



# JANUARY 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	15	8	12	-2	5	10	53	0	SN				T	29.50	30.47	6.8	34	7.3	24	02	14	33	01	
02	15	1	8	-6	2	7	57	0					0.00	29.52	30.48	4.5	24	5.0	13	26	10	23	02	
03	26	3	15	2	8	14	50	0					0.00	29.18	30.13	9.1	19	9.6	23	18	16	22	03	
04	30	19	25	12	19	24	40	0	SN				T	28.95	29.88	5.8	25	6.3	18	21	14	22	04	
05	35	25	30	17	26	28	35	0	BR				0.00	29.01	29.93	6.3	28	6.8	24	35	18	32	05	
06	32	8	20	7	10	17	45	0	SN				T	29.23	30.17	10.3	35	11.0	30	36	23	35	06	
07	29	4	17	4	10	16	48	0					0.00	29.07	30.02	6.0	20	6.6	18	21	15	22	07	
08	45	28	37	24	30	34	28	0					0.00	28.69	29.60	8.1	24	8.6	22	25	16	24	08	
09	49*	34	42*	29	33	38	23	0					0.00	28.76	29.67	10.1	27	10.4	20	28	17	28	09	
10	38	30	34	22	28	32	31	0					0.00	29.06	29.98	11.0	30	11.5	29	32	22	32	10	
11	43	28	36	24	28	32	29	0					0.00	29.03	29.95	7.5	26	8.3	18	30	14	31	11	
12	39	26	33	21	24	30	32	0					0.00	28.92	29.84	10.3	30	11.1	26	32	21	32	12	
13	36	24	30	18	25	29	35	0	SN FZFG BR				0.19	28.65	29.56	13.7	09	14.3	29	09	24	09	13	
14	30	27	29	17	26	28	36	0	SN FZFG BR				0.12	28.80	29.72	7.5	36	10.1	26	01	17	07	14	
15	28	19	24	12	18	22	41	0	SN BR				T	29.19	30.13	9.3	30	9.8	22	33	20	33	15	
16	22	14	18	6	13	16	47	0	SN BR				0.03	29.15	30.10	6.1	26	6.4	14	25	12	26	16	
17	20	8	14	2	9	14	51	0	SN				T	29.20	30.14	9.0	29	9.6	26	32	21	32	17	
18	12	-2*	5*	-8	-2	5	60	0	SN				T	29.29	30.25	4.7	24	6.6	22	31	16	32	18	
19	31	13	22	9	16	21	43	0	SN BR				0.05	28.90	29.83	11.1	25	12.1	31*	26	24*	26	19	
20	33	17	25	12	19	23	40	0	BR				0.00	28.77	29.70	3.2	17	7.0	22	16	18	16	20	
21	31	15	23	10	21	23	42	0	BR				0.00	28.82	29.75	2.7	21	5.9	15	17	14	17	21	
22	44	24	34	21	25	32	31	0					0.00	28.75	29.66	4.3	19	8.3	21	18	16	18	22	
23	34	19	27	14	20	24	38	0	SN				T	29.03	29.96	10.5	33	11.1	22	02	18	33	23	
24	36	9	23	10	14	20	42	0	SN				T	29.05	29.99	7.5	25	8.3	20	27	15	27	24	
25	46	28	37	23	23	32	28	0					0.00	28.88	29.80	9.8	23	10.3	24	23	20	23	25	
26	48	30	39	25	27	33	26	0					0.00	28.88	29.79	2.9	15	4.2	12	21	10	22	26	
27	35	26	31	17	27	29	34	0	FZDZ BR HZ				T	28.90	29.82	5.5	31	7.2	20	35	16	33	27	
28	27	18	23	9	17	20	42	0	FZDZ SN BR				T	29.13	30.06	12.7	01	13.0	26	36	20	02	28	
29	22	15	19	5	14	17	46	0	SN				0.02	29.20	30.14	7.1	03	9.1	25	03	17	02	29	
30	21	12	17	2	12	16	48	0	SN				T	29.38	30.33	3.2	35	5.2	22	03	12	32	30	
31	26	19	23	8	19	22	42	0	SN BR				0.05	29.24	30.19	8.6	02	8.9	25	02	17	02	31	
31.5		17.7	24.6	■ ■	18.3	22.8	40.1	0.0	< MONTHLY AVERAGES		TOTALS->		0.46	29.04	29.97	3.6	29	8.7	<- MONTHLY AVERAGES					
9.6		13.4	11.5	■ ■	<-----DEPARTURE FROM NORMAL----->								- .58	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.19				DATE : 13	SEA LEVEL PRESSURE				DATE	TIME					
MONTHLY									GREATEST 24-HR SNOWFALL:				DATE :	MAXIMUM				DATE	TIME					
TOTAL DEPARTURE									GREATEST SNOW DEPTH:				DATE :	MINIMUM				DATE	TIME					
HEATING: 1243									NUMBER OF DAYS WITH ➔				MAXIMUM TEMP ≥ 90: 0				MINIMUM TEMP ≤ 32 : 30				PRECIPITATION ≥ 0.01 INCH : 6			
COOLING: 0									MAXIMUM TEMP ≤ 32 : 17				MINIMUM TEMP ≤ 0 : 1				PRECIPITATION ≥ 0.10 INCH : 2							
SEASON TO DATE									TOTAL DEPARTURE				TOTAL DEPARTURE				SNOWFALL ≥ 1.0 INCH :							
3624 -1141									0				0				13 1353							
0									0				0											

