



# JULY 2007

## 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	Temperature °F						Deg Days BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		DEPTH	WATER-EQUIV	SNOW-FALL	WATER-EQUIV	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM					
																			5-SEC		2-MIN			
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	89	69	79	3	64	69	0	14	BR				0.00	29.09	30.02	1.6	04	3.2	20	07	12	06	01	
02	88	69	79	3	58	66	0	14					0.00	29.14	30.08	1.2	10	3.8	14	08	9	19	02	
03	83	68	76	0	62	67	0	11					0.00	29.20	30.14	2.7	23	4.1	15	22	10	21	03	
04	90	66	78	2	61	67	0	13					0.00	29.16	30.10	3.7	23	4.6	20	21	13	20	04	
05	90	68	79	2	65	69	0	14	RA BR				0.35	29.11	30.04	1.5	21	2.3	22	31	14	31	05	
06	89	70	80	3	68	71	0	15	RA BR				0.30	29.08	30.00	0.2	18	0.6	15	15	9	16	06	
07	90	68	79	2	65	70	0	14	BR				0.00	29.03	29.94	0.9	19	2.1	14	21	10	19	07	
08	94*	67	81	4	64	69	0	16	BR HZ				0.00	28.97	29.89	1.0	07	1.9	15	07	12	07	08	
09	93	68	81	4	65	70	0	16	BR				0.00	29.00	29.93	0.9	24	1.7	18	19	13	19	09	
10	84	71	78	1	68	71	0	13	RA FG BR HZ				0.58	29.05	29.98	2.8	22	4.2	25	25	15	28	10	
11	87	68	78	1	67	70	0	13	RA BR				0.16	28.99	29.92	3.2	23	4.2	21	29	13	27	11	
12	85	61	73	-4	56	63	0	8					0.00	29.08	30.02	0.6	30	1.6	16	26	10	26	12	
13	81	63	72	-5	59	63	0	7	RA				T	29.10	30.04	0.1	11	0.9	16	19	12	19	13	
14	87	62	75	-2	61	66	0	10	BR				0.00	29.03	29.96	0.5	24	1.8	14	29	8	28	14	
15	87	69	78	1	66	70	0	13	HZ				0.00	29.00	29.92	1.5	23	3.2	15	27	10	34	15	
16	92	70	81	4	66	70	0	16	RA				T	29.05	30.00	1.6	20	3.2	20	36	12	17	16	
17	88	68	78	1	66	70	0	13	RA				0.01	29.11	30.04	2.8	23	3.3	17	18	12	18	17	
18	88	71	80	2	69	72	0	15	RA				0.01	29.10	30.04	1.9	20	3.5	15	22	12	20	18	
19	92	70	81*	3	69	72	0	16	RA BR HZ				0.58	29.03	29.95	2.7	23	4.0	28*	28	15*	29	19	
20	86	70	78	0	64	68	0	13	RA				T	29.02	29.95	0.6	35	2.0	15	06	10	07	20	
21	85	61	73	-5	52	61	0	8					0.00	29.10	30.05	2.3	05	4.2	18	32	14	05	21	
22	87	60*	74	-4	54	62	0	9					0.00	29.14	30.07	0.9	04	2.6	15	32	10	06	22	
23	83	67	75	-3	61	66	0	10	RA BR				0.03	29.13	30.06	1.2	22	2.4	17	26	10	24	23	
24	78	64	71	-7	63	65	0	6	RA BR				0.29	29.13	30.06	1.7	18	2.7	22	27	14	19	24	
25	75	65	70*	-8	65	66	0	5	RA FG+ FG BR HZ				0.50	29.11	30.07	0.8	05	1.5	13	36	9	06	25	
26	84	64	74	-4	67	69	0	9	FG+ FG BR HZ				0.00	29.14	30.08	0.8	22	1.3	13	22	8	25	26	
27	87	70	79	1	70	72	0	14	RA FG BR HZ				0.06	29.04	29.96	1.1	21	2.6	16	19	10	21	27	
28	84	70	77	-1	70	72	0	12	RA BR HZ				1.16	28.90	29.83	0.6	15	1.9	15	19	10	20	28	
29	87	72	80	2	70	72	0	15					0.00	28.90	29.83	0.4	03	1.2	12	05	7	07	29	
30	90	69	80	2	70	72	0	15	RA FG+ BR				0.16	28.94	29.87	0.2	35	1.5	15	36	9	36	30	
31	91	68	80	3	68	72	0	15	FG+ BR				0.00	29.00	29.93	1.1	05	1.5	12	05	8	06	31	

