

# ALABAMA.

## PRIMARY TRAVERSE.

Childersburg, Cooks Springs, Leeds, McFall, and Oneonta quadrangles.

### ST. CLAIR COUNTY.

The following geographic positions were determined by primary traverse and are based upon positions previously determined by primary traverse (described in Bulletins 245 and 276) upon North American datum.

The work was done by J. R. Ellis in April, 1914.

#### CHILDERSBURG QUADRANGLE.

Along highways near north border of quadrangle.

| Station.   | Latitude.  | Longitude. | Distance<br>between<br>stations. |
|--|------------|------------|----------------------------------|
|  | ° ' "      | ° ' "      | <i>Feet.</i>                     |
| Vandiver, at southwest corner of Whitefield & Boasher's store,<br>iron post stamped "Prim. Trav. Sta. No. 1077"..... | 33 28 13.7 | 86 30 50.2 | .....                            |
| T road north, center of.....   | 33 28 50.1 | 86 29 58.8 | 5,701                            |
| T road south at northwest corner of fence (road south is dim).....   | 33 29 02.0 | 86 28 47.4 | 6,165                            |
| Mail box in forks of road.....   | 33 29 18.6 | 86 27 30.7 | 6,717                            |
| Pisgah Church, forks of road at Goode Bros.' store, 15 feet north<br>to mail box.....                                | 33 29 44.9 | 86 19 49.6 | .....                            |

Magnetic declination for north border of quadrangle, 2° 30' E.

#### COOKS SPRINGS QUADRANGLE.

Along railroad through center of quadrangle.

| Station.  | Latitude.  | Longitude. | Distance<br>between<br>stations. |
|---|------------|------------|----------------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>                     |
| Road crossing.....  | 33 33 36.2 | 86 29 59.2 | .....                            |
| Quarter corner between secs. 6 and 7.....   | 33 34 29.3 | 86 28 23.3 | 9,729                            |
| Brampton, in concrete coping in front of railroad depot; bronze<br>tablet stamped "Prim. Trav. Sta. No. 1, 1914".....   | 33 34 32.7 | 86 28 20.7 | 409                              |
| Brampton, 0.90 mile east of, under high trestle, public highway<br>crossing.....  | 33 34 30.6 | 86 27 25.2 | 4,700                            |
| Milepost 791, road crossing at.....   | 33 34 26.9 | 86 27 01.2 | 2,070                            |
| Cooks Springs, about 2.80 miles west of, second-class road crossing.  | 33 35 21.8 | 86 25 40.0 | 8,839                            |
| Cooks Springs, at west end of siding, switch block.....   | 33 35 30.1 | 86 24 35.5 | 5,518                            |
| Cooks Springs, 20 feet north of wagon road on south side of trestle,<br>in top of old brick culvert; bronze tablet stamped "Prim. Trav.<br>Sta. No. 2, 1914"..... | 33 35 31.8 | 86 23 53.7 | 3,541                            |
| Cooks Springs, road crossing at.....  | 33 35 32.6 | 86 23 47.8 | 499                              |
| Tunnel, east end of.....  | 33 35 04.9 | 86 23 12.2 | 4,117                            |
| Road crossing, 530 feet west of spur.....   | 33 35 08.6 | 86 22 03.0 | 5,870                            |
| Road crossing.....  | 33 35 05.6 | 86 21 20.3 | 3,622                            |
| Milepost 783, road crossing at.....   | 33 35 25.5 | 86 19 54.3 | 7,551                            |
| Eden station, 210 feet west of, road crossing.....  | 33 35 14.3 | 86 18 48.2 | 5,707                            |
| T. 18 S., R. 3 E., quarter corner between secs. 2 and 3.....  | 33 35 01.6 | 86 18 28.7 | 2,090                            |
| Pell City station, 2,200 feet west of, road crossing.....   | 33 34 56.3 | 86 17 35.9 | 4,498                            |
| Pell City station, railroad crossing at.....  | 33 35 07.7 | 86 17 03.3 | 2,989                            |
| Milepost 779, track opposite.....   | 33 35 25.9 | 86 16 11.4 | 4,750                            |
| Milepost 779, about 0.80 mile east of, north and south road crossing.   | 33 35 24.1 | 86 15 20.8 | 4,290                            |

## COOKS SPRINGS QUADRANGLE—Continued.

## Along highways near east border of quadrangle.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>               |
| T road east, center of.....   | 33 36 06.5 | 86 15 02.4 | .....                      |
| Pell City, about 2 miles north and 2 miles east of, 400 feet north of intersection of the Pell City-Coal City pike and road south to Seddon, in ledge; bronze tablet stamped "Prim. Trav. Sta. No. 5, 1914, elev. 580"..... | 33 37 05.0 | 86 15 10.2 | 5,949                      |
| Pike at road north.....   | 33 37 12.7 | 86 15 10.7 | 785                        |
| Junction of pikes, 15 feet north and 20 feet east to elevation 504 on telephone pole.....   | 33 39 17.4 | 86 15 35.9 | 12,790                     |
| Coal City Baptist Church, in north part of Old Broken Arrow Village, at southwest corner, in ledge; bronze tablet stamped "Prim. Trav. Sta. No. 6, 1914, Elev. 575".....  | 33 39 57.8 | 86 15 59.1 | 4,525                      |
| Seaboard Air Line R. R. crossing.....   | 33 40 53.5 | 86 16 30.2 | 6,213                      |
| Concrete culvert under high trestle.....  | 33 40 56.9 | 86 16 21.6 | 804                        |
| Milepost R. 696, 463 feet south of, east-west road crossing and Seaboard Air Line R. R.....   | 33 41 33.8 | 86 15 46.8 | 4,754                      |
| Switch block at spur.....   | 33 42 11.8 | 86 15 02.9 | 5,336                      |

## Along highway near north border of quadrangle.

|  |            |            |       |
|--|------------|------------|-------|
| Coal station, road crossing west of; line leaves railroad at this point and follows wagon road.....  | 33 40 58.9 | 86 17 13.5 | ..... |
| T. 16 S., R. 3 E., quarter corner between secs. 35 and 36.....   | 33 41 09.3 | 86 17 23.3 | 1,337 |
| Pump house, just west of, on south side of road at T road south; stump.....  | 33 41 13.7 | 86 18 07.0 | 3,715 |
| Forks of road, junction of Fox Creek and Broken Arrow Creek roads; south corner of old shop.....   | 33 41 34.4 | 86 18 34.4 | 3,117 |
| Top of hill, elevation 812, at negro house, cross roads.....   | 33 42 00.0 | 86 19 02.4 | 3,509 |
| Old sawmill site, elevation 729 feet, painted on tree.....   | 33 42 27.6 | 86 19 39.9 | 4,217 |
| Shoal Creek, center of bridge over.....  | 33 42 37.7 | 86 20 26.6 | 4,077 |
| Shoal Creek, west side of, 0.3 mile north of Negro Baptist Church, on west side of north and south road, at west end of small bridge, in stone; bronze tablet stamped "Prim. Trav. Sta. No. 8, 1914, Elev. 746"..... | 33 43 01.6 | 86 20 30.8 | 2,446 |
| Beaver Valley pike, at T road southeast, 15 feet west to C gate....  | 33 43 44.5 | 86 20 40.4 | 4,413 |
| Beaver Valley pike at T road west, 5 feet north and 10 feet east to end of log.....  | 33 44 18.4 | 86 20 23.1 | 3,718 |
| Large frame church, road opposite.....   | 33 44 54.0 | 86 20 44.7 | 4,040 |

