

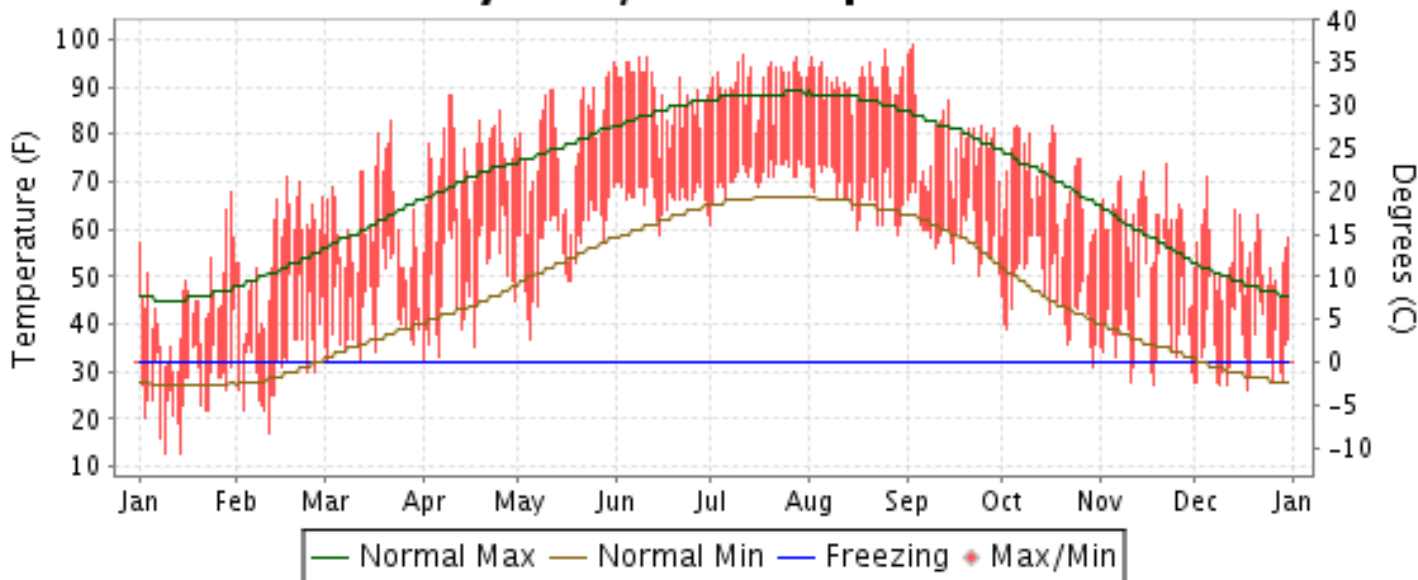


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

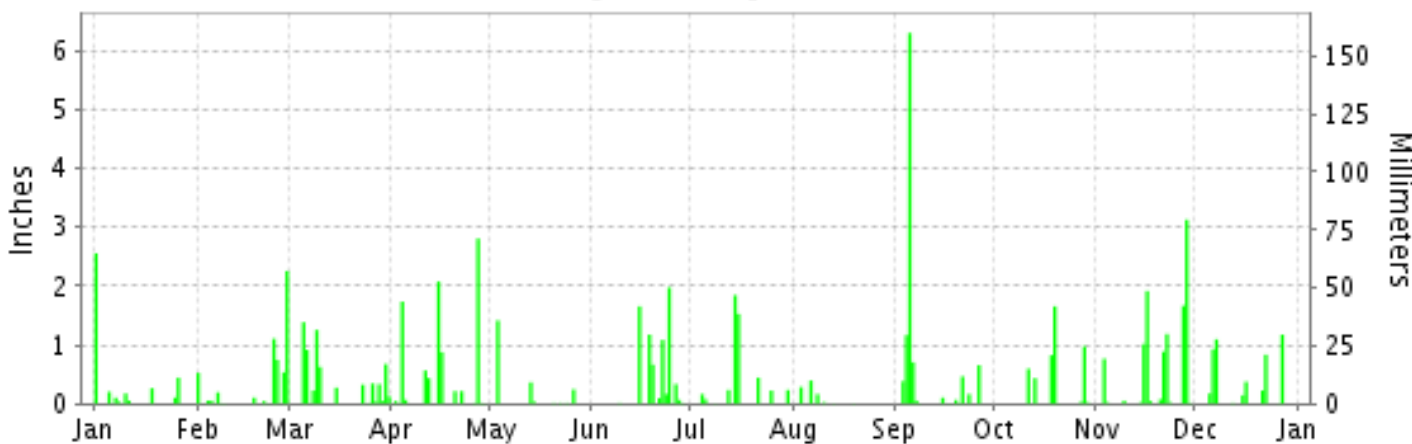
ISSN 0198-4861

OAK RIDGE, TENNESSEE (KOQT)

