



# MARCH 1997

## 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

MARCH 1997  
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	80*	59	70*	26	60	64	0	5	RA	0			0.06	28.96	29.99	12.5	23	13.5	36	24	30	23	01								
02	72	57	65	20	59	61	0	0	RA BR	0			0.90	28.92	29.94	8.9	23	12.1	39	31	30	31	02								
03	67	54	61	16	53	56	4	0	TSRA RA BR HZ	0			1.23	28.79	29.81	9.6	25	14.5	37	23	31	25	03								
04	69	51	60	15	47	52	5	0		0			0.00	29.01	30.05	7.0	25	7.7	20	23	17	25	04								
05	74	45	60	14	51	53	5	0	TSRA RA BR	0			0.81	28.94	29.97	8.3	24	11.2	43*	26	36*	26	05								
06	51	36	44	-2	27	37	21	0		0			0.00	29.22	30.27	9.9	28	10.2	23	29	18	29	06								
07	59	30	45	-1	28	38	20	0		0			0.00	29.30	30.37	3.2	01	4.5	14	07	11	03	07								
08	67	43	55	8	39	48	10	0		0			0.00	29.23	30.28	7.1	25	6.5	21	22	18	23	08								
09	75	38	57	10	44	50	8	0	RA BR	0			0.11	29.16	30.20	5.0	24	8.1	30	23	24	22	09								
10	64	50	57	10	53	55	8	0	RA BR	0			0.12	29.02	30.06	5.4	24	4.8	14	02	11	01	10								
11	69	46	58	10	43	50	7	0	BR	0			0.00	29.00	30.04	5.8	26	5.2	16	29	11	30	11								
12	68	40	54	6	39	48	11	0	HZ	0			0.00	29.14	30.18	2.3	33	4.2	13	03	11	03	12								
13	69	48	59	11	49	53	6	0	RA BR	0			0.35	29.00	30.04	4.4	06	6.2	18	15	16	17	13								
14	65	41	53	5	52	55	12	0	RA BR	0			0.23	28.81	29.84	10.8	26	12.6	24	28	21	28	14								
15	46	31	39	-10	20	32	26	0		0			0.00	29.22	30.29	4.8	33	7.5	20	23	16	02	15								
16	50	27*	39*	-10	18	31	26	0		0			0.00	29.36	30.43	4.3	01	4.2	14	05	11	04	16								
17	60	29	45	-4	35	40	20	0	RA	0			0.01	29.25	30.31	2.7	03	2.9	15	27	11	27	17								
18	65	46	56	6	50	52	9	0	RA BR	0			0.17	29.11	30.15	1.7	31	4.7	18	23	16	24	18								
19	60	48	54	4	53	53	11	0	RA BR	0			1.08	28.94	29.98	4.3	01	5.6	15	33	13	33	19								
20	60	46	53	3	44	48	12	0	BR	0			0.00	28.90	29.95	3.0	36	3.6	9	23	8	22	20								
21	71	39	55	4	44	50	10	0	BR	0			0.00	28.78	29.81	1.5	31	5.3	17	23	15	24	21								
22	64	47	56	5	42	50	9	0		0			0.00	28.78	29.81	4.5	33	10.1	23	02	17	36	22								
23	59	37	48	-3	32	42	17	0		0			0.00	29.04	30.09	7.4	03	5.6	17	01	15	01	23								
24	67	35	51	0	37	45	14	0		0			0.00	29.15	30.20	6.0	03	4.5	13	17	11	19	24								
25	75	55	65	13	52	58	0	0	TS TSRA BR HZ	0			0.23	29.03	30.06	16.0	22	17.1	38	21	32	22	25								
26	63	45	54	2	44	49	11	0	TSRA RA BR	0			0.47	29.05	30.09	8.4	24	6.5	24	28	22	29	26								
27	69	36	53	1	38	46	12	0		0			0.00	29.02	30.06	8.7	27	2.0	11	28	9	28	27								
28	61	47	54	1	52	53	11	0	RA BR	0			0.38	28.79	29.83	3.7	27	3.8	15	30	13	30	28								
29	71	54	63	10	50	56	2	0	TS TSRA RA	0			0.01	28.77	29.79	12.1	25	12.4	36	23	28	20	29								
30	71	45	58	5	47	51	7	0	RA BR HZ	0			0.18	28.86	29.89	7.3	26	7.2	32	31	23	31	30								
31	56	37	47	-6	31	41	18	0	RA HZ	0			T	29.03	30.08	7.3	33	9.5	26	33	22	35	31								
65.1 43.3 54.2 ■■										43.0 48.9 10.7 0.2		< MONTHLY AVERAGES		TOTALS-->		6.34 29.02 30.06		4.1 27 7.6		<- MONTHLY AVERAGES											
3.8 6.7 5.2 ■■										<----- DEPARTURE FROM NORMAL ----->										1.25		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.96 DATE: 2-3										SEA LEVEL PRESSURE DATE TIME											
MONTHLY										GREATEST 24-HR SNOWFALL: DATE:										MAXIMUM : 30.51 16 1104											
TOTAL DEPARTURE										GREATEST SNOW DEPTH: 0 DATE:										MINIMUM : 29.62 29 0122											
HEATING: 332 -164										SEASON TO DATE TOTAL DEPARTURE 3142 -467										NUMBER OF DAYS WITH =>											
COOLING: 5 5										6 6										MAXIMUM TEMP ≥ 90: 0											
																				MINIMUM TEMP ≤ 32: 4											
																				PRECIPITATION ≥ 0.01 INCH: 16											
																				MAXIMUM TEMP ≤ 32: 0											
																				MINIMUM TEMP ≤ 0: 0											
																				THUNDERSTORMS: 5											
																				HEAVY FOG: 0											
																				PRECIPITATION ≥ 0.10 INCH: 13											
																				SNOWFALL ≥ 1.0 INCH: 0											

