

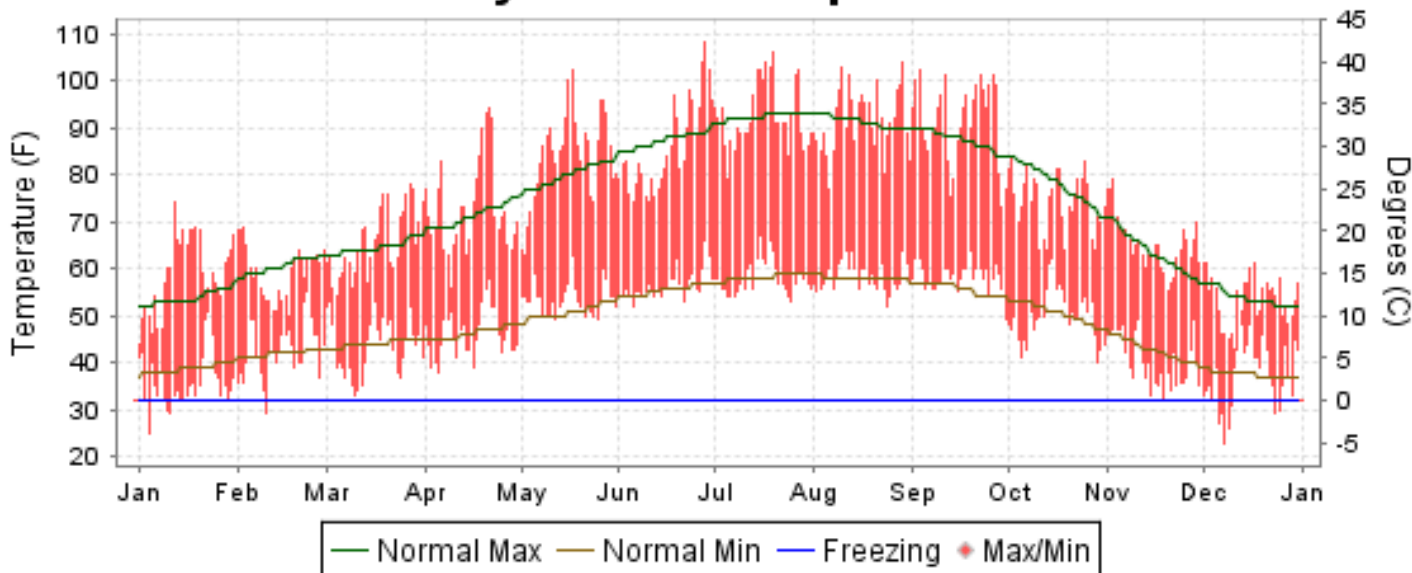


# 2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

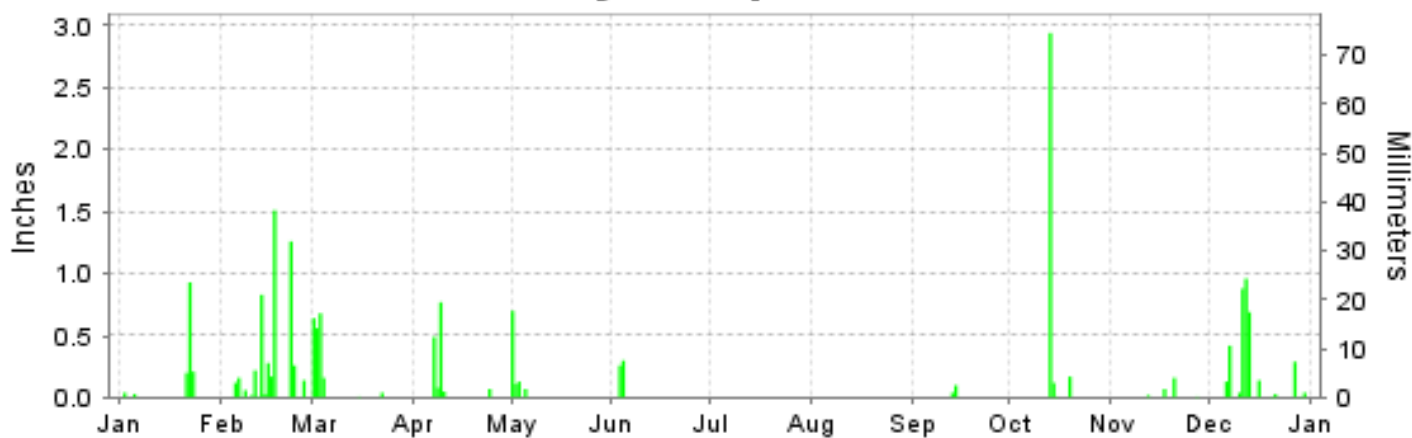
ISSN 0198-0963

## SACRAMENTO, CALIFORNIA (KSAC)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2009

## SACRAMENTO (KSAC)

LATITUDE: 38° 30'N      LONGITUDE: -121° 29'W      ELEVATION (FT): GRND: 15    BARO: 41      TIME ZONE: PACIFIC (UTC -8)      WBAN: 23232

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	58.9	59.2	65.5	72.9	83.9	85.8	92.6	91.6	91.4	74.3	65.2	53.4	74.6	
	HIGHEST DAILY MAXIMUM	74	69	78	94	102	108	106	104	102	84	79	61	108	
	DATE OF OCCURRENCE	12	03	27	21	17	28	19	29	03	02	03	17+	JUN 28	
	MEAN DAILY MINIMUM	35.9	42.5	43.3	46.1	53.5	56.5	58.1	58.3	58.3	50.0	40.4	37.1	48.3	
	LOWEST DAILY MINIMUM	25	29	33	38	49	52	53	52	49	40	32	23	23	
	DATE OF OCCURRENCE	04	10	10	05	25+	05	25	24	30	29	19	08	DEC 08	
	AVERAGE DRY BULB	47.4	50.9	54.4	59.5	68.7	71.2	75.4	75.0	74.9	62.2	52.8	45.3	61.5	
	MEAN WET BULB	42.8	46.5	47.6	50.2	57.3	60.1	61.2	60.6	60.4	53.3	46.6	42.4	52.4	
	MEAN DEW POINT	38.6	42.4	40.7	41.7	49.2	53.4	52.6	51.5	50.8	46.0	41.1	38.8	45.6	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	4	8	10	19	18	20	0	0	0	0	79
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM <= 32°	8	1	0	0	0	0	0	0	0	0	1	8	18		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	537	389	321	193	23	2	0	0	2	101	359	604	2531	
	COOLING DEGREE DAYS	0	0	0	36	145	193	329	316	303	22	0	0	1344	
RH	MEAN (PERCENT)	77	76	65	58	58	61	54	52	51	63	71	80	64	
	HOUR 04 LST	88	86	81	77	80	88	78	78	76	78	85	89	82	
	HOUR 10 LST	72	69	56	46	43	48	41	41	37	51	57	76	53	
	HOUR 16 LST	61	64	45	38	36	37	29	28	26	45	57	71	45	
