

9419

Diag. Cht. No. 1001-3.

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. MI-80-2-74 Office No. H-9419

LOCALITY

State South Carolina

General locality Off Cape Romain
~~Southeast Atlantic Coast~~

Locality Vicinity of 100-fm. Curve
~~Offshore of Cape Romain~~
South Carolina

1974

CHIEF OF PARTY

Ronald M. Buffington, CDR, NOAA

LIBRARY & ARCHIVES

DATE 2-26-75

USCOMM-DC 87022-P66

*Charts 1001-
1007
1110
1111
1238*

9419

HYDROGRAPHIC TITLE SHEET

H-9419

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.

MI-80-2-74

State South Carolina

General locality Off Cape Romain
~~Southeast Atlantic Coast~~

Locality Vicinity of 100-fm. GUNN
~~Offshore of Cape Romain, South Carolina~~

Scale 1:80,000 Date of survey 30 April - 8 May 1974 Julian Date: 120-128

Instructions dated 24 October 1973 Project No. OPR-436-MI-74

Vessel NOAA Ship MT MITCHELL (MSS-22)

Chief of party Ronald M. Buffington, CDR., NOAA

Surveyed by Paul B. Loiseau, Jr., ENS., NOAA, OIC (See remarks)

Soundings taken by echo sounder, ~~hand lead, pole~~ Ross Finline Echo Sounder

Graphic record scaled by Ship's Personnel

Graphic record checked by C. Meekins

Protracted by _____ Automated plot by CALCOM AMC
Hydroplot System
NOAA Ship MT MITCHELL

Verification by AMC

Soundings in fathoms ~~feet~~ feet at MLW MEKW

REMARKS:

1. Project Instructions Change #1, 6 December 1973;
Change #2, 8 February 1974, Change #3, 12 April 1974

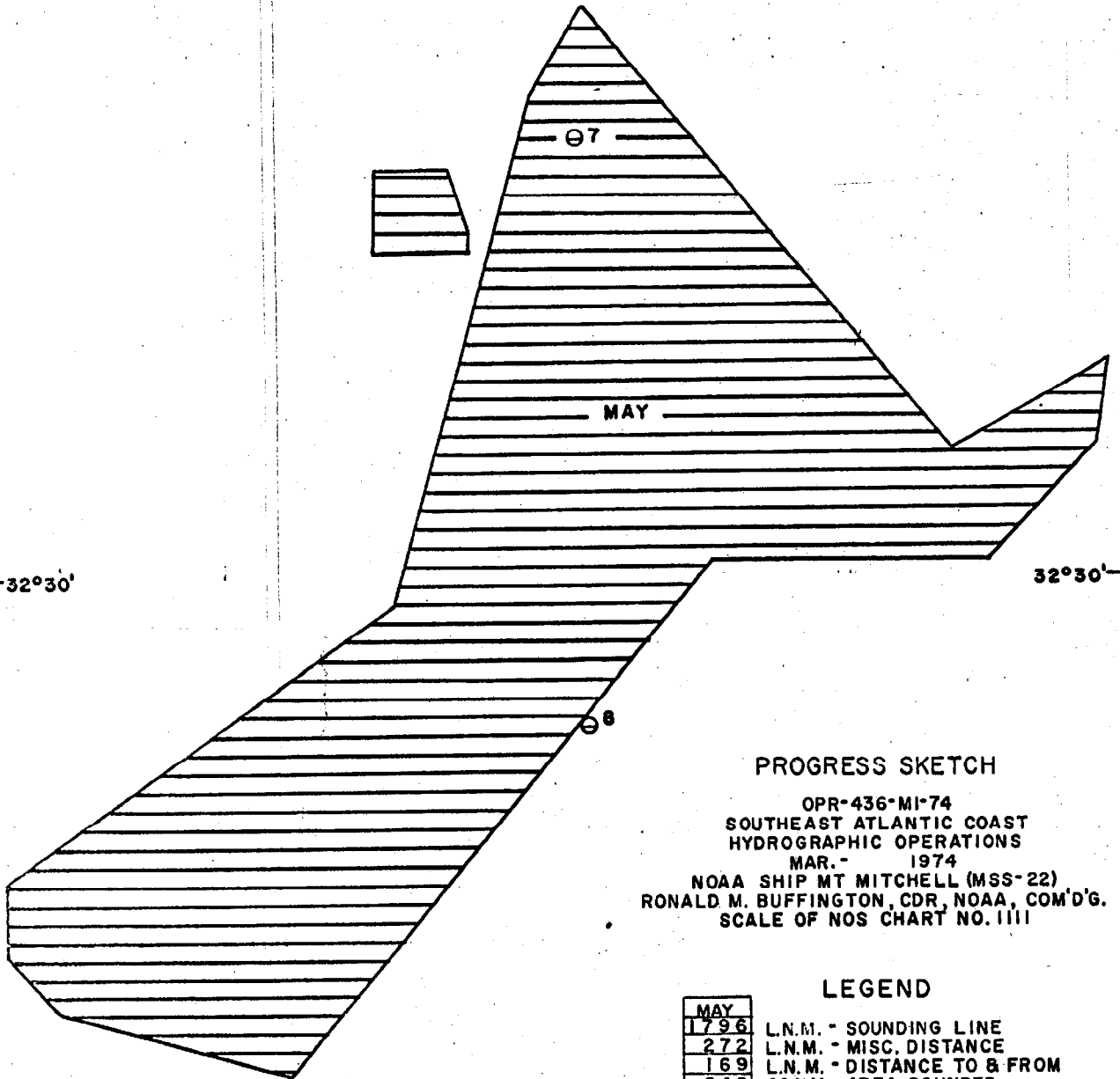
2. Surveyed by: CDR Richard J. DeRycke
LT Martin R. Mulhern
LTJG Earl W. Fenstermacher
ENS Robert J. Pawlowski
ENS Dennis M. Kuhl
ENS David P. Sciuti
ENS Thomas G. Russel
ENS Michael E. Ziolkowski
ENS Karen L. O'Donnell
ENS Evelyn J. Fields

Applied to sheet 3/25/75
CB

Hi Fix Range

79°00'

78°30'



PROGRESS SKETCH

OPR-436-MI-74
 SOUTHEAST ATLANTIC COAST
 HYDROGRAPHIC OPERATIONS
 MAR. - 1974
 NOAA SHIP MT MITCHELL (MSS-22)
 RONALD M. BUFFINGTON, CDR, NOAA, COM'D'G.
 SCALE OF NOS CHART NO. 1111

LEGEND

MAY	
1796	L.N.M. - SOUNDING LINE
272	L.N.M. - MISC. DISTANCE
169	L.N.M. - DISTANCE TO 8 FROM
646	SQ.N.M. - AREA SOUNDED
9	BOTTOM SAMPLES
2	SERIAL TEMPERATURE CAST
15	WATER SAMPLES ANALYZED

32°30'

32°30'

32°00'

32°00'

Table of Contents

Hydrographic Title Sheet
Progress Sketch

Section A : Project	5
Section B : Area Surveyed	5
Section C : Sounding Vessel	5
Section D : Sounding Equipment	5
Section E : Smooth Sheet and Boat Sheet	6
Section F : Control	8
Section G : Shoreline	8
Section H : Crosslines	8
Section I : Junction	9
Section J : Comparison With Prior Surveys	9
Section K : Comparison With Chart	9
Section L : Adequacy of the Survey	9
Section M : Aids to Navigation	9
Section N : Statistics	9
Section O : Miscellaneous	10
Section P : Recommendations	10
Section Q : Reference to Reports	10

Appendices:

Assignment of Registry Number,	12
Descriptive Tide Note and Control Tide Station Correspondence	13
Position Data Sheet	18
Velocity Corrections Abstract and Graph	19
Velocity Table 01 Tape Listing	20
Settlement and Squat Abstract and Graph	21
TRA Correction Abstract	23
TC/TI Tape Listing	24
Calibration Station Abstract	25
Electronic Corrector Abstract	26
Electronic Control Parameters	32
Projection Parameters	33
Parameter Tape Listings	34
Oceanographic Log Sheet M	35
Approval Sheet	36

Descriptive Report to Accompany

Hydrographic Survey H-9419

Scale 1:80,000

OPR-436-MI-74

Southeast Atlantic Coast

MI-80-2-74

1974

NOAA Ship MT MITCHELL MSS-22

Ronald M. Buffington, Commander, NOAA

Commanding Officer

Section A: Project

This survey is a portion of Project SCOPE and OPR-436-MI-74, Southeast Atlantic Coast, surveyed in accordance with the SCOPE guidelines and project instructions dated 24 October 1973, and project instruction changes 1 - 3 dated 6 December 1973, 8 February 1974, and 12 April 1974 respectively. The registry number assigned to this survey is H-9419.

