

8511

8511

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| Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT | |
| <i>Type of Survey</i> <u>HYDROGRAPHIC</u> | |
| <i>Field No.</i> <u>PBS-2156</u> <i>Office No.</i> <u>H-8511</u> | |
| LOCALITY | |
| <i>State</i> <u>NORTH CAROLINA</u> | |
| <i>General locality</i> <u>CAPE FEAR</u> | |
| <i>Locality</i> <u>FRYING PAN SHOALS</u> | |
| <u>19 56</u> | |
| CHIEF OF PARTY | |
| <u>K. S. ULM</u> | |
| LIBRARY & ARCHIVES | |
| DATE <u>JUN 2 1960</u> | |

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER NO. H-8511

Field No. PBS-2156

State NORTH CAROLINA

General locality CAPE FEAR

Locality FRYING PAN SHOALS

Scale 1:20,000 Date of survey 8 Aug. to 4 Oct. 1956

Instructions dated 17 February 1956

Vessel SHIPS PARKER, BOWEN & STIRNI

Chief of party K.S. ULM

Surveyed by R.C. DARLING, D.G. RUSHFORD, C.R. REED, W.R. KACHEL
W.N. LEE, O.L. DOSTER, E.R. SCYOC & L.L. SEAL

Soundings taken by ~~XXXXXX~~ graphic recorder, ~~XXXXXX~~

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by NORFOLK DISTRICT OFFICE

Protracted by A.K. SCHUGELD (NORFOLK PROCESSING OFFICE)

Soundings penciled by A.K. SCHUGELD " " "

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~

REMARKS:

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.....
.....
.....
.....
.....
.....

NORFOLK PROCESSING OFFICE
DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8511
HYDROGRAPHIC SURVEY H-8512

FIELD NO. PBS-2156
FIELD NO. PBS-2256

FRYING PAN SHOALS -- CAPE FEAR, NORTH CAROLINA

SHIPS PARKER, BOWEN & STIRNI

K.S. ULM, COMDG.

A-PROJECT

The field work accomplished during the 1956 season at Frying Pan Shoals was authorized by supplemental instructions, Project 1377, dated 17 February 1956.

B-SURVEY LIMITS AND DATES

These two surveys cover part of the area of Frying Pan Shoals, extending from approximate Lat. 33-54' on the North to approximate Lat. 33-37' on the South. There are no junctions with contemporary surveys. Work was done concurrently on the two surveys, beginning on 8 August 1956 and ending on 4 October 1956.

C-VESSELS AND EQUIPMENT

Hydrography was accomplished by Ship Parker using 808 fathometers numbers 112S and 117S, by Ship Bowen using 808 fathometer 160SPX, and by Ship Stirni using 808 fathometer number 151SPX and EDO number 21S. The three vessels operated at speeds varying from 400 to 1000 RPM, depending on water depths and sea conditions.

D-TIDE AND CURRENT STATIONS

See copy of letter from Chief, Tide and Currents Division, No. 36-61-267, dated 18 Feb. 1960, concerning tide stations used. Tide reducers were entered in the volumes from hourly heights requested from Washington Office, by personnel of the Norfolk Processing Office.

No current stations were occupied with-in the limits of these surveys.

E-SMOOTH SHEET

The smooth sheet projection was made by hand and all shoran arcs, shoreline, etc., were plotted by personnel of the Processing Office

F-CONTROL STATIONS

Both surveys were shoran controlled using stations KURE and HOLD.

Station KURE was located on the municipal water tank at Kure Beach, N.C., at Latitude 33-59' (1747 M) and Longitude 77-54' (659 M). This station was located by photogrammetric methods.

Station HOLD was a standard shoran antennae located by a short traverse from triangulation station Holdan, 1934. It's position is as follows: Lat. 33-55' (437.2 M), Long. 78-15' (1056.5 M)

G-SHORELINE AND TOPOGRAPHY

The shoreline for survey H-8511 was transferred from Corps of Engineers Quadrangles Snow Marsh, Cape Fear and Southport. H-8512 is an off-shore survey.

H-SOUNDINGS

Soundings were taken in the conventional manner using 808 and EDO fathometers. Velocity, tide, and index corrections where necessary, were applied to the soundings to the nearest 0.2 foot. Settlement and squat corrections were applied to the nearest 0.5 foot to simplify the processing operation.

All fathograms were check scanned and the soundings reduced with templates at 20 second intervals by personnel of the Processing Office.

I-CONTROL OF HYDROGRAPHY

All hydrographic positioning was done on shoran stations KURE and HOLD. Calibration data was recorded in separate volumes and the corrections entered before the sounding volumes were forwarded to the Processing Office.

J-ADEQUACY OF SURVEYS

They are adequate to supersede prior surveys for charting purposes.

K-CROSSLINES

Crosslines comprise approximately 5% of the work accomplished. Any discrepancies at crossings will be discussed in the Processing Office addendum.

L & M-COMPARISON WITH PRIOR SURVEYS AND CHART

These items will be discussed in the Addendum after the smooth sheet has been plotted.

N THRU Z

Not applicable, or else sufficient data is not in hand to furnish requested information.

