

2003

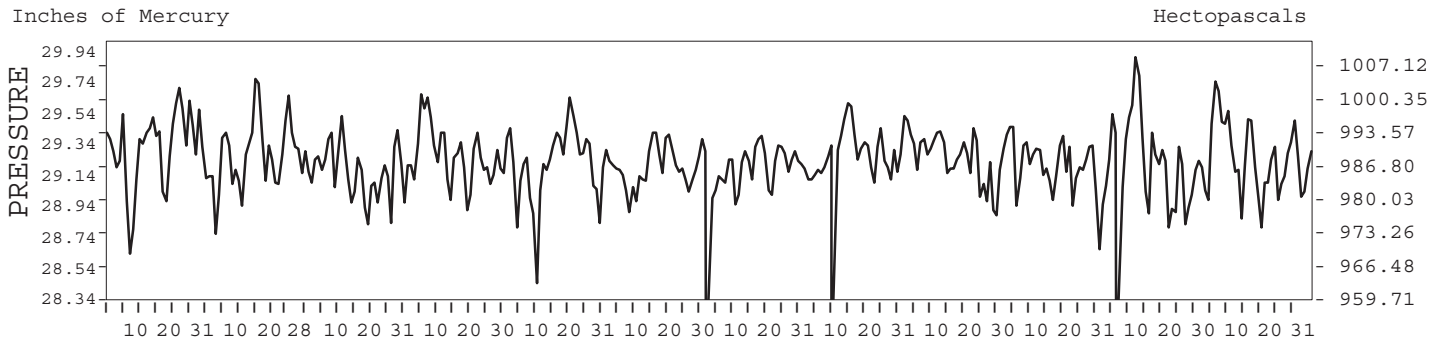
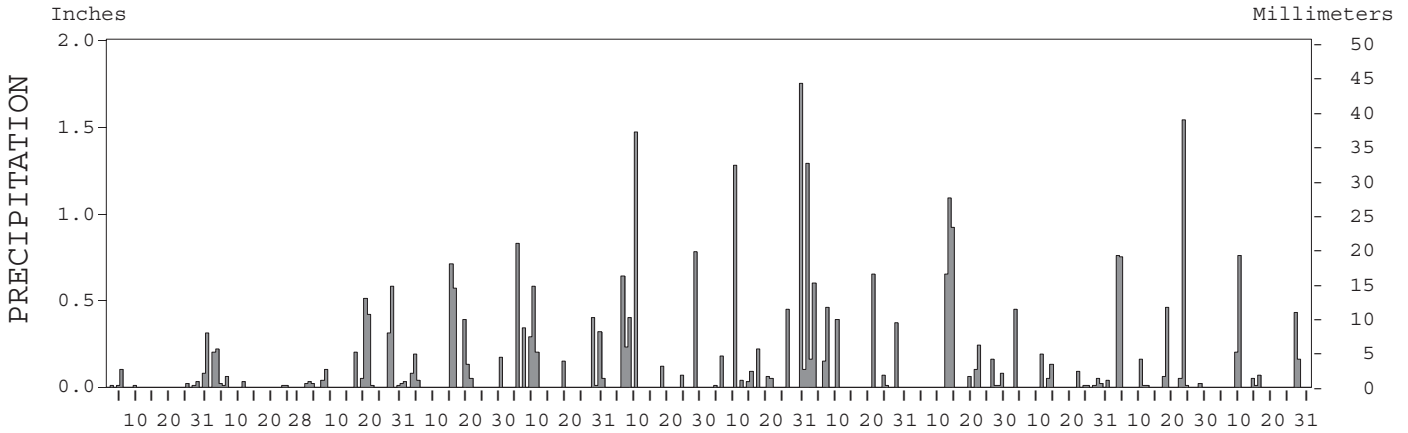
