U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Topographic

Field No.: PH-58 (49) Office No. T-9394

LOCALITY
State: North Carolina
General locality: Onslow County
Locality: Jacksonville

H. F. Garber, Chief of Field Party
Herbert A. Paton, Baltimore Photo Office
19452

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE: April 7, 1955
DATA RECORD

T-9394

Project No. (II): Ph-56(49)  Quadrangle Name (IV):


Instructions dated (II) (III): 27 February 1950
28 April 1950, Supplement 1
26 April 1951  "  2
Copy filed in Division of Photogrammetry (IV)
Office Files

Method of Compilation (III): Air Photographic Multiplex (Planimetry) Graphic (contours)
Manuscript Scale (III): 1:10,000  Stereoscopic Plotting Instrument Scale (III): 1:10,000
Scale Factor (II): 1.00

Date received in Washington Office (IV): OCT 23 1952
Date reported to Nautical Chart Branch (IV): OCT 28 1952
Applied to Chart No.  Date:  Date registered (IV): 7 Feb 1955

Publication Scale (IV): 1:24,000  Publication date (IV):
Geographic Datum (III): N.A. 1927  Vertical Datum (III): MSL
Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): VERONA, 1932
Lat.: 34° 38' 37.376"  Long.: 77° 28' 42.850"
Adjusted

Plane Coordinates (IV):
State: N.C.  Zone:
Y =  X =

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.
Areas contoured by various personnel
(Show name within area)
(II) (III)

see also revision impact of lock.
DATA RECORD

Field Inspection by (II): J. E. Hundley
        H. G. Murphy
        L. V. Smith
        Date: March -
              May 1950

Planetary contouring by (II): J. A. Clear
        M. W. Smith
        Date: Aug. 1950
              Feb. 1951

Completion Surveys by (II): H. R. Cravat
        Date: July 15, 1952

Mean High Water Location (III) (State date and method of location): Feb. 10, 1952 (photogrammetric) shoreline from previous photography, dated 11/15/49 and 12/1/49, revised or verified using new nine-lens photographs

Projection and Grids ruled by (IV): T.L.J. AND H. D. W.
        Date: March 1950

Projection and Grids checked by (IV): H.D.W. and T.L. J.
        Date: March 1950

Control plotted by (III): A. C. Rauck, Jr. and D. M. Brant
        Date: April 1950

Control checked by (III): D. M. Brant, A. C. Rauck, Jr. and H. P. Richard
        Date: April 1950

Stereoscopic: Albert K. Heywood
Control extension by (III): Albert C. Rauck, Jr.
        Date: April 1950
              April, May 1950

Planimetry A. C. Rauck, Jr. and
A. K. Heywood
        Date: April, May 1950

Manuscript delineated by (III): B. A. Dew (North half)
        M. L. Bloom (South half)
        Date: June 1950

Photogrammetric Office Review by (III): A. C. Rauck, Jr.
        Date: July 1950

Elevations on Manuscript
checked by (II) (III): A. C. Rauck, Jr.
        Date: July 1950
U.S.C. & G.S. (6\textsuperscript{o} focal length)

Camera (kind or source) (III):

1:10,000 scale nine-lens photographs

1:100,000 scale nine-lens photographs

Tide (III)

Tables of predicted tides. 1949 \& 1952

Reference Station: HAMPTON ROADS, VA.
Subordinate Station: NEW RIVER INLET, N.C.
Subordinate Station:

Washington Office Review by (IV): C. Hanavich

Final Drafting by (IV): J.H. Frazier - 9394-N 9294-S

Drafting verified for reproduction by (IV): W.M. Hallm

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):

60

Shoreline (More than 200 meters to opposite shore) (III):

25

Shoreline (Less than 200 meters to opposite shore) (III):

25

Control Leveling - Miles (II):

33

Number of Triangulation Stations searched for (II):

52

Recovered: 37\# Identified: 28\#

Number of BMs searched for (II):

28

Recovered: 16\# Identified: 15\#

Number of Recoverable Photo Stations established (III):

6

Number of Temporary Photo Hydro Stations established (III):

0

Remarks: III * Station P.B.M. No. V 68, U.S.C. \& G.S. STA No. 30, 1941 is also EM-V68, 1934. This station was recovered, identified and used as horizontal control, and has been subsequently destroyed. (see form 685A). The station has been removed from the manuscript.
Summary T-9394

Project Ph-58(49), a topographic mapping survey, consists of 8 quadrangles numbered T-9394 to T-9401, inclusive. The area of the project is located in the vicinity of the town of Swansboro and New River, N.C., and extends from the coastline between longitudes 77° 00' and 77° 30' northward to latitude 34° 46'. To the east it junctions with Ph-5(45) - a topographic and shoreline mapping project.

The field operations included complete field inspection and the establishment of some additional horizontal control. Contouring was accomplished by planetable at 5-foot intervals. Compilation of planimetry was done by the multiplex; planetable contours were later applied by graphic methods. The compilation scale was at 1:10,000. Except for T-9400N and T-9401N, each map manuscript is comprised of 2 sheets and is identified as the N (North) or S (South) sheet. Each sheet of the map manuscript - including T-9400N and T-9401N - is 3 3/4' in latitude by 7 2/3' in longitude; the exception to this is in the northern tier of 4 sheets (T-9394N to T-9397N inclusive) which are 4 3/4' in latitude.

For information on other phases of the work concerning the project, such as the project instructions, special reports, official correspondence, and other supplementary information, reference should be made to the project completion report, which will be compiled and submitted upon completion of the review of all the surveys on this project.

These maps are to be published by the Geological Survey at a scale of 1:24,000 as a standard topographic quadrangle. Cloth-backed lithographic prints of the original map manuscripts at compilation scale and the descriptive reports for all maps in this project will be filed in the Bureau Archives. Cloth-backed copies of the published topographic quadrangles will also be filed.
2. Areal field inspection.—About three-fourths of the area is owned by the Federal Government and utilized as Camp Lejeune of the U. S. Marine Corps. This part of the reservation is devoted to a barracks area, an outlying airfield and troop maneuver areas.

The City of Jacksonville lies in the north central portion and borders Camp Lejeune. The growth of this small city is being accelerated by the demand for housing by Marine Corps personnel and related industrial ventures.

The only other settlement of appreciable size is the unincorporated village of Verona in the southwest.

The area is traversed by two primary highways and several secondary ones. All points are readily accessible. Also, the Atlantic Coast Line railroad runs through the length of the quadrangle.

New River crosses the quadrangle, dividing it into about three-fourths land area on the west and southwest and one-fourth on the northeast. This stream is navigable to Jacksonville. Its banks are generally bluffs, being as high as 25 feet in some instances.

Terrain in the north half is rolling and fairly uniform in pattern. Near the river in the south half many small creeks and narrow ravines are found. The banks of these are usually steep and the ravines narrow.

Elevations run to about 75 feet, the highest points being in the southwest, where the terrain flattens out somewhat.

Vegetation consists of pine and some oak trees on the higher ground and appears dark gray or black on the photographs. The low areas are predominated by gum trees with scattered cypress and pine. The gum and cypress appear light gray and round-topped and are quite distinct.

North of Jacksonville, the New River swamp consists of heavy brush and scattered deciduous trees and has a dense gray tone.

Mainly in the southwest part some Pocosins are found. These are high ground swamps, being only a foot or so lower than the surrounding land. A very dense growth of brush, briars, vines and small trees is found. This vegetation is well-nigh impenetrable. While this quadrangle only touches the edge of a large pocosin, it is interesting to note that often the ground rises gently toward the
center—in the large ones, that is. The highest point in the County is said to be in a Pocosin. The smaller ones are usually flat and saucerclike. Drainage is mostly by seepage. They are normally wet all year, as the dense vegetation holds the water in. The photographic tone of these is a smooth, dense gray, speckled with black pine trees.

The open land is devoted to farming, the principal commercial crop being tobacco.

No particular difficulty was encountered in photographic interpretation and it is believed enough notes were made for adequate compilation. No phase of the field inspection was purposely omitted.

The photographs are of good quality and adequately cover the area.

3. Horizontal control.—Two unmarked traverse stations were established for supplemental control. They are WM #6 and WM #7 and are part of the traverse run between triangulation stations HUBERT, 1933 and MILL, 1932.

The following traverse stations were established by the contract engineers for the U. S. Marine Corps, or the U. S. Navy Public Works Engineers at Camp Lejeune, and were identified for use in the Photogrammetric plot, or were used as azimuth stations to establish substitute stations:

| Mon. 371 (USMC) | Mon. 33 (USMC) |
| Mon. 32 (USMC) | Mon. 27 (USMC) |
| Mon. 92 (USMC) | Mon. 26 (USMC) |
| Mon. 140 (USMC) | Mon. 44 (USMC) |
| Mon. 48 (USMC) | Mon. 45 (USMC) |
| Mon. 100,000 Gal. Elev. Water Tank |
| Tent Camp No. 1 (USMC) |

Mr. T. J. Dillon, Chief of Surveys, U. S. Navy Public Works, states that the order of accuracy of these stations is believed to be third order. He further states he has used some of them with good results.

The following stations were established by Company A, 30th Engineers, U. S. A., and are of third order accuracy:

| Mon. 18, 1941 (C of E) | PDM #30 USGS, Sta. #30, 1941 (C of E) |
| Mon. 9, 1941 (C of E) | Mon. 16, 1941 (C of E) |
| Mon. 10, 1941 (C of E) | Az. Mk. (PM #1) of Triangulation Station VERONA 1932 (C of E, 1941) |

[Destroyed—see p. 4 under Remarks]
The following is a list of "lost" Coast and Geodetic Survey stations:

HIGH, 1932
MONTFORD, 1932 (USE)
WALTON, 1933
BCG, 1933
MOSS, 1933 (USE)
PARADISE, 1933 (USE)

MARSH, 1933
SWAMP, 1933
SOUTHWEST, 1933 (USE)
RAGGED, 1933 (USE)
HADNOT, 1931 (USE)
STUMP, 1933 (USE)

Of these HIGH, 1932, R.M. 2 was recovered and identified for photogrammetric plot control.

The following additional U. S. Marine Corps stations have been recovered during interior inspection:

150,000 Gal. Water Tank (USMC)
100,000 Gal. Elev. Water Tank (Tent Camp No. 2)(USMC)
Boundary Marker XVIII

The tanks were identified in connection with Landmarks for Charts; the boundary marker in connection with Camp Lejeune boundary. Since these stations were recovered after plot control stations were submitted, they may serve as a check on the horizontal position of the map detail.

No effort was made to recover all U. S. Marine Corps traverse stations.

4. Vertical Control.—All known Coast and Geodetic Survey Bench marks were searched for. Those recovered were identified on the photographs.

Bench marks of the U. S. Marine Corps and Navy Public Works Department were not systematically recovered. These marks are numerous and were not used except to tie to in a few instances while contouring.

The following is a list of existing first-order Coast and Geodetic Survey bench marks:

- K-99 (lost) Verona R. M. 1, Verona
- J-99 (lost) N 27 R. M. 2, Verona
\( \text{N 27} \) Y 147 R. M. 3, Verona
\( \text{P 27} \) W 147 North Meridian

Second order bench marks recovered and identified are:

V 68 and W 68.