## Along highway near northwest corner of quadrangle.

|   |             |            |       |
|---|-------------|------------|-------|
| Milepost 118, private road crossing at..... | 33 44 14.30 | 86 29 45.6 | ..... |
|---|-------------|------------|-------|

## Along highways near south border of quadrangle.

|   |            |            |        |
|---|------------|------------|--------|
| T. 18 S., R. 2 E., corner secs. 4, 5, 32, and 33.....   | 33 30 08.0 | 86 26 50.8 | .....  |
| Dykes Mill, south end of bridge over Kelley Creek.....  | 33 30 16.4 | 86 26 49.5 | 857    |
| Crossroads, center of.....  | 33 30 24.5 | 86 25 58.6 | 4,380  |
| Crossroads, north and south road (second class).....  | 33 31 09.0 | 86 24 50.6 | 7,312  |
| Pleasant Grove schoolhouse, 50 feet south of southwest corner, T road north.....  | 33 31 27.0 | 86 24 11.4 | 3,783  |
| T. 17 S., R. 2 E., center of sec. 26.....   | 33 31 27.0 | 86 24 12.3 | 74     |
| Forks of road, 350 feet south of, opposite brick chimney of residence, center of north and south road.....  | 33 31 10.4 | 86 23 39.8 | 3,223  |
| Crossroads, north and south road dim.....   | 33 30 46.2 | 86 23 10.5 | 3,480  |
| Wolf Creek, about 2 miles south and 1 mile east of, 250 feet north of G. W. Johnson's residence, just north of forks, in ledge; bronze tablet stamped "Prim. Trav. Sta. No. 3, 1914"..... | 33 30 35.0 | 86 22 10.8 | 5,186  |
| London, 2 miles north of, center of crossroads.....   | 33 30 12.7 | 86 21 43.2 | 3,247  |
| Crossroads, at old shop, center of.....   | 33 30 03.5 | 86 21 03.5 | 3,482  |
| Tps. 18 and 19 S., R. 3 E., corner secs. 2, 3, 34, and 35.....  | 33 30 10.7 | 86 19 32.4 | .....  |
| Forks of road, center of box culvert at.....  | 33 30 02.3 | 86 18 46.1 | 4,009  |
| Easonville, center of crossroads at, 10 feet west to center of bridge.  | 33 31 22.6 | 86 17 16.1 | 11,140 |
| Valley pike, at east and west section line.....   | 33 31 33.5 | 86 17 04.6 | 1,470  |

COOKS SPRINGS QUADRANGLE—Continued.

Spur line to point near southeast corner of quadrangle.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
|  | ° ' "      | ° ' "      | <i>Feet.</i>               |
| Forks of road, center of.....  | 33 31 45.3 | 86 15 51.1 | 6,335                      |
| Old Hardwick farmhouse, 300 feet southeast of, at north side of T road north, on south side of large square post, nail in blaze..... | 33 31 12.5 | 86 15 23.6 | 4,048                      |
| Cropwell, at northwest corner of Robinson & Sons' building; bronze tablet stamped "Prim. Trav. Sta. No. 4, Elev. 478, 1914".....     | 33 33 09.3 | 86 16 06.7 | 7,998                      |
| Cropwell, in north part of, T road east.....   | 33 33 19.1 | 86 16 04.0 | 1,015                      |
| Intersection of Cropwell-Seddon road and Birmingham & Atlantic R. R.....   | 33 33 32.7 | 86 15 32.1 | 3,030                      |

Magnetic declination for north border of quadrangle, 2° 52' E.; for south border, 2° 30' E.; for east border, 2° 16' E.

LEEDS QUADRANGLE.

Along railroad from Leeds to Seddon.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>               |
| Leeds, 0.6 mile west of, 615 feet west of trestle over East Cahaba River, in limestone 35 feet north of Southern Ry. track; bronze tablet stamped "Prim. Trav. Sta. No. 9, elev. 627 feet"....  | 33 32 53.2 | 86 32 56.6 | .....                      |
| Road crossing.....  | 33 32 33.9 | 86 31 32.0 | 7,422                      |
| Mile post C 120, at road crossing 2,020 feet south of, bronze tablet No. 10, cemented in concrete 18 inches below surface of rail in center of track of Alabama Great Southern R. R.; signboard bears S. 76° ½ W., distant 15.5 feet..... | 33 42 25.2 | 86 30 57.2 | .....                      |

McFALL QUADRANGLE.

Along highways near west border of quadrangle.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>               |
| Seddon, about 0.75 mile west of, center of road crossing, northwest and southeast.....  | 33 35 21.3 | 86 14 43.0 | .....                      |
| Milepost R. 694, about 700 feet south of, 35 feet north of road crossing, on northeast corner of concrete culvert; cross and "U. S. G. S." cut..... | 33 42 29.1 | 86 14 15.4 | .....                      |
| Seddon, about 1 mile south of, center of forks of road.....   | 33 34 17.7 | 86 14 17.3 | .....                      |
| T. 18 S., R. 4 E., corner secs. 4, 5, 8, and 9.....   | 33 34 38.2 | 86 14 17.4 | 2,081                      |

Magnetic declination for west border of quadrangle, 2° 16' E.

## ONEONTA QUADRANGLE.

Along highways and railroad near south border of quadrangle.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
| St. Clair Springs, about 3 miles east of, T road south, 10 feet north to tall fence post.....                        | ° ' "      | ° ' "      | <i>Feet.</i>               |
| Little Canoe Creek, center of middle truss of bridge over.....   | 33 45 37.4 | 86 21 20.4 | .....                      |
| Tps. 15 and 16, Rs. 2 and 3 E., corner secs. 1, 6, 31, and 36.....   | 33 45 47.1 | 86 22 40.8 | 6,863                      |
| St. Clair Springs, about 1 mile east of, intersection of pikes, 5 feet south and 27 feet east to telephone pole..... | 33 45 52.9 | 86 22 35.4 | 747                        |
| St. Clair Springs, T road south, center of, 10 feet south to telephone pole.....                                     | 33 45 44.7 | 86 23 14.6 | 3,403                      |
| St. Clair Springs, about 1.25 miles west of, 48 feet east to telephone pole No. 67, crossroads.....                  | 33 45 46.9 | 86 24 10.0 | 4,688                      |
| Springville, about 2.50 miles northeast of, north-south pike crossing Alabama Great Southern R. R.....               | 33 46 09.5 | 86 25 24.8 | 6,713                      |
| Springville, about 0.70 mile northeast of, road crossing.....  | 33 46 54.6 | 86 25 36.2 | 4,657                      |
| Springville station, opposite semaphore center of track.....   | 33 46 46.9 | 86 27 18.6 | 8,671                      |
| Springville station, 2 miles southwest of, east and west road crossing.....  | 33 46 28.3 | 86 27 56.9 | 3,744                      |
| .....  | 33 45 08.3 | 86 29 10.1 | 10,180                     |

Magnetic declination for south border of quadrangle, 2° 52' E.

