

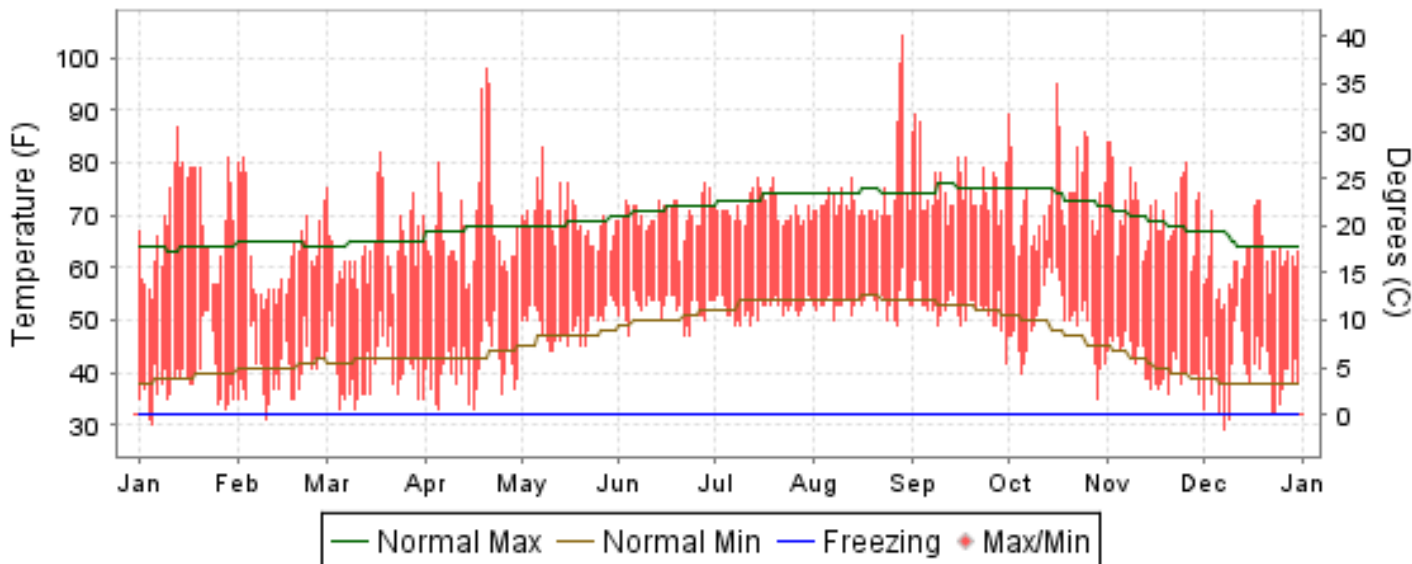


2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

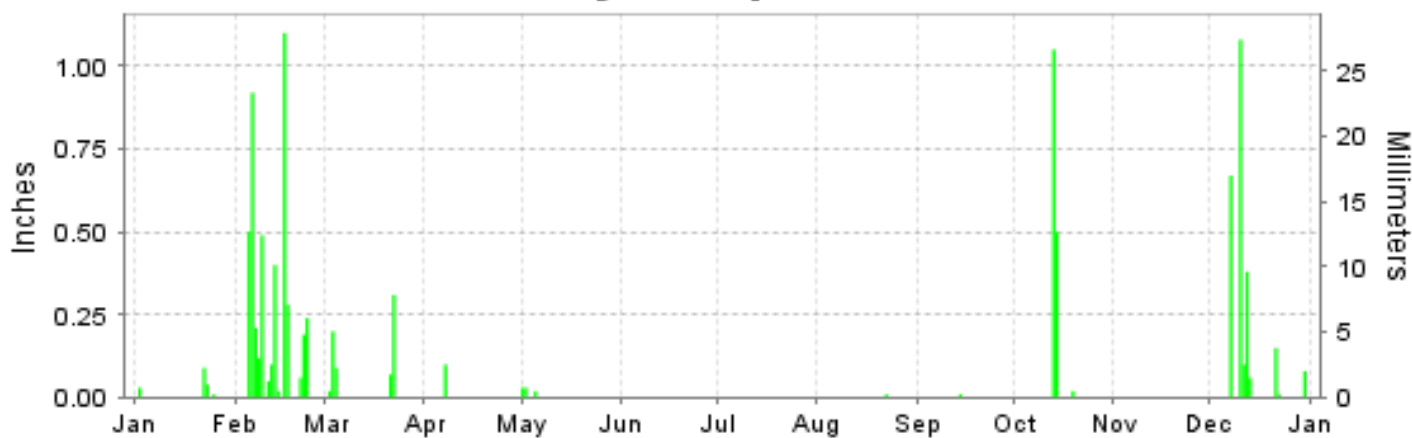
ISSN 0198-1005

SANTA MARIA, CALIFORNIA (KSMX)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
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ENVIRONMENTAL SATELLITE, DATA
AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2009

SANTA MARIA (KSMX)

LATITUDE: 34° 54'N LONGITUDE: -120° 27'W ELEVATION (FT): GRND: 242 BARO: 245 TIME ZONE: PACIFIC (UTC -8) WBAN: 23273

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	68.9	62.9	64.7	68.3	69.5	70.5	71.5	74.4	75.6	73.7	71.2	61.4	69.4	
	HIGHEST DAILY MAXIMUM	87	81	82	98	83	76	77	104	89	95	84	73	104	
	DATE OF OCCURRENCE	13	03	18	20	08	28	19+	29	02	16	02+	19+	AUG 29	
	MEAN DAILY MINIMUM	39.0	40.3	40.5	41.1	49.2	52.3	52.3	53.3	52.2	49.6	41.5	39.8	45.9	
	LOWEST DAILY MINIMUM	30	31	33	33	44	47	49	49	42	35	36	29	29	
	DATE OF OCCURRENCE	05	10	10+	16+	11+	23+	12+	27	30	29	30+	08	DEC 08	
	AVERAGE DRY BULB	54.0	51.6	52.6	54.7	59.4	61.4	61.9	63.9	63.9	61.7	56.4	50.6	57.7	
	MEAN WET BULB	45.3	46.3	47.4	47.6	52.5	54.9	55.4	56.2	56.4	53.2	47.7	45.6	50.7	
	MEAN DEW POINT	36.8	41.5	42.2	41.7	48.5	51.2	52.3	52.4	52.6	47.5	40.4	40.7	45.7	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	3	0	0	0	0	2	0	1	0	0	6
MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM <= 32°	2	1	0	0	0	0	0	0	0	0	0	5	8		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	335	367	375	322	166	100	91	63	53	135	252	440	2699	
	COOLING DEGREE DAYS	0	0	2	21	0	0	1	34	26	37	1	0	122	
RH	MEAN (PERCENT)	61	74	72	69	75	75	79	76	75	69	64	73	72	
	HOUR 04 LST	74	85	83	84	89	89	94	91	91	79	77	86	85	
	HOUR 10 LST	45	61	53	46	58	59	59	57	53	46	38	56	53	
