



JUNE 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



**JUNE 2015
KNOXVILLE, TN**

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																											
																			3-SEC		2-MIN																									
									DEPTH	WATER- EQUIV	SNOW- FALL	WATER EQUIV			SPEED	DIR	SPEED	DIR	SPEED	DIR																										
01	82	64	73	3	62	65	0	8	RA FG+ BCFG BR	0		0.0	T	29.00	30.01	3.6	25	6.4	26	33	20	33	01																							
02	80	63	72	2	62	64	0	7	TS RA VCTS	0		0.0	0.42	28.97	29.98	1.0	06	5.3	23	09	20	10	02																							
03	79	61	70*	0	60	63	0	5	BR VCTS	0		0.0	0.00	28.95	29.97	2.7	07	4.7	19	08	15	08	03																							
04	84	59	72	2	58	63	0	7	FG+ FG BCFG BR	0		0.0	0.00	28.99	30.02	0.9	30	3.5	14	36	10	36	04																							
05	85	65	75	5	61	66	0	10	RA	0		0.0	T	28.98	30.00	3.7	27	5.4	21	27	14	28	05																							
06	88	63	76	5	60	66	0	11		0		0.0	0.00	28.94	29.95	3.5	35	3.9	17	02	14	33	06																							
07	90	64	77	6	62	68	0	12		0		0.0	0.00	28.97	29.98	5.4	22	6.3	23	25	18	19	07																							
08	91	66	79	7	66	69	0	14	TS TSRA RA FG BR VCTS	0		0.0	1.57	28.92	29.93	8.6	22	10.1	38	22	31	22	08																							
09	89	67	78	6	67	70	0	13		0		0.0	0.00	28.86	29.87	1.7	31	3.5	8	02	8	02	09																							
10	90	65	78	5	66	70	0	13	BCFG	0		0.0	0.00	28.87	29.88	1.0	25	1.1	6	23	6	23	10																							
11	93	69	81	8	69	72	0	16	TS RA VCTS	0		0.0	0.13	28.92	29.94	2.0	21	2.9	12	21	12	21	11																							
12	88	70	79	6	68	72	0	14		0		0.0	0.00	28.99	30.02	4.4	24	5.2	18	26	13	26	12																							
13	90	69	80	6	68	72	0	15		0		0.0	0.00	29.07	30.09	4.7	23	5.0	12	23	12	23	13																							
14	91	71	81	7	70	74	0	16		0		0.0	0.00	29.07	30.09	2.6	28	3.3	9	23	9	23	14																							
15	91	70	81	7	68	73	0	16		0		0.0	0.00	29.07	30.08	2.5	27	2.5	8	27	8	27	15																							
16	93	71	82	7	68	73	0	17	RA	0		0.0	T	29.07	30.08	3.5	27	4.8	17	28	14	32	16																							
17	94	73	84	9	69	74	0	19		0		0.0	0.00	29.05	30.06	3.7	26	4.4	20	26	14	27	17																							
18	92	71	82	7	70	73	0	17	TS TSRA RA BR VCTS	0		0.0	0.19	29.03	30.04	3.3	27	6.0	35	24	30	24	18																							
19	91	70	81	6	69	72	0	16	TS RA VCTS	0		0.0	0.05	28.99	30.00	1.3	30	6.3	23	28	18	23	19																							
20	87	73	80	5	69	73	0	15	RA BR	0		0.0	0.20	28.92	29.92	11.0	23	13.0	38	20	30	21	20																							
21	94	70	82	6	68	72	0	17	TS RA VCTS	0		0.0	T	28.98	30.01	4.8	25	8.1	35	03	25	02	21																							
22	93	68	81	5	68	72	0	16	BCFG BR	0		0.0	0.00	29.07	30.07	1.7	26	3.4	20	29	12	25	22																							
23	92	74	83	7	69	74	0	18		0		0.0	0.00	29.03	30.04	6.4	25	7.6	21	25	16	24	23																							
24	94	76	85*	9	70	74	0	20		0		0.0	0.00	29.05	30.06	2.7	26	6.1	16	31	12	24	24																							
25	93	69	81	5	68	72	0	16		0		0.0	0.00	29.03	30.02	4.0	25	5.0	15	23	12	24	25																							
26	96*	70	83	7	67	71	0	18	TS TSRA RA BR VCTS	0		0.0	0.61	28.92	29.92	3.1	25	6.7	26	18	22	16	26																							
27	84	67	76	0	66	69	0	11	RA BR	0		0.0	0.34	28.82	29.85	7.5	25	8.6	27	23	22	24	27																							
28	83	60	72	-5	61	65	0	7	BCFG	0		0.0	0.00	28.92	29.95	1.1	24	3.1	46*	23	46*	23	28																							
29	84	59*	72	-5	61	65	0	7	TS TSRA RA BR VCTS	0		0.0	0.15	28.92	29.93	7.3	21	8.4	31	22	25	22	29																							
30	81	65	73	-4	66	68	0	8	TS TSRA RA GS BR VCTS	0		T	1.63	28.89	29.92	5.1	26	5.9	31	32	21	29	30																							
										88.7		67.4		78.1		☼	65.9		69.8		0.0		13.3		< MONTHLY AVERAGES TOTALS >				T		5.29		28.98		29.99		3.2		25		5.6		< MONTHLY AVERAGES			
										3.3		2.7		3.1			<-----DEPARTURE FROM NORMAL----->										1.48		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 1.63 DATE : 30										SEA LEVEL PRESSURE				DATE TIME																						
MONTHLY										GREATEST 24-HR SNOWFALL : T DATE : 30										MAXIMUM : 30.15				13 1201																						
TOTAL DEPARTURE										GREATEST SNOW DEPTH : 0 DATE :										MINIMUM : 29.79				27 1553																						
SEASON TO DATE										NUMBER OF ->										MAXIMUM TEMP >= 90 : 17				MINIMUM TEMP <= 32 : 0				PRECIPITATION >= 0.01 INCH : 10																		
TOTAL DEPARTURE										THUNDERSTORMS : 9										MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH : 9																		
HEATING : 0 -4 3845 208																				SNOWFALL >= 1.0 INCH : 0																										
COOLING : 399 94 633 166																																														

