

NOAA TECHNICAL MEMORANDUM NWS WR-65

CLIMATE OF SACRAMENTO, CALIFORNIA

**Laura Masters-Bevan
National Weather Service Office
Sacramento, California**

**November 1998
Sixth Revision**

**U.S. DEPARTMENT
OF COMMERCE**

National Oceanic and
Atmospheric Administration

National Weather
Service



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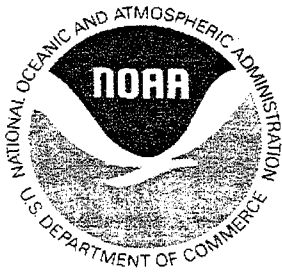
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- 25 Verification of Operation Probability of Precipitation Forecasts, April 1966-March 1967. W. W. Dickey, October 1967 (PB-176240)
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UNITED STATES
DEPARTMENT OF COMMERCE
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Atmospheric Administration
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and is approved for publication by
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I. CLIMATE OF SACRAMENTO, CALIFORNIA

CLIMATE OF SACRAMENTO, CALIFORNIA

Laura Masters-Bevan

I. NARRATIVE CLIMATOLOGICAL SUMMARY

The southern Sacramento Valley, including the city of Sacramento, is blessed with a mild climate and an abundance of sunshine the year-round. The summers are virtually cloudless with warm, dry days and mild, pleasant nights. During the winter "rainy season" (November through February), over half the total annual precipitation falls, yet rain in measurable amounts occurs only about 10 days monthly during the winter. Mountains surround the Sacramento Valley to the west, north and east. The Sierra Nevada snowfields are only 70 miles east of Sacramento and usually provide a plentiful supply of water to the valley streams during the dry season. Because of the shielding influence of the high mountains, winter storms reach the valley in a modified form. However, torrential rain and heavy snow frequently fall on the western Sierra slopes, the southern Cascades, and to a lesser extent, the Coastal Range. As a result, flood conditions occasionally occur along the Sacramento River and its tributaries. Excessive rainfall and damaging wind storms occur infrequently.

The prevailing wind in Sacramento is southerly all year. This is due to the north-south orientation of the valley and the deflecting effects of the towering Sierra Nevada on the prevailing oceanic wind that moves through the Carquinez Strait near the delta, at the junction of the Sacramento and San Joaquin Rivers. No

other tidewater gap exists in the coastal mountains to admit significant marine air into the Sacramento or the San Joaquin Valleys. Occasionally, a strong north or northeasterly barometric pressure gradient develops, forcing air south or southwestward down the Siskiyou Mountains or the Sierra Nevada. This air is warmed by compression as it descends, reaching the valley floor as a hot, dry north wind. Heat waves in the summer are produced by these winds and, fortunately, are usually followed within two or three days by the normally cool southwest delta breezes, especially at night.

Summer nights in the southern Sacramento Valley are usually pleasant. This is primarily the result of the refreshing breezes blowing up from the San Francisco Bay through the delta. The exception is when the north or northeasterly pressure difference develops during heat waves, causing light northerly breezes to continue through the night.

It is well known that relative humidity has a marked influence on the reaction of plants and animals to temperature. The extremely low relative humidity that accompanies high temperatures in the valley during the summer should be considered when comparing temperatures with those of cities in more humid regions.

Thunderstorms in Sacramento are few in number and usually occur in the late fall

or in the spring. Snow is so rare and falls in such small amounts that its occurrence may be disregarded as a climatic feature. Dense fog occurs mostly in mid-winter, seldom in the spring or autumn, and never in the summer. Light and moderate fog is more frequent and may happen anytime during the wet, cold season. Fog is usually of the radiational cooling type and is confined to the early morning hours. Under stagnant atmospheric conditions, winter fog can become very persistent and may continue for several days.

Sacramento is the geographical hub of the great Central Valley of California, which is the most productive agricultural region in the country. This region produces cotton, poultry, livestock and dairy products, plus a wide variety of fruits, cereals, vegetables and nuts, ranging from the semi-tropical to the hardier varieties.

A History of Weather Observations at Sacramento

The first organized weather observations for Sacramento were started by the Smithsonian Institution in 1849. The first government weather service for Sacramento, under the U.S. Army Signal Service, got off to an auspicious start when the briefest of telegrams was sent back to Washington, D.C. The telegram, dated June 23, 1877, stated simply, "ARRIVED." This announced the arrival in Sacramento of Sgt. R. B. Watkins. Records indicate that Sgt. Watkins took the first official weather observation at 4:37 a.m., July 1, 1877.

The first weather office was located on the fourth floor of the St. George Building,

on 4th and J Streets. It consisted of two rooms--one for the weather office and the other for the living quarters. The meteorological variables observed by Sgt. Watkins would do justice to many of the electronic, computer assisted observational programs of present day.

Through the years, the Sacramento weather office has changed locations several times. In succession, the office has been located at the following addresses:

- ▶ 4th and J Streets (St. George Building), July 1, 1877 to November 27, 1879.
- ▶ 2nd and K Streets (Fratts Building), November 28, 1879 to May 31, 1882.
- ▶ 1006 2nd Street (Arcade Building), June 1, 1882 to January 31, 1884.
- ▶ 117 J Street (Lyon and Curtis Building), February 1, 1884 to April 30, 1894
- ▶ 7th and K Streets (Old Post Office Building), May 1, 1894 to October 31, 1933.
- ▶ 9th and I Streets (New Post Office and Courthouse Building), November 1, 1933 to November 19, 1958.
- ▶ 1725 23rd Street (State of California Building), November 20, 1958 to September 28, 1964.
- ▶ 1416 9th Street (Resources Building), September 29, 1964 to August 14, 1995.

- ▶ 3310 El Camino Avenue, August 15, 1995 to present. (Note: The temperature and precipitation sensors used for much of the information in this publication are currently located on top of the Post Office Building on 9th and I Streets. The data are remoted to the Weather Service Office.)

As the complexity of living changed over the past century, so did the services provided by the Sacramento weather office. Public weather forecasts now cover the mountains of the northern Sierra Nevada, Shasta County and the Lassen National Park area; the foothills of the northern Sierra Nevada; eastern slopes of the northern coastal range and Lake County; and the Sacramento and northern San Joaquin Valleys. The office's warning responsibility area encompasses 22 counties in northern and central California. Special, detailed forecasts for aviation, fire fighting, and hydrology are also provided.

In the past 20 to 40 years, the accelerating progress of computer technology has contributed greatly to the office's ability to accurately observe and forecast the weather. The commissioning of the WSR-57 weather radar on February 2, 1960, added a valuable tool for more precise, short-range weather forecasts. On December 6, 1995, the WSR 88D Doppler Radar was commissioned. Used in conjunction with satellite data and high speed computers, radar can detect severe local storms and flash floods along with small-scale weather features of importance to local, state, and federal agencies involved in river flood warning and control or in

aviation and firefighting operations, for example.

The advances in the science of meteorology could not have been dreamed of even by the most visionary meteorologist a century ago. The thousands of observations made daily, world-wide, all combine to work toward a successful answer to the very basic question: "What's the weather going to be?"

Some Highlights of the Weather Records in Sacramento

Many unusual weather events have taken place in Sacramento since official weather observations began July 1, 1877. The following is a brief description of some of the more extreme conditions recorded since then.

The all-time high temperature in downtown Sacramento of 114 degrees occurred on July 17, 1925. Wind conditions on that date were light and mostly from a southeasterly direction. The early morning low temperature was a very warm 74 degrees. A strong delta breeze (up to 28 mph) developed the following afternoon, dropping the maximum temperature to a relatively mild 97 degrees.

The longest consecutive stretch of days with maximum temperatures 105 degrees or higher in Sacramento was seven days. This occurred August 5-11, 1990.

The greatest number of consecutive days with maximum temperatures 100 degrees or higher is nine. This has happened three times since temperature records

began in July 1877: August 1-9, 1966; June 19-27, 1981; and July 10-18, 1984.

Heat waves having one or two day breaks between consecutive 100 degree-plus days have taken place quite frequently in the past. Two periods stand out significantly, however, and occurred during the summers of 1929 and 1980. In 1929, days with maximum temperatures 100 degrees or higher were recorded from June 20 through June 26, and again from June 29 through July 5. The two day break on the 27th and 28th had maximum temperatures of 99 degrees, and 91 degrees, respectively. In all, the period had 14 out of 16 days with maximum temperatures 100 degrees or higher.

In 1980, days with maximum temperatures of 100 degrees or higher occurred from July 21 through July 27, and again from July 29 through August 1. The one day break on the 28th had clouds and scattered light showers that held the maximum temperature to only 95 degrees. All in all, there were 11 of 12 days with maximum temperatures 100 degrees or higher.

The coldest temperature ever recorded in the downtown area was 17 degrees on December 11, 1932. This record low temperature was part of a cold snap that lasted from December 9 through December 15. Minimum temperatures during this period dropped to the teens and low 20s every night. Crop damage, as one might expect, was quite extensive, especially in the citrus orchards of Fair Oaks and Orangevale, where temperatures dipped to as low as 11 degrees above zero. The celery and lettuce crops in the delta were also hard

hit. Ice thick enough for skating formed on the small lakes and ponds at Southside and McKinley Parks, with a layer of ice one-sixteenth of an inch thick reported on the Sacramento River. The cold snap broke on December 16 when a warm and moist storm from the mid-Pacific moved into northern California. A cold snap during the winter of 1990 was equally as devastating. It was during this period that downtown Sacramento had a record number of days (11) with minimum temperatures of 32 degrees or lower from December 20, 1990 through January 1, 1991.

Snow in Sacramento is extremely rare. Most of the snow that has been observed in Sacramento occurs in January. The most snowfall measured in the downtown area in any 24-hour period was 3.5 inches, January 4-5, 1888. The heaviest snowfall in recent years took place February 5, 1976, when 2 inches was reported at Sacramento's Executive Airport. Ironically, this happened during one of the drought years.

The all-time record for rainfall during any 24-hour period in Sacramento is 7.24 inches on April 19-20, 1880. Streets were described as "...having the appearance of miniature rivers". The rainstorm was also reported (colorfully) in such terms as "...steady and business-like", "...a perfect torrent", and "...more like a cataract than an April shower".

The record maximum one-hour rainfall is 1.65 inches, which fell during the evening of April 7, 1935. Thunderstorms in the area were responsible for the downpour with considerable street flooding reported. (Note: Hourly rainfall records are only available after 1903).

January 1862, with 15.04 inches, is the wettest month on record. This took place before official government observations began. Precipitation records at that time were kept by two physicians, Dr. F.M. Hatch, a retired Army Surgeon, and his associate, Dr. T.M. Logan. Their records are believed to be reliable.

January 1975. (Fog is considered dense when it restricts visibility to a quarter-mile or less during any part of the day.)

The most rainfall ever recorded in one season in Sacramento is 37.49 inches, set during the 1982-83 rainy season, under the influence of a strong El Niño. This followed the wet season of 1981-82 (32.65 inches), making it the wettest two-year period on record in Sacramento. The most recent (with regards to the publication of this book) El Niño outbreak to saturate the Sacramento area was the 1997-98 water year, which received a whopping 32.25 inches of precipitation. Since rainfall records began in 1849-50, only eight other water years have received more.

Sacramento's maximum wind speed of 70 mph occurred on two separate occasions: December 7, 1952, and November 13, 1953. Both wind storms occurred during the passages of Pacific weather fronts and were accompanied by rain. (Both wind speed records are the recorded "fastest mile", or a one-minute observed wind speed taken from a multiple register with a time-record of the passing of each mile of wind. Further explanations of wind velocities are found later in this publication).

The most persistent case of dense fog at the Sacramento Executive Airport was 17 consecutive days, occurring December 12 through December 28, 1985. This long and gloomy period of dense fog broke the record of 13 consecutive days, set in

II. NORMALS

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude: 38 35N
Longitude: 121 30W
Elevation: 84 Ft

The daily values presented in these tables are not simple means of observed daily values. They are interpolated from the much less variable monthly normals by use of the natural spline function.

In leap years use the February 28th values for the 29th and adjust the degree day monthly totals accordingly.

Daily precipitation normals were also computed using the natural spline function and do not exhibit the typical daily random patterns. However, they may be used to compute normal precipitation over time intervals.

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NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude: 38 35N
Longitude: 121 30W
Elevation: 84 Ft

JANUARY

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	52	39	46	19	0	0.11	7.45
2	52	39	46	19	0	0.11	7.56
3	52	39	46	19	0	0.11	7.67
4	52	39	46	19	0	0.11	7.78
5	52	39	46	19	0	0.12	7.90
6	52	39	46	19	0	0.12	8.02
7	53	39	46	19	0	0.12	8.14
8	53	39	46	19	0	0.12	8.26
9	53	39	46	19	0	0.12	8.38
10	53	39	46	19	0	0.12	8.50
11	53	40	46	19	0	0.12	8.62
12	53	40	46	19	0	0.13	8.75
13	53	40	46	19	0	0.13	8.88
14	53	40	46	19	0	0.13	9.01
15	53	40	46	19	0	0.13	9.14
16	54	40	47	18	0	0.13	9.27
17	54	40	47	18	0	0.13	9.40
18	54	40	47	18	0	0.13	9.53
19	54	40	47	18	0	0.13	9.66
20	54	40	47	18	0	0.13	9.79
21	55	40	47	18	0	0.13	9.92
22	55	41	48	17	0	0.13	10.05
23	55	41	48	17	0	0.13	10.18
24	56	41	48	17	0	0.13	10.31
25	56	41	48	17	0	0.13	10.44
26	56	41	49	16	0	0.13	10.57
27	56	41	49	16	0	0.13	10.70
28	57	41	49	16	0	0.13	10.83
29	57	42	49	16	0	0.12	10.95
30	57	42	50	15	0	0.12	11.07
31	58	42	50	15	0	0.12	11.19
TOTAL				555	0	3.85	
AVG	54.1	40.1	47.1				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude: 38 35N
Longitude: 121 30W
Elevation: 84 Ft

FEBRUARY

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	58	42	50	15	0	0.12	11.31
2	58	42	50	15	0	0.12	11.43
3	59	43	51	14	0	0.12	11.55
4	59	43	51	14	0	0.12	11.67
5	60	43	51	14	0	0.11	11.78
6	60	43	51	14	0	0.11	11.89
7	60	43	52	13	0	0.11	12.00
8	60	43	52	13	0	0.11	12.11
9	61	43	52	13	0	0.11	12.22
10	61	44	52	13	0	0.11	12.33
11	61	44	53	12	0	0.11	12.44
12	61	44	53	12	0	0.11	12.55
13	62	44	53	12	0	0.11	12.66
14	62	44	53	12	0	0.11	12.77
15	62	44	53	12	0	0.10	12.87
16	62	44	53	12	0	0.10	12.97
17	63	44	54	11	0	0.10	13.07
18	63	45	54	11	0	0.10	13.17
19	63	45	54	11	0	0.10	13.27
20	63	45	54	11	0	0.10	13.37
21	63	45	54	11	0	0.10	13.47
22	63	45	54	11	0	0.10	13.57
23	64	45	54	11	0	0.10	13.67
24	64	45	54	11	0	0.10	13.77
25	64	45	54	11	0	0.10	13.87
26	64	45	55	10	0	0.10	13.97
27	64	45	55	10	0	0.10	14.07
28	64	45	55	10	0	0.10	14.17
TOTAL				339	0	2.98	
AVG	61.7	44.0	52.9				

In leap years use the February 28 values for February 29.

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude: 38 35N
Longitude: 121 30W
Elevation: 84 Ft

MARCH

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	64	45	55	10	0	0.10	14.27
2	64	45	55	10	0	0.10	14.37
3	64	45	55	10	0	0.10	14.47
4	64	45	55	10	0	0.10	14.57
5	64	45	55	10	0	0.10	14.67
6	65	45	55	10	0	0.10	14.77
7	65	45	55	10	0	0.10	14.87
8	65	46	55	10	0	0.10	14.97
9	65	46	55	10	0	0.10	15.07
10	65	46	55	10	0	0.10	15.17
11	65	46	55	10	0	0.10	15.27
12	65	46	56	9	0	0.10	15.37
13	65	46	56	9	0	0.10	15.47
14	66	46	56	9	0	0.09	15.56
15	66	46	56	9	0	0.09	15.65
16	66	46	56	9	0	0.09	15.74
17	66	46	56	9	0	0.09	15.83
18	66	46	56	9	0	0.09	15.92
19	66	46	56	9	0	0.09	16.01
20	67	46	56	9	0	0.09	16.10
21	67	46	56	9	0	0.09	16.19
22	67	46	57	9	0	0.09	16.28
23	67	46	57	8	0	0.08	16.36
24	67	46	57	8	0	0.08	16.44
25	68	47	57	8	0	0.08	16.52
26	68	47	57	8	0	0.08	16.60
27	68	47	57	8	0	0.08	16.68
28	68	47	57	8	0	0.07	16.75
29	68	47	58	8	0	0.07	16.82
30	68	47	58	8	0	0.07	16.89
31	68	47	58	8	0	0.07	16.96
TOTAL				281	0	2.79	
AVG	66.1	46.0	56.1				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

APRIL

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	69	47	58	7	0	0.07	17.03
2	69	47	58	7	0	0.07	17.10
3	70	47	58	7	0	0.06	17.16
4	70	47	59	7	1	0.06	17.22
5	70	47	59	7	1	0.06	17.28
6	70	48	59	7	1	0.06	17.34
7	71	48	59	7	1	0.05	17.39
8	71	48	59	7	1	0.05	17.44
9	71	48	60	6	1	0.05	17.49
10	71	48	60	6	1	0.05	17.54
11	72	48	60	6	1	0.05	17.59
12	72	48	60	6	1	0.05	17.64
13	72	48	60	6	1	0.04	17.68
14	72	48	60	6	1	0.04	17.72
15	73	49	61	6	2	0.04	17.76
16	73	49	61	6	2	0.04	17.80
17	73	49	61	6	2	0.04	17.84
18	73	49	61	6	2	0.04	17.88
19	74	49	61	6	2	0.03	17.91
20	74	49	62	5	2	0.03	17.94
21	74	49	62	5	2	0.03	17.97
22	74	49	62	5	2	0.03	18.00
23	75	50	62	5	2	0.03	18.03
24	75	50	62	5	2	0.03	18.06
25	75	50	63	4	2	0.03	18.09
26	76	50	63	4	2	0.03	18.12
27	76	50	63	4	2	0.02	18.14
28	76	50	63	4	2	0.02	18.16
29	76	51	64	4	3	0.02	18.18
30	77	51	64	4	3	0.02	18.20
TOTAL				171	45	1.24	
AVG	72.8	48.7	60.8				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

MAY

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	77	51	64	4	3	0.02	18.22
2	77	51	64	4	3	0.02	18.24
3	78	51	64	4	3	0.02	18.26
4	78	51	65	3	3	0.02	18.28
5	78	52	65	3	3	0.02	18.30
6	78	52	65	3	3	0.01	18.31
7	79	52	65	3	3	0.01	18.32
8	79	52	66	3	4	0.01	18.33
9	79	52	66	3	4	0.01	18.34
10	79	52	66	3	4	0.01	18.35
11	80	53	66	3	4	0.01	18.36
12	80	53	67	2	4	0.01	18.37
13	80	53	67	2	4	0.01	18.38
14	80	53	67	2	4	0.01	18.39
15	81	53	67	2	4	0.01	18.40
16	81	53	67	2	4	0.01	18.41
17	81	54	67	2	4	0.01	18.42
18	82	54	68	2	5	0.01	18.43
19	82	54	68	2	5	0.01	18.44
20	82	54	68	2	5	0.01	18.45
21	82	54	68	2	5	0.01	18.46
22	82	54	68	2	5	0.01	18.47
23	83	55	69	1	5	0.01	18.48
24	83	55	69	1	5	0.01	18.49
25	83	55	69	1	5	0.00	18.49
26	83	55	69	1	5	0.00	18.49
27	84	55	70	1	6	0.00	18.49
28	84	55	70	1	6	0.00	18.49
29	84	55	70	1	6	0.00	18.49
30	84	56	70	1	6	0.00	18.49
31	85	56	70	1	6	0.00	18.49
TOTAL				67	136	0.29	
AVG	80.9	53.4	67.2				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

JUNE

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	85	56	70	1	6	0.01	18.50
2	85	56	71	1	7	0.01	18.51
3	85	56	71	1	7	0.01	18.52
4	86	56	71	1	7	0.01	18.53
5	86	57	71	1	7	0.01	18.54
6	86	57	71	1	7	0.01	18.55
7	86	57	71	1	7	0.01	18.56
8	86	57	71	1	7	0.01	18.57
9	86	57	71	1	7	0.01	18.58
10	87	57	72	0	7	0.01	18.59
11	87	58	73	0	8	0.01	18.60
12	87	58	73	0	8	0.01	18.61
13	88	58	73	0	8	0.01	18.61
14	88	58	73	0	8	0.00	18.61
15	88	58	73	0	8	0.00	18.61
16	88	58	73	0	8	0.00	18.61
17	88	58	73	0	8	0.00	18.61
18	89	58	74	0	9	0.00	18.61
19	89	58	74	0	9	0.00	18.61
20	89	59	74	0	9	0.00	18.61
21	89	59	74	0	9	0.00	18.61
22	90	59	74	0	9	0.00	18.61
23	90	59	74	0	9	0.00	18.61
24	90	59	74	0	10	0.00	18.61
25	90	59	75	0	10	0.00	18.61
26	90	59	75	0	10	0.00	18.61
27	91	59	75	0	10	0.00	18.61
28	91	59	75	0	10	0.00	18.61
29	91	59	75	0	10	0.00	18.61
30	91	59	75	0	10	0.00	18.61
TOTAL				9	249	0.12	
AVG	88.1	57.9	73.0				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

