

5913

U. S. COAST & GEODETIC SURVEY
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DEC 14 1935

Acc. No.

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: North Carolina

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 9.
Hydrographic }

LOCALITY

~~Inland waterway~~

~~North half of Alligator River~~

Albemarle Sound to Catfish Pt.

1935

CHIEF OF PARTY

Raymond P. Eymann.

5913

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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DEC 16 1935

REG. NO.

Acc. No. _____

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 9.

REGISTER NO. **5913**

State North Carolina

General locality Inland waterway Alligator River

Locality North part Alligator River Albemarle Sound to Catfish Pt.

Scale 1-20,000 Date of survey May - July, 1935

Vessel "Billie Ray", "Little Pat", "Little Marcus" and skiff (M.V. Natoma)

Chief of Party Raymond P. Eyma

Surveyed by E.S. Averell, John C. Bull, M.O. Witherbee, J.H. Tiller, Jr.

Protracted by John C. Bull.

Soundings penciled by John C. Bull.

Soundings in ~~FATHOMS~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by - - -

Inked by E.C. McBliss & W.R. Moore

Verified by E.C. McBliss

Instructions dated AUG. 31, 1934, 19

Remarks: _____

Descriptive Report to accompany
Hydrographic Sheet #9

Instructions

The work on this sheet was done in accordance with instructions dated August 31, 1934 for Project HT-189, M.N.NATON.

Scale and Limits

The work was done on a scale of 1-20,000 and the sheet covers the area of the Alligator River from the mouth in Lat. 35-58 $\frac{1}{2}$ to Stumpy Pt. in Lat. 35-45 $\frac{1}{2}$. The sheet also includes a portion of Little Alligator River from its junction with the Alligator westward to Rock Pt. and Fort Landing, Second Creek to the limits of the sheet, and The Frying Pan westward to Long. 76-05.

This is the first sheet in this immediate area and joins with old work in Albemarle Sound and is joined by Sheet #10 on the south.

Survey Methods

Standard Coast Survey methods were used to determine depths and positions. The work was done from hired launches "Billie Ray", "Little Pat", "Little Marcus", and a skiff. While sounding from the launches the hand lead line was used and from the skiff the hand lead and at times a sounding pole was used.

Sounding lines were run parallel to the main channel; lines in and near the channel were spaced 20 to 40 meters, with no attempt to thoroughly develop the channel as this work is done periodically by the U.S. Engineers on a large scale in their maintenance work; spacing in the main body of the river was about 150 meters. In the Little Alligator River the lines were spaced 100 meters apart. Over the large shoal area off Long Shoal Pt. a few lines were run at 350 meter spacing after the edges of the shoal had first been defined.

Control for the fixes was furnished by second and third order triangulation supplemented by signals located by the topographic unit on aluminum mounted sheets.

Lines were run on compass courses and ranges where possible.

Discrepancies

Discrepancies in spacing were noted on a day (green), Vol.#4, positions 133-135, 164-165, and 173-174. These discrepancies were no doubt caused by an inexperienced recorder not marking the position on the correct sounding in spite of constant reminders; additional lines were run to cover this area.

Considerable trouble was encountered because of water in the gasoline causing the launch engine to slow down, falter, and generally run at very uneven speeds; the trouble for a time was so general that the recorder did not always ^{record} every time that the engine was missing and again resuming normal speed; this action accounts for slight differences in intervals throughout the sheet.

On several occasions when the launch was found to be off line the Hydrographer would have the launch swing hard right (or left) and then on the following sounding swing hard left (or right) back onto the original course - instead of taking fixes at these points; the lines were plotted as near correctly as possible, allowing for these swings.

