600 00 0001

092500 00 0002

094500 00 0001

095800 00 1000

103300 00 1003
104200 00 1004
105200 00 1005
110300 00 1006
111100 00 1007
111900 00 1008
112800 00 1009
113600 00 1010
114400 00 1011
115200 00 1012
120000 00 1013
120900 00 1014
121800 00 1015
122600 00 1016
123400 00 1017
124200 00 1018
125000 00 1019
125900 00 1020
130800 00 1021
131800 00 1022
132800 00 1023
133800 00 1024
134900 00 1025
140000 00 1026
141400 00 1027
143500 00 1028
110000 00 1004 0000 272 0 113200 000000
111200 00 1005
112400 00 1006
113600 00 1007
114700 00 1008
115800 00 1009
091400 00 1010 0000 273 0 093400 000000

094000 00 1009
113000 00 1008
115400 00 1009
121400 00 1010
123100 00 1011
124700 00 1012
130400 00 1013
131800 00 1014
133200 00 1015
134600 00 1016
135900 00 1017
141400 00 1018
142800 00 1019
144200 00 1020
145800 00 1021
151500 00 1022
153500 00 1023
160000 00 1024
091800 00 1013 0000 274 0 091600 000000
094000 00 1012
101100 00 1011
122000 00 1010
125000 00 1011
131600 00 1012
133700 00 1013
135600 00 1014
141400 00 1015
143100 00 1016
144800 00 1017
150600 00 1018
152600 00 1019
154700 00 1020

124500 00 1010 0000 275 0 125300 000000

133500 00 1011

140700 00 1012

143600 00 1013

150000 00 1014

152800 00 1015

155100 00 1016

103400 00 1014 0000 276 0 104600 000000

112500 00 1013

123200 00 1012

140000 00 1011

150800 00 1012

155500 00 1013

102000 00 1017 0000 278 0 100400 000000

114000 00 1018

122700 00 1017

130000 00 1016

132700 00 1015

140000 00 1014

143100 00 1013

150800 00 1012

160000 00 1011

095100 00 1016 0000 279 0 102300 000000

101200 00 1017

103800 00 1018

112100 00 1019

121500 00 1020

130000 00 1019

132700 00 1018

135200 00 1017

141300 00 1016

143300 00 1015

092000 00 1014
145200 00 1014

151500 00 1013

153600 00 1012

160500 00 1011

100700 00 1017 0000 280 0 095300 000000

102000 00 1018

103600 00 1019

105400 00 1020

111800 00 1021

120000 00 1022

125000 00 1023

133400 00 1022

135800 00 1021

141700 00 1020

143300 00 1019

144800 00 1018

150000 00 1017

090300 00 1013 0000 281 0 092300 000000

091500 00 1014

092800 00 1015

094900 00 1016

095100 00 1017

100200 00 1018

101400 00 1019

102800 00 1020

104200 00 1021

110000 00 1022

113000 00 1023

125000 00 1024

131600 00 1023

133500 00 1022

135000 00 1021

143200 00 1025
145100 00 1024
150000 00 1023
100400 00 1003 0000 286 0 103500 000000
102100 00 1004
103600 00 1005
104700 00 1006
105900 00 1007
111000 00 1008
112000 00 1009
113000 00 1010
113900 00 1011
114800 00 1012
115700 00 1013
120800 00 1014
121700 00 1015
122600 00 1016
123600 00 1017
124500 00 1018
125400 00 1019
130200 00 1020
131500 00 1021
132400 00 1022
133600 00 1023
134900 00 1024
140600 00 1025
142200 00 1026
144000 00 1027
154500 00 1028
160800 00 1027
162200 00 1026
167500 00 1025
102700 00 0002
102800 00 0001

165000 00 1024
170300 00 1023
080000 00 1009 0000 287 0 083900 000000
081000 00 1008
082400 00 1007
084500 00 1006
092000 00 1005
102000 00 1004
104600 00 1005
110000 00 1006
111300 00 1007
112600 00 1008
113800 00 1009
115000 00 1010
120000 00 1011
121100 00 1012
122200 00 1013
123200 00 1014
124300 00 1015
125300 00 1016
130300 00 1017
131400 00 1018
132500 00 1019
133500 00 1020
134600 00 1021
135600 00 1022
140700 00 1023
142100 00 1024
143600 00 1025
145500 00 1026
152000 00 1027
162000 00 1028

