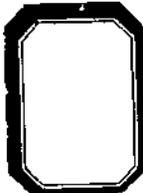


4323

Diag. Cht. No. 1236-1



Department of Commerce and Labor
COAST AND GEODETIC SURVEY

E. Lester Jones
~~Superintendent~~
Director.

State: North Carolina

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 4323

LOCALITY:

Cape Fear

~~Frying Pan Shoals~~

Vicinity of

~~scale 1:40,000~~

Frying Pan Shoals

~~U.S.S. EXPLORER~~

1923

CHIEF OF PARTY:

A.M. Sobieralski, H. & G. Eng'r

4323

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
E. LESTER JONES, DIRECTOR.

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DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 42

Frying Pan Shoals,

NORTH CAROLINA.

SCALE 1:40,000

SEASON OF 1923

Steamer LYDONIA.

A. M. Sobierski, H. & G. E., Chief of Party.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 42

Frying Pan Shoals,

NORTH CAROLINA.

SCALE 1:40,000

This report covers the work done by the Str. Lydonia in the vicinity of Frying Pan Shoals, off Cape Fear, North Carolina. The Launch Mikawe, under Lieut. L. P. Raynor, working in conjunction with the LYDONIA, did the sounding on the shoal on a sheet of the same scale and same limits, but as the records were kept separate, the work done by the latter party was plotted on a separate sheet. The two sheets could well be combined into one.

In order to carry fixed positions over the area covered by this sheet, an extensive use was made of floating signals. To locate these signals, the triangulation cuts from Cape Fear Light House were first plotted. These cuts and the eccentric reductions are given in a volume of Horizontal Angles and a cahier of computations accompanying the sheet. Sextant cuts taken from a large number of anchorages were then plotted. These cuts are recorded in 2 volumes of "Angles". As a great number of cuts were taken, those which were actually used in determining positions of signals are marked with an asterisk in the record.

The Frying Pan Shoals Light Ship was used for a signal to some extent, and three different positions were obtained. The first one (☉ Pan) was the Relief Light Ship. The second position (☉ Pay) was determined after a storm which evidently moved the lightship. The third position (☉ Yel) was the regular light ship returned to its station.

A list of the floating signals giving their positions as determined by the above method accompanies this report.

The positions of these signals do not in all cases agree

exactly with the positions shown on the boat sheet. The difference is explained by slight differences in the amount of distortion of projections, and a considerable difference has at times been noticed in plotting a line with different protractors, even though both protractors are first examined for errors.

In accordance with the instructions lines were run 1/4 mile apart out to the 10 fathom curve and 1/2 mile apart out to the limit of visibility of the signals. Cross lines were spaced about 2 miles apart.

The depth curves in general agree closely with the curves shown on the chart.

No dangerous shoals were discovered.

Most of the work was done with the handlead. Some work near the southwestern corner of the sheet was done with the trolley-- a 25 lb. lead attached to a lead line marked in the usual way, was sent forward on a trolley, automatically detached, and the depth read by the leadsman standing on a platform aft, when the line became vertical.

Respectfully submitted,

A. M. Sobieralski

A. M. Sobieralski,
Commanding Officer Str. LYDONIA.

STATISTICS SHEET No.42

Vol.	Date 1923	Miles	Soundings	Positions	Angles	Letter Day
1	June 22	17.6	278	11	20	A
1	June 28	33.5	633	106	217	B
1&2	July 2	59.6	962	205	427	C
2	July 3	21.9	306	77	161	D
2	July 6	27.4	418	41	114	E
2&3	Aug. 3	25.5	412	79	155	F
3	Aug. 20	0.6	8	2	4	G
3	Aug. 30	53.1	834	181	363	H
3	Aug. 31	17.4	270	53	116	J
4	Sept. 4	25.8	484	79	156	K
4	Sept. 5	68.4	922	185	371	L
4&5	Sept. 6	59.7	801	172	353	M
5	Sept. 7	42.8	670	118	229	N
5	Sept. 11	1.4	29	3	6	P
5	Sept. 12	20.7	304	66	132	Q
6	Sept. 14	17.9	284	64	128	R
6	Sept. 20	47.2	726	137	274	S
6&7	Sept. 21	49.0	736	145	296	T
7	Sept. 22	35.7	442	110	225	U
7	Oct. 1	31.9	477	116	230	V
7&8	Oct. 2	27.5	421	105	212	W
8	Oct. 3	51.5	775	168	336	X
8	Oct. 4	12.9	200	44	87	Y
8	Oct. 15	9.3	105	25	60	Z
8&9	Oct. 16	48.3	509	130	269	AA
9	Nov. 16	14.5	219	55	110	BB
9	Nov. 17	6.5	108	23	46	CC
TOTALS		827.6	12,333	2,500	5,097	

Return to D. Report 4323

LIST OF SIGNALS DETERMINED BY HYDROGRAPHIC PARTY. (Sheet 42)

