

NEBRASKA AND KANSAS.

PRIMARY TRAVERSE.

Falls City, Howe, Humboldt, Nemaha, Tecumseh, and Hiawatha quadrangles.

NEMAHA, PAWNEE, AND RICHARDSON COUNTIES, NEBR.; BROWN COUNTY, KANS.

The following geographic positions on approximate North American datum were determined by J. R. Ellis in 1913 and by F. W. Crisp in 1915 and are based upon primary traverse positions determined in 1905, described in Bulletin 276, and upon Missouri River Commission triangulation station St. Deroin.

HIAWATHA QUADRANGLE, KANS.

Along highways near north border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	<i>Feet.</i>
T road east, center of intersection of.....	39 59 59.0	95 43 48.3	.....
Falls City, 4 miles south of, 30 feet south of road, in stone hitching post in front of Mr. Fred. Zorn's residence; aluminum tablet stamped "Prim. Trav. Sta. No. 21 Nebr., 1913, elev. 1027".....	39 59 59.8	95 35 56.3	.....
T. 1 N., Rs. 16 and 17 E., south corner of secs. 31 and 36; center of T road north; Nebraska-Kansas State line.....	39 59 59.9	95 33 28.4	.....
T. 1 S., R. 17 E., north corner of secs. 5 and 6; center of T road south; Nebraska-Kansas State line.....	39 59 59.8	95 32 45.9	3,310
T. 1 N., R. 17 E., south corner of secs. 31 and 32; center of T road north; Nebraska-Kansas State line.....	39 59 59.8	95 32 20.2	1,970
T. 1 S., R. 17 E., north corner of secs. 4 and 5, center of T road south; Nebraska-Kansas State line.....	39 59 59.7	95 31 38.6	3,270
T. 1 N., R. 17 E., south corner of secs. 32 and 33; center of T road north; Nebraska-Kansas State line.....	39 59 59.7	95 31 12.6	.....

Magnetic declination of northeast quarter of quadrangle 9.5° E.

FALLS CITY QUADRANGLE, NEBR.

Along Chicago, Burlington & Quincy Railway.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	<i>Feet.</i>
Verdon, 3.50 miles south of, 25 feet north and 50 feet east of center of road crossing; iron post stamped "Prim. Trav. Sta. No. 17, Nebr., 1913, Elev. 938".....	40 06 06.90	95 43 05.50	.....
Road crossing, center of track at.....	40 05 40.4	95 43 06.3	2,686
Chicago, Burlington & Quincy Ry., center of track at road crossing.	40 05 14.4	95 43 06.8	2,629
Creek crossing under concrete culvert "26.93," center of track at.....	40 05 27.9	95 43 20.2	1,718
Wooden trestle "27.88" over creek, center of track at.....	40 05 49.9	95 44 17.0	4,939
Tps. 1 N. and 1 S., R. 15 E., $\frac{1}{4}$ corner secs. 4 and 33, T road south on State line.....	40 00 01.1	95 44 55.3	.....
T road north on State line, center of.....	40 00 01.1	95 44 47.1	640
T road north, center of intersection at.....	40 00 01.4	95 43 39.6	.....
T road south, on State line, center of intersection at.....	40 00 01.1	95 42 39.3	4,700
T road north, on State line, center of intersection at.....	40 00 01.1	95 42 31.7	590
Salem, 5 miles south and 0.50 mile east of, 200 feet north of State line, in west face of stone foundation of barn owned by Amos Thompson; aluminum tablet stamped "Prim. Trav. Sta. No. 19, Nebr., 1913".....	40 00 03.00	95 42 18.10	1,077

FALLS CITY QUADRANGLE, NEBR.—Continued.

Along Missouri Pacific Railway to Verdon, thence south along Chicago, Burlington & Quincy Railroad to Salem, thence south along highways to State line (near west border of quadrangle).

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Stella, 3 miles southeast of, southeast corner of road crossing, 30 feet north by 70 feet west to center of east-west road crossing; iron post stamped "Prim. Trav. Sta. No. 15, Nebr., 1913, elev. 967".....	40 11 46.8	95 44 48.8	.....
East-west road crossing, 150 feet east of this position is south corner of secs. 33 and 34, T. 3 N., R. 14 E., T road north.....	40 10 28.6	95 43 42.8	9,429
East-west road crossing, 1,020 feet to trestle over creek southwest.....	40 09 36.4	95 43 14.8	5,710
Verdon, 0.25 mile northwest of; west side of road crossing Missouri Pacific Ry., 130 feet east by 10 feet north to center of road crossing; iron post stamped "Prim. Trav. Sta. No. 16, Nebr., 1913, elev. 935".....	40 09 01.1	95 42 58.9	3,779
East-west road crossing under bridge.....	40 07 51.4	95 42 51.9	7,071
Verdon, 2.5 miles south of, east-west road crossing.....	40 06 58.9	95 43 11.3	5,361
Verdon, 3.5 miles south of; northeast corner of crossroads, 25 feet south by 50 feet west to center of road crossing; iron post stamped "Prim. Trav. Sta. No. 17, Nebr., 1913, elev. 938".....	40 06 06.9	95 43 05.5	5,274
Salem, track opposite semaphore.....	40 04 46.8	95 42 37.6	8,389
Salem, center of steel bridge over Great Nemaha River.....	40 04 32.6	95 43 02.5	2,418
Salem, 0.5 mile south of; in northwest corner of stone abutment of bridge over South Fork of Great Nemaha River; iron post stamped "915 Prim. Trav. Sta. No. 18, Nebr., 1913".....	40 04 08.2	95 43 05.5	2,478
Center of steel bridge over large ditch east.....	40 03 43.7	95 42 31.9	3,598
T. 1 N., R. 15 E., corner of secs. 14, 15, 22, and 23; center of T road east.....	40 02 37.7	95 42 31.5	6,079
T. 1 N., R. 15 E., stone at corner of secs. 22, 23, 26, and 27; center of crossroads.....	40 01 45.5	95 42 31.5	5,280
T. 1 N., R. 15 E., corner of secs. 26, 27, 34, and 35; center of crossroads.....	40 00 53.1	95 42 31.7	5,300

Along highways near south border of quadrangle.

T. 1 N., R. 15 E., south corner of secs. 34 and 35; Kansas-Nebraska State line.....	40 00 01.0	95 42 31.8	.....
Salem, 5 miles south by 0.5 mile east of, just north of Nebraska-Kansas State line, in west face of barn owned by Amos Thompson; aluminum tablet stamped "1102 Prim. Trav. Sta. No. 19, Nebr., 1913".....	40 00 03.0	95 42 18.1	1,085
T. 1 S., R. 15 E., north corner of secs. 1 and 2, center of T road south, Kansas-Nebraska State line.....	40 00 00.7	95 41 31.0	3,616
T. 1 S., Rs. 15 and 16 E., north corner of secs. 1 and 6, center of T road south; Nebraska-Kansas State line.....	40 00 00.6	95 40 22.1	5,360
T. 1 S., Rs. 15 and 16 E., south corner of secs. 31 and 36; center of T road north; Nebraska-Kansas State line.....	40 00 00.6	95 40 16.0	480
T. 1 S., R. 16 E., corner of secs. 5 and 6; center of T road south; Nebraska-Kansas State line.....	40 00 00.5	95 39 30.6	3,530
Falls City, 4 miles south by 4 miles west of, on State line road; stone gatepost to entrance of Wm. Booth's farm; aluminum tablet stamped "999 Prim. Trav. Sta. No. 20, Nebr., 1913".....	40 00 00.8	95 39 14.5	1,255
T. 1 N., R. 16 E., stone at south corner of secs. 31 and 32; center of T road north; Nebraska-Kansas State line.....	40 00 00.5	95 39 08.1	496
T. 1 S., R. 16 E., north corner of secs. 4 and 5; center of T road south; Nebraska-Kansas State line.....	40 00 00.4	95 38 22.5	3,550
T. 1 N., R. 16 E., south corner of secs. 32 and 33; center of T road north; Nebraska-Kansas State line.....	40 00 00.4	95 38 00.3	1,730
T. 1 S., R. 16 E., north corner of secs. 3 and 4; center of T road south; Nebraska-Kansas State line.....	40 00 00.2	95 37 14.5	3,560
T. 1 N., R. 16 E., stone south corner secs. 33 and 34, T road north; Nebraska-Kansas State line.....	40 00 00.2	95 36 52.3	1,730
T. 1 S., R. 16 E., corner of secs. 2 and 3, center of T road south; Nebraska-Kansas State line.....	40 00 00.1	95 36 06.4	3,570
T. 1 S., R. 16 E., south corner of secs. 34 and 35; center of T road north; Nebraska-Kansas State line.....	40 00 00.0	95 35 44.3	.....
T. 1 S., R. 16 E., north corner of secs. 1 and 2; center of T road south; Nebraska-Kansas State line.....	40 00 00.0	95 34 58.2	3,590
Preston, 2 miles south by 0.3 mile west of, 280 feet east of north corner of secs. 4 and 5, T. 1 S., R. 17 E., in south foundation wall of barn on north side of State line road; aluminum tablet stamped "1028 Prim. Trav. Sta. No. 22, Nebr., 1913".....	40 00 02.4	95 31 35.1	.....
T. 1 N., R. 17 E., corner of secs. 28, 29, 32, and 33; center of crossroads.....	40 00 51.9	95 31 12.6	.....
T. 1 N., R. 17 E., corner of secs. 20, 21, 28, and 29; center of crossroads.....	40 01 44.2	95 31 12.7	5,290
Preston, 0.25 mile east of, at northwest corner of road crossing, 30 feet east by 60 feet south to center of road crossing Chicago, Burlington & Quincy R. R.; iron post stamped "881 Prim. Trav. Sta. No. 23 Nebr., 1913".....	40 02 12.2	95 30 55.7	3,129

FALLS CITY QUADRANGLE, NEBR.—Continued.

