



JULY 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

MADISON, WI

DANE COUNTY REGIONAL AIRPORT (MSN)

Lat: 43°08' N Long: 89°20' W Elev (Ground): 857 Feet

Time Zone: CENTRAL WBAN: 14837 ISSN #:0198-5736

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	91	76	84	14	69	74	0	19	RA	0		0.0	0.00	29.12	30.02	7.7	22	8.2	20	22	15	22	01	
02	89	73	81	11	66	71	0	16		0		0.0	0.00	29.14	30.05	7.0	23	7.9	22	23	15	24	02	
03	89	74	82	11	68	73	0	17		0		0.0	0.00	29.09	29.99	5.5	23	6.7	20	25	14	24	03	
04	89	61	75	4	58	66	0	10		0		0.0	0.00	29.17	30.08	3.5	03	6.3	20	08	17	08	04	
05	80	56	68	-3	55	61	0	3		0		0.0	T	29.29	30.22	8.1	09	8.5	18	07	15	07	05	
06	83	62	73	2	63	67	0	8	BR	0		0.0	0.00	29.30	30.22	1.2	17	4.1	13	19	10	17	06	
07	89	64	77	6	68	71	0	12	FG+ BCFG BR	0		0.0	0.00	29.26	30.17	2.1	24	3.1	14	22	9	20	07	
08	93	72	83	12	72	75	0	18	TS TSRA RA BR HZ	0		0.0	T	29.10	30.00	7.2	22	7.6	25	20	17	21	08	
09	87	66	77	6	66	70	0	12	BR HZ	0		0.0	0.00	29.12	30.03	9.3	04	9.8	21	05	18	05	09	
10	73	60	67	-4	56	61	0	2	RA	0		0.0	T	29.25	30.17	9.6	08	10.8	29	10	22	10	10	
11	77	54	66	-5	51	58	0	1	MIFG BR MIFG BCFG BR BR	0		0.0	0.00	29.28	30.21	9.0	08	9.6	22	05	18	05	11	
12	81	51	66	-5	50	57	0	1		0		0.0	0.00	29.16	30.08	2.1	06	4.1	20	08	14	02	12	
13	85	48*	67	-5	51	59	0	2		0		0.0	0.00	29.09	30.01	1.3	02	3.3	15	01	12	01	13	
14	85	54	70	-2	56	62	0	5		0		0.0	0.00	29.11	30.02	1.9	33	2.8	16	24	12	26	14	
15	88	59	74	2	61	66	0	9		0		0.0	0.00	29.16	30.07	1.1	27	2.6	13	21	9	22	15	
16	87	61	74	2	62	67	0	9	BR	0		0.0	0.00	29.16	30.07	2.3	23	4.0	14	28	10	26	16	
17	89	63	76	4	65	69	0	11	BR HZ	0		0.0	0.00	29.10	30.01	2.6	24	4.5	13	26	10	27	17	
18	90	64	77	5	68	71	0	12	BCFG BR HZ	0		0.0	0.00	29.02	29.92	2.3	08	4.6	18	05	16	03	18	
19	81	66	74	2	65	68	0	9	BR HZ	0		0.0	0.00	29.04	29.95	2.9	07	3.9	13	06	10	07	19	
20	89	60	75	3	66	69	0	10	TS TSRA RA BCFG BR	0		0.0	0.43	29.06	29.97	5.8	17	6.6	36*	32	28*	32	20	
21	98*	71	85*	13	74	77	0	20	TS TSRA BR	0		0.0	0.19	28.96	29.87	8.5	21	9.2	26	19	21	19	21	
22	83	65	74	2	66	69	0	9	TS TSRA RA BR	0		0.0	0.68	29.02	29.93	3.2	30	6.6	25	29	18	28	22	
23	76	52	64*	-8	52	58	1	0	TS TSRA RA BR	0		0.0	0.00	29.29	30.22	7.9	04	8.6	21	07	16	05	23	
24	80	52	66	-6	54	60	0	1		0		0.0	0.00	29.28	30.20	5.9	11	6.7	21	10	16	11	24	
25	80	63	72	0	65	67	0	7		0		0.0	0.35	29.06	29.97	7.8	17	8.1	21	16	18	16	25	
26	88	65	77	5	69	71	0	12		FG BCFG BR	0		0.0	0.00	28.95	29.86	0.8	26	2.3	14	31	12	31	26
27	83	67	75	3	71	72	0	10		TS RA BR	0		0.0	0.16	28.85	29.75	5.3	20	6.6	26	21	18	22	27
28	89	69	79	7	72	75	0	14	RA	0		0.0	T	28.85	29.75	4.6	21	5.6	17	16	14	18	28	
29	79	68	74	2	68	70	0	9	TSRA RA BR	0		0.0	0.23	28.90	29.80	3.0	25	5.1	26	22	21	21	29	
30	92	62	77	5	67	70	0	12	TSRA RA MIFG BCFG BR	0		0.0	0.02	29.05	29.96	4.0	22	6.2	31	29	23	29	30	
31	91	63	77	5	66	71	0	12		0		0.0	0.00	29.02	29.93	8.1	19	8.5	21	20	15	19	31	
85.6 62.6 74.1 ■■ 63.2 67.6 0.0 9.4 < MONTHLY AVERAGES TOTALS->											0.0	2.06	29.10	30.02	0.3	30	6.2	<- MONTHLY AVERAGES						
3.5 1.6 2.5 ■■ <-----DEPARTURE FROM NORMAL----->											-1.87	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3												
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.87 DATE :21-22				GREATEST 24-HR SNOWFALL: 0.0 DATE :				GREATEST SNOW DEPTH: 0 DATE :				SEA LEVEL PRESSURE DATE TIME			
MONTHLY TOTAL DEPARTURE									MAXIMUM TEMP ≥ 90: 6				MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 32 : 0				PRECIPITATION ≥ 0.01 INCH : 7			
HEATING: 1 -11									MINIMUM TEMP ≤ 0 : 0				THUNDERSTORMS : 8				HEAVY FOG : 1				PRECIPITATION ≥ 0.10 INCH : 6			
COOLING: 292 78									SEASON TO DATE TOTAL DEPARTURE 1 -11				MINIMUM : 30.27 23 2253				MINIMUM : 29.69 27 1853				SNOWFALL ≥ 1.0 INCH : 0			

