



FEBRUARY 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			
01	66	52	59	20	53	55	6	0	RA BR	0		0.0	1.23	28.87	29.91	6.0	24	9.2	30	24	18	23	01	
02	75*	50	63*	24	52	56	2	0	RA DZ FG+ FG BR	0		0.0	T	28.93	29.95	3.7	14	9.2	41	18	31	18	02	
03	69	46	58	19	49	53	7	0	RA BR	0		0.0	1.86	28.82	29.86	10.6	23	12.2	42	18	31	19	03	
04	47	33	40	1	27	35	25	0		0		0.0	0.00	29.08	30.17	5.0	35	7.1	21	35	14	33	04	
05	45	25	35	-5	17	29	30	0		0		0.0	0.00	29.33	30.41	2.8	03	4.7	18	05	14	05	05	
06	49	27	38	-2	20	31	27	0		0		0.0	0.00	29.28	30.35	2.9	02	3.3	13	02	10	36	06	
07	52	26	39	-1	23	33	26	0		0		0.0	0.00	29.07	30.10	1.9	22	2.4	11	27	9	27	07	
08	50	30	40	0	24	34	25	0	RA SN	0		T	T	28.74	29.77	12.4	24	13.4	41	24	33	23	08	
09	30	22	26	-14	17	24	39	0	SN	0		0.3	T	28.79	29.87	11.2	27	11.6	27	28	22	28	09	
10	30	19	25	-16	8	20	40	0	SN	0		0.1	T	29.01	30.11	13.1	26	13.9	30	27	24	26	10	
11	43	25	34	-7	19	27	31	0		0		0.0	0.00	29.13	30.22	0.9	30	4.6	12	24	10	36	11	
12	36	29	33	-8	26	30	32	0	SN FZFG BR	T		1.7	0.14	29.11	30.18	4.2	28	6.8	24	27	18	28	12	
13	32	20	26	-15	9	22	39	0	SN	0		T	T	29.31	30.41	7.1	36	9.0	21	01	17	02	13	
14	27	19*	23*	-19	11	20	42	0	RA DZ FZRA FZDZ SN GS PL	0		T	T	29.24	30.31	7.5	04	7.8	18	04	14	04	14	
15	37	27	32	-10	30	32	33	0	RA DZ FZRA SN PL BR	0		0.4	1.03	28.95	29.96	3.7	02	5.4	18	32	16	32	15	
16	42	32	37	-5	36	37	28	0	RA BR	0		0.0	0.75	28.75	29.83	3.7	24	6.5	18	22	15	24	16	
17	42	36	39	-3	34	37	26	0	RA BR	0		0.0	T	29.10	30.21	3.7	35	4.5	16	32	13	36	17	
18	55	28	42	0	30	37	23	0	BR	0		0.0	0.00	29.34	30.41	3.8	04	4.0	17	04	14	04	18	
19	66	30	48	5	32	41	17	0		0		0.0	0.00	29.20	30.25	10.1	22	10.3	41	22	32	22	19	
20	59	54	57	14	48	52	8	0		0		0.0	0.00	29.10	30.14	10.1	23	10.3	21	22	17	21	20	
21	62	55	59	16	54	56	6	0	RA BR	0		0.0	0.12	28.97	29.99	11.5	22	11.6	29	21	22	22	21	
22	61	51	56	12	51	53	9	0	RA BR	0		0.0	0.63	28.91	29.94	3.6	01	5.2	13	01	10	05	22	
23	56	49	53	9	51	51	12	0	RA DZ BR	0		0.0	1.02	28.79	29.80	7.9	04	8.1	15	05	13	05	23	
24	63	36	50	6	44	47	15	0	RA BR HZ SQ	0		0.0	0.28	28.43	29.47	15.7	22	19.6	46*	25	38*	22	24	
25	41	35	38	-6	30	35	27	0	RA SN PL BR	0		0.1	0.06	28.87	29.97	13.0	25	13.4	29	24	23	25	25	
26	45	31	38	-7	25	33	27	0	SN	0		T	T	29.15	30.23	3.3	29	5.0	16	27	14	27	26	
27	52	28	40	-5	27	35	25	0		0		0.0	0.00	29.16	30.22	4.7	21	5.5	18	20	15	19	27	
28	66	33	50	4	30	42	15	0		0		0.0	0.00	29.04	30.08	10.6	22	11.7	30	23	25	23	28	
29	66	53	60	14	35	47	5	0		0		0.0	0.00	28.96	30.01	9.7	23	11.3	40	22	31	22	29	

