<table>
<thead>
<tr>
<th>State</th>
<th>North Carolina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locality</td>
<td>Cape Fear</td>
</tr>
<tr>
<td></td>
<td>Smith Island &amp; Vicinity</td>
</tr>
</tbody>
</table>

1934

Chief of Party

B.H. Rigg
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

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. AB 6210A

REGISTER NO.

State. North Carolina

General locality. Cape Fear River, Southport, N.C.

Locality. Smith Island & Vicinity

Scale 1/10,000 Date of survey August 19, 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 use in the Air Photo Compilation

3. LIMITS OF SHEET

4. DESCRIPTION OF TERRITORY

5. CONTROL

6. SURVEYING METHODS USED

7. PERMANENT STATIONS ESTABLISHED
   A. Permanent Hydrographic and Topographic Stations
   B. U. S. E. D. Stations
   C. Beach Erosion Stakes -- U. S. Light House Service

8. AIDS TO NAVIGATION

9. LANDMARKS AND NAMES

10. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION
INSTRUCTIONS

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

PURPOSE OF SURVEY

The purpose of the survey was to establish hydrographic control for the development of The Cape Fear Sluice, to locate Aids to Navigation, to establish permanent hydrographic and topographic stations, to recover U. S. Army Engineers' stations, to tie in beach erosion stakes of the U. S. Light House Service at Cape Fear, and to locate topographic detail for use in the Air-Photo Compilation.

LIMITS OF SHEET

Topography includes Smith Island from the tip of Cape Fear on the south, northward to lat. 33° 53'. It also includes Ft. Caswell on the eastern tip of Oak Island, lat. 33° 53.5', long. 78° 01.0'.

DESCRIPTION OF TERRITORY

Smith Island consists, in the northern part, of marshy ground covered with grass four feet high, and scattered clumps of bushes. The marsh is cut up by winding creeks emptying into the Cape Fear River. On the eastern side of the island the sea has built up a barrier of sand between it and the marsh.

South of the marsh, between the Bald Head and Cape Fear Light Houses, which are connected by a road, is a very dense forest of low deciduous trees and undergrowth, approximately one-half mile in width.

Between the forest and the sea lies a relatively narrow strip of grass covered dune and sand flats.
Ft. Caswell, on the eastern tip of Oak Island, is an abandoned
Military Post, with extensive earthworks, gun emplacements, and about
thirty wooden buildings in various stages of decay.

CONTROL

The following triangulation stations were used as control on sheet AB

BALD HEAD LIGHT 1851
THREE CEDARS 1905
CAPE FEAR LIGHT 1905
FT. CASWELL FLAG STAFF 1913
TOWER 1913
STACK FT. CASWELL 1932
SMITH 1934
COAST GUARD OBSERVATION TOWER 1934
SMITH ISLAND RANGE, REAR 1934
SMITH ISLAND RANGE, FRONT 1934
BALD SHOAL RANGE, REAR 1934
BALD HEAD SHOAL RANGE FRONT 1934

SURVEYING METHODS USED

A line of telephone poles was used as an aid in building signals for
hydrographic control. Banners on these poles were located by running a
steel tape traverse around the south end of the Island, close to the high
water line, from Bald Head Light to Cape Fear Light, and taking cuts to the
banners from turning points on the traverse. Cuts to most of the turning
points of the traverse were obtained from set-ups on the Light Houses. This
served to control the traverse well, and no adjustment was necessary. The
high water line and portions of the low water line were located in conjunction
with the running of this traverse. A second traverse was run from Cape
Fear Light around the southeast tip of the island, and northward to tri-
angulation station SMITH. An adjustment of 2.5 meters was made in this
traverse. Its purpose was the location of hydrographic signals, and high
and low water lines.

The survey was completed by making set-ups on triangulation stations
on Smith Island and at Ft. Caswell. Several re-sections were used in locat-
ing the detail at Ft. Caswell.
PERMANENT STATIONS ESTABLISHED

A. Permanent Hydrographic and Topographic Stations.

Two permanent H. & T. Stations were established, RIB on the southwest tip of Smith Island, and CON in the marsh southwest of Buzzard’s Bay. Descriptions of these stations on form No. 5214 accompany the report. They are designated on the topographic sheet with the letter D following the name of the station.

