



JANUARY 2002

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 #: -

JANUARY 2002
 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																																	
																			SPEED	DIR	SPEED	DIR																																
1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																
01	35	14*	25*	-10	12	20	40	0					0.00	29.28	30.33	2.5	05	3.6	13	07	10	06	01																															
02	37	23	30	-5	11	24	35	0					0.00	29.26	30.30	4.6	06	4.7	14	07	10	06	02																															
03	34	24	29	-6	13	24	36	0					0.00	29.17	30.20	3.0	01	4.6	22	06	17	05	03																															
04	41	15	28	-7	14	23	37	0					0.00	29.35	30.39	0.2	22	.7	9	20	7	19	04																															
05	47	18	33	-2	18	27	32	0					0.00	29.22	30.25	0.6	23	1.3	10	21	9	22	05																															
06	39	32	36	1	32	34	29	0	RA SN FG BR				0.35	28.83	29.84	1.8	29	5.2	15	27	12	05	06																															
07	36	28	32	-3	26	31	33	0	SN BR UP				0.01	29.07	30.08	1.9	29	4.4	18	01	12	34	07																															
08	37	19	28	-7	20	25	37	0					0.00	29.21	30.25	1.7	22	2.5	13	21	9	20	08																															
09	55	25	40	5	29	35	25	0					0.00	29.08	30.10	3.0	24	3.7	16	26	13	25	09																															
10	57	36	47	12	46	48	18	0					0.00	29.05	30.04	1.7	24	3.4	13	23	8	23	10																															
11	53	30	42	7	37	42	23	0	RA BR				0.05	29.13	30.11	1.8	36	3.3	16	01	13	01	11																															
12	44	25	35	0	29	32	30	0	FG+ FZFG BR				0.00	29.01	30.02	1.2	23	1.6	12	22	8	23	12																															
13	51	26	39	4	25	33	26	0					0.00	29.02	30.02	1.3	24	2.8	20	30	14	29	13																															
14	51	25	38	3	33	37	27	0					0.00	28.99	29.99	2.1	24	2.8	16	27	12	27	14																															
15	49	27	38	4	26	34	27	0					0.00	29.20	30.20	1.6	25	2.3	13	26	10	27	15																															
16	51	26	39	4	27	33	26	0					0.00	29.25	30.27	0.2	03	.5	8	29	7	18	16																															
17	56	31	44	9	33	40	21	0	RA				T	29.14	30.14	0.7	21	3.3	13	19	10	19	17																															
18	46	34	40	5	28	35	25	0	RA BR				0.26	29.22	30.23	5.5	06	6.3	17	07	14	07	18																															
19	43	34	39	4	35	36	26	0	RA BR				1.94	28.92	29.92	4.3	03	5.3	22	34	16	34	19																															
20	45	30	38	3	31	35	27	0					0.00	29.11	30.12	2.3	06	3.4	15	02	12	05	20																															
21	57	32	45	10	36	41	20	0	RA BR				0.11	29.09	30.09	3.4	25	4.6	18	25	13	27	21																															
22	54	26	40	5	32	37	25	0	RA BR				0.22	29.31	30.32	0.4	07	1.2	9	20	7	06	22																															
23	52	42	47	12	47	47	18	0	RA FG+ BR				3.41	29.15	30.14	0.7	18	1.9	8	12	7	13	23																															
24	63	49	56	21	55	56	9	0	RA FG BR				1.84	28.96	29.93	3.7	22	5.7	41*	26	29*	27	24																															
25	51	30	41	6	29	36	24	0					0.00	29.25	30.24	4.3	05	5.4	21	34	15	34	25																															
26	57	27	42	7	31	36	23	0					0.00	29.33	30.34	0.1	13	.6	8	28	6	29	26																															
27	62	29	46	11	36	39	19	0	FG+ FZFG BR				0.00	29.28	30.29	0.9	21	1.4	13	27	10	20	27																															
28	64	35	50	15	44	47	15	0	BR				0.00	29.20	30.19	2.0	23	2.6	15	22	10	22	28																															
29	74*	55	65*	30	56	59	0	0	RA BR				T	29.16	30.13	1.6	24	2.4	16	21	13	22	29																															
30	73	54	64	29	57	59	1	0	BR				0.00	29.17	30.13	2.1	23	3.9	15	23	10	27	30																															
31	73	52	63	27	57	59	2	0					0.00	29.14	30.10	5.0	21	6.7	31	19	22	22	31																															
< MONTHLY AVERAGES											TOTALS->		<- MONTHLY AVERAGES																																									
6.4											5.6		6.0											<-----DEPARTURE FROM NORMAL----->											3.62		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
DEGREE DAYS											GREATEST 24-HR PRECIPITATION: 3.63 DATE: 22-23											SEA LEVEL PRESSURE DATE TIME																																
MONTHLY TOTAL DEPARTURE											GREATEST 24-HR SNOWFALL: DATE: DATE:											MAXIMUM: 30.47 04 0953																																
SEASON TO DATE TOTAL DEPARTURE											GREATEST SNOW DEPTH: DATE: DATE:											MINIMUM: 29.71 06 1053																																
HEATING: 736 -194 2024 -547											NUMBER OF DAYS WITH >											MAXIMUM TEMP ≥ 90: 0											MINIMUM TEMP ≤ 32: 22											PRECIPITATION ≥ 0.01 INCH: 9										
COOLING: 0 0 0 0											MAXIMUM TEMP ≤ 32: 0											MINIMUM TEMP ≤ 0: 0											PRECIPITATION ≥ 0.10 INCH: 7																					
											THUNDERSTORMS: 0											HEAVY FOG: 3											SNOWFALL ≥ 1.0 INCH: :																					

