# METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR MARCH 1944

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

## AEROLOGICAL OBSERVATIONS

NOTICE.—RAOB tabular data for February 1944 (table 1) are shown hereunder; those for March 1944 will be published in the April REVIEW.—EDITOR

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

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

| Altitude (meters) m. s. l. | Albany, N. Y. (86 m.) | | | | Albuquerque, N. Mex. (1620 m.) | | | | Apalachicola, Fla. (5 m.) | | | | Atlanta, Ga. (300 m.) | | | | Big Spring, Tex. (774 m.) | | | | Bismarck, N. Dak.[2] (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 | 29 | 1,007 | −5.4 | 75 | 25 | 836 | 5.6 | 48 | 29 | 1,020 | 16.0 | 90 | 27 | 985 | 9.2 | 80 | 28 | 928 | 8.8 | 71 | 29 | 957 | −11.9 | 84 | 28 | 915 | 1.1 | 80 |
| 500 | 29 | 955 | −6.0 | 72 | | | | | 29 | 962 | 15.3 | 74 | 27 | 961 | 9.3 | 78 | | | | | | | | | | | | |
| 1,000 | 29 | 896 | −7.3 | 72 | | | | | 29 | 907 | 13.1 | 58 | 27 | 905 | 8.2 | 71 | 28 | 903 | 9.9 | 59 | 29 | 898 | −8.9 | 80 | 28 | 900 | 1.8 | 71 |
| 1,500 | 29 | 840 | −8.8 | 66 | | | | | 29 | 855 | 11.8 | 41 | 27 | 852 | 7.3 | 62 | 28 | 850 | 8.7 | 49 | 29 | 842 | −8.7 | 75 | 28 | 846 | −0.6 | 68 |
| 2,000 | 29 | 787 | −9.9 | 62 | 25 | 798 | 4.0 | 45 | 29 | 805 | 9.8 | 40 | 27 | 802 | 5.6 | 60 | 28 | 800 | 7.2 | 42 | 29 | 788 | −10.0 | 72 | 28 | 794 | −4.0 | 73 |
| 2,500 | 29 | 738 | −11.0 | 58 | 25 | 750 | 0.6 | 49 | 29 | 758 | 7.3 | 36 | 27 | 754 | 3.9 | 56 | 28 | 752 | 4.9 | 38 | 29 | 739 | −12.5 | 68 | 28 | 745 | −7.3 | 73 |
| 3,000 | 29 | 691 | −12.9 | 57 | 25 | 704 | −3.1 | 52 | 29 | 713 | 5.6 | 26 | 27 | 709 | 1.7 | 55 | 28 | 707 | 2.1 | 37 | 29 | 692 | −15.1 | 70 | 28 | 698 | −10.4 | 73 |
| 4,000 | 28 | 606 | −16.9 | 45 | 25 | 620 | −10.3 | 59 | 29 | 630 | 0.6 | 23 | 27 | 625 | −3.5 | 51 | 28 | 624 | −4.7 | 37 | 28 | 605 | −20.4 | 70 | 28 | 612 | −16.1 | 70 |
| 5,000 | 28 | 529 | −23.3 | 41 | 25 | 543 | −16.9 | 47 | 29 | 556 | −5.7 | 29 | 26 | 550 | −9.7 | 46 | 28 | 549 | −11.2 | 37 | 25 | 528 | −26.0 | 62 | 27 | 536 | −22.6 | 70 |
| 6,000 | 28 | 461 | −29.8 | 44 | 24 | 474 | −23.8 | 37 | 29 | 488 | −12.2 | 26 | 25 | 483 | −16.2 | 47 | 28 | 481 | −17.8 | 36 | 23 | 460 | −33.0 | 55 | 27 | 467 | −29.7 | 66 |
| 7,000 | 27 | 400 | −36.7 | 44 | 23 | 413 | −30.9 | | 29 | 428 | −19.4 | 36 | 24 | 422 | −23.3 | 50 | 28 | 420 | −25.0 | 43 | 19 | 399 | −39.0 | 51 | 26 | 405 | −36.6 | 62 |
| 8,000 | 27 | 345 | −43.4 | | 19 | 357 | −38.4 | | 29 | 373 | −26.9 | 42 | 21 | 368 | −30.1 | 55 | 28 | 365 | −32.3 | 48 | 15 | 345 | −45.5 | | 26 | 350 | −43.6 | |
| 9,000 | 27 | 297 | −48.7 | | 13 | 309 | −44.0 | | 28 | 324 | −34.4 | 44 | 20 | 319 | −38.0 | 58 | 26 | 316 | −39.5 | | 6 | 296 | −51.3 | | 20 | 302 | −49.2 | |
| 10,000 | 25 | 255 | −52.2 | | 9 | 267 | −49.6 | | 28 | 280 | −42.0 | | 20 | 275 | −45.7 | | 26 | 273 | −46.7 | | | | | | 17 | 259 | −53.8 | |
| 11,000 | 16 | 219 | −53.3 | | 5 | 229 | −53.3 | | 19 | 242 | −48.4 | | 17 | 237 | −51.9 | | 15 | 235 | −52.8 | | | | | | 14 | 222 | −54.9 | |
| 12,000 | 9 | 188 | −52.6 | | | | | | 9 | 208 | −53.4 | | 11 | 203 | −56.3 | | 6 | 202 | −57.0 | | | | | | 14 | 189 | −54.9 | |
| 13,000 | | | | | | | | | | | | | 9 | 174 | −57.7 | | | | | | | | | | 11 | 162 | −54.2 | |
| 14,000 | | | | | | | | | | | | | 7 | 148 | −60.3 | | | | | | | | | | 10 | 139 | −54.2 | |
| 15,000 | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 119 | −55.0 | |

| Altitude (meters) m. s. l. | Brownsville, Tex. (6 m.) | | | | Buffalo, N. Y. (221 m.) | | | | Caribou, Maine (191 m.) | | | | Charleston, S. C.[2] (14 m.) | | | | Denver, Colo. (1,616 m.) | | | | Dodge City, Kans. (787 m.) | | | | El Paso, Tex. (1,195 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 | 1,016 | 18.5 | 89 | 25 | 991 | −5.1 | 78 | 29 | 990 | −12.5 | 80 | 29 | 1,018 | 11.3 | 83 | 28 | 834 | −0.5 | 65 | 29 | 925 | 1.5 | 76 | 28 | 881 | 9.4 | 50 |
| 500 | 29 | 959 | 17.4 | 79 | 25 | 957 | −5.3 | 71 | 29 | 950 | −12.4 | 76 | 29 | 961 | 12.3 | 72 | | | | | | | | | | | | |
| 1,000 | 29 | 904 | 15.8 | 58 | 25 | 898 | −7.5 | 68 | 29 | 890 | −13.9 | 75 | 29 | 905 | 10.8 | 69 | | | | | 29 | 901 | 2.9 | 67 | | | | |
| 1,500 | 29 | 853 | 14.8 | 42 | 25 | 841 | −9.0 | 62 | 29 | 833 | −14.1 | 65 | 29 | 852 | 8.7 | 62 | | | | | 29 | 847 | 2.2 | 59 | 28 | 849 | 10.6 | 39 |
| 2,000 | 29 | 803 | 13.1 | 33 | 25 | 788 | −10.0 | 59 | 29 | 780 | −15.4 | 62 | 29 | 802 | 7.2 | 57 | 28 | 795 | −.4 | 57 | 29 | 796 | 1.1 | 48 | 28 | 799 | 7.6 | 39 |
| 2,500 | 29 | 757 | 10.9 | 32 | 25 | 739 | −11.7 | 62 | 29 | 730 | −16.8 | 56 | 29 | 754 | 4.8 | 52 | 28 | 747 | −3.3 | 56 | 28 | 747 | −1.0 | 43 | 28 | 752 | 4.0 | 42 |
| 3,000 | 29 | 713 | 8.5 | 29 | 25 | 692 | −13.7 | 64 | 29 | 683 | −18.4 | 54 | 29 | 710 | 2.5 | 45 | 28 | 700 | −6.4 | 53 | 28 | 702 | −3.8 | 40 | 28 | 707 | .8 | 38 |
| 4,000 | 29 | 631 | 1.9 | 28 | 25 | 606 | −18.4 | 58 | 29 | 596 | −23.7 | 51 | 29 | 627 | −2.7 | 42 | 28 | 616 | −13.3 | 54 | 28 | 617 | −10.1 | 35 | 28 | 623 | −5.7 | 43 |
| 5,000 | 29 | 556 | −4.8 | 29 | 25 | 529 | −24.0 | 54 | 29 | 519 | −29.0 | 48 | 28 | 552 | −8.8 | 42 | 28 | 539 | −20.5 | 53 | 28 | 542 | −16.5 | 36 | 28 | 548 | −12.3 | 37 |
| 6,000 | 29 | 489 | −11.5 | 29 | 25 | 461 | −30.4 | 52 | 29 | 450 | −35.2 | | 28 | 484 | −15.4 | 41 | 28 | 471 | −27.2 | 45 | 28 | 473 | −23.5 | 36 | 28 | 480 | −19.1 | 33 |
| 7,000 | 29 | 428 | −19.2 | 35 | 25 | 399 | −37.0 | 46 | 29 | 389 | −41.8 | | 28 | 424 | −22.2 | 41 | 28 | 408 | −34.8 | 48 | 28 | 412 | −30.7 | 32 | 28 | 418 | −26.1 | 40 |
| 8,000 | 28 | 374 | −26.7 | 46 | 21 | 345 | −44.1 | | 27 | 335 | −47.9 | | 25 | 369 | −29.6 | 42 | 24 | 354 | −41.4 | | 27 | 357 | −38.2 | | 28 | 363 | −32.8 | |
| 9,000 | 28 | 324 | −34.3 | 47 | 19 | 296 | −49.4 | | 22 | 288 | −50.3 | | 24 | 320 | −36.7 | 39 | 19 | 305 | −48.1 | | 17 | 309 | −43.2 | | 27 | 314 | −40.2 | |
| 10,000 | 27 | 281 | −42.0 | | 12 | 254 | −52.3 | | 20 | 248 | −50.8 | | 21 | 277 | −43.7 | | 13 | 260 | −52.3 | | 13 | 267 | −50.4 | | 21 | 272 | −46.7 | |
| 11,000 | 27 | 242 | −49.1 | | 10 | 218 | −51.9 | | 15 | 214 | −50.2 | | 11 | 238 | −50.4 | | 10 | 221 | −52.7 | | 11 | 228 | −55.7 | | 14 | 233 | −52.8 | |
| 12,000 | 21 | 208 | −54.8 | | 7 | 188 | −51.3 | | 12 | 183 | −47.8 | | | | | | 7 | 190 | −50.8 | | 9 | 194 | −54.9 | | 11 | 199 | −54.7 | |
| 13,000 | 9 | 178 | −59.4 | | | | | | | | | | | | | | | | | | 6 | 166 | −54.0 | | 6 | 168 | −55.6 | |

