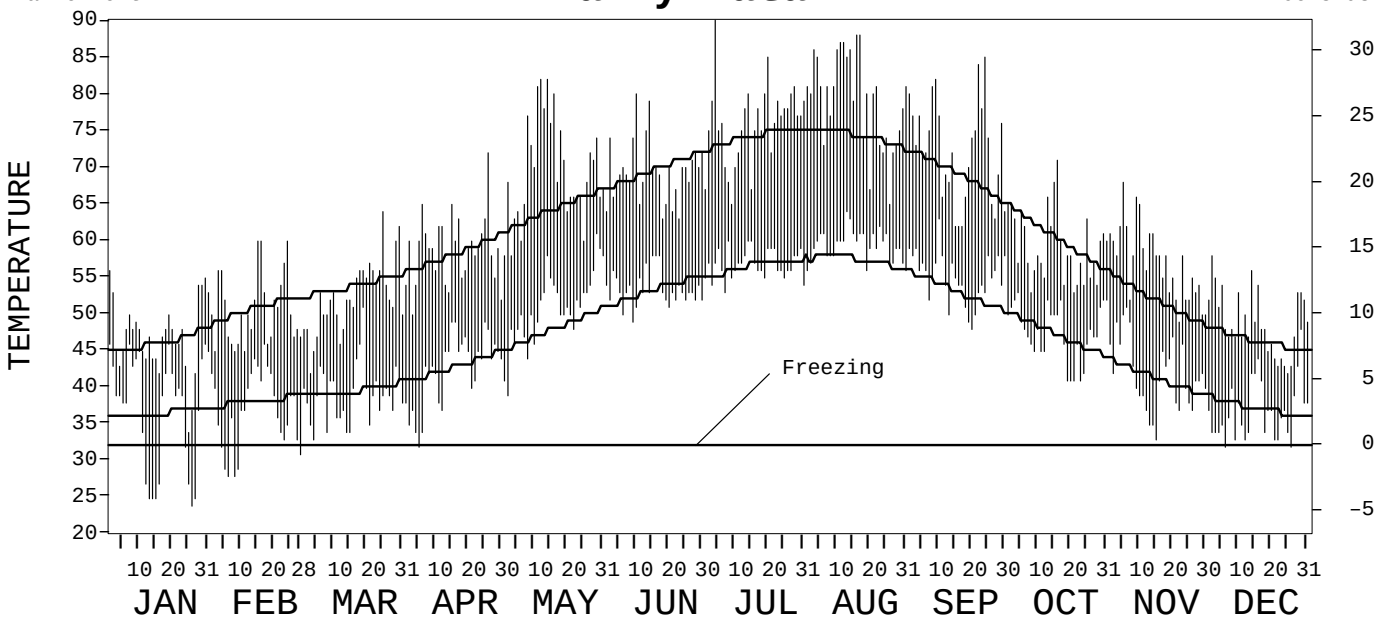
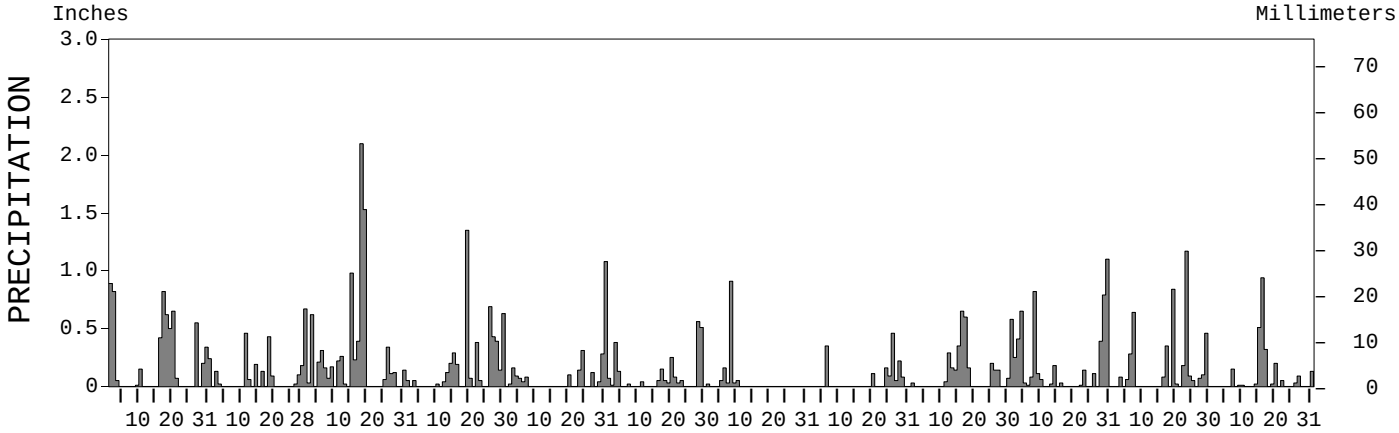
1997 LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198–5477

