JUNE 2003
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

GREEN BAY, WI
AUSTIN STRAUBEL FIELD (GRB)
Lat: 44°30' N Long: 88°07' W Elev (Ground): 682 Feet
Time Zone: CENTRAL WBAN: 14898 ISSN #:0198–5698

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	DEG DAYS BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0600 LST DEPTH	1200 LST WATER EQUIV	PRECIPITATION (INCHES) 2400 LST SNOW–FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 5–SEC SPEED	5–SEC DIR	MAXIMUM 2–MIN SPEED	2–MIN DIR	DATE
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	67	36*	52*	-10	42	48	13	0		0		0.0	0.00	29.30	30.06	4.9	22	6.3	15	18	13	18	01
02	71	44	58	-4	49	54	7	0	BR	0		0.0	0.00	29.23	29.99	1.5	14	2.6	14	06	13	06	02
03	70	51	61	-1	49	54	4	0		0		0.0	0.00	29.20	29.95	6.0	05	7.0	18	04	16	05	03
04	70	50	60	-3	45	52	5	0		0		0.0	0.00	29.18	29.93	6.5	05	8.3	20	03	17	05	04
05	77	52	65	2	49	56	0	0		0		0.0	0.00	29.17	29.92	6.2	26	7.2	17	26	14	25	05
06	71	50	61	-2	55	57	4	0	RA BR HZ VCTS	0		0.0	0.64	29.14	29.89	3.7	15	6.1	28	19	22	19	06
07	67	53	60	-3	56	57	5	0	RA BR HZ	0		0.0	0.23	29.04	29.79	4.0	09	5.8	18	08	15	08	07
08	62	52	57	-6	56	56	8	0	RA BR	0		0.0	0.40	28.90	29.65	3.1	04	6.9	15	01	14	02	08
09	70	52	61	-2	56	58	4	0	BR	0		0.0	0.00	29.06	29.81	6.3	26	8.7	18	28	15	30	09
10	60	54	57	-7	56	57	8	0	RA BR	0		0.0	1.47	28.97	29.72	2.7	11	7.6	20	02	15	02	10
11	66	54	60	-5	55	57	5	0		0		0.0	0.00	29.13	29.89	8.6	04	9.4	22	05	18	05	11
12	72	54	63	-2	57	59	2	0		0		0.0	0.00	29.11	29.86	6.5	08	7.7	18	09	15	09	12
13	79	53	66	1	62	64	0	1	BR HZ	0		0.0	0.00	29.10	29.84	0.9	16	4.0	16	04	14	03	13
14	75	58	67	2	61	63	0	2	BR	0		0.0	0.00	29.29	30.03	7.0	05	7.8	20	07	17	05	14
15	73	52	63	-2	58	60	2	0		0		0.0	0.00	29.41	30.16	6.6	03	7.0	16	05	14	05	15
16	77	50	64	-2	53	58	1	0		0		0.0	0.00	29.41	30.17	3.2	09	4.4	15	06	13	05	16
17	81	47	64	-2	52	59	1	0		0		0.0	0.00	29.27	30.02	2.8	18	3.9	12	16	10	16	17
18	81	56	69	3	61	64	0	4	TSRA RA BR	0		0.0	0.12	29.15	29.89	8.0	04	9.7	31	01	28	01	18
19	68	47	58	-8	46	52	7	0		0		0.0	0.00	29.38	30.14	8.8	04	9.7	23	07	18	04	19
20	76	42	59	-8	49	55	6	0		0		0.0	0.00	29.40	30.16	1.3	21	2.9	12	20	9	21	20
21	80	48	64	-3	53	58	1	0	BR	0		0.0	0.00	29.29	30.04	3.8	18	5.3	16	16	14	16	21
22	83	52	68	1	57	62	0	3	BR	0		0.0	0.00	29.20	29.94	7.2	20	7.5	20	20	15	21	22
23	87	56	72	5	63	67	0	7	BR HZ	0		0.0	0.00	29.16	29.90	7.2	19	7.8	23	21	18	19	23
24	88*	65	77	10	71	73	0	12	TSRA BR HZ	0		0.0	0.07	29.18	29.92	6.3	19	7.1	40*	24	30*	25	24
25	87	71	79*	11	71	74	0	14	RA BR HZ	0		0.0	T	29.11	29.84	9.1	21	9.6	30	21	24	19	25
26	72	58	65	-3	55	59	0	0		0		0.0	0.00	29.03	29.77	13.7	26	14.7	32	27	28	28	26
27	73	54	64	-4	52	57	1	0	RA	0		0.0	T	29.11	29.86	6.7	27	10.9	25	27	21	05	27
28	58	53	56	-12	53	54	9	0	RA FG+ BR	0		0.0	0.78	29.17	29.93	6.1	08	6.7	17	07	15	07	28
29	75	55	65	-4	58	60	0	0	RA BR	0		0.0	T	29.26	30.01	7.1	28	7.7	18	29	15	25	29
30	81	54	68	-1	61	64	0	3		0		0.0	0.00	29.37	30.12	3.4	22	4.2	13	22	10	22	30
	73.9	52.4	63.2		55.4	58.9	3.1	1.5	< MONTHLY AVERAGES TOTALS–>			0.0	3.71	29.19	29.94	0.3	12	7.2					<– MONTHLY AVERAGES
	-2.9	-1.6	-2.2		<–––––––––––DEPARTURE FROM NORMAL–––––––––––>								0.28	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	93	8	8073	110
COOLING:	46	-49	46	-76

