Climatological Data for June, 1910.

DISTRICT No. 11, CALIFORNIA.

Prof. ALEXANDER G. MCADIE, District Editor.

GENERAL SUMMARY.

The month of June was in the main cool and dry, and may be divided into two periods, quite unlike in character, the first extending from the 1st to the 11th and the second covering the remainder of the month. Unusually warm weather prevailed at the beginning of the month and during the whole of the first period the temperature was well above the normal. On the other hand, from about the 12th to the 22d, unusually cool weather prevailed. In the Great Valley of California, where, at this season, afternoon temperatures usually exceed 90°, there was during this period an average afternoon temperature of about 80°. As regards precipitation, the month was even drier than an average June, which, as is well known, is a month of light precipitation in this section. A few scattered showers occurred in the northern counties on June 11 and again on the 14th. Along the Mendocino coast there were light rains from the 19th to the 21st, connected with the passage of a moderate disturbance across the north Pacific coast. Throughout the central and southern counties the month was rainless. Moreover there was little or no snow in the mountains, and this, in connection with the abnormally light snow cover, resulted in a diminished water supply. As early as the first week in June, Weather Bureau reports called attention to the lack of an adequate water supply. Not in many years has there been so small a supply of visible storage water. Therefore it is not surprising to note at the close of the month low stages of the rivers in all the principal watersheds. Limited water supply so early in the season means the probable shutting down and temporary suspension of mining plants and a restricted use of water for irrigation purposes before the end of the summer season. Likewise the lack of ample water will be a serious interference with the operation of power plants. It is reported in the press of the interior that in some of the navigable streams, new sand bars may now be noticed.

The snow disappeared at Summit, Placer County, about June 6. Last year it disappeared on June 21, and the year before that, which, by the way, was regarded as an exceptionally early date, on June 10.

There was more than the normal amount of sunshine and somewhat more than during June, 1909. The winds were mostly northwest along the coast, south in the Sacramento Valley and north in the San Joaquin. South of the Tehachapi morning winds at the coast stations were, as a rule, north, while during the afternoon and night sea breezes prevailed.

There were no specially noteworthy features connected with pressure disturbances during the month. During the first decade the North Pacific high of summer extended well over the coast, and as the result the circulation of the lower air was mainly from a region comparatively dry and warm, southward over high mountain ranges. The result was fair, warm, and dry weather. There appeared to be a slight giving way or westward movement of the oceanic high at the beginning of the second decade and also an intrusion southward of low areas, originating in the larger Alaskan depression A moderate disturbance of this character caused unsettled weather in the northern counties on June 12 and was followed by a second minor depression on the 14th. This caused rain in the northern counties of California and cloudy and more or less threatening weather throughout the State and in Nevada. This second depression made slow progress eastward. Again on the 19th there could be noted the same southerly extension of the larger depression to the north. During the last decade conditions were more nearly normal. The usual summer low over the Valley of the Colorado was noticeable on nearly all the maps, with the characteristic high afternoon temperatures.

TEMPERATURE.

Comparing the present month with previous years we find that the mean temperature of the State was lower than during the previous year, but slightly above that of the three preceding years.

	°F.
1903	70.9
1904	71.1
1905	67.5
1906	66.7
1907	66.1
1908	66.0
1909	68.1
1910	67.3

The highest temperature reported was 121° at Needles on June 10, and the lowest 24° at Tamarack on the 21st. The highest monthly mean was at Bagdad, 93.2°, and the lowest, 45.2°, at McDowell.

PRECIPITATION.

With the exception of June, 1904, the precipitation was less than in any month of June in 8 years. The following table gives the average precipitation for the State:

	Inch.
1903	.07
1904	.04
1905	.07
1906	1.05
1907	1.02
1908	.17
1909	.19
1910	.05

At more than half of the stations the month was without a drop of rain. The greatest monthly amount was 2.10 inches at Monumental and the greatest daily amount 0.75 at Gold Run on the 14th.

SUNSHINE.

The following table gives the hours of sunshine and the percentage of possible:

	Hours.	Per cent of possible.		Hours.	Per cent of possible.
Eureka	160	35	Sacramento	415	93
Fresno	431	98	San Diego	268	62
Los Angeles	320	74	San Francisco	367	83
Mount Tamalpais	392	89	San Jose	392	89
Red Bluff	388	86	San Luis Obispo	315	72

NOTES.

The following notes on weather conditions during June are contributed by cooperative observers:

Alturas.—This dry month of June, following the previous dry month, leaves little hope of even an average crop of the different grains. Hay, also, is a light crop. The cold spells have done but little injury so far.—*C. B. Towle.*

Campo.—A very cool June all through.—*Archibald Campbell.*

Grenville.—Very changeable, very dry, and dusty, and water very low, crops injured by drought; there will be no water to irrigate.—*C. H. Higbee*

Hearst.—Old settlers pronounce it the coolest June in many years.—*H. D. Ellmaker.*

Jolon.—This has been a very windy month for this section.—*F. J. Merritt*

Madeline.—The month has been very dry, with strong north and westerly winds. Crops have suffered much from drought and cold. Haying has begun with short crops.—*J. H. Williams.*

Sacramento.—The month has been very pleasant and cool, nearly 4° below the normal for June. The rainfall 0.12 of an inch below the average. Fruit

and all crops are doing well, although the lack of late rains requires more irrigating. Everything promises well for the farmers and fruit raisers.—*S. H. Gerrish.*

Santa Cruz.—Ninety-two per cent sunshine; a very delightful month; no fog, very few windy days. Streams are quite low on account of lack of late rains.—*W. R. Springer.*

Shasta.—Total precipitation for season 39.36 inches. High winds have prevailed nearly the whole of the month.—*Dr. Thos. J. Edgecomb.*

Sierraville.—More wind this month than usual.—*C. D. Johnson.*

Squirrel Inn.—Winds during the summer are very variable; we are so located that it is a hard matter to tell definitely just what quarter they come from; this year they blew invariably from the west and south.—*A. D. Frantz.*

Willows.—The month, as a whole, may be considered cool, with a maximum above the last few years. The yield of grain is good.—*M. T. Harrington.*

NOTES ON THE RIVER CONDITIONS IN THE SACRAMENTO WATERSHEDS DURING JUNE, 1910.

The Sacramento Watershed.—Not since the records have been kept by the Weather Bureau, and probably for many years previous to the gaging of the rivers, have the streams of this watershed been so low during the month of June. This has been particularly true of the Sacramento River between Walnut Grove and the limits of navigation, where the stages averaged from 3 to 9 feet below the June normal.

At Colusa, Knights Landing, and Sacramento City, the average gage readings were 2.5, 2.8, and 3.0 feet, respectively, lower than the lowest ever previously recorded during any June. In the upper Sacramento, north of Red Bluff, while unusually low water prevailed, the departure from the normal was not so marked as in the navigable part of the stream.

Throughout the drainage area of the Feather-Yuba watershed there was a rapid diminution in the run-off of all mountain feeders, and there was a marked deficiency in the usual water supply of both streams at the close of the month. The North and Middle Forks of the Feather, and the North Fork of the Yuba, and all radiating forks thereof, carried less water at the end of June than, according to reliable information, for any previous June during the past 40 years. In some cases, notably, the numerous forks of the Yuba River above Downieville, the streams were lower than have ever been known at any previous time.

The American River was probably the last water course of any importance in the Sacramento River system to respond to the general shortage in the seasonal precipitation, due, no doubt, to the fact that the snow in the high altitudes drained by the feeders of this stream remained longer on the ground than in any other part of the northern Sierra. This river, however, began receding on the 1st of the month, and its at close carried less water than for any corresponding period of which there is a record, and its average was 0.8 foot lower than in 1908, the lowest previous June average.

During the last decade of the month the scarcity of water was recognized by the various water-supply companies, all of which have cautioned consumers as to the necessity of being economical in the use of water, and some companies have already begun drawing from their impounded reserves. In the case of the South Yuba Water Company the tapping of their reserves in the lakes was begun on June 13, more than a month earlier than usual; and it is estimated that this reserve will be practically exhausted by the 1st of October, and that many mines will be obliged to suspend operations, and fruit ranches will be entirely out of water for irrigation before the beginning of the rainy season.

Conditions, with respect to low water, are also becoming perplexing in the Sacramento River above Sacramento City, as many new sand bars have begun to form and old ones are becoming daily more prominent, making navigation difficult.

The San Joaquin Watershed.—There was a notable absence of the usual June rises throughout this watershed, and the rivers generally were as low or lower than during the corresponding month of 1908, when abnormally low stages were recorded.

In the tributaries of the San Joaquin the low water of June 1908, was equaled in the Merced River and exceeded in the Tuolumne and the Stanislaus rivers. In the Calaveras River, which usually goes dry during the late summer or early fall, there was practically no water at the close of the month, the stream having ceased discharging into Mormon Slough as early as May 11.

At Merced Falls the Merced River was 0.8 foot, at Jacksonville the Tuolumne River was 2.6 feet, and at Electra the Mokelumne River was 1.0 foot below the June average. The San Joaquin River itself was somewhat higher than during the low water of June, 1908, but with this exception it was much lower than during any corresponding month of which there is a record. At Pollasky, Firebaugh, and Lathrop, the San Joaquin River averaged 2.0, 2.8, and 3.0 feet, respectively, below the June average.

