

ARIZONA AND NEW MEXICO.

TRIANGULATION STATIONS.

Mogollon, Nutrioso, and Reserve quadrangles.

APACHE AND GREENLEE COUNTIES, ARIZ.; SOCORRO COUNTY, N. MEX.

In the winter of 1913-14 C. B. Kendall extended triangulation control for the Reserve quadrangle, N. Mex.; from stations Mogollon, Sunset, and Pleasant, described in Bulletins 201 and 551. He occupied five new stations and located five points by intersections all based on North American datum. Additional control work was done in the Patterson quadrangle in 1915 by Mr. Kendall, but final computations have not yet been made.

ESCADILLO, APACHE COUNTY, ARIZ.

On the highest point of the Escadillo Mountain, about 10 miles northwest of Luna and about 8 miles east of Nutrioso. Station can be easily found, as a Forest Service lookout tower, 40 feet high and very solid, was used to observe from. Can be best reached from the west by trail from Nutrioso, from south by Forest Service trail from Bush Valley, and from east by trail from the "E. L. C." ranch. The mountain is heavily timbered, but the tower affords a good view in all directions, except a small segment to the north. The station is on the west side of the mountain and on the second hill from the north end. A ranger's cabin is on the east slope in saddle between the two hills and about 0.5 mile northeast of station.

Signal: Center of tower over which was erected a flag.

Station mark: A bronze triangulation tablet in large boulder set in ground directly under center pole of tower.

[Latitude: 33° 56' 50.81". Longitude 109° 07' 16.99".]

To station —	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Sunset.....	6 09 03.68	186 05 33.56	4.9638596	57.175
Fox.....	249 16 18.98	69 30 17.81	4.6139437	25.544
Apache.....	269 39 40	89 56 26	4.06524	28.747
Tularosa.....	300 35 52.42	120 54 03.64	4.7685262	36.465
Box.....	300 57 06.05	121 07 18.99	4.5183765	20.499
Turner Peak.....	312 10 13	132 12 48	3.98363	5.984
Brushy Mountain.....	343 04 07	163 08 08	4.58510	23.903
Whiterocks.....	351 37 30.81	171 40 06.81	4.6971698	30.941

SUNSET, GREENLEE COUNTY, ARIZ.

Situated 6 miles northeast of town of Clifton, on mountain locally known as Sunset Mountain. Wagon road from Clifton to old slaughter corral on Limestone Wash about 2 miles above its mouth, thence good trail taking left hand (to north) to gap east of station, thence dim trail to station.

Station mark: A bronze triangulation tablet cemented in solid rock over which is built a cairn 6 feet in diameter and 7 feet high.

[Maricopa datum: Latitude 33° 07' 15.81"; longitude 109° 13' 40.22". United States standard datum: Latitude 33° 07' 21.16"; longitude 109° 13' 37.30".]

To station—	Azimuth.	Back azimuth.	Distance.	
			<i>Log. meters.</i>	<i>Miles.</i>
Guthrie <i>a</i>	17 20 47.78	197 17 57.00	4.4367053	.....
Guthrie <i>b</i>	17 20 20.55	197 17 29.86	4.4366440	16.982
Bryce <i>a</i>	74 49 16.71	254 34 42.17	4.6344900	.....
Bryce <i>b</i>	74 48 52.49	254 34 18.03	4.6344384	26.778
Morenci <i>a</i>	78 17 48.4	258 12 38.10	4.1774160	.....
Pleasant <i>a</i>	233 35 23.45	53 44 52.30	4.5235914	.....
Pleasant <i>b</i>	233 35 03.06	53 44 31.87	4.5235652	20.745
Mogollon <i>a</i>	254 12 01.18	74 32 48.81	4.7873988	.....
Mogollon <i>b</i>	254 11 32.77	74 32 20.25	4.7873376	38.079
Canyon <i>a</i>	276 51 41.38	97 16 44.58	4.8571778	.....
Canyon <i>b</i>	276 51 14.01	97 16 17.43	4.8571186	44.717
Line <i>a</i>	324 17 52.14	144 25 23.59	4.5676142	.....
Line <i>b</i>	324 17 24.91	144 24 56.41	4.5675529	22.956
Secho <i>a</i>	340 45 48.18	160 54 03.87	4.8602010	.....
Secho <i>b</i>	340 45 20.95	160 53 36.79	4.8601397	45.029
Escadillo <i>b</i>	188 05 33.56	6 09 03.68	4.9638596	57.175
Whiterocks <i>b</i>	202 00 09.62	22 06 12.80	4.6585718	28.309
Tularosa <i>b</i>	224 21 35.98	44 43 04.81	4.9358163	53.601
Pleasant <i>b</i>	233 35 03.06	53 44 31.87	4.5235652	20.745
Grouse <i>b</i>	244 11 34	64 28 14	4.72275	32.818
Mogollon <i>b</i>	254 11 32.77	74 32 20.25	4.7873376	38.079

a Maricopa datum.

b United States standard datum.

