

1999

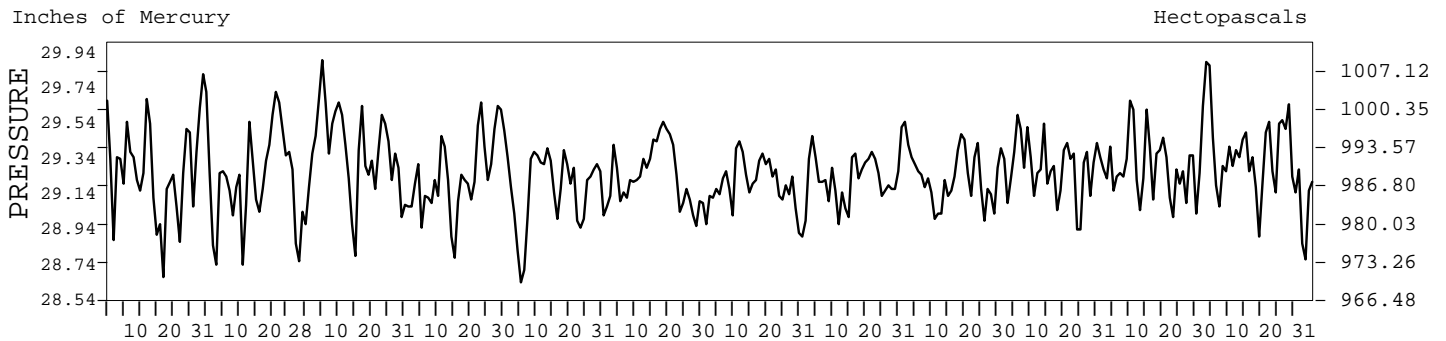
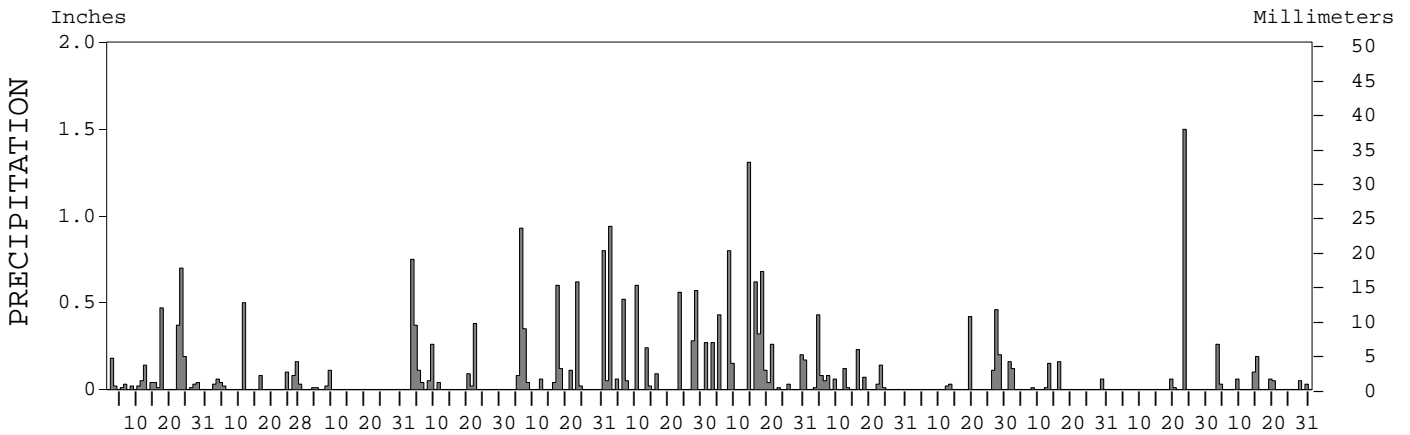
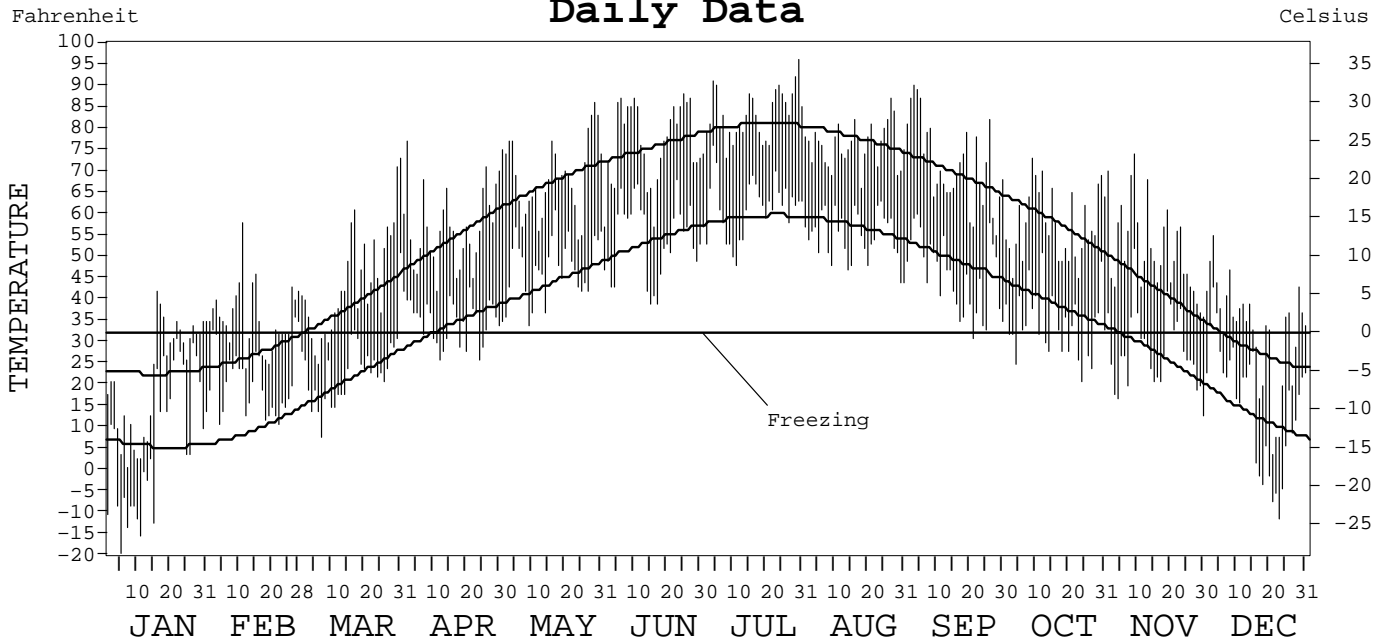
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-568X

