

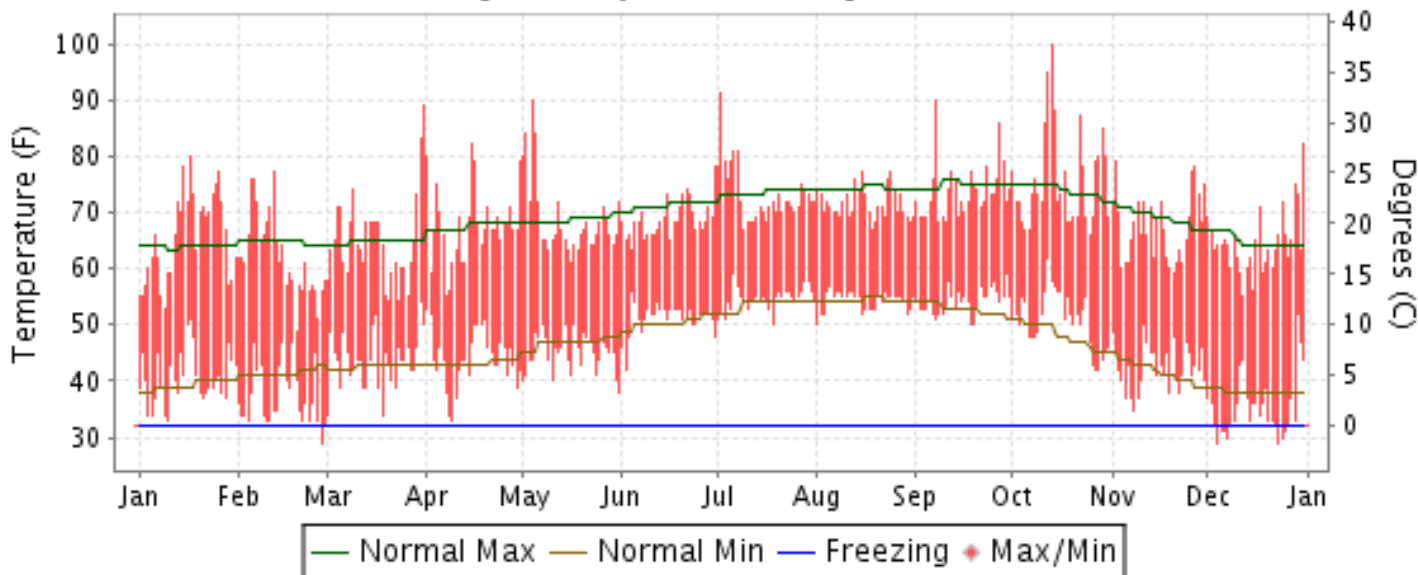


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

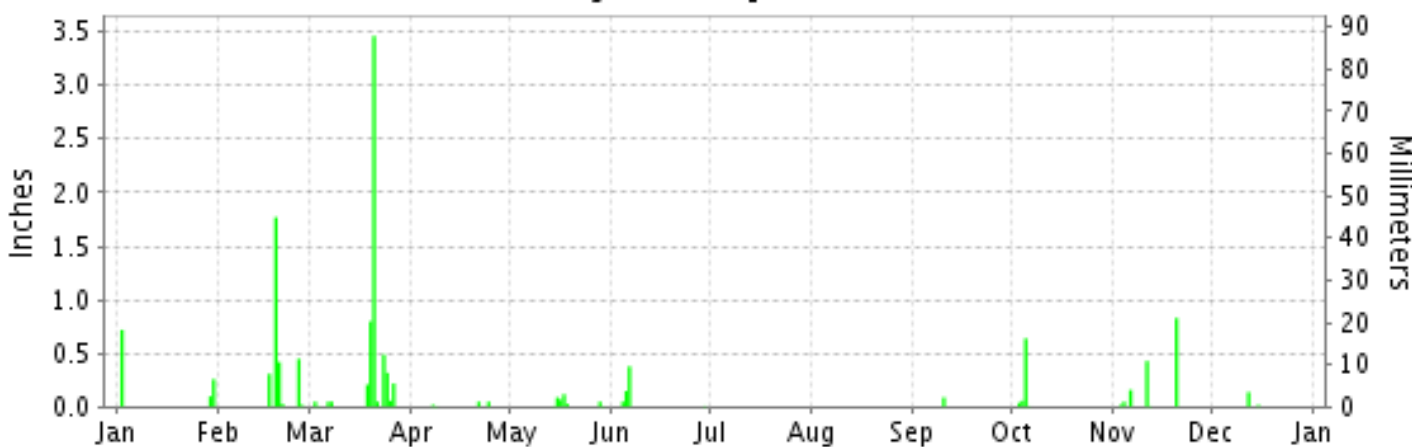
ISSN 0198-1005

SANTA MARIA, CALIFORNIA (KSMX)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

