



NOVEMBER 1996

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

NOVEMBER 1996
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																																						
																			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	58	45	52	-1	46	49	13	0	RA BR				0.51	28.88	29.92	1.6	02	4.3	17	02	13	01	01																																				
02	50	37	44	-9	27	37	21	0	RA BR				0.03	28.99	30.04	6.4	33	8.3	24	26	16	29	02																																				
03	51	27	39	-13	22	33	26	0					0.00	29.25	30.32	4.1	01	4.4	13	01	10	04	03																																				
04	58	29	44	-8	29	38	21	0					0.00	29.25	30.32	5.3	02	1.7	10	26	8	30	04																																				
05	57	41	49	-3	38	45	16	0					0.00	29.22	30.27	3.9	02	3.8	15	12	13	12	05																																				
06	68	45	57	5	50	53	8	0	HZ				0.00	29.15	30.20	4.0	04	2.5	9	10	8	08	06																																				
07	79*	56	68*	17	58	62	0	3	TSRA RA BR				1.67	28.86	29.87	9.2	21	12.9	38*	28	31*	27	07																																				
08	64	39	52	1	43	45	13	0	TSRA RA BR				1.05	28.80	29.84	7.6	27	9.3	28	26	22	27	08																																				
09	45	34	40	-11	28	35	25	0	RA SN BR			T	0.02	28.96	30.02	11.1	26	12.1	30	27	24	27	09																																				
10	43	31	37	-13	28	33	28	0	SN BR			0.9	0.09	29.07	30.14	5.4	28	6.5	20	27	17	28	10																																				
11	41	28	35	-15	23	30	30	0					0.00	29.30	30.37	5.1	27	6.0	15	24	11	27	11																																				
12	44	25	35	-15	21	30	30	0	BR				0.00	29.51	30.59	2.0	26	2.1	11	03	8	04	12																																				
13	43	27	35	-14	30	34	30	0	RA BR				0.06	29.48	30.55	2.7	05	3.3	8	06	8	05	13																																				
14	40	36	38	-11	37	38	27	0	RA BR				0.22	29.40	30.48	8.5	04	8.8	23	06	20	06	14																																				
15	50	33	42	-7	33	37	23	0	BR				0.00	29.45	30.53	7.6	05	7.5	20	06	16	06	15																																				
16	54	28	41	-8	30	36	24	0	BR				0.00	29.44	30.51	6.9	05	3.8	10	05	9	06	16																																				
17	58	35	47	-1	42	45	18	0	RA BR				0.13	29.31	30.37	5.4	05	3.9	13	09	11	09	17																																				
18	52	50	51	3	51	51	14	0	RA DZ FG+ BR				1.19	29.07	30.11	1.3	33	3.2	9	16	8	16	18																																				
19	56	49	53	5	49	50	12	0	DZ FG+ BR				T	28.89	29.92	4.0	27	3.0	10	02	9	23	19																																				
20	59	42	51	4	44	48	14	0	FG+ BR				0.00	28.84	29.88	2.8	01	2.4	10	05	9	03	20																																				
21	54	42	48	1	47	48	17	0	TSRA RA DZ BR				0.69	28.79	29.83	3.3	35	5.3	20	02	16	03	21																																				
22	44	31	38	-9	29	34	27	0					0.00	29.13	30.20	9.7	03	10.2	21	01	16	02	22																																				
23	55	26	41	-5	32	36	24	0					0.00	29.09	30.15	6.0	04	3.1	15	24	13	24	23																																				
24	61	31	46	0	38	41	19	0	BR				0.00	29.06	30.12	5.4	04	1.9	9	32	7	33	24																																				
25	54	40	47	1	49	49	18	0	RA FG+ BR				0.66	28.87	29.91	4.7	05	5.3	13	10	11	10	25																																				
26	54	33	44	-2	36	40	21	0	RA BR				0.02	29.10	30.15	7.1	32	11.5	24	27	21	28	26																																				
27	44	26	35*	-10	23	30	30	0					0.00	29.43	30.51	7.5	04	7.8	16	03	13	06	27																																				
28	52	25*	39	-6	28	33	26	0					0.00	29.33	30.41	4.9	05	3.2	16	25	11	25	28																																				
29	43	29	36	-9	33	36	29	0	RA				T	29.21	30.27	4.4	04	3.1	17	25	16	25	29																																				
30	51	41	46	2	46	46	19	0	RA BR				1.37	28.95	29.99	6.2	04	6.2	16	05	13	04	30																																				
										52.7		35.4		44.1		■ ■		36.3		40.7		20.8		0.1		< MONTHLY AVERAGES		TOTALS-->		0.9		7.71		29.14		30.19		2.8		01		5.6		<- MONTHLY AVERAGES															
										-7.2		-2.1		-4.6		■ ■		<----- DEPARTURE FROM NORMAL ----->																				3.96		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 2.58 DATE: 7-8										SEA LEVEL PRESSURE										DATE		TIME																											
MONTHLY										GREATEST 24-HR SNOWFALL: 0.9 DATE: 10										MAXIMUM										:		30.65		12		1108																							
SEASON TO DATE										GREATEST SNOW DEPTH:										MINIMUM										:		29.67		21		1322																							
TOTAL DEPARTURE										NUMBER OF DAYS WITH →										MAXIMUM TEMP ≥ 90: 0										MINIMUM TEMP ≤ 32: 13										PRECIPITATION ≥ 0.01 INCH: 14																			
HEATING: 623 134																				MAXIMUM TEMP ≤ 32: 0										MINIMUM TEMP ≤ 0: 0										PRECIPITATION ≥ 0.10 INCH: 9																			
COOLING: 3 3																				THUNDERSTORMS: 3										HEAVY FOG: 4										SNOWFALL ≥ 1.0 INCH: 0																			

