CLIMATOLOGICAL DATA FOR JULY, 1913.

DISTRICT NO. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

GENERAL SUMMARY.

The distinguishing features of the month were heavy local rains during the last decade in eastern Oregon and southern Idaho and the wide ranges in temperature throughout the district. The heavy local rains came between the first and second cutting of alfalfa and therefore on the whole were beneficial. They also were a great help in supplementing the supply of irrigation water, and no shortage occurred, although fears had been entertained that later on there would not be enough. As opposed to the freezing temperatures that prevailed in the plateau sections about the middle of the month temperatures of 100° or more were of frequent occurrence in the low valleys between the 20th and 25th.

Owing to frequent showers in western Oregon and western Washington a large amount of hay could not be properly cured and many fields became overripe. The hay crop for the foregoing reasons did not turn out as well as expected. The weather on the whole was favorable for the grain harvest and the yields so far are satisfactory. The many thunderstorms during the third decade started numerous forest fires, but the heavy rains accompanying these storms put out most of the fires shortly after they had started, and there were not as many burning at the end of the month as usual.

There were no noteworthy delays in traffic or interruptions in construction work.

TEMPERATURE.

July, 1913, was notable for its extremes of heat and cold. Maximum temperatures of 100°, or above, were recorded at numerous stations on various dates, but principally on the 20th; these high temperatures were not confined to any one section but were general, except in western Montana, Wyoming, and along the coast of Washington and Oregon. In contradistinction to these high temperatures minimum temperatures below freezing occurred in many sections on several dates, the lowest, 22°, having been recorded on the 14th at two stations in central Idaho. The month averaged cooler than usual, being particularly so in western Montana, Idaho, southeastern Washington, and northeastern and southern Oregon, where the temperatures ranged from 0.3° to 8.3° below normal.

The mean temperature of the district, as determined from the records of 304 stations, was 65.1°, or 1° below normal. The highest temperature, 110°, was recorded on the 23d at Hanford, in southern Washington, at an elevation of 385 feet, and the lowest, 22°, occurred at Loon Creek and New Meadows, contiguous stations in Idaho, at elevations of 6,000 and 3,950 feet, respectively. The greatest daily range in temperature was 63°, at Moore, in southern Idaho, at an elevation of 5,700 feet, and at Yonna, in southern Oregon, at 4,146 feet elevation. The highest monthly mean, 76.1°, was also recorded at Hanford, Wash., and the lowest monthly mean, 51.6°, at Snake River, Wyo., at an altitude of 7,000 feet.

The following table shows for comparative purposes the mean temperature and departure from normal for the States of Oregon, Washington, and Idaho, and those portions of Montana and Wyoming in district No. 12 for the month of July during the last five years.

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.
1909	62.5	−2.8	63.9	−2.6	66.2	−1.0	61.5	−2.4	57.8	−1.4
1910	66.5	+0.6	66.7	−0.1	71.0	+2.2	65.0	+1.7	61.3	+2.0
1911	68.4	+2.1	67.9	+0.9	67.5	−1.0	62.7	−1.7	56.8	−1.9
1912	64.7	−1.3	65.5	−0.7	65.2	−3.6	62.0	−3.7	55.7	−2.0
1913	65.1	−0.5	66.2	−0.4	65.7	−2.2	62.2	−2.8	56.0	−1.8

PRECIPITATION.

The precipitation for July was normal or slightly below in the territory adjacent to the Columbia River in Washington and Oregon, except near the coast, in extreme western Montana and along the Snake River in the first-named State; elsewhere the rainfall was above the average for the month, being unusually heavy in southeastern Idaho and southern and eastern Oregon, in some instances partaking of the nature of cloudbursts, at which time the precipitation in 24 hours was the greatest of record at several stations in these two States. Where these heavy downpours occurred on steep watersheds the floods caused considerable damage. In Montana, Wyoming, and Idaho the rainfall was fairly well distributed throughout the month; in Washington the rainfall occurred mostly during the first half of the month, with only scattered showers in the last decade at a number of stations in the eastern portion of the State, there being a period from the 15th to the 20th, inclusive, without precipitation; in Oregon the precipitation was mostly confined to the 3d and from the 20th to the 25th of the month, with occasional local rains during the remainder of the month.

The average precipitation for the district, as determined from the records of 399 stations, was 1.22 inches, which is 0.41 of an inch more than the normal. The greatest 24-hour rainfall, 3.13 inches, occurred at Vernon, Idaho, on the 24th, at an elevation of 5,050 feet. The greatest monthly amount, 6.46 inches, was recorded at Snake River, in Yellowstone Park, Wyo. No rain fell at Condon, and Grass Valley, Oreg., and at several stations in the State of Washington.

The average monthly precipitation with departure from normal for the month of July during the last five years is shown in the following table for the States of Oregon, Washington, and Idaho, and for those portions of Montana and Wyomong in District No. 12.

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.
1909	1.20	+0.76	1.49	+0.83	1.24	+0.38	3.08	+1.92	1.40	+0.99
1910	0.17	−0.46	0.13	−0.60	0.37	−0.34	0.59	−0.66	1.02	+0.20
1911	0.08	−0.51	0.26	−0.46	0.20	−0.32	0.57	−0.68	0.35	−0.28
1912	0.65	+0.07	1.05	+0.22	1.15	+0.88	1.83	+0.51	2.80	+1.16
1913	1.19	+0.52	0.64	+0.09	1.92	+1.15	1.16	−0.17	3.15	+1.00

THE RIVERS.

Heavy local rains from the 22d to the 25th on the tributaries of the lower Snake River caused a small rise which was felt in the lower Columbia a few days later. These rains washed a large amount of soil into the streams and for several days the water was so charged with silt as to seriously interfere with salmon fishing.

The following table shows the highest and lowest stages, the dates on which they occurred, and the mean and normal stages at the river stations in this district for July:

Station	River.	Highest.	Date.	Lowest.	Date.	Mean.	Normal.
Albany	Willamette	5.9	5th	2.0	31st	3.4	2.1
Salem	do	4.7	5th[1]	0.9	31st	2.5	1.3
Wilsonville	do	7.0	1st	2.5	31st	4.5	3.2
Oregon City	do	4.4	1st[1]	1.2	18th	2.8	.....
Portland	do	20.6	1st	9.3	28th[1]	14.3	13.3
Jefferson	Santiam	3.5	1st[1]	1.4	29th[1]	2.3	1.5
McMinnville	Yamhill	1.0	1st[1]	0.2	30th[1]	0.5	0.6
Cazadero	Clackamas	2.8	1st	1.5	30th[1]	2.0	.....
Kamiah	Clearwater	8.8	2d	4.5	30th[1]	6.0	.....
Weiser	Snake	7.5	5th	2.5	23d	4.9	4.7
Lewiston	do	9.3	7th	2.4	24th[1]	5.7	5.5
Riparia	do	9.4	1st	3.8	26th	6.3	5.6
Bonners Ferry	Kootenai	20.6	1st	10.5	30th[1]	14.7	14.9
Newport	Pend d'Oreille	18.7	1st	6.6	31st	12.1	8.8
Northport	Columbia	29.3	1st	13.2	31st	20.0	20.4
Wenatchee	do	42.2	1st	24.0	31st	31.1	29.9
Umatilla	do	19.3	1st	11.6	31st	15.0	14.8
The Dalles	do	33.5	1st	17.5	31st	24.1	24.4
Cascade Locks	do	25.9	1st	13.0	27th[1]	18.1	17.5
Vancouver	do	20.9	1st	9.6	28th	14.7	14.0

[1] The stage was observed on more than one date.

MISCELLANEOUS PHENOMENA.

Thunderstorms, occasionally with hail, were quite prevalent during the last decade in southern Idaho and eastern Oregon. Two fatalities from lightning were reported from southwestern Oregon and one from northeastern Washington; lightning was also the cause of several forest fires in the first named State which were subsequently extinguished by the heavy rains.

The prevailing winds were mostly northwesterly, with maximum velocities reported as follows: North Head, 54 miles from the south, and Tatoosh Island, 60 miles from the southwest, both occurring on the 6th. A wind storm partaking somewhat of the nature of a tornado occurred on the same date in the northeast suburbs of the city of Seattle, Wash., and while scarcely over a minute in duration caused considerable damage to buildings, trees and shrubbery. Dust storms were reported from stations in eastern Washington on the 6th which were injurious to standing grain.

Some frosts were noted during the second decade at stations in Montana and Oregon, and freezing temperatures were of general occurrence in the elevated portions of Idaho on the 14th which were slightly damaging to growing crops.

THE ANNUAL RISE OF THE COLUMBIA RIVER

[Portland, Oreg., Aug. 11, 1913.]

By THOMAS R. REED, Assistant Observer.

Weather conditions in the Columbia River watershed during the winter and spring of 1913 were favorable for a large run-off later in the year. That a larger flow of water than usual would occur in the early summer was foreseen by officials in the Weather Bureau and the Dominion meteorological service, and their estimates in this connection were published in the March issue of the Snowfall Bulletin. In order that the public might be informed as to conditions of snowfall in British Columbia, a supplement to the regular snowfall bulletin was issued on April 22, containing tabular data and a short written summary furnished by the Dominion meteorological service.

Taking the wet season as a whole the snowfall was not large as compared with normal amounts, but what there was did not undergo premature melting, for the low temperatures of the spring months conserved what had fallen until summer was almost at hand. When the first pronounced warm spell of any duration came there was a large accumulated deposit ready to swell the tributaries of the Columbia River. The following table, compiled from the Monthly Weather Review, shows the temperature and precipitation over the Northern Plateau during the snowfall season:

Mean temperature and precipitation over the Northern Plateau.

	Mean temperature.	Departure.	Mean precipitation.	Departure.
	°	°	*Inches.*	*Inches.*
December, 1912	31.2	−0.1	0.85	−0.8
January, 1913	25.2	−2.7	1.94	+0.4
February, 1913	25.8	−5.4	0.88	−0.7
March, 1913	37.5	−2.8	1.51	0.0
April, 1913	49.2	+0.3	1.14	−0.2

The annual high water in the Columbia finds its origin in two principal sources. The more important of these is the upper Columbia itself, augmented by the Kootenai and Pend d'Oreille tributaries. The other source is the Snake River, rising in Yellowstone Park and augmented near its lower end by the Salmon and Clearwater Rivers. The upper Snake River carried about the usual amount of water this year, but below the entrance of the Salmon River it reached the highest stages recorded since 1899.

Of the tributaries referred to as augmenting the upper Columbia, the Kootenai began to rise first and continued to increase rapidly reaching a maximum early in June. The Pend d'Oreille rose more slowly reaching a maximum 10 or 15 days later. Both streams fell gradually and united in maintaining a high stage in the lower Columbia for a long time. The Kootenai influenced the Columbia more than the Pend d'Oreille. It is said that the stages reached this year in that stream exceeded any on record, and this is not unlikely because the conditions of subnormal temperature described as prevalent over the whole Northwest during the spring were accentuated in in the Kootenai country, while the winter's snowfall there, unlike that on the Northern Plateau, was in excess of the average.

As usual the Snake River was carrying its maximum volume earlier than the Columbia and had begun to recede at the time the Columbia was showing its most rapid increase. In this way disastrous stages in the lower Columbia were avoided, but notwithstanding this the stages in the lower river were the highest since 1903. The 15-foot stage at Portland, which is rated as