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

## KNOXVILLE, TN

MARCH 1997

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	0.01	0.04	T			0.01							01												01		0.06		
02													02			T	T	T	0.01	0.01	0.01	0.10	0.16	0.14	0.14	02	0.88	0.90	
03	0.14	0.06	0.15	0.18	0.02	0.05	0.36	0.29	T	0.01	T		03												03	1.25	1.23		
04													04												04		0.00		
05													05			T	0.38	0.20	0.08	0.08	0.04	T	0.03		05		0.81		
06													06												06		0.00		
07													07												07		0.00		
08													08												08		0.00		
09													09								T		T	0.04	0.06	09	0.10	0.11	
10	0.06	0.04		0.03	T								10												10	0.13	0.12		
11													11												11		0.00		
12													12												12		0.00		
13													13			T	0.15	0.09				T	T	0.05	0.06	13		0.35	
14	0.04	0.02	0.05	0.03	T	T	0.01	0.01					14												14		0.23		
15													15												15		0.00		
16													16												16		0.00		
17													17												17		0.01		
18													18	0.02	T			T	T		0.01	T	T	0.02	T	18	0.16	0.17	
19	0.14	0.22	0.04	0.07	0.10	0.10	0.09	0.04	0.02				19	0.16	T					T	T	0.01	0.02	0.09	19	1.09	1.08		
20													20												20		0.00		
21													21												21		0.00		
22													22												22		0.00		
23													23												23		0.00		
24													24												24		0.00		
25													25										0.12	T	25	0.12	0.23		
26		0.09	0.02	0.13	0.07	0.02	T						26												26	0.33	0.47		
27													27												27		0.00		
28					0.01		0.06	0.03	0.10	0.02	0.09	T	28	0.01	0.06	T								28		0.38			
29		T	0.01										29												29		0.01		
30													30					0.01	0.09	0.08				T	30		0.18		
31	T							T	T	T			31												31		T		

### 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 MARCH 1997

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

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01	313						9.00	10.00	
02	38						4.00	10.00	
03	342	50					1.00	10.00	
04	458	66					10.00	10.00	
05	146	21					1.25	10.00	
06	554	80					10.00	10.00	
07	456						10.00	10.00	
08	447						8.00	10.00	
09	352						6.00	10.00	
10	334						4.00	10.00	
11	650	92					6.00	10.00	
12	556	78					10.00	10.00	
13	184	26					4.00	10.00	
14	78	11					3.00	10.00	
15	645						10.00	10.00	
16	668						8.00	10.00	
17	419						9.00	10.00	
18	162						2.50	10.00	
19	14						1.00	10.00	
20	453	62					7.00	10.00	
21	729	100					1.75	10.00	
22	677	92					10.00	10.00	
23	734	100					10.00	10.00	
24	737	100					7.00	10.00	
25	553	75					1.50	10.00	
26	549						1.75	10.00	
27	730						8.00	10.00	
28	24						2.00	10.00	
29	674	91					10.00	10.00	
30	575	77					2.50	10.00	
31	620	82					9.00	10.00	
<b>MONTHLY AVGS</b>							6.04	10.00	
<b>SUNSHINE (MINUTES)</b>									
Total: 13871    Possible: 22295 Percent Possible: 62									
<b>NUMBER OF DAYS WITH:</b>									
<b>SKY CONDITION</b>									
CLR   PTLY CLDY   CLOUDY   MISSING 31									
<b>MINIMUM VISIBILITY (MILES)</b>									
<=0.25    <=3.0    >=7.0 0            10            16									

