

8098

Diag. Cht. No. 1256.

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SO-1154 Office No. H-8098

LOCALITY

State Florida West Coast

General locality Little Sarasota and Sara-  
sota Bays

Locality Vamo to Ringling Causeway.

194 54-55

CHIEF OF PARTY

R. C. Bolstad

LIBRARY & ARCHIVES

DATE May 11, 1956.

8098

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-8098)

Field No. 80-1154

State Florida West Coast

General locality Little Sarasota & Sarasota Bays

~~West Coast of Florida~~  
Vamo to Ringling Causeway

Locality Little Sarasota Bay to Big Sarasota Pass

Scale 1:10,000 Date of survey 29 January 1954 to 21 March 1955

Instructions dated 18 December 1952

Vessel Ship SOSBEE

Chief of party Roswell C. Bolstad

Surveyed by Wilfred V. Warner

Soundings taken by fathometer, ~~graphical, or other device~~ pole.

Fathograms scaled by personnel of Ship SOSBEE D. INVINE

Fathograms checked by personnel of Ship SOSBEE ACA, DKS

Protracted by A.G. Atwill

Soundings penciled by A.G. Atwill

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

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk District Office.



*J.H.E.*

DESCRIPTIVE REPORT  
TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8098 (Field No. SO-1154)  
West Coast of Florida 29 January 1954 to 21 March 1955  
Little Sarasota Bay to Big Sarasota Pass Scale 1:10,000  
U.S.C. & G.S.S. SOSBEE R. C. Bolstad, Chief of Party

A. PROJECT:

Project CS-353, original instructions dated 18 Dec. 1952.

B. SURVEY LIMITS AND DATES:

The survey includes the inland water from Lat.  $27^{\circ} 13' .15$  in Little Sarasota Bay Northward to the line of bridges and causeways ( $60^{\circ}$ - $240^{\circ}$ ) at approx. Lat.  $27^{\circ} 19' .5$  and also includes development of Big Sarasota Pass westward to long.  $82^{\circ} 35' .0$ . Field work was begun on the 29th of Jan. 1954 and was ended on 21st. of March 1955. During this period work was also being carried out on other contemporary surveys. To show the junction with these surveys an index of sheets is included in the applicable data of this report.

C. VESSELS AND EQUIPMENT:

All sounding was done from a 25 foot skiff, No. 735, powered by two ten-horsepower outboard motors. Maximum speed is about 6 knots and the turning radius is about 20 meters.

The skiff worked from the Ship SOSBEE, based at the Sarasota Municipal Pier.

Model 808J portable depth recorders, calibrated at 820 fathoms per second were used for sounding where depth and character of bottom permitted. Number 140-SP was used only on the day the 7th of June. All other days number 115-S was used. Shoal and uncertain soundings were obtained by a wooden pole, calibrated in feet. A sounding lead was used for a short period on ca day.

115S (all)  
140SP (1)

## D. TIDE AND CURRENT STATIONS:

The heights from the Sarasota, Fla., portable automatic tide gage were used directly in reducing all soundings. This gage was located at Lat.  $27^{\circ} 20'.0$  N., Long.  $82^{\circ} 32'.7$  W. on the Sarasota Municipal Pier. ✓

Current stations 20, 21, 22, and 23, project CS-353, were occupied within the area of this survey. Station no. 20 was at Stickney Pt. Bridge, Lat.  $27^{\circ} 15'.2$  N., Long.  $82^{\circ} 31'.9$  W. Station no. 21 was in Big Sarasota Pass, Lat.  $27^{\circ} 17'.9$  N., Long.  $82^{\circ} 33'.8$  W. Station no. 22 was on Siesta Key Bridge, Lat.  $27^{\circ} 18'.1$  N., Long.  $82^{\circ} 32'.8$  W. Station no. 23 was on the Ringling Causeway Bridge at Lat.  $27^{\circ} 19'.8$  N., Long.  $82^{\circ} 33'.4$  W.

## E. SMOOTH SHEET:

Not within scope of this report.

## F. CONTROL STATIONS:

Triangulation stations used:

MAX -  $\Delta$  SARASOTA, MUNICIPAL WATER TANK, SOUTH, 1953 ✓  
 ORA -  $\Delta$  SARASOTA, ORANGE BLOSSOM HOTEL, TANK, 1953 ✓  
 MAST -  $\Delta$  SARASOTA, WSPB RADIO MAST, 1953 correct p. 2. ✓  
 ARM -  $\Delta$  SARASOTA, ST. ARMANDS KEY, TANK, 1952 ✓  
 LEO -  $\Delta$  BIG SARASOTA PASS LIGHT 5, 1953 ✓  
 IVY -  $\Delta$  BIG SARASOTA PASS LIGHT 19, 1953 ✓  
 END -  $\Delta$  END, 1953 ✓  
 OIL -  $\Delta$  ASHBY (USE), 1935 ✓  
 ACE -  $\Delta$  BIG SARASOTA PASS LIGHT 22, 1953 ✓  
 YET -  $\Delta$  CRAWFORD (USE), 1935 ✓  
 LIZ -  $\Delta$  LISP (USE), 1935 ✓  
 $\Delta$  PIER, 1954  
 $\Delta$  CHEROKEE (USE), 1935 ✓

Topographic stations were located by photogrammetric radial plot, sheets T-11085, T-11086, T-11087, photos of 1952 and 1953. ✓

## G. SHORELINE AND TOPOGRAPHY:

Shoreline and topography are from photogrammetric sheets T-11085, T-11086, and T-11087, photos of 1952 and 1953. Changes in shoreline disclosed by the later photos were sketched in red ink by the Tampa Photogrammetric Office. ✓

The hydrographer has made the following revisions to shoreline detail:

1. Minor change at Lat.  $27^{\circ} 18'.25$ , Long.  $82^{\circ} 33'.30$ , see pos. 8, y day. ✓

## G. SHORELINE AND TOPOGRAPHY: Cont.

2. Completed shoreline at Lat.  $27^{\circ} 18' .00$ , Long.  $82^{\circ} 32' .55$ , shown in purple ink on boat sheet. See pos.'s 6, 7, 8, and 9, aa day. The area to the west is under construction, a dredge is deepening the entrance basin and pumping fill on the peninsula which will be bulkheaded with concrete ~~shab~~ pilging in the near future. The basin to the eastward is complete with a concrete seawall. The shoreline shown near  $\odot$  Azo in the area, in purple ink, was estimated.
3. At Lat.  $27^{\circ} 15' .10$ , Long.  $82^{\circ} 31' .45$ . Revision was by careful estimation using pos.'s 67 and 69, y day as reference. Filled area is shown in dashed red; inner end of channel is being extended at present time.
4. At Lat.  $27^{\circ} 14' .65$ , Long.  $82^{\circ} 31' .10$ . Shoreline carefully sketched using Pos. 123, x day as reference. Change shown in red pencil on boat sheet. (From T-11087)
5. At Lat.  $27^{\circ} 14' .30$ , Long.  $82^{\circ} 30' .60$ , where pos.'s 139 and 140, aa day were used to carefully sketch the shoreline on the north and south side of the slip entrance.

The hydrographer found off shore bars and islands as shown on the shoreline manuscript. General verification of these were made. In the following two areas the information on the shoreline manuscript has changed.

1. Lat.  $27^{\circ} 15' .40$ , Long.  $82^{\circ} 31' .95$ . The bar shown has apparently been removed since the photos.
2. Lat.  $27^{\circ} 15' .70$ , Long.  $82^{\circ} 32' .22$ . See boat sheet for islands and bars in area.

