



MAY 2007 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 1	Temperature °F						Deg Days BASE 65°		WEATHER 10	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date 24							
	MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEP FROM NORMAL 5	AVERAGE DEW PT 6	AVERAGE WET BULB 7	HEATING 8	COOLING 9		0700 LST 11	1300 LST 12	2400 LST 13	2400 LST 14	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM												
																			5-SEC 20		2-MIN 22										
01	87	56	72	10	51	60	0	7		0		0.0	0.00	28.95	29.97	4.5	24	5.3	25	26	18	25	01								
02	85	61	73	11	55	63	0	8		0		0.0	0.00	28.92	29.94	2.9	23	5.4	20	23	16	23	02								
03	82	65	74	12	59	64	0	9	TS RA BR	0		0.0	T	28.95	29.98	1.9	34	6.9	25	25	18	26	03								
04	82	62	72	10	61	64	0	7	TS TSRA RA BR HZ	0		0.0	0.01	28.97	30.00	2.5	07	3.9	23	12	17	11	04								
05	68	63	66	3	62	63	0	1	RA FG BR HZ	0		0.0	1.20	28.99	30.02	1.0	26	2.5	10	24	9	24	05								
06	81	62	72	9	57	62	0	7	BR HZ	0		0.0	0.00	29.05	30.09	6.3	05	6.6	20	04	16	05	06								
07	75	52	64	1	38	51	1	0		0		0.0	0.00	29.18	30.21	5.0	04	5.6	16	04	13	04	07								
08	80	46	63	0	40	52	2	0		0		0.0	0.00	29.08	30.09	3.6	04	4.6	22	02	16	03	08								
09	84	52	68	4	51	59	0	3		0		0.0	0.00	28.95	29.97	2.4	06	3.7	16	07	13	07	09								
10	87	59	73	9	57	64	0	8		0		0.0	0.00	28.90	29.92	1.0	24	1.6	12	32	8	23	10								
11	89	65	77	13	61	66	0	12	TS TSRA RA HZ	0		0.0	0.03	28.88	29.90	1.4	29	4.7	28	28	21	30	11								
12	81	66	74	10	62	66	0	9	TS RA BR HZ	0		0.0	0.01	28.92	29.95	2.5	04	4.1	18	04	13	05	12								
13	82	61	72	7	52	60	0	7	BR HZ	0		0.0	0.00	29.01	30.04	5.8	02	6.3	18	02	16	03	13								
14	81	56	69	3	52	59	0	4		0		0.0	0.00	29.13	30.16	2.9	24	5.2	18	26	15	27	14								
15	83	58	71	5	53	61	0	6		0		0.0	0.00	29.10	30.11	9.5	23	10.1	26	23	21	23	15								
16	75	58	67	1	55	60	0	2	TSRA RA BR HZ	0		0.0	0.23	28.94	29.97	6.1	24	9.1	32*	22	24*	22	16								
17	72	50	61	-5	44	52	4	0		0		0.0	0.00	29.02	30.07	4.2	01	6.3	28	01	21	02	17								
18	66	47	57*	-10	40	49	8	0		0		0.0	0.00	29.13	30.18	9.0	03	9.2	25	04	20	02	18								
19	74	42*	58	-9	40	49	7	0		0		0.0	0.00	29.17	30.21	1.2	05	3.0	17	05	14	03	19								
20	80	47	64	-3	40	52	1	0		0		0.0	0.00	29.10	30.13	1.0	24	2.0	13	28	10	26	20								
21	84	49	67	-1	42	54	0	2		0		0.0	0.00	29.08	30.11	0.7	32	1.8	14	31	10	34	21								
22	88	51	70	2	48	59	0	5	HZ	0		0.0	0.00	29.11	30.14	0.9	31	3.1	14	20	10	19	22								
23	86	57	72	4	55	62	0	7	TS RA HZ	0		0.0	T	29.22	30.25	1.4	03	2.8	17	15	14	14	23								
24	85	59	72	3	57	63	0	7	BR HZ	0		0.0	0.00	29.27	30.31	1.8	28	3.5	14	23	12	22	24								
25	86	61	74	5	56	63	0	9		0		0.0	0.00	29.23	30.25	0.6	29	3.4	15	27	10	01	25								
26	89	63	76	7	57	65	0	11	RA	0		0.0	T	29.15	30.16	2.1	21	3.6	13	05	8	16	26								
27	88	67	78	9	58	66	0	13	HZ	0		0.0	0.00	29.10	30.12	3.0	26	3.8	16	27	12	27	27								
28	89	66	78*	8	58	65	0	13	HZ	0		0.0	0.00	29.12	30.14	0.7	26	3.5	17	17	14	17	28								
29	90*	60	75	5	56	64	0	10	HZ	0		0.0	0.00	29.14	30.16	1.5	26	3.4	24	30	12	08	29								
30	89	59	74	4	55	63	0	9		0		0.0	0.00	29.11	30.13	1.8	29	3.3	15	29	12	28	30								
31	89	62	76	6	56	63	0	11	RA HZ	0		0.0	T	29.07	30.08	0.3	01	2.3	18	15	16	14	31								
82.5		57.5		70.0		52.5		60.1		0.7		6.0		< MONTHLY AVERAGES TOTALS >		0.0		1.48		29.06		30.09		0.8		33		4.5		< MONTHLY AVERAGES	
6.2		1.9		4.0		<-----		DEPARTURE FROM NORMAL		----->		-3.20		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 1.21 DATE : 04-05				SEA LEVEL PRESSURE				DATE		TIME											
MONTHLY					SEASON TO DATE					GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.38				24		0953											
TOTAL DEPARTURE					TOTAL DEPARTURE					GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.83				11		1553											
HEATING :		23		-42		3477		-210		NUMBER OF		MAXIMUM TEMP >= 90 : 1		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH : 5															
COOLING :		187		77		249		106		->		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 2															
										THUNDERSTORMS :		6		HEAVY FOG : 0		SNOWFALL >= 1.0 INCH : 0															