SEATTLE, WASHINGTON
URBAN CLIMATOLOGY STATION (7458)

Daily Data





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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

ACTING DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 1997

SEATTLE C.O., WA (7458)

LATITUDE: 47° 39′ 0 ″ N LONGITUDE: 122° 18′ 0 ″ W ELEVATION (FT): GRND: 22 BARO: 25 TIME ZONE: PACIFIC (UTC+ 8) WBAN: 24281

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	47.0	50.7	52.4	58.8	69.5	69.4	75.9	79.2	72.3	59.3	57.0	48.9	61.7
	HIGHEST DAILY MAXIMUM	56	60	64	72	82	80	90	88	85	71	68	58	90
	DATE OF OCCURRENCE	01	24+	25	26	14+	10	04	17+	24	16	05	02	JUL 04
	MEAN DAILY MINIMUM	37.1	36.9	39.1	42.4	50.9	53.4	56.9	59.4	55.0	47.5	41.8	36.9	46.4
	LOWEST DAILY MINIMUM	24	28	33	32	39	49	53	56	48	41	33	32	24
	DATE OF OCCURRENCE	26	08+	04	05	02	09	07	31+	20	23+	15	26+	JAN 26
	AVERAGE DRY BULB	42.1	43.8	45.8	50.6	60.2	61.4	66.4	69.3	63.7	53.4	49.4	42.9	54.1
	MEAN WET BULB													
	MEAN DEW POINT													
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	0	0	1	0	0	0	0	0	1
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	9	6	0	1	0	0	0	0	0	0	0	2	18
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	703	585	589	426	153	104	16	6	66	353	462	678	4141
	COOLING DEGREE DAYS	0	0	0	0	14	3	67	149	34	0	0	0	267
RH	MEAN (PERCENT)													
	HOUR 04 LST													
	HOUR 10 LST													
	HOUR 16 LST													
	HOUR 22 LST													
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)													
	THUNDERSTORMS													
CLOUDINESS	AVG. SKY COVER (OKTAS)													
	SUNRISE – SUNSET													
	MIDNIGHT – MIDNIGHT													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)													
	MEAN SEA-LEVEL PRESS. (IN.)													
WINDS	RESULTANT SPEED (MPH)													
	RES. DIR. (TENS OF DEGS.)													
	MEAN SPEED (MPH)													
	PREVAIL.DIR.(TENS OF DEGS.)													
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)													
	DIR. (TENS OF DEGS.)													
	DATE OF OCCURRENCE													
	PEAK GUST :													
	SPEED (MPH)													
	DIR. (TENS OF DEGS.)													
	DATE OF OCCURRENCE													
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	6.33	1.81	8.74	5.09	2.53	2.41	1.25	1.52	2.97	5.77	4.47	2.48	45.37
	GREATEST 24-HOUR (IN.)	1.25	0.46	2.63	1.35	1.27	1.07	0.92	0.46	0.79	1.40	1.26	1.12	2.63
	DATE OF OCCURRENCE	01-02	11	18-19	19	30-31	28-29	07-08	26	16-17	29-30	22-23	15-16	MAR 18-19
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	15	11	21	17	13	16	7	8	13	19	15	13	168
	PRECIPITATION ≥ 0.10	12	7	17	11	7	6	2	5	10	12	8	6	103
	PRECIPITATION ≥ 1.00	0	0	2	1	1	0	0	0	0	1	1	0	6
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)	T	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
	GREATEST 24-HOUR (IN.)	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
	DATE OF OCCURRENCE	27+	27											FEB 27
	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

SEATTLE C.O., WA (7458)

LATITUDE: 47° 39′ 0 ″ N LONGITUDE: 122° 18′ 0 ″ W ELEVATION (FT): GRND: 22 BARO: 25 TIME ZONE: PACIFIC (UTC+ 8) WBAN: 24281

