

5049

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R.S. Patton, Director

State: N. Carolina

DESCRIPTIVE REPORT

Aero-
Topographic
~~Topographic~~

Sheet No. 5049-7

LOCALITY 5049

Atlantic Coast

Bear Inlet to Alligator Bay /

1933

CHIEF OF PARTY

O.S. Reading

U. S. GOVERNMENT PRINTING OFFICE: 1928

5049

Applied to chart 893 Sept 15, 1936 H.L.C.

Cedar Point N.A. 1927 7/24/36

34	33	06.627	(204.7)
77	20	16.748	(414.2)

DESCRIPTIVE REPORT
to Accompany
AIR PHOTO TOPOGRAPHIC SHEET NO. 5049

1. General Information:

(a) This sheet is a compilation of Army Air Corps five lens photographs taken with a type T-3A camera from an altitude of approximately 10,000 feet. A Fairchild plane was used piloted by Lieutenant Goodrich with Sergeant Matos as photographer.

The photographs which embrace this sheet consist of a single strip, Nos. 210 to 232 inclusive, in addition to Nos. 233 to 236 of a strip along the New River. The sheet was compiled without the use of the "C" wing print, which is missing. The photographs were taken during the morning of January 29, 1933, and at this time the stage of tide was 1.7 feet above mean low water.

(b) Included in this compilation are 27 square miles of area, 15.9 miles of ^{coast line} ~~shoreline~~, and 16.2 miles of intracoastal waterway, 30 miles of ~~inside shoreline~~.

(c) For a detailed description of the area, there are available descriptive reports Nos. 4721-4725, inclusive (under one cover).

2. Control:

(a) The control consists of second-order triangulation established by A. P. Ratti in 1932, 1933, and H. Odessey in 1933. Control is adjusted to the North American, 1927, datum, *(from field computations)*

With the exception of triangulation stations Hatch U.S.E., Northbase U.S.E., Southbase U.S.E., and Swamp, all stations were used for control purposes. These, however, could not be identified on the photographs and for this reason could not be used.

3. (a and b). The radial line method of compilation was used. Considerable tilt was present in photographs Nos. 211 and 212; in 227 and 228 at the mouth of the New River. In this latter area the water line around the spoil banks was traced from ~~the~~ ^{planetable} sheet No. T-4721. The area covered by photos Nos. 211 and 212 was adjusted by selecting and intersecting additional control points.

(c) Field inspection notes were satisfactory. All roads in this area are unimproved and, for the sake of clarity, are shown with full lines. Unless otherwise shown, all blank areas are fields or cultivated areas. The hachures along the canal denote spoil banks.

T-6003 T-6004

(d) Aluminum field sheets Nos. ~~A~~^{T-6003} and ~~B~~^{T-6004} were used in the compilation and all detail shown thereon was traced on this sheet.

6003, 6004,

4.(a) The junction with sheet No. 5044 (aerial) on the south is satisfactory. Sheet No. 5048 will adjoin on the north.

Respectfully submitted,

Leonard A. McGann

Leonard A. McGann

APPROVED:

Revisions:

A revision of New River Inlet and a section of the Intra Coastal Waterway at Beacon No. 3 $\frac{1}{2}$, near the entrance to New River was made January 30, 1934. *This revision was applied before sheet was printed.*

Photographs No. (M74 - 844J - 8) and (M75 - 844J - 8) taken at 12:50 P. M., January 14, 1934, cover these areas. At the time these photographs were taken the height of tide was approximately one foot below mean low water.

Leonard D. Nelson

RECOVERABLE TOPOGRAPHIC STATIONS *

Description	Position				Remarks
	Lat.	D.M.	Long.	D.P.	
Bn. No. 29A	34° 37'	675 (1173)	77° 12'	1063 (469)	
Bn. No. 29B	34° 36'	888 (960)	77° 13'	1152 (377)	
Bn. No. 29C	34° 35'	1460 (388)	77° 14'	887 (642)	
Lt. Bn. No. 31	34° 32'	1271 (578)	77° 19'	69 (1460)	
Lt. Bn. No. 31B	34° 32'	1609 (240)	77° 19'	1166 (363)	
Lt. Bn. No. 33	34° 33'	425 (1423)	77° 21'	178 (1351)	
Bn. No. 10	34° 31'	1124 (724)	77° 21'	1505 (24)	
Lt. Bn. No. 1	34° 31'	95 (1753)	77° 22'	453 (1076)	
<i>* These stations were transferred from T-6003 and T-6004 to T-5049</i>					

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5049

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. 5049

State North Carolina

General locality Atlantic Coast

Locality Bear Inlet to Alligator Bay

Scale 1:20,000 Date of photographs - Jan. 29, 1933
compilation - Sept.

