



JULY 2009

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			
01	84	64	74	-2	62	66	0	9	RA BR			0.19	28.82	29.76	1.5	26	3.9	20	27	13	26	01		
02	84	65	75	-1	61	65	0	10				0.00	28.97	29.93	2.0	29	3.5	21	26	14	28	02		
03	83	63	73	-3	59	64	0	8				0.00	29.13	30.07	1.2	04	2.5	16	07	12	07	03		
04	83	61	72	-4	62	66	0	7	RA BR			T	29.10	30.03	0.2	10	1.4	13	35	9	18	04		
05	76	68	72	-5	69	70	0	7	RA BR			0.18	28.93	29.85	0.7	25	1.0	13	21	8	19	05		
06	85	68	77	0	66	69	0	12				0.00	28.88	29.81	0.5	06	2.5	14	36	9	07	06		
07	87	63	75	-2	59	65	0	10	BR			0.00	28.90	29.84	1.0	04	2.5	16	07	12	07	07		
08	86	65	76	-1	63	67	0	11				0.00	28.94	29.88	1.9	09	2.7	17	11	13	16	08		
09	88	66	77	0	65	69	0	12	RA BR			0.02	29.08	30.03	0.4	12	1.9	13	07	9	17	09		
10	88	64	76	-1	66	69	0	11	FG+ BR			0.00	29.24	30.18	1.0	19	2.1	15	19	9	17	10		
11	87	71	79	2	67	71	0	14				0.00	29.24	30.16	2.0	21	3.7	17	22	12	21	11		
12	89	70	80*	3	70	72	0	15	RA BR			0.34	29.13	30.05	2.1	20	3.5	16	22	10	19	12		
13	86	67	77	0	66	69	0	12	RA			0.01	29.04	29.97	0.7	05	2.3	14	07	9	06	13		
14	89	62	76	-1	60	66	0	11				0.00	29.13	30.06	1.6	05	2.6	15	07	10	06	14		
15	89	67	78	1	69	71	0	13	RA BR			0.31	29.14	30.07	0.9	21	2.3	16	21	12	21	15		
16	87	68	78	1	71	73	0	13	RA FG BR			2.28	29.05	29.97	0.4	17	2.5	40*	31	24*	33	16		
17	88	67	78	1	66	70	0	13	RA			T	28.92	29.86	2.4	25	4.8	26	27	14	29	17		
18	77	58	68	-10	55	60	0	3				0.00	29.07	30.03	0.4	28	1.6	36	28	10	32	18		
19	76	55*	66*	-12	55	59	0	1				0.00	29.17	30.12	0.4	31	1.5	13	26	8	28	19		
20	81	57	69	-9	57	62	0	4				0.00	29.12	30.07	0.5	03	1.3	13	30	9	32	20		
21	84	59	72	-6	59	64	0	7				0.00	29.10	30.03	0.5	16	1.5	18	20	12	19	21		
22	82	64	73	-5	63	66	0	8	RA BR			0.19	29.03	29.97	1.8	21	2.5	20	18	13	19	22		
23	84	66	75	-3	64	68	0	10				0.00	29.02	29.95	0.2	21	1.9	20	27	9	32	23		
24	86	62	74	-4	63	67	0	9				0.00	29.03	29.96	0.9	21	1.4	13	23	8	27	24		
25	90*	67	79	1	65	69	0	14	RA BR			T	29.03	29.94	2.3	24	3.5	18	01	13	20	25		
26	84	67	76	-2	68	70	0	11	RA BR			0.41	29.00	29.95	1.6	20	2.4	21	20	13	20	26		
27	86	68	77	-1	69	71	0	12	FG+ FG BR			0.00	29.04	29.97	0.5	11	0.9	9	08	6	18	27		
28	87	67	77	-1	69	70	0	12	RA FG+ BR			0.42	29.01	29.94	0.5	27	1.6	21	26	12	18	28		
29	84	70	77	-1	70	72	0	12	RA BR			0.21	28.93	29.87	4.2	21	5.2	22	27	13	26	29		
30	83	72	78	0	71	73	0	13	RA FG BR			0.76	29.02	29.96	3.1	21	3.8	20	33	14	32	30		
31	86	72	79	2	69	72	0	14	RA BR			0.11	29.03	29.97	1.5	24	3.9	22	22	14	20	31		