Hydrographic Sheet #9

Dangers

The bar at the entrance to Alligator River extends almost entirely across the river in a series of shoals and middle ground area except in the dredged channel. Care should be exercised to stay in the marked channel as these shoals rise very abruptly from deeper water on both sides. A large shoal area extends out from Long Shoal Pt. for a distance of $1\frac{1}{4}$ miles to a point at lighted Beacon #2; this shoal is bare in a number of spots at low water and has a general depth of only 1 ft.; just beyond this shoal on the other side of the dredged channel at only $\frac{1}{4}$ mile is a small area of 6 ft. From the western point of Durant Island another large shoal area extends SSW for about $1\frac{1}{4}$ miles with 2 to 4 ft. and thence with only a very small $\frac{1}{2}$ ft. opening separating it from another middle ground area extending $1\frac{3}{4}$ miles in a WNW direction to black can buoy #3 at the channel; this middle ground has large areas of 3 to 4 ft. with the least depth of 2 ft. near its southeastern end at Lat. 35-56.4 and Long. 75-58. ✓

Sandy Pt. Shoal with 5 to 6 ft. lies eastward of Beacon #4 on the east of the channel and about 1 mile SE of Sandy Pt.; this shoal extends in a general NNE-SSW direction for about 0.9 mile and is about 0.2 mile wide. ✓

Another large shoal area ~~XXXXX~~ extends southwestward from Laurel Pt. for $1\frac{1}{2}$ miles and 1 mile WxN from Bay Pt. with 6 ft. near the outer edges, but with large areas of only 3 and 4 ft. ✓

A small 7 ft. area is found off the mouth of Little Alligator River 0.8 mile SSW of Beacon #2. ✓

A small 7 ft. area is found 0.9 mile NW of East Lake Landing., and another 7 ft. area lies about 300 meters west of the channel 0.65 mile SxW of Beacon #8. ✓

The area for about 350 meters off shore around Stumpy Pt. is very foul with stumps and snags. ✓

Care should be taken when running thru the Alligator River at all times due to the number of snags and logs likely to be encountered. A number of logs were found from time to time "floating" in a vertical position with the lower end dragging or aground; some of these were found at times in or very near the channel; they would remain in the same vicinity for several days and then finally be carried away. ✓

Numerous old stumps and snags are to be found bordering the shore line all thru the river, most of them submerged.

Channels

The main channel thru the Alligator River is a part of the Intra-coastal Waterway and has been improved by dredging to a depth of 12 ft. with a width of 250 ft. It is well marked by lighted Beacons and several buoys. No attempt was made to thoroly develop this channel as this work is done periodically by the U.S. Engineers in their maintainance work; the present work consisted of about four lines to mark the edges of this channel and lines thru the center; the controlling depth was found to be 12 ft. except for a small area $\frac{1}{2}$ mile NNE of Beacon #8 where 11 ft. was found, but this spot seems to be slightly out of the channel with no soundings in between - the U.S. Engineer print shows 12 ft. in this vicinity. *Only 11 ft effective depth*

A narrow channel with a controlling depth of about 7 ft. enters

Hydrographic Sheet #9

Little Alligator River. This channel is marked by brush stakes and small marker posts, but is difficult without local knowledge as there is no way to tell on which side to leave these markers. From this channel a depth of 5 ft. can be carried to the ferry landing at Fort Landing.

Second Creek has a controlling depth of 3 ft. in the limits of this sheet; the shore line is foul with stumps and snags.

No lines were run into and up Milltail Creek, but there is a controlling depth of 7 ft. at the entrance with much deeper water in the creek proper. Medium sized craft use this waterway to a large extent.

The Frying Pan has a controlling depth of about 6 ft. at the entrance with much deeper water in mid-stream inside the creek as far as Lyons Pt. and about $\frac{1}{2}$ mile to the westward; in the basin to the westward the general depth is about 3 to 4 ft.; the bight to the northward of Lyons Pt. has about 3 ft. but there are shoal areas at the entrance to this bight with only 1 to 2 ft.

Anchorage

Anchorage may be had most any place in the river clear of the shoals and where suitable protection can be had as there is very good holding bottom.

The shoals at the mouth of the river afford a good lee from heavy seas from the northward and good anchorage may be had in the bight at the entrance to Little Alligator River in 9 to 10 ft. in excellent holding bottom. Further up Little Alligator River beyond Rock Pt. smaller craft can find very good anchorage. Southeast of Durant Island is another good anchorage. Small craft can also get good protection in Second Creek, The Frying Pan, or up inside Milltail Creek.

