

6211a

6211a

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, Director	
DESCRIPTIVE REPORT	
Topographic <del>Hydrographic</del>	6211A Sheet No. AD T-2611a.
State North Carolina	
LOCALITY	
Vicinity of Cape Fear	
Oak Island	
1934	
CHIEF OF PARTY	
B.H. Rigg	

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

LIBRA

REG. NO.

FEB 19 1935

Acc. No.

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. AD 62112

REGISTER NO.

State North Carolina  
General locality ~~Swampy Co. N. C.~~ Vicinity of Cape Fear  
Oak Island  
Locality ~~Intra-coastal Waterway east of Lookwood Hall~~  
Scale 1/10,000 Date of survey September, 1934  
Vessel Party no. 19  
Chief of party Benjamin H. Rigg  
Surveyed by Addison S. Hall  
Inked by Addison S. Hall  
Heights in feet above.....to ground to tops of trees  
Contour, Approximate contour, Form line interval.....feet  
Instructions dated October 10, 1933  
Remarks:.....  
.....

## OUTLINE

1. INSTRUCTIONS
2. PURPOSE OF SURVEY
  - A. Establishment and Recovery of Permanent Stations.
  - B. Location of Aids to Navigation
  - C. Location of Topographic Detail for Use in Air-Photo Compilation
3. DESCRIPTION OF TERRITORY
4. LIMITS OF SHEET
5. CONTROL
6. SURVEYING METHODS USED
7. PERMANENT STATIONS ESTABLISHED
  - A. U.S.E.D. Stations.
  - B. Other permanent H. & T. Stations
8. AIDS TO NAVIGATION
9. LANDMARKS AND NAMES
10. TOPOGRAPHIC FEATURES LOCATED FOR COMPARISON WITH AIR-  
PHOTO COMPILATION.

DESCRIPTIVE REPORT TO ACCOMPANY  
ALUMINUM MOUNTED CONTROL SHEET AD

INSTRUCTIONS

The survey was carried out under instructions dated October 10, 1933, also Director's letters 22Mg 1990 (19), 26 - AMH 293, and circular letter No. 30.

PURPOSE OF SURVEY

The purpose of the survey was to establish and recover permanent stations, to locate Aids to Navigation, and to locate topographic detail for use in air-photo compilation.

DESCRIPTION OF TERRITORY

The territory covered by sheet AD is wooded with a mixture of pine and deciduous trees except in the extreme eastern portion, where a large area of marsh extends westward into the woods. Between the woods and the ocean is a stretch of grass covered sand and low dunes, two or three hundred meters wide.

The ocean beach is very regular, making one smooth curve across the southern edge of the sheet. Several sandy roads lead down to the ocean and one may drive along the beach in a truck at low tide. The Inland Waterway lies about three quarters of a mile back of the ocean beach. Throughout the western half of the sheet, the canal was dredged through high ground. The surface of the ground is about twenty feet above the high water line at the center of the cut.

LIMITS OF SHEET

The topography on sheet AD includes the ocean beach and the Intra-coastal Waterway from long.  $78^{\circ} 05.2' W.$  westward to long.  $78^{\circ} 10.1' W.$

CONTROL

The following triangulation stations were used as control on sheet AD:

Hook	1933	Waterway	1934
Fuzzy	"	U.S.E. 3	1933
Clem	"	U.S.E. 2-3 N	1933
Liz	"	U.S.E. 2-3 S	"
Hick	"		

#### SURVEYING METHODS USED

To obtain the high water line along the ocean beach, a steel wire traverse was run from triangulation station, POND on sheet AC, across sheet AD to LOCK R.M. No. 2 on sheet AE, whose geographic position had been computed.

Azimuth was carried along this traverse from sheet AC to sheet AD in the following way. A set-up was made on a point common to both sheets. Working first on sheet AC, an orientation line was drawn from the point eastward through triangulation station POND. A continuation of this line was projected westward on sheet AD from the same point transferred. Thus it was possible to start sheet AD by orienting on station POND although POND did not fall on the sheet AD. Rather than repeat this procedure at the junction of sheets AD and AE, it was considered stronger to tie in the traverse at a point on the west end of sheet AD common to sheet AD. This point was located on sheet AE by running a steel wire traverse westward from Lock R.M. No. 2. A discrepancy of 8 meters was found in the two positions of the point. This was an error of less than one meter per mile. The true position of this point was assumed between the two, nearer the position obtained by the shorter traverse line. Both parts of the traverse were adjusted in the usual manner to close on this point. The high water line was run-in in conjunction with the running of the traverse. Control was adequate along the waterway and no special methods were used in carrying this part of the survey to completion.