NOTE: Much of the information in the body of this report was taken from the SEasons Report of 1956. This report should be referred to for back-ground information on these two surveys. It also mentions a Hydrographic Descriptive Report, how-ever, this item is not listed in the Field Inventory of Records nor was one received by this Office.

Norfolk, Va.
11 March 1960

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer
Norfolk Processing Office

SHIPS PARKER, BOWEN & STIRNI

FATHOMETER VELOCITY CORRECTIONS
SURVEYS H-8511 & H-8512

Transcribed in the Norfolk Processing Office from curves compiled by the Field Party.

SHIP PARKER

FATH. NO. 117S (4.0' INITIAL)
8 AUG. TO 4 OCT. 1956

Table 1

A-SCALE

5.0 to 55.0 0.0'

B-SCALE

Table 2

35.0 to 57 -1.0'
58.0 to 78.0 -0.8'
79.0 to 90.0 -0.6'

FATH. NO. 112S (4.0' INITIAL)
10 APR. TO 4 OCT. 1956

A-SCALE

Table 3

5.0 to 55.0 0.0'

B-SCALE

Table 4

35.0 to 90.0 0.0'

SHIP BOWEN

FATH. NO. 160SPX (4.0' INITIAL)
8 AUG. TO 3 OCT. 1956

A-SCALE

Table 5

5.0 to 7.0 / 0.2'
8.0 to 12.0 0.0'
13.0 to 23.0 - 0.2'
24.0 to 27.0 - 0.0'
28.0 to 30.0 / 0.2'
31.0 to 34.0 / 0.4'
35.0 to 37.0 / 0.6'
38.0 to 42.0 / 0.8'
43.0 to 46.0 / 1.0'
47.0 to 51.0 / 1.2'
52.0 to 55.0 / 1.4'

B-SCALE

Table 6

35.0 to 37.0 / 0.4'
38.0 to 41.0 / 0.6'
42.0 to 46.0 / 0.8'
47.0 to 51.0 / 1.0'
52.0 to 55.0 / 1.2'
56.0 to 60.0 / 1.4'
61.0 to 65.0 / 1.6'
66.0 to 70.0 / 1.8'
71.0 to 75.0 / 2.0'
76.0 to END / 2.2'

SHIP STIRNI

EDO FATH. 215 (3.0' INITIAL)
23 & 24 AUG. 1956

A-SCALE

Table 7

5.0 to 18.0 -0.6
19.0 to 29.0 -0.4'
30.0 to 41.0 -0.2'
42.0 to 53.0 0.0'
54.0 to 64.0 / 0.2'
65.0 to 70.0 / 0.4'

(CONTINUED)

SHIP STIMNI

(CONTINUED)

FATH. NO. 151SPX (4.0' INITIAL)
12 & 14 SEPT. 1956

Table 8

A-SCALE

| | |
|--------------|-----------------|
| 5.0 to 15.0 | 0.0' |
| 16.0 to 27.0 | 0.2' |
| 28.0 to 36.0 | 0.4' |
| 37.0 to 46.0 | 0.2' |
| 47.0 to 53.0 | 0.0' |
| 54.0 to 55.0 | -0.2' |

Table 9.

B-SCALE

| | |
|--------------|-------|
| 35.0 to 46.0 | -0.8' |
| 47.0 to 56.0 | -1.0' |
| 57.0 to 66.0 | -1.2' |
| 67.0 to 76.0 | -1.4' |
| 77.0 to 86.0 | -1.6' |
| 87.0 to 90.0 | -1.8' |

NORFOLK PROCESSING OFFICE
 SETTLEMENT AND SQUAT CORRECTIONS
 Ships PARKER, BOWEN & STIRNI
 SURVEYS H-8511 & H-8512

The following is a list of settlement and squat corrections entered in the volumes for surveys H-8511 and H-8512. They are listed in increments of 0.5 feet as shown in table 29 of the Hydrographic Manual for exposed waters.

| SPEED (RPM) | CORRECTION (FEET) (/) | FROM DEPTH TO DEPTH (FEET) |
|----------------|--|---|
| 400 | 0.0 | all depths |
| 500 | 0.0 | all depths |
| 600 | / 0.5 0.0 | 15.0 0.0 to 20.0 16.0 21.0 and over |
| 700 | / 0.5 0.0 | 0.0 to 20.0 21.0 and over |
| 800 | / 1.0 / 0.5 | 0.0 to 15.0 16.0 and over |
| 900 | / 1.0 / 0.5 | 0.0 to 20.0 21.0 and over |
| 1000 | / 1.0 / 0.5 | 0.0 to 30.0 31.0 and over |

STATISTICS FOR
SURVEY H-8511 (PBS-2156)

| <u>VOLUME NO.</u> | <u>DAY LETTER</u> | <u>DATE</u> | <u>NO. POS.</u> | <u>STAT. MI.</u> |
|-------------------|-------------------|-------------|-----------------|------------------|
|-------------------|-------------------|-------------|-----------------|------------------|

