



SEPTEMBER 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	79	53	66	2	57	61	0	1	RA MIFG	0		0.0	T	28.98	29.89	3.0	25	4.6	23	01	15	36	01	
02	73	51	62	-2	49	55	3	0	HZ	0		0.0	0.00	28.91	29.82	4.6	29	5.1	18	34	15	33	02	
03	78	50	64	0	55	59	1	0	BR	0		0.0	0.00	28.88	29.80	0.7	10	3.4	13	04	10	06	03	
04	81	50	66	3	55	59	0	1	BR	0		0.0	0.00	29.08	30.00	0.9	27	2.2	9	27	7	25	04	
05	86	53	70	7	59	64	0	5	BR	0		0.0	0.00	29.11	30.03	4.7	19	4.5	17	19	14	18	05	
06	86	62	74	11	70	72	0	9	RA FG+ BR HZ	0		0.0	0.01	28.99	29.90	1.8	27	3.5	16	30	13	30	06	
07	75	53	64	1	51	58	1	0		0		0.0	0.00	29.01	29.92	7.9	36	9.2	24	03	20	03	07	
08	70	46	58	-4	46	51	7	0		0		0.0	0.00	29.17	30.10	6.4	01	7.0	23	02	20	02	08	
09	72	42	57	-5	48	52	8	0		0		0.0	0.00	29.25	30.18	0.5	33	1.5	11	20	9	05	09	
10	78	49	64	3	51	57	1	0		0		0.0	0.00	29.19	30.12	7.3	21	7.5	22	22	16	19	10	
11	84	63	74	13	54	61	0	9		0		0.0	0.00	29.08	29.99	7.3	22	7.9	17	22	13	23	11	
12	88	57	73	12	57	63	0	8		0		0.0	0.00	29.01	29.93	1.8	23	3.1	13	24	10	22	12	
13	90*	59	75	14	62	67	0	10	BR HZ	0		0.0	0.00	28.98	29.89	4.2	21	5.4	26	20	15	21	13	
14	74	65	70	10	66	66	0	5	RA BR	0		0.0	1.96	28.91	29.81	7.4	16	9.4	28*	15	21*	16	14	
15	75	57	66	6	63	64	0	1	RA DZ BR	0		0.0	0.01	29.09	30.01	6.6	01	7.5	22	01	17	01	15	
16	77	51	64	4	55	58	1	0	BR	0		0.0	0.00	29.24	30.16	2.1	01	3.3	13	02	11	02	16	
17	78	52	65	6	57	60	0	0	FG+ BR	0		0.0	0.00	29.17	30.10	0.1	23	.1	8	27	8	25	17	
18	79	52	66	7	60	62	0	1	MIFG BR	0		0.0	0.00	29.06	29.98	2.1	21	2.8	13	18	10	18	18	
19	83	61	72	13	62	66	0	7	BR HZ	0		0.0	0.00	28.90	29.80	4.6	19	5.5	16	17	13	17	19	
20	79	62	71	13	63	65	0	6	BR HZ	0		0.0	0.00	28.87	29.78	3.3	25	5.7	17	18	14	18	20	
21	66	49	58	0	46	51	7	0	RA	0		0.0	T	29.07	30.00	6.3	34	7.1	20	36	15	36	21	
22	63	44	54	-4	42	48	11	0		0		0.0	0.00	29.23	30.16	6.2	35	6.5	20	01	15	36	22	
23	67	38*	53*	-4	41	48	12	0	RA BR	0		0.0	0.06	29.23	30.17	3.0	21	4.7	18	20	13	17	23	
24	62	51	57	0	54	55	8	0	RA BR	0		0.0	0.12	29.03	29.96	4.4	21	5.2	16	19	13	19	24	
25	76	50	63	6	63	64	2	0	TSRA RA BR	0		0.0	0.04	28.95	29.87	6.3	19	7.0	20	19	16	19	25	
26	85	71	78*	21	68	72	0	13	RA BR HZ	0		0.0	T	28.83	29.73	9.2	21	9.8	26	20	20	19	26	
27	78	50	64	8	59	62	1	0	BCFG BR	0		0.0	0.00	28.99	29.90	5.5	31	6.4	20	31	15	30	27	
28	72	44	58	2	48	53	7	0	BR	0		0.0	0.00	29.11	30.03	0.9	19	1.6	10	18	9	18	28	
29	77	52	65	9	56	59	0	0	TS RA	0		0.0	0.02	28.97	29.89	1.7	25	5.9	20	28	15	30	29	
30	66	47	57	2	52	55	8	0	TSRA RA BR HZ	0		0.0	0.26	29.01	29.93	2.0	33	8.2	26	33	20	33	30	
76.6										< MONTHLY AVERAGES		TOTALS-->		0.0	2.48	29.04	29.96	1.5	25	5.4	<-- MONTHLY AVERAGES			
5.1										<----- DEPARTURE FROM NORMAL ----->		- .89	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 1.97 DATE: 14-15					SEA LEVEL PRESSURE DATE TIME										
MONTHLY									GREATEST 24-HR SNOWFALL: 0.0 DATE:					MAXIMUM : 30.28 23 0810										
TOTAL DEPARTURE									GREATEST SNOW DEPTH: 0 DATE:					MINIMUM : 29.68 26 1705										
HEATING: 78 -90									NUMBER OF DAYS WITH => MAXIMUM TEMP ≥ 90: 1					PRECIPITATION ≥ 0.01 INCH : 8										
COOLING: 76 64									MAXIMUM TEMP ≤ 32 : 0					PRECIPITATION ≥ 0.10 INCH : 3										
									THUNDERSTORMS : 3					HEAVY FOG : 2					SNOWFALL ≥ 1.0 INCH : 0					

