JULY 2006
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

KNOXVILLE, TN
MC GHEE TYSON AIRPORT (KTYS)
Lat:35 ° 49'N Long: 83 ° 59'W Elev (Ground) 962 Feet
Time Zone : EASTERN WBAN: 13891 ISSN#: 0198-4810

Date	Temperature °F						Deg Days BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITIATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES							Date
										0700 LST	1300 LST	2400 LST	2400 LST						MAXIMUM 5-SEC		MAXIMUM 2-MIN		
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		DEPTH	WATER-EQUIV	SNOW-FALL	WATER EQUIV	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	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	91	64	78	1	62	68	0	13	BR	0		0.0	0.00	29.14	30.16	1.8	25	2.3	13	29	10	29	01
02	95	65	80	3	63	69	0	15		0		0.0	0.00	29.15	30.17	3.4	25	3.8	17	27	14	22	02
03	96	70	83	6	65	71	0	18	TS RA BR HZ	0		0.0	T	29.12	30.13	2.4	22	4.2	28	28	23	28	03
04	95	71	83	6	66	71	0	18	RA HZ	0		0.0	T	29.05	30.05	6.2	25	6.8	30	27	22	28	04
05	82	69	76	-1	69	71	0	11	TS RA BR HZ	0		0.0	0.23	28.97	29.99	3.5	27	4.8	18	20	16	20	05
06	82	64	73	-4	59	65	0	8	RA BR	0		0.0	0.71	29.04	30.08	9.0	03	10.2	22	01	17	02	06
07	82	62	72	-5	54	61	0	7		0		0.0	0.00	29.17	30.20	7.1	05	7.7	20	04	15	04	07
08	84	60*	72*	-5	59	64	0	7		0		0.0	0.00	29.14	30.16	0.4	26	3.1	14	24	12	24	08
09	85	66	76	-2	63	67	0	11	RA BR HZ	0		0.0	0.04	29.04	30.05	4.4	22	5.5	37	22	30	22	09
10	89	65	77	-1	65	69	0	12	BR	0		0.0	0.00	29.03	30.05	5.2	23	6.4	25	24	22	25	10
11	86	70	78	0	67	70	0	13	BR	0		0.0	0.00	29.10	30.12	1.8	23	2.5	13	21	10	19	11
12	94	70	82	4	67	72	0	17	BR HZ	0		0.0	0.00	29.07	30.08	6.8	23	8.1	24	23	22	25	12
13	89	73	81	3	68	73	0	16	TS RA	0		0.0	0.01	29.03	30.03	8.3	24	9.2	28	22	24	21	13
14	94	71	83	5	71	73	0	18	TS TSRA RA BR	0		0.0	0.48	29.00	30.03	3.9	24	6.3	29	25	25	26	14
15	92	73	83	5	72	74	0	18	RA BR	0		0.0	0.07	29.02	30.03	3.4	26	6.8	28	31	21	33	15
16	92	73	83	5	66	72	0	18	BR	0		0.0	0.00	29.03	30.03	8.0	05	8.3	24	02	18	05	16
17	94	67	81	3	63	69	0	16	BR HZ	0		0.0	0.00	29.01	30.02	1.2	05	3.4	15	07	12	03	17
18	96	68	82	4	63	70	0	17		0		0.0	0.00	29.00	30.00	2.3	03	4.2	14	24	12	01	18
19	97	71	84	6	65	71	0	19	TS BR HZ	0		0.0	0.00	29.00	30.02	1.8	10	3.8	20	01	16	34	19
20	97*	71	84*	6	66	72	0	19	RA HZ	0		0.0	0.02	29.03	30.04	2.9	27	5.7	24	29	18	29	20
21	94	71	83	5	68	72	0	18	TS TSRA RA BR HZ	0		0.0	0.54	28.97	29.98	5.5	23	7.8	38	28	29	29	21
22	82	70	76	-2	68	70	0	11	TSRA RA BR	0		0.0	0.48	28.87	29.89	6.0	24	7.9	23	30	18	30	22
23	86	66	76	-2	64	68	0	11	BR	0		0.0	0.00	28.89	29.90	3.9	03	5.0	18	02	13	01	23
24	88	66	77	-1	63	68	0	12		0		0.0	0.00	28.95	29.97	1.6	29	5.3	16	27	12	27	24
25	89	71	80	2	66	71	0	15	HZ	0		0.0	0.00	28.98	29.99	3.2	26	4.4	13	24	12	25	25
26	91	69	80	2	67	72	0	15	BR	0		0.0	0.00	28.97	29.98	7.2	23	7.7	22	22	20	23	26
27	91	72	82	4	69	73	0	17	RA BR	0		0.0	0.17	29.03	30.04	5.5	23	6.4	16	25	14	23	27
28	92	70	81	3	68	72	0	16	TS TSRA RA FG BR	0		0.0	0.48	29.08	30.10	7.7	23	8.6	43*	28	35*	28	28
29	83	70	77	-1	69	71	0	12	RA BR	0		0.0	0.71	29.07	30.08	7.4	23	8.4	21	24	17	25	29
30	91	72	82	4	70	73	0	17		0		0.0	0.00	28.96	29.97	0.6	20	3.4	12	08	9	08	30
31	94	69	82	4	69	73	0	17	BR	0		0.0	0.00	28.95	29.96	0.4	34	2.6	10	10	8	10	31
	90.1	68.7	79.4	¤	65.6	70.2	0.0	14.6	< MONTHLY AVERAGES | TOTALS >			0.0	3.94	29.03	30.04	2.1	25	5.8	< MONTHLY AVERAGES				
	3.2	0.2	1.7		<---------- DEPARTURE FROM NORMAL ---------->								-0.77	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