TABLE 1.—*Climatological data for July, 1913. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,330	11	59.6	− 3.0	89	6	31	14	40	1.25	− 0.01	0.47	0	6	8	19	4		C. D. Demond.
Butte	Silver Bow	5,716	18	61.3	− 2.1	88	6†	34	14	38	1.69	+ 0.44	0.67	0	5	17[a]	4[a]	9[a]	nw.	J. R. Wharton.
Columbia Falls	Flathead	3,100	17	63.0	− 0.7	90	6†	32	14	50	1.19	− 0.51	0.37	0	8	18[a]	8[a]	4[a]	sw.	J. M. Grist.
Como	Ravalli	3,750	4	65.0		95	6†	36	14	39	1.07		0.42	0	6	19	8	4		Hiram Platt.
Dayton	Flathead	2,925	8	63.8		94	19	37	14	40	0.60	− 0.74	0.20	0	4	24	2	5		A. J. Ruechell.
Deer Lodge	Powell	4,509	1								1.11		0.41	0	5	19	11	1		H. B. Grant.
East Anaconda	Deer Lodge	5,500	7	60.0		90	6	36	14	38	1.72			0	10	8	19	4	n.	C. D. Demond.
Fortine	Lincoln	2,975	7	60.6		88	6†	32	3†	55	0.99		0.25	0	10	13	10	8	w.	Mike Petery.
Hamilton	Ravalli	3,524	10	64.2	− 1.9	95	6	38	14	41	0.59	− 0.32	0.12	0	8	22	1	8	n.	Hamilton Chamber of Com.
Hat Creek	Powell	6,000	3								2.39		0.65	0	11	7	18	6	w.	M. K. Landreth.
Haugan	Missoula	3,150	1	61.0		93	19†	31	17	55	0.65		0.27	0	9	12	17	2	w.	U. S. Forest Service.
Heron	Sanders	2,261	1	62.8		96	21	34	14	50	0.96		0.38	0	10	14	16	1	w.	E. Knott.
Kalispell	Flathead	2,965	14	61.8	− 2.5	91	20	36	30	40	0.38	− 0.46	0.14	0	5	15	12	4	w.	U. S. Weather Bureau.
Libby	Lincoln	2,075	3	63.2	− 1.1	100	20	33	15	59	0.64	− 0.64	0.31	0	8	16	7	8		U. S. Forest Service.
Missoula	Missoula	3,225	34	64.6	− 2.4	98	20	33	14	48	1.03	− 0.08	0.34	0	13				sw.	U. S. Weather Bureau.
Ovando	Powell	4,050	13	58.4	− 8.3	91	21	28	14	45	1.39	+ 0.27	0.27	0	8	0	31	0	w.	S. B. Muchmore.
Philipsburg	Granite	5,273	9	59.4[f]		92[f]	20	28[f]	14	51[f]	1.27		0.45	0	7	17[f]	5[f]	3[f]	sw.	G. T. Bramble.
Plains	Sanders	2,473	14	64.4	− 1.1	94	20	35	14†	43	1.46	+ 0.05	0.58	0	10	5	26	0	sw.	James M. Self.
Pleasant Valley	Flathead	3,500	5	57.3		89	19	26	14	54	0.69		0.23	0	8	20	6	5	w.	A. D. Stillman.
Poison	....do	2,920	5	65.6		87	20†	38	30	40	1.45		0.48	0	5					F. P. Brown.
St. Ignatius	Missoula	2,700	7	63.9		91	20	37	16	44	1.36		0.50	0	9	22	5	4		U. S. Reclamation Service.
Saltese	....do	3,600	8								1.56		0.77	T.	7	19	0	12	w.	Martin S. Pixley.
Stevensville	Ravalli	3,500	1	63.2		95	6	32	14	46	0.45		0.20	0	5	22	8	1	w.	University Orchard Co.
Thompson Falls	Sanders	2,424	1	63.7		96	20	36	14†	49	2.94		1.05	0	10	23	2	6	w.	U. S. Forest Service.
Trout Creek	....do	2,375	1								1.05		0.55	0	3	23	3	5	sw.	James Hylent.
Victor	Ravalli	3,537		64.6		95	6	35	14	42	0.35		0.12	0	4	26	3	2	nw.	R. W. Fisher.
Willow Glen St'k Farm	Deer Lodge	5,064	2	59.2		86	10†	30	4†	52				0		22	6	3	ne.	G. E. Luce.
Wyoming.																				
Afton	Lincoln	6,200	9	59.2		86	6	30	31	47	1.35		0.35	0	8	21	3	7		A. V. Call.
Alta	....do	6,500	3	56.0		84	7†	27	14	47	3.34		1.22	0	15	15	8	8	sw.	Mrs. Lucy Brown.
Bechler River	Yellowstone Park.	6,500	1								3.80		0.70	0	11	20	0	11		U. S. Army.
Bedford	Lincoln	5,900	13	57.6	− 1.8	83	9	29	31	44	1.84	+ 1.00	0.62	0	8	21	2	8	w.	C. G. Heiner.
Moran	....do	6,770	1	55.7		79	9†	30	14	42	2.45		1.00	0	10	9	16	6		U. S. Reclamation Service.
Snake River	Yellowstone Park.	7,000	7	51.6		78	24	26	14	42	6.46		2.56	0	17	15	10	6	s.	U. S. Army.
Nevada.																				
San Jacinto	Elko		8	58.0		92	6†	18	13	61	1.53		0.42	0	8	18	8	5	n.	F. W. Marchant.
Utah.																				
S tandrod	Boxelder		8	63.2		85	6†	39	14	37	1.84		0.39	0	11	20	7	4	sw.	T. B. Jones.
Idaho.																				
Albion	Cassia	4,650	10	63.6[b]	− 2.7	93[b]	9	35[b]	13†	49[b]	1.84	+ 1.20	0.50	0	7				w.	C. E. Bocock.
Almo	....do		3								3.63		0.60	0	12	15	2	14		Wm. D. Cahoon.
American Falls	Power	4,341	21	69.4	+ 0.3	97	12	32	14	60	2.37	+ 1.69	0.98	0	8	21	10	0	ne.	Geo. Stoll.
Arrowrock	Boise	3,100	1	70.8		102	6	38	14	48	3.31		1.40	0	6	24	3	4	w.	U. S. Reclamation Service.
Blackfoot	Bingham	4,503	17	65.1	− 2.6	92	6†	33	14	50	2.20	+ 1.54	0.71	0	8	17	12	2	sw.	E. A. Dowd.
Blackfoot Dam	Bannock	6,200	3	60.2		85	7	33	12†	45	2.52		0.50	0	12	16	4	11	sw.	S. C. Waddell.
Bogus Creek	Boise	4,200	4																	F. P. Ingraham.
Boise	Ada	2,739	27	70.2	− 2.6	98	6	42	14	37	2.01	+ 1.83	0.85	0	7	16	8	7	nw.	U. S. Weather Bureau.
Boise King	Elmore			63.0		94	6	27	14	50	4.15		1.00	0	9	17	8	6		A. W. Stevens.
Bonners Ferry	Bonner	1,850	6	62.2		94	19†	37	3	47	1.13		0.28	0	5	21	7	3	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800	3								4.20		1.49	0	11	23	4	4		Patrick Moriarty.
Buhl	Twin Falls	3,800	6	68.2		96	6	38	14	45	2.29		1.35	0	5	17	11	3	w.	S. C. Orr.
Caldwell	Canyon	2,372	8	69.2		97	6	37	14	44	3.55		2.50	0	7	15	13	3	w.	Wm. J. Boone, D. D.
Caldwell Exp. Sta §	....do		1	68.0		98	6	37	14	45	1.82		1.16	0	5					Caldwell Experiment Sta.
Cambridge	Washington	2,651	17	68.6[a]	− 3.4	100[a]	20	34[a]	14	50[a]	1.10	+ 0.73	0.45	0	4				sw.	Chas. H. Shepherd.
Cedar Creek Dam	Twin Falls	5,220	2								2.33		0.49	0	10	17	11	3	nw.	Robert Hoffman.
Chesterfield	Bannock	5,424	16	61.6	− 0.3	92	19	30	13	54	2.26	+ 1.73	0.91	0	12	11	9	11		Chas. S. West.
Clarks Fork	Bonner	2,084	1	63.1		89	19	39	14	37	0.85		0.30	0	8	16	10	5		Wm. Potter.
Clyde	Custer	6,000																		R. L. Sutcliffe.
Coeur d'Alene	Kootenai	2,157	18	67.4	+ 0.4	98	19	41	14	43	1.05	+ 0.34	0.53	0	5					J. H. O'Rourke.
Council	Adams	3,059	1	67.8		96	19†	37	14	42	1.36		0.44	0	7	17	9	5		F. L. Featherston.
Culdesac	Nez Perce	1,520	4	69.0		102	20	37	14	49	0.37		0.13	0	4	14	16	1		Mrs. B. B. Caldwell.
Deary	Latah	2,854	1	63.7		94	19†	35	30	48	0.37		0.22	0	4	18	11	2	sw.	W. J. Davis.
Dent	Clearwater	1,350	7																	Emil Schuessler.
Driggs	Fremont	6,097	6	57.8		83	6†	31	14	45	4.61		1.73	0	10	13	4	14	sw.	Walter H. Durrant.
Emmett	Canyon	2,350	6	72.4		102	20	40	14	44	2.33		1.23	0	6	19	7	5	w.	U. S. Forest Service.
Forney	Lemhi	6,000	12																	M. B. Merritt.
Garnet	Elmore	2,575	13	75.2	− 3.4	104	6†	44	14	44	2.32	+ 2.00	1.70	0	3	20	7	4	e.	Asa A. Kenison.
Geneva	Bear Lake	6,171	4								1.84		0.87	0	5	18	10	3		F. W. Boehme.
Glenns Ferry	Elmore	2,569	4	73.6		105	6†	33	14	57	1.39		0.50	0	5	24	6	1		I. E. Perkins.
Gooding	Gooding	3,572	3	68.6		99	9	31	14	51	0.73		0.51	0	5	21	6	4	w.	John Krall, jr.
Grace	Bannock	5,400	6	66.4		98	6	36	12†	50				0		12	11	8		E. W. Joy.
Grand Forks	Shoshone	3,000	3	59.2		90	19†	27	14	57	0.62		0.40	0	3				w.	Claget Sanders.
Grandview	Owyhee	2,300	3	72.6		103	6†	41	13	50	1.37		0.35	0	5	23	3	5	nw.	Harvey E. Hanna.
Grimes Pass	Boise	5,200	3								1.79		0.93	0	9					Joseph M. Clarke.
Guffey	Owyhee	2,381	4	75.0		102	20	41	14	46	0.64		0.34	0	4	26	4	1	w.	Fred Perry.
Hailey	Blaine	5,347	10	64.2	− 2.8	93	9	32	14	44	1.62	+ 1.00	0.91	0	8	15	11	5	sw.	U. S. Forest Service.
Hollister	Twin Falls	4,550	1	65.6[a]		94[a]	6†	34[a]	14	45[a]	1.65		0.62	0	10	13	17	1	w.	J. W. Bouton.
Hotspring	Owyhee	2,590	7	72.8		100	6†	42	14	46	1.70		1.20	0	3	25	3	3		J. M. Waterhouse.
Idaho Falls	Bonneville	4,742	18	66.2	− 1.1	96	19	33	14	46	1.86	+ 1.21	0.99	0	10	19	7	5	ne.	Dr. T. M. Bridges.
Indian Cove	Owyhee			73.2		104	8	35	14	54	1.82		1.65	0	4	25	5	1	sw.	Capt. O. M. Carter.
Indian Valley	Adams	2,999	4								2.09		0.69	0	9	23	5	3	n.	A. M. Henke.
Irwin	Bonneville	6,500	11																	Mrs. Eva Buckland.
Kellogg	Shoshone	2,305	8	63.4[b]		97[b]	19	35[b]	14	50[a]	1.75		0.79	0	10	22	0	9		W. McM. Huff.
Kilgore	Fremont			55.8[b]		84[b]	19	28[b]	14	46[b]	8.00		3.50	0	7				e.	W. H. McCormick.
Kirkham	Boise	4,200	3								2.42		0.85	0	4	14	7	10	w.	Mrs. Josie B. West.
Kooskia	Idaho	1,261	4	69.2		103	20	35	14	55	0.66		0.30	0	3	16	14	1		U. S. Forest Service.
Lakeview	Bonner	2,250	15	64.4	− 0.7	89	21	41	30	37	1.90	+ 0.76	1.00	0	7	17	8	6	sw.	E. D. Faust.
Landore	Adams	5,300	8	58.1		89	20	29	14	45	1.43		0.45	0	7	20	10	1		Mrs. Emma L. Brown.
Leadore	Lemhi		1	57.0		88	10	28	30	51				0					s.	Tom Keating.

TABLE 1.—*Climatological data for July, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Idaho—Continued.																				
Lewiston	Nezperce	757	19	72.9	− 0.7	105	20	47	14	42	0.10	− 0.32	0.08	0	2	19	10	2	e.	U. S. Weather Bureau.
Little Camas	Elmore	5,000	3								2.99		1.34	0	8	13	7	11	w.	Solon McCoy.
Loon Creek	Custer	6,000	3	56.6		89	6†	22[a]	14	58[a]	1.65		0.50	0	11	13	8	10	sw.	Mrs. Mary Williams.
Mackay	do	5,897	5	62.1		90	10	32	13	47	2.77		0.83	0	8	21	8	2	nw.	U. S. Forest Service.
Malad	Oneida	4,700		66.4		93	7	37	31	50	0.98		0.34	0	8	11	17	3		Uther Jones.
Meridian	Ada	2,657	2	69.8		97	20	37	14	45	2.17		1.10	0	7	17	10	4	nw.	A. W. Garrett.
Mesa §	Adams	3,275	2	68.5		94	19	42	2	38				0		10	0	21	n.	I. S. Carter.
Middle Fork	Idaho	1,397	2																	Jos. McGhee.
Milner	Twin Falls	4,110	9	69.0	− 2.5	94	8†	38	14	46	1.72	+ 1.40	0.90	0	6	17	10	4	w.	J. K. Young.
Moore	Blaine	5,700	12	62.6	− 1.8	101	16	30	14	63	1.04	+ 0.44	0.48	0	6	23	3	5	sw.	Chas. B. Lemon.
Moscow	Latah	2,748	20	64.0	− 2.4	96	21†	36	14	47	0.19	− 0.52	0.12	0	2	19	7	5	e.	University of Idaho.
Mountain Home	Elmore	3,150	7	68.4		101	5	29	14	55	2.63		1.65	0	5	17	6	8	nw.	Mrs. Ellen Manion.
Murtaugh	Twin Falls		6	66.6[d]		92[d]	9	36[d]	14	43[h]	0.82		0.54	0	4	15	14	2	w.	J. E. Steinour.
New Meadows	Adams	3,950	8	60.2		93	19	22	14	54	1.32		0.41	0	7	16	13	2	s.	Lee Highley.
Nezperce	Lewis	3,082	3	61.0		91	18	32	13	45	0.72		0.29	0	4	24	5	2		P. Mitchell.
Oakley	Cassia	4,700	19	66.2	− 4.1	96	9	33	24	50	1.85	+ 1.23	0.46	0	9	11	20	0		John Adams.
O'Hara Bar	Idaho	1,557	2			98[e]	23	37[e]	14	48[e]	1.05			0						J. D. Agnew.
Orofino	Clearwater	1,027	8	68.1		101	20	38	14	51	0.35		0.24	0	6	19	12	0		Geo. Alteneder.
Paris	Bear Lake	5,946	18	59.0	− 3.9	86	20†	34	2†	45	0.76	+ 0.03	0.45	0	4	18	12	1	sw.	John Norton.
Payette	Canyon	2,159	21	69.8	− 3.6	99	20	39	14	45	2.45	+ 2.05	1.50	0	7	16	10	5	n.	E. F. Allen.
Pierson	Custer	7,000	4	54.0		81	12†	23	15	54	3.42		1.29	0	7	17	7	7	s.	David P. Clarke.
Pleasant Valley	Ada	3,000	5	68.2		99	6	32	14	51	2.31		1.07	0	6	22	3	6	nw.	C. E. Friedrich.
Pocatello	Bannock	4,483	13	67.4	− 3.9	91	8	42	14	40	2.23	+ 1.60	0.71	0	10	12	11	8	se.	U. S. Weather Bureau.
Pocatello Nursery	do	5,396	6	62.2		89	8	33	14†	47	4.32		2.37	0	17	10	12	9	sw.	Mrs. Fannie E. Say.
Poplar	Bonneville	5,500	3	63.2		90	21	32	14	46	2.71		1.77	0	5	22	6	3	sw.	C. M. Lawrence.
Porthill	Bonner	1,665	23	62.9	− 2.8	90	20	39	30	38	1.34	+ 0.19	0.51	0	10	20	5	6		H. A. French.
Priest River Experiment Station:																				
No. 1	do	2,500	1	61.4		89	20†	38	14	38	1.30		0.33	0	8	23	5	3	sw.	U. S. Forest Service.
No. 2	do	2,500	1	63.0		96	19	37	14	48	1.16		0.34	0	8	23	5	3	sw.	Do.
No. 3	do		1	59.8		95	20	32	15†	53	1.22		0.34	0	8	23	5	3	se.	Do.
Pyle Creek	Boise	3,100	3																	P. V. Smith.
Richfield	Lincoln	4,306	3	67.8		96	9	31	14	50	0.89		0.60	0	5	18	11	2	sw.	Idaho Irrigation Co.
Rogerson	Twin Falls			65.0[d]		91[d]	6	34[d]	14	47[d]	1.29		0.38	0	7					J. S. Bussell.
Roseberry	Boise	4,872	3																	Rev. T. P. Graham.
Roseworth	Twin Falls	4,650	2								1.18		0.28	0	9	5	20	6	sw.	D. B. Hartwell.
Rupert	Minidoka	4,204	6	67.0		94	9	35	14	49	2.45		1.04	0	11	24	4	3	sw.	Will Parry.
St. Anthony	Fremont	4,968																		Heber C. Sharp.
St. Maries	Kootenai	2,263	15																	J. S. Turnbull.
St. Michael's Priory	Idaho	3,811		62.8		87	20	40	13	36	1.71		1.01	0	8	14	13	4	nw.	Rev. Father Berthold.
Salmon	Lemhi	4,040	7	65.2		95	19	32	14	50	1.36		0.28	0	13	17	10	4	w.	E. K. Abbott.
Sandpoint	Bonner	2,086	2	63.8		93	20†	37	14	44	0.95		0.25	0	6	17	11	3	sw.	S. M. Moore.
Sheep Hill	Boise	5,000	3								4.17		2.87	0	9					Clifford M. Gardner.
Shoshone	Lincoln	3,968	5	69.6		99	8	36	14	45	0.80		0.47	0	4	14	17	0	w.	Zell Truman.
Silver City	Owyhee	6,280	5								1.25		0.57	0	4	12	16	3		Russell Stoddard.
Soldier Creek	Blaine	5,755	2	57.2[d]		84[d]	5†	29[e]	14	41[e]	3.56		1.73	0	8				nw.	J. E. Minear.
Spirit Lake §	Kootenai	2,560	2																	M. C. Krause.
Springfield	Bingham	4,420	4	66.3		95	9	29	14	54	1.39		0.40	0	9	9	14	8	sw.	Mrs. W. A. Edwards.
Spring Hill	Ada	3,607		70.0		96	6†	42	14	37	6.35		2.81	0	5				nw.	Ray G. Lyons.
Sugar §	Fremont	4,892	5	62.7		89	6	33	14	43	2.74		1.50	0	7	21	4	6	sw.	Utah-Idaho Sugar Co.
Sunnyside	Elmore	3,500	3					38[e]	11†		2.33		0.60	0	6				nw.	Col. M. W. Wood.
Tripod Mountain	Boise	4,300	3								2.28		1.10	0	5	22	4	5		Mrs. Verna Paddock.
Twin Falls	Twin Falls	3,825	7	68.2		98	6	31	14	51	1.50		0.50	0	8	14	14	3	sw.	J. A. Waters.
Vernon	Fremont	5,050	14	60.6	− 3.2	87	18	27	14	46	5.60	+ 4.62	3.13	0	10	12	12	7	sw.	A. M. Slatery.
Wallace	Shoshone	2,728	5	62.2		95	20	36	14	47	1.73		0.53	0	8				w.	U. S. Weather Bureau.
Weiser	Washington	2,114	1	73.6		105	20	40	14	50	1.18		0.80	0	5	9	12	10	se.	J. W. Lapish.
Wendell	Gooding	3,400	4	70.0		97	6†	35	13	47	1.87		0.82	0	5	20	9	2	w.	Chas. L. Dingler.
Weston	Franklin	4,460	14	66.0	− 1.7	92	17	38	31	45	1.27	+ 0.62	0.41	0	8	19	6	6	n.	Wm. T. Chatterton.
Washington.																				
Aberdeen	Chehalis	162	22	62.8	+ 2.8	97	31	44	17†	43	1.78	+ 0.82	0.52	0	10	17	6	8	nw.	H. A. Benham.
Anacortes	Skagit	60	19	60.1		83	21	36	29	37	0.83	+ 0.18	0.27	0	7	17	12	2		Douglas Allmond.
Anatone	Asotin	2,800		59.8		89	20	30	14	48	0.43		0.18	0	3	22	7	2	sw.	W. A. Hamilton.
Baker	Skagit	390	7	64.6		91	19†	44	3†	38	1.80		0.30	0	8	15	6	10		R. M. White.
Bellingham	Whatcom	60	18	63.5	+ 2.0	85	22†	44	3	33	1.05	+ 0.32	0.35	0	6	22	7	2		Sanford B. Mayhew.
Bellingham (near)	do	107	2	62.2		82	19	41	3	33	0.78		0.36	0	6	20	7	4		U. S. Bu. Plant Industry.
Blaine	do	57	16	60.8	+ 0.1	81	31	40	3	33	1.84	+ 0.93	0.62	0	9	16	9	6	sw.	John W. Sheets.
Blewett	Chelan	2,200	4																	John Burmeister.
Bremerton	Kitsap	40	15								0.81	+ 0.20	0.50	0	5					U. S. Navy Yard.
Brewster	Okanogan	1,620	3	71.2		101	20†	44	14	39	0.08		0.08	0	1	18	12	1	nw.	Mrs. H. F. Bertram.
Buckley	Pierce	685		62.8		91	22	41	2	41	0.80		0.29	0	7	9	13	9	sw.	Geo. C. Sears.
Bumping Lake	Yakima	3,400	2	58.5		89	20	35	7†	43	0.20		0.10	0	2	20	7	4		U. S. Reclamation Service.
Cedar River	King	535	6																	Geo. Landsburg.
Centralia	Lewis	212	20	63.6	− 0.4	95	22	38	2	45	0.69	+ 0.01	0.38	0	5	13	16	2	n.	I. S. Turner.
Clearbrook	Whatcom	140	10	61.6	+ 0.2	91	18†	40	3†	49	2.43	+ 1.07	0.64	0	13	11	12	8	w.	Geo. Gibbs.
Cle Elum	Kittitas	1,930	14	62.4	− 1.1	101	20	35	14	57	0.11	− 0.19	0.06	0	2	24	4	3	sw.	J. A. Balmer.
Colfax	Whitman	2,300	24	64.6	− 0.3	100	20	34	14†	56	0.25	− 0.42	0.10	0	3	21	4	6	w.	I. B. Doolittle.
Colville	Stevens	1,635	13	64.9	− 2.9	100	20	37	30	50	0.70	− 0.53	0.37	0	4	18	7	6	sw.	W. L. Sax.
Colville Forest Station	do																			
Conconully	Okanogan	2,300	13	63.9	− 2.6	96	22	38	14	40	0.70	− 0.37	0.36	0	6	17	11	3		Wm. Baines.
Coulee City	Grant	2,400		65.8		96	21	39	14†	43	0.14		0.14	0	1					M. E. Jolly.
Cowiche	Yakima	1,874	2	69.2		99	20	42	13	39	0.10		0.10	0	1	18	13	0	nw.	U. S. Reclamation Service.
Darrington	Snohomish	567																		Charles Burns.
Davenport	Lincoln	2,450	4	64.4		95	20	31	14	42	0.27		0.20	0	4	27	3	1		James L. Thayer.
Dayton	Columbia	1,700	27	68.8	− 0.7	97	20	43	14	41	0.11	− 0.52	0.10	0	2	23[a]	7[a]	0[a]	sw.	W. W. Hendron.
Deer Park	Spokane	2,050	2	63.0		96	20	30	14	50	0.44		0.12	0	6	28	3	0	sw.	Robt. Allison, jr.
Detroit	Mason	30	5	64.3		97	22	43	8†	49	0.83		0.34	0	5	16	11	4	se.	Walter O. Eckert.
Dixie (near)	Walla Walla		4								0.44		0.18	0	4	14	13	4	sw.	T. Z. Andrews.
Douglas Lake	Skagit	440																		Michael Pecovitch.
Dryden	Chelan	960	3								0.01		0.01	0	1	30	0	1	nw.	Wenatchee Gas & Elec. Co.
Duckabush	Jefferson	380																		E. G. Newman.
Ellensburg	Kittitas	1,571	25	68.4	+ 1.7	101	20†	36	16	53	0	− 0.29	0	0	0	27	2	2	nw.	R. Lee Barnes.
Eltopia	Franklin	598		76.1		109	23	40	14	55	0		0	0	0					Frank O. Young.
Forks	Clallam	480						40	2		3.10		0.89	0	10				sw.	R. H. Palmer.
Fort Simcoe	Yakima	1,427	18	72.0	−0.3	108	20	44	18	40	1.25	+ 1.15	1.25	0	1	21	5	5	w.	Richard Newmark.

