8477

Diag. Cht. No. 1240-3

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. ECFP-1157

Office No. H-8477

LOCALITY

State ..... SOUTH CAROLINA

General Locality ..... ST. HELENA SOUND

Locality ..... HARBOR RIVER AND VICINITY OF EDISTO BEACH

1956-57

CHIEF OF PARTY
Marvin T. Paulson

LIBRARY & ARCHIVES

DATE 11/30/59

☆U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098

8477

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8477 ✓

Field No. ECFP-1157

State SOUTH CAROLINA — See also other title sheets

General locality ST. HELENA SOUND

Locality HARBOR RIVER and Vicinity of Edisto Beach

Scale 1:10,000 Date of survey 3/1/57 to 3/20/57

Instructions dated 13 Oct. 1955 & 16 Aug. 1956

Vessel EAST COAST FIELD PARTY LAUNCH 82

Chief of party MARVIN T. PAULSON

Surveyed by L.L. SEAL

Soundings taken by ~~echo meter~~, graphic recorder, hand lead, ~~wire~~

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL

Protracted by A.K. SCHUGELD

Soundings penciled by A.K. SCHUGELD

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ and are True Depths

REMARKS: See attached reports for surveys ECFP-1956 & 2156

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET (FIELD NO. ECFP 1157)

East Coast Field Party
Project 13850

Marvin T. Paulson, CinC
Scale:, 1:10,000

A. PROJECT

A basic survey of a portion of Harbor River and Ward's Creek was accomplished under instructions 22/MEK FP-East Coast dated 13 October 1955; and Supplemental Instructions project 13850 22/MEK FP-East Coast dated 16 August 1956.

B. SURVEY LIMITS & DATES

Field work on sheet ECFP 1157 began 1 March 1957 and ended 20 March 1957. Hydrography on the sheet extended north to Lat. 32° 24.6' and south to Lat. 32° 22.2'. Hydrography in Harbor River was accomplished as far north as Harbor River Bridge but did not make an actual junction with H-8364 (ECFP 1156) because no sounding lines were run underneath the bridge. Work extended west to Longitude 80° 29.6' and east to longitude 80° 27.0' and was done only when rough seas prohibited work on the offshore sheet (ECFP 1256).

C. VESSELS AND EQUIPMENT

Launch CS-82 was used entirely on this sheet. It was operated from Ward's Creek. The launch was operated at a standard speed of 1500-1600 RPM or about 6 knots.

Echo soundings were obtained with an EDO 255 type fathometer with the transducer unit mounted over the starboard side. A Kato Converter was used along with the fathometer and,as a bar check waa taken, the frequency of the converter was changed to give true sounding depths. This was done so that no velocity corrections were needed on this sheet.

D. TIDES AND CURRENT STATIONS

A portable automatic tide gage was maintained at the north entrance to Harbor River on the Harbor River Bridge. This gage was used to control the hydrography on the sheet.

No current stations were occupied.

E. SMOOTH SHEET

The smooth sheet will be plotted by the Norfolk Processing Office. Attachments, statistics, and field records will be sent to this office.

F. CONTROL STATIONS

Control consisted of five triangulation stations, one topographic station, and twenty seven Photo-hydro signals. A complete list of control may be found in the attached Report of Photogrammetric Support as well as in the front of Sounding Vol. No. 1, sheet ECFP 1157.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic details were obtained from photogrammetric manuscripts T-10309, ~~T-10310,~~ and T-10315.

Photo sub party number 1 was used in support of the East Coast Field Party and had charge of the shoreline and topography. There were no changes in shoreline or topographic details determined by this survey.

H. SOUNDINGS

Soundings were obtained with an EDO 255 type fathometer, , hand lead and sounding pole. Bottom samples were obtained with an armed hand lead.

I. CONTROL OF HYDROGRAPHY

Visual fixes were used entirely on this sheet to control the hydrography.

J. ADEQUACY OF SURVEY

The area which this survey covered is complete and adequate to supersede prior surveys for charting.

K. CROSSLINES

The percentage of crosslines for the sheet is 10%. The crossings were very good. ✓

L. COMPARISON WITH PRIOR SURVEYS

Comparisons with prior surveys show no changes either in shoreline or depth of water. ✓

Comparisons were made with:

PRIOR SURVEY	DATE	SCALE
5650	March 1934	1:10,000
5565	June-July 1934	1:10,000
833	1863	1:10,000

M. COMPARISON WITH CHART

It is felt that the comparison with prior surveys is also a comparison with charts 1240 and 793 as there is very little difference between the prior surveys and the charts. ✓

N. DANGERS AND SHOALS

There are no new dangers or shoals to report. ✓

O. COAST PILOT INFORMATION

There is no new Coast Pilot information to report. ✓

P. AIDS TO NAVIGATION

Aids to Navigation and Landmarks for Charts were submitted by Photo Party number 1. ✓

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report. ✓

R. GEOGRAPHIC NAMES

There are no new geographic names to report. ✓

S&T. Do not apply in this report ✓

U-Y. MISCELLANEOUS

1. Field Procedures That Deviate From Standard Practice

It will be noted throughout the record volumes that when a line ends or begins a latitude and longitude are given. However, if the description is line breaks and the distance is less than 1000 meters to where the line resumes, the distance and direction are given from where the line breaks to where it resumes.

Z. TABULATION OF APPLICABLE DATA

Bar Check Tabulations for the entire project 13850 are attached.

Respectfully submitted

Lawrence L. Seal
Ens., C&GS

Attachments:

1. Report of Photogrammetric Support (Attached to Sh. 1256 report)
2. Statistics
3. Tidal Note
4. Fathometer Report
5. Approval Sheet

FATHOMETER REPORT FOR PROJECT ✓

13850

East Coast Field Party
Project 13850

Marvin T. Paulson
Chief of Party

SHEET ECFP 1256

A Kato Converter was used with the Edo 255 fathometer on this sheet during the 1956-57 field season. It was discovered that the frequency could be varied as a bar check was taken so as to give true sounding values. This was done during the 1956-57 field season on ECFP 1256 but not the preceeding year. Hence, the only velocity corrections needed were for a few days during the 1955-56 season when the bar checks showed the echo sounder to be in error. No curves were drawn for sheet ECFP 1256.

SHEET 2156

The corrections determined by bar checks were averaged for the days hydrography was accomplished. The bar checks were very good with the exception of one day which was disregarded because of heavy seas and was felt to be unreliable. The average corrections for all depths were zero, hence no curves were drawn. Velocity corrections were zero for all days on this sheet.

SHEET 1156

For seven of the twenty three working days on this sheet, the bar checks were erratic. On the remaining sixteen days the correction values were very nearly the same and all close or at zero. A zero correction was used for these sixteen days at all depths. For the days when the bar checks were erratic, separate velocity correction curves were drawn and the corrections entered in the sounding volumes. These curves are attached to the original only. All checks on the 806j show zero correction.

