

8035

Diag. Cht. No. 1256

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SO-1253 Office No. H-8035

LOCALITY

State Florida

General locality Florida West Coast

Locality Palma Sola Bay to Sarasota Bay

194 53-54

CHIEF OF PARTY

Roswell C. Bolstad

LIBRARY & ARCHIVES

DATE August 17, 1956

B-1870-1 (1)

8035

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-8035

Field No. So-1253

State FLORIDA

General locality FLORIDA WEST COAST

Locality PALMA SOLA BAY TO SARASOTA BAY

Scale 1:10,000 Date of survey 5 May/¹⁹⁵³to 27 Jan. 1954

Instructions dated 18 December 1952

Vessel SOSBEE

Chief of party ROSWELL C. BOLSTAD

Surveyed by R. C. BOLSTAD, A. L. WARDWELL, J. E. WAUGH & W. V. WARNER

Soundings taken by ~~XXXXXXXX~~, graphic recorder, ~~XXXXXXXXXXXX~~ POLE

Fathograms scaled by SHIP PERSONNEL

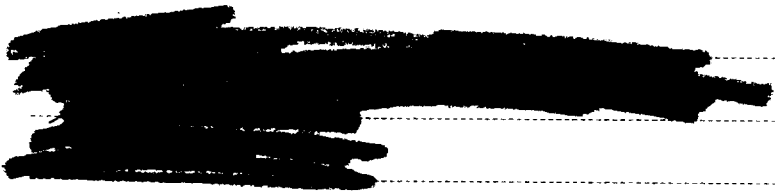
Fathograms checked by SHIP PERSONNEL

Protracted by A. KAUPA

Soundings penciled by A. KAUPA

Soundings in ~~XXXXX~~ feet at MLW ~~MKXX~~

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



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DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8035 (Field No. SO-1253)

West Coast of Florida - Palma Sola Bay to Sarasota Bay

U.S.C. & G.S.S. SOSBEE - Arthur L. Wardwell, Chief of Party

Scale 1:10,000

5 May to 27 January 1954

A. PROJECT:

Project CS-353, original instructions dated 18 December 1952. No supplemental instructions.

B. SURVEY LIMITS AND DATES:

This survey extends southward from Sarasota Pass to the northern end of Sarasota Bay and includes Palma Sola Bay, Buttonwood Harbor, and Longboat Pass. The northern limit in Sarasota Pass is latitude $27^{\circ} 29.5'$. To the west it extends to Anna Maria and Longboat Keys and to the outer development of Longboat Pass. The eastern limit in Sarasota Bay is Lat. $82^{\circ} 37.5'$ and the southern limits the lower end of Buttonwood Harbor. An index of Hydrographic Sheets is included in this report to show the junctions with contemporary surveys.

The date of beginning field work was the 5th of May, 1953 and the closing date was the 27th of Jan. 1954. The 5th and 12th of May were the only days worked until the 31st of July. During that interval work was being completed on survey H-8034 (1953). During the period after the 31st July, 15 good weather days were spent doing field work on H-8042. The SOSBEE spent five weeks at its semi-annual hauling out during Nov. and Dec.. Work on other sheets was accomplished before the 26th of Jan.

C. VESSELS AND EQUIPMENT:

All sounding was done from a 25 foot skiff, No. 735, powered by two ten-horsepower outboard motors. The skiff was based at Cortez, Florida for the upper half of the survey and at Longboat Pass for the lower half.

Current Stns.
 #25 ϕ 27° 26.5' λ 82° 41.4'
 #26 ϕ 27° 28.2' λ 82° 41.6'

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8035 (Field No. 80-1253)

West Coast of Florida - Palms Sola Bay to Sarasota Bay

U.S.C. & G.S.B. SOBEE - Arthur L. Wardwell, Chief of Party

Scale 1:10,000
 2 May to 27 January 1954

A. PROJECT:

Project 62-353, original instructions dated 18 December 1952. No supplemental instructions.

B. SURVEY LIMITS AND DATES:

This survey extends southward from Sarasota Pass to the northern end of Sarasota Bay and includes Palms Sola Bay, Buttonwood Harbor, and Longboat Pass. The northern limit in Sarasota Pass is latitude 27° 29.5'. To the west it extends to Anna Maria and Longboat Keys and to the outer development of Longboat Pass. The eastern limit in Sarasota Bay is lat. 82° 37.5' and the southern limits the lower end of Buttonwood Harbor. An index of Hydrographic Sheets is included in this report to show the junctions with contemporary surveys.

The date of beginning field work was the 5th of May, 1953 and the closing date was the 27th of Jan. 1954. The 5th and 12th of May were the only days worked until the 31st of July. During that interval work was being completed on survey H-8034 (1953). During the period after the 31st July, 15 good weather days were spent doing field work on H-8042. The SOBEE spent five weeks at its semi-annual hauling out during Nov. and Dec. Work on other sheets was accomplished before the 26th of Jan.

C. VESSELS AND EQUIPMENT:

All soundings were done from a 25 foot skiff, No. 735, powered by two ten-horsepower outboard motors. The skiff was based at Cortez, Florida for the upper half of the survey and at Longboat Pass for the lower half.

C. VESSELS AND EQUIPMENT: CON'T.

Model 808J Portable Depth Recorders, number 115-S and 140-SP, calibrated at 820 fathoms per second were used for sounding where the depth and character of the bottom permitted. A wooden pole, graduated in feet, was used to verify the fathometer depths and to sound depths too shoal to be recorded correctly on the fathometer.

D. TIDE AND CURRENT STATIONS:

The hourly heights from the Cortez, Florida portable automatic tide gage were used directly until survey work was extended south of Lat. $27^{\circ} 26.5'$. Then this gage was dismantled and the similar gage at Sarasota, Florida was used with a time correction of -20 minutes and no range correction. Some areas were overlapped so there is no definite limit for the use of the gages.

Current stations 25, Longboat Pass, and 26, just north of the Cortez Bridge, were occupied within the limits of this survey.

E. SMOOTH SHEET:

Not within scope of this report.

F. CONTROL STATIONS:

Triangulation Stations Used:

COR - Δ CORTEZ, 1908
 LET - Longboat Inlet Lt. 15, 1953 - J. E. Waugh,
 Chief of Party
 DOC - Ambe Tr. 19, 1946 (U.S.E.)
 LONG - Longboat Lt. 16A, 1953 - J. E. Waugh, Chief of Party
 CHAN - West Channel Lt. 19, 1953 - J.E. Waugh, Chief of
 Party
 KEY - Δ KEY, 1878
 RIP - West Channel Lt. 21, 1953 - J.E. Waugh, Chief of
 Party
 ERA - Sarasota Daybeacon 20B, 1953 - J. E. Waugh,
 Chief of Party
 TOM - Δ TOM, 1878
 ART - Sarasota Daybeacon 20C, 1953 - J. E. Waugh,
 Chief of Party
 BAH - Sarasota Daybeacon 22, 1953 - J. E. Waugh,
 Chief of Party
 JULE - Δ JULE, 1943
 REAR - South Entrance Range, Rear Daybeacon, 1953 -
 J. E. Waugh, Chief of Party
 NAT - South Entrance Range, Front Daybeacon, 24, 1953 -
 J. E. Waugh, Chief of Party
 MAX - West Channel, South Range Front Lt. 26, 1953 -
 J. E. Waugh, Chief of Party
 GUS - Long Bar Shoal Daybeacon 23, 1953 - J. E. Waugh,
 Chief of Party

F. CONTROL STATIONS: CON'T. ✓

Triangulation Stations Used: Con't.

