APRIL 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 MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	DEG DAYS BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER EQUIV	PRECIPITATION (INCHES) 2400 LST SNOW−FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 5−SEC SPEED	5−SEC DIR	MAXIMUM 2−MIN SPEED	2−MIN DIR	DATE
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	65	42	54	0	42	48	11	0	FG+ BR				0.00	28.98	30.02	0.8	29	2.3	12	23	9	25	01
02	78	40	59	5	44	51	6	0					0.00	28.91	29.94	6.6	24	8.0	26	25	23	24	02
03	64	40	52	-2	41	47	13	0	DZ				T	29.04	30.07	5.5	34	9.7	21	31	17	36	03
04	56	36	46	-8	26	38	19	0					0.00	29.20	30.26	9.0	03	10.0	24	08	20	08	04
05	59	36	48	-6	24	38	17	0					0.00	29.22	30.28	6.9	02	7.7	20	01	16	03	05
06	57	33*	45*	-10	25	38	20	0					0.00	29.21	30.27	3.8	02	5.7	22	02	17	02	06
07	69	34	52	-3	28	42	13	0					0.00	29.17	30.22	1.7	25	6.9	22	25	20	25	07
08	75	57	66	10	46	56	0	1					0.00	29.06	30.09	16.9	18	17.3	40	20	32	20	08
09	72	60	66	10	57	60	0	1	RA BR				0.29	29.11	30.14	5.5	26	8.8	29	25	25	24	09
10	75	53	64	8	51	57	1	0					0.00	29.23	30.27	6.8	04	7.5	20	05	17	04	10
11	80	54	67	11	54	60	0	2					0.00	29.21	30.24	1.5	21	5.2	22	18	18	19	11
12	76	56	66	9	57	61	0	1	RA BCFG BR				T	29.17	30.20	1.4	25	4.7	18	25	16	24	12
13	78	53	66	9	59	61	0	1	FG+ BCFG BR				0.00	29.11	30.14	2.3	24	4.1	17	25	14	27	13
14	76	60	68	11	60	63	0	3	RA				T	29.01	30.03	6.3	24	7.7	25	25	21	23	14
15	84	57	71	13	60	64	0	6	RA BR				T	29.03	30.05	2.3	26	3.7	18	25	13	28	15
16	86	63	75	16	62	67	0	10	BR				0.00	29.11	30.13	4.9	25	5.9	20	27	15	22	16
17	83	65	74	15	63	67	0	9					0.00	29.14	30.16	3.2	25	4.3	13	27	10	26	17
18	87	60	74	15	61	66	0	9	BCFG BR HZ				0.00	29.08	30.10	1.6	26	3.6	16	26	14	25	18
19	88*	65	77	18	62	67	0	12					0.00	29.02	30.04	6.2	24	6.8	22	24	17	25	19
20	87	68	78*	19	63	68	0	13	RA				T	28.94	29.95	5.5	24	6.1	22	27	16	25	20
21	86	67	77	17	63	68	0	12	HZ				0.00	28.85	29.85	13.4	23	13.7	30	22	25	22	21
22	76	53	65	5	46	55	0	0	TSRA RA BR				0.09	28.96	29.98	9.6	27	11.9	25	28	21	28	22
23	69	43	56	-4	41	49	9	0					0.00	29.11	30.15	3.3	04	4.4	15	03	10	36	23
24	63	46	55	-5	50	53	10	0	TS TSRA RA BR				0.18	29.04	30.08	3.1	04	5.7	20	03	17	18	24
25	67	49	58	-2	43	51	7	0	TSRA RA BR				0.69	29.11	30.15	5.3	34	8.7	28	36	23	17	25
26	60	41	51	-10	38	46	14	0	RA				T	29.21	30.26	3.7	04	5.0	14	09	12	09	26
27	69	50	60	-1	51	55	5	0	RA				T	29.08	30.12	2.5	28	5.6	16	18	14	18	27
28	84	63	74	13	63	66	0	9	RA				T	28.84	29.85	16.7	23	17.8	40*	24	32*	24	28
29	72	51	62	0	47	54	3	0					0.00	28.95	29.98	3.3	29	5.3	16	29	13	30	29
30	75	46	61	-1	51	55	4	0	RA BR				0.19	28.90	29.93	5.1	24	6.8	21	22	17	22	30
	73.9	51.4	62.7		49.3	55.7	5.1	3.0	< MONTHLY AVERAGES TOTALS−>				1.44	29.07	30.10	2.5	26	7.4					<− MONTHLY AVERAGES
	4.9	4.8	4.9		<−−−−−−−−−−−−−DEPARTURE FROM NORMAL−−−−−−−−−−−−−>								-2.55	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	152	-82	3213	-630
COOLING:	89	62	91	58