Section B: Area Surveyed

This survey was conducted along the 110 fathom curve, offshore of Cape Romain, South Carolina, extending from Charleston, South Carolina, on the north to Hilton Head Island, South Carolina on the south, between the dates of 30 April 1974 and 8 May 1974. The approximate limits of the survey can be defined by connecting the following points, starting in the southwest and proceeding clockwise:

1	32° 09:5N 78° 57:2W	4	32° 53:3N 78° 42:8W
2	32° 14:5N 79° 10:5W	5	32° 38:8N 78° 18:5W
3	32° 46:8N 78° 52:6W		

This survey junctions with 1:80,000 scale surveys H-6722 (1941) on the west and southwest, H-6709 (1941) on the northwest, H-6542 (1939) and H-6543 (1940) on the northeast and east, and H-9187 on the south (1971). The southeastern boundary of the survey is defined by the 110 fathom curve. Sounding lines were extended 10 minutes beyond the 110 fathom curve or until the depth steadily increased in order to adequately delineate the 110 fathom curve.

Section C: Sounding Vessel

The NOAA Ship MT MITCHELL was the only hydrographic vessel used on this survey. All soundings were collected, plotted, and processed by the ship's on board Hydroplot System, which consists of an NOS Hydroplot Controller (SN 85082/7605941 3), a Digital PDP 8/E computer (SN 85088/8E412), a Houston Instruments Complot DP-3 roll plotter (SN 3750-2), and a Panalogic Inc. Electronic Control Navigational Interface (SN PMC 5).

Section D: Sounding Equipment

A Ross Laboratories Model 5000 Fineline Recorder (SN 1050) in conjunction with a Ross skeg mounted transducer (frame 105, centerline, 105 feet aft of the receiving antenna) and a Ross Model 4000 Transmitter/Receiver (SN 1050) was used to obtain soundings. All soundings recorded on the Ross Recorder were converted to digital format to the nearest tenth

fathom by a Ross Model 6000 Depth Digitizer (SN 1050). Digitized soundings were processed by the Hydroplot System to produce records of positions and soundings.

Graphical sounding records were scanned by survey department Personnel in accordance with the methods prescribed in the Hydrographic Manual and spot checked by the officers in charge of the survey and by the Commanding Officer. Significant peaks and deeps which had occurred between soundings, and erroneous soundings which had been recorded by the Hydroplot System were, respectively, inserted and corrected in the survey's digital record and applied to the corrector tape. Phase and initial checks were made frequently during the course of the survey. Initial error and phase calibration error were also taken into account during scanning.

The transducer Correction accounts for the effects of draft, instrument error, and settlement and squat on the sounding data. A TRA correction of 2.3 fathoms was applied to all sounding data taken during this survey. Initially, a 2.2 fathom correction was applied to the Master Data tape through position number 4 with an additional application of 0.1 fathom from the corrector tape. Later, the correction was applied as 2.3 fathoms to the Master Data tape.

Transducer draft remained constant at 14.0 feet during this survey. Instrument error was determined to be 0.21 feet on 23 April 1974 for Ross Recorder, serial number 1050. No vertical casts were taken during this survey. Settlement and squat corrections used during this survey were based on data taken on 7 March 1973, and range from 0.2 feet at full speed to 0.3 feet at half speed.

Velocity corrections (Velocity Correction Table 01) to be applied to this survey were based on data obtained from serial temperature casts 7 and 8. Cast dates, locations, and depths are as follows:

Cast 7	2 May 1974	32° 47:4N	33 m
		78° 42:9W	
Cast 8	8 May 1974	32° 23:7N	329 m
		78° 42:5W	

Predicted tides corrected to Charleston, South Carolina, were applied to all data taken during the survey. Smooth tide corrections to be applied to the survey will be supplied by Oceanographic Division, Rockville, Maryland.

Section E: Smooth Sheet and Boat Sheet

The smooth sheet for this survey will be produced at the Atlantic Marine Center, Norfolk, Virginia. The following tapes with their respective listings are furnished for this purpose.

1. Master Data Tapes (Range-Range)
2. Electronic Corrector Tapes
3. Transducer Corrections/Table Indicator Tape (TC/TI)
4. Velocity Table Tape
5. ASCII Signal Tapes
6. Parameter Tapes

Because of the size, shape, and orientation of this survey, it is recommended that the survey be smooth plotted on an oversized sheet (42" x 54") in order to include the entire survey on one sheet. Other smooth plotting alternatives include using a skewed grid on a sheet of 36" width or plotting a portion of the survey (either eastern or western area) as an insert on a 36" wide sheet. Most Northern Area plotted on inset.

The boatsheet submitted to AMC, which consisted of three plotter sheets labeled A, B, and C, was plotted off line by the Hydroplot System on board the MT MITCHELL. Soundings were corrected for TRA (draft, instrument error, and settlement and squat) and predicted tides only. Lines of 800 meter spacing with North-South orientation were run throughout the survey with the following exceptions.

Because of rough terrain, 400 meter spacing was run in the southeast area of the survey to better delineate the bottom contours and the 110 fathom curve. A series of six skewed lines of 800 meter spacing is located in the central portion of the sheet. These lines were run to better define a steep contour running parallel to the sounding lines.

A series of four lane jumps which occurred at position number 274 went undetected during the check scan of the Hi-Fix sawtooth record until completion of the crosslines. Soundings between numbers 274 and 701 (at which time control was lost on pattern II due to thunderstorm activity) were affected. After correction and upon replotting, the data taken within this interval plotted 5 mm to the North of its previous position. The most noticeable changes on the boatsheet due to the correction are the discontinuous crossline at latitude 32° 37' 6N, Longitude 78° 44' 5W and the 1000 meter line spacing between adjacent North-South lines at longitude 79° 04' 0W. An additional space of approximately 1000 meters occurs at longitude 79° 00' 5W because a lane corrector was not applied immediately after it occurred in the field. The line in which the lane jump occurred was later rerun.

A small area in the northern portion of the sheet was run using 400 meter spacing to help determine junction agreement with previous surveys. This was the first area to be surveyed.

The area East of longitude 78° 23' 5W was added as a continuation of the survey to obtain additional information in the 110 fathom region and to investigate shoal soundings found on prior surveys. It should be mentioned that position numbers 2001 - 2037 were assigned to this area since it was not a part of the original survey area.

Position numbers 702 - 704 were rejected because of unstable electronic control. Data taken between position numbers 797 - 821 was rejected and removed from the Master Data Tape because it was unnecessary for the requirements of the survey. Position numbers 705 and 947 - 2000 were omitted positions.

