

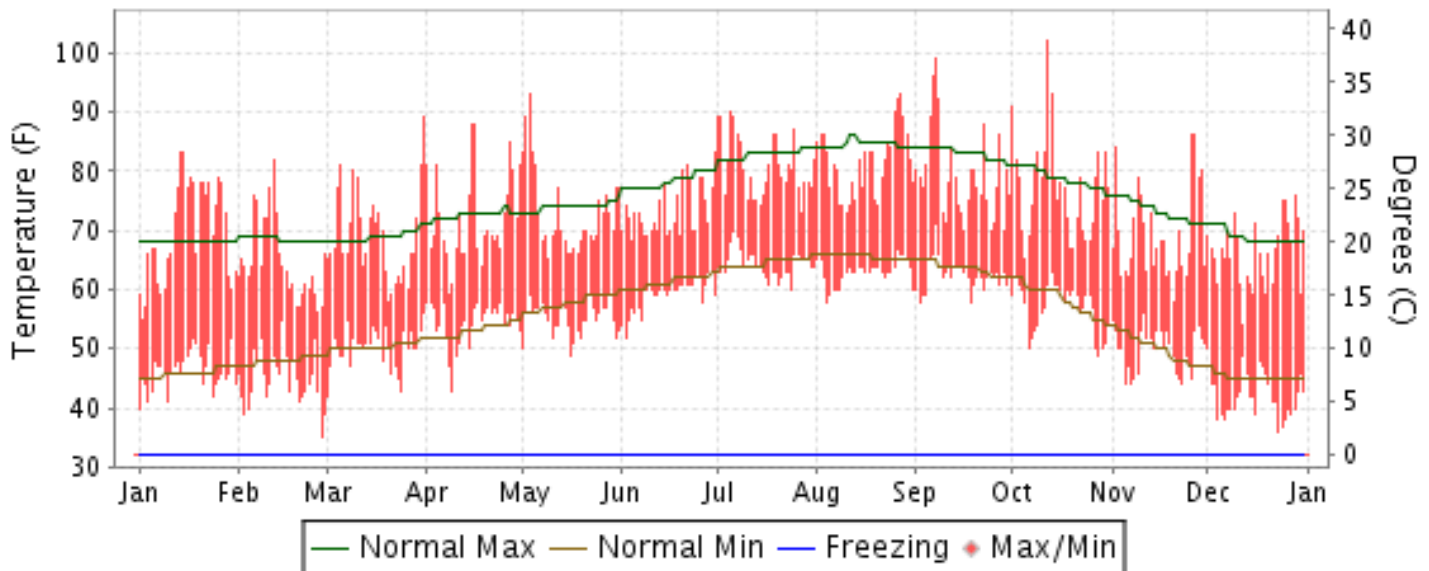


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

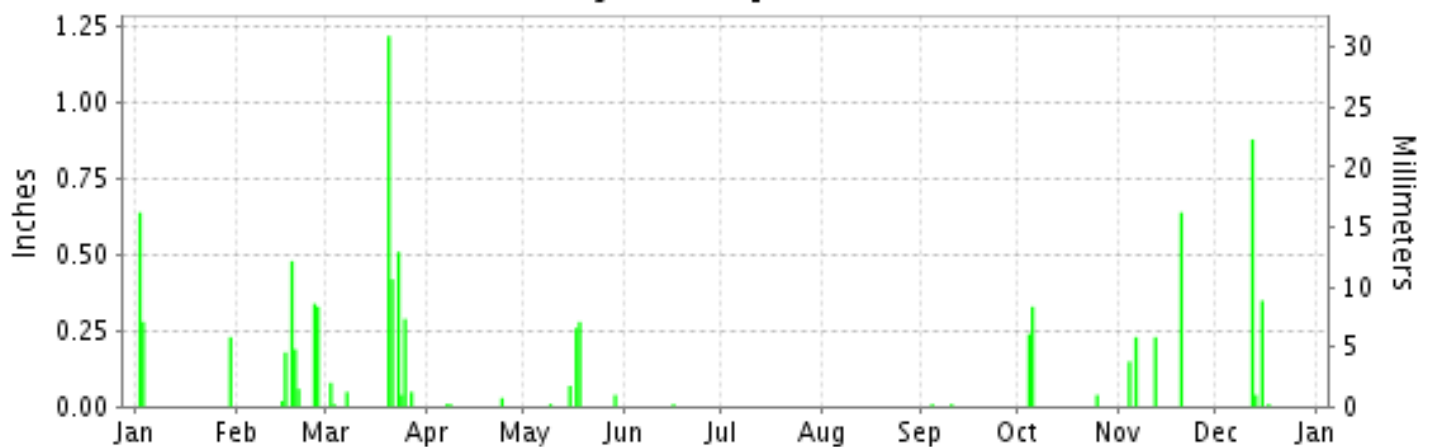
ISSN 0198-0904

LONG BEACH, CALIFORNIA (KLGB)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
OCEANIC AND
ATMOSPHERIC ADMINISTRATION

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 2011

LONG BEACH (KLGB)