#### PERMANENT STATIONS ESTABLISHED

A. U.S.E.D. Stations - U.S.E. Mon. No. 14, near triangulation station

WATERWAY, was located on the sheet. A description of the station on form 524 accompanies the sheet. This station was designated with the letter D on the sheet. Three other U.S.E. stations falling within the limits of the sheet had been cut in by triangulation in 1933. Several other U.S.E. Right of Way Monuments were recovered, but it was not considered feasible to locate them because of the adequacy of the present control along the waterway, and the extreme inaccessibility of the stations.

B. Other Permanent H. & T. Stations - No permanent stations were established along the front beach because of the unpermanency of the shifting dunes. Stations DUCK, DUCK-A, and FENCE, established by Raynor in 1923 along this section of the beach were lost as far as could be determined by a careful search, and it was assumed that similar stations established by us would suffer a similar fate.

#### AIDS TO NAVIGATION -

Beacon 21 was the only aid to navigation, not already located by triangulation, falling within the limits of sheet AD. It was located topographically, and its geographic position on form 567 accompanies the sheet.

The geographic positions of all beacons cut in by triangulation were checked with the planetable and found to be correct.

#### LANDMARKS AND NAMES


No landmarks fell within the limits of sheet AD. All names on the present chart are correct. No new names should be added.

#### TOPOGRAPHIC FEATURES LOCATED FOR COMPARISON WITH AIR PHOTO COMPILATION

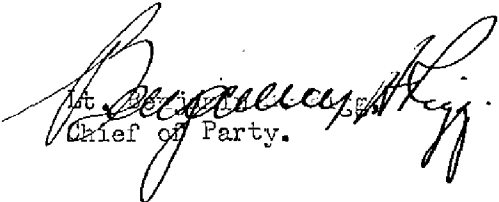
Portions of shoreline were located at intervals of one mile or less along the intracoastal waterway. All bends in the canal were shown. The high water line along the ocean beach was located throughout the entire length of the sheet. Red readings are shown in all cases by dots in breaks in the high water line. A comparison was made between the topographic sheet and the air photo compilation. Discrepancies along the ocean beach were

in no instances over 10 meters. Along the waterway no discrepancies of over five meters were found. In all cases the compilation was changed to agree with the rod readings. Between rod readings the shoreline on the topographic sheet was in some cases changed to agree with the compilation.

Respectfully submitted,

  
Addison S. Hall  
Surveyor

Forwarded by,

  
Lt. George H. H. H.  
Chief of Party.

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Southport, N. C.

November, 193 4

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:

Sheet AD

Benjamin H. Riggs.

*Chief of Party.*

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstuffs and like objects are not sufficiently permanent to chart.



## Review of Graphic Control Survey No T-6211 a.

This sheet has been examined in connection with the review of air photo compilation T-5241 and no errors or discrepancies noted. See T-5241 for complete topographic information.

L.A.M.

March 15, 1935.

6211b

6211b

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Topographic #####	} Sheet No. AE 6211b
State North Carolina	
LOCALITY	
Vicinity of Cape Fear	
East of Lockwoods Folly Inlet	
1934	
CHIEF OF PARTY	
B. H. Rigg	

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES	REG. NO.
FEB 19 1935	
Acc. No. _____	

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. AE 6211b

REGISTER NO.

State North Carolina  
General locality ~~Brunswick Co., N. C.~~ Vicinity of Cape Fear  
Locality East of Lockwoods Folly Inlet  
Scale 1/10,000 Date of survey September, 1934  
Vessel Party No. 19  
Chief of party Benjamin H. Rigg  
Surveyed by Addison S. Hall  
Inked by Addison S. Hall  
Heights in feet above \_\_\_\_\_ to ground to tops of trees  
Contour, Approximate contour, Form line interval \_\_\_\_\_ feet  
Instructions dated October 10, 1933  
Remarks: \_\_\_\_\_  
\_\_\_\_\_