	HOUR 16 LST	52	63	64	57	66	65	66	64	65	69	60	72	64	
	HOUR 22 LST	69	81	81	81	87	87	91	87	86	80	76	79	82	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	1	3	4	11	5	6	12	18	8	9	4	83	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	0	0	0	
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.)	29.89	29.81	29.80	29.78	29.72	29.66	29.70	29.70	29.67	29.69	29.77	29.80	29.75	
	MEAN SEA-LEVEL PRESS. (IN.)	30.16	30.08	30.07	30.05	29.99	29.93	29.97	29.96	29.94	29.95	30.03	30.06	30.02	
WINDS	RESULTANT SPEED (MPH)	1.9	1.4	5.8	6.4	7.0	5.8	4.8	4.7	3.9	3.6	3.1	1.1	3.9	
	RES. DIR. (TENS OF DEGS.)	34	21	29	30	31	30	31	31	31	31	33	31	31	
	MEAN SPEED (MPH)	4.9	5.3	9.1	8.2	7.6	6.7	5.6	5.5	4.9	6.9	5.5	5.0	6.3	
	PREVAIL.DIR.(TENS OF DEGS.)	31	17	30	30	30	31	31	31	30	31	31	30	30	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	29	31	38	44	35	24	24	23	26	29	29	30	44	
	DIR. (TENS OF DEGS.)	23	14	30	30	30	30	26	30	30	30	30	21	30	
	DATE OF OCCURRENCE	29	16	22	14	06	21	27	14	29	28	06	05	APR 14	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	39	44	46	53	41	37	36	30	33	37	39	44	53	
DIR. (TENS OF DEGS.)	02	33	29	31	30	09	22	31	29	32	32	36	31		
DATE OF OCCURRENCE	29	05	22	14	06	02	27	07	29	27	06	29	APR 14		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.17	4.68	0.69	0.10	0.08	T	0.00	0.01	0.01	1.57	T	2.53	9.84	
	GREATEST 24-HOUR (IN.)	0.10	1.10	0.37	0.10	0.06	T	0.00	0.01	0.01	1.48	T	1.12	1.48	
	DATE OF OCCURRENCE	22-23	16	21-22	07	01-02	05		22	14	13-14	20+	10-11	OCT 13-14	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	4	14	5	1	3	0	0	1	1	3	0	8	40		
PRECIPITATION 0.10	0	11	2	1	0	0	0	0	0	2	0	5	21		
PRECIPITATION 1.00	0	1	0	0	0	0	0	0	0	1	0	1	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 SANTA MARIA (KSMX)