JULY

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	92	59	76	0	11	0.01	0.01
2	92	60	76	0	11	0.01	0.02
3	92	60	76	0	11	0.01	0.03
4	92	60	76	0	11	0.01	0.04
5	92	60	76	0	11	0.01	0.05
6	92	60	76	0	11	0.00	0.05
7	93	60	77	0	12	0.00	0.05
8	93	60	77	0	12	0.00	0.05
9	93	60	77	0	12	0.00	0.05
10	93	60	77	0	12	0.00	0.05
11	93	60	77	0	12	0.00	0.05
12	93	60	77	0	12	0.00	0.05
13	93	60	77	0	12	0.00	0.05
14	94	60	77	0	12	0.00	0.05
15	94	60	77	0	12	0.00	0.05
16	94	60	77	0	12	0.00	0.05
17	94	60	77	0	12	0.00	0.05
18	94	60	77	0	12	0.00	0.05
19	94	61	77	0	12	0.00	0.05
20	94	61	77	0	12	0.00	0.05
21	94	61	77	0	12	0.00	0.05
22	94	61	77	0	12	0.00	0.05
23	94	61	78	0	13	0.00	0.05
24	94	61	78	0	13	0.00	0.05
25	94	61	78	0	13	0.00	0.05
26	94	61	77	0	12	0.00	0.05
27	94	61	77	0	12	0.00	0.05
28	94	61	77	0	12	0.00	0.05
29	94	61	77	0	12	0.00	0.05
30	94	61	77	0	12	0.00	0.05
31	94	61	77	0	12	0.00	0.05
TOTAL				0	369	0.05	
AVG	93.4	60.4	76.9				

NORMALS
 DOWNTOWN SACRAMENTO
 1961 to 1990

Latitude:38 35N
 Longitude:121 30W
 Elevation:84 Ft

AUGUST

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	94	61	77	0	12	0.00	0.05
2	94	61	77	0	12	0.00	0.05
3	93	61	77	0	12	0.00	0.05
4	93	61	77	0	12	0.00	0.05
5	93	61	77	0	12	0.00	0.05
6	93	61	77	0	12	0.00	0.05
7	93	61	77	0	12	0.00	0.05
8	93	61	77	0	12	0.00	0.05
9	93	61	77	0	12	0.00	0.05
10	93	60	77	0	12	0.00	0.05
11	93	60	77	0	12	0.00	0.05
12	93	60	77	0	12	0.00	0.05
13	92	60	76	0	11	0.00	0.05
14	92	60	76	0	11	0.00	0.05
15	92	60	76	0	11	0.00	0.05
16	92	60	76	0	11	0.00	0.05
17	92	60	76	0	11	0.00	0.05
18	92	60	76	0	11	0.00	0.05
19	92	60	76	0	11	0.00	0.05
20	92	60	76	0	11	0.00	0.05
21	92	60	76	0	11	0.00	0.05
22	91	60	76	0	11	0.00	0.05
23	91	60	76	0	11	0.00	0.05
24	91	60	76	0	11	0.00	0.05
25	91	60	76	0	11	0.01	0.06
26	91	60	75	0	10	0.01	0.07
27	91	60	75	0	10	0.01	0.08
28	91	60	75	0	10	0.01	0.09
29	91	60	75	0	10	0.01	0.10
30	91	60	75	0	10	0.01	0.11
31	90	60	75	0	10	0.01	0.12
TOTAL				0	347	0.07	
AVG	92.1	60.3	76.2				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

SEPTEMBER

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	90	60	75	0	10	0.01	0.13
2	90	60	75	0	10	0.01	0.14
3	90	60	75	0	10	0.01	0.15
4	90	59	75	0	10	0.01	0.16
5	90	59	75	0	10	0.01	0.17
6	90	59	74	0	9	0.01	0.18
7	89	59	74	0	9	0.01	0.19
8	89	59	74	0	9	0.01	0.20
9	89	59	74	0	9	0.01	0.21
10	89	59	74	0	9	0.01	0.22
11	89	59	74	0	9	0.01	0.23
12	89	59	74	0	9	0.01	0.24
13	88	59	74	0	9	0.01	0.25
14	88	59	73	0	8	0.01	0.26
15	88	59	73	0	8	0.01	0.27
16	88	58	73	0	8	0.01	0.28
17	88	58	73	0	8	0.01	0.29
18	87	58	73	0	8	0.01	0.30
19	87	58	73	0	8	0.01	0.31
20	87	58	73	0	8	0.01	0.32
21	87	58	72	1	8	0.01	0.33
22	86	58	72	1	8	0.01	0.34
23	86	57	72	1	8	0.01	0.35
24	86	57	72	1	8	0.02	0.37
25	86	57	71	1	7	0.02	0.39
26	86	57	71	1	7	0.02	0.41
27	85	57	71	1	7	0.02	0.43
28	85	57	71	1	7	0.02	0.45
29	84	57	70	1	6	0.02	0.47
30	84	56	70	1	6	0.02	0.49
TOTAL				10	250	0.37	
AVG	87.7	58.3	73.0				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

OCTOBER

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	84	56	70	1	6	0.02	0.51
2	84	56	70	1	6	0.02	0.53
3	84	56	70	1	6	0.02	0.55
4	83	56	69	1	5	0.02	0.57
5	83	55	69	1	5	0.02	0.59
6	83	55	69	1	5	0.02	0.61
7	82	55	69	1	5	0.02	0.63
8	82	55	68	1	4	0.02	0.65
9	82	55	68	1	4	0.02	0.67
10	81	54	68	1	4	0.02	0.69
11	81	54	68	1	4	0.02	0.71
12	80	54	67	1	3	0.02	0.73
13	80	54	67	1	3	0.03	0.76
14	80	54	67	1	3	0.03	0.79
15	79	53	66	2	3	0.03	0.82
16	79	53	66	2	3	0.03	0.85
17	78	53	66	2	3	0.03	0.88
18	78	53	65	2	2	0.04	0.92
19	78	53	65	2	2	0.04	0.96
20	77	52	64	3	2	0.04	1.00
21	77	52	64	3	2	0.04	1.04
22	76	52	64	3	2	0.04	1.08
23	76	52	64	3	2	0.05	1.13
24	75	51	63	4	2	0.05	1.18
25	75	51	63	4	2	0.05	1.23
26	74	51	63	4	2	0.06	1.29
27	74	51	62	4	1	0.06	1.35
28	73	50	62	4	1	0.06	1.41
29	72	50	61	5	1	0.06	1.47
30	72	50	61	5	1	0.07	1.54
31	71	50	61	5	1	0.07	1.61
TOTAL				71	95	1.12	
AVG	78.5	53.1	65.8				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

NOVEMBER

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	71	49	60	5	0	0.07	1.68
2	70	49	60	5	0	0.08	1.76
3	70	49	59	6	0	0.08	1.84
4	69	49	59	6	0	0.08	1.92
5	69	48	59	6	0	0.09	2.01
6	68	48	58	7	0	0.09	2.10
7	68	48	58	7	0	0.09	2.19
8	67	48	57	8	0	0.09	2.28
9	66	48	57	8	0	0.10	2.38
10	66	47	57	8	0	0.10	2.48
11	65	47	56	9	0	0.10	2.58
12	65	47	56	9	0	0.10	2.68
13	65	47	56	9	0	0.10	2.78
14	64	46	55	10	0	0.10	2.88
15	64	46	55	10	0	0.11	2.99
16	63	46	55	10	0	0.11	3.10
17	63	46	54	11	0	0.11	3.21
18	62	45	54	11	0	0.11	3.32
19	62	45	54	11	0	0.11	3.43
20	61	45	53	12	0	0.11	3.54
21	61	45	53	12	0	0.11	3.65
22	61	44	53	12	0	0.11	3.76
23	60	44	52	13	0	0.11	3.87
24	60	44	52	13	0	0.11	3.98
25	59	44	52	13	0	0.10	4.08
26	59	44	51	14	0	0.10	4.18
27	59	43	51	14	0	0.10	4.28
28	58	43	51	14	0	0.10	4.38
29	58	43	50	15	0	0.10	4.48
30	58	43	50	15	0	0.10	4.58
TOTAL				303	0	2.97	
AVG	63.7	46.0	54.9				

NORMALS
DOWNTOWN SACRAMENTO
1961 to 1990

Latitude:38 35N
Longitude:121 30W
Elevation:84 Ft

DECEMBER

DATE	TEMPERATURE			DEGREE DAYS		PRECIPITATION	
	MAX	MIN	AVG	HDD	CDD	DAILY	SEASON
1	58	42	50	15	0	0.10	4.68
2	57	42	50	15	0	0.09	4.77
3	57	42	49	16	0	0.09	4.86
4	56	42	49	16	0	0.09	4.95
5	56	42	49	16	0	0.09	5.04
6	56	41	49	16	0	0.09	5.13
7	56	41	48	17	0	0.09	5.22
8	55	41	48	17	0	0.09	5.31
9	55	41	48	17	0	0.09	5.40
10	55	41	48	17	0	0.08	5.48
11	54	41	47	18	0	0.08	5.56
12	54	40	47	18	0	0.08	5.64
13	54	40	47	18	0	0.08	5.72
14	54	40	47	18	0	0.08	5.80
15	54	40	47	18	0	0.08	5.88
16	54	40	47	18	0	0.08	5.96
17	53	40	46	19	0	0.08	6.04
18	53	40	46	19	0	0.08	6.12
19	53	40	46	19	0	0.09	6.21
20	53	40	46	19	0	0.09	6.30
21	53	40	46	19	0	0.09	6.39
22	53	39	46	19	0	0.09	6.48
23	53	39	46	19	0	0.09	6.57
24	53	39	46	19	0	0.09	6.66
25	53	39	46	19	0	0.09	6.75
26	52	39	46	19	0	0.09	6.84
27	52	39	46	19	0	0.10	6.94
28	52	39	46	19	0	0.10	7.04
29	52	39	46	19	0	0.10	7.14
30	52	39	46	19	0	0.10	7.24
31	52	39	46	19	0	0.10	7.34
TOTAL				555	0	2.76	
AVG	54.0	40.2	47.1				

III. DAILY RECORDS

SACRAMENTO CLIMATE

MONTH: JANUARY

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grstst	Grstst		
	Max	Max	Max	Low		Min	Min	Min			High	High
	Max	Max	Year	Max	Year	Min	Min	Year	Min	Year	Pcpn	Year
Jan 01	52	65	1887	38	1920	39	24	1919	60	1997	1.90	1883
Jan 02	52	65	1940	36	1961**	39	25	1961	56	1997	1.79	1940
Jan 03	52	63	1913	37	1961**	39	26	1950	53	1900	2.60	1916
Jan 04	52	63	1994**	37	1961**	39	25	1949	53	1948	3.10	1982
Jan 05	52	67	1948	33	1961**	39	26	1949	55	1986	1.68	1978
Jan 06	52	71	1911	35	1961	39	24	1950	53	1948	1.14	1993
Jan 07	53	65	1943	36	1968	39	24	1937	54	1948	1.02	1940
Jan 08	53	66	1990**	37	1968	39	22	1937	57	1953	1.08	1995
Jan 09	53	70	1990	37	1926**	39	22	1937	58	1953	2.83	1995
Jan 10	53	66	1996**	35	1926	39	25	1949	57	1959	1.72	1995
Jan 11	53	67	1959**	35	1929**	40	22	1949	54	1959	1.44	1952
Jan 12	53	69	1980	36	1929**	40	28	1949	56	1980	2.53	1990
Jan 13	53	64	1981**	35	1926	40	27	1963**	59	1980	2.53	1993
Jan 14	53	65	1980	35	1929	40	19	1888	56	1909	1.69	1911
Jan 15	53	67	1981**	37	1903**	40	19	1888	55	1909	2.25	1894
Jan 16	54	68	1991	39	1888	40	24	1888**	56	1909	1.53	1973
Jan 17	54	69	1986	40	1982	40	22	1888	54	1986**	1.90	1921
Jan 18	54	70	1976	40	1922	40	25	1888	56	1896	1.22	1973
Jan 19	54	71	1991	41	1961	40	27	1922**	53	1953	1.46	1969
Jan 20	54	69	1976	36	1937	40	22	1883	55	1969	2.10	1964
Jan 21	55	70	1976	34	1962	40	22	1937	57	1970	3.14	1943
Jan 22	55	66	1991**	40	1992**	41	24	1937	59	1970	2.13	1997
Jan 23	55	69	1948	39	1992	41	27	1937	54	1970	2.50	1886
Jan 24	56	70	1984**	39	1893	41	28	1949	54	1903	1.76	1942
Jan 25	56	70	1934	40	1893	41	24	1937	53	1886	1.34	1890
Jan 26	56	70	1899	40	1963	41	28	1949	54	1942**	1.35	1997
Jan 27	56	68	1988**	40	1963	41	27	1957	53	1997	1.78	1896
Jan 28	57	70	1984	43	1977**	41	29	1898**	53	1997**	1.32	1926
Jan 29	57	70	1976	40	1922	42	25	1880	56	1967	2.66	1881
Jan 30	57	73	1976	40	1922	42	28	1957	56	1967	1.70	1963
Jan 31	58	74	1976	44	1978**	42	30	1950**	55	1963	1.42	1938

MONTHLY SUMMARY

Max Extreme	74	Jan 31	1976	Min Extreme	19	Jan 15	1888*
Low Max	33	Jan 05	1961**	High Min	60	Jan 01	1997
Average Max	54.1			Average Min	40.1		Average Temp 47.1
Max Pcpn	3.14	Jan 21	1943				

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: FEBRUARY

	Normal	Record	Record	Record	Normal	Record	Record	Record	Record	Record	Grtst	Grtst	
	Max	Max	Max	Low		Low	Min	High					High
			Year	Max	Year	Min	Min	Year	Min	Year			Year
Feb 01	58	74	1976	42	1932	42	28	1950	58	1963	2.74		1945
Feb 02	58	76	1976	42	1883	42	26	1950	56	1963	2.4		1944
Feb 03	59	71	1992	40	1883	43	22	1883	56	1963**	1.72		1881
Feb 04	59	72	1984	42	1899	43	23	1883	57	1996	2.32		1937
Feb 05	60	70	1996	42	1989**	43	24	1989	58	1996	1.8		1901
Feb 06	60	73	1996**	43	1949	43	24	1989	55	1963	1.3		1998
Feb 07	60	70	1987	44	1929**	43	23	1989	54	1960**	1.15		1958
Feb 08	60	70	1988	43	1901	43	23	1989	55	1975	1.17		1985
Feb 09	61	70	1988	43	1989	43	28	1891**	53	1992**	2.19		1962
Feb 10	61	74	1988	44	1939	44	29	1933**	55	1996**	1.96		1919
Feb 11	61	75	1988	44	1894**	44	30	1884	54	1970	2.34		1936
Feb 12	61	74	1996**	45	1884	44	25	1884	56	1879	2.48		1904
Feb 13	62	74	1971	46	1884	44	21	1884	54	1996**	1.61		1926
Feb 14	62	76	1930	44	1911	44	27	1884	56	1986**	1.34		1992
Feb 15	62	76	1977	42	1884	44	30	1990	57	1982	1.86		1891
Feb 16	62	76	1977	47	1990	44	30	1883	55	1982**	1.94		1990
Feb 17	63	76	1977	45	1990**	44	30	1880	57	1996	3.21		1986
Feb 18	63	80	1899	46	1890**	45	31	1990**	56	1980	1.91		1958
Feb 19	63	77	1964**	44	1897	45	31	1882	54	1968	2.16		1894
Feb 20	63	75	1995	46	1909**	45	31	1953**	56	1968	1.21		1914
Feb 21	63	75	1995**	42	1913	45	31	1955	56	1968	1.26		1917
Feb 22	63	78	1985	48	1951**	45	33	1920	56	1904	1.04		1891
Feb 23	64	79	1991	48	1890	45	32	1890	58	1968	1.26		1891
Feb 24	64	77	1991	48	1930**	45	35	1960**	55	1957	1.82		1917
Feb 25	64	77	1992**	49	1887	45	30	1887	55	1957**	0.9		1902
Feb 26	64	77	1992	44	1962	45	30	1962	55	1957	1.46		1940
Feb 27	64	80	1985	44	1911	45	30	1962	54	1980**	2.19		1940
Feb 28	64	79	1985	49	1951**	45	33	1955**	55	1976	1.41		1935
Feb 29	64	73	1924	54	1920**	45	36	1888	53	1992	0.61		1976

MONTHLY SUMMARY

Max Extreme	80	Feb 27	1985*	Min Extreme	21	Feb 13	1884
Low Max	40	Feb 03	1883	High Min	58	Feb 23	1968*
Average Max	61.8			Average Min	44		
Max Pcpn	3.21	Feb 17	1986	Average Temp	52.9		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: MARCH

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Grtst	Pcpn	Pcpn
	Max	Max	Max	Low		Min	Min	Min				
Mar 01	64	76	1936	49	1911	45	32	1971	55	1986**	1.33	1911
Mar 02	64	79	1994	45	1976	45	32	1953	54	1983	1.91	1995
Mar 03	64	80	1929	47	1894	45	31	1951	55	1905**	0.95	1906
Mar 04	64	78	1986**	46	1951	45	33	1939**	55	1884	1.26	1978
Mar 05	64	82	1986	49	1908	45	33	1880	56	1884	1.97	1879
Mar 06	65	80	1953	47	1952**	45	32	1918	56	1892	1.80	1952
Mar 07	65	81	1953	48	1918	45	32	1964	58	1986	0.74	1986
Mar 08	65	80	1953	50	1939**	46	34	1985	57	1989	1.37	1939
Mar 09	65	78	1892	49	1939	46	34	1882	58	1983	2.62	1884
Mar 10	65	81	1997	48	1922	46	34	1951	58	1983	1.44	1918
Mar 11	65	81	1934	47	1922	46	34	1922	56	1916	1.18	1893
Mar 12	65	80	1934	47	1969	46	31	1950	56	1972	1.30	1983
Mar 13	65	81	1994	50	1919	46	33	1954	56	1900	2.38	1889
Mar 14	66	81	1994**	46	1942	46	32	1942	56	1970	1.47	1942
Mar 15	66	82	1972	49	1906	46	29	1880	56	1878	2.20	1899
Mar 16	66	86	1972	48	1945	46	31	1898	60	1914	1.15	1907
Mar 17	66	84	1996**	49	1886	46	35	1955	60	1914	0.75	1991
Mar 18	66	82	1914	52	1954**	46	34	1945**	55	1914	1.74	1907
Mar 19	66	80	1996**	50	1937	46	35	1898	60	1914	0.76	1954
Mar 20	67	84	1960	50	1946**	46	33	1952	56	1984	0.97	1910
Mar 21	67	82	1990**	48	1973	46	35	1952	59	1997	2.52	1937
Mar 22	67	82	1915**	46	1964	46	34	1987	56	1978	1.09	1995
Mar 23	67	80	1997**	47	1913	46	30	1898	56	1896	1.55	1906
Mar 24	67	83	1997	50	1991**	46	34	1945**	60	1896	1.06	1991
Mar 25	68	86	1997	48	1907	47	34	1936	60	1896	0.98	1884
Mar 26	68	90	1988	48	1991	47	32	1898	57	1997*	1.61	1883
Mar 27	68	85	1923	52	1884	47	32	1898	59	1882	1.33	1963
Mar 28	68	84	1986	53	1905**	47	37	1892	57	1986**	1.28	1904
Mar 29	68	83	1968	51	1914**	47	36	1897	59	1918	0.96	1940
Mar 30	69	86	1966	51	1925**	47	34	1938	59	1881	2.27	1906
Mar 31	69	90	1966	50	1982	47	37	1936	57	1885	1.83	1982

MONTHLY SUMMARY

Max Extreme	90	Mar 31	1966*	Min Extreme	29	Mar 15	1880
Low Max	45	Mar 02	1976	High Min	60	Mar 25	1896*
Average Max	66.1			Average Min	46		
Max Pcpn	2.62	Mar 09	1884	Average Temp	56.1		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: APRIL

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Grtst		
	Max	Max	Max	Low		Min	Min	Min			High	High
			Year	Max	Year	Min	Min	Year	Min	Year	Year	Year
Apr 01	69	90	1966	52	1982	47	36	1936	56	1966	1.25	1958
Apr 02	69	88	1985**	52	1958	47	37	1955	56	1966**	2.23	1958
Apr 03	70	89	1966	53	1928**	47	36	1955	58	1961	1.55	1936
Apr 04	70	86	1960	52	1938**	47	35	1901	60	1961	1.86	1941
Apr 05	70	88	1985	50	1929	47	36	1929	57	1934	1.34	1926
Apr 06	70	91	1989	55	1929**	48	34	1929	57	1939	0.96	1896
Apr 07	71	91	1989	54	1893	48	36	1929	60	1878	3.35	1935
Apr 08	71	91	1989	54	1965	48	34	1953	63	1878	1.02	1926
Apr 09	71	95	1989	52	1965	48	34	1929	60	1989**	1.37	1884
Apr 10	71	93	1988	52	1912	48	34	1927	60	1885	1.88	1982
Apr 11	72	95	1988	51	1956	48	37	1953	62	1904	0.60	1886
Apr 12	72	89	1990**	50	1922	48	36	1912	58	1932**	0.82	1992
Apr 13	72	95	1990	50	1956	48	37	1945	60	1897	0.76	1942
Apr 14	72	94	1985	52	1920	48	36	1921	59	1897	1.20	1963
Apr 15	73	92	1987	51	1880	48	36	1896	61	1925	1.84	1880
Apr 16	73	92	1987	55	1880	49	36	1917	62	1897	0.30	1957
Apr 17	73	90	1954	55	1955**	49	36	1933**	58	1997**	0.73	1881
Apr 18	73	91	1939	54	1967	49	38	1933	62	1907	0.90	1890
Apr 19	74	91	1939	53	1988**	49	39	1933	64	1907	1.00	1988
Apr 20	74	92	1931	49	1963	49	38	1904	60	1907	5.28	1880
Apr 21	74	96	1931	54	1967	49	36	1963**	62	1931**	3.09	1880
Apr 22	74	92	1984	54	1980	49	39	1920	60	1895	0.52	1990
Apr 23	75	92	1946	54	1924	50	39	1920	62	1910	0.60	1896
Apr 24	75	94	1946	57	1951**	50	38	1964	59	1996**	1.90	1896
Apr 25	75	92	1987	54	1952	50	40	1891**	61	1966**	0.61	1952
Apr 26	76	94	1987	54	1911	50	39	1892	63	1926	0.62	1960
Apr 27	76	96	1987	56	1904**	50	38	1955	62	1965**	1.54	1953
Apr 28	76	94	1992**	56	1948**	50	40	1970**	61	1992	1.24	1983
Apr 29	76	96	1981	53	1948	51	39	1948	63	1981	1.52	1901
Apr 30	77	97	1996	54	1938	51	39	1933	62	1981	0.57	1995