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	46.1	50.6	53.7	58.1	64.2	69.6	74.1	74.1	68.8	60.0	51.5	46.2	59.8
	MEAN DAILY MAXIMUM	103	45.3	48.9	52.6	58.3	64.4	69.0	74.1	73.7	68.1	59.6	51.4	46.7	59.3
	HIGHEST DAILY MAXIMUM	64	66	74	75	87	92	100	100	97	92	82	73	65	100
	YEAR OF OCCURRENCE		1935	1968	1941	1947	1963	1955	1941	1960	1967	1991	1970	1980	JUN 1955
	MEAN OF EXTREME MAXS.	103	56.0	59.3	64.4	73.8	80.4	84.3	87.7	86.5	81.8	72.0	61.4	56.3	72.0
	NORMAL DAILY MINIMUM	30	36.4	38.0	39.5	42.7	47.9	53.2	56.4	57.2	52.9	46.9	41.0	37.0	45.8
	MEAN DAILY MINIMUM	103	36.4	37.9	39.6	43.2	48.2	52.6	55.8	56.1	52.7	47.4	41.6	38.1	45.8
	LOWEST DAILY MINIMUM	64	11	11	22	31	35	42	47	48	40	30	13	9	9
	YEAR OF OCCURRENCE		1950	1989	1955	1936	1954	1991	1979	1980	1972	1935	1985	1990	DEC 1990
	MEAN OF EXTREME MINS.	103	23.7	27.7	31.5	36.1	40.8	47.0	50.7	51.0	45.4	38.4	31.1	27.2	37.5
	NORMAL DRY BULB	30	41.3	44.3	46.6	50.4	56.1	61.4	65.3	65.7	60.8	53.5	46.3	41.6	52.8
	MEAN DRY BULB	103	40.8	43.4	46.1	50.7	56.3	60.8	65.0	64.8	60.4	53.5	46.4	42.4	52.5
	MEAN WET BULB														
	MEAN DEW POINT														
	NORMAL NO. DAYS WITH:														
	MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.1	0.2	0.8	0.5	0.1	0.0	0.0	0.0	1.7
	MAXIMUM ≤ 32°	30	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	2.0
	MINIMUM ≤ 32°	30	6.8	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.2	18.6
	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	735	580	570	438	276	123	44	58	144	357	561	725	4611
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	15	54	80	18	0	0	0	167
RH	NORMAL (PERCENT)														
	HOUR 04 LST														
	HOUR 10 LST														
	HOUR 16 LST														
	HOUR 22 LST														
S	PERCENT POSSIBLE SUNSHINE	31	28	34	42	47	52	49	63	56	53	37	28	23	43
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY≤1/4 MI)														
	THUNDERSTORMS	25	0.3	0.3	0.3	0.4	0.6	0.6	0.7	0.8	0.7	0.6	0.4	0.3	6.0
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	24	6.4	6.2	5.9	5.5	5.1	5.1	2.9	3.2	3.4	4.3	4.8	4.9	4.8
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR	4	3.0	3.0	4.0	5.0	7.0	7.0	12.0	10.0	9.0	5.0	3.0	3.0	71.0
	PARTLY CLOUDY	4	5.0	6.0	8.0	9.0	10.0	8.0	10.0	10.0	8.0	8.0	6.0	5.0	93.0
	CLOUDY	4	23.0	19.0	19.0	16.0	14.0	15.0	9.0	11.0	13.0	18.0	21.0	23.0	201.0
PR	MEAN STATION PRESSURE(IN)														
	MEAN SEA-LEVEL PRES. (IN)														
WINDS	MEAN SPEED (MPH)														
	PREVAIL.DIR(TENS OF DEGS)														
	FASTEST MILE:														
	SPEED (MPH)	11	44	48	44	39	37	35	36	37	39	37	45	46	48
	DIR.		S	SSW	WSW	WSW	WNW	SW	S	WNW	W	S	S	SSE	SSW
	YEAR OF OCCURRENCE		1978	1979	1980	1980	1983	1980	1976	1975	1981	1977	1981	1973	FEB 1979
	PEAK GUST :														
	SPEED (MPH)	11	51	49	54	44	46	37	39	33	33	41	63	46	63
	DIR. (TENS OF DEGS)		SSE	S	WSW	SW	WSW	SW	SW	S	S	SSW	SSW	SW	SSW
	YEAR OF OCCURRENCE		1993	1996	1985	1992	1993	1994	1995	1991	1992	1990	1991	1990	NOV 1991
PRECIPITATION	NORMAL (IN)	30	5.35	4.03	3.77	2.51	1.84	1.59	0.85	1.22	1.94	3.25	5.65	6.00	38.00
	MAXIMUM MONTHLY (IN)	64	10.93	7.75	8.74	5.80	4.67	3.68	2.16	5.49	5.62	8.04	11.20	11.97	11.97
	YEAR OF OCCURRENCE		1953	1961	1997	1996	1948	1964	1978	1977	1978	1975	1983	1996	DEC 1996
	MINIMUM MONTHLY (IN)	64	0.60	0.54	0.44	0.16	0.34	0.12	T	T	T	0.29	0.50	1.00	T
	YEAR OF OCCURRENCE		1985	1993	1965	1939	1972	1987	1960	1967	1993	1987	1976	1944	SEP 1993
	MAXIMUM IN 24 HOURS (IN)	64	4.48	2.69	2.63	2.60	1.35	2.07	1.22	1.93	1.91	3.48	3.20	3.31	4.48
	YEAR OF OCCURRENCE		1986	1945	1997	1996	1948	1985	1954	1977	1953	1981	1937	1937	JAN 1986
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	17.6	15.8	17.3	13.9	10.7	8.8	5.6	5.9	8.6	12.7	18.0	18.8	153.7
	PRECIPITATION ≥ 1.00	30	0.9	0.3	0.2	*	0.0	0.1	0.0	0.2	0.1	0.4	1.2	1.0	4.4
SNOWFALL	NORMAL (IN)	30	2.9	1.0	0.4	0.*	0.0	0.0	0.0	0.0	0.0	T	0.6	2.1	7.0
	MAXIMUM MONTHLY (IN)	64	31.0	10.4	7.5	1.0	T	0.0	0.0	0.0	0.0	T	9.6	22.5	31.0
	YEAR OF OCCURRENCE		1950	1949	1951	1972	1993					1984	1985	1996	JAN 1950
	MAXIMUM IN 24 HOURS (IN)	64	11.5	7.6	7.1	1.0	T	0.0	0.0	0.0	0.0	T	6.0	13.0	13.0
	YEAR OF OCCURRENCE		1943	1937	1989	1972	1993					1984	1985	1996	DEC 1996
	MAXIMUM SNOW DEPTH (IN)	102	17	26	6	0	0	0	0	0	0	0	6	12	26
	YEAR OF OCCURRENCE		1899	1916	1962								1985	1898	FEB 1916
	NORMAL NO. DAYS WITH:														
	SNOWFALL ≥ 1.0	30	1.2	0.3	0.2	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	2.5