SHIP PARKER

| | | | | |
|----------|----------|------------|------|-------|
| 1 | A (blue) | 12 Aug. 56 | 13 | 5.7 |
| 1 | B | 13 " | 14 | 6.2 |
| 1 | C | 20 " | 17 | 6.0 |
| 1 & 2 | D | 22 " | 206 | 53.8 |
| 2 & 3 | E | 23 " | 174 | 44.9 |
| 3 | F | 24 Sept. | 50 | 14.8 |
| 3, 4 & 5 | G | 27 " | 231 | 60.9 |
| 5 & 6 | H | 28 " | 176 | 51.1 |
| 6 | J | 1 Oct. | 88 | 25.7 |
| 6 & 7 | K | 2 " | 142 | 48.6 |
| 7 & 8 | L | 3 " | 159 | 33.3 |
| 8 | M | 4 " | 88 | 19.4 |
| | TOTAL | | 1358 | 369.6 |

SHIP BOWEN

| | | | | |
|-----------------|------------|------------|------|-------|
| 9 | A (purple) | 10 Aug. 56 | 16 | 7.0 |
| 9 | B | 11 " | 17 | 7.1 |
| 9 | C | 12 " | 16 | 7.1 |
| 9 & 10 | D | 22 " | 179 | 44.5 |
| 10, 11 & 12 | E | 23 " | 243 | 71.6 |
| 12 & 13 | F | 24 " | 137 | 41.1 |
| 13 | G | 11 Sept. | 40 | 8.0 |
| 13, 14 & 15 | H | 12 " | 304 | 70.3 |
| 15, 16 & 17 | J | 13 " | 275 | 67.7 |
| 17 & 18 | K | 14 " | 184 | 49.4 |
| 18 | L | 18 " | 88 | 26.2 |
| 18, 19, 20 & 21 | M | 20 " | 330 | 122.2 |
| 21 & 22 | N | 2 Oct. | 203 | 54.3 |
| 22 & 23 | P | 3 " | 199 | 51.9 |
| | TOTAL | | 2231 | 628.4 |

SHIP STIRNI

| | | | | |
|----|-----------|------------|-----|------|
| 24 | A (green) | 23 Aug. 56 | 55 | 0.0 |
| 24 | B | 24 " | 14 | 0.0 |
| 25 | C | 12 Sept. | 77 | 24.8 |
| 25 | D | 14 " | 14 | 4.2 |
| | TOTAL | | 160 | 29.0 |

| | | | | |
|--|--------------|--|------|--------|
| | GRAND TOTALS | | 3749 | 1027.0 |
|--|--------------|--|------|--------|

NORFOLK PROCESSING OFFICE
 FLOATING AIDS TO NAVIGATION
 H-8511

| <u>BUOY</u> | <u>LATITUDE</u> | <u>LONGITUDE</u> | <u>DEPTH</u> | <u>POS. NO.</u> | <u>DATE</u> |
|---------------------------------|-----------------|------------------|--------------|-----------------|-------------|
| <u>CAPE FEAR RIVER</u> | | | | | |
| Chan. L'td. Bell Buoy 9 | 33-52.25' | 78-00.70 | 33 | 1M(blu) | 10/4/56 |
| Channel Buoy 8 | 33-51.81 | 78-01.10 | 33 | 2M | " |
| Channel Buoy 7 | 33-51.63 | 78-01.40 | 31 | 3M | " |
| Chan. L'td. Bell Buoy 6 | 33-51.28 | 78-01.70 | 28 | 4M | " |
| Chan. Buoy 5 | 33-51.03 | 78-02.13 | 24 | 5M | " |
| Dumping Ground Buoy 1 | 33-51.57 | 78-03.60 | 19 | 79M | " |
| Chan. L'td. Buoy 4 | 33-50.59 | 78-02.45 | 29 | 81M | " |
| Entr. L'td. Whistle Buoy 2CF | 33-50.03 | 78-03.10 | 33 | 83M | " |

CAPE FEAR RIVER ENTRANCE SNAG BUOYS

| | | | | | |
|--------------|----------|----------|----|------|---------------|
| B&W Nun "H" | 33-53.39 | 78-07.08 | 29 | 58M | " |
| B&W Nun "M" | 33-52.89 | 78-06.68 | 31 | 59M | " |
| B&W Nun "L" | 33-52.30 | 78-06.70 | 34 | 60M | " |
| B&W Nun "K" | 33-52.70 | 78-06.05 | 31 | 61M | " |
| B&W Nun "G" | 33-53.12 | 78-04.82 | 23 | 62M | " |
| B&W Nun "GG" | 33-53.38 | 78-04.05 | 16 | 63M | " |
| B&W Nun "F" | 33-52.85 | 78-04.28 | 22 | 64M | " |
| B&W Nun "E" | 33-51.35 | 78-02.40 | 14 | 80M | " |
| B&W Can "FF" | 33-50.50 | 78-04.15 | 33 | 82M | " |
| B&W Can "EE" | 33-49.09 | 78-01.99 | 38 | 84M | " |
| B&W Nun "DD" | 33-48.89 | 78-00.74 | 33 | 85M | " |
| B&W Nun "A" | 33-49.25 | 78-59.55 | 24 | 86M | " |
| B&W Nun "B" | 33-50.15 | 78-00.80 | 22 | 87M | " |
| B&W Nun "D" | 33-50.90 | 78-01.08 | 16 | 88M | " |
| B&W Can "BB" | 33-48.35 | 78-58.22 | 16 | 230E | (pur) 8-23-56 |
| B&W Nun "AA" | 33-48.00 | 77-58.24 | 18 | 231E | " |
| B&W Nun "CC" | 33-48.92 | 77-58.43 | 17 | 232E | " |

C O P Y

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Washington 25, D. C.

