

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

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# CLIMATOLOGICAL SERVICE

DISTRICT No. 11, CALIFORNIA

PROF. ALEXANDER G. McADIE  
DISTRICT EDITOR

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REPORT FOR AUGUST, 1912

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Prepared under direction of WILLIS L. MOORE, Chief U. S. Weather Bureau



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1912

# CLIMATOLOGICAL DATA FOR AUGUST, 1912.

## DISTRICT NO. 11, CALIFORNIA.

Prof. ALEXANDER G. McADIE, District Editor.

### GENERAL SUMMARY.

August, 1912, was cooler than the average August. With the exception of August, 1911, the mean temperature for the State as a whole was lower than that of any similar month since records have been kept. The month is normally one of high afternoon temperature, much sunshine, except along the coast, and little rain. This month there was a little more rain than during August, 1911, or August, 1910, and there was less sunshine, except at San Francisco, Sacramento, and San Jose. There were no excessively high temperatures, that is, temperatures exceeding 120°. In this respect the month closely resembled last August.

The month was a pleasant one, and notwithstanding unusually low water in the rivers, mountain streams, and watercourses lessened their attractiveness, visitors and tourists were not subjected to inconveniences due to heat on the one hand or thunderstorms and cloudbursts on the other. During August, 1911, the waterfalls were running full; but this year during the same period the volume of moving water was small and the streams lower than has been known for many years. There was very little snow in the mountains, even in those places where the snow usually remains throughout the year.

The weather was favorable for crops, although the season was a late one and fruits did not ripen as early or as abundantly as in previous seasons.

There were no unusual features connected with pressure distribution or storm movement. At the beginning of the month a slow-moving depression over the Great Basin resulted in unsettled weather and occasional thunderstorms in the Sierra. A moderate warm spell occurred on August 6, when afternoon temperatures reached 100° at Sacramento, 102° at Red Bluff and 104° at Fresno. This was followed by a succession of pleasant days without extreme conditions. On August 24, instead of the usual inversion of temperature so characteristic of the coast section near San Francisco Bay, there occurred a marked cooling at a height of 3,000 feet. Surface temperatures were approximately 10° higher than the temperatures at the height mentioned. Usually they are 10° or more lower. The condition was followed by cloudy weather along the coast, but no rain, and the return to usual conditions occurred August 29.

The only other feature of interest was rain at San Diego August 29 and 30.

The usual summer depression over the Valley of the Colorado was less extensive and less deep than might have been expected, and with the exception of a disturbance near the close of the month, there were no Sonora storms.

### TEMPERATURE.

The temperature for the State was 2.6° below the normal. The following table gives the mean temperature for California for each August during the time for which records have been kept.

The highest temperature recorded was 115° at Indio on the 7th. The highest temperature reported at any station in California last August was 114° at Mammoth.

The lowest temperature was 20° at Madeline on the 20th. This was 8° lower than the lowest recorded during August, 1911. The highest mean temperature was 96.3° at Bagdad. It is interesting to notice that the mean temperature at Greenland Ranch, our new station in Death Valley, was 96°. Another high mean temperature was 93.8° at Mammoth Tank. The stations at which these high temperatures occurred are respectively in the Mojave Desert, the Death Valley section, and the Salton Desert. The highest mean temperature last August was 96.6° at Bagdad, and nearly all the stations in the Colorado Desert had mean temperatures in excess of 90°. The lowest mean temperature was 51.6° at Summit, Placer County.

Years.	Mean.	Departure.	Years.	Mean.	Departure.
	° F.	° F.		° F.	° F.
1897.....	73.9	+1.1	1905.....	73.4	+0.6
1898.....	74.5	+1.7	1906.....	73.6	+0.8
1899.....	70.8	-2.0	1907.....	71.0	-1.8
1900.....	71.0	-1.8	1908.....	73.3	+0.5
1901.....	75.6	+2.8	1909.....	72.1	-0.7
1902.....	71.8	-1.0	1910.....	72.5	-0.3
1903.....	72.6	-0.2	1911.....	70.1	-2.7
1904.....	73.9	+1.1	1912.....	70.2	-2.6

### PRECIPITATION.

The average monthly precipitation for California for August with departures from the normal is as follows:

Years.	Mean.	Departure.	Years.	Mean.	Departure.
	Inch.	Inch.		Inch.	Inch.
1897.....	0.63	-0.05	1905.....	0.03	-0.05
1898.....	.02	- .06	1906.....	.13	+ .05
1899.....	.11	+ .03	1907.....	.11	+ .03
1900.....	.02	- .06	1908.....	.12	+ .04
1901.....	.12	+ .04	1909.....	.19	+ .11
1902.....	.06	- .02	1910.....	.01	- .07
1903.....	.02	- .06	1911.....	.00	- .08
1904.....	.17	+ .09	1912.....	.06	- .02

The greatest monthly precipitation was 1.05 inches at Nellie. Two hundred stations reported no rain during the month.

### SUNSHINE.

The following table gives the total hours of sunshine and percentages of the possible:

Stations.	Hours.	Percent- age of possible.	Stations.	Hours.	Percent- age of possible.
Eureka.....	115	27	Sacramento.....	422	100
Fresno.....	416	99	San Diego.....	281	68
Los Angeles.....	319	77	San Francisco.....	335	79
Mount Tamalpais.....	402	95	San Jose.....	364	87
Red Bluff.....	396	93	San Luis Obispo.....	329	79

### NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING AUGUST, 1912.

By N. R. TAYLOR, Local Forecaster.

*Sacramento watershed.*—The rivers of this watershed continued to fall slowly during the month and, at most points, all previous low-water records were broken.

From Red Bluff to Tehama the Sacramento River, while much below the normal stage, averaged slightly above the low-water stages that prevailed during the corresponding month in 1908-1910. South of Tehama the Sacramento was the lowest ever recorded.

At Colusa the average stage, 0.9 of a foot, was 1.2 feet below the August normal and 0.2 of a foot below the previous lowest average. The average at Knights Landing was 0.8 of a foot below the zero of the gage, 2.1 feet below the normal, and nearly 1 foot lower than the previous lowest average for any month. At Sacramento City the river averaged 4.7 feet, which is 2.9 feet below the usual August stage and 0.8 of a foot below any previous monthly average. The extreme low-water stage at Sacramento during the month was 4.1 feet, which is 1 foot lower than any previous low-water record.

