



# APRIL 2002

## LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

## MINNEAPOLIS-ST.PAUL, MN

INTERNATIONAL AIRPORT (MSP)

Lat: 44°52' N Long: 93°13' W Elev (Ground): 871 Feet

Time Zone: CENTRAL WBAN: 14922 ISSN #:0198-2745

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	29	22	26	-14	22	25	39	0	SN FG+ FZFG BR				0.31	29.03	29.95	7.8	11	9.1	21	12	17	11	01		
02	36	23	30	-10	25	28	35	0	SN FG+ FZFG BR				0.40	29.11	30.04	11.0	33	11.9	30	32	24	32	02		
03	30	20	25*	-16	14	22	40	0	SN				T	29.48	30.42	10.8	32	10.9	24	31	21	32	03		
04	32	23	28	-13	15	23	37	0	SN				T	29.55	30.50	4.3	28	4.7	20	28	13	29	04		
05	38	17*	28	-14	17	25	37	0					0.00	29.50	30.45	3.2	33	4.0	25	02	15	32	05		
06	47	24	36	-6	23	32	29	0	HZ				0.00	29.25	30.18	13.3	16	13.5	33	15	28	16	06		
07	54	43	49	6	39	45	16	0	BR				0.00	28.83	29.73	7.4	20	8.6	21	24	17	23	07		
08	52	36	44	1	36	41	21	0	FG+ BR HZ				0.00	29.01	29.92	8.9	36	9.8	25	33	21	33	08		
09	54	29	42	-2	28	37	23	0	RA				T	29.31	30.24	1.5	20	7.2	16	34	13	11	09		
10	59	44	52	8	44	47	13	0	RA BR VCTS				0.52	29.16	30.07	4.8	10	9.7	25	01	22	34	10		
11	51	42	47	2	43	43	18	0	RA FG BR				0.50	29.03	29.93	5.7	33	6.2	24	02	15	33	11		
12	63	42	53	8	43	47	12	0	BR				0.00	29.21	30.12	3.0	24	4.5	12	21	9	21	12		
13	65	44	55	10	46	50	10	0	TSRA RA BR				0.16	29.12	30.02	7.9	16	8.6	24	18	21	18	13		
14	76	53	65	19	48	55	0	0	TS TSRA RA BR HZ				0.06	28.70	29.59	8.8	23	10.4	36	18	30	17	14		
15	91*	55	73	27	55	62	0	8					0.00	28.63	29.51	11.7	18	13.3	30	22	23	20	15		
16	84	62	73*	26	60	66	0	8	TSRA RA BR VCTS				0.11	28.67	29.54	17.8	19	19.0	43	20	31	21	16		
17	67	50	59	12	41	50	6	0	RA				0.04	29.04	29.93	6.4	27	11.4	35	28	24	28	17		
18	87	47	67	19	51	57	0	2	TS TSRA RA GS				0.15	28.79	29.68	4.2	33	16.7	35	10	29	10	18		
19	53	39	46	-2	30	38	19	0					0.00	29.27	30.19	12.6	36	13.2	26	04	22	34	19		
20	52	34	43	-6	21	35	22	0					0.00	29.33	30.25	11.7	04	12.8	26	06	22	07	20		
21	42	31	37	-12	30	32	28	0	SN FG+ FZFG BR				0.22	29.15	30.07	8.4	06	9.7	25	08	21	06	21		
22	42	32	37	-13	28	33	28	0	SN				T	29.21	30.13	2.0	13	6.9	18	16	15	14	22		
23	67	36	52	2	41	47	13	0					0.00	29.00	29.91	15.4	15	15.8	31	16	25	15	23		
24	64	38	51	0	33	42	14	0	RA				T	28.95	29.85	14.8	28	19.6	41	30	36	29	24		
25	44	31	38	-13	18	31	27	0					0.00	29.25	30.17	16.8	30	18.0	47*	31	36*	30	25		
26	51	30	41	-10	21	34	24	0					0.00	29.36	30.28	3.9	09	6.6	24	08	21	08	26		
27	45	33	39	-13	31	36	26	0	RA SN BR				0.67	28.97	29.88	18.5	09	19.9	39	09	31	09	27		
28	43	34	39	-13	33	37	26	0	RA				0.01	29.01	29.93	7.3	36	10.4	24	01	20	01	28		
29	65	42	54	1	35	44	11	0	RA				T	28.96	29.87	12.8	28	14.8	44	29	32	30	29		
30	63	39	51	-2	34	43	14	0	RA				T	28.96	29.86	2.0	31	6.4	24	32	18	32	30		
54.9 36.5 45.7 ■■ 33.5 40.2 19.6 0.6 < MONTHLY AVERAGES TOTALS->													3.15	29.09	30.01	0.8	28	11.1	<- MONTHLY AVERAGES						
-2.1 0.3 -.9 ■■ <-----DEPARTURE FROM NORMAL----->													0.84	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.68 DATE :27-28					SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL:					MAXIMUM				: 30.55				04 0853			
TOTAL DEPARTURE									GREATEST SNOW DEPTH:					MINIMUM				: 29.46				15 1553			
SEASON TO DATE									NUMBER OF DAYS WITH ➔					MAXIMUM TEMP ≥ 90: 1				MINIMUM TEMP ≤ 32: 11				PRECIPITATION ≥ 0.01 INCH : 12			
HEATING: 588 30 6467 -1229									MAXIMUM TEMP ≤ 32 : 3					MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 9							
COOLING: 18 14 18 14									THUNDERSTORMS : 4					HEAVY FOG : 4				SNOWFALL ≥ 1.0 INCH :							