TABLE 1.—*Climatological data for July, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Washington—Contd.																				
Gerome	Stevens	1,200	1	66.6	.....	100	24	37	14	48	0.19	.....	0.13	0	2	20	10	1	.....	W. W. King.
Goat Lake	Snohomish	2,900	4	.....	.....	.....	.....	.....	.....	.....	4.46	.....	0.85	0	13	.....	.....	.....	.....	C. M. Mackintosh.
Gold Basin	do	1,360	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Gold Creek	Yakima	2,600	4	.....	.....	.....	.....	.....	.....	.....	0.20	.....	0.20	0	1	17	11	3	w.	John W. Anderson.
Gold Hill	do	4,454	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Goldendale	Klickitat	1,600	7	68.1	.....	103	20	40	12	47	0.18	+ 0.02	0.15	0	2	4[a]	26[a]	0[a]	w.	Klickitat County Abs. Co.
Granite Falls	Snohomish	397	10	.....	.....	.....	.....	.....	.....	.....	2.44	+ 1.08	0.54	0	11	11	10	10	nw.	C. H. Cleaver.
Guler	Klickitat	2,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank Kuehnel.
Hanford	Benton	385	.....	76.0	.....	110	23	42	14	59	0	.....	0	0	0	16	14	1	nw.	Frances Lee Bash.
Hatton	Adams	1,100	8	70.2	.....	104	23	35	14	51	0.01	.....	0.01	0	1	18	3	10	sw.	Dr. A. V. Marion.
Huntsville	Columbia	1,400	5	.....	.....	.....	.....	.....	.....	.....	0.28	.....	0.18	0	2	.....	.....	.....	.....	Mrs. S. J. Hill.
Irene Mountain	Okanogan	2,700	4	.....	.....	.....	.....	.....	.....	.....	0.73	.....	0.40	0	4	13	8	10	.....	Mrs. Theo. Wheeler.
Kennewick	Benton	368	18	75.0[a]	− 2.2	108[a]	20†	45[a]	13	53[a]	T.	− 0.12	T.	0	0	.....	.....	.....	.....	R. E. Reed.
Kent	King	53	.....	63.0	.....	93	22	39	7	46	0.46	.....	0.15	0	5	18	6	7	n.	A. O. Jeffries.
Kettle Falls	Stevens	1,265	4	67.0	.....	99	24	40	14	45	0.40	.....	0.21	0	5	16	14	1	.....	H. H. Cole.
Kiona	Benton	430	.....	73.2	.....	102	20	43	14	49	0.0	.....	0.0	0	0	26	4	1	sw.	Dr. F. S. Hedger.
Knowiton (near)	Okanogan	3,800	.....	68.4	.....	100	20	45	15†	40	.....	.....	.....	.....	.....	.....	.....	.....	nw.	W. P. Jay.
Kosmos	Lewis	775	7	64.8	.....	99	31	40	4†	52	0.65	.....	0.35	0	6	11	19	1	ne.	J. A. Ulsh.
La Center	Clarke	250	16	62.6	− 1.7	95	31	39	2	42	0.63	− 0.18	0.29	0	6	16	14	1	sw.	Joseph Brothers.
La Crosse	Whitman	1,400	4	67.5	.....	102	20	33	14	55	T.	.....	T.	0	0	20	9	2	w.	M. E. Schreck.
Lake Clealum	Kittitas	2,171	4	63.2	.....	98	20	39	16	49	0.63	.....	0.43	0	2	11	13	7	nw.	U. S. Reclamation Service.
Lake Kachess	do	2,235	5	63.2	.....	98	20	40	13†	44	0.38	.....	0.38	0	1	21	3	7	w.	Do.
Lake Keechelus	do	2,479	5	63.2[g]	.....	95[e]	20	39[f]	13†	43[f]	1.27	.....	0.54	0	8	17	10	4	w.	Do.
Lakeside	Chelan	1,116	22	72.0	− 0.7	102	24	45	14	49	0.03	− 0.29	0.03	0	1	14	17	0	w.	W. H. Van Meter.
Laurel	Klickitat	1,900	4	.....	.....	.....	.....	.....	.....	.....	0.06	.....	0.04	0	2	19	11	1	w.	Mrs. Minnie E. Strout.
Laurier	Ferry	1,644	3	65.6	.....	97	20†	37	13	46	1.17	.....	0.24	0	15	11	10	10	s.	Mrs. J. S. Myers.
Lone Tree	Chehalis	9	4	60.6	.....	80	31	51	13†	25	1.62	.....	0.42	0	9	12	17	2	nw.	U. S. Engineers Corps.
Longmires Springs	Pierce	2,800	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	National Park Ranger.
Lost Creek	Okanogan	3,125	4	.....	.....	.....	.....	.....	.....	.....	1.00	.....	0.50	0	3	18	11	2	.....	P. H. Leese.
Milton Ranch	Ferry	.....	.....	61.4	.....	96	20	32	13†	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	Knute Milton.
McConihe	Grant	1,072	2	72.7	.....	106	20	42	14	46	T.	.....	T.	0	0	26	3	2	w.	L. F. McConihe.
McCumbers Ranch	Yakima	2,182	3	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.10	0	1	18	13	0	.....	Mrs. Mary McCumber.
Moses Lake	Grant	1,070	2	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0	0	24	4	3	sw.	H. M. Flemming.
Mottinger	Benton	307	13	75.2	− 0.9	104	20†	50	15	39	0.07	− 0.08	0.07	0	1	25	6	0	w.	G. H. Mottinger.
Mount Pleasant	Clallam	500	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. M. Dorr.
Moxee	Yakima	1,000	21	69.5[e]	− 1.8	104	20	37[e]	14	57[e]	T.	− 0.26	T.	0	0	21	10	0	.....	H. B. Scudder.
Newport	Pend d'Oreille	2,400	3	62.4[f]	.....	95[k]	20	34	14	51[k]	0.58	.....	0.22	0	8	19	10	2	sw.	Chas. M. Talmadge.
Nighthawk	Okanogan	3,050	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Steve Nagy.
North Head	Pacific	211	11	58.5	+ 0.8	80	31	51	31	29	1.03	+ 0.49	0.43	0	8	10	14	7	nw.	U. S. Weather Bureau.
North Sundale	Klickitat	.....	4	73.2	.....	104	20	46	14	41	0	.....	0	0	0	.....	.....	.....	.....	Ruth J. Shepard.
Northport	Stevens	1,350	14	66.8	+ 0.6	98	19	43	11†	47	1.67	+ 0.45	0.43	0	12	17	13	1	.....	W. F. Case.
North Yakima	Yakima	1,070	4	70.4	.....	98	20†	44	14	39	T.	.....	T.	0	0	21	9	1	nw.	Albert Bender.
Odessa	Lincoln	1,540	10	68.8	.....	102	20	36	14	47	0.12	.....	0.12	0	1	13	17	1	sw.	H. W. Rieke.
Olga	San Juan	50	23	59.6	− 0.2	76	31	47	11†	23	0.59	− 0.17	0.16	0	6	15	14	2	sw.	Cecil S. Willis.
Olympia	Thurston	45	35	63.2	+ 0.2	95	19†	41	2†	45	0.62	− 0.08	0.23	0	5	19	9	3	nw.	M. O'Connor.
Omak	Okanogan	850	4	70.2	.....	105	20	39	14	49	0.06	.....	0.06	0	1	21	8	2	n.	Saint John Umbrite.
Oroville	do	922	3	70.2	.....	103	24	40	14	43	0.72	.....	0.30	0	4	13	14	4	n.	M. C. Jackman.
Peola	Garfield	5,000	4	.....	.....	.....	.....	.....	.....	.....	0.34	.....	0.15	0	6	20	7	4	sw.	Samuel Gruell, sr.
Pomeroy	do	1,500	21	67.6	− 4.2	98	20	40	15	43	0.05	− 0.38	0.03	0	2	16	14	1	w.	Peter McClung.
Port Crescent	Clallam	259	18	56.2	+ 0.1	86	19	38	29	39	0.85	+ 0.24	0.24	0	6	11	17	3	w.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	23	59.4	− 1.5	86	21	42	7	31	1.19	+ 0.46	0.37	0	13	14	7	10	nw.	Frank Plummer.
Prosser	Benton	661	.....	72.6	.....	106	20	41	13†	51	T.	.....	T.	0	0	27	3	1	w.	E. L. Capps.
Pullman	Whitman	2,550	21	70.1[b]	+ 2.7	100[a]	20	43[e]	14	39[e]	0.07	− 0.50	0.04	0	3	19	10	2	sw.	Agricultural College.
Queets River	Jefferson	16	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. A. Bullard.
Quiniault	Chehalis	300	7	63.8	.....	100	31	43	7	50	2.84	.....	0.70	0	10	15	13	3	w.	A. V. Higley.
Reardan	Lincoln	.....	.....	66.0	− 0.5	96	21	34	14	44	0.56	− 0.17	0.52	0	2	9	8	14	sw.	.....
Republic	Ferry	2,628	13	61.6	− 2.3	96	20	33	14	48	1.25	− 0.03	0.60	0	11	16	3	12	sw.	Geo. B. Stocking.
Rex Creek	Chelan	1,135	6	66.6[f]	.....	94[f]	23	45[f]	14	39[f]	0.00	.....	0.00	0	0	9[f]	9[f]	7[f]	nw.	James W. Nicol.
Ritzville	Adams	1,825	14	.....	.....	.....	.....	.....	.....	.....	0.03	− 0.27	0.03	0	1	.....	.....	.....	.....	Agent N. P. Ry.
Robertsville	Klickitat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. R. Couger.
Rock Lake	Whitman	1,910	7	.....	.....	.....	.....	.....	.....	.....	0.27	.....	0.19	0	3	.....	.....	.....	.....	H. C. Melcher.
Rosalia	do	2,425	21	64.9	− 0.5	94	20†	39	14†	47	0.36	− 0.52	0.27	0	4	17	13	1	sw.	Hans Mumm.
Russells Ranch	Yakima	2,870	4	.....	.....	.....	.....	.....	.....	.....	0.47	.....	0.19	0	6	22	6	3	w.	Mrs. Adella Russell.
Seattle	King	208	22	63.4	− 0.1	87	22	48	13	28	0.73	+ 0.04	0.35	0	6	11	10	10	n.	U. S. Weather Bureau.
Sedro Woolley	Skagit	38	16	61.8	− 0.6	85	22	40	17	37	1.57	+ 0.25	0.37	0	11	16	11	4	.....	Mrs. H. L. Devin.
Sixprong	Klickitat	1,240	6	73.8	.....	105	20	45	14	42	0.02	.....	0.02	0	1	27	1	3	sw.	C. E. Comstock.
Skagit Power Dam	Whatcom	510	3	65.2	.....	98	19†	43	16	45	2.30	.....	0.40	0	11	21	2	8	.....	Skagit Power Co.
Snohomish	Snohomish	55	19	63.1	+ 0.6	91	21	41	17	41	2.75	+ 1.59	0.70	0	8	22	5	4	nw.	James Byllling.
Snoqualmie Falls	King	667	14	64.8	− 0.5	96	22	43	16	44	1.72	+ 0.65	1.02	0	11	20	0	11	.....	O. N. Wiswell.
Snoqualmie Pass	do	3,000	4	.....	.....	.....	.....	.....	.....	.....	0.49	.....	0.14	0	7	15	5	11	.....	R. E. Chadwick.
Snyders Ranch	Okanogan	2,200	4	61.0	.....	99	21†	31	14	58	T.	.....	T.	0	0	14	13	4	w.	Geo. M. Snyder.
South Bend	Pacific	140	18	.....	.....	.....	.....	.....	.....	.....	1.68	+ 0.68	0.55	0	9	12	12	7	w.	Mrs. W. E. Buckingham.
Spokane	Spokane	1,943	32	67.8	− 1.0	95	20	43	14	36	0.37	− 0.30	0.22	0	8	15	10	6	ne.	U. S. Weather Bureau.
State University	King	170	4	63.0	.....	86	21†	51	3†	28	0.50	.....	0.19	0	9	13	7	11	sw.	State University.
Stokes Ranch	Okanogan	2,670	4	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.05	0	3	12	19	0	sw.	Charles W. Gunn.
Sullivan Lake	Pend d'Oreille	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Sumner	Pierce	77	5	63.0[a]	.....	92	22	38[a]	17	41[a]	0.50	.....	0.26	0	4	15	8	8	n.	H. E. Thompson.
Sunnyside	Yakima	740	18	70.2	− 1.2	103	20	39	13	48	T.	− 0.23	T.	0	0	12	19	0	nw.	U. S. Reclamation Service.
Tacoma	Pierce	213	27	63.1	− 0.3	89	22	47	13	30	0.55	− 0.11	0.22	0	5	10	15	6	n.	U. S. Weather Bureau.
Tatoosh Island	Clallam	86	28	57.0	+ 1.9	73	20	50	21	21	3.11	+ 1.33	1.27	0	12	10	14	7	sw.	Do.
Tieton Canyon	Yakima	2,313	4	67.4	.....	98	20	42	13	44	T.	.....	T.	0	0	22	8	1	w.	U. S. Reclamation Service.
Touchet	Walla Walla	556	6	72.0	.....	104	20†	44	30	54	0.03	.....	0.03	0	1	23	6	2	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500	4	.....	.....	.....	.....	.....	.....	.....	0.22	.....	0.14	0	4	23	7	1	sw.	Mrs. Maude Bernard.
Trinidad	Douglas	900	9	75.2	.....	105	20	49	14	37	0.06	.....	0.06	0	1	29	2	0	nw.	J. C. Wheeler.
Vancouver	Clarke	100	38	66.8	− 0.2	96	31	46	8	41	0.27	− 0.64	0.08	0	6	10	15	6	nw.	A. A. Quarnberg.
Vashon Island	King	40	24	61.1	− 1.5	83	22	45	2	28	0.47	− 0.04	0.22	0	8	21	3	7	n.	Miss Gertrude McClintock.
Wahluke	Grant	410	9	75.1	.....	106	20	49	14	45	T.	.....	T.	0	0	21	6	4	.....	F. C. Koppen.
Wallace	Okanogan	4,000	4	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.23	0	7	15	15	1	s.	G. A. Wallace.
Walla Walla	Walla Walla	1,000	29	73.9	− 0.2	105	20	51	13	37	0.04	− 0.35	0.04	0	2	22	6	3	sw.	U. S. Weather Bureau.
Washougal	Clarke	650	13	65.3	+ 0.4	93	31	42	25	47	0.68	− 0.24	0.20	0	5	20	8	3	w.	F. M. Grout.
Waterville	Douglas	2,624	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	O. R. Hopewell.
Wenatchee	Chelan	639	.....	73.4[a]	.....	106[a]	20	46[a]	14	45[a]	0.00	.....	0.00	0	0	22	6	3	n.	A. A. Piper.
Wenatchee (near)	do	1,169	14	68.2	− 1.5	97	20	45	13†	33	T.	− 0.42	T.	0	0	20	7	4	w.	Geo. A. Pitcher.

