

8779

Mag. Cht. No. 1238-2 & 1239-2.

<p>Form 504</p> <p>U. S. DEPARTMENT OF COMMERCE</p> <p>COAST AND GEODETIC SURVEY</p> <h2 style="text-align: center;">DESCRIPTIVE REPORT</h2>	
<p>Type of Survey <u>HYDROGRAPHIC</u></p>	
<p>Field No. <u>PE 20-3-63</u></p>	<p>Office No. <u>H-8779</u></p>
<p>LOCALITY</p>	
<p>State <u>SOUTH CAROLINA</u></p>	
<p>General locality <u>CAPE ROMAIN - CHARLESTON</u></p>	
<p>Locality <u>VICINITY OF BULL ISLAND</u></p>	
<p><u>1963 - 64</u></p>	
<p>CHIEF OF PARTY</p> <p><u>LCDR ROGER F. LANIER</u></p>	
<p>LIBRARY &amp; ARCHIVES</p> <p><u>APR 15 1965</u></p>	
<p>DATE _____</p>	

USCOMM-DC 5087

HYDROGRAPHIC TITLE SHEET

H-8779

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 20 - 3 - 64

State SOUTH CAROLINA

General locality CAPE ROMAIN - CHARLESTON

Locality VICINITY OF BULL ISLAND

Scale 1 : 20,000 Date of survey August 1963 to April 1964

Instructions dated May 15, 1963 Project No. OPR - 436

Vessel USC&GSS PEIRCE

Chief of party LCDR ROGER F. LANIER

Surveyed by LT R. E. ALDERMAN, LTJG L. E. PICKENS and LTJG R. J. DERYCKE

Soundings taken by echo sounder, hand lead, pole ECHO SOUNDER AND SOME HAND-LEAD

Graphic record scaled by SHIP PERSONNEL

Graphic record checked by SHIP PERSONNEL

Protracted by Dorothy C. Calland (Norfolk Office)

Soundings penciled by Dorothy C. Calland " "

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

REMARKS:  
\_\_\_\_\_  
\_\_\_\_\_  
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DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-8779 (PE 20-3-63)  
SCALE: 1 : 20,000 1963-1964  
USC&GSS PEIRCE LCDR ROGER F. LANIER, COMDG.