LATITUDE: 33° 48'N LONGITUDE: -118° 8'W ELEVATION (FT): GRND: 31 BARO: 37 TIME ZONE: PACIFIC (UTC -8) WBAN: 23129

| ELEMENT | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | |
|--------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--|
| TEMPERATURE °F | MEAN DAILY MAXIMUM | 69.9 | 64.9 | 69.1 | 72.0 | 72.8 | 73.4 | 80.7 | 81.4 | 79.2 | 77.1 | 69.2 | 66.3 | 73.0 | |
| | HIGHEST DAILY MAXIMUM | 83 | 82 | 89 | 88 | 93 | 83 | 90 | 93 | 99 | 102 | 86 | 76 | 102 | |
| | DATE OF OCCURRENCE | 15+ | 12 | 31 | 16+ | 03 | 30 | 05 | 27 | 07 | 12 | 27+ | 28 | OCT 12 | |
| | MEAN DAILY MINIMUM | 46.3 | 45.0 | 50.1 | 54.4 | 55.1 | 59.2 | 64.3 | 63.0 | 62.4 | 57.0 | 49.7 | 42.1 | 54.1 | |
| | LOWEST DAILY MINIMUM | 40 | 35 | 42 | 43 | 49 | 52 | 60 | 58 | 58 | 49 | 44 | 36 | 35 | |
| | DATE OF OCCURRENCE | 01 | 27 | 01 | 09 | 16 | 02 | 24 | 04 | 18+ | 28 | 23+ | 23 | FEB 27 | |
| | AVERAGE DRY BULB | 58.1 | 55.0 | 59.6 | 63.2 | 64.0 | 66.3 | 72.5 | 72.2 | 70.8 | 67.1 | 59.5 | 54.2 | 63.5 | |
| | MEAN WET BULB | 48.8 | 47.8 | 52.6 | 54.6 | 55.0 | 58.7 | 63.3 | 63.3 | 62.5 | 58.7 | 52.1 | 46.4 | 55.3 | |
| | MEAN DEW POINT | 39.9 | 39.4 | 46.8 | 48.0 | 47.6 | 54.0 | 58.7 | 59.0 | 58.8 | 53.8 | 45.2 | 37.3 | 49.0 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | MAXIMUM >= 90° | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 3 | 3 | 0 | 0 | 11 | |
| | MAXIMUM <= 32° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | MINIMUM <= 32° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| MINIMUM <= 0° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| H/C | HEATING DEGREE DAYS | 209 | 277 | 170 | 79 | 59 | 11 | 0 | 0 | 0 | 19 | 168 | 325 | 1317 | |
| | COOLING DEGREE DAYS | 1 | 1 | 11 | 32 | 35 | 56 | 242 | 229 | 181 | 90 | 13 | 0 | 891 | |
| RH | MEAN (PERCENT) | 58 | 61 | 68 | 63 | 62 | 70 | 68 | 71 | 74 | 71 | 67 | 62 | 66 | |
| | HOUR 04 LST | 70 | 71 | 82 | 79 | 76 | 81 | 81 | 85 | 86 | 88 | 79 | 76 | 80 | |
| | HOUR 10 LST | 45 | 49 | 59 | 53 | 52 | 62 | 58 | 60 | 64 | 57 | 52 | 44 | 55 | |
| | HOUR 16 LST | 48 | 51 | 53 | 49 | 49 | 58 | 55 | 56 | 63 | 59 | 60 | 51 | 54 | |
| | HOUR 22 LST | 66 | 70 | 76 | 71 | 70 | 77 | 78 | 82 | 81 | 82 | 77 | 74 | 75 | |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG(VISBY <= 1/4 MI) | 1 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 3 | 3 | 21 | |
| | 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.) | 30.03 | 30.04 | 30.00 | 29.94 | 29.91 | 29.86 | 29.83 | 29.84 | 29.87 | 29.91 | 29.98 | 30.06 | 29.94 | |
| | MEAN SEA-LEVEL PRESS. (IN.) | 30.07 | 30.09 | 30.05 | 29.98 | 29.96 | 29.91 | 29.88 | 29.88 | 29.92 | 29.95 | 30.03 | 30.10 | 29.99 | |
| WINDS | RESULTANT SPEED (MPH) | 1.1 | 1.5 | 1.9 | 2.6 | 3.0 | 2.3 | 2.4 | 1.8 | 1.9 | 1.8 | 0.5 | 0.4 | 1.7 | |
| | RES. DIR. (TENS OF DEGS.) | 32 | 24 | 26 | 25 | 25 | 24 | 26 | 26 | 27 | 27 | 27 | 33 | 26 | |
| | MEAN SPEED (MPH) | 2.9 | 4.1 | 4.7 | 5.2 | 6.0 | 5.3 | 5.5 | 4.7 | 4.7 | 3.9 | 3.4 | 2.9 | 4.4 | |
| | PREVAIL.DIR.(TENS OF DEGS.) | 33 | 30 | 29 | 29 | 28 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 33 | |
| | MAXIMUM 2-MINUTE WIND | | | | | | | | | | | | | | |
| | SPEED (MPH) | 17 | 25 | 38 | 23 | 25 | 20 | 17 | 20 | 17 | 20 | 23 | 26 | 38 | |
| | DIR. (TENS OF DEGS.) | 29 | 16 | 33 | 29 | 29 | 29 | 30 | 30 | 30 | 15 | 33 | 01 | 33 | |
| | DATE OF OCCURRENCE | 30 | 18 | 07 | 07 | 29 | 02 | 31 | 25 | 07 | 23 | 04 | 01 | MAR 07 | |
| | MAXIMUM 3-SECOND WIND: | | | | | | | | | | | | | | |
| SPEED (MPH) | 28 | 37 | 49 | 30 | 30 | 25 | 22 | 23 | 25 | 28 | 29 | 33 | 49 | | |
| DIR. (TENS OF DEGS.) | 21 | 16 | 32 | 29 | 26 | 28 | 18 | 29 | 15 | 01 | 31 | 02 | 32 | | |
| DATE OF OCCURRENCE | 13 | 18 | 07 | 07 | 29 | 02 | 13 | 25 | 09 | 08 | 30 | 01 | MAR 07 | | |
| PRECIPITATION | WATER EQUIVALENT: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 1.15 | 1.60 | 2.67 | 0.05 | 0.66 | 0.01 | T | T | 0.02 | 0.61 | 1.25 | 1.28 | | |
| | GREATEST 24-HOUR (IN.) | 0.92 | 0.66 | 1.52 | 0.03 | 0.51 | 0.01 | T | T | 0.01 | 0.33 | 0.64 | 0.92 | | |
| | DATE OF OCCURRENCE | 02-03 | 25-26 | 20-21 | 24 | 17-18 | 16 | 14 | 17 | 10+ | 05 | 20 | 12-13 | | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | PRECIPITATION 0.01 | 3 | 7 | 9 | 3 | 5 | 1 | 0 | 0 | 2 | 3 | 4 | 4 | | |
| PRECIPITATION 0.10 | 3 | 5 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | | | |
| PRECIPITATION 1.00 | 0 | 0 | 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 LONG BEACH (KLGB)