APRIL 2002  
MINNEAPOLIS-ST.PAUL, MN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

## MINNEAPOLIS—ST.PAUL, MN

APRIL 2002

MSP

WBAN # 14922

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	T	0.01	0.01	T	T	T					T	T	01	0.10 0.33		0.31
02	T	T	T	0.01	0.03	0.05	0.07	0.04	T	0.03	0.03	0.02	02													02			0.40
03						T	T				T		03			0.02	0.08	T	T							03			T
04	T				T	T	T						04													04			T
05													05													05			0.00
06													06													06			0.00
07													07													07			0.00
08													08													08			0.00
09													09													09			T
10			T	T	0.10	0.08	0.09	0.02	0.03	0.02	0.05	T	10						T	T		T	0.03	T	0.10	10		0.52	
11	T	T						0.08	0.13	0.08	0.02	0.10	11	0.05	0.04		T			T						11		0.50	
12													12													12		0.00	
13													13				0.01	0.06	0.05		T	0.04	T			13		0.16	
14					0.01	0.01	0.01	0.01	0.02				14													14		0.06	
15													15													15		0.00	
16													16													16		0.11	
17	0.04												17										T	T	0.11	17		0.04	
18	0.02	0.01	0.12										18													18		0.15	
19													19													19		0.00	
20													20													20		0.00	
21				T	0.01	T	0.01	0.03	0.02	0.02	0.05	0.03	21	T	T	0.02	0.02	T	T	0.01	T	T	T	T	T	21	0.60		0.22
22	T												22													22			T
23													23													23			0.00
24						T	T		T				24													24			T
25													25													25			0.00
26													26													26	0.60		0.00
27									T	0.07	0.07	0.01	27	0.01	0.02	0.01	0.02	0.03	0.03	0.09	0.08	0.07	0.06	0.03	T	27			0.67
28	0.01	T	T										28													28			0.01
29				T	T								29													29			T
30													30		T	T										30			T

### MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.08	.11	.12	.12	.12	.12	.15	.20	.23	.27	.29	.30
Ending Date	18	18	18	18	18	18	11	11	11	11	11	11
Ending Time (Hour/Min)	0227	0227	0227	0227	0227	0227	0931	0853	0920	0931	0946	1019

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

**MINNEAPOLIS-ST. PAUL, MN**  
**APRIL 2002**

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

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

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

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

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

<div style="writing-mode: vertical-rl; transform: rotate(180deg);">DATE</div>	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR—SS		MN—MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							.25	10.00	
02							.25	10.00	
03							9.00	10.00	
04							9.00	10.00	
05							7.00	10.00	
06							6.00	10.00	
07							4.00	10.00	
08							.25	10.00	
09							10.00	10.00	
10							3.00	10.00	
11							.50	10.00	
12							5.00	10.00	
13							6.00	10.00	
14							5.00	10.00	
15							10.00	10.00	
16							5.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							.25	10.00	
22							10.00	10.00	
23							9.00	10.00	
24							9.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							1.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
MONTHLY AVGS							6.87	10.00	

**SUNSHINE (MINUTES)**

Total:                  Possible:  
Percent Possible:

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**NUMBER OF DAYS WITH:**

**SKY CONDITION**

CLR	PTLY CLDY	CLOUDY	MISSING
			30

**MINIMUM VISIBILITY (MILES)**

<=0.25	<=3.0	>=7.0
4	6	18

## OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN  
APRIL 2002 MSP WBAN # 14922

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)									
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL						
SUNRISE: 0554						APR 01						SUNSET: 1839						SUNRISE: 0543						APR 07						SUNSET: 1847					
03	SCT	NC			10.00	24	17	22	75	3	12	29.09	30.02	03	OVC	044			10.00	45	30	39	56	13	17	28.84	29.74								
06	BKN	200			10.00	24	18	22	77	6	08	29.06	30.00	06	OVC	032			10.00	49	32	41	52	12	21	28.81	29.71								
09	VV	005			0.50	25	23	24	92	8	15	29.05	29.98	09	OVC	032			10.00	50	32	42	50	13	21	28.81	29.71								
12	OVC	003			0.25	27	25	26	92	13	12	29.01	29.95	12	OVC	028			10.00	52	43	48	72	15	24	28.82	29.72								
15	VV	007			0.50	28	25	27	88	15	11	28.98	29.90	15	OVC	022			10.00	53	46	49	76	9	23	28.81	29.71								
18	OVC	012			9.00	29	25	28	85	13	10	28.97	29.89	18	OVC	041			9.00	52	46	49	79	6	21	28.82	29.72								
21	OVC	014			10.00	29	25	28	85	8	08	28.99	29.91	21	BKN	200			8.00	49	46	47	90	5	16	28.88	29.78								
24	OVC	012			7.00	29	25	28	85	8	08	28.97	29.89	24	OVC	110			4.00	47	45	46	93	5	14	28.88	29.78								
SUNRISE: 0552						APR 02						SUNSET: 1841						SUNRISE: 0541						APR 08						SUNSET: 1848					
03	OVC	010			6.00	29	27	28	92	7	01	28.98	29.91	03	OVC	100			1.75	44	44	44	100	0	00	28.88	29.78								
06	VV	004			1.00	29	27	28	92	6	35	28.99	29.91	06	OVC	120			4.00	41	38	40	89	6	01	28.93	29.83								
09	OVC	010			0.50	30	28	29	92	14	36	29.01	29.94	09	OVC	003			0.75	42	41	42	96	13	35	28.98	29.88								
12	OVC	016			1.50	34	28	32	79	14	34	29.08	30.01	12	OVC	200			8.00	47	38	43	71	16	02	29.00	29.90								
15	BKN	022			0.50	32	29	31	88	12	33	29.13	30.06	15	OVC	250			10.00	51	35	44	54	14	01	29.00	29.91								
18	BKN	028			10.00	31	22	28	69	17	32	29.20	30.13	18	OVC	250			10.00	50	31	42	48	15	34	29.04	29.96								
21	OVC	055			10.00	28	20	25	72	15	32	29.29	30.22	21	SCT	NC			10.00	42	27	36	55	12	35	29.13	30.05								
24	BKN	070			10.00	23	15	21	72	18	32	29.34	30.27	24	FEW	NC			10.00	36	25	32	64	9	35	29.19	30.11								
SUNRISE: 0550						APR 03						SUNSET: 1842						SUNRISE: 0539						APR 09						SUNSET: 1849					
03	BKN	050			10.00	20	13	18	74	13	31	29.38	30.32	03	FEW	NC			10.00	32	24	29	73	9	33	29.25	30.17								
06	OVC	044			9.00	21	13	19	71	12	31	29.42	30.37	06	CLR	NC			10.00	29	23	27	78	5	30	29.31	30.24								
09	OVC	055			10.00	23	14	20	68	12	31	29.47	30.42	09	CLR	NC			10.00	38	24	33	57	3	VR	29.36	30.28								
12	BKN	033			10.00	28	14	24	56	15	33	29.49	30.43	12	CLR	NC			10.00	45	26	37	48	0	00	29.39	30.31								
15	OVC	049			10.00	29	14	24	54	13	33	29.49	30.44	15	CLR	NC			10.00	51	28	41	41	9	20	29.33	30.25								
18	OVC	047			10.00	28	13	23	53	10	30	29.51	30.46	18	FEW	NC			10.00	54	29	43	38	13	17	29.29	30.21								
