# METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR AUGUST 1948

## AEROLOGICAL OBSERVATIONS

[For description of change in Table 1 and charts, see REVIEW, January 1946, p. 6]

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1948*

STATIONS AND MEAN SURFACE PRESSURES

| Standard pressure surface (mb.) | Albany, N. Y. (1,004.5 mb.) | | | | Albuquerque, N. Mex. (839.4 mb.) | | | | Apalachicola, Fla. (1,014.4 mb.) | | | | Atlanta, Ga. (982.2 mb.) | | | | Big Spring, Tex. (926.4 mb.) | | | | Bismarck, N. Dak. (954.2 mb.) | | | | Boise, Idaho (912.8 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 86 | 18.9 | 83 | 31 | 1,620 | 25.3 | 40 | 21 | 5 | 25.6 | 88 | 31 | 300 | 23.5 | 81 | 31 | 774 | 28.5 | 43 | 30 | 505 | 21.3 | 65 | 31 | 868 | 23.4 | 36 |
| 1,000 | 31 | 125 | 20.3 | 77 | 31 | 44 | (*) | ---- | 21 | 131 | 25.2 | 87 | 31 | 142 | (*) | ---- | 31 | 87 | (*) | ---- | 30 | 93 | (*) | ---- | 31 | 60 | (*) | ---- |
| 950 | 31 | 573 | 19.8 | 67 | 31 | 518 | (*) | ---- | 21 | 585 | 22.8 | 85 | 31 | 595 | 23.8 | 68 | 31 | 549 | (*) | ---- | 30 | 545 | (*) | ---- | 31 | 520 | (*) | ---- |
| 900 | 31 | 1,034 | 16.9 | 66 | 31 | 1,004 | (*) | ---- | 21 | 1,053 | 20.2 | 82 | 31 | 1,064 | 20.8 | 68 | 31 | 1,031 | 28.2 | 38 | 30 | 1,013 | 21.3 | 50 | 31 | 992 | 25.5 | 26 |
| 850 | 31 | 1,519 | 13.5 | 67 | 31 | 1,510 | (*) | ---- | 21 | 1,546 | 17.2 | 82 | 31 | 1,556 | 17.2 | 71 | 31 | 1,536 | 24.5 | 42 | 30 | 1,505 | 18.1 | 51 | 31 | 1,491 | 22.5 | 25 |
| 800 | 31 | 2,026 | 9.9 | 66 | 31 | 2,042 | 23.7 | 35 | 21 | 2,062 | 14.3 | 77 | 31 | 2,072 | 13.8 | 70 | 31 | 2,063 | 20.0 | 48 | 30 | 2,021 | 14.8 | 51 | 31 | 2,013 | 18.1 | 28 |
| 750 | 31 | 2,565 | 6.4 | 67 | 31 | 2,605 | 19.6 | 39 | 21 | 2,607 | 11.4 | 73 | 31 | 2,615 | 10.8 | 64 | 31 | 2,615 | 15.3 | 55 | 30 | 2,570 | 10.8 | 55 | 31 | 2,565 | 13.4 | 32 |
| 700 | 31 | 3,122 | 2.8 | 60 | 31 | 3,190 | 14.6 | 45 | 21 | 3,180 | 8.5 | 70 | 31 | 3,186 | 7.5 | 56 | 31 | 3,197 | 10.9 | 55 | 30 | 3,136 | 6.8 | 52 | 31 | 3,136 | 8.7 | 35 |
| 650 | 31 | 3,720 | .0 | 49 | 31 | 3,812 | 9.3 | 54 | 21 | 3,790 | 5.0 | 71 | 31 | 3,798 | 4.3 | 52 | 31 | 3,813 | 6.7 | 50 | 30 | 3,740 | 3.3 | 46 | 31 | 3,748 | 3.8 | 38 |
| 600 | 31 | 4,356 | −3.5 | 43 | 31 | 4,469 | 3.7 | 65 | 21 | 4,439 | 1.3 | 67 | 31 | 4,441 | .9 | 46 | 31 | 4,464 | 2.6 | 48 | 30 | 4,385 | −1.2 | 44 | 31 | 4,388 | −1.1 | 41 |
| 550 | 31 | 5,038 | −7.5 | 40 | 30 | 5,168 | −1.8 | 73 | 21 | 5,133 | −2.6 | 64 | 31 | 5,137 | −2.9 | 42 | 31 | 5,167 | −1.5 | 44 | 30 | 5,073 | −5.9 | 42 | 31 | 5,075 | −6.4 | 43 |
| 500 | 31 | 5,774 | −12.2 | ---- | 30 | 5,920 | −6.9 | 68 | 21 | 5,885 | −6.8 | ---- | 31 | 5,885 | −7.4 | 40 | 31 | 5,916 | −5.9 | 39 | 30 | 5,813 | −11.0 | 41 | 31 | 5,814 | −11.9 | 41 |
| 450 | 30 | 6,581 | −17.6 | ---- | 30 | 6,746 | −11.3 | 54 | 21 | 6,709 | −11.9 | ---- | 31 | 6,706 | −12.2 | 42 | 30 | 6,746 | −10.7 | ---- | 29 | 6,620 | −16.7 | 43 | 31 | 6,615 | −17.6 | ---- |
| 400 | 30 | 7,444 | −23.8 | ---- | 30 | 7,631 | −16.8 | 48 | 21 | 7,592 | −17.8 | ---- | 31 | 7,589 | −18.4 | 41 | 30 | 7,631 | −16.5 | ---- | 28 | 7,490 | −22.7 | ---- | 31 | 7,484 | −24.0 | ---- |
| 350 | 30 | 8,404 | −31.2 | ---- | 30 | 8,619 | −23.8 | ---- | 20 | 8,581 | −24.3 | ---- | 31 | 8,571 | −25.7 | ---- | 30 | 8,621 | −23.4 | ---- | 27 | 8,455 | −29.8 | ---- | 31 | 8,443 | −31.2 | ---- |
| 300 | 30 | 9,479 | −39.2 | ---- | 30 | 9,726 | −32.3 | ---- | 20 | 9,686 | −32.6 | ---- | 31 | 9,668 | −34.2 | ---- | 29 | 9,729 | −31.8 | ---- | 27 | 9,534 | −38.2 | ---- | 31 | 9,516 | −39.7 | ---- |
| 250 | 30 | 10,703 | −48.3 | ---- | 30 | 10,985 | −42.1 | ---- | 20 | 10,944 | −42.4 | ---- | 30 | 10,918 | −43.7 | ---- | 29 | 10,992 | −41.4 | ---- | 27 | 10,765 | −47.0 | ---- | 31 | 10,739 | −48.1 | ---- |
| 200 | 29 | 12,147 | −54.5 | ---- | 30 | 12,457 | −53.3 | ---- | 20 | 12,411 | −54.5 | ---- | 30 | 12,382 | −54.2 | ---- | 29 | 12,469 | −52.7 | ---- | 27 | 12,215 | −54.5 | ---- | 31 | 12,188 | −53.9 | ---- |
| 175 | 29 | 12,998 | −56.4 | ---- | 29 | 13,304 | −59.4 | ---- | 20 | 13,253 | −60.9 | ---- | 30 | 13,226 | −59.6 | ---- | 29 | 13,319 | −58.3 | ---- | 26 | 13,065 | −56.1 | ---- | 31 | 13,041 | −56.0 | ---- |
| 150 | 28 | 13,973 | −59.1 | ---- | 28 | 14,256 | −65.0 | ---- | 20 | 14,196 | −67.0 | ---- | 27 | 14,171 | −64.1 | ---- | 25 | 14,270 | −64.1 | ---- | 25 | 14,038 | −58.1 | ---- | 30 | 14,012 | −58.1 | ---- |
| 125 | 24 | 15,113 | −60.9 | ---- | 18 | 15,347 | −69.4 | ---- | 18 | 15,280 | −72.4 | ---- | 22 | 15,274 | −68.2 | ---- | 21 | 15,368 | −69.4 | ---- | 21 | 15,178 | −60.0 | ---- | 30 | 15,154 | −59.9 | ---- |
| 100 | 23 | 16,503 | −61.5 | ---- | 6 | 16,698 | −65.4 | ---- | 11 | 16,574 | −71.7 | ---- | 10 | 16,604 | −66.3 | ---- | 5 | 16,714 | −69.8 | ---- | 17 | 16,565 | −59.9 | ---- | 25 | 16,546 | −60.9 | ---- |
| 80 | 20 | 17,892 | −58.1 | ---- | ---- | ---- | ---- | ---- | 6 | 17,906 | −66.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 13 | 17,953 | −57.2 | ---- | 15 | 17,957 | −58.5 | ---- |