MONTHLY SUMMARY

Max Extreme	97	Apr 30	1996	Min Extreme	34	Apr 10	1927*
Low Max	49	Apr 20	1963	High Min	64	Apr 19	1907
Average Max	72.8			Average Min	48.7		
Max Pcpn	5.28	Apr 20	1880	Average Temp	60.8		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: MAY

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Grtst	Pcpn	Pcpn
	Max	Max	Max	Low		Min	Min	High				
			Year	Max	Low Max	Min	Min	Year	Min	Year		Year
May 01	77	97	1996	56	1915	51	39	1920	66	1996	0.59	1905
May 02	77	96	1992	56	1950	51	40	1964	66	1996	0.56	1971
May 03	78	97	1992	55	1892	51	37	1950	64	1990	0.76	1956
May 04	78	100	1990	56	1892	51	42	1952**	65	1989	0.85	1883
May 05	78	100	1987	57	1964	52	42	1988	67	1878	1.94	1889
May 06	78	104	1987	57	1994	52	39	1933	67	1987	1.24	1994
May 07	79	105	1987	54	1905	52	37	1916	68	1987	1.31	1905
May 08	79	96	1984	55	1963	52	40	1933	70	1987	0.78	1893
May 09	79	96	1987	57	1922	52	39	1896	67	1987	0.41	1980
May 10	79	100	1987	58	1887	52	41	1933	67	1897	0.48	1942
May 11	80	102	1987	58	1880	53	40	1930	68	1897	1.00	1915
May 12	80	102	1987	55	1880	53	39	1880	66	1976**	0.62	1925
May 13	80	102	1976	58	1968	53	40	1882	70	1987	0.95	1941
May 14	80	103	1987	58	1894	53	41	1899	67	1987	0.39	1953
May 15	81	99	1927	58	1911	53	40	1906	68	1910	1.67	1996
May 16	81	102	1970	61	1898**	53	40	1894	69	1970	0.38	1996
May 17	81	101	1997	60	1911	54	43	1883	70	1997	0.43	1879
May 18	82	104	1997	58	1991	54	42	1917	71	1997	0.82	1957
May 19	82	98	1947	60	1948	54	41	1896	66	1920	0.46	1948
May 20	82	102	1947	56	1957**	54	44	1901**	67	1931	0.62	1921
May 21	82	100	1988	61	1933	54	45	1960**	69	1892	0.45	1939
May 22	82	100	1967	60	1977	54	42	1960	70	1943	0.65	1958
May 23	83	98	1936	57	1960	55	45	1916	69	1943	0.37	1960
May 24	83	98	1982**	58	1916	55	43	1953	72	1890	0.62	1993
May 25	83	100	1951	58	1917	55	43	1899	68	1883	0.77	1906
May 26	83	102	1974	63	1906	55	42	1918	69	1951**	0.30	1901
May 27	84	104	1984	56	1906	55	45	1927	67	1984	1.56	1990
May 28	84	107	1984	57	1998	55	44	1927	72	1887	1.27	1998
May 29	84	101	1973	63	1911	55	44	1985	71	1973	0.26	1948
May 30	84	103	1910	61	1932	56	44	1898	68	1969	1.67	1948
May 31	85	100	1910	58	1899	56	45	1923	67	1910**	0.44	1899

MONTHLY SUMMARY

Max Extreme	107	May 28	1984	Min Extreme	37	May 07	1916*
Low Max	54	May 07	1905	High Min	72	May 28	1887*
Average Max	80.9			Average Min	53.4		
Max Pcpn	1.94	May 05	1889	Average Temp	67.2		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: JUNE

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Pcpn		
	Max	Max	Max	Low		Min	Min	Min			High	High
			Year	Max	Year	Min	Year	Min	Year	Year	Year	
Jun 01	85	104	1970	62	1967**	56	43	1929	69	1960	0.45	1899
Jun 02	85	106	1960	59	1967	56	45	1933**	71	1960	0.15	1967
Jun 03	85	107	1960	64	1936	56	46	1944**	71	1893	0.38	1894
Jun 04	86	103	1935**	66	1984**	56	46	1939	70	1981**	0.81	1993
Jun 05	86	108	1926	60	1967	57	47	1988**	71	1883	0.23	1934
Jun 06	86	105	1978	57	1914	57	46	1988	73	1974	0.44	1953
Jun 07	86	102	1883	64	1927	57	44	1950	73	1903	0.57	1927
Jun 08	86	103	1973	57	1964	57	46	1892	71	1973	0.34	1964
Jun 09	86	102	1986**	59	1964	57	46	1892	74	1883	0.34	1929
Jun 10	87	105	1918	67	1955	57	46	1917	72	1921	0.13	1879
Jun 11	87	107	1985**	64	1907	58	48	1901	72	1985	0.32	1907
Jun 12	87	105	1985	62	1884	58	44	1952	68	1960	0.80	1884
Jun 13	88	107	1985	60	1907	58	48	1952**	67	1966	0.53	1907
Jun 14	88	109	1961	65	1944	58	47	1907	75	1966	0.11	1995
Jun 15	88	111	1961	62	1944	58	47	1944	71	1961	0.60	1929
Jun 16	88	108	1985	68	1929**	58	47	1919	73	1985	0.25	1995
Jun 17	88	102	1976	66	1909	58	48	1910	68	1922	0.03	1909
Jun 18	89	105	1945**	68	1909	58	48	1910**	70	1981**	T	1949
Jun 19	89	106	1988	65	1930	58	50	1910**	76	1917	0.66	1974
Jun 20	89	108	1920	63	1908	59	46	1910	74	1981	0.04	1897
Jun 21	89	108	1961	68	1907	59	46	1908	74	1981	0.02	1943
Jun 22	90	107	1981	65	1923	59	48	1943	74	1981	0.09	1923
Jun 23	90	106	1988	59	1912	59	50	1930	78	1909	0.44	1912
Jun 24	90	110	1925	64	1899	59	49	1918	74	1976	0.23	1914
Jun 25	90	111	1925	68	1906	59	48	1901	74	1995**	0.03	1988
Jun 26	90	106	1973**	61	1906	59	48	1930	74	1995	0.05	1971
Jun 27	91	108	1976	65	1889	59	49	1906	73	1973	0.25	1889
Jun 28	91	108	1976	65	1991	59	47	1916	74	1891	0.56	1991
Jun 29	91	107	1950	74	1952**	59	50	1949	75	1891	0.19	1992**
Jun 30	91	112	1934	71	1982	59	49	1881	74	1891	0.01	1916

MONTHLY SUMMARY

Max Extreme	112	Jun 30	1934	Min Extreme	43	Jun 01	1929
Low Max	57	Jun 08	1964*	High Min	78	Jun 23	1909
Average Max	88.1			Average Min	57.9		
Max Pcpn	0.81	Jun 04	1993	Average Temp	73		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: JULY

	Normal	Record	Record	Record		Normal	Record	Record	Record		Grkst	Grkst
	Max	Max	Max	Low Max		Min	Min	Min	High		High Min	Pcpn
			Year	Max	Year	Min	Min	Year	Min	Year		Year
Jul 01	92	108	1950	71	1916	59	50	1919	74	1996	0.07	1916
Jul 02	92	109	1991	68	1938	60	50	1919	73	1991	0.28	1980
Jul 03	92	111	1991	65	1910	60	47	1901	74	1970	T	1882
Jul 04	92	110	1991	68	1948**	60	50	1919**	75	1931	0.01	1925
Jul 05	92	107	1931	71	1915	60	50	1919	72	1931	0.04	1895
Jul 06	92	105	1989	76	1935	60	50	1899	71	1957	T	1936
Jul 07	93	110	1989	73	1891	60	51	1899	74	1905	0.03	1974
Jul 08	93	110	1905	68	1974	60	51	1930**	74	1905**	0.86	1974
Jul 09	93	108	1985	73	1904	60	51	1888	72	1896	0.01	1974
Jul 10	93	107	1988**	72	1892**	60	50	1932**	72	1896	T	1952
Jul 11	93	110	1961	75	1914**	60	50	1898	76	1913	T	1908
Jul 12	93	111	1990	71	1956	60	49	1899	74	1990	T	1961
Jul 13	93	112	1972	71	1920	60	50	1903	75	1990	T	1942
Jul 14	94	113	1972	75	1907	60	50	1918	77	1972	T	1935
Jul 15	94	109	1926	74	1975	60	51	1903**	74	1984**	0.02	1975
Jul 16	94	108	1935	74	1923	60	51	1903**	73	1886	T	1917
Jul 17	94	114	1925	75	1987	60	48	1887	75	1988	0.01	1995
Jul 18	94	112	1988	69	1932	60	50	1921	72	1988**	T	1922
Jul 19	94	110	1998	72	1907	61	49	1887	74	1998	0.00	
Jul 20	94	107	1933	74	1985**	61	50	1887	75	1917	T	1943
Jul 21	94	106	1996**	74	1987**	61	50	1887	73	1936	0.22	1979
Jul 22	94	105	1941**	75	1913	61	52	1903**	71	1939	T	1959
Jul 23	94	107	1942	77	1903	61	50	1889	70	1956**	T	1959
Jul 24	94	108	1985**	78	1977	61	52	1922	73	1974	T	1937
Jul 25	94	109	1975	74	1913	61	52	1919	77	1974	0.01	1988
Jul 26	94	110	1933	74	1941	61	51	1905	72	1973	T	1950
Jul 27	94	108	1980**	74	1941	61	50	1899	72	1933	T	1896
Jul 28	94	107	1954	70	1919	61	50	1930	74	1967	0.01	1964
Jul 29	94	106	1996	75	1985	61	51	1887	73	1996	0.00	
Jul 30	94	109	1977	68	1966	61	50	1919	70	1996**	0.07	1966**
Jul 31	94	109	1996	74	1933**	61	51	1919	74	1980	T	1949

MONTHLY SUMMARY

Max Extreme	114	Jul 17	1925	Min Extreme	47	Jul 03	1901
Low Max	65	Jul 03	1910	High Min	77	Jul 25	1974*
Average Max	93.4			Average Min	60.4		
Max Pcpn	0.86	Jul 08	1974	Average Temp	76.9		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: AUGUST

	Normal	Record	Record	Record	Normal	Record	Record	Record	Record	Record	Grtst	Grtst
	Max	Max	Max	Low		Min	Min	Min				
			Year	Max	Year	Min	Min	Year	Min	Year	Pcpn	Year
Aug 01	94	109	1993	76	1933	61	50	1887	74	1977**	T	1918
Aug 02	94	108	1987	69	1953	61	50	1887	76	1993	T	1917
Aug 03	93	107	1998**	73	1953**	61	51	1919	73	1998	T	1899
Aug 04	93	111	1998	70	1950	61	50	1897	77	1998	0.02	1899
Aug 05	93	109	1990	78	1962**	61	50	1950	75	1998	0.01	1974
Aug 06	93	108	1978	77	1906**	61	50	1891	76	1961	T	1961
Aug 07	93	109	1997	75	1907	61	50	1931	76	1983	0.25	1989
Aug 08	93	110	1990	74	1916	61	50	1919**	71	1990**	0.13	1962
Aug 09	93	109	1996**	72	1949	61	50	1931	75	1990	T	1963
Aug 10	93	110	1996	75	1916	60	50	1919	72	1996	0.01	1965
Aug 11	93	110	1996**	72	1965	60	49	1910	75	1996	0.58	1965
Aug 12	93	107	1996	73	1988	60	50	1910**	75	1996	T	1923
Aug 13	92	111	1933	73	1968**	60	48	1921	75	1996	0.00	
Aug 14	92	107	1920	70	1976	60	49	1887	73	1933**	0.15	1976
Aug 15	92	108	1920	72	1918	60	51	1955	74	1983**	0.28	1976
Aug 16	92	107	1992	75	1918	60	50	1955	73	1983	0.02	1958
Aug 17	92	106	1967**	71	1899	60	51	1917	74	1966	0.10	1976
Aug 18	92	107	1950	68	1975	60	51	1985	70	1883	0.11	1975
Aug 19	92	108	1950	73	1968	60	51	1890	69	1950	0.08	1968
Aug 20	92	106	1950	72	1959	60	48	1914	69	1950	0.20	1997
Aug 21	92	102	1982**	72	1922	60	49	1910	68	1969	0.05	1975
Aug 22	91	106	1891	72	1901**	60	50	1901	67	1982	0.01	1976
Aug 23	91	109	1913	74	1963**	60	50	1908**	74	1891	0.01	1904
Aug 24	91	108	1931**	76	1990**	60	50	1887	73	1913	0.06	1904
Aug 25	91	105	1988	68	1920	60	52	1887	69	1931	0.27	1954
Aug 26	91	106	1988**	73	1975	60	50	1929**	74	1988**	0.08	1954
Aug 27	91	108	1894	71	1881	60	51	1952**	73	1894	0.01	1949
Aug 28	91	105	1915	67	1895	60	50	1910	74	1913	T	1949
Aug 29	91	108	1987	69	1895	60	49	1880	71	1977	0.67	1953
Aug 30	91	110	1987	70	1914	60	48	1887	70	1988	0.20	1896
Aug 31	90	108	1976	66	1964	60	51	1914**	68	1972	0.06	1964

MONTHLY SUMMARY

Max Extreme	111	Aug 13	1933**	Min Extreme	48	Aug 30	1887**
Low Max	66	Aug 31	1964	High Min	77	Aug 04	1998
Average Max	92.1			Average Min	60.3		
Max Pcpn	0.67	Aug 29	1953	Average Temp	76.2		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: SEPTEMBER

	Normal	Record	Record	Record	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Pcpn
	Max	Max	Max	Low		Min	Min	Min		High	High	High		
Sep 01	90	109	1950	69	1898	60	48	1899	67	1976			T	1941
Sep 02	90	109	1955	70	1913	60	49	1898	72	1950	0.15			1912
Sep 03	90	108	1955	68	1912	60	50	1895	71	1950	0.16			1897
Sep 04	90	108	1988	67	1900	59	47	1914	72	1950			T	1900
Sep 05	90	108	1988	70	1912	59	50	1920**	72	1988	0.18			1912
Sep 06	90	105	1923	62	1912	59	49	1900**	72	1923	0.89			1912
Sep 07	89	107	1923	67	1920	59	50	1935**	72	1969	0.39			1919
Sep 08	89	107	1944	64	1920	59	47	1914	73	1944	0.10			1884
Sep 09	89	108	1944	64	1978	59	45	1898	73	1944	0.26			1985
Sep 10	89	105	1888	67	1952	59	46	1985	67	1953**	0.27			1895
Sep 11	89	106	1888	70	1893	59	49	1911	70	1888	0.49			1976
Sep 12	89	104	1983	64	1895	59	44	1893	69	1953	3.13			1918
Sep 13	88	104	1971	67	1939	59	45	1910	70	1983**	0.29			1918
Sep 14	88	104	1979	68	1931	59	46	1939	71	1953	0.44			1955
Sep 15	88	104	1979**	69	1977	59	47	1939	69	1922	0.43			1888
Sep 16	88	105	1979	60	1977	58	48	1960	69	1922**	1.75			1989
Sep 17	88	106	1984	63	1921	58	48	1892**	71	1923	0.62			1950
Sep 18	87	104	1984	65	1989	58	44	1882	77	1984	1.46			1959
Sep 19	87	101	1936	62	1896	58	46	1947**	72	1939	0.80			1956
Sep 20	87	101	1994**	68	1945**	58	48	1986**	72	1939	0.06			1896
Sep 21	87	103	1987	66	1901	58	48	1960	73	1939	0.15			1916
Sep 22	86	102	1949	60	1917	58	46	1895	74	1939	0.50			1917
Sep 23	86	102	1939	61	1901	57	46	1945	70	1939	1.74			1904
Sep 24	86	102	1936	66	1986**	57	45	1920	66	1982**	0.61			1904
Sep 25	86	100	1952	62	1909	57	44	1934	66	1991**	1.15			1904
Sep 26	86	103	1963	64	1986	57	46	1923	70	1952	0.41			1972
Sep 27	85	102	1963	64	1965	57	46	1986	67	1963	0.62			1957
Sep 28	85	100	1966	63	1919	57	46	1986**	67	1966	0.37			1989
Sep 29	84	103	1966**	62	1919**	57	48	1955**	68	1966	0.80			1890
Sep 30	84	102	1991	58	1930**	56	46	1894	66	1988	0.74			1883

MONTHLY SUMMARY

Max Extreme	109	Sep 02	1955*	Min Extreme	44	Sep 25	1934*
Low Max	58	Sep 30	1930**	High Min	77	Sep 18	1984
Average Max	87.7			Average Min	58.3		
Max Pcpn	3.13	Sep 12	1918	Average Temp	73		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: OCTOBER

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Grtst		
	Max	Max	Max	Low		Min	Min	High			High	
	Max	Max	Year	Max	Low Max	Min	Min	Year	Min	High Min	Pcpr	Year
Oct 01	84	101	1980	56	1909	56	43	1950	63	1980**	0.79	1909
Oct 02	84	102	1980**	61	1916	56	44	1903	64	1980**	0.34	1898
Oct 03	84	102	1987**	58	1909	56	42	1884	66	1980	1.82	1882
Oct 04	83	102	1987**	61	1900	56	42	1881	68	1980	0.45	1994
Oct 05	83	102	1987	56	1924	55	42	1916	66	1933	1.12	1924
Oct 06	83	102	1987	60	1882	55	44	1913	62	1987**	0.41	1923
Oct 07	82	100	1980	60	1973	55	41	1881	65	1996**	0.60	1889
Oct 08	82	101	1996	62	1922	55	42	1881	65	1996	0.63	1904
Oct 09	82	96	1980	63	1924**	55	43	1930	70	1899	0.79	1947
Oct 10	81	100	1991	57	1924	54	44	1941**	64	1991**	0.98	1926
Oct 11	81	96	1992**	57	1925	54	40	1886	66	1991	1.44	1948
Oct 12	80	97	1991	55	1899	54	42	1924	64	1991	2.17	1962
Oct 13	80	94	1991	50	1899	54	40	1879	62	1991**	3.63	1962
Oct 14	80	98	1991	56	1878	54	36	1881	63	1979	0.75	1935
Oct 15	79	94	1961	57	1938	53	38	1881	64	1991**	0.78	1969
Oct 16	79	95	1961	49	1984	53	41	1984**	61	1933	0.69	1984
Oct 17	78	96	1988	60	1892	53	38	1984**	61	1974	0.43	1914
Oct 18	78	94	1988	59	1984	53	39	1905	60	1988	0.42	1958
Oct 19	78	91	1991**	55	1908	53	43	1949**	59	1991	0.24	1900
Oct 20	77	92	1991**	58	1961**	52	37	1949**	62	1940	1.14	1889
Oct 21	77	90	1929	59	1985	52	38	1886	60	1982**	1.94	1899
Oct 22	76	89	1988**	56	1897	52	40	1914	62	1982	1.32	1889
Oct 23	76	90	1965	56	1897	52	40	1885	62	1982	1.18	1897
Oct 24	75	91	1959	57	1962	51	37	1956	60	1959	0.94	1951
Oct 25	75	89	1965	57	1919	51	40	1900	61	1917	1.19	1979
Oct 26	74	88	1993**	58	1883	51	39	1939	60	1901	1.02	1950
Oct 27	74	86	1906	56	1922	51	40	1921	60	1987	1.00	1901
Oct 28	73	88	1983	57	1971	50	34	1946	60	1987	1.09	1981
Oct 29	72	84	1965	57	1996	50	37	1916	60	1983	0.80	1992
Oct 30	72	84	1993**	50	1886	50	34	1935	61	1983	0.95	1945
Oct 31	71	86	1966	56	1886	50	38	1971**	61	1983	0.63	1944

MONTHLY SUMMARY

Max Extreme	102	Oct 06	1987*	Min Extreme	34	Oct 30	1935*
Low Max	49	Oct 16	1984	High Min	70	Oct 09	1899
Average Max	78.5			Average Min	53.1		
Max Pcpn	3.63	Oct 13	1962	Average Temp	65.8		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: NOVEMBER

	Normal	Record	Record	Record	Normal	Record	Record	Record	Record	Record	Grtst	Grtst
	Max	Max	Max	Low Max		Min	Min	Min				
Nov 01	71	86	1997**	50	1935	49	34	1886	60	1992	0.67	1935
Nov 02	70	86	1966	53	1935	49	36	1936	57	1988**	0.80	1882
Nov 03	70	85	1976	52	1935	49	35	1935	58	1988**	1.16	1882
Nov 04	69	84	1980	52	1918	49	30	1935	58	1941	1.37	1970
Nov 05	69	85	1976	52	1973**	48	34	1935	59	1891	1.29	1994
Nov 06	68	84	1976	53	1922	48	35	1920	56	1913	1.40	1966
Nov 07	68	83	1931	53	1920	48	36	1897**	58	1973	1.00	1885
Nov 08	67	82	1955	53	1942**	48	34	1897	58	1970**	0.99	1954
Nov 09	66	83	1976**	50	1982	48	36	1920	57	1976**	1.28	1924
Nov 10	66	80	1990**	47	1920	47	35	1946	59	1976	1.64	1983
Nov 11	65	79	1990	46	1985	47	31	1911	56	1976**	0.81	1877
Nov 12	65	81	1990	49	1985**	47	30	1938	57	1981	1.84	1981
Nov 13	65	78	1995	46	1955	47	30	1985**	56	1981**	2.25	1981
Nov 14	64	78	1995	48	1982	46	30	1916	57	1981	0.87	1934
Nov 15	64	80	1923	48	1994**	46	29	1880	59	1981	1.27	1954
Nov 16	63	76	1995	46	1982**	46	32	1880	58	1981	1.95	1888
Nov 17	63	84	1932	48	1881	46	30	1958	56	1966**	3.02	1885
Nov 18	62	78	1932	52	1946	45	32	1881	60	1996	2.20	1885
Nov 19	62	77	1932	47	1922	45	30	1985	58	1966	1.39	1966
Nov 20	61	78	1932	45	1985	45	30	1985	62	1950	1.33	1903
Nov 21	61	74	1936	49	1977	45	31	1985**	59	1903	2.32	1900
Nov 22	61	75	1959	48	1918**	44	30	1880	57	1996**	1.07	1978
Nov 23	60	80	1930	45	1985	44	28	1931	58	1981**	1.60	1896
Nov 24	60	73	1959	44	1985	44	30	1931	56	1909	2.27	1985
Nov 25	59	75	1995**	44	1908	44	30	1880	54	1970	1.09	1989
Nov 26	59	76	1923	46	1931	44	29	1883	55	1901	1.07	1997
Nov 27	59	72	1959	45	1960	43	28	1887**	53	1923**	1.19	1984
Nov 28	58	71	1932	45	1880	43	27	1880	58	1932	2.20	1970
Nov 29	58	71	1929	47	1905	43	31	1952	56	1901	1.28	1970
Nov 30	58	71	1995	46	1919	43	30	1880	55	1926	3.26	1892

