

2002

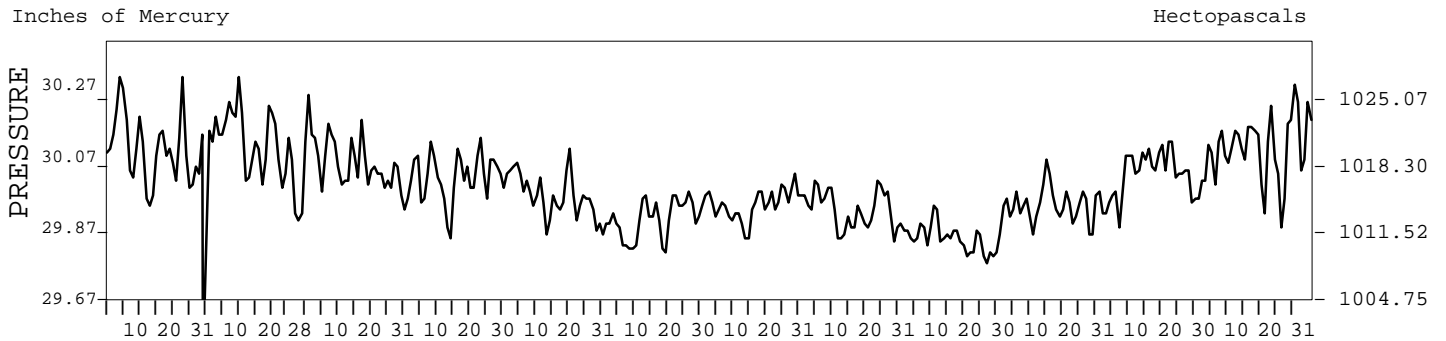
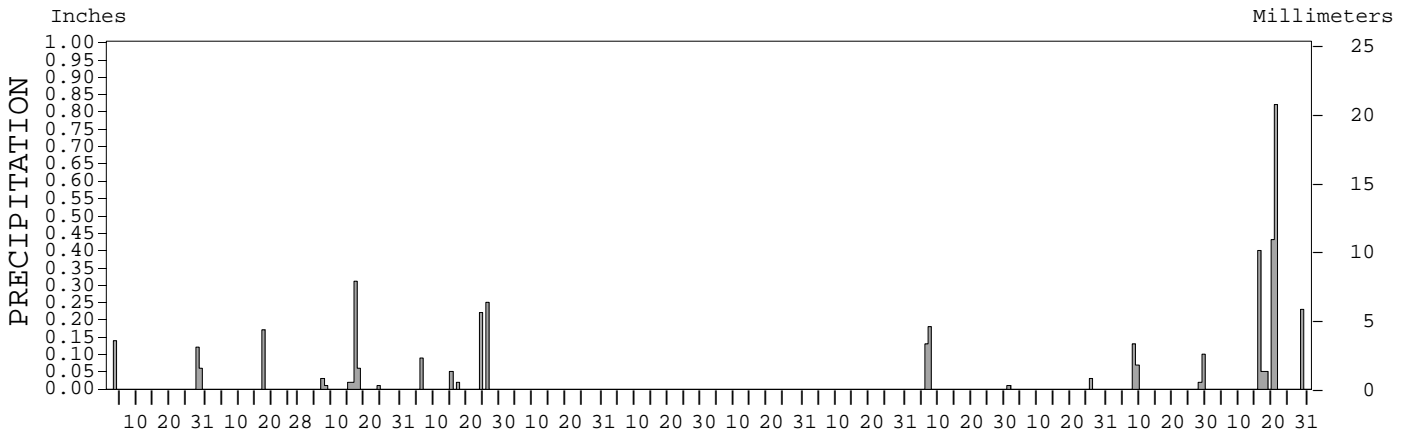
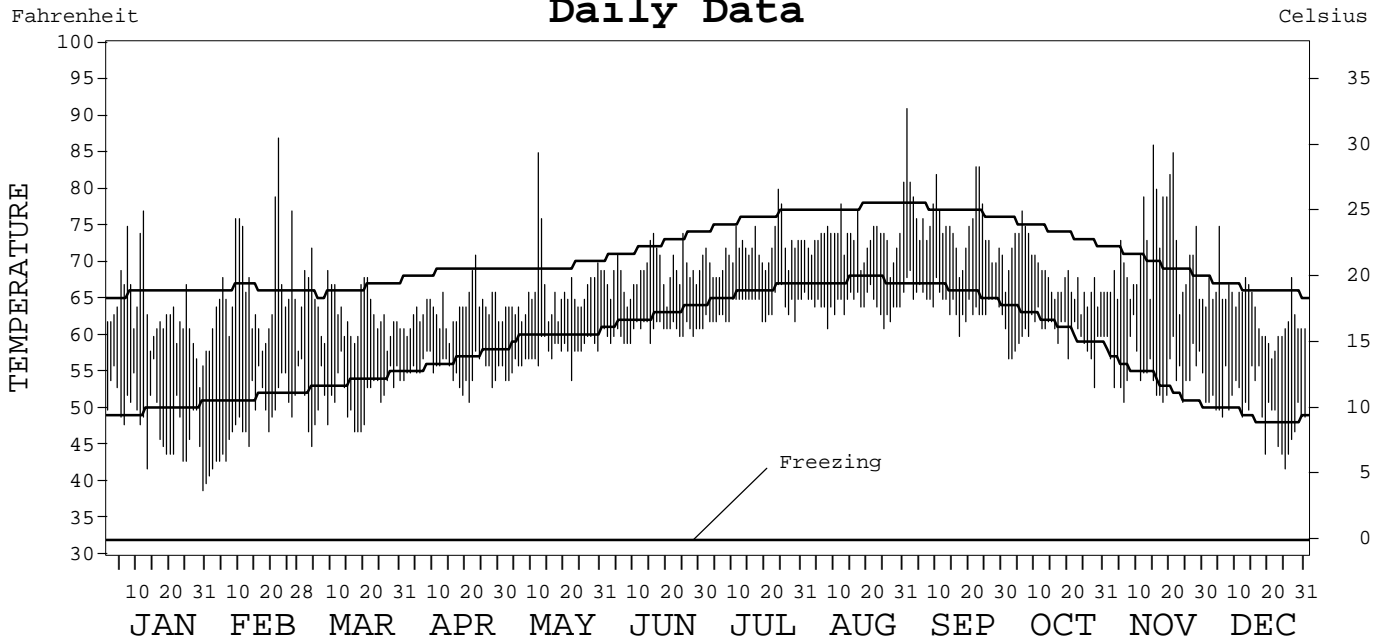
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-0971

