

1998

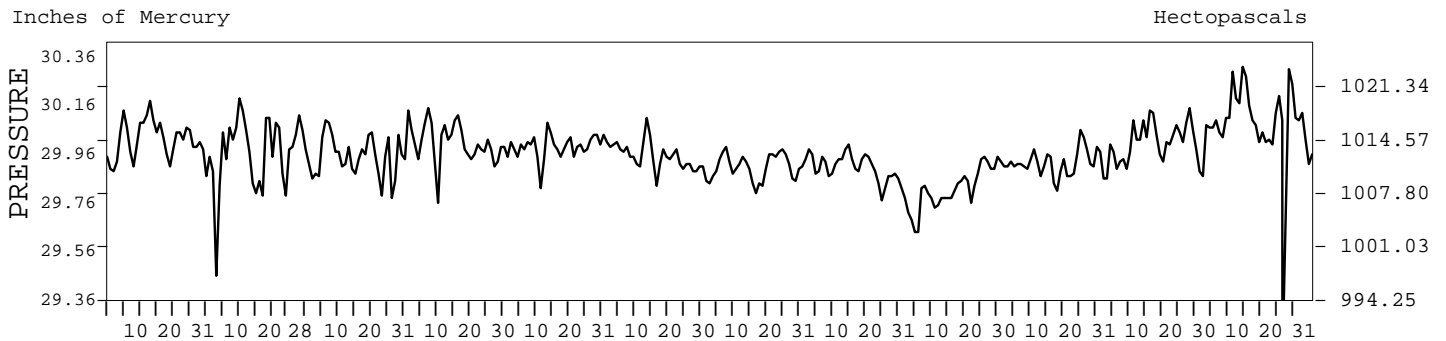
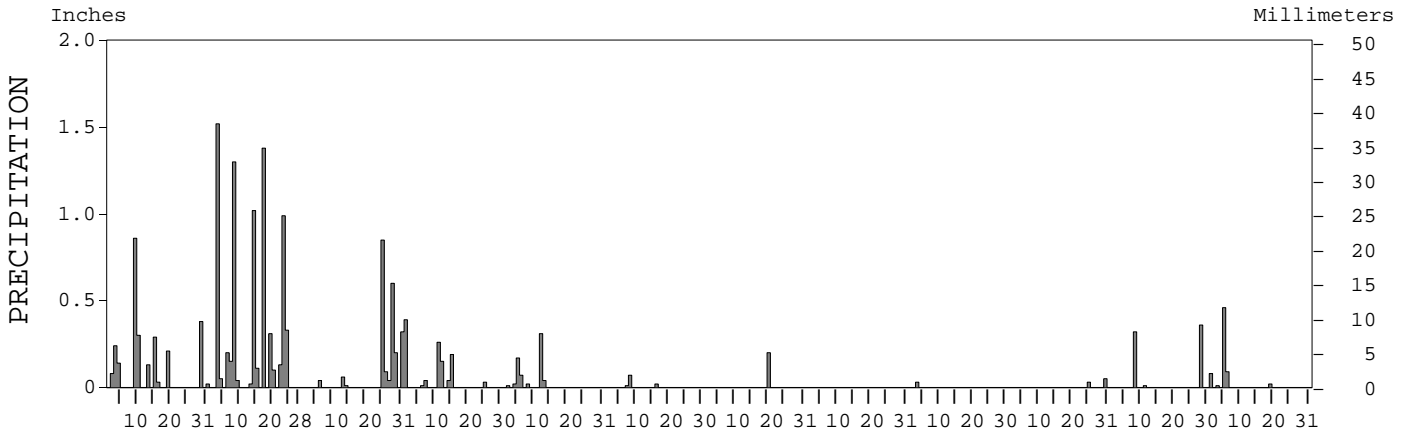
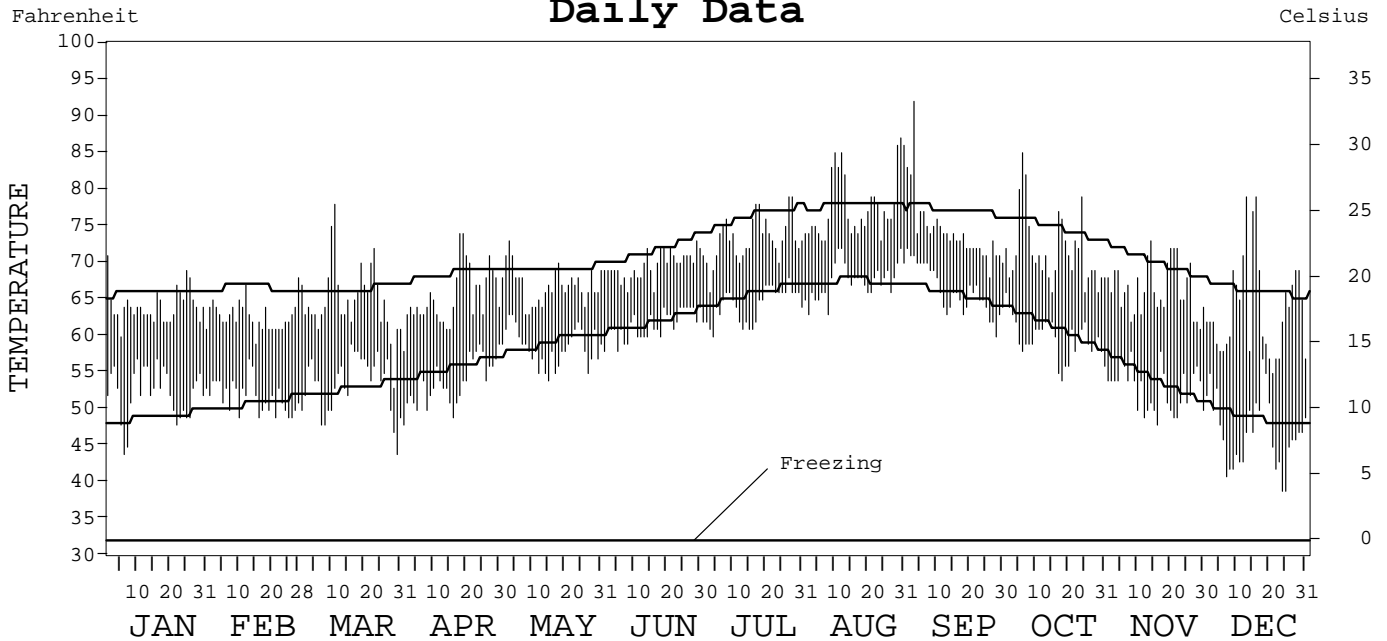
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-0815