JANUARY 2002  
MINNEAPOLIS-ST. PAUL, MN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

## MINNEAPOLIS—ST.PAUL, MN

JANUARY 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	T	T	T	T	T	T	T	T	T			T	01	T									T	T		01		T	
02													02													02		0.00	
03													03													03		0.00	
04													04									T	T	T		04		T	
05													05													05		0.00	
06													06	T	T	T										06		T	
07								T	T	T	T	T	07													07		0.00	
08													08													08		0.00	
09													09													09		0.00	
10													10													10		0.00	
11													11													11		0.00	
12													12													12		0.00	
13												T	13	T								T	T	T		13	T	0.19	
14	T	T	T	T	T		T	T	T	T	T	T	14	T	T	T	T	T	T	T	T	T	T	T	T	14	T	0.12	
15	T	T											15	T	T	T	T	T	T	T	T					15		T	
16													16	T	T	T	T	T								16	T	0.03	
17	T	T	T		T	T	T	T	T	T	T	T	17									T				17		T	
18													18						T	T					T	18		T	
19	T	T	T	T	T	T							19													19	T	0.05	
20													20													20		0.00	
21													21													21		0.00	
22													22													22		0.00	
23													23		T							T	T	T	T	23		T	
24	T	T	T	T	T								24													24		T	
25													25													25		0.00	
26													26													26		0.00	
27	T	T										T	27	T	T	T	T	T	T	T	T	T	T	T	T	27		T	
28	T	T										T	28	T	T	T	T	T	T	T	T	T	T	T	T	28		T	
29	T	T						T	T	T	T	T	29	T	T	T	T	T	T	T	T	T	T	T	T	29	T	0.02	
30	T	T											30													30		T	
31										T	T	T	31	T	T	T	T	T	T	T	T	T	T	T	T	31	T	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)												
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

**MINNEAPOLIS-ST. PAUL, MN**  
**JANUARY 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.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							3.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							8.00	10.00	
05							4.00	10.00	
06							4.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							7.00	10.00	
12							10.00	10.00	
13							.50	10.00	
14							.50	10.00	
15							3.00	10.00	
16							.75	10.00	
17							7.00	10.00	
18							2.00	10.00	
19							1.25	10.00	
20							5.00	10.00	
21							5.00	10.00	
22							10.00	10.00	
23							7.00	10.00	
24							9.00	10.00	
25							10.00	10.00	
26							9.00	10.00	
27							3.00	10.00	
28							2.00	10.00	
29							5.00	10.00	
30							9.00	10.00	
31							.75	10.00	
MONTHLY AVGS							6.08	10.00	

SUNSHINE (MINUTES)

Total:

Possible:

Percent Possible:

NUMBER OF DAYS WITH:

SKY CONDITION

CLR PTLY CLDY CLOUDY MISSING

31

MINIMUM VISIBILITY (MILES)