The hydrographer has made some minor supplements to the off-shore bars as shown on the boat sheet. These are shown in yellow, as are most of these located photogrammetrically, and were sketched by careful estimation. The boat sheet and the records, in some cases, should be checked to obtain the location of these supplements. The photogrammetric location of all other bars should be used unless supplemented by hydrographic fixes.

It was impractical to fully develop the LWL. This was due mainly to the low range in tide, the extensive inshore shoals, and the irregular mangrove shoreline. A shoaler draft craft than skiff No. 735 (15 inches) would have been beneficial.

In the open water areas shown on the boat sheet where no soundings have been secured, there is insufficient depth to make it economically practical to develop. This is particularly true of Phillippi Creek and entrance area.

## H. SOUNDINGS:

Model 808J portable depth recorders, Nos. 115-8 and 140-SP, were used to measure depths except in areas too shoal for this machine where a wooden pole, graduated in feet, was used. ✓

A hand lead was used for a very short period on ca day. ✓

## I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled by sextant three point fixes except in unsignalled, unimportant areas where positions were carefully estimated from shoreline detail. These positions were marked by SBS (See Boat Sheet) in the sounding record space for control data. ✓

## J. ADEQUACY OF SURVEY:

The survey is considered complete and adequate to supersede prior surveys for charting on both the present 1:80,000 scale chart (No. 1256) and for the 1:40,000 scale chart to be printed in the future. Junctions with adjoining surveys are satisfactory and depth curves are continuous. TP5  
Review

A large scale insert (1:1,000) has been shown on the boat sheet of the Sarasota Municipal Pier. The pier was measured and soundings taken at stations around the pier. It is recommended a suitable large scale insert of this important dockage area be placed on the new 1:40,000 scale chart. Between Venice and Bradenton, there are only three important dockages for medium sized vessels: Venice Yacht Club, Sarasota Municipal Pier and Bradenton Memorial Pier. ✓

## K. CROSSLINES:

Crosslines make up 8% of the sounding lines run. Soundings at crossings checked within the unit used of inking soundings (one foot). ✓

## L. COMPARISON WITH PRIOR SURVEYS:

A comparison was made with H-1557b, H-1559a and H-1559b, 1:20,000 sheets surveyed in 1883. Due to natural and numerous man-made changes, it was only possible to make a comparison in selected areas. Agreement in these areas was good. TP5  
Review

The sand bars and water depths at the entrance, and in Big Sarasota Pass, show an appreciable change from the meager information contained in the old surveys. ✓

## L. COMPARISON WITH PRIOR SURVEYS: Cont.

Also another discrepancy is found at Lat.  $27^{\circ} 19' .45$ , Long.  $82^{\circ} 33' .00$ . The old surveys shows a  $2\frac{1}{2}$  to 3 foot shoal area in the vicinity. The new survey indicates this shoal has scoured out to a 4 foot depth. *Small 3ft area remains*

There are numerous man-made changes along the inland waters. All of this area is being developed as a resort area and it can be expected that dredges will continue to make cuts and fills thereby changing both the topography and hydrography.

M. COMPARISON WITH CHART: *Correspondence on final Aids disposition attached to this Report and positions are in Vol 7, P 25*

A comparison was made with Chart 1256; Lemon Bay to Passage Key Inlet; 1:80,000, print date 3 Jan. 1955; and corrected to 22 Jan. 1955. This print incorporated some of this surveys recent findings around the area of Big Sarasota Pass. This information was obtained from the boat sheet which was previously mailed to D. C. for photostating.

The official Coast Guard position of Big Sarasota Pass entrance buoy "1" as given in the local Notice to Mariners, Notice No. 31-54, 8/6/54, issued by Commander, 7th Coast Guard District, Miami, Fla., was 6375 yards,  $178^{\circ}$  T. from Tank, St. Armand Key. This is about 100 yards north of the position determined by this party. This party did not find the chart in agreement with the official position; the final position shown on the boat sheet is correct. *Latest pos. on B/S obtained 17 Mar. 1955. This pos was not recorded* *See 76*

The chart shows Big Sarasota Pass Daybeacon 15 significantly westsouthwest of its actual position. Its position as correctly determined by this party is Lat.  $27^{\circ} 18' .19$  N., Long.  $82^{\circ} 33' .72$  W. It's official position, from above local Notice to Mariners, is listed as 2500 yards,  $139^{\circ}$  T. from Tank, St. Armand Key. *Charted as shown on S/S.*

Minor changes in the six foot curve shown on the chart are noted. The area around the Sarasota Municipal Pier is the most significant of these.

The controlling depth of the Intracoastal Waterway on this hydrographic survey was found as 3.4 feet above MLW at Lat.  $27^{\circ} 15' .72$  (See depth between pos. 38 x and 39 x). This is in the center of the channel with shoals of 2.4 ft. on the west  $1/4$  channel, and 2.6 ft. on the east  $1/4$  channel opposite the mid-channel controlling depth of 3.4 ft. Chart 1256 listed 3 ft. as controlling depth. *See page 6 of this report*

Oyster and other bars on the inland waters could be better shown on the chart; they are shown on the boat sheet in yellow. New developments have changed the shoreline and will continue to do so, along this fast-growing area.

Other differences are minor and should be easily reconciled to the new survey's finding, which are in considerably more detail than the chart.

## N. DANGERS AND SHOALS:

The six foot shoal at Lat.  $27^{\circ} 18' .20$ , Long.  $82^{\circ} 33' .72$  was reported to the Coast Guard (see applicable data) and is presently charted. This shoal was found in the normal development of the channel. Daybeacon "15" now marks the shoal.

The presently charted 2 foot sounding at Lat.  $27^{\circ} 19' .45$ , Long.  $82^{\circ} 33' .00$  was not found - see comparison with prior surveys. The bottom was visible during sounding. 3ft found  
~~at Lat.  $27^{\circ} 19' .40$ , Long.  $82^{\circ} 33' .00$ .~~

The previously mentioned danger and shoals account for all noted by the hydrographer.

## O. COAST PILOT INFORMATION:

A Coast Pilot Report has been submitted for the area from Big Sarasota Pass to Tampa Bay. Subsequent reports will cover the area southward including the remaining area of this survey.

The hydrographer has no anchorages to recommend. The skiff and the SOSBEE operated from the Sarasota Municipal Pier where electricity, ice, fuel, and docking facilities are available.

The controlling depth of the Intracoastal Waterway on this hydrographic survey was found as 3.4 feet above MLW at Lat.  $27^{\circ} 15' .72$  (See depth between pos. 38 x and 39 x). This is in the center of the channel with shoals of 2.4 ft. on the west 1/4 channel, and 2.6 ft. on the east 1/4 channel opposite the mid-channel controlling depth of 3.4 ft. Chart 1256 listed 3 ft. as controlling depth. 3ft + 10'  $27^{\circ} 15' .94$   
 $82^{\circ} 32' .45$

see  
P6  
Region

Current observations were made at the following locations:

1. Center of draw bridge on the Ringling Causeway. Approximate maximum velocities and sets were 1.0 to 1.5 knots,  $330^{\circ}$  flooding and  $150^{\circ}$  ebbing. Precise information may be obtained from the current record, for station no. 23, forwarded the D.C. office.
2. Big Sarasota Pass at Lat.  $27^{\circ} 17' .95$ , Long.  $82^{\circ} 33' .78$ . Approximate maximum velocities were 1.0 to 1.5 knots flooding N'y and ebbing S'y. Precise information may be obtained from the current record, station no. 21, previously forwarded the D.C. office.
3. Center of draw bridge on the Siesta Key Bridge. Maximum flood was 0.4 knots in a S'y direction and maximum ebb was 0.6 knots in a N'y direction.
4. Center of west opening on the Stickney Point Swing Bridge. Maximum current at the station during 25 hours of observation was 0.30 knots in direction  $153^{\circ}$  T. and 0.22 knots in direction  $333^{\circ}$  T.



