



# DECEMBER 2010 LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

OAK RIDGE, TN  
OAK RIDGE (KOQT)  
Lat:36° 1' N Long: 84° 14' W Elev (Ground) 913 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	43	28	36	-7	23	31	29	0	RA			0.01	29.10	30.14	5.4	26	6.0	24	27	14	27	01		
02	41	26	34	-9	23	30	31	0				0.00	29.27	30.30	0.7	21	1.1	12	26	8	20	02		
03	53	29	41	-1	27	35	24	0				0.00	29.16	30.17	0.2	26	1.0	13	28	8	28	03		
04	48	36	42	0	33	37	23	0	RA BR			0.41	29.00	29.99	0.9	31	2.5	21	31	12	36	04		
05	38	29	34	-8	23	29	31	0	SN UP			T	29.18	30.23	2.1	31	3.9	23	32	16	34	05		
06	34	23	29	-12	14	24	36	0	SN			T	29.20	30.23	4.5	28	5.6	24	25	14	28	06		
07	31	20	26	-15	12	21	39	0	SN			T	29.15	30.19	0.7	27	1.8	13	28	8	35	07		
08	34	15	25	-16	14	20	40	0				0.00	29.24	30.29	0.1	11	0.3	8	04	5	16	08		
09	42	30	36	-5			29	0				0.00	29.31		0.4	08	0.9	9	06	7	07	09		
10	50	28	39	-1	20	31	26	0				0.00	29.23	30.25	2.5	22	2.9	20	20	13	20	10		
11	52	36	44	4	29	37	21	0	RA BR			0.16	29.07	30.02	0.7	21	1.1	12	20	8	19	11		
12	40	22	31	-9	26	29	34	0	RA FZRA SN FG BR			0.57	28.66	29.65	3.9	26	5.7	24	25	15	28	12		
13	26	17	22	-18	11	17	43	0	SN BR UP			0.03	28.92	30.01	4.7	26	6.2	25*	32	16*	25	13		
14	27	10*	19*	-21	9	16	46	0	SN			T	29.18	30.25	0.3	21	0.6	10	35	7	21	14		
15	29	12	21	-18	14	20	44	0	RA FZRA BR UP			0.15	29.13	30.17	0.4	08	0.7	8	07	7	06	15		
16	43	28	36	-3	33	35	29	0	RA FZRA BR UP			0.52	28.81	29.83	1.8	24	2.5	13	22	8	23	16		
17	40	31	36	-3	29	33	29	0	BR			0.00	29.10	30.15	0.6	03	2.4	13	06	8	05	17		
18	41	26	34	-5	25	30	31	0				0.00	29.11	30.12	1.7	05	2.9	13	05	8	06	18		
19	39	21	30	-9	20	26	35	0	BR			0.00	29.13	30.16	0.8	06	1.2	15	07	12	07	19		
20	41	20	31	-7	23	29	34	0	BR			0.00	29.19	30.21	0.9	06	1.3	10	11	7	13	20		
21	40	35	38	0	34	36	27	0	RA BR			0.14	29.08	30.09			0.1	10	02	7	08	21		
22	53	31	42	4	34	38	23	0	RA BR			0.02	29.09	30.12	1.5	31	3.2	23	35	15	35	22		
23	39	29	34	-4	20	28	31	0				0.00	29.38	30.40	4.8	03	6.1	22	04	14	07	23		
24	41	25	33	-5	21	29	32	0				0.00	29.25	30.27	2.7	05	3.1	15	07	12	06	24		
25	37	29	33	-5	29	31	32	0	RA SN BR			0.09	29.05	30.05	1.3	03	1.9	13	03	8	02	25		
26	30	25	28	-9	19	25	37	0	SN HZ			0.01	29.00	30.05	2.8	34	4.9	22	33	13	35	26		
27	35	20	28	-9	15	24	37	0				0.00	29.23	30.30	2.0	34	3.0	21	36	14	01	27		
28	39	15	27	-10	16	23	38	0				0.00	29.31	30.34	0.1	28	0.1	8	25	6	19	28		
29	37	20	29	-8	22	28	36	0				0.00	29.20	30.22	0.6	09	0.8	7	06	5	06	29		
30	52	34	43	6	32	38	22	0	RA BR			0.04	29.13	30.14	0.6	22	0.9	14	22	8	21	30		
31	60*	45	53*	16	39	45	12	0	RA BR			0.04	29.15	30.14	0.3	16	0.3	7	22	5	22	31		