JULY 2006
KNOXVILLE, TN

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	0	0	0	0
COOLING :	452	44	947	114

GREATEST 24-HR PRECIPITATION : 1.19 **DATE :** 28-29
GREATEST 24-HR SNOWFALL : 0.0 **DATE :**
GREATEST SNOW DEPTH : 0 **DATE :**

SEA LEVEL PRESSURE	DATE	TIME
MAXIMUM :	30.24	08	0916
MIMIMUM :	29.84	22	1853

NUMBER OF -> DAYS WITH

MAXIMUM TEMP >= 90 :	18	MINIMUM TEMP <= 32 :	0
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0
THUNDERSTORMS :	8	HEAVY FOG :	0

PRECIPITATION >= 0.01 INCH:	12
PRECIPITATION >= 0.10 INCH:	8
SNOWFALL >= 1.0 INCH :	0

HOURLY PRECIPITATION
(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
JULY 2006

WBAN # 13891

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	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	0.00
02													02													02	0.00	0.00
03													03						T							03	T	T
04													04						T							04	T	T
05			0.01	0.01	T								05						T					0.11	0.10	05	0.23	0.23
06	0.26	0.23	0.15	0.07									06													06	0.71	0.71
07													07													07	0.00	0.00
08													08													08	0.00	0.00
09													09							0.03	T	0.01	T			09	0.04	0.04
10													10													10	0.00	0.00
11													11													11	0.00	0.00
12													12													12	0.00	0.00
13											T		13	T	0.01											13	0.01	0.01
14													14			0.33	0.15									14	0.48	0.48
15						0.01							15				0.02	0.04								15	0.07	0.07
16													16													16	0.00	0.00
17													17													17	0.00	0.00
18													18													18	0.00	0.00
19													19													19	0.00	0.00
20													20				T	0.02								20	0.02	0.02
21													21								T	0.14	0.24	0.13	0.03	21	0.54	0.54
22	0.02	0.07	0.13	T	T	T					0.08	T	22	T							0.18	T				22	0.48	0.48
23													23													23	0.00	0.00
24													24													24	0.00	0.00
25													25													25	0.00	0.00
26													26													26	0.00	0.00
27						T	0.15	0.02					27													27	0.17	0.17
28													28					0.46	0.02							28	0.48	0.48
29		T	0.01	0.02	0.09	0.09	0.07	0.11	0.12	0.17	0.03		29													29	0.71	0.71
30													30													30	0.00	0.00
31													31													31	0.00	0.00

*** Indicates sum of Hourly and Daily disagree.**

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	0.23	0.36	0.41	0.45	0.48	0.48	0.48	0.48	0.48	0.53	0.62	0.68
Ending Date	28	28	28	28	14	14	14	28	28	06	06	06
Ending Time (Hr/Min)	1611	1616	1620	1625	1507	1507	1507	1717	1717	0227	0252	0326

Date and time are not entered for TRACE amounts.

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. 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	
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 Unkown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy ' ' = Moderate '-' = Light

KNOXVILLE, TN
JULY 2006

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	Sky Cover	Satellite	Sky Cover	Satellite	MINIMUM	MAXIMUM	
01							5.00	10.00	
02							7.00	10.00	
03							4.00	10.00	
04							4.00	8.00	
05							1.50	10.00	
06							1.75	10.00	
07							10.00	10.00	
08							9.00	10.00	
09							3.00	10.00	
10							5.00	10.00	
11							7.00	10.00	
12							3.00	10.00	
13							7.00	10.00	
14							0.75	10.00	
15							6.00	10.00	
16							4.00	10.00	
17							5.00	10.00	
18							7.00	10.00	
19							5.00	10.00	
20							5.00	10.00	
21							4.00	10.00	
22							5.00	10.00	
23							2.00	10.00	
24							9.00	10.00	
25							5.00	10.00	
26							4.00	10.00	
27							4.00	10.00	
28							10.00	10.00	
29							5.00	10.00	
30							8.00	10.00	
31							4.00	10.00	
MONTHLY AVGS							5.16	9.94	

SUNSHINE (Minutes)

Total : **Possible :**

Percent Possible :

NUMBER OF DAYS WITH :

SKY CONDITION

Clear	Partly CLDY	Cloudy	Missing

MINIMUM VISIBILTY (MILES)

<= .25	<= 3.0	>= 7.0
0	6	9

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
JULY 2006 **KTYS** **WBAN # 13891**