GREATEST 24−HR PRECIPITATION: 0.87 DATE :24-25
GREATEST 24−HR SNOWFALL: DATE :
GREATEST SNOW DEPTH: DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM	30.35	05	0953
MINIMUM	29.76	28	1553

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	0	MINIMUM TEMP ≤ 32 :	0
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	3	HEAVY FOG :	2
PRECIPITATION ≥ 0.01 INCH :	5		
PRECIPITATION ≥ 0.10 INCH :	4		
SNOWFALL ≥ 1.0 INCH :			

APRIL 2002
KNOXVILLE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN

APRIL 2002 TYS WBAN # 13891

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT											DATE	Sum if Different (See Note)	2400 LST Water Equiv.
	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													01													01		0.00
02													02													02		0.00
03													03		T											03		T
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				T	T	T	0.06	0.04	0.04	T			09				0.01	0.14								09		0.29
10													10													10		0.00
11													11													11		0.00
12													12			T		T				T	T			12		T
13													13													13		0.00
14								T					14			T	T									14		T
15													15											T		15		T
16													16													16		0.00
17													17													17		0.00
18													18													18		0.00
19													19													19		0.00
20													20		T											20		T
21													21													21		0.00
22				T	0.09		T	T					22													22		0.09
23													23													23		0.00
24									0.01	T		T	24	T			0.02	0.05						0.07	24	0.15	0.18
25	0.49	0.22	0.01	T									25													25	0.72	0.69
26													26				T									26		T
27													27							T	T					27		T
28	T	T			T			T	T				28			T										28		T
29													29													29		0.00
30													30										T	0.03	0.14	30	0.17	0.19

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.12	.16	.20	.26	.35	.49	.55	.65	.71	.74	.78	.79
Ending Date	09	25	25	25	25	25	25	25	25	25	25	25
Ending Time (Hour/Min)	1642	0037	0037	0036	0057	0059	0107	0111	0131	0142	0149	0202

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 occurence 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		
DESCRIPTOR	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
APRIL 2002

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 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
			SR−SS		MN−MN				
	TOTAL MINUTES	PERCENT POSSIBLE	CEILOMETER	SATELLITE	CEILOMETER	SATELLITE	MINIMUM	MAXIMUM	
01							<.25	10.00	
02							9.00	10.00	
03							9.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							9.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							1.75	10.00	
10							8.00	10.00	
11							10.00	10.00	
12							6.00	10.00	
13							.25	10.00	
14							8.00	10.00	
15							5.00	10.00	
16							5.00	10.00	
17							7.00	10.00	
18							4.00	10.00	
19							8.00	10.00	
20							10.00	10.00	
21							6.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							3.00	10.00	
25							1.50	10.00	
26							10.00	10.00	
27							9.00	10.00	
28							6.00	10.00	
29							10.00	10.00	
30							2.50	10.00	
MONTHLY AVGS							7.00	10.00	