TABLE 1.—*Climatological data for July, 1913. District No. 12*—Continued.

Stations.	Counties	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Washington*—Contd.**																				
White Salmon	Klickitat	325	2	70.4		104	18	47	7	47	0.21		0.13	0	3	13	14	4	w.	C. W. J. Reckers.
Wilbur	Lincoln	2,203	14	64.2[c]	− 0.7	97[c]	20†	27[c]	14	55[c]	0.59	+ 0.04	0.59	0	1	20[c]	5[c]	3[c]	sw.	R. J. Reeves.
Wind River	Skamania	1,300	2	63.8[a]		98[a]	20	38[a]	2	46[a]	0.82		0.37	0	6	17	8	6	se.	U. S. Forest Service.
Winthrop	Okanogan	1,765	2	66.7[a]		101[a]	20	37[a]	14	53[a]	0.20		0.09	0	3	23[a]	7[a]	0[a]		Methow Trading Co.
Yacolt	Clarke	850									0.85		0.34	0	6	17	4	10	s.	C. R. Miller.
Yale	Cowlitz	375	6	65.2		100	31	39	2	43	1.12		0.39	0	6	14	10	7	sw.	J. A. Williams.
Zillah	Yakima	800	1																	Clarence G. Ware.
Oregon.																				
Agency Plains	Crook	2,363		59.8		88	20†	35	2	39	0.26		0.22	0	2	22	5	4	nw.	W. S. Williams.
Albany	Linn	212	31	66.2	− 0.1	100	31	45	16	42	0.55	+ 0.06	0.36	0	5				n.	F. M. French.
Alpine	Benton	350	16																	J. D. McPherson, jr.
Ashland	Jackson	1,963	29	65.7	− 4.1	95	18	41	15	42	2.86	+ 2.40	2.00	0	4	19	4	8	nw.	Louis Dodge.
Astoria	Clatsop	16	52	61.8	+ 0.2	93	31	49	11†	35	2.37	+ 1.32	1.01	0	10	16	5	10	nw.	Irving Club.
Austin	Grant	4,250	2	58.6		90	8	29	2	48	2.01		0.95	0	7	14	10	7	w.	U. S. Forest Service.
Baker	Baker	3,466	23	63.5	− 1.5	91	8	36	14	41	0.47	+ 0.04	0.21	0	5	18	10	3	s.	U. S. Weather Bureau.
Bend	Crook	3,629	8	64.4		94	8†	31	12	51	0.55		0.24	0	4	21	8	2	s.	Bend Bulletin.
Black Butte	Lane	1,200	12	61.2	− 3.2	88	18	44	3†	41	0.90	+ 0.07	0.60	0	5	23	2	6	nw.	William Harris.
Blalock	Gilliam	237	15	77.4	− 0.6	109	20	49	14	42	T.	− 0.13	T.	0	0	24	7	0	w.	George W. Long.
Brogan	Malheur	2,600	3																	J. M. Addington.
Burns	Harney	4,157	22	68.6	+ 2.8	95	20	34	12	56	1.99	+ 1.78	1.25	0	5	21	4	6	w.	J. C. Welcome, jr.
Camp Creek	Crook																			E. W. Nelson.
Cascade Locks	Hood River	100	23	66.3	− 1.6	96	31	47	8†	39	0.83	+ 0.04	0.25	0	7	18	4	9	w.	Val W. Tomkins.
Cazadero	Clackamas	503	4	66.0		99	18†	40	28	50	0.74		0.14	0	8	14	5	12	nw.	Alf Drill.
Centralpoint	Jackson																			A. C. Fiero.
Clear Lake	Linn	3,030		60.4		91	21	34	27	46	1.13		0.50	0	7	12	12	7	se.	Geo. S. Edmonstone.
Cliff	Lake	4,300	6	59.8		91	18	25	13	52	1.17		0.72	0	4	17	13	1	nw.	John C. Green.
Comb's Flat	Crook	4,027																		J. R. Breese.
Condon	Gilliam	2,884	6	65.0		95	20	39	11†	45	0.0		0.0	0	0	28	2	1	ne.	C. F. Kennedy.
Corvallis	Benton	266	25	64.9	− 0.4	97	18	42	4†	52	0.93	+ 0.65	0.50	0	4	17	9	5	n.	Oreg. Agr. College.
Crescent	Klamath	4,400	1	57.6		91	18	25	2†	57	0.93		0.43	0	6	20	8	3	sw.	C. W. Long.
Culver	Crook			67.9		98	23	34	2	53	0.50		0.27	0	3	23	6	2	sw.	O. C. Young.
Dayville	Grant	2,200	19	66.1	− 2.8	94	23	39	2†	49	0.43	+ 0.05	0.20	0	5	17	14	0	nw.	J. Campbell-Martin.
Deadwood	Lane	350	3	64.2		94	18†	40	2	45	1.20		0.93	0	5	17	11	3	nw.	Supt. salmon hatchery.
Doraville	Columbia	600	11	62.2	− 0.4	92	31	42	2	35	0.98	+ 0.08	0.44	0	9	14	6	11	nw.	Jos. Hackenberg.
Drain	Douglas	300	11	65.6	− 0.9	96	31	43	2†	48	0.70	+ 0.39	0.70	0	1	8	18	5	nw.	Ira Wimberly.
Echo	Umatilla	625	9	73.4		107	20	45	14	50	0.12		0.09	0	2	25	4	2	w.	R. B. Stanfield.
Ella	Morrow	830	9																	Carl F. Troedson.
Eugene	Lane	449	23	65.2	− 0.4	92	21	44	3	45	0.63	+ 0.09	0.57	0	2	17	10	4	nnw.	Paul G. Bond.
Follyfarm	Malheur			65.4		96	8	25	14	55	3.02		1.82	0	5	20	8	3	wnw.	W. R. Gardner.
Forest Grove	Washington	220	24	65.8	+ 0.4	100	31	43	2	42	0.38	− 0.09	0.15	0	6	10	9	11	nnw.	Pacific University.
Gardiner	Douglas	72	24																	William S. Angus.
Glassbuttes	Crook	4,200		61.7		92	31	30	12	50	2.03		0.77	0	5	21	3	7	s.	C. J. Stauffer.
Glendale	Douglas	149	9	67.6		104	21	40	1	53	0.31		0.23	0	2	17	2	12	nw.	Carl Olson.
Glenora	Tillamook	575	22	61.8	− 1.2	96	31	39	3	51	1.17	+ 0.10	0.42	0	9	14	3	14	nw.	Mrs. J. A. Reeher.
Gold Beach	Curry	40	12																	John W. Riley.
Grants Pass	Josephine	956	25	69.6	0	101	18	38	2	52	1.57	+ 1.46	0.63	0	4	14	12	5	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	12	63.4		98	20	32	2†	54	0		0	0	0	21	5	5	nw.	Agt. O.-W. R. & N. Co.
Gurdane	Umatilla	3,500	4	62.2		98	20	34	14	48	0.02		0.02	0	2	22	8	1	w.	Miss Belle Ely.
Headworks	Clackamas	719	11	63.9	− 0.8	95	22†	44	8	48	1.45	+ 0.11	0.30	0	9	19	10	2	se.	Portland waterworks.
Heppner	Morrow	1,950	23	66.8	− 2.0	97	20	40	13	40	0.12	− 0.45	0.09	0	2	16	15	0	w.	Frank Gilliam.
Hermiston	Umatilla	451	6	72.8		105	20	44	14	53	0.05		0.05	0	1	24	7	0		C. W. Kellogg.
Hillcrest Orchard	Jackson	1,595																		R. H. Parsons.
Hollywood Orchard	do	1,400		68.5		98	18	40	15	46	2.82		1.38	0	4	21	8	2		A. C. Allen.
Hood River	Hood River	300	23	66.0	− 1.3	103	20	44	8	49	0.15	− 0.04	0.15	0	1	20	9	2	w.	Edward W. Birge.
No. 2	do	485	1	69.8		102	19	46	14	49	0.11		0.11	0	1	14	16	1	w.	C. C. Starring.
No. 3	do	620	1	65.8		99	20	39	14	53	0.15		0.15	0	1	18	13	0	w.	U. A. Newman.
No. 4	do	850	1	67.4		100	20	40	14	46	0.25		0.25	0	1	29	2	0	w.	P. L. Smith.
No. 5	do																			J. G. Jarvis.
Huntington	Baker	2,163	12	74.8	− 3.7	100	6	50	3†	39	0.10	− 0.16	0.04	0	4	14	17	0		Agt. O.-W. R. & N. Co.
Jacksonville	Jackson	1,640	25	68.0	− 1.9	97	18	42	2	42	4.14	+ 3.95	1.59	0	5	19	8	4		E. Britt.
Joseph	Wallowa	4,400	24	61.6	− 1.0	90	23	32	14	43	0.64	− 0.27	0.36	0	3	19	8	4	s.	F. F. McCully.
Klamath Falls	Klamath	4,100	24	64.2	− 3.9	90	8†	36	2†	40	1.37	+ 1.17	0.99	0	4	17	10	4	nw.	Augusta J. Hayden.
La Grande	Union	2,784	25																	W. A. Worstell.
Laidlaw	Crook	3,171		65.2		94	8	34	13	53	2.01		1.63	0	5	24	3	4	nw.	J. W. Brown.
Lake View	Lake	4,825	30	61.6	− 5.0	86	8†	32	13	43	2.69	+ 2.43	1.14	0	5	17	7	7	s.	C. C. Gott.
La Pine	Crook	4,230		58.8		90	8†	27	2	57	1.50		0.93	0	4	27	2	2	s.-w.	Albert Larson.
McKenzie Bridge	Lane	1,400	12	65.2	+ 0.4	101	18	35	14	58	1.43	+ 0.27	0.68	0	10	17	4	10	sw.	George Frissell.
McMinnville	Yamhill	182	26	65.2	+ 0.5	98	19†	42	2†	48	0.29	− 0.09	0.14	0	4	15	14	2	sw.	M. E. Pettit.
Marshfield	Coos	34	12	60.8	+ 1.4	85	18	42	2	39	1.22		1.01	0	5	16	6	9	nw.	U. S. Weather Bureau.
Meadow Brook Ranch	Hood River	850	1	66.0		98	20	42	14	42	0.20		0.15	0	4	26	5	0	sw.	John W. Palmer.
Medford	Jackson	1,425	3	68.7		100	18	41	2	48	2.74		1.45	0	5	21	7	3	nw.	U. S. Weather Bureau.
Merrill	Klamath	4,070	8	64.2[f]		96[f]	20	33	13	42	2.02		1.62	0	6	22	0	9		U. S. Reclamation Service.
Metolius	Crook	2,525	3	67.0		98	22†	38	3†	50	0.15		0.15	0	1	28	3	0	sw.	John A. Hoffman.
Miramonte Farm	Clackamas	195	25	65.2	0	94	18†	42	2	40	0.63	+ 0.09	0.21	0	5	17	10	4	n.	G. Muecke.
Mount Angel	Marion	485	27	66.6	− 0.6	94	18	48	17	34	0.39	− 0.23	0.36	0	2	14	10	7	sw.	Dr. Urban Fisher.
Mount Hood	Hood River	1,450	2	62.3		97	20	35	7	40	0.31		0.26	0	2	22	9	0	w.	Isaac Beal.
Musick	Douglas	5,000	4	57.2		88	18	35	14	45	1.88		1.10	0	7	16	6	9	sw.	Alex Lundberg.
Newport	Lincoln	69	26	57.9	+ 0.2	75	18	46	2†	27	1.11	+ 0.25	0.49	0	6	8	17	6	nw.	William Mathews.
Odell	Hood River	1,000	1	66.0		100	20	43	14	40	0.20		0.20	0	1					W. H. Chipping.
Ortley	Wasco	1,600	2	66.0		99	20	44	2†	37	0.09		0.09	0	1	20	11	0	w.	L. D. Firebaugh.
Paisley	Lake	4,209	10	63.6		88	8	34	13	40	2.34		1.10	0	6	21	5	5	n.	C. M. Sain.
Parkdale	Hood River	1,650	3	64.4		95	20	38	2†	42	0.39		0.25	0	2	24	6	1	nw.	S. G. Babson.
Pendleton	Umatilla	1,070	24	72.0	+ 0.6	107	20	41	14	54	0.14	− 0.28	0.14	0	1	24	7	0	w.	E. F. Averill.
Peninsula	Crook	2,640		67.4		97	20	40	15	47	0.58		0.38	0	2	23	8	0	w.	M. M. Davenport.
Pilot Rock	Umatilla	1,817	5																	John P. McManus.
Pompeii	Clackamas	3,879	18																	E. Coalman.
Portland	Multnomah	57	43	67.8	+ 1.5	98	31	51	11	35	0.24	− 0.34	0.17	0	2	11	13	7	nw.	U. S. Weather Bureau.
Port Orford	Curry	80	8	59.4		78	30	46	8†	24	1.01		0.42	0	6	20	3	8	n.	John D. Loucks.
Powell Butte	Crook	3,240		63.7		94	20†	31	13	51	0.67		0.50	0	3	20	7	4	w.	Earl Saunders.
Prairie City	Grant	3,425	2	65.1		96	8	33	14	50	1.55		0.70	0	8	18	10	3	nw.	A. M. F. Kirchheiner.
Prineville	Crook	2,864	17	64.4	− 0.6	98	31	33	2†	57	0.37	+ 0.03	0.15	0	2	24	1	6	w.	Mrs. T. M. Baldwin.
Prospect	Jackson	2,800	7	64.4		95	18†	35	13†	47	3.04		0.95	0	5	13	12	6	s.	Charles A. Lower.
Ramsey	Wasco	1,350	12	63.6		95	20	38	2	42	0.13		0.13	0	1	28	1	2	e.	Mrs. Iva B. Collins.
Range	Grant	3,500	5	60.8[a]		93[a]	20	28[a]	14	51	0.42		0.20	0	3	26[a]	2[a]	2[a]	s.	Mrs. Emma Arbuckle.

