



DECEMBER 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	26	15	21	-6	11	19	44	0	SN BR	0		0.2	0.01	29.07	29.85	5.6	27	8.9	18	25	15	26	01	
02	24	10	17	-9	8	16	48	0		0		0.0	0.00	29.34	30.14	12.0	01	12.1	28	02	23	02	02	
03	22	3	13	-13	3	10	52	0		0		0.0	0.00	29.79	30.60	5.2	31	6.1	16	30	13	30	03	
04	26	8	17	-8	9	16	48	0		0		0.0	0.00	29.68	30.49	3.4	26	4.1	14	29	13	30	04	
05	24	12	18	-7	11	17	47	0	SN HZ	0		T	T	29.39	30.18	10.8	27	11.0	21	29	17	27	05	
06	28	6	17	-8	13	17	48	0	BR	0		0.0	0.00	29.20	30.00	9.9	23	11.2	25	21	20	21	06	
07	33	20	27	3	20	25	38	0		0		0.0	0.00	29.16	29.94	11.0	27	11.5	28	28	24	28	07	
08	22	4	13*	-11	3	13	52	0		0		0.0	0.00	29.64	30.44	7.6	31	9.2	24	32	18	32	08	
09	32	2*	17	-6	6	17	48	0		0		0.0	0.00	29.49	30.29	11.2	22	11.4	32	23	25	22	09	
10	47	22	35	12	21	28	30	0		0		0.0	0.00	29.29	30.08	8.2	22	8.3	16	22	14	22	10	
11	46	21	34	11	22	29	31	0	BR HZ	0		0.0	0.00	29.23	30.01	6.8	21	6.9	17	19	14	19	11	
12	39	27	33	11	31	34	32	0	BR HZ	0		0.0	0.00	29.24	30.01	7.8	21	7.9	15	21	13	21	12	
13	37	31	34	12	30	32	31	0	BR HZ	0		0.0	0.00	29.20	29.98	3.6	02	4.9	15	02	13	02	13	
14	40	29	35	13	27	32	30	0	BR HZ	0		0.0	0.00	29.06	29.83	6.8	23	8.2	18	23	16	21	14	
15	40	19	30	9	23	28	35	0		0		0.0	0.00	29.14	29.91	11.4	36	12.8	29	03	23	02	15	
16	30	18	24	3	18	22	41	0		0		0.0	0.00	29.41	30.20	11.1	06	12.3	26	05	23	05	16	
17	37	28	33	12	24	30	32	0	RA	0		0.0	0.04	29.32	30.10	12.2	11	12.3	28	13	23	13	17	
18	49*	34	42*	22	41	42	23	0	RA BR	0		0.0	0.49	28.89	29.65	13.1	15	14.8	31	14	23	15	18	
19	48	33	41	21	33	36	24	0	BR	0		0.0	0.00	28.77	29.53	8.5	22	8.7	18	24	14	25	19	
20	33	28	31	11	25	28	34	0	SN BR	0		0.5	0.02	28.60	29.37	12.7	25	13.0	28	29	22	27	20	
21	29	23	26	7	19	25	39	0	SN BR	0		T	T	28.82	29.59	18.4	26	18.5	37*	27	30*	26	21	
22	28	25	27	8	18	24	38	0	SN	0		T	T	28.96	29.74	19.9	27	19.9	33	26	28	28	22	
23	27	14	21	2	13	20	44	0	SN	0		T	T	29.20	29.98	15.2	28	15.6	36	28	26	26	23	
24	26	12	19	1	15	19	46	0		0		0.0	0.00	29.24	30.02	5.6	36	6.2	17	36	15	36	24	
25	29	23	26	8	19	24	39	0		0		0.0	0.00	29.19	29.97	10.1	31	12.1	25	26	22	27	25	
26	35	17	26	8	17	22	39	0	BR	0		0.0	0.00	29.38	30.17	7.5	23	7.7	21	26	15	24	26	
27	38	20	29	11	23	27	36	0	BR HZ	0		0.0	0.00	29.29	30.08	9.7	22	10.1	22	25	18	24	27	
28	34	15	25	8	27	29	40	0	SN FG+ FZFG BR HZ	0		2.6	0.17	29.14	29.92	4.2	22	4.4	16	23	13	22	28	
29	36	19	28	11	27	28	37	0	FG+ FZFG BR	2		0.0	0.00	29.23	30.02	5.5	12	5.8	24	15	21	13	29	
30	47	31	39	22	35	37	26	0	RA BR HZ	1		0.0	T	28.86	29.63	6.7	21	12.0	29	28	23	29	30	
31	31	21	26	9	15	21	39	0		0		0.0	0.00	29.21	30.00	11.0	28	12.2	31	28	24	28	31	
33.6		19.0	26.3	■ ■ ■	19.6	24.8	38.4	0.0	< MONTHLY AVERAGES	TOTALS->		3.3	0.73	29.21	29.99	4.8	26	10.3	<- MONTHLY AVERAGES					
4.6		5.7	5.1	■ ■ ■	<-----DEPARTURE FROM NORMAL----->								-.68		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.51 DATE :17-18				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL: 2.6 DATE :28				MAXIMUM				03 0953							
TOTAL DEPARTURE									GREATEST SNOW DEPTH: 2 DATE :29				MINIMUM				20 0353							
HEATING: 1191 -159 2919 -161									NUMBER OF DAYS WITH →				MAXIMUM TEMP ≥ 90: 0				PRECIPITATION ≥ 0.01 INCH : 5							
COOLING: 0 0 585 122													MAXIMUM TEMP ≤ 32 :15				PRECIPITATION ≥ 0.10 INCH : 2							
													THUNDERSTORMS : 0				HEAVY FOG : 2				SNOWFALL ≥ 1.0 INCH : 1			