	HOUR 22 LST	85	82	73	71	71	73	65	63	60	73	81	85	74	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	11	5	0	0	0	0	0	0	0	0	5	11	32	
	THUNDERSTORMS	0	0	0	0	0	1	0	0	0	0	0	0	1	
CLOUDNESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	30.20	30.01	30.03	29.98	29.90	29.81	29.85	29.86	29.86	29.92	30.04	30.05	29.96	
	MEAN SEA-LEVEL PRESS. (IN.)	30.23	30.04	30.06	30.01	29.93	29.84	29.88	29.89	29.89	29.95	30.07	30.08	29.99	
WINDS	RESULTANT SPEED (MPH)	0.9	3.4	1.9	2.8	3.8	5.5	5.2	4.5	2.5	1.2	1.8	0.8	2.2	
	RES. DIR. (TENS OF DEGS.)	33	16	26	24	22	21	20	21	22	28	32	32	23	
	MEAN SPEED (MPH)	3.0	5.5	6.2	6.2	6.1	7.0	6.5	6.0	4.8	5.6	3.7	3.7	5.4	
	PREVAIL.DIR.(TENS OF DEGS.)	34	15	33	21	21	21	20	21	22	33	33	34	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	22	29	31	30	21	22	20	21	21	32	35	26	35	
	DIR. (TENS OF DEGS.)	33	14	34	32	22	22	21	22	31	16	34	36	34	
	DATE OF OCCURRENCE	03	15	29	14	19	20	29	22	30	13	28	21	NOV 28	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	29	41	41	41	26	30	30	29	30	48	49	36	49	
DIR. (TENS OF DEGS.)	33	13	34	32	27	22	26	21	22	14	34	36	34		
DATE OF OCCURRENCE	03	15	29	03	10	09	07	22	28	13	28	21	NOV 28		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.41	5.07	2.09	1.46	1.01	0.56	T	0.00	0.14	3.24	0.26	3.64	18.88	
	GREATEST 24-HOUR (IN.)	1.13	1.51	0.70	0.82	0.74	0.56	T	0.00	0.14	2.94	0.16	1.34	2.94	
	DATE OF OCCURRENCE	21-22	17	03-04	09-10	01-02	03-04	11		13-14	13	20	11-12	OCT 13	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	5	14	6	5	4	2	0	0	2	4	4	12	58		
PRECIPITATION 0.10	3	10	4	2	3	2	0	0	1	3	1	7	36		
PRECIPITATION 1.00	0	2	0	0	0	0	0	0	0	1	0	0	3		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0															