Section F: Control

Decca Hi-Fix operating at a frequency of 1799.600 KHz was used in the Range-Range mode for all position control throughout the survey. The transmitting stations and locations were as follows:

R1	Folly Beach Hi-Fix 1974	Folly Island, South Carolina	32° 38' 39.852"	1227.6074
	Located by AMC field party	to third order accuracy.	79° 57' 42.443"	1106.2844
R2	O'Keefe 1972	Pawleys Island, South Carolina	33° 24' 28.72"	
	Located by Photo Party 62	to third order accuracy.	79° 08' 03.35"	

All visual calibrations were made using three point sextant fixes with a check angle in accordance with methods prescribed in the AMC Manual. Correctors were obtained by comparing observed values to computed values using computer program RK 561 (Hyperbolic and Range-Range Geodetic Calibration). A minimum of two fixes having an inverse distance of 5 meters or less (between the fix and check fix positions) and corrector values within 0.1 lane were required for satisfactory calibration. Correctors were dialed into the Hydroplot Controller which applied them to the sounding position data. Because of control problems, the final correctors applied to the data were the initial calibration corrections rather than a mean of values taken before and after the survey work. All calibrations were made off Charleston, South Carolina.

The Decca Hi-Fix control system proved adequate except during times of thunderstorm or electrical activity. There were additional problems with the Navigational Interface not functioning properly, such that it would randomly increment a correct lane value from the control receiver by one lane without affecting the Hi-Fix receiver, thus providing the computer with incorrect position data. Careful scanning of the Master Data printout and sawtooth record was required to locate and correct for the interface errors. Sawtooth records were scanned to locate lane jumps within the control system. The Electronic Corrector Abstract lists all interface errors and lane jumps that occurred during the survey.

Section G: Shoreline

There is no shoreline within the limits of this survey.

Section H: Crosslines

The percentage of crosslines run during this survey was 5.7% of the

regular system of sounding line. The agreement between the crosslines and sounding lines is good.

Section I: Junctions

Hydrographic survey H-9419 junctions with surveys H-6709 (1941), H-6722 (1941), H-6542 (1939), H-6543 (1940), and H-9187 (1971). This survey junctions extremely well with contemporary boatsheet survey H-9187 and junctions well with each of the other above mentioned surveys except in the vicinity of the 100 fathom curves of survey H-6543 where differences in depth were noted during comparison. However, survey H-6543 was inadequate to properly delineate the unusual relief present in the area.

All junction surveys provided for comparison (except H-9187) were smooth sheets. Velocity corrections to be applied were taken into account during comparison with those surveys. Depth curves present in this survey area are in good agreement with those found on adjacent surveys. In accordance with project instructions, part of prior survey H-7622 was repeated and the prior survey was considered to be a junction survey.

Section J: Comparison With Prior Surveys

There were no pre-survey review items or prior surveys within the area of this survey.

Section K: Comparison With the Chart

Comparison with NOS Chart 1111 (17th edition, November 17, 1973, corrected through Notice to Mariners #8, 23 February 1974) indicates good agreement except in the area of the 100 fathom curve, where the actual curve is offshore between 1-2 nautical miles of the charted curve.

Section L: Adequacy of the Survey

This survey is complete and is considered adequate to supersede prior surveys of the area for charting.

Section M: Aids to Navigation

There were no floating or fixed official aids to navigation within the survey area.

Section N: Statistics

1. Total linear nautical miles of sounding lines: 1795.9.
2. Linear nautical miles of sounding lines*: 1693.0.
3. Linear nautical miles of crosslines: 102.9.
4. Linear nautical miles of developments: 0.
5. Linear nautical miles to and from work area: 169.4

6. Miscellaneous nautical miles: 272.4.
7. Square nautical miles (area surveyed): 646.
8. Bottom samples: 9.
9. Serial temperature casts: 2.
10. Verticle casts (leadline comparison): 0

*excluding crosslines and developements

Section O: Miscellaneous

All times and dates used during this survey were Greenwich Mean Time. Hydrographic Operations Log #1 was used for recording remarks and supplementary data pertinent to this survey.

Bottom samples were obtained using a Shipek grab sampler. The samples were forwarded to Dr. J.W. Pierce, Division of Sedimentology, Smithsonian Institute, Washington, D.C. 20560 as per instructions. Oceanographic Log Sheet M is included in this report.

Section P: Recommendations

The area offshore of the 110 fathom curve of the southeastern region of the survey contains unusual relief. Because of time limitations and because these peaks occur beyond the limits of this survey, it is recommended that they be specifically included in future surveys of the area.

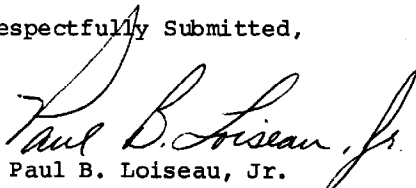
Section Q: Reference to Reports

The reports listed below are necessary for a complete understanding and evaluation of the survey.

Report on Corrections to Echo Soundings, OPR-436-MI-74, Southeast Atlantic Coast, NOAA Ship MT MITCHELL, 1974.

Electronic Control Report, OPR-436-MI-74, Southeast Atlantic Coast, NOAA Ship MT MITCHELL, 1974.

Respectfully Submitted,


Paul B. Loiseau, Jr.
Ensign, NOAA

Appendices

Descriptive Tide Note

Southeast Atlantic Coast

MI-80-2-74

H-9419

Control tide stations for this survey were not mentioned in the project instructions nor were they mentioned in subsequent project instruction changes. A request for information concerning control tide stations was sent to the Director, AMC from the MT MITCHELL on 12 April 1974. The reply to this request directed us to request smooth tidal data based on the geographical limits of the survey and the dates of hydrography from the Tides Branch of the Oceanographic Division. Copies of all correspondence are included.



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

Date : May 15, 1974

Reply to Attn. of:

To : Director, National Ocean Survey
Attn: C331
From : Commanding Officer
NOAA Ship MT MITCHELL (MSS-22)
Subject: Tidal Data for Survey H-9419
Ref: (a) Chief, Operations Division, Atlantic Marine Center,
memorandum dated April 18, 1974
Encl: (1) Chart Section, NOS Chart 1111, showing the limits
of the survey
(2) Copy of reference(a)

