

# 72387 DRA Mercury Observations at 00Z 15 Jul 1998

| PRES   | HGHT  | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|-------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m     | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 44    |       |       |      |      |      |      |       |       |       |
| 925.0  | 751   |       |       |      |      |      |      |       |       |       |
| 899.0  | 1009  | 37.0  | 1.0   | 10   | 4.60 | 210  | 11   | 319.7 | 335.0 | 320.6 |
| 897.0  | 1029  | 35.2  | -5.8  | 7    | 2.78 | 213  | 11   | 318.1 | 327.5 | 318.6 |
| 878.1  | 1219  | 33.4  | -6.4  | 7    | 2.70 | 240  | 8    | 318.1 | 327.3 | 318.6 |
| 850.0  | 1510  | 30.6  | -7.4  | 8    | 2.59 | 255  | 8    | 318.2 | 327.0 | 318.7 |
| 819.8  | 1829  | 27.5  | -8.1  | 9    | 2.54 | 255  | 8    | 318.2 | 326.8 | 318.7 |
| 800.0  | 2045  | 25.4  | -8.6  | 10   | 2.51 | 234  | 7    | 318.2 | 326.7 | 318.7 |
| 791.8  | 2134  | 24.6  | -9.2  | 10   | 2.41 | 225  | 7    | 318.3 | 326.5 | 318.8 |
| 764.3  | 2438  | 21.9  | -11.4 | 10   | 2.10 | 195  | 7    | 318.6 | 325.8 | 319.0 |
| 737.7  | 2743  | 19.2  | -13.6 | 10   | 1.83 | 185  | 5    | 318.9 | 325.2 | 319.3 |
| 700.0  | 3194  | 15.2  | -16.8 | 10   | 1.47 | 190  | 3    | 319.3 | 324.5 | 319.6 |
| 662.3  | 3658  | 11.4  | -23.5 | 7    | 0.87 | 175  | 3    | 320.1 | 323.3 | 320.3 |
| 649.0  | 3828  | 10.0  | -26.0 | 6    | 0.71 | 187  | 3    | 320.4 | 323.0 | 320.5 |
| 614.7  | 4267  | 7.2   | -27.6 | 6    | 0.65 | 220  | 4    | 322.1 | 324.6 | 322.3 |
| 570.1  | 4877  | 3.3   | -29.7 | 7    | 0.57 | 270  | 10   | 324.6 | 326.8 | 324.7 |
| 509.3  | 5791  | -2.5  | -33.0 | 8    | 0.47 | 275  | 17   | 328.1 | 330.0 | 328.2 |
| 500.0  | 5940  | -3.5  | -33.5 | 8    | 0.46 | 270  | 19   | 328.7 | 330.5 | 328.8 |
| 490.2  | 6096  | -4.5  | -33.2 | 9    | 0.48 | 265  | 19   | 329.3 | 331.1 | 329.4 |
| 485.0  | 6180  | -5.1  | -33.1 | 9    | 0.49 | 266  | 19   | 329.6 | 331.5 | 329.7 |
| 475.0  | 6344  | -4.5  | -30.5 | 11   | 0.64 | 267  | 20   | 332.3 | 334.8 | 332.4 |
| 402.6  | 7620  | -15.1 | -37.2 | 13   | 0.39 | 275  | 24   | 334.7 | 336.2 | 334.8 |
| 400.0  | 7670  | -15.5 | -37.5 | 13   | 0.38 | 275  | 24   | 334.8 | 336.3 | 334.8 |
| 326.9  | 9144  | -27.0 | -44.8 | 17   | 0.22 | 270  | 32   | 338.8 | 339.7 | 338.8 |
| 313.5  | 9449  | -29.4 | -46.3 | 18   | 0.19 | 270  | 36   | 339.5 | 340.4 | 339.6 |
| 300.0  | 9770  | -31.9 | -47.9 | 19   | 0.17 | 270  | 36   | 340.3 | 341.0 | 340.3 |
| 263.4  | 10668 | -38.9 | -52.0 | 24   | 0.12 | 255  | 34   | 342.9 | 343.5 | 343.0 |
| 250.0  | 11030 | -41.7 | -53.7 | 26   | 0.10 | 255  | 36   | 343.9 | 344.4 | 343.9 |
| 236.0  | 11420 | -44.9 | -55.9 | 28   | 0.08 | 255  | 34   | 344.8 | 345.2 | 344.8 |
| 210.1  | 12192 | -48.8 | -60.5 | 24   | 0.05 | 255  | 30   | 350.3 | 350.6 | 350.3 |
| 200.0  | 12520 | -50.5 | -62.5 | 23   | 0.04 | 260  | 31   | 352.6 | 352.8 | 352.6 |
| 182.4  | 13106 | -54.1 | -65.5 | 23   | 0.03 | 270  | 28   | 356.2 | 356.4 | 356.2 |
| 158.0  | 14021 | -59.7 | -70.0 | 25   | 0.02 | 245  | 23   | 361.7 | 361.8 | 361.7 |
| 150.0  | 14350 | -61.7 | -71.7 | 25   | 0.02 | 245  | 24   | 363.6 | 363.7 | 363.6 |
| 129.4  | 15240 | -66.7 | -75.7 | 27   | 0.01 | 250  | 18   | 370.3 | 370.3 | 370.3 |
| 111.0  | 16165 | -71.9 | -79.9 | 29   | 0.01 | 230  | 9    | 377.1 | 377.2 | 377.1 |
| 106.0  | 16437 | -71.9 | -79.9 | 29   | 0.01 | 216  | 12   | 382.1 | 382.2 | 382.1 |
| 105.6  | 16459 | -71.8 | -79.8 | 29   | 0.01 | 215  | 12   | 382.7 | 382.7 | 382.7 |
| 100.3  | 16764 | -71.0 | -79.0 | 30   | 0.01 | 220  | 14   | 390.1 | 390.1 | 390.1 |
| 100.0  | 16780 | -70.9 | -78.9 | 30   | 0.01 | 215  | 13   | 390.5 | 390.5 | 390.5 |
| 99.6   | 16804 | -71.1 | -79.1 | 30   | 0.01 | 214  | 13   | 390.5 | 390.6 | 390.6 |
| 95.8   | 17034 | -71.3 | -79.3 | 30   | 0.01 | 202  | 13   | 394.5 | 394.6 | 394.5 |
| 82.0   | 17967 | -65.9 | -74.9 | 27   | 0.02 | 156  | 12   | 423.5 | 423.6 | 423.5 |
| 74.0   | 18593 | -66.2 | -75.2 | 27   | 0.02 | 125  | 11   | 435.4 | 435.5 | 435.4 |
| 74.0   | 18590 | -66.3 | -75.3 | 27   | 0.02 | 125  | 11   | 435.2 | 435.4 | 435.2 |
| 71.7   | 18783 | -63.5 | -72.5 | 28   | 0.03 | 128  | 12   | 445.1 | 445.3 | 445.1 |
| 70.0   | 18930 | -63.5 | -72.5 | 28   | 0.03 | 130  | 13   | 448.2 | 448.4 | 448.2 |
| 63.8   | 19507 | -61.9 | -71.5 | 27   | 0.04 | 135  | 17   | 463.7 | 463.9 | 463.7 |
| 55.1   | 20422 | -59.4 | -69.8 | 25   | 0.06 | 105  | 17   | 489.3 | 489.7 | 489.3 |
| 50.0   | 21030 | -57.7 | -68.7 | 23   | 0.07 | 105  | 20   | 507.1 | 507.6 | 507.1 |
| 47.6   | 21336 | -56.4 | -67.4 | 24   | 0.09 | 110  | 21   | 517.2 | 517.9 | 517.3 |
| 44.8   | 21728 | -54.7 | -65.7 | 24   | 0.12 | 106  | 21   | 530.5 | 531.4 | 530.6 |
| 35.9   | 23165 | -52.4 | -65.0 | 20   | 0.17 | 90   | 23   | 571.3 | 572.6 | 571.4 |

|      |       |       |       |    |      |     |    |       |       |       |
|------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 30.0 | 24320 | -50.5 | -64.5 | 17 | 0.22 | 90  | 27 | 606.4 | 608.1 | 606.4 |
| 23.6 | 25908 | -46.6 | -61.8 | 16 | 0.40 | 95  | 35 | 660.9 | 664.4 | 661.0 |
| 20.0 | 27000 | -43.9 | -59.9 | 15 | 0.60 | 100 | 31 | 701.0 | 706.5 | 701.3 |
| 18.8 | 27432 | -42.9 | -59.4 | 15 | 0.68 | 100 | 29 | 717.0 | 723.3 | 717.2 |
| 15.6 | 28682 | -40.1 | -58.1 | 13 | 0.96 | 97  | 30 | 765.1 | 774.7 | 765.5 |
| 14.3 | 29261 | -40.1 | -57.5 | 14 | 1.13 | 95  | 31 | 783.8 | 795.4 | 784.4 |
| 13.5 | 29669 | -40.1 | -57.1 | 15 | 1.26 |     |    | 797.3 | 810.4 | 797.9 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980715/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 9.31  
 Lifted index: 9.12

LIFT computed using virtual temperature: 8.74  
 SWEAT index: 35.00  
 K index: -5.30  
 Cross totals index: -3.90  
 Vertical totals index: 34.10  
 Totals totals index: 30.20  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00  
 Temp [K] of the Lifted Condensation Level: 259.34  
 Pres [hPa] of the Lifted Condensation Level: 488.98  
 Mean mixed layer potential temperature: 318.17  
 Mean mixed layer mixing ratio: 2.73  
 1000 hPa to 500 hPa thickness: 5896.00  
 Precipitable water [mm] for entire sounding: 7.17

## 72387 DRA Mercury Observations at 12Z 15 Jul 1998

| PRES   | HGHT | TEMP | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|------|------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m    | C    | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 60   |      |       |      |      |      |      |       |       |       |
| 925.0  | 761  |      |       |      |      |      |      |       |       |       |
| 900.0  | 1009 | 19.0 | -6.0  | 18   | 2.73 | 90   | 4    | 301.1 | 309.7 | 301.6 |
| 894.0  | 1066 | 25.2 | -5.8  | 12   | 2.79 | 59   | 4    | 308.1 | 317.1 | 308.6 |
| 885.0  | 1155 | 28.4 | -6.6  | 10   | 2.65 | 13   | 4    | 312.3 | 321.0 | 312.8 |
| 878.6  | 1219 | 29.6 | -6.7  | 9    | 2.64 | 340  | 4    | 314.1 | 322.9 | 314.6 |
| 875.0  | 1255 | 30.2 | -6.8  | 9    | 2.64 | 331  | 4    | 315.1 | 324.0 | 315.6 |
| 850.0  | 1510 | 29.0 | -8.0  | 8    | 2.47 | 270  | 5    | 316.5 | 324.9 | 317.0 |
| 819.8  | 1829 | 26.7 | -9.7  | 8    | 2.25 | 255  | 5    | 317.4 | 325.1 | 317.8 |
| 800.0  | 2044 | 25.2 | -10.8 | 8    | 2.11 | 241  | 4    | 318.0 | 325.2 | 318.4 |
| 791.6  | 2134 | 24.4 | -11.3 | 8    | 2.05 | 235  | 3    | 318.1 | 325.1 | 318.5 |
| 764.1  | 2438 | 21.8 | -12.9 | 9    | 1.87 | 135  | 3    | 318.5 | 324.9 | 318.8 |
| 737.5  | 2743 | 19.1 | -14.4 | 9    | 1.70 | 115  | 11   | 318.8 | 324.7 | 319.1 |
| 700.0  | 3192 | 15.2 | -16.8 | 10   | 1.47 | 95   | 15   | 319.3 | 324.5 | 319.6 |
| 686.6  | 3353 | 13.8 | -17.9 | 10   | 1.37 | 85   | 14   | 319.4 | 324.3 | 319.7 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 661.9 | 3658  | 11.0  | -20.0 | 10 | 1.19 | 85  | 11 | 319.7 | 323.9 | 319.9 |
| 624.0 | 4150  | 6.6   | -23.4 | 10 | 0.94 | 85  | 8  | 320.1 | 323.5 | 320.3 |
| 615.1 | 4267  | 6.1   | -24.5 | 9  | 0.86 | 85  | 7  | 320.9 | 324.0 | 321.1 |
| 570.8 | 4877  | 3.7   | -30.2 | 6  | 0.55 | 200 | 7  | 325.0 | 327.0 | 325.1 |
| 569.0 | 4902  | 3.6   | -30.4 | 6  | 0.54 | 201 | 7  | 325.1 | 327.2 | 325.2 |
| 500.0 | 5940  | -2.3  | -32.3 | 8  | 0.51 | 225 | 8  | 330.2 | 332.1 | 330.3 |
| 490.1 | 6096  | -3.3  | -32.7 | 8  | 0.50 | 230 | 12 | 330.8 | 332.7 | 330.9 |
| 458.0 | 6627  | -6.9  | -33.9 | 10 | 0.48 | 226 | 16 | 332.8 | 334.7 | 332.9 |
| 453.3 | 6706  | -7.6  | -34.3 | 10 | 0.46 | 225 | 17 | 332.9 | 334.7 | 333.0 |
| 402.1 | 7620  | -15.7 | -38.9 | 12 | 0.33 | 250 | 21 | 333.9 | 335.3 | 334.0 |
| 400.0 | 7660  | -16.1 | -39.1 | 12 | 0.32 | 250 | 20 | 334.0 | 335.3 | 334.0 |
| 369.9 | 8230  | -20.8 | -41.9 | 13 | 0.26 | 260 | 19 | 335.3 | 336.4 | 335.4 |
| 326.4 | 9144  | -28.2 | -46.3 | 16 | 0.18 | 255 | 23 | 337.2 | 338.0 | 337.2 |
| 300.0 | 9760  | -33.3 | -49.3 | 19 | 0.14 | 250 | 27 | 338.3 | 338.9 | 338.4 |
| 287.3 | 10058 | -35.8 | -50.7 | 20 | 0.13 | 245 | 28 | 338.9 | 339.5 | 338.9 |
| 268.0 | 10539 | -39.9 | -52.9 | 24 | 0.11 | 253 | 29 | 339.8 | 340.2 | 339.8 |
| 263.0 | 10668 | -40.9 | -51.2 | 32 | 0.13 | 255 | 29 | 340.2 | 340.8 | 340.2 |
| 257.0 | 10824 | -42.1 | -49.1 | 46 | 0.17 | 257 | 29 | 340.6 | 341.4 | 340.7 |
| 250.0 | 11010 | -42.3 | -50.3 | 41 | 0.15 | 260 | 29 | 343.0 | 343.7 | 343.1 |
| 229.3 | 11582 | -45.8 | -53.8 | 40 | 0.11 | 265 | 32 | 346.3 | 346.8 | 346.3 |
| 200.0 | 12490 | -51.3 | -59.3 | 38 | 0.06 | 285 | 24 | 351.4 | 351.7 | 351.4 |
| 190.4 | 12802 | -53.3 | -61.1 | 38 | 0.05 | 290 | 23 | 353.1 | 353.4 | 353.1 |
| 150.0 | 14310 | -63.1 | -70.1 | 38 | 0.02 | 260 | 24 | 361.2 | 361.3 | 361.2 |
| 135.2 | 14935 | -66.4 | -73.1 | 39 | 0.01 | 250 | 20 | 366.2 | 366.3 | 366.2 |
| 128.4 | 15240 | -68.0 | -74.5 | 39 | 0.01 | 255 | 21 | 368.7 | 368.7 | 368.7 |
| 116.0 | 15850 | -71.3 | -77.4 | 40 | 0.01 | 265 | 14 | 373.5 | 373.6 | 373.5 |
| 111.0 | 16115 | -72.7 | -78.7 | 40 | 0.01 | 260 | 10 | 375.6 | 375.7 | 375.6 |
| 100.0 | 16730 | -69.9 | -76.9 | 35 | 0.01 | 165 | 4  | 392.4 | 392.5 | 392.4 |
| 99.4  | 16764 | -69.7 | -76.7 | 35 | 0.01 | 180 | 3  | 393.5 | 393.6 | 393.5 |
| 97.6  | 16875 | -68.9 | -75.9 | 36 | 0.01 | 178 | 4  | 397.1 | 397.2 | 397.1 |
| 84.1  | 17762 | -70.7 | -77.7 | 35 | 0.01 | 164 | 14 | 410.7 | 410.8 | 410.7 |
| 81.0  | 17983 | -70.0 | -77.0 | 35 | 0.01 | 160 | 16 | 416.5 | 416.6 | 416.5 |
| 70.0  | 18860 | -67.1 | -74.1 | 37 | 0.02 | 115 | 13 | 440.5 | 440.6 | 440.5 |
| 66.2  | 19202 | -65.7 | -72.8 | 36 | 0.03 | 100 | 16 | 450.7 | 450.9 | 450.7 |
| 57.1  | 20117 | -61.8 | -69.4 | 36 | 0.06 | 110 | 22 | 478.9 | 479.3 | 478.9 |
| 50.0  | 20940 | -58.3 | -66.3 | 35 | 0.10 | 100 | 20 | 505.7 | 506.4 | 505.7 |
| 47.0  | 21336 | -57.5 | -65.7 | 34 | 0.12 | 95  | 21 | 516.7 | 517.5 | 516.7 |
| 30.0  | 24200 | -51.5 | -61.5 | 29 | 0.32 | 90  | 23 | 603.6 | 606.2 | 603.8 |
| 29.2  | 24384 | -51.3 | -61.4 | 29 | 0.34 | 90  | 23 | 609.0 | 611.7 | 609.1 |
| 20.0  | 26850 | -49.1 | -60.1 | 27 | 0.58 | 90  | 35 | 685.1 | 690.4 | 685.4 |
| 18.3  | 27432 | -47.8 | -59.5 | 25 | 0.68 | 90  | 40 | 706.3 | 712.7 | 706.6 |
| 17.5  | 27737 | -47.2 | -59.2 | 24 | 0.74 | 90  | 44 | 717.7 | 724.7 | 718.0 |
| 11.6  | 30480 | -41.2 | -56.5 | 18 | 1.57 | 100 | 37 | 828.2 | 845.2 | 829.0 |
| 10.6  | 31093 | -39.9 | -55.9 | 16 | 1.86 | 103 | 39 | 855.1 | 875.8 | 856.1 |
| 10.1  | 31394 | -40.7 | -56.7 | 16 | 1.77 | 105 | 40 | 863.1 | 883.0 | 864.1 |
| 10.0  | 31490 | -40.9 | -56.9 | 16 | 1.74 | 105 | 40 | 865.7 | 885.4 | 866.6 |
| 9.6   | 31768 | -41.3 | -56.3 | 18 | 1.96 |     |    | 874.4 | 896.6 | 875.4 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980715/1200  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 11.57  
 Lifted index: 13.24  
 LIFT computed using virtual temperature: 12.96  
 SWEAT index: 17.99

