# METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR FEBRUARY 1942

[Climate and 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 airplanes and radiosondes during February 1942*

Stations with elevations in meters above sea level

| Altitude (meters) m. s. l. | Albuquerque, N. Mex. (1,620 m.) | | | | Atlanta, Ga. (300 m.) | | | | Bismarck, N. Dak. (505 m.) | | | | Boise, Idaho (864 m.) | | | | Brownsville, Tex. (6 m.) | | | | Buffalo, N. Y. (221 m.) | | | | Charleston, S. C. (14 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 | 28 | 834 | 2.5 | 40 | 28 | 982 | 3.4 | 69 | 28 | 958 | −8.1 | 86 | 28 | 917 | −0.5 | 76 | 28 | 1,015 | 14.7 | 87 | 28 | 988 | −6.5 | 83 | 28 | 1,015 | 5.0 | 83 |
| 500 | ---- | ---- | ---- | ---- | 28 | 958 | 4.0 | 66 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 28 | 957 | 13.8 | 79 | 28 | 954 | −7.7 | 86 | 28 | 956 | 5.9 | 66 |
| 1,000 | ---- | ---- | ---- | ---- | 28 | 901 | 2.4 | 64 | 28 | 899 | −9.3 | 89 | 28 | 901 | 0.2 | 70 | 28 | 902 | 12.2 | 72 | 28 | 894 | −9.9 | 88 | 28 | 899 | 3.5 | 60 |
| 1,500 | ---- | ---- | ---- | ---- | 28 | 847 | 1.6 | 59 | 28 | 842 | −9.9 | 88 | 28 | 847 | −2.3 | 66 | 28 | 850 | 11.1 | 64 | 28 | 837 | −11.2 | 86 | 28 | 845 | 1.3 | 59 |
| 2,000 | 28 | 796 | 2.0 | 40 | 28 | 795 | 0.1 | 57 | 28 | 789 | −10.8 | 85 | 28 | 795 | −5.2 | 67 | 28 | 800 | 9.9 | 56 | 28 | 784 | −12.0 | 83 | 28 | 794 | −0.3 | 54 |
| 2,500 | 28 | 748 | −1.5 | 40 | 28 | 747 | −2.2 | 54 | 28 | 739 | −12.8 | 81 | 28 | 745 | −8.3 | 68 | 28 | 753 | 8.0 | 51 | 28 | 734 | −13.9 | 81 | 28 | 746 | −1.8 | 50 |
| 3,000 | 28 | 702 | −5.1 | 41 | 28 | 701 | −3.9 | 49 | 28 | 692 | −15.2 | 78 | 28 | 698 | −11.1 | 66 | 28 | 709 | 6.2 | 47 | 28 | 687 | −16.0 | 77 | 28 | 700 | −3.6 | 49 |
| 4,000 | 28 | 617 | −11.8 | 41 | 27 | 617 | −8.5 | 41 | 28 | 605 | −20.8 | 75 | 28 | 612 | −17.0 | 62 | 28 | 627 | 0.4 | 49 | 28 | 601 | −20.8 | 72 | 27 | 616 | −8.5 | 48 |
| 5,000 | 28 | 541 | −18.3 | 40 | 26 | 542 | −15.1 | 40 | 28 | 528 | −27.4 | 72 | 28 | 535 | −23.3 | 60 | 28 | 553 | −5.9 | 52 | 27 | 525 | −26.6 | 68 | 26 | 541 | −14.8 | 47 |
| 6,000 | 28 | 472 | −24.9 | 39 | 26 | 474 | −21.5 | 36 | 28 | 459 | −34.5 | 71 | 28 | 466 | −30.0 | 56 | 27 | 486 | −12.0 | 54 | 27 | 456 | −32.9 | 66 | 25 | 473 | −21.0 | 48 |
| 7,000 | 26 | 411 | −31.7 | 39 | 26 | 413 | −27.4 | 35 | 28 | 396 | −42.2 | ---- | 28 | 404 | −37.3 | 54 | 26 | 426 | −18.5 | 51 | 26 | 395 | −39.4 | 66 | 24 | 413 | −27.2 | 48 |
| 8,000 | 26 | 356 | −38.5 | 38 | 23 | 359 | −33.9 | 34 | 28 | 341 | −49.1 | ---- | 28 | 349 | −44.5 | ---- | 24 | 372 | −24.9 | 50 | 26 | 340 | −44.8 | ---- | 24 | 358 | −34.2 | 47 |
| 9,000 | 26 | 307 | −44.6 | ---- | 23 | 311 | −40.7 | ---- | 28 | 292 | −54.5 | ---- | 28 | 299 | −50.6 | ---- | 23 | 323 | −31.6 | 50 | 25 | 293 | −49.6 | ---- | 23 | 309 | −41.1 | ---- |
| 10,000 | 23 | 264 | −49.5 | ---- | 23 | 268 | −47.0 | ---- | 28 | 250 | −55.8 | ---- | 28 | 256 | −54.6 | ---- | 23 | 280 | −39.2 | ---- | 22 | 251 | −53.0 | ---- | 23 | 266 | −47.7 | ---- |
| 11,000 | 21 | 226 | −53.4 | ---- | 21 | 230 | −52.2 | ---- | 27 | 214 | −54.5 | ---- | 28 | 220 | −55.9 | ---- | 23 | 242 | −46.9 | ---- | 17 | 215 | −53.7 | ---- | 22 | 229 | −52.4 | ---- |
| 12,000 | 19 | 193 | −53.7 | ---- | 21 | 197 | −55.4 | ---- | 25 | 183 | −52.7 | ---- | 28 | 188 | −55.1 | ---- | 21 | 207 | −53.6 | ---- | 14 | 183 | −52.2 | ---- | 21 | 196 | −55.4 | ---- |
| 13,000 | 16 | 165 | −54.4 | ---- | 20 | 168 | −56.4 | ---- | 24 | 156 | −52.0 | ---- | 24 | 160 | −53.9 | ---- | 21 | 177 | −59.3 | ---- | 13 | 157 | −51.4 | ---- | 18 | 167 | −57.1 | ---- |
| 14,000 | 15 | 141 | −56.5 | ---- | 20 | 143 | −58.6 | ---- | 21 | 134 | −52.6 | ---- | 21 | 137 | −53.3 | ---- | 20 | 151 | −63.5 | ---- | 11 | 134 | −51.9 | ---- | 14 | 142 | −59.0 | ---- |
| 15,000 | 14 | 120 | −59.2 | ---- | 18 | 122 | −61.1 | ---- | 11 | 115 | −52.9 | ---- | 17 | 118 | −53.5 | ---- | 20 | 127 | −68.4 | ---- | 7 | 115 | −52.8 | ---- | 10 | 121 | −61.5 | ---- |
| 16,000 | 10 | 102 | −61.6 | ---- | 16 | 104 | −63.5 | ---- | ---- | ---- | ---- | ---- | 15 | 100 | −54.4 | ---- | 14 | 108 | −73.5 | ---- | ---- | ---- | ---- | ---- | 5 | 102 | −64.9 | ---- |
| 17,000 | 10 | 86 | −61.9 | ---- | 7 | 88 | −65.9 | ---- | ---- | ---- | ---- | ---- | 12 | 86 | −54.8 | ---- | 10 | 91 | −77.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 18,000 | 5 | 73 | −63.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 73 | −54.9 | ---- | 7 | 76 | −78.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | Denver, Colo. (1,616 m.) | | | | Detroit, Mich. (194 m.) | | | | El Paso, Tex. (1,193 m) | | | | Ely, Nev. (1,908 m.) | | | | Great Falls, Mont. (1,128 m.) | | | | Huntington, W. Va. (172 m.) | | | | Joliet, Ill. (178 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 | 28 | 834 | −7.4 | 80 | 28 | 992 | −5.9 | 87 | 28 | 879 | 8.2 | 36 | 27 | 805 | −4.8 | 76 | 28 | 885 | −6.1 | 72 | 28 | 996 | −1.0 | 77 | 28 | 996 | −4.2 | 86 |
| 500 | ---- | ---- | ---- | ---- | 28 | 954 | −6.9 | 88 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 28 | 956 | −2.2 | 76 | 28 | 957 | −5.6 | 89 |
| 1,000 | ---- | ---- | ---- | ---- | 28 | 895 | −8.7 | 84 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 28 | 898 | −4.8 | 76 | 28 | 897 | −7.7 | 88 |
| 1,500 | ---- | ---- | ---- | ---- | 26 | 839 | −9.3 | 78 | 28 | 847 | 9.1 | 35 | ---- | ---- | ---- | ---- | 28 | 844 | −5.4 | 67 | 28 | 842 | −7.2 | 77 | 28 | 841 | −8.1 | 86 |
| 2,000 | 28 | 794 | −4.7 | 75 | 26 | 786 | −11.2 | 74 | 28 | 797 | 5.9 | 36 | 27 | 796 | −4.4 | 75 | 28 | 792 | −7.7 | 65 | 28 | 789 | −8.5 | 72 | 28 | 789 | −8.9 | 84 |
| 2,500 | 28 | 744 | −6.9 | 72 | 26 | 736 | −13.0 | 70 | 28 | 750 | 2.6 | 38 | 27 | 747 | −7.3 | 73 | 28 | 742 | −10.8 | 66 | 28 | 740 | −10.4 | 67 | 28 | 739 | −10.9 | 80 |
| 3,000 | 28 | 698 | −9.9 | 69 | 26 | 688 | −15.1 | 66 | 28 | 704 | −.9 | 39 | 27 | 700 | −10.7 | 74 | 28 | 695 | −13.6 | 67 | 28 | 693 | −12.5 | 64 | 28 | 692 | −13.3 | 76 |
| 4,000 | 28 | 612 | −16.8 | 69 | 26 | 602 | −20.5 | 61 | 28 | 620 | −7.6 | 40 | 27 | 614 | −15.9 | 70 | 28 | 608 | −20.1 | 68 | 28 | 608 | −17.1 | 57 | 28 | 606 | −18.8 | 74 |
| 5,000 | 28 | 535 | −23.1 | 68 | 26 | 525 | −26.0 | 59 | 27 | 545 | −13.9 | 39 | 27 | 537 | −22.5 | 65 | 26 | 531 | −26.3 | 66 | 28 | 532 | −22.8 | 55 | 28 | 530 | −24.7 | 73 |
| 6,000 | 26 | 466 | −29.6 | 68 | 26 | 456 | −32.3 | 58 | 27 | 477 | −20.5 | 37 | 26 | 467 | −29.2 | 64 | 24 | 462 | −33.2 | 65 | 28 | 463 | −28.3 | 52 | 28 | 461 | −31.0 | 71 |
| 7,000 | 24 | 404 | −36.9 | 68 | 26 | 394 | −39.0 | 56 | 27 | 416 | −27.0 | 37 | 26 | 405 | −36.5 | 62 | 23 | 399 | −40.2 | ---- | 28 | 402 | −35.3 | 51 | 28 | 399 | −38.1 | 71 |
| 8,000 | 23 | 349 | −44.2 | ---- | 25 | 340 | −44.8 | ---- | 27 | 361 | −33.3 | 38 | 25 | 350 | −43.1 | ---- | 23 | 344 | −47.1 | ---- | 26 | 348 | −42.8 | ---- | 28 | 344 | −44.5 | ---- |
| 9,000 | 22 | 300 | −50.0 | ---- | 25 | 292 | −49.4 | ---- | 26 | 313 | −40.0 | 39 | 25 | 301 | −48.6 | ---- | 23 | 295 | −52.4 | ---- | 26 | 299 | −49.6 | ---- | 26 | 296 | −51.0 | ---- |
| 10,000 | 22 | 257 | −53.6 | ---- | 25 | 250 | −52.4 | ---- | 26 | 270 | −46.0 | ---- | 25 | 258 | −52.3 | ---- | 23 | 253 | −55.0 | ---- | 26 | 256 | −53.2 | ---- | 26 | 253 | −54.9 | ---- |
| 11,000 | 21 | 220 | −55.5 | ---- | 24 | 215 | −52.0 | ---- | 26 | 232 | −51.2 | ---- | 24 | 221 | −55.1 | ---- | 23 | 216 | −55.5 | ---- | 25 | 220 | −54.9 | ---- | 23 | 217 | −54.9 | ---- |
| 12,000 | 21 | 188 | −54.8 | ---- | 23 | 184 | −50.9 | ---- | 26 | 198 | −54.8 | ---- | 21 | 189 | −55.2 | ---- | 23 | 185 | −54.4 | ---- | 21 | 188 | −55.1 | ---- | 23 | 185 | −53.3 | ---- |
| 13,000 | 19 | 161 | −53.5 | ---- | 21 | 157 | −50.4 | ---- | 25 | 170 | −56.2 | ---- | 21 | 161 | −54.3 | ---- | 23 | 158 | −52.8 | ---- | 17 | 160 | −55.1 | ---- | 22 | 158 | −52.9 | ---- |
| 14,000 | 16 | 137 | −54.5 | ---- | 16 | 135 | −50.8 | ---- | 23 | 144 | −57.9 | ---- | 19 | 138 | −54.5 | ---- | 22 | 136 | −52.6 | ---- | 13 | 137 | −56.4 | ---- | 20 | 136 | −53.4 | ---- |
| 15,000 | 16 | 117 | −56.7 | ---- | 11 | 115 | −52.6 | ---- | 20 | 123 | −61.0 | ---- | 17 | 118 | −55.7 | ---- | 18 | 116 | −52.6 | ---- | 10 | 116 | −57.6 | ---- | 18 | 116 | −54.5 | ---- |
| 16,000 | 11 | 100 | −57.9 | ---- | 6 | 99 | −55.0 | ---- | 16 | 104 | −64.5 | ---- | 15 | 101 | −56.7 | ---- | 14 | 99 | −53.4 | ---- | 5 | 99 | −60.2 | ---- | 11 | 100 | −55.4 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 88 | −65.6 | ---- | 11 | 86 | −57.8 | ---- | 6 | 85 | −53.6 | ---- | ---- | ---- | ---- | ---- | 6 | 85 | −56.1 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 73 | −58.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by airplanes and radiosondes during February 1942*—Continued