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN

JANUARY 2002

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		0.00		
06													06	T											06		0.35		
07	T												07		T										07		0.01		
08													08			T									08		0.00		
09													09												09		0.00		
10													10												10		0.00		
11													11												11		0.05		
12													12												12		0.00		
13													13												13		0.00		
14													14												14		0.00		
15													15												15		0.00		
16													16												16		0.00		
17													17												17		T		
18	0.04												18												18		0.26		
19													19												19		1.94		
20													20	0.10											20		0.00		
21													21												21		0.11		
22													22												22		0.22		
23													23	0.08											23		3.41		
24	0.13												24	0.01											24		1.84		
25													25	0.02											25		0.00		
26													26												26		0.00		
27													27												27		0.00		
28													28												28		0.00		
29													29												29		T		
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)	.29	.33	.33	.34	.35	.42	.54	.66	.79	.86	1.05	1.25
Ending Date	24	24	24	24	24	23	23	23	23	23	23	23
Ending Time (Hour/Min)	0710	0714	0714	0721	0732	0756	0823	0831	0852	0909	0833	0823

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 1971–2000

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 JANUARY 2002

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:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							8.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							9.00	10.00	
05							10.00	10.00	
06							.50	10.00	
07							6.00	10.00	
08							9.00	10.00	
09							10.00	10.00	
10							9.00	10.00	
11							4.00	10.00	
12							<.25	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							8.00	10.00	
17							10.00	10.00	
18							4.00	10.00	
19							1.75	10.00	
20							10.00	10.00	
21							5.00	10.00	
22							3.00	10.00	
23							.25	10.00	
24							.50	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							<.25	10.00	
28							5.00	10.00	
29							4.00	10.00	
30							2.00	10.00	
31							7.00	10.00	
MONTHLY AVGS							6.54	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									
3 8 18									