# NORMALS, MEANS, AND EXTREMES SACRAMENTO (KSAC)

**LATITUDE:**  
38 ° 30'N

**LONGITUDE:**  
-121 ° 29'W

**ELEVATION (FT):**  
GRND: 15 BARO: 41

**TIME ZONE:**  
PACIFIC (UTC -8)

**WBAN: 23232**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	53.8	60.5	64.7	71.4	80.0	87.4	92.4	91.4	87.5	78.2	63.7	53.9	73.7
	MEAN DAILY MAXIMUM	68	53.5	59.3	64.7	71.3	79.9	87.3	92.7	91.5	87.5	77.7	63.2	53.7	73.5
	HIGHEST DAILY MAXIMUM	59	74	76	88	95	105	115	114	110	108	104	87	72	115
	YEAR OF OCCURRENCE		2009	1992	1988	2004	1984	1961	1972	1996	1988	2001	1960	1999	JUN 1961
	MEAN OF EXTREME MAXS.	68	63.3	69.7	76.5	85.8	95.7	102.9	105.0	103.4	100.2	91.6	76.2	64.0	86.2
	NORMAL DAILY MINIMUM	30	38.8	41.9	44.2	46.3	50.9	55.5	58.3	58.1	55.8	50.6	42.8	37.7	48.4
	MEAN DAILY MINIMUM	68	37.9	40.7	43.1	45.9	50.6	55.4	58.1	57.8	55.8	50.1	42.4	38.2	48.0
	LOWEST DAILY MINIMUM	59	21	23	26	31	36	41	48	49	42	36	26	18	18
	YEAR OF OCCURRENCE		2007	1989	1971	1999	1974	1990	1983	1978	2007	2002	1993	1990	DEC 1990
	MEAN OF EXTREME MINS.	68	27.9	31.3	34.1	37.7	42.2	48.1	52.5	52.3	48.7	41.3	32.3	28.3	39.7
	NORMAL DRY BULB	30	46.3	51.2	54.5	58.9	65.5	71.5	75.4	74.8	71.7	64.4	53.3	45.8	61.1
	MEAN DRY BULB	68	45.7	50.0	53.9	58.6	65.3	71.4	75.5	74.7	71.7	63.9	52.8	46.0	60.8
	MEAN WET BULB	26	44.3	47.3	49.7	51.2	54.8	58.3	61.0	60.0	57.9	53.6	48.1	43.6	52.5
	MEAN DEW POINT	26	42.4	44.2	46.3	46.9	50.0	53.0	55.9	55.2	52.9	48.8	44.7	41.3	48.5
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.5	5.8	12.1	20.7	18.6	12.7	3.3	0.0	0.0	73.7
	MAXIMUM <= 32	30	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0
MINIMUM <= 32	30	5.2	1.9	0.3	*	0.0	0.0	0.0	0.0	0.0	0.0	1.4	6.8	15.6	
MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	580	387	335	208	97	10	0	0	11	84	359	595	2666
	NORMAL COOLING DEG. DAYS	30	0	0	6	24	110	204	320	303	210	66	5	0	1248
RH	NORMAL (PERCENT)	30	84	78	74	66	61	56	55	57	58	64	76	83	68
	HOURLY 04 LST	30	90	89	87	82	81	79	78	79	79	81	87	90	84
	HOURLY 10 LST	30	85	78	70	57	50	47	48	50	51	56	72	83	62
	HOURLY 16 LST	30	70	60	54	43	37	31	30	30	31	37	55	67	45
	HOURLY 22 LST	30	87	83	79	73	69	65	63	64	66	71	81	86	74
S	PERCENT POSSIBLE SUNSHINE	47	48	65	74	82	90	94	97	96	93	86	66	49	78
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	46	9.9	4.7	1.6	0.3	0.1	0.0	0.0	0.0	0.1	1.0	5.0	9.3	32.0
	THUNDERSTORMS	62	0.4	0.5	0.7	0.5	0.4	0.3	0.2	0.2	0.4	0.3	0.2	0.2	4.3
