

5218

U. S. COAST AND GEODETIC SURVEY  
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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, Director

State: MASSACHUSETTS

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 11 5218  
Hydrographic }

LOCALITY

GEORGES SHOAL

GEORGES BANK

1932

CHIEF OF PARTY

W. E. PARKER.

5218

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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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.

Field No. 11

REGISTER NO. 5218

State MASSACHUSETTS

General locality GEORGES BANK

Locality NORTH TIP of GEORGES SHOAL

Scale 1:10,000 Date of survey July 6, 1932

Vessel HYDROGRAPHER

Chief of Party W. E. Parker

Surveyed by W. E. Parker

Protracted by O. B. Hartzog,

Soundings penciled by O. B. Hartzog

Soundings in fathoms ~~1651~~

Plane of reference M. L. W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated May 16, 1932, paragraph 8(a), 19 \_\_\_\_\_

Remarks: \_\_\_\_\_

1 B.S.  
Des Ref.  
4 Copies

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET No. 11

DATE OF INSTRUCTIONS:

Project H.T.-107, May 16, 1932, paragraph 8(a).

SURVEY METHOD:

A survey buoy was placed at position X and was connected by R A R method to the control system of 1932, western part of Georges Bank. The position of the anchor of this buoy is Lat.  $41^{\circ} 46' + 271$  m., Long.  $67^{\circ} 48' + 47$  m., as determined by adjusted graphical triangulation from land triangulation stations.

The survey was controlled by gyro-compass bearings and range finder distances to buoy X. The buoy had a scope of 71 meters and its exact position from time to time was fixed on a circle of 71 meters radius by current direction as observed every 15 minutes from the Lydonia anchored near the buoy. A piece of celluloid was placed over the buoy position and the path of the buoy was plotted on it from the Lydonia current observations.

Range finder distances were read and recorded in yards. These were later reduced to meters by means of the table on page 2 of the sounding record. The boat sheet was plotted in yards.

Soundings were taken by means of the fathometer, except a few hand lead soundings, indicated by notation H.L. on the sheet.

Lines from position 84 to 88 and 89 to 92 were run on top of the ridge as nearly as possible, the ship being coned so as to keep on the edge of the broken water which indicated the shoal. On account of the strong current it was necessary to change course and speed frequently in order to avoid being swept off the ridge, and for this reason the record of courses and changes is incomplete.

Soundings are plotted in even fathoms above nine, in fathoms and half fathoms from seven to nine and in fathoms and quarters below seven.

DISCREPANCIES:

Positions 11, 30, 64, 66 and 85 could not be plotted on the recorded distances without obvious error. They were plotted on bearing and time, except position 85. Evidently the recorder misunderstood 1100 for 700 yards for that position.

Crossings are good considering the character of the bottom and the accuracy of rangefinder distances. An error of 50 yards in an observed distance could make a difference of several fathoms in the depth on sides of the ridges.

Leadline and fathometer soundings were in fair agreement insofar as they could be compared. The least depths were obtained by fathometer.

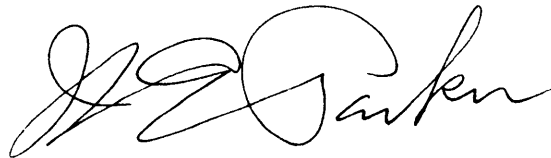
DANGERS:

North of Georges Shoal there are two narrow parallel ridges about a quarter of a mile apart and three quarters of a mile

long in an east-west direction. The northern ridge lies in Latitude  $41^{\circ} 45.6'$  and has a least depth of  $5\frac{1}{2}$  fathoms. The least depth found on the southern ridge is  $8\frac{1}{2}$  fathoms. Tide rips and overfalls are quite pronounced on the northern ridge and to a less extent on the southern. Neither are dangerous for a ship of draft safe to navigate in this vicinity, at least during smooth sea.

STATISTICS:

Day	No. Positions	No. Soundings	Stat. Miles
A	99	562	30



January 9, 1933

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
1 volume of sounding records for

HYDROGRAPHIC SHEET 5218

Locality Georges Bank, Coast of Massachusetts

Chief of Party: W. E. Parker in 1932

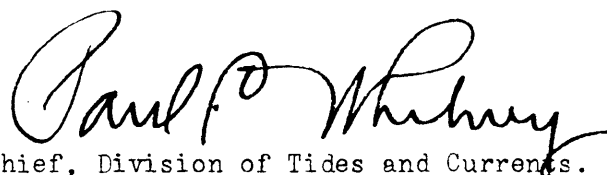
Plane of reference is mean low water, reading  
3.3 ft. on tide staff at Commonwealth Pier No. 5, Boston, Mass.  
18.2 ft. below B. M. 7

Allowance made for time and range of tide on the working grounds.

Time  $-1^h 15^m$  ; range 0.5 as large

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

  
Chief, Division of Tides and Currents.

Section of Field Records

Report on Hydrographic Sheet No. 5218.  
North Tip of Georges Shoal, Massachusetts.  
Surveyed in 1932.

Instructions dated May 16, 1932 (Hydrographer).

Chief of Party - W. E. Parker.  
Surveyed by - W. E. Parker.  
Protracted by - O. B. Hartzog.  
Soundings penciled by - O. B. Hartzog.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the Specific Instructions, which requested a detailed examination of the shoal area insufficiently developed by field party on survey covered by H. 5154.
4. The sounding line crossings are good and where none are shown the lines are sufficiently close to one another to afford comparisons, which in general appear in good agreement.
5. The depth curves can be completely drawn on the sheet.
6. There are no junctions to be considered to this sheet as the area covered is a development of a section of H. 5154.
7. Attention is called to the disagreement of the work of H. 5218 with the work of H. 5154, as shown by the different geographical positions of the same shoals on each sheet.

Because of the better control used on H. 5154, the Chief of Field Records directed the use of this sheet in preference to H. 5218. Only those soundings on the latter sheet that gave additional information to that shown on H. 5154 were transferred and adjusted to H. 5154, the adjustment being made by superimposing the shoal spots on H. 5218 on the corresponding shoals on H. 5154.

All the work on H. 5218 can now be superseded by H. 5154 which sheet only should be used for charting purposes.

8. No further work is required within the limits of this survey. No less water was found on the shoals proper on this development than was found on H. 5154.


Reviewed by - G. Risegari - Mar. 28, 1933.


Sheet inspected by - A. L. Shalowitz - Oct. 1933.

  
L. O. Colbert,  
Chief, Field Records Section.

  
Chief, Field Work Section.

Examined and approved:

  
Chief, Charts Division.

  
Chief, Division of H. & T.