# METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR JUNE 1944

[Climate aud Crop Weather Division, J. B. KINCER in charge]

## AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by radiosondes during June 1944*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

| Altitude (meters) m. s. l. | Albany, N. Y. (86 m.) | | | | Albuquerque, N.Mex. (1,620 m.) | | | | Apalachicola, Fla. (5 m.) | | | | Atlanta, Ga. (300 m.) | | | | Big Spring, Tex. (774 m.) | | | | Bismarck, N. Dak. (505 m.) | | | | Boise, Idaho (868 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 1,002 | 17.0 | 82 | 28 | 834 | 24.3 | 25 | 30 | 1,014 | 26.5 | 82 | 30 | 981 | 24.9 | 69 | 30 | 923 | 27.1 | 51 | 30 | 951 | 17.4 | 80 | 30 | 911 | 18.1 | 56 |
| 500 | 30 | 955 | 16.8 | 71 | ---- | ---- | ---- | ---- | 30 | 959 | 24.9 | 69 | 30 | 959 | 24.9 | 61 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 1,000 | 30 | 901 | 14.5 | 71 | ---- | ---- | ---- | ---- | 30 | 906 | 22.0 | 62 | 30 | 906 | 22.3 | 58 | 30 | 900 | 25.7 | 51 | 30 | 897 | 15.6 | 68 | 30 | 897 | 17.7 | 50 |
| 1,500 | 30 | 849 | 11.7 | 73 | ---- | ---- | ---- | ---- | 30 | 855 | 18.5 | 62 | 30 | 855 | 19.0 | 58 | 30 | 850 | 21.9 | 54 | 30 | 846 | 12.2 | 71 | 30 | 846 | 14.2 | 46 |
| 2,000 | 30 | 799 | 9.0 | 70 | 28 | 798 | 22.4 | 24 | 30 | 806 | 15.3 | 60 | 30 | 806 | 15.5 | 62 | 30 | 802 | 18.7 | 51 | 30 | 796 | 9.0 | 72 | 30 | 796 | 10.2 | 51 |
| 2,500 | 30 | 752 | 6.4 | 65 | 28 | 753 | 18.8 | 24 | 30 | 760 | 12.0 | 55 | 30 | 760 | 12.0 | 60 | 30 | 756 | 16.0 | 39 | 30 | 750 | 5.9 | 67 | 30 | 750 | 6.3 | 56 |
| 3,000 | 30 | 707 | 3.8 | 61 | 28 | 710 | 14.8 | 27 | 30 | 716 | 8.9 | 52 | 30 | 716 | 8.7 | 58 | 30 | 713 | 12.5 | 41 | 30 | 705 | 3.2 | 54 | 30 | 705 | 2.7 | 59 |
| 4,000 | 30 | 625 | −1.8 | 52 | 28 | 630 | 6.1 | 36 | 30 | 634 | 3.5 | 43 | 30 | 633 | 2.5 | 49 | 30 | 632 | 5.3 | 40 | 29 | 623 | −2.7 | 48 | 30 | 622 | −4.8 | 64 |
| 5,000 | 30 | 550 | −6.8 | 41 | 28 | 556 | −2.3 | 47 | 30 | 560 | −2.2 | 41 | 30 | 559 | −2.5 | 43 | 30 | 558 | −1.4 | 35 | 29 | 549 | −8.9 | 40 | 30 | 547 | −11.6 | 59 |
| 6,000 | 30 | 484 | −13.0 | 32 | 28 | 490 | −10.0 | 51 | 30 | 493 | −7.8 | 35 | 30 | 492 | −8.4 | 38 | 30 | 492 | −7.8 | 29 | 29 | 481 | −15.5 | 36 | 30 | 480 | −18.7 | 58 |
| 7,000 | 29 | 423 | −20.1 | 37 | 28 | 430 | −16.2 | 40 | 29 | 432 | −14.4 | 39 | 30 | 432 | −15.2 | 38 | 30 | 432 | −15.0 | ---- | 28 | 421 | −22.0 | 39 | 30 | 419 | −25.8 | 41 |
| 8,000 | 29 | 369 | −27.1 | ---- | 26 | 375 | −23.1 | ---- | 28 | 378 | −21.4 | 36 | 29 | 378 | −22.1 | 46 | 30 | 377 | −22.3 | ---- | 27 | 366 | −29.3 | 38 | 30 | 363 | −33.2 | ---- |
| 9,000 | 29 | 320 | −34.8 | ---- | 26 | 326 | −30.4 | ---- | 28 | 329 | −28.7 | ---- | 28 | 329 | −29.5 | 43 | 30 | 328 | −29.6 | ---- | 27 | 317 | −36.8 | ---- | 29 | 314 | −40.9 | ---- |
| 10,000 | 29 | 277 | −42.2 | ---- | 26 | 283 | −37.8 | ---- | 28 | 286 | −36.5 | ---- | 26 | 286 | −37.1 | ---- | 30 | 285 | −37.3 | ---- | 27 | 274 | −43.9 | ---- | 27 | 271 | −47.0 | ---- |
| 11,000 | 29 | 238 | −49.2 | ---- | 25 | 244 | −44.5 | ---- | 28 | 247 | −44.3 | ---- | 24 | 246 | −44.6 | ---- | 30 | 246 | −44.9 | ---- | 27 | 236 | −49.7 | ---- | 23 | 233 | −49.7 | ---- |
| 12,000 | 29 | 204 | −54.7 | ---- | 25 | 210 | −50.5 | ---- | 28 | 212 | −51.7 | ---- | 21 | 212 | −51.8 | ---- | 29 | 211 | −52.1 | ---- | 26 | 203 | −53.2 | ---- | 21 | 200 | −50.2 | ---- |
| 13,000 | 27 | 175 | −57.7 | ---- | 20 | 181 | −55.6 | ---- | 28 | 182 | −58.6 | ---- | 20 | 182 | −58.1 | ---- | 28 | 181 | −58.9 | ---- | 24 | 173 | −54.3 | ---- | 18 | 171 | −51.3 | ---- |
| 14,000 | 22 | 149 | −59.0 | ---- | 13 | 154 | −60.1 | ---- | 24 | 155 | −63.8 | ---- | 13 | 154 | −61.9 | ---- | 23 | 154 | −65.5 | ---- | 23 | 148 | −56.1 | ---- | 14 | 146 | −52.4 | ---- |
| 15,000 | 15 | 127 | −59.2 | ---- | 8 | 132 | −64.6 | ---- | 14 | 132 | −67.5 | ---- | ---- | ---- | ---- | ---- | 9 | 130 | −69.7 | ---- | 18 | 127 | −57.7 | ---- | 13 | 126 | −54.0 | ---- |
| 16,000 | 9 | 108 | −59.5 | ---- | ---- | ---- | ---- | ---- | 5 | 113 | −69.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 14 | 109 | −59.4 | ---- | 8 | 108 | −56.0 | ---- |
| 17,000 | 5 | 93 | −59.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 13 | 93 | −60.0 | ---- | 5 | 92 | −55.6 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 79 | −59.1 | ---- | ---- | ---- | ---- | ---- |
| 19,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 68 | −58.2 | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | Brownsville, Tex. (6 m.) | | | | Buffalo, N. Y. (221 m.) | | | | Caribou, Maine (193 m.) | | | | Charleston, S. C.[1] (14 m.) | | | | Denver, Colo. (1616 m.) | | | | Dodge City, Kans. (787 m.) | | | | El Paso, Tex. (1195 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 1,011 | 26.6 | 86 | 30 | 987 | 17.2 | 85 | 30 | 989 | 13.3 | 78 | 30 | 1,013 | 23.4 | 92 | 30 | 834 | 19.2 | 48 | 30 | 921 | 22.5 | 69 | 30 | 877 | 27.2 | 29 |
| 500 | 30 | 956 | 23.0 | 85 | 30 | 956 | 18.2 | 71 | 30 | 953 | 13.4 | 69 | 30 | 959 | 23.2 | 69 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 1,000 | 30 | 903 | 20.7 | 70 | 30 | 901 | 15.8 | 66 | 30 | 898 | 11.4 | 70 | 30 | 905 | 20.5 | 64 | ---- | ---- | ---- | ---- | 30 | 899 | 22.5 | 62 | ---- | ---- | ---- | ---- |
| 1,500 | 30 | 852 | 18.8 | 57 | 30 | 850 | 12.8 | 67 | 30 | 846 | 8.6 | 72 | 30 | 854 | 17.6 | 62 | ---- | ---- | ---- | ---- | 30 | 848 | 19.9 | 59 | 30 | 848 | 26.2 | 26 |
| 2,000 | 30 | 803 | 16.4 | 48 | 30 | 800 | 10.0 | 60 | 30 | 796 | 5.5 | 73 | 30 | 805 | 14.5 | 59 | 30 | 798 | 19.0 | 41 | 30 | 800 | 17.3 | 55 | 30 | 801 | 22.7 | 26 |
| 2,500 | 30 | 757 | 13.8 | 42 | 30 | 753 | 7.1 | 56 | 30 | 749 | 2.7 | 66 | 30 | 759 | 11.3 | 58 | 30 | 752 | 15.4 | 42 | 30 | 754 | 14.1 | 49 | 30 | 755 | 18.7 | 29 |
| 3,000 | 30 | 713 | 10.9 | 39 | 30 | 708 | 4.4 | 51 | 30 | 703 | .4 | 61 | 30 | 714 | 8.4 | 55 | 30 | 709 | 11.3 | 44 | 30 | 711 | 11.0 | 43 | 30 | 713 | 14.5 | 33 |
| 4,000 | 30 | 632 | 5.1 | 32 | 29 | 626 | −.7 | 38 | 30 | 621 | −4.9 | 48 | 29 | 633 | 2.7 | 53 | 30 | 628 | 3.4 | 51 | 30 | 630 | 3.5 | 40 | 30 | 632 | 6.1 | 40 |
| 5,000 | 30 | 558 | −1.1 | 32 | 28 | 552 | −6.0 | 29 | 30 | 546 | −10.5 | 48 | 29 | 558 | −3.1 | 50 | 30 | 554 | −4.8 | 57 | 30 | 556 | −3.7 | 38 | 30 | 559 | −1.2 | 41 |
| 6,000 | 30 | 492 | −7.0 | 25 | 28 | 485 | −12.2 | 29 | 30 | 479 | −17.0 | 47 | 29 | 491 | −8.7 | 47 | 30 | 487 | −12.4 | 53 | 30 | 489 | −10.2 | 30 | 30 | 492 | −7.8 | 38 |
| 7,000 | 30 | 432 | −13.6 | ---- | 28 | 425 | −19.1 | ---- | 30 | 418 | −24.0 | 48 | 29 | 431 | −15.2 | 45 | 29 | 427 | −19.6 | 46 | 30 | 429 | −16.7 | 28 | 30 | 432 | −14.5 | ---- |
| 8,000 | 30 | 378 | −20.7 | ---- | 28 | 370 | −26.1 | ---- | 30 | 364 | −30.7 | 40 | 28 | 377 | −21.9 | 45 | 28 | 372 | −26.8 | ---- | 30 | 374 | −24.2 | 35 | 30 | 378 | −21.5 | ---- |
| 9,000 | 30 | 329 | −28.0 | ---- | 27 | 322 | −33.4 | ---- | 30 | 315 | −37.8 | 31 | 28 | 328 | −29.1 | 46 | 28 | 323 | −34.4 | ---- | 30 | 325 | −31.6 | 38 | 30 | 329 | −28.6 | ---- |
| 10,000 | 29 | 286 | −35.6 | ---- | 27 | 279 | −40.6 | ---- | 30 | 272 | −44.4 | ---- | 27 | 286 | −36.3 | ---- | 27 | 279 | −41.4 | ---- | 30 | 282 | −39.1 | ---- | 30 | 286 | −36.3 | ---- |
| 11,000 | 29 | 247 | −43.0 | ---- | 26 | 240 | −47.7 | ---- | 29 | 234 | −50.6 | ---- | 27 | 247 | −44.1 | ---- | 23 | 241 | −47.7 | ---- | 30 | 243 | −46.6 | ---- | 30 | 247 | −44.1 | ---- |
| 12,000 | 29 | 212 | −50.7 | ---- | 26 | 206 | −53.3 | ---- | 24 | 201 | −53.0 | ---- | 24 | 212 | −52.2 | ---- | 16 | 207 | −52.7 | ---- | 30 | 209 | −53.4 | ---- | 30 | 212 | −51.1 | ---- |
| 13,000 | 28 | 182 | −57.7 | ---- | 25 | 176 | −57.3 | ---- | 20 | 173 | −53.9 | ---- | 16 | 181 | −59.2 | ---- | 14 | 178 | −56.5 | ---- | 30 | 178 | −58.4 | ---- | 27 | 182 | −57.8 | ---- |
| 14,000 | 28 | 155 | −64.3 | ---- | 20 | 151 | −58.5 | ---- | 13 | 148 | −56.2 | ---- | 13 | 155 | −64.1 | ---- | 9 | 152 | −58.2 | ---- | 29 | 152 | −62.1 | ---- | 18 | 155 | −62.6 | ---- |
| 15,000 | 12 | 131 | −69.9 | ---- | 10 | 130 | −60.7 | ---- | 7 | 126 | −56.2 | ---- | ---- | ---- | ---- | ---- | 5 | 129 | −58.5 | ---- | 20 | 129 | −65.0 | ---- | 8 | 131 | −67.3 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | 6 | 111 | −61.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 110 | −62.2 | ---- | 12 | 109 | −65.4 | ---- | ---- | ---- | ---- | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 93 | −64.7 | ---- | ---- | ---- | ---- | ---- |