40.5	25.6	33.1	☼	23.0	29.2	31.6	0.0	< MONTHLY AVERAGES   TOTALS >				2.19	29.13	30.14	0.7	30	2.4	< MONTHLY AVERAGES			
-8.5	-4.2	-6.3		-----DEPARTURE FROM NORMAL ----->				-3.23	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3												
<b>DEGREE DAYS</b>								GREATEST 24-HR PRECIPITATION : 0.70 DATE : 11-12				SEA LEVEL PRESSURE				DATE TIME					
MONTHLY				SEASON TO DATE				GREATEST 24-HR SNOWFALL :				MAXIMUM :				30.45 23 1053					
TOTAL DEPARTURE				TOTAL DEPARTURE				GREATEST SNOW DEPTH :				MINIMUM :				29.54 12 0615					
HEATING :		981 194		1587		22		NUMBER OF ->		MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 26		PRECIPITATION >= 0.01 INCH : 13							
COOLING :		0 0		1916		615		DAYS WITH		MAXIMUM TEMP <= 32 : 5		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 6							
										THUNDERSTORMS : 0		HEAVY FOG : 0		SNOWFALL >= 1.0 INCH :							

DECEMBER 2010  
OAK RIDGE, TN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)  
DECEMBER 2010

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	0.01			T	T						01												01	0.01	0.01	
02													02												02	0.00	0.00	
03													03												03	0.00	0.00	
04								T	0.02	0.09	0.16	0.10	04	T			T	T		T	T	0.04	T	T	04	0.41	0.41	
05		T	T	T	T	T	T						05		T		T	T	T				T	T	05	T	T	
06	T	T		T									06			T			T	T				06	T	T		
07					T	T	T	T					07											07	T	T		
08													08											08	0.00	0.00		
09													09											09	0.00	0.00		
10													10											10	0.00	0.00		
11													11											11	0.16	0.16		
12	0.14	0.08	0.06	0.01	0.07	0.04	0.01			T	0.07	T	12	T	T	T	0.01	T	T	0.01	T	0.01	0.01	0.07	0.07	11	0.16	0.16
13	0.01	0.01	T	T	0.01	T	T	T	T	T	T	T	13	T	T									T	12	0.57	0.57	
14	T	T											14											13	0.03	0.03		
15													15							0.01	T	0.01	0.06	0.07	14	T	T	
16	0.02	0.02	0.02	0.08	0.12	0.06	0.03	T			T	0.04	16	0.01	0.04	0.03	0.02	0.03						15	0.15	0.15		
17													17											16	0.52	0.52		
18													18											17	0.00	0.00		
19													19											18	0.00	0.00		
20													20											19	0.00	0.00		
21													21	0.02	T	0.01	0.01	T	0.01		0.01	0.02	0.03	0.02	T	21	0.14	0.14
22	0.02	T		0.01	T	T	T				T		22											22	0.02	0.02		
23													23											23	0.00	0.00		
24													24											24	0.00	0.00		
25			0.01	0.02	T	0.01	0.01	T	T	T	T		25	0.02	0.01	T		T		0.01	T	T	T	25	0.09	0.09		
26						T	0.01	T			T		26	T		T			T	T	T	T	T	26	0.01	0.01		
27													27											27	0.00	0.00		
28													28											28	0.00	0.00		
29											T	0.04	29											29	0.00	0.00		
30													30											30	0.04	0.04		
31													31										0.04	31	0.04	0.04		

\* 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)	0.04	0.05	0.06	0.09	0.12	0.16	0.18	0.23	0.27	0.31	0.35	0.36
Ending Date	04	04	12	04	04	04	04	04	04	04	04	04
Ending Time (Hr/Min)	1054	1115	0029	1110	1120	1122	1137	1122	1137	1137	1137	1137

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 1971-2000

## 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 DECEMBER 2010

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

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							10.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							1.75	10.00	
05							5.00	10.00	
06							7.00	10.00	
07							5.00	10.00	
08							7.00	10.00	
09							9.00	10.00	
10							10.00	10.00	
11							6.00	10.00	
12							0.25	10.00	
13							1.50	10.00	
14							7.00	10.00	
15							3.00	10.00	
16							1.50	10.00	
17							4.00	10.00	
18							8.00	10.00	
19							6.00	10.00	
20							6.00	10.00	
21							1.00	10.00	
22							1.50	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							0.75	10.00	
26							2.50	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							8.00	10.00	
30							6.00	10.00	
31							5.00	10.00	
MONTHLY AVGS							5.90	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible :				
Percent Possible :									
<b>NUMBER OF DAYS WITH :</b>									
SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
<b>MINIMUM VISIBILITY (MILES)</b>									
<= .25			<= 3.0				>= 7.0		
1			9				14		

