

MAINE.

PRIMARY TRAVERSE.

Portland quadrangle.

CUMBERLAND COUNTY.

The following geographic positions were determined in 1914 by R. C. Seitz. The line starts from Orthodox Church, United States Coast and Geodetic Survey triangulation point, in Saco, follows highways northward near west border of quadrangle, and is tied to United States Geological Survey triangulation station Gorham, described in Bulletin 122.

PORTLAND QUADRANGLE.

Along highways near west border of quadrangle.

Station.	Latitude.	Longitude.	Distance between stations.
	° ' "	° ' "	<i>Feet.</i>
Saco Orthodox Church spire (Coast and Geodetic Survey triangulation point).....	43 30 02.95	70 26 35.05	.....
Saco railway station, North Street crossing Boston & Maine R. R. Jenkin, road forks northeast.....	43 30 28.5	70 26 54.5	2,960
Saco station, 3.2 miles northwest of, about 200 feet west of T roads, north of road, west end of stone arch under highway; tablet stamped "Me. 134, 1914, S., Prim. Trav. Sta. No. 1".....	43 31 30.4	70 27 46.8	7,350
Junction of Heath road with Saco road.....	43 32 41.5	70 29 11.3	9,520
Heath meeting house, crossroads at.....	43 33 18.4	70 29 48.1	4,613
Forks of Buxton road with Heath road.....	43 34 11.4	70 28 52.0	6,770
Heath meeting house, 0.75 mile north of, about 1,000 feet west of road forks, in north end of stone arch; tablet stamped "Me. 93, 1914, S., Prim. Trav. Sta. No. 2".....	43 34 42.7	70 28 25.0	3,750
Crossroads, Buxton road with Westbrook road.....	43 34 48.7	70 28 36.1	1,014
Cumberland-York county line, road forks northwest on.....	43 35 21.2	70 29 11.6	4,210
Dunston, 5 miles northwest of, Buxton station, 3.5 miles southeast of; stone property corner in southeast angle of crossroads; tablet stamped "Me. 147, 1914, S., Prim. Trav. Sta. No. 3".....	43 35 56.3	70 28 34.2	4,497
South Buxton, four corners in front of store.....	43 36 29.8	70 27 40.0	5,240
Buxton road, Gorham road, intersection of (Buxton quadrangle). Gorham, 3.6 miles south of, west end small drain under railway at south side of highway; tablet stamped "Me. 181, 1914, S., Prim. Trav. Sta. No. 4".....	43 37 15.4	70 28 46.5	6,722
York-Cumberland county line, road crossing.....	43 37 57.2	70 30 15.5	7,790
Milepost "W 135 P. 12".....	43 38 35.9	70 29 37.9	4,800
Gorham Normal School, spire of, by U. S. Geological Survey triangulation, 1888.....	43 39 19.3	70 28 28.1	6,763
	43 39 49.6	70 27 46.8	4,315
	43 40 50.60	70 26 49.96	7,460

Magnetic declination for west border of quadrangle, 15° 14' W.



VERMONT.

TRIANGULATION STATIONS.

Rochester quadrangle.

ADDISON, RUTLAND AND WINDSOR COUNTIES.

In 1915 D. H. Baldwin located several secondary points for control of the Rochester 15-minute quadrangle based on Goshen and Killington stations of United States Coast and Geodetic Survey, North American datum.

Seven stations were occupied and seven points were located by intersections. No least-square figure adjustment was made.

AUSTIN HILL, WINDSOR COUNTY, VT. (Not occupied.)

On bare south part of summit of Austin Hill, about 2 miles west of the village of Rochester.

Signal: Temporary signal pole.

Station mark: No mark established.

[Latitude 43° 52' 14.40". Longitude 72° 49' 40.29".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Jones.....	88 54 39	268 50 49	3.87001	4.606
Cushman barn.....	246 27 41	66 30 25	3.76127	3.586
Rochester.....	273 37 26	... ..	3.80471	3.963

BRAINTREE GAP, VT. (Not occupied.)

On the summit of a mountain south of Braintree Gap, probably in Addison County, near corner of Orange and Windsor counties.

Signal: A signal pole set in the top of a tall pine tree.

Station mark: Tall pine tree.

[Latitude 43° 57' 56.48". Longitude 72° 47' 42.90".]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	<i>Log. meters.</i>	<i>Miles.</i>
Rochester.....	341 08 17	161 10 13	4.06390	7.200
Hancock tunnel.....	37 56 18	217 53 08	3.99770	6.181
Braintree road.....	112 18 36	292 17 50	3.20570	9.978

BRAINTREE ROAD, ADDISON COUNTY, VT.

Just a few hundred feet north of the junction of the main road with a road northeast to Braintree Gap and about 2 miles east of Granville village. It is about 50 feet northwest of north fence line of the Gap road and about 800 feet (true azimuth 93°) to the chimney on the house on the opposite side of main road.

Signal: A temporary flagpole 3 feet southwest of the signal.

Station mark: A small drill hole in small surface rock outcrop.