## P. AIDS TO NAVIGATION:

The positions of fixed aids to navigation were reported on Form 567 by the Tampa Photogrammetric Office, on 10 Aug. 1953 and 2~~5~~ March 1954. (CL 743, 1953)

Since these forms were submitted the following changes have occurred, the following being covered in correspondence with the Coast Guard, (see applicable data of this report):

(See Vol 7, pg 25)

1. Big Sarasota Pass Daybeacon 21 was moved from Lat.  $27^{\circ} 19' .36$ , Long.  $82^{\circ} 33' .36$  and reestablished at Lat.  $27^{\circ} 19' .07$ , Long.  $82^{\circ} 33' .28$ .
2. Big Sarasota Pass Daybeacon 16 was established at Lat.  $27^{\circ} 18' .32$ , Long.  $82^{\circ} 33' .53$ .
3. Big Sarasota Pass Daybeacon 15 was established at Lat.  $27^{\circ} 18' .19$ , Long.  $82^{\circ} 33' .72$ .
4. Big Sarasota Pass Daybeacon 14 at Lat.  $27^{\circ} 18' .18$ , Long.  $82^{\circ} 33' .59$  was discontinued. (Labeled "Temp on 3/5")
5. Big Sarasota Pass Daybeacon 12, Lat.  $27^{\circ} 17' .79$ , Long.  $82^{\circ} 33' .68$  was renumbered 14.
6. Big Sarasota Pass Daybeacon 9 after being lost was re-established at Lat.  $27^{\circ} 17' .11$ , Long.  $82^{\circ} 34' .01$ . <sup>Signal Cat</sup> <sub>Not used after pos. reestablished</sub>

Little Sarasota Bay Daybeacon 94 was found at a different location than that plotted on the boatsheet. The new location determined is Lat.  $27^{\circ} 17'$ ,  $178\frac{1}{2}$  m.'s, Long.  $82^{\circ} 32'$ ,  $134\frac{1}{2}$  m.'s.

Floating aids to Navigation located are these:

1. "Big Sarasota Pass Buoy 3", in 8 feet of water, is located at this date, March 1955, at Lat.  $27^{\circ} 16' .54$ , Long.  $82^{\circ} 34' .57$ . Located on 29 July 1954 and shown in the records of this survey on page 25, vol. 7. (final pos.)
2. "Big Sarasota Pass Lighted Buoy 1", formerly "2", was located in 20 feet of water at Lat.  $27^{\circ} 15' .94$ , Long.  $82^{\circ} 34' .50$  on 27 Oct. 1954 - see vol. 7, page 25.   
 *same pos. indicated for 17 Mar 1955*

See Correspondence with Coast Guard in applicable data.

Above positions are in slight variance with the official listed Coast Guard positions.

A report was made to the Coast Guard concerning objects for use in locating floating aids at Big Sarasota Pass. See Correspondence with Coast Guard in applicable data.

A report was made to the Coast Guard concerning location of aids to navigation in Big Sarasota Pass. See applicable data of this report.

## P. AIDS TO NAVIGATION: Cont.

Two reports were made to the Coast Guard concerning the position of aids to navigation in Big Sarasota Pass. See applicable data of this report.

Copies of all correspondence with the Coast Guard concerning the surveyed area are included in the applicable data of this report.

Unofficial Aids to Navigation: *(Privately maintained)*

Single piling with pointers were located at

Lat. 27° 18' .59 N.,	Long. 82° 33' .70 <sup>8</sup> W.;
27° 18' .74 <sup>5</sup> N.,	82° 33' .82 <sup>5</sup> W.;
27° 18' .87 <sup>6</sup> N.,	82° 33' .90 W.;
27° 19' .00 N.,	82° 33' .97 <sup>6</sup> W.;

Double piling with sign marking channel entrance to the Sarasota Yacht Club - O Gum.

Lat. 27° 18' .43 N., Long. 82° 33' .70 W.;

Single piling marking entrance to deep water.

Lat. 27° 18' .77 N.,	Long. 82° 34' .00 W.;
27° 18' .81 N.,	82° 34' .02 W.

Single piling marking deep water into residential harbor.

Lat. 27° 19' .23 N.,	Long. 82° 32' .71 W.;
27° 19' .22 N.,	82° 32' .68 W.

Markers for entrance into Hudson Bayou.

Lat. 27° 19' .49 N.,	Long. 82° 32' .61 W.;
27° 19' .48 N.,	82° 32' .54 W.

Lone piling with pointers marking deep water into dredged development.

Lat. 27° 16' .79 <sup>8</sup> N.,	Long. 82° 32' .80 W.;
27° 16' .80 N.,	82° 32' .81 W.;
27° 16' .75 N.,	82° 32' .84 W.;
27° 16' .74 N.,	82° 32' .83 W.

Establishment and maintenance of the above is unknown.

Bridge clearances at MHW are listed below; this hydrographic party found no discrepancies from the information contained in the field inspection report previously submitted by the Tampa Photogrammetric Office. Reference is made to their report for additional information.

## P. AIDS TO NAVIGATION: Cont.

Name	Type	Horizon Bridge Book - C&GS	Vertical Bridge Bk.- C&GS
Hudson Bayou (First Bridge)	Bascule	30.0 ft.	30.4 ft. ✓ 7.5 ft. 7.0 ft.
Hudson Bayou (Second Bridge)	Fixed	Not Listed	40.0 ft. ✓ 9.0 ft.
Ringling Bridge	D. Leaf Bascule	60.0 ft. ✓	60.0 ft. ✓ 8.0 ft. <sup>Card has 9 FT</sup> 9.8 ft.
Bridge So. End of St. Armand Key	Fixed	Not Listed	18.0 ft. ✓ 5.7 ft.
Siesta Key	D. Leaf Bascule	55.0 ft.	55.0 ft. ✓ 9.9 ft. 9.9 ft.
Hayden (Stickney Pt.)	Swing (East Span)	55.0 ft. ✓	57.0*ft. ✓ 9.2 ft. 8.9 ft.
	(West Span)	55.0 ft.	55.0 ft.
Phillippe Creek (U.S. Hwy. 41)	Fixed	30.0 ft.	30.4 ft. ✓ 7.6 ft. 8.2 ft.
Phillippe Creek (South Fork)	Fixed	30.0 Ft. ✓	30.0 Ft. ✓ 7.6 ft. 8.2 ft.
Phillippe Creek (Fla. State Hwy. 72)	Fixed	Not Listed	27.8 ft. (not on Smooth sheet) 6.0 ft.
Hanson Bayou	Fixed	30.0 ft.	29.5 ft. ✓ 5.5 ft. 5.8 ft.

\* Only the westerly 2/3rds. is navigable.

The above were determined by the Tampa Photogrammetric Office's field inspector. The following were obtained by the hydrographer:

Ringling Causeway (West Tressele)	Fixed	Not Listed	15.0 ft.	10.0 ft.
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The only overhead cable existing in the surveyed area is at the Stickney Point Bridge where the overhead clearance was determined as 74 ft. above MHW by the field inspector.

