

8194

Diag. Cht. No. 1255-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. S0-1256 Office No. H-8194

LOCALITY

State Florida

General locality Charlotte Harbor

Locality Boca Grande Entrance

1956-57

CHIEF OF PARTY

G. W. Moore and W. D. Barbee

LIBRARY & ARCHIVES

DATE November 13, 1958

8194

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-8194

Field No. SO-1256

State Florida

General locality Charlotte Harbor

Locality Boca Grande Entrance

Scale 1:10,000 Date of survey 1956-1957

Instructions dated 18 December 1952

Vessel SOSBEE

Chief of party Glenn W. Moore, William D. Barbee

Surveyed by William D. Barbee, Glenn W. Moore, William M. Tidwell

Soundings taken by fathometer/graphic recorder, hand lead, etc.

Fathograms scaled by Personnel, Ship SOSBEE*

Fathograms checked by PERSONNEL, Ship SOSBEE* & Norfolk District Office

Protracted by Fred Bean & A.G. Atwill

Soundings penciled by A.G. Atwill

Soundings in feet at MLW MLW are true depths

REMARKS: *Fathograms not scanned for J through X days from ship's work. All other corrections have been entered and checked by personnel of the Ship SOSBEE

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8194

(Field No. SO-1256)

West Coast of Florida

16 Feb. 1956 to 9 Apr. 1957

Boca Grande Entrance

Scale: 1:10,000

USC&GSS SOSBEE

Glenn W. Moore

William D. Barbee, Ch. of Party

A. PROJECT

This sheet is part of Project 13530, (originally GS-353) with original instructions dated 18 December 1952. Also applicable is Acting Director's letter 22/MEK, S-2-50 dated 25 April 1955 which amends instructions on tides.

B. SURVEY LIMITS AND DATES

one word La Costa
This survey covers the southwestern portion of Charlotte Harbor. The western limit is the eastern shoreline of Gasparilla Island and La Costa Island in about longitude 82° 15'. The eastern limit is a north-south line roughly south of Cape Haze in longitude 82° 07.8'. The southern limit is latitude 26° 42.0' and/or the north shore of Pine Island. The northern limit is latitude 26° 46.3' and/or the southerly shore of the barrier islands separating Charlotte Harbor from Bull Bay. The holiday in the northeast corner of the sheet (north of latitude 26° 45.4' and east of longitude 82° 18.2') is covered on SO-1157 *(H-8361)* 10.4

Junctions are made in Boca Grande Entrance with contemporary survey H-8358 (SO-1-1056) on the north with contemporary survey H-8193 (SO-1156), in the northeast with H-8361 (SO-1157) and H-8360 (SO-1356). H-8360 and H-8361 are not complete. There are no contemporary surveys *at present* east and south of this sheet.

Work commenced on 16 February 1956 and was concluded on 9 April 1957. No work was accomplished on this sheet during September, October, or November, while the SOSBEE was engaged in shoran hydrography. Other sheets were worked concurrently with this one.

C. VESSELS AND EQUIPMENT

Soundings were from 25 foot wooden skiff number 735, and the Ship SOSBEE. Skiff 735, powered by two ten horsepower outboard motors has a maximum speed of about 6 knots, and a turning radius of about 25 meters. The SOSBEE has a maximum speed of about 8½ knots, and a turning radius of about 110 meters. Skiff work was from the SOSBEE anchored in western Charlotte Harbor, or a skiff deck in Bokelia on Pine Island. During the early part of the survey, some ship work was done running to and from Punta Gorda. During the latter part, ship work was accomplished from anchorages in western Charlotte Harbor.

Where ever possible, soundings from the skiff were by 808J type portable echo sounder number 140SP or 1158. In shoal depths--about 3 feet and less--soundings were obtained by a pole graduated in feet. The method of sounding is indicated in the sounding volumes. Soundings from the SOSBEE were by 808J type echo sounder number 1158 for C and D days, and by EDO model 255 echo sounder number 209 for the remainder of the sheet.

D. TIDES AND CURRENT STATIONS

A portable tide gage was established and operated at Port Boca Grande. The entire sheet is reduced to this gage, with time corrections as outlined in Director's letter 36-362-982, dated 10 August 1956. (See Tide Note appended to this report.)

One 100-hour current station was occupied in latitude 26°44.7', longitude 82°09.5'.

E. SMOOTH SHEET

The smooth sheet ^{was} ~~will be~~ plotted by the NORFOLK PROCESSING OFFICE. It will be 36" x 60", with the same center as the boat sheet.

F. CONTROL STATIONS

The ten triangulation stations used for control were located in 1909, 1934, or by Tampa Photogrammetric Office personnel in 1955. The greatest part of the control for hydrography was located by photogrammetric means on sheets T-11395, T-11396, T-11398, and T-11399. Several signals were located by hydrographic means. Signals were of sufficient accuracy for control.

A list of signals with their origins is appended.

G. SHORELINE AND TOPOGRAPHY

Shore line and topography are from shoreline manuscripts T-11395, T-11396, T-11398, and T-11399. No changes in shoreline were made by the hydrographer. ✓

H. SOUNDINGS

*unreviewed manu.
Photg. of 1953
Field insp. 1955*

Soundings were obtained with model 808J portable echo sounders number 140SP and 1158, and EDO model 255 number 209 except for soundings too shoal to indicate on the echo sounder. For these shoal soundings, a pole graduated in feet was used. ✓

No unusual corrections were applied to 808 soundings. A velocity correction was applied to EDO soundings. This correction was determined from an abstract of all EDO bar checks on SO-1256, SO-2156, SO-2256, SO-2356, and SO-1-1056. ✓
H-8358
Abstracts of bar checks and the resultant velocity correction curve are appended.