TABLE 1.—*Climatological data for July, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Continued.																				
Redmond	Crook	2,990	2	.....	.....	93	20	.....	.....	.....	0.36	.....	0.18	0	3	24	7	0	nw.	T. G. Stevens.
Richland	Baker	2,350	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. G. Morgan.
Riddle	Douglas	715	....	67.0	.....	100	31	43	13†	49	0.87	.....	0.54	0	5	17	6	8	n.	P. A. Wilson.
Rio Hermoso	Crook	2,110	2	63.0[a]	.....	94[a]	31	35[a]	2	49[a]	0.39	.....	0.32	0	2	22[a]	7[a]	1[a]	nw.	C. T. Hubbard.
Riverside	Malheur	3,200	14	71.8	+ 2.3	103	20	35	14	59	4.60	+ 4.31	1.85	0	6	14	7	10	w.	Mrs. Leah Fairman.
Robbville	Crook	4,000	....	59.4	.....	90	8	27	2	54	0.34	.....	0.23	0	2	30	0	1	nw.	Loren B. Robb.
Roseburg	Douglas	510	35	67.5	+ 1.4	99	31	47	16	43	0.61	+ 0.29	0.52	0	5	10	18	3	n.	U. S. Weather Bureau.
Salem	Marion	120	23	66.0	− 0.4	95	18	42	15	40	0.29	− 0.19	0.23	0	2	22	0	9	nw.	M. P. Baldwin.
Seneca	Grant	4,800	2	60.4[i]	.....	87[i]	23	29[i]	2	46[i]	1.87[i]	.....	0.85[i]	0	6[i]	.....	.....	.....	.....	E. J. Southworth.
Silver Lake	Lake	4,700	16	61.2	− 3.4	94	20	29	17	45	1.84	+ 1.34	1.10	0	4	18	12	1	sw.	G. W. Marvin.
Siskiyou	Jackson	4,115	5	60.0	.....	88	31	35	2	41	3.23	.....	2.22	0	4	9	15	7	n.-ne.	U. S. Weather Bureau.
Sparta	Baker	4,150	22	67.2	− 0.3	92	8†	33	15	45	1.15	+ 0.70	0.70	0	3	24	4	3	n.	J. A. Wright.
Stafford	Clackamas	400	17	65.0	− 1.3	95	19†	45	14†	40	0.52	− 0.33	0.18	0	9	.....	.....	.....	sw.	John P. Gage.
Tablerock	Jackson	1,215	....	67.1	.....	101	18	37	15	56	2.03	.....	0.53	0	4	18	11	2	nw.	Mrs. J. C. Pendleton.
Talent	do	1,800	....	68.1	.....	98	18	42	2	44	2.89	.....	1.60	0	5	20	3	8	nw.	T. F. Smith.
The Dalles	Wasco	112	39	73.6	+ 2.3	102	19	50	2	43	0.09	− 0.07	0.09	0	1	18	3	10	w.	Judd S. Fish.
Tillamook	Tillamook	.....	....	60.6[e]	.....	98[e]	18	33[b]	11	54	1.17	.....	0.35	0	12	13	6	12	nw.	Will Spalding.
Toledo	Lincoln	75	23	58.8	− 2.3	96	18	35	30	48	0.95	+ 0.39	0.50	0	4	22	7	2	.....	C. B. Crosno.
Umatilla	Umatilla	340	25	74.8	− 0.6	105	23†	47	14	48	0.14	− 0.04	0.14	0	1	19	3	9	sw.	Mrs. H. T. Duncan.
Union	Union	2,787	2	63.0	.....	91	6	32	14	45	0.96	.....	0.43	0	7	18	9	4	nw.	Robert Withycombe
Vale	Malheur	2,242	21	72.0[d]	+ 1.6	99[d]	6	40[d]	17	52[d]	1.97	+ 1.69	0.87	0	5	21[d]	5[d]	1[d]	ne.	H. P. Osborne.
Van	Harney	3,506	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Howe.
Vida	Lane	1,100	2	64.4	.....	96	31	42	2†	43	1.40	.....	1.15	0	3	10	14	7	w.	W. H. Pendell.
Waldo	Josephine	1,900	1	65.6[f]	.....	97[f]	18†	40[f]	2	44[f]	2.24	.....	0.92	0	4	15	11	5	n.	M. M. Lewis.
Wallace Orchard	Polk	170	4	64.8	.....	95	18	45	2†	48	0.29	.....	0.20	0	2	2	26	3	.....	Charles A. Park.
Wallowa	Wallowa	2,935	10	59.4[a]	− 5.3	83[a]	7†	30[a]	14	40	0.58	− 0.20	0.29	0	5	11[a]	12[a]	7[a]	nw.	L. J. Coverstone.
Wamic	Wasco	1,500	12	66.2	.....	98	19	37	15	50	0.10	.....	0.10	0	1	9	17	5	w.	A. J. Swift.
Warmsprings	Crook	1,500	11	69.6	− 0.4	100	20†	38	1	45	0.10	− 0.42	0.07	0	3	17	10	4	w.	George W. Robbins.
Wasco	Sherman	1,263	....	69.2	.....	101	20	43	2†	47	0.14	.....	0.14	0	1	26	4	1	w.	J. R. Howell.
Weston	Umatilla	1,800	21	71.2	+ 2.3	102	20	42	13	49	0.11	− 0.56	0.11	0	1	20	9	2	sw.	M. A. Baker.
Whitaker	Crook	4,250	....	58.4	.....	90	8	23	13	54	1.23	.....	0.56	0	6	18	12	1	nw.	Frank Percivall.
Williams	Josephine	1,368	21	66.3	0	96	18†	37	2	48	2.53	+ 2.35	1.12	0	4	16[a]	7[a]	7[a]	n.	Francis J. Le Roy.
Yonna	Klamath	4,146	6	61.1	.....	98	19	30	.3	63	1.66	.....	0.89	0	4	15	6	10	w.	Ward Rueck.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§ Data are from standard instruments not supplied by the Weather Bureau.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for July, 1913. District No. 12, Columbia Valley.*

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Montana.																																	
Anaconda	Missoula	T.	T.	.12			.15			T.				T.								.06				.20	.47		T.	.25			1.25
Butte	do	.35	T.	.20			T.			T.												T.	.67			.33			.14				1.69
Columbia Falls	Flathead	.24			.28						.05	.10			.03										.02		.10		.37				1.19
Como	Bitter Root	.42		.04																		.05				.41			.01	.14			1.07
Dayton	Flathead	.15			.20							.15													.10								0.60
Deer Lodge	Missoula	.10	.12	.31			.17																							.41			1.11
East Anaconda ‖	do	*	.26	.09			.07			.04												.04				*	1.03	T.	*	.19			1.72
Fortine	Kootenai	.25	.01		.05	.15					.04		T.	.17		.05						T.		.04			T.	.05		.18			0.99
Hamilton	Bitter Root	.12	.06	.07	T.	T.				T.	T.			T.							T.	.05		.07		.12			.01	T.	.09		0.59
Hat Creek	Missoula	.12	.27	.50	.01		.33			.02	.01			T.							T.	T.	T.		T.	.06	.33		.09	.65			2.39
Haugan	do	.04		.05	.04			.01			.27			.13	.02							.06	.03					T.		T.	T.		0.65
Heron	Columbia	.02	T.	.02	.10						.38	.07	.04	.04	.03	T.						.21								.05			0.96
Kalispell	Flathead	.14		.03	.01						.10					T.							T.		T.			T.		.10			0.38
Libby	Kootenai	.01			.01	.08						.31		.03	.02													.12		.06			0.64
Missoula	Missoula	.34	.04	.01	.15	.08	.10				.10	.02		T.		T.						.02		T.		T.	.04		.01	.08	.04		1.03
Ovando	do	.15	.25	T.	.26	.16	T.					.23		T.	.04							T.		.27	T.					T.	.03		1.39
Philipsburg	do	.20	.20	.21	T.															T.		T.				.02	.45		.15	.04			1.27
Plains	Columbia	.26		.18	.05	.04	T.				.58			.06		.01						.05	.05							.18			1.46
Pleasant Valley	Kootenai	T.		.05	.07						.15	.23		.04								.01						.01		.13			0.69
Polson	Flathead	.36		.30							.48																.17			.14			1.45
St. Ignatius	do	.30		.07	.07						.15	.13		.02													.50	.02		.10	T.		1.36
Saltese	Missoula	.09		.01							.77			.35								.14	.12							.08			1.56
Stevensville	Bitter Root	.06	.20	.07		.03					T.			T.							T.	.09								T.			0.45
Thompson Falls	Columbia	.04		.21	.03						.73			.31								1.05	.17	.19				.17		.04			2.94
Trout Creek	do	.40		.10							.55																						1.05
Victor	Bitter Root	.12	T.	.10							T.										T.	.07			T.			T.		.06			0.35
Wyoming.																																	
Afton	Snake										.09												.15		.26	.35	.08		.21	.10	.11		1.35
Alta	do	.15	.12	.25	.01				.01	.01	.18											.20	.60		1.22	.20	.32		.01	.04	.02		3.34
Bechler River	do	.30	.20	.10	.40																		.10	.40	.70	.50	.30		.20	.60			3.80
Bedford	do		.12		.29																		.62	.15	.42	.10			T.	.06	.08		1.84
Moran	do		.19	.10	.05																		.50		1.00	.09	.10		.03	.23	.16		2.45
Snake River	do	.13	.12	.22	.15		T.			.09	T.						T.			.21	.12	.55	.44	.44	2.56	.40	.40	.04	.06	.23	.30		6.46
Nevada.																																	
San Jacinto	Snake																			.42		.06	.14		.16	.05	.35	.14		.21			1.53
Utah.																																	
Standrod	Raft			.12					.28		.10													.25	.29	.15	.39	.05	.12	.05	.04		1.84
Idaho.																																	
Albion	Snake		T.	.28						T.													T.	.32	.12	.50	.35	.12	.15	T.			1.84
Almo	do			.25	.40																.60	.40	.20	.10	.60	.08	.10	.60		.20	.10	T.	3.63
American Falls	do	.06		.12	.11					.98										.74						.10				.12	.14		2.37
Arrowrock	Boise																				.34			.07	1.40	.27	1.10			.13			3.31
Blackfoot ‖	Blackfoot			.09				.17	T.	T.												T.	.17	.71	.30	T.	.01	.69	T.	.06			2.20
Blackfoot Dam	do	.35	.20				.05			.07	.20									.12				.15	.33	.50	.05		.25	.25			2.52
Bogus Creek	Payette																																
Boise	Boise	.06	T.	.07																T.	.01			.24	.69	.50	.44			T.			2.01
Boise King	do			.05																.33		.03		.80	1.00	.77	.61		.01	.55			4.15
Bonners Ferry	Kootenai				.17	.28					.20												.21							.27			1.13
Boulder Mine	Boise		.17	.16	.07															.84	.41	.05		.37	1.49	.41	.14		.09	T.			4.20
Buhl	Snake			.15						.05												T.	T.	.04	1.35	.70							2.29
Caldwell	Boise	.06		.20	.03																	.08	T.		2.50	.47	.21			T.			3.55
Caldwell Exp. Sta	do	.07		.23																					1.16	.20	.16						1.82
Cambridge	Weiser			.45																					.12	.28	.25						1.10
Cedar Creek Dam	Snake		T.	.32				.31	T.	.24										.14		T.	.27	.07	.26	.21		.02		.49			2.33
Chesterfield	Port Neuf			.10	.11					T.	.10									.06	.04		.28	.03	T.	.91	.15	.18	.15	.15	T.		2.26
Clarks Fork	Pend d'Oreille	.08		.03	.19						.30	.05		.04									.04							.12			0.85
Clyde	L. River Reg																																
Coeur d'Alene	Spokane	.20		.05							25											.53	.02										1.05
Council	Weiser	.07		.44	.06																	.27			.16	.15	.21						1.36
Culdesac	Clearwater			.13		.12								.06								.06											0.37
Deary	do	.01		.22			.06							.08																			0.37
Dent	do																																
Driggs	Snake		.12	.14					T.	.14												.25	1.40		1.73	.33	.25	T.	.11	.14	T.		4.61
Emmett	Payette	T.	T.	.20	.10																.10				.50	1.23	.20						2.33
Forney	Salmon																																
Garnet	Snake			.32																.30							1.70						2.32
Geneva	Bear			.12																			.05	.87				.72	.08				1.84
Glenns Ferry	Snake			.08																		.48	.18			.15	.50						1.39
Gooding	Big Wood			.51																			.01	.06	.07	.08							0.73
Grace	Bear																																
Grand Forks	St. Joe																				.40	.20						.02					0.62
Grandview	Snake			.35																	.19			.35	.29	.19							1.37
Grimes Pass ‖	Boise	.07	.02	.14	T.															T.	.10		T.	.09	.93	.28	.10	.06					1.79
Guffey	Snake				.15															T.	T.	T.	T.		.34	.02	.13						0.64
Hailey	Big Wood			.16																		T.	.13	.02	.91	.09	.01	.28	.02	T.			1.62
Hollister	Snake		T.	.08	.09		T.		.10	.25											T.	T.	T.	.23	.62	.03	.03	.13		.09			1.65
Hotspring	Bruneau			.10																						.40	1.20						1.70
Idaho Falls	Snake	.02		.08	.01				T.	.22													.29		.99		.06	.06	.06	.07			1.86
Indian Cove	do			.12																						.02	1.65	.03					1.82
Indian Valley ‖	Weiser	.05	.03	.08	.38																	.04			.69	.41	.20	.21		T.			2.09
Irwin	Snake																																
Kellogg ‖	C. d'Alene	.31	.02		.15						.10	.07		.05	.14							.09	.79							.03	T.		1.75
Kilgore	L. Riv. Reg		.02	.03																			.50		2.00	3.50	.40			1.55			8.00
Kirkham	Payette	T.	T.	.40																	.35				.82	.85							2.42
Kooskia	Clearwater	.30		.10						T.	T.			T.								T.				.26							0.66
Lakeview	P. d'Oreille	.10	.05	.10	T.								1.00									.20	.35						.10				1.90
Landore	Snake	.05	.04	.41	T.																	.14			.11	.45	.23						1.43
Leadore	Salmon																																
Lewiston	Clearwater	T.		.02	T.									.08											T.								0.10
Little Camas	Boise			.25																.05	T.		T.	.22	.25	.03	.81	1.34	.04				2.99
Loon Creek	Salmon	.10		.07																.02	.50	.07		.32	.13	.08	.30	.02		.04			1.65
Mackay	L. Riv Reg			.10																		.15		.40	.74	.30	.83		.15	.10			2.77
Malad	Malad				.20				.02		.06											.34		.13	.16	.04	.03						0.98
Meridian	Boise	T.	.09	.08	.05																.19	T.			1.10	.45	.21			T.			2.17