As the snow has practically disappeared from the southern Sierra all streams in the San Joaquin drainage basin will probably reach the summer low-water mark much earlier this season than usual.

SNOWFALL AT SUMMIT, CAL.

By Prof. A. G. McAdie.

I have been informed by Prof. George Davidson that in the season of 1868–9 the engineer in charge of construction of the Central Pacific Railroad, Mr. Judah, reported a seasonal depth of snow in the neighborhood of 60 feet. It is not known whether this can be definitely ascertained, since all the records of the railroad company on file at San Francisco were destroyed by the fire of April, 1906. Records of the depth of snow were maintained by the various station agents beginning with the winter of 1870. After the disaster referred to above all available records at the station itself were obtained and these, with duplicate records obtained from the Central Office and the tables previously published in the Climatology of California, have enabled us to construct a table showing the seasonal depth for a period of 40 years. This probably constitutes the longest period of snowfall observations in our country. A discussion of the record is of interest during the present month, because of the early disappearance of the snow and the probability of extreme low water in the watershed of the American River and its tributaries. A similar table was prepared for Prof. J. N. Le Conte, in 1908, and used as the basis of his article upon Snowfall in the Sierra Nevada, published in the Sierra Club Bulletin of June, 1908. The particular subject of interest in this paper was the possibility of predicting the probable date of disappearance of the snow, with a view of determining when travel would be safe through the mountains. Different seasons vary so widely that passes which may be attempted at the end of June one year are entirely out of the question even at the end of July in some other season. Professor Le Conte attempted to give the average rate of melting and to show the relation between this and travel possibilities. He published 11 plats showing the depth of snow on the ground for 11 different years. He finds in each of these an extremely irregular curve up to March, with high "peaks," representing storms. After the end of March the curve is fairly smooth. Averaging the curves for 10 years, he gets one which can be considered as showing the mean depth of snow on the ground at Summit. This curve is quite regular throughout, rising gradually to a maximum of 129 inches on March 26. The descending portion he calls "The curve of mean rate of melting." Averaging the depth of snow "by simply taking the sum of such snow as is on the ground at a given date and dividing by 10, and filling in zeros for such years as may have bare ground at the date in question, we get the curve ABCD, see fig. 1. This curve will evidently extend as far as the latest date at which we find snow in the record, viz, July 14, 1907. This does not give the correct rate of melting, however, beyond the date where the first curve touches zero, viz, April 23, 1898. In