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)	50	5.7	5.0	4.5	3.8	2.9	1.8	0.9	1.1	1.5	2.6	4.5	5.5	3.3
	MIDNIGHT-MIDNIGHT (OKTAS)	31	5.3	4.6	3.9	3.3	2.3	1.7	0.8	1.0	1.2	2.1	3.9	4.8	2.9
	MEAN NO. DAYS WITH: CLEAR	50	6.5	7.6	9.9	11.9	16.9	21.7	26.9	25.1	23.2	18.9	9.8	7.6	186.0
	PARTLY CLOUDY	50	5.9	7.0	8.7	9.6	8.6	5.9	3.2	4.1	4.2	6.0	7.4	5.8	76.4
	CLOUDY	50	18.7	13.6	12.4	8.4	5.5	2.4	1.0	1.3	2.1	5.4	12.4	17.0	100.2
PR	MEAN STATION PRESSURE(IN)	26	30.10	30.03	30.00	29.97	29.90	29.85	29.85	29.85	29.85	29.93	30.05	30.09	29.96
	MEAN SEA-LEVEL PRES. (IN)	26	30.12	30.06	30.02	30.00	29.93	29.88	29.88	29.88	29.88	29.96	30.08	30.12	29.98
WINDS	MEAN SPEED (MPH)	26	5.5	6.3	7.1	7.4	7.9	8.4	7.9	7.3	6.2	5.5	4.9	5.6	6.7
	PREVAIL.DIR.(TENS OF DEGS)	29	15	15	23	22	23	22	21	21	21	34	33	15	21
	MAXIMUM 2-MINUTE: SPEED (MPH)	11	38	37	36	33	38	31	26	26	36	36	38	38	38
	DIR. (TENS OF DEGS)		14	33	32	35	33	34	22	22	32	35	15	14	14
	YEAR OF OCCURRENCE		2006	2008	2000	1999	2001	2008	2007	2007	2006	2000	2001	2003	JAN 2006
	MAXIMUM 3-SECOND SPEED (MPH)	11	58	53	44	43	46	39	33	35	48	48	62	53	62
	DIR. (TENS OF DEGS)		15	15	16	35	33	32	21	23	32	14	21	14	21
	YEAR OF OCCURRENCE		2008	2006	2005	1999	2001	2008	2008	2007	2006	2009	2007	2003	NOV 2007
PRECIPITATION	NORMAL (IN)	30	3.84	3.54	2.80	1.02	0.53	0.20	0.05	0.06	0.36	0.89	2.19	2.45	17.93
	MAXIMUM MONTHLY (IN)	70	9.69	9.95	8.13	4.76	3.13	1.26	0.79	0.65	2.78	7.51	7.41	12.64	12.64
	YEAR OF OCCURRENCE		1995	1998	1995	1941	1948	1993	1974	1976	1989	1962	1970	1955	DEC 1955
	MINIMUM MONTHLY (IN)	70	0.05	0.15	0.05	0.00	T	0.00	0.00	0.00	0.00	0.00	T	0.00	0.00
	YEAR OF OCCURRENCE		2007	1964	2008	1949	1992	1981	1983	1982	1980	1966	1995	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	70	3.41	3.01	2.30	2.22	1.73	1.21	0.78	0.65	1.79	5.59	2.95	3.64	5.59
	YEAR OF OCCURRENCE		1967	1986	1982	1958	2002	1993	1974	1965	1989	1962	1970	1955	OCT 1962
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	10.5	9.1	9.4	4.9	2.9	1.2	0.2	0.4	1.5	3.6	7.2	8.2	59.1
	PRECIPITATION >= 1.00	30	0.8	0.8	0.3	0.1	0.1	*	0.0	0.0	*	0.2	0.5	0.4	3.2
SNOWFALL	NORMAL (IN)	30	0.*	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.1
	MAXIMUM MONTHLY (IN)	50	T	2.0	T	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	2.0
	YEAR OF OCCURRENCE		1974	1976	1982		1994							1995	FEB 1976
	MAXIMUM IN 24 HOURS (IN)	50	T	2.0	T	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	2.0
	YEAR OF OCCURRENCE		1974	1976	1982		1994							1995	FEB 1976