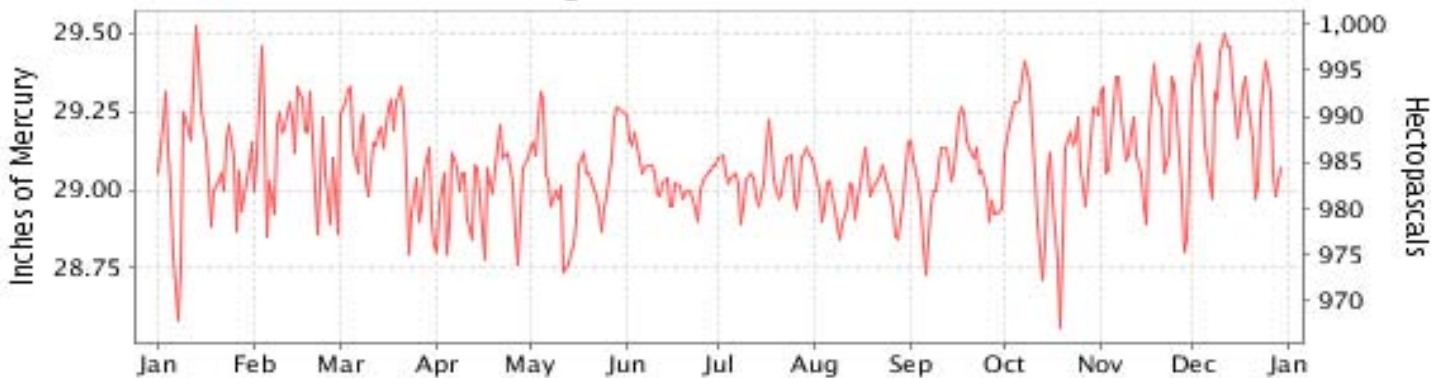
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
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NATIONAL
ENVIRONMENTAL SATELLITE, DATA
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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

OAK RIDGE (KOQT)

LATITUDE: 36° 1'N LONGITUDE: -84° 14'W ELEVATION (FT): GRND: 910 BARO: 916 TIME ZONE: EASTERN (UTC -5) WBAN: 53868

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	44.3	55.6	62.2	74.8	78.7	88.4	91.0	91.5	79.4	69.6	61.9	54.5	71.0	
	HIGHEST DAILY MAXIMUM	68	71	83	88	95	96	97	98	99	82	74	71	99	
	DATE OF OCCURRENCE	30	17	22	10+	31	11+	11	25	03	17+	22	05	SEP 03	
	MEAN DAILY MINIMUM	27.2	33.5	42.5	49.4	57.0	66.9	71.2	67.5	59.6	46.5	40.7	35.3	49.8	
	LOWEST DAILY MINIMUM	13	17	32	32	37	59	61	59	50	31	27	26	13	
	DATE OF OCCURRENCE	14+	11	12+	01	05	15	01	29	24	30	18	18	JAN 14+	
	AVERAGE DRY BULB	35.8	44.6	52.4	62.1	67.9	77.7	81.1	79.5	69.5	58.1	51.3	44.9	60.4	
	MEAN WET BULB	31.7	38.6	45.7	54.7	60.5	68.8	73.6	70.0	62.9	51.1	46.3	40.9	53.7	
	MEAN DEW POINT	25.5	30.8	39.1	48.0	56.2	64.8	70.5	65.5	59.7	46.0	41.5	36.7	48.7	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	5	14	22	24	3	0	0	0	68	
	MAXIMUM <= 32°	4	0	0	0	0	0	0	0	0	0	0	0	4	
	MINIMUM <= 32°	25	14	2	1	0	0	0	0	0	1	6	12	61	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	898	564	393	150	85	0	0	0	12	226	406	614	3348	
	COOLING DEGREE DAYS	0	0	8	69	180	386	505	461	155	16	2	0	1782	
RH	MEAN (PERCENT)	70	63	66	63	71	71	75	67	77	72	74	77	71	
	HOUR 01 LST	78	73	73	76	85	87	89	85	91	86	84	86	83	
	HOUR 07 LST	80	74	77	75	82	79	84	80	90	87	85	89	82	
	HOUR 13 LST	57	49	53	46	53	53	58	46	56	47	56	58	53	
	HOUR 19 LST	67	59	63	55	68	66	71	64	79	74	75	77	68	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	2	1	1	5	3	6	2	7	6	11	5	49	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	0	0	0	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	29.09	29.13	29.12	28.99	29.02	29.04	29.05	28.99	29.04	29.10	29.16	29.26	29.08	
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.11	30.10	29.95	29.98	29.96	29.97	29.91	29.99	30.07	30.15	30.26	30.05	
WINDS	RESULTANT SPEED (MPH)	0.8	1.2	0.3	2.6	1.1	0.4	0.1	0.0	0.3	0.7	1.0	0.4	0.7	
	RES. DIR. (TENS OF DEGS.)	25	24	24	22	22	23	13	28	23	24	23	22	23	
	MEAN SPEED (MPH)	2.6	3.4	3.8	4.2	2.5	2.3	1.4	2.0	1.7	1.9	2.5	1.6	2.5	
	PREVAIL.DIR.(TENS OF DEGS.)	24	22	05	21	20	20	07	07	26	21	21	22	21	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	17	22	22	23	22	20	18	20	22	18	21	18	23	
	DIR. (TENS OF DEGS.)	30	27	19	18	26	33	08	19	17	26	21	20	18	
	DATE OF OCCURRENCE	08	25	04	25	26	24	12	19	03	14	13	05	APR 25	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	28	33	32	35	40	38	28	33	35	37	32	31	40	
DIR. (TENS OF DEGS.)	29	27	20	19	26	27	07	20	18	29	20	17	26		
DATE OF OCCURRENCE	11	25	23	25	26	21	12	19	03	14	13	05	MAY 26		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	3.99	5.70	6.65	9.13	2.14	7.30	4.80	0.91	10.14	4.59	10.89	5.02	71.26	
	GREATEST 24-HOUR (IN.)	2.56	2.26	2.30	2.96	1.42	2.15	3.38	0.40	6.54	2.49	3.66	1.45	6.54	
	DATE OF OCCURRENCE	01	28	05-06	15-16	03	23-24	14-15	06	05-06	18-19	27-28	06-07	SEP 05-06	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	9	13	14	13	7	11	9	6	13	8	14	10	127		
PRECIPITATION 0.10	7	7	11	8	3	8	7	3	8	5	7	8	82		
PRECIPITATION 1.00	1	2	2	3	1	4	2	0	2	1	5	2	25		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0															