SAN DIEGO,  
CALIFORNIA (SAN)

Daily Data



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 ASHEVILLE, NORTH CAROLINA

# METEOROLOGICAL DATA FOR 1998

## SAN DIEGO, CA (SAN)

LATITUDE: 32° 44' 05" N      LONGITUDE: 117° 10' 07" W      ELEVATION (FT): GRND: 13      BARO: 33      TIME ZONE: PACIFIC (UTC+ 8)      WBAN: 23188

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE ° F	MEAN DAILY MAXIMUM	64.1	62.9	65.0	65.4	67.0	69.7	73.2	77.9	74.3	71.6	66.6	63.8	68.5	
	HIGHEST DAILY MAXIMUM	71	68	78	74	73	79	87	92	85	73	79	79	92	
	DATE OF OCCURRENCE	01	28	11	19+	3	29	28+	30	03	06	14	16+	SEP 03	
	MEAN DAILY MINIMUM	52.3	51.7	53.5	53.8	58.5	61.6	64.3	67.6	66.2	59.7	52.8	46.9	57.4	
	LOWEST DAILY MINIMUM	44	49	44	48	54	58	60	63	60	54	48	39	39	
	DATE OF OCCURRENCE	06	26+	30	01	15	05+	04	08+	28	18	16	25+	DEC 25+	
	AVERAGE DRY BULB	58.2	57.3	59.3	59.6	62.8	65.7	68.8	72.8	70.3	65.7	59.7	55.4	63.0	
	MEAN WET BULB	54.6	54.1	54.0	54.3	57.7	60.2	64.0	67.5	64.8	59.6	54.6			
	MEAN DEW POINT	51.0	50.8	49.1	49.6	53.9	56.7	61.5	64.9	61.8	55.0	50.0			
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	MAXIMUM ≤ 32°	0	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	0
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	203	208	172	155	69	9	1	0	0	13	152	293	1275	
	COOLING DEGREE DAYS	0	0	1	0	6	34	127	250	167	40	0	0	625	
RH	MEAN (PERCENT)	78	79	71	71	74	74	81	79	77	72	72	66	74	
	HOUR 04 LST	86	86	76	80	79	80	87	88	83	76	79	75	81	
	HOUR 10 LST	71	76	65	66	68	68	77	72	71	63	66	58	68	
	HOUR 16 LST	72	73	65	61	67	68	72	70	70	69	69	58	68	
	HOUR 22 LST	83	80	75	76	79	78	85	83	80	77	77	75	79	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	0	0	1	0	0	3	1	0	0	3	2	10	
	THUNDERSTORMS	0	1	0	0	0	0	1	0	0	0	1	1	3	
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.)	30.02	29.97	29.95	30.01	29.99	29.95	29.91	29.90	29.83	29.92	30.01			
	MEAN SEA-LEVEL PRESS. (IN.)	30.04	29.99	29.98	30.03	30.02	29.98	29.94	29.92	29.85	29.95	30.04			
WINDS	RESULTANT SPEED (MPH)	0.9	2.6	3.4	4.4	4.5	5.4	4.2	2.6	4.1	2.5	2.2			
	RES. DIR. (TENS OF DEGS.)	27	23	26	28	25	28	28	31	28	26	27			
	MEAN SPEED (MPH)	4.7	8.1	7.7	7.4	7.8	7.5	6.8	6.8	7.0	5.6	5.1	5.0	6.6	
	PREVAIL. DIR. (TENS OF DEGS.)	29	29	30	29	30	28	28	28	28	28	28	30	28	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	20	38	31	30	26	18	18	18	17	20	26	28	38	
	DIR. (TENS OF DEGS.)	18	17	16	18	17	28	27	29	28	28	13	07	17	
	DATE OF OCCURRENCE	29+	23	25	11	12	21+	26+	31+	28+	17+	28	15+	FEB 23	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	28	45	38	36	32	23	22	23	22	23	34	34	45	
DIR. (TENS OF DEGS.)	19	17	17	18	18	28	28	14	27	30	19	27	17		
DATE OF OCCURRENCE	09	23	25	11	12	03	25+	09	28+	28+	28	06	FEB 23		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.68	7.65	2.21	1.11	0.64	0.10	0.20	T	0.03	0.08	0.69	0.66	16.05	
	GREATEST 24-HOUR (IN.)	1.13	1.57	0.93	0.41	0.35	0.07	0.20	T	0.03	0.05	0.36	0.46	1.57	
	DATE OF OCCURRENCE	09-10	03-04	25-26	11-12	12-13	08	20	10+	03	30	28-29	05	FEB 03-04	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	11	15	9	8	7	3	1	0	1	2	3	5	65	
PRECIPITATION ≥ 0.10	8	12	4	4	2	0	1	0	0	0	2	1	34		
PRECIPITATION ≥ 1.00	0	4	0	0	0	0	0	0	0	0	0	0	4		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	
	GREATEST 24-HOUR (IN.)	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	
	DATE OF OCCURRENCE			28										MAR 28	
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

