

8196

Diag. Cht. Nos. 1255-2 and 1256.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. S0-2156 Office No. H-8196

LOCALITY

State Florida

General locality Gulf of Mexico

Locality Vicinity of Gasparilla Island

1956-59

CHIEF OF PARTY

G. W. Moore and R. C. Munson

LIBRARY & ARCHIVES

DATE September 15, 1960

USCOMM-DC 5087

8196

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-8196

Field No. SO-2156

State Florida

General locality West Coast Gulf of Mexico

Locality Vicinity of Gasparilla I.
Boca Grande Entrance to Little Gasparilla Pass

Scale 1:20,000 Date of survey 1956 & 1959

Instructions dated 18 December 1952 and 8 September 1958

Vessel SOSBEE

Chief of party Glenn W. Moore, Robert C. Munson

Surveyed by G. W. Moore, W. D. Barbee, W. M. Tidwell,
R. C. Munson & G. N. Orr.

Soundings taken by ~~athometer~~, graphic recorder, ~~athometer~~ & sounding pole

Fathograms scaled by Ship SOSBEE Personnel

Fathograms checked by Ship SOSBEE Personnel

Protracted by A.G. Atwill (Norfolk Processing Office)

Soundings penciled by A.G. Atwill " " "

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

REMARKS: All corrections have been entered, checked and
the soundings reduced by the personnel of the Ship SOSBEE.

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8196

(Field Number SO-2156)

West Coast of Florida

Boca Grande Entrance to
Little Gasparilla Pass

Scale 1:20,000

USC&GS Ship SOSBEE

8/16/56 - 10/25/56

Glenn W. Moore, Chief of Party

9/11/59 - 10/27/59

Robert C. Munson, Chief of Party

A. PROJECT

This sheet is part of Project CS-353 (originally CS-13530) with original instructions dated 18 December 1952. ✓

Revised Instructions dated 8 September 1958.

Acting Director's letter (22/MEK, S-2-50) dated 25 April 1955.

B. SURVEY LIMITS AND DATES

This is a survey of the Coast of the Gulf of Mexico from Boca Grande Entrance to Little Gasparilla Pass.

The limits are:

South - Latitude $26^{\circ} 39'$ N.

West - Latitude $26^{\circ} 39'$ N., Longitude $82^{\circ} 24'$ W.
to Latitude $26^{\circ} 46'$ N., Longitude $82^{\circ} 25'$ W. ✓

North - Latitude $26^{\circ} 46'$ N., Longitude $82^{\circ} 25'$ W.
to Latitude $26^{\circ} 50'$ N. and the coast.

East - Gulf Coast.

The area is indicated on the Index of Hydrographic Sheets which is Attachment Number 5.

The offshore hydrography and the inshore hydrography from Little Gasparilla Pass south to Boca Grande Entrance were completed between 16 August 1956 and 25 October 1956. ✓

The inshore hydrography from Boca Grande Entrance to the southern limits was run between 11 September 1959 and 27 October 1959. ✓

B. SURVEY LIMITS AND DATES Cont.

Junctions were made with contemporary surveys as follows:

<u>Direction</u>	<u>Registry No.</u>	<u>Field No.</u>	<u>Date</u>	<u>Scale</u>
			1956	
SOUTH	H-8362✓	SO-2256	1959	1:20,000
	H-7935✓	HY-8351	1951	1:80,000
WEST	H-7934✓	HY-8251	1951	1:80,000
NORTH	H-8153✓	SO-2155a	1955	1:20,000
	H-8192✓	SO-1255	1955	1:10,000
EAST	H-8193✓	SO-1156	1956	1:10,000
	H-8358✓	SO-1-1056	1956	1:10,000

Prior surveys are H-4644, scale 1:20,000 executed in 1927.
 H-4645, scale 1:10,000 " " 1927.
 H-1477a, scale 1:40,000 " " 1879.
 ✓ H-797a, scale 1:40,000 " " 1863.
 H-1480b, " 1:20,000 " " 1879.

The 1956 and 1959 work progressed smoothly. Work in 1959, was performed when sea conditions allowed and the party worked in Pine Island Sound during adverse weather conditions.

The three year gap between the starting and completion dates resulted from the Ship SOSBEE being ordered to Tampa Bay, Florida to complete Project CS-402 before returning to this area.

C. VESSEL AND EQUIPMENT

The Ship SOSBEE performed the hydrography offshore from 18-foot curve. It has a turning radius of approximately 100 meters at the standard sounding speed of 1400 rpm. In shoal or rough water the sounding speed was reduced to 1000 rpm. Soundings were obtained with EDO 225-type portable echo sounding recorder No. 209. The vessel based at the Gulf Oil Dock in Punta Gorda, Florida.

Skiff 735, a 25-foot wooden hull, flat-bottomed skiff powered by two 10 horsepower outboard motors did the remainder of the hydrography. It has a maximum speed of 6 knots and a turning radius of 25 meters. One motor was used while running shoreline and the shoal areas. Soundings were obtained on 808J-type portable echo sounding recorder Nos. 140-SP and 150 for depths three feet and greater. In less than three feet a sounding pole was used to determine the depth. The skiff based at the ship in Punta Gorda and was towed to the working grounds for the one day of skiff hydrography in 1956. In 1959 the skiff was based at Frank's Fish Camp in Bokeelia, Florida on Pine Island. Personnel commuted daily by government truck from the Ship at Ft. Myers, Florida.

D. TIDE AND CURRENT STATION

The Port Boca Grande Tide Gage (Latitude 26° 43.23' N., Longitude 82° 15.55' W.) was used with no corrections applied to the observed heights. (NOT USED)

There were no current stations.

E. SMOOTH SHEET

The smooth sheet will be plotted by the Norfolk Processing Office.