NORMALS, MEANS, AND EXTREMES OAK RIDGE (KOQT)

LATITUDE:
36° 1'N

LONGITUDE:
-84° 14'W

ELEVATION (FT):
GRND: 910 BARO: 916

TIME ZONE:
EASTERN (UTC -5)

WBAN: 53868

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	45.9	51.6	61.0	70.5	77.8	84.9	88.1	87.2	81.1	71.1	59.0	49.0	68.9
	MEAN DAILY MAXIMUM	12	47.1	51.9	61.8	71.9	78.8	85.7	88.1	89.0	81.9	71.3	61.1	49.5	69.8
	HIGHEST DAILY MAXIMUM	64	76	79	86	92	95	101	105	103	102	90	83	78	105
	YEAR OF OCCURRENCE		1999	1977	2007	1986	2011	1988	1952	2007	1954	2007	1961	1982	JUL 1952
	MEAN OF EXTREME MAXS.	45	67.0	69.8	78.1	86.2	88.8	93.2	95.2	95.5	91.6	83.3	76.8	66.4	82.7
	NORMAL DAILY MINIMUM	30	27.2	29.5	36.6	43.8	53.4	61.7	66.4	65.2	58.8	45.7	36.4	29.8	46.2
	MEAN DAILY MINIMUM	12	29.0	31.9	39.5	48.3	56.6	64.6	68.7	68.1	60.5	48.3	39.2	31.2	48.8
	LOWEST DAILY MINIMUM	64	-17	-13	1	20	30	39	49	50	33	21	0	-7	-17
	YEAR OF OCCURRENCE		1985	1996	1980	1987	1976	1977	1988	1989	1967	1952	1950	1983	JAN 1985
	MEAN OF EXTREME MINS.	45	11.8	17.9	24.2	32.8	41.5	53.7	60.2	60.3	46.8	32.8	25.0	16.5	35.3
	NORMAL DRY BULB	30	35.0	38.8	47.9	56.8	64.9	72.4	75.8	75.2	69.1	57.4	47.3	38.6	56.6
	MEAN DRY BULB	42	36.5	39.9	49.1	58.2	66.1	73.9	77.3	76.8	70.1	58.7	48.2	39.7	57.9
	MEAN WET BULB	12	30.8	32.6	40.6	49.4	58.4	65.7	69.2	68.7	62.2	51.5	42.3	33.9	50.4
	MEAN DEW POINT	12	30.8	33.5	40.0	49.4	58.3	65.6	69.5	68.9	62.0	51.6	42.0	33.2	50.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.1	0.8	6.4	13.7	10.4	3.7	0.0	0.0	0.0	0.0
	MAXIMUM <= 32	30	3.4	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	1.9	
	MINIMUM <= 32	30	21.9	17.7	11.7	3.3	0.1	0.0	0.0	0.0	0.0	2.3	12.1	20.0	
MINIMUM <= 0	30	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
H/C	NORMAL HEATING DEG. DAYS	30	882	696	510	254	80	6	0	0	30	230	518	787	
	NORMAL COOLING DEG. DAYS	30	0	0	2	19	95	254	380	347	180	23	1	0	
RH	NORMAL (PERCENT)	30													
	hour 01 LST	30													
	hour 07 LST	30													
	hour 13 LST	30													
	hour 19 LST	30													
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISBY <= 1/4 MI)	12	2.3	1.3	1.8	1.8	5.6	4.6	5.9	5.0	7.5	7.6	4.9	4.0	52.3
	THUNDERSTORMS	12	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	40	5.4	5.2	5.2	4.7	4.7	4.4	4.6	4.7	4.5	3.9	4.8	5.2	4.8
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	42	7.2	7.6	7.9	9.7	9.2	9.4	8.2	9.3	9.9	13.7	9.2	8.1	109.4
	PARTLY CLOUDY	42	6.6	5.7	7.3	6.9	9.0	10.4	11.5	11.4	8.9	7.0	7.2	6.3	98.2