B. U. S. E. D. Stations Recovered.

Two U.S.E.D. Stations fell within the limits of this sheet, B.H. Jr., and B.H. Jr. No. 2. B.H. Jr., previously cut in by triangulation, had been destroyed by sand undermining the station. A recovery note to this effect accompanies the sheet. A second station B.H. Jr. No. 2 established in its place by the U. S. Engineers, was located topographically. A description on form No. 5214 of this station, which is designated with the letter D on the sheet, accompanies the report.

C. Beach Erosion Stakes -- Located for the U. S. Light House Service.

The U. S. Light House Service has established stakes at Cape Fear from which measurements to the high water line are made at frequent intervals to determine the rate of advance or recession of the beach. These stakes were located on the topographic sheets. At the request of the Light House Service, an enlarged tracing of the portion of the sheet showing these stakes was made, and forwarded to the Charleston Office of the Light House Service. One of these stakes was marked by us with a standard bronze station marker set in the top. A description on form 5214 of this station, which is designated with a D on the sheet, accompanies the report.
AIDS TO NAVIGATION

The only Aids to Navigation within the limits of this sheet not located by triangulation were the buoys at the entrance to the Cape Fear River. Topographic positions of these buoys were obtained and checked with the positions obtained by the hydrographic party. In the case of buoy L.G. 7A, there was a discrepancy of approximately 25 meters. The topographic position was considered stronger and used on the hydrographic smooth sheet. All others checked within ten meters.

LANDMARKS AND NAMES

Extensive changes should be made in the present charts with reference to Landmarks. Among the changes should be mentioned the addition of the Cape Fear Coast Guard Observation Tower, the Ft. Caswell Stack. Several Landmarks in this area shown on the present chart should be deleted. A chart section showing these recommendations has been prepared and accompanies this sheet together with the Report on Landmarks on Form 567. The supplemental instructions on the preparation of form 567 have been complied with.

All names on the present charts pertaining to the area covered by this sheet are correct. No new names should be added.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION

The high water line on all sandy beaches together with portions of the low water line was located. Several patches of shoreline along the creeks and the marshy interior of Smith Island were located as a check on the radial plot. All docks and the important buildings of the Cape Fear Coast Guard Station and Light House Station are also shown. No discrepancies of more than 5 meters were found between the topographic location and the Air Photo Compilation except in the case of the high water line on the sandy beaches. In all cases the compilation was corrected to agree with the topographic sheet.
Respectfully submitted,

Addison S. Hall,
Surveyor

Forwarded by,

Lt. Benjamin B. [Signature]
Chief of Party.
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:

<table>
<thead>
<tr>
<th>Sheet A.B.</th>
<th>POSITION</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td>LATITUDE</td>
<td>LONGITUDE</td>
<td>LATITUDE</td>
</tr>
<tr>
<td></td>
<td>D.M. METERS</td>
<td>D.P. METERS</td>
<td>D.M. METERS</td>
</tr>
<tr>
<td>Coast Guard Obs. Tower</td>
<td>33° 51'</td>
<td>128° 0'</td>
<td>578° 0'</td>
</tr>
<tr>
<td>Big Lookout Tower 1-2-3</td>
<td>33° 51'</td>
<td>128° 0'</td>
<td>578° 0'</td>
</tr>
<tr>
<td>Chy 82' High Stack Ft. Caswell</td>
<td>33° 53'</td>
<td>78° 0'</td>
<td>149° 1'</td>
</tr>
</tbody>
</table>

See accompanying section of Chart No. 124 for landmarks to be deleted.

These positions have been replotted on the topographic sheet and found to be correct.

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 objects 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.

U.S. GOVERNMENT PRINTING OFFICE: 1934 206379
Review of Air Photo Compilations T-6210 A.

This sheet has been examined in connection with the review of air photo compilation T-5241. One omission was noted on T-6210 (A) in green ink. See T-5241 for complete topographic information.

D. A. McIntosh
March 15, 1935.
DESCRIPTIVE REPORT

State: North Carolina
Locality: Vicinity of Cape Fear

Chief of Party:
B. H. Rigg

U.S. GOVERNMENT PRINTING OFFICE: 1934
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. AC 6210b

REGISTER NO.

State: North Carolina

Vic. of:

General locality: Cape Fear River, Southport, N.C.

