

**EL DORADO/GOODWIN AR**

Latitude = 33.22 N

WMO No. 723419

Longitude = 92.80 W

Elevation = 253 feet

Period of Record = 1973 to 1996

Average Pressure = 29.73 inches Hg

**Design Criteria Data**

|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|--------------------------------------------------|---------------------|----------------------------------|-------------------------|------------------------|-----------------------------|
|                                                  |                     | Wet Bulb Temperature (°F)        | Humidity Ratio (gr/lb)  | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Dry Bulb Temperature (T)</b>                  | <b>(°F)</b>         |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 99                  | 77                               | 107                     | 7.2                    | SW                          |
| 0.4% Occurrence                                  | 97                  | 77                               | 110                     | 7.4                    | S                           |
| 1.0% Occurrence                                  | 95                  | 77                               | 111                     | 7.4                    | S                           |
| 2.0% Occurrence                                  | 93                  | 77                               | 113                     | 7.4                    | S                           |
| Mean Daily Range                                 | 22                  | -                                | -                       | -                      | -                           |
| 97.5% Occurrence                                 | 28                  | 26                               | 16                      | 4.3                    | N                           |
| 99.0% Occurrence                                 | 23                  | 21                               | 13                      | 4.8                    | N                           |
| 99.6% Occurrence                                 | 19                  | 18                               | 11                      | 4.5                    | N                           |
| Median of Extreme Lows                           | 13                  | 12                               | 8                       | 5.3                    | N                           |
|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|                                                  |                     | Dry Bulb Temperature (°F)        | Humidity Ratio (gr/lb)  | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Wet Bulb Temperature (T<sub>wb</sub>)</b>     | <b>(°F)</b>         |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 82                  | 91                               | 146                     | 5.6                    | S                           |
| 0.4% Occurrence                                  | 80                  | 91                               | 134                     | 6.4                    | S                           |
| 1.0% Occurrence                                  | 79                  | 90                               | 130                     | 6.6                    | S                           |
| 2.0% Occurrence                                  | 78                  | 88                               | 127                     | 6.7                    | S                           |
|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|                                                  |                     | Dry Bulb Temperature (°F)        | Vapor Pressure (in. Hg) | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Humidity Ratio (HR)</b>                       | <b>(gr/lb)</b>      |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 162                 | 87                               | 1.07                    | 2.1                    | S                           |
| 0.4% Occurrence                                  | 142                 | 84                               | 0.94                    | 4.4                    | S                           |
| 1.0% Occurrence                                  | 137                 | 84                               | 0.90                    | 5.3                    | S                           |
| 2.0% Occurrence                                  | 132                 | 83                               | 0.88                    | 5.5                    | S                           |
| <b>Air Conditioning/<br/>Humid Area Criteria</b> | <b># of Hours</b>   | T ≥ 93°F                         | T ≥ 80°F                | T <sub>wb</sub> ≥ 73°F | T <sub>wb</sub> ≥ 67°F      |
|                                                  |                     | 183                              | 1611                    | 1576                   | 3040                        |

**Other Site Data**

| Weather Region                                      | Rain Rate<br>100 Year Recurrence<br>(in./hr) | Basic Wind Speed<br>3 sec gust @ 33 ft<br>50 Year Recurrence (mph) | Ventilation Cooling Load Index<br>(Ton-hr/cfm/yr) Base 75°F-RH 60%<br>Latent + Sensible |
|-----------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 11                                                  | 3.8                                          | 90                                                                 | 4.7 + 1.8                                                                               |
| Ground Water<br>Temperature (°F)<br>50 Foot Depth * | Frost Depth<br>50 Year Recurrence<br>(in.)   | Ground Snow Load<br>50 Year Recurrence<br>(lb/ft <sup>2</sup> )    | Average Annual<br>Freeze-Thaw Cycles<br>(#)                                             |
| 65.7                                                | N/A                                          | N/A                                                                | 39                                                                                      |

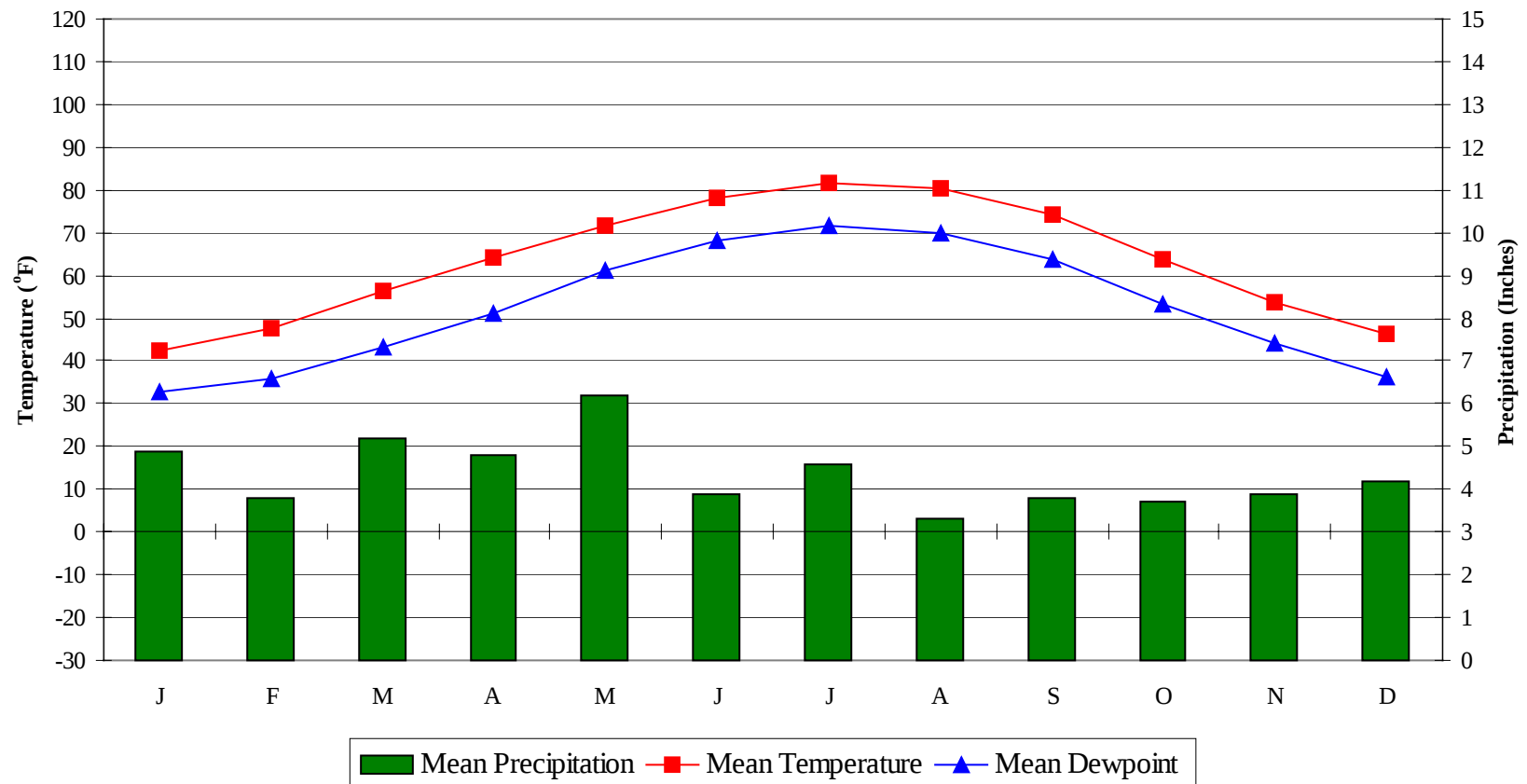
\*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