PRECIPITATION (inches) 1997 SEATTLE, WASHINGTON WA (7458)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1968	7.39	4.87	5.11	2.06	1.34	2.52	0.48	4.28	1.63	3.52	4.87	10.07	48.14
1969	5.83	3.58	1.97	3.39	2.27	1.22	0.23	0.15	5.41	1.72	2.73	6.89	35.39
1970	8.11	2.01	3.07	2.73	1.00	0.78	0.53	0.74	2.01	3.42	4.30	8.34	37.04
1971	4.25	3.97	7.16	2.33	1.51	1.85	0.58	0.46	3.08	3.06	4.25	5.29	37.79
1972	5.15	5.61	6.01	4.20	0.34	1.98	0.67	1.06	3.27	0.48	3.19	8.36	40.32
1973	4.61	2.00	1.55	0.93	1.11	1.73	0.25	0.57	1.56	2.74	8.40	9.56	35.01
1974	8.53	4.19	5.69	1.83	1.48	1.07	1.95	0.11	0.23	1.78	5.56	6.52	38.94
1975	5.03	4.91	4.82	2.51	1.51	1.26	0.11	2.81	0.03	8.04	6.40	7.57	45.00
1976	4.33	4.83	3.64	2.10	1.87	1.07	1.02	3.05	1.43	1.94	0.50	2.00	27.78
1977	2.13	2.11	5.24	1.35	4.24	0.59	0.80	5.49	2.82	2.72	5.03	5.81	38.33
1978	5.57	3.72	2.61	3.53	2.02	0.57	2.16	1.65	5.62	0.87	6.52	1.42	36.26
1979	2.20	6.32	1.32	2.69	1.07	0.45	0.97	0.61	1.86	4.81	2.28	10.29	34.87
1980	4.96	5.64	3.27	3.65	1.51	2.88	0.49	1.74	1.43	1.42	6.12	7.19	40.30
1981	2.58	4.07	2.54	2.09	2.25	2.07	1.52	0.34	3.25	6.45	5.21	7.40	39.77
1982	4.68	7.50	3.86	2.48	0.57	1.07	0.80	0.63	1.68	4.20	5.30	8.99	41.76
1983	6.84	5.29	4.37	0.91	2.18	1.99	2.07	2.08	2.55	1.11	11.20	5.52	46.11
1984	2.68	4.18	3.72	2.81	2.99	3.17	0.46	0.22	1.51	2.34	9.26	5.27	38.61
1985	0.60	2.88	2.92	2.59	1.99	3.05	0.22	0.72	1.77	6.81	3.77	1.22	28.54
1986	10.38	3.44	2.55	2.37	2.09	0.94	1.36	0.13	2.03	4.30	6.71	4.58	40.88
1987	6.51	2.25	5.81	3.20	2.05	0.12	0.45	0.45	0.52	0.29	2.84	7.10	31.59
1988	4.33	0.78	3.94	3.03	2.94	1.93	0.23	0.35	1.87	1.73	7.56	3.93	32.62
1989	3.31	3.45	5.71	1.69	2.98	1.10	0.62	0.88	0.15	4.17	4.12	4.52	32.70
1990	8.72	4.19	3.01	2.20	1.50	2.63	0.98	0.60	0.03	5.00	6.40	4.51	39.77
1991	3.97	4.69	5.21	5.25	1.35	1.12	0.47	2.52	0.07	1.82	5.36	2.64	34.47
1992	7.57	3.69	1.74	3.44	0.58	0.97	1.35	0.66	2.43	2.06	6.11	4.05	34.65
1993	2.61	0.54	3.99	4.89	2.72	2.45	1.63	0.58	T	1.62	2.42	6.09	29.54
1994	2.20	4.75	3.08	2.38	1.36	1.64	0.47	0.19	0.97	3.26	6.10	8.45	34.85
1995	5.10	3.67	4.28	3.29	0.91	1.44	1.48	2.65	1.27	3.50	7.55	7.77	42.91
1996	5.61	7.53	1.81	5.80	3.79	0.38	0.71	1.08	2.30	5.01	5.17	11.97	51.16
1997	6.33	1.81	8.74	5.09	2.53	2.41	1.25	1.52	2.97	5.77	4.47	2.48	45.37
POR= 48 YRS	5.48	3.85	3.69	2.59	1.69	1.48	0.69	0.99	1.65	3.19	5.29	5.77	36.36