SANTA MARIA (KSMX)

LATITUDE: 34° 53'N LONGITUDE: -120° 26'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	65.7	62.3	64.9	67.7	68.8	68.6	73.0	71.5	73.7	75.6	67.5	64.6	68.7	
	HIGHEST DAILY MAXIMUM	80	77	89	82	90	78	91	77	90	100	79	82	100	
	DATE OF OCCURRENCE	17	12	31	15	04	30	02	24+	07	13	02	31	OCT 13	
	MEAN DAILY MINIMUM	40.6	37.3	43.7	44.1	45.0	51.3	54.6	54.3	54.2	50.9	42.4	35.4	46.2	
	LOWEST DAILY MINIMUM	33	29	34	33	38	42	50	50	50	42	35	29	29	
	DATE OF OCCURRENCE	10	27	18+	09	31	02	18	01	19+	28+	08	23+	DEC 23+	
	AVERAGE DRY BULB	53.2	49.8	54.3	55.9	56.9	60.0	63.8	62.9	64.0	63.3	55.0	50.0	57.4	
	MEAN WET BULB	46.7	44.4	49.8	49.9	50.6	53.8	56.6	56.2	57.2	55.4	48.3	43.0	51.0	
	MEAN DEW POINT	41.5	39.0	46.1	45.5	45.7	50.3	53.2	53.2	53.9	50.8	43.3	36.1	46.6	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	1	0	1	0	1	2	0	0	0	5
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM <= 32°	0	2	0	0	0	0	0	0	0	0	0	11	13	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	362	419	335	268	247	145	51	60	44	92	296	457	2776	
	COOLING DEGREE DAYS	1	0	9	2	4	0	20	3	20	47	0	0	106	
RH	MEAN (PERCENT)	70	71	78	74	71	76	76	79	78	72	72	67	74	
	HOUR 04 LST	81	85	88	88	87	89	88	90	89	84	85	79	86	
	HOUR 10 LST	53	53	61	56	50	63	62	64	61	52	52	42	56	
	HOUR 16 LST	67	61	71	65	60	65	64	69	70	69	68	66	66	
	HOUR 22 LST	77	79	84	86	86	86	86	88	87	81	78	79	83	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	3	2	10	2	2	5	3	10	12	10	7	8	74	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	1	0	0	0	1	
CLOUDINESS	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.)	29.85	29.84	29.82	29.79	29.75	29.67	29.66	29.67	29.68	29.73	29.80	29.88	29.76	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	30.11	30.09	30.05	30.02	29.94	29.92	29.94	29.95	29.99	30.06	30.15	30.03	
WINDS	RESULTANT SPEED (MPH)	1.6	0.6	3.4	7.1	7.5	5.4	5.2	4.8	3.8	3.2	1.5	1.4	3.7	
	RES. DIR. (TENS OF DEGS.)	32	27	29	30	30	30	30	31	31	31	30	33	31	
	MEAN SPEED (MPH)	5.3	6.1	7.9	8.3	8.6	7.3	5.8	5.6	4.7	5.4	5.0	4.4	6.2	
	PREVAIL.DIR.(TENS OF DEGS.)	30	30	30	30	30	30	30	30	31	31	30	30	30	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	38	35	31	30	33	29	25	35	24	28	29	28	38	
	DIR. (TENS OF DEGS.)	13	13	31	30	30	30	05	08	30	30	15	02	13	
	DATE OF OCCURRENCE	02	18	07	26	27	02	03	11	26	07	11	01	JAN 02	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	48	48	40	37	41	38	46	45	36	37	39	37	48		
DIR. (TENS OF DEGS.)	15	13	31	30	29	15	22	21	31	03	14	03	13		
DATE OF OCCURRENCE	02	18	07	26	29	04	03	14	25	12	11	01	FEB 18		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.08	3.00	5.77	0.13	0.38	0.59	T	0.00	0.09	0.75	1.50	0.16		
	GREATEST 24-HOUR (IN.)	0.72	1.98	4.11	0.05	0.18	0.52	T	0.00	0.09	0.65	0.83	0.14		
	DATE OF OCCURRENCE	02	18-19	19-20	24+	16-17	05-06	30		10	05-06	20	12		
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	3	6	12	4	7	4	0	0	1	4	6	2		
PRECIPITATION 0.10	3	4	6	0	1	2	0	0	0	1	3	1			
PRECIPITATION 1.00	0	1	1	0	0	0	0	0	0	0	0	0			