GREATEST 24–HR PRECIPITATION: 1.47 DATE :10
GREATEST 24–HR SNOWFALL: 0.0 DATE :
GREATEST SNOW DEPTH: 0 DATE :

SEA LEVEL PRESSURE DATE TIME
MAXIMUM : 30.25 20 0653
MINIMUM : 29.59 08 1353

NUMBER OF DAYS WITH →
MAXIMUM TEMP ≥ 90: 0
MAXIMUM TEMP ≤ 32 : 0
THUNDERSTORMS : 2
MINIMUM TEMP ≤ 32 : 0
MINIMUM TEMP ≤ 0 : 0
HEAVY FOG : 1
PRECIPITATION ≥ 0.01 INCH : 7
PRECIPITATION ≥ 0.10 INCH : 6
SNOWFALL ≥ 1.0 INCH : 0

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

GREEN BAY, WI

JUNE 2003 GRB WBAN # 14898

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		0.00
03													03													03		0.00
04													04													04		0.00
05													05													05		0.00
06													06	T	T	0.03	T	0.01	T	0.01	0.07	0.04	0.18	0.10	0.20	06		0.64
07	0.11	0.10	0.02	T									07													07		0.23
08				0.07	0.09	0.12	0.07	T					08	T	0.04	T						0.01				08		0.40
09													09													09		0.00
10					0.07	0.22	0.49	0.04	0.32	0.03	0.12	0.15	10	T	T	0.02	0.01	T								10		1.47
11													11													11		0.00
12													12													12		0.00
13													13													13		0.00
14													14													14		0.00
15													15													15		0.00
16													16													16		0.00
17													17													17		0.00
18			T										18			0.01	T	0.01	0.10	T						18		0.12
19													19													19		0.00
20													20													20		0.00
21													21													21		0.00
22													22													22		0.00
23													23													23		0.00
24							0.05	0.02	T				24													24		0.07
25													25						T	T	T					25		T
26													26													26		0.00
27													27		T	T										27		T
28			T	T	T		0.01	T	0.12	0.23	0.17	0.16	28	0.07	0.02	T	T									28		0.78
29			T	T									29													29		T
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)	.08	.12	.16	.21	.26	.38	.49	.58	.62	.71	.78	.90
Ending Date	10	10	10	10	10	10	10	10	10	10	10	10
Ending Time (Hour/Min)	0835	0839	0652	0653	0653	0652	0652	0653	0653	0653	0659	0839

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 occurence 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		
DESCRIPTOR	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

GREEN BAY, WI
JUNE 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
			SR−SS		MN−MN				
	TOTAL MINUTES	PERCENT POSSIBLE	CEILOMETER	SATELLITE	CEILOMETER	SATELLITE	MINIMUM	MAXIMUM	
01	855	93					7.00	10.00	
02	829	90					6.00	10.00	
03	824	89					7.00	10.00	
04	834	90					10.00	10.00	
05	842	91					8.00	10.00	
06	65	7					1.25	9.00	
07	645	70					1.50	8.00	
08	468	50					1.00	10.00	
09	845	91					6.00	10.00	
10	529	57					.75	10.00	
11	764	82					10.00	10.00	
12	873	94					10.00	10.00	
13	864	93					4.00	10.00	
14	857	92					2.00	10.00	
15	739	79					10.00	10.00	
16	783	84					10.00	10.00	
17	773	83					8.00	10.00	
18	582	62					2.50	10.00	
19	933	100					10.00	10.00	
20	930	100					10.00	10.00	
21	933	100					6.00	10.00	
22	931	100					5.00	10.00	
23	780	84					6.00	10.00	
24							2.00	10.00	
25	666	71					4.00	10.00	
26	616	66					10.00	10.00	
27	748	80					9.00	10.00	
28	119	13					.25	10.00	
29	667	72					1.25	10.00	
30	854	92					7.00	10.00	
MONTHLY AVGS							5.95	9.87	

SUNSHINE (MINUTES)

Total: Possible:
Percent Possible:

NUMBER OF DAYS WITH:

SKY CONDITION

CLR	PTLY CLDY	CLOUDY	MISSING
			30

MINIMUM VISIBILITY (MILES)