**See footnotes at end of table.**

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by radiosondes during June 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

| Altitude (meters) m. s. l. | Ely, Nevada[2] (1908 m.) | | | | Glasgow, Montana (648 m.) | | | | Great Falls, Mont. (1128 m.) | | | | Greensboro, N. C. (273 m.) | | | | Hatteras, N. C. (3 m.) | | | | Huntington, W. Va. (172 m.) | | | | Int'l Falls, Minn. (343 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 29 | 806 | 14.0 | 44 | 30 | 936 | 16.6 | 74 | 30 | 884 | 14.6 | 65 | 28 | 984 | 22.4 | 74 | 30 | 1,014 | 23.9 | 85 | 30 | 995 | 20.8 | 85 | 30 | 971 | 15.7 | 78 |
| 500 | | | | | | | | | | | | | 28 | 958 | 22.8 | 63 | 30 | 958 | 21.6 | 75 | 30 | 957 | 22.3 | 70 | 30 | 953 | 16.2 | 72 |
| 1,000 | | | | | 30 | 898 | 14.9 | 65 | | | | | 28 | 905 | 19.8 | 61 | 30 | 904 | 18.9 | 68 | 30 | 905 | 19.7 | 65 | 30 | 898 | 13.2 | 72 |
| 1,500 | | | | | 30 | 846 | 11.3 | 69 | 30 | 847 | 12.4 | 59 | 28 | 854 | 16.1 | 66 | 30 | 853 | 15.7 | 65 | 30 | 853 | 16.3 | 63 | 30 | 846 | 10.7 | 73 |
| 2,000 | 29 | 797 | 14.4 | 43 | 30 | 797 | 7.7 | 74 | 30 | 797 | 8.9 | 64 | 28 | 805 | 12.9 | 66 | 30 | 804 | 12.7 | 59 | 30 | 804 | 13.1 | 63 | 30 | 796 | 7.8 | 70 |
| 2,500 | 29 | 750 | 11.6 | 41 | 30 | 750 | 4.5 | 76 | 30 | 750 | 5.2 | 68 | 28 | 758 | 9.8 | 59 | 30 | 757 | 9.8 | 54 | 30 | 757 | 10.3 | 56 | 30 | 749 | 5.1 | 65 |
| 3,000 | 29 | 707 | 7.7 | 42 | 30 | 705 | 1.8 | 67 | 30 | 705 | 1.8 | 71 | 28 | 714 | 6.9 | 45 | 30 | 712 | 7.1 | 49 | 30 | 713 | 7.1 | 50 | 30 | 705 | 2.3 | 57 |
| 4,000 | 29 | 625 | −.5 | 47 | 30 | 622 | −3.9 | 59 | 29 | 622 | −4.7 | 71 | 27 | 631 | 1.9 | 41 | 30 | 630 | 1.3 | 43 | 29 | 631 | .9 | 43 | 30 | 622 | −2.9 | 53 |
| 5,000 | 29 | 551 | −8.9 | 49 | 30 | 547 | −10.1 | 55 | 29 | 547 | −11.0 | 64 | 27 | 557 | −4.6 | 37 | 30 | 555 | −4.3 | 39 | 29 | 557 | − 4.9 | 36 | 30 | 548 | −8.8 | 49 |
| 6,000 | 28 | 483 | −16.1 | 48 | 30 | 480 | −16.5 | 53 | 29 | 479 | −17.6 | 54 | 27 | 490 | −10.5 | 29 | 30 | 489 | −10.3 | 37 | 29 | 489 | −10.7 | 30 | 30 | 481 | −14.9 | 43 |
| 7,000 | 27 | 422 | −23.4 | 43 | 30 | 419 | −23.5 | 50 | 29 | 419 | −24.7 | 53 | 27 | 429 | −17.4 | 31 | 30 | 429 | −16.9 | 39 | 29 | 429 | −17.3 | 36 | 29 | 420 | −22.0 | 39 |
| 8,000 | 26 | 368 | −30.7 | 40 | 30 | 364 | −30.9 | 47 | 27 | 364 | −32.5 | 50 | 26 | 375 | −24.6 | | 28 | 374 | −24.3 | | 29 | 375 | −24.6 | 38 | 29 | 366 | −29.2 | 42 |
| 9,000 | 24 | 319 | −38.1 | 42 | 30 | 316 | −38.8 | | 27 | 315 | −40.7 | | 26 | 326 | −32.0 | | 28 | 325 | −31.7 | | 29 | 325 | −32.0 | | 29 | 317 | −36.8 | |
| 10,000 | 23 | 275 | −45.6 | | 30 | 272 | −46.6 | | 27 | 272 | −48.7 | | 26 | 282 | −39.7 | | 28 | 282 | −39.5 | | 29 | 282 | −39.4 | | 28 | 274 | −44.0 | |
| 11,000 | 21 | 236 | −51.4 | | 29 | 234 | −52.7 | | 26 | 233 | −53.4 | | 26 | 244 | −47.2 | | 27 | 243 | −46.8 | | 28 | 243 | −47.1 | | 27 | 236 | −50.1 | |
| 12,000 | 19 | 202 | −54.8 | | 23 | 201 | −54.3 | | 23 | 200 | −53.5 | | 25 | 209 | −54.3 | | 18 | 209 | −54.3 | | 27 | 209 | −53.7 | | 22 | 202 | −53.5 | |
| 13,000 | 15 | 172 | −58.6 | | 17 | 171 | −52.7 | | 20 | 171 | −53.3 | | 24 | 178 | −60.1 | | 11 | 179 | −59.9 | | 25 | 178 | −59.5 | | 15 | 172 | −53.3 | |
| 14,000 | 12 | 147 | −61.9 | | 11 | 147 | −53.2 | | 6 | 147 | −53.8 | | 21 | 152 | −64.0 | | | | | | 21 | 152 | −62.8 | | 14 | 147 | −54.6 | |
| 15,000 | 8 | 125 | −66.5 | | 5 | 126 | −54.5 | | | | | | 13 | 129 | −65.2 | | | | | | 9 | 129 | −63.7 | | 10 | 126 | −55.4 | |
| 16,000 | 6 | 105 | −68.9 | | | | | | | | | | 7 | 110 | −65.8 | | | | | | | | | | 8 | 107 | −56.5 | |
| 17,000 | | | | | | | | | | | | | 6 | 93 | −66.4 | | | | | | | | | | | | | |