DECEMBER 2002
GREEN BAY, WI

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

GREEN BAY, WI

DECEMBER 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							T	T	T	T			01	T	T											01	T	0.01	
02													02													02		0.00	
03													03													03		0.00	
04													04													04		0.00	
05													05													05	0.00	T	
06													06													06		0.00	
07													07													07		0.00	
08													08													08		0.00	
09													09													09		0.00	
10													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		0.04	
18		T	0.01	0.09	0.17	0.04	0.01	0.06	T				18			0.07	0.04	T					0.01	0.01	T	0.02			0.49
19													19													19		0.00	
20	T	T	T	T	T	T							20		T	T	0.01	T	T		T	T			T	0.01			0.02
21	T	T	T	T									21													21		T	
22													22													22		T	
23				T									23													23		T	
24													24													24		0.00	
25													25													25		0.00	
26													26													26		0.00	
27													27													27		0.00	
28									T	0.01	0.05	0.03	28	0.02	T											28	0.14	0.17	
29													29													29		0.00	
30											T	T	30													30		T	
31												0.03	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)	.03	.06	.08	.10	.14	.20	.24	.26	.28	.30	.30	.30
Ending Date	18	18	18	18	18	18	18	18	18	18	18	18
Ending Time (Hour/Min)	0422	0356	0359	0402	0408	0425	0434	0448	0515	0527	0527	0527

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 DECEMBER 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	0	0					1.75	10.00	
02	462	85					10.00	10.00	
03	543	100					10.00	10.00	
04	157	29					10.00	10.00	
05	328	61					.00	10.00	
06	539	100					6.00	10.00	
07	412	77					8.00	10.00	
08	537	100					10.00	10.00	
09	536	100					10.00	10.00	
10	535	100					8.00	10.00	
11	477	89					4.00	10.00	
12	0	0					3.00	8.00	
13	0	0					2.00	6.00	
14	392	74					4.00	9.00	
15	104	20					7.00	10.00	
16	0	0					10.00	10.00	
17	267	50					5.00	10.00	
18	0	0					.75	7.00	
19	0	0					2.00	10.00	
20	148	28					1.00	10.00	
21	458	86					4.00	10.00	
22	163	31					9.00	10.00	
23	554	96					10.00	10.00	
24	0	0					9.00	10.00	
25	0	0					8.00	10.00	
26	531	100					5.00	10.00	
27	531	100					5.00	10.00	
28	0	0					<.25	5.00	
29	0	0					.25	5.00	
30	0	0					.75	10.00	
31	533	100					10.00	10.00	
MONTHLY AVGS							5.92	9.35	
SUNSHINE (MINUTES)									
Total: 8207 Possible: 16561									
Percent Possible: 50									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
2 9 15									