## Q. LANDMARKS FOR CHARTS:

Landmarks for charts was submitted on form 567, Jan. 1955, for the northern part of CS-353 which covers this survey north of Big Sarasota Pass. Latter reports will cover southern part of Project.

Q. LANDMARKS FOR CHARTS: Cont.

Recommended Landmarks within survey are:

- ARM - Δ SARASOTA, ST. ARMAND KEY, TANK, 1952 ✓
- ORA - Δ SARASOTA, ORANGE BLOSSOM HOTEL, TANK, 1953 ✓
- MAX - Δ SARASOTA, MUNICIPAL WATER TANK, (elevated), SOUTH, 1953 ✓

R. GEOGRAPHIC NAMES:

See field inspector's report, Tampa Photogrammetric Office, survey of sheets T-11079, T-11081, and T-11083 thru T-11087. Noted in this report are one recommended change:

Sarasota Key to Siesta Key\*, and Phillippe Creek to Phillippi Creek\* in question.

No other discrepancies were noted during the hydrographic operations.

*\*both are recent decisions of B.G.N. L.H.(854)*

S. SILTED AREAS:

None.

T. BY PRODUCT INFORMATION:

None.

U. DISPROVED FATHOMETER SOUNDINGS:

Shoal soundings were disproved between pos. 156 and 158 on n day; on pos. 107, n day; and on pos. 2, s day. The shoal soundings between 156 and 158, n day are most definitely of a unusual nature. Similar ghost soundings were also obtained during investigation of the same area on s day which were instantly proved erroneous.

All questionable soundings were with 808J portable fathometer 115-S in the area west of the Sarasota Municipal Pier. Similar soundings, with the same fathometer, were obtained on SO-1554, special survey of the causeway channel to the west of the New Tampa Bay Bridge (Sunshine Skyway). These soundings were disproved and discussed fully in the descriptive report of that survey. A letter received on the 21 June 1953 (839rr) from Washington Office gave further views on the causes and interpretation. See applicable data for these copies of discussions.

*FE-3, 1954*  
*↓*  
*A Copy filed with this D.R.*

On s day a 12 foot wooden pole was used constantly in an attempt at verification with no results, see fathogram for examples. On t day the area was covered thoroughly with 808J

## U. DISPROVED FATHOMETER SOUNDINGS: Cont.

portable depth recorder 140-SP with no ghost soundings being obtained. This same fathometer was used for one day on SO-1554 in that suspicious area with no ghost soundings. Fathometer 115-S has been in constant use while 140-SP is only used occasionally. Ghost soundings were obtained on two dates on SO-1554 and on three dates on SO-1154 with the soundings being in a specific area on both surveys. The hydrographer does not think the error is in the fathometer. The bottom in the area of Ghost soundings on both SO-1554 and SO-1154 is generally soft mud. Recent dredging had occurred in the area on SO-1554 but not on SO-1154. There is some drainage into the area on SO-1154.

Though instrument error is a possibility, it is thought that schools of small fish or sediment layer caused the erroneous soundings on SO-1154. (See attached Correspondence FE 3, 1954. Above sdgs. disproved, Development Today accepted.)

## Z. TABULATION OF APPLICABLE DATA:

1. Statistics
2. Tide Note
3. Approval Sheet
4. Index of Sheets
5. Correspondence with Coast Guard, and with Director concerning C.G. correspondence.
6. Fathogram Interpretation-previous discussion
7. List of Stations.

See also DR of H-8154 where schools of fish caused traces

Submitted by,

*Wilfred V. Warner*

Wilfred V. Warner,  
Ensign, USC&GS

LIST OF SIGNALS  
H-8098

TRIANGULATION STATIONS

ACE BIG SARASOTA PASS LIGHT 22, 1953  
 ARM SARASOTA, ST. ARMAND KEY TANK, 1952  
 CHEROKEE U.S.E., 1935  
 END END, 1953  
 IVY BIG SARASOTA PASS, LT. 19, 1953  
 LEO BIG SARASOTA PASS, LT. 5, 1953  
 LIZ LISP, U.S.E., 1935  
 MAST SARASOTA, RADIO STATION WSPB, MAST, 1953  
 MAX SARASOTA, SOUTH MUNICIPAL TANK, 1953  
 OID ASHBY (USE), 1935  
 ORA SARASOTA, ORANGE BLOSSOM HOTEL, TANK, 1953  
 PIER, 1954  
 YET CRAWFORD (USE), 1935

TOPOGRAPHIC STATIONS

T-11085

Box Mum Cab Nul Cut Pie Dip Quo Elf Rig Fox Wag Gag Hod Irk Jib Joy Kid

T-11086

Ado Alp Amy Ann Art Azo Bed Boa Bob Bum Bus Cow  
 Cry Cue Dog Gin Gus Hoe Hub Hut Ion Jim Jug Kim  
 Lay Lug Met Mop Mug Ned Nip Odd Ohm Pal Pep Rat  
 Rum Sad Sam Sis Sox Sub Tan Thy Try Val Van Vet  
 Wax Wig Wit Yak Zag

T-11087

Ask Owl Was Cop Pet Day Pin Pat Pot Gal Rev Ida Rio Jay Rot Lax Sky Man Sop Mid Tub New Vex Nor Via

PHOTOGRAMMETRIC FEATURES

Rim (see vol. 7, pg. 66)

Foxy Vol. 9, pg. 26  
 Gem Vol. 2, pg. 14  
 Gum Vol. 1, pg. 62  
 Hex Vol. 1, pg. 3  
 Hum Vol. 1, pg. 3  
 Joe Vol. 8, pg. 65  
 Nig Vol. 4, pg. 24  
 Nut Vol. 7, pg. 65  
 Out Vol. 1, pg. 3  
 Oak Vol. 1, pg. 3  
 Pup Vol. 2&5, Pg. 14&3  
 Rip Vol. 9, pg. 9  
 Rue Vol. 2, pg. 14  
 Sal Vol. 7, pg. 66  
 Sol Vol. 2, pg. 14  
 Toy Vol. 7, pg. 65

HYDROGRAPHIC STATIONS

Ant Vol. 8, pg. 51  
 Are Vol. 1, pg. 58  
 Axe Vol. 2, Pg. 36  
 Bat Vol. 7, pg. 20  
 Cat Vol. 1, pg. 3  
 Con Vol. 2, pg. 14  
 Coo Vol. 2, pg. 14  
 Dot Vol. 2, pg. 14  
 Duo Vol. 7, pg. 66  
 Egg Vol. 1, pg. 50  
 Emo Vol. 7, pg. 65  
 Eon Vol. 2, pg. 6  
 Eva Vol. 1, pg. 3  
 Fez Vol. 1, pg. 3  
 Fig Vol. 2, pg. 14

*(former position of Bn 9)  
 destroyed 26 Apr 1954  
 see vol 7 p 25*

## TIDE NOTE

A portable automatic tide gage was maintained at Sarasota Municipal Pier, Florida, Lat.  $27^{\circ}-20'.0$  N., Long.  $82^{\circ}-32'.7$  W. Hourly heights were used directly to reduce all sounding done on H-8098 (SO-1154). Zero of the staff was 1.5 feet below the plane of mean low water according to letter 36 fj of 20 April 1953.