Tidal bench marks are as follows:
Tidal B. M. M 27 Tidal B. M. 1, U. S. E.
Tidal B. M. Town Pt. 2 Tidal B. M. Town Point 3.

Establishment of one elevation for multiplex control was specified. It was established by planimetric method with a closure of less than 0.5 ft. No adjustment was made. This point lies at approximate lat. 34° 41.4', Long. 77° 30.5'.

Approximately 33 miles of fly-levels were run as supplemental control for contouring. Elevations were determined with a Wye level, with readings to the nearest hundredth of a foot. The maximum error of closure was .45 foot and no adjustments were made.

There were 33 checked spot elevations established. These were numbered 9401-9433, inclusive. Also there were 4 checked spot elevations established in connection with the HUBERT, 1932 - MILI, 1933 traverse. These were numbered 9302 - 9305 inclusive, and the records were transmitted to the Washington Office along with other traverse data.

5. Contours and drainage.—Contouring was done by standard planimetric methods directly on the 1:10,000 scale photographs. A considerable portion of the area was contoured while vegetation was in heavy foliage and numerous lines were cleared in order to search out the narrow ravines making up the drainage system of New River. In addition the area was thoroughly walked over in an attempt to detect drains not seen on account of the dense growth. This plan was necessary as the stereoscopic examination failed to reveal many of the narrow ravines.

After field work the photographs were again examined under the stereoscope in order to delineate the contours with more accurate detail.

On the small islands and marsh areas where a boat was necessary a hand level was used and elevations tied into the tide.

About a square mile of U. S. Navy Public Works contours at Lat. 34° 44', Long. 77° 25' are to be used. This particular area was not tested for accuracy but other areas of their contouring were and proved to be excellent. Relief expression is shown in minute detail by these engineers as their work was done 2/4 at a 1 foot interval at a scale of 1 inch equals 200 feet.

Drainage was delineated in the compilation office in connection with the planimetric maps furnished the Navy Hydrographic Office. Corrections were made on a film positive of the planimetric map manuscript by the field party.

6. Woodland cover.—See item 2, Areal field inspection.

7. Shoreline and alongshore features.—No appreciable erosion of the shoreline is evident since photography. The high-water line has been indicated where overhanging trees obscure it. This overhang is usually 10 or 12 feet.
Periodic tide is negligible in the upper New River and no attempt was made to delineate a low-water line.

Bluffs are indicated and approximate heights recorded.

Alongshore structures were carefully inspected. Sextant fixes were submitted for obstructions to navigation, dolphins, etc.

Bridge and cable data have been shown on the photographs.

8. **Offshore features.**—All features in the navigable water were visited and angular measurements made to locate them for nautical charts.

9. **Landmarks and aids.**—Landmarks were inspected from seaward and recommendations made on Form 567 as a special report.

Fixed aids to navigation were identified by direct marking on the photographs, or located by theodolite method as a part of an operation for the entire project, in which those aids in the open waters of New River were located. These aids have been listed on Form 567 as a separate report.

One aeronautical aid is recommended for charting. Form 567 was submitted for it.

10. **Boundaries, monuments and lines.**—Information on this subject is contained in a special report for the project.

11. **Other control.**—Three recoverable topographic stations were established: AMCK, 1950; JACKSONVILLE WATER TANK, 1950 and STACK, 1950. Previously established horizontal is sufficient to meet project requirements. BEACON, 1950; WKY, 1950, NEW RIVER LT 45, 1950.

12. **Other interior features.**—Interior features such as buildings, roads, etc., were inspected and labelled in accordance with current instructions.

The Marine Corps airfield at Peters Point, on the west side of New River, is a part of Camp Lejeune and does not have a separate boundary. Lengths and widths of runways have been indicated on the photograph, as a map showing them was not available.

Bridge and cable clearances were carefully checked and are tabulated as follows:

1. Fixed Hwy. Bridge, U.S. 17, Jacksonville, North Carolina,
   Horiz. clearance: 32.8 feet, Vert. Cls: 14.2 ft. above M. H. W.
2. Overhead cable north side of highway bridge: Vertical clearance, 35 ft. above mean high-water markings.


4. First overhead cable south of highway bridge: Vertical clearance, 14 feet.

5. Second overhead cable south of highway bridge: Vertical clearance, 35 feet.


7. A. C. L. railroad bridge, swing type: Horiz. clearance, right span, 48.5 ft., left span, 48.5 ft., Vert. cl., 3.5 ft.


9. Overhead cable 1 mile south of railroad bridge: Vert. cl. 60 ft.

These data are shown on photographs LEJ-1-91 and LEJ-1-92, both being Navy Hydrographic Office photographs taken in December 1949.

13. Geographic names.--This subject was covered by a special report submitted in June 1950. Filed in Geographic Names Section, Div. of Charts.

14. Special reports and supplemental data.--Special reports were submitted for Geographic Names, Landmarks for Charts, Nonfloating Aids to Navigation, and Boundaries.

Supplemental data consists of Marine Corps contours (Navy Public Works) for the area discussed under item 5 and U. S. Marine Corps Reservation Boundary maps, previously submitted.

Horizontal and vertical control identification cards and photographs were sent to the Baltimore Photogrammetric Office under Transmittals No. 2, dated 28 March 1950, and No. 5, dated 7 April 1950. Field inspection data was submitted on Transmittal No. 10, dated 19 May 1950.
Field edit of planimetry was accomplished in July 1950 and the data forward to Baltimore under transmitting letters Nos. 21 and 24.

Respectfully submitted,
30 April 1950

William H. Shearouse
William H. Shearouse,
Cartographer
<table>
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<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR ( \lambda )-COORDINATE</th>
<th>LONGITUDE OR ( \phi )-COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (FORWARD)</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (BACK)</th>
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<td>N.A. 1927</td>
<td>349.771.46</td>
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<td>P.1</td>
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1 FT. = 0.0254 METER

COMPUTED BY: A.C. Bauck
DATE: 4/12/50

CHECKED BY: H.F. Richert
DATE: 5/50
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1 FT. = 0.3048006 METER

COMPUTED BY: H.P. Riehert
A.K. Haywood

DATE: 3/50

CHECKED BY: A.K. Haywood
A.O. Hauck

DATE: 4/50
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<td>Town Point (USE)</td>
<td>Special Pub. 1922, P.30</td>
<td></td>
<td>77 27 18.078</td>
<td>459.8 (1066.3)</td>
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<td>Jarman, 1933</td>
<td>G.P. P.127</td>
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<td>34 43 47.739</td>
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<td>77 24 04.316</td>
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<td></td>
<td>34 39 49.827</td>
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<td>77 22 52.221</td>
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<td>34 41 50.543</td>
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<td>77 25 39.770</td>
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<td>2,470.427.31</td>
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<td>365.569.06</td>
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<tr>
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<td>2,473.327.43</td>
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<td>366.515.14</td>
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<td>2,474.758.62</td>
<td>1450.4 (73.6)</td>
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1 FT. = 3048000 METER

COMPUTED BY W.L. Linewsewer DATE 5/50

CHECKED BY H.P. Eichert DATE 6/50
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR x-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
</tr>
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<tr>
<td>BRIT, 1935 (USB)</td>
<td>USMC P.1</td>
<td>360,323.05</td>
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<td>VERONA, 1932</td>
<td>GP P.11</td>
<td>34,38,37,376</td>
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<td>MON.10</td>
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<td>352,840.25</td>
<td>865.7 (658.3)</td>
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<td>ROPER, 1933</td>
<td>G.P. List Pg.19</td>
<td>34,47,56.913</td>
<td>1753.8 (95.1)</td>
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<td>PARADISE ECC. 1933</td>
<td>GP P.g.20</td>
<td>34,42,35,681</td>
<td>1099.5 (749.4)</td>
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<td>MON.27 (USMC)</td>
<td>USMC P.1</td>
<td>366,691.78</td>
<td>515.7 (1008.4)</td>
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<td>MON.33 (USMC)</td>
<td>USMC P.7</td>
<td>338,885.94</td>
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<td>USMC P.2</td>
<td>365,234.51</td>
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<td>333,738.96</td>
<td>1139.6 (384.4)</td>
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<td>MON.140 (USMC)</td>
<td>P.3</td>
<td>358,437.40</td>
<td>1047.7 (476.3)</td>
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1 FT = 304.8006 METER

A.K. Heywood and A.C. Hauck

DATE 4/50

Henry P. Eichert

DATE 4/50
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<tr>
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<th>LONGITUDE OR x-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET OR PROJECTION LINE IN METERS</th>
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<td>NEW RIVER LT. 44, 1950</td>
<td>Field Comp.</td>
<td>N.A. 1927</td>
<td>364.219.65</td>
<td>2,470.518.74</td>
<td>1286.1 (237.9)</td>
<td>1,581.1 (1,365.9)</td>
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<td>NEW RIVER DAYBN. 43, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>361.810.93</td>
<td>2,471.482.08</td>
<td>552.0 (972.0)</td>
<td>140.1 (1,072.3)</td>
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<td>NEW RIVER DAYBN. 41, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>359.607.22</td>
<td>2,472.536.75</td>
<td>1,404.3 (119.7)</td>
<td>773.2 (750.8)</td>
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<td>NEW RIVER LT. 39, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>357.071.51</td>
<td>2,473.755.27</td>
<td>631.4 (892.6)</td>
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<td>&quot;</td>
<td>350.726.56</td>
<td>2,479.659.86</td>
<td>221.5 (1,302.5)</td>
<td>114.6 (1,03.7)</td>
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<td>** NEW RIVER LT. 35, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>345.328.70</td>
<td>2,481.736.41</td>
<td>100.2 (1,423.8)</td>
<td>529.3 (994.7)</td>
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<td>NEW RIVER LT. 34, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>340.116.23</td>
<td>2,484.109.87</td>
<td>35.4 (1,488.6)</td>
<td>125.2 (271.3)</td>
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<td>NEW RIVER LT. 33, 1950</td>
<td>&quot;</td>
<td>&quot;</td>
<td>337.535.88</td>
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<td>772.9 (751.1)</td>
<td>822.3 (701.7)</td>
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<td>NEW RIVER LT. 38, 1950</td>
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<td>&quot;</td>
<td>354.937.58</td>
<td>2,479.146.36</td>
<td>1511.1 (12.9)</td>
<td>44.6 (1479.4)</td>
</tr>
</tbody>
</table>