Locality: Southport and Oak Island

Scale: 1/10,000. Date of survey: September 19. 31

Vessel: Party No. 19

Chief of party: Benjamin H. Rice

Surveyed by: Addison S. Hall

Inked by: Addison S. Hall

Heights in feet above ground to tops of trees

Contour, Approximate contour, Form line interval: feet

Instructions dated: October 10, 1935

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. LIMITS OF SHEET
4. DESCRIPTION OF TERRITORY
5. CONTROL
6. SURVEYING METHODS USED
7. PERMANENT STATIONS ESTABLISHED
   A. Permanent Hydrographic and Topographic Stations.
   B. U. S. E. D. Stations
8. AIDS TO NAVIGATION LOCATED
9. LANDMARKS AND MARKERS
10. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO Compilation
INSTRUCTIONS

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

PURPOSE OF SURVEY

The purpose of this survey was to establish and recover permanent stations, to locate Aids to Navigation, and to locate topographic detail for use in the Air Photo Compilation.

LIMITS OF SHEET

The topography includes the entire waterfront at Southport, extending up the Cape Fear River to lat. 33° 55.1' long. 78° 00.8'. It includes the intracoastal waterway from its junction at Southport with the Cape Fear River westward to lat. 33°55.4' long. 78°05.5'. On the south it includes Oak Island from Ft. Caswell west beyond the Coast Guard Station and Caswell Beach to lat. 33°54.2' long. 78° 05.5'.

DESCRIPTION OF TERRITORY

Southport, near the mouth of the Cape Fear River, is a fishing town of about two thousand population. Is it a stopping place for yachts, as good accommodations for re-fueling are available.

The intracoastal waterway, throughout the area covered by this sheet, is cut through marsh which lies behind the sandy barrier of Oak Island. The marsh is cut up by rivers and creeks, and bordered by forests of pine and oak.

Ft. Caswell on the eastern tip of Oak Island, has been described in the report accompanying sheet AB. The Oak Island Coast Guard Station, one half mile west of Ft. Caswell, is equipped with an observation Tower, surf boats, and a picket boat.
CONTROL

The following triangulation stations were used for control on this sheet:

- SOUTHPORT EPISCOPAL CHURCH 1905
- PT. CASWELL FLAG STAFF 1905
- TOWER 1913
- SOUTHPORT METHODIST CHURCH 1923
- A.L. (U.S.E.) 1923
- R. (U.S.E.) 1923
- R.B. 1923
- SOUTHPORT WHITE SPIRE 1932
- SOUTHPORT WATER TANK 1932
- OAK ISLAND LIFE SAVING STATION 1932 ROAD 1933
- AUX 1923
- POHD 1933
- CLEK 1933
- NO.K 1933
- U.S.E. NO. 1 1933
- U.S.E. NO. 2 1933
- BEACON NO. 1 1933
- BEACON NO. 11 1933
- BEACON NO. 17 1933
- BRIDGE 1933
- OAK 1933
- CREEK 1933
- NORTH 1933
- BATTERY I BEACON 2A 1934

SURVEYINGS METHODS USED

The waterfront at Southport was mapped by running a short steel wire traverse east and west on station AUX on what is locally known as the Garrison. This traverse was checked in at either end by resection on triangulation stations. Set-ups were made at points along this traverse to rod in the docks and high water line, and to take cuts to beacons.

All of the beacons along the waterway were located by cuts from triangulation stations. Control was more than adequate on this sheet and no difficulties were encountered in carrying the survey to completion.

PERMANENT STATIONS ESTABLISHED

A. Permanent Hydrographic and Topographic Stations.

No permanent stations were marked throughout the area covered by this sheet since control is already more than adequate. The following prominent objects were located by topography, and may be used as permanent hydrographic stations:

- SOUTHPORT WEATHER BUREAU SIGNAL EAST
- WEST WIRELESS TOWER
- EAST WIRELESS TOWER
- OBSERVATION TOWER OAK ISLAND COAST GUARD STATION
- CUPOLA NORTH COAST GUARD BUILDING
- WEST GABLE SOUTH COAST GUARD BUILDING
- EAST GABLE CASWELL BEACON PAVILLION
- EAST GABLE OLD SEARCHLIGHT TOWER
- CHIMNEY NEW FISH FACTORY
B. The U. S. Engineer Department has permanently marked stations along the waterway at intervals at from half a mile to a mile. Wherever practicable those stations not already located by triangulation, were located topographically, designated with the letter D on the sheet, and described on form 52.4.

The following Engineers stations were covered on sheet AC:

Located by Triangulation:

- U.S.E.D. Station 10 1933
- A.L. (U.S.E.D.) 1923
- R. (U.S.E.D.) 1923
- U.S.E. No. 1 1933
- U.S.E. No. 2 1933

Located by Topography

SEVERIANHOLE U.S.E.