<=0.25 <=3.0 >=7.0

0 9 16

## OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN  
JANUARY 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: 0751						JAN 01		SUNSET: 1643						SUNRISE: 0750						JAN 07		SUNSET: 1649							
03	BKN	036			9.00	-SN	9	4	8	80	7	32	29.38	30.33	03	CLR	NC			10.00	6	2	5	83	6	20	29.28	30.23	
06	OVC	060			9.00	-SN	9	4	8	80	7	33	29.41	30.37	06	CLR	NC			10.00	5	0	4	79	6	VR	29.26	30.22	
09	OVC	080			10.00		9	3	8	77	8	35	29.49	30.45	09	FEW	NC			10.00	7	0	6	73	9	19	29.16	30.12	
12	OVC	033			9.00	-SN	12	5	10	73	8	01	29.51	30.47	12	SCT	NC			10.00	21	8	18	57	8	18	29.07	30.02	
15	BKN	095			10.00		15	6	13	67	8	35	29.52	30.49	15	SCT	NC			10.00	27	13	23	55	12	22	29.00	29.93	
18	OVC	034			10.00		13	6	11	74	6	VR	29.58	30.55	18	SCT	NC			10.00	27	18	24	69	6	19	28.94	29.88	
21	OVC	034			10.00		13	6	11	74	7	35	29.61	30.57	21	BKN	250			10.00	26	19	24	75	5	19	28.89	29.83	
24	CLR	NC			10.00		9	3	8	77	3	34	29.60	30.56	24	OVC	095			10.00	29	23	27	78	5	20	28.84	29.77	
SUNRISE: 0751						JAN 02		SUNSET: 1644						SUNRISE: 0750						JAN 08		SUNSET: 1650							
03	CLR	NC			10.00		5	1	4	83	6	31	29.62	30.59	03	CLR	NC			10.00	30	24	28	79	5	20	28.78	29.70	
06	CLR	NC			10.00		2	0	2	91	0	00	29.60	30.58	06	FEW	NC			10.00	29	24	27	82	5	22	28.73	29.65	
09	CLR	NC			10.00		2	-1	1	88	3	24	29.59	30.56	09	SCT	NC			10.00	30	26	29	85	6	24	28.74	29.66	
12	CLR	NC			10.00		12	3	10	67	6	24	29.55	30.51	12	BKN	200			10.00	41	32	37	70	10	22	28.68	29.59	
15	FEW	NC			10.00		15	4	13	61	9	23	29.48	30.45	15	BKN	200			10.00	45	34	40	66	9	26	28.63	29.54	
18	SCT	NC			10.00		11	4	9	73	8	22	29.43	30.40	18	OVC	200			10.00	44	35	40	71	8	25	28.64	29.55	
21	CLR	NC			10.00		7	3	6	84	6	24	29.41	30.38	21	FEW	NC			10.00	43	34	39	71	13	27	28.62	29.53	
24	CLR	NC			10.00		5	2	4	87	3	22	29.35	30.31	24	CLR	NC			10.00	41	33	38	74	13	24	28.60	29.51	
SUNRISE: 0751						JAN 03		SUNSET: 1645						SUNRISE: 0750						JAN 09		SUNSET: 1651							
03	CLR	NC			10.00		5	2	4	87	5	20	29.34	30.29	03	BKN	200			10.00	41	32	37	70	10	25	28.61	29.51	
06	CLR	NC			10.00		7	2	6	80	6	20	29.30	30.26	06	FEW	NC			10.00	41	33	38	74	10	27	28.66	29.57	
09	BKN	180			10.00		7	2	6	80	8	15	29.25	30.22	09	SCT	NC			10.00	38	33	36	83	9	25	28.73	29.63	
12	SCT	NC			10.00		19	8	16	62	15	19	29.19	30.14	12	FEW	NC			10.00	45	34	40	66	15	29	28.77	29.67	
15	FEW	NC			10.00		25	12	21	58	12	19	29.13	30.08	15	FEW	NC			10.00	49	32	41	52	14	29	28.77	29.68	
18	SCT	NC			10.00		23	14	20	68	14	19	29.07	30.02	18	SCT	NC			10.00	41	33	38	74	12	27	28.83	29.74	
21	FEW	NC			10.00		24	14	21	65	12	20	29.03	29.98	21	FEW	NC			10.00	38	32	35	79	12	28	28.89	29.80	
24	FEW	NC			10.00		24	14	21	65	13	21	28.96	29.89	24	CLR	NC			10.00	34	31	33	89	8	26	28.94	29.85	