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
1	6	18

OBSERVATIONS AT 3–HOURLY INTERVALS

KNOXVILLE, TN

APRIL 2002 TYS WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE OBSERVATION TIME (LST)	SATELLITE EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉ DRY BULB	TEMPERATURE ℉ DEW POINT	TEMPERATURE ℉ WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION TENS OF DEG	PRESSURE (INCHES,HG) STATION	PRESSURE (INCHES,HG) SEA LEVEL
					SUNRISE: 0623	**APR 01**			**SUNSET: 1858**					
01	OVC	028			10.00		51	48	50	89	0	00	28.94	29.98
04	CLR	NC			10.00		48	46	47	93	0	00	28.95	29.99
07	BKN	001			0.25	FG	44	43	44	96	7	33	29.02	30.07
10	SCT	NC			10.00		52	44	48	75	3	VR	29.06	30.11
13	FEW	NC			10.00		60	39	50	46	6	VR	29.03	30.07
16	SCT	NC			10.00		62	34	49	35	3	24	28.96	30.00
19	CLR	NC			10.00		61	37	49	41	0	00	28.93	29.97
22	CLR	NC			10.00		51	42	47	71	0	00	28.95	29.99
					SUNRISE: 0621	**APR 02**			**SUNSET: 1858**					
01	CLR	NC			10.00		49	39	44	69	0	00	28.95	29.99
04	CLR	NC			10.00		41	39	40	93	5	06	28.95	29.99
07	CLR	NC			10.00		42	39	41	89	0	00	28.98	30.02
10	CLR	NC			10.00		58	43	50	58	0	00	28.96	30.00
13	CLR	NC			10.00		74	45	58	36	20	24	28.90	29.93
16	SCT	NC			10.00		77	46	60	33	18	24	28.83	29.85
19	FEW	NC			10.00		72	45	57	38	12	25	28.84	29.87
22	CLR	NC			10.00		65	46	55	51	6	24	28.87	29.90
					SUNRISE: 0620	**APR 03**			**SUNSET: 1859**					
01	CLR	NC			9.00		61	49	54	65	9	26	28.87	29.88
04	SCT	NC			10.00		62	51	56	67	12	24	28.86	29.87
07	BKN	055			10.00		58	48	53	70	10	28	28.93	29.96
10	OVC	020			10.00		54	43	48	67	9	36	29.02	30.05
13	OVC	024			10.00		49	41	45	74	14	36	29.09	30.13
16	OVC	032			10.00		49	38	44	66	9	07	29.10	30.14
19	FEW	NC			10.00		48	32	41	54	10	02	29.14	30.18
22	FEW	NC			10.00		43	28	37	56	12	01	29.20	30.24
					SUNRISE: 0618	**APR 04**			**SUNSET: 1900**					
01	OVC	045			10.00		41	29	36	62	9	04	29.20	30.25
04	FEW	NC			10.00		39	27	34	62	13	03	29.19	30.25
07	SCT	NC			10.00		36	28	33	73	9	04	29.23	30.30
10	SCT	NC			10.00		45	26	37	48	13	05	29.24	30.31
13	SCT	NC			10.00		52	26	41	37	10	03	29.22	30.28
16	SCT	NC			10.00		55	24	42	30	9	01	29.16	30.21
19	FEW	NC			10.00		53	25	41	34	6	02	29.17	30.22
22	BKN	140			10.00		50	25	40	38	15	01	29.20	30.25
					SUNRISE: 0617	**APR 05**			**SUNSET: 1900**					
01	CLR	NC			10.00		44	25	37	47	8	01	29.21	30.27
04	CLR	NC			10.00		40	25	34	55	0	00	29.21	30.27
07	FEW	NC			10.00		37	26	33	65	5	03	29.26	30.32
10	CLR	NC			10.00		48	27	39	44	8	04	29.29	30.35
13	CLR	NC			10.00		53	23	41	31	7	06	29.23	30.29
16	CLR	NC			10.00		57	23	43	27	8	05	29.17	30.22
19	CLR	NC			10.00		53	18	39	25	10	02	29.18	30.23
22	CLR	NC			10.00		46	21	36	37	8	36	29.21	30.27
					SUNRISE: 0615	**APR 06**			**SUNSET: 1901**					
01	CLR	NC			10.00		43	23	35	45	5	02	29.21	30.27
04	CLR	NC			10.00		39	24	33	55	0	00	29.19	30.24
07	CLR	NC			9.00		35	27	32	72	0	00	29.22	30.28
10	CLR	NC			10.00		50	26	40	39	3	VR	29.24	30.31
13	CLR	NC			10.00		54	27	42	35	12	02	29.23	30.29
16	CLR	NC			10.00		57	25	43	29	12	36	29.19	30.24
19	CLR	NC			10.00		51	24	40	35	7	05	29.19	30.25
22	CLR	NC			10.00		46	24	37	42	7	02	29.21	30.27