| Altitude (meters) m. s. l. | Jackson, Miss. (97 m.) | | | | Joliet, Ill. (178 m.) | | | | Lake Charles, La. (5 m.) | | | | Lakehurst, N. J.[1] (39 m.) | | | | Little Rock, Ark. (79 m.) | | | | Louisville, Ky. (166 m.) | | | | Mazatlan, Mexico (80 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 1,003 | 25.6 | 80 | 30 | 992 | 20.5 | 81 | 30 | 1,014 | 26.4 | 84 | 29 | 1,011 | 19.4 | 77 | 29 | 1,005 | 26.1 | 75 | 30 | 995 | 23.9 | 68 | 30 | 1,002 | 25.6 | 80 |
| 500 | 30 | 958 | 25.5 | 65 | 30 | 956 | 22.0 | 67 | 30 | 958 | 23.8 | 74 | 29 | 958 | 18.9 | 67 | 29 | 958 | 24.9 | 62 | 30 | 958 | 24.2 | 59 | 30 | 955 | 22.9 | 74 |
| 1,000 | 30 | 905 | 22.2 | 65 | 30 | 903 | 19.1 | 65 | 30 | 905 | 20.9 | 68 | 29 | 904 | 16.3 | 63 | 29 | 904 | 21.4 | 64 | 30 | 905 | 20.8 | 61 | 30 | 902 | 22.7 | 65 |
| 1,500 | 30 | 855 | 18.8 | 64 | 30 | 852 | 15.7 | 66 | 30 | 854 | 18.1 | 62 | 29 | 853 | 13.6 | 66 | 29 | 854 | 17.9 | 60 | 30 | 854 | 17.0 | 64 | 30 | 852 | 20.5 | 61 |
| 2,000 | 30 | 806 | 15.6 | 60 | 30 | 803 | 13.0 | 60 | 30 | 805 | 15.3 | 56 | 28 | 803 | 11.4 | 61 | 29 | 805 | 15.4 | 50 | 30 | 805 | 14.3 | 55 | 30 | 803 | 18.6 | 53 |
| 2,500 | 30 | 760 | 12.4 | 55 | 30 | 756 | 10.4 | 51 | 30 | 759 | 13.0 | 45 | 28 | 756 | 8.7 | 59 | 29 | 759 | 12.5 | 42 | 30 | 758 | 11.5 | 46 | 30 | 758 | 16.9 | 44 |
| 3,000 | 30 | 715 | 9.2 | 51 | 30 | 712 | 7.8 | 43 | 30 | 715 | 10.2 | 39 | 27 | 711 | 5.9 | 58 | 29 | 715 | 9.5 | 39 | 30 | 714 | 8.5 | 43 | 30 | 715 | 14.3 | 42 |
| 4,000 | 30 | 633 | 3.3 | 46 | 30 | 630 | 1.6 | 39 | 30 | 634 | 4.6 | 35 | 27 | 629 | .2 | 49 | 28 | 633 | 3.2 | 37 | 30 | 632 | 1.8 | 43 | 28 | 634 | 7.4 | 53 |
| 5,000 | 30 | 560 | −1.9 | 40 | 30 | 556 | −4.5 | 38 | 30 | 560 | −1.3 | 35 | 27 | 554 | −5.4 | 38 | 28 | 559 | −3.0 | 31 | 30 | 558 | −3.5 | 33 | 26 | 561 | .1 | 59 |
| 6,000 | 30 | 492 | −7.9 | 35 | 30 | 489 | −10.5 | 33 | 30 | 493 | −7.4 | 36 | 26 | 488 | −10.9 | | 28 | 492 | −8.8 | | 30 | 491 | −9.4 | 27 | 23 | 495 | −6.6 | 47 |
| 7,000 | 29 | 432 | −14.6 | 44 | 30 | 428 | −17.1 | | 30 | 433 | −14.2 | 33 | 26 | 428 | −17.8 | | 28 | 431 | −15.8 | | 30 | 431 | −16.3 | 31 | 23 | 435 | −13.0 | 46 |
| 8,000 | 29 | 378 | −21.8 | 45 | 30 | 374 | −24.0 | | 30 | 378 | −21.4 | 34 | 23 | 374 | −25.2 | | 28 | 377 | −23.1 | | 30 | 376 | −23.7 | 34 | 22 | 380 | −19.5 | |
| 9,000 | 29 | 329 | −29.3 | 50 | 30 | 325 | −31.1 | | 30 | 329 | −28.8 | 36 | 23 | 324 | −31.8 | | 28 | 328 | −30.6 | | 30 | 327 | −31.0 | | 21 | 331 | −26.2 | |
| 10,000 | 29 | 286 | −37.0 | | 30 | 282 | −38.4 | | 30 | 286 | −36.2 | | 22 | 282 | −40.0 | | 26 | 284 | −38.1 | | 29 | 284 | −38.4 | | 21 | 288 | −33.8 | |
| 11,000 | 28 | 246 | −44.9 | | 29 | 244 | −45.6 | | 30 | 247 | −43.8 | | 21 | 243 | −46.9 | | 25 | 245 | −46.1 | | 29 | 245 | −46.1 | | 20 | 250 | −41.2 | |
| 12,000 | 28 | 212 | −52.8 | | 29 | 209 | −51.9 | | 30 | 212 | −51.1 | | 16 | 208 | −52.5 | | 25 | 211 | −53.3 | | 29 | 210 | −53.2 | | 20 | 215 | −48.7 | |
| 13,000 | 27 | 181 | −59.3 | | 22 | 179 | −56.6 | | 30 | 182 | −57.5 | | 7 | 178 | −56.5 | | 25 | 180 | −59.5 | | 28 | 180 | −59.3 | | 20 | 184 | −56.3 | |
| 14,000 | 22 | 154 | −64.3 | | 18 | 153 | −60.6 | | 28 | 155 | −62.7 | | | | | | 21 | 154 | −64.4 | | 23 | 153 | −63.5 | | 18 | 158 | −62.4 | |
| 15,000 | 15 | 131 | −68.2 | | 14 | 130 | −63.8 | | 23 | 132 | −67.1 | | | | | | 12 | 130 | −67.0 | | 12 | 130 | −65.8 | | 12 | 134 | −68.3 | |
| 16,000 | 7 | 111 | −70.8 | | 9 | 111 | −63.6 | | 14 | 112 | −70.0 | | | | | | 7 | 110 | −67.3 | | 8 | 111 | −68.7 | | 5 | 113 | −72.6 | |
| 17,000 | | | | | 5 | 94 | −63.0 | | | | | | | | | | | | | | | | | | | | | |