| 60 | 15 | 19,712 | −55.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 19,797 | −53.2 | ---- | 13 | 19,776 | −56.2 | ---- |
| 50 | 10 | 20,884 | −54.4 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 20,932 | −54.8 | ---- |
| 40 | 5 | 22,311 | −52.4 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Standard pressure surface (mb.) | Brownsville, Tex. (1,011.6 mb.) | | | | Buffalo, N. Y. (990.2 mb.) | | | | Camaguey, Cuba (1,002.0 mb.) | | | | Caribou, Maine (990.3 mb.) | | | | Charleston, S. C. (1,014.9 mb.) | | | | Ciudad Victoria, Mexico (972.1 mb.) | | | | Columbia, Mo. (987.7 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 6 | 27.4 | 82 | 31 | 221 | 19.7 | 77 | 25 | 122 | 24.5 | 92 | 31 | 191 | 16.0 | 84 | 31 | 13 | 22.9 | 92 | 27 | 335 | 29.6 | 57 | 31 | 239 | 23.6 | 78 |
| 1,000 | 31 | 109 | 26.9 | 81 | 31 | 135 | (*) | ---- | 25 | 140 | 24.4 | 91 | 31 | 107 | (*) | ---- | 31 | 142 | 24.0 | 87 | 27 | 81 | (*) | ---- | 31 | 131 | (*) | ---- |
| 950 | 31 | 564 | 24.2 | 80 | 31 | 581 | 19.8 | 60 | 25 | 595 | 23.0 | 86 | 31 | 551 | 17.6 | 65 | 31 | 595 | 23.0 | 71 | 27 | 542 | 28.0 | 57 | 31 | 588 | 24.0 | 64 |
| 900 | 31 | 1,036 | 22.3 | 64 | 31 | 1,043 | 16.6 | 61 | 25 | 1,063 | 21.1 | 78 | 31 | 1,007 | 14.8 | 68 | 31 | 1,063 | 20.2 | 68 | 27 | 1,018 | 24.3 | 60 | 31 | 1,053 | 20.8 | 67 |
| 850 | 31 | 1,531 | 19.9 | 54 | 31 | 1,527 | 13.2 | 63 | 25 | 1,556 | 18.3 | 73 | 31 | 1,488 | 11.5 | 72 | 31 | 1,555 | 17.2 | 66 | 27 | 1,516 | 20.4 | 63 | 31 | 1,545 | 17.4 | 67 |
| 800 | 31 | 2,052 | 17.0 | 48 | 31 | 2,035 | 9.9 | 62 | 25 | 2,074 | 15.3 | 64 | 31 | 1,992 | 8.2 | 74 | 31 | 2,070 | 14.2 | 61 | 27 | 2,037 | 16.5 | 68 | 31 | 2,061 | 14.4 | 61 |
| 750 | 31 | 2,599 | 13.8 | 46 | 31 | 2,575 | 6.7 | 56 | 25 | 2,619 | 11.9 | 61 | 31 | 2,526 | 4.8 | 69 | 31 | 2,617 | 11.1 | 59 | 27 | 2,587 | 12.5 | 71 | 31 | 2,609 | 11.3 | 52 |
| 700 | 31 | 3,177 | 10.1 | 46 | 31 | 3,132 | 3.6 | 50 | 24 | 3,194 | 8.5 | 59 | 31 | 3,079 | 1.8 | 65 | 31 | 3,186 | 7.7 | 58 | 27 | 3,160 | 8.9 | 66 | 31 | 3,178 | 8.0 | 49 |
| 650 | 31 | 3,790 | 6.6 | 45 | 31 | 3,734 | .2 | 45 | 24 | 3,805 | 4.8 | 56 | 31 | 3,677 | −1.5 | 61 | 30 | 3,802 | 4.4 | 59 | 27 | 3,775 | 5.4 | 61 | 31 | 3,791 | 4.3 | 48 |
| 600 | 31 | 4,442 | 2.8 | 45 | 30 | 4,369 | −3.2 | 43 | 24 | 4,453 | 1.4 | 53 | 31 | 4,311 | −4.8 | 53 | 30 | 4,443 | 1.0 | 55 | 27 | 4,422 | 1.8 | 58 | 31 | 4,431 | .5 | 46 |
| 550 | 31 | 5,141 | −1.2 | 46 | 30 | 5,053 | −7.2 | 37 | 23 | 5,155 | −2.6 | 52 | 31 | 4,992 | −8.9 | 50 | 30 | 5,143 | −2.8 | 47 | 27 | 5,122 | −1.9 | 51 | 30 | 5,126 | −3.6 | 39 |
| 500 | 31 | 5,895 | −5.6 | 40 | 30 | 5,789 | −11.8 | 36 | 23 | 5,898 | −7.6 | 56 | 31 | 5,722 | −13.5 | 46 | 30 | 5,888 | −7.6 | 41 | 26 | 5,870 | −6.1 | 41 | 30 | 5,873 | −8.2 | 41 |
| 450 | 31 | 6,722 | −10.8 | 39 | 29 | 6,600 | −16.9 | ---- | 23 | 6,721 | −12.5 | 53 | 31 | 6,522 | −18.6 | 42 | 29 | 6,713 | −12.3 | 44 | 26 | 6,700 | −11.0 | 41 | 29 | 6,696 | −13.1 | 40 |
| 400 | 31 | 7,609 | −16.8 | 38 | 29 | 7,467 | −22.9 | ---- | 23 | 7,603 | −18.4 | 55 | 31 | 7,385 | −24.8 | ---- | 29 | 7,594 | −18.3 | 45 | 26 | 7,584 | −16.8 | 42 | 29 | 7,573 | −19.3 | ---- |
| 350 | 31 | 8,598 | −23.8 | ---- | 29 | 8,431 | −30.2 | ---- | 23 | 8,584 | −25.6 | ---- | 31 | 8,341 | −32.2 | ---- | 28 | 8,576 | −25.2 | ---- | 25 | 8,572 | −24.1 | ---- | 29 | 8,551 | −26.8 | ---- |
| 300 | 31 | 9,705 | −31.9 | ---- | 28 | 9,510 | −38.0 | ---- | 23 | 9,684 | −34.1 | ---- | 31 | 9,411 | −39.9 | ---- | 28 | 9,677 | −33.3 | ---- | 25 | 9,678 | −32.6 | ---- | 29 | 9,645 | −35.1 | ---- |
| 250 | 31 | 10,968 | −41.3 | ---- | 28 | 10,742 | −46.5 | ---- | 23 | 10,932 | −45.0 | ---- | 30 | 10,628 | −48.0 | ---- | 28 | 10,932 | −43.1 | ---- | 25 | 10,936 | −42.8 | ---- | 29 | 10,890 | −44.5 | ---- |
| 200 | 30 | 12,442 | −53.3 | ---- | 28 | 12,200 | −53.4 | ---- | 22 | 12,379 | −57.7 | ---- | 27 | 12,080 | −54.0 | ---- | 28 | 12,398 | −54.1 | ---- | 21 | 12,402 | −54.5 | ---- | 29 | 12,352 | −54.2 | ---- |
| 175 | 30 | 13,288 | −59.7 | ---- | 27 | 13,058 | −55.1 | ---- | 22 | 13,207 | −64.6 | ---- | 23 | 12,923 | −54.3 | ---- | 28 | 13,242 | −59.6 | ---- | 11 | 13,263 | −60.8 | ---- | 27 | 13,201 | −58.9 | ---- |
| 150 | 30 | 14,236 | −66.2 | ---- | 21 | 13,997 | −55.8 | ---- | 21 | 14,135 | −70.2 | ---- | 10 | 13,928 | −54.9 | ---- | 28 | 14,194 | −68.3 | ---- | ---- | ---- | ---- | ---- | 18 | 14,156 | −62.9 | ---- |
| 125 | 27 | 15,330 | −72.0 | ---- | 10 | 15,122 | −56.0 | ---- | 14 | 15,218 | −73.7 | ---- | ---- | ---- | ---- | ---- | 27 | 15,295 | −64.6 | ---- | ---- | ---- | ---- | ---- | 6 | 15,230 | −64.6 | ---- |