GREEN BAY,
WISCONSIN (GRB)

Daily Data



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE
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 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1999

GREEN BAY, WI (GRB)

LATITUDE: 44° 30' 46" N LONGITUDE: 88° 07' 12" W ELEVATION (FT): GRND: 673 BARO: 673 TIME ZONE: CENTRAL (UTC + 6) WBAN: 14898

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	22.3	35.8	44.4	56.7	68.9	76.8	83.1	76.1	71.6	57.7	51.7	32.6	56.5	
	HIGHEST DAILY MAXIMUM	42	58	73	77	86	88	96	87	90	73	74	55	96	
	DATE OF OCCURRENCE	16	11	31	02	29	25	30	27	03	09	09	03	JUL 30	
	MEAN DAILY MINIMUM	7.4	20.8	23.6	35.0	47.2	54.0	61.3	54.7	45.6	34.5	28.2	15.5	35.7	
	LOWEST DAILY MINIMUM	-19	11	8	26	34	39	48	44	31	21	13	-11	-19	
	DATE OF OCCURRENCE	05	22+	07	24+	09	17+	11	31+	21	24	30	23	JAN 05	
	AVERAGE DRY BULB	14.9	28.3	34.0	45.9	58.1	65.4	72.2	65.4	58.6	46.1	40.0	24.1	46.1	
	MEAN WET BULB	14.7	26.6		41.1	53.0	61.2	68.0	61.6	53.2	42.4	36.1	22.6		
	MEAN DEW POINT	10.1	21.9		34.6	47.5	57.5	65.3	58.6	48.7	36.6	29.6	18.3		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	5	0	1	0	0	0	0	6
	MAXIMUM ≤ 32°	23	11	6	0	0	0	0	0	0	0	0	10	50	
	MINIMUM ≤ 32°	31	25	29	10	0	0	0	0	1	12	21	28	157	
MINIMUM ≤ 0°	12	0	0	0	0	0	0	0	0	0	0	7	19		
H/C	HEATING DEGREE DAYS	1546	1022	954	569	223	101	5	46	226	576	744	1259	7271	
	COOLING DEGREE DAYS	0	0	0	0	15	122	237	66	40	0	0	0	480	
RH	MEAN (PERCENT)	78	76	63	67	70	76	78	79	73	69	68	78	73	
	HOUR 00 LST	79	80	72	77	78	89	91	92	87	80	75	82	82	
	HOUR 06 LST	80	81	75	84	80	87	89	93	90	84	80	82	84	
	HOUR 12 LST	75	68	49	56	60	62	64	64	52	54	54	72	61	
	HOUR 18 LST	78	73	54	56	64	64	70	71	66	65	67	77	67	
S	PERCENT POSSIBLE SUNSHINE	25	39	62	55	66	72	79	74	75	54	54	29	57	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	3	4	0	4	2	2	2	3	2	4	1	2	29	
	THUNDERSTORMS	0	1	0	2	5	5	10	5	1	2	0	0	31	
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.)	29.29	29.22	29.37	29.24	29.18	29.24	29.19	29.26	29.22	29.30	29.34	29.29	29.26	
	MEAN SEA-LEVEL PRESS. (IN.)	30.09	30.00			29.93	29.99	29.93	30.01	29.98	30.07	30.08	30.04		
WINDS	RESULTANT SPEED (MPH)	3.2	1.8		6.2	1.8	2.2	1.3	0.9	3.6	3.2	4.1	3.5		
	RES. DIR. (TENS OF DEGS.)	32	26		05	15	21	24	27	25	26	25	26		
	MEAN SPEED (MPH)	10.4	9.7	11.0	11.1	9.9	7.6	7.6	6.9	7.7	9.5	9.5	8.0	9.1	
	PREVAIL. DIR. (TENS OF DEGS.)	04	16	21	05	19	19	21	19	24	20	21	27	20	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	39	37	38	36	29	38	36	28	31	33	30	33	39	
	DIR. (TENS OF DEGS.)	04	27	28	27	16	23	24	01	28	32	31	32	04	
	DATE OF OCCURRENCE	02	11	17	06	05+	06	14	13	30	22	01	26	JAN 02	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	46	46	48	41	34	52	46	34	37	38	38	39	52	
DIR. (TENS OF DEGS.)	04	29	28	04	14	24	22	01	28	33	27	32	24		
DATE OF OCCURRENCE	02	11	17	22+	05	06	14	13	30+	23+	23	26	JUN 06		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.37	1.10	0.15	2.11	3.77	3.98	5.67	1.32	1.24	0.67	1.57	0.83	24.78	
	GREATEST 24-HOUR (IN.)	0.70	0.50	0.13	0.91	0.93	0.99	1.31	0.43	0.57	0.28	1.50	0.29	1.50	
	DATE OF OCCURRENCE	23	11-12	08-09	03-04	06	01-02	14	04	26-27	01-02	23	03-04	NOV 23	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	18	10	4	10	12	12	16	13	6	7	3	9	120	
PRECIPITATION ≥ 0.10	6	3	1	5	7	7	13	4	4	4	1	3	58		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	1	0	0	0	1	0	2		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	21.2	2.2	4.4	T	0.0	0.0	0.0	0.0	T	0.0	0.0	5.4	33.2	
	GREATEST 24-HOUR (IN.)	6.5	1.5	3.7	T	0.0	0.0	0.0	0.0	T	0.0	0.0	2.2	6.5	
	DATE OF OCCURRENCE	02	24	08-09	11					19			15	JAN 02	
	MAXIMUM SNOW DEPTH (IN.)	10	4	2	0	0	0	0	0	0	0	0	2	10	
	DATE OF OCCURRENCE	15	01	10									29+	JAN 15	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	7	1	1	0	0	0	0	0	0	0	0	2	11		