LATITUDE: 33° 48'N LONGITUDE: -118° 8'W ELEVATION (FT): GRND: 31 BARO: 37 TIME ZONE: PACIFIC (UTC -8) WBAN: 23129

| | ELEMENT | POR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | |
|--|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F | NORMAL DAILY MAXIMUM | 30 | 68.0 | 68.5 | 68.9 | 72.7 | 74.0 | 78.3 | 82.9 | 84.6 | 83.1 | 78.9 | 73.4 | 68.8 | 75.2 | |
| | MEAN DAILY MAXIMUM | 62 | 66.2 | 66.8 | 68.0 | 71.0 | 73.1 | 76.5 | 82.0 | 83.2 | 81.8 | 77.5 | 72.2 | 66.9 | 73.8 | |
| | HIGHEST DAILY MAXIMUM | 59 | 93 | 91 | 98 | 105 | 104 | 109 | 107 | 105 | 111 | 111 | 101 | 92 | 111 | |
| | YEAR OF OCCURRENCE | | 2003 | 1995 | 1988 | 1989 | 2004 | 1981 | 1985 | 1967 | 2010 | 1961 | 1966 | 1958 | 1958 | SEP 2010 |
| | MEAN OF EXTREME MAXS. | 62 | 81.6 | 81.5 | 83.2 | 87.6 | 88.2 | 89.3 | 93.3 | 94.7 | 98.3 | 94.7 | 87.9 | 80.8 | 88.4 | |
| | NORMAL DAILY MINIMUM | 30 | 46.0 | 48.1 | 50.4 | 53.2 | 57.8 | 61.3 | 64.6 | 65.6 | 63.7 | 58.3 | 50.1 | 45.3 | 55.4 | |
| | MEAN DAILY MINIMUM | 62 | 45.2 | 46.9 | 49.3 | 52.1 | 56.4 | 59.9 | 63.5 | 64.2 | 62.3 | 57.5 | 50.5 | 45.3 | 54.4 | |
| | LOWEST DAILY MINIMUM | 59 | 25 | 33 | 33 | 38 | 40 | 47 | 51 | 52 | 50 | 39 | 34 | 28 | 25 | |
| | YEAR OF OCCURRENCE | | 1963 | 1965 | 1964 | 1975 | 1964 | 1967 | 1960 | 1951 | 1965 | 1972 | 1958 | 1990 | 1990 | JAN 1963 |
| | MEAN OF EXTREME MINS. | 62 | 36.2 | 38.8 | 41.0 | 44.7 | 49.9 | 54.0 | 58.6 | 59.1 | 56.3 | 49.3 | 41.1 | 36.4 | 47.1 | |
| | NORMAL DRY BULB | 30 | 57.0 | 58.3 | 59.7 | 63.0 | 65.9 | 69.8 | 73.8 | 75.1 | 73.4 | 68.6 | 61.8 | 57.1 | 65.3 | |
| | MEAN DRY BULB | 62 | 55.7 | 56.9 | 58.7 | 61.6 | 64.8 | 68.3 | 72.7 | 73.8 | 72.1 | 67.5 | 61.4 | 56.1 | 64.1 | |
| | MEAN WET BULB | 28 | 48.1 | 50.0 | 52.0 | 53.8 | 57.3 | 60.6 | 63.8 | 64.1 | 63.0 | 58.3 | 52.2 | 47.8 | 55.9 | |
| | MEAN DEW POINT | 28 | 44.9 | 46.2 | 49.2 | 50.7 | 54.8 | 58.2 | 61.5 | 61.8 | 60.4 | 55.7 | 47.9 | 43.5 | 52.9 | |
| | NORMAL NO. DAYS WITH: MAXIMUM >= 90 | 30 | 0.1 | 0.2 | 0.3 | 0.7 | 1.0 | 2.1 | 4.0 | 5.6 | 5.9 | 2.9 | 0.9 | 0.0 | 23.7 | |
| | 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 | 0.0 | 0.0 | |
| MINIMUM <= 32 | 30 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.5 | | |
| 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 | 267 | 205 | 186 | 99 | 39 | 5 | 0 | 0 | 1 | 16 | 128 | 265 | 1211 | |
| | NORMAL COOLING DEG. DAYS | 30 | 3 | 5 | 10 | 28 | 55 | 135 | 260 | 302 | 244 | 119 | 20 | 5 | 1186 | |
| RH | NORMAL (PERCENT) | 30 | 67 | 68 | 69 | 66 | 69 | 70 | 69 | 69 | 69 | 68 | 65 | 65 | 68 | |
| | HOURLY 04 LST | 30 | 79 | 80 | 82 | 81 | 82 | 82 | 82 | 82 | 84 | 81 | 80 | 77 | 81 | |
| | HOURLY 10 LST | 30 | 61 | 63 | 62 | 57 | 63 | 64 | 63 | 62 | 61 | 58 | 55 | 57 | 61 | |
| | HOURLY 16 LST | 30 | 54 | 55 | 56 | 50 | 56 | 56 | 54 | 53 | 54 | 54 | 51 | 51 | 54 | |
| | HOURLY 22 LST | 30 | 76 | 75 | 76 | 74 | 77 | 78 | 78 | 78 | 78 | 78 | 75 | 74 | 76 | |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | | |
| W/O | MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI) | 48 | 3.3 | 2.4 | 1.6 | 1.0 | 0.6 | 0.4 | 0.5 | 0.8 | 1.7 | 3.3 | 3.7 | 3.9 | 23.2 | |
| | THUNDERSTORMS | 62 | 0.4 | 0.5 | 0.6 | 0.3 | 0.1 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 | 0.3 | 0.2 | 3.6 | |
| CLOUDINESS | MEAN: SUNRISE-SUNSET (OKTAS) | 39 | 4.2 | 4.4 | 4.2 | 3.7 | 4.0 | 3.5 | 2.6 | 2.5 | 3.0 | 3.4 | 3.5 | 3.8 | 3.6 | |
| | MIDNIGHT-MIDNIGHT (OKTAS) | 22 | 3.7 | 4.0 | 3.9 | 3.2 | 4.0 | 3.7 | 2.7 | 2.7 | 3.3 | 3.3 | 3.5 | 3.4 | 3.5 | |
| | MEAN NO. DAYS WITH: CLEAR | 39 | 11.7 | 9.5 | 10.9 | 12.4 | 10.6 | 12.4 | 17.6 | 18.7 | 14.7 | 13.2 | 13.4 | 12.7 | 157.8 | |
| | PARTLY CLOUDY | 39 | 8.2 | 7.6 | 9.5 | 10.1 | 12.5 | 11.9 | 10.7 | 10.1 | 10.9 | 11.1 | 8.2 | 8.4 | 119.2 | |
| | CLOUDY | 39 | 11.1 | 11.2 | 10.6 | 7.5 | 7.9 | 5.7 | 2.0 | 1.6 | 4.5 | 6.7 | 8.3 | 9.9 | 87.0 | |
| PR | MEAN STATION PRESSURE(IN) | 28 | 30.04 | 30.01 | 29.97 | 29.94 | 29.90 | 29.87 | 29.88 | 29.87 | 29.85 | 29.91 | 29.99 | 30.04 | 29.94 | |
| | MEAN SEA-LEVEL PRES. (IN) | 28 | 30.08 | 30.05 | 30.02 | 29.98 | 29.94 | 29.91 | 29.92 | 29.91 | 29.89 | 29.95 | 30.03 | 30.08 | 29.98 | |
| WINDS | MEAN SPEED (MPH) | 28 | 4.8 | 5.6 | 6.2 | 6.7 | 6.7 | 6.6 | 6.5 | 6.3 | 5.8 | 5.2 | 4.6 | 4.5 | 5.8 | |
| | PREVAIL.DIR.(TENS OF DEGS) | 21 | 31 | 31 | 29 | 30 | 19 | 19 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | |
| | MAXIMUM 2-MINUTE: SPEED (MPH) | 15 | 31 | 30 | 39 | 36 | 28 | 23 | 24 | 21 | 26 | 32 | 33 | 36 | 39 | |
| | DIR. (TENS OF DEGS) | | 36 | 12 | 11 | 32 | 29 | 32 | 08 | 30 | 10 | 33 | 32 | 29 | 11 | |
| | YEAR OF OCCURRENCE | | 2010 | 1998 | 2000 | 2007 | 2007 | 2006 | 2006 | 2009 | 1998 | 2009 | 1999 | 2006 | MAR 2000 | |
| | MAXIMUM 3-SECOND SPEED (MPH) | 15 | 38 | 40 | 49 | 48 | 35 | 28 | 32 | 25 | 38 | 38 | 41 | 48 | 49 | |
| | DIR. (TENS OF DEGS) | | 12 | 11 | 32 | 32 | 29 | 28 | 09 | 15 | 32 | 32 | 31 | 23 | 32 | |