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
						SUNRISE: 0520 JUL 01 SUNSET: 1952								
01	CLR	NC			10.00		69	63	65	81	0	00	29.11	30.12
04	CLR	NC			8.00		66	62	64	87	5	22	29.12	30.13
07	CLR	NC			6.00	BR	68	64	65	87	0	00	29.16	30.19
10	CLR	NC			9.00		78	64	69	62	3	VR	29.18	30.21
13	SCT	120			10.00		87	58	69	37	0	00	29.18	30.19
16	SCT	120			10.00		89	57	69	34	0	00	29.14	30.15
19	SCT	120			10.00		87	61	70	42	3	31	29.12	30.14
22	CLR	NC			10.00		76	65	69	69	0	00	29.15	30.16
						SUNRISE: 0520 JUL 02 SUNSET: 1952								
01	CLR	NC			10.00		71	64	67	79	0	00	29.15	30.16
04	CLR	NC			9.00		66	62	64	87	0	00	29.16	30.18
07	CLR	NC			8.00		68	63	65	84	0	00	29.21	30.23
10	CLR	NC			10.00		83	65	71	55	0	00	29.21	30.23
13	CLR	NC			10.00		91	64	73	41	7	25	29.16	30.19
16	SCT	110			10.00		95	57	70	28	12	24	29.11	30.12
19	SCT	110			10.00		90	63	72	41	8	27	29.11	30.12
22	CLR	NC			10.00		82	64	70	55	3	23	29.15	30.16
						SUNRISE: 0521 JUL 03 SUNSET: 1952								
01	CLR	NC			8.00		76	65	69	69	0	00	29.15	30.16
04	CLR	NC			7.00		72	65	68	79	0	00	29.13	30.14
07	CLR	NC			5.00	HZ	73	67	69	82	0	00	29.16	30.17
10	CLR	NC			10.00		85	65	72	51	5	VR	29.18	30.19
13	CLR	NC			10.00		93	63	73	37	6	VR	29.13	30.14
16	BKN	070			7.00		94	62	73	35	9	26	29.07	30.08
19	FEW	110			10.00		85	64	71	49	8	14	29.06	30.07
22	CLR	NC			8.00		80	67	71	65	7	23	29.09	30.10
						SUNRISE: 0521 JUL 04 SUNSET: 1952								
01	CLR	NC			6.00	HZ	78	68	71	71	5	30	29.10	30.11
04	CLR	NC			5.00	HZ	74	68	70	82	0	00	29.07	30.08
07	CLR	NC			4.00	HZ	75	68	70	79	0	00	29.08	30.09
10	CLR	NC			5.00	HZ	86	68	74	55	9	26	29.09	30.10
13	FEW	040			8.00		93	63	73	37	13	24	29.04	30.05
16	FEW	045			8.00		94	62	73	35	10	25	28.95	29.96
19	OVC	120			8.00		82	65	71	56	14	29	28.98	29.99
22	FEW	110			7.00		77	66	70	69	8	20	29.02	30.03
						SUNRISE: 0522 JUL 05 SUNSET: 1952								
01	BKN	110			6.00	HZ	75	67	70	76	0	00	29.01	30.02
04	BKN	070			5.00	-RA	73	69	70	87	0	00	28.98	29.99
07	BKN	120			1.50	BR	73	70	71	90	3	35	28.98	30.00
10	BKN	100			3.00	HZ	77	70	72	79	3	27	29.01	30.03
13	SCT	090			5.00	HZ	82	69	73	65	7	30	28.98	30.00
16	SCT	110			7.00		81	68	72	65	7	31	28.94	29.95
19	SCT	060			8.00		79	68	72	69	6	29	28.94	29.95
22	OVC	039			10.00		71	67	68	87	3	23	28.97	29.99
						SUNRISE: 0522 JUL 06 SUNSET: 1952								
01	OVC	027			1.75	+RA BR	69	67	68	93	10	23	28.97	29.99
04	OVC	090			10.00		68	66	67	93	8	01	28.97	29.99
07	OVC	030			7.00		68	65	66	90	8	02	29.03	30.05
10	SCT	047			10.00		73	63	67	71	14	02	29.07	30.09
13	OVC	042			10.00		77	59	66	54	7	02	29.08	30.11
16	SCT	110			10.00		81	53	64	38	14	03	29.06	30.08
19	FEW	040			10.00		77	53	63	43	10	02	29.10	30.12
22	CLR	NC			10.00		70	53	60	55	13	04	29.15	30.16

