



JULY 2002

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						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	93	75	84	15	73	76	0	19	TS TSRA RA BR HZ BR	0		0.0	0.00	29.23	29.97	9.1	22	9.3	21	20	17	21	01					
02	90	76	83	14	70	74	0	18		0		0.0	0.00	29.24	29.98	10.1	24	10.5	22	25	17	27	02					
03	88	71	80	11	72	74	0	15		0		0.0	0.51	29.20	29.94	7.4	25	8.3	25	26	21	25	03					
04	78	57	68	-1	58	63	0	3		0		0.0	0.00	29.36	30.11	7.4	06	9.2	23	05	20	04	04					
05	76	55	66	-3	54	59	0	1		0		0.0	0.00	29.51	30.27	6.4	08	7.2	17	06	14	07	05					
06	83	59	71	2	61	65	0	6	HZ	0		0.0	0.00	29.47	30.23	4.3	19	4.9	13	18	10	16	06					
07	90	65	78	9	70	73	0	13	BR HZ	0		0.0	0.00	29.40	30.14	5.2	22	5.6	14	24	13	26	07					
08	84	72	78	9	73	74	0	13	TSRA RA BR HZ	0		0.0	0.06	29.25	29.99	2.4	21	6.8	22	26	18	28	08					
09	79	61	70	1	64	67	0	5	BR	0		0.0	0.00	29.34	30.08	12.6	04	12.8	29	04	24	04	09					
10	74	57	66	-3	54	59	0	1		0		0.0	0.00	29.48	30.23	7.2	06	9.0	20	12	15	07	10					
11	78	54	66	-4	54	59	0	1	BR	0		0.0	0.00	29.49	30.25	6.8	03	7.4	20	05	16	05	11					
12	81	51*	66	-4	53	59	0	1		0		0.0	0.00	29.33	30.08	1.7	27	3.5	13	27	9	28	12					
13	86	56	71	1	58	63	0	6		0		0.0	0.00	29.24	29.99	2.1	27	3.5	12	32	10	34	13					
14	85	58	72	2	61	66	0	7		0		0.0	0.00	29.25	29.99	5.6	27	5.7	18	26	15	27	14					
15	89	66	78	8	67	71	0	13		BR HZ		0	0.0	0.00	29.29	30.03	4.3	26	4.9	15	26	12	29	15				
16	86	66	76	6	66	70	0	11	BR HZ	0		0.0	0.00	29.29	30.04	6.4	24	6.5	21	23	16	24	16					
17	91	67	79	9	69	72	0	14	BR HZ	0		0.0	0.00	29.22	29.96	5.9	26	8.0	20	27	16	27	17					
18	74	65	70	0	65	67	0	5	TS TSRA RA BR	0		0.0	0.08	29.22	29.96	8.0	04	8.4	16	04	15	05	18					
19	78	59	69	-1	59	62	0	4	BR	0		0.0	0.00	29.23	29.98	4.9	05	5.5	17	05	15	04	19					
20	85	56	71	1	64	67	0	6		0		0.0	0.00	29.21	29.96	5.2	18	6.1	17	17	17	17	20					
21	96*	72	84*	13	73	76	0	19	TS TSRA RA BR HZ	0		0.0	T	29.09	29.82	8.1	22	10.3	39	34	25	36	21					
22	85	63	74	3	65	69	0	9	TS RA BR	0		0.0	0.16	29.15	29.89	7.2	30	11.3	30	05	24	05	22					
23	73	52	63*	-8	52	56	2	0		0		0.0	0.00	29.49	30.25	7.1	04	7.8	24	02	21	02	23					
24	77	55	66	-5	55	60	0	1		0		0.0	0.00	29.48	30.24	4.4	13	5.7	17	11	14	13	24					
25	78	62	70	-1	64	65	0	5	RA FG BR HZ	0		0.0	0.65	29.23	29.98	7.3	16	7.8	26	17	22	15	25					
26	84	63	74	3	68	70	0	9	RA FG+ BR HZ	0		0.0	T	29.10	29.84	2.9	22	4.1	14	21	12	21	26					
27	83	67	75	4	70	71	0	10	RA BR HZ	0		0.0	0.01	29.01	29.74	6.9	20	7.5	23	18	20	18	27					
28	90	69	80	9	71	74	0	15	BR HZ	0		0.0	0.00	28.98	29.72	5.6	24	6.9	17	24	14	26	28					
29	82	68	75	5	68	70	0	10	TS TSRA RA BR	0		0.0	0.53	29.02	29.75	7.5	27	8.2	20	29	17	28	29					
30	89	64	77	7	69	71	0	12	TS TSRA RA BR	0		0.0	0.16	29.17	29.91	5.5	24	8.5	39*	33	31*	33	30					
31	85	65	75	5	70	72	0	10		0	0.0	0.00	29.17	29.91	5.1	21	5.8	17	24	13	18	31						
83.5 62.8 73.2 ■■										64.2 67.6 0.1 8.5		< MONTHLY AVERAGES TOTALS->			0.0	2.16	29.26	30.01	1.1	22	7.3	<- MONTHLY AVERAGES						
2.3 4.2 3.3 ■■										<-----DEPARTURE FROM NORMAL----->			-1.28	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3														
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.65 DATE :25					SEA LEVEL PRESSURE DATE TIME														
MONTHLY									GREATEST 24-HR SNOWFALL: 0.0 DATE :					MAXIMUM					: 30.32 11 0756									
TOTAL DEPARTURE									GREATEST SNOW DEPTH: 0 DATE :					MINIMUM					: 29.64 28 0056									
HEATING: 2 -17									NUMBER OF DAYS WITH ➡					MAXIMUM TEMP ≥ 90: 6					MINIMUM TEMP ≤ 32 : 0					PRECIPITATION ≥ 0.01 INCH : 8				
COOLING: 262 85														MAXIMUM TEMP ≤ 32 : 0					MINIMUM TEMP ≤ 0 : 0					PRECIPITATION ≥ 0.10 INCH : 5				
														THUNDERSTORMS : 7					HEAVY FOG : 1					SNOWFALL ≥ 1.0 INCH : 0				