*JFB*

COAST AND GEODETIC SURVEY H. ARNOLD KARG, DIRECTOR

# MONTHLY PROGRESS SKETCH

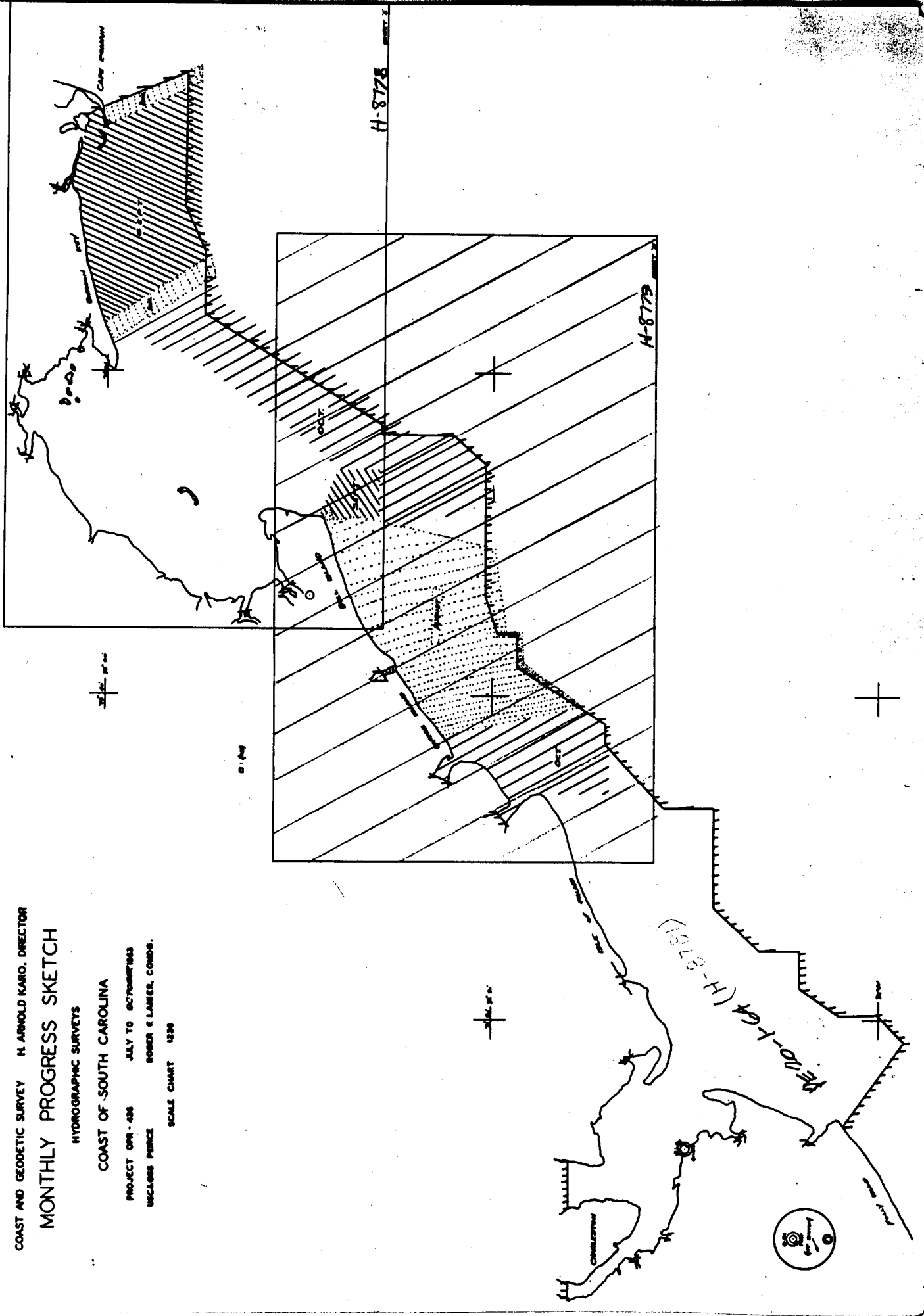
HYDROGRAPHIC SURVEYS

COAST OF SOUTH CAROLINA

PROJECT ORR-406 JULY TO OCTOBER 1965

UNCLASSIFIED ROGER E. LAMER, COMD.

SCALE CHART 1230



A. PROJECT

Authority for this survey was contained in INSTRUCTIONS dated May 15, 1963, entitled, OPR-436, CAPE ROMAIN TO CHARLESTON, COAST OF SOUTH CAROLINA, reference 2100B-pt, 5-2-PE and supplemental instructions dated December 27, 1963, entitled, OPR-436, CAPE ROMAIN - CHARLESTON, COAST OF SOUTH CAROLINA, reference 211, 5-2-PE.

B. AREA SURVEYED

The area covered by this survey is between the Southeasterly coastlines of Bull Island, Capers Island, Dewees Island, and the north portion of Isle of Palms, South Carolina to about 3 nautical miles offshore. The limits of the survey sheet are LATITUDE 32°-46' to LATITUDE 32°-55' and LONGITUDE 79°-26' to LONGITUDE 79°-45'.

The survey junctions H-8778 1963-64 on the NE, H-7172, 1947 on the SE and PE20-1-64 on the SW.

Work was conducted from August to October, 1963 and during March and April, 1964.

C. SOUNDING VESSEL

All hydrography was accomplished by launch. Launch 1, PE-1 (violet) used visual control and Launch 2, PE-2 (red) employed Hi-Fix for 2-range-distance control.

D. SOUNDING EQUIPMENT

Three fathometers were used on this survey. They were the Raytheon Model No. 723, serial nos. 242, 259 and 260. Launch No. 2 employed no. 260 for the entire survey and Launch No. 1 used no. 242 until August 5, 1963 and no. 259 thereafter. Water depths ranged up to 27-35 feet offshore and to 40 feet in Dewees Inlet.

Bar checks were taken once or twice a day when sea conditions permitted.

Bar check results were meaned and correction values arrived at separately for each field season and for each launch. Placing no. 259 in service on August 5 on Launch no. 1 made no change in the correctors for that launch.

Settlement and squat corrections were determined for each year and different values were arrived at each time. This correction was applied separately in 1963 and with the bar check correction in 1964.

In 1963, the initial was held at 2.5' on the fathogram and in 1964 it was kept at 3.0'.

E. SMOOTH SHEET

All field records of this survey will be transmitted to the Norfolk District Office. The smooth sheet will be projected by that office, the positions smooth plotted, and soundings penciled.

#### F. CONTROL

One of the two launches that operated on this survey used visual control and the other utilized Hi-Fix, range-range positioning. Each launch used separate boat sheets.