WBAN : 24281

AVERAGE TEMPERATURE (°F) 1997 SEATTLE, WASHINGTON WA (7458)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1968	43.0	50.7	50.2	50.6	58.6	61.9	68.5	64.9	61.3	54.3	49.6	39.5	54.4
1969	34.8	43.2	48.4	50.7	59.9	65.0	64.9	63.5	61.1	54.0	47.7	46.0	53.3
1970	42.9	48.4	48.2	49.7	57.3	64.4	66.2	65.5	60.0	52.4	47.2	40.9	53.6
1971	41.6	42.6	43.5	50.9	56.1	58.1	66.1	66.9	60.6	51.9	47.0	39.1	52.0
1972	38.2	43.2	48.3	48.1	58.9	60.1	65.9	66.3	57.6	51.6	46.8	39.1	52.0
1973	39.5	44.8	46.8	50.5	57.4	60.6	65.7	62.3	61.4	52.8	43.4	44.2	52.5
1974	39.3	43.5	45.4	49.9	53.8	61.1	64.3	66.4	64.8	54.1	47.9	44.4	52.9
1975	41.7	42.1	44.3	47.3	55.8	59.6	66.1	62.8	62.3	52.7	45.9	43.3	52.0
1976	44.0	42.9	44.0	51.2	56.0	59.1	65.0	63.1	61.7	54.0	47.9	44.4	52.8
1977	39.7	47.5	44.8	52.3	53.7	61.4	63.0	68.1	58.6	52.2	44.4	42.0	52.3
1978	43.6	46.2	49.1	50.6	54.9	63.8	65.4	65.0	59.0	54.8	42.0	38.3	52.7
1979	36.2	42.2	49.3	51.1	57.8	61.3	66.3	65.3	63.2	55.0	45.1	44.8	53.1
1980	36.6	45.2	46.9	53.4	56.1	59.2	64.5	63.2	61.5	55.0	48.4	45.7	53.0
1981	45.5	45.5	50.4	52.2	56.7	60.1	65.1	69.4	62.2	52.5	48.5	42.5	54.2
1982	40.9	43.3	45.6	48.7	56.1	64.2	64.0	65.1	61.3	53.6	43.7	42.1	52.4
1983	46.0	47.9	50.2	52.6	59.1	61.6	64.6	66.6	59.2	53.2	48.9	37.1	53.9
1984	44.6	46.3	49.9	50.6	55.1	60.3	65.7	65.5	60.3	51.5	46.1	38.4	52.9
1985	39.1	40.5	44.8	50.6	56.8	61.5	69.5	65.6	58.8	52.6	37.4	38.1	51.3
1986	45.3	43.5	50.4	49.7	57.4	63.7	63.1	69.3	60.8	55.8	47.4	43.5	54.2
1987	42.8	47.7	50.1	54.6	59.3	63.5	64.5	65.7	62.1	55.5	49.1	40.3	54.6
1988	41.3	45.6	46.6	51.4	56.5	60.3	65.4	64.8	60.3	55.6	46.4	42.4	53.1
1989	41.8	36.6	44.4	53.7	56.1	63.0	63.8	64.6	62.6	53.4	47.8	44.0	52.7
1990	43.5	41.3	47.9	52.9	56.6	61.2	68.0	67.5	63.0	52.0	48.1	36.4	53.2
1991	40.7	48.3	44.6	49.6	55.5	58.6	66.3	66.8	62.0	52.3	47.4	42.5	52.9
1992	43.2	46.9	50.1	53.8	59.5	65.0	66.4	67.0	58.9	53.6	45.0	39.5	54.1
1993	39.2	42.3	48.9	51.7	61.2	62.1	62.9	66.2	62.7	56.1	43.1	41.9	53.2
1994	45.6	41.7	48.4	53.0	58.6	61.0	68.3	68.1	65.0	53.7	43.0	41.9	54.0
1995	44.3	45.7	47.6	51.6	60.0	63.3	67.8	63.6	64.8	53.6	50.3	43.1	54.6
1996	41.4	43.6	48.3	52.4	53.9	60.8	67.6	67.0	60.1	52.8	45.2	40.2	52.8
1997	42.1	43.8	45.8	50.6	60.2	61.4	66.4	69.3	63.7	53.4	49.4	42.9	54.1
POR= 47 YRS	41.8	44.5	46.8	51.2	57.1	61.5	64.3	64.3	61.5	54.0	46.7	42.4	53.0