| | YEAR OF OCCURRENCE | | 2001 | 1998 | 2011 | 2007 | 2008 | 2009 | 2006 | 2010 | 2008 | 2009 | 1999 | 2008 | MAR 2011 | |
| PRECIPITATION | NORMAL (IN) | 30 | 2.95 | 3.01 | 2.43 | 0.60 | 0.23 | 0.08 | 0.02 | 0.10 | 0.24 | 0.40 | 1.12 | 1.76 | 12.94 | |
| | MAXIMUM MONTHLY (IN) | 67 | 12.76 | 12.09 | 8.75 | 4.42 | 2.32 | 0.86 | 0.34 | 2.03 | 1.45 | 5.34 | 6.05 | 10.41 | 12.76 | |
| | YEAR OF OCCURRENCE | | 1995 | 1998 | 1983 | 1965 | 1977 | 1993 | 2003 | 1977 | 1976 | 2004 | 1965 | 2010 | JAN 1995 | |
| | MINIMUM MONTHLY (IN) | 67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | T | 0.00 | |
| | YEAR OF OCCURRENCE | | 1976 | 1964 | 1959 | 1993 | 1952 | 1978 | 1983 | 1978 | 1974 | 1969 | 1980 | 1989 | APR 1993 | |
| | MAXIMUM IN 24 HOURS (IN) | 67 | 6.86 | 3.59 | 3.52 | 1.61 | 2.06 | 0.86 | 0.27 | 1.90 | 1.42 | 2.32 | 3.14 | 3.52 | 6.86 | |
| | YEAR OF OCCURRENCE | | 1956 | 1963 | 1983 | 1999 | 1977 | 1993 | 2003 | 1977 | 1986 | 2004 | 1967 | 1992 | JAN 1956 | |
| | NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01 | 30 | 6.5 | 6.3 | 6.3 | 3.2 | 1.3 | 0.5 | 0.4 | 0.5 | 1.1 | 2.1 | 3.2 | 4.7 | 36.1 | |
| | PRECIPITATION >= 1.00 | 30 | 0.9 | 1.0 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | * | 0.1 | 0.1 | 0.3 | 3.4 | |
| 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 | 0.0 | 0.0 | |
| | MAXIMUM MONTHLY (IN) | 53 | T | T | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | |
| | YEAR OF OCCURRENCE | | 1993 | 1996 | | | | | | | | | | | FEB 1996 | |
| | MAXIMUM IN 24 HOURS (IN) | 52 | T | T | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | |
| | YEAR OF OCCURRENCE | | 1993 | 1996 | | | | | | | | | | | FEB 1996 | |
| | MAXIMUM SNOW DEPTH (IN) | 46 | 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 LONG BEACH (KLGB)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|-------|-------|------|------|------|------|------|------|------|------|------|-------|--------|
| 1982 | 1.92 | 0.20 | 3.12 | 0.76 | 0.16 | T | 0.00 | T | 0.40 | 0.19 | 3.07 | 0.92 | 10.74 |
| 1983 | 3.04 | 4.17 | 8.75 | 2.30 | 0.18 | 0.01 | 0.00 | 0.57 | 1.31 | 1.44 | 2.93 | 1.99 | 26.69 |
| 1984 | 0.25 | 0.01 | 0.13 | 1.06 | 0.00 | 0.01 | 0.05 | 0.08 | 0.15 | 0.35 | 1.20 | 5.20 | 8.49 |
| 1985 | 0.91 | 1.58 | 0.61 | T | 0.21 | 0.00 | T | 0.00 | 0.24 | 0.14 | 4.21 | 0.33 | 8.23 |
| 1986 | 1.88 | 4.97 | 2.68 | 0.43 | 0.00 | T | 0.21 | 0.00 | 1.43 | 0.40 | 1.12 | 0.37 | 13.49 |
| 1987 | 1.88 | 1.39 | 0.63 | 0.06 | T | 0.10 | 0.05 | 0.05 | 0.02 | 1.63 | 0.64 | 1.79 | 8.24 |
| 1988 | 1.67 | 1.05 | 0.02 | 1.33 | 0.00 | T | T | 0.02 | 0.04 | T | 0.75 | 3.21 | 8.09 |
| 1989 | 0.37 | 0.87 | 0.80 | 0.01 | 0.02 | T | 0.00 | T | 0.34 | 0.45 | 0.14 | T | 3.00 |
| 1990 | 1.59 | 2.08 | 0.09 | 0.50 | 1.20 | T | 0.00 | T | T | 0.00 | 0.22 | 0.02 | 5.70 |
| 1991 | 1.42 | 3.41 | 4.87 | 0.05 | T | T | 0.13 | 0.01 | 0.02 | 0.14 | 0.05 | 2.06 | 12.16 |
| 1992 | 1.48 | 4.54 | 5.29 | 0.02 | 0.02 | T | 0.06 | 0.00 | T | 0.52 | T | 4.97 | 16.90 |
| 1993 | 9.12 | 5.51 | 2.00 | 0.00 | T | 0.86 | T | 0.00 | T | 0.04 | 0.88 | 0.78 | 19.19 |
| 1994 | 0.26 | 5.17 | 1.25 | 0.44 | 0.16 | T | T | T | 0.00 | 0.14 | 0.42 | 0.53 | 8.37 |
| 1995 | 12.76 | 0.52 | 5.15 | 0.45 | 0.02 | 0.51 | 0.06 | 0.00 | T | T | 0.02 | 1.98 | 21.47 |
| 1996 | 1.83 | 4.37 | 1.26 | 0.42 | 0.02 | 0.00 | T | .00 | .00 | 1.48 | 1.80 | 4.07 | 15.25 |
| 1997 | 6.18 | 0.13 | 0.00 | 0.00 | T | T | T | 0.00 | 0.47 | T | 2.48 | 3.70 | 12.96 |
| 1998 | 2.98 | 12.09 | 4.76 | 1.49 | 1.68 | 0.03 | T | T | T | 0.01 | 1.40 | 0.57 | 25.01 |
| 1999 | 1.46 | 0.41 | 1.77 | 2.31 | 0.05 | 0.49 | 0.07 | 0.00 | T | 0.00 | 0.17 | 0.11 | 6.84 |
| 2000 | 0.51 | 2.86 | 1.70 | 1.15 | 0.03 | T | 0.00 | T | T | 2.30 | T | T | 8.55 |
| 2001 | 2.11 | 5.79 | 0.26 | 0.44 | T | T | T | 0.00 | 0.00 | T | 1.02 | 0.59 | 10.21 |
| 2002 | 0.25 | 0.07 | 0.05 | 0.14 | 0.09 | T | T | T | T | T | 0.54 | 1.49 | 2.63 |
| 2003 | T | 3.75 | 1.67 | 0.40 | 1.74 | 0.06 | 0.34 | 0.00 | 0.00 | 0.12 | 0.29 | 1.32 | 9.69 |
| 2004 | 0.62 | 3.74 | 1.02 | 0.06 | T | 0.00 | 0.00 | 0.00 | T | 5.34 | 0.35 | 3.79 | 14.92 |
| 2005 | 7.66 | 9.40 | 1.54 | 1.23 | 0.04 | 0.01 | 0.00 | 0.00 | 0.34 | 0.66 | 0.13 | 0.55 | 21.56 |
| 2006 | 0.86 | 1.71 | 2.50 | 1.32 | 0.55 | T | 0.03 | 0.01 | T | 0.07 | 0.11 | 0.68 | 7.84 |
| 2007 | 0.20 | 0.49 | 0.03 | 0.48 | 0.00 | T | T | 0.06 | 0.46 | 0.56 | 0.91 | 1.11 | 4.30 |
| 2008 | 5.89 | 2.19 | T | 0.05 | 0.18 | 0.00 | 0.00 | 0.00 | 0.01 | 0.08 | 2.07 | 2.61 | 13.08 |
| 2009 | 0.17 | 4.04 | 0.42 | 0.01 | T | 0.04 | 0.00 | 0.00 | 0.00 | 0.59 | 0.00 | 2.46 | 7.73 |
| 2010 | 6.89 | 4.64 | 0.25 | 0.77 | 0.05 | 0.01 | T | 0.00 | T | 1.62 | 0.60 | 10.41 | 25.24 |
| 2011 | 1.15 | 1.60 | 2.67 | 0.05 | 0.66 | 0.01 | T | T | 0.02 | 0.61 | 1.25 | 1.28 | 9.30 |
| POR= 62 YRS | 2.77 | 2.66 | 1.73 | 0.70 | 0.20 | 0.05 | 0.02 | 0.06 | 0.16 | 0.37 | 1.19 | 1.74 | 11.65 |