K index: -8.70  
 Cross totals index: -5.70  
 Vertical totals index: 31.30  
 Totals totals index: 25.60  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00  
 Temp [K] of the Lifted Condensation Level: 259.68  
 Pres [hPa] of the Lifted Condensation Level: 520.16  
 Mean mixed layer potential temperature: 313.02  
 Mean mixed layer mixing ratio: 2.63  
 1000 hPa to 500 hPa thickness: 5880.00  
 Precipitable water [mm] for entire sounding: 7.09

## 72387 DRA Mercury Observations at 00Z 16 Jul 1998

| PRES   | HGHT  | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|-------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m     | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 47    |       |       |      |      |      |      |       |       |       |
| 925.0  | 753   |       |       |      |      |      |      |       |       |       |
| 899.0  | 1009  | 40.8  | 4.8   | 11   | 6.03 | 280  | 8    | 323.6 | 343.7 | 324.8 |
| 892.0  | 1081  | 38.0  | -7.0  | 5    | 2.55 | 283  | 8    | 321.5 | 330.2 | 322.0 |
| 878.5  | 1219  | 36.7  | -8.0  | 5    | 2.40 | 290  | 7    | 321.6 | 329.9 | 322.0 |
| 850.0  | 1518  | 34.0  | -10.0 | 5    | 2.11 | 275  | 3    | 321.8 | 329.1 | 322.2 |
| 820.3  | 1829  | 31.0  | -11.2 | 6    | 2.00 | 220  | 4    | 321.9 | 328.8 | 322.2 |
| 792.2  | 2134  | 28.1  | -12.3 | 6    | 1.88 | 225  | 4    | 321.9 | 328.5 | 322.3 |
| 765.2  | 2438  | 25.1  | -13.5 | 7    | 1.78 | 175  | 3    | 322.0 | 328.2 | 322.3 |
| 739.0  | 2743  | 22.2  | -14.6 | 7    | 1.67 | 85   | 1    | 322.0 | 327.9 | 322.3 |
| 700.0  | 3217  | 17.6  | -16.4 | 8    | 1.52 | 20   | 4    | 321.9 | 327.3 | 322.2 |
| 664.1  | 3658  | 13.4  | -17.8 | 10   | 1.43 | 15   | 5    | 322.1 | 327.1 | 322.4 |
| 617.5  | 4267  | 7.5   | -19.7 | 12   | 1.31 | 85   | 6    | 322.1 | 326.8 | 322.4 |
| 615.0  | 4302  | 7.2   | -19.8 | 13   | 1.30 | 80   | 6    | 322.1 | 326.8 | 322.4 |
| 573.3  | 4877  | 5.3   | -30.0 | 6    | 0.56 | 0    | 0    | 326.5 | 328.6 | 326.6 |
| 570.0  | 4924  | 5.2   | -30.8 | 5    | 0.52 | 8    | 0    | 326.8 | 328.8 | 326.9 |
| 500.0  | 5980  | -1.9  | -33.9 | 7    | 0.44 | 180  | 7    | 330.7 | 332.4 | 330.8 |
| 492.7  | 6096  | -2.7  | -34.3 | 7    | 0.43 | 195  | 8    | 331.1 | 332.8 | 331.2 |
| 468.0  | 6502  | -5.5  | -35.5 | 7    | 0.40 | 208  | 9    | 332.5 | 334.1 | 332.6 |
| 404.7  | 7620  | -14.0 | -39.4 | 10   | 0.31 | 245  | 10   | 335.6 | 336.8 | 335.6 |
| 400.0  | 7710  | -14.7 | -39.7 | 10   | 0.30 | 245  | 10   | 335.8 | 337.0 | 335.9 |
| 375.0  | 8195  | -18.5 | -40.5 | 13   | 0.30 | 249  | 10   | 337.0 | 338.2 | 337.1 |
| 343.4  | 8839  | -24.5 | -42.7 | 17   | 0.26 | 255  | 11   | 337.4 | 338.5 | 337.4 |
| 329.4  | 9144  | -27.4 | -43.7 | 20   | 0.24 | 260  | 13   | 337.5 | 338.5 | 337.6 |
| 327.0  | 9197  | -27.9 | -43.9 | 20   | 0.24 | 261  | 13   | 337.5 | 338.5 | 337.6 |
| 311.0  | 9555  | -30.3 | -35.3 | 62   | 0.61 | 267  | 15   | 339.1 | 341.5 | 339.2 |
| 302.4  | 9754  | -32.0 | -36.2 | 67   | 0.58 | 270  | 16   | 339.4 | 341.7 | 339.5 |
| 300.0  | 9810  | -32.5 | -36.4 | 68   | 0.57 | 265  | 16   | 339.4 | 341.7 | 339.6 |
| 289.5  | 10058 | -33.9 | -39.8 | 55   | 0.42 | 265  | 16   | 341.0 | 342.7 | 341.1 |
| 270.0  | 10543 | -36.5 | -46.5 | 35   | 0.22 | 289  | 12   | 344.0 | 344.9 | 344.1 |
| 265.1  | 10668 | -37.4 | -47.8 | 33   | 0.19 | 295  | 11   | 344.6 | 345.4 | 344.6 |
| 253.6  | 10973 | -39.4 | -51.1 | 28   | 0.14 | 310  | 11   | 345.9 | 346.5 | 345.9 |
| 250.0  | 11070 | -40.1 | -52.1 | 27   | 0.12 | 310  | 11   | 346.3 | 346.9 | 346.3 |
| 200.0  | 12560 | -50.3 | -61.3 | 26   | 0.05 | 285  | 6    | 352.9 | 353.2 | 353.0 |
| 150.0  | 14390 | -62.3 | -71.3 | 29   | 0.02 | 280  | 9    | 362.6 | 362.6 | 362.6 |
| 130.3  | 15240 | -66.8 | -75.3 | 29   | 0.01 | 245  | 6    | 369.4 | 369.5 | 369.4 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 113.0 | 16099 | -71.3 | -79.3 | 30 | 0.01 | 225 | 11 | 376.3 | 376.4 | 376.3 |
| 101.0 | 16764 | -71.3 | -79.3 | 30 | 0.01 | 225 | 9  | 388.7 | 388.7 | 388.7 |
| 100.0 | 16820 | -71.3 | -79.3 | 30 | 0.01 | 225 | 9  | 389.7 | 389.8 | 389.7 |
| 97.3  | 16983 | -71.7 | -79.7 | 29 | 0.01 | 205 | 6  | 392.0 | 392.0 | 392.0 |
| 95.9  | 17069 | -71.5 | -79.5 | 30 | 0.01 | 195 | 5  | 394.0 | 394.1 | 394.0 |
| 78.3  | 18288 | -68.6 | -76.6 | 31 | 0.01 | 120 | 11 | 423.5 | 423.6 | 423.5 |
| 71.3  | 18848 | -67.3 | -75.3 | 31 | 0.02 | 128 | 15 | 437.8 | 437.9 | 437.8 |
| 70.0  | 18960 | -66.7 | -74.7 | 32 | 0.02 | 130 | 16 | 441.4 | 441.5 | 441.4 |
| 58.1  | 20117 | -60.6 | -69.7 | 29 | 0.05 | 135 | 13 | 479.2 | 479.6 | 479.2 |
| 52.7  | 20726 | -57.4 | -67.1 | 28 | 0.09 | 85  | 12 | 500.2 | 500.9 | 500.3 |
| 50.0  | 21050 | -55.7 | -65.7 | 28 | 0.11 | 85  | 17 | 511.8 | 512.5 | 511.8 |
| 47.8  | 21336 | -55.5 | -65.6 | 27 | 0.12 | 95  | 20 | 518.8 | 519.7 | 518.9 |
| 45.6  | 21641 | -55.3 | -65.5 | 27 | 0.13 | 100 | 22 | 526.5 | 527.4 | 526.5 |
| 32.6  | 23792 | -53.7 | -64.7 | 25 | 0.20 | 100 | 32 | 583.6 | 585.2 | 583.7 |
| 31.2  | 24079 | -52.4 | -63.4 | 25 | 0.24 | 100 | 33 | 594.5 | 596.4 | 594.6 |
| 30.0  | 24330 | -51.3 | -62.3 | 26 | 0.29 | 100 | 33 | 604.2 | 606.5 | 604.3 |
| 23.6  | 25908 | -48.2 | -61.0 | 21 | 0.44 | 85  | 31 | 656.2 | 660.0 | 656.3 |
| 20.0  | 26990 | -46.1 | -60.1 | 19 | 0.58 | 90  | 34 | 694.3 | 699.6 | 694.5 |
| 18.7  | 27432 | -44.0 | -59.1 | 17 | 0.70 | 90  | 37 | 714.2 | 720.8 | 714.5 |
| 17.9  | 27733 | -42.5 | -58.5 | 16 | 0.80 | 91  | 37 | 728.0 | 735.6 | 728.4 |
| 15.7  | 28617 | -43.7 | -59.7 | 15 | 0.78 | 95  | 37 | 751.9 | 759.6 | 752.2 |
| 13.1  | 29870 | -39.9 | -57.7 | 13 | 1.21 | 100 | 37 | 805.8 | 818.5 | 806.4 |
| 12.8  | 30002 | -39.5 | -57.5 | 13 | 1.26 |     |    | 811.6 | 825.0 | 812.3 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980716/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 9.86  
 Lifted index: 9.23

LIFT computed using virtual temperature: 8.78  
 SWEAT index: 12.98  
 K index: -8.10  
 Cross totals index: -8.10  
 Vertical totals index: 35.90  
 Totals totals index: 27.80  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00  
 Temp [K] of the Lifted Condensation Level: 257.67  
 Pres [hPa] of the Lifted Condensation Level: 459.68  
 Mean mixed layer potential temperature: 321.75  
 Mean mixed layer mixing ratio: 2.62  
 1000 hPa to 500 hPa thickness: 5933.00  
 Precipitable water [mm] for entire sounding: 7.16

## 72387 DRA Mercury Observations at 12Z 16 Jul 1998

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| PRES | HGHT | TEMP | DWPT | RELH | MIXR | DRCT | SKNT | THTA | THTE | THTV |
|------|------|------|------|------|------|------|------|------|------|------|
| hPa  | m    | C    | C    | %    | g/kg | deg  | knot | K    | K    | K    |

