



AUGUST 2015 LOCAL CLIMATOLOGICAL DATA

NOAA, National Centers for Environmental Information

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	1300 LST	2400 LST	2400 LST	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM					
																			3-SEC		2-MIN			
11	12	13	14	15	16	17	18	19	20	21	22	23	24											
01	90	62	76	-2	61	67	0	11		0		0.0	0.00	28.96	29.97	2.1	03	3.2	14	11	12	12	01	
02	90	64	77	-1	63	68	0	12		0		0.0	0.00	28.92	29.93	1.4	02	3.6	14	30	10	29	02	
03	91	67	79	1	62	68	0	14	BR	0		0.0	0.00	28.90	29.91	0.7	24	1.9	12	29	9	36	03	
04	93*	67	80	2	66	71	0	15		0		0.0	0.00	28.95	29.97	1.2	31	4.3	16	24	13	26	04	
05	91	70	81	3	67	70	0	16		0		0.0	0.00	28.98	29.99	2.6	02	5.4	18	23	16	23	05	
06	84	69	77	-1	68	70	0	12	RA BR	0		0.0	0.35	28.87	29.86	5.3	23	8.0	25	24	21	24	06	
07	85	70	78	0	69	71	0	13	RA BR	0		0.0	0.22	28.80	29.82	2.5	28	4.5	12	01	9	36	07	
08	89	67	78	0	67	71	0	13	BR	0		0.0	0.00	28.89	29.90	2.4	02	3.6	17	32	8	33	08	
09	91	68	80	3	67	71	0	15	BCFG BR	0		0.0	0.00	28.94	29.95	1.3	29	2.5	13	28	10	28	09	
10	90	71	81*	4	70	72	0	16	TS RA	0		0.0	0.31	28.90	29.91	5.8	23	7.0	46*	20	30	19	10	
11	88	71	80	3	68	71	0	15	TS TSRA RA FG VCTS	0		0.0	0.81	28.90	29.92	2.6	26	5.7	37	36	29	33	11	
12	86	69	78	1	61	67	0	13		0		0.0	0.00	28.99	30.01	3.3	36	4.5	17	03	14	01	12	
13	87	63	75	-2	61	66	0	10		0		0.0	0.00	29.03	30.05	4.9	02	6.0	15	02	13	02	13	
14	77	66	72	-5	65	67	0	7	RA	0		0.0	T	29.10	30.12	1.6	03	3.6	13	28	10	24	14	
15	83	68	76	-1	67	69	0	11	RA BR	0		0.0	0.01	29.11	30.14	1.8	34	3.3	13	36	10	35	15	
16	88	70	79	2	67	70	0	14		0		0.0	0.00	29.11	30.12	2.0	35	3.0	17	33	14	33	16	
17	80	70	75	-2	69	70	0	10	RA BR	0		0.0	0.31	29.07	30.08	1.1	36	3.4	20	33	14	22	17	
18	82	71	77	0	70	72	0	12	TS TSRA RA BR VCTS	0		0.0	0.73	28.94	29.95	2.9	23	4.0	22	32	15	19	18	
19	85	71	78	1	71	73	0	13	TS TSRA RA BR VCTS	0		0.0	0.63	28.90	29.92	8.0	23	8.7	44	23	32*	24	19	
20	81	72	77	0	69	71	0	12	RA BR	0		0.0	0.29	28.94	29.97	5.9	24	7.8	20	24	17	23	20	
21	85	67	76	-1	63	67	0	11		0		0.0	0.00	29.03	30.05	3.1	36	4.1	16	03	10	03	21	
22	84	64	74	-3	66	69	0	9	RA	0		0.0	T	29.02	30.04	1.5	34	3.7	13	21	8	29	22	
23	84	71	78	1	71	72	0	13		0		0.0	0.00	28.95	29.96	2.0	26	2.5	8	25	8	25	23	
24	90	66	78	2	69	72	0	13	BR	0		0.0	0.00	28.92	29.94	3.2	30	4.0	10	31	10	31	24	
25	82	60	71	-5	54	61	0	6		0		0.0	0.00	28.95	29.98	4.5	02	4.9	10	34	10	34	25	
26	80	60*	70*	-6	55	61	0	5		0		0.0	0.00	29.00	30.02	8.2	05	8.6	14	07	14	07	26	
27	85	62	74	-2	58	63	0	9		0		0.0	0.00	29.03	30.05	7.3	05	8.1	12	06	12	06	27	
28	89	63	76	0	61	67	0	11		0		0.0	0.00	29.07	30.09	2.9	05	4.0	7	08	7	08	28	
29	90	66	78	2	68	71	0	13		0		0.0	0.00	29.10	30.12	0.5	36	0.8	7	34	7	34	29	
30	82	67	75	0	66	67	0	10	RA	0		0.0	T	29.07	30.08	1.1	08	3.6	6	05	6	05	30	
31	87	65	76	1	64	68	0	11	BR	0		0.0	0.00	29.05	30.08	1.6	05	2.0	6	07	6	07	31	