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
JUNE 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	T	T										01	T	T	
02	T												02					0.30	0.12	T				T	02	0.42	0.42	
03													03												03	0.00	0.00	
04													04												04	0.00	0.00	
05													05							T					05	T	T	
06													06												06	0.00	0.00	
07													07												07	0.00	0.00	
08													08				0.03	0.47	0.01	T	T	1.06	T	08	1.57	1.57		
09													09												09	0.00	0.00	
10													10												10	0.00	0.00	
11													11		T	0.13	T							11	0.13	0.13		
12													12											12	0.00	0.00		
13													13											13	0.00	0.00		
14													14											14	0.00	0.00		
15													15											15	0.00	0.00		
16													16		T									16	T	T		
17													17											17	0.00	0.00		
18													18						T	0.19				18	0.19	0.19		
19													19				0.05							19	0.05	0.05		
20							T	T				T	20	0.02	0.18									20	0.20	0.20		
21													21								T	T		21	T	T		
22													22											22	0.00	0.00		
23													23											23	0.00	0.00		
24													24											24	0.00	0.00		
25													25											25	0.00	0.00		
26													26				T	T	0.01	0.56	T	0.03	0.01	T	26	0.61	0.61	
27							0.03	T	0.06	0.01		0.24	27	T	T									27	0.34	0.34		
28													28											28	0.00	0.00		
29												T	29									T	0.04	0.11	29	0.15	0.15	
30	T	0.01	0.63	0.03	0.33	0.05	T					T	30	0.40	T	T							0.03	30	1.48*	1.63		

* 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)												
Ending Date												
Ending Time (Hr/Min)												

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	GL Glaze
VC In the Vicinity	UP Unkown Precipitation		