LATITUDE:
34 ° 54'N

LONGITUDE:
-120° 27'W

ELEVATION (FT):
GRND: 242 BARO: 245

TIME ZONE:
PACIFIC (UTC -8)

WBAN: 23273

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	63.9	64.8	64.8	67.6	68.6	71.4	73.5	74.2	74.9	74.0	69.2	64.9	69.3
	MEAN DAILY MAXIMUM	55	63.6	64.3	64.9	66.9	68.3	70.6	72.9	73.6	74.5	73.6	69.2	64.5	68.9
	HIGHEST DAILY MAXIMUM	67	87	89	95	103	100	110	104	104	103	108	96	90	110
	YEAR OF OCCURRENCE		2009	1995	1988	1989	1970	2008	1985	2009	1978	1987	2006	1958	JUN 2008
	MEAN OF EXTREME MAXS.	55	76.4	77.4	78.5	83.5	83.5	84.1	84.5	85.4	91.0	91.1	83.9	77.3	83.1
	NORMAL DAILY MINIMUM	30	39.3	41.4	42.7	43.4	46.9	50.4	53.5	54.2	52.9	48.2	41.8	38.2	46.1
	MEAN DAILY MINIMUM	55	39.0	41.0	42.2	43.3	47.0	50.2	53.2	53.9	52.4	48.1	42.5	38.5	45.9
	LOWEST DAILY MINIMUM	67	5	22	24	31	31	36	43	43	36	26	25	20	5
	YEAR OF OCCURRENCE		2005	1971	1971	2008	1964	1962	1964	1973	1948	1971	1958	1978	JAN 2005
	MEAN OF EXTREME MINS.	55	28.3	30.8	33.0	34.6	38.3	42.8	47.4	48.1	45.1	39.0	32.6	28.1	37.3
	NORMAL DRY BULB	30	51.6	53.1	53.8	55.5	57.8	60.9	63.5	64.2	63.9	61.1	55.5	51.6	57.7
	MEAN DRY BULB	55	51.3	52.7	53.5	55.1	57.6	60.4	63.1	63.8	63.5	60.8	55.9	51.5	57.4
	MEAN WET BULB	26	46.3	48.0	49.7	50.6	52.9	55.0	57.6	57.9	57.1	53.7	49.5	45.6	52.0
	MEAN DEW POINT	26	42.6	44.4	46.7	47.0	49.6	52.1	54.9	55.5	54.4	50.2	44.9	41.0	48.6
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.1	0.4	0.4	0.7	0.4	0.2	1.2	1.3	0.1	0.0	4.8
	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	0.0	0.0
MINIMUM <= 32	30	4.8	2.2	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.2	1.8	5.9	16.7	
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	419	337	333	291	230	135	68	49	70	141	288	422	2783
	NORMAL COOLING DEG. DAYS	30	0	0	0	4	5	10	23	25	33	18	3	0	121
RH	NORMAL (PERCENT)	30	65	73	76	76	79	79	81	80	80	75	71	71	76
	HOURLY 04 LST	30	77	83	88	89	92	91	95	93	92	86	81	84	88
	HOURLY 10 LST	30	62	63	63	58	60	62	63	65	63	57	56	58	61
	HOURLY 16 LST	30	58	61	63	60	60	60	60	62	62	61	61	58	61
	HOURLY 22 LST	30	78	82	84	86	88	89	91	90	90	83	82	79	85
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	28	4.4	2.7	4.1	3.6	4.6	4.3	4.4	6.6	9.4	6.9	4.9	3.1	59.0
	THUNDERSTORMS	37	0.1	0.3	0.4	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	2.2