| Altitude (meters) m. s. l. | Ely, Nev.[2] (1,908 m.) | | | | Glasgow, Mont. (648 m.) | | | | Great Falls, Mont. (1,128 m.) | | | | Greensboro, N. C. (273 m.) | | | | Hatteras, N. C. (3 m.) | | | | Huntington, W. Va. (172 m.) | | | | International 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 | 805 | −4.3 | 78 | 29 | 939 | −5.5 | 72 | 29 | 884 | −4.1 | 69 | 27 | 987 | 3.9 | 79 | 29 | 1,019 | 8.5 | 84 | 29 | 999 | 3.2 | 75 | 29 | 976 | −12.6 | 74 |
| 500 | | | | | | | | | | | | | 27 | 959 | 5.0 | 70 | 29 | 959 | 8.9 | 65 | 29 | 959 | 3.3 | 66 | 29 | 957 | −12.1 | 70 |
| 1,000 | | | | | 29 | 898 | −5.4 | 70 | | | | | 27 | 903 | 4.2 | 62 | 29 | 903 | 6.7 | 60 | 29 | 902 | 1.1 | 66 | 29 | 896 | −13.5 | 70 |
| 1,500 | | | | | 29 | 842 | −7.3 | 68 | 29 | 844 | −4.3 | 64 | 27 | 849 | 2.8 | 56 | 29 | 850 | 4.8 | 53 | 29 | 848 | −0.7 | 59 | 29 | 839 | −13.7 | 63 |
| 2,000 | 29 | 796 | −3.4 | 77 | 29 | 790 | −9.3 | 63 | 29 | 791 | −7.2 | 66 | 27 | 798 | 1.3 | 51 | 29 | 799 | 3.1 | 45 | 29 | 796 | −2.5 | 54 | 29 | 785 | −14.4 | 51 |
| 2,500 | 29 | 747 | −5.3 | 75 | 29 | 740 | −11.9 | 64 | 29 | 742 | −10.1 | 70 | 27 | 750 | −0.7 | 46 | 29 | 751 | 1.2 | 39 | 29 | 747 | −4.2 | 53 | 29 | 735 | −15.9 | 50 |
| 3,000 | 29 | 700 | −8.7 | 74 | 29 | 693 | −14.8 | 64 | 29 | 695 | −13.0 | 68 | 27 | 704 | −2.9 | 38 | 29 | 705 | −1.1 | 40 | 29 | 701 | −6.4 | 51 | 29 | 688 | −18.2 | 50 |
| 4,000 | 29 | 614 | −14.4 | 69 | 29 | 606 | −20.4 | 63 | 29 | 608 | −18.8 | 66 | 26 | 620 | −8.0 | 40 | 29 | 621 | −6.5 | 36 | 29 | 616 | −10.9 | 42 | 29 | 601 | −23.4 | 54 |
| 5,000 | 29 | 538 | −20.5 | 65 | 29 | 529 | −26.1 | 47 | 28 | 532 | −24.8 | 67 | 26 | 544 | −13.6 | 44 | 29 | 546 | −12.2 | 35 | 28 | 540 | −16.5 | 48 | 29 | 523 | −28.9 | 51 |
| 6,000 | 29 | 470 | −27.2 | 63 | 29 | 460 | −32.4 | 47 | 28 | 463 | −31.5 | 60 | 26 | 477 | −20.3 | 50 | 29 | 478 | −18.7 | 43 | 27 | 472 | −22.5 | 52 | 29 | 454 | −35.4 | 52 |
| 7,000 | 28 | 407 | −34.9 | 61 | 29 | 398 | −39.3 | | 27 | 400 | −39.2 | | 26 | 416 | −27.2 | 55 | 29 | 417 | −25.6 | 48 | 27 | 411 | −29.3 | 57 | 29 | 392 | −42.2 | |
| 8,000 | 26 | 352 | −42.5 | | 29 | 343 | −47.2 | | 26 | 345 | −46.8 | | 26 | 361 | −34.2 | 54 | 29 | 363 | −32.5 | 51 | 26 | 357 | −36.1 | 62 | 22 | 339 | −48.0 | |
| 9,000 | 26 | 303 | −49.0 | | 29 | 294 | −53.6 | | 22 | 295 | −53.7 | | 25 | 312 | −41.7 | | 26 | 314 | −39.8 | | 25 | 308 | −42.7 | | 14 | 291 | −52.6 | |
| 10,000 | 25 | 260 | −53.5 | | 28 | 252 | −55.5 | | 18 | 252 | −55.6 | | 24 | 268 | −49.0 | | 25 | 271 | −47.5 | | 25 | 265 | −48.9 | | 9 | 248 | −53.5 | |
| 11,000 | 23 | 223 | −55.2 | | 25 | 216 | −53.6 | | 15 | 216 | −54.5 | | 24 | 230 | −54.5 | | 24 | 233 | −53.8 | | 21 | 228 | −54.2 | | 8 | 213 | −50.6 | |
| 12,000 | 21 | 190 | −55.5 | | 17 | 184 | −50.5 | | 14 | 185 | −51.6 | | 24 | 197 | −56.9 | | 20 | 199 | −57.6 | | 16 | 195 | −55.8 | | | | | |
| 13,000 | 19 | 163 | −54.9 | | 13 | 158 | −49.7 | | 13 | 158 | −50.8 | | 23 | 168 | −58.2 | | 20 | 169 | −58.2 | | 10 | 167 | −55.4 | | | | | |
| 14,000 | 16 | 139 | −55.3 | | 6 | 136 | −51.1 | | 9 | 136 | −49.8 | | 20 | 144 | −60.3 | | 13 | 144 | −59.5 | | | | | | | | | |
| 15,000 | 12 | 119 | −57.0 | | | | | | 5 | 117 | −51.5 | | 13 | 122 | −62.3 | | 10 | 123 | −62.6 | | | | | | | | | |
| 16,000 | 9 | 102 | −57.9 | | | | | | | | | | 8 | 104 | −63.4 | | 5 | 104 | −65.2 | | | | | | | | | |
| 17,000 | 6 | 88 | −60.3 | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| Altitude (meters) m. s. l. | 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.) | | | | Medford, Oreg.[2] (409 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 | 997 | −3.5 | 87 | 29 | 1,018 | 14.8 | 88 | 24 | 1,013 | −1.2 | 67 | 29 | 1,009 | 8.7 | 82 | 29 | 999 | 4.2 | 70 | 21 | 1,008 | 19.5 | 83 | 29 | 968 | 5.7 | 76 |
| 500 | 29 | 957 | −2.5 | 75 | 29 | 960 | 14.2 | 78 | 24 | 956 | −1.3 | 71 | 29 | 959 | 8.2 | 71 | 29 | 959 | 4.0 | 67 | 21 | 960 | 20.2 | 58 | 29 | 957 | 5.7 | 74 |
| 1,000 | 29 | 899 | −3.2 | 66 | 29 | 905 | 12.7 | 65 | 24 | 898 | −3.5 | 69 | 29 | 903 | 7.3 | 63 | 29 | 902 | 2.3 | 63 | 21 | 905 | 18.9 | 45 | 29 | 900 | 3.2 | 75 |
| 1,500 | 29 | 844 | −3.8 | 57 | 29 | 853 | 11.4 | 52 | 24 | 842 | −4.6 | 56 | 29 | 850 | 6.3 | 53 | 29 | 848 | 0.9 | 56 | 21 | 854 | 16.5 | 37 | 29 | 846 | −0.2 | 79 |
| 2,000 | 29 | 792 | −5.7 | 51 | 29 | 803 | 9.4 | 50 | 24 | 790 | −6.1 | 55 | 29 | 799 | 4.8 | 51 | 29 | 796 | −0.3 | 49 | 21 | 805 | 13.4 | 37 | 29 | 794 | −3.2 | 78 |
| 2,500 | 29 | 742 | −8.0 | 50 | 29 | 756 | 7.0 | 47 | 23 | 742 | −7.1 | 55 | 29 | 751 | 2.9 | 50 | 29 | 748 | −2.4 | 48 | 21 | 758 | 9.9 | 40 | 29 | 745 | −6.3 | 75 |
| 3,000 | 29 | 696 | −9.7 | 44 | 29 | 711 | 5.1 | 41 | 23 | 696 | −9.4 | 59 | 29 | 706 | 0.6 | 52 | 29 | 702 | −4.7 | 45 | 21 | 714 | 6.9 | 39 | 29 | 699 | −9.1 | 73 |