APACHE, SOCORRO COUNTY, N. MEX. (Not occupied; sighted from five stations.)

In T. 4 S., R. 17 W., near corner secs. 21, 22, 27, and 28, approximate. On the west end of the Apache Mountain, about 3 miles southeast of the Jewett ranger station and 7 miles northwest of the village of Aragon. Can be easily reached from the Jewett ranger station.

Station mark and signal: An oak tree 15 feet high carrying flag and around tree was built a quodripod of poles.

[Latitude 33° 56' 55.88". Longitude 108° 37' 15.57".]

To station—	Azimuth.	Back azimuth.	Distance.	
			<i>Log. meters.</i>	<i>Miles.</i>
Whiterocks.....	38 30 16	218 16 12	4.79960	39.170
Box.....	46 29 14	226 22 43	4.39613	15.470
Escadillo.....	89 56 26	269 39 40	4.66524	28.747
Fox.....	151 36 39	331 33 50	4.21161	10.115
Tularosa.....	352 14 35	172 16 04	4.48336	18.911

BEARWALLOW, SOCORRO COUNTY, N. MEX. (Not occupied; sighted from four stations.)

On Bearwallow Mountain of the Mogollon Range, about 8½ miles northeast of the town of Mogollon, at the head of Copper Creek on the west and Gilita Creek on the east.

Signal and station mark: Center of United States Forest Service lookout tower, about 40 feet high.

[Latitude 33° 26' 58.60". Longitude 108° 40' 06.18".]

To station—	Azimuth.	Back azimuth.	Distance.	
			<i>Log. meters.</i>	<i>Miles.</i>
Pleasant.....	56 48 38	236 39 44	4.47816	18.686
Whiterocks.....	99 48 10	279 35 45	4.54834	21.963
Tularosa.....	198 37 06	18 40 08	4.42536	16.547
Mogollon.....	340 36 52	160 39 20	4.31965	12.972

BOX, SOCORRO COUNTY, N. MEX.

On the east end of the San Francisco Range, locally known as the South Mountain. About 8 miles north and 3 miles west of Reserve. It is in the northwest part of T. 6 S., R. 19 W., about 3 miles southeast of the junction of Rio San Francisco and the S. A. Creek, and 1 mile northeast along ridge from a point where trail from the S. A. ranch to Reserve crosses summit. Station is about 2 miles southwest of a point where the Rio San Francisco goes into a canyon locally known as "The Box," from which station derives its name.

Signal: Flag in top of pine tree, 11.4 feet distant, true azimuth from station mark $156^{\circ} 54'$.

Station mark: A bronze triangulation tablet set in solid rock.

[Latitude $33^{\circ} 47' 38.75''$. Longitude $108^{\circ} 48' 57.20''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Whiterocks.....	33 15 11.08	213 07 37.37	4.5859557	23.950
Escadillo.....	121 07 18.99	300 57 06.05	4.5183765	20.499
Apache.....	226 22 43	46 29 14	4.39613	15.470
Tularosa.....	300 18 50.28	120 26 48.54	4.4098781	15.967

BRUSHY MOUNTAIN, SOCORRO COUNTY, N. MEX. (Not occupied; sighted from four stations.)

In the southwest part of T. 8 S., R. 21 W., on the west side of the Pueblo Creek, about 7 miles north and 2 miles east of Whiterocks Mountain.

Signal and station mark: Highest point of mountain.

[Latitude $33^{\circ} 36' 56.21''$. Longitude $109^{\circ} 00' 02.51''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Whiterocks.....	17 39 26	197 38 03	4.11618	8.120
Escadillo.....	163 08 08	343 04 07	4.58510	23.903
Tularosa.....	260 04 26	80 18 32	4.60118	24.804
Pleasant.....	350 34 56	170 36 59	4.54866	21.979

FOX, SOCORRO COUNTY, N. MEX.