	CLOUDY	42	17.2	15.0	15.8	13.4	12.8	10.2	11.3	10.2	11.2	10.2	13.6	16.6	157.5
PR	MEAN STATION PRESSURE (IN)	12	29.17	29.15	29.10	29.06	29.06	29.07	29.08	29.07	29.10	29.13	29.17	29.18	29.11
	MEAN SEA-LEVEL PRES. (IN)	12	30.18	30.15	30.08	30.02	30.01	30.00	30.01	30.00	30.04	30.10	30.15	30.19	30.08
WINDS	MEAN SPEED (MPH)	12	3.5	3.7	4.1	4.0	3.1	2.7	2.6	2.3	2.2	2.2	2.6	3.0	3.0
	PREVAIL. DIR (TENS OF DEGS)	13	23	05	05	23	22	21	21	06	06	06	22	05	05
	MAXIMUM 2-MINUTE: SPEED (MPH)	12	29	31	28	29	30	28	28	25	23	26	28	28	31
	DIR. (TENS OF DEGS)		27	28	06	29	21	29	08	19	25	19	19	22	28
	YEAR OF OCCURRENCE		2002	2009	2001	2006	2007	2008	2002	2005	2000	2010	2002	2006	FEB 2009
	MAXIMUM 3-SECOND SPEED (MPH)	12	41	53	39	39	41	51	40	39	38	41	40	44	53
	DIR. (TENS OF DEGS)		26	28	01	20	15	25	31	17	26	19	17	24	28
YEAR OF OCCURRENCE		2002	2009	2001	2008	2010	2007	2009	2005	2000	2010	2002	2009	FEB 2009	
PRECIPITATION	NORMAL (IN)	30	5.13	4.50	5.72	4.32	5.14	4.64	5.16	3.39	3.75	3.02	4.86	5.42	55.05
	MAXIMUM MONTHLY (IN)	64	13.27	12.78	12.24	14.03	10.70	11.14	19.27	10.46	10.14	6.95	12.22	12.64	19.27
	YEAR OF OCCURRENCE		1954	2003	1975	1998	1984	1989	1967	1960	2011	1972	1948	1990	JUL 1967
	MINIMUM MONTHLY (IN)	64	0.93	0.84	2.13	0.88	0.80	0.53	1.23	0.54	0.41	T	1.37	0.67	0.41
	YEAR OF OCCURRENCE		1981	1968	1957	1976	1970	1988	1995	1953	1961	1963	1949	1965	SEP 1961
	MAXIMUM IN 24 HOURS (IN)	64	4.25	5.18	4.74	6.24	4.41	3.70	4.91	7.48	6.54	2.66	5.29	5.12	7.48
	YEAR OF OCCURRENCE		1954	2003	1973	1977	1973	1969	1967	1960	2011	1976	1973	1969	AUG 1960
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	12.2	10.9	12.6	10.2	11.7	11.5	11.9	9.6	8.7	7.9	9.8	11.3	128.3
	PRECIPITATION >= 1.00	30	1.4	1.1	1.5	0.9	1.4	1.4	1.3	0.8	1.3	1.0	1.4	1.5	15.0
SNOWFALL	NORMAL (IN)	30	4.0	3.8	0.8	0.2	0.0	0.0	0.0	0.0	0.0	T	0.1	2.2	11.1
	MAXIMUM MONTHLY (IN)	52	9.6	17.2	21.0	5.9	T	T	T	T	0.0	T	6.5	14.8	21.0
	YEAR OF OCCURRENCE		1966	1979	1960	1987	1993	1998	1993	1990		1993	1950	1963	MAR 1960
	MAXIMUM IN 24 HOURS (IN)	52	8.3	11.3	12.0	5.4	T	T	T	T	0.0	T	6.5	10.8	12.0
	YEAR OF OCCURRENCE		1962	1996	1960	1987	1993	1998	1993	1990		1993	1950	1963	MAR 1960
	MAXIMUM SNOW DEPTH (IN)	34	8	6	3	3	0	0	0	0	0	0	1	10	10
	YEAR OF OCCURRENCE		1995	1969	1980	1987							1966	1963	DEC 1963
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.4	1.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.6	

