



FEBRUARY 2013

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

OAK RIDGE, TN
 OAK RIDGE (KOQT)
 Lat:36° 1'N Long: 84° 14'W Elev (Ground) 910 Feet
 Time Zone : EASTERN WBAN: 53868 ISSN#: 0198-487X



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		LST 11	LST 12	LST 13	LST 14	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM										
																			3-SEC		2-MIN								
																			SPEED 20	DIR 21	SPEED 22	DIR 23							
01	40	20*	30	-8	12	23	35	0	RA SN UP			T	29.30	30.37	2.7	26	4.2	28	26	15	31	01							
02	34	23	29*	-9	21	26	36	0	SN FG+ FZFG BR			0.09	29.26	30.28	1.7	23	2.1	14	27	10	26	02							
03	44	28	36	-2	27	32	29	0	SN FG BR			0.08	29.10	30.12	2.0	25	3.5	24	26	16	27	03							
04	47	24	36	-2	24	31	29	0				0.00	29.10	30.10	0.3	24	0.9	14	26	9	26	04							
05	59	38	49	11	33	41	16	0	RA			T	29.00	30.00	1.2	22	2.8	16	25	10	17	05							
06	62	30	46	7	30	38	19	0				0.00	29.16	30.18	0.5	21	0.9	12	18	9	21	06							
07	55	39	47	8	35	42	18	0	RA			0.02	29.11	30.08	0.3	06	0.5	9	07	7	07	07							
08	55	38	47	8	37	42	18	0	RA BR			0.08	29.05	30.09	2.4	35	4.6	22	35	14	35	08							
09	55	28	42	3	24	35	23	0				0.00	29.32	30.33	1.8	05	3.3	17	04	10	06	09							
10	62*	37	50	11	35	41	15	0	RA BR			0.30	29.19	30.17	1.0	20	1.4	24	19	16	19	10							
11	57	43	50	10	41	47	15	0	RA BR			0.04	29.07	30.06	2.9	23	4.6	20	22	10	25	11							
12	54	34	44	4	30	39	21	0	RA			0.02	29.13	30.09	0.9	07	1.2	14	06	10	05	12							
13	48	38	43	3	37	40	22	0	RA BR			0.29	28.83	29.83	1.2	28	2.4	25	27	15	27	13							
14	55	37	46	6	32	39	19	0				0.00	29.05	30.06	1.9	22	2.7	18	19	12	21	14							
15	52	33	43	2	32	37	22	0	RA			T	29.09	30.10	1.7	27	3.0	21	36	13	35	15							
16	39	29	34	-7	16	27	31	0	SN			T	29.08	30.11	3.5	31	4.8	21	33	15	33	16							
17	44	22	33	-8	10	25	32	0				0.00	29.23	30.27	1.1	24	2.5	17	26	13	26	17							
18	59	23	41	0	21	34	24	0				0.00	29.23	30.22	4.8	20	5.1	25	22	17	21	18							
19	54	36	45	3	26	37	20	0	RA BR			0.27	29.03	30.05	6.0	26	7.5	40*	20	26*	21	19							
20	43	24	34	-8	13	27	31	0				0.00	29.23	30.26	0.6	19	2.2	13	21	8	21	20							
21	51	27	39	-3	20	32	26	0	RA BR			0.62	29.18	30.19	3.0	05	3.5	17	05	10	06	21							
22	53	39	46	4	42	44	19	0	RA BR			0.04	29.07	30.06	0.9	25	3.4	14	25	10	26	22							
23	58	41	50	7	44	47	15	0	RA BR			0.04	28.97	29.95	0.7	19	1.3	12	20	8	26	23							
24	57	30	44	1	26	36	21	0	BR			0.00	29.07	30.06	0.8	06	1.2	12	08	8	06	24							
25	59	43	51*	8			14	0				0.00					4.3	14	06	10	06	25							
26	56	42	49	6	40	44	16	0	RA BR			0.43	28.64	29.61	1.3	21	6.3	29	21	16	21	26							
27	47	40	44	0	32	38	21	0	RA			T	28.83	29.83	4.8	23	6.9	21	22	14	21	27							
28	41	35	38	-6	26	33	27	0	RA SN			T	28.94	29.96	2.5	26	4.7	20	27	13	26	28							
										51.4		32.9		42.2		22.6		0.0		< MONTHLY AVERAGES TOTALS >									
										-0.5		1.2		0.4								<----- DEPARTURE FROM NORMAL ----->							
																						SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 0.66 DATE : 21-22				SEA LEVEL PRESSURE				DATE TIME											
MONTHLY										GREATEST 24-HR SNOWFALL :				MAXIMUM :				30.47 01 1153											
SEASON TO DATE										GREATEST SNOW DEPTH :				MINIMUM :				29.46 26 1401											
TOTAL DEPARTURE										NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 12				PRECIPITATION >= 0.01 INCH : 13							
HEATING : 634 -16 2695 -267										THUNDERSTORMS : 0				MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH : 5							
COOLING : 0 0 1 1														HEAVY FOG : 1				SNOWFALL >= 1.0 INCH :											