HEATING DEGREE DAYS (base 65°F) 1997 SEATTLE, WASHINGTON WA (7458)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1968–69	16	50	120	324	458	782	929	604	507	422	173	60	4445
1969–70	39	54	133	338	511	584	679	460	513	455	235	82	4083
1970–71	27	30	151	381	527	741	720	624	662	418	275	203	4759
1971–72	65	7	127	401	531	795	822	626	509	499	206	141	4729
1972–73	49	30	225	407	538	797	783	558	560	429	235	148	4759
1973–74	42	100	116	371	642	637	790	595	600	448	338	124	4803
1974–75	58	26	55	331	504	634	714	635	638	522	279	165	4561
1975–76	28	81	93	374	566	666	644	633	645	411	271	176	4588
1976–77	32	66	96	336	507	635	780	483	617	374	346	105	4377
1977–78	78	41	185	387	609	704	657	522	487	423	307	70	4470
1978–79	45	45	170	310	685	822	886	630	479	411	215	118	4816
1979–80	33	12	68	304	591	620	872	569	554	341	270	169	4403
1980–81	47	69	107	307	491	588	597	540	443	376	255	148	3968
1981–82	39	7	103	383	489	691	743	604	593	483	271	77	4483
1982–83	55	31	119	347	633	699	583	474	452	367	194	95	4049
1983–84	38	6	167	360	477	859	628	537	459	427	297	145	4400
1984–85	32	29	145	413	558	816	797	678	618	427	253	114	4880
1985–86	3	27	180	378	822	827	603	594	445	454	252	60	4645
1986–87	60	1	146	280	520	660	681	480	454	303	183	81	3849
1987–88	44	33	97	291	471	760	728	556	563	398	263	147	4351
1988–89	43	37	161	283	550	693	711	788	633	336	267	90	4592
1989–90	52	26	81	354	510	645	660	656	523	358	254	121	4240
1990–91	18	7	66	397	501	881	747	462	627	454	289	185	4634
1991–92	19	34	105	387	521	689	669	519	457	328	170	57	3955
1992–93	25	19	181	346	591	783	793	629	494	391	130	94	4476
1993–94	64	35	102	269	651	709	594	646	506	353	192	121	4242
1994–95	15	3	28	345	653	708	635	533	532	393	161	93	4099
1995–96	6	60	40	344	436	669	726	613	511	373	339	119	4236
1996–97	39	19	142	374	588	763	703	585	589	426	153	104	4485
1997–	16	6	66	353	462	678							