No. 36-61-267

February 18, 1960

To: Norfolk District Officer
Coast and Geodetic Survey
102 West Olney Road
Norfolk 10, Virginia

Subject: Tidal data, Cape Fear, N. C. 1956

As requested in your letter of February 9, 1960, hourly heights referred to mean low water are enclosed. These have been corrected from records for Southport and Wilmington Beach, N. C. for use on surveys H-8511 and H-8512 off Cape Fear, N. C. Tides for this area are assumed to be sufficiently uniform so that separate zones are unnecessary for the reduction of soundings.

K. G. Crosby, Chief
Tides and Currents Division

Enclosures

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

GENERAL

This appears to be an excellent basic survey and no unusual conditions were experienced during the smooth plot. With the exception of the soundings between positions 148 and 149L (blue) which were not penciled on the smooth sheet, depths are in very good agreement at crossings considering the irregular and changeable character of the bottom in this exposed area.

COMPARISON WITH CHART 1236

There is a general shoaling around the outer perimeter of the survey with that is particularly noticeable along the 30 foot curve. (See the appended chart section showing comparative smooth sheet depths and curves in red ink).

Attention is directed to the 29 foot sounding at Lat. ^{33-50.5}~~35-30.5~~ and Long. 78-04.6. Also note the other indications of general shoaling around the approaches to the dredged ship channel leading to Wilmington.

Norfolk, Va.
20 June 1960

Respectfully submitted,



Hugh L. Proffitt
Cartographer

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

20 July 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
25 volumes of sounding records for

HYDROGRAPHIC SHEET 8511

Locality Frying Pan Shoals, N.C.

Chief of Party: K. S. Ulm in 1956
Plane of reference is mean low water
ft. on tide staff at
ft. below B. M.

Height of mean high water above plane of reference is 4.5 feet.

Condition of records satisfactory except as noted below:

J. M. Symons
Acting Chief, Tides Branch
~~Chief, Division of Tides and Currents~~

147 8511 (7956)

FIELD NO. P05 2156

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

HYDROGRAPHIC SURVEY CONTROL RECORD
(Explanation on reverse)

| FIELD ENTRY-HEADER | | GEO. POSITION | | COMPUTER CENTER ENTRY | | | | | | | | | | | | | |
|--------------------|------|---------------|--|-----------------------|---------|----------|---------------|-----------------|---|---|---|---|---|---|---|---|----|
| ENTERED | DATE | CHECKED | DEGREE | MIN. | SECONDS | PRO-GRAM | CONVERSIONS: | MACHINE WORDS | | | | | | | | | |
| | | | METERS | | | IDENTITY | MACHINE WORDS | PUNCHED MACHINE | | | | | | | | | |
| | | | | | | | ONE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| MASTER R1 | KURE | | LAT. | 03 | 359 | 1747.0 | RPD | | | | | | | | | | |
| SLAVE R2 | HOLD | | LONG. | 07 | 754 | 659.0 | RBD | | | | | | | | | | |
| | | | LAT. | 03 | 554 | 37.2 | | | | | | | | | | | |
| | | | LONG. | 07 | 815 | 1056.5 | | | | | | | | | | | |
| | | | AZIMUTH FROM R1 TO R2 | | | | | | | | | | | | | | |
| | | | AZIMUTH FROM R2 TO R1 | | | | | | | | | | | | | | |
| | | | BASELINE DISTANCE IN METERS | | | | | | | | | | | | | | |
| | | | SOUNDING REDUCERS (ECHO) 0 = NO CORRECTION TO BE APPLIED BY COMPUTER | | | | | | | | | | | | | | |
| | | | 1 = VELOCITY CORR. TO BE ADDED 2 = VELOCITY FACTOR IS MULTIPLIED | | | | | | | | | | | | | | |
| | | | ARC OF DISTANCE MEASUREMENT | | | | | | | | | | | | | | |
| | | | ARC INTERVAL FOR S/S | | | | | | | | | | | | | | |
| | | | TIDE BASE ENTERED INTO TAPE | | | | | | | | | | | | | | |
| | | | H- IDENTIFICATION NUMBER | | | | | | | | | | | | | | |
| | | | LOCATION OF SURVEY IN RESPECT TO THE ELECTRONIC BASELINE --A OR +A | | | | | | | | | | | | | | |