|        |       |       |       |    |      |     |    |       |       |       |
|--------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 1000.0 | 51    |       |       |    |      |     |    |       |       |       |
| 925.0  | 761   |       |       |    |      |     |    |       |       |       |
| 900.0  | 1009  | 22.6  | -6.4  | 14 | 2.64 | 130 | 5  | 304.8 | 313.3 | 305.3 |
| 897.0  | 1038  | 27.0  | -11.0 | 7  | 1.85 | 119 | 5  | 309.6 | 315.8 | 310.0 |
| 891.0  | 1097  | 30.0  | -11.0 | 6  | 1.86 | 98  | 6  | 313.3 | 319.6 | 313.7 |
| 878.9  | 1219  | 31.4  | -12.1 | 5  | 1.72 | 55  | 7  | 316.0 | 321.9 | 316.3 |
| 872.0  | 1289  | 32.2  | -12.8 | 5  | 1.65 | 43  | 7  | 317.5 | 323.2 | 317.9 |
| 850.0  | 1517  | 31.6  | -15.4 | 4  | 1.36 | 5   | 8  | 319.2 | 324.1 | 319.5 |
| 820.1  | 1829  | 28.9  | -15.5 | 5  | 1.41 | 5   | 6  | 319.7 | 324.7 | 320.0 |
| 791.9  | 2134  | 26.4  | -15.6 | 5  | 1.45 | 45  | 6  | 320.1 | 325.3 | 320.4 |
| 764.8  | 2438  | 23.8  | -15.6 | 6  | 1.49 | 90  | 7  | 320.6 | 325.8 | 320.9 |
| 738.5  | 2743  | 21.2  | -15.7 | 7  | 1.53 | 115 | 8  | 320.9 | 326.4 | 321.2 |
| 700.0  | 3210  | 17.2  | -15.8 | 9  | 1.60 | 160 | 13 | 321.5 | 327.1 | 321.8 |
| 663.2  | 3658  | 13.1  | -16.5 | 11 | 1.59 | 175 | 23 | 321.8 | 327.4 | 322.1 |
| 639.4  | 3962  | 10.2  | -17.1 | 13 | 1.58 | 175 | 25 | 322.0 | 327.6 | 322.3 |
| 616.3  | 4267  | 7.4   | -17.6 | 15 | 1.57 | 170 | 24 | 322.2 | 327.7 | 322.5 |
| 588.0  | 4657  | 3.8   | -18.2 | 18 | 1.56 | 167 | 19 | 322.3 | 327.8 | 322.6 |
| 576.0  | 4824  | 3.2   | -30.8 | 6  | 0.51 | 165 | 17 | 323.5 | 325.5 | 323.6 |
| 572.3  | 4877  | 3.9   | -32.5 | 5  | 0.44 | 165 | 16 | 324.9 | 326.6 | 325.0 |
| 568.0  | 4938  | 4.6   | -34.4 | 4  | 0.37 | 164 | 15 | 326.5 | 327.9 | 326.5 |
| 550.9  | 5182  | 2.9   | -35.1 | 4  | 0.35 | 160 | 11 | 327.3 | 328.7 | 327.4 |
| 500.0  | 5960  | -2.5  | -37.5 | 5  | 0.31 | 205 | 8  | 329.9 | 331.1 | 330.0 |
| 491.4  | 6096  | -3.5  | -37.8 | 5  | 0.30 | 220 | 9  | 330.3 | 331.5 | 330.4 |
| 472.5  | 6401  | -5.8  | -38.5 | 6  | 0.29 | 230 | 11 | 331.2 | 332.4 | 331.3 |
| 421.0  | 7301  | -12.5 | -40.5 | 8  | 0.27 | 252 | 9  | 333.7 | 334.8 | 333.8 |
| 403.7  | 7620  | -15.3 | -40.0 | 10 | 0.29 | 260 | 8  | 334.1 | 335.3 | 334.2 |
| 400.0  | 7690  | -15.9 | -39.9 | 11 | 0.30 | 260 | 9  | 334.2 | 335.4 | 334.3 |
| 343.0  | 8826  | -25.5 | -44.5 | 15 | 0.21 | 252 | 7  | 336.2 | 337.1 | 336.2 |
| 328.1  | 9144  | -28.5 | -40.5 | 31 | 0.34 | 250 | 7  | 336.3 | 337.7 | 336.4 |
| 318.0  | 9369  | -30.7 | -37.7 | 50 | 0.47 | 271 | 7  | 336.4 | 338.2 | 336.4 |
| 300.0  | 9780  | -34.1 | -41.1 | 49 | 0.35 | 310 | 6  | 337.2 | 338.6 | 337.3 |
| 274.0  | 10411 | -36.3 | -46.3 | 35 | 0.22 | 314 | 7  | 342.9 | 343.8 | 342.9 |
| 263.9  | 10668 | -38.3 | -48.3 | 34 | 0.18 | 315 | 7  | 343.7 | 344.5 | 343.7 |
| 250.0  | 11040 | -41.1 | -51.1 | 33 | 0.14 | 320 | 8  | 344.8 | 345.4 | 344.9 |
| 200.0  | 12520 | -51.9 | -60.9 | 33 | 0.05 | 275 | 5  | 350.4 | 350.7 | 350.4 |
| 167.0  | 13667 | -60.7 | -68.7 | 34 | 0.02 | 291 | 6  | 354.3 | 354.4 | 354.3 |
| 150.0  | 14330 | -64.5 | -71.5 | 38 | 0.02 | 300 | 7  | 358.8 | 358.9 | 358.8 |
| 129.0  | 15240 | -69.2 | -76.2 | 36 | 0.01 | 310 | 10 | 366.1 | 366.1 | 366.1 |
| 127.0  | 15336 | -69.7 | -76.7 | 35 | 0.01 | 313 | 10 | 366.9 | 366.9 | 366.9 |
| 114.0  | 15977 | -71.9 | -78.9 | 34 | 0.01 | 335 | 8  | 374.3 | 374.3 | 374.3 |
| 104.0  | 16518 | -72.3 | -79.3 | 34 | 0.01 | 59  | 4  | 383.5 | 383.5 | 383.5 |
| 100.0  | 16750 | -71.1 | -78.1 | 35 | 0.01 | 95  | 3  | 390.1 | 390.1 | 390.1 |
| 99.8   | 16764 | -71.0 | -78.0 | 35 | 0.01 | 95  | 3  | 390.4 | 390.5 | 390.4 |
| 98.0   | 16870 | -70.7 | -77.7 | 35 | 0.01 | 109 | 3  | 393.1 | 393.2 | 393.1 |
| 94.8   | 17069 | -68.4 | -75.4 | 36 | 0.01 | 135 | 4  | 401.3 | 401.4 | 401.4 |
| 94.3   | 17099 | -68.1 | -75.1 | 36 | 0.02 | 134 | 4  | 402.6 | 402.7 | 402.6 |
| 85.9   | 17655 | -70.3 | -77.3 | 35 | 0.01 | 118 | 7  | 409.0 | 409.1 | 409.0 |
| 77.3   | 18288 | -68.5 | -75.5 | 36 | 0.02 | 100 | 11 | 425.2 | 425.3 | 425.2 |
| 70.0   | 18880 | -66.9 | -73.9 | 37 | 0.02 | 100 | 16 | 440.9 | 441.1 | 440.9 |
| 60.2   | 19812 | -63.5 | -70.9 | 36 | 0.04 | 100 | 24 | 467.9 | 468.2 | 467.9 |
| 50.0   | 20960 | -59.3 | -67.3 | 35 | 0.09 | 100 | 25 | 503.3 | 503.9 | 503.3 |
| 47.1   | 21336 | -58.0 | -66.0 | 35 | 0.11 | 95  | 23 | 515.0 | 515.7 | 515.0 |
| 40.6   | 22275 | -54.9 | -62.9 | 36 | 0.20 | 95  | 24 | 545.1 | 546.6 | 545.2 |
| 30.0   | 24220 | -51.7 | -60.7 | 33 | 0.36 | 95  | 27 | 603.1 | 606.0 | 603.2 |
| 20.0   | 26860 | -49.1 | -58.1 | 34 | 0.75 | 95  | 36 | 685.1 | 691.8 | 685.4 |
| 18.3   | 27432 | -48.3 | -57.6 | 33 | 0.87 | 95  | 37 | 704.8 | 712.7 | 705.2 |
| 16.0   | 28346 | -47.0 | -56.9 | 31 | 1.09 | 85  | 40 | 737.4 | 747.8 | 737.9 |
| 15.4   | 28584 | -46.7 | -56.7 | 31 | 1.16 |     |    | 746.1 | 757.3 | 746.7 |

# Station information and sounding indices

Station identifier: DRA  
Station number: 72387  
Observation time: 980716/1200  
Station latitude: 36.61  
Station longitude: -116.01  
Station elevation: 1009.0  
Showalter index: 11.80  
Lifted index: 13.18

LIFT computed using virtual temperature: 12.87  
SWEAT index: 24.01  
K index: -14.30  
Cross totals index: -12.90  
Vertical totals index: 34.10  
Totals totals index: 21.20

Convective Available Potential Energy: 0.00  
CAPE using virtual temperature: 0.00  
Convective Inhibition: 0.00  
CINS using virtual temperature: 0.00  
Bulk Richardson Number: 0.00

Bulk Richardson Number using CAPV: 0.00

Temp [K] of the Lifted Condensation Level: 252.89

Pres [hPa] of the Lifted Condensation Level: 460.17

Mean mixed layer potential temperature: 315.70

Mean mixed layer mixing ratio: 1.69

1000 hPa to 500 hPa thickness: 5909.00

Precipitable water [mm] for entire sounding: 6.27

## 72387 DRA Mercury Observations at 00Z 17 Jul 1998

| PRES   | HGHT | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m    | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 42   |       |       |      |      |      |      |       |       |       |
| 925.0  | 753  |       |       |      |      |      |      |       |       |       |
| 899.0  | 1009 | 42.2  | 5.2   | 11   | 6.20 | 220  | 12   | 325.1 | 345.8 | 326.3 |
| 897.0  | 1030 | 40.6  | -2.4  | 7    | 3.59 | 221  | 12   | 323.6 | 335.9 | 324.4 |
| 878.7  | 1219 | 38.8  | -3.5  | 7    | 3.38 | 235  | 11   | 323.6 | 335.2 | 324.3 |
| 850.0  | 1523 | 35.8  | -5.2  | 7    | 3.07 | 240  | 10   | 323.6 | 334.2 | 324.2 |
| 821.0  | 1829 | 32.8  | -6.2  | 8    | 2.93 | 230  | 9    | 323.7 | 333.8 | 324.3 |
| 793.1  | 2134 | 29.8  | -7.3  | 8    | 2.81 | 210  | 9    | 323.7 | 333.4 | 324.2 |
| 766.2  | 2438 | 26.8  | -8.3  | 9    | 2.68 | 205  | 9    | 323.7 | 332.9 | 324.2 |
| 740.1  | 2743 | 23.8  | -9.3  | 10   | 2.56 | 200  | 8    | 323.6 | 332.5 | 324.1 |
| 700.0  | 3234 | 19.0  | -11.0 | 12   | 2.37 | 195  | 7    | 323.5 | 331.7 | 324.0 |
| 665.2  | 3658 | 15.1  | -12.0 | 14   | 2.30 | 155  | 7    | 323.9 | 331.9 | 324.3 |
| 641.4  | 3962 | 12.4  | -12.8 | 16   | 2.24 | 115  | 13   | 324.1 | 332.0 | 324.6 |
| 618.3  | 4267 | 9.6   | -13.5 | 18   | 2.19 | 115  | 18   | 324.4 | 332.0 | 324.8 |
| 596.1  | 4572 | 6.8   | -14.3 | 21   | 2.14 | 115  | 18   | 324.6 | 332.0 | 325.0 |
| 574.6  | 4877 | 4.0   | -15.0 | 24   | 2.08 | 120  | 18   | 324.7 | 332.0 | 325.1 |
| 564.0  | 5032 | 2.6   | -15.4 | 25   | 2.06 | 123  | 16   | 324.8 | 332.0 | 325.2 |
| 553.6  | 5182 | 2.5   | -20.6 | 16   | 1.35 | 125  | 14   | 326.4 | 331.3 | 326.7 |
| 534.0  | 5474 | 2.4   | -30.6 | 7    | 0.56 | 189  | 10   | 329.6 | 331.8 | 329.8 |
| 500.0  | 6000 | -2.3  | -30.3 | 10   | 0.62 | 305  | 2    | 330.2 | 332.6 | 330.3 |
| 493.9  | 6096 | -3.0  | -30.8 | 10   | 0.60 | 315  | 2    | 330.4 | 332.7 | 330.6 |
| 405.7  | 7620 | -14.8 | -38.2 | 12   | 0.35 | 340  | 3    | 334.2 | 335.7 | 334.3 |
| 400.0  | 7730 | -15.7 | -38.7 | 12   | 0.34 | 330  | 3    | 334.5 | 335.9 | 334.6 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 330.2 | 9144  | -27.7 | -39.7 | 31 | 0.37 | 320 | 4  | 336.9 | 338.4 | 337.0 |
| 330.0 | 9149  | -27.7 | -39.7 | 31 | 0.37 | 321 | 4  | 336.9 | 338.4 | 337.0 |
| 300.0 | 9830  | -31.1 | -47.1 | 19 | 0.18 | 35  | 8  | 341.4 | 342.2 | 341.5 |
| 265.7 | 10668 | -36.5 | -51.2 | 20 | 0.13 | 5   | 10 | 345.5 | 346.1 | 345.5 |
| 254.3 | 10973 | -38.5 | -52.7 | 21 | 0.11 | 10  | 11 | 346.9 | 347.4 | 347.0 |
| 250.0 | 11090 | -39.3 | -53.3 | 21 | 0.11 | 15  | 10 | 347.5 | 348.0 | 347.5 |
| 200.0 | 12590 | -50.5 | -62.5 | 23 | 0.04 | 330 | 2  | 352.6 | 352.8 | 352.6 |
| 174.0 | 13483 | -57.3 | -68.3 | 23 | 0.02 | 6   | 3  | 355.7 | 355.9 | 355.8 |
| 150.0 | 14410 | -62.1 | -72.1 | 25 | 0.02 | 45  | 4  | 362.9 | 363.0 | 362.9 |
| 130.7 | 15240 | -66.1 | -75.3 | 27 | 0.01 | 75  | 5  | 370.3 | 370.3 | 370.3 |
| 108.0 | 16387 | -71.7 | -79.7 | 29 | 0.01 | 70  | 7  | 380.5 | 380.5 | 380.5 |
| 105.0 | 16552 | -71.9 | -79.9 | 29 | 0.01 | 63  | 7  | 383.2 | 383.2 | 383.2 |
| 101.3 | 16764 | -70.6 | -78.6 | 30 | 0.01 | 55  | 8  | 389.7 | 389.7 | 389.7 |
| 100.0 | 16840 | -70.1 | -78.1 | 30 | 0.01 | 55  | 9  | 392.0 | 392.1 | 392.0 |
| 96.2  | 17069 | -70.1 | -78.1 | 30 | 0.01 | 55  | 10 | 396.4 | 396.4 | 396.4 |
| 92.8  | 17286 | -70.1 | -78.1 | 30 | 0.01 | 71  | 11 | 400.5 | 400.6 | 400.5 |
| 82.7  | 17983 | -68.2 | -76.6 | 29 | 0.01 | 120 | 13 | 417.7 | 417.8 | 417.7 |
| 74.8  | 18593 | -66.6 | -75.3 | 28 | 0.02 | 135 | 12 | 433.4 | 433.5 | 433.4 |
| 70.0  | 18990 | -65.5 | -74.5 | 28 | 0.02 | 110 | 10 | 443.9 | 444.1 | 443.9 |
| 67.6  | 19202 | -64.7 | -73.9 | 27 | 0.03 | 95  | 11 | 450.0 | 450.1 | 450.0 |
| 61.3  | 19812 | -62.5 | -72.3 | 26 | 0.04 | 80  | 16 | 467.8 | 468.0 | 467.8 |
| 50.0  | 21070 | -57.9 | -68.9 | 23 | 0.07 | 90  | 23 | 506.6 | 507.1 | 506.6 |
| 48.7  | 21236 | -56.5 | -67.5 | 24 | 0.09 | 90  | 24 | 513.8 | 514.4 | 513.8 |
| 48.0  | 21336 | -56.3 | -67.4 | 24 | 0.09 | 90  | 24 | 516.5 | 517.2 | 516.5 |
| 37.8  | 22860 | -53.3 | -65.3 | 22 | 0.15 | 100 | 30 | 560.4 | 561.6 | 560.5 |
| 30.0  | 24350 | -50.3 | -63.3 | 20 | 0.26 | 85  | 29 | 606.9 | 609.0 | 607.0 |
| 29.8  | 24384 | -50.2 | -63.2 | 20 | 0.26 | 85  | 29 | 608.1 | 610.3 | 608.2 |
| 28.5  | 24686 | -49.1 | -62.1 | 20 | 0.32 | 87  | 29 | 619.2 | 621.8 | 619.3 |
| 23.6  | 25925 | -49.1 | -62.1 | 20 | 0.38 | 94  | 31 | 653.5 | 656.8 | 653.6 |
| 21.5  | 26544 | -43.9 | -57.9 | 20 | 0.72 | 97  | 31 | 686.7 | 693.1 | 687.0 |
| 20.0  | 27030 | -43.5 | -58.5 | 17 | 0.71 | 100 | 32 | 702.2 | 708.8 | 702.5 |
| 19.7  | 27127 | -43.4 | -58.5 | 17 | 0.72 | 100 | 32 | 705.3 | 712.0 | 705.6 |
| 18.8  | 27432 | -43.3 | -58.5 | 17 | 0.76 | 100 | 32 | 715.0 | 722.1 | 715.4 |
| 12.6  | 30175 | -41.6 | -58.5 | 14 | 1.14 | 90  | 40 | 808.6 | 820.7 | 809.2 |
| 12.1  | 30425 | -41.5 | -58.5 | 14 | 1.18 |     |    | 817.7 | 830.4 | 818.3 |
| 11.9  | 30538 | -39.7 | -56.7 | 15 | 1.50 |     |    | 828.0 | 844.2 | 828.8 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980717/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 7.10  
 Lifted index: 6.63  
 LIFT computed using virtual temperature: 6.11  
 SWEAT index: 22.01  
 K index: 2.90  
 Cross totals index: -2.90  
 Vertical totals index: 38.10  
 Totals totals index: 35.20

Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00

Temp [K] of the Lifted Condensation Level: 261.67



Pres [hPa] of the Lifted Condensation Level: 475.14  
 Mean mixed layer potential temperature: 323.68  
 Mean mixed layer mixing ratio: 3.40  
 1000 hPa to 500 hPa thickness: 5958.00  
 Precipitable water [mm] for entire sounding: 10.63