| Altitude (meters) m. s. l. | Lake Charles, La. (6 m.) | | | | Lakehurst, N. J.[1] (39 m.) | | | | Medford, Oreg. (401 m.) | | | | Miami, Fla. (4 m.) | | | | Nashville, Tenn. (180 m.) | | | | Oakland, Calif. (2 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 |
| Surface | 28 | 1,017 | 9.7 | 84 | 24 | 1,009 | −1.7 | 60 | 28 | 968 | 6.0 | 73 | 28 | 1,016 | 13.9 | 82 | 28 | 996 | 2.3 | 70 | 27 | 1,016 | 11.1 | 74 |
| 500 | 28 | 958 | 8.8 | 71 | 24 | 952 | −4.0 | 55 | 28 | 957 | 6.3 | 71 | 28 | 958 | 14.1 | 74 | 28 | 957 | 1.3 | 70 | 27 | 957 | 9.1 | 71 |
| 1,000 | 28 | 902 | 6.8 | 67 | 24 | 893 | −6.0 | 57 | 28 | 900 | 3.7 | 71 | 28 | 903 | 11.6 | 70 | 28 | 900 | −1.0 | 69 | 27 | 901 | 6.0 | 72 |
| 1,500 | 28 | 849 | 5.3 | 60 | 24 | 838 | −7.2 | 58 | 28 | 846 | 0.1 | 77 | 28 | 851 | 9.9 | 63 | 28 | 845 | −2.2 | 65 | 27 | 847 | 3.5 | 67 |
| 2,000 | 28 | 798 | 4.3 | 58 | 24 | 786 | −8.4 | 55 | 27 | 794 | −3.3 | 79 | 28 | 801 | 9.0 | 55 | 28 | 793 | −3.3 | 58 | 27 | 796 | 1.2 | 58 |
| 2,500 | 28 | 750 | 3.1 | 53 | 24 | 736 | −10.8 | 52 | 27 | 745 | −6.1 | 70 | 28 | 754 | 7.5 | 50 | 28 | 744 | −5.4 | 53 | 27 | 748 | −1.8 | 52 |
| 3,000 | 28 | 705 | 1.2 | 49 | 24 | 689 | −12.9 | 50 | 27 | 699 | −8.8 | 61 | 28 | 709 | 5.4 | 47 | 28 | 698 | −7.3 | 47 | 27 | 702 | −4.7 | 48 |
| 4,000 | 28 | 622 | −4.1 | 48 | 24 | 603 | −18.2 | 45 | 27 | 613 | −14.6 | 52 | 28 | 627 | 0.2 | 46 | 27 | 613 | −12.0 | 42 | 27 | 618 | −10.5 | 44 |
| 5,000 | 28 | 547 | −10.1 | 45 | 24 | 527 | −24.3 | 43 | 26 | 537 | −21.4 | 49 | 28 | 553 | −5.3 | 45 | 26 | 538 | −17.5 | 40 | 26 | 542 | −16.9 | 42 |
| 6,000 | 28 | 480 | −17.0 | 43 | 24 | 459 | −30.6 | 42 | 26 | 468 | −28.8 | 46 | 26 | 486 | −11.3 | 41 | 23 | 470 | −23.8 | 38 | 25 | 474 | −24.2 | 42 |
| 7,000 | 27 | 419 | −23.4 | 43 | 23 | 398 | −37.0 | 38 | 25 | 406 | −36.4 | 45 | 26 | 426 | −17.8 | 40 | 21 | 409 | −30.6 | 37 | 25 | 412 | −31.7 | 42 |
| 8,000 | 27 | 365 | −30.2 | 44 | 23 | 344 | −43.5 | ---- | 24 | 350 | −44.0 | ---- | 25 | 372 | −24.6 | 39 | 21 | 354 | −37.5 | 37 | 25 | 356 | −39.5 | 42 |
| 9,000 | 27 | 316 | −37.2 | 42 | 23 | 296 | −48.3 | ---- | 24 | 301 | −50.8 | ---- | 25 | 323 | −31.8 | 39 | 20 | 306 | −43.5 | ---- | 24 | 307 | −46.9 | ---- |
| 10,000 | 27 | 273 | −44.5 | ---- | 22 | 254 | −51.0 | ---- | 24 | 258 | −56.3 | ---- | 25 | 280 | −39.3 | ---- | 16 | 263 | −48.4 | ---- | 23 | 264 | −53.7 | ---- |
| 11,000 | 26 | 234 | −51.0 | ---- | 21 | 218 | −52.1 | ---- | 23 | 220 | −59.7 | ---- | 23 | 242 | −46.1 | ---- | 15 | 226 | −51.1 | ---- | 23 | 226 | −58.1 | ---- |
| 12,000 | 25 | 200 | −55.1 | ---- | 21 | 187 | −52.1 | ---- | 23 | 188 | −59.7 | ---- | 20 | 207 | −51.8 | ---- | 13 | 194 | −51.4 | ---- | 20 | 193 | −58.9 | ---- |
| 13,000 | 24 | 171 | −58.5 | ---- | 20 | 160 | −53.0 | ---- | 23 | 160 | −58.6 | ---- | 20 | 177 | −56.3 | ---- | 10 | 165 | −51.7 | ---- | 20 | 164 | −57.5 | ---- |
| 14,000 | 23 | 146 | −62.3 | ---- | 18 | 138 | −54.1 | ---- | 22 | 136 | −58.0 | ---- | 19 | 151 | −60.4 | ---- | 7 | 142 | −53.9 | ---- | 20 | 140 | −57.3 | ---- |
| 15,000 | 18 | 124 | −66.5 | ---- | 12 | 118 | −55.7 | ---- | 21 | 116 | −58.7 | ---- | 19 | 128 | −64.3 | ---- | 6 | 121 | −56.3 | ---- | 18 | 119 | −58.0 | ---- |
| 16,000 | 15 | 105 | −69.7 | ---- | ---- | ---- | ---- | ---- | 12 | 99 | −58.9 | ---- | 16 | 109 | −68.8 | ---- | ---- | ---- | ---- | ---- | 14 | 102 | −59.2 | ---- |
| 17,000 | 13 | 88 | −71.6 | ---- | ---- | ---- | ---- | ---- | 10 | 84 | −59.5 | ---- | 11 | 92 | −73.0 | ---- | ---- | ---- | ---- | ---- | 9 | 87 | −60.7 | ---- |
| 18,000 | 6 | 74 | −73.5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 74 | −61.3 | ---- |

