

8362

Diag. Cht. No. 1255-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. S0-2256 Office No. H-8362

LOCALITY

State Florida

General locality West Coast

Locality West of North Captiva Island

1956, 59-60.

CHIEF OF PARTY

R. C. Munson

LIBRARY & ARCHIVES

DATE December 6, 1960

USCOMM-DC 5087

8362

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-88692

Field No. SO-2256

State Florida

General locality West Coast of Florida

Locality WEST OF NORTH CAPTIVA ISLAND
Captiva Islands

Scale 1:20,000 Date of survey 1956 & 1959-60

Instructions dated 18 December 1952, 8 September 1958

Vessel SHIP SOSBEE

Chief of party Robert C. Munson

Surveyed by G.W. Moore, W.D. Barbee, W.M. Tidwell, R.C. Munson,
R.M. Davidson, D.F.S. Galloway

Soundings taken by Fathometer, graphic recorder, hand lead, wire & sounding pole

Fathograms scaled by Ship SOSBEE Personnel

Fathograms checked by Ship SOSBEE Personnel

Protracted by D.C. Calland (Norfolk Office)

Soundings penciled by D.C. Calland " "

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

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

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8362

(Field Number SO-2256)

West Coast of Florida

Captiva Island ✓

Scale 1:20,000

USC&GS Ship SOSBEE

1956 Chief of Party

Glenn W. Moore

1959-1960 Chief of Party

Robert C. Munson

A. PROJECT

Original Instructions, Project CS-353, 222/MEK,
S-2-SO dated 18 December 1952.

Revised Instructions, Project CS-353, 222/MEK,
S-2-SO dated 8 September 1958.

B. SURVEY LIMITS AND DATES

This is a survey of the coast of the Gulf of Mexico
from Lacosta Island southward to Captiva Island. ✓

The limits are:

South - Latitude $26^{\circ} 28'.0$ N

West - Longitude $82^{\circ} 21'.5$ W

North - Latitude $26^{\circ} 39'.0$ N

East - Shoreline of Lacosta, ^{North} Upper Captiva and Captiva Islands ✓
USGS

The area is indicated on the Index of Hydrographic
Sheets which is Attachment Number 7 Page 17.

Shoran control was used on all of the hydrography
except a strip along the shoreline about one mile in
width. This work was run between 10/10/56 and 11/1/56. ✓

The alongshore work was completed between 10/12/59
and 9/2/60 using visual control. ✓

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>
South ✓	H-8363 ✓	SO-2356	1956	1:20,000
West ✓	H-7935 ✓	HY-8351	1951	1:80,000
North ✓	H-8196 ✓	SO-2156	1956 1959	1:20,000
East <i>Captiva Pass</i>	H-8555 ✓	SO-10-1-60	1960	1:10,000

H-8598
(1960-61)
partial butt
junction,
see Review
Par. 5.

The prior survey is: H-1479⁽¹⁸⁷⁹⁻⁸⁰⁾b, scale 1:20,000, date 1879-80. also H-1477a⁽¹⁸⁷⁹⁻⁸⁰⁾ and H-1478a⁽¹⁸⁷⁹⁻⁸⁰⁾.

The 1956 and 1959-60 work progressed smoothly. The three year gap between the starting and completion dates is explained by the fact that the Ship SOSBEE was ordered to Tampa Bay, Florida in 1956 to complete Project CS-402 and did not return until 1958.

C. VESSEL AND EQUIPMENT

The Ship SOSBEE performed the hydrography off-shore from the 18-foot curve. It has a turning radius of 100 meters at the standard sounding speed of 1450 rpm. The inshore lines were run parallel to the beach at a sounding speed of 1000 rpm with the same turning radius. Soundings were obtained with an 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 ten-horsepower outboard motors completed the hydrography. It has a speed of six knots and a turning radius of 25 meters. One motor was used while running shoreline. Soundings were obtained on 808 J type portable echo sounding recorders Nos. 140, 150 and 57-35 for depths of three feet and greater. Depths less than three feet were measured with a sounding pole. The Skiff based at Frank's Fish Camp in Bokeelia, Florida and at Pineland, Florida. Personnel commuted daily by government truck from the Ship at Ft. Myers Yacht Basin.

D. TIDE AND CURRENT STATIONS:Tide stations
not on sheet.

The Port Boca Grande, Florida Tide Gage (Latitude 26° 43.23 N, Longitude 82° 15.55 W) was used for all of the Ship work and through "d" day on the Skiff work with no corrections applied to the observed heights.

The Punta Rasa, Florida Tide Gage (Latitude 26° 29'.3N, Longitude 82° 00'.8W) was used for the remainder of the Skiff work with no corrections applied to the observed heights.

There were no current stations.

E. SMOOTH SHEET

The smooth sheet ^{was} 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>	
RED	C&GS	G.W.M.	1956	
BOCA GRANDE LIGHTHOUSE	C&GS	G.L.A.	1934	
<u>Topographic Station</u>	<u>Method</u>	<u>Source</u>	<u>Chief of Party</u>	<u>Year</u>
HOPE	air photo	C&GS	I.R.R.	1955

Shoran
Station
not on
sheet.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topography were put on the ^{smooth} boat sheet by reducing the data on photogrammetric manuscripts T-11403 and T-11407 from 1:10,000 to 1:20,000.

Hurricane DONNA struck on 10 September 1960 and changed the shoreline as shown in red on the manuscripts. In general the MHWL was moved 10 meters inland or easterly. The changes were determined by measurements from the photo-hydro signal points that survived the storm and from sextant fixes.

