



JUNE 1999

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	71	56	64	2	58	60	1	0	TSRA RA BR HZ	0		0.0	0.61	28.84	29.76	5.9	07	6.8	21	04	16	04	01	
02	71	54	63	1	55	58	2	0	RA DZ BR	0		0.0	0.11	28.98	29.90	6.0	33	7.2	22	32	16	31	02	
03	71	50	61	-2	49	54	4	0		0		0.0	0.00	29.23	30.15	5.1	09	6.6	20	10	16	10	03	
04	73	48	61	-2	54	57	4	0	TS TSRA RA BR HZ	0		0.0	0.30	29.08	30.00	6.8	13	7.3	25	16	21	16	04	
05	88	61	75	12	68	71	0	10	BR	0		0.0	0.00	28.95	29.86	9.4	19	9.9	25	18	21	18	05	
06	87	68	78	14	69	71	0	13	TS TSRA RA	0		0.0	0.77	29.00	29.90	8.4	18	9.3	41	29	28*	28	06	
07	84	68	76	12	61	66	0	11	RA	0		0.0	0.01	29.01	29.92	8.3	22	9.5	25	24	17	24	07	
08	90	60	75	10	64	67	0	10	TS RA	0		0.0	0.09	29.07	29.98	2.6	21	4.8	36	26	24	27	08	
09	87	63	75	10	67	70	0	10	RA BR	0		0.0	0.09	29.04	29.95	5.1	17	6.1	15	15	13	13	09	
10	89	67	78*	13	68	70	0	13	TSRA RA BR HZ	0		0.0	0.94	29.06	29.97	4.4	18	6.2	45*	17	24	21	10	
11	86	66	76	11	67	70	0	11	TS RA BR HZ	0		0.0	0.11	29.08	30.00	7.3	19	8.1	25	18	21	18	11	
12	83	67	75	10	66	69	0	10	RA BR	0		0.0	0.03	29.17	30.08	1.8	33	4.6	14	01	10	36	12	
13	74	63	69	3	62	64	0	4	RA BR	0		0.0	0.74	29.12	30.04	5.1	02	6.3	20	04	15	05	13	
14	69	48	59	-7	46	53	6	0	RA	0		0.0	0.01	29.19	30.11	9.1	32	9.4	24	33	17	31	14	
15	63	43	53*	-13	40	48	12	0		0		0.0	0.00	29.31	30.25	1.1	31	2.3	9	25	8	21	15	
16	67	48	58	-9	47	51	7	0	RA	0		0.0	0.02	29.27	30.20	4.3	34	5.7	22	30	16	32	16	
17	69	43*	56	-11	45	51	9	0	MIFG BR	0		0.0	0.00	29.36	30.30	2.2	34	3.3	16	02	11	03	17	
18	73	46	60	-7	47	54	5	0	BCFG	0		0.0	0.00	29.38	30.31	4.9	13	5.8	22	13	15	10	18	
19	77	57	67	0	50	57	0	2		0		0.0	0.00	29.31	30.23	7.2	15	8.0	22	15	16	17	19	
20	79	56	68	0	51	59	0	3		0		0.0	0.00	29.29	30.21	5.0	12	5.8	18	14	15	09	20	
21	82	55	69	1	58	63	0	4	BR HZ	0		0.0	0.00	29.23	30.15	6.1	15	6.9	22	15	15	16	21	
22	86	63	75	7	65	68	0	10	TSRA RA BR HZ	0		0.0	0.37	29.08	29.99	7.4	17	7.9	30	21	22	18	22	
23	77	67	72	4	68	69	0	7	RA BR HZ	0		0.0	0.21	28.88	29.79	9.7	17	9.8	26	18	23	19	23	
24	87	61	74	6	64	68	0	9	FG+ BCFG BR	0		0.0	0.00	28.94	29.85	1.9	32	3.1	14	29	11	24	24	
25	90*	57	74	5	57	64	0	9	BCFG BR	0		0.0	0.00	29.02	29.92	2.9	16	3.6	15	17	13	16	25	
26	85	66	76	7	61	66	0	11		0		0.0	0.00	28.95	29.85	7.7	17	7.8	20	15	17	16	26	
27	86	63	75	6	67	70	0	10	BR HZ	0		0.0	0.00	28.86	29.76	0.8	22	3.5	13	18	11	18	27	
28	78	56	67	-2	64	66	0	2	TSRA RA BR HZ	0		0.0	0.71	28.78	29.69	3.4	36	7.6	25	33	20	31	28	
29	72	51	62	-7	51	56	3	0		0		0.0	0.00	28.96	29.88	2.9	31	4.2	16	32	13	32	29	
30	75	59	67	-2	56	61	0	2	TSRA RA BR	0		0.0	0.45	28.91	29.82	6.6	17	7.7	25	13	21	13	30	
79.0 57.7 68.4 ■■ 58.2 62.4 1.8 5.4 < MONTHLY AVERAGES TOTALS-->												0.0	5.57	29.08	29.99	2.5	18	6.5	<-- MONTHLY AVERAGES					
0.8 3.5 2.2 ■■ <----- DEPARTURE FROM NORMAL ----->												1.91	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.94 DATE: 10					SEA LEVEL PRESSURE DATE TIME										
MONTHLY TOTAL DEPARTURE 53 -15 6390 -1283									GREATEST 24-HR SNOWFALL: 0.0 DATE:					MAXIMUM : 30.37 18 0853										
SEASON TO DATE TOTAL DEPARTURE 185 51									GREATEST SNOW DEPTH: 0 DATE:					MINIMUM : 29.57 28 1553										
HEATING: 53 -15 6390 -1283									NUMBER OF DAYS WITH ➡			MAXIMUM TEMP ≥ 90: 2			MINIMUM TEMP ≤ 32: 0			PRECIPITATION ≥ 0.01 INCH : 17						
COOLING: 161 57 185 51												MAXIMUM TEMP ≤ 32 : 0			MINIMUM TEMP ≤ 0 : 0			PRECIPITATION ≥ 0.10 INCH : 11						
												THUNDERSTORMS : 9			HEAVY FOG : 1			SNOWFALL ≥ 1.0 INCH : 0						