# OBSERVATIONS AT 3-HOURLY INTERVALS

## OAK RIDGE, TN DECEMBER 2010 KOQT

### WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND	PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas		DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	SPEED (MPH)				DIRECTION Tens of Deg	STATION		SEA LEVEL	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL	
SUNRISE: 0729 DEC 01						SUNSET: 1723						SUNRISE: 0734 DEC 07						SUNSET: 1723										
01	OVC	018			10.00	40	35	38	82	9	25	28.99	29.96	01	OVC	055			10.00	23	11	20	60	0	00	29.13	30.16	
04	OVC	032			10.00	34	26	31	73	10	26	29.05	30.04	04	OVC	035			10.00	22	14	20	71	3	VR	29.10	30.13	
07	OVC	028			10.00	33	24	30	70	7	28	29.10	30.10	07	OVC	038		8.00	-SN	22	16	20	78	5	25	29.10	30.15	
10	OVC	043			10.00	34	22	30	62	5	25	29.14	30.15	10	OVC	036				25	13	21	60	3	20	29.15	30.19	
13	CLR	NC			10.00	39	21	32	48	8	24	29.13	30.13	13	OVC	037				27	11	22	51	0	00	29.15	30.19	
16	FEW	060			10.00	42	18	33	38	9	26	29.13	30.14	16	FEW	045				31	10	25	41	5	36	29.14	30.18	
19	CLR	NC			10.00	35	20	30	54	3	21	29.19	30.21	19	CLR	NC				26	11	22	53	0	00	29.20	30.24	
22	CLR	NC			10.00	29	23	27	78	0	00	29.23	30.26	22	CLR	NC				22	12	19	65	0	00	29.23	30.27	
SUNRISE: 0730 DEC 02						SUNSET: 1723						SUNRISE: 0735 DEC 08						SUNSET: 1723										
01	CLR	NC			10.00	30	21	27	69	0	00	29.24	30.26	01	CLR	NC			10.00	18	12	16	77	0	00	29.22	30.27	
04	CLR	NC			10.00	28	21	26	75	0	00	29.27	30.29	04	CLR	NC			10.00	16	11	15	81	0	00	29.23	30.27	
07	CLR	NC			10.00	27	22	25	81	0	00	29.30	30.33	07	SCT	003		8.00		17	13	16	84	0	00	29.23	30.28	
10	CLR	NC			10.00	35	24	31	64	0	00	29.33	30.36	10	CLR	NC			10.00	21	15	19	78	0	00	29.26	30.31	
13	OVC	100			10.00	38	20	32	48	5	VR	29.30	30.32	13	CLR	NC			10.00	28	14	24	56	0	00	29.24	30.29	
16	OVC	075			10.00	41	21	34	45	3	21	29.26	30.28	16	CLR	NC			10.00	32	12	26	43	3	VR	29.22	30.27	
19	OVC	095			10.00	38	24	33	57	0	00	29.25	30.28	19	CLR	NC			10.00	27	16	24	63	0	00	29.27	30.32	
22	OVC	080			10.00	36	27	33	70	0	00	29.25	30.27	22	CLR	NC			10.00				0	00	29.29			
SUNRISE: 0731 DEC 03						SUNSET: 1723						SUNRISE: 0736 DEC 09						SUNSET: 1723										
01	OVC	095			10.00	36	26	32	67	0	00	29.21	30.23	01	CLR	NC			10.00					0	00	29.31		
04	CLR	NC			10.00	32	27	30	82	0	00	29.18	30.19	04	CLR	NC			10.00					0	00	29.32		
07	CLR	NC			10.00	30	26	29	85	0	00	29.17	30.19	07	CLR	NC			10.00					0	00	29.33		
10	CLR	NC			10.00	38	30	35	73	0	00	29.17	30.18	10	CLR	NC			10.00					6	06	29.38		
13	CLR	NC			10.00	48	29	40	48	6	21	29.13	30.12	13	CLR	NC			10.00	38	15	30	39	3	VR	29.32		
16	CLR	NC			10.00	52	26	41	37	0	00	29.12	30.11	16	CLR	NC			10.00	41	15	32	35	3	VR	29.28		
19	CLR	NC			10.00	46	26	38	46	0	00	29.14	30.16	19	CLR	NC			10.00	32	18	27	56	0	00	29.27		
