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4267

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
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State: North Carolina	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 4267
LOCALITY	
Approach to Beaufort	
E. End of Bogue Banks	
1927	
CHIEF OF PARTY	
F. L. Peacock	

Original

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

U.S.C.& G.S.LAUNCH MIKAWA

TOPOGRAPHY
EASTERN END OF BOGUE SOUND
NORTH CAROLINA
1927

DESCRIPTIVE REPORT

FRED.L.PEACOCK, H.& G.ENGINEER, C.& G.SURVEY
CHIEF OF PARTY

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET OF EASTERN END OF BOGUE SOUND.

U.S.C. & G.S. LAUNCH "MIKANE".

Fred. L. Peacock, H. & G. E., Chief of Party.

March and April, 1927

EXTENT:-

The topography delineated on this sheet is the Eastern end of Bogue Banks adjacent to Beaufort Entrance, Town Marsh Island and part of Piver's Island off Beaufort. The topography of Bogue Banks extends westward to the $76^{\circ} 44'$ meridian only, except the shoreline on the ocean side extends two miles further.

It was expected early in the season that a much larger area of topography would be executed but bad weather and reduction of personnel combined with the requirement that the season close prior to April 20 th. rendered a larger area of topography impractical except at the expense of other projects on hand.

PERSONNEL:-

The personnel consisted entirely of Officers under training. Earle A. Deily, Jr. H. & G. Engineer was continually in charge under the direction of the Chief of Party. The usual party for topographic work consisted, beside Mr. Deily, of an assistant topographer, an umbrella man, and two rodmen. The following Officers performed those duties in rotation:- P. C. Doran, Jr. H. & G. Engineer, John Bowie, Jr., Aid, J. H. Brittain, Aid, C. A. Schanck, Aid, H. O. Fortin, Aid, and G. W. Lovesee, Deck Officer. In this way each of these officers obtained considerable experience in rodding and some experience in the operation of a topographic party both thru observation and thru actual manipulation.

The procedure with respect to the assistant topographer was as follows:- During the first part of the day Mr. Deily would operate the plane-table while the assistant topographer observed him and received instruction in the way of explanations of operations in progress and in comment on conditions encountered. During the latter part of the day the assistant topographer for the day would himself operate the plane-table under Mr. Deily's direction.

SURVEY METHODS:-

Plane-table and Alidade No.191 were used.

Sufficient triangulation control was plotted on the sheet before field work was begun. Triangulation stations Gar, Beacon G, Flag, Biological Station, Cupola S.E., Cupola N.W., Church Spire Green, Church Spire Red, Weather, Beacon D, Chim, Thin, Flag, Car, Beacon O, Villa, Vi, Beacon B, Pile and Beacon A were plotted on the sheet while the inking was in progress.

The usual topographic methods were followed during the work. Excessive distortion of the sheet made rapid resections impossible and traverses were run between adjacent triangulation stations, allowance being made for the shrinkage in the plotting of the shots. No further adjustment of the traverses was necessary.

The positions of Beacon H and Beacon I as shown on the sheet were determined by intersection with the plane-table. These beacons were also located by triangulation.

GENERAL DESCRIPTION OF THE COAST:-

The general appearance of the coast from seaward is that of a sand beach backed by a line of sand dunes which obstruct the view of that portion of the "Banks" which is behind them. The dunes vary in height up to 40 or 45 feet with an average of approximately 25 feet and have their south base at the storm-water line. The sand beach is low and shelving. The large houses on the beach show up well from out at sea as does the flagpole and the cupola at the Coast Guard Station.

The north side of Bogue Banks east of the dock which extends out into Money Island Bay and that portion inside the high-water line is covered with a sparse growth of scrub trees and a type of spear grass. The remainder of this portion of the Banks is covered with sand dunes. The approximate limit of the growth is as shown.

The portion of Bogue Banks west of the above mentioned dock is made up of sand dunes covered with a growth of scrub deciduous and evergreen trees which becomes almost impenetrable at that portion of the Banks just south of triangulation station "Isle 1927". At this place there is only a narrow ridge of sand dunes along the beach altho the remainder of the Banks is sandy.

The marsh as surveyed on the north side of Bogue Banks is well defined by grass which, during the time the party was in the field, stood well above the high-water level.