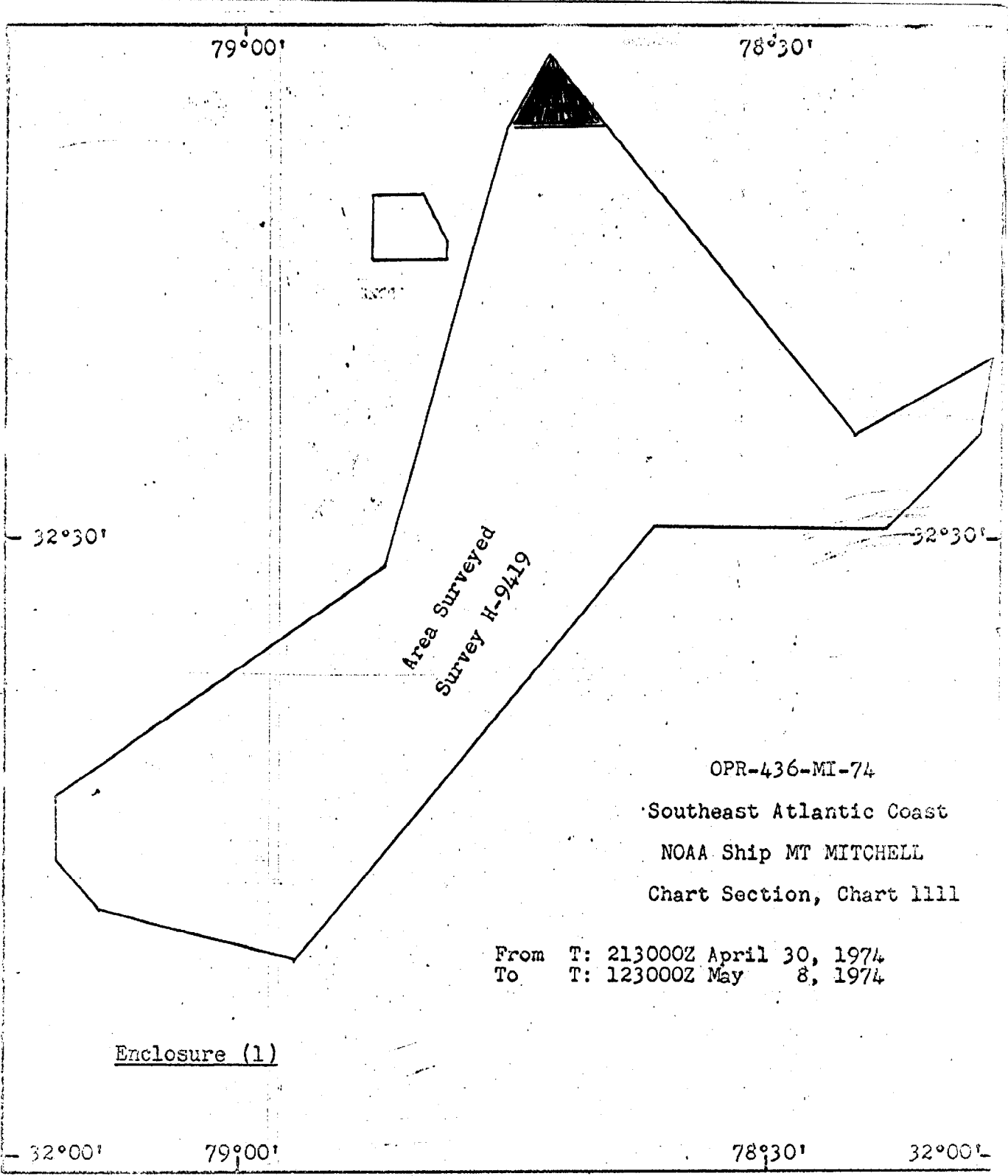
It is requested that verified hourly heights of tides (using Greenwich Mean Time) for the area as shown on enclosure (1) (southeast of Cape Romain, S.C.) be forwarded to the Processing Division, Atlantic Marine Center, Norfolk, Virginia. Tidal data will be required for the times/dates listed below:

From T: 213000Z April 30, 1974
To T: 123000Z May 8, 1974

Reference (a) is authorization for this type of request.


Ronald M. Buffington

Copy to: C3
CAM1
CAM3



79°00'

78°30'

32°30'

32°30'

Area Surveyed
Survey H-9419

OPR-436-MI-74

Southeast Atlantic Coast

NOAA Ship MT MITCHELL

Chart Section, Chart 1111

From T: 213000Z April 30, 1974
To T: 123000Z May 8, 1974

Enclosure (1)

32°00'

79°00'

78°30'

32°00'



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

Date : April 12, 1974

Reply to Attn. of:

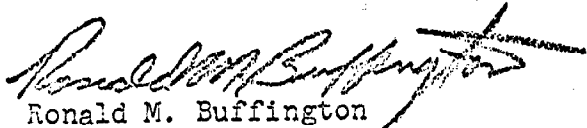
To : Director, Atlantic Marine Center
Attn: CAM 1

From : Commanding Officer
NOAA SHIP MT MITCHELL (MSS-22)

Subject: Control Tide Stations, OPR-436-MI-74, MI-80-2-74.

Section 3.3 of project instructions OPR-436-MI-74, and change No. 2, 8 February 1974, do not mention control tide stations for survey MI-80-2-74, offshore southeast of Cape Romain. A change is requested to the instructions to provide information concerning which gages in the vicinity are to be used to control hydrography.

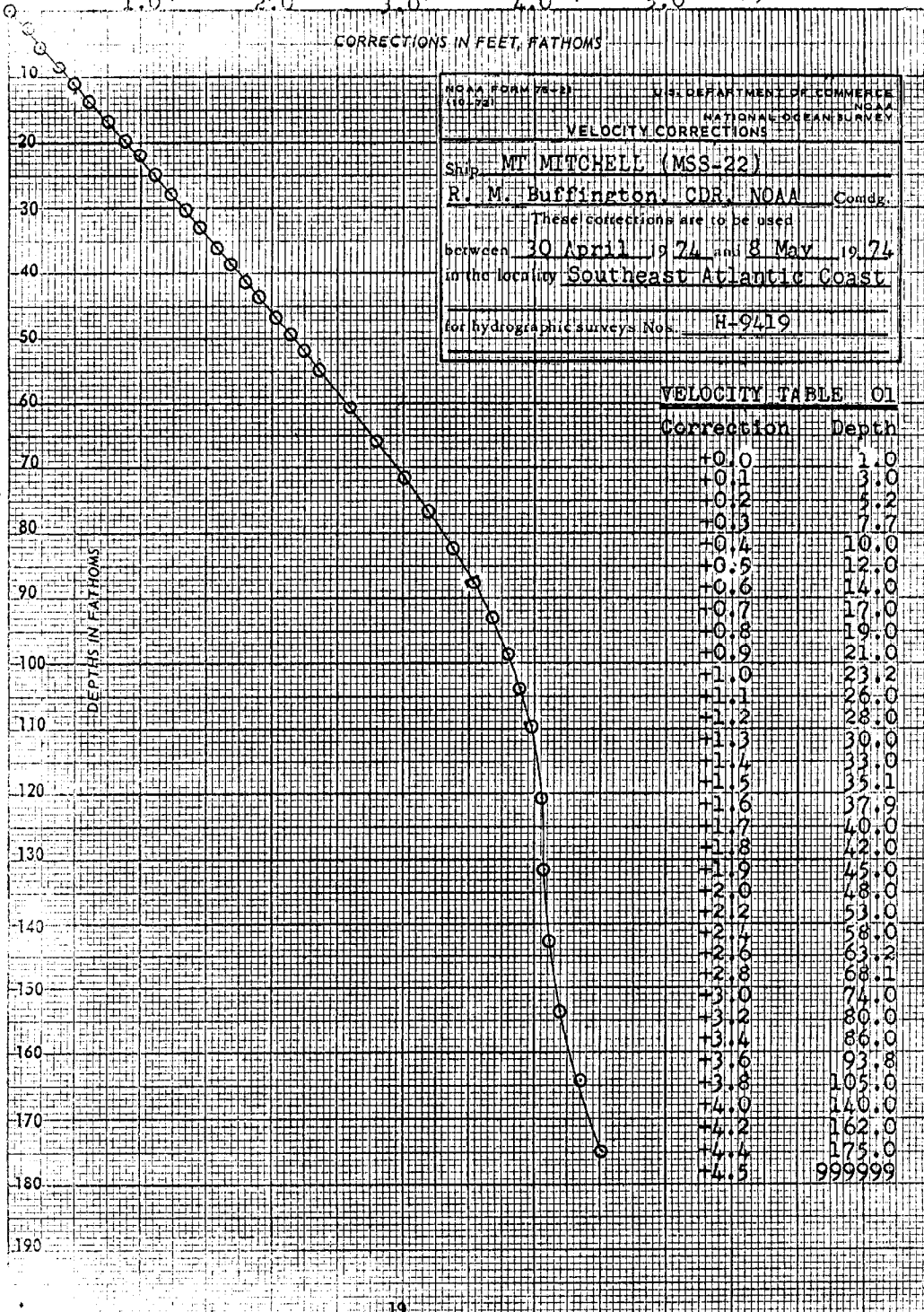
Because field operations may begin on this survey as early as 30 April, information regarding the current status of these gages is required.


Ronald M. Buffington

1.0 (Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

CORRECTIONS IN FEET, FATHOMS

(For deep water add a 0 to these figures)



NOAA FORM 7673 (10-72) U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 VELOCITY CORRECTIONS

Ship: MT MITCHELL (MSS-22)
 R. M. Buffington, CDR, NOAA Comdg.