# OBSERVATIONS AT 3-HOURLY INTERVALS

# KNOXVILLE, TN

MARCH 1997

TYS

WBAN # 13891

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		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	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						
																														DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG
SUNRISE: 0706						MAR 01						SUNSET: 1831						SUNRISE: 0658						MAR 07						SUNSET: 1836					
01	OVC	070			10.00	59	59	59	100	3	VR	29.01	30.04	01	CLR	NC			10.00	40	21	33	47	3	27	29.32	30.39								
04	OVC	095			10.00	65	61	63	87	10	21	29.00	30.03	04	CLR	NC			10.00	35	25	31	67	3	02	29.31	30.37								
07	CLR	NC			10.00	67	60	63	79	16	25	29.01	30.04	07	CLR	NC			10.00	30	25	28	82	5	07	29.34	30.41								
10	BKN	100			10.00	71	59	64	66	16	23	29.02	30.05	10	CLR	NC			10.00	46	26	38	46	3	02	29.41	30.47								
13	BKN	100			10.00	77	60	66	56	22	24	28.98	30.01	13	CLR	NC			10.00	53	26	42	35	3	VR	29.36	30.42								
16	BKN	120			10.00	78	61	67	56	14	23	28.91	29.93	16	CLR	NC			10.00	58	29	45	33	6	07	29.27	30.33								
19	CLR	NC			10.00	73	58	64	59	13	20	28.91	29.93	19	CLR	NC			10.00	55	28	43	36	3	09	29.22	30.28								
22	FEW	NC			10.00	69	58	62	68	9	20	28.87	29.89	22	CLR	NC			10.00	48	33	41	56	0	00	29.21	30.26								
SUNRISE: 0704						MAR 02						SUNSET: 1832						SUNRISE: 0656						MAR 08						SUNSET: 1837					
01	OVC	090			10.00	71	60	64	68	15	22	28.88	29.90	01	CLR	NC			10.00	49	34	42	57	9	25	29.21	30.26								
04	OVC	090			10.00	70	60	64	71	17	23	28.87	29.88	04	OVC	110			10.00	49	37	43	64	0	00	29.19	30.23								
07	OVC	060			10.00	69	61	64	76	21	23	28.89	29.91	07	OVC	085			10.00	50	36	44	59	5	26	29.22	30.28								
10	OVC	090			10.00	63	60	61	90	7	27	28.98	30.01	10	BKN	070			10.00	54	38	46	55	13	23	29.27	30.33								
13	BKN	090			10.00	67	58	62	73	14	23	28.92	29.95	13	CLR	NC			10.00	63	41	52	45	16	26	29.25	30.30								
16	OVC	085			10.00	66	58	61	75	13	25	28.90	29.93	16	CLR	NC			10.00	66	43	54	43	7	22	29.21	30.25								
19	OVC	080			10.00	62	60	61	93	3	19	28.94	29.97	19	CLR	NC			10.00	60	41	50	50	5	20	29.21	30.26								
22	OVC	028			5.00	58	57	57	97	7	09	28.92	29.95	22	CLR	NC			10.00	54	42	48	64	0	00	29.25	30.30								
SUNRISE: 0703						MAR 03						SUNSET: 1833						SUNRISE: 0655						MAR 09						SUNSET: 1838					
01	OVC	050			6.00	58	57	57	97	5	15	28.86	29.88	01	CLR	NC			10.00	47	42	45	83	3	07	29.26	30.31								
04	OVC	030			10.00	60	56	58	86	14	10	28.70	29.72	04	CLR	NC			10.00	44	40	42	85	0	00	29.23	30.29								
07	OVC	015			1.00	58	57	57	97	10	12	28.62	29.64	07	CLR	NC			10.00	41	39	40	93	0	00	29.26	30.31								
10	BKN	070			10.00	65	53	58	66	29	26	28.69	29.71	10	OVC	080			10.00	48	43	46	83	5	33	29.25	30.31								
13	BKN	050			10.00	63	49	55	60	24	25	28.78	29.80	13	SCT	NC			10.00	62	45	53	54	3	VR	29.18	30.22								
16	OVC	040			10.00	62	50	55	65	16	25	28.80	29.83	16	CLR	NC			10.00	75	42	57	31	22	21	29.06	30.10								
