



FEBRUARY 2003

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																																						
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	36	29	33	17	31	32	32	0	SN BR				T	28.88	29.80	6.1	15	7.5	20	17	15	19	01																																				
02	35	31	33	17	32	33	32	0	RA SN FG BR				0.33	28.90	29.82	10.4	06	10.8	24	07	17	06	02																																				
03	32	12	22	5	24	26	43	0	SN BR				0.13	28.82	29.74	14.8	35	15.6	33	34	26	34	03																																				
04	12	-1	6	-11	-3	3	59	0					0.00	29.18	30.13	12.8	31	13.5	31	35	23	33	04																																				
05	19	-2	9	-8	7	9	56	0	SN BR				0.05	29.19	30.14	1.7	17	6.3	22	02	10	33	05																																				
06	9	-8	1*	-16	-3	3	64	0	SN BR				T	29.41	30.38	9.3	32	9.8	23	01	18	33	06																																				
07	21	-14*	4	-13	-3	3	61	0	SN				T	29.17	30.14	8.8	23	9.2	23	22	18	23	07																																				
08	25	-3	11	-7	1	8	54	0	SN				T	29.07	30.02	13.0	31	13.7	28	32	23	32	08																																				
09	23	-6	9	-9	3	8	56	0	SN BR				0.01	28.99	29.95	8.3	25	9.5	26	23	20	24	09																																				
10	13	-7	3	-15	-13	-3	62	0					0.00	29.09	30.05	6.3	32	9.6	24	36	21	34	10																																				
11	18	-5	7	-12	1	8	58	0	SN BR BLSN				0.02	28.88	29.83	14.0	29	16.3	46*	31	36*	31	11																																				
12	10	-7	2	-17	-7	2	63	0					0.00	29.22	30.19	8.7	27	9.3	22	31	17	27	12																																				
13	25	9	17	-2	8	15	48	0					0.00	29.23	30.18	3.1	31	4.7	21	01	12	34	13																																				
14	26	13	20	0	6	16	45	0	SN				T	29.21	30.15	9.8	06	10.6	25	03	20	05	14																																				
15	16	6	11	-9	-2	9	54	0					0.00	29.59	30.55	9.8	05	10.2	23	04	20	04	15																																				
16	25	2	14	-6	1	11	51	0					0.00	29.50	30.46	6.9	13	7.6	16	15	13	16	16																																				
17	32	11	22	1	12	20	43	0	FZDZ				T	29.06	30.00	12.1	17	12.6	26	15	22	15	17																																				
18	31	14	23	2	17	22	42	0	RA FZRA FZDZ SN				T	28.97	29.90	13.6	27	14.0	36	25	30	27	18																																				
19	38	14	26	5	19	24	39	0					0.00	29.19	30.13	7.4	24	7.7	18	25	15	25	19																																				
20	46*	31	39*	17	31	35	26	0					0.00	29.01	29.93	7.6	22	8.2	22	24	17	23	20																																				
21	40	20	30	8	24	27	35	0	SN BR				T	28.96	29.88	7.3	01	10.5	28	02	21	03	21																																				
22	24	10	17	-6	6	14	48	0	SN				T	29.07	30.01	13.1	02	13.3	32	04	20	02	22																																				
23	12	5	9	-14	-3	6	56	0	SN				T	29.26	30.21	8.5	35	9.4	22	02	15	32	23																																				
24	6	-3	2	-21	-10	0	63	0	SN				T	29.48	30.46	10.9	31	12.2	26	28	23	28	24																																				
25	18	-2	8	-16	-4	6	57	0					0.00	29.42	30.39	9.2	21	9.4	24	23	18	21	25																																				
26	29	4	17	-7	7	14	48	0					0.00	29.15	30.10	6.9	19	7.7	21	21	16	21	26																																				
27	37	15	26	1	15	22	39	0	HZ				0.00	29.12	30.06	3.5	22	4.7	12	22	9	24	27																																				
28	37	16	27	2	16	24	38	0					0.00	29.14	30.08	1.6	26	3.2	16	02	8	24	28																																				
										24.8				6.6		15.7		■ ■		7.6		14.2		49.0		0.0		< MONTHLY AVERAGES		TOTALS-->		0.54		29.15		30.10		3.0		30		9.9		<-- MONTHLY AVERAGES															
										-3.6				-5.2		-4.4		■ ■		<-----DEPARTURE FROM NORMAL----->										-		.25		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 0.41 DATE: 02-03										SEA LEVEL PRESSURE										DATE		TIME																											
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL:										MAXIMUM										:		30.64		15		1953													
HEATING: 1372										5886										GREATEST SNOW DEPTH:										MINIMUM										:		29.66		11		0653													
COOLING: 0										-130										NUMBER OF DAYS WITH										MAXIMUM TEMP ≥ 90: 0										MINIMUM TEMP ≤ 32: 28										PRECIPITATION ≥ 0.01 INCH: 5									
										0										→										MAXIMUM TEMP ≤ 32: 21										MINIMUM TEMP ≤ 0: 11										PRECIPITATION ≥ 0.10 INCH: 2									
										0																				THUNDERSTORMS: 0										HEAVY FOG: 0										SNOWFALL ≥ 1.0 INCH: :									