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)	45	4.0	4.1	3.9	3.7	3.4	3.0	2.7	2.7	2.8	2.9	3.2	3.7	3.3
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	45	12.7	11.6	12.5	13.0	14.3	15.5	17.3	16.8	16.1	16.7	15.2	13.8	175.5
	PARTLY CLOUDY	45	7.4	6.4	8.5	8.8	9.9	10.6	12.0	12.5	10.3	8.8	7.2	7.3	109.7
	CLOUDY	45	11.0	10.2	10.0	8.3	6.9	3.9	1.6	1.7	3.6	5.4	9.9	80.1	
PR	MEAN STATION PRESSURE(IN)	26	29.86	29.82	29.80	29.77	29.73	29.69	29.71	29.70	29.68	29.73	29.81	29.85	29.76
	MEAN SEA-LEVEL PRES. (IN)	26	30.12	30.08	30.06	30.03	29.99	29.95	29.97	29.96	29.93	29.99	30.07	30.11	30.02
WINDS	MEAN SPEED (MPH)	26	6.6	7.5	8.6	9.4	9.6	8.8	7.5	7.2	6.9	6.9	6.8	6.5	7.7
	PREVAIL.DIR.(TENS OF DEGS)	14	31	31	31	31	31	31	31	31	31	31	31	31	31
	MAXIMUM 2-MINUTE: SPEED (MPH)	13	48	46	38	44	36	36	32	30	32	35	32	40	48
	DIR. (TENS OF DEGS)		14	13	30	30	28	31	29	29	29	31	32	30	14
	YEAR OF OCCURRENCE		2008	1998	2009	2009	2004	2007	1997	1997	1997	2008	2008	2006	JAN 2008
	MAXIMUM 3-SECOND SPEED (MPH)	13	67	57	46	53	46	45	56	59	43	62	49	49	67
	DIR. (TENS OF DEGS)		13	15	29	31	22	31	08	03	01	03	18	01	13
YEAR OF OCCURRENCE		2008	1998	2009	2009	2008	2007	2007	2008	2007	2008	2001	2007	JAN 2008	
PRECIPITATION	NORMAL (IN)	30	2.64	3.23	2.94	0.91	0.32	0.05	0.03	0.05	0.31	0.45	1.24	1.84	14.01
	MAXIMUM MONTHLY (IN)	67	11.78	11.57	9.41	4.24	3.17	0.86	0.62	0.86	3.05	2.30	4.74	4.82	11.78
	YEAR OF OCCURRENCE		1995	1998	1991	1958	1998	1995	1950	1976	1976	2004	1965	1955	JAN 1995
	MINIMUM MONTHLY (IN)	67	T	T	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
	YEAR OF OCCURRENCE		1976	1953	1959	1997	1978	2003	1982	1991	1992	1988	1959	1989	JUN 2003
	MAXIMUM IN 24 HOURS (IN)	67	3.31	2.61	3.40	2.22	1.74	0.79	0.62	0.85	1.78	2.07	1.93	3.15	3.40
	YEAR OF OCCURRENCE		2006	1978	2001	2000	1998	1995	1950	1976	1976	1960	1965	1974	MAR 2001
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	8.2	8.2	8.2	3.9	1.7	0.8	0.5	0.5	1.4	2.6	5.2	5.6	46.8
PRECIPITATION >= 1.00	30	0.5	0.9	0.7	0.2	0.1	0.0	0.0	0.0	0.1	*	0.2	0.4	3.1	
SNOWFALL	NORMAL (IN)	30	0.0	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.*	0.0
	MAXIMUM MONTHLY (IN)	54	T	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1962	1996	1995								1975	1990	FEB 1996