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

GREEN BAY, WI

JULY 2002

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												T	03			0.06	0.25	0.20	T						03			0.51
04													04												04			0.00
05													05												05			0.00
06													06												06			0.00
07													07												07			0.00
08													08												08			0.06
09												0.05	09												09			0.00
10												0.01	10												10			0.00
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													18												18	0.00		0.08
19													19												19			0.00
20													20												20			0.00
21													21												21			T
22	T	T					T						22									T		T	22		T	0.16
23							T						23												23			0.00
24							T		T	T		T	24			T			0.39	T					24			0.00
25						T		T					25												25	0.39		0.65
26													26											T	26	0.01		T
27	T						0.01						27						T	T					27	T		0.01
28													28												28			0.00
29	T	T											29												29	T		0.53
30													30								T	0.15	0.01		30			0.16
31													31												31			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)												
Ending Date												
Ending Time (Hour/Min)												

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		
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	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unknown Precipitation		
Intensity (as indicated on pages 4 to 6): '+' = Heavy ' ' = Moderate '–' = Light			

GREEN BAY, WI JULY 2002

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	791	85					7.00	10.00	
02	841	91					9.00	10.00	
03	478	52					.75	10.00	
04	926	100					6.00	10.00	
05	610	66					10.00	10.00	
06	504	55					5.00	10.00	
07	900	98					2.00	9.00	
08	199	22					2.50	6.00	
09	772	84					2.50	10.00	
10	391	43					10.00	10.00	
11	918	100					10.00	10.00	
12	917	100					10.00	10.00	
13	915	100					6.00	10.00	
14	904	99					7.00	10.00	
15	912	100					5.00	10.00	
16	870	95					3.00	9.00	
17	649	71					4.00	9.00	
18	11	1					1.50	10.00	
19	457	50					6.00	10.00	
20	664	73					7.00	10.00	
21	611	68					6.00	10.00	
22	659	73					1.75	10.00	
23	835	93					10.00	10.00	
24	809	90					10.00	10.00	
25	18	2					.50	10.00	
26	658	74					<.25	10.00	
27	393	44					2.00	10.00	
28	824	93					1.00	10.00	
29	489	55					1.00	10.00	
30	809	92					4.00	10.00	
31	617	70					8.00	10.00	
MONTHLY AVGS							5.30	9.77	
SUNSHINE (MINUTES)									
Total: 20351 Possible: 28179									
Percent Possible: 72									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
1 12 11									