SEPTEMBER 1998
MADISON, WI

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MADISON, WI

SEPTEMBER 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									T			01			T	
02													02												02			0.00	
03													03												03			0.00	
04													04												04			0.00	
05													05												05			0.00	
06													06									T			06		0.01	0.01	
07						T							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	0.05	0.02	0.03	0.05	0.10	0.18	0.11	0.11	0.13	0.08	0.07	0.13	14	0.16	0.06	0.04	0.15	0.24	0.08	0.08	0.05	0.03	0.01		T	14		1.96	
15	T							T			0.01	T	15												15			0.01	
16													16												16			0.00	
17													17												17			0.00	
18													18												18			0.00	
19													19												19			0.00	
20													20												20			0.00	
21													21							T	T				21			T	
22													22												22			0.00	
23													23										T	T	23	0.05		0.06	
24	0.12	0.01											24												24		0.13	0.12	
25													25								0.04	T			25			0.04	
26													26	T											26			T	
27													27												27			0.00	
28													28												28			0.00	
29		T				0.01	0.01	T					29												29			0.02	
30											0.08	0.14	30	0.04			T								30			0.26	

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
SEPTEMBER 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).

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 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	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							8.00	10.00	
02							6.00	10.00	
03							6.00	10.00	
04							1.25	10.00	
05							4.00	10.00	
06							.25	10.00	
07							9.00	10.00	
08							10.00	10.00	
09							9.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							9.00	10.00	
13							4.00	10.00	
14							1.00	10.00	
15							2.50	10.00	
16							3.00	10.00	
17							<.25	10.00	
18							5.00	10.00	
19							3.00	10.00	
20							5.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							5.00	10.00	
24							2.00	10.00	
25							.75	10.00	
26							3.00	10.00	
27							2.50	10.00	
28							6.00	10.00	
29							7.00	10.00	
30							3.00	10.00	
MONTHLY AVGS							5.18	10.00	
<p align="center">SUNSHINE (MINUTES)</p> <p>Total: Possible:</p> <p align="center">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">30</p> <p align="center">MINIMUM VISIBILITY (MILES)</p> <p align="center"><=0.25 <=3.0 >=7.0</p> <p align="center">2 12 10</p>									