I. CONTROL OF HYDROGRAPHY

Hydrography was controlled almost entirely by sextant three-point fixes. In some instances on inshore lines, positions were estimated from shoreline detail, etc. These estimated positions are marked SBS (for see boat sheet) in the sounding volumes. ✓

On the inset off the face of the Port Boca Grande phosphate dock, the distance off was determined by means of a measured leadline. Experiments with this leadline indicated that the distance off is accurate to within ± 2 meters. The position at either end of each line was determined by the distance off and the range formed by each end of the dock. It was determined by means of a stop watch that speed between fixes was constant. ✓

J. ADEQUACY OF SURVEY

The survey is complete and adequate to supersede prior surveys.

Junctions with contemporary surveys on the west, north, and in the northeast corner are adequate. There are no contemporary surveys east and south of this sheet. There are no holidays at the junctions or within the sheet. ✓

It was impracticable to develop the MLW line over most of this sheet, due to the small tide range. All other depth curves can be drawn.

K. CROSSLINES

Crosslines constituting 7% of the total hydrography were run. Crossings are in good agreement throughout the sheet. ✓

L. COMPARISON WITH PRIOR SURVEYS

Comparison was made with the following old surveys.

Reg. number	Scale	Date
H-1388a	1:20,000	1878
H-1480a	1:20,000	1879-1880
H-797a	1:40,000	1863
H-797b	1:20,000	1867
H-4645	1:10,000	1927

Generally, agreement with all of the old surveys was good. Specific comment follows.

H-1388a: There is very little detail on H-1388a, and so the present survey reveals a different — *OK* delineation. A least depth on the shoal in latitude $26^{\circ}42.4'$, longitude $82^{\circ}08'$ (bares 0.2 ft at ± 0.6 MLW) is less than that shown on the old survey. — *OK* The shoal appears to extend farther west on the — *OK* present survey. A shoaler depth also was recorded on the shoal in latitude $26^{\circ}43'$, longitude $82^{\circ}09.5'$ (0.0 at MLW). *A small low water area also appears on H-1388a. See review item 5 for comparison of shoals.*

H-797a & b: The far greater detail on the present survey makes for considerable change in the depth curves. Soundings from H-797a & b are not incompatible with depth curves on the present survey. *OK*

H-1480a: Agreement with this survey is good. The large shoal in latitude $26^{\circ}42'-43'$, longitude $82^{\circ}11'-12'$ appears to have extended farther to the northeast. Shoaler depths were recorded on the present survey. With this exception, the two surveys are compatible. *OK - See review item 5*

H-4645: In general, agreement between the two surveys is excellent. The ~~northeast~~ tip of La Costa Island has receded southeast about ~~250~~ *95* meters, and there is a related change in the depth curves just offshore. Other differences are in the nature of one foot, and do not warrant discussion. *See review item 5*

M. COMPARISON WITH CHART

Coast Survey charts 1255, 1:80,000, and 474, 1:40,000 cover the area of this survey. This report covers a comparison with a copy of 474 print date 4-6-53.

All of paragraph L is applicable to a comparison with the chart, and will not be repeated.

The 4 foot spot charted in latitude $26^{\circ}43.8'$, longitude $82^{\circ}10.8'$ (see no. 15, Preliminary Review, dated 11 December 1952) was not found. Lines were run on about 30 meter spacing, (positions 1-48E) with no indication of a shoal. *See Review item 6 para. No. 2*

It is recommended that this 4 foot sounding be deleted *OK* from the chart.

N. DANGERS AND SHOALS

No new dangers and shoals were found. As mentioned in paragraph L, shoaler depths were recorded in many places.

The 4 foot spot charted in latitude $26^{\circ}43.8'$, longitude $82^{\circ}10.8'$ was not found. With this exception, all charted dangers and shoals were found as charted or with a shoaler depth than charted. *See Review item 6 para. No 2*

O. COAST PILOT INFORMATION

A special coast pilot report will be submitted.

P. AIDS TO NAVIGATION

All fixed aids to navigation within the limits of this survey were reported on Form 567 on 21 December 1955, by the Tampa Photo Office.

The position of all aids except Charlotte Harbor Daybeacon 5 were checked during hydrography. Charlotte Harbor Daybeacon 5 was destroyed after the submission of 567 by the Tampa Office. Its new location is submitted on 567 dated 20 August 1957, by the Ship SOSBEE. *see review item 7 C for computed position Wash. office Computations filed with Hydrographic*

The charted position of Charlotte Harbor Daybeacon 5 is not correct. *Aug 1957 Form 567 - has not been received in the Washington Office as of this review date.*

There are no floating aids to navigation within this survey.

Q. LANDMARKS FOR CHARTS

Form 567, LANDMARKS FOR CHARTS was submitted in June 1956 by the Tampa District Office. This party concurs with that selection of landmarks. No additions to the form are needed, and so 567 will not be submitted by this party.

R. GEOGRAPHIC NAMES

In accordance with paragraph 44 of the Instructions, Investigation of Geographic Names will not be conducted. No discrepancies with established names were noted.

S-T. NONE

U. RECOMMENDATIONS FOR CHARTING

It is recommended that the 3 foot curve be charted.


