



# APRIL 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 #: -

APRIL 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																																																												
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	65	41	53	0	40	47	12	0	FG+ BR				0.00	29.07	30.05	0.2	17	1.9	14	14	10	18	01																																																										
02	79	39	59	6	41	50	6	0					0.00	29.00	29.97	4.3	22	4.9	26	22	18	22	02																																																										
03	61	40	51	-2	37	45	14	0	RA				T	29.14	30.11	4.9	01	6.4	17	04	14	02	03																																																										
04	57	36	47	-7	25	38	18	0					0.00	29.31	30.11	5.7	05	7.1	20	07	16	06	04																																																										
05	59	36	48	-6	23	38	17	0					0.00	29.32	30.32	3.4	04	5.2	25	34	13	35	05																																																										
06	57	31*	44*	-10	26	37	21	0					0.00	29.31	30.31	3.3	07	3.6	18	05	15	06	06																																																										
07	69	32	51	-3	30	42	14	0					0.00	29.26	30.25	3.4	18	5.6	23	21	16	19	07																																																										
08	72	47	60	5	48	55	5	0					0.00	29.14	30.10	9.6	19	10.0	33*	20	26*	19	08																																																										
09	70	56	63	8	59	61	2	0	RA BR				0.33	29.21	30.16	1.7	25	5.6	25	21	16	21	09																																																										
10	76	50	63	8	49	55	2	0					0.00	29.33	30.30	4.4	05	5.1	16	05	13	06	10																																																										
11	80	52	66	10	54	59	0	1					0.00	29.30	30.26	1.5	18	3.6	17	18	13	18	11																																																										
12	75	55	65	9	58	61	0	0	RA				T	29.26	30.22	1.5	24	2.7	16	25	12	22	12																																																										
13	77	58	68	12	59	62	0	3	RA				T	29.20	30.15	3.4	22	4.8	16	20	13	21	13																																																										
14	73	59	66	10	60	63	0	1	RA BR HZ				0.04	29.10	30.04	3.3	24	4.2	18	22	13	23	14																																																										
15	84	56	70	13	59	63	0	5					0.00	29.12	30.06	1.5	22	2.8	16	20	13	18	15																																																										
16	88	59	74	17	61	66	0	9					0.00	29.20	30.14	1.0	23	2.9	16	19	12	16	16																																																										
17	85	61	73	16	62	66	0	8					0.00	29.23	30.16	1.4	21	2.4	13	20	10	14	17																																																										
18	89	59	74	16	60	65	0	9	BR				0.00	29.17	30.12	0.7	22	1.7	15	21	12	26	18																																																										
19	90*	61	76	18			0	11					0.00	29.11		2.3	22	3.3	17	21	13	22	19																																																										
20	88	66	77*	19	60	66	0	12	RA				T	29.02	29.95	2.3	25	3.8	20	27	15	26	20																																																										
21	88	63	76	18	60	66	0	11					0.00	28.93	29.85	5.4	22	6.3	24	21	17	22	21																																																										
22	77	50	64	6	43	54	1	0	RA				0.12	29.06	30.00	3.7	27	6.2	26	35	17	36	22																																																										
23	70	42	56	-3	39	48	9	0					0.00	29.21	30.19	0.7	07	3.1	13	08	10	09	23																																																										
24	62	46	54	-5	50	52	11	0	RA BR				0.48	29.14	30.12	0.5	07	2.3	21	17	17	17	24																																																										
25	67	46	57	-3	38	49	8	0	RA BR				0.64	29.21	30.17	5.1	35	6.0	23	01	17	01	25																																																										
26	60	40	50	-10	37	45	15	0					0.00	29.31	30.30	1.1	05	1.4	10	07	9	07	26																																																										
27	66	49	58	-2	49	54	7	0	RA				T	29.18	30.15	1.1	23	3.5	13	26	9	26	27																																																										
28	83	62	73	13	62	65	0	8	RA BR HZ				T	28.93	29.87	5.9	24	7.8	28	21	21	21	28																																																										
29	75	49	62	2	44	52	3	0					0.00	29.05	30.00	0.6	32	3.0	13	34	10	22	29																																																										
30	76	46	61	0	50	55	4	0	RA BR				0.15	29.00	29.96	1.8	22	4.0	20	19	13	20	30																																																										
										73.9		49.6		61.8		■ ■		5.6		2.6		< MONTHLY AVERAGES				TOTALS-->		1.76		29.16		0.8		23		4.4		<-- MONTHLY AVERAGES																																											
										4.0		6.1		5.0		■ ■		<-----DEPARTURE FROM NORMAL----->										-2.32		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																																																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.12 DATE: 24-25										SEA LEVEL PRESSURE										DATE		TIME																																																	
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL:										MAXIMUM										:		30.39		05		0953																																			
HEATING: 169										-83										3328										-759										MINIMUM										:		29.76		21		1653																									
COOLING: 78										72										79										73										NUMBER OF DAYS WITH										->		MAXIMUM TEMP ≥ 90: 1										MINIMUM TEMP ≤ 32: 2										PRECIPITATION ≥ 0.01 INCH: 6									
																																																				MAXIMUM TEMP ≤ 32: 0										MINIMUM TEMP ≤ 0: 0										PRECIPITATION ≥ 0.10 INCH: 5									
																																																				THUNDERSTORMS: 0										HEAVY FOG: 1										SNOWFALL ≥ 1.0 INCH: :									