EL DORADO/GOODWIN

AR

WMO No. 723419

### Average Annual Climate

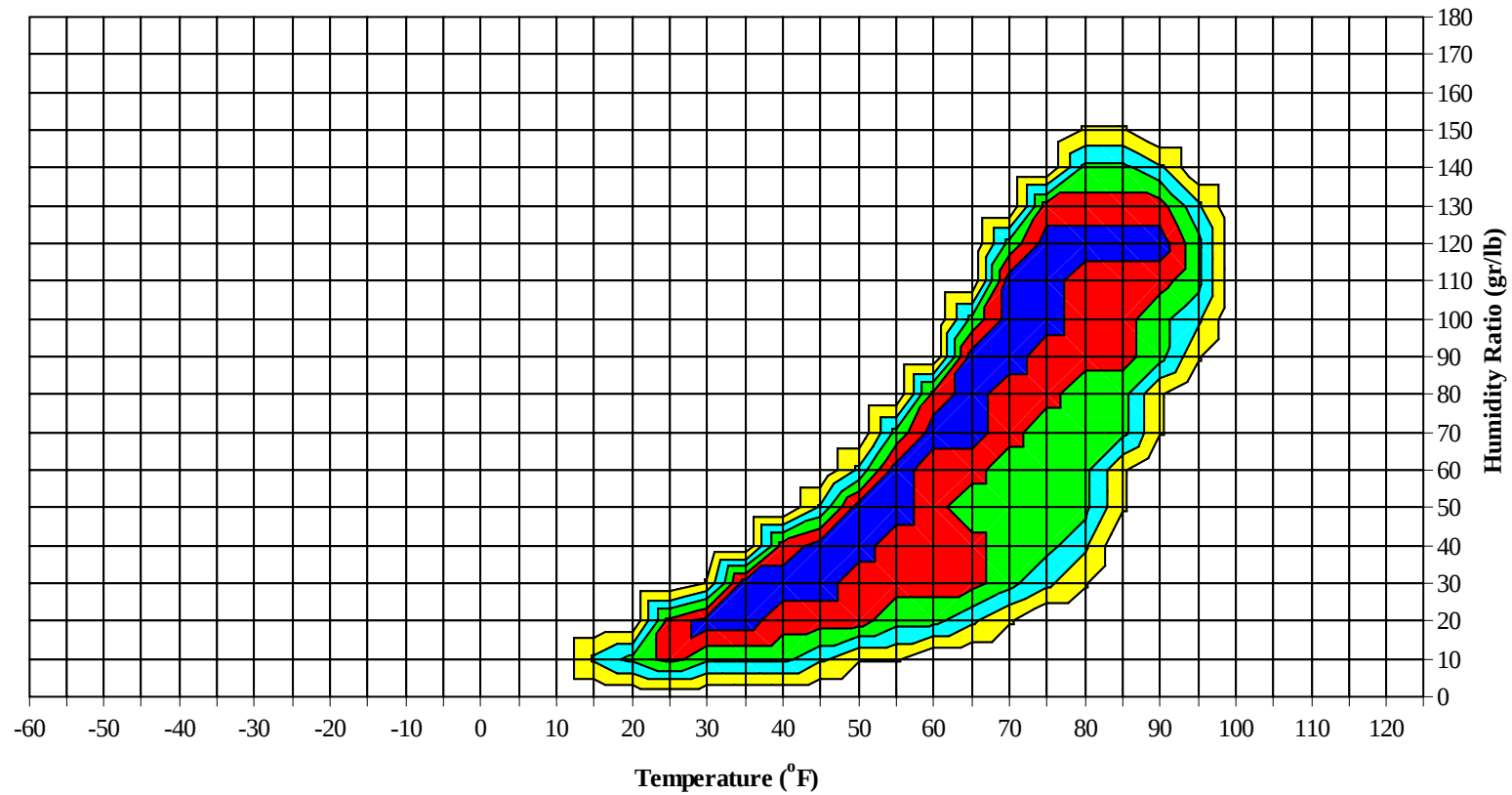


EL DORADO/GOODWIN

AR

WMO No. 723419

### Long Term Psychrometric Summary



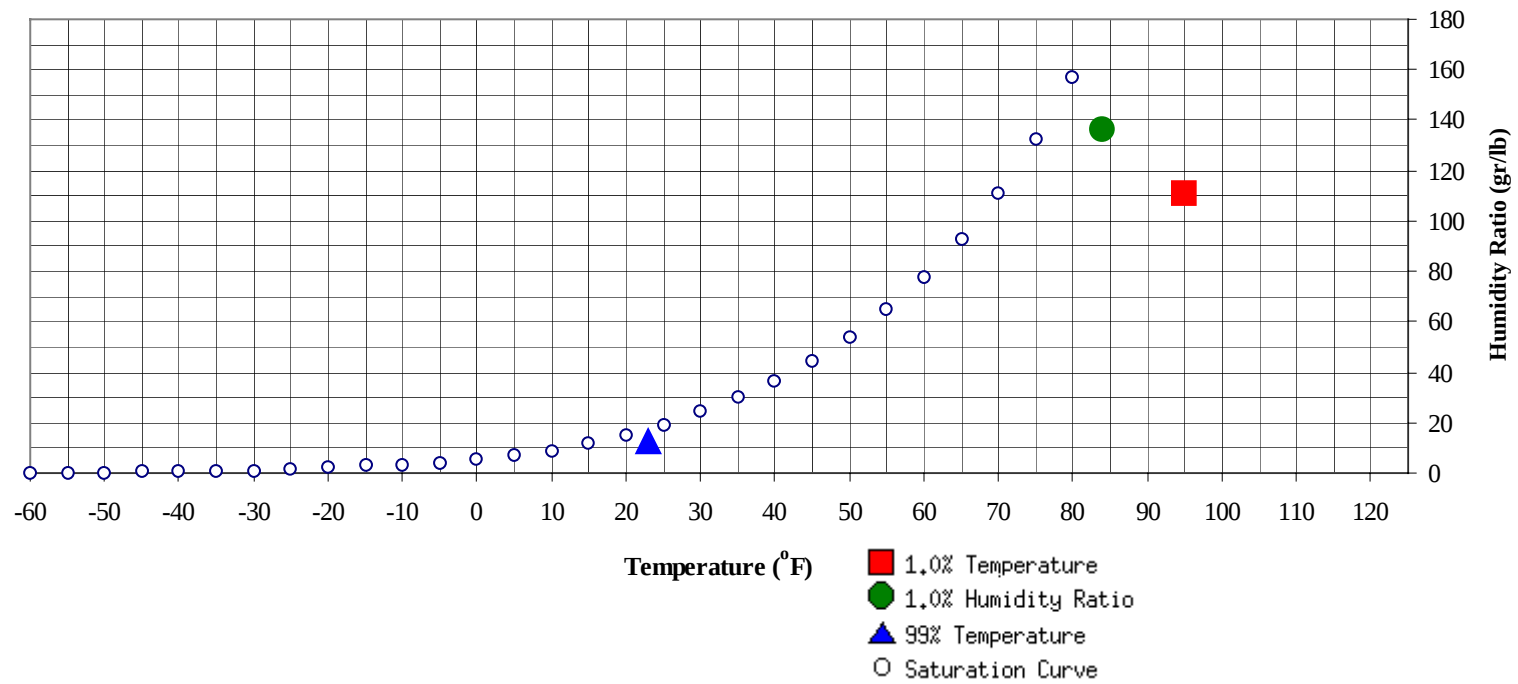
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