Goodwater and Weogufka quadrangles.

## COOSA, TALLADEGA, AND WEOGUFKA COUNTIES.

The following geographic positions on North American datum were determined by primary traverse in 1914 by J. R. Ellis. They are based on positions described in Bulletins 201 and 276.

## WEOGUFKA QUADRANGLE.

From Kahatchee triangulation station of the United States Coast and Geodetic Survey along public highways west to tie at Wilsonville.

| Stations.  | Latitude.   | Longitude.  | Distance between stations. |
|--|-------------|-------------|----------------------------|
| Kahatchee triangulation station, 4 miles south of Childersburg, on highest point of range of hills, a bottle under a large bowlder.....              | ° ' "       | ° ' "       | <i>Feet.</i>               |
| Forks of road, 0.8 mile northwest of triangulation station.....  | 33 13 38.27 | 86 21 36.53 | .....                      |
| J. S. Bryant's mail box at T road east.....  | 33 14 12.5  | 86 22 05.5  | 4,255                      |
| Lee Henderson plantation, at forks of road, at south end of negro cabin, in brick chimney; bronze tablet stamped "Prim. Trav. Sta. No. 9, 1914"..... | 33 13 44.3  | 86 23 34.5  | 8,072                      |
| Corner sections (no numbers) north and south road at hedge fence west.....   | 33 13 25.4  | 86 24 22.4  | 4,497                      |
| Wilsonville, center of covered bridge over Kahatchee Creek, 3.5 miles east of.....   | 33 13 31.6  | 86 24 21.6  | 640                        |
| Mountain Grove Church, center of T road south at.....  | 33 14 20.5  | 86 24 54.6  | 5,688                      |
| McGowan Ferry, T road south, 0.5 mile east of, 30 feet south and 10 feet east to black oak tree.....   | 33 14 13.8  | 86 25 54.9  | 5,162                      |
| Wilsonville, east and west road crossing Southern Ry., 0.8 mile northeast of.....  | 33 14 15.0  | 86 27 12.6  | 6,610                      |
| Wilsonville, "Prim. Trav. Sta. No. 794".....   | 33 14 15.6  | 86 28 20.4  | 5,769                      |
| .....  | 33 14 04.10 | 86 29 02.90 | .....                      |

From McGowan Ferry south along highways to Fayetteville station, thence along Louisville & Nashville Railroad to tie at Sylacauga.

|  |            |            |       |
|--|------------|------------|-------|
| McGowan Ferry, west end of small bridge at forks of road 1.2 miles south and 0.5 mile east of..... | 33 13 06.7 | 86 27 02.7 | ..... |
| Haye Spring Branch, at north and south road crossing.....  | 33 11 33.5 | 86 26 59.7 | 9,431 |
| Shady Grove Church, center of crossroads just southeast of.....                                    | 33 10 51.2 | 86 25 45.6 | 7,618 |
| Cemetery, crossroads 0.2 mile southeast of.....  | 33 10 12.1 | 86 25 00.6 | 5,508 |
| Fayetteville, center of T road north at.....   | 33 09 19.3 | 86 24 24.1 | 6,189 |
| Fayetteville station, corner sections at.....  | 33 08 46.4 | 86 24 23.1 | 3,333 |

WEOGUFKA QUADRANGLE—Continued.  
Along Louisville & Nashville Railroad.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
| Fayetteville station, north and south road crossing Louisville & Nashville R. R., about 300 feet east of.....  | 33 08 46.7 | 86 24 19.0 | Feet.<br>354               |
| Fayetteville station, private road crossing, 0.8 mile east of.....   | 33 09 01.5 | 86 23 33.2 | 4, 170                     |
| Milepost 94A, private road crossing, 0.5 mile east of.....   | 33 09 23.8 | 86 22 23.5 | 6, 339                     |
| Fayetteville station, 2.5 miles east of, in marble outcrop on north side of Louisville & Nashville R. R., 1,000 feet east of road crossing, 25 feet south and 10 feet west to east end of culvert No. 41; bronze tablet stamped "Prim. Trav. Sta. No. 10, 1914"..... | 33 09 33.2 | 86 21 55.4 | 2, 568                     |
| Milepost 92A, east and west road crossing at.....  | 33 09 51.0 | 86 20 53.2 | 5, 594                     |
| Milepost 91A, east and west road crossing, 1,350 feet east of.....   | 33 09 45.1 | 86 19 36.9 | 6, 510                     |
| Milepost 90A, road crossing, 300 feet southwest of.....  | 33 09 54.0 | 86 18 56.2 | 3, 577                     |
| Gant Junction, road crossing, 30 feet west of semaphore.....   | 33 10 04.7 | 86 17 53.9 | 5, 408                     |
| Milepost 88A, private road crossing, 210 feet west of.....   | 33 10 05.5 | 86 16 53.2 | 5, 161                     |
| Milepost 87A, north and south road crossing at.....  | 33 10 06.3 | 86 15 49.4 | 5, 432                     |
| Sylacauga, crossing of Louisville & Nashville R. R. and Central of Georgia R. R. at.....   | 33 10 25.0 | 86 15 01.9 | 4, 455                     |

From Sylacauga south along highways to point near southeast corner of quadrangle, thence west along south border to Marble Valley and north to Talladega Springs, thence along Louisville & Nashville Railroad to tie at Fayetteville station.

