



MARCH 2016 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					
																			3-SEC		2-MIN			
									DEPTH 11	WATER- EQUIV 12	SNOW- FALL 13	WATER EQUIV 14			SPEED 17	DIR 18	AVERAGE SPEED 19	SPEED 20	DIR 21	SPEED 22	DIR 23			
01	67	38	53	7	42	47	12	0	TS TSRA RA BR VCTS	0		0.0	0.35	28.90	29.93	6.9	23	9.8	42*	28	33*	20	01	
02	45	28	37	-9	26	31	28	0	SN	0		T	T	29.05	30.14	2.9	29	5.9	23	27	20	28	02	
03	41	28*	35*	-11	29	33	30	0	RA DZ BR	0		0.0	0.04	29.01	30.07	3.3	02	4.5	14	02	13	03	03	
04	48	37	43	-3	35	39	22	0	RA DZ BR	0		0.0	T	29.03	30.12	2.7	02	3.7	13	36	10	36	04	
05	57	30	44	-2	33	39	21	0	RA FG+ FZFG BR	0		0.0	T	29.08	30.15	2.5	28	4.9	26	02	21	01	05	
06	61	32	47	0	32	40	18	0	BR	0		0.0	0.00	29.18	30.24	3.3	01	4.1	15	04	12	03	06	
07	70	34	52	5	34	43	13	0		0		0.0	0.00	29.16	30.22	2.8	24	3.7	18	25	15	24	07	
08	73	39	56	9	42	49	9	0		0		0.0	0.00	29.15	30.19	1.4	27	3.1	20	27	16	22	08	
09	79	44	62	14	46	54	3	0		0		0.0	0.00	29.07	30.11	7.7	23	8.3	23	21	20	21	09	
10	81	52	67	19	50	58	0	2	RA FU	0		0.0	T	29.03	30.06	9.6	22	10.7	35	23	29	22	10	
11	76	62	69	21	59	62	0	4		0		0.0	0.00	29.10	30.13	3.8	28	6.3	33	24	26	24	11	
12	82*	58	70*	21	56	61	0	5		0		0.0	0.00	29.05	30.05	3.2	25	4.9	23	24	18	24	12	
13	72	59	66	17	58	60	0	1	RA BR	0		0.0	1.13	28.82	29.83	4.4	23	7.2	27	23	21	21	13	
14	69	52	61	12	53	57	4	0	RA BR	0		0.0	0.07	28.75	29.77	5.6	22	8.0	29	20	23	20	14	
15	81	49	65	16	49	56	0	0	BCFG	0		0.0	0.00	28.80	29.81	5.8	21	6.0	23	23	17	21	15	
16	75	53	64	14	40	54	1	0		0		0.0	0.00	28.82	29.86	12.7	23	13.3	30	22	23	26	16	
17	70	43	57	7	31	46	8	0		0		0.0	0.00	28.93	29.97	2.1	27	4.0	28	26	18	25	17	
18	70	41	56	6	31	46	9	0		0		0.0	0.00	28.92	29.95	4.1	04	5.2	16	03	13	05	18	
19	67	46	57	6	35	46	8	0	RA	0		0.0	T	28.84	29.88	7.0	35	9.0	25	30	18	30	19	
20	51	36	44	-7	33	39	21	0	RA BR	0		0.0	0.21	28.95	30.01	5.6	30	8.4	28	27	23	27	20	
21	53	31	42	-9	28	36	23	0		0		0.0	0.00	29.15	30.23	4.5	24	5.5	20	26	16	26	21	
22	67	31	49	-2	28	41	16	0		0		0.0	0.00	29.14	30.18	9.7	23	10.0	30	24	25	24	22	
23	69	51	60	8	40	50	5	0	FU	0		0.0	0.00	29.05	30.08	13.8	23	14.3	35	23	29	24	23	
24	77	56	67	15	50	56	0	2	RA BR	0		0.0	0.43	28.85	29.86	7.0	20	8.9	31	21	25	21	24	
25	62	44	53	1	46	50	12	0	RA	0		0.0	0.08	28.85	29.92	3.3	30	6.8	26	24	20	24	25	
26	70	39	55	3	46	51	10	0		0		0.0	0.00	29.03	30.08	2.0	03	3.5	12	04	10	04	26	
27	69	54	62	9	55	58	3	0	RA	0		0.0	0.01	29.02	30.03	2.3	24	4.2	20	21	16	22	27	
28	63	49	56	2	43	50	9	0	RA BR	0		0.0	0.14	28.97	30.02	5.2	26	8.7	33	28	24	28	28	
29	63	39	51	-3	34	43	14	0		0		0.0	0.00	29.10	30.16	7.6	03	7.9	23	04	18	02	29	
30	77	39	58	4	37	48	7	0	HZ FU	0		0.0	0.00	29.07	30.10	2.6	20	5.5	23	15	17	15	30	
31	70	61	66	12	53	58	0	1	TS TSRA RA BR	0		0.0	0.48	28.82	29.81	8.8	21	10.7	37	21	30	21	31	
66.9		43.7	55.3	Σ	41.1	48.4	9.9	0.5	< MONTHLY AVERAGES TOTALS >			T	2.94	28.99	30.03	3.2	25	7.0	< MONTHLY AVERAGES					
5.5		4.5	5.0		<-----DEPARTURE FROM NORMAL----->								-1.40	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS									GREATEST 24-HR PRECIPITATION : 1.13 DATE : 13				SEA LEVEL PRESSURE				DATE		TIME					
MONTHLY									GREATEST 24-HR SNOWFALL : T DATE : 02				MAXIMUM :				30.31		06 1211					
TOTAL DEPARTURE									GREATEST SNOW DEPTH : 0 DATE :				MINIMUM :				29.70		14 1653					
SEASON TO DATE									NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 6		PRECIPITATION >= 0.01 INCH : 10							
TOTAL DEPARTURE									HEATING : 306		-155		2739		-618		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 6			
TOTAL DEPARTURE									COOLING : 15		-10		15		10		THUNDERSTORMS : 2		HEAVY FOG : 1		SNOWFALL >= 1.0 INCH : 0			

