

9394

N&S

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Diaz Cht. 1235-2

Form 504

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

Hurbert A. Patch, Baltimore Photo Office

194 52

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE April 7, 1955

B-1870-1 (1)

9394

# DATA RECORD

1

T-9394

Project No. (II): Ph-58(49)

Quadrangle Name (IV):

Field Office (II): Jacksonville, N. C.

Chief of Party: H. F. Garber

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: H. A. Paton

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 (III): 1.00

Date received in Washington Office (IV):

OCT 22 1952

Date reported to Nautical Chart Branch (IV):

OCT 29 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 (25) 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

~~XXXXXXXXXX~~

Plane Coordinates (IV):

State: N.C.

Zone:

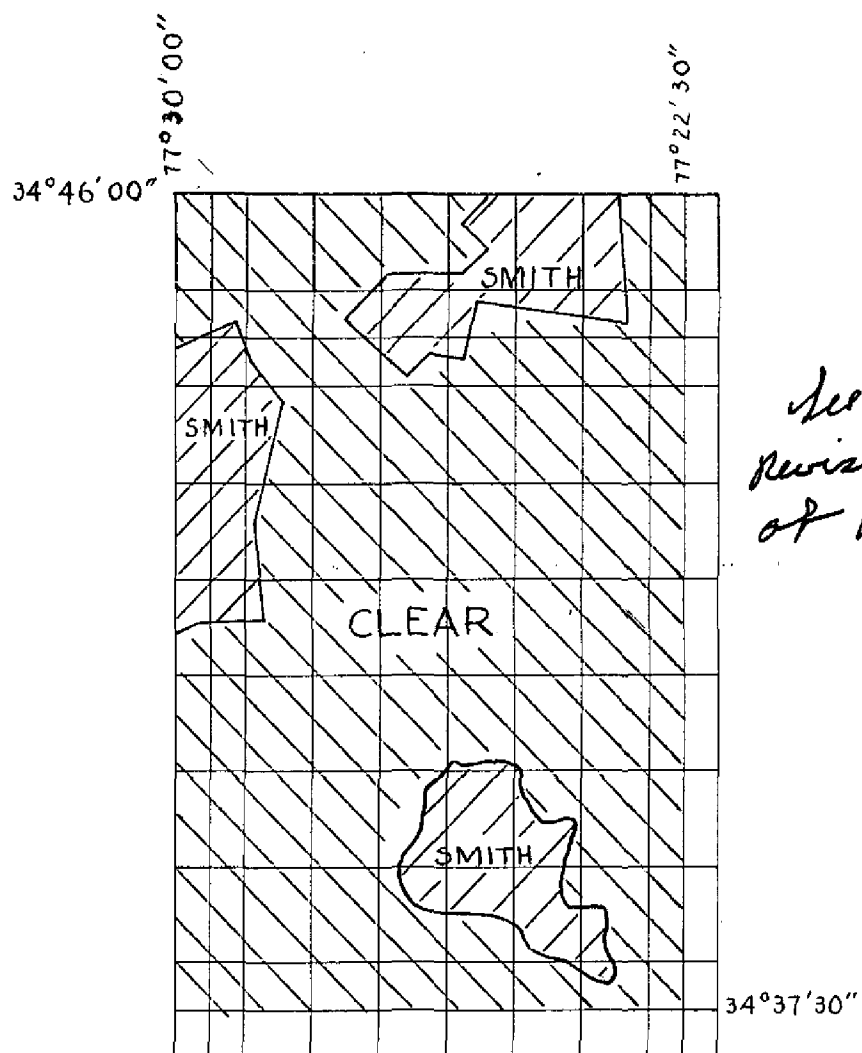
Y=

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.





*See also  
Revision report  
of back.*

Areas contoured by various personnel  
(Show name within area)  
(II) (III)

## DATA RECORD

Field Inspection by (II): J. E. Hundley  
H. G. Murphy  
M. W. Smith

Date: March -  
May 1950

Planetable 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. Eichard April 1950

~~REVISION~~ Stereoscopic Albert K. Heywood  
Control extension by (III): Albert C. Rauck, Jr.

Date: April 1950  
April, May 1950

Planimetry A. C. Rauck, Jr. and  
Stereoscopic Instrument compilation (III): A. K. Heywood  
~~CONTROL~~

Date: April, May 1950

Date:

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" focal length)  
 Camera (kind or source) (III): U.S.C. & G. S. nine-lens camera (8.25" focal length)

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
LEJ-1-14 to 1-21	12-1-49	1222	1:24,000	.4 above MLW
" 1-48 to 1-55	"	1211	"	.4 " "
" 1-85 to 1-93	"	1107	"	.4 " "
" 2-10 to 2-16	11-15-49	1414	"	2.9 " "
" 2-48 to 2-56	"	1352	"	2.8 " "

1:10,000 scale nine-lens photographs

34768 to 34774	2/10/52	1229	1:10,000	.1 above MLW
34820 to 34826	"	1323	"	.1 below MLW
34805 to 34809	"	1308	"	.1 " "

Tide (III)

Tables of predicted tides. 1949 & 1952

Reference Station: HAMPTON ROADS, VA.

Subordinate Station: NEW RIVER, INLET, N.C.

Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
1.0	2.5	3.0
1.2	3.0	3.6

Washington Office Review by (IV): *C. Hanavich*

Date: *8 May 1953*

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

Date: *5-24-54 - (W) 6-4-54 (S)*

Drafting verified for reproduction by (IV): *Wm O. Hallum*

Date: *9-2-54*

Proof Edit by (IV):

Date:

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 BM-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.

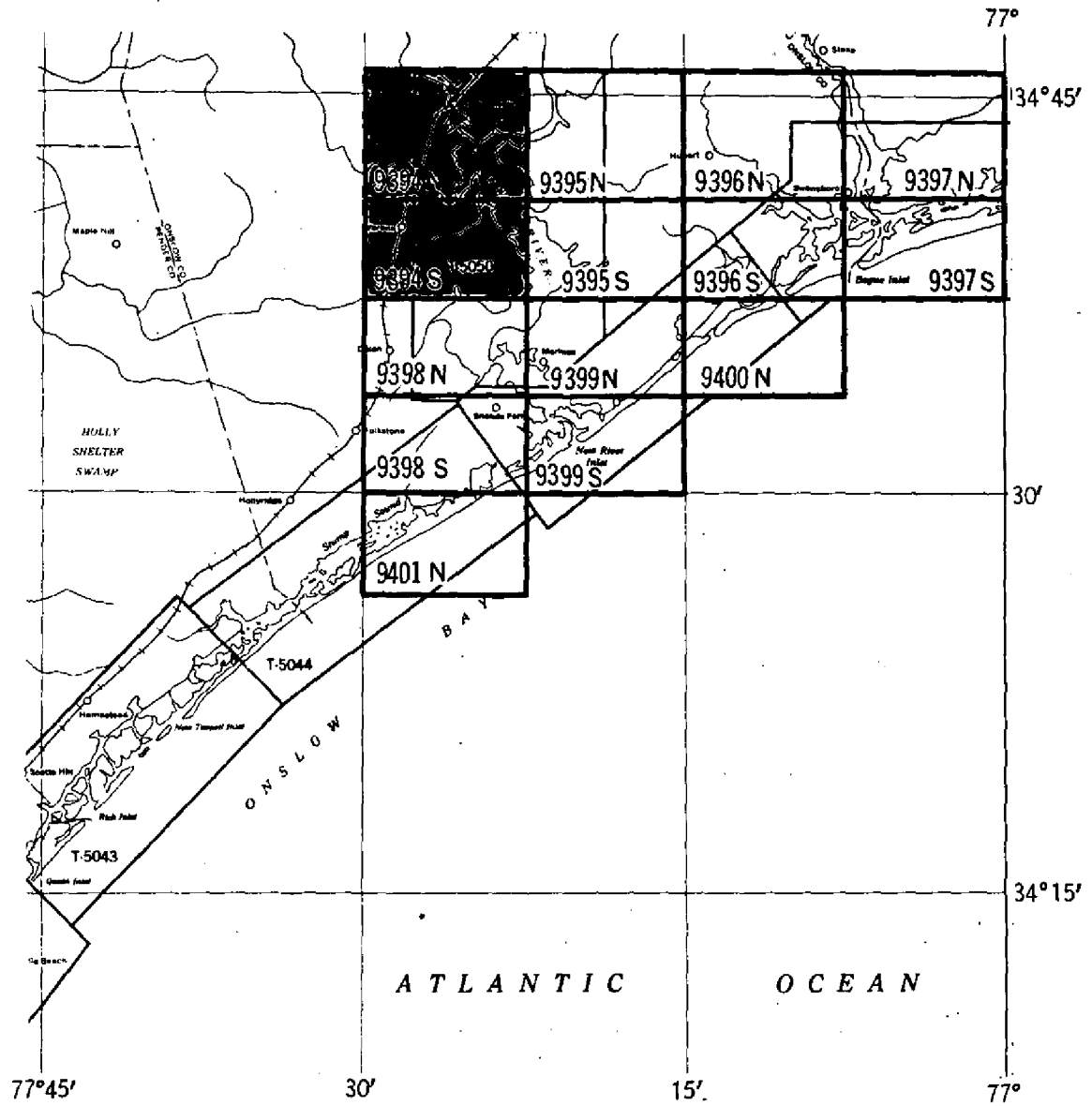
# TOPOGRAPHIC MAPING PROJECT

5

PH-58 (49)

NORTH CAROLINA New River

Scale 1:10,000



## 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 1/2' in longitude; the exception to this is in the northern tier of 4 sheets (T-9344N 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.

Field Inspection Report, T-9394

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 saucer-like. 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 HM #6 and HM #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. 339 (USMC)
Mon. 33 (USMC)	Mon. 27 (USMC)
Mon. 32 (USMC)	Mon. 26 (USMC)
Mon. 92 (USMC)	Mon. 44 (USMC)
Mon. 140 (USMC)	Mon. 45 (USMC)
Mon. 48 (USMC)	100,000 Gal. Elev. Water Tank
Mon. 39 (USMC)	(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)	PBM #V68 USC&GS, 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. (RM # 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	MARSH, 1933
MONTFORD, 1932 (USE)	SWAMP, 1933
WALTON, 1933	SOUTHWEST, 1933 (USE)
BOG, 1933	RAGGED, 1933 (USE)
MOSS, 1933 (USE)	HADNOT, 1931 (USE)
PARADISE, 1933 (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-87(lost)	Verona	R. M. 1, Verona
-J-87(lost)	N 27	R. M. 2, Verona
M 27	✓Y 147	R. M. 3, Verona
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:



*Also a geodetic bench mark, listed on p. 9.*

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 planetable method with a closure of less than 0.5 ft. No adjustment was made. This point lies at approximate Lat.  $34^{\circ}41.4'$ , Long.  $77^{\circ}30.5'$

Approximately 33 miles of fly-levels were run as supplemental control for contouring. Elevations were determined with a Wye level, with recordings 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 - MILL, 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 planetable 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.  $34^{\circ}44'$ , Long.  $77^{\circ}23'$  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 ~~at~~ at a 2' foot interval at a scale of 1 inch equals ~~200~~<sub>50</sub> feet.

Drainage was delineated in the compilation office in connection with the planimetric maps furnished the Navy Hydrographic Office. ~~Since revision with the required as brought out by the contouring.~~ 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: AMOK, 1950; ~~JACKSONVILLE WATER TANK, 1950~~ and STACK, 1950. Previously established horizontal control is sufficient to meet project requirements. *BEACON, 1950; WALTON AZ MK, 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. Cl: 14.2 ft. above M. H. W.



(Note: The vertical clearance was checked and rechecked from mean high-water marks on the bridge piling. There is very little tide here and no account was taken of flood water conditions of the river. High water clearance is listed in the Bridge Book Supplement as 10 feet. The district Engineer was not notified of this difference as flood water conditions were not observed.)

2. Overhead cable north side of highway bridge: Vertical clearance, 35 ft. above mean high-water markings. ✓
3. Overhead cable 3/4 mile N.W. of highway bridge: Vertical clearance, 25 feet. ?
4. First overhead cable south of highway bridge: Vertical clearance, 14 feet. ✓
5. Second overhead cable south of highway bridge: Vertical clearance, 35 feet. ✓
6. Fixed highway bridge (now street): Horizontal clearance, 28 ft. Vertical clearance, 14 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.
8. Overhead cable at railroad bridge: Vert. clearance, 50 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



MAP T. 9394

PROJECT NO. Ph-58(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\chi$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
MON. 9, 1941 <i>(USE)</i> <del>(G.P.)</del>	USMC P.5	N.A. 1927	349,771.46	1454.4 (69.6)			
			2,457,011.96	613.2 (910.8)			
PINE, 1933 (USE)	G.P. P.128	"	34 43 58.293	1796.3 (52.6)			
			77 25 50.178	1276.5 (249.9)			
WILSON, 1933 <i>(USE)</i>	"	"	34 44 06.496	200.2 (1648.7)			
			77 25 50.372	1281.4 (244.9)			
PBM V -68 *	Corps of Eng.	"	34 45 50.361	1551.9 (297.0)		* Station destroyed	
			77 29 15.528	394.9 (1131.0)			
MON. 16, 1941, <i>(USE)</i> <del>(G.O.F.E)</del>	"	"	34 44 19.018	586.0 (1262.9)		<i>3 photos W of Project limits.</i>	
			77 30 28.612	727.8 (798.4)			
VERONA RM NO. 1, 1932	USMC P.7	"	332,497.53	761.2 (762.8)			
			2,458,346.97	1020.2 (503.8)			
HM NO. 6, 1950	Field Comp.	"	374,539.67	1383.7 (140.3)			
			2,483,720.88	1134.1 (389.9)			
HM No. 7, 1950	"	"	367,180.62	664.7 (859.3)			
			2,475,438.18	133.6 (1390.4)			
150,000 GALLON WATER TANK, <i>(USE)</i> <del>(U.S.M.C.)</del>	U.S.M.C. P.2	"	362,874.86	876.3 (647.7)			
			2,479,932.82	1503.5 (20.5)			
BOUNDARY MARKER XVIII (USMC)	" P.1	N.A. 1927	366,004.31	306.1 (1217.9)			
			2,463,491.63	1064.3 (459.7)			
100,000 GALLON ELEV. WATER TANK, TENT CAMP No. 2, <i>(USE)</i> <del>(U.S.M.C.)</del>	USMC P.3	"	359,672.05	1424.0 (100.0)			
			2,465,532.87	162.4 (1361.6)			
MON. 46, <i>(USE)</i> <del>(U.S.M.C.)</del>	USMC P.9	"	329,226.76	1288.3 (235.7)			
			2,476,815.60	553.4 (970.6)			

\* 14-

1 FT. = 3048006 METER  
COMPUTED BY: A.C. Bauck

COMPUTED BY: W.E. Lineweaver

DATE

4/12/50

CHECKED BY:

H.P. Eichert  
A.K. McWood

DATE

4/50  
5/50



MAP T- 9394

PROJECT NO. Ph-58(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $y$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
TOWN POINT ECC., 1933	G-1400 P. 30	N.A. 1927	34 39 49.624	1529.1 (319.7)			
MON. 371 (USMC)	USMC P. 5	"	77 22 53.522	1362.7 (164.9)			
			340,331.27	101.0 (1423.0)			
			2,487,613.08	796.5 (727.5)			
200,000 gal. water tank, USMC	USMC P. 3	"	353,560.83	1085.3 (438.7)			
			2,484,706.17	1434.4 (89.6)			
MON. 26 (USMC)	USMC P. 1	"	367,139.14	652.0 (872.0)			
			2,475,379.97	115.8 (1408.2)			
MON. 32 (USMC)	" P. 7	"	339,032.72	1229.2 (294.8)			
			2,459,841.23	1475.6 (48.4)			
MON. 44 (USMC)	" P. 7	"	336,968.08	599.9 (924.1)			
			2,470,208.30	63.5 (1460.5)			
TULAGI 48, 1942, (USMC)	" P. 3	"	352,709.68	825.9 (698.1)			
			2,472,298.87	700.7 (823.3)			
MON. 91 (USMC)	" P. 3	"	358,591.70	1094.8 (429.2)			
			2,476,754.66	534.8 (989.2)			
MON. 339 (USMC)	" P. 2	"	365,165.68	50.5 (1473.5)			
			2,485,398.37	121.4 (1402.6)			
100,000 gal. water tank, Tent Camp No. 1, (USMC)	" P. 1	"	361,948.98	594.0 (930.0)			
			2,465,532.87	162.4 (1361.6)			
LITTLE RAGGED 1932 (USE)	GP List Pg. 124	"	34 40 45.670	1407.3 (441.6)			
			77 24 01.056	26.9 (1500.5)			
MILL 1933 (USE)	GP List Pg. 128	"	34 44 24.917	767.8 (1081.0)			
			77 26 00.194	4.9 (1521.3)			

-15-

M. 2388-12

1 FT. = 3048006 METER  
COMPUTED BY: H.P. Richert  
A.R. HeywoodDATE 3/50  
4/50CHECKED BY: A.K. Heywood  
A.C. Hauck

DATE 4/50



MAP T-9394

PROJECT NO. Ph-58(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\mu$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
MON. 115, {U.S.M.C.}	U.S.M.C. P.3	N.A. 1927	359,403.98	1342.3 (181.7)			
MON. 18, STA. 18, (C. of E.), 1941	C. of E.	"	2,486,049.22	319.8 (1204.2)			
			34 45 00.254	7.8 (1841.1)			
			77 27 18.078	459.8 (1066.3)			
NORTHEAST, 1933	G.P. P.128	"	34 43 47.379	1460.0 (388.9)			
			77 24 04.316	109.8 (1416.7)			
TOWN POINT (USE) 1933	Special Pub. No. 192.P.50	"	34 39 49.827	1535.4 (313.5)			
			77 22 52.221	1329.6 (198.1)			
JARMAN, 1933	G.P. P.127	"	34 41 50.543	1557.4 (291.4)			
			77 25 39.770	1012.2 (514.9)			
BOUNDARY MARKER XIX, {USMC}	USMC p. 1	"	361,901.3	579.5 (944.5)			
			2,468,463.3	1055.6 (468.4)			
BOUNDARY MARKER {USMC}, XX	"	"	363,298.29	1005.3 (518.7)			
			2,470,427.31	130.2 (1393.8)			
BOUNDARY MARKER XXI, {USMC}	"	"	364,526.87	1379.8 (144.2)			
			2,473,263.83	994.8 (529.2)			
BOUNDARY MARKER XXII, {USMC}	"	"	365,290.76	88.6 (1435.4)			
			2,473,755.77	1144.8 (379.2)			
BOUNDARY MARKER XXIII, {USMC}	"	"	365,569.06	173.5 (1350.5)			
			2,473,927.43	1197.0 (327.0)			
BOUNDARY MARKER {USMC}, XXIV	"	"	366,097.10	334.4 (1189.6)			
			2,474,342.28	1323.5 (200.5)			
BOUNDARY MARKER XXV, {USMC}	"	"	366,515.14	461.8 (1062.2)			
			2,474,758.62	1450.4 (73.6)			

-16-

1 FT. = 3048006 METER

COMPUTED BY: W. L. Lineweaver

DATE 5/50

CHECKED BY: H. P. Eichert

DATE 6/50

M-2388-12







MAP T-9394

PROJECT NO. Ph-58(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS		
				FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)	
NEW RIVER LT. 44, 1950	* Field Comp.	N.A. 1927	364,219.65		1286.1	(237.9)					
NEW RIVER DAYEN. 43, 1950	"	"	2,470,518.74		1581.1	(1365.9)					
NEW RIVER DAYEN. 41, 1950	"	"	361,810.93		552.0	(972.0)					
			2,471,482.08		451.7	(1072.3)					
			359,607.22		1404.3	(119.7)					
			2,472,536.75		773.2	(750.8)					
NEW RIVER LT. 39, 1950	"	"	357,071.51		631.4	(892.6)					
			2,473,755.27		1144.6	(379.4)					
NEW RIVER LT. 36, 1950	"	"	350,726.56		221.5	(1302.5)					
			2,479,659.86		1420.3	(103.7)					
** NEW RIVER LT. 35, 1950	"	"	345,328.70		100.2	1423.8					
			2,481,736.41		529.3	994.7					
NEW RIVER LT. 34, 1950	"	"	340,116.23		35.4	1488.6					
			2,484,109.87		1252.7	271.3					
NEW RIVER LT. 33, 1950	"	"	337,535.88		772.9	751.1					
			2,487,697.98		822.3	701.7					
NEW RIVER LT. 38, 1950	"	"	354,957.58		1511.1	12.9					
			2,475,146.36		44.6	1479.4					
			* These positions located by triangulation in 1950								
			** Light List Name - New RIVER DAYBEACON 35								
								</			





## COMPILATION REPORT

T-9394

### PHOTOGRAMMETRIC 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 1948, 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. See § 62  
& § 63

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

Harbor Chart No. 777, scale 1:40,000, published July 1940 (2nd edition) (8/2/48).