# NORMALS, MEANS, AND EXTREMES

## SAN DIEGO, CA (SAN)

LATITUDE: 32° 44' 05" N      LONGITUDE: 117° 10' 07" W      ELEVATION (FT): GRND: 13      BARO: 33      TIME ZONE: PACIFIC (UTC+ 8)      WBAN: 23188

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	65.9	66.5	66.3	68.4	69.1	71.6	76.2	77.8	77.1	74.6	69.9	66.1	70.8
	MEAN DAILY MAXIMUM	51	65.4	66.1	66.4	68.4	69.3	71.8	75.8	77.5	77.0	74.1	70.4	66.3	70.7
	HIGHEST DAILY MAXIMUM	58	88	90	93	98	96	101	95	98	111	107	97	88	111
	YEAR OF OCCURRENCE		1953	1995	1988	1989	1953	1979	1985	1955	1963	1961	1976	1963	SEP 1963
	MEAN OF EXTREME MAXS.	51	78.3	78.3	79.3	81.1	79.2	81.5	83.5	86.0	90.4	88.8	83.5	78.2	82.3
	NORMAL DAILY MINIMUM	30	48.9	50.7	52.8	55.6	59.1	61.9	65.7	67.3	65.6	60.9	53.9	48.8	57.6
	MEAN DAILY MINIMUM	51	48.5	50.2	52.2	55.3	58.6	61.5	65.1	66.5	64.9	60.2	53.3	48.6	57.1
	LOWEST DAILY MINIMUM	58	29	36	39	41	48	51	55	57	51	43	38	34	29
	YEAR OF OCCURRENCE		1949	1949	1971	1945	1967	1967	1948	1944	1948	1971	1964	1987	JAN 1949
	MEAN OF EXTREME MINS.	51	40.3	43.3	45.5	49.3	53.2	57.4	61.3	62.6	59.2	52.7	45.3	40.7	50.9
	NORMAL DRY BULB	30	57.4	58.6	59.6	62.0	64.1	66.8	71.0	72.6	71.4	67.7	62.0	57.4	64.2
	MEAN DRY BULB	51	56.8	58.1	59.2	61.9	64.0	66.6	70.5	72.0	71.1	67.1	61.9	57.5	63.9
	MEAN WET BULB	15	51.3	52.5	54.2	56.6	58.9	61.2	64.7	66.3	65.2	61.0	54.8	50.4	58.1
	MEAN DEW POINT	15	44.8	46.6	49.0	51.8	54.9	57.9	61.8	63.3	61.9	56.7	48.5	43.6	53.4
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.1	0.2	0.1	0.5	0.3	0.2	1.4	0.9	0.2	0.0	3.9	
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	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
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	245	189	177	113	73	51	13	0	19	24	109	243	1256
	NORMAL COOLING DEG. DAYS	30	9	10	9	23	45	105	199	240	211	107	19	7	984
RH	NORMAL (PERCENT)	30	63	66	67	67	71	74	75	74	73	69	66	64	69
	HOUR 04 LST	30	70	73	75	75	77	81	82	81	80	76	73	70	76
	HOUR 10 LST	30	55	58	60	60	65	69	69	68	66	61	56	54	62
	HOUR 16 LST	30	56	58	59	59	64	66	66	66	65	63	61	58	62
	HOUR 22 LST	30	70	72	72	72	75	78	80	79	78	75	73	71	75
S	PERCENT POSSIBLE SUNSHINE	56	72	71	70	68	59	58	68	70	69	68	75	73	68
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	58	2.9	2.5	1.5	1.1	0.6	0.6	0.6	0.6	2.2	3.1	3.4	3.8	22.9
	THUNDERSTORMS	58	0.2	0.3	0.4	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.4	3.1	