MONTHLY SUMMARY

Max Extreme	86°	Nov 02	1966*	Min Extreme	27	Nov 28	1880
Low Max	44	Nov 25	1908*	High Min	62	Nov 20	1950
Average Max	63.7			Average Min	46		
Max Pcpn	3.26	Nov 30	1892	Average Temp	54.9		

*Also occurred prior dates in month

**Also occurred prior years

SACRAMENTO CLIMATE

MONTH: DECEMBER

	Normal	Record	Record	Record	Normal	Record	Record	Record	Grtst	Grtst		
	Max	Max	Max	Low		Min	Min	Min			High	High Min
			Year	Max	Year	Min	Min	Year	Min	Year	Pcpn	Year
Dec 01	57	71	1959	44	1972	42	32	1929**	54	1966	1.70	1952
Dec 02	57	69	1959	44	1972	42	30	1906	56	1941	2.05	1880
Dec 03	57	71	1958	43	1971	42	32	1918	55	1901	2.00	1890
Dec 04	56	71	1958	43	1909	42	29	1909	54	1995	1.41	1881
Dec 05	56	72	1979	44	1963	42	32	1972	55	1995	0.78	1889
Dec 06	56	70	1989	43	1948**	41	29	1891	55	1995	0.96	1950
Dec 07	56	68	1979**	42	1965	41	28	1891	53	1995**	1.32	1997
Dec 08	55	71	1988**	38	1972	41	27	1972	55	1950	1.23	1909
Dec 09	55	69	1893	37	1972	41	23	1932	58	1939	1.87	1954
Dec 10	55	68	1958	35	1932	41	22	1932	57	1937	1.92	1937
Dec 11	54	71	1958	34	1932	41	17	1932	54	1937	2.27	1995
Dec 12	54	71	1958	38	1972	40	21	1932	57	1996	1.09	1922
Dec 13	54	71	1988	42	1961	40	23	1932	56	1929	1.73	1915
Dec 14	54	69	1958	32	1972	40	23	1940	56	1981	1.56	1929
Dec 15	54	72	1958	36	1972	40	26	1932	56	1929	1.18	1957
Dec 16	54	70	1958	40	1890	40	26	1892	54	1962	0.95	1957
Dec 17	53	69	1958	40	1890	40	28	1928	52	1877	1.33	1884
Dec 18	53	68	1958	40	1963	40	28	1924**	52	1884	1.40	1955
Dec 19	53	66	1929	37	1908	40	25	1924	54	1981	2.41	1955
Dec 20	53	66	1981	36	1908	40	27	1928	57	1969	1.32	1884
Dec 21	53	63	1969	34	1990	40	22	1990	57	1964	2.81	1885
Dec 22	53	65	1914	35	1928	39	18	1990	58	1964	1.94	1955
Dec 23	53	66	1964	32	1928	39	21	1990	58	1964	1.38	1884
Dec 24	53	66	1964**	38	1899	39	23	1990	56	1884	2.21	1983
Dec 25	53	64	1967	38	1992**	39	26	1891**	55	1964	2.42	1884
Dec 26	52	65	1967	37	1899	39	25	1879	55	1892**	1.58	1955
Dec 27	52	68	1953	37	1988	39	27	1879**	52	1945**	1.96	1931
Dec 28	52	72	1967	37	1899	39	26	1930	54	1973	1.25	1992
Dec 29	52	66	1989**	38	1908	39	24	1878	54	1996	1.47	1933
Dec 30	52	61	1997**	38	1929**	39	28	1990**	57	1996	1.32	1913
Dec 31	52	61	1979**	37	1882	39	24	1915	54	1979	1.07	1913

MONTHLY SUMMARY

Max Extreme	72	Dec 28	1967*	Min Extreme	17	Dec 11	1932
Low Max	32	Dec 23	1928*	High Min	58	Dec 23	1964*
Average Max	54			Average Min	40.2		
Max Pcpn	2.81	Dec 21	1885	Average Temp	47.1		

*Also occurred prior dates in month

**Also occurred prior years

IV. TEMPERATURE RECORDS

**HIGHEST AND LOWEST AVERAGE MAXIMUM TEMPERATURE
BY MONTH AND YEAR OF OCCURRENCE
(July 1877-August 1998)**

<u>Month</u>	<u>Normal* Monthly Maximum</u>	<u>Highest Average Maximum</u>	<u>Year</u>	<u>Lowest Average Maximum</u>	<u>Year</u>
January	54.1	62.1	1976	45.9	1937
February	61.7	68.1	1991	52.5	1887
March	66.1	73.3	1997	56.7	1897
April	72.8	80.8	1987	60.2	1967
May	80.9	89.7	1997**	68.6	1915
June	88.1	94.6	1985	76.3	1884
July	93.4	99.6	1988	84.4	1903
August	92.1	97.8	1967	81.9	1899
September	87.7	94.0	1984	78.1	1911
October	78.5	84.8	1991	68.6	1882
November	63.7	72.7	1995	57.8	1882
December	54.0	68.0	1958	47.0	1924

**HIGHEST AND LOWEST AVERAGE MINIMUM TEMPERATURE
BY MONTH AND YEAR OF OCCURRENCE
(July 1877-August 1998)**

<u>Month</u>	<u>Normal* Monthly Minimum</u>	<u>Highest Average Minimum</u>	<u>Year</u>	<u>Lowest Average Minimum</u>	<u>Year</u>
January	40.1	48.0	1995	30.4	1949
February	44.0	49.1	1963	36.4	1880
March	46.0	50.9	1978	38.9	1880
April	48.7	53.9	1926	42.3	1929
May	53.4	59.2	1997	47.2	1899
June	57.9	63.8	1981	52.1	1910
July	60.4	64.1	1996	54.3	1887
August	60.3	63.9	1998	53.5	1911
September	58.3	62.0	1979	52.0	1910
October	53.1	56.7	1992	46.2	1916
November	46.0	50.4	1997**	38.0	1880
December	40.2	46.6	1950	33.4	1932

* Climatological Normals from the years 1961-1990.

** Also occurred earlier years.

HIGHEST AND LOWEST MONTHLY AVERAGE TEMPERATURES

(July 1877-August 1998)

	<u>Normal*</u>	<u>Highest Monthly Average Temperature</u>		<u>Lowest Monthly Average Temperature</u>	
		<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
JANUARY	47.1	53.2	1995	38.7	1937
		52.6	1986	40.6	1922
		51.9	1998	41.2	1929
		51.8	1953	41.8	1883
		51.7	1970	42.0	1898,1926
FEBRUARY	52.9	57.6	1963,1991	44.9	1887
		56.9	1992	45.5	1903
		56.0	1996	45.7	1880
		55.9	1968, 1986	46.6	1949
		55.6	1981	46.9	1911
MARCH	56.1	61.5	1934	49.2	1880
		61.1	1997	49.4	1897
		61.0	1993	50.4	1935
		60.9	1986	50.8	1917,22,45,48
		60.6	1972,1984	50.9	1907
APRIL	60.8	66.0	1966	52.2	1967
		65.9	1992	53.3	1896
		65.8	1987	54.0	1929
		65.7	1990	54.3	1912
		64.7	1997	54.7	1948
MAY	67.2	74.5	1997	59.3	1899
		73.8	1992	59.6	1933
		73.0	1984	59.8	1911,16,17
		71.6	1976	60.0	1896
		71.3	1987	60.6	1953
JUNE	73.0	79.2	1981	64.8	1894
		77.5	1985	65.9	1923
		76.4	1974	66.2	1952
		76.0	1918	66.4	1907,1910
		75.8	1957,1973	66.5	1906

*Monthly Normals based on Climatological Normals 1961-1990.

HIGHEST AND LOWEST MONTHLY AVERAGE TEMPERATURES
(July 1877-August 1998)

	<u>Normal*</u>	<u>Highest Monthly Average Temperature</u>		<u>Lowest Monthly Average Temperature</u>	
		<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
JULY	76.9	81.6	1988	69.4	1903
		81.2	1996	70.2	1887
		80.7	1984	70.7	1907
		79.5	1931	71.0	1914
		79.0	1990	71.2	1904
AUGUST	76.2	80.7	1998	68.0	1899
		80.2	1996	68.8	1911
		79.9	1967	69.8	1887
		79.6	1969	70.2	1900
		79.4	1992	70.4	1881
SEPTEMBER	73.0	77.3	1979	65.4	1893
		77.2	1984	65.5	1911
		76.9	1991	65.6	1930
		76.8	1997	66.0	1907
		76.5	1974	66.4	1925
OCTOBER	65.8	70.7	1991	57.6	1881
		70.1	1976	58.2	1916
		69.5	1983,1987	58.6	1920
		69.0	1988,1992	58.8	1882,1886
		68.9	1990	59.0	1883
NOVEMBER	54.9	61.6	1995	49.3	1880
		59.2	1976	49.6	1882
		59.0	1932	49.8	1994*
		58.7	1997	50.2	1881
		58.6	1926	50.4	1985
DECEMBER	47.1	52.6	1958	41.5	1932
		52.4	1996	42.1	1908
		52.3	1995	42.2	1924
		51.3	1976	42.5	1963
		51.1	1969	42.6	1985

*Monthly Normals based on Climatological Normals 1961-1990.

**WARMEST AND COLDEST
WINTER, SPRING, SUMMER, FALL**
(December 1877 - August 1998)

WINTER
(December - February)
Average = 49.0*

<u>Warmest</u>		<u>Coldest</u>	
<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
52.7	1995-96	43.1	1948-49
52.6	1969-70	43.6	1932-33
52.4	1996-97	44.0	1936-37
52.2	1979-80	44.1	1879-80
52.1	1975-76	44.9	1928-29
51.7	1980-81	45.1	1909-10
51.4	1994-95	45.2	1954-55
51.2	1997-98	45.2	1882-83
51.1	1977-78	45.3	1902-03
51.1	1958-59	45.5	1916-17

SPRING
(March - May)
Average = 61.4*

<u>Warmest</u>		<u>Coldest</u>	
<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
66.8	1997	55.4	1880
66.4	1992	55.5	1948
65.0	1984	56.1	1917
64.7	1934	56.2	1902
64.0	1996	56.2	1896
64.0	1987	56.4	1912
63.9	1966	56.7	1963
63.6	1931	57.0	1911
63.5	1993	57.1	1893
63.4	1994	57.2	1906
63.4	1990	57.2	1899

*Averages based on Climatological Normals 1961-1990

**WARMEST AND COLDEST
WINTER, SPRING, SUMMER, FALL**
(December 1877 - August 1998)

SUMMER
(June - August)
Average = 75.4*

<u>Warmest</u>		<u>Coldest</u>	
<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
79.0	1996	69.3	1970
77.8	1981	69.6	1911
77.5	1988	69.8	1914
77.4	1974	70.2	1910
77.0	1990	70.3	1887
77.0	1984	70.4	1899
76.9	1985	70.5	1905
76.7	1992	70.5	1881
76.4	1998	70.5	1880
76.4	1994	70.6	1909

FALL
(September - November)
Average = 64.6*

<u>Warmest</u>		<u>Coldest</u>	
<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
68.5	1991	58.9	1881
68.3	1995	59.0	1920
68.2	1976	59.4	1882
67.2	1997	59.6	1916
66.9	1990	59.7	1893
66.7	1992	60.1	1931
66.7	1974	60.1	1886
66.6	1979	60.3	1911
66.5	1983	60.3	1880
66.4	1988	60.4	1897

*Averages based on Climatological Normals 1960-1991

HIGHEST AND LOWEST ANNUAL TEMPERATURE
(1878-1997)

<u>Highest Annual Average</u>		<u>Lowest Annual Average</u>	
<u>Temp</u>	<u>Year</u>	<u>Temp</u>	<u>Year</u>
65.6	1997	58.1	1880
65.3	1996	58.4	1911
65.1	1976	58.8	1893
64.8	1992	59.2	1902
64.7	1981	59.3	1912
64.5	1995	59.3	1919

Average Annual
Temperature
62.6*

*Averages based on Climatological Normals 1961-1990

**RECORD NUMBER OF DAYS PER YEAR WITH MAXIMUM TEMPERATURES
90, 100 and 105 DEGREES OR HIGHER
(1878-1997)**

<u>90 or Higher¹</u>		<u>100 or Higher²</u>		<u>105 or Higher³</u>	
<u>Days</u>	<u>Year</u>	<u>Days</u>	<u>Year</u>	<u>Days</u>	<u>Year</u>
110	1984	41	1988	18	1988
104	1992	38	1984, 1996	15	1996
104	1988, 1992	33	1987	14	1984
103	1974	30	1936	13	1990
101	1997	27	1981	11	1985, 1961, 1950
96	1996	26	1985	9	1987, 1931
95	1967	24	1967, 1966	8	1933
94	1970	23	1976, 1969, 1950, 1931, 1929	6	1972, 1966, 1960, 1935, 1934
92	1981, 1966	22	1990, 1979, 1961	5	1995, 1981, 1978, 1976, 1936, 1929, 1925, 1923, 1891
91	1987	21	1995, 1992, 1970, 1960, 1939		
89	1991, 1990, 1969	20	1993, 1986, 1933, 1888		
87	1936				
86	1986				

**AVERAGE NUMBER OF DAYS PER YEAR WITH MAXIMUM TEMPERATURES
90, 100 AND 105 DEGREES OR HIGHER**

90 Degrees or higher	82 days
100 Degrees or higher	19 days
105 Degrees or higher	4 days

¹ Only years with 85 or more days tabulated

² Only years with 20 or more days tabulated

³ Only years with 5 or more days tabulated

**GREATEST NUMBER OF *CONSECUTIVE* DAYS WITH
MAXIMUM TEMPERATURES 90 DEGREES OR HIGHER
(July 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Year</u>	<u>Days</u>	<u>Period</u>	<u>Year</u>
40	July 13-August 21	1992	19	August 2-20	1990
35	July 24-August 27	1967	19	July 26-August 13	1988
29	June 22-July 20	1984	19	August 27-September 14	1985
25	July 17-August 10	1974	18	July 19-August 5	1945
24	July 25-August 17	1969	18	June 19-July 6	1929
23	July 26-August 17	1983	17	July 19-August 4	1996
22	June 15-July 6	1981	17	July 6-22	1990
22	July 7-28	1961	17	June 17-July 3	1988
21	July 12-August 1	1988	17	July 29-August 14	1986
21	July 29-August 18	1971	17	July 26-August 11	1978
21	July 29-August 18	1920	17	July 1-17	1953
20	July 15-August 3	1959	17	July 9-25	1917
20	September 8-27	1899			

Only periods with 17 or more days tabulated.

**GREATEST NUMBER OF *NON-CONSECUTIVE* DAYS WITH MAXIMUM
TEMPERATURES 90 DEGREES OR HIGHER IN ONE MONTH**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
30	August 1967	27	August 1985
29	August 1994	27	August 1931
29	July 1988	27	July 1970
28	July 1997	27	July 1967
28	August 1969	27	August 1958
28	July 1969	26	August 1998
28	July 1967	26	August 1992
28	July 1953	26	July 1984
28	July 1945	26	July 1981
27	July 1996	26	August 1966

Only months with 26 or more days tabulated.

**GREATEST NUMBER OF *CONSECUTIVE* DAYS WITH MAXIMUM
TEMPERATURES 100 DEGREES OR HIGHER
(July 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Year</u>	<u>Days</u>	<u>Period</u>	<u>Year</u>
9	August 8-16	1996	6	July 30-August 4	1986
9	July 10-18	1984	6	July 1-6	1985
9	June 19-27	1981	6	August 28-September 2	1976
9	August 1-9	1966	6	July 16-21	1960
8	August 4-11	1990	6	June 28-July 3	1950
8	June 9-16	1985	6	September 5-10	1944
7	July 21-27	1980	6	August 3-8	1936
7	August 12-18	1967	6	September 19-24	1936
7	June 20-26	1929	6	September 4-9	1923
7	June 29-July 5	1929	6	June 15-20	1917
7	August 10-16	1920	6	July 4-9	1905
6	August 1-6	1998	6	July 25-30	1898
6	July 14-19	1998	6	August 9-14	1898
6	August 15-20	1992	6	September 6-11	1888

Only periods with 6 or more days tabulated.

**GREATEST NUMBER OF *NON-CONSECUTIVE* DAYS WITH MAXIMUM
TEMPERATURES 100 DEGREES OR HIGHER IN ONE MONTH**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
17	July 1988	12	August 1967
16	August 1998	12	August 1966
16	July 1984	11	July 1980
16	July 1931	11	July 1979
15	August 1996	11	July 1933
14	July 1996	10	August 1988
14	August 1969	10	June 1985
13	July 1985	10	July 1936
13	August 1992	10	June 1985
12	June 1981		

Only months with 10 more days tabulated.

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH MAXIMUM
TEMPERATURES 105 DEGREES OR HIGHER
(July 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Year</u>	<u>Days</u>	<u>Period</u>	<u>Year</u>
7	August 5-11	1990	3	August 30-September 1	1976
6	August 9-14	1996	3	June 24-26	1925
6	June 11-16	1985	3	July 24-26	1975
5	August 11-16	1920	3	June 14-16	1961
4	July 16-19	1988	3	July 17-19	1961
4	July 1-4	1984	3	July 19-21	1960
4	July 12-15	1972	3	June 23-25	1957
4	June 29-July 2	1950	3	September 2-4	1955
4	September 1-4	1950	3	August 18-20	1950
4	June 29-July 2	1934	3	July 27-29	1943
4	August 10-13	1898	3	July 15-17	1935
3	August 3-5	1998	3	July 25-27	1933
3	July 2-4	1991	3	August 11-13	1933
3	July 8-10	1988	3	July 3-5	1931
3	September 3-5	1988	3	June 23-25	1929
3	August 7-9	1984	3	July 14-16	1926
3	July 25-27	1980	3	September 6-8	1923

Only periods with 3 or more days tabulated.

**GREATEST NUMBER OF NON-CONSECUTIVE DAYS WITH MAXIMUM
TEMPERATURES 105 DEGREES OR HIGHER IN ONE MONTH**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
10	July 1988	5	July 1961
7	August 1996	5	July 1933
7	August 1990	5	August 1923
7	July 1984	5	August 1920
7	July 1931	4	August 1978
6	August 1998	4	July 1972
6	July 1996	4	July 1960
6	July 1985	4	September 1950
6	June 1985	4	July 1935
6	June 1961	4	August 1913
5	August 1987	4	August 1898
5	August 1966		

Only months with 4 or more days tabulated.

**AVERAGE NUMBER OF DAYS PER MONTH WITH
 MAXIMUM TEMPERATURES
 90, 100 AND 105 DEGREES OR HIGHER
 (1961 - 1990)**

<u>Month</u>	<u>90 or Above</u>	<u>100 or Above</u>	<u>105 or Above</u>
April	1	0	0
May	7	1	*
June	13	4	1
July	22	7	2
August	20	5	1
September	13	2	*
October	3	*	0
Annual Average	79 Days	19 Days	4 Days

* Less than one day

**GREATEST NUMBER OF *CONSECUTIVE* DAYS WITH MINIMUM
TEMPERATURES 32 DEGREES OR LOWER
(December 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
13	December 20, 1990 - January 1, 1991	7	January 18-24, 1922
10	December 29, 1960 - January 7, 1961	7	January 5-11, 1913
10	December 21-30, 1930	6	Dec 29, 1959 - January 3, 1960
10	December 15-24, 1928	6	January 2-7, 1950
10	December 27, 1918 - January 5, 1919	6	January 6-11, 1937
9	December 15-23, 1965	6	January 10-15, 1926
9	December 25, 1962 - January 2, 1963	6	January 15-20, 1917
9	January 23-31, 1949	6	December 17-22, 1908
9	February 2-10, 1883	6	January 9-14, 1898
8	December 10-17, 1985	6	January 6-11, 1888
8	December 8-15, 1972	6	January 13-18, 1888
8	January 11-18, 1963	6	January 18-23, 1883
8	January 8-15, 1949	6	February 2-9, 1883
8	January 7-14, 1929	6	December 10-15, 1883
8	February 7-14, 1884	6	January 27-February 1, 1880
7	December 9-15, 1932	6	December 14-19, 1878
7	January 1-7, 1924		

Only periods with 6 or more days tabulated.

**GREATEST NUMBER OF *NON-CONSECUTIVE* DAYS WITH MINIMUM
TEMPERATURES 32 DEGREES OR LOWER IN ONE MONTH**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
24	January 1949	13	January 1922
17	January 1947	13	January 1888
16	January 1963	13	January 1883
16	January 1898	12	November 1880
14	December 1930	12	December 1956
14	December 1878	12	December 1898
14	January 1937	11	January 1929
13	December 1990	11	December 1949
13	February 1883	11	December 1918

Only months with 11 or more days tabulated.