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN

NOVEMBER 1996

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						T	T	0.02	0.19	0.02	0.01		01	T	T				0.01	0.07	0.10	0.02	0.02	0.02	0.03	01		0.51	
02	0.02	0.01	T										02													02		0.03	
03													03													03		0.00	
04													04													04		0.00	
05													05													05		0.00	
06													06													06		0.00	
07													07								0.01	0.44	0.97	0.24	0.07	07	1.66	1.67	
08	0.17	0.18	0.17	0.07	0.03	T	T	0.03	0.05	0.07	0.08	0.03	08	0.02	0.02										08	1.06	1.05		
09	0.01									0.01			09	T	T										09		1.02		
10			T	0.01	0.02	0.02	0.01	0.03	T				10												10		0.09		
11													11												11		0.00		
12													12												12		0.00		
13													13												13	0.05	0.06		
14	0.04	0.01	0.05	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.01	T	14	0.01	T	T			T	T	T		0.01	0.04	14	0.23	0.22		
15													15												15		0.00		
16													16												16		0.00		
17													17												17	0.12	0.13		
18	0.06	0.02	0.02	0.02	0.17	0.03	0.01	0.03	0.03	0.01	0.16	0.11	18	0.19	0.17	0.12	0.04							0.12	18	1.20	1.19		
19				T									19						0.01						19		T		
20													20												20		0.00		
21				T	0.04	T	0.01					T	21	0.23	0.27	0.14									21		0.69		
22													22												22		0.00		
23													23												23		0.00		
24				T									24												24		0.00		
25				0.02	0.02	0.01	0.02	0.03			T	0.02	25	0.02	0.02	0.11	0.23	0.03	0.01	0.07	0.05	T		25		0.66			
26	0.02	T											26												26		0.02		
27													27												27		0.00		
28													28												28		0.00		
29													29	T											29		T		
30	0.01	T	0.01	0.01	T	0.02	0.11	0.08	0.19	0.17	0.12	0.02	30	0.02	0.17	0.03	0.03	0.02	0.01	0.03	0.16	0.09	0.03	0.03	0.01	30		1.37	

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	
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