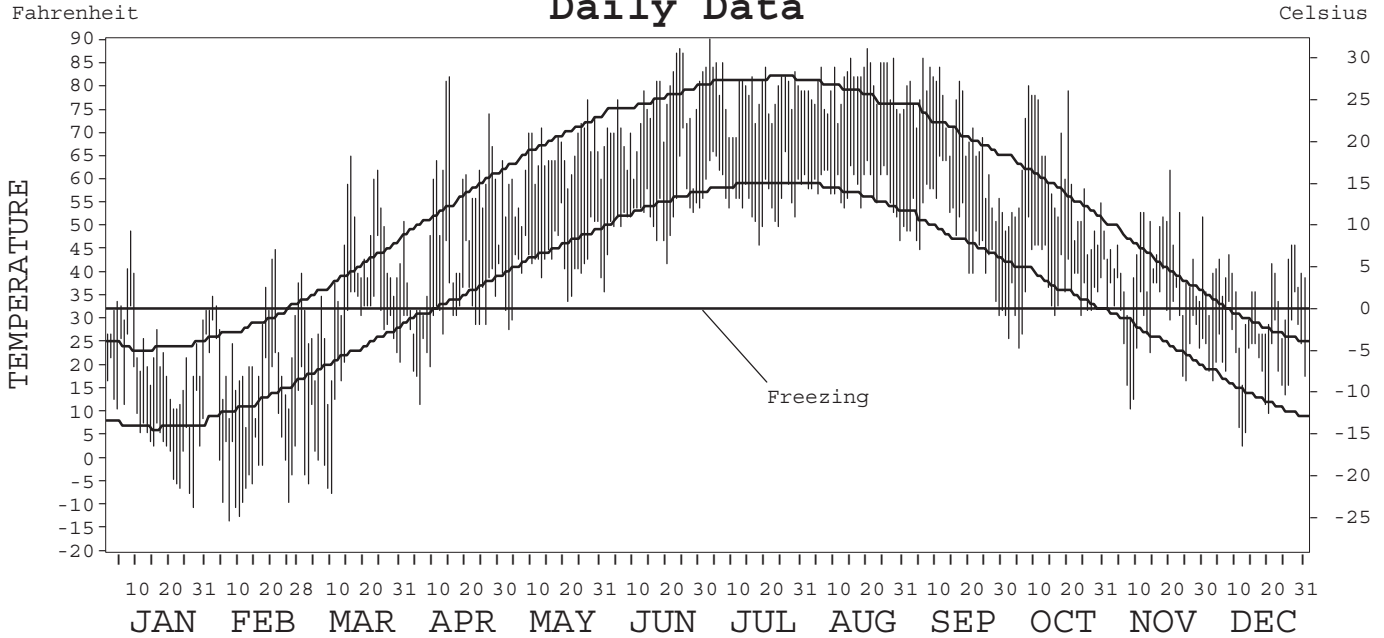
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-568X