JULY 2002
MADISON, WI

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MADISON, WI

JULY 2002

MSN

WBAN # 14837

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	0.08 0.79	0.00		
02													02												02		0.00		
03													03												03		0.00		
04													04												04		0.00		
05												T	05												05		T	0.00	
06													06												06		0.00		
07													07												07		0.00		
08													08					T	T						08		T	0.00	
09													09								T				09		0.00		
10										T	T		10				T								10		T	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		
19													19												19		0.00		
20													20			0.27	0.16	T	T						20		0.00		
21													21											0.08	21		0.19		
22	0.19	T			0.13	0.07	0.40	T			T		22												22		0.68		
23													23												23		0.00		
24													24												24		0.00		
25		T	T		T								25			T	T	0.01				0.01	0.33		25		0.00		
26													26												26		0.00		
27					T	0.03	0.03	0.03	T	0.02	T	T	27										0.05		27		0.16		
28													28												28		T	0.23	
29	0.17	T				0.05	0.01	T					29								T				29		0.02		
30													30												30		0.02		
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)	.15	.28	.32	.40	.43	.43	.43	.43	.44	.50	.57	.60
Ending Date	22	22	20	20	20	20	20	20	22	22	22	22
Ending Time (Hour/Min)	0604	0607	1458	1458	1501	1501	1501	1501	0649	0610	0644	0649

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

**MADISON, WI
JULY 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							10.00	10.00	
03							8.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							5.00	10.00	
07							.25	10.00	
08							4.00	9.00	
09							3.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							9.00	10.00	
13							5.00	10.00	
14							5.00	10.00	
15							4.00	10.00	
16							6.00	10.00	
17							5.00	10.00	
18							3.00	10.00	
19							4.00	10.00	
20							1.25	10.00	
21							3.00	10.00	
22							1.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							2.50	10.00	
26							.50	10.00	
27							3.00	10.00	
28							7.00	10.00	
29							3.00	10.00	
30							3.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							5.80	9.97	
<p align="center">SUNSHINE (MINUTES)</p> <p>Total: Possible:</p> <p> Percent Possible:</p>									
<p align="center">NUMBER OF DAYS WITH:</p> <p align="center">SKY CONDITION</p> <p align="center">CLR PTLY CLDY CLOUDY MISSING</p> <p align="center">31</p> <p align="center">MINIMUM VISIBILITY (MILES)</p> <p align="center"><=0.25 <=3.0 >=7.0</p> <p align="center">1 10 12</p>									