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

SEPTEMBER 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 Okta		DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL				OBSERVATION TIME (LST)	EFF CLD AMT Okta		DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
	SKY COVER	CEILING 100'S OF FT		VISIBILITY (MILES)											SKY COVER	CEILING 100'S OF FT											
			SUNRISE: 0521		SEP 01	SUNSET: 1834										SUNRISE: 0528		SEP 07	SUNSET: 1824								
03	CLR	NC		10.00	MIFG	57	54	55	90	0	00	29.08	30.00	03	OVC	033		10.00	67	62	64	84	13	03	28.96	29.86	
06	FEW	NC		10.00		54	53	53	97	0	00	29.06	29.99	06	SCT	NC		10.00	61	56	58	84	8	36	29.00	29.91	
09	CLR	NC		10.00		72	57	63	60	5	24	29.04	29.96	09	CLR	NC		10.00	70	56	62	61	9	01	29.03	29.94	
12	SCT	NC		10.00		77	56	64	48	8	22	28.99	29.91	12	CLR	NC		10.00	72	47	58	41	7	33	29.01	29.93	
15	FEW	NC		10.00		78	59	66	52	8	24	28.92	29.83	15	SCT	NC		10.00	73	44	57	36	13	31	28.99	29.91	
18	SCT	NC		10.00		75	61	66	62	7	VR	28.86	29.77	18	CLR	NC		10.00	68	47	56	47	6	33	28.99	29.91	
21	OVC	046		10.00		66	60	62	81	5	31	28.89	29.80	21	SCT	NC		10.00	57	48	52	72	7	01	29.03	29.95	
24	CLR	NC		8.00		59	51	55	75	3	30	28.91	29.82	24	CLR	NC		10.00	53	45	49	74	6	35	29.08	30.01	
			SUNRISE: 0522		SEP 02	SUNSET: 1832										SUNRISE: 0529		SEP 08	SUNSET: 1822								
03	CLR	NC		8.00	55	47	51	74	6	28	28.92	29.83	03	CLR	NC		10.00	49	44	47	83	6	33	29.09	30.02		
06	CLR	NC		7.00	52	47	49	83	6	29	28.94	29.85	06	CLR	NC		10.00	48	43	46	83	7	34	29.15	30.08		
09	CLR	NC		10.00	64	49	56	58	5	31	28.95	29.86	09	CLR	NC		10.00	61	46	53	58	13	02	29.18	30.11		
12	CLR	NC		10.00	70	45	56	41	9	31	28.92	29.83	12	SCT	NC		10.00	68	44	55	42	16	03	29.19	30.12		
15	CLR	NC		10.00	72	46	58	40	10	26	28.88	29.79	15	SCT	NC		10.00	66	44	54	45	14	02	29.16	30.10		
18	CLR	NC		10.00	67	48	57	51	3	24	28.88	29.80	18	FEW	NC		10.00	61	47	54	60	3	VR	29.17	30.11		
21	CLR	NC		10.00	64	50	56	61	0	00	28.89	29.80	21	CLR	NC		10.00	50	48	49	93	0	00	29.20	30.13		
24	CLR	NC		10.00	55	53	54	93	0	00	28.87	29.79	24	CLR	NC		10.00	46	45	46	96	3	01	29.22	30.16		
			SUNRISE: 0524		SEP 03	SUNSET: 1831										SUNRISE: 0530		SEP 09	SUNSET: 1820								
03	CLR	NC		10.00	60	50	55	70	3	21	28.85	29.76	03	CLR	NC		10.00	45	44	45	97	0	00	29.25	30.19		
06	FEW	NC		8.00	52	51	52	97	0	00	28.89	29.81	06	CLR	NC		10.00	43	43	43	100	3	32	29.29	30.22		
09	FEW	NC		10.00	66	54	59	65	0	00	28.89	29.80	09	CLR	NC		10.00	62	50	55	65	0	00	29.31	30.24		
12	FEW	NC		10.00	74	56	63	54	6	VR	28.86	29.77	12	SCT	NC		10.00	69	48	57	47	5	VR	29.29	30.22		
15	CLR	NC		10.00	77	58	65	52	5	VR	28.85	29.75	15	CLR	NC		10.00	71	49	59	46	5	VR	29.22	30.15		
18	CLR	NC		10.00	71	58	63	63	5	04	28.87	29.79	18	CLR	NC		10.00	62	52	56	70	0	00	29.20	30.14		