MAY 2007
KNOXVILLE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
MAY 2007

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	T	T					03	T	T		
04													04				T			T				04	0.01	0.01		
05	T	T			T	0.01	0.06	0.08	0.16	0.27	0.38	0.21	05	0.03	T	T				T		0.01		05	1.20	1.20		
06													06											06	0.00	0.00		
07													07											07	0.00	0.00		
08													08											08	0.00	0.00		
09													09											09	0.00	0.00		
10													10											10	0.00	0.00		
11													11						0.01	0.02				11	0.03	0.03		
12												0.01	12			T								12	0.01	0.01		
13													13											13	0.00	0.00		
14													14											14	0.00	0.00		
15													15											15	0.00	0.00		
16											T		16		0.22	0.01								16	0.23	0.23		
17													17											17	0.00	0.00		
18													18											18	0.00	0.00		
19													19											19	0.00	0.00		
20													20											20	0.00	0.00		
21													21											21	0.00	0.00		
22													22											22	0.00	0.00		
23													23				T	T						23	T	T		
24													24											24	0.00	0.00		
25													25											25	0.00	0.00		
26													26							T				26	T	T		
27													27											27	0.00	0.00		
28													28											28	0.00	0.00		
29													29											29	0.00	0.00		
30													30											30	0.00	0.00		
31													31							T				31	T	T		

* 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)	0.11	0.16	0.19	0.22	0.30	0.38	0.46	0.54	0.68	0.78	0.84	0.96
Ending Date	16	16	16	16	05	05	05	05	05	05	05	05
Ending Time (Hr/Min)	1354	1355	1357	1359	1104	1120	1126	1129	1110	1126	1126	1126

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.

Date and time are not entered for TRACE amounts.

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		
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 MAY 2007

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:

Station Augmentation-CONTRACTOR ON AIRPORT
Lat/Lon:/ Elevation:
Distance:2200 FT Dir:W
Augmented Elements:Temp,Precip,Snow
Equipment:SRG, PSY, Snow Board, Snow stick

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							8.00	10.00	
02							10.00	10.00	
03							6.00	10.00	
04							1.50	7.00	
05							0.50	10.00	
06							1.25	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							5.00	10.00	
12							4.00	10.00	
13							3.00	10.00	
14							9.00	10.00	
15							9.00	10.00	
16							1.75	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							7.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							4.00	10.00	
23							3.00	10.00	
24							2.50	10.00	
25							10.00	10.00	
26							8.00	10.00	
27							5.00	10.00	
28							3.00	10.00	
29							6.00	10.00	
30							7.00	10.00	
31							4.00	10.00	
MONTHLY AVGS							6.40	9.90	
SUNSHINE (Minutes)									
Total : 0					Possible : 26143				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
0			8				16		