The influence of the tides was felt for some distance above the mouth of the American River, and at Sacramento City it amounted to as much as 1.1 feet.

In the lower reaches of the river there was little departure from the usual August stages.

Numerous sandbars formed between the mouth of the American River and Vernon, resulting in frequent interruptions to navigation and grounding among the upriver craft.

In all streams tributary to the Sacramento, especially in the Feather, Yuba, and American Rivers, the water was the lowest ever known. At Oroville on the Feather and Marysville on the Yuba the river averaged 0.4 of a foot below all previous low-water averages.

*Lower San Joaquin watershed.*—In the tributaries of this watershed there was little or no departure from the stages usually maintained during the month of August, and in no case were any of the feeders of the trunk stream as low as during the corresponding month in the past three years. In the San Joaquin itself, however, especially between the mouth of the Stanislaus and that of the Calaveras, the river averaged about 3 feet below the August normal stage.

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#### NOTES ON STREAMS AND WEATHER OF THE UPPER SAN JOAQUIN WATERSHED.

By W. E. BONNETT, Local Forecaster.

Daily gage readings at the several river stations in this district show a low but remarkably uniform stage in all of the streams. In the Merced at Merced Falls and at Firebaugh on the San Joaquin the range between

lowest and highest stages was but 0.2 foot and at Piedra on Kings River 0.5 foot, showing a more uniform flow than for any other August of the six covered by the record.

Average stages in the Merced were much lower in August, 1908 and 1910, and in 1909 the average was the same as that for this month, namely, 0.3 foot. At Friant the average stage was lower only in 1910, the respective stages for 1910 and 1912 being -1.1 and -0.2 feet. In the Kings River the shortage of irrigation water has been particularly grave. Holders of second-class water rights were compelled to discontinue the use of water by the middle of July, and by August 1 the head of water was so small that it could be supplied only by turning it alternately into the larger ditches.

The shortage of irrigation water in itself would not have been so serious, but the light rainfall of the preceding wet season had not replenished the groundwater so that sections not usually irrigated are beginning to suffer. Vines in some places are withering, and in others both fruit and vine, and late cuttings of hay will be very light.

The unusually cool weather of August was a continuation of subnormal temperature conditions which began with March. This includes practically all of the growing season to date in which the temperature for each month has been more or less below normal and in which the accumulated temperature deficiency is 414° or 2.3° per day.

Aside from making the summer a pleasant one, so far as personal comfort is concerned, the cool weather may also have been of benefit agriculturally, for with the normal heat of summer this year or the abnormal heat that comes in some years, the effects of drought would have been greatly intensified.

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#### NOTE ON FORMATION OF A CLOUD DURING FOREST FIRE.

By FORD H. CARPENTER, Local Forecaster.

On August 23, at 3.48 p. m., a brush fire in the northern foothills sent up a straight column of smoke. When the fire reached its maximum intensity a small but well-developed cumulus cloud was seen to cap the ascending column. When the smoke column disappeared the cloud lasted two or three minutes. It was an interesting instance of cumulus cloud formed by ascending currents. The sky was free from cloud all day except for this solitary cumulus, which had an existence of less than five minutes.