STATISTICS

For Hydrographic Survey H-8098

Field Number SO-1154

Volume No.	Day Letter	Date	Pole Sdgs.	No. of Positions	Stat. Miles Sounding
1954					
1	a Pol.	21 Jan. 1954	730	Along -	Pier ✓
1	b Pol.	1 Feb. 1954	496	"	" ✓
1	c ✓	16 Feb. 1954	1	68	11.2 ✓
2	d ✓	25 Feb. 1954	33	45 - 113	3.8
2	e Pol.	2 Mar. 1954	41 ✓	Boat -	Hydrography
2	f Pol.	3 Mar. 1954	46 ✓	"	"
2	g	8 Mar. 1954	290	196 ✓	28.5
3	h	9 Mar. 1954	217	116	15.3
3	j	10 Mar. 1954	91	195	30.6
4	k	23 Mar. 1954	415	155	18.6
4	l	24 Mar. 1954	286	177	19.0
5	m	25 Mar. 1954	88	54	5.4
5	n	7 Apr. 1954	186	218	27.8
6	p	15. Apr. 1954	94	191	20.7
6	q	21 Apr. 1954	115	82	10.8
6 & 7	r	27 Apr. 1954	143	151	18.2
7	s	7 May 1954	43	79	6.9
7	t	7 June 1954	2	25	1.3
7	u	20 Sept. 1954	14	30	2.3
1955					
8	v	9 Feb. 1955	441	175	19.0
8 & 9	w	10 Feb. 1955	458	171	17.8
9	x	14 Feb. 1955	368	189	21.8
9 & 10	y	16 Feb. 1955	422	208	21.4
10	z	18 Feb. 1955	481	188	17.6
10 & 11	aa	23 Feb. 1955	305	161	14.1
11	ba	3 Mar. 1955	144	74	5.8
11	ca	21 Mar. 1955	31*	2	0.3
<b>Totals</b>			<b>5981</b>	<b>2950</b>	<b>338.2</b>


\* All soundings on this day were by hand-lead.

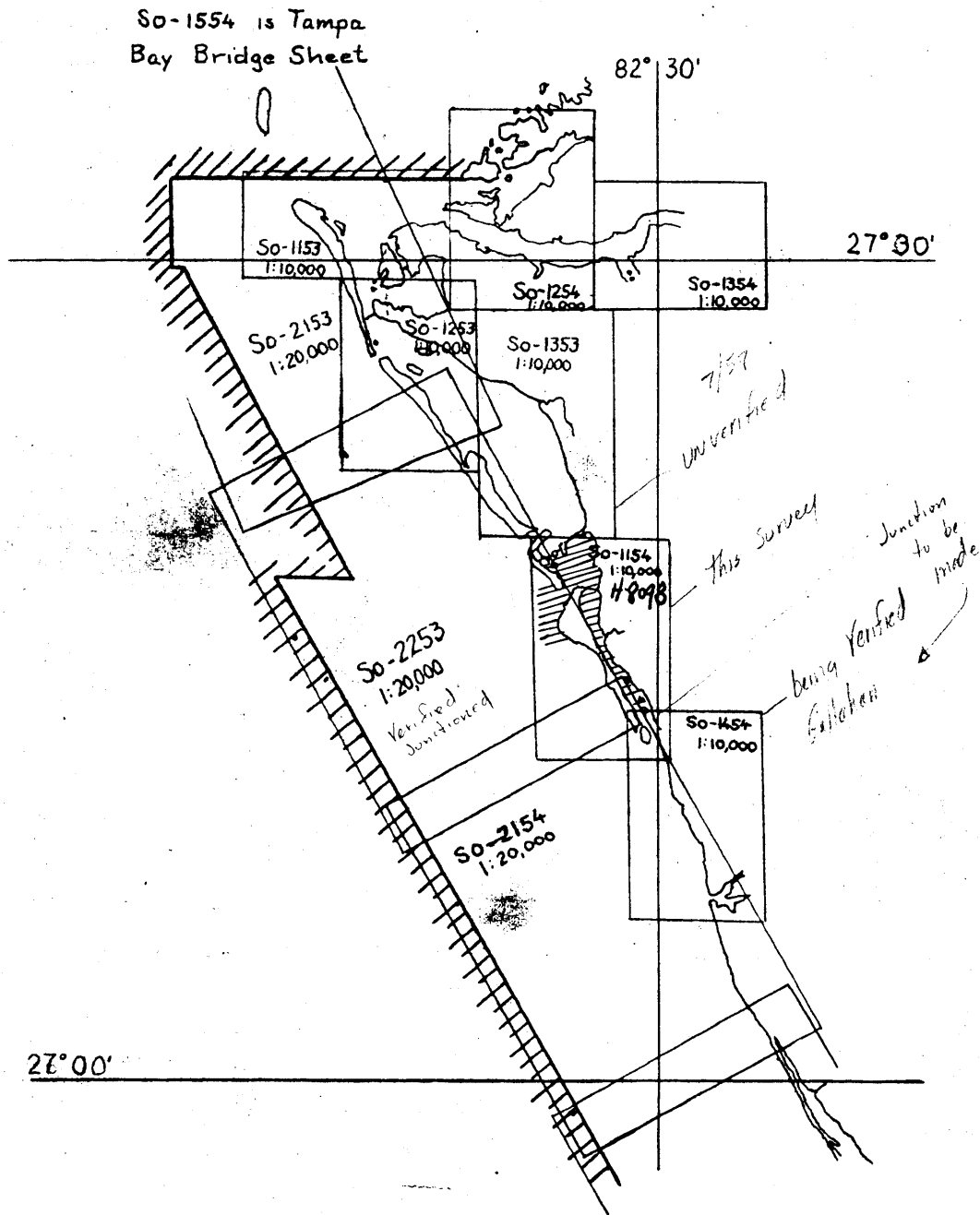
Square Statute Miles = 6.2



APPROVAL SHEET

The survey of the area covered by SO-1154 (H-8098) is adequate for charting purposes. The sounding records and boat sheet have been inspected and are approved this date. Additional field work is not necessary.

  
Roswell C. Bolstad  
Commander, USC&GS  
Comdg. Ship SOBEE



**INDEX OF SHEETS**

**PROJECT CS-353**

**(Northern Part)**

P. O. Box 1158, Ship SOSBEE  
Sarasota, Fla.

22 March 1954

To: Commander, 7th Coast Guard District  
150 SE 3rd Avenue  
Miami 32, Florida

Subject: Position of Floating Aids.

This letter accompanies a copy of chart No. 1256 to which conspicuous objects (shown by red circles) have been added in order to furnish you with objects for observing the locations of buoys at entrances to Big Sarasota Pass, New Pass, and Longboat Pass.

At the present time new hydrographic surveys are being conducted in this locality. It is noted from the preliminary field data that some of the buoys may require moving to correctly serve the entrance channels which have shifted. When the survey has been completed a photostat of the boat sheet will be forwarded your office with recommendations where the aids should be located.

Please acknowledge receipt of this data.

Roswell C. Bolstad  
Commander, USC&GS  
Comdg. Ship SOSBEE

P. O. Box 1158, Ship SOSBEE  
Sarasota, Fla.

22 March 1954

To: The Director  
U. S. Coast & Geodetic Survey  
Dept. of Commerce Bldg.  
Washington 25, D. C.

Subject: Special Report -  
Objects for use of U. S. Coast Guard.

In accordance with project Instructions CS-353 and reference 8533 of the Hydrographic Manual the information requested therein has been complied with, and the list of objects, with latitudes and longitudes, is enclosed herewith. This data covers the complete area of chart 1256; there are no floating aids to navigation maintained by the Coast Guard elsewhere on this chart than at Big Sarasota Pass, New Pass, and Longboat Pass.

