

FE 139

Diagram No. 1229-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ... Field Examination.....
Field No. ECFP-4156.....
Office No..... FE-139.....

LOCALITY

State North Carolina.....
General Locality .. Roanoke Sound.....
Locality Colington Island Shoal.....

19 56

CHIEF OF PARTY
M.T. Paulson

LIBRARY & ARCHIVES

DATE January 2, 1956.....

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.5 1956

FE 139

FE No. 5 1956

ORIGINAL
FE-139

Hydrographic Investigation

Diag. Cht. No. 1229-2

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECP-4156 Office No. FE-5-56

LOCALITY

State North Carolina

General locality Roanoke Sound

Locality Colington Shoal
Island.

1956

CHIEF OF PARTY

Marvin T. Paulson

LIBRARY & ARCHIVES

DATE January 2, 1956

COMM-DC 61300

FE No. 5
1956

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. FE-5-1956

Field No. ECFP-4156

State North Carolina

General locality Roanoke Sound

Locality Colington Shoal
Island

Scale 1:40,000 Date of survey 4 May - 9 May 1956

Instructions dated Supplemental Instructions, 222/MEK, FP-East Coast, 3/28/56

Vessel Launch CS-175

Chief of party Lt. Cdr. Marvin T. Paulson

Surveyed by Lt. D. L. Campbell and A. G. Davis

Soundings taken by fathometer, graphic recorder, hand lead, wire graphic recorder

Fathograms scaled by D. W. George

Fathograms checked by C.L.

Protracted by _____

Soundings penciled by _____

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ *and are true depths*

REMARKS: _____

FRZ

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET FE-5-1956 (ECFP 4156)

HYDROGRAPHIC INVESTIGATION

NORTH CAROLINA

East Coast Field Party

Marvin T. Paulson, Chief of Party

Project 13970

Scale 1:10,000

Surveyed by:

Donald L. Campbell

4 - 9 MAY 1956

A. PROJECT

Work on sheet FE-5-1956, project 13970 is in accordance with supplemental instructions 222/MEK FP-East Coast.

B. SURVEY LIMITS AND DATES

The area covered by this survey is in the vicinity of Colington Shoal, Roanoke Sound. The limits are the Development of the southern tip of Colington Shoal and the entrance channel to Roanoke Sound from Lat. $35^{\circ}56.1'N$ to $35^{\circ}57.5'N$ and Long. $75^{\circ}43.2'W$ to $75^{\circ}45.6'W$.

Work on this sheet began 4 May 1956 and ended 9 May 1956.

This survey makes junction to the north ^{with} by Hydrographic Survey H-6813. Other prior survey data was not furnished.

Progress on hydrography was completely halted on one day due to strong winds and rough seas.

C. VESSEL AND EQUIPMENT

Launch CS-175, based at Manteo, was used for the entire survey. The turning radius for this launch is 50 meters at standard speed and half rudder.

The following ECHO sounding equipment was used:

Type
EDO

Serial No.
201

The EDO was used on the A-range only. The maximum depths measured were in the vicinity of 15 feet.

D. TIDE AND CURRENT STATIONS

D. TIDE AND CURRENT STATIONS

The standard tide station at Naval Operating Base, Norfolk, Va., served as basic control station. A tide station was established on the east side of Roanoke Sound at Nags Head, N. C. (Lat. $35^{\circ}56.8'N$ Long. $75^{\circ}38.0'W$)

The Mean-low-Water reading on the staff at Nags Head is 8.2 ft. ✓

See Tide Note. ✓

No current observations were made. ✓

E. SMOOTH SHEET

Washington Office ✓

F. CONTROL STATIONS

The following control stations were used:

<u>Station</u>	<u>G.P. PAGE</u>	<u>Vol.</u>	<u>Chief of Party</u>
Collington Island			
Shoal Light, 1943	583	G-5552	W.F.D.
Croatan Light, 1943	"	"	"
Wright Monument, 1933	253	G-2031	J.C.S.
She	(Hydro signal, see Soundings Volume 1, p.28)		

G. SHORELINE AND TOPOGRAPHY

Not applicable ✓

H. SOUNDINGS

All soundings were made by fathometer, as listed in Section C, and by leadline in connection with bottom sampling.

