



# AUGUST 1998

## 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): 858 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	81	49*	65	-6	55	59	0	0		0		0.0	0.00	29.38	30.31	1.8	10	3.7	21	14	14	17	01	
02	83	56	70	-1	59	63	0	5	BR	0		0.0	0.00	29.27	30.20	4.6	17	5.6	18	15	14	19	02	
03	80	66	73	2	64	67	0	8	RA BR	0		0.0	0.16	29.15	30.07	8.9	10	9.6	23	11	20	11	03	
04	75	67	71	0	69	69	0	6	TS TSRA RA FG+ BR	0		0.0	1.30	29.13	30.04	5.5	09	6.0	15	02	13	02	04	
05	74	68	71	1	68	69	0	6	TS RA DZ BR	0		0.0	0.32	29.12	30.03	11.4	06	11.6	22	06	17	06	05	
06	77	67	72	2	70	71	0	7	TSRA RA BR	0		0.0	0.90	29.02	29.93	5.0	07	5.8	17	02	16	03	06	
07	81	65	73	3	68	69	0	8	RA FG+ BR	0		0.0	T	29.06	29.97	6.8	16	7.3	22	14	17	14	07	
08	81	68	75	5	68	70	0	10	RA BR	0		0.0	T	29.14	30.05	7.0	19	7.6	20	18	15	19	08	
09	85	64	75	5	68	71	0	10	RA BR HZ	0		0.0	0.01	29.14	30.05	3.3	24	4.2	18	36	14	36	09	
10	83	62	73	3	64	67	0	8		0		0.0	0.00	29.07	29.98	4.0	32	5.5	16	32	13	36	10	
11	77	59	68	-1	61	63	0	3	BR HZ	0		0.0	0.00	29.19	30.11	7.1	04	7.5	18	03	15	03	11	
12	78	52	65	-4	60	62	0	0	BR	0		0.0	0.00	29.28	30.20	4.5	06	5.7	14	02	11	08	12	
13	78	59	69	0	61	64	0	4	BCFG BR HZ	0		0.0	0.00	29.19	30.11	2.0	15	2.6	11	08	9	12	13	
14	83	59	71	2	64	66	0	6	TSRA RA BCFG BR HZ	0		0.0	0.43	29.01	29.92	1.2	27	5.0	29	01	21	36	14	
15	78	58	68	-1	62	64	0	3	BR HZ	0		0.0	0.00	29.04	29.95	4.8	05	6.4	16	04	13	06	15	
16	82	54	68	-1	62	65	0	3		0		0.0	0.00	29.09	30.01	4.5	17	6.3	17	17	14	16	16	
17	81	66	74	6	68	69	0	9	TSRA RA BR	0		0.0	0.29	29.06	29.97	2.8	22	5.5	15	26	11	21	17	
18	74	56	65	-3	61	63	0	0	BR	0		0.0	0.00	29.26	30.18	8.1	06	8.5	17	05	15	05	18	
19	78	53	66	-2	61	63	0	1		0		0.0	0.00	29.29	30.21	6.2	16	7.9	20	17	16	16	19	
20	82	66	74	6	67	70	0	9	RA	0		0.0	T	29.25	30.17	4.6	21	6.3	18	30	14	30	20	
21	84	69	77	10	72	73	0	12	TSRA RA BR HZ	0		0.0	0.07	29.27	30.18	0.5	27	2.5	20	08	16	08	21	
22	86	65	76	9	69	72	0	11	BR HZ	0		0.0	0.00	29.12	30.04	6.8	18	7.2	20	19	16	20	22	
23	87*	71	79*	12	71	73	0	14	TS TSRA BR	0		0.0	0.28	28.87	29.76	7.3	22	7.9	33*	21	25*	22	23	
24	81	68	75	8	69	70	0	10	TSRA RA FG BR	0		0.0	0.17	28.82	29.73	1.6	32	3.7	25	16	23	16	24	
25	81	61	71	5	63	66	0	6	BR	0		0.0	0.00	28.96	29.87	4.2	32	4.9	17	32	13	29	25	
26	82	55	69	3	61	64	0	4	BR	0		0.0	0.00	29.13	30.05	0.4	32	1.1	10	28	8	27	26	
27	77	58	68	2	63	65	0	3	RA BR	0		0.0	0.14	29.13	30.05	5.8	17	6.7	22	18	18	18	27	
28	79	66	73	7	67	68	0	8	RA BR HZ	0		0.0	0.17	29.04	29.95	1.9	28	3.5	13	27	9	31	28	
29	83	60	72	6	61	65	0	7		0		0.0	0.00	29.04	29.95	3.4	30	5.3	17	32	13	28	29	
30	78	53	66	1	55	59	0	1	MIFG	0		0.0	0.00	29.10	30.02	2.4	32	2.8	17	31	13	31	30	
31	78	50	64*	-1	53	58	1	0	MIFG BR	0		0.0	0.00	29.16	30.08	0.5	05	1.3	11	09	9	05	31	
80.2		61.0	70.6	■ ■	64.0	66.4	0.0	5.9	< MONTHLY AVERAGES	TOTALS-->		0.0	4.24	29.12	30.04	1.2	13	5.7	<-- MONTHLY AVERAGES					
0.6		4.1	2.3	■ ■	<----- DEPARTURE FROM NORMAL ----->							0.20	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 1.36 DATE: 04-05				GREATEST 24-HR SNOWFALL: 0.0 DATE:				GREATEST SNOW DEPTH: 0 DATE:				SEA LEVEL PRESSURE DATE TIME			
MONTHLY TOTAL DEPARTURE									SEASON TO DATE TOTAL DEPARTURE				MAXIMUM : 30.37 01 0712				MINIMUM : 29.61 24 1346							
HEATING: 1 -37									NUMBER OF DAYS WITH ➡				MAXIMUM TEMP ≥ 90: 0				MINIMUM TEMP ≤ 32: 0				PRECIPITATION ≥ 0.01 INCH : 12			
COOLING: 182 41													MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 10			
													THUNDERSTORMS : 8				HEAVY FOG : 2				SNOWFALL ≥ 1.0 INCH : 0			