ROT - Sarasota Daybeacon 25, 1953 - J. E. Waugh,
 Chief of Party
 RUM - Sarasota Bay Lt. 28, 1953 - J. E. Waugh, Chief
 of Party
 SAM - West Channel, South Range Rear Light, 1953 -
 J. E. Waugh, Chief of Party
 ALE - Δ WHALE KEY, 1908

A copy of the list of stations is part of this report. Stations located by radial plot are identified by compilation sheet and station number.

Stations Lug, Sue, Cow, and Abe are plotted on the boat-sheet using sextant fixes. Their photogrammetric location should be used on the smooth sheet. No significant difference is expected.

G. SHORELINE AND TOPOGRAPHY:

Shoreline and topography details are from photogrammetric sheets T-11079, T-11081, T-11083, and T-11084. New channel developments were found and sounded SW of station Emo on Longboat Key and also in Buttonwood Harbor, Longboat Key. The approximate outline of these are shown in pencil: A fill was being extended out from the mainland NNE of station Cor as outlined in pencil. Later photographs should show these and any other developments. Due mainly to the extensive shoals near the irregular mangrove shoreline and the low range of tide, it was not practicable to develop fully the low-water line.

T-11085 of 1952-54

Changes enumerated shown on topo M/S, and were applied to H-235

H. SOUNDINGS:

Model 808J portable depth recorders were used to measure depths except in areas too shoal for this machine where a wooden pole was used.

I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled by sextant three-point fixes except in unsignaled, unimportant shoal areas where positions were by estimation from shoreline details. 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. Junctions with adjoining surveys are satisfactory and depth curves are continuous. PS
Review

K. CROSSLINES:

Crosslines made up 8% of the sounding lines run. The crossings are generally in good agreement.

Unsatisfactory crossings were made outside of Longboat Pass on two lines of l day but the following reconciliation and disposal is given. The work in this area was done principally during two periods. The latter period, w and y days, was done with better control (more signals) and on smoother water. The sounding positions on these two days, the hydrographer believes, are very reliable, more so than k and l days of the earlier period. depths
at cross-
ings in
adequate
agreement

The discrepancy at crossings between positions 87 and 88 on l day appears due to a displacement of this line. It is adequately covered later and a deletion of these soundings is recommended. This line was run through a swell. Not
plotted
(vd. 6).
depths
at cross-
ings ade-
quate

The discrepancy of crossings between 90 and 91 on l day is believed to be a result of Hurricane Florence which brought SW'y winds of 30 - 45 miles-per-hour to the area for two days. Not plotted
Agreement
at cross-
ings ade-
quate

Other minor discrepancies on the outside shoal between soundings before and after the storm are attributed to changes caused by this storm. It is recommended that the soundings between position 90 and 91 and the first three soundings out from 91 on l day be rejected from the smooth sheet. The soundings of w and y day adequately cover the area and disprove these soundings. see
above

Position 122 m day, just south of station Chan, appears to be inaccurate causing a displacement of the soundings and poor crossings. Since the fix on position 122, m day, was weak and station Egg was partly obscured in this area, it is recommended that position 122 be rejected and deleted from the smooth sheet, plotting two soundings back from position 123 on time and course. Recon-
neciation
concluded
in. Sigs
not plot-
ed.

On lines normal to channels, some displacement was unavoidable from changing speed. The hydrographer recommends that lines run along the channel edges, most always run on ranges be relied on to adjust minor discrepancies between the two sets of lines. Recom-
mandation
followed
by verifier.

L. COMPARISON WITH PRIOR SURVEYS:

Comparisons were made with H-4579, surveyed in 1926 at a scale of 1:20,000; H-1559a, 1883, 1:20,000; and H-1314b, 1886, 1:4,000. No irreconcilable differences were noted. Mangrove growth changed some shoreline and also dredged developments. Current and wave action changed the area around Longboat Pass. Dredging of channels and current action in tidal channels caused changes. No appreciable silting was noted.

P 5
Review

The U.S. Engineers' Beach Erosion Study, 1946 and Intra-coastal Waterway Survey, 1938, were available for comparison. For the areas covered by these surveys, agreement was satisfactory.

Survey H-4579a, scale 1:20,000, covers the area of the new survey north of the Cortez bridge. Agreement was good except in Palma Sola Bay and it's entrance as noted below:

See P 5
Review

- a. The deep soundings shown on H-4579a at approximately Lat. $27^{\circ} 29.5'$ along the eastern edge of Palma Sola Bay were not duplicated on the new survey. These deep holes were apparently newly dredged and have since filled in.
- b. The four and two foot soundings between seven and eight foot soundings on the line through Lat. $27^{\circ} 29.1'$, Long. $82^{\circ} 39.1'$ were investigated by a series of sounding lines on the boat sheet and were disproven. It appears that the soundings were erroneously recorded. This investigation covers item number six in the preliminary review of this project.
- c. The sounding line on H-4579a that proceeds ENE of Lat. $27^{\circ} 28.80'$, Long. $82^{\circ} 39.30'$ gives depths two feet deeper than those on the new survey. Two crossings over this line on the old survey were different to the same magnitude. Some error exists on the old survey, possibly a displacement of the line southward from its true location.
- d. Some shoaling in deep water in a central portion of Palma Sola Bay seems to have taken place. Though in this area some crosslines during the present survey seem to be as much as a foot off, possible partly due to error in tide reducers, the new survey is one to two feet shoaler than soundings on two lines from the old survey. The central location of these two lines

Soundings
disproved
by present
surveySee
P-5
Review

L. COMPARISON WITH PRIOR SURVEYS: CON'T.:

- are Lat. $27^{\circ} 29.19'$, Long. $82^{\circ} 39.20'$ and Lat. $27^{\circ} 29.05'$, Long. $82^{\circ} 39.30'$. North and south of these lines the crossings get better. No silting was evidenced through the fathograms. The shifting of sand or sediment into the area is thought possible as it is located between a tidal channel and stream entrance.
- e. The soundings from Lat. $27^{\circ} 28.47'$, Long. $82^{\circ} 39.20'$ eastward to Long. $82^{\circ} 39.00'$ are one to two feet shallower on the new survey. It appears that the old survey line was displaced 30 to 50 meters northward although a shoaling in this area could possibly have occurred.
- f. The line extending southward from Lat. $27^{\circ} 28.62'$, Long. $82^{\circ} 39.72'$ (4-0-1-2 etc.) on the old survey is quite different from new soundings obtained in the area. Agreement of the two lines can be obtained by adjusting the old survey line southward. This area is marked by closely spaced shoal and deep spots, possibly formed by shifting tidal currents. Thus scouring and shoaling might be expected near main tidal channels in the area. Minor discrepancies that are explainable through small displacements or minor channel action in this area are not noted. See
TP-5
Review
- g. The line on the old survey southeastward from Lat. $27^{\circ} 28.50'$, Long. $82^{\circ} 40.23'$, (4-2-1-3-2 etc.), falls in an area of deeper water on the new survey. Though scouring out of the channel in this area is possible, it is believed the old survey line is plotted too far off shore.
- h. The two foot sounding at Lat. $27^{\circ} 28.54'$, Long. $82^{\circ} 40.14'$ on H-4579a falls in deep water on the new survey. Changing speed may have displaced the original sounding but scouring is also possible in this location.
- i. The soundings in the area just east and west of Lat. $27^{\circ} 28.68'$, Long. $82^{\circ} 40.90'$ appear jumbled on H-4579a (1926) and do not check the new soundings in the area. The current through the area may have altered the bottom or the position of the old lines in the area may be displaced. The present survey adequately defines the area to disprove the prior location of soundings. Note is made here of the dashed lines drawn in pencil on the boat sheet. They were drawn from indications on the aerial photographs of the area and proved to be a reliable indication of a change from or to a shallower depth.