KNOXVILLE, TN NOVEMBER 1996

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:

ERRATA - Oct 27, 1996 - correct column 14 to read 0.02. Column 14 total should read 1.06 and DEPARTURE FROM NORMAL should be -1.78.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01	0	0					2.00	10.00	
02	436	68					3.00	10.00	
03	519	81					10.00	10.00	
04	444						10.00	10.00	
05	0						10.00	10.00	
06	235						6.00	10.00	
07	240						.75	10.00	
08	89	14					1.25	10.00	
09	246	40					6.00	10.00	
10	184	29					1.00	10.00	
11	273	44					9.00	10.00	
12	462	74					6.00	10.00	
13	2						3.00	10.00	
14	0						1.25	10.00	
15	370						6.00	10.00	
16	396						5.00	10.00	
17							5.00	10.00	
18	0	0					<.25	10.00	
19	163	27					<.25	10.00	
20	305	50					<.25	10.00	
21	0						1.00	10.00	
22	442						9.00	10.00	
23	474						7.00	10.00	
24	451						4.00	10.00	
25	0	0					.75	10.00	
26	0	0					4.00	10.00	
27	474	79					10.00	10.00	
28	456	76					8.00	10.00	
29	0						9.00	10.00	
30	0						1.00	9.00	
MONTHLY AVGS							4.64	9.97	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 30									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 3 13 9									

