



OCTOBER 2001

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

OAK RIDGE, TN

OAK RIDGE (OQT)
 Lat: 36°01' N Long: 84°14' W Elev (Ground): 913 Feet
 Time Zone: EASTERN WBAN: 53868 ISSN #: -

OCTOBER 2001
OAK RIDGE, TN

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		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		0700 LST	1300 LST	2400 LST	2400 LST	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	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
01	76	42	59	-4	46	51	6	0				0.00	29.16	30.14	0.4	06	1.2	9	27	7	26	01																	
02	78	46	62	-1	50	55	3	0				0.00	29.18	30.15	0.1	22	1.4	13	21	10	21	02																	
03	79	49	64	1	53	56	1	0	FG+ BR			0.00	29.21	30.17	0.0	00	.9	12	21	9	19	03																	
04	78	49	64	2	52	56	1	0	FG+ BR			0.00	29.19	30.15	1.0	22	2.1	15	21	12	21	04																	
05	73	50	62	0	56	59	3	0	RA BR			0.07	29.06	30.01	1.5	24	2.3	15	26	10	26	05																	
06	65	42	54	-7			11	0	RA BR			0.23	29.14		3.5	04	5.3	22	07	17	36	06																	
07	63	35	49	-12			16	0	FG+ BR			0.00	29.34		2.1	04	2.9	18	07	14	06	07																	
08	65	38	52	-8			13	0				0.00	29.44		2.3	07	3.7	16	07	12	09	08																	
09	69	39	54	-6			11	0	FG+ BR			0.00	29.47		0.9	20	.9	13	20	8	20	09																	
10	74	43	59	-1	48	53	6	0	FG BR			0.00	29.39	30.36	1.4	20	2.6	15	18	12	17	10																	
11	76	51	64	5	55	59	1	0				0.00	29.21	30.17	1.1	17	2.0	16	16	12	16	11																	
12	69	62	66	7	62	64	0	1	RA			0.02	29.06	30.01	0.9	22	1.4	12	20	8	19	12																	
13	76	61	69*	11	61	64	0	4	RA BR			T	28.94	29.88	2.8	17	3.6	21	17	14	17	13																	
14	76	48	62	4	53	58	3	0	RA			0.08	28.89	29.83	5.7	23	7.1	33*	20	24*	21	14																	
15	70	42	56	-2	42	48	9	0	FG+ BR			0.00	29.19	30.17	0.7	13	1.4	13	11	10	09	15																	
16	55	39	47	-10	36	43	18	0	RA			T	29.19	30.17	4.5	26	6.2	31	27	20	26	16																	
17	58	34	46	-11	31	39	19	0				0.00	29.33	30.33	1.0	35	2.6	13	01	9	01	17																	
18	66	33	50	-7	36	42	15	0	FG+ BR			0.00	29.29	30.29	1.0	08	1.8	10	16	9	07	18																	
19	69	38	54	-2	41	46	11	0				0.00	29.18	30.16	1.3	24	2.6	15	22	10	20	19																	
20	73	41	57	1	46	50	8	0	FG+ BR			0.00	29.19	30.16	0.4	18	.9	12	16	8	21	20																	
21	77	44	61	6	50	53	4	0	FG+ BR			0.00	29.23	30.20	0.1	17	1.2	13	23	10	19	21																	
22	78	48	63	8	51	55	2	0	FG+ BR			0.00	29.12	30.08	0.2	18	.8	10	23	8	21	22																	
23	82*	51	67	12	54	59	0	2	BR			0.00	28.92	29.87	3.1	21	4.0	21	22	17	21	23																	
24	77	55	66	12	59	62	0	1	RA BR			0.47	28.84	29.78	3.6	22	5.4	32	29	20	26	24																	
25	68	47	58	4	37	48	7	0	RA			0.01	29.10	30.06	4.2	25	6.2	25	28	16	26	25																	
26	58	42	50	-4	21	39	15	0				0.00	29.25	30.24	6.0	28	8.5	30	26	20	26	26																	
27	49	32	41	-12	22	34	24	0				0.00	29.39	30.40	3.4	35	4.6	20	32	14	36	27																	
28	55	27*	41*	-12	26	35	24	0				0.00	29.54	30.56	1.1	04	2.0	14	05	10	07	28																	
29	65	28	47	-6	30	38	18	0	FG+ FZFG BR			0.00	29.58	30.59	0.5	16	1.0	14	21	9	20	29																	
30	70	31	51	-1	33	41	14	0	FG+ BR			0.00	29.47	30.47	0.6	05	1.3	13	08	9	07	30																	
31	72	34	53	1	36	44	12	0				0.00	29.38	30.37	0.5	22	1.2	16	17	12	19	31																	
69.6		42.6	56.1	■ ■			8.9	0.3	< MONTHLY AVERAGES		TOTALS-->		0.88	29.22		0.7	24	2.9	<-- MONTHLY AVERAGES																				
- .3				-2.2				-1.3				■ ■				<-----DEPARTURE FROM NORMAL----->										-2.30				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.48				DATE: 24-25				SEA LEVEL PRESSURE				DATE TIME																		
MONTHLY TOTAL DEPARTURE									SEASON TO DATE TOTAL DEPARTURE				GREATEST 24-HR SNOWFALL:				DATE:				MAXIMUM MINIMUM				: 30.69 29 0853														
HEATING: 275 15									335 43				GREATEST SNOW DEPTH:				DATE:				: 29.62 14 0353																		
COOLING: 8 -17									1372 216				NUMBER OF DAYS WITH				MAXIMUM TEMP ≥ 90: 0				MINIMUM TEMP ≤ 32: 4				PRECIPITATION ≥ 0.01 INCH: 6														
													MAXIMUM TEMP ≤ 32: 0				MINIMUM TEMP ≤ 0: 0				PRECIPITATION ≥ 0.10 INCH: 2																		
													THUNDERSTORMS: 0				HEAVY FOG: 11				SNOWFALL ≥ 1.0 INCH: :																		

