



# DECEMBER 2014 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	63	48	56	13	51	53	9	0	RA BR			0.28	29.34	30.32	0.3	26	1.4	11	08	8	07	01		
02	57	47	52	9	50	51	13	0	RA BR			0.64	29.30	30.28	0.3	26	0.3	8	22	5	22	02		
03	63*	42	53	11	48	51	12	0	RA BR			0.01	29.27	30.26	2.1	25	3.9	19	27	13	28	03		
04	56	42	49	7	43	46	16	0	RA BR			0.04	29.31	30.32	1.1	07	1.3	8	07	6	07	04		
05	61	50	56*	14	51	52	9	0	RA BR			0.05	29.31	30.29	0.4	24	0.8	11	25	7	24	05		
06	58	43	51	10	48	50	14	0	RA BR			1.30	29.21	30.21	2.0	33	4.7	27	33	20	32	06		
07	51	38	45	4	32	38	20	0				0.00	29.42	30.42	3.0	05	4.9	19	01	13	07	07		
08	53	38	46	5	33	39	19	0				0.00	29.30	30.30	0.3	12	0.7	11	17	8	18	08		
09	46	39	43	2	35	39	22	0	RA BR			0.03	29.16	30.17	2.1	34	2.9	16	01	10	35	09		
10	41	36	39	-1	29	35	26	0	RA			T	29.21	30.23	2.1	34	3.0	15	33	10	34	10		
11	44	28	36	-4	24	31	29	0				0.00	29.22	30.26	0.3	03	1.7	12	33	8	07	11		
12	50	23*	37	-3	24	31	28	0	BR			0.00	29.34	30.37	0.0	7	0.0	7	17	6	18	12		
13	47	24	36	-4	28	31	29	0	BR			0.00	29.31	30.32	1.0	09	1.6	15	07	10	07	13		
14	46	26	36	-4	30	33	29	0	FG+ FZFG BR			0.00	29.23	30.24	1.8	07	2.4	17	05	12	06	14		
15	53	27	40	1	32	36	25	0	RA FG+ FZFG BR			0.02	29.10	30.09	0.3	11	1.1	10	26	7	27	15		
16	52	44	48	9	41	45	17	0	RA BR			0.22	29.02	30.04	2.5	25	4.3	20	26	12	26	16		
17	49	32	41	2	34	38	24	0				0.00	29.23	30.23	1.5	23	2.3	12	27	8	25	17		
18	46	30	38	-1	29	35	27	0	RA			T	29.22	30.23	0.6	07	0.8	10	07	7	07	18		
19	49	31	40	1	26	34	25	0				0.00	29.23	30.23	1.8	06	2.5	12	05	8	08	19		
20	47	32	40	2	31	37	25	0	RA			0.01	29.23	30.24	0.3	15	0.7	6	07	6	07	20		
21	51	28	40	2	31	36	25	0				0.00	29.23	30.22	0.8	07	1.2	10	07	8	06	21		
22	57	44	51	13	41	45	14	0	RA BR			0.43	29.00	29.96	0.8	04	1.2	12	26	8	26	22		
23	55	48	52	14	49	50	13	0	RA BR			1.65	28.87	29.85	0.5	18	1.9	10	07	7	06	23		
24	59	45	52	14	49	50	13	0	RA BR			0.56	28.73	29.70	2.2	25	3.7	32*	27	20*	26	24		
25	49	32	41	3	34	38	24	0	RA			0.02	29.13	30.17	1.9	24	3.2	20	25	13	25	25		
26	52	30	41	4	33	36	24	0	FG+ FZFG BR			0.00	29.32	30.34	0.2	27	0.6	10	28	7	26	26		
27	55	35	45	8	38	42	20	0	RA			0.02	29.27	30.27	1.2	24	1.8	12	27	8	21	27		
28	53	47	50	13	49	50	15	0	RA BR			0.47	29.11	30.09	0.4	23	2.3	14	28	9	26	28		
29	47	39	43	6	42	43	22	0	RA BR			0.12	29.14	30.15	2.3	07	3.0	14	06	8	06	29		
30	44	29	37	0	31	35	28	0	RA BR			T	29.36	30.40	2.4	04	3.8	15	05	10	07	30		
31	39	25	32*	-5	21	28	33	0				0.00	29.49	30.52	1.0	06	1.3	12	06	8	06	31		
51.4		36.2	43.8	☼	36.7	40.6	20.9	0.0	< MONTHLY AVERAGES   TOTALS >				5.87	29.21	30.22	0.3	01	2.1	< MONTHLY AVERAGES					
1.8	5.1	3.5	<-----DEPARTURE FROM NORMAL----->				1.01	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																
<b>DEGREE DAYS</b>									GREATEST 24-HR PRECIPITATION : 2.16 DATE : 23-24				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY				SEASON TO DATE					GREATEST 24-HR SNOWFALL :				MAXIMUM : 30.58 31 1030											
TOTAL DEPARTURE				TOTAL DEPARTURE					GREATEST SNOW DEPTH :				MINIMUM : 29.54 24 1453											
HEATING :		649	-115	1432		-35		NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 14		PRECIPITATION >= 0.01 INCH : 17								
COOLING :		0	0	1603		121						MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 9								
												THUNDERSTORMS : 0		HEAVY FOG : 3		SNOWFALL >= 1.0 INCH :								