CHANGES FOUND IN THE TOPOGRAPHY:-

A low sand islet, indications of which are to be found on previous surveys, has formed off the South East End of Bogue Banks. This islet is now of considerable size and is bare $3\frac{1}{2}$ feet at high water. There is a narrow channel between it and the main portion of the Banks. There is sufficient water to permit the passage of small fishing boats but it appears that this channel is slowly closing as a sand bar just awash at low water extends from the south west end of this islet to within a short distance of the low-water line as shown on the Banks. The low-water lines as shown were determined by direct rod readings at low-water and are the only ones shown on the sheet as the shortness of the time to be allotted to the work did not permit further topographic low-water line location.

The dock extending into Tar Landing Bay should not be confused with the former dock in that vicinity shown on Coast Survey Chart #420. That dock has disappeared except for a faint trace in the form of two parallel rows of rotted piles which are noted on the sheet a short distance to the north of triangulation station "Bat".

A causeway to extend from the mainland to Bogue Banks is now under construction and the completed portion is shown on the sheet N.W. from triangulation station "Cash". The project includes a bridge to cross the deeper water of Bogue Sound, a bridge across Cedar Hammock Creek, and a bridge across the small neck of water immediately to

the westward of triangulation station "Cash". See Coast Survey Chart # 420.

The positions of the various buoys in the immediate vicinity of the topographic work were determined by plane-table intersections. The buoy "C 3", approximately 460 meters S.E. from "Beacon P" is the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Channel Buoy 3", a black, third-class can marking the turn into the channel running westward in Bogue Sound. The position of this buoy was determined by two sextant fixes and was noted to be in a position different from that shown on the chart.

The name "Piver's Island" is shown on the sheet as the name of the island on which the Marine Biological Station is located. This name appears in the "Coast Pilot, Inland Route". It is the name used locally.

The not shown on the sheet, the portion in the vicinity of triangulation station "Glen" bears on the Coast Survey Chart #420 the name "Carolina City". This name is now obsolete and no longer used locally. Camp Glen now occupies a portion of this area. This is the training camp of the North Carolina State Militia.

The line of telephone poles on Bogue Banks as shown on the topographic sheet was located by rod readings and intersections. A continuation of the line as shown would give the approximate location of the poles which have not been located and placed on the topographic sheet. A bend occurs where the continuation of the line of poles in the vicinity of Fort Macon would intersect the continuation of the line of poles as now shown.

DECLINATION:-

The magnetic declination was determined by means of the declinoire and plane-table at triangulation station "Bat", Latitude $34^{\circ} 42' 08.276$ (255.0m.), Longitude $76^{\circ} 43' 14.204$ (361.5m.), and was found to be $4^{\circ} 09' 45''$ W.. In determining the declination the table was oriented on the line "Bat - Morehead City Water Tank". It is possible that the excessive distortion of the sheet may have introduced a slight error in the determination of the magnetic declination.

DISTORTION:-

It was believed that the sheet on which the projection was made had been thoroughly seasoned but during the first day excessive distortion occurred. A barely appreciable amount occurred in the north and south direction of the sheet. In the east and west direction the distortion varied slightly from 10 meters in 1527 meters at the eastern end to 9 meters in 1527 meters at the western end at the time the sheet was inked. This distortion was about 50% larger during the progress of the work as the sheet has expanded somewhat since coming out of the field.

STATISTICS:-

Area surveyed in square statute miles	3.0
Length of detailed shore-line in statute miles	18.0
Length of shore-line of rivers in statute miles	0.0
Length of shore-line of creeks in statute miles	12.0
Length of shore-line of ponds in statute miles	7.5
Length of roads in statute miles	0.0

Approved:-

Fred. L. Peacock
 Fred. L. Peacock,
 H. & G. E., C. & G. Survey,
 Chief of Party.

Respectfully submitted:-

Earle A. Deily
 Earle A. Deily,
 Jr. H. & G. E.

Owing to lack of control for the shoreline west of signal Hot and its disagreement with that on T. 4295, and also due to the confusion and disagreement of the signals on the outer coast with those used on the new hydrographic surveys, a resurvey of the outer coast and signals was ordered.

This new survey (T. 4267a) should be used in preference to T. 4267 for all details shown.