50.5			34.5			42.5			☼	31.4			38.1			22.3			0.0			< MONTHLY AVERAGES TOTALS >				2.6		7.12		29.01		30.07		3.8		25		8.5		< MONTHLY AVERAGES			
-1.8			2.1			0.1				<----- DEPARTURE FROM NORMAL ----->												2.86		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 1.86 DATE : 03										SEA LEVEL PRESSURE				DATE TIME																			
MONTHLY					SEASON TO DATE					GREATEST 24-HR SNOWFALL : 1.7 DATE : 12					MAXIMUM : 30.50				18 1153																								
TOTAL DEPARTURE					TOTAL DEPARTURE					GREATEST SNOW DEPTH : T DATE : 12					MINIMUM : 29.28				24 0753																								
HEATING :		647		13		2433		-463		NUMBER OF -> DAYS WITH		MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 16		PRECIPITATION >= 0.01 INCH : 10																											
COOLING :		0		0		0		0		THUNDERSTORMS : 0		MAXIMUM TEMP <= 32 : 4		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 9																											
												HEAVY FOG : 1		SNOWFALL >= 1.0 INCH : 1																													

FEBRUARY 2016
KNOXVILLE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN (KTYS)
FEBRUARY 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													01	0.02	0.51	0.49	0.19	0.01	0.01	T					01	1.23	1.23	
02				T	T	T	T						02									T	T		02	T	T	
03	T	0.15	0.21	0.19	0.30	0.39	0.44	0.10	0.06	0.02			03												03	1.86	1.86	
04													04												04	0.00	0.00	
05													05												05	0.00	0.00	
06													06												06	0.00	0.00	
07													07												07	0.00	0.00	
08								T	T				08	T							T	T	T	T	08	T	T	
09	T			T	T	T							09	T	T	T	T	T	T	T	T	T	T		09	T	T	
10	T	T	T	T	T	T	T	T					10												10	T	T	
11													11												11	0.00	0.00	
12						0.01	T	0.04	0.06	0.03	T	T	12	T	T									T	12	0.14	0.14	
13	T												13												13	T	T	
14													14		T	T	T		T	T					14	T	T	
15	T			0.01	0.08	0.08	0.12	0.02	0.02	0.11	0.05	0.02	15	0.01		0.01	0.06	0.01	T	T	0.05	T	0.04	0.19	0.15	15	1.03	1.03
16	0.17	0.11	0.10	0.04	0.01								16				T	0.06	0.04	0.06	0.08	0.04	0.02	0.01	0.01	16	0.75	0.75
17	T												17												17	T	T	
18													18												18	0.00	0.00	
19													19												19	0.00	0.00	
20													20												20	0.00	0.00	
21									T	T	T	0.12	21	T	T					T	T	T	T		21	0.12	0.12	
22		T	T										22						0.05	0.19	0.15	0.10	0.07	0.07	22	0.63	0.63	
23	0.05	0.08	0.11	0.09	0.08	0.12	0.03	0.01	0.01	0.01	0.03	0.02	23		T	T			0.02	0.08	0.01	0.05	0.13	0.09	23	1.02	1.02	
24	T	T	0.02	0.06	T	0.03	0.13			T	0.01	0.01	24	T	T	0.02			T	T			T	T	24	0.28	0.28	
25	T		T	T		T	T	T					25				T	T	0.06						25	0.06	0.06	
26	T	T	T	T	T	T							26												26	T	T	
27													27												27	0.00	0.00	
28													28												28	0.00	0.00	
29													29												29	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)	0.13	0.21	0.28	0.32	0.46	0.58	0.73	0.88	1.06	1.14	1.18	1.21
Ending Date	03	01	03	03	01	01	01	01	01	01	01	01
Ending Time (Hr/Min)	0609	1401	0611	0617	1359	1414	1429	1449	1506	1527	1543	1543