21	OVC	048			10.00	27	16	24	63	8	31	29.55	30.50	21	OVC	065			10.00	52	34	44	50	8	08	29.33	30.24								
24	OVC	047			10.00	26	16	23	66	6	30	29.56	30.51	24	BKN	090			10.00	49	34	42	57	9	16	29.29	30.20								
SUNRISE: 0548						APR 04						SUNSET: 1843						SUNRISE: 0537						APR 10						SUNSET: 1851					
03	OVC	047			10.00	25	17	23	72	6	31	29.56	30.51	03	OVC	070			10.00	49	38	44	66	7	13	29.28	30.19								
06	OVC	049			10.00	24	18	22	77	3	28	29.58	30.53	06	OVC	065			5.00	45	43	44	93	8	14	29.29	30.20								
09	OVC	047			10.00	26	17	23	69	3	26	29.60	30.55	09	OVC	009			7.00	46	44	45	93	14	16	29.24	30.15								
12	BKN	043			10.00	29	12	24	49	0	00	29.57	30.52	12	OVC	070			10.00	50	45	47	83	8	13	29.19	30.10								
15	FEW	NC			10.00	31	15	26	52	10	29	29.52	30.47	15	OVC	070			9.00	59	48	53	67	12	04	29.08	29.98								
18	FEW	NC			10.00	31	14	26	49	6	26	29.52	30.46	18	OVC	080			6.00	51	47	49	86	10	36	29.01	29.92								
21	FEW	NC			10.00	26	15	23	63	0	00	29.50	30.45	21	OVC	070			10.00	45	43	44	93	7	04	29.06	29.98								
24	FEW	NC			10.00	24	15	21	68	0	00	29.50	30.45	24	OVC	065			5.00	49	47	48	93	3	13	29.04	29.95								
SUNRISE: 0546						APR 05						SUNSET: 1844						SUNRISE: 0536						APR 11						SUNSET: 1852					
03	SCT	NC			10.00	20	15	19	81	0	00	29.48	30.42	03	BKN	060			5.00	45	45	45	100	5	35	29.00	29.91								
06	SCT	NC			7.00	18	16	17	92	0	00	29.49	30.45	06	OVC	110			1.00	43	43	43	100	6	34	28.99	29.89								
09	SCT	NC			9.00	31	18	27	59	3	02	29.52	30.47	09	OVC	011			2.00	43	43	43	100	5	01	29.00	29.90								
12	FEW	NC			10.00	35	15	28	44	3	VR	29.51	30.45	12	OVC	022			4.00	43	42	43	97	9	33	28.98	29.88								
15	FEW	NC			10.00	37	18	30	46	10	30	29.49	30.43	15	OVC	007			10.00	43	41	42	93	9	33	29.00	29.91								
18	FEW	NC			10.00	36	17	30	46	10	34	29.49	30.44	18	OVC	009			10.00	43	41	42	93	10	32	29.05	29.96								
21	FEW	NC			10.00	33	19	28	56	0	00	29.51	30.45	21	OVC	013			10.00	44	41	43	89	6	31	29.09	30.01								
24	FEW	NC			10.00	29	19	26	66	0	00	29.50	30.44	24	OVC	018			8.00	43	42	43	97	5	30	29.13	30.04								
SUNRISE: 0545						APR 06						SUNSET: 1846						SUNRISE: 0534						APR 12						SUNSET: 1853					
03	FEW	NC			9.00	25	20	23	81	0	00	29.49	30.43	03	OVC	026			6.00	43	42	43	97	5	28	29.15	30.07								
06	BKN	250			7.00	25	20	23	81	5	13	29.47	30.41	06	OVC	026			7.00	42	41	42	96	6	30	29.20	30.11								
09	BKN	250			10.00	34	21	29	59	16	16	29.41	30.35	09	BKN	024			9.00	47	41	44	80	6	29	29.24	30.15								
12	BKN	250			10.00	40	22	33	49	22	17	29.34	30.27	12	SCT	NC			10.00	53	42	48	66	3	VR	29.24	30.16								
15	SCT	NC			10.00	45	25	37	46	23	15	29.16	30.09	15	FEW	NC			10.00	61	42	51	50	6	19	29.20	30.11								
18	OVC	075			10.00	46	27	38	47	21	16	29.03	29.95	18	FEW	NC			10.00	63	42	52	47	5	22	29.19	30.09								
21	OVC	065			10.00	45	27	38	49	17	16	28.96	29.87	21	CLR	NC			10.00	55	47	51	74	6	21	29.22	30.13								
24	OVC	060			10.00	44	27	37	51	7	16	28.93	29.84	24	CLR	NC			10.00	51	46	49	83	0	00	29.24	30.15								

## OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN  
APRIL 2002 MSP WBAN # 14922

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0532      APR 13      SUNSET: 1854						SUNRISE: 0522      APR 19      SUNSET: 1902																							
03	CLR	NC			8.00	BR	45	43	44	93	5	13	29.23	30.14	03	OVC	018			10.00	41	34	38	76	14	01	29.13	30.03	
06	BKN	250			6.00		44	43	44	96	7	16	29.23	30.13	06	OVC	022			10.00	39	31	36	73	15	36	29.23	30.11	
09	FEW	NC			10.00		55	47	51	74	10	18	29.22	30.12	09	OVC	024			10.00	40	31	36	70	10	35	29.30	30.21	
12	BKN	250			10.00		63	43	53	48	13	16	29.16	30.06	12	BKN	150			10.00	45	31	39	58	10	01	29.32	30.24	
15	OVC	100			10.00		62	43	52	50	15	17	29.08	29.99	15	SCT	NC			10.00	50	28	41	43	15	34	29.30	30.21	
18	OVC	150			10.00	55	51	53	87	10	14	29.01	29.92	18	SCT	NC			10.00	50	27	40	41	14	36	29.28	30.20		
21	OVC	065			8.00	-RA	54	50	52	87	8	13	28.98	29.87	21	CLR	NC			10.00	44	26	37	49	16	01	29.32	30.24	
24	BKN	070			10.00		53	47	50	80	8	15	28.89	29.78	24	SCT	NC			10.00	40	25	34	55	13	03	29.37	30.29	
SUNRISE: 0530      APR 14      SUNSET: 1856						SUNRISE: 0520      APR 20      SUNSET: 1903																							
03	BKN	200			10.00	BR	55	44	49	67	12	20	28.80	29.69	03	CLR	NC			10.00	37	24	32	60	12	02	29.40	30.32	
06	OVC	110			10.00		54	47	50	77	12	18	28.74	29.63	06	SCT	NC			10.00	34	22	30	61	10	03	29.41	30.34	
09	SCT	NC			5.00		57	53	55	87	16	23	28.68	29.57	09	SCT	NC			10.00	41	20	33	43	16	02	29.41	30.34	
12	CLR	NC			9.00		68	54	60	61	13	25	28.65	29.53	12	SCT	NC			10.00	47	22	37	37	13	04	29.38	30.29	
15	SCT	NC			10.00		76	47	60	36	16	30	28.62	29.51	15	FEW	NC			10.00	50	21	39	32	6	VR	29.31	30.22	
18	BKN	250			10.00	72	46	58	40	12	28	28.65	29.54	18	OVC	110			10.00	50	19	38	29	10	05	29.23	30.15		
21	BKN	250			10.00	66	47	56	50	5	22	28.68	29.57	21	OVC	110			10.00	49	21	38	33	13	07	29.24	30.16		
24	SCT	NC			10.00	62	45	53	54	3	20	28.68	29.57	24	OVC	080			10.00	42	20	34	41	20	08	29.21	30.12		
SUNRISE: 0529      APR 15      SUNSET: 1857						SUNRISE: 0518      APR 21      SUNSET: 1904																							
03	SCT	NC			10.00	56	47	51	72	6	12	28.67	29.55	03	OVC	032			10.00	39	18	32	43	13	08	29.20	30.11		
06	BKN	250			10.00	61	45	53	56	14	14	28.63	29.51	06	OVC	009			2.50	-SN	BR	34	32	33	92	10	08	29.16	30.07
09	BKN	250			10.00	68	54	60	61	12	17	28.63	29.50	09	OVC	004			0.50	-SN	FG	33	32	33	96	10	08	29.15	30.06
12	SCT	NC			10.00	79	60	67	52	16	23	28.62	29.49	12	OVC	017			1.00	-SN	BR	32	30	31	92	10	08	29.14	30.06
15	BKN	250			10.00	88	61	70	40	10	21	28.60	29.47	15	OVC	009			0.75	-SN	BR	32	30	31	92	13	05	29.10	30.03
18	BKN	250			10.00	88	58	69	36	15	18	28.60	29.46	18	OVC	019			3.00	-SN	BR	33	31	32	92	6	VR	29.11	30.04
21	SCT	NC			10.00	81	58	67	46	15	18	28.64	29.51	21	OVC	032			2.50	-SN	BR	33	32	33	96	6	36	29.14	30.07
