



# DECEMBER 2013 LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

OAK RIDGE, TN  
OAK RIDGE (KOQT)  
Lat:36° 1'N Long: 84° 14'W Elev (Ground) 910 Feet  
Time Zone : EASTERN WBAN: 53868 ISSN#: 0198-487X



| Date<br>1 | Temperature °F |              |              |                         |                        |                          | Deg Days<br>BASE 65° |              | WEATHER<br>10 | SNOW/ICE<br>ON GND(IN) |           | PRECIPITATION<br>ON GND(IN) |           | PRESSURE<br>(INCHES OF HG) |                            | WIND SPEED = MPH<br>DIR = TENS OF DEGREES |               |                        |         |     |       |    |  | Date<br>24 |
|-----------|----------------|--------------|--------------|-------------------------|------------------------|--------------------------|----------------------|--------------|---------------|------------------------|-----------|-----------------------------|-----------|----------------------------|----------------------------|---|---------------|------------------------|---------|-----|-------|----|--|------------|
|           | MAXIMUM<br>2   | MINIMUM<br>3 | AVERAGE<br>4 | DEP FROM<br>NORMAL<br>5 | AVERAGE<br>DEW PT<br>6 | AVERAGE<br>WET BULB<br>7 | HEATING<br>8         | COOLING<br>9 |               | LST<br>11              | LST<br>12 | LST<br>13                   | LST<br>14 | AVERAGE<br>STATION<br>15   | AVERAGE<br>SEA LEVEL<br>16 | RESULTANT<br>SPEED<br>17                  | RES DIR<br>18 | AVERAGE<br>SPEED<br>19 | MAXIMUM |     |       |    |  |            |
|           |                |              |              |                         |                        |                          |                      |              |               |                        |           |                             |           |                            |                            |   |               |                        | 3-SEC   |     | 2-MIN |    |  |            |
| 01        | 56             | 27           | 42           | -1                      | 30                     | 37                       | 23                   | 0            |               |                        |           | 0.00                        | 29.23     | 30.20                      | 0.3                        | 21  | 0.9           | 12                     | 27      | 8   | 28    | 01 |  |            |
| 02        | 49             | 45           | 47           | 4                       | 42                     | 45                       | 18                   | 0            | RA BR         |                        |           | 0.07                        | 28.95     | 29.92                      | 0.6                        | 23  | 0.6           | 7                      | 24      | 5   | 27    | 02 |  |            |
| 03        | 53             | 46           | 50           | 8                       | 47                     | 48                       | 15                   | 0            | RA BR         |                        |           | 0.04                        | 28.89     | 29.88                      | 0.3                        | 04  | 0.3           | 6                      | 08      | 5   | 07    | 03 |  |            |
| 04        | 68             | 50           | 59           | 17                      | 53                     | 55                       | 6                    | 0            | RA BR         |                        |           | T                           | 28.95     | 29.93                      | 0.5                        | 24  | 0.9           | 10                     | 26      | 6   | 26    | 04 |  |            |
| 05        | 72             | 58           | 65*          | 23                      | 61                     | 63                       | 0                    | 0            | RA BR         |                        |           | 0.05                        | 29.00     | 29.95                      | 3.6                        | 20  | 4.2           | 19                     | 21      | 13  | 21    | 05 |  |            |
| 06        | 58             | 38           | 48           | 7                       | 43                     | 44                       | 17                   | 0            | RA BR         |                        |           | 1.47                        | 29.05     | 30.05                      | 2.3                        | 07  | 3.3           | 16                     | 06      | 10  | 08    | 06 |  |            |
| 07        | 39             | 35           | 37           | -4                      | 32                     | 35                       | 28                   | 0            |               |                        |           | 0.00                        | 29.36     | 30.41                      | 3.6                        | 04  | 6.0           | 19                     | 36      | 12  | 01    | 07 |  |            |
| 08        | 44             | 35           | 40           | -1                      | 38                     | 39                       | 25                   | 0            | RA BR         |                        |           | 1.33                        | 29.25     | 30.23                      | 2.0                        | 06  | 3.1           | 18                     | 04      | 10  | 05    | 08 |  |            |
| 09        | 55             | 37           | 46           | 5                       | 42                     | 44                       | 19                   | 0            | RA BR         |                        |           | 0.51                        | 29.14     | 30.13                      | 0.8                        | 22  | 4.7           | 13                     | 24      | 9   | 24    | 09 |  |            |
| 10        | 43             | 26           | 35           | -5                      | 29                     | 33                       | 30                   | 0            | RA SN BR      |                        |           | 0.41                        | 29.21     | 30.26                      | 0.5                        | 07  | 2.3           | 13                     | 29      | 9   | 29    | 10 |  |            |
| 11        | 48             | 24           | 36           | -4                      | 24                     | 29                       | 29                   | 0            | FG+ FZFG BR   |                        |           | 0.00                        | 29.41     | 30.46                      | 1.1                        | 24  | 1.6           | 13                     | 22      | 9   | 21    | 11 |  |            |
| 12        | 40             | 25           | 33           | -7                      | 19                     | 27                       | 32                   | 0            |               |                        |           | 0.00                        | 29.48     | 30.51                      | 0.7                        | 07  | 1.8           | 12                     | 35      | 8   | 36    | 12 |  |            |
| 13        | 47             | 21           | 34           | -6                      | 21                     | 29                       | 31                   | 0            |               |                        |           | 0.00                        | 29.35     | 30.35                      | 0.5                        | 06  | 0.6           | 8                      | 07      | 6   | 05    | 13 |  |            |
| 14        | 46             | 37           | 42           | 2                       | 37                     | 40                       | 23                   | 0            | RA BR         |                        |           | 0.42                        | 29.00     | 29.97                      | 0.2                        | 06  | 2.3           | 20                     | 08      | 13  | 08    | 14 |  |            |
| 15        | 44             | 31           | 38           | -1                      | 29                     | 33                       | 27                   | 0            | RA            |                        |           | T                           | 29.08     | 30.12                      | 3.5                        | 26  | 5.1           | 16                     | 25      | 10  | 27    | 15 |  |            |
| 16        | 49             | 32           | 41           | 2                       | 30                     | 35                       | 24                   | 0            |               |                        |           | 0.00                        | 29.20     | 30.22                      | 2.7                        | 22  | 4.6           | 18                     | 21      | 12  | 21    | 16 |  |            |
| 17        | 57             | 30           | 44           | 5                       | 29                     | 37                       | 21                   | 0            |               |                        |           | 0.00                        | 29.15     | 30.17                      | 4.6                        | 25  | 5.8           | 27                     | 27      | 16  | 29    | 17 |  |            |
| 18        | 48             | 25           | 37           | -2                      | 22                     | 30                       | 28                   | 0            |               |                        |           | 0.00                        | 29.31     | 30.34                      | 0.5                        | 19  | 1.4           | 12                     | 22      | 8   | 20    | 18 |  |            |
| 19        | 59             | 26           | 43           | 4                       | 24                     | 34                       | 22                   | 0            |               |                        |           | 0.00                        | 29.26     | 30.27                      | 1.6                        | 24  | 2.1           | 14                     | 28      | 9   | 27    | 19 |  |            |
| 20        | 56             | 37           | 47           | 9                       | 34                     | 43                       | 18                   | 0            | RA            |                        |           | T                           | 29.15     | 30.14                      | 1.2                        | 24  | 1.8           | 12                     | 26      | 8   | 26    | 20 |  |            |
| 21        | 72*            | 52           | 62           | 24                      | 56                     | 58                       | 3                    | 0            | RA BR         |                        |           | 0.27                        | 28.98     | 29.92                      | 4.4                        | 20  | 4.5           | 33*                    | 20      | 22* | 19    | 21 |  |            |
| 22        | 67             | 56           | 62           | 24                      | 56                     | 57                       | 3                    | 0            | RA BR         |                        |           | 2.04                        | 28.96     | 29.95                      | 2.7                        | 22  | 5.4           | 31                     | 29      | 20  | 28    | 22 |  |            |
| 23        | 56             | 33           | 45           | 7                       | 36                     | 40                       | 20                   | 0            | RA            |                        |           | 0.03                        | 29.22     | 30.25                      | 1.2                        | 34  | 4.0           | 15                     | 34      | 10  | 21    | 23 |  |            |
| 24        | 36             | 25           | 31*          | -7                      | 18                     | 27                       | 34                   | 0            | SN            |                        |           | T                           | 29.43     | 30.48                      | 1.3                        | 36  | 3.5           | 13                     | 01      | 8   | 34    | 24 |  |            |
| 25        | 44             | 20*          | 32           | -6                      | 19                     | 26                       | 33                   | 0            |               |                        |           | 0.00                        | 29.41     | 30.45                      | 1.2                        | 24  | 1.6           | 13                     | 26      | 8   | 27    | 25 |  |            |
| 26        | 50             | 24           | 37           | 0                       | 25                     | 31                       | 28                   | 0            |               |                        |           | 0.00                        | 29.36     | 30.40                      | 0.5                        | 21  | 0.8           | 11                     | 21      | 6   | 06    | 26 |  |            |
| 27        | 52             | 24           | 38           | 1                       | 24                     | 31                       | 27                   | 0            |               |                        |           | 0.00                        | 29.42     | 30.46                      |                            |   | 0.0           | 8                      | 21      | 6   | 20    | 27 |  |            |
| 28        | 44             | 25           | 35           | -2                      | 30                     | 33                       | 30                   | 0            | RA BR         |                        |           | 0.50                        | 29.34     | 30.33                      | 0.6                        | 06  | 1.2           | 13                     | 04      | 8   | 05    | 28 |  |            |
| 29        | 49             | 39           | 44           | 7                       | 41                     | 42                       | 21                   | 0            | RA BR         |                        |           | 0.90                        | 28.97     | 29.97                      | 2.9                        | 22  | 3.7           | 16                     | 26      | 10  | 20    | 29 |  |            |
| 30        | 42             | 35           | 39           | 2                       | 31                     | 36                       | 26                   | 0            |               |                        |           | 0.00                        | 29.16     | 30.20                      | 0.5                        | 28  | 2.2           | 14                     | 25      | 8   | 06    | 30 |  |            |
| 31        | 42             | 26           | 34           | -3                      | 24                     | 29                       | 31                   | 0            |               |                        |           | 0.00                        | 29.35     | 30.40                      | 0.5                        | 17  | 1.2           | 13                     | 21      | 9   | 21    | 31 |  |            |