22	CLR	NC			10.00	40	28	35	62	3	06	29.17	30.18	22	CLR	NC			10.00	30	20	27	66	0	00	29.27		
SUNRISE: 0731 DEC 04						SUNSET: 1723						SUNRISE: 0736 DEC 10						SUNSET: 1723										
01	BKN	090			10.00	40	28	35	62	0	00	29.13	30.13	01	CLR	NC			10.00	32	21	28	64	0	00	29.24	30.26	
04	FEW	110			10.00	39	28	35	65	0	00	29.13	30.12	04	CLR	NC			10.00	32	20	28	61	3	21	29.25	30.26	
07	OVC	095			10.00	38	30	35	73	5	36	29.08	30.07	07	CLR	NC			10.00	31	22	28	69	3	28	29.26	30.28	
10	OVC	041			3.00	RA BR	37	34	36	89	0	00	29.03	30.03	10	CLR	NC			10.00	39	17	31	41	5	VR	29.27	30.29
13	OVC	023			8.00	38	36	37	93	0	00	28.89	29.88	13	CLR	NC			10.00	48	18	37	30	10	21	29.23	30.24	
16	OVC	015			2.50	BR	39	38	39	96	5	VR	28.85	29.84	16	CLR	NC			10.00	49	16	37	27	5	21	29.21	30.22
19	OVC	050			10.00	47	38	43	71	10	29	28.91	29.90	19	CLR	NC			10.00	38	21	32	50	0	00	29.22	30.24	
22	OVC	034			10.00	38	34	36	86	6	02	29.02	30.02	22	OVC	049			10.00	35	24	31	64	0	00	29.21	30.22	
SUNRISE: 0732 DEC 05						SUNSET: 1723						SUNRISE: 0737 DEC 11						SUNSET: 1723										
01	OVC	044			10.00	36	28	33	73	9	35	29.08	30.08	01	OVC	049			10.00	37	28	33	70	0	00	29.19	30.19	
04	OVC	021			10.00	33	26	30	75	0	00	29.13	30.14	04	OVC	050			10.00	36	28	33	73	0	00	29.19	30.19	
07	OVC	028			10.00	32	22	28	67	5	VR	29.18	30.19	07	OVC	041			10.00	37	30	34	76	0	00	29.18	30.19	
10	OVC	046			10.00	33	20	28	59	3	VR	29.24	30.26	10	OVC	060			10.00	41	29	36	62	3	VR	29.14	30.16	
13	OVC	055			10.00	36	20	30	52	9	32	29.23	30.25	13	SCT	043			10.00	48	26	39	42	0	00	29.05	30.04	
16	OVC	060			10.00	35	23	31	62	0	00	29.23	30.25	16	BKN	100			10.00	52	25	41	35	5	18	28.95	29.94	
19	OVC	035			10.00	33	24	30	70	0	00	29.25	30.28	19	OVC	060			10.00	47	32	40	56	0	00	28.85	29.85	
22	OVC	037			10.00	31	19	27	61	5	25	29.27	30.30	22	OVC	048			7.00	-RA	44	38	41	80	3	25	28.77	29.76
SUNRISE: 0733 DEC 06						SUNSET: 1723						SUNRISE: 0738 DEC 12						SUNSET: 1723										
01	OVC	034			7.00	-SN	29	19	26	66	0	00	29.27	30.29	01	OVC	036		3.00	RA BR	39	37	38	93	0	00	28.73	29.71
04	OVC	034			10.00	28	17	24	63	0	00	29.25	30.28	04	OVC	025		6.00	-RA BR	39	37	38	93	0	00	28.60	29.57	
07	SCT	029			10.00	27	15	23	61	5	26	29.25	30.28	07	OVC	027		9.00	-RA	39	36	38	89	9	26	28.59	29.57	
10	CLR	NC			10.00	29	15	25	56	7	28	29.23	30.26	10	OVC	022		5.00	-SN BR	33	30	32	89	7	25	28.64	29.62	
13	OVC	045			10.00	32	14	26	47	7	26	29.14	30.17	13	OVC	039		10.00		29	21	26	72	10	27	28.63	29.63	
16	OVC	041			10.00	28	12	23	51	9	28	29.15	30.19	16	VV	012		0.25	+SN	24	19	22	81	9	28	28.67	29.68	
19	OVC	047			8.00	-SN	26	16	23	66	7	28	29.16	30.20	19	OVC	015		1.25	-SN BR	23	20	22	88	3	21	28.71	29.72
22	BKN	041			10.00	25	11	21	55	3	VR	29.16	30.19	22	OVC	014		1.25	-SN BR	24	21	23	88	7	VR	28.71	29.72	