NORMALS, MEANS, AND EXTREMES

GREEN BAY, WI (GRB)

LATITUDE: 44° 30' 46" N LONGITUDE: 88° 07' 12" W ELEVATION (FT): GRND: 673 BARO: 673 TIME ZONE: CENTRAL (UTC + 6) WBAN: 14898

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	22.8	27.1	38.5	54.0	67.2	75.5	80.5	77.5	69.1	57.4	42.0	27.7	53.3
	MEAN DAILY MAXIMUM	50	23.5	27.9	38.0	53.8	66.9	76.4	80.8	78.4	69.7	58.2	42.0	28.9	53.7
	HIGHEST DAILY MAXIMUM	50	50	58	77	89	91	98	103	99	95	88	74	62	103
	YEAR OF OCCURRENCE		1961	1999	1986	1980	1959	1988	1995	1988	1955	1963	1999	1998	JUL 1995
	MEAN OF EXTREME MAXS.	50	40.5	43.5	59.3	76.4	84.4	90.1	91.5	90.3	86.1	76.5	61.6	46.3	70.5
	NORMAL DAILY MINIMUM	30	5.8	9.5	21.4	33.9	43.7	53.5	58.9	56.8	48.8	38.5	26.8	12.5	34.2
	MEAN DAILY MINIMUM	50	6.6	10.6	21.1	33.5	43.9	53.5	58.4	56.6	48.1	38.2	26.3	13.7	34.2
	LOWEST DAILY MINIMUM	50	-31	-28	-29	7	21	32	40	38	24	15	-9	-27	-31
	YEAR OF OCCURRENCE		1951	1996	1962	1954	1966	1958	1965	1967	1949	1966	1976	1983	JAN 1951
	MEAN OF EXTREME MINS.	50	-16.5	-11.0	0.6	19.4	30.0	40.1	46.2	44.2	32.7	23.8	8.6	-9.0	17.4
	NORMAL DRY BULB	30	14.3	18.3	30.0	44.0	55.5	64.5	69.7	67.1	59.0	48.0	34.4	20.2	43.8
	MEAN DRY BULB	50	15.1	19.3	29.6	43.7	55.4	64.9	69.6	67.5	59.0	48.3	34.1	21.2	44.0
	MEAN WET BULB	16	16.6	20.3	28.5	39.6	50.6	59.7	64.4	62.9	55.3	41.2	31.7	21.4	41.0
	MEAN DEW POINT	16	11.8	14.9	22.7	32.7	44.5	55.0	60.5	59.6	51.5	36.9	26.9	17.1	36.2
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.1	1.9	3.2	1.6	0.2	0.0	0.0	0.0	7.0	
MAXIMUM ≤ 32°	30	23.1	18.5	8.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	4.5	20.0	74.7	
MINIMUM ≤ 32°	30	30.7	27.3	26.6	13.7	2.8	0.0	0.0	0.0	0.7	8.2	22.2	29.5	161.7	
MINIMUM ≤ 0°	30	11.5	7.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	6.4	26.8	
H/C	NORMAL HEATING DEG. DAYS	30	1572	1308	1085	630	318	93	17	43	189	527	918	1389	8089
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	23	78	163	108	9	0	0	0	381
RH	NORMAL (PERCENT)	30	74	74	73	67	66	69	71	75	76	74	77	77	73
	HOUR 00 LST	30	76	77	78	75	75	79	82	86	86	81	81	80	80
	HOUR 06 LST	30	77	79	81	79	79	81	85	89	89	85	83	81	82
	HOUR 12 LST	30	70	68	65	57	54	57	57	61	62	62	69	73	63
	HOUR 18 LST	30	73	70	68	59	56	58	60	65	70	71	75	76	67
S	PERCENT POSSIBLE SUNSHINE	50	49	52	53	54	61	65	66	62	55	47	37	40	53
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	51	1.7	2.5	2.7	2.1	1.4	1.3	1.1	2.4	2.0	2.4	2.3	2.4	24.3
	THUNDERSTORMS	51	0.1	0.1	1.1	2.3	3.9	6.4	6.4	5.8	3.8	1.9	0.5	0.2	32.5
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	47	5.3	5.2	5.4	5.4	5.1	4.8	4.5	4.6	4.8	5.1	5.8	5.6	5.1
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.1	4.9	5.1	5.2	4.8	4.6	4.2	4.3	4.5	4.9	5.6	5.3	4.9
