



## **ALTITUDE - PRESSURE CONVERSION TABLE**

| ALTITUDE  | PRESSURE |                    |              |            | <u>ALTITUDE</u> | PRESSURE     |               |           |           |  |
|-----------|----------|--------------------|--------------|------------|-----------------|--------------|---------------|-----------|-----------|--|
| FEET      | MBAR (1) | TORR               | PSIA         | IN. Hg.(2) | FEET            | MBAR (1)     | TORR          | PSIA      | IN. Hg.(2 |  |
| SEA LEVEL | 1,013    | 760.0              | 14.69        | 29.92      | 63,000          | 62.65        | 46.99         | .908      | 1.85      |  |
| 1,000     | 977.1    | 733.0              | 14.17        | 28.86      | 64,000          | 58.93        | 44.20         | .864      | 1.76      |  |
| 2,000     | 941.9    | 706.6              | 13.66        | 27.82      | 65,000          | 56.89        | 42.67         | .825      | 1.68      |  |
| 3,000     | 908.0    | 681.2              | 13.17        | 26.87      | 70,000          | 44.70        | 33.53         | .613      | 1.32      |  |
| 4,000     | 874.0    | 656.3              | 12.69        | 25.84      | 75,000          | 33.36        | 25.02         | .484      | .985      |  |
| 5,000     | 843.1    | 632.5              | 12.23        | 24.90      | 80,000          | 27.84        | 20.88         | .404      | .822      |  |
| 1 mile    |          | OJEIJ              | 12123        | 24170      | 85,000          | 21.89        | 16.46         | .323      | .648      |  |
| 6,000     | 811.9    | 609.1              | 11.77        | 23.98      | 90,000          | 17.33        | 13.03         | .252      | .513      |  |
| 7,000     | 781.8    | 586.5              | 11.34        | 23.09      | 95,000          | 14.19        | 10.67         | .209      | .420      |  |
| 8,000     | 752.6    | 564.6              | 10.91        | 22.23      | 100,000         | 11.01        | 8.28          | .160      | .326      |  |
| 9,000     | 724.2    | 543.3              | 10.50        | 21.39      | 110,000         | 7.15         | 5.36          | .104      | .211      |  |
| 10,000    | 696.7    | 522.7              | 10.10        | 20.58      | 120,000         | 4.71         | 3.53          | .0682     | .109      |  |
| 11,000    | 670.4    | 502.9              | 9.72         | 19.80      | 130,000         | 3.15         | 2.36          | .0456     | .0629     |  |
| =         |          |                    | 9.72         | 19.03      | 25 MILES        |              | 2.30          | .0450     | ,0027     |  |
| 12,000    | 644.3    | 483.4              | 9.34<br>8.99 | 18.30      | 140,000         | 2 <b>.13</b> | 1.60          | .0309     | .0530     |  |
| 13,000    | 619.6    | 464.8              |              | 17.58      | -               | 1.47         | 1.10          | .0213     | .0438     |  |
| 14,000    | 595.2    | 446.5              | 8.63         |            | 150,000         |              |               |           | • 0430    |  |
| 15,000    | 571.8    | 429.0              | 8.29         | 16.89      | 440.000         |              | -1000 Microns |           | 0700      |  |
| 16,000    | 549.2    | 412.0              | 7.96         | 16.22      | 160,000         | 1.00         | .752          | .0147     | .0300     |  |
| 17,000    | 527.5    | 395.7              | 7.65         | 15.58      | 170,000         | .708         | .531          | .0103     | .0209     |  |
| 18,000    | 506.1    | 379.7              | 7.34         | 14.95      | 180,000         | .491         | .368          | 7.12x10-3 | .0145     |  |