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

DECEMBER 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 OF FT	OBSERVATION TIME (LST)	EFF CLD AMT <small>Oktas</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>Oktas</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL						
SUNRISE: 0709						DEC 01						SUNSET: 1614						SUNRISE: 0715						DEC 07						SUNSET: 1613					
03	OVC	080			10.00	16	1	13	51	9	26	29.23	30.01	03	CLR	NC			10.00	29	24	27	82	10	25	29.02	29.80								
06	OVC	046			10.00	17	1	13	49	8	23	29.15	29.94	06	CLR	NC			9.00	28	24	27	85	12	26	29.07	29.85								
09	OVC	047			10.00	18	10	16	71	10	23	29.10	29.89	09	BKN	075			9.00	31	25	29	79	10	26	29.14	29.92								
12	BKN	070			10.00	24	13	21	62	10	25	28.98	29.76	12	OVC	023			10.00	32	22	28	66	20	28	29.16	29.94								
15	OVC	044			10.00	26	17	23	69	7	29	28.95	29.73	15	CLR	NC			10.00	32	17	27	54	18	28	29.18	29.95								
18	OVC	038			10.00	25	18	23	75	7	35	28.98	29.77	18	CLR	NC			10.00	28	14	24	56	9	28	29.24	30.02								
21	OVC	034			10.00	24	15	21	68	5	36	29.03	29.81	21	CLR	NC			10.00	20	12	18	71	5	21	29.27	30.05								
24	OVC	036			10.00	23	17	21	78	9	01	29.06	29.84	24	CLR	NC			10.00	23	17	21	78	12	27	29.29	30.07								
SUNRISE: 0710						DEC 02						SUNSET: 1614						SUNRISE: 0716						DEC 08						SUNSET: 1613					
03	OVC	038			10.00	20	12	18	71	9	03	29.09	29.88	03	CLR	NC			10.00	19	9	16	65	15	30	29.38	30.18								
06	FEW	NC			10.00	17	9	15	70	7	36	29.15	29.93	06	CLR	NC			10.00	14	6	12	71	10	30	29.50	30.30								
09	FEW	NC			10.00	17	9	15	70	8	01	29.23	30.02	09	CLR	NC			10.00	17	7	15	64	14	32	29.63	30.43								
12	CLR	NC			10.00	23	8	19	53	17	36	29.30	30.08	12	CLR	NC			10.00	20	2	16	45	12	35	29.71	30.50								
15	BKN	035			10.00	22	6	18	50	15	03	29.38	30.17	15	CLR	NC			10.00	21	-1	16	38	10	32	29.75	30.55								
18	BKN	043			10.00	17	2	14	51	15	01	29.51	30.31	18	CLR	NC			10.00	12	-2	9	53	6	28	29.78	30.59								
21	CLR	NC			10.00	14	5	12	67	12	02	29.61	30.41	21	CLR	NC			10.00	6	-2	5	69	6	22	29.78	30.59								
24	CLR	NC			10.00	11	4	9	73	7	35	29.69	30.49	24	CLR	NC			10.00	6	-2	5	69	3	22	29.75	30.56								
SUNRISE: 0711						DEC 03						SUNSET: 1614						SUNRISE: 0717						DEC 09						SUNSET: 1613					
03	CLR	NC			10.00	9	2	8	73	9	36	29.73	30.53	03	CLR	NC			10.00	7	-1	6	70	3	22	29.71	30.51								
06	CLR	NC			10.00	4	0	3	83	8	29	29.79	30.59	06	CLR	NC			10.00	8	1	7	73	8	20	29.63	30.44								
09	CLR	NC			10.00	11	4	9	73	6	30	29.85	30.66	09	CLR	NC			10.00	17	5	14	59	13	22	29.59	30.40								
12	CLR	NC			10.00	20	6	16	55	9	32	29.81	30.63	12	CLR	NC			10.00	26	5	20	40	20	21	29.48	30.28								
15	CLR	NC			10.00	22	4	17	46	10	29	29.80	30.60	15	CLR	NC			10.00	32	6	25	33	17	22	29.37	30.17								
18	CLR	NC			10.00	15	3	12	59	5	27	29.81	30.62	18	CLR	NC			10.00	29	9	23	43	14	22	29.33	30.13								
21	CLR	NC			10.00	8	1	7	73	0	00	29.80	30.61	21	CLR	NC			10.00	26	12	22	55	10	22	29.34	30.14								