| Altitude (meters) m. s. l. | Oklahoma City, Okla. (391 m.) | | | | Omaha, Nebr., (301 m.) | | | | Pensacola, Fla.[1] (24 m.) | | | | Phoenix, Ariz. (339 m.) | | | | Portland, Maine (20 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 | 26 | 971 | 3.2 | 77 | 28 | 983 | −4.0 | 86 | 23 | 1,017 | 8.6 | 69 | 28 | 973 | 9.7 | 52 | 28 | 1,005 | −6.5 | 70 | 28 | 997 | 0.4 | 79 | 28 | 993 | −5.8 | 78 |
| 500 | 26 | 958 | 3.8 | 75 | 28 | 958 | −4.1 | 82 | 23 | 960 | 7.0 | 56 | 28 | 955 | 13.9 | 46 | 28 | 945 | −8.2 | 75 | 28 | 956 | −.6 | 78 | 28 | 958 | −7.4 | 81 |
| 1,000 | 26 | 901 | 2.1 | 71 | 28 | 899 | −5.5 | 78 | 23 | 903 | 5.8 | 47 | 28 | 899 | 11.3 | 41 | 28 | 886 | −10.2 | 76 | 28 | 899 | −2.7 | 77 | 28 | 898 | −9.7 | 82 |
| 1,500 | 26 | 846 | 0.9 | 63 | 28 | 844 | −6.0 | 71 | 23 | 850 | 5.0 | 45 | 28 | 847 | 7.6 | 40 | 28 | 830 | −11.3 | 79 | 28 | 844 | −4.5 | 74 | 28 | 842 | −10.3 | 80 |
| 2,000 | 26 | 795 | −0.9 | 59 | 28 | 791 | −7.5 | 67 | 23 | 799 | 3.4 | 45 | 28 | 796 | 3.9 | 41 | 28 | 778 | −12.5 | 77 | 28 | 792 | −5.4 | 68 | 28 | 789 | −11.4 | 77 |
| 2,500 | 26 | 747 | −3.1 | 52 | 28 | 742 | −9.9 | 65 | 22 | 751 | 1.7 | 42 | 28 | 749 | .2 | 42 | 28 | 728 | −14.3 | 74 | 28 | 742 | −7.9 | 66 | 28 | 739 | −13.2 | 74 |
| 3,000 | 26 | 700 | −5.8 | 49 | 28 | 695 | −12.1 | 61 | 22 | 706 | −.4 | 43 | 27 | 703 | −3.3 | 43 | 28 | 682 | −16.5 | 73 | 28 | 696 | −9.9 | 63 | 28 | 692 | −15.7 | 72 |
| 4,000 | 26 | 616 | −11.3 | 45 | 28 | 609 | −17.5 | 57 | 18 | 622 | −4.9 | 45 | 26 | 619 | −9.3 | 40 | 27 | 596 | −22.0 | 71 | 28 | 610 | −14.8 | 58 | 28 | 605 | −20.8 | 62 |
| 5,000 | 26 | 540 | −17.6 | 43 | 28 | 532 | −23.6 | 56 | 14 | 547 | −10.0 | 53 | 26 | 543 | −15.6 | 38 | 27 | 519 | −28.1 | 67 | 27 | 534 | −20.9 | 53 | 28 | 528 | −26.6 | 57 |
| 6,000 | 25 | 472 | −24.5 | 40 | 28 | 464 | −30.5 | 54 | 13 | 480 | −16.0 | 58 | 26 | 475 | −22.3 | 39 | 27 | 451 | −34.7 | 64 | 27 | 466 | −27.7 | 49 | 28 | 459 | −33.4 | 55 |
| 7,000 | 24 | 410 | −31.6 | 40 | 28 | 402 | −37.7 | 53 | 9 | 420 | −22.2 | 54 | 25 | 414 | −29.5 | 39 | 27 | 390 | −41.2 | ---- | 27 | 404 | −34.8 | 47 | 26 | 397 | −41.0 | ---- |
| 8,000 | 24 | 355 | −38.6 | 40 | 27 | 346 | −44.8 | ---- | ---- | ---- | ---- | ---- | 24 | 359 | −36.8 | 38 | 26 | 336 | −46.0 | ---- | 27 | 349 | −41.5 | ---- | 26 | 341 | −48.2 | ---- |
| 9,000 | 24 | 306 | −45.4 | ---- | 27 | 298 | −50.7 | ---- | ---- | ---- | ---- | ---- | 24 | 310 | −43.2 | ---- | 24 | 289 | −48.8 | ---- | 27 | 301 | −47.5 | ---- | 25 | 292 | −53.9 | ---- |
| 10,000 | 24 | 264 | −51.1 | ---- | 27 | 255 | −54.1 | ---- | ---- | ---- | ---- | ---- | 23 | 267 | −48.9 | ---- | 22 | 248 | −50.3 | ---- | 26 | 259 | −52.1 | ---- | 24 | 250 | −56.5 | ---- |
| 11,000 | 23 | 226 | −55.3 | ---- | 27 | 219 | −54.2 | ---- | ---- | ---- | ---- | ---- | 21 | 229 | −53.2 | ---- | 20 | 213 | −50.8 | ---- | 26 | 222 | −54.1 | ---- | 24 | 214 | −54.8 | ---- |
| 12,000 | 23 | 193 | −56.4 | ---- | 27 | 187 | −52.7 | ---- | ---- | ---- | ---- | ---- | 21 | 196 | −55.0 | ---- | 18 | 183 | −50.5 | ---- | 24 | 189 | −53.7 | ---- | 24 | 183 | −52.8 | ---- |
| 13,000 | 20 | 165 | −56.3 | ---- | 26 | 160 | −52.7 | ---- | ---- | ---- | ---- | ---- | 20 | 168 | −56.0 | ---- | 14 | 156 | −51.2 | ---- | 22 | 162 | −53.4 | ---- | 22 | 156 | −51.9 | ---- |
| 14,000 | 19 | 140 | −57.3 | ---- | 23 | 137 | −53.5 | ---- | ---- | ---- | ---- | ---- | 19 | 143 | −56.9 | ---- | 12 | 134 | −51.8 | ---- | 15 | 138 | −54.8 | ---- | 21 | 134 | −52.5 | ---- |
| 15,000 | 18 | 119 | −59.5 | ---- | 20 | 118 | −54.6 | ---- | ---- | ---- | ---- | ---- | 18 | 122 | −59.3 | ---- | 7 | 114 | −53.0 | ---- | 12 | 118 | −55.3 | ---- | 18 | 114 | −53.4 | ---- |
| 16,000 | 15 | 102 | −61.4 | ---- | 13 | 100 | −55.9 | ---- | ---- | ---- | ---- | ---- | 16 | 104 | −60.8 | ---- | ---- | ---- | ---- | ---- | 5 | 101 | −55.8 | ---- | 15 | 98 | −54.3 | ---- |
| 17,000 | 12 | 86 | −62.9 | ---- | 8 | 86 | −56.7 | ---- | ---- | ---- | ---- | ---- | 10 | 89 | −62.4 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 7 | 84 | −55.4 | ---- |
| 18,000 | 5 | 73 | −63.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | San Antonio, Tex., (175 m.) | | | | San Diego, Calif.,[1] (19 m.) | | | | Sault Ste Marie, Mich., (221 m.) | | | | Seattle, Wash.,[1] (27 m.) | | | | Spokane, Wash., (598 m.) | | | | Washington, D. C. (25 m.) | | | | Anchorage, Alaska (42 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 | 28 | 996 | 11.7 | 70 | 27 | 1,012 | 12.6 | 77 | 28 | 991 | −9.1 | 83 | 27 | 1,015 | 4.0 | 90 | 28 | 946 | −0.7 | 84 | 28 | 1,012 | 0.3 | 56 | 28 | 1,000 | −0.1 | 80 |
| 500 | 28 | 958 | 11.3 | 66 | 27 | 956 | 11.0 | 59 | 28 | 956 | −10.1 | 84 | 27 | 957 | 3.0 | 81 | ---- | ---- | ---- | ---- | 28 | 953 | −2.2 | 57 | 28 | 944 | .4 | 73 |
| 1,000 | 28 | 902 | 8.8 | 66 | 27 | 900 | 8.8 | 47 | 28 | 896 | −11.5 | 85 | 27 | 900 | −.1 | 80 | 28 | 900 | −1.3 | 82 | 28 | 895 | −4.7 | 59 | 28 | 887 | −1.7 | 71 |
| 1,500 | 28 | 850 | 7.5 | 63 | 27 | 847 | 5.8 | 41 | 28 | 839 | −12.1 | 84 | 27 | 845 | −2.8 | 76 | 28 | 845 | −4.3 | 80 | 28 | 839 | −6.1 | 60 | 28 | 832 | −4.9 | 72 |
| 2,000 | 28 | 799 | 6.7 | 53 | 27 | 797 | 3.2 | 38 | 28 | 786 | −13.4 | 80 | 27 | 793 | −5.5 | 73 | 28 | 792 | −7.2 | 80 | 28 | 787 | −7.8 | 59 | 28 | 781 | −8.3 | 74 |
| 2,500 | 28 | 751 | 4.7 | 50 | 27 | 748 | .8 | 35 | 28 | 736 | −15.5 | 77 | 27 | 744 | −8.5 | 70 | 28 | 743 | −9.6 | 78 | 28 | 738 | −9.9 | 57 | 28 | 732 | −11.2 | 74 |
| 3,000 | 28 | 707 | 2.3 | 48 | 26 | 703 | −1.8 | 32 | 28 | 688 | −18.0 | 76 | 27 | 697 | −11.2 | 67 | 28 | 696 | −12.6 | 76 | 28 | 691 | −12.0 | 55 | 28 | 686 | −14.5 | 73 |
| 4,000 | 27 | 624 | −3.0 | 47 | 26 | 619 | −8.2 | 31 | 26 | 601 | −23.4 | 73 | 27 | 611 | −17.6 | 67 | 28 | 610 | −18.7 | 70 | 26 | 605 | −17.5 | 53 | 28 | 600 | −20.8 | 72 |
| 5,000 | 27 | 549 | −9.0 | 44 | 25 | 543 | −14.8 | 31 | 25 | 524 | −29.3 | 71 | 27 | 534 | −24.4 | 65 | 26 | 533 | −24.9 | 63 | 26 | 530 | −22.7 | 49 | 28 | 523 | −27.4 | 67 |
| 6,000 | 25 | 482 | −15.3 | 43 | 25 | 475 | −22.6 | 42 | 23 | 455 | −36.3 | 73 | 27 | 464 | −31.7 | 66 | 26 | 464 | −31.6 | 60 | 24 | 462 | −28.6 | 47 | 28 | 454 | −34.3 | 65 |
| 7,000 | 23 | 421 | −22.0 | 43 | 24 | 414 | −29.7 | 45 | 22 | 392 | −43.1 | ---- | 26 | 402 | −39.2 | 66 | 26 | 401 | −39.3 | 59 | 22 | 400 | −35.2 | 46 | 27 | 393 | −41.8 | ---- |
| 8,000 | 20 | 367 | −28.8 | 42 | 12 | 361 | −36.2 | ---- | 21 | 337 | −49.4 | ---- | 26 | 347 | −46.7 | ---- | 26 | 346 | −46.5 | ---- | 22 | 346 | −41.8 | ---- | 27 | 338 | −48.3 | ---- |
| 9,000 | 20 | 318 | −35.9 | 41 | 12 | 310 | −42.8 | ---- | 17 | 288 | −53.3 | ---- | 24 | 297 | −52.7 | ---- | 25 | 297 | −52.3 | ---- | 22 | 298 | −47.8 | ---- | 27 | 290 | −53.0 | ---- |
| 10,000 | 18 | 275 | −42.3 | ---- | 9 | 265 | −48.5 | ---- | 14 | 248 | −52.4 | ---- | 22 | 255 | −56.6 | ---- | 25 | 254 | −56.0 | ---- | 17 | 256 | −51.6 | ---- | 27 | 248 | −55.2 | ---- |
| 11,000 | 15 | 237 | −48.5 | ---- | 5 | 228 | −51.8 | ---- | 12 | 213 | −50.4 | ---- | 22 | 218 | −58.4 | ---- | 24 | 217 | −57.0 | ---- | 16 | 220 | −53.7 | ---- | 25 | 213 | −54.3 | ---- |
| 12,000 | 12 | 203 | −53.5 | ---- | ---- | ---- | ---- | ---- | 12 | 183 | −49.3 | ---- | 19 | 186 | −57.8 | ---- | 23 | 186 | −56.4 | ---- | 14 | 188 | −53.6 | ---- | 25 | 182 | −52.3 | ---- |
| 13,000 | 7 | 173 | −56.7 | ---- | ---- | ---- | ---- | ---- | 11 | 157 | −49.2 | ---- | 15 | 159 | −56.6 | ---- | 23 | 158 | −54.7 | ---- | 13 | 161 | −53.4 | ---- | 24 | 156 | −51.0 | ---- |
| 14,000 | 7 | 148 | −59.9 | ---- | ---- | ---- | ---- | ---- | 10 | 135 | −49.6 | ---- | 11 | 135 | −56.2 | ---- | 22 | 135 | −54.4 | ---- | 10 | 138 | −54.0 | ---- | 23 | 134 | −50.0 | ---- |
| 15,000 | 5 | 125 | −63.3 | ---- | ---- | ---- | ---- | ---- | 5 | 116 | −50.6 | ---- | 7 | 115 | −55.4 | ---- | 20 | 116 | −54.9 | ---- | 8 | 117 | −55.1 | ---- | 21 | 115 | −49.6 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 16 | 99 | −55.6 | ---- | 8 | 100 | −56.0 | ---- | 19 | 98 | −49.6 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 85 | −56.4 | ---- | 6 | 85 | −56.8 | ---- | 11 | 85 | −49.2 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 73 | −57.0 | ---- | ---- | ---- | ---- | ---- | 6 | 73 | −48.7 | ---- |