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN DECEMBER 2010

## KOQT

## WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)								
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)				STATION	SEA LEVEL		DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
SUNRISE: 0739 DEC 13						SUNSET: 1724																								
01	OVC	032			2.00	-SN		21	16	19	81	9	21	28.74	29.77				28	22	26	78	0	00	29.08	30.10				
04	OVC	024			1.75	-SN		19	14	18	81	7	24	28.81	29.85			BR	23	19	22	85	0	00	29.10	30.12				
07	OVC	028			2.50	-SN		18	13	17	81	7	25	28.88	29.92			BR	21	17	20	84	0	00	29.13	30.15				
10	OVC	036			4.00	-SN		20	13	18	74	0	00	28.95	29.99				28	21	26	75	7	07	29.16	30.20				
13	OVC	029			10.00			24	11	20	58	11	32	28.95	29.98				33	21	29	61	3	VR	29.13	30.15				
16	CLR	NC			10.00			22	8	18	55	10	29	29.01	30.05				38	20	32	48	3	VR	29.13	30.15				
19	BKN	037			10.00			18	6	15	59	0	00	29.10	30.16				30	21	27	69	0	00	29.13	30.16				
22	OVC	033			10.00			18	7	15	62	0	00	29.15	30.21				26	21	24	81	0	00	29.13	30.16				
SUNRISE: 0739 DEC 14						SUNSET: 1724																								
01	OVC	031			7.00	-SN		17	9	15	71	5	21	29.15	30.20				23	19	22	85	0	00	29.15	30.19				
04	BKN	029			10.00			15	10	14	80	0	00	29.17	30.23			BR	21	18	20	88	0	00	29.17	30.20				
07	CLR	NC			10.00			12	8	11	84	3	27	29.19	30.26				25	22	24	88	0	00	29.20	30.24				
10	CLR	NC			10.00			17	8	15	68	0	00	29.24	30.30				30	24	28	78	7	06	29.25	30.28				
13	CLR	NC			10.00			23	7	19	50	0	00	29.21	30.27				39	23	33	53	6	VR	29.21	30.24				
16	CLR	NC			10.00			27	7	21	43	0	00	29.18	30.23				40	23	34	51	0	00	29.19	30.21				
19	CLR	NC			10.00			21	10	18	62	0	00	29.19	30.24				38	26	33	62	0	00	29.16	30.19				
22	CLR	NC			10.00			17	11	15	77	0	00	29.17	30.23				37	27	33	67	0	00	29.16	30.18				
SUNRISE: 0740 DEC 15						SUNSET: 1724																								
01	CLR	NC			10.00			13	10	12	88	0	00	29.17	30.23				01	OVC	075					29.12	30.13			
04	CLR	NC			9.00			14	10	13	84	0	00	29.19	30.24				04	OVC	046					29.13	30.15			
07	OVC	060			10.00			16	12	15	84	0	00	29.19	30.25			BR	07	OVC	030					29.12	30.12			
10	OVC	050			10.00			20	15	19	81	0	00	29.18	30.24			BR	10	OVC	017					29.13	30.14			
13	OVC	060			10.00			26	12	22	55	0	00	29.13	30.17			BR	13	OVC	013					29.08	30.08			
16	OVC	050			10.00			28	13	23	53	0	00	29.10	30.14			BR	16	OVC	004					29.05	30.05			
19	OVC	060			10.00			29	15	25	56	0	00	29.05	30.09			BR	19	OVC	010					29.06	30.07			
22	OVC	022			7.00	UP		27	21	25	78	0	00	29.01	30.04			BR	22	OVC	010					29.05	30.05			
SUNRISE: 0741 DEC 16						SUNSET: 1724																								
01	OVC	008			9.00			28	25	27	89	0	00	28.95	29.97			BR	01	OVC	004					29.02	30.02			
04	OVC	014			2.50	FZRA	BR	30	28	29	92	3	22	28.86	29.88			BR	04	OVC	002					28.99	29.99			
07	OVC	010			7.00	-FZRA		32	30	31	92	6	25	28.79	29.80			BR	07	OVC	022					29.02	30.01			
10	OVC	005			2.00	-RA	BR	34	32	33	92	5	26	28.77	29.78			BR	10	OVC	036					29.08	30.07			
13	OVC	005			2.00	-RA	BR	36	34	35	92	5	25	28.70	29.70				13	OVC	027					29.07	30.06			
16	OVC	024			5.00	BR		41	39	40	93	3	25	28.73	29.73				16	OVC	031					29.12	30.11			
19	BKN	030			9.00			40	39	40	96	0	00	28.82	29.83				19	OVC	024					29.22	30.23			
22	OVC	030			10.00			39	36	38	89	3	23	28.94	29.94				22	OVC	048					29.30	30.32			
SUNRISE: 0741 DEC 17						SUNSET: 1725																								
01	OVC	029			10.00			37	33	35	86	6	24	29.00	30.00				01	OVC	024					29.34	30.34			
04	OVC	026			10.00			35	31	33	85	5	25	29.06	30.06				04											
07	OVC	030			6.00	BR		32	30	31	92	0	00	29.10	30.11				07											
10	OVC	026			10.00			36	30	34	79	0	00	29.16	30.17				10	CLR	NC					29.43	30.45			
13	OVC	022			10.00			37	28	33	70	3	VR	29.16	30.17				13	BKN	038					29.39	30.41			
16	OVC	026			10.00			39	28	35	65	0	00	29.16	30.17				16	OVC	038					29.37	30.39			
19	OVC	026			10.00			34	27	31	76	5	VR	29.19	30.21				19	OVC	036					29.38	30.41			
22	BKN	120			10.00			32	26	30	79	5	05	29.19	30.22				22	FEW	032					29.36	30.39			
SUNRISE: 0742 DEC 18						SUNSET: 1725																								
01	OVC	080			10.00			32	25	29	75	6	05	29.16	30.18				01	CLR	NC					29.35	30.37			
04	OVC	070			10.00			32	25	29	75	3	02	29.14	30.16				04	CLR	NC					29.34	30.37			
07	OVC	100			10.00			32	26	30	79	0	00	29.13	30.16				07	CLR	NC					29.34	30.37			
10	OVC	080			9.00			34	26	31	73	3	06	29.14	30.17				10	BKN	095					29.34	30.37			
13	OVC	070			10.00			38	27	34	65	3	VR	29.09	30.09				13	CLR	NC					29.24	30.26			
16	OVC	025			10.00			40	28	35	62	5	VR	29.06	30.07				16	CLR	NC					29.19	30.21			
19	CLR	NC			10.00			31	24	28	75	3	06	29.08	30.10				19	OVC	070					29.15	30.18			
22	CLR	NC			10.00			28	22	26	78	0	00	29.07	30.09				22	OVC	070					29.15	30.16			