84.8	65.3	75.1	☼	64.5	67.9	0.0	10.3	< MONTHLY AVERAGES TOTALS >				5.43	29.04	29.98	0.6	22	2.5	< MONTHLY AVERAGES			
-3.3	-1.1	-2.2		----- DEPARTURE FROM NORMAL -----				0.27	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3												
DEGREE DAYS								GREATEST 24-HR PRECIPITATION : 2.59 DATE : 15-16				SEA LEVEL PRESSURE				DATE TIME					
MONTHLY				SEASON TO DATE				GREATEST 24-HR SNOWFALL :				MAXIMUM :				30.23 10 1053					
TOTAL DEPARTURE				TOTAL DEPARTURE				GREATEST SNOW DEPTH :				MINIMUM :				29.69 01 0353					
HEATING :		0 0		0 0		0 0		NUMBER OF ->		MAXIMUM TEMP >= 90 : 1		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH: 13							
COOLING :		318		-62		832 82		DAYS WITH		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 11							
										THUNDERSTORMS : 0		HEAVY FOG : 3		SNOWFALL >= 1.0 INCH :							

JULY 2009
OAK RIDGE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)
JULY 2009

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	0.11	0.08											01												01	0.19	0.19	
02													02												02	0.00	0.00	
03													03												03	0.00	0.00	
04													04										T		04	T	T	
05	T	0.01	T	0.05	T	0.05	T	T	T			05			0.01	T	T	0.05	0.01					05	0.18	0.18		
06												06												06	0.00	0.00		
07												07												07	0.00	0.00		
08												08												08	0.00	0.00		
09												09		0.02					T	T				09	0.02	0.02		
10												10												10	0.00	0.00		
11												11												11	0.00	0.00		
12					T					0.02	0.02	12				T	T	T	0.01	T		0.23	0.06	12	0.34	0.34		
13	T	T	T	T	0.01	T						13												13	0.01	0.01		
14												14												14	0.00	0.00		
15												15			T	0.31	T							15	0.31	0.31		
16	0.13	1.79	0.30	0.06	T	T						16												16	2.28	2.28		
17												17	T	T										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												21												21	0.00	0.00		
22											T	22	T		T	T						T	0.19	22	0.19	0.19		
23												23												23	0.00	0.00		
24												24												24	0.00	0.00		
25	T											25												25	T	T		
26						T	0.07	0.04	T	0.04	0.02	26								0.24	T		T	26	0.41	0.41		
27												27												27	0.00	0.00		
28												28			T	0.10	0.23	0.01	0.03	T	T	0.01	0.01	0.03	28	0.42	0.42	
29	0.04	T	T	0.01	0.02	0.02	0.01	0.05	0.04	0.01	0.01	29	T										T	29	0.21	0.21		
30	T	T	T	T	0.01			0.01	0.01	0.01		30		0.04								0.02	T	30	0.76	0.76		
31		T		0.01		0.01	0.08	T	0.01			31												31	0.11	0.11		

* 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)	0.47	0.82	1.05	1.19	1.46	1.61	1.90	2.08	2.14	2.19	2.24	2.27
Ending Date	16	16	16	16	16	16	16	16	16	16	16	16
Ending Time (Hr/Min)	0123	0127	0130	0129	0135	0150	0205	0209	0227	0238	0317	0342

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 2009

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							3.00	10.00	
02							7.00	10.00	
03							10.00	10.00	
04							4.00	10.00	
05							4.00	10.00	
06							10.00	10.00	
07							5.00	10.00	
08							8.00	10.00	
09							6.00	10.00	
10							0.25	10.00	
11							9.00	10.00	
12							3.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							2.00	10.00	
16							2.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							8.00	10.00	
24							7.00	10.00	
25							6.00	10.00	
26							2.50	10.00	
27							0.25	10.00	
28							0.25	10.00	
29							1.75	10.00	
30							0.50	10.00	
31							9.00	10.00	
MONTHLY AVGS							6.08	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			
3			10			16			