Z. TABULATION OF APPLICABLE DATA

1. Form 567, NON-FLOATING AIDS FOR CHARTS
(by Tampa District Office, 21 Dec. 1955)
2. Form 567, NON-FLOATING AIDS FOR CHARTS
(by Ship SOSBEE 20 Aug. 1957) ——— Not received in Washington Office
3. Form 567, LANDMARKS FOR CHARTS
(by Tampa District Office, June 1956)
4. Topo Sheets T-11395
T-11396
T-11398
T-11399

ATTACHMENTS

1. Statistics
2. Tide Note
3. List of Signals
4. Index of Sheets
5. Approval Sheet
6. Velocity curve and data

Respectfully Submitted:


William D. Barbee
LT C&GS

STATISTICS

For Hydrographic Survey H-8194

Field Number 80-1256

Project 13530

Volume Number	Day Letter	Date	Pole Sndgs	No. of Positions	Statute Miles of Soundings
Ship SOSBEE					
1	A	16 Feb 1956	--	1	0.0
1	B	20 Feb	--	1	0.0
1	C	23 Feb	--	29	9.4
1	D	1 Mar	--	19	7.4
1	E	26 Apr	--	1	0.0
1	F	3 May	--	49	12.8
1	G	9 May	--	38	10.6
1	J	24 May	--	25	26.9
2	K	13 Jun	--	88	28.1
2	L	19 Jun	--	98	27.6
2 & 3	M	21 Jun	--	158	43.9
3	N	2 Jul	--	19	7.0
3	P	10 Aug	--	125	30.5
3	Q	13 Aug	--	18	6.2
3 & 4	R	16 Aug	--	111	35.1
4	S	17 Aug	--	95	29.9
4	T	20 Aug	--	47	14.7
4 & 5	U	21 Aug	--	185	59.1
5	V	22 Aug	--	82	27.0
5	W	27 Aug	--	31	9.9
6	X	30 Aug	--	26	7.5
6	Y	13 Mar 1957	--	100	37.5
6 & 7	Z	14 Mar	--	210	64.3
7	AA	15 Mar	--	150	38.6
7 & 8	BA	18 Mar	--	89	28.8
8	CA	20 Mar	--	12	2.8
8	DA	21 Mar	--	131	31.6
TOTALS			--	1927	577.2

AREA IN SOSBEE 20.1 Sq. Stat. Miles

STATISTICS (Cont'd)

For Hydrographic Survey H-8194

Field Number 80-1256

Project 13530

Volume Number	Day Letter	Date	Pole Sdgs	No. of Positions	Statute Miles of Soundings
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Skiff No. 735					
9	a	17 May 1956	110	130	21.6
9	b	24 May	75	131	24.1
10	c	7 Aug	172	153	27.7
10 & 11	d	8 Aug	12	178	37.8
11	e	9 Aug	317	177	31.7
11 & 12	f	13 Feb 1957	16	162	44.5
12	g	14 Feb	165	160	39.1
12	h	15 Feb	10	10	0.0
13	j	18 Feb	89	90	18.6
13	k	20 Feb	9	121	30.0
14	l	26 Feb	15	43	11.2
XX 14	m	27 Feb	92	52	11.8
14	n	28 Feb	287	72	14.5
14	p	4 Mar	37	43	7.4
14 & 15	q	7 Mar	165	122	24.4
15	r	19 Mar	58	121	16.5
15	s	21 Mar	0	7	1.2
15 & 16	t	2 Apr	126	128	20.2
16	u	3 Apr	152	112	17.7
16	v	4 Apr	55	73	3.7
16	w	9 Apr	18	43	1.6
TOTALS			1980	2127	405.3
AREA IN SKIFF			11.2	Sq. Stat. Miles	

GRAND TOTALS • 1980 4054 982.5

TOTAL AREA 31.3 Sq. Stat. Miles

TIDE NOTE

Soundings were reduced to MLW on the portable tide gage established at Port Boca Grande, Florida, in latitude $26^{\circ} 43.23'$, longitude $82^{\circ} 15.66'$. Mean low water corresponds to a reading of 1.7 feet on the staff. No range corrections were applied. The following time corrections, as outlined in Director's letter 36-362-982, dated 10 August 1956 were used:

West of long. $82^{\circ} 13.6'$ -----0 hours correction

West of long. $82^{\circ} 10.0'$ -----+1 hours correction

East of long. $82^{\circ} 10.0'$ -----+2 hours correction

Time zones for tides are shown on the boat sheet by means of a blue pencil line.

LIST OF SIGNALS

86-1256 (H-8194)

Name	No.	T-sheet	Remarks
Ace	9908	11399	
Alp ✓			Hydro, vol. 1, p. 61
Any			Hydro, vol. 1, p. 62 <i>No description</i>
And - GASPARILLA ISLAND L.M.			Δ SOUTH BOCA GRANDE LIGHTHOUSE, 1934-55
Ant ✓			Hydro, vol. 1, p. 61
Art			Hydro, vol. 1, p. 61 <i>No description</i>
Ask			Hydro, vol. 1, p. 61 <i>21</i>
Axe		11396	Gasparilla Sound Daybeacon 24
Bah	9961	11399	
Bob		11396	
BAT		11398	
Boo			Charlotte Harbor Daybeacon 5 (destroyed)
Car	9822	11398	Δ BOCA GRANDE LIGHTHOUSE, 1934-43
Cow ✓			Hydro, vol. 1, p. 29 ✓
Dif	961124	11396	
Dim	9911	11399	
Dip	9820	11398	
Eat	9825	11398	
Egg	9821	11398	
Far	9826	11398	
Fat	9913	11399	
Fed	9819	11398	
Fun ✓			Hydro, vol. 1, p. 28, 29
Gad	9918	11399	
Gal	9914	11399	
Get	9818	11398	
Hag	9919	11399	
Hat		11399	Topo signal Edna, 1955
Ham	9817	11398	
Hem			<i>SOUTH</i>
Hop	9544	11395	Δ PINE ISLAND SOUND LIGHT NO 37, 1955
How	9620	11396	
Hug	9686	11396	
Hurry			Δ HURRY, 1955
Ida	9916	11399	
Ice	9963	11399	Pine Island Sound Daybeacon 38
Ion	9816	11398	
Jap	9920	11399	
Jay			Δ BOCA GRANDE YACHT BASIN ENT LIGHT,
Jib	9642	11396	<i>No. 1,</i> 1955