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
MAY 2007
KTYS

WBAN # 13891

Table with columns for Hour (LST), Sky Cover, Ceiling (100's of FT.), Satellite (Observation Time, Eff. Cld. Amt., Oktas), Visibility (Miles), Weather, Temperature (Dry Bulb, Dew Point, Wet Bulb), Wind (Relative Humidity, Speed, Direction), Pressure (Station, Sea Level), and their corresponding values for each hour from 01 to 22.

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

MAY 2007

KTYS

WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		
			Observation Time (LST)	Eff Clد Amt Oktas		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0524 MAY 25 SUNSET: 1941													
01	SCT	090				70	53	60	55	8	26	29.26	30.29
04	CLR	NC				65	54	59	68	0	00	29.25	30.28
07	SCT	075				64	56	59	75	0	00	29.29	30.33
10	FEW	045				75	58	65	56	6	VR	29.31	30.33
13	FEW	060				82	55	65	40	0	00	29.24	30.27
16	SCT	060				86	56	67	36	8	02	29.18	30.19
19	FEW	060				82	54	65	38	3	09	29.14	30.16
22	FEW	110				73	59	64	62	0	00	29.18	30.21
SUNRISE: 0524 MAY 26 SUNSET: 1942													
01	FEW	075				72	57	63	59	6	23	29.18	30.20
04	FEW	110				68	56	61	66	5	27	29.16	30.18
07	CLR	NC				68	58	62	71	3	20	29.21	30.23
10	CLR	NC				78	55	64	45	0	00	29.19	30.22
13	FEW	080				85	56	67	37	0	00	29.15	30.16
16	SCT	080				88	55	67	33	0	00	29.07	30.09
19	BKN	110				82	57	66	43	5	22	29.06	30.08
22	OVC	110				77	60	66	56	6	22	29.11	30.12
SUNRISE: 0523 MAY 27 SUNSET: 1943													
01	OVC	070				76	58	65	54	6	21	29.10	30.11
04	SCT	110				72	58	64	62	0	00	29.10	30.11
07	CLR	NC			HZ	71	62	65	73	0	00	29.14	30.16
10	CLR	NC				81	57	66	44	8	21	29.15	30.17
13	CLR	NC				86	59	69	40	8	27	29.13	30.14
16	SCT	090				86	56	67	36	6	32	29.08	30.09
19	SCT	120			HZ	83	58	67	43	5	28	29.06	30.08
22	BKN	070			HZ	77	60	66	56	0	00	29.11	30.13
SUNRISE: 0523 MAY 28 SUNSET: 1943													
01	BKN	070			HZ	74	59	65	60	0	00	29.12	30.13
04	BKN	090			HZ	70	61	64	73	0	00	29.13	30.14
07	FEW	080			HZ	70	60	64	71	0	00	29.16	30.19
10	FEW	080				79	57	65	47	3	25	29.18	30.20
13	FEW	080				85	55	66	36	3	VR	29.14	30.16
16	FEW	080			HZ	88	56	68	34	9	07	29.08	30.09
19	BKN	100			HZ	84	56	67	38	0	00	29.07	30.08
22	FEW	075				72	59	64	64	3	22	29.13	30.14
SUNRISE: 0522 MAY 29 SUNSET: 1944													
01	FEW	090				70	56	62	61	5	29	29.15	30.16
04	CLR	NC				64	58	60	81	0	00	29.15	30.16
07	CLR	NC			HZ	66	57	61	73	0	00	29.19	30.22
10	CLR	NC				77	58	65	52	6	26	29.21	30.24
13	SCT	045				85	56	67	37	3	VR	29.15	30.18
16	FEW	075				89	54	67	30	6	03	29.08	30.10
19	FEW	080				85	56	67	37	5	29	29.07	30.08
22	FEW	070				74	58	64	58	6	23	29.12	30.14
SUNRISE: 0522 MAY 30 SUNSET: 1945													
01	CLR	NC				71	52	60	51	0	00	29.13	30.14
04	CLR	NC				62	54	57	75	5	07	29.12	30.14
07	CLR	NC				66	56	60	70	5	29	29.16	30.19
10	CLR	NC				80	56	65	44	0	00	29.18	30.19
13	FEW	060				86	51	65	30	7	21	29.13	30.14
16	SCT	090				87	52	66	30	10	28	29.08	30.09
19	FEW	100				85	53	66	33	3	31	29.06	30.08
22	SCT	120				76	55	63	48	0	00	29.10	30.11