F. CONTROL STATIONS

<u>Triangulation Station</u>	<u>Source</u>	<u>Chief of Party</u>	<u>Year</u>
VANDY	C&GS	G.W.M.	1956
GASPARILLA PASS LIGHT 1	C&GS	G.W.M.	1956
BOCA GRANDE GASPARILLA INN			
WATER TANK, TALLER OF TWO	C&GS	H.C.A.	1955
SOUTH BOCA GRANDE LIGHTHOUSE	C&GS	G.L.A.	1934
SOUTH BOCA GRANDE WATER TANK	C&GS	H.C.A.	1955
BOCA GRANDE RANGE FRONT LT.	C&GS	H.C.A.	1955
CHARLOTTE HARBOR INNER			
CHANNEL DIRECTIONAL LIGHT	C&GS	H.C.A.	1955
INNER RANGE REAR DAYBEACON	C&GS	J.E.W.	1952
COSTA	USE		1945
BOCA GRANDE LIGHT HOUSE	C&GS	G.L.A.	1934
GASPARILLA 2	C&GS	K.G.C.	1943
RED	C&GS	H.C.A.	1956

<u>Topographic Station</u>	<u>Method</u>	<u>Source</u>	<u>Chief of Party</u>	<u>Year</u>
BABE	Air-Photo	C&GS	J.E.W.	1955
COOT	" "	C&GS	J.E.W.	1955
GABLE	" "	C&GS	J.E.W.	1955
GIRL	" "	C&GS	J.E.W.	1955

SOUTH BOCA GRANDE LIGHTHOUSE 1934, BOCA GRANDE RANGE FRONT LIGHT 1955, CHARLOTTE HARBOR INNER CHANNEL DIRECTIONAL LIGHT 1955, CHARLOTTE HARBOR INNER RANGE REAR DAYBEACON 1952 and BABE 1955 were not used in the hydrography.

A severe storm in June 1959 made several changes in the shoreline south of Boca Grande Entrance. The previously located photo-hydro stations were lost and new signal locations were established by the photogrammetrist by traverse and topographic methods. The changes and new signal locations are shown on Manuscripts T-11398, T-11402 and T-11403. *of 1959-59* *blackline prints of the field* *72* *revision* *5/5* *shows* *shoreline* *revisions*

G. SHORELINE AND TOPOGRAPHY

Shoreline and topography were put on the boat sheet from photogrammetric manuscripts T-11392, T-11395, T-11398, T-11402 and T-11403 by the Tampa District Office. Planetable shoreline changes made by the photogrammetrist on T-11398, T-11402 and T-11403 were transferred to the boat sheet by the Tampa District Office. *shown on 5/5 in black* *Adv. manu.* *P2* *Relief*

H. SOUNDINGS

Depths were measured with EDO 225 type portable echo sounding recorder No. 209 and 808J type portable echo sounding recorders Nos. 140-SP and 150.

In depths less than three feet a sounding pole was used to determine the depth. There were no unusual corrections applied.

I. CONTROL OF HYDROGRAPHY

Nearly all of the Ship hydrography was controlled by Shoran Stations RED, BOC and VAN. Alongshore and during failures at the Shoran Stations three-point sextant fixes were used. Some fixes were determined by estimating the distance from signals while running the shoreline.

Shoran corrections for stations BOC and VAN were found in the ship's files and applied. A formula for the shoran correction for all stations was derived in the 1956 SHORAN REPORT and applied to readings from station RED.

The control stations for the visual hydrography were obtained from Manuscripts T-11392, T-11395, T-11398, T-11402* and T-11403* of 1953-55 *Adv. mon.*
* (1953-54)

J. ADEQUACY OF SURVEY

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

Junctions with adjoining surveys are satisfactory, no holidays or excessive differences exist and the depth curves can be adequately drawn. The hydrography run on F day from position 125F thru 182F was shoaler than the soundings from (1955) H-8153 (80-2155a). The lines were rerun on G day from position 18G thru 88G. The soundings on the boat sheet are from F day and an overlay with the G day soundings was used to draw the depth curves. The overlay is Attachment No. 7 of the original copy of this report. *125 to 182 F Not plotted - G day used*

K. CROSSLINES

40.8 nautical miles or 6.2% of the hydrography is cross-lines. There were no discrepancies encountered.

L. COMPARISON WITH PRIOR SURVEYS

Survey 797a, 1863, 1:40,000: general agreement good. *PLA Review*

The area east of Longitude 82° 19' W. and south of Boca Grande Entrance has been changed completely, by storm action and this survey supersedes all prior surveys.

L. COMPARISON WITH PRIOR SURVEYS Cont.

Survey 1477a, 1879 & 1880, 1:40,000: general agreement good. *IP6A*
 Survey 1480b, 1879 & 1880, 1:20,000: " " good. *Re-view*
 Survey 4644, 1927, 1:20,000: general agreement good.

The area south of Boca Grande Entrance and east of Longitude 82° 17' W. has been changed considerably by dredging and storm action. Today there are two islands where depths ranging from 4 to 12 feet were recorded in 1927. The area immediately offshore from the islands is from 2 to 5 feet deeper than shown in 1927. *IP6A*
Re-view

Prior Depths	Year	Survey Number	Scale	Boat Sheet Depth	Latitude	Longitude	Charts Affected
✓ 28 ft.	1863	797a	1:40,000	32 ft.	26°43.88' N.	82°18.58' W.	474 & 1255
<i>delete (IP6A Review)</i>							
30 ft.	1879	1477a	1:40,000	34 ft.	26°45.25' N.	82°18.80' W.	474 & 1255
<i>depths in adequate agreement (See IP6A Review)</i>							
✓ 29 ft.	1927	4644	1:20,000	32 ft.	26°42.18' N.	82°20.30' W.	474 & 1255
<i>delete (IP6B Review)</i>							
✓ 10 ft.	1927	4644	1:20,000	15 ft.	26°39.18' N.	82°16.33' W.	474 & 1255
<i>delete (IP6B Review)</i>							