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

JULY 2009

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			WET BULB	RELATIVE HUMIDITY (PCT)	STATION		SEA LEVEL			
												DRY BULB	DEW POINT	
SUNRISE: 0524 JUL 01							SUNSET: 1958							
01	OVC	036			3.00	+RA BR	67	63	65	87	6	28	28.79	29.71
04	SCT	085			10.00		65	64	64	97	0	00	28.77	29.69
07	SCT	060			10.00		66	64	65	93	3	21	28.81	29.73
10	CLR	NC			10.00		76	65	69	69	5	VR	28.82	29.75
13	SCT	048			10.00		82	58	67	44	9	27	28.83	29.76
16	SCT	075			10.00		82	59	67	46	6	VR	28.83	29.76
19	OVC	075			10.00		78	60	67	54	3	VR	28.87	29.80
22	OVC	075			10.00		72	62	66	71	0	00	28.92	29.85
SUNRISE: 0524 JUL 02							SUNSET: 1958							
01	OVC	080			10.00		69	62	65	79	0	00	28.93	29.85
04	CLR	NC			10.00		65	62	63	90	0	00	28.94	29.87
07	FEW	085			7.00		67	62	64	84	0	00	28.97	29.90
10	FEW	048			10.00		78	62	68	58	8	26	29.00	29.92
13	CLR	NC			10.00		82	60	68	47	9	30	29.00	29.92
16	SCT	080			10.00		84	60	69	44	6	34	29.00	29.92
19	SCT	070			10.00		76	59	65	56	3	VR	29.03	29.97
22	BKN	070			10.00		68	59	63	73	0	00	29.10	30.03
SUNRISE: 0525 JUL 03							SUNSET: 1958							
01	OVC	065			10.00		68	60	63	76	3	07	29.10	30.03
04	BKN	060			10.00		66	60	62	81	0	00	29.10	30.02
07	CLR	NC			10.00		65	61	63	87	0	00	29.13	30.07
10	CLR	NC			10.00		75	57	64	54	6	VR	29.16	30.10
13	SCT	060			10.00		79	55	64	44	7	VR	29.16	30.09
16	BKN	065			10.00		80	56	65	44	6	01	29.14	30.08
19	CLR	NC			10.00		78	57	65	49	0	00	29.13	30.08
22	CLR	NC			10.00		69	61	64	76	0	00	29.16	30.10
SUNRISE: 0525 JUL 04							SUNSET: 1957							
01	CLR	NC			10.00		66	61	63	84	0	00	29.15	30.09
04	CLR	NC			6.00	BR	62	60	61	93	0	00	29.13	30.07
07	BKN	004			5.00	BR	63	61	62	93	0	00	29.14	30.09
10	CLR	NC			10.00		77	62	67	60	0	00	29.16	30.10
13	FEW	044			10.00		80	60	67	51	0	00	29.10	30.04
16	FEW	110			10.00		82	61	69	49	5	VR	29.06	29.99
19	FEW	095			10.00		79	63	69	58	6	10	29.00	29.93
22	CLR	NC			10.00		73	66	68	79	0	00	29.01	29.93
SUNRISE: 0526 JUL 05							SUNSET: 1957							
01	OVC	100			6.00	-RA BR	71	67	68	87	0	00	29.01	29.93
04	OVC	065			7.00		69	67	68	93	5	27	28.97	29.89
07	BKN	070			5.00	BR	69	68	68	97	0	00	28.95	29.88
10	OVC	019			7.00		70	67	68	90	5	25	28.95	29.88
13	OVC	021			10.00		74	70	71	87	0	00	28.91	29.84
16	OVC	032			9.00		76	71	73	85	0	00	28.87	29.79
19	SCT	028			4.00	-RA BR	73	72	72	97	0	00	28.87	29.81
22	OVC	039			10.00		71	69	70	93	0	00	28.89	29.82
SUNRISE: 0526 JUL 06							SUNSET: 1957							
01	BKN	041			10.00		70	68	69	93	3	21	28.89	29.82
04	OVC	050			10.00		70	68	69	93	3	VR	28.87	29.79
07	OVC	065			10.00		71	69	70	93	0	00	28.89	29.82
10	OVC	020			10.00		75	68	70	79	3	VR	28.89	29.83
13	BKN	070			10.00		79	67	71	67	8	08	28.90	29.83
16	FEW	036			10.00		84	66	72	55	6	VR	28.86	29.78