No difficulties requiring unusual methods, equipment or corrections were experienced during this survey.

See APPENDIX Section B.

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by visual fix. Positions were usually taken at two and one half minute intervals with soundings recorded every thirty seconds. ✓

J. ADEQUACY OF SURVEY

This investigation is complete within the defined limits and is adequate to supersede prior surveys for charting purposes. ✓

K. CROSSLINES

The per cent of crosslines is 12%. Discrepancies at crossings are not excessive. ✓

L. COMPARISON WITH PRIOR SURVEYS

A comparison with H-6813 shows the 6 footshoal in the vicinity of Lat. ⁽¹⁹⁴³⁾ 35°57.4' N Long. 75°43.8' W has shifted approximately ~~500~~⁵⁸⁰ meters *northeastward*.

Since complete prior survey data was not furnished adequate comparison could not be made at this time.

M. COMPARISON WITH CHART

A comparison with chart 1229, print date 8/24/53, indicates that various changes in depth up to three feet have occurred.

See Review

The shoal, which extended to Lat 35°57.1' N Long. 75°44.7' W now extends southeasterly an additional ~~150~~⁵⁸⁰ meters. Chart new depth.

Along the southeastern edge of the channel, entrance to Roanoke Sound, a deepening of two to three feet is apparent. Chart new depths.

N. DANGERS AND SHOALS

All newly found dangers and shoals are discussed in sections L and M.

The following are shoals with least depths less than those found in the new survey:

	Latitude & Longitude	Chart Depth	New Depth	Recommendations
1.	35°56.88' N 75°45.08' W	6 ft.	7ft.	Chart new depth
2.	35°56.42' N 75°44.68' W	6 ft.	7 ft.	Chart New depth
3. & 4.	See Sections L & M.			Chart New depths

All charted dangers and shoals were found as charted except as listed above.

O. COAST PILOT INFORMATION

No changes in Coast Pilot information are necessary.

P. AIDS TO NAVIGATION

No fixed aids to navigation were located during this survey.

One floating aid to navigation was located by hydrographic methods as follows:

Light List No.	Name	Lat. & Long.	Water depth	Vol. & Pos. No.	Date located
3053	Bouy 46	35°56. ⁸⁷ 90 ' N 75°44.54' W	7	Vol. 1 Pos. 69h	9 May 1956

Q. LANDMARKS FOR CHARTS

Q. LANDMARKS FOR CHARTS

Not applicable. ✓

R. GEOGRAPHIC NAMES

There are no new geographical names to report. ✓

S. SILTED AREAS

Not applicable. ✓

T. BY-PRODUCT INFORMATION

Not applicable ✓

U. -Y. MISCELLANEOUS

Not applicable ✓

Z. TABULATION OF APPLICABLE DATA

See APPENDIX /

Respectfully Submitted
Donald L. Campbell
Donald L. Campbell,
Lt., C&GS

Approved and forwarded:

no additional comments.

Marvin T. Paulson

Marvin T. Paulson,
LCDR., C&GS
Chief of Party, ECFP

ATTACHMENT

APPENDIX

APPENDIX

Hydrographic Survey FE-5-1956
(ECFP-4156)

A. LIST OF STATIONS

Name of Station	Origin
CRO	Croatan Light, 1943
COL	Collington Island Shoal Light, 1943
MON	Wright Monument, 1933
She	(Hydrographic Location Vol. 1, p. 28)

B. VELOCITY CORRECTIONS

See bar check Vol. 1, p.5.

Corrections for fathometer EDO 201 Range A o.o for entire period.

C. STATISTICS

Vol. No.	Day Ltr.	No. ll.	Pos. Fath.	Stat. Mi. Sdg.	Area sq. Stat. Mi.
1	a		65	20.6	
1	b	1	72	20.7	
	Total	1	137	41.3	3.0

D. TIDAL NOTE

All tide reducer were obtain from observations on the tide staff at Nags Head, N. C. The mean low water reading for this staff of 8.2 feet is in accordance with letter 36-276-15d, dated 22 June 1956.