H. SOUNDINGS

Depths were measured with EDO-225 type portable echo sounding recorder No. 209 and 808 J type portable echo sounding recorders Nos. 140-SP, 150 and 57-35. ✓

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

All of the Ship hydrography was controlled by Shoran Stations RED and BOC. ✓

The control stations for the visual hydrography were obtained from Advance Shoreline Manuscripts T-11403 and T-11407. One signal was located by sextant fixes and cuts to supplement the photo-hydro signals. ✓
 TAN

J. ADEQUACY OF SURVEY

This survey is complete and adequate to supercede prior surveys for charting. ✓ See Review Par. 6

Junctions with adjoining surveys are satisfactory, no holidays or excessive differences exist and the depth curves can be adequately drawn. ✓ See Review Par. 5

The inshore hydrography from Redfish Pass southward was omitted because it would fall too close to the edge of the boat sheet. The hydro in this area ~~will be~~ completed on Boat Sheet (SO-10-2-60).
 was
 H-8598 (1960-61) ✓

The alongshore hydrography was checked by crosslines after Hurricane DONNA and no significant change in the soundings was encountered. The hydro was run with Skiff 735 on "h" and "j" days and plotted on tracing paper. The overlays will be forwarded with the Boat Sheet. ✓

check hydro plotted and retained on smooth sheet. Overlays discarded.

K. CROSSLINES

Forty-two nautical miles or 5.1% of the hydro is crosslines. There are no discrepancies at the crossings. ✓

L. COMPARISON WITH PRIOR SURVEYS

Survey H-1479b, 1879-80, 1:20,00: general agreement is good. ✓

The pottom alongshore between Latitudes $26^{\circ} 34'$ N and $26^{\circ} 35'$ N is subject to change by storms. The agreement inshore from the 12-foot curve was only fair. This survey should determine the charted depths. ✓

M. COMPARISON WITH CHART

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

	<u>Charted Depth</u> feet	<u>New Depth</u> feet	<u>Latitude</u> north	<u>Longitude</u> west
1.	39	42	$26^{\circ} 38'.98$	$82^{\circ} 21'.57$
2.	43	40	$26^{\circ} 38'.98$	$82^{\circ} 19'.94$
3.	25	27	$26^{\circ} 38'.26$	$82^{\circ} 17'.73$
4.	26	28	$26^{\circ} 37'.92$	$82^{\circ} 17'.57$
5.	19	25	$26^{\circ} 38'.20$	$82^{\circ} 16'.59$
6.	16	23	$26^{\circ} 38'.30$	$82^{\circ} 16'.32$
7.	16	22	$26^{\circ} 37'.98$	$82^{\circ} 16'.42$
8.	15	23	$26^{\circ} 38'.02$	$82^{\circ} 16'.28$
9.	15	19	$26^{\circ} 37'.80$	$82^{\circ} 16'.24$
10.	18	20	$26^{\circ} 37'.91$	$82^{\circ} 16'.07$
11.	14	16	$26^{\circ} 38'.08$	$82^{\circ} 16'.08$
12.	17	20	$26^{\circ} 38'.34$	$82^{\circ} 15'.98$
13.	12	15	$26^{\circ} 38'.51$	$82^{\circ} 15'.46$
14.	9	14	$26^{\circ} 38'.36$	$82^{\circ} 15'.38$
15.	14	5	$26^{\circ} 38'.18$	$82^{\circ} 15'.10$

Differences are due to changes in the bottom. Present depths adequate for charting.

M. COMPARISON WITH CHART (Continued)

	<u>Charted Depth</u> feet	<u>New Depth</u> feet	<u>Latitude</u> north	<u>Longitude</u> west
16.	5	8	26° 38 ¹ .32	82° 15 ¹ .19
17.	5	9	26° 38 ¹ .36	82° 15 ¹ .09
18.	7	10	26° 38 ¹ .60	82° 15 ¹ .07
19.	6	12	26° 38 ¹ .73	82° 15 ¹ .01
20.	4	13	26° 38 ¹ .96	82° 14 ¹ .87
21.	2	9	26° 38 ¹ .80	82° 14 ¹ .88
22.	5	8	26° 38 ¹ .65	82° 14 ¹ .87
23.	15	7	26° 38 ¹ .25	82° 14 ¹ .83
24.	14	10	26° 38 ¹ .49	82° 14 ¹ .65

All other soundings agree within one foot except between Latitudes 26° 38' N and 26° 39' N and Longitudes 82° 14' W and 82° 16' W. In this area depths have changed considerably and this survey should be used for new charted depths. ✓

A comparison with Chart 1255, 5th Edition, Revised 4/13/59 and corrected to date is as follows:

	<u>Charted Depth</u> feet	<u>New Depth</u> feet	<u>Latitude</u> north	<u>Longitude</u> west
1.	26	28	26° 37 ¹ .88	82° 17 ¹ .67
2.	21	24	26° 37 ¹ .88	82° 16 ¹ .65
3.	36	38	26° 37 ¹ .11	82° 18 ¹ .80
4.	31	34	26° 35 ¹ .08	82° 17 ¹ .53
5.	18	23	26° 34 ¹ .53	82° 14 ¹ .10
6.	55	52	26° 32 ¹ .50	82° 21 ¹ .42
7.	43	50	26° 32 ¹ .08	82° 20 ¹ .92

M. COMPARISON WITH CHART (Continued)

	<u>Charted Depth</u> feet	<u>New Depth</u> feet	<u>Latitude</u> north	<u>Longitude</u> west
8.	28	⁰ 32	26° 33'.12	82° 17'.14
9.	24	⁶ 28	26° 33'.12	82° 14'.89
10.	22	25	26° 32'.03	82° 15'.12
11.	37	47	26° 28'.87	82° 20'.36
12.	34	36	26° 28'.91	82° 17'.80
13.	30	² 34	26° 28'.88	82° 16'.98
14.	none	³⁰ 29	26° 29'.40	82° 16'.96
15.	25	²⁷ 30	26° 28'.80	82° 13'.50
16.	30-foot depth curve*		26° 33'	82° 17'
17.	30-foot depth curve**		26° 29'.1	82° 16'.4

* considerably different than charted, see boat sheet.