Along highways near east border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Great Nemaha River, center of steel bridge over	40 03 19.8	95 30 55.0	.....
Preston, 2.5 miles north of; northeast corner of crossroads, 35 feet south by 30 feet west to corner of secs. 4, 5, 8, and 9, T. 1 N., R. 17 E.; iron post stamped "Prim. Trav. Sta. No. 24, Nebr., 1913, elev. 976"	40 04 20.8	95 31 12.1	6,312
Tps. 1 and 2 N., R. 17 E., stone at corner of secs. 4, 5, 32, and 33; center of crossroads	40 05 12.8	95 31 12.6	5,260
T. 2 N., R. 17 E., corner of secs. 28, 29, 32, and 33; center of crossroads	40 06 05.0	95 31 12.9	5,290
Preston, 5.5 miles north of; at northwest corner of crossroads, 30 feet south by 30 feet east of corner of secs. 20, 21, 28, and 29, T. 2 N., R. 17 E.; iron post stamped "Prim. Trav. Sta. No. 25, Nebr., 1913, elev. 981"	40 06 57.7	95 31 13.5	5,335
T. 2 N., R. 17 E., corner of secs. 16, 17, 20, and 21; center of crossroads	40 07 49.5	95 31 13.4	5,245
Arago, corner of secs. 8, 9, 16, and 17, T. 2 N., R. 17 E., center of crossroads	40 08 41.8	95 31 12.2	5,391
T. 2 N., R. 17 E., corner of secs. 4, 5, 8, and 9; center of crossroads	40 09 34.0	95 31 11.2	5,285
T. 2 N., R. 17 E., corner of secs. 5, 6, 7, and 8; center of crossroads	40 09 34.3	95 32 19.2	5,280
T. 2 N., Rs. 16 and 17 E., corner of secs. 1, 6, 7, and 12; center of crossroads	40 09 34.4	95 33 31.0	5,570
Tps. 2 and 3 N., Rs. 16 and 17 E., stone at corner of secs. 1, 6, 31, and 36; center of crossroads	40 10 30.0	95 33 31.3	5,628
T. 3 N., Rs. 16 and 17 E., corner of secs. 25, 30, 31, and 36; center of crossroads	40 11 21.9	95 33 31.8	5,246
T. 3 N., Rs. 16 and 17 E., corner of secs. 19, 24, 25, and 30; center of crossroads	40 12 14.0	95 33 32.2	5,280
T. 3 N., Rs. 16 and 17 E., corner of secs. 13, 18, 19, and 24; center of crossroads	40 13 06.0	95 33 33.6	5,259
T. 3 N., Rs. 16 and 17 E., corner of secs. 7, 12, 13, and 18; center of crossroads	40 13 58.1	95 33 34.2	5,279

Magnetic declination for south border of quadrangle 9.5° E.; for east border, 9.7° E.

HOWE QUADRANGLE, NEBR.

From Julian south along Missouri Pacific Railway to Richardson-Nemaha county line.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Primary traverse station No. 4, 1905	40 30 31.5	95 52 38.7	.....
Julian, 2 miles south of; east-west road crossing	40 29 39.0	95 51 45.1	6,732
Julian, 3 miles south of; on east side of track at road crossing; iron post stamped "Prim. Trav. Sta. No. 1, Nebr., 1913, elev. 975"	40 28 47.2	95 51 54.6	5,302
East-west road crossing	40 27 28.5	95 51 49.9	7,966
North Auburn, east-west road crossing	40 26 35.9	95 51 48.0	5,330
Nebraska Junction, 1 mile north of; on west side of Missouri Pacific Ry. track at township line crossing, 30 feet south by 60 feet east to center of railroad crossing; iron post stamped "Prim. Trav. Sta. No. 2, Nebr., 1913, elev. 928," 30 feet south by 570 feet west of this position is quarter corner south side of sec. 32, T. 6 N., R. 14 E.	40 26 10.6	95 51 48.0	2,552
Nebraska Junction, switch block	40 25 15.9	95 51 38.5	5,591
East-west road crossing section line	40 24 26.4	95 50 43.2	6,588
Auburn, 0.5 mile northwest of; on east side of north-south road and just north of tracks, 25 feet west by 80 feet south to center of road crossing; iron post stamped "Prim. Trav. Sta. No. 3, Nebr., 1913"	40 24 07.2	95 50 18.2	2,742
Auburn station, 0.25 mile southeast of; east-west road crossing section line	40 23 34.1	95 49 38.6	4,543
North-south road crossing, just north of tile works	40 23 11.1	95 49 10.2	3,197
T. 5 N., R. 14 E., corner of secs. 22, 23, 26, and 27	40 22 42.1	95 49 09.7	2,938
Crossing of Missouri Pacific and of Chicago, Burlington & Quincy railroads	40 21 43.0	95 48 36.5	6,507
Milepost 410, just south of; east-west section line road crossing	40 20 57.9	95 48 41.7	4,587
Howe, 1 mile north of; east-west section line road crossing	40 20 02.9	95 48 54.8	5,652
Howe, 430 feet south of station; east-west road crossing	40 19 10.8	95 49 14.9	5,494
East-west road crossing, 240 feet east of this crossing is corner of secs. 14, 15, 22, and 23, T. 4 N., R. 14 E.	40 18 18.4	95 49 22.1	5,340
Howe, 2 miles south of; at southeast corner of road crossing, 30 feet north by 43 feet west to center of road crossing Missouri Pacific Ry.; iron post stamped "Prim. Trav. Sta. No. 4, 1913, elev. 1056"	40 17 25.9	95 49 27.3	5,325

HOWE QUADRANGLE, NEBR.—Continued.

From Julian south along Missouri Pacific Railway to Richardson-Nemaha county line—Continued.

Station.	Latitude.	Longitude.	Distance between stations.
T. 4 N., R. 14 E., corner of secs. 26, 27, 34, and 35, 25 feet west to crossroads.....	40 16 34.0	95 49 19.3	<i>Feet.</i> 5,290
Nemaha-Richardson county line; east-west road crossing.....	40 15 41.9	95 48 40.8	6,059
Stella, 2 miles northwest of, on west side of wagon road just south of road crossing, 35 feet east by 75 feet north to center of road crossing; iron post stamped "Prim. Trav. Sta. No. 13, Nebr., 1913, elev. 982".....	40 15 18.0	95 48 11.7	3,308

Along highways near south border of quadrangle.

T. 4 N., R. 14 E., corner of secs. 27, 28, 33, and 34; center of crossroads.....	40 16 33.8	95 50 27.1	.....
T. 4 N., R. 14 E., center of T road west, at south corner of secs. 33 and 34; Nemaha-Richardson county line.....	40 15 41.5	95 50 27.3	5,256
Tps. 3 and 4 N., R. 14 E., stone at corner of secs. 4, 5, 32, and 33; Nemaha-Richardson county line; center of crossroads.....	40 15 41.1	95 51 35.8	5,310
Howe, 4 miles south by 3 miles west of, at northeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 5, Nebr., 1913, 1082," (20 feet south by 3 feet west of this position is stone at secs. 5, 6, 31, and 32, Tps. 3 and 4 N., R. 14 E., Nemaha-Richardson county line).....	40 15 40.8	95 52 43.8	5,277
Tps. 3 and 4 N., Rs. 13 and 14 E., corner of secs. 1, 6, 31, and 36, center of T road north on Nemaha-Richardson county line.....	40 15 40.3	95 53 52.2	5,300
Tps. 3 and 4 N., R. 13 E., corner of secs. 1, 2, 35, and 36; center of crossroads on Nemaha-Richardson county line.....	40 15 40.4	95 54 59.8	5,246
Pleasant View M. E. Church, at northwest corner of crossroads, 30 feet south by 30 feet east to stone at corner of secs. 2, 3, 34, and 35, Tps. 3 and 4 N., R. 13 E., near Nemaha-Richardson county line; iron post stamped "Prim. Trav. Sta. No. 6, Nebr., 1913, 1162".....	40 15 40.9	95 56 40.9	5,320
Tps. 3 and 4 N., R. 13 E., corner of secs. 3, 4, 33, and 34, center of crossroads on Nemaha-Richardson county line.....	40 15 40.8	95 57 16.2	5,250
Tps. 3 and 4 N., R. 13 E., corner of secs. 4, 5, 32, and 33, center of crossroads on Nemaha-Richardson county line.....	40 15 40.9	95 58 24.0	5,260
Tps. 3 and 4 N., R. 13 E., 20 feet south by 30 feet east to corner of secs. 5, 6, 31, and 32, northwest corner of crossroads, Nemaha-Richardson county line; iron post stamped "Prim. Trav. Sta. No. 7, Nebr., 1913, 1125".....	40 15 40.9	95 59 32.1	5,282
T. 4 N., R. 13 E., corner of secs. 29, 30, 31, and 32; center of crossroads.....	40 16 32.8	95 59 31.7	5,254
T. 4 N., R. 13 E., corner of secs. 19, 20, 29, and 30, center of crossroads.....	40 17 24.8	95 59 32.2	5,270

Along highways near west border of quadrangle.