AUGUST 1998  
MADISON, WI

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MADISON, WI

AUGUST 1998

MSN

WBAN # 14837

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note 2)	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	0.01	T	T						03								0.04	0.09	0.02	T	03			0.16	
04						T	0.49	0.30	0.01	0.06	T	0.01	04						0.05	0.01	0.01	0.18	0.13	T	04	1.19		1.30	
05					T	0.06	0.01	0.01	0.01		T		05		T	0.13					0.02		T	05	0.31		0.32		
06													06	0.63	0.16	T	0.02	T	T					06	0.81		0.90		
07													07											07			T		
08							T						08											08			T		
09													09											09			0.01		
10													10										T	0.01	10			0.00	
11													11												11			0.00	
12													12												12			0.00	
13													13												13			0.00	
14													14						0.31	0.02	0.01	0.07	0.02		14			0.43	
15													15												15			0.00	
16													16												16			0.00	
17							T	T	0.04	0.17	0.08	T	17												17			0.29	
18													18												18			0.00	
19													19												19			0.00	
20											T		20									T	T		20			T	
21					T	T							21			T	T	T	0.01	0.05	0.01				21			0.07	
22													22												22			0.00	
23				T	0.06	0.22	T						23												23			0.28	
24												0.02	24	0.03	T							0.04	0.08	T	T	24			0.17
25													25												25			0.00	
26													26												26			0.00	
27													27			0.02	0.03	0.01						0.07	0.01	27			0.14
28	0.03	0.11	0.01	0.02	T								28												28			0.17	
29													29												29			0.00	
30													30												30			0.00	
31													31												31			0.00	

## MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

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 1: NCDC derives these data from one-minute ASOS values. The table is not printed when inconsistent with ASOS hourly totals.

Note 2: 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  
AUGUST 1998**

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).

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 at constant pressure by evaporation of moisture into it, to 100% relative humidity.

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	
			CELOMETER	SATELLITE	CELOMETER	SATELLITE			
01							7.00	10.00	
02							4.00	10.00	
03							3.00	10.00	
04							.25	10.00	
05							1.00	7.00	
06							.75	10.00	
07							<.25	10.00	
08							3.00	10.00	
09							2.50	10.00	
10							7.00	10.00	
11							3.00	10.00	
12							5.00	10.00	
13							5.00	10.00	
14							3.00	10.00	
15							2.00	10.00	
16							8.00	10.00	
17							3.00	10.00	
18							4.00	10.00	
19							10.00	10.00	
20							7.00	10.00	
21							1.50	10.00	
22							1.00	10.00	
23							6.00	10.00	
24							2.50	10.00	
25							5.00	10.00	
26							5.00	10.00	
27							6.00	10.00	
28							2.50	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							6.00	10.00	
<b>MONTHLY AVGS</b>							4.33	9.90	
<p align="center"><b>SUNSHINE (MINUTES)</b></p> <p>Total:                  Possible:</p> <p align="center">Percent Possible:</p>									
<p align="center"><b>NUMBER OF DAYS WITH:</b></p> <p align="center"><b>SKY CONDITION</b></p> <p align="center">CLR   PTLY CLDY   CLOUDY   MISSING</p> <p align="center">31</p> <p align="center"><b>MINIMUM VISIBILITY (MILES)</b></p> <p align="center">&lt;=0.25      &lt;=3.0      &gt;=7.0</p> <p align="center">2                15             7</p>									

## OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

AUGUST 1998

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)	
			OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION				SEA LEVEL	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG
			SUNRISE: 0448			AUG 01	SUNSET: 1920										SUNRISE: 0454			AUG 07	SUNSET: 1912						
03	CLR	NC			7.00	51	51	51	100	0	00	29.40	30.33	03	BKN	001		<.25	FG	65	65	65	100	0	00	29.01	29.93
06	CLR	NC			10.00	54	53	53	97	0	00	29.43	30.36	06	OVC	006		2.50	BR	69	69	69	100	7	18	29.03	29.95
09	CLR	NC			10.00	73	54	62	51	7	05	29.42	30.35	09	OVC	016		5.00	BR	72	68	69	87	7	21	29.06	29.98
12	FEW	NC			10.00	78	52	63	40	8	14	29.40	30.34	12	BKN	060		10.00		78	68	71	71	10	15	29.07	29.98
15	SCT	NC			10.00	80	57	66	45	7	VR	29.36	30.28	15	SCT	NC		10.00		79	67	71	67	13	17	29.05	29.97
18	CLR	NC			10.00	78	55	64	45	6	16	29.33	30.25	18	CLR	NC		10.00		78	68	71	71	12	16	29.06	29.97
21	CLR	NC			10.00	62	59	60	90	0	00	29.34	30.26	21	BKN	080		7.00		70	68	69	93	6	16	29.09	30.00
24	CLR	NC			9.00	58	57	57	97	0	00	29.34	30.26	24	FEW	NC		4.00	BR	69	68	68	96	5	16	29.11	30.02
			SUNRISE: 0449			AUG 02	SUNSET: 1919										SUNRISE: 0455			AUG 08	SUNSET: 1911						
03	SCT	NC			7.00	58	58	58	100	0	00	29.33	30.25	03	OVC	008		5.00	BR	71	68	69	90	7	19	29.09	30.01
06	CLR	NC		BR	4.00	63	61	62	93	6	17	29.33	30.24	06	BKN	008		3.00	BR	72	69	70	91	8	17	29.13	30.04
09	CLR	NC			10.00	76	61	67	60	5	VR	29.32	30.24	09	SCT	NC		8.00		73	70	71	90	9	20	29.16	30.08
12	SCT	NC			10.00	81	58	67	46	12	15	29.29	30.21	12	BKN	029		10.00		78	67	71	69	10	21	29.16	30.07
15	SCT	NC			10.00	79	58	66	49	9	18	29.24	30.16	15	SCT	NC		10.00		81	67	71	62	8	21	29.14	30.06
18	CLR	NC			10.00	76	60	66	58	9	13	29.20	30.12	18	SCT	NC		10.00		77	67	70	71	5	25	29.12	30.03
21	CLR	NC			10.00	70	57	62	64	3	14	29.22	30.14	21	FEW	NC		9.00		71	68	69	90	0	00	29.16	30.08
24	OVC	100			10.00	68	59	63	73	0	00	29.23	30.14	24	CLR	NC		7.00		70	69	69	97	0	00	29.17	30.09
			SUNRISE: 0450			AUG 03	SUNSET: 1918										SUNRISE: 0456			AUG 09	SUNSET: 1910						
03	OVC	080			10.00	68	61	64	78	3	14	29.21	30.12	03	CLR	NC		5.00	BR	67	66	66	97	0	00	29.17	30.08
06	OVC	080		-RA	5.00	67	65	66	93	9	10	29.20	30.12	06	CLR	NC		2.50	BR	66	65	65	96	0	00	29.19	30.11
09	SCT	NC			10.00	73	55	62	53	13	08	29.18	30.09	09	CLR	NC		8.00		74	68	70	82	5	23	29.20	30.11
12	BKN	095			10.00	76	64	68	67	15	09	29.16	30.07	12	SCT	NC		10.00		83	69	74	63	6	25	29.16	30.07
15	OVC	040			10.00	77	66	70	69	15	12	29.12	30.03	15	SCT	NC		10.00		84	68	73	59	8	25	29.12	30.03
18	SCT	NC			8.00	77	67	70	71	10	11	29.10	30.02	18	CLR	NC		10.00		83	69	74	63	6	22	29.08	29.99