FEBRUARY 2013
OAK RIDGE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)
FEBRUARY 2013

WBAN # 53868

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	T	T	T										01												01	T	T	
02													02	0.01	T				0.01	T					02	0.09	0.09	
03			T					0.01	0.05	0.02			03												03	0.08	0.08	
04													04												04	0.00	0.00	
05					T								05												05	T	T	
06													06												06	0.00	0.00	
07													07			T	T	0.02	T	T	T	T			07	0.02	0.02	
08								0.03	0.03	0.01	0.01		08												08	0.08	0.08	
09													09													09	0.00	0.00
10													10			T	0.02	0.06	0.13	0.09	T				10	0.30	0.30	
11													11												11	0.04	0.04	
12		T	0.02	0.02	T								12								T	T	0.02	T	12	0.02	0.02	
13		T	0.02	0.07	0.02	0.01	0.04	0.03	0.01	0.02	0.03	0.01	13	0.02	0.01										13	0.29	0.29	
14													14												14	0.00	0.00	
15													15		T	T	T	T	T						15	T	T	
16													16				T	T	T						16	T	T	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19		0.05	0.06	0.07	0.07	0.01	T	T	T	0.01	T		19												19	0.27	0.27	
20													20												20	0.00	0.00	
21													21							T	0.02	0.05	0.20	0.24	0.11	21	0.62	0.62
22	0.03	T	T	T	0.01	T							22												22	0.04	0.04	
23		T	0.04	T									23												23	0.04	0.04	
24													24												24	0.00	0.00	
25													25												25	0.00	0.00	
26			T	0.08	0.12	0.04	0.13	T			0.02	0.01	26			0.03		T	T					T	26	0.43	0.43	
27													27						T						27	T	T	
28	T	T											28												28	T	T	

* 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.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1981-2010

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

OAK RIDGE, TN FEBRUARY 2013

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-OAK RIDGE ATDD COOP
 Lat/Lon:36.00278/-84.24861 Elevation:905FT
 Distance:1.5 MI Dir:SW
 Augmented Elements:Temp,Precip,Snow
 Equipment:Pcpn-Model TRP525M, Temp Vaisala HMP35C, Snow Board, Snow Stick
 Beginning with the January 2013 LCD, monthly mean temperature calculations have changed to the National Data Stewardship Team standard. Monthly maximum and minimum temperature are not rounded until after monthly mean temperature is calculated. This is the most accurate outcome, but may be slightly different from the mean derived from rounded monthly maximum and minimum.

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							8.00	10.00	
02							2.00	10.00	
03							1.00	10.00	
04							7.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							8.00	10.00	
08							1.75	10.00	
09							10.00	10.00	
10							1.75	10.00	
11							5.00	10.00	
12							10.00	10.00	
13							1.25	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							5.00	10.00	
20							10.00	10.00	
21							2.50	10.00	
22							4.00	10.00	
23							1.50	10.00	
24							6.00	10.00	
25							10.00	10.00	
26							5.00	10.00	
27							10.00	10.00	
28							9.00	10.00	
MONTHLY AVGS							6.74	10.00	
SUNSHINE (Minutes)									
Total : 0					Possible :				
Percent Possible :									
NUMBER OF DAYS WITH :									
SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25		<= 3.0			>= 7.0				
0		7			16				