PRECIPITATION (inches) 2011 OAK RIDGE (KOQT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	6.70	5.42	6.20	2.79	2.88	2.15	7.01	4.61	5.31	1.95	7.81	7.22	60.05
1983	1.75	4.38	2.57	6.40	6.90	2.53	2.41	1.28	2.07	4.58	5.85	6.95	47.67
1984	2.62	3.92	4.81	4.16	10.70	4.70	8.72	1.87	1.87	6.19	4.37	2.59	56.52
1985	2.88	3.73	2.60	2.23	3.83	5.08	6.43	8.50	1.56	3.08	4.49	2.11	46.52
1986	1.16	5.15	2.70	1.73	2.74	1.45	2.84	2.84	4.70	4.51	3.67	5.34	38.83
1987	4.87	5.64	2.82	2.97	2.02	4.26	3.94	1.92	5.64	0.69	2.11	3.43	40.31
1988	5.44	3.43	3.80	3.42	2.65	0.53	7.60	2.39	5.63	1.97	6.56	5.53	48.95
1989	6.94	5.07	6.03	2.76	6.14	11.14	3.62	3.90	8.86	2.46	6.06	3.03	66.01
1990	5.29	8.01	5.09	2.57	6.59	1.53	5.06	5.09	1.44	4.07	2.40	12.64	59.78
1991	2.97	7.94	7.44	3.84	2.55	7.05	4.06	4.62	2.86	1.76	4.15	10.92	60.16
1992	3.37	3.25	3.79	1.64	2.27	4.00	5.10	3.38	3.11	2.62	5.67	5.79	43.99
1993	3.98	4.13	6.42	3.70	4.29	1.60	1.99	3.25	5.12	2.15	4.09	8.29	49.01
1994	6.12	9.79	9.47	9.81	3.03	7.15	5.53	3.85	2.14	2.56	3.32	2.80	65.57
1995	6.30	3.76	3.85	2.49	6.12	3.02	1.23	2.25	3.90	4.64	7.48	3.67	48.71
1996	7.67	3.60	5.53	3.95	5.08	6.35	12.29	3.35	3.70	1.55	8.18	5.32	66.57
1997	5.76	4.56	6.12	3.99	6.31	5.85	6.37	4.02	3.38	3.39	2.83	3.88	56.46
1998	5.61	4.81	6.01	14.03	3.99	10.13	3.41	1.35	1.37	1.65	2.40	8.47	63.23
1999	8.60	3.87	4.91	3.68	4.42	6.21	8.03	1.74	1.27	2.09	2.71	1.57	49.10
2000	4.98	3.44	4.93	7.28	6.58	4.23	3.65	1.77	2.84	0.01	4.15	3.50	47.36
2001	3.95	7.62	2.46	2.16	3.67	3.38	7.55	3.04	4.79	0.88	1.85	4.97	46.32
2002	8.19	1.97	8.82	1.76	5.18	1.50	6.37	2.53	7.06	3.85	5.57	6.29	59.09
2003	2.17	12.78	2.85	8.03	10.01	6.05	5.29	3.86	4.68	1.58	5.89	3.72	66.91
2004	3.18	5.71	6.19	3.33	3.90	7.75	4.94	2.91	7.61	5.51	11.15	5.36	67.54
2005	4.94	4.05	2.96	6.28	3.19	4.01	7.60	1.40	1.86	1.81	4.11	2.90	45.11
2006	5.34	2.39	4.64	7.66	2.27	1.35	4.26	5.03	4.77	4.93	3.41	2.50	48.55
2007	2.93	1.31	3.29	5.31	2.72	1.59	4.19	0.71	2.47	2.78	5.07	3.50	35.87
2008	4.49	5.25	5.01	3.61	3.05	1.74	4.90	3.08	1.27	2.01	3.96	8.07	46.44
2009	5.82	3.51	4.38	3.81	5.81	5.47	5.43	4.57	5.48	5.73	2.62	8.14	60.77
2010	7.85	3.62	3.57	2.94	6.08		5.95	2.80	5.10	3.83	7.45	2.19	
2011	3.99	5.70	6.65	9.13	2.14	7.30	4.80	0.91	10.14	4.59	10.89	5.02	71.26
POR= 45 YRS	4.93	4.46	5.31	4.51	4.74	4.40	5.42	3.31	4.05	3.15	4.86	5.33	54.47

