



DECEMBER 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		2-MIN			
20	21	22	23	24																				
01	59	29	44	-1	27	37	21	0		0		0.0	0.00	29.28	30.33	3.0	03	3.5	14	02	12	01	01	
02	66	41	54	9	41	48	11	0	RA BR	0		0.0	0.40	29.09	30.11	3.7	24	5.3	36	29	28	28	02	
03	58	30	44	0	31	37	21	0	RA	0		0.0	T	29.13	30.22	8.1	27	9.2	30	27	23	27	03	
04	45	26	36	-8	22	30	29	0		0		0.0	0.00	28.99	30.02	4.4	22	4.8	14	24	10	24	04	
05	59	33	46	3	26	37	19	0	RA	0		0.0	T	28.69	29.77	7.1	26	12.1	36	30	26	23	05	
06	40	28	34	-9	22	30	31	0		0		0.0	0.00	29.10	30.20	5.8	03	6.4	20	36	16	02	06	
07	45	33	39	-4	29	36	26	0		0		0.0	0.00	29.18	30.24	2.4	04	2.7	9	06	8	05	07	
08	51	44	48	6	42	45	17	0	RA FG BR	0		0.0	0.12	29.21	30.27	1.6	06	2.3		7		02	08	
09	63	48	56	14	53	54	9	0	RA BR	0		0.0	0.83	29.24	30.29	0.5	15	2.1	10	24	9	20	09	
10	72	52	62	20	56	59	3	0	FG+ FG BR	0		0.0	0.00	29.21	30.26	4.6	23	4.8	26	23	21	23	10	
11	75*	48	62*	20	54	57	3	0	BR	0		0.0	0.00	29.20	30.23	2.9	23	3.1	22	23	18	22	11	
12	67	55	61	19	58	60	4	0	RA DZ BR HZ	0		0.0	0.04	29.10	30.12	6.6	23	7.1	21	19	17	19	12	
13	71	49	60	19	54	56	5	0	RA BR	0		0.0	0.19	29.00	30.05	9.4	23	10.5	39	22	31	21	13	
14	56	37	47	6	39	43	18	0		0		0.0	0.00	29.15	30.21	2.1	34	3.0	16	36	13	01	14	
15	54	35	45	4	40	43	20	0	RA BR	0		0.0	0.10	28.94	29.92	2.0	02	3.8	21	21	14	11	15	
16	52	28	40	-1	28	33	25	0	RA SN PL BR	0		T	0.20	28.81	29.91	14.0	26	14.6	45*	25	32	26	16	
17	40	22	31*	-9	20	27	34	0		0		0.0	0.00	29.23	30.32	3.2	22	3.9	14	25	10	22	17	
18	48	20*	34	-6	24	30	31	0		0		0.0	0.00	29.26	30.32	0.4	04	1.4	16	20	12	23	18	
19	51	34	43	3	35	39	22	0	RA BR	0		0.0	0.03	29.13	30.21	4.3	24	4.8	17	23	14	23	19	
20	50	31	41	1	37	39	24	0	RA FG+ FG FZFG BR	0		0.0	0.02	29.03	30.06	3.5	03	4.3	12	02	9	04	20	
21	60	45	53	13	46	48	12	0	RA BR	0		0.0	0.52	28.96	30.03	2.8	02	4.0	20	10	10	09	21	
22	64	36	50	11	42	45	15	0	BR	0		0.0	0.00	29.07	30.11	1.4	03	3.5	29	15	21	16	22	
23	65	31	48	9	38	44	17	0	TS RA BR	0		0.0	0.21	28.95	30.02	14.1	22	16.7	41	25	35*	23	23	
24	47	28	38	-1	23	32	27	0		0		0.0	0.00	29.17	30.23	5.2	23	5.3	16	22	13	24	24	
25	44	30	37	-2	30	34	28	0	RA PL BR	0		T	0.09	29.15	30.22	2.3	04	3.0	15	05	12	06	25	
26	54	31	43	4	35	39	22	0	RA FG+ FG FZFG BR	0		0.0	T	28.98	30.02	0.2	28	2.7	15	36	8	08	26	
27	57	39	48	9	40	45	17	0	RA	0		0.0	T	28.96	30.04	3.6	26	4.5	24	24	20	24	27	
28	53	30	42	4	41	42	23	0	TS TSRA RA BR	0		0.0	1.39	28.98	30.03	1.2	04	4.6	18	10	14	30	28	
29	54	40	47	9	40	44	18	0	RA	0		0.0	0.03	29.02	30.08	2.5	25	3.2	14	27	10	26	29	
30	47	36	42	4	40	41	23	0	RA BR	0		0.0	0.03	28.92	29.97	3.0	23	4.3	13	24	10	25	30	
31	53	32	43	5	32	38	22	0	FG+ FG BR	0		0.0	0.00	28.98	30.04	4.1	24	4.6	21	22	16	22	31	