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

NOVEMBER 1996

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
SUNRISE: 0659						NOV 01	SUNSET: 1740						SUNRISE: 0705						NOV 07	SUNSET: 1735							
01	BKN	110			10.00	57	38	48	49	0	00	28.94	29.97	01	CLR	NC			10.00	60	54	57	80	3	01	29.04	30.07
04	OVC	055			10.00	56	40	48	55	5	35	28.91	29.94	04	CLR	NC			8.00	58	55	56	90	8	33	28.97	30.00
07	OVC	090			10.00	54	41	48	62	3	34	28.92	29.96	07	OVC	100			8.00	59	56	57	90	0	00	28.96	29.99
10	OVC	035			7.00	50	48	49	93	6	35	28.93	29.97	10	BKN	090			10.00	74	60	65	62	18	20	28.92	29.95
13	OVC	007			5.00	51	49	50	92	0	00	28.87	29.91	13	BKN	065			10.00	77	59	66	54	23	19	28.85	29.86
16	OVC	008			7.00	52	49	50	89	0	00	28.84	29.87	16	BKN	060			10.00	75	57	64	54	12	19	28.79	29.81
19	OVC	006			3.00	52	51	52	97	0	00	28.85	29.88	19	OVC	075			10.00	75	58	65	55	16	19	28.71	29.72
22	OVC	004			5.00	49	47	48	93	9	36	28.84	29.88	22	OVC	033			0.75	65	63	64	92	25	25	28.73	29.75
SUNRISE: 0660						NOV 02	SUNSET: 1739						SUNRISE: 0706						NOV 08	SUNSET: 1734							
01	OVC	018			3.00	43	41	42	93	12	02	28.87	29.91	01	OVC	006			2.50	61	60	60	97	15	28	28.69	29.70
04	OVC	036			10.00	43	39	41	86	7	35	28.88	29.93	04	OVC	013			7.00	54	53	53	97	9	27	28.72	29.74
07	OVC	027			10.00	42	36	39	79	5	36	28.93	29.98	07	OVC	007			4.00	49	47	48	93	9	28	28.77	29.79
10	SCT	NC			10.00	44	23	36	43	7	01	29.00	30.05	10	OVC	006			1.25	45	44	45	97	5	33	28.82	29.85
13	FEW	NC			10.00	49	24	39	38	13	27	28.97	30.02	13	OVC	010			7.00	46	43	45	89	12	29	28.81	29.84
16	FEW	NC			10.00	49	21	38	33	6	29	28.97	30.02	16	BKN	070			10.00	48	34	42	58	7	VR	28.82	29.85
19	CLR	NC			10.00	43	19	34	38	7	32	29.05	30.10	19	SCT	NC			10.00	45	34	40	66	5	25	28.86	29.90
22	CLR	NC			10.00	38	19	31	47	10	36	29.13	30.19	22	OVC	095			10.00	42	37	40	82	8	23	28.87	29.91
SUNRISE: 0701						NOV 03	SUNSET: 1738						SUNRISE: 0707						NOV 09	SUNSET: 1733							
01	CLR	NC			10.00	35	19	29	52	6	01	29.18	30.23	01	OVC	018			10.00	39	36	38	89	15	26	28.90	29.96
04	CLR	NC			10.00	33	20	29	59	8	01	29.21	30.27	04	BKN	055			10.00	36	33	35	89	9	22	28.89	29.95
07	CLR	NC			10.00	29	21	26	72	3	10	29.24	30.32	07	BKN	035			10.00	35	32	34	89	9	24	28.92	29.98
10	CLR	NC			10.00	38	22	32	53	7	06	29.30	30.37	10	SCT	NC			10.00	38	34	36	86	16	27	28.97	30.03
13	CLR	NC			10.00	45	22	36	40	7	10	29.26	30.33	13	OVC	045			6.00	41	25	35	53	20	27	28.97	30.03
16	CLR	NC			10.00	50	20	38	31	6	VR	29.25	30.31	16	BKN	035			10.00	43	20	34	40	15	26	28.97	30.03
19	CLR	NC			10.00	45	22	36	40	3	05	29.25	30.32	19	CLR	NC			10.00	38	22	32	53	6	23	28.99	30.06