|  |             |             |        |
|--|-------------|-------------|--------|
| Sylacauga, crossing of Louisville & Nashville R. R. and Central of Georgia R. R.....   | 33 10 25.0  | 86 15 01.9  | .....  |
| T. 23 S., R. 18 E., corner sections at Sylacauga; iron hub.....  | 33 10 02.7  | 86 15 03.4  | 2, 253 |
| Sylacauga, center of T road north, 1 mile south of, 15 feet east and 10 feet south to mail box.....  | 33 09 18.9  | 86 15 09.1  | 4, 457 |
| Sylacauga, center of T road west, 2½ miles south of.....   | 33 08 09.0  | 86 15 17.4  | 7, 090 |
| Sylacauga, 3 miles south of, in ledge of stone on north side of Stewartville-Sylacauga road, 0.2 mile south of Tanyard branch, 18 feet from center of road; bronze tablet stamped "Prim. Trav. Sta. No. 11, 1914"..... | 33 07 31.4  | 86 15 15.0  | 3, 803 |
| Stewartville, northeast corner of store, at forks of road, 2 miles north and 0.5 mile west of.....   | 33 06 26.5  | 86 15 33.0  | 6, 742 |
| Shelton Creek, center of bridge over.....  | 33 05 01.4  | 86 15 13.5  | 8, 758 |
| T. 24 S., R. 18 E., corner secs. 14, 15, 22, and 23.....   | 33 03 36.8  | 86 15 05.7  | .....  |
| Mail box No. 39, at T road north.....  | 33 01 47.1  | 86 15 35.2  | .....  |
| New Side Baptist Church, well house at forks of road just south of.....  | 33 01 23.4  | 86 16 13.9  | 4, 072 |
| Weogufka, center of crossroads, on top of hill, 1.3 miles east of.....   | 33 01 04.6  | 86 17 21.4  | 6, 054 |
| Weogufka, bridge at middle of Weogufka Creek, 0.5 mile east of.....  | 33 01 07.3  | 86 18 00.6  | 3, 345 |
| Weogufka, center of crossroads at.....   | 33 01 00.1  | 86 18 42.8  | 3, 670 |
| Tps. 24 and 25 S., Rs. 17 and 18 E., corner of, 20 feet south to black oak tree.....   | 33 00 58.0  | 86 19 11.4  | 2, 436 |
| Weogufka, center of crossroads, 1.5 miles west and 0.5 mile south of.....  | 33 00 33.0  | 86 20 12.6  | 5, 791 |
| Weogufka, 3 miles west of and 0.8 mile south of, in east chimney of W. T. Lesley's residence at Unity Church; bronze tablet stamped "Prim. Trav. Sta. No. 13, 1914".....   | 33 00 20.0  | 86 21 35.4  | 7, 173 |
| Frog poodle crossroads, center of.....   | 33 00 23.3  | 86 21 47.8  | 1, 110 |
| Weogufka, center of crossroads, 5 miles due west of.....   | 33 00 48.7  | 86 23 24.6  | 8, 629 |
| Forks of road at top of hill, dim road to southwest.....   | 33 01 04.0  | 86 24 20.3  | 4, 992 |
| Paint Creek, center of crossroad, 0.5 mile east of.....  | 33 02 07.6  | 86 25 08.0  | 7, 643 |
| Marble Valley, center of bridge over Paint Creek, 1.5 miles east and 0.5 mile south of.....  | 33 02 14.0  | 86 25 33.3  | 2, 182 |
| Marble Valley, in brick chimney of J. W. Morris's residence at; bronze tablet stamped "Prim. Trav. Sta. No. 14, 1914".....   | 33 02 40.2  | 86 27 01.8  | 7, 991 |
| Marble Valley, center of T road east, 1.5 miles north of and 0.5 mile east of.....   | 33 04 01.2  | 86 26 34.9  | 8, 499 |
| Guide board, "Marble Valley 2 miles," forks of road at, 30 feet south to guide board.....  | 33 04 39.2  | 86 26 18.1  | 4, 103 |
| Looney Mill, center of T road east at.....   | 33 05 24.9  | 86 26 13.0  | 4, 643 |
| Pickewood Creek, center of bridge over.....  | 33 05 35.1  | 86 26 43.8  | 2, 816 |
| Talladega-Coosa county line, center of north-south road on.....  | 33 06 11.5  | 86 26 46.0  | 3, 685 |
| Talladega Springs, in concrete coping at spring house; bronze tablet stamped "Prim. Trav. Sta. No. 15, 1914".....  | 33 06 56.6  | 86 26 34.4  | 4, 674 |
| Talladega Springs station, 1 mile northeast of, northeast and south-west road crossing Louisville & Nashville R. R.....  | 33 07 57.3  | 86 26 06.2  | 6, 586 |
| Fayetteville station, road crossing east and west, Louisville & Nashville R. R., 0.75 mile southwest of.....   | 33 08 30.0  | 86 25 10.8  | 5, 751 |
| Station 171, tie point.....  | 33 08 46.56 | 86 24 19.08 | 4, 709 |

Magnetic declination for west half of north border of quadrangle, 2° 24' E.; for north half of west border of quadrangle, 2° 31' E.; for south half of west border of quadrangle, 2° 30' E.; for south half of east border of quadrangle, 2° 57' E.; for east half of south border of quadrangle, 3° 07' E.; for west half of south border of quadrangle, 2° 34' E.

## GOOD WATER QUADRANGLE.

Near Stewartsville.

| Stations.   | Latitude.        | Longitude.       | Distance between stations. |
|---|------------------|------------------|----------------------------|
| Stewartsville, forks of road at, 25 feet south to center of small bridge.....   | ° ' " 33 04 40.3 | ° ' " 86 14 50.6 | <i>Feet.</i>               |
| Stewartsville, center of forks of road, 1 mile south of.....  | 33 03 51.6       | 86 14 52.2       | 4,918                      |
| Stewartsville, 3 miles south and 1 mile east of, on west edge of Stewartsville-Hanover road, about 800 feet northeast of forks of road, 17 feet west to blaze on east face of black gum tree, in ledge of stone; bronze tablet stamped "Prim. Trav. Sta. No. 12, 1914"..... | 33 02 29.6       | 86 13 41.3       | .....                      |

# NORTH CAROLINA.

## PRIMARY TRAVERSE.

Belhaven, Bunyon, Jamesville, and Plymouth quadrangles.

BEAUFORT, MARTIN, AND WASHINGTON COUNTIES.

The following geographic positions on North American datum were determined in 1913 by George T. Hawkins. The line starts from Coast Survey triangulation station Cedar Grove and follows Norfolk Southern Railroad to triangulation station Range South. Circuits are looped from the main line and follow railroads and highways as indicated in the tabulated lists:

### BELHAVEN QUADRANGLE.

#### Along Norfolk Southern Railroad.

| Station.  | Latitude.  | Longitude. | Distance<br>between<br>stations. |
|---|------------|------------|----------------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>                     |
| Milepost 15, railroad track opposite.....   | 35 44 54.4 | 76 38 01.7 |                                  |
| Wenona blind siding, head block.....  | 35 43 51.2 | 76 38 33.6 | 6,900                            |
| Old Plymouth, road crossing near water tank.....  | 35 43 05.0 | 76 38 56.9 | 5,050                            |
| Pike Road station, railroad track opposite.....   | 35 41 43.8 | 76 39 32.4 | 8,718                            |
| Old log railroad, crossing of.....  | 35 40 15.4 | 76 39 52.2 | 9,090                            |
| Milepost 8, second-class road crossing 2,550 feet south of.....   | 35 38 41.4 | 76 40 13.2 | 9,660                            |
| Milepost 7, Norfolk Southern R. R. crossing, drainage ditch 1,150 feet south of.....  | 35 38 03.5 | 76 40 21.7 | 3,900                            |
| Bishop, 10 feet east of railroad station and 15 feet south of wagon road, 110 feet north of railroad station and 60 feet west of old store, iron post stamped "Prim. Trav. Sta. No. 3, 1913"..... | 35 36 39.0 | 76 40 40.4 | 8,680                            |
| Wilkins station, road crossing 300 feet east of.....  | 35 36 27.3 | 76 42 01.3 | 6,780                            |
| Second-class road crossing, 70 feet southeast to gate.....  | 35 36 21.8 | 76 42 57.1 | 4,640                            |
| County road crossing, 50 feet northwest to crossing sign.....   | 35 36 13.5 | 76 44 22.0 | 7,061                            |
| Pantego station, road crossing 400 feet southeast of.....   | 35 35 28.9 | 76 39 40.3 | a 8,650                          |
| Milepost 2, road crossing 1,800 feet southeast of, 15 feet south to crossing sign.....  | 35 34 14.2 | 76 38 43.7 | 8,886                            |
| Belhaven, road crossing 1 mile west of.....   | 35 33 07.6 | 76 38 16.4 | 7,110                            |
| Belhaven, in northwest corner of railway reservation northeast of station, U. S. drainage bench mark iron post.....   | 35 32 24.1 | 76 37 25.4 | 6,090                            |

