



NOVEMBER 1999

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

OAK RIDGE, TN

OAK RIDGE (OQT)
 Lat: 36°01' N Long: 84°14' W Elev (Ground): 910 Feet
 Time Zone: EASTERN WBAN: 53868 ISSN #: -

| 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 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | | | | | | | |
| 01 | 76 | 50 | 63 | 11 | 58 | 60 | 2 | 0 | RA BR | | | | 0.04 | 29.08 | 30.03 | 1.6 | 10 | 2.9 | 14 | 11 | 11 | 10 | 01 | | | | | | | | | | | | | | | | | | |
| 02 | 61 | 38 | 50 | -1 | 47 | 50 | 15 | 0 | RA BR | | | | 0.96 | 28.83 | 29.79 | 1.1 | 31 | 5.8 | 28* | 16 | 20* | 19 | 02 | | | | | | | | | | | | | | | | | | |
| 03 | 52 | 31 | 42 | -9 | 30 | 37 | 23 | 0 | | | | | 0.00 | 29.20 | 30.20 | 3.6 | 26 | 4.7 | 18 | 26 | 14 | 26 | 03 | | | | | | | | | | | | | | | | | | |
| 04 | 61 | 26* | 44 | -7 | 36 | 39 | 21 | 0 | BR | | | | 0.00 | 29.41 | 30.42 | 0.9 | 21 | 1.2 | 13 | 16 | 9 | 18 | 04 | | | | | | | | | | | | | | | | | | |
| 05 | 68 | 31 | 50 | -1 | 43 | 46 | 15 | 0 | | | | | 0.00 | 29.50 | 30.50 | 0.7 | 23 | 1.8 | 14 | 20 | 10 | 20 | 05 | | | | | | | | | | | | | | | | | | |
| 06 | 73 | 38 | 56 | 6 | 50 | 52 | 9 | 0 | | | | | 0.00 | 29.47 | 30.45 | 0.6 | 16 | 1.4 | 9 | 16 | 8 | 14 | 06 | | | | | | | | | | | | | | | | | | |
| 07 | 74 | 47 | 61 | 11 | 56 | 57 | 4 | 0 | BR | | | | 0.00 | 29.35 | 30.33 | 0.4 | 03 | .5 | 9 | 15 | 7 | 08 | 07 | | | | | | | | | | | | | | | | | | |
| 08 | 58 | 51 | 55 | 5 | 54 | 57 | 10 | 0 | BR | | | | 0.00 | 29.26 | | 0.8 | 24 | 1.5 | 5 | 03 | 3 | 03 | 08 | | | | | | | | | | | | | | | | | | |
| 09 | 77 | 47 | 62 | 13 | 51 | 55 | 3 | 0 | BR | | | | 0.00 | 29.27 | 30.23 | 1.0 | 21 | 1.9 | 16 | 19 | 14 | 21 | 09 | | | | | | | | | | | | | | | | | | |
| 10 | 74 | 47 | 61 | 12 | 50 | 55 | 4 | 0 | BR HZ | | | | 0.00 | 29.19 | 30.15 | 4.5 | 23 | 4.9 | 22 | 23 | 15 | 20 | 10 | | | | | | | | | | | | | | | | | | |
| 11 | 74 | 51 | 63 | 14 | 48 | 55 | 2 | 0 | | | | | 0.00 | 29.17 | 30.13 | 1.2 | 05 | 3.5 | 16 | 06 | 13 | 06 | 11 | | | | | | | | | | | | | | | | | | |
| 12 | 72 | 45 | 59 | 11 | 47 | 52 | 6 | 0 | BR HZ | | | | 0.00 | 29.29 | 30.26 | 0.4 | 11 | 1.4 | 10 | 23 | 8 | 05 | 12 | | | | | | | | | | | | | | | | | | |
| 13 | 71 | 43 | 57 | 9 | 48 | 52 | 8 | 0 | FG+ BR HZ | | | | 0.00 | 29.22 | 30.20 | 1.3 | 23 | 2.4 | 12 | 19 | 9 | 19 | 13 | | | | | | | | | | | | | | | | | | |
| 14 | 78* | 49 | 64* | 16 | 47 | 54 | 1 | 0 | BR HZ | | | | 0.00 | 29.05 | 30.02 | 2.9 | 25 | 6.8 | 22 | 35 | 15 | 02 | 14 | | | | | | | | | | | | | | | | | | |
| 15 | 60 | 39 | 50 | 3 | 29 | 41 | 15 | 0 | | | | | 0.00 | 29.06 | 30.04 | 3.4 | 03 | 5.6 | 16 | 34 | 13 | 06 | 15 | | | | | | | | | | | | | | | | | | |
| 16 | 58 | 30 | 44 | -3 | 25 | 36 | 21 | 0 | | | | | 0.00 | 29.07 | 30.06 | 1.9 | 05 | 2.6 | 16 | 06 | 12 | 05 | 16 | | | | | | | | | | | | | | | | | | |
| 17 | 56 | 29 | 43 | -4 | 26 | 35 | 22 | 0 | BR | | | | 0.00 | 29.21 | 30.21 | 2.0 | 06 | 2.6 | 13 | 05 | 9 | 10 | 17 | | | | | | | | | | | | | | | | | | |
| 18 | 61 | 28 | 45 | -2 | 30 | 37 | 20 | 0 | | | | | 0.00 | 29.30 | 30.31 | 0.5 | 24 | 1.0 | 13 | 21 | 9 | 21 | 18 | | | | | | | | | | | | | | | | | | |