Visual signals were located by a photogrammetrist working with the ship and with field party #220. Two shore Hi-Fix camps were established in 1963, named "College" and "Live Oak".  $\Delta$  COLLEGE, 1963 was established by the PEIRCE, by a short traverse from  $\Delta$  JOHNSON (USE) 1934, and Hi-Fix station "Live Oak" is USC&GS reference mark LIVE OAK 2 NO 2 1902. "Salvo" was located by the PEIRCE in 1964 as a replacement to "Live Oak". It is USC&GS reference mark SALVO NO 1, 1964.

Visual signal locations were transferred from the following photogrammetric compilations:

Advanced manuscript T-12285, compiled May, 1963

Advanced manuscript T-12280, compiled May, 1963

Advanced manuscript T-12279, compiled May, 1963

The Hi-Fix portion of the sheet is the Bull Breakers area off Bull Island between latitudes  $32^{\circ}-50'$  and  $32^{\circ}-54'$ , and longitudes  $79^{\circ}-31'$  and  $79^{\circ}-36'$ . The remainder of the survey was controlled by sextant and 3-point fixes.

#### G. SHORELINE

The sources of shoreline locations are the manuscripts listed under part F.

Verification and revision of shoreline was conducted by the photogrammetrist.

G.--SHORELINE (cont.)

An exception was the revision of the high-water line at Price Creek (see volume 5, pg. 9), which was done by the hydrographer. The revision is shown on the boat sheet and the data turned over to the photogrammetrist. *shown in red on Smith sheet.*

The low-water line cannot be determined from sounding lines for it was inadvisable to run launch hydrography close in due to prevailing surf conditions.

The low-water line was determined at the inlets along the coast by walking it when the tide was at MLW stage. The low-water line at the mouth of the inlets is changeable from year to year due to strong currents.

H. CROSSLINES

Crosslines were run at 6.4% of the total mileage of sounding lines. Crossings were in good agreement.

I. JUNCTIONS

Junctions with adjacent surveys were in good agreement.

J. COMPARISON WITH PRIOR SURVEYS

There were no preliminary review items within the limit of the survey.

The major portion of the area surveyed compared closely to prior surveys of the area with the exception of the vicinities of the inlets, and around Bull Breakers.



J. COMPARISON WITH PRIOR SURVEYS (cont.)

The entrances to Price Creek, Capers Inlet and Dewees Inlet have strong tidal and lateral currents resulting in constant change to the bottom and shoal configurations. There is general dissimilar comparisons between this survey and the prior survey in these inlet areas. The Bull Breakers area is also changeable to some degree and on this present survey, depths were generally deeper than found on the previous survey.

K. COMPARISON WITH CHART

<u>OBJECT</u>	<u>PRESENT SURVEY</u>	<u>CHARTS C&amp;GS 1238, 1239</u>	<u>POSITION</u>
Shoal	<del>11'</del> 10'	13'	$\phi 32^{\circ} 50.4'$ $\lambda 79^{\circ} 33.9'$
Wreck	Awash at MHW	uncharted	$\phi 32^{\circ} 48.8'$ $\lambda 79^{\circ} 42.6'$
Shoal	5' - 10'	2' - 4' (vic of)	$\phi 32^{\circ} 54'$ $\lambda 79^{\circ} 34'$

L. ADEQUACY OF SURVEY

This survey is considered complete and adequate and should supercede prior surveys for charting.

M. AIDS TO NAVIGATION

There is only one aid to navigation within the limits of this survey, and no more are deemed necessary.

M. AIDS TO NAVIGATION (cont.)

It is:

Light list no. 43139, Bull Breakers Buoy 2BB  
 Light list pos.  $\phi$  32°-50.2'  $\lambda$  79°-32.5'  
 Survey position  $\phi$  32°-50.<sup>21</sup>2'  $\lambda$  79°-32.<sup>37</sup>4' (pos. 133<sup>113f(red)</sup>)

N. STATISTICS

	<u>no. of Positions</u>	<u>N. M. of sounding line</u>	<u>no. of bottom samples</u>
Lch 1, 1963	1942	368.7	17
Lch 2, 1963	379	95.4	--
Lch 1, 1964	265	42.7	8
Lch 2, 1964	324	67.3	14
	-----	-----	-----
Total	2910	574.1	39
Portable tide gage -- 1			
Area surveyed Lch-1 -- 35 sq. n. m.			
Lch-2 -- 13 sq. n. m.			