418 TRIANGULATION AND PRIMARY TRAVERSE, 1913-1915.

Reference mark: A shallow drill hole in the top of a large rock on the northeast side of a springlike basin in water course through field; distant 156.2 feet, true azimuth $195^{\circ} 06.4'$ from station.

[Latitude $43^{\circ} 58' 16.25''$. Longitude $72^{\circ} 48' 49.54''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Little Wilcox.....	4 12 59	.....	4.22706	10.481
Hancock tunnel.....	28 41 38	208 39 14	3.98410	5.990
Philadelphia.....	36 41 24	.....	3.99255	6.108
Gillespie.....	71 38 49	.....	3.72462	3.296
Granville.....	114 20 46	294 16 15	3.97940	5.925
Braintree Gap.....	292 17 50	112 18 36	3.20570	9.978
Rochester.....	335 38 48	155 42 37	4.10380	7.891

CUSHMAN BARN, WINDSOR COUNTY, VT.

On Cushman range east of the village of Rochester, on the south bare slope of wooded knob and about 0.6 mile northwest of gap crossed by road from Rochester to West Randolph. In plain view from Rochester.

Station mark: The southwest corner of an old barn, 45.5 feet long by 25.5 feet wide.

Reference mark: A drill hole in surface outcrop, 581.8 feet distant, $337^{\circ} 52.9'$ true azimuth from station, from which points to the northwest may be seen.

[Latitude $43^{\circ} 53' 29.02''$. Longitude $72^{\circ} 45' 43.24''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Killington.....	8 27 25	188 24 59	4.50763	19.998
Wilcox.....	28 13 37	.....	.....	.....
Mount Carmel.....	44 30 46	224 24 10	4.26096	11.332
Austin.....	66 30 25	246 27 41	3.76127	3.586
Rochester postmaster's house.....	65 39 30	245 37 40	3.58942	2.414
Goshen.....	67 53 44	247 45 02	4.25947	11.293
Jones.....	79 08 50	259 02 16	4.11179	8.038
Hancock tunnel.....	92 41 14	272 36 41	3.94431	5.466
Philadelphia.....	95 37 47	.....	4.00353	6.264
Gillespie.....	128 04 52	308 00 06	4.06712	7.252
Granville.....	134 49 25	134 56 05	4.25850	11.268
Rochester.....	338 23 15	158 23 48	3.46460	1.811

GILLESPIE, ADDISON COUNTY, VT. (Not occupied.)

Just west of the village of Granville, on the summit of a timbered mountain by that name.

Signal: Flagpole in the top of a balsam fir tree.

Station mark: Flagpole in the top of a balsam fir tree.

Reference mark: Blazed base of tree, 3 feet south by 3 feet west of point below flagpole.

[Latitude $43^{\circ} 57' 22.05''$. Longitude $72^{\circ} 52' 35.27''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Braintree road.....	251 36 18	.....	3.72461	3.296
Cushman barn.....	308 00 06	128 04 52	4.06712	7.252
Rochester.....	313 53 52	.....	4.15422	8.862
Rochester postmaster's house.....	327 13 53	147 16 49	4.01939	6.497
Hancock tunnel.....	356 32 42	176 32 55	3.83238	4.224

GOSHEN, ADDISON COUNTY, VT. (Not occupied in 1915.)

Coast and Geodetic Survey, 1880-1885.

On the Green Mountains, in the southeast part of the town of Goshen and about 1.5 miles to the southwest of (Goshen Gap) summit of highway leading from Brandon to Rochester. The mountain is wooded.

Station mark: An iron bolt in rock.

Signal: Target and flag in pine tree; distant 12.5 feet true azimuth 27° from station.

[Latitude $43^{\circ} 49' 46.72''$. Longitude $72^{\circ} 58' 16.87''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Jones.....	223 03 04	43 05 12	3.78107	3.753
Hancock tunnel.....	227 51 15	47 55 10	4.03509	6.736
Cushman barn.....	247 45 02	67 53 44	4.25947	11.293
Rochester.....	256 52 23	77 01 38	4.26438	11.422
Killington (C. & G. S.).....	334 00 45	154 07 00	4.4436010	17.256
Herrick (C. & G. S.).....	...	...	4.4970290	19.515

GRANVILLE, ADDISON COUNTY, VT. (Not occupied.)

The tallest tree on obtuse-angled summit of ridge in west extremity of town of Granville.

[Latitude $44^{\circ} 00' 23.46''$. Longitude $72^{\circ} 55' 19.56''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Braintree road.....	294 16 15	114 20 46	3.97940	5.926
Cushman barn.....	314 49 25	134 56 05	4.25850	11.268
Hancock tunnel.....	341 46 39	161 48 46	4.11520	8.100

HANCOCK TUNNEL, ADDISON COUNTY, VT.

Reached from Rochester via road to Robinson Mill, thence north to the summit of the gap by that name. It is on the west side of the gap, on a grassy slope.

Signal: A temporary flagpole well braced.

Station mark: A temporary flagpole well braced.

Reference mark: A drill hole in rock 142.7 feet distant, true azimuth $150^{\circ} 26'$ and about 50 feet north of indefinite center of ridge.

