

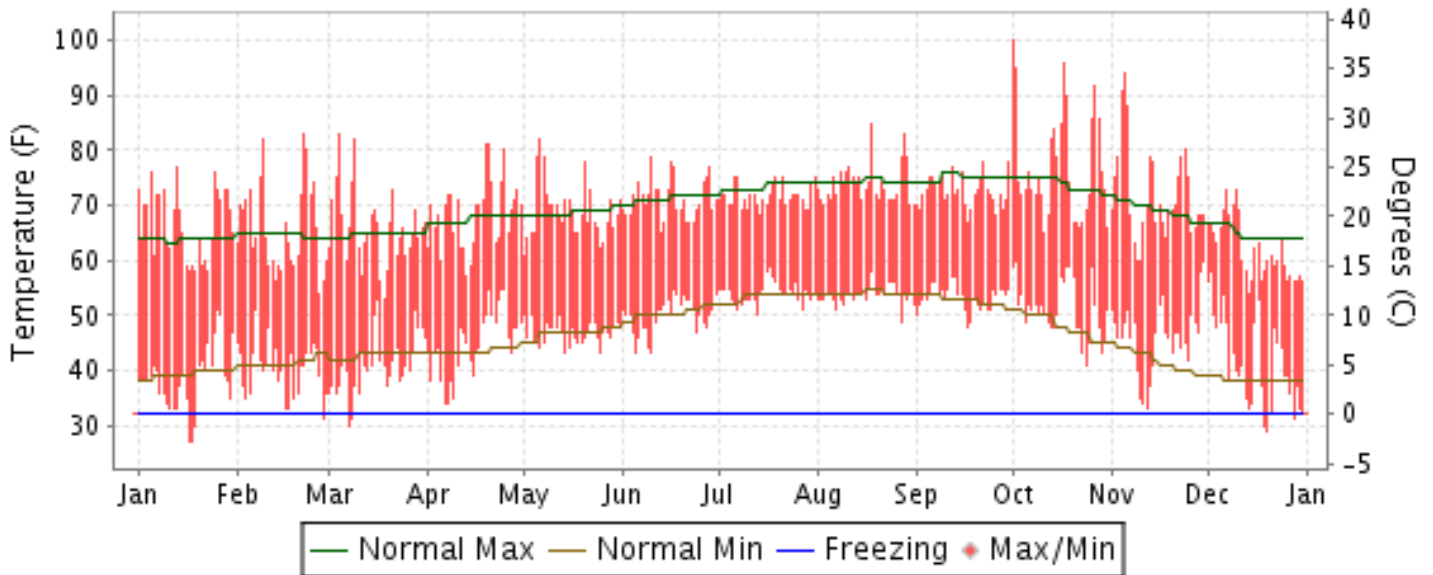


# 2012 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198-1005

## SANTA MARIA, CALIFORNIA (KSMX)

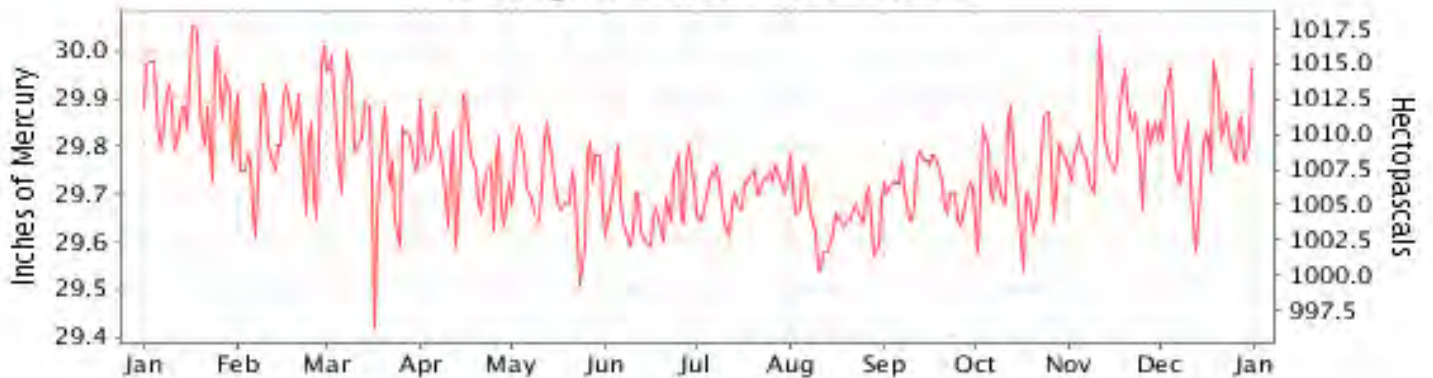
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
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NATIONAL  
ENVIRONMENTAL SATELLITE, DATA  
AND INFORMATION SERVICE

NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2012

## 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          | 66.9  | 65.9  | 65.9  | 68.5  | 69.0  | 71.2  | 71.6  | 73.9  | 72.5  | 77.2  | 72.0  | 61.9   | 69.7      |  |
|                      | HIGHEST DAILY MAXIMUM       | 77    | 83    | 83    | 81    | 82    | 79    | 75    | 85    | 78    | 100   | 94    | 73     | 100       |  |
|                      | DATE OF OCCURRENCE          | 13    | 22    | 04    | 20+   | 06    | 10    | 31+   | 18    | 30+   | 01    | 05    | 10+    | OCT 01    |  |
|                      | MEAN DAILY MINIMUM          | 38.3  | 40.2  | 40.9  | 44.9  | 46.8  | 49.9  | 54.1  | 53.7  | 53.3  | 51.2  | 46.2  | 41.3   | 46.7      |  |
|                      | LOWEST DAILY MINIMUM        | 27    | 31    | 30    | 34    | 43    | 43    | 50    | 49    | 48    | 41    | 33    | 29     | 27        |  |
|                      | DATE OF OCCURRENCE          | 18+   | 28    | 07    | 07+   | 25+   | 10+   | 13    | 27    | 17    | 24    | 12    | 20     | JAN 18+   |  |
|                      | AVERAGE DRY BULB            | 52.6  | 53.1  | 53.4  | 56.7  | 57.9  | 60.6  | 62.9  | 63.8  | 62.9  | 64.2  | 59.1  | 51.6   | 58.2      |  |
|                      | MEAN WET BULB               | 45.3  | 46.1  | 46.8  | 50.3  | 51.3  | 54.0  | 56.3  | 57.2  | 56.7  | 56.0  | 51.7  | 47.9   | 51.6      |  |
|                      | MEAN DEW POINT              | 37.9  | 39.8  | 41.2  | 45.8  | 47.2  | 50.3  | 53.3  | 54.1  | 54.1  | 51.3  | 46.3  | 44.1   | 47.1      |  |
|                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | MAXIMUM >= 90°              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 5     | 2     | 0      | 7         |  |
|                      | MAXIMUM <= 32°              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0         |  |
|                      | MINIMUM <= 32°              | 3     | 1     | 2     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 5      | 11        |  |
| MINIMUM <= 0°        | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |           |  |
| H/C                  | HEATING DEGREE DAYS         | 377   | 338   | 353   | 250   | 213   | 130   | 62    | 42    | 60    | 94    | 184   | 405    | 2508      |  |
|                      | COOLING DEGREE DAYS         | 0     | 0     | 0     | 7     | 0     | 1     | 3     | 13    | 5     | 75    | 16    | 0      | 120       |  |
| RH                   | MEAN (PERCENT)              | 65    | 68    | 72    | 74    | 74    | 76    | 79    | 79    | 82    | 72    | 72    | 79     | 74        |  |
|                      | HOUR 04 LST                 | 76    | 78    | 86    | 86    | 90    | 91    | 92    | 94    | 94    | 83    | 85    | 90     | 87        |  |
|                      | HOUR 10 LST                 | 43    | 51    | 51    | 55    | 54    | 55    | 63    | 59    | 63    | 49    | 49    | 63     | 55        |  |
|                      | HOUR 16 LST                 | 59    | 62    | 62    | 65    | 63    | 64    | 66    | 67    | 72    | 68    | 69    | 75     | 66        |  |
|                      | HOUR 22 LST                 | 76    | 76    | 82    | 85    | 88    | 90    | 90    | 92    | 92    | 84    | 82    | 86     | 85        |  |
| W/O                  | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | HEAVY FOG(VISBY <= 1/4 MI)  | 6     | 6     | 9     | 6     | 6     | 3     | 1     | 7     | 12    | 10    | 6     | 4      | 76        |  |
|                      | THUNDERSTORMS               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0         |  |
| PR                   | MEAN STATION PRESS. (IN.)   | 29.89 | 29.81 | 29.80 | 29.75 | 29.72 | 29.67 | 29.70 | 29.65 | 29.71 | 29.72 | 29.81 | 29.81  | 29.75     |  |
|                      | MEAN SEA-LEVEL PRESS. (IN.) | 30.16 | 30.09 | 30.07 | 30.02 | 29.98 | 29.94 | 29.97 | 29.92 | 29.98 | 29.99 | 30.08 | 30.08  | 30.02     |  |