O. MISCELLANEOUS

There is heavy silting, shifting underwater sand ridges and changing sand bars and shoreline at the entrances to Price Creek, Capers Inlet, and particularly Dewees Inlet.

The changing underwater features off Dewees Inlet are fairly extensive and are bounded between latitudes 32°-47' and 32°-49' and longitudes 79°-41.5' and 79°-44'.

O. MISCELLANEOUS (CONT.)

Sounding lines run in 1964 differed from lines of the previous year by as much as 3' to 4', and neither compared with the prior survey. Also, silt ridges appear to have shifted since the previous year. The material on the bottom is a fine, gray sand which flows heavily from the inlets and from Bull Bay.

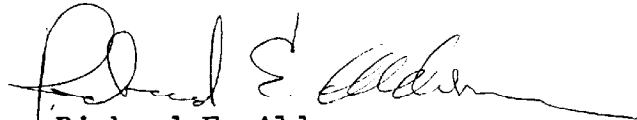
P. RECOMMENDATIONS

It is recommended that the areas mentioned in part O be labelled as CHANGEABLE AREAS.

Q. REFERENCES TO REPORTS

1. Volume #10 of 10 Hi-Fix calibration record book, submitted with field records for PE 20-2-63, H-8778; forwarded to Norfolk District Office.
2. "REPORT ON USE OF HI-FIX ELECTRONIC PHASE COMPARISON EQUIPMENT FOR CONTROLLING HYDROGRAPHIC SURVEYS, 1963", by LCDR Roger F. Lanier, submitted to Washington Office in January, 1964.
3. HI-FIX REPORT, OPR-436, 1963-64, USC&GSS PEIRCE, to be written.

Respectfully submitted



Richard E. Alderman  
Lt., USC&GS  
May, 1964

NORFOLK RECORDS PROCESSING BRANCH  
FLOATING AIDS TO NAVIGATION  
H-8779

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Bull Breakers Buoy 2BB	32-50'.21	79-32'.37	38'	113f (red)	4/15/64

SEPARATES FOLLOWING TEXT

- APPENDIX A - Tidal Note
- B - Geographic Name List
- C - Abstract of Corrections to Echo Soundings
- D - Abstract of Corrections to Distance  
Measurements
- E - List of Signals
- F - Approval Sheet

APPENDIX A

TIDAL NOTE

Tide control for this survey was obtained from the following gage; which was installed and maintained by field party #220 during 1963:

Reinstalled by USC&GSS PEIRCE	--	March 22, 1964
Moved to deeper water	--	April 3, 1964
Removed	--	May 15, 1964
Location	--	Summerhouse Creek, Bull Island, S. C.
Latitude	--	32°-54'-50"
Longitude	--	79°-36'-52"
Type	--	Portable Automatic
MLW on Staff 1963	--	2.7 feet
MLW on Staff, March 22, 1964 to April 3, 1964	--	3.3 feet
MLW on Staff, April 4, 1964 to May 15, 1964	--	1.9 feet

APPENDIX B

GEOGRAPHIC NAME LIST

ATLANTIC OCEAN

BULL BREAKERS

BULL ISLAND

CAPERS INLET

CAPERS ISLAND

DEWEES INLET

DEWEES ISLAND

ISLE OF PALMS





APPENDIX C. (CONT.)