19	CLR	NC			10.00		81	62	69	53	0	00	28.86	29.79
22	OVC	075			10.00		72	63	66	73	0	00	28.90	29.83
SUNRISE: 0527 JUL 07							SUNSET: 1957							
01	BKN	070			10.00		67	62	64	84	0	00	28.90	29.83
04	CLR	NC			9.00		64	62	63	93	0	00	28.90	29.82
07	CLR	NC			7.00		65	62	63	90	0	00	28.89	29.85
10	CLR	NC			10.00		80	59	67	49	6	VR	28.94	29.86
13	CLR	NC			10.00		85	56	67	37	5	VR	28.93	29.85
16	CLR	NC			10.00		85	55	66	36	8	07	28.89	29.81
19	CLR	NC			10.00		83	57	67	41	0	00	28.89	29.82
22	CLR	NC			10.00		71	62	65	73	0	00	28.93	29.85
SUNRISE: 0527 JUL 08							SUNSET: 1957							
01	CLR	NC			10.00		66	62	64	87	0	00	28.93	29.85
04	BKN	100			9.00		65	63	64	93	0	00	28.91	29.84
07	SCT	100			10.00		67	63	65	87	0	00	28.95	29.88
10	BKN	070			10.00		76	63	68	64	5	02	28.97	29.90
13	FEW	080			10.00		82	62	69	51	8	09	28.96	29.89
16	CLR	NC			10.00		85	62	70	46	3	VR	28.93	29.85
19	BKN	110			10.00		79	64	69	60	5	06	28.95	29.88
22	FEW	120			10.00		72	66	68	82	0	00	29.00	29.93
SUNRISE: 0528 JUL 09							SUNSET: 1956							
01	CLR	NC			9.00		69	66	67	90	0	00	29.02	29.94
04	CLR	NC			7.00		67	65	66	93	0	00	29.03	29.95
07	FEW	065			6.00	BR	68	65	66	90	0	00	29.09	30.02
10	CLR	NC			10.00		78	65	70	64	0	00	29.10	30.03
13	SCT	047			10.00		84	63	70	49	5	11	29.10	30.03
16	CLR	NC			10.00		86	62	70	45	6	VR	29.10	30.02
19	CLR	NC			10.00		81	65	70	58	5	20	29.14	30.07
22	SCT	110			10.00		72	65	68	79	0	00	29.20	30.13
SUNRISE: 0528 JUL 10							SUNSET: 1956							
01	CLR	NC			9.00		68	66	67	93	0	00	29.20	30.13
04	CLR	NC			8.00		66	64	65	93	0	00	29.23	30.16
07	VV	001			0.25	FG	65	64	64	97	0	00	29.28	30.22
10	SCT	028			10.00		78	65	70	64	0	00	29.27	30.21
13	BKN	065			10.00		82	65	71	56	6	VR	29.27	30.21
16	BKN	060			10.00		86	65	72	50	7	16	29.23	30.16
19	CLR	NC			10.00		83	65	71	55	3	VR	29.22	30.16
22	FEW	047			9.00		75	68	70	79	0	00	29.25	30.18
SUNRISE: 0529 JUL 11							SUNSET: 1956							
01	BKN	100			10.00		74	68	70	82	0	00	29.27	30.20
04	CLR	NC			10.00		72	67	69	84	0	00	29.27	30.19
07	CLR	NC			9.00		73	67	69	82	0	00	29.28	30.21
10	FEW	028			10.00		79	66	70	65	6	VR	29.27	30.20
13	FEW	035			10.00		83	67	72	59	7	22	29.26	30.19
16	CLR	NC			10.00		86	66	73	51	7	VR	29.19	30.12
19	CLR	NC			10.00		82	68	73	63	6	VR	29.17	30.10
22	CLR	NC			10.00		76	69	71	79	0	00	29.19	30.12
SUNRISE: 0530 JUL 12							SUNSET: 1955							
01	FEW	085			10.00		73	69	70	87	3	VR	29.17	30.11
04	BKN	085			10.00		73	68	70	84	0	00	29.16	30.08
07	SCT	060			9.00		74	69	71	84	0	00	29.16	30.09
10	BKN	015			6.00	-RA BR	75	72	73	90	7	21	29.17	30.11
13	CLR	NC			10.00		84	70	74	63	5	18	29.14	30.07
16	BKN	044			10.00		86	72	76	63	10	18	29.08	29.99
19	OVC	045			10.00		79	72	74	79	0	00	29.09	30.01
22	BKN	055			10.00		72	70	71	93	5	06	29.08	30.01

