

# 72558 OAX Omaha Observations at 00Z 26 Jul 2015

| PRES<br>hPa | HGHT<br>m | TEMP<br>C | DWPT<br>C | RELH<br>% | MIXR<br>g/kg | DRCT<br>deg | SKNT<br>knot | THTA<br>K | THTE<br>K | THTV<br>K |
|-------------|-----------|-----------|-----------|-----------|--------------|-------------|--------------|-----------|-----------|-----------|
| 1000.0      | 103       |           |           |           |              |             |              |           |           |           |
| 972.0       | 350       | 27.6      | 23.0      | 76        | 18.59        | 100         | 8            | 303.2     | 358.6     | 306.6     |
| 967.0       | 396       | 27.0      | 21.0      | 70        | 16.48        | 102         | 8            | 303.0     | 352.1     | 306.0     |
| 944.0       | 610       | 24.9      | 20.1      | 74        | 15.93        | 110         | 9            | 303.0     | 350.5     | 305.9     |
| 925.0       | 790       | 23.2      | 19.3      | 79        | 15.48        | 120         | 10           | 303.0     | 349.1     | 305.8     |
| 911.9       | 914       | 22.1      | 18.7      | 81        | 15.15        | 115         | 9            | 303.1     | 348.2     | 305.8     |
| 891.0       | 1116      | 20.2      | 17.8      | 86        | 14.61        | 165         | 10           | 303.2     | 346.7     | 305.8     |
| 880.5       | 1219      | 21.8      | 14.5      | 63        | 11.91        | 190         | 10           | 305.8     | 341.9     | 308.0     |
| 879.0       | 1234      | 22.0      | 14.0      | 60        | 11.56        | 191         | 10           | 306.2     | 341.2     | 308.4     |
| 859.0       | 1434      | 21.4      | 11.4      | 53        | 9.95         | 204         | 13           | 307.6     | 338.1     | 309.5     |
| 850.0       | 1525      | 20.6      | 11.6      | 56        | 10.19        | 210         | 14           | 307.7     | 338.9     | 309.6     |
| 843.0       | 1597      | 20.0      | 13.0      | 64        | 11.29        | 211         | 13           | 307.8     | 342.2     | 309.9     |
| 831.0       | 1720      | 20.0      | 13.0      | 64        | 11.45        | 213         | 11           | 309.1     | 344.2     | 311.2     |
| 824.0       | 1794      | 20.2      | 10.2      | 53        | 9.57         | 214         | 10           | 310.0     | 339.6     | 311.8     |
| 820.6       | 1829      | 20.0      | 10.4      | 54        | 9.73         | 215         | 10           | 310.2     | 340.3     | 312.0     |
| 806.0       | 1984      | 19.2      | 11.2      | 60        | 10.47        | 215         | 11           | 310.9     | 343.3     | 312.9     |
| 792.0       | 2134      | 18.1      | 9.7       | 58        | 9.63         | 215         | 11           | 311.3     | 341.2     | 313.1     |
| 769.0       | 2386      | 16.2      | 7.2       | 55        | 8.35         | 223         | 7            | 311.9     | 338.0     | 313.5     |
| 764.3       | 2438      | 15.8      | 7.0       | 56        | 8.31         | 225         | 6            | 312.0     | 338.0     | 313.6     |
| 737.2       | 2743      | 13.2      | 6.1       | 62        | 8.07         | 230         | 9            | 312.5     | 337.8     | 314.0     |