In sec. 4 (approximate), T. 3 S., R. 18 W., on the highest point of the "Fox" Mountain and is a high round bare peak overlooking the country for miles in every direction. Several canyons head against the peak, viz, Perry Lawson southeast, American northwest, and Des Meter northeast. It is about 3 miles west of the Jewett Gap and 10 miles northwest of the Jewett ranger station and N. H. ranch. It is an excellent natural triangulation station, as it overlooks the American, Salt Lake, and Agua Frio valleys and the Johnson Basin. It is easily ascended by following Forest Service trail from Jewett Gap.

Signal: Rock cairn 4 feet high around which was built a quodripod of poles. A bushy pine was set over center.

Station mark: A bronze triangulation tablet set in 6 by 8 by 24 inch stone buried in ground over which was built a rock cairn 4 feet high.

[Latitude 34° 04' 40.51". Longitude 108° 42' 17.41".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Whiterocks.....	26 17 06.92	206 05 49.17	4.8514387	44.135
Turner Peak.....	56 21 22	236 09 59	4.57648	23.434
Escadillo.....	69 30 17.81	249 16 18.98	4.6139437	25.544
Apache.....	331 33 50	151 36 39	4.21161	10.115
Tularosa.....	345 02 13.01	165 06 30.19	4.6630428	28.602

GROUSE, SOCORRO COUNTY, N. MEX. (Not occupied; sighted from four stations.)

On the highest point of Grouse Mountain of the Mogollon Range, in T. 11 S., R. 18 W., near line between secs. 20 and 21, approximate. Station is a quarter of a mile north of trail leading from the Tennessee Cabin to Apache Spring at a point 3 miles east of the Tennessee Cabin.

Station mark and signal: A 35-foot pine tree trimmed and carrying flags and targets. Space around tree was cleared.

NOTE.—This station was built to be occupied later and a triangulation tablet was set in an 8 by 8 by 30 inch stone over which a small rock cairn was built, but as snow prevented occupying it, no angles or distance was taken from it to the signal tree. The tablet is about 30 feet northeast of tree.

[Latitude 33° 19' 43.68". Longitude 108° 42' 59.01".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Sunset.....	64 28 14	244 11 34	4.72275	32.818
Pleasant.....	81 33 38	261 26 19	4.32053	12.998
Whiterocks.....	122 33 29	302 22 41	4.55660	22.385
Mogollon.....	299 08 57	119 12 59	4.11535	8.104

MOGOLLON, SOCORRO COUNTY, N. MEX.

Situated on highest peak of the Mogollon Range, locally known as Baldy, about 10 miles north of Farquar's ranch on Mogollon Creek. Bare on south and southwest slopes; east and north slopes timbered.

Station mark: A bronze triangulation tablet cemented in triangular stone about 18 by 14 by 14 inches, set 10 inches in the ground. Underneath stone on center a "30 caliber Government" cartridge shell is driven in ground. A cairn 4 feet high was built over mark.

[Maricopa datum: Latitude 33° 16' 11.72"; longitude 108° 35' 41.44" U. S. standard datum: Latitude 33° 16' 17.27"; longitude 108° 35' 38.88".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Cliff ^a	2 44 28.60	182 43 54.08	4.5353289	21.315
Line ^b	39 02 56.22	218 49 45.46	4.7769400	.....
Line ^a	39 02 28.27	218 49 17.70	4.7768804	37.173
Sunset ^b	74 32 48.81	254 12 01.18	4.7873988	.....
Sunset ^a	74 32 20.25	254 11 32.77	4.7873376	38.079
Jordan ^a	250 49 43.88	70 61 50.16	4.5584409	22.480
Chalk ^a	293 14 02.62	113 21 15.92	4.3480791	13.849
Copperas ^a	295 42 26.24	115 55 19.16	4.6088055	25.244
Black ^a	314 44 05.77	134 58 15.11	4.7551806	35.361
Canyon ^b	334 04 18.19	154 08 38.08	4.4502461	.....
Canyon ^a	334 03 49.29	154 08 09.24	4.4501926	17.520
Grouse ^a	119 12 59	299 08 57	4.11535	8.104
Whiterocks ^a	121 43 12.63	301 28 22.73	4.6908202	30.491
Bearwallow ^a	160 39 20	340 36 52	4.31965	12.972
Tularosa ^a	182 03 42.39	2 04 17.05	4.6532044	27.961

^a U. S. standard datum.^b Maricopa datum.