Johnson, 7 miles south by 0.5 mile east of, 25 feet north by 35 feet east to stone at corner of secs. 17, 13, 19, and 20, T. 4 N., R. 13 E., at southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 8, Nebr., 1913, 1190".....	40 18 16.4	95 59 32.5	5,225
T. 4 N., R. 13 E., corner of secs. 7, 8, 17, and 18; center of crossroads. Timber Creek Lutheran Church spire.....	40 19 08.9	95 59 31.9	5,310
T. 4 N., R. 13 E., corner of secs. 5, 6, 7, and 8, 20 feet west to box culvert.....	40 19 50.0	95 59 46.8	5,015
Johnson, 4 miles south by 0.5 mile east of, northeast corner of T road north, 30 feet south by 30 feet west to south corner of secs. 31 and 32, T. 5 N., R. 13 E.; iron post stamped "Prim. Trav. Sta. No. 9, Nebr., 1913, 1116".....	40 20 01.0	95 59 31.8	5,280
T. 5 N., R. 13 E., corner of secs. 29, 30, 31, and 32; center of crossroads.....	40 20 57.4	95 59 23.5	5,749
Center of crossroads: 15 feet south by 10 feet west to mail box.....	40 21 49.3	95 59 24.3	5,249
Johnson, 1 mile south by 0.5 mile east of, southeast corner of crossroads, 30 feet north by 30 feet west to corner of secs. 17, 18, 19, and 20, T. 5 N., R. 13 E.; iron post stamped "Prim. Trav. Sta. No. 10, Nebr., 1913, 1168".....	40 22 40.8	95 59 24.8	5,220
T. 5 N., R. 13 E., corner of secs. 7, 8, 17, and 18; center of crossroads. T. 5 N., R. 13 E., corner of secs. 5, 6, 7, and 8; center of crossroads. Tps. 5 and 6 N., R. 13 E., corner of secs. 5, 6, 31, and 32; center of crossroads.....	40 23 33.3	95 59 24.3	5,314
Johnson, 3 miles north by 0.5 mile east of, southeast corner of crossroads, 35 feet north by 30 feet west to corner of secs. 29, 30, 31, and 32, T. 6 N., R. 13 E.; iron post stamped "Prim. Trav. Sta. No. 11, Nebr., 1913, 1049".....	40 24 25.8	95 59 24.9	5,308
T. 6 N., R. 13 E., corner of secs. 19, 20, 29, and 30; center of crossroads.....	40 25 18.0	95 59 25.1	5,290
	40 26 10.0	95 59 24.6	5,260
	40 27 02.0	95 59 25.5	5,280
	40 27 54.6	95 59 27.3	5,330

HOWE QUADRANGLE, NEBR.—Continued.

Along highways near west border of quadrangle—Continued.

Station.	Latitude.	Longitude.	Distance between stations.
Johnson, 5 miles north by 0.5 mile east of; 25 feet west by 35 feet north to corner of secs. 17, 18, 19, and 20, T. 6 N., R. 13 E., at southeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 12, Nebr., 1913, 1044".....	° ' " 40 28 46.5	° ' " 95 59 28.2	<i>Feet.</i> 5,259
T. 6 N., R. 13 E., stone at corner of secs. 7, 8, 17, and 18; center of T road west.....	40 29 39.2	95 59 29.3	5,330
T. 6 N., R. 13 E., corner of secs. 5, 6, 7, and 8; center of crossroads.	40 30 31.3	95 59 30.0	5,280
Primary traverse station No. 5, 1905, 968.....	40 31 23.2	96 00 28.1	6,908

Magnetic declination for south border of quadrangle, 10.2° E.; west border, 8.8° E.

NEMAHA QUADRANGLE, NEBR.

Station.	Latitude.	Longitude.	Distance between stations.
St. Deroin, 0.8 mile above, on narrow ridge, in southwest quarter of sec. 25, T. 4 N., R. 16 E.; iron post (Missouri River Commission triangulation station St. Deroin).....	° ' " 40 16 46.45	° ' " 95 34 17.22	<i>Feet.</i>

Magnetic declination for south border of quadrangle, 9.7° E.

HUMBOLDT QUADRANGLE, NEBR.

Along Missouri Pacific Railway near northeast corner of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
East-west road crossing (150 feet east of this position is quarter corner).....	° ' " 40 14 50.1	° ' " 95 47 39.2	<i>Feet.</i>
East-west road crossing (1,500 feet west of this position is corner of secs. 1, 12, 13, and 18, T. 3 N., R. 14 E., T road south).....	40 13 57.8	95 46 43.1	6,844
Stella, in the northwest part of; on east side of track, at road crossing, 30 feet north by 100 feet west to center of road crossing; iron post stamped "Prim. Trav. Sta. No. 14, Nebr., 1913, elev. 974".....	40 13 57.6	95 46 41.8	103
East-west road crossing (280 feet west of this position is corner of secs. 17, 18, 19, and 20, T. 3 N., R. 14 E.).....	40 13 06.2	95 45 54.3	6,377

Magnetic declination for north border of quadrangle, 10.2° E.; southeast corner, 9.7° E.

T road north, center of intersection at.....	40 00 53.6	95 53 34.2	3,910
T. 1 N., R. 14 E., $\frac{1}{2}$ corner secs. 30 and 31, center of triangle at T road south.....	40 00 53.6	95 53 16.5	1,380
T. 1 N., R. 13 E., near southwest corner sec. 29, 200 feet west of John Burgett's residence, 10 feet west of windmill, in top of cement cover of well; bronze tablet stamped "Prim. Trav. Sta. No. 13, Nebr., 1915, elev. 1212".....	40 00 54.3	95 52 27.5	3,810
T. 1 N., R. 14 E., corner secs. 28, 29, 32, and 33, T road north at.....	40 00 53.6	95 51 35.3	4,066
T road south, center of intersection at.....	40 00 53.6	95 51 06.9	2,210
Spring Creek, center of iron bridge over east fork of.....	40 00 16.2	95 50 54.7	3,899
T. 1 N., R. 14 E., in southeast corner of T road north, 15 feet south and 50 feet east of $\frac{1}{2}$ corner secs. 3 and 34, T. 1 S., R. 14 E., on Kansas-Nebraska State line; iron post stamped "Prim. Trav. Sta. No. 14, Nebr., 1915".....	40 00 01.1	95 49 52.2	5,102
T road south, center of intersection at.....	40 00 01.3	95 49 32.4	1,537
T road south, center of intersection at.....	40 00 01.1	95 48 24.6	5,280
Tps. 1 N. and 1 S., R. 14 E., corner secs. 1, 2, 35, and 36, on Kansas-Nebraska State line, T road north.....	40 00 01.0	95 48 11.1	1,050
T road north, on Kansas-Nebraska State line.....	40 00 01.0	95 47 03.4	5,277
T road south, on Kansas-Nebraska State line.....	40 00 01.0	95 46 04.6	4,570
Tps. 1 N. and 1 S., R. 15 E., in northeast corner of T road north on State line, 30 feet north and 25 feet east of intersection of roads; iron post stamped "Prim. Trav. Sta. No. 15, Nebr., 1915, elev. 1188".....	40 00 01.1	95 45 36.8	2,168

Magnetic declination for north border of quadrangle, 10° 15' E.; for south border, 9° 25' E.; for west border, 9° 25' E.; for center border, 10° 30' E.

HUMBOLDT QUADRANGLE, NEBR.—Continued.

Along highways.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Long Branch, 200 feet east of bridge over public T road north.....	40 14 23.0	95 59 32.1	.....

Along Chicago, Burlington & Quincy Railroad.

Second-class road crossing, center of track at	40 05 56.6	95 45 21.9	.....
Dawson, 3 miles east of, center of track at	40 06 03.8	95 46 29.9	5,331
Dawson, 2.50 miles east of, in sec. 30, T. 2 N., R. 15 E., south side of west end of concrete culvert; bronze tablet stamped "Prim. Trav. Sta. No. 1, Nebr., 1915"	40 06 13.1	95 47 02.7	2,720
Dawson, 1.50 miles east of; center of track at second-class road crossing	40 06 51.5	95 47 59.0	5,851
Dawson, 1 mile east of; center of track at second-class road crossing	40 07 05.2	95 48 28.1	2,652
Dawson, 0.50 mile east of, 100 feet east of concrete culvert "32.80"; center of track at road crossing	40 07 23.0	95 49 15.7	4,110
Dawson, 300 feet east of station, 24 feet east of water tank, 8 feet north of main track, in southwest corner of square concrete well, 5 feet south of northwest corner and 3.95 feet west of southeast corner of rim; bronze tablet stamped "Prim. Trav. Sta. No. 2, Nebr., 1915"	40 07 34.7	95 49 47.1	2,717
Dawson, 1.36 miles west of; center of track at public road crossing	40 07 44.6	95 51 18.7	7,183
Dawson, 2.25 miles west of; center of track at second-class road crossing	40 08 02.2	95 52 15.1	4,720
Dawson, 2.70 miles west of; in T. 2 N., R. 14 E., near southwest corner sec. 17, 82 feet north of track, 25 feet east of road, 1 foot north of fence corner; iron post stamped "Prim. Trav. Sta. No. 3, Nebr., 1915"	40 08 09.7	95 52 42.9	2,291
Humboldt, 2.90 miles east of; center of track at second-class road crossing	40 08 41.7	95 53 43.6	5,717
Humboldt, 2.30 miles east of; center of track at public road crossing	40 08 49.6	95 54 23.7	3,212
Humboldt, 1.50 miles east of; center of track at second-class road crossing	40 09 05.7	95 55 16.3	4,398
Humboldt, 0.80 mile east of; center of track at second-class road crossing	40 09 33.0	95 55 49.0	3,750
Humboldt, 150 feet east of station; center of main track at Main Street crossing of Chicago, Burlington & Quincy Ry.	40 09 29.2	95 56 40.5	4,015
Humboldt, 925 feet southwest of, at east end of iron bridge over Long Branch Creek, in top of north end of center concrete pile; bronze tablet stamped "Prim. Trav. Sta. No. 4, Nebr., 1915"	40 09 26.6	95 56 51.9	925
Humboldt, 1.25 miles west of Main Street crossing, center of track at public road crossing	40 09 28.3	95 58 05.6	5,724
Humboldt, 2.35 miles west of, T road north	40 09 36.2	95 59 18.7	5,733

Along highways near west border of quadrangle.