E. P. Ellis

Sept. 22, 1928.

LIST OF PLANE - TABLE POSITIONS .

Object.	Latitude.	D. M.	Longi- tude.	D.P.	Height	Remarks
	o ' "	Meters.	o ' "	Meters.		
C 3	34 41	339	76 40	485		Buoy
Bell 5	34 41	965	76 40	221		Buoy
End	34 41	1153	76 40	496		Hyd. Sig.
N 4	34 41	1670	76 40	352		Buoy
N 6	34 42	210	76 41	1490		Buoy
Jac	34 42	123	76 41	186		Hyd. Sig.
Lo	34 42	785	76 41	852		Hyd. Sig.
O 3	34 42	1538	76 41	1402		Buoy
Hi	34 42	1068	76 41	1495		Hyd. Sig.
Side	34 42	346	76 42	768		Shack
Tel	34 42	542	76 43	971		Pole
Doc	34 42	268	76 43	1192		End of Dock
Hot	34 41	1558	76 43	1395		Cor. Pavilion

DESCRIPTIONS TO ACCOMPANY "LIST OF PLANE-TABLE POSITIONS".

- C 3 This is the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Beaufort Harbor, Channel Buoy, 3". It is a black, second-class can.
- Bell 5 This is the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Beaufort Harbor, Fort Macon Spit Bell Buoy, 5". It is a black, flat float, skeleton superstructure buoy.
- End End is the U.S. Engineer's signal on the north end of the low sand islet in Beaufort Entrance. The signal is a quadrupod supporting a pole with an attached square flag.
- N 4 This is the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Beaufort Harbor, Tail of Shackelford Middle Ground Buoy, 4". It is a red, second-class nun.
- N 6 This is the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Beaufort Harbor, Shark Shoal Buoy, 6". It is a red, second-class nun.
- Jac Jac is a pyramidal, cloth-covered, hydrographic signal on the narrow strip of land above high water, 770 meters N.W. from triangulation station "New Macon". The signal is placed above a stake driven into the ground, the upper end projecting about 3 inches above the surface. The signal will probably not remain.
- Lo Lo is a pyramidal, cloth-covered, hydrographic signal on the marsh edge on the north side of Bogue Banks and 1710 meters N.W. from triangulation station "New Macon". The signal is placed above a stake driven into the ground, the upper end projecting about 3 inches above the surface. The signal will probably not remain.
- C 3 This the buoy described in the "Buoy List, Cape Henlopen to Cape Lookout" as "Beaufort Harbor, Channel Buoy, 3". It is a black, third-class can and marks the turn into the channel running westward in Bogue Sound.

DESCRIPTIONS:- Cont.

Hi Hi is a pyramoidal, cloth-covered, hydrographic signal on the west edge of a large marsh island 800 meters S.E. from Beacon F, the red and black, slatted pile structure at the entrance to the dredged channel to Morehead City. The signal is placed above a stake driven into the ground, the upper end projecting about 3 inches above the surface.

Side Side is a square of white cloth, 3 feet on a side, tacked on the north side of a partly fallen shack 117 meters south of the end of an old dock projecting into Tar Landing Bay, and 1120 meters east of triangulation station "Bat".

Tel Tel is the outermost pole of a transmission line leading N.NE. from the Bogue Sound end of the dock leading to the Ocean Beach Hotel on Bogue Banks.

Doc Doc is the Bogue Sound end of the dock leading to the Ocean Beach Hotel on Bogue Banks.

Hot Hot is the S.W. corner of the dance pavilion of the Ocean Beach Hotel on Bogue Banks. The dance pavilion is on the ocean beach.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Original

REG. NO.

4267

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.

REGISTER NO. **4267**

State North Carolina

General locality Atlantic Coast Approach to Beaufort

Locality E. End of Bogue Banks
~~Beaufort Entrance and Bogue Sound, N.C.~~

Scale 1 - 10,000 Date of survey March and April, 1927

Vessel U.S.C. & G.S. Launch MIKAWA

Chief of Party Fred. L. Peacock, H. & G.E.

Surveyed by Earle A. Deily, Jr. H. & G.E.

Inked by Earle A. Deily, Jr. H. & G.E.

Heights in feet above high water to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval feet

Instructions dated January 21, 1927

Remarks: No contours determined.