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

JULY 2002

GRB

WBAN # 14898

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 Okta		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 Okta		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	
				VISIBILITY (MILES)																								
					SUNRISE: 0412	JUL 01			SUNSET: 1941										SUNRISE: 0415	JUL 07								
03	CLR	NC			9.00	77	72	74	85	6	22	29.25	29.98	03	CLR	NC			6.00	BR	67	63	64	87	3	22	29.42	30.17
06	CLR	NC			8.00	78	73	75	85	7	23	29.27	30.00	06	CLR	NC			3.00	BR	69	67	68	93	3	21	29.45	30.20
09	CLR	NC			10.00	86	75	78	70	8	23	29.26	30.00	09	CLR	NC			5.00	HZ	82	73	76	74	7	20	29.43	30.18
12	CLR	NC			9.00	91	77	81	64	13	20	29.23	29.96	12	SCT	NC			8.00		87	73	77	63	8	22	29.41	30.16
15	CLR	NC			10.00	92	73	78	54	9	22	29.20	29.93	15	SCT	NC			9.00		89	73	78	59	8	23	29.37	30.12
18	CLR	NC			10.00	89	73	78	59	9	23	29.20	29.94	18	SCT	NC			9.00		86	73	77	65	8	19	29.35	30.09
21	CLR	NC			9.00	82	72	75	72	8	22	29.23	29.96	21	CLR	NC			7.00		78	72	74	82	6	18	29.36	30.10
24	CLR	NC			10.00	78	70	73	76	9	21	29.22	29.95	24	BKN	049			7.00		75	71	72	88	6	19	29.35	30.09
					SUNRISE: 0412	JUL 02			SUNSET: 1941										SUNRISE: 0416	JUL 08								
03	CLR	NC			9.00	77	68	71	74	10	23	29.23	29.96	03	CLR	NC			5.00	BR	73	71	72	94	7	19	29.33	30.07
06	CLR	NC			9.00	77	68	71	74	10	24	29.27	30.00	06	CLR	NC			3.00	BR	74	72	73	94	6	20	29.32	30.06
09	CLR	NC			10.00	82	70	74	67	14	24	29.26	30.00	09	CLR	NC			4.00	HZ	78	73	75	85	10	19	29.28	30.01
12	CLR	NC			10.00	88	72	77	59	14	27	29.26	29.99	12	FEW	NC			4.00	BR	77	73	74	88	8	21	29.23	29.97
15	CLR	NC			10.00	90	71	77	54	15	27	29.25	29.98	15	BKN	050			5.00	HZ	82	74	76	77	8	29	29.22	29.96
18	CLR	NC			10.00	87	69	75	55	9	24	29.22	29.96	18	FEW	NC			4.00	HZ	82	75	77	79	0	00	29.18	29.92
21	CLR	NC			10.00	80	70	73	71	6	22	29.23	29.96	21	CLR	NC			5.00	BR	77	74	75	90	6	07	29.19	29.93
24	FEW	NC			9.00	79	69	72	72	7	22	29.25	29.98	24	FEW	NC			3.00	BR	73	71	72	94	7	04	29.23	29.97
					SUNRISE: 0413	JUL 03			SUNSET: 1941										SUNRISE: 0417	JUL 09								
03	CLR	NC			9.00	77	69	72	77	8	24	29.23	29.96	03	BKN	006			5.00	BR	71	69	70	94	12	03	29.25	29.99
06	BKN	100			7.00	76	70	72	82	7	22	29.22	29.96	06	OVC	006			4.00	BR	70	68	69	93	14	05	29.29	30.03
09	CLR	NC			8.00	82	72	75	72	9	25	29.22	29.96	09	BKN	013			10.00		74	68	70	82	15	05	29.31	30.05
12	CLR	NC			9.00	84	75	78	74	8	23	29.19	29.93	12	CLR	NC			7.00		76	69	71	79	15	05	29.33	30.08
15	BKN	055			2.00	80	75	77	85	10	21	29.18	29.92	15	CLR	NC			10.00		77	66	70	69	17	04	29.34	30.09
18	CLR	NC			8.00	81	76	77	85	7	26	29.16	29.90	18	CLR	NC			10.00		75	59	65	58	20	05	29.35	30.10
