



# JUNE 2002

## 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	90	59	75	13	48	59	0	10		0		0.0	0.00	29.01	29.73	7.3	30	10.7	36*	01	26	02	01	
02	62	47	55	-8	42	48	10	0	RA	0		0.0	0.11	29.20	29.94	9.7	02	10.1	28	01	22	02	02	
03	55	46	51	-12	49	50	14	0	TS TSRA RA DZ BR	0		0.0	1.14	29.17	29.92	7.5	05	11.1	32	02	25	12	03	
04	64	50	57	-6	53	54	8	0	TSRA RA FG+ BR VCTS	0		0.0	0.73	29.09	29.83	1.1	04	7.1	28	08	23	08	04	
05	57	45*	51*	-13	49	50	14	0	DZ BCFG BR	0		0.0	0.01	29.24	29.99	2.6	04	3.5	14	06	13	06	05	
06	67	46	57	-7	49	52	8	0	BR	0		0.0	0.00	29.34	30.09	4.0	06	5.9	15	06	13	05	06	
07	72	51	62	-2	51	57	3	0	BR HZ	0		0.0	0.00	29.34	30.08	7.2	18	7.9	21	16	17	16	07	
08	83	61	72	8	57	63	0	7		0		0.0	0.00	29.30	30.04	6.7	20	7.9	20	23	15	16	08	
09	82	59	71	6	55	62	0	6	HZ	0		0.0	0.00	29.29	30.02	5.3	15	6.2	20	15	17	15	09	
10	88	65	77	12	67	70	0	12	TS TSRA RA BR HZ VCTS	0		0.0	0.19	29.16	29.88	11.0	20	11.8	33	26	26*	25	10	
11	81	66	74	9	64	68	0	9	TS TSRA RA BR HZ	0		0.0	0.12	29.03	29.75	8.5	24	10.0	28	28	21	31	11	
12	66	55	61	-4	52	55	4	0	HZ	0		0.0	0.00	29.18	29.92	5.7	05	6.5	25	03	21	03	12	
13	63	55	59	-6	54	55	6	0	RA FG+ BR	0		0.0	0.05	29.12	29.86	4.4	03	4.6	14	03	12	03	13	
14	68	54	61	-6	54	56	4	0	TSRA RA BR VCTS	0		0.0	0.29	28.97	29.70	5.7	31	7.7	22	29	17	05	14	
15	75	55	65	-2	53	57	0	0	TSRA RA GS	0		T	0.10	28.99	29.73	7.2	31	8.6	33	03	23	02	15	
16	77	55	66	-1	48	55	0	1	TSRA RA	0		0.0	0.02	29.11	29.85	4.6	33	8.5	30	26	21	36	16	
17	76	55	66	-1	52	57	0	1	RA VCTS	0		0.0	T	29.17	29.91	3.0	28	5.5	21	23	17	23	17	
18	70	54	62	-5	55	59	3	0		0		0.0	0.00	29.31	30.05	5.7	13	5.9	15	15	13	15	18	
19	80	58	69	2	59	64	0	4		0		0.0	0.00	29.37	30.11	7.8	18	8.3	23	19	18	20	19	
20	90	72	81	14	68	73	0	16	HZ	0		0.0	0.00	29.47	30.20	7.3	23	8.0	28	24	20	22	20	
21	77	64	71	4	66	67	0	6	TSRA RA BR HZ	0		0.0	0.11	29.56	30.29	1.3	06	2.1	33	33	23	33	21	
22	91	63	77	9	66	70	0	12	BR HZ	0		0.0	0.00	29.45	30.18	5.6	23	7.3	29	23	23	22	22	
23	91	71	81	13	65	70	0	16	HZ	0		0.0	0.00	29.36	30.08	6.5	23	7.0	23	24	20	24	23	
24	90	69	80	11	64	70	0	15	HZ	0		0.0	0.00	29.33	30.06	5.7	23	6.4	21	24	16	22	24	
25	91	70	81	12	69	73	0	16	HZ	0		0.0	0.00	29.26	29.98	9.0	23	9.5	22	22	17	20	25	
26	85	69	77	8	67	70	0	12	RA BR VCTS	0		0.0	0.12	29.11	29.83	8.6	25	10.0	24	25	20	25	26	
27	75	65	70	1	63	66	0	5		0		0.0	0.00	29.12	29.85	2.0	03	6.0	14	07	12	06	27	
28	86	63	75	6	64	68	0	10		0		0.0	0.00	29.26	29.99	2.9	21	6.0	15	13	14	13	28	
29	84	69	77	7	64	68	0	12	HZ	0		0.0	0.00	29.34	30.07	6.4	17	8.1	20	14	18	14	29	
30	95*	69	82*	12	72	76	0	17	HZ	0		0.0	0.00	29.31	30.03	8.2	22	9.1	25	23	18	22	30	
< MONTHLY AVERAGES										TOTALS-->			T	2.99	29.23	29.97	2.4	20	7.6	<-- MONTHLY AVERAGES				
<-----DEPARTURE FROM NORMAL----->													-.57	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 1.43				DATE :03-04				SEA LEVEL PRESSURE				DATE		TIME	
MONTHLY									GREATEST 24-HR SNOWFALL: T				DATE :15				MAXIMUM				DATE		TIME	
TOTAL DEPARTURE									GREATEST SNOW DEPTH: 0				DATE :				MINIMUM				DATE		TIME	
HEATING: 74 -8 6178 -1146									NUMBER OF DAYS WITH ->				MAXIMUM TEMP ≥ 90: 7				MINIMUM TEMP ≤ 32: 0				PRECIPITATION ≥ 0.01 INCH : 12			
COOLING: 187 73 241 95													MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 9			
													THUNDERSTORMS : 8				HEAVY FOG : 2				SNOWFALL ≥ 1.0 INCH : 0			