4267a

4267a

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
<div style="border: 1px solid black; padding: 5px; display: inline-block;">B. & G. SURVEY L. & A. SEP 4 1928 Acc. No.</div>	
State: N. Carolina	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. ^A 4267a
LOCALITY	
Beaufort Approaches	
East End of Bogue Banks	
1928	
CHIEF OF PARTY	
J. Senior	

GOVERNMENT PRINTING OFFICE

D E S C R I P T I V E R E P O R T

to Accompany Topographic Sheet No. *A*

Fort Macon to Atlantic Beach N. C.

AUTHORITY : This revision survey was executed under instructions of the Director to the Commanding Officer of the U. S. C. & G. S. Motor Vessel NATOMA dated June 26, 1928.

LIMITS : This sheet starts with Fort Macon on the East and extends westward to about two miles west of Atlantic Beach, the scale being 1 : 20,000.

GENERAL DESCRIPTION : As previous surveys and the charts of this section show, the topography in this section consists of a low sand beach with numerous sand dunes in back of the high water line. These sand dunes are in no way prominent, the same ranging from, approximately, 10 ft. to 35 ft. in height.

CHANGES : According to the photostat of topographic sheet 4267 the high water line appears to be out considerably and the houses apparently used as signals on the previous survey, out somewhat too. For this reason the entire shore line was run from Fort Macon to a point opposite ϕ HOP. At either end where the survey was carried the high water line was found to check within the limits of such work.

Each one of the stations in question were relocated accurately and it was found that the new locations checked with ~~that~~ shown in black on the photostat of topographic sheet 4267. ** from T. 4295*
etc.

New features such as the Atlantic Beach pavillion and other buildings were located together with a location of the causeway, leading from Atlantic Beach to Morehead City. This road was located as far as the draw bridge.

LANDMARKS : The only landmark not previously shown is the pavillion at Atlantic Beach which was located by this survey.

SURVEY METHODS : The entire survey was made by regular plane table survey methods in accordance with the general field instructions and the planetable manual. Due to very good triangulation control the work was considered to be of the highest degree of accuracy. On each plane table "set up" triangulation signals could be seen for orientation as well as resection on other triangulated points to check any distance. The three point problem was frequently used as another degree of accuracy.

It was not considered practicable to traverse to any of the triangulation stations mentioned in paragraph 2 of the above mentioned instructions. In place of this traverse, a point was selected where at least 5 triangulation signals were visible. Since the lines intersection from these five stations centered in a common point, traverse to any one of them was considered unnecessary.

Respectfully submitted,

Chas R Bush Jr
CHAS. R. BUSH, Jr.
Jr. H. & G. E.

Approved
FORWARDED :

Jack Senior
JACK SENIOR, H.&G.E.
Commanding NATOMA.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 24, 1928.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4267a.

Bogue Banks, North Carolina

Surveyed in 1928

Instructions dated June 26, 1928 (NATOMA)


Chief of Party, J. Senior.

Surveyed and inked by C. R. Bush, Jr.

1. The records as well as the plan and character of the survey conform to the requirements of the General Instructions.
2. The plan and extent of the survey satisfy the specific instructions.
3. This survey was made due to the lack of control on T. 4267 for the shoreline west of signal Hote and its disagreement with that on T. 4295, and also owing to the confusion and disagreement of signals with those used on the new hydrographic sheets. All the details on this sheet should be used in preference to corresponding details on T. 4267.
4. The junctions with previous surveys are adequate, and no additional surveying is required.
5. The character and scope of the field surveying are excellent.
6. Reviewed by E. P. Ellis, September, 1928.

Approved:


Chief, Section of Field Records (Charts)


Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 42672

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 42672

REGISTER NO.

State NORTH CAROLINA

General locality ~~BOQUE BANKS~~ Beaufort Approaches

Locality ~~BEAUFORT ENTRANCE~~ East End of Bogue Banks

Scale 1:20,000 Date of survey June - July, 1928

Vessel Motor Vessel NATOMA

Chief of Party JACK SENIOR

Surveyed by CHAS. R. BUSH, Jr.

Inked by " " " "

Heights in feet above - to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated June 26-th, 1928

Remarks: Revision survey of section of Topographic Sheet No. 4267