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN

OCTOBER 2001

OQT

WBAN # 53868

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST	
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.
01													01												01		0.00		
02													02												02		0.00		
03													03												03		0.00		
04													04												04		0.00		
05													05												05	0.06	0.07		
06	0.05	0.09	0.08	T									06												06	0.22	0.23		
07													07												07		0.00		
08													08												08		0.00		
09													09												09		0.00		
10													10												10		0.00		
11													11												11		0.00		
12													12												12		0.02		
13													13	T			0.01								13		T		
14													14												14		0.08		
15													15												15		0.00		
16													16												16		T		
17													17												17		0.00		
18													18												18		0.00		
19													19												19		0.00		
20													20												20		0.00		
21													21												21		0.00		
22													22												22		0.00		
23													23												23		0.00		
24													24												24		0.47		
25	T												25												25	0.33	0.14		
26													26												26		0.00		
27													27												27		0.00		
28													28												28		0.00		
29													29												29		0.00		
30													30												30		0.00		
31													31												31		0.00		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.20	.27	.34	.36	.39	.42	.46	.47	.47	.47	.47	.47
Ending Date	24	24	24	24	24	24	24	24	24	24	24	24
Ending Time (Hour/Min)	2252	2251	2254	2300	2307	2324	2341	2341	2341	2341	2341	2341

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. 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.

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 1961 – 1990

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	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	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
 '+ ' = Heavy ' ' = Moderate '- ' = Light

OAK RIDGE, TN OCTOBER 2001

Ceilorometer (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:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							10.00	10.00	
02							9.00	10.00	
03							<.25	10.00	
04							<.25	10.00	
05							2.50	10.00	
06							1.50	10.00	
07							.25	10.00	
08							10.00	10.00	
09							.25	10.00	
10							.50	10.00	
11							10.00	10.00	
12							7.00	10.00	
13							1.25	10.00	
14							9.00	10.00	
15							.25	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							.25	10.00	
19							9.00	10.00	
20							.25	10.00	
21							<.25	10.00	
22							<.25	10.00	
23							6.00	10.00	
24							1.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							.25	10.00	
30							.25	10.00	
31							7.00	10.00	
MONTHLY AVGS							4.75	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
11 16 14									

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

OCTOBER 2001

OQT

WBAN # 53868

Table with columns for HOUR (LST), SKY COVER, CEILING 100'S OF FT, OBSERVATION TIME (LST), EFF CLD AMT, VISIBILITY (MILES), WEATHER, TEMPERATURE (°F) (DRY BULB, DEW POINT, WET BULB), RELATIVE HUMIDITY (PCT), WIND (SPEED, DIRECTION), PRESSURE (INCHES, HG) (STATION, SEA LEVEL). The table is organized into three main sections for October 01, 02, and 03, each with 24 hourly rows and associated sunrise/sunset times.