PUNCHED: _____
ENTERED: _____
CHECKED: _____
DATE: _____

| FIELD ENTRY-HEADER | | GEO. POSITION | | COMPUTER CENTER ENTRY | | | | | | | | | | | | | |
|---|------|---------------|--------|-----------------------|---------|----------|---------------|-----------------|---|---|---|---|---|---|---|---|----|
| ENTERED | DATE | CHECKED | DEGREE | MIN. | SECONDS | PRO-GRAM | CONVERSIONS: | MACHINE WORDS | | | | | | | | | |
| | | | METERS | | | IDENTITY | MACHINE WORDS | PUNCHED MACHINE | | | | | | | | | |
| | | | | | | | ONE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| SEMI-MAJOR AXIS OF THE EARTH | | | | | | | | | | | | | | | | | |
| X CONSTANT ADDED TO ADJUST ZERO ORIGIN OF PLOTTER | | | | | | | | | | | | | | | | | |
| Y CONSTANT SUBTRACTED TO ADJUST ZERO ORIGIN OF PLOTTER | | | | | | | | | | | | | | | | | |
| CENTRAL MERIDIAN OF PROJECTION | | | | | | | | | | | | | | | | | |
| PLOTTER SCALE ÷ SURVEY SCALE | | | | | | | | | | | | | | | | | |
| CODE TO ADJUST X OR Y OF PLOTTER TO NORTH OF SURVEY SHEET | | | | | | | | | | | | | | | | | |
| SHORT LONGITUDE: 0 | | | | | | | | | | | | | | | | | |
| LONG LONGITUDE: 1 | | | | | | | | | | | | | | | | | |

PUNCHED: _____
ENTERED: _____
CHECKED: _____
DATE: _____

USCOMIN-DC 6750-P64

GEOGRAPHIC NAMES

Survey No. H-8511

| Name on Survey | 1236 | | | | | | | | | | 1 | |
|-------------------|--------------|------------------------|--------------------------|------------------------|---------------|--------------------|--------------------|------------------|---|------------------|---|----|
| | A | B | C | D | E | F | G | H | K | U. S. Light List | | |
| | On Chart No. | On previous survey No. | On U. S. quadrangle Maps | From local information | On local Maps | P. O. Guide or Map | Rand McNally Atlas | U. S. Light List | | | | |
| Cape Fear | ✓ | | | | | | | | | | | 1 |
| Smith Island | ✓ | | | | | | | | ✓ | | | 2 |
| Cape Fear Slue | ✓ | | | | | | | | | | | 3 |
| Bald Head Shoal | ✓ | | | | | | | | | | | 4 |
| Middle Ground | ✓ | | | | | | | | | | | 5 |
| Frying Pan Shoals | ✓ | | | | | | | | | | | 6 |
| Four Mile Slue | ✓ | | | | | | | | | | | 7 |
| | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | 9 |
| | | | | | | | | | | | | 10 |
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| | | | | | | | | | | | | 25 |
| | | | | | | | | | | | | 26 |
| | | | | | | | | | | | | 27 |

George S. Bell
Geographic Names
18 July 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...8511...

Records accompanying survey: Smooth sheets ...1.;
 boat sheets ..3..; sounding vols. ..25.; wire drag vols.;
 Descriptive Reports ...1.; graphic recorder envelopes ...20.;
 special reports, etc.

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

| | |
|---|------------|
| Number of positions on sheet | |
| Number of positions checked | |
| Number of positions revised | |
| Number of soundings revised (refers to depth only) | |
| Number of soundings erroneously spaced | |
| Number of signals erroneously plotted or transferred | |
| Topographic details | Time |
| Junctions | Time |
| Verification of soundings from graphic record | Time |
| Special adjustments | Time |