**MARCH 2016
KNOXVILLE, TN**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
MARCH 2016

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												0.01	01	T	T			0.09	0.01	0.03	0.21	T	T	T		01	0.35	0.35
02													02													02	T	T
03													03			T	0.01	0.01	0.01	0.01	T	T	T	T	03	0.04	0.04	
04	T	T	T										04												04	T	T	
05													05					T					T		05	T	T	
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	T	T	
11													11												11	0.00	0.00	
12													12												12	0.00	0.00	
13	T	0.01	0.05	0.01	0.01	0.04	0.09	0.27	0.52	0.12	0.01		13	T											13	1.13	1.13	
14													14		0.02	0.01	T			0.04					14	0.07	0.07	
15													15												15	0.00	0.00	
16													16												16	0.00	0.00	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19							T						19												19	T	T	
20													20		T	0.02	T	0.02	0.14	0.03	T	T	T		20	0.21	0.21	
21													21												21	0.00	0.00	
22													22												22	0.00	0.00	
23													23												23	0.00	0.00	
24													24			0.01	0.11	0.05	0.05	0.20	0.01	T		T	24	0.43	0.43	
25	0.01	0.06	0.01	T									25												25	0.08	0.08	
26													26												26	0.00	0.00	
27													27		0.01	T									27	0.01	0.01	
28	T	T		0.14	T								28												28	0.14	0.14	
29													29												29	0.00	0.00	
30													30												30	0.00	0.00	
31											T	0.03	31	0.03	0.08	0.07	T								31	0.48	0.48	

* 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)	0.13	0.14	0.17	0.23	0.32	0.44	0.53	0.63	0.74	0.82	0.91	0.94
Ending Date	28	28	13	13	13	13	13	13	13	13	13	13
Ending Time (Hr/Min)	0326	0332	0833	0838	0847	0852	0858	0904	0904	0916	0916	0938

