

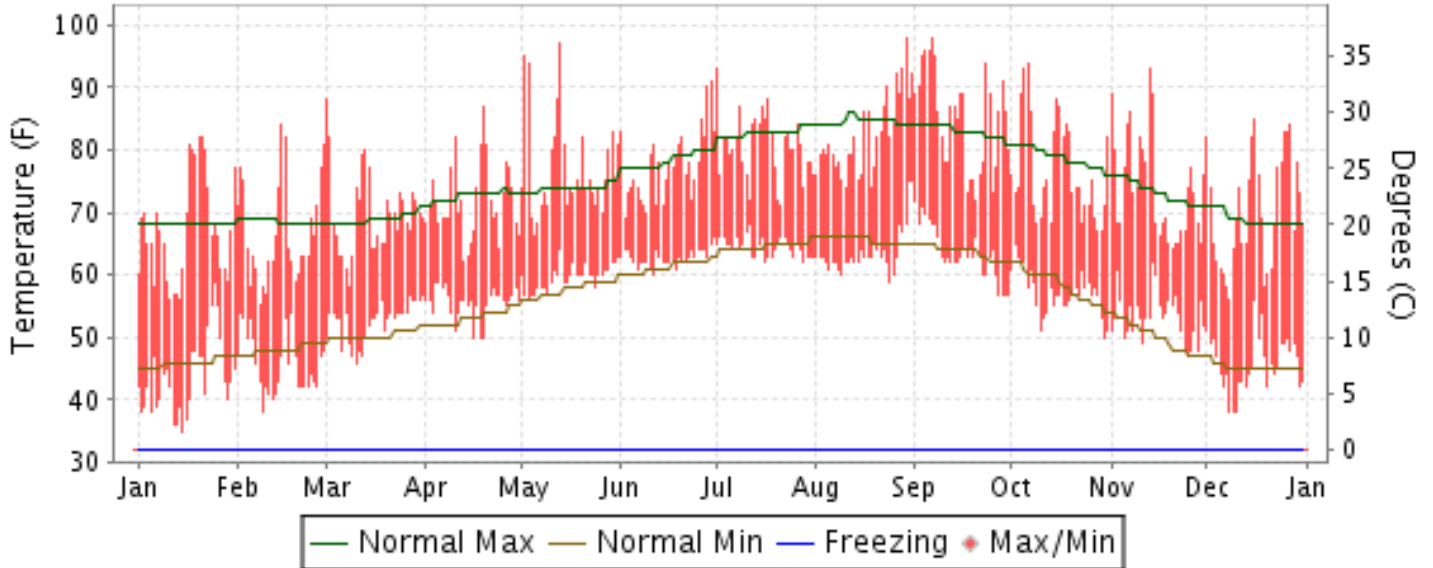


# 2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

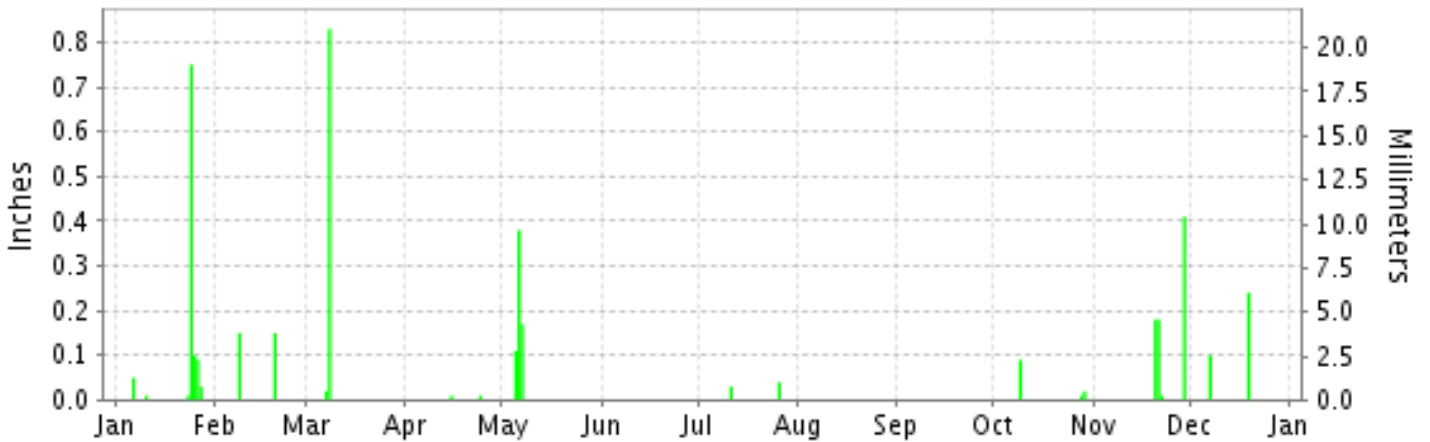