Verification by Total time Date

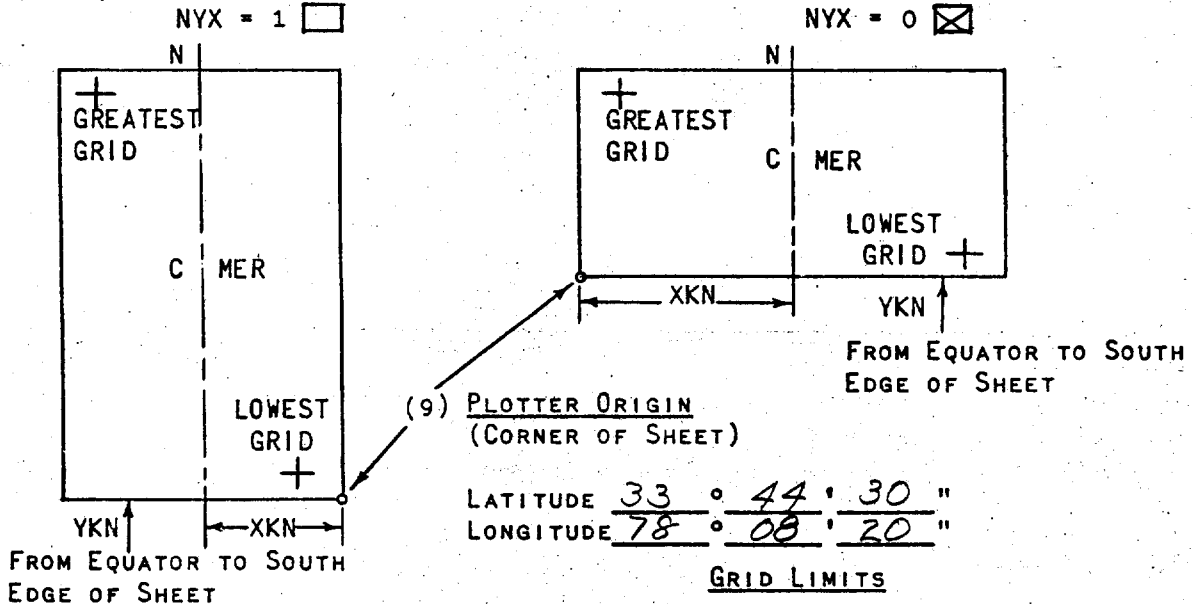
Reviewed by Time Date

FORM # 1

Fig. 15

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

- (1) PROJECT No. 1377 (4) REQUESTED BY Rockville
 (2) H No. 8511(1956) (5) SHIP OR OFFICE MCD
 (3) FIELD No. PBS 2156 (6) DATE REQUIRED ASAP
 (7) VISUAL (8) ELECTRONIC (FILL OUT FORM #3)
 (10) XKN (SP 5) DISTANCE FROM CMER TO EAST EDGE (NYX = 1)
 OR WEST EDGE (NYX = 0). 25.740" 560" 14414.400 METERS
 (11) YKN (SP 241) DISTANCE FROM EQUATOR TO SOUTH EDGE
 OF SHEET. 33° 44' 30" 3,733,904.521 METERS
 (12) CENTRAL MERIDIAN 77° 59' 00"
 (13) SURVEY SCALE 1: 20 000
 (14) SIZE OF SHEET (CHECK ONE) 36X54 42X60 OTHER
 (15) NYX, ORIENTATION OF SHEET (CHECK ONE)
 NYX = 1 NYX = 0



LATITUDE 33° 44' 30"
 LONGITUDE 78° 08' 20"

GRID LIMITS

- (16) GREATEST LATITUDE 33° 54' 00" (PROJECTION LINE
 (17) LOWEST LATITUDE 33° 45' 00" INTERVAL, PAGE 4
 (18) DIFFERENCE 0° 9' 00" HYDRO MANUAL)
 (19) 1' 00"
 (20) 9 YSN
 (21) GREATEST LONGITUDE 78° 08' 00"
 (22) LOWEST LONGITUDE 77° 51' 00"
 (23) DIFFERENCE 0° 17' 00"
 (24) 1' 00"
 (25) 17 XSN

LIST G.P. OF ALL STATIONS TO BE PLOTTED ON THIS PROJECTION ON THE BACK OF THIS FORM. (DEG., MIN., METERS)

None

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE-RANGE)

(1) PROJECT No. 1377 (2) H. No. 8511 (3) FIELD No. PBS 2156(4) TYPE OF CONTROL: SHORAN, RAYDIST, HI-FIX, RADAR
FREQUENCY (FOR CONVERSION OF RAYDIST OR HI-FIX LINES TO METERS) _____(5) RANGE ONE (R1) STATION NAME KURE LATITUDE 33° 59' (1747m)LONGITUDE 77° 54' (659m)(6) RANGE TWO (R2) STATION NAME HOLD LATITUDE 33° 55' (437.2m)LONGITUDE 78° 15' (1056.5m)

(7) AZIMUTH FROM R1 TO R2 _____ ° ' "

(8) BASELINE LENGTH IN METERS _____ M.

(9) LOCATION OF SURVEY WITH RESPECT TO ELECTRONIC BASELINE: CHECK ONE

(TO DETERMINE: IMAGINE AN OBSERVER STANDING AT R1 AND LOOKING DIRECTLY AT R2 --- IF THE SURVEY AREA IS TO THE OBSERVER'S LEFT THEN A IS NEGATIVE; IF THE SURVEY AREA IS TO THE OBSERVER'S RIGHT THEN A IS POSITIVE.) -A _____ +A _____(10) IF SHORAN CORRECTIONS ARE APPLIED BY THE EQUATION, $K(X) + C = D$, WHERE X IS SHORAN DISTANCE AND D IS TRUE DISTANCE, ENTER THE CONSTANT COEFFICIENTS OF THE EQUATION HERE:

K(R1) _____, C(R1) _____, K(R2) _____, C(R2) _____

(11) NUMBER OF VELOCITY TABLES TO BE USED:

_____ NONE, _____ ONE, _____ TWO, 9 MORE THAN TWO (FOR OLD SURVEYS LOGGED AT WSC ONLY-- IF THIS IS THE CASE, SUPPLY VEL IND TAPES)

IF TWO TABLES ARE TO BE USED, BOUNDARY DEFINED BY:

_____ ° ' " LATITUDE _____
LONGITUDE _____(12) THIS FORM APPLIED TO ALL DATA ON THIS SURVEY-

THIS FORM APPLIES TO PART OF THE DATA ON THIS SURVEY- _____

TIME AND DATE LIMITATIONS: FROM _____ TO _____

POSITION NUMBER LIMITATIONS: FROM _____ TO _____

THIS IS FORM #3 SHEET # 1 OF 1 SHEETS FOR THIS SURVEY.

SURVEY # 08511
POSITION NUMBERS

| <u>VOLUME NUMBER</u> | <u>VESSEL</u> | <u>BLOCK OF NUMBERS ALLOCATED</u> |
|----------------------|---------------|-----------------------------------|
| 01-08 | Ship Parker | 0001-1356 |
| 09-23 | Ship Bowen | 2001-4231 |
| 24-25 | Ship Stirni | 5001-5160 |

NOTE: All Volumes in This Survey Are Electronically Surveyed.

