



# AUGUST 2002

## 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

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	91	70	81	3	70	73	0	16	TS FG BR HZ				0.00	28.94	29.95	1.5	02	4.1	16	02	13	02	01																		
02	93	69	81	3	70	73	0	16	TS TSRA RA BR HZ				0.30	28.97	29.98	2.2	02	4.5	30	19	24	18	02																		
03	93	68	81	3	70	73	0	16	BR HZ				0.00	29.07	30.09	3.2	04	5.2	13	01	10	02	03																		
04	93	69	81	3	69	73	0	16	BCFG BR HZ				0.00	29.10	30.11	0.5	35	3.8	18	20	16	21	04																		
05	94	69	82	4	69	73	0	17	BR HZ				0.00	29.03	30.03	0.9	31	2.5	14	27	10	24	05																		
06	90	69	80	2	65	70	0	15	BR HZ				0.00	28.94	29.95	6.9	01	7.9	21	01	17	34	06																		
07	87	63	75	-3	57	64	0	10					0.00	29.01	30.02	6.8	02	7.7	17	02	13	03	07																		
08	88	63	76	-2	57	64	0	11					0.00	29.07	30.09	3.6	01	4.8	13	03	12	01	08																		
09	89	62*	76	-1	62	67	0	11					0.00	29.07	30.09	1.8	30	3.9	15	23	13	23	09																		
10	88	68	78	1	64	69	0	13	BR HZ				0.00	29.10	30.11	5.4	24	6.3	23	24	20	23	10																		
11	91	68	80	3	65	70	0	15	HZ				0.00	29.10	30.11	2.1	30	4.5	15	27	10	28	11																		
12	92	68	80	3	65	70	0	15	BR HZ				0.00	29.07	30.08	0.9	26	3.6	17	26	13	26	12																		
13	92	65	79	2	63	69	0	14	BR HZ				0.00	29.04	30.05	1.7	23	3.7	16	22	13	22	13																		
14	93	67	80	3	67	71	0	15	RA BR HZ				T	29.01	30.02	4.6	25	6.0	26	24	24	26	14																		
15	92	70	81	4	70	72	0	16	TSRA RA BR HZ				0.04	29.11	30.13	3.4	21	5.8	30	21	26	21	15																		
16	88	70	79	2	71	72	0	14	TS TSRA RA BR				0.37	29.18	30.20	0.3	16	3.8	22	20	18	19	16																		
17	85	71	78	1	71	73	0	13	RA FG+ BR				0.01	29.10	30.12	6.8	23	8.0	25	29	21	30	17																		
18	89	69	79	2	70	72	0	14	RA				T	29.02	30.04	5.5	24	6.0	23	27	18	24	18																		
19	87	69	78	1	70	71	0	13	TS TSRA RA BR				0.11	28.98	29.99	0.5	33	4.6	37*	28	30*	31	19																		
20	91	68	80	3	69	72	0	15	BCFG BR				0.00	29.02	30.03	3.7	04	4.6	20	06	16	08	20																		
21	94	69	82	5	68	72	0	17	HZ				0.00	29.09	30.10	2.8	03	4.4	13	01	10	04	21																		
22	95*	72	84	7	70	74	0	19	BR HZ				0.00	29.11	30.12	2.1	24	3.5	16	21	14	21	22																		
23	94	73	84*	7	70	74	0	19	TS RA BR HZ				T	29.01	30.02	5.4	24	6.2	22	30	18	31	23																		
24	90	74	82	6	71	74	0	17	TS TSRA RA BR				0.05	28.93	29.94	6.5	23	7.3	23	22	20	21	24																		
25	86	69	78	2	69	71	0	13	RA BR HZ				0.10	28.90	29.91	1.2	27	4.2	23	04	18	02	25																		
26	86	65	76	0	67	69	0	11	TS TSRA RA FG+ BR HZ				0.43	28.88	29.89	3.7	04	5.1	23	09	20	09	26																		
27	85	65	75	-1	65	68	0	10	TS FG+ BR				0.00	28.95	29.97	0.9	10	4.6	22	18	17	18	27																		
28	86	63	75*	-1	64	68	0	10	BR HZ				0.00	28.98	30.00	5.5	04	6.5	17	03	14	03	28																		
29	86	65	76	0	66	69	0	11	TS RA				T	29.00	30.01	0.7	35	4.0	13	12	10	26	29																		
30	88	69	79	4	67	70	0	14	RA				T	29.07	30.09	2.2	04	4.2	17	07	14	10	30																		
31	88	68	78	3	66	70	0	13	RA BR				T	29.16	30.18	1.3	36	4.7	14	05	12	23	31																		
< MONTHLY AVERAGES										TOTALS-->				1.41	29.03	30.05	0.8	26	5.0	<-- MONTHLY AVERAGES																					
3.4										0.7				2.0				<-----DEPARTURE FROM NORMAL----->										-1.48				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 0.43 DATE :26										SEA LEVEL PRESSURE										DATE TIME											
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL:										MAXIMUM : 30.25 16 0953											
HEATING: 0 0 0 0										GREATEST SNOW DEPTH:										MINIMUM : 29.83 26 1653																					
COOLING: 439 58 1443 229										NUMBER OF DAYS WITH =>				MAXIMUM TEMP ≥ 90: 16				MINIMUM TEMP ≤ 32: 0				PRECIPITATION ≥ 0.01 INCH : 8																			
														MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 5																			
														THUNDERSTORMS : 10				HEAVY FOG : 3				SNOWFALL ≥ 1.0 INCH :																			