|      |      |      |   |                                     |      |      |     |                               |  |  |  |      |       |       |     |    |     |                    |  |  |  |
|------|------|------|---|-------------------------------------|------|------|-----|-------------------------------|--|--|--|------|-------|-------|-----|----|-----|--------------------|--|--|--|
| 51.1 | 33.7 | 42.4 | ☼ | 33.7                                | 38.4 | 22.3 | 0.0 | < MONTHLY AVERAGES   TOTALS > |  |  |  | 8.04 | 29.19 | 30.20 | 0.6 | 23 | 2.6 | < MONTHLY AVERAGES |  |  |  |
| 1.5  | 2.6  | 2.1  |   | <----- DEPARTURE FROM NORMAL -----> |      |      |     | 3.18                          | SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3 |  |  |      |       |       |     |    |     |                    |  |  |  |

|                        |     |                        |      |  |  |                                  |  |                                   |  |   |  |  |  |                                  |  |
|------------------------|-----|------------------------|------|--|--|----------------------------------|--|-----------------------------------|--|---|--|--|--|----------------------------------|--|
| <b>DEGREE DAYS</b>     |     |                        |      | <b>GREATEST 24-HR PRECIPITATION :</b> 2.28 <b>DATE :</b> 21-22 |  |                                  |  | <b>SEA LEVEL PRESSURE</b>         |  |   |  |  |  |                                  |  |
| <b>MONTHLY</b>         |     |                        |      | <b>GREATEST 24-HR SNOWFALL :</b>                               |  |                                  |  | <b>DATE</b>                       |  |   |  | <b>TIME</b>                              |  |                                  |  |
| <b>SEASON TO DATE</b>  |     |                        |      | <b>GREATEST SNOW DEPTH :</b>                                   |  |                                  |  | <b>DATE</b>                       |  |   |  | <b>TIME</b>                              |  |                                  |  |
| <b>TOTAL DEPARTURE</b> |     | <b>TOTAL DEPARTURE</b> |      | <b>NUMBER OF -&gt; DAYS WITH</b>                               |  | <b>MAXIMUM TEMP &gt;= 90 :</b> 0 |  | <b>MINIMUM TEMP &lt;= 32 :</b> 16 |  | <b>PRECIPITATION &gt;= 0.01 INCH :</b> 13 |  | <b>PRECIPITATION &gt;= 0.10 INCH :</b> 9 |  | <b>SNOWFALL &gt;= 1.0 INCH :</b> |  |
| <b>HEATING :</b>       | 692 | -72                    | 1434 | -33  |  |                                  |  |                                   |  |   |  |  |  |                                  |  |
| <b>COOLING :</b>       | 0   | 0                      | 1472 | -10  |  |                                  |  |                                   |  |   |  |  |  |                                  |  |

DECEMBER 2013  
OAK RIDGE, TN

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

OAK RIDGE, TN (KOQT)  
DECEMBER 2013

WBAN # 53868

| Date | FOR HOUR (LST) ENDING AT |      |      |      |      |      |      |      |      |      |      |      | Date | FOR HOUR (LST) ENDING AT |      |      |      |      |      |      |      |      |      |      |      | Date | Sum of Hourly Data | 2400 LST Water Equiv. |
|------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|-----------------------|
|      | 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   |                          |      |      |      |      |      |      |      |      |      |      |      | 01   |                          |      |      |      |      |      |      |      |      |      |      | 01   | 0.00 | 0.00               |                       |
| 02   |                          |      |      |      | T    |      |      |      |      |      |      |      | 02   |                          |      |      |      |      |      |      |      |      |      |      | 02   | 0.07 | 0.07               |                       |
| 03   | T                        | 0.01 | 0.01 | 0.01 | T    | 0.01 |      |      |      |      |      |      | 03   |                          |      |      |      |      |      |      |      |      |      |      | 03   | 0.04 | 0.04               |                       |
| 04   |                          |      |      |      | T    | T    |      | T    |      |      |      |      | 04   |                          |      |      |      |      |      |      |      |      |      |      | 04   | T    | T                  |                       |
| 05   |                          |      |      |      | T    | T    |      | T    |      |      |      | T    | 05   | 0.02                     | T    | T    |      |      |      |      |      |      |      |      | 05   | 0.05 | 0.05               |                       |
| 06   | T                        |      |      | 0.03 | T    | 0.19 | 0.04 | 0.01 | 0.07 | 0.04 | 0.01 | 0.02 | 06   | 0.01                     | 0.01 | 0.03 | 0.09 | 0.17 | 0.10 | 0.23 | 0.21 | 0.13 | 0.08 | T    | 06   | 1.47 | 1.47               |                       |
| 07   |                          |      |      |      |      |      |      |      |      |      |      |      | 07   |                          |      |      |      |      |      |      |      |      |      |      | 07   | 0.00 | 0.00               |                       |
| 08   | T                        | T    | 0.01 | T    | 0.02 | 0.05 | 0.16 | 0.11 | 0.09 | 0.12 | 0.01 | 0.06 | 08   | 0.02                     | 0.01 | 0.02 | 0.11 | 0.18 | 0.07 | 0.02 | 0.08 | 0.04 | 0.02 | 0.01 | 0.12 | 08   | 1.33               | 1.33                  |
| 09   | 0.07                     | 0.12 | 0.15 | 0.08 | 0.05 | 0.01 | 0.01 | 0.02 | T    |      |      |      | 09   |                          |      |      |      |      |      |      |      |      |      |      | 09   | 0.51 | 0.51               |                       |
| 10   | 0.02                     | 0.07 | 0.04 | 0.18 | 0.05 | 0.01 | 0.02 | 0.01 | T    | 0.01 |      |      | 10   |                          |      |      |      |      |      |      |      |      |      |      | 10   | 0.41 | 0.41               |                       |
| 11   |                          |      |      |      |      |      |      |      |      |      |      |      | 11   |                          |      |      |      |      |      |      |      |      |      |      | 11   | 0.00 | 0.00               |                       |
| 12   |                          |      |      |      |      |      |      |      |      |      |      |      | 12   |                          |      |      |      |      |      |      |      |      |      |      | 12   | 0.00 | 0.00               |                       |
| 13   |                          |      |      |      |      |      |      |      |      |      |      |      | 13   |                          |      |      |      |      |      |      |      |      |      |      | 13   | 0.00 | 0.00               |                       |
| 14   |                          |      |      | 0.01 | T    |      | T    | 0.05 | 0.12 | 0.11 | 0.11 | T    | 14   | T                        | T    | T    |      |      |      |      |      | 0.02 |      |      | 14   | 0.42 | 0.42               |                       |
| 15   |                          |      |      | T    | T    | T    |      |      |      |      |      |      | 15   |                          |      |      |      |      |      |      |      |      |      |      | 15   | T    | T                  |                       |
| 16   |                          |      |      |      |      |      |      |      |      |      |      |      | 16   |                          |      |      |      |      |      |      |      |      |      |      | 16   | 0.00 | 0.00               |                       |
| 17   |                          |      |      |      |      |      |      |      |      |      |      |      | 17   |                          |      |      |      |      |      |      |      |      |      |      | 17   | 0.00 | 0.00               |                       |
| 18   |                          |      |      |      |      |      |      |      |      |      |      |      | 18   |                          |      |      |      |      |      |      |      |      |      |      | 18   | 0.00 | 0.00               |                       |
| 19   |                          |      |      |      |      |      |      |      |      |      |      |      | 19   |                          |      |      |      |      |      |      |      |      |      |      | 19   | 0.00 | 0.00               |                       |
| 20   |                          |      |      |      |      |      |      |      |      |      |      |      | 20   |                          |      |      |      |      | T    | T    |      |      |      |      | 20   | T    | T                  |                       |
| 21   |                          | T    | T    | T    |      |      |      |      |      |      | T    | T    | 21   | 0.02                     | 0.06 | T    | T    |      |      |      |      |      |      | 0.02 | 0.15 | 21   | 0.27               | 0.27                  |
| 22   | 0.12                     |      |      | 0.46 | 0.44 | 0.22 | 0.22 | 0.26 | 0.21 | 0.04 | 0.03 | 0.03 | 22   |                          |      |      |      |      |      |      |      |      |      | T    | 0.01 | 22   | 2.04               | 2.04                  |
| 23   | 0.01                     | 0.01 |      |      |      | 0.01 | T    |      |      |      |      |      | 23   |                          |      |      |      |      |      |      |      |      |      |      |      | 23   | 0.03               | 0.03                  |
| 24   |                          |      |      |      |      |      |      |      |      |      |      |      | 24   |                          |      |      |      |      |      |      |      |      |      |      |      | 24   | T                  | T                     |
| 25   |                          |      |      |      |      |      |      |      |      |      |      |      | 25   |                          |      |      |      |      |      |      |      |      |      |      |      | 25   | 0.00               | 0.00                  |
| 26   |                          |      |      |      |      |      |      |      |      |      |      |      | 26   |                          |      |      |      |      |      |      |      |      |      |      |      | 26   | 0.00               | 0.00                  |
| 27   |                          |      |      |      |      |      |      |      |      |      |      |      | 27   |                          |      |      |      |      |      |      |      |      |      |      |      | 27   | 0.00               | 0.00                  |
| 28   |                          |      |      |      |      |      |      |      |      |      |      |      | 28   |                          |      | T    | 0.02 | 0.04 | 0.06 | 0.04 | 0.04 | 0.05 | 0.16 | 0.09 | 28   | 0.50 | 0.50               |                       |
| 29   | 0.24                     | 0.12 | 0.07 | 0.20 | 0.08 | 0.05 | 0.05 | 0.02 | 0.01 | 0.05 | 0.01 |      | 29   |                          |      |      |      |      |      |      |      |      |      |      | 29   | 0.90 | 0.90               |                       |
| 30   |                          |      |      |      |      |      |      |      |      |      |      |      | 30   |                          |      |      |      |      |      |      |      |      |      |      |      | 30   | 0.00               | 0.00                  |
| 31   |                          |      |      |      |      |      |      |      |      |      |      |      | 31   |                          |      |      |      |      |      |      |      |      |      |      |      | 31   | 0.00               | 0.00                  |

\* Indicates sum of Hourly and Daily disagree.