DOWNTOWN SACRAMENTO

(January 1881-August 1998)

FREEZE (32 OR BELOW)

Latest Date in Spring

March 27, 1898

Earliest Date in Fall

November 4, 1935

LONGEST FREEZE-FREE PERIODS

<u>Days</u>	<u>Period</u>
765	December 9, 1994 - January 13, 1997
743	December 15, 1980 - December 29, 1982
732	January 2, 1991 - January 2, 1993
720	January 1, 1983 - December 21, 1984
712	January 2, 1979 - December 13, 1980
689	February 11, 1933 - December 31, 1934

SHORTEST FREEZE-FREE PERIOD

<u>Days</u>	<u>Period</u>
241	March 28, 1898 - Nov 23, 1898

NUMBER OF DAYS WITH TEMPERATURES 32 DEGREES OR LOWER IN ANY ONE YEAR

<u>Least Number of Days</u>		<u>Greatest Number of Days</u>	
<u>Days</u>	<u>Year</u>	<u>Days</u>	<u>Year</u>
0	1885, 1904, 1934, 1976, 1981, 1983, 1995, 1996	39	1949
1	1881, 1892, 1900, 1907, 1966 1974, 1977, 1980, 1991, 1992, 1994, 1997	27	1883, 1898
2	1909, 1915, 1925, 1973, 1979, 1982, 1984, 1986	22	1947
		19	1985
		18	1880, 1963
		17	1962
		16	1922, 1987, 1989
		15	1878, 1929, 1950, 1956, 1990

V. PRECIPITATION RECORDS

**MAXIMUM AND MINIMUM PRECIPITATION BY MONTHS
WITH YEAR OF OCCURRENCE
(July 1849-August 1998)**

	<u>Normal</u>	<u>Maximum Monthly Precipitation</u>		<u>Minimum Monthly Precipitation</u>	
		<u>- Amount</u>	<u>Year</u>	<u>Amount</u>	<u>Year</u>
JANUARY	3.85	15.04	1862	0.15	1889
		12.72	1911	0.23	1984
		12.35	1995	0.29	1920
		9.76	1896	0.37	1991*
		9.65	1909	0.45	1904
FEBRUARY	2.98	10.30	1986	0.04	1899
		9.43	1998	0.09	1896
		9.25	1940	0.12	1852
		9.13	1958	0.16	1913
		8.59	1836	0.19	1995*
MARCH	2.79	10.00	1850	0.03	1956
		8.45	1906	0.04	1898
		8.30	1983	0.05	1926
		8.14	1864	0.07	1894
		7.84	1995	0.08	1885
APRIL	1.24	14.20	1880	T**	1949*
		5.81	1935	0.03	1933
		5.34	1896	0.05	1931
		4.76	1941	0.06	1946*
		4.58	1942	0.08	1945*
MAY	0.29	3.25	1889	0.00	1992
		3.04	1998*	and 13 other years prior	
		2.88	1900		
		2.85	1883		
		2.75	1915		
JUNE	0.12	1.45	1884	0.00	1990
		1.10	1875	and many years prior	
		1.02	1929		
		0.85	1907		
		0.68	1967		

* Also occurred earlier years.

** T is less than 0.01 inch.

**MAXIMUM AND MINIMUM PRECIPITATION BY MONTHS
WITH YEAR OF OCCURRENCE
(July 1849-August 1998)**

	<u>Normal</u>	<u>Maximum Monthly Precipitation</u>		<u>Minimum Monthly Precipitation</u>	
		<u>Amount</u>	<u>Year</u>	<u>Amount</u>	<u>Year</u>
JULY	0.05	0.90	1974	0.00	1998
		0.63	1860	and many years prior	
		0.55	1861		
		0.31	1980		
		0.22	1979		
AUGUST	0.07	0.67	1953	0.00	1998
		0.59	1965	and many years prior	
		0.57	1976		
		0.37	1989		
		0.35	1954		
SEPTEMBER	0.37	3.62	1904	0.00	1995
		3.58	1918	and 32 other years prior	
		3.15	1989		
		1.54	1982*		
		1.35	1957		
OCTOBER	1.12	6.85	1962	0.00	1995
		6.02	1889	and 14 other years prior	
		4.46	1899		
		3.45	1876		
		3.01	1858		
NOVEMBER	2.97	11.34	1885	0.00	1995
		7.44	1970	and 3 other years prior	
		7.13	1981		
		6.72	1864		
		6.69	1973		
DECEMBER	2.76	13.40	1852	0.00	1989*
		12.85	1867	0.22	1956
		12.50	1849	0.23	1912
		12.20	1955	0.30	1975
		11.81	1880	0.38	1963

* Also occurred earlier years.

** Normals are based on the Climatological Normals 1961-1990.

Note - Prior to the establishment of the Signal Corps Station July 1, 1877, precipitation records were taken as early as 1849 by Dr. F.M. Hatch, retired Army Surgeon, and his associate, Dr. T.M. Logan. Their records are believed reliable.

**GREATEST NUMBER OF DAYS WITH 0.01 INCH OR MORE AND 0.10 INCH
OR MORE BY MONTH AND YEAR OF OCCURRENCE**

(July 1877-August 1998)

<u>Month</u>	<u>0.01 Inch or More</u>			<u>0.10 Inch or More</u>		
	<u>Average*</u> <u># of Days</u>	<u>Greatest</u> <u># of Days</u>	<u>Year</u>	<u>Average*</u> <u># of Days</u>	<u>Greatest</u> <u># of Days</u>	<u>Year</u>
January	10	25	1995**	6	20	1909
February	8	20	1998	5	15	1936
March	8	19	1989**	6	16	1983
April	5	16	1948	3	13	1948
May	2	14	1998	--	7	1915
June	1	7	1884	--	4	1884
July	--	3	1974	--	1	1980**
August	--	5	1976	--	3	1976
September	2	8	1982	1	5	1982
October	4	11	1889	2	10	1889
November	8	17	1984**	6	14	1984
December	9	23	1889	5	18	1889
Annual	59	98	1983	37	69	1983

**GREATEST NUMBER OF DAYS WITH 0.50 INCH OR MORE AND 1.00 INCH
OR MORE BY MONTH AND YEAR OF OCCURRENCE**

(July 1877-August 1998)

<u>Month</u>	<u>0.50 Inch or More</u>			<u>1.00 Inch or More</u>		
	<u>Average*</u> <u># of Days</u>	<u>Greatest</u> <u># of Days</u>	<u>Year</u>	<u>Average*</u> <u># of Days</u>	<u>Greatest</u> <u># of Days</u>	<u>Year</u>
January	3	11	1911	1	5	1993**
February	2	9	1878	1	5	1958
March	2	8	1991	--	3	1907
April	--	6	1880	--	3	1880
May	--	3	1883	0	1	1992**
June	0	1	1991**	0	0	----
July	0	1	1974	0	0	----
August	0	1	1965**	0	0	----
September	--	3	1904	0	2	1904
October	--	5	1889	--	3	1889
November	2	6	1973**	--	4	1885
December	2	10	1880	--	5	1955
Annual	13	31	1983	4	11	1940

* Averages based on Climatological Normals 1961-1990

** Also recorded earlier years

-- Less than one day.

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.01 INCH OR MORE
(1878-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Total Rainfall</u>
16	February 6-February 21, 1992	6.78
15	February 10-February 24, 1936	8.00
15	November 24-December 8, 1970	7.12
14	January 3-January 16, 1955	9.30
14	January 23-February 5, 1911	7.01
14	November 29-December 12, 1889	5.34
13	December 13-December 25, 1880	7.75
13	January 18-January 30, 1969	6.45
12	December 31, 1939-January 11, 1940	6.65
12	March 15-March 26, 1907	5.94
12	February 26-March 9, 1911	4.78
12	January 24-February 4, 1915	2.59

Only periods with 12 or more days tabulated

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.25 INCH OR MORE
(1878-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Total Rainfall</u>
10	December 17-December 26, 1884	10.34
9	February 8-February 16, 1992	5.04
8	February 14-February 21, 1980	6.95
8	January 11-January 18, 1906	6.52
8	December 20-December 27, 192	3.58
7	February 12-February 18, 1986	9.44
7	December 17-December 23, 1955	8.13
7	December 21-December 27, 1940	7.09
7	November 28-December 4, 1970	6.02
7	March 10-March 16, 1889	4.76
6	March 29-April 3, 1958	5.47
6	January 13-January 18, 1896	4.56
6	January 9-January 14, 1980	4.12
6	February 20-February 25, 1902	3.65
6	February 25-March 2, 1983	3.41

Only periods with six or more days tabulated

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.50 INCH OR MORE
(1878-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Total Rainfall</u>
9	December 17-December 25, 1884	10.09
6	December 21-December 26, 1940	6.75
5	February 14-February 18, 1986	8.12
4	February 25-February 28, 1940	6.75
4	January 11-January 14, 1911	5.03
4	January 13-January 16, 1978	4.59
4	February 14-February 17, 1980	4.02
4	January 15-January 18, 1896	3.96
4	January 15-January 18, 1906	3.54
4	December 5-December 8, 1889	3.34
4	November 19-November 22, 1978	3.00
4	January 8-January 11, 1936	2.18

Only periods with 4 or more days tabulated

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH 1.00 INCH OR MORE
(1878-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Total Rainfall</u>
3	February 16-February 18, 1986	6.85
3	January 8-January 10, 1995	5.63
3	January 20-January 22, 1943	5.45
3	February 26-February 28, 1940	4.66
3	October 20-October 22, 1889	3.48

Only periods with 3 or more days tabulated

**GREATEST NUMBER OF CONSECUTIVE DAYS WITHOUT*
MEASURABLE RAIN DURING AN ENTIRE YEAR
(July 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
194	May 13-November 22, 1880	147	May 7-September 30, 1926
174	April 18-October 8, 1903	145	May 13-October 4, 1924
162	May 25-November 2, 1960	143	May 21-October 10, 1987
160	May 9-October 15, 1886	143	April 27-September 16, 1959
155	May 31-November 1, 1932	140	May 31-October 17, 1990
153	May 27-October 26, 1905	140	May 12-September 28, 1890

**GREATEST NUMBER OF CONSECUTIVE DAYS WITHOUT* MEASURABLE
RAIN FROM MID-SUMMER THROUGH THE FALL SEASON
(August 1877-August 1998)**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
122	August 1-November 30, 1995	71	August 1-October 10, 1987
114	August 1-November 22, 1880	68	September 1-November 7, 1915
93	August 1-November 2, 1960	67	August 5-October 10, 1899
92	August 1-November 1, 1932	66	August 1-October 5, 1929
87	August 1-October 26, 1960	64	August 1-October 3, 1994
82	August 6-October 26, 1974	64	September 30-December 2, 1890
82	September 7-November 27, 1887	63	August 12-October 13, 1965
81	August 11-October 30, 1913	63	September 7-November 8, 1925
80	August 1-October 19, 1992	62	September 11-November 11, 1952
78	August 1-October 17, 1990	60	October 18-December 16, 1884
73	August 1-October 12, 1988	59	September 16-November 14, 1888

**GREATEST NUMBER OF CONSECUTIVE DAYS WITHOUT*
MEASURABLE RAIN DURING THE WINTER MONTHS
(November 1877-December 1997)**

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
44	November 15-December 28, 1976	36	December 18, 1960-January 22, 1961
42	January 17-February 27, 1899	36	November 15-December 20, 1958
41	December 18, 1962-January 27, 1957	34	December 5, 1956-January 7, 1957
38	November 4-December 11, 1959	32	November 2-December 3, 1956
38	November 8-December 15, 1940	31	November 1-December 1, 1933
38	February 15-March 24, 1883	30	November 8-December 7, 1969
36	November 26-December 31, 1989	30	November 15-December 14, 1936

**Less than 0.01 inch of rainfall*

WATER YEAR* HAVING 11 MONTHS OF MEASURABLE RAIN
(July 1849-August 1998)

<u>Season</u>	<u>Season</u>
1860-61	1962-63
1896-97	1979-80
1897-98	1983-84
1949-50	1984-85
1961-62	1997-98

**WATER YEAR* HAVING 5 OR MORE MONTHS
WITHOUT MEASURABLE RAIN**
(July 1849-August 1998)

<u>Season</u>	<u>Season</u>
1852-53	1886-87
1856-57	1902-03
1872-73	1929-30
1880-81	1995-96

* Water Year is the 12-month period from July 1 through June 30.

** No Water Year has ever had measurable rain for the entire 12 months

Prior to the establishment of the U. S. Signal Corps station on July 1, 1877, precipitation records were kept from 1849 by Dr. F. M. Hatch, retired Army Surgeon, and his associate, Dr. T. M. Logan. Their records are believed to be reliable.

**MAXIMUM AMOUNTS OF PRECIPITATION FOR 5, 10, AND 30 MINUTES
1, 2 AND 24 HOURS BY MONTHS WITH DATES AND YEARS OF OCCURRENCES
(January 1903-December 1995)**

<u>Month</u>	<u>5 Minutes</u>	<u>10 Minutes</u>	<u>30 Minutes</u>	<u>1 Hour</u>	<u>2 Hours</u>	<u>24 Hours</u>
January	0.38 09/1995	0.59 09/1995	1.27 09/1995	1.44 09/1995	1.71 09/1995	4.47 09-10/1995
February	0.29 27/1973	0.53 27/1973	0.90 27/1973	1.01 27/1973	1.19 27/1973	3.54 16-17/1986
March	0.37 02/1995	0.50 02/1995	0.80 30/1906	0.94 30/1906	1.01 30/1906	2.94 08-09/1884
April	0.39 07/1935	0.62 07/1935	0.97 07/1935	1.65 07/1935	2.62 07/1935	7.24 20-21/1880
May	0.24 13/1941	0.27 13/1941	0.29 11/1915	0.41 07/1905	0.59 07/1905	1.94 05/1889
June	0.17 04/1993	0.19 04/1993	0.27 19/1974	0.45 04/1993	0.66 04/1993	0.84 03-04/1993
July	0.02 02/1980	0.04 02/1980	0.09 08/1974	0.13 08/1974	0.24 08/1974	0.89 07-08/1974
August	0.04 08/1962	0.06 15/1976*	0.13 15/1976	0.20 25-26/1954	0.30 25-26/1954	0.67 29/1953
September	0.23 23/1904	0.33 23/1904	0.69 23/1904	0.71 23/1904	0.96 23/1904	3.14 11-12/1918
October	0.36 26/1950	0.52 26/1921	0.66 26/1921	0.69 23/1987	0.85 13/1962	5.07 12-13/1962
November	0.29 13/1983	0.39 13/1983	0.55 13/1983	0.65* 13/1983	0.85 14-15/1934	4.29 17-18/1885
December	0.27 01/1951	0.36 01/1951	0.55 01/1951	0.69 01/1951	0.87 01/1951	3.27 18-19/1955
Annual	0.39 April 7 1935	0.62 April 7 1935	1.27 January 9 1995	1.65 April 7 1935	2.62 April 7 1935	7.24 April 20-21, 1880

* Also occurred earlier years.

24-hour amounts are from July 1877 through December 1985. These amounts are from any 24-hour period and are not confined to a midnight-midnight period such as the figures on pages 37-38.

RAINFALL DATA - EXCESSIVE STORMS*
(1903-1995)

TOTAL PRECIPITATION BY PERIODS

<u>Year</u>	<u>Month</u>	<u>48 Hours</u>		<u>24 Hours</u>		<u>2 Hours</u>		<u>1 Hour</u>	
		<u>Date</u>	<u>Total</u>	<u>Date</u>	<u>Total</u>	<u>Date</u>	<u>Total</u>	<u>Date</u>	<u>Total</u>
1962	October	12-13	6.42	12-13	5.07	13	0.85	12	0.57
1986	February	16-17	5.05	16-17	3.54	17	0.72	17	0.40
1986	February	17-18	5.01	17	3.21	18	1.01	18	0.52
1995	January	09-10	4.55	09-10	4.47	09	1.74	09	1.44
1943	January	20-21	4.29	20-21	3.52	20	1.09	20	0.63
1981	November	12-13	4.09	12-13	2.61	13	0.57	12	0.32
1967	January	20-21	4.09	20-21	3.12	21	0.86	21	0.61
1982	January	3-5	4.00	4-5	3.50	5	0.45	4	0.25
1936	February	11-12	3.89	11	2.34	12	0.85	12	0.77
1935	December	18-19	3.81	18-19	3.28	18	0.59	18	0.31
1937	December	9-11	3.67	9-10	2.22	11	0.52	10	0.39
1940	February	26-27	3.65	26-27	3.32	27	0.53	27	0.28
1944	February	2-3	3.56	2-3	2.82	2	0.39	2	0.20
1911	January	13-14	3.53	13-14	3.31	14	0.38	14	0.21
1958	April	1-2	3.48	1-2	2.24	2	0.85	2	0.74
1970	November	28-29	3.48	28-29	2.45	28	0.54	28	0.30
1962	February	9-10	3.45	9-10	2.21	9	0.82	9	0.52
1916	January	2-3	3.41	2-3	3.21	3	0.74	3	0.36
1935	April	7	3.35	7	3.35	7	2.62	7	1.65
1955	December	22-23	3.25	22-23	2.36	22	0.58	22	0.38
1983	December	24-25	3.24	24-25	2.85	25	0.45	25	0.27
1931	December	26-27	3.23	26-27	2.98	26	0.38	26	0.20
1940	December	21-22	3.22	21	2.38	21	0.55	21	0.32
1918	September	12-13	3.17	12-13	3.14	12	0.72	12	0.38
1990	January	12-13	2.93	12-13	2.73	12	1.41	12	0.86
1958	February	18-19	2.93	18-19	2.66	18	0.39	18	0.22
1964	December	21-22	2.92	21-22	1.89	22	0.40	22	0.23
1952	January	11-12	2.90	11-12	2.73	12	0.43	11	0.33
1964	January	20-21	2.86	20-21	2.30	20	0.83	20	0.49
1983	March	12-13	2.78	12-13	2.63	13	0.66	13	0.52
1978	January	13-14	2.65	13-14	1.98	13	0.61	13	0.43
1973	February	26-27	2.62	27	2.11	27	1.19	27	1.01
1950	November	17-18	2.58	17-18	2.08	18	0.48	18	0.29

* *Excessive storms* that provided 2.50 inches or more precipitation in a 48-hour period.

MONTHLY PRECIPITATION BY SEASON, WITH SEASONAL TOTAL AND THE
ACCUMULATED PRECIPITATION THROUGH DECEMBER 31
(Rainfall Season July 1-June 30)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Pcpn to Dec 31	Jan	Feb	Mar	Apr	May	Jun	Total Pcpn
Normal*	0.05	0.07	0.37	1.12	2.97	2.76	7.34	3.85	2.98	2.79	1.24	0.29	0.12	18.61
1849-50	0.00	0.00	0.25	1.50	2.25	12.50	16.50	4.50	0.50	10.00	4.25	0.25	0.00	36.00
1850-51	0.00	0.00	0.14	0.05	0.69	2.67	3.55	0.65	0.35	1.88	1.14	0.69	0.00	8.26
1851-52	0.00	0.00	1.00	0.18	2.14	7.07	10.39	0.58	0.12	6.40	0.19	0.30	0.00	17.98
1852-53	0.00	0.00	T	0.00	6.00	13.40	19.40	3.00	2.00	7.00	3.50	1.45	T	36.35
1853-54	T	0.00	T	T	1.50	1.54	3.04	3.25	8.50	3.25	1.50	0.21	0.31	20.06
1854-55	0.00	T	T	1.01	0.65	1.15	2.81	2.67	3.46	4.20	4.32	1.15	0.01	18.62
1855-56	0.00	0.00	T	0.00	0.75	2.00	2.75	4.92	0.69	1.40	2.13	1.84	0.03	13.76
1856-57	0.00	0.00	T	0.20	0.65	2.40	3.25	1.38	4.80	0.68	T	T	0.35	10.46
1857-58	0.00	T	0.00	0.66	2.41	2.63	5.70	2.44	2.46	2.88	1.21	0.20	0.10	14.99
1858-59	0.01	T	T	3.01	0.15	4.34	7.51	0.96	3.91	1.64	0.98	1.04	0.00	16.04
1859-60	0.00	0.00	0.02	0.00	6.48	1.83	8.33	2.31	0.93	5.11	2.87	2.49	0.02	22.06
1860-61	0.63	0.00	0.06	0.91	0.18	4.28	6.06	2.67	2.92	3.32	0.48	0.59	0.14	16.18
1861-62	0.55	0.00	0.00	T	2.17	8.64	11.36	15.04	4.26	2.80	0.82	1.81	0.01	36.10
1862-63	0.00	0.01	0.00	0.36	T	2.33	2.70	1.73	2.75	2.36	1.69	0.36	0.00	11.59
1863-64	0.00	0.00	T	0.00	1.49	1.82	3.31	1.08	0.19	1.30	1.08	0.74	0.09	7.79
1864-65	0.00	0.08	T	0.12	6.72	7.87	14.79	4.78	0.71	0.48	1.37	0.46	0.00	22.59
1865-66	T	0.00	0.08	0.48	2.43	0.36	3.35	7.70	2.01	2.02	0.48	2.25	0.10	17.91
1866-67	0.02	0.00	0.00	T	2.43	9.51	11.96	3.44	7.10	1.01	1.80	0.01	0.00	25.32
1867-68	0.00	0.00	0.01	0.00	3.81	12.85	16.67	6.04	3.15	4.35	2.31	0.27	T	32.79
1868-69	0.00	0.00	0.00	0.00	0.77	2.61	3.38	4.79	3.63	2.94	1.24	0.65	0.01	16.64
1869-70	0.00	0.00	T	2.12	0.85	1.96	4.93	1.37	3.24	1.64	2.12	0.27	T	13.57
1870-71	T	T	0.00	0.02	0.58	0.97	1.57	2.08	1.92	0.69	1.45	0.76	T	8.47
1871-72	0.00	0.00	T	0.21	1.22	10.59	12.02	4.04	4.74	1.94	0.61	0.28	0.02	23.65
1872-73	0.00	0.00	T	0.22	1.93	5.39	7.54	1.23	4.36	0.55	0.51	0.00	T	14.19
1873-74	0.02	T	0.00	0.31	1.21	10.01	11.55	5.20	1.86	3.05	0.89	0.37	T	22.92
1874-75	T	0.00	0.05	2.26	3.80	0.44	6.55	8.70	0.55	0.80	T	T	1.10	17.70
1875-76	0.00	0.00	0.00	0.44	6.20	5.52	12.16	4.99	3.75	4.15	1.10	0.15	0.00	26.30
1876-77	0.21	0.02	T	3.45	0.30	0.00	3.98	2.77	1.04	0.56	0.19	0.64	0.01	9.19
1877-78	0.00	0.00	0.00	0.73	1.07	1.43	3.23	9.26	8.04	3.09	1.07	0.17	0.00	24.86
1878-79	0.00	0.00	0.29	0.55	0.51	0.47	1.82	3.18	3.88	4.88	2.66	1.30	0.13	17.85
1879-80	T	T	0.00	0.88	2.05	3.41	6.34	1.64	1.83	1.70	14.20	0.76	0.00	26.47