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
						SUNRISE: 0523 JUL 07 SUNSET: 1952								
01	FEW	070			10.00		65	53	58	65	10	04	29.16	30.19
04	OVC	050			10.00		64	53	58	68	10	04	29.16	30.19
07	SCT	055			10.00		63	53	57	70	9	05	29.21	30.23
10	FEW	055			10.00		72	53	61	51	13	06	29.21	30.24
13	FEW	060			10.00		79	55	64	44	8	10	29.18	30.21
16	FEW	045			10.00		82	55	65	40	8	04	29.15	30.18
19	CLR	NC			10.00		78	52	63	40	7	07	29.15	30.17
22	CLR	NC			10.00		70	55	61	59	5	36	29.16	30.19
						SUNRISE: 0523 JUL 08 SUNSET: 1951								
01	CLR	NC			10.00		64	57	60	78	3	02	29.18	30.20
04	SCT	050			10.00		62	57	59	84	0	00	29.16	30.19
07	CLR	NC			9.00		63	58	60	84	0	00	29.19	30.22
10	FEW	065			10.00		74	59	65	60	5	VR	29.19	30.22
13	SCT	040			10.00		79	61	68	54	6	VR	29.15	30.18
16	SCT	050			10.00		82	58	67	44	7	28	29.08	30.10
19	BKN	085			10.00		81	59	67	47	5	25	29.06	30.08
22	BKN	090			10.00		74	62	66	66	0	00	29.08	30.09
						SUNRISE: 0524 JUL 09 SUNSET: 1951								
01	BKN	080			10.00		73	60	65	64	3	28	29.06	30.07
04	BKN	090			7.00		68	62	64	81	0	00	29.05	30.07
07	SCT	080			6.00	HZ	69	63	65	81	0	00	29.07	30.09
10	FEW	065			9.00		76	63	68	64	6	21	29.07	30.09
13	FEW	090			10.00		83	61	69	48	15	24	29.04	30.06
16	FEW	070			10.00		83	63	70	51	8	25	28.99	30.00
19	OVC	070			3.00	-RA BR	68	66	67	93	15	19	29.01	30.03
22	FEW	110			10.00		68	64	65	87	3	25	29.03	30.05
						SUNRISE: 0525 JUL 10 SUNSET: 1951								
01	SCT	110			8.00		68	65	66	90	0	00	29.02	30.04
04	SCT	110			7.00		66	64	65	93	3	06	29.02	30.03
07	SCT	031			5.00	BR	68	65	66	90	3	07	29.05	30.08
10	FEW	033			7.00		80	69	73	69	9	26	29.06	30.08
13	FEW	030			10.00		86	66	73	51	10	23	29.04	30.06
16	BKN	085			10.00		84	65	71	53	17	25	29.01	30.03
19	FEW	120			10.00		80	65	70	60	13	24	29.03	30.05
22	OVC	110			10.00		76	66	69	71	6	18	29.05	30.07
						SUNRISE: 0525 JUL 11 SUNSET: 1950								
01	CLR	NC			10.00		73	66	68	79	0	00	29.06	30.08
04	CLR	NC			9.00		72	65	68	79	0	00	29.07	30.08
07	BKN	110			9.00		72	66	68	82	5	17	29.11	30.13
10	BKN	110			8.00		75	67	70	76	0	00	29.14	30.16
13	BKN	090			8.00		81	66	71	60	7	23	29.14	30.16
16	BKN	110			9.00		85	65	72	51	5	19	29.08	30.09
19	SCT	110			7.00		85	67	73	55	3	30	29.09	30.10
22	CLR	NC			7.00		78	69	72	74	0	00	29.11	30.12
						SUNRISE: 0526 JUL 12 SUNSET: 1950								
01	CLR	NC			6.00	BR	74	70	71	87	0	00	29.08	30.09
04	CLR	NC			6.00	BR	73	69	70	87	3	35	29.08	30.09
07	CLR	NC			3.00	HZ	74	69	71	84	0	00	29.11	30.12
10	CLR	NC			9.00		86	66	73	51	12	20	29.12	30.13
13	SCT	050			10.00		91	64	73	41	13	21	29.10	30.11
16	FEW	055			10.00		93	62	72	36	17	24	29.04	30.05
19	FEW	120			10.00		87	65	72	48	10	23	29.01	30.02
22	SCT	120			10.00		80	67	71	65	6	21	29.03	30.04

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
JULY 2006 **KTYS** **WBAN # 13891**