SHEET 1157

As on sheet ECFP 1256, a Kato Converter was used with Edo 255 fathometer number 201. The frequency of the converter was changed to give soundings with no correction for all the hydrography accomplished on this sheet.

SHEET 1956

The corrections determined by bar checks were averaged for the days hydrography was accomplished on this sheet. The average correction for all depths was zero and no velocity correction curves were drawn.

PROJECT 13850 ✓

BAR CHECKS
SHEET 1156

DATE	CORRECTIONS 6'	12'	18'	24'	30'	36'	42'	PATH.	REMARKS
1/18/56	-0.6	-0.3	0.0					Edo 255	*
20/56	0.0	0.2	0.2	0.2	0.0			#201	
25/56	-0.2	0.2	1.0					"	*
31/56	0.0	0.0	-0.2	0.0				"	
12/2/56	0.0	0.0	0.0	0.0	0.0			"	
2/6/56	0.0	0.0	0.0					808J #77	
15/56	0.0	0.0	0.0	0.0	0.0	0.0		Edo 255 #201	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	-0.25					"	
3/1/56	0.0	0.0	0.15	0.4	0.6			"	*
2/56	-0.1	0.0	0.0					"	
5/56	0.0	0.0	0.0	0.45	0.6			"	*
6/56	-0.2	0.05	0.1	0.05				"	
12/56	0.0	0.0	0.15	0.4	0.4			"	*
13/56	0.0	0.0	0.0	0.1				"	
14/56	0.0	-0.1						"	
15/56	0.0	0.0	0.0	0.1	0.0			"	
19/56	0.0	0.0	0.1	0.4	0.4			"	*
20/56	0.0	0.0	0.0	0.0				"	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	0.0	0.0	0.0			"	
28/56	0.0	-0.1	-0.1	0.0				"	
29/56	0.1	-0.1	0.0	0.1	-0.1	-0.4		"	*
				SHEET 2156					
11/28/56	0.0	0.0	-0.1					Edo 255 #201	
29/56	0.0	0.0	0.0	0.0				"	
12/3/56	0.0	0.0	0.0	0.0	0.0			"	
4/56	0.0	0.0	0.0	0.0	-0.3			"	
1/14/57	0.0	0.0	0.0	0.0				"	
22/57	0;0	-0.1	-0.8	-1.0	-1.0			"	Unreliable, sea rough
				SHEET	1956				
12/6/56	0.0	0.0	0.0	0.0	0.0	0.0		Edo 255 #201	
2/12/57	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Averages for sheets 1156, 1956, & 2156 for Edo 255(Omitting bar checks whose correction curves are drawn separately.)

TOTALS	-0.3	0.1	-0.3	0.45	-0.3	0.0	
NO. OF BAR CHECKS	21						
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	

* Curves drawn separately

VELOCITY CORRECTIONS ✓

For days when bar check was not zero and corrections were computed separately

18 January 1956

Depth	Correction
0'-9'	-0.6
9.1'-12'	-0.4
12.1'-16'	-0.2
16.1'-20'	0.0

25 January 1956

Depth	Correction
0'-8'	-0.2
8.1'-11'	0.0
11.1'-13'	0.2
13.1'-15'	0.4
15.1'-16'	0.6
16.1'-18'	0.8
18.1'-	1.0

3 March 1956

Depth	Correction
0'-18'	0.0
18.1'-22'	0.2
22.1'-26'	0.4
26.1'-	0.6

5 March 1956

Depth	Correction
0'-19'	0.0
19.1'-22'	0.2
22.1'-25'	0.4
25.1'-	0.6

12 March 1956

Depth	Correction
0'-16'	0.0
16.1'-21'	0.2
21.1'-	0.4

19 March 1956

0'-19'	0.0
19.1'-22'	0.2
22.1'-	0.4

29 March 1956

Depth	Correction
0'-30'	0.0
30.1'-35'	-0.2
35.1'-	-0.4

The corrections for the remaining days were averaged for both the Edo fathometer and the 506j. These corrections were zero for all depths and this was considered the standard for the fathometers.

STATISTICS ✓

Hydrographic Survey ECFP 1157 (1957)

Date	Day Letter	Volume No.	Fath. Pos.	H.L.	Statute Miles
3/ 1/57	a	1	84	0	9.4
3/ 4/57	b	2	114	0	10.8
3/ 5/57	c	2 & 3	158	0	15.0
3/ 7/57	d	3	63	0	5.5
3/12/57	e	3	66	0	5.5
3/18/57	f	3	31	0	2.6
3/20/57	g	3 & 4	77	0	7.5
			593	0	56

TIDAL NOTE ✓

TO ACCOMPANY

SHEET (ECFP 1157)

Tidal data for reduction of soundings to mean low water were obtained from a portable automatic tide gage which was located on Harbor River Bridge.

TIDE GAGE	RANGE OF TIDE	LAT & LONG	MLW ON STAFF
Harbor River	9.2'	32° 24.2' 80° 27.1'	3.5'

Reference is made to the Director's letter No. 36-107-15d dated 14 March 1957.

ATTACHMENT 5 ✓

APPROVAL SHEET BOAT SHEET ECFP 1157

PROJECT 13850

This sheet has not been completed, but the area surveyed is approved as complying with instructions. It is noteworthy that the present survey agrees very favorable with the previous survey as to definition of the channel of Harbor River.

Marvin T. Paulson

Marvin T. Paulson
LCdr., Chief of Party

NORFOLK PROCESSING OFFICE ✓
LIST OF SIGNALS
H-8477

TRIANGULATION STATIONS

SOUTH	SOUTH 2, 1933
ANN	HARBOR RIVER DAYBEACON A14, 1955
HUNT	HUNTING ISLAND, HARBOR RIVER BRIDGE, CENTER LIGHT, 1955
JOE	HARBOR RIVER DAYBEACON A13, 1955
LITE	HUNTING ISLAND LIGHTHOUSE, 1902-55
PALM	PALMETTO, 1933-55

MARKED TOPOGRAPHIC STATIONS

ISLE	ISLE, 1954	(T-10303)
PEAR	PEAR, 1954	(T-10304)

TOPOGRAPHIC STATIONS — SOURCE T-10303

Ban

SOURCE T-10304

Ant	Bum	Cat	Chi	Cow	Dig	Dog	Eat	Eel
Fox	Gum	Hag	Him	Ill	Jug	Old	Rod	Sue
Tel								

SOURCE T-11124

Dad	Gab	Pie	Red	Tank	Toe	Tri

SOURCE T-10309

Arm	Gum	Hex	Ida	Man	Pie	Red	Rum	Sad
War								

HYDROGRAPHIC STATIONS

Fag Page 44, Vol. 2, ECFP-1956

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR
COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

IN REPLY REFER TO 839:der

28 August 1959

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

Subject: Unfinished surveys, St. Helena Sd. S. C.