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

FEBRUARY 2013 KOQT

WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
			SUNRISE: 0713		FEB 25		SUNSET: 1828							
01	CLR	NC				36	24	32	62	5	05	29.06	30.06	
04	CLR	NC				34	25	31	70	0	00	29.06	30.05	
07	CLR	NC				36	23	31	59	5	04	29.07	30.06	
10														
13	CLR	NC				49	26	39	41	8	06	29.03		
16	BKN	080				59	27	45	29	0	00	28.96		
19	OVC	070				55	29	44	37	6	06	28.89		
22	OVC	060				53	29	43	40	7	07	28.87		
			SUNRISE: 0711		FEB 26		SUNSET: 1829							
01	OVC	050				51	32	43	48	5	04	28.79	29.77	
04	OVC	055			RA BR	45	41	43	86	3	VR	28.74	29.72	
07	OVC	049			-RA BR	46	44	45	93	9	06	28.63	29.59	
10	OVC	033				47	42	45	83	3	VR	28.58	29.54	
13	OVC	044				54	47	50	77	3	28	28.53	29.49	
16	OVC	065				51	45	48	80	10	23	28.57	29.54	
19	OVC	043				48	38	43	68	8	22	28.65	29.62	
22	OVC	050				46	33	40	61	6	22	28.71	29.70	
			SUNRISE: 0710		FEB 27		SUNSET: 1830							
01	OVC	060				42	34	39	73	7	22	28.76	29.73	
04	OVC	036				41	33	38	73	8	21	28.78	29.76	
07	OVC	025				40	33	37	76	7	VR	28.83	29.82	
10	OVC	040				42	33	38	71	7	22	28.89	29.88	
13	OVC	031				44	31	38	60	7	VR	28.87	29.86	
16	BKN	036				47	32	40	56	8	25	28.83	29.82	
19	OVC	048				43	33	39	68	7	29	28.87	29.87	
22	OVC	028				40	30	36	68	6	VR	28.90	29.89	
			SUNRISE: 0709		FEB 28		SUNSET: 1831							
01	OVC	028			-RA	38	31	35	76	5	VR	28.88	29.88	
04	OVC	060				38	27	34	65	6	VR	28.87	29.86	
07	OVC	055				37	28	33	70	3	VR	28.88	29.88	
10	OVC	050				37	26	33	65	3	25	28.94	29.94	
13	OVC	035				38	22	32	53	7	VR	28.97	29.97	
16	OVC	037				39	22	33	51	7	VR	28.98	29.98	
19	OVC	029				37	25	32	62	5	26	29.03	30.04	
22	OVC	027				37	26	33	65	3	26	29.04	30.04	

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	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.

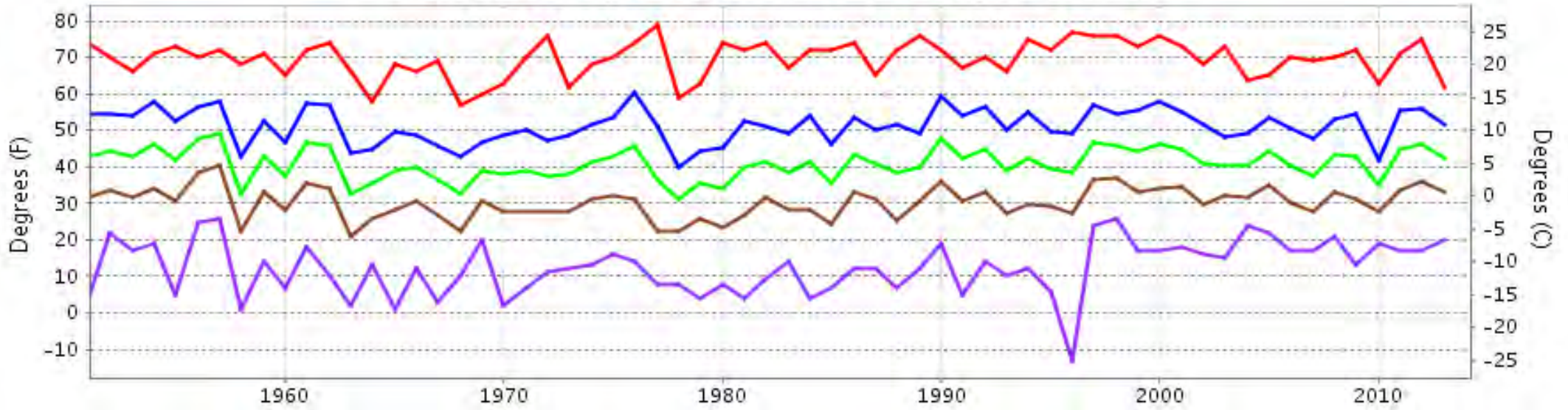
& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	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			39	29	35	70	29.09	30.08	9.50	3	2	23
02			38	29	34	72	29.09	30.08	9.43	2	2	23
03			37	29	34	74	29.09	30.08	9.04	2	2	21
04			36	29	33	76	29.08	30.08	9.04	1	xx	xx
05			35	28	33	77	29.08	30.08	9.29	2	2	22
06			35	29	33	78	29.08	30.09	9.25	2	2	18
07			35	29	33	79	29.09	30.09	8.63	2	2	17
08			35	29	33	80	29.11	30.11	8.22	3	2	21
09			37	30	35	76	29.12	30.12	8.94	3	2	22
10			40	30	36	68	29.12	30.12	9.21	4	2	23
11			43	30	38	63	29.12	30.12	9.15	4	2	22
12			45	29	39	57	29.11	30.11	9.50	4	2	23
13			47	28	39	51	29.09	30.09	9.71	6	3	25
14			49	28	40	48	29.07	30.06	10.00	6	5	26
15			49	27	40	45	29.06	30.06	10.00	6	4	25
16			49	27	40	45	29.06	30.06	9.93	6	4	26
17			48	27	40	47	29.07	30.06	9.79	5	3	25
18			46	27	39	51	29.06	30.07	9.49	4	2	24
19			45	27	38	54	29.08	30.08	9.89	3	2	23
20			43	28	37	59	29.09	30.10	9.93	3	2	23
21			42	29	37	62	29.09	30.10	9.79	2	3	24
22			41	28	36	64	29.09	30.10	9.63	3	2	23
23			40	28	35	66	29.09	30.09	9.68	2	2	22
24			39	29	35	68	29.09	30.09	9.71	2	3	23

