



JANUARY 1998

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

KNOXVILLE, TN

MC GHEE TYSON AIRPORT (TYS)
 Lat: 35° 49' N Long: 83° 59' W Elev (Ground): 979 Feet
 Time Zone: EASTERN WBAN: 13891 ISSN #: 0198-4810

JANUARY 1998
KNOXVILLE, TN

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		0700 LST	1300 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	41	12*	27*	-10	17	23	38	0	FG+ FZFG BR	T		0.0	0.00	29.46	30.55	0.7	05	1.5	9	26	8	26	01																										
02	47	20	34	-2	23	29	31	0	BR HZ	T		0.0	0.00	29.41	30.49	1.0	07	1.1	7	08	6	09	02																										
03	59	27	43	7	32	37	22	0		0		0.0	0.00	29.32	30.39	1.4	05	2.0	7	08	7	09	03																										
04	63	31	47	11	38	42	18	0		0		0.0	0.00	29.27	30.32	2.2	05	2.7	10	04	8	06	04																										
05	63	37	50	14	46	48	15	0	RA BR	0		0.0	T	29.12	30.17	3.1	04	3.8	13	20	9	05	05																										
06	66	52	59	23	55	56	6	0	RA BCFG BR	0		0.0	0.03	28.99	30.02	2.0	04	2.4	11	06	9	06	06																										
07	67	55	61	25	60	60	4	0	RA BR	0		0.0	0.99	28.67	29.69	3.7	04	6.5	20	23	16	22	07																										
08	71*	51	61*	25	54	57	4	0	TSRA RA	0		0.0	0.03	28.50	29.52	12.0	24	12.7	38*	24	32*	24	08																										
09	51	36	44	8	37	40	21	0	RA BR	0		0.0	0.05	28.85	29.89	10.1	24	11.2	26	25	22	24	09																										
10	45	29	37	1	31	34	28	0	FG+ FZFG BR	0		0.0	0.00	29.12	30.19	1.5	24	2.4	10	25	9	28	10																										
11	43	32	38	2	36	38	27	0	RA BR	0		0.0	0.06	29.12	30.19	1.1	01	2.0	9	07	9	08	11																										
12	51	41	46	10	43	44	19	0	RA BCFG BR HZ	0		0.0	0.05	29.06	30.12	3.5	03	4.0	10	36	8	06	12																										
13	56	42	49	13	45	46	16	0	RA BR	0		0.0	0.03	29.13	30.18	3.4	36	6.3	20	02	17	02	13																										
14	52	37	45	9	37	41	20	0	RA	0		0.0	T	29.11	30.16	4.5	03	6.1	15	02	13	03	14																										
15	47	43	45	10	44	45	20	0	RA BR	0		0.0	0.57	28.80	29.84	3.7	04	4.3	14	02	11	02	15																										
16	47	40	44	9	43	44	21	0	RA BR	0		0.0	0.38	28.68	29.72	2.7	36	6.3	15	03	13	03	16																										
17	42	37	40	5	35	38	25	0	RA BR HZ	0		0.0	0.01	28.91	29.96	10.6	25	11.1	26	23	22	24	17																										
18	44	29	37	1	33	36	28	0	RA BR	0		0.0	0.27	29.00	30.06	0.6	34	2.2	10	31	9	31	18																										
19	42	36	39	3	36	38	26	0	RA DZ BR	0		0.0	0.04	28.92	29.97	4.0	32	6.7	18	28	16	27	19																										
20	45	28	37	1	26	32	28	0		0		0.0	0.00	29.04	30.10	6.5	04	6.9	14	06	11	06	20																										
21	50	30	40	4	30	36	25	0	RA	0		0.0	T	29.08	30.14	1.9	07	2.2	8	08	8	14	21																										
22	47	42	45	9	41	43	20	0	RA BR	0		0.0	0.40	28.96	30.00	5.6	04	5.8	18	05	16	05	22																										
23	49	41	45	9	44	45	20	0	RA DZ BR	0		0.0	0.44	28.87	29.92	2.6	01	4.1	13	01	10	01	23																										
24	41	34	38	2	32	35	27	0	RA BR HZ	0		0.0	0.01	28.94	29.99	4.6	30	6.8	21	29	17	28	24																										
25	44	32	38	2	26	33	27	0		0		0.0	0.00	29.13	30.20	2.5	03	3.3	13	05	11	05	25																										
26	52	31	42	6	29	35	23	0		0		0.0	0.00	29.11	30.17	3.8	03	4.3	16	02	13	03	26																										
27	41	33	37	1	34	35	28	0	RA SN PE FG BR	T		0.4	1.26	28.95	30.01	4.0	05	5.4	20	03	16	05	27																										
28	54	27	41	5	33	37	24	0	BR	0		0.0	0.00	28.92	29.98	1.7	25	4.1	21	33	15	32	28																										
29	59	29	44	8	36	40	21	0	FZFG BR	0		0.0	0.00	28.87	29.92	4.9	25	6.9	23	24	20	22	29																										
30	49	35	42	5	31	37	23	0		0		0.0	0.00	28.92	29.97	3.2	01	3.8	20	01	16	02	30																										
31	47	31	39	2	26	33	26	0		0		0.0	0.00	29.02	30.07	7.9	05	8.2	17	07	14	02	31																										
50.8										34.8		42.8		■ ■		36.6		39.9		22.0		0.0		< MONTHLY AVERAGES		TOTALS-->		0.4		4.62		29.01		30.06		1.4		36		5.1		<- MONTHLY AVERAGES							
4.9				8.8		6.8		■ ■		<----- DEPARTURE FROM NORMAL ----->										0.45		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																											
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.26 DATE :27										SEA LEVEL PRESSURE DATE TIME																													
MONTHLY TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: 0.4 DATE :27										MAXIMUM : 30.65 01 1029																													
SEASON TO DATE TOTAL DEPARTURE										GREATEST SNOW DEPTH: T DATE :27+										MINIMUM : 29.46 08 1553																													
HEATING: 681 -218										NUMBER OF DAYS WITH →										MAXIMUM TEMP ≥ 90: 0										MINIMUM TEMP ≤ 32: 14										PRECIPITATION ≥ 0.01 INCH : 16									
COOLING: 0 0																				MAXIMUM TEMP ≤ 32 : 0										MINIMUM TEMP ≤ 0 : 0										PRECIPITATION ≥ 0.10 INCH : 7									
																				THUNDERSTORMS : 1										HEAVY FOG : 2										SNOWFALL ≥ 1.0 INCH : 0									