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. See § 65

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  
8 October 1952

*Albert C. Rauck, Jr.*  
Albert C. Rauck, Jr.  
Cartographer

Approved and forwarded  
21 October 1952

For *Joseph Steinberg*  
Robert A. Paton,  
Comdr. U.S.C. & G. S.  
Officer in Charge



**-50- PHOTOGRAMMETRIC OFFICE REVIEW**

T. 9394

1. Projection and grids QCR 2. Title QCR 3. Manuscript numbers QCR 4. Manuscript size QCR**CONTROL STATIONS**5. Horizontal control stations of third-order or higher accuracy QCR 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) QCR 7. Photo hydro stations \_\_\_\_\_ 8. Bench marks QCR 9. Plotting of sextant fixes QCR 10. Photogrammetric plot report QCR 11. Detail points QCR**ALONGSHORE AREAS**

(Nautical Chart Data)

12. Shoreline QCR 13. Low-water line QCR 14. Rocks, shoals, etc. QCR 15. Bridges QCR 16. Aids to navigation QCR 17. Landmarks QCR 18. Other alongshore physical features QCR 19. Other along-shore cultural features QCR**PHYSICAL FEATURES**20. Water features QCR 21. Natural ground cover QCR 22. Planetable contours QCR 23. Stereoscopic instrument contours \_\_\_\_\_ 24. Contours in general QCR 25. Spot elevations QCR 26. Other physical features QCR**CULTURAL FEATURES**27. Roads QCR 28. Buildings QCR 29. Railroads QCR 30. Other cultural features QCR**BOUNDARIES**31. Boundary lines QCR 32. Public land lines \_\_\_\_\_**MISCELLANEOUS**33. Geographic names QCR 34. Junctions QCR 35. Legibility of the manuscript QCR 36. Discrepancy overlay QCR 37. Descriptive Report QCR 38. Field inspection photographs QCR 39. Forms QCR40. Albert C. Rauch, Jr.  
ReviewerHenry P. Eichler  
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.

M. L. Bloom B. A. Dew  
CompilersHenry P. Eichler  
Supervisor

43. Remarks:

48. GEOGRAPHIC NAME LIST

- ✓ Atlantic Coast Line R. R.
- ✓ Bay Church
- ✓ Bell Fork (settlement)
- ✓ Blue Creek
- ✓ Brinson Creek ✓
- ~~\*C.C.C. Camp Knox~~
- ✓ Chaney Creek ✓
- ✓ Deep Gully Creek
- ✓ Edwards Creek ✓
- ✓ Farnell Bay - Falls on T-9395
- ✓ Georgetown High School (Field Inspection Data)
- ✓ Hadnot Point
- ✓ \*Hawsum Road
- ✓ Hicks Run
- ✓ Holmes Point
- ✓ Jacks Point
- ✓ Jacksonville
- ✓ Jacksonville Township (Field Edit Data)
- ✓ Lewis Creek ✓
- ✓ Maplehurst Rd.
- ✓ Mill Creek (North of Jacksonville) off limits
- ✓ 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. 258 (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 agree  
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 planetable 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*

William H. Shearouse,  
Cartographer

cc: Comdr. Garber

Field Edit notes, T-9394 ~~N/2~~

The compilation of this ~~half~~ quadrangle 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.

Field edit notes appear on the Discrepancy Print, Field Edit Sheet and field photographs LEJ-1-15, 53, 55, 91, 92, and LEJ-2-14, 15, 16.

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.

*William H. Shearouse*  
William H. Shearouse,  
Cartographer

Jacksonville, N. C.,  
7 July 1950

CONTOUR REVISION AND FIELD COMPLETION REPORT - PROJECT PH-58  
New River, North Carolina

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. Varnadoe 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 sub-standard 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 <sup>one</sup> 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 4 quadrangles was developed in the field and was applicable to both the single and the nine-lens photographs and included ~~was~~ 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:

T-9394

Junctions:

To insure satisfactory junctions with future surveys, planetable traverses were completed along north latitude  $34^{\circ} 45'$  as well as  $34^{\circ} 46'$  and west longitude  $77^{\circ} 30'$ . 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 planetable traverses, one vertical accuracy test was made; the test was on photograph No. LEJ 1-18, and 94% 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.

Mis. 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  $34^{\circ} 45'$  and  $34^{\circ} 46'$ . 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

planimetry 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  $77^{\circ} 30'$ . 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.

T-9499

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 planetable 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



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

AERONAUTICAL

## NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED

STRIKE OUT ONE

~~TO BE DELETED~~

Baltimore, Maryland Sept. 1952

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. Rauck, Jr.

*Chart letter 819(52)*

Hubert A. Paton Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE	LONGITUDE		DATUM						
NORTH CAROLINA	BEACON	4 legged skeleton steel, revolving light atop. 35 feet high	BEACON	34 42	29.50	77 26	NA 1927	Air Photo Multiplex T-9394	1950	x			777

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.



Baltimore, Maryland

~~TO BE DELETED~~

Albert C. Rauck Jr.  
Albert C. Rauck

Hubert A. Paton  
Chief of Party.

*Chief of Party.*

NORTH CAROLINA

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.



STRIKE OUT ONE

# NON-FLOATING AIDS OR LANDMARKS FOR CHARTS

The positions given have been checked after listing by

C. I.

S. V Griffith

Chief of Party.

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 SURVEYNONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

TO BE CHARTED

STRIKE OUT ONE

~~TO BE EXCLUDED~~

Washington, D. C.

April 1953

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

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

Chart Letter 219 (32)

S. V Griffith

Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE	LONGITUDE		DATUM						
				° ' "	D. M. METERS	° ' "	D. P. METERS						
North Carolina	Lt. 33	Blk square daymk on pile (Δ New River Lt. No. 33)		34 39	59.43 1831.3	77 22	40.89 1041.4	NA 1927	Tri. T-9394	1950	X		777
	Lt. 34	Red trian. daymk on pile (Δ New River Lt. No. 34)		34 40	25.53 786.7	77 23	23.35 594.5	"	"	"	X		"
	Daybn 35	Blk square daymk on pile (Δ New River Daymark No. 35)		34 41	17.48 538.6	77 23	50.77 1292.4	"	"	"	X		"
	Lt. 36	Red trian. daymk on pile (Δ New River Lt. No. 36)		34 42	11.20 345.1	77 24	14.59 371.3	"	"	"	X		"
	Lt. 38	Red trian. daymk on pile (Δ New River Lt. No. 38)		34 42	53.75 1656.3	77 25	7.83 199.2	"	"	"	X		"
	Lt. 39	Blk square daymk on pile (Δ New River Lt. No. 39)		34 43	15.76 458.5	77 25	24.09 612.9	"	"	"	X		"
	Baybn. 41	Blk square daymk on pile (Δ New River Daymark No. 41)		34 43	40.16 1237.5	77 25	38.21 972.2	"	"	"	X		"
	Baybn. 43	Blk square daymk on pile (Δ New River Daymark No. 43)		34 44	2.12 65.3	77 25	50.42 1282.7	"	"	"	X		"
	Lt. 44	Red trian. daymk on pile (Δ New River Lt. No. 44)		34 44	26.09 803.9	77 26	1.51 38.4	"	"	"	X		"
	Lt. 45	Blk square daymk on pile New River Lt. 45		34 44	27.81 857	77 26	21.89 557	"	Multiplex T-9394	"	X		"

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.



Review Report T-9394  
Topographic Map  
8 May 1953

62. Comparison with Registered Topographic Surveys.-

T-4723	(1933)	1:10,000
T-4724	(1933)	1:10,000
T-4725	(1933)	1:10,000
T-5050	(1933)	1:20,000

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  
H.O. Misc. 15, 042-50-N1, 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:

Charles Hanavich  
Charles Hanavich



L.C. Lande 15 Feb 1955  
Chief, Review Section  
Div. of Photogrammetry

J.H. Edmonston  
Chief, Nautical Chart Branch  
Division of Charts

May B. Ricketts  
Chief, Div. of Photogrammetry

Carl O. Heaton  
Chief, Div. of Coastal Surveys

L 27.—At Jacksonville, Onslow County, at the northwest corner of Main Street and Mills Avenue, at the Atlantic Coast Line Railroad station, 94 feet west of the west rail, and 34 feet north of the center line of Mills Avenue. A standard disk stamped "L 27 1932" and set in the top of a concrete post. (4.232 meters or 13.884 feet.)

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 leg. A standard disk, stamped "M 27 1932." (4.563 meters or 14.970 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 49. (12.4 feet.)

W 147.—About 1.2 miles south along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 275 feet south of the center of a railroad trestle, about 33 yards northwest of milepost W 48, 41.5 feet west of the west rail, at the center of a 1-foot triangular blaze on the east side of a 34-inch pine tree, and about 4 feet higher than the ground. A standard disk, stamped "W 147 1935" and set vertically. (2.535 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 2 poles north of milepost W 47, at Phillips Crossing, about 55 feet south of the center line of the road, 28 feet east of the east rail, and 4 feet north of a pole. A standard disk, stamped "N 27 1932" and set in the top of a concrete post. (5.733 meters or 18.806 feet.)

X 147.—About 3.2 miles south along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 290 feet north of milepost W 46, 51 feet east of the east rail, at the center of a 1-foot triangular blaze on the west side of a 38-inch sweet-gum tree, and about 3½ feet higher than the ground. A standard disk, stamped "X 147 1935" and set vertically. (7.934 meters or 26.030 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 46. (23.5 feet.)

Y 147.—About 1.8 miles north along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 250 feet south of milepost W 45, 51 feet west of the west rail, at the center of a 1-foot triangular blaze on the east side of a 34-inch pine tree, and about 3 feet higher than the ground. A standard disk, stamped "Y 147 1935" and set vertically. (7.513 meters or 24.649 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 45. (20.2 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 44. (41.5 feet.)

About 0.5 mile north along the Atlantic Coast Line Railroad from the station at Verona, at the crossing of U. S. Highway 17, top of east rail at the center line of the highway. (38.3 feet.)

P 27.—About 0.5 mile north along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about 0.3 mile south of milepost W 44, at the crossing of U. S. Highway 17, about 30 feet south of the center line of the highway, 20 feet east of the east rail, and about 50 feet north of a pole. A standard disk, stamped "P 27 1932" and set in the top of a concrete post. (14.317 meters or 46.972 feet.)

Z 147.—At Verona, Onslow County, about 25 yards northwest of the northwest corner of the Atlantic Coast Line Railroad station, about 16 yards east of the southeast corner of the G. W. Humphrey store, about 45 feet northwest of a road crossing, and 10.4 feet west of the west rail. A standard disk, stamped "Z 147 1935" 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. (49.4 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, 105 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 1932" and set in the top of a concrete post. (21.588 meters or 70.827 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, 174 feet northeast of triangulation station Verona, described below, about 110 feet east of the track, and 28 feet east of the center line of U. S. Highway 17.

A standard reference-mark disk, stamped "VERONA NO. 2 1932" and set in the top of a concrete post. (21.089 meters or 71.158 feet.)

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, 44 feet east of the east rail, 38 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 1932" and set in the top of a concrete post. (21.522 meters or 70.610 feet.)

R. M. 3 Verona.—About 1.8 miles south along the Atlantic Coast Line Railroad from the station at Verona, Onslow County, about ¼ mile north of milepost W 41, about 160 feet south of triangulation station Verona, described above, 57 feet east of the east rail, and 24 feet west of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "VERONA NO. 3 1932" and set in the top of a concrete post. (21.513 meters or 70.581 feet.)

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

A 148.—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 148 1935." (18.509 meters or 60.725 feet.)

Q 27.—About 1.5 miles north along the Atlantic Coast Line Railroad from the station at Dixon, Onslow County, about 50 yards south of milepost W 39, about 45 feet east of the east rail, and 38 feet west of the center line of U. S. Highway 17. A standard disk, stamped "Q 27 1932" and set in the top of a concrete post. (20.548 meters or 67.415 feet.)

B 148.—About 0.5 mile north along the Atlantic Coast Line Railroad from the station at Dixon, Onslow County, 52.3 feet east of milepost W 38, 68.4 feet east of the east rail, about 75 yards north of a long curve in U. S. Highway 17, at a concrete highway culvert, in the north end of the west head wall, 16 feet west of the center line of the highway, and about 1½ feet lower than the highway. A standard disk, stamped "B 148 1935." (18.828 meters or 61.772 feet.)

Dixon, center line of U. S. Highway 17 opposite the post office. (60.7 feet.)

C 148.—About 0.6 mile south along the Atlantic Coast Line Railroad from the station at Dixon, Onslow County, about 47 yards south of milepost W 37, 26.5 feet east 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, stamped "C 148 1935" and set in the top of a concrete post. (20.525 meters or 67.339 feet.)

R 27.—About 1.1 miles south along the Atlantic Coast Line Railroad from the station at Dixon, Onslow County, about 0.5 mile north of milepost W 36, at a water tank east of the track, and in the top of the southwest pier. A standard disk, stamped "R 27 1932." (20.209 meters or 66.302 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 36. (70.0 feet.)

D 148.—About 2.0 miles north along the Atlantic Coast Line Railroad from the station at Folkstone, Onslow County, about 0.4 mile south of milepost W 35, 27.5 feet east of the east rail, about 18 yards west of the center line of U. S. Highway 17, 4 feet southwest of a pole, and about 1 foot lower than the top of the rail. A standard disk, stamped "D 148 1935" and set in the top of a concrete post about flush with the ground. (20.806 meters or 68.258 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 Folkstone, 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 culvert under U. S. Highway 17, and in the top of the south end of the west head wall. A standard disk, stamped "S 27 1932." (21.547 meters or 70.692 feet.)

T 27.—At Folkstone, 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 81 feet east of the east rail. A standard disk, stamped "T 27 1932" and set in the top of a concrete post. (21.045 meters or 68.045 feet.)

Note.—This disk is slightly tilted. This elevation applies to the "+" marked in the metal between the letters "T" and "S" of the word "IMPRISONMENT."

E 148.—About 0.6 mile south along the Atlantic Coast Line Railroad from the station at Polkstone, Onslow County, about 100 yards southeast of milepost W 33, about 85 yards east of the east rail, at a concrete culvert under U. S. Highway 17, in the south end of the west head wall, 167 feet west of the center line of the highway, and about 1½ feet lower than the highway. A standard disk, stamped "E 148 1935". (19,940 meters or 65,420 feet.)

U 27.—About 2.0 miles northeast along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about 0.4 mile south of milepost W 32, at a road crossing, 16 feet north of the center line of the road, 24 feet east of the east rail, and 64 feet west of U. S. Highway 17. A standard disk, stamped "U 27 1932" and set in the top of a concrete post. (20,340 meters or 67,388 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 31. (67.0 feet.)

F 148.—About 1.0 mile northeast along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about 0.4 mile south of milepost W 31, about 11 yards northwest of a small concrete culvert under U. S. Highway 17, 29 feet east of the east rail, about 15 yards west of the center line of the highway, 2 feet northwest of a pole, and about level with the top of the rail. A standard disk, stamped "F 148 1935" and set in the top of a concrete post. (21,062 meters or 69,101 feet.)

V 27.—At Hollyridge, Onslow County, about 5 falls north of the Atlantic Coast Line Railroad station, at a road crossing, 19 feet north of the center line of the road, 32 feet west of the west rail of the main track, about 75 yards west of U. S. Highway 17, and about 3 feet northwest of a crossing sign. A standard disk, stamped "V 27 1932" and set in the top of a concrete post. (20,168 meters or 66,168 feet.)