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE OBSERVATION TIME (LST)	SATELLITE EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉ DRY BULB	TEMPERATURE ℉ DEW POINT	TEMPERATURE ℉ WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION TENS OF DEG	PRESSURE (INCHES,HG) STATION	PRESSURE (INCHES,HG) SEA LEVEL
					SUNRISE: 0614	**APR 07**			**SUNSET: 1902**					
01	CLR	NC			10.00		38	26	33	62	7	06	29.21	30.27
04	CLR	NC			10.00		38	24	33	57	9	03	29.17	30.22
07	CLR	NC			10.00		37	23	32	57	0	00	29.22	30.29
10	CLR	NC			10.00		48	26	39	42	0	00	29.25	30.32
13	FEW	NC			10.00		62	29	47	29	5	29	29.19	30.24
16	BKN	200			10.00		68	33	51	27	13	24	29.10	30.14
19	BKN	200			10.00		62	31	48	31	13	24	29.10	30.14
22	BKN	200			10.00		57	32	46	39	7	15	29.12	30.16
					SUNRISE: 0613	**APR 08**			**SUNSET: 1903**					
01	SCT	NC			10.00		58	35	47	42	7	15	29.09	30.12
04	BKN	200			10.00		59	43	51	56	16	19	29.10	30.13
07	SCT	NC			10.00		59	46	52	62	12	18	29.12	30.15
10	BKN	250			10.00		68	48	57	49	25	18	29.10	30.14
13	SCT	NC			10.00		73	48	59	41	24	18	29.08	30.10
16	BKN	250			10.00		73	46	58	38	20	19	29.03	30.05
19	BKN	250			10.00		72	47	58	41	17	18	28.97	30.00
22	OVC	095			10.00		71	48	58	44	16	18	29.00	30.03
					SUNRISE: 0611	**APR 09**			**SUNSET: 1903**					
01	OVC	060			10.00		67	53	59	61	17	23	29.03	30.05
04	OVC	085			10.00		64	55	59	73	8	18	29.01	30.03
07	OVC	036			2.50	-RA BR	61	58	59	90	7	30	29.06	30.09
10	OVC	006			5.00	BR	62	59	60	90	7	24	29.11	30.14
13	BKN	040			10.00		69	60	64	73	14	23	29.11	30.13
16	BKN	055			8.00		68	61	64	78	10	27	29.10	30.13
19	SCT	NC			10.00		65	59	61	81	0	00	29.15	30.19
22	OVC	058			10.00		62	54	57	75	9	36	29.22	30.26
					SUNRISE: 0610	**APR 10**			**SUNSET: 1904**					
01	OVC	037			10.00		58	51	54	78	8	03	29.25	30.29
04	BKN	055			10.00		54	49	51	83	6	02	29.23	30.27
07	BKN	028			10.00		55	50	52	83	9	03	29.27	30.31
10	SCT	NC			10.00		64	52	57	65	10	05	29.28	30.32
13	FEW	NC			10.00		71	53	61	53	8	07	29.24	30.28
16	FEW	NC			10.00		75	52	62	45	10	04	29.18	30.21
19	SCT	NC			10.00		71	51	60	49	7	02	29.17	30.21
22	OVC	065			10.00		67	50	57	55	5	06	29.21	30.25
					SUNRISE: 0609	**APR 11**			**SUNSET: 1905**					
01	BKN	080			10.00		64	54	58	70	3	27	29.23	30.26
04	FEW	NC			10.00		57	51	54	81	5	06	29.21	30.25
07	SCT	NC			10.00		56	51	53	84	3	07	29.25	30.29
10	FEW	NC			10.00		69	57	62	66	6	08	29.26	30.30
13	SCT	NC			10.00		75	58	65	55	3	20	29.22	30.25
16	BKN	110			10.00		75	57	64	54	6	27	29.16	30.19
19	BKN	110			10.00		72	59	64	64	7	24	29.15	30.18
22	SCT	NC			10.00		70	49	58	47	16	18	29.19	30.22
					SUNRISE: 0607	**APR 12**			**SUNSET: 1906**					
01	BKN	080			10.00		67	50	57	55	0	00	29.19	30.21
04	FEW	NC			10.00		60	52	56	75	0	00	29.17	30.20
07	BKN	250			10.00		60	53	56	78	3	35	29.21	30.24
10	SCT	NC			10.00		71	54	61	55	3	VR	29.21	30.24
13	OVC	080			10.00		74	58	64	57	0	00	29.18	30.20
16	OVC	060			10.00		70	61	64	73	13	23	29.15	30.18
19	BKN	120			10.00		65	62	63	90	8	26	29.14	30.17
22	BKN	110			9.00		62	61	61	96	0	00	29.14	30.17