L. COMPARISON WITH PRIOR SURVEYS: CON'T.:

j. The prior deep soundings along the channel edge at and between Lat. $27^{\circ} 28.78'$, Long. $82^{\circ} 41.00'$; Lat. $27^{\circ} 28.80'$, Long. $82^{\circ} 40.82'$; Lat. $27^{\circ} 28.82'$, Long. $82^{\circ} 40.70'$ fall on the shoal in the new survey. The lines from the old survey do not check well at crossings and it is believed they may have been displaced northward. On the old survey a line of two foot soundings crosses between and through two deeper lines in the area.

See
TP 5
Review

k. The deeper soundings at Lat. $27^{\circ} 28.79'$, Long. $82^{\circ} 41.68'$ fall on a shoaler area in the new survey. It appears this might be a changeable location.

l. The soundings around Lat. $27^{\circ} 28.70'$, Long. $82^{\circ} 41.68'$ are two to five feet shoaler on the new survey. This is apparently a change caused by the entrance and exit of tidal currents in this vicinity.

m. The old pilings at Lat. $27^{\circ} 28.82'$, Long. $82^{\circ} 41.30'$ were not found on the new survey.

Delete from
Chart. See
TP 5 Review

n. Development, especially along Anna Maria Key, has caused changes along the shoreline.

o. The dock at Lat. $27^{\circ} 29.05'$ off Anna Maria Key on the old survey was noted only as old piling on T-5843, photos of 1939, and it showed a new dock about fifty meters to the north of it. This new northerly dock, was noted as pile remains on positions 133 and 134, g day, on the new survey. Pile remains, as noted on Chart 586, were not noted on the new survey and should be deleted from the chart.

Chart
1256
dated
12-24-56
only shows
northerly
pier in
ruins.

Survey H-1559a, 1883, 1:20,000, covers the inshore area south of the Cortez Bridge. Mangroves have extended well out from shore on shoals since the last survey. Changes along the shoreline are numerous due to development of the area, especially on the outer keys. Natural forces and conditions have changed the Longboat Pass area. Artificial channels have been dredged in the survey area to a great extent, both federal and privately maintained. Differences in the surveys due to the above causes will not be further noted.

See
TP 5
Review

In other areas agreement was good except as noted in the following:

- a. Changes were noted in the vicinity of Lat. $27^{\circ} 27.95'$, Long. $82^{\circ} 41.50'$. A deeper natural channel was developed and the position and depth of the shoals were somewhat changed. Changes are attributed to the tidal current and the channel dredged in the area.

L. COMPARISON WITH PRIOR SURVEYS: CON'T.:

- b. Shoaler depths were obtained in the natural channel at Lat. $27^{\circ} 26.32'$, Long. $82^{\circ} 40.01'$ on the new survey. Changes of this nature can be expected in areas of strong tidal currents.
- c. Apparently considerable dredging has been done in the area of Lat. $27^{\circ} 26.23'$, Long. $82^{\circ} 40.82'$ since the soundings on the old survey.

see
P 5
Review

Survey H-1314b, 1876, 1:4,000 covers the outside area of Longboat Pass (also referred to as Longboat Inlet). A complete change of the inlet and outside bar has occurred. It is quite obvious marked changes occur in the area of the pass by comparison of mappings and soundings of the area through the years. A sketch showing a comparison of H-8035; 1953; T-5847, photos of 1939; and the U.S.E.'s "Beach Erosion Study", map file number 58-13975, 1946, scale 1:5,000 is included to show recent changes. More marked changes occurred between H-1314b, 1876; H-1559a, 1883; and T-5847, photos of 1939.

M. COMPARISON WITH CHART:

Comparison was made with charts No. 586, print date 6/23/52, and No. 1256, print date 5/5/52.

Noted in the comparison with No. 586 is this item:

- a. The dock shown at Lat. $27^{\circ} 29.95'$, Long. $82^{\circ} 38.65'$ is now a line of pile remains as noted on position a day. (Falls on H-8034-1953)

Noted in the comparison with No. 1256 are these items:

- a. No trace of the pilings shown in Longboat Pass, Lat. $27^{\circ} 26.55'$, Long. $82^{\circ} 41.47'$ were found during the survey of this area or when the SOSBEE anchored and swung over the area during a current survey. The deep water of the channel is now in this area.
- b. The charted soundings and depth curves do not agree with the new survey around Longboat Pass, but this was expected.
- c. Shoal areas on the chart east of Otter I. and east of "Lt. 15" are not correctly defined as determined by the new survey.
- d. The old piling at Lat. $27^{\circ} 23.02'$, Long. $82^{\circ} 37.56'$ was not found during this survey and they should be deleted from chart. Old piling in Buttonwood Harbor should be deleted except for those noted on this survey.

Piling
deleted
from chart
12-56, dated
12-24-56

see P 5 & 6
Review

sister keys

delete
piling
see P 6
Review

N. DANGERS AND SHOALS:

Two important uncharted shoals exist presently in the changeable Longboat Pass area.

- a. An arc shaped shoal exists outside of Longboat Pass. The shoal starts off the SW end of Anna Maria Key and follows an arch W and S, restricting the inlet to the pass. Can buoy No. 1 is placed to mark the S'ly end of the shoal. A critical depth of 3 feet exists at Lat. $27^{\circ} 25.45'$, Long. $82^{\circ} 41.91'$, approximately 250 meters north of the buoy. The bottom was clearly visible on the shoal and the sounding lines were run over what appeared to be the shoalest areas. shown
on chart
12-56
dated
12-24-56
- b. A large shoal extends westward from the island due east of the pass. A critical depth of 3 feet exists at Lat. $27^{\circ} 26.57'$, Long. $82^{\circ} 41.25'$. shoal ade-
quately de-
lineated on
Ch't 1256, 12-24-56

These shoals were defined adequately in the normal development of this changeable area and no special investigation of further development is thought needed. ✓

All dangers and shoals were found as charted with the exception of those previously mentioned in this report. ✓

O. COAST PILOT INFORMATION:

A special Coast Pilot report for this area is to be prepared at a later date. ✓

The SOSBEE was anchored in the area of the survey at the following two locations:

- a. North of Cortez bridge at about Lat. $27^{\circ} 28.35'$, Long. $82^{\circ} 41.62'$ in about 20 feet of water. Besides occupying a current station in this location, it was used as a refuge anchorage when a hurricane threatened the area in late September. There is a wide natural channel in the area and the holding quality appeared good during the above anchorages. The current floods into Palma Sola Bay generally from both the north and south. This area is too open to the south to be a recommended storm refuge. ✓
- b. Longboat Pass, Lat. $27^{\circ} 26.57'$, Long. $82^{\circ} 41.41'$, in about 26 feet of water. This anchorage was to observe a current station. The strong tidal currents in the area of the pass, up to 3 knots at times, do not make it a recommended anchorage. ✓

O. COAST PILOT INFORMATION: CON'T.:

Up to four feet of water can be carried to Palma Sola Bay through tidal channels. The navigation of this unmarked area is extremely difficult and should not be attempted by anyone not thoroughly familiar with the area.