TABLE 1.—Climatological data for August, 1912. District No. 11, California.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				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, unmelting.	Number of rainy days, 0.01 inch or more.	Number of clear days.			Number of partly cloudy days.	Number of cloudy days.
<i>Oregon.</i>																				
Klamath Agency	Klamath	4,169	4							1.52		1.02	0	2	18	10	3	nw.	M. P. Ginsbach.	
Klamath Falls	do.	4,100	23	62.2	- 4.7	88	23	35	30	39	1.89	+ 1.64	1.34	0	4	19	8	4	nw.	Augusta J. Hayden.
Lakeview	Lake	4,825	29																	Ralph C. Koozer.
Merrill	Klamath	4,070	6	60.2		90	23	29	16†	47	1.60		1.40	0	3	23	5	3		Mrs. W. L. Hensel.
Yonah	do.	4,140	5	59.1		90	7	26	15	50	0.98		0.27	0	6	6	19	6	w.	Jacob Rueck.
<i>California.</i>																				
Alameda	Alameda	19	2																	Chas. E. Sears.
Alturas	Modoc	4,406	8	63.4		96	23	28	30	55	0.53		0.37	0	3	21	10	0	sw.	Prof. C. B. Towle.
Angiola	Tulare	208	12	78.8	+ 1.1	99	4	59	24†	31	0.00	0.00	0.00	0	0	25	5	1	nw.	Santa Fe Co.
Antioch**	Contra Costa	40	33	75.9	+ 1.4	98	4†	52	1		0.00	0.00	0.00	0	0	31	0	0	sw.	Southern Pacific Co.
Aptos**	Santa Cruz	102	27	73.2	+ 1.8	80	8	50	21†		0.00	- 0.04	0.00	0	0	23	2	6	nw.	Do.
Arrowhead Springs	San Bernardino	2,640	3																	Dr. E. A. Cokat.
Auburn	Placer	1,340	41	74.2	- 1.7	100	8†	43	19	54	0.00	- 0.02	0.00	0	6	28	3	0	ne.	Southern Pacific Co.
Avalon	Los Angeles	36	2	65.3		78	7	56	4†	22	0.00		0.00	0	0	30	1	0	w.	T. S. Manning.
Azusa	do.	5,010	10	72.0	- 1.8	100	6†	48	3†	50	0.00	- 0.08	0.00	0	0	31	0	0	sw.	A. P. Griffith.
Bagdad	San Bernardino	784	9	96.3		110	7†	70	29	26	0.00		0.00	0	0	0	0	0	sw.	Santa Fe Co.
Bakersfield	Kern	40	23	75.6	- 7.4	106	7	45	30†	53	0.00	- 0.01	0.00	0	0	31	0	0	sw.	Do.
Barstow	San Bernardino	2,105	9	80.6		105	7	56	29	45	0.00	- 0.15	0.00	0	0	31	0	0	w.	E. L. White.
Berkeley	Alameda	317	25	63.0	+ 2.1	82	7	49	29	30	0.00	- 0.05	0.00	0	0	12	15	4	sw.	State University.
Biggs**	Butte	98	13	79.7	+ 2.3	104	5†	62	30		0.00		0.00	0	0	31	0	0	sw.	Southern Pacific Co.
Bishop	Inyo	4,450	17																	Paul E. Lodge.
Bishop Creek	do.	8,503	2	57.6		80	7	36	18†	27	0.00		0.00	0	0					Do.
Blocksburg	Humboldt	1,700	6	63.2		91	12	37	27†	46	T.		T.	0	0	15	9	7	nw.	Victor Hope.
Blue Canon	Placer	4,195	13	60.2	- 3.7	85	20	35	6†	49	0.00	- 0.14	0.00	0	0	30	0	1	sw.	Southern Pacific Co.
Blythe	Riverside	268	3	85.0		114	8	56	19	55	T.		T.	0	0	17	5	9	sw.	D. H. Carey.
Branscomb	Mendocino	2,600	12	62.1		91	11	37	29	44	0.00	- 0.04	0.00	0	0	28	2	1	n.	A. J. Hann.
Brawley	Imperial	165	3	86.2		110	6†	60	30	43	T.		T.	0	0	0	0	0	sw.	M. D. Witter.
Burney	Shasta	3,306	2	63.2		91	23	28	30	54	0.00		0.00	0	0	17	10	4	sw.	Mrs. M. D. Chambers.
Cahuilla	Riverside	3,600	1	64.2		94	5†	35	2†	56	0.02		0.01	0	2	25	5	1	sw.	Carl Stevens.
Calexico	Imperial	0	7	87.8		112	7	64	30	42	0.85		0.85	0	1	30	0	1	nw.	J. E. Peck.
Caliente**	Kern	1,290	36	83.9	+ 0.8	100	4	68	31		0.00	- 0.01	0.00	0	0	29	0	2	sw.	Southern Pacific Co.
Calistoga	Napa	343	40	65.4	- 4.9	98	6	50	1†		0.00	- 0.01	0.00	0	0	31	0	0	sw.	Do.
Campbell	Santa Clara	217	15	73.0	- 1.3	89	6†	39	30	43	0.06	- 0.04	0.00	0	0	31	0	0	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	5	73.1		102	6†	42	29	46	0.00		0.00	0	0	25	6	0	sw.	Cal. Gas & Electric Co.
Cedarville	Modoc	4,175	18																	T. H. Johnstone.
Chico	Butte	180	42	76.2	- 5.3	106	6†	48	29	52	0.00	- 0.02	0.00	0	0	26	5	0	sw.	C. H. Stephenson.
China Flat	Humboldt	1,603	3	71.6		106	23†	44	30	50	T.		T.	0	0	19	9	3	w.	O. I. Westerburg.
Chino**	San Bernardino	7.4	20	79.8	+ 0.4	99	10	56	12		0.00	- 0.02	0.00	0	0	31	0	0	sw.	Southern Pacific Co.
Cisco**	Placer	5,939	41																	Do.
Claremont	Los Angeles	1,200	20																	Prof. F. P. Brackett.
Cloverdale	Sonoma	340	10	67.4	- 2.7	96	6†	43	22	42	0.00	0.00	0.00	0	0	31	0	0	s.	John O. Ogle.
Coalinga	Fresno			77.6		108	6	50	28†	43	0.00		0.00	0	0	31	0	0	w.	Union Oil Co.
Colfax	Placer	2,421	41	69.0	- 7.5	95	7†	43	30	36	0.00	- 0.02	0.00	0	0	26	2	3	sw.	Southern Pacific Co.
Colusa	Colusa	60	9	73.1		99	6	49	29†	39	0.00	- 0.01	0.00	0	0	23	8	0	sw.	C. D. McComish.
Corning**	Tehama	277	26	83.4	+ 2.3	101	6	60	29		0.00	- 0.02	0.00	0	0	25	6	0	s.	Southern Pacific Co.
Cuyamaca	San Diego	4,177	13	65.8	- 0.2	87	6	43	31	34	0.64	- 0.00	0.40	0	3	25	4	2	w.	L. L. Macquarie.
Davisville	Yolo	51	40	72.3	- 1.8	105	7	41	29	52	0.00	- 0.01	0.00	0	0	29	2	0	sw.	S. H. Brackett.
Deer Creek	Nevada	3,700	5	61.2		89	7	34	30	43	0.00		0.00	0	0	30	1	0	w.	Cal. Gas & Electric Co.
Del Monte	Monterey	25	1	62.5		74	25†	46	30	24	0.00		0.00	0	0	27	1	3	n.	H. R. Warner.
Delta	Shasta	1,138	27	75.2	- 1.2	98	7†	53	23	45	0.37	+ 0.33	0.37	0	1	30	1	0	sw.	Southern Pacific Co.
Denair	Stanislaus	120	12	71.0	- 4.5	100	7	43	24	47	0.00		0.00	0	0	31	0	0	nw.	Santa Fe Co.
De Sable	Butte	2,500	8	67.7		94	6	40	29	38	0.00		0.00	0	0	22	9	0	sw.	Cal. Gas & Elec. Co.
Dobbins (near)	Yuba	1,650	8	74.2		100	6†	50	29†	38	0.00		0.00	0	0	25	7	0	sw.	Do.
Downieville	Sierra	3,150	1	65.8		97	7	36	30	52	0.00		0.00	0	0	24	7	0	sw.	J. T. Mason.
Dudley	Kings	595		84.0		109	8	52	30	44	0.00		0.00	0	0	31	0	0	sw.	Union Oil Co.
Dudleys	Mariposa	3,000	3	62.9		93	6†	34	30	48	0.00		0.00	0	0	29	2	0	nw.	W. H. Dudley.
Dunlap (near)	Fresno	2,800																		U. S. Forest Service.
Dunsmuir**	Yolo	66	35	79.2	- 0.5	103	5†	59	29		0.00	- 0.01	0.00	0	0	31	0	0	n.	Southern Pacific Co.
Durham	Siskiyou	2,285	23	65.4	- 3.8	98	7	47	29		0.44	+ 0.36	0.44	0	1	28	2	1	n.	Do.
Durham	Butte	160	17	74.6	- 1.5	103	6†	47	29	47	0.00	- 0.05	0.00	0	0	30	1	0	s.	R. W. Durham.
El Cajon	San Diego	482	13	71.0	- 2.5	101	6	48	5	52	0.32	+ 0.21	0.25	0	2	29	0	2	sw.	H. H. Kessler.
Electra	Amador	725	8	73.4		98	6†	50	29	40	0.00		0.00	0	0	31	0	0	sw.	Cal. Gas & Elec. Co.
Elsinore	Riverside	1,234	17	73.0	- 4.4	106	6	44	31	58	0.10	- 0.11	0.05	0	2	29	1	1	w.	A. F. Schuit.
Emigrant Gap	Placer	5,230	38	65.2	- 0.7	87	14	43	31	35	0.00	- 0.03	0.00	0	0	31	0	0	sw.	Southern Pacific Co.
Esccondido	San Diego	657	18	71.5	- 0.7	100	6	45	5†	55	0.37	+ 0.29	0.23	0	2	10	21	0	w.	A. R. Moon.
Eureka	Humboldt	64	26	57.2	+ 1.4	67	31	48	30	18	0.08	- 0.06	0.04	0	3	6	8	17	n.	U. S. Weather Bureau.
Farmington**	San Joaquin	111	33	83.7	+ 2.5	103	7	69	31		0.00	- 0.01	0.00	0	0	31	0	0	nw.	Southern Pacific Co.
Folsom	Sacramento	252	40	74.9	- 2.8	106	7	50	29†	43	T.		0.00	0	0	27	1	3	s.	F. O. Hutton.
Fordyce Dam	Nevada	6,500	17	59.6		82	7	40	27	44	0.00	- 0.33	0.00	0	0	19	12	0	sw.	E. E. Roening.
Fort Bidwell	Modoc	4,735	23	60.8	- 9.9	93	23	27												