ABSTRACT OF BAR CHECKS, OPR-436, S. C. PORT LAUNCH

H-8779 1963-64

	date	5-foot	10-foot	15-foot	20-foot	25-foot	30-foot	35-foot
	1963	(INITIAL AT 2.5 FEET)						
	24 Aug.	-1.0	-0.8	(-0.4)R	(-0.0)R	(-0.1)R		
	24 Aug.	-1.3	-0.9	-0.7	-0.5	-0.4		
	29 Aug.	(-1.6)R	-1.1	-1.0	-0.9	-0.4		
	10 Sep.	-1.2	-0.7	-0.5	-0.4	-0.2		
	12 Sep.	-1.0	-0.8	-0.6	-0.4			
	18 Sep.	-1.3	-1.0	-0.9	-0.5			
	2 Oct.	-1.1	-1.0	-0.9	(-1.0)R			
	2 Oct.	-1.5	-1.2	-1.0	(-1.0)R			
	3 Oct.	-1.3	-0.9	-0.6	-0.6			
	4 Oct.	-1.2	-1.0	-0.8	-0.6	-0.2	-0.3	
	8 Oct.	-1.4	-1.1	-0.8	-0.8			
	8 Oct.	-1.0	-1.0	-0.8	-0.6	-0.4	-0.0	
	27 Oct.	-1.0	-0.8	-0.5	-0.6	-0.2	-0.2	-0.0
	28 Oct.	-1.0	-0.9	-0.8	-0.6	-0.5	-0.1	-0.0
	28 Oct.	-1.1	-0.9	-0.9	-0.6	-0.4	-0.1	-0.0
	means	-1.2	-0.9	-0.8	-0.6	-0.3	-0.1	-0.0
	(SETTLEMENT AND SQUAT CORRECTIONS APPLIED SEPARATELY IN 1963)							
	1964	(INITIAL AT 3.0 FEET)						
	14 Apr.	-1.9	-1.8	-1.7	-1.6	-1.4	-1.6	
	15 Apr.	-2.0	-1.8	-1.5	-1.4	-1.4		
	15 Apr.	-2.0	-1.6	-1.6	-1.4	-1.3	-1.4	-1.2
	24 Apr.	-1.9	-1.6	-1.5	-1.6	-1.4		
	28 Apr.	-2.0	-1.8	-1.5	-1.4	-1.3	-1.0	
	29 Apr.	-2.1	-1.8	-1.7	-1.4	-1.2		
	30 Apr.	-2.0	-1.9	-1.6	-1.5	-1.3	-1.0	
	30 Apr.	-2.0	-1.6	-1.5	-1.4	-1.2		
	means	-1.99	-1.74	-1.58	-1.46	-1.31	-1.25	-1.20
	s&s corr-n	+0.20	+0.20	+0.20	+0.20	+0.20	+0.20	+0.20
	final corr-n	-1.79	-1.54	-1.38	-1.26	-1.11	-1.05	-1.00

APPENDIX C. (CONT.)

ABSTRACT OF BAR CHECKS, OPR-436, S. C. STARBOARD LAUNCH

H-8779 1963-64

DAY	DATE	5-FOOT	10-FOOT	15-FOOT	20-FOOT	25-FOOT	30-FOOT
	1963	(INITIAL AT 2.5 FEET)					
a	1 Aug.		-1.1				
b	2 Aug.		(-1.6)R	-1.0			
b	2 Aug.	-1.6	-1.2	(-1.4)R			
c	4 Aug.		-1.1	-0.8	-0.4		
d	5 Aug.		-1.2	-0.6	-0.5		
e	6 Aug.		-0.9	(-0.4)R	(-0.2)R	-0.2	
f	20 Aug.	-1.1	(-0.4)R	(-0.2)R	(-0.0)R		
f	20 Aug.		-1.0	-0.8	-0.7	-0.3	
g	21 Aug.		-1.4	-0.6	-0.3	-0.3	-0.1
g	21 Aug.		-1.1	-1.1	-0.9		
h	22 Aug.		-1.1	-1.0	-0.6	-0.4	
h	22 Aug.		(-1.5)R	(-1.2)R	-0.7	-0.6	
j	25 Aug.	-1.6	(-1.6)R	-1.0	-0.7		
k	29 Aug.	-1.2	-1.3	-1.0	-0.8		
k	29 Aug.	-1.4	-1.3	-0.9	-0.6	-0.5	-0.2
m	11 Sep.		-1.4	-0.9	-0.8	-0.6	
n	12 Sep.	-1.1	(-0.6)R	(-0.3)R			
r	7 Oct.	-1.3	-0.8	-0.6	-0.4		
s	8 Oct.	-1.1	-1.0	-0.7	-0.5		
u	27 Oct.	-1.6	-1.0	-0.8	-0.5	-0.4	
u	27 Oct.	-1.6	(-1.6)R	-1.1	(-1.1)R	(-0.9)R	
means		-1.4	-1.1	-0.9	-0.6	-0.4	-0.2
( SETTLEMENT AND SQUAT CORRECTIONS APPLIED SEPARATELY )							
	1964	(INITIAL AT 3.0 FEET)					
x	23 Mar.	-1.8	-1.4	(-1.1)R	-1.3	-1.0	
x	23 Mar.	-1.9	-1.9	-1.4	-1.3		
y	24 Mar.		-2.0*	-1.6*	-1.5*	-1.2*	
z	25 Mar.	-2.2*	-1.9*	-1.7*	-1.5*	-1.3*	
aa	4 Apr.		-1.9*	-1.6*	-1.4*	-1.2*	
ca	16 Apr.	-2.0	-2.1	(-1.9)R	(-2.0)R	(-1.8)R	
means		-1.98	-1.87	-1.56	-1.40	-1.18	
s&s corr-n		+0.20	+0.20	+0.20	+0.20	+0.20	
final corr-n		-1.78	-1.67	-1.36	-1.20	-0.98	
(*+0.5 added, to correct for initial setting of 2.5 feet.)							