WBAN : 23129

AVERAGE TEMPERATURE (°F) 2011 LONG BEACH (KLGB)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1982 | 53.8 | 58.7 | 58.0 | 61.5 | 64.9 | 65.5 | 73.3 | 75.9 | 74.0 | 69.4 | 60.5 | 55.7 | 64.3 |
| 1983 | 58.4 | 58.8 | 59.8 | 61.1 | 66.2 | 68.3 | 74.1 | 79.1 | 76.7 | 71.0 | 60.4 | 56.2 | 65.8 |
| 1984 | 57.8 | 58.0 | 61.5 | 62.3 | 68.0 | 69.3 | 76.7 | 76.6 | 79.2 | 66.0 | 57.7 | 54.0 | 65.6 |
| 1985 | 54.3 | 56.1 | 56.2 | 62.7 | 63.5 | 69.5 | 75.6 | 73.2 | 70.0 | 67.4 | 58.1 | 57.7 | 63.7 |
| 1986 | 60.8 | 58.4 | 60.3 | 62.4 | 65.1 | 69.0 | 71.4 | 74.5 | 67.6 | 66.7 | 63.1 | 57.2 | 64.7 |
| 1987 | 54.2 | 57.3 | 59.0 | 65.5 | 66.2 | 68.1 | 69.6 | 72.1 | 73.4 | 70.5 | 62.0 | 53.1 | 64.3 |
| 1988 | 56.1 | 60.6 | 63.3 | 63.4 | 66.2 | 66.9 | 73.3 | 73.1 | 71.1 | 68.4 | 60.4 | 56.0 | 64.9 |
| 1989 | 55.3 | 55.8 | 61.1 | 66.8 | 65.4 | 68.1 | 72.6 | 72.2 | 72.3 | 67.2 | 64.8 | 59.3 | 65.1 |
| 1990 | 56.8 | 55.5 | 59.3 | 64.2 | 66.0 | 71.7 | 75.8 | 73.4 | 73.6 | 70.3 | 63.1 | 55.5 | 65.4 |
| 1991 | 57.0 | 61.3 | 56.1 | 62.6 | 63.0 | 66.0 | 70.3 | 72.3 | 72.4 | 69.9 | 63.8 | 58.0 | 64.4 |
| 1992 | 57.3 | 60.4 | 59.3 | 67.2 | 68.1 | 69.4 | 74.8 | 77.5 | 74.5 | 68.9 | 62.9 | 54.5 | 66.2 |
| 1993 | 55.9 | 57.0 | 61.8 | 64.3 | 67.7 | 70.5 | 72.2 | 72.9 | 72.1 | 68.8 | 62.2 | 57.0 | 65.2 |
| 1994 | 58.5 | 56.4 | 61.2 | 62.4 | 63.8 | 71.6 | 72.2 | 77.4 | 73.8 | 67.6 | 56.9 | 56.6 | 64.9 |
| 1995 | 56.4 | 61.8 | 60.2 | 61.8 | 62.2 | 66.8 | 72.9 | 74.8 | 74.0 | 67.8 | 63.3 | 58.2 | 65.0 |
| 1996 | 57.2 | 58.4 | 59.5 | 65.5 | 67.2 | 70.1 | 73.2 | 75.0 | 71.8 | 64.8 | 61.3 | 56.8 | 65.1 |
| 1997 | 56.0 | 56.9 | 62.0 | 63.7 | 71.3 | 70.2 | 72.4 | 77.0 | 78.9 | 70.8 | 64.6 | 57.5 | 66.8 |
| 1998 | 56.8 | 56.6 | 61.3 | 62.3 | 65.5 | 70.2 | 76.1 | 80.1 | 74.3 | 67.8 | 60.2 | 56.5 | 65.6 |
| 1999 | 59.0 | 56.9 | 57.6 | 58.9 | 63.0 | 65.9 | 72.1 | 70.9 | 69.0 | 70.6 | 60.8 | 57.9 | 63.6 |
| 2000 | 58.7 | 57.9 | 59.1 | 64.0 | 68.0 | 72.6 | 73.8 | 75.4 | 72.4 | 64.7 | 57.0 | 57.2 | 65.1 |
| 2001 | 52.4 | 52.5 | 59.1 | 59.2 | 66.2 | 70.5 | 70.9 | 72.3 | 71.6 | 66.9 | 60.6 | 54.1 | 63.0 |
| 2002 | 55.6 | 58.0 | 58.3 | 60.1 | 64.0 | 67.2 | 71.3 | 70.2 | 72.0 | 63.9 | 63.7 | 55.7 | 63.3 |
| 2003 | 62.0 | 57.6 | 60.0 | 59.7 | 63.3 | 66.6 | 73.9 | 76.0 | 71.3 | 69.9 | 59.8 | 55.7 | 64.7 |
| 2004 | 56.5 | 55.4 | 63.1 | 64.1 | 69.5 | 68.5 | 73.8 | 72.1 | 74.1 | 64.8 | 58.3 | 55.9 | 64.7 |
| 2005 | 56.5 | 58.1 | 59.3 | 61.5 | 66.6 | 67.5 | 72.3 | 73.3 | 69.4 | 66.1 | 63.4 | 57.9 | 64.3 |
| 2006 | 57.2 | 58.2 | 54.4 | 59.4 | 65.4 | 72.0 | 77.5 | 73.3 | 70.2 | 65.8 | 63.5 | 56.2 | 64.4 |
| 2007 | 54.0 | 57.5 | 62.7 | 62.7 | 65.9 | 68.7 | 73.7 | 75.9 | 71.9 | 68.4 | 62.7 | 55.3 | 65.0 |
| 2008 | 55.0 | 55.7 | 60.2 | 63.7 | 64.7 | 70.1 | 72.1 | 74.4 | 72.6 | 70.2 | 64.5 | 54.6 | 64.8 |
| 2009 | 60.1 | 56.3 | 58.8 | 62.4 | 66.4 | 67.5 | 73.6 | 74.4 | 75.1 | 67.0 | 62.3 | 55.5 | 65.0 |
| 2010 | 56.9 | 57.0 | 59.8 | 59.4 | 63.3 | 66.9 | 69.4 | 71.6 | 71.1 | 66.7 | 61.0 | 56.3 | 63.3 |
| 2011 | 58.1 | 55.0 | 59.6 | 63.2 | 64.0 | 66.3 | 72.5 | 72.2 | 70.8 | 67.1 | 59.5 | 54.2 | 63.5 |
| POR= 62 YRS | 55.7 | 56.9 | 58.7 | 61.6 | 64.8 | 68.3 | 72.7 | 73.8 | 72.1 | 67.5 | 61.4 | 56.1 | 64.1 |