WBAN : 53868

AVERAGE TEMPERATURE (°F) 2011 OAK RIDGE (KOQT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	31.6	41.2	50.7	52.6	69.3	71.6	77.5	73.8	66.8	57.6	47.4	43.0	56.9
1983	35.4	38.6	47.7	51.2	63.8	71.5	77.9	79.2	69.4	59.4	45.7	34.4	56.2
1984	33.2	41.3	44.9	54.7	60.7	74.0	73.5	75.1	66.5	65.5	43.1	45.8	56.5
1985	28.0	35.3	47.8	57.3	64.2	71.0	74.8	73.1	67.0	61.9	54.5	30.9	55.5
1986	35.2	43.2	48.4	58.3	66.7	75.7	80.3	75.6	72.1	59.9	51.1	37.7	58.7
1987	36.0	40.8	48.3	56.7	71.6	75.0	78.1	78.1	69.7	53.4	50.0	42.8	58.4
1988	32.9	38.5	49.5	58.3	66.5	74.1	77.6	78.7	70.9	51.8	48.2	38.9	57.2
1989	42.3	40.0	52.8	57.9	62.2	73.2	77.1	75.8	70.8	58.8	46.8	30.5	57.4
1990	42.8	37.7	52.8	56.2	64.6	75.0	77.6	77.6	71.8	59.1	50.4	43.1	59.1
1991	40.0	42.6	51.3	62.8	72.2	74.9	79.1	76.8	71.4	60.7	45.5	42.1	60.0
1992	39.3	44.8	47.5	58.5	63.7	71.5	77.4	73.3	70.9	57.4	47.0	38.9	57.5
1993	42.2	38.7	45.6	55.2	67.4	74.7	82.1	78.7	71.7	60.1	46.2	39.6	58.5
1994	31.6	42.5	47.6	59.7	61.7	74.9	76.4	75.0	67.2	59.9	52.2	44.4	57.8
1995	38.2	39.4	52.4	59.8	67.3	74.3	80.2	82.1	70.9	59.6	43.6	37.6	58.8
1996	36.2	38.4	44.9	55.1	70.2	75.3	76.3	76.9	69.3	60.2	44.8	42.2	57.5
1997	39.4	46.7	54.8	54.8	62.5	73.1	79.5	76.1	72.0	59.3	44.3	39.2	58.5
1998	43.2	45.8	49.4	57.6	71.4	76.4	80.4	79.2	76.6	62.8	50.8	44.9	61.5
1999	42.9	44.4	45.8	62.0	67.3	75.1	79.7	77.9	70.2	59.1	52.7	42.9	60.0
2000	37.4	46.0	53.6	56.4	70.2	75.3	78.2	77.4	70.5	61.4	46.9	33.5	58.9
2001	35.6	45.0	46.5	61.7	67.7	72.6	77.6	77.4	67.9	56.1	53.6	45.1	58.9
2002	41.0	40.8	49.8	61.8	64.9	76.3	80.1	79.4	74.1	62.3	46.3	40.1	59.7
2003	33.5	40.2	53.3	61.0	67.8	72.0	76.9	78.3	69.4	59.3	53.6	39.0	58.7
2004	37.5	40.6	53.9	58.7	71.4	75.1	77.3	74.2	71.2	64.2	53.5	39.5	59.8
2005	42.3	44.3	48.2	58.3	64.0	75.2	78.4	79.4	74.0	60.9	50.4	37.5	59.4
2006	45.0	40.4	50.4	63.4	65.5	74.5	79.0	80.0	67.5	56.6	48.8	43.7	59.6
2007	41.0	37.7	57.0	56.1	69.7	76.0	77.1	83.7	74.4	64.2	48.9	45.3	60.9
2008	37.2	43.1	49.1	59.4	65.9	76.6	77.5	76.8	73.2	58.7	45.4	41.5	58.7
2009	36.2	42.9	51.1	58.4	67.5	76.7	75.1	76.4	71.8	57.6	50.9	38.7	58.6
2010	34.1	34.8	47.7	62.0	70.4	79.2	81.0	80.8	72.5	59.7	50.2	33.1	58.8
2011	35.8	44.6	52.4	62.1	67.9	77.7	81.1	79.5	69.5	58.1	51.3	44.9	60.4
POR= 42 YRS	36.5	39.9	49.1	58.2	66.1	73.9	77.3	76.8	70.1	58.7	48.2	39.7	57.9