	MEAN NO. DAYS WITH:														
	CLEAR	47	7.7	7.2	7.0	6.2	7.0	7.5	8.0	8.4	8.1	7.1	4.8	6.3	85.3
PARTLY CLOUDY	47	6.6	6.5	7.6	7.8	9.5	10.9	12.2	10.7	9.4	8.5	6.5	6.1	102.3	
CLOUDY	47	16.7	14.6	16.4	16.0	14.5	11.6	10.8	11.9	12.5	15.4	18.8	18.6	177.8	
PR	MEAN STATION PRESSURE (IN)	27	29.30	29.30	29.21	29.20	29.20	29.20	29.20	29.30	29.30	29.31	29.21	29.30	29.25
	MEAN SEA-LEVEL PRES. (IN)	16	30.05	30.08	30.06	29.96	29.97	30.01	29.97	30.02	30.02	30.05	30.03	30.07	30.02
WINDS	MEAN SPEED (MPH)	37	10.5	10.2	10.7	11.2	10.1	9.0	7.8	7.6	8.8	9.6	10.7	10.2	9.7
	PREVAIL. DIR (TENS OF DEGS)	23	27	21	21	04	04	21	21	21	21	21	21	27	21
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	3	39	37	38	41	39	41	36	28	37	33	45	33	45
	DIR. (TENS OF DEGS)		04	27	28	22	27	16	24	01	32	32	20	32	20
	YEAR OF OCCURRENCE		1999	1999	1999	1997	1997	1998	1999	1999	1998	1999	1998	1999	NOV 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	3	46	46	48	54	51	55	46	34	49	40	59	40	59	
DIR. (TENS OF DEGS)		04	29	28	23	27	16	22	01	32	20	21	36	21	
YEAR OF OCCURRENCE		1999	1999	1999	1997	1997	1998	1999	1999	1998	1997	1998	1998	NOV 1998	
PRECIPITATION	NORMAL (IN)	30	1.15	1.03	2.05	2.40	2.82	3.39	3.10	3.50	3.47	2.23	2.16	1.53	28.83
	MAXIMUM MONTHLY (IN)	50	2.64	3.56	4.68	5.91	8.21	10.29	7.00	9.04	7.80	5.00	5.32	3.15	10.29
	YEAR OF OCCURRENCE		1950	1953	1977	1994	1973	1990	1994	1975	1965	1954	1992	1971	JUN 1990
	MINIMUM MONTHLY (IN)	50	0.12	0.04	0.15	0.49	0.06	0.31	0.83	0.90	0.28	T	0.16	T	T
	YEAR OF OCCURRENCE		1981	1969	1999	1989	1988	1976	1981	1955	1976	1952	1976	1952	DEC 1952
	MAXIMUM IN 24 HOURS (IN)	50	1.14	1.78	1.83	3.24	3.28	4.90	2.95	4.60	2.99	3.68	2.30	1.55	4.90
	YEAR OF OCCURRENCE		1980	1966	1998	1994	1973	1990	1959	1975	1964	1954	1985	1959	JUN 1990
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.2	8.1	10.8	11.1	10.4	10.3	9.5	10.3	10.5	9.4	9.7	10.8	121.1	
PRECIPITATION ≥ 1.00	30	0.0	0.1	0.1	0.1	0.5	0.8	0.9	0.6	1.0	0.4	0.3	0.1	4.9	
SNOWFALL	NORMAL (IN)	30	11.7	8.0	9.2	2.1	0.1	0.0	0.0	0.0	T	0.2	4.6	12.5	48.4
	MAXIMUM MONTHLY (IN)	50	31.5	20.6	24.2	11.8	4.3	T	0.0	T	T	1.7	17.1	27.0	31.5
	YEAR OF OCCURRENCE		1996	1962	1989	1977	1990	1992		1993	1995	1959	1995	1977	JAN 1996
	MAXIMUM IN 24 HOURS (IN)	50	15.3	9.2	13.0	10.2	4.3	T	0.0	T	T	1.6	10.1	14.4	15.3
	YEAR OF OCCURRENCE		1996	1959	1997	1977	1990	1992		1993	1995	1989	1995	1990	JAN 1996
	MAXIMUM SNOW DEPTH (IN)	49	25	24	19	11	2	0	0	0	0	1	11	19	25
	YEAR OF OCCURRENCE		1979	1979	1962	1977	1990					1992	1977	1985	JAN 1979
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	3.9	2.9	2.9	0.7	0.*	0.0	0.0	0.0	0.0	0.1	1.3	3.5	15.3	