86.1	67.0	76.5	☼	65.3	68.8	0.0	11.8	< MONTHLY AVERAGES TOTALS >				0.0	3.66	28.98	30.00	1.0	34	4.5	< MONTHLY AVERAGES			
-1.7	-0.8	-1.3		<----- DEPARTURE FROM NORMAL ----->								0.39	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS				GREATEST 24-HR PRECIPITATION : 1.12 DATE : 10-11				SEA LEVEL PRESSURE			
MONTHLY				GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.20 15 1118			
TOTAL DEPARTURE				GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.78 07 0450			
SEASON TO DATE				NUMBER OF -> DAYS WITH				PRECIPITATION >= 0.01 INCH: 9			
HEATING : 0 0 0 0				MAXIMUM TEMP >= 90 : 9				MINIMUM TEMP <= 32 : 0			
COOLING : 365 -32 1422 141				MAXIMUM TEMP <= 32 : 0				PRECIPITATION >= 0.10 INCH: 8			
				THUNDERSTORMS : 4				HEAVY FOG : 0			
								SNOWFALL >= 1.0 INCH : 0			

AUGUST 2015
KNOXVILLE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
AUGUST 2015

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												03	0.00	0.00	
04													04												04	0.00	0.00	
05													05												05	0.00	0.00	
06													06	T	0.05	T		T	T		0.19	0.11		06	0.35	0.35		
07	T		0.03	0.12	T	T		T	0.05	0.02		T	07											07	0.22	0.22		
08													08											08	0.00	0.00		
09													09											09	0.00	0.00		
10													10			T	0.31							10	0.31	0.31		
11													11	T	0.81		T							11	0.81	0.81		
12													12											12	0.00	0.00		
13													13											13	0.00	0.00		
14													14	T			T					T	T	14	T	T		
15													15	T										15	0.01	0.01		
16													16											16	0.00	0.00		
17													17		T	0.22	0.04	0.01	0.02	T	T			17	0.31	0.31		
18					0.01	T		T	0.01			T	18	0.02	T	T		T	0.02	0.02				18	0.73	0.73		
19						0.04	0.01	0.01	0.06			T	19		0.03	T					0.65	T		19	0.63	0.63		
20	T											T	20	T	0.01	T		0.14			0.13	0.27	0.08	0.01	20	0.29	0.29	
21													21											21	0.00	0.00		
22													22			T								22	T	T		
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													27											27	0.00	0.00		
28													28											28	0.00	0.00		
29													29											29	0.00	0.00		
30													30				T	T						30	T	T		
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)	0.40	0.60	0.79	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Ending Date	11	11	11	11	11	11	11	11	11	11	11	11
Ending Time (Hr/Min)	1313	1313	1314	1318	1318	1318	1318	1318	1318	1318	1318	1318

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.

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).

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	
VC In the Vicinity	UP Unkown Precipitation		GL Glaze

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

KNOXVILLE, TN AUGUST 2015

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet.

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.