21	CLR	NC			7.00	76	73	74	91	7	27	29.19	29.93	21	CLR	NC			10.00		70	52	60	53	13	04	29.42	30.17
24	CLR	NC			10.00	71	68	69	90	6	34	29.24	29.98	24	CLR	NC			10.00		61	54	57	78	8	01	29.44	30.19
					SUNRISE: 0413	JUL 04			SUNSET: 1940										SUNRISE: 0418	JUL 10								
03	CLR	NC			8.00	66	64	65	93	5	30	29.25	29.99	03	CLR	NC			10.00		57	54	55	90	5	34	29.43	30.19
06	CLR	NC			10.00	68	61	64	78	9	01	29.31	30.05	06	OVC	029			10.00		66	59	62	78	9	07	29.47	30.23
09	CLR	NC			10.00	72	56	62	57	14	04	29.35	30.10	09	CLR	NC			10.00		72	58	63	61	13	08	29.50	30.25
12	CLR	NC			10.00	75	58	65	55	12	06	29.38	30.13	12	CLR	NC			10.00		73	54	62	51	13	13	29.50	30.25
15	CLR	NC			10.00	78	59	66	52	12	07	29.37	30.12	15	CLR	NC			10.00		71	50	59	47	10	07	29.46	30.22
18	CLR	NC			10.00	73	59	64	62	12	05	29.39	30.14	18	CLR	NC			10.00		69	51	59	53	9	06	29.46	30.21
21	CLR	NC			10.00	61	53	57	75	5	10	29.45	30.21	21	CLR	NC			10.00		62	55	58	78	7	01	29.51	30.26
24	CLR	NC			10.00	58	50	54	75	7	08	29.47	30.23	24	CLR	NC			10.00		59	55	57	87	7	01	29.51	30.27
					SUNRISE: 0414	JUL 05			SUNSET: 1940										SUNRISE: 0418	JUL 11								
03	CLR	NC			10.00	58	52	55	81	6	06	29.48	30.24	03	CLR	NC			10.00		55	51	53	87	3	02	29.51	30.27
06	CLR	NC			10.00	60	54	57	80	12	07	29.51	30.27	06	CLR	NC			10.00		59	55	57	87	8	01	29.53	30.29
09	CLR	NC			10.00	66	56	60	70	8	10	29.55	30.31	09	CLR	NC			10.00		70	60	64	71	7	07	29.55	30.31
12	CLR	NC			10.00	73	54	62	51	7	VR	29.53	30.29	12	CLR	NC			10.00		76	59	65	56	10	04	29.52	30.27
15	CLR	NC			10.00	75	54	63	48	9	10	29.50	30.26	15	CLR	NC			10.00		76	52	62	43	15	04	29.47	30.23
18	CLR	NC			10.00	71	58	63	63	10	05	29.49	30.25	18	CLR	NC			10.00		73	47	59	40	12	04	29.44	30.19
21	CLR	NC			10.00	63	51	56	65	5	10	29.50	30.26	21	CLR	NC			10.00		61	55	58	81	3	36	29.42	30.18
24	CLR	NC			10.00	61	53	57	75	0	00	29.49	30.25	24	CLR	NC			10.00		54	52	53	93	3	33	29.42	30.17
					SUNRISE: 0415	JUL 06			SUNSET: 1940										SUNRISE: 0419	JUL 12								
03	CLR	NC			10.00	59	57	58	93	0	00	29.50	30.25	03	CLR	NC			10.00		52	50	51	93	5	29	29.40	30.16
06	OVC	044			10.00	64	60	62	87	0	00	29.51	30.26	06	CLR	NC			10.00		58	51	54	78	0	00	29.39	30.15
09	OVC	040			10.00	70	58	63	66	8	20	29.52	30.28	09	CLR	NC			10.00		73	52	61	48	3	28	29.38	30.13
12	BKN	085			5.00	76	61	67	60	6	19	29.50	30.25	12	CLR	NC			10.00		79	53	64	41	8	31	29.34	30.09
15	CLR	NC			10.00	82	63	70	53	8	23	29.44	30.19	15	CLR	NC			10.00		81	52	64	37	3	VR	29.30	30.05
18	CLR	NC			10.00	81	62	69	53	6	19	29.41	30.16	18	CLR	NC			10.00		78	53	63	42	5	29	29.27	30.01
21	CLR	NC			10.00	70	63	66	79	5	16	29.44	30.19	21	CLR	NC			10.00		66	57	61	73	5	19	29.27	30.02
24	CLR	NC			9.00	68	63	65	84	3	20	29.42	30.17	24	CLR	NC			10.00		60	57	58	90	3	21	29.26	30.01