| 4,000 | 28 | 611 | −15.3 | 46 | 29 | 629 | −0.3 | 32 | 21 | 610 | −15.0 | 53 | 28 | 623 | −5.3 | 48 | 29 | 617 | −9.6 | 45 | 20 | 631 | 1.1 | 39 | 29 | 613 | −14.8 | 67 |
| 5,000 | 28 | 535 | −20.8 | 46 | 29 | 554 | −7.3 | 31 | 19 | 535 | −20.7 | 51 | 27 | 548 | −12.0 | 48 | 29 | 542 | −15.3 | 46 | 19 | 557 | −5.0 | 40 | 28 | 537 | −21.6 | 59 |
| 6,000 | 28 | 466 | −27.5 | 47 | 29 | 486 | −14.4 | 37 | 19 | 466 | −27.1 | 56 | 26 | 480 | −18.3 | 52 | 29 | 474 | −21.8 | 46 | 18 | 489 | −11.7 | 44 | 28 | 468 | −28.4 | 57 |
| 7,000 | 27 | 405 | −34.2 | 47 | 29 | 426 | −21.5 | 46 | 18 | 405 | −34.0 | 68 | 26 | 419 | −25.3 | 51 | 29 | 413 | −28.4 | 51 | 18 | 429 | −18.4 | 47 | 27 | 406 | −35.2 | 50 |
| 8,000 | 25 | 350 | −40.6 | ---- | 29 | 371 | −28.7 | 56 | 17 | 350 | −40.7 | ---- | 25 | 364 | −32.7 | 48 | 24 | 359 | −34.9 | ---- | 18 | 374 | −25.9 | 47 | 27 | 351 | −42.3 | ---- |
| 9,000 | 23 | 302 | −46.9 | ---- | 29 | 322 | −35.9 | 56 | 16 | 301 | −47.1 | ---- | 24 | 315 | −39.9 | ---- | 16 | 311 | −41.1 | ---- | 17 | 325 | −33.3 | 57 | 26 | 303 | −47.8 | ---- |
| 10,000 | 19 | 260 | −51.8 | ---- | 27 | 278 | −43.5 | ---- | 14 | 258 | −53.1 | ---- | 19 | 271 | −47.4 | ---- | ---- | ---- | ---- | ---- | 16 | 282 | −41.0 | ---- | 24 | 259 | −52.4 | ---- |
| 11,000 | 12 | 224 | −54.0 | ---- | 25 | 240 | −49.6 | ---- | 10 | 221 | −56.1 | ---- | 14 | 234 | −53.2 | ---- | ---- | ---- | ---- | ---- | 13 | 243 | −48.5 | ---- | 23 | 222 | −55.4 | ---- |
| 12,000 | 9 | 191 | −53.4 | ---- | 22 | 205 | −55.2 | ---- | 8 | 187 | −56.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 208 | −54.9 | ---- | 21 | 190 | −56.5 | ---- |
| 13,000 | 6 | 164 | −52.8 | ---- | 18 | 175 | −59.5 | ---- | 6 | 159 | −57.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 178 | −60.0 | ---- | 21 | 162 | −55.4 | ---- |
| 14,000 | ---- | ---- | ---- | ---- | 12 | 149 | −61.4 | ---- | 5 | 137 | −57.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 10 | 152 | −62.1 | ---- | 15 | 139 | −55.0 | ---- |
| 15,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 117 | −57.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 9 | 129 | −66.1 | ---- | 9 | 118 | −54.4 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 109 | −70.0 | ---- | 7 | 101 | −54.9 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 92 | −71.1 | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | 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.) | | | | Omaha, Nebr. (301 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 | Presure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity | Number of observations | Pressure | Temperature | Relative humidity |
| Surface | 29 | 1,020 | 19.2 | 86 | 28 | 998 | 7.8 | 75 | 19 | 1,017 | 6.1 | 73 | 29 | 1,016 | 10.5 | 75 | 29 | 863 | −2.2 | 80 | 27 | 972 | 6.1 | 79 | 29 | 983 | −1.7 | 79 |
| 500 | 29 | 963 | 18.5 | 80 | 28 | 960 | 7.2 | 69 | 19 | 957 | 4.3 | 59 | 29 | 956 | 7.6 | 67 | ---- | ---- | ---- | ---- | 27 | 959 | 6.4 | 75 | 29 | 959 | −2.2 | 73 |
| 1,000 | 29 | 909 | 15.5 | 76 | 28 | 903 | 4.7 | 68 | 19 | 900 | 2.3 | 55 | 29 | 900 | 4.9 | 62 | ---- | ---- | ---- | ---- | 27 | 902 | 5.2 | 69 | 29 | 901 | −2.5 | 63 |
| 1,500 | 29 | 857 | 12.7 | 73 | 28 | 849 | 3.9 | 57 | 19 | 846 | 1.2 | 57 | 29 | 846 | 2.1 | 63 | 29 | 848 | −1.5 | 73 | 27 | 849 | 4.7 | 60 | 29 | 845 | −2.8 | 56 |
| 2,000 | 29 | 807 | 11.2 | 56 | 28 | 798 | 2.8 | 46 | 19 | 794 | −1.8 | 57 | 29 | 795 | −0.6 | 54 | 29 | 796 | −3.0 | 65 | 27 | 798 | 3.6 | 53 | 29 | 793 | −4.7 | 54 |
| 2,500 | 28 | 760 | 10.1 | 42 | 28 | 750 | 1.3 | 41 | 17 | 745 | −4.6 | 45 | 29 | 746 | −3.2 | 50 | 29 | 746 | −6.7 | 72 | 27 | 750 | 1.7 | 46 | 29 | 745 | −7.1 | 53 |
| 3,000 | 28 | 715 | 8.1 | 38 | 28 | 705 | −1.0 | 38 | 17 | 699 | −6.7 | 45 | 29 | 700 | −6.0 | 50 | 29 | 700 | −10.1 | 76 | 27 | 705 | −0.7 | 40 | 29 | 698 | −9.2 | 53 |
| 4,000 | 27 | 633 | 2.7 | 32 | 24 | 622 | −6.6 | 37 | 17 | 615 | −12.0 | 42 | 29 | 616 | −12.1 | 43 | 29 | 614 | −15.7 | 67 | 26 | 621 | −6.7 | 35 | 29 | 613 | −15.4 | 52 |
| 5,000 | 26 | 559 | −3.4 | 27 | 24 | 546 | −12.3 | 48 | 14 | 539 | −17.1 | 38 | 29 | 539 | −18.7 | 35 | 29 | 537 | −21.7 | 61 | 25 | 546 | −13.1 | 33 | 28 | 536 | −21.8 | 50 |
| 6,000 | 26 | 492 | −10.1 | 26 | 21 | 479 | −18.3 | 53 | 14 | 471 | −23.9 | 33 | 28 | 471 | −25.9 | 36 | 29 | 468 | −28.6 | 58 | 24 | 478 | −20.2 | 38 | 28 | 467 | −28.2 | 49 |
| 7,000 | 26 | 431 | −17.3 | 26 | 21 | 418 | −25.3 | 54 | 13 | 409 | −31.1 | 43 | 28 | 409 | −33.4 | ---- | 29 | 406 | −35.7 | 48 | 24 | 417 | −27.2 | 44 | 27 | 405 | −35.3 | 46 |
| 8,000 | 26 | 376 | −24.7 | 26 | 21 | 363 | −32.3 | 52 | 5 | 355 | −35.5 | ---- | 27 | 354 | −40.8 | ---- | 29 | 351 | −43.3 | ---- | 22 | 362 | −33.9 | ---- | 27 | 350 | −42.9 | ---- |