OBSERVATIONS AT 3–HOURLY INTERVALS

KNOXVILLE, TN

APRIL 2002 TYS WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0606	**APR 13**			**SUNSET: 1907**					
01	SCT	NC			5.00	BCFG	59	59	59	100	0	00	29.15	30.18
04	BKN	001			1.00	BR	55	55	55	100	3	13	29.13	30.16
07	BKN	120			2.50	BR	56	56	56	100	0	00	29.16	30.19
10	BKN	100			10.00		66	59	62	78	3	VR	29.16	30.19
13	SCT	NC			10.00		74	59	65	60	9	25	29.11	30.14
16	BKN	090			10.00		77	58	65	52	7	22	29.05	30.07
19	BKN	110			10.00		70	59	63	68	12	27	29.07	30.10
22	OVC	075			10.00		67	61	63	81	3	30	29.09	30.12
					SUNRISE: 0605	**APR 14**			**SUNSET: 1908**					
01	SCT	NC			10.00		63	60	61	90	5	32	29.06	30.09
04	OVC	070			10.00		62	60	61	93	5	29	29.03	30.05
07	OVC	065			10.00		62	59	60	90	0	00	29.05	30.07
10	OVC	060			10.00		66	60	62	81	10	26	29.05	30.08
13	SCT	NC			10.00		75	60	66	60	14	23	28.99	30.02
16	BKN	110			10.00		72	61	65	69	10	21	28.95	29.98
19	BKN	090			10.00		70	61	64	73	7	22	28.95	29.98
22	SCT	NC			10.00		65	60	62	84	7	26	28.97	30.00
					SUNRISE: 0603	**APR 15**			**SUNSET: 1908**					
01	CLR	NC			10.00		62	58	60	86	7	25	28.97	29.99
04	SCT	NC			10.00		61	57	59	87	3	28	28.99	30.01
07	SCT	NC			6.00	BR	57	57	57	100	0	00	29.04	30.07
10	SCT	NC			10.00		70	61	64	73	0	00	29.10	30.13
13	SCT	NC			10.00		77	62	68	60	5	VR	29.06	30.08
16	FEW	NC			10.00		82	61	69	49	5	VR	28.99	30.01
19	SCT	NC			10.00		79	59	66	50	5	29	28.99	30.01
22	OVC	070			9.00		71	62	65	73	5	19	29.05	30.07
					SUNRISE: 0602	**APR 16**			**SUNSET: 1909**					
01	FEW	NC			10.00		71	60	64	68	5	24	29.07	30.09
04	SCT	NC			10.00		66	60	62	81	5	24	29.10	30.11
07	BKN	250			5.00	BR	65	61	63	87	3	20	29.15	30.17
10	SCT	NC			10.00		77	63	68	62	12	22	29.18	30.20
13	SCT	NC			10.00		83	64	71	53	8	23	29.14	30.16
16	SCT	NC			10.00		85	63	71	48	12	28	29.07	30.09
19	SCT	NC			10.00		81	61	68	51	0	00	29.07	30.09
22	SCT	NC			10.00		74	62	66	67	7	24	29.11	30.13
					SUNRISE: 0601	**APR 17**			**SUNSET: 1910**					
01	SCT	NC			10.00		72	61	65	69	0	00	29.13	30.14
04	OVC	100			10.00		68	62	64	81	5	24	29.13	30.15
07	BKN	250			10.00		67	62	64	84	3	26	29.18	30.20
10	BKN	250			10.00		76	64	68	67	8	25	29.21	30.23
13	OVC	250			10.00		79	63	69	58	6	VR	29.16	30.17
16	BKN	250			10.00		82	61	69	49	3	VR	29.08	30.10
19	BKN	250			10.00		79	63	69	58	3	31	29.09	30.11
22	CLR	NC			10.00		71	64	67	79	6	23	29.12	30.13
					SUNRISE: 0559	**APR 18**			**SUNSET: 1911**					
01	CLR	NC			8.00		67	62	64	84	6	04	29.12	30.14
04	CLR	NC			5.00	BR	62	61	61	96	0	00	29.12	30.14
07	FEW	NC			4.00	BR	62	61	61	96	3	07	29.16	30.18
10	SCT	NC			8.00		76	65	69	69	3	VR	29.15	30.17
13	SCT	NC			10.00		84	63	70	49	6	33	29.09	30.10
16	SCT	NC			10.00		87	62	71	43	6	26	29.01	30.03
19	SCT	NC			10.00		83	58	67	43	5	26	29.00	30.02
22	CLR	NC			10.00		75	60	66	60	3	12	29.02	30.04

