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ORIGINAL

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: N. C.

DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. A 6000

LOCALITY

Harkers Island to Morehead City

including North River, Newport

River and Core Creek

1933

CHIEF OF PARTY

Herman Odessey

DESCRIPTIVE REPORT
to accompany

TOPOGRAPHIC SHEETS * A, B, C, D, E.
Back Sound to New River Inlet, N.C.

PROJECT HT-127, 1933.

DATE OF INSTRUCTIONS December 29, 1932.

CHIEF OF PARTY Herman Odessey, H. & G. Engr.
Comm'd'g. Ship GILBERT.

TOPOGRAPHER S. B. Grenell, Jr. H. & G. Engr.

CONTROL The control for the topographic survey consisted of second and third order triangulation executed in 1908, 1914, and 1927, supplemented and revised by a second order revision survey completed in 1933 and carried in advance of the topography.

INSTRUMENTS, SHEETS, etc. The standard alidade, telemeter rods and plane table equipment were used with the exception of a new type aluminum-mounted sheet with a special board and clamps. These sheets seemed to be exceptionally adapted to this type of work in that there was absolutely no projection distortion. The new type board and clamps proved to be convenient in the field.

PURPOSE OF SURVEY Before the topography was begun, the entire area covered by this survey was photographed with the five-lens, aerial camera. The center print arrived in the field while work was being done on the first sheet and from then on the topographer carried these prints in the field as an aid in selecting control points. Since it was understood that all detail would be transferred from the prints to the sheets at a later date, no traverse was run by the topographer to fill in extensive detail, but, after a careful inspection of the prints, an effort was made to locate on the sheet - for each adjoining print - at least two detailed features which could be identified on the print. At least two points on each print will serve as a basis for scale reduction and orientation and thus make it possible to transfer all detail required from the print directly to the sheet.

INSPECTION OF PHOTOGRAPHS As noted in the paragraph above, adjoining prints were taken in the field by the topographer each day and carefully checked with the area covered. Prominent objects could be easily identified and detailed notes were made directly upon the photographs to aid the compiler in determining the following features: high and low water line, vegetation, mud and sand flats, marsh, fast land, cultivation, fences, types of roads and trails, bridges, culverts, streets, rail road tracks, tanks, etc.

In addition to the daily field inspection, the topographer frequently took the prints on inspection by automobile and thus, by driving along the inland roads, much detailed notation could be made for areas not visible from the plane table set-ups or from the water.

For certain features, located for control purposes, it was necessary to prepare a sketch book for notes on measured distances to prominent objects. This was particularly true for church steeples and tanks located by triangulation and referenced to buildings, center lines of streets, etc. which show clearly on the prints. This sketch book will be forwarded directly with the photographs.

NOTATIONS ON SHEETS;

INKED DETAILS

When prominent details for control could be identified at or near triangulation stations, set-ups were made at these stations, but for intermediate points it was necessary to work three-point fixes. The triangulation control was admirably suited for this type of plane table control or location and it was always possible to check a three point fix with additional resections; thus assuring a high degree of accuracy in location. From these set-ups the required details were carefully rodded in and notes made on the prints to aid in identification.

All details inked on the sheets were carefully rodded in exactly as shown and no field sketching was done.

Many triangulation stations, used for field control, have been omitted from the inked sheets because they can not be identified in the prints, have no connection with control data shown, and would obliterate detail to be added later. The triangle has been omitted and only the center point shown in red for many stations in order to avoid obscuring control details.

All lighted beacons, located by triangulation, have been plotted on the sheets and many of these have been marked on the prints. By stereoptican investigation many more of the beacons may be identified on the prints.

Beside each inked detail on the sheets appears an encircled number in pencil. This is the number of the print on which were made the field notes relative to that particular detail. In addition, penciled notes have been made to aid in identifying details which could not be easily shown by a symbol: i.e. 'lone tree', 'white sand mound', 'bushes', 'small pond', etc.