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

KNOXVILLE, TN JUNE 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	0.00	10.00
02	7.00	10.00
03	4.00	10.00
04	0.50	10.00
05	10.00	10.00
06	10.00	10.00
07	10.00	10.00
08	1.50	10.00
09	7.00	10.00
10	7.00	10.00
11	5.00	10.00
12	7.00	10.00
13	10.00	10.00
14	10.00	10.00
15	7.00	10.00
16	7.00	10.00
17	10.00	10.00
18	6.00	10.00
19	10.00	10.00
20	7.00	10.00
21	10.00	10.00
22	0.50	10.00
23	8.00	10.00
24	10.00	10.00
25	10.00	10.00
26	6.00	10.00
27	2.00	10.00
28	10.00	10.00
29	10.00	10.00
30	4.00	10.00
AVGS	6.88	10.00
MINIMUM VISIBILITY (MILES)		
	<= .25	<= 3.0 >= 7.0
1	5	20

OBSERVATIONS AT 3-HOURLY INTERVALS

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: 0521 JUN 25 SUNSET: 1956													
01	BKN	250	10.00		75	68	70	79	6	22	29.05	30.06	
04	SCT	250	10.00		71	68	69	90	0	00	29.02	30.03	
07	BKN	250	10.00		74	69	71	85	3	26	29.07	30.09	
10	OVC	250	10.00		83	70	74	65	8	26	29.09	30.10	
13	OVC	250	10.00		87	67	73	51	7	27	29.05	30.06	
16	OVC	250	10.00		88	67	74	50	9	25	28.97	29.98	
19	BKN	250	10.00		86	69	74	57	7	32	28.95	29.96	
22	SCT	250	10.00		81	69	73	67	3	08	28.97	29.97	
SUNRISE: 0521 JUN 26 SUNSET: 1956													
01	CLR	NC	10.00		76	68	71	77	7	25	28.93	29.94	
04	OVC	250	10.00		76	68	71	77	8	23	28.95	29.96	
07	OVC	250	10.00		77	63	68	62	6	18	28.96	29.97	
10	BKN	250	10.00		85	67	73	55	10	23	28.95	29.96	
13	FEW	250	10.00		93	67	75	42	8	23	28.90	29.91	
16	BKN	250	10.00		92	61	72	36	7	33	28.84	29.85	
19	BKN	060	10.00		78	66	70	67	10	16	28.88	29.89	
22	OVC	100	6.00	-RA BR	72	69	70	91	5	14	28.93	29.94	
SUNRISE: 0522 JUN 27 SUNSET: 1956													
01	SCT	120	10.00		71	69	70	94	0	00	28.85	29.85	
04	SCT	100	10.00		70	68	69	93	8	25	28.82	29.83	
07	BKN	085	6.00		71	69	70	94	6	21	28.84	29.85	
10	OVC	037	5.00	BR	74	71	72	91	11	21	28.84	29.85	
13	BKN	065	10.00		79	71	74	77	11	24	28.79	29.81	
16	BKN	085	10.00		75	66	69	74	9	27	28.78	29.79	
19	BKN	065	10.00		77	63	68	62	11	28	28.82	29.83	
22	FEW	060	10.00		69	59	63	70	5	24	28.89	29.91	
SUNRISE: 0522 JUN 28 SUNSET: 1956													
01	FEW	070	10.00		66	60	62	81	6	26	28.88	29.91	
04	CLR	NC	10.00		63	60	61	90	0	00	28.90	29.92	
07	SCT	250	10.00		64	58	60	81	0	00	28.96	29.98	
10	FEW	030	10.00		68	59	63	73	0	00	28.98	30.00	
13	FEW	030	10.00		81	63	69	54	0	00	28.95	29.96	
16	FEW	060	10.00		86	63	71	46	5	23	28.91	29.92	
19	FEW	060	10.00		80	61	68	52	5	23	28.92	29.94	
22	CLR	NC	10.00		70	61	64	73	0	00	28.93	29.96	
SUNRISE: 0523 JUN 29 SUNSET: 1956													
01	CLR	NC	10.00		64	57	60	78	0	00	28.92	29.94	
04	CLR	NC	10.00		61	58	59	90	0	00	28.92	29.94	
07	SCT	250	10.00		63	58	60	84	0	00	28.96	29.98	
10	BKN	075	10.00		75	56	64	52	13	22	28.95	29.97	
13	OVC	070	10.00		80	61	68	52	17	22	28.92	29.94	
16	BKN	200	10.00		84	63	70	49	22	22	28.86	29.88	
19	BKN	100	10.00		80	63	69	56	14	20	28.86	29.88	
22	BKN	075	10.00	VCTS	76	64	68	68	6	25	28.88	29.90	
SUNRISE: 0523 JUN 30 SUNSET: 1956													
01													
04	OVC	090	7.00	VCTS	65	63	64	93	7	22	28.90	29.91	
07	OVC	150	7.00	VCTS -RA	67	64	65	91	5	11	28.91	29.92	
10	SCT	250	10.00		75	68	70	79	7	24	28.93	29.94	
13	BKN	250	10.00		81	69	73	67	10	26	28.88		
16	SCT	130	10.00		77	68	71	74	7	21	28.87	29.89	
19	SCT	150	10.00		74	67	69	79	5	27	28.87	29.89	
22	SCT	250	10.00		69	63	65	81	3	31	28.93	29.95	