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	56	4.1	4.2	4.2	4.2	4.6	4.4	3.6	3.2	3.2	3.5	3.3	3.7	3.9
	MIDNIGHT-MIDNIGHT (OKTAS)	32	3.9	4.4	4.5	4.1	5.1	5.0	4.3	4.0	4.0	3.8	3.4	3.5	4.2
	MEAN NO. DAYS WITH:														
CLEAR	56	12.3	10.1	10.8	10.3	8.5	9.3	12.7	15.1	15.0	13.7	14.7	13.6	146.1	
PARTLY CLOUDY	56	7.6	7.6	9.5	10.0	11.3	11.8	12.8	11.5	9.5	9.7	8.0	7.7	117.0	
CLOUDY	56	11.1	10.5	10.7	9.7	11.2	9.0	5.0	4.4	5.5	7.6	7.3	9.6	101.6	
PR	MEAN STATION PRESSURE (IN)	26	30.04	30.03	29.98	29.96	29.92	29.89	29.90	29.89	29.87	29.93	30.00	30.03	29.95
	MEAN SEA-LEVEL PRES. (IN)	15	30.06	30.05	30.02	29.97	29.95	29.92	29.93	29.92	29.90	29.95	30.03	30.06	29.98
WINDS	MEAN SPEED (MPH)	35	6.0	6.6	7.4	7.8	7.8	7.8	7.6	7.5	7.2	6.6	6.0	5.7	7.0
	PREVAIL. DIR (TENS OF DEGS)	20	30	30	30	30	30	30	30	30	30	30	30	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	2	26	38	31	30	26	22	20	20	21	23	26	34	38
	DIR. (TENS OF DEGS)		18	17	16	18	17	25	28	29	33	29	13	04	17
	YEAR OF OCCURRENCE		1997	1998	1998	1998	1998	1997	1997	1997	1997	1997	1998	1997	FEB 1998
MAXIMUM 5-SECOND:															
SPEED (MPH)	2	35	45	38	36	32	25	23	23	24	28	34	43	45	
DIR. (TENS OF DEGS)		19	17	17	18	18	25	27	30	33	29	19	05	17	
YEAR OF OCCURRENCE		1997	1998	1998	1998	1998	1997	1997	1997	1997	1997	1998	1997	FEB 1998	
PRECIPITATION	NORMAL (IN)	30	1.80	1.53	1.77	0.79	0.19	0.07	0.02	0.10	0.24	0.37	1.45	1.57	9.90
	MAXIMUM MONTHLY (IN)	58	9.09	7.65	6.96	3.71	1.79	0.87	0.24	2.13	1.90	2.90	5.82	7.60	9.09
	YEAR OF OCCURRENCE		1993	1998	1991	1988	1977	1990	1991	1977	1963	1941	1965	1943	JAN 1993
	MINIMUM MONTHLY (IN)	58	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
	YEAR OF OCCURRENCE		1976	1967	1997	1993	1952	1981	1982	1981	1979	1967	1980	1979	MAR 1997
	MAXIMUM IN 24 HOURS (IN)	58	2.65	2.61	2.40	1.98	1.50	0.82	0.23	2.13	1.00	1.39	2.44	3.07	3.07
	YEAR OF OCCURRENCE		1978	1979	1952	1988	1977	1990	1991	2013	1986	1986	1944	1945	DEC 1945
NORMAL NO. DAYS WITH:															
PRECIPITATION ≥ 0.01	30	6.3	5.3	6.6	4.3	2.2	1.1	0.5	0.6	1.5	2.3	5.0	5.5	41.2	
PRECIPITATION ≥ 1.00	30	0.3	0.2	0.3	0.1	*	0.0	0.0	*	0.0	0.0	0.3	0.3	1.5	
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0
	MAXIMUM MONTHLY (IN)	57	T	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1949		1985								1985	1967	NOV 1985