[1] Navy stations.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by airplanes and radiosondes during February 1942*—Continued

| Altitude (meters) m. s. l. | Barrow, Alaska, (6 m.) | | | | Bethel, Alaska, (7 m.) | | | | Fairbanks, Alaska, (156 m.) | | | | Juneau, Alaska, (49 m.) | | | | Ketchikan, Alaska, (26 m.) | | | | Nome, Alaska, (14 m.) | | | | San Juan, P. R., (15 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 | 28 | 1,018 | −22.7 | 90 | 28 | 998 | −4.8 | 80 | 28 | 989 | −8.0 | 72 | 27 | 1,008 | 2.5 | 81 | 28 | 1,012 | 4.2 | 78 | 16 | 1,002 | −9.7 | 74 | 28 | 1,013 | 23.4 | 84 |
| 500 | 28 | 953 | −18.6 | 91 | 28 | 938 | −3.6 | 79 | 28 | 947 | −6.9 | 75 | 27 | 953 | 0.2 | 79 | 28 | 956 | 2.0 | 78 | 16 | 941 | −9.2 | 79 | 28 | 959 | 20.4 | 87 |
| 1,000 | 28 | 891 | −16.0 | 85 | 28 | 880 | −4.8 | 79 | 28 | 888 | −5.9 | 77 | 27 | 895 | −2.8 | 81 | 28 | 898 | −0.9 | 75 | 16 | 882 | −9.0 | 79 | 28 | 905 | 16.9 | 86 |
| 1,500 | 28 | 833 | −16.8 | 82 | 28 | 825 | −7.5 | 79 | 28 | 833 | −6.1 | 75 | 27 | 840 | −5.4 | 80 | 28 | 843 | −3.6 | 73 | 16 | 827 | −9.5 | 76 | 28 | 854 | 14.0 | 81 |
| 2,000 | 28 | 780 | −18.2 | 78 | 28 | 774 | −10.0 | 77 | 28 | 781 | −8.6 | 73 | 27 | 788 | −7.8 | 76 | 28 | 791 | −6.2 | 70 | 16 | 775 | −11.5 | 71 | 28 | 804 | 11.9 | 70 |
| 2,500 | 28 | 729 | −20.1 | 75 | 28 | 725 | −13.0 | 74 | 28 | 732 | −11.6 | 72 | 26 | 738 | −10.3 | 74 | 28 | 742 | −8.7 | 65 | 16 | 725 | −14.1 | 64 | 28 | 758 | 10.5 | 53 |
| 3,000 | 28 | 681 | −22.6 | 74 | 27 | 678 | −16.1 | 73 | 28 | 686 | −14.9 | 71 | 26 | 692 | −13.1 | 72 | 28 | 695 | −11.3 | 63 | 16 | 679 | −17.0 | 60 | 28 | 713 | 8.8 | 41 |
| 4,000 | 28 | 593 | −28.1 | 72 | 27 | 593 | −22.6 | 69 | 28 | 599 | −21.4 | 71 | 25 | 606 | −19.1 | 70 | 28 | 609 | −17.8 | 63 | 15 | 593 | −23.2 | 55 | 28 | 631 | 3.7 | 34 |
| 5,000 | 28 | 515 | −33.9 | 70 | 27 | 517 | −28.9 | 65 | 28 | 523 | −28.1 | 70 | 24 | 529 | −25.4 | 69 | 27 | 532 | −24.1 | 61 | 15 | 517 | −29.6 | 55 | 27 | 558 | −1.2 | 26 |
| 6,000 | 28 | 446 | −40.3 | ---- | 26 | 449 | −35.9 | 64 | 27 | 454 | −34.8 | 69 | 23 | 460 | −32.4 | 64 | 27 | 463 | −30.4 | 61 | 15 | 449 | −36.2 | 55 | 25 | 491 | −7.2 | 22 |
| 7,000 | 28 | 385 | −45.5 | ---- | 25 | 388 | −42.6 | ---- | 27 | 393 | −41.7 | ---- | 23 | 398 | −39.4 | 63 | 27 | 401 | −37.0 | 60 | 13 | 387 | −43.2 | ---- | 24 | 431 | −14.1 | 21 |
| 8,000 | 28 | 331 | −49.4 | ---- | 25 | 334 | −48.6 | ---- | 27 | 338 | −48.2 | ---- | 22 | 343 | −46.5 | ---- | 25 | 347 | −43.6 | ---- | 12 | 333 | −49.8 | ---- | 23 | 378 | −21.3 | 20 |
| 9,000 | 27 | 284 | −50.8 | ---- | 24 | 286 | −52.8 | ---- | 27 | 290 | −53.5 | ---- | 21 | 295 | −52.8 | ---- | 23 | 298 | −49.9 | ---- | 12 | 285 | −54.4 | ---- | 23 | 328 | −28.8 | 20 |
| 10,000 | 23 | 244 | −49.6 | ---- | 24 | 246 | −53.2 | ---- | 26 | 248 | −55.5 | ---- | 20 | 252 | −57.1 | ---- | 20 | 255 | −54.6 | ---- | 12 | 244 | −52.5 | ---- | 23 | 285 | −36.5 | 20 |
| 11,000 | 19 | 210 | −47.5 | ---- | 23 | 211 | −50.5 | ---- | 25 | 212 | −54.0 | ---- | 17 | 215 | −58.9 | ---- | 18 | 219 | −55.8 | ---- | 11 | 210 | −48.3 | ---- | 19 | 247 | −42.6 | ---- |
| 12,000 | 17 | 180 | −46.0 | ---- | 20 | 181 | −48.5 | ---- | 25 | 181 | −51.5 | ---- | 13 | 183 | −56.9 | ---- | 16 | 186 | −54.8 | ---- | 9 | 180 | −46.0 | ---- | 16 | 213 | −47.7 | ---- |
| 13,000 | 15 | 155 | −45.4 | ---- | 17 | 155 | −47.2 | ---- | 25 | 156 | −49.4 | ---- | 8 | 155 | −52.5 | ---- | 15 | 159 | −53.6 | ---- | 7 | 155 | −45.2 | ---- | 15 | 182 | −54.4 | ---- |
| 14,000 | 10 | 133 | −45.2 | ---- | 12 | 133 | −46.6 | ---- | 21 | 134 | −49.0 | ---- | 6 | 131 | −50.3 | ---- | 14 | 136 | −51.9 | ---- | ---- | ---- | ---- | ---- | 12 | 156 | −61.7 | ---- |
| 15,000 | 5 | 115 | −45.6 | ---- | 7 | 115 | −46.4 | ---- | 14 | 115 | −49.2 | ---- | ---- | ---- | ---- | ---- | 11 | 117 | −51.1 | ---- | ---- | ---- | ---- | ---- | 8 | 132 | −69.0 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 98 | −49.5 | ---- | ---- | ---- | ---- | ---- | 10 | 100 | −51.3 | ---- | ---- | ---- | ---- | ---- | 5 | 110 | −76.1 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 84 | −49.5 | ---- | ---- | ---- | ---- | ---- | 5 | 85 | −50.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

All observations taken at 11 p. m., 75th meridian time, except at Seattle, Wash., where they are taken about 6 a. m., E. S. T.