| Altitude (meters) m. s. l. | Medford, Oreg.[2] (409 m.) | | | | Miami, Fla.[2] (4 m.) | | | | Nashville, Tenn. (180 m.) | | | | Norfolk, Va.[1] (4 m.) | | | | Oakland, Calif. (2 m.) | | | | Ogden, Utah (1,355 m.) | | | | Oklahoma City, Okla. (391 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 966 | 19.7 | 49 | 30 | 1,015 | 26.0 | 81 | 30 | 994 | 26.1 | 62 | 27 | 1,014 | 24.4 | 75 | 30 | 1,013 | 15.2 | 73 | 30 | 860 | 17.5 | 52 | 30 | 966 | 24.8 | 74 |
| 500 | 30 | 956 | 19.0 | 50 | 30 | 960 | 24.0 | 84 | 30 | 959 | 25.4 | 54 | 27 | 958 | 21.7 | 67 | 30 | 955 | 13.4 | 72 | | | | | 30 | 954 | 24.9 | 70 |
| 1,000 | 30 | 901 | 15.1 | 54 | 30 | 907 | 21.2 | 76 | 30 | 906 | 21.8 | 57 | 27 | 904 | 18.5 | 67 | 30 | 900 | 14.1 | 55 | | | | | 30 | 902 | 22.8 | 64 |
| 1,500 | 30 | 849 | 11.1 | 61 | 30 | 856 | 18.3 | 71 | 30 | 855 | 18.1 | 59 | 27 | 853 | 15.4 | 67 | 30 | 848 | 12.6 | 44 | 30 | 846 | 17.3 | 43 | 30 | 852 | 19.6 | 65 |
| 2,000 | 30 | 800 | 7.4 | 66 | 30 | 807 | 15.2 | 69 | 30 | 806 | 15.1 | 55 | 27 | 804 | 12.6 | 64 | 30 | 798 | 10.1 | 37 | 30 | 797 | 13.9 | 41 | 30 | 803 | 17.2 | 54 |
| 2,500 | 30 | 752 | 4.7 | 65 | 30 | 760 | 12.3 | 65 | 30 | 759 | 12.2 | 51 | 27 | 757 | 9.7 | 57 | 30 | 752 | 7.2 | 32 | 30 | 750 | 10.1 | 45 | 29 | 757 | 14.9 | 40 |
| 3,000 | 30 | 707 | 1.9 | 64 | 30 | 716 | 9.5 | 60 | 30 | 715 | 9.0 | 46 | 27 | 713 | 6.8 | 48 | 30 | 707 | 4.2 | 32 | 30 | 706 | 6.1 | 49 | 29 | 714 | 11.8 | 37 |
| 4,000 | 30 | 624 | −3.6 | 62 | 30 | 634 | 3.8 | 56 | 30 | 633 | 2.6 | 42 | 27 | 630 | .9 | 42 | 30 | 625 | −1.9 | 28 | 30 | 624 | −2.0 | 55 | 29 | 633 | 5.2 | 31 |
| 5,000 | 30 | 549 | −9.6 | 55 | 29 | 560 | −1.5 | 54 | 30 | 559 | −3.2 | 35 | 27 | 556 | −4.8 | 39 | 30 | 550 | −8.3 | 31 | 30 | 550 | −9.4 | 56 | 29 | 559 | −1.5 | 28 |
| 6,000 | 30 | 482 | −16.2 | 50 | 29 | 494 | −7.2 | 49 | 30 | 492 | −9.0 | 27 | 27 | 489 | −10.9 | 38 | 30 | 482 | −15.1 | 27 | 30 | 482 | −16.5 | 61 | 29 | 492 | −7.9 | |
| 7,000 | 30 | 421 | −23.5 | 49 | 28 | 434 | −13.5 | 49 | 30 | 432 | −15.4 | | 27 | 428 | −17.6 | 38 | 30 | 422 | −22.3 | | 30 | 421 | −23.6 | 51 | 29 | 432 | −14.8 | |
| 8,000 | 28 | 366 | −31.3 | 45 | 28 | 379 | −20.3 | 49 | 30 | 377 | −22.6 | | 27 | 374 | −24.8 | | 30 | 367 | −29.8 | | 30 | 366 | −31.2 | 50 | 28 | 378 | −22.2 | |
| 9,000 | 27 | 318 | −38.7 | 42 | 28 | 330 | −27.4 | 50 | 30 | 328 | −30.0 | | 27 | 325 | −32.2 | | 30 | 318 | −36.8 | | 29 | 317 | −39.0 | | 28 | 328 | −29.7 | |
| 10,000 | 26 | 274 | −45.4 | | 28 | 288 | −35.0 | 36 | 30 | 285 | −37.6 | | 21 | 282 | −39.6 | | 29 | 275 | −42.8 | | 28 | 274 | −46.7 | | 28 | 285 | −37.4 | |
| 11,000 | 24 | 236 | −49.2 | | 27 | 248 | −42.6 | | 29 | 246 | −45.3 | | 20 | 243 | −47.3 | | 28 | 237 | −48.2 | | 27 | 235 | −50.8 | | 28 | 246 | −45.1 | |
| 12,000 | 22 | 203 | −52.4 | | 27 | 214 | −50.5 | | 29 | 211 | −52.3 | | 19 | 208 | −54.0 | | 25 | 204 | −51.0 | | 27 | 201 | −52.4 | | 28 | 211 | −52.4 | |
| 13,000 | 17 | 173 | −54.4 | | 26 | 183 | −58.1 | | 26 | 180 | −58.8 | | 17 | 178 | −59.0 | | 24 | 174 | −53.5 | | 26 | 172 | −54.0 | | 28 | 181 | −58.5 | |
| 14,000 | 12 | 149 | −54.9 | | 20 | 157 | −63.5 | | 18 | 154 | −62.8 | | 11 | 152 | −62.1 | | 21 | 149 | −55.8 | | 20 | 147 | −56.2 | | 26 | 154 | −63.5 | |
| 15,000 | 6 | 127 | −55.0 | | 14 | 133 | −67.9 | | 5 | 130 | −64.0 | | 7 | 129 | −64.4 | | 19 | 128 | −58.4 | | 11 | 126 | −57.8 | | 18 | 131 | −66.6 | |
| 16,000 | | | | | | | | | | | | | | | | | 16 | 109 | −58.9 | | | | | | 9 | 111 | −68.7 | |
| 17,000 | | | | | | | | | | | | | | | | | 11 | 92 | −59.4 | | | | | | | | | |
| 18,000 | | | | | | | | | | | | | | | | | 6 | 79 | −59.2 | | | | | | | | | |

See footnotes at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by radiosondes during June 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

| Altitude (meters) m. s. l. | Omaha, Nebr. (301 m.) | | | | Phoenix, Ariz. (339 m.) | | | | Pittsburgh, Pa. (392 m.) | | | | Portland, Maine [2] (20 m.) | | | | Rapid City, S. Dak. (981 m.) | | | | St. Louis, Mo. (171 m.) | | | | St. Paul, Minn. (225 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 29 | 976 | 23.0 | 74 | 30 | 967 | 28.6 | 24 | 30 | 969 | 20.4 | 71 | 30 | 1,010 | 14.3 | 89 | 30 | 900 | 16.0 | 76 | 30 | 994 | 24.8 | 66 | 30 | 984 | 20.2 | 75 |
| 500 | 29 | 954 | 22.6 | 69 | 30 | 949 | 30.5 | 16 | 30 | 957 | 20.7 | 68 | 30 | 954 | 15.3 | 77 | ---- | ---- | ---- | ---- | 30 | 957 | 23.9 | 59 | 30 | 953 | 19.4 | 68 |
| 1,000 | 29 | 900 | 19.6 | 68 | 30 | 897 | 27.0 | 17 | 30 | 903 | 18.6 | 63 | 30 | 900 | 13.8 | 74 | 30 | 898 | 16.0 | 75 | 30 | 904 | 20.8 | 59 | 30 | 899 | 16.6 | 69 |
| 1,500 | 29 | 849 | 16.6 | 68 | 30 | 848 | 22.8 | 20 | 30 | 853 | 15.4 | 65 | 30 | 848 | 10.8 | 75 | 30 | 847 | 14.4 | 63 | 30 | 854 | 17.9 | 56 | 30 | 848 | 13.9 | 68 |
| 2,000 | 29 | 800 | 14.7 | 59 | 30 | 800 | 18.5 | 24 | 30 | 803 | 12.1 | 67 | 30 | 798 | 8.0 | 76 | 30 | 798 | 11.3 | 64 | 30 | 804 | 15.2 | 46 | 30 | 798 | 11.4 | 60 |
| 2,500 | 29 | 754 | 11.9 | 55 | 30 | 754 | 14.2 | 28 | 30 | 756 | 9.3 | 58 | 30 | 751 | 5.4 | 71 | 30 | 751 | 8.3 | 64 | 30 | 758 | 12.9 | 42 | 30 | 752 | 8.8 | 54 |
| 3,000 | 29 | 711 | 9.0 | 48 | 30 | 710 | 10.2 | 29 | 30 | 712 | 6.6 | 47 | 30 | 706 | 2.6 | 68 | 30 | 707 | 5.4 | 59 | 30 | 714 | 9.9 | 40 | 30 | 708 | 5.9 | 52 |
| 4,000 | 29 | 629 | 2.5 | 44 | 30 | 629 | 3.6 | 25 | 30 | 630 | 1.2 | 41 | 30 | 624 | −2.0 | 57 | 30 | 624 | −.9 | 54 | 30 | 632 | 2.9 | 44 | 28 | 625 | −.4 | 46 |
| 5,000 | 29 | 555 | −4.3 | 41 | 30 | 556 | −2.5 | ---- | 30 | 556 | −3.9 | 31 | 30 | 550 | −7.7 | 51 | 30 | 550 | −7.5 | 49 | 30 | 558 | −3.2 | 36 | 28 | 552 | −6.0 | 29 |
| 6,000 | 29 | 488 | −11.0 | 40 | 30 | 489 | −9.0 | ---- | 30 | 488 | −10.2 | 31 | 29 | 482 | −13.8 | 47 | 30 | 483 | −14.3 | 49 | 30 | 491 | −9.0 | 33 | 28 | 485 | −12.3 | 30 |
| 7,000 | 28 | 428 | −18.0 | ---- | 30 | 429 | −16.1 | ---- | 30 | 429 | −16.9 | ---- | 29 | 422 | −20.7 | 44 | 29 | 423 | −21.3 | 49 | 30 | 431 | −15.9 | 33 | 28 | 425 | −19.5 | ---- |
| 8,000 | 28 | 373 | −24.7 | ---- | 30 | 375 | −23.7 | ---- | 30 | 374 | −23.9 | ---- | 28 | 367 | −28.0 | 47 | 29 | 368 | −28.5 | 44 | 30 | 376 | −23.0 | ---- | 27 | 370 | −27.2 | ---- |
| 9,000 | 28 | 324 | −32.1 | ---- | 30 | 326 | −31.5 | ---- | 30 | 325 | −31.5 | ---- | 26 | 318 | −35.2 | 58 | 29 | 319 | −35.8 | ---- | 30 | 327 | −30.6 | ---- | 27 | 321 | −34.6 | ---- |
| 10,000 | 28 | 282 | −39.5 | ---- | 30 | 283 | −39.0 | ---- | 30 | 282 | −39.2 | ---- | 25 | 276 | −42.0 | ---- | 29 | 276 | −43.0 | ---- | 30 | 284 | −38.2 | ---- | 27 | 278 | −41.6 | ---- |
| 11,000 | 28 | 243 | −46.1 | ---- | 30 | 244 | −46.1 | ---- | 30 | 243 | −46.5 | ---- | 23 | 238 | −49.0 | ---- | 27 | 238 | −49.4 | ---- | 29 | 245 | −45.7 | ---- | 27 | 239 | −48.0 | ---- |
| 12,000 | 27 | 209 | −51.5 | ---- | 30 | 209 | −52.7 | ---- | 30 | 208 | −53.1 | ---- | 21 | 204 | −54.1 | ---- | 15 | 205 | −53.3 | ---- | 29 | 211 | −53.1 | ---- | 27 | 205 | −53.1 | ---- |
| 13,000 | 26 | 179 | −56.4 | ---- | 29 | 179 | −57.5 | ---- | 28 | 179 | −58.4 | ---- | 21 | 174 | −56.5 | ---- | 12 | 176 | −55.5 | ---- | 29 | 180 | −59.2 | ---- | 26 | 176 | −56.2 | ---- |
| 14,000 | 22 | 152 | −59.4 | ---- | 25 | 153 | −61.9 | ---- | 26 | 152 | −60.9 | ---- | 18 | 149 | −58.1 | ---- | 8 | 151 | −58.6 | ---- | 24 | 153 | −62.7 | ---- | 22 | 149 | −57.0 | ---- |
| 15,000 | 16 | 130 | −62.1 | ---- | 9 | 130 | −63.9 | ---- | 13 | 130 | −62.0 | ---- | 15 | 126 | −58.6 | ---- | 7 | 128 | −60.1 | ---- | 18 | 130 | −64.9 | ---- | 21 | 127 | −58.8 | ---- |
| 16,000 | 13 | 111 | −63.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 13 | 108 | −59.6 | ---- | 7 | 110 | −61.1 | ---- | 12 | 111 | −66.4 | ---- | 16 | 109 | −60.5 | ---- |
| 17,000 | 6 | 94 | −61.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 93 | −60.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 93 | −60.7 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 79 | −58.7 | ---- |
| 19,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 67 | −57.4 | ---- |