<=0.25	<=3.0	>=7.0
1	8	14

OBSERVATIONS AT 3–HOURLY INTERVALS

GREEN BAY, WI

JUNE 2003 GRB WBAN # 14898

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0411	**JUN 01**			**SUNSET: 1929**					
03	CLR	NC			10.00		37	37	37	100	3	26	29.32	30.09
06	CLR	NC			10.00		42	41	42	96	5	26	29.34	30.11
09	CLR	NC			10.00		55	40	48	57	6	VR	29.33	30.10
12	CLR	NC			10.00		62	42	52	48	8	20	29.31	30.07
15	CLR	NC			10.00		67	44	55	44	9	27	29.28	30.04
18	CLR	NC			10.00		64	45	54	50	10	19	29.26	30.01
21	CLR	NC			10.00		54	44	49	69	8	19	29.26	30.02
24	CLR	NC			10.00		48	45	47	89	3	22	29.25	30.01
					SUNRISE: 0411	**JUN 02**			**SUNSET: 1930**					
03	CLR	NC			9.00		49	45	47	86	3	23	29.24	29.99
06	CLR	NC			6.00	BR	49	48	48	97	0	00	29.27	30.02
09	CLR	NC			9.00		60	51	55	72	0	00	29.27	30.02
12	CLR	NC			10.00		68	52	59	57	3	VR	29.25	30.00
15	SCT	NC			9.00		70	49	58	47	5	14	29.21	29.96
18	CLR	NC			10.00		66	51	58	59	8	14	29.20	29.95
21	CLR	NC			10.00		60	49	54	67	0	00	29.21	29.96
24	CLR	NC			10.00		55	53	54	93	0	00	29.20	29.95
					SUNRISE: 0410	**JUN 03**			**SUNSET: 1931**					
03	CLR	NC			7.00		54	54	54	100	3	17	29.19	29.94
06	FEW	NC			9.00		52	47	49	83	6	05	29.21	29.96
09	CLR	NC			10.00		60	48	54	65	9	07	29.22	29.97
12	CLR	NC			10.00		66	50	57	56	7	07	29.20	29.95
15	CLR	NC			10.00		69	48	57	47	16	05	29.17	29.92
18	CLR	NC			10.00		65	45	54	49	8	03	29.18	29.93
21	CLR	NC			10.00		54	48	51	80	0	00	29.20	29.95
24	CLR	NC			10.00		52	49	50	89	8	01	29.19	29.95
					SUNRISE: 0410	**JUN 04**			**SUNSET: 1932**					
03	CLR	NC			10.00		51	47	49	86	9	05	29.19	29.94
06	CLR	NC			10.00		54	50	52	87	8	03	29.20	29.96
09	CLR	NC			10.00		60	50	55	70	8	03	29.21	29.96
12	CLR	NC			10.00		68	44	55	42	12	04	29.18	29.93
15	CLR	NC			10.00		68	40	54	36	13	04	29.15	29.90
18	CLR	NC			10.00		65	44	54	47	0	00	29.16	29.91
21	SCT	NC			10.00		58	40	49	51	6	11	29.19	29.94
24	OVC	110			10.00		56	44	50	65	7	24	29.17	29.92
					SUNRISE: 0409	**JUN 05**			**SUNSET: 1932**					
03	BKN	075			10.00		55	47	51	74	8	19	29.17	29.92
06	CLR	NC			10.00		57	47	52	69	12	26	29.18	29.93
09	CLR	NC			10.00		64	49	56	58	12	28	29.18	29.93
12	CLR	NC			10.00		72	51	60	48	8	30	29.19	29.94
15	CLR	NC			10.00		75	49	60	40	7	25	29.16	29.91
18	CLR	NC			10.00		75	49	60	40	7	23	29.14	29.89
21	CLR	NC			10.00		60	51	55	72	0	00	29.16	29.91
24	CLR	NC			8.00		52	50	51	93	0	00	29.18	29.93
					SUNRISE: 0409	**JUN 06**			**SUNSET: 1933**					
03	CLR	NC			8.00		51	50	51	96	0	00	29.16	29.91
06	CLR	NC			6.00	HZ	56	51	53	84	5	VR	29.17	29.92
09	CLR	NC			5.00	HZ	65	57	60	76	3	16	29.15	29.90
12	BKN	075			7.00		68	56	61	66	13	21	29.15	29.90
15	FEW	NC			4.00	BR	64	61	62	90	7	20	29.14	29.89
18	OVC	075			7.00		59	56	57	90	6	10	29.11	29.86
21	OVC	037			4.00	-RA BR	56	56	56	100	6	10	29.11	29.86
24	OVC	007			1.25	RA BR	54	54	54	100	12	09	29.07	29.82