21	CLR	NC		10.00	62	55	58	78	3	01	28.92	29.84	21	CLR	NC		10.00	53	50	51	89	0	00	29.20	30.14		
24	CLR	NC		6.00	55	54	54	96	0	00	28.96	29.88	24	CLR	NC		10.00	51	47	49	86	0	00	29.23	30.16		
			SUNRISE: 0525		SEP 04	SUNSET: 1829										SUNRISE: 0531		SEP 10	SUNSET: 1818								
03	CLR	NC		3.00	53	52	52	96	3	34	28.99	29.91	03	CLR	NC		10.00	50	48	49	93	0	00	29.24	30.17		
06	CLR	NC		1.25	51	51	51	100	3	33	29.04	29.97	06	CLR	NC		10.00	51	49	50	92	3	22	29.26	30.19		
09	CLR	NC		7.00	69	59	63	70	0	00	29.09	30.02	09	CLR	NC		10.00	67	50	57	55	9	17	29.26	30.19		
12	CLR	NC		10.00	77	51	62	40	3	VR	29.10	30.02	12				10.00										
15	CLR	NC		10.00	80	45	60	29	5	21	29.08	30.01	15	CLR	NC		10.00	77	51	62	40	13	20	29.15	30.08		
18	CLR	NC		10.00	72	58	63	61	5	24	29.09	30.01	18	CLR	NC		10.00	73	53	61	50	8	23	29.12	30.04		
21	CLR	NC		10.00	63	60	61	90	0	00	29.12	30.04	21	CLR	NC		10.00	69	53	60	57	8	21	29.13	30.05		
24	CLR	NC		7.00	57	57	57	100	0	00	29.15	30.06	24	CLR	NC		10.00	67	51	58	57	9	21	29.12			
			SUNRISE: 0526		SEP 05	SUNSET: 1827										SUNRISE: 0532		SEP 11	SUNSET: 1816								
03	CLR	NC		10.00	59	57	58	93	3	18	29.15	30.06	03	CLR	NC		10.00	65	51	57	61	9	22	29.12	30.03		
06	CLR	NC		6.00	54	54	54	100	0	00	29.17	30.10	06	FEW	NC		10.00	63	51	56	65	10	22	29.13	30.05		
09	CLR	NC		10.00	73	56	63	55	8	18	29.18	30.10	09	CLR	NC		10.00	71	54	61	55	9	22	29.13	30.05		
12	CLR	NC		10.00	82	54	65	38	12	19	29.13	30.04	12	CLR	NC		10.00	80	54	64	41	8	23	29.09	30.01		
15	CLR	NC		10.00	85	54	66	35	9	21	29.08	29.99	15	CLR	NC		10.00	83	55	66	38	8	23	29.04	29.96		
18	CLR	NC		10.00	78	63	68	60	5	18	29.05	29.97	18	CLR	NC		10.00	78	55	64	45	7	21	29.02	29.94		
21	CLR	NC		9.00	71	66	68	84	3	18	29.04	29.96	21	CLR	NC		10.00	72	54	61	53	6	21	29.03	29.95		
24	CLR	NC		5.00	69	67	68	93	3	36	29.04	29.96	24	CLR	NC		10.00	68	55	60	63	5	21	29.03	29.94		
			SUNRISE: 0527		SEP 06	SUNSET: 1825										SUNRISE: 0533		SEP 12	SUNSET: 1815								
03	FEW	NC		1.00	65	65	65	100	0	00	29.03	29.94	03	CLR	NC		10.00	62	54	57	75	0	00	29.02	29.94		
06	SCT	NC		0.75	67	67	67	100	3	17	29.03	29.95	06	CLR	NC		10.00	57	55	56	93	0	00	29.03	29.96		
09	FEW	NC		3.00	80	73	75	79	7	26	29.03	29.94	09	CLR	NC		10.00	74	55	63	52	5	26	29.04	29.96		
12	FEW	NC		8.00	81	73	75	77	5	23	29.01	29.92	12	CLR	NC		10.00	84	57	67	40	9	23	29.02	29.93		
15	FEW	NC		10.00	85	70	75	61	6	22	28.95	29.86	15	CLR	NC		10.00	88	56	68	34	6	22	28.99	29.89		
18	FEW	NC		9.00	80	73	75	79	7	35	28.92	29.83	18	CLR	NC		10.00	77	63	68	62	5	24	28.98	29.89		
21	SCT	NC		7.00	75	73	74	94	0	00	28.97	29.87	21	CLR	NC		10.00	66	62	64	87	0	00	28.99	29.91		
24	SCT	NC		7.00	71	69	70	94	8	01	28.93	29.83	24	CLR	NC		9.00	64	63	63	96	3	12	29.00	29.91		