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

JULY 2002

GRB

WBAN # 14898

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 Okta		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 Okta		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		
				VISIBILITY (MILES)																									
			SUNRISE: 0420			JUL 13	SUNSET: 1936										SUNRISE: 0426			JUL 19	SUNSET: 1932								
03	CLR	NC			10.00		57	54	55	90	0	00	29.26	30.01	03	CLR	NC			6.00	BR	61	61	61	100	3	32	29.19	29.94
06	CLR	NC			10.00		61	56	58	84	6	29	29.28	30.02	06	CLR	NC			10.00		61	57	59	87	5	01	29.23	29.98
09	CLR	NC			10.00		77	62	68	60	3	VR	29.26	30.00	09	CLR	NC			10.00		70	61	64	73	6	04	29.24	29.98
12	CLR	NC			10.00		83	57	67	41	3	VR	29.24	29.98	12	CLR	NC			10.00		75	63	67	66	9	08	29.24	29.98
15	CLR	NC			10.00		86	56	67	36	6	28	29.23	29.97	15	CLR	NC			10.00		77	50	61	39	10	04	29.23	29.97
18	CLR	NC			10.00		82	57	67	43	7	29	29.21	29.95	18	CLR	NC			10.00		74	58	64	57	8	06	29.22	29.96
21	CLR	NC			10.00		71	61	65	71	6	20	29.22	29.96	21	CLR	NC			10.00		65	61	63	87	0	00	29.25	30.00
24	CLR	NC			9.00		65	60	62	84	5	24	29.24	29.98	24	CLR	NC			10.00		60	59	59	96	3	31	29.26	30.00
			SUNRISE: 0421			JUL 14	SUNSET: 1936										SUNRISE: 0427			JUL 20	SUNSET: 1931								
03	CLR	NC			10.00		60	58	59	93	0	00	29.23	29.97	03	CLR	NC			9.00		58	56	57	93	0	00	29.26	30.01
06	CLR	NC			10.00		65	59	61	81	3	26	29.26	30.01	06	CLR	NC			8.00		64	60	62	87	0	00	29.26	30.00
09	CLR	NC			10.00		79	64	69	60	7	28	29.27	30.01	09	CLR	NC			10.00		75	63	67	66	6	VR	29.27	30.01
12	CLR	NC			10.00		83	61	69	48	8	26	29.25	29.99	12	CLR	NC			10.00		85	62	70	46	7	VR	29.25	30.00
15	CLR	NC			10.00		85	62	70	46	12	28	29.24	29.98	15	CLR	NC			8.00		84	68	73	59	12	21	29.21	29.96
18	CLR	NC			10.00		81	64	70	57	6	25	29.23	29.97	18	CLR	NC			9.00		80	71	74	74	10	16	29.16	29.90
21	CLR	NC			9.00		73	64	67	74	6	27	29.25	29.99	21	CLR	NC			8.00		77	68	71	74	6	18	29.15	29.89
24	CLR	NC			9.00		70	63	66	79	6	27	29.27	30.01	24	CLR	NC			7.00		75	70	72	84	6	17	29.13	29.87
			SUNRISE: 0422			JUL 15	SUNSET: 1935										SUNRISE: 0428			JUL 21	SUNSET: 1930								
03	CLR	NC			7.00		69	62	65	80	0	00	29.27	30.01	03	CLR	NC			6.00	BR	78	75	76	90	9	20	29.09	29.83
06	CLR	NC			5.00	BR	67	63	64	85	5	24	29.31	30.05	06	OVC	041			10.00	TS	76	66	69	72	12	34	29.19	29.92
09	CLR	NC			10.00		81	67	72	62	7	28	29.32	30.06	09	CLR	NC			10.00		80	71	74	74	8	20	29.11	29.85
12	CLR	NC			10.00		86	69	74	57	10	29	29.31	30.05	12	CLR	NC			8.00		90	78	81	68	13	20	29.07	29.81
15	CLR	NC			10.00		88	69	75	54	7	VR	29.30	30.03	15	CLR	NC			7.00		95	76	81	54	15	22	29.01	29.74
18	CLR	NC			9.00		86	69	74	57	6	26	29.27	30.01	18	CLR	NC			10.00		92	75	80	58	7	22	28.99	29.73
21	CLR	NC			8.00		75	70	72	84	0	00	29.29	30.03	21	OVC	055			10.00		79	70	73	74	0	00	29.13	29.87
24	CLR	NC			6.00	BR	71	68	69	90	0	00	29.30	30.03	24	BKN	026			6.00	-TSRA	72	70	71	94	9	21	29.11	29.84
			SUNRISE: 0423			JUL 16	SUNSET: 1934										SUNRISE: 0429			JUL 22	SUNSET: 1930								
03	CLR	NC			5.00	BR	68	66	67	93	0	00	29.30	30.04	03	CLR	NC			10.00		73	71	72	94	7	26	29.04	29.77
06	CLR	NC			4.00	BR	69	67	68	93	0	00	29.33	30.07	06	FEW	NC			9.00		72	70	71	94	8	26	29.10	29.83
09	CLR	NC			9.00		81	68	72	65	10	26	29.33	30.07	09	BKN	080			7.00		74	72	73	94	8	26	29.13	29.87
12	CLR	NC			9.00		85	67	73	55	12	24	29.31	30.05	12	CLR	NC			10.00		83	64	71	53	15	27	29.11	29.85
15	CLR	NC			9.00		86	66	73	51	14	24	29.28	30.02	15	CLR	NC			10.00		84	62	70	48	16	30	29.14	29.87
18	CLR	NC			9.00		84	67	73	57	7	24	29.26	30.00	18	CLR	NC			10.00		80	61	68	52	12	30	29.17	29.91
21	CLR	NC			9.00		76	65	69	69	6	22	29.28	30.01	21	FEW	NC			10.00		72	58	63	61	10	35	29.26	30.01
24	CLR	NC			7.00		71	65	67	81	0	00	29.27	30.01	24	BKN	026			10.00		63	55	58	76	18	03	29.36	30.11
			SUNRISE: 0424			JUL 17	SUNSET: 1934										SUNRISE: 0430			JUL 23	SUNSET: 1929								
03	CLR	NC			6.00	BR	69	65	66	87	3	24	29.26	30.00	03	CLR	NC			10.00		54	48	51	80	9	01	29.43	30.18
06	BKN	048			5.00	HZ	71	65	67	81	7	23	29.27	30.01	06	CLR	NC			10.00		55	48	51	77	12	01	29.46	30.21
09	CLR	NC			6.00	HZ	81	69	73	67	13	26	29.25	29.99	09	CLR	NC			10.00		64	52	57	65	14	05	29.52	30.27
12	CLR	NC			6.00	HZ	86	71	76	61	14	23	29.22	29.96	12	CLR	NC			10.00		70	53	60	55	8	07	29.53	30.29
15	FEW	NC			7.00		90	70	76	52	13	25	29.17	29.91	15	CLR	NC			10.00		72	52	60	50	8	09	29.50	30.26
18	CLR	NC			6.00	HZ	87	70	75	57	8	28	29.18	29.92	18	CLR	NC			10.00		69	52	59	55	10	03	29.49	30.25
21	CLR	NC			9.00		76	71	73	85	0	00	29.19	29.93	21	CLR	NC			10.00		59	53	56	81	0	00	29.52	30.28
24	CLR	NC			8.00		74	69	71	85	12	03	29.20	29.94	24	CLR	NC			10.00		55	53	54	93	0	00	29.53	30.29
			SUNRISE: 0425			JUL 18	SUNSET: 1933										SUNRISE: 0431			JUL 24	SUNSET: 1928								
03	CLR	NC			4.00	BR	70	69	69	97	5	36	29.20	29.93	03	CLR	NC			10.00		60	56	58	86	0	00	29.51	30.27
06	BKN	070			7.00		67	61	63	81	10	03	29.23	29.97	06	CLR	NC			10.00		63	58	60	84	3	09	29.53	30.29
09	SCT	NC			7.00	TS	69	64	66	84	8	05	29.24	29.98	09	FEW	NC			10.00		71	59	64	66	8	15	29.53	30.29
12	OVC	010			4.00	-RA BR	69	67	68	93	12	04	29.25	29.99	12	FEW	NC			10.00		75	56	64	52	9	15	29.50	30.26
15	OVC	010			6.00	BR	69	66	67	90	12	04	29.22	29.96	15	CLR	NC			10.00		76	55	63	48	10	17	29.48	30.23
18	FEW	NC			10.00		71	65	67	81	12	05	29.20	29.95	18	CLR	NC			10.00		71	52	60	51	6	14	29.42	30.18
21	OVC	046			9.00		68	64	66	87	3	07																	