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

JULY 2009

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		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg				STATION	SEA LEVEL		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: 0530						JUL 13						SUNSET: 1955																	
01	SCT	100			10.00	70	69	69	97	0	00	29.08	30.00	01	CLR	NC			10.00	59	57	58	93	0	00	29.17	30.12		
04	OVC	100			10.00	70	68	69	93	0	00	29.03	29.96	04	CLR	NC			10.00	57	55	56	93	0	00	29.16	30.11		
07	OVC	009			10.00	71	69	70	93	0	00	29.05	29.98	07	CLR	NC			10.00	59	56	57	90	0	00	29.19	30.14		
10	BKN	028			10.00	77	67	70	71	5	10	29.05	29.97	10	FEW	060			10.00	71	54	61	55	5	09	29.19	30.14		
13	OVC	070			10.00	81	64	70	56	5	28	29.05	29.97	13	BKN	070			10.00	73	51	60	46	3	VR	29.18	30.13		
16	CLR	NC			10.00	84	64	71	51	5	VR	29.01	29.93	16	OVC	075			10.00	75	53	62	46	3	30	29.15	30.11		
19	CLR	NC			10.00	81	62	69	53	6	01	29.02	29.94	19	CLR	NC			10.00	72	53	61	51	0	00	29.15	30.11		
22	CLR	NC			10.00	70	63	66	79	0	00	29.07	30.00	22	CLR	NC			10.00	63	58	60	84	0	00	29.17	30.12		
SUNRISE: 0531						JUL 14						SUNSET: 1955																	
01	CLR	NC			10.00	66	62	64	87	0	00	29.10	30.03	01	CLR	NC			10.00	59	56	57	90	0	00	29.16	30.11		
04	CLR	NC			10.00	63	61	62	93	0	00	29.10	30.03	04	BKN	095			10.00	57	55	56	93	0	00	29.13	30.09		
07	CLR	NC			10.00	65	61	63	87	0	00	29.16	30.10	07	BKN	090			10.00	61	57	59	87	0	00	29.15	30.11		
10	CLR	NC			10.00	78	60	67	54	5	06	29.17	30.11	10	CLR	NC			10.00	72	58	64	62	5	07	29.15	30.10		
13	CLR	NC			10.00	86	58	68	39	5	03	29.14	30.08	13	FEW	047			10.00	77	55	64	47	3	VR	29.12	30.06		
16	CLR	NC			10.00	88	56	68	34	5	VR	29.10	30.04	16	FEW	100			10.00	80	55	65	42	0	00	29.10	30.04		
19	CLR	NC			10.00	83	63	70	51	3	04	29.10	30.04	19	CLR	NC			10.00	77	56	64	48	3	36	29.07	30.01		
22	CLR	NC			10.00	74	65	68	74	0	00	29.14	30.08	22	CLR	NC			10.00	67	61	63	81	0	00	29.12	30.06		
SUNRISE: 0532						JUL 15						SUNSET: 1954																	
01	SCT	075			10.00	69	65	66	87	0	00	29.15	30.08	01	CLR	NC			10.00	63	60	61	90	0	00	29.13	30.06		
04	SCT	075			10.00	68	65	66	90	0	00	29.14	30.07	04	CLR	NC			10.00	60	58	59	93	0	00	29.10	30.04		
07	BKN	060			10.00	70	65	67	84	0	00	29.18	30.11	07	SCT	085			10.00	63	60	61	90	0	00	29.13	30.08		
10	FEW	027			10.00	79	67	71	67	3	VR	29.20	30.13	10	CLR	NC			10.00	74	62	66	66	0	00	29.13	30.06		
13	FEW	033			10.00	85	68	73	57	6	VR	29.18	30.11	13	SCT	070			10.00	80	58	66	47	6	21	29.09	30.03		
16	BKN	070			10.00	87	70	75	57	6	24	29.12	30.04	16	FEW	065			10.00	84	55	66	37	3	VR	29.07	30.00		
19	CLR	NC			7.00	77	74	75	91	0	00	29.07	30.00	19	CLR	NC			10.00	80	57	66	45	0	00	29.06	29.99		
22	FEW	110			9.00	74	72	73	94	0	00	29.10	30.03	22	CLR	NC			10.00	70	62	65	76	0	00	29.07	30.01		
SUNRISE: 0532						JUL 16						SUNSET: 1954																	
01	OVC	046			2.00	+RA BR	73	72	72	97	3	VR	29.10	30.02	01	FEW	100			10.00	67	62	64	84	0	00	29.06	29.99	
04	SCT	070			10.00	69	68	68	97	0	00	29.08	30.01	04	CLR	NC			10.00	65	62	63	90	0	00	29.04	29.97		
07	CLR	NC			10.00	70	69	69	97	0	00	29.08	30.01	07	CLR	NC			10.00	65	62	63	90	0	00	29.05	29.98		
10	CLR	NC			10.00	79	69	72	72	3	VR	29.09	30.01	10	CLR	NC			10.00	75	64	68	69	3	VR	29.08	30.01		
13	BKN	042			10.00	85	69	74	59	3	VR	29.08	29.99	13	FEW	080			10.00	78	64	69	62	8	21	29.06	29.99		
16	FEW	044			10.00	84	72	76	67	6	VR	29.01	29.93	16	OVC	070			10.00	78	62	68	58	3	21	29.02	29.95		
19	BKN	039			10.00	81	72	75	74	0	00	29.00	29.92	19	OVC	080			10.00	76	64	68	67	6	20	28.99	29.93		
22	CLR	NC			10.00	78	72	74	82	0	00	29.01	29.93	22	OVC	080			10.00	75	60	66	60	0	00	29.00	29.93		
SUNRISE: 0533						JUL 17						SUNSET: 1953																	
01	OVC	120			10.00	76	71	73	85	0	00	28.95	29.87	01	OVC	070			10.00	69	68	68	97	3	19	29.03	29.96		
04	SCT	110			10.00	74	71	72	90	3	21	28.93	29.85	04	BKN	049			10.00	68	67	67	97	0	00	29.01	29.94		
07	BKN	026			10.00	73	70	71	90	5	21	28.94	29.86	07	BKN	050			10.00	69	66	67	90	3	VR	29.03	29.96		
10	OVC	045			10.00	77	69	72	76	6	20	28.93	29.85	10	OVC	046			10.00	73	65	68	76	0	00	29.05	29.98		
13	FEW	060			10.00	84	71	75	65	6	VR	28.89	29.80	13	FEW	042			10.00	81	61	68	51	7	VR	29.04	29.97		
16	CLR	NC			10.00	84	62	70	48	9	28	28.89	29.80	16	SCT	070			10.00	84	60	69	44	6	VR	29.01	29.93		
19	CLR	NC			10.00	80	61	68	52	3	27	28.93	29.85	19	CLR	NC			10.00	80	61	68	52	3	36	28.99	29.92		
22	CLR	NC			10.00	72	56	62	57	5	31	29.02	29.94	22	CLR	NC			10.00	71	64	67	79	0	00	29.02	29.95		
SUNRISE: 0534						JUL 18						SUNSET: 1953																	
01	CLR	NC			10.00	65	57	60	75	0	00	29.03	29.96	01	CLR	NC			9.00	66	63	64	90	0	00	29.03	29.96		
04	CLR	NC			10.00	60	57	58	90	0	00	29.04	29.98	04	CLR	NC			7.00	63	61	62	93	0	00	29.02	29.95		
07	CLR	NC			10.00	62	56	59	81	0	00	29.08	30.01	07	CLR	NC			7.00	65	62	63	90	0	00	29.06	29.99		
10	FEW	043			10.00	72	52	60	50	0	00	29.09	30.02	10	CLR	NC			10.00	77	64	69	64	3	VR	29.07	30.00		
13	BKN	075			10.00	75	54	63	48	5	VR	29.08	30.02	13	CLR	NC			10.00	83	61	69	48	6	26	29.06	29.98		
16	OVC	080			10.00	75	53	62	46	10	28	29.09	30.03	16	FEW	050			10.00	85	63	71	48	0	00	29.02	29.95		
19	OVC	075			10.00	72	53	61	51	0	00	29.13	30.07	19	CLR	NC			10.00	81	62	69	53	3	20	29.01	29.93		
22	CLR	NC			10.00	64	57	60	78	0	00	29.15	30.11	22	CLR	NC			10.00	74	66	69	76	0	00	29.02	29.94		