## 72387 DRA Mercury Observations at 12Z 17 Jul 1998

| PRES   | HGHT  | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|-------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m     | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 51    |       |       |      |      |      |      |       |       |       |
| 925.0  | 762   |       |       |      |      |      |      |       |       |       |
| 900.0  | 1009  | 22.4  | 0.4   | 23   | 4.40 | 80   | 3    | 304.6 | 318.3 | 305.4 |
| 898.0  | 1028  | 26.2  | -4.8  | 13   | 2.99 | 94   | 4    | 308.7 | 318.4 | 309.2 |
| 895.0  | 1058  | 28.4  | -4.6  | 11   | 3.05 | 114  | 5    | 311.3 | 321.2 | 311.8 |
| 882.0  | 1189  | 34.0  | -4.0  | 9    | 3.24 | 204  | 11   | 318.4 | 329.2 | 319.0 |
| 879.1  | 1219  | 33.9  | -4.0  | 9    | 3.25 | 225  | 12   | 318.6 | 329.5 | 319.2 |
| 850.0  | 1522  | 33.0  | -4.0  | 9    | 3.36 | 215  | 12   | 320.7 | 332.1 | 321.4 |
| 820.7  | 1829  | 30.4  | -5.5  | 9    | 3.10 | 220  | 12   | 321.2 | 331.7 | 321.8 |
| 792.6  | 2134  | 27.8  | -7.0  | 10   | 2.86 | 225  | 11   | 321.6 | 331.4 | 322.2 |
| 765.6  | 2438  | 25.2  | -8.5  | 10   | 2.64 | 235  | 8    | 322.1 | 331.1 | 322.6 |
| 739.4  | 2743  | 22.7  | -10.0 | 10   | 2.42 | 205  | 11   | 322.5 | 330.9 | 322.9 |
| 714.1  | 3048  | 20.1  | -11.5 | 11   | 2.23 | 190  | 13   | 322.8 | 330.6 | 323.3 |
| 700.0  | 3223  | 18.6  | -12.4 | 11   | 2.12 | 180  | 12   | 323.1 | 330.4 | 323.5 |
| 664.0  | 3658  | 14.6  | -13.6 | 13   | 2.03 | 155  | 16   | 323.4 | 330.5 | 323.8 |
| 616.7  | 4267  | 8.9   | -15.2 | 17   | 1.91 | 155  | 20   | 323.8 | 330.5 | 324.2 |
| 572.6  | 4877  | 3.2   | -16.9 | 21   | 1.79 | 150  | 20   | 324.1 | 330.4 | 324.4 |
| 522.0  | 5639  | -3.9  | -18.9 | 30   | 1.66 | 146  | 14   | 324.2 | 330.1 | 324.5 |
| 512.1  | 5791  | -3.3  | -30.2 | 10   | 0.61 | 145  | 13   | 326.7 | 329.0 | 326.8 |
| 512.0  | 5792  | -3.3  | -30.3 | 10   | 0.60 | 145  | 13   | 326.7 | 329.0 | 326.9 |
| 500.0  | 5980  | -3.9  | -35.9 | 6    | 0.36 | 120  | 3    | 328.2 | 329.6 | 328.3 |
| 492.5  | 6096  | -4.8  | -36.2 | 7    | 0.35 | 75   | 4    | 328.5 | 329.9 | 328.6 |
| 403.7  | 7620  | -16.8 | -40.1 | 11   | 0.29 | 10   | 9    | 332.3 | 333.4 | 332.3 |
| 400.0  | 7690  | -17.3 | -40.3 | 12   | 0.29 | 10   | 9    | 332.4 | 333.6 | 332.5 |
| 339.0  | 8908  | -27.9 | -41.9 | 25   | 0.29 | 23   | 10   | 334.1 | 335.2 | 334.1 |
| 328.0  | 9144  | -29.2 | -43.7 | 23   | 0.24 | 25   | 10   | 335.5 | 336.4 | 335.5 |
| 314.2  | 9449  | -30.9 | -46.1 | 21   | 0.20 | 15   | 11   | 337.2 | 338.1 | 337.3 |
| 300.0  | 9780  | -32.7 | -48.7 | 19   | 0.15 | 20   | 12   | 339.2 | 339.8 | 339.2 |
| 263.8  | 10668 | -38.3 | -54.3 | 17   | 0.09 | 25   | 12   | 343.6 | 344.0 | 343.6 |
| 250.0  | 11040 | -40.7 | -56.7 | 16   | 0.07 | 10   | 8    | 345.4 | 345.7 | 345.4 |
| 200.0  | 12520 | -51.5 | -64.5 | 20   | 0.03 | 35   | 9    | 351.1 | 351.2 | 351.1 |
| 182.6  | 13106 | -55.9 | -67.3 | 23   | 0.02 | 55   | 11   | 353.1 | 353.2 | 353.1 |
| 179.0  | 13234 | -56.9 | -67.9 | 24   | 0.02 | 56   | 11   | 353.5 | 353.6 | 353.5 |
| 150.0  | 14340 | -63.7 | -73.7 | 24   | 0.01 | 60   | 7    | 360.1 | 360.2 | 360.1 |
| 131.0  | 15160 | -69.1 | -78.1 | 26   | 0.01 | 51   | 11   | 364.7 | 364.7 | 364.7 |
| 129.2  | 15240 | -69.3 | -78.3 | 26   | 0.01 | 50   | 11   | 365.7 | 365.7 | 365.7 |
| 116.0  | 15883 | -71.3 | -80.3 | 25   | 0.01 | 60   | 11   | 373.5 | 373.6 | 373.5 |
| 105.2  | 16459 | -71.6 | -80.6 | 25   | 0.01 | 80   | 10   | 383.5 | 383.5 | 383.5 |
| 103.0  | 16585 | -71.7 | -80.7 | 25   | 0.01 | 84   | 10   | 385.7 | 385.7 | 385.7 |
| 100.0  | 16760 | -71.1 | -80.1 | 25   | 0.01 | 90   | 10   | 390.1 | 390.1 | 390.1 |
| 99.9   | 16764 | -71.1 | -80.1 | 25   | 0.01 | 95   | 10   | 390.2 | 390.2 | 390.2 |
| 93.4   | 17164 | -71.7 | -80.7 | 25   | 0.01 | 88   | 11   | 396.6 | 396.6 | 396.6 |
| 90.2   | 17374 | -70.5 | -79.8 | 25   | 0.01 | 85   | 11   | 402.9 | 402.9 | 402.9 |
| 80.2   | 18075 | -66.7 | -76.7 | 23   | 0.01 | 97   | 12   | 424.5 | 424.6 | 424.5 |
| 70.0   | 18900 | -65.7 | -75.7 | 24   | 0.02 | 105  | 12   | 443.5 | 443.6 | 443.5 |
| 70.0   | 18898 | -65.7 | -75.7 | 24   | 0.02 | 110  | 13   | 443.4 | 443.6 | 443.4 |
| 62.8   | 19561 | -63.9 | -73.9 | 24   | 0.03 | 90   | 14   | 461.4 | 461.6 | 461.4 |

|      |       |       |       |    |      |     |    |       |       |       |
|------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 60.3 | 19812 | -62.3 | -72.6 | 24 | 0.03 | 85  | 15 | 470.5 | 470.7 | 470.5 |
| 55.2 | 20359 | -58.7 | -69.7 | 23 | 0.06 | 90  | 20 | 490.6 | 491.0 | 490.7 |
| 50.0 | 20980 | -57.7 | -68.7 | 23 | 0.07 | 95  | 26 | 507.1 | 507.6 | 507.1 |
| 47.3 | 21336 | -57.1 | -68.3 | 23 | 0.08 | 100 | 26 | 516.7 | 517.3 | 516.7 |
| 30.0 | 24230 | -52.1 | -65.1 | 19 | 0.20 | 85  | 26 | 602.0 | 603.6 | 602.1 |
| 23.2 | 25908 | -49.3 | -63.0 | 19 | 0.35 | 80  | 30 | 656.0 | 659.0 | 656.1 |
| 20.0 | 26880 | -47.7 | -61.7 | 18 | 0.47 | 90  | 38 | 689.4 | 693.7 | 689.6 |
| 18.4 | 27432 | -47.1 | -61.4 | 18 | 0.53 | 95  | 40 | 708.0 | 713.0 | 708.2 |
| 15.8 | 28442 | -45.9 | -60.9 | 17 | 0.66 | 88  | 40 | 743.3 | 749.9 | 743.6 |
| 13.4 | 29566 | -41.9 | -58.5 | 15 | 1.07 | 80  | 40 | 793.3 | 804.4 | 793.8 |
| 12.7 | 29913 | -40.7 | -57.7 | 14 | 1.24 | 84  | 39 | 809.3 | 822.4 | 809.9 |
| 11.7 | 30480 | -40.3 | -57.3 | 14 | 1.43 | 90  | 37 | 830.3 | 845.7 | 831.0 |
| 11.2 | 30785 | -40.0 | -57.0 | 15 | 1.54 | 100 | 36 | 841.8 | 858.7 | 842.6 |
| 10.5 | 31211 | -39.7 | -56.7 | 15 | 1.70 |     |    | 858.2 | 877.2 | 859.0 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980717/1200  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 6.46  
 Lifted index: 8.42

LIFT computed using virtual temperature: 8.01  
 SWEAT index: 27.00  
 K index: 1.90  
 Cross totals index: -0.10  
 Vertical totals index: 36.90  
 Totals totals index: 36.80  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00  
 Temp [K] of the Lifted Condensation Level: 262.17  
 Pres [hPa] of the Lifted Condensation Level: 513.88  
 Mean mixed layer potential temperature: 317.13  
 Mean mixed layer mixing ratio: 3.26  
 1000 hPa to 500 hPa thickness: 5929.00  
 Precipitable water [mm] for entire sounding: 10.28

## 72387 DRA Mercury Observations at 00Z 18 Jul 1998

| PRES   | HGHT | TEMP | DWPT | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|------|------|------|------|------|------|------|-------|-------|-------|
| hPa    | m    | C    | C    | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 34   |      |      |      |      |      |      |       |       |       |
| 925.0  | 745  |      |      |      |      |      |      |       |       |       |
| 899.0  | 1009 | 42.4 | 5.4  | 11   | 6.29 | 270  | 9    | 325.3 | 346.3 | 326.5 |
| 893.0  | 1070 | 39.8 | 9.8  | 17   | 8.58 | 267  | 10   | 323.2 | 351.4 | 324.9 |
| 878.4  | 1219 | 38.3 | 8.7  | 17   | 8.11 | 260  | 11   | 323.2 | 349.9 | 324.8 |
| 858.0  | 1432 | 36.2 | 7.2  | 17   | 7.48 | 264  | 10   | 323.2 | 347.8 | 324.6 |
| 850.0  | 1516 | 35.6 | 6.6  | 17   | 7.24 | 265  | 10   | 323.4 | 347.3 | 324.8 |
| 820.4  | 1829 | 32.6 | 4.9  | 18   | 6.67 | 250  | 10   | 323.6 | 345.7 | 324.9 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 792.5 | 2134  | 29.8  | 3.3   | 18 | 6.15 | 235 | 10 | 323.7 | 344.1 | 324.9 |
| 765.7 | 2438  | 26.9  | 1.6   | 19 | 5.66 | 225 | 9  | 323.8 | 342.7 | 324.9 |
| 739.7 | 2743  | 24.0  | 0.0   | 21 | 5.21 | 230 | 8  | 323.9 | 341.3 | 324.9 |
| 700.0 | 3230  | 19.4  | -2.6  | 22 | 4.54 | 240 | 7  | 323.9 | 339.2 | 324.8 |
| 664.8 | 3658  | 15.4  | -4.3  | 25 | 4.20 | 240 | 9  | 324.3 | 338.5 | 325.1 |
| 617.7 | 4267  | 9.7   | -6.7  | 31 | 3.76 | 225 | 8  | 324.6 | 337.4 | 325.4 |
| 573.9 | 4877  | 4.0   | -9.2  | 38 | 3.35 | 180 | 4  | 324.9 | 336.3 | 325.5 |
| 546.0 | 5290  | 0.2   | -10.8 | 43 | 3.09 | 147 | 6  | 324.9 | 335.6 | 325.6 |
| 500.0 | 5990  | -2.7  | -24.7 | 17 | 1.04 | 90  | 10 | 329.7 | 333.6 | 329.9 |
| 493.2 | 6096  | -3.6  | -25.3 | 17 | 1.00 | 90  | 11 | 329.9 | 333.6 | 330.1 |
| 455.6 | 6706  | -8.9  | -28.8 | 18 | 0.78 | 75  | 16 | 330.8 | 333.8 | 331.0 |
| 421.0 | 7315  | -14.1 | -32.2 | 20 | 0.61 | 75  | 20 | 331.7 | 334.0 | 331.8 |
| 404.7 | 7620  | -16.7 | -34.0 | 21 | 0.54 | 55  | 21 | 332.1 | 334.1 | 332.2 |
| 400.0 | 7710  | -17.5 | -34.5 | 21 | 0.52 | 50  | 20 | 332.2 | 334.2 | 332.3 |
| 372.8 | 8230  | -21.9 | -36.9 | 24 | 0.44 | 5   | 19 | 333.1 | 334.8 | 333.1 |
| 360.0 | 8489  | -24.1 | -38.1 | 26 | 0.40 | 16  | 16 | 333.5 | 335.1 | 333.6 |
| 328.7 | 9144  | -27.7 | -42.2 | 24 | 0.29 | 45  | 8  | 337.3 | 338.5 | 337.4 |
| 300.0 | 9800  | -31.3 | -46.3 | 21 | 0.20 | 45  | 10 | 341.1 | 342.0 | 341.2 |
| 264.9 | 10668 | -37.2 | -51.5 | 21 | 0.13 | 55  | 13 | 344.9 | 345.5 | 344.9 |
| 253.5 | 10973 | -39.2 | -53.3 | 21 | 0.11 | 65  | 14 | 346.2 | 346.7 | 346.2 |
| 250.0 | 11070 | -39.9 | -53.9 | 21 | 0.10 | 65  | 14 | 346.6 | 347.1 | 346.6 |
| 200.0 | 12560 | -50.1 | -62.1 | 23 | 0.04 | 70  | 7  | 353.3 | 353.5 | 353.3 |
| 174.0 | 13452 | -56.7 | -67.7 | 24 | 0.02 | 58  | 7  | 356.7 | 356.9 | 356.7 |
| 150.0 | 14380 | -60.9 | -70.9 | 26 | 0.02 | 45  | 7  | 365.0 | 365.1 | 365.0 |
| 130.2 | 15240 | -65.3 | -74.4 | 27 | 0.01 | 75  | 4  | 372.2 | 372.3 | 372.2 |
| 107.0 | 16428 | -71.3 | -79.3 | 30 | 0.01 | 100 | 7  | 382.2 | 382.3 | 382.2 |
| 101.1 | 16764 | -69.8 | -78.6 | 27 | 0.01 | 100 | 9  | 391.4 | 391.4 | 391.4 |
| 100.0 | 16830 | -69.5 | -78.5 | 26 | 0.01 | 100 | 10 | 393.2 | 393.2 | 393.2 |
| 96.1  | 17069 | -68.9 | -77.9 | 26 | 0.01 | 105 | 12 | 398.9 | 398.9 | 398.9 |
| 94.8  | 17149 | -68.7 | -77.7 | 26 | 0.01 | 104 | 12 | 400.8 | 400.9 | 400.8 |
| 87.7  | 17615 | -69.1 | -78.1 | 26 | 0.01 | 96  | 13 | 409.0 | 409.1 | 409.0 |
| 81.5  | 18053 | -68.9 | -77.9 | 26 | 0.01 | 89  | 14 | 418.1 | 418.1 | 418.1 |
| 76.6  | 18428 | -63.9 | -72.9 | 28 | 0.03 | 83  | 15 | 436.0 | 436.1 | 436.0 |
| 74.6  | 18593 | -64.0 | -73.0 | 28 | 0.03 | 80  | 15 | 439.2 | 439.4 | 439.2 |
| 70.0  | 18980 | -64.1 | -73.1 | 28 | 0.03 | 95  | 18 | 446.9 | 447.1 | 446.9 |
| 67.5  | 19202 | -63.5 | -72.7 | 28 | 0.03 | 105 | 18 | 452.8 | 453.0 | 452.8 |
| 58.3  | 20117 | -61.0 | -71.1 | 25 | 0.04 | 110 | 18 | 477.8 | 478.1 | 477.8 |
| 50.0  | 21070 | -58.5 | -69.5 | 23 | 0.07 | 95  | 21 | 505.2 | 505.6 | 505.2 |
| 48.0  | 21336 | -57.9 | -69.0 | 23 | 0.07 | 90  | 21 | 512.7 | 513.2 | 512.7 |
| 41.6  | 22250 | -55.8 | -67.1 | 23 | 0.11 | 80  | 24 | 539.3 | 540.1 | 539.4 |
| 30.0  | 24340 | -50.9 | -62.9 | 23 | 0.27 | 100 | 33 | 605.3 | 607.5 | 605.4 |
| 27.1  | 24994 | -48.8 | -61.5 | 22 | 0.36 | 105 | 33 | 628.7 | 631.7 | 628.8 |
| 25.8  | 25330 | -47.7 | -60.7 | 21 | 0.42 | 102 | 32 | 641.0 | 644.6 | 641.2 |
| 20.0  | 27020 | -45.7 | -58.7 | 22 | 0.70 | 90  | 25 | 695.5 | 701.8 | 695.8 |
| 18.8  | 27432 | -45.2 | -58.4 | 21 | 0.77 | 85  | 26 | 709.5 | 716.6 | 709.8 |
| 16.4  | 28346 | -44.0 | -57.7 | 20 | 0.96 | 80  | 32 | 741.4 | 750.6 | 741.8 |
| 12.0  | 30480 | -41.2 | -56.2 | 18 | 1.60 | 95  | 36 | 821.4 | 838.4 | 822.2 |
| 11.8  | 30571 | -41.1 | -56.1 | 18 | 1.63 |     |    | 825.0 | 842.5 | 825.9 |
| 11.7  | 30629 | -39.3 | -54.3 | 19 | 2.05 |     |    | 833.5 | 855.4 | 834.5 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980718/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 1.35  
 Lifted index: 0.69