PLEASANT, SOCORRO COUNTY, N. MEX.

Situated on highest point of Brushy Mountain about 3 miles due west from Pleasanton. Brush and timber cleared from summit in 1901. Easily ascended from San Francisco River at Pleasanton via lane to west side of river and thence by cattle trail to top of ridge, thence northward to station.

Station mark: A bronze triangulation tablet cemented in boulder.

[Maricopa datum: Latitude $33^{\circ} 17' 57.90''$; longitude $108^{\circ} 56' 21.62''$. U. S. standard datum: Latitude $33^{\circ} 18' 03.30''$; longitude $108^{\circ} 56' 18.82''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Sunset <i>a</i>	53 44 52.30	233 35 23.45	4.5235914	.....
Sunset <i>b</i>	53 44 31.87	233 35 03.06	4.5235652	20.745
Canyon <i>a</i>	302 40 00.62	122 55 39.16	4.7232391	.....
Canyon <i>b</i>	302 39 34.51	122 55 13.05	4.7231782	32.850
Cliff <i>b</i>	320 48 18.53	140 59 01.76	4.6845221	30.052
Bullard <i>a</i>	330 10 35.08	150 23 41.25	4.8784318	.....
Bullard <i>b</i>	330 10 09.78	150 23 16.03	4.8783710	46.959
Whiterocks <i>a</i>	156 33 10.29	336 29 42.64	4.3886081	15.204
Brushy Mountain <i>a</i>	170 36 59	350 34 56	4.54866	21.979
Tularosa <i>a</i>	218 47 07.16	38 58 06.02	4.7289620	33.290
Bearwallow <i>a</i>	236 39 44	56 48 38	4.47816	18.686
Grouse <i>a</i>	261 26 19	81 33 38	4.32053	12.998

a Maricopa datum.

b U. S. standard datum.

TULAROSA (EAGLE PEAK), SOCORRO COUNTY, N. MEX.

Station is on the highest peak of the Tularosa Mountains, locally known as Eagle Peak, under which name it was occupied by the Wheeler Survey. It is in T. 7 S., R. 17 W., sec. 22, approximate, and is at the head of Long Canyon on the north and Cox Canyon on the south. They both head in a saddle about one-fourth mile west of the station. The Forest Service trail from Tularosa ranger station across mountains to the Nigrito ranger station crosses through the saddle. There is a ranger cabin in saddle from which a trail and telephone line leads east up hill to station. Station is about 11 miles east of Reserve and 15 miles south and 4 miles west of Aragon on the Magdalena public road.

Signal: A pole set over tablet and carrying flags; around the pole was erected a quadripod with white cloth around top, and between this and the flag were placed pine boughs. Three targets of red cloth were placed on the sides of quadripod north, south, and west.

Station mark: A bronze triangulation tablet in a 6 by 8 by 24 inch stone set in ground over which is erected a rock cairn 5 feet high.

[Latitude $33^{\circ} 40' 36.94''$. Longitude $108^{\circ} 34' 36.04''$.]

To station —	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Mogollon.....	2 04 17.05	182 03 42.39	4.6532044	27.961
Bearwallow.....	18 40 08	198 37 06	4.42536	16.547
Pleasant.....	38 59 06.02	218 47 07.16	4.7289620	33.290
Sunset.....	44 43 04.81	224 21 35.98	4.9358163	57.601
Whiterocks.....	66 09 32.71	245 54 03.26	4.6758515	29.458
Brushy Mountain.....	80 18 32	260 04 26	4.60118	24.804
Box.....	120 26 48.54	300 18 50.28	4.4098781	15.967
Escadillo.....	120 54 03.64	300 35 52.42	4.7685262	36.465
Fox.....	165 06 30.19	345 02 13.01	4.6630428	28.602
Apache.....	172 16 04	352 14 35	4.48336	18.911

TURNER PEAK, SOCORRO COUNTY, N. MEX. (Not occupied; sighted from three stations.)

Near the northwest corner of T. 5 S., R. 21 W., about 9 miles northwest of the town of Luna, and about 6 miles southeast of the Forest Service lookout tower on Escadillo Mountain.