G 148.—About 0.9 mile southwest along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about 0.3 mile southwest of milepost W 28, 55 feet southeast of the southeast rail, at a concrete culvert under U. S. Highway 17, in the top of the northwest head wall, 15 feet northeast of the southeast end, and 165 feet northwest of the center line of the highway. A standard disk, stamped "G 148 1935". (19,046 meters or 62,437 feet.)

Top of east rail opposite Atlantic Coast Line Railroad milepost W 28. (61.9 feet.)

R. M. 1 Pender.—About 1.9 miles southwest along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about 0.3 mile southwest of milepost W 28, at the Onslow-Pender county line, 82 feet northeast of the county line sign, 80 feet southeast of the southeast rail, at a concrete culvert under U. S. Highway 17, in the center of the top of the southeast head wall, 17 feet southeast of the center line of the highway, and about 1½ feet lower than the highway. A standard reference-mark disk, stamped "PENDER NO. 1 1932". (15,450 meters or 50,689 feet.)

Pender.—In Pender County, about 2¼ miles southwest along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about ¼ mile southwest of the Pender-Onslow county line, 40 feet southeast of the southeast rail, and 34 feet northwest of the center line of U. S. Highway 17. A standard triangulation-station disk, stamped "PENDER 1932" and set in the top of a concrete post. (18,960 meters or 62,270 feet.)

R. M. 2 Pender.—In Pender County, about 2¼ miles southwest along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about ¼ mile southwest of the Pender-Onslow county line, at the junction of U. S. Highway 17 and a T-road leading south, about 150 feet east of triangulation station Pender, described above, 48 feet southeast of the center line of the highway, and 13 feet southwest of the center line of the T-road. A standard reference-mark disk, stamped "PENDER NO. 2 1932" and set in the top of a concrete post. (18,839 meters or 61,808 feet.)

R. M. 3 Pender.—In Pender County, about 2¼ miles southwest along the Atlantic Coast Line Railroad from the station at Hollyridge, Onslow County, about ¼ mile southwest of the Pender-Onslow county line, about 100 feet southwest of triangulation station Pender, described above, 48 feet southeast of the southeast rail, and 36 feet northwest of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "PENDER NO. 3 1932" and set in the top of a concrete post. (18,994 meters or 62,318 feet.)

H 148.—About 0.3 mile northeast along the Atlantic Coast Line Railroad from the station at Edgemoor, Pender County, about 0.4 mile northeast of milepost W 23, 55 feet southeast of the southeast rail, at a concrete culvert under

U. S. Highway 17, in the top of the northeast end of the northwest head wall, 15.3 feet northwest of the center line of the highway, and about level with the top of the rail. A standard disk, stamped "H 148 1935". (16,924 meters or 55,525 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 26. (64.5 feet.)

W 27.—About 0.2 mile southwest along the Atlantic Coast Line Railroad from the station at Edgemoor, Pender County, about 0.1 mile southwest of milepost W 26, 50 feet southeast of the southeast rail, at a concrete culvert under U. S. Highway 17, in the top of the northeast end of the northwest head wall, 38 feet northwest of the center line of the highway, and about 2 feet lower than the highway. A standard disk, stamped "W 27 1932". (19,066 meters or 62,520 feet.)

J 148.—About 1.1 miles southwest along the Atlantic Coast Line Railroad from the station at Edgemoor, Pender County, about 290 feet southwest of milepost W 25, about 115 feet southeast of the southeast rail, at the center of a 1-foot triangular blaze on the west side of a 24-inch pine tree, and about 3 feet higher than the ground. A standard disk, stamped "J 148 1935" and set vertically. (20,284 meters or 66,549 feet.)

K 148.—About 1.7 miles southwest along the Atlantic Coast Line Railroad from the station at Edgemoor, Pender County, about 0.4 mile northeast of milepost W 24, about 0.3 mile northeast of a curve in U. S. Highway 17, about 35 feet southwest of an old abandoned sand-road crossing, 33 feet southeast of the southeast rail, and about 8½ feet higher than the top of the rail. A standard disk, stamped "K 148 1935" and set in the top of a concrete post. (19,534 meters or 64,083 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 24. (61.7 feet.)

X 27.—About 2.7 miles southwest along the Atlantic Coast Line Railroad from the station at Edgemoor, Pender County, about 2¼ miles northeast of the northeast end of the loading platform at Woollym, about 38 yards northeast of a road crossing, 17 feet northwest of the northwest rail, and 13 feet southwest of a fence. A standard disk, stamped "X 27 1932" and set in the top of a concrete post. (19,767 meters or 64,852 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 23. (60.4 feet.)

L 148.—About 3.0 miles northeast along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 0.4 mile northeast of the station at Woodside, about 0.1 mile northeast of milepost W 22, about 8½ feet northeast of the northeast switch of a siding, 34 feet southeast of the southeast rail, 51.4 feet northwest of the center line of U. S. Highway 17, and about 1 foot higher than the top of the rail. A standard disk, stamped "L 148 1935" and set in the top of a concrete post. (16,683 meters or 54,734 feet.)

Y 27.—About 4.0 miles northeast along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 0.7 mile southwest of the station at Woodside, about 3½ poles northeast of milepost W 21, at a small concrete bridge on U. S. Highway 17, and in the top of the northeast end of the northwest head wall. A standard disk, stamped "Y 27 1932". (13,524 meters or 44,370 feet.)

M 148.—About 2.9 miles northeast along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 0.4 mile northeast of the station at Annandale, about 36 yards northeast of milepost W 20, 67.7 feet southeast of the southeast rail, at a concrete culvert under U. S. Highway 17, in the top of the northwest head wall, 2.3 feet northeast of the southwest end, and 7.8 feet northwest of the northwest edge of the highway. A standard disk, stamped "M 148 1935". (13,486 meters or 44,245 feet.)

Z 27.—About 2.0 miles northeast along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 0.5 mile southwest of the station at Annandale, about 14 falls northeast of milepost W 19, 47 feet southeast of the southeast rail, and 36 feet northwest of the center line of U. S. Highway 17. A standard disk, stamped "Z 27 1932" and set in the top of a concrete post. (13,408 meters or 44,186 feet.)

N 148.—About 0.9 mile northeast along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 130 feet southwest of milepost W 18, 6 feet northwest of the northwest rail, at a water tank in the top of the southeast concrete foundation pier, and about 2 feet higher than the

Top of south rail opposite Atlantic & North Carolina Railroad milepost 23. (50.4 feet.)

T 147.—About 3.5 miles northwest along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, about 0.1 mile west of milepost 28, at the northeast corner of the Kinston municipal airport, about 17 yards west of the center line of Hillcrest Road, 24.5 feet south of the south rail, and about 4 feet higher than the top of the rail. A standard disk, stamped "T 147 1935" and set in the top of a concrete post. (16.638 meters or 54.587 feet.)

U 147.—About 4.3 miles northwest along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, 63 feet east of milepost 22, at a road crossing, 33 feet west of the center line of the road, 27.5 feet north of the north rail, and about 2 feet lower than the top of the rail. A standard disk, stamped "U 147 1935" and set in the top of a concrete post. (15.442 meters or 50.643 feet.)

V 147.—About 1.7 miles east along the Atlantic & North Carolina Railroad from the station at Falling Creek, Lenoir County, at Parrotts, about 0.4 mile east of milepost 21, about 45 feet northwest of the center of a dirt-road crossing, and 10.3 feet north of the north rail. A standard disk, stamped "V 147 1935" and set in the top of a concrete post. (16.482 meters or 54.058 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 21. (57.2 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 20. (56.5 feet.)

F 36.—At Falling Creek, Lenoir County, about 35 yards northwest of the northwest corner of the Atlantic & North Carolina Railroad station, 39 feet west of a store, about 52 feet northwest of the center of a road crossing, and 28.6 feet north of the north rail. A standard disk, stamped "F 36 1932" and set in the top of a concrete post. (16.713 meters or 54.833 feet.)

55 (U. S. G. S.).—At Falling Creek, Lenoir County, on the Atlantic & North Carolina Railroad, at the west side of a road, and about 31 feet south of the main track. A United States Geological Survey standard cap, stamped "55 M. C." and riveted on the top of a 3½-inch iron pipe. (16.621 meters or 54.531 feet.)

E 36.—At Falling Creek, Lenoir County, on the Atlantic & North Carolina Railroad, just west of a wooden water tank, at bridge 39.5, at the south end of the east abutment, and in the top of a brick wall. A standard disk, stamped "E 36 1932." (16.381 meters or 53.743 feet.)

P. T. S. 106 (U. S. G. S.).—Destroyed in 1932.

NOTE.—The pipe of this bench mark was found only 6 inches in the ground and leaning at an angle of 30 degrees toward about 3 yards east of the old location and reset in the ground at approximately the same elevation. For a description of this bench mark as reset, see below.

P. T. S. 108 RESET.—About 3.9 miles east along the Atlantic & North Carolina Railroad from La Grange, Lenoir County, about 245 yards west of the station at Fields, 23 feet north of the north rail, 21½ feet south of the center line of a dirt road, and at the east edge of a cross road. A United States Geological Survey standard cap, stamped "P. T. 108" and riveted on the top of a 3½-inch iron pipe. (33.792 meters or 110.866 feet.)

D 36.—At La Grange, Lenoir County, on Railroad Street, at the National Bank of La Grange building, in the north brick wall, 3 feet from the north-west corner, and about 5 feet higher than the sidewalk. A standard disk, stamped "D 36 1932" and set vertically. (34.486 meters or 112.979 feet.)

109 (U. S. G. S.).—Destroyed prior to 1932. (33.067 meters or 108.487 feet.)

NOTE.—This elevation is derived from the 1896 leveling by the United States Geological Survey.

C 36.—At Bests, Wayne County, south of the Atlantic & North Carolina Railroad, west of a road crossing, at the brick building occupied by the P. F. Garris store, in the northeast wall, near the north corner, and about 5 feet higher than the ground. A standard disk, stamped "C 36 1932" and set vertically. (38.379 meters or 125.915 feet.)

B 36.—About 8.2 miles west along the Atlantic & North Carolina Railroad from Bests, Wayne County, about 100 yards west of a dirt-road crossing, at bridge 6.5, at the south end of the east abutment, and in the top of the brick bridge seat. A standard disk, stamped "B 36 1932." (35.729 meters or 117.221 feet.)

120 (U. S. G. S.).—About 4½ miles west along the Atlantic & North Carolina Railroad from Bests, Wayne County, about 0.3 mile east of milepost 5, about 30

feet west of a county road, about 30 feet south of the track, and in line with a row of poles. A United States Geological Survey standard cap, stamped "120 M. C." and riveted on the top of a 3½-inch iron pipe. (38.225 meters or 125.448 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 6. (117.4 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 5. (117.6 feet.)

A 149.—About 4.0 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, 3.9 feet northwest of a pole, and about ½ foot lower than the top of the rail. A standard disk, stamped "A 149 1935" and set in the top of a concrete post. (34.999 meters or 114.826 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 4. (113.7 feet.)

T. B. M. 17.—About 2.6 miles east along the Atlantic & North Carolina Railroad from Goldsboro, Wayne County, about 0.2 mile west of milepost 3, at bridge 2.8, and on the top of the south end of the concrete covering of the east brick abutment. An outlined square. (28.831 meters or 94.690 feet.)

NOTE.—It was reported in August 1935 that about half of the outlined square had been chipped off.

B 149.—About 2.0 miles east along the Atlantic & North Carolina Railroad from Goldsboro, Wayne County, opposite milepost 2, 54 feet west of a road crossing, 21.9 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 ½ foot higher than the top of the rail. A standard disk, stamped "B 149 1935" and set in the top of a concrete post. (36.760 meters or 120.603 feet.)

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

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

C 149.—At Goldsboro, Wayne County, on the Atlantic & North Carolina Railroad, at the Williams Street crossing, at the brick office building of the Borden Manufacturing Co., at the southeast corner, in the south wall, and 3.7 feet higher than the ground. A standard disk, stamped "C 149 1935" and set vertically. (36.499 meters or 119.747 feet.)

Goldsboro, at the crossing of North Williams Street and the Atlantic & North Carolina Railroad, top of south rail at the center line of the street. (114.1 feet.)

For additional bench marks in the vicinity of Goldsboro, see pages 63, 328, and 329.

#### LINE 76, 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 January and 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 levelings.

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 southwest corner of the building. A standard magnetic-station disk, stamped "1931" and set in the top of a granite post. (7.028 meters or 23.058 feet.)

North Meridian.—At Jacksonville, Onslow County, at the northwest corner of the high school grounds, about 100 feet east of the Atlantic Coast Line Railroad track, and 24 feet south of the center line of a road leading to the school entrance. The top of a granite post, chiseled "N. C. G. S. U. S. C. S. 1898." (6.335 meters or 20.794 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 38. (58.9 feet.)

D 147.—About 4.9 miles west along the Atlantic & North Carolina Railroad from the station at Cove City, Craven County, about 130 yards east of milepost 37, about 48 yards south of power-transmission line pole 740-780, 88 feet north of the north rail, about 14 yards south of the center line of State Highway 55, and about 1 foot lower than the top of the rail. A standard disk, stamped "D 147 1935" and set in the top of a concrete post. (48,583 meters or 60,623 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 37. (61.6 feet.)

E 147.—About 0.8 mile east along the Atlantic & North Carolina Railroad from the station at Dover, Craven County, about 0.2 mile east of milepost 36, at the crossing of a road leading to a 2-story frame house, 10 feet west of the center line of the road, 44 feet south of the south rail, and about 1 foot lower than the top of the rail. A standard disk, stamped "E 147 1935" and set in the top of a concrete post. (48,979 meters or 62,267 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 36. (64.1 feet.)

64 (U. S. G. S.).—Destroyed prior to 1935. (49,177 meters or 62,917 feet.)

Note.—This elevation is derived from the 1896 leveling by the United States Geological Survey.

Dover, top of south rail opposite the Atlantic & North Carolina Railroad station. (64.8 feet.)

F 147.—At Dover, Craven County, about 360 yards west of the Atlantic & North Carolina Railroad station, about 21 yards south of the front steps of the residence of Mrs. Sam Taylor, 35.3 feet north of the north rail of the main track, 17 feet south of the center line of State Highway 55, and in the west end of a concrete culvert south of the highway. A standard disk, stamped "F 147 1935," (48,841 meters or 63,465 feet.)

About 0.9 mile west along the Atlantic & North Carolina Railroad from the station at Dover, at the crossing of State Highway 65, top of south rail at the center line of the highway. (59.2 feet.)

G 147.—About 1.1 miles west along the Atlantic & North Carolina Railroad from the station at Dover, Craven County, about 8 rails east of Inette 34.2, at the first road crossing west of the crossing of State Highway 65, 10.2 feet north of the north rail, and about 2 feet lower than the top of the rail. A standard disk, stamped "G 147 1935" and set in the top of a concrete post. (46,133 meters or 52,930 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 34. (51.6 feet.)

H 147.—In Jones County, about 2.1 miles west along the Atlantic & North Carolina Railroad from the station at Dover, Craven County, about 230 yards east of milepost 33, about 50 yards southwest of the W. H. Waters farmhouse, at the crossing of the private road leading to the house, 25.6 feet north of the north rail, and 14 feet east of the center line of the road. A standard disk, stamped "H 147 1935" and set in the top of a concrete post. (44,534 meters or 47,880 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 33. (48.4 feet.)

J 147.—In Jones County, about 3.5 miles west along the Atlantic & North Carolina Railroad from the station at Dover, Craven County, about 230 yards west of milepost 32, 38 feet south of the south rail, at the center of a 1-foot triangular blaze on the north side of a 25-inch pine tree, and about 4 feet higher than the ground. A standard disk, stamped "J 147 1935" and set vertically. (48,998 meters or 65,768 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 32. (53.2 feet.)

K 147.—In Jones County, about 4.2 miles southeast along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, about ¼ mile west of milepost 31, about 31 yards east of the center of a county-road crossing, 28.2 feet north of the north rail, in line with a row of poles, and about level with the top of the rail. A standard disk, stamped "K 147 1935" and set in the top of a concrete post. (47,245 meters or 55,578 feet.)

L 147.—In Jones County, about 3.8 miles southeast along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, at Caswell, 22.2 feet west of the northwest corner of the station, 29 feet northeast of a road

crossing, and 24 feet north of the north rail of the main track. A standard disk, stamped "L 147 1935" and set in the top of a concrete post. (44,018 meters or 48,984 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 30. (44.1 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 29. (42.7 feet.)

M 147.—About 2.3 miles southeast along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, about 250 yards west of milepost 29, at the crossing of the Neuse road, 52 feet east of the center line of the road, 28.8 feet south of the south rail, 1 foot south of the corner stake at the north corner of the Heath property, and about 1 foot higher than the top of the rail. A standard disk, stamped "M 147 1935" and set in the top of a concrete post. (43,332 meters or 48,740 feet.)

N 147.—About 1.3 miles southeast along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, about 80 yards west of milepost 28, at the Neuse River bridge, in the top of the pier of the west of the drawspan, at the right center of the north end of the pier, 16 feet northeast of the northeast rail, and about 4½ feet lower than the top of the rail. A standard disk, stamped "N 147 1935," (49,182 meters or 60,125 feet.)

P 147.—At Kinston, Lenoir County, about ¾ mile southeast along the Atlantic & North Carolina Railroad from the Union Station, about 165 feet southeast of milepost 27, at the intersection of South Adkin and University Streets, at the west corner of the yard of a Negro high school, about 45 yards west of the northwest corner of the building, 48 feet northeast of the northeast rail of the main track, and about 1 foot higher than the top of the rail. A standard disk, stamped "P 147 1935" and set in the top of a concrete post. (40,223 meters or 53,540 feet.)

Kinston, top of northeast rail of the main track of the Atlantic & North Carolina Railroad opposite the Union Station. (42.2 feet.)

Q 147.—At Kinston, Lenoir County, on the Atlantic & North Carolina Railroad, at the intersection of North East and East Caswell Streets, about 22 yards north of the north edge of East Caswell Street, about 3 yards west of the west edge of North East Street, and about ½ foot higher than the top of the rail. A standard disk, stamped "Q 147 1935" and set in the top of a concrete post. (48,090 meters or 52,948 feet.)

48 (U. S. G. S.).—At Kinston, Lenoir County, at the west end of the county courthouse, and in the north face of the northwest corner of the portico. A United States Geological Survey standard disk, stamped "48" and set vertically. (43,385 meters or 45,914 feet.)