| WINDS                | RESULTANT SPEED (MPH)       | 2.3   | 4.1   | 3.2   | 5.7   | 7.4   | 6.9   | 4.8   | 4.3   | 3.5   | 3.4   | 0.7   | 1.1    | 3.8       |  |
|                      | RES. DIR. (TENS OF DEGS.)   | 33    | 31    | 30    | 30    | 30    | 30    | 30    | 31    | 30    | 31    | 20    | 29     | 31        |  |
|                      | MEAN SPEED (MPH)            | 5.5   | 7.1   | 6.5   | 7.9   | 8.2   | 8.0   | 5.8   | 5.0   | 4.2   | 5.8   | 4.8   | 5.1    | 6.2       |  |
|                      | PREVAIL.DIR.(TENS OF DEGS.) | 31    | 30    | 30    | 30    | 30    | 30    | 30    | 31    | 30    | 30    | 15    | 31     | 30        |  |
|                      | MAXIMUM 2-MINUTE WIND       |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | SPEED (MPH)                 | 28    | 36    | 38    | 33    | 35    | 35    | 26    | 22    | 20    | 29    | 31    | 24     | 38        |  |
|                      | DIR. (TENS OF DEGS.)        | 31    | 14    | 30    | 30    | 29    | 30    | 29    | 31    | 30    | 30    | 16    | 30     | 30        |  |
|                      | DATE OF OCCURRENCE          | 21    | 07    | 06    | 05    | 23    | 05    | 01    | 03    | 01    | 08    | 28    | 18     | MAR 06    |  |
|                      | MAXIMUM 3-SECOND WIND:      |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | SPEED (MPH)                 | 38    | 43    | 47    | 44    | 43    | 43    | 40    | 28    | 30    | 38    | 41    | 36     | 47        |  |
| DIR. (TENS OF DEGS.) | 05                          | 13    | 06    | 33    | 30    | 28    | 08    | 31    | 36    | 09    | 12    | 30    | 06     |           |  |
| DATE OF OCCURRENCE   | 27                          | 07    | 07    | 17    | 23    | 05    | 17    | 03    | 18    | 25    | 15    | 18    | MAR 07 |           |  |
| PRECIPITATION        | WATER EQUIVALENT:           |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | TOTAL (IN.)                 | 1.81  | 0.36  | 2.72  | 2.31  | T     | T     | T     | 0.03  | T     | 0.21  | 0.75  | 2.73   | 10.92     |  |
|                      | GREATEST 24-HOUR (IN.)      | 0.95  | 0.22  | 1.30  | 1.08  | T     | T     | T     | 0.03  | T     | 0.21  | 0.37  | 0.60   | 1.30      |  |
|                      | DATE OF OCCURRENCE          | 20-21 | 13    | 17-18 | 12-13 | 01    | 30+   | 19    | 04    | 17    | 22    | 16-17 | 22     | MAR 17-18 |  |
|                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | PRECIPITATION 0.01          | 3     | 4     | 7     | 8     | 0     | 0     | 0     | 1     | 0     | 1     | 8     | 13     | 45        |  |
| PRECIPITATION 0.10   | 2                           | 2     | 4     | 4     | 0     | 0     | 0     | 0     | 0     | 1     | 3     | 9     | 25     |           |  |
| PRECIPITATION 1.00   | 0                           | 0     | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1      |           |  |
| SNOWFALL             | SNOW,ICE PELLETS,HAIL       |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | TOTAL (IN.)                 |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | GREATEST 24-HOUR (IN.)      |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | DATE OF OCCURRENCE          |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | MAXIMUM SNOW DEPTH (IN.)    |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | DATE OF OCCURRENCE          |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
| NUMBER OF DAYS WITH: |                             |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
| SNOWFALL >= 1.0      |                             |       |       |       |       |       |       |       |       |       |       |       |        |           |  |





**HEATING DEGREE DAYS (base 65°F) 2012 SANTA MARIA (KSMX)**

| YEAR    | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 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  |
| 2011-12 | 51  | 60  | 44  | 92  | 296 | 457 | 377 | 338 | 353 | 250 | 213 | 130 | 2661  |
| 2012-   | 62  | 42  | 60  | 94  | 184 | 405 |     |     |     |     |     |     |       |