HEATING DEGREE DAYS (base 65°F) 2011 OAK RIDGE (KOQT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	62	263	522	678	910	734	529	413	78	11	4200
1983-84	0	0	57	181	572	942	977	682	616	304	173	5	4509
1984-85	0	0	58	47	648	588	1140	824	525	239	84	20	4173
1985-86	0	0	61	123	311	1049	917	603	508	214	62	0	3848
1986-87	0	3	0	199	417	841	892	673	515	282	11	0	3833
1987-88	0	0	9	353	445	682	988	764	477	217	45	11	3991
1988-89	0	0	6	413	498	805	697	695	379	260	154	0	3907
1989-90	0	1	40	220	539	1066	682	481	384	282	83	0	3778
1990-91	0	0	26	200	436	675	770	624	426	96	14	0	3267
1991-92	0	0	48	167	580	705	794	583	538	236	121	7	3779
1992-93	0	0	14	230	536	803	701	729	595	292	37	3	3940
1993-94	0	0	26	182	559	781	1030	624	535	193	134	0	4064
1994-95	0	0	27	162	374	629	824	710	385	182	62	2	3357
1995-96	0	0	22	197	639	841	884	765	617	301	42	3	4311
1996-97	0	0	21	168	604	699	786	506	316	309	112	9	3530
1997-98	0	0	1	226	615	792	668	532	499	222	24	10	3589
1998-99	0	0	1	108	418	616	675	571	585	132	15	0	3121
1999-00	0	0	28	191	358	678	848	545	352	254	10	5	3269
2000-01	0	0	31	148	537	971	905	554	568	151	31	6	3902
2001-02	0	0	60	275	340	613	736	671	464	169	105	0	3433
2002-03	0	0	3	138	557	765	965	690	353	138	8	5	3622
2003-04	0	0	30	190	344	798	847	703	346	218	40	0	3516
2004-05	0	1	2	68	352	781	693	574	513	212	92	0	3288
2005-06	0	0	0	191	435	845	614	683	454	107	82	0	3411
2006-07	0	0	36	278	481	652	739	756	280	286	22	0	3530
2007-08	0	0	1	113	475	603	855	628	486	187	54	0	3402
2008-09	0	0	0	235	583	721	888	614	424	229	34	0	3728
2009-10	0	0	14	232	418	806	948	839	533	128	25	0	3943
2010-11	0	0	4	165	437	981	898	564	393	150	85	0	3677
2011-	0	0	12	226	406	614							

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COOLING DEGREE DAYS (base 65°F) 2011 OAK RIDGE (KOQT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	15	2	167	207	392	279	120	44	0	3	1229
1983	0	0	0	5	47	211	405	445	196	12	0	0	1321
1984	0	0	0	3	47	283	275	318	106	69	0	0	1101
1985	0	0	2	16	63	207	313	258	125	31	3	0	1018
1986	0	0	0	22	121	329	477	337	219	47	5	0	1557
1987	0	0	0	36	222	306	412	409	152	0	0	0	1537
1988	0	0	1	23	94	291	400	429	187	9	0	0	1434
1989	0	1	3	51	72	249	379	341	219	31	0	0	1346
1990	0	0	11	25	78	305	393	397	235	26	3	0	1473
1991	0	0	5	36	242	300	441	370	245	39	0	0	1678
1992	0	0	0	43	86	204	387	261	198	1	0	0	1180
1993	0	0	0	3	115	298	532	429	234	36	0	0	1647
1994	0	0	0	39	39	304	359	318	101	9	0	0	1169
1995	0	0	4	35	140	286	478	541	206	34	2	0	1726
1996	0	0	0	12	208	320	359	378	159	26	3	0	1465
1997	0	0	5	9	41	262	458	350	219	56	0	0	1400
1998	0	0	21	9	229	360	485	448	355	48	0	1	1956
1999	0	0	0	49	94	310	464	405	190	15	0	0	1527
2000	0	0	3	2	177	320	415	390	200	42	2	0	1551
2001	0	0	0	60	123	243	397	389	152	8	1	0	1373
2002	0	0	1	78	108	345	463	454	282	63	4	0	1798
2003	0	0	0	24	104	221	376	420	168	21	9	0	1343
2004	1	0	9	33	243	309	387	293	196	50	11	0	1532
2005	0	0	1	14	69	313	423	455	276	71	5	0	1627
2006	0	0	5	62	107	290	443	469	117	26	0	0	1519
2007	0	0	40	28	175	336	382	586	292	94	0	0	1933
2008	0	0	0	30	88	353	395	372	254	43	0	0	1535
2009	0	0	0	41	117	356	318	361	223	8	0	0	1424
2010	0	0	0	43	195	435	501	496	237	9	0	0	1916
2011	0	0	8	69	180	386	505	461	155	16	2	0	1782