Signal and station mark: The highest point of a sharp peak locally known as Turner Peak.

[Latitude 33° 53' 20.83". Longitude 109° 02' 39.36'']

To station —	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Escadillo.....	132 12 48	312 10 13	3.98363	5.984
Fox.....	236 09 59	56 21 22	4.57648	23.434
Whiterocks.....	359 53 05	179 53 07	4.63140	26.593

WHITEROCKS, SOCORRO COUNTY, N. MEX.

On the highest and most southerly of the three peaks of Whiterocks Mountain, which rises abruptly from the mesa west of the junction of Pueblo Creek with the Rio San Francisco and is about 9 miles northwest of same and 12 miles northwest of Alma. The peak is timbered, but was cleared on the east slope and affords an excellent view for about 90° both sides of due east. Station can be reached by climbing the mountain from almost any direction. Water can be found at the Grey Bull Spring in the next canyon north of the white rocks on the east slope of the third peak north and is about 1½ miles northeast of station. An old rock cairn was found, and on tearing it down to place tablet a tin box was found in which was a paper upon which was written in pencil the following: "Explorations west of the 100th meridian, triangulation station XXX. Occupied Oct. 24th, 1873, Gilbert Thompson, Topographer."

Signal: Flag and targets on oak tree 15 feet high, distance 9 feet, true azimuth 59° 15' from station mark; tree was braced by a pole quadripod.

Arizona-New Mexico State line crosses the mountain less than 0.25 mile west of station.

[Latitude 33° 30' 11.79". Longitude 109° 02' 36.02'']

To station —	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Sunset.....	22 06 12.80	202 00 09.62	4.6585718	28.309
Escadillo.....	171 40 06.81	351 37 30.81	4.6971698	30.941
Turner Peak.....	179 53 07	359 53 05	4.63140	26.593
Brushy Mountain.....	197 38 03	17 39 26	4.11618	8.120
Fox.....	206 05 49.17	26 17 06.92	4.8514387	44.135
Box.....	213 07 37.37	33 15 11.08	4.5859557	23.950
Apache.....	218 16 12	38 30 16	4.79960	39.170
Tularosa.....	245 54 03.26	66 09 32.71	4.6758515	29.458
Bearwallow.....	279 35 45	99 48 10	4.54834	21.963
Mogollon.....	301 28 22.73	121 43 12.63	4.6908202	30.491
Grouse.....	302 22 41	122 33 29	4.55660	22.385
Pleasant.....	336 29 42.64	156 33 10.29	4.3886081	15.204

NEW MEXICO.

TRIANGULATION STATIONS.

Koehler, Mount Laughlin, and Ute Creek quadrangles.

COLFAX COUNTY.

In 1914 J. R. Ellis extended triangulation west from stations Eagle-tail and Mount Laughlin, described in Bulletin 551. Eight new stations were occupied and five points were located by intersections; all on approximate North American datum. Azimuth observations were made at Maxwell station; the observed azimuth was used in computations of positions west of the line French-Koehler.

BARTLETT, COLFAX COUNTY, N. MEX.

Situated in northwest part of Colfax County on a small peak about 2 miles northeast of Vermejo Park post office on land owned by Wm. H. Bartlett. The signal is visible from the above post office.

Signal: A small topped pine tree centered over the tablet with a quadripod built around it and covered with white cloth.

Station mark: A bronze tablet cemented in solid rock.

[Latitude 36° 54' 30.55". Longitude 104° 57' 52.20".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Sharp peak to southwest.....	35 42 46	215 33 53	4.57897	23.568
Sharp peak to west.....	70 12 22	250 03 05	4.38845	15.198
Ridge.....	250 44 07	70 47 40	3.96815	5.774
Rock.....	275 18 37.41	95 21 58.37	3.9201820	5.170
Koehler.....	303 49 04.02	123 58 32.57	4.4519159	17.590
Colfax.....	324 03 18	144 12 12	4.57639	23.428
Dawson.....	348 48 28.90	168 51 17.58	4.3660890	14.436

CHASE, COLFAX COUNTY, N. MEX.

On partly bare knoll at east end of ridge on Mrs. Mary Springer's land and about 3 miles southwest of Chase ranch.

Signal: A pine tree 15 inches in diameter stripped to within 10 feet of top. Signal is 2.4 feet northwest of station mark.