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

NORMALS ARE FOR THE YEARS 1981-2010

ADDITIONAL NOTES & ERRATA:

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	VISIBILITY (MILES)	
	MINIMUM	MAXIMUM
01	10.00	10.00
02	10.00	10.00
03	6.00	10.00
04	8.00	10.00
05	10.00	10.00
06	2.00	10.00
07	1.00	10.00
08	1.50	10.00
09	6.00	10.00
10	10.00	10.00
11	9.00	10.00
12	8.00	10.00
13	10.00	10.00
14	7.00	10.00
15	5.00	10.00
16	8.00	10.00
17	3.00	10.00
18	4.00	10.00
19	1.50	10.00
20	3.00	10.00
21	10.00	10.00
22	10.00	10.00
23	10.00	10.00
24	6.00	10.00
25	10.00	10.00
26	10.00	10.00
27	10.00	10.00
28	10.00	10.00
29	7.00	10.00
30	10.00	10.00
31	6.00	10.00
AVGS	7.16	10.00
MINIMUM VISIBILITY (MILES)		
<= .25	<= 3.0	>= 7.0
0	6	19

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

AUGUST 2015

KTYS

WBAN # 13891

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0602 AUG 25					SUNSET: 1914							
01	CLR	NC	10.00		64	58	60	81	0	00	28.95	29.96
04	CLR	NC	10.00		62	58	60	86	3	08	28.94	29.96
07	CLR	NC	10.00		62	60	61	93	0	00	28.97	29.99
10	FEW	018	10.00		73	53	61	50	10	03	29.00	30.02
13	FEW	037	10.00		81	53	64	38	0	00	28.96	29.98
16	FEW	041	10.00		82	50	63	33	3	02	28.93	29.95
19	FEW	045	10.00		75	53	62	46	7	02	28.93	29.96
22	FEW	060	10.00		68	52	59	57	8	02	28.99	30.01
SUNRISE: 0603 AUG 26					SUNSET: 1913							
01	CLR	NC	10.00		63	54	58	73	5	07	28.99	30.01
04	FEW	040	10.00		61	57	59	87	6	06	28.96	29.98
07	SCT	040	10.00		61	56	58	84	7	07	29.01	30.03
10	FEW	060	10.00		72	55	62	55	11	06	29.04	30.06
13	FEW	150	10.00		79	56	65	45	13	04	29.02	30.03
16	FEW	080	10.00		80	55	65	42	9	07	28.98	30.00
19	FEW	060	10.00		76	55	63	48	9	03	28.98	30.00
22	BKN	060	10.00		69	54	60	59	7	08	29.04	30.06
SUNRISE: 0604 AUG 27					SUNSET: 1912							
01	FEW	060	10.00		65	54	59	68	8	07	29.03	30.04
04	BKN	060	10.00		63	55	58	76	8	06	29.02	30.04
07	BKN	250	10.00		63	57	60	81	8	05	29.05	30.07
10	SCT	250	10.00		72	57	63	59	11	06	29.06	30.09
13	FEW	180	10.00		81	59	67	47	7	08	29.04	30.06
16	FEW	045	10.00		85	59	68	42	9	07	28.98	30.00
19	SCT	060	10.00		79	59	66	50	6	01	29.00	30.02
22	FEW	060	10.00		72	60	65	66	5	02	29.06	30.08
SUNRISE: 0605 AUG 28					SUNSET: 1911							
01	BKN	090	10.00		69	60	64	73	5	04	29.04	30.06
04	FEW	090	10.00		68	61	64	78	5	07	29.05	30.06
07	FEW	030	10.00		63	63	63	100	0	00	29.10	30.12
10	FEW	080	10.00		79	62	68	56	0	00	29.14	30.16
13	FEW	150	10.00		89	60	70	38	5	01	29.10	30.11
16	FEW	150	10.00		88	57	68	35	6	35	29.04	30.06
19	SCT	250	10.00		81	61	68	51	5	05	29.03	30.06
22	BKN	250	10.00		76	62	67	62	5	15	29.10	30.11
SUNRISE: 0605 AUG 29					SUNSET: 1909							
01	BKN	250	10.00		73	65	68	76	0	00	29.10	30.11
04	OVC	250	10.00		68	67	67	96	0	00	29.09	30.11
07	BKN	250	7.00		67	66	66	97	0	00	29.15	30.17
10	BKN	250	10.00		82	71	74	69	0	00	29.16	30.18
13	SCT	150	10.00		89	71	76	55	3	VR	29.13	30.14
16	SCT	150	10.00		89	71	76	55	3	VR	29.06	30.07
19	OVC	150	10.00		79	67	71	67	0	00	29.04	30.06
22	OVC	150	10.00		75	66	69	74	0	00	29.09	30.10
SUNRISE: 0606 AUG 30					SUNSET: 1908							
01	OVC	150	10.00		71	63	66	76	0	00	29.07	30.09
04	OVC	150	10.00		71	65	67	81	0	00	29.07	30.08
07	OVC	150	10.00		70	67	68	90	0	00	29.09	30.11
10	OVC	250	10.00		71	70	70	96	0	00	29.11	30.12
13	OVC	250	10.00		71	65	67	81	5	07	29.10	30.11
16	OVC	250	10.00		71	67	68	87	3	12	29.05	30.06
19	OVC	250	10.00	-RA	71	68	69	90	0	00	29.01	30.02
22	OVC	150	10.00		67	65	66	93	0	00	29.03	30.04