## MAXIMUM SHORT DURATION PRECIPITATION (See Note)

| Time Period (Minutes)  | 5    | 10   | 15   | 20   | 30   | 45   | 60   | 80   | 100  | 120  | 150  | 180  |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Precipitation (Inches) | 0.21 | 0.33 | 0.39 | 0.43 | 0.56 | 0.70 | 0.82 | 0.90 | 0.97 | 1.02 | 1.15 | 1.25 |
| Ending Date            | 22   | 22   | 22   | 22   | 22   | 22   | 22   | 22   | 22   | 22   | 22   | 22   |
| Ending Time (Hr/Min)   | 0354 | 0354 | 0359 | 0404 | 0415 | 0426 | 0440 | 0455 | 0516 | 0533 | 0610 | 0631 |

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. 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.

Date and time are not entered for TRACE amounts.

# 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.

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).

## WEATHER NOTATIONS

| QUALIFIER          | WEATHER PHENOMENA                 |                    |                                    |
|--------------------|-----------------------------------|--------------------|------------------------------------|
| DESCRIPTOR         | 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    |                                    |
| VC In the Vicinity | UP Unkown Precipitation           |                    | GL Glaze                           |

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

# OAK RIDGE, TN DECEMBER 2013

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet.

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.

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

**NORMALS ARE FOR THE YEARS 1981-2010**

### ADDITIONAL NOTES & ERRATA:

Station Augmentation-OAK RIDGE ATDD COOP  
Lat/Lon:36.00278/-84.24861 Elevation:905FT  
Distance:1.5 MI Dir:SW  
Augmented Elements:Temp,Precip,Snow  
Equipment:Pcpn-Model TRP525M, Temp Vaisala HMP35C,  
Snow Board, Snow Stick

Beginning with the January 2013 LCD, monthly mean temperature calculations have changed to the National Data Stewardship Team standard. Monthly maximum and minimum temperature are not rounded until after monthly mean temperature is calculated. This is the most accurate outcome, but may be slightly different from the mean derived from rounded monthly maximum and minimum.

| Date                              | VISIBILITY (MILES) |         |
|-----------------------------------|--------------------|---------|
|                                   | MINIMUM            | MAXIMUM |
| 01                                | 10.00              | 10.00   |
| 02                                | 0.75               | 10.00   |
| 03                                | 1.00               | 7.00    |
| 04                                | 4.00               | 10.00   |
| 05                                | 6.00               | 10.00   |
| 06                                | 2.50               | 10.00   |
| 07                                | 10.00              | 10.00   |
| 08                                | 1.50               | 10.00   |
| 09                                | 1.75               | 10.00   |
| 10                                | 2.50               | 10.00   |
| 11                                | 0.25               | 10.00   |
| 12                                | 10.00              | 10.00   |
| 13                                | 7.00               | 10.00   |
| 14                                | 2.00               | 10.00   |
| 15                                | 10.00              | 10.00   |
| 16                                | 10.00              | 10.00   |
| 17                                | 8.00               | 10.00   |
| 18                                | 10.00              | 10.00   |
| 19                                | 10.00              | 10.00   |
| 20                                | 10.00              | 10.00   |
| 21                                | 1.50               | 10.00   |
| 22                                | 1.00               | 10.00   |
| 23                                | 10.00              | 10.00   |
| 24                                | 10.00              | 10.00   |
| 25                                | 10.00              | 10.00   |
| 26                                | 10.00              | 10.00   |
| 27                                | 8.00               | 10.00   |
| 28                                | 3.00               | 10.00   |
| 29                                | 1.50               | 10.00   |
| 30                                | 9.00               | 10.00   |
| 31                                | 8.00               | 10.00   |
| <b>AVGS</b>                       | 6.10               | 9.90    |
| <b>MINIMUM VISIBILITY (MILES)</b> |                    |         |
| <= .25                            | <= 3.0             | >= 7.0  |
| 1                                 | 12                 | 17      |