General Discription

Both banks of the river show considerable erosion and wash. This accounts for the numerous stumps and snags as the tree line in most places extends to the water's edge and is composed of gum, cypress, and laurel. Triangulation established in 1914 as compared to the present work shows many of the old stations well out in the stream. The present triangulation was exceedingly difficult in order that stations might be selected that would see and at the same time have some chance of remaining for at least a few years; an additional difficulty was the nature of the ground which is very swampy and unsteady making observations and marking of stations very annoying.

There are very few stretches of beach except at the entrance; most of the rest of the river bank is a tangle of windfall and old stumps.

A ferry carrying passengers and cars operates about four times daily between Fort Landing and East Lake Landing when the weather and water level permits: there are times when the ferry can not dock at East Lake Landing due to rough weather and at other times when it can not reach Fort Landing due to low water. The docks at each end are very poor and rickety and only wide enough for single traffick.

Hydrographic Sheet #9

The portions of the shoreline inked on this sheet are from our aluminum mounted topographic sheets; this consists only of the outer beaches at the entrance to the river and small areas rodded in from planetable set-ups at various points for cutting in control stations.

After the outer shoreline had been run word was received from Lt. Grenell that his party could supply the shoreline from the air photos, with some additional control; thereafter his party furnished two men to work in conjunction with our party to gather the necessary field data at control stations and later on, after the sheet had been plotted (due to the uncertainty of parties continuing work) the sheet was forwarded to the air-photo party for the shoreline; this work is shown and left in pencil. ✓

Two positions of the entrance bell buoy (lighted) are shown on the sheet. The northern position (position 102 f day, green) was taken on May 23, 1935 and this used for an hydrographic signal for several fixes for work near the bar. Later on the buoy was moved and an additional buoy #2A established by the U.S.L.H.S. The present position, and the one to be charted, is given as position 7 s (green) taken on July 1, 1935.

Previous Surveys

A comparison with previous surveys of 1849-1915 serves little useful purpose as the earlier surveys were made before the channel had been improved, altho the general condition otherwise is greatly similar.

Compared with sheet #3732 of 1915 the general trend outside the main channel off the entrance is much the same. In comparing with sheet #218 of 1849 there is noted a general shoaling of about 1 ft. over much of the area, the shoals at the bar are now somewhat more extensive in area and have less depths; other shoals seem to show the same trend. Second Creek is 1 to 2 ft. shoaler than formerly. ✓

There are also forwarded two prints of the U.S. Engineers condition survey of 1934 which show a controlling depth of channel of 12 ft.

Statistics

A table of statistics accompanies this report.

Tide data

A standard automatic tide gage was maintained at East Lake Landing and all soundings were referred to this gage.

Hydrographers: E.S. Averell, Surveyor.
J.H. Tiller, Jr., Observer.
M.O. Witherbee M.O. Witherbee, Hyd. & Geod. Engr.
John C. Bull John C. Bull, Aid.

Respectfully submitted,

Raymond P. Eyman
Raymond P. Eyman,
Chief of Party.