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0409	**JUN 07**			**SUNSET: 1934**					
03	OVC	005			3.00	BR	53	53	53	100	8	10	29.04	29.79
06	OVC	005			2.00	BR	54	54	54	100	7	13	29.05	29.81
09	BKN	014			3.00	BR	60	57	58	90	5	35	29.04	29.79
12	BKN	055			7.00		64	56	59	75	5	35	29.03	29.78
15	OVC	050			7.00		63	57	59	81	7	07	29.03	29.78
18	OVC	075			3.00	BR	61	59	60	93	5	12	29.03	29.78
21	OVC	100			3.00	BR	58	57	57	97	3	08	29.03	29.78
24	OVC	100			2.50	BR	54	54	54	100	5	11	29.00	29.75
					SUNRISE: 0408	**JUN 08**			**SUNSET: 1934**					
03	BKN	110			3.00	BR	53	53	53	100	8	06	28.93	29.68
06	OVC	004			1.50	RA BR	52	52	52	100	9	09	28.92	29.67
09	OVC	004			6.00	BR	55	55	55	100	7	09	28.90	29.65
12	OVC	010			6.00	BR	59	57	58	93	5	12	28.86	29.61
15	BKN	035			6.00	BR	61	59	60	93	8	36	28.84	29.59
18	OVC	031			9.00		60	58	59	93	8	36	28.87	29.62
21	OVC	050			5.00	-RA BR	57	57	57	100	7	32	28.91	29.67
24	BKN	065			10.00		55	55	55	100	7	30	28.91	29.67
					SUNRISE: 0408	**JUN 09**			**SUNSET: 1935**					
03	BKN	075			10.00		53	53	53	100	7	30	28.94	29.69
06	CLR	NC			9.00		55	54	54	96	10	29	29.01	29.76
09	SCT	NC			10.00		62	57	59	84	13	29	29.07	29.82
12	OVC	046			10.00		65	57	60	76	8	28	29.09	29.84
15	FEW	NC			10.00		69	58	62	68	9	26	29.10	29.85
18	SCT	NC			10.00		67	56	60	68	6	23	29.10	29.85
21	CLR	NC			10.00		58	56	57	93	6	16	29.11	29.86
24	FEW	NC			6.00	BR	55	55	55	100	6	18	29.11	29.86
					SUNRISE: 0408	**JUN 10**			**SUNSET: 1936**					
03	CLR	NC			7.00		56	54	55	93	5	16	29.05	29.80
06	OVC	014			1.25	+RA BR	55	55	55	100	6	13	29.04	29.79
09	OVC	007			1.50	RA BR	56	56	56	100	12	12	28.98	29.73
12	OVC	032			1.75	-RA BR	56	56	56	100	10	13	28.88	29.64
15	OVC	009			1.75	BR	58	58	58	100	6	17	28.86	29.62
18	OVC	005			2.50	BR	59	59	59	100	7	34	28.90	29.65
21	OVC	012			10.00		57	57	57	100	6	35	28.97	29.73
24	OVC	012			10.00		56	56	56	100	8	01	29.02	29.77
					SUNRISE: 0408	**JUN 11**			**SUNSET: 1936**					
03	OVC	021			10.00		55	55	55	100	6	36	29.07	29.83
06	OVC	012			10.00		54	54	54	100	9	01	29.13	29.88
09	OVC	015			10.00		57	54	55	90	16	04	29.15	29.91
12	BKN	019			10.00		62	57	59	84	12	07	29.17	29.93
15	CLR	NC			10.00		65	58	61	78	10	04	29.15	29.91
18	CLR	NC			10.00		62	57	59	84	10	06	29.15	29.90
21	CLR	NC			10.00		57	54	55	90	5	07	29.17	29.92
24	BKN	050			10.00		57	53	55	87	7	09	29.14	29.90
					SUNRISE: 0407	**JUN 12**			**SUNSET: 1937**					
03	CLR	NC			10.00		54	52	53	93	6	08	29.13	29.88
06	CLR	NC			10.00		57	54	55	90	9	07	29.15	29.90
09	FEW	NC			10.00		65	58	61	78	10	10	29.13	29.88
12	FEW	NC			10.00		68	59	63	73	7	11	29.12	29.87
15	CLR	NC			10.00		72	62	66	71	7	VR	29.08	29.83
18	CLR	NC			10.00		68	59	63	73	9	05	29.08	29.82
21	CLR	NC			10.00		60	58	59	93	6	01	29.09	29.84
24	OVC	041			10.00		58	58	58	100	0	00	29.08	29.83