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

# OAK RIDGE, TN

APRIL 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												T	03												03		T		
04													04												04		0.00		
05													05												05		0.00		
06													06												06		0.00		
07													07												07		0.00		
08													08												08		0.00		
09	T	T	T		0.01	0.01	0.04	0.07	0.01	T	0.04	0.14	09	T	0.01	T	T	T						09		0.33			
10													10												10		0.00		
11													11												11		0.00		
12													12					T	T	T	T				12		T		
13													13												13		T		
14	T												14			0.04		T							14		0.04		
15													15												15		0.00		
16													16												16		0.00		
17													17												17		0.00		
18													18												18		0.00		
19													19												19		0.00		
20													20												20		T		
21													21												21		0.00		
22													22												22		0.12		
23													23												23		0.00		
24													24	T	0.01	0.01	0.22	0.03						0.02	0.13	24	0.43	0.48	
25	0.65	0.03	T	T	T	T		0.01	T	T	0.01	T	25	T	0.01	0.01	0.22	0.03						0.02	0.13	25	0.69	0.64	
26													26												26		0.00		
27													27	T											27		T		
28													28		T				T						28		T		
29													29												29		0.00		
30													30								T	T	T	0.03	0.12	30		0.15	

## MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.09	.17	.24	.31	.46	.62	.67	.70	.75	.79	.83	.83
Ending Date	25	25	25	25	25	25	25	25	25	25	25	25
Ending Time (Hour/Min)	0015	0017	0022	0030	0032	0038	0042	0050	0042	0042	0111	0111

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 APRIL 2002

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							.25	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							.75	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							7.00	10.00	
13							10.00	10.00	
14							1.75	10.00	
15							7.00	10.00	
16							8.00	10.00	
17							7.00	10.00	
18							1.75	10.00	
19							9.00	10.00	
20							9.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							1.50	10.00	
25							1.25	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							5.00	10.00	
29							10.00	10.00	
30							2.00	10.00	
<b>MONTHLY AVGS</b>							7.67	10.00	
<b>SUNSHINE (MINUTES)</b>									
Total:                      Possible:                      Percent Possible:									
<b>NUMBER OF DAYS WITH:</b>									
<b>SKY CONDITION</b>									
CLR   PTLY CLDY   CLOUDY   MISSING									
30									
<b>MINIMUM VISIBILITY (MILES)</b>									
<=0.25    <=3.0    >=7.0									
1            5            22									



OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

APRIL 2002

OQT

WBAN # 53868

Table with columns for HOUR (LST), SKY COVER, CEILING, SATELLITE, WEATHER, TEMPERATURE (°F), WIND, PRESSURE (INCHES, HG) for two consecutive days (APR 13-14 and APR 15-16).