Statistics for Hydrographic Sheet #9

| <u>Date</u> | <u>Day</u> | <u>Vol.</u> | <u>Boat</u> | <u>Miles</u> | <u>Soundings</u> | <u>Positions</u> |
|--------------|------------|-------------|-------------|--------------|------------------|------------------|
| 5-7-35 | a | 1 | L.P. | 25.0 | 651 | 118 |
| 5-9-35 | b | 1 | " | 32.5 | 857 | 178 |
| 5-10-35 | a | 1 | skf. | 9.2 | 340 | 63 |
| 5-10-35 | a | 2 | B.R. | 18.7 | 457 | 71 |
| 5-13-35 | b | 2 | " | 47.0 | 1011 | 180 |
| 5-14-35 | c | 2&3 | " | 58.1 | 1216 | 232 |
| 5-17-35 | d | 3 | " | 45.1 | 953 | 187 |
| 5-20-35 | c | 3&4 | L.P. | 22.0 | 564 | 136 |
| 5-21-35 | d | 4 | " | 16.3 | 446 | 88 |
| 5-22-35 | e | 4 | " | 54.7 | 1285 | 220 |
| 5-27-35 | b | 5 | skf. | 8.6 | 426 | 77 |
| 5-28-35 | c | 5 | " | 13.9 | 512 | 101 |
| 6-2-35 | d | 5 | " | 10.0 | 313 | 71 |
| 6-3-35 | e | 5 | " | 2.4 | 94 | 24 |
| 5-20-35 | e | 6 | B.R. | 2.0 | 58 | 11 |
| 5-21-35 | f | 6 | " | 27.5 | 596 | 126 |
| 5-22-35 | g | 6 | " | 39.4 | 843 | 207 |
| 5-23-35 | f | 7 | L.P. | 47.8 | 1054 | 216 |
| 5-24-35 | g | 7 | " | 16.1 | 435 | 98 |
| 5-27-35 | h | 7&8 | " | 19.2 | 514 | 96 |
| 5-29-35 | j | 8 | " | 33.9 | 977 | 178 |
| 5-30-35 | k | 8&9 | " | 37.6 | 874 | 153 |
| 6-3-35 | h | 9 | B.R. | 33.0 | 649 | 144 |
| 6-4-35 | j | 9 | " | 20.9 | 450 | 95 |
| 6-5-35 | k | 9&10 | " | 61.3 | 1313 | 240 |
| 6-6-35 | l | 10 | " | 55.5 | 1187 | 217 |
| 6-11-35 | l | 11 | L.P. | 24.0 | 546 | 98 |
| 6-12-35 | m | 11 | " | 37.3 | 790 | 138 |
| 6-13-35 | n | 11&12 | " | 48.3 | 1094 | 225 |
| 6-14-35 | p | 12 | " | 25.5 | 846 | 164 |
| 6-27-35 | a | 12&13 | L.P. | 33.2 | 917 | 186 |
| 6-28-35 | r | 13 | " | 31.7 | 762 | 150 |
| 7-1-35 | s | 14 | L.P. | 3.7 | 103 | 24 |
| 7-2-35 | t | 14 | L.P. skf. | 28.3 | 748 | 146 |
| 7-3-35 | u | 14 | L.P. | 4.0 | 114 | 26 |
| Total | 35 | 14 | | 993.7 | 23,995 | 4684 |

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **5913**

The following statistics will be submitted with the cartographer's report on the sheet:

| | |
|--|-----------------|
| Number of positions on sheet | <i>4.684</i> |
| Number of positions checked | <i>.99.</i> |
| Number of positions revised | <i>..2..</i> |
| Number of soundings recorded | <i>2,399.5-</i> |
| Number of soundings revised | <i>3.18.</i> |
| Number of signals erroneously plotted or transferred | <i>None</i> |

Date: *2/29/36*

Verification by

E. C. McElwain

Time: *14 days 5 hr.*

Review by

Chas. R. Bush Jr.

Time: *29 hrs*

HYDROGRAPHIC SURVEY NO. 5913

Smooth Sheet yes

Boat Sheets 2

Sounding Records 14 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals Vol 1

Landmarks for Charts (Form 567) yes

Statistics yes

Approved by Chief of Party no

Recoverable Station Cards (Form 524) none

Special Chart for Lighthouse Service no
(Circular Nov. 30, 1933)

Remarks _____

Remarks

Decisions

| | Remarks | Decisions |
|----|---------|-----------|
| 1 | | |
| 2 | | |
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| 22 | | |
| 23 | | |
| 24 | | |
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| 26 | | |
| 27 | | |

GEOGRAPHIC NAMES

Survey No.

