



MARCH 2003

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

MILWAUKEE, WI

GENERAL MITCHELL FIELD (MKE)
 Lat: 42°56' N Long: 87°53' W Elev (Ground): 677 Feet
 Time Zone: CENTRAL WBAN: 14839 ISSN #:0198-5752

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								DATE
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0600 LST	1200 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM					
																			5-SEC		2-MIN			
																			SPEED	DIR	SPEED	DIR		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
01	40	21	31	1	20	28	34	0	SN BR HZ	0		0.1	0.01	29.19	29.96	4.2	19	6.4	23	14	20	15	01	
02	31	9	20	-10	6	15	45	0	SN BR HZ BLSN	0		0.5	T	29.26	30.03	9.7	36	12.1	33	02	26	02	02	
03	29	9	19	-11	10	17	46	0	SN BR	0		0.5	0.02	29.21	29.99	8.7	21	9.9	26	20	22	20	03	
04	31	18	25	-6	20	23	40	0	SN BR HZ	1		6.1	0.28	29.09	29.87	6.0	33	8.7	18	36	15	35	04	
05	21	14	18	-13	8	16	47	0	SN	7		2.0	0.08	29.21	29.99	8.2	01	9.1	22	01	18	02	05	
06	26	16	21	-10	15	19	44	0	SN BR	8		1.0	0.03	29.28	30.06	4.6	16	7.7	17	16	16	17	06	
07	35	22	29	-3	25	28	36	0	SN BR HZ	5		1.5	0.15	29.23	30.00	6.8	23	8.1	22	21	18	23	07	
08	31	10	21	-11	17	20	44	0	SN BR HZ BLSN	7		1.9	0.13	29.20	29.98	7.5	36	9.1	37*	03	30	02	08	
09	13	3	8	-24	-10	5	57	0		6		0.0	0.00	29.44	30.24	12.6	29	13.3	25	30	21	29	09	
10	16	0*	8*	-25	-4	6	57	0		5		0.0	0.00	29.48	30.28	9.0	27	10.0	18	24	16	24	10	
11	39	12	26	-7	16	25	39	0	RA HZ	5		0.0	T	29.16	29.93	14.2	23	14.5	36	22	30	23	11	
12	36	28	32	-2	27	29	33	0	SN BR HZ	4		0.3	0.03	29.24	30.01	9.5	04	10.1	22	05	18	04	12	
13	31	21	26	-8	22	26	39	0	SN BR	5		0.8	0.07	29.51	30.28	10.7	05	10.9	28	03	23	03	13	
14	50	20	35	1	26	32	30	0	BR HZ	4		0.0	0.00	29.37	30.14	8.1	21	8.4	22	02	20	21	14	
15	61	31	46	11	37	42	19	0	BR HZ	2		0.0	0.00	29.18	29.93	6.6	21	6.9	16	24	15	23	15	
16	66	36	51	16	48	50	14	0	FG+ BR HZ	0		0.0	0.00	29.03	29.77	7.5	21	8.0	23	23	21	23	16	
17	68	37	53	18	45	47	12	0	FG+ BR HZ	0		0.0	0.00	29.01	29.75	4.8	02	8.9	25	02	20	02	17	
18	40	35	38	2	36	37	27	0	RA FG+ BR	0		0.0	0.01	29.18	29.94	14.7	03	14.9	29	01	23	02	18	
19	39	34	37	1	32	34	28	0	RA BR	0		0.0	0.34	29.09	29.85	13.6	04	13.7	29	02	24	02	19	
20	55	38	47	11	42	42	18	0	TSRA RA FG+ BR	0		0.0	0.04	28.91	29.66	2.5	05	4.8	20	09	16	08	20	
21	47	38	43	6	35	39	22	0	RA PL FG BR HZ	0		T	0.05	28.89	29.64	12.4	27	13.1	31	26	24	26	21	
22	48	37	43	6	34	38	22	0	RA BR HZ	0		0.0	0.01	29.10	29.86	4.2	29	8.2	23	30	17	25	22	
23	61	39	50	13	37	44	15	0	BR HZ	0		0.0	0.00	29.15	29.90	5.6	19	7.4	20	14	17	14	23	
24	68*	48	58*	20	37	48	7	0	RA	0		0.0	T	29.03	29.77	7.0	25	10.1	29	24	23	25	24	
25	56	38	47	9	27	40	18	0		0		0.0	0.00	29.15	29.90	8.1	30	8.4	25	32	20	32	25	
26	50	31	41	3	31	37	24	0	RA BR	0		0.0	T	29.21	29.97	3.1	10	5.2	16	09	15	16	26	
27	47	37	42	3	35	39	23	0	RA BR HZ	0		0.0	0.02	29.07	29.82	10.8	11	11.5	35	10	30*	09	27	
28	53	35	44	5	39	41	21	0	RA BR HZ	0		0.0	0.32	28.84	29.59	7.5	27	10.6	30	30	23	30	28	
29	35	28	32	-7	21	28	33	0	SN	0		T	T	29.33	30.10	10.4	32	10.8	25	31	21	30	29	
30	42	24	33	-7	21	29	32	0		0		0.0	0.00	29.45	30.22	2.1	28	6.8	20	30	17	25	30	
31	44	26	35	-5	31	34	30	0	RA BR	0		0.0	0.05	29.24	30.00	7.8	15	8.8	23	14	21	14	31	