| 100 | 22 | 16,634 | −73.0 | ---- | ---- | ---- | ---- | ---- | 5 | 16,518 | −73.6 | ---- | ---- | ---- | ---- | ---- | 13 | 16,622 | −68.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 80 | 13 | 17,949 | −68.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 8 | 17,985 | −64.4 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 60 | 8 | 19,690 | −62.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Standard pressure surface (mb.) | Dodge City, Kans. (925.6 mb.) | | | | El Paso, Tex. (881.0 mb.) | | | | Ely, Nev. (809.8 mb.) | | | | Fort Worth, Tex. (988.9 mb.) | | | | Glasgow, Mont. (936.6 mb.) | | | | Grand Junction, Colo. (853.0 mb.) | | | | Great Falls, Mont. (885.9 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 792 | 22.9 | 68 | 31 | 1,195 | 29.0 | 33 | 31 | 1,908 | 20.2 | 27 | 31 | 211 | 29.7 | 48 | 31 | 648 | 22.9 | 44 | 31 | 1,474 | 23.9 | 38 | 31 | 1,128 | 21.3 | 40 |
| 1,000 | 31 | 108 | (*) | ---- | 31 | 47 | (*) | ---- | 31 | 33 | (*) | ---- | 31 | 110 | (*) | ---- | 31 | 68 | (*) | ---- | 31 | 52 | (*) | ---- | 31 | 61 | (*) | ---- |
| 950 | 31 | 566 | (*) | ---- | 31 | 519 | (*) | ---- | 31 | 502 | (*) | ---- | 31 | 575 | 29.1 | 47 | 31 | 526 | (*) | ---- | 31 | 523 | (*) | ---- | 31 | 521 | (*) | ---- |
| 900 | 31 | 1,038 | 24.9 | 57 | 31 | 1,009 | (*) | ---- | 31 | 983 | (*) | ---- | 31 | 1,049 | 25.5 | 51 | 31 | 996 | 23.0 | 40 | 31 | 1,004 | (*) | ---- | 31 | 995 | (*) | ---- |
| 850 | 31 | 1,537 | 21.7 | 54 | 31 | 1,514 | 28.1 | 30 | 31 | 1,483 | (*) | ---- | 31 | 1,550 | 21.6 | 54 | 31 | 1,491 | 19.6 | 40 | 31 | 1,505 | 24.6 | 37 | 31 | 1,486 | 20.0 | 37 |
| 800 | 31 | 2,060 | 18.6 | 49 | 31 | 2,047 | 23.8 | 33 | 31 | 2,013 | 22.7 | 22 | 31 | 2,073 | 17.9 | 57 | 31 | 2,009 | 15.7 | 43 | 31 | 2,035 | 22.6 | 32 | 31 | 2,005 | 16.1 | 40 |
| 750 | 31 | 2,614 | 15.0 | 48 | 31 | 2,608 | 18.9 | 41 | 31 | 2,574 | 18.8 | 22 | 31 | 2,625 | 14.2 | 53 | 31 | 2,558 | 11.4 | 48 | 31 | 2,596 | 18.0 | 36 | 31 | 2,553 | 11.6 | 46 |
| 700 | 31 | 3,191 | 10.9 | 50 | 31 | 3,194 | 13.6 | 48 | 31 | 3,156 | 13.5 | 25 | 31 | 3,201 | 10.5 | 49 | 31 | 3,124 | 7.0 | 49 | 31 | 3,177 | 13.1 | 40 | 31 | 3,122 | 7.1 | 52 |
| 650 | 31 | 3,807 | 6.6 | 48 | 31 | 3,813 | 8.3 | 54 | 31 | 3,777 | 7.8 | 31 | 31 | 3,820 | 6.4 | 48 | 31 | 3,732 | 2.4 | 51 | 31 | 3,798 | 7.8 | 47 | 31 | 3,728 | 2.5 | 54 |
| 600 | 30 | 4,458 | 2.0 | 47 | 31 | 4,468 | 3.2 | 55 | 31 | 4,426 | 1.9 | 40 | 31 | 4,466 | 2.0 | 49 | 31 | 4,371 | −2.1 | 46 | 31 | 4,449 | 2.2 | 55 | 31 | 4,368 | −2.3 | 59 |
| 550 | 30 | 5,155 | −2.8 | 48 | 31 | 5,168 | −1.5 | 55 | 31 | 5,119 | −4.2 | 46 | 31 | 5,174 | −1.5 | 43 | 31 | 5,058 | −6.7 | 42 | 31 | 5,145 | −3.3 | 57 | 30 | 5,057 | −7.5 | 58 |
| 500 | 29 | 5,906 | −7.3 | 45 | 31 | 5,921 | −6.4 | 56 | 31 | 5,864 | −9.6 | 44 | 31 | 5,918 | −5.8 | 40 | 31 | 5,794 | −11.8 | 42 | 31 | 5,892 | −8.5 | 53 | 30 | 5,788 | −12.9 | 58 |
| 450 | 29 | 6,727 | −12.4 | 45 | 30 | 6,749 | −11.0 | 40 | 31 | 6,677 | −14.9 | ---- | 30 | 6,750 | −10.5 | 31 | 31 | 6,601 | −17.4 | 38 | 31 | 6,714 | −13.6 | 45 | 30 | 6,592 | −18.8 | 58 |
| 400 | 29 | 7,609 | −18.2 | 46 | 30 | 7,634 | −16.8 | 35 | 30 | 7,551 | −21.2 | ---- | 30 | 7,634 | −16.5 | 32 | 31 | 7,465 | −23.8 | ---- | 31 | 7,588 | −19.3 | ---- | 29 | 7,451 | −25.0 | ---- |
| 350 | 29 | 8,593 | −25.1 | ---- | 29 | 8,623 | −23.9 | ---- | 30 | 8,522 | −28.2 | ---- | 30 | 8,623 | −23.8 | ---- | 30 | 8,424 | −31.2 | ---- | 31 | 8,567 | −26.3 | ---- | 29 | 8,407 | −32.2 | ---- |
| 300 | 29 | 9,692 | −33.6 | ---- | 29 | 9,729 | −32.2 | ---- | 29 | 9,612 | −36.0 | ---- | 30 | 9,729 | −32.4 | ---- | 30 | 9,497 | −39.7 | ---- | 31 | 9,662 | −34.6 | ---- | 28 | 9,475 | −40.5 | ---- |
| 250 | 29 | 10,944 | −43.5 | ---- | 29 | 10,988 | −42.2 | ---- | 28 | 10,857 | −45.1 | ---- | 30 | 10,988 | −42.3 | ---- | 30 | 10,717 | −49.2 | ---- | 31 | 10,911 | −44.0 | ---- | 26 | 10,695 | −49.4 | ---- |
| 200 | 29 | 12,407 | −54.4 | ---- | 28 | 12,459 | −53.9 | ---- | 28 | 12,315 | −54.3 | ---- | 30 | 12,458 | −53.8 | ---- | 30 | 12,158 | −54.1 | ---- | 31 | 12,374 | −53.9 | ---- | 22 | 12,142 | −54.7 | ---- |
| 175 | 27 | 13,249 | −60.2 | ---- | 28 | 13,302 | −60.3 | ---- | 26 | 13,162 | −58.0 | ---- | 30 | 13,303 | −60.0 | ---- | 29 | 13,008 | −55.2 | ---- | 30 | 13,221 | −58.5 | ---- | 22 | 12,993 | −55.5 | ---- |
| 150 | 17 | 14,194 | −65.7 | ---- | 27 | 14,246 | −64.7 | ---- | 22 | 14,126 | −62.4 | ---- | 30 | 14,251 | −66.0 | ---- | 29 | 13,988 | −56.5 | ---- | 28 | 14,181 | −63.1 | ---- | 18 | 13,980 | −56.0 | ---- |
| 125 | 12 | 15,282 | −69.7 | ---- | 23 | 15,327 | −72.3 | ---- | 18 | 15,239 | −66.1 | ---- | 29 | 15,344 | −71.5 | ---- | 24 | 15,146 | −57.8 | ---- | 22 | 15,291 | −66.7 | ---- | 17 | 15,138 | −58.0 | ---- |
| 100 | 8 | 16,595 | −67.7 | ---- | 11 | 16,626 | −71.9 | ---- | 14 | 16,590 | −66.3 | ---- | 26 | 16,657 | −72.0 | ---- | 21 | 16,549 | −58.8 | ---- | 9 | 16,609 | −66.8 | ---- | 7 | 16,511 | −57.8 | ---- |
| 80 | ---- | ---- | ---- | ---- | 5 | 17,974 | −66.4 | ---- | 11 | 17,952 | −62.8 | ---- | 20 | 17,995 | −67.1 | ---- | 14 | 17,959 | −57.3 | ---- | 5 | 17,980 | −61.1 | ---- | ---- | ---- | ---- | ---- |