PRECIPITATION (inches) 1999 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.73	0.23	1.07	1.61	5.76	1.11	4.02	1.25	6.11	2.98	2.68	1.24	28.79
1971	1.60	2.03	2.04	1.05	1.67	1.87	3.44	2.99	3.36	2.01	3.21	3.15	28.42
1972	0.65	0.96	2.19	1.45	0.82	2.25	1.85	5.86	5.76	1.84	1.15	2.49	27.27
1973	1.86	0.72	2.43	3.23	8.21	3.20	1.93	2.57	2.91	3.96	1.45	2.41	34.88
1974	1.71	1.17	1.07	2.62	4.46	4.91	4.25	1.61	1.05	1.72	2.09	1.67	28.33
1975	1.52	1.48	3.44	2.35	2.79	5.27	1.78	9.04	3.18	0.36	3.42	0.84	35.47
1976	1.72	1.33	3.65	2.44	2.42	0.31	2.96	1.15	0.28	0.82	0.16	0.61	17.85
1977	0.67	1.38	4.68	3.33	2.47	2.27	2.13	2.37	2.44	1.36	2.70	2.31	28.11
1978	1.33	0.35	0.31	3.44	3.38	2.72	6.03	4.36	4.82	2.33	2.93	1.30	33.30
1979	1.78	1.17	4.49	1.93	3.01	2.21	3.55	5.97	0.76	2.72	2.49	1.28	31.36
1980	1.92	0.35	1.00	2.73	1.77	3.82	1.87	7.31	3.42	1.79	1.25	1.35	28.58
1981	0.12	2.76	0.42	4.22	0.56	2.63	0.83	3.37	3.25	3.44	1.08	1.10	23.78
1982	1.34	0.14	1.95	2.66	2.74	2.67	5.10	2.91	1.43	1.20	4.51	2.50	29.15
1983	0.72	1.46	1.52	1.39	4.80	1.82	3.76	5.27	3.59	2.24	2.63	1.18	30.38
1984	0.59	1.59	1.64	3.33	1.65	5.60	3.17	3.78	5.66	4.92	2.55	1.72	36.20
1985	0.86	2.55	2.70	2.24	2.58	2.21	4.03	8.03	3.65	2.72	4.96	1.83	38.36
1986	0.60	0.83	2.48	2.26	1.15	4.06	4.95	3.85	7.51	1.89	1.27	0.48	31.33
1987	0.47	0.39	1.53	2.33	2.58	1.83	2.18	3.41	1.57	1.76	3.07	2.04	23.16
1988	1.79	0.73	1.10	2.53	0.06	0.67	2.34	3.47	4.11	1.96	4.43	0.84	24.03
1989	0.41	0.38	2.88	0.49	4.22	1.56	2.27	1.05	0.58	4.76	1.25	0.55	20.40
1990	0.64	0.58	3.25	1.28	3.99	10.29	2.93	2.51	5.13	2.34	1.61	2.10	36.65
1991	0.57	0.37	2.87	2.77	2.42	1.08	4.16	2.11	2.55	3.50	2.72	1.42	26.54
1992	0.72	0.55	2.48	3.01	1.54	1.61	4.18	2.10	5.61	0.92	5.32	2.27	30.31
1993	1.42	0.34	0.76	3.99	4.28	6.82	6.83	2.30	2.78	2.29	1.56	0.44	33.81
1994	1.47	1.11	1.14	5.91	1.69	2.84	7.00	3.69	2.19	0.98	1.43	0.34	29.79
1995	0.65	0.39	1.92	2.22	2.88	1.80	1.15	7.31	2.76	4.80	3.32	1.25	30.45
1996	1.77	0.76	1.16	3.85	1.40	5.57	2.49	1.40	1.40	2.93	0.80	1.89	25.42
1997	1.81	1.40	1.92	1.67	2.60	5.51	2.11	5.73	2.76	0.93	0.30	0.61	27.35
1998	2.21	0.80	3.66	1.85	2.21	6.17	1.86	2.93	3.54	1.56	1.67	0.30	28.76
1999	2.37	1.10	0.15	2.11	3.77	3.98	5.67	1.32	1.24	0.67	1.57	0.83	24.78
POR= 113 YRS	1.31	1.24	1.92	2.59	3.06	3.44	3.09	3.08	3.06	2.09	1.97	1.41	28.26