22	CLR	NC			10.00	37	27	33	67	0	00	29.27	30.34	22	OVC	070			10.00	38	25	33	60	6	25	29.02	30.08
SUNRISE: 0702						NOV 04	SUNSET: 1737						SUNRISE: 0707						NOV 10	SUNSET: 1732							
01	CLR	NC			10.00	34	25	31	70	0	00	29.25	30.32	01	OVC	075			10.00	38	28	34	68	5	29	29.02	30.08
04	CLR	NC			10.00	32	28	31	85	0	00	29.27	30.34	04	OVC	010			3.00	34	32	33	92	6	25	29.00	30.06
07	CLR	NC			10.00	29	26	28	89	3	07	29.30	30.37	07	OVC	003			1.50	33	33	33	100	3	30	29.01	30.07
10	CLR	NC			10.00	43	30	38	60	3	03	29.33	30.40	10	BKN	025			10.00	36	31	34	82	8	01	29.07	30.14
13	FEW	NC			10.00	54	29	43	38	0	00	29.26	30.32	13	OVC	045			10.00	40	29	35	65	8	29	29.07	30.13
16	SCT	NC			10.00	56	30	44	37	3	01	29.20	30.25	16	BKN	060			10.00	41	21	34	45	12	28	29.09	30.15
19	SCT	NC			10.00	53	31	43	43	0	00	29.21	30.27	19	SCT	NC			10.00	36	23	31	59	5	27	29.12	30.19
22	CLR	NC			10.00	49	32	42	52	0	00	29.21	30.27	22	CLR	NC			10.00	31	25	29	79	6	24	29.16	30.23
SUNRISE: 0703						NOV 05	SUNSET: 1736						SUNRISE: 0708						NOV 11	SUNSET: 1731							
01	SCT	NC			10.00	47	31	40	54	7	31	29.21	30.27	01	SCT	NC			10.00	30	25	28	82	7	23	29.16	30.22
04	BKN	075			10.00	47	31	40	54	7	02	29.21	30.25	04	FEW	NC			10.00	28	25	27	88	6	24	29.20	30.26
07	OVC	070			10.00	47	30	40	52	5	05	29.22	30.28	07	BKN	120			9.00	29	27	28	92	7	23	29.23	30.31
10	OVC	050			10.00	50	37	44	61	0	00	29.26	30.31	10	OVC	095			10.00	35	25	31	67	10	25	29.30	30.38
13	OVC	055			10.00	55	39	47	55	0	00	29.22	30.27	13	SCT	NC			10.00	38	23	32	55	7	VR	29.31	30.38
16	OVC	060			10.00	56	42	49	60	9	06	29.18	30.22	16	SCT	NC			10.00	41	20	33	43	8	23	29.31	30.38
19	OVC	075			10.00	55	42	49	62	5	02	29.20	30.25	19	CLR	NC			10.00	37	19	31	48	5	32	29.35	30.43
22	BKN	090			10.00	54	43	49	67	0	00	29.21	30.25	22	CLR	NC			10.00	31	21	28	67	3	07	29.41	30.49
SUNRISE: 0704						NOV 06	SUNSET: 1736						SUNRISE: 0709						NOV 12	SUNSET: 1731							
01	FEW	NC			10.00	48	43	46	83	0	00	29.19	30.24	01	CLR	NC			10.00	30	21	27	69	3	04	29.45	30.53
04	SCT	NC			9.00	47	43	45	86	0	00	29.19	30.24	04	CLR	NC			8.00	25	23	24	92	3	09	29.48	30.55
07	BKN	070			9.00	48	44	46	86	0	00	29.20	30.25	07	FEW	NC			10.00	25	22	24	88	0	00	29.52	30.60
10	OVC	065			6.00	53	48	50	83	8	08	29.22	30.27	10	CLR	NC			10.00	35	25	31	67	3	03	29.56	30.65
13	OVC	060			9.00	62	50	55	65	3	04	29.16	30.20	13	BKN	080			10.00	41	21	34	45	6	08	29.52	30.60
16	BKN	065			10.00	68	55	60	63	5	06	29.10	30.14	16	SCT	NC			10.00	43	14	33	31	0	00	29.49	30.57
19	OVC	055			8.00	66	54	59	65	0	00	29.10	30.14	19	CLR	NC			10.00	38	19	31	47	0	00	29.51	30.59
22	BKN	090			10.00	62	55	58	78	3	10	29.10	30.14	22	CLR	NC			10.00	33	23	29	67	0	00	29.53	30.61