APPENDIX C. (CON.)

VELOCITY CORRECTIONS APPLIED, LAUNCHES NO. 1 and NO. 2

(Refer to correction log book graphs)

PORT LAUNCH (2)

1963:

*Table #1*

DEPTH RANGE CORRECTION

3.5' to 7.8'	-1.2'
8.0' to 12.0'	-1.0'
12.2' to 16.6'	-0.8'
16.8' to 21.0'	-0.6'
21.2' to 25.2'	-0.4'
25.4' to 29.8'	-0.2'
30.0' to 34.2'	0.0'
34.4' to 38.4'	+0.2'
38.6' to 42.8'	+0.4'
43.0' to <del>50.0</del>	+0.6'

STARBOARD LAUNCH (1)

1963:

*Table #2*

DEPTH RANGE CORRECTION

2.5' to 6.8'	-1.4'
7.0' to 11.0'	-1.2'
11.2' to 15.0'	-1.0'
15.2' to 19.2'	-0.8'
19.4' to 23.4'	-0.6'
23.6' to 27.8'	-0.4'
28.0' to 31.8'	-0.2'
32.0' to 36.0'	0.0'
36.2' to 40.0'	+0.2'
40.2' to 44.0'	+0.4'
44.2' to <del>50.0</del>	+0.6'

1964:

*Table #3*

DEPTH RANGE CORRECTION

0.0' to 5.6'	-1.8'
5.8' to 12.2'	-1.6'
12.4' to 19.6'	-1.4'
19.8' to 26.4'	-1.2'
26.6' to 33.2'	-1.0'
33.4' to 38.0'	-0.8'

1964:

*Table #4*

DEPTH RANGE CORRECTION

0.0' to 6.6'	-1.8'
6.8' to 11.4'	-1.6'
11.6' to 16.6'	-1.4'
16.8' to 21.8'	-1.2'
22.0' to 26.6'	-1.0'
26.8' to 31.8'	-0.8'
32.0' to 36.8'	-0.6'
37.0' to 41.6'	-0.4'

APPENDIX D

ABSTRACT OF CORRECTIONS TO DISTANCE MEASUREMENTS

Electronic control used on this survey was the recently developed "Hi-Fix", by Decca Navigator Company of England.

The Hi-Fix system was adjusted to read correctly at all times while the launch was running sounding lines. (SEE REPORTS 2 AND 3 UNDER PARAGRAPH Q.)

APPENDIX E

SHEET PE-20-3-63

LIST OF SIGNALS

---

Bull Island to Isle of Palms, S. C.

OPR - 436

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<u>NAME</u>	<u>SOURCE</u>
AMY	T-12279
BEC	80
BIG	85
BOB	80
BOX	79
COW	79
CUT	80
DIX	85
DOT	80
DUN	79
EAR	80
EGG	85
EGO	80
EVA	79
FOR	80
GOT	79
GUS	80
HIS	80
ICE	79
ITS	80
JUG	79
JUT	80
KEN	80
KID	85
KIM	80
LAN	Bull Island C. G. Tower 1937
LER	85
LIZ	85
LUX	85

APPENDIX E (CONT)

SHEET PE-20-3-63

LIST OF SIGNALS

MAW	T-12280
MAX	85
MOP	85
NIX	80
NOW	85
NUT	85
OAK	85
OFF	80
PEP	85
PIE	80
POT	85
QUO	80
RAG	85
RIM	85
RED	80
RUE	WINYAH BAY CHARLESTON HARBOR LIGHT 96 T-12285
SKY	RUSH, 1963
SOX	T-12285
STY	80
SUE	85
TAP	85
TOM	85
TUB	80
USE	85
VAN	85
VIA	79
VIM	85
WAD	79
WED	85
XMAS	79
YAK	85
YAM	79
ZAG	85
ZIG	79
ZOO	85

Hydrographic survey PE-20-3-63 (H-8779) is approved. Supervision of field work by the chief of party was general for the most part, with detailed examination of the boat sheet and field records a few times during the survey and after completion.

This survey is considered complete and adequate and no additional field work is recommended. The changes at and near mouths of the various inlets is thought to be due to continuous tidal current action, though possibly, the rate of change is accelerated during the winter months.