* These positions located by triangulation in 1950

** Light List Name - New RIVER DAYBEACCN 34

1 FT = 304.8006 METER

COMPUTED BY: B. Wilson          DATE: 11/15/50
CHECKED BY: H.P. Eichert        DATE: 11/50
<table>
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<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR (\phi)-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
</table>
| MON. 34 | USMC Pg. 7                    | N.A. 1927 | \( Y = 337,415.50 \)  
\( X = 2,459,634.19 \) | 736.2 (787.8)  
1412.5 (111.5) | 736.2 (787.8)  
1412.5 (111.5) | 736.2 (787.8)  
1412.5 (111.5) |
| MON. 35 | USMC Pg. 7                    |       | \( 337,354.44 \)  
\( 2,459,486.46 \) | 717.6 (806.4)  
1367.5 (156.5) | 717.6 (806.4)  
1367.5 (156.5) | 717.6 (806.4)  
1367.5 (156.5) |
| MON. 36 | USMC Pg. 7                    |       | \( 337,328.28 \)  
\( 2,459,341.78 \) | 709.7 (814.3)  
1323.4 (200.6) | 709.7 (814.3)  
1323.4 (200.6) | 709.7 (814.3)  
1323.4 (200.6) |
| MON. 37 | USMC Pg. 7                    |       | \( 337,335.68 \)  
\( 2,459,265.09 \) | 711.9 (812.1)  
1300.0 (224.0) | 711.9 (812.1)  
1300.0 (224.0) | 711.9 (812.1)  
1300.0 (224.0) |
| BOUNDARY MARKER | USMC Pg. 7 | N.A. 1927 | \( 366,915.24 \)  
\( 2,475,356.98 \) | 583.8 (940.2)  
47.8 (1476.2) | 583.8 (940.2)  
47.8 (1476.2) | 583.8 (940.2)  
47.8 (1476.2) |
| BOUNDARY MARKER | USMC Pg. 7 | N.A. 1927 | \( 367,135.46 \)  
\( 2,475,376.30 \) | 650.9 (872.1)  
114.7 (1409.3) | 650.9 (872.1)  
114.7 (1409.3) | 650.9 (872.1)  
114.7 (1409.3) |
| SOLOMONS, 1942 | CARR & J.L. GRINBERG | N.A. 1927 | \( 355,708.04 \)  
\( 2,475,915.99 \) | 215.8 (1308.2)  
279.2 (1244.8) | 215.8 (1308.2)  
279.2 (1244.8) | 215.8 (1308.2)  
279.2 (1244.8) |
COMPILATION REPORT
T-9394

PHOTOGRAHMATIC PLOT REPORT

The Photogrammetric Plot Report is bound with Descriptive Report for T-9401.

31. DELINEATION

Refer to item 31 of Descriptive Report for T-9397 and item 22 of Photogrammetric Plot Report.

32. CONTROL

Refer to items 3 and 4 of Field Inspection Report and last paragraph of item 23 of Photogrammetric Plot Report. See also letter dated 1 December 1950, bound with Descriptive Report for T-9401.

33. SUPPLEMENTAL DATA

Map showing location Reservation Boundary, Camp LeJeune, N. C. sheet 2 of 2.

This was used to correctly identify and plot the boundary monuments and delineate the reservation boundary, particularly in the vicinity of Verona and Jacksonville, N. C.

34. CONTOURS AND DRAINAGE

Refer to item 5 of Field Inspection Report. Also see Contour Revision and Field Completion Report - Project PH-58, New River, N. C. by H. R. Cravat, dated July 15, 1952, bound with this report.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate. The mean high water line at Ragged Point was delineated by using the vertical projector. Photograph scale in this vicinity is not in good agreement with the scale of the manuscript. The heavily wooded condition of this shoreline made it difficult to pick sufficient detail points.

All shallow lines are the compilers interpretation and no low-water lines are delineated.

Shoreline was verified and/or corrected using the new (1952) nine-lens photography.

Refer to item seven of Field Inspection Report.
36. **OFFSHORE DETAILS**

Near Jacksonville, N. C. are eight dolphins located by sextant angles and distances from three multiplex plotted photo points.

Also plotted by sextant fix, using multiplex plotted photopoints and horizontal control stations such as fixed aids to navigation, towers and elevated tanks, are a wreck south of Jacksonville and a single pile in the foreshore area off Peters Point Airfield.

37. **LANDMARKS AND AIDS**

Refer to item 9 of Field Inspection Report. Sixteen landmarks and ten aids are plotted within this survey. Of these, four have been plotted by multiplex. All others are triangulation stations.

38. **CONTROL FOR FUTURE SURVEYS**

Refer to item 11 of Field Inspection Report. In addition to the three stations listed by the field inspection party, three other recoverable topographic stations were established.

In all, five were established by the Field Inspection Party and one by the Field Edit Party. All are plotted by multiplex and their positions and descriptions are herewith submitted on Forms 524.

A list of Recoverable Topographic Stations is included under item 49 of this report.

39. **JUNCTIONS**

To the north and west is the limit of the project and no contemporary surveys.

Complete and satisfactory junctions have been made to the south with Survey No. T-9398 and to the east with Survey No. T-9395.

40. **HORIZONTAL AND VERTICAL ACCURACY**

Refer to "Vertical Accuracy Test" and "Contour Revision and Field Completion Report" attached to this report.
41. **BOUNDARIES, MONUMENTS AND LINES**

The U. S. Marine Corp. Reservation Boundary is delineated from boundary markers and monuments established by the U. S. M. C. Refer to item 33 of this report.

42 thru 45.

Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

Comparison with the Army Map Service, New River, 15-minute quadrangle, scale 1:50,000, dated 1946, showed considerable cultural change due to expansion of the city of Jacksonville and the Marine Corp. installations.

Many trails shown on the U. S. Army quadrangle are now delineated and classified on the manuscript as Rd. 6.

Comparison was also made with a copy of shoreline manuscript, sheet No. 5050, scale 1:20,000, U. S. Coast and Geodetic Survey, date unknown. This shoreline manuscript was compiled with photography dated January 1933, and although the alongshore and foreshore areas are in good agreement, the usual cultural changes were noted.

47. **COMPARISON WITH NAUTICAL CHARTS**


As regards the major cultural changes, the same general differences and omissions exist in this comparison, as in item 46. The shoreline is in very good agreement.

**Items to be Applied to Nautical Charts Immediately**

Peters Point Field Glider Base, a large U.S.M.C. airfield on the west shore of New River.

**Items to be Carried Forward**

None

Respectfully submitted
6 October 1952

[Signature]

Albert C. Rauck, Jr.
Cartographer

Approved and forwarded
21 October 1952

[Signature]

Joseph Steinberg
Officer in Charge
PHOTOGRA MMETR I C OFFICE REVIEW

1. Projection and grids. 2. Title. 3. Manuscript numbers. 4. Manuscript size.

CONTROL STATIONS

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines. 32. Public land lines.

MISCELLANEOUS

Reviewer: 
Supervisor/Review Section or Unit:

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler: 
Supervisor:

43. Remarks:
18. GEOGRAPHIC NAME LIST

- Atlantic Coast Line R. R.
- Bay Church
- Bell Fork
- Blue Creek
- Brinson Creek
- Camp Knox
- Chaney Creek
- Deep Gully Creek
- Edwards Creek
- Farnell Bay - Falls on T-9395
- Georgetown High School (Field Inspection Data)
- Hadnot Point
- Hawserum Road
- Hicks Run
- Holmes Point
- Jacks Point
- Jacksonville
- Jacksonville Township (Field Edit Data)
- Lewis Creek
- Maplehurst Rd.
- Mill Creek (North of Jacksonville)
- Mill Creek
- Mill Run
- Montford Point
- Morgan Bay
- Muddy Creek
- New River
- Northeast Creek
- N. C. 53
- N. C. 24
- Onslow County (from County map)
- Padgett Road
- Paradise Isle
- Paradise Point
- Peters Point Field Glider Base
- Ragged Point
48. GEOGRAPHIC NAME LIST (cont'd)

- Scales Creek
- Southwest Creek
- Stick Creek
- Strawhorn Creek
- Stump Sound Township (Field edit data)
- Swansboro Township (Field edit data)
- Tank Creek
- Town Creek
- Town Point

- U. S. 17
- U. S. 245 (Field Inspection Data)

- Verona

- Whitehurst Creek
- White Oak Township (Field edit data)
- Wilson Bay
- Wilson Island

* These names from Army Map Service Quadrangle, New River, N. C. 1948

Township names agreed with Census Map.

Names underlined in red are approved

3-24-53

L. Heck
49. NOTES FOR THE HYDROGRAPHER

The following aids, landmarks and recoverable topographic stations are within this survey:

- BEACON, 1950 (aeronautical aid) 35 ft. high
- TANK, 1950  (landmark) 145 ft. high
- STACK, 1950  (landmark) 115 ft. high
- LT. 45, 1950  (aid to navigation)
- AMOK, 1950
- WALTON AZ. MK.(1933), 1950
100,000 GAL. ELEV. WATER TANK, 1942 (landmark, triangulation) 175 ft. high (Tent Camp No. 1) U.S.M.C.
100,000 GAL. ELEV. WATER TANK, 1942 (landmark, triangulation) 180 ft. high (Tent Camp No. 2) U.S.M.C.
200,000 GAL. ELEV. WATER TANK, 1945 (landmark, triangulation) 165 ft. high
LT. 33, 1950  (aid to navigation, triangulation)
LT. 34, 1950  (aid to navigation, triangulation)
DAYBEACON 35, 1950  (aid to navigation, triangulation)
LT. 36, 1950  (aid to navigation, triangulation)
LT. 38, 1950  (aid to navigation, triangulation)
LT. 39, 1950  (aid to navigation, triangulation)
DAYBEACON 41, 1950  (aid to navigation, triangulation)
DAYBEACON 43, 1950  (aid to navigation, triangulation)
LT. 44, 1950  (aid to navigation, triangulation)
Vertical Accuracy Test, T-9394

A vertical accuracy test of slightly more than four lineal miles was run on photographs LEJ-1-20 and LEJ-1-50.

The line was laid out with the thought in mind of testing the various types of terrain. Consequently it crossed fairly open pine land with some underbrush, thence across a narrow ravine, on through a young pine thicket (originally cultivated land), down into a swamp from which it arose to a clearing, thence across a wooded area cut up with narrow ravines, to a tie-in at a bench mark. From there the test traversed a flatter area through open pine land and semi-Pocosin area in a circular direction to a closure at bench mark Verona, 1932.

Further thought was given to testing an area contoured when foliage was dense as well as an area when most of the deciduous trees and brush were bare. Thus photograph LEJ-1-50 was selected to represent the dense foliage period, work being done about September 1950, and photograph LEJ-1-20 to portray work done in the winter or about December-January.

The test originated at Mon. 44 (USMC), on photograph LEJ-1-50, was tied in at bench mark Verona Az. Mark and a final closure made at bench mark Verona, 1932, on photograph LEJ-1-20. The vertical tie at bench Verona Az. Mark was 0.6 foot high. The correct elevation was assumed before continuing the line. The vertical closure at bench mark Verona, 1932 was 0.1 foot low. Although the correct elevation was taken before continuing the line from Verona Az. Mark to Verona, 1932, no vertical adjustment was made of the obtained elevations.

Horizontally the test originated at a road intersection and was tied in at four well defined features before a final closure at a lone tree near bench mark Verona, 1932. The first tie was made at a point of trees where the error of closure was about 40 feet (short); the second at a road centerline where the error was about 25 feet (short). The third tie was at a road intersection near bench mark Verona Az. Mark where the error was 20 feet (short). These three points are identified and labeled on photograph LEJ-1-50. In each instance the horizontal position was corrected to the identified point but no attempt was made to adjust the line throughout.