| Name on Survey | Source | | | | | | | | | | |
|--|-------------------------------------|---|---|---|---|---|---|---|---|--|----|
| | A | B | C | D | E | F | G | H | K | | |
| <u>DURANT I.</u> ✓ | 1228 | | | | | | | | | | 1 |
| <u>BRIERY HALL PT.</u> X | 1228 | | | | | | | | | | 2 |
| <u>LAUREL PT.</u> X | 1228 | | | | | | | | | | 3 |
| <u>BAY PT.</u> | 1228 | | | | | | | | | | 4 |
| <u>ALLIGATOR R.</u> ✓ | 1231 1228 | | | | | | | | | | 5 |
| <u>LONG SHOAL PT.</u> X | 1228 | | | | | | | | | | 6 |
| <u>GREAT I.</u> ✓ | 1228 | | | | | | | | | | 7 |
| <u>WIND MILL PT.</u> ✓ | 1228 | | | | | | | | | | 8 |
| <u>FORT LANDING</u> X | 1228 | | | | | | | | | | 9 |
| <u>ROCK PT.</u> ✓ | 1228 | | | | | | | | | | 10 |
| <u>LITTLE ALLIGATOR R.</u> ✓ | 1228 | | | | | | | | | | 11 |
| <u>SANDY PT.</u> X | 1228 | | | | | | | | | | 12 |
| <u>SECOND CR. PT.</u> X | 1228 | | | | | | | | | | 13 |
| <u>SECOND CR.</u> ✓ | 1228 | | | | | | | | | | 14 |
| <u>GOOSE CR.</u> X | 1228 | | | | | | | | | | 15 |
| <u>CATFISH PT.</u> ✓ | 1231 | | | | | | | | | | 16 |
| <u>THE FRYING PAN.</u> ✓ | 1231 | | | | | | | | | | 17 |
| <u>STUMPY PT.</u> X | 1231 | | | | | | | | | | 18 |
| <u>CYPRESS PT.</u> X | 1231 | | | | | | | | | | 19 |
| <u>MIDDLE GROUND</u> ✓ | 1228 | | | | | | | | | | 20 |
| <u>ORANGE PT.</u> X | 1231 | | | | | | | | | | 21 |
| | | | | | | | | | | | 22 |
| | <i>Names approved Jan. 14 1936.</i> | | | | | | | | | | 23 |
| | | | | | | | | | | | 24 |
| <i>Note to verifiers ✓</i> | | | | | | | | | | | 25 |
| <i>Ink leaders to Middle Ground and the Frying Pan</i> | | | | | | | | | | | 26 |
| | | | | | | | | | | | 27 |

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 31, 1936

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 5913

Locality Albemarle Sound to Catfish Pt., Alligator River, N. C.

Chief of Party: R. P. Eyman in 1935
Plane of reference is mean low water reading
3.1 ft. on tide staff at East Lake
5.6 ft. below B.M. 1
3.5 ft. on tide staff at Beacon No. 18
2.8 ft. below B.M. 1

There is practically no periodic tide in Alligator River and the
plane of reference was taken half a foot below mean water level.

Condition of records satisfactory except as noted below:

Ray *Stam*
Chief, Division of Tides and Currents.

Report on H-5913

1. The records conform to the requirements of the General Instructions.
2. The usual depth curves can be completely drawn within the limits of the sheet. The half foot was carried on the six and twelve foot soundings, in numerous places on the sheet, in order to smooth the six and twelve ft. curve.
3. The field plotting was complete and very accurate in general. A number of soundings were changed due to the fact, that shallower soundings would fall upon deeper soundings already plotted.
4. The portion of the shoreline ^{map number} inland on this sheet is from aluminium mounted topographic sheets. The remainder of the shoreline in pencil is from the air-photo compilation sheets. These sheets, as yet, have not been received in this office, however upon their

arrival in this office the shoreline should be compared and inked.

5. The office draftsman did not have to do over any part of drafting done by field party except as noted on statistic sheet. However it will be necessary for the office draftsman to ink the above mentioned shoreline.

6. The junctions with contemporary adjacent sheets will be made, when they are verified and inked.

7. In crossing the main channel the hydrographer missed the maximum depths in many cases. However no attempt was made to thoroughly develop the main channel as this work is done periodically by the U.S. Engineers. The controlling depth in the main channel is 12 ft except in one small area about $\frac{1}{2}$ mile N. N. E. of beacon # 8, where 11 ft is recorded. The line in this area seem to be slightly out of the channel, or at

least on the edge of the Council
with no lines in between and
no cross lines to verify these
11 ft. soundings.

8. Bell buoy #1 is shown on the
smooth sheet in two places.
The original or northern position
was located on May 23, 1935.
This location was used on
a hydrographic signal "Bel", and
is still retained on the sheet.
Later this buoy was moved
and it was relocated on July
1, 1935, the position now on
the smooth sheet.