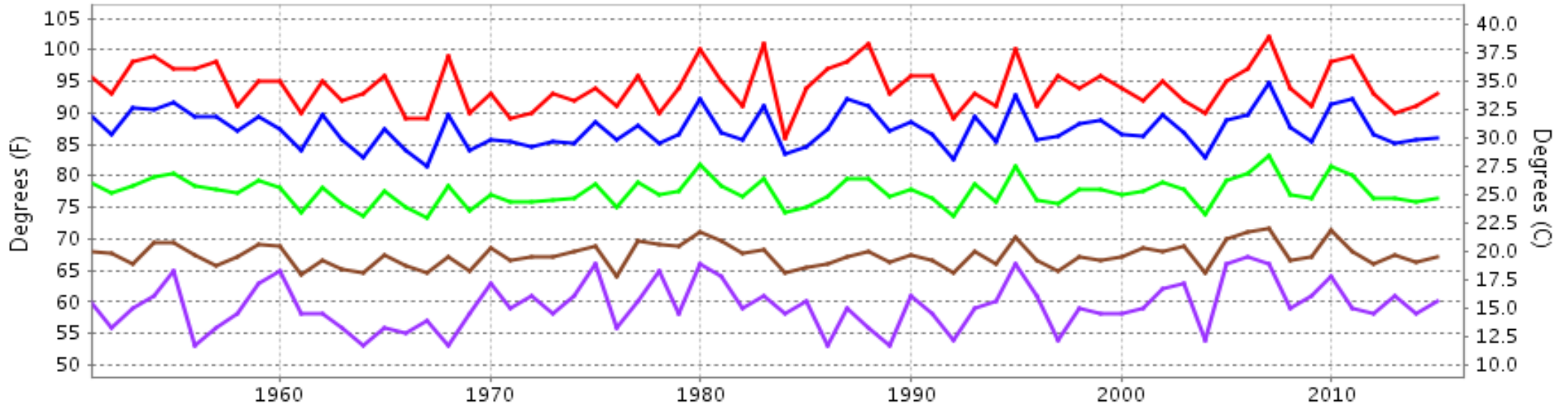
HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0607 AUG 31					SUNSET: 1906							
01	BKN	150	10.00		69	64	66	84	0	00	29.05	30.06
04	FEW	150	10.00		66	65	65	96	0	00	29.05	30.06
07	FEW	020	6.00	BR	65	65	65	100	0	00	29.08	30.10
10	OVC	180	10.00		77	65	69	66	0	00	29.12	30.14
13	SCT	250	10.00		83	64	71	53	6	36	29.08	30.10
16	BKN	250	10.00		86	61	70	43	6	07	29.03	30.04
19	FEW	045	10.00		82	62	69	51	5	05	29.02	30.04
22	CLR	NC	10.00		73	67	69	81	0	00	29.06	30.08