55.5	35.5	45.5	Σ	36.9	41.7	19.3	0.0	< MONTHLY AVERAGES TOTALS >				T	4.20	29.07	30.12	2.4	25	5.4	< MONTHLY AVERAGES			
5.7	3.6	4.6		<----- DEPARTURE FROM NORMAL ----->										-0.29	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							

DEGREE DAYS				GREATEST 24-HR PRECIPITATION : 1.42 DATE : 28-29				SEA LEVEL PRESSURE											
MONTHLY				GREATEST 24-HR SNOWFALL : T DATE : 25+				MAXIMUM : 30.45 DATE 01 TIME 0953											
TOTAL DEPARTURE				GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.50 DATE 16 TIME 0239											
SEASON TO DATE				NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 14				PRECIPITATION >= 0.01 INCH : 15			
HEATING : 597 -136 1167 -268				MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH : 9							
COOLING : 0 0 1987 537				THUNDERSTORMS : 2				HEAVY FOG : 4				SNOWFALL >= 1.0 INCH : 0							

DECEMBER 2007
KNOXVILLE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
DECEMBER 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	0.40	0.40	
03	T												03												03	T	T	
04													04												04	0.00	0.00	
05													05												05	T	T	
06													06												06	0.00	0.00	
07													07												07	0.00	0.00	
08													08	0.03	0.01	0.03									08	0.12	0.12	
09								0.04	0.10	0.58	0.04	0.01	09												09	0.83	0.83	
10												0.06	10												10	0.00	0.00	
11													11												11	0.00	0.00	
12													12	0.03	0.01	T									12	0.04	0.04	
13													13	0.13	0.03	0.01	0.01	0.01		T	T	T	T		13	0.19	0.19	
14													14												14	0.00	0.00	
15													15			T	0.01	0.01					T	0.04	0.04	15	0.10	0.10
16	0.04	0.07	0.02	0.07	T				T	T	T	T	16	T			T								16	0.20	0.20	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19	T	T	0.01	0.01	0.01				T				19												19	0.03	0.03	
20													20				T	T	T					T	0.02	20	0.02	0.02
21	0.05	0.15	0.22	0.10	T								21												21	0.52	0.52	
22													22												22	0.00	0.00	
23					0.07	0.07	0.05	T	T	0.02	T		23												23	0.21	0.21	
24													24												24	0.00	0.00	
25													25			0.01	0.03	0.04	0.01	T					25	0.09	0.09	
26													26												26	T	T	
27	T												27												27	T	T	
28													28	0.06	0.21	0.22	0.07	0.03	0.14	0.08	0.01	0.26	0.11		0.01	28	1.39	1.39
29	0.03	T											29												29	0.03	0.03	
30								0.01	0.01	T			30	0.01											30	0.03	0.03	
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)	0.12	0.23	0.32	0.40	0.51	0.60	0.63	0.65	0.65	0.71	0.74	0.75
Ending Date	09	09	09	09	09	09	09	09	09	09	09	09
Ending Time (Hr/Min)	0803	0808	0814	0817	0828	0842	0849	0911	0849	0849	0911	0952

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 DECEMBER 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							10.00	10.00	
02							2.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							0.50	10.00	
09							1.00	10.00	
10							0.50	10.00	
11							1.00	10.00	
12							4.00	10.00	
13							2.00	10.00	
14							10.00	10.00	
15							3.00	10.00	
16							4.00	10.00	
17							10.00	10.00	
18							9.00	10.00	
19							3.00	10.00	
20							0.12	10.00	
21							1.50	10.00	
22							2.50	10.00	
23							6.00	10.00	
24							10.00	10.00	
25							3.00	10.00	
26							0.25	10.00	
27							7.00	10.00	
28							1.00	7.00	
29							10.00	10.00	
30							1.50	10.00	
31							0.00	10.00	
MONTHLY AVGS							4.93	9.90	
SUNSHINE (Minutes)									
Total : 0					Possible : 18190				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy		Missing		
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
3			16				12		