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COOLING DEGREE DAYS (base 65°F) 1997 SEATTLE, WASHINGTON WA (7458)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	0	0	0	0	7	20	69	22	13	0	0	0	131
1974	0	0	0	0	0	12	42	76	54	0	0	0	184
1975	0	0	0	0	2	10	71	20	17	0	0	0	120
1976	0	0	0	4	1	6	41	14	7	0	0	0	73
1977	0	0	0	0	0	6	24	144	1	0	0	0	175
1978	0	0	0	0	2	44	66	49	0	0	0	0	161
1979	0	0	0	0	1	12	79	27	20	0	0	0	139
1980	0	0	0	0	0	0	38	22	8	5	0	0	73
1981	0	0	0	0	3	5	47	151	24	0	0	0	230
1982	0	0	0	0	1	61	33	43	16	0	0	0	154
1983	0	0	0	0	20	1	33	64	1	0	0	0	119
1984	0	0	0	0	2	13	61	50	10	2	0	0	138
1985	0	0	0	0	6	20	147	53	0	0	0	0	226
1986	0	0	0	0	22	27	10	140	28	0	0	0	227
1987	0	0	0	0	15	44	36	60	21	1	0	0	177
1988	0	0	0	0	3	14	61	37	26	0	0	0	141
1989	0	0	0	0	1	39	20	23	14	0	0	0	97
1990	0	0	0	0	0	16	116	89	13	0	0	0	234
1991	0	0	0	0	0	1	66	98	21	1	0	0	187
1992	0	0	0	0	8	65	79	87	2	0	0	0	241
1993	0	0	0	0	22	10	5	79	41	0	0	0	157
1994	0	0	0	0	0	7	121	106	34	0	0	0	268
1995	0	0	0	0	11	47	98	21	41	0	0	0	218
1996	0	0	0	0	0	0	128	89	4	0	0	0	221
1997	0	0	0	0	14	3	67	149	34	0	0	0	267

SNOWFALL (inches) 1997 SEATTLE, WASHINGTON WA (7458)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1968–69	0.0	0.0	0.0	0.0	0.0	13.5	22.7	0.0	0.0	0.0	0.0	0.0	36.2
1969–70	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	T
1970–71	0.0	0.0	0.0	0.0	0.3	T	9.1	5.2	1.0	0.0	0.0	0.0	15.6
1971–72	0.0	0.0	0.0	T	0.0	6.3	8.0	0.0	0.0	1.0	0.0	0.0	15.3
1972–73	0.0	0.0	0.0	0.0	0.0	5.0	3.7	0.0	0.0	0.0	0.0	0.0	8.7
1973–74	0.0	0.0	0.0	0.0	T	0.0	2.0	0.0	1.0	0.0	0.0	0.0	3.0
1974–75	0.0	0.0	0.0	0.0	0.0	6.0	1.0	0.5	T	T	0.0	0.0	7.5
1975–76	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	T	0.0	0.0	0.0	1.0
1976–77	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	T	0.0	0.0	0.0	1.0
1977–78	0.0	0.0	0.0	0.0	0.3	T	T	0.0	T	0.0	0.0	0.0	0.3
1978–79	0.0	0.0	0.0	0.0	6.0	T	T	T	0.0	0.0	0.0	0.0	6.0
1979–80	0.0	0.0	0.0	0.0	0.0	T	11.9	2.5	0.0	0.0	0.0	0.0	14.4
1980–81	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	0.0	T	0.0	0.0	1.5
1981–82	0.0	0.0	0.0	0.0	0.0	T	5.2	T	T	0.0	0.0	0.0	5.2
1982–83	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1983–84	0.0	0.0	0.0	0.0	0.0	1.4	T	0.0	0.0	0.0	0.0	0.0	1.4
1984–85	0.0	0.0	0.0	T	0.0	3.4	T	3.5	T	0.0	0.0	0.0	6.9
1985–86	0.0	0.0	0.0	0.0	9.6	1.0	0.0	0.5	0.0	0.0	0.0	0.0	11.1
1986–87	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
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	6.2	2.9	7.1	0.0	0.0	0.0	16.2
1989–90	0.0	0.0	0.0	0.0	0.0	0.0	T	6.0	T	0.0	0.0	0.0	6.0
1990–91	0.0	0.0	0.0	0.0	0.0	9.6	T	0.0	0.2	0.0	0.0	0.0	9.8
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	3.0	T	T	0.0	0.0	T	0.0	3.0
1993–94	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	T	0.0	0.0	0.0	2.0
1994–95	0.0	0.0	0.0	0.0	T	1.5	0.0	1.0	0.0	0.0	0.0	0.0	2.5
1995–96	0.0	0.0	0.0	0.0	0.0	0.0	1.3	T	0.0	0.0	0.0	0.0	1.3
1996–97	0.0	0.0	0.0	0.0	3.0	22.5	T	T	T	0.0	0.0	0.0	25.5
1997–	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 46 YRS	0.0	0.0	0.0	T	0.6	1.8	2.6	0.9	0.6	0.0	T	0.0	6.5

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REFERENCE NOTES:

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).