** three separate humps rather than a long ridge as charted.

N. DANGERS AND SHOALS

There are no important newly found dangers or shoals. Depths different than those charted are listed in Section M. ✓

O. COAST PILOT INFORMATION

The annual Coast Pilot changes will be forwarded by 1 December 1960 as per instructions. ✓

P. AIDS TO NAVIGATION

There are no fixed or floating aids to navigation. ✓

Q. LANDMARKS FOR CHARTS

None ✓

R. GEOGRAPHIC NAMES

A Geographic Name Report has been submitted by the photogrammetrist. ✓

S. SILTED AREAS

None

T. BY-PRODUCT INFORMATION

None

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-8362 (SO-2256) w/ 2 overlays **
2. Advance Shoreline Manuscripts T-11403** & T-11407+
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. Approval Sheet

* submitted under separate cover

** submitted under separate cover via Tampa Dist. Office

*** submitted by Tampa District Office

+ will be submitted when H-8555 (SO-10-1-60)
is completed.

Respectfully submitted,

Robert C. Munson

Robert C. Munson
LCDR, C&GS

LIST OF SIGNALS

H-8362 SO-2256

Captiva Island

NAME	NUMBER	T#SHEET	Triang. & Topo. Station
ABE	- 0316	- 11403	
BAG	- 0317	- 11403	
BOC	-	-	- BOCA GRANDE LIGHT HOUSE 1934
CAB	- 0701	- 11407	
DAW	- 0702	- 11407	
EAR	- 0704	- 11407	
FAT	- 0773	- 11407	
FED	- 0707	- 11407	
HAG	0722	11407	
HOPE	- HOPE	- 11403	- Topographic - HOPE 1955
IDA	-	- 11407	- Pine Island Sound Light 25 1958
JUT	- 0708	- 11407	
KED	- 0767	- 11407	
LAD	- 0768	- 11407	
LOG	- 03149	- 11403	
MAN	- 0769	- 11407	
ODD	- 0771	- 11407	
PAL	- 0772	- 11407	
POT	- 1047	- 11410	
PRO	- 0306	- 11403	
RAN	- 0774	- 11407	
RED	-	-	- Traverse - RED 1956
SAG	- 0775	- 11407	
SAP	- 03152	- 11403	

*Shoran Station.
Not on sheet.*

LIST OF SIGNALS - Cont.

H-8362 80-2256

Captiva Island

NAME	NUMBER	T-SHEET	Triang. & Topo. Station
TAN	-	-	- Sextant Fix Vol. 11, page 2.
TOM	- 0304	- 11403	
TUB	- 0776	- 11407	
USE	- 03151	- 11403	
VEX	- 0305	- 11403	
VET	- 0777	- 11407	
WHY	- 03153	- 11403	
YES	-see remarks	- 11407-	USGS (TT83JEB-3)

STATISTICS

for

HYDROGRAPHIC SURVEY H-8362 (SO-2256)

Attachment No. 2

Project CS-353 Ship SOSBEE

Day Letter	Date	Vol. No.	H.L. Sdgs.	No. of Positions	Statute Miles	Sdgs.
A	10/10/56	1	0	149	68.6	
B	10/11/56	1 & 2	0	110	44.2	
C	10/12/56	2	0	81	31.9	
D	10/18/56	2 & 3	0	123	53.0	
E	10/19/56	3	0	119	51.2	
F	10/23/56	3	0	56	26.0	
G	10/24/56	4 & 5	0	244	108.3	
H	10/25/56	5	0	192	87.4	
J	10/26/56	6	0	91	37.5	
K	10/29/56	6	0	63	28.5	
L	10/30/56	6 & 7	0	204	85.6	
M	10/31/56	7 & 8	0	225	79.2	
N	11/1 /56	8 & 9	7	148	23.9	
13	13	9	7	1805	725.3	Ship Total

STATISTICS

for

HYDROGRAPHIC SURVEY H-8362 (SO-2256)

Attachment No. 2

Project CS-353

Skiff 735

Day Letter	Date	Vol.	H.L. SDGS.	No. of Positions	Statute Miles Sdgs.	
a	10/12/59	10	0	80	17.7	
b	10/28/59	10	0	58	13.6	
c	11/3/59	10	0	48	13.2	
d	11/4/59	10	0	39	8.0	
e	8/29/60	11	0	63	13.9	
f	9/1/60	11	0	82	18.0	
g	9/2/60	11	0	63	12.0	
h	10/27/60	11	0	64	15.1	
i	11/3/60	11	0	38	7.5	
9	9	2	0	535	119.0	Skiff Total
13	13	9	7	1805	725.3	Ship Total
22	22	11	7	2340	844.3	Grand Total

Area in Square Statute Miles = 106.5

TIDE NOTE

for

H-8362 (SO-2256)

The tide gage at Port Boca Grande, Florida Pilot's Dock was used to control the survey through the 1959 work. No corrections were applied to the observed tides. The gage was located at Latitude $26^{\circ} 43'.23$ North, Longitude $82^{\circ} 15'.55$ West. Mean Low Water for the 1956 staff was 1.6 feet and 2.1 feet for the 1959-60 staff installation.

