

8045

Diag'd. on Diag. Ch. No. 1233

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photographic
Shoreline Survey

Field No. _____ Office No. T-8045

LOCALITY

State North Carolina

General locality Cape Lookout

Locality Core Sound - Back Sound

194 5

CHIEF OF PARTY

R. W. Knox

LIBRARY & ARCHIVES

DATE March 15, 1949

8045

DATA RECORD

Form T-1

T- 8045

~~Quadrangle (II):~~~~Project No. (II):~~~~Field Office:~~~~Chief of Party:~~Compilation Office:
Washington, D. C.Chief of Party: R. W. Knox
Chief of BranchInstructions dated (II III):
Verbal only~~Copy filed in Descriptive~~
~~Report No. T----- (VI)~~

Completed survey received in office: July 5, 1945

Reported to Nautical Chart Section:

Reviewed: 3 Feb 49

Applied to chart No. 426

Date: 11/16/45

Redrafting Completed:

Registered: 18 Feb. 1949

Published: Not to be published

Compilation Scale: 1:20,000

~~Published Scale:~~

Scale Factor (III): 1.00

Geographic Datum (III): N. A. 1927

Datum Plane (III): ^{M. H. W.}
~~Mean Sea Level~~

Reference Station (III): Marshallburg Baptist Church Spire, 9,3

Lat.: 34°43' 41.752"
(1286.6 meters)Long.: 76° 30' 57.405"
(1460.5 meters)Adjusted
Unadjusted

State Plane Coordinates (VI): Not shown

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time (E.S.T.)</u>	<u>Scale</u>	<u>Stage of Tide</u>
848 - 852 **	1-24-45	11:00 a.m.	1:20,000	0.0' above M.L.W.
853 - 858 **	1-24-45	11:06 a.m.	1:20,000	0.1' above M. L. W.
8955 -8959 *	4-16-42	3:10 p.m.	1:20,000	0.8' above M. L. W.

* Nine-lens photographs
 ** Single-lens photographs

Tide from (III): Tide tables:-Atlantic Ocean; reference station: Hampton Roads, Va.,
 with corrections to Cape Lookout, N. C.

Mean Range: 3.7' Spring Range: 4.4'

Camera: (Kind or source) U. S. Coast and Geodetic nine-lens camera and U. S. Coast
 and Geodetic Survey single lens camera (focal length 6")-Type "C". All negatives
 are on file in the Washington Office.

Field Inspection by: date:

No field inspection

Field Edit by: date:

No field edit

Date of Mean High-Water Line Location (III):

Photographs of: 1-24-45
 and 4-16-42

Projection and Grids ruled by (III) S. Rose date: 3-29-45

" " " checked by: S. Rose date: 3-29-45

Control plotted by: Michael G. Misulia date: 4-2-45
 Dorothy Moseley

Control checked by: Michael G. Misulia date: 4-2-45
 Dorothy Moseley

Radial Plot by: Michael G. Misulia date: 4-45

Detailed by: Bernice Wilson date: 4, 5, 6-45

Reviewed in compilation office by: Michael G. Misulia date: 6-45

Elevations on Field Edit Sheet
 checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles); 40

Shoreline (More than 200 meters to opposite shore); 97.3 statute miles

Shoreline (Less than 200 meters to opposite shore); 23.9 statute miles

Number of Recoverable Topographic Stations established; None

Number of Temporary Hydrographic Stations located by radial plot; None

Leveling (to control contours) - miles; None

Roman numerals indicate whether the item is to be entered by,

(II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname
and initials (not initials only).

Remarks:

~~T-8043~~
RADIAL PLOT
REPORT

26. Control:

The control plotted consists of four horizontal control stations, all of which are U. S. Coast and Geodetic Survey triangulation stations.

CORE, COAST GUARD STATION, FLAGPOLE, 1933

LIFE SAVING STATION, CUPOLA

* HARBOR ISLAND CLUBHOUSE, EAST CHIMNEY

ATLANTIC METHODIST CHURCH SPIRE, 1933

* Station destroyed. Point pricked on photographs in same position as that shown on Survey T-3662, scale 1:40,000, date 1916.

27. Radial Plot:

A combined radial plot was laid for Surveys Nos. T-8043 to T-8045, inclusive, which lies within the limits of Chart No. 421.