TABLE 1.—Climatological data for August, 1912. District No. 11—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				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 rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	
California—Continued.																		
Idyllwild	Riverside	5,250	11															Earl Powers.
Independence	Inyo	3,907	16															U. S. Weather Bureau.
Indio	Riverside	20	34	89.1	- 3.9	115	7	62	19	38	0.00	- 0.17	0.00	0	0	29	0	F. N. Johnson.
Inskip	Butte	4,975	5	65.2		86	7	42	29	28	0.00	0.00	0.00	0	0	13	17	Cal. Gas & Elec. Co.
Ione**	Amador	287	34	77.1	- 1.0	106	7	52	30	30	0.00	0.00	0.00	0	0	31	0	Southern Pacific Co.
Jamestown	Tuolumne	1,471	9	71.2		100	6†	43	29	45	0.00	0.00	0.00	0	0	31	0	Southern Pacific Co.
Kennett	Shasta	730		77.4		106	7	53	25	47	0.00	0.00	0.00	0	0	21	10	Sierra Railway Co.
Kentfield	Marin	65	24	65.1		94	6	44	30	46	0.00	0.00	0.00	0	0	25	4	O. J. Egleston.
King City	Monterey	333	25	80.1	+13.0	103	7	51	30	39	0.00	0.00	0.00	0	0	31	0	Miss M. E. Parsons.
Lake Eleanor	Tuolumne	4,700	2	63.2		91	6†	36	30	43	0.00	0.00	0.00	0	0	29	2	Southern Pacific Co.
La Porte	Plumas	5,000	18	57.4	- 3.9	88	10	31	19	52	0.00	- 0.16	0.00	0	0	19	12	O. J. Todd.
Le Grand	Merced	255	12	73.4	- 3.8	106	7	45	31	45	0.00	0.00	0.00	0	0	31	0	Chas. W. Hendel.
Lemon Cove	Tulare	600	17	79.2	- 0.8	108	7	51	29†	46	0.00	0.00	0.00	0	0	31	0	Santa Fe Co.
Lick Observatory	Santa Clara	4,209	23	64.6	- 4.8	84	6†	41	29	29	0.00	- 0.02	0.00	0	0	31	0	G. W. Sandidge.
Livermore	Alameda	485	41											0	0	31	0	The Director.
Lodi	San Joaquin	45	30	71.4	- 1.6	101	6	47	29†	41	0.00	- 0.03	0.00	0	0	31	0	E. G. Still.
Lone Pine	Inyo	2,728	7	70.0		95	7†	40	31	49	0.00	0.00	0.00	0	0	30	1	Exra Fiske.
Long Valley	Lassen	4,400	3	69.0		95	7	37	30	45	0.36	0.20	0.20	4	9	13	9	G. F. Marsh.
Los Angeles	Los Angeles	293	35	69.2	+ 0.6	88	7	62	31	32	0.00	- 0.03	0.00	0	0	19	12	A. G. Evans.
Los Banos**	Merced	121	25	77.3	- 1.5	101	7	45	29	43	0.00	- 0.01	0.00	0	0	30	0	U. S. Weather Bureau.
Los Gatos	Santa Clara	600	25	66.7	- 0.5	95	6†	45	29	43	0.00	- 0.05	0.00	0	0	29	2	Southern Pacific Co.
McCloud	Siskiyou	3,410	2	59.6		83	7	34	16	39	0.12	0.09	0.09	0	2	24	7	F. H. McCullagh.
MacDoel	do	4,525	7	57.7		91	23	21	16	64	0.67	0.48	0.48	2	10	10	0	F. P. Spencer.
Madeline	Lassen	5,270	3	60.0		90	7†	20	29	52	0.16	0.07	0.07	4	17	12	0	Butte Valley Land Co.
Mazalia	Butte	2,321	8	69.6		96	7	40	28	41	0.00	0.00	0.00	0	0	31	0	J. H. Williams.
Mammoth Tank	Imperial	257	34	93.8	- 3.0	114	5†	44	29	40	0.00	- 0.34	0.00	0	0	28	1	Butte Co. R. R. Co.
Mariocopa	Kern	640	1	79.4		105	7	56	29	34	0.00	0.00	0.00	0	0	29	2	Southern Pacific Co.
Marysville	Yuba	67	41	74.8	- 4.1	105	6	45	30	47	0.00	- 0.01	0.00	0	0	31	0	Union Oil Co.
Mecca	Riverside	185	6	87.5		112	6†	62	18	46	0.28	0.18	0.18	0	2	24	7	Southern Pacific Co.
Menlo Park**	San Mateo	64	34											0	0	31	0	E. A. Palmer.
Merced	Merced	173	38	77.4	- 1.9	105	7	52	31	36	0.00	- 0.02	0.00	0	0	31	0	Southern Pacific Co.
Middlewater	Kern	1	1											0	0	31	0	Santa Fe Co.
Mill Creek (1)	Amador	5	63.8			90	6†	40	26†	38	0.00	0.00	0.00	0	0	31	0	Union Oil Co.
Milton (near)	Calaveras	660	21	74.4	- 1.9	103	7	50	29	37	0.00	- 0.01	0.00	0	0	30	1	Cal. Gas & Elec. Co.
Modesto**	Stanislaus	90	40	82.7	+ 3.0	100	6†	65	1†	3†	0.00	0.00	0.00	0	0	31	0	J. H. Southwick.
Mojave	Kern	2,751	35	79.2	- 5.0	98	7	63	29	26	0.00	- 0.09	0.00	0	0	27	4	Southern Pacific Co.