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
						SUNRISE: 0526 JUL 13 SUNSET: 1950								
01	FEW	120			9.00		79	68	72	69	3	22	29.03	30.03
04	CLR	NC			8.00		76	67	70	74	7	25	29.02	30.03
07	SCT	080			7.00		77	67	70	71	6	27	29.05	30.06
10	BKN	100			10.00		84	68	73	59	15	23	29.06	30.06
13	BKN	080			10.00		87	69	75	55	14	28	29.05	30.06
16	BKN	120			10.00		85	70	75	61	12	19	29.00	30.01
19	SCT	120			10.00		85	69	74	59	10	24	28.99	30.01
22	BKN	065			10.00		80	70	73	72	5	22	29.01	30.02
						SUNRISE: 0527 JUL 14 SUNSET: 1949								
01	SCT	120			10.00		74	69	71	84	3	29	29.01	30.02
04	BKN	070			10.00		72	69	70	90	0	00	29.01	30.02
07	SCT	120			9.00		75	70	72	85	8	24	29.03	30.04
10	BKN	110			10.00		82	70	74	67	9	21	29.05	30.07
13	FEW	036			10.00		90	72	77	56	9	22	29.01	30.02
16	SCT	050			10.00		75	71	72	87	3	VR	29.01	30.03
19	CLR	NC			10.00		81	74	76	79	0	00	28.98	29.99
22	FEW	043			8.00	TS	75	73	74	94	0	00	29.03	30.04
						SUNRISE: 0528 JUL 15 SUNSET: 1949								
01	BKN	100			10.00		76	71	73	85	9	24	29.03	30.03
04	SCT	065			10.00		74	70	71	87	9	29	29.03	30.04
07	FEW	085			8.00		75	71	72	87	5	17	29.04	30.06
10	SCT	080			10.00		84	70	74	63	12	22	29.05	30.06
13	SCT	120			10.00		90	71	77	54	13	23	29.02	30.03
16	BKN	080			7.00	-RA	80	72	74	77	13	35	28.99	30.00
19	SCT	080			10.00		83	73	76	72	5	36	29.01	30.02
22	FEW	100			10.00		79	73	75	82	0	00	29.03	30.03
						SUNRISE: 0528 JUL 16 SUNSET: 1948								
01	FEW	085			8.00		76	73	74	90	0	00	29.02	30.03
04	CLR	NC			7.00		74	72	73	94	8	02	29.02	30.03
07	CLR	NC			4.00	BR	75	72	73	90	8	04	29.05	30.06
10	SCT	120			10.00		83	69	73	63	13	05	29.06	30.08
13	FEW	040			10.00		89	64	72	44	9	08	29.05	30.06
16	FEW	055			10.00		92	61	72	36	12	05	28.99	30.00
19	FEW	055			10.00		88	61	70	40	9	09	28.98	29.99
22	CLR	NC			10.00		80	62	68	54	5	05	29.01	30.02
						SUNRISE: 0529 JUL 17 SUNSET: 1948								
01	CLR	NC			10.00		72	65	68	79	0	00	29.03	30.04
04	CLR	NC			9.00		71	64	67	79	3	04	29.02	30.03
07	CLR	NC			6.00	HZ	71	66	68	84	5	07	29.05	30.06
10	CLR	NC			10.00		83	65	71	55	0	00	29.06	30.07
13	FEW	040			10.00		90	59	70	35	6	32	29.03	30.04
16	FEW	065			10.00		93	57	70	30	6	VR	28.98	29.98
19	FEW	055			10.00		90	59	70	35	6	04	28.95	29.96
22	CLR	NC			10.00		83	63	70	51	0	00	28.98	29.99
						SUNRISE: 0530 JUL 18 SUNSET: 1947								
01	CLR	NC			10.00		77	63	68	62	5	31	29.01	30.02
04	CLR	NC			10.00		70	65	67	84	3	08	29.00	30.01
07	CLR	NC			7.00		72	66	68	82	0	00	29.02	30.03
10	CLR	NC			10.00		86	64	71	48	5	12	29.03	30.04
13	SCT	055			10.00		92	60	71	34	7	25	29.01	30.02
16	FEW	060			10.00		94	57	70	29	3	VR	28.96	29.96
19	CLR	NC			10.00		91	60	71	35	8	06	28.94	29.95
22	CLR	NC			10.00		81	65	70	58	5	01	28.99	30.00

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
						SUNRISE: 0530 JUL 19 SUNSET: 1947								
01	CLR	NC			10.00		77	64	69	64	3	08	28.99	29.99
04	CLR	NC			6.00	BR	71	67	68	87	3	09	28.99	30.00
07	FEW	100			5.00	HZ	73	67	69	82	5	03	29.02	30.03
10	CLR	NC			9.00		85	68	73	57	5	08	29.06	30.06
13	SCT	055			10.00		95	63	73	35	7	12	29.01	30.02
16	SCT	075			10.00		96	62	73	32	5	VR	28.97	29.98
19	SCT	080			10.00		87	63	71	45	5	15	28.97	29.98
22	CLR	NC			10.00		83	65	71	55	0	00	29.04	30.05
						SUNRISE: 0531 JUL 20 SUNSET: 1946								
01	SCT	090			8.00		79	67	71	67	0	00	29.04	30.04
04	CLR	NC			5.00	HZ	75	67	70	76	0	00	28.99	30.00
07	CLR	NC			5.00	HZ	75	69	71	82	6	03	29.06	30.07
10	CLR	NC			7.00		86	68	74	55	5	VR	29.09	30.10
13	FEW	040			10.00		93	66	75	41	8	24	29.06	30.07
16	BKN	110			8.00		91	63	72	39	15	30	29.01	30.02
19	BKN	110			8.00		86	66	73	51	12	23	29.00	30.01
22	CLR	NC			10.00		79	65	70	62	6	24	29.01	30.02
						SUNRISE: 0532 JUL 21 SUNSET: 1946								
01	CLR	NC			10.00		76	66	69	71	0	00	29.01	30.02
04	CLR	NC			8.00		73	67	69	82	3	15	28.99	30.00
07	FEW	065			6.00	HZ	75	68	70	79	5	17	29.01	30.02
10	CLR	NC			8.00		86	66	73	51	15	24	28.99	30.00
13	SCT	100			6.00	HZ	90	69	75	50	6	25	28.97	29.98
16	SCT	120			5.00	HZ	94	68	76	43	12	23	28.90	29.91
19	BKN	110			5.00	HZ	87	69	75	55	0	00	28.88	29.89
22	OVC	080			4.00	-TSRA BR	72	70	71	93	6	15	28.99	30.01
						SUNRISE: 0533 JUL 22 SUNSET: 1945								
01	OVC	090			9.00	-RA	71	68	69	90	12	20	28.89	29.90
04	FEW	015			10.00		70	68	69	93	7	24	28.90	29.91
07	SCT	120			10.00		71	68	69	90	6	27	28.87	29.88
10	BKN	110			10.00		76	68	71	76	15	24	28.91	29.93
13	BKN	110			10.00		79	68	72	69	15	24	28.88	29.90
16	SCT	040			10.00		80	69	73	69	10	28	28.84	29.86
19	BKN	070			10.00		78	69	72	74	7	24	28.82	29.84
22	BKN	050			9.00		71	67	68	87	0	00	28.88	29.90
						SUNRISE: 0533 JUL 23 SUNSET: 1944								
01	SCT	085			9.00		70	66	67	87	0	00	28.88	29.90
04	FEW	002			3.00	BR	67	66	66	97	0	00	28.86	29.88
07	BKN	120			2.50	BR	66	65	65	97	0	00	28.88	29.90
10	BKN	120			10.00		77	66	70	69	7	04	28.90	29.92
13	BKN	060			10.00		82	63	70	53	7	05	28.89	29.91
16	SCT	075			10.00		85	61	69	45	3	33	28.87	29.89
19	FEW	055			10.00		81	62	69	53	5	04	28.88	29.90
22	CLR	NC			10.00		73	64	67	74	3	VR	28.93	29.94
						SUNRISE: 0534 JUL 24 SUNSET: 1944								
01	CLR	NC			10.00		71	61	65	71	6	03	28.94	29.95
04	CLR	NC			10.00		67	62	64	84	6	04	28.94	29.96
07	FEW	080			10.00		69	62	65	79	3	01	28.98	30.00
10	CLR	NC			10.00		77	64	69	64	0	00	28.99	30.01
13	FEW	055			10.00		84	64	71	51	3	VR	28.96	29.98
16	BKN	100			10.00		87	62	71	43	10	28	28.92	29.94
19	BKN	100			10.00		85	60	69	43	9	25	28.93	29.94
22	OVC	080			10.00		81	61	68	51	3	22	28.96	29.97