Nemaha River, center of iron bridge over	40 09 00.7	95 56 37.0	.....
Humboldt, 0.90 mile south of; T road west	40 08 47.5	95 56 43.1	1,411
T. 2 N., R. 13 E., corner secs. 9, 10, 15, and 16, T road south	40 08 44.0	95 57 15.0	2,504
T road north	40 08 44.1	95 58 02.8	3,710
T. 2 N., R. 13 E., corner secs. 8, 9, 16, and 17, turn in road to south	40 08 44.0	95 58 22.9	1,580
T. 2 N., R. 13 E., 40 feet south and 30 feet west of corner of secs. 16, 17, 20, and 21, in southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 8, Nebr., 1915"	40 07 51.6	95 58 22.9	5,300
T. 2 N., R. 13 E., corner secs. 20, 21, 28, and 29, crossroads	40 06 59.6	95 58 22.1	5,259
T. 2 N., R. 13 E., 60 feet north and 20 feet east of corner secs. 28, 29, 32, and 33, in northeast corner of crossroads, 5 feet north of fence corner; iron post stamped "Prim. Trav. Sta. No. 9, Nebr., 1915"	40 06 07.8	95 58 21.7	5,240
T road west	40 05 28.0	95 58 22.1	4,030
T. 1 N., R. 13 E., corner secs. 4, 5, 8, and 9, T road west	40 04 23.3	95 58 26.0	6,553
South Fork, 420 feet south of iron bridge over; T road east	40 04 15.1	95 58 24.8	837
T. 1 N., R. 13 E., corner secs. 8, 9, 16 and 17, T road east	40 03 31.0	95 58 24.2	4,461
T. 1 N., R. 13 E., 50 feet south and 10 feet west of corner of secs. 16, 17, 20, and 21, in southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 10, Nebr., 1915"	40 02 38.5	95 58 23.9	5,310
T. 1 N., R. 13 E., corner secs. 20, 21, 28, and 29, crossroads	40 01 46.5	95 58 23.5	5,260
T. 1 N., R. 13 E., 65 feet south and 35 feet east of $\frac{1}{4}$ corner secs. 28 and 29, in southeast corner of T road north; iron post stamped "Prim. Trav. Sta. No. 11, Nebr., 1915"	40 01 19.9	95 58 22.4	2,698

HUMBOLDT QUADRANGLE, NEBR.—Continued.

Along highways near south border of quadrangle.

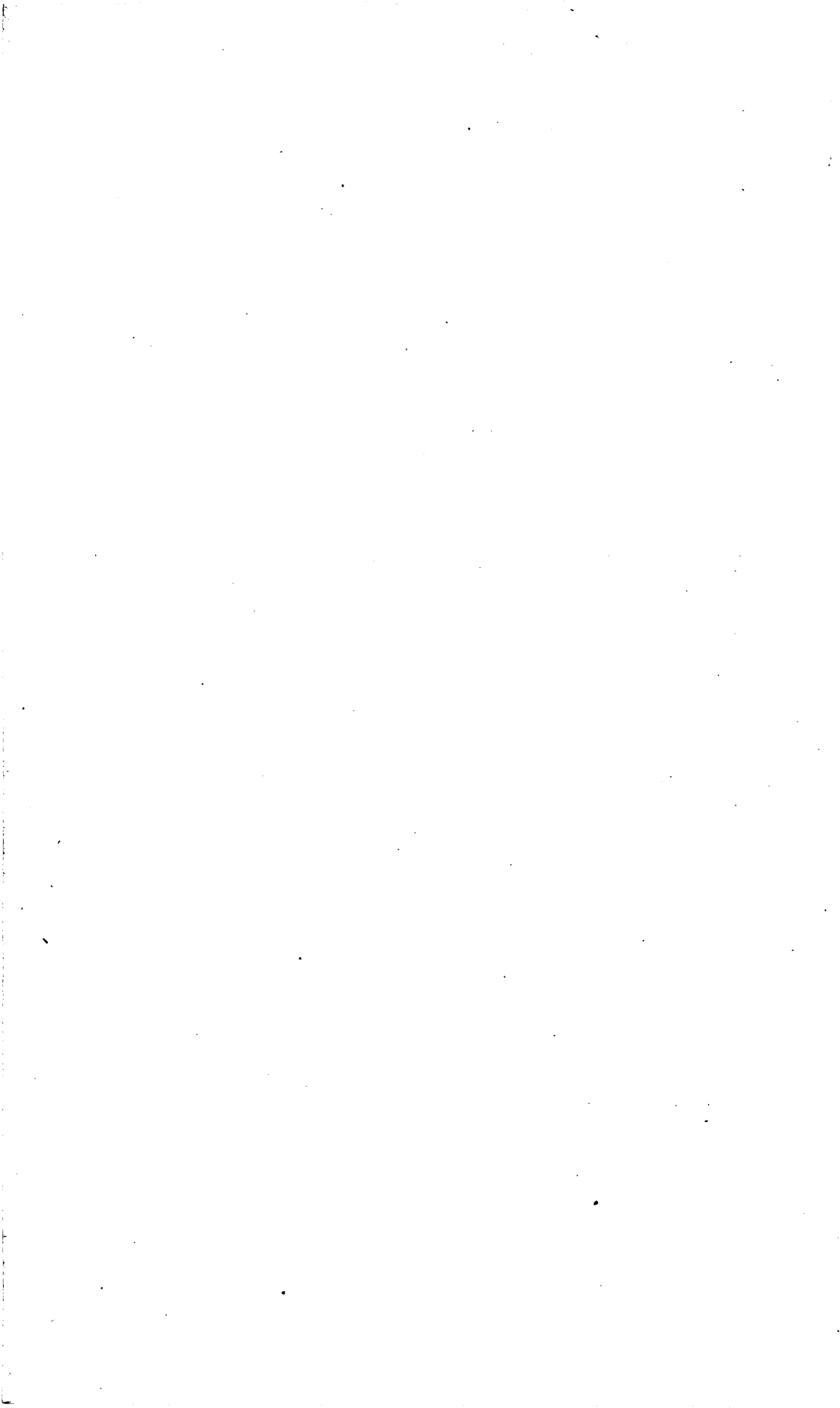
Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	<i>Fet.</i>
T road west, center of intersection at.....	40 01 19.6	95 57 15.6	5,200
T road east, center of intersection at.....	40 01 27.3	95 57 15.6	778
T. 1 N., R. 13 E., 10 feet west of SE. corner of SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ sec. 26, in northwest corner of crossroads, in east side of concrete cul- vert; bronze tablet stamped "Prim. Trav. Sta. No. 12, Nebr., 1915, elev. 1168".....	40 01 20.2	95 55 49.8	6,716
Easley Creek, center of iron bridge over.....	40 01 24.0	95 54 58.8	3,984
T. 1 N., R. 13 E., in sec. 25, T road west.....	40 01 33.1	95 54 24.7	2,809
T. 1 N., R. 13 E., $\frac{1}{4}$ corner secs. 25 and 36, T road north.....	40 00 53.9	95 54 24.4	3,970

TECUMSEH QUADRANGLE, NEBR.

Along highways near east border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	<i>Fet.</i>
Humboldt, 3 miles west of, T road south.....	40 09 36.3	96 00 04.2	.....
Humboldt, 3.50 miles west of, T. 2 N., Rs. 12 and 13 E., corner secs. 1, 6, 7, and 12, 35 feet northwest of, 25 feet west of north and south road; iron post stamped "Prim. Trav. Sta. No. 5, Nebr., 1915".....	40 09 36.5	96 00 36.4	2,506
Tps. 2 and 3 N., Rs. 12 and 13 E., crossroads at.....	40 10 28.2	96 00 36.1	5,230
T. 3 N., Rs. 12 and 13 E., corner secs. 25, 30, 31, and 36, crossroads.....	40 11 20.4	96 00 35.9	5,280
T. 3 N., Rs. 12 and 13 E., 30 feet north and 20 feet east of T road east at secs. 24 and 25, 3 feet north of fence corner; iron post stamped "Prim. Trav. Sta. No. 6, Nebr., 1915".....	40 12 15.2	96 00 35.3	5,552
T. 3 N., Rs. 12 and 13 E., corner secs. 13, 24, 18, and 19, is intersec- tion of crossroads on Pawnee-Richardson county line.....	40 13 04.6	96 00 35.6	4,998
T. 3 N., Rs. 12 and 13 E., $\frac{1}{4}$ corner secs. 7 and 12, on Pawnee-Rich- ardson county line, 17 feet west of telephone pole, 46 feet south of fence corner; iron post stamped "Prim. Trav. Sta. No. 7, Nebr., 1915".....	40 14 22.6	96 00 35.0	7,892

Magnetic declination for east border of south half of quadrangle, 9° 15' E.



OKLAHOMA.

PRIMARY TRAVERSE.

Foraker quadrangle.

OSAGE COUNTY.

The following geographic positions were determined from primary traverse by E. L. McNair, topographer, in 1914, and are based upon triangulation station Flint, established in 1897 by C. F. Urquhart. The position of this station on approximate North American datum is latitude $36^{\circ} 44' 05.85''$; longitude $96^{\circ} 33' 17.45''$. (For description see Bulletin 175.)

FORAKER QUADRANGLE.