#### Along highways.

|   |            |            |        |
|---|------------|------------|--------|
| Belhaven crossing, Main and Haslin streets.....   | 35 32 24.5 | 76 37 24.2 | 110    |
| Second-class crossroad, 20 feet northwest to 2 mail boxes.....  | 35 32 59.4 | 76 36 14.5 | 6,755  |
| Three corners, 50 feet southwest to negro cabin, 260 feet southeast to old store.....   | 35 33 36.4 | 76 34 39.6 | 8,690  |
| T road south, 10 feet north to N. W. Sadler's mail box.....   | 35 33 35.4 | 76 36 14.5 | 3,440  |
| T road south, 40 feet southwest to old store.....   | 35 33 28.8 | 76 33 09.0 | 4,144  |
| Leechville, 1½ miles west of, at T road north, 14 feet west to J. R. Green's mail box, 45 feet southeast to northwest corner of cabin, 15 feet north to east and west road; iron post stamped "Prim. Trav. Sta. No. 5, 1913"..... | 35 33 53.7 | 76 32 04.9 | 5,946  |
| Small wooden bridge, three corners at.....  | 35 34 29.1 | 76 32 04.7 | 3,580  |
| 14-inch pine, blazed on east and west; nail in each blaze.....  | 35 35 48.3 | 76 33 53.0 | 12,010 |
| Forks of road, 20 feet east to sign, "Pungo 8 miles, Leechville 5 miles".....   | 35 35 47.8 | 76 34 02.7 | 800    |
| Mr. Swindell's residence, well in front of.....   | 35 36 12.1 | 76 34 40.5 | 3,971  |
| Gate, road opposite.....  | 35 36 38.4 | 76 35 19.0 | 4,144  |
| Forks of road, dim road northeast.....  | 35 37 39.3 | 76 36 17.7 | 7,836  |
| Forks of road, dim road southeast.....  | 35 37 57.0 | 76 36 35.4 | 2,305  |
| Forks of road, 120 feet south to sign, "Pantico 4 miles, Pikewood 7 miles".....   | 35 38 01.0 | 76 36 44.5 | 853    |

a Distance from station at Bishop.

## BELHAVEN QUADRANGLE—Continued.

## Along highways—Continued.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | <i>Feet.</i>               |
| County road crossing drainage ditch .....   | 35 38 57.3 | 76 36 36.4 | 5,733                      |
| Forks, second-class road west, 40 feet north to mail box, 150 feet southeast to 2-story frame house .....   | 35 39 14.0 | 76 36 48.5 | 1,955                      |
| Forks, second-class road at white race church .....   | 35 39 54.3 | 76 36 34.0 | 4,255                      |
| Pungo post office, road opposite .....  | 35 40 35.8 | 76 37 13.7 | 5,322                      |
| T road north at white race schoolhouse .....  | 35 40 57.6 | 76 37 43.7 | 3,316                      |
| T road west, 150 feet northwest to 2-story house .....  | 35 41 58.0 | 76 38 07.1 | 6,400                      |
| County road crossing drainage ditch .....   | 35 42 40.9 | 76 38 33.2 | 4,840                      |
| Wenona, 300 feet east of Norfolk Southern Ry. on north side of old Plymouth road, stamped "Prim. Trav. Sta. No. 6, 1913," 10 feet north of center of road and 3 feet south of ditch .....                     | 35 43 02.8 | 76 38 54.6 | 2,830                      |
| Old Plymouth road crossing Norfolk Southern R. R. ....  | 35 43 05.0 | 76 38 56.9 | 300                        |
| Three corners at church .....   | 35 35 05.8 | 76 40 10.3 | .....                      |
| T road west at store .....  | 35 34 24.6 | 76 41 20.5 | 7,137                      |
| Second-class road fork northwest .....  | 35 33 59.9 | 76 41 49.7 | 3,467                      |
| T road southeast, 50 feet south to 2-story house .....  | 35 32 42.6 | 76 42 17.3 | 8,142                      |
| T road southeast, 20 feet north to sign, "Washington 23 miles, Pantego 5 miles" .....   | 35 32 25.1 | 76 42 31.5 | 2,118                      |
| T road northwest, at old store .....  | 35 32 00.9 | 76 43 36.5 | 5,904                      |
| Yeatesville, three corners at, 40 feet north to store .....   | 35 31 42.2 | 76 44 26.0 | 4,502                      |
| Yeatesville, on north side east and west road, 600 feet west of 3 corners, 60 feet northwest of Mr. Woolard's house, 40 feet northeast of small house; iron post stamped "Prim. Trav. Sta. No. 7, 1913" ..... | 35 31 42.3 | 76 44 33.7 | 636                        |

## BUNYON QUADRANGLE.

## Along Norfolk Southern Railroad.

| Station.   | Latitude.   | Longitude.  | Distance between stations. |
|--|-------------|-------------|----------------------------|
|  | ° ' "       | ° ' "       | <i>Feet.</i>               |
| Cedar Grove, on sandy point on north side of Pamlico River 1 mile southeast of Washington; it is the next point above Austin Point and 1 mile distant; 1½-inch iron pipe driven in the ground; the station is now about 10 feet from the shore line, in water near 3 feet deep; reference mark, cypress stump, 19.6 feet from station, at water's edge ..... | 35 31 52.58 | 77 02 10.99 | .....                      |
| River Road station, road crossing .....  | 35 32 07.2  | 76 59 16.4  | 14,500                     |
| Bunyon station, road crossing 500 feet south of .....  | 35 32 13.1  | 76 58 31.2  | 3,786                      |
| Hall Swamp station, road crossing .....  | 35 33 00.8  | 76 57 09.2  | 8,320                      |
| Allgoods station, road crossing .....  | 35 33 29.6  | 76 56 19.6  | 5,030                      |
| Slatestone station, road crossing .....  | 35 34 17.3  | 76 54 57.0  | 8,350                      |
| Milepost 117, railroad track opposite .....  | 35 34 34.0  | 76 54 10.6  | 4,193                      |
| Walla Watta station, north-south road crossing at .....  | 35 35 09.4  | 76 52 26.9  | 9,280                      |
| Milepost 114, road crossing northeast and southwest, 250 feet south of .....   | 35 35 59.2  | 76 51 58.0  | 5,575                      |
| Pinetown, 54 feet northwest of the northwest corner of station, 30 feet north of northeast corner of frame house, 11 feet west of west rail of main line Norfolk Southern R. R. and 16 feet north of railway crossing; iron post stamped "Prim. Trav. Sta. No. 1, 1913" ..   | 35 36 37.2  | 76 51 52.3  | 3,870                      |
| Mileposts 110 and 111, well-traveled road crossing between .....   | 35 38 54.4  | 76 51 31.6  | 13,970                     |
| Milepost 109, railway track opposite .....   | 35 40 19.2  | 76 51 11.6  | 8,737                      |
| Mizell station, road crossing at .....   | 35 41 37.5  | 76 50 28.0  | 8,690                      |
| Mizell station, road crossing 1 mile northeast of .....  | 35 42 15.9  | 76 49 47.8  | 5,100                      |
| Hoke station, road crossing at .....   | 35 43 57.5  | 76 48 48.0  | 11,400                     |
| Milepost 103, railway track opposite .....   | 35 44 52.2  | 76 48 11.4  | 6,300                      |
| Terracia station, road crossing at .....   | 35 36 04.3  | 76 45 55.4  | .....                      |
| Stevens station, road crossing drainage ditch at .....   | 35 35 58.1  | 76 46 58.3  | 5,231                      |
| Log Spur, head block .....   | 35 35 50.4  | 76 48 17.0  | 6,550                      |
| Acrestation, road crossing at east end of .....  | 35 35 43.9  | 76 49 26.2  | 5,747                      |
| Second-class road crossing, 150 feet south to white house, 30 feet north to county road .....  | 35 36 14.1  | 76 50 46.3  | 7,288                      |
| Prim. Trav. Sta. No. 1 (described above) .....   | 35 36 37.2  | 76 51 52.3  | 5,953                      |