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

SEPTEMBER 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 Okta		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 Okta	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
					SUNRISE: 0535	SEP 13			SUNSET: 1813										SUNRISE: 0541	SEP 19									
03	CLR	NC			6.00	BR	65	62	63	90	7	18	28.98	29.88	03	CLR	NC			7.00	62	59	60	90	0	00	28.94	29.84	
06	CLR	NC			6.00	BR	59	58	58	96	0	00	29.00	29.91	06	BKN	070			4.00	64	59	61	84	0	00	28.94	29.84	
09	FEW	NC			10.00		77	63	68	62	5	VR	29.01	29.92	09	CLR	NC			5.00	72	61	65	69	6	21	28.94	29.85	
12	FEW	NC			10.00		87	63	71	45	7	VR	28.99	29.90	12	SCT	NC			10.00	81	65	70	58	8	20	28.91	29.81	
15	SCT	NC			10.00		88	58	69	36	9	19	28.95	29.85	15	SCT	NC			10.00	83	64	71	53	9	20	28.87	29.77	
18	FEW	NC			10.00		81	64	70	57	5	22	28.96	29.87	18	CLR	NC			10.00	77	65	69	66	7	17	28.84	29.75	
21	CLR	NC			10.00		77	65	69	66	7	19	28.97	29.87	21	CLR	NC			10.00	72	63	66	73	3	18	28.85	29.75	
24	OVC	065			10.00		74	63	67	69	13	20	28.99	29.90	24	CLR	NC			7.00	67	63	64	87	3	VR	28.86	29.76	
					SUNRISE: 0536	SEP 14			SUNSET: 1811										SUNRISE: 0542	SEP 20									
03	OVC	047			6.00	-RA BR	67	65	66	93	7	19	28.99	29.88	03	SCT	NC			7.00	68	63	65	84	6	19	28.85	29.75	
06	OVC	010			1.75	RA BR	66	65	65	96	8	15	28.98	29.88	06	CLR	NC			5.00	68	63	65	84	12	19	28.83	29.73	
09	OVC	047			2.00	-RA BR	67	65	66	93	9	14	28.95	29.85	09	SCT	NC			9.00	73	65	68	76	7	25	28.87	29.77	
12	OVC	016			2.50	-RA BR	66	64	65	93	15	16	28.89	29.80	12	BKN	100			10.00	76	64	68	67	9	25	28.87	29.77	
15	OVC	016			2.50	-RA BR	69	67	68	93	14	16	28.86	29.77	15	BKN	031			10.00	76	65	69	69	7	VR	28.85	29.75	
18	OVC	007			1.00	-RA BR	68	67	67	96	7	14	28.84	29.75	18	CLR	NC			10.00	70	62	65	76	3	28	28.86	29.76	
21	OVC	009			2.00	-RA BR	69	68	68	96	0	00	28.85	29.76	21	CLR	NC			10.00	64	61	62	90	0	00	28.91	29.82	
24	OVC	007			2.00	-RA BR	67	67	67	100	8	34	28.86	29.77	24	CLR	NC			10.00	62	57	59	84	9	32	28.97	29.88	
					SUNRISE: 0537	SEP 15			SUNSET: 1809										SUNRISE: 0543	SEP 21									
03	OVC	008			6.00	BR	66	65	65	96	6	34	28.91	29.82	03	CLR	NC			10.00	53	45	49	74	3	32	29.01	29.93	
06	OVC	015			7.00		65	63	64	93	7	34	28.99	29.90	06	CLR	NC			10.00	50	43	47	77	5	VR	29.04	29.97	
09	OVC	009			10.00		68	65	66	90	8	35	29.06	29.98	09	CLR	NC			10.00	56	46	51	70	15	01	29.06	29.99	
12	OVC	011			10.00		68	65	66	90	14	02	29.12	30.04	12	BKN	120			10.00	61	47	54	60	10	01	29.09	30.01	
15	BKN	027			10.00		71	64	67	79	8	36	29.14	30.06	15	CLR	NC			10.00	66	46	55	49	7	VR	29.06	29.99	