The 1960 hydrography was controlled by the Punta Rasa, Florida Tide Gage (Latitude $26^{\circ} 29'.3$ North, Longitude $82^{\circ} 00'.8$ West) with no corrections applied to the observed tides. Mean Low Water was 1.9 feet on the staff until 10 September 1960 when the installation was damaged by Hurricane DONNA. A value of 2.1 feet for Mean Low Water was used for the new installation.

Stations not on sheet.

ABSTRACT OF BAR CHECKS

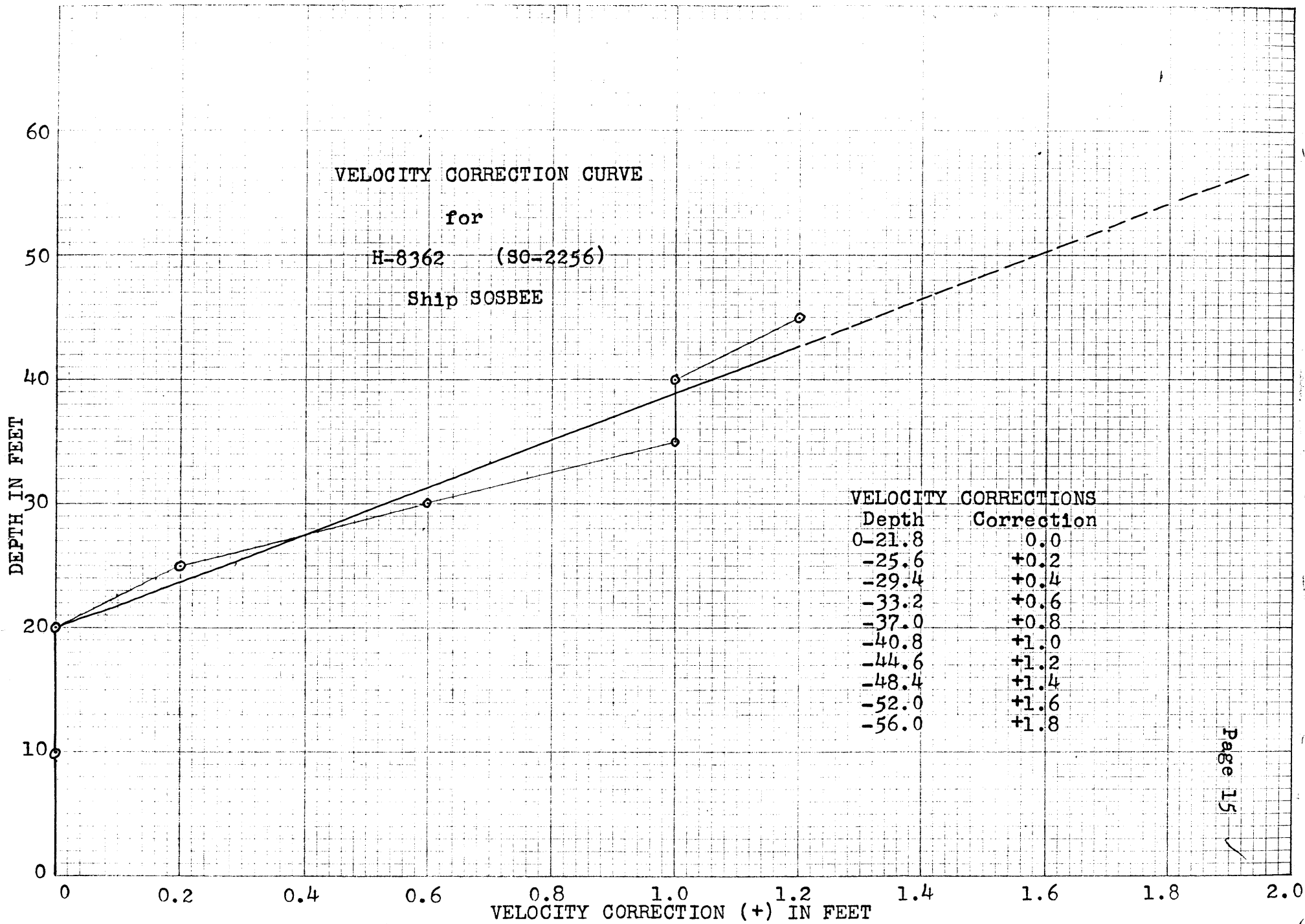
H-8362 SO-2256

Ship SOSBEE EDO-209

Day Letter	Date	Feet									Vol.	Page	Gain	Initial	Condition	L.L.& L.Corr'n
		10.0	15.0	20.0	25.0	30.0	35.00	40.0	45.0	50.0						
A	- 10/10/56	0.0		0.0		+1.0					1	48	7	3.8	P	
B	- 10/11/56	0.0	+0.2								2	8	7	3.8	P	
C	- 10/12/56							Too Rough								
D	- 10/18/56			+0.2		+0.8	+1.4	+1.2	+1.4		2	61	7	3.8	P	
E	- 10/19/56		0.0	0.0							3	6	7	3.8	G	23.8 0.0
E	- 10/19/56		0.0	0.0	+0.2	+0.6	+1.0				3	42	7	3.6	F*	
** F	- 10/23/56	0.0	0.0	0.0		0.0		(0.0)R		(0.0)R	3	43	7	3.8	F*	
F	- 10/23/56	0.0	0.0	0.0		+0.6	+1.0				3	55	7	3.8	G	
G	- 10/24/56							Too Rough								
H	- 10/25/56	0.0		0.0	(+0.8)R	+1.0	+1.2				5	72	7	4.0	P*	
H	- 10/25/56	0.0		0.0							5	11	7	3.8	G	24.8 0.0
J	- 10/26/56	0.0		0.0							6	3	7	3.8	G	
K	- 10/29/56	0.0		0.0		+0.8		+1.0			6	31	7	3.8	F	
L	- 10/30/56	0.0	+0.2								7	48	7	3.8	F	
M	- 10/31/56							Too Rough								
N	- 11/ 1/56	0.0		0.0	+0.2	+0.6	+0.8	+1.0	+1.0		8	42	7	3.8	F	
TOTALS		0.0	+0.4	+0.2	+0.4	+5.4	+5.4	+3.2	+2.4	0.0						
MEAN		0.0	0.0	0.0	+0.2	+0.6	+1.0	+1.0	+1.2	(0.0)R						

* Correction applied.