KINSTON.—At Kinston, Lenoir County, at the post office, 9 feet north of the center line of the front doorway, in the top of the west rostrum, 1 foot east of the west edge, and about 3½ feet higher than the sidewalk. A standard disk, stamped "KINSTON 1935," (43,960 meters or 45,800 feet.)

R 147.—At Kinston, Lenoir County, about 1.2 miles northwest along the Atlantic & North Carolina Railroad from the Union Station, about 230 yards east of milepost 25, about 36 yards northeast of the northeast corner of the city light plant, at the crossing of Atlantic Avenue, 50.8 feet south of the south rail, 19.2 feet west of the center line of the avenue, and about 1 foot higher than the top of the rail. A standard disk, stamped "R 147 1935" and set in the top of a concrete post. (43,954 meters or 45,781 feet.)

For additional bench marks in the vicinity of Kinston, see pages 298 and 299.

Top of south rail opposite Atlantic & North Carolina Railroad milepost 25. (42.8 feet.)

Top of south rail opposite Atlantic & North Carolina Railroad milepost 24. (48.6 feet.)

S 147.—About 2.5 miles northwest along the Atlantic & North Carolina Railroad from the Union Station at Kinston, Lenoir County, at Hines Junction, about 50 yards east of the center of the crossing of U. S. Highway 70, 19.3 feet north of the north rail, and 34.8 feet southeast of the center line of the highway. A standard disk, stamped "S 147 1935" and set in the top of a concrete post. (44,706 meters or 48,248 feet.)

About 2.5 miles northwest along the Atlantic & North Carolina Railroad from the Union Station at Kinston, at the crossing of U. S. Highway 70, top of south rail at the center line of the highway. (47.8 feet.)

end of the station, and near a pole. A standard disk, stamped "X 69 1934" and set in the top of a concrete post. (30.485 meters or 100.016 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 64. (102.6 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 63. (103.0 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 62. (104.8 feet.)

Y 69.—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 69 1934" and set in the top of a concrete post. (31.636 meters or 103.792 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. (129.8 feet.)

Z 69.—At Wade, Cumberland County, about 13 yards southwest of the southeast corner of the Atlantic Coast Line Railroad station, about 0.4 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 69 1934" and set in the top of a concrete post. (43.008 meters or 141.102 feet.)

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

A 70.—About 3.0 miles southwest along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 0.6 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 6 yards northeast of the center line of a dirt road leading to a sawdust pile, and about 2 feet lower than the top of the rail. A standard disk, stamped "A 70 1934" and set in the top of a concrete post. (38.809 meters or 127.621 feet.)

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

B 70.—About 0.6 mile south along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 606 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 70 1934" and set in the top of a concrete post. (43.029 meters or 141.171 feet.)

C 70.—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 70 1934" and set in the top of a concrete post. (47.637 meters or 156.289 feet.)

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

D 70.—About 1.2 miles northeast along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 29 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 70 1934" and set in the top of a concrete post. (46.862 meters or 153.746 feet.)

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

Top of near rail opposite Atlantic Coast Line Railroad milepost C 52. (143.1 feet.)

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

E 70.—About 3.9 miles northeast along the Atlantic Coast Line Railroad from the station at Godwin, Cumberland County, about 876 feet northeast of signal 1906, at the bridge over Black River, in the top of the southwest corner of the west wing wall, 6.1 feet west of the west rail, and about level with the top of the rail. A standard disk, stamped "E 70 1934." (45.685 meters or 149.885 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 50. (156.8 feet.)

F 70.—About 2.2 miles southwest along the Atlantic Coast Line Railroad from the station at Dunn, Harnett 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 3 feet lower than the top of the rail. A standard disk, stamped "F 70 1934" and set in the top of a concrete post. (54.695 meters or 179.445 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 49. (187.6 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 48. (189.6 feet.)

G 70.—At Dunn, Harnett County, about 0.6 mile southwest along the Atlantic Coast Line Railroad from the station, about 420 feet northeast of signal 1878, about 120 feet east of the Gulf Refining 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 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 70 1934" and set in the top of a concrete post. (61.887 meters or 202.641 feet.)

H 70.—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 waiting room, and about 1½ feet higher than the ground. A standard disk, stamped "H 70 1934" and set vertically. (64.949 meters or 212.887 feet.)

I 70.—At Dunn, Harnett County, about 0.3 mile northeast 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, and about 2 feet lower than the rail. A standard disk, stamped "I 70 1934" and set in the top of a concrete post. (62.744 meters or 205.853 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. (197.8 feet.)

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

J 70.—About 2.9 miles northeast along the Atlantic Coast Line Railroad from the station at Dunn, Harnett County, about ½ mile north of signal 1842, about 714 feet southwest of milepost C 44, about 270 feet east of the northeast corner of the Mary Steward School, at a dirt-road crossing, about 9 yards east of the east rail, about 7 yards south of the center line of the road, about 1 yard southwest of a pole, and about 2 feet lower than the rail. A standard disk, stamped "J 70 1934" and set in the top of a concrete post. (75.571 meters or 247.836 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. (240.2 feet.)

K 70.—About 1.3 miles southwest along the Atlantic Coast Line Railroad from the station at Benson, Johnston County, about 685 feet southwest of milepost C 42, about 0.2 mile northeast of the Johnston-Harnett county line, about 38 yards south of a road crossing, about 13 yards southeast of the north-bound track, about 1 yard north of a pole, and about 5 feet lower than the rail. A standard disk, stamped "K 70 1934" and set in the top of a concrete post. (67.919 meters or 222.831 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C 42. (231.9 feet.)

L 70.—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 higher than the sidewalk. A standard disk, stamped "L 70 1934" and set vertically. (74.595 meters or 244.718 feet.)

M 70.—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

**R. M. 1 Sandlin.**—About 3.8 miles east along State Highway 24 from the school at Beaufortville, Duplin County, about 220 feet west of a dirt road leading south, 36 feet south of the center line of the highway, 6 feet west of a lone pine tree, and about level with the highway. A standard reference-mark disk, stamped "SANDLIN NO. 1 1933" and set in the top of a concrete post. (27,137 meters or 89,032 feet.)

**R. M. 2 Sandlin.**—About 3.1 miles east along State Highway 24 from the school at Beaufortville, Duplin County, about 25 yards south of a dirt road leading to Lotter's Mill, 37 feet south of the center line of the highway, 13 feet east of the center line of a dirt cross road, and at the edge of a woods. A standard reference-mark disk, stamped "SANDLIN NO. 2 1933" and set in the top of a concrete post. (26,938 meters or 88,379 feet.)

**Sandlin.**—About 3.1 miles east along State Highway 24 from the school at Beaufortville, Duplin County, about 155 feet west of the center line of a dirt road leading to Potter's Mill, 40.4 feet north of the center line of the highway, at the edge of a pine woods, 15 feet west-northwest of a 10-inch pine tree with a triangular blaze on the south side, and about level with the highway. A standard triangulation-station disk, stamped "SANDLIN 1933" and set in the top of a concrete post projecting about 5 inches above ground. (26,872 meters or 88,163 feet.)

**R. M. 3 Sandlin.**—About 3.1 miles east along State Highway 24 from the school at Beaufortville, Duplin County, about 230 feet west of the center line of a dirt road leading to Potter's Mill, 33 feet south of the center line of the highway, at the edge of a woods, and 12 feet west of a 12-inch pine tree. A standard reference-mark disk, stamped "SANDLIN NO. 3 1933" and set in the top of a concrete post. (26,882 meters or 88,165 feet.)

**F. 69.**—About 0.9 mile east along State Highway 24 from the school at Beaufortville, Duplin County, about 40 yards northeast of a dirt road, about 9 yards north of the highway, 1 foot south of a fence, and about 2 feet lower than the highway. A standard disk, stamped "F. 69 1934" and set in the top of a concrete post. (26,138 meters or 85,754 feet.)

**G. 69.**—At Beaufortville, Duplin County, about 36 yards south of the center line of State Highway 24, in the north wall of the 2-story brick school building, about 5 yards east of the northwest corner, and about 4 feet higher than the ground. A standard disk, stamped "G. 69 1934" and set vertically. (28,862 meters or 94,691 feet.)

**H. 69.**—About 2.4 miles west along State Highway 24 from the school at Beaufortville, Duplin County, about 0.4 mile west of Limestone Creek, about 11 yards south of the center line of the highway, at the edge of a woods, and about 1 foot lower than the highway. A standard disk, stamped "H. 69 1934" and set in the top of a concrete post. (16,442 meters or 53,943 feet.)

**J. 69.**—About 4.7 miles west along State Highway 24 from the school at Beaufortville, Duplin County, about 600 feet west of a cross road leading to Hallville, about 409 feet east of the E. R. Penny store, about 15 yards north of the highway, at the edge of a woods, and about 1 foot higher than the highway. A standard disk, stamped "J. 69 1934" and set in the top of a concrete post. (23,819 meters or 78,146 feet.)

**K. 69.**—About 4½ miles east along State Highway 24 from the county courthouse at Kenansville, Duplin County, about 11 yards northeast of the Atlantic A. Carolina Railroad crossing, about 12 yards north of the center line of the highway, about 4 yards east of the track, and 1 foot from a fence. A standard disk, stamped "K. 69 1934" and set in the top of a concrete post. (16,687 meters or 54,747 feet.)

**L. 69.**—About 2.1 miles east along State Highway 24 from the county courthouse at Kenansville, Duplin County, about 880 feet east of the dirt road leading to the A. J. Fitzgib home, about 8 yards south of the highway, about 8 yards northeast of a small clump of pine trees, and about level with the highway. A standard disk, stamped "L. 69 1934" and set in the top of a concrete post. (27,964 meters or 91,745 feet.)

**M. 69.**—At Kenansville, Duplin County, in the triangle at the junction of State Highways 24 and 17, about 19 yards east of the center line of State Highway 11, about 7 yards north of the center line of State Highway 24, and about 1 foot higher than the highway. A standard disk, stamped "M. 69 1934" and set in the top of a concrete post. (36,149 meters or 118,569 feet.)

**N. 69.**—At Kenansville, Duplin County, about 62 yards north of the center line of State Highway 24, at the county courthouse, 2 feet west of the southeast corner, and about 2 feet higher than the ground. A standard disk, stamped "N. 69 1934" (38,806 meters or 127,313 feet.)

**P. 69.**—At Kenansville, Duplin County, about 6 yards east of the Atlantic & Carolina Railroad station, about 22 yards east of the track, about 4 yards south of a pole, and about 1 yard west of a fence. A standard disk, stamped "P. 69 1934" and set in the top of a concrete post. (38,649 meters or 126,801 feet.)

**Q. 69.**—About 0.9 mile northwest along the Atlantic & Carolina Railroad from the station at Kenansville, Duplin County, about 7 yards northwest of the center line of the track, about 18 yards south of the center line of U. S. Highway 117, and about level with the rail. A standard disk, stamped "Q. 69 1934" and set in the top of a concrete post. (38,253 meters or 125,502 feet.)

**R. 69.**—About 3½ miles northwest along the Atlantic & Carolina Railroad from the station at Kenansville, Duplin County, at a dirt-road crossing, about 5 yards north of the center line of the road, about 4 yards east of the center line of the track, and about level with the rail. A standard disk, stamped "R. 69 1934" and set in the top of a concrete post. (40,323 meters or 132,262 feet.)

**S. 69.**—About 4.7 miles southeast along the Atlantic & Carolina Railroad from Warsaw, Duplin County, at Johnson's Crossing, about 1½ miles west of a sliding switch, about 7 yards west of a dirt road, about 6 yards south of the center line of the track, and about 1 foot lower than the rail. A standard disk, stamped "S. 69 1934" and set in the top of a concrete post. (43,914 meters or 144,075 feet.)

**T. 69.**—About 2.1 miles southeast along the Atlantic & Carolina Railroad from Warsaw, Duplin County, about 10 yards northeast of the center of the crossing of U. S. Highway 117, about 6 yards east of the center line of the track, and about 1 foot lower than the rail. A standard disk, stamped "T. 69 1934" and set in the top of a concrete post. (46,226 meters or 151,660 feet.)

**U. 69.**—About 0.4 mile southeast along the Atlantic & Carolina Railroad from Warsaw, Duplin County, at the junction of the Atlantic Coast Line Railroad, about 45 yards southwest of a road crossing, about 20 yards northwest of a city-limit sign, about 8 yards east of the center line of the Atlantic & Carolina Railroad track, about 13 yards west of the center line of U. S. Highway 117, and about 1 foot lower than the rail. A standard disk, stamped "U. 69 1934" and set in the top of a concrete post. (46,294 meters or 151,883 feet.)

For additional bench marks in the vicinity of Warsaw, see pages 61, 62, and 237.

#### LINE 38, FAYETTEVILLE TO SELMA, N. C.

[Second-order levelling]

This line follows the Atlantic Coast Line Railroad from Fayetteville to Selma. The field work was done in the spring of 1934 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer.

For additional bench marks in the vicinity of Fayetteville, see pages 40, 41, 59, 60, and 203.

**V. 69.**—About 2.2 miles northeast along the Atlantic Coast Line Railroad from the station at Fayetteville, Cumberland County, at the northeast end of the bridge over Cape Fear River, in the top of the southeast retaining wall, about 2 yards southeast of the southeast rail, and about 1 foot lower than the rail. A standard disk, stamped "V. 69 1934" (27,340 meters or 89,698 feet.)

**W. 69.**—About 3.8 miles northeast along the Atlantic Coast Line Railroad from the station at Fayetteville, Cumberland County, about 0.1 mile northeast of mile-post C. 67, about 0.3 mile northeast of a dirt-road crossing, about 9 yards northwest of the center line of the northwest track, and about 5 feet lower than the rail. A standard disk, stamped "W. 69 1934" and set in the top of a concrete post. (25,077 meters or 82,116 feet.)

**X. 69.**—At Beaufortville, Duplin County, about 26 yards southeast of the Atlantic Coast Line Railroad station, about 8 yards southeast of the center line of the north-bound track, about 8 yards northeast of a point opposite the northeast

Top of near rail opposite Atlantic Coast Line Railroad milepost C. 66. (97.6 feet.)

Top of near rail opposite Atlantic Coast Line Railroad milepost C. 65. (102.1 feet.)



top of a concrete post projecting about 7 inches above ground (129.451 meters or 424.707 feet.)

R 68.—At Franklinton, Franklin County, about 50 yards northwest of the Seaboard Air Line Railway passenger station, about 75 yards north of a road crossing, about 20 feet south of the freight station, about 50 feet west of the main track, and about level with the rail. A standard disk, stamped "420.557 R 68 1934" and set in the top of a concrete post projecting about 5 inches above ground. (128.209 meters or 420.632 feet.)

For additional bench marks in the vicinity of Franklinton, see pages 20-22.

#### LINE 37, JACKSONVILLE TO WARSAW, N. C.

[Second-order leveling]

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 1934 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 a dirt road leading to a State prison camp, about 11 yards north of the center line of the highway, and about 1 foot higher than the highway. A standard disk, stamped "S 68 1934" and set in the top of a concrete post. (6.371 meters or 20.902 feet.)

T 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, at the junction of U. S. Highway 258, about 8 yards south of the center line of U. S. Highway 258, about 6 yards north of the center line of U. S. Highway 17, and about 1 foot higher than the highway. A standard disk, stamped "T 68 1934" 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, thence about 0.2 mile northwest along U. S. Highway 258, about 30 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 level with the highway. A standard disk, stamped "U 68 1934" and set in the top of a concrete post. (3.551 meters or 11.812 feet.)

R. M. 3 Walton.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, thence about 0.4 mile northwest along U. S. Highway 258, about 200 feet west of a small cemetery, about 75 feet northwest 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 reference-mark disk, stamped "WALTON NO. 3 1933" and set in the top of a concrete post. (4.669 meters or 15.318 feet.)

V 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, thence about 2.5 miles northwest along U. S. Highway 258, about 12 yards northeast of the center line of the highway, about 1 yard north of pole 1197, and about 1 foot lower than the highway. A standard disk, stamped "V 68 1934" and set in the top of a concrete post. (11.937 meters or 39.163 feet.)

W 68.—About 0.9 mile west along U. S. Highway 17 from Jacksonville, Onslow County, thence about 4.7 miles northwest along U. S. Highway 258, about 300 feet northwest of the J. A. Huffman house, about 12 yards southwest of the center line of the highway, about 2½ yards northeast of pole 1152, and about 1 foot lower than the highway. A standard disk, stamped "W 68 1934" and set in the top of a concrete post. (14.000 meters or 45.932 feet.)

X 68.—About 5.8 miles south along U. S. Highway 258 from Richlands, Onslow County, about 40 yards southeast of the house of Miss Lea Frank, about 10 yards east of the center line of the highway, 1 foot west of a fence, and about 2 feet higher than the highway. A standard disk, stamped "X 68 1934" and set in the top of a concrete post. (16.254 meters or 53.327 feet.)

Y 68.—About 3.5 miles south along U. S. Highway 258 from Richlands, Onslow County, about 8 yards northeast of the center line of a dirt road leading to the R. G. Richardson property, about 15 yards east of the center line of the highway, about 8 yards northwest of a cedar tree, 2 feet southwest of a fence, and about 2 feet higher than the highway. A standard disk, stamped "Y 68 1934" and set in the top of a concrete post. (13.840 meters or 45.407 feet.)

Z 68.—About 1.4 miles south along U. S. Highway 258 from Richlands, Onslow County, at a concrete bridge over New River, in the top of the east end of the north bridge seat, about 5 yards east of the center line of the highway, and about level with the highway. A standard disk, stamped "Z 68 1934," (S.889 meters or 29.065 feet.)

R. M. 3 Richlands.—At Richlands, Onslow County, on U. S. Highway 258, 184.5 feet southwest of triangulation station Richlands, described below, 08.8 feet east of a T-pole in the northeast corner of a T-road intersection, 36 feet north of the center line of the highway, near a gatepost, and about level with the highway. A standard reference-mark disk, stamped "RICHLANDS NO. 3 1933" and set in the top of a concrete post. (18.580 meters or 60.958 feet.)

Richlands.—At Richlands, Onslow County, on U. S. Highway 258, at the main corner of the town, in the west corner of the Methodist Episcopal Church yard, 33.7 feet west of the northwest corner of the church, 39 feet west of the center line of a walk leading to the church entrance, 16.4 feet southeast of the curb around the edge of the lawn, 47 feet southeast of the center line of the highway, 13 feet east of the property line, and about 1 foot higher than the highway. A standard triangulation-station disk, stamped "RICHLANDS 1933" and set in the top of a concrete post. (19.681 meters or 64.242 feet.)