| 19,000    | 485.9    | 364.5              | 7.05         | 14.35      | 190,000         | .336         | .252          | 4.88 "    | 9.94x10-3 |  |
| 20,000    | 465.9    | 349.5              | 6.76         | 13.76      | 200,000         | .225         | 169           | 3.27 "    | 6.67 "    |  |
| 21,000    | 446.9    | 335.3              | 6.48         | 13.20      | 210,000         | . 148        | .111          | 2.15 "    | 4.33 "    |  |
| 22,000    | 428.3    | 321.3              | 6.21         | 12.65      |                 |              | -100 Microns  |           |           |  |
| 23,000    | 410_4    | 307.9              | 5.95         | 12.12      | 220,000         | .0948        | .0711         | 1.37 "    | 2.80 "    |  |
| 24,000    | 393.1    | 294.9              | 5.70         | 11.61      | 230,000         | .0593        | .0445         | 8,59x10-4 | 1.75 "    |  |
| 25,000    | 376.6    | 282.5              | 5.46         | 11.12      | 240,000         | .0347        | .0260         | 5.20 "    | 1.05 "    |  |
| 26,000    | 360.3    | 270.3              | 5.22         | 10.64      | 250,000         | .0209        | .0157         | 3.03 "    | 6.17x10-4 |  |
| 5 MILES-  |          |                    |              |            |                 |              | -10 Microns—  |           |           |  |
| 27,000    | 344.7    | 258.6              | 5.03         | 10.18      | 260,000         | .0117        | 8.76x10-3     | 1.70 "    | 3.46      |  |
| 28,000    | 329.8    | 247.4              | 4.73         | 9.74       | 50 MILES-       |              |               |           |           |  |
| 29,000    | 315.2    | 236.5              | 4.57         | 9.31       | 270,000         | 6.37x10-3    | 4.78 "        | 9.24x10-5 | 1.88 "    |  |
| 30,000    | 301.4    | 226.1              | 4.37         | 8.90       | 280,000         | 3.45         | 2.59 "        | 4.90 "    | 1.02 "    |  |
| 31,000    | 288.2    | 216.2              | 4.18         | 8.51       | 290,000         | 1.87 "       | 1.40 "        | 2.71 "    | 5.52x10-5 |  |
| 32,000    | 273.7    | 205.3              | 3.99         | 8.12       |                 |              | -1 Micron     |           |           |  |
| 33,000    | 262.7    | 1 <del>9</del> 7.1 | 3.81         | 7.76       | 300,000         | 1.06 "       | 7.99x10-4     | 1.47x10-5 | 2.99x10-6 |  |
| 34,000    | 250.5    | 187.9              | 3.63         | 7.40       | 350,000         | 7.41x10-4    | 5.56x10-5     | 1.89x10-6 | 2.23 "    |  |
| 35,000    | 239.0    | 179.3              | 3.47         | 7.06       | 400,000         | 1.80 "       | 1.35 "        | 2.61x10-7 | 5.32x10-7 |  |
| 36,000    | 227.9    | 170.9              | 3.30         | 6.73       | 450,000         | 7.05x10-5    | 5.29x10-6     | 1.22 "    | 2.48 "    |  |
| 37,000    | 217.1    | 162.8              | 3.15         | 6.41       | 500,000         | 4.97 "       | 3.73 "        | 7.22x10-8 | 1.47 "    |  |
| 38,000    | 207.3    | 155.5              | 3.00         | 6.12       | 100 MILES-      |              |               |           |           |  |
| 39,000    | 197.5    | 148.1              | 2.86         | 5.83       | 600,000         | 2.35 "       | 1.76x10-6     | 3.41x10-8 | 6.54x10-8 |  |
|           | 188.3    | 141.2              | 2.73         | 5.56       | 700,000         | 1.20 "       | 9.02x10-7     | 1.80 "    | 3.07 "    |  |
| 40,000    | 100.5    | 171.6              |              | 3.50       | ,00,000         |              | , TOEN !      | 1.00      |           |  |