	MAXIMUM SNOW DEPTH (IN)	48	0	0	0	0	0	0	0	0	0	0	0	0	0
YEAR OF OCCURRENCE															
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**PRECIPITATION (inches) 2009 SACRAMENTO (KSAC)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	5.64	7.12	2.62	1.06	0.49	0.04	0.40	0.00	0.00	0.06	0.12	1.79	19.34
1981	4.56	0.87	3.55	0.66	0.50	0.00	0.00	0.00	0.25	2.57	6.09	3.28	22.33
1982	5.50	2.35	7.12	3.07	T	0.15	0.00	0.00	1.81	2.61	5.74	3.25	31.60
1983	4.92	5.56	6.75	4.21	0.25	0.40	0.00	0.11	0.66	0.40	4.91	5.26	33.43
1984	0.16	1.22	1.35	0.34	0.01	0.10	T	0.01	0.07	1.39	3.61	1.23	9.49
1985	0.66	1.52	2.01	T	0.01	0.15	T	0.06	0.56	0.53	3.72	2.34	11.56
1986	3.67	8.60	3.20	0.91	0.07	0.00	0.00	0.00	0.60	0.19	0.14	0.76	18.14
1987	2.29	3.23	3.05	0.20	T	T	0.00	0.00	0.00	1.28	2.53	3.25	15.83
1988	2.96	0.99	0.17	1.58	0.89	0.19	0.00	0.00	0.00	0.19	1.68	2.73	11.38
1989	0.71	1.25	6.29	0.31	0.06	0.43	0.00	0.20	2.78	1.76	1.32	0.00	15.11
1990	4.97	2.91	0.93	0.73	2.10	0.00	T	0.00	0.00	0.09	0.43	1.60	13.76
1991	0.36	3.10	6.14	0.29	0.25	0.53	T	0.14	0.04	1.25	0.19	1.60	13.89
1992	1.39	5.47	2.05	0.92	T	0.15	0.00	T	0.00	1.31	0.28	4.94	16.51
1993	8.63	4.94	2.39	0.63	1.14	1.26	0.00	0.00	0.00	0.47	2.28	1.75	23.49
1994	2.12	3.15	0.05	0.67	1.68	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00
1995	9.69	0.20	8.13	1.46	1.06	0.47	0.00	0.00	0.00	T	T	5.49	26.50
1996	4.16	5.49	1.73	1.25	0.79	0.00	0.00	T	T	.67	1.97	6.39	22.45
1997	9.05	0.28	0.34	0.18	0.35	0.59	0.00	0.32	0.16	0.82	4.56	2.91	19.56
1998	6.40	9.95	2.47	1.05	2.98	0.58	0.00	0.00	0.23	0.76	2.84	0.58	27.84
1999	2.63	4.45	1.50	0.89	0.07	0.03	0.00	T	0.00	0.18	1.63	0.06	11.44
2000	6.49	8.49	2.03	1.39	1.17	0.04	0.00	T	0.09	1.62	0.68	0.59	22.59
2001	3.75	4.57	2.04	1.50	T	0.08	T	0.00	0.50	0.36	2.43	6.27	21.50
2002	2.19	1.13	2.87	0.12	2.07	0.00	0.00	0.00	0.00	0.00	2.34	6.26	16.98
2003	1.29	1.29	1.87	2.53	1.17	0.00	T	0.57	T	0.04	1.52	4.23	14.51
2004	2.11	5.01	0.48	0.09	0.17	0.00	0.00	0.00	0.16	2.71	2.69	4.14	17.56
2005	3.83	2.33	3.30	0.84	1.23	0.66	T	0.00	T	0.15	0.85	8.98	22.17
2006	2.53	2.09	5.29	3.27	0.30	0.00	T	0.00	0.00	0.16	1.12	3.01	17.77
2007	0.05	4.44	0.35	1.34	0.41	0.00	0.01	0.00	0.06	1.05	0.85	3.17	11.73
2008	6.67	1.81	0.05	T	0.04	0.00	0.00	0.00	0.00	0.84	2.38	1.51	13.30
2009	1.41	5.07	2.09	1.46	1.01	0.56	T	0.00	0.14	3.24	0.26	3.64	18.88
POR= 68 YRS	3.63	3.09	2.42	1.20	0.54	0.16	0.03	0.06	0.27	0.95	2.10	3.02	17.47