86.9	67.3	77.1	☼	64.3	68.5	0.0	12.3	< MONTHLY AVERAGES   TOTALS >				4.19	29.06	29.99	0.7	22	2.6	< MONTHLY AVERAGES			
-1.2	0.9	-0.2		-----DEPARTURE FROM NORMAL ----->										-0.97	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3						

<b>DEGREE DAYS</b>				GREATEST 24-HR PRECIPITATION : 1.22 DATE : 27-28				SEA LEVEL PRESSURE			
MONTHLY				GREATEST 24-HR SNOWFALL :				MAXIMUM : 30.18 03 0940			
TOTAL DEPARTURE				GREATEST SNOW DEPTH :				MINIMUM : 29.77 28 1758			
SEASON TO DATE				NUMBER OF -> DAYS WITH				PRECIPITATION >= 0.01 INCH: 13			
HEATING : 0 0 0 0				MAXIMUM TEMP >= 90 : 9				MINIMUM TEMP <= 32 : 0			
COOLING : 382 2 961 211				MAXIMUM TEMP <= 32 : 0				PRECIPITATION >= 0.10 INCH: 9			
				THUNDERSTORMS : 0				HEAVY FOG : 4			
								SNOWFALL >= 1.0 INCH :			

JULY 2007  
 OAK RIDGE, TN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)  
JULY 2007

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													01												01	0.00	0.00	
02													02												02	0.00	0.00	
03													03												03	0.00	0.00	
04													04												04	0.00	0.00	
05													05			T	0.33	T				0.02	T	T	05	0.35	0.35	
06	0.07	0.23											06												06	0.30	0.30	
07													07												07	0.00	0.00	
08													08												08	0.00	0.00	
09													09												09	0.00	0.00	
10													10		0.58										10	0.58	0.58	
11				0.03				T	T	T			11	T	0.13	T									11	0.16	0.16	
12													12												12	0.00	0.00	
13													13												13	T	T	
14													14												14	0.00	0.00	
15													15												15	0.00	0.00	
16													16												16	T	T	
17													17		T	0.01									17	0.01	0.01	
18													18	T	T	0.01									18	0.01	0.01	
19													19	T			0.15	0.10					0.20	0.13	19	0.58	0.58	
20	T							T		T			20	T											20	T	T	
21													21												21	0.00	0.00	
22													22												22	0.00	0.00	
23													23												23	0.03	0.03	
24						0.01	0.01	T	0.03	T			24	T			0.01	0.01	0.16	0.09	T	T	T	T	24	0.29	0.29	
25		T	T	0.01	0.02	0.02					T	0.05	25	T	0.06	0.30	T	0.04	T						25	0.50	0.50	
26													26												26	0.00	0.00	
27													27							0.03	0.03	T	T	T	27	0.06	0.06	
28	0.03	0.03	0.19	0.37	0.38	0.16	T	T					28		T	T									28	1.16	1.16	
29													29												29	0.00	0.00	
30												T	30							T	0.14	T			30	0.16	0.16	
31													31		0.02	T									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)	0.21	0.38	0.43	0.44	0.56	0.58	0.58	0.58	0.68	0.80	0.95	1.04
Ending Date	10	10	10	10	10	10	10	10	28	28	28	28
Ending Time (Hr/Min)	1312	1316	1318	1323	1335	1340	1340	1340	0510	0510	0510	0510

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 JULY 2007

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							5.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							9.00	10.00	
05							2.50	10.00	
06							3.00	10.00	
07							5.00	10.00	
08							3.00	10.00	
09							5.00	10.00	
10							5.00	10.00	
11							3.00	10.00	
12							9.00	10.00	
13							10.00	10.00	
14							5.00	10.00	
15							5.00	10.00	
16							10.00	10.00	
17							9.00	10.00	
18							7.00	10.00	
19							1.00	10.00	
20							7.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							4.00	10.00	
24							2.50	10.00	
25							0.25	10.00	
26							0.25	9.00	
27							0.50	10.00	
28							1.75	10.00	
29							7.00	10.00	
30							0.25	10.00	
31							1.50	10.00	
MONTHLY AVGS							5.21	9.97	
<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			
3		12				12			