| 9,000 | 26 | 327 | −32.3 | 26 | 20 | 314 | −39.6 | ---- | 5 | 307 | −42.1 | ---- | 26 | 305 | −46.8 | ---- | 29 | 302 | −50.2 | ---- | 21 | 313 | −40.8 | ---- | 25 | 301 | −48.7 | ---- |
| 10,000 | 25 | 284 | −39.3 | ---- | 14 | 273 | −45.8 | ---- | ---- | ---- | ---- | ---- | 25 | 262 | −52.2 | ---- | 29 | 258 | −54.6 | ---- | 19 | 270 | −47.5 | ---- | 23 | 259 | −51.6 | ---- |
| 11,000 | 24 | 244 | −46.4 | ---- | 9 | 235 | −53.2 | ---- | ---- | ---- | ---- | ---- | 18 | 225 | −56.1 | ---- | 29 | 222 | −56.0 | ---- | 15 | 232 | −54.1 | ---- | 18 | 222 | −53.6 | ---- |
| 12,000 | 19 | 210 | −53.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 15 | 193 | −58.2 | ---- | 28 | 189 | −56.2 | ---- | 8 | 199 | −56.8 | ---- | 13 | 190 | −53.0 | ---- |
| 13,000 | 15 | 179 | −58.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 13 | 166 | −57.6 | ---- | 25 | 162 | −54.8 | ---- | ---- | ---- | ---- | ---- | 8 | 164 | −53.6 | ---- |
| 14,000 | 9 | 152 | −63.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 9 | 142 | −58.9 | ---- | 22 | 138 | −54.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 15,000 | 9 | 129 | −66.8 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 122 | −61.4 | ---- | 14 | 118 | −55.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 16,000 | 6 | 110 | −70.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 101 | −56.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | 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.) | | | | San Antonio, Tex. (242 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 | 975 | 10.7 | 66 | 29 | 970 | −0.1 | 74 | 28 | 1,013 | −6.3 | 77 | 28 | 902 | −6.0 | 83 | 29 | 999 | 2.4 | 73 | 29 | 992 | −5.8 | 75 | 28 | 989 | 13.6 | 84 |
| 500 | 29 | 957 | 12.7 | 51 | 29 | 957 | −0.2 | 72 | 28 | 953 | −6.7 | 76 | ---- | ---- | ---- | ---- | 29 | 959 | 2.0 | 65 | 29 | 957 | −6.5 | 71 | 28 | 959 | 14.0 | 70 |
| 1,000 | 29 | 901 | 9.9 | 48 | 29 | 899 | −1.6 | 67 | 28 | 894 | −8.8 | 76 | 28 | 899 | −5.7 | 82 | 29 | 901 | 1.0 | 53 | 29 | 897 | −7.7 | 69 | 28 | 904 | 12.8 | 72 |
| 1,500 | 29 | 848 | 6.2 | 53 | 29 | 844 | −3.2 | 60 | 28 | 838 | −10.2 | 77 | 28 | 844 | −4.1 | 63 | 29 | 847 | 0.4 | 42 | 29 | 842 | −7.9 | 58 | 28 | 852 | 11.6 | 64 |
| 2,000 | 29 | 798 | 2.4 | 58 | 29 | 792 | −4.8 | 56 | 28 | 785 | −11.4 | 75 | 28 | 792 | −6.4 | 61 | 29 | 795 | −0.6 | 41 | 29 | 789 | −8.7 | 54 | 28 | 802 | 10.4 | 48 |
| 2,500 | 29 | 749 | −0.9 | 56 | 29 | 743 | −6.5 | 56 | 28 | 735 | −12.7 | 72 | 28 | 743 | −9.0 | 61 | 29 | 747 | −2.6 | 44 | 28 | 740 | −11.3 | 50 | 28 | 755 | 8.4 | 40 |
| 3,000 | 29 | 704 | −3.6 | 48 | 29 | 697 | −8.7 | 54 | 28 | 688 | −14.2 | 67 | 28 | 696 | −12.0 | 65 | 29 | 701 | −4.7 | 47 | 28 | 693 | −13.9 | 46 | 28 | 710 | 6.1 | 30 |
| 4,000 | 29 | 619 | −9.3 | 40 | 29 | 612 | −13.5 | 51 | 27 | 603 | −19.0 | 62 | 28 | 610 | −18.0 | 61 | 28 | 617 | −10.5 | 49 | 28 | 606 | −19.6 | 42 | 28 | 628 | −0.3 | 31 |
| 5,000 | 29 | 544 | −16.0 | 32 | 29 | 536 | −18.9 | 46 | 27 | 527 | −24.6 | 61 | 28 | 533 | −24.3 | 57 | 28 | 541 | −16.3 | 43 | 27 | 530 | −25.6 | 40 | 28 | 554 | −7.4 | 37 |
| 6,000 | 29 | 475 | −22.8 | 30 | 29 | 468 | −25.0 | 44 | 26 | 458 | −31.2 | 62 | 28 | 464 | −31.1 | 56 | 27 | 474 | −22.7 | 41 | 27 | 461 | −31.9 | 39 | 28 | 486 | −14.0 | 37 |
| 7,000 | 29 | 414 | −30.3 | 35 | 29 | 407 | −31.7 | 49 | 25 | 397 | −37.7 | 61 | 28 | 401 | −38.6 | 50 | 27 | 412 | −30.0 | 41 | 27 | 399 | −38.7 | 43 | 28 | 426 | −21.3 | 48 |
| 8,000 | 29 | 359 | −36.9 | ---- | 29 | 353 | −37.7 | 51 | 23 | 343 | −43.8 | ---- | 24 | 347 | −45.7 | ---- | 23 | 358 | −36.5 | ---- | 24 | 345 | −44.8 | ---- | 28 | 370 | −28.5 | 55 |
| 9,000 | 29 | 309 | −43.6 | ---- | 26 | 305 | −43.8 | ---- | 21 | 295 | −48.8 | ---- | 18 | 299 | −50.9 | ---- | 18 | 310 | −42.7 | ---- | 15 | 298 | −49.5 | ---- | 28 | 321 | −35.6 | 41 |
| 10,000 | 29 | 266 | −49.8 | ---- | 19 | 263 | −49.9 | ---- | 17 | 254 | −51.7 | ---- | 13 | 257 | −54.3 | ---- | 9 | 268 | −48.3 | ---- | 5 | 254 | −50.3 | ---- | 27 | 278 | −43.4 | ---- |
| 11,000 | 28 | 229 | −54.2 | ---- | 6 | 226 | −54.6 | ---- | 7 | 221 | −52.9 | ---- | 5 | 222 | −58.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 20 | 240 | −50.4 | ---- |
| 12,000 | 27 | 196 | −55.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 7 | 206 | −55.3 | ---- |
| 13,000 | 26 | 167 | −55.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 14,000 | 23 | 142 | −56.8 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 15,000 | 20 | 122 | −59.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 16,000 | 18 | 104 | −61.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 17,000 | 13 | 88 | −62.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 18,000 | 7 | 76 | −63.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