** Correction made for length of bar on and after this date.



ABSTRACT OF BAR CHECKS

H-8362

(80-2256)

Skiff 735

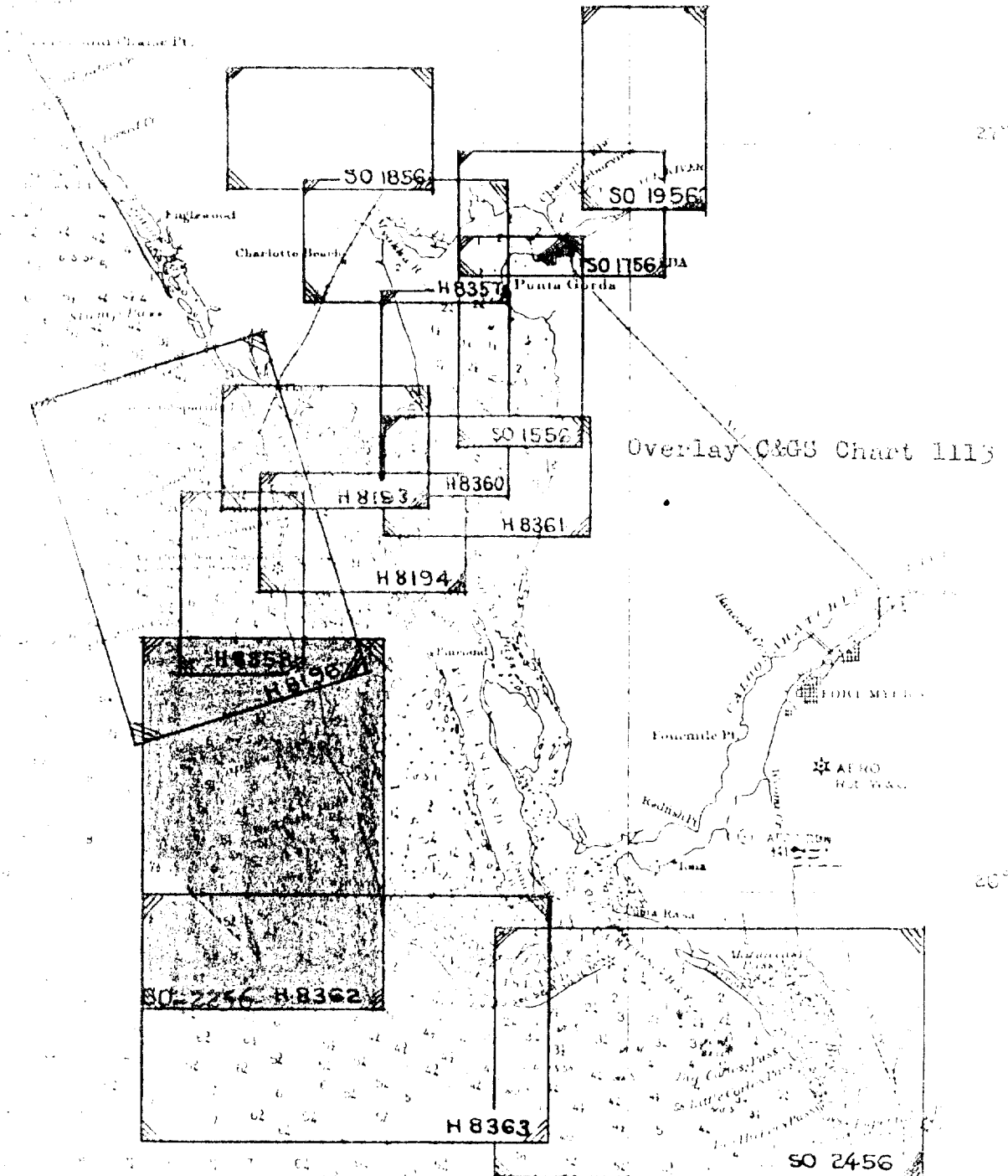
Day Letter	Date	Correction with bar at depth indicated (feet)											Volume	Page	Gain	Initial	Results	Leadline Depth Comparison	Correction	Fathometer No.		
		4	5	6	8	10	12	14	15	16	18	20									30	
a	10/12/59		0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	10	6	7	0.6	G			140-SP	
a	10/12/59		0.0	0.0	0.0	0.0	0.0		0.0	0.0				10	14	7	0.6	G			"	
a	10/12/59		0.0	0.0	0.0	0.0	0.0		0.0	0.0				10	26	7	0.6	G			"	
b	10/28/59		0.0	0.0	0.0	0.0								10	35	7	0.6	G			150	
b	10/28/59			0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		10	43	7	0.6	G			"	
c	11/3/59		0.0	0.0	0.0	0.0	0.0							10	45	7	0.6	G			"	
c	11/3/59		0.0	0.0	0.0	0.0	0.0							10	48	7	0.6	G			"	
c	11/3/59		0.0	0.0	0.0	0.0	0.0		0.0	0.0				10	55	7	0.6	G			"	
d	11/4/59		0.0	0.0	0.0									10	57	7	0.6	G			"	
d	11/4/59		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		10	66	7	0.6	G			"	
e	8/29/60	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			11	16	8	0.6	G	20.2	0.0	57-35	
f	9/1/60	0.0	0.0	0.0	0.0	0.0	0.0							11	30	7	0.6	G	15.2	0.0	"	
g	9/2/60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					11	38	7	0.6	G	15.8	0.0	"	
h	10/27/60	0.0	0.0				0.0					0.0		11	54	7	0.6	F	15.0	0.0	150	
j	11/3/60	0.0		0.0	0.0	0.0	0.0		-0.2		-0.4			11	62	7	0.6	P	20.0	0.2	57-35	
TOTALS		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.4	0.0	0.0								-0.2	
MEAN		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								0.0	

