

9299

Diag. Cht. No. 1001-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Hydrographic
Field No. PE 80-1-72
Office No. H-9299

LOCALITY

State Georgia-South Carolina
General Locality Savannah, Georgia
Locality Off Sapelo Sound to Tybee Roads

19 72

CHIEF OF PARTY

R. J. Land

LIBRARY & ARCHIVES

DATE 3/8/74

9299

HYDROGRAPHIC TITLE SHEET

H-9299

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.

PE 80-1-72

State ^{South} Georgia - SA Carolina

General locality Savannah SA Georgia
Coast of Georgia

Locality off Sapelo Sound to Tybee Roads
Offshore Savannah, Georgia

Scale 1:80,000 Date of survey JD 053
22 February 27 April 1972

Instructions dated 25 January 1972 Project No. OPR-436

Vessel NOAA Ship PEIRCE CSS-28

Chief of party Cdr. Ralph J. Land

Surveyed by Cdr. R. Land, Lcdr C. Davis, Lt. D. North, Ltjg. J. Hudson, Ltjg. T. Goforth,
Ens. S. Manzo, Ens. G. Jamerson, Ens. R. Permenter

Soundings taken by echo sounder, ~~hand lead, pole~~ DE-723, S/N 928

Graphic record scaled by Ships personnel

Graphic record checked by Ships Officers

Protracted by Atlantic Marine Center Automated plot by ANC - Comp Plotter 618
inked

Soundings ~~checked~~ by Ships Officers

Soundings in fathoms ^{and tenths} 1 ~~XXXX~~ at MLW XXXX

REMARKS:

Applied to steds 7/29/74
CHB

CHB
1001
1111
1241

Descriptive Report
to Accompany
Hydrographic Survey PE 80-1-72
Registry Number H-9299

OPR-436 PE-72
Coast of South Carolina and Georgia
1972 Field Season

NOAA Ship PEIRCE (CNS-28)

Ralph J. Land
CDR, NOAA
Chief of Party

1. ✓

A. PROJECT

This survey is part of Project OPR-436 and was conducted in accordance with Project Instructions-OPR-436-PE-72, Coast of South Carolina and Georgia dated January 25, 1972 and is a continuation of surveys conducted by the PEIRCE at various times over the past seven years. No supplemental instructions or letters were issued. ✓

B. AREA SURVEYED

This hydrographic survey covers an area of approximately 1,630 square nautical miles off the coast of Georgia. The center of the survey area is approximately 45 n. m. southeast of the mouth of the Savannah River. The limits of the survey area are 32 02' N on the north to 31 29' N on the south and 80 43' W on the west to 79 32' W on the east. The survey began on 22 February 1972 and operations were completed on 27 April 1972. ✓

This survey junctions with the following surveys:

<u>Registry No.</u>	<u>Scale</u>	<u>Date</u>	<u>Boundary</u>
H-8932	1:80,000	1966	northern
H-9187	1:80,000	1970	eastern

In addition, boatsheet HSL 40-1-71, H-9198⁽¹⁹⁷¹⁾ junctions with this survey, H-9198⁽¹⁹⁷¹⁾ was completed by the PEIRCE on 1 June 1972. Additional Junctions listed under para I

C. SOUNDING VESSEL

H-9299 (1972)
All survey work on boatsheet PE 80-1-72 was accomplished by Ship PEIRCE. ✓

D. SOUNDING EQUIPMENT

Raytheon Survey Fathometer, Model 723, Serial Number 928 was used during the entire survey. Three leadline comparisons were taken to determine echo sounder accuracy. Soundings were all in fathoms, the depth varying from 6.6 fathoms to 161 fathoms. The initial was maintained at 1.5 fathoms. ✓

A phase check was performed on the fathometer on 27 April 1972 using a Digital Phase Checker obtained from AMC. Results were excellent with no phase error indicated. ✓

E. SMOOTH SHEET

The smooth sheet will be computer plotted by the Atlantic Marine Center from basic data provided on punch tapes by the Ship PEIRCE. ✓

F. CONTROL

Raydist was used for horizontal control operating on a frequency of 3294.400 KHz. This frequency was used for the entire project except for the period 0837Z to 2330Z on 28 March 1972, Julian Day 88. During this period fourth party operation was used, serial number 108, on a frequency on 3294.520 KHz.