The next horizontal tie was at a small clump of bushes at a power line clearing and is shown on photograph LEJ-1-20. It was obtained by sighting on the known point and correcting the position of the planimeter setup on the photograph. The error in position was about 100 feet which was corrected but no adjustment was made throughout the line. This error appears to be more in direction than in distance.

The final closure was made at a lone tree near bench mark Verona, 1932. Again the error seemed to be more in azimuth, being about 40 feet.

Seventy-eight points were tested. Of these 5 or 6 appear to be in vertical error in excess of a half contour interval. This is without applying any adjustments.
Where the vertical errors occurred, the terrain pattern was followed with good relief portrayal, and are displacement of contours in sketching. No effort was made to correct the contour placement on the photographs but an overlay is attached to photograph LEJ-1-50 showing the corrected contours.

Respectfully submitted,

William H. Shearouse

CC: Comdr. Garber

William H. Shearouse,
Cartographer
Field Edit notes, T-9394-\(\frac{1}{2}\)g

The compilation of this \(\frac{1}{2}\)g quadrant is adequate and will be complete after field edit corrections have been applied.

In regards to the reviewer's "note" on the Discrepancy Print, it is believed the field editor has added sufficient notes to aid the compiler in the proper placement of drainage, swamp and flooded areas.

Form 524 is submitted for New River Light 45. All other fixed aids in the area have been located by theodolite method and positions will be furnished by the Washington Office.

Data for a 3-point fix on a single pile is submitted.


No check on geographic names was made. A special report on this phase of work, covering the Project, was submitted to the Washington Office June 22, 1950.

\[\text{William H. Shearouse, Cartographer}\]

Jacksonville, N. C.,
7 July 1950
Background:

This project was mapped at the request of the Navy Hydrographic Office. The necessary field work for the compilation of planimetric maps was completed on a very high priority basis. The field party was pressed for time on this phase of the work but it was presumed that the field party would complete standard accuracy contours in a routine manner.

The contouring was started in the summer of 1950 and completed the following summer. It was not suspected that the field party was having difficulty with the contouring until the completed field records were received in the Washington Office for a preliminary examination prior to completion.

During the examination, inadequacies were observed as follows:

1. The contours were sketched without benefit of Drainage.
2. A stereoscopic examination indicated that the field contours did not portray the true drainage pattern.
3. Many intricate contour patterns were sketched without supporting elevations.
4. The general appearance of the contours was unnatural.
5. Poor inking and meaningless wiggles in the contours prevailed throughout the project.

The field party had completed vertical accuracy tests on the contouring and the results of these tests were favorable. On this assumption it was presumed that the contours were basically satisfactory, but in need of reshaping to make them more presentable. Also some reworking would be required in adding the omitted drainage.

Reshaping of the contours in one quadrangle was done in the Washington Office and during the course of this work many more inadequacies were discovered, as well as the realization that the Hydrographic Office photography was inadequate for contouring.

During the fall of 1951 Mr. George E. Varnadale completed vertical accuracy tests on the reshaped contours, as well as completing additional tests throughout the project. These tests were analyzed in the Washington Office with results as follows:
1. The contours for the entire project were of substandard accuracy.

2. The contours in the eastern portion of the project tested about 30% higher than those in the west.

3. The office reshaping improved the accuracy of the original contours by 10% due to the inclusion of previously omitted drainage.

Since the contours in the eastern portion of the project were definitely better than those of the western, it was decided to reshape these contours on acetate overlays in the Washington Office. After compilation, the revised contours were to be subjected to a thorough field edit survey. The contours for the remainder of the project were to be revised in the field; the methods to be determined in the field according to the conditions as found on the ground.

Field Party Organization:

The field revision survey was started 7 January 1952 and completed 27 June 1952, with headquarters at Swansboro, North Carolina.

The party was a sub-unit of Photogrammetric Party No.1, and consisted of 3 planetable units, operating continuously during the entire period.

Mr. H. R. Cravat of the Washington Office acted as field supervisor as well as a unit chief until the middle of April, at which time he returned to his regular duties in the Washington Office, leaving Mr. R. L. McGlinchey in charge.

Each unit included an experienced topographer, one recorder, who acted as planetable traverseman whenever called upon, and the usual number of rodmen.

Field Operations:

The contours on maps T-9396, T-9397, T-9400 and T-9401 were reshaped on acetate overlays in the Washington Office; and subsequently were compiled on the planimetric bases. These contours were then revised in the field on double weight prints of the map manuscripts by standard planetable methods.

The combined efforts of all three planetable parties were concentrated in one quadrangle at a time. The work included many miles of planetable traverses for project junctions, location of drainage, correcting erroneous or questionable contours and vertical accuracy testing as well as relocating the swamp limits.

For additional information regarding these revisions,
please refer to the field completion reports that are attached to the appropriate reports.

The field contours for the remainder of the project, map Nos. T-9394, T-9395, T-9398 and T-9399 were of even poorer quality and new photographs were obtained for revising the contours.

The new photography was flown at 1:10,000 contact scale. Photography for maps T-9394 and T-9398 was with the nine-lens camera and T-9395 and T-9399 were photographed with the 6-inch focal length cartographic camera.

The technique for revising the contours in these ¼ quadrangles was developed in the field and was applicable to both the single and the nine-lens photographs and included considerable office work prior to the planetable field surveys.

Each original contour photograph was considered as a base sheet and to each base sheet an acetate overlay was registered by a special set of tick marks and by the tracing of photographic details.

The new photographs were studied stereoscopically and all visible drains, ridges and isolated tops, etc. were transferred to the appropriate overlays. Some difficulty was encountered in making these transfers because of scale differences between the original and the new photographs, but were largely overcome by carefully shifting the overlays to fit the photographic details that were previously traced from the original contour photographs.

The overlays were again registered to the original contour photographs and the new drainage and ridge patterns compared with the original contours. All discrepancies were studied and those requiring field work were marked as well as other weak places where sketching with insufficient control was apparent.

These discrepancies were resolved on the original contour photographs by planetable traverses. In addition, many miles of traverses were run for completing project junctions, locating and checking drainage and swamp limits and for vertical accuracy testing. Red ink was used to differentiate the revision elevations from the original elevations.

After all discrepancies were resolved, appropriate overlays were again registered to the original contour photographs and the contours completely redrawn thereon, and including a complete delineation of drainage and swamp limits.
Whenever it was desirable to view the area stereoscopically while reshaping the contours, this was done by registering the overlay to the appropriate new 1952 photographic models. The procedure was similar to that of examining multiplex work sheets, except that the field elevations were lightly penciled on the overlay to control the sketching.

Field completion reports were prepared and attached to only those descriptive reports for which the contour revisions were made on prints of the map manuscripts. Data pertinent to the remainder of the maps are as follows:

Junctions:

To insure satisfactory junctions with future surveys, planable traverses were completed along north latitude 34° 45' as well as 34° 46' and west longitude 77° 30'. Elevations were marked on the original contour photographs at 500 ft. intervals and at all changes in slope.

Vertical Accuracy:

The vertical accuracy of this map as corrected during the field completion survey, complies with National Map Accuracy Requirements.

In addition to the extension planable traverses, one vertical accuracy test was made; the test was on photograph No. LEJ 1-18, and 95% of the points tested were within a tolerance of less than 1/2 contour interval of error.

Misc.- New Construction:

New construction has changed the contours and planimetry in some areas. The most prominent of these areas were revised, and applicable field inspection notes are cross-referenced from the overlays to the new 1952 photographs. Minor changes such as jeep and tank roads on the Base and logging roads were disregarded.

Because of new construction and erroneous vertical control the contours on photographs LEJ 2-16 were completely reworked on nine-lens photograph No. 34769.

Misc. Public Work Contours:

The public works contours mentioned on page 10 of the field inspection report were transferred to an overlay and blended into the Bureau's contours. These contours were smoothed out to conform with 1:10,000 scale mapping shapes. This smoothing process did not materially
affect the vertical accuracy of the contours, but removed the stiffness that is usually present in large scale engineering contours.

T-9395

Junctions:

Planetable traverses were completed along north latitudes 34° 45' and 34° 46'. In the areas of contours, elevations were marked on the original contour photograph at 500-foot intervals and at all changes in slope.

Vertical accuracy:

The vertical accuracy of this map as corrected on the acetate overlays complies with National Map Accuracy Requirements.

In addition to the extensive planetable revision traverses, one vertical accuracy test was made; 90% of the points tested were within a tolerance of less than 1/2 contour interval of error.

Misc. RR

The Federal Government is planning the construction of a railroad from Camp LeJeune, extending northwestward through the quadrangle. At the time of this survey the Department of Public Works had completed a tentative route survey on the ground, and preparations were underway for the acquisition of the land.

This party completed a closed planetable traverse over the brushed out line of the route survey, and marked elevations on the original contour photographs at 500-foot intervals, and at all changes in slope. This planetable traverse was essentially completed because it afforded access for checking the contours in the densely wooded areas, and not as a basis for delineating the railroad.

Construction problems will result in various re-alignments and contour changes that cannot be anticipated at this early date. For the correct portrayal of the railroad and related features a field survey subsequent to construction would be required. The planetable traverse can be used, however, for delineating location of Proposed Railroad.

Misc. New Construction:

New construction has changed the contours and
platemetry in some areas. The most prominent of these areas were revised on the new 1952 photographs and cross referenced to the applicable acetate overlays. Minor changes such as jeep and tank roads on the "Base" were disregarded.

Misc. Public Works Contours:

Overlays were prepared for the U. S. Navy Public Works contours mentioned in page 9 of the descriptive report. These contours were smoothed out to conform with 1:10,000 scale mapping shapes. This smoothing process did not materially affect the vertical accuracy of the contours, but removed the stiffness that is usually present in large scale engineering contours.

Misc. Drainage:

Both perennial and intermittent drainage are indicated on the contour overlays by conventional symbol. In the developed areas of the "Base" all drainage is ditched, as a mosquito control measure. Most of these ditches are a development of the natural drainage and were delineated on the overlays as intermittent drainage.

T-9498

Junctions:

A planetable traverse was completed along the project limit, west longitude 77° 30'. In the areas of contours elevations were marked on the original photographs at 500-ft. intervals and at all changes in slope.

Vertical Accuracy:

The vertical accuracy of this map as corrected on the acetate overlays complies with National Map Accuracy Requirements.

In addition to the extensive planetable revision traverses, one vertical accuracy test was made. The test was on photograph No. LEJ 2-6, and 91% of the points tested were within a tolerance of less than 1/2 contour interval of error.

Misc.

Some new buildings and road construction has occurred since the original Hydrographic Office photography. Supplemental field inspection is shown on the new nine lens photographs and cross-referenced to the acetate overlays.
Vertical Accuracy:

The vertical accuracy of this map as corrected on the acetate overlays complies with National Map Accuracy standards.

In addition to the numerous plane-table traverses run throughout the quadrangle, one vertical accuracy test was made. Nine-five percent of the points tested were within a tolerance of less than one-half contour interval of error. These elevations are shown on the original contour photograph No. LEJ 2-69 in violet ink. No attempt was made to correct the contours on the overlay as the result of this test.

Misc.

Some new roads and buildings have been constructed since the 1950 field edit. These are properly classified on the 1952 photographs and are referenced on the acetate overlays. Tank and jeep roads on the Marine reservation were ignored.