TABLE 1.—*Climatological data for June, 1910. District No. 11, California.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Oregon.																				
Klamath Agency	Klamath	4,169	2	50.0		86	26	21	21	61	T.		T.	0.0	0	21	3	6	w.	H. J. Wilson.
Klamath Falls	...do	4,250	15	56.8	− 2.5	89	25	30	20	44	0.19	− 0.71	0.11	0.0	2	16	9	5	nw.	W. H. Heileman.
Lakeview	Lake	4,800	7	65.6	+ 7.3	101	26	29	29†	60	0.01	− 1.12	0.01	0.0	1	25	2	3	s.	Geo. L. Wharton, jr.
Merrill	Klamath	4,070	4	56.7		89	1	27	21	48	0.22		0.20	0.0	2	24	6	0		D. H. Ward.
Yonna	...do		3	55.6		89	25†	25	7†	55	0.52		0.36	0.0	4	16	14	0	w.	Jacob Rueck.
California.																				
Alameda	Alameda		1	64.0		78	24†	48	6†		T.		T.	0.0	0					Chas. E. Sears.
Alturas	Modoc	4,460	6	59.8		97	25†	27	8†	61	0.24		0.24	0.0	1	19	11	0	sw.	Prof. C. B. Towle.
Anderson (near)	Shasta	550	1																	C. S. Richardson.
Angiola	Tulare	208	10	70.3	− 3.5	112	3	38	17†	56	0.00	0.00	0.00	0.0	0	30	0	0	nw.	Santa Fe Co.
Antioch	Contra Costa	46	31	71.8	− 0.2	100	25	56	7†		T.	− 0.12	T.	0.0	0	27	1	2	nw.	Southern Pacific Co.
Aptos	Santa Cruz	102	25	59.9	− 2.6	73	11	51	4		0.00	− 0.05	0.00	0.0	0	26	3	1	nw.	Do.
Arrowhead Springs	San Bernardino	2,000	1	70.3		107	1	48	23	41	0.00		0.00	0.0	0					G. I. Royce.
Auburn	Placer	1,360	39	70.0	− 0.8	103	1	42	6†	45	0.00	− 0.43	0.00	0.0	0	28	0	2	se.	Southern Pacific Co.
Avalon	Los Angeles			61.3		71	13	52	15†	16	0.00		0.00	0.0	0	23	6	1	w.	W. N. Vilas.
Azusa	...do	540	8	68.6		98	9	46	6†	52	0.00	− 0.14	0.00	0.0	0	28	0	2	sw.	A. P. Griffith.
Bagdad	San Bernardino	784	7	93.2		116	1†	72	7	37	0.00		0.00	0.0	0					Santa Fe Co.
Bakersfield	Kern	404	21	78.4	− 3.5	108	11†	57	21	40	0.00	− 0.05	0.00	0.0	0	30	0	0		Do.
Barstow	San Bernardino	2,105	7	78.6		109	10	55	15†	48	0.00		0.00	0.0	0	30	0	0	w.	E. L. White.
Berkeley	Alameda	317	23	59.8	− 1.1	76	25	44	10	25	0.02	− 0.18	0.01	0.0	2	18	7	5	s.	State University
Biggs	Butte	98	11	71.5	− 2.9	102	26	55	7		0.00	− 0.50	0.00	0.0	0	29	0	1	s.	Southern Pacific Co.
Bishop	Inyo	4,450	15	68.6	+ 0.7	95	26	41	5	47	0.19	+ 0.14	0.19	0.0	1	28	1	1		W. A. Chalfant.
Blocksburg	Humboldt	1,700	4																	Victor Hope.
Blue Canyon	Placer	4,695	11	58.6	− 5.1	87	25	32	11	43	0.00	− 1.39	0.00	0.0	0	29	0	1		Southern Pacific Co.
Blythe	Riverside		1	81.4		113	26	51	30	54	0.00		0.00	0.0	0	28	1	1	sw.	H. V. Blenkiron.
Branscomb	Mendocino	2,000	10	57.4		94	25	32	21	46	0.37	− 0.99	0.18	0.0	3	23	3	4	n.	A. J. Haun.
Brawley	Imperial	− 105	1	83.8		115	10	52	30	52	0.00		0.00	0.0	0					U. S. Weather Bureau.
Brush Creek	Butte	2,140	6	65.3		104	25	44	4	54	0.00		0.00	0.0	0					Cal. Gas & Electric Co
Calexico	Imperial	0	5	85.0		113	10†	58	14	41	0.00		0.00	0.0	0	27	3	0	se.	J. E. Peck.
Caliente	Kern	1,290	34	83.3	+ 4.4	108	28	62	14		0.00	− 0.12	0.00	0.0	0	30	0	0		Southern Pacific Co.
Calistoga	Napa	363	38	64.6	− 5.0	100	25†	48	10		0.00	− 0.41	0.00	0.0	0	27	0	3	w.	Do.
Campbell	Santa Clara	217	13	58.2	− 5.5	92	9	36	7†	49	0.05	− 0.05	0.05	0.0	1	24	4	2	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	3	69.4		108	26	36	11	50	0.09		0.05	0.0	2	24	4	2		S. B. Johnson.
Cedarville	Modoc	4,675	16	64.8	+ 4.3	97	25†	33	22	44	0.24	− 0.35	0.24	0.0	1	28	2	0	sw.	T. H. Johnstone.
Chico	Butte	189	40	72.6	− 4.5	109	25	40	6	51	0.05	− 0.37	0.03	0.0	2	24	5	1	s.	Butte County R. R. Co.
China Flat	Humboldt	600	1	67.0		101	9	42	23	56	0.33		0.28	0.0	2	20	9	1	nw.	O. I. Westerburg.
Chino	San Bernardino	714	18	72.9	+ 1.1	95	8	58	12†		0.00	0.00	0.00	0.0	0	26	2	2	w.	Southern Pacific Co.
Cisco	Placer	5,939	39	70.6	+15.6	86	7	46	20		T.	− 0.79	T.	0.0	0	29	0	1		Do.
Claremont	Los Angeles	1,200	18	68.0	+ 1.3	97	9	46	6	48	0.00	− 0.21	0.00	0.0	0	21	7	2	w.	F. P. Brackett.
Cloverdale	Sonoma	340	8	67.7		108	25	40	3†	51	0.03		0.03	0.0	1	27	2	1		Lloyd Browne.
Colfax	Placer	2,421	39	64.8	− 6.4	97	1†	41	6	41	T.	− 0.64	T.	0.0	0	24	0	6	s.	Southern Pacific Co.
Colusa	Colusa	60	7	74.5		101	25†	50	18†	31	0.00	− 0.51	0.00	0.0	0					W. K. De Jarnatt.
Corning	Tehama	277	24	79.1	+ 1.8	105	26	58	18		0.00	− 0.21	0.00	0.0	0	25	0	5	n.	Southern Pacific Co.
Cuyamaca (1)	San Diego	4,677	11	66.2	+ 5.5	89	1†	40	13	33	0.00	− 0.65	0.00	0.0	0	22	7	1	w.	L. L. Macquarie.
Daunt	Tulare	4,000	3	63.8		96	26	40	14	44	0.00		0.00	0.0	0	27	2	1		D. L. Wishon.
Davisville	Yolo	51	38	65.6	− 9.2	108	25	34	21	56	T.	− 0.18	T.	0.0	0	28	1	1	s.	S. H. Beckett.
Deer Creek	Nevada	3,700	3	57.8		92	25	30	21	45	0.10		0.09	0.0	2	23	3	4	w.	Cal. Gas & Electric Co.
Delta	Shasta	1,138	25	65.8	− 6.4	91	26	42	28	39	0.00	− 1.59	0.00	0.0	0	19	0	8	s.	Southern Pacific Co.
Denair	Stanislaus	126	10	69.6	− 3.5	107	1	44	6†	51	0.00	− 0.11	0.00	0.0	0	28	0	2		Santa Fe Co.
Dobbins	Yuba	1,650	6	70.2		102	25†	48	20†	40	0.04		0.04	0.0	1	25	3	2	s.	Cal. Gas & Electric Co.
Dudleys	Mariposa	3,000	1	59.0		94	26	31	21	49	T.		T.	0.0	0	27	1	2	n.	W. H. Dudley.
Dunnigan	Yolo	65	33	83.1	+ 5.2	106	25†	60	14		T.	− 0.20	T.	0.0	0	29	0	1	n.	Southern Pacific Co.
Dunsmuir	Siskiyou	2,285	21	67.4	+ 4.0	101	1	42	20		0.46	− 0.75	0.42	0.0	2	24	0	6	n.	Do.
Durham	Butte	160	15	71.3	− 2.1	106	26	43	20	52	T.	− 0.52	T.	0.0	0	23	4	3	s.	R. W. Durham
El Cajon	San Diego	482	11	66.9	− 0.3	95	9	43	21	41	0.00	− 0.11	0.00	0.0	0	29	1	0	sw.	H. H. Kessler.
Electra	Amador	725	6	74.2		111	26	48	5†	47	0.01		0.01	0.0	1	28	2	0		Cal. Gas & Electric Co.
Elsinore	Riverside	1,234	15	69.8	− 1.7	105	10	44	12	56	0.00	− 0.04	0.00	0.0	0	28	2	0	w.	W. H. Bohannon.
Emigrant Gap	Placer	5,230	36	67.7	+ 8.2	82	1	57	18	19	0.00	− 0.86	0.00	0.0	0	30	0	0		Southern Pacific Co.
Escondido	San Diego	657	16	67.4	− 0.5	93	1	39	20	47	0.00	− 0.24	0.00	0.0	0	20	10	0	w.	A. R. Moon.
Eureka	Humboldt	64	24	53.1	− 1.5	63	29	46	23	17	0.49	− 0.69	0.15	0.0	6	3	14	13	nw.	U. S. Weather Bureau.
Farmington	San Joaquin	111	31	69.4	− 4.3	102	25	50	11		0.00	− 0.13	0.00	0.0	0	27	1	2	nw.	Southern Pacific Co.
Folsom	Sacramento	252	38	71.5	− 4.3	110	25	46	21	55	0.02	− 0.21	0.02	0.0	1	27	1	2	s.	F. O. Hutton.
Fordyce Dam	Nevada	6,500	15	52.7		82	26	28	21	40	0.10	− 1.76	0.10	0.0	1	20	9	1	sw.	E. E. Roening.
Fouts Springs	Colusa	1,650	6	62.8		96	26	33	20	47	0.37		0.32	0.0	2					H. S. Green.
Fresno	Fresno	293	23	73.8	− 2.0	107	26	51	6	43	T.	− 0.10	T.	0.0	0	27	2	1	w.	U. S. Weather Bureau.
Fruto	Glenn	624	21	75.0	− 2.0	106	25†	53	6		0.10	− 0.24	0.10	0.0	1	26	0	4	s.	Southern Pacific Co.
Galt	Sacramento	49	32	77.7	+ 3.1	100	20	55	30		0.06	− 0.11	0.00	0.0	0	30	0	0	w.	Do.
Georgetown	El Dorado	2,650	37	65.8	− 5.1	99	24†	40	6	46	0.00	− 0.77	0.00	0.0	0					H. D. Jerrett.
Gilroy	Santa Clara	193	36	63.8	− 3.2	105	25	40	7		0.00	− 0.08	0.00	0.0	0	30	0	0	se.	Southern Pacific Co.
Gold Run	Placer	3,222	11	66.7	− 3.1	95	1†	44	14	33	0.75	− 0.70	0.00	0.0	1	27	0	3		Do.
Gonzales	Monterey	127	11	52.8	− 8.5	85	25	40	1		0.00	0.00	0.00	0.0	0	27	0	3	n.	Do.
Grass Valley	Nevada	2,690	38	65.4		97	26	40	20	36	T.	− 0.65	T.	0.0	0	25	4	1	sw.	F. R. Hull.
Greenville	Plumas	3,600	16	58.8	− 0.7	96	26	28	21	57	T.	− 0.73	T.	0.0	0	23	6	1	sw.	C. H. Higbie.
Groveland	Tuolumne	2,828	1	66.5		96	26	38	21	40	T.		T.	0.0	0	26	4	0		H. S. Richardson.
Guinda	Yolo	350	12																	Southern Pacific Co.
Hanford	Kings	249	10	72.6	− 4.3	107	1†	50	5	47	0.00	0.00	0.00	0.0	0	30	0	0		Santa Fe Co.
Healdsburg	Sonoma	110	17	66.4	+ 2.5	104	25	37	17	57	T.	− 0.48	T.	0.0	0	23	3	4	nw.	John Favour.
Hearst	Mendocino	1,800		62.2		96	1	39	20	49	0.03		0.02	0.0	2	23	4	3	e.	H. D. Ellmaker.
Heber	Imperial	− 20	4	85.4		119	10	55	22†	51	0.00		0.00	0.0	0	28	0	2	w.	E. T. Chumard.
Hollister	San Benito	284	36	58.5	− 7.4	91	25	40	29	43	0.00	− 0.13	0.00	0.0	0	27	3	0	w.	J. N. Thompson.
Hornbrook	Siskiyou	2,154	22	59.8	− 8.2	101	30	43	21		0.00	− 0.41	0.00	0.0	0	30	0	0		Southern Pacific Co.
Hot Springs	Tulare	3,300	3	67.5		100	1	43	7	49	0.00		0.00	0.0	0	30	0	0		U. S. Forest Service.
Hullville (near)	Lake	2,250	3	61.4		97	25	34	20	46	0.06		0.02	0.0	3	8	17	5	sw.	John Duggan.
Idyllwild	Riverside	5,250	9	62.6		91	10†	33	15	44	0.00		0.00	0.0	0	28	2	0	sw.	Earl Powers.
Independence	Inyo	3,907	14																	U. S. Weather Bureau.
Indio	Riverside	− 20	32	87.6	− 0.7	118	10	62	15	40	0.00	0.00	0.00	0.0	0	27	3	0	nw.	F. N. Johnson.
Inskip	Butte	4,975	3	56.9		88	26	32	20†	36	T.		T.	0.0	0	18	8	4		Cal. Gas & Electric Co.
Ione	Amador	287	32	76.6	+ 3.0	106	25	56	6		0.00	− 0.26	0.00	0.0	0	29	0	1	w.	Southern Pacific Co.
Iowa Hill	Placer	2,825	29																	C. F. Macy.
Jamestown	Tuolumne	1,471	7	68.9		109	26	42	13†	59	0.00		0.00	0.0	0	29	1	0		Sierra Ry. of California.
King City	Monterey	333	23	62.0	− 1.7	100	25	35	6†	60	0.00	− 0.03	0.00	0.0	0	30	0	0		Southern Pacific Co.
La Porte	Plumas	5,000	16	56.0[d]	− 0.8	87	26	33	21	35	0.27	− 1.46	0.15	0.0	2	23	5	2	s.	C. W. Hendel.
Le Grand	Merced	255	10	72.1	− 2.5	108	26	46	7	49	0.00	0.00	0.00	0.0	0	30	0	0		Santa Fe Co.
Lemon Cove	Tulare	600	15	75.8	− 2.4	113	1	43	22	48	0.00	− 0.08	0.00	0.0	0	28	0	2	w.	G. W. Sandidge.
Lick Observatory	Santa Clara	4,209	21	57.6	− 2.9	87	26	36	14	23	0.07	− 0.40	0.07	0.0	1	25	5	0	nw.	The Director.
Livermore	Alameda	485	39	63.8	− 3.8	104	25	42	8	59	0.04	− 0.11	0.04	0.0	1	26	2	2	w.	E. G. Still.
Lodi	San Joaquin	45	28	67.6	− 1.5	102	25	43	7†	43	T.	− 0.19	T.	0.0	0	17	2	1	w.	Ezra Fiske.