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0558	**APR 19**			**SUNSET: 1912**					
01	FEW	NC			10.00		70	59	63	68	9	23	29.02	30.04
04	BKN	200			10.00		71	59	64	66	0	00	29.02	30.03
07	BKN	140			8.00		66	62	64	87	0	00	29.07	30.09
10	BKN	250			10.00		78	64	69	62	10	23	29.09	30.10
13	SCT	NC			10.00		84	65	71	53	9	27	29.04	30.06
16	SCT	NC			10.00		87	59	69	39	15	25	28.98	30.00
19	OVC	170			10.00		79	63	69	58	7	24	28.97	29.99
22	BKN	200			10.00		74	62	66	67	7	19	28.97	29.98
					SUNRISE: 0557	**APR 20**			**SUNSET: 1913**					
01	SCT	NC			10.00		73	61	66	66	0	00	29.00	30.01
04	OVC	200			10.00		71	62	65	73	0	00	28.99	30.00
07	BKN	120			10.00		70	62	65	76	8	27	28.99	30.01
10	BKN	250			10.00		78	63	68	60	12	25	29.00	30.01
13	BKN	055			10.00		82	64	70	55	12	28	28.95	29.96
16	SCT	NC			10.00		86	61	70	43	5	VR	28.87	29.87
19	BKN	250			10.00		78	63	68	60	9	22	28.86	29.86
22	SCT	NC			10.00		74	63	67	69	5	20	28.89	29.90
					SUNRISE: 0556	**APR 21**			**SUNSET: 1914**					
01	BKN	095			10.00		71	63	66	76	6	23	28.89	29.90
04	SCT	NC			9.00		69	62	65	78	8	24	28.87	29.87
07	BKN	200			6.00	HZ	69	63	65	81	7	24	28.90	29.91
10	BKN	200			10.00		78	65	70	64	14	26	28.91	29.92
13	BKN	080			10.00		81	65	70	58	16	22	28.86	29.87
16	SCT	NC			10.00		85	63	70	48	21	21	28.79	29.80
19	SCT	NC			10.00		80	61	68	52	16	22	28.77	29.77
22	SCT	NC			10.00		75	61	66	62	14	23	28.82	29.83
					SUNRISE: 0554	**APR 22**			**SUNSET: 1914**					
01	OVC	080			10.00		75	61	66	62	17	22	28.80	29.81
04	BKN	035			10.00		70	65	67	84	14	22	28.80	29.80
07	OVC	070			10.00		59	49	54	69	9	19	28.95	29.97
10	BKN	250			10.00		62	44	53	52	15	28	28.99	30.01
13	SCT	NC			10.00		67	44	55	44	16	28	28.98	30.00
16	SCT	NC			10.00		71	39	54	31	16	28	28.95	29.98
19	SCT	NC			10.00		65	40	52	40	14	32	29.01	30.04
22	CLR	NC			10.00		58	38	48	48	7	32	29.08	30.11
					SUNRISE: 0553	**APR 23**			**SUNSET: 1915**					
01	CLR	NC			10.00		53	38	46	57	6	34	29.08	30.12
04	CLR	NC			10.00		48	39	44	71	0	00	29.10	30.14
07	CLR	NC			10.00		45	41	43	86	3	04	29.16	30.20
10	FEW	NC			10.00		57	40	49	53	6	VR	29.17	30.21
13	BKN	250			10.00		64	39	51	40	9	36	29.15	30.19
16	BKN	250			10.00		68	41	54	38	5	VR	29.10	30.14
19	BKN	120			10.00		65	44	54	47	3	08	29.08	30.12
22	OVC	120			10.00		61	44	52	54	0	00	29.09	30.12
					SUNRISE: 0552	**APR 24**			**SUNSET: 1916**					
01	SCT	NC			10.00		54	45	49	72	0	00	29.08	30.12
04	SCT	NC			10.00		49	45	47	86	0	00	29.07	30.11
07	BKN	090			10.00		51	46	49	83	8	03	29.09	30.13
10	OVC	090			10.00		56	47	51	72	0	00	29.11	30.14
13	OVC	080			10.00		61	49	54	65	6	05	29.07	30.11
16	OVC	045			5.00	-RA BR	57	53	55	87	6	29	29.08	30.12
19	BKN	070			10.00		62	55	58	78	0	00	28.94	29.97
22	OVC	065			9.00		58	56	57	93	3	35	28.98	30.02