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

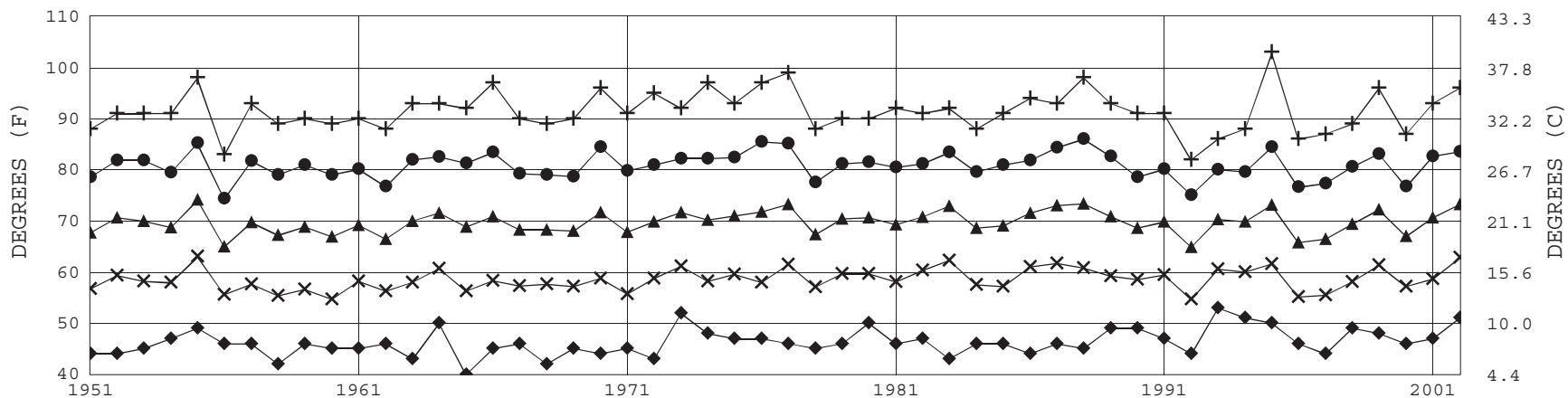
JULY 2002

GRB

WBAN # 14898

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 OFFT	OBSERVATION TIME (LST)	EFF CLD AMT <i>Okta</i>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OFFT	OBSERVATION TIME (LST)		EFF CLD AMT <i>Okta</i>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0432 JUL 25 SUNSET: 1927																													
03	BKN	090		10.00		64	59	61	84	3	19	29.36	30.11	03	SCT	NC		10.00		66	64	65	93	6	21	29.20	29.94		
06	BKN	110		10.00	-RA	65	62	63	90	3	19	29.32	30.06	06	CLR	NC		8.00		68	66	67	93	6	20	29.21	29.95		
09	OVC	050		5.00	-RA BR	67	64	65	91	9	14	29.31	30.05	09	CLR	NC		10.00		81	72	75	74	9	23	29.20	29.94		
12	SCT	NC		10.00		75	65	69	71	17	15	29.23	29.97	12	CLR	NC		10.00		81	73	75	77	7	19	29.17	29.91		
15	OVC	080		9.00		74	62	66	67	17	16	29.16	29.90	15	CLR	NC		10.00		84	73	76	70	8	26	29.17	29.91		
18	OVC	010		3.00	-RA BR	67	66	66	97	3	17	29.15	29.90	18	CLR	NC		10.00		83	74	77	74	5	18	29.13	29.87		
21	OVC	095		2.00	BR	68	67	67	96	6	19	29.13	29.87	21	CLR	NC		10.00		76	70	72	82	5	20	29.12	29.85		
24	BKN	034		1.50	BR	67	66	66	97	0	00	29.11	29.86	24	CLR	NC		10.00		74	68	70	82	7	21	29.13	29.86		
SUNRISE: 0433 JUL 26 SUNSET: 1926																													
03	CLR	NC		0.50	FG	65	64	64	97	0	00	29.09	29.83	3-HOURLY OBSERVATION NOTES															
06	VV	001		<.25	FG	66	66	66	100	0	00	29.11	29.85	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.															
09	OVC	005		4.00	BR	70	68	69	93	5	VR	29.13	29.88	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.															
12	SCT	NC		9.00		82	70	74	67	3	VR	29.12	29.86	NC= No ceiling detected.															
15	CLR	NC		10.00		83	68	73	61	6	VR	29.09	29.83	& = Original observation contained additional weather elements.															
18	CLR	NC		10.00		82	71	74	69	5	24	29.07	29.81	See page 3 for additional notes.															
21	FEW	NC		8.00		73	70	71	90	3	17	29.08	29.82																
24	BKN	095		8.00	-RA	74	69	71	85	9	21	29.08	29.82																
SUNRISE: 0434 JUL 27 SUNSET: 1925																													
03	CLR	NC		6.00	BR	69	68	68	96	7	19	29.06	29.80	SUMMARY BY HOUR															
06	CLR	NC		5.00	BR	71	69	70	94	5	22	29.08	29.82																
09	CLR	NC		5.00	HZ	77	72	74	85	14	22	29.06	29.80																
12	FEW	NC		10.00		81	71	74	72	8	20	29.01	29.75																
15	OVC	065		10.00		78	70	73	76	10	20	28.97	29.71	HOUR (LST)	CEILOMETER	EFF CLD AMT	AVERAGES				PRESSURE (INCHES,HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)				