Mokelumne Hill	Calaveras	1,550	19	72.9	- 1.3	99	7	47	29	33	0.00	- 0.02	0.00	0	0	28	0	Do.
Mono Ranch	Ventura	3,210	6	63.6		89	7†	41	29†	41	0.00	0.00	0.00	0	0	31	0	C. E. Prindle.
Montague	Siskiyou	2,450	24	66.1		89	7†	41	29†	41	0.00	0.00	0.00	0	0	31	0	Herbert Lathrop.
Monterey	Monterey	15	47	65.0	+ 9.2	97	23	35	30	52	0.34	+ 0.13	0.24	3	16	13	2	I. E. Deboy.
Monterio	Kern	4,500	13	70.0		97	6†	56	18†	30	0.00	0.02	0.00	0	0	31	0	Southern Pacific Co.
Mount Tamalpais	Marin	2,375	13	64.4	- 1.5	87	6	46	27†	30	0.00	- 0.16	0.00	0	0	30	1	John C. Knecht.
Napa City	Napa	20	35	62.2	- 2.5	98	6	40	23†	49	0.00	- 0.01	0.00	0	0	28	3	U. S. Weather Bureau.
Napa (S. H.)	do	60	34											0	0	20	11	Alex. Hall.
Needles	San Bernardino	477	20	87.4	- 5.3	108	8	65	31	34	0.15	- 0.44	0.14	0	2	29	1	W. H. Martin.
Nellie	San Diego	5,350	3	72.2		91	13	45	19†	36	1.05	1.05	1.05	1	29	0	2	Santa Fe Co.
Nevada City	Nevada	2,580	20	65.2	- 2.9	98	7	35	30	49	0.00	- 0.05	0.00	0	0	29	2	T. O. Bailey.
Newhall**	Los Angeles	1,200	35	72.0	- 5.3	101	6	58	31	30	0.00	- 0.03	0.00	0	0	31	0	S. W. Marsh.
Newman	Stanislaus	91	23	76.4	- 3.8	106	7	49	16†	43	0.00	- 0.02	0.00	0	0	31	0	Southern Pacific Co.
North Bloomfield	Nevada	3,214	15	68.6	- 1.8	95	6†	45	29	39	0.00	- 0.06	0.00	0	0	28	2	E. S. Wengenheim.
North Fork	Madera	3,000	8											0	0	28	2	J. R. McIntosh.
Oakdale**	Stanislaus	156	18	77.2	+ 1.0	103	6†	58	1†	...	0.00	- 0.01	0.00	0	0	31	0	U. S. Forest Service.
Oak Grove	San Diego	2,751	2	69.4		100	5†	41	4†	56	0.29	0.29	0.29	1	25	5	1	Southern Pacific Co.
Oakland	Alameda	36	36	63.6	+ 2.3	80	7	51	29	25	0.00	- 0.03	0.00	0	0	15	14	B. L. Johnson.
Oceanside	San Diego	60	2	72.2		81	29	55	6	23	0.05	0.05	0.05	1	21	9	1	Chabot Observatory.
Ojai Valley	Ventura	900	6	68.5		102	6	43	28	50	0.00	0.00	0.00	0	0	31	0	H. D. Brodie.
Orland	Glenn	254	30	77.0	- 7.2	106	6	51	28	44	0.00	- 0.02	0.00	0	0	26	5	W. H. Duncan.
Orleans	Humboldt	520	28	74.4		103	12	45	3	49	T.	T.	T.	0	0	30	1	U. S. Reclamation Service.
Oroville (near)	Butte	250	28	75.0		107	6	50	28†	45	0.00	- 0.02	0.00	0	0	27	3	F. T. Hale.
Palermo	do	213	21	73.8	- 3.6	102	10	48	9†	44	0.00	- 0.03	0.00	0	0	21	8	E. D. Fairchild.
Palm Springs**	Riverside	584	23											0	0	21	8	Western Pacific Co.
Pasadena	Los Angeles	827	22	68.1	- 5.4	97	5†	43	28	45	0.00	- 0.02	0.00	0	0	28	2	Southern Pacific Co.
Paso Robles	San Luis Obispo	800	25	67.4	- 2.8	106	7†	36	31	60	0.00	- 0.07	0.00	0	0	31	0	E. D. Sorver.
Peachland	Sonoma	190	16	63.9	+ 0.2	100	6	39	22†	54	0.01	- 0.02	0.01	0	1	26	5	Dr. F. W. Sawyer.
Placerville	El Dorado	1,875	23	66.8	+ 3.1	96	6	42	30	42	0.00	0.03	0.00	0	0	27	0	E. H. Parnell.
Point Lobos	San Francisco	250	19	58.2	+ 0.7	73	7	49	4	22	0.00	0.03	0.00	0	0	27	0	A. Baring-Gould.
Point Reyes	Marin	490	20	54.7	+ 0.1	64	27	49	6	14	0.00	0.08	0.00	0	0	11	10	John Hystop.
Porterville	Tulare	464	23	78.9	- 3.7	106	7	50	30	43	0.00	- 0.01	0.00	0	0	31	0	U. S. Weather Bureau.
Quincy	Plumas	3,400	17	61.3	- 2.4	90	23	28	30	52	0.20	+ 0.04	0.20	1	26	5	0	Leslie McAuliff.
Red Bluff	Tehama	307	35	76.9	- 4.1	102	6	54	29	37	0.00	- 0.02	0.00	0	0	24	7	U. S. Forest Service.
Redding	Shasta	552	37	79.4	- 1.6	107	6†	57	26†	42	0.00	- 0.07	0.00	0	0	31	0	U. S. Weather Bureau.
Redlands	San Bernardino	1,352	19	72.7	- 4.5	102	6	49	30†	46	T.	0.34	T.	0	0	27	4	W. W. Jones.
Redley	Fresno	347																