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

| VESSEL | SERIAL NO. | DATE | PROJ. NO. | | YEAR | WEIGHT OF SAMPLER | APPROX. FINESTRACTION | LENGTH OF CORE | COLOR OF SEDIMENT | FIELD DESCRIPTION | REMARKS (General conditions, cohesiveness, density, cutter, station, type of bottom, relief, etc.) |
|-----------|------------|--------|-----------|------------|------|-------------------|-----------------------|----------------|-------------------|-------------------------|---|
| | | | CGOS-424 | 1969 | | | | | | | |
| USCGC ESS | | | LATITUDE | LONGITUDE | | DEPTH (Pathway) | | | | | |
| USCGC ESS | 3640 | 8 Aug. | 55°12.6' | 131°42.2' | 1969 | 75 lb | Surface | N/A | N/A | gn M, P, Sh, crs S | |
| | 3641 | " | 55°12.3' | 131°42.5' | | " | " | " | " | gn M, P, gn gy S, Sh | |
| | 3642 | 9 Aug. | 55°15.27' | 131°39.18' | | 71.5 | " | " | " | brk Sh, gn M, fine gy S | |
| | 3643 | " | 55°15.3' | 131°38.43' | | 88.3 | " | " | " | fine gy S, gn M, brk Sh | |
| | 3644 | " | 55°15.24' | 131°38.11' | | 62.9 | " | " | " | gn M, crs gy S, brk Sh | |
| | 3645 | " | 55°15.24' | 131°37.44' | | 36.8 | " | " | " | gn M, crs gy S, brk Sh | |
| | 3646 | " | 55°15.24' | 131°36.78' | | 35.7 | " | " | " | gn M, crs gy S, brk Sh | |
| | 3647 | " | 55°15.0' | 131°36.97' | | 41- | " | " | " | br M gy S brk Sh | |
| | 3648 | " | 55°14.87' | 131°37.50' | | 46.8 | " | " | " | br M P SE brk Sh | |
| | 3649 | " | 55°14.34' | 131°38.40' | | 21.6 | " | " | " | gn M brk Sh | |
| | 3650 | " | 55°14.84' | 131°39.22' | | 34.9 | " | " | " | gn M crs gy S brk Sh | |
| | 3651 | " | 55°14.50' | 131°40.05' | | 63- | " | " | " | gn M, brk Sh, P | |
| | 3652 | " | 55°14.54' | 131°39.58' | | 88.5 | " | " | " | gn M, fine gr S, brk Sh | |
| | 3653 | " | 55°14.6' | 131°38.84' | | 85- | " | " | " | gn M brk Sh P | |
| | 3654 | " | 55°14.44' | 131°38.12' | | 95.5 | " | " | " | gn M brk Sh | |
| | 3655 | " | 55°14.56' | 131°37.15' | | 68.7 | " | " | " | gn M brk Sh | |
| | 3656 | " | 55°14.6' | 131°36.77' | | 33.5 | " | " | " | gn M, fine gr S, brk Sh | |

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

| VESSEL | SERIAL NO. | DATE | SAMPLE POSITION | | DEPTH (Fathoms) | WEIGHT OF SAMPLER | AP- PROX. PENE- TRATION | LENGTH OF CORE | COLOR OF SEDI- MENT | FIELD DESCRIPTION | REMARKS (Unusual conditions, consistency, density, color, grain, type of bottom noted, etc., slope, plan, disposition, etc.) |
|---------------|------------|-----------|-----------------|-----------|--------------------|-------------------------|----------------------------------|----------------------|------------------------------|-------------------|---|
| | | | LATITUDE | LONGITUDE | | | | | | | |
| USCGC Spencer | | | PR-4204 | | 1969 | 2000 | PR-4204 | PR-4204 | | | |
| | 2657 | 24 Aug 69 | SS 14 27 | 131 32.27 | 552 | 750 | 5000 | N/A | gn M BK SH | | |
| | 2658 | " | SS 14 22 | 131 37.02 | 766 | " | " | " | gn M BK SH | | |
| | 2659 | " | SS 14 12 | 131 38.95 | 516 | " | " | " | gn M BK SH | | |
| | 2660 | " | SS 14 10 | 131 34 | 525 | " | " | " | gn M BK SH | | |
| | 2661 | " | SS 14 08 | 131 34.02 | 515 | " | " | " | gn M BK SH | | |
| | 2662 | " | SS 14 16 | 131 40.19 | 685 | " | " | " | gn M BK SH | | |
| | 2663 | " | SS 13 37 | 131 45.79 | 832 | " | " | " | gn M bk SH | | |
| | 2664 | " | SS 13 36 | 131 51.11 | 738 | " | " | " | gn M bk SH | | |
| | 2665 | " | SS 13 25 | 131 48.01 | 675 | " | " | " | gn M bk SH | | |
| | 2666 | " | SS 13 23 | 131 38.6 | 785 | " | " | " | gn M bk SH | | |
| | 2667 | " | SS 13 38 | 131 31.6 | 986 | " | " | " | gn M bk SH | | |
| | 2668 | 10 Aug 69 | SS 13 38 | 131 37 | 573 | " | " | " | gn M, bk SH | | |
| | 2669 | " | SS 13 58 | 131 36.5 | 395 | " | " | " | gn M, bk SH | | |
| | 2670 | " | SS 13 24 | 131 32.5 | 564 | " | " | " | gn M, bk SH | | |
| | 2671 | " | SS 13 52 | 131 37.75 | 907 | " | " | " | gn M bk SH | | |
| | 2672 | " | SS 13 56 | 131 38.58 | 754 | " | " | " | gn M bk SH | | |
| | 2673 | " | SS 13 51 | 131 39.6 | 662 | " | " | " | gn M, bk SH | | |