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

| Altitude (meters) m. s. l. | San Diego, Calif.[1] (19 m.) | | | | San Juan, P. R. (15 m.) | | | | Santa Maria, Calif. (73 m.) | | | | Saulte Ste. Marie, Mich.[2] (221 m.) | | | | Seattle, Wash.[1] (22 m.) | | | | Spokane, Wash. (598 m.) | | | | Swan Island, West Indies (10 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 | 22 | 1,014 | 12.9 | 77 | 29 | 1,017 | 23.8 | 76 | 28 | 1,008 | 10.2 | 79 | 24 | 990 | −7.7 | 84 | 16 | 1,014 | 6.6 | 76 | 29 | 945 | 0.2 | 81 | 29 | 1,016 | 24.5 | 78 |
| 500 | 22 | 957 | 9.9 | 77 | 29 | 962 | 19.7 | 79 | 28 | 957 | 8.7 | 68 | 24 | 956 | −8.2 | 84 | 16 | 956 | 3.4 | 75 | ---- | ---- | ---- | ---- | 29 | 960 | 21.1 | 81 |
| 1,000 | 20 | 901 | 7.2 | 66 | 29 | 908 | 16.2 | 73 | 28 | 901 | 6.0 | 60 | 24 | 896 | −10.6 | 83 | 16 | 899 | −0.3 | 77 | 29 | 899 | −0.5 | 70 | 29 | 906 | 17.7 | 76 |
| 1,500 | 20 | 848 | 4.0 | 62 | 29 | 856 | 13.3 | 63 | 28 | 847 | 3.2 | 59 | 24 | 839 | −12.6 | 84 | 16 | 844 | −3.4 | 75 | 29 | 844 | −3.6 | 69 | 29 | 855 | 14.5 | 65 |
| 2,000 | 20 | 797 | 0.8 | 63 | 29 | 806 | 11.1 | 51 | 28 | 796 | 0.4 | 53 | 24 | 785 | −14.2 | 81 | 16 | 792 | −6.6 | 71 | 29 | 792 | −6.9 | 73 | 29 | 805 | 12.5 | 45 |
| 2,500 | 20 | 749 | −0.9 | 55 | 29 | 759 | 9.3 | 39 | 28 | 748 | −1.8 | 45 | 24 | 735 | −15.4 | 79 | 16 | 742 | −9.3 | 73 | 29 | 743 | −10.1 | 77 | 29 | 759 | 11.3 | 24 |
| 3,000 | 20 | 703 | −3.4 | 45 | 29 | 714 | 7.7 | 23 | 28 | 702 | −4.2 | 41 | 24 | 688 | −17.0 | 74 | 16 | 696 | −12.2 | 74 | 29 | 696 | −12.6 | 76 | 29 | 714 | 9.8 | ---- |
| 4,000 | 19 | 618 | −9.0 | ---- | 27 | 633 | 3.5 | ---- | 28 | 617 | −9.5 | 30 | 22 | 602 | −21.5 | 67 | 16 | 610 | −17.8 | 74 | 29 | 609 | −18.3 | 70 | 28 | 633 | 4.8 | ---- |
| 5,000 | 17 | 543 | −15.8 | ---- | 27 | 558 | −2.5 | ---- | 28 | 542 | −16.2 | 35 | 22 | 524 | −27.2 | 64 | 15 | 532 | −24.6 | 74 | 29 | 533 | −24.2 | 65 | 28 | 559 | −0.9 | ---- |
| 6,000 | 17 | 474 | −23.5 | ---- | 27 | 491 | −9.1 | ---- | 28 | 474 | −23.5 | 37 | 21 | 457 | −33.0 | 60 | 12 | 463 | −31.6 | 74 | 29 | 464 | −30.5 | 65 | 28 | 492 | −7.8 | ---- |
| 7,000 | 17 | 413 | −30.2 | ---- | 26 | 431 | −16.3 | ---- | 28 | 412 | −31.2 | ---- | 20 | 395 | −39.7 | 49 | 10 | 403 | −37.7 | ---- | 29 | 402 | −37.8 | 58 | 26 | 432 | −14.4 | ---- |
| 8,000 | 10 | 359 | −36.4 | ---- | 24 | 377 | −23.5 | ---- | 26 | 359 | −37.9 | ---- | 19 | 341 | −46.1 | ---- | 8 | 348 | −45.4 | ---- | 25 | 346 | −45.3 | ---- | 26 | 378 | −22.0 | ---- |
| 9,000 | 10 | 310 | −43.0 | ---- | 24 | 328 | −30.8 | ---- | 25 | 309 | −44.5 | ---- | 18 | 294 | −51.6 | ---- | 7 | 298 | −50.8 | ---- | 22 | 297 | −51.5 | ---- | 26 | 329 | −28.7 | ---- |
| 10,000 | 8 | 268 | −48.8 | ---- | 24 | 284 | −37.5 | ---- | 23 | 266 | −51.1 | ---- | 13 | 252 | −55.1 | ---- | 5 | 253 | −55.0 | ---- | 21 | 255 | −55.8 | ---- | 25 | 286 | −35.9 | ---- |
| 11,000 | 6 | 230 | −55.0 | ---- | 24 | 245 | −44.5 | ---- | 22 | 229 | −55.6 | ---- | 9 | 218 | −55.6 | ---- | 5 | 217 | −56.6 | ---- | 14 | 217 | −54.8 | ---- | 24 | 247 | −43.7 | ---- |
| 12,000 | ---- | ---- | ---- | ---- | 21 | 210 | −51.1 | ---- | 16 | 196 | −58.1 | ---- | 8 | 185 | −53.8 | ---- | ---- | ---- | ---- | ---- | 11 | 186 | −52.4 | ---- | 24 | 212 | −51.4 | ---- |
| 13,000 | ---- | ---- | ---- | ---- | 18 | 180 | −57.6 | ---- | 14 | 168 | −56.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 10 | 159 | −51.3 | ---- | 23 | 181 | −58.5 | ---- |
| 14,000 | ---- | ---- | ---- | ---- | 17 | 153 | −63.6 | ---- | 11 | 144 | −57.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 10 | 137 | −51.7 | ---- | 23 | 154 | −64.7 | ---- |
| 15,000 | ---- | ---- | ---- | ---- | 14 | 130 | −69.8 | ---- | 9 | 123 | −59.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 117 | −52.4 | ---- | 21 | 131 | −70.1 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | 11 | 110 | −74.9 | ---- | 8 | 105 | −60.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 21 | 110 | −75.0 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | 7 | 93 | −77.3 | ---- | 5 | 90 | −63.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 17 | 93 | −78.2 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 14 | 78 | −78.5 | ---- |
| 19,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 66 | −76.6 | ---- |