Roswell C. Bolstad  
Commander, USCOGS  
Comdg. Ship SOSBEE

Encl.:- (A) Copy of Transmitting letter to C.G.  
(B) List of objects w/lat. & long.

o  
30 March 1954  
H2

From: Commander, 7th Coast Guard District  
To: Commanding Officer, Ship SOSBEE, USCGS, Sarasota, Florida

Subj: Position of floating aids

Ref: (a) CO, SOSBEE ltr of 22 March 1954 with copy of chart No. 1256

1. Receipt of reference (a) is hereby acknowledged in accordance with your request.

C. E. MOSHER  
By direction

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: **Ship SOBEE, P.O.Box 1158, Sarasota, Fla.**

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

12 April 1954

To: **The Director  
U.S. Coast & Geodetic Survey  
Washington 25, D.C.**

**Subject: Danger to Navigation.**

In compliance with paragraph 8522 of the Hydrographic Manual a tracing of a shoal spot considered dangerous to navigation is enclosed. This shoal of 6 ft. at MLW was discovered in the process of surveys in Big Sarasota Pass this April.

Lieut. Vaugh, A to N. Section, Seventh Coast Guard District, 150 Southeast 3rd Ave., Miami 32, Fla. was contacted this date and given the following information:

\*Shoal covered by six feet of water at mean low water was discovered in Big Sarasota Pass in center of channel; distant 237 yards, bearing  $277^{\circ}$  true, from daybeacon 14. Geographic coordinates of shoal  $27^{\circ} 18.20'$ ,  $82^{\circ} 33.72'$  N.A. 1927 datum. ✓

*subsequently moved*

The information was also telephoned to the Sarasota Yacht Club for early relay to arriving deep-draft yachts.

**Rowell G. Bolstad  
Comdr. USCGS  
Comdg. Ship SOBEE**

**cc: Sup SED, Norfolk, Va.**

P. O. Box 1158, Ship SOSNEE  
Sarasota, Fla.

28 May 1954

To: Commander, 7th Coast Guard District  
150 Southeast 3rd Avenue,  
Miami 32, Florida

Subject: Aids to Navigation. for disposition see attached letters 9 June 1954  
19 Aug 1954  
29 Oct 1954

In accordance with my letter of 22 March 1954 there are enclosed three photostats of recent hydrographic surveys of New Pass and Big Sarasota Pass showing the present location of your daybeacons and buoys.

Daybeacon "9" no longer exists; it was noticed missing on 26 April 1954. This was one of our central stations for our hydrographic field survey and was found missing on the date mentioned.

See P97  
PP-6 of  
D. Ept.

The following recommendations in regard to floating aids is submitted:

- (1) At entrance to New Pass that bell buoy "1" be moved 240 meters 90°T from present location to lat. 27°-19.09', long. 82°-35.84'. (Outside limits H-8098)
- (2) At Big Sarasota Pass that lighted buoy "2" be replaced by a mid-channel lighted black & white buoy located at lat. 27°-16.07', long. 82°-34.50'. (located at  $\phi$  27°15.94',  $\lambda$  82°34.50 and named #11 on H-8098)
- (3) At Big Sarasota Pass that black can buoy "3" be moved to lat. 27°-16.65', Long. 82°-34.50'.

The present location of these buoys are shown circled in red pencil on the photostat with an arrow leading to the recommended positions as shown by a red dot. Adoption of these recommended changes, evident on the photostats, show the mariner might better be guided through these channel waters.

Your attention is called to the six foot shoal at lat. 27°-18.20', long. 82°-33.72' which appears circled in red on the photostat. This danger to navigation was reported to you previously and published in the Notice to Mariners No. 19. A mid channel buoy on this shoal would aid deep draft vessels in avoiding this danger.

Also at lat 27°-18.32', long. 82°-33.55' the extension of this shoal tip into the channel area makes it dangerous for vessels to skirt along daybeacon "14" and thence direct a straight course off daybeacon "17" without encountering the tip of this shoal. A red daybeacon placed here would prove very valuable to mariners unacquainted with this channel.

It has been found, not only by this vessel but by other mariners, that a daybeacon about midway between light "19" and daybeacon "21" on the protruding edge of the rounding shoal, would prove very valuable. In setting a course off light "19" to the northward off daybeacon "21" direct for the Kingling causeway bridge opening, the mariner must bow his course to the eastward to avoid running aground.

All photostats enclosed are on approximate scale of 1 to 10,000. Soundings are in feet below mean low water datum.

Roswell C. Bolstad  
Commander, USCGS  
Comdg. Ship SOSREE

c/c Director USCGS  
Encl. 3 photostats



0  
9 June 1954  
H2  
Serial 3258

From: Commander, Seventh CG District  
To: Commanding Officer, USC&GS Ship SOSBEE

Subj: Aids to Navigation, Big Sarasota Pass

Ref: (a) CO, USC&GS Ship SOSBEE ltr of 28 May 1954

1. Your letter dated 28 May 1954 is acknowledged. The recommendations set forth are concurred with by this office. Orders for some of the improvements have been issued prior to your letter. The remaining will be accomplished as soon as commitments permit.

2. Your recommendations are appreciated.

C. E. MOSHER  
By direction

P. O. Box 1158, Ship SOREX  
Naples, Fla.

19 August 1954

To: Commander, 7th. Coast Guard District  
190 NE 3rd. Avenue  
Miami 32, Florida

Subject: Position of Aids to Navigation.

Changes in the positions of buoys and daybeacons recently effected by your vessel, the OCEANUS and JUPITER, have been relocated by this vessel's field party as follows:

Key Bore, Florida:

(1) Bell buoy #1 now at Lat.  $27^{\circ}-19.01'$ , Long.  $82^{\circ}-35.82'$ , 2187 yds.,  $262.5^{\circ}$  T. from St. Armands Key Light on USCGS Chart 1256, in 22 ft. of water. Listed in Light List on page 532. *Not on F. 6002*

Big Sarasota Pass: (See USCGS Chart 1256 & C G Light List, C G 158.)

(2) Lighted entrance buoy FLW #2 replaced by lighted entrance buoy FLW #2, Lat.  $27^{\circ}-45.87'$ , Long.  $82^{\circ}-36.57'$ , 2261 yds.  $196^{\circ}-30'$  from FLB #5, in 25 ft. of water, previously list in Light List on page 531, no. 4899. *Final Vol 7, P25*

(3) Black can buoy #3 moved to new location 1000 yds.  $221^{\circ}$  T. from FLB #5 (Light List no. 4894), in 8 ft. of water, Lat.  $27^{\circ}-16.94'$ , Long.  $82^{\circ}-34.57'$ . *Final: Vol 7, P25*

(4) Daybeacon 9 lost 26 April 1954 was reestablished at Lat.  $27^{\circ}-17.12'$ , Long.  $82^{\circ}-34.01'$ , in 6 ft. of water, 504 yds.  $45^{\circ}$  T from FLB #5. *Final: Vol 7, P25*

(5) Daybeacon 12, Lat.  $27^{\circ}-17.79'$ , Long.  $82^{\circ}-33.68'$ , was renumbered #14. *Final: Vol 7, P25*

(6) Daybeacon 14 at previous position, Lat.  $27^{\circ}-18.18'$ , Long.  $82^{\circ}-33.99'$ , was discontinued. *Final: Vol 7, P25*

(7) Daybeacon 15 was established in 8 ft. of water at Lat. 27°-18.19', Long. 82°-33.72', 1458 yds. 213°-30' T. from FLO "19" (Light List no. 4435).

(8) Daybeacon 16 was established in 6 ft. of water at Lat. 27°-18.32', Long. 82°-33.53', 1064 yds. 203° T. from FLO "19".

(9) Daybeacon 21, previously at Lat. 27°-19.36', Long. 82°-33.36', was removed.