The federal channel, as charted, was found to be better than six feet in its center area throughout the area surveyed.

Four feet of water can be carried into Buttonwood Harbor where gas and water are available at the combination bait and boat house, motel, and trailer court.

The channel SE of W. Channel Lt. 19 is a range lighted by South Turn Range Front Lt. 26, Fl. R., and South Turn Range Rear Lt. Fl. W. Leaving this range just past Daybeacon 23 and heading eastward, there is a unlighted range left astern of South Entrance Range Front Daybeacon 24 and South Entrance Range Rear Daybeacon.

The entrance to Longboat Pass is marked by Can Buoy "1" but otherwise the pass is unmarked. This buoy is set just south of the tip of a circular arc shaped shoal that extends N and E to the southern tip of Anna Maria Key with N-S and E-W tangents at the respective ends. Up to 8 feet can be carried into the pass to the E and S of the above shoal. After coming left around and just off Anna Maria Key, five feet of water can be carried to the federal channel by heading for Lt. 15. Deeper water, up to 8 feet, can be found and carried to the channel by a E X S course from the pass to the deep water between Jewfish I. and Longboat Key. This southern route is difficult unless familiar with the area.

After leaving the area of the pass, the current gradually weakens inland except for constricted areas where it tends to build up. The tide floods from Longboat Pass to Palma Sola and Sarasota Bays. An average maximum of about 2 - 2.5 knots of current was metered in the pass.

The summer and fall were marked by heavier than normal rainfall for the area. In September a hurricane brought 35-40 m.p.h. SW'ly winds to the area for two days.

P. AIDS TO NAVIGATION: *(also see attached supplement to par. P)*

The positions of fixed aids to navigation were reported on Form 567 by the Tampa Photogrammetric Office.

P. AIDS TO NAVIGATION: CON'T.:

One floating aid was located, this being Can Buoy "1", Ref., in 19 feet of water, at the Longboat Pass entrance. It was located by position 152, w day, on the 12th of October 1953 at Lat. $27^{\circ} 26.05'$, Long. $82^{\circ} 41.95'$.

Azimuths of ranges, front to rear, were determined as listed below:

South Turn Range, Sarasota Bay - $130^{\circ}T$

South Entrance Range, Sarasota Bay - $265^{\circ}T$

Daybeacon "23" is not at the location shown on Chart 1256. It has been moved southeastward to Lat. $27^{\circ} 24.45'$, Long. $82^{\circ} 38.25'$. *Charted position adequately marks feature intended.*

Docks and bait houses in this area mark their entrance with privately maintained channel markers. Markers not considered important or permanent were not located. These aids consist of piles, posts, or stakes. Position 59, h day, locates a post at the channel entrance to a series of docks. Posts located by positions 7 through 15, da day, locate the channel into Buttonwood Harbor.

The swing bridge at Cortez has a horizontal clearance of 58 feet and a vertical clearance of 8 feet at high water. The Coast Pilot gives a horizontal clearance of 60 feet. The cause of the discrepancy is unknown.

Lat. $27^{\circ} 26.35'$, Long. $82^{\circ} 40.8'$
 A submerged power cable, laid in November 1953, has its termini marked by positions 5 and 6, da day. * Not charted.* The submerged cable shown on T-5847 across Longboat Pass is no longer in use. *(IP 6 Review)* * This submerged cable removed from Chart 1256, dated 12-28-56.

Q. LANDMARKS FOR CHARTS:

There are no recommended landmarks for charts within the confines of the bay area by this survey. Landmarks for offshore area will be covered in a special report covering all landmarks within the confines of Project CS-353.

R. GEOGRAPHIC NAMES:

See Field Inspection Report by Tampa Photogrammetric Office, Project Ph - 100. The hydrographic party encountered no discrepancies in geographic names in the area covered.

S. SILTED AREAS:

None found.

T. BY-PRODUCT INFORMATION:

None.

U. BOTTOM SAMPLES:

Previous surveys in this area usually gave the character of the bottom as only hard or soft. During the present survey samples were obtained to describe the material and nature of the bottom.

Z. TABULATION OF APPLICABLE DATA:

Attached to this report are:

1. Statistics Sheet.
2. Tide Note.
3. Approval Sheet.
4. List of Stations.
5. Index of Sheets.
6. Sketch of Longboat Pass Changes.
7. Supplement to paragraph "P".
8. Copy Ltr. to Commandant 7th C.G. Dist.
9. " " to Director - Sp. Rpt. Objects for C.G.

Submitted by,

Wilfred V. Warner

Wilfred V. Warner,
Ensign, USC&GS

STATISTICS FOR HYDROGRAPHIC SURVEY H-8035 (1953)

U.S.C.&G.S.S. SOSBEE

Arthur L. Wardwell, Chief of Party

Project CS-353

Field No. SO - 1253

Scale 1:10,000

Palma Sola Bay to Sarasota Bay, Fla.

Day Letter	Date 1953	Volume No.	No. of Positions	Statute Miles	No. of Pole Sdgs.
a) *	5 May	1	120	16.1	165
b)	12 May	1	84	14.6	438
c	31 July	2	176	27.0	588
d	4 Aug.	2 & 3	169	20.0	502
e	6 Aug.	3	97	14.8	373
f	7 Aug.	3	124	18.4	505
g	10 Aug.	4	161	21.9	711
h	11 Aug.	4	151	19.1	487
i	13 Aug.	5	179	24.2	450
j	18 Aug.	5	71	8.8	167
k	19 Aug.	6	124	14.8	319
l	21 Aug.	6	142	18.2	381
m	24 Aug.	7	118	17.5	665
n	27 Aug.	8	45	6.2	112
o	2 Sept.	9	126	12.5	292
p	3 Sept.	7	92	8.2	116
q	15 Sept.	8	62	6.4	86
r	21 Sept.	8	117	13.9	338
s	22 Sept.	9	160	13.8	312
t	7 Oct.	10	169	17.7	702
u	12 Oct.	10	133 ¹⁵¹	18.7	193
v	13 Oct.	11	82	12.4	82
w	19 Oct.	11	75	9.1	73
x	22 Oct.	11 & 12	155	23.0	446
y	2 Nov.	12	88	11.0	186
z	3 Nov.	12	150	23.5	315
aa	4 Nov.	13	137	18.9	546
ab	9 Nov.	13	96	8.1	150
ac	16 Nov. (1954)	13 & 14	168	24.3	225
ad	26 Jan.	14	149	19.6	215
ae	27 Jan.	15	97	11.8	75
Totals			3817	404.5	10215
			3531	463.8	9615

* Originally done on SO-1153(H-8034) transferred to this sheet.