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

JULY 2007

KOQT

WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL	
														Observation Time (LST)
SUNRISE: 0524						JUL 01		SUNSET: 1958						
01	CLR	NC			10.00		72	67	69	84	0	00	29.09	30.01
04	CLR	NC			7.00		70	67	68	90	0	00	29.06	29.98
07	CLR	NC			7.00		71	67	68	87	0	00	29.10	30.02
10	CLR	NC			10.00		81	65	70	58	6	VR	29.13	30.05
13	CLR	NC			10.00		86	64	71	48	5	06	29.10	30.03
16	CLR	NC			10.00		84	63	70	49	6	36	29.09	30.01
19	CLR	NC			10.00		81	61	68	51	7	06	29.09	30.01
22	CLR	NC			10.00		76	62	67	62	3	06	29.12	30.03
SUNRISE: 0524						JUL 02		SUNSET: 1958						
01	CLR	NC			10.00		75	52	62	45	5	06	29.13	30.06
04	CLR	NC			10.00		72	52	60	50	0	00	29.13	30.05
07	BKN	041			10.00		71	54	61	55	3	05	29.16	30.09
10	CLR	NC			10.00		80	56	65	44	5	VR	29.16	30.10
13	BKN	060			10.00		84	60	69	44	3	VR	29.14	30.06
16	OVC	060			10.00		86	59	69	40	7	12	29.12	30.04
19	BKN	070			10.00		82	66	71	58	8	19	29.13	30.06
22	OVC	060			10.00		75	65	69	71	6	24	29.20	30.13
SUNRISE: 0525						JUL 03		SUNSET: 1958						
01	OVC	070			10.00		72	61	65	68	5	24	29.22	30.15
04	OVC	038			10.00		70	60	64	71	0	00	29.19	30.13
07	OVC	036			10.00		70	60	64	71	0	00	29.23	30.16
10	OVC	038			10.00		76	60	66	58	5	VR	29.24	30.17
13	OVC	044			10.00		79	62	68	56	9	21	29.21	30.14
16	BKN	070			10.00		81	64	70	56	7	27	29.18	30.11
19	CLR	NC			10.00		80	63	69	56	6	23	29.16	30.10
22	CLR	NC			10.00		75	63	67	66	3	22	29.19	30.13
SUNRISE: 0525						JUL 04		SUNSET: 1957						
01	CLR	NC			10.00		70	62	65	76	0	00	29.19	30.12
04	CLR	NC			10.00		67	62	64	84	3	VR	29.18	30.12
07	CLR	NC			10.00		70	63	66	79	0	00	29.20	30.14
10	FEW	050			10.00		78	61	67	56	10	22	29.22	30.15
13	CLR	NC			10.00		86	61	70	43	9	21	29.18	30.11
16	FEW	055			10.00		88	60	70	39	8	23	29.13	30.06
19	CLR	NC			10.00		85	60	69	43	6	22	29.10	30.03
22	CLR	NC			10.00		79	61	68	54	0	00	29.15	30.08
SUNRISE: 0526						JUL 05		SUNSET: 1957						
01	CLR	NC			10.00		73	62	66	69	0	00	29.14	30.06
04	CLR	NC			9.00		70	62	65	76	0	00	29.13	30.06
07	CLR	NC			7.00		71	63	66	76	0	00	29.16	30.09
10	CLR	NC			10.00		80	62	68	54	8	25	29.14	30.06
13	CLR	NC			10.00		89	64	72	44	6	20	29.12	30.03
16	BKN	033			5.00	-RA	77	69	72	76	6	VR	29.07	30.00
19	SCT	070			10.00		73	69	70	87	0	00	29.07	30.00
22	OVC	090			7.00	-RA	73	70	71	90	0	00	29.10	30.02
SUNRISE: 0526						JUL 06		SUNSET: 1957						
01	OVC	080			5.00	-RA BR	71	69	70	93	0	00	29.09	30.01
04	FEW	120			7.00		71	68	69	90	0	00	29.08	30.01
07	OVC	004			4.00	BR	71	69	70	93	0	00	29.10	30.05
10	FEW	014			10.00		79	69	72	72	0	00	29.12	30.04
13	SCT	045			10.00		87	65	72	48	0	00	29.09	30.01
16	SCT	085			10.00		86	66	73	51	0	00	29.04	29.96