Inasmuch as no plans have been made to resume hydrographic surveys in St. Helena Sound, the surveyed areas may be smooth plotted on one sheet as proposed in your letter of 25 August 1959. The registry number for this sheet will be H-8477.

Ray G. Ricketts, Chief
Nautical Chart Branch
Chart Division

8477

Diag. Cht. No. 1240-3.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ECFP-2156 Office No. H-8477

LOCALITY

State SOUTH CAROLINA

General locality ST. HELENA SOUND

Locality ST. HELENA SOUND

19 56-57

CHIEF OF PARTY

MARVIN T. PAULSON

LIBRARY & ARCHIVES

DATE

COMM-DC 61300

8477

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8477 ✓

Field No. ECFP-2156

State SOUTH CAROLINA

General locality ST. HELENA SOUND

Locality Harbor River and Vicinity of Edisto Bridge ~~ST. HELENA SOUND~~

Scale 1:20,000 (SMOOTH PLOT 1:10,000) Date of survey 11/28/56 to 3/20/57

Instructions dated 13 Oct. 1955 & 16 Aug. 1956

Vessel EAST COAST FIELD PARTY LAUNCH 82

Chief of party MARVIN T. PAULSON

Surveyed by R.H. GARNETT

Soundings taken by ~~echometer~~, graphic recorder, hand lead, ~~wire~~

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL & NORFOLK PROCESSING OFFICE

Protracted by A.K. SCHUGELD

Soundings penciled by A.K. SCHUGELD

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ and are true depths

REMARKS: See attached reports for surveys ECFP-1956 & 1157

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SHEET ECFP 2156

East Coast Field Party
Project 13850

Marvin T. Paulson, CinC
Scale: 1:20,000

PROJECT

A basic survey of a portion of St. Helena Sound, South Carolina was accomplished under instructions 22/MEK F.P. East Coast dated 13 October 1955; and Supplemental Instructions project 13850 22/MEK F.P. East Coast dated 16 August 1956.

B. SURVEY LIMITS AND DATES

Field work on sheet ECFP 2156 began 28 November 1956 and ended 20 March 1957. The survey extended from longitude 80° 2~~0~~' on the west to 80° 14.9' on the east. The southern limit was from latitude 32° 27.1' on the south to Edisto Beach, the northern limit, at latitude 32° 30.5'. The sheet made junction with ECFP 1256 and ECFP 1956.

C. VESSELS AND EQUIPMENT

Launch CS-82 was used entirely on this sheet. It was operated from Big Bay Creek during the time hydrography was accomplished on this sheet. Sounding lines were run at a standard speed of 1500-1600 RPM or about 6 knots.

Echo soundings were obtained with an EDO 255 type fathometer (Serial No. 201). The transducer unit was mounted over the starboard side amidships.

D. TIDES AND CURRENT STATIONS

A portable automatic tide gage was maintained at Edisto

Beach for reduction of soundings. This gage controled all the hydrography on this sheet.

Reference is made to the attached Tidal Note.

No Current stations were occupied during this survey.

E. SMOOTH SHEET

The smooth sheet will be plotted by the Norfolk Processing Office. Attachments, statistics, and field records will be sent to this office.

F. CONTROL STATIONS

Horizontal control consisted of 1 triangulation station, 2 topographic stations, and 25 photo-hydro signals. A complete list of control may be found in the attached Report of Photogrammetric Support.

G. SHORELINE AND TOPOGRAPHY

For the source of shoreline and topography, see the attached Report of Photogrammetric Support. A sub unit of Photo Party No. 1 was in support of the East Coast Field Party and had charge of shoreline and topography.

There were no changes discovered in shoreline during this survey.

H. SOUNDINGS

Soundings were obtained with an EDO 255 type recorder, hand lead, and sounding pole. Bottom samples were obtained with an armed hand lead.

I. CONTROL OF HYDROGRAPHY

Visual fixes were used entirely on this sheet to control the hydrography.

J. ADEQUACY OF SURVEY

The area which this survey covers is complete and adequate to supersede prior surveys for charting. The junction with adjoining surveys is satisfactory.

K. CROSSLINES

The percentage of crosslines is about 8% for this sheet. The crossings on the sheet are very good.

L. COMPARISONS WITH PRIOR SURVEYS

Comparisons with prior survey show no changes of note. Comparisons were made with:

PRIOR SURVEY	DATE	SCALE
4152	Nov. & Dec. 1920	1:20,000

M. COMPARISON WITH CHART

It is felt that the comparison with prior surveys is also a comparison with charts 1240 and 793 as there is very little difference between the prior surveys and the charts.

N. DANGERS AND SHOALS

There are no newly found dangers or shoals to report.

O. COAST PILOT REPORT

There is no new Coast Pilot information to report.

P. AIDS TO NAVIGATION

Aids to Navigation and Landmarks for Charts were submitted by Photo Party No. 1.

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report.

R. GEOGRAPHIC NAMES

There are no new geographic names to report.

Z. TABULATION OF APPLICABLE DATA

The Bar Check tabulations for the entire project 13850 are attached.

Respectfully submitted

List of Attachments:
PHoto Report [Attached to report for 54 ECFP 1256 (H-8365)]
Statistics
Fa thometer Report
Tidal Note
Approval Sheet

Lawrence L. Seal
Ens., C&GS

STATISTICS ✓

Hydrographic Survey ECFP 2156 (1956-57)
Launch CS-82

Date	Day Letter	Volume No.	Fath. Pos.	H.L.	Statute Miles
11/28/56	a	1	100	0	22.5
11/29/56	b	1	109	0	26.6
11/30/56	c	1 & 2	92	0	19.4
12/3/56	d	2	75	4	19.3
12/4/56	e	2	69	7	14.1
1/14/57	f	2 & 3	93	0	13.2
1/18/57	g	3	49	0	4.2
1/22/57	h	3	35	0	7.3
			622	12	127

FATHOMETER REPORT FOR PROJECT ✓

13850

East Coast Field Party
Project 13850

Marvin T. Paulson
Chief of Party

SHEET ECFP 1256

A Kato Converter was used with the Edo 255 fathometer on this sheet during the 1956-57 field season. It was discovered that the frequency could be varied as a bar check was taken so as to give true sounding values. This was done during the 1956-1957 field season on ECFP 1256 but not the preceeding year. Hence, the only velocity corrections needed were for a few days during the 1955-1956 season when the bar checks showed the echo sounder to be in error. No curves were drawn for sheet ECFP 1256.

SHEET 2156

The corrections determined by bar checks were averaged for the days hydrography was accomplished. The bar checks were very good with the exception of one day which was disregarded because of heavy seas and was felt to be unreliable. The average corrections for all depths were zero, hence no curves were drawn. Velocity corrections were zero for all days on this sheet.

SHEET 1156

For seven of the twenty three working days on this sheet, the bar checks were erratic. On the remaining sixteen days the correction values were very nearly the same and all close or at zero. A zero correction was used for these sixteen days at all depths. For the days when the bar checks were erratic, separate velocity correction curves were drawn and the corrections entered in the sounding volumes. These curves are attached to the original only. All checks on the 808j show zero correction.