| 718.0       | 2966      | 11.4      | 5.4       | 67        | 7.89         | 230         | 7            | 312.8     | 337.6     | 314.3     |
| 700.0       | 3178      | 10.4      | 4.4       | 66        | 7.55         | 230         | 6            | 314.0     | 337.8     | 315.4     |
| 665.0       | 3603      | 7.4       | 1.4       | 66        | 6.41         | 252         | 6            | 315.2     | 335.7     | 316.4     |
| 660.5       | 3658      | 7.2       | 0.8       | 64        | 6.16         | 255         | 6            | 315.6     | 335.3     | 316.7     |
| 654.0       | 3740      | 6.8       | -0.2      | 61        | 5.80         | 262         | 7            | 316.1     | 334.8     | 317.2     |
| 642.0       | 3892      | 6.8       | -4.2      | 45        | 4.39         | 274         | 9            | 317.7     | 332.2     | 318.6     |
| 631.0       | 4034      | 5.8       | -5.2      | 45        | 4.14         | 286         | 10           | 318.2     | 331.8     | 319.0     |
| 627.0       | 4086      | 5.4       | -3.6      | 52        | 4.70         | 290         | 11           | 318.3     | 333.7     | 319.2     |
| 613.2       | 4267      | 3.9       | -3.4      | 59        | 4.87         | 305         | 13           | 318.5     | 334.5     | 319.5     |
| 611.0       | 4296      | 3.6       | -3.4      | 60        | 4.90         | 304         | 13           | 318.6     | 334.6     | 319.5     |
| 598.0       | 4470      | 1.8       | -2.1      | 75        | 5.52         | 297         | 14           | 318.5     | 336.4     | 319.5     |
| 586.0       | 4633      | 1.4       | -2.6      | 75        | 5.42         | 290         | 14           | 319.8     | 337.6     | 320.9     |
| 568.5       | 4877      | -0.6      | -3.7      | 80        | 5.14         | 280         | 15           | 320.3     | 337.2     | 321.2     |
| 561.0       | 4983      | -1.5      | -4.2      | 82        | 5.02         | 283         | 17           | 320.4     | 337.0     | 321.4     |
| 547.0       | 5184      | -1.7      | -6.6      | 69        | 4.29         | 290         | 21           | 322.5     | 336.9     | 323.4     |
| 526.4       | 5486      | -4.5      | -8.9      | 71        | 3.72         | 300         | 27           | 322.8     | 335.3     | 323.5     |
| 503.0       | 5844      | -7.7      | -11.7     | 73        | 3.12         | 296         | 26           | 323.0     | 333.7     | 323.6     |
| 500.0       | 5890      | -7.9      | -12.5     | 70        | 2.94         | 295         | 26           | 323.3     | 333.4     | 323.9     |
| 492.0       | 6016      | -8.3      | -15.3     | 57        | 2.38         | 292         | 32           | 324.4     | 332.6     | 324.8     |
| 488.0       | 6080      | -7.3      | -21.3     | 32        | 1.44         | 290         | 34           | 326.3     | 331.5     | 326.6     |
| 487.0       | 6096      | -7.3      | -20.8     | 33        | 1.51         | 290         | 35           | 326.5     | 331.9     | 326.8     |
| 486.0       | 6112      | -7.3      | -20.3     | 35        | 1.58         | 290         | 35           | 326.7     | 332.4     | 327.0     |