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LIFT computed using virtual temperature: -0.12
      SWEAT index: 109.21
      K index: 22.90
      Cross totals index: 9.30
      Vertical totals index: 38.30
      Totals totals index: 47.60
Convective Available Potential Energy: 504.15
  CAPE using virtual temperature: 581.47
  Convective Inhibition: -88.49
  CINS using virtual temperature: -22.74
    Equilibrium Level: 246.56
Equilibrium Level using virtual temperature: 245.82
  Level of Free Convection: 547.47
  LFCT using virtual temperature: 558.61
    Bulk Richardson Number: 59.02
    Bulk Richardson Number using CAPV: 68.07
Temp [K] of the Lifted Condensation Level: 275.07
Pres [hPa] of the Lifted Condensation Level: 567.80
  Mean mixed layer potential temperature: 323.36
    Mean mixed layer mixing ratio: 7.85
    1000 hPa to 500 hPa thickness: 5956.00
Precipitable water [mm] for entire sounding: 21.28

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## 72387 DRA Mercury Observations at 12Z 18 Jul 1998

| PRES   | HGHT | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m    | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 25   |       |       |      |      |      |      |       |       |       |
| 925.0  | 739  |       |       |      |      |      |      |       |       |       |
| 898.0  | 1009 | 24.4  | 0.4   | 21   | 4.41 | 90   | 5    | 306.8 | 320.7 | 307.7 |
| 894.0  | 1048 | 29.6  | 0.6   | 15   | 4.49 | 114  | 6    | 312.6 | 327.1 | 313.4 |
| 885.0  | 1139 | 32.8  | 0.8   | 13   | 4.60 | 167  | 9    | 316.8 | 331.9 | 317.7 |
| 877.1  | 1219 | 33.0  | 0.6   | 13   | 4.59 | 215  | 12   | 317.9 | 333.0 | 318.8 |
| 865.0  | 1344 | 33.4  | 0.4   | 12   | 4.58 | 217  | 11   | 319.5 | 334.7 | 320.4 |
| 850.0  | 1501 | 33.0  | -1.0  | 11   | 4.20 | 220  | 10   | 320.7 | 334.7 | 321.5 |
| 818.8  | 1829 | 30.2  | -2.3  | 12   | 3.97 | 255  | 9    | 321.2 | 334.5 | 321.9 |
| 790.8  | 2134 | 27.6  | -3.5  | 13   | 3.76 | 280  | 11   | 321.6 | 334.3 | 322.3 |
| 763.8  | 2438 | 25.0  | -4.6  | 14   | 3.57 | 265  | 10   | 322.0 | 334.0 | 322.7 |
| 737.7  | 2743 | 22.4  | -5.8  | 15   | 3.37 | 265  | 8    | 322.3 | 333.8 | 323.0 |
| 700.0  | 3203 | 18.4  | -7.6  | 16   | 3.10 | 255  | 5    | 322.8 | 333.4 | 323.4 |
| 663.2  | 3658 | 14.4  | -9.0  | 19   | 2.94 | 190  | 4    | 323.4 | 333.4 | 323.9 |
| 618.0  | 4253 | 9.2   | -10.8 | 23   | 2.73 | 131  | 11   | 324.0 | 333.4 | 324.5 |
| 617.0  | 4267 | 9.1   | -10.8 | 23   | 2.73 | 130  | 11   | 324.0 | 333.4 | 324.5 |
| 572.5  | 4877 | 3.4   | -11.6 | 32   | 2.76 | 110  | 13   | 324.3 | 333.8 | 324.8 |
| 547.0  | 5248 | -0.1  | -12.1 | 40   | 2.78 | 113  | 17   | 324.4 | 334.0 | 325.0 |
| 530.8  | 5486 | -2.4  | -12.0 | 47   | 2.88 | 115  | 19   | 324.5 | 334.4 | 325.1 |
| 500.0  | 5960 | -6.9  | -11.9 | 68   | 3.09 | 110  | 17   | 324.6 | 335.2 | 325.2 |
| 491.3  | 6096 | -8.2  | -12.1 | 74   | 3.10 | 105  | 17   | 324.5 | 335.2 | 325.1 |
| 491.0  | 6101 | -8.3  | -12.1 | 74   | 3.10 | 105  | 17   | 324.5 | 335.2 | 325.1 |
| 488.0  | 6149 | -8.7  | -13.4 | 69   | 2.80 | 104  | 17   | 324.6 | 334.3 | 325.2 |
| 485.0  | 6197 | -8.5  | -19.5 | 41   | 1.69 | 103  | 17   | 325.4 | 331.4 | 325.8 |
| 468.0  | 6473 | -9.3  | -28.3 | 20   | 0.80 | 99   | 18   | 327.8 | 330.8 | 327.9 |
| 453.8  | 6706 | -11.4 | -29.4 | 21   | 0.74 | 95   | 18   | 328.0 | 330.8 | 328.2 |
| 402.1  | 7620 | -19.7 | -33.9 | 27   | 0.54 | 65   | 19   | 328.8 | 330.8 | 328.9 |
| 400.0  | 7660 | -20.1 | -34.1 | 28   | 0.54 | 65   | 19   | 328.8 | 330.8 | 328.9 |
| 387.0  | 7904 | -22.1 | -36.1 | 27   | 0.45 | 59   | 18   | 329.3 | 331.0 | 329.4 |
| 374.0  | 8155 | -21.3 | -39.3 | 18   | 0.34 | 52   | 16   | 333.6 | 334.9 | 333.6 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 330.0 | 9064  | -28.9 | -45.9 | 18 | 0.19 | 27  | 11 | 335.3 | 336.1 | 335.3 |
| 326.3 | 9144  | -29.4 | -46.2 | 18 | 0.19 | 25  | 10 | 335.7 | 336.5 | 335.8 |
| 300.0 | 9740  | -32.7 | -48.7 | 19 | 0.15 | 35  | 17 | 339.2 | 339.8 | 339.2 |
| 299.4 | 9754  | -32.8 | -48.8 | 19 | 0.15 | 35  | 17 | 339.2 | 339.9 | 339.3 |
| 262.3 | 10668 | -38.7 | -54.0 | 18 | 0.09 | 60  | 9  | 343.6 | 344.0 | 343.6 |
| 250.0 | 11000 | -40.9 | -55.9 | 18 | 0.08 | 75  | 8  | 345.1 | 345.5 | 345.1 |
| 200.0 | 12480 | -51.9 | -63.9 | 22 | 0.04 | 75  | 5  | 350.4 | 350.6 | 350.4 |
| 172.0 | 13446 | -59.1 | -70.1 | 23 | 0.02 | 57  | 7  | 353.9 | 354.0 | 353.9 |
| 150.0 | 14300 | -62.9 | -72.9 | 25 | 0.01 | 40  | 9  | 361.5 | 361.6 | 361.5 |
| 128.3 | 15240 | -69.6 | -78.7 | 25 | 0.01 | 60  | 7  | 366.0 | 366.0 | 366.0 |
| 125.0 | 15398 | -70.7 | -79.7 | 25 | 0.01 | 75  | 7  | 366.7 | 366.8 | 366.7 |
| 106.0 | 16368 | -72.5 | -80.5 | 29 | 0.01 | 166 | 7  | 381.0 | 381.0 | 381.0 |
| 104.4 | 16459 | -72.4 | -80.4 | 29 | 0.01 | 175 | 7  | 382.9 | 382.9 | 382.9 |
| 100.0 | 16710 | -72.1 | -80.1 | 29 | 0.01 | 190 | 6  | 388.2 | 388.2 | 388.2 |
| 99.1  | 16764 | -72.4 | -80.4 | 29 | 0.01 | 195 | 5  | 388.5 | 388.6 | 388.5 |
| 96.2  | 16938 | -73.5 | -81.5 | 29 | 0.01 | 180 | 6  | 389.8 | 389.8 | 389.8 |
| 89.0  | 17395 | -73.9 | -81.9 | 28 | 0.01 | 140 | 9  | 397.7 | 397.8 | 397.7 |
| 80.7  | 17983 | -70.8 | -79.2 | 28 | 0.01 | 90  | 12 | 415.4 | 415.5 | 415.4 |
| 72.8  | 18593 | -67.6 | -76.4 | 27 | 0.02 | 65  | 11 | 434.6 | 434.7 | 434.6 |
| 70.0  | 18830 | -66.3 | -75.3 | 27 | 0.02 | 70  | 13 | 442.2 | 442.3 | 442.2 |
| 61.4  | 19632 | -61.9 | -71.9 | 25 | 0.04 | 86  | 17 | 468.9 | 469.1 | 468.9 |
| 56.8  | 20117 | -62.3 | -72.3 | 25 | 0.04 | 95  | 20 | 478.6 | 478.9 | 478.6 |
| 50.0  | 20900 | -62.9 | -72.9 | 25 | 0.04 | 90  | 21 | 494.8 | 495.1 | 494.9 |
| 46.6  | 21336 | -62.4 | -72.4 | 25 | 0.05 | 90  | 21 | 506.2 | 506.5 | 506.2 |
| 44.8  | 21578 | -62.1 | -72.1 | 25 | 0.05 | 88  | 21 | 512.5 | 512.9 | 512.6 |
| 38.9  | 22461 | -57.1 | -68.1 | 24 | 0.10 | 79  | 22 | 546.3 | 547.1 | 546.3 |
| 33.2  | 23470 | -56.4 | -68.0 | 22 | 0.12 | 70  | 23 | 573.6 | 574.6 | 573.7 |
| 30.0  | 24110 | -55.9 | -67.9 | 21 | 0.14 | 75  | 28 | 591.6 | 592.8 | 591.7 |
| 26.1  | 24994 | -54.7 | -66.7 | 21 | 0.19 | 80  | 33 | 619.0 | 620.5 | 619.0 |
| 24.4  | 25429 | -54.1 | -66.1 | 22 | 0.22 | 87  | 32 | 632.8 | 634.7 | 632.9 |
| 22.4  | 25981 | -50.7 | -63.7 | 20 | 0.32 | 96  | 31 | 658.5 | 661.4 | 658.7 |
| 21.6  | 26213 | -50.4 | -63.4 | 20 | 0.35 | 100 | 30 | 666.2 | 669.4 | 666.4 |
| 20.0  | 26720 | -49.7 | -62.7 | 20 | 0.42 | 100 | 30 | 683.3 | 687.1 | 683.5 |
| 17.9  | 27432 | -50.3 | -63.3 | 20 | 0.43 | 90  | 29 | 703.1 | 707.1 | 703.3 |
| 16.0  | 28176 | -50.9 | -63.9 | 20 | 0.44 | 84  | 33 | 724.4 | 728.7 | 724.5 |
| 14.9  | 28651 | -50.0 | -63.3 | 20 | 0.52 | 80  | 35 | 742.3 | 747.5 | 742.6 |
| 11.4  | 30401 | -46.9 | -60.9 | 19 | 0.92 | 109 | 35 | 812.4 | 822.3 | 812.8 |
| 11.3  | 30480 | -46.9 | -60.7 | 19 | 0.96 | 110 | 35 | 815.3 | 825.6 | 815.8 |
| 10.8  | 30785 | -46.7 | -59.8 | 21 | 1.12 | 115 | 32 | 826.6 | 838.8 | 827.1 |
| 10.0  | 31270 | -46.5 | -58.5 | 24 | 1.43 |     |    | 844.9 | 860.6 | 845.6 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980718/1200  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 2.24  
 Lifted index: 3.38

LIFT computed using virtual temperature: 3.32  
 SWEAT index: 37.00  
 K index: 12.90  
 Cross totals index: 5.90  
 Vertical totals index: 39.90  
 Totals totals index: 45.80  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00