Along section lines from Flint triangulation station north and east to point near southeast corner of quadrangle, thence north along east border to center of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
T. 26 N., R. 7 E., corner of secs. 3, 4, 9, and 10, U. S. Land Survey; iron rod and cap.....	° ' " 36 45 12.2	° ' " 96 32 46.3	<i>Fcet.</i>
T. 26 N., R. 7 E., $\frac{1}{4}$ corner between secs. 3 and 10, U. S. Land Survey; iron rod and cap.....	36 45 12.0	96 32 13.9	2, 638
T. 26 N., R. 7 E., corner secs. 2, 3, 10, and 11, U. S. Land Survey; iron rod and cap.....	36 45 11.7	96 31 41.4	2, 642
T. 26 N., R. 7 E., $\frac{1}{4}$ corner between secs. 2 and 3, U. S. Land Survey; iron rod and cap.....	36 45 11.4	96 31 09.0	2, 635
T. 26 N., R. 7 E., corner secs. 1, 2, 11, and 12.....	36 45 11.7	96 30 36.8	2, 625
T. 26 N., R. 7 E., $\frac{1}{4}$ corner between secs. 1 and 2.....	36 45 37.4	96 30 36.9	2, 000
Tps. 26 and 27, N., R. 7 E., corner secs. 1, 2, 35, and 36, U. S. Land Survey; iron rod and cap.....	36 46 04.7	96 30 36.7	2, 760
T. 27 N., R. 7 E., corner secs. 25, 26, 35, and 36, U. S. Land Survey; iron rod and cap.....	36 46 58.0	96 30 37.3	5, 394
T. 27 N., R. 7 E., $\frac{1}{4}$ corner secs. 25 and 26.....	36 47 22.2	96 30 37.2	2, 439
T. 27 N., R. 7 E., corner secs. 23, 24, 25, and 26, U. S. Land Survey; iron rod and cap.....	36 47 48.0	96 30 37.4	2, 615
T. 27 N., R. 7 E., corner secs. 13, 14, 23, and 24, U. S. Land Survey; iron rod and cap.....	36 48 39.8	96 30 37.7	5, 230
T. 27 N., R. 7 E., $\frac{1}{4}$ corner between secs. 13 and 14; iron rod and cap.....	36 49 05.9	96 30 37.9	2, 640
T. 27 N., R. 7 E., corner secs. 11, 12, 13, and 14, U. S. Land Survey; iron rod and cap.....	36 49 31.9	96 30 38.0	2, 635
T. 27 N., R. 7 E., corner secs. 1, 2, 11, and 12, U. S. Land Survey; iron rod and cap.....	36 50 23.9	96 30 38.2	5, 257
T. 27 N., R. 7 E., $\frac{1}{4}$ corner secs. 1 and 2, U. S. Land Survey; iron rod and cap.....	36 50 50.2	96 30 38.3	2, 659
Tps. 27 and 28 N., R. 7 E., corner secs. 1, 2, 35, and 36, near creek and road east and west, 50 feet south of fence (no post found)....	36 51 17.8	96 30 38.3	2, 790
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 35 and 36.....	36 51 43.9	96 30 38.2	2, 640
T. 28 N., R. 7 E., corner secs. 25, 26, 35, and 36, U. S. Land Survey; iron rod and cap.....	36 52 09.8	96 30 38.5	2, 613

Along section lines through center of quadrangle.

Foraker, 3 miles east of; 168 feet north by 106 feet west of corner of secs. 25, 26, 35, and 36, T. 28 N., R. 7 E., 20 feet north of center of road, 4 feet north of wire fence; iron post stamped "Prim. Trav. Sta. No. 1, 1914, elev. 1,218".....	36 52 10.8	96 30 40.5	199
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 26 and 35, center of road at north and south fence (no rod).....	36 52 09.5	96 31 10.8	2, 461
T. 28 N., R. 7 E., corner secs. 26, 27, 34, and 35, in center of east and west road, at north and south fence line (no iron rod found)....	36 52 09.3	96 31 43.1	2, 624
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 27 and 34 (no mark).....	36 52 09.4	96 32 15.3	2, 615

FORAKER QUADRANGLE—Continued.

Along section lines through center of quadrangle—Continued

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Fect.
T. 28 N., R. 7 E., corner secs. 27, 28, 33, and 34, at T road south, U. S. Land Survey; iron rod and cap	36 52 09.6	96 32 47.8	2,640
T. 28 N., R. 7 E., $\frac{1}{2}$ corner between secs. 28 and 33	36 52 09.3	96 33 20.4	2,650
T. 28 N., R. 7 E., corner secs. 28, 29, 32, and 33, 4 feet south of Foraker railway station at roads north, south, and west, U. S. Land Survey; iron rod and cap	36 52 07.8	96 33 53.0	2,659
T. 28 N., R. 7 E., corner secs. 29, 30, 31, and 32, (no mark found), fence and road south apparently not on the line	36 52 07.8	96 34 58.0	5,279
T. 28 N., R. 7 E., $\frac{1}{2}$ corner between secs. 30 and 31	36 52 07.5	96 35 30.5	2,640
T. 28 N., Rs. 6 and 7 E., corner secs. 30, 31, 25, and 36, U. S. Land Survey; iron rod and cap	36 52 07.4	96 35 57.0	2,150
T. 28 N., R. 6 E., $\frac{1}{2}$ corner between secs. 25 and 36	36 52 07.5	96 36 29.5	2,645
T. 28 N., R. 6 E., corner secs. 35, 36, 25, and 26, U. S. Land Survey; iron rod and cap	36 52 07.6	96 37 02.1	2,651
T. 28 N., R. 6 E., $\frac{1}{2}$ corner between secs. 26 and 35	36 52 07.6	96 37 34.6	2,634
T. 28 N., R. 6 E., 1,590 feet west of $\frac{1}{2}$ corner between secs. 26 and 35; iron post stamped "elev. 1217"	36 52 07.6	96 37 54.1	1,590
T. 28 N., R. 6 E., corner secs. 26, 27, 34, and 35	36 52 07.6	96 38 07.0	1,044
T. 28 N., R. 6 E., $\frac{1}{2}$ corner between secs. 27 and 34	36 52 07.7	96 38 39.5	2,643
T. 28 N., R. 6 E., corner secs. 27, 28, 33, and 34, U. S. Land Survey; iron rod and cap	36 52 07.8	96 39 12.1	2,645
T. 28 N., R. 6 E., corner secs. 28, 29, 32, and 33. (There is a U. S. A. S. bench mark at northeast corner of crossroads.)	36 52 07.8	96 40 16.9	5,270
T. 28 N., R. 6 E., $\frac{1}{2}$ corner secs. 29 and 32, U. S. Land Survey; iron rod	36 52 07.8	96 40 49.4	2,643
T. 28 N., R. 6 E., corner secs. 29, 30, 31, and 32, U. S. Land Survey; iron rod and cap	36 52 07.8	96 41 22.0	2,645
T. 28 N., R. 6 E., $\frac{1}{2}$ corner between secs. 30 and 31	36 52 07.8	96 41 54.3	2,629
T. 28 N., Rs. 5 and 6 E., at T road south, corner secs. 25, 36, 30, and 31, U. S. Land Survey; iron rod	36 52 07.7	96 42 25.1	2,502
T. 28 N., R. 5 E., 1,833 feet west of east corner of secs. 25 and 36; iron post stamped "Elev. 1143"	36 52 07.6	96 42 47.8	1,837
T. 28 N., R. 5 E., $\frac{1}{2}$ corner between secs. 25 and 36	36 52 07.8	96 42 57.7	808
T. 28 N., R. 5 E., corner secs. 25, 26, 35, and 36	36 52 07.9	96 43 30.2	2,646

Along section lines near west border of quadrangle.

T. 28 N., R. 5 E., $\frac{1}{2}$ corner between secs. 35 and 36	36 51 41.9	96 43 30.6	2,632
Tps. 27 and 28 N., R. 5 E., corner secs. 35, 36, 1, and 2; iron post and cap	36 51 15.7	96 43 30.6	2,650
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 1 and 2	36 50 49.2	96 43 30.7	2,682
T. 27 N., R. 5 E., corner secs. 1, 2, 11, and 12	36 50 23.0	96 43 30.9	2,644
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 11 and 12	36 49 56.7	96 43 31.0	2,666
T. 27 N., R. 5 E., corner secs. 11, 12, 13, and 14	36 49 30.8	96 43 31.1	2,624
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 13 and 14	36 49 04.7	96 43 31.1	2,637
T. 27 N., R. 5 E., corner secs. 13, 14, 23, and 24	36 48 38.6	96 43 31.1	2,638
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 23 and 24	36 48 12.5	96 43 31.2	2,640
T. 27 N., R. 5 E., corner secs. 23, 24, 25, and 26	36 47 46.4	96 43 31.2	2,640
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 25 and 26 (no post); indicated by road and fence	36 47 20.4	96 43 31.4	2,635
T. 27 N., R. 5 E., approximate corner between secs. 25, 26, 35, and 36; indicated by road west and fence east and south (no post)	36 46 54.3	96 43 31.4	2,640
T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 35 and 36	36 46 28.2	96 43 31.2	2,640
Tps. 26 and 27 N., R. 5 E., corner secs. 1, 2, 35, and 36, about 33 feet south of fence and 16 feet east of fence, U. S. Land Survey; iron rod and cap	36 46 02.1	96 43 31.5	2,638

Along section lines near south border of quadrangle from southwest corner to Flint triangulation station.

T. 27 N., R. 5 E., $\frac{1}{2}$ corner between secs. 1 and 36	36 46 02.1	96 42 59.2	2,630
Tps. 26 and 27 N., Rs. 5 and 6 E., at corner of township, U. S. Land Survey; iron post	36 46 02.2	96 42 26.8	2,630
Tps. 26 and 27 N., R. 6 E., $\frac{1}{2}$ corner between secs. 6 and 31	36 46 02.0	96 41 53.8	2,687
Tps. 26 and 27 N., R. 6 E., corner of secs. 5, 6, 31, and 32, U. S. Land Survey; iron rod and cap	36 46 01.9	96 41 21.6	2,626
Tps. 26 and 27 N., R. 6 E., corner of secs. 4, 5, 32, and 33, U. S. Land Survey; iron rod and cap	36 46 02.1	96 40 16.8	5,272
Tps. 26 and 27 N., R. 6 E., $\frac{1}{2}$ corner secs. 4 and 33	36 46 02.1	96 39 44.3	2,640
Tps. 26 and 27 N., R. 6 E., corner secs. 3, 4, 33, and 34, U. S. Land Survey; iron rod and cap	36 46 02.1	96 39 11.9	2,640

FORAKER QUADRANGLE—Continued.

Along section lines near south border of quadrangle from southwest corner of Flint triangulation station—Continued.