JUNE 1999
MADISON, WI

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MADISON, WI

JUNE 1999

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							0.09	0.21	0.26	0.04		0.01	01			0.61
02	T	0.01	T	T	0.03	0.07	T						02													02			0.11
03													03													03			0.00
04											0.21	0.09	04	T												04			0.30
05													05													05			0.00
06													06			0.16	0.42	T	T	0.01			0.13	0.05		06			0.77
07		0.01											07							0.03	0.06	T				07			0.01
08													08													08			0.09
09							0.08	0.01					09													09			0.09
10													10					0.77	0.13	0.04					T	10			0.94
11													11									0.07	T	0.03	0.01	11			0.11
12			T										12								0.03	T				12			0.03
13	T	0.05	0.05	0.03	0.05	0.11	0.16	0.18	0.09	0.02	T		13										T	T	T	13			0.74
14	0.01												14													14			0.01
15													15													15			0.00
16													16			0.02	T									16			0.02
17													17													17			0.00
18													18													18			0.00
19													19													19			0.00
20													20													20			0.00
21													21					0.17	T	0.09	0.10	0.01				21			0.00
22													22													22			0.37
23											0.02	0.01	23	T	0.01	T	0.17									23			0.21
24													24													24			0.00
25													25													25			0.00
26													26													26			0.00
27													27													27			0.00
28													28		0.52	T	0.02	0.16			T	0.01				28			0.71
29													29													29			0.00
30													30										0.01	0.42		30	0.43		0.45

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)												
Ending Date												
Ending Time (Hour/Min)												

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

* = 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
JUNE 1999

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	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							2.00	8.00	
02							2.00	10.00	
03							9.00	10.00	
04							2.50	10.00	
05							2.50	10.00	
06							1.75	10.00	
07							10.00	10.00	
08							8.00	10.00	
09							3.00	10.00	
10							1.25	10.00	
11							2.00	10.00	
12							3.00	10.00	
13							3.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							7.00	10.00	
17							3.00	10.00	
18							5.00	10.00	
19							10.00	10.00	
20							7.00	10.00	
21							3.00	10.00	
22							2.50	10.00	
23							2.00	6.00	
24							.50	10.00	
25							5.00	10.00	
26							9.00	10.00	
27							4.00	10.00	
28							1.50	10.00	
29							9.00	10.00	
30							2.00	10.00	
MONTHLY AVGS							4.68	9.80	
<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">0 17 10</p>									