R. M. 1 Richlands.—At Richlands, Onslow County, on U. S. Highway 258, 202.4 feet north of triangulation station Richlands, described above, 6.7 feet southwest of the southwest corner of a brick bank building, 24.2 feet northeast of the center of the intersection of a dirt cross road, and in the top of the sidewalk. A standard reference-mark disk, stamped "RICHLANDS NO. 1 1933." (19.701 meters or 64.636 feet.)

For additional bench marks in the vicinity of Richlands see pages 237 and 238.

A 69.—About 2.4 miles northwest along U. S. Highway 258 from Richlands, Onslow County, about 0.3 mile east of the junction of State Highway 24, 40.6 feet north of the center line of the highway, near a small clump of pine trees, near a pole, and about 2 feet lower than the highway. A standard disk, stamped "A 69 1934" and set in the top of a concrete post projecting about 6 inches above ground. (21.808 meters or 71.548 feet.)

B 69.—About 2.7 miles northwest along U. S. Highway 258 from Richlands, Onslow County, at the Y-junction of State Highway 24, about 18 yards east of the center line of the highway leading north, about 8 yards north of the highway leading east, and about 1 foot higher than the highway. A standard disk, stamped "B 69 1934" and set in the top of a concrete post. (18.792 meters or 61.633 feet.)

C 69.—About 2.7 miles northwest along U. S. Highway 258 from Richlands, Onslow County, thence about 0.2 mile west along State Highway 24, about 11 yards south of the center line of the highway, at the edge of a woods, and about 1 foot higher than the highway. A standard disk, stamped "C 69 1934" and set in the top of a concrete post. (21.846 meters or 71.673 feet.)

D 69.—About 2.7 miles northwest along U. S. Highway 258 from Richlands, Onslow County, thence about 2.5 miles west along State Highway 24, about 250 feet east of the Walter Whaley house, about 11 yards north of the center line of the highway, at the edge of a woods, and about 1 foot lower than the highway. A standard disk, stamped "D 69 1934" and set in the top of a concrete post. (26.616 meters or 87.323 feet.)

E 69.—About 5½ miles east along State Highway 24 from the school at Beula-ville, Duplin County, about 1.3 miles west of the Duplin-Onslow county line, opposite a small shack, about 10 yards north of the center line of the highway, and about 1 foot lower than the highway. A standard disk, stamped "E 69 1934" and set in the top of a concrete post. (28.000 meters or 92.159 feet.)



**A 68.**—About 0.8 mile east along State Highway 58 from Castalia, Nash County, about 50 yards east of the Nixon home, about 60 yards southwest of a barn, about 8 yards west of the center line of the highway, and about 1 foot lower than the highway. A standard disk, stamped "A 68 1934" and set in the top of a concrete post. (92,497 meters or 303,497 feet.)

**B 68.**—About 0.8 mile northwest along State Highway 58 from Castalia, Nash County, about 100 yards northwest of the E. Frazier home, about 50 yards south of the H. A. Andrews home, about 30 yards north of the highway, and about 6 yards northwest of a dirt road, in the top of a large embedded boulder. A standard disk, stamped "B 68 1934" (97,250 meters or 318,061 feet.)

**C 68.**—About 1.1 miles northwest along State Highway 58 from Castalia, Nash County, thence about 40 yards west along State Highway 59, about 60 feet south of the W. E. Williams service station, about 20 feet south of the center line of the highway, and about 2 feet lower than the highway. A standard disk, stamped "C 68 1934" and set in the top of a concrete post. (96,766 meters or 317,473 feet.)

**D 68.**—About 1.1 miles northwest along State Highway 58 from Castalia, Nash County, thence about 0.2 mile west along State Highway 59, about 20 feet north of the center line of the highway, at a fence corner, and about 3 feet lower than the highway. A standard disk, stamped "D 68 1934" and set in the top of a concrete post. (97,159 meters or 318,762 feet.)

**E 68.**—In Franklin County, about 1.1 miles northwest along State Highway 58 from Castalia, Nash County, thence about 1.5 miles west along State Highway 58, in the northwest corner of the W. C. Whider yard, about 30 feet south of the center line of the highway, about 1 yard north of the northwest corner of the barn, near the fence corner, and about 2 feet higher than the highway. A standard disk, stamped "E 68 1934" and set in the top of a concrete post. (104,401 meters or 342,522 feet.)

**F 68.**—About 9.0 miles east along State Highway 56 from Louisburg, Franklin County, about ¼ mile east of the Red Hill Service Station, about 30 feet north of the center line of the highway, at the edge of a woods, and about level with the highway. In the top of an embedded boulder. A standard disk, stamped "F 68 1934" (102,349 meters or 335,790 feet.)

**G 68.**—About 6.8 miles east along State Highway 56 from Louisburg, Franklin County, about 250 feet southwest of the P. E. Dean house, about 30 feet east of a dirt road, and about 30 feet south of the center line of the highway. A standard disk, stamped "G 68 1934" and set in the top of a concrete post projecting about 1 foot above ground. (98,455 meters or 322,943 feet.)

**H 68.**—About 4.8 miles east along State Highway 56 from Louisburg, Franklin County, about 0.4 mile east of a crossroads, about 40 feet north of the center line of the highway, at the edge of a small pine woods, and about 1 foot lower than the highway. A standard disk, stamped "H 68 1934" and set in the top of a concrete post projecting about 1 foot above ground. (104,067 meters or 343,386 feet.)

**J 68.**—About 2.7 miles east along State Highway 56 from Louisburg, Franklin County, at the northwest corner of the intersection of a dirt cross road leading to State Highway 561, about 40 feet north of the center line of the highway, about 30 feet west of the center line of the road, and about 2 feet higher than the highway. A standard disk, stamped "J 68 1934" and set in the top of a concrete post projecting about 1 foot above ground. (100,067 meters or 326,803 feet.)

**K 68.**—About 0.7 mile east along State Highway 56 from Louisburg, Franklin County, about 0.4 mile east of the east city limit, about 40 yards northwest of the junction of two dirt roads with the highway, at the southwest corner of the J. O. Stedje yard, about 30 yards northwest of the J. O. Stedje store, about 80 feet north of the center line of the highway, and about level with the highway. A standard disk, stamped "K 68 1934" and set in the top of a concrete post. (95,417 meters or 314,622 feet.)

**LOUISBURG.**—At Louisburg, Franklin County, about 50 feet northwest of the intersection of Main and Nash Streets, about 40 feet west of the center line of Main Street, and in the east wall of the First National Bank Building. A standard disk, stamped "LOUISBURG 1934" and set vertically. (88,893 meters or 291,928 feet.)

**NAC 47 (N. C. Geod. S.).**—At Louisburg, Franklin County, at the northwest corner of the intersection of Main and Franklin Streets, about 6 yards north of the north curb of Franklin Street, about 1 yard west of the west curb of 2764'—38—12

Main Street, and about level with the street. A North Carolina Geodetic Survey standard disk, set in the top of a concrete post. (72,160 meters or 236,745 feet.)

**N+C 47 (N. C. Geod. S.).**—At Louisburg, Franklin County, at the northwest corner of the intersection of Main and College Streets, at the southeast corner of the Louisburg College campus, about 4.5 yards north of the north curb of College Street, about 2 yards west of the west curb of Main Street, and about level with the sidewalk. A North Carolina Geodetic Survey standard disk, set in the top of a concrete post. (86,104 meters or 282,690 feet.)

**North Meridian.**—At Louisburg, Franklin County, about 60 feet east of the center line of Main Street, on the high school grounds, about 50 yards west of the building, and in the center of a circular road drive. The top of a granite post, projecting about 1 foot above ground. (87,155 meters or 285,941 feet.)

**South Meridian.**—At Louisburg, Franklin County, about 60 feet east of the intersection of Main and College Streets, about 60 feet northeast of the center line of College Street, on the high school grounds, and about 50 yards southwest of the southwest corner of the building. The top of a granite post, projecting about 2 feet above ground. (85,189 meters or 279,327 feet.)

**L 68.**—At Louisburg, Franklin County, at the Seaboard Air Line Railway station, in the southwest corner of the brick wall, about 60 feet east of the center line of Main Street, and about 5 feet higher than the ground. A standard disk, stamped "L 68 1934" and set vertically. (68,430 meters or 224,507 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 139.** (272.9 feet.) **M 68.**—About 1.8 miles southwest along the Seaboard Air Line Railway from Louisburg, Franklin County, about 40 feet northeast of a road crossing, about 50 feet north of State Highway 56, about 20 feet north of the track, and about 1 foot higher than the rail. A standard disk, stamped "M 68 1934" and set in the top of a concrete post. (100,091 meters or 328,352 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 138.** (330.2 feet.) **N+C 46 (N. C. Geod. S.).**—About 2.9 miles southwest along the Seaboard Air Line Railway from Louisburg, Franklin County, about 0.1 mile northeast of milepost 137, about 40 feet south of the center line of State Highway 56, near a pole, and about 5 feet higher than the highway. A North Carolina Geodetic Survey standard disk, set in the top of a concrete post about flush with the ground. (110,189 meters or 363,512 feet.)

**NAC 46 (N. C. Geod. S.).**—About 3.1 miles southwest along the Seaboard Air Line Railway from Louisburg, Franklin County, at the northeast corner of the P. H. Thompson yard, about 40 feet south of the center line of State Highway 56, and about 5 feet higher than the highway. A North Carolina Geodetic Survey standard disk, set in the top of a concrete post about flush with the ground. (110,898 meters or 363,893 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 136.** (361.3 feet.) **Top of rail opposite Seaboard Air Line Railway milepost 135.** (378.7 feet.)

**N 68.**—About 5.5 miles west along the Seaboard Air Line Railway from Louisburg, Franklin County, about 100 yards west of a sawmill, about 40 yards south of the J. F. Mitchner home, 78 feet west of a private-road crossing, 16.5 feet north of the north rail, 3 feet southeast of a pole, and about 1 foot lower than the rail. A standard disk, stamped "N 68 1934" and set in the top of a concrete post projecting about 3 inches above ground. (114,294 meters or 374,960 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 134.** (365.6 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 133.** (388.1 feet.)

**P 68.**—About 1.9 miles east along the Seaboard Air Line Railway from Franklin, Franklin County, about 80 feet north of State Highway 56, about 60 feet west of a road crossing, about 20 feet west of a crossing sign, 9 feet south of the south rail, and about level with the rail. A standard disk, stamped "P 68 1934" and set in the top of a concrete post projecting about 5 inches above ground. (118,838 meters or 389,853 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 132.** (398.5 feet.)

**Top of rail opposite Seaboard Air Line Railway milepost 131.** (415.1 feet.)

**Q 68.**—At Franklin, Franklin County, on the Seaboard Air Line Railway, about 60 feet northeast of the Mason Street crossing, about 40 feet north of the track, about 20 feet north of the center line of the street, between the pavement and the curb, about 3 yards east of a pole, and about 1 foot higher than the rail. A standard disk, stamped "Q 68 1934" and set in the

about 25 yards southeast of the center line of the highway. A standard triangulation-station disk, stamped "EL 66.128 CHOCOWINITY 1931" and set in the top of a concrete post projecting about 5 inches above ground. (20.138 meters or 66.069 feet.)

**R. M. 1 Chocowinity.**—About 6.1 miles south along the Norfolk Southern Railroad from the station at Marsden, Beaufort County, about 150 yards south of milepost 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 southeast rail, about 10 yards northwest of the center line of the highway, and 2 feet north of the first pole southwest of the dirt road. A standard reference-mark disk, stamped "EL 66.565 CHOCOWINITY NO 1 1931" and set in the top of a concrete post projecting about 7 inches above ground. (20.270 meters or 66.502 feet.)

**F 26.**—About 8.6 miles south along the Norfolk Southern Railroad from the station at Marsden, Beaufort County, about 3 rails north of the station at Wilmar, 59 feet south of the center line of a dirt road, and 29 feet west of the west rail of the main track. A standard disk, stamped "57.077 P 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (17.379 meters or 57.018 feet.)

**G 26.**—About 3.8 miles north along the Norfolk Southern Railroad from the station at Vanceboro, Craven County, about 0.3 mile south of milepost 11, 75 feet east of railroad bridge 11.5, 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 "23.460 G 26 1932." (8.626 meters or 28.300 feet.)

**H 26.**—About 1.9 miles north along the Norfolk Southern Railroad from the station at Vanceboro, Craven County, about 46 feet east of the east rail, opposite trestle 13.2, at a 24-inch concrete pipe culvert under U. S. Highway 17, in the top of the south end of the west head wall, and 15 feet west of the center line of the highway. A standard disk, stamped "82.457 H 26 1932." (9.875 meters or 32.408 feet.)

**J 26.**—At Vanceboro, Craven County, about 365 feet north of the south end of the Norfolk Southern Railroad station, about 20 feet east of the east rail of the main track, at a culvert on the east side of the crossing of the highway leading toward the Farm Life School, in the top of the west end of the north concrete head wall, and about 15 feet north of the center line of the highway. A standard disk, stamped "23.871 J 26 1932." (7.258 meters or 23.812 feet.)

**K 26.**—At Vanceboro, Craven County, 63 feet east of the south end of the Norfolk Southern Railroad station, and about 25 feet north of the center line of the first street south of the station. A standard disk, stamped "23.829 K 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (7.245 meters or 23.770 feet.)

**L 26.**—About 2.3 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 Burma flag stop, 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 "30.653 L 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (9.325 meters or 30.594 feet.)

**M 26.**—About 5.2 miles southeast along the Norfolk Southern Railroad from the station at Vanceboro, Craven County, 58 feet west of the northwest corner of the station at Ernul, 36 feet west of the west rail of the main track, 68 feet north of the north edge of a brick pavement, and 4 feet north of a pole. A standard disk, stamped "25.374 M 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (7.716 meters or 25.315 feet.)

**N 26.**—About 7.7 miles southeast along the Norfolk Southern Railroad from the station at Vanceboro, Craven County, 13 feet northwest 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 "17.752 N 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (5.401 meters or 17.750 feet.)

**R. M. 3 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 95 feet north of the center of the intersection of a brick road with U. S. Highway 17, in the acute angle of the intersection, 25 feet west of the west edge of the highway, and 20 feet northeast of the northeast edge of the brick pavement. A standard reference-mark disk, stamped "EL 24.501 FT ASKIN NO 3 1931" and set in the top of a concrete post projecting about 4 inches above ground. (7.449 meters or 24.439 feet.)

**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 90 feet east of the center of the intersection of a brick road with U. S. Highway 17, 56 feet west of the west rail, and 41 feet northeast of the center line of the road. 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. (7.698 meters or 24.928 feet.)

**R. M. 1 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 42 yards south of the center of the intersection of a brick road with U. S. Highway 17, and about 35 feet west of the center line of the highway. A standard reference-mark disk, stamped "EL 23.802 FT ASKIN NO 1 1931" and set in the top of a concrete post projecting about 5 inches above ground. (7.237 meters or 23.743 feet.)

**P 26.**—About 2.8 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 Askin, about 0.4 mile north of milepost 27, about 75 feet west of the west rail, at a 24-inch concrete pipe culvert under U. S. Highway 17, in the top of the north end of the east concrete head wall, and 24 feet east of the center line of the highway. A standard disk, stamped "15.125 P 26 1932." (4.591 meters or 15.062 feet.)

**Q 26.**—About 0.4 mile north along the Norfolk Southern Railroad from the crossing of U. S. Highway 17 at Bridgeton, Craven County, about 4½ rails south of milepost 29, opposite a small cottage, about 100 feet east of the center line of U. S. Highway 17, and 38 feet west of the west rail. A standard disk, stamped "7.533 Q 26 1932" and set in the top of a concrete post projecting about 6 inches above ground. (2.277 meters or 7.470 feet.)

**R 26.**—At Bridgeton, Craven County, on the Norfolk Southern Railroad, at the crossing of U. S. Highway 17, at a double concrete culvert under U. S. Highway 17, in the top of the north end of the west head wall, 19 feet south of the south rail of the south track, and 16 feet west of the center line of the highway. A standard disk, stamped "8.386 R 26 1932." (2.537 meters or 8.323 feet.)

About 1.2 miles north along the Norfolk Southern Railroad from the Union Station at New Bern, at a wooden trestle over Neuse River, top of rail opposite milepost 30. (11.8 feet.)

**S 26.**—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 water table, and 3 feet above the platform. A standard disk, stamped "45.374 S 26 1932" and set vertically. (4.667 meters or 15.312 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 old post office, in the face of a stone column at the southeast entrance on Craven Street, 3 feet from the corner, and about 4 feet above the sidewalk. A standard disk, stamped "17.362 T 26 1932" and set vertically. (5.272 meters or 17.297 feet.)

**9 (U. S. E.).**—At New Bern, Craven County, at the southeast corner of East Front and Pollock Streets, in the north wall of a large brick residence, about 1 foot from the northeast corner, and about 2 feet above ground. A Corps of Engineers, U. S. Army, standard disk, stamped "9 U. S. E. 7.155 FT." (2.160 meters or 7.067 feet.)

**14.2 (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 Park Avenue, in line with the east side of Second Street, and at the edge of the right-of-way. The highest point of a vertical rail projecting about 2 feet above ground. (4.340 meters or 14.239 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 east rail. A standard disk, stamped "U 26 1932" and set in the top of a concrete post. (5.606 meters or 18.392 feet.)

**T. B. M. 175 A.**—About 3¼ miles southwest along the Atlantic Coast Line Railroad from the Union Station at New Bern, Craven County, about 225 feet south of milepost W 82, about 0.1 mile south of a small wooden trestle, at the west one of two culverts, and on the east end of the north concrete coping. An outlined square. (5.322 meters or 17.461 feet.)

V 26.—About 5½ miles southwest along the Atlantic Coast Line Railroad from the Union Station at New Bern, Craven County, just north of a small service station, at the V formed by the crossing of a brick road, 27 feet west of the intersection of the brick road and U. S. Highway 17, and 23 feet north of the north rail. A standard disk, stamped "V 26 1932" and set in the top of a concrete post. (8,742 meters or 28,681 feet.)