EL DORADO/GOODWIN

AR

WMO No. 723419

## Psychrometric Summary of Peak Design Values



| 99% Dry Bulb | (°F) | MCHR<br>(gr/lb) | Enthalpy<br>(btu/lb) | 1.0% Humidity<br>Ratio | (gr/lb) | MCDB<br>(°F) | MCWB<br>(°F) | MC Dewpt<br>(°F) | Enthalpy<br>(btu/lb) |
|--------------|------|-----------------|----------------------|------------------------|---------|--------------|--------------|------------------|----------------------|
|              | 23   | 12.7            | 7.5                  |                        | 136.5   | 84           | 78.1         | 75.9             | 41.6                 |

| 1.0% Dry Bulb | (°F) | MCHR<br>(gr/lb) | MCWB<br>(°F) | Enthalpy<br>(btu/lb) |
|---------------|------|-----------------|--------------|----------------------|
|               | 95   | 111.1           | 77           | 40.3                 |

EL DORADO/GOODWIN AR

WMO No. 723419

**Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)**

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | January             |                |                |              |                          | February            |                |                |              |                          | March               |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     |                |                |              |                          |                     | 0              | 0              | 0            | 62.6                     |                     | 0              | 0              | 0            | 65.4                     |
| 80 / 84                      |                     | 0              |                | 0            | 64.5                     |                     | 2              | 1              | 3            | 62.4                     |                     | 1              | 0              | 1            | 65.8                     |
| 75 / 79                      |                     | 2              | 0              |              | 63.3                     |                     | 7              | 2              | 9            | 61.3                     | 0                   | 10             | 3              | 13           | 63.1                     |
| 70 / 74                      | 0                   | 6              | 2              | 8            | 61.1                     | 0                   | 15             | 7              | 22           | 59.6                     | 5                   | 26             | 12             | 38           | 62.2                     |
| 65 / 69                      | 5                   | 14             | 9              | 28           | 58.7                     | 6                   | 24             | 15             | 45           | 57.8                     | 18                  | 34             | 23             | 62           | 60.8                     |
| 60 / 64                      | 7                   | 21             | 15             | 43           | 55.3                     | 11                  | 28             | 21             | 60           | 54.2                     | 24                  | 38             | 31             | 87           | 58.0                     |
| 55 / 59                      | 9                   | 26             | 17             | 52           | 50.6                     | 15                  | 28             | 26             | 70           | 50.6                     | 31                  | 40             | 38             | 101          | 54.6                     |
| 50 / 54                      | 15                  | 33             | 24             | 72           | 46.6                     | 22                  | 28             | 31             | 82           | 46.8                     | 32                  | 34             | 38             | 104          | 50.9                     |
| 45 / 49                      | 20                  | 35             | 34             | 89           | 42.6                     | 25                  | 27             | 32             | 84           | 42.6                     | 37                  | 28             | 37             | 101          | 46.8                     |
| 40 / 44                      | 33                  | 37             | 39             | 109          | 38.5                     | 29                  | 22             | 29             | 81           | 38.1                     | 38                  | 17             | 28             | 82           | 42.9                     |
| 35 / 39                      | 37                  | 34             | 41             | 112          | 33.9                     | 32                  | 19             | 24             | 75           | 33.7                     | 35                  | 11             | 20             | 67           | 38.8                     |
| 30 / 34                      | 48                  | 23             | 34             | 105          | 29.7                     | 35                  | 13             | 20             | 69           | 29.5                     | 30                  | 6              | 12             | 48           | 34.5                     |
| 25 / 29                      | 39                  | 12             | 23             | 74           | 25.1                     | 28                  | 6              | 11             | 45           | 25.1                     | 20                  | 2              | 5              | 27           | 30.6                     |
| 20 / 24                      | 21                  | 4              | 8              | 33           | 20.5                     | 13                  | 3              | 4              | 20           | 20.5                     | 7                   | 1              | 1              | 9            | 25.7                     |
| 15 / 19                      | 11                  | 1              | 2              | 13           | 15.5                     | 6                   | 1              | 1              | 8            | 16.2                     | 2                   | 0              | 1              | 3            | 20.1                     |
| 10 / 14                      | 4                   | 0              | 0              | 4            | 11.5                     | 1                   | 0              | 0              | 1            | 11.7                     | 1                   |                | 0              | 1            | 17.0                     |
| 5 / 9                        | 0                   | 0              | 0              | 0            | 7.6                      | 0                   |                |                | 0            | 7.5                      |                     |                |                |              |                          |
| 0 / 4                        | 0                   |                |                | 0            | 1.3                      |                     |                |                |              |                          |                     |                |                |              |                          |

**Caution:** This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

EL DORADO/GOODWIN

AR

WMO No. 723419

**Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)**

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | April               |                |                |              |                          | May                 |                |                |              |                          | June                |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     | 1              | 0              | 1            | 75.2                     |
| 95 / 99                      |                     | 0              |                | 0            | 63.0                     |                     | 1              | 0              | 1            | 76.9                     |                     | 7              | 2              | 9            | 77.0                     |
| 90 / 94                      |                     | 1              | 0              | 1            | 65.6                     |                     | 5              | 1              | 6            | 74.8                     | 0                   | 44             | 13             | 57           | 76.1                     |
| 85 / 89                      |                     | 9              | 2              | 11           | 67.6                     |                     | 44             | 14             | 58           | 72.2                     | 1                   | 81             | 35             | 117          | 74.5                     |
| 80 / 84                      |                     | 34             | 13             | 47           | 65.9                     | 1                   | 65             | 32             | 98           | 70.2                     | 11                  | 60             | 45             | 115          | 72.8                     |
| 75 / 79                      | 1                   | 46             | 24             | 71           | 64.2                     | 12                  | 56             | 42             | 110          | 68.0                     | 51                  | 28             | 64             | 142          | 72.1                     |
| 70 / 74                      | 14                  | 51             | 40             | 104          | 62.5                     | 42                  | 40             | 58             | 141          | 66.5                     | 87                  | 16             | 52             | 155          | 69.5                     |
| 65 / 69                      | 34                  | 39             | 47             | 120          | 59.8                     | 76                  | 24             | 54             | 154          | 63.8                     | 57                  | 3              | 22             | 83           | 65.4                     |
| 60 / 64                      | 47                  | 28             | 41             | 116          | 56.8                     | 51                  | 10             | 26             | 87           | 59.3                     | 23                  | 0              | 6              | 29           | 60.4                     |
| 55 / 59                      | 37                  | 17             | 30             | 84           | 52.3                     | 35                  | 3              | 15             | 52           | 54.8                     | 9                   |                | 1              | 10           | 55.7                     |
| 50 / 54                      | 43                  | 10             | 23             | 75           | 48.3                     | 21                  | 1              | 5              | 27           | 50.2                     | 1                   |                |                | 1            | 51.4                     |
| 45 / 49                      | 29                  | 4              | 13             | 46           | 44.3                     | 8                   |                | 1              | 9            | 45.9                     |                     |                |                |              |                          |
| 40 / 44                      | 21                  | 2              | 4              | 27           | 40.3                     | 2                   |                | 0              | 2            | 42.1                     |                     |                |                |              |                          |
| 35 / 39                      | 9                   | 0              | 3              | 12           | 36.1                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 30 / 34                      | 5                   |                | 0              | 5            | 31.4                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 25 / 29                      | 0                   |                |                | 0            | 26.5                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**Caution:** This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