	MAXIMUM IN 24 HOURS (IN)	54	T	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1962	1996	1995								1975	1990	FEB 1996
	MAXIMUM SNOW DEPTH (IN)	41	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 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	3.76	5.53	1.79	0.71	0.32	T	0.08	T	T	0.01	0.01	1.26	13.47
1981	3.54	2.71	5.59	0.44	T	T	T	T	T	0.82	1.23	0.78	15.11
1982	2.70	1.13	4.86	2.01	T	0.11	0.00	0.20	0.38	1.26	3.31	1.05	17.01
1983	6.71	5.76	5.26	2.29	0.09	T	T	0.28	0.77	0.43	2.44	2.73	26.76
1984	0.08	0.49	0.60	0.49	T	T	T	T	0.02	0.53	2.03	3.23	7.47
1985	0.74	0.87	1.82	0.07	T	T	T	0.03	0.02	0.38	3.11	0.76	7.80
1986	0.95	3.68	4.99	1.35	T	T	T	T	0.67	T	0.89	1.41	13.94
1987	1.22	1.01	3.47	0.40	T	0.05	0.01	T	T	2.00	0.57	3.09	11.82
1988	1.42	2.39	0.08	2.54	0.23	0.04	T	T	0.01	0.00	0.78	3.74	11.23
1989	0.41	0.94	0.61	0.08	0.06	T	T	0.00	0.64	0.16	0.38	0.02	3.30
1990	2.28	1.65	0.19	0.22	0.47	T	T	0.01	0.36	0.01	0.17	0.69	6.05
1991	0.96	2.29	9.41	0.28	0.00	0.04	0.00	0.04	T	0.31	0.15	3.12	16.60
1992	2.15	5.73	2.25	T	T	T	0.40	T	0.00	0.45	0.01	2.80	13.79
1993	5.46	3.91	3.54	0.04	0.21	0.12	T	T	0.01	0.40	0.76	1.77	16.22
1994	1.95	3.49	2.15	1.03	0.56	T	0.00	T	0.09	0.44	1.72	1.12	12.55
1995	11.78	1.92	7.72	0.39	0.46	0.86	T	T	T	0.01	0.32	1.44	24.90
1996	2.04	7.17	1.17	0.59	0.32			.00	T	1.51	1.54	3.36	
1997	3.51	0.08	0.01	0.00	0.00	T	0.04	0.04	0.71	0.07	4.37	2.65	11.48
1998	3.80	11.57	3.61	2.51	3.17	0.03	T	T	0.36	0.25	2.39	0.55	28.24
1999	1.64	0.68	5.58	2.29	0.00	0.01	T	0.01	0.14	0.00	1.37	0.05	11.77
2000	1.48	7.34	1.28	2.96	0.03	0.07	0.00	T	T	0.80	T	0.05	14.01
2001	3.87	2.66	3.66	0.60	0.01	T	0.01	0.00	T	0.33	2.21	1.31	14.66
2002	1.14	0.37	0.75	0.23	0.07	T	0.00	T	T	0.06	2.31	4.28	9.21
2003	0.23	1.84	1.52	1.15	1.08	0.00	0.01	0.00	0.00	0.34	1.46	1.29	8.92
2004	0.68	4.40	0.55	T	0.00	T	0.00	0.00	0.00	2.30	0.71	3.95	12.59
2005	4.20	3.70	3.27	0.48	0.89	T	T	T	0.04	0.67	1.06	2.13	16.44
2006	3.63	0.93	3.57	3.89	1.36	T	0.00	0.00	0.00	0.34	0.36	1.17	15.25
2007	0.80	1.62	0.17	0.60	0.04	0.00	0.00	0.01	0.01	0.57	0.03	1.86	5.71
2008	7.01	1.85	0.01	0.21	0.01	0.00	0.00	0.00	0.00	0.14	2.35	0.91	12.49
2009	0.17	4.68	0.69	0.10	0.08	T	0.00	0.01	0.01	1.57	T	2.53	9.84
POR= 55 YRS	2.51	2.94	2.28	1.07	0.30	0.04	0.02	0.03	0.22	0.52	1.30	1.79	13.02