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AVERAGE TEMPERATURE (°F) 1999 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	7.2	15.5	28.6	46.8	54.9	66.2	71.7	69.1	60.3	49.9	34.8	19.8	43.7
1971	6.9	15.2	25.9	43.7	53.0	69.8	67.8	65.3	62.3	54.6	34.7	23.5	43.6
1972	10.2	14.4	24.4	39.4	59.6	64.2	69.8	68.1	59.5	45.3	35.0	17.3	42.3
1973	21.2	22.9	39.5	43.8	53.0	68.2	71.7	71.8	59.5	54.5	34.9	20.9	46.8
1974	16.9	17.1	29.7	45.5	51.6	61.5	70.2	66.3	54.2	45.8	34.4	24.5	43.1
1975	20.3	18.4	24.1	38.9	60.0	65.3	71.0	68.0	54.6	49.9	39.1	21.2	44.2
1976	12.8	25.8	30.8	45.8	52.2	68.1	71.8	66.9	57.7	43.3	26.4	9.1	42.6
1977	3.1	20.0	37.0	48.2	63.4	63.8	73.3	65.5	59.5	47.3	33.3	18.0	44.4
1978	11.4	11.2	25.2	40.3	57.1	63.6	67.3	68.5	62.4	47.1	33.0	18.3	42.1
1979	5.9	9.0	28.8	41.7	52.4	64.6	70.4	66.5	60.0	45.8	33.8	27.7	42.2
1980	17.7	17.2	27.2	45.1	58.3	62.6	70.6	69.1	59.1	43.4	35.0	19.7	43.8
1981	15.3	22.9	34.7	45.7	53.6	65.6	69.3	68.2	56.8	45.0	36.9	22.9	44.7
1982	6.7	15.8	28.4	40.3	60.8	59.3	70.8	65.1	57.6	49.3	33.3	28.0	43.0
1983	21.4	26.3	31.1	40.5	48.8	64.5	72.9	70.8	59.8	48.5	36.5	10.6	44.3
1984	12.7	28.3	25.3	44.5	51.7	67.4	68.6	69.5	57.5	51.0	34.8	24.0	44.6
1985	12.2	17.6	34.2	47.6	58.5	62.3	69.1	66.4	60.8	48.3	30.9	9.4	43.1
1986	16.7	18.1	32.5	48.1	57.7	63.9	71.5	64.3	59.3	48.0	29.7	24.8	44.6
1987	21.6	27.9	35.1	49.1	58.8	69.0	73.0	67.6	61.1	43.2	37.6	27.1	47.6
1988	12.5	15.0	32.1	44.1	59.8	68.3	73.4	72.3	61.0	42.4	37.1	20.7	44.9
1989	25.5	13.0	25.3	41.9	54.9	63.4	70.9	68.7	59.0	49.6	31.4	11.2	42.9
1990	26.5	22.3	34.0	47.6	52.5	66.0	68.6	67.6	61.8	47.2	40.0	21.1	46.3
1991	13.8	23.5	33.6	47.9	61.4	69.2	69.8	69.9	58.5	48.2	30.2	24.5	45.9
1992	22.9	27.1	30.4	42.0	56.6	62.3	64.9	64.3	58.5	46.8	32.8	23.7	44.4
1993	19.6	19.0	30.2	40.4	56.2	62.8	70.3	70.3	55.4	45.9	33.7	25.3	44.1
1994	6.2	14.5	33.3	44.5	57.1	67.9	69.8	65.9	63.7	51.2	39.4	29.7	45.3
1995	21.4	20.6	34.6	40.5	56.0	70.8	73.1	73.9	58.3	49.2	27.8	18.9	45.4
1996	13.7	18.1	25.8	40.7	52.9	66.2	65.8	68.0	59.5	46.7	28.5	21.7	42.3
1997	15.1	21.1	28.9	42.3	49.1	64.3	66.4	63.7	60.0	47.7	31.9	27.9	43.2
1998	22.2	31.3	33.1	46.9	60.5	64.9	69.4	69.5	63.5	50.9	39.4	27.4	48.3
1999	14.9	28.3	34.0	45.9	58.1	65.4	72.2	65.4	58.6	46.1	40.0	24.1	46.1
POR= 113 YRS	16.0	18.4	29.4	43.4	55.2	65.2	70.3	68.0	60.0	48.6	34.5	22.0	44.2