TABLE 1.—Climatological data for August, 1912. District No. 11—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				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 rainy days, 0.01 inch or more.	Number of clear days.			Number of partly cloudy days.	Number of cloudy days.			
California—Continued.																							
Santa Maria	Santa Barbara	220	24	63.0	- 1.8	81	22	43	23	36	0.00	- 0.04	0.00	0	0	31	0	0	w.	Edwin Morris.			
Santa Monica	Los Angeles	110	27	62.2	- 6.2	75	7	50	34	25	0.00	- 0.04	0.00	0	0	22	9	0	w.	N. D. Ingham.			
Santa Rosa	Sonoma	181	23	65.4	+ 0.2	96	6	40	29	49	0.00	- 0.01	0.00	0	0	29	2	0	s.	Southern Pacific Co.			
Selma **	Fresno	311	26	77.7	+ 4.8	102	6	65	14	0	0.00	0.00	0.00	0	0	31	0	0	Do.	Do.			
Seven Oaks	San Bernardino	5,000	2	64.1	- 8.0	92	7	36	17	43	0.00	0.00	0.00	0	0	26	4	1	w.	M. Lewis.			
Shasta	Shasta	1,048	16	72.4	- 1.6	97	6	54	2	38	0.00	- 0.05	0.00	0	0	31	0	0	nw.	Dr. T. J. Edgecomb.			
Sierra Madre	Los Angeles	1,400	15	71.0	- 1.6	97	6	54	2	38	0.00	- 0.07	0.00	0	0	29	0	2	sw.	Mrs. A. E. Gregory.			
Sierra Vista	Sierra	5,000	2	59.2	- 3.3	90	6†	25	30	57	0.21	0.21	0.21	0	1	25	4	3	sw.	C. D. Johnson.			
Sisson	Siskiyou	3,555	23	62.1	+ 6.5	87	11	35	18†	49	0.56	+ 0.23	0.56	0	0	31	0	0	n.	Southern Pacific Co.			
Soledad **	Monterey	188	33	68.4	+ 3.3	88	5	57	13†	41	0.00	- 0.00	0.00	0	0	31	0	0	n.	Do.			
Sonora	Tuolumne	1,825	24	71.7	- 0.9	99	7	43	30	41	0.00	- 0.04	0.00	0	0	30	1	0	w.	Chas. P. Jones.			
Southeast Farallon	San Francisco	30	9	55.2	- 63	26†	50	3	10	0.00	0.00	0.00	0	0	14	12	5	nw.	U. S. Weather Bureau.				
Springville	Tulare	4,000	5	67.6	- 91	6†	45	31	35	0.00	0.00	0.00	0	0	30	1	0	0	Do.	D. L. Wishon.			
Squirrel Inn	San Bernardino	5,280	2	63.3	- 82	5†	41	18	32	0.31	0.31	0.31	0	1	29	1	1	s.	A. D. Frantz.				
Stanwood	Butte	2,140	8	3.525	- 23	41	70.9	- 1.6	98	6†	50	14	38	0.00	- 0.01	0.00	0	0	29	2	0	nw.	Cal. Gas & Elec. Co.
Stirling City	do.	3,525	8	74.2	- 2.8	104	7	45	30	47	0.00	0.00	0.00	0	0	31	0	0	0	Butte Co. R. R. Co.			
Stockton (S. H.)	San Joaquin	23	41	70.9	- 1.6	98	6†	50	14	38	0.00	- 0.01	0.00	0	0	29	2	0	nw.	State Hospital.			
Storey	Madera	296	12	74.2	- 2.8	104	7	45	30	47	0.00	0.00	0.00	0	0	31	0	0	0	Santa Fe Co.			
Suisun **	Solano	20	32	70.8	- 2.7	87	6	42	30	31	0.00	- 0.13	0.00	0	0	24	5	2	w.	Southern Pacific Co.			
Sulphur Banks	Lake	1,350	16	64.4	- 8.7	68	16†	27	26	34	0.00	- 0.11	0.00	0	0	31	0	0	sw.	J. T. La Bree.			
Summerdale	Mariposa	5,270	39	51.6	- 6.4	89	7	34	30	41	0.22	- 0.03	0.11	0	3	23	8	0	sw.	Bertus Gude, jr.			
Summit	Placer	7,017	23	62.6	- 8.7	68	16†	27	26	34	0.00	- 0.11	0.00	0	0	31	0	0	sw.	Southern Pacific Co.			
Susanville	Lassen	4,175	23	62.6	- 6.4	89	7	34	30	41	0.22	- 0.03	0.11	0	3	23	8	0	sw.	James Branham.			
Tamarack	Alpine	8,000	6	54.0	- 78	6†	32	3	40	0.00	0.00	0.00	0	0	21	10	0	sw.	Cal. Gas & Electric Co.				
Tehachapi **	Kern	3,964	35	74.8	+ 0.3	86	4	64	22	0.00	- 0.15	0.00	0	0	29	2	0	0	0	Southern Pacific Co.			
Tehama	Tehama	220	41	74.4	- 6.9	98	7	58	17†	0.00	- 0.04	0.00	0	0	26	1	4	s.	Do.				
Tejon Rancho	Kern	1,500	10	71.6a	- 92	19	45	16	25	0.00	0.00	0.00	0	0	31	0	0	0	0	S. E. Bailey.			
Three Rivers	Tulare	870	2	74.2	- 102	7	46	30	43	0.00	0.00	0.00	0	0	30	1	0	sw.	E. D. Barton.				
Towle	Placer	3,704	26	69.7	+ 1.2	92	4†	31	48	0.00	- 0.01	0.00	0	0	26	0	5	se.	Southern Pacific Co.				
Tracy **	San Joaquin	64	32	79.2	+ 1.7	104	7†	60	29	0.00	- 0.01	0.00	0	0	25	6	0	nw.	Do.				
Ukiah	Mendocino	620	19	70.4	- 0.3	103	11	39	30	53	0.00	- 0.01	0.00	0	0	26	5	0	nw.	Dr. Geo. McCowen.			
Upper Lake	Lake	1,350	27	69.6	- 3.5	100	6†	38	30	54	0.00	- 0.04	0.00	0	0	31	0	0	nw.	C. M. Hammond.			
Vacaville	Solano	175	24	73.2	- 1.3	105	6	46	28	48	0.00	- 0.03	0.00	0	0	31	0	0	sw.	G. C. Coburn.			
Valley Springs **	Calaveras	673	23	77.4	- 0.5	102	6	61	27	0.00	- 0.01	0.00	0	0	31	0	0	nw.	Southern Pacific Co.				
Visalia	Tulare	334	24	70.4	- 8.0	102	11	40	26	51	0.00	0.00	0.00	0	0	31	0	0	nw.	Santa Fe Co.			
Warner Springs	San Diego	3,165	4	68.8	- 94	6	43	30	45	0.39	0.38	0.38	0	2	26	3	2	0	0	Mrs. F. S. Sandford.			
Wasco	Kern	336	12	78.8†	- 0.8	104	8	51	30	45	0.00	- 0.02	0.00	0	0	0	0	0	0	Santa Fe Co.			
Watsonville	Santa Cruz	23	16	56.4	- 5.8	84	8	30	30	51	0.00	- 0.01	0.00	0	0	9	21	1	sw.	Spreckels Sugar Co.			
Weaverville	Trinity	65.6	2	64.3	- 93	12†	35	29	51	T.	T.	0.27	0.27	0	0	21	7	3	w.	U. S. Forest Service.			
Weitchpec	Humboldt	1,700	2	64.3	- 91	23	37	29	40	0.27	0.27	0.27	0	1	28	2	1	sw.	M. E. Lathrop.				
Westley **	Stanislaus	90	23	76.3	- 2.9	103	6†	60	3†	0.00	0.00	0.00	0	0	31	0	0	0	0	Southern Pacific Co.			
Wheatland	Yuba	84	25	72.9	- 2.2	100	6†	47	30	40	0.00	- 0.03	0.00	0	0	21	10	0	nw.	William Lumbard.			
Willows	Glenn	136	33	79.9	- 1.7	107	6	58	27†	34	0.00	- 0.03	0.00	0	0	27	4	0	se.	E. C. Mills.			
Yosemite	Mariposa	3,945	8	65.6	- 99	7	33	30	37	0.00	0.00	0.00	0	0	31	0	0	s.	J. P. Kelley.				