These corrections are to be used
 between 30 April 1974 and 8 May 1974
 in the locality Southeast Atlantic Coast

for hydrographic surveys No. H-9419

VELOCITY TABLE 01

Correction	Depth
+0.0	1.0
+0.1	3.0
+0.2	5.2
+0.3	7.7
+0.4	10.0
+0.5	12.0
+0.6	14.0
+0.7	17.0
+0.8	19.0
+0.9	21.0
+1.0	23.2
+1.1	26.0
+1.2	28.0
+1.3	30.0
+1.4	33.0
+1.5	35.1
+1.6	37.9
+1.7	40.0
+1.8	42.0
+1.9	45.0
+2.0	48.0
+2.2	53.0
+2.4	58.0
+2.6	63.2
+2.8	68.1
+3.0	74.0
+3.2	80.0
+3.4	86.0
+3.6	93.8
+3.8	105.0
+4.0	140.0
+4.2	162.0
+4.4	175.0
+4.5	999999

NO. 1 27 11-0015 REPT. S. C. ESSER CO.

VELOCITY TABLE 01 TAPE LISTING
MI-80-2-74
H-9419

000010 0 0000 0001 001 222000 009419
000030 0 0001
000052 0 0002
000077 0 0003
000100 0 0004
000120 0 0005
000140 0 0006
000170 0 0007
000190 0 0008
000210 0 0009
000232 0 0010
000260 0 0011
000280 0 0012
000300 0 0013
000330 0 0014
000351 0 0015
000379 0 0016
000400 0 0017
000420 0 0018
000450 0 0019
000480 0 0020
000530 0 0022
000580 0 0024
000632 0 0026
000681 0 0028
000740 0 0030
000800 0 0032
000860 0 0034
000938 0 0036
001050 0 0038
001400 0 0040
001620 0 0042
001750 0 0044
999999 0 0045

NOAA Ship MT MITCHELL (MSS-22)

Settlement and Squat Abstract

March 7, 1973

Settlement and squat tests were run using both of the ship's engines at the following speeds:

Results were:	Standard Speed (175 RPM)	Half Speed (105 RPM)
Skeg Transducer	+0.2 feet	+0.3 feet

Settlement and squat tests were last conducted on October 29, 1969. At that time, the ship had a full fuel load and the draft was 13'10" forward, 14'00" aft.

During these tests, the ship's draft was 13'02" forward and 13'07" aft. The state of the sea was calm, water depth 45 feet with level bottom. All data falls within the .5 foot accuracy specifications required. Survey Launches MI-5 and MI-6 were not carried on board during 1973.

Agreement with prior tests

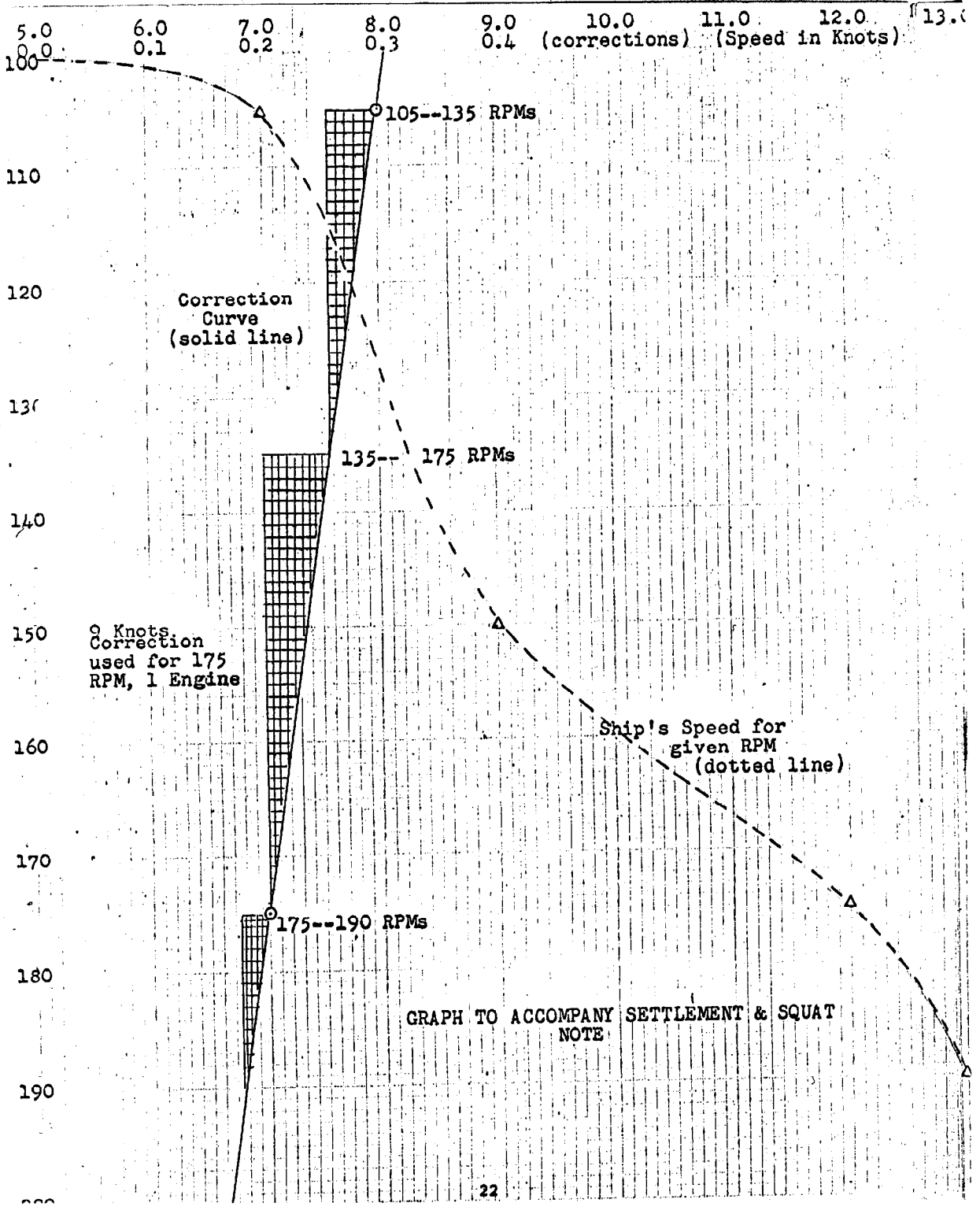
The ship's draft during the 1973 tests was less both forward and aft than during the 1969 tests, (8" less forward, 5" less aft). The difference in draft and trim (due to less weight with two launches missing and a difference in fuel load) will produce a marked change in the hydrostatic properties for a ship of the MT MITCHELL's size. The differences in settlement and squat data can, therefore, be explained by the differences in draft between the 1969 and 1973 conditions and the resulting change in hydrostatic effects.

Linear Interpolation Graph Abstract

Skeg Transducer

	RPM	<u>Correction in Feet</u>
See accompanying graph for interpolation points.	105-135	+0.3
	135-175	+0.2
	175-190	+0.2 (0.178)
	175 (one engine)	+0.2 (0.235)

Since 175 RPM on one engine produced a corresponding speed of 9 knots, the correction for 9 knots (150 RPM on two engines) was used for the period during which the ship operated on only one engine.



TRA CORRECTOR/TABLE INDICATOR LISTING

MI-80-2-74

H-9419

220601 0 0000 0001 120 222000 009419

200000 0 0000 0001 128 222000 009419

Calibration Stations

Charleston, South Carolina

MI-80-2-74

<u>Signal Number</u>	<u>Station Description</u>	<u>Latitude</u>	<u>Longitude</u>
510	Charleston Lighthouse 1890 (Morris Island, Abandoned)	32 41' 42.65"	79 53' 01.74"
520	Ft. Johnson South Tank 1953 (101 feet high, conical top)	32 45' 00.34"	79 53' 57.37"
535	Charleston Light 1963 (Sullivans Island, 163 ft. Top Red, Bottom White)	32 45' 27.89"	79 50' 36.36"
550	Isle of Palms Municipal Water Tank 1963 (125 ft. 6 legs)	32 47' 13.84"	79 47' 16.95"
555	Mt. Pleasant TV Station WCIV Mast 1963 (992 ft., single column, Red and White)	32 47' 15.59"	79 50' 59.71"
565	Mt. Pleasant TV Station WCAS Mast 1963 (1049 ft., single column, Red and White, Flashing Red Lights)	32 47' 44.35"	79 50' 59.71"

All calibration station positions are published triangulation of third order accuracy, in the area of Charleston, South Carolina.