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JUNE 1999

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				
				VISIBILITY (MILES)																											
			SUNRISE: 0421																												
03	OVC	027			3.00	BR								03	CLR	NC															
06	OVC	010			3.00	BR								06	CLR	NC															
09	OVC	029			8.00									09	FEW	NC															
12	BKN	035			8.00									12	FEW	NC															
15	BKN	015			7.00									15	CLR	NC															
18	OVC	075			7.00									18	CLR	NC															
21	OVC	006			3.00	RA BR								21	CLR	NC															
24	OVC	006			5.00	-RA BR								24	CLR	NC															
			SUNRISE: 0420																												
03	OVC	006			4.00	DZ BR								03	CLR	NC															
06	OVC	008			8.00	-RA								06	CLR	NC															
09	OVC	015			10.00									09	CLR	NC															
12	BKN	024			10.00									12	FEW	NC															
15	SCT	NC			10.00									15	SCT	NC															
18	BKN	030			10.00									18	BKN	050				TS											
21	CLR	NC			10.00									21	SCT	NC															
24	CLR	NC			10.00									24	CLR	NC															
			SUNRISE: 0420																												
03	CLR	NC			10.00									03	CLR	NC															
06	CLR	NC			9.00									06	OVC	110															
09	CLR	NC			10.00									09	SCT	NC															
12	CLR	NC			10.00									12	CLR	NC															
15	FEW	NC			10.00									15	SCT	NC															
18	CLR	NC			10.00									18	CLR	NC															
21	CLR	NC			10.00									21	SCT	NC															
24	CLR	NC			10.00									24	CLR	NC															
			SUNRISE: 0420																												
03	BKN	036			10.00									03	CLR	NC															
06	CLR	NC			10.00									06	CLR	NC															
09	SCT	NC			10.00									09	FEW	NC															
12	BKN	110			7.00	-RA								12	FEW	NC															
15	OVC	033			7.00									15	SCT	NC															
18	BKN	041			6.00	HZ								18	OVC	035				-TSRA BR											
21	CLR	NC			5.00	BR								21	CLR	NC															
24	BKN	060			4.00	BR								24	CLR	NC															
			SUNRISE: 0419																												
03	CLR	NC			2.50	BR								03	CLR	NC															
06	FEW	NC			10.00									06	CLR	NC															
09	FEW	NC			10.00									09	CLR	NC															
12	FEW	NC			10.00									12	SCT	NC															
15	SCT	NC			10.00									15	SCT	NC															
18	FEW	NC			10.00									18	SCT	NC															
21	FEW	NC			10.00									21	OVC	035				-RA											
24	CLR	NC			9.00									24	OVC	110				6.00 BR											
			SUNRISE: 0419																												
03	CLR	NC			8.00									03	SCT	NC															
06	CLR	NC			8.00									06	BKN	010															
09	FEW	NC			10.00									09	OVC	022															
12	SCT	NC			10.00									12	FEW	NC															
15	BKN	060			10.00	-TSRA								15	SCT	NC															
18	FEW	NC			9.00	-TSRA								18	SCT	NC															
21	OVC	100			10.00									21	BKN	030															
24	FEW	NC			10.00									24	FEW	NC															