| 484.0       | 6144      | -7.5      | -16.5     | 49        | 2.19         | 290         | 35           | 326.9     | 334.6     | 327.3     |
| 477.0       | 6258      | -8.3      | -15.3     | 57        | 2.45         | 289         | 34           | 327.2     | 335.8     | 327.7     |
| 473.0       | 6323      | -8.5      | -21.5     | 34        | 1.46         | 288         | 34           | 327.8     | 333.1     | 328.1     |
| 469.0       | 6389      | -8.5      | -30.5     | 15        | 0.65         | 288         | 33           | 328.6     | 331.0     | 328.7     |
| 463.0       | 6490      | -8.5      | -48.5     | 2         | 0.10         | 287         | 33           | 329.8     | 330.2     | 329.8     |
| 415.8       | 7315      | -14.4     | -57.2     | 1         | 0.04         | 280         | 28           | 332.4     | 332.6     | 332.4     |
| 411.0       | 7405      | -15.1     | -58.1     | 1         | 0.04         | 278         | 30           | 332.7     | 332.9     | 332.7     |
| 401.0       | 7591      | -16.5     | -38.5     | 13        | 0.34         | 275         | 35           | 333.2     | 334.6     | 333.3     |
| 400.0       | 7610      | -16.7     | -40.7     | 11        | 0.27         | 275         | 35           | 333.2     | 334.3     | 333.2     |
| 399.5       | 7620      | -16.7     | -41.4     | 10        | 0.26         | 275         | 35           | 333.3     | 334.3     | 333.3     |
| 394.0       | 7723      | -17.1     | -48.1     | 5         | 0.12         | 274         | 36           | 334.1     | 334.6     | 334.1     |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 376.0 | 8072  | -19.5 | -33.5 | 28 | 0.61 | 272 | 41 | 335.4 | 337.8 | 335.6 |
| 372.0 | 8151  | -20.1 | -36.1 | 23 | 0.47 | 272 | 42 | 335.7 | 337.5 | 335.8 |
| 363.0 | 8332  | -21.5 | -33.5 | 33 | 0.63 | 270 | 45 | 336.1 | 338.6 | 336.3 |
| 359.0 | 8413  | -21.9 | -36.9 | 24 | 0.45 | 270 | 46 | 336.7 | 338.5 | 336.8 |
| 350.0 | 8599  | -23.5 | -34.5 | 36 | 0.59 | 269 | 48 | 337.0 | 339.3 | 337.1 |
| 341.0 | 8789  | -24.3 | -38.3 | 26 | 0.41 | 267 | 51 | 338.4 | 340.1 | 338.5 |
| 329.0 | 9049  | -25.5 | -35.5 | 39 | 0.57 | 266 | 55 | 340.2 | 342.5 | 340.4 |
| 324.7 | 9144  | -26.3 | -37.1 | 35 | 0.49 | 265 | 56 | 340.5 | 342.4 | 340.6 |
| 319.0 | 9272  | -27.3 | -39.3 | 31 | 0.40 | 265 | 56 | 340.8 | 342.4 | 340.8 |
| 300.0 | 9710  | -31.1 | -42.1 | 33 | 0.32 | 265 | 56 | 341.4 | 342.7 | 341.5 |
| 292.0 | 9901  | -32.9 | -43.9 | 32 | 0.27 | 264 | 56 | 341.5 | 342.6 | 341.6 |
| 274.0 | 10347 | -35.3 | -52.3 | 16 | 0.11 | 263 | 55 | 344.3 | 344.8 | 344.3 |
| 252.0 | 10926 | -39.9 | -63.9 | 6  | 0.03 | 260 | 54 | 345.8 | 345.9 | 345.8 |
| 250.0 | 10980 | -40.3 | -63.3 | 7  | 0.03 | 260 | 54 | 346.0 | 346.2 | 346.0 |
| 232.0 | 11485 | -44.7 | -61.7 | 13 | 0.04 | 258 | 54 | 346.8 | 347.0 | 346.8 |
| 200.0 | 12460 | -52.9 | -68.9 | 13 | 0.02 | 255 | 55 | 348.8 | 348.9 | 348.8 |
| 198.0 | 12525 | -53.5 | -69.5 | 12 | 0.02 | 255 | 55 | 348.9 | 349.0 | 348.9 |
| 179.0 | 13168 | -57.9 | -73.9 | 11 | 0.01 | 257 | 57 | 351.9 | 351.9 | 351.9 |
| 159.0 | 13905 | -64.3 | -77.3 | 15 | 0.01 | 260 | 60 | 353.2 | 353.2 | 353.2 |
| 156.0 | 14021 | -64.8 | -78.2 | 14 | 0.01 | 260 | 60 | 354.2 | 354.3 | 354.2 |