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| 42,000           | 171.1          | 128.3          | 2.48         | 5.05         | 900,000  | 3.95 "        | 2.97 "         | 5.74 "       | 1.17 "     |  |  |
|------------------|----------------|----------------|--------------|--------------|--|---------------|----------------|--------------|------------|--|--|
| 43,000           | 162.9          | 122.2          | 2.36         | 4.81         | 1,000,000  | 2.37 "        | 1.78 "         | 3.44 "       | 7.00x10-9  |  |  |
| 44,000           | 155.5          | 116.6          | 2.25         | 4.59         | 200 MILES-   | _             |                |              |            |  |  |
| 45,000           | 148.4          | 111.3          | 2.15         | 4.38         | 1,100,000  | 1.47 n        | 1.10 "         | 2.11 "       | 4.30 "     |  |  |
| 46,000           | 141.2          | 105.9          | 2.05         | 4.17         | 1,200,000  | 9.21x10-7     | 6.91x10-8      | 1.04 "       | 2.72 "     |  |  |
| 47,000           | 134.8          | 101.1          | 1.95         | 3.98         | 1,300,000  | 5.96 "        | 4.47 "         | 8.64x10-10   | 1.76 "     |  |  |
| 48,000           | 128.4          | 96.27          | 1.85         | 3.79         | 1,400,000  | 3.96 "        | 2.97 "         | 5.74 "       | 1.12 "     |  |  |
| 49,000           | 122.3          | 91.69          | 1.77         | 3.61         | 1,500,000  | 2.71 "        | 2.03 "         | 3.87 "       | 7.88x10-10 |  |  |
| 50,000           | 116.5          | 87.38          | 1.70         | 3.44         | 1,600,000  | 1.44 "        | 1.08 "         | 2.66 "       | 5.42 "     |  |  |
| 51,000           | 111.1          | 83.31          | 1.61         | 3.28         | 1,700,000  | 1.27 "        | 9.66x10-9      | 1.87 "       | 3.80 "     |  |  |
| 52,000           | 106.0          | 79.50          | 1.54         | 3.13         | 1,800,000  | 9.15x10-8     | 6. <b>86 "</b> | 1.33 "       | 2.70 "     |  |  |
| 10 MILES         | <del></del>    |                |              |              | 1,900,000  | 6.53 "        | 4.95 "         | 9.57x10-11   | 1.95 "     |  |  |
| 53,000           | 100.9          | 75.69          | 1.46         | 2.98         | 2,000,000  | 4.81 "        | 3.61 "         | 6.97 "       | 1.42 "     |  |  |
| 54,000           | 96.18          | 72.14          | 1.39         | 2.84         | 400 MILES  |               |                |              |            |  |  |
| 55,000           | 91.77          | 68.83          | 1.33         | 2.71         |  |               |                |              |            |  |  |
| 56,000           | 87.72          | 65.79          | 1.27         | 2.59         |  |               |                |              |            |  |  |
| 57,000           | 83.30          | 62.48          | 1,21         | 2.46         | (1) To obtain  | n the recogni | ized SI Unit I | Pa (Pascal = | Newtons/   |  |  |
|                  |                |                |              |              |  |               |                |              |            |  |  |
| 58,000<br>59,000 | 78.78<br>75.86 | 59.09<br>56.90 | 1.15<br>1.10 | 2.35<br>2.24 | Square Meter) multiply MBAR X 100 or TORR X 133.3.       |               |                |              |            |  |  |
| 60,000           | 72.48          | 54.36          | 1.05         | 2.11         | (2) The Inch scale is often expressed in reverse (30" of |               |                |              |            |  |  |
| 61,000           | 69.09          | 51.82          | 1.00         | 2.01         | Vacuum). Subtract the value in the IN. Hg. column from   |               |                |              |            |  |  |
| 62,000           | 65.71          | 49.28          | .953         | 1.91         | 30 to ob   | tain "Inches  | of Vacuum".    |              |            |  |  |
| _                |                |                |              |              |  |               |                |              | -          |  |  |

## CONVERSION FACTORS

1 mm. Hg.

1 Micron Hg.=0.001 mm. Hg. @32 Deg F=1,000 Microns 0.00003937 in. Hg.

0.03937 In. Hg.

0.00001934 PSIA

0.5357 In H20 @15 Deg C

0.019339 PSIA

1 PSIA =2.006 In. Hg.

1 inch Hg.= 0.49116 PSIA

27.70 In. H20

a32 Deg F 25.400 mm.Hg.

51.7147 mm. Hg.

13.61 in H20

1 Standard Atmosphere = 29.921 in. Hg. @ 32Deg F 760 mm. Hg. 14.696 PSIA