WBAN : 23273

AVERAGE TEMPERATURE (°F) 2009 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	54.9	55.9	52.5	56.5	55.6	59.0	63.2	63.4	62.6	60.3	55.3	55.4	57.9
1981	54.3	54.4	53.1	55.5	57.1	64.6	63.8	63.5	63.0	58.4	57.4	52.9	58.2
1982	48.3	54.6	52.0	55.1	57.6	59.8	62.3	63.3	64.9	62.1	54.1	51.5	57.1
1983	53.5	54.1	55.0	55.0	58.9	62.6	66.1	68.8	70.0	66.2	56.3	54.1	60.1
1984	53.2	51.8	55.5	54.4	61.3	61.3	67.4	68.4	71.9	60.4	54.5	50.6	59.2
1985	50.0	52.7	51.8	58.7	58.4	64.1	68.7	64.1	63.8	60.8	53.4	53.5	58.3
1986	56.6	55.4	56.0	55.8	57.2	60.6	63.6	63.9	60.8	60.8	57.5	51.3	58.3
1987	48.0	52.3	52.4	57.4	59.7	60.5	60.9	62.6	62.4	64.1	55.2	48.7	57.0
1988	50.9	55.5	56.6	56.9	57.0	60.2	65.2	64.7	61.6	61.1	55.3	50.5	58.0
1989	49.2	49.3	55.4	59.9	57.5	61.3	62.4	62.6	61.6	62.1	59.2	54.5	57.9
1990	51.3	49.9	53.6	58.8	57.6	60.7	64.4	65.7	63.9	62.1	56.5	48.9	57.8
1991	52.4	55.6	50.3	54.6	54.0	58.2	63.7	63.5	63.4	60.9	57.3	52.6	57.2
1992	52.5	57.4	56.1	60.2	61.3	61.5	64.8	64.7	64.1	63.0	57.4	50.4	59.5
1993	52.6	53.1	57.5	57.9	60.7	62.9	63.9	65.0	63.0	62.4	57.3	51.8	59.0
1994	53.0	51.9	56.4	55.8	57.9	60.1	61.6	63.5	62.7	60.3	50.1	50.2	57.0
1995	53.7	57.2	55.4	54.9	57.0	59.6	64.1	63.0	62.6	62.7	59.3	53.5	58.6
1996	52.5	56.0	54.9	60.3	60.2			62.8	61.6	59.6	56.2	53.2	
1997	52.2	51.3	55.4	55.7	62.6	61.7	63.7	66.9	68.4	62.3	58.1	50.0	59.0
1998	51.8	53.8	58.7	55.7	56.9	60.7	63.9	65.8	64.1	59.2	53.7	48.0	57.7
1999	51.4	50.6	49.8	51.2	55.1	57.6	61.8	61.4	61.2	61.6	55.7	53.2	55.9
2000	52.6	53.2	53.8	56.7	58.6	62.4	61.1	62.5	63.9	59.1	51.6	53.7	57.4
2001	49.2	50.3	55.1	52.4	61.2	62.4	63.4	62.1	62.7	60.4	56.4	49.9	57.1
2002	48.1	53.6	52.0	55.6	56.2	59.6	63.0	61.9	62.6	57.6	58.5	52.0	56.7
2003	56.2	52.3	54.8	54.1	58.5	61.2	63.5	64.6	63.2	62.3	54.1	51.0	58.0
2004	49.6	50.2	58.1	56.9	59.0	60.3	63.7	64.7	64.6	58.7	52.8	51.5	57.5
2005	52.5	54.1	55.6	54.8	59.9	60.2	63.2	63.6	61.2	60.0	58.8	53.7	58.1
2006	51.6	53.2	49.6	56.5	59.7	63.7	67.2	65.1	65.5	61.9	60.7	53.8	59.0
2007	51.1	55.3	59.3	58.4	59.0	60.8	64.0	64.6	64.3	61.7	57.6	50.8	58.9
2008	51.4	52.8	53.4	53.8	57.2	61.8	63.7	64.0	63.3	62.8	60.2	49.4	57.8
2009	54.0	51.6	52.6	54.7	59.4	61.4	61.9	63.9	63.9	61.7	56.4	50.6	57.7
POR= 55 YRS	51.3	52.7	53.5	55.1	57.6	60.4	63.1	63.8	63.5	60.8	55.9	51.5	57.4