AIDS TO NAVIGATION

The Aids to Navigation on the area covered by this sheet consist of lighted beacons and day markers. All beacons not already located by triangulation were cut in by topography, and all those cut in by triangulation were checked in the field to make sure that they had not been moved. A list of the positions of these beacons on form 567 accompanies this sheet.

LANDMARKS AND NEW NAMES

A list of Landmarks on form 567 accompanies this sheet together with the chart section showing recommendations for addition and deletion of Landmarks. The requirements stated in the supplementary instructions on Landmarks have been complied with.

All names on the present charts pertaining to the area covered by this sheet are correct. No new names should be added.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION

High water line along the ocean beach was rodded in at frequent intervals. Strong checks were afforded by comparison with the topographic positions of the docks at Southport, the New Fish Factory, the Gun Emplacement.
at Ft. Caswell, and the East Gable of the Caswell Beach Pavillion, as well as portions of small creeks which were rodded-in near triangulation stations in conjunction with taking cuts to beacons. No discrepancies of more than three meters were found.

Respectfully submitted,

Addison S. Hall,
Surveyor

Forwarded by,

Lt. Com. R. H. Nick
Chief of Party.
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:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>(West Gable South Bldg.)</td>
<td>33 53</td>
<td>Plane-table</td>
<td>124 &amp; 1236</td>
</tr>
<tr>
<td>OAK I. C.G. STA. 1-2-3</td>
<td>33 55</td>
<td>Plane-table</td>
<td>Inside Route</td>
</tr>
<tr>
<td>New Fish Factory</td>
<td>33 55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHIMNEY</td>
<td>1056.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See accompanying section of Chart No. 124 for landmarks to be deleted. *

These positions have been replotted on the topographic sheet and found to be correct.

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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 sandpipe, 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.
DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Southport, N. C.

November 1924

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:

<table>
<thead>
<tr>
<th>Sheet AC</th>
<th>Benjamin H. Riggs</th>
<th>Chief of Party</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beacon No. 3</td>
<td>33 54' 1663.9 &quot;</td>
<td>78 04' 659.5 &quot;</td>
<td>N.A. Planets 1821, 1236</td>
<td>Planets 1821, 1236</td>
<td></td>
</tr>
<tr>
<td>Beacon No. 5</td>
<td>33 54' 1724.6 &quot;</td>
<td>78 01' 1069.6 &quot;</td>
<td>1927</td>
<td>Inside Route</td>
<td></td>
</tr>
<tr>
<td>Beacon No. 7</td>
<td>33 55' 67.5 &quot;</td>
<td>78 02' 751.7 &quot;</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Beacon No. 9</td>
<td>33 55' 173.1 &quot;</td>
<td>78 02' 1102.8 &quot;</td>
<td>1927</td>
<td>Planets 1821, 1236</td>
<td></td>
</tr>
<tr>
<td>Beacon No. 13</td>
<td>33 55' 310.0 &quot;</td>
<td>78 03' 789.1 &quot;</td>
<td>1927</td>
<td>Planets 1821, 1236</td>
<td></td>
</tr>
<tr>
<td>Beacon No. 15</td>
<td>33 55' 1675.5 &quot;</td>
<td>78 03' 138.5 &quot;</td>
<td>1927</td>
<td>Planets 1821, 1236</td>
<td></td>
</tr>
<tr>
<td>Battery Isle Bu. No. 2-A</td>
<td>33 54' 753.0 &quot;</td>
<td>78 03' 107.4 &quot;</td>
<td>1927</td>
<td>Planets 1821, 1236</td>
<td></td>
</tr>
</tbody>
</table>

Smith Isle Range Rear | 33 54' 174.1 " | 78 00' 331.2 " | 1924 | 1219.4 |

Smith Is. Range Front | 33 54' 1787.4 " | 78 00' 451.9 " | 1924 | 1930.6 |

Bald Head Shoal R. Rear | 33 53' 1335.4 " | 77 53' 1151.3 " | 1934 | 190.6 |

Bald Head Shoal R. Front | 33 52' 1812.3 " | 77 50' 1226.0 " | 1934 | 316.2 |

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 objects 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 be used as a unit for identification. A group so selected should be indicated.

The description of each object should be 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-6210 b.

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

[Signature]
March 15, 1935.