19	CLR	NC			10.00		87	67	73	52	0	00	29.05	29.96
22	FEW	085			10.00		77	70	72	79	0	00	29.06	29.98
SUNRISE: 0527						JUL 07		SUNSET: 1957						
01	CLR	NC			8.00		72	69	70	90	0	00	29.06	29.97
04	CLR	NC			5.00	BR	69	67	68	93	0	00	29.04	29.96
07	CLR	NC			5.00	BR	69	66	67	90	0	00	29.06	29.98
10	FEW	110			10.00		80	62	68	54	3	05	29.06	29.98
13	CLR	NC			10.00		87	62	71	43	0	00	29.03	29.94
16	BKN	085			10.00		87	61	70	42	5	18	28.98	29.91
19	CLR	NC			10.00		82	68	73	63	5	21	28.98	29.90
22	CLR	NC			10.00		75	66	69	74	0	00	28.99	29.91
SUNRISE: 0527						JUL 08		SUNSET: 1957						
01	CLR	NC			10.00		72	66	68	82	0	00	28.99	29.91
04	CLR	NC			7.00		68	65	66	90	0	00	28.97	29.89
07	OVC	005			4.00	BR	70	67	68	90	0	00	29.00	29.92
10	BKN	011			7.00		78	69	72	74	0	00	29.01	29.93
13	CLR	NC			10.00		89	60	70	38	5	VR	28.97	29.88
16	CLR	NC			10.00		93	54	68	27	7	VR	28.92	29.84
19	CLR	NC			10.00		90	60	70	37	0	00	28.93	29.84
22	CLR	NC			10.00		78	65	70	64	0	00	28.96	29.88
SUNRISE: 0528						JUL 09		SUNSET: 1956						
01	CLR	NC			10.00		73	65	68	76	0	00	28.98	29.89
04	SCT	110			8.00		70	65	67	84	0	00	28.99	29.90
07	CLR	NC			7.00		72	66	68	82	0	00	29.03	29.94
10	CLR	NC			10.00		84	67	73	57	0	00	29.04	29.96
13	FEW	055			10.00		91	64	73	41	0	00	29.02	29.93
16	SCT	060			10.00		90	64	73	42	8	28	28.98	29.89
19	FEW	120			10.00		84	63	70	49	5	17	29.03	29.95
22	CLR	NC			10.00		78	67	71	69	0	00	29.05	29.96
SUNRISE: 0528						JUL 10		SUNSET: 1956						
01	CLR	NC			10.00		75	68	70	79	3	21	29.05	29.97
04	CLR	NC			9.00		73	67	69	82	0	00	29.07	29.98
07	OVC	008			5.00	BR	72	68	69	87	6	22	29.10	30.03
10	BKN	016			9.00		81	69	73	67	5	20	29.10	30.03
13	BKN	055			10.00		81	69	73	67	5	VR	29.08	30.01
16	FEW	023			10.00		82	71	74	69	7	24	29.03	29.95
19	CLR	NC			10.00		83	67	72	59	6	23	29.00	29.92
22	CLR	NC			10.00		78	69	72	74	6	21	29.04	29.95
SUNRISE: 0529						JUL 11		SUNSET: 1956						
01	BKN	018			10.00		76	69	71	79	0	00	29.02	29.94
04	OVC	075			10.00		72	69	70	90	7	22	28.98	29.90
07	OVC	010			10.00	-RA	72	69	70	90	6	23	28.99	29.91
10	OVC	034			10.00		76	69	71	79	7	23	29.01	29.93
13	BKN	075			10.00		82	69	73	65	7	20	28.99	29.91
16	SCT	028			10.00		83	70	74	65	3	VR	28.95	29.87
19	CLR	NC			10.00		84	58	68	41	7	30	28.99	29.91
22	CLR	NC			10.00		71	61	65	71	0	00	29.05	29.98
SUNRISE: 0530						JUL 12		SUNSET: 1955						
01	CLR	NC			10.00		68	61	64	78	0	00	29.08	30.01
04	CLR	NC			10.00		63	60	61	90	0	00	29.08	30.01
07	CLR	NC			10.00		65	59	61	81	0	00	29.10	30.03
10	CLR	NC			10.00		77	54	63	45	5	VR	29.13	30.06
13	CLR	NC			10.00		81	52	64	37	7	27	29.10	30.03
16	CLR	NC			10.00		83	52	64	34	5	VR	29.07	30.00
19	CLR	NC			10.00		80	53	64	39	0	00	29.08	30.01
22	CLR	NC			10.00		71	58	63	64	0	00	29.10	30.04