M. COMPARISON WITH CHART

A comparison with Chart 474, 15th. Edition Revised 3/10/58, corrected to date is as follows:

1. The 30 foot sounding at Lat. 26° 47.2' N., Long. 82° 19.9' W. is an isolated sounding and the charted depth curve is erroneous. *shoalest sdg. Now 31'*

2. The 26 foot sounding at Lat. 26° 39.7' N., Long. 82° 18.4' W. is not an isolated sounding as shown and the 30-foot curve should include this sounding. *Falls in indicated spoil area on Chart 474 (10-30-61)*

3. The 6 foot curve alongshore in the vicinity of Lat. 26° 39' N. does not extend as far west as shown on the chart. It is approximately 100 meters from the shore.

4. The two six foot shoals near Lat. 26° 39.6' N., Longitude 82° 15.6' W. no longer exist. They should be deleted. *retained Not d/c credited by H-8196*

The island 0.8 mile west of Murdock Point on Lacosta Island was changed considerably by a storm on 26 June 1959. The center portion was washed away and there are two small islands now. The depth of the water immediately west of the charted island is now two to five feet deeper.

M. COMPARISON WITH CHART Cont.

A comparison with Chart 1255, 5th. Edition, Revised 4/13/59, corrected to date is the same as the Comparison with Chart 474. ✓

N. DANGERS AND SHOALS

All charted dangers and shoals were found as charted except for those listed in L and M. ✓

O. COAST PILOT INFORMATION

A special report will be written for the project. ✓

P. AIDS TO NAVIGATION

Form 567 will be submitted on an area basis. ✓

Q. LANDMARKS FOR CHARTS

Form 567 will be submitted on an area basis. ✓

R. GEOGRAPHIC NAMES

DMB ✓ The photogrammetrist is making a geographic name survey in conjunction with his work. The resulting report should be used for this area. ✓

S. SILTED AREAS

Nonapplicable. ✓

T. BY-PRODUCT INFORMATION

Nonapplicable. ✓

U. VELOCITY CORRECTION

A Velocity Correction Abstract is appended. ✓

V. SHORAN CORRECTION

A Shoran Correction Table is appended. ✓

W.X.Y.

Nonapplicable. ✓

Z. TABULATION OF APPLICABLE DATA

1. Boat Sheet H-8196 (SO-2156)*
2. Manuscripts T-11392+, T-11395+, T-11398*,
T-11402* & T-11403°.
3. List of Control Stations
4. Statistics
5. Tide Note
6. Descriptions of photo-hydro stations*
7. Recovery Notes of Marked Stations**
8. Tide Records (marigrams)*
9. Fathograms*
10. Velocity Correction Abstract
11. Index of Hydrographic Sheets
12. Shoran Correction Abstract
13. Overlay for Boat Sheet
14. Approval Sheet

- + submitted in 1956
- * submitted under separate cover
- ** submitted by Tampa District Office
- ° submitted when SO-1459 is completed.

H-8195

Respectfully submitted,

Robert C. Munson

Robert C. Munson,
LT., C & G S

LIST OF SIGNALS

Attachment No. 1.

H-8196 (80-2196)

*Signals from blackline
field prints*

Name	Number	T-Sheet	Remarks
ABE	9811	11398	
ART	9830	11398	
AZO	9259	11392	
BAT	9810	11398	
BIB	9258	11392	
BOB	9512	11395	Bn. 3
BOC	SHORAN STATION		Δ BOCA GRANDE LIGHTHOUSE 1934
COOT	9503	11395	COOT 1955
COP	9801	11398	
COW	9263	11392	
CUT	9511	11395	Bn. 5
DAN	9831	11398	
DAY	HYDRO LOCATION		Vol. 1, Page 9
DOC	9803	11398	
DOG	9298	11392	Bn. 7
DON	9264	11392	
EGG	9265	11392	
ERA	9299	11392	
FAT	HYDRO LOCATION		Vol. 1, Page 9
FIG	9832	11398	
GABLE	9521	11395	GABLE 1955
GAS			Δ GASPARILLA 2 1943
GEM	0212	11402	
GIRL	Topo	11403	GIRL 1955
HAP	0213	11402	
HEX	9508	11395	
HUG	9805	11398	
IDA	9507	11395	
IMP	9829	11398	
JAP	9506	11395	
JIM	0214	11402	
JUG	9828	11398	
KEN	9505	11395	
KIP	0215	11402	
LAD	9504	11395	
LAG	0205	11402	
LOG	03149	11403	11395
LOW	9814	11398	

LIST OF SIGNALS Cont.

Attachment No. 1.

H-8196 (80-2196)

*Signals from
blackline field prints*

Name	Number	T-Sheet	Remarks
MAR	9514	11395	
MOP	0210	11402	
NAB	9833	11398	
NIG	9515	11395	
NIL	0203	11402	
ODD	9516	11395	
ONA	9827	11398	
OX	0204	11402	
PAR			^{PASS} Δ GASPARILLA LIGHT 1 1956
PIN	9517	11395	
POT	0211	11402	
PRO	0305	11403	
QUO	03150	11403	
RAK	HYDRO LOCATION		Vol. 9, page 43
RAT	9518	11395	
RED	SHORAN STATION		Δ RED 1956
SAM	9519	11395	
SAP	03152	11403	
TAN			Δ BOCA GRANDE GASPARILLA INN WATER TANK, TALLER OF TWO 1955 WATER TANK
TOM	0304	11403	
TOY	9520	11395	
USE	03151	11403	
VAN	SHORAN STATION		Δ VANDY 1956
V ET	9522	11395	
WAG	9523	11395	
WAT			Δ SOUTH BOCA GRANDE WATER TANK 1955
YEA	9260	11392	
ZIG	9524	11395	
ZIP	9824	11398	

STATISTICS

for

HYDROGRAPHIC SURVEY H-8196 (SO-2156)

Attachment No. 2.