| 60 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 19,748 | −58.8 | ---- | 15 | 19,758 | −60.9 | ---- | 7 | 19,802 | −54.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 50 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 12 | 20,897 | −58.1 | ---- | 7 | 20,972 | −53.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 40 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 22,308 | −56.2 | ---- | 5 | 22,402 | −51.9 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

See footnotes at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1948*—Continued

| Standard pressure surface (mb.) | Greensboro, N. C. (985.6 mb.) | | | | Hatteras, N. C. (1,016.1 mb.) | | | | Havana, Cuba [1] | | | | Honolulu, T. H. (1,014.0 mb.) | | | | Huntington, W. Va. (996.5 mb.) | | | | International Falls, Minn. (974.2 mb.) | | | | Joliet, Ill. (995.6 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 273 | 21.3 | 90 | 31 | 3 | 24.7 | 85 | | | | | 31 | 3 | 28.1 | 63 | 31 | 172 | 19.9 | 84 | 31 | 360 | 16.8 | 86 | 31 | 178 | 20.2 | 78 |
| 1,000 | 31 | 146 | (*) | | 31 | 143 | 24.2 | 81 | | | | | 31 | 126 | 26.2 | 65 | 31 | 141 | (*) | | 31 | 135 | (*) | | 31 | 140 | (*) | |
| 950 | 31 | 598 | 23.1 | 70 | 31 | 596 | 22.0 | 71 | | | | | 31 | 580 | 22.3 | 73 | 31 | 591 | 21.6 | 67 | 31 | 582 | 19.8 | 68 | 31 | 591 | 21.7 | 64 |
| 900 | 31 | 1,066 | 20.2 | 69 | 31 | 1,061 | 19.3 | 64 | | | | | 31 | 1,045 | 18.8 | 77 | 31 | 1,054 | 18.4 | 68 | 31 | 1,041 | 17.2 | 61 | 31 | 1,053 | 18.4 | 66 |
| 850 | 31 | 1,557 | 16.7 | 70 | 31 | 1,549 | 16.4 | 61 | | | | | 31 | 1,535 | 16.0 | 77 | 31 | 1,542 | 14.9 | 71 | 31 | 1,527 | 14.1 | 61 | 31 | 1,542 | 15.4 | 64 |
| 800 | 31 | 2,071 | 13.2 | 68 | 31 | 2,064 | 13.4 | 54 | | | | | 31 | 2,049 | 14.2 | 62 | 31 | 2,053 | 11.4 | 69 | 31 | 2,036 | 11.1 | 58 | 31 | 2,053 | 12.0 | 62 |
| 750 | 31 | 2,615 | 9.9 | 64 | 31 | 2,605 | 10.5 | 51 | | | | | 31 | 2,597 | 12.1 | 45 | 31 | 2,595 | 8.2 | 63 | 31 | 2,576 | 7.5 | 60 | 31 | 2,598 | 8.9 | 56 |
| 700 | 31 | 3,182 | 6.5 | 63 | 31 | 3,177 | 7.1 | 48 | | | | | 31 | 3,167 | 8.7 | 45 | 31 | 3,156 | 5.2 | 56 | 31 | 3,137 | 4.1 | 56 | 31 | 3,159 | 5.8 | 50 |
| 650 | 31 | 3,792 | 2.8 | 59 | 31 | 3,783 | 3.7 | 46 | | | | | 31 | 3,784 | 5.3 | 46 | 31 | 3,757 | 1.7 | 51 | 31 | 3,740 | .8 | 48 | 31 | 3,764 | 2.2 | 51 |
| 600 | 30 | 4,433 | −.3 | 54 | 31 | 4,429 | .3 | 37 | | | | | 31 | 4,426 | 2.1 | 38 | 30 | 4,400 | −1.7 | 45 | 31 | 4,376 | −3.0 | 47 | 31 | 4,405 | −1.6 | 47 |
| 550 | 30 | 5,125 | −3.8 | 47 | 30 | 5,124 | −3.7 | 39 | | | | | 31 | 5,125 | −1.3 | 36 | 30 | 5,089 | −5.3 | | 31 | 5,062 | −7.3 | 47 | 31 | 5,093 | −5.8 | 40 |
| 500 | 30 | 5,872 | −8.0 | 43 | 29 | 5,867 | −8.0 | 40 | | | | | 31 | 5,879 | −5.4 | 37 | 28 | 5,832 | −10.1 | | 31 | 5,795 | −12.2 | 44 | 31 | 5,833 | −10.3 | |
| 450 | 30 | 6,694 | −13.4 | | 29 | 6,686 | −13.0 | 42 | | | | | 31 | 6,706 | −10.6 | | 28 | 6,644 | −15.5 | | 31 | 6,604 | −17.5 | 41 | 31 | 6,646 | −15.3 | |
| 400 | 29 | 7,571 | −19.3 | | 29 | 7,566 | −19.2 | 49 | | | | | 31 | 7,594 | −16.8 | | 28 | 7,517 | −21.4 | | 31 | 7,465 | −23.8 | | 31 | 7,517 | −21.7 | |
| 350 | 29 | 8,550 | −26.2 | | 29 | 8,546 | −25.9 | | | | | | 31 | 8,582 | −24.2 | | 28 | 8,488 | −28.3 | | 31 | 8,425 | −31.1 | | 31 | 8,486 | −29.0 | |
| 300 | 29 | 9,646 | −34.4 | | 29 | 9,643 | −34.0 | | | | | | 31 | 9,686 | −32.9 | | 28 | 9,575 | −36.5 | | 31 | 9,499 | −39.4 | | 30 | 9,572 | −37.0 | |
| 250 | 29 | 10,896 | −43.7 | | 27 | 10,894 | −43.7 | | | | | | 31 | 10,942 | −43.0 | | 27 | 10,810 | −45.0 | | 30 | 10,718 | −48.6 | | 29 | 10,818 | −45.5 | |
| 200 | 29 | 12,360 | −53.9 | | 27 | 12,356 | −54.6 | | | | | | 31 | 12,407 | −54.9 | | 26 | 12,270 | −53.6 | | 29 | 12,157 | −54.3 | | 27 | 12,278 | −53.8 | |
| 175 | 29 | 13,208 | −58.3 | | 27 | 13,201 | −59.4 | | | | | | 31 | 13,247 | −61.0 | | 24 | 13,130 | −57.4 | | 28 | 13,014 | −54.3 | | 26 | 13,133 | −57.4 | |
| 150 | 26 | 14,170 | −62.4 | | 27 | 14,154 | −63.9 | | | | | | 30 | 14,191 | −66.4 | | 23 | 14,087 | −60.7 | | 27 | 13,996 | −54.9 | | 22 | 14,108 | −61.0 | |
| 125 | 15 | 15,283 | −64.9 | | 23 | 15,261 | −67.2 | | | | | | 29 | 15,287 | −68.6 | | 17 | 15,202 | −62.5 | | 23 | 15,151 | −56.0 | | 10 | 15,232 | −63.3 | |
| 100 | 5 | 16,614 | −63.8 | | 21 | 16,606 | −66.4 | | | | | | 26 | 16,628 | −68.1 | | 10 | 16,564 | −61.8 | | 14 | 16,566 | −55.6 | | | | | |
| 80 | | | | | 15 | 17,978 | −62.2 | | | | | | 22 | 17,979 | −65.1 | | 6 | 17,949 | −58.7 | | | | | | | | | |
| 60 | | | | | 9 | 19,777 | −58.5 | | | | | | 21 | 19,753 | −60.0 | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | 18 | 20,892 | −56.8 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | 12 | 22,328 | −53.6 | | | | | | | | | | | | | |