OBSERVATIONS AT 3–HOURLY INTERVALS

GREEN BAY, WI

JUNE 2003 GRB WBAN # 14898

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
SUNRISE: 0407 JUN 13 SUNSET: 1937														
03	CLR	NC			5.00	BR	54	54	54	100	0	00	29.07	29.82
06	OVC	060			6.00	BR	58	58	58	100	0	00	29.10	29.85
09	CLR	NC			6.00	HZ	71	64	67	79	0	00	29.10	29.85
12	FEW	NC			10.00		76	65	69	69	5	VR	29.09	29.84
15	FEW	NC			10.00		76	62	67	62	3	VR	29.07	29.82
18	CLR	NC			8.00		73	67	69	81	8	16	29.08	29.82
21	CLR	NC			9.00		66	62	64	87	6	20	29.10	29.85
24	CLR	NC			7.00		64	61	62	90	6	13	29.16	29.91
SUNRISE: 0407 JUN 14 SUNSET: 1938														
03	CLR	NC			6.00	BR	60	60	60	100	6	36	29.20	29.94
06	BKN	004			2.50	BR	62	62	62	100	0	00	29.24	29.98
09	FEW	NC			10.00		69	64	66	84	10	05	29.29	30.04
12	CLR	NC			10.00		73	65	68	76	15	05	29.32	30.06
15	CLR	NC			10.00		75	62	67	64	13	05	29.31	30.05
18	CLR	NC			10.00		73	61	66	66	9	04	29.30	30.04
21	CLR	NC			10.00		64	58	60	81	5	08	29.33	30.09
24	CLR	NC			10.00		58	58	58	100	6	36	29.38	30.14
SUNRISE: 0407 JUN 15 SUNSET: 1938														
03	CLR	NC			10.00		54	54	54	100	7	36	29.39	30.14
06	CLR	NC			10.00		57	55	56	93	6	35	29.40	30.16
09	CLR	NC			10.00		67	60	63	79	6	02	29.42	30.18
12	CLR	NC			10.00		69	60	64	73	8	05	29.42	30.18
15	CLR	NC			10.00		72	62	66	71	10	04	29.40	30.16
18	CLR	NC			10.00		69	59	63	70	13	04	29.39	30.15
21	CLR	NC			10.00		59	57	58	93	6	02	29.40	30.16
24	CLR	NC			10.00		56	56	56	100	0	00	29.40	30.16
SUNRISE: 0407 JUN 16 SUNSET: 1939														
03	CLR	NC			10.00		52	52	52	100	5	05	29.41	30.17
06	CLR	NC			10.00		57	55	56	93	3	01	29.44	30.20
09	CLR	NC			10.00		69	49	58	49	0	00	29.44	30.20
12	CLR	NC			10.00		75	57	64	54	7	08	29.43	30.19
15	CLR	NC			10.00		77	59	66	54	12	08	29.40	30.15
18	CLR	NC			10.00		72	53	61	52	7	12	29.38	30.14
21	CLR	NC			10.00		60	57	58	90	0	00	29.38	30.14
24	CLR	NC			10.00		54	50	52	87	0	00	29.38	30.13
SUNRISE: 0407 JUN 17 SUNSET: 1939														
03	CLR	NC			10.00		49	48	48	97	0	00	29.36	30.12
06	CLR	NC			10.00		55	49	52	80	0	00	29.36	30.12
09	CLR	NC			10.00		71	53	61	53	0	00	29.33	30.09
12	CLR	NC			10.00		78	49	61	36	3	VR	29.30	30.05
15	CLR	NC			10.00		80	51	63	37	3	VR	29.24	29.99
18	CLR	NC			10.00		79	48	61	34	7	18	29.18	29.93
21	CLR	NC			9.00		68	59	63	73	8	17	29.17	29.91
24	OVC	070			10.00		65	56	60	73	7	18	29.15	29.89
SUNRISE: 0407 JUN 18 SUNSET: 1940														
03	BKN	100			7.00		62	60	61	93	3	08	29.11	29.86
06	CLR	NC			6.00	BR	65	62	63	90	3	28	29.12	29.86
09	CLR	NC			10.00		77	66	70	69	9	01	29.12	29.86
12	CLR	NC			10.00		78	68	71	71	8	06	29.12	29.86
15	BKN	055			7.00	-RA	73	67	69	81	16	02	29.11	29.85
18	FEW	NC			10.00	TSRA	65	61	63	87	16	06	29.14	29.89
21	CLR	NC			10.00		64	50	56	61	16	05	29.22	29.97
24	CLR	NC			10.00		56	50	53	81	10	01	29.27	30.02