TABLE 1.—*Climatological data for June, 1910. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
California—Cont'd.																				
Lone Pine	Inyo	2,728	5	71.0	.....	98	1†	42	7	47	T.	.....	T.	0.0	0	28	2	0	s.	G. F. Marsh.
Long Valley	Lassen	4,400	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. G. Evans.
Los Angeles	Los Angeles	293	33	64.4	− 0.1	85	11	52	12	27	0.00	− 0.10	0.00	0.0	0	16	13	1	sw.	U. S. Weather Bureau.
Los Banos	Merced	121	23	72.6	− 4.3	102	1	58	7†	....	0.00	− 0.09	0.00	0.0	0	29	0	1	w.	Southern Pacific Co.
Los Gatos	Santa Clara	600	23	62.3	− 3.0	96	25	41	20	46	0.04	− 0.03	0.04	0.0	1	26	1	3	n.	F. H. McCullagh.
Lytle Creek	San Bernardino	2,900	1	64.0	.....	98	10	39	6	47	0.00	.....	0.00	0.0	0	20	8	2	.....	W. E. Anderson.
Macdoel	Siskiyou	4,258	3	45.2	.....	91	26	16	8†	63	0.02	.....	0.01	0.0	2	12	12	6	nw.	Butte Valley L'd Co.
Madeline	Lassen	5,270	1	57.3	.....	93	26	37	21	51	0.42	.....	0.39	0.0	2	20	6	4	nw.	J. H. Williams.
Magalia	Butte	2,321	6	64.4	.....	99	26	40	4†	41	T.	.....	T.	0.0	0	28	1	0	se.	Butte County R. R. Co.
Mammoth Tank	Imperial	257	32	87.2	− 5.3	116	10	59	15	41	0.00	0.00	0.00	0.0	0	29	1	0	w.	Southern Pacific Co.
Marysville	Yuba	67	39	76.0	− 0.2	100	25†	58	6	25	T.	− 0.26	T.	0.0	0	29	0	1	s.	Do.
Mecca	Riverside	− 185	4	84.2	.....	112	11	60	6	40	0.00	.....	0.00	0.0	0	29	1	0	nw.	A. Lunsted.
Menlo Park	San Mateo	64	32	63.4	− 2.9	86	9†	48	17	....	0.00	− 0.16	0.00	0.0	0	29	0	1	n.	Southern Pacific Co.
Merced	Merced	173	36	73.4	− 1.9	102	2	60	11†	36	0.00	− 0.16	0.00	0.0	0	29	0	1	nw.	Santa Fe Co.
Mill Creek (1)	Amador	.....	3	61.3	.....	92	1†	36	21	42	T.	.....	T.	0.0	0	26	1	3	n.	Cal. Gas & Electric Co.
Milton (near)	Calaveras	660	19	70.3	− 2.3	104	25	45	6	42	T.	− 0.28	T.	0.0	0	26	2	2	nw.	J. H. Southwick.
Modesta	Stanislaus	90	38	70.6	− 6.0	101	26	57	3†	....	0.00	− 0.10	0.00	0.0	0	28	0	2	.....	Southern Pacific Co.
Mojave	Kern	2,751	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Mokelumne Hill	Calaveras	1,550	17	68.0	− 0.8	99	25†	41	30	37	0.02	− 0.42	0.02	0.0	1	24	2	4	.....	C. E. Prindle.
Mono Ranch	Ventura	3,210	4	62.0	.....	90	10†	38	12	47	0.00	.....	0.00	0.0	0	27	2	1	w.	H. Lathrop.
Montague	Siskiyou	2,450	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Chambers.
Monterey	Monterey	15	45	65.0	+ 4.2	76	14	54	2	....	0.00	− 0.12	0.00	0.0	0	29	1	0	nw.	Southern Pacific Co.
Monterio	Kern	4,500	11	70.5	+ 1.7	104	26	44	20	42	0.00	− 0.16	0.00	0.0	0	30	0	0	nw.	John C. Knecht.
Monumental	Del Norte	.....	5	55.8	.....	89	10	34	20	41	2.10	.....	0.54	0.0	10	16	6	8	.....	G. F. Morgan.
Mount Tamalpais	Marin	2,375	11	59.0	− 5.1	88	25	40	6	25	0.03	− 0.09	0.02	0.0	2	22	7	1	nw.	U. S. Weather Bureau.
Napa City	Napa	20	33	59.6	− 5.0	90	25	39	18†	41	T.	− 0.15	T.	0.0	0	23	4	3	s.	Thomas Hull.
Napa (S. H.)	...do	60	32	63.4	− 1.2	94	25	43	18	41	0.03	− 0.21	0.03	0.0	1	21	8	1	sw.	W. H. Martin.
Needles	San Bernardino	477	18	90.8	+ 3.0	121	10	62	18	45	0.00	− 0.02	0.00	0.0	0	29	1	0	w.	Santa Fe Co.
Nellie	San Diego	5,350	1	71.3	.....	91	10	41	5	40	0.00	.....	0.00	0.0	0	.....	.....	.....	.....	C. J. Bailey.
Nevada City	Nevada	2,580	18	63.0	+ 0.1	98	25	32	21	52	0.03	− 0.62	0.03	0.0	1	25	1	4	sw.	S. W. Marsh.
Newcastle	Placer	970	17	76.5	+ 2.5	108	1†	43	7†	64	0.07	− 0.40	0.07	0.0	1	29	1	0	s.	George D. Kellog.
Newhall	Los Angeles	1,200	33	69.5	− 1.2	102	10	48	6	....	0.00	− 0.08	0.00	0.0	0	28	0	2	se.	Southern Pacific Co.
Newman	Stanislaus	91	21	74.0	− 4.9	108	26	45	30	53	0.00	− 0.06	0.00	0.0	0	28	0	2	ne.	E. S. Wangenheim.
Nimshew	Butte	2,500	6	64.2	.....	98	25†	38	21	50	T.	.....	T.	0.0	0	28	0	2	.....	Cal. Gas & Electric Co.
North Bloomfield	Nevada	3,200	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. G. Shand.
North Fork	Madera	3,000	6	68.2	.....	100	26	42	21	45	T.	.....	T.	0.0	0	25	2	3	w.	G. H. Shinn.
Oakdale	Stanislaus	156	16	69.9	− 4.0	102	25	53	5	....	0.00	− 0.34	0.00	0.0	0	27	2	1	nw.	Southern Pacific Co.
Oakland	Alameda	36	34	61.2	− 0.3	82	25	49	18	29	0.01	− 0.32	0.01	0.0	1	16	8	6	w.	Chabot Observatory.
Oceanside	San Diego	.....	.....	68.8	.....	80	7†	57	10	22	0.06	.....	0.05	0.0	1	3	20	7	w.	H. D. Brodie.
Ojai Valley	Ventura	900	4	63.8	.....	95	9†	42	4†	53	0.00	.....	0.00	0.0	0	25	5	0	sw.	W. H. Duncan.
Orland	Glenn	254	28	73.0	− 5.7	105	25†	48	4	47	0.23	− 0.19	0.21	0.0	2	25	5	0	se.	W. W. Patch.
Orleans	Humboldt	520	7	69.8	.....	104	9	44	21	55	0.28	.....	0.10	0.0	4	19	7	4	.....	Fred T. Hale.
Oroville (near)	Butte	250	26	70.8	− 4.4	105	25†	45	14	42	T.	− 0.33	T.	0.0	0	21	8	1	s.	E. D. Fairchild.
Palermo	...do	213	19	71.0	− 3.3	108	25	44	20	51	T.	− 0.33	T.	0.0	0	23	7	..	s.	Miss Hettie Boalt.
Palm Springs	Riverside	584	21	84.8	− 5.8	114	10	64	14	..	0.00	0.00	0.00	0.0	0	28	0	1	w.	Southern Pacific Co.
Pasadena	Los Angeles	827	20	66.6	− 4.0	93	10	48	4†	43	0.02	+ 0.01	0.02	0.0	1	28	0	2	sw.	E. R. Sorver.
Paso Robles	San Luis Obispo	800	23	65.0	− 3.4	105	1†	34	19	60	0.00	− 0.05	0.00	0.0	0	29	1	0	nw.	Dr. F. W. Sawyer.
Peachland	Sonoma	190	14	61.0	− 4.0	96	24	36	17†	55	0.05	− 0.36	0.05	0.0	2	27	2	1	sw.	E. H. Parnell.
Penstock Camp	Tuolumne	3,750	3	68.8	.....	98	1	40	14	46	0.00	.....	0.00	0.0	0	27	2	1	w.	Tuolumne W. P. Co.
Placerville	El Dorado	1,875	21	64.6	− 2.2	101	25	40	5†	52	0.00	− 0.68	0.00	0.0	0	28	0	2	s.	A. Baring-Gould.
Point Lobos	San Francisco	250	17	54.6	− 0.7	70	9†	46	17	18	0.03	− 0.11	0.03	0.0	1	11	11	8	nw.	John Hyslop.
Point Reyes	Marin	490	18	50.8	− 2.0	59	18	45	7	13	0.07	− 0.23	0.06	0.0	2	19	6	5	nw.	U. S. Weather Bureau.
Porterville	Tulare	464	21	74.0	− 8.5	110	26	48	21†	50	0.00	− 0.18	0.00	0.0	0	27	3	0	.....	Harry E. Cowie.
Quincy	Plumas	3,400	15	60.8	− 1.6	95	25	28	21	57	0.00	− 0.89	0.00	0.0	0	30	0	0	sw.	D. N. Rogers.
Red Bluff	Tehama	307	33	73.5	− 2.2	106	25	52	5	37	0.12	− 0.37	0.16	0.0	2	23	5	2	se.	U. S. Weather Bureau.
Redding	Shasta	552	35	74.6	− 1.0	104	25†	52	11	34	0.01	− 0.78	0.01	0.0	1	21	9	0	n.	L. F. Bassett.
Redlands	San Bernardino	1,352	17	69.4	− 4.4	99	10	48	6†	44	0.07	− 0.03	0.07	0.0	1	25	3	2	w.	Paul W. Moore.
Reedley	Fresno	347	10	74.6	− 6.5	108	26	40	13	59	0.00	0.00	0.00	0.0	0	30	0	0	n.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	4	68.1	.....	94	10†	48	4	35	T.	.....	T.	0.0	0	26	3	1	se.	So. California Edison Co.
Riverside	Riverside	851	28	68.5	− 2.1	98	10	46	21	50	0.00	− 0.05	0.00	0.0	0	18	10	2	w.	C. W. Barton.
Rocklin	Placer	249	39	68.6	− 6.4	105	25	42	21	49	0.00	− 0.23	0.00	0.0	0	25	0	5	se.	Southern Pacific Co.
Rohnerville	Humboldt	75	7	54.8	.....	69	37	37	22	31	0.38	.....	0.15	0.0	4	10	15	5	n.	Dr. R. Callahan.
Sacramento (1)	Sacramento	71	33	66.4	− 2.5	100	25	46	20	41	0.00	− 0.17	0.00	0.0	0	26	3	1	s.	U. S. Weather Bureau.
Sacramento (2)	...do	35	57	66.3	− 3.9	96	25	45	20	38	T.	− 0.12	T.	0.0	0	26	3	1	s.	S. H. Gerrish.
St. Helena	Napa	255	2	65.4	.....	107	25	39	6	59	0.02	.....	0.02	0.0	1	23	3	4	.....	B. F. Kettlewell.
Salinas	Monterey	40	36	58.7	− 3.3	76	19	42	5	32	0.00	− 0.16	0.00	0.0	0	27	1	2	w.	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	18	69.3	− 0.6	102	10	44	6†	54	T.	− 0.08	T.	0.0	0	26	2	2	sw.	Dr. A. K. Johnson.
San Diego	San Diego	93	39	62.0	− 1.8	71	19	54	30	15	0.00	− 0.06	0.00	0.0	0	18	9	3	sw.	U. S. Weather Bureau.
San Francisco	San Francisco	207	39	55.9	− 1.1	74	9	48	8	24	0.02	− 0.22	0.02	0.0	1	21	8	1	w.	Do.
San Jacinto	Riverside	1,550	17	70.5	+ 0.3	103	10	44	6	50	0.00	0.00	0.00	0.0	0	28	0	2	w.	E. T. Tanner.
San Jose	Santa Clara	95	35	59.7	− 5.3	93	9	40	21	44	0.02	− 0.11	0.02	0.0	1	26	2	2	nw.	U. S. Weather Bureau.
San Leandro	Alameda	48	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. B. Sanford.
San Luis Obispo	San Luis Obispo	201	15	58.7	− 1.7	86	24	43	7	40	0.00	− 0.12	0.00	0.0	0	15	12	3	nw.	U. S. Weather Bureau.
San Mateo	San Mateo	22	36	65.5	+ 0.7	84	9	56	13†	..	0.00	− 0.16	0.00	0.0	0	22	6	2	nw.	Southern Pacific Co.
San Miguel	San Luis Obispo	616	23	72.7	+ 2.4	100	26	53	3†	....	0.00	− 0.03	0.00	0.0	0	25	2	3	n.	Do.
San Miguel Island	Santa Barbara	500	....	55.4	.....	65	25	48	5†	14	0.19	.....	0.15	0.0	2	14	14	2	nw.	Capt. W. G. Waters.
Sanger	Fresno	371	21	86.0	+ 5.2	109	29	69	8†	....	0.00	− 0.18	0.00	0.0	0	30	0	0	.....	Southern Pacific Co.
Santa Barbara	Santa Barbara	130	26	60.6	− 2.6	79	18	46	5	27	0.00	− 0.11	0.00	0.0	0	25	5	0	e.	George W. Russell.
Santa Clara	Santa Clara	90	21	59.4	− 2.7	94	9	38	17†	50	0.03	− 0.14	0.03	0.0	1	27	1	2	nw.	Santa Clara College.
Santa Cruz	Santa Cruz	20	37	58.4	− 4.7	83	25	39	18†	40	0.05	− 0.16	0.05	0.0	1	27	2	1	w.	W. R. Springer.
Santa Magarita	San Luis Obispo	996	21	71.3	+ 4.1	99	27	50	8†	....	0.00	− 0.07	0.00	0.0	0	30	0	0	s.	Southern Pacific Co.
Santa Maria	Santa Barbara	220	22	65.2	+ 2.3	80	26	50	12	25	0.00	− 0.01	0.00	0.0	0	29	0	1	w.	L. E. Blochman.
Santa Monica	Los Angeles	110	25	58.0	− 8.9	73	10	48	4†	25	0.00	0.00	0.00	0.0	0	26	2	2	w.	N. D. Ingham.
Santa Rosa	Sonoma	181	21	61.2	− 5.6	95	9	37	18†	47	0.05	− 0.18	0.03	0.0	2	24	5	1	sw.	M. L. McDonald, jr.
Selma	Fresno	311	24	80.2	+ 1.0	103	26	60	11†	....	0.00	− 0.06	0.00	0.0	0	29	1	0	nw.	Southern Pacific Co.
Shasta	Shasta	1,049	14	74.4	− 2.3	108	2†	40	17†	55	0.12	− 0.62	0.09	0.0	2	24	2	4	nw.	Dr. T. J. Edgecomb.
Sierra Madre	Los Angeles	1,400	13	67.3	+ 0.2	91	10	50	6†	35	0.14	− 0.11	0.07	0.0	2	26	1	3	s.	Miss A. E. Carter.
Sierraville	Sierra	5,000	....	57.2	.....	91	1†	26	21	54	0.00	.....	0.00	0.0	0	22	6	2	sw.	C. D. Johnson.
Sisson	Siskiyou	3,555	21	57.6	− 5.8	89	26	30	19	56	0.00	− 0.73	0.00	0.0	0	24	0	6	n.	Southern Pacific Co.
Soledad	Monterey	188	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Southeast Farallon	San Francisco	30	7	52.2	.....	60	9	48	8	10	0.03	.....	0.02	0.0	2	18	4	8	nw.	U. S. Weather Bureau.
Sonora	Tuolumne	1,825	22	68.4	.....	100	26	44	21	40	0.00	− 0.32	0.00	0.0	0	28	2	0	w.	Charles P. Jones.
Stirling City	Butte	3,525	6	60.8	.....	95	27†	29	3	50	0.10	.....	0.05	0.0	2	21	4	5	se.	Butte County R. R. Co.
Stockton (S. H.)	San Joaquin	23	39	66.3	− 3.6	100	25	45	20	45	T.	− 6.09	T.	0.0	0	27	3	0	nw.	State Hospital.
Storey	Madera	296	10	68.4	− 5.9	109	26	38	21	54	0.00	− 0.02	0.00	0.0	0	30	0	0	nw.	Santa Fe Co.
Suisun	Solano	20	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Summerdale	Mariposa	5,270	14	60.3	− 0.7	90	24	38	14	39	0.00	− 0.39	0.00	0.0	0	19	10	1	.....	J. H. Lowry.