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JUNE 1999

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		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: 0417		JUN 13	SUNSET: 1937										SUNRISE: 0418		JUN 19	SUNSET: 1940									
03	OVC	090		8.00		65	63	64	93	3	01	29.14	30.05	03	CLR	NC		10.00		59	48	53	67	6	16	29.33	30.26	
06	OVC	025		3.00	RA BR	64	62	63	93	6	01	29.13	30.05	06	CLR	NC		10.00		59	51	55	75	5	12	29.35	30.27	
09	BKN	018		6.00	-RA BR	65	63	64	93	13	03	29.15	30.07	09	CLR	NC		10.00		68	52	59	57	7	VR	29.34	30.27	
12	OVC	075		10.00		67	60	63	79	8	36	29.15	30.07	12	SCT	NC		10.00		73	48	59	41	8	19	29.32	30.24	
15	BKN	110		10.00		72	61	65	69	9	05	29.10	30.02	15	SCT	NC		10.00		76	49	60	39	9	15	29.29	30.21	
18	FEW	NC		10.00		70	61	64	73	3	06	29.07	29.99	18	FEW	NC		10.00		72	50	59	46	7	17	29.27	30.19	
21	BKN	110		10.00		67	63	64	87	0	00	29.09	30.01	21	CLR	NC		10.00		66	51	58	59	9	13	29.29	30.21	
24	OVC	085		10.00	-RA	66	53	59	63	6	34	29.07	29.99	24	OVC	120		10.00		63	50	56	63	7	14	29.28	30.20	
			SUNRISE: 0417		JUN 14	SUNSET: 1938										SUNRISE: 0418		JUN 20	SUNSET: 1940									
03	CLR	NC		10.00		61	50	55	67	8	33	29.09	30.01	03	BKN	110		10.00		61	50	55	67	6	14	29.29	30.21	
06	CLR	NC		10.00		60	49	54	67	14	32	29.13	30.05	06	CLR	NC		7.00		60	54	57	80	3	01	29.32	30.24	
09	CLR	NC		10.00		63	49	55	60	10	29	29.17	30.10	09	CLR	NC		10.00		72	51	60	48	0	00	29.32	30.24	
12	FEW	NC		10.00		68	47	56	47	9	32	29.18	30.10	12	FEW	NC		10.00		77	51	62	40	12	16	29.30	30.22	
15	SCT	NC		10.00		67	42	54	41	12	31	29.19	30.11	15	SCT	NC		10.00		78	52	63	40	13	13	29.28	30.19	
18	FEW	NC		10.00		64	41	52	43	9	32	29.21	30.14	18	CLR	NC		10.00		75	51	61	43	9	09	29.25	30.17	
21	CLR	NC		10.00		53	43	48	69	7	35	29.28	30.22	21	CLR	NC		10.00		61	52	56	72	6	07	29.28	30.20	
24	CLR	NC		10.00		48	42	45	80	3	34	29.33	30.26	24	CLR	NC		8.00		59	52	55	78	0	00	29.29	30.21	
			SUNRISE: 0417		JUN 15	SUNSET: 1938										SUNRISE: 0418		JUN 21	SUNSET: 1940									
03	CLR	NC		10.00		45	42	44	90	3	30	29.33	30.27	03	CLR	NC		4.00	BR	55	53	54	93	3	35	29.29	30.21	
06	CLR	NC		10.00		48	44	46	86	0	00	29.35	30.28	06	CLR	NC		3.00	HZ	61	56	58	84	0	00	29.29	30.21	
09	SCT	NC		10.00		58	35	47	42	3	08	29.35	30.28	09	CLR	NC		6.00	HZ	74	61	66	64	7	15	29.28	30.20	
12	CLR	NC		10.00		61	38	50	43	5	32	29.33	30.27	12	SCT	NC		10.00		79	61	68	54	9	16	29.25	30.17	
15	FEW	NC		10.00		62	37	50	40	6	VR	29.30	30.24	15	SCT	NC		10.00		81	59	67	47	9	16	29.20	30.12	
18	CLR	NC		10.00		61	39	50	44	5	28	29.27	30.21	18	SCT	NC		8.00		79	61	68	54	12	15	29.16	30.08	
21	CLR	NC		10.00		53	47	50	80	0	00	29.28	30.21	21	CLR	NC		7.00		72	61	65	69	9	13	29.17	30.09	