Two portable Raydist shore stations were used, Pattern I was STOK 1971 located at Edisto Beach, S. C., Latitude 32 28' 39.687"N, Longitude 80 20' 07.566"W. Pattern II was RADD 1972 located at Tybee Island, Ga., Latitude 32 01' 12.325"N, Longitude 80 50' 34.976"W.

Calibration was accomplished by circling Savannah Light. For more detail refer to the report on Raydist Electronic Position Control.

G. SHORELINE

There is no shoreline to be considered on this survey.

H. CROSSLINES

Crosslines constitute 4.0% of the total hydrographic miles run. Crosslines were in good agreement with the regular system of sounding lines.

I. JUNCTIONS

Satisfactory junction with the following surveys:

<u>Registry No.</u>	<u>Scale</u>	<u>Date</u>
H-9145	1:40,000	1974
H-8932	1:80,000	1966
H-9187	1:80,000	1970
H-9198	1:40,000	1971
H-9145	1:40,000	1973

H-9198 is boatsheet HSL 40-1-71 which was completed by the REECE on 1 June 1972. The junction with H-9198 is only fair since this survey was done in fathoms and H-9198 was done in feet. Differences of four feet were noted and attributed to rounding off fathoms to whole units and converting to feet for comparison purposes.

J. COMPARISON WITH PRIOR SURVEYS

Comparison was made with the following prior surveys:

<u>Registry No.</u>	<u>Scale</u>	<u>Date</u>
H-3983	1:80,000	1916-17
H-3984	1:80,000	1916-17
H-3927	1:80,000	1916
H-3926	1:80,000	1915-1916

Soundings were in good agreement out to 35 fathoms. Soundings greater than 35 fathoms on the prior surveys are in serious disagreement with differences of 10 to 40 fathoms noted, this survey being the shoaler.. The 100 fathom curve is shown as being 4 to 5 miles west and closer to shore than shown by this survey. *THIS INFORMATION SHOULD BE PART OF PARA K. See below.*

K. COMPARISON WITH THE CHART

A comparison was made with Chart 1111, Charleston Light to Cape Kennedy, Edition 15, November 20, 1971. The 100 fathom curve and immediately adjacent soundings are in error as noted above in part J. *Corrected on later edition of chart 1111*

L. ADEQUACY OF THE SURVEY

This survey is complete and adequate to supersede prior surveys for charting. ✓

M. AIDS TO NAVIGATION

There are no aids to navigation within the limits of this survey. ✓

N. STATISTICS

Total Number of Positions	5,296
Total Hydro Miles	8,352.9 n. m.
Total Crosslines Miles	326.7 n. m.
Total Square Miles	1,630 sq. n. m.
Bubbler Tide-Gages	1
TDC Observations	10
Nansen Casts	3
Bottom Samples	52
Leadline Comparisons	3

O. MISCELLANEOUS

This survey lies within a naval operations area administered by the Office of the Commander, U. S. Naval Base, Charleston, S. C. The Charleston Operating Area Coordinator assigns ships to various areas for maneuvers and exercises that include drill mine fields and aerial and naval gunnery. ✓

The northwestern portion of the boatsheet at Latitude 32 00'N, Longitude 80 20'W shows what appears to be an inundated river channel. It appears as a canyon on the boatsheet with a general northwest-southeast trend. ✓

In the extreme southeastern part of the boatsheet beyond the 100 fathom curve there are two significant features. They appear to be slump blocks caused by slumping of unconsolidated sediments. They are beyond the apparent edge of the continental shelf and on the continental slope. This area along with the old river channel may be of interest to oceanographers and may warrant further study. ✓

All times were in Greenwich Mean Time.

4.

It is suggested that communications be kept at a minimum and limited to voice transmissions whenever possible. Teletype transmissions were found to seriously interfere with the Raydist. Voice transmissions were found to interfere to a much less extent than the teletype, but some slight interference was noted on occasion. For this reason, careful watch should be kept on the Raydist during all transmissions.

P. RECOMMENDATIONS

It is recommended that this survey be considered adequate for charting purposes and supersede prior surveys.

Q. REFERENCE TO REPORTS

For a detailed discussion on the velocity corrections and corrections to distance measurements, and the methods used to determine them, refer to the following reports:

1. Report on Corrections to Echo Soundings
OPR-436 East Coast Georgia and South Carolina
1972 Field Season
NOAA Ship PEIRCE
2. Report on Raydist Electronic Position Control
Project OPR-436, PE 80-1-72, H-9299
Coast of South Carolina and Georgia
NOAA Ship PEIRCE, 1972 Field Season

Respectfully Submitted,




Richard W. Permenter
Ensign, NOAA

Approval Sheet

Field Number PE 80-1-72

Registry Number 9299

The field work and processing of data from this hydrographic survey was under my immediate daily supervision. The boastsheets and all records have been reviewed and are approved by me. This survey is complete and adequate to supersede all prior surveys of the area.