9. In volume 5 page 28, position
52c (blue). A wreck is located,
however no information is
given in the records but a
pencil note on the smooth
sheet states that it is a wreck.
Therefore the wreck symbol
is shown with the note
"wreck", which in reality is
very vague.

Throughout the records fishing
stakes are mentioned but
not located, this entire
area is probably covered with

fishing stakes and should be shown on the chart as characteristic logs on the smooth sheet were located by three point fuses, and it has been shown them as permanent markers to navigation. After talking with the Chief of Party I find that they are floating logs with one end stuck to the bottom. Therefore it is doubtful if all of them will remain in the present location. Some will probably be carried away by the tide and others remain but in order to show those that remain I believe that it is necessary to show them all on the sheet.

The soundings on line 604 to 784 (red) are deeper than soundings on adjacent lines. A study of these soundings prove that they are evidently in mid-channel on the soundings on these lines, when they come, agree. A study of these lines and soundings will be found on tracing paper inclosed in the tube for this sheet.

There is a log bearing 1 ft at
mean low water shown in
but $35^{\circ} 45.8'$ long $75^{\circ} 59.8'$. This
log was transferred from the
records of H-5914.

Respectfully submitted,

G. C. McGlosson

July 23, 1936.

Shoreline has been compared

this date with T-6369, T-5570 and T-5571.

Question arises as to what signal seen review
"In" is. Lat. $35-45.8$ Long. $76-04.3$ per. l. c.

Lat. $35-55.3$ Long. $76-03.0$ Celluloid

shows what is apparently a line of files.

Hydro party shows a line marked "fishing"

in a different position. I transferred
the files from the celluloid.

G. A. Mc Cormick

One line of files ^{also} now shown. J.S.P.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5913 (1935) FIELD NO. 9

Albemarle Sound to Catfish Point, Alligator River, North Carolina.

Surveyed in May - July, 1935 - Scale 1:20,000

Instructions dated August 31, 1934 (NATOMA)

Hand Lead and Pole Soundings.

3 Point fixes on shore signals.

Chief of Party - Raymond P. Eymann.

Surveyed by - E. S. Averell, J. C. Bull, M. O. Witherbee, J. H. Tiller, Jr

Protracted by - J. C. Bull.

Soundings penciled by - J. C. Bull.

Verified and Inked by - G. C. McGlosson, W. L. Moore.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. Hydrographic features located in the sounding volumes were only partially indexed by the field party.
- b. There is no indication that the hydrographic signal was checked in the field as no initials appear on the smooth sheet. This was checked in the office.
- c. No approval note by the Chief of Party was contained in the Descriptive Report.
- d. The names of signals "In" and "Bil" on the smooth sheet were found to be interchanged from the designation as shown on the boat sheet and Graphic Control Survey T-6369 (1935). However, in plotting the smooth sheet, the field party changed the names of these two signals in the sounding records to agree with the signals as shown on the smooth sheet.
- e. No topographic feature is shown on the smooth sheet for topo. signal "In." (Signal "Bil" on T-6369) at Lat. $35^{\circ} 45.8'$, Long. $76^{\circ} 04.3'$. This information is not obtainable from either the boat sheet or topo. surveys. In view of other signals in the same general vicinity which are marked, pile, stake, or stump, etc., it is considered that signal "In" represents the same type of feature.

The descriptive report is adequate and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project with the exception that the tributaries to the Alligator River were not completely surveyed as called for in paragraph 2 of the instructions. The hydrography being carried only to the limits of the Graphic Control surveys T-6369 a and b (1935) and not to the limits of the air-photo compilations which completely cover the tributaries. Exhaustion of funds was responsible for this incompleteness.

3. Shore Line and Signals.

The shore line originates with air-photo compilations T-5570 (1935) and T-5571 (1935). The topographic signals originate with Graphic Control Sheet T-6369 a and b (1935.) The hydrographic signal originates with the present survey and angles are recorded in the sounding records (Vol. 7).

4. Sounding Line Crossings.

Cross lines as well as the general system of parallel lines are in good agreement.

5. Depth Curves.

Within the area of this survey the usual depth curves can be completely drawn, including the 6-foot curve on the west shore and parts of the 6-foot curve on the east shore.