HEATING DEGREE DAYS (base 65°F) 1999 GREEN BAY, WI (GRB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	17	17	185	466	898	1398	1797	1391	1206	636	365	43	8419
1971-72	32	57	155	328	902	1282	1694	1463	1253	762	215	92	8235
1972-73	37	54	180	606	895	1469	1350	1172	785	632	367	9	7556
1973-74	4	11	221	330	897	1363	1487	1334	1087	590	413	132	7869
1974-75	6	39	331	588	912	1248	1381	1297	1260	779	205	90	8136
1975-76	29	27	307	465	769	1351	1614	1130	1057	579	394	29	7751
1976-77	2	56	255	667	1152	1730	1918	1254	861	500	131	113	8639
1977-78	3	64	162	544	942	1454	1658	1500	1227	733	279	107	8673
1978-79	35	18	152	549	953	1442	1830	1564	1117	691	389	70	8810
1979-80	14	36	166	590	928	1151	1461	1380	1165	597	227	130	7845
1980-81	11	11	189	661	893	1398	1538	1175	932	573	350	45	7776
1981-82	26	21	248	614	839	1300	1805	1373	1127	733	152	178	8416
1982-83	3	75	250	483	946	1140	1344	1077	1046	727	495	100	7686
1983-84	17	2	210	507	847	1682	1617	1055	1223	611	406	13	8190
1984-85	18	20	237	430	899	1262	1632	1324	949	533	204	114	7622
1985-86	9	34	196	508	1016	1719	1491	1307	1002	508	244	90	8124
1986-87	12	65	191	519	1052	1240	1341	1033	918	478	240	36	7125
1987-88	18	44	132	673	815	1167	1623	1447	1012	624	201	74	7830
1988-89	4	23	146	694	830	1365	1216	1451	1224	687	315	98	8053
1989-90	7	19	200	475	1000	1666	1189	1191	952	547	380	55	7681
1990-91	24	28	157	547	744	1357	1579	1154	967	516	220	23	7316
1991-92	17	17	250	515	1038	1248	1296	1093	1067	683	275	122	7621
1992-93	44	87	209	560	960	1274	1398	1281	1071	731	277	108	8000
1993-94	1	16	292	585	930	1226	1818	1409	974	609	267	59	8186
1994-95	15	55	102	423	760	1087	1342	1237	937	730	275	43	7006
1995-96	8	0	229	483	1110	1419	1583	1356	1208	721	385	73	8575
1996-97	32	20	199	561	1089	1335	1541	1224	1114	676	486	87	8364
1997-98	52	88	163	533	988	1145	1319	937	985	535	175	118	7038
1998-99	5	5	98	431	760	1160	1546	1022	954	569	223	101	6874
1999-	5	46	226	576	744	1259							

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COOLING DEGREE DAYS (base 65°F) 1999 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	10	26	114	231	150	50	5	0	0	586
1971	0	0	0	0	1	195	125	71	77	15	0	0	484
1972	0	0	0	0	52	75	190	156	22	0	0	0	495
1973	0	0	0	2	0	112	220	228	63	13	0	0	638
1974	0	0	0	7	6	35	175	87	13	0	0	0	323
1975	0	0	0	0	56	106	221	126	3	2	0	0	514
1976	0	0	0	8	1	129	219	122	41	0	0	0	520
1977	0	0	0	5	87	81	269	87	5	0	0	0	534
1978	0	0	0	0	43	71	115	131	80	0	0	0	440
1979	0	0	0	0	6	68	191	91	23	1	0	0	380
1980	0	0	0	5	27	64	192	146	18	0	0	0	452
1981	0	0	0	0	5	71	168	127	9	0	0	0	380
1982	0	0	0	0	30	16	187	85	35	4	0	0	357
1983	0	0	0	0	0	95	270	188	60	4	0	0	617
1984	0	0	0	0	3	94	136	165	17	0	0	0	415
1985	0	0	0	16	11	41	141	85	79	0	0	0	373
1986	0	0	0	8	25	65	220	48	27	0	0	0	393
1987	0	0	0	7	56	161	274	133	23	0	0	0	654
1988	0	0	0	0	46	182	270	255	33	0	0	0	786
1989	0	0	0	0	7	55	199	141	27	0	0	0	429
1990	0	0	0	34	0	92	140	116	70	0	0	0	452
1991	0	0	0	8	115	155	171	177	60	0	0	0	686
1992	0	0	0	0	22	49	49	69	23	1	0	0	213
1993	0	0	0	0	13	48	173	187	11	0	0	0	432
1994	0	0	0	0	30	154	172	89	71	3	0	0	519
1995	0	0	0	0	3	224	265	282	33	1	0	0	808
1996	0	0	0	0	15	115	64	120	38	0	0	0	352
1997	0	0	0	0	0	70	103	55	20	7	0	0	255
1998	0	0	0	0	44	121	145	150	60	2	0	0	522
1999	0	0	0	0	15	122	237	66	40	0	0	0	480