| Altitude (meters) m. s. l. | San Antonio, Tex. (242 m.) | | | | San Diego, Calif.[1] (19 m.) | | | | San Juan, P. R. (15 m.) | | | | Santa Maria, Calif. (71 m.) | | | | S. S. Marie, Mich.[2] (221 m.) | | | | Seattle, Wash.[1] (22 m.) | | | | Spokane, Wash. (598 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 984 | 26.5 | 72 | 27 | 1,011 | 16.7 | 78 | 30 | 1,014 | 25.8 | 87 | 30 | 1,006 | 13.9 | 83 | 30 | 987 | 13.0 | 83 | 29 | 1,012 | 18.3 | 57 | 30 | 941 | 19.9 | 49 |
| 500 | 30 | 956 | 25.0 | 72 | 27 | 955 | 13.7 | 81 | 30 | 960 | 22.4 | 86 | 30 | 956 | 12.8 | 80 | 30 | 955 | 14.6 | 76 | 29 | 956 | 14.3 | 63 | ---- | ---- | ---- | ---- |
| 1,000 | 30 | 903 | 21.6 | 73 | 27 | 900 | 13.5 | 57 | 30 | 906 | 19.2 | 82 | 30 | 901 | 13.7 | 59 | 30 | 900 | 13.8 | 67 | 29 | 901 | 10.5 | 68 | 30 | 898 | 16.4 | 47 |
| 1,500 | 30 | 852 | 18.6 | 73 | 27 | 849 | 13.8 | 36 | 30 | 855 | 16.5 | 75 | 30 | 849 | 13.2 | 43 | 30 | 849 | 11.9 | 69 | 29 | 849 | 7.2 | 68 | 30 | 846 | 12.2 | 52 |
| 2,000 | 30 | 804 | 16.3 | 56 | 27 | 799 | 12.9 | 22 | 30 | 806 | 14.2 | 65 | 30 | 799 | 10.6 | 39 | 30 | 799 | 9.1 | 69 | 29 | 798 | 4.4 | 66 | 30 | 797 | 8.2 | 58 |
| 2,500 | 30 | 758 | 14.4 | 40 | 27 | 753 | 11.3 | ---- | 30 | 759 | 11.7 | 58 | 30 | 752 | 7.7 | 34 | 30 | 752 | 6.5 | 66 | 29 | 750 | 1.7 | 65 | 30 | 750 | 4.2 | 64 |
| 3,000 | 30 | 714 | 11.8 | 33 | 27 | 709 | 9.1 | ---- | 30 | 715 | 8.8 | 50 | 30 | 708 | 4.8 | 27 | 30 | 707 | 4.1 | 62 | 29 | 705 | −1.2 | 57 | 30 | 705 | .5 | 67 |
| 4,000 | 30 | 633 | 5.9 | 28 | 27 | 628 | 4.7 | ---- | 30 | 633 | 2.8 | 48 | 30 | 625 | −0.6 | 23 | 30 | 625 | −.9 | 55 | 29 | 621 | −6.3 | 41 | 30 | 621 | −6.0 | 62 |
| 5,000 | 30 | 560 | −.5 | 28 | 27 | 554 | −2.3 | ---- | 29 | 559 | −2.9 | 48 | 30 | 551 | −6.6 | 20 | 30 | 551 | −6.4 | 49 | 28 | 546 | −12.1 | 34 | 30 | 546 | −12.1 | 48 |
| 6,000 | 30 | 493 | −6.8 | ---- | 27 | 488 | −9.1 | ---- | 28 | 492 | −9.0 | 47 | 30 | 484 | −13.2 | ---- | 29 | 484 | −13.4 | 45 | 28 | 479 | −19.5 | 38 | 30 | 479 | −18.7 | 47 |
| 7,000 | 30 | 433 | −13.6 | ---- | 26 | 428 | −16.5 | ---- | 28 | 432 | −15.4 | 49 | 30 | 424 | −20.6 | ---- | 29 | 424 | −20.2 | 43 | 28 | 418 | −26.9 | 40 | 29 | 417 | −26.2 | 49 |
| 8,000 | 30 | 379 | −20.7 | ---- | 24 | 374 | −24.4 | ---- | 28 | 378 | −21.8 | 47 | 30 | 370 | −27.9 | ---- | 26 | 369 | −27.7 | 39 | 27 | 362 | −34.6 | ---- | 29 | 362 | −33.7 | 45 |
| 9,000 | 29 | 330 | −27.9 | ---- | 24 | 325 | −31.7 | ---- | 27 | 328 | −29.1 | 47 | 29 | 320 | −35.2 | ---- | 26 | 320 | −34.8 | 38 | 27 | 313 | −41.9 | ---- | 29 | 313 | −41.6 | ---- |
| 10,000 | 29 | 286 | −35.4 | ---- | 23 | 282 | −39.1 | ---- | 27 | 285 | −37.0 | ---- | 29 | 277 | −42.4 | ---- | 25 | 277 | −41.7 | 34 | 27 | 270 | −48.5 | ---- | 27 | 270 | −48.3 | ---- |
| 11,000 | 29 | 247 | −43.0 | ---- | 22 | 243 | −45.8 | ---- | 26 | 246 | −45.1 | ---- | 27 | 239 | −48.6 | ---- | 25 | 239 | −48.0 | ---- | 26 | 232 | −52.0 | ---- | 27 | 232 | −51.6 | ---- |
| 12,000 | 29 | 213 | −50.2 | ---- | 17 | 209 | −51.8 | ---- | 26 | 212 | −53.1 | ---- | 23 | 205 | −53.6 | ---- | 24 | 205 | −52.8 | ---- | 24 | 198 | −53.0 | ---- | 25 | 199 | −51.5 | ---- |
| 13,000 | 28 | 182 | −57.0 | ---- | 17 | 179 | −56.5 | ---- | 20 | 181 | −60.8 | ---- | 21 | 175 | −57.4 | ---- | 24 | 175 | −55.4 | ---- | 24 | 170 | −52.7 | ---- | 22 | 170 | −51.7 | ---- |
| 14,000 | 24 | 155 | −62.9 | ---- | 12 | 152 | −60.3 | ---- | 6 | 154 | −67.4 | ---- | 19 | 149 | −59.1 | ---- | 23 | 150 | −57.0 | ---- | 24 | 145 | −53.2 | ---- | 19 | 146 | −52.7 | ---- |
| 15,000 | 20 | 132 | −68.1 | ---- | 10 | 129 | −61.9 | ---- | ---- | ---- | ---- | ---- | 15 | 128 | −61.5 | ---- | 19 | 127 | −58.0 | ---- | 22 | 124 | −53.7 | ---- | 13 | 124 | −53.0 | ---- |
| 16,000 | 5 | 112 | −74.0 | ---- | 8 | 110 | −64.7 | ---- | ---- | ---- | ---- | ---- | 12 | 108 | −64.0 | ---- | 13 | 109 | −59.5 | ---- | 21 | 106 | −54.7 | ---- | 7 | 107 | −54.1 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 92 | −63.2 | ---- | 7 | 93 | −61.3 | ---- | 14 | 91 | −55.3 | ---- | ---- | ---- | ---- | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 78 | −56.0 | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | Swan Island, W. I. (10 m.) | | | | Tacubaya, Mexico (2306 m.) | | | | Tampa, Fla. (3 m.) | | | | Tapachula, Mexico (115 m.) | | | | Tatoosh Is., Wash. (31 m.) | | | | Toledo, Ohio (191 m.) | | | | Tongue Point, Oreg.[1] (21 m.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 30 | 1,011 | 26.5 | 85 | 30 | 773 | 17.6 | 65 | 30 | 1,016 | 25.9 | 82 | 27 | 997 | 24.2 | 92 | 30 | 1,013 | 11.3 | 88 | 30 | 991 | 20.1 | 81 | 22 | 1,016 | 15.1 | 73 |
| 500 | 30 | 956 | 23.0 | 84 | ---- | ---- | ---- | ---- | 30 | 960 | 23.8 | 71 | 27 | 954 | 23.4 | 82 | 30 | 958 | 9.9 | 77 | 30 | 956 | 20.7 | 69 | 22 | 960 | 11.9 | 71 |
| 1,000 | 30 | 903 | 20.1 | 78 | ---- | ---- | ---- | ---- | 30 | 907 | 21.0 | 69 | 27 | 901 | 20.7 | 80 | 30 | 902 | 9.5 | 62 | 30 | 903 | 18.0 | 67 | 22 | 904 | 9.8 | 67 |
| 1,500 | 30 | 852 | 17.5 | 73 | ---- | ---- | ---- | ---- | 30 | 856 | 17.9 | 66 | 27 | 851 | 18.1 | 77 | 30 | 849 | 7.7 | 53 | 30 | 851 | 14.8 | 66 | 22 | 851 | 8.3 | 55 |
| 2,000 | 30 | 803 | 15.0 | 69 | ---- | ---- | ---- | ---- | 30 | 807 | 14.8 | 63 | 27 | 802 | 15.5 | 76 | 30 | 798 | 5.0 | 52 | 30 | 802 | 11.5 | 68 | 22 | 801 | 5.8 | 48 |
| 2,500 | 30 | 757 | 12.4 | 63 | 30 | 755 | 16.1 | 65 | 30 | 759 | 11.9 | 60 | 27 | 756 | 13.0 | 75 | 30 | 751 | 2.4 | 43 | 30 | 755 | 8.8 | 61 | 22 | 753 | 3.8 | 36 |
| 3,000 | 30 | 713 | 9.5 | 63 | 30 | 712 | 12.2 | 71 | 30 | 716 | 8.7 | 62 | 27 | 712 | 10.1 | 76 | 30 | 705 | −.3 | 41 | 30 | 711 | 5.8 | 53 | 22 | 708 | 1.5 | ---- |
| 4,000 | 30 | 631 | 3.7 | 61 | 30 | 632 | 4.5 | 87 | 30 | 634 | 3.0 | 57 | 25 | 631 | 4.1 | 80 | 30 | 622 | −6.1 | 34 | 30 | 628 | .1 | 39 | 22 | 624 | −4.5 | ---- |
| 5,000 | 29 | 558 | −1.8 | 59 | 29 | 558 | −1.7 | 88 | 29 | 560 | −2.2 | 54 | 23 | 557 | −1.4 | 80 | 30 | 517 | −12.2 | 33 | 30 | 554 | −5.6 | 36 | 22 | 550 | −10.8 | ---- |
| 6,000 | 29 | 491 | −7.8 | 64 | 27 | 492 | −7.2 | 77 | 29 | 493 | −8.0 | 47 | 23 | 491 | −6.9 | 77 | 30 | 479 | −18.9 | ---- | 30 | 487 | −11.5 | 36 | 20 | 482 | −17.4 | ---- |
| 7,000 | 29 | 432 | −13.4 | 60 | 27 | 432 | −13.2 | 71 | 29 | 433 | −14.4 | 46 | 23 | 432 | −12.9 | 74 | 30 | 418 | −26.5 | ---- | 30 | 427 | −18.2 | 36 | 19 | 421 | −24.1 | ---- |
| 8,000 | 29 | 378 | −19.3 | 49 | 27 | 378 | −19.4 | 60 | 28 | 378 | −21.0 | 44 | 22 | 378 | −19.6 | 67 | 30 | 363 | −33.8 | ---- | 30 | 373 | −25.2 | ---- | 13 | 365 | −32.2 | ---- |
| 9,000 | 29 | 329 | −26.2 | 42 | 26 | 329 | −26.4 | 55 | 27 | 329 | −28.1 | 43 | 22 | 329 | −26.7 | 63 | 29 | 314 | −41.1 | ---- | 30 | 324 | −32.8 | ---- | 11 | 315 | −40.3 | ---- |
| 10,000 | 29 | 286 | −34.2 | ---- | 26 | 287 | −34.3 | ---- | 27 | 286 | −35.9 | ---- | 22 | 286 | −34.8 | 60 | 27 | 270 | −47.8 | ---- | 30 | 280 | −40.2 | ---- | 10 | 272 | −45.8 | ---- |
| 11,000 | 28 | 248 | −42.4 | ---- | 23 | 248 | −43.1 | ---- | 27 | 247 | −44.1 | ---- | 19 | 248 | −43.0 | ---- | 25 | 232 | −50.5 | ---- | 30 | 242 | −47.3 | ---- | 8 | 233 | −48.4 | ---- |
| 12,000 | 27 | 213 | −50.6 | ---- | 19 | 213 | −50.8 | ---- | 24 | 212 | −52.0 | ---- | 18 | 213 | −51.7 | ---- | 23 | 199 | −51.4 | ---- | 29 | 207 | −53.2 | ---- | ---- | ---- | ---- | ---- |
| 13,000 | 25 | 182 | −59.3 | ---- | 12 | 182 | −59.4 | ---- | 20 | 182 | −59.0 | ---- | 18 | 182 | −59.7 | ---- | 22 | 170 | −50.8 | ---- | 24 | 178 | −58.6 | ---- | ---- | ---- | ---- | ---- |
| 14,000 | 11 | 155 | −66.1 | ---- | ---- | ---- | ---- | ---- | 12 | 155 | −64.7 | ---- | 14 | 155 | −67.5 | ---- | 20 | 146 | −51.9 | ---- | 20 | 152 | −61.0 | ---- | ---- | ---- | ---- | ---- |
| 15,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 15 | 125 | −53.6 | ---- | 16 | 129 | −62.5 | ---- | ---- | ---- | ---- | ---- |
| 16,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 9 | 108 | −54.4 | ---- | 6 | 109 | −61.3 | ---- | ---- | ---- | ---- | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 92 | −54.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