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 MARCH 2016

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	4.00	10.00
02	5.00	10.00
03	2.00	10.00
04	3.00	10.00
05	0.25	10.00
06	6.00	10.00
07	10.00	10.00
08	10.00	10.00
09	9.00	10.00
10	2.00	10.00
11	10.00	10.00
12	10.00	10.00
13	1.50	10.00
14	5.00	10.00
15	10.00	10.00
16	10.00	10.00
17	10.00	10.00
18	10.00	10.00
19	10.00	10.00
20	3.00	10.00
21	7.00	10.00
22	10.00	10.00
23	5.00	10.00
24	3.00	10.00
25	10.00	10.00
26	10.00	10.00
27	10.00	10.00
28	5.00	10.00
29	10.00	10.00
30	6.00	10.00
31	2.00	10.00
AVGS	6.73	10.00
MINIMUM VISIBILITY (MILES)		
	<= .25	<= 3.0 >= 7.0
1	8	16

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

MARCH 2016

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: 0633 MAR 25 SUNSET: 1852					01	OVC	033	10.00	-RA	61	57	59	87	15	25	28.72	29.73
04	OVC	050	10.00		54	47	50	77	11	27	28.77	29.79					
07	OVC	050	10.00		51	47	49	86	6	24	28.84	29.87					
10	BKN	250	10.00		54	46	50	75	5	32	28.89	29.93					
13	OVC	034	10.00		57	45	51	64	3	VR	28.92	29.95					
16	SCT	250	10.00		61	44	52	54	5	VR	28.90	29.94					
19	FEW	250	10.00		55	42	49	62	9	01	28.93	29.98					
22	FEW	250	10.00		48	40	44	74	7	02	29.00	30.04					
SUNRISE: 0631 MAR 26 SUNSET: 1852					01	FEW	250	10.00		44	38	41	79	8	02	29.01	30.05
04	FEW	250	10.00		41	38	40	89	7	01	29.00	30.04					
07	CLR	NC	10.00		41	38	40	89	5	02	29.05	30.10					
10	FEW	120	10.00		54	45	49	72	6	04	29.06	30.11					
13	BKN	250	10.00		67	49	57	53	3	VR	29.05	30.09					
16	OVC	250	10.00		70	50	59	49	0	00	29.03	30.07					
19	SCT	150	10.00		66	52	58	61	3	06	29.02	30.06					
22	FEW	050	10.00		62	52	56	70	0	00	29.07	30.11					
SUNRISE: 0630 MAR 27 SUNSET: 1853					01	BKN	150	10.00		56	52	54	87	0	00	29.08	30.11
04	OVC	100	10.00		56	52	54	87	3	03	29.06	30.09					
07	BKN	250	10.00		55	52	53	90	0	00	29.08	30.11					
10	BKN	065	10.00		60	53	56	78	0	00	29.08	30.11					
13	OVC	036	10.00		65	55	59	70	0	00	29.02	30.05					
16	OVC	050	10.00		68	57	61	68	3	VR	28.94	29.97					
19	OVC	110	10.00		65	58	61	78	13	25	28.90	29.93					
22	OVC	060	10.00		62	57	59	84	9	23	28.87	29.90					
SUNRISE: 0629 MAR 28 SUNSET: 1854					01	OVC	060	10.00	-RA	62	58	60	86	17	21	28.86	29.88
04	OVC	085	5.00	-RA BR	58	53	55	84	16	28	28.86	29.89					
07	BKN	030	10.00		52	45	48	77	9	26	28.97	30.01					
10	BKN	031	10.00		54	42	48	64	5	36	29.03	30.06					
13	SCT	042	10.00		59	41	50	51	5	31	29.03	30.06					
16	FEW	048	10.00		63	41	52	45	8	14	29.00	30.03					
19	CLR	NC	10.00		58	37	48	46	9	25	29.02	30.06					
22	CLR	NC	10.00		52	34	44	50	7	02	29.08	30.12					
SUNRISE: 0627 MAR 29 SUNSET: 1855					01	CLR	NC	10.00		47	36	42	66	0	00	29.08	30.13
04	CLR	NC	10.00		40	36	38	86	3	03	29.09	30.13					
07	CLR	NC	10.00		42	37	40	82	9	01	29.13	30.18					
10	FEW	250	10.00		53	35	45	51	14	05	29.18	30.23					
13	FEW	250	10.00		58	31	46	36	8	03	29.14	30.18					
16	FEW	250	10.00		63	31	48	30	14	02	29.10	30.15					
19	FEW	250	10.00		56	30	44	37	8	05	29.10	30.14					
22	CLR	NC	10.00		51	32	43	48	6	05	29.10	30.14					
SUNRISE: 0626 MAR 30 SUNSET: 1856					01	CLR	NC	10.00		47	35	42	63	3	04	29.11	30.15
04	CLR	NC	10.00		42	36	39	79	3	02	29.12	30.16					
07	BKN	250	10.00		41	36	39	82	0	00	29.14	30.19					
10	BKN	250	10.00		58	39	49	50	6	27	29.15	30.21					
13	OVC	250	10.00		70	41	55	35	7	31	29.08	30.11					
16	OVC	250	10.00		76	36	55	23	9	23	28.98	30.02					
19	OVC	250	6.00	HZ FU	70	34	52	27	11	15	28.95	29.99					
22	OVC	250	10.00		64	37	51	37	3	19	28.97	30.00					