AUGUST 2002  
KNOXVILLE, TN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

## KNOXVILLE, TN

AUGUST 2002

TYS

WBAN # 13891

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													01												01		0.00		
02													02												02		0.30		
03													03												03	T	0.00		
04													04												04		0.00		
05													05												05		0.00		
06													06												06		0.00		
07													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													13												13		0.00		
14													14					T							14		T		
15													15			T	0.03	T		T					15		0.04		
16													16			0.14	0.21	0.02							16		0.37		
17													17			0.01	T								17		0.01		
18													18			T	T								18		T		
19													19		T	0.07	0.01	0.03							19		0.11		
20													20												20		0.00		
21													21												21		0.00		
22													22												22		0.00		
23													23												23		T		
24													24		0.03	0.02									24		0.05		
25				0.01	T		0.01	0.02	0.03	0.03	T	T	25												25		0.10		
26													26							0.36	0.05	0.02		T	26		0.43		
27													27												27		0.00		
28													28												28		0.00		
29													29												29		T		
30					T								30												30		T		
31						T							31												31		T		

### MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.12	.20	.23	.31	.34	.36	.38	.39	.41	.43	.43	.43
Ending Date	26	26	26	26	26	26	26	26	26	26	26	26
Ending Time (Hour/Min)	1941	1945	1940	1945	1951	2008	2015	2038	2057	2108	2108	2108

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

## REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

\* = Extreme for the month (last occurrence if more than one)

T = Trace precipitation amount

+ = also occurs on earlier date

FG+ = Heavy fog, visibility .25 miles or less  
BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

### WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	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 AUGUST 2002

Ceilorometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

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

### ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							.50	8.00	
02							1.50	10.00	
03							2.50	10.00	
04							2.50	10.00	
05							6.00	10.00	
06							3.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							7.00	10.00	
10							3.00	10.00	
11							4.00	9.00	
12							3.00	8.00	
13							2.00	10.00	
14							4.00	10.00	
15							4.00	10.00	
16							1.50	10.00	
17							.25	10.00	
18							10.00	10.00	
19							4.00	10.00	
20							2.00	10.00	
21							6.00	10.00	
22							4.00	10.00	
23							5.00	10.00	
24							2.50	10.00	
25							2.00	10.00	
26							.13	10.00	
27							.25	10.00	
28							1.00	10.00	
29							9.00	10.00	
30							8.00	10.00	
31							6.00	10.00	
<b>MONTHLY AVGS</b>							4.17	9.84	
<b>SUNSHINE (MINUTES)</b>									
Total:                      Possible: Percent Possible:									
<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 2            16           6									