SUNRISE: 0751						JAN 04		SUNSET: 1646						SUNRISE: 0749						JAN 10		SUNSET: 1652							
03	CLR	NC			10.00		22	14	20	71	5	23	28.96	29.88	03	BKN	035			10.00	32	30	31	92	8	27	28.97	29.87	
06	FEW	NC			10.00		20	14	18	78	5	23	28.93	29.86	06	SCT	NC			10.00	32	28	30	85	10	28	29.00	29.91	
09	SCT	NC			9.00		20	16	19	85	9	24	28.94	29.87	09	OVC	060			10.00	35	30	33	82	13	29	29.02	29.94	
12	BKN	250			9.00		27	19	24	72	7	25	28.95	29.87	12	OVC	029			10.00	38	29	34	70	14	30	29.04	29.96	
15	OVC	150			9.00		30	21	27	69	5	22	28.92	29.84	15	OVC	035			10.00	36	25	32	64	16	32	29.07	29.99	
18	OVC	150			9.00		30	23	28	75	3	VR	28.96	29.89	18	OVC	027			10.00	35	25	31	67	12	32	29.12	30.04	
21	OVC	026			9.00	-SN	30	24	28	79	7	29	28.98	29.91	21	OVC	025			10.00	34	25	31	70	9	31	29.14	30.07	
24	OVC	070			10.00		29	24	27	82	7	27	28.99	29.91	24	BKN	019			10.00	31	26	29	82	6	29	29.15	30.08	
SUNRISE: 0750						JAN 05		SUNSET: 1647						SUNRISE: 0749						JAN 11		SUNSET: 1653							
03	BKN	110			10.00		29	25	28	85	5	25	28.99	29.91	03	SCT	NC			10.00	29	27	28	92	6	24	29.13	30.06	
06	CLR	NC			5.00	BR	26	25	26	96	3	27	28.99	29.91	06	CLR	NC			7.00	28	26	27	92	6	21	29.08	30.01	
09	BKN	200			5.00	BR	27	25	26	92	5	26	29.01	29.94	09	CLR	NC			10.00	30	25	28	82	10	24	29.06	29.98	
12	BKN	200			10.00		32	26	30	79	8	28	29.00	29.92	12	FEW	NC			10.00	37	28	34	70	12	25	29.02	29.95	
15	BKN	023			10.00		34	27	31	76	13	30	28.99	29.91	15	FEW	NC			10.00	43	30	38	60	9	26	28.98	29.90	
18	OVC	023			10.00		31	26	29	82	9	29	29.04	29.97	18	BKN	200			10.00	39	31	36	73	7	24	28.98	29.89	
21	OVC	055			10.00		30	26	29	85	6	26	29.03	29.96	21	SCT	NC			10.00	37	30	34	76	12	30	28.95	29.86	
24	OVC	060			10.00		30	26	29	85	9	30	29.03	29.96	24	OVC	130			10.00	35	30	33	82	12	30	28.96	29.87	
SUNRISE: 0750						JAN 06		SUNSET: 1648						SUNRISE: 0748						JAN 12		SUNSET: 1654							
03	BKN	040			10.00		31	27	29	84	15	35	29.07	30.00	03	OVC	090			10.00	35	28	32	76	12	32	28.98	29.89	
06	SCT	NC			10.00		22	11	19	62	16	34	29.13	30.06	06	CLR	NC			10.00	32	25	29	75	10	31	28.98	29.90	
09	OVC	035			9.00	-SN	22	10	19	61	12	36	29.18	30.11	09	FEW	NC			10.00	31	25	29	79	14	30	28.98	29.90	
12	OVC	046			9.00	-SN	18	11	16	74	9	36	29.24	30.18	12	CLR	NC			10.00	36	23	31	59	17	32	28.95	29.86	
15	BKN	028			9.00		18	7	15	62	14	02	29.27	30.21	15	FEW	NC			10.00	39	21	32	48	14	31	28.91	29.82	
18	FEW	NC			10.00		14	5	12	67	8	34	29.34	30.28	18	FEW	NC			10.00	33	23	29	67	9	26	28.89	29.80	
21	CLR	NC			10.00		12	3	10	67	5	31	29.35	30.30	21	BKN	250			10.00	30	24	28	79	6	25	28.84	29.76	
24	CLR	NC			10.00		9	3	8	77	5	31	29.36	30.31	24	SCT	NC			10.00	28	23	26	81	6	23	28.81		

## OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN  
JANUARY 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: 0748						JAN 13						SUNSET: 1656						SUNRISE: 0744						JAN 19						SUNSET: 1703					
03	BKN	150			10.00	26	23	25	88	6	12	28.77	29.69	03	OVC	021			1.50	-SN	BR	18	15	17	88	9	23	29.02	29.97						
06	BKN	150			10.00	29	23	27	78	10	11	28.70	29.62	06	OVC	039			10.00			19	16	18	88	8	24	28.97	29.91						
09	BKN	150			10.00	31	24	28	76	13	11	28.66	29.57	09	SCT	NC			5.00	BR		20	17	19	89	10	23	28.91	29.85						
12	OVC	024			1.25	-SN	33	24	30	70	16	11	28.62	29.53	12	BKN	150			9.00			25	18	23	75	17	23	28.84	29.77					
15	SCT	NC			10.00	36	28	33	73	21	09	28.57	29.48	15	OVC	250			10.00			31	18	27	59	17	25	28.77	29.70						
18	OVC	050			9.00	-SN	34	24	30	67	18	07	28.60	29.50	18	BKN	250			10.00			26	16	23	66	14	28	28.82	29.75					
21	OVC	005			0.50	SN FZFG	30	29	30	96	15	08	28.61	29.53	21	OVC	030			10.00			26	18	23	71	10	29	28.87	29.80					
24	OVC	014			0.75	-SN BR	30	28	29	92	16	08	28.63	29.55	24	SCT	NC			10.00			20	14	18	78	6	30	28.91	29.84					
SUNRISE: 0748						JAN 14						SUNSET: 1657						SUNRISE: 0744						JAN 20						SUNSET: 1704					
03	OVC	006			0.75	-SN BR	30	29	30	96	13	04	28.67	29.58	03	BKN	130			10.00			20	10	17	65	0	00	28.91	29.84					
06	OVC	008			1.00	-SN BR	30	28	29	92	12	04	28.69	29.61	06	OVC	130			10.00			18	13	17	81	0	00	28.89	29.82					
09	OVC	015			9.00	-SN	28	25	27	88	13	01	28.76	29.68	09	OVC	095			5.00	BR		19	15	18	85	10	12	28.85	29.77					
12	OVC	015			8.00	-SN	28	24	27	85	10	34	28.81	29.73	12	OVC	150			10.00			25	18	23	75	16	15	28.76	29.68					
15	OVC	017			8.00	-SN	28	24	27	85	8	33	28.84	29.76	15	OVC	150			10.00			30	22	27	72	6	15	28.67	29.59					
18	OVC	017			3.00	-SN BR	28	25	27	88	3	31	28.89	29.81	18	OVC	080			10.00			30	24	28	79	6	15	28.66	29.58					
21	OVC	026			9.00	-SN	30	26	29	85	9	29	28.92	29.84	21	OVC	085			10.00			31	25	29	79	8	28	28.65	29.58					
24	OVC	023			3.00	-SN BR	27	25	26	92	9	30	28.97	29.89	24	BKN	200			9.00			24	18	22	77	8	30	28.69	29.62					
SUNRISE: 0747						JAN 15						SUNSET: 1658						SUNRISE: 0743						JAN 21						SUNSET: 1706					
03	OVC	032			10.00	27	23	26	85	13	31	29.04	29.97	03	SCT	NC			10.00			19	16	18	88	7	30	28.72	29.65						
06	BKN	032			10.00	25	20	23	81	8	30	29.10	30.04	06	OVC	014			10.00			20	17	19	89	5	29	28.78	29.71						
09	OVC	024			10.00	24	17	22	75	15	32	29.19	30.13	09	OVC	008			7.00			21	19	20	92	8	27	28.84	29.76						
12	OVC	027			10.00	24	16	22	71	12	31	29.25	30.18	12	OVC	008			5.00	BR		24	21	23	88	8	17	28.88	29.81						
15	OVC	021			9.00	-SN	24	17	22	75	9	29	29.25	30.19	15	SCT	NC			8.00			30	24	28	79	9	16	28.83	29.75					
18	OVC	021			10.00	-SN	22	15	20	75	8	28	29.26	30.20	18	FEW	NC			10.00			28	23	26	81	6	14	28.85	29.78					
21	OVC	021			10.00	21	15	19	78	3	28	29.26	30.19	21	CLR	NC			10.00			29	24	27	82	0	00	28.87	29.79						