6. Junction with Contemporary Surveys.

The junction with H-5914 (1935) on the south is satisfactory. There is no contemporary survey on the north. However, the present soundings on these limits are in good agreement with those of the last previous survey, H-3732 (1915).

7. Comparison with Prior Surveys.

a. H-218 (1849), H-220 (1849).

These two surveys are one and the same within the area of the present survey, H-220 (1849) being a duplicate plot.

H-218 (1849), on a scale of 1:20,000, covers the entire area of the present survey. Outside the improved channel there is a general difference of 1 to 2 feet between the present survey and H-218 (1849), the present soundings being shoaler. Within the area of the improved channel, the present soundings are 1 to 4 feet deeper. Further comparison shows that the shoaling off Δ Long Shoal Point has

shifted southward somewhat, the present survey showing more water directly east of this point, whereas, southeast an extensive shoal, awash at MLW has built up.

In view of the subsequent dredging and maintenance of a channel, together with the extensive development of the area on the present survey, H-218 (1849) should be completely superseded by the present survey within its limits.

b. H-3752 (1915).

This survey, on a scale of 1:30,000, covers a small area on the northern limits of the present survey. Outside of the improved channel it is in general agreement.

C. See Addenda attached to this review.

8. Comparison with Chart No. 1231 (Corrected to Dec. 16, 1935) with Chart No. 1228 (Corrected to Dec. 12, 1935).

a. Hydrography.

Within the area of the present survey, the charts are based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

b. Aids to Navigation.

The buoys and beacons are in substantially the same location as charted and such differences as occur are parallel to the channel. The numbers have been changed subsequent to the present survey (L.H.N. to M 1-1-1936). The beacons were located by triangulation, and the buoys by sextant angles. These buoys and beacons in their present locations correctly mark the location of the channel.

c. Controlling Depth.

Within the channel, the chart shows a controlling depth of 11 feet and width of 250 feet, which is substantiated by the U. S. Engineers (Chart letter 468-1936 dated July 1, 1936). This depth is consistent with the present survey. The width is somewhat narrowed on the present survey by 10 ft. soundings falling on the edges of the channel.

9. Field Plotting.

The field plotting was satisfactory.

10. Additional Field Work Recommended.

When work is again resumed in this area, the following tributaries to the Alligator River should be surveyed in order to comply with the basic instructions for this project. (See Par. 2).

- a. "Little Alligator River" Lat. $35^{\circ} 55.3'$ - Long. $76^{\circ} 03.5'$
- b. "Second Creek" Lat. $35^{\circ} 52'$ - Long. $76^{\circ} 05.3'$
- c. "The Frying Pan" Lat. $35^{\circ} 46'$ - Long. $76^{\circ} 05'$
- d. The waterway at Lat. $35^{\circ} 56'$ - Long. $75^{\circ} 55'$

11. Superseding Old Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H-218 (1849) in part.
H-220 (1849) in part.
H-3732 (1915) in part.
H-1361 (1877) " "

12. Reviewed by Chas. R. Bush, Jr., July 30, 1936.

Inspected by John G. Ladd.

Examined and approved:

C. K. Green
C. K. Green,
Chief, Section of Field Records.

J. L. Peacock
J. L. Peacock,
Chief, Section of Field Work.

L. O. Solbert
L. O. Solbert,
Chief, Division of Charts.

J. H. Ladd
J. H. Ladd,
Chief, Division of H. & T.

Addenda to Review of H-5913 (1935)

Par. 7. Comparison with Prior Survey.

c. H-1361 (1877).

Four sounding lines from this 1 to 20,000 scale sheet fall within the limits of the present survey in the vicinity of lat. 35°56.0', long. 75°55.0'. Depths on the present survey generally vary 1 foot shoaler except in mid channel where a shoaling of 1 to 14 feet is indicated. In view of the changes noted, the present survey should supersede the 1877 survey in future charting.

Reviewed by - Harold W. Murray, Dec. 22, 1936.

Inspected by - A. L. Shalowitz.

20 - Dec 30, 1935
EAB

Applied to Chy 831 July 15, 1936 (before review)
R. L. J.

Applied to chart 1229 March 4, 1937
Applied to 831-WC 9-25-68 DJK
(Extension of the straits at \$40,000)