ABSTRACT FOR SURVEY # 08511 (1956)

MANUAL

AUTOMATED

| <u>DAY</u> | <u>POSITION #'s</u> | <u>JULIAN DAY</u> | <u>POSITION #'s</u> |
|--------------------|---------------------|-------------------|---------------------|
| <u>SHIP PARKER</u> | | | |
| "A" Day 8/12/56 | 1-13 | 225 | 0001-0013 |
| "B" Day 8/13/56 | 1-14 | 226 | 0014-0027 |
| "C" Day 8/20/56 | 1-17 | 233 | 0028-0044 |
| "D" Day 8/22/56 | 1-206 | 235 | 0045-0250 |
| "E" Day 8/23/56 | 1-174 | 236 | 0251-0424 |
| "F" Day 9/24/56 | 1-50 | 268 | 0425-0474 |
| "G" Day 9/27/56 | 1-231 | 271 | 0475-0705 |
| "H" Day 9/28/56 | 1-176 | 272 | 0706-0881 |
| "J" Day 10/01/56 | 1-88 | 275 | 0882-0969 |
| "K" Day 10/02/56 | 1-142 | 276 | 0970-1111 |
| "L" Day 10/03/56 | 1-157 | 277 | 1112-1268 |
| "M" Day 10/04/56 | 1-88 | 278 | 1269-1356 |
| <u>SHIP BOWEN</u> | | | |
| "A" Day 8/10/56 | 1-016 | 223 | 2001-2016 |
| "B" Day 8/11/56 | 1-017 | 224 | 2017-2033 |
| "C" Day 8/12/56 | 1-016 | 225 | 2034-2049 |
| "D" Day 8/22/56 | 1-179 | 235 | 2050-2228 |
| "E" Day 8/23/56 | 1-243 | 236 | 2229-2471 |
| "F" Day 8/24/56 | 1-137 | 237 | 2472-2608 |
| "G" Day 9/11/56 | 1-040 | 255 | 2609-2648 |
| "H" Day 9/12/56 | 1-304 | 256 | 2649-2952 |
| "J" Day 9/13/56 | 1-275 | 257 | 2953-3227 |
| "K" Day 9/14/56 | 1-184 | 258 | 3228-3411 |
| "L" Day 9/18/56 | 1-088 | 262 | 3412-3499 |
| "M" Day 9/20/56 | 1-330 | 264 | 3500-3829 |
| "N" Day 10/02/56 | 1-203 | 276 | 3830-4032 |
| "P" Day 10/03/56 | 1-199 | 277 | 4033-4231 |
| <u>SHIP STIRNI</u> | | | |
| "A" Day 8/23/56 | 1-055 | 236 | 5001-5055 |
| "B" Day 8/24/56 | 1-014 | 237 | 5056-5069 |
| "C" Day 9/12/56 | 1-077 | 256 | 5070-5146 |
| "D" Day 9/14/56 | 1-014 | 258 | 5147-5160 |

S U R V E Y 0 8 5 1 1

CROSS REFERENCE OF VOLUME NUMBERS,
SHIPS, AND POSITION NUMBERS

| <u>VOLUME NUMBER</u> | <u>SHIP</u> | <u>POSITION NUMBERS</u> |
|----------------------|-------------|-------------------------|
| 1 | Parker | 0001-0165 |
| 2 | Parker | 0166-0345 |
| 3 | Parker | 0346-0505 |
| 4 | Parker | 0506-0677 |
| 5 | Parker | 0678-0859 |
| 6 | Parker | 0860-1026 |
| 7 | Parker | 1027-1209 |
| 8 | Parker | 1210-1356 |
| 9 | Bowen | 2001-2139 |
| 10 | Bowen | 2140-2290 |
| 11 | Bowen | 2291-2437 |
| 12 | Bowen | 2438-2588 |
| 13 | Bowen | 2589-2747 |
| 14 | Bowen | 2748-2898 |
| 15 | Bowen | 2899-3062 |
| 16 | Bowen | 3063-3208 |
| 17 | Bowen | 3209-3377 |
| 18 | Bowen | 3378-3515 |
| 19 | Bowen | 3516-3672 |
| 20 | Bowen | 3673-3827 |
| 21 | Bowen | 3828-3999 |
| 22 | Bowen | 4000-4176 |
| 23 | Bowen | 4177-4231 |
| 24 | Stirni | 5001-5069 |
| 25 | Stirni | 5070-5160 |

