Date: January 31, 1933
Time: 10:15 A.M.

Photo Nos. 359 through 375

PROJECTION BY

PROJECTION CHECKED BY

CONTROL PLOTTED BY

CONTROL CHECKED BY

CONTROL PLOTTED ON PHOTOS BY

CONTROL CHECKED ON PHOTOS BY

TOPOGRAPHY TRANSFERRED BY

TOPOGRAPHY CHECKED BY

SMOOTH RADIAL PLOT BY

RADIAL PLOT CHECKED BY

SCALE PLOT BY

DETAIL INKED BY

L. C. Ripley

E. H. Kirsch

M. L. Smith

L. C. Lande

J. F. Richardson

L. C. Lande

P. W. Hund

L. C. Ripley

L. C. Lande

P. W. Hund

L. C. Lande

P. W. Hund

7-19-34
7-19-34
7-25-34
7-27-34
8-10-34
8-11-34
8-13-34
8-29-34
8-9-34
8-11-34
7-18-34
8-30-34

AREA OF DETAIL INKED: 35.7 Square Statute Miles.

LENGTH OF STREAMS: 21.3 St. Miles (Over 200 meters wide).

LENGTH OF STREAMS: 12.0 St. Miles (Less than 200 meters wide).

LENGTH OF COASTLINE: None.
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. 40

REGISTER NO. 5192 5192

State. North Carolina

General locality. Cape Fear River

Locality. Little Creek to Mallory Creek

20,000' Photographs - Jan. 31, 1933.

Scale. 50,000' Date of survey. 19.

Compilation - Aug. 30, 1934

Vessel. Air Photo. Compilation Party No. 21, Charleston, S.C.

Chief of party. E. H. Kirsch

Surveyed by. See data sheet in descriptive report.

Inked by. F. W. Hund

Heights in feet above. . . . . to ground to tops of trees

Contour. Approximate contour, Form line interval. . . . . feet

Instructions dated. November 10, 1933

Remarks: NONE
GENERAL INFORMATION

Statistics:

The total area covered by this sheet is 35.7 St. miles. The Cape Fear River is the only stream more than 200 meters wide, of which 21.3 St. Miles appear on this compilation. There are 12.0 St. miles of streams less than 200 meters in width.

Report:

A great portion of the area included in this compilation is high ground heavily wooded. The remaining portion is made up of fresh water marsh and cypress swamps. A small amount of the high ground has been cleared of trees and is used for farming. In general this area is of the low coastal plain type with slight relief.

Photographs:

A single line of flight was made to procure the photographs used in this compilation. The center of flight following the western bank of the Cape Fear River closely.

These photographs, 359 through 375, were, in general, fairly good as to scale and tilt, but were not so clear as to detail. They were taken on January 31, 1933 at 10:15 A.M., at average half tide with a U. S. Army Air Corps 5-lens camera.

CONTROL

Sources:

The control used in the compilation was established or recovered by various parties of this organization from 1853 to 1933, however it has all been reduced to N. A. 1927 datum.

Errors:

The following error was found in control when making the smooth radial plot:

<table>
<thead>
<tr>
<th>FOURTH EAST JETTY</th>
<th>Old Position</th>
<th>New Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE REAR LT. BN. 9</td>
<td>34° 09' 1343.9m (499.8)</td>
<td>34° 09' 1343.1m (505.6)</td>
</tr>
<tr>
<td>Range Rear Lt. BN. 9</td>
<td>77 57 891.6m (645.5)</td>
<td>77 57 874.8m (662.3)</td>
</tr>
</tbody>
</table>

This new position was determined by the smooth radial plot and was scaled from the celluloid sheet.

This position is now shown on the sheet with a black circle.
In addition to the names listed on the opposite page, the name Todd Creek on chart 12.35 at Lat. 34° 05.4', Long. 77° 55.2', has been changed to Mott Creek in conformance with a letter from Mr. John Marshall of Wilmington, N.C. This letter has been turned over to Mr. Heron.