24	CLR	NC			10.00	8	2	7	76	6	28	29.81	30.62	24	CLR	NC			10.00	25	12	21	58	8	22	29.32	30.11								
SUNRISE: 0712						DEC 04						SUNSET: 1613						SUNRISE: 0718						DEC 10						SUNSET: 1613					
03	FEW	NC			10.00	12	5	10	73	3	26	29.78	30.58	03	CLR	NC			10.00	24	15	21	68	9	21	29.31	30.09								
06	OVC	075			10.00	14	7	12	73	0	00	29.76	30.56	06	CLR	NC			10.00	22	15	20	75	6	20	29.31	30.09								
09	OVC	100			10.00	17	7	15	64	5	28	29.76	30.56	09	CLR	NC			10.00	27	19	24	72	8	22	29.33	30.12								
12	OVC	065			10.00	22	8	18	55	7	30	29.71	30.51	12	CLR	NC			9.00	39	23	33	53	10	20	29.31	30.08								
15	OVC	075			10.00	26	9	21	48	8	27	29.65	30.45	15	CLR	NC			10.00	46	27	38	47	9	23	29.28	30.05								
18	CLR	NC			10.00	21	11	18	65	3	24	29.62	30.42	18	CLR	NC			9.00	36	26	32	67	8	21	29.27	30.05								
21	BKN	033			10.00	19	11	17	71	6	25	29.58	30.38	21	CLR	NC			8.00	32	27	30	82	7	21	29.28	30.06								
24	OVC	030			10.00	20	14	18	78	6	26	29.53	30.32	24	CLR	NC			8.00	29	22	27	75	7	21	29.26	30.03								
SUNRISE: 0713						DEC 05						SUNSET: 1613						SUNRISE: 0719						DEC 11						SUNSET: 1613					
03	OVC	022			10.00	21	14	19	74	10	26	29.49	30.29	03	CLR	NC			7.00	27	21	25	78	7	22	29.26	30.03								
06	OVC	018			10.00	21	14	19	74	12	25	29.45	30.24	06	CLR	NC			7.00	25	21	24	85	5	21	29.24	30.02								
09	OVC	018			9.00	20	13	18	74	13	27	29.43	30.23	09	CLR	NC			6.00	29	23	27	78	5	21	29.25	30.03								
12	CLR	NC			7.00	22	12	19	66	13	27	29.36	30.16	12	CLR	NC			8.00	44	27	37	51	9	21	29.22	29.98								
15	CLR	NC			10.00	24	10	20	55	14	26	29.30	30.09	15	CLR	NC			10.00	45	24	37	44	10	20	29.19	29.97								
18	BKN	100			10.00	21	6	17	52	13	27	29.32	30.11	18	CLR	NC			10.00	36	20	30	52	8	19	29.22	30.00								
21	CLR	NC			10.00	15	9	14	77	9	28	29.33	30.13	21	CLR	NC			9.00	31	18	27	59	6	20	29.22	30.00								
24	CLR	NC			10.00	12	7	11	80	9	29	29.35	30.15	24	CLR	NC			10.00	27	19	24	72	8	21	29.23	30.00								
SUNRISE: 0714						DEC 06						SUNSET: 1613						SUNRISE: 0720						DEC 12						SUNSET: 1613					
03	CLR	NC			9.00	10	8	10	92	9	29	29.35	30.15	03	OVC	024			5.00	33	28	31	82	8	20	29.23	30.00								
06	CLR	NC			8.00	8	6	8	92	7	28	29.35	30.15	06	OVC	028			4.00	35	30	33	82	7	20	29.23	30.00								
09	CLR	NC			6.00	13	9	12	84	7	23	29.33	30.13	09	OVC	028			3.00	37	31	35	79	12	21	29.26	30.03								
12	CLR	NC			9.00	24	14	21	65	17	22	29.25	30.04	12	OVC	024			4.00	38	31	35	76	10	20	29.25	30.02								
15	CLR	NC			9.00	28	15	24	58	10	21	29.14	29.93	15	OVC	030			3.00	38	32	36	79	9	21	29.22	30.00								
18	CLR	NC			10.00	26	17	23	69	18	21	29.07	29.85	18	OVC	023			4.00	37	32	35	82	9	20	29.26	30.03								
21	CLR	NC			10.00	26	18	23	71	10	21	29.02	29.81	21	OVC	030			4.00	36	33	35	89	5	22	29.27	30.03								
24	SCT	NC			10.00	27	20	25	75	9	22	28.99	29.77	24	OVC	026			4.00	35	32	34	89	6	22	29.26	30.02								