Ralph J. Land
CDR, NOAA

ATLANTIC MARINE CENTER

TIDE NOTE

H-9299

1. Project No: 436 2. Vessel/Field Unit: NOAA Ship PEIRCE
 3. Year: 1972 4. Meridian Time Zone: 75W
 5. Tide Station Name: Fort Pulaski, Ga. (Savannah River Entrance)
 6. Position: Lat. 32 ° 02.0 ' Long. 80 ° 54.1 '
 7. Plane of Reference: MLW, MLLW corresponds to 3.31
 feet on the tide staff for the period February - April 1972
 8. Hourly Heights: Standard Gauge, furnished from Rockville.
 Scaled and logged from field marigrams.
 9. Tidal Zoning: Not applicable.
 By two or more gauges automatically zoned.
 By applying tidal differences and constants
 for the area(s): a. Savannah Light Tower

TIME (Hour, Minute)		HEIGHT (Feet)		HEIGHT RATIO (If Applicable)	
High Water	Low Water	High Water	Low Water	High Water	Low Water
-45	-60	0	0		

b. _____

TIME (Hour, Minute)		HEIGHT (Feet)		HEIGHT RATIO (If Applicable)	
High Water	Low Water	High Water	Low Water	High Water	Low Water

c. Include additional areas on separate sheet(s).

10. Remarks: _____

ATLANTIC MARINE CENTER
ELECTRONIC CONTROL PARAMETERS

- 1. Project # OPR-436 2. Reg. # H-9299 3. Field # PE 80-1-72
- 4. Type of Control Raydist (Hi-Fix, Raydist, EPI, etc.)
- 5. Frequency 3294.520 (for conversion of electronic lanes to meters)
- 6. Mode of Operation (check one):

Range-Range

Range-Visual

Range One (R₁)
 Station I.D. STOK 1971
 Range Two (R₂)
 Station I.D. RADD 1972

Lat. 32° 28' 39.687"
 Long. 80° 20' 07.566"
 Lat. 32° 01' 12.325"
 Long. 80° 50' 34.976"

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=∅

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 EDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>2830</u>	<u>083700</u>	<u>088</u>	<u>183800</u>	<u>088</u>	<u>2768</u>	to <u>2843</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks: _____

ATLANTIC MARINE CENTER
ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436 2. Reg. # H-9299 3. Field # PE 80-1-72
 4. Type of Control Raydist (Hi-Fix, Raydist, EPI, etc.)
 5. Frequency 3294.400 (for conversion of electronic lanes to meters)
 6. Mode of Operation (check one):

Range-Range

Range-Visual

Range One (R₁)
 Station I.D. STOK 1971
 Range Two (R₂)
 Station I.D. RADD 1972

Lat. 32 ° 28 ' 39.687 "
 Long. 80 ° 20 ' 07.566 "
 Lat. 32 ° 01 ' 12.325 "
 Long. 80 ° 50 ' 34.976 "

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 EDP #	From		To		Position Numbers (inclusive)
	Time	Day	Time	Day	
<u>2830</u>	<u>170500</u>	<u>053</u>	<u>033900</u>	<u>088</u>	<u>0001</u> to <u>2767</u>
<u>2830</u>	<u>011400</u>	<u>089</u>	<u>185230</u>	<u>118</u>	<u>2844</u> to <u>5296</u>

9. Remarks: _____

ATLANTIC MARINE CENTER
PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

- 1. Project No. 136
- 2. Reg. No. H-9299
- 3. Field No. PE 80-1-72
- 4. Requested By Commanding Officer
- 5. Ship or Office NOAA Ship PEIRCE
- 6. Date Required _____