Project CS-353 - Ship SOSBEE

Boca Grande Entrance to Little Gasparilla Pass

Day Letter	Date	Vol. No.	H.L. Sdgs.	No. of Positions	STATUTE Mile Sdgs.	Fathometer
A	8/16/56	1	0	17	6.9	EDO 209
B	8/29/56	1	0	152	68.1	" "
C	9/12/56	1 & 2	0	224	98.7	" "
D	9/13/56	3	0	145	73.6	" "
E	9/14/56	3	0	37	9.7	" "
F	9/20/56	4	0	211	103.3	" "
G	9/21/56	5	0	129	67.0	" "
H	10/1/56	5 & 6	0	118	50.6	" "
J	10/2/56	6	0	185	85.1	" "
K	10/3/56	6	0	22	11.5	" "
L	10/9/56	7	0	104	40.6	" "
M	10/10/56	7	0	66	23.1	" "
N	10/25/56	7	0	32	4.6	" "
P	11/1/56	7	2	19	2.0	" "
14	14	7	2	1461	644.8	1

STATISTICS

for

HYDROGRAPHIC SURVEY H-8196 (SO-2196)

Attachment No. 2, page 2

Boca Grande Entrance to Little Gasparilla Pass

Project CS-353 - Skiff 735

Day Letter	Date	Vol. No.	No. of Positions	STATUTE Mile Sdgs.	Echo Recorder	Pole Sdgs.
a	8/28/56	8	121	34.7	140-SP	131
b	9/11/59	8	92	18.4	"	231
c	9/14/59	8 & 9	39	8.7	"	0
d	9/18/59	9	65	13.3	"	0
e	9/25/59	9	60	14.7	"	0
f	9/28/59	9	47	9.7	"	25
g	10/1/59	9	56	11.5	"	4
h	10/2/59	10	63	14.2	150	0
j	10/5/59	10	74	16.1	"	0
k	10/9/59	10	45	10.6	140-SP	0
l	10/20/59	10	19	3.4	"	0
m	10/27/59	11	11	3.0	150	34
12 (Skiff)	12	4	692	158.3	2	425
14 (Ship)	14	7	1461	644.8	1	(L.L.2)
26 (Total)	26	11	2153	803.1	3	427

AREA = 77.2 square statute miles.

