

5047

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton Director

State: N. C.

DESCRIPTIVE REPORT

Air
Photo

Topographic
~~Hydrographic~~

Sheet No. 5047 5047

LOCALITY

Bogue Sound

Morehead City to Broad Creek

19 33

CHIEF OF PARTY

O. S. Reading

U. S. GOVERNMENT PRINTING OFFICE: 1923

5047

Applied to chart 420 11/29/35 Hemaeswen

Applied to chart correction 1234 12/14/35 Hemaeswen

Applied to chart 833 Sept. 17, 1936 HRL

DESCRIPTIVE REPORT
to Accompany
AIR PHOTO-TOPOGRAPHIC SHEET NO. 5047
BOGUE SOUND, N. C.
1933

GENERAL INFORMATION

Statistics (Statute miles):

- a. Square statute miles of area covered 51.0
- b. Length of shoreline along outside coast 15.0
- c. Length of shoreline more than 200 m. from opposite shore . . . 52.0
- c. Rivers, sloughs and islands less than 200 m. wide 20.0
(& does not include narrow channels through marsh)

Additional Reports:

T-6002 Descriptive reports for aluminum mounted topographic sheets ~~B~~ and ~~0~~ (field letter) executed by the party of H. Odessey, Ship GILBERT, January to April, 1933. The above mentioned sheets were executed primarily to furnish photo control and the location of aids to navigation not located by triangulation. T-6001 and

Photographs:

This sheet was plotted from one continuous flight; photographs No. 87 at Morehead City to No. 117 in the vicinity of Broad Creek. The center line of the "B" prints follows the north shore of Bogue Sound. All photographs were taken at dead low water.

CONTROL

Sources:

Third order triangulation executed in 1908, 1914, and 1927 and second order revision control, H. Odessey, Ship GILBERT, 1933.

Errors:

The triangulation used for control had been checked and revised at the time of the field inspection and no plottable errors were discovered. Additional points located on the topographic sheets were used to supplement the triangulation control.

Datum:

Datum corrections were applied to all control on this sheet bringing the projection to the N.A. 1927 datum. This operation was necessary because the second and third order triangulation for this area is as yet unadjusted.

COMPILATION

Method:

Standard radial-line plot.

6001, 6002

Original

Adjustment:

The control in this area is so intense that the radial line plot never deviated far from the true position. Small errors that developed between fixed pictures were carefully investigated and corrected as the plot progressed.

Interpretation:

Having made the field inspection myself, I found no difficulty in interpreting the different topographic features. The high water line along the outer beach and in the vicinity of the inlets was often so indefinite as to be difficult of location within 10 meters by field inspection. A few definite locations of high and low water were made on the topographic sheets and were used as a guide in determining these features elsewhere on the sheet.

Information from Other Sources:

Such features as high and low water line, docks, edges of dredged cut, etc., which were located on the topographic sheets (H. Odessey, 1933) covering this area were used as supplemental control for plotting the sheet and determining features not clearly shown in the photographs.

COMPARISON WITH OTHER SURVEYS

A perfect junction^{to the west} was made with sheet No. 5048 because the radial plots for the two sheets were made at the same time and carried through the junction by securing the sheets together at the overlap. Sheet No. 5046 has not yet been plotted. ^{to the east}

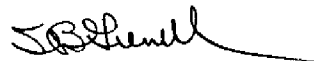
Landmarks:

A complete list of landmarks for charts covering this area was compiled from the 1933 triangulation and forwarded to the office by H. Odessey, commanding Ship GILBERT.

Recommendations:

It is believed that there is no plottable error in the position of well defined detail of importance for charting and a possible error of not more than ten meters for other detail.

Respectfully submitted,



S. B. Grenell
Jr. H. & G. Engineer
U.S.C. & G. Survey.

Original

Reflight Photos.

Single lens photographs Nos. M1-855B to M24-855B taken January 18, 1934, were supplied to make any revision necessary in the outer coast due to storms in the Fall of 1933. No revision was necessary.

Ronald A. McIsaac
Aug. 29, 1934.

*
RECOVERABLE TOPOGRAPHIC STATIONS

Description	Position				Remarks
	Lat	D.M.	Long.	D.P.	
Beacon.	34° 42'	1764 (85)	77° 43'	496 (1029)	So. of Morehead
● No. 1A	34 43'	491 (1358)	77 46'	1056 (470)	
Bn. No. 3A	34 43'	677 (1172)	77 49'	505 (1022)	
Bn. No. 5A	34 43'	811 (1038)	77 51'	204 (1323)	
Bn. No. 7A	34 43'	523 (1326)	77 52'	1447 (80)	
Bn. No. 9A	34 43'	1838 (11)	77 54'	1212 (315)	
Bn. No. 11A	34 42'	1202 (647)	77 56'	773 (754)	
<p style="text-align: center;">* These stations were transferred from T-6001 and T-6002.</p> <p style="text-align: center;">5347</p>					

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

AIR PHOTOGRAPHIC
TOPOGRAPHIC TITLE SHEET

REG. NO. 5047

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

Field No. ~~5133~~ 5047

REGISTER NO. 5047

State North Carolina

General locality Bogue Sound

Locality Morehead City to Broad Creek

Scale 1:20,000 Aerial Photographs 1:00 p.m.
Date of survey Jan. 24 1933
Date of Compilation Nov. 1933

Vessel Army Air Corps Plane

Chief of party O. S. Reading, Washington Office.