To aid in orienting prints the center lines of roads, railroads, and bridges have been shown in pencil. Also on long tangents the edges of the dredged cut have been shown by a dotted pencil line as an aid to the compiler. Occasional penciled cuts to objects, which will show on the wing prints, have been left to aid in orienting these prints.

A blueprint of the progress sketch, which shows the sheet layout and all triangulation control, is attached to this report.

For the information of the reviewer, paragraph 8 of the Instructions dated December 29, 1932 is quoted herewith: " As it is planned to photograph this region in the near future with the 5-lens camera, your topographic work shall be confined, in general, to supplementing the triangulation as necessary (1) to furnish adequate control for reducing the photographs and (2) to provide that all U. S. Engineer stations and all aids to navigation are located."

The form used by the reviewer in checking topographic sheets in the Washington office was received aboard the GILBERT after the topography had been completed and the party had left the field. When the sheets were inked the form was carefully checked over and the following explanation is given for the omissions noted.

Magnetic Meridians

Due to an oversight no magnetic meridians were drawn on the sheets in the field. The area covered by these sheets is very flat and sandy and there is no indication of rock or mineral deposits to suggest the possibility of local attraction.

Vertical Control

Since these sheets were intended primarily for photo control, no attempt was made to secure elevation data.

Geographic Names

Few geographic names have been inked on the sheets to avoid interfering with detail to be added by the compilers. Enquiry, made while the fieldwork was in progress, showed that the names are correct as charted.

SPECIFIC NOTESSHEET - A

LIMITS Harkers Island to Morehead City including North River, New River and Core Creek.

PROCEDURE Topography was begun on the eastern limit of the sheet and extended westward.

The photographs along the beach from 'Bull' to 'New Macon' are on the scale of 1:10,000 and because of the small area covered the detail at 'Bull', 'Middle', and south of 'Carrot' falls on the wing prints which were not sent to the field; hence the lack of print numbers and notations.

Cuts were taken to the east and west ends of the south railing of the bridge near the north end of North River but the intersections were too flat to assure an accurate location; hence this detail was not inked in but the pencil cuts have been left on the sheet. Due to lack of control it was impossible to work a fix at or near the bridge.

All of the tanks, steeples and cupolas located on the sheets are included in the sketch book or indicated on the photographs. Explanatory notes of other details are penciled on the sheets and prints.

Approved:

Herman Odessey
Herman Odessey,
Chief of Party.

Respectfully submitted,

S. B. Grenell
S. B. Grenell,
Topographer.

This is to certify that topographic sheet A, covering the survey of Beaufort Entrance and Bogue Sound from Harkers Island to Morehead City, has been inspected and is approved.

Herman Odessey
Herman Odessey, H. & G. E.,
U.S. Coast & Geodetic Survey,
Commanding Ship GILBERT.

Plane Table Positions

Sheet A.

Letter	Approx. Lat.	Approx. Long.	Description of Object
A	34 - 44.5	76 - 37.3	East gable of small white shack on pier
B	34 - 42.7	76 - 35.2	West gable of large white house
C	34 - 40.5	76 - 36.6	Center of small square fish camp on beach
D	34 - 41.2	76 - 38.7	Two buildings of abandoned fish camp
E	34 - 42.5	76 - 37.1	Tallest of 3 stacks on fish factory
F	34 - 42.6	76 - 37.9	East and west stacks on fish factory

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Norfolk, Va.