| 19 | 66 | 33 | 50 | 4 | 38 | 44 | 15 | 0 | BR HZ | | | | 0.00 | 29.29 | 30.29 | 1.8 | 22 | 2.6 | 22 | 22 | 16 | 20 | 19 | | | | | | | | | | | | | | | | | | |
| 20 | 69 | 47 | 58 | 12 | 50 | 53 | 7 | 0 | | | | | 0.00 | 29.16 | 30.13 | 0.8 | 25 | 2.0 | 13 | 28 | 9 | 28 | 20 | | | | | | | | | | | | | | | | | | |
| 21 | 72 | 49 | 61 | 15 | 52 | 55 | 4 | 0 | BR | | | | 0.00 | 29.11 | 30.08 | 0.4 | 13 | .8 | 10 | 20 | 7 | 19 | 21 | | | | | | | | | | | | | | | | | | |
| 22 | 73 | 46 | 60 | 15 | 51 | 54 | 5 | 0 | FG BR | | | | 0.00 | 29.19 | 30.16 | 0.5 | 22 | .7 | 9 | 11 | 7 | 16 | 22 | | | | | | | | | | | | | | | | | | |
| 23 | 74 | 45 | 60 | 15 | 51 | 55 | 5 | 0 | BR | | | | 0.00 | 29.21 | 30.18 | 1.0 | 17 | 1.4 | 14 | 19 | 10 | 20 | 23 | | | | | | | | | | | | | | | | | | |
| 24 | 64 | 52 | 58 | 13 | 57 | 57 | 7 | 0 | RA BR | | | | 0.29 | 29.19 | 30.16 | 1.8 | 07 | 2.6 | 13 | 05 | 9 | 06 | 24 | | | | | | | | | | | | | | | | | | |
| 25 | 57 | 50 | 54 | 10 | 53 | 53 | 11 | 0 | RA BR | | | | 1.26 | 29.04 | 30.02 | 3.3 | 06 | 3.4 | 13 | 27 | 9 | 26 | 25 | | | | | | | | | | | | | | | | | | |
| 26 | 56 | 36 | 46 | 2 | 45 | 47 | 19 | 0 | RA BR | | | | 0.16 | 28.98 | 29.95 | 3.6 | 25 | 4.7 | 22 | 27 | 14 | 27 | 26 | | | | | | | | | | | | | | | | | | |
| 27 | 58 | 32 | 45 | 1 | 37 | 40 | 20 | 0 | FG+ BR | | | | 0.00 | 29.18 | 30.18 | 0.8 | 21 | 1.0 | 10 | 22 | 9 | 17 | 27 | | | | | | | | | | | | | | | | | | |
| 28 | 64 | 34 | 49 | 6 | | | 16 | 0 | FG+ BR HZ | | | | 0.00 | 29.33 | 30.32 | 1.8 | 05 | 2.2 | 10 | 04 | 8 | 05 | 28 | | | | | | | | | | | | | | | | | | |
| 29 | 57 | 34 | 46 | 3 | | | 19 | 0 | | | | | 0.00 | 29.51 | 30.51 | 5.3 | 04 | 7.3 | 18 | 34 | 15 | 06 | 29 | | | | | | | | | | | | | | | | | | |
| 30 | 43 | 29 | 36* | -7 | | | 29 | 0 | | | | | 0.00 | 29.62 | 30.65 | 4.8 | 03 | 5.4 | 20 | 05 | 15 | 06 | 30 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 65.2 | | 40.2 | | 52.7 | | ■ ■ | | 11.9 | | 0.0 | | < MONTHLY AVERAGES | | | | TOTALS--> | | 2.71 | | 29.22 | | 0.1 | | 36 | | 2.9 | | <-- MONTHLY AVERAGES | | | |
| | | | | | | | | | | 6.8 | | 4.0 | | 5.4 | | ■ ■ | | <----- DEPARTURE FROM NORMAL -----> | | | | | | | | | | -1.88 | | SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3 | | | | | | | | | | | |
| DEGREE DAYS | | | | | | | | | | GREATEST 24-HR PRECIPITATION: 1.44 DATE: 24-25 | | | | | | | | | | SEA LEVEL PRESSURE DATE TIME | | | | | | | | | | | | | | | | | | | | | |
| MONTHLY TOTAL DEPARTURE | | | | | | | | | | GREATEST 24-HR SNOWFALL: DATE: DATE: | | | | | | | | | | MAXIMUM : 30.70 30 1053 | | | | | | | | | | | | | | | | | | | | | |
| SEASON TO DATE TOTAL DEPARTURE | | | | | | | | | | GREATEST SNOW DEPTH: DATE: DATE: | | | | | | | | | | MINIMUM : 29.56 02 0553 | | | | | | | | | | | | | | | | | | | | | |
| HEATING: 358 -173 | | | | | | | | | | NUMBER OF DAYS WITH => MAXIMUM TEMP ≥ 90: 0 | | | | | | | | | | MINIMUM TEMP ≤ 32: 8 | | | | | | | | | | PRECIPITATION ≥ 0.01 INCH : 5 | | | | | | | | | | | |
| COOLING: 0 0 | | | | | | | | | | MAXIMUM TEMP ≤ 32 : 0 | | | | | | | | | | MINIMUM TEMP ≤ 0 : 0 | | | | | | | | | | PRECIPITATION ≥ 0.10 INCH : 4 | | | | | | | | | | | |
| | | | | | | | | | | THUNDERSTORMS : 0 | | | | | | | | | | HEAVY FOG : 3 | | | | | | | | | | SNOWFALL ≥ 1.0 INCH : | | | | | | | | | | | |

