8152

Diag. Cht. No. 1265.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SO-2154 Office No. H-8152

LOCALITY

State Florida

General locality Gulf of Mexico

Locality Lemon Bay to Midnight Pass

1954-55

CHIEF OF PARTY

R. C. Bolstad

LIBRARY & ARCHIVES

DATE February 14, 1957

8-1870-1 (1)

8152

Form 537
(Ed. June 1946)

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-8152

Field No. So-2154

State FLORIDA

General locality ~~WEST COAST~~ Gulf of Mexico

Locality LEMON BAY TO ~~CASEY KEY~~ Midnight Pass

Scale 1:20,000 Date of survey July 1954 to Sept. 1955

Instructions dated 18 December 1952

Vessel SOSBEE

Chief of party R.C. BOLSTAD

Surveyed by R.C. BOLSTAD & W.V. WARNER

Soundings taken by ~~fathometer~~, graphic recorder, ~~XXXXXXXXXX~~ POLE

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by NORFOLK DISTRICT OFFICE

Protracted by R.D. LYNN (Norfolk)

Soundings penciled by R.D. LYNN

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

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

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-8152 (Field No. SO-2154)

RAYDIST AND VISUAL CONTROL

Lemon Bay to Casey Key	West Coast of Florida
Scale 1:20,000	July 1954 to September 1955
U.S.C.& G.S. Ship SOSBEE	R. C. Bolstad, Ch. of Party

A. PROJECT:

This survey is part of Project CS-353 and was done in accordance with original instructions dated 18 December 1952.

No supplemental instructions received. Numerous letters were received regarding the functioning of the Raydist Control equipment. Standard operating procedures for hydrographic control were developed by this party during its use. See the Initial and Final Reports on Raydist Equipment Tests, submitted by R. C. Bolstad in Sept. and Oct. of 1954.

B. SURVEY LIMITS:

This survey covers a rectangular area of the Gulf of Mexico with the longer axis running 150° - 330° T. The northeasterly border is the outside coastline of the West Coast of Florida.

The northernmost corner is at Lat. 27° 14'.0 N., Long. 82° 31'.5 W. and the southernmost corner is at Lat. 26° 57'.5 N., Long. 82° 32'.7 W.

An index of hydrographic sheets is enclosed to show junctions with contemporary surveys of the SOSBEE. The offshore edge of the survey joins H-7934; 1:80,000; 1951.

Field work was started in July 1954 and was completed in Sept. 1955. Much of the intervening time was spent on contemperary surveys.

C. VESSELS AND EQUIPMENT:

Skiff 735 was used on hydrography for the shoaler water along

C. VESSELS AND EQUIPMENT: cont.

the beach. This is a 25-foot wooden craft, powered by two-ten-horsepower outboard motors, which operated from a fishing camp at Midnight Pass and from the Venice Yacht Club Pier at Venice Inlet. The speed of the skiff is about 6 knots maximum with a turning radius of about 20 meters.

The offshore sounding was done with the Ship SOSBEE, a diesel powered, single screw wooden hull vessel, 63 feet long at the water line, based at Sarasota, Florida. Standard sounding speed of 1400 RPM averages 8.5 to 9.0 knots. Turning radius of the SOSBEE is about 100 meters.

Fathometer 808J, No. 115-S, calibrated at 820 fm./sec., was used for sounding on all but four days. These four days were all hydrography with the Ship SOSBEE when fathometer model 808, number 140-SP, calibrated at 820 fm./sec., was used.

D. TIDE AND CURRENT STATIONS:

The tide gage at the Sarasota Municipal Pier, Sarasota, Fla., was used to reduce all sounding. A time correctionof minus one-hour was used. No current stations were occupied in the area of the survey. T.G. off the survey

E. SMOOTH SHEET:

See "correspondence" under tabulation of applicable data for reference to smooth plotting this survey. Some minor correction in the positions shown on the boat sheet is possibly merited, see "Correspondence" for further clarification. These corrections have already been applied in the record books, A copy of the corrections applied is included in the applicable data of this report.

F. CONTROL STATIONS:

Triangulation stations used are these:

CHARLEY - CHARLEY, 1954; R. C. Bolstad, Chief of Party
RIP - RIP, 1954; R. C. Bolstad, Chief of Party
KEG - KEG, 1878
DEL - DEL, 1954; R. C. Bolstad, Chief of Party
CUP - VENICE BEACH CASINO CUPOLA, 1954; R. C. Bolstad, Chief of Party
VEN - VENICE MUNICIPAL TANK, 1934

Raydist stations were located at ~~RIP~~ DEL, 1954 and CHARLEY, 1954. These two stations were used to control all Raydist work. Triangulation stations SARASOTA, ST. ARMAND KEY, TANK, 1953; EWING USE, 1935; and GEK (See list of stations for this survey) were also used in the calibration of the Raydist control equipment.

F. CONTROL STATIONS: cont.

Topographic stations were located by photogrammetric methods, shoreline manuscripts T-11087, T-11089, T-11090, and T-11384 photos of 1952 and 1953.

G. SHORELINE AND TOPOGRAPHY:

The shoreline was transferred from shoreline manuscripts T-11087, T-11089, T-11090 and T-11384, photos of 1952 and 1953.

Sounding lines were run as close to the beach as possible to delineate the low water line. Along much of the shoreline a shoal tends to build up approximately 100 meters offshore which was deemed impractical to develop.

Erosion of the shoreline tends to occur in some areas. Some groins have been established to stop this erosion and in the future more can be expected.