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN

JANUARY 1998

TYS

WBAN # 13891

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note 2)	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												01		0.00		
02													02												02		0.00		
03													03												03		0.00		
04													04												04		0.00		
05													05							T	T	T			05		T		
06													06												06		0.03		
07													07												07		0.99		
08													08												08		0.03		
09													09												09		0.05		
10													10												10		0.00		
11													11												11		0.06		
12													12												12		0.05		
13													13												13		0.03		
14													14												14		T		
15													15												15		0.57		
16													16												16		0.38		
17													17												17		0.01		
18													18												18		0.27		
19													19												19		0.04		
20													20												20		0.00		
21													21												21		T		
22													22												22		0.40		
23													23												23		0.44		
24													24												24		0.01		
25													25												25		0.00		
26													26												26		0.00		
27													27												27		1.26		
28													28												28		0.00		
29													29												29		0.00		
30													30												30		0.00		
31													31												31		0.00		

MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

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 1: NCDC derives these data from one-minute ASOS values. The table is not printed when inconsistent with ASOS hourly totals.

Note 2: 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 1961 – 1990

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	PE 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

KNOXVILLE, TN JANUARY 1998

Ceilometer (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 at constant pressure by evaporation of moisture into it, to 100% relative humidity.

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

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01	426						3.00	10.00	
02	398						6.00	10.00	
03	420						7.00	10.00	
04	396	67					7.00	10.00	
05	49	1					6.00	10.00	
06	0	0					3.00	10.00	
07	0	0					1.00	10.00	
08	258						7.00	10.00	
09	14						5.00	10.00	
10	245						.25	10.00	
11	32						2.00	10.00	
12	0	0					2.00	8.00	
13	69	2					2.00	10.00	
14	244	41					6.00	10.00	
15	0	0					1.75	10.00	
16	0	0					2.50	10.00	
17	3						4.00	10.00	
18	238						3.00	10.00	
19	0						1.50	10.00	
20	420	69					9.00	10.00	
21	354	58					10.00	10.00	
22	0						2.00	10.00	
23	0						.75	10.00	
24	8						2.50	10.00	
25	414						9.00	10.00	
26	375						7.00	10.00	
27	0	0					.75	10.00	
28	490	79					2.50	10.00	
29	465	75					1.75	10.00	
30	295	47					9.00	10.00	
31	461						9.00	10.00	
MONTHLY AVGS							4.30	9.94	
SUNSHINE (MINUTES)									
Total: 6074 Possible: 18713 Percent Possible: 32									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 1 17 9									