SHEET LAYOUT 1956
SHIP SOSBEE

Page 17

PROJECT ~~13500~~ CS-353

ATTACHMENT NUMBER 7



ABSTRACT OF SHORANCORRECTIONSSHIP SOSBEE 1956

X = Shoran Reading in Statute Miles.

Y = Plus Correction in hundredths of statute miles.

$$X = 24.7 - 2.94Y$$

<u>Y</u>		<u>X</u>
8.5	to	0.8
8.0	to	2.2
7.5	to	3.7
7.0	to	5.1
6.5	to	6.6
6.0	to	8.0
5.5	to	9.5
5.0	to	10.9
4.5	to	12.4
4.0	to	13.8
3.5	to	15.3
3.0	to	16.7
2.5	to	18.2

APPROVAL SHEET

This survey is complete and adequate and no further field work is recommended. The Chief of Party in 1956 inspected the hydrographic operation and the results during each watch. The Chief of Party in 1959-60 was in charge or working with the hydrographic unit for approximately 30% of the work and inspected the boat sheet and records daily during the remainder of the work.

The boat sheet and processed records are approved and will be forwarded in November 1960.

Approved by,

Robert C. Munson

Robert C. Munson
Chief of Party

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8362 (So-2256)

GENERAL

This appears to be an excellent basic survey and no unusual conditions were encountered during the smooth plot.

Soundings are in good agreement at crossings considering the fact that the bottom in this area is made up of an almost continuous series of small lumps, holes, and ridges.

The check lines, which were run after hurricane Donna on h and j days (Skiff 735), showed no perceptible depth changes.

Descriptions for signals were not available at this Office.

Norfolk, Va.
10 May 1961

Respectfully submitted,



Hugh L. Proffitt
Cartographer

GEOGRAPHIC NAMES

Survey No. H-8362

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
Captiva Pass	✓										1
Lacosta Island	✓										2
North Captiva Island											3
Redfish Pass (new)	✓										4
											5
											6
											7
											8
											9
											10
											11
											12
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											24
											25
											26
											27

George M. Bone
Geographic Names Section
5/25/61

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...8362...

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-Overlay.....

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

Number of positions on sheet	2340
Number of positions checked	146
Number of positions revised	0
Number of soundings revised (refers to depth only)	10
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0
Topographic details	Time 0
Junctions	Time 32 hr.
Verification of soundings from graphic record	Time 4 hr.
Special adjustments	Time 0

Verification by *J. L. C. Hamlin*..... Total time ..156 hr. Date 11-14-63

Reviewed by ...*Dale E. Westbrook*..... Time 64.5 hr. Date 6/29/64

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

15 June 1961

Division of Charts: R. H. Carstens

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 8362

Locality Captiva Island, Florida

G. W. Moore (1956)
Chief of Party: R. C. Munson (1959 & 1960)
Plane of reference is mean low water, reading
1.6 ft. on tide staff at Port Boca Grande (1956)
2.1 ~~ft. below B. M.~~ " " " " (1959 & 1960)
6.8 ft. below B. M. 1 (1927)
1.9 ft. on tide staff at Punta Rasa 9/10/60
2.1 " " " " " " " " 9/11/60
5.6 ft. below B. M. 5 (1927)

Height of mean high water above plane of reference is:
1.0 ft. Port Boca Grande
1.7 ft. Punta Rasa

Condition of records satisfactory except as noted below:

Burt W. Wilson
Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents~~

INFORMATION FOR FUTURE PRE-SURVEY REVIEWS

H-8362

General depths in this area appear to be reasonably stable. However, the shoals tend to shift in position especially near the entrances to inlets where the entire bottom is quite changeable.

Erosion of the islands is likely to continue but accretion on their eastern sides probably will help maintain their general shape.