H. SOUNDINGS:

Model 808 portable fathometers were used for all sounding except in shoal water where a wooden pole, graduated in feet was used.

I. CONTROL OF HYDROGRAPHY:

A list of stations included in the applicable data of this report.

Hydrography on a strip about 1 mile wide along the shoreline was controlled by sextant three point fix. The remaining large area of sounding was controlled by the Raydist System of electronic control. While this equipment is considered extremely accurate, see "Correspondence", under Tabulation of Applicable Data of this report, for possible minor adjustment to positions plotted on the boatsheet SO-2154. The corrections have been entered in the record books.

CHARLEY, 1954 and DEL, 1954 were used as control stations for all Raydist work. For full information on the SOSBEE's work and tests with the Raydist Range System, see various reports submitted on this system during period of July thru Oct. 1954, the main report being "Final Raydist Report, 12 Oct. 1954, R. O. Bolstad, Comdg. Officer, Ship SOSBEE".

Comparison of overlapping soundings of Raydist and Visual work showed good agreement. The junction made on the south by Shoran controlled SO-2155a was satisfactory. The junction with shoran controlled H-7934 (HY-8251) needs further study where the smooth sheet of H-7934 is available. Junction with H-7934 adequate

I. CONTROL OF HYDROGRAPHY: cont.

Raydist arcs (circular) were inked on SO-2154 by the Ship SOSBEE at 100 lane intervals (1 lane = ½ wave length = 59.455 feet) with station CHARLEY, 1954 and DEL, 1954 as centers. Positions were plotted on the boat sheet with an Odessey protracter using range values from stations CHARLEY and DEL. The original recorded value from station DEL is in lanes and can be laid off directly. The original recorded readings from CHARLEY are for a system of hyperbolic curves about the two stations. A simple formula converts the hyperbolic value to a range value. Both hyperbolic reading and computed range value for CHARLEY are recorded in the sounding record books, the computed range value of CHARLEY being shown in the bracket. 100 lanes = 906.0 m.

The formula for converting the hyperbolic reading to a range value is as follows:

CHARLEY Range Value = (CHARLEY to DEL Dist.) +DEL reading - 2 (hyperbolic CHARLEY reading).

In the above formula all but the hyperbolic reading are in lanes, the distance between CHARLEY and DEL having been computed by inverse as 797.13 lanes.

Positions could be plotted using the hyperbolic reading and hyperbolic curves. Strong intersection of arcs by this method could be obtained in the extreme northern and southeastern areas, but is not deemed necessary for this survey.

The running of arcs off station DEL proved extremely satisfactory in doing hydrography. A voltmeter was connected to the Raydist station indicator so as to show the change in phase of station DEL. The helmsman could change his course to keep the phase meter at a relatively constant reading (± 20 ft.). Installation and coordinationof the phasemeter was easily accomplished.

J. ADEQUACY OF SURVEY:

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

Junctions with adjoining surveys are satisfactory and depth curves continuous with the possible exception of H-7934 at the offshore edge of this survey. Further study of the junction should be made where the smooth sheet of H-7934 is available.

K. CROSSLINES:

Crosslines were 10% of the total mileage run. Any depth discrepancies at crossings were in the manitude of one foot.

L. COMPARISON WITH PRIOR SURVEYS:

See Comparison With Chart.

M. COMPARISON WITH CHART:

Comparison was made with Chart No. 1256, print date Jan. 3/55. General agreement was good.

The 28 foot charted sounding at Lat. 27° 10'.4 N., Long 82° 34'.1 W. is the only charted sounding not reconciled by slight adjustment to the new survey's sounding. On the new survey the location of this sounding lies in an area of a least depth of 32 feet. The hydrographer believes the charted sounding to be presently erroneous, the bottom having possibly changed in the area. (28ft deleted from chart 1256, dated 4-21-58).

@ 27°03.2 λ 82°26.7

See paragraph N. for discussion of wreck charted off Horse and Chaise Pt. with its position marked P.A. (IP 6 of Review)

The new survey has a much greater development of the survey area than is presently charted. Revision and addition of numerous depth curves is called for. The following is a list of shoals recommended for considerationin the next printing of Chart No. 1256:

1.)	The	35	foot	shoal	at	Lat.	27°	08'.5	N., Long.	82° 36'.8 W.
2.)	The	13	foot	"	"	"	27°	10'.4	N., "	82° 30'.5 W.
3.)	The	32	foot	"	"	"	27°	06'.5	N., "	82° 34'.8 W.
4.)	The	20	foot	"	"	"	27°	04'.9	N., "	82° 28'.7 W.
5.)	The	24	foot	"	"	"	27°	01.6	N., "	82° 27'.5 W.
6.)	The	33	foot	"	"	"	27°	00'.3	N., "	82° 31'.3 W.
7.)	The	35	foot	"	"	"	26°	59'.3	N., "	82° 31'.9 W.
8.)	The	32	foot	"	"	"	26°	59'.4	N., "	82° 30'.8 W.
9.)	The	29	foot	"	"	"	27°	00'.2	N., "	82° 29'.4 W.
10.	"	19	"				27°	04.9		82 28.7
11	"	31	"				27	03.02		82 32.65

N. DANGERS AND SHOALS:

There are no important new'ly found dangers or shoals in this survey. Note is made here of the shoals mentioned in paragraph M.