| Standard pressure surface (mb.) | Lake Charles, La. (1,013.7 mb.) | | | | Lander, Wyo. (829.8 mb.) | | | | Las Vegas, Nev. (942.6 mb.) | | | | Little Rock, Ark. (1,006.2 mb.) | | | | Mazatlan, Mexico (1,007.5 mb.) | | | | Medford, Oreg. (967.2 mb.) | | | | Merida, Mexico (1,010.7 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 5 | 26.0 | 85 | 31 | 1,696 | 21.0 | 33 | 31 | 574 | 33.3 | 15 | 31 | 79 | 25.1 | 82 | 31 | 14 | 29.2 | 75 | 31 | 401 | 23.5 | 42 | 31 | 27 | 27.0 | 79 |
| 1,000 | 31 | 126 | 26.7 | 76 | 31 | 42 | (*) | | 31 | 33 | (*) | | 31 | 134 | 25.7 | 77 | 31 | 81 | 28.7 | 76 | 31 | 107 | (*) | | 31 | 122 | 26.2 | 79 |
| 950 | 31 | 582 | 25.0 | 66 | 31 | 510 | (*) | | 31 | 506 | (*) | | 31 | 591 | 24.7 | 68 | 31 | 542 | 25.2 | 79 | 31 | 563 | 22.6 | 42 | 31 | 574 | 24.4 | 74 |
| 900 | 31 | 1,053 | 22.5 | 64 | 31 | 988 | (*) | | 31 | 991 | 31.9 | | 31 | 1,060 | 21.8 | 68 | 31 | 1,012 | 22.6 | 77 | 31 | 1,025 | 19.0 | 47 | 31 | 1,047 | 21.6 | 73 |
| 850 | 31 | 1,548 | 19.3 | 65 | 31 | 1,486 | (*) | | 31 | 1,499 | 27.4 | | 31 | 1,554 | 18.8 | 66 | 31 | 1,508 | 19.9 | 75 | 31 | 1,512 | 15.0 | 53 | 31 | 1,542 | 18.4 | 74 |
| 800 | 31 | 2,068 | 16.0 | 61 | 31 | 2,014 | 22.0 | 29 | 31 | 2,030 | 22.7 | 21 | 31 | 2,073 | 15.9 | 58 | 31 | 2,030 | 17.1 | 69 | 31 | 2,022 | 11.0 | 59 | 31 | 2,060 | 15.3 | 72 |
| 750 | 31 | 2,618 | 12.6 | 56 | 31 | 2,574 | 17.8 | 30 | 31 | 2,588 | 17.7 | 25 | 31 | 2,622 | 12.9 | 55 | 31 | 2,588 | 14.3 | 63 | 31 | 2,564 | 7.4 | 60 | 31 | 2,609 | 12.3 | 64 |
| 700 | 31 | 3,190 | 9.3 | 50 | 31 | 3,154 | 12.9 | 35 | 31 | 3,170 | 12.4 | 29 | 31 | 3,195 | 9.6 | 51 | 31 | 3,158 | 10.8 | 61 | 31 | 3,122 | 4.1 | 49 | 31 | 3,181 | 9.1 | 60 |
| 650 | 31 | 3,804 | 5.8 | 48 | 31 | 3,771 | 7.4 | 42 | 31 | 3,788 | 7.0 | 34 | 31 | 3,813 | 5.8 | 51 | 31 | 3,777 | 6.5 | 68 | 31 | 3,723 | .4 | 41 | 31 | 3,795 | 5.6 | 57 |
| 600 | 31 | 4,451 | 1.9 | 44 | 31 | 4,423 | 1.8 | 48 | 31 | 4,439 | 2.1 | 37 | 31 | 4,458 | 1.8 | 52 | 30 | 4,426 | 2.0 | 74 | 31 | 4,358 | −3.8 | 35 | 31 | 4,443 | 1.9 | 57 |
| 550 | 31 | 5,148 | −2.0 | 41 | 31 | 5,117 | −4.1 | 53 | 31 | 5,137 | −2.8 | 33 | 31 | 5,157 | −2.1 | 45 | 29 | 5,127 | −2.8 | 76 | 31 | 5,039 | −8.2 | 36 | 31 | 5,137 | −2.1 | 56 |
| 500 | 31 | 5,900 | −6.6 | 40 | 31 | 5,862 | −9.8 | 48 | 31 | 5,884 | −7.7 | | 31 | 5,906 | −6.4 | 45 | 28 | 5,876 | −7.1 | 67 | 30 | 5,772 | −13.2 | 38 | 31 | 5,892 | −6.6 | 57 |
| 450 | 31 | 6,724 | −11.3 | 38 | 31 | 6,680 | −15.4 | 39 | 31 | 6,705 | −13.0 | | 30 | 6,731 | −11.4 | 45 | 27 | 6,703 | −11.5 | 54 | 29 | 6,571 | −18.8 | 42 | 31 | 6,714 | −11.6 | 57 |
| 400 | 31 | 7,610 | −17.5 | | 31 | 7,546 | −21.4 | | 31 | 7,584 | −19.1 | | 30 | 7,618 | −17.2 | 43 | 27 | 7,587 | −17.0 | 53 | 29 | 7,432 | −25.4 | | 31 | 7,602 | −17.5 | 65 |
| 350 | 31 | 8,596 | −24.3 | | 31 | 8,516 | −28.8 | | 31 | 8,563 | −26.5 | | 29 | 8,603 | −24.4 | | 26 | 8,574 | −24.2 | | 29 | 8,387 | −32.7 | | 30 | 8,588 | −24.6 | |
| 300 | 31 | 9,701 | −32.6 | | 31 | 9,600 | −37.0 | | 31 | 9,659 | −34.8 | | 29 | 9,706 | −32.7 | | 26 | 9,679 | −32.5 | | 29 | 9,454 | −40.6 | | 30 | 9,691 | −33.2 | |
| 250 | 31 | 10,958 | −42.5 | | 31 | 10,837 | −45.8 | | 31 | 10,906 | −44.5 | | 29 | 10,963 | −42.5 | | 25 | 10,937 | −42.5 | | 28 | 10,677 | −48.9 | | 29 | 10,943 | −43.7 | |
| 200 | 31 | 12,427 | −54.4 | | 31 | 12,293 | −54.3 | | 31 | 12,366 | −54.7 | | 29 | 12,434 | −53.7 | | 12 | 12,415 | −54.0 | | 28 | 12,120 | −54.4 | | 23 | 12,402 | −56.4 | |
| 175 | 31 | 13,270 | −60.7 | | 22 | 13,137 | −57.1 | | 29 | 13,211 | −59.8 | | 28 | 13,279 | −59.1 | | | | | | 28 | 12,973 | −55.6 | | 19 | 13,237 | −63.4 | |
| 150 | 29 | 14,210 | −66.4 | | 14 | 14,099 | −60.5 | | 16 | 14,163 | −64.4 | | 28 | 14,232 | −64.5 | | | | | | 27 | 13,953 | −56.9 | | 10 | 14,191 | −70.0 | |
| 125 | 26 | 15,303 | −71.6 | | | | | | 6 | 15,256 | −67.7 | | 23 | 15,336 | −68.4 | | | | | | 24 | 15,098 | −58.6 | | | | | |
| 100 | 20 | 16,625 | −72.2 | | | | | | | | | | 12 | 16,677 | −66.8 | | | | | | 19 | 16,505 | −59.6 | | | | | |
| 80 | 14 | 17,936 | −68.9 | | | | | | | | | | 7 | 18,058 | −62.5 | | | | | | 16 | 17,906 | −58.2 | | | | | |

| Standard pressure surface (mb.) | Miami, Fla. (1,015.7 mb.) | | | | Nantucket, Mass. (1,014.2 mb.) | | | | Nashville, Tenn. (995.5 mb.) | | | | New Orleans, La. (1,014.5 mb.) | | | | North Platte, Nebr. (917.7 mb.) | | | | Oakland, Calif. (1,013.3 mb.) | | | | Ogden, Utah (863.3 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 4 | 26.2 | 84 | 26 | 14 | 19.1 | 93 | 31 | 177 | 25.0 | 66 | 30 | 2 | 25.4 | 87 | 31 | 849 | 21.8 | 69 | 31 | 6 | 16.5 | 79 | 31 | 1,355 | 23.7 | 37 |
| 1,000 | 31 | 142 | 25.9 | 82 | 26 | 136 | 20.5 | 86 | 31 | 137 | (*) | | 30 | 129 | 26.4 | 80 | 31 | 91 | (*) | | 31 | 118 | 15.5 | 79 | 31 | 41 | (*) | |
| 950 | 31 | 597 | 23.3 | 82 | 26 | 584 | 20.3 | 69 | 31 | 593 | 24.3 | 58 | 30 | 585 | 24.8 | 71 | 31 | 548 | (*) | | 31 | 563 | 17.5 | 59 | 31 | 511 | (*) | |
| 900 | 31 | 1,066 | 20.6 | 77 | 26 | 1,046 | 17.7 | 61 | 31 | 1,060 | 20.7 | 63 | 30 | 1,057 | 22.0 | 67 | 31 | 1,019 | 23.6 | 59 | 31 | 1,019 | 19.3 | 30 | 31 | 993 | (*) | |