Location	Lat.	35° 56.8' N
	Long.	75° 38.0' W

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF HYDROGRAPHY AND TOPOGRAPHY~~

14 January 1957

Division of Charts: R. H. Carstens

Plane of reference approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET **FE No. 5** 1956

Locality Roanoke Sound, N.C.

Chief of Party: M. T. Paulson in 1956
Plane of reference is low water datum, reading
8.2 ft. on tide staff at Nags Head
3.9 ft. below B. M. 5 (1916)

Low water datum is taken as a plane one-half foot below
mean **water** level.

Condition of records satisfactory except as noted below:



Branch
Chief, ~~DIVISION OF~~ Tides ~~AND CURRENTS~~

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F. E. No. 5, 1956

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..1..; wire drag vols.;
 bomb vols.; graphic recorder rolls 1-Envelope
 special reports, etc. 1-Descriptive report and 1-Envelope of...
 ..Boat Sheet Information,.....

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

Number of positions on sheet	.....	137	
Number of positions checked	.....	17	
Number of positions revised	.....	2	
Number of soundings revised (refers to depth only)	.....	—
Number of soundings erroneously spaced	.....	—
Number of signals erroneously plotted or transferred	.....	0	
Topographic details	Time	.....	0
Junctions	Time	.....	0
Verification of soundings from graphic record	Time	.....	1
Verification by <i>John Esklund</i>	Total time	.....	24
	Date	.....	7-2-57
Reviewed by <i>W. J. Esklund</i>	Time	.....	4
	Date	.....	7-3-57

Field Examination No. 5, 1956

This field examination was accomplished in compliance with the Director's letter for Project 1397, dated 28 March 1956. The purpose of the work was to determine whether or not Colington Island Shoal Roanoke Sound, North Carolina, in the vicinity of red nun buoy No. 46 has shifted in a southwesterly direction.

A comparison between prior surveys H-3772 (1915) and H-6813 (1943) and the field examination reveals that the 6-ft. curve of Colington Island Shoal in the vicinity of lat. $35^{\circ}57.12'$, long. $75^{\circ}44.60'$, has shifted in a southeasterly direction about 500 meters, and in the vicinity of lat. $35^{\circ}57.4'$, long. $75^{\circ}43.8'$, it has shifted northeasterly about 200 meters. Only minor differences of 1 ft. in depths between the prior and present surveys are noted, except in the southeast portion of the field examination where differences in depths of as much as 4 ft. are found. An example of these differences in depths occurs in lat. $35^{\circ}56.20'$, long. $75^{\circ}44.52'$, where a prior depth of 8 ft. falls in present depths of 12 ft. Where differences in depths are noted, the present survey depths are generally deeper than the prior depths.

The field examination supersedes the prior surveys within the common area.