24	OVC	021			10.00	19	14	18	81	6	25	29.29	30.24	24	BKN	250			10.00			26	22	25	84	0	00	28.89	29.82						
SUNRISE: 0746						JAN 16						SUNSET: 1659						SUNRISE: 0742						JAN 22						SUNSET: 1707					
03	OVC	200			10.00	16	13	15	88	7	24	29.25	30.20	03	BKN	250			10.00			27	22	25	81	6	09	28.87	29.80						
06	OVC	060			5.00	-SN BR	16	12	15	84	5	24	29.19	30.13	06	BKN	150			10.00			32	22	28	66	9	16	28.81	29.73					
09	VV	019			0.75	-SN BR	16	12	15	84	7	27	29.18	30.13	09	SCT	NC			10.00			35	23	31	61	5	16	28.77	29.68					
12	OVC	024			5.00	-SN BR	18	14	17	84	6	25	29.14	30.09	12	BKN	250			10.00			43	24	36	47	12	19	28.70	29.61					
15	BKN	024			8.00	-SN	20	13	18	74	9	25	29.08	30.03	15	BKN	200			10.00			43	27	36	53	10	18	28.65	29.56					
18	FEW	NC			10.00	17	13	16	84	6	26	29.09	30.03	18	OVC	200			10.00			38	29	34	70	5	15	28.65	29.57						
21	BKN	045			10.00	18	14	17	84	9	28	29.11	30.05	21	BKN	250			10.00			37	30	34	76	8	28	28.68	29.59						
24	OVC	060			10.00	17	14	16	88	5	23	29.11	30.06	24	OVC	130			10.00			34	25	31	70	9	31	28.75	29.66						
SUNRISE: 0746						JAN 17						SUNSET: 1701						SUNRISE: 0741						JAN 23						SUNSET: 1709					
03	BKN	032			9.00	16	14	15	92	0	00	29.13	30.08	03	OVC	150			8.00			30	24	28	79	13	35	28.84	29.75						
06	OVC	035			10.00	16	11	15	80	9	29	29.15	30.09	06	OVC	070			8.00			29	24	27	82	12	34	28.94	29.85						
09	FEW	NC			10.00	13	7	12	77	9	30	29.20	30.15	09	OVC	014			8.00			30	24	28	79	13	34	29.00	29.92						
12	FEW	NC			10.00	18	8	15	65	8	31	29.21	30.16	12	OVC	016			10.00			28	22	26	78	10	31	29.06	29.99						
15	BKN	250			10.00	20	11	17	68	10	27	29.19	30.14	15	OVC	022			10.00			27	20	25	75	10	32	29.08	30.01						
18	BKN	060			10.00	17	11	15	77	10	26	29.21	30.16	18	OVC	022			10.00			23	16	21	74	10	33	29.12	30.06						
21	OVC	040			9.00	15	6	13	67	13	30	29.25	30.19	21	OVC	022			9.00	-SN		20	14	18	78	9	34	29.14	30.08						
24	FEW	NC			10.00	9	-1	7	64	12	31	29.31	30.26	24	OVC	020			9.00	-SN		19	12	17	74	9	34	29.14	30.08						
SUNRISE: 0745						JAN 18						SUNSET: 1702						SUNRISE: 0740						JAN 24						SUNSET: 1710					
03	CLR	NC			10.00	2	-7	1	66	6	29	29.35	30.30	03	OVC	018			9.00	-SN		16	10	14	77	7	25	29.13	30.07						
06	CLR	NC			10.00	1	-5	0	75	8	28	29.36	30.32	06	CLR	NC			10.00			11	6	10	81	6	22	29.10	30.05						
09	CLR	NC			10.00	1	-5	0	75	3	26	29.37	30.33	09	FEW	NC			10.00			10	5	9	80	7	20	29.11	30.06						
12	CLR	NC			10.00	8	-3	6	60	7	23	29.37	30.33	12	BKN	200			10.00			20	11	17	68	7	21	29.03	29.97						
15	CLR	NC			10.00	11	0	9	61	6	20	29.27	30.22	15	FEW	NC			10.00			32	18	27	56	12	25	28.97	29.90						
18	BKN	024			9.00	-SN	10	1	8	67	9	21	29.24	30.20	18	CLR	NC			10.00			32	19	28	59	8	26	29.00	29.94					
21	FEW	NC			10.00	7	2	6	80	5	21	29.17	30.14	21	CLR	NC			10.00			30	23	28	75	10	26	29.00	29.93						
24	OVC	032			2.00	SN	11	6	10	81	7	19	29.10	30.05	24	CLR	NC			10.00			30	20	27	66	12	24	29.01	29.95					