JUNE 2002  
MILWAUKEE, WI

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MILWAUKEE, WI

JUNE 2002

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			0.00	
02													02												02			0.11	
03	T	0.01	T	0.02	0.07	0.09	0.07	0.59	0.12				03			T	0.03	T		T	0.08	0.03			03			1.14	
04	0.01	0.06	0.12	0.14	0.02	0.11	0.09	0.06	0.02	0.01	0.03	0.03	04	0.03	T	T		T		T	0.08	0.05	0.01		04			0.73	
05												T	05	T	0.01	T				T					05			0.01	
06													06												06			0.00	
07													07												07			0.00	
08													08												08			0.00	
09													09												09			0.00	
10													10			T				T	0.18	0.01			10			0.19	
11						0.11	0.01						11												11			0.12	
12													12												12			0.00	
13										T	T		13		T	T					0.01	0.04			13			0.05	
14												T	14	T	0.02	0.10	0.04	0.10	0.01	0.02				14			0.29		
15													15			T	T							15			0.10		
16													16				0.01				0.01	T	T	16			0.02		
17													17						T					17			T		
18													18											18			0.00		
19													19											19			0.00		
20													20											20			0.00		
21					0.04	T	0.01	T					21								0.05	0.01		21			0.11		
22													22											22			0.00		
23													23											23			0.00		
24													24											24			0.00		
25													25											25			0.00		
26				0.02	0.01	0.01	T						26								0.02	0.06		26			0.12		
27													27											27			0.00		
28													28											28			0.00		
29													29											29			0.00		
30													30											30			0.00		

## MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.16	.26	.33	.41	.47	.54	.61	.70	.72	.74	.84	.87
Ending Date	03	03	03	03	03	03	03	03	03	03	03	03
Ending Time (Hour/Min)	0704	0708	0712	0717	0726	0742	0757	0816	0816	0816	0813	0828

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.

\* = 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

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

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

## WEATHER NOTATIONS

**MILWAUKEE, WI  
JUNE 2002**

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.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							10.00	10.00	
02							8.00	10.00	
03							.13	10.00	
04							.25	10.00	
05							.75	10.00	
06							6.00	10.00	
07							4.00	10.00	
08							7.00	10.00	
09							5.00	10.00	
10							4.00	10.00	
11							2.00	10.00	
12							6.00	10.00	
13							.13	10.00	
14							1.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							8.00	10.00	
20							6.00	10.00	
21							2.00	10.00	
22							4.00	10.00	
23							4.00	10.00	
24							3.00	10.00	
25							1.50	10.00	
26							2.00	10.00	
27							10.00	10.00	
28							8.00	10.00	
29							6.00	10.00	
30							4.00	10.00	
<b>MONTHLY AVGS</b>							5.53	10.00	
<p align="center"><b>SUNSHINE (MINUTES)</b></p> <p>Total:                  Possible:</p> <p align="center">Percent Possible:</p>									
<p align="center"><b>NUMBER OF DAYS WITH:</b></p> <p align="center"><b>SKY CONDITION</b></p> <p align="center">CLR   PTLY CLDY   CLOUDY   MISSING</p> <p align="center">30</p> <p align="center"><b>MINIMUM VISIBILITY (MILES)</b></p> <p align="center">&lt;=0.25       &lt;=3.0       &gt;=7.0</p> <p align="center">1                      7                      11</p>									

## OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

JUNE 2002

MKE

WBAN # 14839

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	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 <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0416 JUN 01						SUNSET: 1923						SUNRISE: 0413 JUN 07						SUNSET: 1927											
03	CLR	NC			10.00	65	50	57	59	5	27	29.03	29.76	03	CLR	NC			8.00		51	48	50	89	0	00	29.35	30.10	
06	CLR	NC			10.00	69	49	58	49	6	28	29.06	29.78	06	BKN	090			4.00	BR	53	50	51	89	8	21	29.36	30.11	
09	CLR	NC			10.00	81	49	62	33	12	28	29.03	29.75	09	SCT	NC			8.00		66	55	60	68	13	20	29.39	30.13	
12	SCT	NC			10.00	87	46	63	24	15	27	28.99	29.71	12	SCT	NC			9.00		71	57	63	61	15	14	29.35	30.10	
15	SCT	NC			10.00	89	48	65	24	14	28	28.93	29.65	15	FEW	NC			10.00		71	55	62	57	13	14	29.31	30.05	
18	BKN	220			10.00	85	55	66	36	13	27	28.92	29.64	18	SCT	NC			10.00		69	48	57	47	9	17	29.29	30.03	
21	SCT	NC			10.00	60	43	51	53	13	01	29.04	29.76	21	BKN	200			10.00		63	48	55	58	0	00	29.33	30.07	
24	BKN	250			10.00	60	41	50	50	0	00	29.09	29.82	24	FEW	NC			10.00		61	49	54	65	7	19	29.31	30.05	
SUNRISE: 0415 JUN 02						SUNSET: 1924						SUNRISE: 0413 JUN 08						SUNSET: 1928											
03	BKN	220			10.00	59	44	51	58	0	00	29.10	29.83	03	BKN	250			10.00		62	54	57	75	6	21	29.28	30.01	
06	OVC	240			10.00	61	46	53	58	0	00	29.16	29.89	06	BKN	250			9.00		64	56	59	75	8	21	29.33	30.07	
09	OVC	180			10.00	58	45	51	62	12	02	29.22	29.96	09	BKN	250			10.00		73	58	64	59	10	23	29.32	30.06	
12	OVC	180			10.00	51	42	47	71	20	02	29.25	29.99	12	SCT	NC			10.00		80	60	67	51	10	25	29.30	30.03	
15	BKN	150			10.00	52	39	46	61	15	03	29.21	29.95	15	SCT	NC			10.00		82	62	69	51	8	22	29.28	30.01	
18	OVC	080			10.00	50	36	44	59	10	01	29.25	30.00	18	BKN	170			9.00		74	58	64	57	8	16	29.29	30.02	
21	OVC	045			8.00	47	41	44	80	5	03	29.25	30.00	21	SCT	NC			9.00		70	56	62	61	3	18	29.31	30.04	
24	OVC	085			10.00	49	43	46	80	18	02	29.22	29.97	24	SCT	NC			7.00		67	55	60	66	3	19	29.32	30.06	
SUNRISE: 0415 JUN 03						SUNSET: 1925						SUNRISE: 0413 JUN 09						SUNSET: 1929											
03	OVC	070			10.00	47	44	46	90	20	01	29.27	30.01	03	CLR	NC			8.00		62	54	57	75	0	00	29.31	30.05	
06	OVC	006			2.00	50	49	49	96	12	04	29.19	29.94	06	FEW	NC			5.00	HZ	67	57	61	71	5	22	29.32	30.06	
09	OVC	003			4.00	53	52	52	96	20	13	29.08	29.82	09	FEW	NC			10.00		79	56	65	45	5	20	29.33	30.07	
12	OVC	040			5.00	54	51	52	90	9	10	29.15	29.90	12	SCT	NC			10.00		80	59	67	49	12	10	29.33	30.07	
15	OVC	002			1.50	49	48	48	97	9	04	29.16	29.91	15	SCT	NC			10.00		79	56	65	45	12	14	29.28	30.00	
18	SCT	NC			5.00	53	51	52	93	8	06	29.14	29.89	18	SCT	NC			8.00		73	54	62	51	9	15	29.24	29.97	
21	OVC	006			3.00	52	51	52	97	6	17	29.20	29.94	21	SCT	NC			10.00		67	52	58	59	3	13	29.24	29.97	
24	OVC	003			1.50	52	52	52	100	6	35	29.12	29.86	24	SCT	NC			10.00		66	52	58	61	3	15	29.23	29.96	
SUNRISE: 0414 JUN 04						SUNSET: 1925						SUNRISE: 0413 JUN 10						SUNSET: 1929											
03	OVC	003			0.75	51	50	51	96	3	07	29.13	29.87	03	SCT	NC			8.00		69	61	64	76	7	20	29.20	29.93	
06	OVC	005			3.00	55	54	54	96	6	20	29.12	29.86	06	FEW	NC			6.00	HZ	71	66	68	84	8	20	29.21	29.93	
09	OVC	090			10.00	64	61	62	90	15	23	29.04	29.78	09	SCT	NC			10.00		82	69	73	65	9	21	29.20	29.92	
12	OVC	180			2.50	56	54	55	93	6	14	29.10	29.84	12	BKN	085			10.00		87	69	75	55	17	21	29.17	29.89	
15	OVC	009			5.00	58	56	57	93	5	01	29.08	29.82	15	BKN	110			10.00	TS	84	68	73	59	17	22	29.11	29.83	
18	OVC	090			2.00	54	52	53	93	5	04	29.08	29.82	18	BKN	150			10.00		83	66	72	57	13	21	29.10	29.83	
21	OVC	003			2.00	50	49	49	96	6	04	29.09	29.83	21	OVC	032			6.00	-RA BR	71	68	69	90	3	18	29.13	29.85	
24	OVC	003			1.50	52	51	52	97	0	00	29.11	29.85	24	OVC	140			10.00		73	68	70	84	12	21	29.07	29.79	
SUNRISE: 0414 JUN 05						SUNSET: 1926						SUNRISE: 0412 JUN 11						SUNSET: 1930											
03	OVC	005			4.00	54	53	53	97	5	31	29.14	29.88	03	SCT	NC			10.00		71	66	68	84	16	22	29.05	29.78	
06	OVC	006			5.00	53	52	52	96	5	12	29.19	29.94	06	OVC	012			4.00	-TSRA BR	71	67	68	87	13	22	29.01	29.73	
09	OVC	015			6.00	56	53	54	90	6	05	29.23	29.97	09	BKN	150			10.00		74	65	68	74	12	19	28.95	29.67	
12	OVC	003			1.50	49	48	48	97	9	07	29.28	30.03	12	BKN	100			7.00		77	62	68	60	17	30	29.03	29.75	
15	OVC	003			1.50	48	47	47	96	6	02	29.29	30.04	15	BKN	200			10.00		78	59	66	52	12	28	29.03	29.75	
18	BKN	200			6.00	52	48	50	86	0	00	29.29	30.03	18	OVC	250			10.00		80	61	68	52	7	26	29.02	29.74	
21	BKN	200			7.00	51	48	50	89	3	31	29.29	30.03	21	BKN	250			10.00		74	64	68	71	0	00	29.05	29.78	
24	BKN	200			6.00	46	45	46	96	0	00	29.32	30.08	24	SCT	NC			10.00		72	64	67	76	0	00	29.05	29.78	
SUNRISE: 0414 JUN 06						SUNSET: 1927						SUNRISE: 0412 JUN 12						SUNSET: 1930											
03	OVC	016			8.00	49	46	47	90	8	02	29.31	30.07	03	OVC	012			10.00		55	50	52	83	8	03	29.09	29.82	
06	SCT	NC			8.00	50	47	48	89	9	02	29.33	30.09	06	OVC	014			10.00		55	50	52	83	5	05	29.14	29.88	
09	SCT	NC			10.00	56	49	52	77	12	05	29.35	30.10	09	OVC	016			10.00		55	51	53	87	9	05	29.17	29.91	
12	FEW	NC			10.00	61	51	56	70	6	07	29.36	30.11	12	OVC	024			10.00		60	53	56	78	5	12	29.21	29.94	
15	FEW	NC			10.00	63	49	55	60	5	09	29.34	30.10	15	BKN	028			10.00		63	55	58	76	10	06	29.20	29.94	
18	FEW	NC			10.00	66	48	56	52	6	13	29.33	30.08	18	OVC	180			10.00		57	53	55	87	9	07	29.20	29.94	
21	FEW	NC			10.00	61	51	56	70	0	00	29.32	30.07	21	OVC	022			10.00		57	52	54	83	0	00	29.22	29.97	
24	SCT	NC			9.00	52	50	51	93	0	00	29.35	30.10	24	OVC	200			10.00		57	53	55	87	5	01	29.21	29.95	

## OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

JUNE 2002

MKE

WBAN # 14839

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	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 <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
			SUNRISE: 0412		JUN 13	SUNSET: 1931										SUNRISE: 0413		JUN 19	SUNSET: 1933										
03	OVC	180		10.00		56	52	54	87	0	00	29.18	29.92	03	SCT	NC		10.00		61	56	58	84	6	15	29.32	30.06		
06	BKN	150		10.00		55	52	53	90	5	01	29.17	29.91	06	BKN	140		10.00		67	56	61	68	8	18	29.37	30.11		
09	BKN	005		10.00		57	53	55	87	6	02	29.16	29.90	09	OVC	150		10.00		76	61	67	60	12	21	29.42	30.16		
12	OVC	085		10.00		57	53	55	87	10	03	29.13	29.87	12	OVC	130		10.00		80	61	68	52	9	19	29.37	30.11		
15	BKN	035		10.00		60	55	57	84	7	02	29.12	29.86	15	OVC	140		8.00		74	62	66	67	9	13	29.39	30.13		
18	SCT	NC		10.00		58	55	56	90	5	06	29.07	29.80	18	BKN	150		9.00		75	60	66	60	13	16	29.35	30.09		
21	VV	001		0.13	FG	55	55	55	100	0	00	29.07	29.81	21	SCT	NC		10.00		74	57	64	56	10	18	29.38	30.11		
24	OVC	003		6.00	BR	57	56	56	96	0	00	29.02	29.76	24	SCT	NC		10.00		74	58	64	57	0	00	29.40	30.13		
			SUNRISE: 0412		JUN 14	SUNSET: 1931										SUNRISE: 0413		JUN 20	SUNSET: 1933										
03	OVC	011		7.00		58	56	57	93	6	VR	28.97	29.71	03	OVC	180		10.00		73	61	66	66	0	00	29.43	30.17		
06	OVC	013		6.00	BR	58	55	56	90	8	29	28.96	29.70	06	BKN	230		7.00		74	64	68	71	6	22	29.46	30.19		
09	BKN	170		10.00		64	53	58	68	10	27	28.94	29.68	09	BKN	250		7.00		83	69	74	63	12	22	29.46	30.19		
12	BKN	075		10.00		66	52	58	61	9	30	28.92	29.66	12	BKN	250		8.00		88	69	75	54	17	23	29.47	30.20		
15	OVC	043		8.00	-RA	55	55	55	100	12	04	28.95	29.69	15	BKN	250		9.00		89	71	76	55	15	24	29.46	30.19		
18	OVC	010		8.00		56	55	55	97	5	32	28.98	29.72	18	BKN	240		8.00		87	72	76	61	7	26	29.47	30.20		
21	OVC	085		10.00		58	56	57	93	7	32	29.00	29.73	21	OVC	220		9.00		82	73	76	74	0	00	29.50	30.23		
24	SCT	NC		10.00		57	54	55	90	7	30	28.98	29.72	24	SCT	NC		7.00		75	71	72	88	0	00	29.52	30.26		
			SUNRISE: 0412		JUN 15	SUNSET: 1932										SUNRISE: 0413		JUN 21	SUNSET: 1934										
03	FEW	NC		10.00		56	53	54	90	8	29	28.96	29.70	03	SCT	NC		4.00	BR	72	69	70	91	0	00	29.53	30.26		
06	CLR	NC		10.00		58	54	56	87	10	29	28.98	29.72	06	OVC	048		2.50	TSRA	71	67	68	87	9	35	29.60	30.34		
09	FEW	NC		10.00		70	52	60	53	8	29	28.98	29.71	09	BKN	250		10.00		70	63	66	79	8	05	29.61	30.35		
12	SCT	NC		10.00		72	51	60	48	13	29	28.96	29.70	12	OVC	250		10.00		74	64	68	71	0	00	29.60	30.33		
15	BKN	050		10.00	-RA	72	54	61	53	14	30	28.95	29.68	15	OVC	250		10.00		74	66	69	76	0	00	29.56	30.30		
18	BKN	065		10.00		60	52	56	75	8	04	29.01	29.75	18	BKN	250		10.00		69	64	66	84	0	00	29.53	30.27		
21	FEW	NC		10.00		58	51	54	78	0	00	29.05	29.79	21	OVC	035		5.00	-TSRA BR	68	66	67	93	0	00	29.53	30.27		