NOVEMBER 1999
OAK RIDGE, TN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN

NOVEMBER 1999 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 | | | | | | | | 0.01 | 0.01 | 0.02 | T | 01 | | 0.04 | | |
| 02 | T | 0.07 | 0.04 | 0.09 | 0.22 | 0.50 | | T | 0.03 | 0.01 | | T | 02 | T | | | | | | | | T | | | 02 | | 0.96 | | |
| 03 | | | | | | | | | | | | | 03 | | | | | | | | | | | | 03 | | 0.00 | | |
| 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 | | | | | | | | | | | | | 09 | | | | | | | | | | | | 09 | | 0.00 | | |
| 10 | | | | | | | | | | | | | 10 | | | | | | | | | | | | 10 | | 0.00 | | |
| 11 | | | | | | | | | | | | | 11 | | | | | | | | | | | | 11 | | 0.00 | | |
| 12 | | | | | | | | | | | | | 12 | | | | | | | | | | | | 12 | | 0.00 | | |
| 13 | | | | | | | | | | | | | 13 | | | | | | | | | | | | 13 | | 0.00 | | |
| 14 | | | | | | | | 0.01 | | | | | 14 | | | | | | | | | | | | 14 | 0.01 | 0.00 | | |
| 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 | | 0.00 | | |
| 21 | | | | | | | | | | | | | 21 | | | | | | | | | | | | 21 | | 0.00 | | |
| 22 | | | | | | | | | | | | | 22 | | | | | | | | | | | | 22 | | 0.00 | | |
| 23 | | | | | | | | | | | | | 23 | | | | | | | | | | | | 23 | | 0.00 | | |
| 24 | | | | | | | | | | | | | 24 | | | | | | | | | | | | 24 | | 0.29 | | |
| 25 | 0.12 | 0.04 | 0.02 | 0.04 | T | | 0.03 | 0.02 | 0.01 | 0.06 | 0.09 | 0.03 | 25 | T | 0.07 | 0.05 | T | 0.08 | T | 0.10 | 0.05 | 0.36 | T | 0.02 | 0.02 | 0.14 | 0.09 | 0.06 | 1.26 |
| 26 | T | | | | 0.01 | 0.04 | 0.06 | 0.01 | 0.02 | 0.01 | 0.01 | | 26 | | | | | | | | | | | | 26 | | 0.16 | | |
| 27 | | | | | | | | | | | | | 27 | | | | | | | | | | | | 27 | | 0.00 | | |
| 28 | | | | | | | | | | | | | 28 | | | | | | | | | | | | 28 | | 0.00 | | |
| 29 | | | | | | | | | | | | | 29 | | | | | | | | | | | | 29 | | 0.00 | | |
| 30 | | | | | | | | | | | | | 30 | | | | | | | | | | | | 30 | | 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) | .08 | .12 | .15 | .18 | .27 | .33 | .37 | .39 | .40 | .42 | .49 | .53 |
| Ending Date | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Ending Time (Hour/Min) | 1932 | 1934 | 1934 | 1936 | 1932 | 1947 | 2000 | 2011 | 2011 | 2011 | 1953 | 2011 |