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).

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.

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.

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.

1997
SEATTLE, WASHINGTON
URBAN CLIMATOLOGY STATION (7458)

Seattle is located on a hill between the salt waters of Puget Sound to the west and the fresh waters of Lake Washington to the east. The lake shore roughly parallels the shore of Puget Sound at distances varying from about 2–1/2 to 6 miles. Hills rise abruptly from both shorelines and reach elevations of more than 300 feet in the central area to more than 500 feet in the northern and the southwestern sections. The north–south orientation of the city is matched on the east by the Cascade Mountains and the Olympic Mountains to the west and northwest. The Seattle Urban Climatological Station was relocated to the Portage Bay site in November 1972. Portage Bay is an arm of Lake Washington near the University of Washington. The observational site is on a grassy plot about ten yards from the edge of the Bay.

The climate of Seattle is mild and moist, the result of the prevailing westerly winds off the Pacific Ocean approximately 90 miles to the west, and the Cascade Mountains which tend to shield the city from the cold continental air from the east. Winters are comparatively warm and summers cool because of the steady influx of marine air. The daily temperature range is small and extremes of temperature, both hot and cold, are moderate and usually of short duration.

The warmest summer and the coldest winter days come with north winds from British Columbia or east winds from eastern Washington. An average year will have less than three days during the summer with a high temperature of 90 degrees or more with the maximum temperature rarely reaching 100 degrees. Nighttime temperatures during the warmest months seldom remain above 65 degrees. Daily highs during the winter fail to rise above 32 degrees on an average of about two days per year, while the number of days with minimum temperatures of 32 degrees or less averages only 15 days per year. Low temperatures may vary by several degrees throughout the city and depend upon the wind direction, distance from water, and site elevation.

The growing season often lasts from about the mid–March to late November and grass is usually green throughout the winter.

The city lies within the lee side dry area caused by the Olympic Mountains. As a result, the normal precipitation of less than 36 inches is relatively light when compared to the 50 inches or more that falls on the nearby Cascade foothills. The western slopes of these hills and mountains lift the moist marine air, causing very heavy precipitation on the seaward slopes and significantly less at the summits. The winter wet season, usually from October to March, is the result of the air flowing around the Aleutian low pressure system, but, in the summer the Eastern Pacific high pressure system moves north and forces the moist marine air to the north of Washington and brings relatively dry and cool air to the state. The warmest temperatures of the summer usually occur when the Pacific high extends into southwest Canada creating a hot and dry flow of continental air across the Cascade Mountains into the Puget Sound area. Less than 20 percent of the annual rainfall occurs during the summer dry season, April through September.

The average winter snowfall is about 9 inches but the snow seldom remains on the ground for more than two days at a time. Annual totals range from as little as a trace in several instances to over 36 inches in one season. Fog is a frequent occurrence during the late fall and winter months. Severe weather is relatively infrequent over Seattle with an average of just six thunderstorms per year and no tornado ever reported within the city.

STATION LOCATION

SEATTLE, WASHINGTON
URBAN SITE

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE SEA LEVEL: GROUND TEMPERATURE SITE	ELEVATION ABOVE GROUND: WIND INSTRUMENTS	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET RAIN GAGE	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROTHERMOMETER	AUTOMATIC OBSERVING EQUIPMENT *	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS
CITY																	
SE corner 1st Yesler Streets	08/01/90	05/01/93		47° 36'	122°20'	17		&70					&68				& - Elevation estimated.
New York Block, 701 2nd Avenue, 2nd & Cherry	05/01/93	05/01/05	793 ft. NE	47° 36'	122°20'		a 151	114	114		107						a - 121 ft. to 1/1/02.
Alaska Building, 612 2nd Ave., 2nd & cherry	05/01/05	11/01/11	200 ft. SW	47° 36'	122°20'		224	185	185		179						
Hoge Building, 703 2nd Avenue, 2nd & Cherry	11/01/11	04/15/33	250 ft. W	47° 36'	122°20'	39	250	215	215		209						
Federal Office Building	04/15/33	11/30/72	730 ft. NW	47° 36'	122°20'	14	321	90	b90		83		83				Wind instruments on the Exchange building, 1st & Marion. b - Removed 7/1/39. Summarypublished through 1964.
2725 Montlake Blvd.,	11/30/72	Present	4 mi. NNE	47° 39'	122°18'	19	33	4	4	NA	NA	4	3	NA	NA		Summary Publication resumed January 1973.

SUBSCRIPTION:
Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
INQUIRIES/COMMENTS CALL: (704) 271-4800

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