OBSERVATIONS AT 3-HOURLY INTERVALS

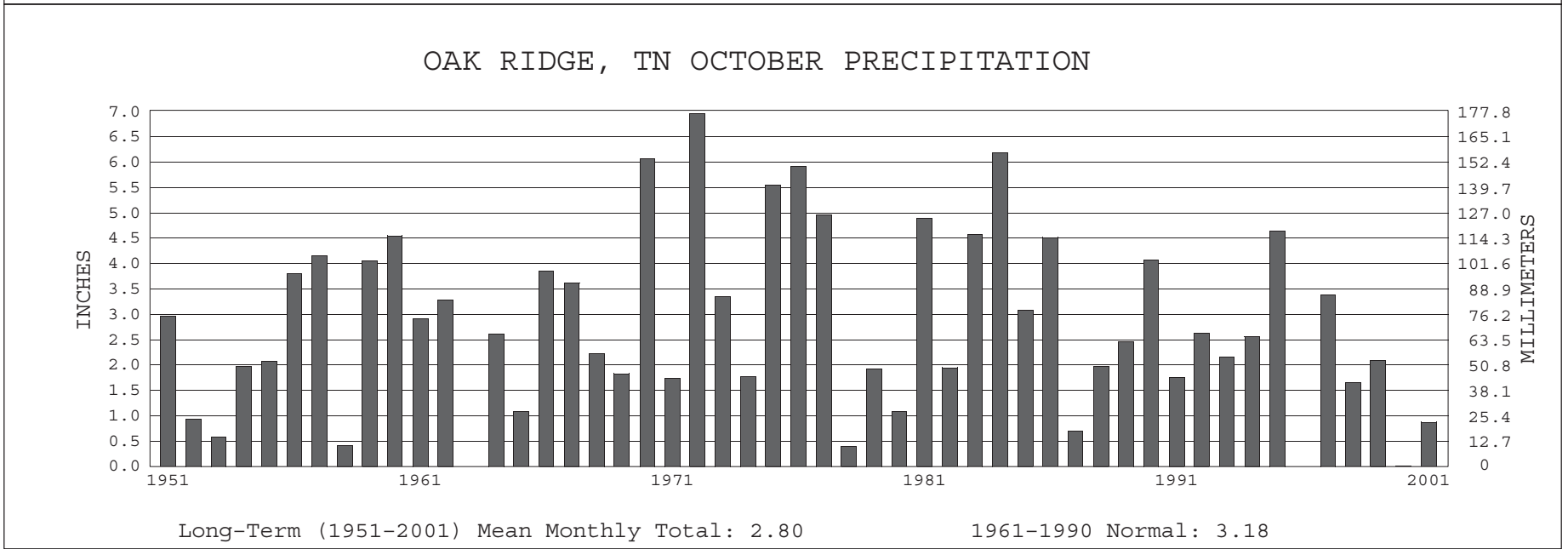
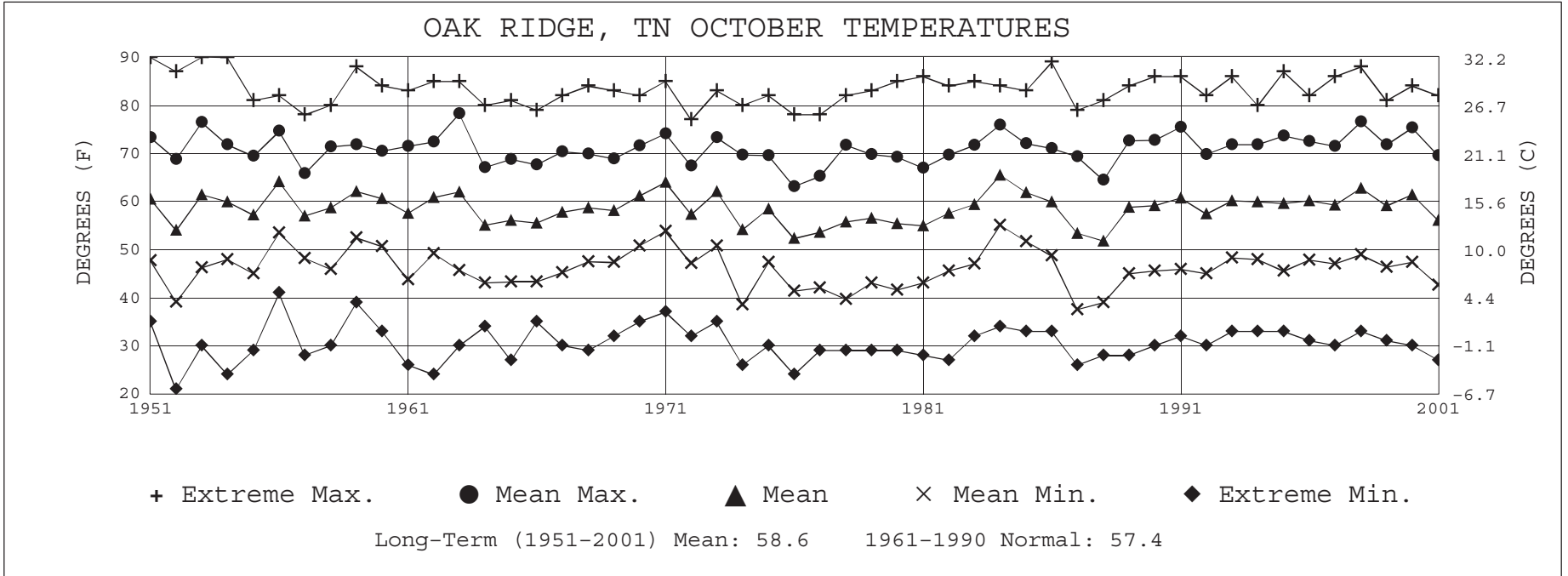
OAK RIDGE, TN