24	FEW	NC		10.00		58	51	54	78	7	29	29.07	29.80	24	BKN	080		5.00	BR	66	64	65	93	0	00	29.51	30.25		
			SUNRISE: 0412		JUN 16	SUNSET: 1932										SUNRISE: 0413		JUN 22	SUNSET: 1934										
03	CLR	NC		10.00		56	47	51	72	7	30	29.05	29.79	03	FEW	NC		5.00	BR	63	62	62	97	0	00	29.51	30.25		
06	CLR	NC		10.00		58	47	52	67	10	33	29.09	29.83	06	CLR	NC		6.00	BR	66	63	64	90	0	00	29.52	30.27		
09	CLR	NC		10.00		68	46	56	45	10	32	29.13	29.86	09	CLR	NC		5.00	HZ	79	70	73	74	10	21	29.51	30.25		
12	FEW	NC		10.00		72	45	57	38	10	32	29.12	29.85	12	SCT	NC		9.00		87	71	76	59	12	24	29.45	30.18		
15	BKN	095		10.00		68	50	58	53	13	05	29.10	29.84	15	FEW	NC		10.00		90	63	72	41	18	24	29.38	30.11		
18	BKN	200		10.00		63	50	56	63	8	11	29.13	29.86	18	CLR	NC		10.00		88	67	74	50	8	24	29.36	30.10		
21	OVC	075		10.00	-RA	62	50	55	65	13	24	29.18	29.92	21	SCT	NC		10.00		80	68	72	67	0	00	29.39	30.12		
24	CLR	NC		10.00		56	52	54	87	3	32	29.13	29.86	24	CLR	NC		10.00		76	62	67	62	6	21	29.35	30.09		
			SUNRISE: 0412		JUN 17	SUNSET: 1933										SUNRISE: 0413		JUN 23	SUNSET: 1934										
03	FEW	NC		10.00		55	51	53	87	6	28	29.12	29.86	03	CLR	NC		10.00		74	61	66	64	3	24	29.36	30.09		
06	SCT	NC		10.00		58	50	54	75	5	27	29.16	29.90	06	CLR	NC		6.00	HZ	74	63	67	69	7	23	29.37	30.10		
09	SCT	NC		10.00		70	50	59	49	6	25	29.17	29.90	09	CLR	NC		6.00	HZ	82	68	73	63	13	23	29.39	30.12		
12	BKN	250		10.00		74	51	61	45	10	25	29.16	29.89	12	FEW	NC		7.00		89	64	72	43	10	24	29.38	30.11		
15	BKN	100		10.00		75	53	62	46	6	26	29.15	29.88	15	CLR	NC		6.00	HZ	90	64	73	42	13	24	29.31	30.04		
18	BKN	075		10.00		61	58	59	90	9	04	29.19	29.93	18	FEW	NC		5.00	HZ	84	66	72	55	8	17	29.31	30.04		
21	BKN	070		10.00		59	53	56	81	0	00	29.22	29.96	21	CLR	NC		4.00	HZ	76	66	69	72	0	00	29.34	30.08		
24	OVC	080		10.00		59	54	56	83	0	00	29.27	30.00	24	FEW	NC		5.00	HZ	74	64	68	71	0	00	29.33	30.06		
			SUNRISE: 0412		JUN 18	SUNSET: 1933										SUNRISE: 0414		JUN 24	SUNSET: 1934										
03	SCT	NC		10.00		56	52	54	87	0	00	29.27	30.00	03	FEW	NC		4.00	HZ	73	65	68	76	0	00	29.33	30.07		
06	BKN	070		10.00		59	56	57	90	0	00	29.31	30.06	06	CLR	NC		4.00	HZ	75	63	67	66	7	24	29.34	30.07		
09	FEW	NC		10.00		63	55	58	76	7	12	29.34	30.09	09	CLR	NC		8.00		84	63	70	49	8	23	29.37	30.10		
12	FEW	NC		10.00		68	58	62	70	10	12	29.33	30.07	12	CLR	NC		10.00		88	63	71	43	12	23	29.36	30.09		
15	SCT	NC		10.00		68	57	62	68	12	11	29.31	30.05	15	CLR	NC		10.00		89	64	72	43	8	27	29.32	30.05		
18	BKN	250		10.00		67	55	60	66	10	12	29.29	30.03	18	FEW	NC		7.00		84	67	73	57	12	17	29.27	30.00		
21	BKN	240		10.00		66	54	59	65	7	15	29.31	30.05	21	CLR	NC		8.00		78	67	71	69	6	20	29.33	30.06		
24	SCT	NC		10.00		66	55	60	68	3	16	29.32	30.06	24	CLR	NC		8.00		75	63	67	66	5	20	29.29	30.02		