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

JANUARY 1998

TYS

WBAN # 13891

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)																	
	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)			SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)		SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL																
SUNRISE: 0746								JAN 01								SUNSET: 1733								SUNRISE: 0746								JAN 07								SUNSET: 1738							
01	CLR	NC				10.00		18	15	17	88	5	06	29.43	30.52	01	BKN	110					3.00	BR	57	57	57	100	6	01	28.87	29.90															
04	CLR	NC				9.00		16	13	15	88	0	00	29.47	30.57	04	OVC	030				1.25	-RA	56	56	56	100	5	05	28.84	29.86																
07	CLR	NC				9.00		15	11	14	84	5	30	29.51	30.61	07	OVC	100				6.00	-RA	58	58	58	100	8	05	28.77	29.79																
10	CLR	NC				6.00	BR	20	16	19	85	3	03	29.55	30.64	10	OVC	027				1.75	RA	60	59	59	96	5	06	28.78	29.80																
13	CLR	NC				10.00		30	17	26	59	0	00	29.47	30.56	13	OVC	034				6.00	BR	62	61	61	96	7	05	28.65	29.68																
16	CLR	NC				10.00		39	20	32	46	0	00	29.41	30.50	16	OVC	038				4.00	-RA	62	61	61	96	8	04	28.56	29.58																
19	CLR	NC				10.00		33	21	29	61	0	00	29.41	30.50	19	BKN	085				10.00		62	61	61	96	6	02	28.49	29.50																
22	CLR	NC				10.00		28	21	26	75	0	00	29.44	30.53	22	OVC	045				4.00	-RA	64	62	63	93	10	24	28.53	29.54																
SUNRISE: 0746								JAN 02								SUNRISE: 0746								JAN 08								SUNSET: 1739															
01	CLR	NC				10.00		24	21	23	88	3	05	29.43	30.52	01	BKN	085				10.00		62	60	61	93	5	24	28.48	29.49																
04	CLR	NC				8.00		24	21	23	88	0	00	29.43	30.51	04	OVC	120				10.00		62	59	60	90	7	29	28.47	29.48																
07	CLR	NC				7.00		22	19	21	89	0	00	29.45	30.54	07	OVC	050				10.00		62	58	60	86	12	22	28.50	29.51																
10	CLR	NC				6.00	HZ	29	23	27	78	3	06	29.49	30.57	10	BKN	065				10.00		63	57	59	81	10	22	28.53	29.55																
13	CLR	NC				10.00		42	23	35	47	0	00	29.42	30.50	13	SCT	NC				10.00		69	56	61	63	20	23	28.49	29.49																
16	CLR	NC				10.00		47	26	38	44	3	11	29.37	30.44	16	SCT	NC				10.00		69	52	59	55	16	25	28.46	29.47																
19	CLR	NC				10.00		41	24	35	51	0	00	29.36	30.44	19	BKN	046				7.00	-TSRA	58	53	55	84	6	30	28.48	29.49																
22	CLR	NC				10.00		33	26	30	75	0	00	29.36	30.44	22	CLR	NC				10.00		53	44	49	72	23	24	28.55	29.58																
SUNRISE: 0746								JAN 03								SUNRISE: 0746								JAN 09								SUNSET: 1740															
01	CLR	NC				10.00		31	25	29	79	0	00	29.36	30.43	01	OVC	050				10.00	-RA	48	41	45	77	22	25	28.60	29.62																
04	BKN	120				10.00		30	26	29	85	7	01	29.34	30.42	04	OVC	042				10.00		43	41	42	93	15	21	28.65	29.68																
07	CLR	NC				10.00		28	25	27	88	0	00	29.36	30.43	07	OVC	035				10.00		44	41	43	89	9	24	28.72	29.75																
10	CLR	NC				10.00		35	29	33	78	0	00	29.39	30.47	10	OVC	025				10.00		44	38	41	79	18	23	28.82	29.86																
13	CLR	NC				10.00		50	34	43	54	0	00	29.32	30.39	13	OVC	027				9.00	-RA	44	40	42	85	13	26	28.87	29.91																
16	CLR	NC				10.00		57	42	50	58	3	09	29.26	30.32	16	BKN	038				10.00		46	34	41	63	13	27	28.93	29.98																