18	OVC	033		9.00		74	70	71	88	12	17	28.98	29.72				DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY									
21	CLR	NC		2.50	BR	72	70	71	94	7	20	28.92	29.66				STATION	SEA LEVEL											
24	CLR	NC		2.00	BR	71	70	70	96	0	00	28.91	29.65																
SUNRISE: 0435 JUL 28 SUNSET: 1923																													
03	OVC	003		1.75	BR	71	70	70	96	5	24	28.92	29.66	01			67	63	64	88	29.26	30.00	8.30	4	1	26			
06	OVC	005		3.00	BR	72	70	71	94	6	23	28.98	29.72	02			66	63	64	89	29.26	30.00	7.80	5	1	26			
09	CLR	NC		8.00		80	72	74	76	8	25	29.00	29.73	03			66	63	64	90	29.26	30.01	7.57	5	2	26			
12	CLR	NC		10.00		87	72	76	61	12	28	29.00	29.74	04			65	62	63	91	29.27	30.01	7.55	5	1	29			
15	FEW	NC		10.00		89	72	77	57	7	26	29.00	29.73	05			65	62	63	91	29.28	30.02	6.97	5	1	32			
18	CLR	NC		10.00		87	71	76	59	8	20	28.99	29.72	06			67	63	65	86	29.29	30.03	7.62	6	1	31			
21	CLR	NC		10.00		79	72	74	79	6	20	29.02	29.75	07			70	64	66	81	29.30	30.04	7.76	7	2	26			
24	FEW	NC		6.00	BR	74	72	73	94	6	18	28.97	29.70	08			73	65	68	77	29.29	30.04	8.19	8	1	21			
SUNRISE: 0436 JUL 29 SUNSET: 1922																													
03	OVC	014		2.50	+TSRA BR	70	69	69	97	14	27	29.00	29.74	09			75	65	69	72	29.29	30.03	8.65	8	2	22			
06	BKN	036		8.00		69	68	68	96	9	27	28.98	29.72	10			77	66	70	68	29.29	30.03	9.06	9	3	25			
09	FEW	NC		10.00		70	68	69	93	9	27	28.99	29.73	11			79	66	70	65	29.28	30.02	8.69	9	3	23			
12	CLR	NC		10.00		78	70	73	76	17	29	29.00	29.74	12			80	66	71	62	29.27	30.01	8.97	10	3	22			
15	FEW	NC		10.00		82	69	73	65	13	26	28.99	29.72	13			81	65	71	59	29.26	30.01	9.13	10	3	22			
18	CLR	NC		10.00		80	69	73	69	8	25	29.03	29.77	14			82	65	71	56	29.26	30.00	9.29	10	4	24			
21	CLR	NC		10.00		73	67	69	81	6	25	29.08	29.82	15			82	65	71	57	29.25	29.99	9.10	10	3	24			
24	CLR	NC		10.00		68	65	66	90	7	28	29.12	29.86	16			81	64	70	58	29.23	29.98	9.29	10	3	23			
SUNRISE: 0437 JUL 30 SUNSET: 1921																													
03	CLR	NC		10.00		65	64	64	97	6	28	29.16	29.90	17			81	65	70	59	29.23	29.97	9.02	9	2	22			
06	CLR	NC		10.00		68	65	66	90	0	00	29.21	29.96	18			79	65	70	62	29.23	29.98	9.23	8	1	22			
09	CLR	NC		10.00		78	69	72	74	6	22	29.20	29.93	19			77	65	69	69	29.24	29.98	8.84	6	2	17			
12	CLR	NC		10.00		84	72	76	67	13	21	29.16	29.90	20			74	64	68	74	29.25	29.99	8.82	6	1	16			
15	CLR	NC		10.00		89	73	78	59	14	24	29.14	29.88	21			71	64	67	79	29.26	30.00	8.63	5	1	16			
18	CLR	NC		10.00		86	74	77	67	8	21	29.10	29.84	22			70	64	66	82	29.26	30.00	8.69	5	1	22			
21	OVC	026		5.00	TSRA BR	69	68	68	96	20	06	29.22	29.96	23			68	63	65	85	29.26	30.00	8.69	5	0	0			
24	CLR	NC		10.00		67	66	66	97	5	27	29.19	29.93	24			68	63	65	86	29.26	30.00	8.31	6	0	0			