Submitted

July 15, 1952

Harland R. Cravat
Cartographer
I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by **Albert C. Rauk, Jr.**

<table>
<thead>
<tr>
<th>STATE</th>
<th>NORTH CAROLINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>BEACON</td>
<td>4 legged skeleton steel, revolving light atop. 35 feet high</td>
</tr>
</tbody>
</table>

---

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if reetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.
The positions given have been checked after listing by

Albert C. Rauck

Hubert A. Paton

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANK</td>
<td>6 legged, skeleton steel, spheroid shapes, obstruction light atop. 115 feet high</td>
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<td>34 44 1580</td>
<td>77 26 202</td>
<td>NA</td>
<td>1927 T-9394</td>
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<tr>
<td>STACK</td>
<td>Brick, 115 feet high</td>
<td>STACK</td>
<td>34 44 242</td>
<td>77 24 208</td>
<td>Multiplex</td>
<td>1950 x</td>
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</table>

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I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by

C. H. S. V. Griffith

Chief of Party.

<table>
<thead>
<tr>
<th>STATE</th>
<th>North Carolina</th>
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</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
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</tr>
<tr>
<td>TANK (Elev)</td>
<td>(A 100,000 Gallon Elev. Water tk, Tent Camp No. 2, USMC) Skeleton, Steel, 180 ft. high</td>
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<tr>
<td>TANK (Elev)</td>
<td>(A 200,000 Gallon water tk, USMC) Skeleton, Steel, 165 ft. high</td>
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</table>

Note: Positions listed above were scaled from the map manuscript. These 3rd stations were plotted on the map manuscript from their plane coordinates established and furnished by the U.S. Marine Corps.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
**DEPARTMENT OF COMMERCE**
**U. S. COAST AND GEODETIC SURVEY**

**NONFLOATING AIDS OR LANDMARKS FOR CHARTS**

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (March 31) the charts indicated.

The positions given have been checked after listing by C. H. Griffith.

S. V. Griffith
Chief of Party.

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<th>Lt. 34</th>
<th>Daybn. 35</th>
<th>Lt. 36</th>
<th>Lt. 38</th>
<th>Lt. 39</th>
<th>Baybn. 41</th>
<th>Baybn. 43</th>
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<td>34 39</td>
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<td>77 22</td>
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<td></td>
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<td>538.6</td>
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</tbody>
</table>

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62. **Comparison with Registered Topographic Surveys.**

<table>
<thead>
<tr>
<th>Survey</th>
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<th>Scale</th>
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<tr>
<td>T-4723</td>
<td>1933</td>
<td>1:10,000</td>
</tr>
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<td>T-4724</td>
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<tr>
<td>T-5050</td>
<td>1933</td>
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</tr>
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</table>

A comparison with the old topographic surveys was made and it was noted that extensive cultural changes have been effected. The more notable ones are the addition of new buildings and roads.

For nautical charting purposes the old surveys are superseded by the new map (T-9394).

63. **Comparison with Maps of Other Agencies.**

- New River Quadrangle, AMS, Edition 1948, 1:50,000

A general comparison revealed that the contours are in poor agreement in several areas. Numerous cultural changes were also noted.

64. **Comparison with Contemporary Hydrographic Surveys.** None

65. **Comparison with Nautical Charts.**

Chart No. 777, 22 September 1952, scale 1:40,000

Numerous roads, street layouts, buildings, Peters Point, Field Glider Base, and several shoreline structures are not shown on the chart. The spoil areas indicated on the chart south of Jacksonville and in Morgan Bay are not shown on the new map; photographs of the area reveal no indication of their existence.

66. **Adequacy of Results and Future Surveys.** This map complies with the project instructions and the National Map Accuracy Standards.

67. **Vertical Control.** Elevations for some of the traverse stations in this area have been established by the USMC. They have been shown as checked elevations and not as bench marks, since it could not be ascertained from the data available if the methods used in establishing these elevations meet the requirements for third-order work or better.

Reviewed by:

[Signature]

Charles Hanavich
LEVELING IN NORTH CAROLINA

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L 27.—At Jacksonville, Onslow County, at the northwest corner of Main Street and Milla Avenue, at the Atlantic Coast Line Railroad station, 94 feet west of the west rail, and 34 feet north of the center line of Milla Avenue a standard disk, stamped "L 27 1962" and set in the top of a concrete post. (4.232 feet west of the east rail.)

M 27.—At Jacksonville, Onslow County, east of the Atlantic Coast Line Railroad track, at the city water tank, and in the top of the footing of the southwest corner of the Atlantic Coast Line Railroad station, 64 feet east of the center line of the west rail, at the center of a 1-foot triangular blazed on the east side of a 34-inch pine tree, and about 4 feet higher than the ground. A standard disk, disk "M 27 1962" and set vertically. (2.035 meters or 8.317 feet.)

N 27.—About 2.1 miles south along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 257 feet south of the center of the Atlantic Coast Line Railroad station, about 25 yards northwest of the center line of the west rail, at the center of a 1-foot triangular blazed on the east side of a 34-inch pine tree, and about 4 feet higher than the ground. A standard disk, disk "N 27 1962" and set in the top of a concrete post. (5.808 meters or 19.066 feet.)

X 147.—About 3.2 miles south along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 250 feet north of milepost W 46, at Phillips Crossing, about 75 feet south of the center line of the road, 86 feet east of the east rail, and 4 feet north of a pole. A standard disk, disk "X 147 1962" and set in the top of a concrete post. (6.194 meters or 20.296 feet.)

Y 147.—About 1.5 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 150 feet south of milepost W 48, 45 feet east of the east rail, at the center of a 1-foot triangular blazed on the west side of a 38-inch sweet gum tree, and about 3½ feet higher than the ground. A standard disk, disk "X 147 1962" and set vertically. (1.872 meters or 6.155 feet.)

Z 147.—About 1.7 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 150 feet south of milepost W 48, 45 feet east of the east rail, at the center of a 1-foot triangular blazed on the east side of a 34-inch pine tree, and about 3 feet higher than the ground. A standard disk, disk "Y 147 1962" and set vertically. (1.872 meters or 6.155 feet.)

P 27.—About 0.5 mile north along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 0.5 mile south of milepost W 44, at the crossing of S. U. Highway 17, about 30 feet south of the center line of the highway, 20 feet east of the east rail, and about 80 feet north of a pole. A standard disk, disk "P 27 1962" and set in the top of a concrete post. (14.317 meters or 47.072 feet.)

Z 147.—At Verona, Onslow County, about 25 yards northwest of the southwest corner of the Atlantic Coast Line Railroad station, about 15 yards east of the southeast corner of the W. Humphrey store, about 45 feet northwest of a road crossing, and about 10 feet west of the west rail, about 18 feet east of the east rail, and about 80 feet north of a pole. A standard disk, disk "Z 147 1962" and set in the top of a concrete post. (14.912 meters or 48.924 feet.)

Verona, top of east rail opposite the Atlantic Coast Line Railroad station. (4.882 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 43. (49.4 feet.)

R. M. 1 Verona.—About 1.1 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, directly east of milepost W 42, southwest of the intersection of U. S. Highway 17 and a T-road leading east and about 10 feet east of the east rail, and 18 feet east of the east edge of U. S. Highway 17. A standard reference-mark disk, stamped "VERONA NO. 1 1962" and set in the top of a concrete post. (17.798 meters or 58.457 feet.)

R. M. 2 Verona.—About 1.8 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 0.3 mile north of milepost W 41, 154 feet northeast of triangulation station Verona, about 110 feet east of the track, and 25 feet east of the center line of U. S. Highway 17.

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U. S. COAST AND GEODETIC SURVEY

A standard reference-mark disk, stamped "VERONA NO. 2 1962" and set in the top of a concrete post. (21.045 meters or 68.945 feet.)

Verona—About 1.5 miles south along the Atlantic Coast Line Railroad from the station, Onslow County, about 0.2 mile south of milepost W 41, 44 feet east of the east rail, 36 feet west of the center line of U. S. Highway 17, and 24 feet north of a pole. A standard triangulation-station disk, stamped "VERONA 1962" and set in the top of a concrete post. (4.400 meters or 14.409 feet.)

R. M. 3 Verona.—About 1.8 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 1/4 mile north of milepost W 41, about 150 feet south of the triangulation station, described above, 67 feet east of the east rail, and 45 yards northwest of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "VERONA NO. 3 1962" and set in the top of a concrete post. (21.518 meters or 70.681 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 41. (64.3 feet.)

A 145.—About 2.9 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 0.2 mile north of milepost W 40, 50 feet east of the east rail, 22 feet northeast of a twin tree, at a concrete culvert under U. S. Highway 17, in the top of the west head wall, 2 feet north of the south end, 17 feet west of the center line of the highway, and about 1 foot lower than the highway. A standard disk, stamped "A 145 1963." (18.509 meters or 60.726 feet.)

B 145.—About 0.5 mile north along the Atlantic Coast Line Railroad from the station at Dixson, Onslow County, about 300 yards south of milepost W 39, about 45 feet east of the east rail, and 36 feet west of the center line of U. S. Highway 17. A standard disk, disk "B 145 1963" and set in the top of a concrete post. (20.546 meters or 67.415 feet.)

C 145.—About 0.7 mile north along the Atlantic Coast Line Railroad from the station at Dixson, Onslow County, about 47 yards south of milepost W 37, about 300 feet west of the east rail, about 55 yards west of the center line of U. S. Highway 17, 4.5 feet southwest of a pole, and about 2 feet higher than the top of the rail. A standard disk, disk "C 145 1963" and set in the top of a concrete post. (20.335 meters or 67.239 feet.)

D 145.—About 0.7 mile north along the Atlantic Coast Line Railroad from the station at Dixson, Onslow County, about 47 yards south of milepost W 37, about 300 feet west of the east rail, about 55 yards west of the center line of U. S. Highway 17, 4.5 feet southwest of a pole, and about 2 feet higher than the top of the rail. A standard disk, disk "D 145 1963" and set in the top of a concrete post. (20.335 meters or 67.239 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 36. (76.0 feet.)

D 145.—About 2.9 miles north along the Atlantic Coast Line Railroad from the station at Fallston, Onslow County, about 0.4 mile south of milepost W 35, about 25 yards north of the east rail, about 18 yards east of the center line of U. S. Highway 17, 4 feet south of the west rail, and about 1 foot lower than the top of the rail. A standard disk, disk "D 145 1963" and set in the top of a concrete post. (20.335 meters or 67.239 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 35. (72.9 feet.)

S 27.—About 1.0 mile north along the Atlantic Coast Line Railroad from the station at Fallston, Onslow County, about 0.4 mile south of milepost W 35, opposite the "STATION 1 MILE" sign, about 100 feet east of the track, at a concrete culvert under U. S. Highway 17, in the top of the southeast corner of the concrete post about flush with the ground. (30.806 meters or 101.083 feet.)

T 27.—At Fallston, Onslow County, about 15 feet north of the north end of the Atlantic Coast Line Railroad station, about 100 yards west of U. S. Highway 17, and 21 feet east of the east rail. A standard disk, disk "T 27 1962" and set in the top of a concrete post. (21.045 meters or 68.945 feet.)