Square Statute Miles = 12.3

* Smooth plotted on sheet So-1153

TIDE NOTE

A portable automatic tide gage was maintained at Cortez, Florida, Lat. $27^{\circ} 28.0'$ N., Long. $82^{\circ} 41.3'$ W. and used from the beginning of work through Sept. 15 th. During this period data from this gage were used for reducing all soundings. Zero on the staff was 1.6 feet below the plane of mean low water, according to letter 36-rcb of 1 June 1953 from the Washington Office.

After Sept. 15th. when hydrography was extended below Lat. $27^{\circ} 26'$ the gage at Sarasota, Florida, Lat. $27^{\circ} 20.0'$ N., Long. $82^{\circ} 32.7'$ W. was used to reduce all soundings. A time correction of minus 20 minutes was used on data from this gage, this being the only correction, and was obtained from simultaneous comparison of the above two gages. Zero of the staff at Sarasota was 1.5 feet below the plane of mean low water, according to letter 36fj of 20 April 1953. There was some overlapping of the sounding areas reduced by both gages.

Not on
H-8035-
Falls on
H-8044

PROCESSING OFFICE
LIST OF SIGNALS
H-8035

TRIANGULATION STATIONS

DOC AMBE TR. 19, U.S.E., 1946
 COR CORTEZ, 1908
 JULE JULE, 1943-53
 KEY KEY, 1878-1953
 GUS LONG BAR SHOAL DAYBEACON 23, 1953
 LET LONGBOAT INLET LIGHT 15, 1953
 LONG LONGBOAT LIGHT 16A, 1953
 ERA SARASOTA BAY DAYBEACON 20B, 1953
 ART SARASOTA BAY DAYBEACON 20C, 1953
 BAH SARASOTA BAY DAYBEACON 22, 1953
 ROT SARASOTA BAY DAYBEACON 25, 1953
 RUM SARASOTA BAY LIGHT 28, 1953
 NAT SOUTH ENTRANCE RANGE, FRONT DAYBEACON 24, 1953
 REAR SOUTH ENTRANCE RANGE, REAR DAYBEACON, 1953
 TOM TOM, 1878-1953
 CHAN WEST CHANNEL LIGHT 19, 1953
 RIP WEST CHANNEL LIGHT 21, 1953
 MAX WEST CHANNEL, SOUTH RANGE, FRONT LIGHT 26, 1953
 SAM WEST CHANNEL, SOUTH RANGE, REAR LIGHT, 1953
 ALE WHALE KEY, 1908-53

MARKED TOPOGRAPHIC STATIONS

FOG, 1942-53 T-11081 ✓
 GEM, 1943-53 T-11081 ✓
 LOO, 1941-53 T-11080 ✓
 SPY, 1941-53 T-11081 ✓
 TEX, 1941-53 T-11079 ✓

TOPOGRAPHIC STATIONS

SOURCE T-11079

Cue Dud Kid Sly Tap Van

SOURCE T-11081

Abe	Ace	Amy	Ask	Axe	Bed	Big	Boa	Box	Cat
Coo	Cop	Cow	Cry	Day	Dif	Dog	Duo	Ebb	End
Eon	Fat	Fin	Foe	Fox	Gag	Guy	Hug	Jay	Joe
Ken	Lay	Lip	Liz	Lug	Mar	Met	Neo	New	Nip
Nod	Now	Oak	Odd	Par	Peg	Pie	Pin	Ply	Pot
Pup	Rat	Rev	Rig	Rio	Rue	Sal	Sip	Sis	Sox
Sub	Sue	Tax	Thy	Toy	Val	Via	Wag	War	Wed
Who	Wig	Wit	Yam	Yes	Zag				

SOURCE T-11083


Ben	Bob	Bus	Cod	Con	Don	Egg	Emo	Eva	Fez
Fig	Fun	Gal	Gas	Get	Hag	Hen	Hex	Hoe	Jim
Jug	Lop	Moe	Mug	Nul	Rim	Tan	Woo	Yak	

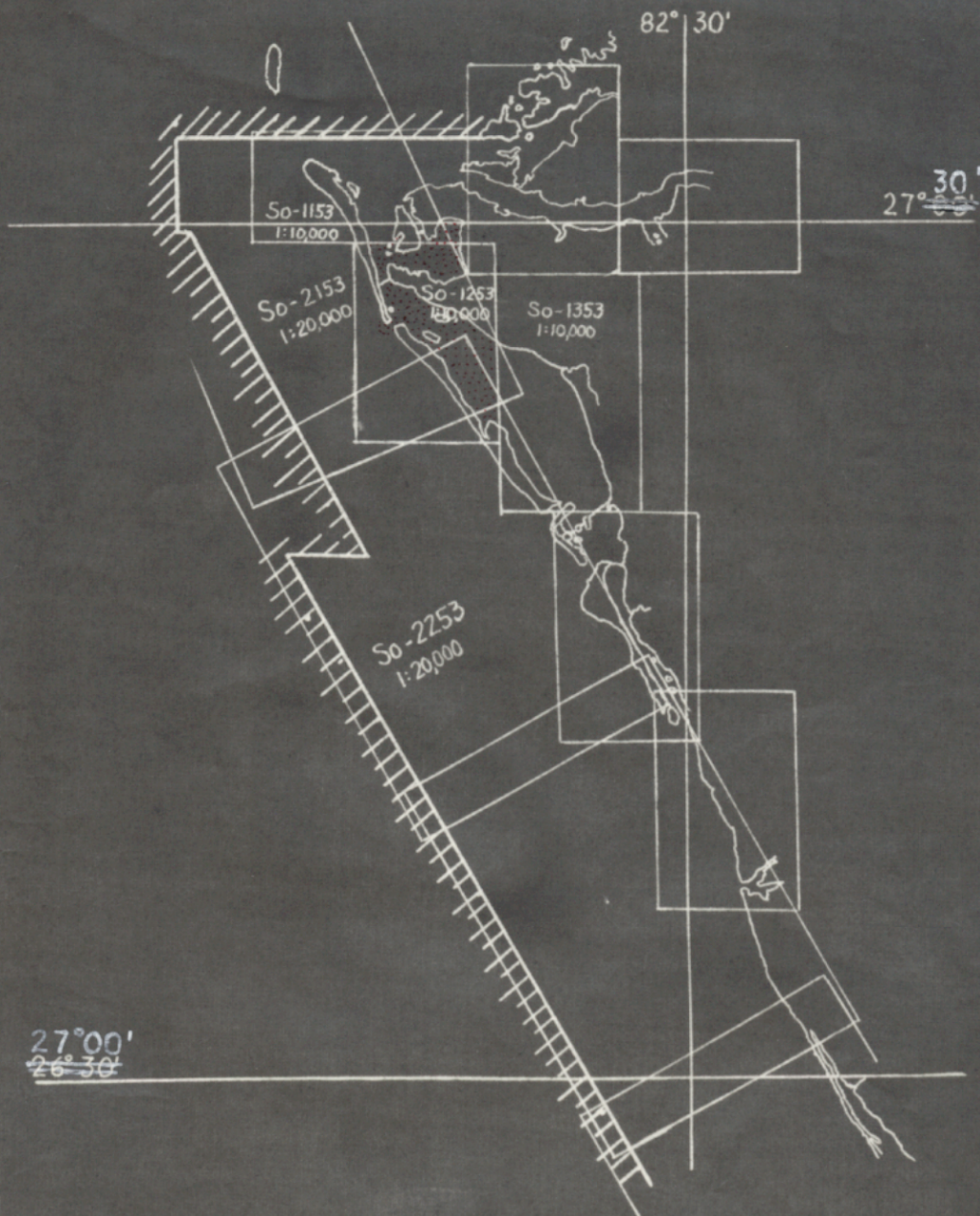
HYDROGRAPHIC STATIONS

Dot	Vol. 7, pg.35	Job	Vol. 13, pg. 41
Tub	Vol. 7, pg. 35	Vim	Vol. 10, pg. 46

APPROVAL SHEET

The survey of the area covered by SO-1253(H-8035) is adequate for charting purposes. The sounding records and boat sheet have been inspected and are approved this date. Additional work is not necessary.


Arthur L. Wardwell
Commander, USC&GS



INDEX OF SHEETS


PROJECT CS-353

(Northern Part)

Supplement to paragraph "P", page 11.

Add to first paragraph:-

In accordance with the project Instructions and references 1551 and 8533 of the Hydrographic Manual a special chart has been furnished the Coast Guard for locating this buoy (also floating aids at Big Sarasota Pass, New Pass, and Longboat Pass). Information requested forwarded to the Washington Office (ref. 8533) has been forwarded.


Roswell C. Bolstad
Commander, USC&GS

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.

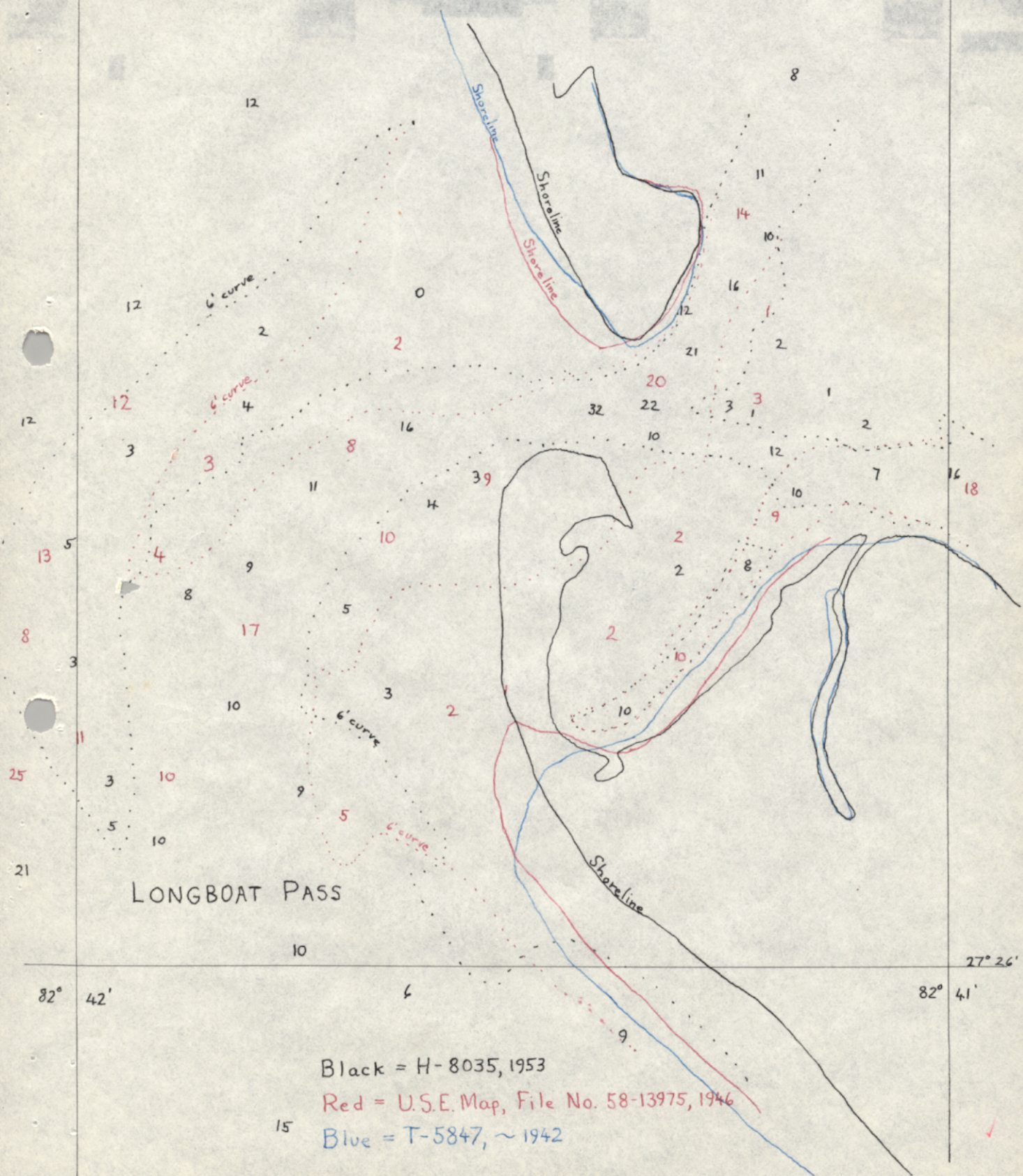
Subject: Special Report -
Objects for use of U. S. Coast Guard.

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 thanⁿ at Big Sarasota Pass, New Pass, and Longboat Pass.

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

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

26° 27'



Black = H-8035, 1953
 Red = U.S.E. Map, File No. 58-13975, 1946
 Blue = T-5847, ~1942

TO BE CHARTED }
 TO BE DELETED }

STRIKE OUT ONE

OBJECTS FOR USE OF U. S. COAST CHART

19

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by Roswell C. Bolstad

Roswell C. Bolstad, Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION			DATUM N.A.	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE	LONGITUDE								
				° ' D.M. METERS	° ' D.P. METERS								
							1927						
S. Gable		S. Gable of two-story building on beach at Bradenton Beach.	H 8035 ACE	27 27 1822 (59.2)	82 41 1584 (57.7)	"	"	Rad. Plot	1953	x			1256
W. Gable		W. Gable of prominent two-story White bldg., 4 pillars on front.	H 8035 EVA	27 26 256 (08.3)	82 41 327 (11.9)	"	"	"	"	x			1256
S.W. Gable		S.W. Gable of two-story white house with white roof.	H 8035 GAL	27 25 677 (22.0)	82 40 500 (18.2)	"	"	"	"	x			1256
CUP.		Cupola, ruined hotel	RING	27 20 34 (01.1)	82 35 521 (19.0)	"	"	Tri.	1953	x			1256
TANK		Elevated tank, St. Armands Key	ARM	27 19 294 (09.6)	82 34 1035 (37.6)	"	"	"	1953	x			1256
LIGHT		Big Sarasota Pass Light 5	LEO	27 16 1711 (55.6)	82 34 331 (12.0)	"	"	"	1953	x			1256
Seawall		S. corner of seawall	WAX	27 16 761 (24.7)	82 34 74 (02.7)	"	"	Rad. Plot	1953	x			1256

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

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

✓

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8035 (Field No. So-1253)

GENERAL


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

a and b days, in volume 1, were originally surveyed on sheet ^{H-8034} So-1153. These days were smooth plotted on that survey to simplify sheet lay-outs, control, etc.