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
DECEMBER 2007 **KTYS**

WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)					
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION				SEA LEVEL	Observation Time (LST)			Eff Cld Amt Oktas	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL		
			SUNRISE: 0727						DEC 01							SUNSET: 1723													
01	CLR	NC			10.00		33	26	30	75	0	00	29.32	30.38	01	SCT	110			10.00		34	24	30	67	0	00	29.18	30.25
04	CLR	NC			10.00		31	26	29	82	6	03	29.30	30.37	04	CLR	NC			10.00		35	27	32	73	0	00	29.18	30.24
07	CLR	NC			10.00		34	27	31	76	7	01	29.34	30.41	07	SCT	120			10.00		36	28	33	73	0	00	29.21	30.27
10	BKN	100			10.00		44	26	37	49	8	01	29.38	30.45	10	BKN	120			10.00		40	29	36	65	6	34	29.18	30.24
13	FEW	100			10.00		54	25	42	33	7	36	29.27	30.33	13	OVC	041			10.00		43	30	38	60	5	04	29.16	30.23
16	BKN	120			10.00		57	24	43	28	0	00	29.21	30.26	16	OVC	055			10.00		45	30	39	56	8	03	29.15	30.21
19	SCT	120			10.00		54	25	42	33	0	00	29.21	30.26	19	OVC	042			10.00		43	31	38	63	3	05	29.15	30.22
22	SCT	120			10.00		48	29	40	48	0	00	29.18	30.24	22	OVC	032			10.00		44	31	39	60	6	04	29.16	30.23
SUNRISE: 0728						DEC 02						SUNSET: 1722																	
01	CLR	NC			10.00		45	34	40	65	0	00	29.18	30.23	01	OVC	028			10.00		45	32	39	60	0	00	29.18	30.23
04	CLR	NC			10.00		43	33	39	68	0	00	29.18	30.24	04	OVC	020			10.00		46	33	40	61	0	00	29.18	30.23
07	CLR	NC			10.00		52	29	42	41	9	27	29.18	30.23	07	OVC	016			10.00		47	34	41	61	0	00	29.19	30.25
10	BKN	060			10.00	-RA	54	34	45	47	5	35	29.18	30.22	10	OVC	014			10.00		49	38	44	66	0	00	29.23	30.29
13	BKN	038			10.00		58	38	48	48	0	00	29.08	30.12	13	OVC	014		1.50	BR		48	46	47	93	6	12	29.22	30.28
16	OVC	065			10.00		59	42	50	54	3	11	28.98	30.02	16	OVC	012		1.00	BR		50	48	49	93	5	05	29.21	30.27
19	OVC	032			10.00		61	52	56	72	11	21	28.94	29.98	19	OVC	025		1.50	BR		50	48	49	93	7	06	29.24	30.29
22	OVC	040			2.00	+RA BR	60	57	58	90	21	27	28.90	29.94	22	OVC	003		1.00	BR		49	48	48	96	0	00	29.25	30.31
SUNRISE: 0729						DEC 03						SUNSET: 1722																	
01	OVC	026			10.00		57	56	56	96	7	20	28.93	29.97	01	OVC	075		1.00	BR		49	48	48	96	3	08	29.26	30.32
04	SCT	013			10.00		48	42	45	80	17	28	29.04	30.08	04	OVC	080		1.00	BR		49	47	48	93	3	02	29.25	30.31
07	BKN	026			10.00		39	32	36	76	15	28	29.16	30.22	07	OVC	026		1.00	+RA BR		50	49	49	96	0	00	29.26	30.32
10	BKN	032			10.00		38	29	34	70	5	27	29.22	30.28	10	OVC	055		1.25	-RA BR		52	51	51	96	0	00	29.29	30.34
13	SCT	035			10.00		42	26	36	53	9	30	29.21	30.25	13	OVC	003		1.25	BR		57	55	56	93	0	00	29.25	30.30
16	FEW	036			10.00		44	26	37	49	9	27	29.22	30.28	16	SCT	090		2.50	BR		63	59	61	87	0	00	29.21	30.24
19	CLR	NC			10.00		36	24	32	62	7	26	29.22	30.30	19	BKN	110		5.00	BR		60	59	59	97	3	14	29.22	30.27
22	CLR	NC			10.00		34	22	30	62	0	00	29.22	30.29	22	CLR	NC		8.00			59	57	58	93	7	19	29.21	30.25
SUNRISE: 0730						DEC 04						SUNSET: 1722																	
01	CLR	NC			10.00		30	23	28	75	5	22	29.15	30.22	01	BKN	031		9.00			59	57	58	93	5	21	29.21	30.25
04	CLR	NC			10.00		28	22	26	78	5	20	29.07	30.14	04	BKN	029		4.00	BR		54	53	53	96	0	00	29.21	30.26
07	CLR	NC			10.00		27	21	25	78	3	23	29.03	30.10	07	BKN	055		6.00	BR		56	56	56	100	0	00	29.22	30.27
10	CLR	NC			10.00		34	26	31	73	9	23	29.03	30.09	10	OVC	065		7.00			59	56	57	90	0	00	29.25	30.30
13	CLR	NC			10.00		42	22	34	45	6	22	28.97	30.03	13	BKN	070		10.00			69	59	63	71	14	23	29.23	30.27
16	SCT	080			10.00		44	20	35	38	7	20	28.86	29.92	16	FEW	037		10.00			71	57	63	61	15	22	29.19	30.23
19	FEW	120			10.00		41	20	33	43	3	19	28.84	29.90	19	SCT	060		10.00			65	56	60	73	0	00	29.21	30.26
22	FEW	090			10.00		39	22	33	51	0	00	28.79	29.84	22	CLR	NC		10.00			64	55	59	73	3	22	29.23	30.28
SUNRISE: 0731						DEC 05						SUNSET: 1722																	
01	FEW	120			10.00		36	26	32	67	0	00	28.76	29.80	01	CLR	NC		10.00			60	55	57	84	0	00	29.21	30.25
04	OVC	120			10.00		41	24	34	51	6	22	28.70	29.75	04	CLR	NC		7.00			53	51	52	93	0	00	29.21	30.26
07	OVC	080			10.00		45	22	36	40	11	23	28.65	29.69	07	BKN	001		1.50	BR		50	49	49	96	0	00	29.23	30.28
10	OVC	065			10.00		49	23	39	36	17	21	28.63	29.67	10	CLR	NC		8.00			57	54	55	90	0	00	29.27	30.31
13	BKN	070			10.00		55	27	43	34	22	25	28.58	29.62	13	FEW	060		10.00			70	57	62	64	0	00	29.21	30.24
16	OVC	060			10.00		56	31	45	39	10	25	28.59	29.63	16	FEW	060		10.00			74	56	63	54	9	25	29.14	30.17
19	OVC	029			10.00		46	33	40	61	11	33	28.81	29.84	19	CLR	NC		10.00			67	54	60	63	5	19	29.15	30.19
22	BKN	027			10.00		34	23	30	64	14	34	28.98	30.04	22	CLR	NC		10.00			61	54	57	78	6	21	29.12	30.16
SUNRISE: 0732						DEC 06						SUNSET: 1722																	
01	OVC	025			10.00		32	22	28	67	14	02	29.03	30.08	01	BKN	050		10.00			60	53	56	78	7	22	29.11	30.14
04	OVC	035			10.00		31	21	28	66	14	01	29.08	30.13	04	OVC	033		10.00			60	54	57	81	7	30	29.10	30.13
07	SCT	031			10.00		28	20	25	72	9	02	29.12	30.18	07	BKN	050		10.00			61	56	58	84	7	23	29.10	30.13
10	CLR	NC			10.00		33	21	29	61	10	05	29.22	30.29	10	OVC	044		10.00			66	59	62	78	13	21	29.11	30.14
13	CLR	NC			10.00		39	22	33	51	6	36	29.14	30.21	13	OVC	075		10.00	-RA		64	59	61	84	10	24	29.11	30.14
16	CLR	NC			10.00		40	23	34	51	5	04	29.11	30.17	16	BKN	039		10.00			66	61	63	84	8	24	29.08	30.11
19	CLR	NC			10.00		35	23	31	62	3	03	29.14	30.21	19	OVC	110		10.00			63	60	61	90	3	24	29.08	30.11
22	FEW	120			10.00		32	26	30	79	0	00	29.19	30.26	22	OVC	040		9.00			63	60	61	90	7	22	29.06	30.09