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

| VESSEL | SERIAL NO. | DATE | PROJ. NO. | | YEAR | DEPTH (fathoms) | WEIGHT OF SAMPLE | APPROX. PRELIMINARY TRANSPORTATION | LENGTH OF CORE | COLOR OF SEDIMENT | FIELD DESCRIPTION | REMARKS (Unusual conditions, cohesiveness, density, cutter, seal no., type of bottom relief, etc.) |
|----------|------------|------|-----------|-----------|------|-----------------|------------------|------------------------------------|----------------|----------------------------|-------------------|---|
| | | | CODE | NUMBER | | | | | | | | |
| McARTHUR | | | CGR | 424 | 1969 | | | | | | | |
| | | | | | | | | | | | | |
| 3670 | 10A-10 | 11 | 55 12 30 | 131 36 30 | 702 | 1514 | 8.6 | 100 | 1/2 | gnM, fine gy S, P, St | | |
| 3675 | " | " | 55 13 00 | 131 40 00 | 73.0 | " | " | " | " | gnM, brk Sh, St, ss S | | |
| 3676 | " | " | 55 13 06 | 131 40 50 | 66.5 | " | " | " | " | gnM, fine br S, St | | |
| 3677 | " | " | 55 13 15 | 131 39 00 | 51.8 | " | " | " | " | PKY | | |
| 3678 | " | " | 55 13 22 | 131 38 00 | 59.8 | " | " | " | " | St | | |
| 3679 | " | " | 55 13 28 | 131 37 00 | 75 | " | " | " | " | gnM, fine br S, brk Sh | | |
| 3680 | " | " | 55 13 34 | 131 37 17 | 78 | " | " | " | " | gnM, fine br S, brk Sh | | |
| 3691 | " | " | 55 13 35 | 131 37 00 | 91 | " | " | " | " | Rk | | |
| 3682 | 12 AUG 69 | | 55 12 30 | 131 36 30 | 42.2 | " | " | " | " | gnM, fine gy S, P, St | | |
| 3683 | " | " | 55 12 30 | 131 38 40 | 60.1 | " | " | " | " | gnM, fine gy S, brk Sh | | |
| 3684 | " | " | 55 12 38 | 131 38 00 | 58.6 | " | " | " | " | gnM, fine gy S, P, St | | |
| 3685 | " | " | 55 12 40 | 131 37 35 | 48.1 | " | " | " | " | gnM, fine gy S, brk Sh, St | | |
| 3686 | " | " | 55 4 00 | 31 36 70 | 68.8 | " | " | " | " | gnM, fine gy S, brk Sh, St | | |
| 3687 | " | " | 55 12 30 | 131 37 68 | 72.2 | " | " | " | " | gnM, fine gy S, brk Sh | | |
| 3688 | " | " | 55 12 30 | 131 38 30 | 56.9 | " | " | " | " | gnM, fine gy S, brk Sh | | |
| 3689 | " | " | 55 12 47 | 131 38 55 | 52.3 | " | " | " | " | gnM, fine br S | | |
| 3690 | " | " | 55 12 30 | 131 36 30 | 56.5 | " | " | " | " | gnM, P, St | | |

Use more than one line per sample if necessary.