The area of these surveys was covered by nine and single lens photographs. Templates were used for the nine lens photographs, while the single lens photographs were oriented directly under the celluloid projection sheet.

All of the horizontal control, shown on the projection sheets with the conventional triangulation symbols, was identified in the office from available descriptions.

The horizontal control consists of the following 21 U. S. Coast and Geodetic Survey triangulation intersection stations:

ATLANTIC METHODIST CHURCH SPIRE, 1933

CAPE LOOKOUT LIGHTHOUSE, 1933

* CARTARET CLUB, MAIN CHIMNEY

CORE, COAST GUARD STATION, FLAGPOLE, 1933

DAVIS SHORE, N.E. CHURCH SPIRE, 1933

DAVIS SHORE, S.W. CHURCH SPIRE, 1933

** HARBOR ISLAND CLUB HOUSE, E. CHIMNEY

HARKERS ISLAND E. CHURCH SPIRE, (NORTHERN METHODIST CHURCH), 1933

HARKERS ISLAND W. CHURCH SPIRE, (SOUTHERN METHODIST CHURCH), 1913, r. 1933

E. RADIO TOWER, CAPE LOOKOUT, 1933

* LIFE SAVING STATION CUPOLA

KINGS PT. BEACON, 1933

MARSHALBURG BAPTIST CHURCH SPIRE, 1913

- MARSHALLBURG METHODIST CHURCH SPIRE, 1913
S. GABLE HO. N.E. OF STA. LEO, 1933
* SEA LEVEL CHURCH SPIRE
SHELL POINT BEACON, 1933
* STACY SPIRE
SHACKLEFORD BANK E. GABLE HOUSE, 1933
W. RADIO TOWER, CAPE LOOKOUT, 1933
* WILLISTON SPIRE

* Positions were taken from the original computations made in 1915, the datum of which was listed as "Approximately North American". These positions were office adjusted to N. A. 27 datum.

** Station destroyed. Point pricked on photographs in same position as that shown on Survey 3662, scale 1:40,000, date 1916.

All of the horizontal control stations, common detail points from adjoining surveys, and flight lines were "held", either 100% or tangent in the plot.

Surveys Nos. T-8044 and T-8045 were adequate in control density, while more control for Survey No. T-8043 would have been desirable, it is believed to be of required accuracy. Secondary points and photograph centers which were established on Survey No. T-8044 were used to supplement the horizontal control on Survey No. T-8043.

The error of closure was negligible and no exceptional difficulty was encountered in the adjustment.

The position of all secondary points and photograph centers, established by the radial plot, have been shown on the glossy side of the projection sheet with small double and large single blue ink circles respectively.

Chamber no. 5, of photograph no. 8949, could not be held in the plot because of the incorrect orientation of this chamber relative to the photograph. The presence of double images along the mask lines of this chamber were noted. When drawing rays from this chamber, intersections established from other photographs were used in determining the correct orientation.

The positions of the secondary points and photograph centers, established by this combined plot, are believed to be within the standard of accuracy required by the Bureau.

COMPILATION REPORT

26. Control:

The control plotted consists of eleven horizontal control stations, all of which are U. S. Coast and Geodetic Survey triangulation stations and are shown on Map Drawing with the conventional symbol.

CAPE LOOKOUT LIGHTHOUSE, 1933
E. RADIO TOWER, CAPE LOOKOUT, 1933
HARKERS ISLAND E. CHURCH SPIRE (NORTHERN METHODIST CHURCH), 1933
HARKERS ISLAND W. CHURCH SPIRE (SOUTHERN METHODIST CHURCH), 1913, r. 1933
MARSHALLBURG BAPTIST CHURCH SPIRE, 1913
MARSHALLBURG METHODIST CHURCH SPIRE, 1913
S. GABLE HOUSE, N. E. OF STA. LEO, 1933
SHELL POINT BEACON, 1933
SHACKLEFORD BANK E. GABLE HOUSE, 1933
W. RADIO TOWER, CAPE LOOKOUT, 1933
WILLISTON SPIRE

Two stations whose positions lie within the area of the Map Drawing were not visible on the photographs and are believed to be removed; they are: Cape Lookout N. E. and N. W. Radio Towers, 1913.