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

JULY 2007

KOQT

WBAN # 53868

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)																
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL															
															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					
SUNRISE: 0530						JUL 13						SUNSET: 1955																	
01	CLR	NC			10.00		66	58	61	76	0	00	29.10	30.04	01	CLR	NC			10.00		72	67	69	84	3	23	29.10	30.03
04	CLR	NC			10.00		64	58	60	81	0	00	29.09	30.02	04	CLR	NC			10.00		71	67	68	87	0	00	29.07	30.00
07	CLR	NC			10.00		64	58	60	81	0	00	29.10	30.04	07	OVC	005			6.00	BR	72	69	70	90	6	21	29.08	30.00
10	BKN	100			10.00	-RA	66	60	62	81	0	00	29.15	30.10	10	CLR	NC			10.00		82	71	74	69	8	23	29.08	30.00
13	CLR	NC			10.00		76	60	66	58	0	00	29.14	30.08	13	FEW	045			10.00		88	69	75	53	7	26	29.02	29.93
16	CLR	NC			10.00		81	56	66	42	6	VR	29.10	30.03	16	OVC	100			1.00	+RA BR	76	73	74	90	14	26	29.01	29.94
19	CLR	NC			10.00		78	58	66	50	0	00	29.07	30.00	19	CLR	NC			10.00		75	69	71	82	0	00	28.96	29.89
22	CLR	NC			10.00		69	61	64	76	3	11	29.10	30.04	22	SCT	070			10.00		74	70	71	87	0	00	28.99	29.91
SUNRISE: 0531						JUL 14						SUNSET: 1955																	
01	CLR	NC			10.00		65	61	63	87	0	00	29.09	30.03	01	CLR	NC			10.00		72	68	69	87	3	14	29.00	29.91
04	CLR	NC			7.00		63	60	61	90	0	00	29.06	30.00	04	OVC	033			8.00		70	69	69	97	0	00	28.99	29.92
07	CLR	NC			5.00	BR	63	60	61	90	0	00	29.09	30.03	07	OVC	032			10.00		70	68	69	93	0	00	29.05	29.98
10	CLR	NC			10.00		74	61	66	64	0	00	29.08	30.01	10	BKN	060			10.00		77	67	70	71	0	00	29.05	29.97
13	FEW	044			10.00		82	61	69	49	5	23	29.04	29.97	13	SCT	050			10.00		84	64	71	51	5	27	29.04	29.96
16	SCT	055			10.00		87	59	69	39	6	VR	28.98	29.90	16	SCT	060			10.00		85	60	69	43	6	02	29.00	29.92
19	OVC	075			10.00		85	61	69	45	0	00	28.96	29.89	19	CLR	NC			10.00		82	59	67	46	3	VR	29.00	29.92
22	BKN	055			10.00		79	64	69	60	3	VR	28.99	29.91	22	CLR	NC			10.00		72	59	64	64	0	00	29.06	29.98
SUNRISE: 0532						JUL 15						SUNSET: 1954																	
01	CLR	NC			8.00		74	66	69	76	0	00	29.00	29.92	01	CLR	NC			10.00		68	55	60	63	0	00	29.09	30.01
04	SCT	031			7.00		72	66	68	82	0	00	28.99	29.90	04	CLR	NC			10.00		63	56	59	78	0	00	29.09	30.02
07	CLR	NC			6.00	HZ	72	66	68	82	0	00	29.01	29.93	07	CLR	NC			10.00		64	57	60	78	0	00	29.13	30.07
10	OVC	024			8.00		78	68	71	71	3	VR	29.02	29.94	10	CLR	NC			10.00		75	55	63	50	7	07	29.16	30.10
13	CLR	NC			9.00		86	67	73	53	6	20	29.01	29.92	13	CLR	NC			10.00		81	51	63	35	7	VR	29.13	30.06
16	CLR	NC			10.00		84	65	71	53	3	23	28.97	29.89	16	CLR	NC			10.00		84	51	64	32	7	36	29.10	30.03