# OBSERVATIONS AT 3-HOURLY INTERVALS

## KNOXVILLE, TN

AUGUST 2002

TYS

WBAN # 13891

HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)					
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD AMT Oktas	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL			SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0544					AUG 01				SUNSET: 1941				SUNRISE: 0548					AUG 07				SUNSET: 1935							
01	BKN	250	4.00	BR	73	71	72	94	5	21	28.97	29.98	01	CLR	NC	10.00		68	56	61	66	12	04	29.00	30.01				
04	SCT	NC	7.00		71	69	70	94	3	23	28.95	29.96	04	CLR	NC	10.00		65	56	60	73	10	03	28.97	29.99				
07	SCT	NC	2.00	BR	70	70	70	100	0	00	28.97	29.98	07	FEW	NC	10.00		66	56	60	70	6	03	29.02	30.03				
10	FEW	NC	2.50	HZ	80	72	74	76	3	35	28.98	29.99	10	FEW	NC	10.00		74	59	65	60	8	01	29.05	30.07				
13	FEW	NC	5.00	HZ	88	70	75	55	8	02	28.94	29.95	13	FEW	NC	10.00		83	60	68	46	7	32	29.02	30.04				
16	FEW	NC	8.00		90	69	75	50	9	34	28.88	29.89	16	FEW	NC	10.00		86	58	68	39	8	01	28.97	29.99				
19	SCT	NC	7.00		87	70	75	57	6	33	28.89	29.91	19	CLR	NC	10.00		84	56	67	38	3	03	28.97	29.99				
22	SCT	NC	6.00	HZ	79	72	74	79	3	06	28.94	29.95	22	CLR	NC	10.00		75	55	63	50	9	03	29.02	30.04				
SUNRISE: 0544					AUG 02				SUNSET: 1940				SUNRISE: 0549					AUG 08				SUNSET: 1934							
01	CLR	NC	6.00	HZ	76	70	72	82	6	04	28.92	29.93	01	CLR	NC	10.00		68	53	59	59	9	05	29.05	30.06				
04	CLR	NC	5.00	BR	71	68	69	90	5	06	28.93	29.94	04	CLR	NC	10.00		65	53	58	66	6	01	29.06	30.07				
07	CLR	NC	3.00	BR	71	68	69	90	5	02	28.99	30.00	07	CLR	NC	10.00		64	57	60	78	0	00	29.10	30.12				
10	FEW	NC	6.00	HZ	82	72	75	72	6	02	29.02	30.03	10	CLR	NC	10.00		74	57	64	56	3	33	29.12	30.14				
13	FEW	NC	6.00	HZ	90	71	77	54	7	30	28.99	30.00	13	FEW	NC	10.00		83	59	68	44	7	26	29.09	30.10				
16	FEW	NC	8.00		92	70	77	49	7	03	28.93	29.94	16	CLR	NC	10.00		87	60	70	40	3	33	29.04	30.06				
19	SCT	NC	9.00		91	71	77	52	5	33	28.93	29.94	19	CLR	NC	10.00		84	59	68	43	0	00	29.02	30.04				
22	BKN	050	10.00	TS	73	68	70	84	13	22	29.02	30.03	22	CLR	NC	10.00		76	57	64	52	7	36	29.07	30.09				
SUNRISE: 0545					AUG 03				SUNSET: 1939				SUNRISE: 0550					AUG 09				SUNSET: 1933							
01	SCT	NC	10.00		70	66	67	87	5	17	29.03	30.04	01	CLR	NC	10.00		71	56	62	59	5	02	29.07	30.08				
04	FEW	NC	7.00		69	67	68	93	3	25	29.06	30.07	04	CLR	NC	10.00		64	58	60	81	3	05	29.07	30.08				
07	FEW	NC	4.00	BR	70	68	69	93	5	07	29.09	30.11	07	CLR	NC	8.00		64	61	62	90	0	00	29.10	30.11				
10	CLR	NC	5.00	HZ	81	71	74	72	8	08	29.12	30.14	10	SCT	NC	10.00		76	61	67	60	0	00	29.12	30.14				
13	CLR	NC	6.00	HZ	89	72	77	57	6	35	29.10	30.11	13	SCT	NC	10.00		85	64	71	50	7	25	29.09	30.10				
16	FEW	NC	6.00	HZ	93	67	75	42	7	32	29.05	30.06	16	SCT	NC	10.00		88	64	72	45	6	31	29.04	30.05				