24	FEW	NC		10.00		54	44	49	69	0	00	29.28	30.22	24	CLR	NC		8.00		68	58	62	70	5	16	29.16	30.08	
			SUNRISE: 0417		JUN 16	SUNSET: 1938										SUNRISE: 0418		JUN 22	SUNSET: 1940									
03	OVC	090		10.00		52	46	49	80	0	00	29.26	30.19	03	CLR	NC		7.00		66	58	61	75	7	16	29.13	30.04	
06	SCT	NC		10.00		54	46	50	75	5	32	29.28	30.21	06	FEW	NC		3.00	HZ	68	61	64	78	5	18	29.15	30.06	
09	BKN	090		10.00		59	47	53	64	3	VR	29.28	30.21	09	CLR	NC		3.00	HZ	78	68	71	71	10	17	29.13	30.04	
12	BKN	075		10.00		63	45	53	52	5	29	29.25	30.18	12	SCT	NC		8.00		82	67	72	60	9	21	29.09	30.01	
15	OVC	050		10.00		58	47	52	67	17	32	29.25	30.19	15	SCT	NC		10.00		85	66	72	53	13	19	29.03	29.94	
18	SCT	NC		10.00		59	49	54	69	9	36	29.25	30.18	18	SCT	NC		6.00	HZ	74	68	70	82	10	13	29.02	29.93	
21	CLR	NC		10.00		52	47	49	83	7	03	29.29	30.22	21	CLR	NC		8.00		70	67	68	90	5	16	29.04	29.95	
24	CLR	NC		7.00		48	46	47	93	0	00	29.31	30.25	24	FEW	NC		4.00	BR	69	66	67	90	9	16	28.99	29.89	
			SUNRISE: 0417		JUN 17	SUNSET: 1939										SUNRISE: 0418		JUN 23	SUNSET: 1940									
03	CLR	NC		8.00		45	43	44	93	3	35	29.34	30.28	03	BKN	065		3.00	BR	69	66	67	90	8	17	28.95	29.85	
06	CLR	NC		5.00	BR	49	47	48	93	0	00	29.38	30.32	06	CLR	NC		2.00	BR	71	67	68	87	12	17	28.91	29.82	
09	CLR	NC		10.00		61	41	51	48	8	35	29.39	30.33	09	CLR	NC		3.00	HZ	75	66	69	74	15	17	28.87	29.77	
12	SCT	NC		10.00		67	44	55	44	7	35	29.38	30.32	12	OVC	055		3.00	-RA	73	66	68	79	16	18	28.88	29.79	
15	BKN	060		10.00		67	44	55	44	3	VR	29.37	30.30	15	BKN	033		2.50	HZ	76	69	71	79	15	18	28.83	29.73	
18	FEW	NC		10.00		67	43	54	42	3	32	29.35	30.29	18	SCT	NC		5.00	BR	75	71	72	88	12	17	28.83	29.74	
21	CLR	NC		10.00		54	50	52	87	0	00	29.37	30.30	21	CLR	NC		6.00	BR	72	69	70	91	5	19	28.86	29.76	
24	CLR	NC		9.00		50	48	49	93	0	00	29.38	30.31	24	CLR	NC		5.00	BR	68	65	66	90	3	14	28.89	29.79	
			SUNRISE: 0417		JUN 18	SUNSET: 1939										SUNRISE: 0419		JUN 24	SUNSET: 1941									
03	CLR	NC		7.00		48	47	47	96	0	00	29.39	30.33	03	CLR	NC		5.00	BCFG BR	67	65	66	93	3	30	28.90	29.80	
06	CLR	NC		8.00		53	49	51	86	0	00	29.42	30.36	06	CLR	NC		7.00		67	65	66	93	5	31	28.94	29.84	
09	CLR	NC		10.00		66	45	55	47	3	23	29.43	30.37	09	CLR	NC		10.00		79	63	69	58	6	03	28.95	29.85	
12	SCT	NC		10.00		71	47	58	42	10	17	29.39	30.33	12	CLR	NC		10.00		84	60	69	44	0	00	28.97	29.87	
15	FEW	NC		10.00		73	46	58	38	7	10	29.35	30.28	15	SCT	NC		10.00		87	62	71	43	8	31	28.93	29.83	
18	CLR	NC		10.00		68	44	55	42	8	12	29.33	30.26	18	BKN	100		10.00		82	63	70	53	6	28	28.94	29.85	
21	CLR	NC		10.00		62	45	53	54	10	11	29.34	30.26	21	CLR	NC		10.00		71	67	68	87	0	00	28.98	29.88	
24	CLR	NC		10.00		59	47	53	64	5	14	29.35	30.27	24	CLR	NC		9.00		65	63	64	93	0	00	28.99	29.89	