DECEMBER 2014  
OAK RIDGE, TN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)  
DECEMBER 2014

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	01	T	T									01	0.28	0.28		
02	0.02	0.01	0.01	T		T	0.08	0.01	0.05	0.01	0.20	0.03		02	T	0.01	0.01	0.01	0.02	0.05	0.01	0.02	0.05	T	0.04	T	02	0.64	0.64
03	T	0.01	T			T								03												03	0.01	0.01	
04						T	T					0.01	0.03	04												04	0.04	0.04	
05									T					05									T	T	0.05	05	0.05	0.05	
06	0.13	0.12	0.26	0.07	0.15	0.08	0.02	0.13	0.06	0.21	0.07	T		06	T	T										06	1.30	1.30	
07														07													07	0.00	0.00
08														08													08	0.00	0.00
09								0.01						09		0.02	T	T									09	0.03	0.03
10								T		T				10													10	T	T
11														11													11	0.00	0.00
12														12													12	0.00	0.00
13														13													13	0.00	0.00
14														14													14	0.00	0.00
15														15					T	T	T	0.01		0.01		15	0.02	0.02	
16	0.07	0.01	0.10	0.04										16													16	0.22	0.22
17														17													17	0.00	0.00
18								T	T					18			T										18	T	T
19														19													19	0.00	0.00
20					0.01	T								20													20	0.01	0.01
21														21													21	0.00	0.00
22					T									22			T	T					0.07	T	0.18	0.18	22	0.43	0.43
23						T		T						23			0.10	0.12	0.16	0.23	0.18	0.17	0.14	0.34	0.21	23	1.65	1.65	
24	0.11	0.01	0.01	0.01	0.08	0.07	0.12	0.07	0.03					24			0.05	T	T				T		T	24	0.56	0.56	
25	0.02				T		T							25													25	0.02	0.02
26														26													26	0.00	0.00
27	T													27													27	0.02	0.02
28	0.06		T	T	T		T	0.05	0.05	0.04	0.06	0.02		28	0.04	T					0.01	0.02	0.03	0.03	0.03	28	0.47	0.47	
29	0.05	0.03	T	0.01	0.02	0.01	T							29										T			29	0.12	0.12
30	T													30													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)	0.10	0.13	0.15	0.18	0.23	0.31	0.36	0.45	0.55	0.61	0.66	0.72
Ending Date	22	22	22	06	22	22	22	23	23	23	23	23
Ending Time (Hr/Min)	2319	2321	2321	0241	2318	2321	2321	2335	2332	2335	2359	2335

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

# OAK RIDGE, TN DECEMBER 2014

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-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

Date	VISIBILITY (MILES)	
	MINIMUM	MAXIMUM
01	4.00	10.00
02	2.50	10.00
03	1.00	10.00
04	5.00	10.00
05	4.00	10.00
06	1.75	10.00
07	10.00	10.00
08	10.00	10.00
09	4.00	10.00
10	10.00	10.00
11	10.00	10.00
12	8.00	10.00
13	6.00	10.00
14	1.50	10.00
15	0.00	10.00
16	2.00	10.00
17	10.00	10.00
18	10.00	10.00
19	9.00	10.00
20	9.00	10.00
21	8.00	10.00
22	1.75	10.00
23	2.00	10.00
24	2.00	10.00
25	10.00	10.00
26	0.00	10.00
27	6.00	10.00
28	1.75	10.00
29	1.25	10.00
30	4.00	10.00
31	10.00	10.00
<b>AVGS</b>	5.31	10.00
<b>MINIMUM VISIBILITY (MILES)</b>		
	<b>&lt;= .25</b>	<b>&lt;= 3.0</b> <b>&gt;= 7.0</b>
	2	12    12





# OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN  
DECEMBER 2014

KOQT

WBAN # 53868

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: 0745 DEC 25					SUNSET: 1729							
01	OVC	048	10.00		44	39	42	83	8	27	28.93	29.90
04	BKN	046	10.00		41	35	38	79	0	00	29.01	30.00
07	OVC	045	10.00		41	36	39	82	5	22	29.12	30.11
10	OVC	037	10.00		43	35	40	74	5	VR	29.22	30.22
13	OVC	033	10.00		46	33	40	61	6	26	29.23	30.23
16	CLR	NC	10.00		49	33	42	55	3	VR	29.21	30.21
19	CLR	NC	10.00		42	34	39	73	0	00	29.29	30.29
22	CLR	NC	10.00		34	31	33	89	0	00	29.27	30.28
SUNRISE: 0746 DEC 26					SUNSET: 1729							
01	CLR	NC	10.00		31	29	30	92	0	00	29.29	30.30
04	VV	002	0.25	FZFG	30	29	30	96	0	00	29.31	30.32
07	VV	002	0.25	FZFG	30	29	30	96	0	00	29.34	30.36
10	VV	002	0.25	FG	32	31	32	96	0	00	29.39	30.42
13	CLR	NC	10.00		48	36	43	63	0	00	29.36	30.37
16	CLR	NC	10.00		51	34	43	52	0	00	29.32	30.32
19	CLR	NC	10.00		44	37	41	76	3	32	29.31	30.32
22	CLR	NC	10.00		40	37	39	89	3	22	29.29	30.31
SUNRISE: 0746 DEC 27					SUNSET: 1730							
01	FEW	120	10.00		41	37	39	86	0	00	29.29	30.29
04	BKN	100	10.00		39	36	38	89	0	00	29.31	30.31
07	CLR	NC	10.00		36	34	35	93	0	00	29.31	30.32
10	OVC	060	10.00		44	38	41	79	0	00	29.36	30.37
13	OVC	049	10.00		51	37	45	59	6	25	29.29	30.29
16	CLR	NC	10.00		54	38	46	55	5	21	29.20	30.20
19	OVC	075	10.00		52	39	46	61	0	00	29.21	30.22
22	OVC	041	10.00		50	41	46	71	0	00	29.18	30.18
SUNRISE: 0746 DEC 28					SUNSET: 1731							
01	OVC	033	10.00		48	46	47	93	0	00	29.13	30.12
04	OVC	012	9.00	-RA	50	48	49	93	5	20	29.09	30.07
07	OVC	010	5.00	BR	52	50	51	93	5	VR	29.09	30.06
10	OVC	024	4.00	-RA BR	52	51	51	97	0	00	29.13	30.11
13	OVC	007	7.00	-RA	53	51	52	93	0	00	29.12	30.09
16	OVC	005	6.00	BR	52	50	51	93	3	06	29.10	30.07
19	OVC	004	3.00	BR	51	50	50	96	0	00	29.14	30.12
22	OVC	006	8.00	-RA	48	46	47	93	3	04	29.14	30.13
SUNRISE: 0747 DEC 29					SUNSET: 1731							
01	OVC	050	10.00	-RA	46	45	46	96	0	00	29.13	30.11
04	OVC	012	10.00	-RA	46	44	45	93	0	00	29.13	30.11
07	OVC	013	10.00		45	43	44	93	0	00	29.12	30.10
10	OVC	005	1.50	BR	45	43	44	93	5	08	29.16	30.16
13	OVC	006	6.00	BR	45	44	45	97	3	09	29.15	30.15
16	OVC	014	10.00		45	41	43	86	7	07	29.14	30.14
19	OVC	019	10.00		42	39	41	89	5	VR	29.19	30.19
22	OVC	043	9.00		40	37	39	89	5	VR	29.22	30.22
SUNRISE: 0747 DEC 30					SUNSET: 1732							
01	OVC	019	10.00		40	37	39	89	3	05	29.23	30.23
04	OVC	014	8.00		39	36	38	89	3	VR	29.27	30.27
07	OVC	010	6.00	BR	38	35	37	89	3	06	29.32	30.33
10	OVC	022	10.00		38	33	36	83	5	03	29.40	30.42
13	OVC	023	10.00		42	32	38	68	6	35	29.42	30.42
16	CLR	NC	10.00		41	28	36	60	7	VR	29.44	30.45
19	CLR	NC	10.00		35	27	32	72	0	00	29.48	30.50
22	CLR	NC	10.00		31	27	30	85	0	00	29.49	30.52