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
SUNRISE: 0407 JUN 19 SUNSET: 1940														
03	CLR	NC			10.00		52	46	49	80	9	36	29.31	30.06
06	CLR	NC			10.00		53	47	50	80	12	02	29.36	30.12
09	CLR	NC			10.00		61	50	55	67	14	05	29.42	30.18
12	CLR	NC			10.00		64	47	55	54	8	05	29.42	30.18
15	CLR	NC			10.00		67	47	56	49	10	07	29.39	30.15
18	CLR	NC			10.00		66	42	54	42	12	04	29.36	30.12
21	CLR	NC			10.00		54	40	47	59	5	09	29.39	30.15
24	CLR	NC			10.00		47	46	46	97	3	31	29.41	30.18
SUNRISE: 0408 JUN 20 SUNSET: 1940														
03	CLR	NC			10.00		44	43	44	96	3	28	29.45	30.21
06	CLR	NC			10.00		51	47	49	86	0	00	29.48	30.24
09	CLR	NC			10.00		64	50	56	61	0	00	29.48	30.24
12	CLR	NC			10.00		71	50	59	47	3	VR	29.42	30.19
15	CLR	NC			10.00		75	50	61	42	0	00	29.37	30.13
18	CLR	NC			10.00		74	50	60	43	3	26	29.33	30.09
21	CLR	NC			10.00		61	54	57	78	5	15	29.33	30.09
24	CLR	NC			10.00		55	51	53	87	5	19	29.32	30.08
SUNRISE: 0408 JUN 21 SUNSET: 1940														
03	CLR	NC			9.00		50	50	50	100	3	27	29.32	30.07
06	CLR	NC			9.00		54	52	53	93	3	17	29.34	30.10
09	CLR	NC			10.00		71	54	61	55	8	21	29.34	30.10
12	CLR	NC			10.00		76	53	62	45	5	VR	29.31	30.06
15	CLR	NC			10.00		79	49	62	35	6	VR	29.27	30.02
18	CLR	NC			10.00		75	57	64	54	10	15	29.22	29.96
21	CLR	NC			10.00		63	55	58	76	5	18	29.24	29.99
24	CLR	NC			10.00		59	51	55	75	7	18	29.22	29.96
SUNRISE: 0408 JUN 22 SUNSET: 1941														
03	CLR	NC			8.00		55	52	53	90	0	00	29.24	29.98
06	CLR	NC			5.00	BR	61	57	59	87	5	18	29.24	29.98
09	CLR	NC			10.00		76	61	67	60	6	24	29.24	29.98
12	CLR	NC			10.00		80	58	66	47	14	21	29.23	29.97
15	CLR	NC			10.00		83	53	65	36	13	19	29.18	29.92
18	CLR	NC			10.00		82	59	68	46	10	18	29.12	29.86
21	CLR	NC			10.00		67	57	61	71	5	18	29.16	29.90
24	CLR	NC			8.00		59	55	57	87	6	18	29.17	29.91
SUNRISE: 0408 JUN 23 SUNSET: 1941														
03	CLR	NC			6.00	BR	57	55	56	93	5	18	29.16	29.90
06	CLR	NC			6.00	HZ	64	58	60	81	7	17	29.17	29.91
09	CLR	NC			10.00		78	63	68	60	10	19	29.18	29.93
12	CLR	NC			10.00		82	67	72	60	6	21	29.18	29.92
15	CLR	NC			10.00		86	68	74	55	15	20	29.12	29.86
18	CLR	NC			10.00		82	68	73	63	7	20	29.13	29.87
21	SCT	NC			10.00		74	64	68	71	5	15	29.18	29.92
24	CLR	NC			8.00		68	63	65	84	5	15	29.16	29.90
SUNRISE: 0409 JUN 24 SUNSET: 1941														
03	CLR	NC			7.00		67	62	64	84	7	18	29.17	29.90
06	BKN	080			6.00	HZ	70	63	66	79	7	17	29.20	29.94
09	CLR	NC			9.00		71	68	69	90	5	VR	29.14	29.88
12	CLR	NC			10.00		81	72	75	74	15	21	29.22	29.96
15	FEW	NC			6.00	HZ	86	77	79	75	9	20	29.18	29.91
18	FEW	NC			6.00	HZ	86	76	79	72	7	21	29.17	29.90
21	CLR	NC			4.00	BR	77	75	76	94	5	15	29.17	29.91
24	CLR	NC			5.00	BR	77	74	75	90	8	19	29.17	29.91