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
220601	120	+00014	-00018
222001		+00014	-00118
222101		+00014	-00018
223600		+00014	-00018
223800		-00086	-00018
223900		+00014	-00018
000001	121	+00014	-00018
021731		-00086	-00018
021846		+00014	-00018
031945		-00086	-00018
032100		+00014	-00018
032830		-00086	-00018
032945		+00014	-00018
044100		+00014	-00018
051215		-07986*	-00018
051330		+00014	-00018
055130		+00014	-00018
064900		+00014	+00082
065015		+00014	-00018
084330		-00086	-00018
084445		+00014	-00018
093100		-00086	-00018
093215		+00014	-00018
102445		+00014	-00118
102945		+00014	-00018
104159		-00086	-00018
104314		+00014	-00018
104544		-00086	-00018
104659		+00014	-00018
122500		-00086	-00018
122615		+00014	-00018
185000		-00086	-00018
185115		+00014	-00018
191230		+00014	-00118
191345		+00014	-00018
220145		+00014	+00082
220300		+00014	-00018

*CORRECT VALUE TO CORRECT FOR ELECTRONIC INTERFACE
MALFUNCTION

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
000001	122	+00014	-00018
003231		+00014	-00118
003346		+00014	-00018
055130		+00014	-00018
062745		+00014	-00118
062900		+00014	-00018
070630		+00014	-00018
100715		+00014	-00118
101100		+00014	-00018
113530		-00086	-00018
113645		+00014	-00018
130530		-00086	-00018
130645		+00014	-00018
134530		-00086	-00018
134645		+00014	-00018
211559		+00014	-00118
211714		+00014	-00318
211944		+00014	-00418
003400	123	+00014	-00418
035500		+00014	-00518
035615		+00014	-00418
053215		+00014	-00518
053445		+00014	-00418
113314		-00086	-00418
113429		+00014	-00418
182445		+00014	-00418
203100		+00014	-00418
203945		+00014	-00318
204445		+00014	-00418
230631		+00014	-00518
231131		+00014	-00418

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
000000	124	+00014	-00018
051345		+00014	-00318
051500		+00014	-00018
060500		+00014	-00318
060615		+00014	-00418
072030		+00014	-00518
072145		+00014	-00418
100731		-00086	-00418
100846		+00014	-00418
103846		+00014	-10418*
104001		+00014	-00418
155416		-00086	-00418
155531		+00014	-00418
163231		-00086	-00418
163346		+00014	-00418
174346		-00086	-00418
174501		+00014	-00418
180031		-00086	-00418
180146		+00014	-00418
183301		+00014	-00518
183416		+00014	-00418
183916		+00014	-00518
184031		+00014	-00418

*CORRECT VALUE TO CORRECT FOR ELECTRONIC INTERFACE MALFUNCTION

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
000001	125	+00014	-00418
003016		-00086	-00418
003516		+00014	-00418
030816		+00014	-00518
031201		+00014	-00418
034201		+00014	-00518
034431		+00014	-00418
035046		+00014	-00518
035201		+00014	-00418
035431		+00014	-00518
035546		+00014	-00418
062515		+00014	-00518
062745		+00014	-00618
070245		+00014	-00718
070400		+00014	-00618
070630		-00086	-00718
073015		-00186	-00718
075630		-00186	-00818
081014		-00186	-00918
092115		-00286	-00918
092230		-00186	-00918
092730		-00186	-01018
102015		-00186	-01118
123930		-00186	-01218
124545		-00186	-01318
144700		-00186	-01418
144815		-00186	-01318
145545		-00186	-01418
145700		-00186	-01318
171746		-00286	-01318
171901		-00186	-01318
202054		-00086	-01318
205515		-00186	-01318
231730		-00186	-01418
234800		-00286	-01418
234915		-00186	-01418

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
000000	126	-00186	-01418
005115		-00186	-01218
013730		-00186	-11218 *
013845		-00186	-01218
014345		-00186	-01318
014500		-00186	-01218
022830		-00186	-01318
023330		-00086	-01318
023445		-00186	-01318
023600		-00186	-01418
155000		-00012	-00005
163115		-00012	-00105
163230		-00012	-00005
181315		-00112	-00005
181430		-00012	-00005
211115		-00112	-00005
211230		-00012	-00005
211730		-00012	-00105
211845		-00012	-00005
212845		-00012	-00105
213000		-00012	-00005
213115		-00112	-00005
213230		-00012	-00005
223415		-00112	-00005
223530		-00012	-00005
000159	127	-00012	-00005
015543		-00012	-00005
020813		-00112	-00005
020928		-00012	-00005
032115		-00012	-00005
053446		-00012	-00105
053601		-00012	-00005
064801		-00012	-00005
065801		-00112	-00005
152800		-00112	-00105
152915		-00112	-00005
154030		-00212	-00005
154630		-00112	-00005
160601		-00212	-00005
160716		-00112	-00005

*CORRECT VALUE TO CORRECT FOR ELECTRONIC INTERFACE
MALFUNCTION

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2220

SHEET : H-9419

TIME	DAY	PATTERN 1	PATTERN 2
000001	128	-00112	-00105
000116		-00112	-00205
000231		-00112	-00005
000731		-00112	-00105
001245		-00112	-00005
015316		-00112	-00105
015546		-00112	-00005
034930		-00112	-00005
051930		-00112	-00105
052045		-00112	-00005
053045		-00312	-00005
053200		-00112	-00005
200000		-00112	-00005

ATLANTIC MARINE CENTER
ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436 2. Reg. # H-9419 3. Field # MI-80-2-74
 4. Type of Control Hi-Fix (Hi-Fix, Raydist, EPI, etc.)
 5. Frequency 1799.600 KHz (for conversion of electronic lanes to meters)
 6. Mode of Operation (check one):

Range-Range

Range-Visual

Range One (R₁) Folly Beach
 Station I.D. Hi-Fix 1974
 Range Two (R₂)
 Station I.D. O'Keefe 1972

Lat.	32°	38'	39.852"
Long.	79°	57'	42.443"
Lat.	33°	24'	28.72"
Long.	79°	08'	03.35"

Hyperbolic (3-station)

Hyper-Visual

Slave One
 Station I.D. _____
 Master
 Station I.D. _____
 Slave Two
 Station I.D. _____

Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"

7. Location of Survey:

Range-Range

Imagine an observer is standing at R₁ Station and looking directly at R₂ (check one):

Survey area is to observer's Right A=0

Survey area is to observer's Left A=1

Hyperbolic

Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel MDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>2220</u>	<u>220601</u>	<u>120</u>	<u>114315</u>	<u>128</u>	<u>0001</u>	to <u>2037</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks: _____

CAM3-1
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-136 4. Requested By Verification Branch
2. Reg. No. H-9419 5. Ship or Office AMC
3. Field No. MI-80-2-74 6. Date Required Smooth sheet.
7. Polyconic Modified Transverse Mercator
8. Central Meridian of Projection 78 ° 47 ' 00 "
9. Survey Scale: 1: 80,000
10. Size of Sheet (check one):