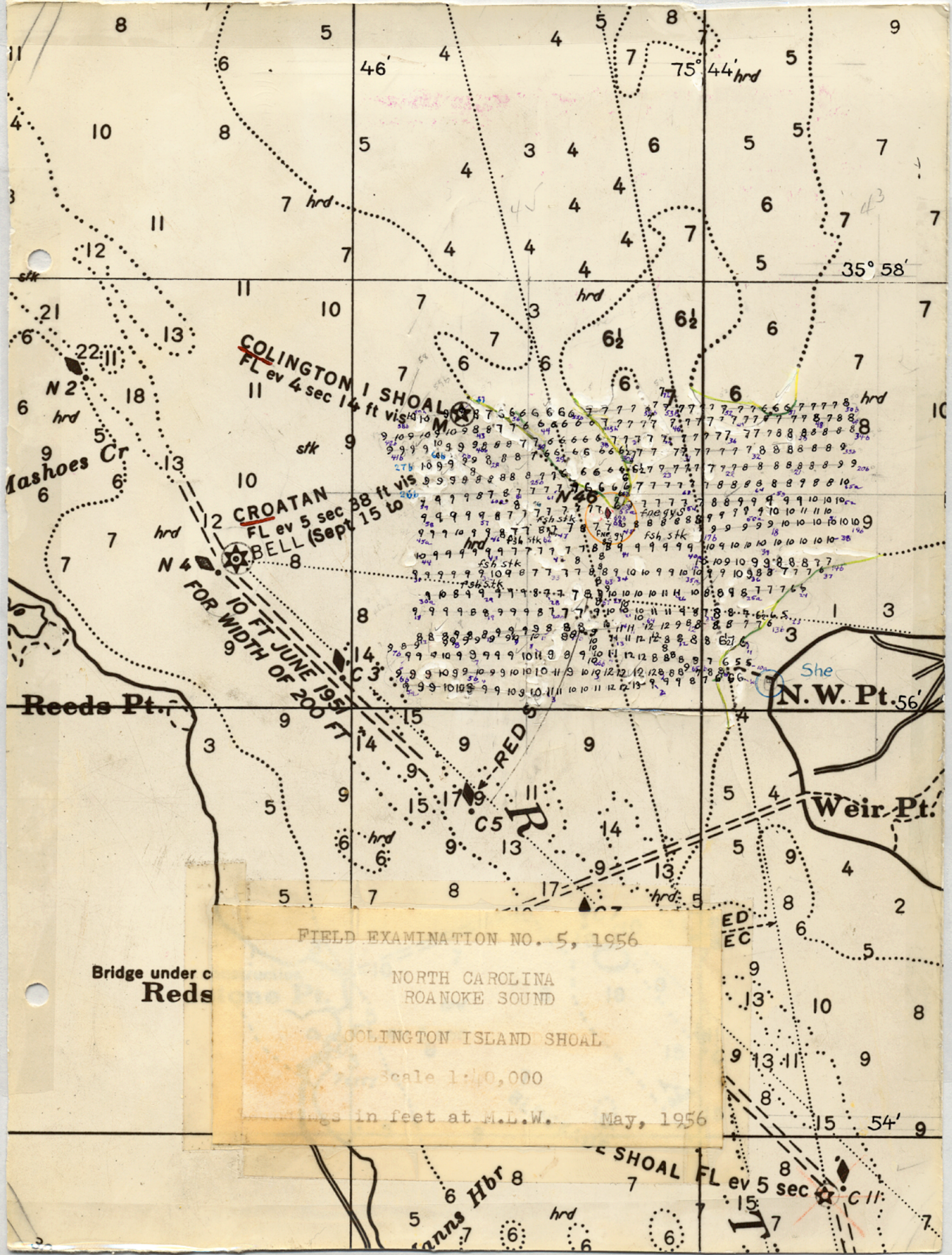
The field examination was partially applied to chart 1229, dated 15 April 1957, prior to verification and review. The charted 6-ft. curve on Colington Island Shoal in the vicinity of lat. $35^{\circ}57.3'$, long. $75^{\circ}44.2'$, falls about 440 meters to the north-eastward of the position shown on the field examination. The 7 ft. charted in lat. $35^{\circ}57.23'$, long. $75^{\circ}45.55'$, falls in present depths of 9 - 10 ft., and the charted 6 ft. in lat. $35^{\circ}56.40'$, long. $75^{\circ}44.65'$, falls in present depths of 7 - 9 ft. Except as noted above, only minor differences of 1 ft. between the charted and present survey depths are noted. The field examination should supersede the charted information within the common area.

The hydrographic information obtained during the field examination is plotted on the attached section of an enlarged photographic copy of Chart 1229.

The Descriptive Report adequately covers all matters pertaining to the examination. No further discussion is considered necessary.

Reviewed by - I. M. Zeskind
3 July 1957

Inspected by - R. H. Carstens



COLINGTON ISLAND SHOAL
 FL ev 4 sec 14 ft vis
CROATAN BELL (Sept 15 to 10 ft June 1951)
 N 4

Mashoes Cr

Reeds Pt.

She N.W. Pt. 56'

Weir Pt.

FIELD EXAMINATION NO. 5, 1956
 NORTH CAROLINA
 ROANOKE SOUND
 COLINGTON ISLAND SHOAL
 Scale 1:10,000
 Soundings in feet at M.L.W. May, 1956

Bridge under c
Reds

Reds Hbr

COLINGTON ISLAND SHOAL
 FL ev 5 sec