7. Polyconic Modified Transverse Mercator

8. Central Meridian of Projection 80° 05' 00" ✓

9. Survey Scale: 1: 80,000 ✓

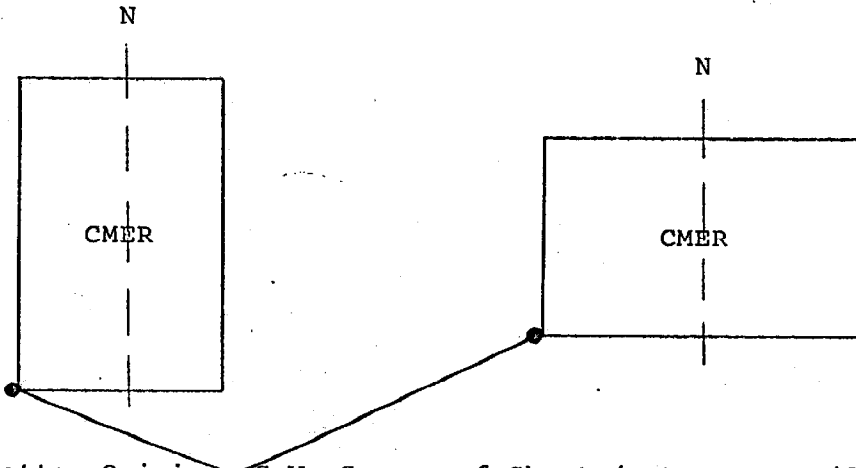
10. Size of Sheet (check one):

36 x '54 36 x 60 Other Specify _____

11. Sheet Orientation (check one):

NYX = 1

NYX = β



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

Latitude 31° 26' 15" ✓

Longitude 80° 45' 20" ✓

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

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify _____

15. Remarks: Savannah Light Tower Lat. 31 57 00.416 ✓
Lon. 80 40 59.062

Abstract of Raydist Lane Correctors

<u>Position Numbers</u>	<u>From Julian Day- Time</u>	<u>Remarks</u>	<u>Pat. I</u>	<u>PAT II</u>
0001-0138	053-170500		+0.13	+0.49
0139-0487	054-131500		+0.13	+3.49
0488-1018	059-160900		+0.06	+1.52
1019-1563	066-150300		+0.01	+0.56
1564-1614	070-090000		+0.21	+0.66
1615-1634	073-165700		-0.06	+0.45
1635-2021	074-021400		+0.38	-0.14
2022-2719	080-155800		+0.19	+0.64
2720-2761	087-153100		+0.04	+0.25
2762-2767	088-025900		-0.14	-0.61
2768-2843	088-083700	Fourth Party 3294,520kcs	+0.72	+0.56
2844-2858	089-014400		-0.36	+0.32
2859-3077	089-082800		+0.20	+0.70
3078-3298	094-152300		+0.20	+0.18
3299-3723	095-203600		+0.20	-1.82
3724-4247	101-152000		+0.36	+0.22
4248-4753	108-200000		-0.33	+0.30
4754-5000	116-003300		+0.30	+0.35
5001-5019	069-214700	Bottom Samples	+0.21	+0.66
5020-5036	109-115000	Bottom Samples	+0.30	+0.35
5037-5052	111-145900	Bottom Samples	-0.33	+0.30
5053-5296	116		+0.30	+0.35

Velocity Corrections

Primary velocity corrections were computed through the use of AMC computer facilities. Data was obtained during the survey from Beckman TDC meter 40218. The various TDC stations are plotted on the following chartlet. The results of the TDC observations on days, 56, 68, 75, 87, 88, 96, 108 and 111 indicated a general consistency among the graphs of each observation with the exception of observation number 8, taken in the Gulf Stream. An area consisting of the majority of the working area was designated as zone 1 (west or shoal of the 40 fathom curve) with velocity table 1, compiled by averaging TDC observations 1, 2, 3, 4, 5, 7, 9, and 10. TDC number 6 was taken too far from the working area, and therefore was not included in the averaging. Poor results were obtained with Nansen cast #1 taken on February 25, 1972 as was also the case with cast #3 taken on April 20, 1972. Due to poor results, there was no check on the TDC information with the exception of leadline comparisons.

The Gulf Stream area (east or deeper than 40 fathoms) was designated as zone 2 with velocity table 2 compiled from Nansen cast #2. Though TDC #8 was consistent with Nansen cast #2, it was not used to compile the velocity table because the deepest depth of the TDC was just slightly deeper than the least depth of the zone to which the table applies.

TDC as well as Nansen cast computations and velocity correction curves are ^{not} included in this report. Velocity correction tables follow.

Velocity Correction Tables ✓

Velocity Table 1

<u>Depth (from)</u>	<u>Correction</u>
0.0 <i>+0 4.2</i>	+0.0 fathoms
4.3 <i>+0 9.5</i>	0.2
9.6 <i>+0 14.9</i>	0.4
15.0	0.6
20.2	0.8
25.5	1.0
30.2	1.2
35.7	1.4
40.9	1.6
46.0	2.0
51.5	2.0
56.5	2.2
62.0	2.4
67.0	2.6
72.0	2.8
76.5	3.0
82.3	3.2
87.2	3.4

Velocity Table 2

<u>Depth (from)</u>	<u>Correction</u>
0.0	+0.0
3.5	0.2
8.0	0.4
12.5	0.6
17.2	0.8
21.6	1.0
26.2	1.2
31.0	1.4
36.0	1.6
41.6	1.8
48.0	2.0
55.0	2.2
62.5	2.4
71.4	2.6
81.4	2.8
91.7	3.0
102.0	3.2
112.0	3.4
122.4	3.6
132.5	3.8
143.0	4.0
153.3	4.2
163.3	4.4

11/15/73

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 7(-12): Fort Pulaski, Georgia

Period: February 22 - April 27, 1972

HYDROGRAPHIC SHEET: H-9299.

OPR: 436

Locality: Coast of Georgia

Plane of reference (mean ~~lower~~ low water): ~~Feb April 5 (1500) 3.3 feet~~
~~April 5 (1600) 30 4.3 feet~~

*crossed out per instruction
on memo from J. Hubbard 11/27/73.*

Height of Mean High Water above Plane of Reference is 6.2
2

Remarks: Zoning: Use Fort Pulaski with the following corrections:

Time

Range Ratio

-30 min.

X.90

C. J. Anderson

Chief, Tides Branch

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9299

- 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: March 1, 1974

Signed: William L. Johns
William L. Johns
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: March 1, 1974

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

ATLANTIC MARINE CENTER
 VERIFICATION OF SMOOTH TIDES

SURVEY H- 9299

PLANE OF REFERENCE
 TIME MERIDIAN
 HEIGHT DATUM ON STAFFS

MLW OR ~~MLW~~
 GMT

1. 3.3 2. _____ 3. _____

TIDE STATIONS	POSITION	TYPE GAGE	TIME CORR.		HEIGHT CORR. *	
			H.W.	L.W.	H.W.	L.W.
1. Fort Pulaski, Ga.	32 02' Y 80 54'	Stn.	-30 min.	-30 min.	0.90	Ratio
2.	Ø Y					
3.	Ø Y					

HOURLY HEIGHTS 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
 MANUALLY

VERIFIED BY: GFT
 VERIFIED BY: _____

HEIGHT OF NHW ABOVE PLANE OF REFERENCE 6.2

TIDE CORRECTIONS VERIFIED ON SOUNDING PRINTOUT BY: GFT

DATE OF VERIFICATION 12/5/73

*OR RATIO

W. J. Jones
 EXAMINED & APPROVED

GEOGRAPHIC NAMES

II-9299

Name on Survey	A	B	C	D	E	F	G	H	K
	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	

ATLANTIC OCEAN										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
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										23
										24
										25

Approved by
Chas. G. Harrington
6 Aug 1974

REGISTRY NO. H-9299

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

REGISTRY NO. _____

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

H-9299

Information for Future Presurvey Reviews

Some changes can be anticipated in this area due to storms, tidal currents, and shifting bottom sediments.

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle (Years)</u>
313	0805	2	2	50
313	0804	2	2	50
313	0803	2	2	50
313	0802	2	2	50
313	0801	2	2	50
313	0800	0	2	50
313	0795	0	2	50
313	0794	0	2	50
314	0805	3	2	50
314	0804	2	2	50
314	0803	2	2	50
314	0802	2	2	50
314	0801	2	2	50
314	0800	2	2	50
314	0795	0	2	50
314	0794	0	2	50
315	0803	2	2	50
315	0802	2	2	50
315	0801	2	2	50
315	0800	2	2	50
315	0795	2	2	50
315	0794	0	2	50
320	0803	3	2	50
320	0802	2	2	50
320	0801	2	2	50
320	0800	2	2	50
320	0795	2	2	50
320	0794	2	2	50

OFFICE OF MARINE SURVEYS AND MAPS
MARINE SURVEYS DIVISION
MODIFIED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9299