Station mark: A bronze tablet set in solid rock at foot of pine tree.

[Latitude 36° 32' 22.79". Longitude 104° 58' 11.10".]

To station —	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Knob.....	18 33 02	198 31 40	4.03112	6.675
Dawson.....	195 19 46.21	15 21 45.69	4.2742944	11.685
Koehler.....	223 37 03.12	43 46 40.49	4.5412396	21.607
Colfax.....	245 16 48	65 25 50	4.39588	15.461
French.....	279 14 27.53	99 22 44.47	4.3232646	13.080

COLFAX, COLFAX COUNTY, N. MEX. (Not occupied.)

On the south end of a prominent bluff about 3 miles northeast of Maxwell station.

Signal and station mark: A 6-foot rock cairn centered over a bronze tablet set in solid rock.

[Latitude 36° 37' 59.39". Longitude 104° 43' 01.37".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Chase.....	65 25 50	245 16 48	4.39588	15.461
Dawson.....	113 49 50	293 42 46	4.28445	11.962
Bartlett.....	144 12 12	324 03 18	4.57639	23.428
Eagletail.....		78 47 51	4.44043	17.131
Maxwell.....		118 31 10	4.32204	13.043

DAWSON, COLFAX COUNTY, N. MEX.

On the southwest end of a wooded ridge on the divide between Von Bremer Creek and Cerososo Arroyo, about 6 miles west and 2 miles north of Dawson village. The ridge is in the shape of a horseshoe and the station stands on the southwest part of ridge.

Signal: A 12-inch pine tree trimmed to within about 10 feet of the top, which stands 2.7 feet southwest of the station mark.

Station mark: A bronze tablet set in sandstone 20 by 20 by 5 inches, which projects 3 inches above surface of ground.

[Latitude 36° 42' 11.14". Longitude 104° 54' 50.80".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Chase.....	15 21 45.69	195 19 46.21	4.2742044	11.685
Knob.....	16 32 01	196 28 41	4.47039	18.354
Sharp Peak southwest.....	73 18 28	253 07 47	4.44434	17.286
Bartlett.....	168 51 17.58	348 49 28.90	4.3660890	14.436
Rock.....	189 46 37.68	9 48 09.49	4.3491612	13.884
Koehler.....	249 43 29.33	69 51 08.01	4.3069900	12.599
Colfax.....	293 42 46	113 49 50	4.28445	11.962
French.....	323 44 00.97	143 50 19.43	4.4264875	16.590

EAGLETAIL, COLFAX COUNTY, N. MEX.

Station is situated 16 miles a little south of east from Raton, on the highest point of Eagletail Mountain—a very prominent position. It is on the farther south of the two small peaks on the summit. Considerable timber was cut around this station.

Station mark: An aluminum tablet set in solid rock over which was erected a tripod of poles 12 feet high.

[Latitude 36° 40' 54.49". Longitude 104° 24' 52.66".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Goat Hill.....	173 50 12		4.39522	15.437
Yankee.....	196 42 52.72	16 45 58.20	4.4257508	16.562
Bellisle.....	216 19 28.73	36 27 35.26	4.5305900	21.083
Thomson.....	238 58 36.16	59 07 05.77	4.3917615	15.315
Laughlin.....	286 54 22.69	107 02 35.48	4.3311658	13.320
Maxwell.....	29 12 53.99	209 09 27.53	4.2465241	10.962
French.....	56 32 43.57	236 21 09.96	4.5403411	21.562
Colfax.....	78 47 51		4.44043	17.131
Koehler.....	110 11 33.24	290 01 16.67	4.4355593	16.931
Red River.....	150 43 39.38	330 40 33.26	4.1978934	9.800
Highest peak of group.....	340 19 32	160 21 33	4.17414	9.279

FRENCH, COLFAX COUNTY, N. MEX.

On the east point of a flat-topped butte, the northernmost of a group of three, on land owned by Capt. French, and is about 7 miles due south of Colfax station.

Signal: A small (topped) piñon tree centered over tablet and supported by four poles. White cloth was tacked to the four faces.

Station mark: A bronze tablet in top of sandstone 5 by 12 by 26 inches, which projects 5 inches above surface of ground 15 feet east of point of butte.