36 x 54 36 x 60 Other Specify _____

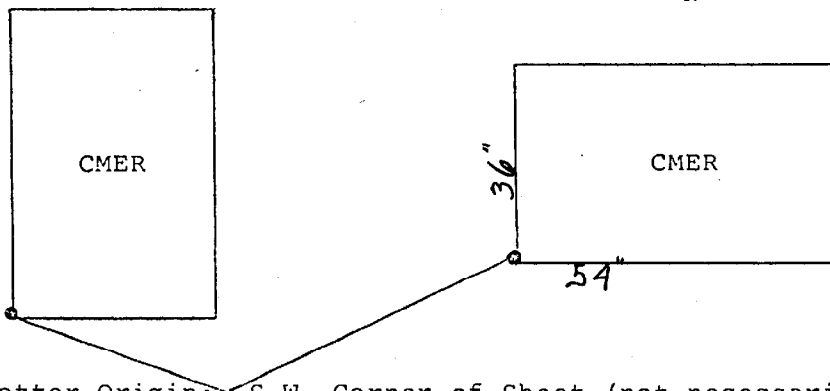
1. Sheet Orientation (check one):

NYX = 1

NYX = 0

N

N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
Latitude 32 ° 08 ' 50 "
Longitude 79 ° 15 ' 00 "

13. G.P.'s of triangulation and/or signals attached

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify _____

15. Remarks: _____

CAM3-1
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-436 4. Requested By Verification Branch
2. Reg. No. H-9419 5. Ship or Office AMC
3. Field No. MT-80-2-74 6. Date Required Smooth sheet.

7. Polyconic Modified Transverse Mercator

8. Central Meridian of Projection 78 ° 40 ' 00 "

9. Survey Scale: 1: 80,000

10. Size of Sheet (check one):

36 x 54 36 x 60 Other Specify 12 x 12

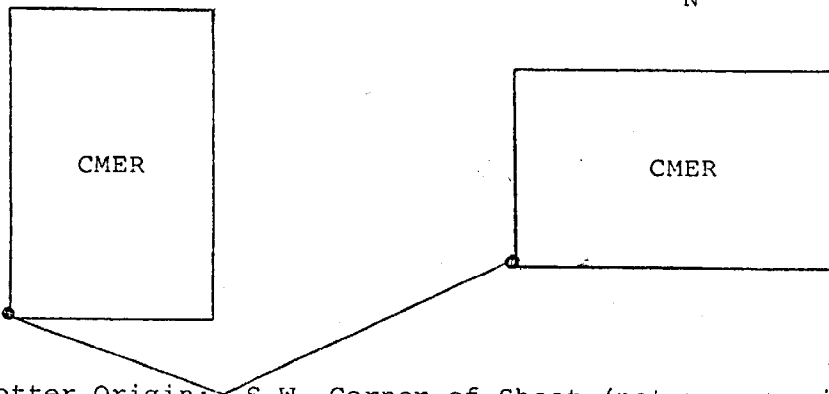
11. Sheet Orientation (check one):

NYX = 1

NYX = \emptyset

N

N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 32 ° 46 ' 00 "

Longitude 78 ° 47 ' 00 "

13. G.P.'s of triangulation and/or signals attached

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify INSET

15. Remarks: Insert data location. Plot this info on smooth sheet at point of origin 32° 16' 00", 78° 37' 00".

10/9/74

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): Edisto Beach, South Carolina

Period: April 30 - May 8, 1974

HYDROGRAPHIC SHEET: H9419

OPR: 436

Locality: Off Coast of South Carolina

Plane of reference (mean ~~lower~~ low water): 2.7 ft.

Height of Mean High Water above Plane of Reference is 5.9 ft.

Remarks: Recommended Zoning:

Corrections

<u>Time</u>	<u>Range</u>	<u>Apply to</u>
-1.0 hr.	x.915	Edisto Beach

James R. Spalding
for Chief, Tides Branch

ATLANTIC MARINE CENTER
 VERIFICATION OF SMOOTH TIDES

SURVEY H- 9419

PLANE OF REFERENCE _____ MLW OR MLLW
 TIME MERIDIAN _____ 0 GMT
 HEIGHT DATUM ON STAFFS 1. 2.7 2. _____ 3. _____

TIDE STATIONS	POSITION	TYPE GAGE	TIME CORR.		HEIGHT CORR. *	
			H.W.	L.W.	H.W.	L.W.
1. Edisto Beach, S. C.	Ø Y		-1.0 ^h		1.91	
2.	Ø Y					
3.	Ø Y					

HOURLY HRIGHTS FROM ROCKVILLE OFFICE
 FROM FIELD MARIGRAMS VERIFIED BY: Rockville

TIDE ZONING NOT APPLICABLE
 BY COMPUTER
 FROM TWO OR MORE GAGES

LIMITS AND DESCRIPTION OF ZONING METHODS

TIDE CORRECTIONS COMPILED BY COMPUTER VERIFIED BY: GFT
 MANUALLY VERIFIED BY: _____

HEIGHT OF MHW ABOVE PLANE OF REFERENCE 5.9

TIDE CORRECTIONS VERIFIED ON SOUNDING PRINTOUT BY: GFT

DATE OF VERIFICATION 10/23/74

*OR RATIO

W. J. Jones
 EXAMINED & APPROVED

APPROVAL SHEET

The field work and processing of data from hydrographic survey H-9419 was under my daily supervision. The sheets and records have been reviewed and are approved by me. The survey is considered to be complete and adequate. No additional field work is recommended in the area of this survey.



Ronald M. Buffington
Commander, NOAA
Commanding Officer

No. 42
 Sheet No. MI-80-2-74 Reg. No. H-9419 WHG
 Scale 1:80,000 Method: Verified
 Projection: EDP-AMC
 Tr. Sta.: EDP-AMC
 Topo Sta.: None
 Hydro. Sta.: None
 Datum: N.A. 1927
 Ref. Sta.: Folly Beach Coast Guard Loran Mast 1956, 1963
 Lat.: 32° 41' 59.7" m. Adj
 Long.: 79° 53' 397.0" MK XCHT

William L. Jonns

William L. Jonns
 Chief, Verification Branch
 AMC

Verifier: William H. Guy

December 12, 1974

VERIFICATION NOTE TO EDP (AMG)
Survey H-9419 MI-80-2-74 OPR-436

This office has completed verification of the sounding overlay for this survey.

There are 634 records to be changed to excess level 0.

There are 56 records to be changed to excess level 1.

There are 70 changes to be made to the soundings.

There is one sounding to be deleted due to a logging error.

Change origin point; form CAM3-1 accompanies this note. Sheet size is to be changed to 36" x 54".

There is an inset to be made; form CAM3-1 accompanies this note.

Distortion point origin is: 32° 11' 00"N, 79° 11' 00"W.

Reference station: Folly Beach ^(Hi-Fix) Coast Guard Loran Mast, ^{Lat. 32° 38' 1227.6" Long. 79° 57' 1106.3"} 1956, 1963,
~~32° 41' 01.94"N, 79° 53' 15.24"W.~~

Stamp #42 to be plotted at: 32° 15' 00", 78° 15' 00".

Cards were keypunched by personnel from this office and accompany this note.

Tide station at Charleston, South Carolina was used for all data on this survey.

There were no junctions made as all prior surveys have been completed and shipped from this office.

After all corrections have been applied, please furnish this office with a smooth sheet and a new excess level sheet.

(~~SECRET~~.)