TABLE 1.—*Climatological data for June, 1910. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .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.		
California—Cont'd.																				
Summit	Placer	7,017	37	55.6	+ 2.4	82	26	30	6	43	0.00	− 0.58	0.00	0.0	0	26	0	4	w.	Southern Pacific Co.
Susanville	Lassen	4,175	21	61.4	− 2.5	95	26	31	20†	54	0.00	− 0.58	0.00	0.0	0	22	8	0	.....	James Branham.
Tamarack	Alpine	8,000	4	50.8	.....	80	25	24	21	42	0.00	.....	0.00	0.0	0	25	3	2	sw.	William Bennett.
Tehachapi	Kern	3,964	33	70.7	+ 1.3	98	7	50	14	....	0.00	− 0.10	0.00	0.0	0	.....	.....	.....	.....	Southern Pacific Co.
Tehama	Tehama	220	39	86.6	+ 9.0	112	26	57	19	....	0.25	− 0.05	0.25	0.0	1	26	0	4	s.	Do.
Three Rivers	Tulare	870	....	70.4	.....	102	25†	43	22	44	0.00	.....	0.00	0.0	0	26	3	1	sw.	E. D. Barton.
Towle	Placer	3,704	24	62.2	− 2.6	94	25	37	21	41	T.	− 0.80	T.	0.0	0	27	1	2	s.	Southern Pacific Co.
Tracy	San Joaquin	64	30	73.4	− 2.5	95	26	56	3	....	0.00	− 0.18	0.00	0.0	0	28	1	1	nw.	Do.
Ukiah	Mendocino	620	17	65.4	− 2.3	103	25	39	4†	54	0.18	− 0.15	0.18	0.0	1	24	2	4	nw.	Dr. George McGowen.
Upland	San Bernardino	1,750	13	65.6	− 1.2	93	10	45	6	45	0.00	− 0.17	0.00	0.0	0	20	8	2	w.	A. P. Harwood.
Upper Lake	Lake	1,350	25	64.8	− 1.4	100	25	41	6	46	0.05	− 0.22	0.05	0.0	1	24	5	1	nw.	C. M. Hammond.
Vacaville	Solano	175	22	66.6	− 5.3	105	25	40	21	52	T.	− 0.17	T.	0.0	0	27	3	0	sw.	G. O. Coburn.
Valley Springs	Calveras	673	21	72.1	− 2.4	104	26	57	6	....	0.00	− 0.36	0.00	0.0	0	27	2	1	nw.	Southern Pacific Co.
Visalia	Tulare	334	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Santa Fe Co.
Warner Springs	San Diego	3,165	2	65.2	.....	96	10	42	2	41	0.00	.....	0.00	0.0	0	30	0	0	.....	Mrs. E. F. Sanford.
Wasco	Kern	336	10	72.2	− 5.1	105	1	47	24	46	0.00	0.00	0.00	0.0	0	30	0	0	.....	Santa Fe Co.
Watsonville	Santa Cruz	23	14	63.1	+ 0.7	79	11	49	7	24	0.00	− 0.17	0.00	0.0	0	11	17	2	se.	Spreckels Sugar Co.
Westley	Stanislaus	90	21	76.8	− 1.1	103	25†	58	14	....	T.	− 0.09	T.	0.0	0	27	0	3	n.	Southern Pacific Co.
Wheatland	Yuba	84	23	69.4	− 2.5	102	26	47	20†	42	T.	− 0.18	T.	0.0	0	24	3	3	s.	Wm. Lumbard.
Willows	Glenn	136	31	71.2	− 5.6	104	25	47	20	42	0.02	− 0.16	0.01	0.0	2	26	2	2	s.	M. T. Harrington, jr.
Yosemite	Mariposa	3,945	6	63.8	.....	94	1†	37	7†	54	0.00	.....	0.00	0.0	0	30	0	0	sw.	C. W. Tucker.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
● Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
‖ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ 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 2.—*Daily precipitation for June, 1910. District No. 11, California.*