HEATING DEGREE DAYS (base 65°F) 2011 LONG BEACH (KLGB)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1982-83 | 0 | 0 | 0 | 7 | 136 | 283 | 203 | 170 | 161 | 119 | 24 | 1 | 1104 |
| 1983-84 | 0 | 0 | 0 | 0 | 145 | 268 | 220 | 198 | 109 | 101 | 15 | 0 | 1056 |
| 1984-85 | 0 | 0 | 0 | 32 | 213 | 333 | 324 | 253 | 266 | 87 | 57 | 5 | 1570 |
| 1985-86 | 0 | 0 | 0 | 17 | 205 | 219 | 132 | 191 | 154 | 98 | 31 | 0 | 1047 |
| 1986-87 | 0 | 0 | 14 | 11 | 64 | 233 | 330 | 214 | 182 | 50 | 23 | 0 | 1121 |
| 1987-88 | 0 | 0 | 0 | 4 | 106 | 365 | 270 | 133 | 112 | 85 | 28 | 14 | 1117 |
| 1988-89 | 0 | 0 | 0 | 0 | 136 | 277 | 299 | 264 | 134 | 37 | 24 | 3 | 1174 |
| 1989-90 | 0 | 0 | 1 | 11 | 49 | 173 | 244 | 261 | 179 | 39 | 22 | 0 | 979 |
| 1990-91 | 0 | 0 | 0 | 2 | 82 | 292 | 241 | 107 | 268 | 89 | 86 | 9 | 1176 |
| 1991-92 | 0 | 0 | 0 | 23 | 72 | 212 | 236 | 141 | 171 | 17 | 0 | 0 | 872 |
| 1992-93 | 0 | 0 | 0 | 0 | 79 | 319 | 280 | 217 | 103 | 44 | 3 | 6 | 1051 |
| 1993-94 | 0 | 0 | 0 | 3 | 90 | 243 | 195 | 234 | 123 | 90 | 52 | 0 | 1030 |
| 1994-95 | 0 | 0 | 0 | 7 | 238 | 255 | 263 | 115 | 148 | 108 | 85 | 19 | 1238 |
| 1995-96 | 0 | 0 | 0 | 5 | 55 | 204 | 242 | 191 | 169 | 53 | 10 | 0 | 929 |
| 1996-97 | 0 | 0 | 0 | 50 | 131 | 247 | 271 | 220 | 111 | 70 | 0 | 0 | 1100 |
| 1997-98 | 0 | 0 | 0 | 0 | 70 | 227 | 243 | 232 | 120 | 116 | 16 | 0 | 1024 |
| 1998-99 | 0 | 0 | 0 | 7 | 139 | 263 | 179 | 218 | 221 | 207 | 71 | 28 | 1333 |
| 1999-00 | 0 | 0 | 4 | 1 | 123 | 213 | 193 | 199 | 179 | 55 | 2 | 0 | 969 |
| 2000-01 | 0 | 0 | 0 | 38 | 235 | 237 | 383 | 345 | 182 | 181 | 12 | 0 | 1613 |
| 2001-02 | 0 | 0 | 0 | 9 | 129 | 332 | 288 | 204 | 199 | 141 | 58 | 15 | 1375 |
| 2002-03 | 0 | 0 | 1 | 61 | 73 | 281 | 118 | 202 | 165 | 162 | 70 | 6 | 1139 |
| 2003-04 | 0 | 0 | 0 | 5 | 156 | 281 | 255 | 271 | 92 | 75 | 0 | 0 | 1135 |
| 2004-05 | 0 | 0 | 0 | 49 | 193 | 280 | 261 | 187 | 172 | 104 | 16 | 0 | 1262 |
| 2005-06 | 0 | 0 | 1 | 37 | 80 | 216 | 247 | 192 | 323 | 165 | 20 | 0 | 1281 |
| 2006-07 | 0 | 0 | 1 | 21 | 89 | 265 | 336 | 211 | 95 | 76 | 20 | 2 | 1116 |
| 2007-08 | 0 | 0 | 0 | 17 | 92 | 292 | 301 | 263 | 153 | 110 | 72 | 5 | 1305 |
| 2008-09 | 0 | 0 | 0 | 6 | 58 | 317 | 167 | 238 | 192 | 117 | 7 | 1 | 1103 |
| 2009-10 | 0 | 0 | 0 | 25 | 92 | 286 | 244 | 221 | 167 | 165 | 62 | 1 | 1263 |
| 2010-11 | 1 | 0 | 0 | 15 | 171 | 270 | 209 | 277 | 170 | 79 | 59 | 11 | 1262 |
| 2011- | 0 | 0 | 0 | 19 | 168 | 325 | | | | | | | |