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 | |
| 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 Unknown Precipitation | | |

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

OAK RIDGE, TN NOVEMBER 1999

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 at constant pressure by evaporation of moisture into it, to 100% relative humidity.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

March 1999 is the first month ASOS data was processed.

| DATE | SUNSHINE | | CLOUDINESS (OKTAS) | | | | VISIBILITY (MILES) | | RESERVED |
|---|---------------|------------------|--------------------|-----------|------------|-----------|--------------------|---------|----------|
| | TOTAL MINUTES | PERCENT POSSIBLE | SR-SS | | MN-MN | | MINIMUM | MAXIMUM | |
| | | | CEILOMETER | SATELLITE | CEILOMETER | SATELLITE | | | |
| 01 | | | | | | | 4.00 | 10.00 | |
| 02 | | | | | | | 5.00 | 10.00 | |
| 03 | | | | | | | 10.00 | 10.00 | |
| 04 | | | | | | | 4.00 | 10.00 | |
| 05 | | | | | | | 10.00 | 10.00 | |
| 06 | | | | | | | 7.00 | 10.00 | |
| 07 | | | | | | | 3.00 | 10.00 | |
| 08 | | | | | | | 4.00 | 10.00 | |
| 09 | | | | | | | 1.00 | 10.00 | |
| 10 | | | | | | | 2.50 | 10.00 | |
| 11 | | | | | | | 8.00 | 10.00 | |
| 12 | | | | | | | 1.75 | 10.00 | |
| 13 | | | | | | | .25 | 10.00 | |
| 14 | | | | | | | 2.00 | 10.00 | |
| 15 | | | | | | | 7.00 | 10.00 | |
| 16 | | | | | | | 9.00 | 10.00 | |
| 17 | | | | | | | 6.00 | 10.00 | |
| 18 | | | | | | | 7.00 | 10.00 | |
| 19 | | | | | | | 6.00 | 10.00 | |
| 20 | | | | | | | 8.00 | 10.00 | |
| 21 | | | | | | | 6.00 | 10.00 | |
| 22 | | | | | | | 2.00 | 10.00 | |
| 23 | | | | | | | 1.50 | 10.00 | |
| 24 | | | | | | | 4.00 | 10.00 | |
| 25 | | | | | | | 1.50 | 10.00 | |
| 26 | | | | | | | 5.00 | 10.00 | |
| 27 | | | | | | | <.25 | 10.00 | |
| 28 | | | | | | | <.25 | 10.00 | |
| 29 | | | | | | | 10.00 | 10.00 | |
| 30 | | | | | | | 10.00 | 10.00 | |
| MONTHLY AVGS | | | | | | | 4.86 | 10.00 | |
| SUNSHINE (MINUTES) | | | | | | | | | |
| Total: Possible: Percent Possible: | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | |
| SKY CONDITION | | | | | | | | | |
| CLR PTLY CLDY CLOUDY MISSING 30 | | | | | | | | | |
| MINIMUM VISIBILITY (MILES) | | | | | | | | | |
| <=0.25 <=3.0 >=7.0 3 11 10 | | | | | | | | | |