27. Radial Plot: - Reported with T-8043

A combined radial plot was laid for the areas of Surveys Nos. 8043 - 8045, inclusive. The report for this plot has been submitted with the Descriptive Report for Survey No. T-8043 under side heading No. 27. *A carbon copy of this report is included in this Descriptive Report.*

28. Detailing:

There were no field inspection data for the area of Map Drawing Survey No. T-8045. All of the planimetric details shown were interpreted from office examination of the photographs, the stereoscope being used wherever deemed necessary.

In general, the shoreline consists of long stretches of sandy beaches and marshy areas. The sandy beaches along Shackleford Banks and Cape Lookout have numerous large rocks lying just inside of the Mean High-Water Line. The interior consists mainly of marshy areas, woods, numerous cultivated areas. There are also numerous small towns and settlements along the shoreline of the Map Drawing.

All roads accompanied by the note "d.f.l." or "d.d.l." have been shown by center line only and are to be considered 0.6 m.m. in width. The double full line roads were shown with a heavy weight line while the double dash line roads were shown with a light weight line. It is believed that this difference in road lines would be of value in interpretation of the roads shown during the smooth drafting of the Map Drawing. Trails have been shown with dashed light weight black acid ink lines accompanied by the note "Tr."

The scales of the photographs and the Map Drawing were in fair agreement. The single lens photographs were used in detailing in preference to the nine lens photographs because of their later date.

The positions of the planimetric details in the area north of Latitude $34^{\circ}46'$ and west of Longitude $76^{\circ}33'$ are believed to be relatively weak with respect to the horizontal control because of insufficient photographic coverage. The details shown were detailed from the wing chambers of nine lens photographs.

30. Mean High-Water Line:

The Mean High-Water Line has been shown on the Map Drawing by a full heavy weight black acid ink line. Marshy areas have been shown with the conventional symbol, the outer limits of which were shown with a light weight black acid ink line. These outer limits were somewhat difficult to delineate accurately on the photographs because of blurred photography causing the marshy areas to blend with the shoal areas.

Because of the sandy beaches along Shackleford Bank, Core Bank, and Cape Lookout, the Mean High-Water Line is subject to considerable changes, especially at Cape Lookout.

Since the photographs covering the area of the Map Drawing were taken at Mean Low-Water, interpretation of the true position of the Mean High-Water Line was very difficult, especially along the areas mentioned in the previous paragraph.

31. Low-Water and Shoal Lines:

The approximate position of the Mean Low-Water Line has been shown on the Map Drawing with a dotted black acid ink line in areas where definite lines of demarkation appeared on the photographs. In like manner shoal areas, shown

by light weight dashed black ink lines, were only shown where the outer limits of shoal appeared definite on the photographs.

32. Details Offshore from the High-Water Line:

Grass-in-water and sandy areas have been shown on the Map Drawing by the conventional symbols.

33. Wharves and Shore Line Structures:

All piers have been shown on the Map Drawing by the conventional symbols.

37. Geographic Names:

No geographic name investigation for the area of the Map Drawing was available. All names shown on the Map Drawing were taken from available charts. A list of the undisputed and disputed geographic names has been submitted herein.

38. Junctions:

The junctions with Survey No. T-5574 to the west and T-8044 to the north-east are in agreement. There are no contemporary surveys to the north or south of the Map Drawing.

39. Recommendations for Future Surveys:

The planimetry shown is believed to be complete in all important details and within the limits of satisfactory accuracy, except for the areas mentioned under side headings 28 and 30. Since no field inspection was made for the area of the Survey, a Field Edit is recommended.

It is to be emphasized that this survey was made by office compilation from aerial photographs without ground identification of control or clarification of photographic details. This survey is adequate for Nautical Chart compilation or revision but is not up to Bureau Standards of completeness or accuracy and should not be used for Hydrographic control or certified for engineering or legal purposes.

40. Bridges:

There are three bridges of navigational importance shown on the Map Drawing. Notes pertaining to their vertical and horizontal clearances, type, number of spans,

and date of completion have been lettered on the Map Drawing. The data used were taken from "List of Bridges over the Navigable Waters of the U. S. " compiled by Corps of Engineers.