The wreck charted at Lat. 27° 03'.2 N., Long. 82° 26'.7 W. and marked P.A. was not found on this survey. A thorough search of the area was made with no indication of the wreck found. The area is very susceptable to wind and current action as indicated by the irregular depth curves of the area. See 1 day Vol. 16 for special search of area. During sounding in area on other days a lookout was kept for any signs of a wreck; the bottom was clearly visible to a depth of about 9 feet and no wreck was noted. It is very probable the wreck has been washed ashore. An additional inspection will be made inshore along the beach. See additional notes under Approval Sheet in back of this report. (IP 6 Review)

wreck reported to be in 10 ft. ch. 751 (1957)

All shoals, dangers, and bare rocks were found as charted or shoaler depths were found except as noted previously.

O. COAST PILOT INFORMATION:

No coast pilot information for area surveyed. A special coast pilot report of the area will be made.

P. AIDS TO NAVIGATION:

No fixed or floating aids in the limits of the survey.

Q. LANDMARKS FOR CHARTS:

Landmarks are to be reported on form 567 for an area covering this survey.

A list of the recommended landmarks for this area are:

△ VENICE MUNICIPAL TANK, 1934
△ VENICE BEACH CASINO CUPOLA, 1954

R. GEOGRAPHIC NAMES:

No special report on Geographical Names was required. The hydrographic party found no discrepancies in the charted names.

S. SILTED AREAS:

None.

T. BOTTOM SAMPLES:

Bottom samples were obtained at required intervals thoughout the surveyed area using a leadline with soap placed in a hollow bottom.

U. RAYDIST RANGE SYSTEM:

For the basic report on the Raydist Range System of electronic control see "Final Raydist Report, 12 Oct. 1954, R. C. Bolstad, Comdg. Officer, Ship SOSBEE".

The Raydist Range System is a tracking system and is subject to disadvantages of such. The main advantages noted by this party are:

1. Compactness of equipment.
2. Easy installation and portability of stations.
3. Use of shore power where available.
4. No shore station attendants with shore power use.
5. Accuracy.
6. Adaptibility to steering arcs.
7. Use in most any weather; day or night.
8. Bush recorder (optional) gives position at every moment.

Main disadvantages are:

1. It is a tracking system.

   (a) loss of lane count due to bad electrical storms.
   (b) loss of lane count due to power failure (any station).
   (c) loss of lane count due to instability due to distance, multipathing, or poor ship grounding.

U. RAYDIST RANGE SYSTEM: cont.

Main disadvantages are: cont.

2. Present reading system, similar to electric meter, and necessary conversion of hyperbolic reading to plottable range value.

3. Only one ship can operate on Raydist Range System.

4. Grounding of shore stations necessary.

The methods of calibration of Raydist equipment were explored during this survey. Once set in, at a known representative point in the area, the dials read the correct phase (fraction of a lane) until operational or tuning changes occur in the equipment. The problem then consists of checking the lane or whole count. Below are listed methods used by this party:

1. Computed calibration sites.
2. Computed point on range (using intersection of ranges or range and sextant angles).
3. Computed Buoy positions.
4. Items 1, 2, and 3 with values not computed but determined by previous correct Raydist readings.

   (a) Buoy positions particularly useful when working outer part of survey.
5. Baseline crossings give check on hyperbolic station.

Posible modifications recommended by this party are these:

1. More readable dials (A power driven phase meter with a printing device has been suggested).
2. Eliminate computation involving conversion of hyperbolic reading by power driven conversion computer to read both range values.
3. Higher frequency stations to facilitate checking lane count and more stability of lane count.

The range of the system is approximately line of sight. Readings were gotten better than 18 miles from a shore station.

No maximum distance was obtained.

VWXY. -----

Z. TABULATION OF APPLICABLE DATA:

1. Statistics
2. Tide Note
3. Approval Sheet
4. Index of Sheets
5. Correspondence
6. List of applied correction
7. List of Stations

Submitted by,

Wilfred V. Warner

Wilfred V. Warner,
Ensign, USC&GS

STATISTICS

For Hydrographic Survey H-8152
Field No. SO-2154

Volume Number	Day Letter	1954 Date	Pole Soundings	Number of Positions	Statute Miles of Sounding
		Ship SOSBEE- RAYDIST- CONTROL			
1	A	16 Aug.	CP	44	17.8
1 & 2	B	17 "	CP	276	145.2
2 & 3	C	18 "	CP	274	116.3
3 & 4	D	19 "	CP	159	77.2
4 & 5	E	20 "	CP	281	125.0
6 & 7	F	23 "	CP	261	120.1
7 & 8	G	24 "	CP	215	107.6
8	H	31 "	CP	94	38.9
8 & 9	J	1 Sept.	CP	132	53.8
9 & 10	K	2 "	CP	182	81.0
10	L	7 "	CP	125	55.8
10 & 11	M	8 "	CP	105	44.6
11	N	10 "	CP	89	34.4
11	P	13 "	CP	13	5.6
				2250	1023.3
		SHIP SOSBEE- VISUAL- CONTROL			
14	Q	7 June 1955	CP	189	65.7
14 & 15	R	14 June 1955	CP	97	32.6
				286	98.3
		SKIFF - VISUAL - CONTROL			
		1955			
12	a	2 Mar.	40	30	6.1
12	b	31 "	100	111	23.8
12	c	4 Apr.	CP	120	27.0
13	d	8 "	181	61	10.8
13	e	1 June	212	53	11.3
13	f	2 "	13	59	10.7
13 & 16	g	20 "	CP	62	13.7
16	h	21 "	8	52	10.6
16	j	15 Sept.	CP	85	20.1
16	k	16 "	CP	33	7.8
			554	666	141.9