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JULY 2002

MSN

WBAN # 14837

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	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 Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL		
SUNRISE: 0422				JUL 01		SUNSET: 1941								SUNRISE: 0425				JUL 07		SUNSET: 1939											
03	CLR	NC			10.00	77	71	73	82	5	VR	29.12	30.02	03	CLR	NC			2.50	BCFG BR	67	66	66	97	0	00	29.28	30.19			
06	CLR	NC			10.00	77	71	73	82	9	22	29.15	30.05	06	OVC	002			0.25	FG	71	70	70	96	6	19	29.31	30.22			
09	CLR	NC			10.00	84	71	75	65	8	21	29.15	30.05	09	SCT	NC			9.00		78	69	72	74	6	21	29.31	30.23			
12	FEW	NC			10.00	89	69	75	52	9	23	29.12	30.02	12	FEW	NC			10.00		84	69	74	61	6	VR	29.28	30.20			
15	SCT	NC			10.00	89	69	75	52	9	22	29.10	30.01	15	SCT	NC			10.00		88	68	74	52	5	VR	29.24	30.15			
18	CLR	NC			10.00	87	68	74	53	12	22	29.09	30.00	18	FEW	NC			10.00		86	68	74	55	5	23	29.21	30.12			
21	CLR	NC			10.00	82	67	72	60	7	21	29.11	30.02	21	CLR	NC			10.00		77	70	72	79	3	24	29.22	30.13			
24	CLR	NC			10.00	79	67	71	67	7	22	29.11	30.01	24	CLR	NC			9.00		76	70	72	82	0	00	29.21	30.11			
SUNRISE: 0422				JUL 02		SUNSET: 1941								SUNRISE: 0426				JUL 08		SUNSET: 1939											
03	CLR	NC			10.00	75	65	69	71	7	23	29.12	30.03	03	CLR	NC			8.00		75	70	72	84	3	20	29.20	30.11			
06	CLR	NC			10.00	73	64	67	74	6	VR	29.17	30.08	06	CLR	NC			6.00	HZ	76	69	71	79	6	21	29.17	30.08			
09	CLR	NC			10.00	81	66	71	61	7	VR	29.17	30.08	09	CLR	NC			7.00		83	71	75	67	9	21	29.16	30.06			
12	FEW	NC			10.00	86	66	73	51	12	24	29.16	30.07	12	SCT	NC			7.00		89	71	76	55	10	23	29.10	30.01			
15	CLR	NC			10.00	89	64	72	43	9	22	29.14	30.04	15	SCT	NC			7.00		91	73	78	56	10	22	29.04	29.95			
18	FEW	NC			10.00	86	66	73	51	8	23	29.11	30.02	18	BKN	028			4.00	-RA	85	75	78	72	10	22	28.99	29.90			
21	CLR	NC			10.00	81	67	72	62	5	20	29.11	30.01	21	SCT	NC			7.00		79	73	75	82	5	24	29.00	29.91			
24	CLR	NC			10.00	78	68	71	71	5	22	29.12	30.03	24	FEW	NC			6.00	BR	73	71	72	94	0	00	29.03	29.93			
SUNRISE: 0423				JUL 03		SUNSET: 1940								SUNRISE: 0427				JUL 09		SUNSET: 1939											
03	CLR	NC			10.00	76	67	70	74	7	22	29.10	30.01	03	OVC	023			6.00	BR	74	72	73	94	0	00	29.04	29.95			
06	CLR	NC			8.00	75	67	70	76	7	VR	29.11	30.02	06	OVC	009			3.00	BR	74	71	72	91	13	05	29.06	29.97			
09	CLR	NC			10.00	82	68	73	63	10	24	29.12	30.03	09	OVC	017			6.00	HZ	77	69	72	77	12	03	29.10	30.01			
12	SCT	NC			10.00	88	67	74	50	12	24	29.09	30.00	12	BKN	029			10.00		83	66	72	57	12	03	29.13	30.05			
15	SCT	NC			10.00	88	68	74	52	13	22	29.06	29.97	15	SCT	NC			10.00		86	63	71	46	12	06	29.12	30.03			
18	SCT	NC			10.00	85	69	74	59	7	26	29.04	29.95	18	SCT	NC			10.00		81	66	71	61	9	06	29.13	30.05			