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

JANUARY 2002

OQT

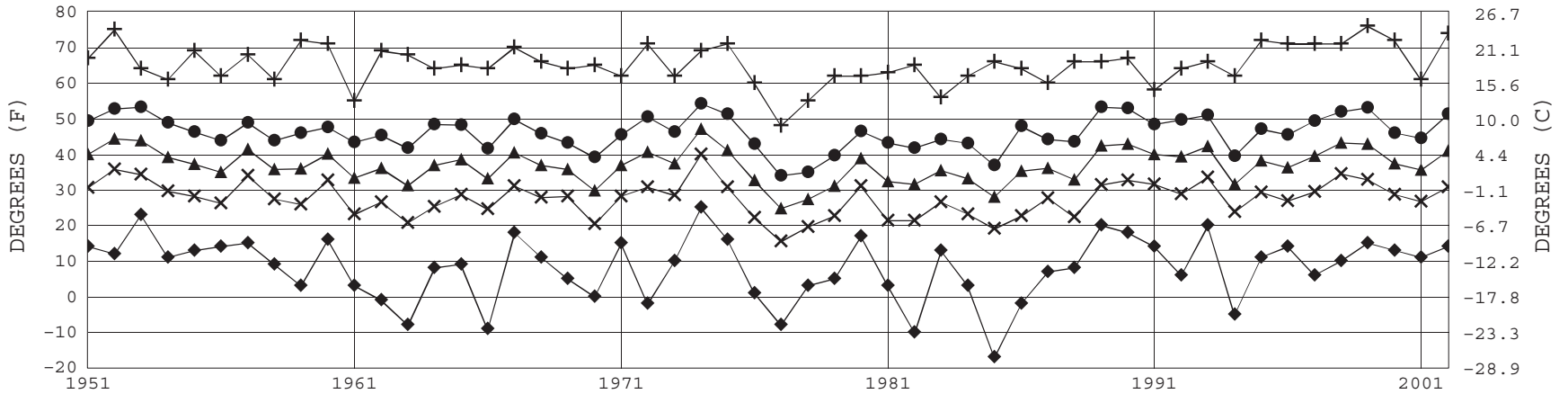
WBAN # 53868

HOUR (LST)	SKY COVER		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		
	SKY COVER	CEILING 100'S OF FT					DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		SKY COVER	CEILING 100'S OF FT					DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	
																														SATELLITE
SUNRISE: 0742						JAN 25	SUNSET: 1756						SUNRISE: 0738						JAN 31	SUNSET: 1803										
01	OVC	042			10.00		46	42	44	86	12	36	29.04	30.01	01	CLR	NC				9.00		55	54	54	96	0	00	29.15	30.11
04	OVC	080			10.00		40	35	38	83	5	VR	29.17	30.15	04	OVC	039				8.00		54	52	53	93	5	22	29.15	30.11
07	FEW	NC			10.00		34	30	32	85	3	04	29.22	30.22	07	OVC	032				8.00		57	55	56	93	3	22	29.16	30.12
10	CLR	NC			10.00		39	29	35	67	9	02	29.28	30.28	10	OVC	028				10.00		63	57	60	81	5	VR	29.21	30.18
13	CLR	NC			10.00		47	22	37	37	9	04	29.29	30.29	13	BKN	037				10.00		72	58	63	61	16	20	29.17	30.13
16	CLR	NC			10.00		51	23	40	33	6	VR	29.28	30.27	16	SCT	NC				10.00		71	57	63	61	15	21	29.11	30.07
19	CLR	NC			10.00		42	27	36	55	0	00	29.29	30.30	19	BKN	075				10.00		67	58	62	73	7	VR	29.11	30.07
22	CLR	NC			10.00		33	30	32	89	0	00	29.31	30.33	22	FEW	NC				10.00		65	59	61	81	7	22	29.08	30.04
SUNRISE: 0742						JAN 26	SUNSET: 1757						3-HOURLY OBSERVATION NOTES																	
01	CLR	NC			10.00		30	28	29	92	0	00	29.31	30.32	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		29	27	28	92	0	00	29.34	30.35	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.															
07	CLR	NC			10.00		27	27	27	100	0	00	29.36	30.38	NC = No ceiling detected.															
10	CLR	NC			10.00		35	32	34	89	0	00	29.40	30.42	& = Original observation contained additional weather elements.															
13	CLR	NC			10.00		50	29	41	44	0	00	29.35	30.36	See page 3 for additional notes.															
16	CLR	NC			10.00		57	32	46	39	3	20	29.28	30.28																
19	CLR	NC			10.00		48	37	43	66	0	00	29.28	30.30																
22	CLR	NC			10.00		37	35	36	93	0	00	29.31	30.32																
SUNRISE: 0741						JAN 27	SUNSET: 1759																							
01	CLR	NC			10.00		33	33	33	100	0	00	29.30	30.31																