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

JULY 2009

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: 0539						JUL 25						SUNSET: 1948					
01	OVC	110				72	67	69	84	0	00	29.02	29.95				
04	CLR	NC				69	66	67	90	0	00	29.03	29.95				
07	CLR	NC				70	66	67	87	0	00	29.07	29.99				
10	CLR	NC				80	68	72	67	7	25	29.05	29.97				
13	CLR	NC				88	65	73	47	8	24	29.03	29.94				
16	FEW	055				89	64	72	44	8	22	28.97	29.89				
19	BKN	090				82	62	69	51	9	35	29.00	29.93				
22	CLR	NC				73	63	67	71	0	00	29.01	29.93				
SUNRISE: 0539						JUL 26						SUNSET: 1948					
01	SCT	070				69	64	66	84	0	00	29.02	29.93				
04	BKN	095				68	65	66	90	0	00	28.99	29.91				
07	OVC	042			RA BR	69	67	68	93	0	00	29.04	29.96				
10	OVC	100			-RA BR	70	69	69	97	0	00	29.09	30.02				
13	FEW	024				79	68	72	69	9	20	29.03	29.96				
16	CLR	NC				83	68	73	61	5	VR	28.98	29.91				
19	CLR	NC				79	68	72	69	3	21	28.97	29.89				
22	OVC	070				71	69	70	93	0	00	29.03	29.97				
SUNRISE: 0540						JUL 27						SUNSET: 1947					
01	CLR	NC				71	69	70	93	0	00	29.04	29.97				
04	VV	001			BR	68	68	68	100	0	00	29.04	29.96				
07	OVC	001			BR	68	68	68	100	0	00	29.08	30.01				
10	OVC	009				74	70	71	87	0	00	29.10	30.03				
13	OVC	050				82	69	73	65	3	07	29.07	29.99				
16	CLR	NC				85	68	73	57	0	00	29.02	29.94				
19	CLR	NC				83	67	72	59	0	00	29.01	29.93				
22	SCT	095				74	70	71	87	0	00	29.05	29.97				
SUNRISE: 0541						JUL 28						SUNSET: 1946					
01	CLR	NC				71	69	70	93	0	00	29.05	29.98				
04	CLR	NC			BR	69	68	68	97	0	00	29.04	29.96				
07	CLR	NC			BR	69	68	68	97	0	00	29.04	29.96				
10	CLR	NC				79	69	72	72	3	VR	29.02	29.94				
13	FEW	038				86	69	74	57	6	26	29.00	29.91				
16	OVC	070			RA BR	71	69	70	93	3	VR	29.02	29.95				
19	OVC	036			-RA BR	71	69	70	93	0	00	28.98	29.92				
22	OVC	013			-RA	71	70	70	97	0	00	28.98	29.91				
SUNRISE: 0542						JUL 29						SUNSET: 1945					
01	OVC	023			-RA	71	69	70	93	0	00	28.95	29.86				
04	OVC	100			-RA	70	69	69	97	3	19	28.91	29.84				
07	OVC	012				71	69	70	93	7	20	28.91	29.84				
10	OVC	025			-RA	73	71	72	93	7	21	28.92	29.85				
13	OVC	035			-RA	78	71	73	79	7	VR	28.94	29.87				
16	CLR	NC				84	70	74	63	10	19	28.93	29.85				
19	CLR	NC				81	70	73	69	6	20	28.95	29.88				
22	FEW	060				75	71	72	87	0	00	29.01	29.93				
SUNRISE: 0542						JUL 30						SUNSET: 1945					
01	BKN	075			-RA	72	70	71	93	5	21	29.00	29.93				
04	BKN	036				72	70	71	93	0	00	29.00	29.93				
07	OVC	060				72	71	71	97	3	24	29.03	29.95				
10	BKN	035				76	72	73	87	6	20	29.06	29.98				
13	OVC	043				79	72	74	79	10	21	29.05	29.98				
16	OVC	042			RA FG	73	70	71	90	5	VR	29.03	29.96				
19	FEW	017				76	72	73	87	6	17	29.02	29.95				
22	CLR	NC				75	72	73	90	0	00	29.06	29.98				