See footnote at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by radiosondes during June 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

| Altitude (meters) m. s. l. | Washington, D. C. (25 m.) Number of observations | Pressure | Temperature | Relative humidity | Altitude (meters) m. s. l. | Washington, D. C. (25 m.) Number of observations | Pressure | Temperature | Relative humidity | Altitude (meters) m. s. l. | Washington, D. C. (25 m.) Number of observations | Pressure | Temperature | Relative humidity | Altitude (meters) m. s. l. | Washington, D. C. (25 m.) Number of observations | Pressure | Temperature | Relative humidity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 30 | 1,011 | 22.3 | 74 | 2,500 | 30 | 757 | 9.4 | 55 | 7,000 | 29 | 429 | −17.2 | 37 | 12,000 | 28 | 208 | −54.2 | ---- |
| 500 | 30 | 957 | 21.1 | 65 | 3,000 | 30 | 712 | 6.6 | 53 | 8,000 | 29 | 374 | −24.6 | 40 | 13,000 | 23 | 178 | −59.5 | ---- |
| 1,000 | 30 | 904 | 18.2 | 65 | 4,000 | 30 | 630 | .7 | 42 | 9,000 | 29 | 325 | −32.3 | ---- | 14,000 | 20 | 151 | −62.5 | ---- |
| 1,500 | 30 | 853 | 15.1 | 69 | 5,000 | 29 | 556 | −4.6 | 33 | 10,000 | 29 | 282 | −40.3 | ---- | 15,000 | 12 | 129 | −62.7 | ---- |
| 2,000 | 30 | 803 | 12.5 | 63 | 6,000 | 29 | 489 | −10.6 | 31 | 11,000 | 29 | 243 | −47.9 | ---- | 16,000 | 6 | 109 | −62.8 | ---- |

1. U. S. Navy.
2. Humidity data obtained by hair hygrometer, others using electric hygrometer.

NOTE

All observations taken near 11:00 p. m. E. S. T. except at Mazatlan and Tapachula, Mexico, where they are taken near 9:00 p. m.

"Number of Observations" refers to pressure only, as temperature and humidity data are sometimes missing for some observations at certain levels. Relative humidity data are not used in daily observations when the temperature is below −40.0° C.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Means for observations obtained by the electric hygrometer have been adjusted to compensate for the values occurring below the operating range of the humidity element.