OBSERVATIONS AT 3-HOURLY INTERVALS

OAK RIDGE, TN

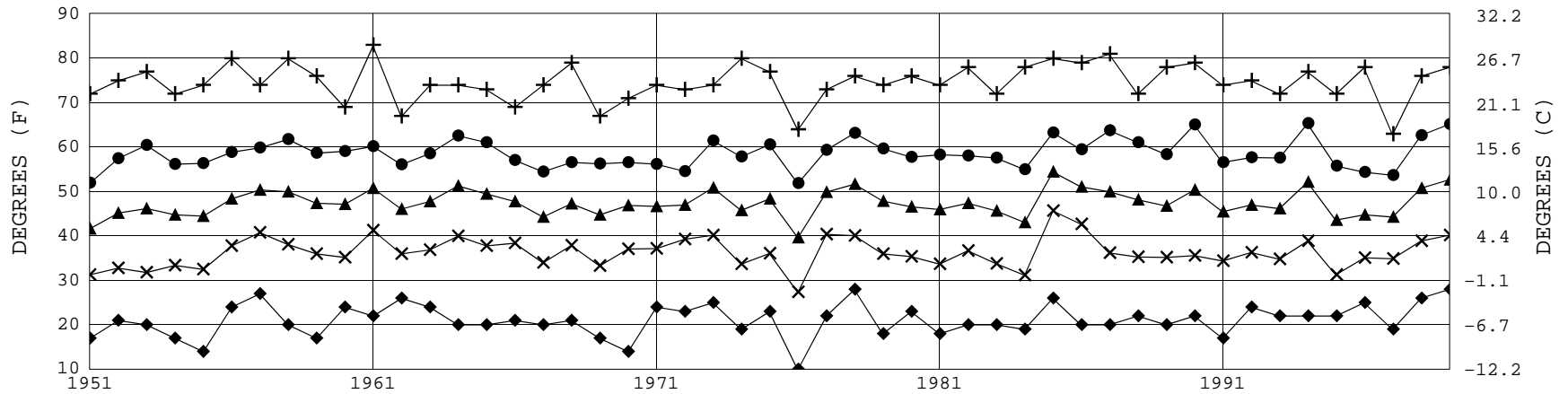
NOVEMBER 1999

OQT

WBAN # 53868

| HOUR (LST) | SATELLITE | | WEATHER | TEMPERATURE °F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | HOUR (LST) | SATELLITE | | WEATHER | TEMPERATURE °F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | | | |
|------------|-----------|---------------------|---------|------------------------|-------------------|--------------------|-------------------------|--------------|-----------|-----------------------|-------------|------------|-----------------------|---------------|---------|----------------|-----------|---------------------|-------------------------|------------------------|-------------------|-----------------------|----------|-----------|----------|-------------|
| | SKY COVER | CEILING 100'S OF FT | | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | VISIBILITY (MILES) | | DRY BULB | DEW POINT | WET BULB | SPEED (MPH) | | DIRECTION TENS OF DEG | STATION | | SEA LEVEL | SKY COVER | CEILING 100'S OF FT | | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | VISIBILITY (MILES) | DRY BULB | DEW POINT | WET BULB | SPEED (MPH) |
| | | | | SUNRISE: 0711 | | | NOV 13 | SUNSET: 1731 | | | | | | SUNRISE: 0717 | | | NOV 19 | SUNSET: 1727 | | | | | | | | |
| 01 | CLR | NC | | 6.00 | BR | 48 | 46 | 47 | 93 | 0 | 00 | 29.27 | 30.24 | 01 | CLR | NC | | 10.00 | 39 | 34 | 37 | 82 | 5 | 22 | 29.31 | 30.31 |
| 04 | CLR | NC | | 4.00 | BR | 45 | 43 | 44 | 93 | 0 | 00 | 29.25 | 30.22 | 04 | CLR | NC | | 10.00 | 37 | 32 | 35 | 82 | 0 | 00 | 29.32 | 30.31 |
| 07 | OVC | 002 | | 5.00 | BR | 47 | 44 | 46 | 90 | 0 | 00 | 29.27 | 30.25 | 07 | CLR | NC | | 8.00 | 33 | 31 | 32 | 92 | 0 | 00 | 29.36 | 30.37 |
| 10 | OVC | 001 | | 1.25 | BR | 50 | 50 | 50 | 100 | 3 | VR | 29.29 | 30.28 | 10 | CLR | NC | | 8.00 | 50 | 37 | 44 | 61 | 0 | 00 | 29.37 | 30.37 |
| 13 | CLR | NC | | 5.00 | HZ | 65 | 51 | 57 | 61 | 6 | VR | 29.23 | 30.20 | 13 | OVC | 050 | | 10.00 | 59 | 35 | 48 | 41 | 3 | VR | 29.31 | 30.30 |
| 16 | CLR | NC | | 10.00 | | 71 | 49 | 59 | 46 | 5 | VR | 29.16 | 30.14 | 16 | BKN | 055 | | 10.00 | 66 | 45 | 55 | 47 | 12 | 21 | 29.25 | 30.23 |
| 19 | CLR | NC | | 9.00 | | 62 | 50 | 55 | 65 | 0 | 00 | 29.17 | 30.15 | 19 | SCT | NC | | 10.00 | 59 | 46 | 52 | 62 | 3 | 21 | 29.24 | 30.23 |
| 22 | CLR | NC | | 6.00 | HZ | 54 | 49 | 51 | 83 | 5 | VR | 29.16 | 30.15 | 22 | CLR | NC | | 10.00 | 52 | 46 | 49 | 80 | 0 | 00 | 29.23 | 30.21 |
| | | | | SUNRISE: 0712 | | | NOV 14 | SUNSET: 1730 | | | | | | SUNRISE: 0718 | | | NOV 20 | SUNSET: 1727 | | | | | | | | |
| 01 | CLR | NC | | 5.00 | BR | 51 | 49 | 50 | 92 | 0 | 00 | 29.15 | 30.13 | 01 | OVC | 060 | | 10.00 | 52 | 46 | 49 | 80 | 0 | 00 | 29.20 | 30.17 |
| 04 | CLR | NC | | 4.00 | BR | 52 | 50 | 51 | 93 | 5 | 19 | 29.13 | 30.09 | 04 | FEW | NC | | 10.00 | 49 | 45 | 47 | 86 | 3 | VR | 29.19 | 30.16 |