21	FEW	NC			10.00	80	71	74	74	3	22	29.06	29.97	21	CLR	NC			10.00		72	59	64	64	9	06	29.21	30.12			
24	FEW	NC			10.00	78	70	73	76	3	VR	29.09	29.99	24	CLR	NC			10.00		67	54	59	63	7	07	29.22	30.13			
SUNRISE: 0423				JUL 04		SUNSET: 1940								SUNRISE: 0427				JUL 10		SUNSET: 1938											
03	SCT	NC			10.00	74	67	69	79	6	32	29.10	30.01	03	FEW	NC			10.00		62	54	57	75	8	03	29.23	30.14			
06	FEW	NC			10.00	73	62	66	69	5	33	29.15	30.06	06	BKN	021			10.00		63	55	58	76	8	04	29.26	30.18			
09	CLR	NC			10.00	81	57	66	44	6	03	29.17	30.08	09	FEW	NC			10.00		70	62	65	76	10	07	29.27	30.18			
12	FEW	NC			10.00	86	54	66	33	3	VR	29.17	30.08	12	BKN	110			10.00		72	58	63	61	15	12	29.28	30.20			
15	FEW	NC			10.00	88	54	67	31	6	35	29.15	30.06	15	SCT	NC			10.00		71	56	62	59	18	10	29.21	30.13			
18	CLR	NC			10.00	81	63	69	54	16	08	29.17	30.08	18	SCT	NC			10.00		69	55	61	61	13	07	29.25	30.17			
21	CLR	NC			10.00	68	55	60	63	7	11	29.24	30.16	21	OVC	100			10.00		66	52	58	61	13	07	29.28	30.21			
24	CLR	NC			10.00	62	51	56	67	5	04	29.27	30.19	24	SCT	NC			10.00		64	53	58	68	0	00	29.29	30.21			
SUNRISE: 0424				JUL 05		SUNSET: 1940								SUNRISE: 0428				JUL 11		SUNSET: 1938											
03	CLR	NC			10.00	57	51	54	81	5	05	29.27	30.19	03	CLR	NC			10.00		64	52	57	65	9	08	29.27	30.19			
06	SCT	NC			10.00	60	53	56	78	9	07	29.30	30.22	06	BKN	110			10.00		63	54	58	73	6	07	29.32	30.24			
09	BKN	042			10.00	70	57	62	64	8	08	29.31	30.24	09	CLR	NC			10.00		69	54	60	59	16	12	29.33	30.25			
12	OVC	044			10.00	74	58	64	57	8	06	29.32	30.24	12	FEW	NC			10.00		72	52	60	50	14	09	29.32	30.24			
15	BKN	044			10.00	78	56	65	47	12	08	29.29	30.21	15	FEW	NC			10.00		73	51	60	46	12	09	29.28	30.21			
18	FEW	NC			10.00	76	57	64	52	9	10	29.29	30.21	18	CLR	NC			10.00		73	47	59	40	12	09	29.24	30.16			
21	CLR	NC			10.00	70	54	61	57	9	10	29.30	30.22	21	CLR	NC			10.00		61	49	54	65	5	05	29.25	30.17			
24	BKN	050			10.00	66	52	58	61	8	12	29.31	30.23	24	CLR	NC			10.00		54	50	52	87	5	01	29.24	30.16			
SUNRISE: 0425				JUL 06		SUNSET: 1940								SUNRISE: 0429				JUL 12		SUNSET: 1937											
03	SCT	NC			10.00	63	52	57	68	5	07	29.32	30.24	03	CLR	NC			10.00		52	50	51	93	3	32	29.22	30.14			
06	SCT	NC			10.00	67	57	61	71	3	11	29.33	30.25	06	CLR	NC			10.00		57	51	54	81	0	00	29.22	30.14			
09	BKN	041			10.00	72	60	65	66	9	17	29.34	30.26	09	CLR	NC			10.00		73	50	60	44	8	14	29.21	30.13			
12	CLR	NC			10.00	78	65	70	64	5	VR	29.33	30.25	12	FEW	NC			10.00		77	50	61	39	8	10	29.17	30.09			
15	FEW	NC			10.00	81	68	72	65	8	22	29.28	30.20	15	FEW	NC			10.00		80	49	62	34	8	05	29.12	30.04			
18	SCT	NC			10.00	81	69	73	67	5	26	29.25	30.16	18	CLR	NC			10.00		78	47	60	33	7	05	29.09	30.01			
21	CLR	NC			10.00	73	69	70	87	0	00	29.29	30.20	21	CLR	NC			10.00		66	50	57	56	0	00	29.11	30.02			
24																															