18	FEW	NC			10.00		68	62	64	81	5	06	29.19	30.11	18	OVC	110			10.00	60	46	53	60	7	33	29.10	30.03	
21	CLR	NC			10.00		61	58	59	90	6	06	29.22	30.14	21	OVC	090			10.00	56	46	51	70	5	32	29.13	30.06	
24	CLR	NC			9.00		58	57	57	97	3	04	29.25	30.18	24	OVC	110			10.00	53	47	50	80	5	35	29.13	30.06	
					SUNRISE: 0538	SEP 16			SUNSET: 1807										SUNRISE: 0544	SEP 22									
03	CLR	NC			9.00		54	54	54	100	3	32	29.26	30.19	03	OVC	090			10.00	52	47	49	83	7	36	29.14	30.07	
06	CLR	NC			7.00		51	50	51	96	3	35	29.28	30.21	06	BKN	047			10.00	48	44	46	86	5	34	29.20	30.13	
09	FEW	NC			10.00		65	60	62	84	6	08	29.29	30.22	09	FEW	NC			10.00	57	46	51	67	9	36	29.25	30.18	
12	CLR	NC			10.00		74	56	63	54	7	01	29.26	30.18	12	FEW	NC			10.00	61	41	51	48	9	35	29.25	30.18	
15	FEW	NC			10.00		76	55	63	48	3	36	29.19	30.11	15	CLR	NC			10.00	62	33	48	34	12	35	29.23	30.16	
18	FEW	NC			10.00		66	60	62	81	0	00	29.19	30.12	18	CLR	NC			10.00	53	42	48	66	0	00	29.25	30.18	
21	CLR	NC			10.00		57	56	56	96	0	00	29.20	30.13	21	CLR	NC			10.00	45	41	43	86	3	29	29.27	30.21	
24	FEW	NC			3.00	BR	55	54	54	96	0	00	29.21	30.13	24	CLR	NC			10.00	46	40	43	79	0	00	29.30	30.23	
					SUNRISE: 0539	SEP 17			SUNSET: 1806										SUNRISE: 0546	SEP 23									
03	BKN	002			1.25	BR	52	52	52	100	0	00	29.20	30.12	03	CLR	NC			10.00	40	39	40	97	3	31	29.31	30.25	
06	VV	001			<.25	FG	56	56	56	100	0	00	29.21	30.14	06	CLR	NC			10.00	38	38	38	100	0	00	29.33	30.27	
09	SCT	NC			9.00		68	62	64	81	0	00	29.22	30.14	09	CLR	NC			10.00	56	46	51	70	0	00	29.33	30.27	
12	SCT	NC			10.00		76	58	65	54	0	00	29.19	30.11	12	FEW	NC			10.00	64	39	51	40	10	17	29.28	30.21	
15	FEW	NC			10.00		77	56	64	48	0	00	29.14	30.06	15	CLR	NC			10.00	67	38	52	35	8	19	29.19	30.13	
18	CLR	NC			10.00		68	59	63	73	0	00	29.12	30.05	18	CLR	NC			10.00	62	41	51	46	6	21	29.13	30.07	
21	CLR	NC			10.00		59	57	58	93	0	00	29.14	30.06	21	CLR	NC			10.00	58	44	51	60	5	17	29.08	30.01	
24	CLR	NC			7.00		57	56	56	96	0	00	29.14	30.06	24	OVC	050			5.00	53	49	51	86	9	25	29.16	30.09	
					SUNRISE: 0540	SEP 18			SUNSET: 1804										SUNRISE: 0547	SEP 24									
03	CLR	NC			7.00		54	54	54	100	0	00	29.12	30.04	03	OVC	070			10.00	54	51	52	90	7	20	29.05	29.98	
06	FEW	NC			7.00	MIFG	54	54	54	100	0	00	29.12	30.05	06	OVC	027			10.00	54	51	52	90	9	20	29.03	29.96	
09	CLR	NC			10.00		71	59	64	66	5	VR	29.12	30.05	09	OVC	008			8.00	56	53	54	90	6	22	29.04	29.97	
12	SCT	NC			10.00		76	62	67	62	6	23	29.09	30.01	12	OVC	012			8.00	59	55	57	87	3	VR	29.03	29.96	
15	SCT	NC			10.00		78	62	68	58	5	24	29.01	29.93	15	OVC	016			9.00	61	56	58	84	6	21			