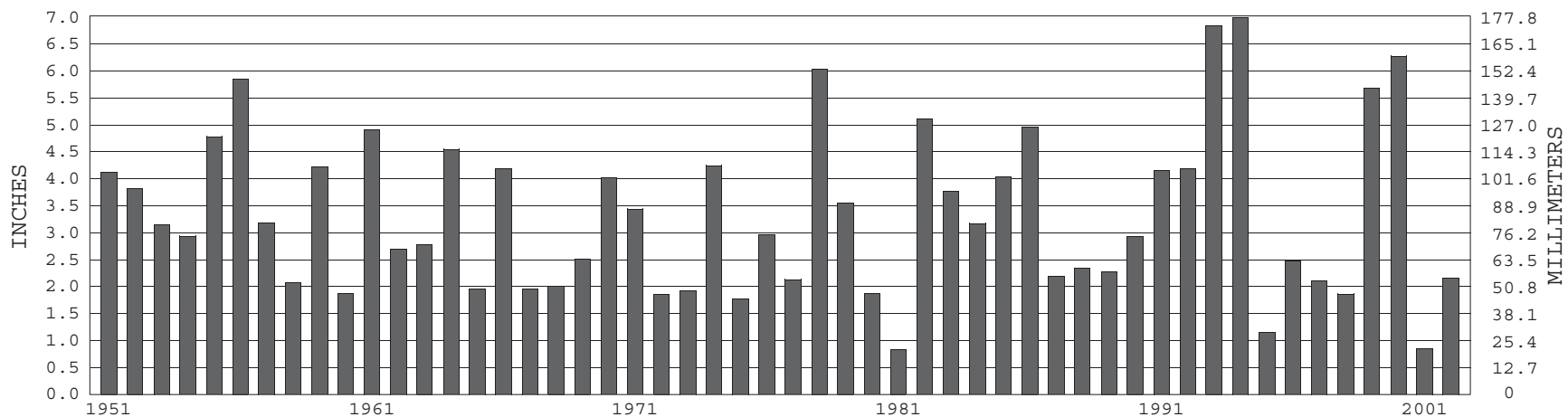
GREEN BAY, WI JULY TEMPERATURES



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

Long-Term (1951-2002) Mean: 69.7 1961-1990 Normal: 69.9

GREEN BAY, WI JULY PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 3.34

1961-1990 Normal: 3.44



JULY 2002

GREEN BAY, WI

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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