04	VV	001		0.50	FZFG		30	30	30	100	0	00	29.31	30.31																
07	VV	001		0.25	FZFG		29	29	29	100	0	00	29.33	30.34																
10	OVC	001		1.50	BR		32	32	32	100	0	00	29.37	30.39																
13	CLR	NC			10.00		54	37	46	53	3	26	29.29	30.29																
16	CLR	NC			10.00		61	42	51	50	3	VR	29.23	30.22																
19	CLR	NC			10.00		51	42	47	71	0	00	29.21	30.22																
22	CLR	NC			10.00		44	41	43	89	0	00	29.25	30.26																
SUNRISE: 0740						JAN 28	SUNSET: 1760																							
01	CLR	NC			10.00		41	39	40	93	0	00	29.23	30.22																
04	CLR	NC			8.00		36	35	36	97	0	00	29.23	30.22																
07	CLR	NC			7.00		37	35	36	93	0	00	29.24	30.24																
10	CLR	NC			10.00		48	42	45	80	0	00	29.25	30.25																
13	OVC	031			10.00		55	44	50	67	5	23	29.21	30.21																
16	CLR	NC			10.00		64	49	56	58	6	26	29.15	30.13																
19	OVC	041			10.00		58	50	54	75	3	19	29.15	30.14																
22	BKN	035			10.00		59	53	56	81	3	VR	29.14	30.12																
SUNRISE: 0740						JAN 29	SUNSET: 1801																							
01	OVC	034			10.00		58	53	55	84	3	VR	29.13	30.11																
04	OVC	026			10.00		58	53	55	84	0	00	29.14	30.11																
07	OVC	022			10.00		57	54	55	90	0	00	29.16	30.13																
10	OVC	016			10.00		58	54	56	87	0	00	29.20	30.17																
13	OVC	065			10.00		65	58	61	78	3	VR	29.17	30.14																
16	BKN	055			10.00		72	60	65	66	7	22	29.12	30.08																
19	BKN	065			10.00		66	59	62	78	6	21	29.17	30.13																
22	CLR	NC			8.00		60	58	59	93	0	00	29.18	30.15																
SUNRISE: 0739						JAN 30	SUNSET: 1802																							
01	CLR	NC			3.00	BR	55	55	55	100	3	23	29.17	30.13																
04	OVC	010			4.00	BR	59	57	58	93	0	00	29.16	30.12																
07	OVC	010			8.00		59	57	58	93	7	VR	29.18	30.14																
10	OVC	013			10.00		61	57	59	87	6	21	29.21	30.18																
13	BKN	019			10.00		66	59	62	78	6	VR	29.18	30.15																
16	FEW	NC			10.00		72	59	64	64	3	24	29.13	30.09																
19	FEW	NC			10.00		68	57	61	68	5	22	29.15	30.11																
22	CLR	NC			10.00		61	56	58	84	0	00	29.16	30.12																