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
DECEMBER 2007 **KTYS**

WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas		DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION				SEA LEVEL	Observation Time (LST)		Eff Cld Amt Oktas	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL			
			VISIBILITY (MILES)	WEATHER		DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION				SEA LEVEL	DRY BULB		DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)		STATION	SEA LEVEL					
SUNRISE: 0737 DEC 13 SUNSET: 1723						SUNRISE: 0741 DEC 19 SUNSET: 1725																						
01	OVC	065			10.00	64	59	61	84	9	19	29.01	30.03	01	OVC	080			10.00	-RA	38	29	34	70	6	21	29.14	30.20
04	OVC	060			10.00	62	58	60	87	8	24	28.98	30.01	04	OVC	033			10.00	-RA	39	32	36	76	9	27	29.15	30.21
07	BKN	090			10.00	63	57	60	81	13	22	28.97	30.00	07	OVC	030			10.00		40	34	37	79	5	26	29.15	30.22
10	OVC	043			10.00	63	58	60	84	21	20	28.99	30.02	10	OVC	026			10.00		43	36	40	76	6	25	29.18	30.25
13	OVC	046			2.00	60	57	58	90	13	26	28.98	30.01	13	OVC	026			10.00		48	38	43	68	8	23	29.14	30.19
16	OVC	090			3.00	56	52	54	87	8	24	29.03	30.07	16	BKN	026			10.00		50	39	45	66	6	23	29.12	30.18
19	SCT	070			10.00	52	49	50	90	7	26	29.07	30.11	19	CLR	NC			10.00		44	38	41	80	0	00	29.14	30.19
22	SCT	030			10.00	50	45	48	83	3	27	29.10	30.14	22	CLR	NC			6.00	BR	38	36	37	93	0	00	29.15	30.22
SUNRISE: 0738 DEC 14 SUNSET: 1723						SUNRISE: 0741 DEC 20 SUNSET: 1726																						
01	OVC	032			10.00	49	44	47	83	0	00	29.12	30.16	01	BKN	001			1.00	BR	32	32	32	100	3	07	29.13	30.19
04	OVC	032			10.00	45	42	44	89	3	23	29.14	30.18	04	VV	001			0.12	FG	32	32	32	100	0	00	29.11	30.16
07	OVC	030			10.00	45	41	43	86	5	28	29.16	30.22	07	OVC	036			7.00		33	32	33	96	5	03	29.09	30.15
10	BKN	026			10.00	47	40	44	77	0	00	29.21	30.25	10	BKN	036			7.00		39	37	38	93	6	05	29.09	30.15
13	SCT	026			10.00	52	40	46	64	0	00	29.16	30.21	13	OVC	032			10.00		46	37	42	71	6	04	29.01	30.06
16	CLR	NC			10.00	54	39	47	57	5	35	29.15	30.19	16	OVC	060			10.00		49	39	44	69	0	00	28.94	29.99
19	CLR	NC			10.00	44	36	40	74	9	36	29.15	30.22	19	OVC	055			10.00		47	42	45	83	5	03	28.92	29.98
22	CLR	NC			10.00	39	33	36	79	3	32	29.16	30.22	22	OVC	120			10.00		47	42	45	83	6	33	28.88	29.93
SUNRISE: 0738 DEC 15 SUNSET: 1724						SUNRISE: 0742 DEC 21 SUNSET: 1726																						
01	CLR	NC			10.00	37	33	35	86	5	02	29.11	30.16	01	OVC	070			5.00	-RA BR	46	44	45	93	5	03	28.90	29.95
04	FEW	080			10.00	38	35	37	89	0	00	29.06	30.11	04	OVC	060			3.00	-RA BR	46	45	46	96	6	07	28.91	29.96
07	FEW	120			9.00	37	34	36	89	0	00	29.01	30.07	07	OVC	065			2.50	BR	46	45	46	96	6	36	28.93	29.98
10	SCT	120			9.00	41	37	39	86	5	04	28.99	30.05	10	OVC	070			3.00	BR	49	46	47	89	3	36	29.01	30.06
13	SCT	120			10.00	51	39	45	64	0	00	28.89	29.94	13	SCT	060			10.00		53	46	49	77	7	05	28.98	30.03