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

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

## LATE REPORTS

| Altitude (meters) m. s. l. | DECEMBER 1941 | | | | | | | | YEAR 1941 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Barrow, Alaska (6 m.) | | | | Bethel, Alaska (7 m.) | | | | Barrow, Alaska (6 m.) | | | | Bethel, Alaska (7 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 |
| Surface | 30 | 1,006 | −20.4 | 88 | 31 | 995 | −8.9 | 74 | 365 | 1,016 | −12.0 | 91 | 355 | 1,005 | 0.6 | 76 |
| 500 | 30 | 943 | −16.9 | 87 | 31 | 934 | −4.6 | 71 | 365 | 953 | −9.7 | 85 | 355 | 946 | 1.1 | 74 |
| 1,000 | 30 | 881 | −16.4 | 84 | 31 | 877 | −6.1 | 69 | 365 | 893 | −8.9 | 77 | 355 | 888 | −0.9 | 74 |
| 1,500 | 30 | 825 | −17.0 | 80 | 31 | 822 | −8.6 | 64 | 365 | 837 | −9.6 | 71 | 355 | 834 | −3.3 | 72 |
| 2,000 | 30 | 771 | −18.6 | 72 | 31 | 770 | −11.5 | 60 | 365 | 784 | −11.3 | 68 | 355 | 783 | −6.1 | 70 |
| 2,500 | 30 | 721 | −21.0 | 67 | 31 | 722 | −14.5 | 59 | 365 | 734 | −13.6 | 66 | 355 | 734 | −8.8 | 67 |
| 3,000 | 30 | 673 | −23.8 | 66 | 31 | 675 | −17.4 | 58 | 365 | 687 | −16.2 | 64 | 351 | 688 | −11.7 | 64 |
| 4,000 | 29 | 586 | −30.2 | 65 | 31 | 590 | −23.8 | 54 | 363 | 601 | −21.9 | 61 | 349 | 603 | −17.7 | 60 |
| 5,000 | 29 | 508 | −37.1 | 66 | 31 | 514 | −30.4 | 52 | 359 | 524 | −28.3 | 59 | 344 | 527 | −24.1 | 57 |
| 6,000 | 29 | 439 | −43.8 | ---- | 30 | 446 | −37.0 | ---- | 356 | 455 | −35.0 | 55 | 339 | 458 | −30.8 | 54 |
| 7,000 | 29 | 378 | −50.0 | ---- | 28 | 385 | −43.2 | ---- | 353 | 393 | −41.7 | ---- | 334 | 397 | −37.4 | ---- |
| 8,000 | 29 | 324 | −54.8 | ---- | 28 | 331 | −48.5 | ---- | 350 | 338 | −47.7 | ---- | 329 | 343 | −43.7 | ---- |
| 9,000 | 29 | 276 | −56.8 | ---- | 28 | 284 | −52.3 | ---- | 346 | 290 | −51.7 | ---- | 322 | 295 | −48.3 | ---- |
| 10,000 | 29 | 236 | −57.0 | ---- | 28 | 243 | −54.0 | ---- | 340 | 249 | −52.5 | ---- | 316 | 253 | −50.2 | ---- |
| 11,000 | 29 | 202 | −55.9 | ---- | 27 | 208 | −53.1 | ---- | 331 | 214 | −50.9 | ---- | 313 | 218 | −49.7 | ---- |
| 12,000 | 27 | 173 | −55.2 | ---- | 27 | 178 | −51.4 | ---- | 320 | 183 | −49.5 | ---- | 305 | 187 | −48.3 | ---- |
| 13,000 | 24 | 148 | −55.5 | ---- | 27 | 153 | −51.2 | ---- | 308 | 157 | −49.1 | ---- | 291 | 160 | −47.4 | ---- |
| 14,000 | 14 | 126 | −56.0 | ---- | 25 | 131 | −50.5 | ---- | 277 | 135 | −49.2 | ---- | 278 | 138 | −47.2 | ---- |
| 15,000 | 9 | 108 | −57.1 | ---- | 21 | 112 | −49.9 | ---- | 250 | 116 | −49.4 | ---- | 251 | 118 | −47.2 | ---- |
| 16,000 | ---- | ---- | ---- | ---- | 12 | 96 | −49.2 | ---- | 207 | 100 | −48.9 | ---- | 213 | 102 | −47.4 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | 10 | 83 | −49.1 | ---- | ---- | ---- | ---- | ---- | 171 | 88 | −47.5 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | 5 | 71 | −49.0 | ---- | ---- | ---- | ---- | ---- | 117 | 75 | −47.7 | ---- |

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees Centigrade, and relative humidities in percent, obtained by airplanes and radiosondes during February 1942*—Continued

## LATE REPORTS—Continued

### JANUARY 1942

| Altitude (meters) m. s. l. | Bethel, Alaska (7 m.) | | | | San Juan, P. R. (15 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 |
| Surface | 28 | 996 | −4.7 | 75 | 31 | 1,016 | 23.7 | 85 | 31 | 1,015 | 24.8 | 79 |
| 500 | 28 | 937 | −2.4 | 72 | 31 | 961 | 21.0 | 82 | 31 | 960 | 21.9 | 82 |
| 1,000 | 28 | 880 | −3.6 | 71 | 31 | 907 | 17.6 | 84 | 31 | 906 | 18.5 | 83 |
| 1,500 | 27 | 825 | −6.3 | 71 | 31 | 856 | 14.7 | 82 | 31 | 855 | 15.5 | 81 |
| 2,000 | 27 | 774 | −9.5 | 71 | 31 | 806 | 12.3 | 74 | 31 | 805 | 13.1 | 73 |
| 2,500 | 27 | 725 | −12.4 | 69 | 31 | 759 | 10.5 | 58 | 31 | 759 | 11.0 | 64 |
| 3,000 | 26 | 679 | −15.5 | 68 | 30 | 715 | 8.5 | 44 | 31 | 714 | 8.9 | 55 |
| 4,000 | 26 | 594 | −21.7 | 66 | 29 | 633 | 3.9 | 32 | 31 | 633 | 4.2 | 46 |
| 5,000 | 25 | 517 | −28.1 | 63 | 28 | 559 | −1.3 | 25 | 30 | 559 | −0.6 | 38 |
| 6,000 | 25 | 449 | −34.7 | 62 | 27 | 493 | −7.0 | 20 | 30 | 493 | −7.0 | 32 |
| 7,000 | 25 | 388 | −41.2 | ---- | 26 | 433 | −13.8 | 19 | 29 | 433 | −13.7 | 24 |
| 8,000 | 25 | 334 | −47.0 | ---- | 26 | 379 | −21.3 | 19 | 29 | 379 | −20.5 | 20 |
| 9,000 | 25 | 287 | −50.4 | ---- | 25 | 330 | −28.5 | 18 | 28 | 330 | −28.0 | 19 |
| 10,000 | 24 | 246 | −51.4 | ---- | 25 | 287 | −35.4 | 18 | 28 | 287 | −35.7 | 18 |
| 11,000 | 24 | 212 | −51.0 | ---- | 24 | 248 | −42.8 | ---- | 28 | 248 | −43.3 | ---- |
| 12,000 | 23 | 181 | −49.4 | ---- | 20 | 213 | −49.7 | ---- | 27 | 213 | −50.9 | ---- |
| 13,000 | 22 | 155 | −48.7 | ---- | 20 | 183 | −56.4 | ---- | 27 | 182 | −58.3 | ---- |
| 14,000 | 20 | 133 | −48.2 | ---- | 18 | 156 | −62.2 | ---- | 27 | 155 | −65.4 | ---- |
| 15,000 | 12 | 114 | −47.6 | ---- | 18 | 132 | −68.2 | ---- | 25 | 131 | −72.0 | ---- |
| 16,000 | 9 | 98 | −47.8 | ---- | 15 | 112 | −73.4 | ---- | 24 | 111 | −78.5 | ---- |
| 17,000 | ---- | ---- | ---- | ---- | 13 | 93 | −78.3 | ---- | 20 | 93 | −85.0 | ---- |
| 18,000 | ---- | ---- | ---- | ---- | 11 | 78 | −82.1 | ---- | 13 | 78 | −87.5 | ---- |
| 19,000 | ---- | ---- | ---- | ---- | 7 | 66 | −82.2 | ---- | ---- | ---- | ---- | ---- |
| 20,000 | ---- | ---- | ---- | ---- | 6 | 55 | −77.9 | ---- | ---- | ---- | ---- | ---- |

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m. (75th meridian time) during February, 1942. Directions given in degrees from North (N=360°, E=90°, S=180°, W=270°)—Velocities in meters per second*