OBSERVATIONS AT 3–HOURLY INTERVALS

KNOXVILLE, TN

APRIL 2002 TYS WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0551	**APR 25**			**SUNSET: 1917**					
01	OVC	017			2.00	+TSRA BR	57	57	57	100	9	36	29.04	30.08
04	BKN	075			10.00		59	58	58	96	7	28	28.97	30.00
07	OVC	011			10.00		58	56	57	93	10	29	29.05	30.09
10	SCT	NC			10.00		58	43	50	58	12	32	29.17	30.21
13	SCT	NC			10.00		62	40	51	44	8	02	29.16	30.19
16	FEW	NC			10.00		65	33	50	31	6	27	29.12	30.15
19	FEW	NC			10.00		62	33	48	34	9	02	29.12	30.15
22	BKN	250			10.00		54	33	44	45	6	03	29.19	30.23
					SUNRISE: 0550	**APR 26**			**SUNSET: 1918**					
01	FEW	NC			10.00		46	36	42	68	5	04	29.20	30.24
04	SCT	NC			10.00		44	36	40	73	7	02	29.18	30.23
07	BKN	180			10.00		45	38	42	77	7	02	29.21	30.26
10	OVC	250			10.00		55	36	46	49	9	05	29.24	30.29
13	OVC	250			10.00		59	37	48	44	6	04	29.25	30.30
16	OVC	080			10.00		59	36	48	42	5	07	29.20	30.24
19	OVC	075			10.00		57	38	48	49	3	13	29.18	30.23
22	OVC	075			10.00		55	44	50	67	6	22	29.21	30.25
					SUNRISE: 0548	**APR 27**			**SUNSET: 1919**					
01	OVC	065			10.00		53	46	49	77	3	24	29.19	30.23
04	BKN	070			10.00		51	48	50	89	3	06	29.16	30.20
07	OVC	080			10.00		52	48	50	86	3	05	29.16	30.21
10	SCT	NC			10.00		61	45	53	56	5	01	29.14	30.18
13	OVC	047			10.00		65	51	57	61	9	28	29.09	30.12
16	OVC	046			10.00		68	55	60	63	6	32	29.03	30.06
19	BKN	075			9.00	-RA	67	56	60	68	14	18	28.96	30.00
22	OVC	200			10.00		64	57	60	78	6	23	28.95	29.98
					SUNRISE: 0547	**APR 28**			**SUNSET: 1919**					
01	OVC	090			10.00	-RA	64	58	60	81	7	13	28.88	29.91
04	OVC	047			8.00		69	61	64	76	17	23	28.88	29.91
07	OVC	041			7.00		70	62	65	76	22	21	28.87	29.89
10	OVC	090			7.00		70	65	67	84	22	23	28.87	29.90
13	BKN	030			9.00		80	67	71	64	22	23	28.82	29.83
16	BKN	110			10.00		79	65	70	62	22	24	28.76	29.76
19	SCT	NC			10.00		75	60	66	60	17	26	28.81	29.82
22	SCT	NC			10.00		67	61	63	81	9	23	28.84	29.85
					SUNRISE: 0546	**APR 29**			**SUNSET: 1920**					
01	SCT	NC			10.00		65	60	62	84	5	29	28.87	29.89
04	SCT	NC			10.00		56	48	52	75	5	27	28.90	29.92
07	CLR	NC			10.00		53	46	49	77	8	26	28.97	30.00
10	SCT	NC			10.00		58	46	52	65	0	00	28.99	30.02
13	SCT	NC			10.00		65	48	56	54	8	25	28.98	30.01
16	SCT	NC			10.00		71	45	57	39	5	VR	28.93	29.96
19	SCT	NC			10.00		68	46	56	45	3	VR	28.92	29.95
22	SCT	NC			10.00		56	49	52	77	3	04	28.98	30.01
					SUNRISE: 0545	**APR 30**			**SUNSET: 1921**					
01	CLR	NC			10.00		52	48	50	86	0	00	28.97	30.01
04	CLR	NC			10.00		49	46	47	90	3	07	28.96	29.99
07	SCT	NC			10.00		50	47	48	89	0	00	28.98	30.02
10	BKN	250			10.00		64	50	56	61	5	16	28.97	30.00
13	BKN	250			10.00		74	48	59	40	6	31	28.92	29.95
16	OVC	250			10.00		72	52	60	50	14	27	28.84	29.86
19	OVC	050			10.00		67	54	59	63	14	25	28.84	29.87
22	OVC	050			10.00	-RA	61	58	59	90	17	19	28.75	29.77

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE:	**APR 31**			**SUNSET:**					

3–HOURLY OBSERVATION NOTES

Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8–2/8, SCT = 3/8–4/8, BKN = 5/8–7/8, OVC = 8/8, VV = Vertical Visibilty = 8/8.
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC= No ceiling detected.
& = Original observation contained additional weather elements.
See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES: CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL	VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH): SPEED	RESULTANT WIND (MPH): DIRECTION
01			59	49	54	71	29.06	30.09	9.47	5	1	28
02			58	49	53	73	29.05	30.09	9.42	6	1	28
03			57	49	53	76	29.05	30.08	9.32	5	2	23
04			56	49	52	78	29.05	30.08	9.43	5	1	24
05			55	48	52	80	29.06	30.09	9.03	5	2	29
06			54	48	51	81	29.08	30.11	8.61	5	1	31
07			55	49	52	82	29.10	30.13	8.34	5	1	28
08			57	49	53	76	29.11	30.15	8.84	7	1	33
09			60	50	55	70	29.12	30.15	9.13	7	1	29
10			63	49	56	62	29.12	30.15	9.67	7	2	25
11			66	50	57	57	29.12	30.15	9.87	6	2	25
12			68	50	58	54	29.10	30.13	9.97	8	4	26
13			69	50	59	51	29.08	30.12	9.97	9	4	26
14			70	49	59	48	29.07	30.10	9.97	10	5	25
15			71	49	59	47	29.05	30.07	9.90	9	5	25
16			71	49	59	47	29.03	30.06	9.77	9	5	25
17			71	49	59	48	29.03	30.05	9.90	10	5	24
18			70	49	58	49	29.03	30.06	10.00	10	5	27
19			68	49	57	53	29.03	30.06	9.97	8	3	26
20			65	49	56	57	29.04	30.07	9.90	6	2	27
21			64	49	56	60	29.05	30.08	9.90	7	3	27
22			62	49	55	64	29.05	30.08	9.90	7	2	23
23			61	49	55	67	29.06	30.09	9.73	7	2	22
24			60	49	54	69	29.06	30.09	9.22	6	2	26