Surveyed by (Plotted by) S. B. Grenell

Inked by S. B. Grenell

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated Washington Office, 1933.

Remarks: Compilation from aerial photographs No. 87 to No. 117

Compilation by standard Radial Plot Method.

Polyconic projection	by	S.B.G.	Sept. 26, 1933
" " checked	by	E.H.K.	" " "
Control plotted	By	S.B.G.	Sept. 27, 1933
Control checked	by	E.H.K.	" " "

S. B. Grenell

original

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. 5047

Title (Par. 56) *Morehead City to Broad Creek, Bogue Sound, N. C.*Chief of Party *O. S. Reading* Compiled by *A. B. Grenell*Project *North Carolina* Instructions dated —

1. ✓ The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.)
2. ✓ The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
3. ✓ The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
4. ~~There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.)~~
5. ✓ High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
6. ✓ The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)
7. ✓ Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. *See reverse side of this sheet*
8. ✓ The span, draw and clearance of bridges are ^{not} shown. (Par. 16c.)
Data was not submitted by the field party
9. ✓ The data furnished by the Field Inspection is adequate.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

7. Cont'd.

A comparison was made between this sheet and the following surveys: T-315(1851), T-438(1854), T-874(1862), T-1110(1867), T-1328(1873), T-3387(1913), T-4267(1927), T-4267A(1928) and T-4295(1927).

The outer coast has been constantly shifting back and forth. Generally speaking the present coastline is seaward from the surveys made prior to 1900 and inshore from the surveys made after 1900.

The general features of the topography have remained the same since the earliest survey but the details have naturally changed. Evidence of White Rock and Cross Rock (in Newport River) appears as sanding on T-1328(1873). Several small islands appearing as late as the 1913 survey have disappeared. The pier near the Beach Hotel extending into Money Island Bay is not as large as it was in 1927.

The road paralleling the beach on the south side of Bogue Sound (Lat. $34^{\circ}-42'$, Long. $77^{\circ}-43'$ to $77^{\circ}-44'$) was built after the photographs used in the compilation were taken. It was applied to this sheet from re-flight single lens photo No. M-19-855 F-8.

The road and pier shown on chart 1234 and on T-4267 and T-4267A at Lat. $34^{\circ}-42'$, Long. $76^{\circ}-42\frac{1}{2}'$ are not shown on this sheet. The photographs were examined and it is apparent that they ^{road and pier} are no longer in existence.

There are three docks (Lat. $34^{\circ}-43\frac{1}{2}'$, Long. $76^{\circ}-47\frac{1}{2}'$, $76^{\circ}-50\frac{1}{2}'$, $76^{\circ}-55\frac{1}{4}'$) on the north shore of Bogue Sound shown on chart 1234 which are not shown on this sheet, T-5247. There is no evidence of them in the photographs and the photo control sheets T-6001 and T-6002 do not show them. It is believed that these docks are no longer in existence.

There are two docks shown on chart 1234 (Lat. $34^{\circ}-43\frac{1}{2}'$, Long. $76^{\circ}-51\frac{3}{4}'$, $76^{\circ}-53'$) that appear on this sheet as ruins of docks. This information was obtained from the photo control sheets T-6001 and T-6002.

At Lat. $34^{\circ}-43\frac{2}{3}'$ Long., $76^{\circ}-55\frac{1}{2}'$ the chart shows a small pond (from T-1110). An examination of the photographs indicates that this pond has dried up.

In Newport River rock awash symbols are shown on the chart to mark "White Rock", "Turtle Rock", and "Cross Rock". This was applied to the chart from blue print #20961 (1926). These rocks are oyster beds and are indicated on this sheet by the sanding symbol.

10. ✓ The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)
11. ✓ The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
12. ✓ The descriptions of recoverable stations and references to shore line were ^{not} accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) *A list of recoverable topographic stations which were transferred from T-6001 and T-6002 is included in this report.*
13. ✓ A list of landmarks for charts was furnished on Form 567 and scaling of positions checked, (Par. 16d, e, 60.) *with T-6001 and T-6002. No mention was made of some of the landmarks appearing on the chart.*
14. ✓ The geographic datum of the sheet is *N.A. 1927* and the reference station is correctly noted. (Par. 34.)
15. ✓ Junctions with contemporary surveys are adequate.
16. ✓ Geographic names are shown on the sheet ~~and are covered by the Descriptive Report~~ *from chart 1234.* (Par. 64, 66k.)
17. ✓ The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)
18. ✓ No additional surveying is recommended.
19. Remarks: *This sheet was compiled in the Washington office.*
20. Examined and approved: *J. D. Reading*
Chief of Party
21. Remarks after review in office:

Reviewed in office by: *Frank G. Eiskine* *Aug. 28, 1934*

Examined and approved:

K. T. Adams
Chief, Section of Field Records

L. O. Solbert
Chief, Division of Charts

J. B. Borden
Chief, Section of Field Work

G. W. Hude
Chief, Division of
Hydrography and Topography.

Report T 5047 supplemental

1. Corrections in reel.

Deletion of details in overlaps
with T5524. T5524 is correct
for the details deleted from T5047

B.G.J. 7/23/38