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

SEPTEMBER 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		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: 0548 SEP 25 SUNSET: 1749														SUNRISE: SEP 31 SUNSET:													
03	CLR	NC			1.50 BR	52	52	52	100	6	18	28.98	29.90														
06	CLR	NC			1.25 BR	56	55	55	97	3	19	28.98	29.89														
09	OVC	002			0.75 BR	62	61	61	96	9	21	28.98	29.90														
12	SCT	NC			10.00	72	65	67	79	10	19	28.96	29.87														
15	OVC	026			10.00	75	67	70	76	3	VR	28.95	29.86														
18	CLR	NC			8.00	70	67	68	90	3	14	28.92	29.83														
21	BKN	045			7.00 -TSRA	72	69	70	91	7	20	28.94	29.85														
24	SCT	NC			4.00 BR	72	69	70	91	13	18	28.88	29.78	3-HOURLY OBSERVATION NOTES													
SUNRISE: 0549 SEP 26 SUNSET: 1748														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 Visiblity = 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.													
03	BKN	014			5.00 BR	72	69	70	91	10	19	28.83	29.74														
06	BKN	016			3.00 BR	71	69	70	94	5	18	28.86	29.76														
09	CLR	NC			8.00	78	70	73	76	8	23	28.86	29.77														
12	CLR	NC			9.00	79	68	72	69	13	21	28.84	29.74														
15	CLR	NC			10.00	85	67	73	55	13	21	28.79	29.69														
18	OVC	070			10.00	82	67	72	60	7	VR	28.80	29.70														
21	OVC	090			10.00	80	68	72	67	10	21	28.82	29.72														
24	FEW	NC			10.00	78	69	72	74	12	23	28.82	29.72														
SUNRISE: 0550 SEP 27 SUNSET: 1746														SUMMARY BY HOUR													
03	OVC	030			9.00	73	67	69	81	6	32	28.87	29.77	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)		
06	CLR	NC			2.50 BCFG	66	65	65	96	5	29	28.92	29.82								STATION	SEA LEVEL			SPEED	DIRECTION	
09	BKN	017			10.00	69	61	64	76	10	32	28.99	29.90	01			59	55	56	87	29.04	29.96	7.53	4	1	26	
12	SCT	NC			10.00	70	59	63	68	7	34	29.02	29.94	02			58	55	56	88	29.04	29.96	7.69	4	1	29	
15	FEW	NC			10.00	73	55	62	53	7	VR	29.00	29.91	03			58	54	56	88	29.04	29.96	7.62	4	1	23	
18	FEW	NC			10.00	66	54	59	65	5	29	29.02	29.95	04			57	54	55	90	29.05	29.96	7.54	3	1	21	
21	CLR	NC			10.00	57	52	54	83	3	31	29.08	30.00	05			57	53	55	90	29.05	29.97	7.45	3	1	22	
24	CLR	NC			10.00	50	49	49	96	0	00	29.11	30.03	06			56	54	55	92	29.06	29.98	6.89	4	1	24	
SUNRISE: 0551 SEP 28 SUNSET: 1744														07			59	55	57	87	29.07	29.99	7.06	4	1	19	
03	CLR	NC			8.00	48	47	47	96	0	00	29.12	30.04	08			63	57	60	79	29.07	29.99	7.47	5	1	25	
06	CLR	NC			9.00	46	45	46	96	0	00	29.16	30.09	09			67	57	61	71	29.07	29.99	8.53	6	1	25	
09	CLR	NC			10.00	62	51	56	67	0	00	29.18	30.11	10			70	56	62	64	29.07	29.99	8.98	7	2	24	
12	CLR	NC			10.00	68	46	56	45	6	21	29.14	30.06	11			71	56	62	60	29.07	29.98	8.88	7	2	26	
15	CLR	NC			10.00	70	45	56	41	0	00	29.08	30.01	12			73	56	63	58	29.05	29.97	9.53	7	2	24	
18	FEW	NC			10.00	59	53	56	81	0	00	29.06	29.99	13			74	56	63	55	29.04	29.96	9.58	7	3	24	
21	FEW	NC			10.00	53	51	52	93	0	00	29.05	29.98	14			75	56	64	53	29.02	29.94	9.67	7	3	27	
24	BKN	110			10.00	60	52	56	75	8	17	29.02	29.94	15			75	55	63	52	29.02	29.93	9.72	7	3	24	
SUNRISE: 0552 SEP 29 SUNSET: 1742														16			75	55	63	53	29.01	29.93	9.58	7	3	26	
03	CLR	NC			10.00	60	53	56	78	12	19	28.98	29.89	17			73	55	63	55	29.01	29.93	9.58	6	2	24	
06	BKN	075			10.00	60	54	57	80	3	VR	28.97	29.88	18			69	57	62	67	29.01	29.93	9.47	4	1	25	
09	OVC	095			10.00	63	56	59	78	3	20	28.97	29.89	19			65	57	61	77	29.02	29.94	9.58	3	1	24	
12	FEW	NC			10.00	74	60	65	62	7	VR	28.94	29.85	20			64	57	60	80	29.03	29.95	9.42	3	1	21	
15	FEW	NC			10.00	77	57	65	50	9	35	28.94	29.85	21			62	56	59	82	29.03	29.95	9.20	3	1	24	
18	CLR	NC			10.00	66	59	62	78	3	28	28.98	29.89	22			62	56	58	82	29.04	29.96	8.96	4	1	26	
21	CLR	NC			10.00	55	54	54	96	0	00	29.00	29.93	23			61	56	58	84	29.04	29.96	8.71	4	1	26	
24	CLR	NC			9.00	52	50	51	93	3	01	29.00	29.92	24			60	55	57	86	29.05	29.96	7.90	5	1	25	
SUNRISE: 0553 SEP 30 SUNSET: 1740																											
03	OVC	005			4.00 BR	59	58	58	96	7	07	29.00	29.92														
06	OVC	009			10.00	58	56	57	93	6	10	28.99	29.91														
09	OVC	007			4.00 BR	62	59	60	90	14	17	28.95	29.86														
12	BKN	029			9.00 -RA	60	59	59	96	0	00	28.96	29.88														
15	OVC	022			10.00	64	57	60	78	9	31	28.91	29.82														
18	FEW	NC			10.00	57	47	52	69	9	34	29.00	29.93														
21	CLR	NC			10.00	52	40	46	64	9	35	29.10	30.03														
24	CLR	NC			10.00	47	38	43	71	10	33	29.17	30.11														