21	OVC	025		-RA	4.00	70	67	68	90	6	11	29.13	30.05	21	FEW	NC		10.00		78	70	73	76	7	23	29.06	29.98
24	FEW	NC		BR	3.00	67	66	66	97	5	03	29.11	30.03	24	OVC	070		10.00		69	67	68	93	0	00	29.07	29.98
			SUNRISE: 0451			AUG 04	SUNSET: 1916										SUNRISE: 0457			AUG 10	SUNSET: 1908						
03	BKN	050		BR	4.00	68	67	67	96	5	08	29.10	30.02	03	CLR	NC		10.00		66	63	64	90	3	VR	29.07	29.98
06	OVC	004		-RA	1.00	68	68	68	100	8	08	29.11	30.02	06	CLR	NC		10.00		67	63	64	87	5	31	29.07	29.98
09	BKN	045		-RA	7.00	70	69	69	97	5	12	29.13	30.04	09	SCT	NC		10.00		75	68	70	79	6	VR	29.08	29.99
12	OVC	007			8.00	71	70	70	96	7	08	29.14	30.06	12	FEW	NC		10.00		80	67	71	64	9	32	29.07	29.98
15	OVC	031			10.00	74	71	72	91	5	09	29.13	30.04	15	CLR	NC		10.00		80	60	67	51	8	34	29.05	29.97
18	BKN	095			10.00	73	69	70	87	8	08	29.12	30.04	18	CLR	NC		10.00		76	65	69	69	3	32	29.06	29.98
21	OVC	050		-RA	4.00	70	69	69	97	8	09	29.15	30.06	21	CLR	NC		7.00		66	63	64	90	0	00	29.09	30.00
24	OVC	014		BR	4.00	69	69	69	100	8	08	29.15	30.06	24	CLR	NC		7.00		62	61	61	96	3	31	29.10	30.02
			SUNRISE: 0452			AUG 05	SUNSET: 1915										SUNRISE: 0458			AUG 11	SUNSET: 1907						
03	OVC	008		BR	2.50	68	68	68	100	9	05	29.12	30.04	03	CLR	NC		4.00	BR	63	61	62	93	7	04	29.13	30.04
06	OVC	009		-RA	1.00	69	68	68	96	14	06	29.13	30.05	06	CLR	NC		3.00	BR	62	60	61	93	5	36	29.17	30.09
09	BKN	018		BR	1.25	70	69	69	97	14	07	29.14	30.06	09	SCT	NC		5.00	HZ	70	62	65	76	14	05	29.20	30.12
12	OVC	025			7.00	72	68	69	87	13	07	29.14	30.06	12	SCT	NC		8.00		75	60	66	60	10	04	29.21	30.13
15	OVC	010		BR	3.00	70	69	69	97	12	05	29.10	30.02	15	SCT	NC		10.00		76	61	67	60	13	03	29.20	30.12
18	OVC	008		RA	1.00	69	68	68	96	15	05	29.09	30.01	18	SCT	NC		8.00		71	60	64	68	8	03	29.20	30.12
21	OVC	004		BR	1.25	68	68	68	100	12	05	29.09	30.01	21	CLR	NC		10.00		65	60	62	84	5	09	29.23	30.15
24	OVC	004		BR	2.00	69	69	69	100	6	08	29.06	29.98	24	CLR	NC		7.00		60	56	58	86	3	03	29.26	30.18
			SUNRISE: 0453			AUG 06	SUNSET: 1914										SUNRISE: 0459			AUG 12	SUNSET: 1906						
03	OVC	004		BR	2.00	69	69	69	100	5	05	29.03	29.94	03	CLR	NC		7.00		57	55	56	93	0	00	29.27	30.19
06	OVC	002		BR	0.75	69	69	69	100	7	04	29.02	29.94	06	CLR	NC		6.00	BR	58	56	57	93	5	35	29.30	30.22
09	OVC	004		BR	2.50	71	71	71	100	8	08	29.02	29.94	09	CLR	NC		10.00		70	62	65	76	9	04	29.32	30.24
12	BKN	055			9.00	76	72	73	88	8	04	29.00	29.92	12	SCT	NC		10.00		73	61	66	66	6	03	29.31	30.23
15	OVC	033		-RA	9.00	73	72	72	96	7	09	29.00	29.91	15	BKN	050		10.00		75	60	66	60	8	05	29.27	30.19
18	OVC	009			10.00	72	71	71	97	6	08	28.99	29.91	18	FEW	NC		10.00		73	63	67	71	6	06	29.25	30.18
21	OVC	100		BR	6.00	70	70	70	100	5	09	29.01	29.92	21	FEW	NC		10.00		67	61	63	81	7	14	29.27	30.19

## OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

AUGUST 1998

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: 0501		AUG 13	SUNSET: 1904										SUNRISE: 0507		AUG 19	SUNSET: 1855										
03	SCT	NC		7.00	BR	60	59	59	96	0	00	29.27	30.19	03	CLR	NC		10.00		54	53	53	97	5	33	29.30	30.22		
06	BKN	075		5.00		60	59	59	96	0	00	29.26	30.18	06	BKN	070		10.00		58	56	57	93	0	00	29.31	30.24		
09	FEW	NC		10.00		72	61	65	69	5	19	29.23	30.15	09	BKN	120		10.00		69	62	65	78	12	15	29.32	30.24		
12	BKN	037		10.00		75	61	66	62	3	03	29.21	30.13	12	BKN	030		10.00		75	63	67	66	12	17	29.32	30.24		
15	BKN	080		10.00		76	62	67	62	6	10	29.16	30.08	15	FEW	NC		10.00		78	64	69	62	13	15	29.28	30.20		
18	SCT	NC		10.00		75	61	66	62	7	16	29.12	30.04	18	CLR	NC		10.00		76	64	68	67	10	18	29.24	30.16		
21	CLR	NC		10.00		64	62	63	93	0	00	29.12	30.04	21	CLR	NC		10.00		69	62	65	78	5	16	29.26	30.18		
24	CLR	NC		10.00		63	61	62	93	0	00	29.12	30.03	24	CLR	NC		10.00		69	61	64	76	10	19	29.25	30.17		
			SUNRISE: 0502		AUG 14	SUNSET: 1903										SUNRISE: 0508		AUG 20	SUNSET: 1854										
03	CLR	NC		10.00	HZ	62	58	60	86	0	00	29.09	30.01	03	CLR	NC		10.00		67	57	61	71	8	20	29.25	30.16		
06	BKN	055		4.00		62	59	60	90	0	00	29.06	29.98	06	CLR	NC		9.00		68	62	64	81	9	19	29.25	30.17		
09	CLR	NC		4.00		74	68	70	82	6	VR	29.03	29.95	09	BKN	025		7.00		74	69	71	85	3	VR	29.27	30.19		
12	SCT	NC		10.00		80	66	71	62	9	28	28.99	29.91	12	FEW	NC		10.00		77	69	72	77	5	VR	29.25	30.17		
15	SCT	NC		10.00		83	66	72	57	7	VR	28.95	29.86	15	CLR	NC		10.00		81	70	73	69	8	24	29.25	30.16		
18	OVC	043		7.00	-TSRA BR	66	64	65	93	10	18	28.95	29.87	18	OVC	060		10.00		80	71	74	74	0	00	29.22	30.13		
21	OVC	031		6.00		68	66	67	93	3	22	28.97	29.88	21	FEW	NC		10.00	-RA	76	73	74	91	5	23	29.26	30.17		
24	CLR	NC		10.00		67	64	65	91	0	00	28.96	29.86	24	SCT	NC		8.00		74	72	73	94	6	31	29.26	30.18		
			SUNRISE: 0503			AUG 15	SUNSET: 1901										SUNRISE: 0509		AUG 21	SUNSET: 1852									
03	CLR	NC		10.00	BR	64	63	63	96	5	VR	28.95	29.85	03	SCT	NC		7.00		73	71	72	94	0	00	29.27	30.18		
06	OVC	010		2.50		64	63	63	96	6	33	28.99	29.91	06	OVC	003		1.75	BR	73	72	72	96	0	00	29.29	30.20		
09	OVC	012		4.00		68	64	66	87	12	04	29.04	29.96	09	BKN	046		2.00	BR	77	74	75	90	3	VR	29.31	30.22		
12	BKN	037		10.00		73	64	67	74	9	06	29.05	29.97	12	SCT	NC		10.00		81	72	75	74	3	VR	29.28	30.20		
15	SCT	NC		10.00		78	63	68	60	8	09	29.04	29.96	15	BKN	035		10.00	-RA	82	72	75	72	6	17	29.25	30.16		
18	FEW	NC		10.00		73	62	66	69	8	07	29.05	29.98	18	BKN	070		7.00	-TSRA	73	70	71	90	7	36	29.25	30.16		
21	CLR	NC		10.00		64	57	60	78	8	08	29.11	30.03	21	CLR	NC		3.00	BR	72	72	72	100	3	31	29.27	30.18		