| 07 | CLR | NC | | 2.00 | BR | 49 | 48 | 48 | 97 | 5 | 19 | 29.12 | 30.09 | 07 | SCT | NC | | 9.00 | 48 | 46 | 47 | 93 | 0 | 00 | 29.18 | 30.16 |
| 10 | CLR | NC | | 3.00 | HZ | 57 | 51 | 54 | 81 | 7 | 24 | 29.09 | 30.06 | 10 | OVC | 075 | | 10.00 | 58 | 50 | 54 | 75 | 3 | 21 | 29.20 | 30.18 |
| 13 | CLR | NC | | 10.00 | | 72 | 52 | 60 | 50 | 9 | 23 | 29.00 | 29.96 | 13 | FEW | NC | | 10.00 | 68 | 52 | 59 | 57 | 5 | VR | 29.14 | 30.10 |
| 16 | CLR | NC | | 10.00 | | 77 | 49 | 61 | 37 | 9 | 28 | 28.94 | 29.88 | 16 | SCT | NC | | 10.00 | 67 | 52 | 58 | 59 | 8 | 26 | 29.10 | 30.07 |
| 19 | CLR | NC | | 10.00 | | 71 | 47 | 58 | 42 | 6 | VR | 28.99 | 29.94 | 19 | OVC | 100 | | 10.00 | 62 | 53 | 57 | 73 | 0 | 00 | 29.12 | 30.10 |
| 22 | CLR | NC | | 10.00 | | 62 | 34 | 49 | 35 | 5 | VR | 29.04 | 30.00 | 22 | OVC | 100 | | 10.00 | 60 | 53 | 56 | 78 | 0 | 00 | 29.13 | 30.10 |
| | | | | SUNRISE: 0713 | | | NOV 15 | SUNSET: 1730 | | | | | | SUNRISE: 0719 | | | NOV 21 | SUNSET: 1726 | | | | | | | | |
| 01 | CLR | NC | | 10.00 | | 52 | 29 | 42 | 41 | 8 | 04 | 29.05 | 30.01 | 01 | CLR | NC | | 10.00 | 53 | 51 | 52 | 93 | 0 | 00 | 29.10 | 30.06 |
| 04 | CLR | NC | | 10.00 | | 48 | 33 | 41 | 56 | 10 | 03 | 29.06 | 30.01 | 04 | OVC | 100 | | 8.00 | 51 | 50 | 51 | 96 | 0 | 00 | 29.11 | 30.08 |
| 07 | CLR | NC | | 10.00 | | 43 | 33 | 39 | 68 | 0 | 00 | 29.09 | 30.07 | 07 | OVC | 060 | | 7.00 | 52 | 51 | 52 | 97 | 0 | 00 | 29.13 | 30.11 |
| 10 | CLR | NC | | 10.00 | | 49 | 33 | 42 | 55 | 9 | 04 | 29.13 | 30.11 | 10 | OVC | 055 | | 9.00 | 56 | 52 | 54 | 87 | 3 | 07 | 29.16 | 30.13 |
| 13 | CLR | NC | | 10.00 | | 56 | 30 | 44 | 37 | 7 | 14 | 29.07 | 30.04 | 13 | CLR | NC | | 10.00 | 68 | 54 | 60 | 61 | 3 | VR | 29.09 | 30.05 |
| 16 | CLR | NC | | 10.00 | | 59 | 18 | 42 | 20 | 10 | 34 | 29.02 | 29.99 | 16 | OVC | 090 | | 10.00 | 70 | 52 | 60 | 53 | 3 | 14 | 29.06 | 30.02 |
| 19 | CLR | NC | | 10.00 | | 51 | 23 | 40 | 33 | 6 | VR | 29.02 | 30.01 | 19 | SCT | NC | | 10.00 | 61 | 53 | 57 | 75 | 0 | 00 | 29.08 | 30.05 |
| 22 | CLR | NC | | 10.00 | | 42 | 26 | 36 | 53 | 0 | 00 | 29.05 | 30.03 | 22 | CLR | NC | | 10.00 | 54 | 51 | 52 | 90 | 0 | 00 | 29.11 | 30.09 |
| | | | | SUNRISE: 0714 | | | NOV 16 | SUNSET: 1729 | | | | | | SUNRISE: 0720 | | | NOV 22 | SUNSET: 1726 | | | | | | | | |
| 01 | CLR | NC | | 10.00 | | 37 | 30 | 34 | 76 | 0 | 00 | 29.04 | 30.02 | 01 | CLR | NC | | 10.00 | 50 | 50 | 50 | 100 | 0 | 00 | 29.14 | 30.11 |
| 04 | CLR | NC | | 10.00 | | 35 | 28 | 32 | 76 | 0 | 00 | 29.02 | 30.01 | 04 | CLR | NC | | 10.00 | 50 | 49 | 49 | 96 | 0 | 00 | 29.15 | 30.12 |
| 07 | CLR | NC | | 10.00 | | 31 | 28 | 30 | 89 | 0 | 00 | 29.05 | 30.04 | 07 | SCT | NC | | 2.00 | 46 | 46 | 46 | 100 | 0 | 00 | 29.20 | 30.18 |
| 10 | CLR | NC | | 10.00 | | 46 | 25 | 38 | 44 | 8 | 06 | 29.08 | 30.08 | 10 | CLR | NC | | 10.00 | 58 | 52 | 55 | 81 | 0 | 00 | 29.24 | 30.22 |
| 13 | CLR | NC | | 10.00 | | 55 | 19 | 41 | 24 | 5 | VR | 29.06 | 30.04 | 13 | CLR | NC | | 10.00 | 70 | 54 | 61 | 57 | 3 | VR | 29.20 | 30.16 |