| Altitude (meters) m. s. l. | Albilene, Tex. (537 m.) | | | Albuquerque, N. Mex. (1,630 m.) | | | Atlanta, Ga. (299 m.) | | | Billings, Mont. (1,095 m.) | | | Bismarck, N. Dak. (512 m.) | | | Boise, Idaho (866 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity |
| Surface | 27 | 240 | 2.0 | 28 | 263 | 2.1 | 25 | 308 | 3.7 | 27 | 265 | 2.8 | 28 | 354 | 0.1 | 26 | 10 | 0.4 |
| 500 | ---- | ---- | ---- | ---- | ---- | ---- | 25 | 306 | 5.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 1,000 | 27 | 223 | 2.7 | ---- | ---- | ---- | 24 | 297 | 5.8 | ---- | ---- | ---- | 28 | 254 | 1.1 | 26 | 289 | .6 |
| 1,500 | 27 | 232 | 4.1 | ---- | ---- | ---- | 22 | 300 | 8.4 | 27 | 273 | 5.3 | 20 | 268 | 3.4 | 26 | 265 | 1.5 |
| 2,000 | 27 | 245 | 5.8 | 28 | 266 | 3.5 | 20 | 297 | 10.6 | 26 | 284 | 6.8 | 13 | 265 | 5.7 | 23 | 287 | 2.7 |
| 2,500 | 25 | 269 | 9.1 | 27 | 262 | 7.2 | 18 | 296 | 12.6 | 25 | 291 | 7.9 | 11 | 284 | 7.4 | 21 | 290 | 4.1 |
| 3,000 | 24 | 270 | 12.4 | 27 | 263 | 9.5 | 17 | 292 | 15.4 | 20 | 283 | 7.8 | ---- | ---- | ---- | 20 | 305 | 4.7 |
| 4,000 | 23 | 275 | 18.1 | 23 | 270 | 12.6 | 16 | 283 | 20.8 | 18 | 295 | 8.3 | ---- | ---- | ---- | 15 | 329 | 5.7 |
| 5,000 | 21 | 273 | 22.7 | 21 | 266 | 18.0 | 15 | 281 | 26.0 | 14 | 320 | 10.7 | ---- | ---- | ---- | 12 | 309 | 7.2 |
| 6,000 | 19 | 274 | 25.6 | 20 | 266 | 22.0 | 14 | 282 | 32.9 | 12 | 331 | 10.9 | ---- | ---- | ---- | 10 | 332 | 9.5 |
| 8,000 | 12 | 270 | 33.0 | 14 | 264 | 26.8 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s. l. | Brownsville, Tex. (7 m.) | | | Buffalo, N. Y. (220 m.) | | | Burlington, Vt. (132 m.) | | | Charleston, S. C. (17 m.) | | | Chicago, Ill. (192 m.) | | | Cincinnati, Ohio (152 m.) | | | Denver, Colo. (1,627 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity |
| Surface | 24 | 84 | 2.3 | 26 | 280 | 4.4 | 26 | 327 | 2.2 | 24 | 269 | 2.1 | 24 | 328 | 2.0 | 26 | 306 | 1.9 | 25 | 95 | 1.5 |
| 500 | 24 | 95 | 3.4 | 26 | 278 | 4.8 | 26 | 307 | 5.6 | 24 | 253 | 4.2 | 24 | 338 | 2.4 | 26 | 298 | 2.8 | ---- | ---- | ---- |
| 1,000 | 18 | 29 | 1.1 | 17 | 288 | 7.0 | 23 | 313 | 7.2 | 24 | 263 | 5.4 | 19 | 294 | 3.0 | 23 | 272 | 2.6 | ---- | ---- | ---- |
| 1,500 | 16 | 283 | 3.9 | 11 | 308 | 6.6 | 20 | 326 | 8.1 | 23 | 278 | 7.6 | 13 | 281 | 4.6 | 19 | 280 | 3.9 | ---- | ---- | ---- |
| 2,000 | 12 | 296 | 7.7 | 10 | 322 | 9.4 | 11 | 335 | 12.6 | 21 | 286 | 10.7 | ---- | ---- | ---- | 15 | 307 | 5.9 | 25 | 73 | .9 |
| 2,500 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 21 | 283 | 14.7 | ---- | ---- | ---- | 13 | 293 | 8.3 | 23 | 275 | 1.6 |
| 3,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 20 | 280 | 16.2 | ---- | ---- | ---- | ---- | ---- | ---- | 22 | 281 | 5.7 |
| 4,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 18 | 280 | 23.7 | ---- | ---- | ---- | ---- | ---- | ---- | 21 | 289 | 9.6 |
| 5,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 15 | 278 | 27.5 | ---- | ---- | ---- | ---- | ---- | ---- | 19 | 287 | 13.4 |
| 6,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 277 | 29.1 | ---- | ---- | ---- | ---- | ---- | ---- | 16 | 284 | 17.5 |
| 8,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 11 | 275 | 19.5 |

| Altitude (meters) m. s.l. | El Paso, Tex. m. s. l. (1,195 m.) | | | Ely, Nev. (1,910 m.) | | | Grand Junction, Colo. (1,413 m.) | | | Greensboro, N. C. (271 m.) | | | Havre, Mont. (767 m.) | | | Jacksonville, Fla. (16 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity |
| Surface | 28 | 270 | 2.9 | 26 | 354 | 1.4 | 27 | 333 | 0.7 | 26 | 289 | 3.0 | 25 | 256 | 1.7 | 24 | 316 | 2.4 |
| 500 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 26 | 294 | 5.3 | ---- | ---- | ---- | 24 | 292 | 3.8 |
| 1,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 26 | 287 | 6.5 | 25 | 255 | 3.7 | 24 | 284 | 4.8 |
| 1,500 | 28 | 271 | 3.4 | ---- | ---- | ---- | ---- | ---- | ---- | 26 | 294 | 7.9 | 24 | 271 | 6.3 | 21 | 299 | 8.0 |
| 2,000 | 28 | 261 | 4.2 | 26 | 354 | 1.6 | 27 | 309 | .4 | 23 | 296 | 10.9 | 22 | 277 | 6.4 | 20 | 293 | 10.6 |
| 2,500 | 27 | 257 | 6.6 | 26 | 319 | 1.9 | 26 | 258 | 1.6 | 20 | 300 | 13.3 | 21 | 284 | 7.2 | 18 | 290 | 13.5 |
| 3,000 | 25 | 262 | 10.4 | 26 | 294 | 3.0 | 26 | 259 | 3.2 | 20 | 294 | 14.8 | 20 | 289 | 7.7 | 18 | 286 | 16.3 |
| 4,000 | 22 | 269 | 14.5 | 19 | 288 | 6.3 | 21 | 271 | 9.5 | 18 | 293 | 21.7 | 18 | 298 | 7.4 | 16 | 284 | 21.6 |
| 5,000 | 21 | 269 | 19.6 | 15 | 278 | 9.3 | 15 | 286 | 13.5 | 15 | 290 | 29.9 | 14 | 319 | 9.2 | 13 | 284 | 25.0 |
| 6,000 | 20 | 266 | 22.6 | 14 | 274 | 12.2 | 11 | 296 | 17.0 | 14 | 294 | 36.0 | ---- | ---- | ---- | 10 | 281 | 30.0 |