SAN DIEGO,
CALIFORNIA (SAN)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2002

SAN DIEGO, CA (SAN)

LATITUDE: 32° 44' 05" N LONGITUDE: 117° 10' 07" W ELEVATION (FT): GRND: 78 BARO: 81 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	63.0	66.2	63.6	63.7	66.1	68.7	71.8	73.4	75.5	68.4	71.4	63.7	68.0	
	HIGHEST DAILY MAXIMUM	77	87	72	71	85	74	80	81	91	77	86	75	91	
	DATE OF OCCURRENCE	12	22	04	23	12	25+	24	31	01	06	15	05	SEP 01	
	MEAN DAILY MINIMUM	48.3	48.8	51.7	55.4	57.6	60.7	63.8	64.3	64.6	60.0	55.4	49.8	56.7	
	LOWEST DAILY MINIMUM	39	41	45	51	54	59	61	61	60	53	51	42	39	
	DATE OF OCCURRENCE	30	01	04	21	22+	15+	01	25+	17	28	24+	25	JAN 30	
	AVERAGE DRY BULB	55.7	57.5	57.7	59.6	61.9	64.7	67.8	68.9	70.1	64.2	63.4	56.8	62.4	
	MEAN WET BULB		50.4	51.8	54.9	56.7	59.7	62.8	64.3	64.6	58.5	55.3	51.7		
	MEAN DEW POINT		42.7	45.5	51.3	53.2	56.7	60.1	62.0	61.9	54.6	47.9	46.8		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	0	0	1	0	0	0	1	
	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	283	208	219	154	101	18	0	0	1	36	63	248	1331	
	COOLING DEGREE DAYS	0	5	0	0	9	16	94	125	157	18	23	0	447	
RH	MEAN (PERCENT)	66	64	67	77	76	78	79	82	79	72	64	71	73	
	HOUR 04 LST	73	71	74	84	81	84	85	88	87	77	71	78	79	
	HOUR 10 LST	57	54	62	72	71	73	75	76	72	66	52	61	66	
	HOUR 16 LST	57	58	61	70	71	72	72	75	70	68	59	66	67	
	HOUR 22 LST	72	72	71	79	79	82	83	87	82	77	70	79	78	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	2	0	0	0	0	0	0	4	2	1	0	11	
	THUNDERSTORMS	1	0	0	0	0	0	0	1	0	1	0	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.)		30.10	30.05	30.01	29.96	29.89	29.94	29.91	29.84	29.93	30.03	30.09		
	MEAN SEA-LEVEL PRESS. (IN.)		30.13	30.08	30.03	29.98	29.92	29.96	29.94	29.87	29.96	30.05	30.12		
WINDS	RESULTANT SPEED (MPH)		2.3	4.7	4.2	4.2	4.1	3.4	2.1	3.2	3.2	1.9	1.7		
	RES. DIR. (TENS OF DEGS.)		29	28	27	25	23	26	24	29	29	30	29		
	MEAN SPEED (MPH)	5.0	4.7	6.9	7.4	6.9	7.3	6.6	6.9	6.1	5.4	4.8	4.6	6.0	
	PREVAIL. DIR. (TENS OF DEGS.)	30	29	29	29	29	18	28	29	30	29	29	29	29	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	20	17	28	21	18	18	17	18	18	18	31	28	31	
	DIR. (TENS OF DEGS.)	28	32	25	16	19	28	29	30	30	29	08	17	08	
	DATE OF OCCURRENCE	28+	22+	17	15	30+	13	29+	31	01	03	28	16	NOV 28	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	23	22	33	24	26	22	22	25	22	21	37	33	37	
DIR. (TENS OF DEGS.)	29	21	26	29	29	26	29	30	29	29	08	17	08		
DATE OF OCCURRENCE	28+	10	17	30+	21	25+	29+	31	01	11	28	16	NOV 28		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.32	0.17	0.46	0.63	T	T	0.00	T	0.31	0.04	0.32	1.98	4.23	
	GREATEST 24-HOUR (IN.)	0.14	0.17	0.37	0.25	T	T	0.00	T	0.31	0.03	0.16	0.82	0.82	
	DATE OF OCCURRENCE	03	17	17-18	26	20+	21+		06	06-07	26	08-09	21	DEC 21	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	3	1	7	5	0	0	0	0	2	2	4	6	30	
PRECIPITATION ≥ 0.10	2	1	1	2	0	0	0	0	2	0	2	4	14		
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