FEBRUARY 2003
MINNEAPOLIS - ST. PAUL, MN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MINNEAPOLIS–ST.PAUL, MN

FEBRUARY 2003 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		T	T										01												01		T		
02													02	0.01	0.05	0.02	0.03	0.03	T	0.02	0.01	T	0.03	0.03	0.03	02	0.26	0.33	
03	0.02	0.01	0.02	0.02	0.01	T							03												03	0.08	0.13		
04													04												04		0.00		
05													05	T	T	T	T	T	T	T	T	T			05	T	0.05		
06													06												06		T		
07				T	T	T	T	T					07												07		T		
08	T	T	T	T									08												08		T		
09													09					T	T	T	T	T			09	T	0.01		
10													10												10		0.00		
11			T	T	T	T	T						11	0.01	T	T	T								11	0.01	0.02		
12													12												12		0.00		
13													13												13		0.00		
14													14						T	T					14		T		
15													15												15		0.00		
16													16												16		0.00		
17													17												17		T		
18	T	T											18		T	T									18		T		
19													19					T	T	T	T				19		0.00		
20													20												20		0.00		
21													21			T									21		T		
22													22												22		T		
23													23	T	T	T									23		T		
24	T	T	T		T								24												24		T		
25													25												25		0.00		
26													26												26		0.00		
27													27												27		0.00		
28													28												28		0.00		

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.

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	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unknown Precipitation		

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

MINNEAPOLIS–ST.PAUL, MN FEBRUARY 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:

Note: 2002 LCD Annual, the element "Normal Dry Bulb" was not updated using the 1971–2000 Normals. Correction will be made in the 2003 LCD Annual.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							3.00	7.00	
02							.50	6.00	
03							1.00	10.00	
04							10.00	10.00	
05							.75	10.00	
06							3.00	10.00	
07							7.00	10.00	
08							7.00	10.00	
09							1.25	10.00	
10							10.00	10.00	
11							.75	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							3.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							8.00	10.00	
18							4.00	10.00	
19							10.00	10.00	
20							7.00	10.00	
21							5.00	10.00	
22							10.00	10.00	
23							2.00	10.00	
24							6.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							6.00	10.00	
28							9.00	10.00	
MONTHLY AVGS							6.36	9.75	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH: SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 28									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 0 9 15									

OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN

FEBRUARY 2003 MSP WBAN # 14922

HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)					
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD AMT Oktas	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	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	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0733 FEB 01					SUNSET: 1721					SUNRISE: 0725 FEB 07					SUNSET: 1729														
03	OVC	005	4.00	BR	29	28	29	96	8	15	28.97	29.89	03	CLR	NC	10.00	-10	-15	-10	78	6	27	29.44	30.42					
06	OVC	003	4.00	BR	30	29	30	96	10	17	28.93	29.85	06	SCT	NC	10.00	-14	-18	-14	82	6	23	29.39	30.37					
09	OVC	007	3.00	BR	31	30	31	96	12	18	28.88	29.80	09	CLR	NC	10.00	-9	-14	-10	78	7	22	29.32	30.30					
12	OVC	009	6.00	BR	34	31	33	89	9	18	28.84	29.76	12	CLR	NC	10.00	4	-4	3	69	7	23	29.22	30.19					
15	OVC	015	7.00		36	32	34	86	5	15	28.83	29.74	15	FEW	NC	10.00	14	5	12	67	10	22	29.08	30.05					
18	OVC	100	7.00		35	32	34	89	5	13	28.86	29.78	18	FEW	NC	10.00	18	9	16	68	10	20	28.98	29.93					
21	OVC	070	6.00	BR	34	32	33	92	7	08	28.86	29.77	21	FEW	NC	10.00	20	9	17	62	16	23	28.90	29.85					
24	OVC	085	5.00	BR	34	32	33	92	6	07	28.87	29.79	24	OVC	023	10.00	21	12	18	68	9	25	28.85	29.80					
SUNRISE: 0731 FEB 02					SUNSET: 1722					SUNRISE: 0724 FEB 08					SUNSET: 1731														
03	OVC	007	3.00	BR	33	32	33	96	9	05	28.89	29.81	03	BKN	020	9.00	24	19	22	81	9	30	28.86	29.79					
06	OVC	007	4.00	BR	33	32	33	96	10	06	28.93	29.84	06	SCT	NC	10.00	17	11	15	77	18	32	28.94	29.88					
09	OVC	009	4.00	-SN BR	33	31	32	92	9	10	28.93	29.84	09	SCT	NC	10.00	10	4	9	76	16	30	29.04	29.99					
12	OVC	013	5.00	PLRA BR	35	31	33	85	17	06	28.92	29.83	12	SCT	NC	7.00	10	0	8	63	18	33	29.09	30.03					
15	OVC	006	0.75	-SN BR	33	32	33	96	10	08	28.90	29.82	15	BKN	095	10.00	9	-8	6	46	20	31	29.11	30.06					
18	OVC	008	2.00	-SN BR	34	32	33	92	12	06	28.88	29.80	18	FEW	NC	10.00	5	-9	3	52	13	30	29.19	30.14					
21	OVC	012	2.50	-SN BR	32	31	32	96	10	04	28.89	29.80	21	CLR	NC	10.00	1	-10	0	59	10	30	29.22	30.19					
24	OVC	006	1.25	-SN BR	32	32	32	100	13	04	28.85	29.77	24	CLR	NC	10.00	-2	-10	-3	68	6	28	29.23	30.20					
SUNRISE: 0730 FEB 03					SUNSET: 1724					SUNRISE: 0722 FEB 09					SUNSET: 1732														
03	OVC	008	1.00	-SN BR	31	31	31	100	9	04	28.81	29.73	03	CLR	NC	10.00	-5	-10	-6	79	7	23	29.20	30.17					
06	OVC	035	8.00		31	30	31	96	13	01	28.81	29.72	06	CLR	NC	10.00	-5	-8	-5	72	7	23	29.14	30.11					
09	OVC	009	9.00	-SN	31	29	30	92	12	01	28.82	29.74	09	SCT	NC	10.00	-1	-6	-2	79	6	22	29.09	30.06					
12	OVC	017	10.00		32	28	30	85	18	35	28.77	29.69	12	BKN	029	10.00	13	3	11	64	14	23	29.00	29.96					
15	OVC	014	10.00		30	26	29	85	17	34	28.74	29.66	15	OVC	041	10.00	22	10	19	60	16	24	28.87	29.81					