16	BKN	100			10.00	53	40	47	62	0	00	28.76	29.80	16	SCT	040			10.00		60	47	53	62	0	00	28.97	30.01
19	OVC	095			9.00	49	46	47	89	8	30	28.74	29.79	19	OVC	045			10.00		54	47	50	77	0	00	29.03	30.08
22	OVC	009			3.00	49	47	48	93	6	17	28.69	29.73	22	FEW	043			10.00		50	44	47	80	3	35	29.06	30.11
SUNRISE: 0739 DEC 16 SUNSET: 1724						SUNRISE: 0743 DEC 22 SUNSET: 1727																						
01	OVC	050			4.00	50	48	49	93	5	26	28.51	29.53	01	CLR	NC			10.00		45	42	44	89	6	02	29.07	30.11
04	OVC	035			9.00	46	42	44	86	24	24	28.57	29.60	04	CLR	NC			10.00		42	39	41	89	3	34	29.12	30.16
07	OVC	045			10.00	40	31	36	70	18	25	28.68	29.72	07	SCT	001			2.50	BR	37	36	37	96	3	04	29.14	30.19
10	OVC	033			9.00	35	27	32	73	22	24	28.84	29.90	10	CLR	NC			3.00	BR	45	40	43	83	6	01	29.15	30.21
13	OVC	033			10.00	34	24	30	67	14	26	28.91	29.97	13	SCT	110			10.00	BR	53	43	48	69	7	04	29.08	30.13
16	OVC	037			9.00	34	24	30	67	17	26	28.98	30.04	16	SCT	045			10.00		56	44	50	64	7	04	28.98	30.02
19	SCT	038			10.00	32	19	28	59	14	28	29.07	30.13	19	SCT	060			10.00		50	43	47	77	0	00	28.99	30.04
22	CLR	NC			10.00	29	19	26	66	9	25	29.12	30.19	22	BKN	060			10.00		50	44	47	80	0	00	28.96	30.01
SUNRISE: 0740 DEC 17 SUNSET: 1724						SUNRISE: 0743 DEC 23 SUNSET: 1727																						
01	CLR	NC			10.00	27	19	24	72	7	25	29.15	30.23	01	SCT	060			10.00		56	49	52	78	8	23	28.88	29.92
04	CLR	NC			10.00	23	18	21	81	3	19	29.18	30.26	04	SCT	085			10.00	TS	64	50	56	61	23	19	28.81	29.84
07	CLR	NC			10.00	24	19	22	81	8	19	29.22	30.30	07	OVC	065			10.00	-RA	56	53	54	90	17	22	28.82	29.85
10	CLR	NC			10.00	29	22	27	75	7	24	29.28	30.37	10	OVC	044			8.00		54	50	52	86	24	23	28.90	29.94
13	CLR	NC			10.00	37	22	32	55	3	VR	29.26	30.34	13	OVC	038			10.00		44	35	40	71	24	25	29.04	30.09
16	CLR	NC			10.00	39	21	32	48	3	22	29.24	30.32	16	FEW	030			10.00		45	27	38	49	15	23	29.05	30.09
19	CLR	NC			10.00	36	20	30	52	5	20	29.27	30.35	19	CLR	NC			10.00		38	24	33	57	6	23	29.10	30.15
22	CLR	NC			10.00	29	21	26	72	0	00	29.28	30.37	22	CLR	NC			10.00		34	24	30	67	6	24	29.14	30.20
SUNRISE: 0740 DEC 18 SUNSET: 1725						SUNRISE: 0743 DEC 24 SUNSET: 1728																						
01	CLR	NC			10.00	24	21	23	88	0	00	29.27	30.35	01	CLR	NC			10.00		33	24	30	70	5	22	29.15	30.22
04	CLR	NC			10.00	25	20	23	81	0	00	29.30	30.38	04	CLR	NC			10.00		30	22	27	72	8	21	29.16	30.23
07	SCT	070			10.00	23	19	22	85	5	06	29.31	30.40	07	CLR	NC			10.00		29	19	26	66	7	21	29.16	30.24
10	SCT	100			10.00	30	25	28	82	3	10	29.32	30.41	10	CLR	NC			10.00		38	24	33	57	6	22	29.21	30.28
13	SCT	100			10.00	39	24	33	55	3	36	29.25	30.33	13	CLR	NC			10.00		45	22	36	40	7	23	29.16	30.23
16	FEW	100			10.00	47	21	37	36	8	23	29.19	30.26	16	CLR	NC			10.00		46	23	37	40	6	22	29.13	30.19
19	CLR	NC			10.00	40	25	34	55	0	00	29.19	30.26	19	CLR	NC			10.00		42	24	35	49	3	24	29.15	30.23
22	BKN	070			10.00	33	27	31	79	3	36	29.16	30.23	22	BKN	120			10.00		37	26	33	65	0	00	29.18	30.24