TABLE 2.—*Daily precipitation for July, 1912. District No. 12*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Idaho—Continued.																																	
Mesa ‖	Weiser																																
Middle Fork	Clearwater																																
Milner	Snake				.20		.04			.11											.90	T.		.13		.34							1.72
Moore	L. Riv. Reg																			T.		.08	.08		.24	.15	.48	.01					1.04
Moscow	Palouse	.12									T.				.07																		0.19
Mountainhome	Snake			.18																.56					.09	.15	1.65			T.			2.63
Murtaugh ‖	do										T.										T.		.10	.08	T.	.10	.54						0.82
New Meadows	Salmon	T.		.39	.25																	.41			.07	.10	.05			.05			1.32
Nezperce	Clearwater	.29		.20	.21															.02													0.72
Oakley	Snake	T.	T.	.13																		.25	.46	.35		.25	.15	.15	.04	.07			1.85
O'Hara Bar	Clearwater																																†1.05
Orofino	do	.01		.24	.02	.05	T							.02		T.						.01											0.35
Paris	Bear																		.45					.12			.10				.09		0.76
Payette	Payette	.08		.28	.03					T.											.32	.19			T.	1.50	.05						2.45
Pierson	Salmon		.16	.21																	.23				.21	1.29	.86			.46			3.42
Pleasant Valley	Boise		T.	.19	.02																			.45	1.07	.10	.48						2.31
Pocatello	Port Neuf			.07						.08												.02	T.	.60	.29	.10	.71	.01	.34	.01			2.23
Pocatello Nursery	do			.11	.06		T.		.03	.02	.04		.03							.10	.06	.21	T.	.06	.23	.21	2.37	.53	.02	.08	.16		4.32
Poplar	Snake									.05												.51	.14		1.77	.24							2.71
Porthill	Kootenai	.06	.04	T.	.51	.09	.02				.35			.01														.05	.01	.20			1.34
Priest River Experiment Station:																																	
No. 1	P. d'Oreille	.05			.28						.33	.33		.17									.03					.02		.09			1.30
No. 2	do	.04			.23						.34	.30		.11									.01					.04		.09			1.16
No. 3	do	.03			.26						.34	.31		.13									.01					.05		.09			1.22
Pyle Creek	Payette																																
Richfield	Big Wood		T.	.17	.08																		.03		T.	.60	.01			T.			0.89
Rogerson	Snake			.25						.06														.38	.10	.10		.20	.20				1.29
Roseberry	Payette																																
Roseworth	Snake			.28						.05										.03	.05	.25	.02	.20	.05	.25				T.			1.18
Rupert	do			.26	.01	T.				.02											.04		.33	.22	.20	1.04	.15	.08	T.	.10			2.45
St. Anthony	do																																
St. Maries	St. Joe																																
St. Michaels Priory	Clearwater	1.01	.01	.14		.08					.01											.01				.41				.04			1.71
Salmon	Salmon	.08	.28	.06	.03		.03	.04		T.											T.	.15	.08	.10	.10	.14	.07	T.	T.	.20			1.36
Sandpoint	P. d'Oreille			.05	.05						.20	.25		.25																.15			0.95
Sheep Hill	Boise		.15																		.02	.08		.10	2.87	.56	.37	.01		.01			4.17
Shoshone	Big Wood		T.	.25						T.										T.			.01	T.	.47	.07	T.	T.		T.			0.80
Silver City	Owyhee			.57																		.13			.35		.20						1.25
Soldier Creek	Big Wood			.22																			1.05	.06	1.73	.17	.04		.18	.11	T.		3.56
Spirit Lake	P. d'Oreille																																
Springfield	Snake		.05	.07					.05													T.	.40		.39	.05	.21	.06		.11			1.39
Spring Hill	Boise	T.		.23	T.																	T.		1.25	.81	1.25	2.81						6.35
Sugar ‖	Snake	.25	T.								.13						.02						.29			1.50	.50	.05		T.			2.74
Sunnyside	do			.03																			.30	.60	.50	.50	.40						2.33
Tripod Mountain	Payette	.09	.09	.41																	T.			T.	T.	1.10	.59						2.28
Twin Falls	Snake		T.	.50						.22											.03		.03	.17	.40	.12	.03			T.			1.50
Vernon	do	.10		.06	T.					.30							T.					.30	.10		3.13	.45	.90		.04	.22			5.60
Wallace	C. d'Alene	.08		.22	.12						.22			.20								.53	.26							.10			1.73
Weiser	Weiser	T.	.03	.21	.02						T.											.12				.80							1.18
Wendell	Big Wood			.15																			.04	.04	.82		.82						1.87
Weston	Bear				.41						.15							.06							.14	.10	.17	.17			.07		1.27
Washington.																																	
Aberdeen	Coast	.06			.31	.02	.31			.52	.05		.06	.30											T.	.05			.10				1.78
Anacortes	Puget Sound	.27			.02	.04	.03			.22				.11															.14				0.83
Anatone	Snake	T.		.10		.18								T.								.15				T.	T.			T.			0.43
Baker	Puget Sound	.10	T.	T.	.30		.30			.30	.10		.20	.20	T.														.30				1.80
Bellingham	do			T.	T.	.26	.05			.21	.35		.13																.05				1.05
Bellingham (near)	do				.03		.04			.20	.36			.10															.05				0.78
Blaine	do	T.	T.		.01	.04	.24	.04		.49	.22		.05	.62															.13				1.84
Blewett	Wenatchee																																
Bremerton	Puget Sound							.50		.02	.04				.24														.01				0.81
Brewster	Columbia				T.																	T.		.08									0.08
Buckley	Puget Sound	.06			.15	.10	.10			.07				.29																.03			0.80
Bumping Lake	Yakima																					T.	.10	.10					T.				0.20
Cedar River	Puget Sound																																
Centralia	Coast	.02			.05		.21			T.			.03	.38															T.				0.69
Clearbrook	Puget Sound	.07		.02	.29	.64	.12	.04		.38	.40		.15	.09	.01														.18	.04			2.43
Cle Elum	Yakima				.05																			.06									0.11
Colfax	Palouse										.10			.10												.05							0.25
Colville	Columbia		.05		T.						.27		.01	.37																			0.70
Conconully	Okanogan	.13	.17	.01	.01		T.						T.									T.	.36	.02									0.70
Coulee City	Columbia																						.14										0.14
Cowiche	Yakima														.10																		0.10
Darrington	Puget Sound										.01		.04	.35																			0.40
Davenport	Columbia			.04										.01									.20							.02			0.27
Dayton	do			.10	T.						.01			T.											T.				T.				0.11
Deer Park	Spokane	.02			.09						.12			.06								.04	.11										0.44
Detroit	Puget Sound	T.			.34		.27			.11	.03			.08																			0.83
Dixie (near)	Columbia			.17	.01									.08												.18							0.44
Douglas Lake	Puget Sound																																
Dryden	Wenatchee																													.01			0.01
Duckabush	Puget Sound																																
Ellensburg	Yakima																																0.00
Eltopia	Columbia																																0.00
Forks	Coast	.37	.09			.30	.32			.31	.25		.25	.89		.08												.24					3.10
Fort Simcoe	Yakima																								1.25								1.25
Gerome	Columbia				13									.06																			0.19
Goat Lake	Puget Sound	.80	.12		.28	.74		.37		.08		.22	.17	.85	.07							.09					.05			.62			4.46
Gold Basin	do																																
Gold Creek	Yakima																						.20										0.20
Gold Hill	do																																
Goldendale	Columbia			.15	.03					T.																							0.18
Granite Falls	Puget Sound	.06			.37		.25		.18	.10	.22		.54	.22	.10														.18				2.44
Guler	Columbia																																
Hanford	do																																0.00
Hatton	do			T.						.01																							0.01
Huntsville	do			.10																					.18								0.28
Irene Mountain	do	T.	T.	T.	.22	T.	T.			T.			.40	.66									.03						T.	T.			0.73
Kennewick	do										T.		T.																				T