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: 0624 MAR 31 SUNSET: 1857					01	BKN	250	10.00		62	41	51	46	5	18	28.91	29.93
04	OVC	120	10.00		65	47	55	52	6	19	28.82	29.84					
07	OVC	250	10.00		67	46	56	47	20	19	28.82	29.85					
10	OVC	055	10.00		69	52	59	55	22	21	28.84	29.85					
13	OVC	095	8.00	-RA	64	60	62	87	10	22	28.82	29.84					
16	SCT	110	10.00		67	60	63	79	9	27	28.73	29.74					
19	SCT	130	10.00		65	56	60	73	8	22	28.72	29.73					
22	BKN	095	10.00		64	56	59	75	0	00	28.72	29.73					

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.

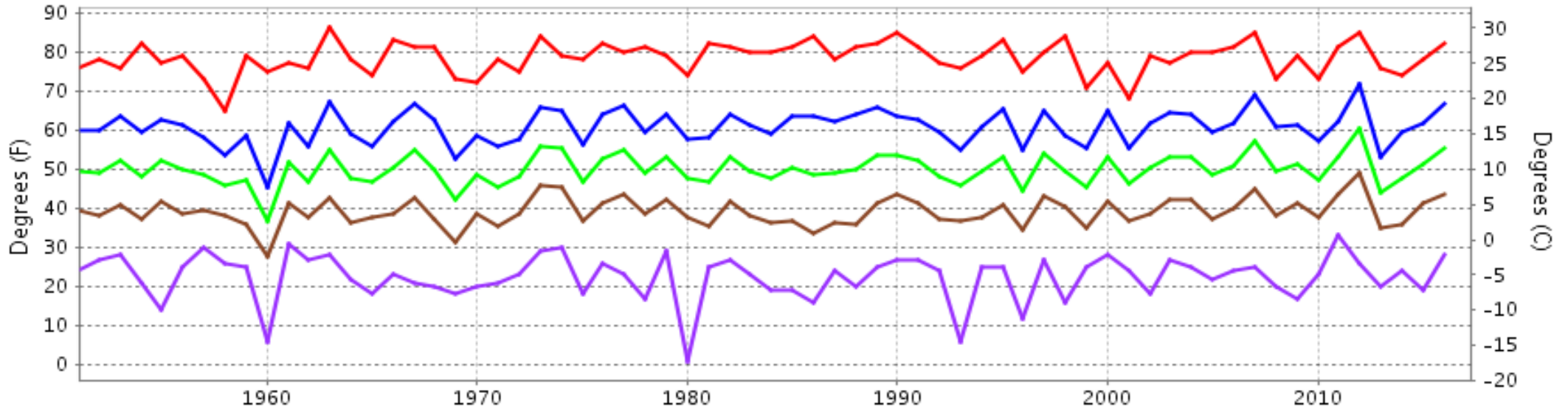
& = Original observation contained additional weather elements.