FORM 733M
 (9-23-60)

OCEANOGRAPHIC LOG SHEET - M
 BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY

| SERIAL NO. | DATE | SAMPLE POSITION | | DEPTH (Fathoms) | WEIGHT OF SAMPLER | APPROX. PERCENTAGE OF SILTATION | LENGTH OF TUBE | LENGTH OF CORE | FIELD DESCRIPTION | REMARKS (Unusual conditions, co- hesiveness, dated cutter, free fall, state, no., trigger core no., date extended, disposition, etc.) | OBS. INIT. |
|-----------------|-----------|-----------------|-----------|--------------------|-------------------------|--|----------------------|----------------------|----------------------------------|--|---------------|
| | | LATITUDE | LONGITUDE | | | | | | | | |
| 3691 | 12 AUG 69 | 55 12.82 | 131 37.00 | 87- | 75 lb | Surf | N/A | N/A | gnM, fine brs, brk sh | | |
| 3692 | " | 55 12.18 | 131 37.63 | 59.7 | " | " | " | " | gnM, fine brs, brk sh | | |
| 3693 | " | 55 | 131 | | N/A | N/A | " | " | gnM, fine brs, brk sh | | |
| 3694 | " | 55 12.23 | 131 38.42 | 56.9 | 75 lb | Surf | " | " | gnM, fine qz, brk sh | | |
| 3695 | " | 55 12.42 | 131 37.12 | 46- | " | " | " | " | gnM, fine qz | | |
| 3696 | " | 55 12.35 | 131 39.88 | 40- | " | " | " | " | gnM, fine qz, p | | |
| 3697 | " | 55 12.35 | 131 39.83 | 50.8 | " | " | " | " | gnM, fine qz, G | | |
| 3698 | " | 55 12.28 | 131 41.35 | 65.6 | " | " | " | " | gnM, qz, s, p, st | | |
| 3699 | " | 55 12.30 | 131 42.10 | 44.5 | " | " | " | " | gnM, fine qz, s, B, brk sh | | |
| 3700 | " | 55 12.70 | 131 42.00 | 47.9 | " | " | " | " | gnM, fine qz, s, brk sh | | |
| 3701 | " | 55 12.75 | 131 41.50 | 54.8 | " | " | " | " | gnM, fine qz, s, brk sh | | |

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

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

| SAL. NO. | DATE | SAMPLE POSITION | | DEPTH (Fathoms) | WEIGHT OF SAMPLER | AP. PROX. TRA- N- SITION | LENGTH OF CORE | COLOR OF SEDIMENT | FIELD DESCRIPTION | REMARKS (Unusual conditions, corals, etc., depth, nature of bottom, etc.) | OBS. INIT. |
|----------|----------|-----------------|----------------|--------------------|-------------------------|--------------------------------------|----------------------|-------------------------|-----------------------------|--|---------------|
| | | LATITUDE N | LONGITUDE W | | | | | | | | |
| ARTHUR | | | | | | | | | | | |
| | | OPR-424 | | 1969 | | MA 10-2-69 | | CHECKED BY | | DATE CHECKED | |
| 37002 | 10 Sept. | 55° 12.85' | 131° 39.2' | 49.3 | 75 lb | Surf. sec. | N/A | N/A | fine gy S brk sh gn M | | |
| 37003 | " | 55° 12.75' | 131° 40.15' | 42.1 | " | " | " | " | fine gy S brk sh br M | | |
| 37004 | " | 55° 12.75' | 131° 40.6' | 57.2 | " | " | " | " | fine gy S brk sh br M | | |
| 37005 | " | 55° 12.75' | 131° 41.2' | 59.7 | " | " | " | " | fine gy S brk sh gn M | | |
| 37006 | " | 55° 12.81' | 131° 41.6' | 50.1 | " | " | " | " | fine gy S brk sh br M | | |
| 37007 | " | 55° 13.2' | 131° 40.8' | 54.3 | " | " | " | " | fine gy S brk sh br M | | |
| 37008 | " | 55° 13.2' | 131° 41.95' | 32.3 | " | " | " | " | fine gy S brk sh br M | | |