| 150.0 | 14260 | -65.9 | -79.9 | 13 | 0.00 | 270 | 52 | 356.4 | 356.4 | 356.4 |
| 141.1 | 14630 | -66.9 | -80.9 | 12 | 0.00 | 265 | 44 | 361.0 | 361.0 | 361.0 |
| 139.0 | 14720 | -67.1 | -81.1 | 12 | 0.00 | 264 | 46 | 362.1 | 362.1 | 362.1 |
| 128.0 | 15212 | -71.1 | -84.1 | 13 | 0.00 | 260 | 59 | 363.5 | 363.6 | 363.5 |
| 127.4 | 15240 | -70.8 | -84.0 | 13 | 0.00 | 260 | 59 | 364.5 | 364.5 | 364.5 |
| 125.0 | 15353 | -69.7 | -83.7 | 11 | 0.00 | 266 | 52 | 368.5 | 368.6 | 368.5 |
| 122.0 | 15497 | -70.1 | -84.1 | 11 | 0.00 | 273 | 44 | 370.4 | 370.4 | 370.4 |
| 121.0 | 15545 | -69.8 | -83.8 | 11 | 0.00 | 275 | 41 | 371.8 | 371.8 | 371.8 |
| 118.0 | 15696 | -68.9 | -82.9 | 12 | 0.00 | 268 | 36 | 376.1 | 376.1 | 376.1 |
| 115.0 | 15850 | -70.0 | -83.4 | 13 | 0.00 | 260 | 30 | 376.9 | 376.9 | 376.9 |
| 113.0 | 15954 | -70.7 | -83.7 | 13 | 0.00 | 260 | 30 | 377.5 | 377.5 | 377.5 |
| 109.0 | 16167 | -70.5 | -83.5 | 13 | 0.00 | 260 | 31 | 381.7 | 381.8 | 381.7 |
| 107.0 | 16277 | -69.1 | -83.1 | 12 | 0.00 | 260 | 31 | 386.4 | 386.4 | 386.4 |
| 103.0 | 16504 | -70.1 | -83.1 | 13 | 0.00 | 260 | 32 | 388.7 | 388.8 | 388.7 |
| 100.0 | 16680 | -69.3 | -83.3 | 12 | 0.00 | 260 | 32 | 393.6 | 393.6 | 393.6 |
| 98.4  | 16777 | -66.7 | -81.7 | 10 | 0.01 | 260 | 32 | 400.4 | 400.5 | 400.4 |
| 93.9  | 17061 | -64.1 | -80.1 | 10 | 0.01 | 260 | 31 | 410.9 | 411.0 | 410.9 |
| 90.1  | 17313 | -64.9 | -79.9 | 11 | 0.01 | 260 | 31 | 414.2 | 414.3 | 414.2 |
| 89.2  | 17374 | -64.2 | -79.5 | 11 | 0.01 | 260 | 31 | 416.7 | 416.8 | 416.7 |
| 87.2  | 17514 | -62.7 | -78.7 | 10 | 0.01 | 278 | 25 | 422.5 | 422.6 | 422.5 |
| 84.9  | 17678 | -63.3 | -78.8 | 11 | 0.01 | 300 | 18 | 424.6 | 424.7 | 424.6 |
| 82.3  | 17869 | -63.9 | -78.9 | 11 | 0.01 | 341 | 9  | 427.1 | 427.2 | 427.1 |
| 80.8  | 17983 | -63.2 | -79.0 | 10 | 0.01 | 5   | 4  | 430.8 | 430.8 | 430.8 |
| 76.9  | 18288 | -61.4 | -79.1 | 8  | 0.01 | 135 | 7  | 440.6 | 440.7 | 440.7 |
| 76.2  | 18343 | -61.1 | -79.1 | 8  | 0.01 | 144 | 7  | 442.5 | 442.5 | 442.5 |
| 70.0  | 18870 | -60.9 | -78.9 | 8  | 0.01 | 230 | 5  | 453.8 | 453.8 | 453.8 |
| 64.8  | 19350 | -60.5 | -79.5 | 7  | 0.01 | 193 | 3  | 464.8 | 464.8 | 464.8 |
| 61.6  | 19667 | -57.9 | -78.9 | 5  | 0.01 | 169 | 2  | 477.3 | 477.4 | 477.3 |
| 57.4  | 20117 | -57.5 | -80.4 | 4  | 0.01 | 135 | 1  | 488.0 | 488.1 | 488.0 |
| 57.1  | 20145 | -57.5 | -80.5 | 4  | 0.01 | 133 | 1  | 488.6 | 488.7 | 488.6 |
| 53.9  | 20511 | -55.1 | -80.1 | 3  | 0.01 | 106 | 5  | 502.3 | 502.4 | 502.3 |
| 50.0  | 20990 | -55.1 | -81.1 | 3  | 0.01 | 70  | 10 | 513.2 | 513.3 | 513.2 |
| 47.4  | 21336 | -55.1 | -82.1 | 2  | 0.01 | 75  | 16 | 521.2 | 521.3 | 521.2 |
| 45.1  | 21641 | -55.1 | -82.9 | 2  | 0.01 | 90  | 12 | 528.4 | 528.5 | 528.4 |
| 44.7  | 21704 | -55.1 | -83.1 | 2  | 0.01 | 93  | 13 | 529.9 | 530.0 | 529.9 |
| 42.7  | 21998 | -52.1 | -82.1 | 2  | 0.01 | 108 | 15 | 544.2 | 544.3 | 544.2 |
| 41.1  | 22250 | -51.8 | -82.9 | 1  | 0.01 | 120 | 17 | 551.2 | 551.3 | 551.2 |
| 39.9  | 22437 | -51.5 | -83.5 | 1  | 0.01 | 117 | 16 | 556.4 | 556.5 | 556.4 |
| 39.2  | 22555 | -51.6 | -83.7 | 1  | 0.01 | 115 | 15 | 558.9 | 559.0 | 559.0 |
| 37.4  | 22860 | -52.0 | -84.0 | 1  | 0.01 | 85  | 9  | 565.6 | 565.6 | 565.6 |