Plane Fairchild, type F-1A. Lieut. Goodroch, Pilot; Sgt. Matos,
photographer

Chief of compilation O. S. Reading

Photos plotted. Surveyed by L. A. McGann, Sept., 1933 L.A. McSann

Inked by L. A. McGann, Sept., 1933 L.A. McSann

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated, 19

Remarks: Compilation of 5-lens aerial photographs Nos. 210-
236, incl.

Polyconic projection by L. A. McGann, August 31, 1933. L.A.M.

Projection verified by F. G. Erskine, Sept. 1, 1933 F.G.E.

Control plotted by L. A. McGann, Sept. 1, 1933 L.A.M.

Control verified by J. H. Walbern, Sept. 1, 1933.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. 5049

Title (Par. 56) *Atlantic Coast, Bear Inlet to Alligator Bay, N.C.*Chief of Party *O. S. Reading*Compiled by *L. A. McGinn*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 bars} 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*
8. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
9. ✓ The data furnished by the Field Inspection ~~is adequate.~~ *was for the "B" (or center) prints only. The data furnished was good.*

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) A comparison of this sheet with T-4721 indicates several differences, most of them being of minor importance. These differences were checked and it is believed that the photo topographic sheet is correct. New River Inlet was revised with photographs taken January 14, 1934, and is naturally different from T-4721. At the time of the Intra Coastal Waterway at Beacon #31 ($34^{\circ}32\frac{3}{4}'$, $77^{\circ}19'$) another difference was verified by these photographs taken January 14, 1934. *The outer coast line south of New River Inlet which was covered by Field Inspection, also disagrees with T-4721.* T-4721 indicates several oyster bars by the rock awash symbol. Traces of these bars are in evidence on the photographs and are shown on the sheet by broken lines and labeled.

At New River Inlet Lat. $34^{\circ}32\frac{1}{4}'$, Long. $77^{\circ}20\frac{1}{4}'$, T-4721 shows a shoal spot by means of sanding and two low water lines. The hydrographic sheet, H-5277, shows an island with a low water line around it. Revision photograph (M 74 - 844 J-8) taken at about low water shows the shoal spot clearly, but does not give any indications of an island. The shoal spot is not shown on T-5049. *Why?*

On T-4721 \odot BAT (Light #8) is really \triangle Light #8, 1932. The position as plotted on T-4721 is some fifteen meters north of the position according to the 1932 triangulation. There are several other lights and beacons shown by red circles for which triangulation is available, but these were not checked, (on T-4721)

(12) A list of recoverable stations was not submitted on form 524 however, there is a list of plain table positions in descriptive report T-6003. Attached to this report (T-5049) is a list of beacons located on T-6003 and T-6004 and transferred to this sheet.

(16) Names appearing on this sheet are from charts 1234, 1235 and 422 with the exception of Mile Hammock Bay, Salliers Bay, and Halover Creek. These three names are from T-4721, (see Descriptions Report T-4721). These names have been accepted because of local usage. Mile Hammock Bay is shown as "Salliers Bay" on the present chart. Salliers Bay is the first large bay east of "Salliers Bay" on the chart. Halover Creek is the largest creek emptying into this bay.

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 accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) *see opposite page*

13. ✓ A list of landmarks for charts was furnished on Form 567 ~~and scaling of positions checked.~~ (Par. 16d, e, 60.) *with T-6003 and T-6004.*

14. ✓ The geographic datum of the sheet is *N.A. 1927* ^{*undisturbed*} and the reference station is correctly noted. (Par. 34.) *The North American Datum is indicated by intersections.*

15. ✓ Junctions with contemporary surveys are adequate.

16. ✓ Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.) *see opposite page*

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:

O. Redding
Chief of Party

21. Remarks after review in office:

Reviewed in office by: *Frank G. Eiskins* - *May 15, 1934*

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L. Q. Pollock
Chief, Division of Charts

F. Borden
Chief, Section of Field Work

G. H. Rude
Chief, Division of Hydrography and Topography.

Applied to Chs. 1234 - Oct 7-1934 - N. B. Bramble
" " " 1235 " " N. B. Bramble