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JULY 2002

MSN

WBAN # 14837

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: 0430	JUL 13			SUNSET: 1937										SUNRISE: 0435	JUL 19									
03	CLR	NC			8.00	BR	50	49	49	96	0	00	29.11	30.03	03	BKN	019			7.00	68	64	66	87	3	07	29.00	29.91	
06	CLR	NC			5.00		55	52	53	90	0	00	29.12	30.03	06	OVC	017			8.00	68	63	65	84	0	00	29.03	29.94	
09	CLR	NC			10.00		76	52	62	43	5	VR	29.11	30.02	09	OVC	022			10.00	72	62	66	71	3	VR	29.03	29.95	
12	FEW	NC			10.00		82	49	63	32	8	10	29.09	30.01	12	BKN	029			7.00	80	66	71	62	6	06	29.03	29.95	
15	FEW	NC			10.00		83	51	64	33	5	VR	29.07	29.99	15	OVC	035			8.00	80	69	73	69	8	08	29.03	29.94	
18	FEW	NC			10.00	82	52	64	35	6	08	29.05	29.97	18	FEW	NC			10.00	80	69	73	69	5	11	29.02	29.93		
21	CLR	NC			10.00	64	55	59	73	3	28	29.06	29.98	21	CLR	NC			8.00	69	67	68	93	0	00	29.05	29.97		
24	CLR	NC			10.00	59	55	57	87	0	00	29.08	29.99	24	CLR	NC			8.00	68	62	64	81	5	11	29.08	29.99		
					SUNRISE: 0431	JUL 14			SUNSET: 1936										SUNRISE: 0436	JUL 20									
03	CLR	NC			10.00	BR BCFG	56	54	55	93	0	00	29.08	29.99	03	CLR	NC			10.00	61	59	60	93	0	00	29.07	29.99	
06	CLR	NC			5.00		59	57	58	93	0	00	29.11	30.03	06	CLR	NC			10.00	66	57	61	73	5	14	29.09	30.00	
09	CLR	NC			10.00		79	57	65	47	5	29	29.13	30.05	09	CLR	NC			10.00	78	61	67	56	10	18	29.09	30.01	
12	SCT	NC			10.00		82	53	65	37	3	VR	29.12	30.04	12	CLR	NC			9.00	87	70	75	57	12	18	29.07	29.98	
15	SCT	NC			10.00		83	56	66	40	9	31	29.11	30.02	15	OVC	010			2.00	69	68	68	96	5	VR	29.13	30.05	
18	CLR	NC			10.00		83	55	66	38	5	32	29.10	30.01	18	FEW	NC			10.00	75	71	72	88	5	VR	28.99	29.91	
21	CLR	NC			10.00		68	59	63	73	0	00	29.11	30.02	21	CLR	NC			9.00	75	71	72	88	7	16	29.00	29.91	
24	CLR	NC			10.00		64	59	61	84	0	00	29.13	30.05	24	CLR	NC			6.00	76	74	75	94	7	18	29.01	29.92	
					SUNRISE: 0431	JUL 15			SUNSET: 1935										SUNRISE: 0437	JUL 21									
03	CLR	NC			7.00	BR	61	58	59	90	0	00	29.13	30.04	03	CLR	NC			9.00	78	74	75	87	7	20	28.98	29.88	
06	CLR	NC			4.00		66	62	64	87	0	00	29.17	30.09	06	CLR	NC			8.00	79	74	75	85	7	21	28.99	29.90	
09	CLR	NC			10.00		80	60	67	51	6	VR	29.19	30.11	09	CLR	NC			10.00	84	74	77	72	10	21	28.99	29.90	
12	FEW	NC			10.00		85	60	69	43	7	VR	29.18	30.09	12	CLR	NC			10.00	93	74	79	54	8	22	28.99	29.88	
15	CLR	NC			10.00		87	60	70	40	5	VR	29.15	30.07	15	CLR	NC			10.00	96	72	79	46	16	20	28.93	29.83	
18	CLR	NC			10.00		85	62	70	46	0	00	29.13	30.05	18	CLR	NC			10.00	91	74	79	57	16	20	28.87	29.77	
21	CLR	NC			10.00		76	64	68	67	0	00	29.15	30.06	21	CLR	NC			10.00	86	74	77	67	8	21	28.96	29.85	