24	CLR	NC			10.00	76	59	65	56	16	19	28.67	29.54	24	OVC	031			10.00	-SN		33	31	32	92	5	36	29.14	30.06
SUNRISE: 0527      APR 16      SUNSET: 1858						SUNRISE: 0517      APR 22      SUNSET: 1906																							
03	CLR	NC			10.00	73	60	65	64	18	19	28.67	29.53	03	OVC	012			10.00	32	30	31	92	6	01	29.16	30.09		
06	SCT	NC			10.00	68	60	63	76	13	17	28.68	29.55	06	OVC	011			10.00	32	28	31	85	7	34	29.21	30.14		
09	OVC	027			10.00	72	61	65	69	26	18	28.68	29.54	09	OVC	021			10.00	34	26	31	73	3	VR	29.24	30.16		
12	OVC	037			10.00	78	62	68	58	24	19	28.67	29.54	12	OVC	029			10.00	37	27	33	67	5	VR	29.24	30.17		
15	BKN	250			10.00	82	62	69	51	20	18	28.64	29.51	15	OVC	039			10.00	40	27	35	60	10	16	29.22	30.15		
18	OVC	150			10.00	83	61	69	48	18	18	28.60	29.46	18	OVC	033			10.00	41	29	36	62	9	15	29.20	30.13		
21	OVC	048			10.00	77	61	67	58	24	21	28.67	29.55	21	FEW	NC			10.00	38	29	34	70	9	13	29.20	30.13		
24	OVC	024			9.00	VCTS -RA	62	59	60	90	15	23	28.78	29.66	24	OVC	039			10.00	38	29	34	70	13	14	29.18	30.10	
SUNRISE: 0525      APR 17      SUNSET: 1859						SUNRISE: 0515      APR 23      SUNSET: 1907																							
03	CLR	NC			10.00	58	51	54	78	17	26	28.85	29.73	03	BKN	039			10.00	37	30	34	76	13	15	29.14	30.06		
06	FEW	NC			10.00	50	41	46	71	12	26	29.00	29.88	06	CLR	NC			10.00	36	30	34	79	10	14	29.11	30.03		
09	CLR	NC			10.00	54	41	48	62	14	27	29.07	29.96	09	CLR	NC			10.00	46	36	42	68	14	16	29.08	30.00		
12	CLR	NC			10.00	61	42	51	50	15	29	29.14	30.03	12	FEW	NC			10.00	59	46	52	62	18	16	29.02	29.93		
15	CLR	NC			10.00	64	36	50	35	5	VR	29.13	30.02	15	SCT	NC			10.00	66	48	56	52	18	19	28.96	29.85		
18	SCT	NC			10.00	65	36	51	34	3	VR	29.07	29.97	18	CLR	NC			10.00	66	48	56	52	17	16	28.90	29.79		
21	SCT	NC			10.00	61	38	50	43	8	08	29.08	29.98	21	CLR	NC			10.00	59	47	53	64	20	14	28.88	29.78		
24	BKN	095			10.00	59	38	49	46	12	08	29.01	29.91	24	SCT	NC			9.00	57	48	52	72	22	15	28.80	29.69		
SUNRISE: 0523      APR 18      SUNSET: 1901						SUNRISE: 0514      APR 24      SUNSET: 1908																							
03	OVC	035			10.00	TS	53	45	49	74	20	10	28.83	29.72	03	BKN	130			9.00	57	50	53	78	15	17	28.72	29.60	
06	SCT	NC			10.00		56	44	50	65	14	11	28.78	29.66	06	OVC	080			10.00	-RA	56	48	52	75	16	26	28.74	29.62
09	CLR	NC			10.00		69	57	62	66	14	16	28.71	29.60	09	OVC	025			10.00		49	40	45	71	21	30	28.87	29.76
12	SCT	NC			10.00		82	60	68	47	17	23	28.66	29.54	12	BKN	037			10.00		49	29	40	46	26	28	28.98	29.87
15	FEW	NC			10.00		84	58	68	41	21	27	28.63	29.51	15	OVC	045			10.00		43	25	36	49	30	29	29.02	29.93
18	SCT	NC			10.00		69	54	60	59	24	34	28.75	29.63	18	SCT	NC			10.00		44	22	36	41	32	30	29.09	29.99
21	OVC	023			10.00		55	48	51	77	17	34	28.95	29.83	21	CLR	NC			10.00		41	20	33	43	16	29	29.15	30.07
24	OVC	014			10.00		47	42	45	83	13	34	29.05	29.94	24	SCT	NC			10.00		38	21	32	51	8	25	29.14	30.06

