

4168

C. & G. SURVEY

MAY 1921

ADD. NO.

Diag. Ckt. No. 1251-2

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Florida*

11-5013

DESCRIPTIVE REPORT.

Hydro. Sheet No. *4168*
Field No. *7*

LOCALITY:

Straits of Florida

~~*American Shoal L.H. to*~~

Sombrero Reef L.H. to

American Shoal L.H.

1920

CHIEF OF PARTY:

F. B. T. Siems

4168

Descriptive Report
to accompany
Hydrographic Sheet _____
Field No. 7

- Locality: The work on this sheet embraces the offshore hydrography in Florida Straits from the outer edges of the reefs to the 100 fathom curve between American Shoal and Sombrero Key L.H.
- Methods: Coast Survey Sounding tubes were used for taking soundings between the 20 and 100 fathom curves. Up and down casts were obtained every fifth sounding or oftener and generally in all depths of over 80 fathoms. The hand lead was used for the development of the area between the outer edges of the shoals or Reefs and the 20 fathom curve. Explanations relative to the method of using the tubes are described in the sounding records.
- Control: Three water signals Looe Key (Lo), Mid and Deep were determined by triangulation, and together with the shore triangulation stations furnished the means of locating all of the sounding lines with the exception of a small amount of work on the east end of the sheet where it was necessary to make use of buoy signals Keg, Bal and Yel.
- Results: The fifty and 100 fathom curve were found to be quite regular and the soundings in general afford an excellent means for the Navigator to determine his distance from the reefs if other means are not available.

Respectfully submitted

F.B.T. Siems

F.B.T. Siems
Chief of Party, C. & G. S.

STATISTICS SHEET NO. 7.

Ship Hydrography from American Shoal L. H. to Sombrero L.H.						
Date 1920.	Letter	Volume	Positions	Sndgs.	Miles.	
Nov. 2,	A	1	20	19	5.2	Tube Sndg.
Nov. 3,	B	1	68	68	24.4	" "
Nov. 4,	O	1	87	87	25.8	" "
Nov. 5,	D	1	26	26	9.3	" "
Nov. 8,	E	1	23	23	5.0	" "
Nov. 9,	F	1	5	5	0.7	" "
Nov. 10,	G	2	68	68	17.2	" "
Nov. 11,	H	2	27	27	7.3	" "
Nov. 12,	J	2	62	62	25.5	" "
Nov. 15,	K	2	49	49	12.3	" "
Nov. 17,	L	2	19	19	4.6	" "
Nov. 18,	M	2	61	61	14.1	" "
Nov. 18,	M	3	21	21	5.6	" "
Nov. 22,	N	3	32	32	14.0	" "
Nov. 23,	P	3	75	75	19.7	" "
Nov. 24,	Q	3	90	90	28.5	" "
Nov. 29,	R	3	76	366	12.8	Hand Lead.
Nov. 30,	S	4	41	210	5.2	" "
Dec. 1,	T	4	157	732	24.3	" "
Dec. 2,	U	4	90	505	16.3	" "
Dec. 3,	V	4	57	318	10.5	" "
Dec. 3,	V	5	38	206	5.4	" "
Dec. 6,	W	5	40	249	8.0	" "
Dec. 7,	X	5	94	94	24.5	Tube Sndg.
Dec. 8,	Y	5	61	401	13.0	Hand Lead.
Dec. 9,	Z	5	20	97	3.2	" "
Dec. 9,	Z	6	45	45	15.3	Tube Sndg.
Dec. 10,	A'	6	36	305	11.5	Hand Lead.
Dec. 13,	B'	6	29	200	6.3	" "
Dec. 14,	C'	6	38	225	8.0	" "
Dec. 15,	D'	6	123	768	22.0	" "
Dec. 15,	D'	7	12	49	2.0	" "
Dec. 17,	E'	7	106	554	19.5	" "
Dec. 21,	F'	7	13	13	2.4	Tube Sndg.
Dec. 21,	F'	7	32	109	4.1	Hand Lead.
Dec. 23,	G'	7	23	132	4.2	" "
Dec. 28,	H'	7	7	21	1.0	" "
Dec. 29,	J'	7	83	602	15.2	" "
Dec. 29,	H'	8	48	405	11.0	" "
Dec. 30,	K'	8	104	518	10.7	" "
Total Statistics, tube sounding.			885	884	261.4	
Total Statistics, hand lead.			1221	6970	314.2	

GRAPHIC POSITIONS

(ions)

Datum.