LIST OF SIGNALS (cont'd.)

80-1256 (H-8194)

Name	No.	T-sheet	Remarks
Joe		11396	Cape Haze Shoal Daybeacon, 1955
Job	9661	11396	
Jug			Δ JUG POINT, 1909-43
Ked	9921	11399	
Kim	9645	11396	
Lan	9946	11399	Pine Island Sound Daybeacon 34
Lay			Hydro, vol. 9, p. 34
Lax			Hydro, vol. 9, p. 34
Leo		11398	front range, Boca Grande Yacht Basin (privately maintained)
Log	(Computed position) { 26°45' - 321.9 82°08' - 306.2 ←		Hydro, vol. 9, p. 34 Charlotte Harbor Daybeacon 5
Mag			Hydro, vol. 11, p. 53
Mar	96112	11396	
Meg	9540	11395	
Mid			Δ CHARLOTTE HARBOR LIGHT NO 4, 1955
Nay	9541	11395	
Nip	9646	11396	
Now	96113	11396	
Nun	9657	11396	
Pil	96116	11396	Private beacon
Pin	9947	11399	Pine Island Sound Daybeacon 35
Pine			Hydro, vol. 1, pp. 4,5,28, 60
Pit	9658	11396	
Red	9909	11399	
Rio	9660	11396	
Rip	9659	11396	
Sam		11398	Sampling tower
Sap			Hydro, vol. 11, p. 53
Saw	96118	11396	private beacon
Sin			Δ SIN, 1943
Sir	96115	11396	
Tan			Δ BOCA GRANDE GASPARILLA INN, WATER TANK, TALLEST OF TWO, 1955
Tax	96117	11396	private beacon
Tem		11396	Gasparilla Sound Daybeacon 17
Try		11396	Gasparilla Sound Daybeacon 19
Val	9945	11399	Power Pole
Wad	9923	11399	
Wax	9664	11396	
Wat			PORT
Wig	9683	11396	Δ SOUTH BOCA GRANDE WATER TANK, 1955
Yak	9907	11399	

Approval Sheet H-8194 (SO-1256)

Approximately 50% of the field work on this survey was done under the supervision of CDR Glenn W. Moore, Chief of Party. At all times when field work was under way on this survey, the boat sheet was examined daily. The survey is complete and adequate. No additional work is needed. The records will be sent to the NORFOLK PROCESSING OFFICE for smooth plotting.


William D. Barbee
LT C&GS
Comdg. Ship SOSBEE

**ABSTRACT OF BAR CHECKS
FOR VELOCITY CORRECTION
EDO FATHOMETER
SHIP SOSSEE
SO-1256**

Date	5	10	15	20	25	30	35	40	45	50
1956										
5-3		0								
5-10		0								
5-12										
6-21		0	0	0	0					
		0	0	0						
8-10		0								
		0	0							
8-16		0								
		0								
8-17		0								
		0								
8-21		0	0							
8-22		0		0						
8-30		0	0							
1957										
3-13		0	+0.2	+0.2	+0.2	+0.2				
3-14		+0.2	+0.2	+0.2	+0.2	+0.4				
		0	+0.2	+0.2	+0.2	+0.2				
3-15		0	0	0	+0.2	+0.6				
3-18		0	0	0						
TOTALS		+0.2	+0.6	+0.6	+0.8	+1.4				
MEANS		0	+0.1	+0.1	+0.2	+0.4				
<hr/>										
Mean Corr. from SO-2156					+0.9	+1.2	+1.2	+1.6	+1.9	
Mean Corr. from SO-2256					+0.8	+1.1	+1.1	+1.2		
Mean Corr. from SO-2356					+0.7	+1.0	+1.1	+1.4		
<hr/>										
Mean Values used on SO- 1256 & SO- 1-1056		0	+0.1	+0.1	+0.2	+0.7	+1.1	+1.1	+1.4	+1.9

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8194 (Field No. So-1256)

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 many minor irregularities in the bottom.

INSERT

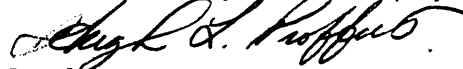
The smooth plot of the soundings along Port Boca Grande pier differ from the boat sheet. The field party apparently plotted the soundings at a scale of 1:5,000 on an insert at 1:2500.

STATION DESCRIPTIONS

Station descriptions are incomplete as many of them are no longer legible on the boat sheet.

Norfolk, Va.
5 November 1958

Respectfully submitted,



Hugh L. Proffitt
Cartographer.