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 FEBRUARY 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	1.00	10.00	
02	0.12	10.00	
03	2.00	10.00	
04	10.00	10.00	
05	10.00	10.00	
06	10.00	10.00	
07	10.00	10.00	
08	7.00	10.00	
09	1.00	10.00	
10	4.00	10.00	
11	10.00	10.00	
12	0.50	10.00	
13	10.00	10.00	
14	9.00	10.00	
15	1.00	10.00	
16	2.50	10.00	
17	4.00	10.00	
18	6.00	10.00	
19	10.00	10.00	
20	7.00	10.00	
21	1.50	10.00	
22	4.00	10.00	
23	3.00	10.00	
24	3.00	10.00	
25	6.00	10.00	
26	9.00	10.00	
27	10.00	10.00	
28	10.00	10.00	
29	10.00	10.00	
AVGS	5.92	10.00	
MINIMUM VISIBILITY (MILES)			
	<= .25	<= 3.0	>= 7.0
	1	10	14

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN
FEBRUARY 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: 0711					FEB 25		SUNSET: 1827					
01	OVC	044	10.00	-RA	38	32	36	79	18	23	28.73	29.77
04	OVC	042	10.00		37	32	35	82	16	24	28.76	29.80
07	OVC	032	10.00		37	32	35	82	15	24	28.82	29.87
10	OVC	040	10.00		39	30	35	70	13	26	28.89	29.94
13	OVC	065	10.00		40	29	36	65	17	27	28.93	29.98
16	OVC	060	10.00		40	29	36	65	15	24	28.96	30.02
19	OVC	085	10.00		36	32	34	86	10	24	29.04	30.10
22	OVC	060	10.00		36	29	33	76	8	27	29.09	30.15
SUNRISE: 0710					FEB 26		SUNSET: 1828					
01	OVC	047	10.00	-SN	36	26	32	67	11	27	29.10	30.16
04	OVC	020	9.00		35	28	32	76	7	26	29.12	30.18
07	OVC	040	9.00		35	22	30	59	6	33	29.18	30.24
10	OVC	041	10.00		37	23	32	57	9	32	29.22	30.29
13	BKN	040	10.00		41	26	35	55	5	VR	29.21	30.28
16	SCT	044	10.00		44	26	37	49	7	VR	29.16	30.23
19	CLR	NC	10.00		42	23	35	47	0	00	29.15	30.21
22	CLR	NC	10.00		36	25	32	64	0	00	29.16	30.23
SUNRISE: 0709					FEB 27		SUNSET: 1829					
01	SCT	250	10.00		31	26	29	82	3	13	29.15	30.22
04	SCT	250	10.00		30	26	29	85	0	00	29.15	30.22
07	SCT	250	10.00		28	25	27	88	0	00	29.19	30.26
10	CLR	NC	10.00		39	30	35	70	3	VR	29.22	30.29
13	CLR	NC	10.00		47	29	39	50	10	22	29.19	30.25
16	CLR	NC	10.00		51	28	41	41	14	19	29.12	30.18
19	CLR	NC	10.00		47	28	39	48	6	19	29.11	30.17
22	CLR	NC	10.00		43	28	37	56	7	21	29.13	30.19
SUNRISE: 0708					FEB 28		SUNSET: 1830					
01	CLR	NC	10.00		41	29	36	62	9	21	29.12	30.18
04	CLR	NC	10.00		42	29	37	60	6	27	29.11	30.16
07	CLR	NC	10.00		35	28	32	76	0	00	29.12	30.18
10	CLR	NC	10.00		48	33	41	56	0	00	29.14	30.19
13	CLR	NC	10.00		62	32	48	32	18	22	29.04	30.08
16	CLR	NC	10.00		66	29	49	25	21	24	28.94	29.98
19	CLR	NC	10.00		59	28	45	31	17	22	28.90	29.95
22	CLR	NC	10.00		55	30	44	38	16	22	28.93	29.97
SUNRISE: 0702					FEB 29		SUNSET: 1827					
01	SCT	080	10.00		56	30	44	37	23	20	28.89	29.93
04	OVC	090	10.00		57	32	46	39	23	22	28.87	29.91
07	BKN	047	10.00		53	39	46	59	16	22	28.94	29.98
10	FEW	250	10.00		59	42	50	54	16	25	29.01	30.05
13	FEW	049	10.00		63	36	50	37	13	30	29.02	30.06
16	CLR	NC	10.00		65	33	50	31	3	30	28.98	30.01
19	CLR	NC	10.00		60	31	47	33	0	00	28.99	30.03
22	CLR	NC	10.00		52	33	43	49	0	00	29.02	30.06