William H. Guy

GEOGRAPHIC NAMES

H-9419

Name on Survey

A ON CHART NO.
B ON PREVIOUS SURVEY NO.
C ON U.S. QUADRANGLE MAPS
D FROM LOCAL INFORMATION
E ON LOCAL MAPS
F P.O. GUIDE OR MAP
G RAND McNALLY ATLAS
H U.S. LIGHT LIST
K

Name on Survey										
A	B	C	D	E	F	G	H	K		
									1	
									2	
									3	
									4	
									5	
									6	
									7	
									8	
									9	
									10	
									11	
									12	
									13	
									14	
									15	
									16	
									17	
									18	
									19	
									20	
									21	
									22	
									23	
									24	
									25	

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9419

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS (3 parts)		1	
DESCRIPTIVE REPORT		1	OVERLAYS		2	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
Bundle of 300 sheets			1			
CAHIERS	1					
VOLUMES	1					
BOXES			1	2		
T-SHEET PRINTS (List)						
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				1073
POSITIONS CHECKED		100		
POSITIONS REVISED		0		
DEPTH SOUNDINGS REVISED		70		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		0		
JUNCTIONS		0		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		8		
SPECIAL ADJUSTMENTS		0		
ALL OTHER WORK		76		
TOTALS		84		
PRE-VERIFICATION BY F.L.Saunders-W.H.Guy	BEGINNING DATE July 17, 1974	ENDING DATE Dec. 12, 1974		
VERIFICATION BY Charles Meekins	BEGINNING DATE July 17, 1974	ENDING DATE February 11, 1975		
REVIEW BY	BEGINNING DATE	ENDING DATE		

VERIFICATION NOTE
SURVEY H-9419

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and the depth curves adequately delineate the features of the area.

Problems encountered during verification are explained in the accompanying AMC Plotter Notes.

Norfolk, Va.
February 18, 1975

William L. Jonns
William L. Jonns
Chief, Verification Branch
AMC.

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9419

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

Date: February 18, 1975

Signed: William L. Jonns
William L. Jonns
Title: Chief, Verification Branch

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

Date: February 18, 1975

Signed: C. Dale North, Jr.
C. Dale North, Jr. LTCR, NOAA
Title: Chief, Processing Division

VERIFIER'S REPORT
HYDROGRAPHIC SURVEY, H 9419

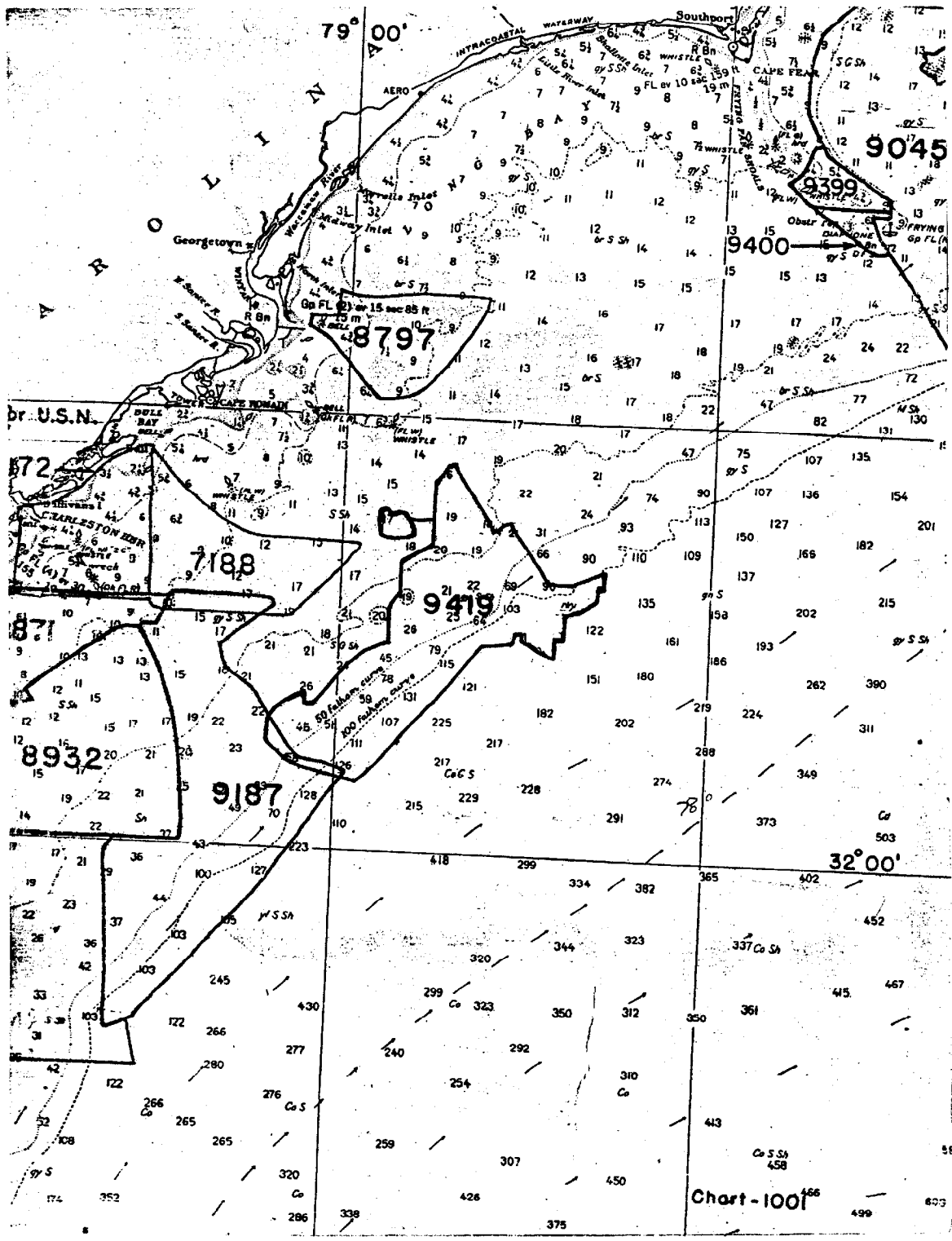
INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed 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>	X		<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>	X	
<p>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>	X	
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>	X		<p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features</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 b. Field inspection date c. Field Edit date 4. Reviewed-Unreviewed</p>	NA				X
<p>The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>	NA				
<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>	NA				
<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>	NA		<p>Part V - MACHINE PLOTTING</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 compared and overlapping curves were made identical. Remarks Required: -- None</p>	NA		<p>14. The plotting of all unsatisfactory crossings was verified. Remarks Required: -- None</p>	X	
<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>	X		<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>	X	

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 replotting or adjustments.	NA		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.	NA	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	NA		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	NA	
Part VI - SOUNDINGS 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None			Part IX - BOAT SHEET 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	x	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	x		29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	NA	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	x		Part X - GENERAL 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	x	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	x		31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	x	
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.	x		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	x	
Part VII - CURVES 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.	x		33. The bottom characteristics are adequately shown. Remarks Required: -- None	x	
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	NA		Part XI - NOTES TO THE REVIEWER 34. Unresolved discrepancies and questionable soundings.	x	
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.	x		35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy. 36. Supplemental information.	NA	
Verified by Charles Meekins			Date February 11, 1975		



RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. #-9419

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

- 1. Letter all information.
- 2. In "Remarks" column cross out words that do not apply.
- 3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
1111	3/27/75	D. Corbett	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Critical corr's</i> <i>D. Corbett</i> <i>Adequate</i>
1001	3/27/75	D. Corbett	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Adequate appl, crit corr's</i> <i>D. Corbett</i>
1238	8/6/75	W. Alden	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Exam for critical changes, no corr's.</i>
1110	11/4/75	J. Moore	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>No Crit. Corrs</i> <i>Adequately</i>
1238	7/11/77	Stuart Kroll	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>NO CRITICAL CORRECTIONS</i> <i>Adequately</i>
11480	7/31/80	Allen J. [unclear]	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>32</i> <i>Adequately</i>
11009	6-18-82	B. Fennell	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>48 thru 11480</i> <i>Adequately</i>
11520	11/9/82	Mary [unclear]	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>41 thru 11480 and directly outside the common</i> <i>Adequately area limits</i>
11009	7-17-83	B. Fennell	Full Part Before After Verification Review Inspection Signed Via Drawing No. 49 thru 11480 <i>1</i> <i>ADEQUATELY</i>
411	9/11/90	Don [unclear]	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>62 - THRU # 11009.</i>