19	FEW	NC	8.00		90	69	75	50	6	01	29.04	30.05	19	CLR	NC	7.00		86	64	71	48	3	32	29.03	30.05				
22	CLR	NC	7.00		81	71	74	72	5	06	29.09	30.10	22	FEW	NC	7.00		79	65	70	62	0	00	29.06	30.07				
SUNRISE: 0546					AUG 04				SUNSET: 1938				SUNRISE: 0551					AUG 10				SUNSET: 1932							
01	CLR	NC	6.00	HZ	77	70	72	79	3	31	29.08	30.09	01	FEW	NC	7.00		74	65	68	74	7	24	29.08	30.09				
04	CLR	NC	4.00	BR	71	69	70	94	3	03	29.09	30.10	04	OVC	070	10.00		74	63	67	69	7	20	29.09	30.10				
07	CLR	NC	3.00	BR	71	68	69	90	5	07	29.14	30.15	07	FEW	NC	3.00	BR	70	66	67	87	0	00	29.12	30.14				
10	CLR	NC	6.00	HZ	83	69	74	63	0	00	29.16	30.16	10	BKN	055	10.00		80	62	69	54	12	23	29.16	30.17				
13	FEW	NC	8.00		89	69	75	52	5	VR	29.12	30.13	13	BKN	200	10.00		86	64	71	48	13	24	29.13	30.14				
16	SCT	NC	10.00		89	67	74	48	15	21	29.06	30.07	16	FEW	NC	10.00		88	65	73	46	10	26	29.07	30.08				
19	SCT	NC	10.00		85	68	73	57	3	24	29.06	30.08	19	CLR	NC	8.00		84	65	71	53	5	29	29.04	30.06				
22	SCT	NC	10.00		78	68	71	71	3	11	29.10	30.11	22	CLR	NC	7.00		76	65	69	63	0	00	29.08	30.10				
SUNRISE: 0547					AUG 05				SUNSET: 1937				SUNRISE: 0551					AUG 11				SUNSET: 1931							
01	CLR	NC	8.00		73	68	70	84	0	00	29.05	30.07	01	BKN	080	7.00		74	64	68	71	6	29	29.09	30.11				
04	CLR	NC	6.00	BR	71	68	69	90	0	00	29.04	30.05	04	CLR	NC	7.00		72	63	66	73	5	26	29.10	30.11				
07	CLR	NC	6.00	BR	71	68	69	90	0	00	29.08	30.10	07	FEW	NC	4.00	HZ	70	65	67	84	0	00	29.14	30.15				
10	CLR	NC	8.00		82	70	74	67	0	00	29.10	30.11	10	FEW	NC	7.00		82	66	71	58	8	24	29.17	30.18				
13	FEW	NC	10.00		89	69	75	52	6	28	29.05	30.06	13	SCT	NC	8.00		87	64	72	46	5	29	29.13	30.14				
16	FEW	NC	10.00		93	67	75	42	5	01	28.97	29.98	16	FEW	NC	7.00		90	62	72	39	8	29	29.06	30.08				
19	FEW	NC	8.00		90	70	76	52	0	00	28.95	29.96	19	FEW	NC	7.00		87	64	72	46	3	28	29.04	30.05				
22	SCT	NC	7.00		82	73	76	74	0	00	28.98	29.98	22	SCT	NC	6.00	HZ	75	68	70	79	7	05	29.06	30.07				
SUNRISE: 0547					AUG 06				SUNSET: 1936				SUNRISE: 0552					AUG 12				SUNSET: 1930							
01	SCT	NC	6.00	HZ	77	70	72	79	0	00	28.94	29.95	01	BKN	090	5.00	HZ	74	67	69	79	0	00	29.07	30.08				
04	CLR	NC	6.00	HZ	75	70	72	84	5	23	28.92	29.92	04	CLR	NC	5.00	HZ	72	66	68	82	0	00	29.07	30.09				
07	FEW	NC	4.00	HZ	75	70	72	84	0	00	28.95	29.96	07	SCT	NC	3.00	BR	70	67	68	90	0	00	29.11	30.12				
10	BKN	050	3.00	HZ	83	72	75	70	15	02	28.97	29.98	10	SCT	NC	5.00	HZ	81	66	71	61	6	25	29.13	30.14				
13	SCT	NC	4.00	HZ	87	71	76	59	10	36	28.93	29.94	13	FEW	NC	7.00		88	66	73	48	10	26	29.10	30.11				
16	SCT	NC	10.00		88	59	69	38	15	35	28.91	29.91	16	SCT	NC	8.00		91	62	72	38	3	VR	29.03	30.04				
19	FEW	NC	10.00		82	55	65	40	10	36	28.91	29.92	19	BKN	070	7.00		87	63	71	45	0	00	29.01	30.03				
22	CLR	NC	10.00		73	54	62	51	8	05	28.98	29.99	22	SCT	NC	7.00		82	65	71	56	0	00	29.06	30.07				