TABLE 2.—*Daily precipitation for July, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Washington—Contd.																																	
Kent	Puget Sound				.15	.03	.12				.12			.04																			0.46
Kettle Falls	Columbia		.01								.11		.05	.21																.02			0.40
Kiona	Yakima																																0.00
Kosmos	Columbia				.04	T.				.10	.12	.35	T.													.03	.01						0.65
La Center	do		.01	.14	T.		.01			.29			.08	.10															T.				0.63
La Crosse	Palouse			T.	T.						T.		T.	T.																			T.
Lake Cleelum	Yakima	T.		T.	T.						T.		T.	.43	T.									.25									0.68
Lake Kachess	do						T.				T.		T.	.38															T.				0.38
Lake Keechelus	do	.05	.01		.10		.10			T.	T.		.22	.54	.05														T.	.20			1.27
Lakeside	Columbia			T.	T.		T.			T.													.03										0.03
Laurel	do																						.04	.02									0.06
Laurier	Kettle	.03	.14	.03	.17	.11				.01	.04		.09	.04	.02							.04		.24	.07				.03	.11			1.17
Lone Tree	Coast	.06	.09		.41	.01	.21			.42	T.		.02	.32	T.														.08				1.62
Longmires Springs	Puget Sound																																
Lost Creek	Columbia	T.		T.										.50									.20	.30									1.00
McConihe	do			T.																				T.					T.				T.
McCumbers Ranch	do			.10																													0.10
Moses Lake	do																																0.00
Mottinger	do			.07																													0.07
Mount Pleasant	Coast																																
Moxee	Yakima									T.													T.										T.
Newport	Pend Oreille	.04		.01	.22						.09			.10								.01	.01							.10			0.58
North Head	Coast	.04		.07	.04		.16			.43			.14	.10															.05				1.03
Northport	Columbia	.20	.43	T.	.29		.01			.01	.01		.12	.11								.02	.26	.09					.12	T.			1.67
North Sundale	do																																0.00
North Yakima	Yakima			T.							T.												T.										T.
Odessa	Columbia	T.		T.						T.				T.									.12							T.			0.12
Olga	Puget Sound	.04		T.	T.	T.	.16			.15	.12		.03	.09															T.				0.59
Olympia	do	.04			.09		.23			.11				.15							T.								T.				0.62
Omak	Okanogan												T.	.06																			0.06
Oroville	do	.30	T.	.20						T.	T.			.15															.07				0.72
Peola	Snake	T.		.15	T.								.03	.07							.03	.01								.05			0.34
Pomeroy	do	T.		T.										.02											.03								0.05
Port Crescent	Coast	.10		.05	.03	T.	.21			.22			.24																T.				0.85
Port Townsend	Puget Sound	.10	.11		.09		.04		.10	.16	.02		.02	.37	.02	.04		.10	.02														1.19
Prosser	Yakima			T.						T.																							T.
Pullman	Palouse			.04							.02					.01																	0.07
Queets River	Coast																																
Quineault	do	.20			.03	.20	.60			.68	.18		.20	.30	.02														.03				2.84
Reardan	Spokane						T.				T.				.04		T.					.52											0.56
Republic	Kettle	.04	.11		.02						.01		.11	.60	T.							.14	.06	.11					.01	.04			1.25
Rex Creek	Columbia																																0.00
Ritzville	do			.03																													0.03
Robertsville	do																																
Rock Lake	Palouse													.01								.19			.07								0.27
Rosalia	do	.01		.27	T.						.06			T.		T.						.02			T.								0.36
Russells Ranch	Yakima						.02			T.	.08		.04	.19								.13	.01						T.				0.47
Seattle	Puget Sound	T.			.07		.25			.03	.02		.35	.01															T.				0.73
Sedro Woolley	do	.14	.01		.37	.08	.18	.01		.20	.29		.10		.01														.18				1.57
Sixprong	Columbia			.02																													0.02
Skagit Power Dam	Puget Sound	.34			.38	.10	.40	.15		.25	.30		.15	.05															.15	.03			2.30
Snohomish	do	.06				.30	.31			.11	.18		.63	.46															.70				2.75
Snoqualmie Falls	do	T.	.02		.14	.03	.09	.01		.07	.03		.23	1.02	.01															.07			1.72
Snoqualmie Pass	Yakima	.08	.11	.03	.04				.02					.07													.14						0.49
Snyders Ranch	Columbia						T.						T.	T.	T.																		T.
South Bend	Coast	.27	.05		.25		.22			.19	.05		.09	.55		.01																	1.68
Spokane	Spokane	.01		.01	.01		.01			T.	.09		T.	.01		T.						.22			.01				T.				0.37
State University	Puget Sound		.02		.13	.01	.19			.01	.05			.07	.01															.01			0.50
Stokes Ranch	Columbia		T.		.02								.05			.03																	0.10
Sullivan Lake	Pend Oreille	.01	.26	T.	.37	.06				.01	.19	T.	.20	.39	.01	.01	T.				T.	.09	1.00	.05						.35			3.00
Sumner	Puget Sound			T.	.12		.26			.09	T.			.03																T.			0.50
Sunnyside	Yakima										T.																						T.
Tacoma	Puget Sound	T.	T.	T.	.22		.16			.12	T.		.03	.02																			0.55
Tatoosh Island	Coast	.13	.03		.06		1.23	T.	.01	1.26		T.	.22	.09	.03	T.									T.	.02		.01	.01				3.11
Tieton Canyon	Yakima																					T.											T.
Touchet	Columbia			.03																													0.03
Touchet Ridge	do			.14	.03									T.											.01				.04				0.22
Trinidad	do																							.06									0.06
Vancouver	do			.03	.02					.03	.07		.08	.04																			0.27
Vashon Island	Puget Sound	.01		T.	.08	.05	.22	T.		.07	.01		.02	.01																			0.47
Wahluke	Columbia																							T.									T.
Wallace	Okanogan	.12	.02	.03	.23		.03			T.			.10	.05								T.		T.									0.58
Walla Walla	Columbia			.03	.01					T.																							0.04
Washougal	do			.20	.12					.16			.10	.10																			0.68
Waterville	do																																
Wenatchee	do																																0.00
Wenatchee (near)	do									T.			T.											T.					T.				T.
White Salmon	do			.13			T.							.03								T.		.05									0.21
Wilbur	do														T.							.59											0.59
Wind River	do	T.		.06	.17		.07			.02	.37		T.	.13	T.																		0.82
Winthrop	do			T.	.09					T.			T.			.09						.02											0.20
Yacolt	do				.16		.08			.10			.16	.34	.01																		0.85
Yale	do				.10		.11			.22	.25		.05	.39																			1.12
Zillah	Yakima																																
Oregon.																																	
Agency Plains	Deschutes			.22											T.										.04								0.26
Albany	Willamette	.01		.36	.04						.03			.11																			0.55
Alpine	do																																
Ana River	SE. Drainage			.08																		.07	.45	.09	1.22	.42							2.33
Ashland	Rogue			.16																				.60	2.00	.10							2.86
Astoria	Columbia	.07		T.	.10		.07			.44	1.01		.10	.43	T.									T.	.01	.10			.04				2.37
Austin	John Day	.02	T.	.14	.03																	.56	.04		.27	.95							2.01
Baker	Snake	.02		.21																	T.	.17			.06	.01							0.07
Bear Creek	Deschutes			.18	.03																			.16	.04	1.38							1.79
Bear Valley	SE. Drainage			.56	.04																.13	.25			.83								1.81
Beech Creek	John Day			.17																	.34	.08			.45								1.04
Bellfountain	Willamette			.87	.01		T.			T.	.01			.03	T.																		0.92
Bend	Big Basin		.21	.02											.23							T.		.09									0.55
Black Butte	Willamette	.05		.60						.10															.10	.05							0.90

TABLE 2.—*Daily precipitation for July, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Continued.																																	
Blalock	Columbia									T.												T.											T.
Blue Mt'n Sawmill	Umatilla			.14											.04																		0.18
Brogan	Malheur																																
Buena Vista	Snake	T.	.20	.30	.10																.90					.90							2.40
Burns	SE. Drainage			.15																			.15	1.25	.17	.27							1.99
Burns Mill	do			.15																		.25	.20	.90	.15	.35	.04						2.04
Butte Falls	Rogue			.46																				.43	1.54	.14						.04	2.61
California Gulch	Umatilla			.16																													0.16
Camp Creek	Deschutes																																
Cascade Locks	Columbia			.15	.25		.06			.13	.06		.08	.10																			0.83
Cascadia	Willamette	.04		.75	.12		.03		.01		.30			.15								T.				.03							1.43
Cazadero	do	T.	.01	.14	.10					.02	.12		.11	.06	.06											T.				.12			0.74
Centralpoint	Rogue																																
Christmas Lake	SE. Drainage			.20											T.	.01					.02		.32		.85	.19	.01						1.60
Clear Lake	Willamette			.50	.05						.18			.07								.01	.23	.09									1.13
Cliff	SE. Drainage			.19																	.06				.72	.20							1.17
Columbia Mine	Snake	.05		.47	.02																	.41	.14	T.	.92	.39	T.						2.40
Condon	John Day																																0.00
Coquille River Lighthouse.	Coast		T.	.44			T.			.03																							0.47
Cornucopia	Snake	.13		.77																		.34		.03		.18	T.						1.45
Corvallis	Willamette			.50						.25				.16	.02																		0.93
Cracker Creek	Snake		T.	.05																		.03	.06	.02	.03	.05	T.						0.24
Crescent	Deschutes			.20											.05							.03	T.	.43	.07	.15							0.93
Culver	do			.27											.16										.07								0.50
Dayville	John Day			.07	.02					T.					T.	.06						.08			T.	.20							0.43
Deadwood	Coast		.93	.03			.02			.18	.04		T.																				1.20
Diamond	SE. Drainage	T.		.18	.06																			.08	.71	.73	.32						2.08
Doraville	Columbia	T.		.01	.26		T.			.05	.05		.06	.44	.01											T.			.08	.02			0.98
Drain	Umpqua			.70																													0.70
Dufur	Columbia																																
Echo	Umatilla			.09							.03																						0.12
Ella	Columbia																																
Embody	SE. Drainage			.23																		.20	.15	.23	.36	.10							1.27
Eugene	Willamette	.06		.57							T.		T.																				0.63
Fir Glen	Coast			1.15						.04											.01				.04		.02						1.26
Florence	do			1.13	.10		T.			.19	.02		.02	.05																			1.51
Follyfarm	Malheur			.40																	.04			.36	1.82	.40							3.02
Forest Grove	Willamette	.15		.07						.02	.01		.02	.11																			0.38
Fort Rock	SE. Drainage			.18																	T.	T.	T.	.45	.26							T.	0.89
Galice	Rogue			.35				T.														.86	.15	.29	.50	.01							2.16
Gardiner	Umpqua																																
Gibbon	Umatilla																																
Glassbutte	Deschutes			.55																		.77		.15	.51	.05							2.03
Glencoe	Columbia			.07																													0.07
Glendale	Umpqua																							.08	.23								0.31
Glenora	Coast	.04		.06	.10		.15			.24	.10		.03	.42	.03							T.							T.				1.17
Gold Beach	Rogue																																
Golden Falls	Coast			1.56	.05		.22			.13	.07		T.	.10																			2.13
Grants Pass	Rogue			.31																				.63	.60	.03							1.57
Grass Valley	John Day																																0.00
Greenhorn	Snake	.02	.02	.63			.01								.04	.07					.09	.36	.01	.10	.38	.01				.01			1.75
Gumboot	do	.14		.18	.02																				T.		.20						0.54
Gurdane	Columbia			.01																	.01												0.02
Happy Home	Umpqua	.03		.67	.16		.03	T.	T.												T.			.08	.20	.08	T.						1.25
Harbor	Coast			1.10	.10	T.	T.		T.	.06	.11										T.		T.	.85	.53	.10	T.					T.	2.85
Hazeldell	Willamette		.23	.30										T.						T.			T.	T.								T.	0.53
Headworks	do	.01		.20	.23	T.	T.			.26	.05		.30	.18	.16	T.													.06				1.45
Heppner	Columbia	.03		.09	T.					T.				T.	T.																		0.12
Hermiston	Umatilla			.05																													0.05
Hilgard	Grande Ronde.		.05											T.	.10						.05	T.			1.20				T.			T.	1.40
Hillcrest Orchard	Rogue																																
Hollywood Orchard	do			.17																			T.	1.18	1.33	.14							2.82
Hood River	Columbia			.15																													0.15
No. 2	do			.11			T.			T.			T.	T.																			0.11
No. 3	do			.15						T.																							0.15
No. 4	do		T.	.25																													0.25
Hoover	Willamette			.49	.07		.02			T.	.12		.02	.10									.76				T.						1.58
Howardville	G. Ronde	.04		.21							.04			.03								.25	.02										0.59
Huntington	Snake				.04																	T.			.01	.03			.02				0.10
Ibex Mine	John Day	.01		.34												.01						.31		T.	.10	.41							1.18
Imperial	Deschutes	T.		.17	.03																.03	.02			.17	.16							0.58
Ironside	Snake			.05																		.60				.20							0.85
Jacksonville	Rogue			.19																			1.00	1.59	1.26	.10							4.14
Joseph	G. Ronde	.18			.10																	.36											0.64
Klamath Falls	Klamath			.13																				.15	.99	.10							1.37
La Grande	G. Ronde																																
Laidlaw	Deschutes			.20											.05	.05								1.63	.08								2.01
Lakeview	Pitt			.32																		T.	T.	.79	1.14	.17			.27				2.69
La Pine	Deschutes			.27											.93						.20				.10								1.50
Lilyglen	Rogue		.09	.22	.04																		.15	1.14	1.65	.18	.03					.03	3.53
Long Creek	John Day	.04		.15											.10						T.				.15								0.44
McKenzie Bridge	Willamette	.03	.02	.68	.12	.01	T.				.06			.11								.26	.11	.03									1.43
McMinnville	do			.10	.01					.14				.04																			0.29
Marshfield	Coast	.10	T.	1.01	T.	T.	T.			T.	.02		T.	.08					T.							T.				.01			1.22
Maury	Deschutes		.10	.07																	.20	.23				.88							1.48
Meadow Bk. Ranch	Columbia			.15						.03				.02																			0.20
Medford	Rogue			.17																	T.		.05	.90	1.45	.17							2.74
Merrill	Int. drain'ge.			.18																		.01	.04	.05	1.62	.12						T.	2.02
Metolius	Deschutes		.15																														0.15
Miramonte Farm	Willamette			.14	.03					.15			.21	.10																			0.63
Mountain Home	Columbia	.14		.01	.13		.03			.20	.06		.08	.29																			0.94
Mount Angel	Willamette			.36						.03																							0.39
Mountain Ranch	Rogue	T.	0.3																					1.00	1.20	.30	.10						2.63
Mount Hood	Columbia			.21										.05																			0.26
Musick	Umpqua	.05		.40							1.10													.05	.11	.09	.08						1.88
Newport	Coast			.49	.19	.03	.01			.12				.27																			1.11
Ochoco	Deschutes			.16	.03						T.					.08					T.	.11	T.		.15	.10						T.	0.63
Ochoco Creek	do			.07										.06								.43	.27		.23								1.06
Odell	Columbia			.20																													0.20

TABLE 2.—*Daily precipitation for July, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Continued.																																	
Ortley	Columbia			.09																													0.09
Owyhee	Owyhee			.32		.22																			.38	1.75							2.67
Paisley	SE. drain'ge.			.07																	.28		.04	.46	1.10	.39							2.34
Parkdale	Columbia			.14									T.														.25						0.39
Pendleton	Umatilla				.14																												0.14
Peninsula	Deschutes				.20										.38										T.								0.58
Persist	Rogue			.70																	.15	.05	.15	.80	.95	.12							2.92
Pompeii	Columbia																																
Portland	Willamette	T.		.07	T.					.17			T.	T.																			0.24
Port Orford	Coast			.42	.11		.02			.20	.12													T.	.14	T.							1.01
Post	Deschutes			.15																	.38				2.05								2.58
Powell Butte	do			.15																		.02			.50								0.67
Power House	Columbia																																0.00
Prairie City	John Day			.31	.11											.02					.02	.30		.70	.06	.03							1.55
Prineville	Deschutes			.12												.15						T.	.10		T.								0.37
Prospect	Rogue			.76																T.		T.	.42	.78	.95	.13							3.04
Rager Creek	Deschutes			.11																		.35			.62	.14							1.22
Ramsey	Columbia			.13																													0.13
Range	John Day		.20														.02								.20								0.42
Ray Creek	Columbia			T.						T.					T.																		T.
Redmond	Deschutes			.18											.08									.10									0.36
Reston	Umpqua			.96																	.01				.05								1.02
Richland	Snake																																
Riddle	Umpqua	.03	T.	.54																					.16	.02	.12						0.87
Riley	SE. drain'ge.			T.																		.10	.25	.80	.02								1.17
Rio Hermoso	Deschutes			.32																					.07								0.39
Riverdale	do																																
Riverside	Malheur	T.	T.	.25																T.		.05		1.85	1.65	.75	.05						4.60
Robbville	Deschutes			.23												.11																	0.34
Roseburg	Umpqua		.04	.48						T.											T.			.02	.02	.05							0.61
Salem	Willamette			.23						.06																							0.29
Seneca	SE. drain'ge.			.26	.05																.01	.35	.35		.85								1.87
Silver Lake	do			.15																				.49	1.10	.10							1.84
Siskiyou	Rogue			.08																				.82	2.22	.11							3.23
Sisters	Deschutes			.25																	.04	.20	.02	.14									0.65
Sparta	Snake			.05																		.70		.40	T.								1.15
Stafford	Willamette	.02	.01	.11	.01					.18	.01		.04	.13	.01																		0.52
Starkey	G. Ronde			.29												.07						.03				.37							0.76
Summit	Willamette			.80	.05		T.			.13	.03			.09																			1.10
Summit Prairie	Deschutes																																
Susanville	John Day	.30		.20											T.						T.		.16	.17	.30								1.13
Tablerock	Rogue			.33																				.53	1.04	.13							2.03
Talent	do			.15																			.40	.65	1.60	.09							2.89
Tamarack	John Day	.05		.05						.04					.01																		0.15
The Dalles	Columbia			.09																													0.09
Tillamook	Coast			.03	.10			.10		.01	.35		.05	.20		.13						T.				.01		.01	.05	.13			1.17
Toledo	do			.50	.05					.35				.05																			0.95
Trail	Rogue			.55																		.65	T.	.49	.73	.05						.04	2.51
Umatilla	Columbia			.14						T.																							0.14
Union	G. Ronde	.08		.20	.01	.06										.01						.17			.43								0.96
Vale	Malheur	.11		.17	.05																				.87	.77							1.97
Valley Falls	SE. drain'ge.																								1.00	.48				T.	T.		1.48
Van	Malheur																																
Vida	Willamette	.01		1.15										.24												T.							1.40
Vistillas	Pitt			.71	.01																	1.33		.24	1.59	.44		T.	.03				4.35
Waldo	Rogue			.41																				.78	.92	.13							2.24
Wallace Orchard	Willamette			.20	T.					.09																							0.29
Walloupa	G. Ronde	.01		.15	.11	.01					T.			T.								.26											0.54
Wallowa	do	.08		.17	T.						.02			T.		.02						.29			T.								0.58
Wamic	Deschutes			.10						T.																							0.10
Warmsprings	do		.02	.01																	T.				.07								0.10
Wasco	Columbia			.14																													0.14
Welches	do			.50						.03	.20		.23	.75																.15			1.86
Weston	Walla Walla	T.	T.	.11											T.																		0.11
Whitaker	Deschutes			.12																	.11	.01	.11	T.	.56	.32							1.23
Williams	Rogue			.23																		T.		1.08	1.12	.10							2.53
Yonna	Int. drain'ge.																						.18	.24	.89	.35							1.66