EL DORADO/GOODWIN

AR

WMO No. 723419

**Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | July                |                |                |              |                          | August              |                |                |              |                          | September           |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     | 3              | 1              | 4            | 77.8                     |                     | 2              | 0              | 2            | 76.3                     |                     | 1              |                | 1            | 73.2                     |
| 95 / 99                      |                     | 25             | 7              | 31           | 78.1                     |                     | 26             | 7              | 33           | 76.9                     |                     | 5              | 1              | 6            | 74.2                     |
| 90 / 94                      | 0                   | 80             | 30             | 109          | 77.2                     |                     | 75             | 22             | 97           | 76.6                     | 0                   | 29             | 6              | 35           | 75.2                     |
| 85 / 89                      | 3                   | 75             | 37             | 115          | 76.4                     | 1                   | 71             | 32             | 104          | 75.4                     | 0                   | 59             | 16             | 75           | 73.6                     |
| 80 / 84                      | 22                  | 42             | 56             | 120          | 75.4                     | 13                  | 46             | 54             | 113          | 74.3                     | 2                   | 55             | 30             | 87           | 71.6                     |
| 75 / 79                      | 87                  | 17             | 79             | 183          | 73.8                     | 61                  | 19             | 73             | 154          | 73.0                     | 26                  | 40             | 53             | 118          | 70.5                     |
| 70 / 74                      | 109                 | 6              | 34             | 149          | 70.7                     | 123                 | 8              | 49             | 180          | 70.2                     | 78                  | 28             | 58             | 164          | 68.4                     |
| 65 / 69                      | 25                  | 1              | 4              | 30           | 66.2                     | 38                  | 1              | 11             | 49           | 65.4                     | 52                  | 13             | 34             | 100          | 63.9                     |
| 60 / 64                      | 2                   |                |                | 2            | 61.6                     | 10                  |                | 1              | 11           | 60.9                     | 32                  | 7              | 23             | 62           | 59.2                     |
| 55 / 59                      | 0                   |                |                | 0            | 56.7                     | 2                   |                | 0              | 2            | 56.4                     | 26                  | 3              | 13             | 41           | 54.9                     |
| 50 / 54                      |                     |                |                |              |                          | 0                   |                |                | 0            | 51.0                     | 16                  | 1              | 5              | 22           | 50.4                     |
| 45 / 49                      |                     |                |                |              |                          |                     |                |                |              |                          | 7                   |                | 1              | 9            | 46.1                     |
| 40 / 44                      |                     |                |                |              |                          |                     |                |                |              |                          | 1                   |                |                | 1            | 41.8                     |
| 35 / 39                      |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | 37.0                     |
| 30 / 34                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 25 / 29                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**Caution:** This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

EL DORADO/GOODWIN AR

WMO No. 723419

**Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | October             |                |                |              |                          | November            |                |                |              |                          | December            |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     | 3              | 0              | 3            | 71.5                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     | 17             | 2              | 19           | 70.0                     |                     | 1              |                | 1            | 63.0                     |                     |                |                |              |                          |
| 80 / 84                      | 0                   | 34             | 6              | 40           | 68.1                     |                     | 5              | 0              | 5            | 66.2                     |                     | 0              |                | 0            | 66.3                     |
| 75 / 79                      | 3                   | 51             | 18             | 72           | 65.6                     | 0                   | 18             | 3              | 21           | 66.8                     |                     | 4              | 0              | 4            | 66.3                     |
| 70 / 74                      | 16                  | 48             | 35             | 99           | 64.4                     | 6                   | 30             | 14             | 50           | 63.9                     | 1                   | 13             | 4              | 18           | 63.7                     |
| 65 / 69                      | 30                  | 41             | 44             | 116          | 61.2                     | 17                  | 36             | 23             | 76           | 60.6                     | 8                   | 21             | 13             | 42           | 60.5                     |
| 60 / 64                      | 40                  | 28             | 47             | 115          | 57.7                     | 20                  | 36             | 31             | 87           | 56.1                     | 15                  | 31             | 21             | 67           | 55.9                     |
| 55 / 59                      | 42                  | 15             | 38             | 95           | 53.7                     | 24                  | 35             | 35             | 94           | 51.9                     | 16                  | 34             | 24             | 75           | 50.8                     |
| 50 / 54                      | 43                  | 9              | 30             | 82           | 49.5                     | 31                  | 35             | 34             | 100          | 47.5                     | 21                  | 34             | 29             | 84           | 46.8                     |
| 45 / 49                      | 35                  | 3              | 19             | 56           | 45.1                     | 30                  | 23             | 33             | 86           | 43.4                     | 25                  | 34             | 34             | 93           | 42.5                     |
| 40 / 44                      | 24                  | 1              | 6              | 31           | 40.6                     | 34                  | 13             | 32             | 80           | 39.3                     | 33                  | 34             | 40             | 107          | 38.4                     |
| 35 / 39                      | 11                  | 0              | 2              | 13           | 36.0                     | 38                  | 6              | 21             | 65           | 35.1                     | 35                  | 23             | 35             | 93           | 34.0                     |
| 30 / 34                      | 3                   | 0              | 0              | 3            | 31.9                     | 24                  | 2              | 10             | 36           | 30.6                     | 43                  | 10             | 27             | 81           | 29.7                     |
| 25 / 29                      | 0                   | 0              | 0              | 0            | 26.2                     | 13                  | 0              | 4              | 17           | 26.2                     | 30                  | 5              | 12             | 48           | 25.2                     |
| 20 / 24                      |                     |                |                |              |                          | 3                   | 0              | 0              | 3            | 21.5                     | 12                  | 3              | 4              | 18           | 20.3                     |
| 15 / 19                      |                     |                |                |              |                          | 0                   | 0              |                | 0            | 17.7                     | 6                   | 1              | 2              | 9            | 16.1                     |
| 10 / 14                      |                     |                |                |              |                          |                     | 0              |                | 0            | 11.0                     | 1                   | 1              | 1              | 3            | 11.0                     |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          | 1                   | 0              | 0              | 1            | 6.2                      |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | 3.0                      |

**Caution:** This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

**EL DORADO/GOODWIN AR**

WMO No. 723419

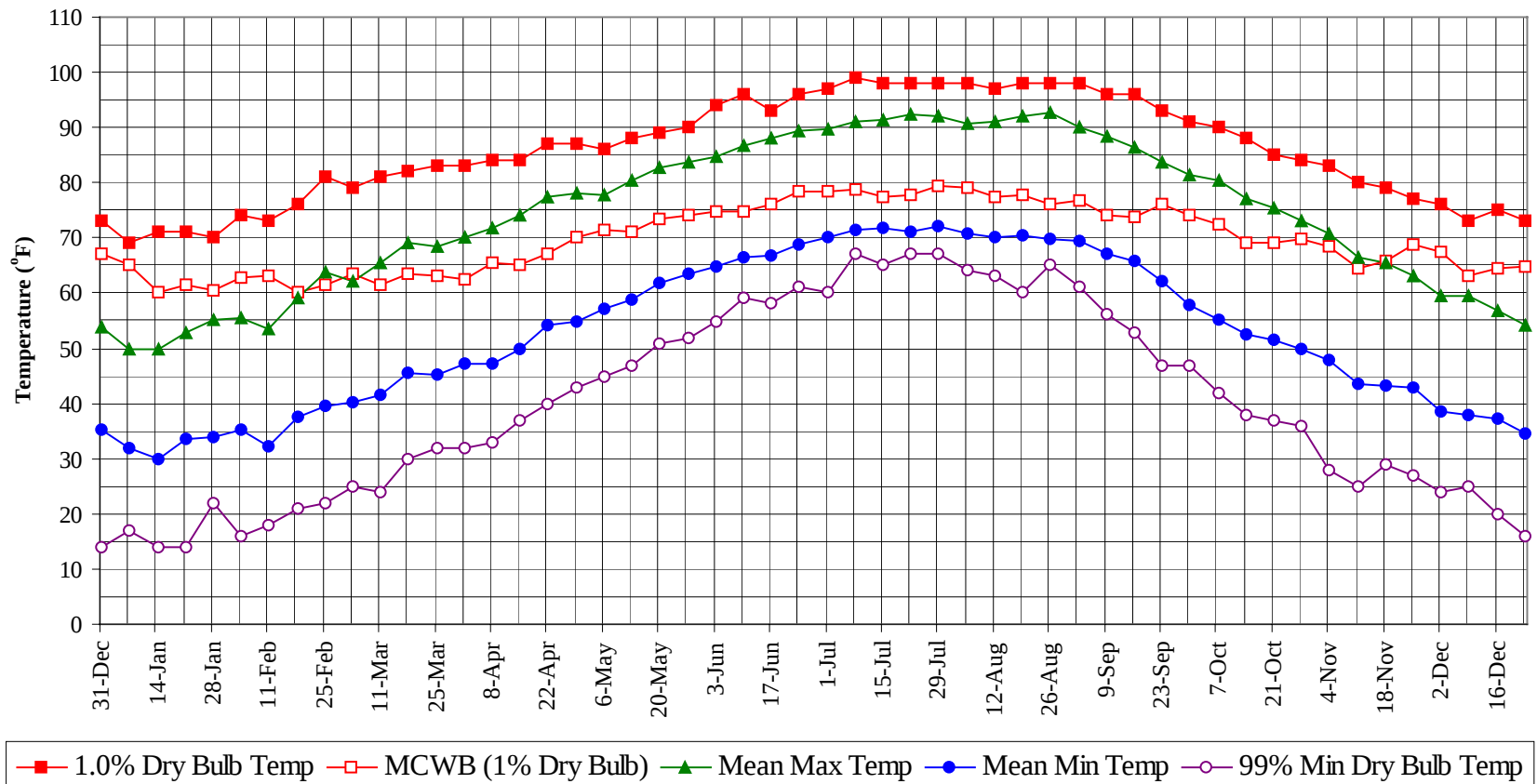
**Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)**