19	CLR	NC			10.00		83	67	72	59	5	26	28.99	29.91	19	CLR	NC			10.00		80	49	62	34	5	36	29.10	30.03
22	CLR	NC			10.00		76	66	69	71	3	VR	29.02	29.94	22	CLR	NC			10.00		72	49	59	44	0	00	29.15	30.09
SUNRISE: 0532						JUL 16						SUNSET: 1954																	
01	CLR	NC			10.00		72	66	68	82	3	24	29.04	29.96	01	CLR	NC			10.00		67	47	56	49	3	06	29.16	30.09
04	CLR	NC			10.00		71	66	68	84	3	VR	29.04	29.96	04	CLR	NC			10.00		61	49	55	65	0	00	29.14	30.08
07	CLR	NC			10.00		71	66	68	84	3	21	29.09	30.01	07	BKN	085			10.00		65	52	58	63	0	00	29.16	30.10
10	CLR	NC			10.00		81	68	72	65	5	20	29.10	30.01	10	BKN	060			10.00		75	54	63	48	5	VR	29.17	30.11
13	SCT	045			10.00		89	64	72	44	3	VR	29.07	29.98	13	BKN	060			10.00		84	56	67	38	6	VR	29.15	30.08
16	FEW	060			10.00		85	64	71	49	7	05	29.07	29.99	16	CLR	NC			10.00		86	53	66	32	0	00	29.10	30.04
19	CLR	NC			10.00		79	68	72	69	0	00	29.07	30.00	19	CLR	NC			10.00		82	55	65	40	5	01	29.10	30.04
22	CLR	NC			10.00		75	64	68	69	0	00	29.13	30.05	22	FEW	070			10.00		76	60	66	58	0	00	29.13	30.06
SUNRISE: 0533						JUL 17						SUNSET: 1953																	
01	CLR	NC			10.00		72	67	69	84	0	00	29.13	30.05	01	OVC	100			10.00		73	61	66	66	3	26	29.13	30.06
04	CLR	NC			10.00		69	65	66	87	0	00	29.13	30.05	04	BKN	095			10.00		71	62	65	73	0	00	29.14	30.06
07	CLR	NC			10.00		70	66	67	87	0	00	29.14	30.07	07	FEW	085			8.00		69	63	65	81	0	00	29.16	30.10
10	CLR	NC			10.00		80	67	71	65	7	20	29.15	30.08	10	SCT	060			7.00		70	63	66	79	0	00	29.16	30.10
13	CLR	NC			10.00		88	65	73	47	5	VR	29.10	30.03	13	BKN	046			10.00		78	60	67	54	3	27	29.14	30.07
16	CLR	NC			10.00		84	69	74	61	7	25	29.07	29.99	16	FEW	055			10.00		81	59	67	47	5	23	29.09	30.01
19	CLR	NC			10.00		83	66	72	57	5	25	29.08	30.00	19	BKN	060			10.00		80	59	67	49	3	22	29.08	30.01
22	CLR	NC			10.00		78	68	71	71	3	21	29.09	30.01	22	BKN	050			10.00		70	63	66	79	6	07	29.13	30.06
SUNRISE: 0534						JUL 18						SUNSET: 1953																	
01	BKN	095			10.00		74	68	70	82	0	00	29.12	30.04	01	BKN	065			8.00		67	62	64	84	0	00	29.13	30.06
04	FEW	065			9.00		72	68	69	87	0	00	29.10	30.03	04	SCT	080			8.00		65	61	63	87	3	05	29.12	30.05
07	BKN	080			8.00		74	69	71	84	3	VR	29.13	30.06	07	OVC	060			4.00	-RA BR	65	62	63	90	3	13	29.14	30.08
10	FEW	037			10.00		81	69	73	67	6	18	29.15	30.08	10	SCT	095			9.00		70	63	66	79	7	24	29.15	30.09
13	BKN	055			10.00		85	68	73	57	6	VR	29.12	30.03	13	OVC	030			10.00		73	63	67	71	6	17	29.14	30.09
16	FEW	016			10.00		81	71	74	72	6	20	29.10	30.02	16	CLR	NC			10.00		78	59	66	52	7	14	29.07	30.00
19	CLR	NC			10.00		80	67	71	65	6	21	29.08	30.00	19	OVC	055			2.50	+RA BR	67	64	65	90	0	00	29.12	30.07
22	CLR	NC			10.00		75	68	70	79	0	00	29.10	30.02	22	BKN	085			4.00	BR	67	65	66	93	0	00	29.12	30.06