## OUTLINE

1. INSTRUCTIONS
2. PURPOSE OF SURVEY
  - A. HYDROGRAPHIC CONTROL
  - B. ESTABLISHMENT AND RECOVERY OF PERMANENT STATIONS
  - C. LOCATION OF AIDS TO NAVIGATION
  - D. LOCATION OF TOPOGRAPHIC DETAIL FOR COMPARISON WITH AIR PHOTO COMPILATION
3. DESCRIPTION OF TERRITORY
4. LIMITS OF SHEET
5. CONTROL
6. SURVEYING METHODS USED
7. PERMANENT STATIONS ESTABLISHED
  - A. U.S.E.D. STATIONS
  - B. OTHER PERMANENT H. & T. STATIONS
8. AIDS TO NAVIGATION
9. LANDMARKS AND NALES
10. TOPOGRAPHIC FEATURES LOCATED FOR COMPARISON WITH AIR PHOTO COMPILATION

DESCRIPTIVE REPORT TO ACCOMPANY  
ALUMINUM MOUNTED CONTROL SHEET AE

INSTRUCTIONS

The survey was carried out under instructions dated October 10, 1933, also Director's letters 22 Mg 1990 (19), 26 -AMH 293, and circular letter No. 30.

PURPOSE OF SURVEY

The purpose of the survey was to establish hydrographic control,\* to locate Aids to Navigation, to establish permanent hydrographic and topographic stations, to recover U. S. Army Engineers' stations, and to locate topographic detail for comparison with Air Photo Compilation.

\*(This control was for a survey of Lockwoods Folly Inlet and Lockwoods Folly River)

DESCRIPTION OF TERRITORY

On sheet AE the territory bordering the coast reassumes the characteristics typical of the entire Middle Atlantic and Southern seacoast. Back of the beach itself, we find a narrow sandy barrier island, covered with dunes of varying heights up to fifty feet. Scrubby trees grow on some of these dunes, others are bare and shift with the shifting winds. Some are partially held in check by sand grass. Behind the barrier island lies an area half a mile to a mile in width which is partly marsh, partly creeks and tidal flats which bare at low tide. Through this marshy area runs the intracoastal waterway. Lockwoods Folly River, a narrow channel winding through marsh, mud flats, and oyster rocks baring at low tide, is flanked on each side by high ground covered with pine and deciduous trees. The river flows into the ocean through Lockwoods Folly Inlet, which lies just beyond the western limit of the sheet.



LIMITS OF SHEET

The territory on sheet AE includes the ocean beach and Intra-Coastal Waterway from long.  $78^{\circ} 09.2' W$ , westward to the eastern point of beach at Lockwoods Folly Inlet (long.  $78^{\circ} 14.1' W$ ). It also includes Lockwood Folly River from the inlet northward to lat.  $33^{\circ} 57.5' N$ .

CONTROL

Control consisted of the following triangulation stations:

I.W. Beacon	14	1934
Waterway		"
Howell		1932
Folly		1934
Bonham		1934
*Lock R. M. No. 2		1923

\*Station LOCK was lost. The geographic position of LOCK R.M. No. 2 was computed in the Charleston Field Office.

SURVEYING METHODS USED

The beach traverse eastward from Lock R. M. No. 2 was described in the report on sheet AD.

Another special problem was encountered in the location of beacons 4, 6, and 8 which lie in a narrow tongue of marsh extending into the tree covered higher ground. The method used here was first to establish a control station (hydro. sta. RAT) on a high dune back of the ocean beach. The station was located from the traverse and checked by a three point fix on stations Lock R. M. No. 2, Bonham, and Waterway. Second, cuts to the beacons were taken from this station. Third, a short chain of graphic triangulation was run into the marshy tongue, using station RAT for orientation at all set-ups in the chain, from which other cuts to the beacons were taken. Fourth, a steel wire traverse was run along the bank of the canal from triangulation station Waterway westward, tying in with the chain of graphical triangulation at Beacon 4. A discrepancy of  $2\frac{1}{2}$  meters was

found in the two positions. The positions obtained by graphical triangulation were assumed correct without adjustment.

The rest of the survey was carried to completion in the usual way, by making set-ups on triangulation stations first, and locating succeeding set-ups from beacons and signals cut in from triangulation. Hydrographic signal TREE on Lockwood Folly River was located by the intersection of two cuts. All other signals on the sheet were located by the intersection of at least three strong cuts.