ISSN 0198-0904

## LONG BEACH, CALIFORNIA (KLGB)

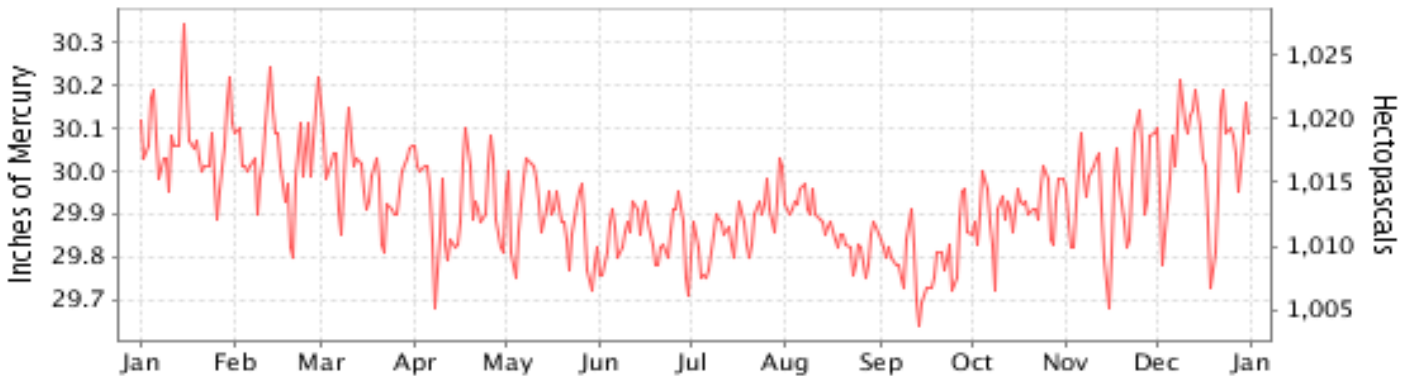
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2013