Station.	Latitude.	Longitude.	Distance between stations.
Tps. 26 and 27 N., R. 6 E., $\frac{1}{4}$ corner between secs. 2 and 35, U. S. Land Survey; iron rod at fence corner.....	° ' " 36 46 02.3	° ' " 96 37 34.6	<i>Fect.</i> 7,913
Tps. 26 and 27 N., R. 6 E., corner of secs. 1, 2, 35, and 36, U. S. Land Survey; iron rod and cap.....	36 46 02.4	96 37 02.2	2,640
Tps. 26 and 27 N., R. 6 E., $\frac{1}{4}$ corner between secs. 1 and 36.....	36 46 02.5	96 36 29.8	2,640
Tps. 26 and 27 N., Rs. 6 and 7 E., township corner U. S. Land Survey; iron post.....	36 46 02.6	96 35 57.3	2,640
T. 26 N., Rs. 6 and 7 E., $\frac{1}{4}$ corner between secs. 1 and 6.....	36 45 36.5	96 35 57.3	2,644
T. 26 N., Rs. 6 and 7 E., corner secs. 1, 6, 7, and 12, U. S. Land Survey; iron rod and cap.....	36 45 10.5	96 35 57.2	2,628
T. 26 N., R. 7 E., $\frac{1}{4}$ corner between secs. 6 and 7.....	36 45 10.6	96 35 28.2	2,366
T. 26 N., R. 7 E., corner secs. 5, 6, 7, and 8, U. S. Land Survey; iron rod and cap.....	36 45 10.8	96 34 55.6	2,654
T. 26 N., R. 7 E., $\frac{1}{4}$ corner between secs. 5 and 8.....	36 45 10.9	96 34 23.0	2,650
T. 26 N., R. 7 E., corner secs. 4, 5, 8, and 9, U. S. Land Survey; iron rod and cap.....	36 45 11.1	96 33 50.4	2,654

Along section lines near east border of quadrangle.

T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 25 and 26.....	36 52 35.5	96 30 38.7	2,610
T. 28 N., R. 7 E., corner of secs. 23, 24, 25, and 26, U. S. Land Survey; iron rod and cap.....	36 53 01.1	96 30 38.3	2,590
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 23 and 24.....	36 53 27.4	96 30 38.1	2,660
T. 28 N., R. 7 E., corner secs. 13, 14, 23, and 24, U. S. Land Survey; iron rod and cap.....	36 53 53.7	96 30 38.0	2,659
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 13 and 14.....	36 54 19.8	96 30 37.8	2,647
T. 28 N., R. 7 E., corner secs. 11, 12, 13, and 14, U. S. Land Survey; iron rod and cap.....	36 54 46.0	96 30 37.6	2,653
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 11 and 12.....	36 55 12.3	96 30 37.6	2,660
T. 28 N., R. 7 E., corner secs. 1, 2, 11, and 12, U. S. Land Survey; iron rod and cap.....	36 55 38.6	96 30 37.5	2,670
T. 28 N., R. 7 E., $\frac{1}{4}$ corner between secs. 1 and 2.....	36 56 04.6	96 30 37.3	2,630
T. 28 N., R. 7 E., closing corner of secs. 1 and 2, U. S. Land Survey; iron rod and cap.....	36 56 31.2	96 30 37.0	2,685
T. 29 N., R. 7 E., standard corner of secs. 35 and 36, U. S. Land Survey; iron rod and cap.....	36 56 30.8	96 30 25.3	. 951
T. 29 N., R. 7 E., $\frac{1}{4}$ corner between secs. 35 and 36.....	36 56 56.6	96 30 25.0	2,615
T. 29 N., R. 7 E., corner of secs. 25, 26, 35, and 36.....	36 57 22.7	96 30 24.7	2,640
T. 29 N., R. 7 E., $\frac{1}{4}$ corner secs. 25 and 26.....	36 57 48.6	96 30 24.4	2,625
T. 29 N., R. 7 E., corner secs. 23, 24, 25, and 26.....	36 58 14.6	96 30 24.2	2,635
T. 29 N., R. 7 E., $\frac{1}{4}$ corner between secs. 23 and 24.....	36 58 40.4	96 30 23.9	2,610
T. 29 N., R. 7 E., corner secs. 13, 14, 23, and 24.....	36 59 06.4	96 30 23.6	2,629
T. 29 N., R. 7 E., $\frac{1}{4}$ corner between secs. 13 and 14; pile of stones mark.....	36 59 32.6	96 30 22.6	2,652

Along Kansas-Oklahoma State line near north border of quadrangle.

T. 29 N., R. 7 E., closing corner north side of secs. 14 and 15, in east and west fence line, east of creek bed, U. S. Land Survey; iron rod and cap.....	36 59 56.7	96 31 28.0	5,843
T. 29 N., R. 7 E., closing corner north side of secs. 15 and 16, U. S. Land Survey; iron rod and cap.....	36 59 56.4	96 32 32.8	5,251
T. 29 N., R. 7 E., closing corner north side of secs. 16 and 17, U. S. Land Survey; iron rod and cap.....	36 59 56.4	96 33 38.0	5,290
T. 29 N., R. 7 E., closing corner north side of secs. 17 and 18, U. S. Land Survey; iron rod and cap.....	36 59 56.4	96 34 43.7	5,334
T. 29 N., Rs. 6 and 7 E., closing corner north side secs. 13 and 18.....	36 59 56.5	96 35 49.2	5,312
T. 29 N., R. 6 E., closing corner north side of secs. 13 and 14, U. S. Land Survey; iron rod and cap.....	36 59 56.4	96 36 53.8	5,242
T. 29 N., R. 6 E., closing corner north side of secs. 14 and 15.....	36 59 56.3	96 37 58.7	5,267
T. 29 N., R. 6 E., closing corner north side secs. 15 and 16.....	36 59 56.4	96 39 04.0	5,299
T. 29 N., R. 6 E., closing corner north side of secs. 16 and 17.....	36 59 56.4	96 40 08.9	5,264
T. 29 N., R. 6 E., closing corner north side secs. 17 and 18.....	36 59 55.7	96 41 13.4	5,232
T. 29 N., Rs. 5 and 6 E., closing corner north side of secs. 13 and 18.....	36 59 56.4	96 42 17.9	5,233
T. 29 N., R. 5 E., closing corner north side of secs. 13 and 14.....	36 59 56.3	96 43 22.6	5,248

FORAKER QUADRANGLE—Continued.

Along section lines near west border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
T. 29 N., R. 5 E., $\frac{1}{4}$ corner between secs. 13 and 14.....	36 59 30.8	96 43 22.7	2,583
T. 29 N., R. 5 E., corner secs. 13, 14, 23, and 24.....	36 59 04.7	96 43 22.7	2,638
T. 29 N., R. 5 E., $\frac{1}{4}$ corner between secs. 23 and 24.....	36 58 38.6	96 43 22.8	2,639
T. 29 N., R. 5 E., corner secs. 23, 24, 25, and 26.....	36 58 12.4	96 43 22.9	2,640
T. 29 N., R. 5 E., $\frac{1}{4}$ corner between secs. 25 and 26.....	36 57 46.4	96 43 23.0	2,635
T. 29 N., R. 5 E., corner secs. 25, 26, 35, and 36.....	36 57 20.3	96 43 23.0	2,635
T. 29 N., R. 5 E., $\frac{1}{4}$ corner between secs. 35 and 36.....	36 56 54.1	96 43 23.1	2,640
T. 29 N., R. 5 E., standard corner secs. 35 and 36.....	36 56 28.0	96 43 23.2	2,645
T. 28 N., R. 5 E., $\frac{1}{4}$ corner north side of sec. 1 (no iron post).....	36 56 28.0	96 42 56.8	2,147
T. 28 N., R. 5 E., $\frac{1}{4}$ corner between secs. 1 and 12, in east and west road, U. S. Land Survey; iron rod and cap.....	36 55 37.1	96 42 57.0	5,150
T. 28 N., R. 5 E., $\frac{1}{4}$ corner between secs. 12 and 13, U. S. Land Survey; iron rod and cap.....	36 54 44.8	96 42 57.2	5,286
T. 28 N., R. 5 E., corner secs. 13, 14, 23, and 24.....	36 53 52.5	96 43 29.7	5,913
T. 28 N., R. 5 E., $\frac{1}{4}$ corner between secs. 23 and 24 in center of north and south road, U. S. Land Survey; iron rod and cap.....	36 53 26.5	96 43 29.8	2,625
T. 28 N., R. 5 E., corner secs. 23, 24, 25, and 26.....	36 53 00.2	96 43 29.9	2,650
T. 28 N., R. 5 E., $\frac{1}{4}$ corner between secs. 25 and 26 near school- house.....	36 52 34.1	96 43 30.1	2,646
T. 28 N., R. 5 E., corner secs. 25, 26, 35, and 36 at crossroads, U. S. Land Survey; iron rod and cap.....	36 52 07.9	96 43 30.2	2,644

Magnetic declination for north border of quadrangle, 9.9° E.; for south border, 9.7° E.; for east border, 9.6° E.; for west border, 9.9° E.; for center, 9.7° E.

Bristow, Hominy, Kiefer, Mallon, and Nuyaka quadrangles.**CREEK, OKMULGEE, AND TULSA COUNTIES.**

The following geographic positions for the control of the north half of the Nuyaka 30' quadrangle were obtained from primary traverse by C. B. Kendall in 1914. Positions are on approximate North American datum and are tied to Phantom, Philips, and Prairie triangulation stations described in Bulletin 175.

KIEFER QUADRANGLE.