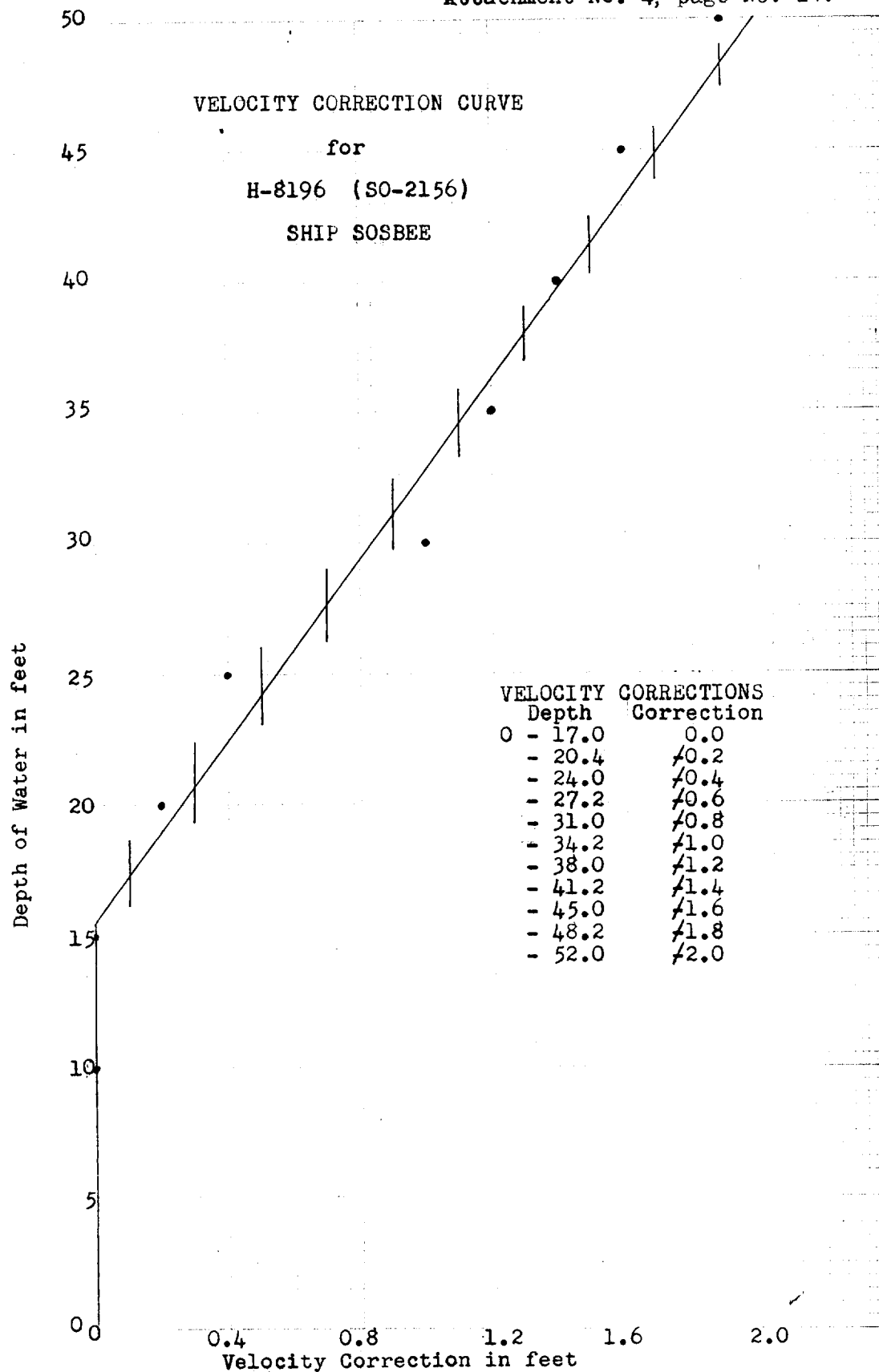
TIDE NOTE

for

H-8196

The tide gage at the Port Boca Grande, Florida Pilot's Dock was used to control the survey. No corrections were applied to the observed tides.

The gage is located at Latitude $26^{\circ} 43.23^{\circ}$ North, Longitude $82^{\circ} 15.55'$ West. Mean Low Water for the 1956 staff was 1.6 feet and 2.1 feet for the 1959 staff installation.



VELOCITY CORRECTIONS

Depth	Correction
0	17.0
	20.4
	24.0
	27.2
	31.0
	34.2
	38.0
	41.2
	45.0
	48.2
	52.0

ABSTRACT OF BAR CHECKS FOR VELOCITY CORRECTIONS

Skiff 735 - H-8196 (80-2196)

Depths in Feet	5	6	8	10	12	15	20	Ini.	Vol.	Page	Fath.
Dates	Day Letter							Velocity Correction in Feet			
9/28/56	a	0.0		0.0	0.0	0.0	0.0	0.8	8	3	140-SP
	a	0.0		0.0	0.0	0.0	0.0	0.0	8	39	"
9/11/59	b			0.0			0.0	0.6	8	49	"
	b		0.0	0.0				0.6	8	59	"
9/14/59	c		0.0	0.0				0.6	8	65	"
	c		0.0	0.0				0.6	9	7	"
9/18/59	d			0.0	0.0			0.6	9	8	"
9/25/59	e	0.0		0.0				0.6	9	25	"
9/28/59	f	0.0	0.0	0.0				0.6	9	41	"
	f	0.0	0.0	0.0				0.6	9	53	"
10/1/59	g	0.0	0.0	0.0	0.0			0.6	9	59	"
10/2/59	h	0.0	0.0	0.0	0.0			0.6	10	4	150
10/5/59	j	0.0	0.0	0.0	0.0			0.4	10	19	"
	j	0.0	0.0	0.0				0.6	10	26	"
	j	0.0	0.0	0.0	0.0			0.6	10	35	"
10/9/59	k	0.0	0.0	0.0	0.0			0.6	10	37	140-SP
	k	0.0	0.0	0.0	0.0			0.6	10	48	"
10/20/59	l	0.0	0.0	0.0	0.0	0.0		0.6	10	50	"
10/27/59	m	0.0	0.0	0.0				0.6	11	4	150
	m	0.0	0.0	0.0	0.0			0.6	11	8	"

Velocity Correction is zero for all skiff 735 hydrography.

Attachment No. 5

Index of
Hydrographic Sheets
West Coast of Florida
Boca Grande Entrance
to
Little Gasparilla Pass
Project CS-353
Ship SOSBEE
R.C. Munson, Chief of Party
1959

REFER TO CGGS CHART NO. 1255

NAUTICAL MILES

page No. 16

SHORAN CORRECTIONS

The following shoran corrections were determined in 1956 and applied in 1959. The corrections for stations VAN and BOC are the values determined for each. The corrections for station RED were derived from the formula $X = 24.7 - 2.9Y$ where X = Shoran reading in statute miles and Y = plus correction in hundredths of statute miles. This formula was found in the SHORAN REPORT - 1956 by Glenn W. Moore for this sheet.

<u>SHORAN STATION VAN</u>		<u>SHORAN STATION BOC</u>		<u>SHORAN STATION RED</u>	
<u>Distance</u>	<u>Corr'n.</u>	<u>Distance</u>	<u>Corr'n.</u>	<u>Distance</u>	<u>Corr'n.</u>
<u>Sta.Miles</u>	<u>Sta.Miles</u>	<u>Sta.Miles</u>	<u>Sta.Miles</u>	<u>Sta.Miles</u>	<u>Sta.Miles</u>
0 to 0.40	+0.090	0 to 0.075	+0.085	0 to 0.80	+0.085
- 0.70	+0.085	- 2.35	+0.080	- 2.20	+0.080
- 1.15	+0.080	- 4.10	+0.075	- 3.70	+0.075
- 1.95	+0.075	- 5.70	+0.070	- 5.10	+0.070
- 3.15	+0.070	- 7.50	+0.065	- 6.60	+0.065
- 5.30	+0.065	- 9.10	+0.060	- 8.80	+0.060
- 7.60	+0.060	- 10.90	+0.055	- 9.50	+0.055
- 9.95	+0.055			- 10.90	+0.050
- 12.15	+0.050			- 12.40	+0.045
- 14.50	+0.045			- 13.80	+0.040
				- 15.30	+0.035
				- 16.70	+0.030
				- 18.20	+0.025

APPROVAL SHEET

This survey is complete and adequate and no further field work is recommended. The Chief of Party in 1956 inspected the operation of the party and the results of the hydrography during each watch. The Chief of Party in 1959 was in charge of the hydrographic unit for approximately 25% of the field work and inspected the boat sheet daily during the remaining 75%.