#### PERMANENT STATIONS ESTABLISHED

A. U.S.E.D. stations \* The following stations permanently marked by the U. S. Engineers Dept. were located on sheet AE:

U.S. B.M. No. 16  
U.S. B.M. No. 19  
U.S. E.Mon. No. 22  
U.S.E. Mon. No. 24  
U.S.E. Mon. No. 25

Descriptions of these stations on form No. 524 accompany this sheet. These stations are designated on the sheet by the letter "D".

B. Other Permanent Stations Established. -- In view of the difficulties encountered in locating beacons 4, 6, and 8, it was decided to put in permanent stations in the vicinity. Pipe No. 1 and Pipe No. 2 were established at strategic points along the waterway. Descriptions of these permanent stations on form No. 524 accompany the sheet. They were designated by the letter "D" on the sheet.

#### AIDS TO NAVIGATION

The aids to navigation falling on this sheet consist of day marks and lighted beacons along the Intracoastal Waterway. All beacons not already located by triangulation were located by planetable. A list of these beacons, together with their geographical positions on form 567 accompanies the sheet. Geographic positions of all beacons located by triangulation were checked with the planetable and found to be correct.



LANDMARKS AND NAMES

No landmarks fell within the limits of this sheet.

All names pertaining to the area covered by this sheet are correct.

No new names should be added. \*

TOPOGRAPHIC DETAIL OBTAINED FOR COMPARISON WITH THE AIR PHOTO COMPILATION

All of the water line along the ocean beach, together with patches of shoreline along the waterway and Lockwoods Folly River, was located for comparison with the air photo compilation. Rod readings were shown in every case by dots in breaks in the shoreline. No discrepancies of more than 10 meters were found along the ocean beach. No discrepancies of more than 5 meters were found in the shoreline in the interior. In all cases where discrepancies occurred, the compilation was corrected to agree with the rod readings on the topographic sheet. In some cases where shoreline was very ragged, or where many small side creeks entered the canal, it was not considered feasible to take rod readings at each little break in the shoreline. In these cases the shoreline on the topographic sheet was changed slightly, between rod readings, to agree with the compilation. ~~This was done only in a few cases where the shoreline was ragged and it was not considered feasible to get each little break in the shoreline--in the field.~~

Respectfully submitted,

\*In common usage Lockwood Folly is called Lockwoods Folly. This applies to both River and Inlet.

*Addison S. Hall*  
Addison S. Hall,  
Surveyor

*Lockwood is USGB decision.  
This should be referred to Dir. of Geog. Names  
Dept of Interior in order to have Lockwoods  
approved. A.B.*

Forwarded by,

*Benjamin D. Key*  
Lt. Benjamin D. Key,  
Chief of Party.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Southport, N. C.November, 1934

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:

Sheet AE

Benjamin H. Rigg Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED		
	LATITUDE		LONGITUDE		DATUM				
	°	'	D. M. METERS	°				'	D. P. METERS
Beacon No. 6	33	55	910.3 (938.3)	78	11	819.9 (721.4)	N.A. 1927	Plane- table	1236 & Inside Route
Beacon No. 8	33	55	585.5 (1263.1)	78	11	1114.6 (826.7)	"	"	"
Beacon No. 10	33	55	319.6 (1529.0)	78	11	1117.8 (123.5)	"	"	"
Beacon No. 12	33	55	407.0 (1111.6)	78	12	1440.0 (1101.3)	"	"	"
Beacon No. 16	33	55	653.5 (1195.1)	78	12	1345.3 (196.0)	"	"	"
Beacon No. 18	33	55	777.8 (1070.8)	78	12	1535.8 (5.5)	"	"	"
Beacon No. 25	33	55	880.8 (967.8)	78	13	211.8 (1299.5)	"	"	"
Beacon No. 27	33	55	897.1 (951.5)	78	13	445.9 (1095.4)	"	"	"
Beacon No. 22	33	55	748.9 (1099.7)	78	13	826.9 (714.4)	"	"	"
Beacon No. 23	33	55	267.8 (1581.4)	78	11	1348.0 (193.3)	"	"	"
Beacon No. 20	33	55	942.0 (906.6)	78	13	337.9 (1203.4)	"	"	"
Beacon No. 24	33	55	565.2 (1283.4)	78	13	1167.3 (374.0)	"	"	"

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

Review of Graphic Control Survey No T-6211b.

This sheet has been examined in connection with the review of air photo compilation T-5242. and no errors or discrepancies noted. See T-5242 for complete topographic detail.

L. A. McIsaac  
March 18, 1935.