OCTOBER 2001

OQT

WBAN # 53868

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)																	
	OBSERVATION TIME (LST)	EFF CLD AMT Okta		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		OBSERVATION TIME (LST)	EFF CLD AMT Okta		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL																
SUNRISE: 0653								OCT 25								SUNSET: 1749								SUNRISE: 0659								OCT 31								SUNSET: 1742							
01	OVC	075			10.00			62	59	60	90	7	VR	28.88	29.82	01	CLR	NC			10.00			41	35	38	79	0	00	29.42	30.40																
04	CLR	NC			10.00			52	46	49	80	7	18	29.03	29.98	04	CLR	NC			10.00			37	34	36	89	0	00	29.42	30.40																
07	CLR	NC			10.00			47	45	46	93	0	00	29.09	30.06	07	CLR	NC			10.00			34	33	34	97	0	00	29.44	30.44																
10	CLR	NC			10.00			57	39	48	51	7	25	29.16	30.12	10	CLR	NC			10.00			52	39	46	61	0	00	29.45	30.45																
13	CLR	NC			10.00			66	30	49	26	8	28	29.12	30.08	13	CLR	NC			10.00			69	34	52	27	5	VR	29.38	30.36																
16	CLR	NC			10.00			66	26	48	22	14	26	29.08	30.05	16	CLR	NC			10.00			72	35	53	26	5	VR	29.29	30.27																
19	CLR	NC			10.00			60	29	46	31	5	VR	29.11	30.09	19	CLR	NC			10.00			56	40	48	55	0	00	29.31	30.31																
22	CLR	NC			10.00			54	31	44	42	0	00	29.18	30.15	22	CLR	NC			10.00			47	38	43	71	0	00	29.35	30.33																
SUNRISE: 0654								OCT 26								SUNRISE: 1748								3-HOURLY OBSERVATION NOTES																							
01	CLR	NC			10.00			50	31	42	48	5	23	29.20	30.17	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, VV = Vertical Visibility = 8/8.																															
04	CLR	NC			10.00			47	26	38	44	5	26	29.24	30.22	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																															
07	CLR	NC			10.00			43	27	37	53	6	VR	29.27	30.26	NC = No ceiling detected.																															
10	CLR	NC			10.00			50	22	39	33	13	26	29.29	30.28	& = Original observation contained additional weather elements.																															
13	CLR	NC			10.00			57	17	41	21	12	27	29.25	30.23	See page 3 for additional notes.																															
16	CLR	NC			10.00			57	15	41	19	16	26	29.21	30.19																																
19	CLR	NC			10.00			52	13	38	21	6	VR	29.24	30.24																																
22	CLR	NC			10.00			47	17	36	30	9	35	29.28	30.27																																
SUNRISE: 0655								OCT 27								SUNRISE: 1746								SUMMARY BY HOUR																							
01	CLR	NC			10.00			41	22	34	47	6	33	29.30	30.29	AVERAGES																															
04	BKN	047			10.00			38	23	32	55	5	36	29.32	30.31	RESULTANT WIND (MPH)																															
07	OVC	048			10.00			38	20	31	48	6	34	29.37	30.37	HOUR (LST)																															
10	CLR	NC			10.00			41	22	34	47	6	34	29.42	30.42	CEILOMETER																															
13	OVC	055			10.00			45	23	36	42	6	VR	29.39	30.39	EFF CLD AMT																															