GREEN BAY,
WISCONSIN (GRB)

Daily Data



I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

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
---	---	---	---

METEOROLOGICAL DATA FOR 2003

GREEN BAY, WI (GRB)

LATITUDE: 44° 30' 46" N LONGITUDE: 88° 07' 12" W ELEVATION (FT): GRND: 682 BARO: 685 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	23.9	23.6	39.1	51.4	63.9	73.9	79.0	80.3	71.3	58.7	43.2	35.1	53.6	
	HIGHEST DAILY MAXIMUM	49	45	65	82	77	88	90	88	86	80	62	46	90	
	DATE OF OCCURRENCE	08	21	16	15	27	24	03	20	06	08	20	28+	JUL 03	
	MEAN DAILY MINIMUM	8.8	4.4	20.9	31.5	42.2	52.4	56.8	57.9	49.4	37.2	28.9	20.8	34.3	
	LOWEST DAILY MINIMUM	-10	-13	-7	12	28	36	46	47	31	24	11	3	-13	
	DATE OF OCCURRENCE	27	07	10	06	03	01	18	30	29	05	08	12	FEB 07	
	AVERAGE DRY BULB	16.4	14.0	30.0	41.5	53.1	63.2	67.9	69.1	60.4	48.0	36.1	28.0	44.0	
	MEAN WET BULB	14.5	13.4			48.6	58.9	63.4			44.0	33.7	26.1		
	MEAN DEW POINT	7.3	7.8			43.7	55.4	60.1			39.8	29.9	22.0		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	MAXIMUM ≤ 32°	26	22	9	5	0	0	0	0	0	0	3	11	76	
MINIMUM ≤ 32°	30	28	23	17	3	0	0	0	2	9	20	29	161		
MINIMUM ≤ 0°	5	14	6	0	0	0	0	0	0	0	0	0	25		
H/C	HEATING DEGREE DAYS	1501	1420	1078	698	364	93	16	7	182	522	862	1140	7883	
	COOLING DEGREE DAYS	0	0	0	0	0	46	113	142	49	1	0	0	351	
RH	MEAN (PERCENT)	68	73	76	72	73	77	77	80	75	76	80	78	75	
	HOUR 00 LST	70	77	82	78	85	90	89	90	87	84	83	82	83	
	HOUR 06 LST	75	79	82	82	85	89	90	92	90	92	86	83	85	
	HOUR 12 LST	63	67	70	64	60	64	63	66	58	62	73	72	65	
	HOUR 18 LST	62	68	73	65	60	66	63	76	75	71	79	77	70	
S	PERCENT POSSIBLE SUNSHINE	52	62	49		73		80	82		67	43	46		
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	2	6	2	2	1	2	8	4	3	4	1	37	
	THUNDERSTORMS	0	0	1	3	2	2	5	6	1	0	1	0	21	
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.)	29.31	29.27	29.17	29.26	29.20	29.19			29.24	29.18		29.25		
	MEAN SEA-LEVEL PRESS. (IN.)	30.11	30.07	29.95		29.96	29.94								
WINDS	RESULTANT SPEED (MPH)	7.0				4.0	0.3	1.2	0.8	3.3	3.6	3.8	3.7		
	RES. DIR. (TENS OF DEGS.)	29				04	12	26	33	23	26	26	27		
	MEAN SPEED (MPH)	10.8	10.0	9.9	11.6	9.1	7.2	7.5	5.8	7.8	7.7	9.9	9.2	8.9	
	PREVAIL. DIR. (TENS OF DEGS.)	28	21	04	05	05	19	20	36	18	29	21	29	28	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	28	29	30	37	33	30	24	32	26	35	36	39	39	
	DIR. (TENS OF DEGS.)	30	01	01	04	30	25	26	24	28	29	32	28	28	
	DATE OF OCCURRENCE	10	22+	02	16	11	24	30	21+	19	11	12	31	DEC 31	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	33	33	36	44	41	40	37	40	33	45	44	52	52	
DIR. (TENS OF DEGS.)	31	01	01	05	29	24	26	24	28	28	31	27	27		
DATE OF OCCURRENCE	10	22+	02	16	11	24	30	21	19	11	12	31	DEC 31		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.58	0.56	2.32	2.36	3.17	3.71	4.26	4.15	3.32	1.05	3.83	1.68	30.99	
	GREATEST 24-HOUR (IN.)	0.34	0.22	0.69	1.27	0.83	1.47	1.75	1.29	1.75	0.45	1.59	0.95	1.75	
	DATE OF OCCURRENCE	30-31	03	20-21	15-16	05	10	30	01	13-14	03	22-23	09-10	SEP 13-14	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	9	8	14	10	10	7	12	10	10	11	11	7	119	
PRECIPITATION ≥ 0.10	2	2	6	6	8	6	6	8	6	3	5	4	62		
PRECIPITATION ≥ 1.00	0	0	0	0	0	1	2	1	1	0	1	0	6		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	9.6	9.2	9.1	5.0	0.0	0.0	0.0	0.0	0.0	T	0.3	2.5	35.7	
	GREATEST 24-HOUR (IN.)	5.4	2.8	3.7	4.1	0.0	0.0	0.0	0.0	0.0	T	0.2	1.8	5.4	
	DATE OF OCCURRENCE	31	06	08	04						22+	28	10	JAN 31	
	MAXIMUM SNOW DEPTH (IN.)	5	9	5	5	0	0	0	0	0	0	T	2	9	
	DATE OF OCCURRENCE	31	14+	10+	05							24	15+	FEB 14+	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	3	3	3	1	0	0	0	0	0	0	0	1	11		