SHEET 1157

As on sheet ECFP 1256, a Kato Converter was used with Edo 255 fathometer number 201. The frequency of the converter was changed to give soundings with no correction for all the hydrography accomplished on this sheet.

SHEET ~~1656~~ 1956

The corrections determined by bar checks were averaged for the days hydrography was accomplished on this sheet. The average correction for all depths was zero and no velocity correction curves were drawn.

PROJECT 13850

BAR CHECKS
SHEET 1156

DATE	CORRECTIONS 6'	12'	18'	24'	30'	36'	42'	PATH.	REMARKS
1/18/56	-0.6	-0.3	0.0					Edo 255	*
20/56	0.0	0.2	0.2	0.2	0.0			#201	
25/56	-0.2	0.2	1.0					"	*
31/56	0.0	0.0	-0.2	0.0				"	
12/2/56	0.0	0.0	0.0	0.0	0.0			"	
2/6/56	0.0	0.0	0.0					808j #77	
15/56	0.0	0.0	0.0	0.0	0.0	0.0		Edo 255#201	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	-0.25					"	
3/1/56	0.0	0.0	0.15	0.4	0.6			"	*
2/56	-0.1	0.0	0.0	[illegible]				"	
5/56	0.0	0.0	0.0	0.[illegible]5	0.6			"	*
6/56	-0.2	0.05	0.1	0.05				"	
12/56	0.0	0.0	0.0	0.4	0.4			"	*
13/56	0.0	0.0	0.0	0.1				"	
14/56	0.0	-0.1	-0.1					"	
15/56	0.0	0.0	0.0	0.1	0.0			"	
19/56	0.0	0.0	0.1	0.4	0.4			"	*
20/56	0.0	0.0	0.0	0.0				"	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	0.0	0.0	0.0			"	
28/56	0.0	-0.1	-0.1	0.0				"	
29/56	0.1	-0.1	0.0	0.1	-0.1	-0.4		"	*

SHEET 2156

11/28/56	0.0	0.0	-0.1				Edo 255#201	
29/56	0.0	0.0	0.0	0.0			"	
12/3 /56	0.0	0.0	0.0	0.0	0.0		"	
4 /56	0.0	0.0	0.0	0.0	-0.3		"	
14/56	0.0	0.0	0.0	0.0			"	
22/56	0.0	-0.1	-0.8	-1.0	-1.0		"	Unreliable, sea rough

SHEET 1956

12/6/56	0.0	0.0	0.0	0.0	0.0		Edo 255 #201	
2/12/57	0.0	0.0	0.0	0.0	0.0	0.0	"	

Averages for sheets 1156, 1956, & 2156 for Edo 255 (Omitting bar checks whose correction curves are drawn separately.)

TOTAIS	-0.3	0.1	-0.3	0.45	-0.3	0.0
NO. OF BAR CHECKS 21						
MEAN	0.0	0.0	0.0	0.0	0.0	0.0

* Curves drawn separately

VELOCITY CORRECTIONS

For days when bar check was not zero and corrections were computed separately

18 January 1956

Depth	Correction
0'-9'	-0.6
9.1'-12'	-0.4
12.1'-16'	-0.2
16.1'-20'	0.0

1March 1956

Depth	Correction
0'-18'	0.0
18.1'-22'	0.2
22.1'-26'	0.4
26.1'-	0.6

12 March 1956

Depth	Correction
0'-16'	0.0
16.1'-21'	0.2
21.1'-	0.4

29 March 1956

Depth	Correction
0'-30'	0.0
30.1'-35'	-0.2
35.1'-	-0.4

25 January 1956

Depth	Correction
0'-8'	-0.2
8.1'-11'	0.0
11.1'-13'	0.2
13.1'-15'	0.4
15.1'-16'	0.6
16.1'-18'	0.8
18.1-	1.0

5 March 1956

Depth	Correction
0'-19'	0.0
19.1'-22'	0.2
22.1'-25'	0.4
25.1'-	0.6

19 March 1956

Depth	Correction
0'-19'	0.0
19.1'-22'	0.2
22.1'-	0.4

The corrections for the remaining days were averaged for both the Edo fathometer and the 808j. These corrections were zero for all depths and this was consideredthe standard for the fathometers.

TIDAL NOTE ✓

TO ACCOMPANY

HYDROGRAPHIC SHEET

ECFP 2156

Tidal data for feduction of soundings were obtained from a portable automatic tide gage maintained at Edisto Beach on Wheeler Pier.

TIDE GAGE	RANGE OF TIDE	LAT & LONG	MLW ON STAFF
Edisto Beach	9.0'	32° 30.1' 80° 17.8'	2.1'

ATTACHMENT 5

APPROVAL SHEET

BOAT SHEET ECFP 2156 (H-8477) ✓

PROJECT 13850

The sheet has not been completed, but the area of the survey is approved as complying with instructions. The survey was accomplished by a detached unit however, the records were inspected periodically.

Marvin T. Paulson
Chief of Party

8477

Diag. Cht. No. 1240-3.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ECFP-1956 Office No. H-8477

LOCALITY

State SOUTH CAROLINA

General locality ST. HELENA SOUND

Locality ~~ST. HELENA SOUND~~ Harbor River an Vicinity of Edisto Beach

1956-57

CHIEF OF PARTY

MARVIN T. PAULSON

LIBRARY & ARCHIVES

DATE

COMM-DC 61300

8477

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8477 ✓

Field No. ECFP-1956

State SOUTH CAROLINA

General locality ST. HELENA SOUND

Locality ~~ST. HELENA SOUND~~ Harbor River and Vicinity of Edisto Beach

Scale 1:10,000 Date of survey 11/28/56 to 2/12/57

Instructions dated 13 Oct. 1955 & 16 Aug. 1956

Vessel EAST COAST FIELD PARTY LAUNCH 82

Chief of party MARVIN T. PAULSON

Surveyed by R.H. GARNETT & L.L. SEAL

Soundings taken by ~~XXXXXXXXX~~ graphic recorder, hand lead, ~~XXX~~

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL

Protracted by A.K. SCHUGELD

Soundings penciled by A.K. SCHUGELD

Soundings in ~~XXXXXXX~~ feet at MLW ~~XXXXXX~~ and are true depths

REMARKS: See attached reports for surveys ECFP-2156 & 1157

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET ECFP 1956

East Coast Field Party
Project 13850

Marvin T. Paulson, CinC
Scale: 1:10,000

11/28/56 - 2/12/57

B. SURVEY LIMITS AND DATES

Field work on sheet ECFP 1956 began 28 November 1956 and ended 12 February 1957. Work was performed in the northern portion of St. Helena Sound and the mouth of South Edisto River. Limits extended from latitude 32° 28.3' at the south to the junction of South Edisto River and Big Bay Creek on the north at latitude 32° 29.3'. Work on the sheet extended from longitude 80° 21.0' on the west to longitude 80° 18.6' on the east. This sheet made junction with ECFP 1256 on the south and ECFP 2156 on the east.