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)											
			Observation Time (LST)	Eff Clد Amt Oktas		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL									
SUNRISE: 0522 MAY 31 SUNSET: 1945																						
01	CLR	NC										69	57	62	66	0	00	29.08	30.10			
04	CLR	NC										9.00			64	55	59	73	0	00	29.08	30.10
07	SCT	120										5.00	HZ		65	58	61	78	0	00	29.11	30.13
10	FEW	120										7.00			79	55	64	44	0	00	29.12	30.14
13	SCT	120										4.00	HZ		87	53	66	31	7	30	29.07	30.09
16	SCT	120										4.00	HZ		89	54	67	30	6	02	29.01	30.03
19	OVC	110										7.00			82	54	65	38	8	13	29.01	30.02
22	CLR	NC										9.00			76	56	64	50	0	00	29.05	30.06

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

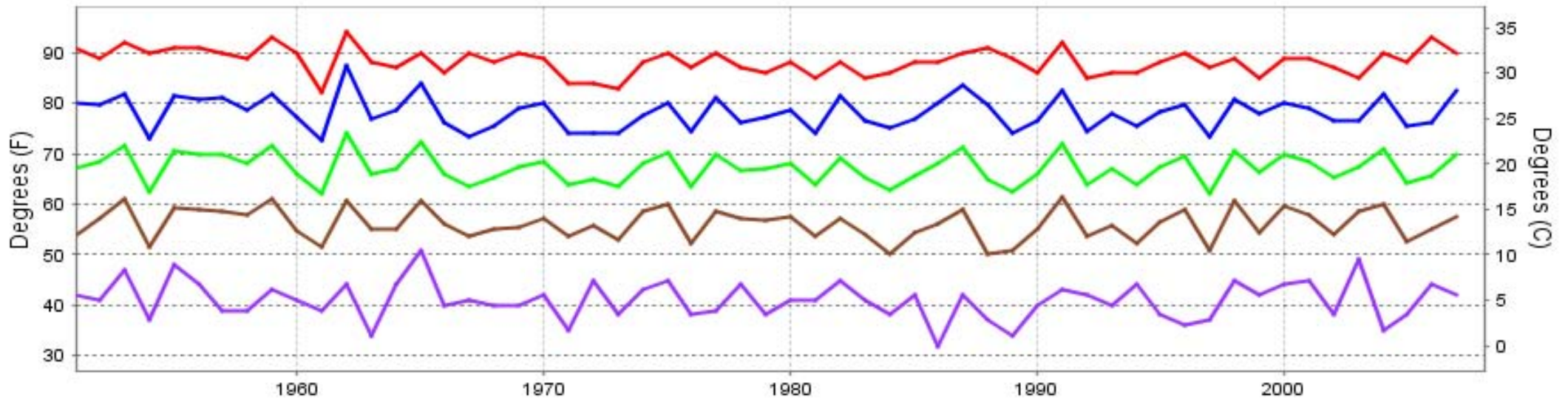
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