24	CLR	NC		10.00		59	54	56	83	3	03	29.12	30.05	24	CLR	NC		5.00	BR	70	69	69	97	5	13	29.25	30.17		
			SUNRISE: 0504		AUG 16	SUNSET: 1860										SUNRISE: 0510		AUG 22	SUNSET: 1851										
03	FEW	NC		10.00	BR	56	54	55	93	0	00	29.11	30.03	03	BKN	005		1.25	BR	68	67	67	96	0	00	29.24	30.16		
06	BKN	039		10.00		56	55	55	97	0	00	29.15	30.07	06	BKN	055		2.00	BR	67	67	67	100	0	00	29.23	30.15		
09	FEW	NC		10.00		71	58	63	63	6	16	29.13	30.06	09	FEW	NC		7.00		76	69	71	79	7	14	29.21	30.13		
12	FEW	NC		10.00		78	64	69	62	12	17	29.11	30.03	12	SCT	NC		7.00		81	72	75	74	10	17	29.15	30.06		
15	BKN	036		10.00		81	66	71	61	10	16	29.06	29.98	15	BKN	037		10.00		84	72	76	67	12	18	29.07	29.99		
18	FEW	NC		10.00		80	68	72	67	9	17	29.04	29.96	18	FEW	NC		9.00		82	70	74	67	8	20	29.02	29.93		
21	CLR	NC		8.00		75	69	71	82	7	18	29.04	29.96	21	CLR	NC		10.00		76	69	71	79	10	18	29.00	29.91		
24	CLR	NC		8.00		73	68	70	84	8	18	29.03	29.94	24	CLR	NC		8.00		75	68	70	79	8	21	28.97	29.87		
			SUNRISE: 0505		AUG 17	SUNSET: 1858										SUNRISE: 0512		AUG 23	SUNSET: 1849										
03	CLR	NC		10.00	-RA	73	67	69	81	10	19	28.99	29.89	03	BKN	085		7.00		74	69	71	85	3	VR	28.96	29.86		
06	CLR	NC		7.00		72	67	69	84	7	22	29.02	29.93	06	OVC	095		9.00	-TSRA	71	67	68	87	8	21	28.93	29.83		
09	OVC	020		3.00		69	67	68	93	3	VR	29.07	29.98	09	FEW	NC		8.00		75	67	70	76	9	20	28.89	29.79		
12	SCT	NC		10.00		74	67	69	79	9	20	29.04	29.95	12	CLR	NC		10.00		85	70	75	61	9	22	28.84	29.74		
15	FEW	NC		10.00		79	68	72	69	8	27	29.04	29.96	15	CLR	NC		10.00		86	73	77	65	12	23	28.81	29.70		
18	FEW	NC		10.00		79	68	72	69	0	00	29.06	29.98	18	CLR	NC		10.00		83	75	77	77	7	23	28.80	29.70		
21	FEW	NC		8.00		69	68	68	96	3	03	29.11	30.03	21	CLR	NC		7.00		79	75	76	88	8	22	28.82	29.72		
24	FEW	NC		6.00	BR	66	65	65	96	13	03	29.14	30.06	24	CLR	NC		7.00		76	73	74	91	3	23	28.82	29.71		
			SUNRISE: 0506		AUG 18	SUNSET: 1857										SUNRISE: 0513		AUG 24	SUNSET: 1847										
03	OVC	004		5.00	BR	65	64	64	97	9	07	29.18	30.10	03	CLR	NC		3.00	BR	73	72	72	96	0	00	28.82	29.71		
06	OVC	016		10.00		63	58	60	84	8	05	29.25	30.17	06	CLR	NC		2.50	BR	69	69	69	100	0	00	28.82	29.72		
09	OVC	013		10.00		65	60	62	84	8	07	29.27	30.19	09	CLR	NC		10.00		80	67	71	64	5	VR	28.82	29.72		
12	OVC	019		10.00		71	63	66	76	12	06	29.28	30.20	12	OVC	031		9.00	-TSRA	74	68	70	82	7	22	28.89	29.79		
15	OVC	034		10.00		73	64	67	74	10	06	29.27	30.19	15	CLR	NC		10.00		79	66	70	65	6	35	28.80	29.70		
18	SCT	NC		10.00		71	62	65	73	7	08	29.25	30.17	18	BKN	120		10.00		76	68	71	77	0	00	28.82	29.72		
21	CLR	NC		10.00		62	57	59	84	8	09	29.29	30.21	21	BKN	080		7.00	-TSRA	70	67	68	90	12	01	28.83	29.73		
24	CLR	NC																											

## OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

AUGUST 1998

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	
03	FEW	NC			SUNRISE: 0514	AUG 25			SUNSET: 1846					03	CLR	NC			SUNRISE: 0520	AUG 31					SUNSET: 1836					
06	FEW	NC			8.00		67	66	66	97	3	31	28.86	29.76	06	FEW	NC			6.00	BR		52	51	52	97	3	01	29.15	30.07
09	CLR	NC			9.00		65	63	64	93	3	32	28.92	29.82	09	CLR	NC			10.00			52	51	52	97	0	00	29.19	30.11
12	FEW	NC			10.00		73	64	67	74	7	33	28.96	29.87	12	FEW	NC			10.00			71	55	62	57	6	07	29.21	30.13
15	SCT	NC			10.00		79	62	68	56	8	32	28.99	29.89	15	FEW	NC			10.00			76	48	60	37	3	VR	29.19	30.11
18	CLR	NC			10.00		79	59	66	50	9	30	28.99	29.89	18	CLR	NC			10.00			77	51	62	40	0	00	29.16	30.08
21	CLR	NC			10.00		76	63	68	64	3	31	28.99	29.91	21	CLR	NC			10.00			69	56	61	63	0	00	29.12	30.04
24	CLR	NC			10.00		66	62	64	87	3	30	29.03	29.94	24	CLR	NC			10.00			60	56	58	86	0	00	29.11	30.04
					8.00		61	60	60	97	3	36	29.05	29.97						10.00			58	56	57	93	0	00	29.10	30.01
					SUNRISE: 0515	AUG 26			SUNSET: 1844					3—HOURLY OBSERVATION NOTES																
03	CLR	NC			7.00		58	57	57	97	0	00	29.08	30.00	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8–2/8,															
06	CLR	NC			7.00		57	56	56	96	0	00	29.12	30.04	SCT = 3/8–4/8, BKN = 5/8–7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.															
09	CLR	NC			10.00		72	64	67	76	0	00	29.15	30.06	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.															
12	FEW	NC			10.00		79	55	64	44	0	00	29.15	30.06	NC= No ceiling detected.															
15	SCT	NC			10.00		81	60	68	49	6	24	29.12	30.04	& = Original observation contained additional weather elements.															
18	CLR	NC			10.00		74	67	69	79	0	00	29.12	30.04	See page 3 for additional notes.															
21	CLR	NC			10.00		65	63	64	93	0	00	29.14	30.06																
24	CLR	NC			10.00		62	61	61	96	0	00	29.16	30.07																
					SUNRISE: 0516	AUG 27			SUNSET: 1842					SUMMARY BY HOUR																
03	CLR	NC			7.00		60	60	60	100	0	00	29.17	30.09	AVERAGES										RESULTANT WIND (MPH)					
06	SCT	NC			6.00	BR	62	60	61	93	0	00	29.18	30.10	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	SPEED	DIRECTION			
09	BKN	120			10.00		73	64	67	74	13	17	29.17	30.09								STATION	SEA LEVEL							
12	BKN	110			10.00		77	64	69	64	10	19	29.16	30.08	01			65	63	64	92	29.12	30.04	7.06	3	1	14			
15	OVC	065			6.00	-RA	70	64	66	82	8	21	29.15	30.07	02			65	63	63	93	29.12	30.03	6.90	3	0	0			
18	BKN	120			10.00		71	68	69	90	5	32	29.03	29.95	03			64	62	63	93	29.12	30.03	6.67	3	1	10			
21	SCT	NC			10.00		78	69	72	74	7	VR	29.02	29.94	04			64	62	63	94	29.12	30.04	6.93	3	0	0			
24	BKN	041			8.00		76	66	69	72	0	00	29.02	29.94	05			63	62	62	94	29.13	30.04	6.02	3	1	14			
					SUNRISE: 0517	AUG 28			SUNSET: 1841					06			64	62	63	94	29.14	30.05	5.76	4	1	10				
03	OVC	011			5.00	-RA BR	68	66	67	93	5	21	29.03	29.95	07			67	64	65	89	29.14	30.06	6.31	5	1	10			
06	OVC	070			5.00	BR	68	67	67	96	3	29	29.03	29.95	08			70	64	66	84	29.15	30.06	6.93	6	2	10			
09	OVC	007			6.00	BR	70	68	69	93	3	VR	29.05	29.97	09			72	65	67	78	29.15	30.06	7.67	6	2	10			
12	OVC	008			3.00	BR	71	68	69	90	5	32	29.03	29.95	10			74	64	68	73	29.15	30.06	8.60	7	2	12			
15	BKN	120			10.00		78	69	72	74	7	VR	29.02	29.94	11			76	65	69	69	29.14	30.06	9.35	7	2	11			
18	CLR	NC			10.00		76	66	69	72	0	00	29.02	29.94	12			77	64	69	66	29.14	30.05	9.39	8	1	14			
21	CLR	NC			10.00		71	65	67	81	5	VR	29.04	29.96	13			78	64	69	65	29.13	30.04	9.24	7	1	17			
24	CLR	NC			10.00		66	63	64	90	5	30	29.04	29.96	14			79	64	70	64	29.11	30.03	9.48	7	1	16			
					SUNRISE: 0518	AUG 29			SUNSET: 1839					15			78	64	69	64	29.11	30.02	9.61	8	2	17				
03	CLR	NC			10.00		67	62	64	84	3	VR	29.02	29.93	16			78	64	69	64	29.10	30.02	9.65	7	1	14			
06	CLR	NC			10.00		67	61	63	81	5	VR	29.03	29.95	17			77	64	69	66	29.10	30.01	9.55	8	1	8			
09	CLR	NC			10.00		74	64	68	71	9	32	29.06	29.97	18			75	65	69	72	29.09	30.01	9.35	6	2	13			
12	CLR	NC			10.00		81	60	68	49	8	33	29.05	29.96	19			72	66	68	81	29.09	30.01	8.97	5	2	14			
15	FEW	NC			10.00		82	59	67	46	9	29	29.02	29.94	20			70	65	67	85	29.10	30.02	8.94	4	2	12			
18	FEW	NC			10.00		78	61	67	56	3	33	29.01	29.92	21			69	65	66	88	29.11	30.03	8.30	5	2	13			
21	SCT	NC			10.00		64	61	62	90	0	00	29.05	29.97	22			68	64	65	89	29.11	30.03	8.14	4	1	18			
24	SCT	NC			10.00		60	58	59	93	0	00	29.06	29.98	23			67	64	65	91	29.11	30.03	7.83	4	1	15			
					SUNRISE: 0519	AUG 30			SUNSET: 1837					24			66	63	64	92	29.11	30.03	7.74	3	1	8				
03	CLR	NC			10.00		55	54	54	96	0	00	29.06	29.98																
06	CLR	NC			10.00		53	53	53	100	0	00	29.09	30.01																
09	CLR	NC			10.00		71	60	64	68	3	35	29.11	30.03																
12	SCT	NC			10.00		76	51	61	42	8	31	29.10	30.02																
15	SCT	NC			10.00		77	50	61	39	7	29	29.09	30.01																
18	CLR	NC			10.00		71	56	62	59	0	00	29.09	30.01																
21	CLR	NC			10.00		58	56	57	93	0	00	29.13	30.05																
24	CLR	NC			10.00		55	54	54	96	0	00	29.14	30.07																