18	OVC	022	10.00		23	17	21	78	20	33	28.82	29.74	18	OVC	020	2.00	-SN BR												
21	OVC	045	10.00		19	12	17	74	20	34	28.86	29.79	21	OVC	047	10.00	19	15	18	85	13	29	28.81	29.75					
24	BKN	047	10.00		12	5	10	73	15	33	28.93	29.86	24	SCT	NC	10.00	13	5	11	70	13	31	28.85	29.80					
SUNRISE: 0729 FEB 04					SUNSET: 1725					SUNRISE: 0721 FEB 10					SUNSET: 1734														
03	SCT	NC	10.00		5	-1	4	76	18	32	29.00	29.94	03	CLR	NC	10.00	4	-5	2	66	17	33	28.94	29.88					
06	SCT	NC	10.00		1	-4	0	79	15	32	29.07	30.03	06	CLR	NC	10.00	-4	-16	-5	55	13	35	29.04	29.99					
09	FEW	NC	10.00		0	-6	-1	76	18	33	29.15	30.11	09	CLR	NC	10.00	-6	-17	-7	58	13	35	29.15	30.11					
12	CLR	NC	10.00		6	-4	4	63	17	34	29.20	30.15	12	CLR	NC	10.00	-1	-15	-2	51	6	VR	29.20	30.16					
15	FEW	NC	10.00		9	-2	7	61	15	32	29.22	30.18	15	FEW	NC	10.00	1	-14	-1	48	7	30	29.17	30.14					
18	FEW	NC	10.00		7	-2	5	66	10	28	29.27	30.23	18	FEW	NC	10.00	-2	-15	-3	53	7	24	29.15	30.12					
21	SCT	NC	10.00		3	-5	2	69	5	28	29.31	30.28	21	BKN	200	10.00	-7	-14	-8	71	7	25	29.09	30.06					
24	SCT	NC	10.00		2	-4	1	76	6	25	29.31	30.27	24	BKN	180	10.00	-5	-14	-6	64	6	19	29.00	29.96					
SUNRISE: 0728 FEB 05					SUNSET: 1726					SUNRISE: 0720 FEB 11					SUNSET: 1735														
03	SCT	NC	10.00		-1	-4	-1	87	6	22	29.27	30.24	03	OVC	034	9.00	-SN												
06	OVC	060	10.00		2	-2	1	83	6	23	29.25	30.21	06	OVC	055	4.00	-SN BR												
09	OVC	055	7.00	-SN	6	2	5	83	7	14	29.20	30.16	09	SCT	NC	10.00	16	8	14	71	17	27	28.74	29.68					
12	OVC	014	0.75	-SN BR	13	10	12	88	8	15	29.16	30.11	12	OVC	008	0.75	-SN												
15	OVC	008	0.75	-SN BR	17	15	16	92	9	12	29.09	30.05	15	OVC	035	1.25	-SN BLSN												
18	OVC	021	2.50	-SN BR	19	16	18	88	5	VR	29.10	30.05	18	FEW	NC	10.00	10	-5	7	50	24	31	28.98	29.92					
21	OVC	065	8.00		14	12	13	92	9	34	29.16	30.11	21	FEW	NC	10.00	1	-11	-1	56	14	29	29.11	30.07					
24	SCT	NC	10.00		8	7	8	95	5	31	29.23	30.18	24	CLR	NC	10.00	-2	-12	-3	62	12	31	29.18	30.14					
SUNRISE: 0726 FEB 06					SUNSET: 1728					SUNRISE: 0718 FEB 12					SUNSET: 1736														
03	FEW	NC	10.00		4	1	3	88	6	30	29.28	30.24	03	CLR	NC	10.00	-5	-12	-6	72	6	23	29.19	30.15					
06	OVC	045	3.00	-SN BR	9	6	8	88	9	33	29.34	30.29	06	CLR	NC	10.00	-5	-11	-6	75	8	24	29.17	30.14					
09	CLR	NC	10.00		4	-2	3	76	14	34	29.41	30.38	09	CLR	NC	10.00	0	-11	-1	59	16	28	29.23	30.20					
12	FEW	NC	10.00		7	-3	5	63	13	32	29.46	30.43	12	FEW	NC	10.00	5	-9	3	52	10	28	29.27	30.23					
15	SCT	NC	10.00		7	-3	5	63	10	30	29.45	30.42	15	CLR	NC	10.00	9	-6	6	50	12	28	29.23	30.19					
18	FEW	NC	10.00		3	-6	2	66	9	30	29.47	30.45	18	CLR	NC	10.00	8	-2	6	63	8	25	29.25	30.22					
21	CLR	NC	10.00		-2	-9	-3	72	5	28	29.48	30.46	21	OVC	120	10.00	7	0	6	73	8	24	29.23	30.20					
24	CLR	NC	10.00		-7	-13	-8	75	7	30	29.48	30.46	24	OVC	130	10.00	9	3	8	77	5	27	29.22	30.18					

OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN

FEBRUARY 2003 MSP WBAN # 14922

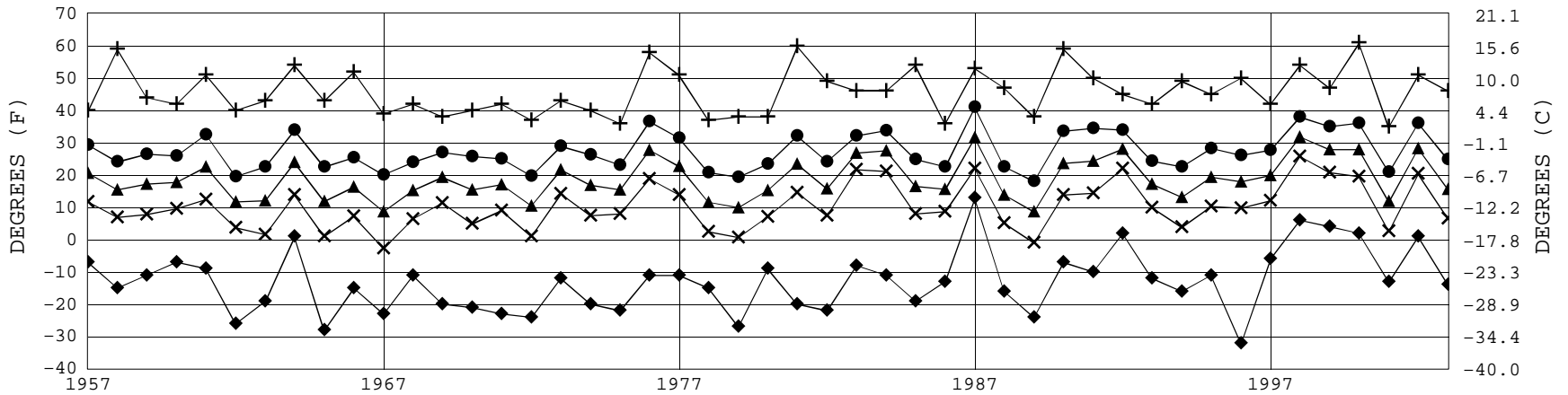
HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD 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
SUNRISE: 0717 FEB 13					SUNSET: 1738					SUNRISE: 0708 FEB 19					SUNSET: 1746										
03	OVC	037	10.00		11	6	10	79	6	27	29.23	30.19	03	BKN	050	10.00		17	11	15	77	6	23	29.18	30.12
06	OVC	036	10.00		13	8	12	79	0	00	29.21	30.16	06	BKN	085	10.00		16	7	14	67	5	23	29.20	30.15
09	CLR	NC	10.00		17	9	15	69	6	30	29.26	30.21	09	BKN	085	10.00		19	12	17	74	7	22	29.21	30.16
12	CLR	NC	10.00		23	15	21	72	8	31	29.28	30.23	12	FEW	NC	10.00		30	19	26	64	8	26	29.22	30.16
15	CLR	NC	10.00		25	10	21	53	6	33	29.25	30.19	15	CLR	NC	10.00		37	26	33	65	9	26	29.18	30.12
18	FEW	NC	10.00		21	7	17	54	5	34	29.22	30.17	18	CLR	NC	10.00		36	28	33	73	6	24	29.19	30.13
21	FEW	NC	10.00		15	7	13	70	0	00	29.20	30.15	21	CLR	NC	10.00		34	30	32	85	6	20	29.19	30.12
24	CLR	NC	10.00		16	7	14	67	6	07	29.17	30.11	24	CLR	NC	10.00		32	28	31	85	7	21	29.15	30.08
SUNRISE: 0715 FEB 14					SUNSET: 1739					SUNRISE: 0706 FEB 20					SUNSET: 1748										
03	FEW	NC	10.00		14	5	12	67	6	09	29.13	30.08	03	CLR	NC	7.00		31	28	30	89	7	20	29.10	30.03
06	SCT	NC	10.00		14	2	11	58	8	10	29.15	30.09	06	CLR	NC	10.00		31	26	29	82	5	21	29.05	29.98
09	OVC	095	10.00		18	4	15	54	9	08	29.15	30.10	09	SCT	NC	10.00		34	27	31	76	7	20	29.03	29.96
12	OVC	130	10.00		23	7	19	50	15	06	29.17	30.11	12	FEW	NC	10.00		42	31	37	65	15	23	29.01	29.93
15	OVC	130	10.00		25	4	19	40	13	07	29.18	30.13	15	FEW	NC	10.00		46	32	40	58	10	25	28.98	29.89
18	OVC	100	9.00		21	14	19	74	10	07	29.23	30.18	18	SCT	NC	10.00		44	35	40	71	3	22	28.96	29.87
21	OVC	095	10.00		19	9	16	65	14	04	29.31	30.26	21	OVC	046	10.00		41	36	39	82	7	23	28.97	29.88
24	SCT	NC	10.00		14	2	11	58	13	03	29.39	30.33	24	BKN	080	10.00		40	34	37	79	8	20	28.93	29.84
SUNRISE: 0714 FEB 15					SUNSET: 1741					SUNRISE: 0704 FEB 21					SUNSET: 1749										
03	BKN	080	10.00		13	-1	10	54	14	04	29.44	30.40	03	SCT	NC	10.00		38	30	35	73	9	22	28.89	29.80
06	FEW	NC	10.00		7	-1	5	70	12	04	29.54	30.50	06	OVC	032	10.00		34	30	32	85	3	25	28.89	29.80
09	BKN	200	10.00		6	-2	5	69	10	04	29.61	30.58	09	OVC	007	5.00	BR	31	29	30	92	9	36	28.92	29.83
12	BKN	200	10.00		12	-1	9	56	12	06	29.64	30.60	12	OVC	009	7.00		30	27	29	88	12	02	28.96	29.87
15	BKN	200	10.00		16	-2	12	45	10	06	29.62	30.58	15	OVC	015	10.00		28	22	26	78	10	01	28.94	29.86
18	BKN	200	10.00		14	-3	11	47	9	08	29.64	30.61	18	OVC	017	10.00		26	18	23	71	10	01	29.00	29.93
21	FEW	NC	10.00		13	-2	10	51	5	08	29.66	30.63	21	OVC	020	10.00		23	15	21	72	12	02	29.05	29.98