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			36	32	35	84	29.14	30.14	9.13	2	1	3	
02			36	31	34	83	29.14	30.15	8.92	2	1	31	
03			36	31	34	84	29.15	30.15	9.13	2	1	1	
04			35	31	34	86	29.15	30.15	8.34	2	1	5	
05			35	31	33	86	29.15	30.15	8.40	2	0	0	
06			34	30	33	87	29.15	30.16	8.27	2	0	0	
07			34	31	33	88	29.15	30.16	8.27	3	1	7	
08			34	30	32	89	29.17	30.18	7.89	2	1	5	
09			36	32	34	86	29.18	30.19	8.02	2	0	0	
10			39	33	36	80	29.19	30.20	8.33	2	1	5	
11			42	33	38	73	29.19	30.20	8.88	4	1	3	
12			44	33	40	66	29.18	30.18	9.39	3	1	36	
13			47	33	41	61	29.14	30.15	9.64	4	1	21	
14			48	33	42	59	29.12	30.12	9.37	4	1	24	
15			50	33	43	56	29.11	30.11	9.35	4	2	23	
16			50	32	43	54	29.11	30.11	9.47	4	2	24	
17			50	33	42	55	29.11	30.12	9.68	3	1	25	
18			47	33	41	59	29.12	30.12	9.68	3	2	23	
19			45	34	40	66	29.13	30.13	9.71	2	1	24	
20			43	34	39	71	29.13	30.14	9.61	2	1	27	
21			42	34	39	75	29.14	30.15	9.44	2	1	27	
22			40	34	38	79	29.14	30.15	9.23	2	1	28	
23			40	34	37	81	29.14	30.15	9.46	1	0	0	
24			39	33	37	82	29.14	30.14	9.34	2	1	32	

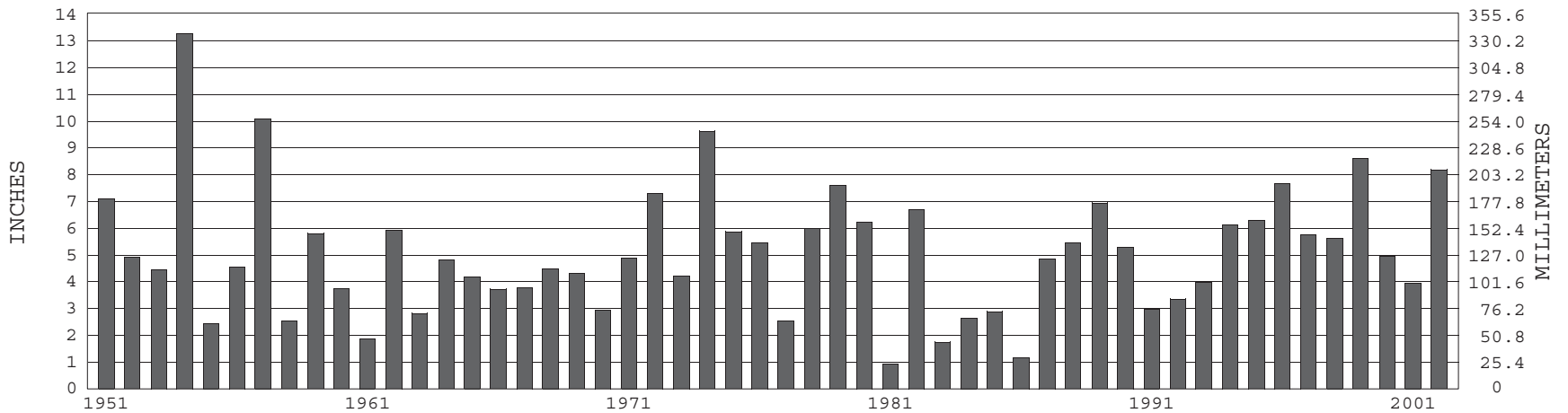
OAK RIDGE, TN JANUARY TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1951-2002) Mean: 36.9 1961-1990 Normal: 35.0

OAK RIDGE, TN JANUARY PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 5.07

1961-1990 Normal: 4.57



JANUARY 2002

OAK RIDGE, TN

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

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