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.  
 \*\* Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.  
 † Also on other dates.  
 T. Precipitation is less than 0.01 inch rain or melted snow.









TABLE 2.—Daily precipitation for August, 1912. District No. 11—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	
California—Con'd.																																		
Summit (2).....	Coast.....																																	0.22
Susanville.....	M't'n Lakes.....	.11		.05														.06															0.00	
Tamarack.....	Sacramento.....																																	0.00
Tehachapi.....	San Joaquin.....																																	0.00
Tehama.....	Sacramento.....																																	0.00
Tejon Rancho.....	San Joaquin.....																																	0.00
Three Rivers.....	do.....																																	0.00
Towle.....	Sacramento.....																																	0.00
Tracy.....	San Joaquin.....																																	0.00
Tulare.....	do.....																																	0.00
Tustin (near).....	Coast.....																																	T.
Ukiah.....	do.....																																	0.00
Upland.....	do.....																																	0.00
Upper Lake.....	Sacramento.....																																	0.00
Upper Matole.....	Coast.....																																	0.00
Vacaville.....	Sacramento.....																																	0.00
Valley Springs.....	San Joaquin.....																																	0.00
Visalia.....	do.....																																	0.00
Warner Springs.....	Coast.....																																	0.39
Wasco.....	San Joaquin.....																																	0.00
Watsonville.....	Coast.....																																	0.00
Weaverville.....	do.....		T.																															T.
Weitchpec.....	Klamath.....																	T.																0.27
West Branch.....	Sacramento.....																																	0.00
Westley.....	San Joaquin.....																																	0.00
West Point.....	do.....																																	0.00
West Saticoy.....	Coast.....																																	0.00
Wheatland.....	Sacramento.....																																	0.00
Willows.....	do.....																																	0.00
Yosemite.....	San Joaquin.....																																	0.00

\* 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 August, 1912. District No. 11, California.

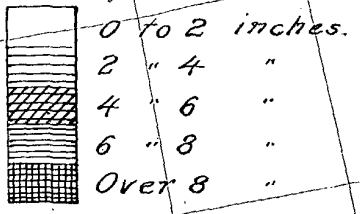
Date.	Lakeview, Oreg.		California.																								
			Alturas. §§		Barstow.		Branscomb.		Brawley.		Colusa.		Eureka.		Fresno.		Independence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porterville.		Red Bluff.
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.	79	55	91	61	77	45	103	70	85	54	60	54	88	58	74	57	67	52	81	44	100	57	88	58			
2.	80	42	92	65	78	46	104	70	86	55	57	54	92	61	77	57	71	58	81	46	97	60	88	64			
3.	76	50	92	64	79	45	105	65	89	55	62	53	94	58	77	52	74	57	85	44	96	59	92	62			
4.	86	43	95	65	82	46	108	68	95	60	59	52	99	65	81	52	82	65	89	45	99	60	97	67			
5.	88	47	96	64	87	47	108	65	95	62	56	52	103	66	87	55	82	67	91	46	104	63	98	66			
6.	90	47	99	67	86	45	110	73	99	62	57	51	104	67	87	59	87	71	94	47	104	62	102	69			
7.	94	48	105	80	86	46	110	69	98	65	62	52	106	71	88	63	83	65	98	49	106	64	102	73			
8.	88	53	104	68	85	45	110	75	94	64	67	54	97	69	82	58	87	54	86	47	101	64	92	71			
9.	82	49	103	70	88	48	108	67	90	58	61	53	92	60	81	60	65	55	87	45	101	59	87	63			
10.	86	43	100	70	89	49	102	64	92	60	66	52	94	61	79	60	79	60	88	44	98	59	95	63			
11.	91	44	100	63	91	50	104	72	93	62	63	54	100	67	80	60	82	68	90	47	103	65	98	68			
12.	91	47	100	65	90	50	104	72	92	62	60	55	99	64	81	60	71	55	90	47	100	63	96	69			
13.	88	47	100	63	80	46	101	77	89	57	62	55	94	62	77	61	67	50	87	48	96	62	90	62			
14.	85	43	99	65	71	43	102	69	85	56	65	56	93	62	75	60	63	49	85	46	98	59	88	60			
15.	77	50	95	65	70	40	102	64	85	56	65	54	88	60	78	60	62	50	79	44	95	57	81	60			
16.	74	32	92	68	72	43	102	65	85	56	62	48	87	57	78	62	73	54	80	42	91	52	83	60			
17.	72	36	90	63	78	44	100	64	86	54	63	53	91	57	72	62	68	55	80	38	93	55	85	63			
18.	79	33	92	62	88	44	96	63	87	64	60	54	92	58	73	61	77	59	84	42	95	56	90	62			
19.	85	42	96	62	88	47	97	66	90	57	60	53	96	63	77	60	80	67	88	43	100	61	96	64			
20.	90	42	99	62	81	45	100	63	91	58	58	52	98	61	80	62	68	53	90	46	100	61	94	62			
21.	92	45	98	64	80	45	102	70	89	56	58	54	95	57	75	61	67	50	88	47	100	62	93	63			
22.	94	42	102	65	80	45	107	71	92	54	59	53	98	59	78	60	78	59	90	46	100	57	97	61			
23.	96	43	104	70	82	43	106	79	95	56	60	52	101	62	81	60	78	65	88	47	103	63	100	63			
24.	90	44	102	64	79	42	102	76	89	56	62	55	98	62	78	59	74	62	90	46	102	63	95	63			
25.	93	38	104	69	65	42	104	74	88	54	61	56	98	60	81	61	70	55	93	45	104	63	93	60			
26.	87	42	98	68	67	40	101	81	85	55	63	55	91	60	79	62	60	48	92	47	94	61	86	58			
27.	76	39	95	65	75	40	98	79	81	55	63	49	90	56	80	63	67	53	92	45	96	59	83	57			
28.	73	36	93	57	65	41	89	79	84	55	62	50	89	60	81	57	64	48	78	42	95	55	82	59			
29.	67	43	92	56	74	37	95	76	78	49	61	49	80	54	80	61	61	46	75	37	95	53	80	54			
20.	78	28	91	58	78	46	95	60	86	49	66	48	87	54	76	60	76	56	82	35	89	50	91	57			
31.	76	37	94	57	78	48	95	62	86	57	67	56	92	59	76	60	71	55	83	41	95	56	88	58			
Mns.	84.0	42.9	97.2	64.0	79.6	44.6	102.2 <sup>b</sup>	70.1 <sup>b</sup>	89.0	57.2	61.5	52.8	94.4	61.0	79.0	59.5	72.1	56.8	86.2	44.3	98.4	59.4	91.3	62.5			

Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Francisco.		San Jose.		San Luis Obispo.		Santa Barbara.		Santa Rosa.		Sisson.		Stockton.		Summit.		Susanville.		Yosemite.	
	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.	86	53	81	53	68	63	64	52	77	57	69	55	66	51	78	52	80	48	82	50	61	44	74	56	80	47
2.	85	54	80	54	71	61	59	52	77	56	70	53	70	50	80	46	80	46	83	54	80	44	77	46	89	47
3.	82	50	91	54	71	62	66	52	83	53	72	52	69	52	85	47	81	49	87	53	60	40	78	47	95	40
4.	90	53	96	61	72	61	73	52	89	50	93	48	70	53	89	45	81	51	93	60	64	39	80	46	92	42
5.	101	56	96	60	76	56	69	50	88	49	93	50	83	54	92	44	82	42	96	58	63	44	85	50	95	41
6.	102	57	101	63	76	56	76	51	90	52	94	49	84	53	96	47	82	43	98	62	65	43	87	49	96	41
7.	101	60	98	65	79	57	77	53	90	53	91	53	85	52	94	51	83	46	98	66	63	41	89	63	99	44
8.	95	59	86	61	72	62	64	53	76	52	84	51	72	52	89	51	84	47	87	64	61	43	83	51	94	44
9.	97	56	82	57	72	64	62	53	75	51	76	49	74	57	81	46	85	46	82	58	62	41	80	50	89	42
10.	90	52	93	59	69	62	71	52	85	50	74	48	70	56	90	50	86	45	91	56	64	44	82	48	89	41
11.	90	52	94	61	69	62	65	52	87	54	75	49	72	57	87	53	87	44	94	60	61	45	85	46	90	41
12.	89	53	84	56	72	62	65	53	85	54	71	49	71	57	85	53	83	46	85	58	65	45	87	47	92	41
13.	88	54	79	54	73	65	63	55	73	54	70	52	68	54	73	52	82	45	82	54	66	43	80	48	93	43
14.	88	54	80	55	72	66	66	56	73	53	74	52	73	55	78	52	80	44	81	55	67	43	86	49	90	41
15.	85	60	81	55	70	63	68	55	73	50	77	50	73	54	83	44	78	41	80	56	66	45	75	48	89	40
16.	85	54	84	59	68	62	69	56	78	48	76	52	74	52	86	46	64	46	83	54	68	42	69	38	84	39
17.	80	59	85	54	68	62	67	53	80	48	69	44	66	54	88	45	75	38	84	56	62	32	72	42	80	35
18.	83	58	87	57	68	62	66	53	82	52	71	53	70	54	86	45	73	35	88	54	63	37	71	35	88	35
19.	87	56	91	56	69	61	67	52	85	49	66	51	65	54	85	45	78	46	90	55	62	40	77	42	90	35
20.	90	57	86	55	71	58	63	53	77	52	72	53	72	56	73	51	79	47	84	56	65	39	81	47	90	38
21.	91	53	85	54	72	60	64	54	77	50	72	46	74	51	78	52	85	45	81	54	68	40	83	49	90	40
22.	92	56	92	53	72	65	62	52	76	55	74	49	76	50	81	44	86	46	89	52	66	45	85	47	95	38
23.	94	58	93	57	73	63	61	51	74	51	76	49	74	58	79	44	85	46	90	56	67	41	87	47	98	44
24.	94	58	87	54	72	62	65	54	74	51	75	51	78	57	80	50	86	45	88	54	68	46	85	48	98	44
25.	94	58	87	53	68	64	66	55	73	47	83	50	73	54	80	44	86	45	85	54	66	43	85	44	97	43
26.	88	59	78	54	68	64	63	56	72	53	76	50	76	55	75	42	82	42	79	55	61	27	75	45	94	44
27.	93	50	82	55	73	63	67	55	79	50	76	50	73	54	81	49	84	38	80	53	67	44	74	40	94	37
28.	75	56	82	56	71	64	66	55	75	49	78	46	75	53	82	44	85	36	81	55	54	33	72	39	84	35
29.	85	66																								

# Total Precipitation, August, 1912.



## Scale of Shades.



DEPARTURE OF THE MEAN TEMPERATURE FROM THE NORMAL, AUGUST, 1912.