Period of Record = 1973 to 1996

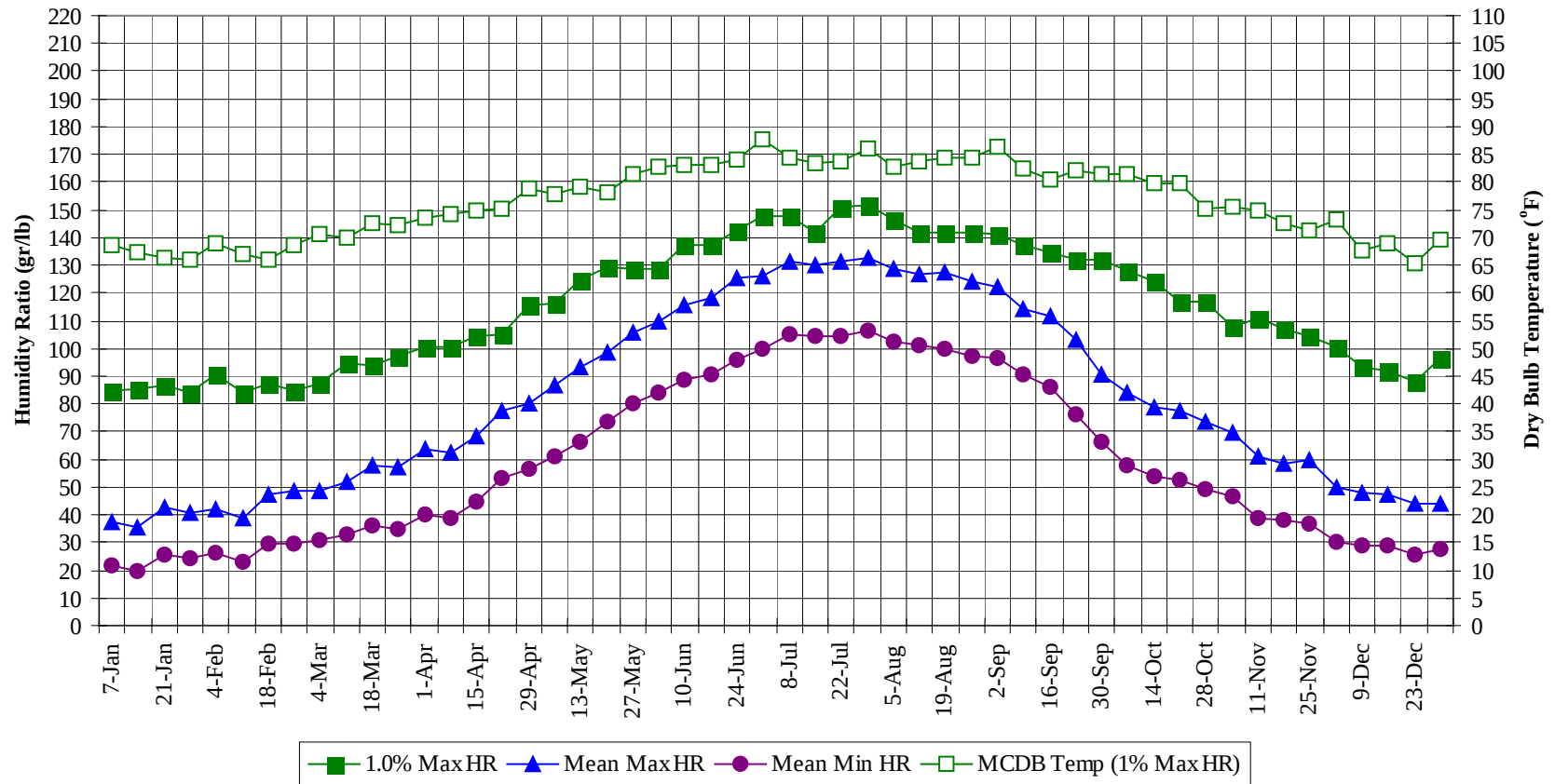
| Annual Totals                |                     |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|
| Temperature<br>Range<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     | 5              | 1              | 6            | 76.7                     |
| 95 / 99                      |                     | 63             | 16             | 79           | 77.1                     |
| 90 / 94                      | 0                   | 234            | 67             | 302          | 76.4                     |
| 85 / 89                      | 6                   | 355            | 131            | 491          | 74.3                     |
| 80 / 84                      | 50                  | 353            | 227            | 630          | 71.7                     |
| 75 / 79                      | 245                 | 313            | 352            | 910          | 69.8                     |
| 70 / 74                      | 491                 | 297            | 369            | 1157         | 66.9                     |
| 65 / 69                      | 371                 | 256            | 308            | 935          | 61.7                     |
| 60 / 64                      | 282                 | 230            | 275            | 786          | 56.8                     |
| 55 / 59                      | 249                 | 195            | 243            | 687          | 52.1                     |
| 50 / 54                      | 250                 | 178            | 225            | 653          | 47.6                     |
| 45 / 49                      | 215                 | 145            | 204            | 564          | 43.2                     |
| 40 / 44                      | 211                 | 120            | 178            | 510          | 38.8                     |
| 35 / 39                      | 187                 | 88             | 143            | 418          | 34.3                     |
| 30 / 34                      | 171                 | 50             | 101            | 322          | 29.9                     |
| 25 / 29                      | 114                 | 25             | 54             | 192          | 25.2                     |
| 20 / 24                      | 49                  | 11             | 18             | 77           | 20.5                     |
| 15 / 19                      | 23                  | 3              | 5              | 31           | 16.0                     |
| 10 / 14                      | 6                   | 1              | 2              | 9            | 11.4                     |
| 5 / 9                        | 1                   | 0              | 0              | 1            | 6.7                      |
| 0 / 4                        | 0                   |                |                | 0            | 2.4                      |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |
|                              |                     |                |                |              |                          |