## OBSERVATIONS AT 3-HOURLY INTERVALS

## MINNEAPOLIS-ST. PAUL, MN

APRIL 2002

MSP

WBAN # 14922

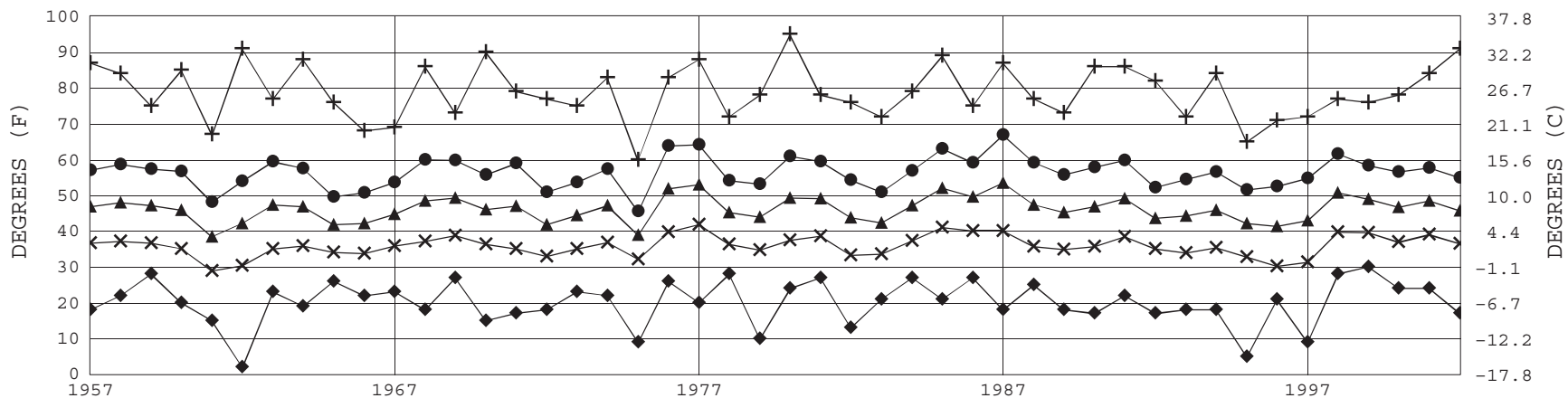
HOUR (LST)	SKY COVER		CEILING 100'S OFFT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)	
				OBSERVATION TIME (LST)	EFF CLD AMT <i>Okta</i> s			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0512 APR 25 SUNSET: 1909															
03	FEW	NC			10.00			38	20	31	48	18	26	29.09	30.00
06	SCT	NC			10.00			32	16	27	52	22	30	29.17	30.09
09	FEW	NC			10.00			35	17	29	48	17	29	29.23	30.15
12	SCT	NC			10.00			39	19	32	45	21	28	29.26	30.18
15	SCT	NC			10.00			43	20	34	40	24	27	29.27	30.19
18	SCT	NC			10.00			39	19	32	45	21	32	29.29	30.22
21	CLR	NC			10.00			36	19	30	50	9	33	29.34	30.27
24	CLR	NC			10.00			33	19	28	56	6	29	29.39	30.32
SUNRISE: 0510 APR 26 SUNSET: 1911															
03	SCT	NC			10.00			32	20	28	61	0	00	29.39	30.31
06	CLR	NC			10.00			31	21	28	67	0	00	29.40	30.33
09	CLR	NC			10.00			41	19	33	41	5	30	29.42	30.36
12	FEW	NC			10.00			47	20	37	34	5	VR	29.40	30.33
15	BKN	100			10.00			49	19	38	31	5	VR	29.36	30.28
18	BKN	090			10.00			50	21	39	32	12	07	29.30	30.22
21	OVC	070			10.00			48	21	38	34	10	09	29.30	30.22
24	OVC	070			10.00			44	31	39	60	15	08	29.26	30.18
SUNRISE: 0509 APR 27 SUNSET: 1912															
03	BKN	085			10.00			45	28	38	52	17	09	29.14	30.06
06	OVC	065			10.00			45	27	38	49	17	11	29.17	30.08
09	OVC	036			10.00	-RA		42	33	38	71	22	13	29.11	30.02
12	OVC	012			7.00	-RA		38	35	37	89	25	09	29.00	29.91
15	OVC	016			2.00	-SN BR		35	32	34	89	18	08	28.87	29.78
18	OVC	018			7.00	-RA		35	32	34	89	28	08	28.77	29.68
21	OVC	010			2.50	-SN BR		34	32	33	92	22	06	28.75	29.66
24	OVC	012			9.00	-SN		35	33	34	93	14	04	28.75	29.66
SUNRISE: 0507 APR 28 SUNSET: 1913															
03	OVC	020			10.00			35	33	34	93	16	01	28.84	29.75
06	OVC	012			10.00			35	32	34	89	12	36	28.95	29.87
09	OVC	012			10.00			37	33	35	86	14	01	29.01	29.93
12	OVC	020			10.00			40	33	37	77	12	34	29.08	29.99
15	OVC	024			10.00			41	32	37	70	8	31	29.10	30.02
18	OVC	026			10.00			42	33	38	71	0	00	29.08	30.00
21	OVC	028			10.00			42	34	39	73	6	22	29.08	30.00
24	OVC	042			10.00			42	37	40	82	7	22	29.04	29.95
SUNRISE: 0506 APR 29 SUNSET: 1914															
03	BKN	070			10.00			43	37	40	80	12	22	28.97	29.88
06	SCT	NC			10.00			43	38	41	82	12	28	28.97	29.87
09	CLR	NC			10.00			50	37	44	61	12	28	29.00	29.91
12	SCT	NC			10.00			60	35	48	39	18	24	28.94	29.84
15	BKN	100			10.00			64	36	50	35	25	28	28.90	29.79
18	SCT	NC			10.00			57	32	46	39	20	30	28.93	29.83
21	SCT	NC			10.00			50	30	41	46	9	30	28.99	29.89
24	BKN	180			10.00			45	32	39	61	5	36	29.01	29.91
SUNRISE: 0504 APR 30 SUNSET: 1916															
03	BKN	180			10.00			43	35	40	74	0	00	29.01	29.92
06	SCT	NC			10.00			39	34	37	82	0	00	29.02	29.93
09	FEW	NC			10.00			51	31	42	46	7	14	29.00	29.90
12	BKN	080			10.00			56	32	45	40	8	20	28.96	29.86
15	OVC	075			10.00			59	33	47	38	6	25	28.89	29.79
18	OVC	250			10.00			59	31	46	35	14	32	28.87	29.77
21	OVC	250			10.00			50	35	43	57	9	03	28.95	29.84
24	FEW	NC			10.00			44	36	40	73	6	03	28.95	29.85

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 Visibilty = 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.