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: 0747 DEC 31					SUNSET: 1733							
01	CLR	NC	10.00		31	26	29	82	0	00	29.52	30.53
04	CLR	NC	10.00		32	20	28	61	6	05	29.50	30.52
07	CLR	NC	10.00		32	20	28	61	0	00	29.50	30.53
10	OVC	090	10.00		33	19	28	56	5	05	29.53	30.58
13	OVC	100	10.00		37	19	31	48	0	00	29.49	30.53
16	OVC	095	10.00		38	20	32	48	0	00	29.48	30.50
19	CLR	NC	10.00		32	21	28	64	0	00	29.45	30.48
22	CLR	NC	10.00		28	22	26	78	0	00	29.44	30.47

## 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

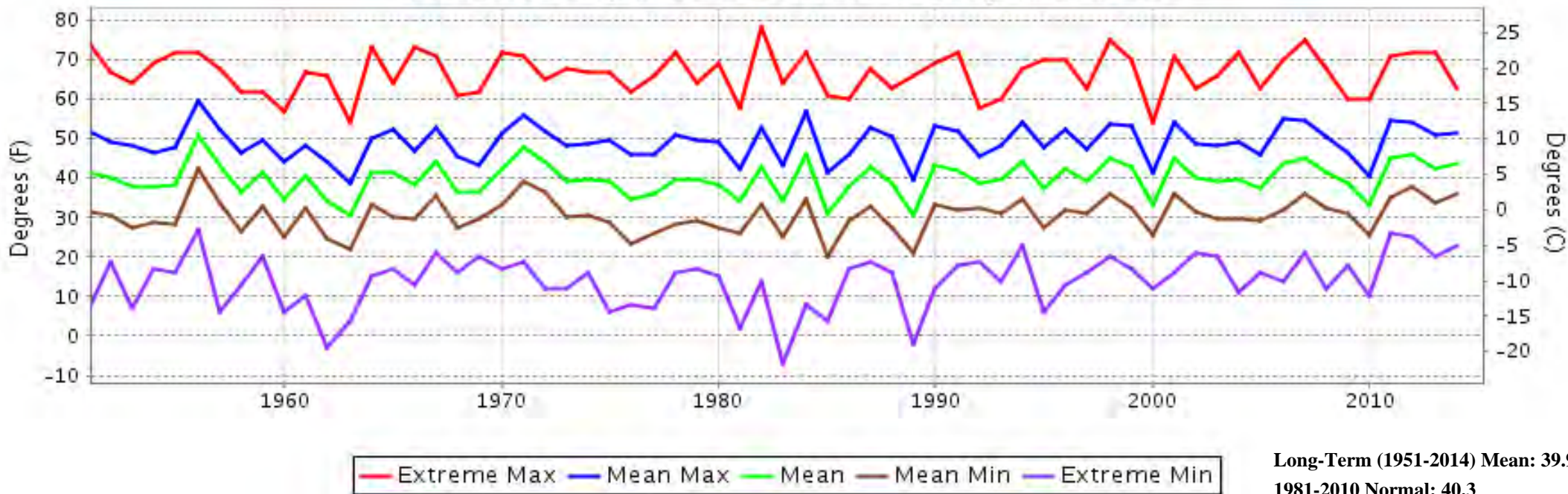
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

& = Original observation contained additional weather elements. See page 3 for additional notes.