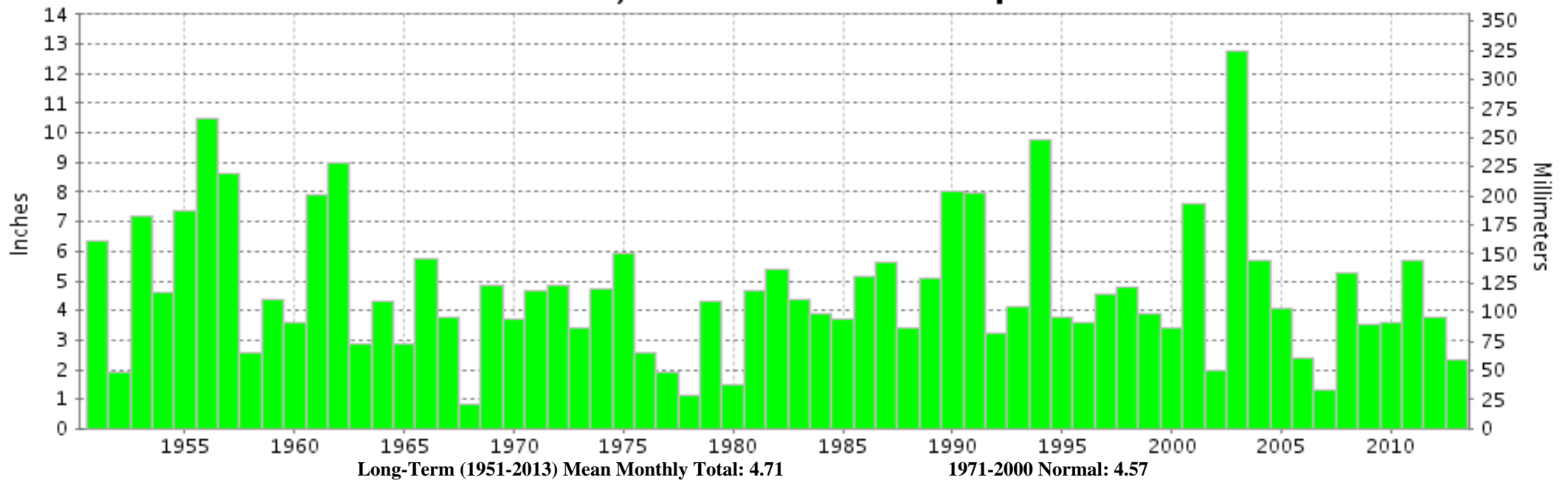
OAK RIDGE, TN FEBRUARY Temperatures



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

Long-Term (1951-2013) Mean: 40.8
1971-2000 Normal: 41.8

OAK RIDGE, TN FEBRUARY Precipitation



Long-Term (1951-2013) Mean Monthly Total: 4.71

1971-2000 Normal: 4.57



FEBRUARY 2013
OAK RIDGE, TN

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