| 850 | 31 | 1,558 | 17.7 | 73 | 26 | 1,533 | 14.8 | 61 | 31 | 1,551 | 16.9 | 68 | 30 | 1,552 | 19.0 | 63 | 31 | 1,518 | 21.3 | 54 | 31 | 1,509 | 17.9 | 22 | 31 | 1,491 | 25.3 | 28 |
| 800 | 31 | 2,075 | 14.8 | 69 | 26 | 2,043 | 11.9 | 59 | 31 | 2,066 | 13.4 | 65 | 30 | 2,071 | 15.8 | 62 | 31 | 2,040 | 17.7 | 56 | 31 | 2,024 | 15.4 | | 31 | 2,020 | 21.7 | 26 |
| 750 | 31 | 2,621 | 11.8 | 64 | 26 | 2,589 | 8.9 | 58 | 31 | 2,615 | 10.3 | 56 | 30 | 2,621 | 12.6 | 60 | 31 | 2,594 | 14.2 | 56 | 31 | 2,575 | 12.6 | | 31 | 2,581 | 17.2 | 27 |
| 700 | 31 | 3,194 | 8.5 | 66 | 26 | 3,149 | 6.0 | 52 | 31 | 3,178 | 7.4 | 51 | 30 | 3,193 | 9.4 | 57 | 31 | 3,169 | 10.2 | 54 | 31 | 3,143 | 9.1 | | 31 | 3,157 | 12.2 | 31 |
| 650 | 31 | 3,807 | 4.9 | 69 | 26 | 3,751 | 2.5 | 52 | 30 | 3,791 | 4.0 | 46 | 29 | 3,808 | 6.0 | 51 | 31 | 3,785 | 5.6 | 54 | 31 | 3,753 | 5.4 | | 31 | 3,775 | 6.8 | 39 |
| 600 | 31 | 4,453 | 1.1 | 70 | 25 | 4,397 | −.9 | 47 | 30 | 4,430 | .8 | 38 | 29 | 4,456 | 2.3 | 49 | 31 | 4,431 | .9 | 55 | 31 | 4,401 | 1.0 | | 31 | 4,424 | 1.2 | 44 |
| 550 | 31 | 5,149 | −2.8 | 66 | 25 | 5,084 | −4.7 | | 30 | 5,126 | −3.0 | 34 | 29 | 5,157 | −1.8 | 46 | 31 | 5,126 | −4.1 | 57 | 31 | 5,095 | −3.6 | | 31 | 5,115 | −4.7 | 52 |
| 500 | 31 | 5,898 | −7.0 | 62 | 25 | 5,829 | −9.3 | | 30 | 5,873 | −7.6 | | 29 | 5,907 | −6.2 | 46 | 31 | 5,870 | −9.2 | 50 | 31 | 5,840 | −8.8 | | 31 | 5,859 | −10.5 | 50 |
| 450 | 31 | 6,722 | −12.0 | 62 | 25 | 6,641 | −14.8 | | 29 | 6,696 | −12.8 | | 29 | 6,733 | −11.2 | 40 | 31 | 6,690 | −14.4 | | 31 | 6,655 | −14.7 | | 31 | 6,674 | −15.8 | |
| 400 | 31 | 7,606 | −17.7 | 61 | 25 | 7,517 | −20.7 | | 28 | 7,574 | −18.8 | | 29 | 7,619 | −16.9 | 42 | 31 | 7,560 | −20.5 | | 31 | 7,530 | −21.5 | | 31 | 7,542 | −21.6 | |
| 350 | 31 | 8,591 | −24.5 | | 25 | 8,491 | −27.7 | | 28 | 8,555 | −25.9 | | 28 | 8,607 | −23.8 | | 30 | 8,535 | −27.3 | | 31 | 8,499 | −29.0 | | 31 | 8,511 | −28.8 | |
| 300 | 31 | 9,695 | −32.9 | | 25 | 9,580 | −35.8 | | 28 | 9,653 | −34.1 | | 28 | 9,714 | −32.0 | | 30 | 9,627 | −35.4 | | 31 | 9,583 | −37.1 | | 31 | 9,596 | −36.9 | |
| 250 | 31 | 10,951 | −42.8 | | 25 | 10,821 | −45.1 | | 27 | 10,903 | −43.3 | | 27 | 10,974 | −41.9 | | 30 | 10,871 | −44.9 | | 31 | 10,822 | −45.3 | | 31 | 10,835 | −45.8 | |
| 200 | 30 | 12,419 | −54.8 | | 25 | 12,280 | −54.4 | | 25 | 12,376 | −53.3 | | 27 | 12,447 | −53.5 | | 29 | 12,330 | −54.6 | | 31 | 12,282 | −53.5 | | 29 | 12,289 | −54.2 | |
| 175 | 27 | 13,260 | −61.6 | | 25 | 13,129 | −57.4 | | 22 | 13,226 | 58.3 | | 27 | 13,293 | −59.7 | | 29 | 13,175 | −59.1 | | 31 | 13,134 | −56.8 | | 29 | 13,136 | −57.9 | |
| 150 | 26 | 14,202 | −67.3 | | 25 | 14,097 | −60.0 | | 18 | 14,178 | −62.5 | | 27 | 14,242 | −65.8 | | 28 | 14,133 | −63.6 | | 31 | 14,103 | −59.7 | | 24 | 14,103 | −61.3 | |
| 125 | 20 | 15,302 | −71.3 | | 22 | 15,227 | −62.5 | | 14 | 15,288 | −65.2 | | 25 | 15,336 | −70.2 | | 20 | 15,248 | −67.3 | | 30 | 15,233 | −62.5 | | 20 | 15,227 | −64.6 | |
| 100 | 12 | 16,626 | −71.3 | | 16 | 16,608 | −61.6 | | 7 | 16,634 | −64.4 | | 20 | 16,658 | −69.1 | | 18 | 16,588 | −66.7 | | 23 | 16,598 | −62.6 | | 11 | 16,579 | −64.6 | |
| 80 | 5 | 17,944 | −67.0 | | 13 | 18,000 | −58.3 | | | | | | 13 | 18,000 | −65.3 | | 14 | 17,961 | −62.5 | | 12 | 17,973 | −60.7 | | | | | |
| 60 | | | | | 6 | 19,818 | −55.7 | | | | | | 5 | 19,752 | −60.0 | | 11 | 19,756 | −58.2 | | | | | | | | | |

**See footnotes at end of table.**

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1948*—Continued

| Standard pressure surface (mb.) | Oklahoma City, Okla. (969.3 mb.) | | | | Omaha, Nebr. (978.7 mb.) | | | | Phoenix, Ariz. (969.2 mb.) | | | | Pittsburgh, Pa. (972.7 mb.) | | | | Portland, Maine (1,012.0 mb.) | | | | Rapid City, S. Dak. (902.8 mb.) | | | | St. Cloud, Minn. (977.8 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity | Number of observations | Dynamic height | Temperature | Relative humidity |
| Surface | 31 | 391 | 25.6 | 70 | 31 | 308 | 24.7 | 71 | 30 | 339 | 34.1 | 33 | 30 | 382 | 20.7 | 70 | 31 | 20 | 18.3 | 83 | 30 | 980 | 19.9 | 63 | 31 | 317 | 19.4 | 82 |
| 1,000 | 31 | 114 | (*) | ---- | 31 | 119 | (*) | ---- | 30 | 54 | (*) | ---- | 30 | 140 | (*) | ---- | 31 | 122 | 19.9 | 78 | 30 | 81 | (*) | ---- | 31 | 121 | (*) | ---- |
| 950 | 31 | 569 | 27.2 | 59 | 31 | 572 | 24.3 | 61 | 30 | 526 | 34.8 | 28 | 30 | 591 | 20.9 | 64 | 31 | 571 | 19.0 | 67 | 30 | 537 | (*) | ---- | 31 | 575 | 21.6 | 63 |
| 900 | 31 | 1,047 | 24.9 | 56 | 31 | 1,042 | 21.8 | 59 | 30 | 1,009 | 31.2 | 30 | 30 | 1,053 | 18.2 | 64 | 31 | 1,028 | 16.0 | 68 | 30 | 1,006 | (*) | ---- | 31 | 1,035 | 19.1 | 59 |
| 850 | 31 | 1,546 | 21.6 | 56 | 31 | 1,536 | 18.6 | 61 | 30 | 1,518 | 26.9 | 34 | 30 | 1,540 | 14.6 | 67 | 31 | 1,511 | 12.4 | 72 | 30 | 1,504 | 21.9 | 43 | 31 | 1,524 | 16.1 | 58 |
| 800 | 31 | 2,069 | 18.3 | 54 | 31 | 2,054 | 15.7 | 57 | 30 | 2,050 | 22.3 | 40 | 30 | 2,050 | 11.1 | 69 | 31 | 2,018 | 9.7 | 66 | 30 | 2,027 | 18.7 | 41 | 31 | 2,037 | 12.9 | 55 |