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

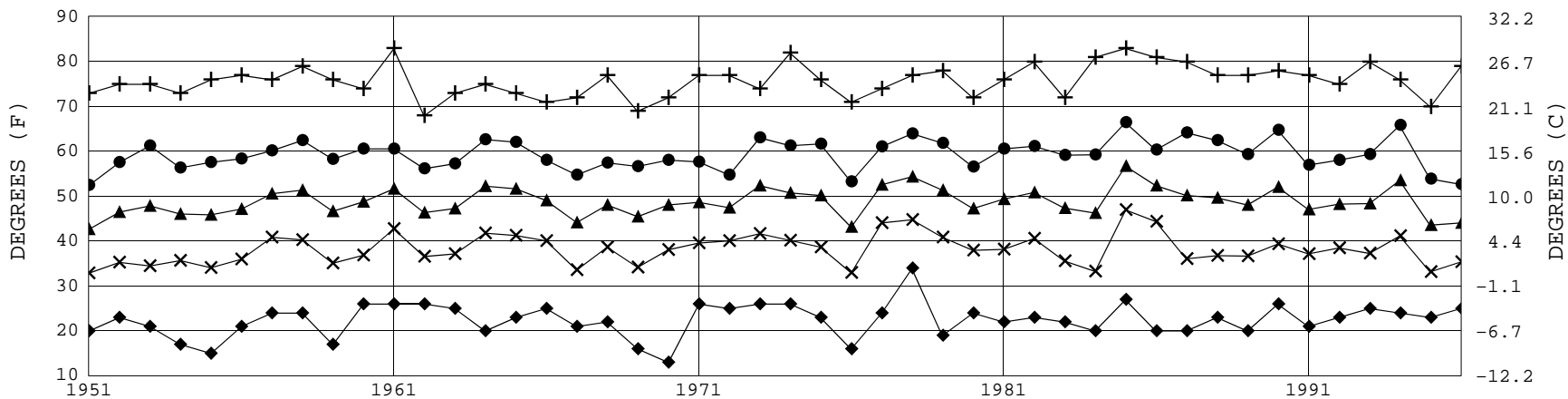
NOVEMBER 1996

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: 0710						NOV 13						SUNSET: 1730						SUNRISE: 0716						NOV 19						SUNSET: 1726					
01	CLR	NC			10.00		31	24	28	76	0	00	29.51	30.58	01	OVC	001			0.25	FG		51	51	51	100	5	25	28.91	29.95					
04	OVC	055			10.00		30	26	29	85	0	00	29.52	30.59	04	OVC	001			1.00	BR		51	51	51	100	7	30	28.91	29.95					
07	OVC	050			10.00		32	26	30	79	5	01	29.53	30.60	07	OVC	003			4.00	BR		50	50	50	100	5	33	28.91	29.96					
10	OVC	046			10.00		35	28	32	76	0	00	29.55	30.64	10	OVC	005			10.00			51	49	50	92	0	00	28.92	29.96					
13	OVC	042			10.00		42	29	37	60	3	36	29.49	30.56	13	SCT	NC			10.00			54	50	52	87	3	25	28.87	29.91					
16	OVC	042			10.00		42	32	38	68	8	06	29.45	30.52	16	SCT	NC			10.00			55	48	51	77	7	26	28.84	29.88					
19	OVC	037			10.00		41	32	37	70	0	00	29.42	30.49	19	OVC	040			10.00			52	47	49	83	0	00	28.87	29.90					
22	OVC	033			5.00	-RA BR	39	35	37	86	5	05	29.40	30.48	22	OVC	120			10.00			50	48	49	93	0	00	28.86	29.89					
SUNRISE: 0711						NOV 14						SUNSET: 1729						SUNRISE: 0717						NOV 20						SUNSET: 1726					
01	OVC	026			5.00	-RA BR	37	37	37	100	3	10	29.38	30.45	01	BKN	120			10.00			49	47	48	93	0	00	28.84	29.87					
04	OVC	003			1.25	-RA BR	37	37	37	100	6	02	29.36	30.43	04	CLR	NC			6.00	BR		46	45	46	96	3	34	28.84	29.88					
07	OVC	001			1.50	-RA BR	37	37	37	100	5	05	29.37	30.44	07	SCT	NC			5.00	BR		44	43	44	96	6	01	28.86	29.90					
10	OVC	003			1.50	-RA BR	38	38	38	100	8	05	29.41	30.48	10	BKN	120			9.00			49	43	46	80	6	06	28.89	29.93					
13	OVC	005			1.50	-RA BR	39	39	39	100	12	03	29.41	30.48	13	SCT	NC			10.00			55	46	50	72	0	00	28.83	29.87					
16	OVC	006			10.00		40	39	40	97	8	06	29.40	30.47	16	SCT	NC			10.00			58	41	49	54	0	00	28.80	29.83					
19	OVC	011			10.00		39	37	38	93	10	03	29.43	30.51	19	SCT	NC			10.00			53	42	48	66	0	00	28.82	29.86					
22	OVC	015			10.00		38	35	37	89	15	04	29.45	30.52	22	OVC	055			10.00			51	46	49	83	0	00	28.84	29.87					
SUNRISE: 0712						NOV 15						SUNSET: 1729						SUNRISE: 0718						NOV 21						SUNSET: 1725					
01	OVC	016			10.00		36	32	34	86	10	06	29.45	30.52	01	OVC	055			10.00			50	47	48	89	0	00	28.80	29.83					
04	OVC	014			10.00		34	30	32	85	13	05	29.44	30.52	04	OVC	030			8.00	-RA		51	47	49	86	0	00	28.79	29.82					
07	OVC	012			10.00		33	28	31	82	8	05	29.47	30.55	07	OVC	018			5.00	BR		49	49	49	100	5	06	28.76	29.79					
10	BKN	012			9.00		37	32	35	82	8	06	29.51	30.59	10	OVC	016			2.50	BR		51	50	51	96	5	01	28.72	29.75					
13	CLR	NC			10.00		45	35	41	68	7	07	29.46	30.53	13	OVC	009			1.00	+TSRA BR		51	50	51	96	5	07	28.64	29.67					
16	CLR	NC			10.00		50	36	44	59	6	06	29.41	30.48	16	OVC	011			7.00			54	54	54	100	5	29	28.71	29.75					
19	CLR	NC			10.00		44	34	40	68	5	03	29.43	30.50	19	OVC	011			10.00			45	42	44	90	13	36	28.87	29.92					