Roger F. Lanier  
LCDR, USC&GS

NORFOLK HYDROGRAPHIC PROCESSING BRANCH  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8779 (Pe 20-3-63)

Except for scattered crossing discrepancies this appears to be an excellent basic survey. The 3 to 4 foot differences mentioned in paragraph "O" did not appear on the smooth plot, however, there are scattered 2 foot discrepancies. For instance, in the general vicinity of Lat. 32-52' to 54' and Long. 75-35' to 36' the soundings on "a" day average 1 to 2 feet deeper than surrounding hydrography. Also, in the vicinity of Lat. 32-49' to 50' and Long. 79-37' to 38' soundings on "e" average about 2 feet deeper at crossings than those on lines 109 to 110j and 23 to 26k.

Some of this disagreement may have been caused by bottom changes in this exposed area, but it is believed the remoteness of the tide gage was a contributing factor.

Respectfully submitted,

  
Hugh L. Proffitt  
Cartographer

Norfolk, Va.  
April 12, 1965





HYDROGRAPHIC SURVEY STATISTICS  
HYDROGRAPHIC SURVEY NO. 8779

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS (2 parts)	1
DESCRIPTIVE REPORT	1	OVERLAYS	

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	2					
VOLUMES	12					
BOXES						

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				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
<b>TOTALS</b>				
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY	BEGINNING DATE		ENDING DATE	
REVIEW BY	BEGINNING DATE		ENDING DATE	

**VERIFIER'S REPORT**  
**HYDROGRAPHIC SURVEY, H -8779**

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

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

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

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p><b>Note:</b> The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>			<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are <b>SUPERSEDED</b>.</p>		
<p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>			<p><b>Part IV - VOLUMES</b></p> <p>11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None</p>		
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>			<p>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><b>Part II - SHORELINE AND SIGNALS</b></p> <p>4. Source of shoreline signals Remarks Required: -- List all surveys a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed</p>					
<p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>			<p><b>Part V - PROTRACTING</b></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>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>					
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p>			<p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p>		
<p><b>Part III - JUNCTIONS</b></p> <p><b>Note:</b> Make a cursory comparison preliminary to inking soundings in area of overlap.</p> <p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>			<p>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>		
<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>					

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.				26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey.  Remarks Required: -- Conflicts of any nature listed.			
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.				27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification.  Remarks Required: -- None			
<b>Part VI - SOUNDINGS</b> 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None				<b>Part IX - BOATSHEET</b> 28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information.  Remarks Required: -- None			
19. Sounding line crossings were satisfactory except as follows:  Remarks Required: -- Discuss adjustments.				29. Heights of rocks awash were correctly reduced and compared with topographic information.  Remarks Required: -- Note excessive conflicts with topographic information.			
20. The spacing of soundings as recorded in the records was closely followed;  Remarks Required: -- None				<b>Part X - GENERAL</b> 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			
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified.  Remarks Required: -- None				31. Unnecessary pencil notes have been removed from the sheet.  Remarks Required: -- None			
22. The smooth plotting of soundings was satisfactory except as follows:  Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.				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			
<b>Part VII - CURVES</b> 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.				33. The bottom characteristics are adequately shown.  Remarks Required: -- None			
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed  Remarks Required: -- None				<b>Part XI - NOTES TO THE REVIEWER</b> 34. Unresolved discrepancies and questionable soundings.			
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.				35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.			
				36. Supplemental information.			
Verified by						Date	

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 3, 1969

~~Nautical Chart District~~ R. H. Carstens

Plane of reference approved in  
12 volumes of sounding records for

HYDROGRAPHIC SHEET 8779

Locality: vicinity of Bull Island  
South Carolina

Chief of Party: R. F. Lanier, 1963-64

Plane of reference is mean low water

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

Summer house Creek  
Bull Island, S.C.