(10) Daybeacon 21 was reestablished at new location in 6 ft. of water at Lat. 27°-19.07', Long. 82°-33.28', 556 yds. 001° T. from FLO "19".

Ensign W. V. Warner of this vessel, at the request of the commanding officer of the COGNOS, was temporarily assigned to your vessel to assist in proper locations of the aids to navigation, par. (3) to (10) inclusive. Subsequent fixes obtained on strong control points has established more accurate positions than were available at that time.

While this vessel was working in the off-shore area shortly after it was noted the JUPITER was engaged in changing the entrance buoys at New Pass and Big Sarasota Pass. The new positions obtained are given in paragraphs numbered (1) and (2).

Roswell C. Bolstad  
Commander, USCGC  
Comdg. Ship SOBBEE

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: **Ship SOSBEE, 1158 P.O.Box, Sarasota, Fla.**

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

29 October 1954

To: **Commander, Seventh C. G. District  
150 SE 3rd. Avenue  
Miami 32, Florida**

Subject: **Big Sarasota Pass and New Pass Buoys, position of**

Reference: (a) Ship SOSBEE's ltr of 19 August 1954  
(b) G70GD ltr of 11 Oct. 1954, H2, Serial 3735

1. This vessel has been operating in the Manatee River area so some delay was occasioned in checking the positions of the buoys requested in reference (b).
2. The positions of the buoys relative to the reference (a) location have been found shifted to locations as follows:

Big Sarasota Pass Lighted Buoy 2 has been moved and reestablished in 20 feet of water, 6490 yards, 178° from tank St. Armand Key. Buoy has now been painted black and renumbered 1 without other change. (Approximate position - 27°16'00"N. 82°34'30"W.)  
15.94' 34.50'

New Pass Bell Buoy 1 has been moved and reestablished in 21 feet of water 2210 yards, 261° from tank, St. Armand Key to mark best water. (Approximate position 27°19'00"N. 82°35'51"W.) (Outside limits H-8098)

3. You will note there is a slight difference from that published in the Local Notice to Mariners No. 31-54 dated 8-6-54; however the discrepancy is barely plottable on nautical chart 1556. Depths of water are in slight variance. This information was secured from our 1-10,000 scale field sheets.

c/c: Dir. USCGS

Roswell C. Bolstad  
Comdr. USCGS  
Comdg. Ship SOSBEE

## FATHOGRAM INTERPRETATION-SO-1554

(FE 3,1954)

## PARAGRAPH - H. SOUNDINGS:

(Tampa Bay)

In depths of more than four or five feet, an 808 model portable depth recorder was used. A sounding pole, graduated in feet, was used to obtain the shoaler depths and for shoal investigation. Bar checks were taken to obtain the initial setting and to verify the soundings as recorded.

On b and c days, several erroneous returns were obtained by the fathometer in the area north of the northerly bridge, between signals FUN and FOX. This area was fairly well covered on d day and many of the shoal indications were disproved. A list of these questionable soundings follow:

1. Soundings of 6.4, 7.2 and 7.4 feet at position 5b and two intervals after - disproved by soundings between positions 1c and 2c; by cross lines at 11d to 12d; 13d to 14d; 17d to 18d; and 19d to 20d ; also detached positions 59d and 60d, when hand lead soundings were taken. The bottom here is very soft, which does not account for the shoal returns.
2. One minute after position 5b, a sounding of 9.6 feet is disproved by soundings between 4c and 5c. A similar shoal indication was recorded on the latter line, but does not occur at the same place, according to time.
3. The 8-foot sounding 15 seconds before position 3c was disproved by soundings between 24c and 25c .
4. The 10-foot sounding at position 3c was disproved by cross line 25d to 26d.
5. An 8-foot sounding 37 seconds after position 4c is disproved by soundings between positions 81b and 82b, and 8c to 9c.
6. An 8-foot sounding between positions 24c and 25c, 37 seconds before 25c, is disproved by cross line between positions 27d and 28d.
7. A sounding of 10.2 feet about 20 seconds after 34c is disproved by cross line between positions 27d and 28d.
8. A sounding of 4.8 feet on position 62c falls on the line 54c to 55c, about 40 seconds after 54c, where there is no such shoal indication.
9. Soundings of 8 and 9 feet just after position 63c are disproved by position 29d.
10. A small area, in the center of which is position 31d (10 feet at MLW) has indications that it is several feet shoaler on each

10. of the lines listed below:

- (a) 45 seconds after position 28c
- (b) 30 seconds after position 38c
- (c) 30 seconds before position 45c
- (d) 30 seconds after position 48c

Other lines across this area are 27d and 30d to 32d, but these lines give no indication of such a shoal area.

It appears that the erroneous fathometer returns could have been caused by (A) instrumental error (B) marine vegetation (C) character of the bottom or (D) fish. A discussion of these possibilities follows:

**INSTRUMENTAL ERROR-** An hour or two after the last soundings on c day, the fathometer developed trouble, giving no record at all. That and the fact that a different fathometer was used on d day would indicate the probability of instrumental error. But voltage was adequate and the speed of the fathometer was watched, as usual, during all of the sounding. Instrumental error does not explain the fact that only in one small area were these erroneous returns obtained.

**MARINE VEGETATION -** None approaching the indicated thickness has been found in these waters. No such growth was felt by pole or lead line on these spots.

**CHARACTER OF THE BOTTOM -** Hand lead and pole gave a very soft bottom at these places, but that usually means a faint record, not a shoal one.

**FISH -** This seems to be the most logical explanation. Dense schools of small fish are occasionally seen at or near the surface. If a school were capable of causing a return on the fathometer, it can easily be seen what confusion might be caused in an area such as this.

All of the fathogram returns of the spots listed above have similar appearances - little or no slope to the sides of the shoal record; a fairly ragged appearance; and a trace of medium density. In a few of the places, the bottom trace can be seen faintly under the other, but most of them do not have that. Also, in a few places the lower edge of the bottom trace indicates a true shoal.

During the sounding on d day, a 12-foot sounding pole was used extensively, but not recorded in the book where fathometer records were obtained. Hand lead and pole were used while drifting over the area of positions 58, 59 and 60 d, with nothing shoaler than the recorded soundings obtained.

C  
O  
P  
Y

DEPARTMENT OF COMMERCE  
U. S. Coast and Geodetic Survey  
Washington 25

Refer to No. 839 rr

21 June 1953

To: The Commanding Officer  
U.S.C. & G.S. Ship SOSBEE  
P. O. Box 1158  
Sarasota, Florida

Subject: Fathogram Interpretations

Reference is made to your letter of 21 May 1954, regarding questionable traces on fathograms of survey SO-1554, Tampa, Florida.

The fathograms have been examined by several members of the Hydrographic Section who suggest that the questionable traces are possibly returns from a temporary accumulation of sludge, debris or a density layer which was washed out before your soundings on d-day were taken. The questionable traces occur only in a limited area on the northside of the passage through the causeway where possibly eddy currents deposited sediment or created a density layer from which a return was received. Our experience has been very limited with respect to traces of this kind and often deficient in actual field investigation of the causes. One prior survey of a docking area in Seattle harbor revealed similar traces which were disproved by handlead and wire-drag investigation. The hydrographer on this survey suggested that garbage from Naval ships was a possible cause of the traces.

A number of possible causes of the traces on your fathograms are considered unlikely. The trace is very similar to returns from heavy grass but your information precludes grass as a cause. The coincidence of traces on several adjacent lines in one area discredits instrumental strays. A school of fish in these depths would probably be reflected by more scattered traces.