19	OVC	036			10.00	59	49	54	69	13	25	28.87	29.89	19	BKN	100			10.00	69	46	57	44	15	23	29.04	30.09								
22	OVC	034			10.00	56	49	52	77	12	26	28.92	29.96	22	OVC	080			10.00	65	52	58	63	12	22	29.05	30.09								
SUNRISE: 0702						MAR 04						SUNSET: 1834						SUNRISE: 0654						MAR 10						SUNSET: 1839					
01	OVC	022			10.00	54	49	51	83	9	25	28.95	29.98	01	OVC	048			4.00	57	57	57	100	7	19	29.07	30.11								
04	OVC	018			10.00	52	47	49	83	3	26	28.96	29.99	04	OVC	030			4.00	58	57	57	97	6	28	29.00	30.03								
07	OVC	018			10.00	52	48	50	86	6	25	29.02	30.06	07	OVC	050			5.00	58	57	57	97	5	28	29.05	30.08								
10	OVC	016			10.00	54	48	51	80	6	24	29.07	30.11	10	OVC	021			10.00	54	49	51	83	9	01	29.10	30.14								
13	CLR	NC			10.00	61	50	55	67	13	21	29.04	30.08	13	FEW	NC			10.00	59	50	54	72	0	00	29.07	30.11								
16	CLR	NC			10.00	69	47	57	45	9	30	28.98	30.01	16	FEW	NC			10.00	63	51	56	65	5	VR	29.00	30.03								
19	CLR	NC			10.00	61	47	54	60	6	22	29.00	30.04	19	CLR	NC			10.00	61	52	56	72	3	28	28.95	29.98								
22	CLR	NC			10.00	59	45	52	60	9	23	29.04	30.07	22	FEW	NC			8.00	54	52	53	93	0	00	28.97	30.01								
SUNRISE: 0700						MAR 05						SUNSET: 1835						SUNRISE: 0652						MAR 11						SUNSET: 1840					
01	CLR	NC			10.00	56	42	49	60	7	24	29.03	30.07	01	CLR	NC			10.00	51	46	49	83	5	32	28.96	30.00								
04	SCT	NC			10.00	47	44	46	90	3	04	29.00	30.04	04	CLR	NC			8.00	47	45	46	93	0	00	28.95	29.99								
07	SCT	NC			10.00	48	45	47	89	0	00	29.01	30.05	07	SCT	NC			10.00	50	45	47	83	6	28	28.99	30.03								
10	BKN	034			10.00	60	49	54	67	0	00	28.94	29.97	10	FEW	NC			10.00	57	45	51	64	7	28	29.02	30.06								
13	OVC	034			10.00	68	61	64	78	23	26	28.87	29.89	13	CLR	NC			10.00	63	42	52	47	13	25	29.01	30.05								
16	OVC	016			1.25	57	56	56	96	6	23	28.87	29.91	16	CLR	NC			10.00	68	37	52	32	0	00	28.99	30.03								
19	OVC	050			7.00	59	57	58	93	15	21	28.87	29.90	19	CLR	NC			10.00	64	35	50	34	7	26	29.00	30.03								
22	OVC	021			8.00	55	51	53	87	21	30	28.91	29.95	22	CLR	NC			10.00	58	36	47	44	6	04	29.06	30.10								
SUNRISE: 0659						MAR 06						SUNSET: 1836						SUNRISE: 0651						MAR 12						SUNSET: 1841					
01	BKN	027			10.00	44	40	42	85	10	27	29.10	30.14	01	CLR	NC			10.00	50	38	44	63	0	00	29.08	30.12								
04	BKN	037			10.00	41	35	38	79	14	29	29.13	30.18	04	CLR	NC			10.00	46	39	43	77	0	00	29.10	30.14								
07	BKN	031			10.00	37	28	34	70	9	28	29.21	30.26	07	CLR	NC			10.00	42	39	41	89	0	00	29.15	30.19								
10	FEW	NC			10.00	41	26	35	55	8	26	29.26	30.32	10	CLR	NC			10.00	56	40	48	55	8	04	29.20	30.24								
13	FEW	NC			10.00	45	25	37	46	14	30	29.24	30.31	13	CLR	NC			10.00	64	37	51	37	0	00	29.16	30.20								
16	CLR	NC			10.00	50	23	39	35	14	29	29.19	30.24	16	CLR	NC			10.00	68	39	53	35	8	01	29.12	30.16								
19	CLR	NC			10.00	48	21	38	34	10	29	29.22	30.29	19	CLR	NC			10.00	61	39	50	44	6	08	29.13	30.18								
22	CLR	NC			10.00	44	20	35	38	12	28	29.29	30.36	22	CLR	NC			10.00	58	39	49	50	6	05	29.15	30.19								