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN DECEMBER 2013 KOQT

WBAN # 53868

| HOUR (LST)                  | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F   |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                             | PRESSURE<br>(INCHES, HG) |              | HOUR (LST) | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                          | PRESSURE<br>(INCHES, HG) |              |
|-----------------------------|-----------|-------------------------|-----------------------|---------|---------------------|-----------|----------|----------------------------|-------------|-----------------------------|--------------------------|--------------|------------|-----------|-------------------------|-----------------------|---------|-------------------|-----------|----------|----------------------------|-------------|--------------------------|--------------------------|--------------|
|                             |           |                         |                       |         | DRY BULB            | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg    | STATION                  | SEA<br>LEVEL |            |           |                         |                       |         | DRY BULB          | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg | STATION                  | SEA<br>LEVEL |
| <b>SUNRISE: 0729 DEC 01</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0734 DEC 07</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | CLR       | NC                      | 10.00                 |         | 32                  | 28        | 30       | 85                         | 5           | 21                          | 29.32                    | 30.33        | 01         | OVC       | 033                     | 10.00                 |         | 39                | 36        | 38       | 89                         | 5           | 05                       | 29.24                    | 30.24        |
| 04                          | CLR       | NC                      | 10.00                 |         | 30                  | 26        | 29       | 85                         | 0           | 00                          | 29.31                    | 30.31        | 04         | OVC       | 013                     | 10.00                 |         | 37                | 34        | 36       | 89                         | 5           | 06                       | 29.32                    | 30.33        |
| 07                          | CLR       | NC                      | 10.00                 |         | 27                  | 24        | 26       | 89                         | 0           | 00                          | 29.30                    | 30.32        | 07         | OVC       | 022                     | 10.00                 |         | 36                | 31        | 34       | 82                         | 3           | 03                       | 29.39                    | 30.41        |
| 10                          | CLR       | NC                      | 10.00                 |         | 40                  | 30        | 36       | 68                         | 0           | 00                          | 29.29                    | 30.31        | 10         | OVC       | 017                     | 10.00                 |         | 37                | 32        | 35       | 82                         | 7           | VR                       | 29.45                    | 30.46        |
| 13                          | CLR       | NC                      | 10.00                 |         | 51                  | 30        | 42       | 44                         | 3           | VR                          | 29.21                    | 30.21        | 13         | OVC       | 015                     | 10.00                 |         | 38                | 31        | 35       | 76                         | 8           | 02                       | 29.42                    | 30.44        |
| 16                          | OVC       | 055                     | 10.00                 |         | 55                  | 31        | 44       | 40                         | 0           | 00                          | 29.12                    | 30.11        | 16         | OVC       | 015                     | 10.00                 |         | 37                | 31        | 35       | 79                         | 3           | VR                       | 29.41                    | 30.43        |
| 19                          | OVC       | 050                     | 10.00                 |         | 51                  | 33        | 43       | 50                         | 0           | 00                          | 29.10                    | 30.09        | 19         | OVC       | 016                     | 10.00                 |         | 36                | 30        | 34       | 79                         | 6           | 02                       | 29.44                    | 30.46        |
| 22                          | OVC       | 055                     | 10.00                 |         | 48                  | 36        | 43       | 63                         | 0           | 00                          | 29.07                    | 30.06        | 22         | OVC       | 017                     | 10.00                 |         | 35                | 30        | 33       | 82                         | 9           | 05                       | 29.40                    | 30.42        |
| <b>SUNRISE: 0730 DEC 02</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0735 DEC 08</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | OVC       | 040                     | 10.00                 |         | 48                  | 36        | 43       | 63                         | 3           | 22                          | 29.03                    | 30.00        | 01         | OVC       | 024                     | 10.00                 | -RA     | 35                | 31        | 33       | 85                         | 8           | 04                       | 29.39                    | 30.40        |
| 04                          | OVC       | 025                     | 10.00                 |         | 47                  | 38        | 43       | 71                         | 3           | 22                          | 28.99                    | 29.97        | 04         | OVC       | 029                     | 10.00                 |         | 36                | 31        | 34       | 82                         | 7           | 06                       | 29.29                    | 30.30        |
| 07                          | OVC       | 028                     | 10.00                 |         | 45                  | 40        | 43       | 83                         | 0           | 00                          | 28.98                    | 29.96        | 07         | OVC       | 027                     | 2.00                  | +RA BR  | 36                | 34        | 35       | 93                         | 6           | 05                       | 29.25                    | 30.27        |
| 10                          | OVC       | 007                     | 2.50                  | BR      | 45                  | 43        | 44       | 93                         | 0           | 00                          | 28.98                    | 29.96        | 10         | OVC       | 024                     | 5.00                  | -RA BR  | 39                | 38        | 39       | 96                         | 3           | VR                       | 29.24                    | 30.26        |
| 13                          | OVC       | 005                     | 1.75                  | BR      | 46                  | 44        | 45       | 93                         | 0           | 00                          | 28.92                    | 29.90        | 13         | OVC       | 005                     | 2.00                  | -RA BR  | 41                | 40        | 41       | 96                         | 0           | 00                       | 29.21                    | 30.22        |
| 16                          | OVC       | 005                     | 2.50                  | BR      | 47                  | 45        | 46       | 93                         | 0           | 00                          | 28.87                    | 29.85        | 16         | OVC       | 014                     | 2.00                  | RA BR   | 42                | 41        | 42       | 96                         | 3           | 17                       | 29.17                    | 30.18        |
| 19                          | OVC       | 003                     | 2.50                  | BR      | 46                  | 45        | 46       | 96                         | 0           | 00                          | 28.88                    | 29.86        | 19         | OVC       | 008                     | 4.00                  | -RA BR  | 42                | 41        | 42       | 96                         | 0           | 00                       | 29.17                    | 30.18        |
| 22                          | VV        | 004                     | 1.00                  | BR      | 47                  | 46        | 47       | 97                         | 0           | 00                          | 28.90                    | 29.88        | 22         | OVC       | 015                     | 10.00                 | -RA     | 43                | 42        | 43       | 97                         | 0           | 00                       | 29.13                    | 30.13        |
| <b>SUNRISE: 0731 DEC 03</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0736 DEC 09</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | OVC       | 012                     | 2.50                  | BR      | 47                  | 46        | 47       | 97                         | 0           | 00                          | 28.89                    | 29.87        | 01         | OVC       | 018                     | 10.00                 | -RA     | 45                | 44        | 45       | 97                         | 3           | VR                       | 29.10                    | 30.10        |
| 04                          | OVC       | 003                     | 1.50                  | BR      | 46                  | 45        | 46       | 96                         | 0           | 00                          | 28.89                    | 29.88        | 04         | OVC       | 021                     | 4.00                  | RA BR   | 46                | 45        | 46       | 96                         | 5           | VR                       | 29.10                    | 30.09        |
| 07                          | OVC       | 003                     | 1.75                  | BR      | 46                  | 45        | 46       | 96                         | 0           | 00                          | 28.89                    | 29.87        | 07         | OVC       | 007                     | 7.00                  | -RA     | 49                | 47        | 48       | 93                         | 7           | 25                       | 29.13                    | 30.11        |
| 10                          | OVC       | 002                     | 1.00                  | BR      | 48                  | 46        | 47       | 93                         | 0           | 00                          | 28.93                    | 29.91        | 10         | OVC       | 027                     | 10.00                 |         | 48                | 44        | 46       | 86                         | 5           | 22                       | 29.16                    | 30.16        |
| 13                          | OVC       | 027                     | 6.00                  | BR      | 51                  | 48        | 49       | 89                         | 0           | 00                          | 28.90                    | 29.87        | 13         | BKN       | 035                     | 10.00                 |         | 51                | 43        | 47       | 74                         | 6           | VR                       | 29.17                    | 30.16        |
| 16                          | OVC       | 070                     | 6.00                  | BR      | 53                  | 49        | 51       | 86                         | 0           | 00                          | 28.89                    | 29.86        | 16         | BKN       | 022                     | 10.00                 |         | 53                | 45        | 49       | 74                         | 5           | VR                       | 29.14                    | 30.12        |
| 19                          | OVC       | 029                     | 7.00                  |         | 52                  | 49        | 50       | 89                         | 0           | 00                          | 28.90                    | 29.88        | 19         | CLR       | NC                      | 10.00                 |         | 42                | 37        | 40       | 82                         | 5           | 05                       | 29.19                    | 30.18        |
| 22                          | OVC       | 042                     | 5.00                  | BR      | 51                  | 49        | 50       | 92                         | 0           | 00                          | 28.91                    | 29.89        | 22         | CLR       | NC                      | 10.00                 |         | 38                | 33        | 36       | 83                         | 3           | VR                       | 29.14                    | 30.14        |
| <b>SUNRISE: 0731 DEC 04</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0736 DEC 10</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | OVC       | 043                     | 5.00                  | BR      | 51                  | 49        | 50       | 92                         | 0           | 00                          | 28.93                    | 29.90        | 01         | OVC       | 065                     | 10.00                 | -RA     | 38                | 36        | 37       | 93                         | 3           | 08                       | 29.07                    | 30.06        |
| 04                          | OVC       | 029                     | 5.00                  | BR      | 51                  | 50        | 50       | 96                         | 0           | 00                          | 28.93                    | 29.91        | 04         | OVC       | 011                     | 4.00                  | RA BR   | 38                | 37        | 38       | 97                         | 3           | 07                       | 29.08                    | 30.07        |
| 07                          | OVC       | 020                     | 5.00                  | BR      | 51                  | 50        | 50       | 96                         | 0           | 00                          | 28.97                    | 29.94        | 07         | OVC       | 014                     | 6.00                  | -RA BR  | 35                | 34        | 35       | 96                         | 0           | 00                       | 29.10                    | 30.11        |
| 10                          | OVC       | 016                     | 4.00                  | BR      | 53                  | 51        | 52       | 93                         | 0           | 00                          | 29.02                    | 29.99        | 10         | OVC       | 016                     | 10.00                 |         | 37                | 34        | 36       | 89                         | 6           | VR                       | 29.25                    | 30.27        |
| 13                          | OVC       | 024                     | 9.00                  |         | 57                  | 53        | 55       | 87                         | 0           | 00                          | 28.97                    | 29.93        | 13         | BKN       | 029                     | 10.00                 |         | 39                | 27        | 34       | 62                         | 0           | 00                       | 29.30                    | 30.31        |
| 16                          | FEW       | 037                     | 10.00                 |         | 67                  | 58        | 62       | 73                         | 0           | 00                          | 28.93                    | 29.89        | 16         | CLR       | NC                      | 10.00                 |         | 42                | 22        | 34       | 45                         | 7           | VR                       | 29.32                    | 30.33        |
| 19                          | FEW       | 055                     | 10.00                 |         | 64                  | 57        | 60       | 78                         | 5           | VR                          | 28.96                    | 29.92        | 19         | CLR       | NC                      | 10.00                 |         | 33                | 25        | 30       | 72                         | 3           | 22                       | 29.38                    | 30.40        |
| 22                          | SCT       | 060                     | 10.00                 |         | 63                  | 57        | 60       | 81                         | 3           | 25                          | 29.00                    | 29.96        | 22         | CLR       | NC                      | 10.00                 |         | 28                | 25        | 27       | 88                         | 0           | 00                       | 29.39                    | 30.42        |
| <b>SUNRISE: 0732 DEC 05</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0737 DEC 11</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | OVC       | 025                     | 8.00                  |         | 59                  | 57        | 58       | 93                         | 0           | 00                          | 29.02                    | 29.98        | 01         | CLR       | NC                      | 9.00                  |         | 26                | 23        | 25       | 88                         | 0           | 00                       | 29.40                    | 30.43        |
| 04                          | OVC       | 014                     | 7.00                  |         | 59                  | 57        | 58       | 93                         | 0           | 00                          | 29.02                    | 29.97        | 04         | VV        | 002                     | 0.25                  | FZFG    | 24                | 22        | 23       | 91                         | 0           | 00                       | 29.46                    | 30.48        |
| 07                          | OVC       | 055                     | 6.00                  | BR      | 60                  | 58        | 59       | 93                         | 0           | 00                          | 29.04                    | 30.00        | 07         | VV        | 002                     | 0.50                  | FZFG    | 25                | 24        | 25       | 96                         | 0           | 00                       | 29.46                    | 30.49        |
| 10                          | OVC       | 026                     | 10.00                 |         | 66                  | 62        | 64       | 87                         | 6           | 20                          | 29.06                    | 30.01        | 10         | CLR       | NC                      | 5.00                  | BR      | 29                | 27        | 28       | 92                         | 0           | 00                       | 29.49                    | 30.53        |
| 13                          | OVC       | 025                     | 10.00                 | -RA     | 68                  | 65        | 66       | 90                         | 6           | 21                          | 29.02                    | 29.97        | 13         | CLR       | NC                      | 10.00                 |         | 42                | 22        | 34       | 45                         | 3           | 25                       | 29.42                    | 30.44        |
| 16                          | BKN       | 034                     | 10.00                 |         | 72                  | 63        | 66       | 73                         | 9           | 20                          | 28.96                    | 29.90        | 16         | CLR       | NC                      | 10.00                 |         | 47                | 20        | 37       | 34                         | 5           | 22                       | 29.36                    | 30.38        |
| 19                          | OVC       | 070                     | 10.00                 |         | 70                  | 63        | 66       | 79                         | 7           | VR                          | 28.97                    | 29.91        | 19         | CLR       | NC                      | 10.00                 |         | 37                | 27        | 33       | 67                         | 3           | 21                       | 29.40                    | 30.43        |
| 22                          | OVC       | 060                     | 10.00                 |         | 69                  | 64        | 66       | 84                         | 5           | VR                          | 28.97                    | 29.91        | 22         | CLR       | NC                      | 10.00                 |         | 32                | 25        | 29       | 75                         | 0           | 00                       | 29.43                    | 30.46        |
| <b>SUNRISE: 0733 DEC 06</b> |           |                         |                       |         | <b>SUNSET: 1723</b> |           |          |                            |             | <b>SUNRISE: 0738 DEC 12</b> |                          |              |            |           | <b>SUNSET: 1723</b>     |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                          | OVC       | 006                     | 10.00                 | -RA     | 53                  | 51        | 52       | 93                         | 3           | 06                          | 29.01                    | 29.97        | 01         | CLR       | NC                      | 10.00                 |         | 33                | 23        | 29       | 66                         | 5           | 01                       | 29.46                    | 30.47        |
| 04                          | OVC       | 010                     | 10.00                 |         | 49                  | 47        | 48       | 93                         | 6           | 08                          | 28.99                    | 29.94        | 04         | CLR       | NC                      | 10.00                 |         | 29                | 21        | 26       | 72                         | 0           | 00                       | 29.47                    | 30.48        |
| 07                          | OVC       | 027                     | 10.00                 |         | 47                  | 45        | 46       | 93                         | 9           | 08                          | 29.03                    | 29.99        | 07         | CLR       | NC                      | 10.00                 |         | 26                | 18        | 23       | 71                         | 0           | 00                       | 29.52                    | 30.55        |
| 10                          | OVC       | 029                     | 10.00                 | -RA     | 44                  | 42        | 43       | 93                         | 3           | 06                          | 29.08                    | 30.05        | 10         | CLR       | NC                      | 10.00                 |         | 30                | 17        | 26       | 58                         | 0           | 00                       | 29.55                    | 30.59        |
| 13                          | OVC       | 015                     | 10.00                 |         | 46                  | 44        | 45       | 93                         | 0           | 00                          | 29.02                    | 30.00        | 13         | CLR       | NC                      | 10.00                 |         | 36                | 16        | 29       | 44                         | 3           | 09                       | 29.52                    | 30.54        |
| 16                          | OVC       | 006                     | 2.50                  | -RA BR  | 44                  | 43        | 44       | 96                         | 3           | 10                          | 29.01                    | 30.00        | 16         | CLR       | NC                      | 10.00                 |         | 39                | 14        | 31       | 36                         | 6           | 15                       | 29.46                    | 30.48        |
| 19                          | OVC       | 048                     | 4.00                  | RA BR   | 40                  | 39        | 40       | 97                         |             |                             | 29.13                    | 30.14        | 19         | CLR       | NC                      | 10.00                 |         | 31                | 20        | 27       | 64                         | 0           | 00                       | 29.47                    | 30.50        |
| 22                          | OVC       | 095                     | 9.00                  | -RA     | 38                  | 36        | 37       | 93                         | 6           | 06                          | 29.17                    | 30.18        | 22         | CLR       | NC                      | 10.00                 |         | 27                | 21        | 25       | 78                         | 0           | 00                       | 29.43                    | 30.47        |