T.G. Jones
DISCREPANCIES

No control stations other than those established or
recovered by this organization were used in the compilation of this
sheet.

COMPILATION

Method:

The standard radial line method was used as described in
the U. S. Coast and Geodetic Survey notes on the Compilation of Planim-
metric Line Maps from 5-lens Aerial Photographs.

Adjustment of Plot:

No unusual adjustments were necessary in making the plot
or compiling this sheet.

Interpretation:

All topographic symbols were taken from the topographie
manual, with the exception of the double row of dots bordering Big Island
which represent an old dike formerly used for controlling the amount of
water in this area for rice growing.

The series of small black circles running westward from
control station A (USE) represent the remains of piling formerly sup-
porting a dock, which is no longer there. In like manner, the series of
small black circles between Big Island and the western shore of the river
represent the remains of piling formerly supporting a bridge between the
above mentioned places.

In some cases where there is a cypress swamp bordering the
river it was very difficult to determine the high water line from the
photographs. However, it is felt that there will be but little departure
from that as shown to actual conditions.

There are several large areas which consists of sand, small
pines and scrub oak. These have been shown with the conventional symbols
for wood land heavily interspersed with sand.

Information from other Sources:

Field inspection by Lt. B. H. Rigg, 1934.

Conflicting Names:

The present chart (L25-July 10, 1934) gives the large
island in Cape Fear River, shown on this sheet, the name of Campbells
Island. However, it is known locally as Big Island and the Channel Range
in this vicinity are known as the Big Island Upper Range and Big Island
Lower Range, hence on this compilation it has been named Big Island.
Remarks:

The bridge on the River Road over Old Town Creek is a draw bridge of the swing type - 3.6 meters wide, swing of 29.2 meters, horizontal clearance of 9.9 meters (open), and vertical clearance (closed) of 1.5 meters at mean high water.

COMPARISON WITH OTHER SURVEYS

Junctions:

Satisfactory junctions were made with the following:

Sheet No. 39, Reg. No. 5191 on the North
Sheet No. Reg. No. 5041 on the South.

On the west the compilation was carried to the limit of the photographs.

Landmarks:

See attached sheet Form 567. and 2 pages of this report.

Remarks:

At triangulation station J (USE) and N (USE) are jetties which act as an aid in preserving the position of the channel. These jetties are shown on chart (425) and field inspection shows they are there, however they were not discoverable on the photographs and therefore could not be shown on this compilation.

There is a portion of the eastern shoreline of the Cape Fear River from 31° 04' to 31° 07' which is compiled on both sheets 5042 and this sheet. These two compilations do not agree in exact detail, but are very close and since a thorough check of this portion showed the shoreline as shown to agree with our photographs it is felt that it should be shown as compiled on this sheet.

The present chart (425-July 10, 1934) shows a bridge connecting Big Island to the mainland.

Field inspection shows that this bridge is no longer in existence and consequently is not shown on this compilation.

The present chart (425-July 10, '34) shows Liliput Middle Beacon 23, but since there was no geographic position of it given and it was not discernible on the pictures it has not been shown on this compilation. It should nevertheless be shown on the final chart.
RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet is believed to be accurate, thorough, and complete for charting purposes and that no additional surveys are necessary. A probable error of not more than 3 millimeters may be found in the detail of importance for charting and not over 6 millimeters in detail of lesser importance.

Assisted by:
E. H. Kirsch
E. H. Kirach,
Chief of Party.

Submitted by:
P. W. Hund
LANDMARKS FOR CHARTS

Charleston S. C.
Nov. 26th 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.