**Caution:** This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

## Annual Summary of Temperatures



## Long Term Humidity and Dry Bulb Temperature Summary

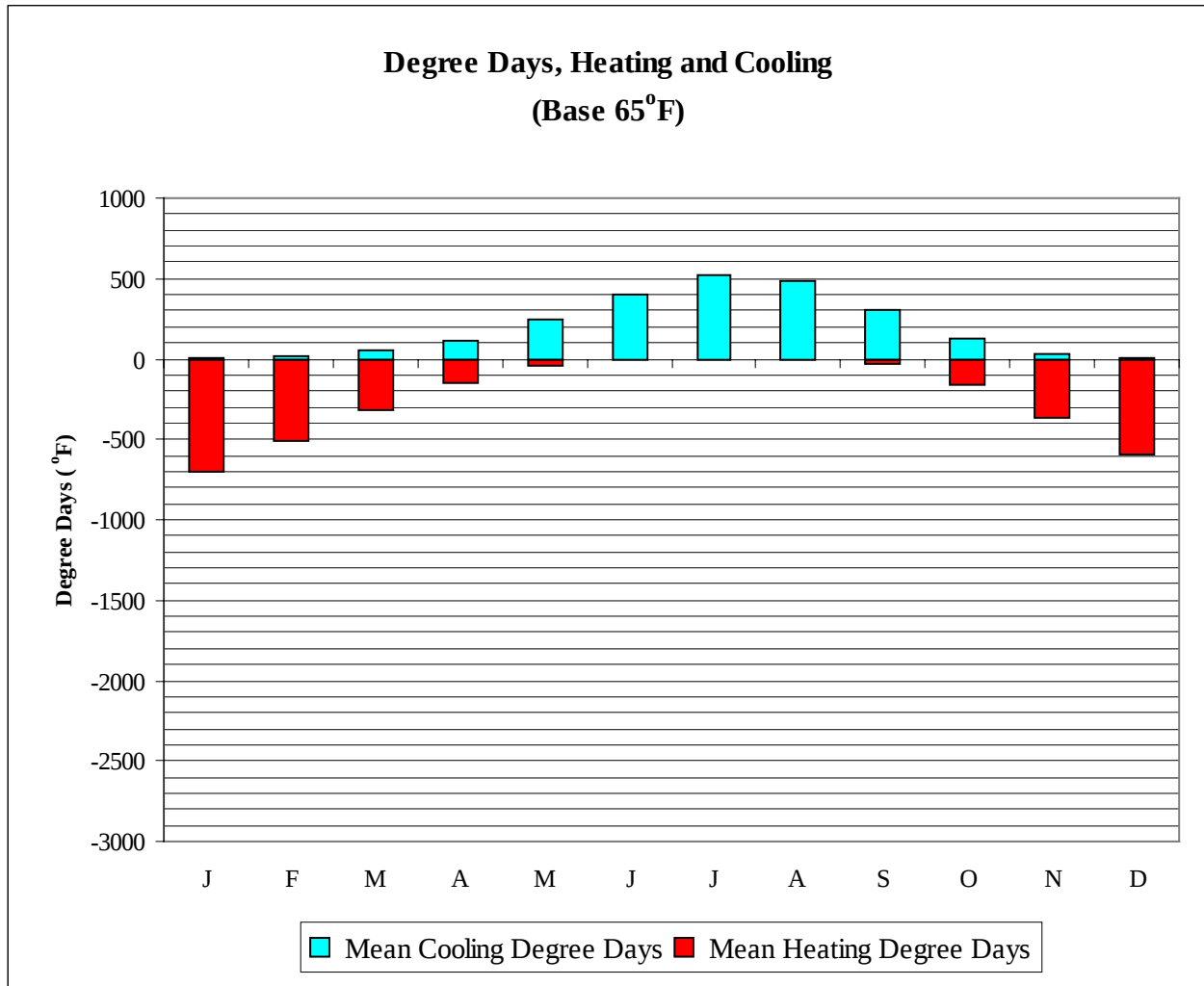


EL DORADO/GOODWIN AR

WMO No. 723419

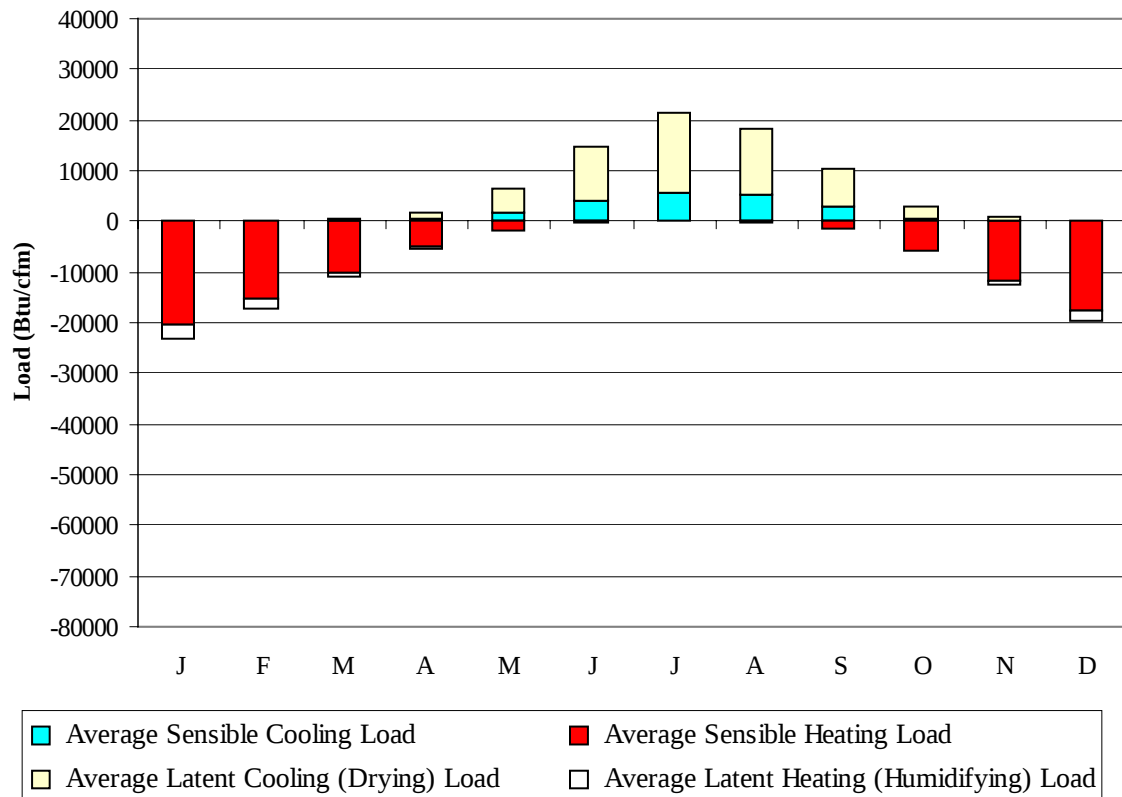
**Long Term Dry Bulb Temperature and Humidity Summary**