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

DECEMBER 2013

KOQT

WBAN # 53868

| HOUR (LST)           | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                          | PRESSURE<br>(INCHES, HG) |              | HOUR (LST) | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                          | PRESSURE<br>(INCHES, HG) |              |
|----------------------|-----------|-------------------------|-----------------------|---------|-------------------|-----------|----------|----------------------------|-------------|--------------------------|--------------------------|--------------|------------|-----------|-------------------------|-----------------------|---------|-------------------|-----------|----------|----------------------------|-------------|--------------------------|--------------------------|--------------|
|                      |           |                         |                       |         | DRY BULB          | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg | STATION                  | SEA<br>LEVEL |            |           |                         |                       |         | DRY BULB          | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg | STATION                  | SEA<br>LEVEL |
| SUNRISE: 0739 DEC 13 |           |                         |                       |         | SUNSET: 1724      |           |          |                            |             | SUNRISE: 0742 DEC 19     |                          |              |            |           | SUNSET: 1726            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 25                | 19        | 23       | 78                         | 0           | 00                       | 29.44                    | 30.47        | 01         | CLR       | NC                      | 10.00                 |         | 30                | 23        | 28       | 75                         | 0           | 00                       | 29.29                    | 30.30        |
| 04                   | CLR       | NC                      | 10.00                 |         | 23                | 19        | 22       | 85                         | 0           | 00                       | 29.41                    | 30.44        | 04         | CLR       | NC                      | 10.00                 |         | 28                | 23        | 26       | 81                         | 0           | 00                       | 29.29                    | 30.31        |
| 07                   | CLR       | NC                      | 10.00                 |         | 22                | 18        | 21       | 85                         | 0           | 00                       | 29.39                    | 30.43        | 07         | CLR       | NC                      | 10.00                 |         | 26                | 22        | 25       | 84                         | 0           | 00                       | 29.31                    | 30.34        |
| 10                   | CLR       | NC                      | 10.00                 |         | 31                | 22        | 28       | 69                         | 0           | 00                       | 29.40                    | 30.43        | 10         | CLR       | NC                      | 10.00                 |         | 39                | 24        | 33       | 55                         | 0           | 00                       | 29.34                    | 30.36        |
| 13                   | CLR       | NC                      | 10.00                 |         | 41                | 18        | 33       | 39                         | 0           | 00                       | 29.33                    | 30.35        | 13         | CLR       | NC                      | 10.00                 |         | 53                | 22        | 40       | 30                         | 8           | 26                       | 29.27                    | 30.28        |
| 16                   | CLR       | NC                      | 10.00                 |         | 46                | 18        | 36       | 32                         | 0           | 00                       | 29.27                    | 30.29        | 16         | CLR       | NC                      | 10.00                 |         | 58                | 23        | 43       | 26                         | 3           | 24                       | 29.21                    | 30.21        |
| 19                   | OVC       | 110                     | 10.00                 |         | 41                | 25        | 35       | 53                         | 0           | 00                       | 29.27                    | 30.29        | 19         | CLR       | NC                      | 10.00                 |         | 44                | 27        | 37       | 51                         | 3           | 22                       | 29.19                    | 30.21        |
| 22                   | OVC       | 120                     | 10.00                 |         | 40                | 27        | 35       | 60                         | 3           | 02                       | 29.20                    | 30.22        | 22         | CLR       | NC                      | 10.00                 |         | 42                | 29        | 37       | 60                         | 0           | 00                       | 29.18                    | 30.19        |
| SUNRISE: 0739 DEC 14 |           |                         |                       |         | SUNSET: 1724      |           |          |                            |             | SUNRISE: 0743 DEC 20     |                          |              |            |           | SUNSET: 1726            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | SCT       | 120                     | 10.00                 |         | 39                | 27        | 34       | 62                         | 0           | 00                       | 29.17                    | 30.19        | 01         | CLR       | NC                      | 10.00                 |         | 47                | 26        | 38       | 44                         | 5           | 25                       | 29.18                    | 30.17        |
| 04                   | OVC       | 042                     | 7.00                  | -RA     | 38                | 31        | 35       | 76                         | 6           | 35                       | 29.13                    | 30.13        | 04         | CLR       | NC                      | 10.00                 |         | 43                | 27        | 37       | 53                         | 3           | 24                       | 29.20                    | 30.19        |
| 07                   | OVC       | 100                     | 10.00                 |         | 38                | 32        | 36       | 79                         | 3           | VR                       | 29.08                    | 30.08        | 07         | OVC       | 075                     | 10.00                 |         | 40                | 30        | 36       | 68                         | 3           | VR                       | 29.20                    | 30.20        |
| 10                   | OVC       | 060                     | 4.00                  | RA BR   | 38                | 36        | 37       | 93                         | 5           | 06                       | 29.00                    | 29.99        | 10         | OVC       | 032                     | 10.00                 |         | 50                | 33        | 42       | 52                         | 3           | 22                       | 29.20                    | 30.19        |
| 13                   | OVC       | 028                     | 10.00                 |         | 43                | 40        | 42       | 89                         | 0           | 00                       | 28.89                    | 29.89        | 13         | OVC       | 029                     | 10.00                 |         | 53                | 31        | 43       | 43                         | 6           | 25                       | 29.14                    | 30.13        |
| 16                   | OVC       | 004                     | 2.00                  | BR      | 44                | 43        | 44       | 96                         | 0           | 00                       | 28.85                    | 29.85        | 16         | OVC       | 055                     | 10.00                 |         | 55                | 36        | 46       | 49                         | 0           | 00                       | 29.10                    | 30.09        |
| 19                   | OVC       | 003                     | 5.00                  | BR      | 45                | 43        | 44       | 93                         | 0           | 00                       | 28.86                    | 29.85        | 19         | OVC       | 050                     | 10.00                 |         | 53                | 40        | 47       | 61                         | 0           | 00                       | 29.12                    | 30.11        |
| 22                   | OVC       | 032                     | 10.00                 |         | 46                | 44        | 45       | 93                         | 7           | 21                       | 28.87                    | 29.86        | 22         | OVC       | 030                     | 10.00                 |         | 55                | 44        | 49       | 67                         | 0           | 00                       | 29.12                    | 30.09        |
| SUNRISE: 0740 DEC 15 |           |                         |                       |         | SUNSET: 1724      |           |          |                            |             | SUNRISE: 0744 DEC 21     |                          |              |            |           | SUNSET: 1726            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | OVC       | 050                     | 10.00                 |         | 43                | 37        | 40       | 80                         | 8           | 27                       | 28.91                    | 29.90        | 01         | OVC       | 036                     | 10.00                 |         | 54                | 46        | 50       | 75                         | 0           | 00                       | 29.08                    | 30.05        |
| 04                   | OVC       | 021                     | 10.00                 |         | 39                | 33        | 36       | 79                         | 3           | 27                       | 28.99                    | 29.98        | 04         | OVC       | 031                     | 10.00                 |         | 55                | 51        | 53       | 87                         | 3           | 20                       | 29.05                    | 30.02        |
| 07                   | OVC       | 026                     | 10.00                 |         | 37                | 32        | 35       | 82                         | 3           | 26                       | 29.06                    | 30.06        | 07         | OVC       | 047                     | 10.00                 |         | 55                | 51        | 53       | 87                         | 0           | 00                       | 29.02                    | 29.99        |
| 10                   | OVC       | 020                     | 10.00                 |         | 36                | 30        | 34       | 79                         | 5           | VR                       | 29.14                    | 30.14        | 10         | OVC       | 027                     | 10.00                 |         | 56                | 51        | 53       | 84                         | 0           | 00                       | 29.00                    | 29.96        |
| 13                   | OVC       | 023                     | 10.00                 |         | 35                | 29        | 33       | 78                         | 7           | 24                       | 29.15                    | 30.16        | 13         | OVC       | 026                     | 2.50                  | RA BR   | 60                | 58        | 59       | 93                         | 6           | 25                       | 28.95                    | 29.91        |
| 16                   | OVC       | 025                     | 10.00                 |         | 35                | 28        | 32       | 76                         | 6           | VR                       | 29.16                    | 30.18        | 16         | BKN       | 060                     | 7.00                  |         | 63                | 61        | 62       | 93                         | 0           | 00                       | 28.91                    | 29.87        |
| 19                   | OVC       | 029                     | 10.00                 |         | 34                | 26        | 31       | 73                         | 8           | 26                       | 29.23                    | 30.24        | 19         | OVC       | 090                     | 10.00                 |         | 70                | 60        | 64       | 71                         | 11          | 20                       | 28.90                    | 29.85        |