Stations.	River basins.	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.																																	
Klamath Agency	Klamath																		T.														T.
Klamath Falls	do										T.	.08				T.	.11															0.19
Lakeview	Pitt																		.01														0.01
Long Valley	do						T.					.02					.24				.02		.03								T.		0.31
Merrill	Interior Drainage						.20				T.						.02																0.22
Yonna	do						.03				T.	.08					.36						T.								.05		0.52
California.																																	
Aguanga	Coast																																0.00
Alameda	do										T.																						T.
Alturas	Sacramento																.24																0.24
Anderson	do																																.....
Angles Camp	San Joaquin																																0.00
Angiola	do																																0.00
Antioch	do													T.																			T.
Aptos	Coast																																0.00
Arrowhead Springs	do																																0.00
Auburn	Sacramento																																0.00
Avalon	Ocean																																0.00
Azusa	Coast																																0.00
Bagdad	Desert																																0.00
Bakersfield	San Joaquin																																0.00
Barstow	Desert																																0.00
Bear River	San Joaquin																																.....
Bear Valley (1)	Sacramento														.08																		0.08
Bear Valley (2)	San Joaquin																																0.00
Bear Valley Dam	Coast																																0.00
Ben Lomond	do										T.																						T.
Berkeley	do										.01			.01																			0.02
Big Bar	Sacramento																																.....
Biggs	do																																0.00
Bishop	Owens														.19																		0.19
Bishop Creek	do														.05																		0.05
Blocksburg	Coast																																.....
Blue Canyon	Sacramento																																0.00
Blythe	Desert																																0.00
Boulder Creek	Coast																																0.00
Bowmans Dam	Sacramento																																.....
Branscomb	Coast										.15			.04						.18													0.37
Brawley	Desert																																.....
Brush Creek	Sacramento																																0.00
Burney	do																																.....
Butte Creek House	do																																.....
Butte Valley	do															.07																	0.07
Calexico	Desert																																0.00
Caliente	San Joaquin																																0.00
Calistoga	Coast																																0.00
Campbell	do										T.			.05																			0.05
Campo	do																																0.00
Camptonville (near)	Sacramento										.04				.05																		0.09
Cedarville	Mountain Lakes															.24							T.										0.24
Chester	Sacramento														.09		.10																0.19
Chico	do														.03		.02																0.05
Chico (near)	do										T.			T.			.05																0.05
China Flat	Coast										.28			.05					T.	T.	T.	T.											0.33
Chino	do																																0.00
Cisco	Sacramento														T.																		T.
Claremont	Coast																																0.00
Clear Lake	Klamath																																.....
Cloverdale	Coast										.03			T.																			0.03
Colfax	Sacramento														T.																		T.
Colgate	do														.04																		0.04
Colusa	do																																0.00
Corning	do																																0.00
Corona	Coast																																.....
Crockers	San Joaquin																																.....
Cuyamaca	Coast																																0.00
Daunt	San Joaquin																																0.00
Davisville	Sacramento										T.																						T.
Deer Creek	do										.01	T.			.09																		0.10
Delta	do																																0.00
Denair	San Joaquin																																0.00
Descanso	Coast																																0.00
Dinuba	San Joaquin																																0.00
Dobbins	Sacramento										T.				.04		T.																0.04
Dorris	Klamath																																.....
Downieville	Sacramento										T.				.13		T.																0.13
Dudleys	San Joaquin										T.	T.																					T.
Dunnigan	Sacramento											T.																					T.
Dunsmuir	do																.42				.04												0.46
Durham	do										T.			T.			T.																T.
Dyerville	Coast																			.23													0.23
Edgewood	Klamath											.08		.25		.37																	0.70
Edison	San Joaquin																																0.00
El Cajon	Coast																																0.00
Electra	San Joaquin										T.				.01																		0.01
Elsinore	Coast																																0.00
Emigrant Gap	Sacramento																																0.00
Escondido	Coast																																0.00
Eureka	do										.11			.14		.01				.15	.07										.01		0.49
Fairmont	do																																0.00
Farmington	San Joaquin																																0.00
Felton	Coast																																0.00
Firebaugh	San Joaquin																																0.00
Folsom	Sacramento										.02																						0.02
Fordyce Dam	do										T.				.10	T.	T.																0.10
Fort Bragg	Coast																			.40	.10												0.50
Fort Ross	do																																.....
Fouts Springs	Sacramento										.05	T.		T.	.32						T.	T.											0.37
Fredalba	Coast														T.	.04																	0.04
Fresno	San Joaquin										T.																						T.
Fruto	Sacramento											T.			.10																		0.10
Galt	San Joaquin																																0.00
Georgetown	do																																0.00
Gilroy	Coast																																0.00

TABLE 2.—*Daily precipitation for June, 1910. District No. 11*—Continued.