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° 53'N **LONGITUDE:** -120° 26'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	57	63.6	64.2	64.9	66.9	68.3	70.6	72.9	73.5	74.5	73.6	69.1	64.4	68.9
	HIGHEST DAILY MAXIMUM	69	87	89	95	103	100	110	104	104	105	108	96	90	110
	YEAR OF OCCURRENCE		2009	1995	1988	1989	1970	2008	1985	2009	2010	1987	2006	1958	JUN 2008
	MEAN OF EXTREME MAXS.	57	76.5	77.3	78.7	83.5	83.6	84.0	84.5	85.4	91.2	91.2	84.0	77.4	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	57	39.0	41.0	42.2	43.3	46.9	50.2	53.2	53.9	52.4	48.2	42.5	38.6	46.0
	LOWEST DAILY MINIMUM	69	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.	57	28.5	30.9	33.0	34.6	38.4	42.8	47.4	48.2	45.2	39.1	32.6	28.2	37.4
	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	57	51.4	52.6	53.6	55.1	57.6	60.4	63.1	63.7	63.5	60.9	55.8	51.5	57.4
	MEAN WET BULB	28	46.0	47.6	49.3	50.2	52.4	54.6	57.2	57.5	56.7	53.5	49.0	45.3	51.6
	MEAN DEW POINT	28	43.0	44.5	46.8	47.2	49.7	52.2	54.9	55.5	54.5	50.5	45.1	41.3	48.8
	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)	30	4.3	2.8	4.3	3.5	4.5	4.4	4.3	6.8	9.7	7.2	5.0	3.4	60.2
	THUNDERSTORMS	39	0.2	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	2.2
CLOUDINESS	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	7.6	9.9	80.1
PR	MEAN STATION PRESSURE(IN)	28	29.85	29.81	29.80	29.77	29.73	29.69	29.70	29.70	29.68	29.73	29.81	29.85	29.76
	MEAN SEA-LEVEL PRES. (IN)	28	30.11	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)	28	6.5	7.4	8.5	9.3	9.5	8.7	7.4	7.1	6.8	6.8	6.6	6.4	7.6
	PREVAIL.DIR.(TENS OF DEGS)	16	31	31	31	31	31	31	31	31	31	31	31	31	31
	MAXIMUM 2-MINUTE: SPEED (MPH)	15	48	46	38	44	36	36	32	35	32	35	32	40	48
	DIR. (TENS OF DEGS)		14	13	30	30	30	30	29	08	29	31	32	30	14
	YEAR OF OCCURRENCE		2008	1998	2009	2009	2010	2010	1997	2011	1997	2008	2008	2006	JAN 2008
	MAXIMUM 3-SECOND SPEED (MPH)	15	67	57	51	53	46	45	56	59	43	62	49	49	67
	DIR. (TENS OF DEGS)		13	15	22	31	22	28	08	03	01	03	18	01	13
YEAR OF OCCURRENCE		2008	1998	2010	2009	2008	2010	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)	69	11.78	11.57	9.41	4.24	3.17	0.86	0.62	0.86	3.05	2.30	4.74	9.85	11.78
	YEAR OF OCCURRENCE		1995	1998	1991	1958	1998	1995	1950	1976	1976	2004	1965	2010	JAN 1995
	MINIMUM MONTHLY (IN)	69	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	1971	1992	1988	1959	1989	JUN 2003
	MAXIMUM IN 24 HOURS (IN)	69	3.31	2.61	4.11	2.22	1.74	0.79	0.62	0.85	1.78	2.07	1.93	3.67	4.11
	YEAR OF OCCURRENCE		2006	1978	2011	2000	1998	1995	1950	1976	1976	1960	1965	2010	MAR 2011
	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) 2011 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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	0.01	0.32	1.44	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
2010	5.78	2.79	0.66	2.15	0.18	0.00	0.03	0.01	T	1.68	1.93	9.85	25.06
2011	1.08	3.00	5.77	0.13	0.38	0.59	T	0.00	0.09	0.75	1.50	0.16	13.45
POR= 57 YRS	2.54	2.94	2.31	1.07	0.30	0.05	0.02	0.03	0.21	0.55	1.31	1.90	13.23