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

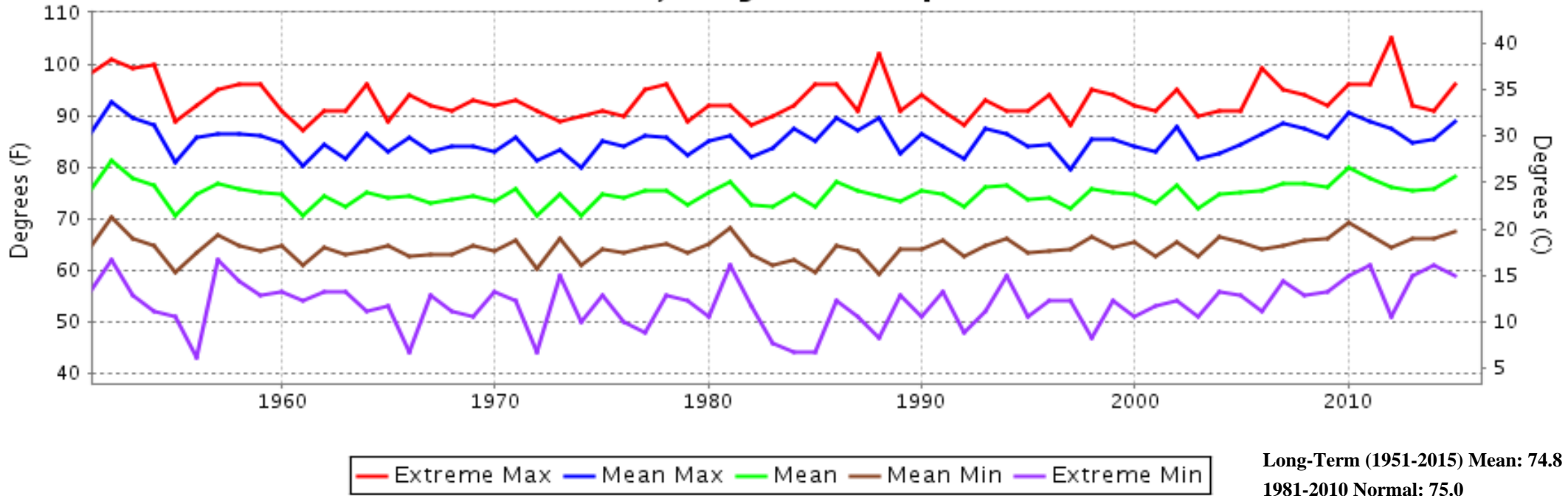
3-HOURLY OBSERVATION NOTES

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.