24	CLR	NC			10.00		72	63	66	73	0	00	29.16	30.07	24	OVC	039			3.00	73	69	70	87	10	32	29.04	29.95	
					SUNRISE: 0432	JUL 16			SUNSET: 1935										SUNRISE: 0438	JUL 22									
03	CLR	NC			7.00	BR	65	61	63	87	0	00	29.16	30.07	03	CLR	NC			8.00	72	71	71	97	9	18	28.92	29.82	
06	CLR	NC			6.00		67	64	65	91	0	00	29.19	30.11	06	OVC	038			3.00	72	70	71	94	10	25	29.04	29.95	
09	CLR	NC			10.00		79	60	67	52	6	21	29.20	30.11	09	SCT	NC			10.00	75	72	73	90	9	31	28.98	29.88	
12	FEW	NC			10.00		84	60	69	44	8	22	29.17	30.08	12	BKN	020			10.00	77	70	72	79	8	31	29.02	29.94	
15	FEW	NC			10.00		86	60	69	42	5	VR	29.13	30.05	15	SCT	NC			10.00	81	68	72	65	5	VR	29.01	29.92	
18	FEW	NC			10.00		83	62	69	49	5	VR	29.12	30.04	18	FEW	NC			10.00	80	60	67	51	7	32	29.04	29.96	
21	CLR	NC			10.00		75	62	67	64	3	24	29.14	30.06	21	CLR	NC			10.00	71	59	64	66	7	32	29.10	30.01	
24	CLR	NC			9.00		74	64	68	71	6	22	29.13	30.05	24	CLR	NC			10.00	65	59	61	81	7	34	29.15	30.07	
					SUNRISE: 0433	JUL 17			SUNSET: 1934										SUNRISE: 0439	JUL 23									
03	CLR	NC			8.00	HZ	73	63	67	71	6	22	29.12	30.03	03	FEW	NC			10.00	62	58	60	86	10	01	29.20	30.12	
06	CLR	NC			6.00		68	63	65	84	0	00	29.14	30.05	06	FEW	NC			10.00	60	53	56	78	10	36	29.27	30.19	
09	SCT	NC			8.00		79	65	70	62	5	21	29.14	30.06	09	CLR	NC			10.00	65	52	58	63	10	06	29.32	30.24	
12	SCT	NC			10.00		85	65	72	51	8	23	29.10	30.01	12	CLR	NC			10.00	71	50	59	47	9	03	29.34	30.26	
15	SCT	NC			10.00		88	67	74	50	6	VR	29.06	29.97	15	CLR	NC			10.00	74	50	60	43	12	03	29.30	30.22	
18	FEW	NC			10.00		85	68	73	57	3	VR	29.05	29.96	18	CLR	NC			10.00	73	49	59	43	9	07	29.29	30.21	
21	CLR	NC			8.00		75	66	69	74	3	VR	29.06	29.97	21	CLR	NC			10.00	60	51	55	72	7	04	29.33	30.26	
24	CLR	NC			5.00		BR	69	66	67	90	0	00	29.05	29.96	24	CLR	NC			10.00	53	50	51	89	0	00	29.34	30.27
					SUNRISE: 0434	JUL 18			SUNSET: 1933										SUNRISE: 0440	JUL 24									
03	CLR	NC			5.00	BR	66	65	65	96	0	00	29.03	29.94	03	CLR	NC			10.00	55	51	53	87	0	00	29.31	30.23	
06	CLR	NC			3.00	BR BCFG	69	66	67	90	0	00	29.04	29.95	06	FEW	NC			10.00	57	55	56	93	3	35	29.33	30.25	
09	CLR	NC			8.00		82	70	74	67	0	00	29.04	29.95	09	CLR	NC			10.00	71	56	62	59	10	12	29.34	30.26	
12	BKN	055			10.00		86	64	71	48	0	00	29.01	29.92	12	SCT	NC			10.00	77	56	64	48	12	09	29.32	30.24	
15	BKN	075			10.00		89	66	73	47	0	00	28.98	29.88	15	FEW	NC			10.00	79	54	64	42	9	13	29.27	30.19	
18	CLR	NC			9.00		81	74	76	79	9	06	28.99	29.89	18	CLR	NC			10.00	75	54	63	48	8	11	29.23	30.15	
21																													