FIELD NO. PE-80-1-72

Georgia-South Carolina, Savannah, Georgia, off Sapelo Sound to Tybee Roads

SURVEYED: February 23 - April 27, 1972

SCALE: 1:80,000

PROJECT NO.: OPR-436

SOUNDINGS: DE-723D Depth Recorder

CONTROL: Sea-Fix (hyperbolic)

Chief of Party	R. L. Land
Surveyed by	C. Davis
.....	D. North
.....	J. Hudson
.....	T. Goforth
.....	S. Manzo
.....	G. Jamerson
.....	R. Permenter
Automated Plot by	Cal Comp 618 (AMC)
Verified by	B. J. Stephenson
Reviewed by	L. Quinlan
	Date: December 18, 1975
Cursory inspection made--survey	K. W. Wellman
processing considered complete	June 25, 1977

1. Control and Shoreline

The origin of the control is adequately covered in part F of the Descriptive Report.

There is no shoreline within the limits of the survey area.

2. Hydrography

a. Depths at crossings are in good agreement with scattered differences of 0.1 to 0.5 fathom attributable to shifting sand bottom sediments and sea conditions.

b. The usual depth curves are adequately delineated. A few brown curves were added to emphasize isolated bottom features.

c. The development of the bottom configuration and the investigation of least depths are considered adequate.

3. Condition of Survey

The survey records, automated plotting, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, as amended by the Instruction Manual - Automated Hydrographic Surveys, except as follows:

- a. There were two soundings incorrectly plotted on the survey as single digit numbers, which in reality were two digit numbers.
- b. There were noted discrepancies in some of the crosslines which were done at high seas. The fathograms were rescanned as necessary to resolve the noted discrepancies.

4. Junctions

Adequate junctions were effected with H-9429 (1974) and H-9144 (1973) on the west, H-9145 (1973) on the northwest, and H-9187 (1971) on the east. Due to changes in the bottom, a butt junction was effected with H-8932 (1966) on the north. The junctions with H-9198 (1971-72) on the north and H-9375 (1974) on the south are discussed in the reviews of those surveys.

5. Comparison with Prior Surveys

a.	H-622	(1857)	1:200,000
	H-717	(1858)	1:300,000
	H-728	(1860 and 1906)	1:300,000
	H-768	(1860)	1:500,000
	H-1500b	(1881)	1:600,000

These surveys fall in the area of the present survey but are not discussed in the present review.

b.	H-3549	(1910-13)	1:400,000
	H-3560	(1912-13)	1:100,000
	H-3926	(1915-16)	1:80,000
	H-3927	(1916)	1:180,000
	H-3983	(1916-17)	1:80,000
	H-3984	(1916-17)	1:180,000

These prior surveys taken together cover the area of the present survey. A comparison between the present and prior surveys reveals variable depth differences of $\pm 1/2$ to 2 fathoms which are attributed to natural causes.

Present depths of 50 fathoms in former depths of 100 fathoms were noted in the southeast corner of the present survey area. The noted 50 fathoms

difference is attributed to the less accurate surveying methods utilized on the prior survey.

The larger scale and/or more completely developed present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 11480 (1111), 18th Edition, November 2, 1974
11509 (1241), 12th Edition, January 11, 1975

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration supplemented by the partial application of the boat sheet of the present survey.

Attention is directed to the following:

The Obstruction Reported (Presurvey Review Item No. 20) charted in latitude $31^{\circ}45.50'$, Longitude $80^{\circ}42.75'$ originates with H.O. Notice to Mariners 12 of 1942. It is not verified or disproved by the present survey and should be retained on the chart.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

b. Aids to Navigation

There are no aids to navigation within the survey area.


7. Compliance with Instructions

The survey adequately complies with the project instructions.

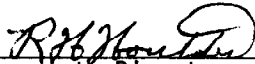
8. Additional Field Work

This survey is considered a very good basic survey and no additional field work is recommended.

Examined and Approved:



Chief
Marine Surveys Division



Associate Director
Office of Marine Surveys
and Maps

-Gp 2 dots, 1 dash and 1 dot for 60 sec., silent 120 sec.
-Single dots for 60 sec., silent 120 sec.
-Gp 2 dots and 2 dashes for 60 sec., silent 120 sec.
-Gp 1 dash, 1 dot and 1 dash for 60 sec., silent 120 sec.
-Gp 1 dot, 1 dash and 2 dots for 60 sec., silent 120 sec.
-Gp 2 dashes and 2 dots for 60 sec., silent 120 sec.
-Gp 1 dot and 3 dashes for 60 sec., silent 120 sec.