# OBSERVATIONS AT 3-HOURLY INTERVALS

# KNOXVILLE, TN

MARCH 1997

TYS

WBAN # 13891

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		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	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						
SUNRISE: 0649						MAR 13						SUNSET: 1842						SUNRISE: 0641						MAR 19						SUNSET: 1847					
01	SCT	NC			10.00	54	41	48	62	8	01	29.12	30.16	01	OVC	003			1.00	RA BR	54	54	54	100	8	17	28.99	30.03							
04	SCT	NC			10.00	52	41	47	66	9	02	29.08	30.12	04	OVC	003			1.25	RA BR	54	53	53	97	0	00	28.94	29.98							
07	SCT	NC			10.00	50	39	45	66	5	01	29.12	30.15	07	OVC	028			1.50	-RA BR	54	54	54	100	3	36	28.94	29.98							
10	SCT	NC			10.00	56	42	49	60	6	03	29.11	30.15	10	OVC	001			1.50	-RA BR	56	56	56	100	6	36	28.94	29.98							
13	BKN	055			10.00	64	48	55	56	7	05	29.03	30.07	13	OVC	003			1.75	-RA BR	58	58	58	100	7	10	28.90	29.94							
16	OVC	042			4.00	59	59	59	100	6	32	28.94	29.98	16	OVC	007			10.00		57	55	56	93	8	01	28.90	29.93							
19	BKN	085			10.00	63	56	59	78	8	15	28.89	29.93	19	OVC	016			10.00		52	49	50	89	5	03	28.94	29.99							
22	OVC	095			10.00	63	56	59	78	9	14	28.85	29.87	22	OVC	023			10.00		48	45	47	89	7	01	28.97	30.01							
SUNRISE: 0648						MAR 14						SUNSET: 1843						SUNRISE: 0639						MAR 20						SUNSET: 1848					
01	OVC	090			9.00	61	58	59	90	5	19	28.78	29.80	01	OVC	014			10.00		48	45	47	89	3	36	28.95	29.99							
04	OVC	050			10.00	60	57	58	90	9	22	28.72	29.74	04	OVC	014			10.00		47	43	45	86	3	02	28.91	29.95							
07	OVC	036			10.00	60	56	58	86	10	27	28.72	29.75	07	OVC	009			8.00		46	44	45	93	6	36	28.93	29.98							
10	OVC	018			7.00	61	58	59	90	10	24	28.74	29.76	10	OVC	016			9.00		48	44	46	86	3	VR	28.96	30.01							
13	BKN	019			10.00	64	58	60	81	16	25	28.74	29.76	13	SCT	NC			7.00		55	44	49	67	5	VR	28.91	29.96							
16	OVC	036			10.00	60	53	56	78	15	29	28.79	29.82	16	CLR	NC			10.00		60	43	51	53	6	28	28.85	29.88							
19	OVC	029			8.00	52	46	49	80	16	28	28.89	29.93	19	CLR	NC			10.00		56	45	50	67	6	21	28.85	29.89							
22	OVC	033			10.00	47	40	44	77	12	29	29.00	30.04	22	CLR	NC			9.00		53	45	49	74	0	00	28.88	29.93							
SUNRISE: 0646						MAR 15						SUNSET: 1843						SUNRISE: 0638						MAR 21						SUNSET: 1849					
01	SCT	NC			10.00	39	29	35	67	13	01	29.09	30.13	01	CLR	NC			9.00		47	44	46	90	0	00	28.88	29.92							
04	FEW	NC			10.00	34	22	30	61	0	00	29.15	30.19	04	CLR	NC			2.50	BR	41	41	41	100	3	08	28.85	29.88							
07	SCT	NC			10.00	31	20	27	64	10	35	29.18	30.24	07	CLR	NC			4.00	BR	42	41	42	96	6	05	28.86	29.90							
10	CLR	NC			10.00	34	19	29	54	6	VR	29.25	30.32	10	CLR	NC			7.00		54	48	51	80	3	26	28.86	29.89							
13	SCT	NC			10.00	41	23	34	49	9	08	29.27	30.34	13	CLR	NC			10.00		66	47	56	50	0	00	28.81	29.83							
16	CLR	NC			10.00	45	21	36	39	3	VR	29.22	30.29	16	CLR	NC			10.00		70	43	56	38	12	24	28.70	29.73							
19	FEW	NC			10.00	42	18	33	38	8	04	29.23	30.30	19	CLR	NC			10.00		63	45	53	52	8	23	28.68	29.71							