Summary

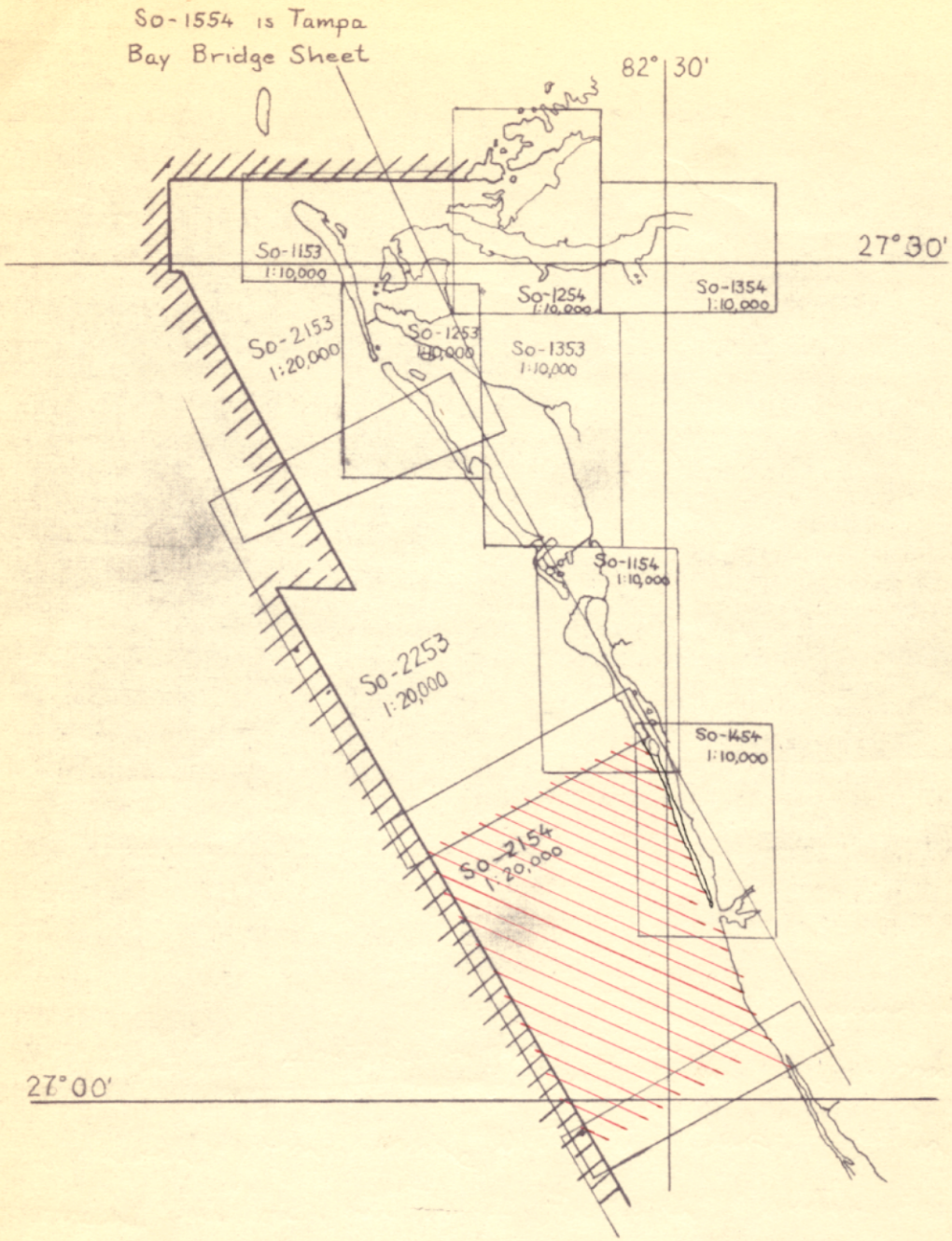
SOSBEE - (RAYDIST) ----------	2250 - - - -	1023.3
SOSBEE - (VISUAL) ----------	286 - - - -	98.3
SKIFF No. 735 - (VISUAL) ------	666 - - - -	141.9
Grand Total - - - - - - - - - -	3202 - - - - -	1263.5

Square Statute Miles = 130.0

TIDE NOTE

A portable automatic tide gage was maintained at the Sarasota Municipal Pier, Sarasota, Florida, Lat. 27° 20'.0 N., Long. 82° 32'.7 W. A minus one hour time correction was applied to the tidal data. Zero of the staff was 1.5 feet below the plane of Mean Low Water according to letter 36 fj of 20 April 1953.

station plots N of H-8152



INDEX OF SHEETS

PROJECT CS-353

(Northern Part)

C O P Y

11 October 1954

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

Subject: Final Report of Raydist Equipment Tests.

The Final Report of Raydist Equipment Tests is submitted this date; associated data, items 3 and 4 on page 13 of above report, will be forwarded upon completion of the smooth copies. The report has been detailed with complete abstracts of all test data in order to provide your office information for such additional analysis as may be deemed necessary.

The contents of your recent letter to the Supervisor SED, dated 30 Sept. 1954, ref.: 22/MEK, D-1-SE, have been noted with interest. If the procedure stated therein is to be applied also to our last Raydist - controlled boat sheet, SO-2154, contents of paragraphs in the Final Report regarding corrections should be noted. Application of this correction would mean all plotted positions on boat sheet SO-2154 would shift 0.7 mm. toward CHARLEY on all days except 7 September; on this date the positions would shift 1.7 mm. closer to CHARLEY. There would be no changes in plotted positions from DEL except for 7 September when the positions would shift 1.0 mm. towards DEL. Thus, boat sheet positions for 7 September should be replotted if the resultant decrepancy in the position is considered by your office to be excessive.