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during June 1944. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

| Altitude (meters) m. s. l. | Abilene, Tex. (538 m.) Observations | Direction | Velocity | Albuquerque, N. Mex. (1,630 m.) Observations | Direction | Velocity | Atlanta, Ga. (299 m.) Observations | Direction | Velocity | Billings, Mont. (1,095 m.) Observations | Direction | Velocity | Bismarck, N. Dak. (512 m.) Observations | Direction | Velocity | Boise, Idaho (870 m.) Observations | Direction | Velocity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 30 | 174 | 6.7 | 30 | 198 | 4.7 | 30 | 299 | 1.0 | 28 | 41 | 1.3 | 29 | 126 | 0.5 | 28 | 310 | 3.3 |
| 500 | --- | --- | --- | --- | --- | --- | 30 | 301 | 2.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1,000 | 30 | 166 | 9.3 | --- | --- | --- | 30 | 321 | 2.7 | --- | --- | --- | 29 | 130 | 0.4 | 28 | 306 | 3.7 |
| 1,500 | 30 | 174 | 8.5 | --- | --- | --- | 29 | 331 | 2.3 | 28 | 64 | 2.5 | 28 | 222 | 0.2 | 28 | 313 | 2.4 |
| 2,000 | 30 | 182 | 8.3 | 30 | 194 | 5.9 | 27 | 333 | 3.8 | 25 | 140 | 0.9 | 26 | 228 | 2.1 | 27 | 300 | 1.6 |
| 2,500 | 30 | 192 | 6.1 | 30 | 202 | 6.9 | 25 | 337 | 3.7 | 24 | 184 | 1.6 | 21 | 237 | 4.7 | 26 | 240 | 1.5 |
| 3,000 | 28 | 206 | 6.9 | 30 | 210 | 7.0 | 21 | 326 | 5.6 | 21 | 229 | 3.7 | 18 | 254 | 6.3 | 26 | 210 | 1.2 |
| 4,000 | 26 | 211 | 6.1 | 29 | 217 | 7.9 | 18 | 331 | 5.3 | 16 | 249 | 7.1 | 15 | 254 | 8.5 | 22 | 234 | 4.4 |
| 5,000 | 23 | 233 | 6.3 | 26 | 234 | 10.9 | 15 | 317 | 6.3 | 15 | 249 | 10.9 | 13 | 261 | 8.5 | 17 | 243 | 6.1 |
| 6,000 | 18 | 237 | 6.0 | 24 | 237 | 13.9 | --- | --- | --- | 13 | 245 | 11.8 | 11 | 261 | 13.8 | 14 | 248 | 8.2 |
| 8,000 | 12 | 223 | 6.0 | 22 | 234 | 17.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10,000 | 11 | 210 | 4.6 | 19 | 240 | 20.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12,000 | --- | --- | --- | 17 | 239 | 25.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Altitude (meters) m. s. l. | Brownsville, Tex. (7 m.) Observations | Direction | Velocity | Buffalo, N. Y. (220 m.) Observations | Direction | Velocity | Burlington, Vt. (132 m.) Observations | Direction | Velocity | Charleston, S. C. (17 m.) Observations | Direction | Velocity | Cincinnati, Ohio (152 m.) Observations | Direction | Velocity | Denver, Colo. (1,627 m.) Observations | Direction | Velocity | El Paso, Tex. (1,196 m.) Observations | Direction | Velocity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 30 | 123 | 6.5 | 29 | 246 | 2.3 | 29 | 228 | 1.2 | 30 | 162 | 1.1 | 30 | 285 | 1.3 | 30 | 76 | 1.7 | 30 | 213 | 3.1 |
| 500 | 30 | 133 | 8.2 | 29 | 254 | 3.9 | 29 | 233 | 2.5 | 30 | 166 | 2.7 | 30 | 250 | 2.6 | --- | --- | --- | --- | --- | --- |
| 1,000 | 27 | 136 | 7.1 | 27 | 269 | 4.7 | 27 | 270 | 3.1 | 27 | 231 | 1.1 | 30 | 254 | 3.4 | --- | --- | --- | --- | --- | --- |
| 1,500 | 25 | 145 | 6.1 | 23 | 276 | 3.5 | 27 | 292 | 4.8 | 26 | 283 | 1.2 | 30 | 269 | 4.9 | --- | --- | --- | 30 | 211 | 3.2 |
| 2,000 | 21 | 134 | 4.9 | 18 | 279 | 7.8 | 19 | 295 | 6.0 | 23 | 324 | 3.2 | 29 | 276 | 5.9 | 30 | 104 | 2.1 | 30 | 210 | 3.3 |
| 2,500 | 19 | 135 | 4.6 | 16 | 298 | 8.6 | 15 | 300 | 7.7 | 23 | 333 | 4.0 | 26 | 289 | 6.1 | 30 | 131 | 3.0 | 30 | 220 | 4.0 |
| 3,000 | 16 | 130 | 5.0 | 11 | 300 | 10.2 | 11 | 295 | 9.1 | 22 | 335 | 4.7 | 24 | 291 | 6.5 | 29 | 171 | 2.8 | 30 | 226 | 4.8 |
| 4,000 | 15 | 112 | 5.9 | --- | --- | --- | 10 | 314 | 9.8 | 17 | 322 | 3.7 | 15 | 306 | 7.3 | 26 | 222 | 6.8 | 28 | 230 | 8.2 |
| 5,000 | 13 | 111 | 2.8 | --- | --- | --- | --- | --- | --- | 14 | 319 | 4.9 | 10 | 306 | 6.3 | 24 | 239 | 10.1 | 26 | 240 | 10.3 |
| 6,000 | 12 | 85 | 3.5 | --- | --- | --- | --- | --- | --- | 12 | 321 | 7.5 | --- | --- | --- | 21 | 242 | 14.3 | 25 | 243 | 11.4 |
| 8,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11 | 239 | 20.6 | 18 | 235 | 14.5 |
| 10,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 233 | 14.4 |
| 12,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Altitude (meters) m. s. l. | Ely, Nev. (1,910 m.) Observations | Direction | Velocity | Grand Junction, Colo. (1,413 m.) Observations | Direction | Velocity | Greensboro, N. C. (271 m.) Observations | Direction | Velocity | Havre, Mont. (767 m.) Observations | Direction | Velocity | Jacksonville, Fla. (16 m.) Observations | Direction | Velocity | Joliet, Ill. (178 m.) Observations | Direction | Velocity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 30 | 211 | 3.1 | 30 | 238 | 2.6 | 28 | 310 | 1.2 | 26 | 258 | 0.4 | 29 | 72 | 2.4 | 30 | 231 | 2.8 |
| 500 | --- | --- | --- | --- | --- | --- | 28 | 308 | 1.6 | --- | --- | --- | 28 | 89 | 1.1 | 30 | 235 | 3.9 |
| 1,000 | --- | --- | --- | --- | --- | --- | 28 | 275 | 2.4 | 26 | 193 | 1.0 | 29 | 330 | 0.7 | 27 | 229 | 5.5 |
| 1,500 | --- | --- | --- | 30 | 240 | 3.4 | 28 | 286 | 3.4 | 26 | 178 | 1.2 | 24 | 301 | 2.6 | 27 | 243 | 6.4 |
| 2,000 | 30 | 209 | 3.8 | 30 | 241 | 4.2 | 25 | 296 | 4.4 | 24 | 204 | 2.9 | 24 | 319 | 3.4 | 24 | 255 | 6.8 |
| 2,500 | 30 | 202 | 4.2 | 30 | 211 | 4.8 | 25 | 303 | 5.7 | 21 | 199 | 2.7 | 24 | 328 | 4.2 | 19 | 261 | 6.9 |
| 3,000 | 30 | 201 | 4.7 | 28 | 220 | 6.6 | 23 | 311 | 6.9 | 19 | 231 | 4.2 | 23 | 331 | 3.7 | 14 | 270 | 7.5 |
| 4,000 | 25 | 206 | 8.3 | 21 | 211 | 9.3 | 14 | 317 | 8.6 | 15 | 238 | 6.5 | 20 | 327 | 3.4 | --- | --- | --- |
| 5,000 | 17 | 210 | 13.2 | 14 | 217 | 12.3 | --- | --- | --- | --- | --- | --- | 19 | 339 | 3.8 | --- | --- | --- |
| 6,000 | 15 | 209 | 15.7 | 10 | 225 | 13.1 | --- | --- | --- | --- | --- | --- | 18 | 339 | 4.3 | --- | --- | --- |
| 8,000 | 10 | 221 | 20.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15 | 321 | 6.2 | --- | --- | --- |
| 10,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 330 | 7.7 | --- | --- | --- |
| 12,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 325 | 10.8 | --- | --- | --- |

| Altitude (meters) m. s. l. | Las Vegas, Nev. (573 m.) Observations | Direction | Velocity | Little Rock, Ark. (88 m.) Observations | Direction | Velocity | Medford, Oreg. (410 m.) Observations | Direction | Velocity | Miami, Fla. (15 m.) Observations | Direction | Velocity | Mobile, Ala. (66 m.) Observations | Direction | Velocity | Nashville, Tenn. (194 m.) Observations | Direction | Velocity | New York, N. Y. (15 m.) Observations | Direction | Velocity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 30 | 199 | 3.4 | 30 | 181 | 2.1 | 29 | 304 | 2.5 | 30 | 130 | 3.8 | 29 | 222 | 0.8 | 30 | 255 | 1.9 | 30 | 211 | 2.2 |
| 500 | --- | --- | --- | 30 | 197 | 2.8 | 29 | 303 | 2.8 | 30 | 134 | 4.5 | 29 | 200 | 0.9 | 30 | 257 | 2.6 | 30 | 249 | 4.0 |
| 1,000 | 30 | 197 | 5.5 | 30 | 217 | 2.9 | 29 | 310 | 3.1 | 30 | 128 | 2.8 | 27 | 268 | 0.4 | 30 | 277 | 2.7 | 27 | 276 | 4.4 |
| 1,500 | 30 | 201 | 5.2 | 30 | 230 | 3.1 | 29 | 302 | 2.6 | 30 | 105 | 1.6 | 24 | 335 | 1.2 | 30 | 289 | 3.8 | 25 | 279 | 4.9 |
| 2,000 | 30 | 205 | 5.4 | 30 | 243 | 3.4 | 26 | 329 | 1.6 | 28 | 52 | 1.5 | 22 | 6 | 2.2 | 28 | 294 | 5.4 | 22 | 293 | 6.3 |
| 2,500 | 30 | 205 | 6.3 | 30 | 241 | 3.6 | 24 | 307 | 2.3 | 27 | 44 | 1.3 | 20 | 21 | 2.6 | 27 | 296 | 5.4 | 22 | 300 | 7.2 |
| 3,000 | 30 | 216 | 7.4 | 27 | 244 | 3.6 | 20 | 320 | 2.8 | 26 | 77 | 0.6 | 18 | 21 | 2.7 | 24 | 299 | 6.0 | 14 | 308 | 8.9 |
| 4,000 | 30 | 228 | 9.7 | 23 | 256 | 3.4 | 18 | 311 | 5.5 | 25 | 160 | 0.7 | 16 | 22 | 2.4 | 17 | 292 | 6.5 | --- | --- | --- |
| 5,000 | 28 | 224 | 13.5 | 21 | 275 | 3.6 | 17 | 296 | 7.1 | 23 | 224 | 0.8 | --- | --- | --- | 13 | 312 | 7.4 | --- | --- | --- |
| 6,000 | 26 | 227 | 16.2 | 17 | 292 | 4.8 | 16 | 296 | 7.8 | 18 | 240 | 1.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8,000 | 20 | 239 | 17.3 | 14 | 294 | 8.0 | 12 | 303 | 10.7 | 14 | 287 | 2.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10,000 | 14 | 254 | 22.0 | 12 | 295 | 6.8 | --- | --- | --- | 12 | 308 | 3.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

See footnotes at end of table.