C. VESSELS AND EQUIPMENT

Launch 82 was used entirely on this sheet. It was operated from Big Bay Creek for the entire time work was done on this sheet. The launch was operated at a standard sounding speed of 1500-1600 RPM or about 6 knots.

Echo soundings were obtained with an EDO 255 type recorder, serial No. 201. The transducer unit was mounted over the port side amidships.

D. TIDE AND CURRENT STATIONS

Portable automatic tide gages were located at Edisto Beach (Wheeler Pier) and Big Bay Creek. Reference is made to the attached "Tidal Note".

No current stations were occupied during this survey.

E. SMOOTH SHEET

The smooth sheet will beplotted by the Norfolk Processing Office. Attachments, atatistics, and field records will be sent to this office.

F. CONTROL STATIONS

Control consisted of one triangulation station, 2 topographic stations, and twenty one Photo-hydro signals. A complete list of control may be found in the attached Report of Photogrammetric Support as well as in the front of volume 1, sheet ECFP 1956.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic details were obtained from manuscripts T-11124(S), T-10303, and T-10304. Photo sub party number 1 was used in support of the East Coast Field Party and had charge of the shoreline and topography. Changes in shoreline occured around Bay Point. These are discussed under "Comparison with Prior Surveys".

H. SOUNDING

Soundings were obtained with an EDO 255 type recorder, hand lead, and sounding pole. Bottom samples were obtained with an armed hand lead.

I. CONTROL OF HYDROGRAPHY

Visual fixes were used entirely on this sheet to control the hydrography.

J. ADEQUACY OF SURVEY

In general, the area which this survey covered is adequate to supersede prior surveys. More developement is needed in the northwest corner of the sheet in order to properly delineate the depth curves. Junctions with adjoining surveys are satisfactory.

K. CROSSLINES

The percentage of crosslines for the entire sheet is about 8%. The crossings are very good.

L. COMPARISON WITH PRIOR SURVEYS

Comparisons were made with:

SURVEY	DATE	SCALE
4152	Nov. & Dec. 1920	1:20,000

There were numerous changes discovered in the area covered by sheet ECFP 1956 both in sounding depths and shoreline. The high water line is approximately 120 meters further south on Bay Point than it was on the prior survey and the depth of water has changed as much as 20 feet in one area.

It is recommended that the whole area on the prior survey that is covered by ECFP 1956 be superseded.

M. COMPARISON WITH CHART

A comparison was made with chart 793. There was little change noted in depths of water. However, the shoreline on the eastern side of Bay Point is 20-80 meters too far east. On the southwestern shoreline of the Point the high water line is 50 meters too far east. It is recommended that these changes in shoreline be placed on the chart. The chart should reflect the condition of shoreline as shown on the latest T-sheets (T-10304 of 1955-60 and T-11124(S) 1955-60)

N. DANGERS & SHOALS

There are no new dangers or shoals to report.

O. COAST PILOT INFORMATION

There is no new Coast Pilot information to report.

P. AIDS TO NAVIGATION

Aids to Navigation and Landmarks for Charts were submitted by Photo Party No. 1.

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report.

R. GEOGRAPHIC NAMES

There are no new geographic names to report.

S. AND T. Do not apply in this report

U. MISCELLANEOUS

1. Field Procedures that deviate from Standard Practice:

It will be noted throughout the record volumes that when a line ends or begins a latitude and longitude are given. However, if the description is line breaks and the distance is less than 1000 meters to where the line resumes, the distance and direction are given from where the line breaks to where it resumes.

Z. TABULATION OF APPLICABLE DATA

The bar check tabulations for the entire project 13850 are attached.

Respectfully submitted

Lawrence L. Seal

Lawrence L. Seal
Ens., C&GS

List of Attachments:

1. Report of Photogrammetric Support (attached to sheet ECFP 1256 report)
2. Statistics
3. Tidal Note
4. Fathometer Report
5. Approval Sheet

STATISTICS ✓

Hydrographic Survey ECFP 1956 (1956-57

Launch CS-82

Date	Day Letter	Volume No.	Fath. Pos.	H.L.	Statute Miles
11/28/56	a	1	21	0	3.3
11/29/56	b	1	11	0	2.1
11/30/56	c	1	15	0	3.5
12/ 3/56	d	1	83	2	12.7
12/ 4/56	e	1	35	0	4.3
12/ 5/56	f	2	50	2	6.4
12/ 6/56	g	2	56	1	8.0
1/14/57	h	2	8	0	1.1
1/21/57	j	2	9	0	1.2
1/22/57	k	2	20	0	2.1
2/12/57	l	3	77	1	8.5
			385	6	53

FATHOMETER REPORT FOR PROJECT ✓

13850

East Coast Field Party
Project 13850

Marvin T. Paulson
Chief of Party

SHEET ECFP 1256

A Kato Converter was used with the Edo 255 fathometer on this sheet during the 1956-57 field season. It was discovered that the frequency could be varied as a bar check was taken so as to give true sounding values. This was done during the 1956-57 field season on ECFP 1256 but not the preceeding year. Hence, the only velocity corrections needed were for a few days during the 1955-56 season when the bar checks showed the echo sounder to be in error. No curves were drawn for sheet ECFP 1256.

SHEET 2156

The corrections determined by bar checks were averaged for the days hydrography was accomplished. The bar checks were very good with the exception of one day which was disregarded because of heavy seas and was felt to be unreliable. The average corrections for all depths were zero, hence no curves were drawn. Velocity corrections were zero for all days on this sheet.

SHEET 1156

For seven of the twenty three working days on this sheet, the bar checks were erratic. On the remaining sixteen days the correction values were very nearly the same and all close or at zero. A zero correction was used for these sixteen days at all depths. For the days when the bar checks were erratic, separate velocity correction curves were drawn and the corrections entered in the sounding volumes. These curves are attached to the original only. All checks on the 808j show zero correction.

SHEET 1157

As on sheet ECFP 1256, a Kato Converter was used with Edo 255 fathometer number 201. The frequency of the converter was changed to give soundings with no correction for all the hydrography accomplished on this sheet.

SHEET 1956

The corrections determined by bar checks were averaged for the days hydrography was accomplished on this sheet. The average correction for all depths was zero and no velocity correction curves were drawn.