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	51	41	46	69	29.00	30.03	9.81	6	3	25
02	50	41	46	72	28.99	30.03	9.71	6	3	24
03	50	41	45	73	28.99	30.03	9.71	5	2	23
04	48	40	44	76	28.99	30.02	9.58	5	3	25
05	48	40	44	76	28.99	30.03	9.71	5	2	23
06	47	40	43	79	29.01	30.04	9.61	5	2	24
07	47	40	44	80	29.02	30.06	9.40	5	2	23
08	48	41	45	77	29.03	30.08	8.77	6	1	22
09	52	42	47	71	29.04	30.08	9.45	6	1	20
10	56	42	49	61	29.04	30.08	9.74	6	3	24
11	58	42	50	56	29.04	30.08	9.74	8	4	25
12	60	42	51	53	29.03	30.06	9.74	9	5	26
13	63	42	52	49	29.01	30.04	9.94	9	6	26
14	63	41	52	47	28.97	30.01	9.70	9	7	26
15	64	41	53	48	28.96	30.00	9.84	11	7	26
16	65	41	53	46	28.95	29.99	9.32	10	6	26
17	64	41	52	49	28.95	29.98	9.06	10	6	26
18	62	41	52	51	28.95	29.99	9.00	9	5	26
19	60	41	51	55	28.96	30.00	9.26	7	4	25
20	58	41	50	56	28.97	30.01	9.61	7	3	25
21	56	40	48	59	28.97	30.01	9.77	7	3	25
22	55	41	48	63	28.98	30.02	9.84	7	3	24
23	54	41	48	66	28.99	30.02	9.84	6	3	25
24	53	41	47	67	28.99	30.02	9.61	6	3	25

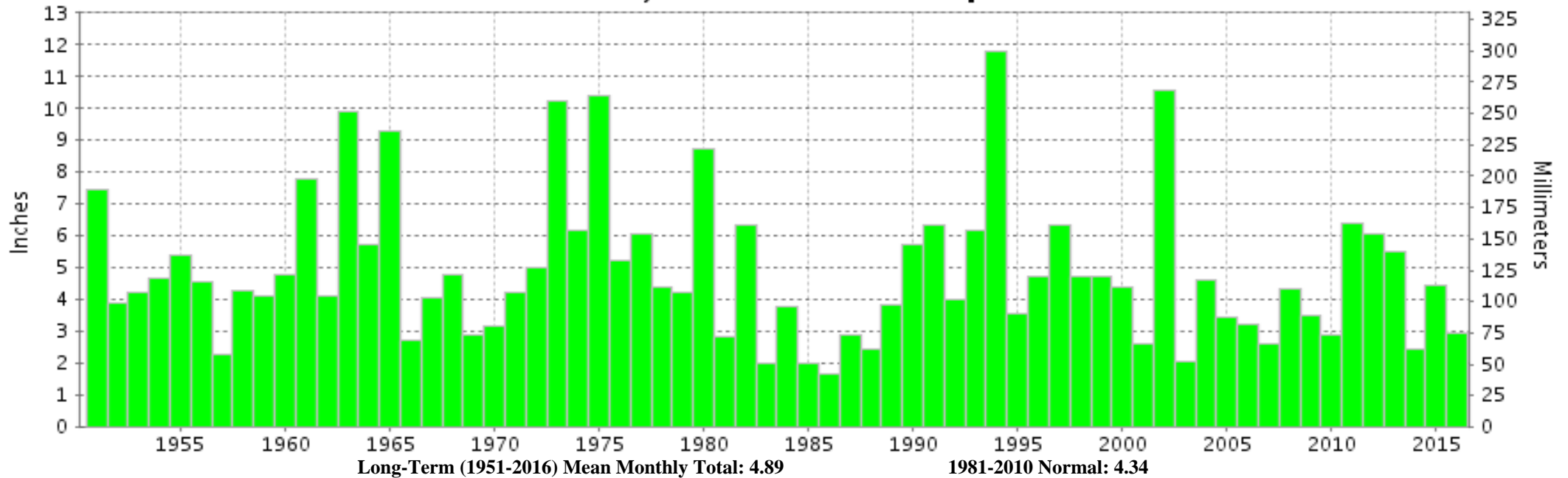
KNOXVILLE, TN MARCH Temperatures



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

Long-Term (1951-2016) Mean: 50.0
1981-2010 Normal: 50.3

KNOXVILLE, TN MARCH Precipitation



Long-Term (1951-2016) Mean Monthly Total: 4.89

1981-2010 Normal: 4.34



MARCH 2016
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.

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

DIRECTOR

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