WBAN : 23129

COOLING DEGREE DAYS (base 65°F) 2011 LONG BEACH (KLGB)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1982 | 0 | 1 | 2 | 21 | 37 | 33 | 265 | 345 | 276 | 150 | 7 | 0 | 1137 |
| 1983 | 8 | 0 | 7 | 7 | 67 | 108 | 291 | 443 | 359 | 191 | 14 | 0 | 1495 |
| 1984 | 3 | 0 | 8 | 28 | 116 | 138 | 369 | 369 | 430 | 68 | 0 | 0 | 1529 |
| 1985 | 0 | 8 | 0 | 24 | 15 | 149 | 339 | 259 | 156 | 98 | 4 | 2 | 1054 |
| 1986 | 11 | 15 | 12 | 26 | 40 | 126 | 207 | 301 | 102 | 69 | 15 | 0 | 924 |
| 1987 | 1 | 4 | 2 | 71 | 67 | 97 | 151 | 225 | 262 | 185 | 22 | 0 | 1087 |
| 1988 | 3 | 12 | 65 | 43 | 70 | 79 | 264 | 259 | 186 | 111 | 3 | 6 | 1101 |
| 1989 | 3 | 12 | 19 | 98 | 43 | 102 | 243 | 229 | 225 | 85 | 49 | 6 | 1114 |
| 1990 | 0 | 1 | 11 | 21 | 60 | 207 | 343 | 266 | 265 | 174 | 32 | 5 | 1385 |
| 1991 | 0 | 9 | 0 | 23 | 31 | 45 | 170 | 232 | 229 | 182 | 46 | 0 | 967 |
| 1992 | 0 | 15 | 0 | 89 | 104 | 139 | 312 | 395 | 293 | 128 | 19 | 0 | 1494 |
| 1993 | 3 | 0 | 12 | 33 | 92 | 178 | 229 | 252 | 219 | 131 | 13 | 3 | 1165 |
| 1994 | 2 | 0 | 12 | 17 | 21 | 205 | 230 | 393 | 270 | 92 | 1 | 2 | 1245 |
| 1995 | 2 | 34 | 2 | 21 | 6 | 78 | 250 | 310 | 274 | 102 | 7 | 0 | 1086 |
| 1996 | 6 | 5 | 3 | 74 | 87 | 160 | 260 | 317 | 212 | 51 | 29 | 0 | 1204 |
| 1997 | 0 | 0 | 26 | 39 | 201 | 165 | 233 | 379 | 425 | 186 | 64 | 2 | 1720 |
| 1998 | 0 | 0 | 13 | 39 | 39 | 161 | 347 | 475 | 286 | 99 | 0 | 7 | 1466 |
| 1999 | 5 | 0 | 0 | 29 | 14 | 63 | 228 | 192 | 128 | 182 | 3 | 0 | 844 |
| 2000 | 6 | 1 | 3 | 33 | 101 | 237 | 280 | 332 | 229 | 37 | 0 | 1 | 1260 |
| 2001 | 0 | 1 | 6 | 15 | 56 | 174 | 189 | 234 | 202 | 77 | 4 | 0 | 958 |
| 2002 | 5 | 13 | 0 | 1 | 35 | 91 | 201 | 167 | 217 | 34 | 38 | 0 | 802 |
| 2003 | 32 | 0 | 16 | 8 | 24 | 58 | 283 | 348 | 195 | 165 | 7 | 0 | 1136 |
| 2004 | 2 | 0 | 40 | 53 | 144 | 114 | 282 | 227 | 278 | 51 | 0 | 5 | 1196 |
| 2005 | 5 | 0 | 1 | 5 | 70 | 83 | 233 | 267 | 141 | 77 | 38 | 2 | 922 |
| 2006 | 12 | 6 | 0 | 2 | 38 | 215 | 397 | 263 | 159 | 54 | 49 | 0 | 1195 |
| 2007 | 4 | 8 | 29 | 13 | 53 | 120 | 277 | 344 | 211 | 127 | 29 | 0 | 1215 |
| 2008 | 0 | 2 | 13 | 80 | 67 | 165 | 227 | 298 | 236 | 173 | 50 | 0 | 1311 |
| 2009 | 21 | 2 | 7 | 45 | 55 | 85 | 273 | 299 | 312 | 93 | 17 | 0 | 1209 |
| 2010 | 0 | 0 | 14 | 3 | 16 | 64 | 144 | 211 | 191 | 74 | 55 | 5 | 777 |
| 2011 | 1 | 1 | 11 | 32 | 35 | 56 | 242 | 229 | 181 | 90 | 13 | 0 | 891 |

SNOWFALL (inches) 2011 LONG BEACH (KLGB)

| 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 | 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 | | 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 | 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 | 0.0 | T | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T |
| 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 | T | 0.0 | 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 | 0.0 | 0.0 | | | | | | | | | | | |
| 1997-98 | | | | | | | | | | | | | |
| 1998-99 | | | | | | | | | | | | | |
| 1999-00 | | | | | | | | | | | | | |
| 2000-01 | | | | | | | | | | | | | |
| 2001-02 | | | | | | | | | | | | | |
| 2002-03 | | | | | | | | | | | | | |
| 2003-04 | | | | | | | | | | | | | |
| 2004-05 | | | | | | | | | | | | | |
| 2005- | | | | | | | | | | | | | |
| POR= 48 YRS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | 0.0 | 0.0 | 0.0 | 0.0 | T |

WBAN : 23129

REFERENCE NOTES :

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| <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 LONG BEACH CALIFORNIA (KLGB)

The climate of the Long Beach Airport is considerably influenced by local topography. In fact, the topography plays a greater role in the climatic conditions at this station than the more general movements of pressure systems which dominate other sections of the country.

The Pacific Ocean, 4 miles south and 12 miles west, has a moderating effect on temperatures. The annual range of temperatures at the airport is much less than is experienced at stations further inland in the Los Angeles basin. Low coastal hills lie immediately between the station and the sea, the highest being Signal Hill, 1 5/8 miles southwest and 498 feet above sea level. The Palos Verdes Hills, 11 miles west-southwest of the station, slope upward to 1,480 feet above sea level. These natural barriers between the ocean and the station cause slightly greater ranges of high and low temperatures locally than at stations on the coast. During the winter months high temperatures are usually in the upper 60s, and lows in the 40s. In the summer highs are in the 70s and low 80s, and lows in the high 50s. Fortunately, high temperatures usually occur with low relative humidities, making infrequent heat waves tolerable for most people.