WBAN : 23273

**COOLING DEGREE DAYS (base 65°F) 2012 SANTA MARIA (KSMX)**

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 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   |
| 2012 | 0   | 0   | 0   | 7   | 0   | 1   | 3   | 13  | 5   | 75  | 16  | 0   | 120   |

**SNOWFALL (inches) 2012 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=<br>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:<br/>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:<br/>H/C INDICATES HEATING AND COOLING DEGREE DAYS.<br/>RH INDICATES RELATIVE HUMIDITY<br/>W/O INDICATES WEATHER AND OBSTRUCTIONS<br/>S INDICATES SUNSHINE.<br/>PR INDICATES PRESSURE.<br/>CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL:<br/>T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.<br/>+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.<br/>BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.<br/>ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.<br/>PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.<br/>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.<br/>WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.<br/>0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.<br/>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<br/>CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</p> <p>GENERAL CONTINUED:<br/>WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.<br/>RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.<br/>AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.<br/>SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN</p> | <p>PRECIPITATION, INCLUDING HAIL.<br/>A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.<br/>DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.<br/>DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.<br/>WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.<br/>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.<br/>STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:<br/><a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a><br/>SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b><br/>The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.<br/><br/>The 2012 Annual Publications were reproduced on 6/05/13 to correct two problems that occurred when the Publications were first produced on 02/28/13.</p> <p>1) A small number of stations did not correctly show number of days with thunderstorms and heavy fog.<br/>2) Climate Normals in the Annual Publications were based on a first edition of the 1981-2010 Normals release. With the release of Service Pack 1 (SP1) new normals for 83 stations are available and now included. Additional information on SP1 is available at:<br/><a href="http://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/status.txt">http://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/status.txt</a>.</p> |
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# 2012

## 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 | 1973-01-01 | 1981-12-31 | 34° 54'  | -120° 27' | 236            |            | COOP, WXSVC   |
| SANTA MARIA PUBLIC AP | 1995-12-01 | 1996-08-01 | 34° 54'  | -120° 27' | 254            |            | COOP          |
| SANTA MARIA PUBLIC AP | 1981-12-31 | 1982-01-01 | 34° 54'  | -120° 27' | 236            |            | 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 | 2004-02-24 | Present    | 34° 53'  | -120° 26' | 242            |            | ASOS, COOP    |
| SANTA MARIA PUBLIC AP | 1982-01-01 | 1995-12-01 | 34° 54'  | -120° 27' | 254            |            | COOP          |
| SANTA MARIA PUBLIC AP | 1954-10-21 | 1972-01-01 | 34° 54'  | -120° 27' | 238            |            | AIRWAYS, COOP |

# Element History

| Element | Begin Date | End Date   | Frequency | Time Of Observation | Equipment * | Equipment * Modifications | Equipment Exposure |
|---------|------------|------------|-----------|---------------------|-------------|---------------------------|--------------------|
| TEMP    | 1982-01-01 | 1995-07-01 | DAILY     | 2400                | HYGR        |                           |                    |
| PRECIP  | 1995-07-01 | 1996-08-01 | DAILY     | 2400                | UNIV        | RCRD                      | ROOF               |
| PRECIP  | 1995-07-01 | 1996-08-01 | HOURLY    | 2400                | UNIV        | RCRD                      | ROOF               |
| TEMP    | 1996-08-01 | 2004-02-24 | DAILY     | 2400                | HYGR        |                           |                    |
| PRECIP  | 2004-02-24 | Present    | DAILY     | 2400                | PCPNI       |                           |                    |
| PRECIP  | 1982-01-01 | 1995-07-01 | DAILY     | 2400                | UNIV        | RCRD                      | ROOF               |
| PRECIP  | 2004-02-24 | Present    | HOURLY    | 2400                | TB          | RCRD                      |                    |
| TEMP    | 2004-02-24 | Present    | DAILY     | 2400                | HYGR        |                           |                    |
| TEMP    | 1954-10-21 | 1982-01-01 | DAILY     | 2400                | HYGR        |                           |                    |
| TEMP    | 1995-07-01 | 1996-08-01 | DAILY     | 2400                | HYGR        |                           |                    |
| PRECIP  | 1954-10-21 | 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                |             |                           |                    |

\* 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>

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Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : [ncdc.orders@noaa.gov](mailto:ncdc.orders@noaa.gov)

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)