See Rec. of t. Ltr.

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

cc. Sup. SED.

C O P Y

and refer to No. 22/MEK
S-1-SO

15 October 1954

To: Commanding Officer
USC&GS Ship SOSBEE
P. O. Box 1158
Sarasota, Florida

Subject: Processing Survey, Boat Sheet SO-2154

The boat sheet for survey SO-2154 shall be sent to this office, and this office will forward it to the Norfolk Processing Office.

Your letter of 11 October 1954 states that corrections to the Raydist distances are necessary, and that these corrections will cause the positions to shift as much as 1.7 mm. Sufficient information shall be furnished concerning the field and the final corrected positions to permit this office to make a decision regarding the manner in which this sheet will be plotted.

/sg./ Robert W. Knox

Acting Director

cc. Supervisor, Southeastern District
Supervisor, Southern District
Chart Division

APPROVAL SHEET

On 22 Sept. 1955 a special examination was made for the wreck mentioned on page 5, by 2 men wading and swimming along the beach, from signals "WIT" to "OAK". After a thorough search inshore, out to 10 ft. depth, involving slightly over 2 hours time, no wreck was found. However a dark spot about 10 ft. x 15 ft., was noticed in the water at 8 ft. depth. When examined and touched by bare feet upon submerging it was found to be only sea moss; there was very little, if any, protuberance above the bottom. The suspicious dark spot investigated is shown on the boat sheet in pencil out from signal "JOE". All along upon the beach, along this rounded point, there were pieces of driftwood, etc. which may have been off-shore wreckage now broken up and washed ashore. At the time of this investigation there were numerous patches of seaweed along the bottom, washed inshore from the sea. In view of the offshore examination it is recommended the wreck be removed from the chart. wreck reported to be in about 10 ft of water Ch L 751 (1952)

See PR of Review a/SPN Des. Rpt.

The survey of the area covered by H-8152 (SO-2154 is adequate for charting purposes. The sounding records and boat sheet have been inspected and are approved this date. Additional work is not necessary.

23 Sept. 1955

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

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

8 Nov. 1954

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

Subject: Boat Sheet SO - 2154.

Reference: Dir. Ltr. dated 15 Oct. 1954, 22/MEK, S-1-SO.

In reply to the second paragraph of reference letter, representative spot checks have been made in several areas of this boat sheet to determine the amount of shift which would result from replotting (smooth plotting) the Raydist positions as corrected in the sounding volumes in accordance with data submitted in the Final Report of Raydist Equipment Tests. The results obtained are as follows:

Location of area on Sheet	Amount of shift in millimeters	
	On 7 Sept. 1954	All other days
NE	1.5	0.6
NW	1.5	1.0
West Central	1.3	1.0
East "	1.6	0.8
SW	1.4	1.2
SE	1.6	1.9

It will be noticed in the area of the SE corner the amount of shift is more pronounced. And in the extreme portion of the SE corner (up to approx. 5 inches inside) the shift could have exceeded three times the tabulated values had they not been plotted as outlined in the first paragraph on page 7 of the Final Report of Raydist Equipment Tests submitted 7 Oct. 1954. Application of this procedure reduced the corrections to approximately one-half, or slightly less than three millimeters. Should this amount appear to warrant smooth plotting there are two negatory factors to which your attention is directed.

First, the two digit sounding numerals comprising this sheet (1:20,000 scale) already cover an area of approximately 2 by 4 millimeters; this would be equivalent to 8 by 16 millimeters on the 1:80,000 scale chart 1256.

Secondly, depth curves would not be appreciably effected by smooth plotting; the bottom is flat in this area and the depth 80 meters distant (0.4 mm. on this boat sheet) is little different than at the point.

However, it is suggested the Processing Office scan the sounding volumes and replot all positions where the computed lane value of CHARLEY had been corrected in black pencil; the bracketed value in green pencil should be used for the plot. The reason is because the initial lane value of CHARLEY was rechecked prior to computationof the final value shown bracketed in green pencil in the sounding volumes.

Inasmuch as the inshore hydrography on this sheet, comprising a band approximately one-mile offshore, has not as yet been completed, it is planned to hold this boat sheet here until this visual hydrography has been completed. This will be retarded until the present Manatee River hydrography is completed and photo signals are secured in the SO-2154 area, probably the fist part of 1955. Advise if to the contrary, in which event another 1:20,000 scale boat sheet for SO-2154 inshore area is requested from your office.

C.C.: Supervisor, So. Dist.
Supervisor, So. Eas. Dist.

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

C O P Y

and Refer to No. 22/MED
S-1-SO

15 November 1954

To: Commanding Officer
USC&GS Ship SOSBEE
P. O. Box 1158
Sarasota, Florida

Subject: Boat Sheet SO-2154

Thank you for your letter of 8 November 1954 in which you give the amount of Raydist position displacement in various parts of boat sheet SO-2154. This survey will probably be smooth-plotted using the boatsheet positions, but the exact method which will be used to plot the sheet will not be decided upon until the completion of several test projects now underway.

Boat sheet SO-2154 should be retained by your party until completion of the inshore hydrography.