**BUNYON QUADRANGLE—Continued.**

Along highways.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
|  | ° ' "      | ° ' "      | <i>Feet.</i>               |
| T road south, signpost 20 feet southeast reads "Bath 5½ miles".....  | 35 31 42.0 | 76 45 08.8 | .....                      |
| T road north at old store, 100 feet northwest to two-story house....   | 35 31 46.2 | 76 46 34.7 | 7, 112                     |
| Three corners, on east bank of drainage ditch.....   | 35 31 37.4 | 76 47 21.4 | 3, 956                     |
| Crossroads, 200 feet southwest to large house 60 feet northeast to small house.....  | 35 31 28.8 | 76 48 00.3 | 3, 334                     |
| Hunter's bridge, four corners.....   | 35 31 19.0 | 76 48 35.3 | 3, 053                     |
| Crossroads, 400 feet south to whiteschoolhouse, 20 feet southeast to signpost.....   | 35 31 23.8 | 76 50 33.4 | 9, 770                     |
| Crossing of county road and narrow-gage railroad.....  | 35 31 32.0 | 76 51 49.2 | 6, 320                     |
| On north side of east and west road, 60 feet west of T road north, 15 feet southeast to mail box, 68 feet west to mail box, 300 feet north to two-story house; iron post stamped "Prim. Trav. Sta. No. 8, 1913"..... | 35 31 32.0 | 76 52 21.8 | 2, 700                     |
| Three corners, 20 feet northwest to signpost "Plymouth road 3½ miles".....   | 35 31 28.1 | 76 53 04.1 | 3, 512                     |
| Three corners, 100 feet north to 200 feet southeast to house.....  | 35 30 42.5 | 76 54 01.0 | 6, 584                     |
| Second-class crossroad.....  | 35 31 06.0 | 76 55 27.5 | 7, 535                     |
| County road crossing narrow-gage road.....   | 35 31 31.9 | 76 56 32.6 | 5, 984                     |
| T road southwest, 30 feet south to old store.....  | 35 31 53.8 | 76 57 55.0 | 7, 155                     |
| Bunyon station, road crossing 500 feet south of.....   | 35 32 13.1 | 76 58 31.2 | 3, 577                     |

**JAMESVILLE QUADRANGLE.**

Along Norfolk Southern Railroad, Hinson to Plymouth.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
|  | ° ' "      | ° ' "      | <i>Feet.</i>               |
| Hinson, 12 feet west of west rail main line Norfolk Southern R. R., 20 feet south of station, 21 feet southwest of southwest corner of station, and 10 feet northeast of pine tree; iron post stamped "Prim. Trav. Sta. No. 2, 1913."..... | 35 45 47.6 | 76 47 34.4 | .....                      |
| Milepost 101, railroad track opposite.....   | 35 46 15.0 | 76 46 58.6 | 4, 045                     |
| Milepost 100, railroad track opposite.....   | 35 46 44.5 | 76 46 05.8 | 5, 285                     |
| Reno station, railroad track opposite.....   | 35 48 14.0 | 76 45 52.1 | 9, 120                     |
| Mileposts 96 and 97, county road crossing between.....   | 35 49 24.2 | 76 45 29.3 | 7, 347                     |
| Milepost 95, county road crossing, 700 feet northwest of.....  | 35 50 53.4 | 76 45 36.0 | 9, 030                     |
| Plymouth, U. S. C. S. north meridian stone.....  | 35 51 40.2 | 76 45 14.1 | 5, 070                     |
| Jones's value for north meridian stone (not adjusted to this value).....   | 35 51 41.9 | 76 45 14.1 | .....                      |

**PLYMOUTH QUADRANGLE.**

Along Norfolk Southern Railroad.

| Station.  | Latitude.   | Longitude.  | Distance between stations. |
|---|-------------|-------------|----------------------------|
|   | ° ' "       | ° ' "       | <i>Feet.</i>               |
| Milepost 91, road crossing, 1,400 feet southwest of.....  | 35 51 56.8  | 76 43 37.6  | .....                      |
| Waters station, second-class road crossing.....   | 35 53 14.9  | 76 43 03.2  | 11, 080                    |
| Westover station, railway track opposite.....   | 35 54 02.9  | 76 40 42.3  | 8, 234                     |
| County road crossing.....   | 35 54 28.9  | 76 39 26.7  | 6, 750                     |
| County road crossing, 200 feet southeast to church.....   | 35 55 09.8  | 76 37 46.7  | 9, 205                     |
| Main line Norfolk Southern R. R., on projected line of tangent from south of Belhaven branch.....   | 35 55 42.6  | 76 36 58.9  | 5, 146                     |
| Range South, U. S. C. S. triangulation station at the south end of the Albemarle Sound bridge, Norfolk Southern R. R., between 2 tracks and 575 feet southwest of the end of the bridge; station mark, a small brass bolt in center of top of large block of cement 1 foot square on top, buried flush with ground..... | 35 56 19.20 | 76 36 14.05 | .....                      |
| Mileposts 26 and 27, Belhaven branch Norfolk Southern R. R.....   | 35 53 54.6  | 76 37 27.0  | a 11, 160                  |
| Roper, main street crossing railway.....  | 35 52 40.0  | 76 36 55.5  | 7, 983                     |
| Mileposts 23 and 24, second-class road crossing between, 300 feet east to negro cabin.....  | 35 51 43.2  | 76 36 17.8  | 6, 522                     |
| Milepost 22, railroad track opposite.....   | 35 50 36.1  | 76 35 45.6  | 7, 290                     |
| Milepost 21, railroad track opposite.....   | 35 49 45.0  | 76 35 36.6  | 5, 213                     |
| Milepost 20, railroad track opposite.....   | 35 48 56.3  | 76 35 59.2  | 5, 264                     |
| Milepost 19, railroad track opposite.....   | 35 48 08.2. | 76 36 23.6  | 5, 260                     |
| Milepost 18, railroad track opposite.....   | 35 47 19.7  | 76 36 48.2  | 5, 311                     |
| Milepost 17, railroad track opposite.....   | 35 46 31.4  | 76 37 12.6  | 5, 280                     |
| Railroad siding, head block at south end of.....  | 35 45 35.6  | 76 37 40.9  | 6, 110                     |

a Distance from main line.