| 8,000 | 13 | 270 | 29.8 | 11 | 280 | 13.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 10,000 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Altitude (meters) m. s.l. | Las Vegas, Nev. (570 m.) | | | Little Rock, Ark. (88 m.) | | | Medford, Oreg. (410 m.) | | | Miami, Fla. (10 m.) | | | Minneapolis, Minn. (265 m.) | | | Mobile Ala. (66 m.) | | | Nashville Tenn. (194 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity | Observations | Direction | Velocity |
| Surface | 28 | 40 | 2.4 | 26 | 145 | 0.3 | 27 | 302 | 0.5 | 23 | 45 | 1.3 | 25 | 349 | 1.6 | 24 | 343 | 1.9 | 25 | 311 | 2.0 |
| 500 | ---- | ---- | ---- | 26 | 218 | .6 | 27 | 289 | .6 | 23 | 53 | 1.4 | 25 | 354 | 1.8 | 24 | 344 | 1.7 | 25 | 289 | 2.6 |
| 1,000 | 28 | 48 | 1.6 | 21 | 241 | 2.8 | 27 | 190 | .9 | 23 | 243 | 1.0 | 23 | 4 | 1.6 | 21 | 314 | 3.0 | 21 | 257 | 3.9 |
| 1,500 | 28 | 336 | 0.4 | 18 | 282 | 4.9 | 27 | 216 | 2.5 | 21 | 278 | 3.7 | 19 | 1 | 1.8 | 20 | 312 | 5.0 | 18 | 278 | 5.3 |
| 2,000 | 27 | 267 | 4.5 | 16 | 286 | 10.2 | 20 | 320 | 2.5 | 17 | 272 | 9.6 | 11 | 350 | 6.9 | 19 | 288 | 10.7 | 11 | 293 | 11.1 |
| 2,500 | 28 | 260 | 2.2 | 17 | 289 | 8.4 | 26 | 233 | 2.6 | 20 | 276 | 6.1 | 13 | 337 | 4.7 | 19 | 304 | 7.1 | 13 | 291 | 8.5 |
| 3,000 | 27 | 285 | 5.8 | 13 | 284 | 12.4 | 15 | 353 | 6.3 | 15 | 274 | 12.1 | 10 | 341 | 7.1 | 19 | 279 | 13.9 | 10 | 300 | 14.9 |
| 4,000 | 26 | 300 | 10.7 | 10 | 275 | 15.0 | 12 | 357 | 11.6 | 15 | 275 | 14.5 | ---- | ---- | ---- | 18 | 279 | 18.6 | ---- | ---- | ---- |
| 5,000 | 23 | 301 | 15.2 | ---- | ---- | ---- | 11 | 355 | 15.0 | 13 | 272 | 18.2 | ---- | ---- | ---- | 12 | 270 | 20.6 | ---- | ---- | ---- |
| 6,000 | 21 | 304 | 19.4 | ---- | ---- | ---- | 11 | 348 | 14.6 | 13 | 275 | 22.8 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 8,000 | 19 | 298 | 26.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 10,000 | 14 | 284 | 33.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m. (75th meridian time) during February, 1942. 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. | New York, N. Y. (15 m.) | | | 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.) | | | San Antonio, Tex. (180 m.) | | | San Diego, Calif. (15 m.) | | | Sault St. Marie, Mich. (230 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 | 27 | 313 | 7.9 | 26 | 268 | 1.6 | 24 | 291 | 1.1 | 24 | 32 | 2.5 | 28 | 274 | 1.3 | 24 | 359 | 3.1 | 24 | 267 | 1.0 | 26 | 73 | 1.0 | 27 | 284 | 3.8 | 24 | 317 | 4.1 | 28 | 290 | 0.5 | 22 | 119 | 0.7 | 27 | 293 | 5.2 |
| 500 | 26 | 304 | 8.2 | 26 | 295 | 1.6 | 24 | 291 | 1.3 | 24 | 3 | 3.4 | 28 | 278 | 1.8 | --- | --- | --- | 24 | 277 | 2.7 | 26 | 88 | 0.8 | 27 | 288 | 3.3 | 24 | 337 | 6.6 | 28 | 180 | 1.3 | --- | --- | --- | 27 | 291 | 7.0 |
| 1,000 | 25 | 310 | 10.3 | 25 | 303 | 1.5 | 24 | 247 | 1.7 | 20 | 339 | 1.4 | 28 | 284 | 1.4 | 24 | 358 | 3.2 | 20 | 255 | 4.5 | 25 | 230 | 1.1 | 24 | 289 | 1.3 | 23 | 6 | 5.4 | 20 | 178 | 2.4 | 22 | 167 | 1.3 | 27 | 298 | 8.6 |
| 1,500 | 21 | 315 | 12.8 | 24 | 344 | 2.5 | 22 | 244 | 3.9 | 18 | 306 | 3.7 | 28 | 243 | 2.0 | 24 | 322 | 4.4 | 19 | 269 | 7.2 | 22 | 271 | 4.1 | 24 | 315 | 1.3 | 20 | 9 | 6.2 | 16 | 172 | 2.5 | 21 | 201 | 2.4 | 26 | 302 | 11.1 |
| 2,000 | 12 | 309 | 13.2 | 21 | 338 | 5.2 | 21 | 265 | 6.4 | 14 | 297 | 5.3 | 26 | 264 | 4.2 | 22 | 316 | 5.3 | 15 | 275 | 9.0 | 18 | 279 | 7.4 | 23 | 334 | 1.6 | 19 | 1 | 6.9 | 13 | 200 | 3.2 | 14 | 225 | 2.0 | 24 | 301 | 11.9 |
| 2,500 | --- | --- | --- | 18 | 347 | 7.2 | 21 | 272 | 8.9 | 13 | 299 | 6.8 | 24 | 270 | 5.2 | 20 | 298 | 6.8 | 14 | 282 | 11.6 | 18 | 274 | 11.4 | 19 | 308 | 3.9 | 18 | 357 | 6.7 | 12 | 215 | 1.9 | 11 | 274 | 3.2 | 19 | 301 | 13.7 |
| 3,000 | --- | --- | --- | 18 | 345 | 9.4 | 19 | 274 | 11.2 | 12 | 298 | 8.2 | 24 | 282 | 7.4 | 17 | 300 | 7.5 | 13 | 283 | 12.9 | 17 | 273 | 14.3 | 18 | 305 | 7.3 | 17 | 341 | 5.5 | --- | --- | --- | 10 | 301 | 4.7 | 17 | 295 | 15.7 |
| 4,000 | --- | --- | --- | 17 | 345 | 13.5 | 16 | 286 | 15.2 | 10 | 296 | 11.3 | 22 | 284 | 11.0 | 14 | 304 | 8.9 | 12 | 293 | 16.5 | 15 | 274 | 19.4 | 16 | 300 | 10.9 | 12 | 331 | 9.2 | --- | --- | --- | 10 | 312 | 5.6 | 17 | 293 | 19.3 |
| 5,000 | --- | --- | --- | 14 | 342 | 15.9 | 15 | 285 | 20.0 | 10 | 301 | 14.0 | 20 | 275 | 14.7 | 10 | 286 | 12.8 | 12 | 289 | 20.5 | 14 | 270 | 23.2 | --- | --- | --- | 11 | 337 | 8.5 | --- | --- | --- | --- | --- | --- | 13 | 289 | 24.9 |
| 6,000 | --- | --- | --- | 11 | 351 | 17.2 | 13 | 274 | 22.6 | 10 | 297 | 17.9 | 18 | 274 | 19.3 | --- | --- | --- | --- | --- | --- | 11 | 267 | 25.6 | --- | --- | --- | 10 | 333 | 7.2 | --- | --- | --- | --- | --- | --- | 13 | 291 | 30.9 |
| 8,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15 | 267 | 22.7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