## 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	67.4	66.7	69.7	71.8	77.1	77.4	80.6	82.3	84.8	76.7	73.9	70.3	74.9	
	HIGHEST DAILY MAXIMUM	82	84	88	87	97	91	93	98	98	94	93	85	98	
	DATE OF OCCURRENCE	21+	15	01	19	13	29	01	29	06	06	13	16	SEP 06	
	MEAN DAILY MINIMUM	43.6	45.7	52.6	55.6	59.7	62.8	64.5	63.7	63.6	57.2	53.3	45.8	55.7	
	LOWEST DAILY MINIMUM	35	38	46	50	56	60	62	59	57	50	47	38	35	
	DATE OF OCCURRENCE	15	09	10	19+	03	11	28+	24	30+	30	25	10+	JAN 15	
	AVERAGE DRY BULB	55.5	56.2	61.2	63.7	68.4	70.1	72.5	73.0	74.2	67.0	63.6	58.0	65.3	
	MEAN WET BULB	46.3	48.9	54.1	55.1	59.3	61.5	63.5	62.7	62.7	56.8	53.6	47.2	56.0	
	MEAN DEW POINT	35.9	41.0	48.9	47.5	53.1	56.9	59.0	57.4	55.9	48.5	45.2	34.9	48.7	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	3	2	1	5	8	2	1	0	22	
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	284	243	120	47	8	0	0	0	0	24	71	218	1015	
	COOLING DEGREE DAYS	0	5	7	17	120	161	243	257	284	94	39	12	1239	
RH	MEAN (PERCENT)	55	63	70	63	64	68	69	65	60	60	58	50	62	
	HOUR 04 LST	66	75	83	74	78	78	81	78	76	71	69	61	74	
	HOUR 10 LST	40	50	60	51	54	60	62	56	47	45	42	39	51	
	HOUR 16 LST	46	51	56	52	53	56	57	50	47	51	50	43	51	
	HOUR 22 LST	66	70	81	72	74	78	76	73	71	69	70	58	72	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	3	1	3	0	0	0	0	0	3	4	1	3	18	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	0	0	0	
PR	MEAN STATION PRESS. (IN.)	30.07	30.03	29.98	29.92	29.90	29.85	29.87	29.86	29.79	29.91	29.95	30.03	29.93	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	30.08	30.03	29.97	29.94	29.89	29.91	29.91	29.84	29.95	30.00	30.08	29.98	
WINDS	RESULTANT SPEED (MPH)	1.9	1.7	1.6	2.7	2.5	2.3	2.2	2.2	2.4	1.4	0.7	1.3	1.6	
	RES. DIR. (TENS OF DEGS.)	30	26	23	24	20	21	25	26	28	26	25	30	26	
	MEAN SPEED (MPH)	3.8	3.9	4.3	6.4	5.8	5.5	5.0	4.8	4.8	4.2	3.2	3.2	4.6	
	PREVAIL.DIR.(TENS OF DEGS.)	30	30	18	30	19	16	30	31	30	30	30	31	31	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	26	21	16	29	24	17	17	21	21	23	16	21	29	
	DIR. (TENS OF DEGS.)	29	29	29	28	29	31	30	30	28	29	30	11	28	
	DATE OF OCCURRENCE	10	19	20	08	13	05	17	22	26	02	10	09	APR 08	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	33	29	23	35	30	26	39	25	28	31	21	26	39	
DIR. (TENS OF DEGS.)	29	29	15	28	29	25	24	29	29	27	09	28	24		
DATE OF OCCURRENCE	10	20	07	16	13	20	13	22	26	09	22	07	JUL 13		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.04	0.30	0.85	0.02	0.66	T	0.07	0.00	0.00	0.12	0.78	0.34	4.18	
	GREATEST 24-HOUR (IN.)	0.75	0.15	0.83	0.01	0.49	T	0.04	0.00	0.00	0.09	0.41	0.24	0.83	
	DATE OF OCCURRENCE	24	19	08	24+	05-06	24+	26			09	29	19	MAR 08	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	7	2	2	2	3	0	2	0	0	3	4	2	27		
PRECIPITATION 0.10	2	2	1	0	3	0	0	0	0	0	3	2	13		
PRECIPITATION 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
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															