MARCH 2003 MILWAUKEE, WI

42.2 25.6 33.9									TOTALS->				-<- MONTHLY AVERAGES							
- .4 -1.7 -1.0									DEPARTURE FROM NORMAL				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							
DEGREE DAYS MONTHLY TOTAL DEPARTURE: 956 8 SEASON TO DATE TOTAL DEPARTURE: 6016 -56 HEATING: 956 8 COOLING: 0 0									GREATEST 24-HR PRECIPITATION: 0.35 DATE :19-20 GREATEST 24-HR SNOWFALL: 6.1 DATE :04 GREATEST SNOW DEPTH: 8 DATE :06				SEA LEVEL PRESSURE DATE TIME MAXIMUM : 30.38 10 0852 MINIMUM : 29.46 28 0852				PRECIPITATION ≥ 0.01 INCH : 17 PRECIPITATION ≥ 0.10 INCH : 5 SNOWFALL ≥ 1.0 INCH : 5			
NUMBER OF DAYS WITH →									MAXIMUM TEMP ≥ 90: 0 MAXIMUM TEMP ≤ 32 : 9 THUNDERSTORMS : 1				MINIMUM TEMP ≤ 32 : 19 MINIMUM TEMP ≤ 0 : 1 HEAVY FOG : 4							

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MILWAUKEE, WI

MARCH 2003

MKE

WBAN # 14839

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST	
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.
01													01												01	T	0.01		
02					T	T	T	T	T				02												02	T	T		
03													03		T	T	T	T	T	0.01	0.01	T			03		0.02		
04													04		T	T	T	0.01	0.02	0.03	0.03	0.04	0.01	0.01	04	0.15	0.28		
05	0.01	T	T	T	T	T	T	T	T				05												05	0.01	0.08		
06	T	0.01	T	T	T	0.01	0.01	T	T				06												06		0.03		
07								T	T				07												07	0.03	0.15		
08								0.01	0.02				08	T	0.01	0.01	T	T							08	0.02	0.13		
09													09													09		0.00	
10													10													10		0.00	
11													11													11		T	
12													12	T	T	T	T	T	T							12	T	0.03	
13	0.01	0.01	0.02	T	T	T							13													13	0.04	0.07	
14													14													14		0.00	
15													15													15		0.00	
16													16													16		0.00	
17													17													17		0.00	
18					T	T							18			0.01	T									18		0.01	
19													19	0.01	0.03	0.11	0.05	0.07	T							19		0.34	
20	T												20	0.01	0.01	0.01	0.01	T			0.03	0.04				20	0.05	0.04	
21	T	T	T		T	0.01	0.01						21	T				0.01	T	T	0.02					21		0.05	
22	0.01	T	T	T	T	T							22													22		0.01	
23													23													23		0.00	
24													24													24		T	
25													25													25		0.00	
26													26													26		T	
27			0.01	T									27		T											27		0.02	
28					0.01								28	0.02	0.01	0.01	0.04	T	0.01	T						28		0.32	
29													29	T	T	T	T	T	T							29		T	
30													30													30		0.00	
31													31													31		0.05	

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.04	.06	.09	.10	.12	.13	.14	.17	.18	.20	.22	.25
Ending Date	19	28	28	28	28	28	28	28	28	28	19	19
Ending Time (Hour/Min)	2053	0913	0913	0920	0930	0930	0946	1016	1040	1040	1625	1625

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one)

T = Trace precipitation amount

+ = also occurs on earlier date

FG+ = Heavy fog, visibility .25 miles or less

BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy ' ' = Moderate '-' = Light

MILWAUKEE, WI MARCH 2003

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							1.50	9.00	
02							1.00	10.00	
03							.75	10.00	
04							.25	7.00	
05							.50	10.00	
06							.50	10.00	
07							.25	9.00	
08							.13	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							6.00	10.00	
12							1.00	10.00	
13							.50	10.00	
14							4.00	10.00	
15							1.50	8.00	
16							.13	6.00	
17							.06	3.00	
18							<.25	7.00	
19							.75	10.00	
20							<.25	4.00	
21							.13	10.00	
22							4.00	10.00	
23							2.50	10.00	
24							9.00	10.00	
25							8.00	10.00	
26							6.00	10.00	
27							4.00	9.00	
28							1.00	10.00	
29							2.50	10.00	
30							10.00	10.00	
31							4.00	10.00	
MONTHLY AVGS							3.00	9.10	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 8 20 5									

OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

MARCH 2003

MKE

WBAN # 14839

HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD AMT Oktas	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL			SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	DRY BULB	DEW POINT	WET BULB
SUNRISE: 0628				MAR 01				SUNSET: 1740				SUNRISE: 0618				MAR 07				SUNSET: 1748					
03	OVC	080	7.00		26	18	23	71	3	22	29.30	30.06	03	BKN	100	7.00		22	18	21	85	8	18	29.21	29.98
06	OVC	085	6.00	HZ	26	17	23	69	3	21	29.28	30.05	06	OVC	047	8.00		26	21	24	81	12	20	29.17	29.94
09	CLR	NC	5.00	HZ	28	18	25	66	0	00	29.28	30.05	09	OVC	007	0.25	+SN	28	27	28	96	10	22	29.19	29.96
12	SCT	NC	5.00	HZ	39	22	33	50	12	11	29.21	29.97	12	OVC	013	3.00	HZ	32	27	30	82	7	26	29.22	29.98
15	OVC	080	6.00	HZ	36	19	30	50	14	15	29.13	29.90	15	OVC	018	3.00	HZ	34	28	32	79	7	28	29.24	30.00
18	BKN	060	4.00	HZ	34	24	30	67	8	18	29.11	29.88	18	OVC	023	4.00	HZ	35	27	32	72	7	27	29.25	30.01
21	OVC	100	5.00	HZ	35	23	31	61	8	27	29.09	29.85	21	OVC	025	5.00	HZ	34	25	31	70	6	27	29.30	30.06
24	OVC	090	2.50	BR	31	27	29	85	6	27	29.06	29.82	24	BKN	025	4.00	HZ	32	25	29	75	6	21	29.27	30.04
SUNRISE: 0626				MAR 02				SUNSET: 1742				SUNRISE: 0616				MAR 08				SUNSET: 1749					
03	FEW	NC	2.50	HZ	30	25	28	82	10	28	29.04	29.80	03	CLR	NC	3.00	BR	26	22	25	84	5	21	29.25	30.02
06	OVC	015	1.25	-SN BLSN	24	21	23	88	26	03	29.10	29.87	06	OVC	016	2.00	BR	27	24	26	89	0	00	29.22	29.98
09	OVC	017	3.00	-SN BLSN	16	8	14	71	15	36	29.25	30.02	09	OVC	012	1.50	BR	31	27	29	85	7	05	29.12	29.89
12	BKN	046	10.00		15	4	12	61	16	03	29.31	30.09	12	OVC	007	2.50	BR	28	26	27	92	22	02	29.05	29.82
15	FEW	NC	10.00		17	-5	13	37	14	35	29.32	30.10	15	OVC	004	0.50	SN BLSN	17	14	16	88	14	36	29.10	29.87
18	FEW	NC	10.00		12	-7	9	42	10	36	29.36	30.15	18	SCT	NC	10.00		14	6	12	71	13	01	29.20	29.98
21	CLR	NC	10.00		10	-7	7	45	5	36	29.38	30.18	21	BKN	029	10.00		12	5	10	73	6	33	29.32	30.11
24	CLR	NC	10.00		10	-5	7	50	3	28	29.38	30.17	24	SCT	NC	10.00		11	-1	9	58	10	31	29.37	30.16
SUNRISE: 0625				MAR 03				SUNSET: 1743				SUNRISE: 0615				MAR 09				SUNSET: 1750					
03	CLR	NC	10.00		9	-7	6	48	6	30	29.36	30.16	03	CLR	NC	10.00		6	-7	4	54	12	32	29.40	30.19
06	BKN	150	10.00		12	-2	9	53	0	00	29.35	30.15	06	FEW	NC	10.00		3	-10	1	54	14	31	29.45	30.26
09	BKN	250	10.00		18	7	15	62	13	20	29.31	30.09	09	CLR	NC	10.00		4	-10	2	52	15	29	29.48	30.29
12	OVC	150	10.00		23	8	19	53	17	18	29.23	30.01	12	CLR	NC	10.00		8	-12	5	39	16	28	29.49	30.29
15	OVC	037	3.00	-SN	23	15	21	72	14	19	29.13	29.91	15	FEW	NC	10.00		12	-11	8	34	16	28	29.41	30.21
18	OVC	021	1.00	-SN	23	20	22	88	12	19	29.07	29.85	18	FEW	NC	10.00		9	-9	6	43	10	25	29.40	30.20