27C

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

16 January 1959

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8194

Locality Boca Grande, Florida

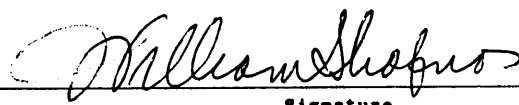
Chief of Party: G. W. Moore in 1956
W. D. Barbee in 1957
Plane of reference is mean low water, reading

1.7 ft. on tide staff at Port Boca Grande

5.7 ft. below B.M. 3 (1927)

Height of mean high water above plane of reference is 1.0 foot.

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No. H-8194

Name on Survey	GEOGRAPHIC NAMES									
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
A	B	C	D	E	F	G	H	K		
Florida			(title)							1
West Coast			"							2
Charlotte Harbor			(would be preferable as part of title, rather than Boca Grande Entrance)							3
										4
Jug Creek Point Shoal										5
Bokeelia										6
Jug Creek Shoal			(for placement, see chart 474)							7
Lacosta Island			(not La Costa)					BGN		8
Boca Grande			(inlet)							9
Port Boca Grande			(tide station)							10
Gasparilla Island										11
Boca Grande			(town)							12
Yacht Basin										13
Boca Grande Canal										14
Devilfish Key										15
Cayo Pelau										16
Bull Key										17
Gallagher Keys										18
										19
			Names approved 12-19-58.							20
										21
										22
										23
										24
										25
										26
										27
										28

M 234

Names approved 12-19-58.

L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8194...

Records accompanying survey:

Boat sheets 1....; sounding vols. .16...; wire drag vols.;
bomb vols.; graphic recorder rolls 23-Envelopes
special reports, etc. .1-Smooth sheet and 1-Descriptive report.
.....

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

Number of positions on sheet	.....	4054
Number of positions checked	.....	337
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	10
Number of soundings erroneously spaced	.....	40
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	5
Junctions	Time	3
Verification of soundings from graphic record	Time	3

Verification by *J. B. Chamber* Total time 324 Date 9-29-59

Reviewed by *H. W. Burgoyne* Time 100 hrs Date 3/24/60

DIVISION OF CHARTS

REVIEW SECTION -- NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8194

FIELD NO. SO-1256

Florida - Charlotte Harbor - Boca Grande Entrance

SURVEYED: Feb. 1956 - April 1957

SCALE 1:10,000

PROJECT NO. 13530

SOUNDINGS: 808
EDO Depth Recorders
Pole

CONTROL: Sextant fixes
on shore signals

Chief of Party ----- Glenn W. Moore, Wm. D. Barbee
SURVEYED BY ----- Wm. D. Barbee, Glenn W. Moore, Wm. M.
Tidwell
PROTRACTED BY ----- Fred Bean, A. G. Atwill
SOUNDINGS PLOTTED BY ----- A. G. Atwill
VERIFIED AND INKED BY ----- J. C. Chambers
REVIEWED BY ----- H. W. Burgoyne
INSPECTED BY ----- R. H. Carstens

DATE: 3/24/60

1. Shoreline and Control

The shoreline originates with advance prints of air-photographic surveys T-11395-96 (1953-56), T-11398-99 (1953-58). No changes in shoreline were made by the hydrographer. The large pier appearing on T-11398 at Lat. $26^{\circ}43.12'$, Long. $82^{\circ}15.58'$, from air-photographic corrections of 1958 was not shown on the present survey as this pier was built subsequent to the hydrographic survey.

The source of control is given in the Descriptive Report.

2. Sounding Line Crossings

The depths at sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The standard depth curves are adequately delineated to show the existing hydrography. The 3-foot curve was drawn to better delineate the shoal areas.

This survey covers the western portion of Charlotte Harbor and extends westward from approximately the $82^{\circ}08'$ meridian to the Boca Grande Channel Entrance. The bottom is generally even except for sand and shell shoals off Pine Island.

4. Junctions with Contemporary Surveys

Present survey depths on the north are in adequate agreement with junctional depths on surveys H-8193 (1956) and on the southwest with H-8358 (1956-57). Project surveys on the east and south have not yet been received in the Washington Office.

5. Comparison with Prior Surveys

H-797a (1863)	1:40,000	H-1480 a & b (1879-80)	1:20,000
H-797b (1867)	1:20,000	H-4644 (1927)	1:10,000
H-1388a (1878)	1:20,000	H-4645 (1927)	1:10,000

The prior surveys listed above cover the area of the present survey. A more intensive development of hydrography on the present survey reveals a considerable change in depth curves. A comparison between the present and prior surveys also reveals an extension of certain shoal areas within Charlotte Harbor. Since the 1878-80 surveys, the large shoal in Lat. $26^{\circ}42'-43'$, Long. $82^{\circ}11'-12'$, has extended about 600 meters to the northeast and the shoal appearing in Lat. $26^{\circ}43.2'$, Long. $82^{\circ}09.7'$, has now extended about 200 meters to the northwest with resulting shoaler depths.

Only minor differences are noted between the surveys of 1927 and the present survey. However, the north tip of Lacosta Island has receded about 95 meters, and the south tip of Gasparilla Island has receded about 60 meters, with a resulting change in depth curves.

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

6. Comparison with Chart 474 (latest date 3/10/58)

A. Hydrography

1. The charted hydrography originates with the prior surveys, supplemented by minor revisions from Corps of Engineers surveys of 1938 (Bps 33302-06) and from the boat sheet of the present survey (Bp 55551).