SNOWFALL (inches) 2011 OAK RIDGE (KOQT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0.0	0.0	0.0	0.0	T	1.3	8.7	T	T	0.0	0.0	0.0	10.0
1977-78	0.0	0.0	0.0	0.0	T	1.0	8.6	6.2	3.4	T	0.0	0.0	19.2
1978-79	0.0	0.0	0.0	0.0	0.0	T	4.2	17.2	0.5	0.0	0.0	0.0	21.9
1979-80	0.0	0.0	0.0	0.0	T	T	1.0	7.9	3.2	T	0.0	0.0	12.1
1980-81	0.0	0.0	0.0	0.0	T	T	5.3	0.2	0.1	0.0	0.0	0.0	5.6
1981-82	0.0	0.0	0.0	0.0	T	0.9	4.4	0.5	1.8	T	0.0	0.0	7.6
1982-83	0.0	0.0	0.0	0.0	0.0	2.8	1.4	4.8	T	0.2	0.0	0.0	9.2
1983-84	0.0	0.0	0.0	0.0	T	0.3	4.6	5.1	0.2	0.0	0.0	0.0	10.2
1984-85	0.0	0.0	0.0	0.0	0.0	0.1	9.4	3.6	0.0	0.0	0.0	0.0	13.1
1985-86	0.0	0.0	0.0	0.0	0.0	T	2.5	5.0	T	0.0	0.0	0.0	7.5
1986-87	0.0	0.0	0.0	0.0	0.0	T	4.7	T	T	5.9	0.0	0.0	10.6
1987-88	0.0	0.0	0.0	0.0	T	T	6.9	0.1	T	0.0	0.0	0.0	7.0
1988-89	0.0	0.0	0.0	0.0	T	4.2	T	4.1	0.0	T	0.0	0.0	8.3
1989-90	0.0	0.0	0.0	T	T	9.5	T	T	T	0.0	T	0.0	9.5
1990-91	0.0	T	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	T
1991-92	T	0.0	0.0	0.0	T	T	T	0.0	1.0	T	0.0	0.0	1.0
1992-93	0.0	0.0	0.0	0.0	0.0	0.6	0.0	2.8	12.0	T	T	0.0	15.4
1993-94	T	0.0	0.0	T	0.0	0.5	0.9	0.1	T	0.0		0.0	
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.4	2.2	0.0	0.0	0.0	6.4
1995-96	0.0	0.0	0.0	0.0	T	T	9.0	12.0	0.8	T	0.0	0.0	21.8
1996-97	0.0	0.0	0.0	0.0	0.5	T	3.2	T	0.0	0.0	0.0	0.0	3.7
1997-98	0.0	0.0	0.0	0.0	0.0	5.5	T	2.8	T	T	0.0	T	8.3
1998-99	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.5					
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 11 YRS	T	T	0.0	T	0.1	1.1	2.8	2.8	1.1	0.3	T	T	8.2

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REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2011 OAK RIDGE TENNESSEE (KOQT)

Oak Ridge is located in a broad valley between the Cumberland Mountains, which lie to the northwest of the area, and the Great Smoky Mountains, to the southeast. These mountain ranges are oriented northeast-southwest and the valley between is corrugated by broken ridges 300 to 500 feet high and oriented parallel to the main valley. During periods of light winds, daytime winds are usually southwesterly, nighttime winds northeasterly. Wind velocities are somewhat decreased by the ridges. Tornadoes rarely occur in the valley between the Cumberlands and the Great Smokies. In winter the Cumberland Mountains have a moderating influence on the local climate by retarding the flow of cold air from the north and west.

Temperatures of 100 degrees or more have occurred during less than one-half of the years of the period of record, and temperatures of zero or below are rare. Summer nights are seldom oppressively hot and humid.

Precipitation is more than adequate for agriculture and is normally well distributed through the year for agricultural purposes.

Occasionally there is sufficient dry weather in late summer or early fall to cause small damage to crops and pastures and to create conditions favorable for destructive forest fires. Winter and early spring are the seasons of heaviest precipitation. A few of the larger monthly precipitation amounts recorded have occurred in the normally drier fall months.

Light snow usually occurs in all of the months from November through March, but the total monthly snowfall is often only a trace. Snowfalls sufficiently heavy to interfere with traffic and outdoor activities occur infrequently.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 27 and the average last occurrence in the spring is April 11.

Station History

OAK RIDGE, TN

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
OAK RIDGE ASOS	1998-09-01	2000-10-16	36° 1'	-84° 13'	910		ASOS, COOP
OAK RIDGE ASOS	2000-10-16	2006-09-22	36° 1'	-84° 14'	910		ASOS, COOP
OAK RIDGE ASOS	2006-09-22	2011-08-05	36° 1'	-84° 14'	910		AIRSAMPLE, ASOS, COOP
OAK RIDGE ASOS	2011-08-05	Present	36° 1'	-84° 14'	910		AIRSAMPLE, ASOS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1998-09-01	1999-04-01	DAILY	2400	HYGR		
PRECIP	1998-09-01	1999-04-01	DAILY	2400	TB	RCRD	
TEMP	1999-04-01	2001-12-19	DAILY	2400	HYGR		
PRECIP	2006-09-22	2011-08-05	HOURLY	2400	TB	RCRD	
PRECIP	2001-12-19	2006-09-22	HOURLY	2400	TB	RCRD	
PRECIP	2001-12-19	2006-09-22	DAILY	2400	TB	RCRD	
TEMP	2006-09-22	2011-08-05	DAILY	2400	ATEMP		
PRECIP	1999-04-01	2001-12-19	HOURLY	2400	TB	RCRD	
TEMP	2001-12-19	2006-09-22	DAILY	2400	ATEMP		
PRECIP	2011-08-05	Present	DAILY	2400	PCPNX		
PRECIP	1999-04-01	2001-12-19	DAILY	2400	TB	RCRD	
PRECIP	2006-09-22	2011-08-05	DAILY	2400	PCPNX		
TEMP	2011-08-05	Present	DAILY	2400	ATEMP		
PRECIP	2011-08-05	Present	HOURLY	2400	AHTB	RCRD;HTD	

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

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151 Patton Avenue

Asheville, NC 28801-5001

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