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
JULY 2006 KTYS WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
	SUNRISE: 0535		JUL 25		SUNSET: 1943									
01	CLR	NC			10.00		76	67	70	74	7	25	28.98	29.99
04	CLR	NC			9.00		73	67	69	82	7	26	28.98	29.99
07	FEW	100			7.00		73	68	70	84	3	15	29.03	30.04
10	BKN	120			7.00		81	69	73	67	5	VR	29.03	30.04
13	SCT	040			6.00	HZ	87	67	73	52	5	VR	28.98	29.99
16	SCT	100			10.00		88	62	71	42	6	26	28.94	29.96
19	FEW	045			10.00		86	65	72	50	6	24	28.94	29.95
22	CLR	NC			9.00		81	68	72	65	0	00	28.97	29.98
	SUNRISE: 0535		JUL 26		SUNSET: 1942									
01	CLR	NC			7.00		74	69	71	84	3	26	28.98	29.99
04	CLR	NC			7.00		72	67	69	84	0	00	28.97	29.98
07	CLR	NC			7.00		73	67	69	82	3	28	28.99	30.00
10	FEW	085			10.00		82	67	72	61	13	24	29.02	30.03
13	FEW	050			10.00		88	69	75	53	8	23	28.99	30.00
16	SCT	050			7.00		90	67	74	47	10	24	28.95	29.96
19	SCT	090			10.00		86	66	73	51	10	22	28.92	29.93
22	BKN	085			10.00		81	67	72	63	12	22	28.97	29.98
	SUNRISE: 0536		JUL 27		SUNSET: 1942									
01	CLR	NC			10.00		76	64	68	67	6	23	28.99	30.00
04	OVC	100			10.00		77	65	69	67	5	26	29.00	30.01
07	OVC	045			4.00	-RA BR	72	69	70	90	9	26	29.06	30.07
10	FEW	110			10.00		80	68	72	67	9	21	29.08	30.09
13	FEW	100			10.00		85	71	75	63	6	25	29.06	30.08
16	SCT	120			10.00		88	72	77	59	7	27	29.02	30.03
19	SCT	120			10.00		87	69	75	55	7	21	28.99	30.00
22	CLR	NC			10.00		83	70	74	65	3	15	29.04	30.05
	SUNRISE: 0537		JUL 28		SUNSET: 1941									
01	CLR	NC			10.00		79	69	72	72	6	24	29.04	30.05
04	SCT	100			10.00		77	67	70	71	3	25	29.05	30.06
07	BKN	120			10.00		78	67	71	69	8	22	29.09	30.10
10	BKN	120			10.00		83	69	73	63	16	23	29.11	30.12
13	SCT	120			10.00		90	70	76	52	16	23	29.10	30.11
16	SCT	060			10.00	TS	77	68	71	74	15	31	29.10	30.11
19	SCT	080			10.00		74	70	71	87	3	21	29.09	30.11
22	CLR	NC			10.00		72	68	69	87	6	24	29.08	30.10
	SUNRISE: 0538		JUL 29		SUNSET: 1940									
01	BKN	120			10.00		73	69	70	87	7	24	29.10	30.11
04	OVC	060			8.00	-RA	71	68	69	90	7	23	29.10	30.12
07	OVC	060			5.00	RA BR	70	67	68	90	6	11	29.10	30.12
10	OVC	031			5.00	-RA BR	71	69	70	93	5	22	29.09	30.11
13	OVC	060			10.00		79	70	73	74	15	24	29.10	30.11
16	BKN	090			10.00		82	71	74	69	9	23	29.02	30.03
19	BKN	120			10.00		80	70	73	72	9	23	28.98	30.00
22	FEW	100			10.00		74	70	71	87	7	21	29.02	30.04
	SUNRISE: 0539		JUL 30		SUNSET: 1939									
01	BKN	110			10.00		74	70	71	87	6	24	29.01	30.02
04	BKN	090			10.00		73	70	71	90	6	25	28.97	29.99
07	OVC	080			10.00		73	70	71	90	6	25	29.00	30.01
10	SCT	036			10.00		78	70	73	77	0	00	29.00	30.01
13	SCT	060			10.00		85	71	75	63	3	14	28.96	29.97
16	FEW	065			10.00		90	68	75	48	0	00	28.91	29.92
19	SCT	065			10.00		86	69	74	57	3	36	28.88	29.89
22	CLR	NC			9.00		80	72	74	77	0	00	28.92	29.93