The boat sheet and processed records are approved and will be forwarded to the Norfolk Processing Office.

Approved by,

Robert C. Munson

Robert C. Munson,
Chief of Party, C&GS

NORFOLK PROCESSING OFFICE
FLOATING AIDS TO NAVIGATION
H-8196

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
<u>CHARLOTTE HARBOR</u>					
Chan. L'td. Whis. Buoy 1	26-40.58 ✓	82-18.99 ✓	27.2	1G	9/21/59
Chan. Buoy 2	26-40.55 ✓	82-18.90 ✓	29.0	2G	"
Entr. Lighted Bell Buoy	26-39.77 ⁴ ✓	82-19.56 ✓	38.0	3G	"

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8196 (So-2156)

GENERAL

This appears to be an excellent basic survey and no difficulties were experienced during the smooth plot. Soundings are in good agreement at crossings. ✓

SHORELINE AND CONTROL

A graphic reduction was made of the field revisions of the shoreline and photo-hydro stations South of Boca Grande Pass. They were transferred from the blackline impressions of T-11398 and T-11402. The impression of T-11403 is still being used in the field, so the changes affecting this survey were transferred from the bromide print, which was furnished by the field party and is being forwarded with the other two compilations. (See TP 2 Review) ✓

CHART COMPARISON

The attached section of chart 474 shows comparative smooth sheet depths and curves in colored ink. ✓

Norfolk, Va.
12 Sept. 1960

Respectfully submitted,



Hugh L. Proffitt
Cartographer

GEOGRAPHIC NAMES

Survey No. H-8196

Name on Survey	A On Chart No. 474	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 B&N	
BOCA GRANDE	✓									1
GASPARILLA ISLAND	✓									2
GASPARILLA PASS	✓									3
LACOSTA										4
LACOSTA ISLAND	✓								✓	5
LITTLE GASPARILLA I	✓									6
										7
										8
Murdock Pt										9
										10
										11
										12
										13
										14
										15
										16
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										25
										26
										27

George M. Bee
Geographic Names
Sept 30 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8196....

Records accompanying survey: Smooth sheets ..¹...;
 boat sheets ..¹...; sounding vols.¹¹...; wire drag vols.;
 Descriptive Reports ..¹...; graphic recorder envelopes ..¹³...;
 special reports, etc. .1. Each - Blackline Impressions of Compilations
 T-11398 & T-11402...1- Bromide Print T-11403.....

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

Number of positions on sheet	2153
Number of positions checked	175
Number of positions revised	0
Number of soundings revised (refers to depth only)	0
Number of soundings erroneously spaced	15
Number of signals erroneously plotted or transferred	0
Topographic details	Time ..8...
Junotions	Time ..40...
Verification of soundings from graphic record	Time ..4...
Special adjustments	Time ..0...

Verification by *James B. Chamber* Total time .188... Date *12/12/61*
 Reviewed by *W. Jeske* Time *54* Date *1/26/62*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8196

FIELD NO. SO-2156

Florida, Gulf of Mexico, Vicinity of Gasparilla I.
Surveyed in August 1956-September 1959 Scale 1:20,000
Project No. CS-353

Soundings:

808 Depth Recorder
Edo Depth Recorder
Sounding Pole

Chief of Party - G. W. Moore and R. C. Munson
Surveyed by - G. W. Moore, W. D. Barbee, W. M. Tidwell,
R. C. Munson

Protracted by - A. G. Atwill
Soundings plotted by - A. G. Atwill
Verified and inked by - J. C. Chambers
Reviewed by - I. M. Zeskind
Inspected by - R. H. Carstens

Date 1-26-62

1. Description of the Area

This survey covers the inshore area in the Gulf of Mexico west of Gasparilla and Lacosta Islands, except for Gasparilla Pass and Boca Grande. The bottom is fairly smooth except in the vicinity of Boca Grande where it is very irregular. Shoals and ridges contribute to the bottom irregularity here. The bottom within the area of the present survey consists of hard, white or gray sand and broken shells.

2. Control and Shoreline

The source of the control is given in the Descriptive Report.

The shoreline originates with unreviewed photogrammetric surveys T-11392, T-11395, T-11398, T-11402 and T-11403 of 1953-59. Shoreline revisions shown in red at the north end of Gasparilla Island and in the vicinity of Murdock Pt. originate with Bps 62670-71. These revisions were made by a plane table survey on blue line prints of photogrammetric surveys T-11402 and T-11398 subsequent to the dates of their photographs and their field edits.

3. Hydrography

Depths at crossings are in good agreement. The usual depth curves were adequately delineated. The 3- and 36-ft. curves were drawn to better delineate the bottom configuration. The least depths on shoals were generally adequately developed.

4. Condition of Survey

- a. The Descriptive Report and sounding records are complete and comprehensive.
- b. The smooth plotting was accurately done.

5. Junctions

Adequate junctions were effected with H-8153(1955) on the north, with H-8192(1955-56) on the northeast, with H-8193(1956) in Gasparilla Pass, with H-8358 (1956) in Boca Grande, and with H-7935(1951) and H-7934(1951) on the west. The junction with H-8362 (1956-59) on the south will be considered in the review of that survey

6. Comparison with Prior Surveys

- | | | |
|----|----------------------------|----------------------------|
| A. | H-797a(1863), 1-40,000 | H-1479b(1879-80), 1-20,000 |
| | H-1477a(1879-80), 1-40,000 | H-1480b(1879-80), 1-20,000 |