21	OVC	014	1.25	-SN	25	23	24	92	10	23	29.05	29.82	21	CLR	NC	10.00		7	-9	4	47	16	27	29.42	30.22
24	OVC	034	6.00	BR	29	25	28	85	10	25	29.05	29.82	24	CLR	NC	10.00		6	-9	4	49	8	30	29.47	30.27
SUNRISE: 0623				MAR 04				SUNSET: 1744				SUNRISE: 0613				MAR 10				SUNSET: 1752					
03	FEW	NC	7.00		28	21	26	75	7	27	29.05	29.82	03	CLR	NC	10.00		3	-8	1	60	10	31	29.50	30.30
06	CLR	NC	4.00	BR	23	21	22	92	6	20	29.08	29.85	06	CLR	NC	10.00		0	-8	-1	69	9	28	29.55	30.36
09	OVC	027	6.00	HZ	27	21	25	78	9	29	29.15	29.92	09	FEW	NC	10.00		5	-8	3	55	10	29	29.57	30.38
12	OVC	070	7.00		31	21	27	67	8	32	29.13	29.90	12	FEW	NC	10.00		13	-5	10	44	8	29	29.54	30.34
15	OVC	050	7.00		26	19	24	75	8	36	29.06	29.83	15	CLR	NC	10.00		16	0	12	49	12	25	29.47	30.27
18	OVC	008	0.50	SN	21	19	20	92	8	36	29.10	29.88	18	FEW	NC	10.00		14	-2	11	49	12	25	29.43	30.23
21	OVC	003	0.25	+SN	18	16	17	92	13	35	29.10	29.88	21	CLR	NC	10.00		9	-1	7	64	8	23	29.40	30.20
24	OVC	012	1.00	-SN	18	16	17	92	10	35	29.07	29.84	24	OVC	080	10.00		12	2	10	64	8	26	29.34	30.14
SUNRISE: 0621				MAR 05				SUNSET: 1745				SUNRISE: 0611				MAR 11				SUNSET: 1753					
03	OVC	023	1.25	-SN	19	15	18	85	8	35	29.06	29.84	03	OVC	090	10.00		15	4	12	61	7	26	29.30	30.08
06	OVC	014	1.75	-SN	16	12	15	84	12	36	29.14	29.91	06	OVC	110	10.00		16	6	14	65	12	23	29.27	30.05
09	BKN	028	5.00	-SN	15	6	13	67	10	36	29.23	30.01	09	OVC	046	10.00		21	11	18	65	15	22	29.21	29.99
12	BKN	180	10.00		19	4	15	52	9	03	29.27	30.05	12	BKN	250	10.00		31	15	26	52	23	23	29.14	29.92
15	BKN	250	10.00		19	7	16	59	13	06	29.25	30.03	15	FEW	NC	10.00		38	21	32	51	25	23	29.04	29.81
18	OVC	150	10.00		18	3	14	52	7	04	29.26	30.04	18	OVC	110	9.00		39	25	34	57	18	23	29.03	29.80
21	OVC	060	10.00		19	4	15	52	8	36	29.27	30.05	21	BKN	200	8.00		38	27	34	65	9	25	29.09	29.85
24	OVC	022	10.00	-SN	19	6	16	57	0	00	29.26	30.03	24	OVC	200	6.00	HZ	36	28	33	73	5	24	29.09	29.85
SUNRISE: 0620				MAR 06				SUNSET: 1747				SUNRISE: 0609				MAR 12				SUNSET: 1754					
03	OVC	050	3.00	-SN	17	11	15	77	6	34	29.26	30.04	03	OVC	200	5.00	HZ	32	26	30	79	0	00	29.09	29.85
06	OVC	022	0.50	SN	16	14	15	92	5	33	29.28	30.06	06	OVC	200	4.00	BR	31	27	29	85	0	00	29.15	29.91
09	BKN	028	10.00		20	13	18	74	5	12	29.31	30.10	09	BKN	110	7.00		32	28	31	85	14	05	29.21	29.97
12	BKN	028	10.00		23	14	20	68	6	12	29.33	30.11	12	OVC	012	5.00	BR	31	27	29	85	13	05	29.25	30.01
15	BKN	027	10.00		26	16	23	66	10	19	29.31	30.08	15	OVC	010	2.50	-SN	30	27	29	88	16	04	29.27	30.04
18	BKN	140	10.00		24	17	22	75	12	16	29.30	30.07	18	OVC	010	1.50	-SN	28	26	27	92	13	04	29.32	30.09
21	CLR	NC	9.00		22	18	21	85	8	17	29.26	30.04	21	OVC	070	10.00		29	24	27	82	13	04	29.34	30.11
24	SCT	NC	7.00		23	18	21	81	9	20	29.22	30.00	24	OVC	010	8.00		29	26	28	89	17	05	29.31	30.09

OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

MARCH 2003

MKE

WBAN # 14839

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)							
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)		DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0608				MAR 13				SUNSET: 1755				SUNRISE: 0557				MAR 19				SUNSET: 1801									
03	OVC	005		1.50	-SN BR	29	27	28	92	16	04	29.34	30.12	03	BKN	130		10.00	35	28	32	76	12	05	29.20	29.96			
06	OVC	008		5.00	BR	27	25	26	92	17	04	29.42	30.20	06	OVC	220		10.00	35	27	32	72	16	04	29.17	29.93			
09	OVC	021		10.00		28	22	26	78	15	06	29.51	30.29	09	OVC	060		10.00	36	28	33	73	17	04	29.15	29.91			
12	BKN	250		10.00		30	22	27	72	14	04	29.56	30.34	12	OVC	049		10.00	36	30	34	79	21	03	29.10	29.85			
15	SCT	NC		10.00		30	20	27	66	14	05	29.55	30.33	15	OVC	022		1.50	RA BR	34	33	34	97	16	03	29.03	29.79		
18	SCT	NC		10.00		27	18	24	69	6	04	29.58	30.36	18	OVC	021		2.00	BR	36	35	36	97	15	03	29.01	29.77		
21	CLR	NC		10.00		26	19	24	75	0	00	29.56	30.34	21	OVC	140		3.00	RA BR	39	37	38	93	0	00	29.05	29.81		
24	FEW	NC		10.00		23	18	21	81	0	00	29.56	30.35	24	OVC	003		0.75	BR	38	38	38	100	0	00	28.99	29.75		
SUNRISE: 0606				MAR 14				SUNSET: 1756				SUNRISE: 0555				MAR 20				SUNSET: 1802									
03	FEW	NC		8.00		23	18	21	81	5	21	29.50	30.28	03	VV	001		0.06	FG	39	39	39	100	6	07	28.97	29.72		
06	FEW	NC		6.00	BR	24	21	23	88	3	20	29.46	30.24	06	VV	001		0.06	FG	38	38	38	100	8	04	28.96	29.72		
09	FEW	NC		6.00	HZ	32	24	29	73	13	24	29.46	30.24	09	VV	001		0.06	FG	41	41	41	100	7	09	28.95	29.70		
12	FEW	NC		9.00		42	26	36	53	16	21	29.39	30.16	12	OVC	070		3.00	-RA BR	48	48	48	100	6	VR	28.91	29.66		
15	SCT	NC		9.00		48	29	40	48	13	21	29.29	30.06	15	BKN	060		4.00	BR	49	46	47	90	3	07	28.87	29.62		
18	FEW	NC		9.00		47	31	40	54	3	20	29.25	30.01	18	VV	001		0.06	FG	43	43	43	100	5	36	28.86	29.62		
21	CLR	NC		7.00		37	29	34	73	3	18	29.24	30.00	21	OVC	006		0.06	-RA FG	40	40	40	100	3	34	28.86	29.61		
24	CLR	NC		9.00		40	30	36	68	8	20	29.22	29.98	24	OVC	010		1.25	BR	44	44	44	100	5	30	28.83	29.57		
SUNRISE: 0604				MAR 15				SUNSET: 1758				SUNRISE: 0554				MAR 21				SUNSET: 1803									
03	CLR	NC		6.00	HZ	37	30	34	76	0	00	29.24	29.99	03	OVC	003		1.50	BR	44	43	44	96	13	30	28.81	29.55		
06	FEW	NC		5.00	BR	34	30	32	85	5	17	29.23	29.99	06	OVC	008		3.00	-RA BR	41	40	41	96	10	30	28.81	29.56		
09	CLR	NC		3.00	HZ	44	37	41	76	9	21	29.23	29.98	09	OVC	015		6.00	BR	38	34	36	86	13	28	28.86	29.61		
12	CLR	NC		4.00	HZ	55	40	48	57	8	23	29.19	29.94	12	BKN	044		6.00	HZ	44	32	39	63	22	25	28.87	29.62		
15	FEW	NC		6.00	HZ	60	43	51	53	12	19	29.13	29.88	15	BKN	050		10.00		46	28	39	50	15	28	28.90	29.65		
18	FEW	NC		6.00	HZ	53	42	48	66	8	24	29.15	29.90	18	OVC	035		10.00	-RA	41	33	38	74	13	27	28.96	29.71		
21	CLR	NC		2.50	BR	44	40	42	85	8	19	29.14	29.89	21	OVC	046		10.00		40	32	37	73	12	25	28.97	29.72		