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8511

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

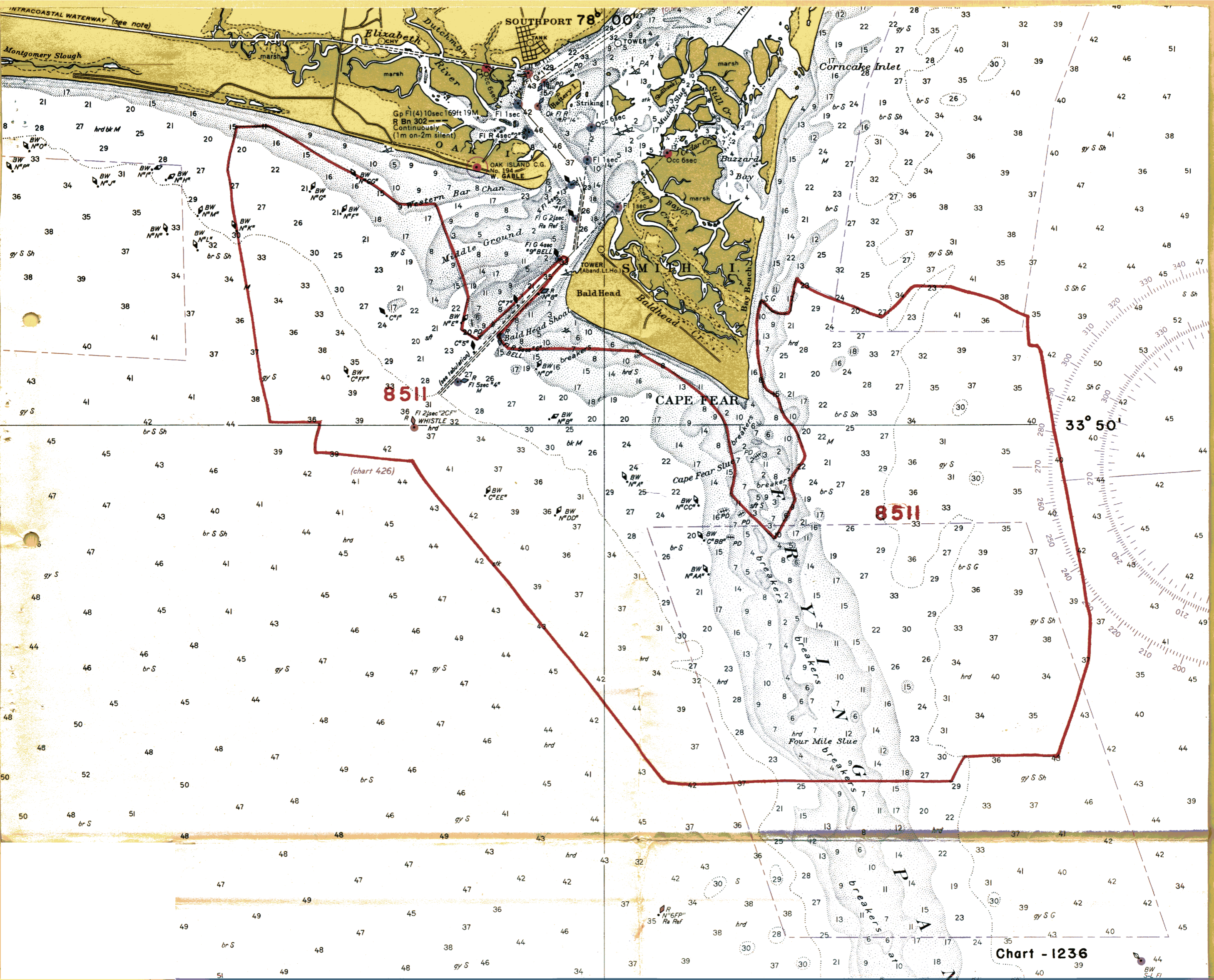
1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. 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.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date



SOUTHPORT 78° 00'

8511

8511

33° 50'

Chart - 1236

INTRACOASTAL WATERWAY (see note)

(chart 426)

Four Mile Slue

BW S-L Fl

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8511

Record of Application to Charts

CATEGORY I

| DATE | CHART | CARTOGRAPHER | REMARKS |
|--------------------|------------------|-------------------------|---|
| 7/26/60 | 1236 | J. Heaton | Exam Crit. Correction: Before After Verification and Review ^{8/24/60} ZMA |
| 9-22-60 | 1001 | Duss R. Wetman | Before After Verification and Review Exam ^{Critical No. corr.} |
| 10/13/60 | 426 | E. Thomas | Critical Revision on Fujian Straits Before After Verification and Review and Entrance to Bald Head Channel |
| 12/7/60 | 835 | Helmer | Before After Verification and Review Applied thru ^{ZMA} chart 426, dng # 11 (Partial) |
| 1/31/62 | 1110 | J. J. Streifler | Before After Verification and Review thru 1236 Drawing # 11 ^{3 dngs + sec. of curve} |
| 6/2/62 | 1235 | J. Heaton | Before After Verification and Review thru dng # 11 chrt 426 |
| 1-3-77 | 11537 426 | | ADEQUATE Before After Verification and Review CATEGORY I Pencil Smooth Sheet |
| 10-May 79 | 11536 | Alex. Radichentel | Before After Verification and Review Partly superseded by # -9395/74' - ADEQUATELY APPLD via ch. 11537 |
| 6/2/79 | 11534 | JAY SPERMAN | Before After Verification and Review ADEQUATELY - CATEGORY I APPLD thru CHART 11537 11539 |
| | 11520 | Mark J. Triv | Before After Verification and Review Adequately appld thru Chart 11536 & 11539 |
| 2-17-83 | 11009 | B. F. Barber | Adequately applied through chart 11520 |
| 2/17/83 | 11007 | B F | Adequately applied through chrt 11520 |
| 2/12/93 | 17359 | John Barber | Exam. no corr. Adequately APP'd thru chrt 11536 Category I. |
| | | | |
| | | | |
| | | | |

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.