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

APRIL 2002

OQT

WBAN # 53868

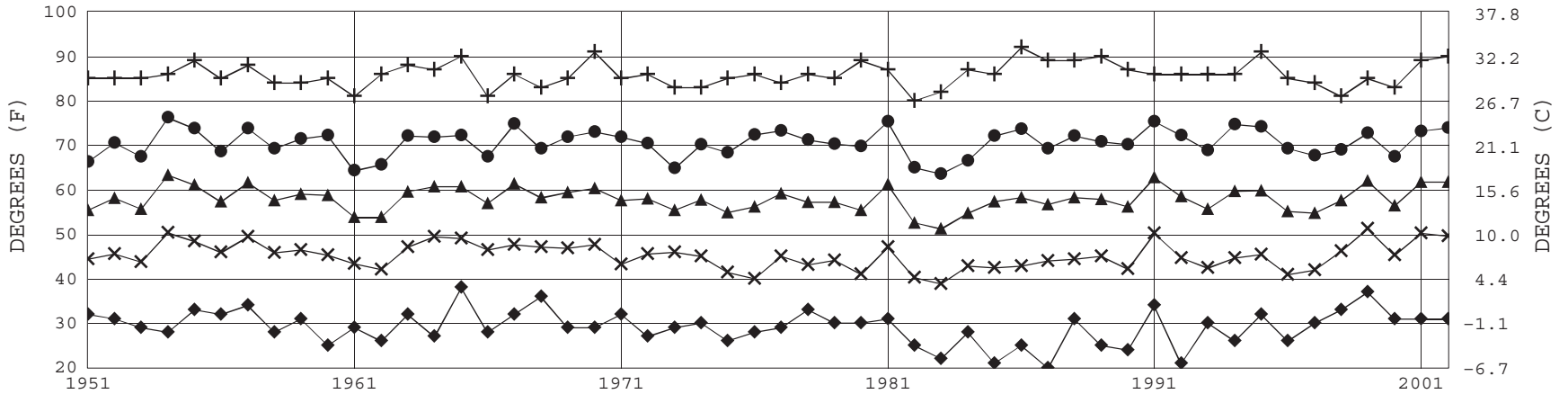
SATELLITE	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES,HG)		SATELLITE	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES,HG)	
		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION			SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG
SUNRISE: 0551 APR 25 SUNSET: 1918																	
01	OVC	037	4.00	-RA BR	58	58	58	100	3	VR	29.08	30.05					
04	OVC	007	5.00	BR	59	58	58	96	0	00	29.08	30.04					
07	OVC	025	10.00		55	50	52	83	12	01	29.17	30.15					
10	CLR	NC	10.00		58	39	49	50	9	33	29.27	30.24					
13	CLR	NC	10.00		62	30	47	30	8	36	29.25	30.22					
16	CLR	NC	10.00		67	29	49	24	6	VR	29.21	30.17					
19	CLR	NC	10.00		60	23	44	24	9	35	29.23	30.20					
22	CLR	NC	10.00		54	24	42	31	5	36	29.29	30.27					
SUNRISE: 0550 APR 26 SUNSET: 1919																	
01	CLR	NC	10.00		44	37	41	76	0	00	29.30	30.28					
04	CLR	NC	10.00		40	37	39	89	0	00	29.29	30.27					
07	CLR	NC	10.00		42	37	40	82	0	00	29.34	30.32					
10	CLR	NC	10.00		54	33	45	45	8	06	29.35	30.33					
13	SCT	NC	10.00		56	30	44	37	3	05	29.36	30.35					
16	OVC	090	10.00		59	32	47	36	0	00	29.30	30.28					
19	OVC	075	10.00		59	37	48	44	0	00	29.27	30.26					
22	OVC	100	10.00		54	45	49	72	0	00	29.30	30.28					
SUNRISE: 0549 APR 27 SUNSET: 1920																	
01	OVC	060	10.00		53	47	50	80	0	00	29.29	30.27					
04	OVC	055	10.00		51	48	50	89	0	00	29.25	30.23					
07	OVC	080	10.00		51	46	49	83	0	00	29.26	30.24					
10	SCT	NC	10.00		61	44	52	54	3	09	29.23	30.20					
13	OVC	034	10.00		63	47	54	56	5	VR	29.18	30.15					
16	OVC	044	10.00		65	51	57	61	8	26	29.13	30.10					
19	FEW	NC	10.00		63	53	57	70	3	VR	29.08	30.05					
22	OVC	034	10.00		63	55	58	76	0	00	29.06	30.01					
SUNRISE: 0548 APR 28 SUNSET: 1921																	
01	OVC	030	10.00		63	57	59	81	8	25	29.03	29.98					
04	BKN	028	8.00		64	58	60	81	6	VR	28.97	29.92					
07	OVC	020	6.00	HZ	68	62	64	81	10	23	28.96	29.90					
10	OVC	014	5.00	BR	67	63	64	87	3	VR	28.97	29.91					
13	FEW	NC	10.00		82	66	71	58	12	22	28.88	29.81					
16	CLR	NC	10.00		79	60	67	52	10	24	28.85	29.78					
19	CLR	NC	10.00		76	61	67	60	6	25	28.88	29.81					
22	CLR	NC	10.00		69	62	65	78	6	22	28.93	29.88					
SUNRISE: 0547 APR 29 SUNSET: 1922																	
01	CLR	NC	10.00		62	50	55	65	6	36	28.98	29.91					
04	CLR	NC	10.00		53	47	50	80	0	00	29.00	29.95					
07	CLR	NC	10.00		51	44	48	77	3	VR	29.08	30.03					
10	CLR	NC	10.00		57	42	50	58	3	VR	29.08	30.04					
13	CLR	NC	10.00		67	44	55	44	7	17	29.08	30.02					
16	CLR	NC	10.00		73	40	56	30	7	26	29.02	29.97					
19	CLR	NC	10.00		69	38	53	32	3	36	29.03	29.98					
22	CLR	NC	10.00		55	45	50	69	0	00	29.08	30.04					
SUNRISE: 0546 APR 30 SUNSET: 1922																	
01	CLR	NC	10.00		50	46	48	86	0	00	29.08	30.03					
04	BKN	100	10.00		46	44	45	93	0	00	29.07	30.03					
07	CLR	NC	9.00		48	45	47	89	0	00	29.08	30.05					
10	CLR	NC	10.00		65	48	56	54	3	VR	29.06	30.02					
13	CLR	NC	10.00		75	47	59	37	5	VR	29.01	29.96					
16	CLR	NC	10.00		73	50	60	44	6	22	28.92	29.88					
19	BKN	055	10.00		66	54	59	65	7	25	28.93	29.89					
22	BKN	014	10.00		61	58	59	90	6	28	28.91	29.85					