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

SUMMARY BY HOUR

HOUR (LST)	AVERAGES								RESULTANT WIND (MPH)			
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		WIND SPEED (MPH)	DIRECTION		
							STATION	SEA LEVEL				
01			65	53	58	67	29.06	30.08	8.87	3	1	30
02			63	53	57	70	29.05	30.08	8.71	3	1	29
03			62	53	57	74	29.05	30.08	8.58	3	1	34
04			61	53	56	76	29.06	30.08	8.52	2	1	04
05			59	53	56	79	29.07	30.09	8.07	2	1	36
06			60	53	56	78	29.09	30.11	7.66	2	1	03
07			62	54	57	76	29.10	30.13	7.52	2	1	35
08			65	54	59	68	29.11	30.14	8.17	4	1	07
09			69	54	61	60	29.12	30.14	8.53	4	1	05
10			72	54	61	53	29.12	30.14	8.91	4	1	30
11			75	53	62	48	29.11	30.14	9.02	5	1	30
12			77	53	63	45	29.10	30.12	9.26	6	2	29
13			79	53	63	42	29.08	30.10	9.29	6	1	29
14			80	52	64	40	29.06	30.08	9.15	6	1	29
15			81	51	63	38	29.04	30.06	9.35	7	2	28
16			81	50	63	37	29.03	30.05	9.39	7	0	34
17			80	50	63	38	29.02	30.04	9.39	8	1	30
18			79	50	62	39	29.01	30.04	9.48	6	1	30
19			76	52	62	44	29.02	30.04	9.35	5	1	29
20			74	51	61	48	29.03	30.05	9.71	5	1	30
21			71	52	60	54	29.04	30.07	9.42	4	1	34
22			69	53	60	57	29.06	30.08	9.39	4	1	31
23			67	53	59	62	29.07	30.09	9.26	4	1	31
24			66	53	59	66	29.07	30.09	9.10	5	1	30

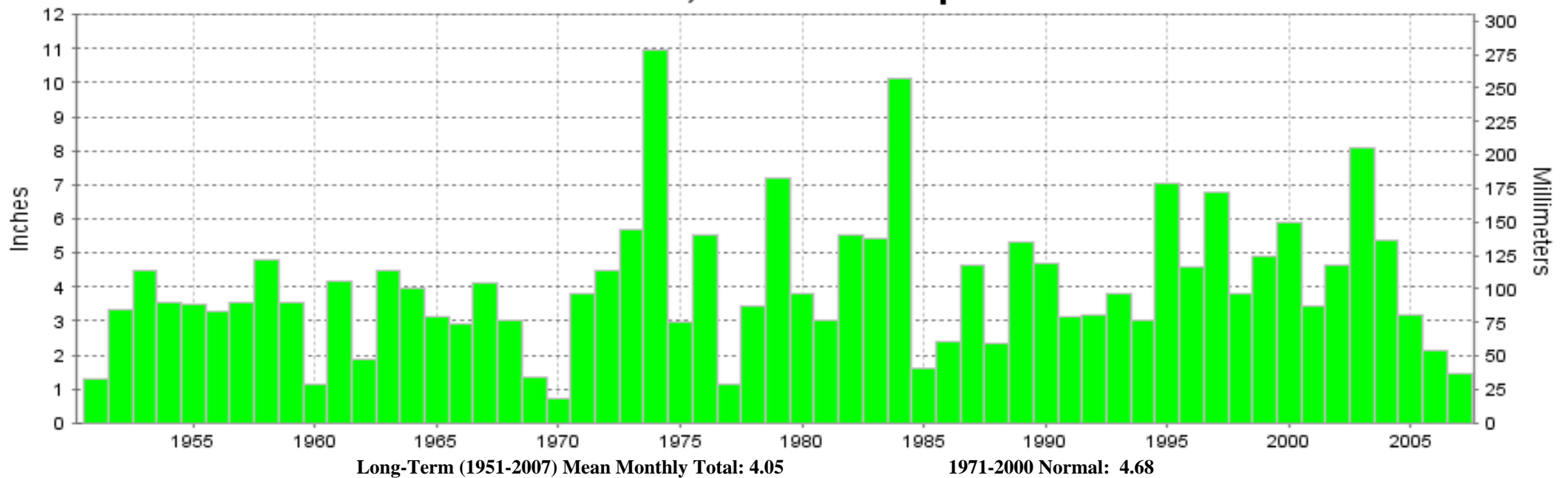
KNOXVILLE, TN MAY Temperatures



— Extreme Max — Mean Max — Mean — Mean Min — Extreme Min

Long-Term (1951-2007) Mean: 67.1
1971-2000 Normal: 66.0

KNOXVILLE, TN MAY Precipitation



Long-Term (1951-2007) Mean Monthly Total: 4.05

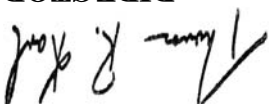
1971-2000 Normal: 4.68



MAY 2007
KNOXVILLE, TN

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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