WBAN : 23232

**AVERAGE TEMPERATURE (°F) 2009 SACRAMENTO (KSAC)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	46.9	51.9	51.6	59.6	62.7	66.8	75.0	71.4	69.4	63.7	53.5	45.4	59.8
1981	46.8	50.4	51.2	57.9	64.7	74.8	75.1	74.5	69.7	63.5	60.3	48.6	61.5
1982	42.0	50.5	50.8	55.5	64.6	66.2	72.1	71.7	68.2	61.0	46.9	43.0	57.7
1983	43.1	52.2	53.4	54.7	64.2	70.8	72.2	76.6	74.9	67.5	53.7	51.0	61.2
1984	48.2	50.2	58.1	58.7	70.0	71.7	78.3	75.3	75.5	62.8	53.6	45.1	62.3
1985	42.4	51.4	50.8	61.5	63.2	75.1	77.0	72.9	68.5	63.3	49.8	42.6	59.9
1986	51.4	54.7	58.8	58.4	65.5	71.6	75.0	75.2	66.2	64.8	55.5	45.7	61.9
1987	44.9	51.3	53.8	62.7	69.1	72.4	71.8	74.9	71.8	67.6	53.4	47.2	61.7
1988	48.0	54.2	58.0	60.9	64.7	72.9	80.4	75.9	72.5	66.5	53.8	46.2	62.8
1989	44.1	47.1	55.6	63.2	65.8	71.7	76.2	73.8	69.6	62.4	54.3	44.3	60.7
1990	47.5	48.6	55.4	63.4	65.5	72.4	77.7	76.6	74.0	66.6	53.0	41.0	61.8
1991	47.3	55.0	51.0	58.0	63.3	70.2	77.1	73.2	74.8	68.8	55.9	46.3	61.7
1992	43.6	54.1	56.2	62.1	70.6	70.9	75.3	77.0	72.4	66.6	53.4	44.1	62.2
1993	45.2	49.5	57.9	58.4	64.6	71.7	74.3	74.1	71.5	65.0	51.5	44.3	60.7
1994	47.0	48.8	56.7	60.1	65.3	71.6	74.0	75.2	71.7	0.00	47.6	43.7	0.00
1995	51.3	52.1	53.0	57.7	63.1	69.0	74.2	75.1	72.3	0.00	59.3	51.1	0.00
1996	48.2	54.3	56.7	61.1	67.0	73.3	78.7	78.3	71.0	63.9	55.0	51.1	63.2
1997	48.3	52.7	57.9	62.4	71.9	72.9	76.5	75.9	75.1	64.1	56.9	46.2	63.4
1998	49.7	50.4	55.1	57.5	58.7	67.0	74.8	76.8	72.6	61.3	52.5	42.5	59.9
1999	44.7	48.1	50.8	57.4	62.8	69.9	72.0	73.0	72.3	65.1	54.6	46.8	59.8
2000	48.8	51.4	55.5	60.7	65.7	73.2	72.1	74.0	71.2	61.9	48.6	47.0	60.8
2001	45.8	48.8	57.2	55.9	71.7	73.4	73.4	74.5	71.1	65.8	55.9	48.8	61.9
2002	44.8	50.7	52.5	58.2	64.1	72.1	75.8	73.6	72.8	62.6	54.5	49.8	61.0
2003	50.7	50.2	55.8	54.3	65.2	72.5	79.3	75.1	73.7	66.5	51.3	49.1	62.0
2004	46.9	50.8	59.8	62.5	66.9	72.3	75.1	75.6	72.1	62.2	51.2	46.7	61.8
2005	45.6	52.4	56.2	57.2	65.0	69.2	78.8	76.3	68.9	63.3	54.6	49.3	61.4
2006	48.1	50.9	49.7	57.4	67.1	74.2	79.1	72.9	70.0	60.8	53.4	46.3	60.8
2007	43.8	50.7	57.8	60.1	66.3	71.8	75.3	75.5	68.6	61.2	55.1	45.7	61.0
2008	45.9	49.2	54.3	57.6	67.0	72.4	75.2	76.0	72.2	64.3	55.5	44.0	61.1
2009	47.4	50.9	54.4	59.5	68.7	71.2	75.4	75.0	74.9	62.2	52.8	45.3	61.5
POR= 68 YRS	45.7	50.0	53.9	58.6	65.3	71.4	75.5	74.7	71.7	63.9	52.8	46.0	60.8