2. The 4-foot shoal charted at Lat. $26^{\circ}43.1'$, Long. $82^{\circ}10.8'$ from Corps of Engineers Bp 12888 (1899) was not found on the present survey. This sounding is considered disproved and should be deleted from the chart as recommended in the Descriptive Report (paragraph M).
3. The 4- and 5-foot soundings charted between daybeacons "19" and "21" from Bp. 55551 at Lat. $26^{\circ}45.59'$, Long. $82^{\circ}14.85'$, and Lat. $26^{\circ}45.67'$, Long. $82^{\circ}14.87'$, respectively, should be changed to 3 feet on Chart 474.
4. Two piles marking the entrance channel into Bull Bay at Lat. $26^{\circ}46.18'$, Long. $82^{\circ}12.29'$, and Lat. $26^{\circ}46.19'$, Long. $82^{\circ}12.24'$, do not appear on Chart 474.
5. The pile appearing on Chart 474, 64 meters east of Boca Grande Yacht Basin Light No. 3, does not appear on the present survey. This pile was charted as the result of a telephone conversation in July 1955 (Aid Proof No. 16). It is recommended this pile be retained as charted.
6. The marker and pile located on this survey at Lat. $26^{\circ}44.91'$, Long. $82^{\circ}15.31'$, from T-11398 do not appear on Chart 474 because of the apparent close proximity to the charted position of Light "3".

The present survey is adequate to supersede the charted hydrography.

B. Controlling Depths

1. The channel legend " 6 FT. 1956" for the Boca Grande Canal originated with the boat sheet of the present survey (Bp 55551). The survey now shows 5-feet after verification and review.
2. The channel legend " $6\frac{1}{2}$ FT Jan. 1948" at the entrance to the Boca Grande Canal originated with Coast Pilot inspection L.118 (1948). The present survey shows 6 feet on range.

C. Aids to Navigation

The survey positions of all fixed aids are in agreement with their charted position except Charlotte Harbor Daybeacon "5". The charted position should be changed to Lat. $26^{\circ}45.18'$, Long. $82^{\circ}08.19'$, (see item 7, par. "C" of review for computed position of this beacon).

No position for Bn 2 charted in Lat. $26^{\circ}44.91'$,
Long. $82^{\circ}15.18'$ is shown on the present survey.

7. Condition of Survey

- a. The field work was complete except for the describing of offshore hydrographic stations. (See paragraph 248 of the Hydrographic Manual.) In the vicinity of the Boca Grande Entrance Channel to the Yacht Basin, three hydrographic stations (Ask, Art, and Amy) were not described. Station "Ask" located by this survey party in May 1956 is probably Boca Grande Yacht Basin Light "3" established by the U. S. Coast Guard in April 1956 (HONM 17, 1956). Both stations "Ask" and "Art" fall in a critical location, but the information necessary for identification is not available for charting purposes. The Descriptive Report (paragraph z, item 2) mentions a Form 567 (Aug. 1957) applicable to Chart 474. This source material has not been received in the Washington Office at this time. There is a possibility the location of Light "3" will be shown on this Form 567.
- b. The Descriptive Report and sounding volumes are complete and comprehensive except for omitting the description of the hydrographic stations mentioned in "a" above.
- c. The survey was smooth plotted accurately and neatly except for the plotting of hydrographic signal "Log" (Bn "5"). The position of station "Log" now plotted on the smooth sheet at Lat. $26^{\circ}45'$ - 321.9m, Long. $82^{\circ}08'$ - 306.2 m., is a revised position obtained from a computed 3-point fix. The smooth sheet position used in the control of hydrography is 16 meters southwest of the plotted (computed) position. The hydrographic lines were not changed in position as the bottom is very smooth with little change in depth in this area.

8. Compliance with Project Instructions

This survey adequately complies with project instructions.