OBJECT	LATITUDE	D.M.	LONGITUDE	D.P.	REMARKS.
Avk	33-45 ⁰	269	77-51 ⁰	1066	
Tub	33-35	1052	77-53	490	Used instead of Tar after Sept. 20.
Tax	33-35	354	77-52	1472	Used in place of Tub after Oct. 15.
Top	33-35	88	77-53	253	Used in place of Tax on and after Oct. 27.
Fay	33-33	1408	77-47	1156	Relief Light Ship. Use this position after Sept. 1.
Pan	33-33	1228	77-47	1020	Relief Light Ship.
Yel	33-33	852	77-47	1008	Frying Pan Shoals Light Ship.
Fry	33-33	1593	77-47	1080	Yellow buoy near Light Ship.
Mox	33-32	1405	77-50	680	
Hob	33-42	1569	77-58	80	
Po	33-39	534	78-01	741	
Or	33-42	245	78-02	449	
Tuft	33-55	1785	78-10	260	
Oat	33-38	164	77-55	103	Used in place of Out after Sept. 20.
Nap	33-34	32	77-47	712	
Zip	33-44	1038	77-57	640	
Nut	33-41	1164	77-57	238	
Wik					
Wis	33-39	1074	77-57	773	
Wiz					
Out	33-38	208	77-54	1541	
Buz	33-42	1696	77-52	671	
Tar	33-35	1308	77-52	1244	

LIST OF SIGNALS DETERMINED BY HYDROGRAPHIC PARTY.

(Sheet 42)

Red	33-37	1353	77-46	1067	
Dok	33-39	533	77-49	192	
Jay	33-39	886	77-40	1446	
Hag	33-45	286	77-45	269	Used instead of Hay on and after Aug. 31.
Hay	33-45	238	77-45	188	
Cap	33-40	1575	77-51	374	
Cape	33-40	1658	77-51	230	Used instead of Cap on and after Aug. 28.
Ire	33-41	212	77-43	1089	Used instead of Ike on and after Sept. 6.
Ike	33-41	152	77-43	1000	
Rip	33-35	785	77-44	1147	
Gob	33-45	1115	77-44	1423	
Yap	33-46	40	77-53	1534	

TIDAL-SHEET
to
accompany

HYDROGRAPHIC SHEET NO. 42.

Locality of gage, - - - - -Fort Caswell.
Type of gage, - - - - -Automatic.
Reading of gage for M.L.W.- - - - -5.0 ft.
Highest tide observed- - - - -June 27, 1924
7:00 P.M.
Gage reading:- - - - -10.8
Lowest tide observed- - - - -October 12, 1924
3:00 A.M.
October 13, 1924
4:00 A.M.
Gage reading:- - - - -4.0

Note: Gage readings increased 1/10 of range for tide reducers.
Time: 20 minutes earlier.

May 8, 1954

D.P.C.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
● volumes of sounding records for

HYDROGRAPHIC SHEET 4323

Locality: **off Cape Fear, North Carolina.**

Chief of Party: **A. M. Schieraldi in 1953.**
Plane of reference is **mean low water reading**
5.0 ft. on tide staff at **Fort Caswell**

For reduction of soundings, 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 wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each 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.

Hydrographic Sheet No. 4323.
Flying Pan Shoals, N.C.

The area covered by this survey is closely sounded and the work appears satisfactory. The cross lines coincide closely although one foot difference frequently occurs. The overlap of Sheet No. 4313, which overlaps a large area, also coincides closely.

Practicing by Field Party not good throughout the sheet. Numerous errors found.

Plotting by Field Party bad throughout. It would appear that dividers were not used. Soundings were omitted and in many cases soundings not recorded were plotted. Records good. Boat sheet out of office.

John D. Torrey
July 22, 1925

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON August 14, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4323

Frying Pan Shoals, North Carolina

Surveyed in 1923

Instructions dated May 7, 1923

Chief of Party, A. M. Sobieralski.

Surveyed by Party of Steamer LYDONIA.

Protracted by E. M. Denbo and H. J. Petersen.

Soundings plotted by H. J. P.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The usual field plotting was done by the field party.

Numerous errors in protracting were found throughout the sheet.

Spacing dividers apparently were not used in plotting the soundings as they were not spaced according to the time intervals.

On many lines more soundings were plotted than were recorded, and frequently soundings were unnecessarily omitted.

On account of the defective field plotting the time required for the office verification and inking was increased about 50%.

7. The junctions with the adjoining surveys are satisfactory.
About 10 square miles of this survey overlap the 1923 surveys.
8. The development is very complete and no further surveying is required.
9. The character and scope of the surveying are excellent and the field drafting poor.
10. Reviewed by E. P. Ellis, August, 1925.

A handwritten mark, possibly initials or a signature, consisting of a circle with a vertical line through it and a horizontal line at the bottom.

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. (42) 4323

State North Carolina.

General locality Cape Fear.

Locality ^{Vicinity of} Frying Pan Shoals.

Chief of party A. M. Sobieralski.

Surveyed by ^{Party of} U. S. S. LYDONIA, A. M. Sobieralski, Comdg.

Date of survey June 22--Nov. 17, 1923.

Scale 1-40,000

Soundings in Feet

Plane of reference Mean Low Water.

Protracted by (E. M. Dembo, Soundings in pencil by H. J. Petersen
(H. J. Petersen)

Inked by J. D. Torrey. Verified by J. D. Torrey.

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, 1 Boat sheets,

9 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

- 1 Pamphlet List of Directions.
- 1 Horizontal angle book.
- 2 Angle books of buoy cuts.

Remarks: