



# MAY 2003

## 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	
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	63	46	55	3	45	49	10	0	RA DZ BR HZ	0		0.0	0.05	28.94	29.87	9.7	04	10.3	23	06	20	06	01	
02	58	32	45*	-7	27	39	20	0	RA	0		0.0	T	29.17	30.11	9.5	03	9.8	22	04	18	05	02	
03	62	29*	46	-7	28	39	19	0		0		0.0	0.00	29.23	30.17	3.4	10	5.6	15	14	12	11	03	
04	57	34	46	-7	35	43	19	0	RA BR	0		0.0	0.35	28.96	29.89	14.5	13	14.9	40*	11	31	11	04	
05	59	49	54	0	50	51	11	0	RA DZ BR HZ	0		0.0	0.21	28.57	29.49	4.1	14	9.1	32	10	24	10	05	
06	68	50	59	5	48	52	6	0	BR HZ	0		0.0	0.00	28.91	29.83	2.6	01	7.0	20	12	17	11	06	
07	50	46	48	-7	46	47	17	0	TSRA RA DZ BR	0		0.0	0.47	29.01	29.94	7.4	04	8.9	21	02	17	01	07	
08	60	48	54	-1	48	51	11	0	TSRA RA BR HZ	0		0.0	0.33	29.03	29.96	7.3	09	9.2	25	10	21	10	08	
09	74	52	63	8	53	57	2	0	RA BR HZ	0		0.0	0.19	28.77	29.69	7.1	16	11.7	36	11	28	11	09	
10	73	44	59	3	52	55	6	0	TSRA MIFG BCFG BR	0		0.0	0.63	28.68	29.60	4.4	11	6.1	33	24	28	11	10	
11	62	46	54	-2	44	47	11	0	RA DZ BR	0		0.0	0.41	28.44	29.35	13.9	26	17.3	38	31	28	30	11	
12	65	47	56	0	36	46	9	0		0		0.0	0.00	28.95	29.88	12.1	30	12.6	32	32	22	30	12	
13	72	48	60	3	37	49	5	0		0		0.0	0.00	29.06	29.99	2.3	28	6.5	17	31	14	29	13	
14	57	49	53	-4	44	48	12	0	RA DZ BR HZ	0		0.0	0.31	28.98	29.91	5.8	12	8.1	20	10	15	09	14	
15	65	44	55	-2	46	50	10	0	RA BR	0		0.0	0.01	29.05	29.98	5.0	07	6.5	20	07	15	10	15	
16	69	38	54	-4	46	51	11	0	FG BCFG BR	0		0.0	0.00	29.12	30.06	5.1	06	5.9	21	05	17	05	16	
17	68	44	56	-2	50	53	9	0	FG+ BR HZ	0		0.0	0.00	29.19	30.12	6.1	06	7.3	20	02	16	03	17	
18	72	46	59	0	52	56	6	0	BR HZ	0		0.0	0.00	29.16	30.09	8.2	10	8.7	23	10	18	11	18	
19	68	59	64	5	60	61	1	0	RA DZ BR HZ	0		0.0	0.18	29.09	30.01	5.6	15	7.6	23	14	18	14	19	
20	62	41	52	-7	39	46	13	0	RA BR	0		0.0	0.03	29.32	30.26	10.2	33	10.7	26	32	20	32	20	
21	61	36	49	-11	34	42	16	0		0		0.0	0.00	29.43	30.38	5.1	09	6.1	20	09	17	08	21	
22	65	34	50	-10	36	45	15	0	RA	0		0.0	T	29.31	30.25	2.6	08	3.7	17	13	14	09	22	
23	66	42	54	-6	39	47	11	0	RA BR HZ	0		0.0	0.05	29.22	30.16	4.6	02	5.6	16	05	14	36	23	
24	72	37	55	-6	36	47	10	0		0		0.0	0.00	29.10	30.03	5.4	02	6.5	30	02	20	03	24	
25	73	47	60	-1	41	50	5	0		0		0.0	0.00	29.10	30.03	5.8	03	6.9	25	03	21	03	25	
26	74	41	58	-3	43	51	7	0	BR	0		0.0	0.00	29.19	30.12	4.7	03	5.1	24	03	21	02	26	
27	77*	46	62	0	47	54	3	0	MIFG	0		0.0	0.00	29.18	30.11	0.4	24	1.6	13	29	9	22	27	
28	72	48	60	-2	52	56	5	0	TS TSRA RA BR	0		0.0	0.23	28.93	29.84	3.9	34	5.9	37	01	32*	01	28	
29	73	49	61	-1	44	53	4	0		0		0.0	0.00	28.91	29.83	5.6	34	7.9	29	01	22	02	29	
30	74	54	64*	1	51	56	1	0	TSRA RA BR	0		0.0	0.17	28.65	29.56	5.4	21	9.2	32	31	24	19	30	
31	62	41	52	-11	44	48	13	0	RA DZ BR	0		0.0	0.05	28.99	29.92	11.2	01	12.0	33	03	28	02	31	

66.2	44.1	55.2	■ ■	43.7	49.7	9.6	0.0	< MONTHLY AVERAGES	TOTALS->	0.0	3.67	29.02	29.95	2.4	05	8.2	<- MONTHLY AVERAGES
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-3.2	-1.9	-2.5	■ ■	->-----DEPARTURE FROM NORMAL-----<							0.42	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3						
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<b>DEGREE DAYS</b>				GREATEST 24-HR PRECIPITATION: 1.04 DATE: 10-11				SEA LEVEL PRESSURE DATE TIME							
MONTHLY TOTAL DEPARTURE				SEASON TO DATE TOTAL DEPARTURE				GREATEST 24-HR SNOWFALL: 0.0 DATE:				MAXIMUM MINIMUM			
HEATING: 298 37 7470 40				COOLING: 0 -33 4 -35				GREATEST SNOW DEPTH: 0 DATE:				: 30.47 21 0653			
				NUMBER OF DAYS WITH →				MAXIMUM TEMP ≥ 90: 0				MINIMUM TEMP ≤ 32: 2			
								MAXIMUM TEMP ≤ 32: 0				MINIMUM TEMP ≤ 0: 0			
								THUNDERSTORMS: 5				HEAVY FOG: 1			
								PRECIPITATION ≥ 0.01 INCH: 16				PRECIPITATION ≥ 0.10 INCH: 11			
												SNOWFALL ≥ 1.0 INCH: 0			

MAY 2003  
MADISON, WI

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

## MADISON, WI

MAY 2003

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	T			0.01	0.02	0.01	0.01						01												01		0.05		
02			T	T									02												02		T		
03													03												03		0.00		
04													04			T	T	T	0.04	0.04	T	0.03	0.17	0.07	04		0.35		
05	0.02	T	T	T	0.08	0.11	T	T	T			T	05			T	T	T		T				05		0.21			
06													06												06		0.00		
07	T	T	0.03	0.13	0.02	T	T	0.17	0.11	T	0.01		07			T	T	T						07		0.47			
08													08									0.03	0.06	0.24	08		0.33		
09	0.12	0.07	T			T							09												09		0.19		
10													10					.09	0.12	0.42				10		0.63			
11													11	0.04	0.06	0.05	0.05	0.03	0.02	0.01	T	T	T	11		0.41			
12													12											12		0.00			
13													13											13		0.00			
14													14		0.01	0.01	0.06					T	0.03	T	14		0.31		
15	0.01	T				0.05	0.08	0.04	0.01	0.02	T		15								T		T	15		0.01			
16													16											16		0.00			
17													17											17		0.00			
18													18											18		0.00			
19													19	T	0.03						T		0.12	19		0.18			
20	0.03	T				T	T	T	T	T		0.03	20											20		0.03			
21													21											21		0.00			
22													22											22		T			
23	0.02	0.01	0.02										23											23		0.05			
24													24											24		0.00			
25													25											25		0.00			
26													26											26		0.00			
27													27											27		0.00			
28													28	0.07	T	0.10	0.01	0.02						28		0.23			
29													29											29		0.00			
30													30								T	0.01	0.01	30		0.17			
31	T	0.01	0.01	0.01	0.02	0.01	0.02	T	0.01	T			31											31		0.05			

### MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.23	.33	.39	.41	.41	.42	.42	.53	.54	.61	.63	.63
Ending Date	10	10	10	10	10	10	10	10	10	10	10	10
Ending Time (Hour/Min)	2100	2103	2108	2113	2113	2126	2126	2113	2126	2110	2126	2126

Date and time are not entered for TRACE amounts.

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

## REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

\* = Extreme for the month (last occurrence if more than one)

T = Trace precipitation amount

+ = also occurs on earlier date

FG+ = Heavy fog, visibility .25 miles or less

BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

### WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):  
'+' = Heavy    ' ' = Moderate    '- ' = Light

## MADISON, WI MAY 2003

Ceilorometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

### ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							1.25	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							2.50	10.00	
05							1.00	10.00	
06							4.00	10.00	
07							1.00	10.00	
08							1.50	10.00	
09							1.75	10.00	
10							1.00	10.00	
11							2.50	10.00	
12							10.00	10.00	
13							9.00	10.00	
14							3.00	10.00	
15							3.00	10.00	
16							.50	10.00	
17							.25	7.00	
18							2.00	7.00	
19							1.00	10.00	
20							3.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							4.00	10.00	
24							8.00	10.00	
25							10.00	10.00	
26							6.00	10.00	
27							9.00	10.00	
28							1.50	10.00	
29							10.00	10.00	
30							1.50	10.00	
31							1.00	10.00	
<b>MONTHLY AVGS</b>							4.81	9.81	
<b>SUNSHINE (MINUTES)</b>									
Total:                      Possible: Percent Possible:									
<b>NUMBER OF DAYS WITH:</b>									
<b>SKY CONDITION</b>									
CLR   PTLY CLDY   CLOUDY   MISSING 31									
<b>MINIMUM VISIBILITY (MILES)</b>									
<=0.25      <=3.0      >=7.0 1              16              11									

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

MAY 2003

MSN

WBAN # 14837

Table with columns for HOUR (LST), SKY COVER, CEILING 100'S OF FT, SATELLITE, OBSERVATION TIME (LST), EFF CLD AMT, VISIBILITY (MILES), WEATHER, TEMPERATURE °F (DRY BULB, DEW POINT, WET BULB), RELATIVE HUMIDITY (PCT), WIND (SPEED (MPH), DIRECTION TENS OF DEG), PRESSURE (INCHES, HG), and SEA LEVEL. The table is organized in 24-hour blocks for each day from MAY 01 to MAY 12.

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

MAY 2003

MSN

WBAN # 14837

Table with multiple columns: HOUR (LST), SKY COVER, CEILING, SATELLITE, OBSERVATION TIME, EFF CLD AMT, VISIBILITY, WEATHER, TEMPERATURE (DRY BULB, DEW POINT, WET BULB, RELATIVE HUMIDITY), WIND (SPEED, DIRECTION), PRESSURE (STATION, SEA LEVEL). Rows are grouped by date (May 13-24) and time intervals.

# OBSERVATIONS AT 3-HOURLY INTERVALS

# MADISON, WI

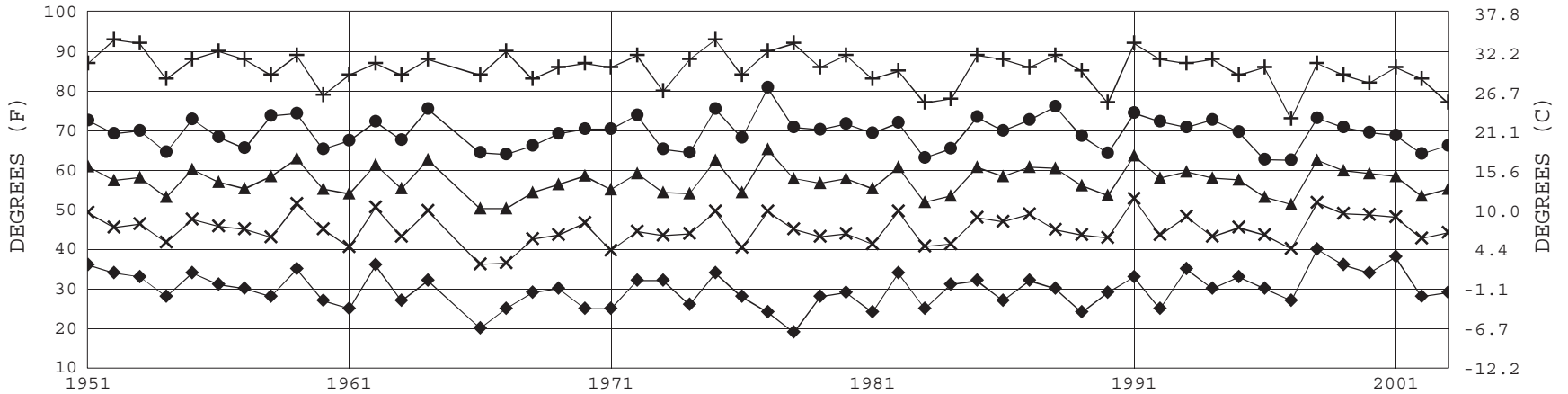
MAY 2003

MSN

WBAN # 14837

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)	
	SKY COVER	CEILING		OBSERVATION TIME (LST)	EFF CLD AMT Ok/as			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		SKY COVER	CEILING		OBSERVATION TIME (LST)	EFF CLD AMT Ok/as			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0425								MAY 25				SUNSET: 1923				SUNRISE: 0421								MAY 31				SUNSET: 1928			
03	BKN	100			10.00			51	43	47	74	5	34	29.09	30.01	03	OVC	015			3.00	-DZ	BR	53	52	52	96	15	36	28.77	29.68
06	CLR	NC			10.00			52	45	48	77	5	36	29.10	30.03	06	OVC	010			10.00			49	47	48	93	17	01	28.90	29.82
09	CLR	NC			10.00			65	42	53	44	13	36	29.10	30.03	09	OVC	014			10.00			50	45	47	83	20	01	28.99	29.93
12	FEW	NC			10.00			72	36	54	27	17	03	29.09	30.01	12	OVC	025			10.00			54	46	50	75	14	01	29.06	29.99
15	FEW	NC			10.00			72	35	53	26	13	06	29.08	30.00	15	FEW	NC			10.00			62	42	52	48	18	03	29.04	29.97
18	CLR	NC			10.00			68	39	53	35	8	07	29.08	30.01	18	CLR	NC			10.00			57	38	48	49	7	04	29.07	30.00
21	CLR	NC			10.00			56	41	49	57	0	00	29.13	30.05	21	CLR	NC			10.00			47	40	44	77	0	00	29.11	30.05
24	CLR	NC			10.00			47	41	44	80	0	00	29.15	30.08	24	CLR	NC			10.00			44	39	42	83	6	14	29.14	30.09
SUNRISE: 0425								MAY 26				SUNSET: 1924				3-HOURLY OBSERVATION NOTES															
03	CLR	NC			7.00			43	41	42	93	0	00	29.16	30.09	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.															
06	CLR	NC			10.00			49	45	47	86	0	00	29.21	30.14	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.															
09	CLR	NC			10.00			66	38	52	36	9	36	29.22	30.15	NC= No ceiling detected.															
12	SCT	NC			10.00			72	43	56	35	13	02	29.19	30.12	& = Original observation contained additional weather elements.															
15	FEW	NC			10.00			73	41	56	32	10	03	29.17	30.11	See page 3 for additional notes.															
18	FEW	NC			10.00			69	46	57	44	6	07	29.17	30.09																
21	FEW	NC			10.00			59	49	54	69	0	00	29.21	30.14																
24	SCT	NC			10.00			53	49	51	86	0	00	29.22	30.15																
SUNRISE: 0424								MAY 27				SUNSET: 1925																			
03	SCT	NC			9.00			48	47	47	96	0	00	29.23	30.16																
06	CLR	NC			10.00			51	49	50	92	0	00	29.26	30.19																
09	CLR	NC			10.00			67	49	57	53	3	VR	29.26	30.19																
12	SCT	NC			10.00			73	49	59	43	6	VR	29.22	30.15																
15	FEW	NC			10.00			76	44	58	32	6	19	29.16	30.08																
18	FEW	NC			10.00			75	43	58	32	5	29	29.11	30.03																
21	CLR	NC			10.00			61	45	53	56	0	00	29.09	30.01																
24	CLR	NC			10.00			55	47	51	74	0	00	29.05	29.97																
SUNRISE: 0423								MAY 28				SUNSET: 1926																			
03	CLR	NC			10.00			58	48	53	70	5	16	28.98	29.89																
06	OVC	048			9.00	-RA		61	47	53	60	8	30	28.93	29.84																
09	SCT	NC			7.00			62	55	58	78	0	00	28.91	29.82																
12	BKN	038			10.00			72	57	63	60	13	34	28.86	29.77																
15	OVC	060			5.00	-TSRA	BR	60	55	57	84	9	34	28.87	29.79																
18	SCT	NC			10.00			61	55	58	81	12	36	28.92	29.83																
21	CLR	NC			10.00			57	47	52	69	6	34	28.96	29.88																
24	CLR	NC			10.00			53	45	49	74	5	28	28.93	29.85																
SUNRISE: 0423								MAY 29				SUNSET: 1927																			
03	CLR	NC			10.00			53	44	49	72	7	32	28.90	29.83																
06	CLR	NC			10.00			55	43	49	64	12	32	28.93	29.85																
09	FEW	NC			10.00			63	47	54	56	14	36	28.95	29.87																
12	CLR	NC			10.00			70	44	56	39	15	36	28.94	29.86																
15	CLR	NC			10.00			73	44	57	36	6	03	28.91	29.82																
18	CLR	NC			10.00			72	38	54	29	0	00	28.89	29.80																
21	CLR	NC			10.00			58	46	52	65	0	00	28.90	29.81																
24	CLR	NC			10.00			62	44	53	52	7	20	28.85	29.76																
SUNRISE: 0422								MAY 30				SUNSET: 1928																			
03	FEW	NC			10.00			57	43	50	60	6	18	28.80	29.71																
06	BKN	110			10.00			59	43	51	56	5	VR	28.80	29.71																
09	OVC	065			8.00	-RA		58	48	53	70	8	21	28.75	29.67																
12	BKN	060			10.00			66	50	57	56	17	20	28.64	29.55																
15	FEW	NC			10.00			74	56	63	54	13	20	28.53	29.42																
18	SCT	NC			10.00			66	60	62	81	8	16	28.45	29.35																
21	OVC	015			10.00	-RA		60	57	58	90	7	33	28.56	29.47																
24	OVC	016			4.00	BR		54	51	52	90	13	35	28.63	29.54																