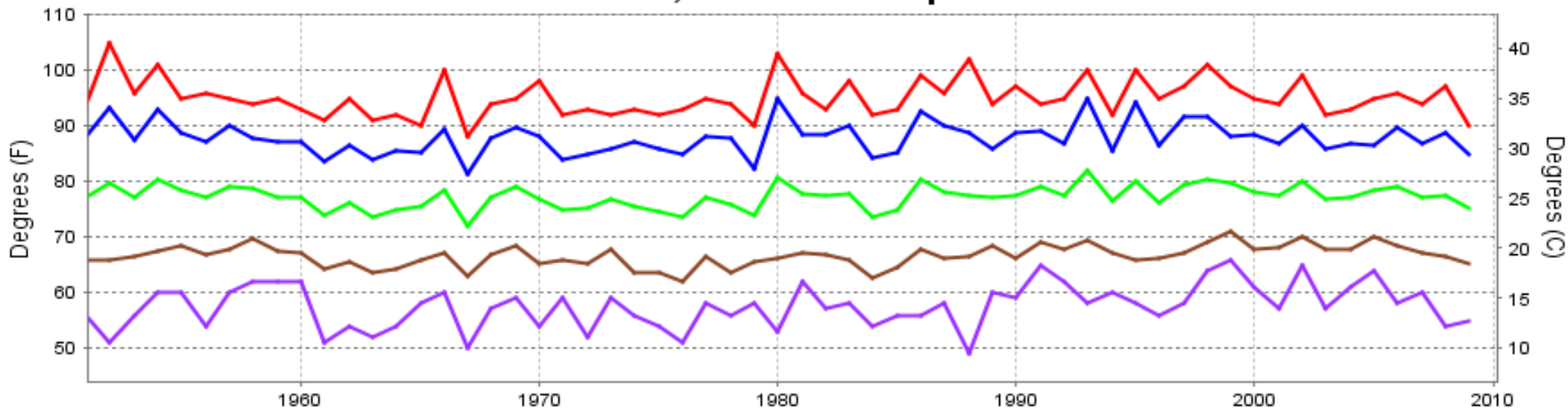
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL			
SUNRISE: 0543						JUL 31						SUNSET: 1944					
01	FEW	120				73	70	71	90	0	00	29.02	29.94				
04	OVC	022			-RA	72	70	71	93	3	21	28.96	29.89				
07	OVC	085			-RA	73	71	72	93	6	VR	28.99	29.91				
10	BKN	065				75	71	72	87	6	VR	29.06	29.98				
13	BKN	050				82	67	72	61	6	26	29.07	29.99				
16	CLR	NC				85	67	73	55	3	27	29.04	29.96				
19	CLR	NC				82	69	73	65	5	36	29.06	29.98				
22	OVC	075				76	70	72	82	0	00	29.12	30.05				