19	CLR	NC				10.00		49	38	44	66	3	05	29.28	30.35	19	BKN	034				10.00		40	33	37	77	7	31	28.99	30.05																
22	CLR	NC				10.00		44	35	40	71	3	18	29.29	30.36	22	SCT	NC				10.00		37	32	35	82	3	25	29.04	30.10																
SUNRISE: 0746								JAN 04								SUNRISE: 0746								JAN 10								SUNSET: 1741															
01	CLR	NC				10.00		38	33	36	83	0	00	29.28	30.35	01	CLR	NC				10.00		34	31	33	89	0	00	29.05	30.11																
04	CLR	NC				10.00		35	32	34	89	0	00	29.30	30.36	04	FEW	NC				10.00		32	31	32	96	0	00	29.10	30.16																
07	CLR	NC				10.00		32	31	32	96	5	07	29.29	30.36	07	CLR	NC				3.00	BR	29	28	29	96	0	00	29.12	30.19																
10	FEW	NC				10.00		44	37	41	76	6	05	29.33	30.40	10	SCT	NC				1.00	BR	31	31	31	100	0	00	29.18	30.25																
13	FEW	NC				10.00		55	41	48	59	0	00	29.29	30.35	13	BKN	020				10.00		40	31	36	70	3	VR	29.14	30.20																
16	FEW	NC				10.00		63	44	53	50	5	01	29.22	30.28	16	FEW	NC				10.00		44	33	39	65	7	25	29.12	30.18																
19	SCT	NC				10.00		55	43	49	64	5	05	29.21	30.27	19	CLR	NC				10.00		39	32	36	76	3	20	29.13	30.19																
22	BKN	120				10.00		48	42	45	80	0	00	29.21	30.27	22	SCT	NC				10.00		34	31	33	89	5	23	29.15	30.22																
SUNRISE: 0746								JAN 05								SUNRISE: 0746								JAN 11								SUNSET: 1742															
01	CLR	NC				10.00		43	40	42	89	3	02	29.20	30.24	01	BKN	080				8.00		35	32	34	89	3	01	29.12	30.18																
04	CLR	NC				9.00		41	39	40	93	0	00	29.18	30.23	04	OVC	065				7.00		34	32	33	92	0	00	29.13	30.19																
07	FEW	NC				7.00		39	38	39	96	0	00	29.17	30.22	07	OVC	043				9.00		35	33	34	93	0	00	29.12	30.19																
10	SCT	NC				7.00		46	43	45	89	0	00	29.15	30.20	10	OVC	050				10.00		38	32	36	79	3	06	29.16	30.23																
13	BKN	048				10.00		56	48	52	75	3	VR	29.13	30.17	13	OVC	055				10.00		42	34	39	73	0	00	29.13	30.19																
16	BKN	047				10.00		60	51	55	72	7	07	29.06	30.11	16	OVC	033				5.00	-RA	43	38	41	82	3	22	29.12	30.17																
19	BKN	075				10.00		58	51	54	78	5	04	29.06	30.11	19	OVC	021				5.00	BR	41	40	41	96	5	32	29.11	30.18																
22	SCT	NC				10.00		58	52	55	81	6	02	29.06	30.10	22	OVC	007				3.00	BR	42	40	41	92	0	00	29.12	30.18																
SUNRISE: 0746								JAN 06								SUNRISE: 0746								JAN 12								SUNSET: 1743															
01	OVC	075				9.00		54	51	52	90	5	36	29.03	30.07	01	OVC	007				2.50	BR	41	40	41	96	3	04	29.09	30.14																
04	BKN	100				9.00		52	50	51	93	0	00	29.02	30.06	04	OVC	002				3.00	BR	41	40	41	96	5	05	29.08	30.14																
07	OVC	060				10.00		52	51	52	97	0	00	29.04	30.08	07	OVC	070				2.50	BR	41	40	41	96	5	02	29.08	30.14																
10	OVC	060				10.00		56	53	54	90	0	00	29.05	30.09	10	OVC	080				3.00	BR	42	41	42	96	6	01	29.11	30.16																
13	BKN	055				10.00		64	57	60	78	3	08	29.01	30.04	13	BKN	080				4.00	BR	46	43	45	89	8	07	29.06	30.11																
16	OVC	060				10.00		64	58	60	81	8	05	28.95	29.98	16	BKN	090				8.00		51	46	49	83	5	03	29.02	30.07																
19	BKN	110				7.00		60	58	59	93	5	07	28.95	29.99	19	OVC	065				7.00		49	46	47	90	0	00	29.03	30.08																
22	BKN	080				10.00		58	57	57	97	0	00	28.89	29.92	22	OVC	055				4.00	-RA	48	46	47	93	3	10	29.04	30.09																