| Altitude (meters) m. s. l. | Tacubaya, Mexico (2,306 m.) | | | | Tampa, Fla. (3 m.) | | | | Tapachula, Mexico (115 m.) | | | | Tatoosh Island, Wash. (31 m.) | | | | Toledo, Ohio (191 m.) | | | | Tongue Point, Oreg.[1] (21 m.) | | | | Washington, D. C. (25 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 | 774 | 16.4 | 43 | 28 | 1,021 | 17.6 | 87 | 29 | 999 | 25.0 | 77 | 29 | 1,012 | 6.4 | 79 | 28 | 996 | −2.9 | 84 | 17 | 1,014 | 7.4 | 76 | 29 | 1,016 | 2.9 | 66 |
| 500 | ---- | ---- | ---- | ---- | 28 | 963 | 17.5 | 60 | 29 | 956 | 23.8 | 62 | 29 | 956 | 4.1 | 70 | 28 | 957 | −2.3 | 73 | 17 | 956 | 3.9 | 75 | 29 | 958 | 1.2 | 61 |
| 1,000 | ---- | ---- | ---- | ---- | 28 | 909 | 14.8 | 56 | 29 | 903 | 21.1 | 62 | 29 | 899 | 1.0 | 67 | 28 | 899 | −4.7 | 73 | 17 | 899 | 0.4 | 74 | 29 | 900 | −0.1 | 60 |
| 1,500 | ---- | ---- | ---- | ---- | 28 | 857 | 12.6 | 51 | 29 | 852 | 18.0 | 70 | 29 | 844 | −2.1 | 59 | 28 | 844 | −5.4 | 64 | 17 | 845 | −3.1 | 71 | 29 | 846 | −1.4 | 54 |
| 2,000 | ---- | ---- | ---- | ---- | 28 | 806 | 10.4 | 43 | 29 | 803 | 15.1 | 71 | 29 | 793 | −4.7 | 53 | 28 | 791 | −6.9 | 61 | 17 | 793 | −5.4 | 56 | 29 | 794 | −3.5 | 56 |
| 2,500 | 29 | 756 | 15.6 | 43 | 28 | 759 | 8.9 | 27 | 29 | 757 | 12.7 | 66 | 29 | 744 | −7.0 | 47 | 28 | 742 | −8.8 | 58 | 17 | 743 | −8.0 | 55 | 29 | 745 | −5.3 | 52 |
| 3,000 | 29 | 713 | 12.5 | 44 | 28 | 715 | 6.8 | 23 | 29 | 713 | 10.2 | 56 | 29 | 697 | −9.7 | 41 | 28 | 695 | −10.6 | 52 | 17 | 697 | −10.8 | 50 | 29 | 699 | −6.9 | 47 |
| 4,000 | 29 | 632 | 4.6 | 55 | 28 | 632 | 1.7 | 20 | 29 | 632 | 4.5 | 43 | 28 | 611 | −16.1 | 45 | 28 | 610 | −15.4 | 49 | 17 | 611 | −17.3 | 51 | 29 | 614 | −12.2 | 44 |
| 5,000 | 29 | 558 | −2.7 | 55 | 27 | 557 | −4.4 | 20 | 28 | 559 | 0.5 | ---- | 27 | 535 | −22.6 | 52 | 28 | 534 | −21.5 | 44 | 17 | 534 | −24.3 | 56 | 29 | 538 | −17.9 | 41 |
| 6,000 | 29 | 491 | −8.6 | 26 | 27 | 490 | −11.1 | 23 | 28 | 492 | −5.7 | ---- | 27 | 466 | −29.5 | 51 | 28 | 465 | −28.0 | 46 | 15 | 465 | −31.5 | 58 | 29 | 470 | −23.8 | 45 |
| 7,000 | 29 | 431 | −15.6 | 23 | 27 | 429 | −18.2 | 24 | 28 | 433 | −13.3 | ---- | 27 | 404 | −36.3 | 47 | 28 | 403 | −34.8 | 47 | 12 | 404 | −36.4 | ---- | 29 | 409 | −30.4 | 51 |
| 8,000 | 27 | 377 | −23.4 | 31 | 27 | 375 | −25.5 | 31 | 28 | 378 | −21.2 | ---- | 27 | 349 | −43.8 | ---- | 28 | 349 | −41.4 | ---- | 5 | 346 | −44.2 | ---- | 29 | 355 | −37.0 | 58 |
| 9,000 | 27 | 327 | −30.9 | 38 | 27 | 325 | −33.0 | ---- | 28 | 329 | −29.0 | ---- | 27 | 300 | −49.4 | ---- | 24 | 300 | −46.9 | ---- | 5 | 297 | −48.5 | ---- | 27 | 307 | −43.6 | ---- |
| 10,000 | 27 | 284 | −38.1 | ---- | 27 | 282 | −40.6 | ---- | 28 | 286 | −36.6 | ---- | 23 | 258 | −54.1 | ---- | 20 | 258 | −51.2 | ---- | 5 | 255 | −52.2 | ---- | 23 | 265 | −50.5 | ---- |
| 11,000 | 27 | 245 | −45.7 | ---- | 26 | 243 | −47.5 | ---- | 28 | 247 | −43.9 | ---- | 22 | 221 | −56.6 | ---- | 17 | 220 | −53.9 | ---- | ---- | ---- | ---- | ---- | 22 | 226 | −56.1 | ---- |
| 12,000 | 18 | 210 | −52.3 | ---- | 20 | 208 | −54.2 | ---- | 26 | 212 | −50.7 | ---- | 22 | 188 | −55.1 | ---- | 11 | 188 | −53.2 | ---- | ---- | ---- | ---- | ---- | 19 | 193 | −56.8 | ---- |
| 13,000 | ---- | ---- | ---- | ---- | 15 | 177 | −60.4 | ---- | 18 | 182 | −57.9 | ---- | 20 | 161 | −53.6 | ---- | 8 | 160 | −51.9 | ---- | ---- | ---- | ---- | ---- | 14 | 164 | −56.8 | ---- |
| 14,000 | ---- | ---- | ---- | ---- | 12 | 150 | −64.8 | ---- | 13 | 155 | −65.1 | ---- | 20 | 138 | −53.8 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 15,000 | ---- | ---- | ---- | ---- | 11 | 127 | −68.2 | ---- | ---- | ---- | ---- | ---- | 10 | 118 | −53.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 16,000 | ---- | ---- | ---- | ---- | 10 | 108 | −71.7 | ---- | ---- | ---- | ---- | ---- | 8 | 101 | −54.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 17,000 | ---- | ---- | ---- | ---- | 7 | 91 | −74.4 | ---- | ---- | ---- | ---- | ---- | 6 | 86 | −53.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

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

All observations were taken near 11 p. m., E. S. T.
"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° 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 March, 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.) | | | Albuquerque, N. Mex. (1,630 m.) | | | Atlanta, Ga. (299 m.) | | | Billings, Mont. (1,095 m.) | | | Bismarck, N. Dak. (512 m.) | | | Boise, Idaho (870 m.) | | | Brownsville, Tex. (7 m.) | | | Buffalo, N. Y. (220 m.) | | | Burlington, Vt. (132 m.) | | | Charleston, S. C. (17 m.) | | | Cincinnati, Ohio (152 m.) | | | Denver, Colo. (1,627 m.) | | | El Paso Tex. (1,196 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 | 225 | 2.8 | 30 | 279 | 3.8 | 26 | 258 | 2.9 | 31 | 294 | 3.6 | 30 | 321 | 3.5 | 31 | 312 | 4.6 | 31 | 120 | 4.7 | 27 | 229 | 2.5 | 30 | 279 | 1.6 | 27 | 235 | 1.3 | 29 | 269 | 1.8 | 29 | 5 | 2.4 | 31 | 259 | 4.3 |
| 500 | --- | --- | --- | --- | --- | --- | 26 | 262 | 4.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 31 | 145 | 4.5 | 27 | 229 | 3.5 | 30 | 249 | 2.8 | 27 | 237 | 3.6 | 29 | 244 | 3.3 | --- | --- | --- | --- | --- | --- |
| 1,000 | 29 | 223 | 4.4 | --- | --- | --- | 26 | 263 | 4.7 | --- | --- | --- | 29 | 317 | 5.3 | 31 | 307 | 5.1 | 20 | 160 | 0.4 | 24 | 229 | 6.1 | 27 | 268 | 4.8 | 27 | 261 | 5.3 | 24 | 223 | 4.7 | --- | --- | --- | --- | --- | --- |
| 1,500 | 27 | 240 | 5.7 | --- | --- | --- | 25 | 268 | 6.0 | 31 | 291 | 5.2 | 22 | 305 | 7.2 | 31 | 306 | 5.7 | 17 | 286 | 1.4 | 23 | 247 | 6.1 | 25 | 286 | 7.0 | 23 | 267 | 7.3 | 20 | 236 | 8.7 | --- | --- | --- | 31 | 256 | 6.3 |
| 2,000 | 25 | 244 | 7.2 | 30 | 283 | 5.1 | 23 | 275 | 6.4 | 28 | 298 | 6.7 | 16 | 300 | 7.5 | 30 | 301 | 6.4 | 14 | 258 | 4.4 | 18 | 278 | 7.1 | 21 | 295 | 9.7 | 22 | 273 | 11.3 | 14 | 243 | 10.1 | 29 | 337 | 3.1 | 31 | 261 | 7.8 |
| 2,500 | 21 | 257 | 9.6 | 30 | 284 | 5.3 | 20 | 278 | 11.2 | 26 | 299 | 9.1 | 15 | 303 | 9.0 | 26 | 310 | 7.0 | 13 | 249 | 6.1 | 15 | 289 | 9.0 | 15 | 291 | 11.6 | 19 | 276 | 14.4 | 11 | 255 | 10.7 | 25 | 302 | 3.9 | 31 | 260 | 7.2 |
| 3,000 | 21 | 256 | 12.2 | 29 | 282 | 7.0 | 19 | 281 | 14.1 | 21 | 297 | 10.7 | 13 | 303 | 12.0 | 25 | 317 | 7.2 | 11 | 240 | 10.7 | 13 | 281 | 13.0 | --- | --- | --- | 17 | 273 | 15.5 | --- | --- | --- | 21 | 284 | 6.9 | 31 | 261 | 9.0 |
| 4,000 | 20 | 262 | 17.4 | 25 | 277 | 10.2 | 15 | 273 | 16.9 | 14 | 303 | 12.1 | 10 | 311 | 13.3 | 18 | 327 | 10.9 | 10 | 239 | 16.6 | --- | --- | --- | --- | --- | --- | 13 | 287 | 16.8 | --- | --- | --- | 18 | 296 | 9.0 | 30 | 262 | 13.4 |
| 5,000 | 19 | 255 | 19.7 | 22 | 284 | 14.2 | 13 | 263 | 23.0 | --- | --- | --- | --- | --- | --- | 16 | 328 | 14.9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 284 | 20.9 | --- | --- | --- | 16 | 296 | 13.1 | 24 | 261 | 14.6 |
| 6,000 | 15 | 253 | 21.8 | 14 | 281 | 16.3 | 11 | 265 | 25.4 | --- | --- | --- | --- | --- | --- | 15 | 332 | 13.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 284 | 20.3 | --- | --- | --- | 15 | 290 | 15.0 | 18 | 268 | 17.6 |
| 8,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11 | 273 | 23.0 | --- | --- | --- |