New breakthroughs may occur and old ones may fill up as a consequence of the violent storms which occasionally pass through this area.

It must be remembered that this is an area of sand ridges and depressions and adequate development is required to properly delineate the bottom configuration.

Any future survey of the area should develop for least depth the shoals listed in Par. 3 (c) of the review.

Dale E. Westbrook

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8362

FIELD NO. SO-2256

Florida, West Coast, West of North Captiva Island

SURVEYED: Oct. - Nov. 1956
Oct. 1959 - Nov. 1960

SCALE: 1:20,000

PROJECT NO. CS-353

SOUNDINGS: 808 and EDO Depth
Recorders
Sounding Pole

CONTROL: Shoran and
Sextant fixes on shore
signals

Chief of Party-----G. W. Moore
R. C. Munson
Surveyed by-----G. W. Moore
W. D. Barbee
W. M. Tidwell
R. C. Munson
R. M. Davidson
D. F. S. Galloway
Protracted by-----D. C. Calland
Soundings Plotted by-----D. C. Calland
Verified and Inked by-----J. C. Chambers
Reviewed by-----D. E. Westbrook
Inspected by-----R. H. Carstens

Date: June 29, 1964

1. Description of the Area

The area covered by this survey lies off the west coast of Florida in the Gulf of Mexico, west of North Captiva Island.

The bottom configuration is irregular, with many sand ridges and depressions. In general, these features tend to parallel the shoreline.

In the northeast portion of the survey area, an important sand shoal extends westward about 0.7 mile from Lacosta Island. This shoal has a least depth of 4 feet.

The areas in the vicinity of Captiva Pass and Redfish Pass are covered by other contemporary surveys and will not be discussed here.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

The shoreline originates with Advance Photogrammetric Manuscripts T-11403 (1953-58), and T-11407 (1953-58).

A portion of the shoreline in approximate Lat. $26^{\circ}34.1'$, Long. $82^{\circ}12.4'$ was transferred from H-8555 (1960). The changes here are the result of Hurricane DONNA in September 1960.

3. Hydrography

- A. Depths at crossings are in good agreement.
- B. The usual depth curves were adequately delineated except in several offshore areas where closer line spacing would have more effectively shown the limits of curves.

The 3-ft. and 24-ft. depth curves were added to more adequately define the bottom configuration. Sand ridges and shoal soundings were emphasized by either dashed or brown curves, in accordance with Par. 6-64 of the Hydrographic Manual.

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

except for several offshore shoal soundings which were not sufficiently developed for least depth, as follows:

1. 34-ft. sounding in Lat. $26^{\circ}28.59'$, Long. $82^{\circ}19.96'$
2. 33-ft. sounding in Lat. $26^{\circ}29.49'$, Long. $82^{\circ}18.71'$
3. 31-ft. sounding in Lat. $26^{\circ}31.05'$, Long. $82^{\circ}17.39'$
4. 31-ft. sounding in Lat. $26^{\circ}31.79'$, Long. $82^{\circ}18.03'$
5. 31-ft. sounding in Lat. $26^{\circ}33.69'$, Long. $82^{\circ}18.39'$

4. Condition of the Survey

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

5. Junctions

Adequate junctions were effected with H-8196 (1956-59) on the north; H-7935 (1951) on the west; and H-8363 (1956, 60-61) on the south.

An adequate junction was also effected with H-8555 (1961) at the entrance to Captiva Pass.

A partial butt junction was effected with H-8598 (1960-61) at the entrance to Redfish Pass. This caused a small portion of the work on the 1956 portion of the present survey to be superseded, and is justified by the fact that minor bottom changes have apparently taken place in the Redfish Pass area during the four years between the two surveys.

The remainder of the junction with H-8598 (1960-61) on the southeast was adequately effected.

6. Comparison with Prior Surveys

H-1477a (1:40,000) 1879-80
H-1478a (1:40,000) 1879-80
H-1479b (1:20,000) 1879-80

These surveys taken together comprise the prior hydrography of the area of the present survey.

Surveys H-1477a and H-1478a can be classified by today's standards as little more than reconnaissance, due to their small scale, widely spaced lines, and lack of development. A comparison between these two surveys and the present survey indicates little change in general depths, with some shifting of shoals. The southeast tip of Lacosta Island has eroded about 0.1 mile since the prior surveys.

A more complete comparison can be made between H-1479b and the present survey in the common area. General depths appear to have remained about the same, but the shoals seem to have shifted in a southerly direction. For example, the shoal which extends westward from the west side of Lacosta Island has moved about 0.3 mile to the southeastward.

A shoreline comparison in the survey area indicates extensive erosion along the coast. The shoreline of North Captiva Island has eroded up to a maximum of 0.2 mile at Lat. $26^{\circ}33'$, Long. $82^{\circ}12'$, where a breakthrough has occurred, which has split the original island in two, creating Redfish Pass.

Several bottom characteristics were carried forward from the prior surveys to supplement those obtained on the present survey.

With the addition of the bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 1255, 8th Ed., Rev. 8/12/63

Most of the charted hydrography in the area of the present survey originates with the previously discussed prior surveys which require no further consideration.

This hydrography has been supplemented with soundings from the boat sheet and smooth sheet of the present survey before verification and review. Many of these depths have changed slightly during verification and should be revised when a complete application of the survey is made.

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


8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions except that line spacing was not reduced as necessary to develop the shoals listed under Par. 3(c) of this review.