	MAXIMUM IN 24 HOURS (IN)	57	T	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1949		1985								1985	1967	NOV 1985
	MAXIMUM SNOW DEPTH (IN)	49	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) 1998 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	4.78	4.34	0.94	0.21	0.17	0.02	T	0.01	T	0.04	0.79	0.46	11.76
1970	0.86	2.58	1.50	0.09	0.01	T	T	0.00	T	0.07	2.05	2.22	9.38
1971	0.30	1.27	0.20	0.93	0.95	0.01	T	0.03	T	1.66	0.06	3.27	8.68
1972	0.07	0.10	T	0.02	0.10	0.38	T	0.02	0.44	0.58	3.16	1.61	6.48
1973	1.68	1.63	2.26	0.05	T	T	T	T	0.02	0.01	1.63	0.19	7.47
1974	2.96	0.04	1.70	0.02	0.01	0.02	0.01	T	T	1.03	0.14	2.20	8.13
1975	0.49	0.96	3.79	2.00	0.01	0.02	T	T	T	0.09	0.64	0.37	8.37
1976	T	5.40	0.99	1.33	0.27	0.02	0.02	0.01	1.00	0.38	0.75	1.06	11.23
1977	2.36	0.06	0.61	0.01	1.79	0.03	T	2.13	T	0.50	0.05	1.67	9.21
1978	5.95	2.64	5.00	0.73	0.04	T	0.00	T	0.72	0.05	2.09	2.19	19.41
1979	5.82	0.85	3.71	0.02	0.09	0.01	0.09	0.01	0.00	0.73	0.27	0.02	11.62
1980	5.58	4.47	2.71	1.18	0.65	0.01	T	0.00	T	0.05	0.00	0.31	14.96
1981	1.48	2.26	3.74	0.22	0.04	0.00	T	0.00	0.03	0.14	1.79	0.54	10.24
1982	2.71	0.88	4.74	0.62	0.01	0.04	0.00	T	0.38	0.05	2.10	1.43	12.96
1983	2.10	3.88	6.57	1.74	0.01	T	0.01	0.39	0.21	0.40	1.94	1.53	18.78
1984	0.46	0.09	0.04	0.62	0.00	0.04	0.19	0.06	T	0.29	2.37	4.55	8.71
1985	0.52	0.77	0.58	0.32	T	T	0.00	T	0.20	0.29	4.92	1.06	8.66
1986	0.75	2.59	3.12	1.17	0.00	T	0.01	0.00	1.04	1.39	1.16	0.95	12.18
1987	1.68	1.53	1.04	0.78	0.03	T	0.03	0.01	0.70	1.74	1.33	2.73	11.60
1988	0.89	1.37	0.59	3.71	0.08	0.00	T	T	T	T	1.39	2.23	10.26
1989	0.42	0.70	0.69	0.12	0.04	0.06	0.00	T	0.23	0.47	0.09	1.01	3.83
1990	2.52	1.13	0.25	0.76	0.51	0.87	T	0.01	T	T	0.65	0.59	7.29
1991	1.06	2.46	6.96	0.05	0.01	T	0.24	0.01	0.28	0.69	0.05	1.70	13.51
1992	1.81	3.34	4.42	0.28	0.07	0.04	0.03	0.05	0.00	0.18	0.03	2.56	12.81
1993	9.09	4.73	1.22	0.00	0.01	0.41	0.03	T	T	0.22	0.77	0.78	17.26
1994	0.70	2.75	3.67	0.93	0.07	T	0.03	0.01	T	0.01	0.46	0.80	9.43
1995	8.06	1.93	3.81	0.96	0.59	0.46	0.05	0.00	T	T	0.30	0.88	17.04
1996	1.52	0.88	1.10	0.36	0.02	0.00	0.09	T	0.03	0.94	1.70	0.63	7.27
1997	3.02	0.31	0.00	0.28	T	T	T	0.00	0.85	0.02	1.17	1.35	7.00
1998	2.68	7.65	2.21	1.11	0.64	0.10	0.20	T	0.03	0.08	0.69	0.66	16.05
POR= 149 YRS	1.95	1.93	1.64	0.71	0.26	0.06	0.00	0.00	0.11	0.40	0.91	1.78	9.75