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

DECEMBER 2010 KOQT

WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
<b>SUNRISE: 0745          DEC 25          SUNSET: 1729</b>													
01	OVC	065			10.00	37	24	32	59	0 00	29.12	30.12	
04	OVC	048			1.75	-SN BR	33	31	32	92	0 00	29.12	30.12
07	OVC	014			1.50	-SN BR	33	31	32	92	0 00	29.07	30.08
10	OVC	017			5.00	BR	33	31	32	92	0 00	29.08	30.09
13	OVC	032			0.75	-SN BR	33	31	32	92	0 00	29.00	30.01
16	OVC	019			4.00	BR	33	30	32	89	5 04	28.98	29.99
19	OVC	030			10.00		32	28	30	85	5 01	29.01	30.03
22	OVC	036			5.00	-SN	30	24	28	78	6 VR	29.00	30.02
<b>SUNRISE: 0746          DEC 26          SUNSET: 1729</b>													
01	OVC	042			10.00		29	22	27	75	0 00	28.98	29.99
04	OVC	070			10.00		28	19	25	69	5 35	28.97	29.99
07	OVC	036			2.50	-SN	26	21	24	81	0 00	28.99	30.01
10	OVC	050			5.00	HZ	27	19	24	72	5 34	29.03	30.06
13	OVC	041			9.00	-SN	29	18	25	63	7 VR	29.00	30.02
16	OVC	046			10.00		29	17	25	61	9 35	29.02	30.04
19	OVC	043			10.00	-SN	29	18	25	63	5 VR	29.06	30.09
22	OVC	032			9.00	-SN	29	18	25	63	7 34	29.09	30.12
<b>SUNRISE: 0746          DEC 27          SUNSET: 1730</b>													
01	OVC	037			10.00		27	15	23	61	8 35	29.12	30.14
04	OVC	030			10.00		27	16	24	63	0 00	29.14	30.18
07	OVC	030			10.00		27	16	24	63	0 00	29.21	30.25
10	BKN	038			10.00		30	15	25	54	3 32	29.29	30.32
13	FEW	039			10.00		33	15	27	48	7 30	29.27	30.30
16	CLR	NC			10.00		33	15	27	48	8 33	29.29	30.32
19	CLR	NC			10.00		27	14	23	58	0 00	29.33	30.37
22	CLR	NC			10.00		22	15	20	74	0 00	29.35	30.39
<b>SUNRISE: 0746          DEC 28          SUNSET: 1731</b>													
01	CLR	NC			10.00		19	14	18	81	0 00	29.36	30.40
04	CLR	NC			10.00		17	13	16	84	0 00	29.35	30.40
07	CLR	NC			10.00		16	12	15	84	3 28	29.35	30.40
10	CLR	NC			10.00		23	18	21	81	0 00	29.37	30.42
13	CLR	NC			10.00		34	18	29	52	0 00	29.30	30.34
16	CLR	NC			10.00		38	18	31	44	0 00	29.23	30.27
19	CLR	NC			10.00		30	18	26	61	0 00	29.24	30.28
22	CLR	NC			10.00		28	19	25	69	0 00	29.26	30.29
<b>SUNRISE: 0747          DEC 29          SUNSET: 1731</b>													
01	CLR	NC			10.00		24	19	22	81	0 00	29.23	30.27
04	CLR	NC			10.00		23	18	21	81	0 00	29.24	30.27
07	CLR	NC			8.00		21	18	20	88	0 00	29.23	30.27
10	OVC	047			9.00		27	23	26	85	0 00	29.24	30.27
13	OVC	050			10.00		35	24	31	64	3 14	29.19	30.22
16	OVC	060			10.00		37	24	32	59	3 VR	29.15	30.18
19	OVC	110			10.00		36	25	32	64	0 00	29.14	30.17
22	OVC	043			10.00		35	25	31	67	3 08	29.14	30.16
<b>SUNRISE: 0747          DEC 30          SUNSET: 1732</b>													
01	OVC	036			10.00		35	27	32	73	0 00	29.12	30.13
04	BKN	110			10.00		34	28	32	79	0 00	29.13	30.14
07	OVC	060			10.00	-RA	35	29	33	79	0 00	29.16	30.18
10	BKN	090			8.00		38	33	36	82	0 00	29.17	30.19
13	SCT	120			10.00		49	36	43	61	5 VR	29.13	30.12
16	OVC	060			10.00		51	32	43	48	0 00	29.09	30.08
19	OVC	065			10.00		47	34	41	61	0 00	29.12	30.11
22	OVC	035			10.00		46	36	42	68	0 00	29.15	30.15