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE Observation Time (LST)	SATELLITE Eff Cld Amt Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F DRY BULB	TEMPERATURE °F DEW POINT	TEMPERATURE °F WET BULB	RELATIVE HUMIDITY (PCT)	WIND SPEED (MPH)	WIND DIRECTION Tens of Deg	PRESSURE (INCHES, HG) STATION	PRESSURE (INCHES, HG) SEA LEVEL
	SUNRISE: 0539		JUL 31		SUNSET: 1938									
01	CLR	NC			9.00		74	69	71	84	3	17	28.92	29.93
04	CLR	NC			5.00	BR	71	69	70	93	0	00	28.93	29.94
07	CLR	NC			6.00	BR	72	68	69	87	0	00	28.96	29.97
10	CLR	NC			7.00		83	70	74	65	3	VR	28.99	30.00
13	SCT	048			10.00		89	70	76	54	5	28	28.97	29.98
16	FEW	050			10.00		93	66	74	41	0	00	28.93	29.93
19	CLR	NC			10.00		90	66	74	45	3	01	28.93	29.94
22	CLR	NC			8.00		79	72	74	79	3	21	28.98	29.99

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, W = Vertical Visibility = 8/8

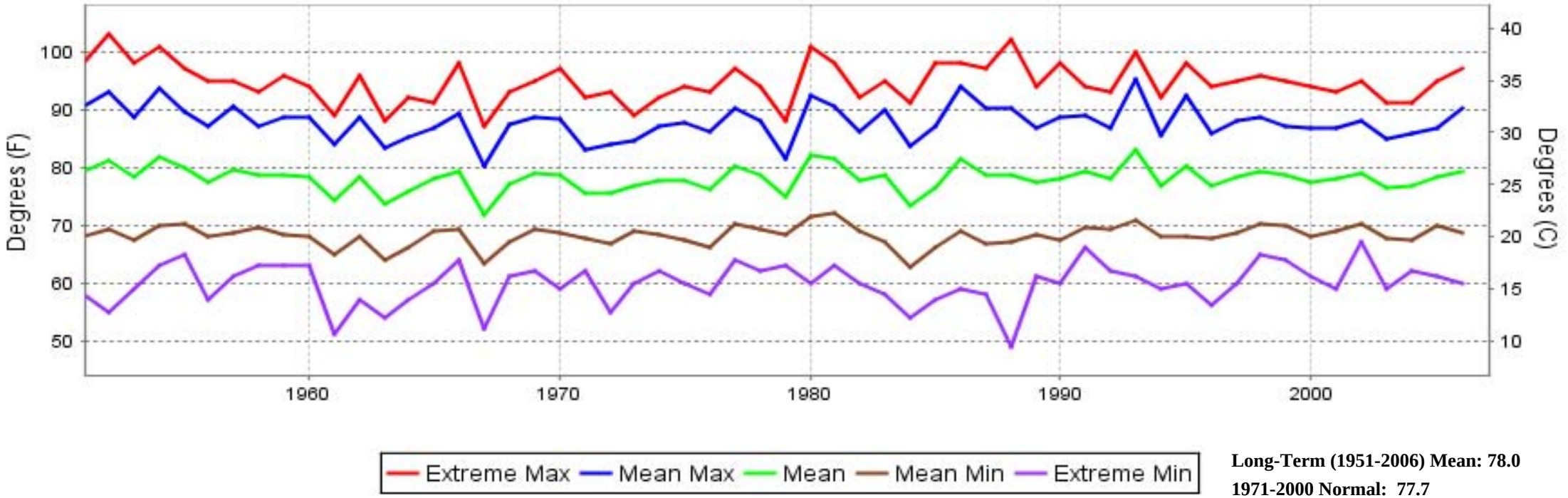
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

& = Original observation containted additional weather elements.
See page 3 for additional notes.