CINS using virtual temperature: 0.00

Bulk Richardson Number: 0.00

Bulk Richardson Number using CAPV: 0.00

Temp [K] of the Lifted Condensation Level: 267.11

Pres [hPa] of the Lifted Condensation Level: 546.48

Mean mixed layer potential temperature: 317.47

Mean mixed layer mixing ratio: 4.50

1000 hPa to 500 hPa thickness: 5935.00

Precipitable water [mm] for entire sounding: 15.25

## 72387 DRA Mercury Observations at 00Z 19 Jul 1998

| PRES   | HGHT  | TEMP  | DWPT  | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|-------|-------|-------|------|------|------|------|-------|-------|-------|
| hPa    | m     | C     | C     | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 12    |       |       |      |      |      |      |       |       |       |
| 925.0  | 725   |       |       |      |      |      |      |       |       |       |
| 897.0  | 1009  | 41.6  | 7.6   | 13   | 7.35 | 280  | 4    | 324.7 | 349.0 | 326.1 |
| 896.0  | 1019  | 41.0  | -8.0  | 4    | 2.35 | 280  | 4    | 324.2 | 332.4 | 324.6 |
| 876.4  | 1219  | 38.6  | -8.7  | 5    | 2.28 | 280  | 6    | 323.8 | 331.7 | 324.2 |
| 850.0  | 1495  | 35.4  | -9.6  | 5    | 2.18 | 260  | 6    | 323.2 | 330.8 | 323.6 |
| 818.9  | 1829  | 32.1  | -10.5 | 6    | 2.12 | 245  | 7    | 323.2 | 330.6 | 323.6 |
| 800.0  | 2039  | 30.0  | -11.0 | 6    | 2.07 | 245  | 7    | 323.1 | 330.4 | 323.5 |
| 791.3  | 2134  | 29.1  | -10.8 | 7    | 2.12 | 245  | 7    | 323.1 | 330.6 | 323.6 |
| 764.2  | 2438  | 26.2  | -10.4 | 8    | 2.28 | 260  | 8    | 323.2 | 331.2 | 323.7 |
| 738.0  | 2743  | 23.2  | -9.9  | 10   | 2.45 | 285  | 7    | 323.3 | 331.8 | 323.7 |
| 700.0  | 3204  | 18.8  | -9.2  | 14   | 2.73 | 10   | 4    | 323.3 | 332.7 | 323.8 |
| 662.7  | 3658  | 14.6  | -9.6  | 18   | 2.80 | 70   | 5    | 323.6 | 333.3 | 324.2 |
| 615.8  | 4267  | 8.9   | -10.1 | 25   | 2.89 | 130  | 5    | 324.0 | 334.0 | 324.6 |
| 572.1  | 4877  | 3.3   | -10.7 | 35   | 2.98 | 130  | 12   | 324.3 | 334.5 | 324.9 |
| 551.4  | 5182  | 0.5   | -10.9 | 42   | 3.02 | 110  | 12   | 324.4 | 334.7 | 324.9 |
| 548.0  | 5234  | 0.0   | -11.0 | 43   | 3.03 | 110  | 12   | 324.4 | 334.8 | 325.0 |
| 500.0  | 5960  | -6.3  | -14.3 | 53   | 2.54 | 105  | 16   | 325.3 | 334.1 | 325.8 |
| 494.0  | 6054  | -7.1  | -15.1 | 53   | 2.41 | 102  | 17   | 325.4 | 333.8 | 325.9 |
| 491.3  | 6096  | -7.0  | -22.1 | 29   | 1.33 | 100  | 17   | 326.1 | 330.9 | 326.4 |
| 487.0  | 6165  | -6.7  | -33.7 | 10   | 0.46 | 100  | 18   | 327.3 | 329.0 | 327.4 |
| 472.3  | 6401  | -8.7  | -32.2 | 13   | 0.54 | 100  | 20   | 327.6 | 329.7 | 327.7 |
| 446.0  | 6841  | -12.5 | -29.5 | 23   | 0.75 | 82   | 19   | 328.3 | 331.1 | 328.4 |
| 436.1  | 7010  | -13.7 | -32.3 | 19   | 0.59 | 75   | 19   | 328.8 | 331.1 | 328.9 |
| 415.0  | 7385  | -16.5 | -38.5 | 13   | 0.33 | 87   | 18   | 330.0 | 331.3 | 330.0 |
| 407.0  | 7530  | -17.3 | -23.3 | 60   | 1.45 | 92   | 17   | 330.8 | 336.1 | 331.1 |
| 402.1  | 7620  | -17.4 | -26.9 | 44   | 1.06 | 95   | 17   | 331.7 | 335.7 | 331.9 |
| 400.0  | 7660  | -17.5 | -28.5 | 38   | 0.92 | 100  | 17   | 332.2 | 335.6 | 332.3 |
| 397.0  | 7717  | -17.5 | -39.5 | 13   | 0.31 | 102  | 17   | 332.9 | 334.1 | 332.9 |
| 393.0  | 7792  | -17.7 | -42.7 | 9    | 0.23 | 104  | 16   | 333.6 | 334.5 | 333.6 |
| 355.0  | 8534  | -23.1 | -45.9 | 11   | 0.18 | 125  | 12   | 336.1 | 336.9 | 336.2 |
| 326.5  | 9144  | -27.6 | -48.5 | 12   | 0.14 | 140  | 9    | 338.1 | 338.7 | 338.1 |
| 300.0  | 9760  | -32.1 | -51.1 | 13   | 0.12 | 125  | 8    | 340.0 | 340.5 | 340.0 |
| 263.3  | 10668 | -37.5 | -55.1 | 14   | 0.08 | 105  | 10   | 345.0 | 345.3 | 345.0 |
| 250.0  | 11030 | -39.7 | -56.7 | 15   | 0.07 | 95   | 10   | 346.9 | 347.2 | 346.9 |
| 200.0  | 12520 | -50.1 | -64.1 | 18   | 0.03 | 150  | 2    | 353.3 | 353.4 | 353.3 |
| 171.0  | 13523 | -57.5 | -69.5 | 20   | 0.02 | 100  | 8    | 357.2 | 357.3 | 357.2 |
| 157.9  | 14021 | -59.9 | -71.9 | 19   | 0.01 | 75   | 11   | 361.3 | 361.4 | 361.3 |
| 150.0  | 14340 | -61.5 | -73.5 | 19   | 0.01 | 75   | 9    | 363.9 | 364.0 | 363.9 |
| 129.3  | 15240 | -65.5 | -76.6 | 20   | 0.01 | 90   | 8    | 372.6 | 372.7 | 372.6 |
| 107.0  | 16387 | -70.5 | -80.5 | 22   | 0.01 | 90   | 10   | 383.8 | 383.8 | 383.8 |
| 105.7  | 16459 | -70.1 | -80.1 | 22   | 0.01 | 95   | 11   | 385.8 | 385.8 | 385.8 |
| 100.4  | 16764 | -68.6 | -78.6 | 22   | 0.01 | 110  | 14   | 394.4 | 394.4 | 394.4 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 100.0 | 16790 | -68.5 | -78.5 | 23 | 0.01 | 110 | 14 | 395.1 | 395.2 | 395.1 |
| 99.3  | 16832 | -67.9 | -77.9 | 23 | 0.01 | 111 | 14 | 397.1 | 397.1 | 397.1 |
| 95.5  | 17069 | -68.2 | -78.2 | 23 | 0.01 | 115 | 13 | 401.1 | 401.1 | 401.1 |
| 87.5  | 17591 | -68.7 | -78.7 | 22 | 0.01 | 117 | 13 | 410.1 | 410.1 | 410.1 |
| 74.1  | 18593 | -65.3 | -76.2 | 21 | 0.02 | 120 | 12 | 437.2 | 437.3 | 437.2 |
| 73.5  | 18644 | -65.1 | -76.1 | 21 | 0.02 | 119 | 12 | 438.6 | 438.7 | 438.6 |
| 70.0  | 18940 | -67.1 | -77.1 | 23 | 0.02 | 110 | 12 | 440.5 | 440.6 | 440.5 |
| 67.7  | 19141 | -67.1 | -77.1 | 23 | 0.02 | 101 | 12 | 444.7 | 444.8 | 444.7 |
| 63.8  | 19507 | -61.1 | -73.1 | 19 | 0.03 | 85  | 11 | 465.5 | 465.7 | 465.5 |
| 63.6  | 19522 | -60.9 | -72.9 | 19 | 0.03 | 85  | 11 | 466.4 | 466.6 | 466.4 |
| 57.8  | 20117 | -59.0 | -71.4 | 19 | 0.04 | 80  | 14 | 483.4 | 483.7 | 483.5 |
| 50.0  | 21031 | -56.1 | -69.1 | 18 | 0.07 | 100 | 18 | 510.9 | 511.4 | 510.9 |
| 50.0  | 21030 | -56.1 | -69.1 | 18 | 0.07 | 100 | 18 | 510.8 | 511.3 | 510.9 |
| 47.7  | 21336 | -55.6 | -68.7 | 18 | 0.08 | 100 | 17 | 519.0 | 519.5 | 519.0 |
| 35.9  | 23165 | -52.7 | -66.4 | 18 | 0.14 | 80  | 21 | 570.5 | 571.6 | 570.6 |
| 30.0  | 24310 | -50.9 | -64.9 | 17 | 0.21 | 95  | 28 | 605.3 | 607.0 | 605.4 |
| 27.0  | 24994 | -50.3 | -64.5 | 17 | 0.24 | 95  | 28 | 625.4 | 627.4 | 625.5 |
| 20.9  | 26679 | -48.7 | -63.7 | 16 | 0.35 | 91  | 29 | 677.8 | 680.9 | 677.9 |
| 20.0  | 26970 | -47.3 | -63.3 | 14 | 0.38 | 90  | 29 | 690.6 | 694.2 | 690.8 |
| 18.7  | 27432 | -45.8 | -62.2 | 14 | 0.47 | 85  | 29 | 708.9 | 713.4 | 709.1 |
| 15.6  | 28651 | -42.0 | -59.5 | 13 | 0.81 | 85  | 34 | 759.3 | 767.4 | 759.7 |
| 14.4  | 29176 | -40.3 | -58.3 | 13 | 1.02 | 88  | 35 | 782.1 | 792.5 | 782.6 |
| 11.9  | 30480 | -42.9 | -60.0 | 14 | 1.00 | 95  | 37 | 817.1 | 827.8 | 817.6 |
| 11.7  | 30584 | -43.1 | -60.1 | 14 | 1.00 | 96  | 37 | 819.9 | 830.7 | 820.4 |
| 10.9  | 31090 | -41.7 | -58.7 | 14 | 1.28 | 100 | 38 | 842.6 | 856.8 | 843.3 |
| 10.5  | 31316 | -41.1 | -58.1 | 14 | 1.43 |     |    | 853.0 | 869.0 | 853.8 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980719/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 4.63  
 Lifted index: 4.23

LIFT computed using virtual temperature: 4.10  
 SWEAT index: 28.01  
 K index: 4.10

Cross totals index: -3.30  
 Vertical totals index: 41.70  
 Totals totals index: 38.40

Convective Available Potential Energy: 0.00

CAPE using virtual temperature: 0.00

Convective Inhibition: 0.00

CINS using virtual temperature: 0.00

Bulk Richardson Number: 0.00

Bulk Richardson Number using CAPV: 0.00

Temp [K] of the Lifted Condensation Level: 256.01

Pres [hPa] of the Lifted Condensation Level: 440.00

Mean mixed layer potential temperature: 323.70

Mean mixed layer mixing ratio: 2.31

1000 hPa to 500 hPa thickness: 5948.00

Precipitable water [mm] for entire sounding: 11.68

## 72387 DRA Mercury Observations at 12Z 19 Jul 1998

| 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      | 18        |           |           |           |              |             |              |           |           |           |
| 925.0       | 737       |           |           |           |              |             |              |           |           |           |
| 898.0       | 1009      | 29.8      | 8.8       | 27        | 7.97         | 30          | 9            | 312.4     | 337.5     | 313.9     |
| 896.0       | 1029      | 32.2      | 6.2       | 20        | 6.68         | 31          | 8            | 315.1     | 336.4     | 316.4     |
| 890.0       | 1089      | 33.0      | 7.0       | 20        | 7.11         | 34          | 7            | 316.5     | 339.3     | 317.9     |
| 877.2       | 1219      | 32.2      | 5.9       | 19        | 6.66         | 40          | 3            | 317.0     | 338.5     | 318.2     |
| 850.0       | 1500      | 30.4      | 3.4       | 18        | 5.78         | 90          | 3            | 318.0     | 336.8     | 319.1     |
| 818.5       | 1829      | 28.0      | 1.4       | 18        | 5.19         | 160         | 4            | 318.9     | 335.9     | 319.9     |
| 790.4       | 2134      | 25.8      | -0.5      | 18        | 4.69         | 190         | 8            | 319.7     | 335.2     | 320.6     |
| 763.4       | 2438      | 23.5      | -2.4      | 18        | 4.23         | 200         | 15           | 320.5     | 334.6     | 321.3     |
| 737.1       | 2743      | 21.3      | -4.2      | 18        | 3.81         | 205         | 14           | 321.3     | 334.1     | 322.0     |
| 711.8       | 3048      | 19.1      | -6.1      | 18        | 3.42         | 215         | 13           | 322.0     | 333.6     | 322.7     |
| 700.0       | 3194      | 18.0      | -7.0      | 18        | 3.25         | 220         | 12           | 322.4     | 333.4     | 323.0     |
| 661.8       | 3658      | 13.8      | -8.2      | 21        | 3.14         | 265         | 7            | 322.9     | 333.6     | 323.5     |
| 614.8       | 4267      | 8.4       | -9.7      | 27        | 3.00         | 215         | 3            | 323.5     | 333.8     | 324.1     |
| 571.0       | 4877      | 2.9       | -11.2     | 35        | 2.86         | 60          | 5            | 324.0     | 333.9     | 324.6     |
| 549.0       | 5202      | 0.0       | -12.0     | 40        | 2.79         | 63          | 8            | 324.2     | 333.8     | 324.8     |
| 529.6       | 5486      | -2.7      | -11.7     | 50        | 2.97         | 65          | 11           | 324.4     | 334.6     | 324.9     |
| 500.0       | 5940      | -6.9      | -11.2     | 71        | 3.27         | 85          | 16           | 324.6     | 335.7     | 325.2     |
| 490.0       | 6096      | -8.3      | -11.6     | 77        | 3.22         | 90          | 16           | 324.8     | 335.8     | 325.4     |
| 462.0       | 6552      | -12.3     | -12.9     | 95        | 3.08         | 101         | 18           | 325.2     | 335.9     | 325.9     |
| 452.8       | 6706      | -13.4     | -18.5     | 65        | 1.97         | 105         | 19           | 325.7     | 332.7     | 326.1     |
| 439.0       | 6941      | -15.1     | -27.1     | 35        | 0.95         | 105         | 18           | 326.5     | 330.0     | 326.7     |
| 411.0       | 7437      | -17.9     | -30.9     | 31        | 0.71         | 105         | 16           | 329.1     | 331.8     | 329.2     |
| 405.0       | 7547      | -18.7     | -22.3     | 73        | 1.59         | 105         | 15           | 329.4     | 335.2     | 329.7     |
| 401.1       | 7620      | -19.0     | -22.5     | 74        | 1.57         | 105         | 15           | 329.9     | 335.6     | 330.2     |
| 400.0       | 7640      | -19.1     | -22.6     | 74        | 1.57         | 105         | 14           | 330.1     | 335.8     | 330.4     |
| 384.7       | 7925      | -21.1     | -24.1     | 76        | 1.42         | 110         | 12           | 331.2     | 336.4     | 331.5     |
| 337.0       | 8892      | -27.7     | -29.4     | 85        | 1.00         | 146         | 6            | 334.9     | 338.7     | 335.1     |
| 328.0       | 9086      | -28.5     | -31.4     | 76        | 0.85         | 153         | 5            | 336.4     | 339.7     | 336.6     |
| 325.4       | 9144      | -28.7     | -33.5     | 64        | 0.70         | 155         | 5            | 336.9     | 339.6     | 337.0     |
| 318.0       | 9307      | -29.3     | -39.3     | 37        | 0.40         | 169         | 5            | 338.3     | 339.9     | 338.4     |
| 300.0       | 9720      | -32.7     | -39.7     | 50        | 0.41         | 205         | 4            | 339.2     | 340.8     | 339.2     |
| 285.9       | 10058     | -35.2     | -41.4     | 53        | 0.36         | 220         | 11           | 340.3     | 341.8     | 340.4     |
| 283.0       | 10128     | -35.7     | -41.7     | 54        | 0.35         | 219         | 11           | 340.6     | 342.0     | 340.6     |
| 273.5       | 10363     | -37.4     | -44.2     | 49        | 0.28         | 215         | 12           | 341.5     | 342.7     | 341.6     |
| 261.6       | 10668     | -39.5     | -47.4     | 43        | 0.20         | 220         | 10           | 342.7     | 343.6     | 342.8     |
| 250.0       | 10980     | -41.7     | -50.7     | 37        | 0.15         | 200         | 4            | 343.9     | 344.6     | 344.0     |
| 235.0       | 11400     | -43.7     | -56.7     | 22        | 0.08         | 181         | 5            | 347.0     | 347.4     | 347.1     |
| 200.0       | 12470     | -52.3     | -64.3     | 22        | 0.03         | 130         | 8            | 349.8     | 349.9     | 349.8     |
| 166.0       | 13646     | -61.5     | -71.5     | 25        | 0.01         | 140         | 8            | 353.5     | 353.6     | 353.6     |
| 150.0       | 14270     | -62.9     | -72.9     | 25        | 0.01         | 145         | 8            | 361.5     | 361.6     | 361.5     |
| 127.5       | 15240     | -67.7     | -76.9     | 26        | 0.01         | 170         | 6            | 370.0     | 370.0     | 370.0     |
| 104.0       | 16459     | -73.8     | -81.9     | 28        | 0.00         | 30          | 3            | 380.6     | 380.6     | 380.6     |
| 103.0       | 16518     | -74.1     | -82.1     | 28        | 0.00         | 30          | 3            | 381.1     | 381.1     | 381.1     |
| 100.0       | 16690     | -73.5     | -81.5     | 29        | 0.01         | 40          | 4            | 385.5     | 385.5     | 385.5     |
| 98.7        | 16767     | -72.7     | -80.7     | 29        | 0.01         | 45          | 5            | 388.5     | 388.5     | 388.5     |
| 98.7        | 16764     | -72.7     | -80.7     | 29        | 0.01         | 45          | 5            | 388.4     | 388.4     | 388.4     |
| 94.3        | 17034     | -72.7     | -80.7     | 29        | 0.01         | 70          | 7            | 393.6     | 393.6     | 393.6     |
| 84.6        | 17678     | -67.2     | -76.1     | 27        | 0.01         | 130         | 11           | 417.1     | 417.2     | 417.1     |
| 83.5        | 17758     | -66.5     | -75.5     | 27        | 0.02         | 128         | 11           | 420.1     | 420.2     | 420.1     |
| 70.0        | 18820     | -68.1     | -77.1     | 27        | 0.02         | 95          | 11           | 438.4     | 438.5     | 438.4     |
| 69.1        | 18898     | -68.0     | -77.0     | 27        | 0.02         | 85          | 12           | 440.3     | 440.4     | 440.3     |
| 66.4        | 19137     | -67.5     | -76.5     | 27        | 0.02         | 84          | 13           | 446.3     | 446.4     | 446.3     |
| 50.0        | 20880     | -58.5     | -69.5     | 23        | 0.07         | 80          | 16           | 505.2     | 505.6     | 505.2     |
| 46.5        | 21336     | -59.1     | -70.1     | 23        | 0.06         | 70          | 14           | 514.3     | 514.8     | 514.3     |
| 44.3        | 21641     | -59.5     | -70.5     | 23        | 0.06         | 70          | 15           | 520.5     | 521.0     | 520.5     |