[Latitude 36° 30' 32.30". Longitude 104° 44' 16.13".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Knob.....	74 25 48	254 16 10	4.40025	15.618
Chase.....	99 22 44.47	279 14 27.53	4.3232646	13.080
Dawson.....	143 50 19.43	323 44 00.97	4.4264875	16.590
Koehler.....	186 33 31.83	6 34 50.80	4.4584027	17.855
Koehler, observed azimuth.....	186 33 10.62	6 34 29.52	.....	.....
Red River.....	212 39 44.73	32 48 13.61	4.5927348	24.327
Eagletail.....	236 21 09.96	56 32 43.57	4.5403411	21.562
Maxwell.....	259 24 32.14	79 32 38.58	4.3155726	12.851

HIGHEST PEAK IN GROUP EAST OF MAXWELL, COLFAX COUNTY, N. MEX. (Not occupied.)

The highest point of the highest peak of a group of peaks situated about 9 miles due east of Maxwell City.

Station mark: A rock or small tree on the highest part of peak.

[Latitude 36° 33' 18.28". Longitude 104° 21' 30.50".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Maxwell.....	84 26 20	264 20 54	4.13682	8.514
Eagletail.....	160 21 33	340 19 32	4.17414	9.279
Laughlin.....	243 13 07	63 19 16	4.23930	10.780

KNOB, COLFAX COUNTY, N. MEX. (Not occupied.)

Station mark: A large sharp-topped rock projecting from a spur of the Snow Range Mountains.

[Latitude 36° 26' 52.34". Longitude 105° 00' 28.33".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Dawson.....	196 28 41	16 32 01	4.47039	18.354
Chase.....	198 31 40	18 33 02	4.03112	6.675
French.....	254 16 10	74 25 48	4.40025	15.618

KOEHLER, COLFAX COUNTY, N. MEX.

About 6 miles northwest of Koehler village, at the highest point of the intersection of three ridges, which forms a T with the stem pointing north. The hill is timbered, but lines were opened from the station to the surrounding stations.

Signal: A 40-foot pole carrying cross arms to which black cloth targets were attached. The pole is wired and nailed to a stripped tree. Signal is 9.5 feet northwest of station mark.

Station mark: A bronze tablet set in top of sandstone 26 by 10 by 5 inches projecting 4 inches above surface of ground.

[Latitude 36° 45' 58.38". Longitude 104° 42' 03.91'']

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
French.....	6 34 50.80	186 33 31.83	4.4584027	17.855
French, observed azimuth.....	6 34 29.52	186 33 10.62		
Chase.....	43 46 40.49	223 37 03.12	4.5412396	21.607
Dawson.....	69 51 08.01	249 43 29.23	4.3069900	12.599
Bartlett.....	123 58 32.57	303 49 04.02	4.4519159	17.590
Rock.....	134 41 12.16	314 35 04.29	4.3297740	13.278
Red River.....	256 07 58.91	76 15 10.08	4.2644453	11.423
Eagletail.....	290 01 16.67	110 11 33.24	4.4353393	16.931

LAUGHLIN, COLFAX COUNTY, N. MEX.

A bare, grassy mountain about 18 miles east of Maxwell, at the head of Tinaja Creek, in T. 28 N., R. 26 E. The station is on highest point of the mountain and about 2 miles east of Gus Brackett's ranch. This mountain is known by some as Laughlin's Peak, but by more as Old Baldy.

Station mark: An aluminum tablet in loose stone 1 foot underground, over which is a stone with drill hole 4 inches underground. A pile of stone above ground marks the site.

[Latitude 36° 37' 31.45". Longitude 104° 11' 07.18'']

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Eagletail.....	107 02 35.48	286 54 22.69	4.3311658	13.320
Goat Hill.....	143 18 08		4.58717	24.017
Yankee.....	158 07 03.13	338 01 54.36	4.5647908	21.288
Thomson.....	181 59 03.02	1 59 18.84	4.2775297	11.773
Highest peak of group.....	63 19 16	243 13 07	4.23930	10.780
Maxwell.....	72 40 13.99	252 28 35.68	4.4877057	18.970
Red River Peak.....	125 26 59.46	305 15 39.95	4.5389034	21.491

MAXWELL, COLFAX COUNTY, N. MEX.

On the highest part of a low hill 1.5 miles due east of the town of Maxwell. The Maxwell-Chico wagon road runs south of the station, about 0.25 mile distant. Azimuth observations were made on Polaris October 13, 1914.