## OBSERVATIONS AT 3-HOURLY INTERVALS

MILWAUKEE, WI

JUNE 2002

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)	
				OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
03	CLR	NC				6.00	HZ	75	66	69	74	5	24	29.28	30.00
06	SCT	NC				4.00	HZ	77	67	70	71	8	24	29.31	30.03
09	SCT	NC				7.00		86	70	75	59	9	27	29.31	30.03
12	SCT	NC				9.00		90	66	74	45	12	27	29.26	29.98
15	OVC	230				10.00		90	69	75	50	8	24	29.23	29.95
18	BKN	230				7.00		84	75	78	74	10	21	29.21	29.93
21	OVC	220				10.00		79	73	75	82	13	21	29.22	29.94
24	BKN	250				10.00		76	65	69	69	14	24	29.20	29.92
SUNRISE: 0414 JUN 25 SUNSET: 1934															
03	SCT	NC				9.00		73	67	69	81	12	24	29.15	29.87
06	BKN	150				10.00	-RA	70	64	66	82	0	00	29.20	29.92
09	BKN	110				10.00		75	66	69	74	10	20	29.11	29.83
12	BKN	180				10.00		80	65	70	60	13	28	29.13	29.85
15	BKN	180				10.00		83	65	71	55	16	26	29.07	29.79
18	BKN	200				10.00		83	71	75	67	12	25	29.03	29.75
21	BKN	230				9.00		78	74	75	87	5	28	29.05	29.78
24	BKN	250				10.00		71	64	67	79	7	28	29.08	29.80
SUNRISE: 0414 JUN 26 SUNSET: 1934															
03	BKN	250				10.00		68	63	65	84	7	30	29.09	29.81
06	FEW	NC				10.00		69	63	65	81	6	29	29.08	29.81
09	OVC	038				10.00		71	64	67	79	8	06	29.10	29.83
12	OVC	032				10.00		70	64	66	82	10	05	29.13	29.86
15	SCT	NC				10.00		72	64	67	76	7	07	29.11	29.84
18	SCT	NC				10.00		69	63	65	81	8	07	29.13	29.86
21	SCT	NC				10.00		65	63	64	93	5	17	29.19	29.92
24	OVC	095				10.00		65	62	63	90	3	26	29.19	29.93
SUNRISE: 0415 JUN 27 SUNSET: 1934															
03	CLR	NC				10.00		64	62	63	93	7	26	29.19	29.92
06	CLR	NC				8.00		67	63	64	87	5	27	29.25	29.98
09	CLR	NC				10.00		78	65	70	64	8	30	29.27	29.99
12	SCT	NC				10.00		83	67	72	59	8	13	29.26	29.99
15	SCT	NC				10.00		81	67	72	62	12	13	29.26	29.99
18	SCT	NC				10.00		83	66	72	57	8	23	29.27	29.99
21	CLR	NC				10.00		76	65	69	69	0	00	29.30	30.03
24	CLR	NC				10.00		71	61	65	71	6	20	29.31	30.04
SUNRISE: 0415 JUN 28 SUNSET: 1934															
03	BKN	085				10.00		70	60	64	71	5	23	29.32	30.05
06	CLR	NC				8.00		71	62	65	73	5	24	29.38	30.11
09	CLR	NC				10.00		79	64	69	60	6	21	29.37	30.11
12	FEW	NC				10.00		83	67	72	59	12	11	29.35	30.09
15	CLR	NC				10.00		82	66	71	58	15	14	29.32	30.06
18	CLR	NC				10.00		79	65	70	62	10	18	29.31	30.05
21	CLR	NC				10.00		74	66	69	76	7	18	29.32	30.05
24	CLR	NC				8.00		69	64	66	84	5	14	29.32	30.06
SUNRISE: 0416 JUN 29 SUNSET: 1934															
03	SCT	NC				7.00		72	67	69	84	5	20	29.31	30.04
06	CLR	NC				4.00	HZ	74	69	71	85	7	22	29.33	30.06
09	CLR	NC				8.00		86	75	78	70	9	23	29.34	30.07
12	SCT	NC				10.00		91	75	79	59	8	23	29.32	30.05
15	SCT	NC				9.00		95	74	80	51	16	24	29.29	30.01
18	FEW	NC				10.00		89	75	79	63	9	16	29.27	29.99
21	CLR	NC				9.00		84	76	78	77	7	22	29.29	30.01
24	CLR	NC				9.00		81	73	75	77	8	24	29.31	30.03