| 16 | CLR | NC | | 10.00 | | 55 | 21 | 41 | 27 | 6 | VR | 29.04 | 30.03 | 16 | CLR | NC | | 10.00 | 73 | 52 | 61 | 48 | 0 | 00 | 29.15 | 30.12 |
| 19 | CLR | NC | | 10.00 | | 47 | 22 | 37 | 37 | 0 | 00 | 29.08 | 30.09 | 19 | CLR | NC | | 10.00 | 61 | 52 | 56 | 72 | 0 | 00 | 29.18 | 30.16 |
| 22 | CLR | NC | | 10.00 | | 39 | 25 | 34 | 57 | 0 | 00 | 29.13 | 30.13 | 22 | FEW | NC | | 10.00 | 54 | 50 | 52 | 87 | 0 | 00 | 29.21 | 30.19 |
| | | | | SUNRISE: 0715 | | | NOV 17 | SUNSET: 1728 | | | | | | SUNRISE: 0721 | | | NOV 23 | SUNSET: 1725 | | | | | | | | |
| 01 | CLR | NC | | 10.00 | | 34 | 27 | 31 | 76 | 0 | 00 | 29.16 | 30.16 | 01 | CLR | NC | | 10.00 | 50 | 49 | 49 | 96 | 0 | 00 | 29.21 | 30.18 |
| 04 | CLR | NC | | 10.00 | | 33 | 28 | 31 | 82 | 3 | 36 | 29.18 | 30.18 | 04 | CLR | NC | | 8.00 | 47 | 46 | 46 | 97 | 0 | 00 | 29.22 | 30.18 |
| 07 | CLR | NC | | 9.00 | | 29 | 27 | 28 | 92 | 3 | 05 | 29.22 | 30.23 | 07 | CLR | NC | | 7.00 | 46 | 45 | 46 | 96 | 0 | 00 | 29.24 | 30.22 |
| 10 | CLR | NC | | 10.00 | | 42 | 27 | 36 | 55 | 8 | 06 | 29.25 | 30.26 | 10 | CLR | NC | | 10.00 | 57 | 50 | 53 | 78 | 0 | 00 | 29.26 | 30.24 |
| 13 | CLR | NC | | 10.00 | | 50 | 21 | 39 | 32 | 0 | 00 | 29.21 | 30.21 | 13 | BKN | 070 | | 10.00 | 71 | 53 | 61 | 53 | 6 | 21 | 29.21 | 30.17 |
| 16 | CLR | NC | | 10.00 | | 55 | 20 | 41 | 25 | 6 | 08 | 29.18 | 30.18 | 16 | BKN | 085 | | 10.00 | 74 | 54 | 62 | 50 | 6 | 11 | 29.16 | 30.12 |
| 19 | CLR | NC | | 10.00 | | 44 | 25 | 37 | 47 | 0 | 00 | 29.21 | 30.22 | 19 | OVC | 090 | | 10.00 | 67 | 55 | 60 | 66 | 0 | 00 | 29.17 | 30.14 |
| 22 | CLR | NC | | 10.00 | | 36 | 27 | 33 | 70 | 0 | 00 | 29.23 | 30.24 | 22 | OVC | 060 | | 10.00 | 65 | 57 | 60 | 76 | 0 | 00 | 29.19 | 30.15 |
| | | | | SUNRISE: 0716 | | | NOV 18 | SUNSET: 1728 | | | | | | SUNRISE: 0722 | | | NOV 24 | SUNSET: 1725 | | | | | | | | |
| 01 | CLR | NC | | 10.00 | | 31 | 27 | 29 | 85 | 0 | 00 | 29.25 | 30.26 | 01 | BKN | 050 | | 10.00 | 56 | 54 | 55 | 93 | 5 | 22 | 29.19 | 30.15 |
| 04 | CLR | NC | | 10.00 | | 30 | 27 | 29 | 88 | 0 | 00 | 29.28 | 30.28 | 04 | BKN | 070 | | 10.00 | 57 | 55 | 56 | 93 | 0 | 00 | 29.18 | 30.14 |
| 07 | CLR | NC | | 10.00 | | 28 | 25 | 27 | 88 | 0 | 00 | 29.31 | 30.33 | 07 | OVC | 100 | | 8.00 | 56 | 54 | 55 | 93 | 0 | 00 | 29.20 | 30.16 |
| 10 | CLR | NC | | 10.00 | | 41 | 32 | 37 | 70 | 0 | 00 | 29.36 | 30.37 | 10 | OVC | 033 | | 7.00 | 60 | 57 | 58 | 90 | 0 | 00 | 29.24 | 30.20 |
| 13 | CLR | NC | | 7.00 | | 56 | 30 | 44 | 37 | 3 | VR | 29.30 | 30.30 | 13 | OVC | 024 | | 6.00 | 63 | 60 | 61 | 90 | 0 | 00 | 29.19 | 30.16 |
| 16 | CLR | NC | | 9.00 | | 61 | 32 | 48 | 34 | 5 | 27 | 29.27 | 30.26 | 16 | OVC | 018 | | 4.00 | 63 | 60 | 61 | 90 | 5 | 05 | 29.16 | 30.13 |
| 19 | CLR | NC | | 10.00 | | 49 | 35 | 43 | 59 | 0 | 00 | 29.28 | 30.29 | 19 | OVC | 018 | | 10.00 | 59 | 58 | 58 | 96 | 6 | 07 | 29.18 | 30.15 |