44. Comparison with Existing Topographic Surveys:

<u>Survey</u>	<u>Date</u>	<u>Scale</u>
T-416	1853	1:20,000
T-1017	1866	1:20,000
T-1695	1866	1:20,000
T-1306	1872	1:20,000
T-1328	1873	1:20,000
T-3387	1913	1:20,000
T-3394	1913	1:20,000
T-4346	1926-27	1:20,000
T-4346a	1928	1:10,000
H-3374	1912	1:10,000

A detailed comparison with the above mentioned surveys was not possible because of the changes in planimetric detail. However the general outlines are in agreement.

45. Comparison with Nautical Charts:

Chart No. 421, published Nov. 1940, scale 1:40,000, reissued Aug. 1943.

Chart No. 1233, published Aug. 1942, scale 1:80,000, reissued May 1944.

These charts were compiled from the old surveys mentioned in paragraph 44. Thus detailed comparisons of this Map Drawing with the nautical charts could not be made. In general, however, the planimetric details are in fair agreement.

*This report was compiled for correction of the
nautical charts. B. J. Jones*

Compilation and Descriptive Report by:

Bernice W. Wilson
Bernice Wilson

Compilation and Descriptive Report
reviewed by:

Michael G. Misulia
Michael G. Misulia

Approved by:

L. C. Lande
L. C. Lande
Cartographic Engr.

GEOGRAPHIC NAMES

Survey No.

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
<u>UNDISPUTED</u>									1
BACK SOUND									2
BAREGRASS I.									3
BELL I.									4
BELLS PT.									5
BOTTLE RUN PT.									6
CAPE LOOKOUT									7
CHADWICK CR.									8
COCKLE MARSH I.									9
CODDS CR.									10
CORE BANK									11
CORE SOUND									12
COWPEN I.									13
EASTMOUTH BAY									14
GREAT MARSH I.									15
GULL I.									16
GUNNING HAMMOCK I.									17
HARKERS I.									18
HOGPEN BAY									19
HORSE I.									20
LIGHTHOUSE BAY									21
LITTLE DEEP MARSH I.									22
LONG DEEP MARSH I.									23
LOOKOUT BIGHT									24
MADDAM CR.									25
MIDDERS CR.									26
MORGAN I.									27

*For approved names refer to
Desc. Reports for the Pp-5 surveys
listed in the Review Report.*

GEOGRAPHIC NAMES

Survey No.

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A	B	C	D	E	F	G	H	K	
<u>UNDISPUTED</u>									
									1
N. LEOPARD CR.									2
NORTH RIVER									3
RUSH I.									4
SHACKLEFORD BANKS									5
SHEEP I.									6
SHELL PT.									7
SLEEPY CR.									8
S. LEOPARD CR.									9
THE DRAIN									10
THE STRAITS									11
WARD CR.									12
WESTMOUTH BAY									13
WHITEHURST I.									14
WILLIS CR.									15
WILLISTON CR.									16
WOLFERT CR.									17
									18
<u>DISPUTED</u>									
									19
<u>MARSHALLBERG</u> --- MARSHALLBURG									20
									21
									22
									23
									24
									25
									26
									27

Division of Photogrammetry
Review Report of
~~Planimetric~~ Map Manuscript T-8045
Shoreline

18. Geographic Names.-The spelling "Marshallberg" was accepted by the U. S. Board of Geographic Names in December 1948 according to Mr. L. H. Heck of the Geographic Names Section, Division of Charts.

28. Detailing.-This survey was compiled from aerial photographs without field inspection of any kind. It is not to be published and was intended only for the revision of nautical charts for this area.

It is superseded by more recent surveys in project Ph-5. Refer to T-8739, T-8745, T-8746, and T-8818. A note that it has been superseded has been placed on the map manuscript.

The map manuscript had been applied to chart 420 prior to this review.
Reviewed by:

Under direction of:

Jack L. Rihn
Jack L. Rihn
2-3-49
Cartographer

S. V. Gifford
S. V. Gifford
Chief, Review Section *K.A.M.*

APPROVED:

B. G. Jones per em
Tech. Assist. to the Chief,
Div. of Photogrammetry

W. R. Edmondson
Chief, Nautical Chart Branch
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

C. K. Green
Chief, Div. of Coastal
Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. 8045

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.