Stations.	River basins.	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—Cont'd.																																	
Gilta	Coast										.15	.07			.09		.05		.03	.26	.01												0.66
Glendora	....do																																.....
Glen Ranch	....do																																0.00
Glennville	San Joaquin																																0.00
Glenwood	Coast														T.																		T.
Gold Run	Sacramento											T.			.75	T.	T.																0.75
Gonzales	Coast																																0.00
Grass Valley	Sacramento										T.				T.		T.																T.
Greenville	....do										T.						T.																T.
Gridley	....do															T.		T.															T.
Groveland	San Joaquin										T.																						T.
Guinda	Sacramento																																.....
Hanford	San Joaquin																																0.00
Head Dam	Sacramento											.01			.04																		0.05
Healdsburg	Coast										T.			T.	T.					T.													T.
Hearst	....do											.02								.01													0.03
Heber	Desert																																0.00
Helen Mine	Coast																																.....
Hesperia	Desert																																0.00
Holcomb	Coast																																0.00
Hollister	....do																																0.00
Hornbrook	....do																																0.00
Hot Springs	San Joaquin																																0.00
Hullville	Coast										.02				.02		.02			T.													0.06
Idyllwild	....do																																0.00
Independence	Owens																																.....
Indio	Desert																																0.00
Inskip	Sacramento										T.				T.		T.																T.
Ione	San Joaquin																																0.00
Iowa Hill	Sacramento																																.....
Isabella	San Joaquin																																0.00
Jacksonville	....do																																0.00
Jamestown	....do																																0.00
Jenny Lind	....do																																0.00
Johnsville	Mountain Lakes																																.....
Jolon	Coast																																0.00
Julian	....do																																.....
Kennedy Mine	San Joaquin																																0.00
Kennett	Sacramento										.10				.10					T.													0.20
Kentfield	Coast																																0.00
Kernville	San Joaquin																																0.00
King City	Coast																																0.00
Knights Landing	Sacramento											T.																					T.
Knob	....do																																0.00
La Grange	San Joaquin																																0.00
Lake Eleanor	....do																																0.00
Lakeside	Coast																																.....
La Porte	Sacramento									T.	T.	.15			.12		T.																0.27
Lathrop	San Joaquin																																0.00
Laurel	Coast														T.																		T.
Laytonville	....do										.15			T.		T.				.06													0.21
Le Grand	San Joaquin																																0.00
Lemon Cove	....do																																0.00
Letter Box	Sacramento																																.....
Lick Observatory	Coast														.07																		0.07
Livermore	....do										T.				.04																		0.04
Lodi	San Joaquin										T.																						T.
Lone Pine	Owens														T.																		T.
Long Camp	San Joaquin																																0.00
Long Valley	Mountain Lakes																																.....
Lordsburg	Coast																																0.00
Los Alamos	....do																																.....
Los Angeles	....do																																0.00
Los Banos	San Joaquin																																0.00
Los Burros Mine	Coast																																.....
Los Gatos	....do										T.			.04																			0.04
Los Vaqueros	....do																																.....
Lowe Observatory	....do																																0.00
Lytle Creek	....do																																0.00
McCloud	Sacramento																																.....
Macdoel	Klamath							.01				.01																					0.02
Madeline	Mountain Lakes						.03				T.						.39																0.42
Magalia	Sacramento															T.																	T.
Mammoth Tank	Desert																																0.00
Mariposa	San Joaquin																																.....
Marysville	Sacramento														T.																		T.
Mecca	Desert																																0.00
Melones	San Joaquin																																0.00
Menlo Park	Coast																																0.00
Merced	San Joaquin																																0.00
Merced Falls	....do																																0.00
Mesa Grande	Coast																																0.00
Mill Creek (1)	San Joaquin										T.																						T.
Mill Creek (2)	Coast																																.....
Mills College	....do										T.				.02																		0.02
Milo	San Joaquin																																0.00
Milton (near)	....do										T.																						T.
Modesto	....do																																0.00
Mojave	Desert																																.....
Mokelumne Hill	San Joaquin										T.				.02																		0.02
Mono Ranch	Coast																																0.00
Montague	Klamath																																.....
Monterey	Coast																																0.00
Monterio	San Joaquin																																0.00
Montgomery Creek	Sacramento																.35																0.35
Monumental	Coast											.30	.05		.15	.18	.01	.02	.30	.50	.54	.05											2.10
Morena Dam	....do																																.....
Mount Tamalpais	....do										T.				.02					.01													0.03
Mount St. Helena	....do															T.																	T.
Napa City	....do										T.				T.																		T.
Napa (S. H.)	....do										.03																						0.03
Needles	Desert																																0.00
Nellie	Coast																																0.00
Nevada City	Sacramento										T.				.03		T.																0.03

TABLE 2.—*Daily precipitation for June, 1910. District No. 11*—Continued.

Stations.	River basins.	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—Cont'd.																																	
Newcastle	Sacramento											.07																					0.07
Newhall	Coast																																0.00
Newman	San Joaquin																																0.00
Nimshew	Sacramento										T.						T.																T.
North Bloomfield	...do																																.....
North Fork	San Joaquin														T.																		T.
North Lakeport	Coast																																.....
Oakdale	San Joaquin																																0.00
Oak Grove	Coast																																.....
Oakland	...do										T.				.01																		0.01
Oakville	...do																																0.00
Oceanside	...do														.06																		0.06
Ojai Valley	...do																																0.00
Orland	Sacramento										T.			.21		.02		T.															0.23
Orleans	Klamath										.04			.06				.16	.08														0.28
Oroville	Sacramento														T.																		T.
Ozena	Coast																																0.00
Palermo	Sacramento										T.				T.		T.																T.
Palm Springs	Desert																																0.00
Parkfield	Coast																																0.00
Pasadena	...do															.02																	0.02
Paso Robles	...do																																0.00
Peachland	...do										.02			.03						T.													0.05
Penstock Camp	San Joaquin																																0.00
Peyton	Sacramento																																0.00
Phoenix Dam	San Joaquin																																0.00
Pilot Creek	Sacramento																																.....
Pine Crest	Coast																																.....
Pittville	Sacramento																																.....
Placerville	...do																																0.00
Point Lobos	Coast										T.	T.			.03																		0.03
Point Loma	...do	T.																									T.						T.
Point Reyes	...do										.06			T.						.01													0.07
Pollasky	San Joaquin																																0.00
Porterville	...do																																0.00
Priest Valley	Coast																																0.00
Quincy	Sacramento																																0.00
Red Bluff	...do										T.				.02		.10																0.12
Redding	...do										.01											T.											0.01
Redlands	Coast														.07																		0.07
Reedley	San Joaquin																																0.00
Represa	Sacramento										.04																						0.04
Rialto (near)	Coast			T.																													T.
Rio Vista	Sacramento																																0.00
Riverside	Coast																																0.00
Rocklin	Sacramento																																0.00
Rohnerville	Coast									.06									.05	.15	.12												0.38
Round Valley	Owens																																.....
Sacramento (1)	Sacramento																																0.00
Sacramento (2)	...do										T.				T.																		T.
Saint Helena	Coast													.02																			0.02
Salinas	...do																																0.00
San Bernardino	...do														T.																		T.
San Diego	...do																																0.00
San Francisco	...do										T.	T.		.02																			0.02
San Jacinto	...do																																0.00
San Jose	...do										T.				.02																		0.02
San Leandro	...do																																.....
San Luis Obispo	...do																																0.00
San Mateo	...do																																0.00
San Miguel	...do																																0.00
San Miguel Island	Ocean	.15																									.04						0.19
Sanger	San Joaquin																																0.00
Santa Ana River	Coast																																0.00
Santa Barbara	...do																																0.00
Santa Clara	...do														.03																		0.03
Santa Cruz	...do										T.			.05																			0.05
Santa Margarita	...do																																0.00
Santa Maria	...do																																0.00
Santa Monica	...do																																0.00
Santa Rosa	...do										T.				.03					.02													0.05
Sausalito	...do																																0.00
Selma	San Joaquin																																0.00
Seven Oaks	Coast																																0.00
Shasta	Sacramento									.09					.03																		0.12
Shingle Springs	San Joaquin													T.	T.																		T.
Sierra Madre	Coast			.07											.07																		0.14
Sierraville	Mountain Lakes																																0.00
Sisquoc Ranch	Coast																																.....
Sisson	Sacramento																																0.00
Soledad	Coast																																.....
Sonora	San Joaquin																																0.00
Southeast Farallon	Ocean										.02			T.						.01													0.03
Spreckels	Coast																																0.00
Squirrel Inn	...do														T.																		T.
Stirling City	Sacramento										T.				.05		.05	T.															0.10
Stockton (S. H.)	San Joaquin										T.			T.	T.																		T.
Storey	...do																																0.00
Suisun	Sacramento																																.....
Summerdale	San Joaquin																																0.00
Summit (1)	Sacramento																																0.00
Summit (2)	Coast																																0.00
Surrey	...do																																0.00
Susanville	Mountain Lakes																																0.00
Tamarack	Sacramento																																0.00
Tehachipi	San Joaquin																																0.00
Tehama	Sacramento																.25																0.25
Three Rivers	San Joaquin																																0.00
Towle	Sacramento														T.																		T.
Tracy	San Joaquin																																0.00
Tulare	...do																																0.00
Tustin (near)	Coast																																0.00
Ukiah	...do										.18			T.						T.													0.18
Upland	...do																																0.00

TABLE 2—*Daily precipitation for June, 1910. District No. 11*—Continued.