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

JANUARY 1998

TYS

WBAN # 13891

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: 0746 JAN 13 SUNSET: 1744																									
01	OVC	055	3.00	-RA BR	47	46	46	97	5	06	29.02	30.07	01	OVC	002	1.50	BR	39	39	39	100	7	04	28.87	29.92
04	OVC	033	2.50	BR	47	46	46	97	3	02	29.04	30.09	04	OVC	017	7.00		39	38	39	96	6	04	28.84	29.88
07	OVC	020	3.00	BR	48	47	47	96	0	00	29.07	30.11	07	OVC	020	7.00		39	37	38	93	5	36	28.87	29.93
10	OVC	013	2.50	BR	50	48	49	93	6	27	29.14	30.19	10	OVC	040	7.00	DZ	39	37	38	93	0	00	28.90	29.96
13	OVC	023	8.00		54	49	51	83	6	27	29.14	30.18	13	OVC	020	10.00		41	38	40	89	9	25	28.92	29.97
16	OVC	019	10.00		50	44	47	80	8	01	29.16	30.21	16	OVC	033	10.00		42	35	39	76	13	28	28.92	29.98
19	SCT	NC	10.00		46	40	43	79	10	01	29.18	30.23	19	SCT	NC	10.00		38	32	35	79	9	30	28.97	30.03
22	OVC	018	10.00		43	38	41	82	9	03	29.21	30.26	22	OVC	048	10.00		37	31	35	79	6	36	29.01	30.07
SUNRISE: 0746 JAN 14 SUNSET: 1745																									
01	OVC	020	10.00		42	38	40	85	13	03	29.20	30.25	01	OVC	045	10.00		35	29	33	78	8	03	29.02	30.08
04	FEW	NC	10.00		41	34	38	76	8	04	29.21	30.27	04	CLR	NC	10.00		31	25	29	79	3	35	29.03	30.09
07	BKN	050	10.00		38	32	36	79	9	04	29.17	30.23	07	CLR	NC	10.00		29	24	27	82	6	01	29.04	30.10
10	SCT	NC	10.00		40	32	37	73	8	04	29.17	30.23	10	FEW	NC	10.00		33	26	30	75	7	04	29.09	30.15
13	FEW	NC	10.00		48	36	43	63	6	05	29.10	30.15	13	FEW	NC	10.00		41	29	36	62	9	05	29.04	30.10
16	BKN	090	10.00		51	39	45	64	3	22	29.05	30.10	16	CLR	NC	10.00		44	24	36	45	9	05	29.02	30.08
19	OVC	050	10.00		49	42	46	77	3	29	29.03	30.08	19	CLR	NC	10.00		38	25	33	60	8	04	29.04	30.11
22	OVC	055	9.00		47	43	45	86	0	00	29.00	30.05	22	CLR	NC	10.00		36	23	31	59	7	05	29.05	30.12
SUNRISE: 0745 JAN 15 SUNSET: 1746																									
01	OVC	080	10.00	-RA	46	44	45	93	0	00	28.95	30.00	01	FEW	NC	10.00		35	24	31	64	5	01	29.07	30.13
04	OVC	012	6.00	-RA BR	45	43	44	93	3	04	28.90	29.95	04	FEW	NC	10.00		32	27	30	82	3	06	29.06	30.12
07	OVC	020	3.00	-RA BR	44	42	43	93	5	03	28.86	29.90	07	CLR	NC	10.00		32	26	30	79	0	00	29.12	30.18
10	OVC	006	1.75	-RA BR	44	42	43	93	0	00	28.86	29.90	10	FEW	NC	10.00		37	28	34	70	0	00	29.14	30.20
13	OVC	005	5.00	BR	45	44	45	97	5	36	28.79	29.83	13	SCT	NC	10.00		45	31	39	58	0	00	29.07	30.13
16	OVC	005	2.50	-RA BR	46	45	46	96	0	00	28.75	29.78	16	BKN	100	10.00		49	34	42	57	5	08	29.04	30.10
19	SCT	NC	10.00		45	44	45	97	6	05	28.69	29.72	19	OVC	100	10.00		47	34	41	61	5	08	29.07	30.13
22	OVC	009	7.00		46	45	46	96	6	02	28.68	29.72	22	OVC	110	10.00		46	35	41	66	0	00	29.07	30.13