# OBSERVATIONS AT 3-HOURLY INTERVALS

## KNOXVILLE, TN

AUGUST 2002

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)		
	OBSERVATION TIME (LST)	EFF CLD AMT Okta		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		OBSERVATION TIME (LST)	EFF CLD AMT Okta		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	
																																DRY BULB
SUNRISE: 0553								AUG 13				SUNSET: 1929				SUNRISE: 0558								AUG 19				SUNSET: 1922				
01	CLR	NC			6.00	HZ		75	65	69	71	0	00	29.07	30.08	01	CLR	NC			10.00				73	68	70	84	5	31	28.99	30.00
04	CLR	NC			5.00	HZ		70	65	67	84	0	00	29.06	30.07	04	CLR	NC			10.00				70	69	69	97	0	00	28.95	29.97
07	FEW	NC			3.00	BR		68	65	66	90	3	07	29.10	30.11	07	SCT	NC			8.00				71	69	70	94	5	31	28.98	29.99
10	BKN	150			5.00	HZ		82	64	70	55	0	00	29.11	30.11	10	SCT	NC			10.00				79	72	74	79	3	VR	29.03	30.04
13	BKN	250			9.00			89	65	73	45	8	32	29.05	30.06	13	SCT	NC			10.00				87	71	76	59	7	27	28.97	29.98
16	SCT	NC			10.00			91	61	71	37	10	24	28.99	30.00	16	OVC	150			7.00	-RA			74	71	72	91	5	07	29.00	30.01
19	SCT	NC			10.00			85	64	71	50	6	22	28.98	29.99	19	BKN	200			10.00				73	70	71	90	0	00	28.95	29.97
22	CLR	NC			10.00			80	61	68	52	3	14	29.01	30.02	22	SCT	NC			10.00				72	69	70	91	0	00	28.99	30.01
SUNRISE: 0554								AUG 14				SUNSET: 1928				SUNRISE: 0558								AUG 20				SUNSET: 1921				
01	FEW	NC			9.00			72	63	66	73	3	26	29.00	30.01	01	SCT	NC			9.00				70	68	69	93	0	00	28.97	29.98
04	FEW	NC			7.00			69	63	65	81	0	00	28.98	29.99	04	SCT	NC			4.00	BCFG			69	68	68	96	5	06	28.99	30.01
07	BKN	090			4.00	BR		69	66	67	90	5	06	29.02	30.04	07	BKN	036			5.00	BR			70	69	69	97	5	01	29.03	30.05
10	SCT	NC			10.00			83	67	72	59	5	VR	29.05	30.06	10	SCT	NC			7.00				80	70	73	71	0	00	29.05	30.07
13	BKN	110			10.00			87	69	75	55	10	28	28.99	30.00	13	SCT	NC			10.00				86	72	76	63	9	06	29.03	30.05
16	BKN	250			10.00			89	65	73	45	12	25	28.94	29.95	16	SCT	NC			10.00				91	66	74	44	6	03	29.00	30.01
19	OVC	150			7.00			75	71	72	88	12	21	28.99	30.01	19	SCT	NC			10.00				86	64	71	48	0	00	28.99	30.01
22	OVC	250			7.00			74	69	71	85	3	27	29.05	30.06	22	FEW	NC			10.00				77	69	72	77	7	02	29.05	30.06
SUNRISE: 0555								AUG 15				SUNSET: 1927				SUNRISE: 0559								AUG 21				SUNSET: 1919				
01	CLR	NC			6.00	BR		73	70	71	90	5	29	29.06	30.07	01	SCT	NC			10.00				74	67	69	79	0	00	29.05	30.06
04	BKN	250			6.00	BR		71	69	70	94	0	00	29.06	30.07	04	SCT	NC			9.00				71	67	68	87	8	02	29.05	30.06
07	BKN	200			4.00	BR		72	69	70	91	0	00	29.11	30.13	07	BKN	250			7.00				72	66	68	82	7	02	29.11	30.13
10	BKN	250			6.00	HZ		81	70	73	69	6	VR	29.15	30.16	10	SCT	NC			8.00				81	68	72	65	5	VR	29.14	30.15
13	SCT	NC			10.00			89	68	75	50	13	21	29.11	30.13	13	SCT	NC			10.00				90	70	76	52	6	VR	29.11	30.12
16	OVC	100			8.00	-RA		76	72	73	88	8	15	29.11	30.12	16	SCT	NC			10.00				93	68	76	44	5	30	29.06	30.07