9. Additional Field Work Recommended

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

Malcolm K. Roberts
Chief, Nautical Chart Branch

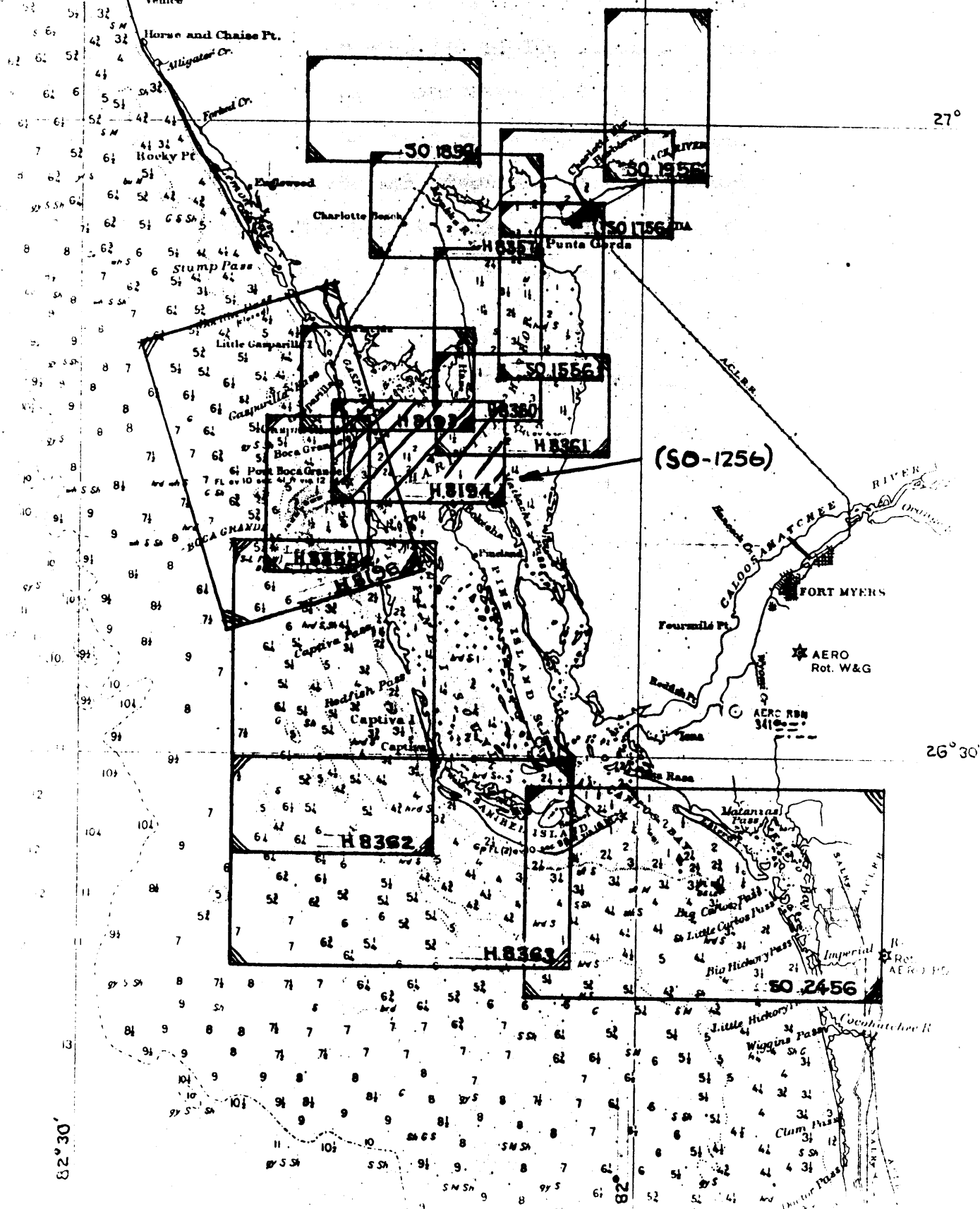
Lois J. Woodcock
Chief, Hydrography Branch

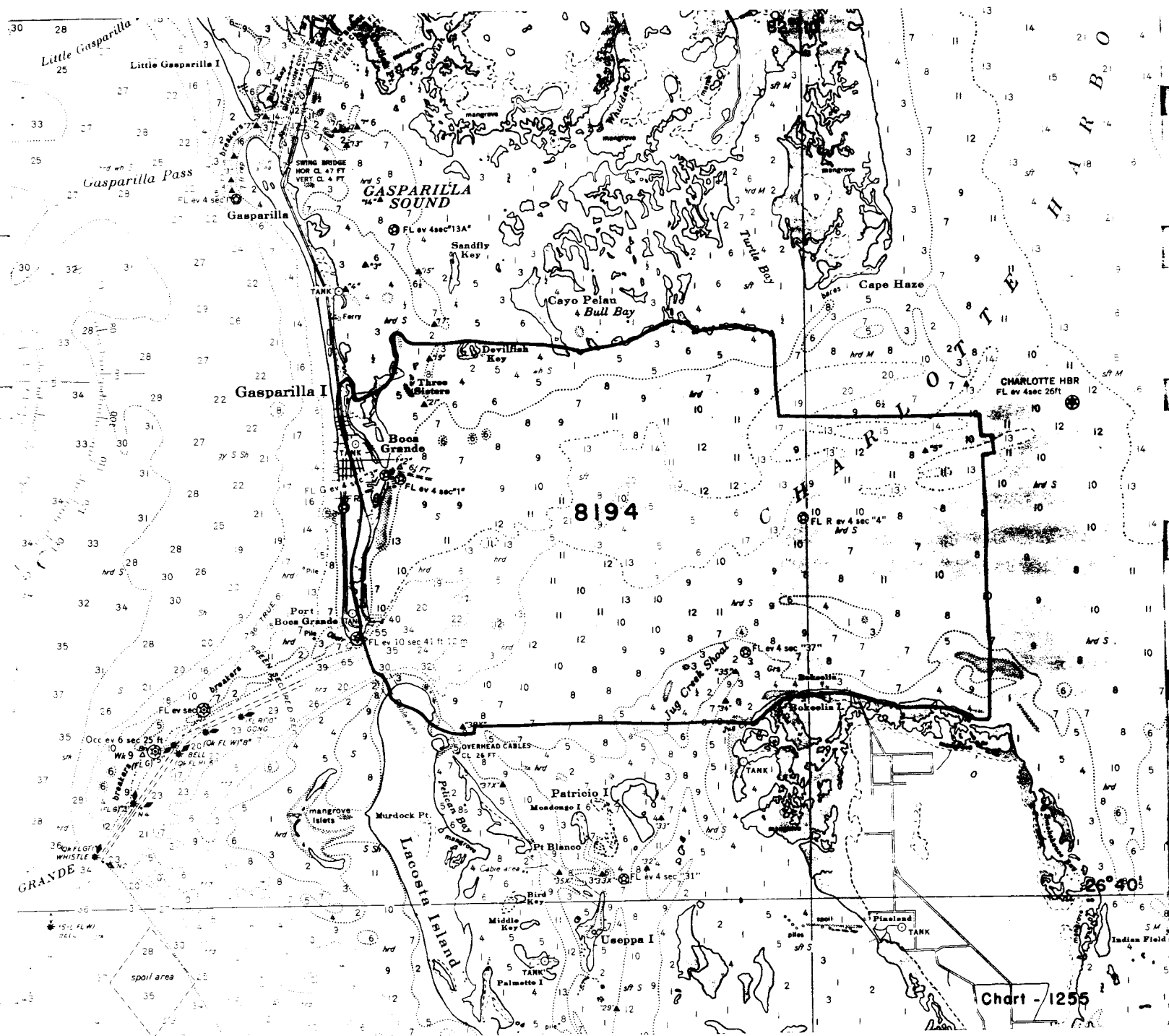
Examined and Approved:

Ernest A. Perry
Chief, Division of Charts

J. Bowie
Chief, Division of Coastal Surveys

SHEET LAYOUT 1956
SHIP SOSBEE
PROJECT 13530



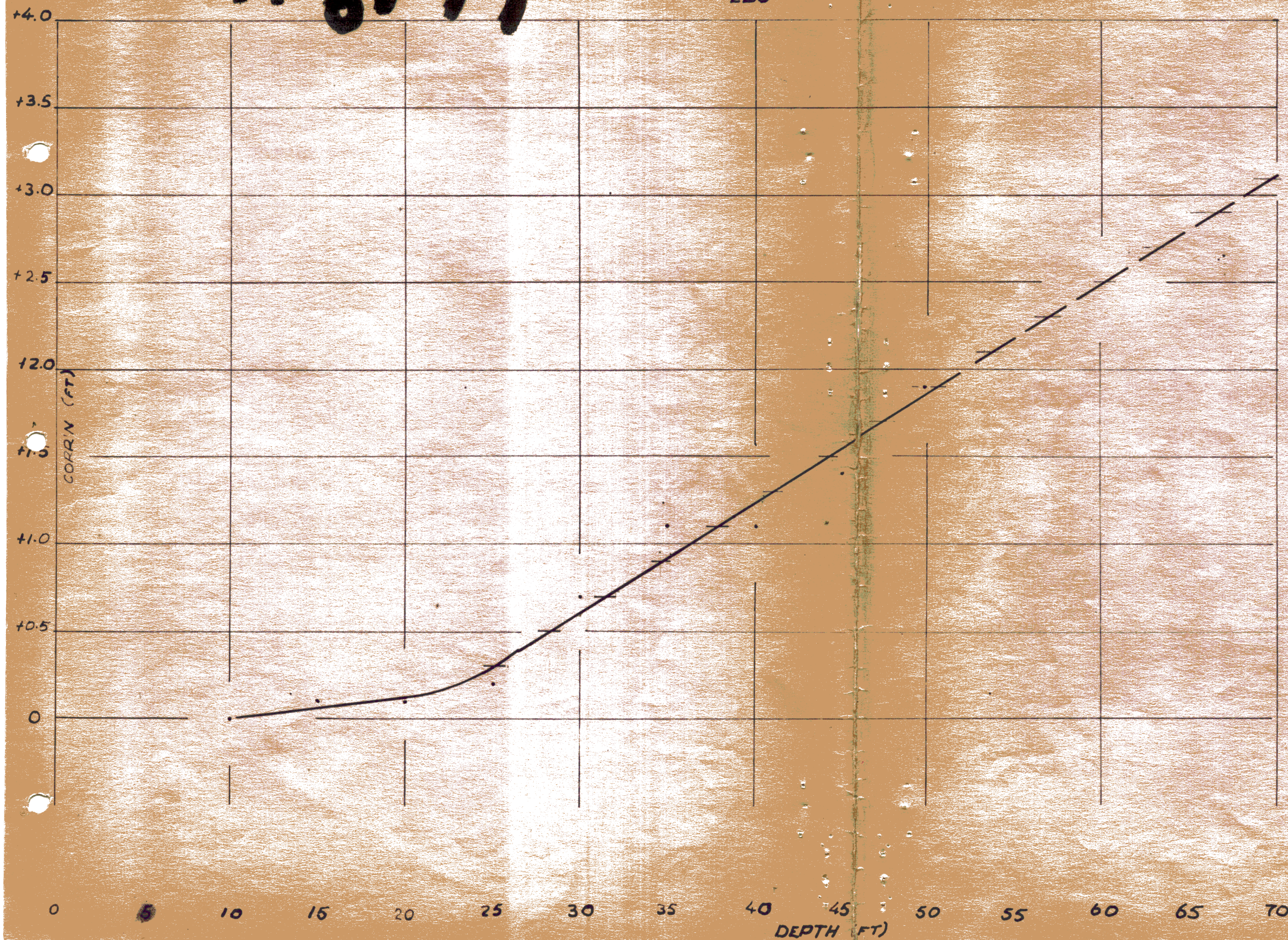


#8194

CURVE FOR VELOCITY CORRECTIONS

50-1256, 50-11056

EDO



DEPTH		CORR'N
0 to 18.5	ft.	0
to 25.0		+0.2 ft.
to 28.2		+0.4
to 31.4		+0.6
to 34.6		+0.8
to 37.8		+1.0
to 41.0		+1.2
to 44.2		+1.4
to 47.4		+1.6
to 50.6		+1.8
to 53.6		+2.0
to 56.8		+2.2
to 60.0		+2.4
to 63.2		+2.6
to 66.4		+2.8
to 69.6		+3.0

comp W.D.B.
✓ ERS

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8194

Record of Application to Charts

[illegible]

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.