SUPPLEMENTARY HOURLY PRECIPITATION

UNIVERSAL RAIN GAUGE (WATER EQUIVALENT IN INCHES)

SEPTEMBER 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												01	0.00		
02													02												02	0.00		
03													03												03	0.00		
04													04												04	0.00		
05													05												05	0.00		
06													06												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	0.05	T	0.03	0.02	0.15	0.18	0.15	0.15	0.11	0.05	0.05	0.15	14	0.20	0.04	0.04	0.15	0.20	0.10	0.07	0.05	0.03	T		14	1.97		
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												20	0.00		
21													21												21	0.00		
22													22												22	0.00		
23													23												23	0.00		
24													24												24	0.00		
25													25								0.03				25	0.03		
26													26												26	0.00		
27													27												27	0.00		
28													28												28	0.00		
29												0.07	29												29	0.00		
30											0.15		30	0.04											30	0.26		
PUBLISHED BY: NCDC, ASHEVILLE, NC.														MONTHLY TOTAL														2.26

SUPPLEMENTARY MAXIMUM SHORT DURATION PRECIPITATION (MSDP)

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)					0.25	0.28	0.30	0.35	0.35	0.35	0.48	0.48
ENDED: DATE					14	14	14	14	14	14	14	14
ENDED: TIME					1300	1300	1300	1300	1300	1300	0700	0700

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.



**SEPTEMBER 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
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