PROJECT 13850 ✓

BAR CHECKS
SHEET 1156

DATE	CORRECTIONS 6'	12'	18'	24'	30'	36'	42'	FATH.	REMARKS
1/18/56	-0.6	-0.3	0.0					Edo 255	*
20/56	0.0	0.2	0.2	0.2	0.0			#201	
25/56	-0.2	0.2	1.0					"	*
31/56	0.0	0.0	-0.2	0.0				"	
12/2/56	0.0	0.0	0.0	0.0	0.0			"	
2/6/56	0.0	0.0	0.0					808j #77	
15/56	0.0	0.0	0.0	0.0	0.0	0.0		Edo 255 #201	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	-0.25					"	
3/1/56	0.0	0.0	0.15	0.4	0.6			"	*
2/56	-0.1	0.0	0.0					"	
5/56	0.0	0.0	0.0	0.45	0.6			"	*
6/56	-0.2	0.05	0.1	0.05				"	
12/56	0.0	0.0	0.15	0.4	0.4			"	*
13/56	0.0	0.0	0.0	0.1				"	
14/56	0.0	-0.1						"	
15/56	0.0	0.0	0.0	0.1	0.0			"	
19/56	0.0	0.0	0.1	0.4	0.4			"	*
20/56	0.0	0.0	0.0	0.0				"	
21/56	0.0	0.0	0.0					"	
22/56	0.0	0.0	0.0	0.0	0.0			"	
28/56	0.0	-0.1	-0.1	0.0				"	
29/56	0.1	-0.1	0.0	0.1	-0.1	-0.4		"	*
SHEET 2156									
11/28/56	0.0	0.0	-0.1					Edo 255 #201	
29/56	0.0	0.0	0.0	0.0				"	
12/3/56	0.0	0.0	0.0	0.0	0.0			"	
4/56	0.0	0.0	0.0	0.0	-0.3			"	
1/14/57	0.0	0.0	0.0	0.0				"	
22/57	0;0	-0.1	-0.8	-1.0	-1.0			"	Unreliable, sea rough
SHEET 1956									
12/6/56	0.0	0.0	0.0	0.0	0.0	0.0		Edo 255 #201	
2/12/57	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Averages for sheets 1156, 1956, & 2156 for Edo 255(Omitting bar checks whose correction curves are drawn separately.)

TOTALS	-0.3	0.1	-0.3	0.45	-0.3	0.0	
NO. OF BAR CHECKS	21						
MEAN	0.0	0.0	0.0	0.0	010	0.0	

* Curves drawn separately

VELOCITY CORRECTIONS

For days when bar check was not zero and corrections were computed separately

18 January 1956

Depth	Correction
0'-9'	-0.6
9.1'-12'	-0.4
12.1'-16'	-0.2
16.1'-20'	0.0

25 January 1956

Depth	Correction
0'-8'	-0.2
8.1'-11'	0.0
11.1'-13'	0.2
13.1'-15'	0.4
15.1'-16'	0.6
16.1'-18'	0.8
18.1'-	1.0

March 1956

Depth	Correction
0'-18'	0.0
18.1'-22'	0.2
22.1'-26(	0.4
26.1'-	0.6

5 March 1956

Depth	Correction
0'-19'	0.0
19.1'-22'	0.2
22.1'-25'	0.4
25.1'-	0.6

12 March 1956

Depth	Correction
0'-16'	0.0
16.1'-21'	0.2
21.1'-	0.4

19 March 1956

0'-19'	0.0
19.1'-22'	0.2
22.1'-	0.4

29 March 1956

Depth	Correction
0'-30'	0.0
30.1'-35'	-0.2
35.1'-	-0.4

The corrections for the remaining days were averaged for both the Edo fathometer and the 808j. These corrections were zero for all depths and this was considered the standard for the fathometers.

TIDAL NOTE ✓

TO ACCOMPANY

HYDROGRAPHIC SURVEY (FIELD NO. ECFP 1956)

Tidal data for reduction of soundings were obtained from portable automatic tide gages maintained at Edisto Beach and Big Bay Creek.

TIDE GAGE	RANGE OF TIDE	LAT & LONG	MLW ON STAFF
Edisto Beach	9.0'	32° 30.1' 80° 17.8'	2.1'
Big Bay Creek	9.2'	32° 29.6' 80° 20.4'	2.9'

Reference is made to the Director's letter 36-107-15d dated 14 March 1957.

ATTACHMENT 5 ✓

APPROVAL SHEET BOAT SHEET ECFP 1956 (H-8477)

PROJECT 13850

This is a basic survey and is approved as adequate for revision of Charts. The sheet is complete for the area covered, but more developement should be made in the northwest corner to properly delineate the depth curve.

The survey was inspected by me periodically for compliance with instructions. For the most part the surgey was accomplished by the party going to sheet 1256 from the anchorage daily, and during inclement weather.

Marvin T. Paulson

Marvin T. Paulson
Chief of Party

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8477(Field Nos. ECFP-1956, 2156 & 1157)

GENERAL

With permission of the Washington Office - see letter dated 28 Aug. 1959, 839 der - two incomplete surveys, ECFP-1956 and 2156, were combined and plotted on the same smooth sheet. Incomplete survey ECFP-1157 was included as an insert.

Agreement of soundings at crossings was good and except for the discrepancies listed below, no particular difficulties were experienced during the smooth plot.

DISCREPANCIES

SURVEY ECFP-1956

Soundings on positions 1 thru 6b/ (rejected during verification) are being submitted on a template as they are in disagreement with surrounding hydrography. This condition is believed to be caused by position displacement as the Hydrographer had difficulty identifying control stations in the area. (See notes in volume 1 concerning stations Hag and Fag) Tidal entries were checked on these soundings from hourly heights requested from the Washington Office and were found to be correct. Also, it is possible that the displacement may be in line 1 thru 9g (accepted during verification) rather than the positions originally indicated.

SURVEY ECFP-2156

All positions distant from the shoreline were plotted on extremely slender angles and are subject to some displacement. The smooth plotter made every effort to adjust these weak fixes to course, time and surrounding hydrograhy. It is believed that any remaining displacement will prove a negligible factor in this smooth bottom.

Positions 15 thru 20h were not smooth plotted as the plotter was unable to adjust weak and questionable fixes to time and course.

Soundings were not plotted between positions 77 and 80f, as weak fixes could not be reconciled to time, course and surrounding hydrography.

On f day, tide reducers were completely re-entered by the Processing Office from hourly heights requested from the Division of Tides. Field entries resulted in crossing discrepancies averageing 2 to 3 feet.

Continued

SOUNDINGS

As a result of changing the scale of ECFP-2156 to 1:10,000, it was necessary to re-scan the fathograms to shorten the sounding interval. All soundings on this survey were scanned at a 15" interval and the soundings reduced with templates.

FATHOGRAMS SURVEY ECFP-~~2~~19156

The quality of the fathogram on h day was very poor. Soundings in agreement with surrounding hydrography were scanned by using the second echo as a guide.

SURVEY ECFP-1157

On e and g days fathometer indications, which are believed to be side echos, were dense enough to prevent accurate readings at true depths. They are particularly noticeable at positions 17-18e, 24-26e, 44-46e and 63-65e. Also at positions 31-33g and 39-41g. Some revisions to depths may be considered necessary at these points during verification.

