

O. & G. SURVEY  
L. & A.  
NO. 5 1917  
AUG. 1917

3978<sup>A</sup>



Form 60  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: \_\_\_\_\_

DESCRIPTIVE REPORT.

Hyd. Sheet No. 3978<sup>a</sup>

LOCALITY:

191

CHIEF OF PARTY:

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.

Field No. 2a *3978<sup>a</sup>*  
Register No. *3978<sup>a</sup>*

State . . . . Florida . . . . .

General locality . . Florida Reefs . . . . .

Locality . . . Rebecca Shoal L.H. to Dry Tortugas . . . . .

Chief of party . . J.H.Hawley . . . . .

Surveyed by . . . Wire Drag Party No. 5 . . . . .

Date of survey . . May 14 to September 22, 1917. . . . .

Scale . . . . . 1 : 40,000 . . . . .

Soundings in . . . Feet . . . . .

Plane of reference . . Mean Low Water . . . . .

Protracted by *~* . . . . . Soundings ~~by~~ *plotted* by F.E.Joekel  
~~by~~ B.P.Cohen . . . . .

Inked by . F.E.J. & B.P.C.. Verified by *PLC* . . . . .

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 . . . . .

Remarks: See descriptive report.

DESCRIPTIVE REPORT

Hydrographic Sheet (No. 2a.) 3978<sup>a</sup>

Wire Drag Party No. 5.

Locality - Florida Reefs.

DESCRIPTIVE REPORT - HYDROGRAPHIC SHEET (NO. 2a.) 3978<sup>a</sup>

This sheet covers the same area as wire drag sheet No. 2 and the projection is traced from that sheet.

The soundings, in the vicinity of Rebecca Shoal L.H., that are surrounded by black circles, are on rocky shoals discovered with the drag.

All other soundings were obtained during the course of dragging operations for the purpose of supplementing the hydrographic data in the locality covered by the sheet. These soundings were obtained by vertical casts of the hand lead from the large tender.

On the first day that supplemental soundings were obtained (D day - May 22, 1917) the following method was used: After the drag line started the tender proceeded to "N" buoy and obtained a sounding. She then proceeded to No. 1 small buoy, then to No. 2 and so on across the entire drag. The tenderman obtained a sounding at each buoy and noted in his record the time, number of buoy at which the sounding was obtained, the depth and nature of bottom. These soundings were obtained as rapidly as possible, the tender proceeding back and forth across the drag until the end of the line. The soundings obtained on this day are shown in the sounding record.

On all other days the following method was used: The tender proceeded back and forth across the drag as on the first day but a sounding was obtained only at every fifth buoy, starting at either N or F, and these soundings were obtained on each even ten minutes of the hour. Positions of the drag were also obtained on even ten minute intervals so that for each ten minute position of the drag a simultaneous sounding at some point along the drag curve was obtained.

To facilitate plotting, these soundings are recorded in the wire drag record in the column formerly used to record the "Depth to be Verified".

On the first line of the position the number of the buoy, at which the sounding was obtained, is entered; on the next line below the depth in feet and nature of bottom are entered. For reduction the tide reducer is entered below the sounding and finally the reduced sounding is entered.

Example: On F day, May 24, 1917, a sounding of 71 feet, hard bottom, was obtained at 11:00 A.M. at buoy No. 5. The drag position obtained at 11:00 A.M. is #7. The sounding is therefore recorded in the drag record as follows:

Position	Time	Sndg.
#7	11:00	5 (number of buoy)
		71 <sup>hard</sup> (sounding)
		1 (reducer)
		70 (depth at mean low water)

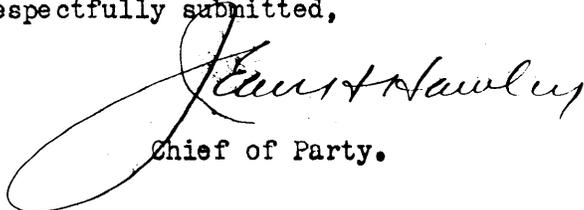
To plot these soundings the tracing is placed over the smooth sheet and the soundings are plotted in their proper positions in relation to the drag lines seen through the tracing.

The positions of "N" and "F" buoys at any time are shown on the drag sheet and the positions of intermediate buoys are obtained by means of the buoy spacer.

As the positions of these soundings depend on the drag lines, they should not be verified until the drag sheet has been completed and checked.

The small blue circles on the sheet are the positions of buoy signals and should be disregarded.

Respectfully submitted,

  
Chief of Party.

STATISTICS - HYDROGRAPHIC SHEET NO. 2a.

Day	Date	Number of Soundings
D	May 22	33
F	" 24	18
G	" 29	27
H	" 30	27
K	June 11	18
L	" 12	4
M	" 13	12
N	" 14	27
O	" 15	12
Q	" 20	15
S	" 22	4
U	" 25	18
W	July 6	25
Y	" 9	20
B'	" 12	15
C'	" 20	18
D'	" 21	8
E'	" 23	9
F'	" 24	24
G'	" 27	21
H'	" 28	20
J'	" 30	29
K'	" 31	7
L'	Aug. 1	25
M'	" 2	22
N'	" 3	18
O'	" 9	19
P'	" 10	22
Q'	" 11	21
R'	" 13	20
S'	" 16	16
T'	" 17	17
A"	Sept. 8	32
B"	" 11	23
C"	" 12	17
D"	" 21	27
E"	" 22	<u>24</u>

Total                      711

Capt. Hawley's plan of sounding along the line of the drag while the drag work is in progress, seems to be a good one. A sheet of supplemental soundings or a fairly good hydrographic survey is obtained in a very economical way.

The soundings were plotted by the field party in a satisfactory manner.

On W day - some soundings were marked as being taken at various buoys and plotted at these buoys on the sheet. A note at the bottom of page 38 Vol No 3, states that soundings for the remainder of the day were taken from "H", the guide launch. These soundings were therefor erased and shown at the guide launch position.

Some soundings taken on D day, recorded in the sounding record, were added to the sheet.

P. L. Johnston

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 4-DEM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON June 6, 1923.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 3978

Surveyed in 1917.

Chief of Party, J. H. Hawley.

Surveyed by J. H. Hawley. Instructions dated April 20, 1917.

Protracted and Inked by E. S. Walker, F. E. Joekel, B. P. Cohen.

Verified and Area and Depth Sheet by R. L. Johnston.

1. The depth and extent of dragging satisfy the specific instructions except that the drag should have extended more to the southward of Rebecca Shoal inside the 10-fathom curve.
2. The least water was found on the shoals that were discovered except the two 28-foot spots and the 35-foot spot at the eastern limit of the drag. The two 28-foot spots fall inside the 5-fathom curve while the 35-foot spot lies about 2 1/2 miles southwest of Rebecca Shoal Lighthouse and lies within the 6-fathom curve running southwesterly from Rebecca Shoal.
3. The supplemental hydrography is suitable for correcting the charts only in places where there are extensive blank areas. Otherwise, by order of the Chief, Division of Charts, the supplemental hydrography shall be disregarded.
4. The overlaps are sufficient except as shown on the Area and Depth sheet.
5. There are three splits on this sheet. None are of very large extent, and as all of them are in 10-fathoms or more, it would hardly justify additional dragging. However, the 35-foot spot mentioned in paragraph 2 should be dragged over.
6. Reviewed by A. L. Shalowitz, June, 1923.