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

DECEMBER 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 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: 0720		DEC 13	SUNSET: 1613											SUNRISE: 0725		DEC 19	SUNSET: 1615							
03	OVC	022				34	31	33	89	3	24	29.27	30.04	03	OVC	020				44	40	42	85	9	24	28.79	29.54
06	OVC	022				34	31	33	89	0	00	29.25	30.02	06	OVC	025				40	36	38	86	10	25	28.81	29.56
09	OVC	018				36	31	34	82	3	02	29.23	30.00	09	OVC	027				39	33	37	79	8	23	28.83	29.59
12	OVC	016				36	30	34	79	5	35	29.20	29.97	12	OVC	027				39	32	36	76	10	21	28.84	29.59
15	OVC	014				34	29	32	82	8	06	29.16	29.93	15	OVC	024				38	31	35	76	6	23	28.77	29.52
18	OVC	010				32	28	31	85	7	03	29.18	29.95	18	OVC	039				36	28	33	73	8	22	28.75	29.51
21	OVC	010				32	28	31	85	8	36	29.18	29.95	21	OVC	041				34	27	31	76	6	22	28.69	29.44
24	OVC	010				31	28	30	89	0	00	29.16	29.93	24	OVC	043				33	27	31	78	8	23	28.62	29.37
			SUNRISE: 0721		DEC 14	SUNSET: 1613											SUNRISE: 0725		DEC 20	SUNSET: 1615							
03	OVC	016				32	27	30	82	6	34	29.15	29.93	03	OVC	080				31	28	30	89	10	24	28.57	29.33
06	OVC	014				32	27	30	82	5	26	29.14	29.92	06	OVC	044				30	27	29	88	12	24	28.56	29.32
09	OVC	014				33	27	31	78	10	24	29.15	29.93	09	OVC	060				30	25	28	82	10	24	28.59	29.35
12	CLR	NC				38	28	34	68	13	21	29.08	29.85	12	OVC	029				31	25	29	79	15	25	28.57	29.34
15	CLR	NC				40	29	35	65	13	21	29.00	29.78	15	BKN	027				31	25	29	79	15	27	28.59	29.36
18	CLR	NC				36	27	32	70	9	22	28.96	29.73	18	OVC	026				30	24	28	79	13	25	28.64	29.40
21	CLR	NC				34	27	31	76	7	22	28.97	29.74	21	BKN	065				29	25	28	85	15	26	28.65	29.41
24	CLR	NC				32	27	30	82	5	25	28.96	29.73	24	OVC	029				28	21	26	75	16	26	28.67	29.43
			SUNRISE: 0722		DEC 15	SUNSET: 1613											SUNRISE: 0726		DEC 21	SUNSET: 1616							
03	CLR	NC				32	28	30	85	9	30	28.97	29.74	03	SCT	NC				26	18	23	71	21	27	28.69	29.46
06	CLR	NC				31	27	29	85	10	34	29.01	29.78	06	BKN	110				24	16	22	71	20	26	28.73	29.50
09	OVC	033				35	30	33	82	9	33	29.07	29.84	09	CLR	NC				25	18	23	75	16	26	28.81	29.57
12	OVC	027				38	28	34	68	14	02	29.09	29.87	12	FEW	NC				28	19	25	69	20	26	28.84	29.61
15	OVC	030				35	23	31	61	18	02	29.15	29.93	15	OVC	024				28	20	25	72	18	27	28.87	29.65
18	SCT	NC				27	15	23	61	16	03	29.26	30.04	18	OVC	032				28	20	25	72	18	26	28.88	29.66
21	CLR	NC				22	15	20	75	14	01	29.32	30.10	21	OVC	024				28	19	25	69	20	27	28.89	29.66
24	CLR	NC				19	12	17	74	15	02	29.35	30.14	24	OVC	022				28	21	26	75	15	26	28.87	29.64
			SUNRISE: 0723		DEC 16	SUNSET: 1614											SUNRISE: 0726		DEC 22	SUNSET: 1616							
03	OVC	020				19	14	18	81	15	03	29.38	30.18	03	OVC	022				28	22	26	78	13	28	28.86	29.64
06	OVC	018				19	15	18	85	7	01	29.41	30.20	06	OVC	020				28	21	26	75	16	27	28.86	29.64
09	OVC	022				25	18	23	75	21	06	29.42	30.22	09	BKN	028				25	14	22	63	25	27	28.92	29.70
12	OVC	022				28	18	25	66	16	08	29.41	30.21	12	OVC	028				27	17	24	66	25	27	28.95	29.73
15	FEW	NC				28	19	25	69	10	07	29.42	30.21	15	OVC	032				28	17	24	63	24	28	28.98	29.76
18	CLR	NC				25	20	23	81	9	06	29.41	30.21	18	OVC	028				26	18	23	71	20	27	29.04	29.82
21	OVC	070				27	20	25	75	7	07	29.43	30.22	21	OVC	090				26	15	23	63	20	27	29.06	29.84
24	OVC	095				28	21	26	75	12	11	29.40	30.19	24	OVC	022				25	18	23	75	18	27	29.05	29.83
			SUNRISE: 0723		DEC 17	SUNSET: 1614											SUNRISE: 0727		DEC 23	SUNSET: 1617							
03	OVC	017				29	23	27	78	6	10	29.42	30.21	03	OVC	024				25	17	22	72	21	27	29.08	29.86
06	OVC	017				29	24	27	82	12	11	29.40	30.19	06	OVC	031				23	13	20	65	25	28	29.11	29.89
09	BKN	085				30	25	28	82	9	10	29.40	30.19	09	FEW	NC				22	12	19	66	20	26	29.15	29.93
12	OVC	080				35	24	31	64	13	11	29.34	30.13	12	FEW	NC				26	12	22	55	22	28	29.14	29.92
15	CLR	NC				36	22	31	57	13	10	29.28	30.06	15	OVC	039				25	12	21	58	17	28	29.24	30.02
18	OVC	075				35	24	31	64	13	11	29.26	30.03	18	CLR	NC				22	13	19	68	12	29	29.31	30.10
21	OVC	030				34	24	30	67	15	11	29.22	29.99	21	CLR	NC				18	10	16	71	6	28	29.32	30.11
24	OVC	014				34	31	33	89	15	12	29.15	29.92	24	CLR	NC				15	11	14	84	3	25	29.33	30.13
			SUNRISE: 0724		DEC 18	SUNSET: 1614											SUNRISE: 0727		DEC 24	SUNSET: 1617							
03	OVC	006				35	34	35	96	16	12	29.09	29.86	03	CLR	NC				13	10	12	88	6	29	29.34	30.13
06	OVC	008				38	37	38	97	14	12	28.98	29.75	06	OVC	029				16	12	15	84	3	31	29.32	30.12
09	OVC	008				41	40	41	96	20	15	28.94	29.71	09	OVC	024				18	14	17	84	5	01	29.31	30.10
12	OVC	004				45	44	45	97	14	15	28.84	29.60	12	OVC	026				26	17	23	69	0	00	29.25	30.04
15	OVC	004				45	44	45	97	16	15	28.80	29.56	15	OVC	026				26	17	23	69	5	01	29.20	29.98
18	CLR	NC				45	43	44	93	9	18	28.76	29.51	18	OVC	026				25	18	23	75	9	02	29.17	29.95
21	OVC	020				48	46	47	93	12	19	28.78	29.54	21	OVC	026				24	16	22	71	9	34	29.12	29.91
24	OVC	017				48	47	47	96	7	22	28.77	29.52	24	OVC	026				25	18	23	75	13	36	29.10	29.88