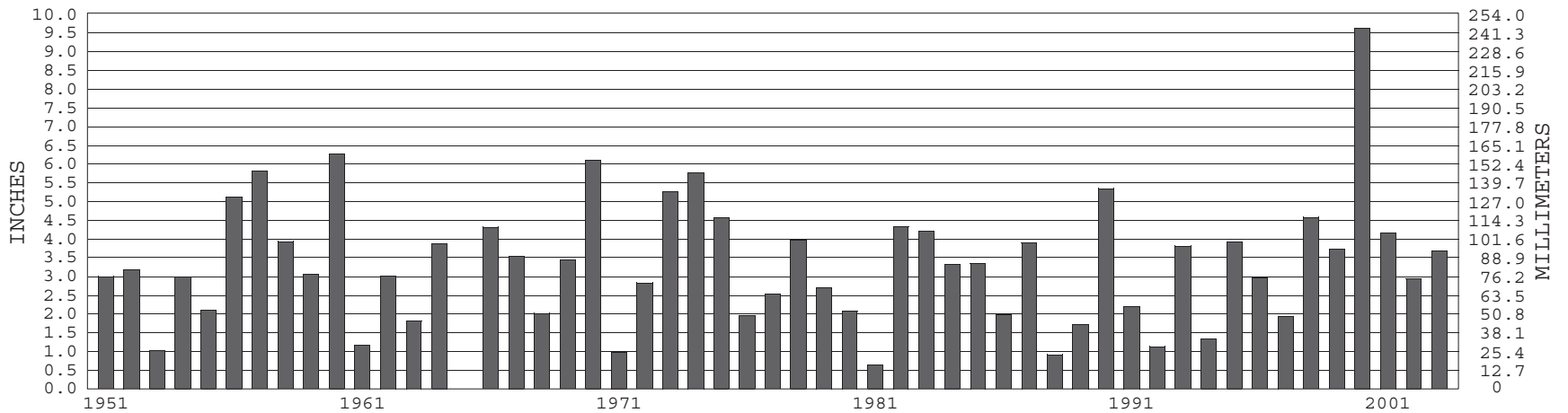
### MADISON, WI MAY TEMPERATURES



+ Extreme Max.      ● Mean Max.      ▲ Mean      × Mean Min.      ◆ Extreme Min.

Long-Term (1951-2003) Mean: 56.2      1961-1990 Normal: 57.7

### MADISON, WI MAY PRECIPITATION



Long-Term (1951-2003) Mean Monthly Total: 3.28

1961-1990 Normal: 3.25



MAY 2003

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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