HEATING DEGREE DAYS (base 65°F) 2009 SANTA MARIA (KSMX)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	68	60	85	155	288	290	327	297	360	289	238	57	2514
1981-82	47	52	58	202	221	367	509	288	398	289	224	153	2808
1982-83	76	53	38	104	319	409	349	301	305	291	184	66	2495
1983-84	21	1	0	34	258	330	356	377	286	318	135	106	2222
1984-85	1	6	1	144	310	436	461	339	402	188	195	45	2528
1985-86	5	45	61	150	343	348	254	262	271	270	235	127	2371
1986-87	48	39	125	132	218	420	516	352	385	223	159	132	2749
1987-88	117	71	80	79	287	499	430	272	267	237	244	139	2722
1988-89	44	33	108	132	294	441	483	433	291	196	227	111	2793
1989-90	82	69	98	112	172	319	418	415	347	181	221	128	2562
1990-91	40	11	37	93	253	491	383	259	446	306	334	203	2856
1991-92	39	62	49	131	234	373	380	217	271	144	110	98	2108
1992-93	47	24	34	77	226	445	377	330	227	204	137	86	2214
1993-94	47	23	79	81	224	403	365	361	260	268	217	147	2475
1994-95	98	67	81	158	440	453	344	219	292	294	243	157	2846
1995-96	43	59	75	96	165	349	383	256	309	167	162		
1996-97		82	99	175	256	357	391	378	293	274	107	95	
1997-98	41	6	4	127	223	454	403	309	187	271	241	124	2390
1998-99	52	14	56	176	333	517	417	394	464	408	299	214	3344
1999-00	110	103	113	121	275	358	377	336	342	240	199	84	2658
2000-01	115	78	54	177	395	344	485	405	303	373	118	93	2940
2001-02	63	86	83	145	255	460	519	315	398	277	268	156	3025
2002-03	65	90	81	235	188	394	266	350	310	318	206	116	2619
2003-04	63	26	59	114	321	429	470	424	205	257	187	133	2688
2004-05	41	21	56	196	360	411	382	296	283	301	162	135	2644
2005-06	54	42	121	156	187	345	408	327	470	249	155	61	2575
2006-07	31	14	20	96	158	338	426	273	182	194	189	120	2041
2007-08	40	26	44	124	234	436	417	346	354	337	247	146	2751
2008-09	56	37	57	117	160	476	335	367	375	322	166	100	2568
2009-	91	63	53	135	252	440							