*T precipitation is for the period 1961-1990

MONTHLY PRECIPITATION BY SEASON, WITH SEASONAL TOTAL AND THE
ACCUMULATED PRECIPITATION THROUGH DECEMBER 31
(Rainfall Season July 1-June 30)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Pcpn to Dec 31	Jan	Feb	Mar	Apr	May	Jun	Total Pcpn
Normal*	0.05	0.07	0.37	1.12	2.97	2.76	7.34	3.85	2.98	2.79	1.24	0.29	0.12	18.61
1880-81	T	0.00	0.00	0.00	0.05	11.81	11.86	6.14	5.06	1.37	1.64	T	0.50	26.57
1881-82	T	0.00	0.30	0.55	1.88	3.27	6.00	1.89	2.40	3.78	1.99	0.35	0.10	16.51
1882-83	T	0.00	0.57	2.63	3.22	1.13	7.55	2.23	1.11	3.70	0.67	2.85	0.00	18.11
1883-84	0.00	0.00	0.90	0.97	0.61	0.44	2.92	3.43	4.46	8.14	4.42	0.06	1.45	24.78
1884-85	0.00	T	0.60	2.01	0.00	10.45	13.06	2.16	0.49	0.08	0.68	T	0.11	16.58
1885-86	T	0.00	0.08	0.02	11.34	5.76	17.20	7.95	0.29	2.68	4.08	0.07	0.00	32.27
1886-87	0.00	0.00	0.00	0.68	0.21	2.21	3.10	1.12	6.28	0.94	2.53	0.00	0.00	13.97
1887-88	0.00	T	0.02	0.00	0.45	2.09	2.56	4.81	0.57	3.04	0.10	0.40	0.08	11.56
1888-89	T	T	0.55	0.00	4.28	4.63	9.46	0.15	0.33	6.25	0.26	3.25	0.25	19.95
1889-90	0.00	0.00	0.00	6.02	3.15	7.82	16.99	6.62	4.06	3.00	1.33	1.80	0.00	33.80
1890-91	0.00	T	0.80	T	0.00	3.34	4.14	0.53	6.61	1.78	2.04	0.66	0.05	15.81
1891-92	T	0.00	0.10	0.10	0.48	3.28	3.96	1.78	2.84	3.02	1.20	2.38	T	15.18
1892-93	0.00	0.00	0.18	0.70	6.60	4.90	12.38	3.27	2.66	3.51	1.08	1.05	0.00	23.95
1893-94	T	0.00	0.22	0.12	2.92	1.76	5.02	4.17	3.92	0.74	0.34	1.70	0.46	16.35
1894-95	T	T	0.88	1.06	0.48	8.86	11.28	8.42	1.84	1.20	0.86	0.51	0.00	24.11
1895-96	0.04	T	1.26	0.17	1.54	1.54	4.55	9.79	0.09	2.57	5.34	0.92	0.00	23.23
1896-97	T	0.20	0.31	0.55	3.56	1.76	6.38	3.66	4.15	2.54	0.25	0.30	0.04	17.32
1897-98	0.00	0.01	0.16	1.96	0.61	1.64	4.38	0.98	3.19	0.04	0.28	1.50	0.14	10.51
1898-99	0.00	0.00	0.36	0.64	0.61	2.30	3.91	3.94	0.04	6.02	0.10	0.54	0.49	15.04
1899-00	0.00	0.02	0.00	4.46	2.62	2.91	10.01	3.54	0.32	1.61	1.88	2.88	0.00	20.24
1900-01	T	0.00	0.06	1.74	4.50	1.38	7.68	3.70	5.32	0.48	2.23	0.80	0.00	20.21
1901-02	T	T	0.56	1.56	2.68	1.19	5.99	0.95	6.52	1.99	1.36	0.45	0.01	17.27
1902-03	0.00	T	0.00	1.67	2.02	2.91	6.60	3.05	1.70	4.81	0.46	T	T	16.62
1903-04	0.00	0.00	0.00	0.12	3.44	1.12	4.68	0.45	5.26	5.43	1.02	0.03	T	16.87
1904-05	T	0.07	3.62	1.86	2.05	1.20	8.80	3.33	2.47	3.75	1.18	2.45	0.00	21.98
1905-06	0.00	T	0.03	0.00	1.20	0.56	1.79	6.63	3.02	8.45	1.21	2.24	0.59	23.93
1906-07	0.00	T	0.20	T	0.99	7.37	8.56	4.63	2.37	7.28	0.25	0.10	0.85	24.04
1907-08	0.00	0.00	T	1.20	0.04	3.33	4.57	3.84	2.75	0.42	0.08	0.54	T	12.20
1908-09	T	0.00	0.05	0.26	1.23	2.04	3.58	9.65	6.68	1.84	T	T	0.03	21.78
1909-10	0.00	0.00	0.21	1.27	1.32	3.87	6.67	1.48	0.83	3.06	0.11	0.03	T	12.18

*Normal precipitation is for the period 1961-1990.

MONTHLY PRECIPITATION BY SEASON, WITH SEASONAL TOTAL AND THE
ACCUMULATED PRECIPITATION THROUGH DECEMBER 31

(Rainfall Season July 1-June 30)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Pcprn to Dec 31	Jan	Feb	Mar	Apr	May	Jun	Total Pcprn
Normal*	0.05	0.07	0.37	1.12	2.97	2.76	7.34	3.85	2.98	2.79	1.24	0.29	0.12	18.61
1910-11	T	0.00	0.20	0.28	0.17	1.62	2.27	12.72	1.88	4.30	0.66	0.03	0.12	21.98
1911-12	0.00	0.00	T	0.18	0.15	1.07	1.40	2.74	0.23	1.97	1.69	0.94	0.58	9.55
1912-13	T	0.00	1.25	0.58	0.80	0.23	2.86	2.52	0.16	1.34	0.53	0.51	0.11	8.03
1913-14	T	0.01	T	0.13	4.58	4.40	9.12	5.97	2.96	0.59	0.70	0.50	0.60	20.44
1914-15	0.00	0.00	T	0.82	0.47	3.44	4.73	3.76	4.26	1.20	0.50	2.75	0.00	17.20
1915-16	T	0.01	T	T	0.83	4.42	5.26	9.35	2.45	1.06	0.06	0.10	0.01	18.29
1916-17	0.07	T	0.16	0.79	0.49	3.73	5.24	1.30	4.97	0.70	0.62	0.12	0.00	12.95
1917-18	T	T	0.51	T	0.25	0.45	1.21	0.97	3.36	4.00	1.06	0.01	T	10.61
1918-19	0.00	T	3.58	0.40	1.84	1.70	7.52	1.77	6.29	1.50	0.11	0.01	0.00	17.20
1919-20	T	T	0.53	0.01	0.36	2.22	3.12	0.29	0.81	3.27	1.36	0.00	0.05	8.90
1920-21	0.00	T	0.01	1.29	3.39	4.32	9.01	4.61	0.54	1.45	0.39	0.75	0.05	16.80
1921-22	0.00	0.00	T	0.80	1.09	3.81	5.70	2.16	4.18	1.29	0.40	0.43	T	14.16
1922-23	T	T	0.00	0.72	3.03	6.12	9.87	2.05	0.30	0.43	2.87	0.08	0.09	15.69
1923-24	0.00	T	0.50	0.58	0.62	0.94	2.64	1.80	2.00	1.19	0.30	0.06	0.00	7.99
1924-25	T	T	T	2.10	1.59	3.63	7.32	1.02	4.45	1.14	1.61	2.11	0.05	17.70
1925-26	0.01	0.01	0.02	T	1.13	1.50	2.67	3.20	5.52	0.05	4.25	0.36	0.00	16.05
1926-27	0.00	T	T	2.14	4.48	0.58	7.20	2.30	4.99	1.01	1.47	0.21	0.57	17.75
1927-28	0.00	T	0.01	1.45	1.81	1.55	4.82	1.17	1.38	3.39	0.78	0.02	0.04	11.60
1928-29	T	0.00	T	0.15	2.98	2.66	5.79	0.88	1.44	0.78	0.44	0.04	1.02	10.39
1929-30	T	0.00	0.00	0.15	0.00	4.06	4.21	3.65	1.62	2.86	0.94	0.34	T	13.62
1930-31	0.00	T	0.29	0.47	1.11	0.56	2.43	2.50	1.35	1.14	0.05	0.67	0.29	8.43
1931-32	T	T	T	0.18	1.30	6.84	8.32	1.09	1.76	0.34	0.76	0.30	T	12.57
1932-33	T	0.00	0.00	0.00	0.36	2.11	2.47	2.85	0.95	1.44	0.03	0.30	0.08	8.12
1933-34	T	0.00	0.03	0.66	0.00	5.74	6.43	1.33	2.97	0.13	0.16	0.26	0.30	11.58
1934-35	0.00	T	0.01	0.45	2.61	2.50	5.57	4.81	1.97	2.93	5.81	0.01	0.00	21.10
1935-36	T	T	T	1.22	0.77	2.18	4.17	3.80	8.59	1.33	1.69	0.68	0.27	20.53
1936-37	T	0.00	T	0.35	0.03	2.62	3.00	2.92	6.18	6.37	1.10	0.01	0.18	19.76
1937-38	T	0.00	0.00	0.87	2.69	4.06	7.62	3.50	8.24	3.92	1.51	0.04	T	24.83
1938-39	T	0.00	0.30	1.29	0.88	0.71	3.18	1.91	1.06	2.42	0.25	0.92	T	9.74
1939-40	T	0.00	0.35	0.45	0.07	1.15	2.02	7.98	9.25	4.22	0.68	0.92	T	25.07

*Normal precipitation is for the period 1961-1990.

MONTHLY PRECIPITATION BY STATION, WITH SEASONAL TOTAL AND THE
ACCUMULATED PRECIPITATION THROUGH DECEMBER 31

(Rainfall Season July 1-June 30)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Pcpn to Dec 31	Jan	Feb	Mar	Apr	May	Jun	Total Pcpn
Normal*	0.05	0.07	0.37	1.12	2.97	2.76	7.34	3.85	2.98	2.79	1.24	0.29	0.12	18.61
1940-41	0.00	0.00	0.01	0.93	1.32	9.40	11.66	5.78	5.40	2.86	4.76	1.35	0.02	31.83
1941-42	0.00	T	T	0.86	1.17	6.29	8.32	4.68	2.98	3.31	4.58	1.07	0.00	24.94
1942-43	T	0.00	0.03	0.27	2.22	3.16	5.68	7.04	1.26	3.60	1.91	0.14	0.35	19.98
1943-44	T	0.00	T	0.16	0.62	2.02	2.80	3.08	7.27	1.42	1.66	0.83	0.52	17.58
1944-45	0.00	0.00	T	1.39	3.54	2.31	7.24	1.82	4.49	2.83	0.08	0.55	0.05	17.06
1945-46	T	T	0.00	2.53	1.60	5.50	9.63	0.77	0.90	1.94	0.06	0.61	0.00	13.91
1946-47	T	0.00	0.04	0.75	2.42	1.56	4.77	0.60	2.34	3.28	0.15	0.17	0.28	11.59
1947-48	0.00	0.00	T	2.60	1.02	0.65	4.27	0.51	0.88	3.68	3.05	3.04	0.01	15.44
1948-49	0.00	0.00	0.10	1.45	0.59	4.88	7.02	1.47	1.91	4.15	T	0.32	T	14.87
1949-50	T	0.01	0.03	0.14	1.10	1.90	3.18	4.41	3.27	2.00	1.03	0.37	0.05	14.31
1950-51	T	0.00	0.62	2.35	5.50	4.72	13.19	2.45	1.57	0.84	0.85	0.64	T	19.54
1951-52	0.00	T	0.25	1.33	3.18	5.11	9.87	8.65	1.65	4.50	1.41	0.05	0.45	26.58
1952-53	0.01	0.00	0.05	0.00	2.04	7.27	9.37	3.51	0.21	1.42	2.69	0.52	0.61	18.33
1953-54	0.00	0.67	0.00	0.18	1.79	0.56	3.20	3.26	3.70	3.29	1.88	0.21	T	15.54
1954-55	0.00	0.35	0.00	0.02	3.35	4.93	8.65	3.14	1.33	0.37	2.75	0.67	0.01	16.92
1955-56	0.00	0.00	0.95	0.57	1.16	12.20	14.88	7.58	2.43	0.03	1.86	0.96	T	27.74
1956-57	0.00	0.00	0.84	1.32	0.06	0.22	2.44	2.47	4.18	2.23	1.66	1.78	T	14.76
1957-58	0.00	0.00	1.35	1.35	0.33	3.07	6.10	5.38	9.13	5.93	4.41	0.72	0.27	31.94
1958-59	0.00	0.02	0.12	0.42	0.16	0.72	1.44	4.62	3.64	0.46	0.30	T	0.00	10.46
1959-60	T	T	1.54	T	0.01	1.28	2.83	3.25	2.91	1.62	1.26	0.41	0.00	12.28
1960-61	T	0.00	T	T	4.38	0.70	5.08	3.11	1.19	2.02	0.49	0.13	0.02	12.04
1961-62	T	0.01	0.17	0.03	2.96	1.44	4.61	0.95	7.60	1.84	0.19	0.06	0.01	15.26
1962-63	0.00	0.13	0.11	6.85	0.40	1.74	9.23	3.65	1.75	3.56	3.43	0.64	0.02	22.28
1963-64	0.00	T	0.35	1.27	3.92	0.38	5.92	3.35	0.19	0.83	0.16	0.18	0.41	11.04
1964-65	0.01	0.06	0.00	1.55	2.64	5.69	9.95	3.66	0.48	1.61	2.97	0.07	T	18.74
1965-66	0.00	0.59	0.00	0.11	3.25	2.89	6.84	2.11	1.58	0.22	0.59	0.24	T	11.58
1966-67	0.09	0.00	0.05	0.00	5.48	3.33	8.95	7.94	0.40	4.15	3.85	0.12	0.68	26.09
1967-68	0.00	0.00	0.04	0.26	1.25	0.94	2.49	3.34	1.97	2.42	0.40	0.32	0.23	11.17
1968-69	0.00	0.08	0.00	0.68	2.74	3.10	6.60	8.90	7.61	1.13	1.32	0.09	0.01	25.66
1969-70	0.00	0.00	0.03	0.80	0.81	5.36	7.00	7.05	1.45	1.83	0.14	0.00	0.24	17.71

*Normal precipitation is for the period 1961-1990.

MONTHLY PRECIPITATION BY SEASON, WITH SEASONAL TOTAL AND THE
ACCUMULATED PRECIPITATION THROUGH DECEMBER 31
(Rainfall Season July 1-June 30)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Pcpn to Dec 31	Jan	Feb	Mar	Apr	May	Jun	Total Pcpn
Normal*	0.05	0.07	0.37	1.12	2.97	2.76	7.34	3.85	2.98	2.79	1.24	0.29	0.12	18.61
1970-71	0.00	0.00	0.00	0.95	7.44	3.73	12.12	1.10	0.33	2.34	0.54	0.94	0.05	17.42
1971-72	0.00	0.00	0.00	0.27	0.88	4.84	5.99	1.07	1.15	0.37	1.27	0.34	0.15	10.34
1972-73	0.00	0.00	0.99	1.70	5.08	2.25	10.02	7.29	6.47	2.89	0.41	0.06	0.00	27.14
1973-74	0.00	0.00	0.44	1.56	6.69	3.05	11.74	3.80	1.57	3.72	1.34	0.00	0.66	22.83
1974-75	0.90	0.01	0.00	1.22	0.86	3.42	6.41	1.15	5.16	4.73	1.10	0.00	0.00	18.55
1975-76	0.02	0.16	0.00	2.32	0.40	0.30	3.20	0.37	1.49	0.61	1.53	0.00	0.05	7.25
1976-77	0.00	0.57	0.81	0.00	0.62	0.62	2.62	1.36	1.10	1.33	0.36	0.76	0.00	7.53
1977-78	0.01	0.00	0.55	0.27	2.00	3.65	6.48	9.61	2.77	4.24	2.26	0.00	0.00	25.36
1978-79	0.00	0.00	0.37	0.01	3.45	0.87	4.70	5.81	5.24	2.67	0.88	0.09	0.00	19.39
1979-80	0.22	0.00	0.01	1.79	1.66	3.96	7.64	5.33	8.08	2.19	1.04	0.47	0.04	24.79
1980-81	0.31	0.00	0.00	0.04	0.26	2.25	2.86	4.97	1.00	3.55	0.71	0.34	0.00	13.43
1981-82	0.00	0.00	0.32	2.64	7.13	3.91	14.00	5.40	2.90	6.82	3.36	0.00	0.17	32.65
1982-83	0.00	0.00	1.54	2.69	5.83	3.44	13.50	5.54	5.28	8.30	4.36	0.23	0.28	37.49
1983-84	0.00	0.01	0.61	0.53	5.83	6.65	13.63	0.23	1.52	1.47	0.44	0.01	0.10	17.40
1984-85	0.00	0.08	0.08	1.87	5.46	1.75	9.24	1.07	1.85	2.79	0.11	0.02	0.14	15.22
1985-86	0.00	0.01	0.71	0.69	4.64	3.19	9.24	4.88	10.30	4.23	1.02	0.08	0.00	29.75
1986-87	0.00	0.00	0.80	0.33	0.22	1.30	2.65	2.55	3.77	3.57	0.26	0.01	0.00	12.81
1987-88	0.00	0.00	0.00	1.30	3.22	3.75	8.27	3.61	0.74	0.31	1.46	0.75	0.23	15.37
1988-89	0.01	0.00	0.00	0.22	2.08	3.32	5.63	0.70	1.38	6.73	0.39	0.04	0.26	15.13
1989-90	0.00	0.37	3.15	1.47	1.26	0.00	6.25	5.49	3.14	1.16	0.75	2.61	0.00	19.40
1990-91	0.00	0.00	0.00	0.28	0.56	1.66	2.50	0.37	3.18	7.48	0.38	0.26	0.56	14.73
1991-92	0.00	0.01	0.05	1.22	0.32	2.04	3.64	1.68	6.89	3.32	0.93	0.00	0.22	16.68
1992-93	0.00	0.00	0.00	1.26	0.38	6.23	7.87	9.37	5.11	2.43	0.75	1.23	0.94	27.70
1993-94	0.00	0.00	0.00	0.43	2.70	2.04	5.17	2.16	3.17	0.07	0.80	1.65	0.00	13.02
1994-95	0.00	0.00	0.00	0.45	3.96	3.54	7.95	12.35	0.19	7.84	1.90	1.01	0.53	31.77
1995-96	0.01	0.00	0.00	0.00	0.00	5.14	5.15	3.30	6.09	2.30	1.93	2.22	0.00	20.99
1996-97	0.00	0.00	0.00	0.76	1.49	5.82	8.07	7.68	0.26	0.58	0.28	0.35	0.53	17.75
1997-98	0.00	0.21	0.18	1.01	4.67	2.64	8.71	6.79	9.43	2.55	1.44	3.04	0.29	32.25
1998-99														
1999-00														

*Normal precipitation is for the period 1961-1990.

**NUMBER OF DAYS WITH MEASURABLE RAIN BY MONTH, WITH
TOTAL PRECIPITATION FOR THE WATER YEAR***
(July 1877-June 1998)

<u>Year</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u># of Days</u>	<u>Total Rain</u>
Average**	--	--	2	4	8	9	10	8	9	5	2	1	59	18.61
1877-78	0	0	0	5	7	5	17	17	14	3	4	0	72	24.86
1878-79	0	0	3	1	2	3	11	9	15	12	5	1	62	17.86
1879-80	0	0	0	4	8	12	7	10	7	15	3	0	66	26.47
1880-81	0	0	0	0	2	21	9	13	6	6	0	2	59	26.57
1881-82	0	0	1	6	4	11	8	6	10	8	1	1	56	16.51
1882-83	0	0	2	6	7	9	5	3	6	7	9	0	54	18.11
1883-84	0	0	2	6	3	6	9	10	13	9	3	7	68	24.78
1884-85	0	0	3	4	0	11	8	5	2	7	0	2	42	16.58
1885-86	0	0	1	2	17	10	13	3	12	12	2	0	72	32.27
1886-87	0	0	0	3	1	7	7	14	5	8	0	0	45	13.97
1887-88	0	0	1	0	3	8	14	5	8	2	2	4	47	11.56
1888-89	0	0	2	0	7	15	3	4	13	6	8	1	59	19.95
1889-90	0	0	0	11	7	23	17	9	14	4	5	0	90	33.80
1890-91	0	0	1	0	0	5	5	13	10	8	4	1	47	15.81
1891-92	0	0	3	2	4	11	5	7	9	7	7	0	55	15.18
1892-93	0	0	2	4	7	9	5	7	13	4	4	0	55	23.95
1893-94	0	0	2	1	7	6	8	9	7	2	7	2	51	16.35
1894-95	0	0	2	5	1	20	15	4	6	4	4	0	61	24.11
1895-96	1	0	4	3	7	8	13	2	13	10	6	0	67	23.23
1896-97	0	1	3	2	8	10	10	13	13	2	1	1	64	17.32
1897-98	0	1	1	4	4	6	6	9	1	2	5	1	40	10.51
1898-99	0	0	1	3	4	4	12	1	11	2	3	2	43	15.04
1899-00	0	1	0	9	13	10	11	4	9	8	4	0	69	20.24
1900-01	0	0	1	7	9	7	13	10	2	4	6	0	59	20.21
1901-02	0	0	1	3	9	4	7	19	8	7	4	1	63	17.27
1902-03	0	0	0	4	7	5	10	7	14	5	0	0	52	16.62
1903-04	0	0	0	1	9	5	6	16	19	10	1	0	67	16.87
1904-05	0	0	5	7	4	8	13	7	13	4	6	0	67	21.98
1905-06	0	0	1	0	3	7	11	14	17	6	6	5	70	23.93
1906-07	0	0	2	0	5	13	17	9	19	4	2	2	73	24.04
1907-08	0	2	0	4	1	12	14	9	3	3	5	0	53	12.20
1908-09	0	0	1	3	4	12	25	17	11	0	0	1	74	21.78
1909-10	0	0	3	5	14	13	12	9	8	1	1	0	66	12.18

- * Water Year is the 12-month period beginning July 1 and ending June 30.
- ** Averages based on Climatological Normals 1961-1990
- Less than one day.