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
<b>SUNRISE: 0747          DEC 31          SUNSET: 1733</b>													
01	OVC	031			10.00	47	33	41	58	3 20	29.16	30.15	
04	OVC	033			10.00	45	35	41	68	0 00	29.15	30.15	
07	OVC	031			10.00	46	36	42	68	0 00	29.17	30.16	
10	OVC	043			10.00	48	36	43	63	0 00	29.21	30.20	
13	OVC	042			10.00	53	39	46	59	0 00	29.20	30.19	
16	CLR	NC			10.00	59	43	51	56	0 00	29.13	30.11	
19	CLR	NC			10.00	49	43	46	80	0 00	29.12	30.10	
22	OVC	055			10.00	49	44	47	83	0 00	29.12	30.10	

### 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

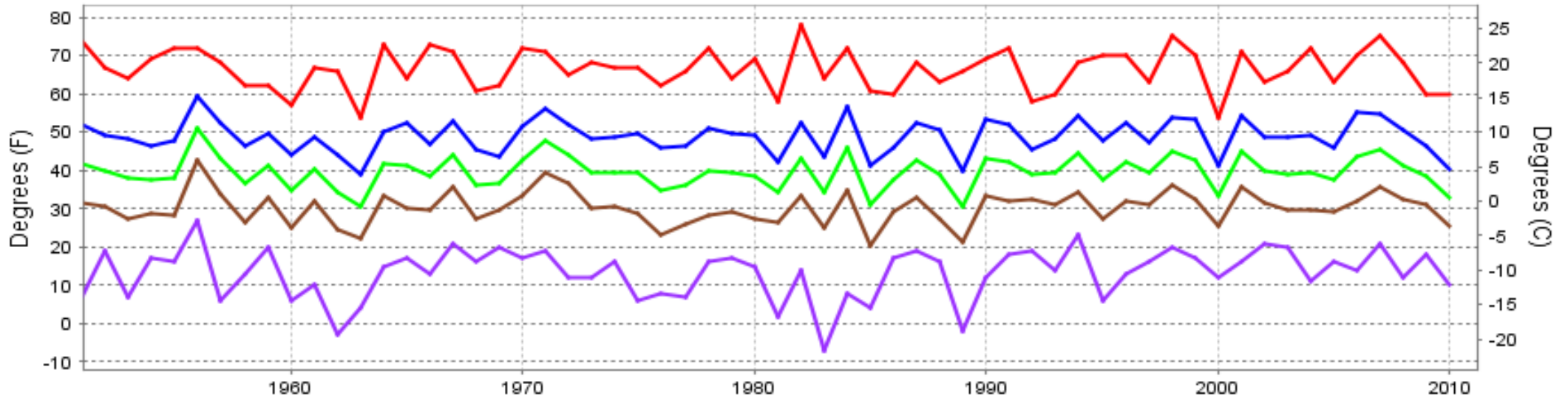
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