24	CLR	NC		1.50	BR	41	39	40	93	6	20	29.11	29.86	24	OVC	024		9.00	-RA	39	33	37	79	13	25	28.94	29.70		
SUNRISE: 0602				MAR 16				SUNSET: 1759				SUNRISE: 0552				MAR 22				SUNSET: 1805									
03	BKN	001		0.25	FG	37	32	35	82	3	VR	29.08	29.83	03	OVC	018		5.00	BR	38	35	37	89	13	26	28.93	29.69		
06	CLR	NC		0.13	FG	38	38	38	100	5	16	29.08	29.83	06	OVC	014		10.00		38	35	37	89	10	31	29.00	29.76		
09	BKN	250		2.00	BR	48	44	46	86	7	21	29.07	29.82	09	OVC	020		10.00		40	34	37	79	10	34	29.09	29.84		
12	BKN	250		4.00	HZ	65	51	57	60	9	20	29.02	29.77	12	OVC	026		10.00		43	33	39	68	13	32	29.14	29.89		
15	BKN	250		5.00	HZ	66	61	63	84	13	20	28.98	29.72	15	OVC	034		10.00		41	33	38	74	8	13	29.15	29.91		
18	BKN	250		3.00	HZ	59	54	56	83	7	20	28.97	29.72	18	OVC	028		8.00		41	33	38	74	6	17	29.19	29.95		
21	CLR	NC		3.00	BR	54	52	53	94	7	20	28.98	29.73	21	OVC	027		7.00		39	34	37	82	0	00	29.21	29.96		
24	BKN	250		3.00	BR	53	50	51	89	8	22	28.98	29.72	24	OVC	055		5.00	HZ	40	35	38	83	0	00	29.20	29.95		
SUNRISE: 0601				MAR 17				SUNSET: 1760				SUNRISE: 0550				MAR 23				SUNSET: 1806									
03	SCT	NC		3.00	BR	52	50	51	93	3	18	28.95	29.68	03	OVC	060		5.00	BR	42	38	40	85	7	23	29.17	29.93		
06	SCT	NC		2.50	BR	50	48	49	93	3	21	28.96	29.70	06	FEW	NC		4.00	BR	40	38	39	93	0	00	29.18	29.94		
09	BKN	180		3.00	HZ	55	50	52	83	5	24	28.99	29.73	09	CLR	NC		4.00	HZ	50	40	45	68	3	23	29.19	29.94		
12	BKN	250		3.00	HZ	65	51	57	61	0	00	28.98	29.71	12	FEW	NC		9.00		58	36	47	44	6	30	29.15	29.90		
15	OVC	250		3.00	HZ	51	43	47	74	14	05	28.99	29.73	15	FEW	NC		5.00	HZ	56	40	48	55	15	13	29.11	29.86		
18	VV	001		0.06	FG	37	37	37	100	15	02	29.04	29.79	18	BKN	250		5.00	HZ	53	36	45	52	9	17	29.11	29.86		
21	BKN	005		2.00	BR	39	38	39	96	12	02	29.08	29.83	21	CLR	NC		6.00	HZ	50	35	43	57	7	20	29.13	29.87		
24	OVC	001		0.75	BR	38	37	38	97	18	01	29.08	29.83	24	CLR	NC		9.00		51	35	44	54	9	19	29.09	29.84		
SUNRISE: 0559				MAR 18				SUNSET: 1801				SUNRISE: 0548				MAR 24				SUNSET: 1807									
03	VV	001		0.25	FG	39	39	39	100	10	06	29.10	29.85	03	FEW	NC		10.00		50	32	42	50	8	20	29.05	29.80		
06	OVC	001		0.25	FG	39	39	39	100	13	03	29.15	29.91	06	BKN	110		10.00		51	32	43	48	12	21	29.03	29.77		
09	OVC	018		2.50	BR	38	37	38	97	15	03	29.19	29.95	09	BKN	110		10.00		58	41	49	54	14	22	29.00	29.74		
12	OVC	018		7.00		38	34	36	86	16	03	29.20	29.96	12	OVC	200		10.00		64	43	53	46	14	24	28.99	29.72		
15	OVC	020		4.00	-RA BR	35	33	34	93	18	02	29.19	29.95	15	BKN	250		10.00		67	44	55	44	15	27	28.98	29.72		
18	OVC	016		5.00	BR	35	33	34	93	16	02	29.21	29.97	18	BKN	095		10.00		63	38	51	40	8	32	29.00	29.73		
21	OVC	065		7.00		35	33	34	93	14	03	29.24	29.99	21	BKN	075		10.00		57	29	45	34	10	32	29.06	29.80		
24	OVC	037		6.00	BR	37	34	36	89	12	05	29.23	29.99	24	OVC	075		10.00		51	34	43	52	5	24	29.09	29.83		

OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

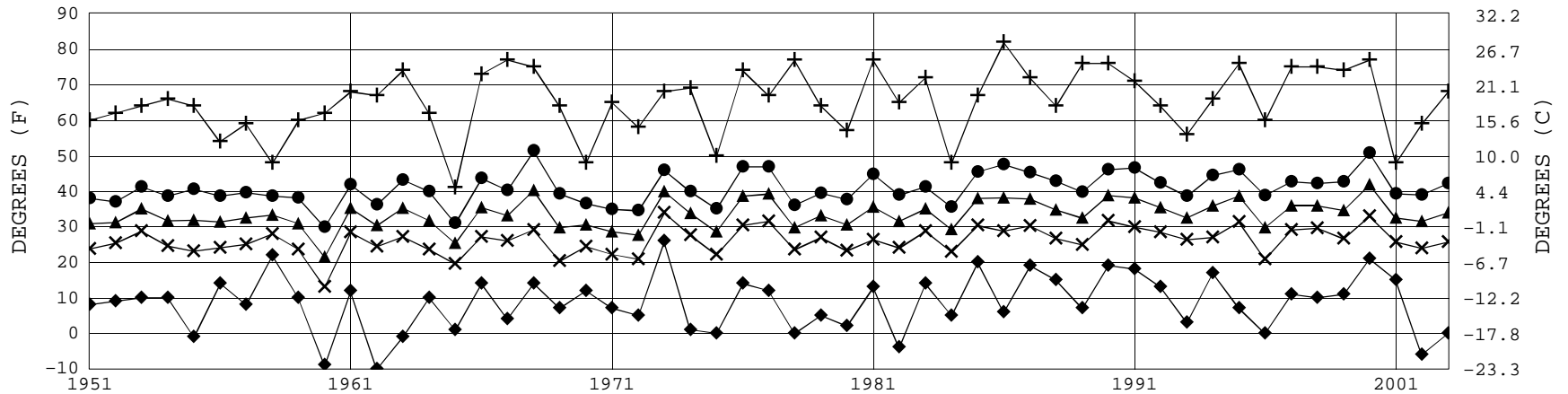
MARCH 2003

MKE

WBAN # 14839

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	
SUNRISE: 0547								MAR 25								SUNSET: 1808																
03	BKN	090				10.00		49	34	42	57	5	23	29.09	29.83	03	FEW	NC					9.00		27	24	26	89	3	02	29.37	30.14
06	BKN	250				10.00		46	31	40	56	7	28	29.13	29.87	06	BKN	065					6.00	BR	26	24	25	92	0	00	29.39	30.16
09	SCT	NC				10.00		49	28	40	45	16	30	29.17	29.91	09	SCT	NC					10.00		35	29	33	78	5	16	29.39	30.16
12	BKN	250				10.00		54	27	42	35	10	29	29.16	29.91	12	SCT	NC					10.00		40	31	36	70	16	13	29.32	30.09
15	BKN	220				10.00		56	25	43	30	10	29	29.14	29.89	15	OVC	180					10.00		38	32	36	79	20	15	29.21	29.97
18	BKN	200				10.00		54	22	41	29	13	29	29.16	29.91	18	OVC	048					10.00		40	27	35	60	12	15	29.14	29.90
21	CLR	NC				10.00		48	22	38	36	6	31	29.20	29.95	21	OVC	075					4.00	-RA BR	41	39	40	93	13	16	29.01	29.77
24	CLR	NC				10.00		39	24	33	55	0	00	29.22	29.97	24	CLR	NC					4.00	BR	41	39	40	93	8	17	28.89	29.64
SUNRISE: 0545								MAR 26								SUNSET: 1809																
03	CLR	NC				10.00		36	25	32	64	0	00	29.21	29.96	3-HOURLY OBSERVATION NOTES																
06	BKN	075				10.00		38	26	33	62	6	31	29.24	29.99	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8,																
09	BKN	080				10.00		47	31	40	54	5	33	29.24	29.99	SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.																
12	BKN	065				10.00		49	33	42	55	9	11	29.21	29.96	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																
15	SCT	NC				9.00		50	34	43	54	10	15	29.17	29.92	NC= No ceiling detected.																
18	BKN	240				7.00		41	34	38	76	6	10	29.19	29.94	& = Original observation contained additional weather elements.																
21	SCT	NC				6.00	BR	36	33	35	89	0	00	29.22	29.98	See page 3 for additional notes.																
24	OVC	180				7.00		37	32	35	82	6	14	29.21	29.96																	
SUNRISE: 0543								MAR 27								SUNSET: 1811																
03	OVC	042				6.00	-RA BR	38	34	36	86	3	12	29.18	29.93																	
06	OVC	060				7.00		39	34	37	82	10	12	29.18	29.94																	
09	OVC	065				4.00	BR	39	35	37	86	15	14	29.18	29.94																	
12	OVC	130				5.00	HZ	44	36	40	73	16	11	29.12	29.88																	
15	OVC	120				5.00	HZ	43	35	40	74	17	10	29.01	29.77																	
18	OVC	110				5.00	HZ	45	36	41	71	14	10	28.96	29.72																	
21	OVC	095				7.00		45	35	41	68	5	12	28.93	29.68																	
24	OVC	070				9.00		44	36	40	73	7	09	28.88	29.63																	
SUNRISE: 0541								MAR 28								SUNSET: 1812																
03	BKN	100				6.00	HZ	43	37	40	80	12	15	28.78	29.52																	
06	OVC	110				5.00	BR	43	40	42	89	0	00	28.77	29.51																	
09	OVC	019				2.50	-RA BR	50	48	49	93	3	18	28.72	29.46																	
12	OVC	014				6.00	-RA BR	52	50	51	93	16	24	28.76	29.50																	
15	OVC	013				3.00	-RA BR	45	42	44	90	17	27	28.83	29.57																	
18	OVC	014				3.00	-RA BR	40	36	38	86	18	28	28.92	29.67																	
21	BKN	017				10.00		35	29	33	78	21	29	28.98	29.73																	
24	OVC	025				10.00		35	26	32	70	12	30	29.06	29.82																	
SUNRISE: 0540								MAR 29								SUNSET: 1813																
03	BKN	035				10.00		33	21	29	61	15	33	29.11	29.87																	
06	BKN	039				10.00		30	18	26	61	15	30	29.19	29.96																	
09	BKN	040				10.00		30	14	25	51	14	31	29.28	30.04																	
12	OVC	042				10.00		33	17	28	52	12	32	29.33	30.11																	
15	OVC	055				9.00	-SN	32	21	28	64	13	32	29.39	30.17																	
18	OVC	055				10.00		32	23	29	69	12	33	29.47	30.24																	
21	SCT	NC				10.00		32	23	29	69	3	26	29.52	30.30																	
24	CLR	NC				10.00		28	23	26	81	5	31	29.53	30.31																	
SUNRISE: 0538								MAR 30								SUNSET: 1814																
03	CLR	NC				10.00		25	20	23	81	6	31	29.51	30.29																	
06	CLR	NC				10.00		24	18	22	77	6	31	29.52	30.29																	
09	CLR	NC				10.00		34	13	27	42	5	24	29.50	30.27																	
12	OVC	060				10.00		38	19	31	47	15	12	29.45	30.23																	
15	OVC	060				10.00		42	19	34	40	9	28	29.39	30.16																	
18	BKN	065				10.00		41	21	34	45	8	30	29.37	30.14																	
21	SCT	NC				10.00		35	28	32	76	5	29	29.39	30.17																	
24	FEW	NC				10.00		31	27	29	85	5	29	29.39	30.16																	