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
DECEMBER 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 Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0744 DEC 25						SUNSET: 1728								
01	CLR	NC				35	28	32	76	0	00	29.18	30.24	
04	CLR	NC				34	26	31	73	3	36	29.18	30.25	
07	CLR	NC				32	26	30	79	7	03	29.19	30.26	
10	CLR	NC				39	29	35	67	8	04	29.19	30.27	
13	FEW	100				43	27	37	53	0	00	29.15	30.22	
16	OVC	060			-RA BR	40	35	38	82	0	00	29.18	30.25	
19	OVC	048				38	34	36	86	0	00	29.12	30.19	
22	FEW	100				36	35	36	96	0	00	29.11	30.17	
SUNRISE: 0744 DEC 26						SUNSET: 1729								
01	OVC	070				37	35	36	93	3	34	29.05	30.11	
04	OVC	060				36	34	35	92	0	00	29.04	30.11	
07	VV	001			FG	35	33	34	92	5	33	29.04	30.10	
10	VV	001			FG	36	36	36	100	0	00	29.07	30.13	
13	CLR	NC				49	37	43	63	0	00	28.97	30.03	
16	CLR	NC				54	36	46	51	3	03	28.87	29.92	
19	SCT	045				48	36	43	63	3	25	28.90	29.95	
22	CLR	NC				41	36	39	82	3	07	28.85	29.91	
SUNRISE: 0745 DEC 27						SUNSET: 1729								
01	OVC	075				43	39	41	86	5	31	28.84	29.89	
04	OVC	048				43	39	41	86	5	14	28.90	29.94	
07	OVC	032				48	41	45	77	10	25	28.96	30.01	
10	BKN	049				52	42	47	69	13	23	29.02	30.07	
13	BKN	037				54	41	48	62	8	25	29.01	30.05	
16	CLR	NC				56	42	49	60	5	30	29.00	30.04	
19	FEW	045				51	41	46	69	0	00	29.04	30.09	
22	SCT	045				44	40	42	86	0	00	29.07	30.12	
SUNRISE: 0745 DEC 28						SUNSET: 1730								
01	CLR	NC				40	37	39	89	0	00	29.05	30.10	
04	FEW	001			BR	35	33	34	92	0	00	29.08	30.14	
07	FEW	001			BR	33	32	33	96	3	07	29.03	30.09	
10	OVC	055			+RA BR	40	39	40	96	7	07	29.05	30.10	
13	OVC	046			-RA BR	43	42	43	96	7	32	28.94	30.00	
16	OVC	055			BR	45	44	45	96	5	02	28.88	29.94	
19	OVC	005			-RA BR	47	45	46	93	5	15	28.90	29.96	
22	OVC	024			BR	52	51	51	96	8	24	28.93	29.98	
SUNRISE: 0745 DEC 29						SUNSET: 1731								
01	OVC	031				51	49	50	93	7	21	28.99	30.04	
04	OVC	021				48	42	45	80	6	25	29.02	30.06	
07	OVC	025				46	40	43	80	0	00	29.04	30.09	
10	SCT	027				45	39	42	80	3	23	29.08	30.13	
13	FEW	027				50	41	46	71	3	20	29.03	30.07	
16	FEW	120				53	38	46	57	6	28	29.01	30.06	
19	FEW	120				47	37	42	68	0	00	29.02	30.06	
22	CLR	NC				44	37	41	77	0	00	29.04	30.10	
SUNRISE: 0745 DEC 30						SUNSET: 1731								
01	BKN	095				40	37	39	89	0	00	29.01	30.07	
04	OVC	100				41	38	40	89	0	00	28.97	30.02	
07	OVC	110				42	38	40	86	5	29	28.94	29.99	
10	OVC	045				43	41	42	93	0	00	28.94	29.99	
13	OVC	040			BR	44	42	43	93	0	00	28.87	29.92	
16	BKN	044				46	43	45	89	8	23	28.84	29.88	
19	SCT	100				42	40	41	93	8	20	28.87	29.92	
22	CLR	NC			BR	39	38	39	96	6	21	28.92	29.98	