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			42	33	38	72	29.10	30.01	9.43	9	1	15
02			42	33	38	72	29.09	30.00	9.28	9	1	14
03			41	33	37	75	29.09	30.00	9.16	9	1	14
04			40	33	37	77	29.09	30.01	8.66	10	2	30
05			40	33	37	77	29.10	30.01	8.60	10	1	30
06			39	32	36	78	29.10	30.02	8.32	9	0	0
07			40	33	37	77	29.11	30.03	8.13	10	0	0
08			42	33	38	73	29.12	30.03	8.08	10	0	0
09			44	34	39	70	29.12	30.03	8.14	12	2	22
10			45	34	40	66	29.12	30.04	8.09	11	2	22
11			47	34	41	64	29.12	30.03	8.26	12	2	24
12			49	34	42	60	29.11	30.02	8.69	12	3	24
13			50	34	43	57	29.10	30.01	9.18	13	3	24
14			51	34	43	55	29.09	30.00	9.14	13	2	26
15			52	34	43	55	29.07	29.98	8.76	13	4	27
16			52	34	44	55	29.07	29.98	8.98	13	3	30
17			51	34	43	55	29.06	29.97	9.47	12	3	29
18			50	33	43	56	29.06	29.97	9.47	13	3	32
19			49	33	42	58	29.07	29.98	9.37	12	2	34
20			48	33	41	61	29.08	29.99	9.32	11	1	2
21			46	34	41	64	29.10	30.01	9.37	10	1	5
22			45	33	40	66	29.09	30.00	9.50	11	2	4
23			44	34	40	68	29.09	30.01	9.13	11	2	6
24			43	34	39	70	29.10	30.01	9.37	9	2	10



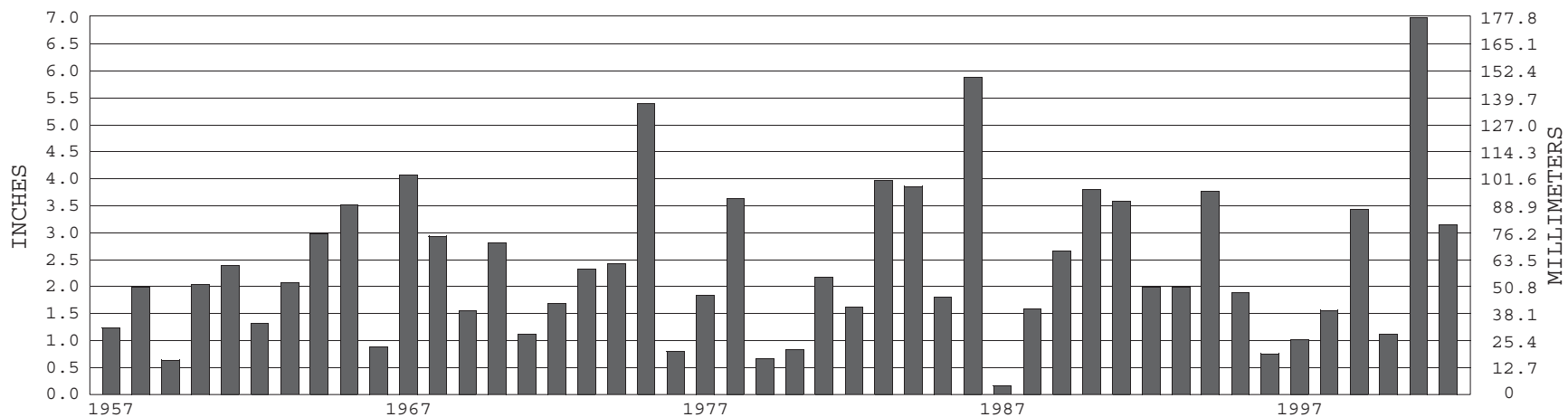
# MINNEAPOLIS-ST. PAUL, MN APRIL TEMPERATURES



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

Long-Term (1957-2002) Mean: 46.2    1961-1990 Normal: 46.6

# MINNEAPOLIS-ST. PAUL, MN APRIL PRECIPITATION



Long-Term (1957-2002) Mean Monthly Total: 2.39

1961-1990 Normal: 2.31



APRIL 2002

MINNEAPOLIS—ST. PAUL, MN

# 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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