| 750 | 31 | 2,618 | 14.8 | 53 | 31 | 2,603 | 12.6 | 49 | 30 | 2,611 | 17.6 | 45 | 30 | 2,594 | 7.7 | 62 | 31 | 2,556 | 6.3 | 64 | 30 | 2,580 | 14.7 | 42 | 31 | 2,581 | 9.4 | 54 |
| 700 | 31 | 3,200 | 11.0 | 51 | 31 | 3,175 | 8.7 | 47 | 30 | 3,192 | 12.6 | 49 | 30 | 3,151 | 4.4 | 57 | 31 | 3,114 | 3.4 | 58 | 30 | 3,157 | 10.5 | 44 | 31 | 3,145 | 6.4 | 50 |
| 650 | 31 | 3,813 | 6.9 | 49 | 31 | 3,787 | 4.6 | 50 | 30 | 3,813 | 7.8 | 50 | 30 | 3,756 | .9 | 53 | 31 | 3,711 | −.2 | 57 | 30 | 3,769 | 6.0 | 45 | 31 | 3,752 | 3.0 | 47 |
| 600 | 31 | 4,468 | 2.6 | 48 | 31 | 4,432 | .2 | 47 | 29 | 4,463 | 2.9 | 51 | 30 | 4,391 | −2.4 | 43 | 31 | 4,348 | −3.7 | 53 | 30 | 4,420 | .9 | 50 | 31 | 4,393 | −1.2 | 45 |
| 550 | 31 | 5,166 | −1.9 | 49 | 31 | 5,130 | −4.4 | 42 | 29 | 5,167 | −1.8 | 49 | 30 | 5,081 | −6.1 | 37 | 31 | 5,029 | −7.4 | 47 | 30 | 5,110 | −4.4 | 54 | 31 | 5,083 | −5.3 | 38 |
| 500 | 28 | 5,918 | −6.4 | 40 | 31 | 5,869 | −9.0 | 40 | 29 | 5,915 | −6.3 | 46 | 30 | 5,816 | −10.9 | ---- | 30 | 5,766 | −12.1 | 43 | 30 | 5,857 | −9.7 | 52 | 31 | 5,824 | −10.0 | 36 |
| 450 | 28 | 6,741 | −11.2 | 33 | 31 | 6,688 | −14.3 | 34 | 29 | 6,747 | −11.3 | 41 | 30 | 6,626 | −16.1 | ---- | 30 | 6,570 | −17.4 | 44 | 30 | 6,670 | −14.8 | 40 | 31 | 6,637 | −15.4 | 38 |
| 400 | 28 | 7,629 | −17.1 | ---- | 31 | 7,561 | −20.5 | ---- | 29 | 7,628 | −17.1 | 41 | 30 | 7,495 | −22.2 | ---- | 30 | 7,437 | −23.6 | ---- | 30 | 7,546 | −21.1 | ---- | 31 | 7,509 | −21.6 | ---- |
| 350 | 25 | 8,617 | −24.0 | ---- | 31 | 8,533 | −27.5 | ---- | 29 | 8,615 | −24.6 | ---- | 30 | 8,464 | −28.8 | ---- | 30 | 8,398 | −30.8 | ---- | 30 | 8,518 | −28.3 | ---- | 31 | 8,477 | −29.1 | ---- |
| 300 | 24 | 9,722 | −32.3 | ---- | 30 | 9,623 | −35.8 | ---- | 29 | 9,718 | −33.2 | ---- | 29 | 9,550 | −37.1 | ---- | 30 | 9,474 | −38.7 | ---- | 30 | 9,604 | −36.7 | ---- | 31 | 9,559 | −37.5 | ---- |
| 250 | 23 | 10,982 | −41.8 | ---- | 30 | 10,866 | −45.0 | ---- | 28 | 10,973 | −43.2 | ---- | 28 | 10,779 | −46.2 | ---- | 30 | 10,702 | −47.6 | ---- | 30 | 10,843 | −45.7 | ---- | 30 | 10,788 | −46.5 | ---- |
| 200 | 21 | 12,460 | −52.2 | ---- | 30 | 12,325 | −54.6 | ---- | 28 | 12,440 | −54.6 | ---- | 28 | 12,234 | −53.9 | ---- | 29 | 12,149 | −54.3 | ---- | 30 | 12,300 | −53.8 | ---- | 27 | 12,239 | −53.0 | ---- |
| 175 | 19 | 13,307 | −58.4 | ---- | 28 | 13,170 | −58.6 | ---- | 25 | 13,283 | −61.0 | ---- | 28 | 13,085 | −56.6 | ---- | 28 | 12,999 | −56.4 | ---- | 29 | 13,151 | −57.1 | ---- | 25 | 13,088 | −55.0 | ---- |
| 150 | 18 | 14,265 | −63.5 | ---- | 27 | 14,131 | −62.2 | ---- | 13 | 14,221 | −67.0 | ---- | 28 | 14,056 | −59.1 | ---- | 26 | 13,965 | −58.0 | ---- | 28 | 14,120 | −60.5 | ---- | 18 | 14,078 | −57.1 | ---- |
| 125 | 11 | 15,367 | −67.1 | ---- | 24 | 15,249 | −65.5 | ---- | ---- | ---- | ---- | ---- | 27 | 15,192 | −61.8 | ---- | 24 | 15,103 | −58.8 | ---- | 22 | 15,254 | −63.2 | ---- | ---- | ---- | ---- | ---- |
| 100 | 6 | 16,714 | −68.0 | ---- | 24 | 16,601 | −65.3 | ---- | ---- | ---- | ---- | ---- | 23 | 16,581 | −62.0 | ---- | 22 | 16,499 | −59.2 | ---- | 16 | 16,620 | −62.9 | ---- | ---- | ---- | ---- | ---- |
| 80 | ---- | ---- | ---- | ---- | 18 | 17,978 | −62.3 | ---- | ---- | ---- | ---- | ---- | 17 | 17,956 | −58.6 | ---- | 16 | 17,896 | −57.0 | ---- | 13 | 18,001 | −59.2 | ---- | ---- | ---- | ---- | ---- |
| 60 | ---- | ---- | ---- | ---- | 12 | 19,773 | −59.1 | ---- | ---- | ---- | ---- | ---- | 11 | 19,780 | −54.7 | ---- | 10 | 19,735 | −54.7 | ---- | 8 | 19,822 | −55.8 | ---- | ---- | ---- | ---- | ---- |
| 50 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 6 | 20,917 | −54.4 | ---- | 9 | 20,899 | −53.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 40 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 22,331 | −52.3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| Standard pressure surface (mb.) | San Antonio, Tex. (984.5 mb.) | | | | San Juan, P. R. (1,014.3 mb.) | | | | Santa Maria, Calif. (1,005.5 mb.) | | | | Sault Ste. Marie, Mich. (989.8 mb.) | | | | Spokane, Wash. (930.3 mb.) | | | | Swan Island, W. I. (1,012.5 mb.) | | | | Tacubaya, Mexico (774.7 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 31 | 240 | 29.8 | 53 | 31 | 15 | 26.6 | 83 | 31 | 71 | 15.1 | 84 | 31 | 221 | 15.8 | 85 | 31 | 721 | 21.3 | 42 | 31 | 10 | 27.1 | 82 | 30 | 2,306 | 16.6 | 72 |
| 1,000 | 31 | 100 | (*) | ---- | 31 | 140 | 25.9 | 83 | 31 | 118 | 14.5 | 86 | 31 | 132 | (*) | ---- | 31 | 89 | (*) | ---- | 31 | 120 | 26.9 | 80 | 30 | 67 | (*) | ---- |
| 950 | 31 | 565 | 28.4 | 53 | 31 | 595 | 22.8 | 85 | 31 | 562 | 15.9 | 75 | 31 | 577 | 17.7 | 69 | 31 | 540 | (*) | ---- | 31 | 581 | 23.4 | 82 | 30 | 532 | (*) | ---- |
| 900 | 31 | 1,038 | 25.0 | 56 | 31 | 1,062 | 19.9 | 83 | 31 | 1,017 | 21.5 | 29 | 31 | 1,034 | 15.5 | 66 | 31 | 1,007 | 19.4 | 42 | 31 | 1,044 | 20.8 | 74 | 30 | 1,008 | (*) | ---- |