Norfolk, Va.
19 October 1959

Respectfully submitted,

Hugh L. Proffitt
Cartographer

R H

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET ✓

~~Division of Coastal Surveys:~~

11 January 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8477

Locality St. Helena Sound, S.C.

Chief of Party: M. T. Paulson in 1956-1957
Plane of reference is mean low water, reading
2.1 ft. on tide staff at Edisto Beach
12.2 ft. below B. M. 1 (1956)

2.9 ft. on tide staff at Big Bay Creek
8.8 ft. below B.M. 2 (1934)

3.5 ft. on tide staff at Harbor River Entrance
15.3 ft. below B.M. 1 (1956)

~~Condition of records and discrepancies noted below~~

Height of mean high water above plane of reference is:

Edisto Beach	:	5.9 feet
Big Bay Creek	:	6.1 "
Harbor River Ent.	:	6.1 "

William Thomas
Chief, Tides Branch
~~Chief, Division of Tides and Currents~~

U. S. GOVERNMENT PRINTING OFFICE 877933

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8477

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	
South Carolina (title)	✓✓	793								1
Wards Creek	✓✓									2
Harbor Island	✓✓									3
Harbor River	✓✓									4
St. Helena Island	✓✓									5
~~St. Helena Island~~										6
St. Helena Sound	✓✓									7
Big Bay Creek	✓✓									8
Edisto Beach	✓✓									9
Bay Point	✓✓									10
South Edisto River	✓✓									11
Edisto Island	✓									12
					George M. Bald					13
					GEOGRAPHIC NAMES SECTION					14
					1 December 1959					15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8477...

Records accompanying survey:

Boat sheets ..3..; sounding vols.. .10...; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .7-Envelopes

special reports, etc. 1-Smooth sheet, 1-Descriptive report and

1-Overlay, soundings.

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

Number of positions on sheet		593 - ECFP 1157 622 - ECFP 2156 385 - ECFP 1956 TOTAL - 1600
Number of positions checked		.169..
Number of positions revised		..11...
Number of soundings revised (refers to depth only)		5
Number of soundings erroneously spaced		..0...
Number of signals erroneously plotted or transferred		..0...
Topographic details	Time	.16hrs (ECFP 1157)
Junctions	Time	.8hrs. (ECFP 1157)
Verification of soundings from graphic record	Time	3

Verification by..Frank Pavlak....Total time 250hrs. Date June 26, 1964

Reviewed by George A. Kozemczak.... Time 231.. Date 12 May 1972

Inspected by D. R. Engle 17 hrs 14 Apr 1976

Passed Carto Eval 4/20/76

M-2232-1

H-8477

Items for Future Presurvey Reviews

The bottom is considered adequately developed on the present survey. Only minor changes were noted in the bottom since the prior surveys except at the mouth of the South Edisto River and seaward where significant changes (such as erosion of shoals and shoaling in the deeper depths) have occurred. Most of the changes are attributed to the shifting of sand and sediment by storms and river runoff.

Position Index		Bottom Change	Use	Resurvey
Lat.	Long.	Index	Index	Cycle (Years)
322	0802	5	2	25
322	0803	2	2	50

Fannie;

Note this is a signed survey, therefore completed and can be fully applied at this time.

JMD

* Also pass to Area 4 when finished for application to 1007 -

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8477 FIELD NO. ECFP 1157, 2156, 1956

South Carolina, St. Helena Sound, Harbor River and Vicinity of Edisto Beach

SURVEYED: March 1-20, 1957
November 28, 1956 - March 20, 1957
November 28, 1956 - February 12, 1957

SCALE: 1:10,000 PROJECT NO.: 13850

SOUNDINGS: EDO-255 Depth Recorder, Handlead CONTROL: Sextant Fixes on Shore Signals

Chief of Party	M. T. Paulson
Surveyed by	L. L. Seal
	R. H. Garnett
Protracted by	A. K. Schugeld (AMC)
Soundings Plotted by	A. K. Schugeld
Verified and Inked by	F. Pavlat
Reviewed by	G. A. Kozemczak
	Date: May 12, 1972
Cursory inspection made--survey processing considered complete	D. R. Engle Date: April 14, 1976

1. Description of the Area

This survey covers two separate areas near St. Helena Sound, one in Harbor River and the other in the vicinity of Edisto Beach and Bay Point.

Hydrography in Harbor River was accomplished as far north as Harbor River Bridge. The river is a tidal channel with marshy bays and shallow lagoons. Depths as great as 44 feet are found approximately 1 mile from the entrance, which is well defined by breakers and flats which show at low water. The bottom consists mostly of silt and sand.

Hydrography was accomplished from the shore out to about 1,000 yards seaward of Bay Point and approximately 3 miles seaward of Edisto Beach. In the vicinity of Bay Point, the bottom slopes sharply on the west and south to maximum depths of

about 39 feet in South Edisto River Channel. A bar extends southeasterly from the shoreline out to the limit of hydrography with least depths of 1 foot at mean low water. The remainder of the bottom slopes gradually from the shore to maximum depths of about 36 feet with few features. The bottom is generally hard and consists of coarse grey sand and shells.

2. Control and Shoreline

The source of control is given in the Descriptive Report.

The shoreline in the Harbor River area originates with T-10309 and T-10315 of 1955.

The shoreline along Bay Point and Edisto Beach appears to originate from the contemporary photogrammetric surveys T-10304 and T-11124(S) of 1955, before the 1959 storm, which are not available. T-10304 and T-11124(S) of 1955-60 reflect the condition of the shoreline after the 1959 storm and were not used on the present survey.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated.

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

4. Condition of the Survey

The field plotting, sounding records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual.

5. Junctions

An adequate junction was effected with H-8364 (1956) to the north of Harbor River. The junction with H-8365 (1956-57) to the south and southwest of Edisto Beach will be considered in the review of that survey. No other contemporary surveys are available at the date of this review.

6. Comparison with Prior Surveys

A.	H-620	(1856-57)	1:15,000	Edisto Beach Area
	H-649	(1853-57)	1:40,000	
	H-3926	(1915-16)	1:80,000	
	H-4152	(1920)	1:20,000	
	H-5526	(1934)	1:10,000	

These prior surveys cover the area of the present survey. Comparison between the prior and present surveys reveals general deepening of the area by 1 to 2 feet between the time of earliest surveys and 1915 to 1934 surveys. Since then, only minor changes have taken place except on the shoal features just southeast of Bay Point where constant shifting of sand and sediment is evident with each survey.

The shoreline in the vicinity of Bay Point has migrated during the survey period, eroding about 30 meters between 1857 and 1920 and accreting 120 meters between 1920 and the present.

The present survey adequately supersedes these prior surveys within the common area.

B.	H-833	(1863)	1:10,000	Harbor River Area
	H-5650	(1934)	1:10,000	
	H-5565	(1934)	1:10,000	

These prior surveys cover most of the area of the present survey in the Harbor River area. A comparison between the present and prior surveys reveals only minor changes in the bottom since 1863.