SAN DIEGO, CA (SAN)

LATITUDE: 32° 44' 05" N LONGITUDE: 117° 10' 07" W ELEVATION (FT): GRND: 78 BARO: 81 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	65.8	66.3	66.3	68.7	69.3	72.2	75.8	77.5	77.0	74.0	69.9	66.3	70.8
	MEAN DAILY MAXIMUM	55	65.3	66.0	66.3	68.1	69.1	71.6	75.5	77.2	76.8	73.9	70.1	66.2	70.5
	HIGHEST DAILY MAXIMUM	62	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.	55	78.3	78.7	78.9	81.0	79.0	81.3	83.2	85.7	90.3	88.2	83.2	78.1	82.2
	NORMAL DAILY MINIMUM	30	49.7	51.5	53.6	56.4	59.8	62.6	65.9	67.4	66.1	61.2	53.6	48.9	58.1
	MEAN DAILY MINIMUM	55	48.5	50.2	52.2	55.3	58.6	61.4	65.1	66.4	64.9	60.2	53.3	48.6	57.1
	LOWEST DAILY MINIMUM	62	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.	55	40.4	43.4	45.5	49.2	53.3	57.4	61.3	62.5	59.2	52.8	45.4	40.9	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	55	56.8	58.0	59.2	61.7	63.9	66.5	70.5	71.8	70.9	67.0	61.8	57.5	63.8
	MEAN WET BULB	18	51.3	52.4	54.1	56.2	58.7	61.1	64.4	66.0	65.0	61.0	54.8	50.5	58.0
	MEAN DEW POINT	18	44.9	46.6	48.9	51.5	55.0	57.9	61.6	63.1	61.8	56.8	48.8	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	227	176	160	90	47	10	0	0	1	12	109	231	1063
	NORMAL COOLING DEG. DAYS	30	2	4	5	17	32	81	183	230	199	97	15	1	866
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)	62	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	62	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)	29	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)	18	30.06	30.06	30.02	29.97	29.95	29.92	29.93	29.92	29.90	29.95	30.03	30.07	29.98
WINDS	MEAN SPEED (MPH)	39	6.0	6.6	7.4	7.8	7.8	7.8	7.6	7.5	7.2	6.6	6.0	5.6	7.0
	PREVAIL. DIR (TENS OF DEGS)	24	30	30	30	30	30	30	30	30	30	30	30	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	6	31	38	38	32	26	23	20	20	21	23	31	34	38
	DIR. (TENS OF DEGS)		14	17	25	26	17	25	28	29	14	29	08	04	25
	YEAR OF OCCURRENCE		2001	1998	2000	1999	1998	2000	1999	1997	2001	1997	2002	1997	MAR 2000
MAXIMUM 5-SECOND:															
SPEED (MPH)	6	37	46	45	37	32	25	23	25	24	28	37	43	46	
DIR. (TENS OF DEGS)		14	14	25	25	18	24	27	30	33	29	08	05	14	
YEAR OF OCCURRENCE		2001	2001	2000	1999	1998	2000	1997	2002	1997	1997	2002	1997	FEB 2001	
PRECIPITATION	NORMAL (IN)	30	2.28	2.04	2.26	0.75	0.20	0.09	0.03	0.09	0.21	0.44	1.07	1.31	10.77
	MAXIMUM MONTHLY (IN)	62	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)	62	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	YEAR OF OCCURRENCE		1976	1967	1997	1993	1952	1981	1982	1981	1979	1967	1980	2000	MAR 1997
	MAXIMUM IN 24 HOURS (IN)	62	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	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	59	T	0.0	T	T	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1949		1985	1999							1985	1967	APR 1999
	MAXIMUM IN 24 HOURS (IN)	59	T	0.0	T	T	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1949		1985	1999							1985	1967	APR 1999
	MAXIMUM SNOW DEPTH (IN)	51	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) 2002 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
1999	1.54	0.70	1.09	1.62	0.06	0.04	T	0.00	0.02	0.00	0.04	0.32	5.43
2000	0.17	3.67	1.00	0.54	T	T	0.00	0.01	T	1.24	0.26	0.01	6.90
2001	3.28	2.38	0.63	0.76	0.01	0.00	T	0.00	0.00	0.00	0.95	0.46	8.47
2002	0.32	0.17	0.46	0.63	T	T	0.00	T	0.31	0.04	0.32	1.98	4.23
POR= 153 YRS	2.18	1.71	1.90	0.79	0.19	0.08	0.03	0.08	0.20	0.35	1.14	1.35	10.00