[Latitude $43^{\circ} 53' 42.19''$. Longitude $72^{\circ} 52' 16.93''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Mount Carmel.....	16 31 43	...	4.14627	8.702
Goshen.....	47 55 10	...	4.03509	6.735
Jones.....	153 54 25	...	3.68515	3.010
Granville.....	161 48 46	341 46 39	4.11520	8.101
Gillespie.....	176 32 55	356 32 42	3.83238	4.224
Braintree road.....	208 39 14	28 41 38	3.98410	5.990
Braintree Gap.....	217 53 08	37 56 18	3.99770	6.181
Cushman barn.....	272 36 41	92 41 14	3.94431	5.446
Little Wilcox.....	337 54 40	...	3.95549	5.608

JONES MOUNTAIN, WINDSOR COUNTY, VT.

On grassy summit northwest of Little Pike Mountain, surrounded by taller mountains. It is about 800 feet uphill from Green's house, north of J. Smith's house. True azimuth to Green's chimney, $26^{\circ} 04'$.

Signal and station mark: A flagpole.

Reference mark: A drill hole in small surface rock; 38.7 feet distant, true azimuth $156^{\circ} 44'$.

[Latitude $43^{\circ} 52' 09.70''$. Longitude $72^{\circ} 55' 12.20''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Goshen.....	43 05 12	223 03 04	3.78107	3.753
Hancock.....	233 52 24	53 54 26	3.68515	3.010
Cushman barn.....	259 02 16	79 08 50	4.11179	8.038
Austin.....	268 02 49	88 54 39	3.87001	4.606
Rochester.....	271 01 31	91 08 39	4.13930	8.564

LITTLE WILCOX, RUTLAND COUNTY, VT. (Not occupied.)

Summit of mountain.

Signal and station mark: Highest tree top.

[Latitude $43^{\circ} 49' 11.20''$. Longitude $72^{\circ} 49' 45.04''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Hancock.....		337 54 40	3.95549	5.609
Braintree road.....		4 12 59	4.22706	10.487
Killington.....		178 19 41	4.37818	14.843

MOUNT CARMEL, RUTLAND COUNTY, VT. (Not occupied.)

A rounded conical summit in Green Mountain Range.

Station mark: Pole on rough tower, erected by fire warden, in center of summit.

[Latitude $43^{\circ} 46' 27.24''$. Longitude $72^{\circ} 55' 14.94''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Hancock tunnel.....	196 30 33	...	4.14641	8.701
Cushman barn.....	224 24 10	44 30 46	4.26096	11.332
Killington.....	336 44 04	156 48 13	4.31129	12.724

PHILADELPHIA, ADDISON COUNTY, VT. (Not occupied.)

On the north part of summit level of Philadelphia Mountain, about 2 miles northwest of Hancock tunnel.

Station mark: A tall dead tree in a burning.

[Latitude $43^{\circ} 54' 00.78''$. Longitude $72^{\circ} 53' 12.76''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
	° ' "	° ' "	Log. meters.	Miles.
Braintree road.....		36 41 24	3.99255	6.108
Cushman barn.....		95 37 47	4.00353	6.264
Rochester.....		108 25 28	4.06841	7.274

ROCHESTER, WINDSOR COUNTY, VT.

On a mountain on the east boundary of the town of Rochester and about 0.8 mile south of the summit of the highway leading from West Randolph to Rochester Village. The mountain is timbered, but several sights were cut. The United States Coast and Geodetic Survey bolt could not be found.

Station mark: A bronze tablet in surface outcrop in the center of an area in which old signal boards were found and at about the highest point of the mountain.

Signal: Flagpole in tree 18.5 feet distant; true azimuth 3° from station.

[Latitude $43^{\circ} 52' 01.22''$. Longitude $72^{\circ} 44' 55.17''$ U. S. C. & G. S. station. Latitude $43^{\circ} 52' 01.31''$; longitude $72^{\circ} 44' 55.15''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
			<i>Log. meters.</i>	<i>Miles.</i>
Killington.....	11 17 07	... ..	4.47271	18.453
Goshen.....	77 01 38	... ..	4.26438	11.422
Austin.....	93 40 43	... ..	3.80471	3.963
Jones.....	91 08 39	271 01 31	4.13930	8.563
Gillespie.....	134 00 19	... ..	4.15424	8.863
Braintree road.....	155 42 37	335 38 48	3.99255	6.108
Cushman barn.....	158 23 48	338 23 15	3.46460	1.811
Braintree Gap.....	161 10 13	341 08 17	4.06390	7.198

ROCHESTER, POSTMASTER'S HOUSE, WINDSOR COUNTY, VT.

On bluff back of Rochester Inn, overlooking town

Station mark: Center of chimney.

[Latitude $43^{\circ} 52' 37.10''$. Longitude $72^{\circ} 48' 21.78''$.]

To station—	Azimuth.	Back azimuth.	Distance.	
			<i>Log. meters.</i>	<i>Miles.</i>
Gillespie.....	147 16 49	327 13 53	4.01939	6.497
Cushman.....	245 37 40	65 39 30	3.58942	2.414