**HEATING DEGREE DAYS (base 65°F) 2009 SACRAMENTO (KSAC)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	2	0	4	134	339	596	557	405	420	229	81	2	2769
1981-82	0	0	9	66	145	498	708	398	434	282	70	40	2650
1982-83	3	0	31	125	532	675	670	353	354	303	99	4	3149
1983-84	3	0	0	7	333	425	514	421	206	191	22	11	2133
1984-85	0	0	0	115	335	611	693	377	433	122	89	11	2786
1985-86	0	2	15	95	450	689	411	284	192	200	73	0	2411
1986-87	0	0	53	47	277	593	614	377	340	95	37	0	2433
1987-88	1	0	0	11	339	544	522	307	212	138	94	27	2195
1988-89	0	0	3	38	329	576	640	496	285	106	50	3	2526
1989-90	0	0	11	107	316	634	536	453	289	71	53	6	2476
1990-91	0	0	0	24	356	739	543	274	427	205	104	6	2678
1991-92	0	0	0	82	267	572	657	310	265	104	0	9	2266
1992-93	0	0	0	24	340	643	605	426	214	202	55	21	2530
1993-94	0	0	5	33	399	634	550	449	248	147	48	1	2514
1994-95	0	0	0		515	654	415	354	364	210	105	26	
1995-96	0	0	0		166	421	513	302	250	154	21	1	
1996-97	0	0	0	121	294	423	511	336	214	104	7	1	2011
1997-98	0	0	0	56	248	577	465	404	299	233	190	13	2485
1998-99	0	0	8	113	367	689	621	465	431	239	92	29	3054
1999-00	1	0	0	57	303	556	496	389	291	138	83	2	2316
2000-01	0	4	5	123	484	551	588	445	240	276	4	0	2720
2001-02	0	0	0	44	264	496	616	393	380	200	78	0	2471
2002-03	0	0	2	114	310	466	435	408	278	314	85	1	2413
2003-04	0	0	0	33	402	486	552	404	163	116	16	1	2173
2004-05	0	0	13	141	407	563	592	346	266	227	63	20	2638
2005-06	0	0	4	75	304	481	518	385	468	234	31	4	2504
2006-07	0	0	10	131	338	574	623	395	219	161	43	4	2498
2007-08	0	0	28	121	291	587	583	452	326	236	36	0	2660
2008-09	0	0	3	49	277	645	537	389	321	193	23	2	2439
2009-	0	0	2	101	359	604							

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**COOLING DEGREE DAYS (base 65°F) 2009 SACRAMENTO (KSAC)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	8	42	91	317	207	145	99	0	0	909
1981	0	0	0	26	78	303	318	301	155	28	7	0	1216
1982	0	0	0	2	67	83	230	213	133	9	0	0	737
1983	0	0	0	0	81	183	235	368	304	92	0	0	1263
1984	0	0	0	6	183	216	419	327	320	57	0	0	1528
1985	0	0	0	22	41	319	380	254	128	48	0	0	1192
1986	0	0	10	9	95	207	315	321	95	47	0	0	1099
1987	0	0	0	34	171	234	220	314	212	100	0	0	1285
1988	0	0	5	22	88	269	484	346	233	92	0	0	1539
1989	0	0	1	60	83	211	354	280	158	32	0	0	1179
1990	0	0	0	33	75	236	399	367	276	82	0	0	1468
1991	0	0	0	3	54	171	379	261	300	208	0	0	1376
1992	0	0	0	23	180	193	330	381	231	81	0	0	1419
1993	0	0	1	9	49	227	294	291	207	38	0	0	1116
1994	0	0	0	9	67	205	285	320	209		0	0	
1995	0	0	0	0	54	152	294	322	228		0	0	
1996	0	0	0	42	91	258	430	422	187	96	0	0	1526
1997	0	0	1	31	227	244	362	348	312	33	11	0	1569
1998	0	0	0	12	2	78	311	371	241	8	0	0	1023
1999	0	0	0	17	30	184	225	253	225	69	0	0	1003
2000	0	0	2	15	111	255	227	290	198	32	0	0	1130
2001	0	0	4	9	219	259	266	300	190	75	0	0	1322
2002	0	0	1	4	57	220	341	270	245	48	0	0	1186
2003	0	0	0	0	97	237	451	323	267	86	0	0	1461
2004	0	0	8	47	82	226	320	337	234	61	0	0	1315
2005	0	0	1	0	71	155	435	359	127	29	0	0	1177
2006	0	0	0	11	100	284	445	253	167	7	0	0	1267
2007	0	0	2	20	91	213	324	329	144	8	0	0	1131
2008	0	0	0	21	107	230	322	350	225	33	0	0	1288
2009	0	0	0	36	145	193	329	316	303	22	0	0	1344