# 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	
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	67.4	67.2	68.6	71.7	73.6	76.7	81.9	83.8	82.1	77.2	72.1	66.8	74.1	
	MEAN DAILY MAXIMUM	64	66.3	66.8	68.0	71.0	73.1	76.5	81.9	83.2	81.9	77.5	72.3	66.9	73.8	
	HIGHEST DAILY MAXIMUM	61	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.	64	81.7	81.6	83.4	87.6	88.3	89.3	93.3	94.8	98.4	94.7	88.1	80.8	88.5	
	NORMAL DAILY MINIMUM	30	46.1	48.0	50.5	53.2	57.6	61.0	64.5	64.9	63.2	58.3	50.8	45.8	55.3	
	MEAN DAILY MINIMUM	64	45.2	46.9	49.4	52.2	56.5	59.9	63.5	64.3	62.4	57.5	50.6	45.3	54.5	
	LOWEST DAILY MINIMUM	61	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.	64	36.2	38.8	41.1	44.8	50.0	54.2	58.6	59.0	56.4	49.4	41.2	36.4	47.2	
	NORMAL DRY BULB	30	56.7	57.6	59.6	62.4	65.6	68.9	73.2	74.3	72.7	67.7	61.4	56.3	64.7	
	MEAN DRY BULB	64	55.7	56.9	58.7	61.6	64.8	68.3	72.7	73.8	72.2	67.5	61.4	56.1	64.1	
	MEAN WET BULB	30	47.5	49.4	51.6	53.4	57.1	60.3	63.4	63.8	62.6	57.8	51.8	47.3	55.5	
	MEAN DEW POINT	30	45.1	46.4	49.4	51.0	55.1	58.4	61.6	62.0	60.7	55.9	48.3	43.9	53.2	
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.1	0.3	1.0	0.6	1.1	2.5	4.8	4.6	2.6	0.6	0.0	18.2	
	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2		
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		
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	259	212	179	106	37	6	0	0	1	20	128	271	1219	
	NORMAL COOLING DEG. DAYS	30	3	5	10	29	56	121	254	290	231	105	21	1	1126	
<b>RH</b>	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	
<b>S</b>	PERCENT POSSIBLE SUNSHINE															
<b>W/O</b>	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	50	3.3	2.3	1.7	0.9	0.5	0.4	0.5	0.8	1.7	3.3	3.7	3.8	22.9	
	THUNDERSTORMS	64	0.4	0.4	0.6	0.3	0.1	0.0	0.2	0.2	0.4	0.3	0.3	0.2	3.4	
<b>CLOUDINESS</b>	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	
<b>PR</b>	MEAN STATION PRESSURE(IN)	30	30.04	30.01	29.97	29.94	29.90	29.86	29.88	29.86	29.85	29.91	29.99	30.03	29.94	
	MEAN SEA-LEVEL PRES. (IN)	30	30.08	30.05	30.02	29.98	29.94	29.91	29.92	29.90	29.89	29.95	30.03	30.08	29.98	
<b>WINDS</b>	MEAN SPEED (MPH)	30	4.7	5.5	6.1	6.6	6.6	6.5	6.4	6.2	5.7	5.1	4.6	4.5	5.7	
	PREVAIL.DIR.(TENS OF DEGS)	23	31	31	30	30	19	19	31	31	31	31	31	31	31	
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	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	2013	1998	2009	1999	2006	MAR 2000	
	MAXIMUM 3-SECOND SPEED (MPH)	17	38	40	49	48	35	28	39	25	38	38	41	48	49	
	DIR. (TENS OF DEGS)		12	11	32	32	29	28	24	29	32	32	31	23	32	
	YEAR OF OCCURRENCE		2001	1998	2011	2007	2008	2009	2013	2013	2008	2009	1999	2008	MAR 2011	
<b>PRECIPITATION</b>	NORMAL (IN)	30	2.60	3.09	1.87	0.60	0.21	0.07	0.03	0.03	0.18	0.63	1.00	1.95	12.26	
	MAXIMUM MONTHLY (IN)	69	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)	69	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)	69	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	5.9	6.5	5.3	3.1	1.1	0.7	0.5	0.3	0.9	2.5	3.4	5.0	35.2	
	PRECIPITATION >= 1.00	30	0.7	1.1	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.3	0.5	3.4	
<b>SNOWFALL</b>	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) 2013 LONG BEACH (KLGB)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2012	1.14	0.32	1.40	1.53	0.02	0.00	0.03	T	0.01	0.32	1.04	2.40	8.21
2013	1.04	0.30	0.85	0.02	0.66	T	0.07	0.00	0.00	0.12	0.78	0.34	4.18
POR= 64 YRS	2.72	2.59	1.71	0.70	0.20	0.05	0.02	0.06	0.16	0.36	1.18	1.73	11.48

WBAN : 23129

**AVERAGE TEMPERATURE (°F) 2013 LONG BEACH (KLGB)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2012	58.1	57.2	58.6	63.1	66.4	68.9	70.7	76.4	77.5	70.7	63.3	56.4	65.6
2013	55.5	56.2	61.2	63.7	68.4	70.1	72.5	73.0	74.2	67.0	63.6	58.0	65.3
POR= 64 YRS	55.7	56.9	58.7	61.6	64.8	68.3	72.7	73.8	72.2	67.5	61.4	56.1	64.2

**HEATING DEGREE DAYS (base 65°F) 2013 LONG BEACH (KLGB)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
2011-12	0	0	0	19	168	325	211	221	203	77	13	0	1237
2012-13	0	2	0	1	77	260	284	243	120	47	8	0	1042
2013-	0	0	0	24	71	218							

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**COOLING DEGREE DAYS (base 65°F) 2013 LONG BEACH (KLGB)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
2012	2	1	10	25	64	126	182	364	381	184	30	0	1369
2013	0	5	7	17	120	161	243	257	284	94	39	12	1239

**SNOWFALL (inches) 2013 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	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 :**

<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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</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</p>	<p>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: <a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> 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.</p>
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# 2013 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	1942-01-01	1957-01-01	33° 49'	-118° 9'			MILITARY
LONG BEACH DAUGHERTY FIELD	1998-01-01	2004-04-26	33° 48'	-118° 8'	31		ASOS, COOP
LONG BEACH DAUGHERTY FIELD	1930-12-01	1930-12-31	33° 49'	-118° 10'			MILITARY
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
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

# Element History

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

\* 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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