WBAN : 23188

AVERAGE TEMPERATURE (°F) 1998 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	58.1	54.9	56.8	61.7	62.9	65.5	69.4	72.8	69.9	66.0	64.1	59.1	63.4
1970	57.0	59.7	60.5	60.1	63.6	65.6	70.4	72.8	69.7	66.3	61.4	55.4	63.5
1971	54.3	55.4	57.8	60.7	61.5	64.9	69.4	75.4	72.2	65.7	59.5	54.2	62.6
1972	54.9	57.8	60.2	62.3	64.7	67.0	72.7	72.2	68.7	65.6	59.8	57.5	63.6
1973	55.6	59.9	58.1	61.5	63.4	68.0	69.1	70.5	68.8	66.8	60.6	58.2	63.4
1974	56.9	58.2	59.1	62.0	63.3	66.9	71.4	70.2	70.3	66.8	62.2	56.3	63.6
1975	56.1	56.4	57.5	58.7	62.2	65.0	69.4	68.9	71.5	65.9	60.4	56.9	62.4
1976	58.9	59.6	60.3	61.0	65.2	69.7	71.1	72.4	73.8	71.2	66.8	60.7	65.9
1977	60.3	61.7	57.5	61.4	61.9	65.8	71.6	73.1	72.2	68.9	64.9	63.3	65.2
1978	61.0	60.9	64.3	63.4	68.2	71.3	71.6	72.9	74.0	70.1	61.7	55.2	66.2
1979	56.9	56.9	60.1	63.4	65.6	70.2	71.8	73.9	76.3	68.7	62.4	60.6	65.6
1980	61.1	63.5	61.5	63.9	63.8	68.5	72.9	74.2	70.4	67.3	62.7	60.8	65.9
1981	61.3	62.2	61.1	64.4	67.3	72.9	75.6	75.8	73.7	67.1	63.5	60.3	67.1
1982	56.6	60.7	60.5	63.8	65.8	66.7	71.9	73.5	73.1	70.1	62.1	57.4	65.2
1983	60.7	60.9	62.0	62.4	66.2	68.1	72.6	77.4	76.8	72.2	64.4	60.6	67.0
1984	61.2	60.2	63.7	64.3	68.1	69.9	77.2	76.6	78.9	68.5	61.4	56.7	67.2
1985	57.0	57.2	58.9	63.6	64.8	69.0	75.3	72.4	69.8	67.9	60.1	58.0	64.5
1986	61.0	58.9	60.5	62.8	64.6	67.4	69.6	71.8	66.9	65.5	62.8	57.6	64.1
1987	55.4	58.0	59.1	63.4	64.7	65.8	67.1	69.9	69.9	69.5	61.8	53.9	63.2
1988	56.7	59.9	61.6	62.4	63.9	64.9	70.4	71.0	70.0	66.7	60.1	56.0	63.6
1989	54.7	56.7	59.8	65.6	63.7	66.0	70.1	71.0	70.4	66.3	63.1	58.7	63.8
1990	56.6	55.2	58.7	63.2	64.3	69.0	72.3	71.6	71.7	68.6	62.7	55.6	64.1
1991	57.4	59.4	56.5	61.7	62.1	64.1	67.4	68.9	69.4	68.0	62.3	57.3	62.9
1992	57.4	61.1	60.4	67.0	68.0	68.1	71.8	74.9	72.4	68.2	62.6	55.3	65.6
1993	56.9	58.0	61.3	63.8	66.0	68.6	69.8	70.2	69.0	67.3	61.6	57.0	64.1
1994	57.9	56.5	60.4	61.0	62.1	68.1	69.5	74.0	72.5	66.8	56.4	55.8	63.4
1995	56.9	61.4	60.4	61.5	62.0	64.8	69.0	71.9	71.5	67.1	63.2	58.3	64.0
1996	57.6	58.8	60.1	64.6	66.8	67.8	70.0	72.8	70.6	64.3	61.6	57.8	64.4
1997	58.0	58.4	61.6	62.5	68.7	67.5	69.3	72.9	75.2	68.7	64.0	57.4	65.4
1998	58.2	57.3	59.3	59.6	62.8	65.7	68.8	72.8	70.3	65.7	59.7	55.4	63.0
POR= 124 YRS	55.6	56.6	58.0	60.3	62.5	65.2	68.8	70.2	69.0	65.2	60.8	57.0	62.4