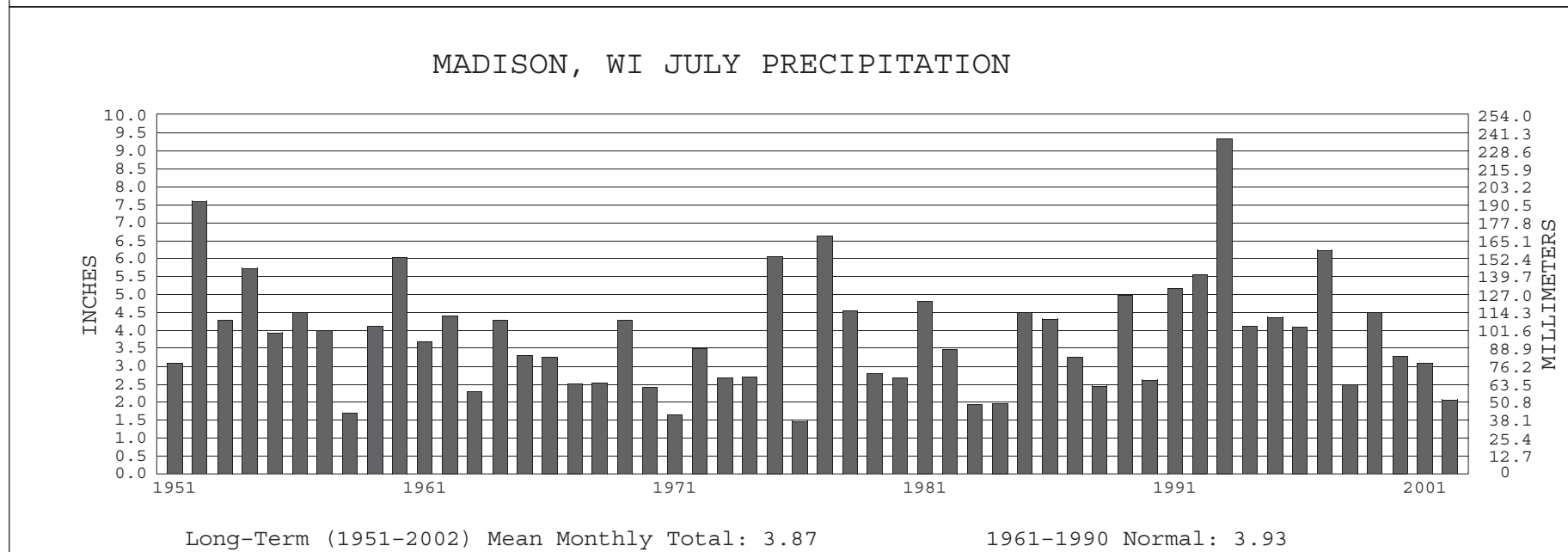
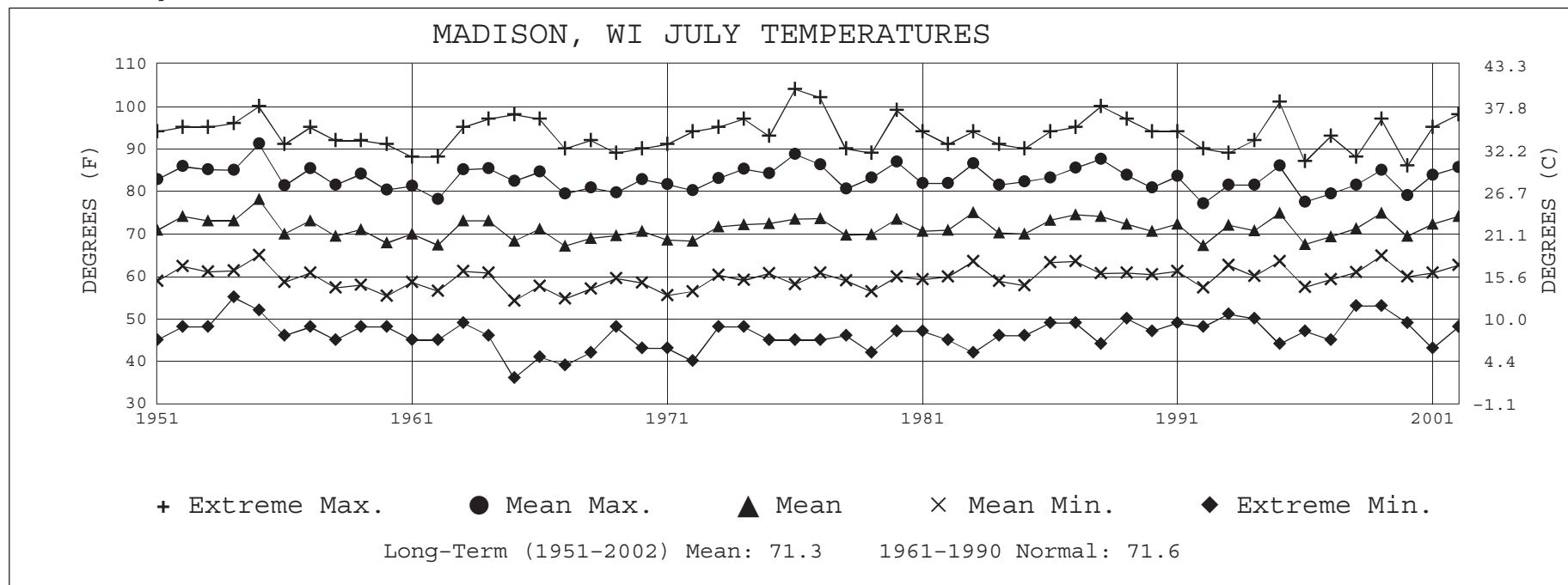
MADISON, WI