| 22                   | OVC       | 020                     | 10.00                 |         | 32                | 26        | 30       | 79                         | 6           | 26                       | 29.23                    | 30.25        | 22         | OVC       | 075                     | 10.00                 |         | 72                | 61        | 65       | 68                         | 11          | 21                       | 28.85                    | 29.79        |
| SUNRISE: 0741 DEC 16 |           |                         |                       |         | SUNSET: 1724      |           |          |                            |             | SUNRISE: 0744 DEC 22     |                          |              |            |           | SUNSET: 1727            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | OVC       | 016                     | 10.00                 |         | 33                | 26        | 30       | 75                         | 6           | VR                       | 29.21                    | 30.24        | 01         | OVC       | 049                     | 10.00                 |         | 66                | 64        | 65       | 93                         | 7           | VR                       | 28.86                    | 29.81        |
| 04                   | OVC       | 016                     | 10.00                 |         | 32                | 27        | 30       | 82                         | 7           | VR                       | 29.23                    | 30.25        | 04         | OVC       | 033                     | 1.00                  | +RA BR  | 59                | 57        | 58       | 93                         | 13          | 25                       | 28.92                    | 29.87        |
| 07                   | OVC       | 016                     | 10.00                 |         | 32                | 28        | 30       | 85                         | 6           | 18                       | 29.24                    | 30.27        | 07         | OVC       | 085                     | 4.00                  | +RA BR  | 57                | 56        | 56       | 96                         | 7           | VR                       | 28.95                    | 29.90        |
| 10                   | CLR       | NC                      | 10.00                 |         | 35                | 28        | 32       | 76                         | 5           | VR                       | 29.27                    | 30.29        | 10         | OVC       | 110                     | 10.00                 |         | 57                | 55        | 56       | 93                         | 9           | 19                       | 29.03                    | 29.98        |
| 13                   | CLR       | NC                      | 10.00                 |         | 45                | 30        | 39       | 56                         | 3           | 27                       | 29.17                    | 30.18        | 13         | CLR       | NC                      | 10.00                 |         | 58                | 55        | 56       | 90                         | 6           | 24                       | 29.01                    | 29.96        |
| 16                   | CLR       | NC                      | 10.00                 |         | 49                | 32        | 42       | 52                         | 8           | 21                       | 29.14                    | 30.14        | 16         | OVC       | 100                     | 10.00                 |         | 58                | 54        | 56       | 87                         | 5           | VR                       | 28.99                    | 29.95        |
| 19                   | CLR       | NC                      | 10.00                 |         | 41                | 33        | 38       | 73                         | 3           | 18                       | 29.17                    | 30.19        | 19         | OVC       | 015                     | 10.00                 |         | 57                | 54        | 55       | 90                         | 6           | 27                       | 29.05                    | 30.02        |
| 22                   | CLR       | NC                      | 10.00                 |         | 38                | 33        | 36       | 83                         | 3           | 28                       | 29.20                    | 30.21        | 22         | OVC       | 095                     | 10.00                 |         | 57                | 54        | 55       | 90                         | 3           | VR                       | 29.07                    | 30.03        |
| SUNRISE: 0741 DEC 17 |           |                         |                       |         | SUNSET: 1725      |           |          |                            |             | SUNRISE: 0745 DEC 23     |                          |              |            |           | SUNSET: 1727            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 34                | 31        | 33       | 89                         | 3           | 23                       | 29.19                    | 30.20        | 01         | OVC       | 022                     | 10.00                 |         | 55                | 54        | 54       | 96                         | 0           | 00                       | 29.09                    | 30.06        |
| 04                   | CLR       | NC                      | 10.00                 |         | 34                | 31        | 33       | 89                         | 3           | 22                       | 29.19                    | 30.20        | 04         | SCT       | 065                     | 10.00                 |         | 54                | 52        | 53       | 93                         | 3           | 21                       | 29.09                    | 30.05        |
| 07                   | CLR       | NC                      | 8.00                  |         | 32                | 29        | 31       | 88                         | 5           | 22                       | 29.18                    | 30.20        | 07         | OVC       | 015                     | 10.00                 |         | 48                | 45        | 47       | 89                         | 0           | 00                       | 29.16                    | 30.14        |
| 10                   | CLR       | NC                      | 10.00                 |         | 42                | 33        | 38       | 71                         | 5           | 23                       | 29.20                    | 30.21        | 10         | OVC       | 022                     | 10.00                 |         | 42                | 35        | 39       | 76                         | 0           | 00                       | 29.29                    | 30.28        |
| 13                   | CLR       | NC                      | 10.00                 |         | 52                | 33        | 43       | 49                         | 8           | 22                       | 29.10                    | 30.10        | 13         | OVC       | 020                     | 10.00                 |         | 41                | 33        | 38       | 73                         | 6           | 35                       | 29.31                    | 30.30        |
| 16                   | CLR       | NC                      | 10.00                 |         | 56                | 34        | 46       | 44                         | 9           | 23                       | 29.04                    | 30.02        | 16         | OVC       | 022                     | 10.00                 |         | 39                | 30        | 35       | 70                         | 6           | 34                       | 29.32                    | 30.32        |
| 19                   | CLR       | NC                      | 10.00                 |         | 50                | 28        | 41       | 43                         | 9           | 28                       | 29.14                    | 30.14        | 19         | BKN       | 027                     | 10.00                 |         | 35                | 26        | 32       | 70                         | 5           | VR                       | 29.36                    | 30.36        |
| 22                   | CLR       | NC                      | 10.00                 |         | 42                | 20        | 34       | 41                         | 7           | 28                       | 29.24                    | 30.24        | 22         | SCT       | 027                     | 10.00                 |         | 34                | 24        | 30       | 67                         | 3           | 35                       | 29.38                    | 30.39        |
| SUNRISE: 0742 DEC 18 |           |                         |                       |         | SUNSET: 1725      |           |          |                            |             | SUNRISE: 0745 DEC 24     |                          |              |            |           | SUNSET: 1728            |                       |         |                   |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 34                | 24        | 30       | 67                         | 0           | 00                       | 29.28                    | 30.28        | 01         | SCT       | 030                     | 10.00                 |         | 31                | 24        | 29       | 76                         | 0           | 00                       | 29.39                    | 30.41        |
| 04                   | CLR       | NC                      | 10.00                 |         | 28                | 23        | 26       | 81                         | 0           | 00                       | 29.32                    | 30.32        | 04         | OVC       | 029                     | 10.00                 |         | 32                | 26        | 30       | 79                         | 0           | 00                       | 29.38                    | 30.40        |
| 07                   | CLR       | NC                      | 10.00                 |         | 26                | 22        | 25       | 84                         | 0           | 00                       | 29.34                    | 30.35        | 07         | OVC       | 065                     | 10.00                 |         | 31                | 23        | 28       | 72                         | 5           | 25                       | 29.41                    | 30.43        |
| 10                   | CLR       | NC                      | 10.00                 |         | 35                | 25        | 31       | 67                         | 0           | 00                       | 29.38                    | 30.39        | 10         | OVC       | 036                     | 10.00                 |         | 32                | 19        | 28       | 59                         | 8           | 34                       | 29.49                    | 30.53        |
| 13                   | CLR       | NC                      | 10.00                 |         | 43                | 21        | 35       | 42                         | 5           | VR                       | 29.35                    | 30.36        | 13         | FEW       | 043                     | 10.00                 |         | 32                | 15        | 27       | 50                         | 7           | 36                       | 29.48                    | 30.51        |
| 16                   | CLR       | NC                      | 10.00                 |         | 47                | 19        | 36       | 33                         | 7           | 17                       | 29.32                    | 30.33        | 16         | CLR       | NC                      | 10.00                 |         | 35                | 10        | 27       | 35                         | 6           | VR                       | 29.48                    | 30.51        |
| 19                   | CLR       | NC                      | 10.00                 |         | 37                | 23        | 32       | 57                         | 0           | 00                       | 29.30                    | 30.33        | 19         | CLR       | NC                      | 10.00                 |         | 29                | 13        | 24       | 51                         | 5           | 04                       | 29.49                    | 30.52        |
| 22                   | CLR       | NC                      | 10.00                 |         | 32                | 24        | 29       | 73                         | 0           | 00                       | 29.31                    | 30.33        | 22         | CLR       | NC                      | 10.00                 |         | 27                | 12        | 23       | 53                         | 5           | 04                       | 29.48                    | 30.51        |