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HEATING DEGREE DAYS (base 65°F) 1998 SAN DIEGO, CA (SAN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1969-70	0	0	0	14	44	178	240	142	133	143	58	12	964
1970-71	0	0	0	12	107	290	331	266	215	143	109	29	1502
1971-72	0	0	0	78	160	326	310	203	139	78	34	0	1328
1972-73	0	0	0	29	149	224	286	131	208	107	61	1	1196
1973-74	0	0	0	6	132	205	243	184	176	85	55	4	1090
1974-75	0	0	0	14	97	265	273	237	225	182	83	10	1386
1975-76	0	0	0	19	141	246	196	150	148	115	16	0	1031
1976-77	0	0	0	0	39	129	143	94	224	103	88	3	823
1977-78	0	0	0	0	37	55	117	117	52	43	8	0	429
1978-79	0	0	0	0	102	297	244	219	153	45	20	6	1086
1979-80	0	0	0	4	75	136	117	50	104	61	43	1	591
1980-81	0	0	0	6	75	133	113	101	116	40	1	0	585
1981-82	0	0	0	9	57	136	258	119	139	64	9	2	793
1982-83	0	0	0	1	93	228	137	110	88	83	9	0	749
1983-84	0	0	0	0	66	130	123	134	51	43	4	0	551
1984-85	0	0	0	4	104	250	238	219	183	60	18	2	1078
1985-86	0	0	0	3	145	211	118	173	132	85	29	0	896
1986-87	0	0	7	10	66	223	291	197	178	72	21	6	1071
1987-88	0	0	0	0	98	338	250	147	125	85	53	22	1118
1988-89	0	0	0	4	141	275	313	237	158	37	40	14	1219
1989-90	0	0	1	13	67	188	252	268	185	52	39	1	1066
1990-91	0	0	0	3	88	284	227	152	254	104	96	28	1236
1991-92	0	0	0	24	96	231	228	115	136	8	1	0	839
1992-93	0	0	0	0	84	294	240	191	111	44	7	6	977
1993-94	0	0	0	4	103	242	214	235	147	116	85	1	1147
1994-95	0	0	0	12	249	276	242	106	136	105	87	24	1237
1995-96	0	0	0	3	49	200	223	171	146	54	6	0	852
1996-97	0	0	0	45	115	216	217	185	124	81	0	1	984
1997-98	0	0	0	2	65	227	203	208	172	155	69	9	1110
1998-	1	0	0	13	152	293							

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COOLING DEGREE DAYS (base 65°F) 1998 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	5	0	1	9	3	31	144	247	154	53	26	5	678
1970	0	1	1	1	21	40	172	247	145	58	7	0	693
1971	5	3	0	19	7	31	142	327	224	107	1	0	866
1972	0	0	0	4	33	68	247	230	117	53	0	1	753
1973	0	0	0	10	17	97	133	176	121	70	8	1	633
1974	0	0	0	2	9	69	204	169	164	75	19	0	711
1975	0	0	0	0	1	18	142	124	201	54	8	0	548
1976	14	0	10	3	31	147	196	240	269	200	102	0	1212
1977	5	9	0	2	1	34	212	258	224	128	40	8	921
1978	1	7	38	4	115	194	213	251	276	166	11	0	1276
1979	0	0	10	6	46	169	216	283	348	124	5	8	1215
1980	2	13	3	35	15	110	253	289	170	86	15	7	998
1981	7	29	0	26	81	244	335	343	265	80	21	0	1431
1982	0	7	6	32	42	58	219	271	250	164	12	0	1061
1983	11	0	1	9	51	99	242	392	364	231	55	0	1455
1984	13	0	15	31	107	156	387	366	422	119	4	0	1620
1985	0	7	0	22	19	128	325	235	153	104	6	0	999
1986	2	11	4	29	23	78	152	218	73	31	9	0	630
1987	0	6	5	29	17	35	71	158	154	147	10	0	632
1988	0	5	28	16	25	26	176	193	161	64	0	5	699
1989	0	13	2	63	5	48	165	193	168	58	17	0	732
1990	0	0	2	6	21	127	233	211	209	123	25	0	957
1991	0	0	0	9	11	10	80	130	138	122	21	0	521
1992	0	12	1	72	99	100	216	313	228	106	20	0	1167
1993	0	0	4	12	47	119	155	170	126	81	8	0	722
1994	0	0	10	3	1	100	146	289	231	76	0	0	856
1995	0	14	1	8	1	27	133	223	199	75	2	0	683
1996	0	0	4	53	70	92	164	251	175	30	19	0	858
1997	6	4	23	12	119	83	138	252	314	123	40	2	1116
1998	0	0	1	0	6	34	127	250	167	40	0	0	625

SNOWFALL (inches) 1998 SAN DIEGO, CA (SAN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	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
1971-72	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
1972-73	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
1973-74	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
1974-75	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
1975-76	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
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	T	0.0	0.0	0.0	T
1985-86	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
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	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	0.0	0.0	0.0	0.0	0.0
1995-96	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
1996-97	0.0												
1997-98				0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	
1998-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
POR= 56 YRS	0.0	0.0	0.0	0.0	T	T	T	0.0	T	0.0	0.0	0.0	T

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REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). 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.</p>	<p>GENERAL CONTINUED: 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. 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.</p> <p>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.</p>
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# 1998 SAN DIEGO, CALIFORNIA (SAN)

The city of San Diego is located on San Diego Bay in the southwest corner of southern California. The prevailing winds and weather are tempered by the Pacific Ocean, with the result that summers are cool and winters warm in comparison with other places along the same general latitude. Temperatures of freezing or below have rarely occurred at the station since the record began in 1871, but hot weather, 90 degrees or above, is more frequent.