E. H. Kirsch
Chief of Party

<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>&quot;3&quot; Fourth E. Jetty Range Lt. Bn. 8</td>
<td>34° 10'</td>
<td>124° 4'</td>
<td>77° 57'</td>
<td>807.6</td>
<td>Radial Plot</td>
</tr>
<tr>
<td>&quot;3&quot; Back</td>
<td>34° 10'</td>
<td>164° 2'</td>
<td>77° 55'</td>
<td>80° 0'</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Lower Brunswick Channel</td>
<td>34° 09'</td>
<td>113° 4'</td>
<td>77° 57'</td>
<td>1174.8</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Unlighted Bn. 25B</td>
<td>34° 08'</td>
<td>165° 5'</td>
<td>77° 56'</td>
<td>1141.4</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Unlighted Bn. 25A</td>
<td>34° 08'</td>
<td>217° 7'</td>
<td>77° 56'</td>
<td>858.1</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Keeg Island Rear Light /</td>
<td>34° 08'</td>
<td>175° 7'</td>
<td>77° 56'</td>
<td>117.7</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Beacon 10</td>
<td>34° 08'</td>
<td>160° 1°</td>
<td>77° 56'</td>
<td>171.7</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Big Island Upper Range</td>
<td>34° 07'</td>
<td>112° 3'</td>
<td>77° 55'</td>
<td>1095.2</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Rear Light Bn. 12</td>
<td>34° 07'</td>
<td>112° 3'</td>
<td>77° 55'</td>
<td>1095.2</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Unlighted Bn. 25</td>
<td>34° 07'</td>
<td>97° 0'</td>
<td>77° 56'</td>
<td>284.7</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Big Island Lower Range</td>
<td>34° 07'</td>
<td>679° 0'</td>
<td>77° 56'</td>
<td>28.7</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Big Island Lower Range</td>
<td>34° 06'</td>
<td>1676.7°</td>
<td>77° 55'</td>
<td>1105.1</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Lower Lilliput Channel</td>
<td>34° 05'</td>
<td>1371° 1'</td>
<td>77° 55'</td>
<td>1062.6</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Rear Light Bn. 15</td>
<td>34° 05'</td>
<td>369° 2'</td>
<td>77° 55'</td>
<td>1295.2</td>
<td>&quot;</td>
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<tr>
<td>&quot;3&quot; Front Bn. 10</td>
<td>34° 04'</td>
<td>375° 2'</td>
<td>77° 55'</td>
<td>1382.3</td>
<td>&quot;</td>
</tr>
<tr>
<td>&quot;3&quot; Fourth East Jetty Range</td>
<td>34° 09'</td>
<td>1343° 1'</td>
<td>77° 57'</td>
<td>874.8</td>
<td>Radial Plot</td>
</tr>
</tbody>
</table>

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 be 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.

C. S. OFFICIAL PRINTING OFFICE: 1938

Original to Dr. Nov. 26th, 1934
REVIEW OF AIR PHOTO COMPILATION NO. T-5192.

Chief of Party: E. H. Kirsch

Compiled by: P. W. Hund

Project: HT-162

Instructions dated: Nov. 10, 1933

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)

3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)

4. Blueprints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)

5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.

6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) No low water shown.

9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57) None submitted. Dam.

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 50) Furnished — copy attached to this report.

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)

13. The geographic datum of the compilation is N.A. 1927 and the reference station is correctly noted.

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) (except as noted in the report.)

15. The drafting is satisfactory and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.

2. The degrees and minutes of Latitude and Longitude are correctly marked.
Comparison with the least previous topographic surveys (1875, 1883, 1893) and the considerable change in the coastline. The compilation is detailed and adequate to understand the older surveys for the area it covers.

J.J. Jones
3. All station points are exactly marked by fine black dots.