| Week Ending | 1.0% Temp (°F) | MCWB @ 1% Temp (°F) | Mean Max Temp (°F) | Mean Min Temp (°F) | 99% Temp (°F) | 1.0% HR (gr/lb) | MCDB @ 1% HR (°F) | Mean Max HR (gr/lb) | Mean Min HR (gr/lb) |
|-------------|----------------|---------------------|--------------------|--------------------|---------------|-----------------|-------------------|---------------------|---------------------|
| 7-Jan       | 69.0           | 65.0                | 49.8               | 31.9               | 17.0          | 84.7            | 68.7              | 37.6                | 21.5                |
| 14-Jan      | 71.0           | 60.0                | 49.7               | 30.1               | 14.0          | 85.4            | 67.3              | 35.7                | 19.9                |
| 21-Jan      | 71.0           | 61.5                | 52.9               | 33.5               | 14.0          | 86.8            | 66.2              | 42.7                | 25.8                |
| 28-Jan      | 70.0           | 60.4                | 55.3               | 34.1               | 22.0          | 84.0            | 65.9              | 40.9                | 24.0                |
| 4-Feb       | 74.0           | 62.9                | 55.6               | 35.4               | 16.0          | 90.3            | 68.8              | 42.1                | 26.4                |
| 11-Feb      | 73.0           | 63.0                | 53.4               | 32.4               | 18.0          | 84.0            | 67.1              | 38.6                | 23.0                |
| 18-Feb      | 76.0           | 60.1                | 59.2               | 37.5               | 21.0          | 87.5            | 66.1              | 47.4                | 29.4                |
| 25-Feb      | 81.0           | 61.5                | 63.8               | 39.4               | 22.0          | 84.7            | 68.8              | 48.6                | 29.6                |
| 4-Mar       | 79.0           | 63.5                | 62.3               | 40.2               | 25.0          | 87.5            | 70.6              | 48.5                | 31.1                |
| 11-Mar      | 81.0           | 61.6                | 65.5               | 41.5               | 24.0          | 94.5            | 70.0              | 51.7                | 32.9                |
| 18-Mar      | 82.0           | 63.4                | 69.2               | 45.5               | 30.0          | 93.8            | 72.4              | 58.1                | 36.0                |
| 25-Mar      | 83.0           | 63.3                | 68.5               | 45.1               | 32.0          | 97.3            | 72.3              | 56.9                | 35.0                |
| 1-Apr       | 83.0           | 62.4                | 70.3               | 47.3               | 32.0          | 100.8           | 73.4              | 63.8                | 40.2                |
| 8-Apr       | 84.0           | 65.6                | 71.7               | 47.2               | 33.0          | 100.8           | 74.4              | 62.1                | 38.4                |
| 15-Apr      | 84.0           | 65.1                | 74.2               | 49.8               | 37.0          | 104.3           | 74.7              | 68.4                | 44.9                |
| 22-Apr      | 87.0           | 67.0                | 77.4               | 54.3               | 40.0          | 105.0           | 75.2              | 77.6                | 53.5                |
| 29-Apr      | 87.0           | 70.0                | 78.2               | 54.8               | 43.0          | 115.5           | 78.8              | 80.2                | 56.6                |
| 6-May       | 86.0           | 71.5                | 77.7               | 57.2               | 45.0          | 116.2           | 77.9              | 86.8                | 61.4                |
| 13-May      | 88.0           | 71.0                | 80.5               | 58.7               | 47.0          | 124.6           | 79.1              | 93.5                | 66.5                |
| 20-May      | 89.0           | 73.4                | 82.6               | 61.7               | 51.0          | 129.5           | 78.2              | 98.5                | 73.7                |
| 27-May      | 90.0           | 74.1                | 83.6               | 63.5               | 52.0          | 128.8           | 81.4              | 105.6               | 80.0                |
| 3-Jun       | 94.0           | 74.8                | 84.8               | 64.9               | 55.0          | 128.8           | 82.9              | 109.4               | 84.2                |
| 10-Jun      | 96.0           | 74.9                | 86.6               | 66.6               | 59.0          | 137.2           | 83.0              | 115.5               | 88.6                |
| 17-Jun      | 93.0           | 76.2                | 88.2               | 66.9               | 58.0          | 137.2           | 83.1              | 117.9               | 90.4                |
| 24-Jun      | 96.0           | 78.3                | 89.5               | 69.0               | 61.0          | 142.8           | 84.1              | 125.3               | 96.2                |
| 1-Jul       | 97.0           | 78.3                | 89.6               | 70.0               | 60.0          | 147.7           | 87.7              | 126.2               | 99.9                |
| 8-Jul       | 99.0           | 78.9                | 91.0               | 71.4               | 67.0          | 147.7           | 84.4              | 131.1               | 105.3               |
| 15-Jul      | 98.0           | 77.5                | 91.5               | 71.7               | 65.0          | 142.1           | 83.3              | 130.3               | 104.4               |
| 22-Jul      | 98.0           | 77.9                | 92.2               | 71.3               | 67.0          | 151.2           | 83.7              | 131.4               | 104.3               |
| 29-Jul      | 98.0           | 79.4                | 91.9               | 72.0               | 67.0          | 151.9           | 85.9              | 132.8               | 106.4               |
| 5-Aug       | 98.0           | 79.1                | 90.7               | 70.9               | 64.0          | 146.3           | 82.8              | 128.9               | 102.8               |
| 12-Aug      | 97.0           | 77.4                | 91.2               | 70.2               | 63.0          | 142.1           | 83.6              | 126.7               | 100.8               |
| 19-Aug      | 98.0           | 77.7                | 91.9               | 70.4               | 60.0          | 142.1           | 84.3              | 127.3               | 100.0               |
| 26-Aug      | 98.0           | 76.2                | 92.8               | 69.8               | 65.0          | 142.1           | 84.4              | 123.9               | 97.0                |
| 2-Sep       | 98.0           | 76.9                | 90.1               | 69.6               | 61.0          | 141.4           | 86.3              | 122.1               | 96.7                |
| 9-Sep       | 96.0           | 74.0                | 88.4               | 67.2               | 56.0          | 137.2           | 82.6              | 114.3               | 90.5                |
| 16-Sep      | 96.0           | 73.9                | 86.4               | 65.8               | 53.0          | 134.4           | 80.6              | 111.8               | 86.1                |
| 23-Sep      | 93.0           | 76.2                | 83.9               | 62.0               | 47.0          | 132.3           | 82.2              | 103.0               | 76.2                |
| 30-Sep      | 91.0           | 74.1                | 81.3               | 58.0               | 47.0          | 132.3           | 81.4              | 90.7                | 66.0                |
| 7-Oct       | 90.0           | 72.4                | 80.3               | 55.2               | 42.0          | 128.1           | 81.3              | 84.1                | 57.9                |
| 14-Oct      | 88.0           | 69.2                | 77.0               | 52.4               | 38.0          | 123.9           | 79.9              | 78.8                | 53.8                |
| 21-Oct      | 85.0           | 69.0                | 75.4               | 51.5               | 37.0          | 116.9           | 79.7              | 77.4                | 52.6                |
| 28-Oct      | 84.0           | 69.8                | 73.0               | 49.9               | 36.0          | 116.9           | 75.2              | 73.3                | 49.3                |
| 4-Nov       | 83.0           | 68.3                | 70.8               | 47.9               | 28.0          | 107.8           | 75.7              | 69.9                | 46.7                |
| 11-Nov      | 80.0           | 64.4                | 66.6               | 43.5               | 25.0          | 111.3           | 74.8              | 61.3                | 38.8                |
| 18-Nov      | 79.0           | 65.9                | 65.6               | 43.2               | 29.0          | 107.1           | 72.6              | 58.5                | 38.1                |
| 25-Nov      | 77.0           | 68.7                | 63.2               | 42.9               | 27.0          | 104.3           | 71.2              | 59.6                | 36.9                |
| 2-Dec       | 76.0           | 67.6                | 59.5               | 38.4               | 24.0          | 100.8           | 73.1              | 49.9                | 30.0                |
| 9-Dec       | 73.0           | 63.0                | 59.6               | 37.8               | 25.0          | 93.1            | 67.6              | 47.8                | 28.9                |
| 16-Dec      | 75.0           | 64.5                | 56.7               | 37.3               | 20.0          | 91.7            | 68.8              | 47.5                | 28.6                |
| 23-Dec      | 73.0           | 64.8                | 54.1               | 34.5               | 16.0          | 88.2            | 65.3              | 44.3                | 25.6                |
| 31-Dec      | 73.0           | 67.3                | 53.9               | 35.2               | 14.0          | 96.6            | 69.6              | 44.0                | 27.6                |



|     | Mean Cooling<br>Degree Days (°F) | Mean Heating<br>Degree Days (°F) |
|-----|----------------------------------|----------------------------------|
| JAN | 5                                | 701                              |
| FEB | 16                               | 510                              |
| MAR | 53                               | 318                              |
| APR | 118                              | 147                              |
| MAY | 244                              | 40                               |
| JUN | 400                              | 5                                |
| JUL | 515                              | 0                                |
| AUG | 486                              | 2                                |
| SEP | 309                              | 33                               |
| OCT | 123                              | 164                              |
| NOV | 35                               | 371                              |
| DEC | 11                               | 592                              |
| ANN | 2314                             | 2883                             |