The present survey adequately supersedes these prior surveys within the common area.

7. Comparison with Chart 793 (5th Ed., January 16, 1971)

A. Hydrography

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

Attention is directed to the following:

(1) The 5-foot sounding charted in latitude 32°28.45', longitude 80°18.50' originates with the boat sheet of the present survey and has been disproved during verification and review. The chart should reflect 9 to 13 feet of water in this vicinity as shown on the present survey.

(2) The pile, position approximate, charted in latitude 32°28.73', longitude 80°20.76' originates with Chart Letter 472 (1966) and H.O. Notice to Mariners 27 of 1966 subsequent to the date of the present survey and should be retained on the chart.

(3) The 3-foot sounding reported (1963) charted in latitude 32°22.67', longitude 80°29.20' from Chart Letter 338 and Notice to Mariners 22 of 1963 subsequent to the date of the present survey should be retained on the chart.

B. Topography

The charted shoreline and piers in the vicinity of Bay Point and Edisto Beach originate with T-10304 and T-11124(S) of 1955-60 and supersede the topography of the present survey. These photogrammetric surveys reflect the condition of the shoreline after the September 1959 storm.

C. Aids to Navigation

Only two fixed aids to navigation are found on the present survey in Harbor River. They are in substantial agreement with their charted positions and adequately mark the features intended.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions.

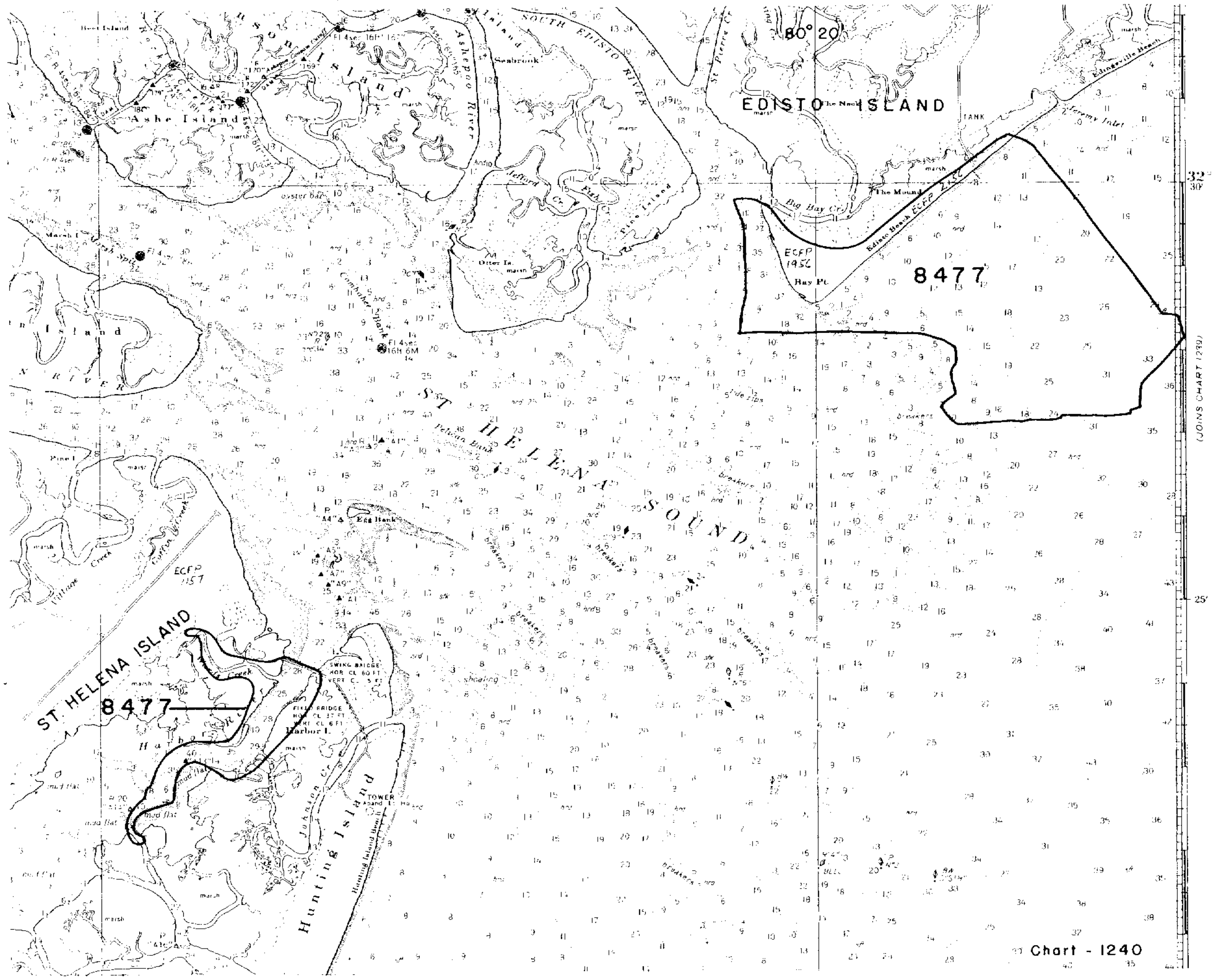
9. Additional Field Work

This is an adequate basic survey and no additional hydrography is recommended.

Examined and Approved:

A. J. Patrick
Chief
Marine Surveys Division

R. H. Houston
Associate Director
Office of Marine Surveys
and Maps



80° 20'
EDISTO ISLAND
Edisto Beach
ECFP 1956
Bay Pt.
8477
ST HELENA SOUND
Pelican Bank
Egg Bank
Ashe Island
Ashepoo River
SOUTH EDISTO RIVER
Otter Is.
ST HELENA ISLAND
8477
ECFP 1157
Harbor I.
SWING BRIDGE
FIXED BRIDGE
Hunting Island
TOWER
breakers
25'
(JOINS CHART 1240)
Chart - 1240

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8477

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
			Before After Verification and Review
			~~(See notations on cover.~~ Before ~~After~~ Verification and Review
	transposed from cover		
			Before After Verification and Review
11-20-59	793	RKD	Before Verif. & Review Part. Appl'd.
11-20-59	1240	RKD	Before ~~After~~ Verification and Review Part. Appl'd thru cht. 793
5-25-60	1239	EET	Before ~~After~~ Verification and Review Part. Appl'd (overlap) thru cht 1240
5-4-61	792	ORW	Before ~~After~~ Verification and Review Examined. No corrections.
6/9/76	793	F. B. Powers	Fully applied ~~Before~~ After Verification and Review & Inspection
6/9/76	792	F B. Powers	Fully applied ~~Before~~ After Verification and Review & Inspection
11/16/76	1240	JAY SHERMAN	~~Before~~ After Verification and Review & Inspection Fully appld thru cht 793
8/8/78	1239	Gerald Knoll	Fully Applied ~~Before~~ After Verification and Review & Inspection thru 11522 & 11517.

M-2168-1

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