4. Closely spaced lines are drawn sharp and clear for printing.

5. Topographic symbols for similar features are of uniform weight.

6. All drawing has been retouched where partially rubbed off.

7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks: T 51 R 2. Supplemental (extra sheet showing corrections)
   filed 5/11/37.
   1. Name corrections 5/11/37


Reviewed in office by: Leonard A. Vickers B. J. Jones

Examined and approved:

E. H. Busch 
Chief of Party

E. F. Green 
Chief, Section of Field Records

Ex. D. Coburn 
Chief, Division of Charts

F. B. Borden 
Chief, Section of Field Work

E. C. Hinde 
Chief, Division of Hydrography and Topography.
December 20, 1934.

To: Lieutenant (j.g.) Emil H. Kirsch,
U.S. Coast and Geodetic Survey,
12th Floor, Francis Marion Hotel,
Charleston, S.C.

From: The Director,
U.S. Coast and Geodetic Survey,
Washington, D.C.

Subject: Air Photo Compilation T-5192

Enclosed is a tracing of your compilation T-5192 which shows triangulation station Fourth East Jetty Front Range Light, 1917. This light was rebuilt in 1927.

You will please advise this office whether you used the 1917 position in making your radial plot. There are numerous control stations in this vicinity and if the radial plot held to the 1917 position the light will be accepted as rebuilt in the same position and will be shown on the compilation as a 1933 air photo location.

If the light was not used in the original plot you will please locate it from the photographs on the enclosed tracing or on a separate celluloid covering only sufficient area to reach the necessary control.

If this light does not show on the photographs no further field work is required.

(Signed) R.S. PATTON

Director.
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

January 2, 1935

To:
The Director
U.S. Coast and Geodetic Survey
Washington, D.C.

From:
E.H. Kirsch, Lieutenant (j.g.)
U.S. Coast and Geodetic Survey

Subject:
Air Photo Compilation T-5192

Reference:
Your letter 80-EHS dated December 20th, 1934.

Station Fourth East Jetty Front Range Light 1917 shows clearly on the photographs and it was used in making the radial plot. The following corrections were applied to the 1917 position, which was on N.A. datum to determine the field reduced N.A. 1927 datum position: Lat. -5.3 meters, Long. +8.3 meters.

The enclosed tracing was placed on the pictures whose numbers are indicated on the tracing. The pictures were fixed with all control except Fourth E. Jetty Range Front Lt. 1917, and cuts were taken to this station. The cuts are indicated on the tracing. The distance that the light was moved when rebuilt in 1927 is apparently an unplotable amount. As suggested in the second paragraph of your letter of above reference, the 1917 position should be accepted for the rebuilt beacon but it should be shown with a circle rather than with a triangle.

E.H. Kirsch
E.H. Kirsch,
Chief of Party.

Note—The same conditions described in this letter apply to Upper Brunswick Rear Range Light which is shown on the combination of Lat. 34° 11' Long. 77° 57'.
**GEOGRAPHIC NAMES**

Date: **Feb. 11, 1935**

Names approved Feb. 11, 1935. 

*, Approved by the Division of Geographic Names, Department of Interior. 

Ø, Not Approved by the Division of Geographic Names, Department of Interior. 

R, Referred to the Division of Geographic Names, Department of Interior.

<table>
<thead>
<tr>
<th>Status</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Cape Fear River</td>
<td>Same</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Mallory Creek</td>
<td>Same</td>
<td>OK 5/6/31 gty</td>
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<tr>
<td></td>
<td>Barnard Creek</td>
<td>Bernard's</td>
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<td>Mott Creek</td>
<td>Todd's</td>
<td></td>
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<td>Same</td>
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<td>Keg Island</td>
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<tr>
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<td>Sand Hill Creek</td>
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<td></td>
<td>Lilliput Creek</td>
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<tr>
<td>*</td>
<td>Barnard's Creek</td>
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</tr>
<tr>
<td></td>
<td>Doctor Pt.</td>
<td></td>
<td>on sheet L 1/1/32/41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
T-5192 Supplemental

Graphic Control Survey 76527 (4/17/37)

This Graphic Control Survey has been compared with T-5192 and all detail within the same added to a supplement copy of T-5192 except for the location of locations.

L.C. Sanders
5/16/37