**Average Ventilation and Infiltration Loads**  
**(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)**



|     | Average Sensible Cooling Load | Average Sensible Heating Load | Average Latent Cooling Load | Average Latent Heating Load |
|-----|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
|     | (Btu/cfm)                     | (Btu/cfm)                     | (Btu/cfm)                   | (Btu/cfm)                   |
| JAN | 2                             | -20502                        | 58                          | -2835                       |
| FEB | 35                            | -15221                        | 79                          | -2097                       |
| MAR | 176                           | -10127                        | 313                         | -932                        |
| APR | 587                           | -5123                         | 1139                        | -178                        |
| MAY | 1736                          | -1720                         | 4867                        | -2                          |
| JUN | 3936                          | -294                          | 10850                       | 0                           |
| JUL | 5773                          | -27                           | 15503                       | 0                           |
| AUG | 5379                          | -112                          | 13102                       | 0                           |
| SEP | 2751                          | -1342                         | 7535                        | -1                          |
| OCT | 683                           | -5658                         | 2084                        | -94                         |
| NOV | 75                            | -11570                        | 657                         | -883                        |
| DEC | 6                             | -17611                        | 192                         | -2166                       |
| ANN | 21139                         | -89307                        | 56379                       | -9188                       |

**Average Annual Solar Radiation – Nearest Available Site**  
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation  
Data Available



**Average Annual Solar Heat and Illumination – Nearest Available Site**

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

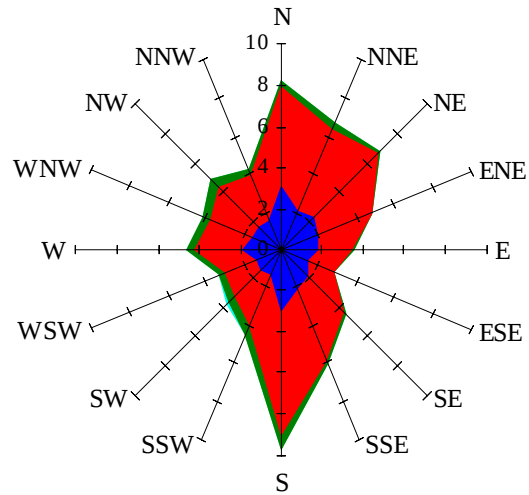
|  |  |
|--|--|
|  |  |
|  |  |

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |

### Wind Summary - December, January, and February

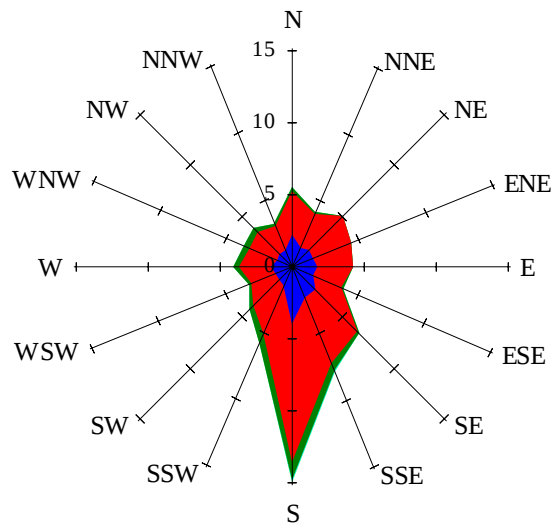
Labels of Percent Frequency on North Axis



Percent Calm = 18.39

### Wind Summary - March, April, and May

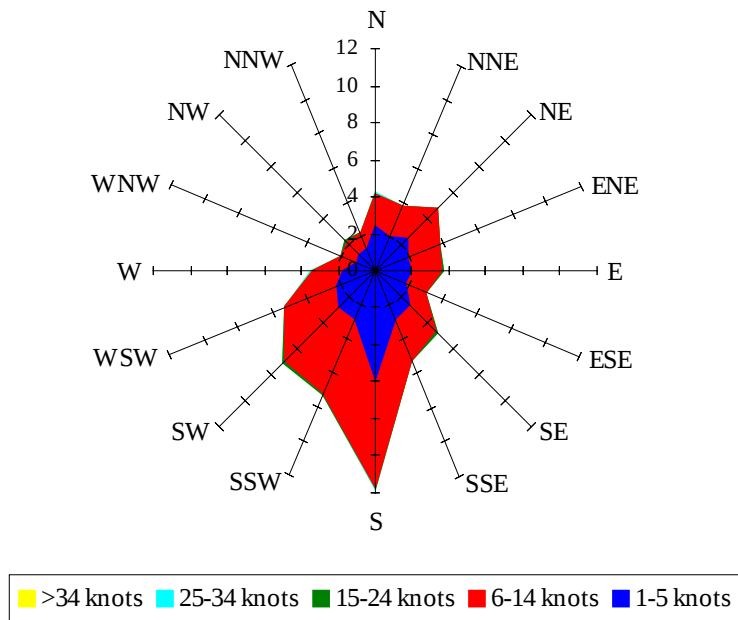
Labels of Percent Frequency on North Axis



Percent Calm = 17.47

### Wind Summary - June, July, and August

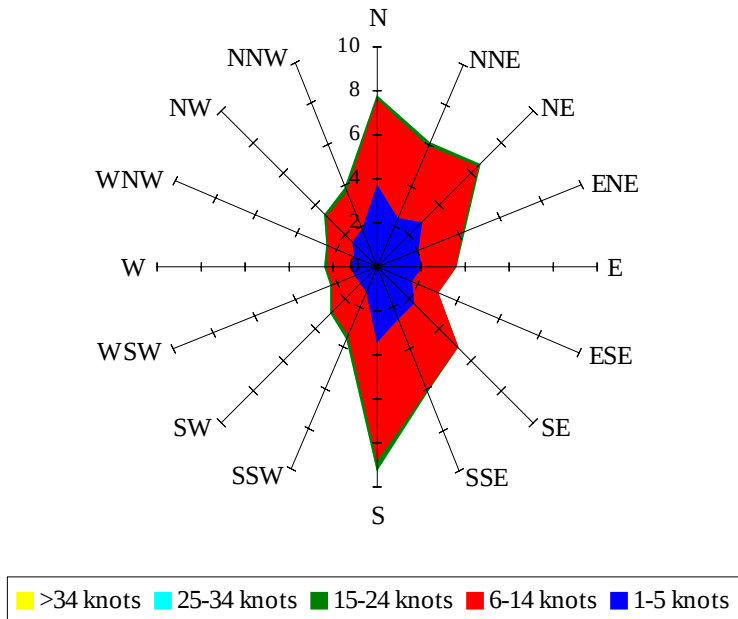
Labels of Percent Frequency on North Axis



Percent Calm = 25.77

### Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 27.67