DISCREPANCIES

Soundings were not plotted between positions 32,33 &34 da, vol. 13. The boat sheet positions could not be reconciled with shoreline changes which occurred after hydro survey was made.

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
13 Aug. 1956

GEOGRAPHIC NAMES
 Survey No. H-8035

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Florida</u>										BAY	1
<u>Sarasota Bay</u>											2
<u>Cranes Bayou</u>											3
<u>Buttonwood Harbor</u>											4
<u>Longboat Key</u>										BAY	5
<u>Long Bar Point</u>											6
<u>Tidy Island</u>											7
<u>Longbeach</u>											8
<u>Longboat Pass</u>											9
<u>Jenfish Key</u>											10
										(mentioned p. 10)	
<u>Anna Maria Key</u>										BAY	11
<u>Cortez</u>											12
										(tide station)	
<u>Cortez Bridge</u>											13
<u>Palma Sol Bay</u>											14
<u>Perico Island</u>											15
<u>Perico Bayou</u>											16
<u>Sarasota Pass</u>											17
<u>Sister Keys</u> - ajw											18
										Names approved	19
										9-7-56	20
										L. Heck	21
										(See chart 1256 for best	22
										placement of names)	23
											24
<u>Sarasota</u>											25
										(tide station off sheet)	26
											27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8035...

Records accompanying survey:

Boat sheets .1...; sounding vols. .15...; wire drag vols.; bomb vols.; graphic recorder rolls 16-Envelopes special reports, etc. 1-Descriptive report and 1-Smoothsheet.

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

Number of positions on sheet .38.98
Number of positions checked .107
Number of positions revised ...1... Pos. No. 45K
Number of soundings revised (refers to depth only) ..2...
Number of soundings erroneously spaced ...0...
Number of signals erroneously plotted or transferred ..1... signal O VIM
Topographic details Time ..8 hrs
Junctions Time ..3 hrs
Verification of soundings from graphic record Time ..4 hrs

Verification by D.J. KENNON Total time 309 Date 2/25/57

Reviewed by [Signature] Time 54 Date 3/15/57

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens:

24 September 1956

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 8035

Locality West Coast of Florida

Chief of Party: R. C. Bolstad in 1953-54

Plane of reference is mean low water, reading

1.6 ft. on tide staff ~~XX~~ (1953) at Cortez

4.7 ft. below B.M. 1 (1953)

1.5 ft. on tide staff (1953-54) at Sarasota

6.5 ft. below B.M. 1 (1953)

Height of mean high water above plane of reference is
as follows:

Cortez = 1.4 feet

Sarasota = 1.3 feet

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8035

FIELD NO. SO-1253

Florida, Florida West Coast, Palma Sola Bay to Sarasota Bay

Project No. CS-353

Surveyed - May 1953 - Jan. 1954

Scale 1:10,000

Soundings:

Control:

808 Fathometer
Sounding Pole

Sextant fixes on
shore signals

Chief of Party - R. C. Bolstad

Surveyed by - R. C. Bolstad, A. L. Wardwell, J. E. Waugh and
W. V. Warner

Protracted by - A. Kaupa

Soundings plotted by - A. Kaupa

Verified and inked by - D. J. Kennon

Reviewed by - I. M. Zeskind 3-15-57

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-11079, T-11081, T-11083, T-11084 and T-11085 of 1952-54.

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. The 3-ft. curve was drawn to better delineate the bottom configuration.

The bottom is fairly irregular. Submarine features such as channels through flats, deeps, oyster bars and shoals contribute to the bottom irregularity. The following privately dredged channels and their controlling depths are found within the area of the present survey:

<u>Vicinity of</u>		<u>Controlling depth</u>
<u>Latitude</u>	<u>Longitude</u>	<u>Feet</u>
27°27.3'	82°40.3'	3
27°25.5'	82°38.4'	5
27°23.5'	82°37.8'	6

4. Junctions with Contemporary Surveys

The junctions with H-8044 (1953) on the southeast and H-8034 (1953) on the north will be considered in the reviews of those surveys. The project survey which joins the present survey in Longboat Pass has not yet been received in the Washington Office.

5. Comparison with Prior Surveys

- A. H-1272 (1874), 1:20,000 H-1314b (1876), 1:4,000
H-1314a (1876), 1:40,000 H-1559a (1883), 1:20,000

These surveys together cover the ^{that} area of the present survey. A comparison with H-1314b reveals an offshore shift of about 0.3 mile has occurred in both the position of the bar extending from the north side of the Inlet and the outer channel leading into Longboat Pass. A comparison between surveys H-1272 and H-1559a and the present survey shows numerous changes in bottom configuration and shoreline which are attributed to natural and man-made causes, such as the action of the current on the bottom, the construction of a bridge, the dredging of canals and channels and the reclaiming of land. The outer shore on the north side of Longboat Pass has eroded about 250 meters, and on the south side of the Pass, the outer shore has accreted about 250 meters. The channel through the Pass has shifted about 350 meters northwestward, cutting through an island which previously existed in this area. An example of land reclamation occurs in lat. 27°26.8', long. 82°39.5', where 2 former islands now form one island. Except in the Pass and where dredging operations have occurred, only minor differences of 1 - 2 ft. in depths are noted.

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

- B. H-4579a (1926), 1:20,000

The prior survey covers only that portion of the present survey in Sarasota Pass which lies north of lat. 27°28.0'. The bottom in this area is changeable. However, only minor differences in depth of 1 - 2 ft. are generally noted, except in several areas where differences are greater, as for

example, in the vicinity of lat. $27^{\circ}29.1'$, long. $82^{\circ}39.1'$, where prior depths of 2 - 4 ft. fall in present depths of 7 - 8 ft.

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

6. Comparison with Chart 586 (Latest print date 2-11-57)
Chart 1256 (Latest print date 12-24-56)

A. Hydrography

The charted hydrography originates principally with the previously discussed prior surveys which need no further consideration, supplemented by several soundings from the U. S. Engineers survey of 1938 (Bps. 33336 and 33338) and the present survey prior to verification and review. Attention is directed to the following differences between the charted information and the present survey.