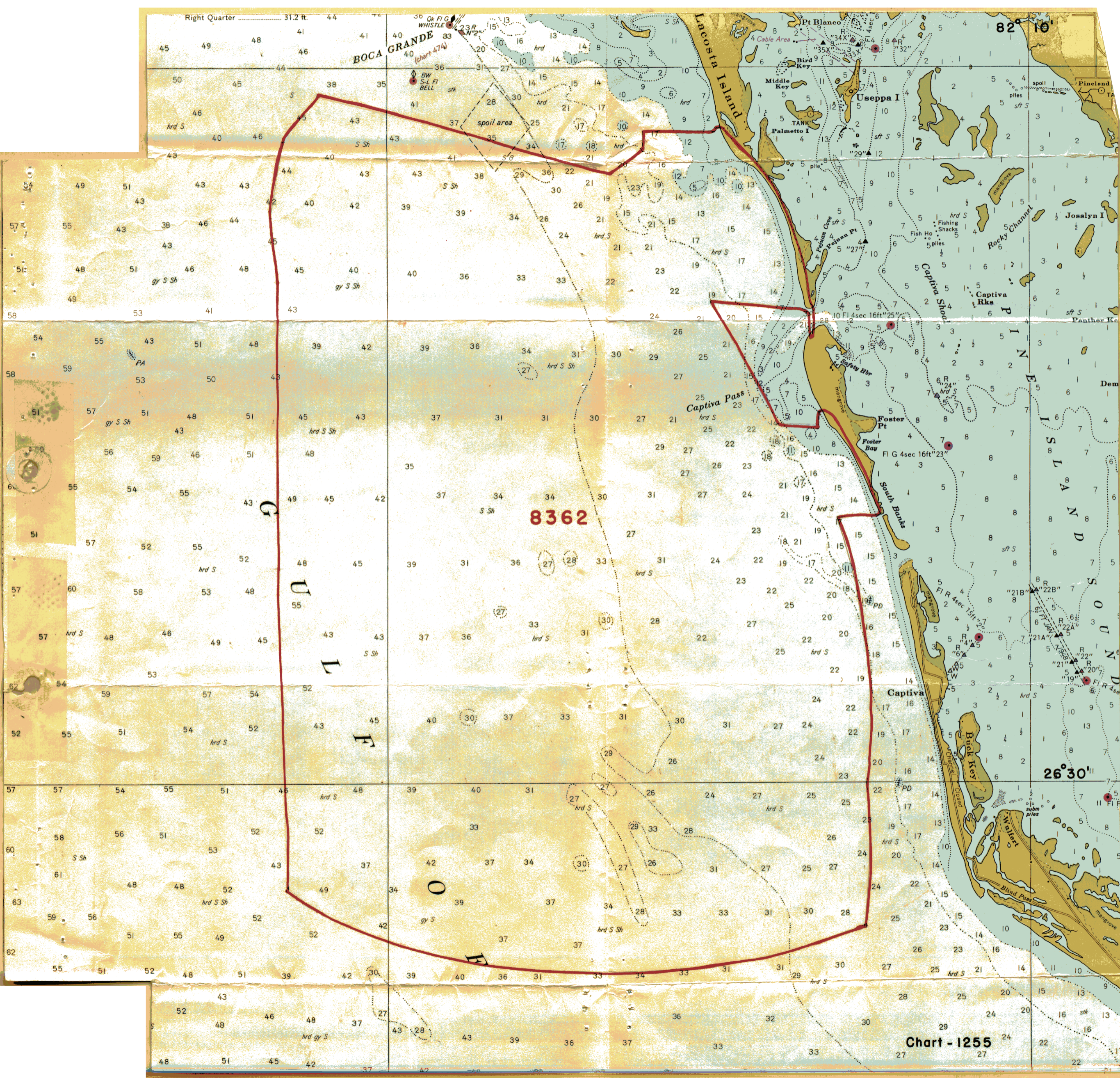
9. Additional Field Work

This survey is considered to be an adequate basic survey and no additional field work is recommended.

Examined and Approved:


Chief, Marine Chart
Division


Associate Director, Office of
Hydrography and Oceanography



8362

G
U
L
F

Chart - 1255

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8362

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
15 June 61	1255	Nichols	Before After Verification and Review Critical note only.
7 July 61	474	"	Before After Verification and Review Critical note only.
7/19/61	1002	Svendsen	Before After Verification and Review Exam - Added onesdg
7/26/61	1007	Svendsen	Before After Verification and Review Exam. No corr at this time
15 Jan 62	1003	Nichols	Before After Verification and Review no corr.
11 Apr 62	1255	"	Before After Verification and Review To add 36-foot depth contour
1/9/63	1113	H. Quimby	Before After Verification and Review Examined - added two soundings
July '62	856B	Nichols	Before After Verification and Review Complete.
3-9-66	1507	M. Rogew	Fully appld. Before After Verification and Review hydro removed from chart in the area common to this survey.
3/25/66	1003	C.B. Samuel	Fully Appd - Hydro removed from chart (inside 10 fm curve)
5-8-67	856-B	A.J. Lundlay	Fully Appd. after Verif. & Review
6-2-67	1255	H. Rodden	part app'd after V&R and Inspection (part from chart 8565C and part directly from sheet)
8-14-67	1002 1002	D.J. Romeburg	Fully Appd; After V&R; no corr hydro removed from chart in the area common to this survey.
7/2/68	1255	M. H. Mau	Fully appld after V & R and Inspect. Part from chart 8565C and part direct.

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.