## OBSERVATIONS AT 3-HOURLY INTERVALS

MINNEAPOLIS-ST. PAUL, MN  
JANUARY 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>Oktas</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>Oktas</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL										
SUNRISE: 0740      JAN 25      SUNSET: 1711																																							
03	BKN	100		10.00		30	20	27	66	7	22	28.95	29.87	03	OVC	100		10.00		20	14	18	78	6	02	29.34	30.28												
06	SCT	NC		10.00		35	17	29	48	16	23	28.86	29.78	06	OVC	030		10.00		20	14	18	78	7	03	29.31	30.26												
09	SCT	NC		10.00		33	18	28	54	15	23	28.87	29.78	09	OVC	085		10.00		22	16	20	78	8	05	29.32	30.26												
12	SCT	NC		10.00		40	22	33	49	16	24	28.87	29.79	12	OVC	032		9.00	-SN	25	18	23	75	9	03	29.27	30.21												
15	BKN	250		10.00		45	26	37	48	10	20	28.83	29.74	15	OVC	011		1.25	-SN BR	25	22	24	88	10	03	29.19	30.13												
18	SCT	NC		10.00		44	28	37	53	7	20	28.85	29.75	18	OVC	019		1.50	-SN BR	25	23	24	92	13	01	29.18	30.11												
21	SCT	NC		10.00		40	27	35	60	6	26	28.90	29.81	21	OVC	041		4.00	-SN BR	24	22	23	91	12	01	29.13	30.07												
24	SCT	NC		10.00		32	25	29	75	3	04	28.92	29.83	24	OVC	039		4.00	-SN BR	23	21	22	92	12	36	29.12	30.06												
SUNRISE: 0739      JAN 26      SUNSET: 1713																																							
03	BKN	180		10.00		31	25	29	79	0	00	28.92	29.83	3-HOURLY OBSERVATION NOTES																									
06	SCT	NC		10.00		30	24	28	79	6	13	28.88	29.80	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8,																									
09	OVC	250		10.00		32	24	29	73	5	14	28.88	29.80	SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibilty = 8/8.																									
12	BKN	250		10.00		42	24	35	49	5	16	28.88	29.79	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																									
15	OVC	250		10.00		47	29	39	50	8	26	28.87	29.78	NC= No ceiling detected.																									
18	SCT	NC		10.00		43	30	38	60	7	17	28.89	29.80	& = Original observation contained additional weather elements.																									
21	SCT	NC		10.00		38	31	35	76	5	13	28.87	29.79	See page 3 for additional notes.																									
24	BKN	200		10.00		35	29	33	78	3	11	28.82	29.73																										
SUNRISE: 0738      JAN 27      SUNSET: 1714																																							
03	FEW	NC		10.00		31	27	29	85	3	03	28.80	29.70	SUMMARY BY HOUR																									
06	SCT	NC		10.00		28	25	27	88	5	01	28.81	29.72																										
09	OVC	200		8.00		28	25	27	88	5	19	28.83	29.74																										
12	OVC	200		7.00		32	28	30	85	7	27	28.85	29.76																										
15	OVC	011		6.00	BR	32	28	30	85	10	31	28.88	29.80																										
18	OVC	011		5.00	BR	31	28	30	89	10	31	28.98	29.90																										
21	OVC	007		5.00	-FZDZ BR	30	28	29	92	14	32	29.03	29.96																										
24	OVC	009		3.00	-FZDZ BR	27	25	26	92	13	36	29.07	30.00																										
SUNRISE: 0737      JAN 28      SUNSET: 1715																																							
03	OVC	011		10.00		25	21	24	85	13	36	29.12	30.05																										
06	OVC	016		10.00		22	17	20	82	16	03	29.12	30.06																										
09	OVC	021		10.00		20	15	19	81	17	02	29.13	30.07																										
12	OVC	011		5.00	-FZDZ BR	20	17	19	89	13	36	29.12	30.06																										
15	OVC	009		3.00	-FZDZSN BR	19	17	18	92	12	01	29.11	30.05																										
18	OVC	010		6.00	-FZDZ BR	19	18	19	96	13	01	29.12	30.06																										
21	OVC	024		8.00	-FZDZ	19	18	19	96	12	02	29.15	30.09																										
24	OVC	015		9.00	-SN	18	14	17	84	13	02	29.18	30.13																										
SUNRISE: 0736      JAN 29      SUNSET: 1717																																							
03	OVC	023		10.00		16	12	15	84	10	01	29.17	30.11																										
06	OVC	023		10.00		16	11	15	80	10	01	29.17	30.11																										
09	OVC	021		9.00	-SN	16	11	15	80	13	04	29.20	30.15																										
12	OVC	021		7.00	-SN	20	15	19	81	10	05	29.19	30.14																										
15	OVC	025		5.00	-SN	21	15	19	78	8	07	29.16	30.11																										
18	OVC	022		6.00	-SN	22	16	20	78	6	VR	29.21	30.16																										
21	OVC	012		9.00	-SN	21	18	20	88	5	33	29.23	30.17																										
24	OVC	014		9.00	-SN	19	16	18	88	8	30	29.26	30.21																										
SUNRISE: 0735      JAN 30      SUNSET: 1718																																							
03	OVC	040		9.00	-SN	18	14	17	84	8	31	29.31	30.26																										
06	SCT	NC		9.00	-SN	14	9	13	80	7	31	29.36	30.30																										
09	BKN	250		10.00		13	8	12	81	6	32	29.42	30.37																										
12	BKN	250		10.00		18	10	16	71	3	VR	29.42	30.37																										
15	OVC	200		10.00		20	11	17	68	5	VR	29.40	30.35																										
18	OVC	200		10.00		21	12	18	68	7	03	29.40	30.35																										
21	OVC	150		10.00		20	13	18	74	5	08	29.41	30.37																										
24	OVC	120		10.00		21	14	19	74	0	00	29.37	30.32																										