W 26.—In Jones County, about 8½ miles southwest along the Atlantic Coast Line Railroad from the Union Station at New Bern, Craven County, at Rhems, about 620 feet north of the crossing of U. S. Highway 17, 51 feet east of the northeast corner of the loading platform, 88 feet southeast of the center of a road crossing, and 41 feet east of the east rail. A standard disk, stamped "W 26 1932" and set in the top of a concrete post. (11,654 meters or 38,235 feet.)

At Rhems, about 200 yards south of the Atlantic Coast Line Railroad station, top of west rail at the crossing of U. S. Highway 17. (38.8 feet.)

X 26.—About 2.1 miles north along the Atlantic Coast Line Railroad from the station at Pollockville, Jones County, at the first road crossing north of milepost W 75, 22 feet south of the center line of the road, 28 feet east of the east rail, and about 6 feet higher than the track. A standard disk, stamped "X 26 1932" and set in the top of a concrete post. (9,845 meters or 32,300 feet.)

Y 26.—At Pollockville, Jones County, 61 feet west of the southwest corner of the Atlantic Coast Line Railroad station, 273 feet west of the west rail, and about 20 feet northeast of a large leaning tree. A standard disk, stamped "Y 26 1932" and set in the top of a concrete post. (3,961 meters or 12,855 feet.)

Z 26.—At Pollockville, Jones County, about ¼ mile south of the Atlantic Coast Line Railroad station, at the city water tank, and in the southeast corner of the southeast concrete footing. A standard disk, stamped "Z 26 1932" (6,386 meters or 22,920 feet.)

A 27.—About 2.2 miles south along the Atlantic Coast Line Railroad from the station at Pollockville, Jones County, at Ravenswood, about 20 feet south of the southeast corner of the loading platform, 4 feet north of the first pole south of the platform, and 28½ feet east of the east rail. A standard disk, stamped "A 27 1932" and set in the top of a concrete post. (11,986 meters or 39,324 feet.)

B 27.—About 4.7 miles south along the Atlantic Coast Line Railroad from the station at Pollockville, Jones County, about 24½ rails south of milepost W 88, about 150 feet north of the remains of an old sawmill, in a small clearing, 82 feet northwest of a wagon-road crossing, and 48 feet west of the west rail. A standard disk, stamped "B 27 1932" and set in the top of a concrete post. (12,523 meters or 41,066 feet.)

C 27.—At Maysville, Jones County, on the Atlantic Coast Line Railroad, about 110 feet west of the southeast corner of the Baptist Church, in a vacant lot, and 46 feet west of the west rail. A standard disk, stamped "C 27 1932" and set in the top of a concrete post. (12,428 meters or 40,774 feet.)

D 27.—At Maysville, Jones County, at the Eastern Bank and Trust Co. building, in the face of the east brick wall, 2 feet south of the northeast corner, and about 5 feet higher than the sidewalk. A standard disk, stamped "D 27 1932" and set vertically. (13,881 meters or 45,541 feet.)

E 27.—In Onslow County, about 2.4 miles southwest along the Atlantic Coast Line Railroad from Maysville, Jones County, about 8 rails northeast of milepost W 63, at the north edge of a low grassy knoll, 48 feet west of the west rail, and 34 feet east of the center line of U. S. Highway 17. A standard disk, stamped "E 27 1932" and set in the top of a concrete post. (12,557 meters or 41,236 feet.)

F 27.—In Onslow County, about 5.3 miles southwest along the Atlantic Coast Line Railroad from Maysville, Jones County, at Deppe, 83 feet north of the northeast corner of the loading platform, near the intersection of a dirt road and U. S. Highway 17, 21 feet west of the west rail, and about 55 feet east of the center line of the highway. A standard disk, stamped "F 27 1932" and set in the top of a concrete post. (13,344 meters or 43,779 feet.)

G 27.—In Onslow County, about 7.6 miles southwest along the Atlantic Coast Line Railroad from Maysville, Jones County, about 5½ rails south of milepost W 58, about 75 feet west of the west rail, at a culvert under U. S. Highway 17, and in the top of the north end of the east concrete coping. A standard disk, stamped "G 27 1932" (13,708 meters or 44,974 feet.)

H 27.—About ¼ mile northeast along the Atlantic Coast Line Railroad from Kellum, Onslow County, at the highway bridge over North East Creek, in the top of the east wing wall of the north abutment, and about 2 feet lower than

the highway. A standard disk, stamped "H 27 1932" (9,834 meters or 32,264 feet.)

J 27.—About 4.2 miles northeast along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 0.3 mile northeast of milepost W 53, about 300 yards north of the crossing of the Swansboro road, about 45 feet west of the west rail, and 24 feet east of the center line of U. S. Highway 17. A standard disk, stamped "J 27 1932" and set in the top of a concrete post. (13,531 meters or 44,383 feet.)

K 27.—About 2 miles northeast along the Atlantic Coast Line Railroad from the station at Jacksonville, Onslow County, about 265 yards north of milepost W 51, west of the track, at a box culvert under U. S. Highway 17, and in the top of the south end of the east head wall. A standard disk, stamped "K 27 1932" (8,069 meters or 26,473 feet.)

For additional bench marks in the vicinity of Jacksonville, see pages 177, 314, and 315.

#### LINE 9, NAVASSA TO CHADBOURN, N. C.

[First-order levelling.]

This line follows the Atlantic Coast Line Railroad from Navassa through Whiteville to Chadbourn. The field work was done in March 1932 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer.

For additional bench marks in the vicinity of Navassa, see pages 37, 141, 230, and 322.

B 29.—About 0.5 mile east along the Atlantic Coast Line Railroad from Leland, Brunswick County, about 1.0 mile east of the station at Malmo, about 1,000 feet east of milepost W 10, near a curve in U. S. Highway 74, close to the track, about 50 yards west of Highway Traffic Station 111, 37 feet north of the south rail, and 70 feet south of the center line of the highway. A standard disk, stamped "66.814 C 29 1932" and set in the top of a concrete post projecting about ½ foot above ground. (29,495 meters or 97,241 feet.)

D 29.—About 4.7 miles west along the Atlantic Coast Line Railroad from Leland, Brunswick County, about 800 feet west of milepost W 12, about 850 feet east of the U. S. Wind service station, opposite a whistle post, about 65 feet north of the north rail, in the west end of the south coping of a concrete highway culvert, and 15½ feet south of the center line of U. S. Highway 74. A standard disk, stamped "50.354 D 29 1932" (15,470 meters or 50,774 feet.)

E 29.—About 0.6 mile west along the Atlantic Coast Line Railroad from Marco, Brunswick County, between U. S. Highway 74 and the railroad, about 150 feet southeast of power-transmission line pole 346, about 135 feet south-east of a firm cottage, about 100 feet east of the point of tangency of a curve in the highway, 32.4 feet north of the north rail, and 68 feet south of the center line of the highway. A standard disk, stamped "48.339 E 29 1932" and set in the top of a concrete post projecting about ¼ foot above ground. (14,865 meters or 48,770 feet.)

F 29.—In Brunswick County, about 2¼ miles east along the Atlantic Coast Line Railroad from Delco, Columbus County, about 0.9 mile east of the Heintz place service station, about 0.8 mile east of the Brunswick-Columbus county line, about 60 feet west of power-transmission line pole 400, at a concrete culvert on U. S. Highway 74, and in the top of the south coping. A standard disk, stamped "32.300 F 29 1932" (19,110 meters or 62,697 feet.)

G 159.—About 0.8 mile east along U. S. Highway 74 from the Seaboard Air Line Railway station at Delco, Columbus County, thence about 216 yards north-west along State Highway 28 from the junction, at a concrete culvert, in the top of the east head wall, 2 feet south of the north end, 25 feet past of the

**D 25**.—About 3.4 miles south along the Norfolk Southern Railroad from Edenton, Chowan County, about 4½ miles north of the station at Waddell, and about 75 feet east of the east rail of the main track. A standard disk, stamped "14534 D 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (4,414 meters or 14,482 feet.)

**Albemarle**.—About 2 miles south along the Norfolk Southern Railroad from the station at Waddell, Chowan County, at the bridge over Albemarle Sound, and on the top of the west end of the north concrete pier of the draw. A chiseled square. (1,353 meters or 6,342 feet.)

**E 25**.—At Mackeys, Washington County, about 35 feet southwest of the south end of the Norfolk Southern Railroad station, and about 30 feet northwest of the northwest rail of the main track. A standard disk, stamped "8,068 E 25 1932" and set in the top of a concrete post projecting about 3 inches above ground. (2,442 meters or 8,013 feet.)

**F 25**.—About 7 miles northeast along the Norfolk Southern Railroad from Plymouth, Washington County, about 2½ miles southwest of Mackeys, about 15 feet north of the center of a wagon-road crossing, 27 feet northwest of the northwest rail, at the southwest corner of a pine woods, and 4 feet northeast of a pole. A standard disk, stamped "10,682 F 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (3,240 meters or 10,630 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 loading platform, 28 feet north of the north rail, 12 feet south of the center line of a farm road paralleling the track, and 2 feet northwest of a pole. A standard disk, stamped "17,081 G 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (5,174 meters or 16,975 feet.)

**H 25**.—About 3.4 miles northeast along the Norfolk Southern Railroad from Plymouth, Washington County, about 1½ miles southwest of Westover, about 200 yards south of milepost 89, 31 feet northwest of the center of a farm-road crossing, 27 feet northwest of the northwest rail, 12 feet north of the north ditch of the road, and 30 feet northeast of a pole. A standard disk, stamped "21,060 H 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (6,403 meters or 21,007 feet.)

**J 25**.—About 1.5 miles northeast along the Norfolk Southern Railroad from the Union Station at Plymouth, Washington County, 7 feet northeast of milepost 91, about 155 feet southwest of the center of the crossing of U. S. Highway 64, in the acute angle between the track and the pavement, 13 feet south of the highway, 21 feet north of the north rail, and 10 feet east of a pole. A standard disk, stamped "18,839 J 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (5,725 meters or 18,788 feet.)

About 1.5 miles northeast along the Norfolk Southern Railroad from the Union Station at Plymouth, at the crossing of U. S. Highway 64, top of west rail at the center line of the highway. (17.6 feet.)

**Plymouth**, opposite the Union Station, at the crossing of the Norfolk Southern Railroad and State Highway 97, top of west rail at the center line of the highway. (9.4 feet.)

**K 25**.—At Plymouth, Washington County, in the west wall of the Union Station, north of the west entrance to the White waiting room, 2 feet west of the doorway, and about 5 feet higher than the ground. A standard disk, stamped "15,354 K 25 1932" and set vertically. (4,064 meters or 13,332 feet.)

**L 25**.—At Plymouth, Washington County, at the county courthouse, at the north end of the steps to the west entrance, at the base of the northernmost column, and in the concrete coping. A standard disk, stamped "21,135 L 25 1932" (5,496 meters or 18,033 feet.)

**1930 (U. S. D. A.)**.—At Plymouth, Washington County, about 7 feet southwest of the southwest corner of the county courthouse, and about 18 feet east of a monument. A United States Department of Agriculture standard cap, stamped "19,501 F" and riveted on the top of a 3-inch iron pipe set in concrete and projecting about 18 inches above ground. (5,927 meters or 19,445 feet.)

**B (U. S. D. A.)**.—At Plymouth, Washington County, one block north and one block west of the county courthouse, on Main Street, about 50 feet west of the intersection of State Highway 97, in front of the Brinkley Hotel, and in the curb at the edge of the sidewalk. A United States Department of Agriculture standard cap, stamped "B 13,071 F" and riveted on the top of a

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3-inch iron pipe projecting about 9 inches above the sidewalk. (3,907 meters or 13,015 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, about 25 yards north of milepost 95, 25 feet south of the center line of the highway, 25 feet east of the east rail, and about 5 feet southwest of a pole. A standard disk, stamped "18,212 M 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (5,534 meters or 18,156 feet.)

About 1.0 mile southwest along U. S. Highway 64 from the city limits at Plymouth, at the crossing of the Norfolk Southern Railroad, top of west rail at the center line of the highway. (19.6 feet.)

**N 25**.—About 2.0 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, about 0.5 mile south of milepost 96, at a road crossing, 36 feet north of the center line of the road, and 19 feet west of the west rail. A standard disk, stamped "33,114 N 25 1932" and set in the top of a concrete post projecting about 5 inches above ground. (10,076 meters or 33,058 feet.)

**Ausbom**.—About 4.5 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, at Ausbom, about 100 yards south of milepost 98, 44 feet north of the north end of the loading platform, and 21 feet west of the west rail. A standard disk, stamped "40,902 AUSBON 1932" and set in the top of a concrete post projecting about 3 inches above ground. (12,451 meters or 40,850 feet.)

**P 25**.—About 7.6 miles southwest along the Norfolk Southern Railroad from Plymouth, Washington County, at Hinson, about 0.2 mile north of milepost 102, about 100 yards north of a water tank, 51 feet north of a tool house, 40 feet north of a pole, 30 feet west of the west rail, and 27 feet east of the center line of a dirt road. A standard disk, stamped "43,445 P 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (13,225 meters or 43,389 feet.)

**P. T. S. 2 (U. S. G. S.)**.—About 7.7 miles southwest along the Norfolk Southern Railroad, Washington County, at Hinson, about 0.1 mile north of milepost 102, about 100 yards south of a water tank, 19 feet south of the south end of the waiting shed, and 17 feet west of the west rail. A United States Geological Survey standard cap, stamped "41,694 PRIM. TRAY. STA. NO. 2 1913" and riveted on the top of a 3½-inch iron pipe projecting about 17 inches above ground. (12,064 meters or 41,548 feet.)

**Q 25**.—In Washington County, about 9.1 miles north along the Norfolk Southern Railroad from Pinetown, Beaufort County, at Hoke, about 80 feet west of a road crossing, 76 feet west of the west rail, 21 feet south of the center line of the road, and 15 feet southeast of a warning signal. A standard disk, stamped "41,142 Q 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (12,553 meters or 41,086 feet.)

**R 25**.—About 7.1 miles north along the Norfolk Southern Railroad from Pinetown, Beaufort County, about ¼ mile south of Emandell, about 0.2 mile south of milepost 106, at a road crossing, 31 feet east of the east rail, about 35 feet southwest of a warning signal, and 24 feet southwest of the center line of the road. A standard disk, stamped "46,483 R 25 1932" and set in the top of a concrete post projecting about 4 inches above ground. (14,150 meters or 46,424 feet.)

**S 25**.—About 2.5 miles north along the Norfolk Southern Railroad from Pinetown, Beaufort County, about 0.3 mile north of milepost 111, at a private-road crossing, 48 feet north of the center line of the road, and 25 feet east of the east rail. A standard disk, stamped "44,498 S 25 1932" and set in the top of a concrete post projecting about 7 inches above ground. (13,546 meters or 44,442 feet.)

**T 25**.—At Pinetown, Beaufort County, about 175 yards south of the Norfolk Southern Railroad station, about 80 feet north of a road crossing, on the east side of a dirt road paralleling the track, about 30 feet east of the east rail, and 21 feet north of a switch stand. A standard disk, stamped "42,700 T 25 1932" and set in the top of a concrete post projecting about 9 inches above ground. (12,997 meters or 42,641 feet.)

**P. T. S. 1 (U. S. G. S.).**—At **Pinebluff**, Beaufort County, about 100 yards north of the Norfolk Southern Railroad station, about 65 feet north of a tool house, about 10 feet west of the west rail, and 8 feet north of the edge of a dirt road. A United States Geological Survey standard cap, stamped "43,287 PRISM, TRAV. STA. NO. 1 1913" and riveted on the top of a 3½-inch iron pipe projecting about 8 inches above ground. (13,177 meters or 43,232 feet.)

**U 25.**—About 1.9 miles south along the Norfolk Southern Railroad from **Pinebluff**, Beaufort County, about 30 feet west of the freight platform at **Walla Walla**, about 70 feet west of the west rail, 27 feet north of the north edge of a road, and 5 feet south of a garden fence. A standard disk, stamped "35,707 U 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (10,257 meters or 33,652 feet.)

**Boundary Monument (7).**—About 1.6 miles northeast along the Norfolk Southern Railroad from **Stations**, Beaufort County, 8 rails south of trestle 118-2, at a property corner, and about 8 feet west of the west rail. The top of a granite post projecting about 5 inches above ground. (11,298 meters or 36,938 feet.)

**V 25.**—At **Stations**, Beaufort County, across the track from the Norfolk Southern Railroad station, about 40 feet north of the center line of a road, and 48 feet west of the west rail. A standard disk, stamped "40,259 V 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (12,254 meters or 40,208 feet.)

**W 25.**—About 6.9 miles northeast along the Norfolk Southern Railroad from the station at **Washington**, Beaufort County, at **Allgroves**, about 30 feet north of the north end of the station, 15 feet north of a telephone booth, and about 15 feet west of the west rail of the main track. A standard disk, stamped "37,227 W 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (11,345 meters or 37,221 feet.)

**30.5 (U. S. G. S.).**—About 5.6 miles northeast along the Norfolk Southern Railroad from the station at **Washington**, Beaufort County, at bridge 120-7, and in the top of the east concrete wing wall of the south abutment. A United States Geological Survey standard disk, stamped "30,787, FBET 1914." (9,367 meters or 30,732 feet.)

**X 25.**—About 4.3 miles east along the Norfolk Southern Railroad from the station at **Washington**, Beaufort County, at **Bunyon**, about 240 feet east of the crossing of U. S. Highway 264, at the west end of a concrete highway bridge, and in the top of the south abutment. A standard disk, stamped "18,717, X 25 1932" (5,687 meters or 18,658 feet.)

**Bunyon**, top of east rail of the Norfolk Southern Railroad at the crossing of U. S. Highway 264. (14.2 feet.)

About 3.3 miles east along the Norfolk Southern Railroad from the station at **Washington**, about 100 feet west of milepost 123, the top of the inside spike of the south rail. (15.3 feet.)

About 1.9 miles east along the Norfolk Southern Railroad from the station at **Washington**, at mileage 124.4, at a dirt-road crossing, top of south rail at the center line of the road. (14.0 feet.)

**Y 25.**—About 1.7 miles east along the Norfolk Southern Railroad from the station at **Washington**, Beaufort County, at **Woolantown**, about 0.4 mile west of milepost 124, 48 feet south of the south corner of the **Loving Baptist Church**, and 17 feet north of the north rail. A standard disk, stamped "13,059 Y 25, 1932" and set in the top of a concrete post projecting about 4 inches above ground. (4,124 meters or 13,530 feet.)