/sg./ Robert W. Knox

Acting Director

cc. Supervisor, Southeastern District
Supervisor, Southern District
Chart Division

LIST OF CORRECTIONS TO RAYDIST VALUES
SO-2154

Entered in Record Books for possible use in Smooth Plotting.

(Also see Correspondence on preceding pages.)

Day Letter	Date (1954)	CHARLEY	DEL
A	16 Aug.	-.68 Lane	None
B	17 "	-.68	"
C	18 "	-.68	"
D	19 "	-.68	"
E	20 "	-.68	"
F	23 "	-.68	"
G	24 "	-.68	"
H	31 "	-.68	"
J	1 Sept.	-.68	"
K	2 "	-.68	"
L	7 "	-.68	-1.00 Lane
M	8 "	-.68	None
N	10 "	-.68	"
P	13 "	-.68	"

1 lane = 59.455 feet.

LIST OF STATIONS

Station Name	Shoreline Manuscript	Photo-hydro Number	
ABLE	T-11384	8336	- 0 ABLE, 1954
ACE			- Sextant, SO-1454 (H-8154), Vol. 1, page 4.
AGO	T-11384	8450	
ALP			- Hydrographic, Vol. 12, page 12, SO-2154.
AMP	T-11087	8764	
AMY	T-11090	9032	
AVE	T-11087	8751	
BAG			- Sextant, Vol. 12, page 12, SO-2154.
BED	T-11384	8451	
BOA	T-11089	8952	
BOB			- Hydrographic, Vol. 12, page 14, SO-2154.
CAT	T-11089	8953	
CHARLEY			- △ CHARLEY, 1954, R.C.Bolstad, Chief of Party (traverse).
CHIM	T-11384	8447	- 0 CHIM, 1954
CON	T-11090	9060	
CRY	T-11089	8924	
CUP			- △ VENICE BEACH CASINO CUPOLA, 1954; R.C.Bolstad, Chief of Party.
DEL			- △ DEL, 1954, R.C.Bolstad, Ch. of Party (traverse).
DIX			- Hydrographic, Vol. 12, page 14, SO-2154.
DOC	T-11089	8925	
DOG	T-11090	9034	
DOT	T-11090	9061	
DUO	T-11087	8750	
EGG	T-11089	8926	
EON	T-11090	9035	
EVA	T-11090	9062	
FIN	T-11087	8748	
FLY	T-11090	9036	
FUN	T-11089	8927	
GAL	T-11090	9037	
GEK			- Hydrographic, Vol. 12, page 14, SO-2154.
HOD	T-11090	9038	
HUT	T-11089	8929	

LIST OF STATIONS cont.

Station Name	Shoreline Manuscript	Photo-hydro Number	
IDA	T-11384	8437	
IVY	T-11089	8930	
JOE	T-11384	8436	
JOY	T-11089	8931	
KEN	T-11089	8932	
KIM	T-11090	9063	
LAD	T-11384	8437	
LEO	T-11090	9039	- O Venice Inlet Light 1, 1954
LOP	T-11384	8443	- O LOP, (1944) 1954
MAX	T-11089	8933	
MUG	T-11384	8438	
NIX	T-11087	8749	
NEO	T-11090	9023	
NUT	T-11384	8439	
OAK	T-11384	8440	
OIL	T-11087	8733	
ORA	T-11089	8943	
OUT	T-11090	9024	
PALE	T-11384	8441	
PEP	T-11089	8944	
PUP	T-11090	9025	
RIG	T-11384	8442	
RIM	T-11089	8945	
RIP	~~XXXXXX~~	~~XXXX~~	- △ RIP, 1954; R.C. Bolstad, Chief of Party (traverse).
SAL	T-11090	9027	
SAM	T-11087	8746	
SOL	T-11384	8444	
SUE	T-11089	8946	
TAN	T-11090	9028	
TAX	T-11089	8947	
TOY			- Sextant, SO-1454 (H-8154), Vol. 1, page 31.
VAN	T-11090	9029	
VEN	T-11090	9059	- Venice Municipal Tank, 1934.
VET	T-11089	8948	
VIA	T-11384	8445	
VIM			- Sextant, SO-1454 (H-8154), Vol. 1, page 4.
WAX	T-11089	8949	
WHO	T-11384	8446	
WIG	T-11087	8761	
WIT	T-11090	9030	

LIST OF STATIONS

Station NAME	Shoreline Manuscript	Photo-hydro Number
YAK	T-11384	8448
YAM	T-11089	8950
YES	T-11087	8762
YET	T-11090	9031
ZAG	T-11089	8915
ZOO	T-11384	8449

Triangulation station KEG, 1878 was used in the location of signal GEK. Photo-hydro station number 8763, shoreline manuscript T-11087, was used in the location of signal ALP. Photo-hydro station number 8765, shoreline manuscript T-11087, was used in the location of signal BOB.

The original location information for signals TOY, ACE, and VIM was not recorded in the Records for SO-2154 and reference must be made to SO-1454 (H-8154).