SUMMARY BY HOUR

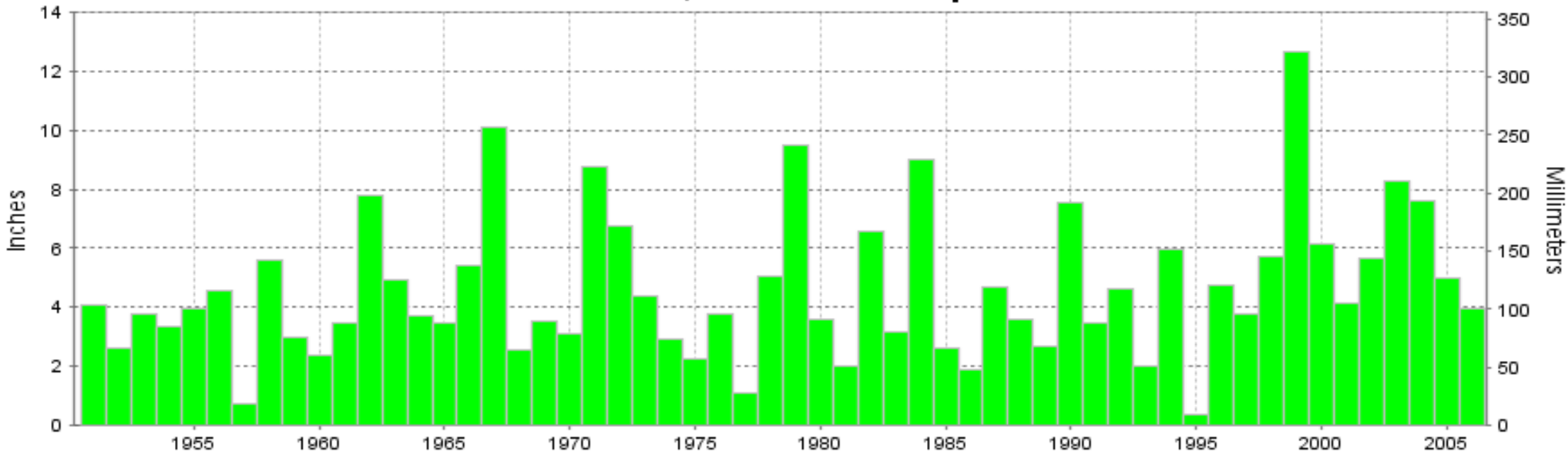
HOUR (LST)	AVERAGES CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG) STATION	PRESSURE (Inches, HG) SEA LEVEL	VISIBILITY (Miles)	WIND SPEED (MPH)	RESULTANT WIND (MPH) SPEED	RESULTANT WIND (MPH) DIRECTION
01			74	66	69	78	29.03	30.04	8.86	4	3	24
02			73	66	68	79	29.02	30.04	8.58	3	2	23
03			72	66	68	82	29.02	30.03	8.26	3	1	20
04			71	66	68	84	29.02	30.04	8.00	3	2	22
05			71	65	67	84	29.03	30.04	8.03	3	2	22
06			70	66	67	86	29.04	30.06	6.74	4	1	21
07			72	66	68	84	29.05	30.07	6.52	4	1	19
08			74	66	69	77	29.06	30.08	7.92	5	2	22
09			77	67	70	71	29.07	30.08	8.52	6	2	23
10			80	66	71	63	29.07	30.08	8.81	7	4	25
11			83	66	72	58	29.07	30.08	9.10	8	4	25
12			85	66	72	54	29.06	30.07	9.32	9	5	26
13			87	65	72	50	29.04	30.06	9.45	8	5	26
14			88	64	72	47	29.02	30.04	9.26	9	6	26
15			88	64	72	47	29.01	30.02	9.06	9	5	26
16			87	64	72	48	29.00	30.01	9.29	9	6	26
17			87	64	72	49	28.99	30.00	9.39	8	5	26
18			86	64	71	50	28.99	30.00	9.39	7	2	24
19			84	65	71	55	28.99	30.00	9.32	7	3	25
20			81	65	71	61	29.00	30.01	9.39	6	3	24
21			78	66	70	67	29.01	30.03	9.39	6	1	22
22			77	66	70	70	29.03	30.04	9.32	4	2	23
23			76	66	70	73	29.03	30.04	9.00	4	2	23
24			75	66	69	75	29.03	30.04	9.13	3	2	21

KNOXVILLE, TN JULY Temperatures



Long-Term (1951-2006) Mean: 78.0
1971-2000 Normal: 77.7

KNOXVILLE, TN JULY Precipitation



Long-Term (1951-2006) Mean Monthly Total: 4.60 **1971-2000 Normal: 4.71**

Published By: National Climatic Data Center

JULY 2006
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.

DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication.** When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost for online delivery (including back issues) is significantly less than the cost for offline delivery.**
To order this and other subscriptions online with your credit card, go to: **www.ncdc.noaa.gov** and choose subscriptions.

We welcome your questions or comments, please contact us at:
Toll Free Number (866) 742-3322 (voice)
Fax Number : (304) 726-4409
TDD : (828) 271-4010
or Email : ncdc.info@noaa.gov
Local Climatological Data is available at www.ncdc.noaa.gov

United States Department of Commerce | National Oceanic and Atmospheric Administration | National Environmental Satellite Atmospheric Administration

For address correction, please return a photocopy of this page to Subscription Services indicating changes

NCDC Subscription Services Center
310 State Route 956 Building 300
Rocket Center, WV 26726

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19

OFFICIAL BUSINESS, PENALTY FOR PRIVATE USE $300