August 22

193 33

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Herman Odessey

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED		
	LATITUDE		LONGITUDE		DATUM				
	°	'	D. M. METERS	°				'	D. P. METERS
North Entrance Steep Channel 1933	34-44		1049.23	76-36	780.20	N A	Triangulation	420	1234
North River Beacon	34-42		1435.66	76-35	617.40	"	"	"	"
Shepherd Shoal Beacon	34-42		464.72	76-35	1308.48	"	"	"	"
Middle Marshes Beacon	34-42		273.84	76-36	1084.50	"	"	"	"
Taylor Creek East Beacon	34-42		355.26	76-37	202.85	"	"	"	"
Back Sound Beacon	34-40		1517.39	76-36	1145.87	"	"	"	"
The Lumps Beacon	34-41		863.76	76-34	493.99	"	"	"	"
Back Sound Channel Beacon	34-41		1258.26	76-36	860.58	"	"	"	"
East Church Spire	34-41		1318.31	76-33	838.20	"	"	"	"
West Church Spire	34-41		1341.80	76-33	1057.76	"	"	"	"
Fort Mason Shoal Beacon	34-41		922.86	76-40	340.18	"	"	"	"
Whipe Range Beacon	34-42		269.62	76-39	1519.35	"	"	"	"
Taylor Creek West Beacon	34-42		1513.59	76-39	1087.67	"	"	"	"
Shark Shoal Beacon 3	34-42		949.36	76-40	1204.31	"	"	"	"
Shark Shoal Beacon 1	34-42		524.11	76-40	1084.32	"	"	"	"
Reid Creek Beacon	34-42		1556.94	76-40	1099.02	"	"	"	"
Water Tank, U. S. Biological Station	34-43		332.11	76-40	503.51	"	"	"	"

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Norfolk, Va.

August 22,

1933

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Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	°	D. M. METERS	°	D. P. METERS			
Beaufort Channel	34-43	490.36	76-40	294.70	N A	Triangulation	420 1234
East Bridge Tower	34-43	507.15	76-40	319.77	"	"	" "
Beaufort Channel	34-43	1334.44	76-40	217.13	"	"	" "
West Bridge Tower	34-43	1536.17	76-40	170.19	"	"	" "
Gallant Channel Beacon 3	34-43	1347.75	76-40	81.89	"	"	" "
Tallest of three stacks	34-43	918.18	76-41	773.01	"	"	" "
N. Fish Factory	34-43	413.76	76-41	928.97	"	"	" "
Tallest of three stacks	34-43	410.18	76-41	964.87	"	"	" "
S. Fish Factory	34-43	1706.14	76-41	340.76	"	"	" "
Newport Lower Marshes	34-44	134.90	76-41	430.96	"	"	" "
Beacon 13	34-44	688.45	76-40	1367.66	"	"	" "
Newport River	34-44	215.29	76-40	929.73	"	"	" "
East Bridge Tower	34-44	1068.12	76-40	199.90	"	"	" "
Newport River	34-45	683.85	76-40	559.57	"	"	" "
West Bridge Tower	34-45	623.78	76-41	545.56	"	"	" "
Tallest of three stacks	34-45	73.45	76-41	207.94	"	"	" "
Fish Factory on Island	34-45	655.21	76-41	228.89	"	"	" "
Newport Middle marshes							
Beacon 12							
Newport Upper marshes							
Beacon 10							
Gallant Channel Beacon 2							
Gallant Channel Beacon 1							
Spells Creek Beacon 11							
Log Slough Beacon							
Core Creek Beacon (Rear)							
Core Creek Front Beacon							

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The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

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REG. NO. 6000

TOPOGRAPHIC TITLE SHEET

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. A

REGISTER NO. 6000

State North Carolina

General locality Beaufort Entrance

Locality Harkers Island to Morehead City

Scale 1:20,000 Date of survey February, 1933

Vessel GILBERT

Chief of party Herman Odessey

Surveyed 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 December 29, 1932

Remarks: Photo control sheet.

REVIEW OF GRAPHIC CONTROL SURVEY T- 6000 , SCALE 1: 20,000

Date of Review 3/7/38

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5574, , , with particular attention to the following details:

- (a) Projection has been checked in the Field.
- (b) Accuracy of location of plane table control points.
- (c) Discrepancies between detail on this survey and the air photo compilations listed above.
- (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5574, , , for a more complete discussion of any errors or discrepancies found.

✓ Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.

✓ Notes and corrections resulting from the review are shown on this survey in green.

L.C. Landy