19	OVC	150			7.00			76	72	73	88	7	18	29.14	30.16	19	SCT	NC			10.00				91	66	74	44	0	00	29.06	30.06
22	OVC	250			9.00			74	71	72	91	5	13	29.15	30.17	22	BKN	065			10.00				82	70	74	67	3	07	29.10	30.11
SUNRISE: 0555								AUG 16				SUNSET: 1926				SUNRISE: 0600								AUG 22				SUNSET: 1918				
01	OVC	250			10.00			72	70	71	94	0	00	29.18	30.19	01	CLR	NC			10.00				79	69	72	72	0	00	29.11	30.12
04	OVC	250			5.00	BR		71	70	70	96	5	05	29.16	30.18	04	CLR	NC			8.00				76	70	72	82	0	00	29.10	30.11
07	BKN	100			5.00	BR		71	70	70	96	3	23	29.21	30.23	07	FEW	NC			4.00	BR			73	70	71	90	0	00	29.16	30.17
10	BKN	250			10.00			78	70	73	76	6	27	29.23	30.25	10	CLR	NC			7.00				85	70	75	61	0	00	29.19	30.20
13	BKN	250			10.00			85	72	76	65	7	31	29.18	30.19	13	FEW	NC			10.00				92	69	76	47	7	VR	29.15	30.16
16	BKN	055			7.00	-TSRA		72	70	71	94	3	15	29.16	30.18	16	SCT	NC			9.00				94	68	76	43	6	27	29.08	30.09
19	OVC	250			6.00	BR		73	71	72	94	6	06	29.16	30.18	19	SCT	NC			8.00				89	70	76	53	7	26	29.05	30.06
22	OVC	250			5.00	BR		72	71	71	97	0	00	29.16	30.18	22	SCT	NC			8.00				82	71	74	69	0	00	29.08	30.09
SUNRISE: 0556								AUG 17				SUNSET: 1924				SUNRISE: 0601								AUG 23				SUNSET: 1917				
01	OVC	250			4.00	BR		72	71	71	97	3	32	29.14	30.15	01	SCT	NC			7.00				78	70	73	76	3	31	29.08	30.09
04	VV	001			1.00	BR		71	71	71	100	3	11	29.11	30.13	04	SCT	NC			6.00	BR			74	70	71	88	5	21	29.04	30.05
07	BKN	001			1.25	BR		72	71	71	97	5	24	29.14	30.16	07	BKN	150			5.00	HZ			76	70	72	82	3	29	29.08	30.09
10	BKN	040			7.00			76	72	73	88	9	26	29.16	30.18	10	SCT	NC			6.00	HZ			84	72	76	67	7	22	29.09	30.10
13	BKN	047			10.00			83	71	75	67	14	25	29.12	30.13	13	SCT	NC			9.00				90	69	75	50	7	VR	29.03	30.03
16	BKN	090			10.00			78	72	74	82	12	21	29.06	30.08	16	FEW	NC			10.00				93	68	76	44	12	24	28.95	29.96
19	BKN	250			10.00			79	70	73	74	12	21	29.05	30.07	19	BKN	100			10.00				88	70	75	55	6	23	28.91	29.92
22	SCT	NC			10.00			75	68	70	79	7	23	29.07	30.09	22	FEW	NC			10.00				81	70	73	69	8	24	28.94	29.94
SUNRISE: 0557								AUG 18				SUNSET: 1923				SUNRISE: 0602								AUG 24				SUNSET: 1916				
01	SCT	NC			10.00			73	69	70	87	5	27	29.07	30.08	01	FEW	NC			10.00				79	70	73	74	0	00	28.93	29.93
04	SCT	NC			10.00			69	68	68	96	0	00	29.04	30.06	04	BKN	085			10.00				78	70	73	76	8	22	28.94	29.94
07	SCT	NC			10.00			71	69	70	94	0	00	29.06	30.08	07	BKN	250			10.00				76	71	73	85	7	24	28.98	29.98
10	BKN	060			10.00			82	71	74	69	9	26	29.06	30.07	10	SCT	NC			10.00				82	72	75	72	12	23	28.97	29.98
13	BKN	045			10.00			88	72	77	59	8	21	29.00	30.01	13	BKN	060			10.00				88	71	76	57	10	27	28.93	29.94
16	BKN	090			10.00			81	70	73	69	9	25	28.97	29.98	16	SCT	NC			9.00				88	72	77	59	3	VR	28.88	29.89
19	SCT	NC			10.00			80	71	74	74	8	25	28.98	29.99	19	BKN	250			10.00				85	70	75	61	6	27	28.87	29.88
22	SCT	NC			10.00			75	70	72	84	6	25																			