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

JULY 2007

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 Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
01	SCT	120				67	64	65	90	0 00	29.12	30.05	
04	OVC	120			BR	66	64	65	93	0 00	29.10	30.05	
07	OVC	060			BR	67	64	65	90	0 00	29.13	30.08	
10	OVC	013				71	65	67	81	5 28	29.15	30.10	
13	OVC	075			HZ	72	67	69	84	6 05	29.13	30.06	
16	BKN	110				66	64	65	93	3 07	29.13	30.09	
19	CLR	NC				68	65	66	90	0 00	29.12	30.06	
22	OVC	009			FG	66	65	65	97	0 00	29.15	30.09	
		<b>SUNRISE: 0539</b>		<b>JUL 26</b>		<b>SUNSET: 1948</b>							
01	OVC	009			FG	65	64	64	97	0 00	29.15	30.10	
04	VV	001			FG	65	64	64	97	0 00	29.13	30.08	
07	OVC	001			BR	65	64	64	97	0 00	29.18	30.14	
10	OVC	012				71	65	67	81	3 VR	29.19	30.14	
13	BKN	022				79	67	71	67	0 00	29.16	30.10	
16	CLR	NC			HZ	79	68	72	69	3 VR	29.10	30.03	
19	FEW	080				81	69	73	67	6 22	29.09	30.02	
22	BKN	100			BR	74	70	71	87	0 00	29.13	30.06	
		<b>SUNRISE: 0540</b>		<b>JUL 27</b>		<b>SUNSET: 1947</b>							
01	CLR	NC				73	70	71	90	0 00	29.10	30.02	
04	CLR	NC			BR	71	69	70	93	0 00	29.09	30.01	
07	OVC	010			BR	71	69	70	93	0 00	29.09	30.02	
10	CLR	NC			HZ	77	70	72	79	6 VR	29.10	30.02	
13	CLR	NC				86	67	73	53	6 VR	29.04	29.95	
16	CLR	NC				84	68	73	59	8 21	28.98	29.90	
19	CLR	NC				81	69	73	67	0 00	28.97	29.89	
22	SCT	055				75	73	74	94	0 00	28.97	29.89	
		<b>SUNRISE: 0541</b>		<b>JUL 28</b>		<b>SUNSET: 1946</b>							
01	OVC	100			3.00 -RA BR	73	72	72	97	5 10	28.95	29.86	
04	OVC	020			1.75 +RA BR	71	70	70	97	3 18	28.93	29.85	
07	OVC	012			4.00 BR	70	68	69	93	3 21	28.93	29.85	
10	OVC	008			4.00 BR	73	69	70	87	0 00	28.92	29.85	
13	BKN	075			8.00	80	71	74	74	0 00	28.90	29.82	
16	FEW	095			9.00	83	71	75	67	0 00	28.86	29.78	
19	BKN	100			10.00	79	71	74	77	5 VR	28.87	29.80	
22	OVC	100			10.00	75	69	71	82	0 00	28.92	29.84	
		<b>SUNRISE: 0542</b>		<b>JUL 29</b>		<b>SUNSET: 1945</b>							
01	OVC	065			8.00	73	69	70	87	0 00	28.89	29.81	
04	OVC	080			8.00	72	69	70	90	0 00	28.89	29.81	
07	SCT	029			7.00	73	70	71	90	0 00	28.91	29.83	
10	BKN	034			9.00	78	70	73	77	0 00	28.93	29.85	
13	FEW	080			9.00	83	70	74	65	0 00	28.92	29.84	
16	FEW	055			9.00	85	69	74	59	3 29	28.89	29.80	
19	CLR	NC			10.00	84	69	74	61	0 00	28.89	29.81	
22	CLR	NC			10.00	76	71	73	85	0 00	28.93	29.85	
		<b>SUNRISE: 0542</b>		<b>JUL 30</b>		<b>SUNSET: 1945</b>							
01	CLR	NC			10.00	74	70	71	87	0 00	28.94	29.85	
04	CLR	NC			9.00	71	68	69	90	0 00	28.93	29.85	
07	OVC	002			3.00 BR	70	68	69	93	0 00	28.95	29.87	
10	SCT	016			10.00	79	71	74	77	0 00	28.98	29.91	
13	CLR	NC			10.00	87	70	75	57	3 VR	28.96	29.88	
16	CLR	NC			10.00	89	69	75	52	5 35	28.92	29.83	
19	FEW	060			10.00	82	70	74	67	3 13	28.94	29.86	
22	FEW	085			5.00 BR	75	72	73	90	0 00	29.00	29.92	

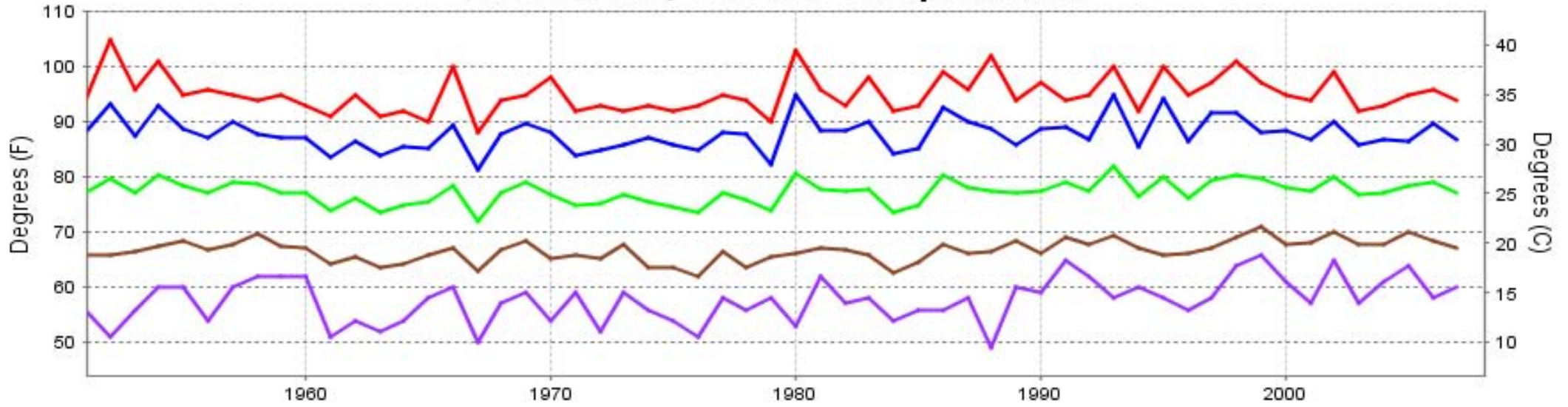
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
01	CLR	NC				72	70	71	93	0 00	29.01	29.92	
04	CLR	NC			BR	70	68	69	93	0 00	28.99	29.91	
07	BKN	001			BR	69	67	68	93	0 00	29.01	29.94	
10	CLR	NC				80	68	72	67	6 06	29.04	29.96	
13	FEW	037				87	68	74	53	6 07	29.02	29.93	
16	CLR	NC				89	65	73	45	0 00	28.97	29.88	
19	CLR	NC				84	68	73	59	3 05	28.97	29.89	
22	CLR	NC				77	69	72	76	0 00	29.03	29.95	