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

4.8 feet

Remarks

  
Chief, Tides and Currents Branch

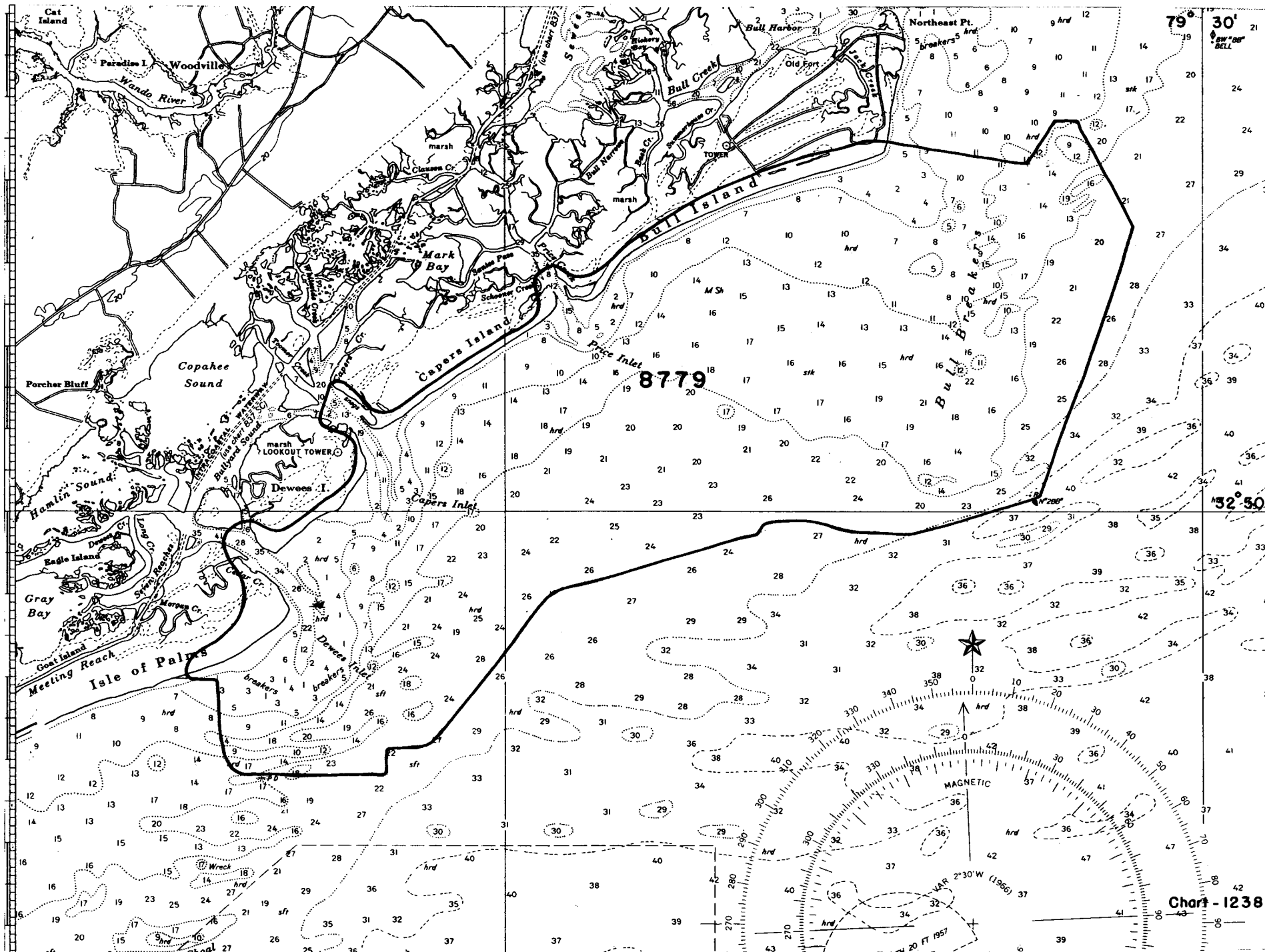


Chart - 1238

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8779

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
1238	5/4/65	O. Svendsen	<del>Full</del> Part Before <del>After</del> Verification Review Inspection Signed Via Drawing No. 13 (Exam. No critical corrections)
1110	6-4-65	N. H. Eaton	<del>Full</del> Part Before <del>After</del> Verification Review Inspection Signed Via 1238 Drawing No.
1239	1/13/66	John H. Eaton	<del>Full</del> Part Before <del>After</del> Verification Review Inspection Signed Via Drawing No.
1001	1/10/66	Heedon Badden	Full <del>Part</del> <del>Before</del> <del>After</del> Verification Review Inspection Signed Via Drawing No. Consider fully applied as the hydro has been removed from the area.
491	2/7/68	John P. Wein	<del>Full</del> Part Before <del>After</del> Verification Review Inspection Signed Via Drawing No.
11521	3/2/90	DUMCALWORN	Full Part Before After Verification Review Inspection Signed Via Drawing No. 34 CONSIDERED ADEQUATELY APPLIED
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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