# OBSERVATIONS AT 3-HOURLY INTERVALS

# KNOXVILLE, TN

AUGUST 2002

TYS

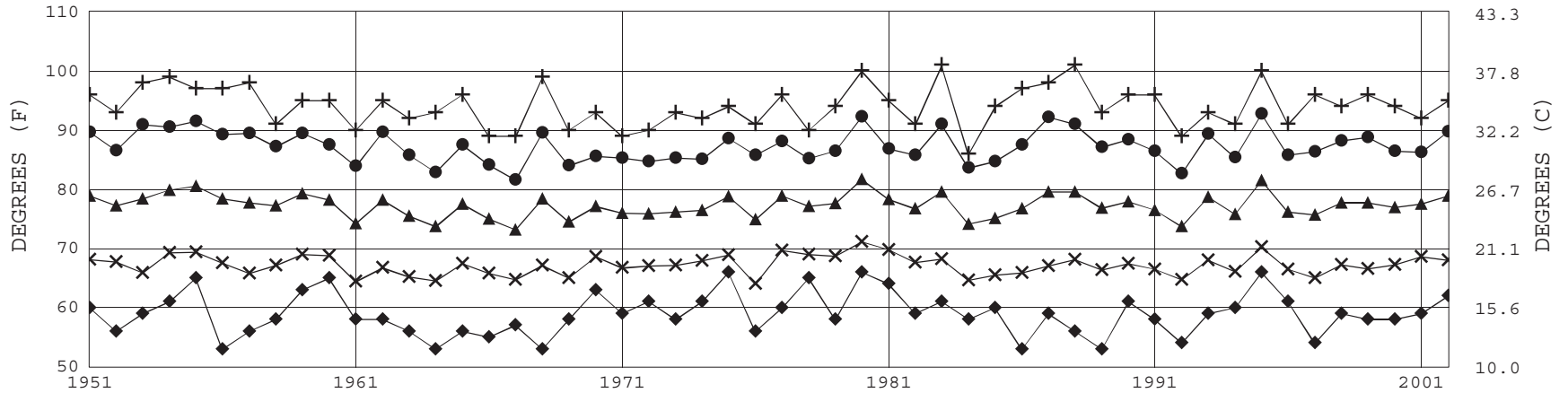
WBAN # 13891

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	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0602					AUG 25					SUNSET: 1914					SUNRISE: 0607					AUG 31					SUNSET: 1906				
01	BKN	250	10.00		76	70	72	82	0	00	28.90	29.91	01	FEW	NC	10.00		73	67	69	81	6	28	29.12	30.13				
04	OVC	065	8.00	-RA	75	71	72	88	0	00	28.88	29.89	04	BKN	043	6.00	BR	69	67	68	93	3	06	29.14	30.16				
07	OVC	070	2.50	-RA BR	73	72	72	96	5	15	28.91	29.92	07	BKN	080	7.00		69	66	67	90	3	03	29.19	30.20				
10	OVC	005	2.50	-RA BR	74	73	73	97	5	21	28.92	29.94	10	SCT	NC	10.00		77	66	70	69	0	00	29.21	30.23				
13	BKN	024	7.00		80	72	74	76	7	26	28.91	29.93	13	SCT	NC	10.00		84	66	72	55	8	36	29.17	30.18				
16	OVC	250	10.00		80	63	69	56	12	34	28.87	29.88	16	BKN	050	10.00		87	65	72	48	10	07	29.12	30.14				
19	BKN	250	10.00		74	67	69	79	3	06	28.89	29.91	19	BKN	075	10.00		81	66	71	61	6	14	29.13	30.15				
22	BKN	250	10.00		71	65	67	81	6	06	28.91	29.93	22	FEW	NC	10.00		74	66	69	76	6	31	29.17	30.18				
SUNRISE: 0603					AUG 26					SUNSET: 1913					3-HOURLY OBSERVATION NOTES														
01	CLR	NC	8.00		69	66	67	90	0	00	28.88	29.90	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	SCT	NC	3.00	BR	66	65	65	96	0	00	28.89	29.91	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																
07	OVC	004	0.75	BR	66	66	66	100	3	03	28.90	29.93	NC = No ceiling detected.																
10	BKN	250	9.00		76	67	70	74	6	36	28.91	29.93	& = Original observation contained additional weather elements.																
13	SCT	NC	9.00		82	67	72	60	8	03	28.87	29.89	See page 3 for additional notes.																
16	SCT	NC	10.00		85	66	72	53	5	VR	28.83	29.83																	
19	OVC	100	10.00	TS	76	67	70	74	21	09	28.86	29.87																	
22	OVC	100	7.00	TS	70	67	68	90	6	05	28.88	29.90																	
SUNRISE: 0604					AUG 27					SUNSET: 1912																			
01	BKN	250	5.00	BR	67	66	66	97	3	21	28.90	29.92																	
04	SCT	NC	5.00	BR	65	65	65	100	3	14	28.91	29.93																	
07	BKN	003	2.00	BR	67	66	66	97	3	06	28.95	29.97																	
10	SCT	NC	9.00		73	66	68	79	6	06	28.97	29.99																	
13	SCT	NC	10.00		82	67	72	60	5	VR	28.96	29.98																	
16	SCT	NC	10.00	TS	84	65	71	53	7	24	28.92	29.93																	
19	BKN	150	10.00		74	65	68	74	0	00	28.96	29.98																	
22	BKN	250	10.00		70	63	66	79	8	09	28.99	30.01																	
SUNRISE: 0605					AUG 28					SUNSET: 1910																			
01	CLR	NC	10.00		68	63	65	84	7	01	28.98	30.00																	
04	CLR	NC	8.00		64	62	63	93	5	06	28.98	29.99																	
07	OVC	002	1.00	BR	66	65	65	96	6	06	29.01	30.03																	
10	SCT	NC	7.00		73	66	69	79	8	07	29.03	30.05																	
13	SCT	NC	10.00		82	66	71	58	8	06	28.99	30.01																	
16	SCT	NC	10.00		85	63	71	48	9	01	28.94	29.95																	
19	SCT	NC	10.00		82	62	69	51	7	02	28.94	29.95																	
22	BKN	080	10.00		75	65	69	71	7	03	28.97	29.99																	
SUNRISE: 0605					AUG 29					SUNSET: 1909																			
01	CLR	NC	10.00		71	64	67	79	5	03	28.97	29.98																	
04	FEW	NC	10.00		68	63	65	84	0	00	28.98	30.00																	
07	SCT	NC	10.00		67	64	65	91	0	00	29.02	30.03																	
10	SCT	NC	10.00		76	66	69	72	3	VR	29.03	30.04																	
13	SCT	NC	10.00		82	66	71	58	3	VR	29.00	30.01																	
16	SCT	NC	10.00		84	65	71	53	7	VR	28.96	29.98																	
19	BKN	065	10.00	TS	79	67	71	67	7	31	28.97	29.98																	
22	OVC	047	10.00		74	68	70	82	5	21	29.01	30.03																	
SUNRISE: 0606					AUG 30					SUNSET: 1908																			
01	BKN	100	10.00		73	67	69	81	0	00	29.03	30.04																	
04	OVC	046	10.00		71	68	69	90	0	00	29.04	30.06																	
07	BKN	050	8.00		69	67	68	93	3	05	29.09	30.11																	
10	BKN	050	10.00		78	67	71	69	5	04	29.10	30.12																	
13	SCT	NC	10.00		86	67	73	53	5	04	29.08	30.09																	
16	BKN	250	10.00		87	64	72	46	9	09	29.04	30.05																	
19	SCT	NC	10.00		82	65	71	56	5	07	29.05	30.06																	
22	FEW	NC	10.00		77	67	70	71	0	00	29.10	30.12																	