22	FEW	NC			10.00	37	17	30	44	8	01	29.31	30.39	22	CLR	NC			10.00		58	43	50	58	8	25	28.68	29.71							
SUNRISE: 0645						MAR 16						SUNSET: 1844						SUNRISE: 0636						MAR 22						SUNSET: 1849					
01	CLR	NC			10.00	33	16	27	49	5	03	29.33	30.40	01	CLR	NC			10.00		59	42	50	54	13	23	28.66	29.68							
04	CLR	NC			10.00	31	18	27	59	5	01	29.34	30.42	04	SCT	NC			10.00		58	45	51	62	12	25	28.64	29.65							
07	CLR	NC			10.00	28	18	25	66	5	36	29.40	30.48	07	CLR	NC			10.00		54	46	50	75	9	25	28.68	29.70							
10	CLR	NC			10.00	36	19	30	50	6	06	29.43	30.50	10	SCT	NC			10.00		64	42	53	45	15	35	28.78	29.80							
13	CLR	NC			10.00	45	19	35	35	8	01	29.40	30.47	13	FEW	NC			10.00		60	43	51	53	10	06	28.82	29.84							
16	CLR	NC			10.00	49	16	37	27	5	34	29.35	30.42	16	CLR	NC			10.00		63	40	51	43	9	03	28.80	29.82							
19	CLR	NC			10.00	46	12	34	25	0	00	29.30	30.38	19	CLR	NC			10.00		58	37	48	46	8	01	28.85	29.88							
22	CLR	NC			8.00	38	24	33	57	5	07	29.30	30.37	22	CLR	NC			10.00		52	37	45	57	8	01	28.93	29.96							
SUNRISE: 0644						MAR 17						SUNSET: 1845						SUNRISE: 0635						MAR 23						SUNSET: 1850					
01	CLR	NC			10.00	33	27	31	78	3	06	29.28	30.35	01	CLR	NC			10.00		45	37	41	74	3	08	28.95	30.00							
04	CLR	NC			10.00	32	25	29	75	0	00	29.28	30.35	04	CLR	NC			10.00		43	35	40	74	9	01	28.97	30.01							
07	SCT	NC			10.00	32	25	29	75	6	34	29.26	30.33	07	CLR	NC			10.00		37	33	35	86	5	06	29.04	30.09							
10	SCT	NC			10.00	44	29	38	55	3	19	29.28	30.35	10	CLR	NC			10.00		48	33	41	56	10	04	29.08	30.13							
13	OVC	070			10.00	51	34	43	52	3	08	29.25	30.32	13	CLR	NC			10.00		55	29	44	37	9	01	29.07	30.11							
16	OVC	080			10.00	60	38	49	44	0	00	29.19	30.24	16	FEW	NC			10.00		58	30	45	35	3	VR	29.02	30.06							
19	OVC	055			10.00	53	45	49	74	5	03	29.21	30.27	19	CLR	NC			10.00		57	30	45	36	0	00	29.04	30.09							
22	OVC	044			10.00	49	46	47	90	5	05	29.22	30.28	22	CLR	NC			10.00		49	30	41	48	5	07	29.11	30.16							
SUNRISE: 0642						MAR 18						SUNSET: 1846						SUNRISE: 0634						MAR 24						SUNSET: 1851					
01	OVC	040			10.00	48	45	47	89	3	36	29.20	30.25	01	CLR	NC			10.00		41	34	38	76	3	08	29.15	30.20							
04	OVC	037			10.00	48	45	47	89	0	00	29.18	30.22	04	FEW	NC			10.00		40	33	37	77	8	03	29.13	30.18							
07	OVC	044			9.00	47	44	46	90	6	01	29.18	30.23	07	CLR	NC			10.00		37	33	35	86	3	VR	29.19	30.24							
10	OVC	055			7.00	51	47	49	86	0	00	29.18	30.23	10	CLR	NC			10.00		53	38	46	57	7	06	29.23	30.29							
13	OVC	046			7.00	59	52	55	78	8	25	29.13	30.17	13	CLR	NC			10.00		61	35	49	38	0	00	29.20	30.24							
16	OVC	060			10.00	65	53	58	66	8	22	29.03	30.07	16	FEW	NC			10.00		66	40	53	39	6	02	29.11	30.15							
19	OVC	050			10.00	58	53	55	84	7	07	29.04	30.08	19	CLR	NC			10.00		61	40	50	46	6	09	29.10	30.15							
22	OVC	100			6.00	55	54	54	96	5	06	29.01	30.05	22	CLR	NC			10.00		57	37	47	47	7	17	29.13	30.17							