Note.—This disk is slightly tilted. This elevation applies to the "J" marked in the metal between the letters "T" and "R" of the word "IMPRISONMENT."
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feet west of a county road, about 50 feet south of the track, and in line with a row of poles. A United States Geological Survey standard cap, stamped "250 M. C." and riveted on the top of a 3/4-inch iron pipe. (30.525 meters or 116.546 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 6. (117.6 feet.)

A 149.—About 4.9 miles east along the Atlantic & North Carolina Railroad from Goldsboro, Wayne County, about 6 rails east of milepost 4, at the crossing of State Highway 102, 36 feet southeast of the center line of the highway, 23 feet north of the north rail, and 33 feet west of the center line of the railroad, and about 7.9 feet north of the north rail, and about 2 feet lower than the top of the rail. A standard disk, stamped "A 149 1920," and riveted in the top of a concrete post. (34.009 meters or 111.726 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 4. (115.7 feet.)

B 144.—About 2.6 miles east along the Atlantic & North Carolina Railroad from Goldsboro, Wayne County, about 0.2 mile west of milepost 2, at bridge 2.8, and on the top of the south end of the concrete covering of the east abutment. An outlined square. (25.811 meters or 84.506 feet.)

Notes.—It was reported in August 1933 that about half of the outlined square had been clipped of

B 145.—About 2.9 miles east along the Atlantic & North Carolina Railroad from Goldsboro, Wayne County, opposite milepost 2, 54 feet west of a road crossing. 21.5 feet north of the north rail. 26 feet south of the center line of a road paralleling the track, nearly in line with a row of poles, and about 1/5 foot higher than the top of the rail. A standard disk, stamped "B 145 1920," and set in the top of a concrete post. (38.700 meters or 120.904 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 2. (118.9 feet.)

Top of north rail opposite Atlantic & North Carolina Railroad milepost 1. (110.9 feet.)

C 46.—At Goldsboro, Wayne County, on the Atlantic & North Carolina Railroad, at the Williams Street crossing, at the bridge 2.8, on the south end of the east abutment, and in the top of a brick wall. A standard disk, stamped "C 46 1920." (15.501 meters or 50.743 feet.)

Top of north rail opposite Atlantic & North Carolina Railroad milepost 1. (110.9 feet.)

For additional bench marks in the vicinity of Goldsboro, see pages 83, 328, and 329.

LINE 15. JACKSONVILLE TO NAVASSA, N. C. [First-order leveling]

This line follows the Atlantic Coast Line Railroad from Jacksonville to Navassa. The original field work was done in the fall of February 1932 and the line was leveled (see page 6) in October 1935 by parties in charge of W. M. Gibson, junior hydrographic and geodetic engineer. The elevations given below are derived from a combination of the two levellings.

For additional bench marks in the vicinity of Jacksonville, see pages 54 and 177.

Magnetic Station.—At Jacksonville, Onslow County, about 150 yards east of the Atlantic Coast Line Railroad track, about 125 feet south of a flagpole in front of the high school, and 67 feet west of the southeast corner of the building. A standard magnetic-station disk, stamped "1931" and set in the top of a concrete post. (7.152 meters or 23.395 feet.)

North Meridian.—At Jacksonville, Onslow County, at the northwest corner of the high school, and about 100 feet east of the Atlantic Coast Line Railroad track, and 24 feet south of the center line of a route leading to the school entrance. The top of a granite post, chiseled "N. C. G. S. U. S. C. S. 1936." (9.353 meters or 30.774 feet.)
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end of the station, and near a pole. A standard disk, stamped "X 69 1954" and set in the top of a concrete post. (50.485 meters or 165.015 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 64. (102.8 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 63. (103.9 feet.)

Y 68.—About 2.2 miles south along the Atlantic Coast Line Railroad from the station at Wade, Cumberland County, about 0.3 mile north of milepost C 62, at a dirt-road crossing, about 5 yards south of the center line of the road, 15.1 feet west of the west rail, and about 1 foot lower than the top of the rail. A standard disk, stamped "Y 68 1954" and set in the top of a concrete post. (31.683 meters or 103.766 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 61. (112.2 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 60. (122.8 feet.)

Z 68.—At Wade, Cumberland County, about 13 yards southwest of the southeast corner of the Atlantic Coast Line Railroad station, about 0.6 mile south of milepost C 59, about 10 yards west of the west rail of the middle track, in the northeast corner of a flower bed, about 2 yards southwest of a pole, and about level with the top of the rail. A standard disk, stamped "Z 68 1954" and set in the top of a concrete post. (43.938 meters or 144.102 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 58. (135.5 feet.)

A 78.—About 3.5 miles southwest along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 0.9 mile southwest of milepost C 57, about 14 yards east of the center of a road crossing, opposite pole 1757, about 11 yards southeast of the southeast rail, about 0.6 mile south of the center line of a dirt road leading to a sawmill pile, and about 2 feet lower than the top of the rail. A standard disk, stamped "A 78 1954" and set in the top of a concrete post. (43.089 meters or 147.222 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 56. (149.9 feet.)

B 78.—About 0.8 mile south along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 600 feet south of milepost C 55, about 450 feet south of a green tool shed, 17.4 feet west of the west rail, and about 2 feet lower than the top of the rail. A standard disk, stamped "B 78 1954" and set in the top of a concrete post. (43.129 meters or 141.171 feet.)

C 78.—At Godwin, Cumberland County, about 25 yards south of the southeast corner of the Atlantic Coast Line Railroad station, in the southeast corner of the station flower bed, about 8 yards west of the west rail of the south-bound track, in line with the east face of the station, and about level with the top of the rail. A standard disk, stamped "C 78 1954" and set in the top of a concrete post. (47.872 meters or 157.256 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 54. (148.4 feet.)

D 78.—About 1.2 miles southwest along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 20 yards east of the center of a dirt-road crossing, about 23 yards northeast of the center line of the road, 31.5 feet southeast of the southeast rail, about 1 yard west of a pole, and about 1 foot lower than the top of the rail. A standard disk, stamped "D 78 1954" and set in the top of a concrete post. (46.562 meters or 152.741 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 53. (155.2 feet.)

E 78.—About 3.0 miles northeast along the Atlantic Coast Line Railroad from the station at Benson, Johnston County, about 150 feet southeast of milepost C 52, about 0.5 mile northeast of the center line of the road, 31.5 feet southeast of the southeast rail, about 1 yard west of a pole, and about 1 foot lower than the top of the rail. A standard disk, stamped "E 78 1954". (43.938 meters or 144.102 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 51. (147.0 feet.)

F 78.—About 2.2 miles southwest along the Atlantic Coast Line Railroad from the station at Benson, Johnston County, about 0.2 mile southwest of milepost C 49, about 26 yards north of the center of a dirt-road crossing, about 17 yards northeast of the center line of the road, 17.2 feet west of the west rail, and about 1 foot lower than the top of the rail. A standard disk, stamped "F 78 1954" and set in the top of a concrete post. (54.898 meters or 179.445 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 49. (129.6 feet.)

G 78.—At Dunn, Harnett County, about 0.4 mile southwest along the Atlantic Coast Line Railroad from the station, about 420 feet north of the street, about 1787, about 120 yards east of the Gulf Reining Co. property, at a dirt-road crossing, about 8 yards west of the west rail of a sidetrack leading to the Premier Fertilizer Co., about 6 yards southwest of the southeast road, 10 feet east of the east rail of another sidetrack, about 1 yard southwest of a pole, and about level with the top of the rail. A standard disk, stamped "G 78 1504" and set in the top of a concrete post. (61.887 meters or 203.041 feet.)

DUNN.—At Dunn, Harnett County, in the east wall of the Atlantic Coast Line Railroad station, about 6 yards north of the southeast corner, about 35 yards north of the center of the East Broad Street crossing, 15.7 feet west of the west rail of a sidetrack, 1 foot north of the entrance to the White Oatmeal room, and about 1½ feet higher than the ground. A standard disk, stamped "DUNN 1954" and set vertically. (64.946 meters or 212.087 feet.)

H 78.—At Dunn, Harnett County, about 0.3 mile north along the Atlantic Coast Line Railroad from the station, about 38 yards west of the city water tank, about 17 yards east of the east rail, in the northwest corner of a city lot, about 2 feet lower than the rail. A standard disk, stamped "H 78 1954" and set in the top of a concrete post. (63.744 meters or 209.585 feet.)

For additional bench marks in the vicinity of Dunn, see page 265.

Top of near rail opposite Atlantic Coast Line Railroad milepost C 46. (137.6 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 45. (221.3 feet.)

J 78.—About 2.0 miles northeast along the Atlantic Coast Line Railroad from the station at Dunn, Harnett County, about ½ mile north of signal 1914, about 714 feet southwest of milepost C 44, about 210 feet east of the northeast corner of the John Street School, at a dirt-road crossing, about 8 yards southeast of the west rail of the east rail, about 7 yards south of the center line of the road, about 1 yard northeast of a pole, and about 2 feet lower than the rail. A standard disk, stamped "J 78 1954" and set in the top of a concrete post. (75.571 meters or 247.890 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 44. (250.3 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 43. (296.1 feet.)

K 78.—About 1.8 miles southwest along the Atlantic Coast Line Railroad from the station at Benson, Johnston County, about 925 feet southwest of milepost C 42, about 0.2 mile northeast of the Johnston-Harnett county line, about 36 yards south of a road crossing, about 15 yards southeast of the north-bound track, about 1 yard northeast of a pole, and about 6 feet lower than the rail. A standard disk, stamped "K 78 1954" and set in the top of a concrete post. (67.915 meters or 222.851 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 42. (231.0 feet.)

BENSON.—At Benson, Johnston County, at the northwest corner of the intersection of Main and North Railroad Streets, in the wall of the Farmers Commercial Bank building, 2 feet from the southeast corner, and about 1 foot below the level. A standard disk, stamped "BENSON 1954", set vertically. (74.895 meters or 245.718 feet.)

I 78.—In the northeast part of Benson, Johnston County, on the Atlantic Coast Line Railroad, about 34 yards southeast of the center line of the north-bound track, in the northwest wall of the municipal water power plant, about
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For additional bench marks in the vicinity of Franklinton, see pages 20-22.

LINE 57. JACKSONVILLE TO WARSAW, N. C.

This line follows U. S. Highway 17 from Jacksonville to the junction of U. S. Highway 258 about 0.9 mile west of Jacksonville, U. S. Highway 258 from the junction of U. S. Highway 17 to the junction of State Highway 24 about 2.7 miles northwest of Richlands, State Highway 24 from the junction of U. S. Highway 258 to Kenansville, and the Atlantic & Carolina Railroad from Kenansville to Warsaw. The field work was done in March 1954 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer.

For additional bench marks in the vicinity of Jacksonville, see pages 54, 314, and 315.

S 68.—About 0.7 mile west along U. S. Highway 17 from Jacksonville, Onslow County, about 1,500 feet east of the junction of U. S. Highway 258, opposite of a State prison camp, about 11 yards north of the center line of the highway, and about 1 foot higher than the old signal station on a concrete post, stamped "68 US 1944" and set in the top of a concrete post. (5.671 meters or 18.602 feet.)