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			69	65	66	88	29.05	29.97	9.10	1	2	22
02			68	65	66	90	29.04	29.97	9.10	1	1	18
03			67	64	65	91	29.04	29.96	9.00	0	xxx	xx
04			67	64	65	92	29.03	29.96	8.90	1	2	23
05			66	64	65	92	29.04	29.97	8.70	0	xxx	xx
06			66	64	65	93	29.05	29.98	7.99	1	1	21
07			68	65	66	91	29.06	29.99	8.07	1	2	23
08			71	65	67	84	29.07	30.00	8.78	2	1	17
09			73	65	68	77	29.07	30.00	9.29	3	1	21
10			76	65	69	70	29.07	30.00	9.52	4	1	23
11			78	65	69	65	29.07	30.00	9.77	5	2	25
12			80	64	70	61	29.07	30.00	9.94	4	1	22
13			81	63	70	56	29.06	29.98	9.97	6	2	26
14			82	63	70	54	29.04	29.97	10.00	5	3	26
15			83	63	70	53	29.03	29.96	9.94	6	3	26
16			83	63	70	53	29.02	29.95	9.40	5	2	26
17			82	63	70	56	29.02	29.95	9.44	5	1	22
18			81	63	70	58	29.02	29.95	9.84	5	1	25
19			79	64	69	61	29.02	29.96	9.47	3	0	17
20			76	65	69	69	29.03	29.96	9.61	1	2	18
21			74	65	68	76	29.04	29.97	9.47	1	1	21
22			72	65	68	80	29.06	29.99	9.94	0	xxx	xx
23			71	65	67	83	29.06	29.99	9.45	1	xx	xx
24			70	65	67	85	29.06	29.99	9.87	1	xxx	xx

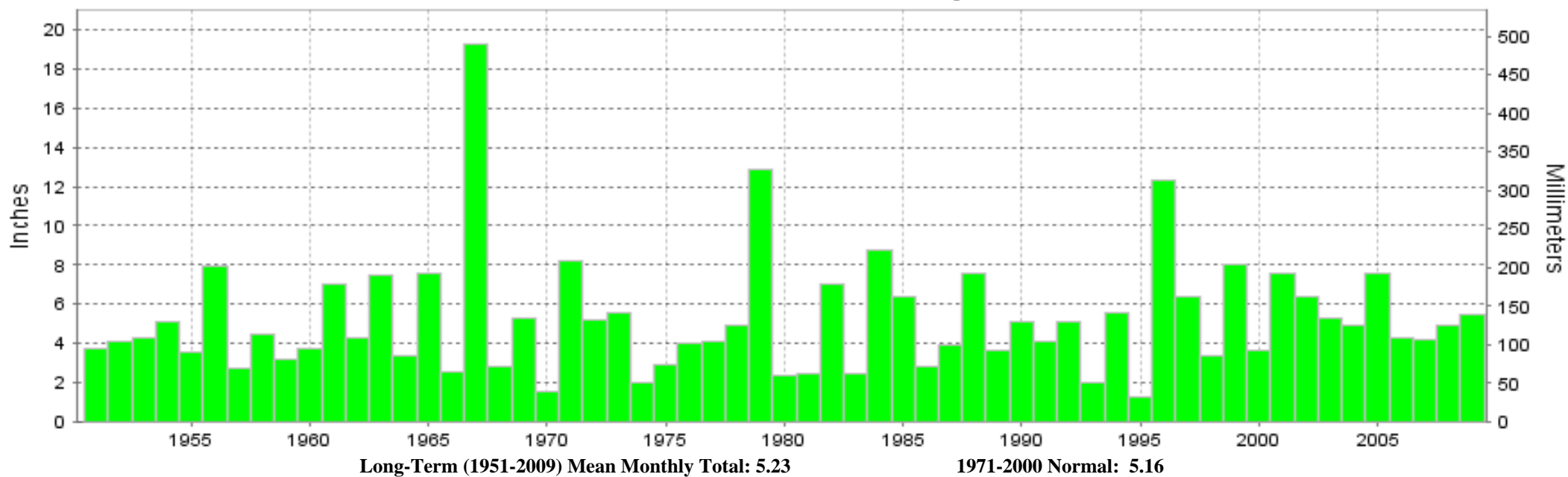
OAK RIDGE, TN JULY Temperatures



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

Long-Term (1951-2009) Mean: 77.3
1971-2000 Normal: 77.3

OAK RIDGE, TN JULY Precipitation



Long-Term (1951-2009) Mean Monthly Total: 5.23

1971-2000 Normal: 5.16



JULY 2009
OAK RIDGE, TN

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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