SUNRISE: 0745 JAN 16 SUNSET: 1747																									
01	OVC	022	8.00		46	45	46	96	7	06	28.63	29.66	01	OVC	055	10.00		44	36	40	73	0	00	29.06	30.11
04	OVC	005	8.00		46	44	45	93	10	05	28.55	29.59	04	OVC	090	10.00		43	38	41	82	3	36	29.03	30.08
07	OVC	020	6.00	BR	45	44	45	97	10	04	28.54	29.58	07	OVC	070	10.00		43	37	40	80	6	03	29.06	30.11
10	OVC	008	3.00	-RA BR	46	45	46	96	3	VR	28.61	29.64	10	OVC	060	9.00	-RA	44	37	41	76	8	05	29.05	30.10
13	OVC	009	4.00	-RA BR	45	43	44	93	6	32	28.65	29.68	13	OVC	032	2.50	-RA BR	43	41	42	93	6	07	28.98	30.03
16	OVC	019	10.00		46	40	43	79	5	34	28.69	29.73	16	OVC	020	3.00	-RA BR	45	43	44	93	14	05	28.86	29.90
19	OVC	009	8.00		43	41	42	93	3	29	28.80	29.84	19	OVC	002	2.50	BR	46	45	46	96	9	02	28.83	29.87
22	OVC	005	3.00	BR	40	39	40	97	7	26	28.87	29.92	22	OVC	050	4.00	-RA BR	47	45	46	93	3	03	28.85	29.89
SUNRISE: 0745 JAN 17 SUNSET: 1748																									
01	OVC	008	5.00	BR	40	39	40	97	7	29	28.85	29.89	01	OVC	022	2.00	-RA BR	46	45	46	96	0	00	28.85	29.89
04	OVC	006	9.00		41	39	40	93	13	24	28.85	29.89	04	OVC	004	1.00	BR	46	45	46	96	0	00	28.83	29.87
07	OVC	004	5.00	BR	40	39	40	97	7	22	28.84	29.88	07	OVC	008	2.00	RA BR	46	46	46	100	3	16	28.85	29.89
10	OVC	025	6.00	BR	42	38	40	85	18	24	28.87	29.92	10	OVC	009	2.50	-RA BR	48	47	47	96	6	21	28.89	29.93
13	OVC	018	6.00	HZ	41	36	39	82	15	25	28.87	29.92	13	OVC	015	7.00		48	44	46	86	8	36	28.89	29.93
16	OVC	035	7.00		40	32	37	73	10	27	28.94	30.00	16	OVC	009	4.00	BR	45	43	44	93	7	35	28.88	29.93
19	OVC	037	10.00		40	30	36	68	12	28	28.99	30.05	19	OVC	019	10.00		44	40	42	85	8	01	28.89	29.94
22	OVC	034	10.00		39	30	35	70	8	27	29.03	30.09	22	OVC	009	4.00	BR	42	39	41	89	8	36	28.89	29.95
SUNRISE: 0744 JAN 18 SUNSET: 1749																									
01	BKN	032	10.00		37	29	34	73	0	00	29.03	30.09	01	OVC	007	5.00	BR	40	39	40	97	3	36	28.87	29.92
04	CLR	NC	10.00		32	28	31	85	5	27	29.02	30.09	04	OVC	014	3.00	BR	39	37	38	93	5	35	28.85	29.90
07	BKN	100	7.00		31	28	30	89	0	00	29.05	30.12	07	OVC	015	9.00	-RA	37	34	36	89	7	04	28.87	29.92
10	SCT	NC	7.00		35	32	34	89	0	00	29.07	30.13	10	OVC	020	6.00	HZ	37	32	35	82	0	00	28.92	29.98
13	BKN	095	10.00		42	33	38	71	6	24	29.03	30.09	13	BKN	019	7.00		38	32	35	79	7	VR	28.92	29.98
16	OVC	090	10.00		44	34	40	68	0	00	28.97	30.03	16	OVC	025	10.00		37	29	34	73	15	28	28.92	29.98
19	OVC	044	10.00	-RA	42	36	39	79	3	36	28.93	29.99	19	OVC	033	10.00		35	27	32	72	8	27	29.00	30.06
22	OVC	020	3.00	-RA BR	40	39	40	97	3	25	28.94	30.00	22	OVC	038	10.00		35	27	32	72	5	29	29.05	30.11