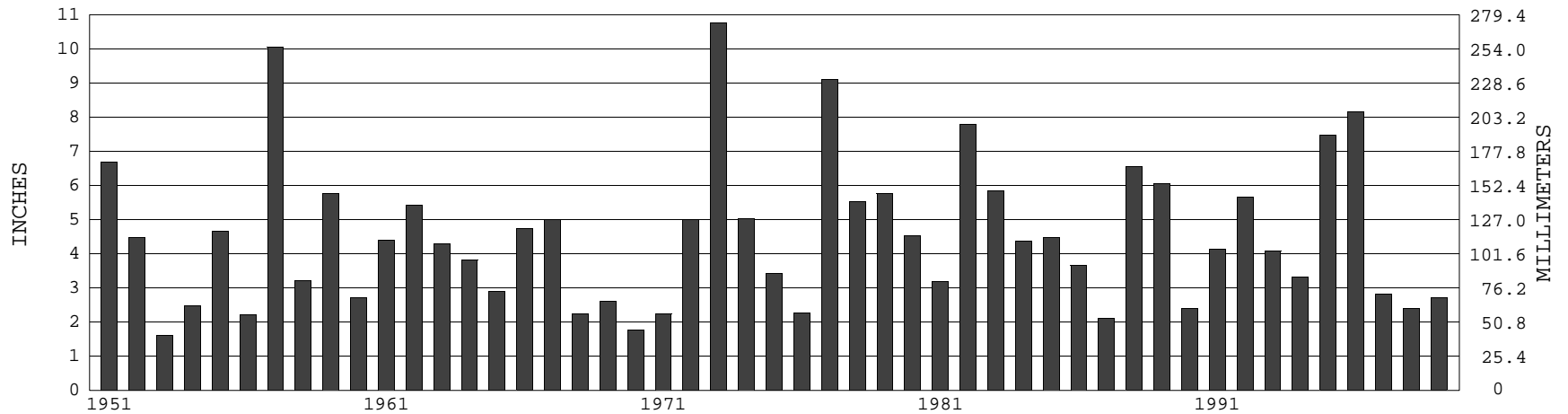
OAK RIDGE, TN NOVEMBER TEMPERATURES



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

Long-Term (1951-1999) Mean: 47.5 1961-1990 Normal: 47.3

OAK RIDGE, TN NOVEMBER PRECIPITATION



Long-Term (1951-1999) Mean Monthly Total: 4.54

1961-1990 Normal: 4.59



**NOVEMBER 1999
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.

DIRECTOR

NOTICE

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

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