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)	
								DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: JUN 31 SUNSET:															

**3-HOURLY OBSERVATION NOTES**

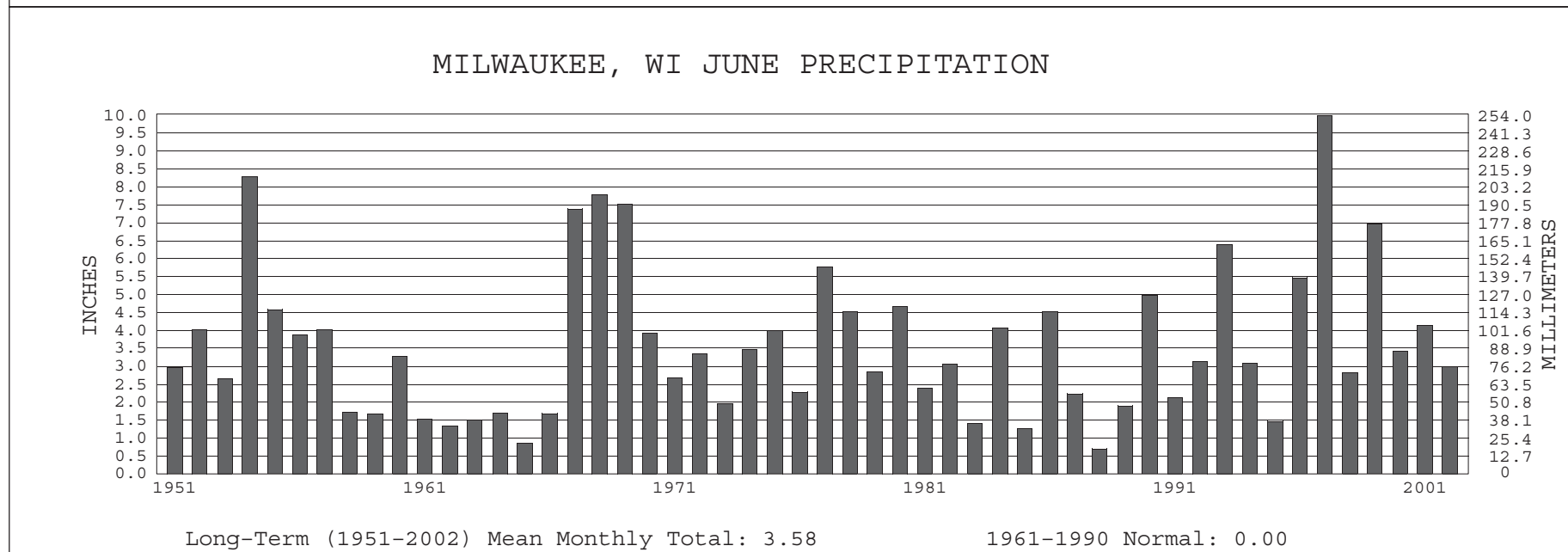
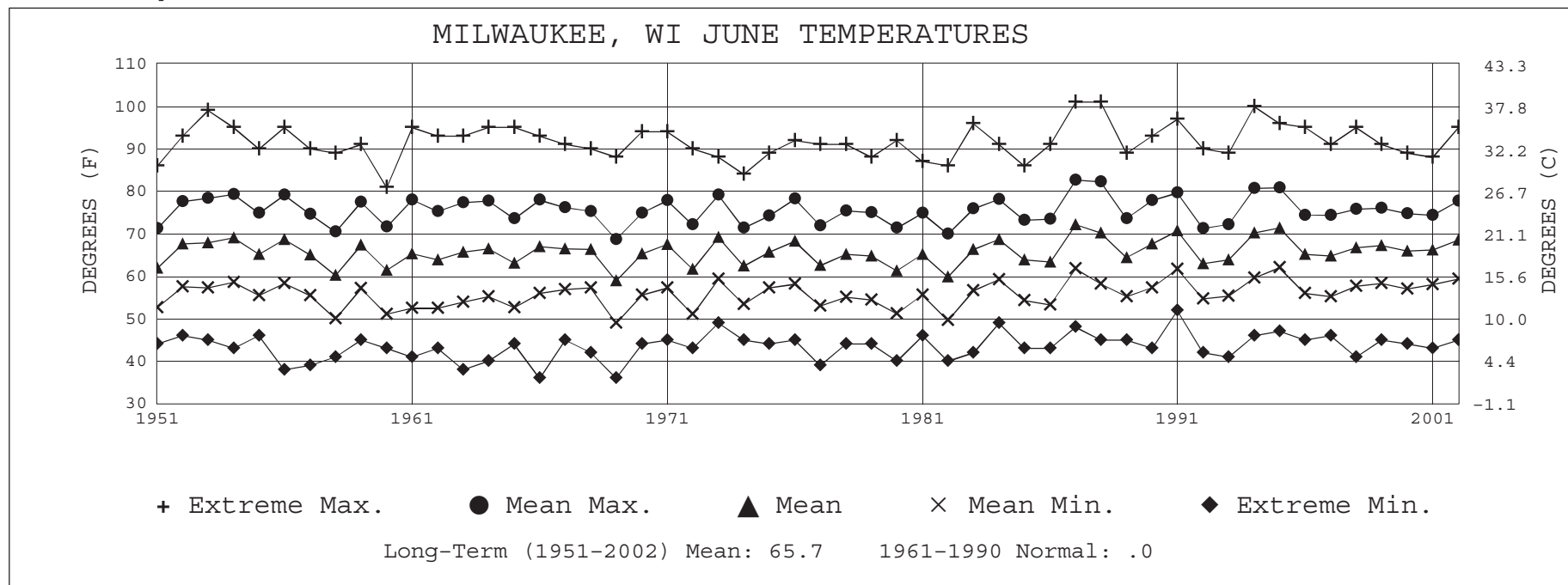
Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibilty = 8/8. Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC= No ceiling detected. & = Original observation contained additional weather elements. See page 3 for additional notes.