1. The piles charted in lat. $27^{\circ}28.82'$, long. $82^{\circ}41.30'$, from H-4579a (1926) were not found during the present survey. These piles are believed to no longer exist and should be deleted from the chart. ✓ 1256
2. The piles charted in lat. $27^{\circ}23.02'$, long. $82^{\circ}37.56'$, from air-photographic survey T-5848 (1939-43) were not found during the present survey. These piles are believed to no longer exist and should be deleted from the chart as recommended by the hydrographer. ✓ 1256
3. The bridge under construction charted in lat. $27^{\circ}26.6'$, long. $82^{\circ}41.2'$, across Longboat Pass originates with information (Chart letter 169, 1956) received subsequent to the present survey. ✓
4. The bridge under construction charted in lat. $27^{\circ}28.2'$, long. $82^{\circ}41.6'$, between Cortez and Anna Maria Key, originates with information (Chart letter 169, 1956) received subsequent to the present survey.
5. The submerged cable between Jewfish Key and Longbeach located on the present survey in lat. $27^{\circ}26.35'$, long. $82^{\circ}40.8'$ has not been charted. ✓
*Not requested by Army
1257 - C&D with Englebrecht - Nothing at this time ET 7/29/60*
6. Three canals located on the present survey in lat. $27^{\circ}25.85'$, long. $82^{\circ}40.3'$ have not been charted.

Only minor differences of 1 - 2 ft. between the charted and present survey depths are noted.

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

5. 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.

6. Dredged Channels

Present survey depths in the dredged channels are in harmony with the charted controlling depth of 5 ft.

7. Condition of Survey

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

b. The smooth plotting was accurately done.

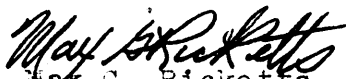
8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

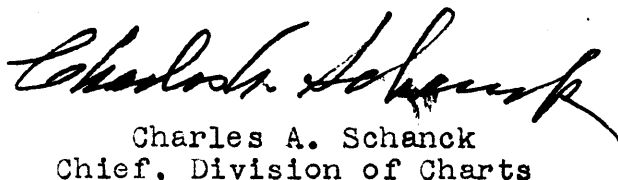
9. Additional Field Work Recommended

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

Examined and Approved:



Max G. Ricketts
Chief, Nautical Chart Branch



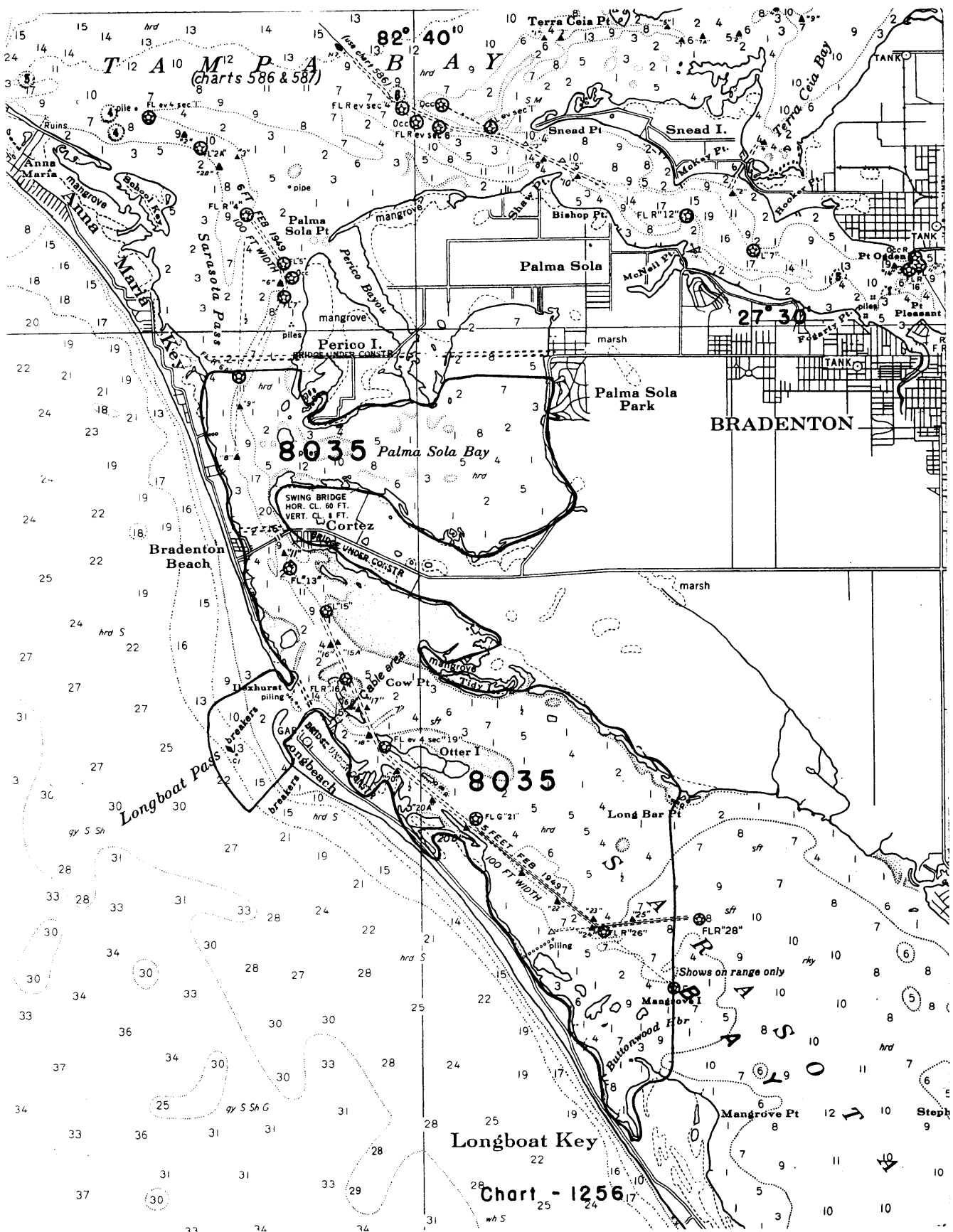
Charles A. Schanck
Chief, Division of Charts



Karl E. Jeffers
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division of Coastal Surveys



Longboat Key

Chart - 1256

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8035

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9-14-56	1257	J. Walby	Before After Verification and Review Examined - not applied
10/10/56	857	J. Sanchez	Before After Verification and Review
10/10/56	1256	N. W. Burgoyne	Applied critical sdgs. only Before After Verification and Review
10-24-56	586	F. Albert	Before After Verification and Review <i>Partial</i>
Aug 6, 1957	1113	D. A. Bevan	Before After Verification and Review <i>Fully applied for this scale chart.</i>
10/31/57	857	S. A. McGinn	Before After Verification and Review <i>Completely applied.</i>
2-19-59	586	F. A. Dismore	Before After ^{Prelim.} Verification and Review
2-19-59			<i>Completely applied (then CRT. 857)</i>
11 May 60	1257	Nichols	Before After ^{Prelim.} Verification and Review <i>Full</i> <i>Thru Chart 586 - 7 Dec 1959</i>
9/29/60	1256	E. Thomas	Before After Verification and Review <i>Critical Sdgs</i> <i>and is considered fully applied until Recmt.</i>
9 Nov 61	586	Nichols	Before After Verification and Review <i>Thru 857B to add 3-foot depth contour</i>
3/20/68	1256	E. Johnson	Consider Fully Appld. Only hydro charted is at longboat pass. Examined thru cht 857-5C No Corr.

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.