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for July, 1913. District No. 12, Columbia Valley.*

Date.	Montana.						Idaho.																					
	Kalispell.		Missoula.		Afton, Wyo.		Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		New Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	64	46	71	44	75	35	76	54	64	46	87	55	67	53	72	40	63	38	82	47	74	39	87	53	76	40	58	44
2....	68	46	68	48	75	46	69	48	66	41	77	47	77	48	73	45	65	33	69	54	74	54	77	47	64	49	64	37
3....	70	44	68	46	70	45	67	56	65	37	73	54	68	55	64	46	60	45	69	51	69	51	67	52	65	47	65	41
4....	66	51	70	51	68	42	80	53	65	51	82	50	80	52	81	43	72	48	75	50	76	49	78	48	67	43	70	50
5....	74	48	81	50	80	37	93	60	77	44	90	57	89	60	83	42	82	42	86	53	89	42	93	53	79	41	80	48
6....	88	52	94	52	86	39	98	66	85	47	100	54	96	61	85	42	86	42	87	57	90	46	98	63	85	49	91	51
7....	78	50	85	62	84	46	93	58	77	51	96	64	84	57	87	53	82	51	90	64	91	50	95	62	82	50	77	49
8....	80	43	90	46	85	50	95	61	80	48	99	61	97	57	87	50	86	48	91	67	92	45	99	61	85	46	87	41
9....	86	50	93	50	86	49	93	67	79	48	99	62	87	63	89	51	86	45	90	61	94	48	98	61	86	50	78	48
10....	71	49	74	57	74	51	81	57	69	52	90	57	80	62	90	55	75	42	79	65	84	52	81	56	75	51	70	55
11....	69	48	72	51	65	42	76	53	70	45	84	57	80	52	75	47	73	31	73	54	78	38	77	57	70	42	68	46
12....	72	40	80	42	76	34	85	52	70	45	92	52	80	52	80	47	74	33	82	47	87	42	89	45	76	56	70	39
13....	60	42	64	52	78	35	67	50	59	40	90	54	68	53	79	32	64	44	74	53	84	49	68	52	69	45	72	41
14....	69	38	73	33	77	37	78	42	68	40	80	42	78	47	80	44	71	22	82	42	76	32	81	36	73	27	69	36
15....	70	38	75	42	79	40	77	48	72	38	81	50	81	54	79	41	78	39	79	48	84	37	80	48	75	44	70	38
16....	72	38	84	37	84	39	86	49	78	39	87	50	88	53	81	43	79	33	87	47	85	36	88	43	80	39	79	39
17....	76	42	84	40	80	39	90	53	82	40	91	52	91	53	80	40	80	47	90	53	87	40	92	49	82	45	83	38
18....	86	46	90	40	83	41	88	56	87	44	93	56	97	55	82	41	86	32	90	55	93	44	93	49	87	42	89	42
19....	91	53	92	49	85	47	93	58	94	47	100	60	100	60	85	51	93	44	88	65	95	48	98	55	84	51	92	48
20....	91	57	98	54	83	44	93	72	89	53	95	65	105	65	83	50	89	51	88	62	93	58	95	68	86	52	95	50
21....	84	60	80	56	81	45	89	69	90	59	99	66	89	72	84	52	78	56	84	61	93	57	94	60	83	50	89	56
22....	83	56	92	56	78	39	92	69	87	54	100	70	99	69	81	46	85	52	83	60	88	48	86	64	74	56	90	55
23....	85	52	89	54	77	55	93	67	88	51	93	64	101	67	82	51	79	53	78	56	90	50	89	60	82	53	90	54
24....	83	53	92	50	73	54	68	65	94	48	94	55	102	68	70	55	79	56	75	57	82	58	76	58	81	53	89	51
25....	87	50	78	54	67	41	73	59	85	54	92	53	92	70	67	52	72	56	73	53	74	53	76	60	69	52	81	55
26....	74	51	73	54	70	41	76	59	83	50	85	50	89	63	66	49	80	47	75	49	75	55	75	53	62	50	83	51
27....	77	46	83	44	65	35	79	57	84	55	90	54	95	60	71	47	80	42	76	48	81	53	82	54	71	44	82	48
28....	80	47	86	44	72	40	83	63	78	50	86	60	88	61	70	45	79	42	74	56	84	46	85	53	71	50	77	49
29....	64	42	70	54	72	43	73	58	63	41	83	62	77	61	70	48	80	44	71	56	70	49	76	54	66	45	66	45
30....	73	36	77	38	66	41	77	50	78	39	80	49	87	52	68	38	76	29	71	45	78	34	80	47	65	36	75	36
31....	80	45	90	42	72	30	89	56	88	44	90	51	98	56	80	41	82	32	82	44	88	38	90	49	75	39	88	43
Mns..	76.5	47.1	81.2	48.1	76.3	42.0	82.9	57.6	77.9	46.5	89.6	55.9	87.4	58.4	78.2	46.0	77.9	42.5	80.4	54.2	83.8	46.5	85.3	53.9	75.6	45.7	78.6	45.9

Date.	Weston, Idaho.		Washington.																									
			Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	82	43	68	48	66	49	75	46	70	60	77	53	60	54	76	48	71	48	58	43	66	52	76	58	66	52	65	50
2....	76	51	67	48	65	48	70	43	72	49	78	51	60	54	73	48	71	45	62	44	63	51	75	47	68	47	64	47
3....	70	40	73	50	64	40	72	43	71	50	71	51	64	56	72	56	68	50	63	41	63	53	72	55	68	50	64	52
4....	72	43	66	56	71	54	76	48	71	40	80	53	63	57	78	56	77	53	65	51	65	56	80	56	73	54	68	56
5....	83	43	78	55	70	57	84	45	85	53	85	55	63	57	82	52	84	45	65	53	74	56	85	57	81	54	74	57
6....	86	48	68	58	68	56	90	48	78	41	94	56	62	57	89	57	92	61	62	47	66	55	95	67	89	59	69	54
7....	90	48	71	48	68	50	87	43	80	42	84	51	60	54	80	48	81	43	63	44	68	52	97	57	78	53	68	50
8....	89	58	76	50	71	45	90	40	76	40	91	52	64	54	88	49	92	45	65	43	78	53	85	65	86	50	78	49
9....	89	54	63	48	68	55	78	46	74	54	84	62	60	57	80	58	86	60	58	52	65	57	78	58	79	61	67	56
10....	84	54	69	54	65	54	75	49	65	53	80	56	63	56	78	51	81	56	60	44	60	54	84	49	74	57	64	56
11....	77	46	74	45	68	43	81	42	61	46	82	54	62	55	78	49	78	48	62	39	70	52	81	59	74	49	69	52
12....	82	39	66	55	68	51	75	39	77	46	80	52	59	52	74	52	74	42	63	44	59	51	76	53	71	51	66	52
13....	84	47	68	47	65	48	62	38	71	48	71	49	62	53	71	48	70	42	63	41	64	48	72	48	64	47	64	47
14....	82	42	72	51	68	51	75	38	72	47	79	45	61	55	74	44	74	36	63	48	64	53	80	45	71	43	66	49
15....	84	46	71	49	68	48	80	42	78	40	81	53	60	56	77	50	78	45	63	46	67	55	80	46	74	48	70	54
16....	90	47	75	45	69	42	85	42	81	40	86	53	59	53	83	52	85	47	60	40	71	53	87	58	80	49	70	50
17....	92	49	76	44	72	42	87	40	85	41	91	53	58	52	87	56	90	47	62	46	73	52	91	60	84	48	71	49
18....	86	48	92	49	79	47	91	44	93	44	95	58	76	51	92	59	92	49	83	44	80	57	99	64	88	52	78	54
19....	90	59	91	55	80	52	95	48	93	57	99	60	60	53	96	64	98	53	86	50	86	62	101	70	94	59	83	57
20....	88	53	91	55	80	54	100	54	94	48	98	64	62	55	98	69	102	66	83	50	84	62	105	70	95	66	82	58
21....	87	55	80	55	78	54	94	52	93	62	97	68	64	57	98	70	99	69	78	52	86	61	103	79	94	65	89	59
22....	86	55	76	58	80	50	97	54	93	60	99	63	64	56	95	70	96	63	68	49	87	59	102	78	91	62	89	62
23....	79	59	72	57	79	51	96	52	88	54	96	66	60	56	97	71	98	70	62	49	81	58	103	77	92	67	84	57
24....	81	57	65	58	78	52	96	50	85	57	102	65	58	56	96	69	99	63	63	52	77	57	102	75	95	63	76	57
25....	81	67	64	59	73	57	90	52	78	60	96	67	62	56	90	66	93	62	65	54	68	58	88	65	89	66	69	56
26....	77	44	74	54	72	53	90	51	76	53	91	61	64	58	87	58	89	54	63	52	71	56	90	63	84	60	74	56
27....	78	43	65	56	74	48	90	52	82	47	92	67	62	56	90	59	90	53	61	52	78	55	94	60	87	58	77	54
28....	79	48	64	53	69	54	81	46	86	49	80	55	61	53	87	62	87	58	60	42	63	54	80	50	79	58	66	54
29....	82	51	72	44	69	44	72	38	88	51	85	50	58	55	78	50	77	45	62	38	70	50	84	51	71	51	69	50
30....	76	51	81	49	74	54	85	37	87	40	90	55	58	54	84	52	84	43	65	49	75	54	86	53	81	46	74	51
31....	83	38	97	55	81	48	93	48	99	47	99	50	80	51	90	53	94	50	80	48	82	61	97	55	88	55	83	56
Mns..	82.7	49.2	73.7	51.9	71.6	50.0	84.3	45.5	80.7	49.0	87.5	56.4	62.2	54.8	84.5	56.3	85.5	52.0	65.7	46.7	71.7	55.1	88.0	59.6	80.9	54.8	72.6	53.6

TABLE 3.—*Maximum and minimum temperatures at selected stations for July, 1913. District No. 12*—Continued.

Date.	Washington.				Oregon.																					
	Tatoosh Island.		Walla Walla.		Ashland.		Baker.		Eugene.		Port Orford.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	60	51	68	58	68	51	56	43	69	50	65	50	82	56	66	52	68	54	66	42	68	51	76	56	74	52
2	62	52	74	53	71	46	66	38	70	46	65	47	84	50	68	42	67	51	71	33	70	49	78	50	70	43
3	63	52	70	53	68	50	63	50	68	44	56	50	74	55	64	51	68	53	67	47	70	52	75	56	74	55
.....	64	54	81	60	78	53	72	51	71	55	65	54	83	54	70	56	72	59	80	44	76	57	76	55	90	53
5	63	54	88	60	85	49	84	50	80	50	67	54	84	53	74	51	82	59	89	42	79	52	90	54	87	54
6	60	54	96	64	82	54	91	54	73	51	63	54	95	55	68	57	74	59	90	51	79	58	90	62	99	55
7	64	53	84	56	82	49	81	48	74	51	69	50	88	49	70	49	75	51	85	36	80	57	85	52	96	60
8	64	54	97	60	87	50	91	55	83	48	62	46	98	45	71	45	84	52	97	40	86	52	94	54	96	58
9	59	54	82	64	81	48	75	53	80	49	63	50	89	60	74	50	70	56	95	38	82	53	93	65	94	59
10	62	55	80	58	81	48	72	50	73	56	68	55	85	49	71	55	68	57	96	40	76	58	76	61	86	57
11	62	52	81	54	84	45	73	44	77	45	72	63	85	53	73	45	76	51	85	35	81	50	84	54	84	54
12	59	50	75	57	78	46	71	45	72	50	66	56	83	50	67	56	69	54	79	36	70	50	81	59	88	45
13	60	50	71	51	72	47	62	40	72	48	67	50	78	49	68	47	69	52	69	37	71	48	74	51	.....	.....
14	63	52	79	51	72	43	70	36	72	48	68	50	83	44	68	50	70	52	70	35	73	52	79	49	.....	.....
15	61	53	80	58	78	41	71	45	75	46	69	51	84	56	70	45	70	52	77	33	76	50	80	55	.....	.....
16	60	50	89	52	79	45	77	48	76	46	68	51	90	45	72	45	76	53	84	37	79	47	87	53	.....	.....
17	61	51	91	61	85	46	80	50	80	48	70	52	94	49	67	47	81	54	90	40	83	49	89	57	92	40
18	63	51	97	60	95	53	85	48	91	46	67	49	100	49	85	46	92	61	95	41	98	52	98	56	93	52
19	64	51	94	65	89	52	87	52	88	65	73	46	96	54	76	49	94	66	95	44	84	60	102	59	98	54
20	73	52	105	73	92	52	90	58	90	70	72	50	105	57	72	53	93	71	94	47	86	68	100	68	98	62
21	67	50	96	75	92	53	80	62	92	65	65	53	100	69	74	59	90	70	95	60	95	66	100	70	94	67
22	64	53	99	73	90	60	85	61	89	63	72	54	100	70	69	56	90	66	94	61	93	62	101	69	96	66
23	57	52	101	70	74	60	85	63	83	58	63	51	104	67	69	58	85	62	96	56	77	60	100	74	96	66
24	58	54	99	72	69	60	79	61	74	58	59	56	102	70	67	56	84	62	89	53	69	64	93	73	85	67
25	59	53	89	66	70	59	72	58	70	61	65	52	99	67	65	58	73	62	85	53	70	62	89	66	74	63
26	63	53	88	63	76	58	78	50	74	56	68	56	91	62	69	55	73	59	85	41	74	57	93	62	88	58
27	58	52	92	64	81	52	82	50	83	46	69	50	95	62	70	50	81	57	89	42	84	52	86	64	88	54
28	57	51	84	66	81	51	80	52	79	50	72	54	85	60	70	54	73	55	86	41	82	54	86	64	90	55
29	61	51	78	58	77	50	68	47	76	50	68	55	83	57	69	56	75	53	78	47	80	56	83	58	85	61
30	61	52	87	53	86	51	76	42	84	49	78	54	91	45	76	44	84	57	89	36	90	50	91	56	82	48
31	68	51	97	62	92	55	86	45	90	47	64	53	99	46	72	48	98	63	98	42	99	56	99	56	91	44
Mns.	61.9	52.2	86.8	61.0	80.5	50.9	77.0	50.0	78.3	52.1	67.0	51.9	90.6	55.1	70.5	51.1	78.2	57.5	85.7	43.1	80.0	55.0	88.0	59.3	88.4[d]	55.6[d]

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.