| Altitude (meters) m. s. l. | Ely, Nev. Nev. (1,910 m.) | | | Grand Junction, (1,413 m.) Colo. | | | Greensboro, N. C. (271 m.) | | | Havre, Mont. (767 m.) | | | Jacksonville, Fla. (16 m.) | | | Joliet, Ill. (178 m.) | | | Las Vegas, Nev. (573 m.) | | | Little Rock, Ark. (88 m.) | | | Medford, Oreg. (410 m.) | | | Miami, Fla. (15 m.) | | | Mobile, Ala. (66 m.) | | | Nashville, Tenn. (194 m.) | | | New York, N. Y. (15 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 | 29 | 316 | 2.9 | 30 | 273 | 1.9 | 24 | 238 | 2.4 | 30 | 296 | 2.0 | 30 | 127 | 1.2 | 26 | 255 | 2.1 | 31 | 70 | 0.9 | 28 | 181 | 0.5 | 29 | 321 | 1.5 | 31 | 146 | 3.2 | 28 | 205 | 0.7 | 29 | 250 | 1.7 | 28 | 295 | 2.3 |
| 500 | --- | --- | --- | --- | --- | --- | 24 | 232 | 4.5 | --- | --- | --- | 30 | 240 | 2.3 | 26 | 261 | 2.4 | --- | --- | --- | 28 | 179 | 1.6 | 29 | 321 | 1.7 | 31 | 140 | 3.4 | 28 | 207 | 1.8 | 29 | 244 | 3.2 | 28 | 281 | 3.4 |
| 1,000 | --- | --- | --- | --- | --- | --- | 24 | 239 | 5.3 | 30 | 294 | 3.2 | 29 | 244 | 4.4 | 20 | 236 | 3.6 | 31 | 10 | 0.9 | 26 | 224 | 3.2 | 29 | 304 | 1.3 | 28 | 153 | 3.6 | 22 | 244 | 2.3 | 26 | 241 | 5.6 | 25 | 282 | 6.5 |
| 1,500 | --- | --- | --- | 30 | 273 | 2.3 | 24 | 262 | 7.0 | 29 | 293 | 5.8 | 26 | 250 | 6.5 | 19 | 246 | 4.5 | 31 | 303 | 1.8 | 25 | 252 | 6.3 | 29 | 295 | 1.6 | 25 | 187 | 2.0 | 20 | 261 | 4.7 | 24 | 241 | 6.7 | 25 | 289 | 9.1 |
| 2,000 | 29 | 312 | 3.0 | 30 | 277 | 3.4 | 22 | 272 | 10.7 | 22 | 298 | 9.3 | 23 | 265 | 6.8 | 15 | 248 | 7.2 | 29 | 317 | 3.8 | 24 | 254 | 9.1 | 28 | 323 | 2.7 | 20 | 216 | 3.1 | 19 | 273 | 7.0 | 21 | 256 | 9.3 | 20 | 291 | 10.6 |
| 2,500 | 29 | 312 | 3.7 | 30 | 266 | 4.3 | 21 | 273 | 13.8 | 19 | 299 | 12.0 | 20 | 271 | 8.1 | 10 | 258 | 9.5 | 28 | 323 | 4.8 | 21 | 256 | 11.6 | 24 | 347 | 3.6 | 16 | 242 | 4.9 | 17 | 275 | 9.0 | 20 | 266 | 13.2 | 16 | 291 | 11.0 |
| 3,000 | 28 | 317 | 4.1 | 28 | 264 | 4.6 | 20 | 275 | 16.3 | 17 | 301 | 13.3 | 16 | 267 | 9.7 | --- | --- | --- | 27 | 325 | 6.1 | 18 | 266 | 15.4 | 22 | 342 | 6.3 | 13 | 243 | 5.2 | 11 | 267 | 8.1 | 16 | 271 | 15.6 | 13 | 299 | 13.4 |
| 4,000 | 21 | 333 | 9.9 | 17 | 297 | 8.0 | 18 | 270 | 20.3 | --- | --- | --- | 15 | 266 | 13.7 | --- | --- | --- | 25 | 324 | 9.6 | 14 | 272 | 18.6 | 17 | 337 | 13.5 | 10 | 255 | 5.0 | --- | --- | --- | 14 | 265 | 17.5 | --- | --- | --- |
| 5,000 | 18 | 327 | 13.5 | --- | --- | --- | 14 | 280 | 20.5 | --- | --- | --- | 14 | 269 | 15.3 | --- | --- | --- | 24 | 326 | 14.4 | 13 | 268 | 21.4 | 14 | 335 | 14.4 | 11 | 250 | 6.6 | --- | --- | --- | 12 | 266 | 21.6 | --- | --- | --- |
| 6,000 | 18 | 323 | 16.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 266 | 15.9 | --- | --- | --- | 22 | 324 | 18.4 | --- | --- | --- | 11 | 338 | 16.6 | 11 | 258 | 10.2 | --- | --- | --- | 11 | 264 | 24.3 | --- | --- | --- |
| 8,000 | 16 | 325 | 20.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 270 | 22.1 | --- | --- | --- | 14 | 335 | 18.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | | | | | | | | | | | | | | | 10 | 324 | 21.9 | | | | | | | | | | | | | | | | | | |