**NUMBER OF DAYS WITH MEASURABLE RAIN BY MONTH, WITH
TOTAL PRECIPITATION FOR THE WATER YEAR***

(July 1877-June 1998)

<u>Year</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u># of Days</u>	<u>Total Rain</u>
Average**	--	--	2	4	8	9	10	8	9	5	2	1	59	18.61
1910-11	0	0	2	2	4	6	17	12	9	3	2	1	58	21.98
1911-12	0	0	0	1	2	6	11	2	6	7	3	3	41	9.95
1912-13	0	0	4	6	7	3	10	3	6	4	5	1	49	8.03
1913-14	0	1	0	1	12	11	16	6	2	6	2	4	61	20.44
1914-15	0	0	0	4	4	15	15	18	5	5	10	0	76	17.20
1915-16	0	1	0	0	5	9	20	15	5	2	3	1	61	18.29
1916-17	1	0	2	5	4	11	14	9	3	4	3	0	56	12.95
1917-18	0	0	2	0	4	2	2	14	13	3	1	0	41	10.61
1918-19	0	0	6	2	9	4	7	18	8	4	1	0	59	17.20
1919-20	0	0	5	1	4	10	3	6	9	3	0	2	43	8.90
1920-21	0	0	1	6	11	16	12	7	8	2	3	1	67	16.80
1921-22	0	0	0	3	4	12	7	14	14	2	5	0	61	14.16
1922-23	0	0	0	7	5	19	9	3	2	11	2	1	59	15.69
1923-24	0	0	5	4	3	6	7	4	7	2	1	0	39	7.99
1924-25	0	0	0	7	3	13	7	12	5	8	8	2	65	17.70
1925-26	1	1	1	0	7	4	8	10	1	7	2	0	42	16.05
1926-27	0	0	0	4	11	7	12	16	9	7	3	1	70	17.75
1927-28	0	0	1	4	9	10	8	8	11	5	1	1	58	11.60
1928-29	0	0	0	3	6	8	5	6	5	5	1	3	42	10.39
1929-30	0	0	0	2	0	8	14	8	7	6	4	0	49	13.62
1930-31	0	0	4	3	6	3	8	7	6	2	3	3	45	8.43
1931-32	0	0	0	2	8	16	10	5	7	5	5	0	58	12.57
1932-33	0	0	0	0	5	7	12	4	10	1	4	1	44	8.12
1933-34	0	0	2	3	0	12	4	13	3	2	3	3	45	11.58
1934-35	0	0	1	4	8	8	11	8	9	11	1	0	61	21.10
1935-36	0	0	0	4	5	11	12	16	3	4	3	3	58	20.53
1936-37	0	0	0	2	1	9	15	10	14	5	1	1	58	19.76
1937-38	0	0	0	4	9	9	13	16	13	6	3	0	73	24.83
1938-39	0	0	2	6	4	7	10	8	5	3	4	0	49	9.74
1939-40	0	0	3	4	1	7	18	14	7	4	2	0	60	25.07

* Water Year is the 12-month period beginning July 1 and ending June 30.

** Averages based on Climatological Normals 1961-1990

-- Less than one day.

**NUMBER OF DAYS WITH MEASURABLE RAIN BY MONTH, WITH
TOTAL PRECIPITATION FOR THE WATER YEAR***
(July 1877-June 1998)

Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	# of Days	Total Rain
Average**	--	--	2	4	8	9	10	8	9	5	2	1	59	18.61
1940-41	0	0	1	3	4	14	16	15	9	10	5	1	78	31.83
1941-42	0	0	0	3	6	17	13	8	5	13	5	0	70	24.94
1942-43	0	0	1	3	9	9	10	7	12	5	1	3	60	19.98
1943-44	0	0	0	3	6	8	8	13	4	10	3	3	58	17.58
1944-45	0	0	0	4	12	8	6	8	9	1	6	2	56	17.06
1945-46	0	0	0	6	8	12	4	8	10	1	2	0	51	13.91
1946-47	0	0	1	3	4	8	4	7	9	3	3	4	46	11.59
1947-48	0	0	0	6	4	6	4	7	9	16	6	1	59	15.44
1948-49	0	0	1	2	6	14	4	9	11	0	3	0	50	14.87
1949-50	0	1	1	1	4	9	15	7	8	6	2	1	55	14.31
1950-51	0	0	1	8	14	12	12	9	4	2	3	0	65	19.54
1951-52	0	0	2	5	11	12	14	11	11	4	1	3	74	26.58
1952-53	1	0	1	0	4	15	12	4	5	8	5	2	57	18.33
1953-54	0	1	0	3	11	3	10	7	10	4	1	0	50	15.54
1954-55	0	2	0	1	5	12	15	4	3	9	1	1	53	16.92
1955-56	0	0	2	2	7	19	17	7	3	6	6	0	69	27.74
1956-57	0	0	2	5	1	1	9	13	11	4	9	0	55	14.76
1957-58	0	0	2	7	5	10	14	15	17	6	2	2	80	31.94
1958-59	0	1	1	1	2	5	10	11	6	2	0	0	39	10.46
1959-60	0	0	3	0	1	3	12	9	11	5	2	0	46	12.28
1960-61	0	0	0	0	14	7	6	6	10	3	4	1	51	12.04
1961-62	0	1	1	2	5	5	2	15	5	2	2	1	41	15.26
1962-63	0	1	2	4	3	4	4	7	11	14	3	1	54	22.28
1963-64	0	0	2	6	12	4	8	2	6	1	5	4	50	11.04
1964-65	1	1	0	3	12	20	10	4	6	13	1	0	71	18.74
1965-66	0	2	0	1	11	8	5	9	3	3	2	0	44	11.58
1966-67	2	0	2	0	9	7	11	2	12	14	2	4	65	26.09
1967-68	0	0	1	2	7	6	10	10	7	1	2	1	47	11.17
1968-69	0	1	0	5	10	12	18	16	8	5	1	1	77	25.66
1969-70	0	0	2	2	3	11	19	6	5	1	0	2	51	17.71

- * Water Year is the 12-month period beginning July 1 and ending June 30.
- ** Averages based on Climatological Normals, 1961-1990
- Less than one day.

**NUMBER OF DAYS WITH MEASURABLE RAIN BY MONTH, WITH
TOTAL PRECIPITATION FOR THE WATER YEAR***
(July 1877-June 1998)

<u>Year</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u># of Days</u>	<u>Total Rain</u>
Average**	--	--	2	4	8	9	10	8	9	5	2	1	59	18.61
1970-71	0	0	0	4	13	19	10	4	8	8	7	1	74	17.42
1971-72	0	0	0	2	5	13	6	8	5	6	3	1	49	10.34
1972-73	0	0	3	9	12	11	16	15	12	2	2	0	82	27.14
1973-74	0	0	3	4	15	13	13	6	11	8	0	1	74	22.83
1974-75	3	1	0	3	4	8	11	13	15	9	0	0	67	18.55
1975-76	0	2	0	7	7	8	1	8	4	4	0	1	42	7.25
1976-77	0	5	4	0	3	2	4	4	6	2	9	0	39	7.53
1977-78	1	0	4	4	3	14	16	9	11	9	0	0	71	25.36
1978-79	0	0	3	1	7	4	13	11	9	6	2	0	56	19.39
1979-80	1	0	1	6	7	8	13	13	7	5	2	1	63	24.79
1980-81	2	0	0	1	4	6	14	11	9	2	1	0	50	13.43
1981-82	0	0	1	7	12	13	10	4	15	8	0	2	72	32.65
1982-83	0	0	8	8	14	11	13	13	19	11	1	2	100	37.49
1983-84	0	1	3	4	14	17	4	9	4	4	1	2	63	17.40
1984-85	0	1	1	7	17	7	6	2	10	2	1	2	56	15.22
1985-86	0	1	4	2	12	9	15	12	8	5	3	0	71	29.75
1986-87	0	0	5	3	1	7	8	8	11	1	1	0	45	12.81
1987-88	0	0	0	6	8	15	12	2	1	5	3	3	55	15.37
1988-89	1	0	0	2	9	12	7	8	19	4	1	2	65	15.13
1989-90	0	2	5	4	2	0	11	7	5	3	8	0	47	19.40
1990-91	0	0	0	2	3	3	3	5	16	5	3	1	41	14.73
1991-92	0	1	1	2	2	7	9	17	11	2	0	2	54	16.68
1992-93	0	0	0	4	5	14	14	14	12	4	6	4	77	27.70
1993-94	0	0	0	5	7	7	8	9	1	4	4	0	45	13.02
1994-95	0	0	0	1	9	13	25	4	18	13	6	3	92	31.77
1995-96	1	0	0	0	0	13	14	15	7	5	5	0	60	20.99
1996-97	0	0	0	5	8	18	11	4	3	3	1	2	55	17.75
1997-98	0	2	1	4	14	5	20	20	12	8	14	3	103	32.25
1998-99														
1999-00														

* Water Year is the 12-month period beginning July 1 and ending June 30.

** Averages based on Climatological Normals 1961-1990

-- Less than one day.

15 WETTEST WATER YEARS*
(JULY 1849-JUNE 1998)

<u>Rank</u>	<u>Amount</u>	<u>Year</u>
1	37.49	1982-83
2	36.35	1852-53
3	36.10	1861-62
4	36.00	1849-50
5	33.80	1889-90
6	32.79	1867-68
7	32.65	1981-82
8	32.27	1885-86
9	32.25	1997-98
10	31.94	1957-58
11	31.83	1940-41
12	31.77	1994-95
13	29.75	1985-86
14	27.74	1955-56
15	27.70	1992-93

15 DRIEST WATER YEARS*
(JULY 1849-JUNE 1998)

<u>Rank</u>	<u>Amount</u>	<u>Year</u>
1	7.25	1975-76
2	7.53	1976-77
3	7.79	1863-64
4	7.99	1923-24
5	8.03	1912-13
6	8.12	1932-33
7	8.26	1850-51
8	8.43	1930-31
9	8.47	1870-71
10	8.90	1919-20
11	9.19	1876-77
12	9.74	1938-39
13	9.95	1911-12
14	10.34	1971-72
15	10.39	1928-29

* *Water Year* is the 12-month period beginning July 1 and ending June 30.

**SNOWFALL
IN SACRAMENTO**
(January 1878-August 1998)

<u>Year</u>	<u>Date</u>	<u>Total Snow</u>	<u>Year</u>	<u>Date</u>	<u>Total Snow</u>
1879	January 13	T	1935	March 8	T
1880	January 26	0.2	1937	January 10, 11, 24, 30	T
1882	February 17, 18	T	1942	March 14	2.0
1883	February 1, 6	T	1949	February 11	T
1888	January 4	1.0	1952	January 12	T
1888	January 5	2.5	1952	February 20	T
1888	January 16	0.5	1952	March 15	T
1896	March 2	T	1954	March 19	T
1899	February 2	T	1955	April 18,26	T
1907	January 6	0.4	1957	January 25, 26	T
1911	February 26, 27	T	1962	January 21	T
1911	December 29	T	1964	January 21	T
1913	January 9	0.1	1968	December 19, 20, 23	T
1916	January 1	3.0	1972	December 6, 12	T
1916	January 27	0.5	1974	January 4	T
1925	April 20	T	1976	February 5	2.0
1930	January 12	1.0	1982	March 17	T
1932	January 12	1.0	1988	December 27, 28	T
1932	February 01	0.5	1996	February 27	T
1932	December 9	T			
1933	January 18	T			

Snowfall data is based on the city office records from January 1878 through December 1950. Executive Airport data is used from then on.

Sleet and ice pellets were included in snowfall totals beginning July 1948. Ice pellets is a term that is internationally recognized and includes solid grains of ice (sleet) and particles consisting of snow pellets encased in a thin layer of ice.

"Snow" in April of 1925 and 1955 was actually a mixture of hail and sleet. The observer's weather log for April 20, 1925, indicated that there was a mixture of rain and sleet "...with an occasional flake of snow." The "Trace" recorded April 18, 1955, was during a brief hailstorm, with hail measuring one half-inch in diameter. Small hail was observed on April 26, 1955.

In most instances, snowfall at Sacramento is estimated as the snow usually melts as it reaches the ground.

GREATEST SNOWFALL DURING ANY 24 HOUR PERIOD
(January 1878-August 1998)

<u>Month</u>	<u>Amount</u>	<u>Date</u>	<u>Year</u>
January	3.5	04, 05	1888
February	2.0	05	1976
March	2.0	14	1942
April	T	18, 26	1955*
May	0	N/A	N/A
June	0	N/A	N/A
July	0	N/A	N/A
August	0	N/A	N/A
September	0	N/A	N/A
October	0	N/A	N/A
November	0	N/A	N/A
December	T	27, 28	1988*
Annual	4.0	04, 05, 16	January 1888

AVERAGE AND GREATEST NUMBER OF DAYS WITH THUNDERSTORMS
BY MONTH WITH YEAR OF OCCURRENCE
(January 1948-August 1998)

<u>Month</u>	<u>Average # Days with Thunderstorms</u>	<u>Greatest # Days with Thunderstorms</u>	<u>Year</u>
January	0.4	3	1970
February	0.5	4	1992
March	0.8	4	1983
April	0.7	3	1967
May	0.3	3	1956
June	0.2	2	1989
July	0.2	2	1991*
August	0.2	2	1989*
September	0.5	2	1989*
October	0.3	2	1979*
November	0.3	3	1970
December	0.2	2	1970
Annual	4.7	10	1970*

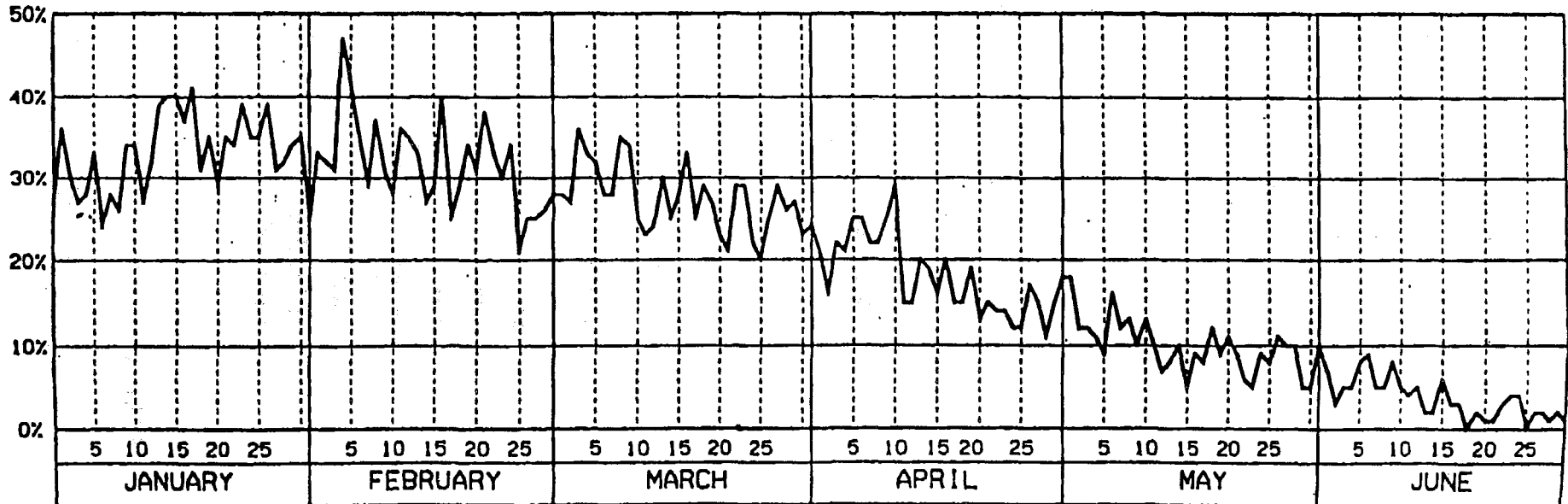
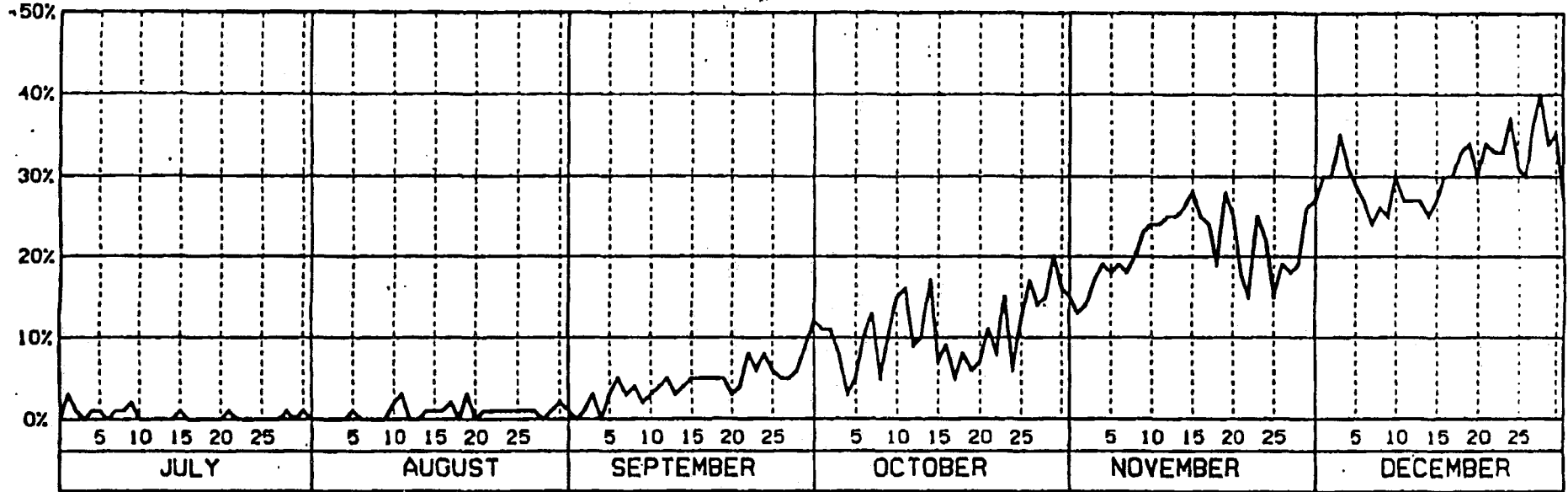
*Also occurred in earlier years.

Downtown Sacramento data used from January 1948-December 1962. Sacramento Executive Airport Used thereafter. The average days with thunderstorms is based on airport data from 1948-1991.

RAINFALL CHART

PROBABILITY OF RAIN (BY PERCENTAGE) ON ANY GIVEN DAY,
 BASED ON NATIONAL WEATHER SERVICE RECORDS FOR DOWNTOWN SACRAMENTO
 (PRECIPITATION 0.01 INCHES OR MORE, BASED ON RECORDS FROM 1878-1987)

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VI. MISCELLANEOUS STATISTICS

AVERAGE RELATIVE HUMIDITY BY TIME PERIODS

	<u>4 AM</u>	<u>10 AM</u>	<u>4 PM</u>	<u>10 PM</u>
January	90	85	70	86
February	87	78	59	81
March	85	69	53	77
April	81	58	43	73
May	81	50	35	69
June	78	47	31	64
July	76	47	28	61
August	78	50	29	64
September	77	50	31	64
October	80	57	38	70
November	86	74	58	81
December	90	84	70	86
Annual	82	62	45	73

Data based on the average humidities for the Sacramento Executive Airport (1961-1990).

AVERAGE SEA-LEVEL PRESSURE WITH THE HIGHEST AND LOWEST BY MONTH WITH DATE AND YEAR OF OCCURRENCE (July 1877-November 1993)

	<u>Average</u>	<u>Highest</u>	<u>Date</u>	<u>Year</u>	<u>Lowest</u>	<u>Date</u>	<u>Year</u>
January	30.07	30.64	24	1938	28.95	27	1916
February	30.02	30.74	17	1883	29.15	22	1891
March	29.98	30.56	2	1971	29.20	01	1991
April	29.94	30.45	4	1945	29.37	22	1931
May	29.87	30.34	12	1890	29.50	17	1949
June	29.82	30.22	25	1975**	29.52	23	1989
July	29.81	30.21	12	1888	29.55	8	1926
August	29.81	30.19	4	1976	29.49	26	1932
September	29.82	30.19	19	1950**	29.44	12	1927
October	29.92	30.42	28	1921	29.42	24	1951
November	30.03	30.53	18	1969**	29.20	30	1982
December	30.07	30.67	25	1879	29.23	22	1982
Annual	29.93	30.74	Feb 17	1883	28.95	Jan 27	1916

**Occurred on earlier dates and years.

Downtown Sacramento used until July 1, 1939. Executive Airport used until November 1993.