WBAN : 23188

AVERAGE TEMPERATURE (°F) 2002 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
1999	57.5	57.8	58.3	58.9	60.5	62.8	68.5	68.0	67.0	68.8	60.5	57.8	62.2
2000	58.2	59.0	58.1	62.4	64.6	68.2	69.2	72.0	70.5	65.1	58.4	58.1	63.7
2001	54.7	54.9	58.9	58.5	63.7	67.6	69.0	69.6	68.2	66.3	61.4	55.5	62.4
2002	55.7	57.5	57.7	59.6	61.9	64.7	67.8	68.9	70.1	64.2	63.4	56.8	62.4
POR= 128 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

HEATING DEGREE DAYS (base 65°F) 2002 SAN DIEGO, CA (SAN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
1998-99	1	0	0	13	152	293	224	198	200	189	132	64	1466
1999-00	4	0	3	3	130	217	212	171	206	82	23	0	1051
2000-01	0	0	0	27	191	208	314	281	183	191	39	5	1439
2001-02	0	0	0	4	107	289	283	208	219	154	101	18	1383
2002-	0	0	1	36	63	248							

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COOLING DEGREE DAYS (base 65°F) 2002 SAN DIEGO, CA (SAN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
1999	0	0	0	14	0	5	118	100	69	126	3	0	435
2000	8	5	0	8	19	101	137	226	170	39	0	1	714
2001	0	3	2	5	4	90	132	149	102	53	4	0	544
2002	0	5	0	0	9	16	94	125	157	18	23	0	447

SNOWFALL (inches) 2002 SAN DIEGO, CA (SAN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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	
1998-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2000-01													
2001-02													
2002-													
POR= 57 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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2002
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										AUTOMATED OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
						GROUND											
						SEA LEVEL GROUND TEMPERATURE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TRAINING GAUGE	WEIGHING RAIN GAUGE	8 INCH RAIN GAUGE	HYGROMETER			
*NOTE:																	
<u>AIRPORT</u>																	
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	8/01/96	200 ft. N	32°44'	117°10'	13	20	s37	s36	49	36		s35	e5 f5		e. 3300 ft. WNW of previous site (moved 2/17/69). f. Type change 8/12/85.	
Lindbergh Field	08/01/96	Present	NA	32°44'	117°10'	g78								S		ASOS Commissioned 08/01/96 g. Ground elevation.	

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* NOTES: For earlier station history see previous editions.