24	FEW	NC	10.00		9	-2	7	61	6	07	29.63	30.60	24	OVC	040	10.00		20	10	17	65	13	03	29.06	30.00
SUNRISE: 0712 FEB 16					SUNSET: 1742					SUNRISE: 0703 FEB 22					SUNSET: 1750										
03	CLR	NC	10.00		6	-4	4	63	10	11	29.62	30.59	03	OVC	038	10.00		17	9	15	70	15	02	29.06	30.00
06	CLR	NC	10.00		3	-4	2	72	5	11	29.62	30.59	06	BKN	044	10.00	-SN	15	6	13	67	10	02	29.05	29.99
09	CLR	NC	10.00		6	-2	5	69	8	13	29.62	30.59	09	FEW	NC	10.00		15	7	13	70	18	02	29.08	30.03
12	FEW	NC	10.00		16	4	13	59	7	13	29.56	30.53	12	FEW	NC	10.00		20	7	17	57	13	05	29.05	30.00
15	FEW	NC	10.00		22	4	17	46	8	15	29.43	30.39	15	SCT	NC	10.00		23	8	19	53	10	01	29.00	29.93
18	FEW	NC	10.00		23	4	18	44	6	13	29.40	30.36	18	FEW	NC	10.00		18	4	15	54	13	01	29.05	29.99
21	CLR	NC	10.00		19	3	15	49	10	15	29.34	30.29	21	CLR	NC	10.00		14	1	11	56	13	03	29.11	30.06
24	CLR	NC	10.00		16	2	13	54	8	14	29.30	30.24	24	CLR	NC	10.00		10	-1	8	61	12	01	29.15	30.10
SUNRISE: 0711 FEB 17					SUNSET: 1743					SUNRISE: 0701 FEB 23					SUNSET: 1752										
03	CLR	NC	10.00		11	2	9	67	6	15	29.24	30.19	03	CLR	NC	10.00		7	-1	5	70	9	01	29.18	30.13
06	CLR	NC	10.00		13	2	11	62	10	17	29.21	30.16	06	FEW	NC	10.00		5	-4	3	66	9	01	29.21	30.17
09	FEW	NC	10.00		17	8	15	68	13	16	29.16	30.10	09	BKN	110	10.00		7	-8	5	50	8	01	29.27	30.22
12	SCT	NC	10.00		26	13	22	58	14	16	29.09	30.03	12	OVC	150	10.00		10	-6	7	48	13	34	29.29	30.25
15	BKN	150	10.00		31	14	26	49	15	15	28.99	29.92	15	BKN	027	9.00		11	0	9	61	9	35	29.25	30.20
18	BKN	065	10.00		31	14	26	49	15	15	28.92	29.85	18	OVC	037	10.00		11	-2	8	56	12	34	29.27	30.23
21	OVC	034	10.00		30	21	27	69	16	18	28.88	29.80	21	SCT	NC	10.00		9	-2	7	61	7	VR	29.31	30.27
24	OVC	011	8.00	-FZDZ	29	22	27	74	13	21	28.84	29.76	24	BKN	100	10.00		6	-2	5	69	13	32	29.33	30.29
SUNRISE: 0709 FEB 18					SUNSET: 1745					SUNRISE: 0660 FEB 24					SUNSET: 1753										
03	OVC	013	10.00		31	28	30	89	14	27	28.84	29.76	03	SCT	NC	10.00		3	-5	2	69	10	31	29.36	30.32
06	OVC	017	10.00		28	22	26	78	13	27	28.90	29.82	06	SCT	NC	10.00		0	-10	-1	62	16	33	29.40	30.37
09	BKN	029	10.00		24	18	22	77	8	25	28.95	29.87	09	CLR	NC	10.00		-1	-13	-2	56	16	33	29.49	30.46
12	OVC	031	10.00		26	16	23	65	12	25	28.95	29.87	12	FEW	NC	10.00		2	-13	0	49	17	30	29.52	30.50
15	BKN	037	10.00		28	15	24	59	21	27	28.96	29.88	15	SCT	NC	10.00		4	-12	2	47	15	27	29.51	30.48
18	BKN	035	10.00		21	9	18	59	17	27	29.02	29.96	18	SCT	NC	10.00		2	-10	0	57	14	27	29.54	30.52
21	SCT	NC	10.00		18	10	16	71	14	28	29.11	30.05	21	CLR	NC	10.00		1	-10	0	59	6	25	29.55	30.53
24	CLR	NC	10.00		15	9	14	77	7	23	29.17	30.11	24	CLR	NC	10.00		-1	-10	-2	65	5	26	29.56	30.54

OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN
 FEBRUARY 2003 MSP WBAN # 14922

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)			
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)		DIRECTION TENS OF DEG	STATION		SEA LEVEL	OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG
SUNRISE: 0658				FEB 25				SUNSET: 1755				SUNRISE: FEB 31				SUNSET:									
03	CLR	NC				-2	-9	-3	72	0	00	29.54	30.52												
06	CLR	NC				-2	-10	-3	68	7	22	29.53	30.51												
09	CLR	NC				4	-8	2	57	10	20	29.51	30.48												
12	SCT	NC				12	-5	9	46	14	20	29.45	30.42												
15	FEW	NC				17	-1	13	45	13	21	29.35	30.31												
18	FEW	NC				17	1	13	49	13	19	29.30	30.26												
21	CLR	NC				13	2	11	61	12	19	29.29	30.24												
24	CLR	NC				10	1	8	67	10	19	29.27	30.22												
SUNRISE: 0656				FEB 26				SUNSET: 1756				3-HOURLY OBSERVATION NOTES													
03	CLR	NC				6	0	5	76	5	15	29.23	30.18	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				4	-1	3	80	6	13	29.21	30.16	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.											
09	CLR	NC				11	2	9	67	7	20	29.18	30.13	NC = No ceiling detected.											
12	CLR	NC				20	7	17	57	10	17	29.16	30.11	& = Original observation contained additional weather elements.											
15	FEW	NC				27	10	22	49	13	21	29.11	30.06	See page 3 for additional notes.											
18	FEW	NC				28	12	23	51	7	20	29.09	30.03												
21	FEW	NC				24	14	21	65	7	17	29.08	30.02												
24	FEW	NC				21	14	19	74	9	22	29.09	30.03												
SUNRISE: 0655				FEB 27				SUNSET: 1757				SUMMARY BY HOUR													
03	CLR	NC				19	13	17	77	3	20	29.10	30.04	AVERAGES											
06	FEW	NC				17	10	15	74	7	20	29.12	30.06	HOUR (LST)											
09	FEW	NC				18	11	16	74	7	21	29.14	30.08	CEILOMETER											
12	SCT	NC				30	16	25	56	6	20	29.14	30.08	EFF CLD AMT											
15	BKN	250				37	15	30	41	6	23	29.11	30.04	DRY BULB											
18	OVC	090				36	17	29	46	5	24	29.12	30.05	DEW POINT											
21	SCT	NC				26	18	23	71	5	30	29.13	30.08	WET BULB											
24	CLR	NC				23	18	21	81	3	27	29.13	30.07	RELATIVE HUMIDITY											
SUNRISE: 0653				FEB 28				SUNSET: 1759				PRESSURE (INCHES, HG)													
03	SCT	NC				20	17	19	89	3	29	29.15	30.08	STATION											
06	FEW	NC				17	14	16	88	7	32	29.17	30.10	SEA LEVEL											
09	BKN	200				23	12	20	63	3	VR	29.20	30.14	VISIBILITY (MILES)											
12	BKN	200				32	14	26	47	0	00	29.19	30.12	WIND SPEED (MPH)											
15	SCT	NC				36	15	29	42	5	VR	29.13	30.06	SPEED											
18	FEW	NC				34	18	29	52	3	26	29.11	30.05	DIRECTION											
21	CLR	NC				28	18	25	66	0	00	29.10	30.03												
24	CLR	NC				25	19	23	78	3	14	29.08	30.01												
SUNRISE:				FEB 29				SUNSET:																	
SUNRISE:				FEB 30				SUNSET:																	