Along public road from Philips triangulation station via Tabor and Kellyville to Blue Bell school-house.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Tps. 15 and 16 N., R. 10 E., secs. 3, 4, 33, and 34, crossroads at corner of.....	35 48 48.1	96 14 44.3	.....
T. 16 N., R. 10 E., secs. 27, 28, 33, and 34, crossroads at corner of.....	35 49 40.4	96 14 44.1	5,290
T. 16 N., R. 10 E., secs. 26, 27, 34, and 35, road turns north at corner of.....	35 49 40.3	96 13 40.0	5,280
T. 16 N., R. 10 E., secs. 22, 23, 26, and 27, crossroads at corner of.....	35 50 32.7	96 13 40.1	5,297
T. 16 N., R. 10 E., secs. 14, 15, 22, and 23, corner of.....	35 51 25.2	96 13 40.0	5,308
T. 16 N., R. 10 E., secs. 10, 11, 14, and 15, 20 feet north and 20 feet west of corner of; at corner of wire fence in northwest corner of road intersection; iron post stamped "Prim. Trav. Sta. No. 10, 1914".....	35 52 17.7	96 13 40.0	5,319
T. 16 N., R. 10 E., secs. 2, 3, 10, 11, T road east at corner of.....	35 53 10.0	96 13 39.2	5,288
T. 16 N., R. 10 E., secs. 2, 3, closing corner on north side of.....	35 54 04.4	96 13 38.8	5,501
T. 17 N., R. 10 E., secs. 34, 35, corner on south side of, at T road north.	35 54 04.4	96 13 33.5	440
T. 17 N., R. 10 E., secs. 26, 27, 34, and 35, T road west at corner of..	35 54 56.6	96 13 33.4	5,282
Polecat Creek, center of, steel bridge over.....	35 55 18.5	96 13 31.8	2,212
Elevated gas tank, top of.....	35 55 55.0	96 13 52.6	4,073
T. 17 N., R. 10 E., corner of secs. 22, 23, 26, and 27.....	35 55 48.8	96 13 33.3	1,708
St. Louis & San Francisco Ry., at north-south highway crossing..	35 56 14.4	96 13 33.1	2,554
Kellyville, public road crossing "Frisco" R. R. main track at.....	35 56 36.8	96 13 09.3	3,001
Kellyville railway station, 20 feet west and 150 feet south of; in sandstone at northwest corner of wire fence, 150 feet south of railway, 50 feet east of highway; bronze tablet stamped "Prim. Trav. Sta. No. 11, 1914".....	35 56 43.7	96 13 00.4	1,006
T. 17 N., R. 10 E., secs. 14, 15, 22, 23, crossroads at corner of.....	35 56 41.3	96 13 33.0	2,688
T. 17 N., R. 10 E., corner of secs. 10, 11, 14, and 15.....	35 57 33.6	96 13 33.4	5,290
T. 17 N., R. 10 E., secs. 2, 3, 10, and 11, crossroads at corner of.....	35 58 26.0	96 13 33.1	5,298

KIEFER QUADRANGLE—Continued.

Along public road from Phillips triangulation station via Taber and Kellyville to Blue Bell schoolhouse—Continued.

Station.	Latitude.	Longitude.	Distance between stations.
Blue Bell schoolhouse, 3 miles north of Kellyville, in northwest corner of crossroads, 25 feet north and 25 feet west of corner of secs. 2, 3, 34, and 35, T. 17 and 18 N., R. 10 E.; iron post stamped "Prim. Trav. Sta. No. 2, 1914"	° ' " 35 59 19.0	° ' " 96 13 33.4	<i>Fect.</i> 5,362

Along public highways near north border of quadrangle.

Tps. 17 and 18 N., R. 10 E., secs. 3, 4, 33, and 34, crossroads at corner of.....	35 59 18.7	96 14 37.4	5,260
Tps. 17 and 18 N., R. 10 E., corner of secs. 1, 2, 35, and 36, near second-class T road north.....	35 59 18.7	96 12 28.2	.....
Plane-table flag on southeast end of bare hill.....	35 58 56.3	96 11 42.7	4,372
Tps. 17 and 18 N., Rs. 10 and 11 E., secs. 1, 6, 31, and 36, second-class T road south, at corner of.....	35 59 18.6	96 11 24.0	2,734
T. 18 N., R. 11 E., quarter corner between secs. 31 and 32, in east and west road, at wire fence south.....	35 59 44.8	96 10 20.2	5,880
Sapulpa, 3 miles west of, north and south highway crossing St. Louis & San Francisco Ry.....	35 59 37.1	96 09 46.7	2,859
Tps. 17 and 18 N., R. 11 E., corner of secs. 4, 5, 32, and 33, corner of wire fence is 25 feet south.....	35 59 18.7	96 09 16.0	3,142
Tps. 17 and 18 N., R. 11 E., secs. 3, 4, 33, and 34, T road south at corner of.....	35 59 18.7	96 08 11.5	5,300
Rock Creek, center of iron bridge over.....	35 59 17.8	96 07 39.2	2,665
Tps. 17 and 18 N., R. 11 E., secs. 2, 3, 34, and 35, crossroads at corner of.....	35 59 18.6	96 07 07.2	2,630
Sapulpa, at southwest corner Main and Hobson streets, on east side of Ripley Hotel, 4 feet above sidewalk and 4 feet south of northeast corner of building; bench-mark tablet stamped "Prim. Trav. Sta. No. 1, elev. 723".....	35 59 58.6	96 06 51.3	4,255
Sapulpa, in top of east buttress stone between lamp post and face of wall at main entrance to the Creek County courthouse; bench-mark tablet stamped "Prim. Trav. Sta. No. 12, 1914, elev. 712".....	35 59 54.7	96 06 37.2	1,222
Sapulpa, center of street-car track and "Frisco" Ry. crossing on Dewey Avenue.....	35 59 56.2	96 06 16.7	1,696
Tps. 17 and 18 N., Rs. 11 and 12 E., secs. 1, 6, 31, and 36, at corner of and at T road south, 250 feet west of iron bridge over Polecat Creek; iron post stamped "Prim. Trav. Sta. No. 13, 1914," in addition to its land markings.....	35 59 18.6	96 04 58.7	7,448
Tps. 17 and 18 N., R. 12 E., secs. 5, 6, 31, and 32, cross roads at corner of.....	35 59 18.5	96 03 54.5	5,280
Tps. 17 and 18 N., R. 12 E., secs. 4, 5, 32, and 33, crossroads near top of hill about 200 feet east of.....	35 59 18.4	96 02 47.9	5,477
Tps. 17 and 18 N., R. 12 E., secs. 3, 4, 33, and 34, 40 feet north and 20 feet west of approximate corner of, inside corner of wire fence around Prairie Oil & Gas Co.'s pumping plant, in northwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 14, 1914".....	35 59 18.8	96 01 45.9	5,095
Prairie triangulation station; Sapulpa, 5 miles east of, on a prairie knob, the corner common to secs. 9, 10, 15, and 16, T. 17 N., R. 12 E.; may be reached from station by going east 28.30 chains to north-south line, thence south 41.54 chains; iron bench mark post.....	35 58 00.4	96 02 08.0	8,132
T. 17 N., R. 12 E., corner of secs. 9, 10, 15, and 16.....	35 57 33.3	96 01 45.2	3,318

Magnetic declination for north border of quadrangle, 9° 23' E.; for west border, 9° 48' E.

BRISTOW QUADRANGLE.

Along public roads from Phillips triangulation station via Tabor and Kellyville to Blue Bell schoolhouse, near east border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
T. 15 N., R. 10 E., secs. 17, 18, 19, and 20, crossroads at corner of.....	° ' " 35 46 10.8	° ' " 96 16 52.6	<i>Fect.</i>
Deep Fork Creek, center of iron bridge over.....	35 46 10.0	96 16 13.9	3,190
T. 15 N., R. 10 E., corner of secs. 8, 9, 16, 17, 35 feet south and 30 feet west at corner of wire fence in southwest corner of intersection of crossroads; iron post stamped "Prim. Trav. Sta. No. 9, 1914".....	35 47 02.9	96 15 48.7	5,737
T. 15 N., R. 10 E., corner secs. 4, 5, 8, and 9.....	35 47 55.6	96 15 48.3	5,334
Tps. 15 and 16, R. 10 E., secs. 4, 5, 32, and 33, crossroads at corner of.....	35 48 48.1	96 15 48.5	5,310

BRISTOW QUADRANGLE—Continued.

Near north border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	Feet.
Tps. 17 and 18 N., R. 10 E., at corner of secs. 4, 5, 32, and 33, second-class T road north.....	35 59 18.8	96 15 41.9	.....
Tps. 17 and 18 N., R. 10 E., corner of secs. 5, 6, 31, and 32, stone is in center of old road 10 feet south of fence corner and about 450 feet east of gate across present road.....	35 59 18.8	96 16 47.3	5,376
Tps. 17 and 18 N., R. 9 E., secs. 1 and 36, $\frac{1}{4}$ corner between, at corner T wire fence and 225 feet south of gate.....	35 59 20.7	96 18 23.4	7,900
Tps. 17 and 18, R. 9 E., corner secs. 1, 2, 35, and 36, at wire fence south.....	35 59 19.2	96 18 55.7	2,656
Brown Creek, center of iron bridge over.....	35 59 19.2	96 19 33.0	3,066
Tps. 17 and 18 N., R. 9 E., corner of secs. 2, 3, 34, and 35, 900 feet west of top of hill.....	35 59 19.0	96 19 59.7	2,195
Tps. 17 and 18 N., R. 9 E., corner of secs. 3, 4, 33, and 34, at wire fence north and south.....	35 59 19.1	96 21 04.4	5,320
Tps. 17 and 18 N., R. 9 E., secs. 4, 5, 32, and 33, 20 feet south and 20 feet east of corner of, at corner of wire fence in the southeast corner of T road east; iron post stamped "Prim. Trav. Sta. No. 3, 1914".....	35 59 18.8	96 22 08.4	5,261
T. 18 N., R. 9 E., secs. 32 and 33, second-class T road east at, $\frac{1}{4}$ corner between.....	35 59 45.0	96 22 08.8	2,652
Polecat Creek, center of iron bridge over.....	35 59 56.1	96 28 34.9	.....
Tps. 17 and 18 N., R. 8 E., corner secs 4, 5, 32, and 33, center of second-class road east.....	35 59 18.7	96 28 34.9	3,780
T. 17 N., R. 8 E., corner of secs. 4, 5, 8, and 9, center of crossroads.....	35 58 26.9	96 28 35.4	5,300
T. 17 N., R. 8 E., corner secs. 8, 9, 16, and 17, at second-class T road west.....	35 57 33.9	96 28 35.4	5,310
T. 17 N., R. 8 E., corner of secs. 16, 17, 20, and 21, at crossroads.....	35 56 41.5	96 28 35.4	5,300
T. 17 N., R. 8 E., corner of secs. 20, 21, 28, and 29, is 50 feet east of road and 35 feet southwest of corner of wire fence.....	35 55 49.0	96 28 35.3	5,300
T. 17 N., R. 8 E., corner of secs. 28, 29, 32, and 33, in meadow on top of small hill and 400 feet north of forks at corner of fence.....	35 54 56.8	96 28 35.4	5,280
T. 16 N., R. 8 E., near north corner of secs. 4 and 5, center of east-west road and 25 feet east of T road north.....	35 54 04.3	96 28 35.3	5,308
(25 feet west of above is south corner secs. 32, and 33, T. 17 N., R. 8 E., at T road north.)			
T. 17 N., R. 8 E., south corner of secs. 31 and 33, stone is 10 feet northwest of corner of wire fence.....	35 54 04.4	96 29 40.1	5,330
(25 feet east of above is north corner of secs. 5 and 6, T. 16 N., R. 8 E.)			