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JUNE 1999

MSN

WBAN # 14837

HOUR (LST)	SKY COVER CEILING 100'S OF FT		SATELLITE		WEATHER	TEMPERATURE ° F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER CEILING 100'S OF FT		SATELLITE		WEATHER	TEMPERATURE ° F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
			OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL				OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0419 JUN 25 SUNSET: 1941																													
03	CLR	NC		7.00	BCFG	58	57	57	97	0	00	29.01	29.92																
06	CLR	NC		9.00		64	61	62	90	0	00	29.05	29.96																
09	CLR	NC		10.00		82	56	66	41	0	00	29.05	29.96																
12	CLR	NC		10.00		89	50	65	27	7	VR	29.03	29.94																
15	CLR	NC		10.00		86	55	67	35	6	VR	29.01	29.92																
18	CLR	NC		10.00		83	55	66	38	9	17	29.00	29.91																
21	CLR	NC		10.00	74	57	64	56	6	17	28.99	29.90																	
24	CLR	NC		10.00	66	56	60	70	6	15	28.99	29.88																	
SUNRISE: 0419 JUN 26 SUNSET: 1941																													
03	CLR	NC		10.00	68	54	60	61	6	18	28.98	29.88																	
06	FEW	NC		10.00	70	59	63	68	8	17	28.99	29.89																	
09	CLR	NC		10.00	77	65	69	66	7	18	28.99	29.89																	
12	FEW	NC		10.00	83	60	68	46	15	19	28.96	29.87																	
15	SCT	NC		10.00	82	60	68	47	12	18	28.92	29.83																	
18	CLR	NC		10.00	82	60	68	47	10	18	28.90	29.81																	
21	CLR	NC		10.00	72	64	67	76	0	00	28.92	29.83																	
24	CLR	NC		10.00	67	64	65	91	0	00	28.90	29.80																	
SUNRISE: 0420 JUN 27 SUNSET: 1941																													
03	CLR	NC		10.00	63	61	62	93	0	00	28.88	29.78																	
06	CLR	NC		6.00	65	63	64	93	0	00	28.90	29.80																	
09	CLR	NC		4.00	79	71	74	77	5	VR	28.91	29.81																	
12	FEW	NC		10.00	83	67	72	59	6	26	28.88	29.78																	
15	SCT	NC		8.00	84	68	73	59	5	VR	28.82	29.72																	
18	FEW	NC		10.00	82	67	72	60	3	26	28.80	29.71																	
21	CLR	NC		9.00	74	70	71	88	0	00	28.84	29.74																	
24	FEW	NC		8.00	72	67	69	84	7	02	28.84	29.75																	
SUNRISE: 0420 JUN 28 SUNSET: 1941																													
03	CLR	NC		6.00	66	65	65	96	0	00	28.81	29.71																	
06	OVC	005		3.00	68	66	67	93	8	05	28.82	29.72																	
09	OVC	011		4.00	72	68	69	87	8	11	28.79	29.69																	
12	OVC	017		4.00	75	69	71	82	8	12	28.74	29.65																	
15	SCT	NC		8.00	77	71	73	82	6	VR	28.67	29.58																	
18	BKN	015		10.00	67	62	64	84	8	32	28.73	29.63																	
21	OVC	014		10.00	61	58	59	90	12	33	28.82	29.73																	
24	SCT	NC		10.00	56	50	53	81	9	33	28.89	29.80																	
SUNRISE: 0421 JUN 29 SUNSET: 1941																													
03	CLR	NC		10.00	53	50	51	89	3	VR	28.93	29.84																	
06	CLR	NC		10.00	54	50	52	87	7	33	28.96	29.88																	
09	SCT	NC		10.00	63	52	57	68	9	32	28.99	29.92																	
12	BKN	047		10.00	68	50	58	53	5	VR	28.99	29.90																	
15	SCT	NC		10.00	71	49	59	46	5	VR	28.97	29.88																	
18	FEW	NC		10.00	70	50	59	49	7	30	28.95	29.86																	
21	BKN	050		9.00	63	55	58	76	0	00	28.98	29.89																	
24	SCT	NC		10.00	60	54	57	80	0	00	28.97	29.88																	
SUNRISE: 0421 JUN 30 SUNSET: 1941																													
03	CLR	NC		10.00	63	54	58	73	5	21	28.95	29.86																	
06	BKN	075		10.00	62	56	59	81	7	16	28.94	29.85																	
09	BKN	055		10.00	66	56	60	70	9	18	28.96	29.88																	
12	SCT	NC		10.00	71	54	61	55	15	20	28.94	29.85																	
15	BKN	065		10.00	74	57	64	56	5	VR	28.91	29.82																	
18	BKN	065		10.00	74	58	64	57	12	16	28.86	29.77																	
21	SCT	NC		10.00	69	59	63	70	6	15	28.87	29.77																	
24	OVC	017		2.00	65	63	64	93	7	18	28.85	29.76																	

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 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.