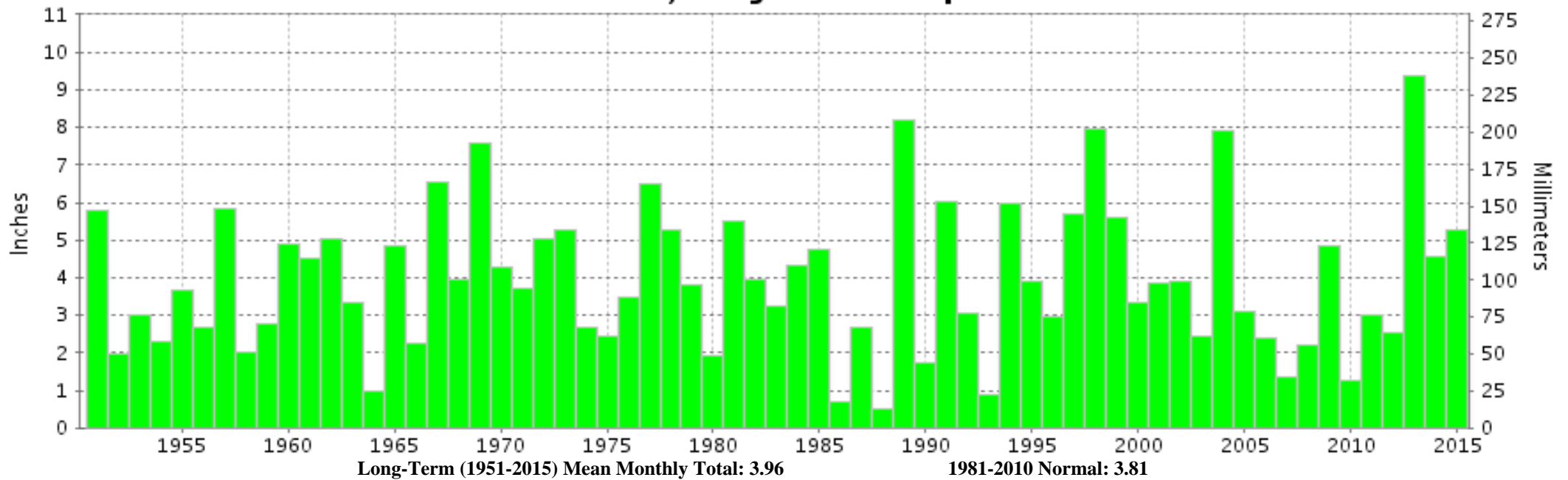
SUMMARY BY HOUR

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	72	66	68	82	28.98	29.99	9.45	3	4	24
02	71	66	67	84	28.97	29.99	9.27	3	3	23
03	70	65	67	86	28.97	29.98	9.07	3	3	22
04	70	66	67	88	28.97	29.99	9.07	3	3	23
05	69	65	67	88	28.98	30.00	9.23	3	2	22
06	69	65	67	88	29.00	30.01	8.52	3	3	22
07	71	66	67	85	29.01	30.02	8.40	3	2	22
08	74	66	69	78	29.02	30.03	9.13	4	3	23
09	78	67	71	71	29.02	30.03	9.57	5	4	25
10	80	68	72	66	29.01	30.03	9.83	8	5	26
11	82	68	73	63	29.01	30.02	9.90	8	8	26
12	84	68	73	58	29.00	30.01	9.90	8	7	26
13	86	67	73	54	28.98	30.00	9.80	8	6	26
14	86	66	73	54	28.97	29.98	9.57	9	7	26
15	86	65	72	51	28.95	29.96	9.97	9	7	26
16	87	65	72	50	28.94	29.95	10.00	9	6	26
17	86	65	72	52	28.93	29.94	10.00	9	5	26
18	84	65	71	54	28.93	29.94	10.00	7	5	26
19	82	65	71	58	28.94	29.95	9.48	7	4	25
20	79	65	70	64	28.95	29.96	10.00	6	2	23
21	77	65	70	68	28.96	29.98	10.00	4	2	21
22	75	66	69	72	28.98	29.99	9.87	4	2	22
23	74	66	69	76	28.98	29.99	10.00	3	2	18
24	73	66	68	80	28.98	29.99	9.77	4	2	22

KNOXVILLE, TN JUNE Temperatures



KNOXVILLE, TN JUNE Precipitation





JUNE 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

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