**SNOWFALL (inches) 2009 SACRAMENTO (KSAC)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1977-78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980-81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-89	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992-93	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1993-94	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	T	0.0	T
1994-95	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1995-96	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	0.0	T
1996-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 50 YRS	0.0	0.0	0.0	0.0	0.0	T	0.0	T	T	0.0	T	0.0	T

WBAN : 23232

**REFERENCE NOTES :**

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK METADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a></p> <p><b>NOTE:</b> The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2009 SACRAMENTO CALIFORNIA (KSAC)

Sacramento, and the lower Sacramento Valley, has a mild climate with abundant sunshine most of the year. A nearly cloud-free sky prevails throughout the summer months, and in much of the spring and fall. The summers are usually dry with warm to hot afternoons and mostly mild nights. The rainy season generally is November through March. About 75 percent of the annual precipitation occurs then, but measurable rain falls only on an average of nine days per month during that period. The shielding effect of mountains to the north, east, and west usually modifies winter storms. The Sierra Nevada snow fields, only 70 miles east of Sacramento, usually provide an adequate water supply during the dry season, and an important recreational area in winter. Heavy snowfall and torrential rains frequently fall on the western Sierra slopes, and may produce flood conditions along the Sacramento River and its tributaries. In the valley, however, excessive rainfall as well as damaging winds are rare.

The prevailing wind at Sacramento is southerly every month but November, when it is northerly. Topographic effects, the north-south alignment of the valley, the coast range, and the Sierra Nevada strongly influence the wind flow in the valley. A sea level gap in the coast range permits cool, oceanic air to flow, occasionally, into the valley during the summer season with a marked lowering of temperature through the Sacramento-San Joaquin River Delta to the capital. In the spring and fall, a large north-to-south pressure gradient develops over the northern part of the state. Air flowing over the Siskiyou mountains to the north warms and dries as it descends to the valley floor. This gusty, blustery north wind is a local variation of the chinook. It apparently carries a form of pollen which may cause allergic responses by susceptible individuals.

As is well known, relative humidity has a marked influence on the reactions of plants and animals to temperature. The extremely low relative humidity that ordinarily accompanies high temperatures in this valley should be considered when comparing temperatures here with those of cities in more humid regions. The extreme hot spells, with temperatures exceeding 100 degrees, are usually caused by air flow from a sub-tropical high pressure area that brings light to nearly calm winds and humidities below 20 percent.

Thunderstorms are few in number, usually mild in character, and occur mainly in the spring. An occasional thunderstorm may drift over the valley from the Sierra Nevada in the summer. Snow falls so rarely, and in such small amounts, that its occurrence may be disregarded as a climatic feature. Heavy fog occurs mostly in midwinter, never in summer, and seldom in spring or autumn. An occasional winter fog, under stagnant atmospheric conditions, may continue for several days. Light and moderate fogs are more frequent, and may come anytime during the wet, cold season. The fog is the radiational cooling type, and is usually confined to the early morning hours.

Sacramento is the geographical center of the great interior valley of California that reaches from Red Bluff in the north to Bakersville in the south. This predominantly agricultural region produces an extremely wide and abundant variety of fruits, grains, and vegetables ranging from the semi-tropical to the hardier varieties.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is December 1 and the average last occurrence in the spring is February 14.

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