| 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 | 31 | 285 | 2.5 | 26 | 193 | 4.0 | 24 | 299 | 3.1 | 31 | 288 | 1.2 | 23 | 357 | 5.7 | 28 | 266 | 1.3 | 28 | 281 | 2.0 | 30 | 144 | 1.3 | 31 | 259 | 2.8 | 25 | 274 | 1.3 | 30 | 282 | 1.7 | 31 | 269 | 2.4 | 24 | 297 | 2.1 |
| 500 | 31 | 323 | 2.6 | 26 | 196 | 4.0 | 24 | 298 | 2.9 | 31 | 256 | 1.9 | --- | --- | --- | 28 | 253 | 3.0 | 28 | 271 | 1.8 | 30 | 143 | 1.5 | 31 | 276 | 2.2 | 25 | 252 | 1.1 | 30 | 236 | 1.1 | --- | --- | --- | 24 | 265 | 2.6 |
| 1,000 | 30 | 347 | 5.2 | 26 | 208 | 5.2 | 20 | 289 | 2.7 | 31 | 251 | 1.8 | 23 | 352 | 5.7 | 24 | 246 | 5.8 | 21 | 246 | 3.2 | 27 | 193 | 2.1 | 26 | 343 | 1.1 | 21 | 223 | 3.1 | 28 | 231 | 2.2 | 31 | 271 | 3.8 | 24 | 275 | 4.7 |
| 1,500 | 29 | 346 | 6.5 | 22 | 249 | 6.4 | 17 | 274 | 3.8 | 31 | 253 | 2.3 | 23 | 316 | 7.8 | 20 | 253 | 8.4 | 18 | 261 | 5.3 | 22 | 226 | 3.8 | 25 | 19 | 2.7 | 17 | 256 | 4.1 | 25 | 258 | 2.9 | 31 | 269 | 4.7 | 24 | 270 | 6.2 |
| 2,000 | 29 | 342 | 7.3 | 19 | 267 | 10.7 | 13 | 265 | 7.5 | 31 | 249 | 2.8 | 22 | 306 | 9.6 | 17 | 271 | 10.2 | 13 | 261 | 6.9 | 21 | 246 | 6.5 | 25 | 3 | 3.7 | 15 | 283 | 4.1 | 20 | 292 | 4.0 | 28 | 283 | 5.2 | 23 | 277 | 10.2 |
| 2,500 | 28 | 347 | 9.3 | 18 | 268 | 12.9 | 13 | 273 | 9.8 | 30 | 262 | 3.0 | 21 | 299 | 9.8 | 14 | 273 | 12.7 | --- | --- | --- | 17 | 259 | 8.8 | 24 | 350 | 4.9 | 11 | 296 | 5.6 | 19 | 294 | 5.8 | 23 | 308 | 6.8 | 21 | 282 | 13.4 |
| 3,000 | 28 | 346 | 9.0 | 17 | 267 | 15.7 | --- | --- | --- | 29 | 282 | 4.3 | 17 | 296 | 12.6 | 13 | 275 | 15.8 | --- | --- | --- | 16 | 261 | 9.7 | 21 | 348 | 6.2 | 10 | 298 | 7.2 | 15 | 314 | 7.9 | 19 | 306 | 6.9 | 20 | 275 | 15.7 |
| 4,000 | 26 | 333 | 11.7 | 15 | 265 | 18.6 | --- | --- | --- | 25 | 288 | 7.2 | 11 | 299 | 13.9 | 12 | 266 | 20.4 | --- | --- | --- | 12 | 259 | 14.5 | 19 | 330 | 8.7 | --- | --- | --- | --- | --- | --- | 13 | 314 | 11.1 | 17 | 280 | 19.4 |
| 5,000 | 22 | 335 | 13.3 | 14 | 269 | 23.6 | --- | --- | --- | 23 | 296 | 9.7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11 | 255 | 18.8 | 18 | 331 | 9.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 278 | 24.0 |
| 6,000 | 19 | 335 | 12.5 | 11 | 265 | 27.8 | --- | --- | --- | 21 | 301 | 12.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 261 | 21.9 | 11 | 329 | 11.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8,000 | 12 | 319 | 16.1 | --- | --- | --- | --- | --- | --- | 15 | 304 | 13.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States, based on pilot-balloon observations during March 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] | 43.2 | WSW | 2,085 | 8 | New York, N. Y. | 50.4 | WNW | 4,432 | 26 | Portland, Maine | 73.6 | NW | 10,640 | 14 | Mount Washington, N. H. |
| East-Central [2] | 40.8 | WSW | 2,437 | 8 | Hatteras, N. C. | 66.0 | WNW | 4,438 | 8 | Chattanooga, Tenn. | 74.0 | WSW | 11,324 | 24 | Washington, D. C. |
| Southeast [3] | 35.6 | SW | 1,908 | 19 | Birmingham, Ala. | 54.4 | WSW | 5,000 | 7 | Atlanta, Ga. | 60.2 | WSW | 5,244 | 7 | Atlanta, Ga. |
| North-Central [4] | 38.6 | W | 730 | 6 | Milwaukee, Wis. | 45.9 | W | 5,000 | 10 | Williston, N. Dak. | 60.8 | W | 7,695 | 28 | Sault Ste. Marie, Mich. |
| Central [5] | 43.4 | NW | 951 | 6 | Sioux City, Iowa | 46.0 | NW | 4,024 | ---- | Omaha, Nebr. | 56.8 | WNW | 9,715 | 4 | Wichita, Kans. |
| | | | | | | | | 4,574 | 8 | | 56.8 | WSW | 7,546 | 18 | Omaha, Nebr. |
| South-Central [6] | 40.0 | WSW | 1,253 | 4 | Memphis, Tenn. | 44.5 | NNE | 2,518 | 8 | Little Rock, Ark. | 64.0 | W | 10,142 | 30 | Brownsville, Tex. |
| Northwest [7] | 40.6 | WNW | 1,881 | 10 | Ellensburg, Wash. | 64.2 | W | 4,221 | 23 | Ellensburg, Wash. | 84.0 | N | 6,711 | 13 | Medford, Oreg. |
| West-Central [8] | 37.4 | W | 2,489 | 23 | Cheyenne, Wyo. | 59.3 | N | 5,000 | 13 | Redding, Calif. | 69.0 | N | 6,514 | 13 | Redding, Calif. |
| Southwest [9] | 37.0 | W | 2,098 | 5 | Roswell, N. Mex. | 50.8 | SSE | 4,983 | 2 | Las Vegas, Nev. | 67.0 | SW | 9,545 | 2 | Albuquerque, N. Mex. |

[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.

## RIVER STAGES AND FLOODS

By C. R. JORDAN

PRECIPITATION during March was abnormally heavy from the Rocky Mountains eastward, except in a few relatively small areas. Amounts were unusually heavy in the Atlantic area, especially in southern sections, the Central and East Gulf and central Rocky Mountain States, and in a belt extending from central Kansas and northern Oklahoma northeastward to the Lakes region. Southeastern South Carolina and Georgia received three times the March normals. Amounts were considerably below normal in the Southwest, especially western Texas and eastern New Mexico, and also in the Pacific States.

The southern edge of the snow cover retreated considerably during March and by the end of the month most ground in the United States was bare of snow. The ground was still covered in northern New England, the northern Lakes region and over most of Wisconsin and North Dakota. Considerable depths also remained in the higher elevations of the West.

Stream flow continued high in the Southeast and in the South Central States and was above normal over the eastern half of the country with the exception of New England and northern Michigan and Wisconsin. Stream flow continued sub-normal throughout the West except in Nevada and western Arizona. Floods in the southeastern States were the only overflow of consequence in the United States during the month and, in fact, since October 1943. In response to heavy rainfall late in February and frequently during March, especially during the latter part of the month, more-than-seasonal rises in stream flow occurred in an area extending from eastern Texas and Kansas to Virginia. Flood records of 50-years standing were broken in the Tombigbee River Basin in Mississippi, many long-standing deficiencies in reservoir storage, especially in Oklahoma, were made up during the month and light flooding occurred at scattered points throughout the country, east of the Divide.

*Atlantic Slope Drainage.*—Moderate rain near the middle of March combined with some snow melt produced a rise in the headwater tributaries of the Susquehanna River and bankful stages were reached and exceeded slightly at a number of locations north of the Pennsylvania line. Bankful stages were also approached but not reached in the North and West Branches of the Susquehanna in Pennsylvania.

Moderate to heavy rainfall late in February and frequently during March caused a succession of rises in the Atlantic coastal streams from Virginia to southern Georgia, and light to moderate flooding occurred at intervals on all streams. No long time records for the area were broken. A number of crests were recorded at the upstream stations but the rainfall occurred at such intervals that runoff from previous rains on the larger streams had not been dissipated before the effect of later rains was felt and the slowly acting coastal-plain streams remained at fairly high stages throughout most of March. The monthly discharge of most streams in the area was unusually high. It has been estimated that damage amounting to $350,000 resulted from the floods.

*East Gulf of Mexico Drainage.*—Heavy rains late in February caused most Gulf streams from western Georgia to the Mississippi River to exceed flood stages during the first few days of March. Thereafter, until about March 20, stages were generally falling. Heavy rains again fell over the area during the period March 20–23, and the effect of this storm had not passed by March 27, when heavy rainfall was again reported, with 3-day amounts of 8 inches or over in some sections. No maximum known stages were exceeded in Alabama but runoff was so well distributed throughout the month and over the State that monthly runoff for the State as a whole was one of the largest of record for any one month.

In the Tombigbee River Basin in northeast Mississippi, stages on the main stream and on some of the tributaries exceeded all recorded stages and in one instance at least, Buttahatchie River near Caledonia, Miss., the crest of the historic flood of 1892 was exceeded.

Severe flood stages were reached in the Pearl River in central and south central Mississippi. Greatest damage occurred in the Jackson area where the river rose 16.2 feet above flood stage. The flood continued into April.

Property damage was severe especially in the Tombigbee Basin. It was reported that 70 county bridges in Itawamba County alone were washed out. Damage was high both to crops already planted and as a result of the delay in planting caused by overflowed farm lands. Highway transportation was disrupted completely in some parts of the State and hundreds of people were evacuated from their homes. Several deaths are known