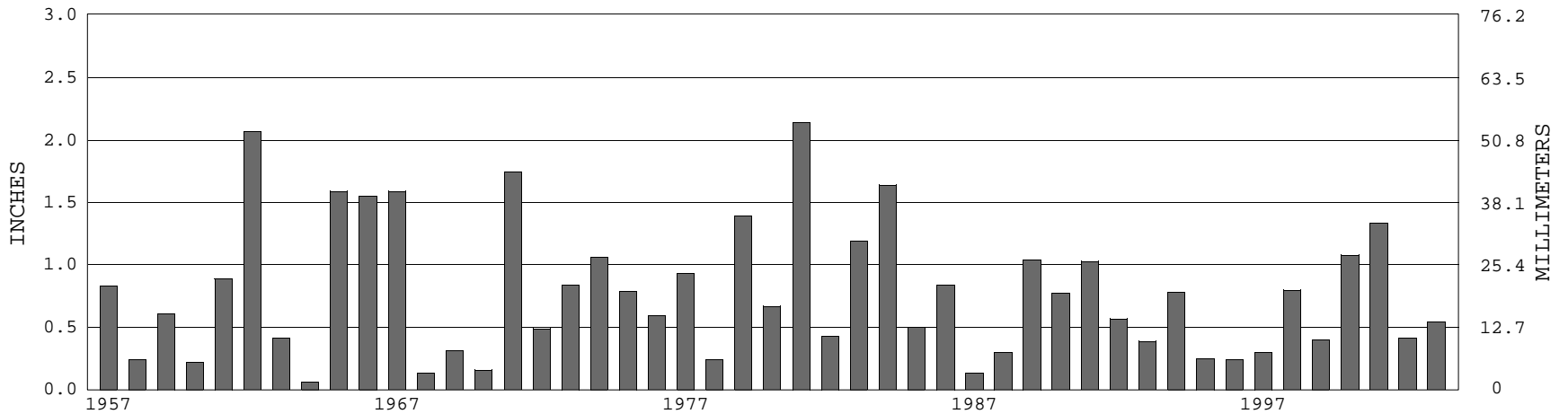
MINNEAPOLIS-ST. PAUL, MN FEBRUARY TEMPERATURES



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

Long-Term (1957-2003) Mean: 18.8 1961-1990 Normal: 20.1

MINNEAPOLIS-ST. PAUL, MN FEBRUARY PRECIPITATION



Long-Term (1957-2003) Mean Monthly Total: 0.78

1961-1990 Normal: 0.79



FEBRUARY 2003

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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