# OBSERVATIONS AT 3-HOURLY INTERVALS

# OAK RIDGE, TN

DECEMBER 2013

KOQT

WBAN # 53868

| HOUR (LST)           | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                          | PRESSURE<br>(INCHES, HG) |              |
|----------------------|-----------|-------------------------|-----------------------|---------|-------------------|-----------|----------|----------------------------|-------------|--------------------------|--------------------------|--------------|
|                      |           |                         |                       |         | DRY BULB          | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg | STATION                  | SEA<br>LEVEL |
| SUNRISE: 0745 DEC 25 |           |                         |                       |         | SUNSET: 1729      |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 24                | 14        | 21       | 65                         | 3           | 04                       | 29.45                    | 30.49        |
| 04                   | CLR       | NC                      | 10.00                 |         | 22                | 15        | 20       | 75                         | 0           | 00                       | 29.45                    | 30.49        |
| 07                   | CLR       | NC                      | 10.00                 |         | 21                | 16        | 20       | 81                         | 0           | 00                       | 29.47                    | 30.51        |
| 10                   | CLR       | NC                      | 10.00                 |         | 28                | 17        | 24       | 63                         | 0           | 00                       | 29.49                    | 30.53        |
| 13                   | CLR       | NC                      | 10.00                 |         | 39                | 18        | 32       | 43                         | 6           | 26                       | 29.42                    | 30.45        |
| 16                   | CLR       | NC                      | 10.00                 |         | 43                | 20        | 34       | 40                         | 0           | 00                       | 29.35                    | 30.38        |
| 19                   | CLR       | NC                      | 10.00                 |         | 34                | 23        | 30       | 64                         | 0           | 00                       | 29.36                    | 30.40        |
| 22                   | CLR       | NC                      | 10.00                 |         | 30                | 24        | 28       | 79                         | 0           | 00                       | 29.35                    | 30.39        |
| SUNRISE: 0746 DEC 26 |           |                         |                       |         | SUNSET: 1729      |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 29                | 23        | 27       | 78                         | 0           | 00                       | 29.35                    | 30.37        |
| 04                   | CLR       | NC                      | 10.00                 |         | 27                | 23        | 26       | 85                         | 0           | 00                       | 29.36                    | 30.38        |
| 07                   | CLR       | NC                      | 10.00                 |         | 26                | 22        | 25       | 84                         | 0           | 00                       | 29.37                    | 30.40        |
| 10                   | CLR       | NC                      | 10.00                 |         | 35                | 26        | 32       | 70                         | 0           | 00                       | 29.41                    | 30.44        |
| 13                   | CLR       | NC                      | 10.00                 |         | 45                | 26        | 37       | 48                         | 0           | 00                       | 29.38                    | 30.40        |
| 16                   | CLR       | NC                      | 10.00                 |         | 47                | 25        | 38       | 42                         | 0           | 00                       | 29.34                    | 30.36        |
| 19                   | CLR       | NC                      | 10.00                 |         | 38                | 27        | 34       | 65                         | 0           | 00                       | 29.37                    | 30.40        |
| 22                   | CLR       | NC                      | 10.00                 |         | 32                | 25        | 29       | 75                         | 0           | 00                       | 29.40                    | 30.42        |
| SUNRISE: 0746 DEC 27 |           |                         |                       |         | SUNSET: 1730      |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 28                | 24        | 27       | 85                         | 0           | 00                       | 29.40                    | 30.42        |
| 04                   | CLR       | NC                      | 10.00                 |         | 27                | 23        | 26       | 85                         | 0           | 00                       | 29.42                    | 30.44        |
| 07                   | CLR       | NC                      | 10.00                 |         | 25                | 22        | 24       | 88                         | 0           | 00                       | 29.45                    | 30.48        |
| 10                   | CLR       | NC                      | 10.00                 |         | 33                | 28        | 31       | 82                         | 0           | 00                       | 29.50                    | 30.54        |
| 13                   | CLR       | NC                      | 10.00                 |         | 46                | 23        | 37       | 40                         | 0           | 00                       | 29.47                    | 30.49        |
| 16                   | CLR       | NC                      | 10.00                 |         | 52                | 21        | 40       | 30                         | 0           | 00                       | 29.42                    | 30.43        |
| 19                   | CLR       | NC                      | 10.00                 |         | 39                | 26        | 34       | 60                         | 0           | 00                       | 29.42                    | 30.45        |
| 22                   | CLR       | NC                      | 10.00                 |         | 30                | 25        | 28       | 82                         | 0           | 00                       | 29.45                    | 30.47        |
| SUNRISE: 0746 DEC 28 |           |                         |                       |         | SUNSET: 1731      |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 28                | 23        | 26       | 81                         | 0           | 00                       | 29.43                    | 30.45        |
| 04                   | CLR       | NC                      | 10.00                 |         | 26                | 23        | 25       | 88                         | 0           | 00                       | 29.41                    | 30.42        |
| 07                   | CLR       | NC                      | 9.00                  |         | 27                | 24        | 26       | 89                         | 0           | 00                       | 29.41                    | 30.43        |
| 10                   | CLR       | NC                      | 10.00                 |         | 31                | 29        | 30       | 92                         | 0           | 00                       | 29.41                    | 30.44        |
| 13                   | CLR       | NC                      | 10.00                 |         | 41                | 30        | 37       | 65                         | 0           | 00                       | 29.34                    | 30.36        |
| 16                   | OVC       | 085                     | 10.00                 |         | 43                | 28        | 37       | 56                         | 0           | 00                       | 29.31                    | 30.32        |
| 19                   | OVC       | 100                     | 7.00                  | -RA     | 39                | 37        | 38       | 93                         | 3           | 08                       | 29.18                    | 30.21        |
| 22                   | OVC       | 070                     | 4.00                  | -RA BR  | 39                | 37        | 38       | 93                         | 0           | 00                       | 29.13                    | 30.15        |
| SUNRISE: 0747 DEC 29 |           |                         |                       |         | SUNSET: 1731      |           |          |                            |             |                          |                          |              |
| 01                   | OVC       | 028                     | 3.00                  | -RA BR  | 40                | 39        | 40       | 97                         | 3           | 08                       | 28.98                    | 29.97        |
| 04                   | OVC       | 035                     | 2.50                  | -RA BR  | 42                | 41        | 42       | 96                         | 0           | 00                       | 28.90                    | 29.89        |
| 07                   | OVC       | 011                     | 6.00                  | -RA BR  | 42                | 41        | 42       | 96                         | 5           | VR                       | 28.93                    | 29.93        |
| 10                   | OVC       | 021                     | 7.00                  | -RA     | 43                | 42        | 43       | 97                         | 6           | 21                       | 28.97                    | 29.97        |
| 13                   | OVC       | 026                     | 10.00                 |         | 48                | 43        | 46       | 83                         | 9           | 21                       | 28.96                    | 29.95        |
| 16                   | OVC       | 027                     | 10.00                 |         | 48                | 43        | 46       | 83                         | 5           | 23                       | 28.98                    | 29.96        |
| 19                   | CLR       | NC                      | 10.00                 |         | 43                | 38        | 41       | 82                         | 3           | 24                       | 29.04                    | 30.03        |
| 22                   | OVC       | 044                     | 10.00                 |         | 40                | 38        | 39       | 93                         | 0           | 00                       | 29.07                    | 30.06        |
| SUNRISE: 0747 DEC 30 |           |                         |                       |         | SUNSET: 1732      |           |          |                            |             |                          |                          |              |
| 01                   | OVC       | 009                     | 10.00                 |         | 42                | 38        | 40       | 85                         | 0           | 00                       | 29.09                    | 30.08        |
| 04                   | OVC       | 035                     | 10.00                 |         | 42                | 37        | 40       | 82                         | 3           | VR                       | 29.10                    | 30.10        |
| 07                   | OVC       | 024                     | 10.00                 |         | 38                | 33        | 36       | 83                         | 6           | 26                       | 29.15                    | 30.16        |
| 10                   | OVC       | 019                     | 10.00                 |         | 36                | 29        | 33       | 76                         | 5           | VR                       | 29.22                    | 30.23        |
| 13                   | BKN       | 022                     | 10.00                 |         | 38                | 29        | 34       | 70                         | 5           | 04                       | 29.22                    | 30.23        |
| 16                   | BKN       | 110                     | 10.00                 |         | 39                | 29        | 35       | 67                         | 0           | 00                       | 29.20                    | 30.20        |
| 19                   | OVC       | 070                     | 10.00                 |         | 37                | 29        | 34       | 73                         | 0           | 00                       | 29.22                    | 30.24        |
| 22                   | OVC       | 070                     | 10.00                 |         | 37                | 29        | 34       | 73                         | 0           | 00                       | 29.25                    | 30.26        |