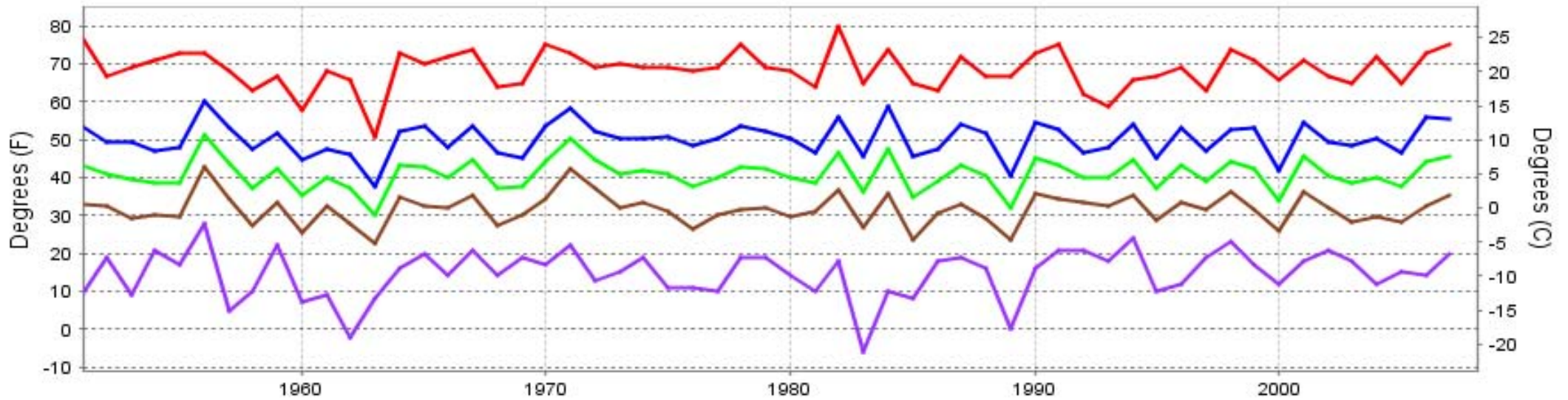
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0746 DEC 31						SUNSET: 1732								
01	VV	001			0.12 FG	37	36	37	96	6	28	28.95	30.01	
04	VV	001			0.25 FG	35	35	35	100	5	22	29.00	30.06	
07	VV	001			0.00 FG	33	32	33	96	0	00	29.02	30.08	
10	OVC	001			0.50 FG	35	35	35	100	0	00	29.07	30.13	
13	CLR	NC			10.00	48	33	41	56	6	18	29.01	30.07	
16	CLR	NC			10.00	52	28	42	40	7	24	28.94	29.99	
19	CLR	NC			10.00	45	29	38	54	5	20	28.95	30.01	
22	FEW	110			10.00	43	30	38	60	14	27	28.93	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 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)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			43	37	40	82	29.07	30.12	8.58	4	2	23
02			43	37	40	80	29.06	30.11	8.30	4	3	24
03			42	37	40	82	29.07	30.12	8.16	5	3	24
04			41	36	39	82	29.07	30.12	8.19	5	4	25
05			41	36	39	83	29.07	30.12	7.77	5	3	24
06			41	35	38	83	29.07	30.13	7.46	6	4	25
07			41	35	38	81	29.08	30.14	7.82	6	4	25
08			41	35	38	82	29.09	30.15	7.22	6	4	25
09			42	36	39	81	29.10	30.16	7.79	6	4	25
10			44	37	41	77	29.12	30.17	7.90	7	3	25
11			46	37	42	72	29.12	30.17	8.92	7	3	25
12			48	37	43	67	29.10	30.15	9.04	6	6	26
13			49	37	44	65	29.07	30.13	8.65	6	5	25
14			51	37	45	63	29.05	30.10	8.64	6	4	25
15			52	37	45	61	29.04	30.09	8.76	6	4	25
16			52	37	45	61	29.04	30.09	8.71	6	4	25
17			50	38	45	65	29.05	30.10	8.97	5	4	25
18			48	38	44	68	29.05	30.11	9.13	4	3	24
19			47	37	43	70	29.06	30.11	9.24	4	2	24
20			46	38	42	74	29.06	30.12	9.03	4	3	24
21			45	38	42	76	29.06	30.12	8.94	4	2	23
22			44	37	41	78	29.07	30.12	8.52	4	4	25
23			44	38	41	79	29.06	30.12	8.58	4	3	24
24			44	37	41	80	29.06	30.11	8.61	6	2	24