**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, VV = 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)	DIRECTION
01			57	48	52	74	29.16	30.12	9.47	2	1 27
02			55	48	52	76	29.15	30.11	9.47	2	1 27
03			54	48	51	81	29.15	30.11	9.26	2	1 22
04			53	48	50	83	29.15	30.11	9.21	1	0 0
05			52	48	50	85	29.16	30.12	8.94	2	0 0
06			52	47	50	86	29.18	30.14	8.97	1	0 0
07			52	48	50	85	29.20	30.16	8.61	2	0 0
08			56	48	52	78	29.21	30.17	9.06	3	1 3
09			60	49	54	68	29.21	30.17	9.62	4	1 3
10			63	49	56	61	29.21	30.17	9.67	4	0 0
11			67	49	57	55	29.21	30.16	9.61	5	2 22
12			68	48	57	51	29.19	30.15	9.71	6	2 21
13			70	48	58	48	29.18	30.14	9.67	7	3 20
14			71	48	58	46	29.16	30.12	9.93	6	3 21
15			72	48	59	45	29.14	30.10	9.87	5	2 23
16			72	47	58	44	29.12	30.08	9.72	6	3 22
17			72	47	58	45	29.12	30.08	10.00	5	3 25
18			71	47	58	46	29.12	30.08	10.00	6	2 25
19			68	47	57	49	29.12	30.08	10.00	4	1 24
20			65	48	56	56	29.13	30.09	9.97	3	1 23
21			63	48	56	60	29.15	30.11	9.90	3	1 24
22			61	48	54	63	29.15	30.11	9.90	2	1 31
23			60	48	54	68	29.16	30.11	9.63	1	0 0
24			58	48	53	70	29.16	30.12	9.35	2	0 0

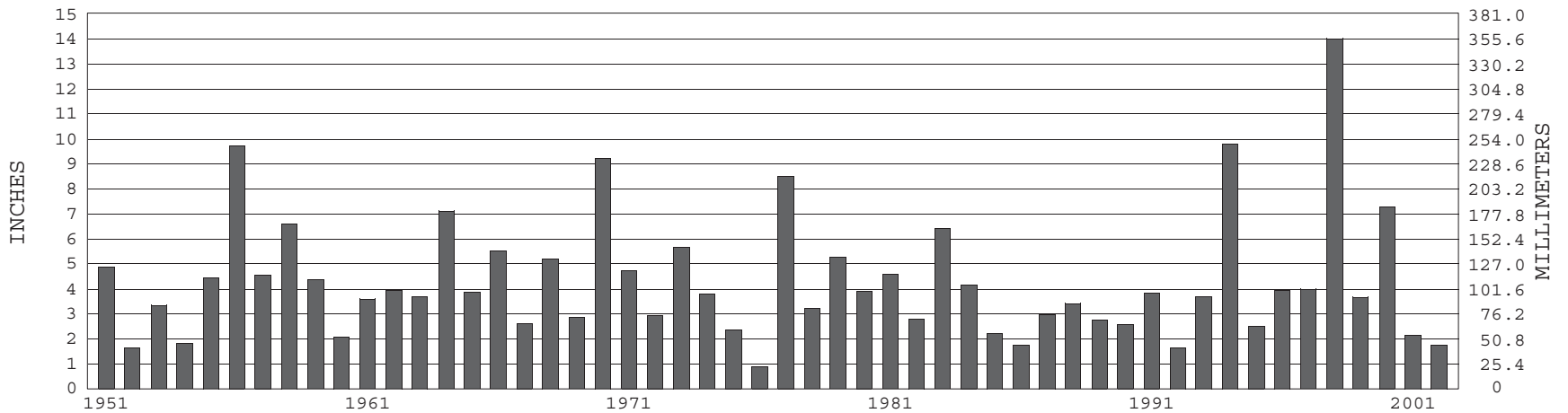
### OAK RIDGE, TN APRIL TEMPERATURES



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

Long-Term (1951-2002) Mean: 57.9      1961-1990 Normal: 56.8

### OAK RIDGE, TN APRIL PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 4.31

1961-1990 Normal: 4.08



APRIL 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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