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during June 1944. Directions given in degrees from north (N=360° E=90°, S=180°, W=270°). Velocities in meters per second*—Continued

| Altitude (meters) m. s. l. | Oakland, Calif. (8 m.) | | | Oklahoma City, Okla. (402 m.) | | | Omaha, Nebr. (306 m.) | | | Phoenix, Ariz. (338 m.) | | | Rapid City, S. Dak. (982 m.) | | | St. Louis, Mo. (181 m.) | | | St. Paul, Minn. (225 m.) | | | San Antonio, Tex. (240 m.) | | | San Diego, Calif. (15 m.) | | | Sault Ste. Marie, Mich. (225 m.) | | | Seattle Wash. (12 m.) | | | Spokane, Wash. (603 m.) | | | Washington D. C. (24 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity |
| Surface | 30 | 264 | 5.9 | 30 | 168 | 8.5 | 30 | 167 | 2.8 | 30 | 254 | 1.9 | 28 | 57 | 1.0 | 30 | 220 | 2.6 | 30 | 214 | 1.3 | 30 | 139 | 5.0 | 29 | 274 | 4.1 | 27 | 270 | 2.5 | 29 | 253 | 2.2 | 30 | 190 | 1.5 | 27 | 278 | 1.0 |
| 500 | 29 | 264 | 4.7 | 30 | 170 | 9.0 | 30 | 175 | 5.3 | 30 | 253 | 2.9 | --- | --- | --- | 30 | 222 | 4.1 | 30 | 203 | 2.7 | 30 | 142 | 5.9 | 29 | 278 | 2.7 | 27 | 274 | 2.6 | 29 | 255 | 1.6 | --- | --- | --- | 27 | 285 | 2.3 |
| 1,000 | 26 | 264 | 2.9 | 30 | 178 | 9.4 | 28 | 190 | 6.9 | 30 | 246 | 3.2 | 28 | 55 | 0.9 | 30 | 227 | 4.2 | 26 | 214 | 3.8 | 29 | 149 | 6.8 | 22 | 295 | 1.5 | 25 | 230 | 4.3 | 21 | 259 | 1.7 | 30 | 186 | 1.9 | 26 | 290 | 3.4 |
| 1,500 | 25 | 268 | 2.6 | 29 | 189 | 9.8 | 28 | 207 | 7.2 | 30 | 228 | 3.0 | 28 | 266 | 0.6 | 30 | 242 | 5.6 | 25 | 234 | 4.6 | 28 | 145 | 6.1 | 19 | 257 | 1.2 | 24 | 246 | 6.5 | 20 | 272 | 1.6 | 30 | 211 | 2.4 | 25 | 300 | 4.8 |
| 2,000 | 22 | 310 | 2.0 | 25 | 209 | 8.8 | 24 | 234 | 9.[illegible] | 30 | 202 | 4.7 | 26 | 224 | 2.7 | 29 | 256 | 7.1 | 18 | 266 | 7.3 | 22 | 150 | 6.1 | 19 | 239 | 2.0 | 19 | 245 | 7.7 | 18 | 154 | 0.9 | 26 | 201 | 2.1 | 19 | 310 | 5.4 |
| 2,500 | 22 | 322 | 2.8 | 23 | 212 | 7.4 | 19 | 252 | 8.7 | 30 | 201 | 6.0 | 25 | 239 | 5.1 | 26 | 262 | 7.8 | 14 | 273 | 8.4 | 18 | 157 | 5.6 | 18 | 226 | 3.4 | 15 | 273 | 8.6 | 17 | 186 | 1.9 | 25 | 200 | 2.2 | 17 | 326 | 5.7 |
| 3,000 | 22 | 331 | 3.7 | 19 | 215 | 7.8 | 17 | 262 | 9.9 | 30 | 212 | 8.2 | 20 | 244 | 6.3 | 24 | 262 | 8.4 | 12 | 268 | 9.3 | 14 | 158 | 3.6 | 17 | 235 | 5.6 | 12 | 293 | 8.2 | 15 | 189 | 1.6 | 18 | 199 | 1.9 | 16 | 322 | 6.8 |
| 4,000 | 20 | 321 | 7.1 | 18 | 234 | 6.0 | 14 | 264 | 11.9 | 30 | 221 | 11.4 | 14 | 254 | 10.9 | 17 | 280 | 9.3 | --- | --- | --- | 11 | 139 | 2.3 | 16 | 243 | 9.5 | 10 | 275 | 11.0 | 11 | 197 | 2.2 | 14 | 232 | 4.5 | 15 | 319 | 9.1 |
| 5,000 | 20 | 311 | 7.6 | 16 | 239 | 5.3 | 12 | 275 | 15.2 | 28 | 229 | 12.5 | 14 | 248 | 13.4 | 15 | 285 | 8.8 | --- | --- | --- | --- | --- | --- | 13 | 234 | 11.0 | --- | --- | --- | 10 | 197 | 1.4 | --- | --- | --- | 13 | 316 | 9.6 |
| 6,000 | 19 | 308 | 10.5 | 13 | 234 | 8.7 | 11 | 272 | 15.5 | 27 | 236 | 14.3 | 14 | 251 | 16.7 | 13 | 282 | 11.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 311 | 8.4 |
| 8,000 | 17 | 307 | 13.4 | --- | --- | --- | --- | --- | --- | 22 | 245 | 16.5 | 13 | 250 | 23.9 | 12 | 286 | 14.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10,000 | 15 | 296 | 19.5 | --- | --- | --- | --- | --- | --- | 17 | 251 | 21.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12,000 | 10 | 268 | 17.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

TABLE 3.—*Maximum free air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during June 1944*

| Section | Surface to 2,500 meters (m. s. l.) | | | | | Above 2,500 to 5,000 meters (m. s. l.) | | | | | Above 5,000 meters (m. s. l.) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Maximum velocity | Direction | Altitude (m.) m. s. l. | Date | Station | Maximum velocity | Direction | Altitude (m.) m. s. l. | Date | Station | Maximum velocity | Direction | Altitude (m.) m. s. l. | Date | Station |
| Northeast [1] | 30.6 | S. | 437 | 19 | Nantucket, Mass. | 34.0 | NW. | 4,970 | 13 | Portland, Maine | 63.8 | NW. | 8,923 | 4 | Caribou, Maine |
| East-Central [2] | 28.6 | WSW. | 2,042 | 6 | Cincinnati, Ohio | 37.6 | NNW. | 4,473 | 23 | Elkins, W. Va. | 50.0 | N. | 12,064 | 26 | Huntington, W. Va. |
| | | | | | | 26.0 | NW. | 3,809 | 24 | Atlanta, Ga. | | | | | |
| Southeast [3] | 22.1 | NW. | 630 | 24 | Jacksonville, Fla. | 26.0 | NW. | 4,788 | 20 | Birmingham, Ala. | 48.4 | N. | 13,090 | 21 | Jacksonville, Fla. |
| | | | | | | 48.0 | WNW. | 4,254 | 17 | Detroit, Mich. | | | | | |
| North-Central [4] | 38.0 | SW. | 2,328 | 28 | Duluth, Minn. | 48.0 | W. | 4,080 | 28 | St. Paul, Minn. | 60.4 | WNW. | 11,222 | 23 | Bismarck, N. Dak. |
| Central [5] | 51.0 | SSW. | 2,330 | 26 | Dodge City, Kans. | 43.3 | SSW. | 2,501 | 26 | Dodge City, Kans. | 58.2 | W. | 7,250 | 23 | Goodland, Kans. |
| South-Central [6] | 35.6 | S. | 1,386 | 3 | Oklahoma City, Okla. | 28.9 | WSW. | 4,957 | 3 | Amarillo, Tex. | 43.0 | SW. | 7,937 | 3 | Amarillo, Tex. |
| Northwest [7] | 28.7 | S. | 2,350 | 16 | Pocatello, Idaho | 36.4 | NNW. | 3,802 | 7 | Eugene, Oreg. | 75.0 | NW. | 11,770 | 7 | Boise, Idaho. |
| West-Central [8] | 39.9 | NNW. | 1,544 | 8 | Sacramento, Calif. | 45.3 | S. | 2,763 | 21 | Grand Junction, Colo. | 63.0 | WSW. | 12,927 | 22 | Denver, Colo. |
| Southwest [9] | 31.8 | SSW. | 2,500 | 15 | Raton, N. Mex. | 49.1 | W. | 3,954 | 3 | Raton, N. Mex. | 66.0 | WNW. | 11,668 | 16 | Santa Maria, Calif. |

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, Southern Nevada, Arizona, New Mexico, and extreme west Texas.