OBSERVATIONS AT 3–HOURLY INTERVALS

GREEN BAY, WI

JUNE 2003 GRB WBAN # 14898

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0409	**JUN 25**			**SUNSET: 1941**					
03	CLR	NC			6.00	HZ	78	72	74	82	10	20	29.15	29.88
06	CLR	NC			5.00	HZ	78	71	73	79	8	20	29.18	29.92
09	CLR	NC			5.00	HZ	80	71	74	74	12	21	29.17	29.91
12	CLR	NC			5.00	HZ	86	75	78	70	12	22	29.14	29.87
15	CLR	NC			5.00	HZ	84	75	78	74	15	19	29.06	29.79
18	CLR	NC			10.00		77	69	72	77	8	23	29.03	29.76
21	CLR	NC			10.00		72	68	69	87	8	21	29.05	29.79
24	BKN	075			10.00		72	66	68	82	8	22	28.99	29.73
					SUNRISE: 0409	**JUN 26**			**SUNSET: 1941**					
03	OVC	023			10.00		71	66	68	84	12	21	28.97	29.70
06	OVC	019			10.00		63	58	60	84	15	27	29.03	29.77
09	BKN	031			10.00		64	54	58	70	15	28	29.03	29.78
12	BKN	050			10.00		70	50	59	49	20	27	29.02	29.76
15	OVC	070			10.00		68	51	58	55	17	26	29.02	29.76
18	OVC	065			10.00		64	50	56	61	17	27	29.05	29.80
21	CLR	NC			10.00		60	50	55	70	9	22	29.08	29.83
24	SCT	NC			10.00		59	51	55	75	10	24	29.07	29.82
					SUNRISE: 0410	**JUN 27**			**SUNSET: 1941**					
03	BKN	085			10.00		57	50	53	78	7	24	29.06	29.81
06	OVC	085			10.00		58	51	54	78	9	25	29.10	29.85
09	BKN	100			10.00		65	53	58	66	17	26	29.10	29.85
12	BKN	048			10.00		71	54	61	55	14	25	29.10	29.85
15	BKN	090			10.00		73	59	64	62	12	29	29.10	29.85
18	CLR	NC			10.00		71	52	60	51	9	29	29.10	29.85
21	CLR	NC			10.00		57	47	52	69	10	09	29.17	29.92
24	CLR	NC			10.00		54	46	50	75	7	08	29.21	29.96
					SUNRISE: 0410	**JUN 28**			**SUNSET: 1941**					
03	OVC	100			10.00	-RA	53	48	50	83	9	09	29.19	29.94
06	OVC	080			10.00		53	47	50	80	13	07	29.18	29.93
09	OVC	025			2.00	RA BR	53	52	52	96	9	04	29.19	29.95
12	OVC	006			4.00	RA BR	54	54	54	100	6	07	29.17	29.93
15	OVC	006			7.00	-RA	57	57	57	100	7	09	29.15	29.91
18	OVC	006			5.00	BR	58	58	58	100	5	08	29.15	29.91
21	OVC	002			2.00	BR	56	56	56	100	0	00	29.18	29.93
24	VV	001			0.25	FG	56	56	56	100	3	21	29.15	29.90
					SUNRISE: 0411	**JUN 29**			**SUNSET: 1941**					
03	OVC	003			4.00	-RA BR	56	56	56	100	6	28	29.17	29.92
06	OVC	005			4.00	BR	56	56	56	100	6	24	29.21	29.96
09	OVC	009			6.00	BR	59	57	58	93	8	29	29.25	30.01
12	SCT	NC			10.00		70	62	65	76	8	29	29.27	30.02
15	FEW	NC			10.00		74	59	65	60	13	29	29.28	30.02
18	BKN	090			10.00		73	60	65	64	8	25	29.29	30.03
21	CLR	NC			10.00		64	58	60	81	7	26	29.32	30.09
24	CLR	NC			10.00		59	58	58	96	0	00	29.34	30.10
					SUNRISE: 0411	**JUN 30**			**SUNSET: 1941**					
03	CLR	NC			10.00		56	56	56	100	5	23	29.35	30.11
06	CLR	NC			10.00		60	59	59	96	0	00	29.38	30.14
09	CLR	NC			10.00		73	63	67	71	0	00	29.39	30.15
12	BKN	065			10.00		79	64	69	60	6	VR	29.39	30.14
15	SCT	NC			10.00		80	63	69	56	7	22	29.36	30.11
18	CLR	NC			10.00		78	63	68	60	8	19	29.33	30.08
21	CLR	NC			10.00		68	63	65	84	5	20	29.35	30.10
24	CLR	NC			10.00		62	60	61	93	3	21	29.35	30.11

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): 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.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES: CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL	VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH): SPEED	RESULTANT WIND (MPH): DIRECTION
01			56	53	55	91	29.19	29.93	8.45	5	0	0
02			55	53	54	92	29.18	29.93	8.28	5	1	29
03			55	53	54	93	29.18	29.93	8.17	5	0	0
04			54	52	53	92	29.19	29.94	8.08	5	1	25
05			54	52	53	93	29.20	29.95	7.08	6	1	28
06			57	54	55	89	29.21	29.96	7.47	6	0	0
07			60	55	57	84	29.21	29.96	7.85	7	1	26
08			63	56	59	78	29.21	29.96	8.55	7	1	34
09			65	56	60	74	29.21	29.96	8.42	7	1	36
10			67	56	61	69	29.21	29.96	8.92	8	1	6
11			69	57	62	66	29.20	29.96	8.97	9	0	0
12			70	57	62	64	29.20	29.95	9.03	8	1	19
13			71	57	63	62	29.19	29.94	9.12	9	1	13
14			72	57	63	62	29.18	29.93	9.05	9	1	20
15			72	57	63	62	29.17	29.92	8.76	9	0	0
16			72	57	63	63	29.17	29.92	9.02	9	1	17
17			71	56	62	63	29.16	29.91	9.03	10	2	10
18			70	56	62	66	29.16	29.91	9.02	8	1	13
19			67	57	61	71	29.17	29.92	9.00	7	1	13
20			64	56	59	78	29.17	29.92	8.92	6	2	11
21			61	55	58	81	29.19	29.94	8.87	5	2	13
22			60	55	57	85	29.19	29.94	8.74	5	1	14
23			59	55	56	87	29.19	29.94	8.75	5	1	13
24			58	54	56	90	29.19	29.94	8.53	5	1	17