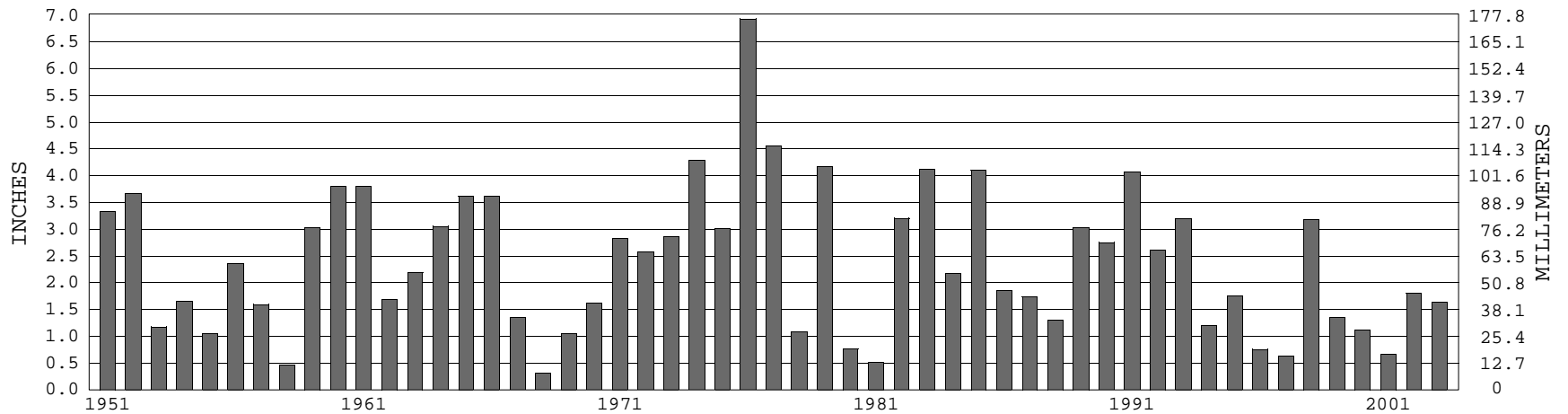
MILWAUKEE, WI MARCH TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1951-2003) Mean: 33.5 1961-1990 Normal: 34.9

MILWAUKEE, WI MARCH PRECIPITATION



Long-Term (1951-2003) Mean Monthly Total: 2.38

1961-1990 Normal: 2.59



MARCH 2003

MILWAUKEE, WI

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

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