WBAN : 23273

AVERAGE TEMPERATURE (°F) 2011 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2010	52.9	53.1	53.7	54.3	56.6	58.1	60.1	61.1	63.0	60.8	53.9	53.0	56.7
2011	53.2	49.8	54.3	55.9	56.9	60.0	63.8	62.9	64.0	63.3	55.0	50.0	57.4
POR= 57 YRS	51.4	52.6	53.6	55.1	57.6	60.4	63.1	63.7	63.5	60.9	55.8	51.5	57.4

HEATING DEGREE DAYS (base 65°F) 2011 SANTA MARIA (KSMX)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
2009-10	91	63	53	135	252	440	366	327	342	314	254	203	2840
2010-11	148	130	110	132	337	365	362	419	335	268	247	145	2998
2011-	51	60	44	92	296	457							

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COOLING DEGREE DAYS (base 65°F) 2011 SANTA MARIA (KSMX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
2010	0	0	0	0	0	3	1	14	56	6	12	0	92
2011	1	0	9	2	4	0	20	3	20	47	0	0	106

SNOWFALL (inches) 2011 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 MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</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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2011

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.

Station History

SANTA MARIA, CA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
SANTA MARIA PUBLIC AP	1972-01-01	1973-01-01	34° 54'	-120° 27'	236		AIRWAYS, COOP
SANTA MARIA PUBLIC AP	1981-12-31	1982-01-01	34° 54'	-120° 27'	236		COOP
SANTA MARIA PUBLIC AP	1995-12-01	1996-08-01	34° 54'	-120° 27'	254		COOP
SANTA MARIA PUBLIC AP	1996-08-01	2004-02-24	34° 53'	-120° 26'	242	.4 MI SW	ASOS, COOP
SANTA MARIA PUBLIC AP	1973-01-01	1981-12-31	34° 54'	-120° 27'	236		COOP, WXSVC
SANTA MARIA PUBLIC AP	2004-02-24	Present	34° 53'	-120° 26'	242		ASOS, COOP
SANTA MARIA HANCOCK FIELD	1954-10-01	1954-10-21	34° 54'	-120° 27'	240		AIRWAYS, COOP
SANTA MARIA PUBLIC AP	1954-10-21	1972-01-01	34° 54'	-120° 27'	240		AIRWAYS, COOP
SANTA MARIA PUBLIC AP	1982-01-01	1995-12-01	34° 54'	-120° 27'	254		COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1954-10-01	1982-01-01	DAILY	2400	UNIV	RCRD	ROOF
PRECIP	1996-08-01	2004-02-24	HOURLY	2400	TB	RCRD	
PRECIP	1982-01-01	1995-07-01	HOURLY	2400			
PRECIP	1996-08-01	2004-02-24	DAILY	2400			
TEMP	1982-01-01	1995-07-01	DAILY	2400	HYGR		
PRECIP	1995-07-01	1996-08-01	HOURLY	2400	UNIV	RCRD	ROOF
PRECIP	1995-07-01	1996-08-01	DAILY	2400	UNIV	RCRD	ROOF
TEMP	1996-08-01	2004-02-24	DAILY	2400	HYGR		
PRECIP	2004-02-24	Present	DAILY	2400	PCPN1		
PRECIP	1982-01-01	1995-07-01	DAILY	2400	UNIV	RCRD	ROOF
TEMP	2004-02-24	Present	DAILY	2400	HYGR		
PRECIP	2004-02-24	Present	HOURLY	2400	TB	RCRD	
TEMP	1954-10-01	1982-01-01	DAILY	2400	HYGR		
TEMP	1995-07-01	1996-08-01	DAILY	2400	HYGR		

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

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TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

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151 Patton Avenue

Asheville, NC 28801-5001

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