These early reconnaissance surveys cover the area of the present survey. A comparison between the prior and present surveys reveals changes in shoreline and bottom configuration. The shoreline at the north end of Gasparilla Pass has eroded about 100 meters in a northeasterly direction, while the shoreline at the

south end of the Pass has accreted about 250 meters. As a result of these changes in shoreline, Gasparilla Pass has narrowed about 150 meters. Changes in the shoreline at Boca Grande are also noted. Here the northern shore has eroded about 100 meters in a northeasterly direction, while the southern shore has eroded about 60 meters in a southeasterly direction. The shoreline south of approximately lat. $26^{\circ}41.0'$ has accreted as much as 200 meters. Several islands have been formed in the vicinity of lat. $26^{\circ}41.0'$, long. $82^{\circ}16.0'$, which were formerly covered by depths of 5-12 ft. The above-mentioned changes in shoreline have caused resultant changes in depths. South of Boca Grande between the shoreline and 30-ft. depths, considerable change in bottom configuration has occurred. Elsewhere the present survey depths are generally 1-2 ft. deeper, although in several areas the present depths are as much as 4 ft. deeper. These changes in shoreline and bottom configuration are attributed to the action of the current on the bottom, the depositing of sediment, dredging operations and storms.

The 28-ft sounding charted in lat. $26^{\circ}43.92'$ long. $82^{\circ}18.58'$, from H-797a(1863) falls in present depths of 33-34 ft. The present hydrography discredits the existence of the charted 28-ft. sounding and it should, therefore, be deleted from the chart.

The present survey is adequate to supersede the prior surveys within the common area.

B. H-4644 (1927), 1-20,000
H-4645 (1927), 1-20,000

These prior surveys cover that portion of the present survey which falls approximately south of lat. $26^{\circ}44.0'$. A comparison between the prior and present surveys reveals the bottom south of Boca Grande between the shoreline and depths of 30 ft. to be subject to change. The shoreline at the north end of Boca Grande has eroded about 50 meters while the shoreline at its south end has eroded about 70 meters. The western shore which lies south of ap-

proximate lat. $26^{\circ}44.7'$, has eroded as much as 120 meters. The shoreline in the vicinity of lat. $26^{\circ}41.0'$, long. $82^{\circ}15.5'$, has accreted as much as 200 meters. These changes in shoreline have caused resultant changes in depths. Two islands have been formed in the vicinity of lat. $26^{\circ}41.0'$, long. $82^{\circ}16.0'$. Except in the area south of Boca Grande between approximately 30-ft. depths and the shore on the east, only minor 1-2 ft. differences in depths are noted. The present depths here are generally shoaler than the prior depths. The changes in shoreline and depths are attributed to causes similar to those enumerated in paragraph A above. In depths greater than 30 ft. little change in the bottom is noted.

Attention is specifically called to the following discrepancies between the prior and present depths:

1. The 29-ft sounding charted in lat. $46^{\circ}42.18'$, long. $82^{\circ}20.30'$, from H-4644 (1927) falls in present depths of 33 ft. Present hydrographic search discredits the existence of the 29-ft. sounding and it, therefore, should be deleted from the chart.
2. The 10-ft sounding charted in lat. $26^{\circ}39.18'$, long. $82^{\circ}16.33'$, from H-4644 (1927) falls in present depths of 15-16 ft. The sounding is believed to be 1 fm. too shoal and should actually be 16 ft. The 10-ft. sounding is discredited by present depths and should be deleted from the chart.
3. The 18-ft. sounding charted in lat. $26^{\circ}38.93'$, long. $82^{\circ}16.80'$, from H-4644(1927), falls in present depths of 22-25 ft. The sounding is believed to be 1 fm. too shoal and should actually be 24 ft. The 18-ft. sounding should be deleted from the chart.

Several soundings have been carried forward to supplement shoal indications on the present survey. With these additions, the present survey is adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 474(Latest print date 10/30/61)
Chart 1255(Latest print date 8/14/61)

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which need no further consideration, supplemented by a few soundings from the present survey prior to verification and review. A comparison between the charted and present depths shows the present depths to be 1-3 ft. deeper, except in the area south of Boca Grande where differences in depths as much as 6 ft. are found.

The present survey is adequate to supersede the charted hydrography within the common area.

B. Controlling Depths

The controlling depths in that portion of Boca Grande Channel which falls within the area of the present survey originate with Corps of Engineers' information subsequent to the present survey.

C. Aids to Navigation

Some charted aids in Gasparilla Pass were revised subsequent to the present survey in accordance with HON to M 13 & 34, 1960. The present survey positions of other charted aids to navigation in that portion of the chart falling in the area covered by the present survey 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 a very good basic survey and no additional field work is recommended.

Examined and Approved:

Maurice T. Rankin
Chief,
Nautical Chart Division

J. T. Jarnan
Assistant Director,
Office of Cartography

Charles W. Clark
Projects Officer,
Operations Division

May Bucklett
Assistant Director,
Office of Oceanography

24C

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

12 October 1960

Division of Charts: R.H. Carstens

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 8196

Locality Boca Grande Entrance to Little Gasparilla Pass, Florida.

Chief of Party: G.W. Moore (1956) R.C. Munson (1959)