16	OVC	065			10.00			47	21	37	36	7	36	29.40	30.40	DRY BULB																															
19	OVC	060			10.00			44	20	35	38	5	01	29.44	30.45	DEW POINT																															
22	CLR	NC			10.00			37	24	32	60	0	00	29.46	30.48	WET BULB																															
SUNRISE: 0656								OCT 28								SUNRISE: 1745								RELATIVE HUMIDITY																							
01	CLR	NC			10.00			31	26	29	82	0	00	29.46	30.49	PRESSURE (INCHES, HG)																															
04	CLR	NC			10.00			29	25	28	85	0	00	29.50	30.53	STATION																															
07	CLR	NC			10.00			28	26	27	92	0	00	29.55	30.58	SEA LEVEL																															
10	CLR	NC			10.00			44	28	38	53	7	VR	29.60	30.62	VISIBILITY (MILES)																															
13	CLR	NC			10.00			50	24	40	36	7	04	29.55	30.57	WIND SPEED (MPH)																															
16	CLR	NC			10.00			54	23	41	30	5	VR	29.50	30.52	SPEED																															
19	CLR	NC			10.00			44	29	38	55	0	00	29.53	30.56	DIRECTION																															
22	CLR	NC			10.00			38	30	35	73	0	00	29.54	30.56																																
SUNRISE: 0657								OCT 29								SUNRISE: 1744								HOUR (LST)																							
01	CLR	NC			10.00			32	29	31	88	0	00	29.55	30.57	CEILOMETER																															
04	CLR	NC			10.00			31	28	30	89	0	00	29.57	30.59	EFF CLD AMT																															
07	VV	001			0.50	FZFG		29	28	29	96	0	00	29.63	30.66	DRY BULB																															
10	CLR	NC			10.00			40	34	37	79	0	00	29.65	30.68	DEW POINT																															
13	CLR	NC			10.00			59	27	45	29	7	20	29.58	30.59	WET BULB																															
16	CLR	NC			10.00			62	27	46	26	5	12	29.53	30.53	RELATIVE HUMIDITY																															
19	CLR	NC			10.00			50	33	43	52	0	00	29.54	30.56	PRESSURE (INCHES, HG)																															
22	CLR	NC			10.00			41	33	38	74	0	00	29.54	30.56	STATION																															
SUNRISE: 0658								OCT 30								SUNRISE: 1743								SEA LEVEL																							
01	CLR	NC			10.00			36	33	35	89	0	00	29.52	30.53	VISIBILITY (MILES)																															
04	CLR	NC			10.00			34	31	33	89	0	00	29.50	30.51	WIND SPEED (MPH)																															
07	FEW	NC			10.00			32	30	31	92	0	00	29.53	30.55	SPEED																															
10	CLR	NC			10.00			48	39	44	71	0	00	29.54	30.55	DIRECTION																															
13	CLR	NC			10.00			65	29	48	26	9	05	29.45	30.45																																
16	CLR	NC			10.00			69	27	50	21	3	VR	29.40	30.39																																
19	CLR	NC			10.00			55	36	46	49	0	00	29.42	30.42																																
22	CLR	NC			10.00			45	36	41	71	0	00	29.43	30.42																																





**OCTOBER 2001
OAK RIDGE, TN**

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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