NORMALS, MEANS, AND EXTREMES

GREEN BAY, WI (GRB)

LATITUDE: 44° 30' 46" N LONGITUDE: 88° 07' 12" W ELEVATION (FT): GRND: 682 BARO: 685 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	24.1	28.9	40.0	54.6	68.0	76.8	81.2	78.5	70.2	57.9	42.4	29.0	54.3
	MEAN DAILY MAXIMUM	54	23.8	27.9	38.1	53.9	66.7	76.3	80.8	78.5	69.8	58.2	42.2	29.1	53.8
	HIGHEST DAILY MAXIMUM	54	53	61	78	89	91	98	103	99	95	88	74	64	103
	YEAR OF OCCURRENCE		2002	2000	2000	1980	1959	1988	1995	1988	1955	1963	1999	2001	JUL 1995
	MEAN OF EXTREME MAXS.	54	40.7	43.8	59.5	76.7	84.3	90.0	91.5	90.4	86.0	76.7	61.8	46.4	70.7
	NORMAL DAILY MINIMUM	30	7.1	12.1	22.6	33.9	44.7	54.0	58.6	56.5	47.5	36.9	25.6	13.3	34.4
	MEAN DAILY MINIMUM	54	6.9	10.8	21.2	33.6	43.9	53.6	58.5	56.7	48.2	38.1	26.4	13.9	34.3
	LOWEST DAILY MINIMUM	54	-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.	54	-15.9	-10.9	0.7	19.3	30.2	40.2	46.3	44.4	32.7	23.7	8.9	-8.5	17.6
	NORMAL DRY BULB	30	15.6	20.5	31.3	44.2	56.4	65.4	69.9	67.5	58.8	47.4	34.0	21.2	44.3
	MEAN DRY BULB	54	15.4	19.4	29.7	43.8	55.3	64.9	69.6	67.6	59.1	48.2	34.3	21.4	44.1
	MEAN WET BULB	19	17.1	20.2	28.7	39.8	50.5	59.8	64.4	63.0	55.4	41.7	32.2	21.6	41.2
	MEAN DEW POINT	19	12.2	14.9	22.9	32.9	44.7	55.5	60.6	59.9	51.7	37.4	27.5	17.2	36.5
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.1	1.9	2.9	1.4	0.2	0.0	0.0	0.0	6.5	
MAXIMUM ≤ 32°	30	23.0	17.3	7.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	5.3	17.8	71.3	
MINIMUM ≤ 32°	30	30.5	27.0	26.1	13.8	2.0	0.0	0.0	0.0	0.7	8.7	22.6	29.5	160.9	
MINIMUM ≤ 0°	30	10.7	6.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.4	23.7	
H/C	NORMAL HEATING DEG. DAYS	30	1537	1262	1060	638	301	85	19	38	208	540	925	1350	7963
	NORMAL COOLING DEG. DAYS	30	0	0	0	3	24	95	177	126	36	2	0	0	463
RH	NORMAL (PERCENT)	30	76	75	73	67	67	70	74	77	77	75	76	78	74
	HOUR 00 LST	30	77	78	78	75	76	80	84	88	87	82	80	80	80
	HOUR 06 LST	30	78	80	82	79	79	82	86	90	90	85	83	81	83
	HOUR 12 LST	30	71	68	64	57	54	57	59	63	62	62	68	72	63
	HOUR 18 LST	30	74	71	67	59	57	59	62	67	70	72	75	77	68
S	PERCENT POSSIBLE SUNSHINE	54	49	52	53	55	61	65	66	62	55	47	37	40	54
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	55	1.7	2.5	2.9	2.1	1.5	1.3	1.2	2.6	2.0	2.5	2.3	2.4	25.0
	THUNDERSTORMS	55	0.1	0.1	1.1	2.3	3.9	6.3	6.4	5.8	3.7	1.9	0.5	0.2	32.3
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)	30	29.30	29.30	29.21	29.20	29.20	29.20	29.20	29.30	29.30	29.31	29.21	29.31	29.25
	MEAN SEA-LEVEL PRES. (IN)	19	30.04	30.08	30.05	29.96	29.96	30.00	29.97	30.02	30.02	30.05	30.03	30.07	30.02
WINDS	MEAN SPEED (MPH)	41	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)	27	27	21	04	04	04	21	21	21	21	21	21	27	21
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	7	39	37	44	41	39	41	36	32	37	36	45	39	45
	DIR. (TENS OF DEGS)		04	27	29	22	27	16	24	24	02	28	20	28	20
	YEAR OF OCCURRENCE		1999	2001	2002	1997	1997	1998	1999	2003	2000	2001	1998	2003	NOV 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	7	46	46	54	54	51	55	46	40	49	47	59	52	59	
DIR. (TENS OF DEGS)		04	29	29	23	27	16	22	24	20	27	21	27	21	
YEAR OF OCCURRENCE		1999	1999	2002	1997	1997	1998	1999	2003	2001	2001	1998	2003	NOV 1998	
PRECIPITATION	NORMAL (IN)	30	1.21	1.01	2.06	2.56	2.75	3.43	3.44	3.77	3.11	2.17	2.27	1.41	29.19
	MAXIMUM MONTHLY (IN)	54	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)	54	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)	54	1.14	1.78	1.83	3.24	3.28	4.90	4.65	4.60	2.99	3.68	2.30	1.55	4.90
	YEAR OF OCCURRENCE		1980	1966	1998	1994	1973	1990	2000	1975	1964	1954	1985	1959	JUN 1990
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.7	8.5	10.8	11.1	10.1	10.1	10.4	11.3	10.0	9.7	10.3	10.6	123.6	
PRECIPITATION ≥ 1.00	30	0.0	0.1	0.2	0.3	0.5	0.9	0.9	0.8	0.8	0.3	0.4	0.1	5.3	
SNOWFALL	NORMAL (IN)	30	13.9	8.7	9.2	2.9	0.2	0.0	0.0	0.0	0.*	0.2	5.4	12.6	53.1
	MAXIMUM MONTHLY (IN)	54	31.5	20.6	24.2	11.8	4.3	T	0.0	T	T	1.8	17.1	28.9	31.5
	YEAR OF OCCURRENCE		1996	1962	1989	1977	1990	1992	1993	1993	1995	2002	1995	2000	JAN 1996
	MAXIMUM IN 24 HOURS (IN)	54	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	1992	1993	1995	1989	1995	1990	JAN 1996
	MAXIMUM SNOW DEPTH (IN)	53	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	4.5	2.8	2.8	1.0	0.0	0.0	0.0	0.0	0.0	0.1	1.5	3.2	15.9	