|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 898.0 | 1009  | 37.6  | 5.6   | 14 | 6.39 | 100 | 16 | 320.4 | 341.4 | 321.7 |
| 897.0 | 1019  | 37.0  | -2.0  | 8  | 3.70 | 100 | 16 | 319.9 | 332.3 | 320.6 |
| 877.4 | 1219  | 34.9  | -2.4  | 9  | 3.67 | 100 | 20 | 319.8 | 332.1 | 320.5 |
| 850.0 | 1505  | 32.0  | -3.0  | 10 | 3.62 | 105 | 21 | 319.6 | 331.8 | 320.4 |
| 848.1 | 1524  | 31.8  | -3.0  | 10 | 3.64 | 110 | 20 | 319.7 | 331.9 | 320.4 |
| 819.0 | 1829  | 28.9  | -2.4  | 13 | 3.92 | 150 | 14 | 319.8 | 332.9 | 320.6 |
| 790.8 | 2134  | 26.1  | -1.9  | 16 | 4.23 | 160 | 11 | 319.9 | 334.0 | 320.8 |
| 763.8 | 2438  | 23.2  | -1.4  | 20 | 4.56 | 175 | 11 | 320.1 | 335.2 | 320.9 |
| 737.5 | 2743  | 20.3  | -0.8  | 24 | 4.92 | 190 | 11 | 320.1 | 336.4 | 321.1 |
| 700.0 | 3198  | 16.0  | 0.0   | 34 | 5.50 | 185 | 11 | 320.2 | 338.2 | 321.2 |
| 672.0 | 3543  | 12.8  | -0.2  | 41 | 5.64 | 185 | 7  | 320.3 | 338.9 | 321.4 |
| 662.6 | 3658  | 11.9  | -1.1  | 41 | 5.35 | 185 | 6  | 320.6 | 338.2 | 321.6 |
| 615.2 | 4267  | 7.0   | -6.0  | 39 | 4.00 | 160 | 3  | 321.9 | 335.3 | 322.6 |
| 571.2 | 4877  | 2.1   | -10.9 | 38 | 2.94 | 245 | 7  | 323.1 | 333.1 | 323.6 |
| 552.0 | 5157  | -0.1  | -13.1 | 37 | 2.54 | 233 | 8  | 323.6 | 332.4 | 324.1 |
| 518.0 | 5662  | -4.3  | -15.3 | 42 | 2.26 | 212 | 8  | 324.4 | 332.3 | 324.9 |
| 500.0 | 5940  | -6.5  | -12.5 | 62 | 2.94 | 200 | 9  | 325.1 | 335.2 | 325.6 |
| 496.0 | 6003  | -7.1  | -13.1 | 62 | 2.83 | 198 | 9  | 325.1 | 334.8 | 325.6 |
| 492.0 | 6066  | -7.3  | -18.3 | 41 | 1.85 | 196 | 8  | 325.6 | 332.1 | 325.9 |
| 490.1 | 6096  | -7.5  | -18.3 | 42 | 1.85 | 195 | 8  | 325.6 | 332.2 | 326.0 |
| 474.0 | 6355  | -9.7  | -18.7 | 48 | 1.85 | 188 | 7  | 326.1 | 332.7 | 326.4 |
| 450.0 | 6755  | -12.3 | -14.0 | 87 | 2.89 | 178 | 6  | 327.7 | 337.8 | 328.3 |
| 426.0 | 7173  | -13.9 | -18.9 | 66 | 2.03 | 167 | 5  | 330.8 | 338.1 | 331.2 |
| 418.0 | 7317  | -14.5 | -18.5 | 72 | 2.14 | 163 | 5  | 331.9 | 339.5 | 332.3 |
| 401.6 | 7620  | -16.3 | -21.2 | 66 | 1.76 | 155 | 4  | 333.3 | 339.7 | 333.7 |
| 400.0 | 7650  | -16.5 | -21.5 | 65 | 1.73 | 155 | 4  | 333.5 | 339.8 | 333.8 |
| 385.0 | 7936  | -18.5 | -24.5 | 59 | 1.37 | 160 | 5  | 334.5 | 339.6 | 334.8 |
| 353.0 | 8578  | -22.9 | -37.9 | 24 | 0.42 | 170 | 6  | 337.0 | 338.6 | 337.1 |
| 345.0 | 8745  | -24.5 | -36.5 | 32 | 0.49 | 173 | 7  | 337.0 | 339.0 | 337.1 |
| 340.0 | 8852  | -24.9 | -30.9 | 57 | 0.86 | 175 | 7  | 337.9 | 341.2 | 338.1 |
| 334.0 | 8981  | -25.5 | -30.5 | 63 | 0.91 | 177 | 8  | 338.8 | 342.3 | 339.0 |
| 326.5 | 9144  | -26.8 | -31.7 | 63 | 0.83 | 180 | 8  | 339.2 | 342.5 | 339.4 |
| 300.0 | 9750  | -31.5 | -36.0 | 64 | 0.59 | 145 | 8  | 340.9 | 343.2 | 341.0 |
| 287.0 | 10058 | -33.6 | -38.7 | 60 | 0.47 | 150 | 13 | 342.1 | 344.1 | 342.2 |
| 263.0 | 10668 | -37.9 | -44.2 | 52 | 0.29 | 150 | 17 | 344.6 | 345.8 | 344.7 |
| 250.0 | 11020 | -40.3 | -47.3 | 47 | 0.22 | 155 | 14 | 346.0 | 346.9 | 346.1 |
| 229.7 | 11582 | -44.5 | -51.9 | 44 | 0.14 | 160 | 13 | 348.1 | 348.8 | 348.2 |
| 200.1 | 12497 | -51.3 | -59.3 | 38 | 0.06 | 125 | 14 | 351.4 | 351.7 | 351.4 |
| 200.0 | 12500 | -51.3 | -59.3 | 38 | 0.06 | 125 | 14 | 351.4 | 351.7 | 351.4 |
| 172.0 | 13464 | -58.3 | -66.3 | 35 | 0.03 | 159 | 12 | 355.3 | 355.4 | 355.3 |
| 150.0 | 14320 | -61.1 | -69.1 | 34 | 0.02 | 190 | 11 | 364.6 | 364.7 | 364.6 |
| 149.8 | 14326 | -61.1 | -69.1 | 34 | 0.02 | 190 | 11 | 364.7 | 364.8 | 364.7 |
| 128.8 | 15240 | -66.0 | -73.5 | 34 | 0.01 | 175 | 14 | 371.9 | 372.0 | 371.9 |
| 116.5 | 15850 | -69.3 | -76.5 | 35 | 0.01 | 155 | 11 | 376.7 | 376.8 | 376.7 |
| 111.0 | 16143 | -70.9 | -77.9 | 35 | 0.01 | 160 | 10 | 379.0 | 379.1 | 379.0 |
| 100.0 | 16760 | -70.9 | -77.9 | 35 | 0.01 | 180 | 10 | 390.5 | 390.5 | 390.5 |
| 99.9  | 16764 | -70.9 | -77.9 | 35 | 0.01 | 175 | 10 | 390.6 | 390.6 | 390.6 |
| 97.1  | 16934 | -71.1 | -78.1 | 35 | 0.01 | 183 | 11 | 393.4 | 393.4 | 393.4 |
| 94.9  | 17069 | -70.4 | -77.5 | 35 | 0.01 | 190 | 11 | 397.3 | 397.4 | 397.3 |
| 77.9  | 18256 | -64.1 | -72.1 | 33 | 0.03 | 141 | 8  | 433.5 | 433.6 | 433.5 |
| 70.0  | 18910 | -63.3 | -71.3 | 33 | 0.04 | 115 | 7  | 448.6 | 448.9 | 448.6 |
| 60.9  | 19767 | -63.1 | -71.1 | 33 | 0.04 | 84  | 10 | 467.3 | 467.6 | 467.3 |
| 54.8  | 20422 | -59.8 | -68.9 | 30 | 0.07 | 60  | 12 | 489.0 | 489.5 | 489.0 |
| 50.0  | 21000 | -56.9 | -66.9 | 27 | 0.09 | 70  | 15 | 508.9 | 509.6 | 509.0 |
| 47.4  | 21336 | -55.2 | -65.9 | 25 | 0.11 | 80  | 16 | 520.6 | 521.4 | 520.7 |
| 46.0  | 21530 | -54.3 | -65.3 | 25 | 0.13 | 84  | 16 | 527.5 | 528.4 | 527.5 |
| 39.2  | 22555 | -54.0 | -66.5 | 20 | 0.13 | 105 | 15 | 552.9 | 553.9 | 552.9 |
| 30.0  | 24270 | -53.5 | -68.5 | 14 | 0.13 | 85  | 26 | 598.2 | 599.2 | 598.2 |
| 24.5  | 25603 | -51.2 | -68.2 | 11 | 0.16 | 80  | 32 | 640.8 | 642.2 | 640.8 |
| 20.0  | 26920 | -48.9 | -67.9 | 9  | 0.21 | 90  | 31 | 685.7 | 687.7 | 685.8 |
| 18.5  | 27432 | -47.5 | -67.3 | 8  | 0.24 | 85  | 30 | 705.4 | 707.7 | 705.5 |

|      |       |       |       |    |      |    |    |       |       |       |
|------|-------|-------|-------|----|------|----|----|-------|-------|-------|
| 13.8 | 29393 | -42.1 | -65.1 | 6  | 0.44 | 88 | 34 | 785.5 | 790.2 | 785.8 |
| 11.8 | 30480 | -40.0 | -61.1 | 9  | 0.87 | 90 | 36 | 829.7 | 839.4 | 830.2 |
| 11.2 | 30785 | -39.4 | -60.0 | 9  | 1.05 | 90 | 35 | 842.6 | 854.3 | 843.1 |
| 10.7 | 31127 | -38.7 | -58.7 | 10 | 1.30 |    |    | 857.2 | 871.9 | 857.9 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980720/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 3.98  
 Lifted index: 3.83

LIFT computed using virtual temperature: 3.74  
 SWEAT index: 50.99  
 K index: 19.50  
 Cross totals index: 3.50  
 Vertical totals index: 38.50  
 Totals totals index: 42.00  
 Convective Available Potential Energy: 0.00  
 CAPE using virtual temperature: 0.00  
 Convective Inhibition: 0.00  
 CINS using virtual temperature: 0.00  
 Bulk Richardson Number: 0.00  
 Bulk Richardson Number using CAPV: 0.00  
 Temp [K] of the Lifted Condensation Level: 263.61  
 Pres [hPa] of the Lifted Condensation Level: 508.50  
 Mean mixed layer potential temperature: 319.81  
 Mean mixed layer mixing ratio: 3.69  
 1000 hPa to 500 hPa thickness: 5915.00  
 Precipitable water [mm] for entire sounding: 19.99

## 72387 DRA Mercury Observations at 12Z 20 Jul 1998

| PRES   | HGHT | TEMP | DWPT | RELH | MIXR | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|------|------|------|------|------|------|------|-------|-------|-------|
| hPa    | m    | C    | C    | %    | g/kg | deg  | knot | K     | K     | K     |
| 1000.0 | 63   |      |      |      |      |      |      |       |       |       |
| 925.0  | 777  |      |      |      |      |      |      |       |       |       |
| 902.0  | 1009 | 29.0 | 12.0 | 35   | 9.86 | 110  | 18   | 311.2 | 341.8 | 313.0 |
| 880.8  | 1219 | 28.7 | 10.1 | 31   | 8.85 | 120  | 23   | 313.0 | 340.8 | 314.6 |
| 876.0  | 1267 | 28.6 | 9.6  | 31   | 8.63 | 122  | 23   | 313.4 | 340.6 | 315.0 |
| 850.0  | 1532 | 26.2 | 8.2  | 32   | 8.09 | 130  | 23   | 313.6 | 339.1 | 315.1 |
| 821.1  | 1829 | 23.5 | 7.8  | 37   | 8.16 | 150  | 19   | 313.8 | 339.6 | 315.4 |
| 792.4  | 2134 | 20.7 | 7.4  | 42   | 8.24 | 170  | 15   | 314.1 | 340.1 | 315.6 |
| 764.9  | 2438 | 17.9 | 7.1  | 49   | 8.31 | 190  | 12   | 314.3 | 340.5 | 315.8 |
| 738.2  | 2743 | 15.2 | 6.7  | 57   | 8.39 | 170  | 12   | 314.4 | 340.9 | 316.0 |
| 712.4  | 3048 | 12.4 | 6.3  | 66   | 8.47 | 145  | 13   | 314.6 | 341.3 | 316.2 |
| 700.0  | 3199 | 11.0 | 6.1  | 72   | 8.51 | 145  | 13   | 314.6 | 341.5 | 316.2 |
| 662.4  | 3658 | 8.3  | 6.0  | 85   | 8.94 | 220  | 4    | 316.6 | 345.1 | 318.4 |
| 655.0  | 3751 | 7.8  | 6.0  | 88   | 9.03 | 236  | 5    | 317.1 | 345.8 | 318.8 |
| 629.0  | 4084 | 6.4  | -0.6 | 61   | 5.86 | 296  | 9    | 319.1 | 338.2 | 320.3 |
| 614.8  | 4267 | 5.0  | -1.3 | 63   | 5.68 | 330  | 11   | 319.7 | 338.3 | 320.8 |
| 591.8  | 4572 | 2.8  | -2.5 | 68   | 5.39 | 340  | 13   | 320.6 | 338.3 | 321.6 |
| 569.6  | 4877 | 0.6  | -3.8 | 73   | 5.12 | 5    | 13   | 321.5 | 338.4 | 322.5 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 548.3 | 5182  | -1.7  | -5.0  | 78 | 4.85 | 10  | 17 | 322.3 | 338.5 | 323.3 |
| 500.0 | 5920  | -7.1  | -7.9  | 94 | 4.24 | 10  | 17 | 324.3 | 338.6 | 325.1 |
| 488.6 | 6096  | -8.1  | -9.0  | 94 | 3.99 | 5   | 16 | 325.2 | 338.7 | 326.0 |
| 433.7 | 7010  | -13.5 | -14.5 | 92 | 2.88 | 5   | 11 | 329.7 | 339.8 | 330.2 |
| 400.5 | 7620  | -17.0 | -18.2 | 90 | 2.28 | 35  | 7  | 332.6 | 340.8 | 333.1 |
| 400.0 | 7630  | -17.1 | -18.3 | 90 | 2.27 | 35  | 7  | 332.7 | 340.8 | 333.1 |
| 381.0 | 7994  | -19.9 | -21.6 | 86 | 1.80 | 68  | 7  | 333.6 | 340.2 | 334.0 |
| 372.0 | 8171  | -21.5 | -29.5 | 48 | 0.90 | 84  | 7  | 333.8 | 337.2 | 334.0 |
| 366.0 | 8291  | -22.3 | -28.3 | 58 | 1.02 | 95  | 7  | 334.3 | 338.1 | 334.5 |
| 352.0 | 8578  | -23.7 | -33.7 | 39 | 0.63 | 122 | 7  | 336.2 | 338.6 | 336.3 |
| 325.4 | 9144  | -27.4 | -35.5 | 46 | 0.58 | 175 | 7  | 338.6 | 340.9 | 338.8 |
| 311.9 | 9449  | -29.4 | -36.4 | 51 | 0.55 | 195 | 18 | 339.9 | 342.1 | 340.1 |
| 300.0 | 9730  | -31.3 | -37.3 | 55 | 0.52 | 190 | 22 | 341.1 | 343.2 | 341.2 |
| 277.0 | 10287 | -35.1 | -41.1 | 54 | 0.38 | 175 | 24 | 343.5 | 345.1 | 343.6 |
| 262.0 | 10668 | -38.1 | -44.1 | 53 | 0.29 | 165 | 25 | 344.6 | 345.8 | 344.6 |
| 250.0 | 10990 | -40.7 | -46.7 | 52 | 0.23 | 170 | 26 | 345.4 | 346.4 | 345.5 |
| 208.6 | 12192 | -50.8 | -56.8 | 49 | 0.08 | 185 | 37 | 348.0 | 348.4 | 348.0 |
| 200.0 | 12470 | -53.1 | -59.1 | 48 | 0.07 | 190 | 35 | 348.5 | 348.8 | 348.5 |
| 185.0 | 12966 | -57.3 | -63.3 | 46 | 0.04 | 210 | 29 | 349.6 | 349.8 | 349.6 |
| 157.0 | 13989 | -62.3 | -69.3 | 39 | 0.02 | 253 | 16 | 357.9 | 358.0 | 357.9 |
| 150.0 | 14270 | -61.7 | -68.7 | 39 | 0.02 | 265 | 12 | 363.6 | 363.7 | 363.6 |
| 148.7 | 14326 | -61.6 | -68.6 | 39 | 0.03 | 265 | 13 | 364.7 | 364.8 | 364.7 |
| 139.0 | 14741 | -60.9 | -67.9 | 39 | 0.03 | 191 | 14 | 373.0 | 373.1 | 373.0 |
| 128.0 | 15240 | -64.2 | -70.9 | 39 | 0.02 | 100 | 16 | 376.0 | 376.1 | 376.0 |
| 121.6 | 15545 | -66.2 | -72.8 | 39 | 0.02 | 105 | 15 | 377.7 | 377.8 | 377.8 |
| 104.0 | 16489 | -72.5 | -78.5 | 40 | 0.01 | 337 | 6  | 383.1 | 383.1 | 383.1 |
| 100.0 | 16720 | -70.9 | -76.9 | 41 | 0.01 | 305 | 4  | 390.5 | 390.6 | 390.5 |
| 99.4  | 16756 | -70.1 | -77.1 | 35 | 0.01 | 305 | 4  | 392.7 | 392.8 | 392.7 |
| 99.3  | 16764 | -70.1 | -77.1 | 35 | 0.01 | 305 | 4  | 392.9 | 392.9 | 392.9 |
| 93.4  | 17126 | -69.7 | -76.7 | 35 | 0.01 |     |    | 400.5 | 400.6 | 400.5 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980720/1200  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 0.16