& = 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)		WIND SPEED (MPH)	DIRECTION		
							STATION	SEA LEVEL				
01			30	23	28	74	29.13	30.14	8.97	2	3	32
02			30	23	27	75	29.13	30.14	9.11	2	3	31
03			29	22	27	76	29.13	30.14	8.87	2	5	30
04			29	23	27	78	29.13	30.14	8.48	1	3	31
05			29	23	26	79	29.13	30.14	8.36	2	4	32
06			29	23	27	80	29.13	30.15	8.18	2	3	33
07			28	23	27	81	29.13	30.15	8.22	2	4	29
08			29	23	27	79	29.15	30.17	8.48	2	3	32
09			30	23	28	78	29.17	30.19	8.20	2	3	36
10			32	24	29	73	29.17	30.18	8.26	3	2	34
11			33	23	30	67	29.17	30.18	8.95	3	1	33
12			35	23	31	62	29.15	30.16	9.19	4	1	35
13			37	23	32	59	29.13	30.13	9.06	4	5	29
14			37	22	32	56	29.10	30.11	8.99	4	3	30
15			38	22	33	55	29.10	30.11	9.07	4	3	30
16			38	22	32	56	29.11	30.12	8.80	4	3	30
17			37	22	32	57	29.11	30.13	9.12	3	2	31
18			35	23	31	61	29.12	30.14	9.17	2	2	32
19			34	23	30	66	29.13	30.15	9.35	2	3	32
20			33	23	30	67	29.13	30.15	9.17	1	3	33
21			32	23	29	70	29.14	30.16	9.19	1	3	35
22			32	24	29	72	29.14	30.15	9.07	2	2	36
23			31	24	29	74	29.14	30.16	8.98	2	2	03
24			31	24	29	74	29.14	30.15	8.87	2	2	32

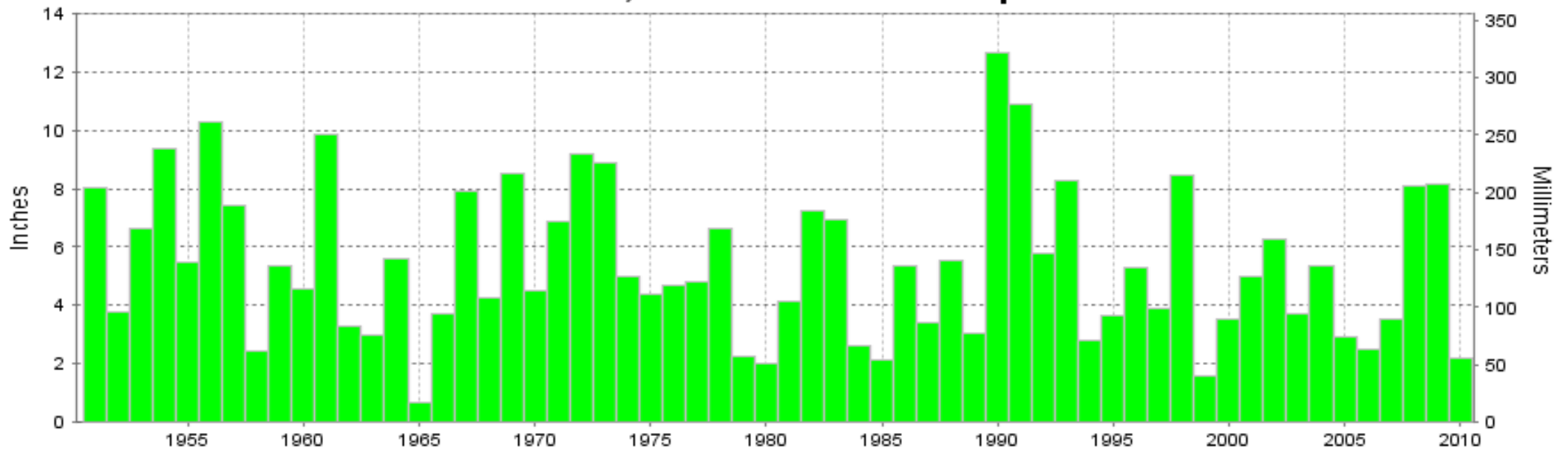
## OAK RIDGE, TN DECEMBER Temperatures



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

Long-Term (1951-2010) Mean: 39.6  
1971-2000 Normal: 39.4

## OAK RIDGE, TN DECEMBER Precipitation



Long-Term (1951-2010) Mean Monthly Total: 5.41

1971-2000 Normal: 5.42



DECEMBER 2010  
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.*

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