T 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, on the line of the U. S. Highway 258, about 8.5 yards south of the center line of U. S. Highway 258, about 0.9 yards north of the center line of U. S. Highway 17, and about 1 foot higher than the highway. A standard disk, stamped "68 US 1945" and set in the top of a concrete post. (6.200 meters or 20.341 feet.)

U 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, the line of U. S. Highway 258, about 20 yards south of the W. M. Brown house, about 12 yards south of the center line of the highway, about 4 yards southwest of the center line of a dirt road, near a pole, and about 1.5 feet higher than the highway. A standard disk, stamped "68 US 1945" and set in the top of a concrete post. (7.165 meters or 23.522 feet.)

R. M. 2 Walton.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, the line of U. S. Highway 258, about 0.4 mile north of the center line of U. S. Highway 258, about 200 feet west of a small cemetery, about 75 feet northeast of a small shack, about 11 yards south of the center line of the highway, and about 1 foot lower than the highway. A standard disk, stamped "WALTON NO. 3 1933" and set in the top of a concrete post. (4.660 meters or 15.318 feet.)

V 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, the line of U. S. Highway 258, about 2.6 miles northeast along U. S. Highway 258, about 12 yards northeast of the center line of the highway, about 1 yard north of pole 1192, and about 1 foot lower than the highway. A standard disk, stamped "V 68 US 1945" and set in the top of a concrete post. (11.937 meters or 39.193 feet.)

W 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, the line of U. S. Highway 258, about 4.7 miles northwest along U. S. Highway 258, about 300 feet southwest of the J. A. Huffman house, about 12 yards northeast of the center line of the highway, about 215 yards northeast of pole 1192, and about 1 foot lower than the highway. A standard disk, stamped "W 68 US 1945" and set in the top of a concrete post. (14.000 meters or 45.922 feet.)
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about 25 yards southeast of the center line of the highway. a standard triangulation-station disk, stamped "el 60,128 CHOCOWINTY 1931" and set in the top of a concrete post projecting about 5 inches above ground. (20.198 meters or 66.06 feet)

r. m. 1 choconiny.—about 6.1 miles south along the norfolk southern railroad from the station at maredon, beaufort county, about 100 yards southeast of the line of the highway, 6, about 100 yards southwest of the intersection of u. s. highway 17 and a dirt road leading across the track, about 18 yards southeast of the southern end of the bridge over the creek. a concrete disk, stamped "el 60,128 CHOCOWINTY 1931" and set in the top of a concrete post projecting about 5 inches above ground. (5.097 meters or 16.71 feet)

p 20.—about 6.8 miles north along the norfolk southern railroad from the station at maredon, beaufort county, about 3 miles north of the center line of the highway at cullom, about 175 feet west of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. (17.750 meters or 58.01 feet)

g 20.—about 3.5 miles north along the norfolk southern railroad from the station at vanceboro, craven county, about 0.3 mile south of milepost 11, 50 feet east of railroad bridge 115, at a culvert under u. s. highway 17, and in the top of the north end of the west concrete coping. a standard disk, stamped "22,563 G 26 1932" (6.206 meters or 20.38 feet)

h 20.—about 1.0 mile north along the norfolk southern railroad from the station at vanceboro, craven county, about 0.5 mile south of milepost 11, 70 feet east of railroad bridge 115, at a culvert under u. s. highway 17, and in the top of the east end of the west concrete coping. a standard disk, stamped "22,563 G 26 1932" (6.206 meters or 20.38 feet)

j 20.—at vanceboro, craven county, about 365 feet north of the center line of the norfolk southern railroad station, about 20 feet east of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. a standard disk, stamped "29,571 j 26 1932" (7.095 meters or 23.26 feet)

k 20.—at vanceboro, craven county, 32 feet east of the center line of the norfolk southern railroad station, and about 25 feet north of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. (7.500 meters or 24.60 feet)

l 20.—about 2.5 miles southeast along the norfolk southern railroad from the station at vanceboro, craven county, at the crossing of a narrow brick pavement about 400 feet southeast of barna gap, 39 feet west of the west rail of the main track, and 32 feet north of the center line of the pavement. a standard disk, stamped "22,563 l 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (7.493 meters or 24.55 feet)

m 20.—about 5.2 miles southeast along the norfolk southern railroad from the station at vanceboro, craven county, 78 feet west of the northwest corner of the station at kral, 39 feet west of the west rail of the main track, 88 feet north of the northeast corner of a brick pavement, and 4 feet north of a pole. a standard disk, stamped "29,574 M 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (7.730 meters or 25.31 feet)

n.—at 7.7 miles southeast along the norfolk southern railroad from the station at vanceboro, craven county, 13 feet northeast of the northwest corner of the station at askin, 37 feet west of the west rail, and 3 feet west of a pole. a standard disk, stamped "29,593 n 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (7.720 meters or 25.26 feet)

r. m. 2 askin.—about 5.0 miles north along the norfolk southern railroad from bridgeton, craven county, about 1.6 miles south of the station at askin, about 125 feet west of the center of the intersection of a brick road with u. s. highway 17, 56 feet northeast of the north end of the bridge over the creek. a standard triangulation-station disk, stamped "el 94,501 PT ASKIN 1931" and set in the top of a concrete post projecting about 4 inches above ground. (1.949 meters or 6.39 feet)

askin.—about 5.0 miles north along the norfolk southern railroad from the station at askin, craven county, about 1.6 miles south of the station at askin, about 60 feet east of the center of the intersection of a brick road with u. s. highway 17, 56 feet northeast of the north end of the bridge over the creek. a standard triangulation-station disk, stamped "el 24,900 FT ASKIN 1931" and set in the top of a concrete post projecting about 6 inches above ground. (7.368 meters or 24.22 feet)

r. m. 1 askin.—about 5.0 miles north along the norfolk southern railroad from the station at askin, craven county, about 42 yards south of the center of the intersection of a brick road with u. s. highway 17, and about 50 feet west of the center line of the highway. a standard reference-mark disk, stamped "el 23,902 FT ASKIN NO 1 1931" and set in the top of a concrete post projecting about 5 inches above ground. (7.237 meters or 23.74 feet)

p 25.—about 2.5 miles north along the norfolk southern railroad from the crossing of u. s. highway 17 at bridgeton, craven county, about 3.8 miles south of the center line of the highway, and 300 feet west of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. (1.123 meters or 3.69 feet)

q 25.—about 0.4 miles north along the norfolk southern railroad from the crossing of u. s. highway 17 at bridgeton, craven county, about 45 feet west of the center line of the highway, and 100 feet west of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. (0.137 meters or 0.45 feet)

r 25.—at bridgeton, craven county, about 1.5 miles north of the crossing of u. s. highway 17 at bridgeton, craven county, about 450 feet west of the center line of the highway, and set in the top of a concrete post projecting about 5 inches above ground. (1.371 meters or 4.50 feet)

s 25.—at new bern, craven county, 2 feet north of the southwest corner of the union station, in the west wall of the negro waiting room, in the stone wall below, and set vertically. (0.609 meters or 2.00 feet)

for additional bench marks in the vicinity of new bern, see pages 307 and 308.

t 26.—at new bern, craven county, at the corner of pollock and craven streets, at the post office, in the face of a stone column, and 4 feet west of the west entrance on craven street, about 3 feet from the corner, and about 4 feet above the sidewalk. a standard disk, stamped "19,394 t 26 1932" and set vertically. (5.722 meters or 18.79 feet)

u 26.—at new bern, craven county, at the corner of east and pollock streets, in the face of a large brick residence, about 1 foot from the northeast corner, and about 2 feet above the ground. a corps of engineers, u. s. army, standard disk, stamped "u s. e. 7 105 ft." (2.190 meters or 7.18 feet)

142 (a. c. l. r. r.)—about 1.2 miles southwest along the atlantic coast line railroad from the union station at new bern, craven county, on the south side of pollock street, in line with the east side of second street, and 5 feet east of the right-of-way. the highest point of a vertical rail projecting about 2 feet above the ground. (6.430 meters or 21.12 feet)

u 26.—about 2.2 miles southwest along the atlantic coast line railroad from the union station at new bern, craven county, about 80 feet southeast of the first crossing of u. s. highway 17, 34 feet south of the center line of the highway, and 18 feet east of the center line of the highway. a standard disk, stamped "u 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (1.524 meters or 5.00 feet)

b 3 m. 175 askin.—about 0.4 miles southwest along the atlantic coast line railroad from the union station at new bern, craven county, about 255 feet south of the st. andrews steamship, and 0.1 mile south of a small wooden trellis, at the west end of two culverts, and on the east end of the north concrete coping. an outlined square. (0.552 meters or 1.81 feet)

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The following is a list of the key points from the text:

1. The importance of incorporating diversity and inclusion into organizational culture.
2. Strategies for creating a more inclusive workplace environment.
3. The benefits of a diverse workforce.
4. The role of leadership in fostering a culture of diversity.
5. The impact of diversity on innovation and creativity.
6. The need for continuous improvement in diversity and inclusion initiatives.

These points highlight the significance of diversity and inclusion in the modern workplace and provide a framework for ongoing discussion and action.
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D 25.—About 3.4 miles southwest along the Norfolk Southern Railroad from Edenton, Chowan County, about 45° north of the center of the road, 142 feet east of the center of the road. A standard disk, stamped "14.324 I 14.250' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

Albemarle.—About 2 miles south along the Norfolk Southern Railroad from the bridge over the Roanoke River, Chowan County, at the point on the west side of the north end of the bridge, 76 feet east of the center of the main track. A standard disk, stamped "13.634 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

H 25.—About 3.4 miles northeast along the Norfolk Southern Railroad from Plymouth, Washington County, at the north end of the toll station, 76 feet northeast of the center of the road. A standard disk, stamped "13.634 I 14.250' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

G 25.—About 5.3 miles northeast along the Norfolk Southern Railroad from Plymouth, Washington County, at Westover, 24 feet east of the east end of the station, 76 feet northeast of the center line of the toll road, 76 feet northeast of the center of the road. A standard disk, stamped "13.634 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

J 25.—About 1.5 miles north along the Norfolk Southern Railroad from the Union Station at Plymouth, Washington County, 7 feet north of the center of the road, 76 feet northeast of the center of the road. A standard disk, stamped "18.856 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

K 25.—At Plymouth, Washington County, at the county courthouse, at the north end of the steps to the west entrance, 67 feet northeast of the corner of the courthouse and in the concrete coping. A standard disk, stamped "21.169 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

L 25.—At Plymouth, Washington County, at the county courthouse, at the north end of the steps to the west entrance, 67 feet northeast of the corner of the courthouse and in the concrete coping. A standard disk, stamped "21.169 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

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8-inch iron pipe projecting about 9 inches above the sidewalk. (10.067 meters or 33.068 feet.)

For additional bench marks in the vicinity of Plymouth, see page 69.

M 25.—About 1.0 mile southwest along U. S. Highway 64 from the city limits at Plymouth, Washington County, at the intersection of the Norfolk Southern Railroad, 87 yards south of the center line of the road, 35 feet east of the center of the road. A standard disk, stamped "18.856 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (10.067 meters or 33.068 feet.)