## Belhaven, Bunyon, and Plymouth quadrangles.

## BEAUFORT AND WASHINGTON COUNTIES.

Positions on approximate North American datum determined from notes of John L. Roper Lumber Co., Land Reclamation Department, which have common points with U. S. Geological Survey primary traverse line. Line follows highways from points on traverse line at Plymouth described in Bulletin 181 and is tied to traverse line at Acre. Line was run in 1913 and computed in 1915.

## PLYMOUTH QUADRANGLE.

Along highways near southwest border of quadrangle.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
|  | ° ' "      | ° ' "      | Feet.                      |
| Plymouth, milepost 92.....   | 35 51 41.9 | 76 44 21.1 | .....                      |
| Plymouth, $\frac{3}{4}$ mile south of; forks of road at cemetery.....                                | 35 51 21.6 | 76 44 39.6 | 2,553                      |
| Plymouth, 1 mile south of; bench mark in 15-inch water oak.....                                      | 35 50 57.4 | 76 44 45.3 | 2,500                      |
| Plymouth, $\frac{1}{2}$ miles south of; bench mark in 20-inch poplar.....                            | 35 50 31.6 | 76 44 24.7 | 3,110                      |
| Plymouth, $\frac{2}{3}$ miles south of; bench mark in 6-inch gum tree.....                           | 35 49 49.2 | 76 44 12.2 | 4,414                      |
| Plymouth, 3 miles south of; bench mark in 8-inch oak tree.....                                       | 35 49 23.6 | 76 44 06.9 | 2,623                      |
| Plymouth, 4 miles south of; bench mark in 15-inch gum tree, near schoolhouse.....                    | 35 48 41.0 | 76 44 04.1 | 4,320                      |
| Plymouth, $\frac{4}{3}$ miles south of; bench mark in 6-inch pine tree near Mr. Bateman's house..... | 35 47 57.9 | 76 43 23.9 | 5,472                      |
| D. G. Darden's house, crossroads near.....   | 35 47 42.3 | 76 43 25.6 | 1,580                      |
| D. G. Darden's house, $\frac{3}{4}$ mile south of; bench mark in 6-inch gum tree.....                | 35 47 27.0 | 76 43 27.3 | 1,554                      |
| D. G. Darden's house, road southwest, 1 mile southwest of.....                                       | 35 46 49.7 | 76 43 47.6 | 4,120                      |
| Bench mark in 24-inch oak tree near house.....   | 35 46 19.4 | 76 44 02.0 | 3,290                      |
| County road crossing drainage ditch.....   | 35 46 06.0 | 76 44 10.8 | 1,536                      |
| Near where road crosses drainage ditch; bench mark in 15-inch pine tree.....                         | 35 45 47.6 | 76 44 13.5 | 1,874                      |
| Schoolhouse, 650 feet north of; bench mark No. 404, in 24-inch oak tree.....                         | 35 45 33.5 | 76 44 17.4 | 1,460                      |

## BELHAVEN QUADRANGLE.

Near northwest corner of quadrangle.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | Feet.                      |
| Plymouth, road crossing Hollis road; bench mark in 12-inch pine near..... | 35 44 46.3 | 76 44 30.9 | .....                      |
| Plymouth, road crossing drainage ditch at edge of woods.....              | 35 44 23.1 | 76 44 27.9 | 2,360                      |
| U. S. B. M. "F 33," at edge of swamp.....                                 | 35 44 05.7 | 76 44 36.3 | 1,890                      |
| U. S. B. M. "F 32," 500 feet northeast of L. G. Nange's house.....        | 35 43 43.6 | 76 44 53.0 | 2,625                      |

## BUNYON QUADRANGLE.

Along highways in east part of quadrangle.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | Feet.                      |
| Acre, county road crossing railway.....                                       | 35 35 44.1 | 76 49 26.3 | (a)                        |
| Acre, 1 mile north of three corners.....                                      | 35 36 30.2 | 76 49 07.5 | 4,917                      |
| Acre, 2.5 miles northeast of; bench mark in 10-inch pine tree.....            | 35 37 44.7 | 76 48 28.0 | 8,205                      |
| D. L. Harris's house, U. S. B. M. 600 feet north of.....                      | 35 38 11.2 | 76 48 18.6 | 2,795                      |
| B. T. Bowen's house, four corners, 100 feet southwest of.....                 | 35 39 15.0 | 76 47 45.3 | 7,014                      |
| Milepost "To Plymouth 15 miles," 1,500 feet north of H. A. Bowen's house..... | 35 40 11.2 | 76 47 17.7 | 6,120                      |
| J. T. Bownes's house, U. S. B. M. 600 feet northeast of.....                  | 35 40 30.6 | 76 47 04.1 | 2,265                      |
| Milepost, "To Plymouth 14 miles".....   | 35 40 58.0 | 76 46 47.4 | 3,090                      |
| U. S. Harris's house, U. S. B. M. near.....                                   | 35 41 06.0 | 76 46 41.0 | 965                        |
| Acre Chapel, U. S. B. M. near.....  | 35 41 43.0 | 76 46 18.9 | 4,165                      |
| Acre Chapel, 50-inch oak 1.25 miles northeast of.....                         | 35 42 23.8 | 76 45 45.7 | 4,950                      |
| G. L. Bowen, U. S. B. M. "F 31" near.....                                     | 35 42 55.5 | 76 45 22.8 | 3,720                      |

(a) Uncertain location.

## Ayden and Kinston quadrangles.

## GREENE AND LENOIR COUNTIES.

The following geographic positions on approximate North American datum were determined in 1913 by George T. Hawkins. The positions are based on the corrected value of Grainger station, published on page 146, Bulletin 181.

A circuit was completed by using the traverse line run by Oscar Jones in 1900 from Grainger station along Atlantic Coast Line Railroad to Kinston, thence along Norfolk Southern Railroad to road crossing 280 feet east of milepost 78, thence north along highways to Snow Hill by Hawkins in 1913, thence east along highways from Snow Hill to Ridge Springs by Sledge Tatum in 1902, thence south along highways to Grainger by Hawkins in 1913, the closure error of the circuit being 1.74'' in latitude and 1.12'' in longitude.

The positions of points along Jones line from Grainger to milepost 78 as published on pages 144-146, Bulletin 181, are changed but slightly.