Precipitation is sparse during the summer months, with an average of only about 0.60 inch for the months of May through October. The greatest rainfall occurs during the winter months. Terrain again plays an important role. Precipitation at the station is considerably less than over the San Gabriel Mountains, about 28 miles to the north and the Santa Ana Mountains, 20 miles to the east. Even the coastal hills influence the local precipitation with greater amounts of rainfall occurring just 1 or 2 miles south and southwest of the station. Snow is an extremely rare phenomenon locally, although the San Gabriel Mountains are blanketed in the higher elevations much of the winter, and occasionally have snow down to the 2,500-foot level. Thunderstorms occur only sporadically at Long Beach.

With the Pacific Ocean only 4 miles south, it might be expected that the sea breeze would be from a southerly component. However, the coastal hills to the southwest combine with the lowest mountain passes leading to the interior desert valleys east of the Los Angeles basin to produce a sea breeze from a westerly component in the afternoon and early evening hours. Occasionally, strong dry northeasterly winds descend the mountain slopes in the fall, winter, and early spring months, developing velocities in excess of 50 mph over localized sections of the Los Angeles basin, usually below canyons. However, these strong winds ordinarily by-pass the station. Actually, the highest winds at Long Beach are recorded in association with the winter and spring storms which invade southern California from the Pacific.

During the summer months low clouds are quite common in the late night and morning hours at this station due to its proximity to the ocean. The tourist from the east and midwest usually expects a wet, rainy day, but by late morning or early afternoon the clouds have disappeared and the balance of the day is sunny and comfortable. Here again is a moderating influence on summertime temperatures locally which is not so prominent at stations further inland where the coastal cloudiness arrives later, burns off earlier, and penetrates less frequently.

Station History

LONG BEACH, CA

| NAME | Begin Date | End Date | Latitude | Longitude | Elevation Feet | Relocation | Platform |
|----------------------------|------------|------------|----------|-----------|----------------|------------|---------------|
| LONG BEACH DAUGHERTY FIELD | 1930-12-01 | 1930-12-31 | 33° 49' | -118° 10' | | | MILITARY |
| LONG BEACH DAUGHERTY FIELD | 1998-01-01 | 2004-04-26 | 33° 48' | -118° 8' | 31 | | ASOS, COOP |
| LONG BEACH DAUGHERTY FIELD | 1942-01-01 | 1957-01-01 | 33° 49' | -118° 9' | | | MILITARY |
| LONG BEACH DAUGHERTY FIELD | 1937-06-01 | 1939-01-01 | 33° 49' | -118° 10' | | | AIRWAYS |
| LONG BEACH DAUGHERTY FIELD | 1961-01-01 | 1981-12-31 | 33° 49' | -118° 9' | 25 | | COOP, WXSVC |
| LONG BEACH DAUGHERTY FIELD | 1996-09-01 | 1998-01-01 | 33° 48' | -118° 8' | 31 | .6 MI SSW | ASOS, COOP |
| LONG BEACH DAUGHERTY FIELD | 1957-01-01 | 1957-12-31 | 33° 49' | -118° 9' | | | AIRWAYS |
| LONG BEACH DAUGHERTY FIELD | 1981-12-31 | 1996-09-01 | 33° 49' | -118° 9' | 25 | | COOP |
| LONG BEACH DAUGHERTY FIELD | 2004-04-26 | Present | 33° 48' | -118° 8' | 31 | | ASOS, COOP |
| LONG BEACH DAUGHERTY FIELD | 1939-01-01 | 1942-01-01 | 33° 49' | -118° 10' | | | MILITARY |
| LONG BEACH DAUGHERTY FIELD | 1960-01-01 | 1961-01-01 | 33° 49' | -118° 9' | 25 | | AIRWAYS, COOP |

Element History

| Element | Begin Date | End Date | Frequency | Time Of Observation | Equipment * | Equipment * Modifications | Equipment Exposure |
|---------|------------|------------|-----------|---------------------|-------------|---------------------------|--------------------|
| PRECIP | 1995-07-01 | 1996-09-01 | HOURLY | 2400 | UNIV | RCRD | ROOF |
| PRECIP | 2001-05-15 | 2004-04-26 | DAILY | 2400 | | | |
| PRECIP | 2001-05-15 | 2004-04-26 | HOURLY | | TB | RCRD | |
| PRECIP | 2004-04-26 | 2010-02-11 | HOURLY | 2400 | TB | RCRD | |
| PRECIP | 1982-01-01 | 1989-01-24 | HOURLY | 2400 | | | |
| PRECIP | 1995-07-01 | 1996-09-01 | DAILY | 2400 | SRG | | ROOF |
| PRECIP | 1996-09-01 | 2001-05-15 | HOURLY | | TB | RCRD | |
| TEMP | 2001-05-15 | 2004-04-26 | DAILY | 2400 | HYGR | | |
| PRECIP | 2010-02-11 | Present | DAILY | 2400 | PCPNX | | |
| PRECIP | 1960-01-01 | 1982-01-01 | DAILY | 2400 | UNIV | RCRD | ROOF |
| TEMP | 1996-09-01 | 2001-05-15 | DAILY | 2400 | HYGR | | |
| PRECIP | 2004-04-26 | 2010-02-11 | DAILY | 2400 | | | |
| TEMP | 1930-12-01 | 1957-12-31 | DAILY | 2400 | MXMN | | |
| TEMP | 1960-01-01 | 1982-01-01 | DAILY | 2400 | MXMN | | |
| TEMP | 1982-01-01 | 1989-01-24 | DAILY | 2400 | MXMN | | |
| PRECIP | 1982-01-01 | 1989-01-24 | DAILY | 2400 | UNIV | RCRD | ROOF |
| TEMP | 1995-07-01 | 1996-09-01 | DAILY | 2400 | MXMN | | ROOF |
| PRECIP | 1989-01-24 | 1993-07-13 | HOURLY | 2400 | | | |
| PRECIP | 1989-01-24 | 1993-07-13 | DAILY | 2400 | SRG | | ROOF |
| TEMP | 1989-01-24 | 1993-07-13 | DAILY | 2400 | MXMN | | |
| PRECIP | 1993-07-13 | 1995-07-01 | HOURLY | 2400 | | | |
| TEMP | 1993-07-13 | 1995-07-01 | DAILY | 2400 | MXMN | | ROOF |
| TEMP | 2004-04-26 | 2010-02-11 | DAILY | 2400 | HYGR | | |
| PRECIP | 2010-02-11 | Present | HOURLY | 2400 | AHTB | RCRD;HTD | |
| PRECIP | 1993-07-13 | 1995-07-01 | DAILY | 2400 | SRG | | ROOF |
| PRECIP | 1930-12-01 | 1957-12-31 | DAILY | 2400 | UNIV | RCRD | ROOF |
| PRECIP | 1996-09-01 | 2001-05-15 | DAILY | 2400 | TB | RCRD | |
| TEMP | 2010-02-11 | Present | DAILY | 2400 | TEMPX | | |

* 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

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@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