C  
O  
P  
Y

Page Two  
21 June 1954

However, our experience with recordings from schools of fish is also very limited and no conjecture in this respect will be made.

The importance of investigating questionable soundings is well demonstrated on this survey. The diligence of your hydrographers in investigating these traces by additional development and handlead soundings has provided information necessary for determining the correct depths in this area.

/s/ Robert W. Knox

Acting Director



ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8098 (Field No. So-1154)

GENERAL

This appears to be an excellent basic survey. The field work was unusually well done and the survey was presented in such a manner that the smooth plot was accomplished with a minimum amount of difficulty.

DISCREPANCIES

Lat. 27-16.2, Long. 82-34.6                      A crossing discrepancy occurs  
between positions 5 and 6c and 77 to 78q. (*On slope - adjusted during verification*)

Respectfully submitted,

*Hugh L. Proffitt*

Hugh L. Proffitt  
Cartographer.

Norfolk, Va.  
8 May 1956

GEOGRAPHIC NAMES

Survey No. H-8098

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
<u>Florida</u>									BGN	1
<u>Little Sarasota Bay</u>										2
<u>Vamo</u>										3
<u>White Beach</u>										4
<u>Stickney Point Bridge</u>										5
<u>Phillippi Creek</u>								(1952) BGN		6
<u>Roberts Bay</u>										7
<u>Siesta Key</u>								(1952) BGN		8
<u>Sarasota Point</u>										9
<u>Big Sarasota Pass</u>										10
<u>Hansen Bayou</u>										11
<u>Bay Island</u>									BGN	12
<u>Siesta Key Bridge</u>										13
<u>Hudson Bayou</u>									BGN	14
<u>Sarasota</u>										15
<u>Sarasota Municipal Pier</u>										16
<u>Ringling Causeway</u>										17
<u>Bird Key</u>										18
<u>Coon Key</u>										19
<u>St Armand Key</u>										20
<u>Otter Key</u>										21
<u>The Lido</u>										22
<u>Cerol Isles</u>										23
<u>Sarasota Bay</u>										24
										25
										26
										27

Names approved  
6-14-56 L. Heck

(see chart 1256 and AMS  
"Sarasota" quad for best  
placement of names)

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8098.....

Records accompanying survey:

Boat sheets ..1..; sounding vols. .11..; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls .11-Envelopes  
 special reports, etc. .1-Descriptive report, and 1-Smooth sheet.....  
 .....

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

Number of positions on sheet		2950
Number of positions checked		64
Number of positions revised		4
Number of soundings revised (refers to depth only)		6
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred	vet	1
Topographic details	Time	10
Junctions	Time	4
Verification of soundings from graphic record	Time	8

Verification by *E. J. E. Jones*..... ~~Total time~~ <sup>date</sup> 8/7/57 <sup>time</sup> 154 hrs. Date .....

Reviewed by *W. J. Eschkind*..... Time 48 Date 9-25-57

DIVISION OF CHARTS  
REVIEW SECTION - NAUTICAL CHART BRANCH  
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8098

FIELD NO. SO-1154

Florida West Coast, Little Sarasota and Sarasota Bays, Vamo  
to Ringling Causeway

Surveyed - Jan. 1954 - Mar. 1955

Scale 1: 10,000

PROJECT NO. CS-353

Soundings:

808 Fathometer  
Sounding Pole  
Lead Line

Control:

Sextant fixes on shore  
signals

Chief of Party - R. C. Bolstad  
Surveyed by - W. V. Warner  
Protracted by - A. G. Atwill  
Soundings plotted by - A. G. Atwill  
Verified and inked by - E. E. Thomas  
Reviewed by I. M. Zeskind  
Inspected by - R. H. Carstens

Date 25 September 1957

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-11085, T-11086 and T-11087 of 1952-54, supplemented by changes in shoreline obtained by the field party. These latter changes are inked on the smooth sheet in red.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated, except in some places where the hydrographer states it was not practicable to do so because of the low range of tide (1.3 ft.), the shallow water involved, the numerous oyster bars, and the

great extent of shoreline. (See page 3, par. G-9, Descpt. Rpt.) The 3-ft. and 24-ft. curves were drawn to better delineate the bottom configuration.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8154 (1955) on the south, with H-8043 (1953-54) at Big Sarasota Pass. The junction with H-8044 (1954-55) on the north will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-1557b (1883), 1-40,000  
H-1559a (1883), 1-20,000  
H-1559b (1883), 1-20,000

A comparison between the prior and present surveys reveals changes in shoreline and bottom configuration. These changes are attributed to both natural and artificial causes such as the action of the current on the bottom, the accretion and erosion of shoreline, the dredging of channels and canals, the reclaiming of land and the construction of bridges. The shoreline on the north side of Big Sarasota Pass in the vicinity of lat.  $27^{\circ} 17.8'$ , long.  $82^{\circ} 34.0'$ , has eroded in a northwesterly direction about 350 meters, while on the south side of the Pass in the vicinity of lat.  $27^{\circ} 17.0'$ , long.  $34.0'$ , it has eroded southeastwardly about 275 meters. The entrance channel through the Pass has also shifted about 275 meters in a southeastward direction. On the outer coast just south of the entrance to the Pass, the shoreline has accreted in a westerly direction about 100 meters. The greatest changes in depths have occurred in the vicinity of the entrance to Big Sarasota Pass in depths less than 18 ft., in the Pass, in areas where the canals and channels have been dredged and where land has been reclaimed. Elsewhere only minor differences of 1 ft. in depths between the prior and present surveys are noted.

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

6. Comparison with Drawing of Chart 857  
(1st Ed. 1957).

A. Hydrography

The charted hydrography originates with the present survey after verification and review. Minor differences between charted and survey depths have been brought to the attention of the chart compiler.

B. Aids to Navigation

The survey positions of the aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended.

C. Dredged Channels

The present survey shows a controlling depth of 3 ft. in the dredged channel in lat.  $27^{\circ} 15.94'$ , long.  $82^{\circ} 32.45'$ . A note on chart 1256 dated 9 September 1957, states that the controlling depth in the dredged channel between Venice Inlet and Sarasota is 2 1/2 ft. This latter information originates with advance information of the present survey and contemporary survey H-8154 (1955) to the southward (Chart letter 259, 1955).

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is recommended.

Examined and Approved:

*Wallace A. Bruder*  
for Max G. Ricketts  
Chief, Nautical Chart Branch

*Charles A. Schanck*  
Charles A. Schanck  
Chief, Division of Charts

*Karl B. Jeffers*  
Karl B. Jeffers 10/15/57  
Chief, Hydrography Branch

*Samuel B. Grenell*  
Samuel B. Grenell  
Chief, Division of Coastal Surveys

RHC

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

19 June 1956

Division of Charts: R. H. Carstens

Plane of reference approved in  
11 volumes of sounding records for

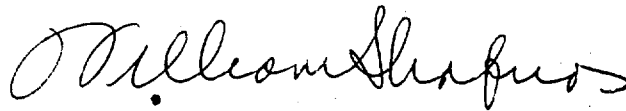
HYDROGRAPHIC SHEET 8098

Locality Florida, West Coast .

Chief of Party: R. C. Bolstad in 1954-1955  
Plane of reference is mean low water, reading  
1.5 ft. on tide staff at Sarasota  
6.5 ft. below B. M. 1 (1953)

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:



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



Boat Key



Chart 1256

SARASOTA

Sarasota Heights

Point O'Rocks

Siesta Key

8098

Midnight Pass