AVERAGE SUNSHINE, CLOUDINESS AND FOG
(Sacramento Executive Airport 1949-1997)

<u>Month</u>	<u>Sunshine*</u>	<u>Sky Cover (Sunrise-Sunset)</u>				<u>Dense Fog</u>		
	Avg Percent Possible <u>Sunshine</u>	Avg Amnt of Sky <u>Cover</u>	<u>Avg Number of Days</u>			Avg Number of Days	<u>Days</u>	<u>Year</u>
			<u>Clear</u>	<u>Partly Cloudy</u>	<u>Cloudy</u>			
January	47%	7.0	6.6	5.9	18.5	9.9	23	1961
February	64%	6.2	7.9	7.0	13.3	5.3	13	1963**
March	73%	5.5	10.3	8.5	12.3	1.7	6	1986
April	82%	4.7	12.0	9.6	8.3	0.3	2	1965**
May	89%	3.5	17.3	8.4	5.2	0.2	2	1971
June	93%	2.2	21.8	5.8	2.4	0.0	0	----
July	97%	1.1	26.9	3.2	0.9	0.0	0	----
August	96%	1.5	25.3	4.3	1.3	0.0	1	1966
September	93%	1.8	23.4	4.4	2.2	0.2	2	1963
October	86%	3.1	19.4	6.2	5.4	1.4	11	1962
November	65%	5.7	9.8	7.2	13.0	5.3	11	1982
December	48%	6.6	7.9	5.9	17.2	9.5	22	1989**
Annual	78%	4.1	188.6	76.4	100.0	33.8	64	1962

* Sunshine data recording ceased in 1995.

** Also occurred in previous years.

Dense fog is when the visibility is restricted to 1/4 mile or less for at least part of the day. Sky cover is expressed in a range from 0 - 10, with 0 standing for no clouds or obscuring phenomena, and 10 representing a complete sky cover. Beginning July 1996, sky cover has been recorded in fractions of eights in order to conform to international standards. A further break-down is as follows:

	<u>July 1996 and Later</u>	<u>Prior to July 1996</u>
Clear	0/8 to 2/8 sky cover	0/10 to 3/10 sky cover
Partly Cloudy	3/8 to 6/8 sky cover	4/10 to 7/10 sky cover
Cloudy	7/8 or 8/8 sky cover	8/10 to 10/10 sky cover

**GREATEST NUMBER OF CONSECUTIVE DAYS WITH DENSE FOG
DURING NOVEMBER, DECEMBER, JANUARY AND FEBRUARY**
(November 1949-August 1998)

<u>Days</u>	<u>Period</u>	<u>Year</u>	<u>Days</u>	<u>Period</u>	<u>Year</u>
17	December 12-December 28	1985	9	January 17-January 25	1961
13	January 13-January 25	1975	9	November 25-December 3	1949
11	December 3-December 13	1962	9	February 3-February 11	1954
10	December 2-December 11	1977	8	February 3-February 10	1991
10	December 27, 1962-January 5	1963	8	December 23-December 30	1989
9	January 6-January 14	1986	8	January 29-February 5	1962
9	February 6-February 14	1971	8	December 14-December 21	1956
9	January 12-January 20	1965	8	December 14-December 21	1954

Only periods with 8 or more days are tabulated.

GREATEST NUMBER OF DAYS WITH DENSE FOG BY MONTHS
(Non-Consecutive) – (November 1949-August 1998)

<u>Days</u>	<u>Period</u>	<u>Days</u>	<u>Period</u>
23	January 1961	15	January 1975
22	December 1989	15	January 1972
22	December 1985	15	January 1965
20	December 1962	14	December 1986
19	December 1963	14	January 1986
19	January 1958	14	January 1983
18	January 1985	14	January 1964
16	December 1977	14	January 1963
16	January 1955	14	January 1962

Only periods with 14 or more days are tabulated.

Dense fog is defined as a heavy fog that restricts visibility to 1/4 mile or less during any period of the 24-hour day from midnight to midnight.

**AVERAGE WIND SPEED, PREVAILING DIRECTION AND FASTEST MILE
BY MONTHS WITH DATE AND YEAR OF OCCURRENCE
(July 1877-December 1997)**

<u>Month</u>	<u>Average Speed*</u>	<u>Prevailing Direction</u>	<u>Fastest Mile</u>	<u>Direction</u>	<u>Date</u>	<u>Year</u>
January	7.2	Southeast	60	Southeast	17	1954
February	7.6	S-Southeast	58	Southeast	9	1938
March	8.6	Southwest	66	South	14	1952
April	8.7	Southwest	45	Southwest	25	1955
May	9.2	Southwest	40	Southeast	6	1912
June	9.7	Southwest	47	Southwest	23	1950
July	9.0	S-Southwest	36	Southwest	12	1956
August	8.6	Southwest	38	Southwest	19	1954
September	7.5	Southwest	42	Northwest	16	1965
October	6.4	Southwest	68	Southeast	26	1950
November	6.0	N-Northwest	70	Southeast	13	1953
December	6.6	S-Southeast	70	Southeast	7	1952
Annual Average	7.9	Southwest				

*Average wind speed and direction is for the Executive Airport (1948-1990).

Wind extremes are the fastest 1-minute observed wind speed (in miles per hour). City office records were used from July 1877-January 1950. Executive airport wind data thereafter.

The "Fastest Mile" is the fastest 1-minute observed wind speed taken from a multiple register with a time-record of the passing of each mile of wind.

NOTE: Stronger peak gusts of wind have been observed but only as a sudden and brief increase in the wind speed, usually less than 20 seconds. An official record of the measurement of peak wind gusts requires the use of an instantaneous wind speed recorder. This type of instrument was not available for use in Sacramento during the period of record. A formula to derive the estimated peak gust from the fastest mile, according to the American Standard Association, is as follows:

$$\text{Estimated Peak Gust} = (\text{Fastest Mile}) \times (1.3)$$

For example, the estimated peak gust with a fastest mile of 70 mph would be 91 mph, or

$$\text{Estimated peak gust} = (70) \times (1.3) = 91 \text{ mph}$$

**NORMAL HEATING DEGREE DAYS WITH HIGHEST AND LOWEST
BY MONTHS AND YEAR OF OCCURRENCE**

**SACRAMENTO EXECUTIVE AIRPORT
(July 1960- December 1997)**

<u>Month</u>	<u>Normal*</u>	<u>Highest</u>	<u>Year</u>	<u>Lowest</u>	<u>Year</u>
July	0	7	1974	0	Most
August	0	4	1964	0	Most
September	16	53	1986	0	1996**
October	78	191	1971	7	1983
November	351	532	1982	145	1981
December	611	749	1972	421	1995
January	614	736	1963	411	1986
February	400	496	1989	249	1963
March	357	449	1975	192	1986
April	230	456	1967	71	1990
May	80	187	1977	0	1992
June	12	40	1982	0	1987**
Season	2749	3149	1982-1983	1851	1995-1996

* Normals based on 1961-1990 temperature data.

** Also occurred in previous years

A heating degree day is a measure of the departure of the average daily temperature from 65 degrees. Each degree that the daily average temperature is below 65 degrees is equal to one degree day. For example, if the average daily temperature on a particular day was 55 degrees the heating degree day would then be:

$$\begin{aligned} \text{Heating Degree Day} &= 65-55 \\ &= 10 \end{aligned}$$

Each day of the month would be computed in the same fashion with negative differences counted as zero.

**NORMAL COOLING DEGREE DAYS WITH HIGHEST AND LOWEST
BY MONTHS AND YEAR OF OCCURRENCE**

**SACRAMENTO EXECUTIVE AIRPORT
(January 1969-December 1997)**

<u>Month</u>	<u>Normal*</u>	<u>Highest</u>	<u>Year</u>	<u>Lowest</u>	<u>Year</u>
January	0	0	----	0	All
February	0	0	----	0	All
March	0	10	1986	0	Most
April	29	60	1989	0	1983**
May	89	227	1997	19	1977
June	210	319	1985	83	1982
July	332	484	1988	220	1987
August	313	422	1996	207	1980
September	211	375	1975	95	1986
October	53	208	1991	9	1982
November	0	11	1997	0	Most
December	0	0	----	0	All
Season	1237	1654	1975	737	1982

* Normals based on 1961-1990 temperature data.

** Also occurred in previous years

A cooling degree day is a measure of the departure of the base temperature of 65 degrees from the average daily temperature. Each degree that the average daily temperature is above 65 degrees is equal to one degree day. For example, if the average daily temperature on a particular day was 72 degrees, the cooling degree day would then be:

$$\begin{aligned} \text{Cooling Degree Day} &= 72-65 \\ &= 7 \end{aligned}$$

Again, each day of the month would be computed with negative differences counted as zero.

Heating and cooling degree days are useful in the computation of fuel and power consumption and are used by utility companies to determine heating and cooling requirements.

**WEATHER EXTREMES FOR SACRAMENTO COMPARED TO CALIFORNIA,
THE UNITED STATES, NORTH AMERICA AND THE WORLD**

<u>HIGHEST TEMP</u>	<u>° F</u>	<u>LOCATION AND DATE</u>
Sacramento	114	July 17, 1925
California	134	Greenland Ranch (Death Valley)- July 10, 1913
United States	134	Greenland Ranch (Death Valley)- July 10, 1913
North America	134	Greenland Ranch (Death Valley)- July 10, 1913
World	136	Azizia, Tripolitania Libya, Africa- September 13, 1922

<u>LOWEST TEMP</u>	<u>° F</u>	<u>LOCATION AND DATE</u>
Sacramento	17	December 11, 1932
California	-45	Boca (Nevada County, Elev. 5532 Ft)- January 20, 1937
United States	-80	Prospect Creek (25 SE Bettles, Alaska)-January 23, 1971
North America	-81	Snag (Yukon Territory), Canada- Feb. 3, 1947
World	-129	Vostok, Antarctica (Elev. 11220 Ft)-July 21, 1983

GREATEST PRECIPITATION IN ONE HOUR (Inches)

Sacramento	1.65	April 7, 1935
California	4.41	Forni Ridge (El Dorado County, Elev. 7600 Ft)-June 18, 1982*
United States	12.00	Kilauea Sugar Plantation, Kauai, Hawaii-January 24-25, 1956 and also at Holt, Missouri-June 22, 1947
North America	12.00	Holt, Missouri-June 22, 1947
World	12.00	Same as the United States and North America

* This extreme rainfall event occurred between 4 p.m. and 5 p.m. during an intense thunderstorm. A rainfall rate of 1.81 inches in six minutes was registered during the height of the storm. Breaking the rainfall rates down even further during this storm, 3.07 inches fell in 18 minutes and 4.06 inches in a 27-minute period. Flooding and debris flow caused the closure of Highway 50 between Sacramento and Lake Tahoe for five hours. Forni Ridge is located approximately 65 miles east of Sacramento at the 7600 Ft elevation. Various record books list Campo (San Diego county, just north of the border) with 11.50 inches of rain in an 80-minute period, August 12, 1981.

**WEATHER EXTREMES FOR SACRAMENTO COMPARED TO CALIFORNIA,
THE UNITED STATES, NORTH AMERICA AND THE WORLD**

GREATEST PRECIPITATION IN 24 HOURS (Inches)

Sacramento	7.24	April 20-21, 1880
California	26.12	Hoegee's Camp Ivy (Los Angeles County, Elev.2750 Ft)- January 22-23, 1943
United States	43.00	Alvin, Texas- July 25-26, 1979
North America	43.00	Alvin, Texas- July 25-26, 1979
World	73.62	Cilaos La Reunion (An island 400 miles east of Madagascar)- March 15-16, 1952

GREATEST PRECIPITATION IN ONE CALENDAR MONTH (Inches)

Sacramento	15.04	January 1862
California	81.90	Camp Six (Del Norte County, Elev. 3778 Ft)-December 1981
United States	107.00	Puu Kukui, Maui, Hawaii- March 1942
North America	88.01	Swanson Bay, British Columbia- November 1917
World	366.14	Cherrapunji, India- July 1861

GREATEST PRECIPITATION IN ONE YEAR (Seasonal or Calendar Year)

Sacramento	37.49	Seasonal Year- July 1982-June 1983
California	254.90	Camp Six- October 1981-September 1982
United States	704.83	Puu Kukui, Maui, Hawaii- Calendar Year 1982
North America	332.29	Mac Leod Harbor, Alaska- Calendar Year 1976
World	905.12	Cherrapunji, India- Calendar Year 1861
	1041.78	Cherrapunji, India- August 1860-July 1861

LEAST PRECIPITATION IN ONE YEAR (Seasonal or Calendar Year)

Sacramento	7.25	Seasonal Year- July 1975-June 1976
California	0.00	Bagdad (San Bernardino County)- Calendar Year 1913
	0.00	Greenland Ranch (Death Valley)- Calendar Year 1929
United States	0.00	Same as California
North America	0.00	Same as California
World	0.00	Iquique, Chile- November 1945 thru May 1957
	0.00	Arica, Chile- October 1903 thru December 1917
	0.00	Kharga, Egypt- December 1957 thru March 1960
	0.00	Wadi Halfa, Sudan- June 1945 thru April 1949
	0.00	Bagdad (San Bernardino County)- Calendar Year 1913
	0.00	Greenland Ranch (Death Valley)- Calendar Year 1929

**WEATHER EXTREMES FOR SACRAMENTO COMPARED TO CALIFORNIA,
THE UNITED STATES, NORTH AMERICA AND THE WORLD**

GREATEST SNOWFALL IN 24 HOURS (Inches)

Sacramento	3.5	January 4-5, 1888
California	67.0	Echo Summit (Sierra Ski Ranch, El Dorado County, Elev. 7350 Ft)- January 5, 1982
United States	75.8	Silver Lake, Colorado- April 14-15, 1921
North America	75.8	Silver Lake, Colorado - April 14-15, 1921
World	----	Not Available

GREATEST SNOWFALL IN ONE CALENDAR MONTH (Inches)

Sacramento	4.0	January 1888
California	390.0	Tamarack (Alpine County, Elev. 8000 Ft)-January 1911
United States	390.0	Same as California
North America	390.0	Same as California
World	----	Not available

GREATEST SNOWFALL IN ONE SEASON (Inches)

Sacramento	4.0	1887-1888
California	884.0	Tamarack- 1906-1907
United States	1122.0	Rainier Paradise Ranger Station, Washington- 1971-1972
North America	1122.0	Same as the United States
World	-----	Not Available

GREATEST SNOW DEPTH (Inches)

Sacramento	3.0	January 1, 1911
California	451.0	Tamarack- March 11, 1911
United States	451.0	Same as California
North America	451.0	Same as California
World	-----	Not Available

LOWEST SEA LEVEL PRESSURE (Millibars/Inches)

Sacramento	980.4/28.95	January 27, 1916
California	975.6/28.81	Point Reyes- January 27, 1916
United States	892.3/26.35	Matecumbe Key, Florida- September 2, 1935
North America	892.3/26.35	Same as the United States
World	870.0/25.69	Measured by Dropsonde, 520 miles north- west of Guam in the eye of Typhoon "Tip", October 12, 1979

**WEATHER EXTREMES FOR SACRAMENTO COMPARED TO CALIFORNIA,
THE UNITED STATES, NORTH AMERICA AND THE WORLD**

HIGHEST SEA LEVEL PRESSURE (Millibars/Inches)

Sacramento	1041.0/30.74	February 17, 1883
California	1041.0/30.74	Sacramento--February 17, 1883
United States	1078.6/31.85	Northway Airport, Alaska--January 31, 1989
North America	1078.6/31.85	Northway Airport, Alaska--January 31, 1989
World	1083.8/32.01	Agata, Siberia USSR--December 1968

HIGHEST WIND SPEED (Miles Per Hour)

Sacramento	70	*Fastest Mile--November 13, 1953 and December 7, 1952
California	115	Monterey Naval Air Station (Month and Date unknown) 1950
United States	231	Peak Gust--Mount Washington, New Hampshire--April 12, 1934
North America	231	Same as the United States
World	231	Same as the United States

*The Fastest Mile is the fastest one-minute observed wind speed taken from a multiple register with a time-record of the passing of each mile. Stronger peak gusts have been observed, but official records of peak wind gusts are not available.

NOTE:

Most information on Weather Extremes, other than the data for Sacramento, was extracted from the Weather Bureau Western Region Technical Memorandum WR-28, entitled WEATHER EXTREMES, by Robert J. Schmidli, dated April 1968 (Revised October 1991), and The USA Today Weather Almanac, dated 1995.

Temperature, precipitation or other extremes of any place on the surface of the earth are determined by a number of factors. Important among these are altitude, latitude, and the physical characteristics of the surface. For an extreme to be recorded, an observation must be made at the precise time and place of occurrence. There is little doubt that more extreme values have occurred than have been recorded, not only because of relatively short periods of record for many observing stations, but also because the very areas where extremes do occur are often the most sparsely settled.

Location: W121 28', N38 34'

Sacramento, California
Rise and Set for the Sun for ANY YEAR

Astronomical Applications Dept.
U.S. Naval Observatory
Washington, D.C. 20392-5420

Pacific Standard Time

Day	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0724	1656	0711	1728	0638	1759	0551	1829	0509	1858	0443	1924	0445	1934	0507	1916	0535	1836	0602	1749	0632	1706	0705	1645
02	0724	1656	0711	1729	0637	1800	0549	1830	0508	1859	0443	1925	0446	1934	0508	1915	0536	1834	0603	1747	0634	1705	0706	1645
03	0724	1657	0710	1730	0635	1801	0548	1831	0506	1900	0443	1926	0446	1934	0509	1914	0537	1833	0603	1746	0635	1704	0706	1645
04	0724	1658	0709	1731	0634	1802	0546	1832	0505	1901	0442	1926	0447	1934	0510	1913	0538	1831	0604	1744	0636	1703	0707	1645
05	0724	1659	0708	1733	0632	1803	0545	1833	0504	1901	0442	1927	0447	1933	0511	1912	0539	1830	0605	1743	0637	1702	0708	1645
06	0724	1700	0707	1734	0631	1804	0543	1834	0503	1902	0442	1927	0448	1933	0512	1911	0539	1828	0606	1741	0638	1701	0709	1645
07	0724	1701	0706	1735	0629	1805	0542	1835	0502	1903	0442	1928	0448	1933	0513	1910	0540	1827	0607	1739	0639	1700	0710	1645
08	0724	1702	0705	1736	0628	1806	0540	1836	0501	1904	0441	1929	0449	1933	0514	1909	0541	1825	0608	1738	0640	1659	0711	1645
09	0724	1703	0704	1737	0626	1807	0539	1837	0500	1905	0441	1929	0450	1932	0515	1907	0542	1824	0609	1736	0641	1658	0712	1645
10	0723	1704	0702	1738	0625	1808	0537	1838	0459	1906	0441	1930	0450	1932	0515	1906	0543	1822	0610	1735	0642	1657	0713	1645
11	0723	1705	0701	1739	0623	1809	0536	1839	0458	1907	0441	1930	0451	1931	0516	1905	0544	1820	0611	1734	0643	1656	0713	1645
12	0723	1706	0700	1740	0622	1810	0534	1840	0457	1908	0441	1931	0452	1931	0517	1904	0545	1819	0612	1732	0644	1655	0714	1645
13	0723	1707	0659	1742	0620	1811	0533	1841	0456	1909	0441	1931	0452	1931	0518	1903	0546	1817	0613	1731	0646	1654	0715	1645
14	0722	1708	0658	1743	0619	1812	0531	1842	0455	1910	0441	1931	0453	1930	0519	1901	0546	1816	0614	1729	0647	1654	0716	1646
15	0722	1709	0657	1744	0617	1813	0530	1842	0454	1911	0441	1932	0454	1929	0520	1900	0547	1814	0615	1728	0648	1653	0716	1646
16	0722	1710	0655	1745	0616	1814	0528	1843	0453	1912	0441	1932	0454	1929	0521	1859	0548	1812	0616	1726	0649	1652	0717	1646
17	0721	1711	0654	1746	0614	1815	0527	1844	0452	1912	0441	1932	0455	1928	0522	1857	0549	1811	0617	1725	0650	1651	0718	1646
18	0721	1712	0653	1747	0613	1816	0526	1845	0452	1913	0441	1933	0456	1928	0523	1856	0550	1809	0618	1724	0651	1651	0718	1647
19	0720	1713	0652	1748	0611	1817	0524	1846	0451	1914	0441	1933	0457	1927	0524	1855	0551	1808	0619	1722	0652	1650	0719	1647
20	0720	1714	0650	1749	0609	1818	0523	1847	0450	1915	0442	1933	0457	1926	0524	1853	0552	1806	0620	1721	0653	1650	0719	1648
21	0719	1715	0649	1750	0608	1819	0522	1848	0449	1916	0442	1933	0458	1926	0525	1852	0553	1804	0621	1719	0654	1649	0720	1648
22	0719	1717	0648	1751	0606	1820	0520	1849	0449	1917	0442	1934	0459	1925	0526	1851	0553	1803	0622	1718	0655	1648	0720	1649
23	0718	1718	0646	1753	0605	1821	0519	1850	0448	1918	0442	1934	0500	1924	0527	1849	0554	1801	0623	1717	0656	1648	0721	1649
24	0718	1719	0645	1754	0603	1822	0517	1851	0447	1918	0442	1934	0501	1923	0528	1848	0555	1800	0624	1716	0657	1647	0721	1650
25	0717	1720	0644	1755	0602	1823	0516	1852	0447	1919	0443	1934	0502	1923	0529	1846	0556	1758	0625	1714	0659	1647	0722	1650
26	0716	1721	0642	1756	0600	1824	0515	1853	0446	1920	0443	1934	0502	1922	0530	1845	0557	1757	0626	1713	0700	1647	0722	1651
27	0716	1722	0641	1757	0559	1824	0514	1854	0446	1921	0443	1934	0503	1921	0531	1843	0558	1755	0627	1712	0701	1646	0722	1652
28	0715	1723	0640	1758	0557	1825	0512	1855	0445	1921	0444	1934	0504	1920	0532	1842	0559	1753	0628	1711	0702	1646	0723	1652
29	0714	1725	0638	1759	0555	1826	0511	1856	0445	1922	0444	1934	0505	1919	0532	1840	0600	1752	0629	1709	0703	1646	0723	1653
30	0713	1726			0554	1827	0510	1857	0444	1923	0445	1934	0506	1918	0533	1839	0601	1750	0630	1708	0704	1645	0723	1654
31	0712	1727			0552	1828			0444	1924			0507	1917	0534	1837			0631	1707			0723	1655

Add one hour for daylight time, if and when in use.

This table may be used for the remainder of the century with an error not exceeding 2 minutes.

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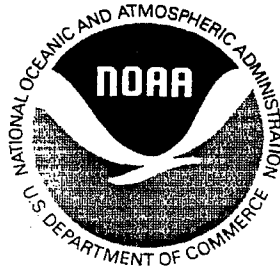
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