OBSERVATIONS AT 3-HOURLY INTERVALS

GREEN BAY, WI

DECEMBER 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 Oktas		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 Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
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 Visibility = 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													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			25	19	23	79	29.20	29.98	7.86	9	4	26																	
02			25	19	23	79	29.21	29.99	7.96	10	4	26																	
03			25	19	23	79	29.21	29.99	8.14	10	5	27																	
04			24	19	22	80	29.21	29.99	8.10	9	4	26																	
05			24	18	22	80	29.21	29.99	7.94	9	5	26																	
06			24	18	22	81	29.21	29.99	8.21	9	5	25																	
07			24	18	22	81	29.21	30.00	8.21	9	4	25																	
08			24	19	22	82	29.22	30.01	7.44	10	5	25																	
09			26	20	24	78	29.23	30.01	7.72	10	5	25																	
10			28	20	25	74	29.23	30.02	7.83	12	6	26																	
11			30	21	27	70	29.22	30.00	7.93	12	5	26																	
12			31	21	27	68	29.20	29.98	7.90	12	6	26																	
13			32	21	28	65	29.19	29.97	8.01	12	6	26																	
14			32	21	29	65	29.18	29.96	7.85	13	6	26																	
15			32	21	29	65	29.19	29.97	8.15	12	5	26																	
16			31	20	28	66	29.19	29.97	8.31	11	4	25																	
17			30	20	27	69	29.20	29.98	8.60	10	4	24																	
18			29	20	26	70	29.21	29.99	8.65	11	4	25																	
19			27	19	25	72	29.21	30.00	8.56	10	4	25																	
20			27	19	24	74	29.22	30.00	8.33	10	4	25																	
21			26	19	24	75	29.21	30.00	8.52	9	4	25																	
22			26	18	23	74	29.21	29.99	8.40	10	4	26																	
23			25	19	23	76	29.21	29.99	8.65	9	4	26																	
24			25	19	23	78	29.21	29.99	8.43	10	4	26																	

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 Visibility = 8/8.

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.

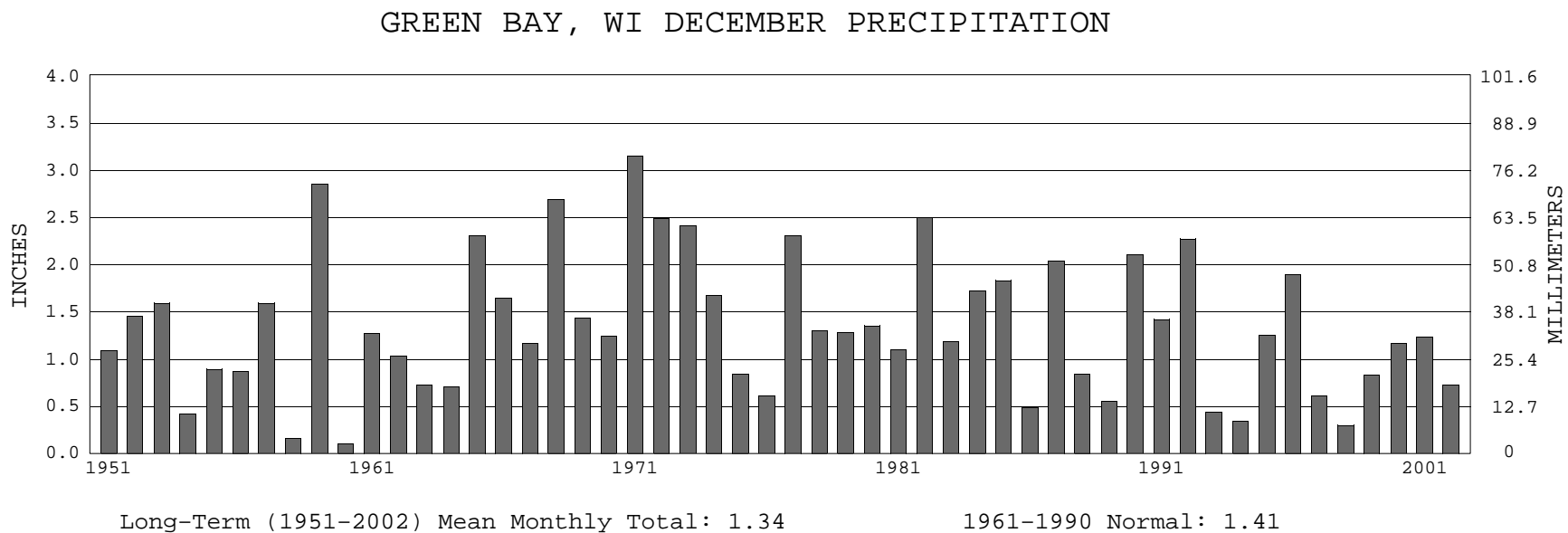
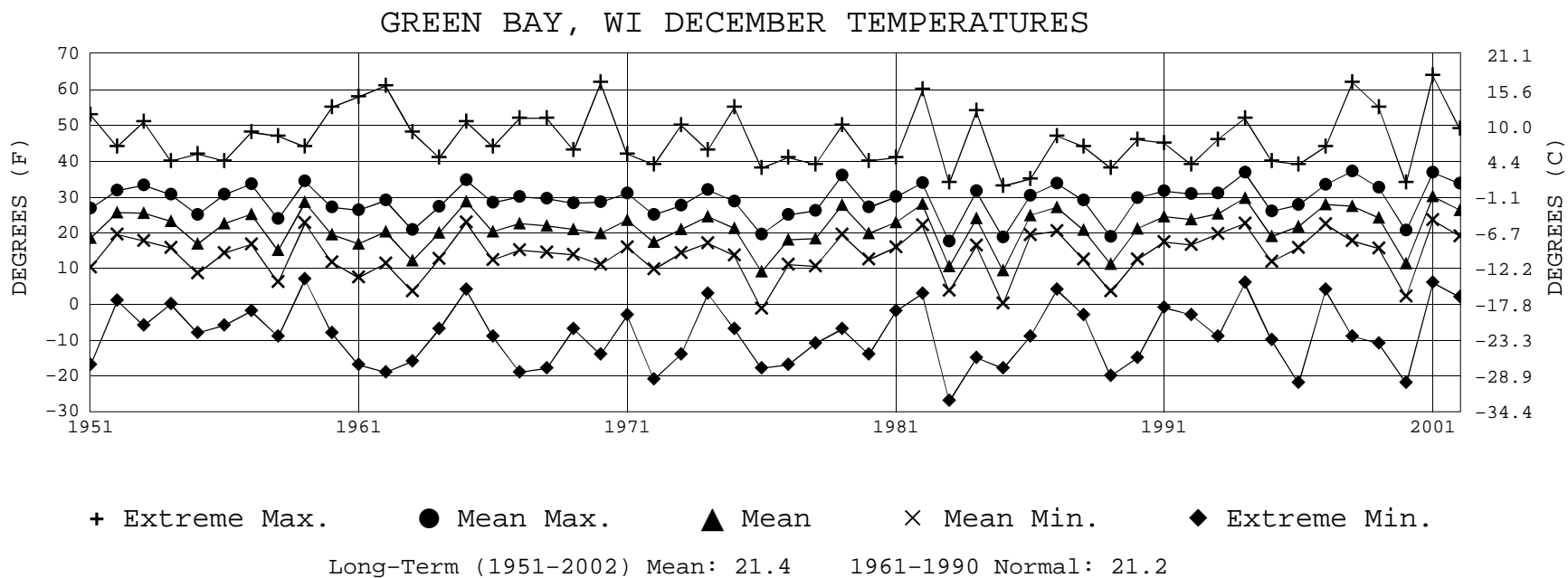
NC = No ceiling detected.

& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES										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			25	19	23	79	29.20	29.98	7.86	9	4	26
02			25	19	23	79	29.21	29.99	7.96	10	4	26
03			25	19	23	79	29.21	29.99	8.14	10	5	27
04			24	19	22	80	29.21	29.99	8.10	9	4	26
05			24	18	22	80	29.21	29.99	7.94	9	5	26
06			24	18	22	81	29.21	29.99	8.21	9	5	25
07			24	18	22	81	29.21	30.00	8.21	9	4	25
08			24	19	22	82	29.22	30.01	7.44	10	5	25
09			26	20	24	78	29.23	30.01	7.72	10	5	25
10			28	20	25	74	29.23	30.02	7.83	12	6	26
11			30	21	27	70	29.22	30.00	7.93	12	5	26
12			31	21	27	68	29.20	29.98	7.90	12	6	26
13			32	21	28	65	29.19	29.97	8.01	12	6	26
14			32	21	29	65	29.18	29.96	7.85	13	6	26
15			32	21	29	65	29.19	29.97	8.15	12	5	26
16			31	20	28	66	29.19	29.97	8.31	11	4	25
17			30	20	27	69	29.20	29.98	8.60	10	4	24
18			29	20	26	70	29.21	29.99	8.65	11	4	25
19			27	19	25	72	29.21	30.00	8.56	10	4	25
20			27	19	24	74	29.22	30.00	8.33	10	4	25
21			26	19	24	75	29.21	30.00	8.52	9	4	25
22			26	18	23	74	29.21	29.99	8.40	10	4	26
23			25	19	23	76	29.21	29.99	8.65	9	4	26
24			25	19	23	78	29.21	29.99	8.43	10	4	26





DECEMBER 2002

GREEN BAY, WI

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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