22	CLR	NC			10.00		39	34	37	82	5	36	29.45	30.53	22	OVC	013			10.00			43	39	41	86	6	01	28.98	30.03					
SUNRISE: 0713						NOV 16						SUNSET: 1728						SUNRISE: 0719						NOV 22						SUNSET: 1725					
01	CLR	NC			6.00	BR	31	31	31	100	5	03	29.47	30.54	01	BKN	047			10.00			40	35	38	83	13	01	29.03	30.08					
04	CLR	NC			5.00	BR	30	30	30	100	3	07	29.49	30.56	04	OVC	016			9.00			38	34	36	86	8	01	29.09	30.14					
07	CLR	NC			10.00		31	27	29	85	3	04	29.49	30.56	07	SCT	NC			10.00			33	28	31	82	5	06	29.16	30.22					
10	CLR	NC			10.00		37	25	33	62	6	04	29.50	30.57	10	FEW	NC			10.00			37	27	33	67	14	01	29.20	30.26					
13	CLR	NC			10.00		49	31	41	50	0	00	29.44	30.51	13	CLR	NC			10.00			41	28	36	60	10	06	29.17	30.23					
16	CLR	NC			10.00		54	33	45	45	7	03	29.40	30.46	16	CLR	NC			10.00			43	28	37	56	9	02	29.15	30.21					
19	CLR	NC			10.00		46	32	40	58	5	03	29.40	30.47	19	CLR	NC			10.00			38	27	34	65	10	03	29.14	30.21					
22	CLR	NC			10.00		43	32	38	65	6	04	29.37	30.44	22	CLR	NC			10.00			34	27	31	76	12	02	29.13	30.19					
SUNRISE: 0714						NOV 17						SUNSET: 1727						SUNRISE: 0720						NOV 23						SUNSET: 1725					
01	CLR	NC			10.00		36	33	35	89	7	06	29.36	30.43	01	CLR	NC			10.00			31	26	29	82	7	04	29.11	30.18					
04	OVC	045			10.00		37	34	36	89	3	08	29.38	30.45	04	CLR	NC			10.00			28	25	27	88	6	04	29.09	30.16					
07	CLR	NC			10.00		40	37	39	89	0	00	29.38	30.45	07	CLR	NC			9.00			27	25	26	92	5	05	29.11	30.18					
10	SCT	NC			10.00		45	38	42	77	6	03	29.38	30.45	10	CLR	NC			8.00			35	29	33	78	0	00	29.16	30.22					
13	SCT	NC			10.00		55	43	49	64	3	VR	29.32	30.38	13	CLR	NC			10.00			48	35	42	61	5	26	29.08	30.14					
16	BKN	110			10.00		57	47	52	69	3	10	29.25	30.31	16	CLR	NC			10.00			54	38	46	55	5	31	29.02	30.08					
19	OVC	085			10.00		54	47	50	77	0	00	29.22	30.28	19	CLR	NC			10.00			49	38	44	66	0	00	29.05	30.11					
22	OVC	065			10.00		53	47	50	80	5	36	29.23	30.29	22	CLR	NC			9.00			41	37	39	86	0	00	29.09	30.16					
SUNRISE: 0715						NOV 18						SUNSET: 1727						SUNRISE: 0721						NOV 24						SUNSET: 1724					
01	OVC	060			5.00	-RA BR	50	50	50	100	3	35	29.21	30.26	01	CLR	NC			6.00	BR		36	36	36	100	5	16	29.09	30.15					
04	OVC	002			1.50	-RA BR	50	50	50	100	0	00	29.19	30.23	04	CLR	NC			4.00	BR		33	33	33	100	3	08	29.09	30.15					
07	OVC	002			2.50	-RA BR	51	51	51	100	3	30	29.15	30.19	07	CLR	NC			7.00			31	31	31	100	3	06	29.12	30.17					
10	OVC	003			1.50	DZ BR	51	51	51	100	3	29	29.12	30.16	10	CLR	NC			8.00			42	36	39	79	0	00	29.15	30.20					
13	OVC	006			1.50	+RA BR	50	50	50	100	6	33	29.04	30.09	13	CLR	NC			10.00			55	39	47	55	6	25	29.06	30.11					
16	OVC	033			10.00		51	51	51	100	5	18	28.98	30.02	16	CLR	NC			10.00			60	42	51	52	3	36	28.99	30.04					
19	OVC	003			1.00	BR	51	51	51	100	0	00	28.96	30.01	19	CLR	NC			10.00			52	41	47	66	0	00	29.00	30.06					
22	VV	001			0.25	FG	51	51	51	100	5	19	28.95	29.99	22	CLR	NC			9.00			45	41	43	86	3	04	29.02	30.07					