Stations.	River basins.	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—Cont'd.																																	
Upper Lake	Coast										T.			T.	.05																		0.05
Upper Matole	do										T.			T.					.16	.12													0.28
Vacaville	Sacramento										T.			T.																			T.
Valley Springs	San Joaquin																																0.00
Ventura	Coast																																
Visalia	San Joaquin																																
Warner Springs	Coast																																0.00
Wasco	San Joaquin																																0.00
Watsonville	Coast																																0.00
Weaverville	Sacramento																																
Weitchpec	Klamath										.14			.03	.06		.02			.23	.18												0.66
West Branch	Sacramento														.07		.08																0.15
Westley	San Joaquin														T.																		T.
West Point	do																																
West Saticoy	Coast																																0.00
Wheatland	Sacramento										T.					T.																	T.
Willows	do										T.			.01			.01																0.02
Woodleaf	do																																
Yosemite	San Joaquin																																0.00
Yucaipa	Coast																																

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1910. 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.	Min.
1	80	60	93	48	108	67	85	45	104	72	97	73	59	50	105	67	.....	.....	79	54	77	64	95	50	107	66	101	70
2	75	50	82	40	101	73	80	40	104	69	89	64	56	49	92	60	.....	.....	70	57	66	55	86	49	96	52	91	67
3	69	50	84	30	102	59	75	40	97	66	86	58	57	49	92	53	.....	.....	72	56	64	53	85	44	92	52	86	60
4	82	60	85	40	100	57	70	37	98	65	82	56	58	49	93	56	.....	.....	71	54	60	41	86	40	95	52	85	59
5	86	63	79	34	98	59	65	38	104	62	81	63	59	51	83	52	.....	.....	70	55	54	41	77	37	87	51	79	52
6	80	50	74	38	94	59	67	35	104	56	79	57	55	49	85	51	.....	.....	72	53	58	40	77	38	87	49	80	54
7	82	53	74	32	96	58	78	45	102	61	82	57	56	49	89	52	.....	.....	72	53	67	54	80	38	91	49	85	55
8	81	60	81	27	98	56	86	45	103	61	90	65	56	48	95	53	.....	.....	74	54	77	59	87	38	96	53	94	62
9	83	76	92	31	102	60	90	47	111	63	95	72	56	49	99	61	.....	.....	79	53	83	68	95	43	102	58	99	62
10	80	59	92	39	109	68	80	44	115	63	93	72	55	47	103	60	.....	.....	78	55	71	46	88	47	107	62	86	59
11	75	67	77	40	100	66	89	46	112	88	81	58	58	50	84	54	.....	.....	85	58	64	45	83	41	85	51	82	53
12	83	54	79	32	97	58	78	48	109	70	91	76	55	49	90	58	.....	.....	75	52	74	56	88	39	92	51	91	65
13	86	63	84	38	95	61	67	45	101	73	89	60	53	49	85	55	.....	.....	73	56	60	41	81	44	89	55	84	60
14	84	58	77	45	79	57	69	44	91	55	76	56	56	49	72	55	.....	.....	65	55	60	41	69	45	77	56	76	56
15	80	53	85	38	88	55	72	46	90	58	82	57	56	50	83	54	.....	.....	66	56	66	51	78	41	87	50	85	57
16	72	54	78	48	98	57	78	41	98	61	82	60	58	51	88	55	.....	.....	71	55	69	50	80	53	90	54	81	55
17	82	60	77	44	101	64	60	40	102	63	81	52	55	48	92	58	.....	.....	74	55	65	45	80	42	97	55	80	57
18	80	42	77	45	100	57	67	39	103	66	81	50	60	49	90	53	.....	.....	76	56	62	42	78	38	93	52	81	56
19	78	45	77	47	99	60	70	43	106	66	80	52	59	49	87	56	.....	.....	77	56	58	42	78	43	90	52	77	60
20	70	44	67	35	78	60	65	36	106	68	78	50	60	50	82	53	.....	.....	76	55	56	42	76	37	84	51	77	54
21	70	50	70	27	92	55	67	32	102	58	81	65	55	46	85	52	.....	.....	73	56	67	43	77	32	85	48	78	56
22	86	40	68	39	94	60	71	36	100	57	81	59	57	46	82	52	.....	.....	71	57	64	43	77	37	86	48	81	55
23	87	30	78	28	95	59	76	37	99	61	88	68	58	46	89	54	.....	.....	70	57	73	52	85	39	90	51	88	63
24	89	43	88	33	100	56	84	40	101	63	98	75	57	52	98	61	.....	.....	73	56	82	63	90	45	99	52	99	64
25	90	30	97	39	104	60	94	48	107	66	101	77	57	51	105	67	.....	.....	75	56	88	72	98	40	106	56	106	70
26	101	41	97	43	108	60	85	49	111	68	101	78	56	51	107	72	.....	.....	74	57	84	65	96	52	110	76	104	74
27	90	32	91	41	100	65	75	45	109	70	89	62	54	50	100	65	.....	.....	72	57	71	54	90	50	102	64	93	66
28	85	30	82	36	95	60	70	39	105	74	89	66	56	50	91	59	.....	.....	71	58	68	49	82	45	95	55	90	63
29	87	29	83	36	90	60	60	38	101	60	87	61	63	46	85	55	.....	.....	72	57	61	46	80	44	91	54	86	60
30	89	29	77	50	90	60	62	40	102	52	83	60	60	54	86	56	.....	.....	73	56	62	46	77	44	99	53	82	60
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means	82.1	49.2	81.5	38.1	97.0	60.2	73.2	41.6	103.2	64.5	86.4	62.6	57.0	49.2	90.6	57.0	.....	.....	73.3	55.5	67.7	50.3	83.3	42.8	93.6	54.3	86.9	60.1

Date.	California.																											
	Redlands.		Sacramento.		San Diego.		San Francisco.		San José.		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	95	61	88	59	68	58	60	51	80	50	76	51	75	53	83	44	82	42	92	62	79	48	91	52	94	42
2	83	53	79	53	62	58	57	50	72	51	68	51	65	54	76	40	72	38	80	56	78	42	86	52	93	43
3	77	55	75	50	66	59	55	48	70	45	66	48	67	49	66	40	75	40	78	52	72	35	83	45	91	41
4	86	54	74	47	67	58	59	49	66	49	65	49	70	47	69	46	75	44	76	47	72	38	82	48	86	40
5	84	50	72	49	66	58	57	51	66	43	68	44	68	46	72	38	75	38	68	50	66	40	75	39	80	39
6	83	48	73	49	67	59	59	50	66	43	66	45	72	47	69	38	75	36	73	49	62	30	75	35	80	38
7	85	49	79	48	67	60	56	48	73	41	63	43	71	48	72	42	82	34	78	47	66	33	76	41	84	37
8	91	50	88	51	68	61	63	48	80	49	72	49	70	50	81	43	88	41	80	48	70	38	80	39	86	38
9	96	51	95	59	70	58	74	50	93	50	78	48	67	52	95	44	85	34	95	50	72	48	89	41	88	39
10	99	57	76	55	69	60	59	50	72	51	69	51	75	52	77	49	85	34	76	51	75	45	85	42	86	41
11	95	57	78	52	70	57	67	53	72	51	81	51	76	50	81	55	82	36	80	51	69	38	77	35	84	40
12	87	51	90	55	68	57	63	51	76	46	75	49	71	48	80	46	80	41	86	56	73	40	79	42	89	39
13	81	51	71	52	62	58	58	50	64	44	62	49	72	51	77	41	81	40	68	52	74	42	82	46	86	40
14	66	53	70	50	63	57	59	50	65	49	62	47	73	49	73	48	75	42	68	50	58	34	73	49	84	41
15	71	53	77	52	63	57	57	49	70	46	65	47	67	49	73	43	82	42	78	51	65	55	85	49	87	41
16	84	54	80	52	66	58	61	50	71	45	72	51	68	49	79	47	80	43	78	54	64	48	74	52	86	39
17	96	52	77	48	67	58	58	48	70	41	70	47	70	52	73	38	76	39	77	50	67	45	78	44	88	40
18	92	53	77	48	69	58	61	50	70	40	69	43	79	52	71	37	68	31	78	48	65	48	77	47	90	41
19	89	53	75	50	71	56	63	52	72	44	66	46	75	50	74	46	65	30	76	47	62	45	71	47	90	40
20	90	49	77	46	68	56	64	51	70	42	71	42	72	50	77	37	66	36	77	45	61	38	69	31	89	39
21	83	48	78	48	64	59	65	50	72	40	68	50	70	48	81	41	67	37	78	50	65	32	72	31	89	39
22	80	50	77	50	64	58	62	50	69	44	61	48	68	48	80	44	66	35	77	52	62	31	71	40	88	40
23	79	53	87	53	64	58	65	50	79	44	74	44	70	50	87	46	69	38	86	50	68	35	76	37	90	41
24	88	50	96	55	65	58	67	51	84	46	86	46	72	48	87	46	75	41	95	56	75	42	78	37	91	41
25	91	53	100	61	66	59	73	52	92	48	74	47	68	56	93	46	79	44	100	62	78	47	94	40	94	40
26	95	54	95	59	66	58	62	49	79	50	76	48	68	56	86	47	89	33	95	64	82	51	95	45	92	40
27	89	56	83	54	63	58	64	49	74	45	71	48	68	55	89	42	73	43	86	57	80	50	86	47	89	39
28	83	54	82	54	63	58	63	49	72	44	65	43	68	57	82	45	70	42	80	56	78	35	84	45	90	38
29	80	55	76	52	66	58	61	50	70	48	67	43	69	56	81	44	78	43	73	53	74	38	81	43	89	37
30	85	50	78	53	66	54	63	50	72	52	70	49	72	50	77	45	80	45	77	54	65	44	81	40	88	39
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means	86.1	52.6	80.8	52.1	66.1	58.0	61.8	50.0	73.4	46.0	70.0	47.4	70.5	50.8	78.7	43.6	76.5	38.7	80.3	52.3	69.9	41.2	80.2	42.7	88.0	39.7