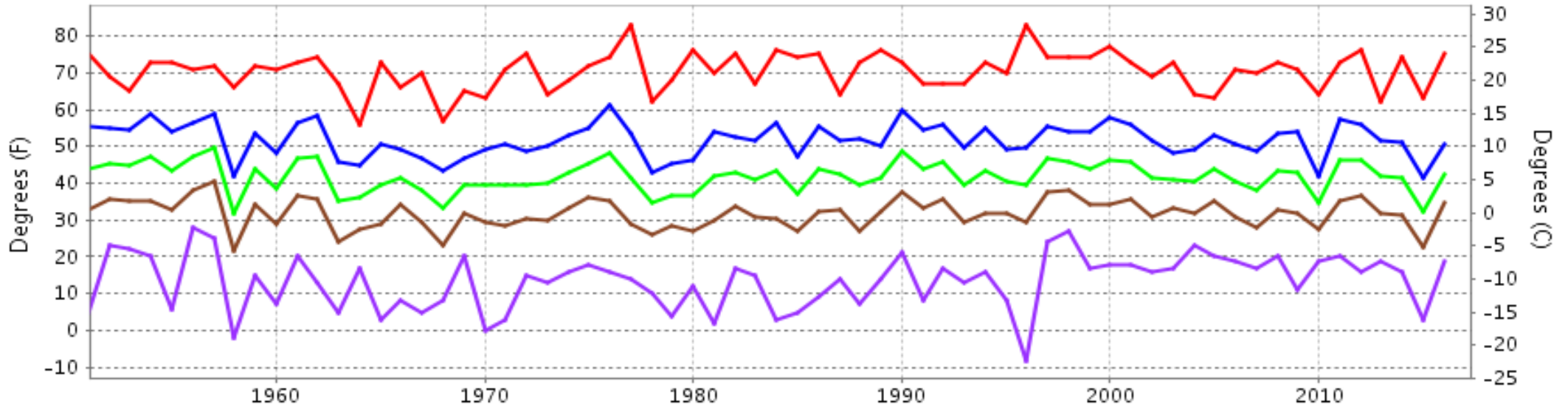
HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL

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	40	31	37	72	29.01	30.07	9.16	9	4	25
02	40	31	37	73	29.00	30.05	8.89	8	4	25
03	40	31	36	73	29.01	30.06	8.91	8	4	25
04	39	32	36	76	29.00	30.05	8.65	7	5	25
05	39	31	36	75	29.00	30.06	8.95	7	3	24
06	39	31	36	76	29.02	30.07	8.26	8	4	25
07	38	31	35	77	29.03	30.09	8.61	7	5	25
08	38	31	35	78	29.04	30.10	8.50	6	3	24
09	40	32	37	75	29.05	30.11	8.75	8	3	25
10	41	32	38	72	29.06	30.12	8.47	9	3	24
11	44	33	39	67	29.06	30.11	8.91	9	4	25
12	45	32	40	63	29.05	30.10	9.10	10	5	25
13	47	32	41	60	29.03	30.08	9.21	10	7	26
14	47	32	41	59	29.01	30.06	8.84	10	7	26
15	48	31	41	56	28.99	30.05	9.28	10	7	26
16	48	31	41	56	28.99	30.04	8.88	10	5	25
17	48	31	41	57	28.99	30.04	9.05	10	5	25
18	46	31	40	60	29.00	30.05	8.56	9	3	25
19	45	31	39	63	29.00	30.06	9.14	8	3	25
20	44	31	39	64	29.01	30.07	9.03	7	4	25
21	43	31	38	66	29.02	30.07	9.10	9	4	25
22	42	31	37	67	29.02	30.08	9.03	8	5	25
23	41	31	37	68	29.03	30.08	8.86	8	3	25
24	40	31	36	71	29.02	30.08	8.81	8	4	25

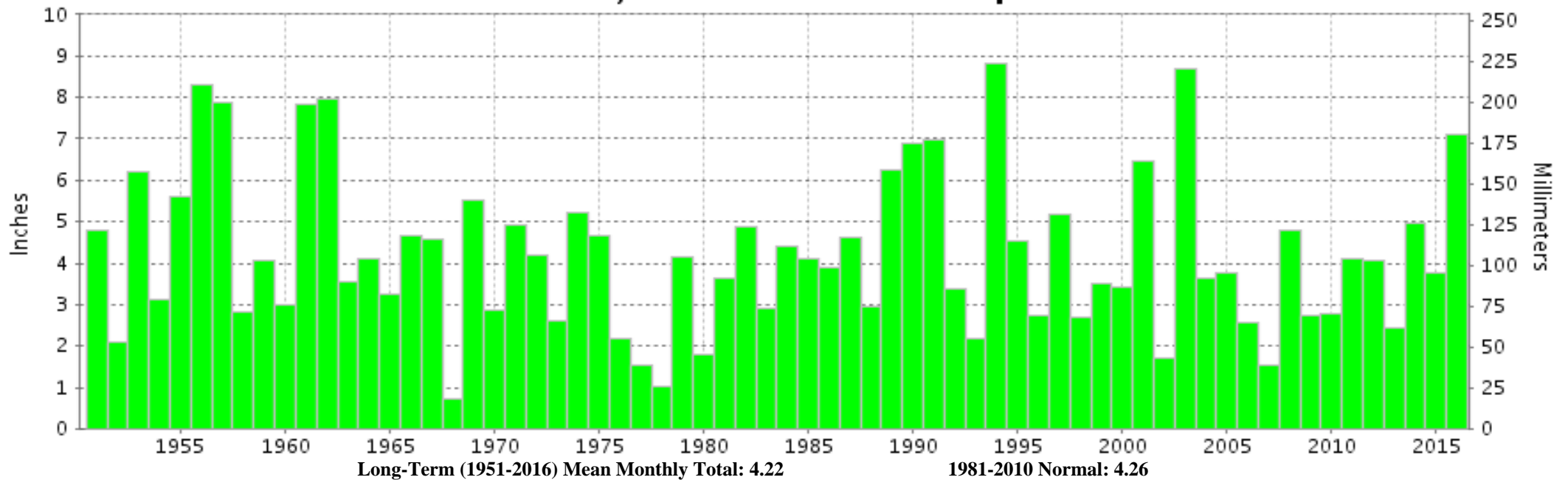
KNOXVILLE, TN FEBRUARY Temperatures



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

Long-Term (1951-2016) Mean: 41.8
1981-2010 Normal: 42.4

KNOXVILLE, TN FEBRUARY Precipitation



Long-Term (1951-2016) Mean Monthly Total: 4.22 1981-2010 Normal: 4.26



**FEBRUARY 2016
KNOXVILLE, TN**

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

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

DIRECTOR

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