N 25.—About 2.0 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, 6.5 miles south of milepost 96, at a road crossing, 16 feet northeast of the center line of the road, 10 feet west of the east wall of the road. A standard disk, stamped "33.114 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (10.067 meters or 33.068 feet.)

Auoburn.—About 4.5 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, at Auoburn, 100 yards south of milepost 96, 44 feet north of the north end of the loading platform, and 21 feet west of the west wall. A standard disk, stamped "46.480 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

P 25.—About 7.0 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, at Hinson, about 0.2 mile north of milepost 102, about 100 yards south of the center of the road, 44 feet west of the west wall of the road. A standard disk, stamped "46.480 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

Q 25.—In Washington County, about 9.1 miles north along the Norfolk Southern Railroad from Strawtown, Beaufort County, at the crossing of the P & R Railroad at Strawtown, Beaufort County, 30 feet north of the center of the road, 31 feet north of the center of the railroad, and 30 feet east of the center of the road. A United States Geological Survey standard cap, stamped "57.757 PRIM TRAV. 976A NO. 3' and riveted on the top of a 6-inch iron pipe projecting about 17 inches above ground. (14.411 meters or 47.448 feet.)

R 25.—In Washington County, about 0.6 mile south of milepost 105, 21 feet east of the center of the road, 76 feet west of the west wall of the road. A standard disk, stamped "44.480 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (14.411 meters or 47.448 feet.)

S 25.—About 2.5 miles north along the Norfolk Southern Railroad from Strawtown, Beaufort County, at the crossing of the railroad, 13 feet west of the center of the road, 14 feet northeast of the center of the road. A United States Geological Survey standard cap, stamped "57.757 PRIM TRAV. 976A NO. 3' and riveted on the top of a 6-inch iron pipe projecting about 17 inches above ground. (14.411 meters or 47.448 feet.)

T 25.—At Finetown, Beaufort County, about 75 yards north of the Norfolk Southern Railroad station, about 50 feet north of a road crossing, on the east side of a dirt road paralleling the track, 80 feet west of the center of the road. A United States Geological Survey standard cap, stamped "44.480 I 25.106' and set in the top of a concrete post projecting about 6 inches above ground. (10.067 meters or 33.068 feet.)
LEVELING IN NORTH CAROLINA

Q 23.—About 2 miles north along the Atlantic Coast Line Railroad from Snowden, Currituck County, directly opposite a water tank, at 160 feet west of the track. A standard disk, stamped "322.194 Q 23," and set in the top of a concrete post. (8.200 meters or 322.270 feet.)

R 23.—At Jonesboro, Lee County, on the Atlantic Coast Line Railroad, at the southwest corner of the Watson Merchandise Store, in the west brick wall, and about 266 feet higher than the ground. A standard disk, stamped "R 23," and set vertically. (181.274 meters or 594.068 feet.)

Note.—It was reported in October 1914 that the concrete post for the bench mark should be at least 2 feet above ground.

For additional bench marks in the vicinity of Sanford, see pages 32, 33, and 36.

L A R N E  S A N F O R D, N. C. (PART) [First-order leveling]

This line enters North Carolina in the vicinity of Moyock and follows the Norfolk Southern Railroad through Plymouth and Washington to New Bern, and the Atlantic Coast Line Railroad from New Bern to Jacksonville. The field work was done in January and February 1902 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer.

D 24.—At Moyock, Currituck County, about 200 yards north of the Norfolk Southern Railroad station, at milepost 24.5, at 2:05 p.m. on the last day of the completion. A standard disk, stamped "14.605 D 24 1510." (8.807 meters or 29.008 feet.)

E 24.—About 1 mile southeast along the Norfolk Southern Railroad from Moyock, Currituck County, about 0.9 mile south of milepost 26, at the crossing of State Highway 24, about 226 feet southwest of the southwest corner, and 126 feet north of the north edge of the pavement. A standard disk, stamped "8.813 E 24 1903," and set in the top of a concrete post projecting about 8 inches above ground. (2.705 meters or 8.827 feet.)

About 2 miles south along the Norfolk Southern Railroad from Moyock, at milepost 20.5, top of west rail at the crossing of State Highway 24. (8.72 feet.)

F 24.—About 0.5 miles southeast along the Norfolk Southern Railroad from Moyock, Currituck County, about 25 feet west of State Highway 24, at the south end of railroad bridge 26, and in the top of the west end of the bridge. A standard disk, stamped "14.794 F 24 1515." (9.014 meters or 29.592 feet.)

G 24.—At Snowden, Currituck County, 45 feet north of the north end of the Norfolk Southern Railroad station, about 170 feet south of the crossing of a dirt road, and 27 feet east of the east rail of the main track. A standard disk, stamped "321.017 G 24 1510." (10.671 meters or 34.948 feet.)

H 24.—At Shalboro, Currituck County, 23 feet north of the south end of the Norfolk Southern Railroad station, about 0.9 mile north of the crossing of State Highway 39, 27 feet east of the east rail of the main track, and 2 feet west of a pole. A standard disk, stamped "14.715 H 24 1515," and set in the top of a concrete post projecting about 6 inches above ground. (4.470 meters or 14.665 feet.)

About 0.4 mile south along the Norfolk Southern Railroad from Shalboro, top of west rail at the crossing of State Highway 39. (129.5 feet.)

R. M. 2 Gregory.—At Gregory, Currituck County, about 131 yards northwest of a road crossing about 100 feet west of the Norfolk Southern Railroad station, about 0.7 feet northeast of the center line of the road, and about 3 feet southwest of the center line of the road at the end of the post end of a gate, and at the edge of a field. A standard reference-mark disk, stamped "3.3194 R. M. 2 Gregory, NO 2 1912," and set in the top of a concrete post projecting about 10 inches above ground. (2.886 meters or 9.568 feet.)

R. M. 2 Gregory.—At Gregory, Currituck County, about 183 yards west of a road crossing about 100 feet west of the Norfolk Southern Railroad station, about 78 feet northeast of the center line of the Norfolk Southern Railroad, and 15 feet west of west of a ditch. A standard reference-mark disk, stamped "EL 8.2749 GREGORY NO 2 1912," and set in the top of a concrete post projecting about 10 inches above ground. (2.845 meters or 9.064 feet.)

R. M. 1 Gregory.—At Gregory, Currituck County, about 200 yards southeast of a road crossing about 100 feet west of the Norfolk Southern Railroad station, about 88 feet southwest of the southeast corner of the post office, and about 7 feet southwest of the center line of the road, and about 3 feet inside of a fence. A standard reference-mark disk, stamped "EL 9.363 GREGORY NO 1 1912," and set in the top of a concrete post projecting about 4 inches above ground. (2.845 meters or 9.334 feet.)

A. T. M. 2.—At Gregory, Currituck County, at the Norfolk Southern Railroad station, at the west side of the south end of the loading platform, and in the west end of the last joint at the south end of the platform. A rail spike. (8.356 meters or 20.848 feet.)

J 24.—At Belcher, Camden County, 3 feet from the southwest corner of the Norfolk Southern Railroad station, and 27 feet east of the east rail. A standard disk, stamped "7.201 J 24 1912," and set in the concrete post projecting about 4 feet above ground. (2.160 meters or 7.074 feet.)

K 24.—At Camden, Craven County, about 175 feet south of the south end of the Norfolk Southern Railroad station, about 80 feet north of the east crossing, and about 60 feet east of the east rail. A standard disk, stamped "7.255 K 24 1912." (2.256 meters or 7.414 feet.)

About 2 miles northeast along the Norfolk Southern Railroad from the station at Elizabeth City, top of east rail at the crossing of State Highway 50. (1.524 feet.)

L 24.—At Elizabeth City, Pasquotank County, about 0.3 mile north of North Road, peak of a railroad bridge across the Neuse River, about 1.9 miles southwest of the cross at Fishing Creek, and about 1.6 miles southeast of the cross at the White water power plant, in the top of the north end of a small dam, and 49 feet west of the center line of a road. A standard disk, stamped "7.222 L 24 1912." (2.100 meters or 6.853 feet.)

About 1.4 miles northeast along the Norfolk Southern Railroad from the station at Elizabeth City, at a highway crossing, top of east rail at the center line of the highway. (0.62 feet.)

M 24.—At Elizabeth City, Pasquotank County, in the west brick wall of the Norfolk Southern Railroad station, about 3 feet south of the White water power plant, and about 5 feet above the platform. A standard disk, stamped "14.780 M 24 1912." (4.490 meters or 14.731 feet.)

Tidal 5.—At Elizabeth City, Pasquotank County, at the southwest corner of the street in the culvert and set in the top of a concrete post projecting about 6 inches above ground. (2.607 meters or 8.542 feet.)

N 24.—At Elizabeth City, Pasquotank County, about 0.5 miles south of the Norfolk Southern Railroad station at the station at Elizabeth City, Pasquotank County, about 3 feet south of the White water power plant, and about 5 feet above the platform. A standard disk, stamped "7.222 N 24 1912." (2.424 meters or 7.953 feet.)

Tidal 5.—At Elizabeth City, Pasquotank County, at the southwest corner of the street in the culvert and set in the top of a concrete post projecting about 6 inches above ground. (2.607 meters or 8.542 feet.)

R. M. 1 Elizabeth.—About 1.5 miles southwest along U. S. Highway 17 from Elizabeth City, Pasquotank County, about 100 yards north of the intersection of a T-road at a red brick school, at the southwest corner of the front yard of the Mrs. J. B. Bright residence, and 8 feet east of the east edge of a dirt road.
LEVELING IN NORTH CAROLINA

R. M. 3 Kirkland—In New Hanover County, about 0.9 mile southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 160 yards northeast of a "STATION ONE MILE" sign, W. 8, 14 feet southeast of the southeast end of milepost 10, 6 feet southeast of the center line of U. S. Highway 17, and 2 feet east of a pole. A standard reference-mark disk, stamped "KIRKLAND NO. 1 1832" and set in the top of a concrete post. (13.029 meters or 42.966 feet.)

R. M. 4 Kirkland—In New Hanover County, about 1 mile southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 170 feet north of a Negro school building, about 50 feet southwest of the southeast end of milepost 10, 39 feet southeast of the center line of U. S. Highway 17, and 40 feet northeast of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "KIRKLAND NO. 2 1832" and set in the top of a concrete post. (13.029 meters or 42.966 feet.)

Kirkland—In New Hanover County, about 1.2 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, 90 feet west of the west corner of a Negro school, 94 feet southeast of the southeast end of milepost 10, and 31 feet northwest of the center line of U. S. Highway 17. A standard triangulation-station disk, stamped "KIRKLAND NO. 3 1832" and set in the top of a concrete post. (15.824 meters or 51.992 feet.)

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U. S. COAST AND GEODETIC SURVEY

R. M. 3 Kirkland—In New Hanover County, about 0.9 mile southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 160 yards northeast of a "STATION ONE MILE" sign, W. 8, 14 feet southeast of the southeast end of milepost 10, 6 feet southeast of the center line of U. S. Highway 17, and 2 feet east of a pole. A standard reference-mark disk, stamped "KIRKLAND NO. 1 1832" and set in the top of a concrete post. (13.029 meters or 42.966 feet.)

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