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)	WIND	
							STATION	SEA LEVEL			SPEED	DIRECTION
01			62	57	59	82	29.07	29.99	8.27	4	2	16
02			62	56	58	84	29.07	29.99	7.83	5	2	18
03			61	56	58	85	29.08	29.99	7.85	4	1	16
04			60	56	58	88	29.08	30.00	6.95	4	1	17
05			60	56	58	88	29.09	30.01	6.47	4	1	19
06			63	58	60	84	29.10	30.01	7.10	5	1	18
07			66	59	62	78	29.10	30.02	7.53	6	2	17
08			68	59	63	72	29.11	30.02	8.05	7	2	18
09			71	59	64	66	29.10	30.02	8.63	7	2	17
10			73	59	64	62	29.10	30.02	8.85	8	4	18
11			74	58	65	59	29.10	30.01	8.95	8	5	18
12			75	59	65	57	29.09	30.00	9.33	8	5	19
13			77	59	66	56	29.08	29.99	9.17	8	4	19
14			76	58	65	55	29.06	29.98	9.10	8	3	18
15			77	58	65	55	29.05	29.97	9.38	7	3	18
16			76	59	65	57	29.05	29.96	9.57	8	3	17
17			75	58	65	59	29.05	29.96	9.18	7	2	18
18			73	58	64	61	29.05	29.97	9.20	8	2	17
19			71	59	64	67	29.06	29.97	9.00	6	2	14
20			68	59	63	75	29.06	29.98	8.85	5	2	15
21			66	59	62	79	29.08	29.99	9.20	5	2	13
22			65	58	61	79	29.08	30.00	8.93	5	2	13
23			64	58	60	80	29.08	30.00	8.90	5	2	13
24			63	57	60	82	29.08	29.99	8.40	4	1	14

SUPPLEMENTARY HOURLY PRECIPITATION

UNIVERSAL RAIN GAUGE (WATER EQUIVALENT IN INCHES)

JUNE 1999
MADISON, WI

LATITUDE 43° 8'N
LONGITUDE 89° 20'

A.M. HOUR (L.S.T.) ENDING AT														P.M. HOUR (L.S.T.) ENDING AT														DATE	DAILY TOTAL
1	2	3	4	5	6	7	8	9	10	11	12	DATE	1	2	3	4	5	6	7	8	9	10	11	12	DATE				
01				0.04	0.07							01						0.08	0.15	0.17	0.08	0.14			01	0.62			
02												02													02	0.11			
03												03													03	0.00			
04											0.18	0.11	04												04	0.29			
05													05												05	0.00			
06													06		0.18	0.40	0.01	0.01	T			0.13	0.04		06	0.77			
07													07												07	0.00			
08						0.05	0.03	0.01					08												08	0.09			
09							0.07	0.02					09												09	0.09			
10													10				0.84	0.11	0.01						10	0.96			
11													11												11	0.11			
12													12							0.07	0.01	0.03			12	0.04			
13		0.03	0.09	0.04	0.07	0.14	0.19	0.16	0.04				13							0.02	0.02				13	0.76			
14													14			0.01									14	0.01			
15													15												15	0.00			
16													16			0.02									16	0.02			
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				0.16	0.02	0.07	0.11	0.03				22	0.39			
23											0.02	0.01	23			0.18									23	0.21			
24													24												24	0.00			
25													25												25	0.00			
26													26												26	0.00			
27													27												27	0.00			
28													28		0.53	T	0.04	0.13							28	0.70			
29													29												29	0.00			
30													30										0.10	0.34	30	0.44			
PUBLISHED BY: NCDC, ASHEVILLE, NC.																							MONTHLY TOTAL			5.61			

SUPPLEMENTARY MAXIMUM SHORT DURATION PRECIPITATION (MSDP)

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)					0.84	0.84	0.84	0.90	0.96	0.96	0.96	0.96
ENDED: DATE					10	10	10	10	10	10	10	10
ENDED: TIME					1800	1800	1800	1800	1805	1805	1805	1805

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.



**JUNE 1999
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
828–271–4800 (voice), 828–271–4876 (fax),
828–271–4010(TDD)
or orders@ncdc.noaa.gov
Local Climatological Data is available at www.ncdc.noaa.gov

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