**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			71	64	67	80	29.07	30.00	8.56	1	18
02			70	64	67	82	29.07	29.99	8.28	1	24
03			69	64	66	84	29.06	29.99	8.20	1	23
04			69	64	66	85	29.06	29.99	7.88	1	xx
05			68	64	65	86	29.07	29.99	7.50	0	xx
06			68	64	65	87	29.08	30.01	6.41	1	3
07			69	64	66	85	29.09	30.02	6.83	1	2
08			72	65	67	79	29.10	30.03	7.95	3	1
09			74	65	68	73	29.10	30.03	8.65	3	1
10			77	65	69	67	29.10	30.03	9.16	4	2
11			80	65	70	62	29.10	30.03	9.39	4	1
12			82	65	70	57	29.09	30.01	9.29	5	2
13			84	64	71	53	29.07	30.00	9.58	4	2
14			83	64	71	54	29.06	29.98	9.31	4	1
15			84	63	71	52	29.05	29.97	9.90	5	1
16			83	63	70	53	29.03	29.96	9.32	5	2
17			83	63	70	54	29.03	29.95	9.31	4	2
18			82	63	70	55	29.03	29.95	9.84	4	1
19			81	64	70	58	29.03	29.96	9.63	3	2
20			78	65	70	64	29.04	29.97	9.35	2	1
21			76	65	69	70	29.05	29.98	9.09	1	1
22			74	65	69	74	29.07	29.99	8.81	1	1
23			73	65	68	77	29.07	30.00	8.52	1	2
24			72	65	67	78	29.07	30.00	8.33	1	1

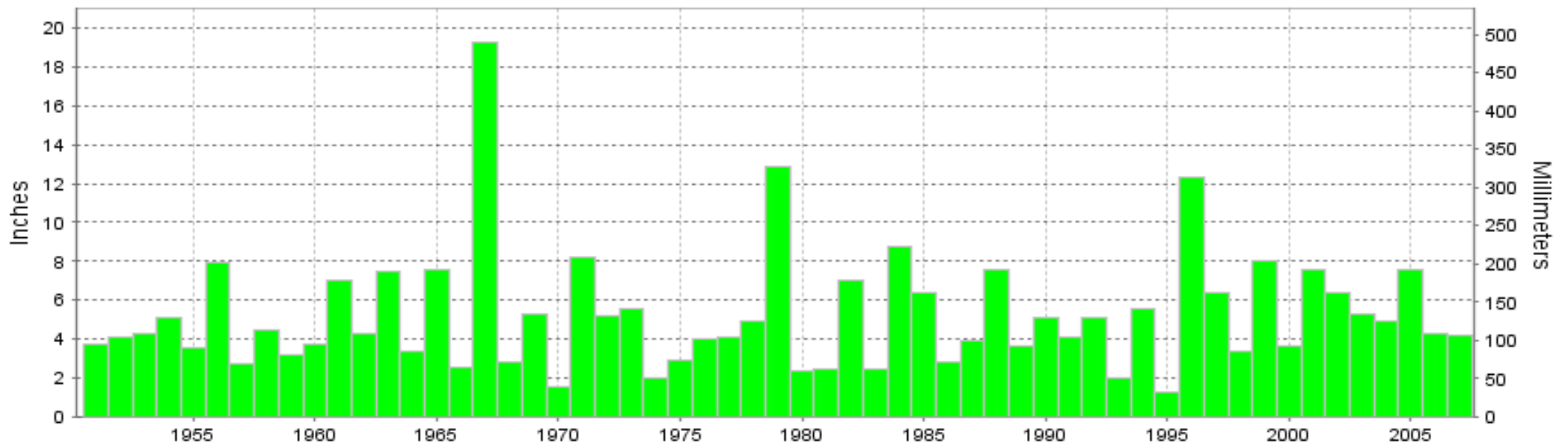
# OAK RIDGE, TN JULY Temperatures



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

Long-Term (1951-2007) Mean: 77.3  
1971-2000 Normal: 77.3

# OAK RIDGE, TN JULY Precipitation



Long-Term (1951-2007) Mean Monthly Total: 5.23

1971-2000 Normal: 5.16





**JULY 2007  
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.*

*Thomas R. Karl*  
**DIRECTOR**

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