# OBSERVATIONS AT 3-HOURLY INTERVALS

# KNOXVILLE, TN

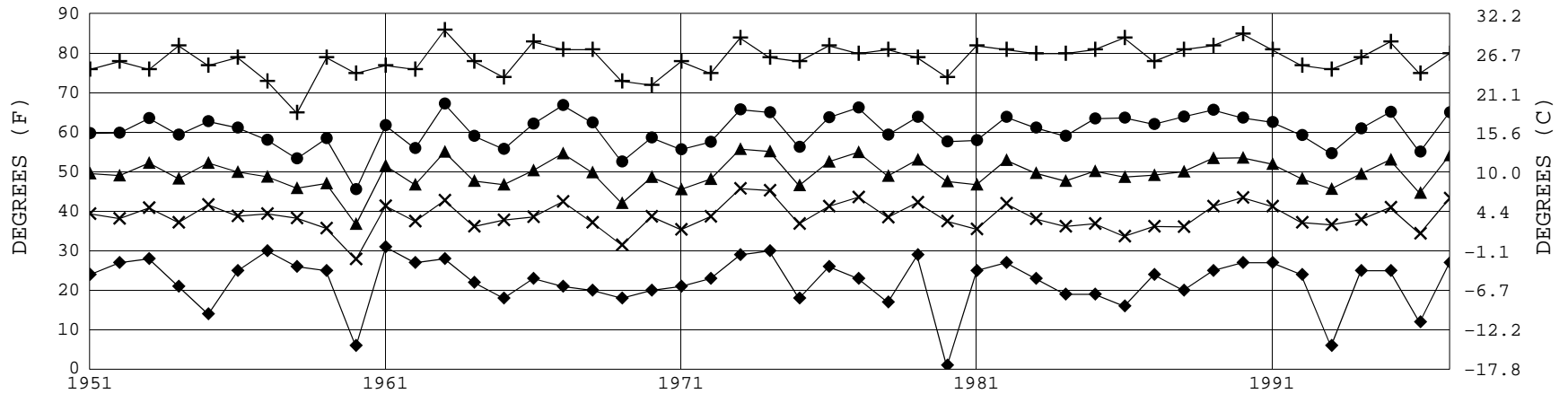
MARCH 1997

TYS

WBAN # 13891

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	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	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL						
SUNRISE: 0632						MAR 25						SUNSET: 1852						SUNRISE: 0624						MAR 31						SUNSET: 1857					
01	CLR	NC				56	39	48	53	8	17	29.10	30.14	01	FEW	NC				46	36	42	68	12	33	28.94	29.98								
04	CLR	NC				57	41	49	55	12	20	29.09	30.12	04	CLR	NC				40	36	38	86	7	24	28.96	30.00								
07	FEW	NC				56	46	51	70	13	24	29.09	30.13	07	OVC	075				41	39	40	93	6	26	28.99	30.04								
10	CLR	NC				67	54	59	63	16	21	29.11	30.14	10	BKN	035				47	35	42	63	13	01	29.04	30.08								
13	SCT	NC				72	56	62	57	28	23	29.07	30.10	13	SCT	NC				53	33	44	47	14	33	29.04	30.09								
16	BKN	060				74	57	64	56	24	22	28.98	30.01	16	SCT	NC				55	28	43	36	15	31	29.02	30.07								
19	BKN	120				68	57	61	68	18	22	28.95	29.98	19	CLR	NC				51	19	39	28	8	01	29.05	30.10								
22	OVC	041			1.50	63	62	62	97	30	22	28.94	29.97	22	CLR	NC				46	23	37	40	8	01	29.13	30.18								
SUNRISE: 0631						MAR 26						SUNSET: 1853						3-HOURLY OBSERVATION NOTES																	
01	OVC	012			4.00	61	61	61	100	14	26	28.95	29.98	Sky Cover is the amount of the sky obscured. CLR = 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	OVC	008			1.75	58	57	57	97	14	31	28.96	29.98	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																					
07	OVC	012			10.00	49	47	48	93	6	02	29.07	30.10	NC = No ceiling detected.																					
10	BKN	026			10.00	48	39	44	71	9	03	29.14	30.18	& = Original observation contained additional weather elements.																					
13	FEW	NC			10.00	54	38	46	55	5	04	29.08	30.12	See page 3 for additional notes.																					
16	CLR	NC			10.00	59	35	48	41	0	00	29.03	30.07																						
19	CLR	NC			10.00	56	40	48	55	5	23	29.04	30.08																						
22	CLR	NC			10.00	51	37	45	59	9	02	29.09	30.14																						
SUNRISE: 0629						MAR 27						SUNSET: 1854						SUMMARY BY HOUR																	
01	CLR	NC			10.00	47	38	43	71	0	00	29.08	30.12	AVERAGES																					
04	CLR	NC			10.00	42	39	41	89	0	00	29.05	30.10	RESULTANT WIND (MPH)																					
07	CLR	NC			8.00	37	36	37	96	0	00	29.09	30.14	HOUR (LST)																					
10	CLR	NC			10.00	53	38	46	57	6	06	29.11	30.15	CEILOMETER																					
13	CLR	NC			10.00	63	40	51	43	3	VR	29.04	30.08	EFF CLD AMT																					
16	CLR	NC			10.00	68	38	53	33	6	26	28.96	30.00	DRY BULB																					
19	CLR	NC			10.00	66	36	51	33	3	24	28.93	29.97	DEW POINT																					
22	CLR	NC			10.00	57	39	48	51	0	00	28.95	29.98	WET BULB																					
SUNRISE: 0628						MAR 28						SUNSET: 1854						HOUR (LST)																	
01	CLR	NC			10.00	47	44	46	90	0	00	28.91	29.95	PRESSURE (INCHES, HG)						VISIBILITY (MILES)															
04	BKN	100			10.00	49	45	47	86	3	05	28.88	29.92	STATION						WIND SPEED (MPH)															
07	OVC	042			6.00	52	49	50	89	9	20	28.87	29.90	SEA LEVEL						SPEED															
10	BKN	100			5.00	55	52	53	90	3	27	28.87	29.91	WIND DIRECTION						DIRECTION															
13	OVC	004			5.00	56	56	56	100	6	35	28.80	29.83																						
16	OVC	006			8.00	57	57	57	100	7	02	28.76	29.79																						
19	BKN	031			4.00	58	57	57	97	0	00	28.71	29.74																						
22	CLR	NC			8.00	55	54	54	96	5	06	28.67	29.70																						
SUNRISE: 0626						MAR 29						SUNSET: 1855																							
01	BKN	100			10.00	67	61	63	81	20	21	28.60	29.62																						
04	OVC	080			10.00	64	61	62	90	13	23	28.66	29.67																						
07	SCT	NC			10.00	60	52	56	75	12	25	28.74	29.76																						
10	FEW	NC			10.00	63	44	53	50	20	25	28.81	29.83																						
13	CLR	NC			10.00	67	47	56	49	14	26	28.81	29.82																						
16	CLR	NC			10.00	71	48	58	44	17	25	28.78	29.80																						
19	CLR	NC			10.00	68	44	55	42	9	28	28.81	29.83																						
22	CLR	NC			10.00	57	46	51	67	5	20	28.87	29.90																						
SUNRISE: 0625						MAR 30						SUNSET: 1856																							
01	CLR	NC			10.00	52	46	49	80	3	03	28.89	29.92																						
04	CLR	NC			10.00	50	45	47	83	0	00	28.87	29.90																						
07	CLR	NC			10.00	46	44	45	93	0	00	28.90	29.93																						
10	CLR	NC			10.00	59	50	54	72	9	30	28.89	29.93																						
13	FEW	NC			10.00	67	49	57	53	6	25	28.85	29.87																						
16	SCT	NC			10.00	70	49	58	47	12	22	28.72	29.75																						
19	OVC	035			2.50	55	54	54	96	6	36	28.83	29.86																						
22	OVC	030			10.00	50	43	47	77	13	35	28.93	29.97																						