Near south border of quadrangle.

T. 15 N., R. 8 E., corner of secs. 7, 8, 17, and 18, 15 feet west of crossroads.....	35 47 03.9	96 29 39.4	.....
T. 15 N., R. 8 E., corner of secs. 8, 9, 16, and 17, at crossroads.....	35 47 03.8	96 28 35.0	5,304
T. 15 N., R. 8 E., corner of secs 9, 10, 15, and 16, at crossroads.....	35 47 04.2	96 27 30.5	5,310
T. 15 N., R. 8 E., corner of secs. 10, 11, 14, and 15, at second-class T road north.....	35 47 04.4	96 26 26.4	5,285
T. 15 N., R. 8 E., corner of secs. 11, 12, 13, 14, at T road east.....	35 47 05.0	96 25 21.9	5,314
T. 15 N., R. 8 E., corner of secs. 13, 14, 23, and 24, 25 feet south of crossroads.....	35 46 12.7	96 25 22.2	5,293
T. 15 N., Rs. 8 and 9 E., corner of secs. 13, 18, 19, and 24, at crossroads.....	35 46 12.8	96 24 17.9	5,297
T. 15 N., R. 9 E., corner of secs. 17, 18, 19, 20, 20 feet south and 20 feet east of wire fence in southeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 8, 1914".....	35 46 12.0	96 23 12.9	5,360
T. 15 N., R. 9 E., corner of secs. 16, 17, 20, and 21, in east and west road 30 feet north of crossroads.....	35 46 11.8	96 22 09.3	5,240
T. 15 N., R. 9 E., corner of secs. 20, 21, 28, and 29, at crossroads.....	35 45 19.7	96 22 09.2	5,270
T. 15 N., R. 9 E., corner of secs. 21, 22, 27, and 28, 10 feet northeast of crossroads.....	35 45 19.1	96 21 05.3	5,275
T. 15 N., R. 9 E., corner of secs. 22, 23, 26, and 27, at crossroads.....	35 45 18.8	96 20 01.1	5,286
T. 15 N., R. 9 E., corner of secs. 23, 24, 25, and 26, in pasture 25 feet north of road.....	35 45 18.3	96 18 57.1	5,280

Magnetic declination near north border of quadrangle, $9^{\circ} 43'$ E.; near east border, $9^{\circ} 42'$ E.; near west border, $9^{\circ} 45'$ E.; near south border, $9^{\circ} 34'$ E.

NUYAKA QUADRANGLE.
Near Phillips triangulation station.

Station.	Latitude.	Longitude.	Distance between stations.
Phillips triangulation station, on the highest point of a ridge 2½ miles southwest of Phillipsburg; theodolite elevated 35 feet; station mark: Rock marked $\begin{smallmatrix} U \\ S \\ + \\ G \\ S \end{smallmatrix}$. In 1914 Kendall determined this station to be 3,134 feet south and 2,472 feet east of corner of secs. 23, 24, 25, and 26, T. 15 N., R. 9 E. Original stone station mark was removed and a standard iron bench-mark post placed with center of same as the original mark	° ' "	° ' "	Feet.
T. 15 N., Rs. 9 and 10 E., corner of secs. 25, 30, 31, and 36. (Recomputed from sta. 339 not 338)	35 44 47.3	96 18 27.1	.....
T. 15 N., R. 10 E., corner stone of secs. 29, 30, 31, and 32.	35 44 25.7	96 17 52.9 96 16 52.6	3,576 4,978

Magnetic declination near north border of southwest quarter of quadrangle, 9° 34' E.

HOMINY QUADRANGLE.
Near south border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
T. 18 N., R. 9 E., corner of secs. 29, 30, 31, 32, 1,150 feet west of top of hill.	° ' "	° ' "	Feet.
T. 18 N., Rs. 8 and 9 E., corner of secs. 25, 30, 31, and 36, in northwest corner of T road north.	36 00 11.6	96 23 13.1	.....
T. 18 N., R. 8 E., corner of secs. 25, 26, 35, and 36.	36 00 11.4	96 24 17.4	5,281
T. 18 N., R. 8 E., corner of secs. 26, 27, 34, and 35, at second-class crossroad.	36 00 11.3	96 25 21.8	5,295
Scholar Creek, center of iron bridge over crossroad.	36 00 11.2	96 26 26.2	5,290
T. 18 N., R. 8 E., corner of secs. 27, 28, 33, and 34, 10 feet northeast of crossroads.	36 00 11.0	96 26 56.0	2,450
Happy Corner Church, 250 feet west of, in southwest corner of crossroads, 10 feet north and 12 feet west of T. 18 N., R. 8 E., stone corner secs. 28, 29, 32, and 33; iron post stamped "Prim. Trav. Sta. No. 4, 1914".	36 00 10.9	96 27 30.5	2,830
	36 00 10.9	96 28 35.0	5,305

Near east border of southwest quadrangle.

T. 18 N., R. 10 E., corner of secs. 16, 17, 20, and 21, at T fence east, 820 feet south of gate across main road.	36 01 56.2	96 15 41.8	.....
Phantom triangulation station, on the highest part of a timbered ridge 15 miles from Red Fork, 5 miles southwest of Mr. Rockhammer's house. The corner common to secs. 7, 8, 17, and 18, T. 18 N., R. 10 E., may be reached from station by going west 24.90 chains to north-south line, thence south 2.25 chains. Theodolite elevated 40 feet. Station mark: Rock marked $\begin{smallmatrix} U \\ S \\ + \\ G \\ S \end{smallmatrix}$ remarked with standard iron post.	36 02 49.8	96 16 27.2	6,577

Magnetic declination near south border of quadrangle, 9° 43' E.

Near west border of southeast quarter of quadrangle.

Blue Bell schoolhouse, 1 mile north of double oak tree at crossroads, H. W. Doty and Little's mail boxes.	36 00 07.6	96 13 33.0	.....
T. 18 N., R. 10 E., corner of secs. 26, 27, 34, and 35, 40 feet east of road, 15 feet south of corner of wire fence, and about 400 feet north of crossroads.	36 00 11.3	96 13 33.0	370
T. 18 N., R. 10 E., corner of secs. 22, 23, 26, and 27, in center of road between two pipe and telephone lines and 250 feet south of T road east.	36 01 03.5	96 13 32.9	5,287
T. 18 N., R. 10 E., ¼ corner between secs. 22 and 23, 4 corners 480 feet north of.	36 01 35.5	96 13 32.8	3,230
Sapulpa, 8 miles northwest of, 250 feet north of Sapulpa and Cushing automobile road, chimney of stone house.	36 01 45.4	96 14 05.9	2,898
T. 18 N., R. 10 E., corner of secs. 15, 16, 22, 21, at second-class road north and bend of main road to west.	36 01 55.8	96 14 37.3	2,789

Magnetic declination near west border of southeast quarter of quadrangle 9° 41' E.

MALLON QUADRANGLE.

Near east border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
T. 16 N., Rs. 7 and 8 E., secs. 1 and 6, north corner of; iron post stamped with land numbers, also elevation 958, "Prim. Trav. Sta. No. 5, 1914" (112 feet west of this station is standard iron post, stamped with land numbers for T. 17 N., Rs. 7 and 8 E., secs. 31 and 36, north corner).....	35 54 04.4	96 30 43.0	<i>Fect.</i>
T. 16 N., Rs. 7 and 8 E., corner of secs. 1, 6, 7, 12.....	35 53 10.3	96 30 43.2	5,472
T. 16 N., Rs. 7 and 8 E., corner of secs. 7, 12, 13, and 18, at second-class T road west, 200 feet north to house.....	35 52 17.9	96 30 43.1	5,300
T. 16 N., Rs. 7 and 8 E., corner of secs. 13, 18, 19, and 24, at north end of bridge over small stream.....	35 51 25.7	96 30 43.4	5,280
T. 16 N., Rs. 7 and 8 E., near corner of secs. 19, 24, 25, and 30, 10 feet west of east end of bridge over small stream.....	35 50 33.0	96 30 43.6	5,332
T. 16 N., Rs. 7 and 8 E., corner of secs. 25, 30, 31, and 36, at crossroads 25 feet north to plank bridge.....	35 49 40.8	96 30 43.7	5,270
Tps. 15 and 16 N., Rs. 7 and 8 E., corner of secs. 1, 6, 31, and 36, 500 feet north of bridge over Little Deep Fork Creek and $\frac{1}{2}$ mile northwest of Depew; iron bench-mark post with land marks, also stamped "Prim. Trav. Sta. No. 6, 1914, elev. 815".....	35 48 48.4	96 30 43.8	5,305
Little Deep Fork, center of iron bridge over, near T road west....	35 48 42.4	96 30 43.7	608
T. 15 N., Rs. 7 and 8 E., quarter corner between secs. 1 and 6, at T road north.....	35 48 22.2	96 30 43.8	2,043
Depew, town pump at cross streets.....	35 48 10.9	96 30 26.4	1,835
T. 15 N., Rs. 7 and 8 E., center of secs. 1, 6, 7, 12, bridge over gully near corner of, southwest corner of Depew.....	35 47 55.2	96 30 43.6	2,130
T. 15 N., Rs. 7 and 8 E., 30 feet south and 25 feet east of corner of secs. 7, 12, 13, and 18, at corner of wire fence in southeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 7, 1914".....	35 47 03.4	96 30 43.3	5,240

Magnetic declination near east border of quadrangle, 9° 42' E.