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

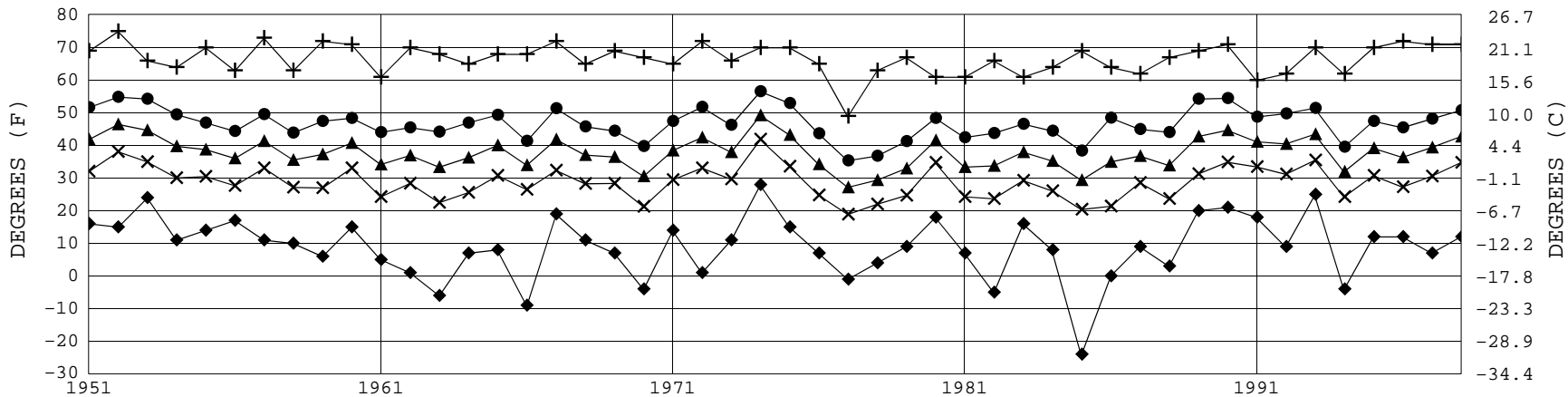
JANUARY 1998

TYS

WBAN # 13891

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)	
	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)					SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)		SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL												
SUNRISE: 0741										JAN 25				SUNSET: 1756				SUNRISE: 0737										JAN 31				SUNSET: 1802			
01	OVC	036						10.00		35	25	31	67	5	36	29.09	30.15	01	FEW	NC						9.00		34	28	32	79	5	03	28.96	30.01
04	OVC	030						10.00		34	24	30	67	5	33	29.10	30.17	04	OVC	028						10.00		35	27	32	72	7	02	28.97	30.03
07	OVC	030						10.00		34	26	31	73	5	01	29.14	30.20	07	OVC	033						10.00		33	25	30	72	7	06	29.01	30.06
10	SCT	NC						10.00		36	25	32	64	7	05	29.18	30.24	10	FEW	NC						10.00		38	26	33	62	10	04	29.06	30.12
13	FEW	NC						10.00		40	26	35	58	5	12	29.16	30.22	13	CLR	NC						10.00		44	28	37	53	10	07	29.03	30.09
16	FEW	NC						10.00		44	27	37	51	0	00	29.11	30.16	16	CLR	NC						10.00		47	28	39	48	9	06	28.99	30.05
19	CLR	NC						10.00		40	26	35	58	0	00	29.12	30.19	19	CLR	NC						10.00		38	25	33	60	6	06	29.02	30.08
22	CLR	NC						10.00		34	27	31	76	5	07	29.16	30.22	22	CLR	NC						10.00		35	25	31	67	8	04	29.05	30.11
SUNRISE: 0740										JAN 26				SUNSET: 1757				3-HOURLY OBSERVATION NOTES																	
01	CLR	NC						8.00		32	30	31	92	0	00	29.15	30.22	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.																	
04	CLR	NC						9.00		31	28	30	89	0	00	29.14	30.20	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																	
07	SCT	NC						7.00		32	29	31	88	0	00	29.15	30.21	NC = No ceiling detected.																	
10	SCT	NC						10.00		37	30	34	76	3	36	29.18	30.24	& = Original observation contained additional weather elements.																	
13	CLR	NC						10.00		45	33	40	63	3	VR	29.13	30.19	See page 3 for additional notes.																	
16	SCT	NC						10.00		52	29	42	41	10	03	29.04	30.10																		
19	SCT	NC						10.00		46	25	38	44	7	03	29.05	30.11																		
22	CLR	NC						10.00		40	28	35	63	3	32	29.06	30.12																		
SUNRISE: 0740										JAN 27				SUNSET: 1758				SUMMARY BY HOUR																	
01	OVC	050						10.00		39	33	37	79	7	06	29.05	30.11	AVERAGES																	
04	OVC	060						10.00	-RA	40	34	37	79	7	07	29.02	30.06	RESULTANT WIND (MPH)																	
07	OVC	024						5.00	RA BR	38	36	37	93	6	03	29.01	30.07	HOUR (LST)																	
10	OVC	007						2.50	-RA BR	36	35	36	97	14	05	28.99	30.05	CEILOMETER																	
13	OVC	006						0.75	-SN BR	33	32	33	96	5	36	28.95	30.01	EFF CLD AMT																	
16	OVC	006						1.25	-RASN BR	33	33	33	100	5	15	28.88	29.94	DRY BULB																	
19	OVC	010						2.50	-RA BR	34	33	34	97	0	00	28.89	29.96	DEW POINT																	
22	OVC	018						2.50	-RA BR	33	33	33	100	0	00	28.88	29.95	WET BULB																	
SUNRISE: 0739										JAN 28				SUNSET: 1759				RELATIVE HUMIDITY																	
01	BKN	080						3.00	BR	33	33	33	100	5	22	28.87	29.94	PRESSURE (INCHES, HG)																	
04	SCT	NC						3.00	BR	31	31	31	100	7	24	28.87	29.93	STATION																	
07	CLR	NC						5.00	BR	29	28	29	96	5	24	28.92	29.99	SEA LEVEL																	
10	CLR	NC						5.00	BR	36	33	35	89	7	26	28.95	30.01	VISIBILITY (MILES)																	
13	SCT	NC						10.00		50	39	45	66	8	25	28.95	30.00	WIND SPEED (MPH)																	
16	FEW	NC						10.00		53	33	44	47	6	01	28.90	29.96	SPEED																	
19	CLR	NC						10.00		46	35	41	66	6	18	28.93	29.99	DIRECTION																	
22	CLR	NC						10.00		42	36	39	79	0	00	28.93	29.99																		
SUNRISE: 0738										JAN 29				SUNSET: 1760																					
01	FEW	NC						6.00	BR	36	35	36	97	5	20	28.93	29.98																		
04	FEW	NC						4.00	BR	31	30	31	96	3	36	28.92	29.98																		
07	FEW	NC						1.75	BR	29	28	29	96	0	00	28.93	29.99																		
10	CLR	NC						6.00	BR	39	35	37	86	0	00	28.92	29.97																		
13	FEW	NC						10.00		56	39	48	53	18	24	28.84	29.88																		
16	SCT	NC						10.00		58	41	49	54	14	23	28.79	29.83																		
19	SCT	NC						10.00		53	40	47	61	10	27	28.81	29.85																		
22	FEW	NC						10.00		48	37	43	66	9	29	28.83	29.88																		
SUNRISE: 0738										JAN 30				SUNSET: 1801																					
01	FEW	NC						10.00		39	32	36	76	10	01	28.88	29.93																		
04	OVC	028						10.00		37	31	35	79	0	00	28.90	29.95																		
07	OVC	028						9.00		37	34	36	89	3	04	28.91	29.96																		
10	OVC	032						10.00		41	32	37	70	6	02	28.94	29.99																		
13	SCT	NC						10.00		47	31	40	54	5	VR	28.93	29.99																		
16	CLR	NC						10.00		48	28	40	46	0	00	28.89	29.94																		
19	BKN	060						10.00		45	31	39	58	5	25	28.90	29.95																		
22	FEW	NC						10.00		41	28	36	60	9	01	28.92	29.98																		