PRECIPITATION (inches) 2003 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2000	0.87	1.04	0.98	2.15	4.41	5.33	6.27	3.38	3.94	0.46	1.25	1.16	31.24
2001	1.19	1.26	0.42	3.66	4.74	5.17	0.85	3.42	2.35	1.71	1.70	1.23	27.70
2002	0.60	1.50	2.08	3.02	2.81	4.69	2.16	4.01	2.67	3.26	0.44	0.73	27.97
2003	0.58	0.56	2.32	2.36	3.17	3.71	4.26	4.15	3.32	1.05	3.83	1.68	30.99
POR= 117 YRS	1.31	1.26	1.93	2.61	3.11	3.51	3.12	3.12	3.08	2.10	1.98	1.42	28.55

WBAN : 14898

AVERAGE TEMPERATURE (°F) 2003 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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	20.5	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
2000	15.6	24.5	39.4	42.3	56.8	63.8	67.0	67.1	58.0	50.7	33.9	11.4	44.2
2001	20.3	17.4	29.5	47.8	57.3	65.6	70.6	70.7	58.3	47.3	43.4	30.1	46.5
2002	25.9	27.0	26.7	44.8	50.5	66.7	73.2	67.7	62.6	43.7	33.9	26.3	45.8
2003	16.4	14.0	30.0	41.5	53.1	63.2	67.9	69.1	60.4	48.0	36.1	28.0	44.0
POR= 117 YRS	16.1	18.6	29.5	43.4	55.2	65.2	70.3	68.0	60.0	48.6	34.6	22.1	44.3