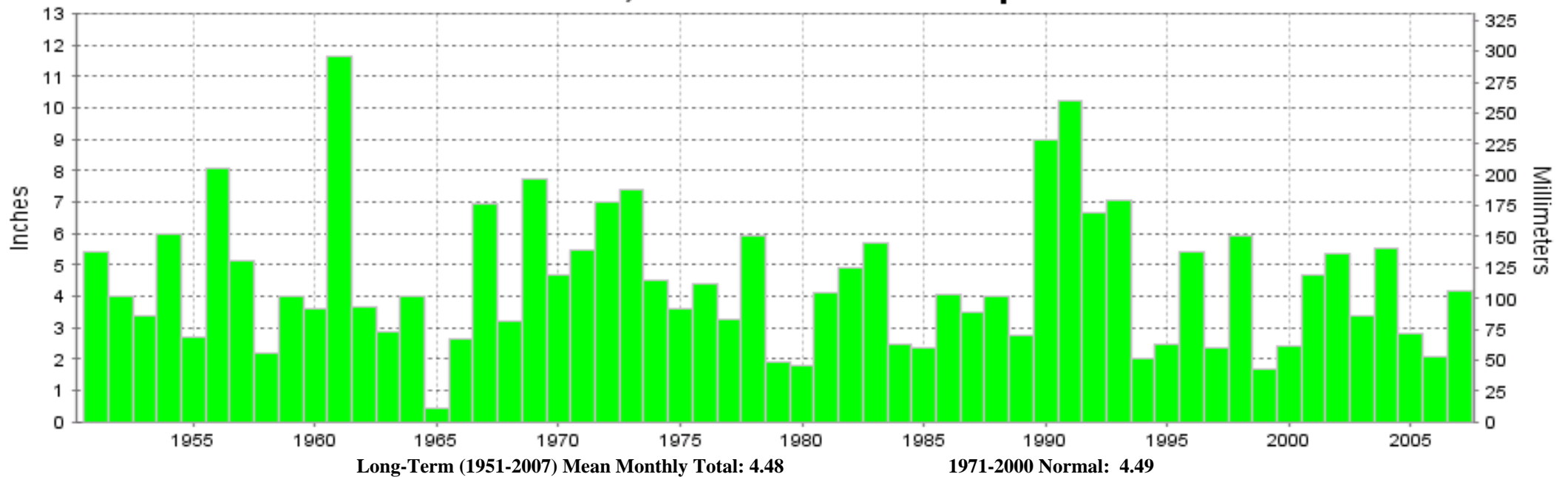
KNOXVILLE, TN DECEMBER Temperatures



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

Long-Term (1951-2007) Mean: 41.0
1971-2000 Normal: 40.9

KNOXVILLE, TN DECEMBER Precipitation



Long-Term (1951-2007) Mean Monthly Total: 4.48

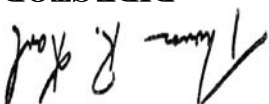
1971-2000 Normal: 4.49



**DECEMBER 2007
KNOXVILLE, TN**

**LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center**

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