State Florida

AZIMUTH. ° ' "	BACK AZIMUTH. ° ' "	TO STATIONS.	DISTANCE METERS	LOGARITHMS
7 28 05	27 29 21	Molasses Key		4.047151
3 57 55	74 01 12	Sombrero Reef Lt		4.140592
0 41 57	70 44 11	Molasses Key		3.979988
10 05 33	150 06 30	Deep		3.890422
2 55 56	32 57 35	Bahia Honda		4.090042
7 13 07	71 15 43	Deep		4.047690
52 24 07	72 26 52	Bahia Honda		4.067466
6 47 50	146 48 56	Mid		3.909744
09 15 37	9 15 57	Newfound		3.920447
6 12 35	76 14 00	Mid		3.775304
59 28 29	79 30 27	Newfound		3.907516
5 33 59	135 35 57	Loose Key		3.975053
				1000

COPY TO FIELD RECORDS.

Division of Hydrography and Topography:

✓ Division of Charts:

Tidal reductions are approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 4168


Locality: Florida Reefs, Florida

Chief of Party: P. B. T. Siems in 1920

Plane of reference is mean low water, reading

2.1 ft. on tide staff at American Shoal Lighthouse
*4.1 " " " " " Key West.

Condition of records: Satisfactory.


Acting Chief, Division of Tides and Currents.

* Allowance made for difference in tide at place of soundings.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

October 20, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4168.

Straits of Florida

Surveyed in 1920.

Instructions dated Dec. 28, 1918.

Chief of Party, F. B. T. Siems.

Surveyed by party of Steamer HYDROGRAPHER.

Protracted and soundings plotted by H. R. Eamonston.

Verified and inked by A. Baer.

1. The records conform to the requirements of the General Instructions except that in the sounding records a line was not left blank adjoining the line on which the position was taken, as directed in paragraph 302 of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The spacing of sounding lines on the shoal areas is more than twice as far apart as is called for in the specific instructions. Otherwise the development satisfies the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The plotting usually done by the field party was done in the office.
7. The junction with the adjoining contemporary work on the west is satisfactory.
8. Although the development on shoal areas is not as close as specified, it is believed that it is sufficient, provided that a wire drag survey be made over these shoals. This is necessary no matter how close the leadline surveying be done.

9. On account of the apparent disagreement between many of the tube soundings and the up and down casts, it was decided by the Chief of Field Records Section to reject all the tube soundings. These soundings were left in pencil on the smooth sheet. In inking the curves, some little weight was given to these tube soundings where there were no up and down casts.

No blame for the rejection of the tube soundings is to be attached to the officers engaged upon the work, as the trouble was the fault of the tubes rather than the personnel handling them.

10. On account of the rejection of all tube soundings, the area of this survey is not well developed by the soundings that have been retained. These are sufficient for charting purposes, however, and, as it is very clearly shown that there are no features existing of special interest to the navigator, no further surveying is required.
11. The character and scope of the surveying are excellent.
12. Reviewed by E. P. Ellis, October, 1923.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4168
Field No. 7

State FLORIDA

General locality Straits of Florida

Locality American Shoal L.H. to Sombrero L.H.

Chief of party F.B.T. Siems

Surveyed by F.B.T. Siems

Date of survey November 2, to December 30, 1920.

Scale 1:40,000

Soundings in

Plane of reference

Protracted by Soundings in pencil by

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, Boat sheets,

Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet Triangulation, 1920.

Remarks: *Smooth sheet not made.*