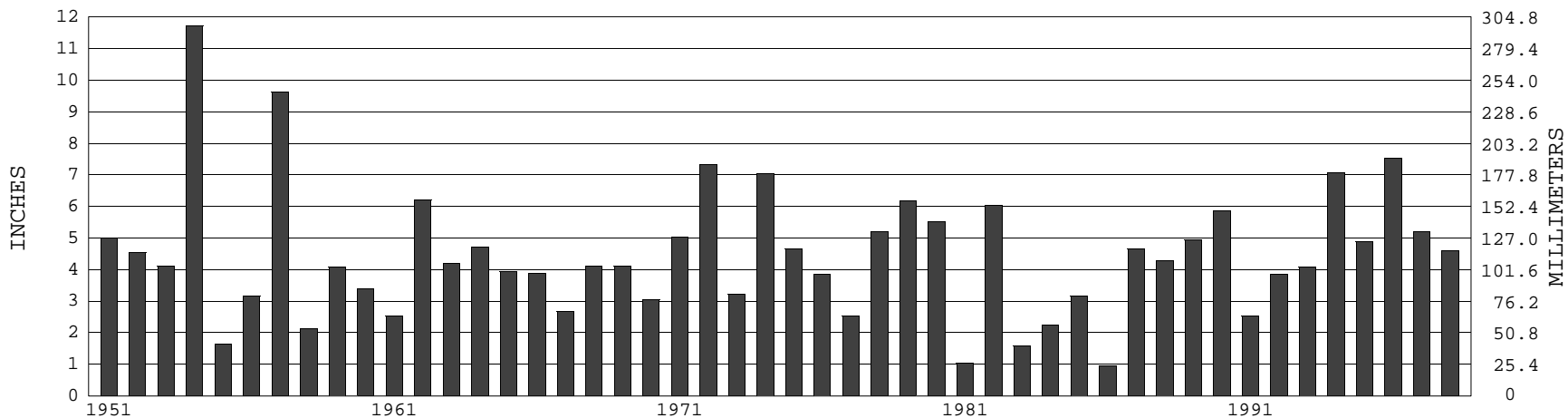
KNOXVILLE, TN JANUARY TEMPERATURES



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

Long-Term (1951-1998) Mean: 37.9 1961-1990 Normal: 36.0

KNOXVILLE, TN JANUARY PRECIPITATION



Long-Term (1951-1998) Mean Monthly Total: 4.46

1961-1990 Normal: 4.17



**JANUARY 1998
KNOXVILLE, TN**

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.

ACTING DIRECTOR

NOTICE

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

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