HOUR (LST)	AVERAGES										RESULTANT	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	WIND (MPH)	
							STATION	SEA LEVEL			SPEED	DIRECTION
01			63	56	59	78	29.22	29.96	8.12	6	2	25
02			63	56	59	80	29.22	29.95	8.32	5	2	24
03			62	56	59	82	29.22	29.96	8.29	5	2	27
04			62	56	59	82	29.23	29.96	8.10	5	1	26
05			62	57	59	83	29.24	29.97	7.33	5	2	27
06			64	57	60	80	29.24	29.98	7.05	6	3	25
07			66	58	61	76	29.25	29.99	7.70	8	3	25
08			69	59	63	72	29.25	29.99	8.55	8	3	24
09			71	59	64	67	29.24	29.98	8.97	10	4	23
10			73	59	64	64	29.25	29.98	8.80	10	3	25
11			74	59	64	61	29.25	29.98	8.89	10	4	26
12			74	59	64	61	29.24	29.97	8.93	11	2	24
13			75	59	65	61	29.23	29.97	9.05	10	4	22
14			75	59	65	60	29.22	29.95	8.87	12	3	20
15			74	59	64	62	29.22	29.95	8.93	11	2	23
16			74	59	64	62	29.21	29.94	8.67	11	2	19
17			72	59	64	65	29.21	29.94	8.83	10	2	16
18			71	59	64	67	29.21	29.94	8.80	8	3	17
19			69	58	62	71	29.22	29.95	8.77	8	2	14
20			67	58	62	74	29.23	29.96	8.62	5	1	18
21			66	59	62	77	29.24	29.97	8.30	4	2	20
22			65	57	61	77	29.23	29.97	8.19	4	1	21
23			65	57	60	78	29.24	29.97	7.93	5	2	20
24			64	57	60	79	29.23	29.97	8.43	4	2	25

## SUMMARY BY HOUR

HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			63	56	59	78	29.22	29.96	8.12	6	2	25
02			63	56	59	80	29.22	29.95	8.32	5	2	24
03			62	56	59	82	29.22	29.96	8.29	5	2	27
04			62	56	59	82	29.23	29.96	8.10	5	1	26
05			62	57	59	83	29.24	29.97	7.33	5	2	27
06			64	57	60	80	29.24	29.98	7.05	6	3	25
07			66	58	61	76	29.25	29.99	7.70	8	3	25
08			69	59	63	72	29.25	29.99	8.55	8	3	24
09			71	59	64	67	29.24	29.98	8.97	10	4	23
10			73	59	64	64	29.25	29.98	8.80	10	3	25
11			74	59	64	61	29.25	29.98	8.89	10	4	26
12			74	59	64	61	29.24	29.97	8.93	11	2	24
13			75	59	65	61	29.23	29.97	9.05	10	4	22
14			75	59	65	60	29.22	29.95	8.87	12	3	20
15			74	59	64	62	29.22	29.95	8.93	11	2	23
16			74	59	64	62	29.21	29.94	8.67	11	2	19
17			72	59	64	65	29.21	29.94	8.83	10	2	16
18			71	59	64	67	29.21	29.94	8.80	8	3	17
19			69	58	62	71	29.22	29.95	8.77	8	2	14
20			67	58	62	74	29.23	29.96	8.62	5	1	18
21			66	59	62	77	29.24	29.97	8.30	4	2	20
22			65	57	61	77	29.23	29.97	8.19	4	1	21
23			65	57	60	78	29.24	29.97	7.93	5	2	20
24			64	57	60	79	29.23	29.97	8.43	4	2	25







JUNE 2002

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.*

DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication**. When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost is \$29 for online delivery (including back issues) compared to \$34 for offline delivery.** To order this and other subscriptions online with your credit card, go to:  
**[www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)** and choose subscriptions.

We welcome your questions or comments, please contact us at  
Toll Free Number (866) 742–3322 (voice)  
Fax Number : (304) 726–4409  
TDD : 828–271–4010  
or Email : [ncdc.info@noaa.gov](mailto:ncdc.info@noaa.gov)  
Local Climatological Data is available at [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

For address correction, please return a photocopy of this page to Subscription Services indicating changes

NCDC Subscription Services Center  
310 State Route 956 Building 300  
Rocket Center, WV 26726

OFFICIAL BUSINESS. PENALTY FOR PRIVATE USE \$300

FIRST CLASS  
POSTAGE AND FEES PAID  
NOAA  
PERMIT G-19