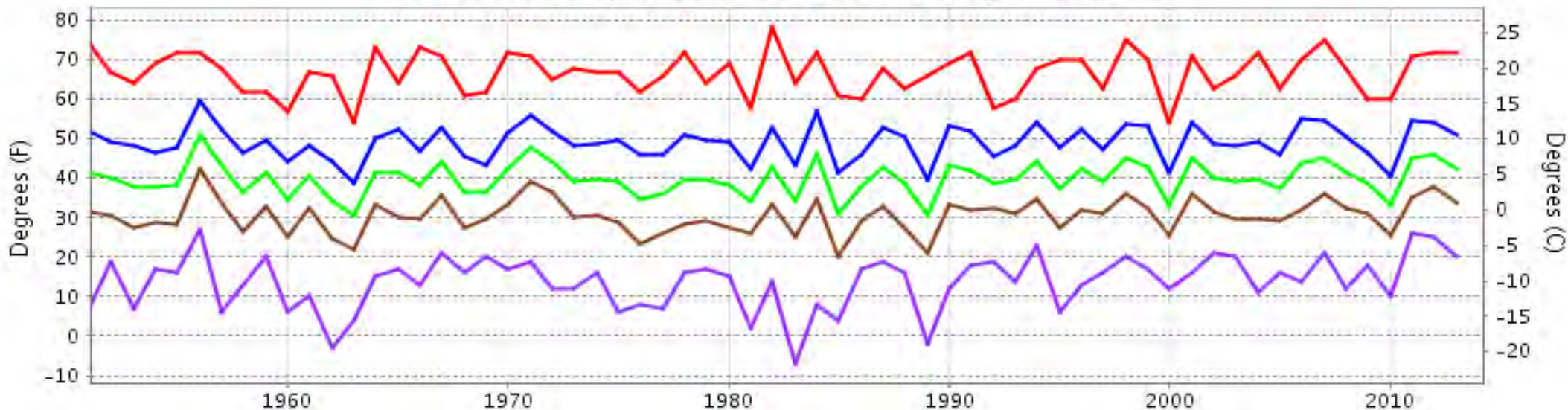
| HOUR (LST)           | SKY COVER | CEILING<br>100's of FT. | VISIBILITY<br>(MILES) | WEATHER | TEMPERATURE<br>°F |           |          | RELATIVE<br>HUMIDITY (PCT) | WIND        |                          | PRESSURE<br>(INCHES, HG) |              |
|----------------------|-----------|-------------------------|-----------------------|---------|-------------------|-----------|----------|----------------------------|-------------|--------------------------|--------------------------|--------------|
|                      |           |                         |                       |         | DRY BULB          | DEW POINT | WET BULB |                            | SPEED (MPH) | DIRECTION<br>Tens of Deg | STATION                  | SEA<br>LEVEL |
| SUNRISE: 0747 DEC 31 |           |                         |                       |         | SUNSET: 1733      |           |          |                            |             |                          |                          |              |
| 01                   | CLR       | NC                      | 10.00                 |         | 34                | 29        | 32       | 82                         | 0           | 00                       | 29.26                    | 30.27        |
| 04                   | CLR       | NC                      | 9.00                  |         | 29                | 26        | 28       | 89                         | 0           | 00                       | 29.29                    | 30.32        |
| 07                   | CLR       | NC                      | 9.00                  |         | 26                | 24        | 25       | 92                         | 0           | 00                       | 29.34                    | 30.37        |
| 10                   | CLR       | NC                      | 10.00                 |         | 32                | 25        | 29       | 75                         | 5           | VR                       | 29.44                    | 30.46        |
| 13                   | CLR       | NC                      | 10.00                 |         | 38                | 22        | 32       | 52                         | 0           | 00                       | 29.43                    | 30.45        |
| 16                   | CLR       | NC                      | 10.00                 |         | 42                | 22        | 34       | 45                         | 3           | VR                       | 29.38                    | 30.40        |
| 19                   | CLR       | NC                      | 10.00                 |         | 34                | 25        | 31       | 70                         | 0           | 00                       | 29.40                    | 30.43        |
| 22                   | CLR       | NC                      | 10.00                 |         | 29                | 24        | 27       | 82                         | 0           | 00                       | 29.40                    | 30.43        |

**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, W = 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) |           |
|------------|----------|-----------|----------|-------------------|-----------------------|-----------|--------------------|------------------|----------------------|-----------|
|            | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY | PRESSURE (Inches, HG) |           | VISIBILITY (Miles) | WIND SPEED (MPH) | SPEED                | DIRECTION |
|            |          |           |          |                   | STATION               | SEA LEVEL |                    |                  |                      |           |
| 01         | 39       | 34        | 37       | 81                | 29.19                 | 30.19     | 9.27               | 2                | 0                    | 16        |
| 02         | 39       | 34        | 37       | 82                | 29.19                 | 30.19     | 8.85               | 2                | 1                    | 26        |
| 03         | 39       | 34        | 37       | 84                | 29.19                 | 30.19     | 8.41               | 2                | 1                    | 26        |
| 04         | 38       | 34        | 36       | 85                | 29.19                 | 30.19     | 8.10               | 2                | 1                    | 25        |
| 05         | 37       | 33        | 36       | 87                | 29.19                 | 30.19     | 8.14               | 2                | 1                    | 26        |
| 06         | 37       | 33        | 35       | 87                | 29.20                 | 30.20     | 8.02               | 2                | 0                    | 17        |
| 07         | 37       | 33        | 35       | 87                | 29.21                 | 30.22     | 8.20               | 2                | 1                    | 25        |
| 08         | 36       | 33        | 35       | 87                | 29.22                 | 30.23     | 7.93               | 2                | 1                    | 12        |
| 09         | 38       | 33        | 36       | 84                | 29.23                 | 30.24     | 8.46               | 2                | 0                    | 16        |
| 10         | 40       | 34        | 38       | 79                | 29.25                 | 30.25     | 8.66               | 3                | 1                    | 26        |
| 11         | 43       | 34        | 39       | 74                | 29.24                 | 30.24     | 8.93               | 3                | 0                    | 24        |
| 12         | 44       | 34        | 40       | 69                | 29.23                 | 30.24     | 9.19               | 4                | 1                    | 26        |
| 13         | 46       | 34        | 41       | 65                | 29.21                 | 30.21     | 9.07               | 4                | 3                    | 27        |
| 14         | 47       | 34        | 42       | 63                | 29.19                 | 30.18     | 9.08               | 4                | 3                    | 26        |
| 15         | 48       | 34        | 42       | 61                | 29.17                 | 30.17     | 9.10               | 3                | 1                    | 26        |
| 16         | 48       | 33        | 42       | 61                | 29.17                 | 30.17     | 8.77               | 3                | 2                    | 26        |
| 17         | 48       | 34        | 42       | 63                | 29.18                 | 30.18     | 8.95               | 3                | 2                    | 26        |
| 18         | 45       | 34        | 41       | 68                | 29.19                 | 30.19     | 9.08               | 3                | 3                    | 27        |
| 19         | 43       | 34        | 40       | 72                | 29.20                 | 30.20     | 9.02               | 3                | 2                    | 26        |
| 20         | 42       | 34        | 39       | 76                | 29.20                 | 30.21     | 8.99               | 2                | 2                    | 26        |
| 21         | 41       | 34        | 38       | 77                | 29.20                 | 30.21     | 8.97               | 3                | 1                    | 26        |
| 22         | 41       | 34        | 38       | 78                | 29.20                 | 30.20     | 9.32               | 2                | 1                    | 26        |
| 23         | 40       | 34        | 38       | 79                | 29.20                 | 30.20     | 9.20               | 3                | 2                    | 26        |
| 24         | 40       | 34        | 38       | 81                | 29.19                 | 30.20     | 8.86               | 2                | 1                    | 25        |

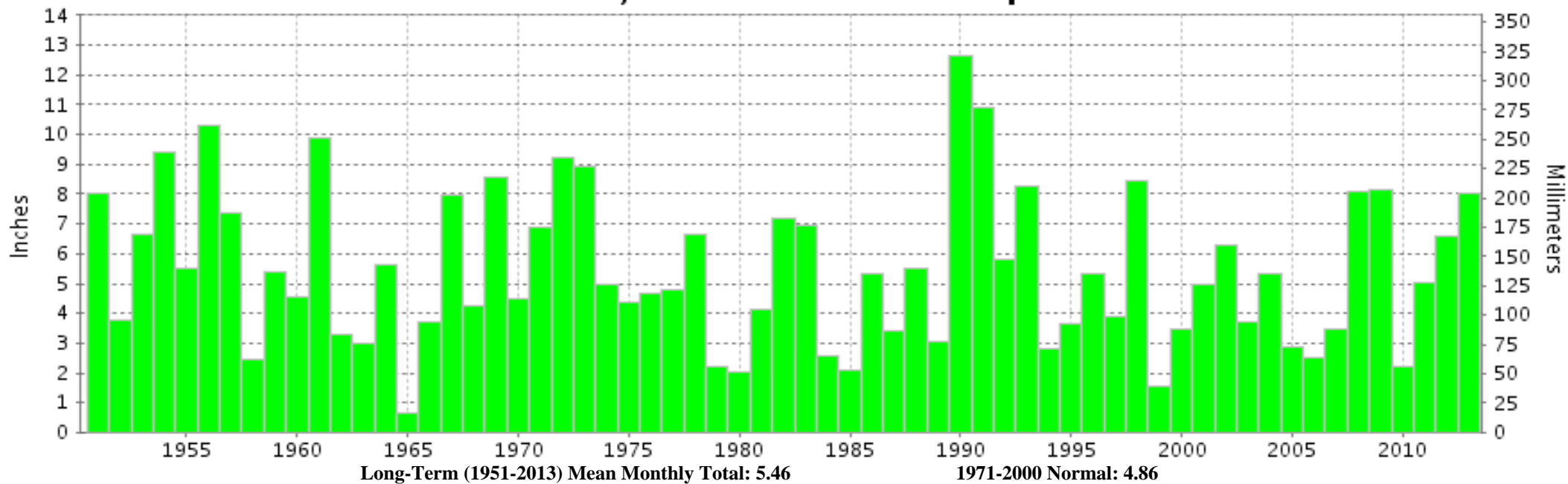
## OAK RIDGE, TN DECEMBER Temperatures



— Extreme Max — Mean Max — Mean — Mean Min — Extreme Min

**Long-Term (1951-2013) Mean: 39.9**  
**1971-2000 Normal: 40.3**

## OAK RIDGE, TN DECEMBER Precipitation



Long-Term (1951-2013) Mean Monthly Total: 5.46

1971-2000 Normal: 4.86



**DECEMBER 2013  
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.*

A handwritten signature in black ink, appearing to read "Thomas R. Karl".

**DIRECTOR**

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