About 1.6 miles east along the Norfolk Southern Railroad from the station at **Washington**, top of south rail at mileage 124.8. (12.1 feet.)

**R. M. Bridge—R. M. Switch.**—At **Washington**, Beaufort County, about 530 feet east of the Norfolk Southern Railroad passenger station, near the junction of a branch line leading to New Bern, about 45 feet north of the north rail of the south track, and 16 feet south of the south rail of the north track. A standard reference-mark disk, set in the top of a concrete post. (0.389 meter or 1.290 feet.)

**Note.**—Check leveling in 1935 indicated that this bench mark had settled about 0.1 foot.

At **Washington**, about 375 feet east of the east end of a trestle over a branch of the Pamlico River, top of rail of the Norfolk Southern Railroad at the center of the crossing of U. S. Highway 264. (63 feet.)

**12 (U. S. G. S.).**—At **Washington**, Beaufort County, at the county courthouse, about 1 foot north of the southeast corner of the building, in the east wall,

and about 1 foot above ground. A United States Geological Survey standard disk, stamped "11,332 KALEIGH N. CAR." (3,436 meters or 11,273 feet.)

**Z 25.**—At **Washington**, Beaufort County, at the post office, at the west end of the steps leading to the south entrance, and in the top of the concrete coping. A standard disk, stamped "11,158 Z 25 1932." (3,385 meters or 11,099 feet.)

**WASHINGTON.**—At **Washington**, Beaufort County, about 1 block south and 1 block west of the post office, at the Citizens Trust Co. Bank building, in the south wall, west of the entrance, and about 5 feet above the sidewalk. A standard disk, stamped "13,720 WASHINGTON 1932." (4,164 meters or 13,661 feet.)

**6.2 (U. S. E.).**—At **Washington**, Beaufort County, at the buoy yard of the U. S. Light-house Service, and on the top of the second cast-iron dolphin from the downstream side of the yard. A chiseled square. (1,580 meters or 5,188 feet.)

**RV 3 (N. S. R. R.).**—At **Washington**, Beaufort County, on the Norfolk Southern Railroad, at the drawbridge of the trestle over Pamlico River, and in the top of the west end of the north concrete pier of the drawbridge. A standard Monument rivet. (1,940 meters or 6,365 feet.)

About 2.2 miles northeast along the Norfolk Southern Railroad from the station at **Marsden**, at the crossing of U. S. Highway 17, top of east rail at the center line of the highway. (5.3 feet.)

**A 26.**—About 2.0 miles northeast along the Norfolk Southern Railroad from the station at **Marsden**, Beaufort County, about 300 yards south of the crossing of U. S. Highway 17, about 60 feet southwest of milepost 128, 27 feet northwest of the center of a farm-road crossing, and 8 feet east of the east rail. A standard disk, stamped "4,680 A 26 1932" and set in the top of a concrete post projecting about 4 inches above ground. (1,400 meters or 4,613 feet.)

**Porter Junction**, top of west rail of the Norfolk Southern Railroad at the crossing of the center line of the Atlantic Coast Line Railroad. (5.7 feet.)

**B 26.**—At **Marsden**, Beaufort County, 49 feet north of the north end of the Norfolk Southern Railroad station, 29 feet west of the west rail of the main track, and 3 feet west of a pole. A standard disk, stamped "35,298 B 26 1932" and set in the top of a concrete post projecting about 7 inches above ground. (10,741 meters or 35,239 feet.)

**C 26.**—At **Marsden**, Beaufort County, about 270 yards south of the Norfolk Southern Railroad station, at the crossing of U. S. Highway 264, 24 feet west of the west rail of the main track, and 28 feet north of the center line of the highway. A standard disk, stamped "40,118 C 26 1932" and set in the top of a concrete post projecting about 4 inches above ground. (12,270 meters or 40,065 feet.)

For additional bench marks in the vicinity of **Marsden**, see page 290.

**D 26.**—About 2.7 miles south along the Norfolk Southern Railroad from the station at **Marsden**, Beaufort County, about 0.6 mile north of **Hackney**, 33 feet south of the center line of a road, 28 feet west of the west rail, and in line with a row of poles. A standard disk, stamped "56,335 D 26 1932" and set in the top of a concrete post projecting about 5 inches above ground. (17,153 meters or 56,276 feet.)

**E 26.**—About 4.6 miles south along the Norfolk Southern Railroad from the station at **Marsden**, Beaufort County, at a concrete box culvert on U. S. Highway 17, in the top of the west concrete coping, 1 foot north of the south cut, and about 55 feet east of the east rail. A standard disk, stamped "56,240 E 26 1932" and set in the top of a concrete post. (17,125 meters or 56,184 feet.)

**R. M. 3 Chocowinity.**—About 6.1 miles south along the Norfolk Southern Railroad from the station at **Marsden**, Beaufort County, about 50 yards south of milepost 6, about 20 yards southeast of the southeast rail, at the intersection of U. S. Highway 17 and a dirt road leading across the track, about 7 yards northwest of the center line of the highway, about 7 yards northeast of the center line of the road, and about 8 feet southwest of the crossing sign. A standard reference-mark disk, stamped "EL 64,484 RT CHOCOWINITY NO. 3 1931" and set in the top of a concrete post projecting about 1 inch above ground. (19,774 meters or 64,875 feet.)

**Chocowinity.**—About 6.1 miles south along the Norfolk Southern Railroad from the station at **Marsden**, Beaufort County, about 100 yards south of milepost 6, about 50 yards southeast of the southeast rail, about 50 yards south of the intersection of U. S. Highway 17 and a dirt road leading across the track, and



**Q 23.**—About 2 miles north along the Atlantic Coast Line Railroad from Swann, Lee County, directly opposite a water tank, on a slight rise, and about 15 feet west of the track. A standard disk, stamped "322.194 Q 23" and set in the top of a concrete post. (88.290 meters or 322.276 feet.)

**NOTE.**—It was reported in October 1931 that the concrete post projected about 1 foot above ground and was leaning slightly, indicating that the bench mark may have been disturbed or reset. This bench mark should be used with caution.

**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 2½ feet higher than the ground. A standard disk, stamped "R 23" and set vertically. (131.274 meters or 430.688 feet.)

**NOTE.**—It was reported in October 1934 that the erection of an adjoining building had made this bench mark inaccessible.

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

#### LINE % PORTSMOUTH, VA., TO JACKSONVILLE, N. C. (PART)

##### [First-order leveling]

This line enters North Carolina in the vicinity of Moyoek 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 1932 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer.

**D 24.**—At Moyoek, Currituck County, about 200 yards north of the Norfolk Southern Railroad station, at milepost 24, at the south end of bridge 24, and in the top of the east end of the abutment. A standard disk, stamped "4.945 D 24 1932." (1.481 meters or 4.859 feet.)

**E 24.**—About 2.2 miles southeast along the Norfolk Southern Railroad from Moyoek, Currituck County, about 0.2 mile south of milepost 26, at the crossing of State Highway 34, about 22½ feet southwest of the southwest rail, and 12.8 feet north of the north edge of the pavement. A standard disk, stamped "8.793 E 24 1932" and set in the top of a concrete post projecting about 8 inches above ground. (2.935 meters or 8.743 feet.)

About 2.2 miles south along the Norfolk Southern Railroad from Moyoek, at milepost 26.2, top of west rail at the crossing of State Highway 34. (9.2 feet.) **F 24.**—About 4.0 miles southeast along the Norfolk Southern Railroad from Moyoek, Currituck County, at milepost 28, about 75 feet west of State Highway 34, at the south end of railroad bridge 28, and in the top of the west end of the abutment. A standard disk, stamped "4.354 F 24 1932." (1.312 meters or 4.304 feet.)

**G 24.**—At Snowden, Currituck County, 43 feet north of the north end of the Norfolk Southern Railroad station, about 150 feet south of the crossing of a dirt road, and 39 feet east of the east rail of the main track. A standard disk, stamped "8.917 G 24 1932" and set in the top of a concrete post projecting about 6 inches above ground. (2.704 meters or 8.871 feet.)

**H 24.**—At Shawboro, Currituck County, 23 feet north of the north end of the Norfolk Southern Railroad station, about 0.4 mile north of the crossing of State Highway 30, 27 feet east of the east rail of the main track, and 2 feet west of a pole. A standard disk, stamped "4.715 H 24 1932" 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 Shawboro, top of west rail at the crossing of State Highway 30. (13.9 feet.)

**R. M. 3 Gregory.**—At Gregory, Currituck County, about 227 yards northwest of a road crossing about 100 feet west of the Norfolk Southern Railroad station, about 25 feet west of the center line of the road, and at the edge of a field. A standard reference-mark disk, stamped "EL 8.471 GREGORY NO 3 1931" and set in the top of a concrete post projecting about 5 inches above ground. (2.567 meters or 8.422 feet.)

**R. M. 2 Gregory.**—At Gregory, Currituck County, about 134 yards northwest of a road crossing about 100 feet west of the Norfolk Southern Railroad station, about 7 feet northeast of the center line of the road, about 3 feet west of the end post of a gate, and at the edge of a field. A standard reference-mark disk, stamped "EL 9.518 GREGORY NO 2 1931" and set in the top of a concrete post projecting about 40 inches above ground. (2.886 meters or 9.468 feet.)

**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 road, near the middle of a field, and about 18 feet west of a ditch. A standard triangulation-station disk, stamped "EL 8.274 GREGORY 1931" and set in the top of a concrete post. (2.597 meters or 8.225 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 105 yards southeast of the post office, about 25 feet southwest of the center line of the road, and about 3 feet inside of a fence. A standard reference-mark disk, stamped "EL 9.383 GREGORY NO 1 1931" and set in the top of a concrete post projecting about 4 inches above ground. (2.845 meters or 9.334 feet.)

**T. B. 55.**—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 joist at the south end of the platform. A rail spike. (3.205 meters or 10.546 feet.)

**J 24.**—At Bellocross, Camden County, 3 feet from the southwest corner of the Norfolk Southern Railroad station, and 22 feet east of the east rail. A standard disk, stamped "7.070 J 24 1932" and set in the top of a concrete post projecting about 6 inches above ground. (2.140 meters or 7.021 feet.)

**K 24.**—At Camden, Camden County, about 75 feet south of the south end of the Norfolk Southern Railroad station, about 80 feet north of a road crossing, and about 60 feet east of the east rail. A standard disk, stamped "9.406 K 24 1932" and set in the top of a concrete post. (2.852 meters or 9.357 feet.)

About 2 miles northeast along the Norfolk Southern Railroad from the station at Elizabeth City, top of west rail at the crossing of State Highway 30. (10.0 feet.)

**L 24.**—At Elizabeth City, Pasquotank County, about 0.3 mile north of North Road, about 150 feet west of the Norfolk Southern Railroad bridge at milepost 43.5, at the Chesson Manufacturing Co. plant, in the top of the north end of a small dam, and about 43 feet west of the center line of a road. A standard disk, stamped "3.022 L 24 1932." (1.080 meters or 3.573 feet.)

About 1¼ 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. (5.2 feet.)

**M 24.**—At Elizabeth City, Pasquotank County, in the west brick wall of the Norfolk Southern Railroad station, about 15 feet north of the ticket windows, 3 feet south of the White waiting-room door, and about 5 feet above the platform. A standard disk, stamped "14.780 M 24 1932" and set vertically. (4.490 meters or 14.731 feet.)

**Tidal 5.**—At Elizabeth City, Pasquotank County, at the southwest corner of the post office, in the granite water table, and about 4 feet above the concrete curb of the driveway. A chiseled square. (3.738 meters or 12.320 feet.)

**N 24.**—At Elizabeth City, Pasquotank County, about 1½ blocks north of the post office, at the city water tank, and in the southwest corner of the westernmost concrete footing. A standard disk, stamped "8.720 N 24 1932." (2.642 meters or 8.668 feet.)

**Tidal 3.**—At Elizabeth City, Pasquotank County, at the southeast corner of Hunter Street and Riverside Avenue, at the northwest corner of the Calvary Baptist Church, at the west face of the brick underpinning, and on the third red brick from the top. A chiseled cross. (2.557 meters or 8.389 feet.)

**RV 1 (N. S. R. R.).**—About 0.5 mile southwest along the Norfolk Southern Railroad from the station at Elizabeth City, Pasquotank County, just south of a concrete-road crossing, opposite a lumber mill, and in the top of the west end of the north abutment of a short steel deck-girder trestle. A standard Monel-metal rivet. (1.899 meters or 6.230 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. R. Bright residence, and 8 feet east of the east edge of a dirt road.

A standard reference-mark disk, stamped "EL 8.409 ELIZABETH NO 1 1931" and set in the top of a concrete post projecting about 3 inches above ground. (2.548 meters or 8.360 feet.)

**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, in the northeast portion of the farmyard of Mrs. J. R. Bright, at the middle of a thin-roofed cow shed, and about 2 feet under ground, south of the south edge of a tin-roofed cow shed, stamped "EL 8.720 ELIZABETH 1931". A standard triangulation-station disk, stamped "EL 8.720 ELIZABETH 1931" and set in the top of a concrete post. (2.692 meters or 8.668 feet.)

**R. M. 2 Elizabeth.**—About 1.5 miles southwest along U. S. Highway 17 from Elizabeth City, Pasquotank County, about 120 yards north of the intersection of a T-road at a red brick school, in the northwest corner of the farmyard of Mrs. J. R. Bright, and at the southwest corner of the first small building north of the cow barn. A standard reference-mark disk, stamped "EL 10.446 ELIZABETH NO 2 1931" and set in the top of a concrete post projecting about 6 inches above ground. (3.169 meters or 10.397 feet.)

**P 24.**—About 2.0 miles southwest along the Norfolk Southern Railroad from Elizabeth City, Pasquotank County, about 200 yards southwest of milepost 46, about 100 yards northwest of a farmhouse, 47 feet southwest of the intersection of the south edge of a farm road and the west rail, and 21 feet west of the west rail. A standard disk, stamped "14.678 P 24 1932" and set in the top of a concrete post projecting about 5 inches above ground. (4.459 meters or 14.629 feet.)

**Q 24.**—About 1.0 mile northeast along the Norfolk Southern Railroad from Pasquotank, Pasquotank County, 61 feet south of milepost 51, 27 feet west of the west rail, about 20 feet south of the south edge of a brick road, and about 6 feet south of the southeast corner post of a fence. A standard disk, stamped "14.537 Q 24 1932" and set in the top of a concrete post projecting about 4 inches above ground. (4.415 meters or 14.485 feet.)

**R 24.**—About 1.9 miles southwest along the Norfolk Southern Railroad from Pasquotank, Pasquotank County, 4 feet northeast of the second pole south of the station at Oskosko, and in line with a row of poles. A standard disk, stamped "12.423 R 24 1932" and set in the top of a concrete post projecting about 5 inches above ground. (3.772 meters or 12.375 feet.)

**S 24.**—At **Chaponeke**, Perquimans County, about 100 yards north of the Norfolk Southern Railroad station, 49 feet west of the west rail, 28 feet south of the south edge of a brick road, at the Clover Farm Stores Co. building, 5 feet south of the northeast corner in the face of the brick wall, and 4 feet above the footing course. A standard disk, stamped "14.995 S 24 1932" and set vertically. (4.528 meters or 14.856 feet.)

**T 24.**—About 2.3 miles northeast along the Norfolk Southern Railroad from Winfall, Perquimans County, about 118 yards southwest of milepost 57, about 0.2 mile northeast of a steel-grider bridge, about 300 yards southwest of Cannon's siding, about 43 yards southwest of a dirt road, in line with a row of poles, and 27 feet northwest of the northwest rail. A standard disk, stamped "14.892 T 24 1932" and set in the top of a concrete post projecting about 6 inches above ground. (4.523 meters or 14.839 feet.)

**RV 2 (N. S. R. R.).**—About 2.3 miles northeast along the Norfolk Southern Railroad from Winfall, Perquimans County, at bridge 67.8, and in the top of the west side of the north abutment. A standard Monel-metal rivet. (4.724 meters or 15.499 feet.)

**Note.**—This bench mark was searched for but not recovered in 1935.

**V 24.**—About 0.3 mile north along the Norfolk Southern Railroad from Winfall, Perquimans County, about 50 feet south of the southeast corner of a Virginia Electric and Power Co. substation, about 50 feet east of the east end of a cotton gin, and about 21 feet west of the west rail. A standard disk, stamped "15.761 V 24 1932" and set in the top of a concrete post projecting about 5 inches above ground. (4.786 meters or 15.702 feet.)

**U 24.**—At **Winfall**, Perquimans County, about 8 miles south of the south end of the Norfolk Southern Railroad station, 12 feet east of the east rail, 9 feet southeast of a switch stand, and about  $\frac{1}{2}$  foot lower than the truck. A standard disk, stamped "15.505 U 24 1932" and set in the top of a concrete post projecting about 4 inches above ground. (4.710 meters or 15.453 feet.)

**W 24.**—About 0.2 mile north along the Norfolk Southern Railroad from the station at Hertford, Perquimans County, at the car scales platform, in the west

retaining wall, 4 feet north of the south end, and 4 feet west of the west rail of a siding. A standard disk, stamped "9.117 W 24 1932". (2.763 meters or 9.065 feet.)

**X 24.**—At **Hertford**, Perquimans County, about 48 yards south of the platform at the south end of the Norfolk Southern Railroad station, between two sidings, about 50 feet north of a switch, and 27 feet east of the east rail of the main track. A standard disk, stamped "12.528 X 24 1932" and set in the top of a concrete post projecting about 4 inches above ground. (3.894 meters or 12.776 feet.)

**14 (U. S. G. S.).**—At **Hertford**, Perquimans County, in the wall of the county courthouse, at the west side of the front entrance, and about 2 feet above ground. A United States Geological Survey standard disk, stamped "15.062 N C RALEIGH 1922" and set vertically. (4.575 meters or 15.000 feet.)

**Y 24.**—About 4.2 miles southwest along the Norfolk Southern Railroad from the station at Hertford, Perquimans County, at the northwest corner of the first farm east of the station at Yeopim, 36 feet east of the east rail, and 21 feet south of the center line of a dirt road. A standard disk, stamped "16.450 Y 24 1932" and set in the top of a concrete post projecting about 4 inches above ground. (5.007 meters or 16.427 feet.)