PROCESSING OFFICE
LIST OF SIGNALS
H-8152

TRIANGULATION STATIONS

CHARLEY	CHARLEY, 1954
CUP	VENICE BEACH, CASINO, CUPOLA, 1954 DEL, 1954
KEG	KEG, 1878-1944
RIP	RIP, 1954
VEN	VENICE, MUNICIPAL TANK, 1934-44

TOPOGRAPHIC STATIONS

SOURCE T-11087

Amp	Ave	Duo	Fin	Nix	Oil	Sam	Wig	Yes	

SOURCE T-11089

Boa	Cat	Cry	Doc	Egg	Fun	Hut	Ivy	Joy	Ken
Max	Ora	Pep	Rim	Sue	Tax	Vet	Wax	Yam	Zag

90
SOURCE T-11088

Amy	Con	Dog	Dot	Eon	Eva	Fly	Gal	Kim	Leo
Neo	Out	Pup	Sal	Tan	Van	Wit	Yet		

SOURCE T-11384

Able	Ago	Bed	Chim	Hod	Ida	Joe	Lad	Lop	Mug
Nut	Oak	Pale	Rig	Sol	Via	Who	Yak	Zoo	

HYDROGRAPHIC STATIONS

Ace	H-8154
Alp	Vol. 12, pg. 12
Bag	Vol. 12, pg. 12
Bob	vol. 12, pg. 14
Dix	Vol. 12, pg. 14
Gek	Vol. 12, pg. 14
Toy	H-8154
Vim	H-8154

PROCESSING OFFICE ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8152 (Field No. So-2154)

GENERAL

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

RAYDIST CONTROL

It had been originally planned to make a direct transfer of Raydist positions from the boat sheet to the smooth sheet by using a film-positive. However, a close examination of the Raydist circles on the boat sheet revealed some apparent displacement. This condition was probably caused by drafting the curves without computations and thus accumulating error through paper distortion.

In order to obtain a more accurate smooth plot, computations were made in this Office and the curves plotted with all sheet distortion meaned out. The positions were then plotted in the conventional manner and applicable corrections were applied as recordin the volumes.

SOUNDINGS

Fathograms were rescaled in this Office and soundings were reduced with a template. Agreement at crossings was very good considering the extremely irregular character of the bottom.

OVERLAYS

In order to avoid undue congestion on the smooth sheet, positions 30 thru 85j, Skiff 735, were plotted on an overlay.

Critical depths were added to the smooth sheet

good

Norfolk, Va.
6 Feb. 1957

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt, Cartographer

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8152 FIELD NO. SO-2154

Florida, Gulf of Mexico, Lemon Bay to Midnight Pass

Surveyed July, 1954-September, 1955 Scale 1:20,000

Project No. CS-353

Soundings:

808 depth recorder
Pole

Control:

Raydist
Sextant fixes on shore signals

Chief of Party - R. C. Bolstad
Surveyed by - R. C. Bolstad and W. V. Warner
Protracted by - R. D. Lynn
Soundings plotted by - R. D. Lynn
Preliminary verification by - I. M. Zeskind
Reviewed by - I. M. Zeskind Date: 6/19/58
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-11087 (1954), T-11089 (1954) and T-11090 (1953) and unreviewed air-photographic survey T-11384 (1953-54).

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 bottom is generally smooth and undulating. Minor irregularities of 2-9 ft. in the form of irregularly shaped shoals and ridges are found throughout the survey.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8153 (1953) on the south, with H-7934 (1951) on the west, with H-8043 (1953-54) on the north and with H-8154 (1955) at Midnight Pass and Venice Inlet on the east. An adjustment of 3 ft. was made to soundings on H-7934, position 45-60 BA, in order to bring these soundings into agreement with present depths. This adjustment was similar to other adjustments on H-7934 as discussed in the Review of that survey, paragraph 7d. On that survey simultaneous wire comparisons with soundings of fathometer No. 132 were erratic and did not provide a reliable correction. The transfer of the soundings at the junctions is deferred pending the complete inking of the soundings on the present survey.

5. Comparison with Prior Surveys

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

Survey H-1559b is a reconnaissance survey with only a few soundings in the vicinities of Midnight Pass and Venice Inlet falling within the area of the present survey. Survey H-1557b is a reconnaissance survey which covers the area of the present survey. A comparison between the prior and present surveys reveals only minor differences of 1-2 ft. in depths, except close inshore where the shifting of sand ridges has caused differences in depths of as much as 5 ft.

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

6. Comparison with Chart 1256 (Latest print date 4/21/58)

A. Hydrography

The charted hydrography originates with H-1557b previously discussed which needs no further consideration, and with partial application of the boat sheet (Bp. 52809) and smooth sheet of the present survey prior to verification and review. Only minor differences of 1-2 ft. in depths between the charted and present survey depths are noted.

The wreck PA charted in lat. 27°03.2', long. 82°26.7' from chart letter 751 (1952) falls in present depths of 11-17 ft. A thorough search of this vicinity by the field party failed to reveal the existence of the wreck. The recommendation of the field party (par. N of the Descriptive Report) to delete the wreck from the chart is concurred in.

The present survey is adequate to supersede the charted hydrography.

B. Aids to Navigation

The light on the west end of the north jetty at Venice Inlet is the only aid to navigation falling within the area of the present survey. The survey location of this light is in substantial agreement with its charted location and adequately marks the feature intended.

7. Condition of Survey

a. This survey has been given only a preliminary verification. The sounding volumes and Descriptive Report are complete and comprehensive.

b. The smooth plotting of the lines verified was accurately done. An additional statement, if necessary will be made on completion of the verification.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This survey is considered basic and no additional field work is recommended.

Examined and approved:

Max G. Ricketts
Chief, Nautical Chart Branch

Ernest B. Lewey
Chief, Division of Charts

Karl B. Jeffers
Chief, Hydrography Branch

Samuel B. Grenell
Chief, Division of Coastal Surveys

GEOGRAPHIC NAMES

Survey No. H-8152

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Florida									BGN	1
Gulf of Mexico										2
Lemon Bay										3
Venice Inlet										4
Casey Key										5
Midnight Pass										6
Siesta Key									BGN	7
Horse and Chaise Pt.										8
				Names approved 2-27-57. L. Heck						9
										10
										11
Sarasota Municipal Pier			(tide station, off sheet)							12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

7 March 1957

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8152

Locality West Coast, Florida

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 ft.