The latitudes of points along Tatum's line from Snow Hill to Ridge Springs (p. 41, Bulletin 201) are increased 4.3'' at Snow Hill and 2.8'' at Ormondsville; the longitudes are changed but a few tenths of a second.

## KINSTON QUADRANGLE.

## Along railroads from Grainger to milepost 78.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
|   | ° ' "      | ° ' "      | Feet.                      |
| Grainger, railway opposite telegraph window   | 35 19 10.8 | 77 30 32.0 | .....                      |
| Grainger, 6 feet south of post office, 27 feet east of center of highway, 126 feet east of north rail of Atlantic Coast Line R. R.; iron post stamped "77 Raleigh, Prim. Trav. Sta. No. 11, 1913" | 35 19 09.6 | 77 30 30.8 | 148                        |
| Kinston, crossing of Atlantic Coast Line and Norfolk Southern railroads   | 35 15 31.3 | 77 34 27.2 | 29,530                     |
| Kinston, railway opposite telegraph window of Norfolk Southern R. R. station  | 35 15 51.2 | 77 34 53.8 | 2,990                      |
| Kinston, road crossing 3 miles west of  | 35 16 15.7 | 77 38 12.6 | 16,670                     |
| Falling Creek, railway opposite station   | 35 16 34.8 | 77 41 23.4 | 15,940                     |
| Milepost 78, road crossing 280 feet east of   | 35 17 08.6 | 77 44 06.4 | 13,940                     |
| Milepost 78, road crossing 280 feet east of, 15 feet northeast of, 13 feet of north rail and 2 feet northeast of crossing signpost; iron post stamped "Prim. Trav. Sta. No. 12, 1913"             | 35 17 08.7 | 77 44 06.3 | 15                         |

## Along highways.

|   |            |            |        |
|---|------------|------------|--------|
| Three Corners, in front of large white house 60 feet north to artesian well, 30 feet north to hydraulic vane  | 35 18 54.0 | 77 43 48.2 | 10,780 |
| Three Corners, 40 feet south to post oak between two roads  | 35 19 30.7 | 77 42 46.0 | 6,350  |
| Crossroads, 30 feet northeast to corner of wire fence   | 35 20 36.5 | 77 42 33.1 | 6,750  |
| Institute, T road west in south part of   | 35 21 14.6 | 77 42 46.2 | 4,010  |
| Institute, 3/4 mile north of, 30 feet southwest to crossroads, 110 feet northeast to southwest corner of two-story house, 20 feet east of north and south road and 15 feet north of east and west road; iron post stamped "Prim. Trav. Sta. No. 13, 1913" | 35 21 59.4 | 77 42 59.2 | 4,665  |
| Three Corners, 30 feet southeast to mail box, 150 feet northeast to new house   | 35 23 04.3 | 77 42 43.9 | 6,690  |
| Crossroads, 20 feet north to corner of wire fence, first-class roads north, south, and west, second-class road east   | 35 23 24.9 | 77 42 23.5 | 2,687  |
| Arbor, T road west at, 30 feet northeast to store, 70 feet southwest to church  | 35 24 04.3 | 77 42 08.0 | 4,194  |

## KINSTON QUADRANGLE—Continued.

Along highways—Continued.

| Station.  | Latitude.  | Longitude. | Distance between stations. |
|---|------------|------------|----------------------------|
| Crossroads, 20 feet northeast to signpost "To Lug mill road 2 miles".....   | ° ' "      | ° ' "      | <i>Feet.</i>               |
| .....   | 35 25 42.8 | 77 41 28.3 | 10,495                     |
| Crossroads, 40 feet south to signpost "To Snow Hill 1 mile".....  | 35 26 51.9 | 77 41 22.0 | 7,012                      |
| Snow Hill, courthouse dome.....   | 35 27 21.9 | 77 40 13.0 | 6,460                      |
| Snow Hill, in wall at north side of entrance to county courthouse; aluminum tablet stamped "64 RALEIGH, Prim. Trav. Sta. No. 14, 1913".....   | 35 27 22.0 | 77 40 13.1 | 12                         |
| Snow Hill, country road opposite entrance to courthouse.....  | 35 27 22.1 | 77 40 13.4 | 30                         |
| Snow Hill, 1.5 miles northeast of, road left.....   | 35 28 48.9 | 77 38 51.1 | 11,110                     |
| Snow Hill, 2 miles northeast of, road left.....   | 35 28 56.9 | 77 38 15.4 | 3,063                      |
| Snow Hill, 2.5 miles northeast of, road left.....   | 35 28 51.6 | 77 37 46.4 | 2,456                      |
| Dixonville post office.....   | 35 28 18.3 | 77 36 35.6 | 6,760                      |
| Dixonville, 1 mile east of, road right.....   | 35 28 25.6 | 77 35 17.9 | 6,470                      |
| Dixonville, 2 miles northeast of, road left.....  | 35 29 07.6 | 77 35 05.7 | 4,370                      |
| Road left.....  | 35 29 02.9 | 77 34 22.0 | 3,658                      |
| Ormondsville, crossroads at.....  | 35 28 17.1 | 77 32 45.3 | 9,232                      |
| Ridge Springs, road right, 2 miles northwest of.....  | 35 27 55.8 | 77 31 00.8 | 8,913                      |
| Crossroads, near white church, 20 feet southwest to large oak.....  | 35 24 35.9 | 77 30 01.5 | .....                      |
| Second-class road, fork to east.....  | 35 23 51.8 | 77 30 01.0 | 4,447                      |
| Grainger, 5 miles north of, 20 feet northeast of T road north, 18 feet east of north and south road, 20 feet north of east and west road, 6 feet east to Pine, 15 feet southeast to Pine; iron post stamped "Prim. Trav. Sta. No. 9, 1913"..... | 35 23 03.6 | 77 30 13.1 | 4,975                      |
| Three Corners, 30 feet south to mail box No. 48.....  | 35 22 00.2 | 77 30 42.3 | 6,840                      |
| T road east, 10 feet northeast to mail box No. 94.....  | 35 21 19.4 | 77 30 14.6 | 4,710                      |
| Old Church, three corners near, 60 feet north to southwest corner of graveyard.....   | 35 20 14.1 | 77 30 13.9 | 5,583                      |
| Grainger station.....   | 35 19 10.8 | 77 30 32.0 | 7,550                      |

Magnetic declination on east border of quadrangle, 3° 15' W.; on west border, 3° 00' W.

## AYDEN QUADRANGLE.

Near Ridge Springs.

| Station.   | Latitude.  | Longitude. | Distance between stations. |
|--|------------|------------|----------------------------|
| Ridge Springs, post office.....  | ° ' "      | ° ' "      | <i>Feet.</i>               |
| .....  | 35 27 25.3 | 77 29 18.9 | .....                      |
| Ridge Springs, post office, 45 feet south and 32 feet east of entrance; iron post stamped "Prim. Trav. Sta. No. 10, 1913"..... | 35 27 24.8 | 77 29 18.5 | 55                         |
| Ridge Springs, 2 miles south of; T road west, 20 feet northwest to 2 mail boxes, 150 feet northwest to large bell.....         | 35 25 40.8 | 77 29 44.7 | 10,730                     |