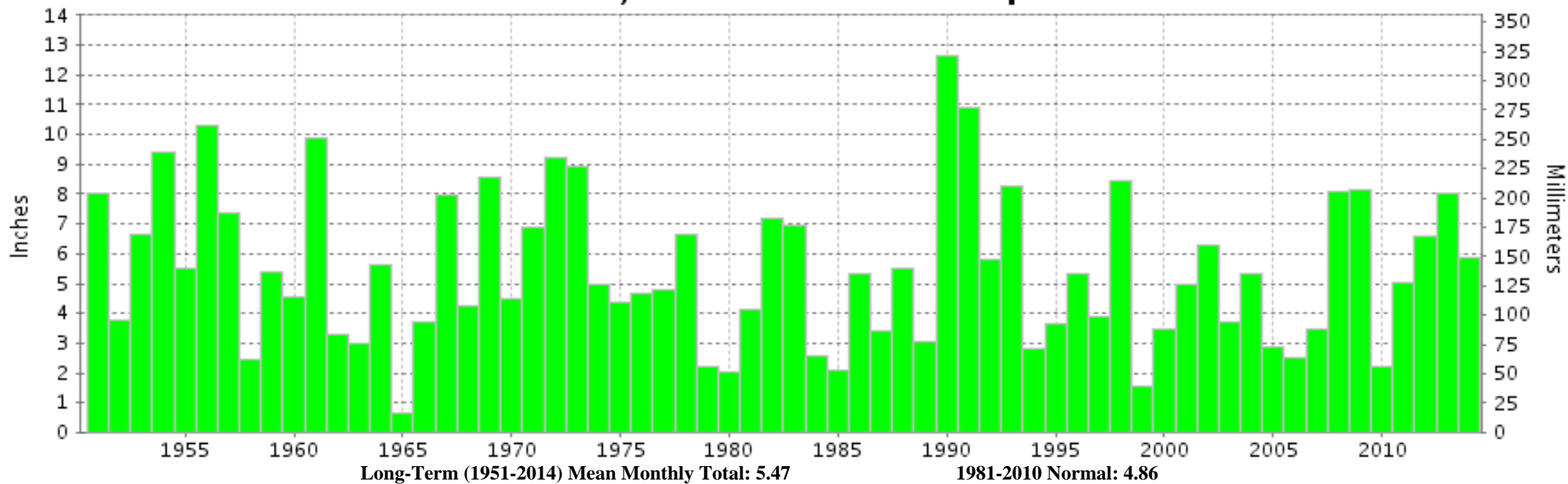
## SUMMARY BY HOUR

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	41	37	39	86	29.21	30.21	8.65	1	0	12
02	41	36	39	85	29.21	30.21	8.54	1	0	13
03	41	36	39	85	29.22	30.21	8.64	1	2	26
04	40	36	39	85	29.21	30.21	8.31	1	xx	xx
05	40	36	39	86	29.21	30.20	8.18	2	0	24
06	40	36	39	86	29.21	30.21	8.27	1	1	25
07	41	36	39	85	29.22	30.22	8.57	1	1	26
08	41	36	39	86	29.23	30.24	7.83	1	2	10
09	42	37	40	84	29.25	30.25	8.48	2	1	26
10	43	37	41	80	29.25	30.26	8.33	2	1	10
11	45	37	42	75	29.26	30.26	8.50	3	2	10
12	47	37	43	70	29.24	30.23	9.44	3	0	15
13	48	37	44	67	29.22	30.21	9.32	3	1	26
14	50	37	44	64	29.19	30.19	9.90	3	2	26
15	50	37	44	63	29.19	30.18	9.68	4	1	10
16	50	37	44	63	29.19	30.19	9.24	4	1	26
17	48	36	43	65	29.20	30.20	9.31	4	1	10
18	46	37	42	70	29.21	30.21	9.34	2	1	10
19	45	37	42	74	29.22	30.22	9.21	2	1	25
20	44	37	41	77	29.22	30.22	9.08	2	1	10
21	43	37	40	80	29.22	30.23	8.90	2	1	25
22	42	36	39	82	29.22	30.23	9.23	2	1	26
23	41	36	39	83	29.22	30.22	8.91	1	1	10
24	41	36	39	84	29.22	30.22	8.97	1	0	21

## OAK RIDGE, TN DECEMBER Temperatures



## OAK RIDGE, TN DECEMBER Precipitation





**DECEMBER 2014**  
**OAK RIDGE, 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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