## 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 Visibility = 8/8.

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.

NC= No ceiling detected.

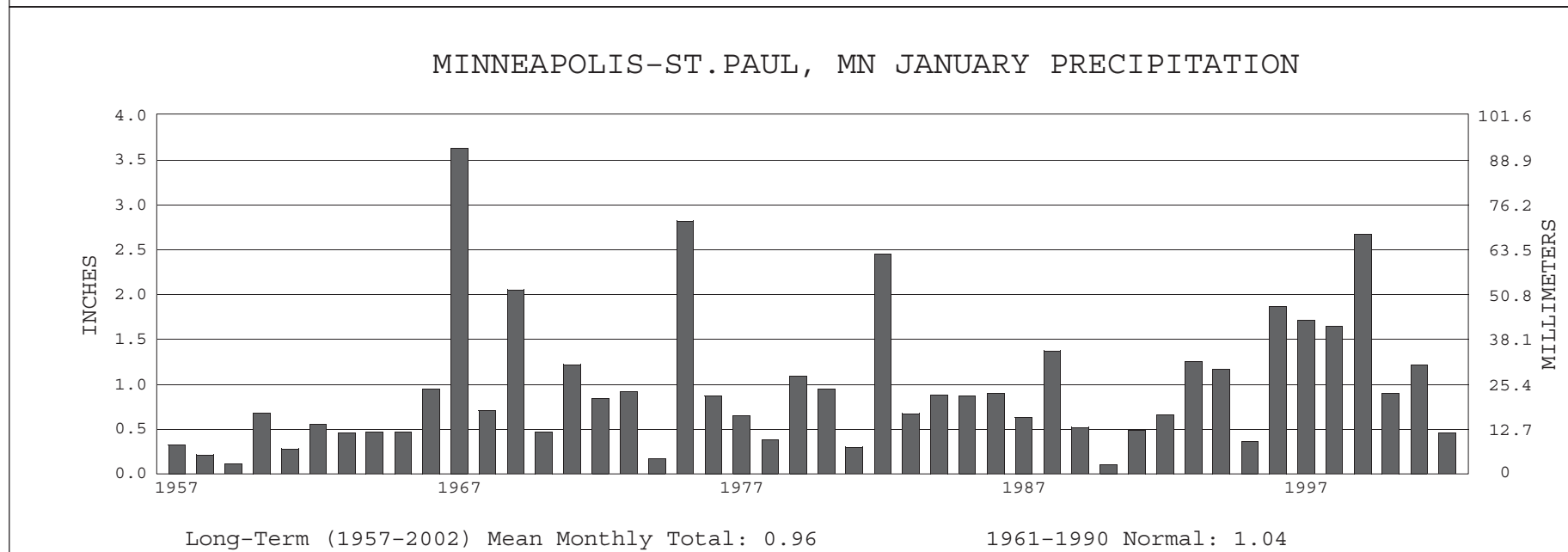
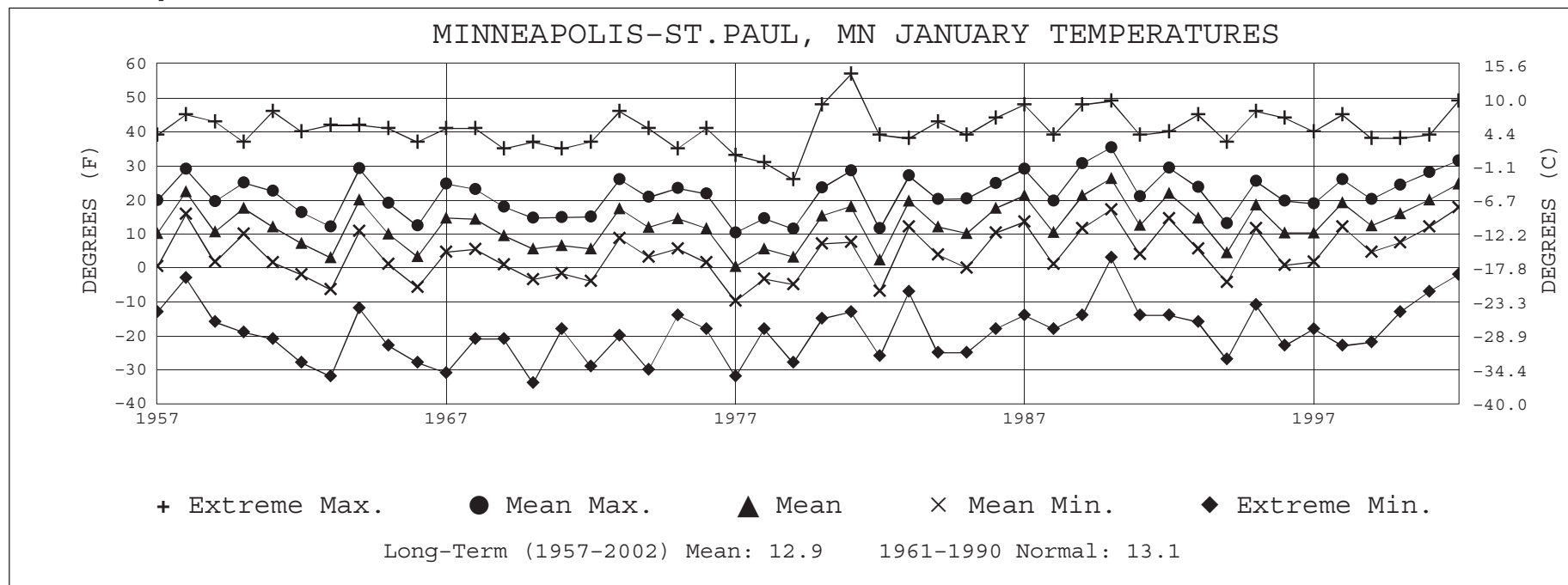
&amp; = Original observation contained additional weather elements.

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)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			23	18	22	81	29.04	29.97	8.68	6	4	29
02			23	18	21	81	29.04	29.97	8.96	7	4	30
03			22	17	21	82	29.05	29.98	9.23	7	3	31
04			22	17	21	82	29.04	29.98	9.19	8	4	30
05			21	16	20	81	29.04	29.97	9.13	8	4	30
06			21	16	20	80	29.04	29.97	9.16	8	3	30
07			21	16	20	81	29.04	29.98	9.10	9	3	29
08			21	16	19	81	29.05	29.98	9.06	8	3	28
09			22	16	20	79	29.05	29.99	8.86	9	3	29
10			24	17	21	76	29.06	29.99	8.89	10	3	28
11			25	17	23	72	29.06	29.99	9.32	9	3	27
12			27	18	24	70	29.04	29.97	8.81	10	4	26
13			28	19	25	69	29.02	29.95	9.06	11	4	27
14			29	19	26	67	29.01	29.94	9.22	10	4	28
15			30	19	26	67	29.01	29.94	8.91	10	4	28
16			29	20	26	68	29.02	29.95	8.81	9	4	28
17			28	20	25	71	29.02	29.95	9.17	9	4	28
18			27	20	25	74	29.03	29.96	8.98	8	3	27
19			27	20	25	75	29.03	29.96	9.06	9	4	28
20			26	20	24	77	29.03	29.97	9.04	9	5	28
21			26	20	24	78	29.03	29.97	9.11	8	5	29
22			25	19	23	79	29.03	29.96	8.90	8	5	30
23			25	19	23	79	29.04	29.97	8.85	8	4	30
24			24	19	22	80	29.04	29.97	8.67	8	4	29







JANUARY 2002

MINNEAPOLIS—ST. PAUL, MN

# LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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