Dry easterly winds sometimes blow in the vicinity for several days at a time, bringing temperatures in the 90s and at times even in the 100s in the eastern sections of the city and outlying suburbs. At the National Weather Service station itself, however, there have been relatively few days on which 100 degrees or higher was reached.

As these hot winds are predominant in the fall, highest temperatures occur in the months of September and October. Records show that over 60 percent of the days with 90 degrees or higher have occurred in these two months. High temperatures are almost invariably accompanied by very low relative humidities, which often drop below 20 percent and occasionally below 10 percent.

A marked feature of the climate is the wide variation in temperature within short distances. In nearby valleys daytimes are much warmer in summer and nights noticeably cooler in winter, and freezing occurs much more frequently than in the city. Although records show unusually small daily temperature ranges, only about 15 degrees between the highest and lowest readings, a few miles inland these ranges increase to 30 degrees or more.

Strong winds and gales associated with Pacific, or tropical storms, are infrequent due to the latitude.

The seasonal rainfall is about 10 inches in the city, but increases with elevation and distance from the coast. In the mountains to the north and east the average is between 20 and 40 inches, depending on slope and elevation. Most of the precipitation falls in winter, except in the mountains where there is an occasional thunderstorm. Eighty-five percent of the rainfall occurs from November through March, but wide variations take place in monthly and seasonal totals. Infrequent measurable amounts of hail occur in San Diego, but snow is practically unknown at the Weather Service Office location. In each occurrence of snowfall only a trace was recorded officially, but in some locations amounts up to or slightly exceeding a half-inch fell, and remained on the ground for an hour or more.

As on the rest of the Pacific Coast, a dominant characteristic of spring and summer is the nighttime and early morning cloudiness. Low clouds form regularly and frequently extend inland over the coastal valleys and foothills, but they usually dissipate during the morning and the afternoons are generally clear.

Considerable fog occurs along the coast, but the amount decreases with distance inland. The fall and winter months are usually the foggiest. Thunderstorms are rare, averaging about three a year in the city. Visibilities are good as a rule. The sunshine is plentiful for a marine location, with a marked increase toward the interior.

STATION LOCATION

SAN DIEGO, CALIFORNIA

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUGUST 1960	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS	
						SEA LEVEL	GROUND												
							WIND DIRECTION	WIND SPEED	TEMPERATURE	RELATIVE HUMIDITY	SEA LEVEL PRESSURE	SLP CORRECTION	SLP OBSERVED	SLP UNCORRECTED	SLP CORRECTED				SLP UNCORRECTED
CITY Daugherty Building Broadway Between 3rd and 4th Streets	10/25/71	10/30/75		32° 43'	117°10'	43	39	20	19									Broadway formerly named "D" Street.	
Horton Bank Building Broadway at 3rd	10/30/75	4/24/78	100 ft. W	32° 43'	117°10'	45	60	65	64										
Broadway at 5th	4/24/78	4/01/86	500 ft. E	32° 43'	117°10'	49	49	20	19										
Horton Bank Building Broadway at 3rd	4/01/86	1/01/89	500 ft. W	32° 43'	117°10'	45	60	65	64										
Greely-Nesmith Building 5th Between E & F Sts.	1/01/89	5/01/95	900 ft. SE	32° 43'	117°10'	44	85	73	72										
Cole Building 5th & G Streets	5/01/95	5/01/97	500 ft. SSW	32° 43'	117°10'	35	70	59	58									SW to SE winds affected by higher building.	
McNeece Building 5th & F Streets	5/01/97	4/01/13	300 ft. N	32° 43'	117°10'	40	102	94	93	a86								a - Installed 1898.	
U.S. Post Office & Court House Building F between Union & State Streets	4/01/13	2/01/40	1500 ft. W	32° 43'	117°10'	26	70	62	61		55								
AIRPORT Lindbergh Municipal AP 1.5 mi. NW of City Office	1/15/30	8/19/32		32° 44'	117°10'	19	24	6	5									s - Standby.	
Lindbergh Field Municipal Airport	8/19/32	8/13/69	100 ft. NW	32° 44'	117°10'	d13	b21	20	19		27		27	c5				b - 47 ft. to 12/18/36 and 63 ft. to 2/1/61. c - Commissioned 1600 ft. SSW of Administration Building 2/1/61. d - 19 ft. to 2/1/61.	
Port of San Diego General Aviation Bldg. Lindbergh Field	8/13/69	Present	200 ft. N	32° 44'	117°10'	13	20	s37	s36	49	36	NA	s35	e5 f5	NA			e - 3300 ft. WNW of previous site (moved 2/17/69). f - Type change 8/12/85. S ASOS Commissioned 08/01/96	

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801. INQUIRIES/COMMENTS CALL: (828) 271-4800

National Climatic Data Center  
151 Patton Avenue, Rm 120  
Asheville NC 28801-5001

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