When used, fill in per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

| SERIAL NO. | DATE | SAMPLE POSITION | | DEPTH (Fathoms) | WEIGHT OF SAMPLER | APPROX. PENE- TRATION | LENGTH OF TUBE | LENGTH OF CORE | FIELD DESCRIPTION | REMARKS (Unusual conditions, cor- rosiveness, denied cutter, free fall, steel. no., trigger core no., date extended, disposition, etc.) | OBS. INIT |
|------------|---------------|-----------------|-------------|--------------------|-------------------------|-----------------------------|----------------------|----------------------|-----------------------------------|--|--------------|
| | | LATITUDE | LONGITUDE | | | | | | | | |
| 5456 | 1969 3 OCT | SS 34.7' | 131° 44.9' | 8.3 | 15.2 | NA | NA | NA | Fine gy S, g.M | | |
| 5457 | " | SS 44.5' | 131° 44.7' | 12.0 | " | " | " | " | Fine gy S, g.M | | |
| 5458 | " | SS 44.2' | 131° 44.42' | 10.4 | " | " | " | " | Fine gy S, g.M | | |
| 5459 | " | SS 73.88' | 131° 49.03' | 16.3 | " | " | " | " | S + P | | |
| 5514 | SOCT | SS 12.55' | 131° 38.87' | 18.2 | " | " | " | " | rkv | | |
| 5515 | " | SS 12.7' | 131° 36.33' | 18.5 | " | " | " | " | rkv rkv bk SL fine sh | | |
| 5516 | " | SS 13.15' | 131° 36.37' | 20.0 | " | " | " | " | rkv S fine gy S, g.M, bk SL | | |
| 5517 | " | SS 12.04' | 131° 36.35' | 19.2 | " | " | " | " | rkv | | |
| 5518 | " | SS 13.77' | 131° 36.62' | 20.9 | " | " | " | " | rkv | | |
| 5519 | " | SS 14.22' | 131° 36.68' | 15.0 | " | " | " | " | bk sh | | |
| 5520 | " | SS 14.58' | 131° 36.55' | 19.7 | " | " | " | " | rkv | | |
| 5527 | " | SS 14.83' | 131° 36.35' | 14.1 | " | " | " | " | g.M, fine gy S, bk SL | | |
| 5528 | " | SS 15.09' | 131° 36.34' | M | " | " | " | " | rkv | | |
| 5529 | " | SS 15.29' | 131° 36.26' | 16.7 | " | " | " | " | fine gy S, g.M, bk SL | | |
| 5538 | " | SS 15.15' | 131° 40.59' | 18.5 | " | " | " | " | S _h | | |
| 5539 | " | SS 15.05' | 131° 41' | 19.5 | " | " | " | " | Fine gy S, P | | |
| 5551 | " | SS 13.55' | 131° 42.53' | 15.2 | " | " | " | " | Fine gy S, g.M, bk SL | | |

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

| SERIAL NO. | DATE | SAMPLE POSITION | | DEPTH (Fathoms) | WEIGHT OF SAMPLE | APPROX. PENE- TRATION | LENGTH OF TUBE | LENGTH OF CORE | FIELD DESCRIPTION | REMARKS (Unusual conditions, co- hesiveness, dented cutter, free fall, stat. no., trigger core no., date extruded, disposition, etc.) | OBS. INIT. |
|------------|--------------|-----------------|-----------|--------------------|------------------------|-----------------------------|----------------------|----------------------|----------------------|--|---------------|
| | | LATITUDE | LONGITUDE | | | | | | | | |
| 5552 | 1969 SOCT | SS 13 52 | 131 43 17 | 9.8 | 15.4 | NA | NA | NA | P | | |
| 5553 | " | SS 13 52 | 131 43 55 | 5.0 | " | " | " | " | brk sh, brk LKY | | |
| 5554 | " | SS 13 49 | 131 44 04 | 9.4 | " | " | " | " | gn M, fine gy S | | |
| 5555 | " | SS 13 27 | 131 43 25 | 3.2 | " | " | " | " | LKY | | |
| 5556 | " | SS 13 24 | 131 47 27 | 9.7 | " | " | " | " | fine gy S, P brk sh | | |
| 5557 | " | SS 12 96 | 131 42 55 | 8.3 | " | " | " | " | P, brk sh | | |
| 5558 | SOCT | SS 13 08 | 131 44 | 2.0 | " | " | " | " | P | | |
| 5559 | " | SS 12 93 | 131 43 37 | 7.5 | " | " | " | " | LKY | | |
| 5629 | " | SS 12 67 | 131 43 28 | 14.8 | " | " | " | " | SE | | |
| 5630 | " | SS 12 47 | 131 42 58 | 8.7 | " | " | " | " | Co2 Sh, gn M, P | | |
| 5631 | " | SS 12 44 | 131 42 17 | 19.8 | " | " | " | " | fine gy S, gn M, P | | |
| 5632 | " | SS 12 12 | 131 42 58 | 19.7 | " | " | " | " | P | | |

Use more than one line per sample if necessary.