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)	
	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
					STATION	SEA LEVEL				
01	71	65	67	83	28.98	29.99	9.81	3	1	36
02	70	65	67	85	28.97	29.98	9.71	4	1	03
03	69	65	67	88	28.97	29.98	9.71	3	2	05
04	69	65	66	89	28.97	29.98	9.84	3	1	03
05	68	65	66	90	28.97	29.99	9.52	3	1	03
06	68	65	66	91	28.99	30.00	9.74	3	1	02
07	69	66	67	90	29.00	30.02	8.58	3	1	03
08	71	66	68	85	29.01	30.03	8.73	4	2	06
09	74	66	69	77	29.02	30.03	9.26	5	2	06
10	77	66	70	70	29.02	30.04	9.81	5	1	02
11	80	66	71	64	29.02	30.04	9.74	6	1	34
12	81	66	71	61	29.01	30.03	9.68	6	2	29
13	83	65	71	58	29.00	30.01	9.84	6	2	29
14	83	65	71	57	28.98	30.00	9.50	6	2	29
15	83	65	71	55	28.97	29.98	9.81	6	3	29
16	84	65	71	55	28.95	29.97	9.87	7	2	29
17	83	64	71	55	28.95	29.97	9.81	7	1	31
18	82	64	70	57	28.95	29.96	9.87	6	2	29
19	80	65	70	62	28.95	29.96	9.84	5	2	30
20	77	65	69	68	28.96	29.97	9.58	5	2	31
21	75	65	69	74	28.97	29.99	9.55	5	1	36
22	74	66	69	77	28.99	30.00	9.58	4	2	05
23	73	66	68	79	28.99	30.00	9.81	3	1	36
24	72	65	68	81	28.99	30.00	9.74	2	2	03

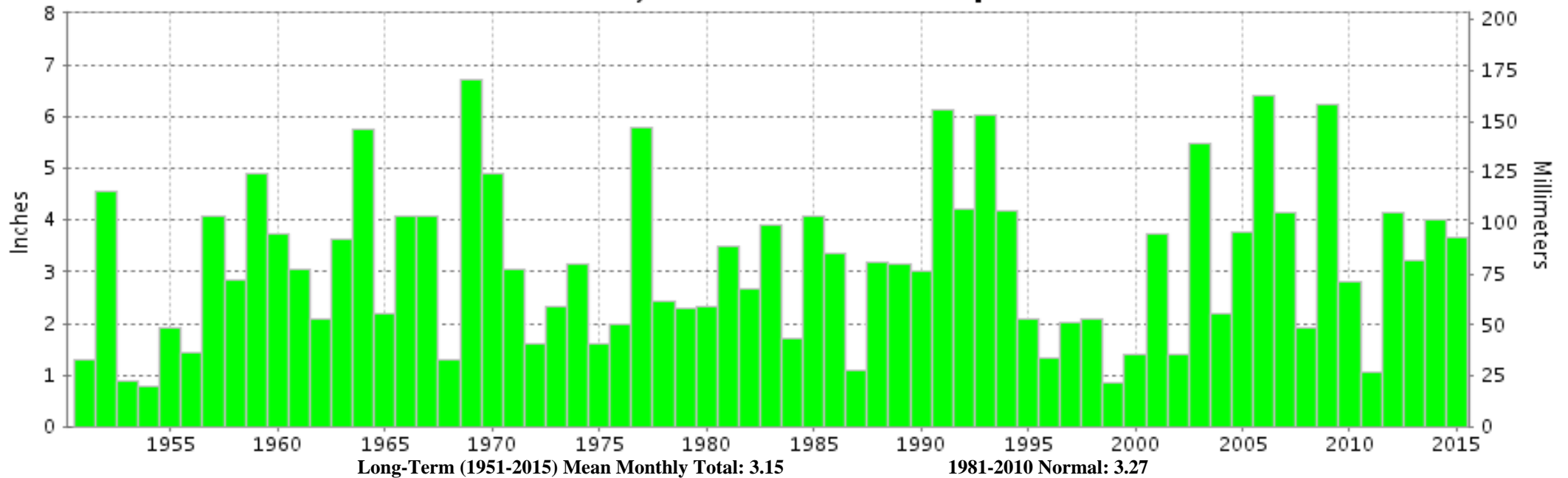
KNOXVILLE, TN AUGUST Temperatures



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

Long-Term (1951-2015) Mean: 77.4
1981-2010 Normal: 77.8

KNOXVILLE, TN AUGUST Precipitation



Long-Term (1951-2015) Mean Monthly Total: 3.15

1981-2010 Normal: 3.27



**AUGUST 2015
KNOXVILLE, TN**

LOCAL CLIMATOLOGICAL DATA

NOAA, National Centers for Environmental Information

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 Centers for Environmental Information (NCEI), Asheville, North Carolina 28801.

A handwritten signature in black ink, appearing to read "Thomas R. Karl".

DIRECTOR

NCEI now offers free online access to the **Edited Local Climatological Data Publication**. Go to : www.ncdc.noaa.gov/IPS/lcd/lcd.html

We welcome your questions or comments, please contact us at:
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