TABLE 3.—*Maximum free-air wind velocities (m. p. s.), for different sections of the United States, based on pilot balloon observations during February 1942*

| Section | Surface to 2,500 meters (m. s. l.) | | | | | Between 2,500 and 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] | 49.2 | NW | 2,080 | 13 | Hartford, Conn | 43.5 | WSW | 3,740 | 17 | Portland, Maine | 90.8 | W | 9,740 | 18 | Portland, Maine. |
| East-Central [2] | 40.0 | NNW | 2,190 | 7 | Raleigh, N. C | 60.0 | W | 5,000 | 19 | Washington, D. C | 80.2 | WNW | 7,920 | 13 | Hatteras, N. C. |
| Southeast [3] | 34.9 | WSW | 2,500 | 6 | Atlanta, Ga | 46.5 | WSW | 3,630 | 17 | Montgomery, Ala | 68.4 | W | 8,750 | 2 | Jacksonville, Fla. |
| North-Central [4] | 25.1 | WNW | 2,500 | 18 | Madison, Wis | 40.4 | W | 4,920 | 16 | Bismarck, N. Dak | 58.8 | WNW | 10,550 | 6 | Rapid City, S. Dak. |
| Central [5] | 31.8 | NNW | 1,000 | 23 | Dodge City, Kans | 39.0<br>39.0 | NW<br>WNW | 4,970<br>4,860 | 4<br>19 | Wichita, Kans<br>St. Louis, Mo | 56.4 | W | 10,710 | 7 | Wichita, Kans. |
| South-Central [6] | 37.7 | NW | 1,340 | 23 | Abilene, Tex | 46.0 | WNW | 4,800 | 23 | Abilene, Tex | 83.7 | WNW | 13,460 | 21 | Abilene, Tex. |
| Northwest [7] | 36.2 | E | 460 | 2 | Tatoosh, Wash | 36.9 | NNE | 5,000 | 13 | Medford, Oreg | 60.2 | NNE | 9,300 | 13 | Medford, Oreg. |
| West-Central [8] | 45.5 | NNE | 1,360 | 13 | Oakland, Calif | 49.7 | N | 5,000 | 12 | Redding, Calif | 90.0 | NNE | 7,690 | 13 | Redding, Calif. |
| Southwest [9] | 33.2 | SSW | 2,100 | 14 | Roswell, N. Mex | 65.5 | WSW | 5,000 | 22 | Roswell, N. Mex | 91.0 | W | 10,990 | 23 | Las Vegas, Nev. |

[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 BENNETT SWENSON

During February 1942, severe flooding occurred in the Sacramento Valley, with an estimated loss of more than $1,800,000. Other floods, which were mostly light to moderate, were experienced principally along the Atlantic Seaboard from North Carolina southward and southwestward through Georgia and Alabama, in the Wabash and Illinois River basins and in portions of the North Pacific drainage.

*St. Lawrence drainage.*—Slight flooding occurred in the Maumee River basin early in the month, resulting largely from heavy rains on February 4. Precipitation was again heavy on February 6, but was mostly in the form of snow and was followed by colder weather. As a result, surface run-off was checked and the river crested at Fort Wayne, Ind., on the morning of February 7 at a stage of 15.7 feet, 0.7 foot above flood stage, but did not reach flood stage at downstream stations.

*Atlantic Slope drainage.*—Two periods of rain occurred in February which caused flooding in the streams from the Neuse and Cape Fear Rivers in North Carolina southward. The overflows were light to moderate and were caused largely by heavy rains during the first period, February 16 and 17. Heavy rains occurred also on the 24th and caused further rises or served to prolong the flooding especially in the Savannah and Altamaha Rivers. The damage caused by these floods was small.

The snow cover was moderately heavy during the month over northern New England and portions of northern New York. In other portions of the North Atlantic drainage the snow cover was mostly below normal.

In the Connecticut River basin above Hartford, Conn., the snow depth on February 28 averaged approximately 16 inches, with an average water content of 3.66 inches.

Precipitation during February was mostly below normal in the Susquehanna River basin. The heaviest snowfall of the month occurred on the 7th–8th, ranging from 2 to 20 inches in the upper basin. Slight rises occurred in the rivers on the 8th and the 18th, but at the end of the month, stream flow was only slightly higher than at the beginning of the month.

*East Gulf of Mexico drainage.*—Slight overflows occurred in the Chattahoochee, Apalachicola, Coosa, Etowah, and Oostanaula Rivers from heavy rains on February 16 and 17. Very little damage resulted from these overflows.