| 35.6  | 23165 | -52.4 | -84.4 | 1  | 0.01 | 65  | 14 | 572.3 | 572.4 | 572.3 |

|      |       |       |       |   |      |     |    |       |       |       |
|------|-------|-------|-------|---|------|-----|----|-------|-------|-------|
| 34.0 | 23470 | -52.8 | -84.8 | 1 | 0.01 | 90  | 23 | 579.0 | 579.1 | 579.0 |
| 33.5 | 23567 | -52.9 | -84.9 | 1 | 0.01 | 89  | 22 | 581.2 | 581.3 | 581.2 |
| 30.9 | 24079 | -51.6 | -85.0 | 1 | 0.01 | 85  | 18 | 598.0 | 598.1 | 598.0 |
| 30.0 | 24280 | -51.1 | -85.1 | 1 | 0.01 | 90  | 17 | 604.7 | 604.8 | 604.7 |
| 29.5 | 24384 | -50.6 | -84.6 | 1 | 0.01 | 90  | 17 | 608.9 | 609.0 | 608.9 |
| 29.1 | 24479 | -50.1 | -84.1 | 1 | 0.01 | 89  | 18 | 612.8 | 612.9 | 612.8 |
| 26.9 | 24994 | -51.2 | -84.3 | 1 | 0.01 | 85  | 26 | 623.5 | 623.6 | 623.5 |
| 26.8 | 25017 | -51.3 | -84.3 | 1 | 0.01 | 86  | 26 | 624.0 | 624.1 | 624.0 |
| 24.5 | 25603 | -49.9 | -83.4 | 1 | 0.02 | 115 | 20 | 644.2 | 644.4 | 644.2 |
| 23.4 | 25908 | -49.1 | -82.9 | 1 | 0.02 | 95  | 15 | 655.0 | 655.2 | 655.0 |
| 22.5 | 26164 | -48.5 | -82.5 | 1 | 0.02 | 93  | 18 | 664.2 | 664.4 | 664.2 |
| 21.4 | 26494 | -49.5 | -83.5 | 1 | 0.02 | 89  | 22 | 670.8 | 671.0 | 670.8 |
| 20.0 | 26940 | -48.3 | -82.3 | 1 | 0.02 | 85  | 27 | 687.6 | 687.8 | 687.6 |
| 18.8 | 27349 | -46.7 | -81.7 | 1 | 0.03 | 89  | 27 | 704.8 | 705.1 | 704.8 |
| 18.6 | 27432 | -46.6 | -81.6 | 1 | 0.03 | 90  | 27 | 707.7 | 708.0 | 707.7 |
| 15.5 | 28633 | -45.1 | -80.1 | 1 | 0.04 | 94  | 28 | 750.0 | 750.5 | 750.0 |
| 11.8 | 30480 | -39.5 | -76.6 | 1 | 0.10 | 100 | 29 | 830.5 | 831.7 | 830.5 |
| 10.8 | 31090 | -37.7 | -75.5 | 1 | 0.13 | 85  | 37 | 858.8 | 860.4 | 858.9 |
| 10.5 | 31278 | -37.1 | -75.1 | 1 | 0.14 |     |    | 867.7 | 869.5 | 867.8 |

## Station information and sounding indices

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Station identifier: OAX
Station number: 72558
Observation time: 150726/0000
Station latitude: 41.31
Station longitude: -96.36
Station elevation: 350.0
Showalter index: -0.54
Lifted index: -5.12
LIFT computed using virtual temperature: -5.68
SWEAT index: 193.20
K index: 34.10
Cross totals index: 19.50
Vertical totals index: 28.50
Totals totals index: 48.00
Convective Available Potential Energy: 930.34
CAPE using virtual temperature: 1077.85
Convective Inhibition: -138.46
CINS using virtual temperature: -93.90
Equilibrium Level: 189.12
Equilibrium Level using virtual temperature: 188.89
Level of Free Convection: 723.21
LFCT using virtual temperature: 741.02
Bulk Richardson Number: 26.60
Bulk Richardson Number using CAPV: 30.82
Temp [K] of the Lifted Condensation Level: 292.21
Pres [hPa] of the Lifted Condensation Level: 880.47
Mean mixed layer potential temperature: 303.04
Mean mixed layer mixing ratio: 16.06
1000 hPa to 500 hPa thickness: 5787.00
Precipitable water [mm] for entire sounding: 43.24

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Description of the [data columns](#) or [sounding indices](#).

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Questions about the weather data provided by this site can be addressed to [Larry Oolman \(ldoolman@uwyo.edu\)](mailto:Larry.Oolman@uwyo.edu)

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