JULY 2002

MSN

WBAN # 14837

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
03	BKN	045			10.00	64	58	60	81	6	13	29.17	30.09	03	CLR	NC			10.00	64	63	63	96	0	00	29.05	29.96		
06	BKN	110			10.00	65	62	63	90	8	16	29.12	30.04	06	CLR	NC			10.00	74	69	71	85	7	21	29.06	29.97		
09	BKN	025			10.00	70	62	65	76	12	16	29.12	30.03	09	SCT	NC			10.00	83	66	72	57	8	23	29.07	29.98		
12	CLR	NC			10.00	77	65	69	66	14	16	29.05	29.97	12	SCT	NC			10.00	88	67	74	50	12	18	29.03	29.94		
15	CLR	NC			10.00	78	66	70	67	13	18	29.00	29.91	15	FEW	NC			10.00	91	65	73	42	13	19	29.00	29.91		
18	BKN	100			10.00	78	70	73	76	7	18	28.97	29.88	18	CLR	NC			10.00	88	67	74	50	13	19	28.97	29.87		
21	OVC	042			10.00	76	68	71	77	7	17	28.97	29.87	21	CLR	NC			10.00	80	67	71	64	9	18	28.98	29.88		
24	OVC	045			3.00	71	70	70	96	0	00	28.97	29.88	24	CLR	NC			10.00	76	69	71	79	9	18	28.98	29.88		
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																	
01			68	62	65	82	29.10	30.01	8.66	4	1	18																	
02			67	62	64	85	29.10	30.01	8.44	4	1	18																	
03			66	62	64	86	29.10	30.01	8.40	3	1	15																	
04			66	62	63	87	29.11	30.02	7.92	3	1	6																	
05			65	62	63	89	29.11	30.03	7.16	4	1	17																	
06			68	63	65	85	29.13	30.04	6.97	4	1	17																	
07			71	64	66	78	29.13	30.05	8.31	5	1	16																	
08			74	64	68	71	29.14	30.05	9.19	6	1	20																	
09			77	64	68	65	29.13	30.04	9.58	7	3	17																	
10			79	64	69	62	29.13	30.04	9.71	7	3	19																	
11			81	63	69	57	29.12	30.04	9.74	7	1	21																	
12			82	63	70	54	29.12	30.03	9.77	7	2	16																	
13			83	63	70	53	29.11	30.02	9.84	8	3	19																	
14			84	63	71	51	29.09	30.01	9.87	7	2	18																	
15			84	63	70	52	29.09	30.00	9.58	8	2	18																	
16			84	63	70	52	29.08	29.99	9.87	8	2	19																	
17			83	64	71	55	29.07	29.98	9.74	8	1	21																	
18			81	64	70	57	29.07	29.98	9.77	7	2	15																	
19			79	65	70	63	29.08	29.99	9.84	6	2	15																	
20			75	65	69	70	29.08	30.00	9.71	6	2	15																	
21			73	64	67	73	29.10	30.01	9.61	5	2	15																	
22			72	64	67	75	29.10	30.01	9.45	5	1	14																	
23			71	63	66	78	29.10	30.01	9.35	4	2	15																	
24			69	63	65	81	29.10	30.02	8.58	3	1	16																	





JULY 2002

MADISON, WI

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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

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