HEATING DEGREE DAYS (base 65°F) 2003 GREEN BAY, WI (GRB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
1999-00	5	46	226	576	744	1259	1526	1170	785	672	275	94	7378
2000-01	39	30	229	435	929	1657	1377	1324	1094	513	247	87	7961
2001-02	19	8	217	540	639	1074	1205	1061	1180	611	453	77	7084
2002-03	2	13	124	661	928	1191	1501	1420	1078	698	364	93	8073
2003-	16	7	182	522	862	1140							

WBAN : 14898

COOLING DEGREE DAYS (base 65°F) 2003 GREEN BAY, WI (GRB)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2000	0	0	0	0	29	65	107	104	25	0	0	0	330
2001	0	0	0	2	16	113	202	190	23	0	0	0	546
2002	0	0	0	9	11	135	262	104	58	6	0	0	585
2003	0	0	0	0	0	46	113	142	49	1	0	0	351

SNOWFALL (inches) 2003 GREEN BAY, WI (GRB)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
1999-00	0.0	0.0	T	0.0	0.0	5.4	15.4	11.3	2.1	2.5	0.0	0.0	36.7
2000-01	0.0	T	0.0	T	7.8	28.9	5.6	7.8	4.7	1.9	0.0	0.0	56.7
2001-02	0.0	0.0	0.0	T	T	1.8	12.0	8.5	17.1	7.5	T	T	46.9
2002-03	0.0	0.0	0.0	1.8	0.9	3.3	9.6	9.2	9.1	5.0	0.0	0.0	38.9
2003-	0.0	0.0	0.0	T	0.3	2.5							
POR= 53 YRS	0.0	T	T	0.2	4.4	10.4	11.8	8.1	8.9	2.6	0.3	T	46.7

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 (1971 - 2000). 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>
---	--

2003
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.

STATION LOCATION

GREEN BAY, WISCONSIN

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT * REMARKS	
						SEA LEVEL	GROUND										
							GROUND	WIND	EXTREME	PSYCHROMETER	SUNSHINE	TIPPING GAUGE	WEIGHING	8 INCH	HYGROMETER		
*NOTE: <u>AIRPORT</u>																	
Administration Building Austin Straubel Field	5/13/65	07/01/96	200 ft. W	44°29'	88°08'	682	r30	j5 k5 s5	j6 k5 s5	r6 s6	m4 n32 r3 s3	i4 q4 s4	i4 s4	p5	Instruments not moved. i. Moved 260' W 10/7/68. j. Moved 100' SE 10/7/68. k. Moved 1200' SE 11/15/73. m. Installed 5/5/74. n. Moved to roof 7/12/74. p. Type change 6/25/79. q. Minor adjustment 9/4/78. r. Relocated 11/15/89. s. Relocated 4/5-17/94.		
Austin Straubel Field	07/01/96	Present	NA	44°31'	88°07'	t682								S	ASOS Commissioned 07/01/96 t. Ground elevation.		

For Hard Copy Subscription:

Price and ordering information: NCDC Subscribing Service Center, 310 State Route 956, Building 300, Rocket Center, WV 26726.

INQUIRIES/COMMENTS CALL: Toll Free (866) 742-3322

Visit our Web Site for other weather data: www.ncdc.noaa.gov

Non-Subscription Request:

NCDC Customer Services;
Phone: 828-271-4800
Fax: 828-271-4876
Email: ncdc.orders@noaa.gov

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300
CHANGE SERVICE REQUESTED

**FIRST CLASS
POSTAGE & FEES PAID
United States Department of Commerce
NOAA Permit No. G - 19**

* NOTES: For earlier station history see previous editions.