## 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.

&amp; = 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			65	63	64	92	29.12	30.04	7.06	3	1	14
02			65	63	63	93	29.12	30.03	6.90	3	0	0
03			64	62	63	93	29.12	30.03	6.67	3	1	10
04			64	62	63	94	29.12	30.04	6.93	3	0	0
05			63	62	62	94	29.13	30.04	6.02	3	1	14
06			64	62	63	94	29.14	30.05	5.76	4	1	10
07			67	64	65	89	29.14	30.06	6.31	5	1	10
08			70	64	66	84	29.15	30.06	6.93	6	2	10
09			72	65	67	78	29.15	30.06	7.67	6	2	10
10			74	64	68	73	29.15	30.06	8.60	7	2	12
11			76	65	69	69	29.14	30.06	9.35	7	2	11
12			77	64	69	66	29.14	30.05	9.39	8	1	14
13			78	64	69	65	29.13	30.04	9.24	7	1	17
14			79	64	70	64	29.11	30.03	9.48	7	1	16
15			78	64	69	64	29.11	30.02	9.61	8	2	17
16			78	64	69	64	29.10	30.02	9.65	7	1	14
17			77	64	69	66	29.10	30.01	9.55	8	1	8
18			75	65	69	72	29.09	30.01	9.35	6	2	13
19			72	66	68	81	29.09	30.01	8.97	5	2	14
20			70	65	67	85	29.10	30.02	8.94	4	2	12
21			69	65	66	88	29.11	30.03	8.30	5	2	13
22			68	64	65	89	29.11	30.03	8.14	4	1	18
23			67	64	65	91	29.11	30.03	7.83	4	1	15
24			66	63	64	92	29.11	30.03	7.74	3	1	8

# SUPPLEMENTARY HOURLY PRECIPITATION

## UNIVERSAL RAIN GAUGE (WATER EQUIVALENT IN INCHES)

AUGUST 1998  
MADISON, WI

LATITUDE 43° 8'N  
LONGITUDE 89° 20'

DATE	A.M. HOUR (L.S.T.) ENDING AT												DATE	P.M. HOUR (L.S.T.) ENDING AT												DATE	DAILY TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		
01													01							0.02					01	0.02	
02													02												02	0.00	
03			T	T									03								0.09	T			03	0.09	
04						0.06	0.75	0.02		0.06			04						T	0.35					04	1.18	
05													05		0.11			0.04							05	0.21	
06													06	0.80											06	0.80	
07													07												07	0.00	
08													08												08	0.00	
09													09											T	09	T	
10													10												10	0.00	
11													11												11	0.00	
12													12												12	0.00	
13													13												13	0.00	
14													14				0.25	0.10	T	0.02	0.05				14	0.42	
15													15												15	0.00	
16													16												16	0.00	
17								T	0.25				17												17	0.25	
18													18												18	0.00	
19													19												19	0.00	
20													20												20	0.00	
21													21					T	0.05						21	0.05	
22													22												22	0.00	
23					0.05	0.20							23												23	0.25	
24												0.02	24									0.12			24	0.14	
25													25												25	0.00	
26													26												26	0.00	
27													27			0.03					0.04				27	0.07	
28	0.15	0.02											28												28	0.17	
29													29												29	0.00	
30													30												30	0.00	
31													31												31	0.00	
PUBLISHED BY: NCDC, ASHEVILLE, NC.														MONTHLY TOTAL												3.65	

### SUPPLEMENTARY MAXIMUM SHORT DURATION PRECIPITATION (MSDP)

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)					0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
ENDED: DATE					06	06	06	06	06	06	06	06
ENDED: TIME					1300	1300	1300	1300	1300	1300	1300	1300

The time indicated is the ending time of the interval.  
Date and time are not entered for trace amounts.

The National Weather Service has determined that the ASOS Heated Tipping-Bucket (HTB) rain gauge may not measure water equivalent precipitation accurately during frozen precipitation events. Precipitation data from a nearby site is provided on this page to supplement the ASOS HTB data. M = Missing Data.  
\* = Data distribution unknown.  
First HPD value that follows is the total accumulated amount.



**AUGUST 1998  
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.*

DIRECTOR

### **NOTICE**

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

We welcome your questions or comments, please contact us at  
704–271–4800 (voice), 704–271–4876 (fax),  
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