Condition of records satisfactory except as noted below:

William Hicks
Signature

Chief, Tides Branch

Comm-DC 34330

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8152....

Records accompanying survey:

Boat sheets ..1..; sounding vols. .16..; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 17-Envelopes

special reports, etc. 1-Smooth sheet, 1-Descriptive report,.... 1-Overlay of Hydrography,(1-Envelope containg Triangulation & Traverses for Raydist project, and 1-Envelope containing Comp-.. utations for Raydist circles.— (Cahier)

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

Number of positions on sheet		3202
Number of positions checked		75
Number of positions revised		0
Number of soundings revised (refers to depth only)		62
Number of soundings erroneously spaced		40
Number of signals erroneously plotted or transferred		0 0
Topographic details	Time	2
Junctions	Time	6
Verification of soundings from graphic record	Time	10

Prel. Verif. [signature] 72 6-17-58

Verification by Cornelius J. Pauw ...Total time 85 Date 10/28/60

Reviewed by [signature] ..... Time 16 Date 6-19-58

Addendum by D.W. Jones, Sr. Time 70 Hrs Date 8/3/64

M-2232-1

Addendum to Review
H-8152 (1954-55)

Verified and inking completed by----------C. A. J. Pauw
I. M. Zeskind
Review addendum by----------D. W. Jones, Sr.
Inspected by----------I. M. Zeskind

The verification of this survey has been completed. Soundings and depth curves have been completely inked. The 36-ft. curve was drawn to better delineate the bottom configuration.

JUNCTIONS WITH CONTEMPORARY SURVEYS

The junctions have been completely inked.

COMPARISON WITH CHART NO. 1256 (PRINT DATE 4th ED. OCT. 15/62)

The charted hydrography originates with the present survey after preliminary verification and review. Only a few charted depths differ by not more than 1 ft. with present depths. The light on the west end of the north jetty at Venice Inlet is the only aid to navigation falling within the limits of the present survey. The survey location of this aid is in substantial agreement with its charted location and it adequately marks the feature intended.

CONDITION OF SURVEY

The completion of verification of the present survey reveals that the smooth-plotting was well done.

Approved:

Lorne G. Taylor
Commander, C&GS
Chief, Nautical Chart
Division

from Venice Inlet to Sarasota was 2½ ft.
Mar. 1955

82° 30'

STORM WARNINGS

The U. S. Weather Bureau displays storm warnings at the following approximate locations:
Sarasota (27°20'-82°32.7')
Bradenton (27°30'-82°34.4')

CAUTION

Improved channels shown by broken line subject to shoaling, particularly at the edge

CAUTION

The channels at the entrances to many of this chart are subject to changes.

The buoys at New Pass and the black can 3 and 3A at the entrance to Big Sarasota Pass a ed because they are frequently shifted in positio

CAUTION

Temporary defects in aids to navigatio not indicated on this chart except where a replaces a fixed aid. See Notice to Marin

27° 10'

Point O'Rocks

Siesta Key

White Beach

Little Sarasota Bay

Midnight Pass

Vamo

North Bay

Osprey

S.A.L. Ry.

OVHD. PWR. CAB
AUTH. CL. 65 FT.
SWING BRIDGE
HOR. CL. 54 FT. (E. DRAW)
VERT. CL. 9 FT.

Dryman Bay

South Cr.

Casey Key

Blackburn Bay

Cable area

marsh

FIXED BRIDGE
HOR. CL. 15 FT.
VERT. CL. 4 FT.

Laurel

Shakett Cr.

SWING BRIDGE
HOR. CL. 47 FT. (E. DRAW)
VERT. CL. 7 FT.

Lyons Bay

FIXED BRIDGES
HOR. CL. 18 FT.
VERT. CL. 6 FT.

OVHD. PWR. CAB CL. 25 FT.

Curry Cr.

Dona Bay

OVHD. PWR. CAB
CL. 40 FT.
FL ev 4 sec "1"

Roberts Bay

FIXED BRIDGE
HOR. CL. 19 FT.
VERT. CL. 6 FT.

FIXED BRIDGE
HOR. CL. 39 FT.
VERT. CL. 5 FT.

Venice Inlet

Steel piles

TANK

CUPOLA

Venice

marsh

Horse and Chaise Pt

Alligator Cr.

OVHD. PWR. CAB
AUTH. CL. 65 FT.
FIXED BRIDGE
HOR. CL. 27 F
VERT. CL. 6

8152

8152

Chart - 1256

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8152

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
18 July 57	1256	H.E. MacSween	Partially applied Before [redacted] Verification and Review.
Aug 5, 57	1113	D.H. Benson	Before ~~After~~ Verification and Review Partially applied
11/7/57	857	[illegible]	Before ~~After~~ Verification and Review
16 Aug 61	857	[illegible]	~~Before~~ After Verification and Review Complete
"	1256	do	~~Before~~ After Verification and Review " In part thru 857, supra
14 Apr 61	857 (new)	do	~~Before~~ After Verification and Review Complete appl. In part thru 857, supra
2-18-81	11425	J. Ouyang	~~Before~~ After Verification and Review added hydro to new extension of ch 11425.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.