Lifted index: -0.41

LIFT computed using virtual temperature: -0.48

SWEAT index: 161.40

K index: 36.60

Cross totals index: 15.30

Vertical totals index: 33.30

Totals totals index: 48.60

Convective Available Potential Energy: 8.46

CAPE using virtual temperature: 11.05

Convective Inhibition: -237.18

CINS using virtual temperature: -219.33

Equilibrium Level: 444.38

Equilibrium Level using virtual temperature: 370.41

Level of Free Convection: 514.21

LFCT using virtual temperature: 517.17

Bulk Richardson Number: 0.19

Bulk Richardson Number using CAPV: 0.24

Temp [K] of the Lifted Condensation Level: 279.11

Pres [hPa] of the Lifted Condensation Level: 670.87

Mean mixed layer potential temperature: 312.85

Mean mixed layer mixing ratio: 8.83

1000 hPa to 500 hPa thickness: 5857.00

Precipitable water [mm] for entire sounding: 34.57

## 72387 DRA Mercury Observations at 00Z 21 Jul 1998

| PRES   | HGHT  | TEMP  | DWPT  | RELH | MIXR  | DRCT | SKNT | THTA  | THTE  | THTV  |
|--------|-------|-------|-------|------|-------|------|------|-------|-------|-------|
| hPa    | m     | C     | C     | %    | g/kg  | deg  | knot | K     | K     | K     |
| 1000.0 | 48    |       |       |      |       |      |      |       |       |       |
| 925.0  | 756   |       |       |      |       |      |      |       |       |       |
| 900.0  | 1009  | 33.0  | 14.0  | 32   | 11.28 | 240  | 12   | 315.5 | 351.1 | 317.6 |
| 893.0  | 1078  | 31.2  | 10.2  | 27   | 8.82  | 238  | 12   | 314.4 | 342.2 | 316.0 |
| 878.8  | 1219  | 29.7  | 10.0  | 29   | 8.85  | 235  | 12   | 314.2 | 342.2 | 315.9 |
| 850.0  | 1512  | 26.6  | 9.6   | 34   | 8.90  | 230  | 12   | 314.0 | 342.1 | 315.7 |
| 848.8  | 1524  | 26.5  | 9.5   | 34   | 8.87  | 230  | 12   | 314.0 | 342.0 | 315.7 |
| 819.8  | 1829  | 23.7  | 7.9   | 36   | 8.23  | 230  | 10   | 314.2 | 340.3 | 315.8 |
| 800.0  | 2042  | 21.8  | 6.8   | 38   | 7.80  | 233  | 7    | 314.4 | 339.1 | 315.9 |
| 791.5  | 2134  | 21.1  | 6.7   | 39   | 7.84  | 235  | 6    | 314.6 | 339.5 | 316.1 |
| 763.9  | 2438  | 18.9  | 6.4   | 44   | 7.95  | 205  | 4    | 315.4 | 340.7 | 316.9 |
| 737.2  | 2743  | 16.7  | 6.1   | 49   | 8.06  | 145  | 6    | 316.2 | 341.9 | 317.8 |
| 715.0  | 3006  | 14.8  | 5.8   | 55   | 8.15  | 128  | 11   | 316.9 | 342.9 | 318.5 |
| 711.4  | 3048  | 14.6  | 5.4   | 54   | 7.95  | 125  | 12   | 317.2 | 342.6 | 318.7 |
| 700.0  | 3185  | 14.0  | 4.0   | 51   | 7.33  | 125  | 15   | 318.0 | 341.6 | 319.4 |
| 679.0  | 3441  | 13.4  | -0.6  | 38   | 5.42  | 125  | 18   | 320.1 | 337.9 | 321.1 |
| 661.3  | 3658  | 11.6  | -1.4  | 40   | 5.24  | 125  | 20   | 320.4 | 337.7 | 321.4 |
| 637.3  | 3962  | 9.0   | -2.6  | 44   | 4.99  | 130  | 19   | 320.9 | 337.4 | 321.9 |
| 614.0  | 4267  | 6.5   | -3.7  | 48   | 4.75  | 155  | 15   | 321.4 | 337.2 | 322.3 |
| 570.1  | 4877  | 1.3   | -6.1  | 58   | 4.29  | 170  | 13   | 322.3 | 336.6 | 323.1 |
| 564.0  | 4965  | 0.6   | -6.4  | 59   | 4.22  | 169  | 14   | 322.4 | 336.6 | 323.2 |
| 542.0  | 5283  | -1.3  | -11.3 | 47   | 2.99  | 163  | 17   | 323.8 | 334.1 | 324.4 |
| 528.0  | 5491  | -2.7  | -7.7  | 68   | 4.08  | 160  | 19   | 324.6 | 338.4 | 325.4 |
| 508.3  | 5791  | -4.8  | -11.2 | 61   | 3.22  | 155  | 22   | 325.6 | 336.6 | 326.2 |
| 500.0  | 5920  | -5.7  | -12.7 | 58   | 2.90  | 155  | 20   | 326.0 | 336.1 | 326.6 |
| 492.0  | 6047  | -6.5  | -14.5 | 53   | 2.54  | 155  | 19   | 326.6 | 335.4 | 327.1 |
| 488.9  | 6096  | -6.9  | -12.8 | 63   | 2.93  | 155  | 19   | 326.7 | 336.9 | 327.3 |
| 487.0  | 6126  | -7.1  | -11.8 | 69   | 3.20  | 154  | 19   | 326.8 | 337.8 | 327.4 |
| 470.0  | 6403  | -9.1  | -17.1 | 52   | 2.14  | 149  | 17   | 327.6 | 335.2 | 328.1 |
| 463.0  | 6520  | -8.3  | -14.3 | 62   | 2.74  | 146  | 16   | 330.0 | 339.7 | 330.6 |
| 440.0  | 6914  | -11.5 | -12.5 | 92   | 3.35  | 138  | 14   | 330.8 | 342.5 | 331.5 |
| 417.4  | 7315  | -14.0 | -14.8 | 94   | 2.93  | 130  | 11   | 332.6 | 342.9 | 333.2 |
| 401.1  | 7620  | -16.0 | -16.5 | 96   | 2.64  | 130  | 10   | 333.9 | 343.4 | 334.4 |
| 400.0  | 7640  | -16.1 | -16.6 | 96   | 2.63  | 125  | 10   | 334.0 | 343.4 | 334.5 |
| 380.0  | 8024  | -19.5 | -20.3 | 93   | 2.02  | 143  | 11   | 334.4 | 341.8 | 334.8 |
| 371.0  | 8203  | -19.5 | -25.5 | 59   | 1.30  | 151  | 11   | 336.7 | 341.6 | 337.0 |
| 326.3  | 9144  | -25.7 | -34.4 | 44   | 0.64  | 195  | 13   | 340.8 | 343.4 | 340.9 |
| 322.0  | 9242  | -26.3 | -35.3 | 42   | 0.59  | 198  | 13   | 341.2 | 343.6 | 341.4 |
| 312.9  | 9449  | -28.0 | -37.0 | 42   | 0.51  | 205  | 13   | 341.7 | 343.7 | 341.8 |
| 300.0  | 9750  | -30.5 | -39.5 | 41   | 0.41  | 200  | 14   | 342.3 | 344.0 | 342.4 |
| 274.7  | 10363 | -35.6 | -44.1 | 41   | 0.28  | 195  | 19   | 343.6 | 344.8 | 343.6 |
| 263.0  | 10668 | -38.2 | -46.4 | 41   | 0.23  | 205  | 19   | 344.2 | 345.1 | 344.2 |
| 250.0  | 11020 | -41.1 | -49.1 | 42   | 0.18  | 215  | 19   | 344.8 | 345.6 | 344.9 |
| 209.7  | 12192 | -50.7 | -57.7 | 43   | 0.08  | 225  | 15   | 347.7 | 348.0 | 347.7 |
| 208.0  | 12245 | -51.1 | -58.1 | 43   | 0.07  | 226  | 14   | 347.8 | 348.1 | 347.8 |
| 200.0  | 12500 | -50.9 | -57.9 | 43   | 0.08  | 230  | 11   | 352.0 | 352.4 | 352.0 |
| 164.8  | 13716 | -60.0 | -67.0 | 39   | 0.03  | 195  | 13   | 356.7 | 356.8 | 356.7 |
| 150.0  | 14310 | -64.5 | -71.5 | 38   | 0.02  | 220  | 12   | 358.8 | 358.9 | 358.8 |
| 149.6  | 14326 | -64.6 | -71.6 | 38   | 0.02  | 225  | 11   | 358.9 | 359.0 | 358.9 |

|       |       |       |       |    |      |     |    |       |       |       |
|-------|-------|-------|-------|----|------|-----|----|-------|-------|-------|
| 135.0 | 14951 | -67.1 | -74.1 | 37 | 0.01 | 270 | 8  | 365.1 | 365.2 | 365.1 |
| 128.6 | 15240 | -67.6 | -74.6 | 36 | 0.01 | 280 | 5  | 369.3 | 369.3 | 369.3 |
| 102.0 | 16632 | -70.1 | -77.1 | 35 | 0.01 | 188 | 9  | 389.8 | 389.9 | 389.8 |
| 100.0 | 16750 | -68.1 | -75.1 | 36 | 0.01 | 180 | 9  | 395.9 | 396.0 | 395.9 |
| 99.8  | 16764 | -67.9 | -74.9 | 36 | 0.01 | 180 | 9  | 396.6 | 396.6 | 396.6 |
| 97.8  | 16884 | -66.1 | -73.1 | 37 | 0.02 | 186 | 9  | 402.3 | 402.4 | 402.3 |
| 94.8  | 17069 | -66.8 | -73.8 | 37 | 0.02 | 195 | 9  | 404.5 | 404.6 | 404.5 |
| 85.3  | 17708 | -69.1 | -76.1 | 36 | 0.01 | 209 | 10 | 412.3 | 412.4 | 412.3 |
| 81.5  | 17983 | -67.4 | -74.4 | 36 | 0.02 | 215 | 11 | 421.1 | 421.3 | 421.1 |
| 74.3  | 18544 | -63.9 | -70.9 | 38 | 0.04 | 121 | 7  | 439.8 | 440.0 | 439.8 |
| 70.0  | 18910 | -63.7 | -70.7 | 38 | 0.04 | 60  | 5  | 447.8 | 448.0 | 447.8 |
| 63.6  | 19507 | -61.8 | -69.0 | 37 | 0.05 | 80  | 11 | 464.4 | 464.8 | 464.4 |
| 57.7  | 20117 | -59.8 | -67.4 | 37 | 0.08 | 70  | 16 | 482.0 | 482.5 | 482.1 |
| 50.0  | 21010 | -56.9 | -64.9 | 36 | 0.12 | 85  | 17 | 508.9 | 509.8 | 509.0 |
| 47.5  | 21336 | -56.8 | -65.0 | 35 | 0.13 | 95  | 18 | 516.6 | 517.5 | 516.7 |
| 38.0  | 22757 | -56.5 | -65.5 | 31 | 0.15 | 95  | 17 | 551.5 | 552.6 | 551.5 |
| 34.0  | 23470 | -54.2 | -63.7 | 30 | 0.21 | 95  | 17 | 575.1 | 576.8 | 575.2 |
| 30.0  | 24280 | -51.7 | -61.7 | 29 | 0.32 | 85  | 20 | 603.1 | 605.6 | 603.2 |
| 25.7  | 25298 | -49.7 | -60.5 | 27 | 0.43 | 70  | 24 | 636.2 | 639.9 | 636.4 |
| 22.3  | 26213 | -47.9 | -59.4 | 25 | 0.57 | 85  | 34 | 667.5 | 672.5 | 667.7 |
| 20.0  | 26930 | -46.5 | -58.5 | 24 | 0.71 | 95  | 35 | 693.1 | 699.5 | 693.4 |
| 18.6  | 27432 | -46.2 | -58.4 | 24 | 0.77 | 100 | 34 | 709.2 | 716.4 | 709.6 |
| 16.2  | 28346 | -45.5 | -58.3 | 22 | 0.90 | 100 | 31 | 739.6 | 748.3 | 740.0 |
| 15.3  | 28713 | -45.3 | -58.3 | 22 | 0.96 | 97  | 29 | 752.2 | 761.5 | 752.6 |
| 12.3  | 30175 | -40.3 | -54.2 | 21 | 1.96 | 85  | 22 | 817.6 | 838.2 | 818.6 |
| 12.1  | 30298 | -39.9 | -53.9 | 21 | 2.08 |     |    | 823.4 | 845.3 | 824.4 |

## Station information and sounding indices

Station identifier: DRA  
 Station number: 72387  
 Observation time: 980721/0000  
 Station latitude: 36.61  
 Station longitude: -116.01  
 Station elevation: 1009.0  
 Showalter index: 0.36  
 Lifted index: 0.10

LIFT computed using virtual temperature: -0.23  
 SWEAT index: 159.22  
 K index: 31.90  
 Cross totals index: 15.30  
 Vertical totals index: 32.30  
 Totals totals index: 47.60  
 Convective Available Potential Energy: 4.06  
 CAPE using virtual temperature: 11.64  
 Convective Inhibition: -310.88  
 CINS using virtual temperature: -259.23  
 Equilibrium Level: 378.88  
 Equilibrium Level using virtual temperature: 378.60  
 Level of Free Convection: 488.26  
 LFCT using virtual temperature: 507.96  
 Bulk Richardson Number: 0.16  
 Bulk Richardson Number using CAPV: 0.47  
 Temp [K] of the Lifted Condensation Level: 279.21  
 Pres [hPa] of the Lifted Condensation Level: 660.98  
 Mean mixed layer potential temperature: 314.29  
 Mean mixed layer mixing ratio: 9.03  
 1000 hPa to 500 hPa thickness: 5872.00  
 Precipitable water [mm] for entire sounding: 30.86

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:ldoolman@uwyo.edu)

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