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COOLING DEGREE DAYS (base 65°F) 2009 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	3	0	13	20	16	19	19	2	0	92
1981	0	4	0	9	0	52	20	12	5	6	0	0	108
1982	0	0	0	0	0	2	1	8	42	21	0	0	74
1983	0	0	0	0	0	0	62	127	158	77	3	0	427
1984	0	0	0	6	26	0	84	119	212	9	0	0	456
1985	0	3	0	7	0	25	126	24	34	28	2	0	249
1986	0	2	0	2	0	0	11	14	1	7	0	0	37
1987	0	0	0	0	2	4	0	3	8	56	0	0	73
1988	0	3	15	2	2	2	56	28	13	20	11	0	152
1989	0	0	0	51	2	6	10	3	3	28	5	2	110
1990	0	0	2	0	0	6	31	38	10	13	6	0	106
1991	0	0	0	1	0	7	7	23	7	13	7	0	65
1992	0	0	0	4	3	1	50	23	14	23	7	0	125
1993	0	0	0	0	10	32	21	32	23	10	2	0	130
1994	0	0	0	0	0	4	2	25	18	18	0	0	67
1995	0	7	0	0	0	2	21	3	13	30	0	0	76
1996	0	2	0	33	19			21	4	15	0	0	
1997	0	0	0	1	38	0	8	72	111	50	24	0	304
1998	0	0	0	1	0	0	24	47	37	4	0	0	113
1999	0	0	0	2	0	0	19	0	7	21	3	0	52
2000	0	0	1	0	5	13	1	9	26	0	0	0	55
2001	0	2	0	0	6	20	21	1	21	12	1	0	84
2002	0	1	0	2	1	2	8	2	18	15	4	0	53
2003	1	0	0	0	10	9	24	21	11	38	0	0	114
2004	0	0	2	22	6	0	10	16	53	6	0	0	115
2005	0	0	0	0	11	0	5	8	17	10	5	0	56
2006	0	0	0	0	0	27	105	25	42	7	38	0	244
2007	0	7	13	1	9	2	16	22	29	25	19	0	143
2008	0	0	0	6	11	56	22	16	14	55	23	0	203
2009	0	0	2	21	0	0	1	34	26	37	1	0	122

SNOWFALL (inches) 2009 SANTA MARIA (KSMX)

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	0.0	0.0	0.0	0.0	0.0
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	T	0.0	0.0	0.0	T
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T
1992-93	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
1993-94	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
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 42 YRS	0.0	0.0	0.0	0.0	0.0	T	0.0	T	T	0.0	0.0	0.0	T

WBAN : 23273

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: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</p> <p>NOTE: 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

SANTA MARIA

CALIFORNIA (KSMX)

Santa Maria Valley is a flat, fertile valley opening on the Pacific Ocean where it is widest and tapering inland for a distance approximately 30 miles. The valley is 10 miles wide at the site of the station, which is located 13 miles inland at an elevation of 236 feet. It is bounded by the foothills of the San Rafael Mountains, the Solomon Hills, and the Casmalia Hills ranging from 1,300 to 4,000 feet.

Located 150 miles west-northwest of Los Angeles and 250 miles south of San Francisco, Santa Maria has a maritime climate, displaying characteristics of those of both neighbors. Year-round mild temperatures moving through gradual transitions characterize the climate more than do clearly defined seasons. The annual range of temperatures is about 13 degrees, while the daily temperature range is about 20 degrees for May through September and a few degrees higher from October through April.

The area is primarily agricultural, with vegetable and other produce crops thriving successfully the year-round. Temperatures of 32 degrees or slightly lower occur about twenty-three times during the winter months and necessitate the rotation of crops to the hardier varieties during this season. Precipitation, particularly during the summer months, is insufficient for some crops and is supplemented by irrigation from subterranean water reserves. High humidity and moderate temperatures, however, substantially limit the irrigation requirement.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is December 5 and the average last occurrence in the spring is March 15.

The rainfall season, typical of the mid-California coast, is in the winter. About three-fourths of the total annual rainfall occurs from December through March in connection with Pacific cold fronts and storm centers passing inland. During the remainder of the year, and particularly from June to October, the northward displacement and intensification of the semipermanent Pacific anticyclone produces a circulation resulting in little or no precipitation here. Thunderstorms are rare.

During most days, clear, sunny afternoons prevail. But under the influence of the Pacific high, considerable advective and radiative cooling frequently produces nightly low stratus clouds, known as California stratus, and early-morning fog. Both clouds and fog, however, are generally dissipated before noon.

The unequal daytime solar heating over land and ocean, in conjunction with the Pacific high, gives rise to a consistent and prevailing westerly sea breeze during most afternoons. The winds generally decrease to a calm by sundown. Thus the two factors of nighttime stratus and daytime sea breezes effectively combine to maintain relatively cool days and warm nights with little diurnal change.

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