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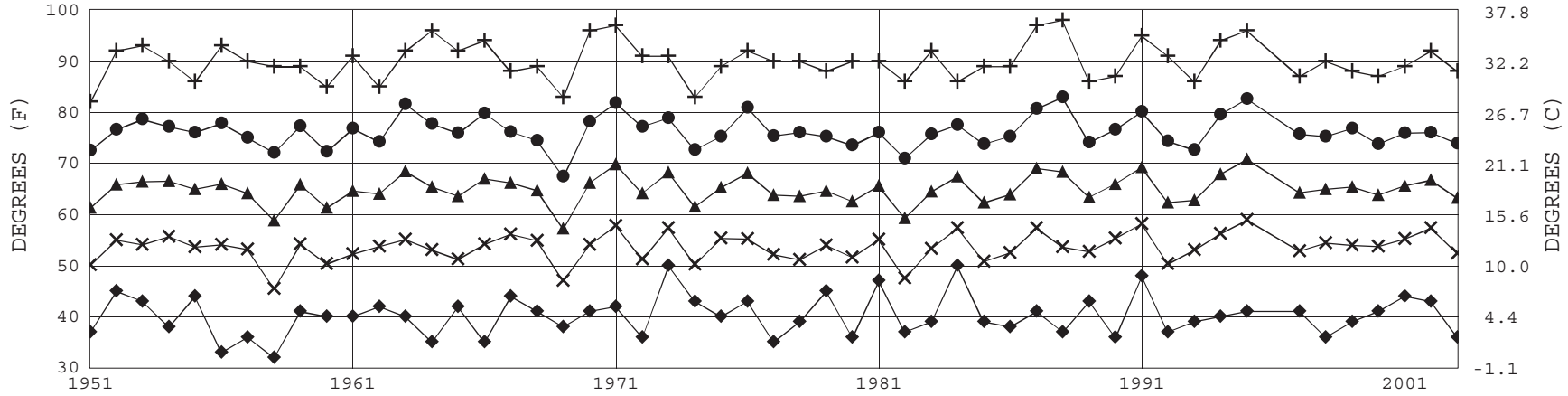
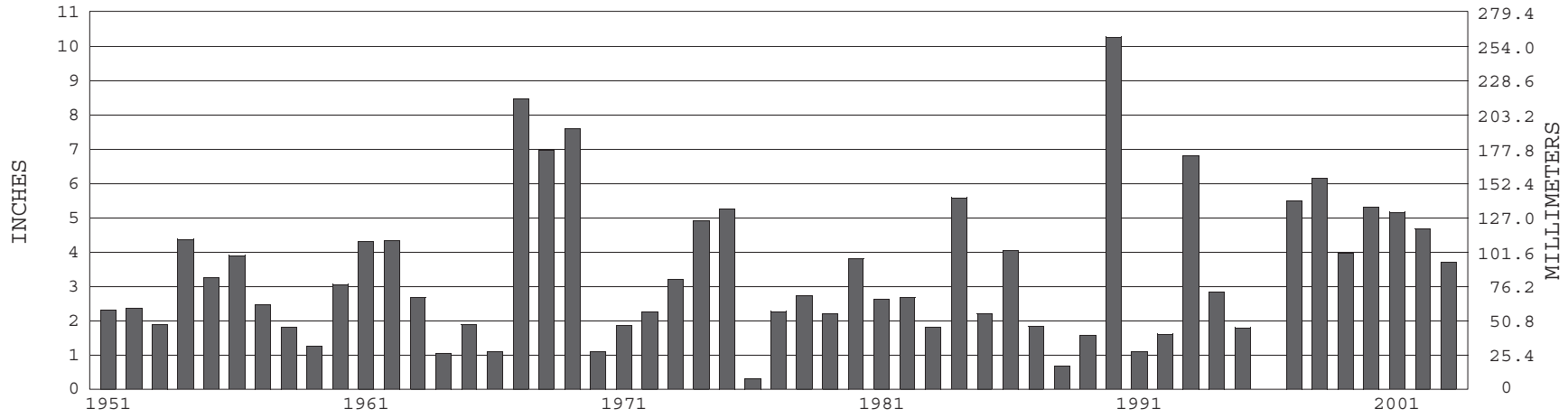
GREEN BAY, WI JUNE TEMPERATURES



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

Long-Term (1951-2003) Mean: 63.7 1961-1990 Normal: 65.4

GREEN BAY, WI JUNE PRECIPITATION



Long-Term (1951-2003) Mean Monthly Total: 3.34 1961-1990 Normal: 3.43

JUNE 2003

GREEN BAY, WI

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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Thomas R Karl

DIRECTOR

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