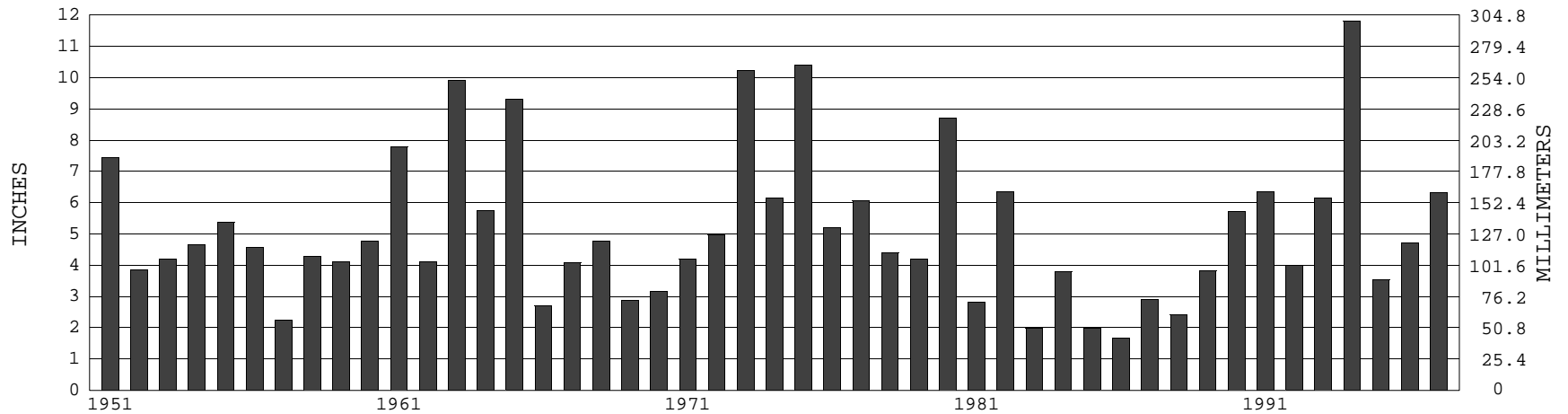
### KNOXVILLE, TN MARCH TEMPERATURES



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

Long-Term (1951-1997) Mean: 49.6      1961-1990 Normal: 49.0

### KNOXVILLE, TN MARCH PRECIPITATION



Long-Term (1951-1997) Mean Monthly Total: 5.13

1961-1990 Normal: 5.09



**MARCH 1997  
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.*

*Kenneth D Hadean*

DIRECTOR

## NOTICE

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

We welcome your questions or comments, please contact us at  
704-271-4800 (voice), 704-271-4876 (fax),  
704-271-4010(TDD)  
or [orders@ncdc.noaa.gov](mailto:orders@ncdc.noaa.gov)

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