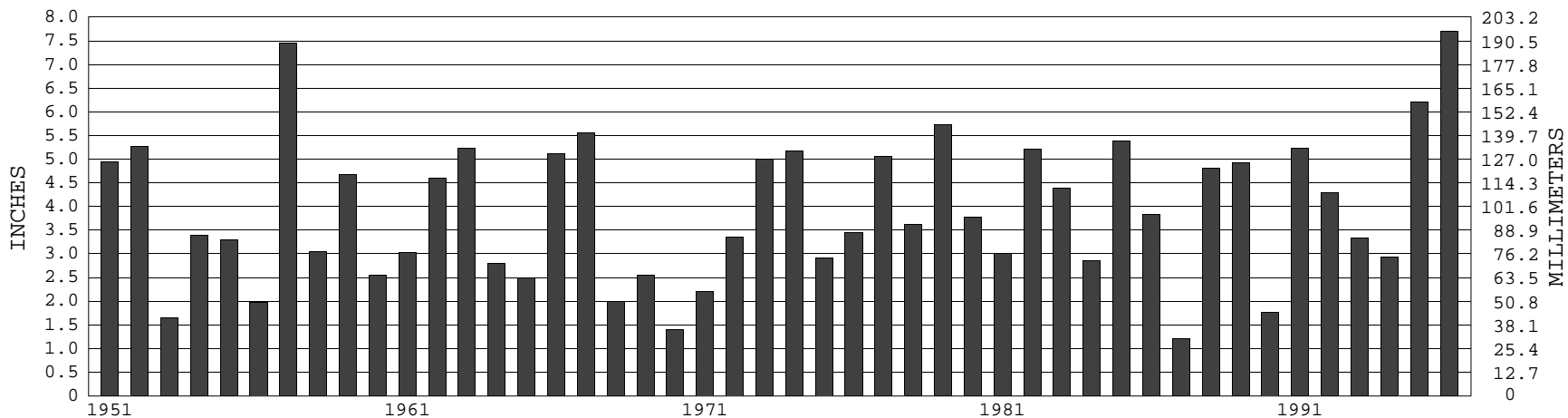
KNOXVILLE, TN NOVEMBER TEMPERATURES



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

Long-Term (1951-1996) Mean: 48.8 1961-1990 Normal: 48.7

KNOXVILLE, TN NOVEMBER PRECIPITATION



Long-Term (1951-1996) Mean Monthly Total: 3.93

1961-1990 Normal: 3.75



**NOVEMBER 1996
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
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