## 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)	DIRECTION	
							STATION	SEA LEVEL				
01			73	66	69	81	29.03	30.04	8.16	3	1	33
02			72	66	69	83	29.02	30.03	7.71	4	1	35
03			71	67	68	86	29.02	30.03	7.06	3	1	34
04			70	66	68	87	29.02	30.03	7.03	3	1	5
05			70	66	67	89	29.03	30.04	6.47	2	0	0
06			69	66	67	90	29.04	30.06	5.69	2	1	4
07			70	67	68	90	29.06	30.07	5.08	3	1	3
08			73	67	69	83	29.07	30.09	5.86	4	1	4
09			76	68	70	77	29.08	30.09	6.68	4	0	0
10			79	68	72	69	29.08	30.09	7.61	5	1	30
11			82	68	73	64	29.07	30.09	8.44	5	2	24
12			84	68	73	59	29.06	30.07	8.94	6	3	29
13			86	68	74	55	29.04	30.06	8.97	7	3	29
14			87	67	74	54	29.03	30.04	8.95	7	3	30
15			87	67	73	53	29.01	30.02	8.89	7	2	27
16			87	66	73	52	29.00	30.01	9.26	7	2	30
17			86	65	72	52	28.99	30.00	9.45	6	0	0
18			85	66	72	55	28.99	30.00	9.16	6	2	30
19			83	67	72	60	28.99	30.01	9.00	5	1	28
20			80	67	71	66	29.01	30.02	9.00	5	1	27
21			78	67	71	71	29.02	30.03	8.87	5	1	4
22			76	67	70	74	29.03	30.05	8.81	4	1	5
23			75	67	70	77	29.04	30.05	8.55	4	1	36
24			74	67	69	78	29.04	30.05	8.45	4	1	33

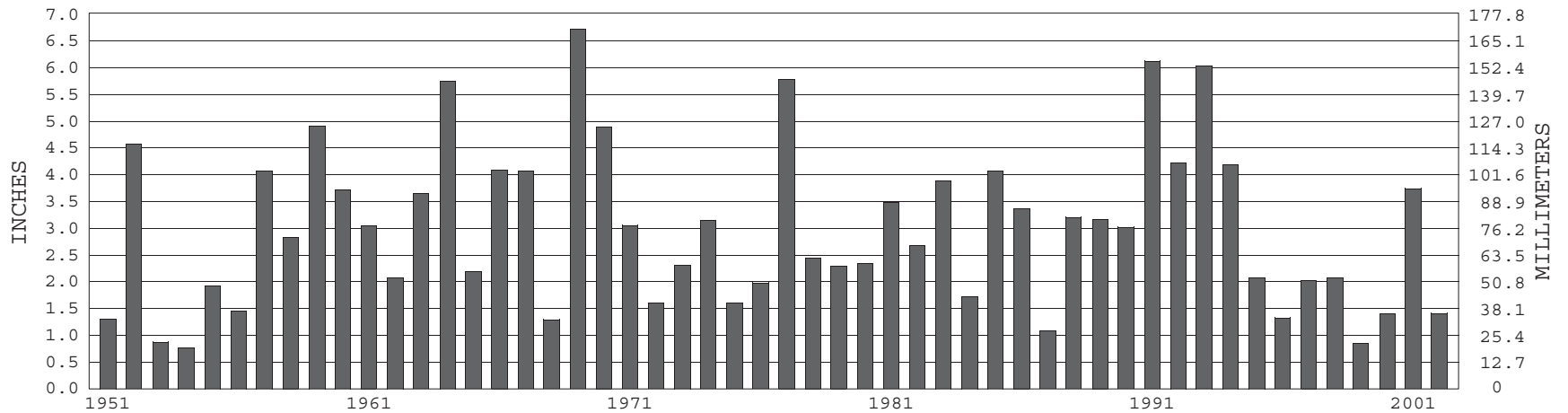
### KNOXVILLE, TN AUGUST TEMPERATURES



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

Long-Term (1951-2002) Mean: 77.3      1961-1990 Normal: 76.9

### KNOXVILLE, TN AUGUST PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 3.00

1961-1990 Normal: 2.89



AUGUST 2002

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.*

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