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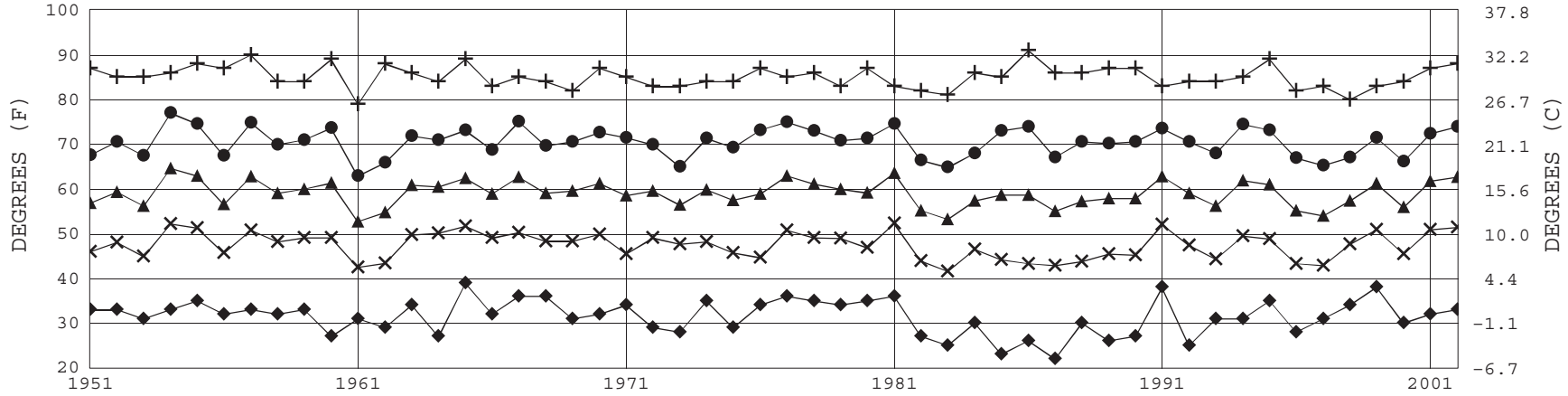
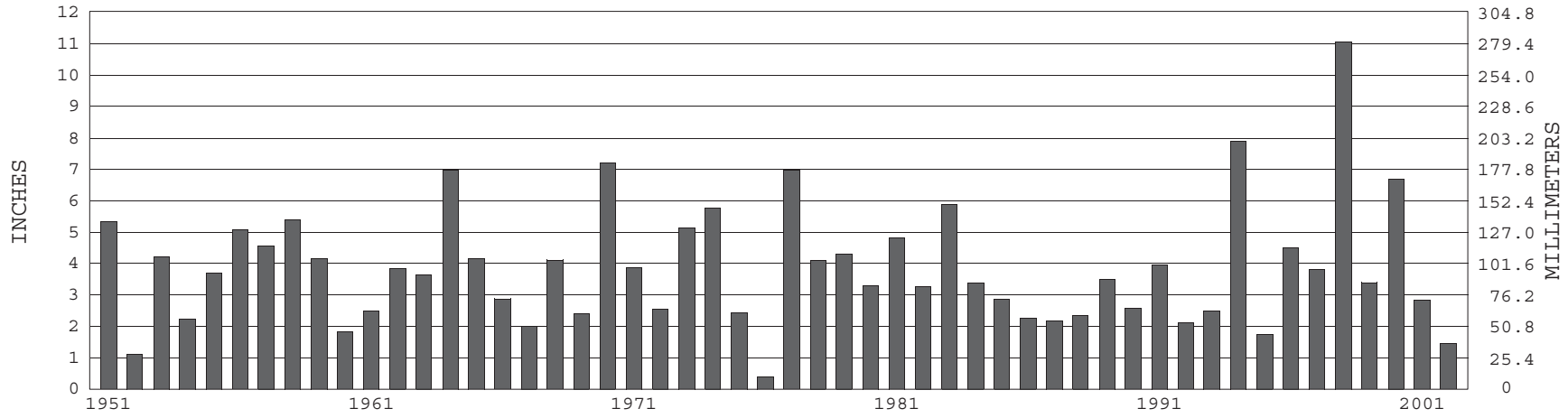
KNOXVILLE, TN APRIL TEMPERATURES



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

Long-Term (1951-2002) Mean: 59.0 1961-1990 Normal: 57.8

KNOXVILLE, TN APRIL PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 3.87 1961-1990 Normal: 3.99

APRIL 2002

KNOXVILLE, TN

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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