SNOWFALL (inches) 1999 GREEN BAY, WI (GRB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	5.9	10.7	20.8	11.0	14.8	0.2	T	0.0	63.4
1971-72	0.0	0.0	0.0	0.0	12.6	13.2	8.2	12.1	22.2	2.3	0.0	0.0	70.6
1972-73	0.0	0.0	0.0	T	0.7	17.3	6.8	5.7	T	5.6	T	0.0	36.1
1973-74	0.0	0.0	0.0	0.0	2.4	15.5	4.4	18.5	11.2	2.0	T	0.0	54.0
1974-75	0.0	0.0	0.0	T	1.5	10.4	8.6	19.5	13.4	T	0.0	0.0	53.4
1975-76	0.0	0.0	0.0	0.0	4.4	9.3	24.9	12.4	11.5	0.3	0.1	0.0	62.9
1976-77	0.0	0.0	0.0	1.4	1.7	12.1	12.1	2.4	13.7	11.8	0.0	0.0	55.2
1977-78	0.0	0.0	0.0	0.0	14.1	27.0	18.0	7.1	1.8	T	0.0	0.0	68.0
1978-79	0.0	0.0	0.0	0.0	9.6	15.0	24.0	11.8	6.2	5.0	0.0	0.0	71.6
1979-80	0.0	0.0	0.0	T	6.2	1.4	7.3	4.4	11.4	7.4	0.0	0.0	38.1
1980-81	0.0	0.0	0.0	T	3.4	14.5	2.3	7.5	2.5	T	0.0	0.0	30.2
1981-82	0.0	0.0	0.0	1.0	2.7	11.4	28.0	2.0	6.0	2.9	0.0	0.0	54.0
1982-83	0.0	0.0	0.0	T	2.6	1.3	8.5	15.3	11.4	0.6	0.0	0.0	39.7
1983-84	0.0	0.0	0.0	0.0	7.2	12.7	10.5	1.8	6.5	T	0.0	0.0	38.7
1984-85	0.0	0.0	0.0	0.0	2.0	15.9	13.8	15.1	17.7	6.2	0.0	0.0	70.7
1985-86	0.0	0.0	0.0	0.0	16.5	22.7	6.8	9.9	6.8	0.5	0.0	0.0	63.2
1986-87	0.0	0.0	0.0	T	9.1	5.2	7.8	1.6	10.8	1.6	0.0	0.0	36.1
1987-88	0.0	0.0	0.0	T	1.8	15.8	20.6	8.9	1.8	0.4	0.0	0.0	49.3
1988-89	0.0	0.0	0.0	T	11.5	5.8	1.5	8.6	24.2	0.3	T	0.0	51.9
1989-90	0.0	0.0	0.0	1.6	1.5	15.3	10.7	6.9	2.7	2.7	4.3	0.0	45.7
1990-91	0.0	0.0	0.0	T	1.2	26.9	8.8	6.9	5.3	7.5	0.0	0.0	56.6
1991-92	0.0	0.0	0.0	T	8.7	10.7	4.3	7.4	9.0	2.8	0.0	T	42.9
1992-93	0.0	T	0.0	1.2	8.5	15.5	11.8	5.6	7.2	7.2	T	0.0	57.0
1993-94	0.0	T	0.0	T	1.6	1.9	30.0	16.4	8.1	3.6	0.0	0.0	61.6
1994-95	0.0	0.0	0.0	T	1.3	4.3	9.8	6.8	7.1	1.9	T	0.0	31.2
1995-96	0.0	0.0	T	T	17.1	11.2	31.5	2.9	4.8	10.0	T	0.0	77.5
1996-97	0.0	0.0	0.0	T	3.7	19.4	17.2	15.5	20.7	0.3	0.2	0.0	77.0
1997-98	0.0	0.0	0.0	0.2	0.7	6.2	24.2	1.2	11.5	2.1	0.0	0.0	46.1
1998-99	0.0	0.0	T	0.0	0.3	5.4	21.2	2.2	4.4	T	0.0	0.0	33.5
1999-	0.0	0.0	T	0.0	0.0	5.4							
POR= 49 YRS	0.0	T	T	0.2	4.6	10.5	11.8	8.0	8.9	2.5	0.3	T	46.8

WBAN : 14898

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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1999
GREEN BAY,
WISCONSIN (GRB)

The Green Bay climate is modified by surrounding topography. The modification is caused by the Bay of Green Bay, Lakes Michigan, and Superior, and to a lesser extent, the slightly higher surrounding terrain terminating in the Fox River Valley. The city of Green Bay is located at the mouth of the Fox River, one of the largest rivers flowing northward in the United States. It empties into the south end of the Bay.

The modified continental climate of Green Bay is shown by the few occurrences of 90 degree temperatures in the summer season and the few occurrences of sub-zero temperatures in the winter season. The narrow temperature range stems from the lake effects and the limited hours of sunshine caused by cloudiness.

Precipitation normally falls in the five-month period May through September. Three-fifths of the annual total is in the growing season, most often falling during thunderstorms. During the winter months, snowfall is less than in nearby communities where the ground is slightly higher.

The comparatively low range in temperature along with the greater portion of the precipitation falling during the growing season is conducive to the development of the dairy industry. Cherry and apple orchards are important crops in nearby lake communities. The growing of potatoes and canning vegetables are predominant inland. Paper products are the major manufacturing industry.

High winds, excessive precipitation, and electrical storms cause occasional damage. Snowstorms are the principal winter hazard. While the winters are long in Green Bay, the extremes are never as severe as the northern latitude location would indicate.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 2 and the average last occurrence in the spring is May 12.