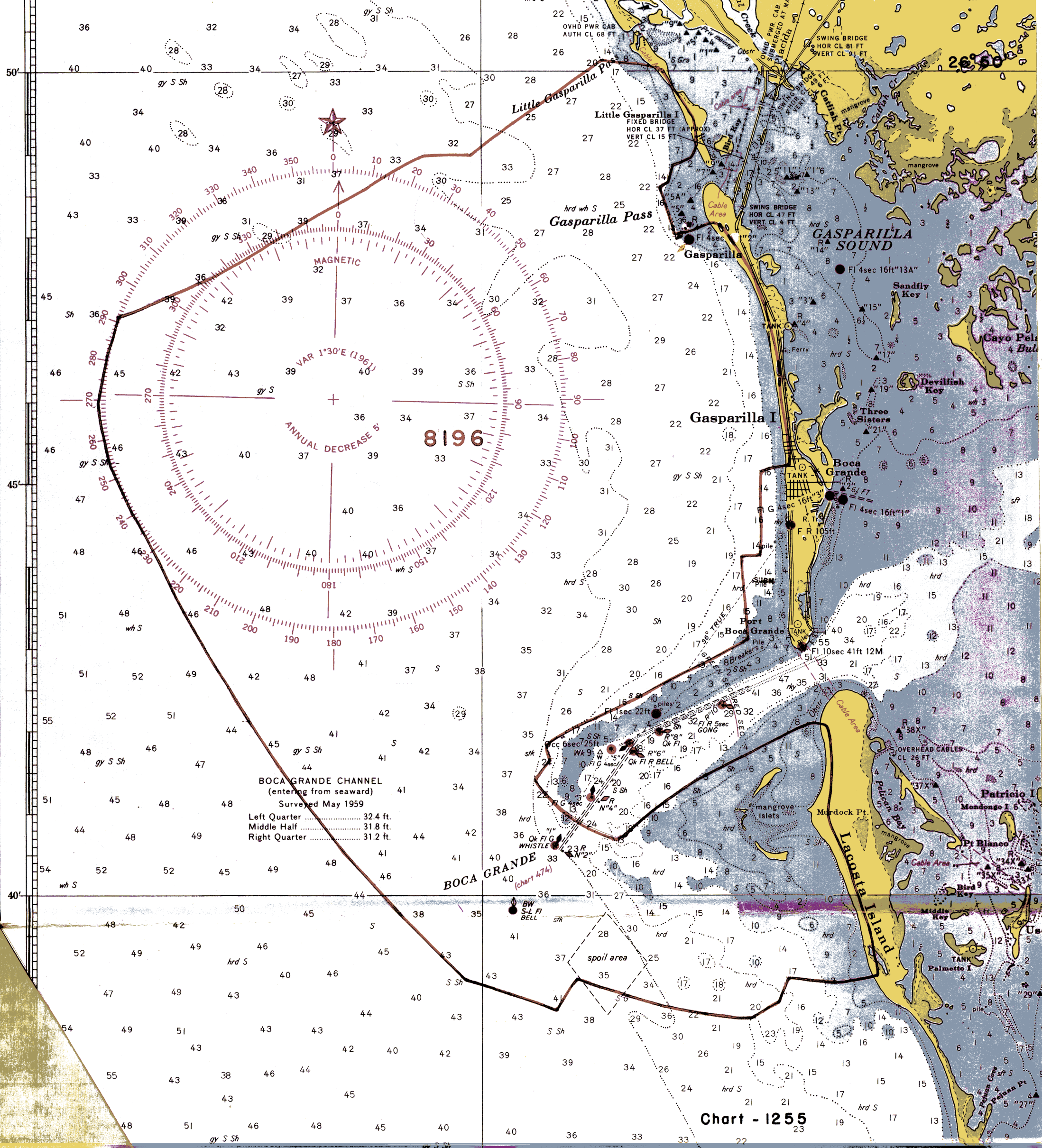
Plane of reference is mean low water reading.

1.6 ft. on tide staff at Port Boca Grande, Fla. (1956)
2.8 ft. below B. M. 1 (1927) (1959)

Height of mean high water above plane of reference is: 1.0 ft.

Condition of records satisfactory except as noted below:

Burt W. Wilson
Chief, Tides and Currents Branch
~~Chief, Division of Tides and Currents.~~



BOCA GRANDE CHANNEL
(entering from seaward)
Surveyed May 1959

Left Quarter	32.4 ft.
Middle Half	31.8 ft.
Right Quarter	31.2 ft.

Chart - 1255



FLORIDA MAIN ENTRANCE TO CHARLOTTE HARBOR

Mercator Projection
Scale 1:40,000 at Lat. 26°44'

SOUNDINGS IN FEET
AT MEAN LOW WATER

CAUTION
Temporary defects in aids to navigation
are not indicated on this chart except where
a buoy replaces a fixed aid. See Notice to
Mariners.

BOCA GRANDE CHANNEL
(entering from seaward to
Lighted Gong Buoy 10)
Surveyed Nov 1955
Left Quarter.....28 ft
Middle Half.....30.7 ft
Right Quarter.....28.2 ft

(OFFSHORE)
WHISTLE

(S-L FLOW)

H-8196

Nautical Miles

Yards

(CONTINUED ON CHART 1255)

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8196

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9/30/60 9/30/60	1256	E. Thomas	Before <i>no corr.</i> Examined Before After Verification and Review
21 Dec 60	1007	Tuehols	Before After Verification and Review Examined for critical sds only - no changes
1/19/61	1003	Helmer	Before After Verification and Review Exam for critical sds. No corrections made
1 Mar 61	1255	Tuehols	Before After Verification and Review Critical corr only.
5 June 61	856-857 857A	"	Before After Verification and Review Complete application
7 July 61	474	"	Before After Verification and Review Critical note only. - RFD 8-9-61
7/21/61	1002	Svendson	Critical corr. Before After Verification and Review
8 Jan 62	1003	Tuehols	Before <u>After</u> Verification and Review No corr.
4 Apr 62	856 B	"	Before After Verification and Review Complete
5 Apr 62	857A	"	Before After Verification and Review In part Thru 856 B. above.
10 Apr 62	1255	"	After V+R - Thru 857A + 856 B, above.
5-2-62	1007	G.R. Johnson	Partly Applied after V&R (before insp.)
1/9/63	1113	H. Quimby	after V&R - Examined, no correction.
3-12-64	1003	H. Radde	After V&R - Examined no corr.
8-11-67	1002	D.J. Ramesburg	Fully App'd; After V&R, hydro removed from chart in area common with survey.

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.