**14 (U. S. G. S.).**—About 4.2 miles southwest along the Norfolk Southern Railroad from the station at Hertford, Perquimans County, about 100 yards east of the station at **Yeopim**, directly north of a small farmhouse owned by T. E. Blunsfield, at the edge of a dirt road, and about 5 feet east of a large tree. A United States Geological Survey standard cap, stamped "16.068 N C RALEIGH" and riveted on the top of a 3½-inch pipe projecting about 7 inches above ground. (4.576 meters or 15.013 feet.)

**Note.**—The iron pipe leans slightly and the elevation applies to the intersection of two scratches at the center of the post.

**Z 24.**—In Perquimans County, about 4.4 miles northeast along the Norfolk Southern Railroad from **Edenton**, Chowan County, about 3 miles southwest of the station at **Yeopim**, 73 feet southeast of milepost 69, about 25 feet southwest of the W. H. Barber farmhouse, and about 25 feet east of the east rail. A standard disk, stamped "20.453 Z 24 1932" and set in the top of a concrete post projecting about 10 inches above ground. (6.212 meters or 20.381 feet.)

**A 25.**—About 2.8 miles northeast along the Norfolk Southern Railroad from **Edenton**, Chowan County, about 0.3 mile north of milepost 71, about 100 yards west of a farmhouse, 48 feet southeast of the center of the intersection of the driveway leading to the T. L. White farm, 34 feet east of the east rail, and 7 feet north of a ditch. A standard disk, stamped "17.895 A 25 1932" and set in the top of a concrete post projecting about 5 inches above ground. (5.420 meters or 17.782 feet.)

**B 25.**—At **Edenton**, Chowan County, 66 feet west of the west corner of the Norfolk Southern Railroad station baggage room, on the west side of a street, and 7 feet south of a pole. A standard disk, stamped "11.742 B 25 1932" and set in the top of a concrete post projecting about 6 inches above ground. (3.563 meters or 11.690 feet.)

**16 (U. S. G. S.).**—At **Edenton**, Chowan County, near the intersection of Broad and King Streets, at the north end of Courthouse Place, in the south wall of the courthouse, and about 5 feet east of the entrance. A United States Geological Survey standard disk, stamped "16.450 N C RALEIGH" and set vertically. (5.007 meters or 16.427 feet.)

**C 25.**—At **Edenton**, Chowan County, at the fire department building, in the middle of the east wall, about 5 feet above the sidewalk, and midway between two doors. A standard disk, stamped "17.172 C 25 1932" and set vertically. (5.217 meters or 17.116 feet.)

**Tidal 2.**—At **Edenton**, Chowan County, near the foot of Broad Street, at the east end of two water tanks, and on the top of the northeast brick base, on the northeast corner of the granite capstone. A chiseled cross. (2.194 meters or 7.198 feet.)

**Tidal 3.**—At **Edenton**, Chowan County, at the foot of Broad Street, at the south end of a wooden pier, and in the north side of a support of a front range light. The top of a copper bolt. (1.372 meters or 4.501 feet.)

For additional bench marks in the vicinity of Edenton, see pages 297 and 298.

ground. A standard disk, stamped "N 148 1885." (14,368 meters or 47,139 feet.)  
 Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 18. (44.9 feet.)

**R. M. 1 Hampstead.**—At Hampstead, Pender County, about 0.2 mile north of the school, about 80 yards northwest of a small house in a grove of four large elm trees, and 31 feet southeast of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "HAMPSTEAD NO. 1 1832" and set in the top of a concrete post about flush with the ground. (16,254 meters or 53,327 feet.)

**Hampstead.**—At Hampstead, Pender County, at the school, 117 feet southeast of the east corner of the main building, 77 feet southeast of the east corner of the annex, and 26 feet northeast of the northeast end of the bus shed. A standard triangulation-station disk, stamped "HAMPSTEAD 1832" and set in the top of a concrete post projecting about 6 inches above ground. (17,063 meters or 55,981 feet.)

**Note.**—This disk is slightly tilted. This elevation applies to the "+" marked in the metal.

**R. M. 2 Hampstead.**—At Hampstead, Pender County, at the school, about 300 feet southeast of U. S. Highway 17, 184 feet northeast of triangulation station Hampstead, described above, about 170 feet northeast of the east corner of the school building, 9 feet southeast of a 15-inch pine tree at the center of the back-stop of the school baseball diamond, and 6.1 feet northwest of the north edge of the bleachers. A standard reference-mark disk, stamped "HAMPSTEAD NO. 2 1932" and set in the top of a concrete post projecting about 6 inches above ground. (17,479 meters or 57,346 feet.)

**R. M. 3 Hampstead.**—At Hampstead, Pender County, at the school, about 200 yards southeast of the Atlantic Coast Line Railroad track, about 130 feet west of triangulation station Hampstead, described above, and 2 feet southeast of a point 5 feet northeast of the south corner of the annex to the main building. A standard reference-mark disk, stamped "HAMPSTEAD NO. 3 1932" and set in the top of a concrete post. (17,428 meters or 57,178 feet.)

**P 148.**—About 1.5 miles southwest along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, about 0.4 mile southwest of milepost W 16, at a "HOTEL CAPE FEAR" sign, about 57 yards northeast of a road crossing, 28.5 feet southeast of the southeast rail, 60.5 feet northwest of the northwest edge of U. S. Highway 17, in line with a row of poles, and about 2 feet higher than the top of the rail. A standard disk, stamped "P 148 1935" and set in the top of a concrete post. (15,640 meters or 51,312 feet.)

**A 28.**—About 2.3 miles southwest along the Atlantic Coast Line Railroad from the station at Hampstead, Pender County, at Browns Town, at a small road crossing, 23 feet southwest of the center line of the road, 50 feet southeast of the southeast rail, and 52 feet northwest of the center line of U. S. Highway 17. A standard disk, stamped "A 28 1932" and set in the top of a concrete post. (16,177 meters or 53,074 feet.)

**Q 148.**—About 1.4 miles northeast along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 7 poles southwest of a 1-story log cabin, about 60 yards east of a small frame house, 82.2 feet southeast of the southeast rail, and in line with a row of poles. A standard disk, stamped "Q 148 1935" and set in the top of a concrete post projecting about 6 inches above ground. (11,713 meters or 38,428 feet.)

**R 148.**—About 0.4 mile northeast along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 13 yards southeast of a twin 38-inch concrete pipe culvert under the railroad, at a concrete box culvert under U. S. Highway 17, in the top of the northwest head wall, 3.5 feet northeast of the southwest end, 8.1 feet northwest of the northwest edge of the highway, and about level with the highway. A standard disk, stamped "R 148 1935." (8,159 meters or 26,768 feet.)

**B 28.**—At Scotts Hill, Pender County, about 100 yards southwest of the Atlantic Coast Line Railroad station, about 70 yards northwest of the track, at the Methodist Episcopal Church South, in the east wall, about 15 feet north of the front entrance, and about 5 feet higher than the ground. A standard disk, stamped "B 28 1932" and set vertically. (15,185 meters or 49,819 feet.)

About 0.3 mile southwest of Scotts Hill, center line of U. S. Highway 17 at the Pender-New Hanover county line. (40.7 feet.)

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**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 150 yards northeast of a "STATION ONE MILE" sign, 33 feet southeast of the southeast rail, 51 feet northwest of the center line of U. S. Highway 17, and 2 feet east of a pole. A standard reference-mark disk, stamped "KIRKLAND NO. 3 1932" and set in the top of a concrete post. (15,204 meters or 50,177 feet.)

**R. M. 2 Kirkland.**—In New Hanover County, about 1.1 miles 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 center line of a road leading to a church northwest of the track, 46 feet southeast of the southeast rail, and about 40 feet northwest of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "KIRKLAND NO. 2 1932" and set in the top of a concrete post. (16,092 meters or 52,795 feet.)

**Kirkland.**—In New Hanover County, about 1.1 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 60 yards southeast of the track, on the grounds of a Negro school, about 40 feet northeast of the northeast side of the building, and about 75 feet southeast of the center line of U. S. Highway 17. A standard triangulation-station disk, stamped "KIRKLAND 1932" and set in the top of a concrete post. (15,259 meters or 50,082 feet.)

**R. M. 1 Kirkland.**—In New Hanover County, about 1.2 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, 99 feet west of the west corner of a Negro school, 54 feet southeast of the southeast rail, and 31 feet northwest of the center line of U. S. Highway 17. A standard reference-mark disk, stamped "KIRKLAND NO. 1 1932" and set in the top of a concrete post. (16,134 meters or 52,833 feet.)

About 2.2 miles southwest of Scotts Hill, center line of U. S. Highway 17 opposite Atlantic Coast Line Railroad milepost W 10. (50.6 feet.)

**P 148.**—In New Hanover County, about 2.3 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 2½ poles southwest of milepost W 10, about 100 feet southeast of the southeast rail, at a 28-inch culvert under U. S. Highway 17, in the top of the southwest end of the northwest concrete head wall, and 7.9 feet northwest of the northwest edge of the highway. A standard disk, stamped "P 148 1935." (14,218 meters or 46,640 feet.)

**C 28.**—In New Hanover County, about 3.2 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 100 yards northeast of milepost W 9, about 65 yards southeast of the track, at a concrete box culvert under U. S. Highway 17, and in the top of the northeast end of the northwest head wall. A standard disk, stamped "C 28 1932." (8,785 meters or 28,822 feet.)

**T 148.**—In New Hanover County, about 4.0 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 0.3 mile northeast of milepost W 8, about 0.2 mile southwest of a spur track leading east, about 15 yards southeast of the southeast rail, about 19 yards northwest of the northwest edge of U. S. Highway 17, 24 feet north of a 12-inch pine tree with a 1-foot triangular blaze, and about level with the top of the rail. A standard disk, stamped "T 148 1935" and set in the top of a concrete post. (13,902 meters or 45,610 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 8. (46.4 feet.)

**U 148.**—In New Hanover County, about 4.8 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 0.3 mile northeast of Baymead, about 0.4 mile northeast of milepost W 7, about 14 yards southeast of the southeast rail, at the center of a 1-foot triangular blaze on the northwest side of a 26-inch pine tree, and about 3 feet higher than the ground. A standard disk, stamped "U 148 1935" and set vertically. (14,704 meters or 48,241 feet.)

**D 28.**—In New Hanover County, about 5.6 miles southwest along the Atlantic Coast Line Railroad from the station at Scotts Hill, Pender County, about 0.5 mile southwest of Baymead, about 0.4 mile southwest of milepost W 7, at a road crossing, 38 feet northeast of the center line of the road, and 33 feet northwest of the northwest rail. A standard disk, stamped "D 28 1932" and set in the top of a concrete post. (14,240 meters or 46,719 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 6. (43.7 feet.)

V 148.—About 6.7 miles northeast along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, about 0.3 mile southwest of milepost W 6, about 35 yards southeast of the southeast rail, at the center of a 1-foot triangular blaze on the northwest side of a 16-inch pine tree, and about 3 feet higher than the ground. A standard disk, stamped "V 148 1935" and set vertically. (12,256 meters or 43,491 feet.)

D 14.—About 6.5 miles northeast along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, about 0.3 mile northeast of milepost W 6, at the old D. L. Fore property, 19 feet southeast of the southeast rail, and about level with the top of the rail. The top of a granite property-line post, chiseled "D 14" and projecting about 18 inches above ground. (12,945 meters or 42,474 feet.)

NOTE.—This elevation applies to the high spot at the center of the letter "D."

W 148.—About 5.9 miles northeast along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, about 0.2 mile southwest of milepost W 6, about 35 yards northeast of a 24-inch concrete pipe culvert, about 18 yards southwest of the southeast rail, at the center of a 1-foot triangular blaze on the northwest side of an 18-inch pine tree, and about 3 feet higher than the ground. A standard disk, stamped "W 148 1935" and set vertically. (11,889 meters or 38,940 feet.)

E 28.—About 5.0 miles northeast along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, about 50 yards southwest of milepost W 4, at the crossing of U. S. Highway 17, 15 feet southeast of the center line of the highway, and 21 feet northwest of the northwest rail. A standard disk, stamped "E 28 1932" and set in the top of a concrete post. (12,818 meters or 40,413 feet.)

Top of southeast rail opposite Atlantic Coast Line Railroad milepost W 3. (41.3 feet.)

X 148.—About 3.9 miles east along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, about 0.1 mile southwest of milepost W 3, about 0.2 mile northeast of the Peasall fertilizer plant, at the Kerr Avenue crossing, about 20 yards northeast of the center of the crossing, 18 feet southeast of the southeast rail, and about level with the top of the rail. A standard disk, stamped "X 148 1935" and set in the top of a concrete post. (12,404 meters or 40,862 feet.)

About 3.2 miles east along the Atlantic Coast Line Railroad from the station at Wilmington, top of north rail at the crossing of U. S. Highway 17. (39.4 feet.)

P 28.—About 2.8 miles east along the Atlantic Coast Line Railroad from the station at Wilmington, New Hanover County, at East Wilmington, about 0.2 mile west of milepost W 2, 28 feet west of the west end of the landing platform at the station, and 21 feet north of the north rail. A standard disk, stamped "P 28 1932" and set in the top of a concrete post. (11,793 meters or 38,691 feet.)

Y 148.—At Wilmington, New Hanover County, about 1.0 mile northeast along the Atlantic Coast Line Railroad from the station, at the junction of the New Kern branch with the branch leading to Wilson, 80 feet northeast of a "STATION ONE MILE" sign, 28 feet southeast of the southeast rail of the main track, and about level with the top of the rail. A standard disk, stamped "Y 148 1935" and set in the top of a concrete post. (8,570 meters or 28,117 feet.)

Top of southeast rail of southeast track opposite milepost W 1 of the Atlantic Coast Line Railroad branch leading to Wilson. (30.3 feet.)

Tidal 5 (U. S. E.).—At Wilmington, New Hanover County, at the post office, and on the curb at the northwest corner of the lawn. A chiseled cross. (9,707 meters or 31,847 feet.)

Tidal 6 (U. S. E.).—Destroyed prior to 1937. (10,353 meters or 33,968 feet.)

Tidal 7 (U. S. E.).—Destroyed prior to 1937. (10,346 meters or 33,940 feet.)

Tidal 4.—At Wilmington, New Hanover County, at the Peoples Savings Bank & Trust Co., at the entrance, and on the west corner of the bottom step. A chiseled cross. (7,860 meters or 25,787 feet.)

6.3 (City of Wilmington).—At Wilmington, New Hanover County, at the east tombstone, and 6 feet northwest of the northwest corner. A chiseled cross, on the top of a granite post about flush with the sidewalk. (1,222 meters or 6,322 feet.)

WILMINGTON.—At Wilmington, New Hanover County, at the northeast corner of the intersection of Third and Princess Streets at the west entrance to the city hall, at the south end of the steps, in the west face of the coping, and about 8 feet higher than the ground. A standard disk, stamped "WILMINGTON 1932" and set vertically. (11,720 meters or 38,451 feet.)

R. M. 2 Wilmington.—At Wilmington, New Hanover County, at the city waterworks, 157 feet west of triangulation station Wilmington, described below, at the northwest corner of the northwest settling basin, and in the top of the wall at the corner of a setback. A standard reference-mark disk, stamped "WILMINGTON NO. 2 1932" (10,013 meters or 32,851 feet.)

Wilmington.—At Wilmington, New Hanover County, at the city waterworks, east of the east end of Hilton Bridge over Northeast River, 27 feet east of the intake pipe to the smaller one of two water tanks, and 18 feet from the nearest leg. A standard triangulation-station disk, stamped "WILMINGTON 1932" and set in the top of a concrete post. (10,627 meters or 35,530 feet.)

R. M. 1 Wilmington.—At Wilmington, New Hanover County, at the city waterworks, 114 feet south of triangulation station Wilmington, described below, at the southeast settling basin, in the top of the south wall, and 2.5 feet west of the southeast corner, inside the railing. A standard reference-mark disk, stamped "WILMINGTON NO. 1 1932" (10,888 meters or 35,722 feet.)

For additional bench marks in the vicinity of Wilmington, see pages 36, 37, and 234.

Z 148.—In New Hanover County, about 1.2 miles east along the Atlantic Coast Line Railroad from the station at Navassa, Brunswick County, about 0.4 mile east of milepost 361, at bridge 361.4, in the top step of the east abutment, 8.4 feet south of the south rail, and about 1 foot lower than the top of the rail. A standard disk, stamped "Z 148 1935" (2,029 meters or 6,657 feet.)

Arnour.—At Navassa, Brunswick County, at the railroad bridge over Cape Port River, east of the Arnour Fertilizer Co. plant, in the top of the north end of the west abutment, and 6 feet north of the north rail. A standard disk, stamped "ARNOUR 1932" (3,904 meters or 12,808 feet.)

G 28.—At Navassa, Brunswick County, about 6 poles southwest of the Atlantic Coast Line Railroad station, about 63 yards west of the first dirt-road crossing west of the station, in the west angle at the junction of the Wilmington, Brunswick & Southern Railroad with the Atlantic Coast Line Railroad, about 23 yards south of the south rail of the Wilmington, Brunswick & Southern Railroad, west of the northwest rail of the Wilmington, Brunswick & Southern Railroad, and about 2 feet higher than the rail. A standard disk, stamped "G 28 1932" and set in the top of a concrete post projecting about 6 inches above ground. (5,924 meters or 19,436 feet.)

For additional bench marks in the vicinity of Navassa, see pages 27, 54, 141, and 230.

#### LINE 71, NEWTON TO GASTONIA, N. C.

[First-order leveling]

This line follows the Carolina & Northwestern Railway from Newton through Lincolnton to Gastonia. The field work was done in October 1935 by a party in charge of W. M. Gibson, junior hydrographic and geodetic engineer. This line follows the route of a part of the old United States Geological Survey line from Newton, N. C., to Columbia, S. C., and the new leveling was connected with all of the old bench marks which were recoverable.

For additional bench marks in the vicinity of Newton, see page 108.

Newton.—At Newton, Catawba County, at the county courthouse, about 23 yards northeast of the east entrance, about 20 yards south of the south curb of Main Street, and about 10 yards west of the west curb of College Avenue. A standard triangulation-station disk, stamped "NEWTON 1935" and set in the top of a concrete post projecting about 5 inches above ground. (302,734 meters or 993,220 feet.)