Signal: A 12-foot sawed lumber tripod covered with white cloth on the upper portion of the 3 sides. Centered over station mark.

Station mark: A bronze tablet set in the top of a concrete post 7 by 9 by 40 inches, which projects 6 inches above surface of ground.

[Latitude 36° 32' 34.84". Longitude 104° 30' 38.83'']

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
French.....	79 32 38.58	259 24 32.14	4.3155726	12.851
Colfax.....	118 31 10		4.32204	13.043
Red River.....	181 42 26.83	1 42 47.77	4.4649220	18.125
Eagletail.....	209 09 27.53	29 12 53.99	4.2465241	10.962
Laughlin.....	252 28 35.68	72 40 13.99	4.4847057	18.970
Highest peak of group.....	264 20 54	84 26 20	4.13682	8.514

RED RIVER PEAK, COLFAX COUNTY, N. MEX. (Not occupied.)

Station is on peak about 10 miles southwest of Raton and 3 miles southwest of Otero, on the Atchison, Topeka & Santa Fe Railway.

Station mark: An aluminum tablet set in stone placed in ground, over which was erected a tripod of poles 6 feet high.

[Latitude 36° 48' 20.71". Longitude 104° 30' 03.77".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Barela.....	.....	43 00 16	4.50719	19.977
Yankee.....	.....	52 37 20	4.28701	12.033
Thomson.....	.....	92 14 25	4.46019	17.928
Maxwell.....	1 42 47.77	181 42 26.83	4.4649220	18.125
French.....	32 48 13.61	212 39 44.73	4.5927348	24.327
Koehler.....	76 15 10.08	256 07 58.91	4.2644453	11.423
Laughlin.....	305 15 39.95	125 26 59.46	4.5389034	21.491
Eagletail.....	330 40 33.26	150 43 39.38	4.1978934	9.800

RIDGE, COLFAX COUNTY, N. MEX. (Not occupied; sighted from two stations only; no check on this position.)

[Latitude 36° 56' 09.86". Longitude 104° 51' 57.70".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Rock.....	7 17 47	187 17 35	3.58737	2.403
Bartlett.....	70 47 40	250 44 07	3.96815	5.774

ROCK, COLFAX COUNTY, N. MEX.

On the highest part of ridge, about 8 miles east of Vermejo Park post office. It is near the divide between Red River and Rio Vermejo. Road Canyon heads about 3 miles north of the station. A wagon road leaves the Rio Vermejo valley about 3 miles southeast of Vermejo Park post office and follows up Road Canyon and over the divide to Bartlett's horse ranch, thence down Longs Canyon.

Signal: A 12-foot tripod covered with white cloth, centered over tablet.

Station mark: A bronze tablet cemented in solid rock on small knoll at highest point of ridge.

[Latitude 36° 54' 05.44". Longitude 104° 52' 17.54".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Dawson.....	9 48 09.49	189 46 37.68	4.3491612	13.884
Sharp peak to southwest.....	45 26 05	225 13 49	4.63020	26.519
Sharp peak to west.....	76 33 31	206 20 53	4.50771	20.001
Bartlett.....	95 21 58.37	275 18 37.41	3.9201820	5.170
Ridge.....	187 17 35	7 17 47	3.58737	2.403
Koehler.....	314 35 04.29	134 41 12.16	4.3297740	13.278

SHARP PEAK TO SOUTHWEST, COLFAX COUNTY, N. MEX. (Not occupied.)

A sharp peak in the Snow Range, about 22 miles west of Dawson village. From French and Maxwell triangulation stations a cairn was visible, and was sighted.

Station mark: A cairn.

[Latitude 36° 37' 50.57". Longitude 105° 12' 43.31".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Bartlett.....	215 33 53	35 42 46	4.57897	23.568
Rock.....	225 13 49	45 26 05	4.63020	26.519
Dawson.....	253 07 47	73 18 28	4.44434	17.286

SHARP PEAK TO WEST, COLFAX COUNTY, N. MEX. (Not occupied; sighted from only two stations; no check on this position.)

A high summit in the Snow Range, probably Castilla Peak.

Station mark: A cairn.

[Latitude 36° 50' 00.84". Longitude 105° 13' 20.96".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Bartlett.....	250 03 05	70 12 22	4.38845	15.198
Rock.....	256 20 53	76 33 31	4.50771	20.001