| 850 | 31 | 1,537 | 21.4 | 59 | 31 | 1,554 | 17.0 | 78 | 31 | 1,511 | 20.2 | 25 | 31 | 1,517 | 12.4 | 68 | 31 | 1,495 | 15.2 | 48 | 31 | 1,537 | 18.3 | 65 | 30 | 1,503 | (*) | ---- |
| 800 | 31 | 2,060 | 17.5 | 60 | 31 | 2,070 | 14.9 | 62 | 31 | 2,038 | 17.4 | 25 | 31 | 2,023 | 9.3 | 66 | 31 | 2,005 | 11.0 | 54 | 31 | 2,055 | 15.7 | 54 | 30 | 2,031 | (*) | ---- |
| 750 | 31 | 2,611 | 13.9 | 57 | 31 | 2,619 | 12.3 | 50 | 31 | 2,584 | 14.1 | ---- | 31 | 2,557 | 6.1 | 60 | 31 | 2,542 | 6.8 | 59 | 31 | 2,607 | 12.7 | 47 | 30 | 2,583 | 14.6 | 72 |
| 700 | 31 | 3,187 | 10.3 | 51 | 31 | 3,190 | 8.8 | 48 | 31 | 3,156 | 10.9 | ---- | 31 | 3,119 | 2.9 | 54 | 31 | 3,103 | 2.9 | 60 | 31 | 3,178 | 9.4 | 47 | 30 | 3,161 | 10.2 | 78 |
| 650 | 31 | 3,801 | 6.8 | 45 | 31 | 3,801 | 5.2 | 45 | 31 | 3,772 | 7.2 | ---- | 31 | 3,720 | −.2 | 48 | 31 | 3,699 | −1.0 | 54 | 31 | 3,796 | 5.7 | 49 | 30 | 3,777 | 5.7 | 84 |
| 600 | 31 | 4,453 | 3.1 | 40 | 30 | 4,449 | 1.4 | 41 | 31 | 4,422 | 3.0 | ---- | 31 | 4,352 | −3.7 | 41 | 31 | 4,335 | −5.0 | 46 | 30 | 4,441 | 1.9 | 47 | 30 | 4,426 | 1.2 | 89 |
| 550 | 31 | 5,160 | −.7 | 38 | 30 | 5,146 | −2.4 | 38 | 31 | 5,120 | −1.7 | ---- | 31 | 5,035 | −8.0 | 40 | 31 | 5,011 | −9.6 | 48 | 30 | 5,146 | −1.9 | 46 | 30 | 5,126 | −3.1 | 90 |
| 500 | 31 | 5,909 | −5.2 | 35 | 30 | 5,896 | −6.4 | 37 | 31 | 5,871 | −6.9 | ---- | 30 | 5,769 | −12.6 | 43 | 31 | 5,743 | −14.1 | 44 | 30 | 5,892 | −6.4 | 44 | 29 | 5,872 | −6.9 | 71 |
| 450 | 31 | 6,742 | −10.0 | ---- | 30 | 6,720 | −11.5 | 34 | 31 | 6,693 | −12.7 | ---- | 30 | 6,575 | −18.1 | 41 | 31 | 6,537 | −19.6 | 44 | 30 | 6,723 | −11.3 | 42 | 28 | 6,699 | −11.3 | 58 |
| 400 | 31 | 7,627 | −16.3 | ---- | 30 | 7,606 | −17.5 | 32 | 31 | 7,572 | −19.3 | ---- | 30 | 7,436 | −24.6 | ---- | 30 | 7,396 | −26.0 | ---- | 30 | 7,604 | −16.9 | 40 | 28 | 7,583 | −17.2 | 59 |
| 350 | 31 | 8,618 | −23.4 | ---- | 30 | 8,591 | −24.8 | ---- | 31 | 8,519 | −26.4 | ---- | 30 | 8,394 | −31.9 | ---- | 30 | 8,347 | −33.4 | ---- | 30 | 8,591 | −24.2 | ---- | 27 | 8,569 | −24.4 | ---- |
| 300 | 31 | 9,726 | −31.7 | ---- | 30 | 9,693 | −33.4 | ---- | 31 | 9,646 | −34.6 | ---- | 29 | 9,466 | −40.0 | ---- | 30 | 9,410 | −41.7 | ---- | 30 | 9,695 | −32.6 | ---- | 27 | 9,672 | −33.1 | ---- |
| 250 | 31 | 10,992 | −41.0 | ---- | 30 | 10,947 | −43.4 | ---- | 31 | 10,896 | −43.6 | ---- | 29 | 10,689 | −48.2 | ---- | 30 | 10,622 | −50.3 | ---- | 30 | 10,953 | −42.6 | ---- | 25 | 10,924 | −43.6 | ---- |
| 200 | 31 | 12,472 | −52.4 | ---- | 30 | 12,409 | −55.2 | ---- | 30 | 12,362 | −53.3 | ---- | 26 | 12,142 | −53.3 | ---- | 30 | 12,061 | −53.7 | ---- | 30 | 12,418 | −54.8 | ---- | 24 | 12,384 | −56.0 | ---- |
| 175 | 31 | 13,322 | −58.6 | ---- | 29 | 13,250 | −61.4 | ---- | 29 | 13,211 | −58.1 | ---- | 25 | 13,002 | −54.6 | ---- | 29 | 12,920 | −53.3 | ---- | 30 | 13,258 | −61.7 | ---- | 16 | 13,216 | −62.8 | ---- |
| 150 | 28 | 14,276 | −64.6 | ---- | 29 | 14,192 | −67.3 | ---- | 25 | 14,166 | −62.4 | ---- | 19 | 13,997 | −55.6 | ---- | 29 | 13,909 | −54.2 | ---- | 29 | 14,196 | −68.3 | ---- | 7 | 14,142 | −70.4 | ---- |
| 125 | 25 | 15,374 | −70.0 | ---- | 27 | 15,273 | −71.5 | ---- | 22 | 15,282 | −66.1 | ---- | 8 | 15,118 | −56.0 | ---- | 28 | 15,076 | −55.5 | ---- | 21 | 15,283 | −73.8 | ---- | ---- | ---- | ---- | ---- |
| 100 | 7 | 16,720 | −69.7 | ---- | 20 | 16,591 | −72.4 | ---- | 17 | 16,627 | −66.8 | ---- | ---- | ---- | ---- | ---- | 25 | 16,500 | −56.2 | ---- | 10 | 16,584 | −74.1 | ---- | ---- | ---- | ---- | ---- |
| 80 | ---- | ---- | ---- | ---- | 8 | 17,931 | −68.4 | ---- | 11 | 17,995 | −63.8 | ---- | ---- | ---- | ---- | ---- | 19 | 17,926 | −55.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 60 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 5 | 19,800 | −57.9 | ---- | ---- | ---- | ---- | ---- | 14 | 19,768 | −53.4 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 50 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 7 | 20,976 | −52.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

| | Tampa, Fla. (1,015.4 mb.) | | | | Tatoosh Island, Wash. (1,013.2 mb.) | | | | Toledo, Ohio (993.9 mb.) | | | | Washington, D. C. (1,013.6 mb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 28 | 9 | 25.3 | 87 | 31 | 31 | 13.2 | 94 | 31 | 191 | 19.7 | 79 | 31 | 25 | 22.5 | 83 |
| 1,000 | 28 | 144 | 25.6 | 85 | 31 | 141 | 12.6 | 92 | 31 | 138 | (*) | ---- | 31 | 143 | 23.0 | 76 |
| 950 | 28 | 597 | 22.4 | 84 | 31 | 580 | 11.6 | 85 | 31 | 585 | 21.3 | 55 | 31 | 592 | 21.5 | 65 |
| 900 | 28 | 1,064 | 19.7 | 80 | 31 | 1,023 | 10.3 | 77 | 31 | 1,050 | 17.9 | 58 | 31 | 1,058 | 18.6 | 64 |
| 850 | 28 | 1,556 | 16.8 | 77 | 31 | 1,498 | 8.5 | 71 | 31 | 1,537 | 14.2 | 61 | 31 | 1,546 | 15.5 | 60 |
| 800 | 28 | 2,071 | 13.8 | 75 | 31 | 1,997 | 6.0 | 68 | 31 | 2,046 | 10.8 | 57 | 31 | 2,058 | 12.2 | 60 |
| 750 | 28 | 2,614 | 10.8 | 71 | 31 | 2,534 | 3.5 | 58 | 31 | 2,586 | 8.0 | 50 | 31 | 2,599 | 8.8 | 56 |
| 700 | 28 | 3,185 | 7.5 | 70 | 31 | 3,081 | .6 | 54 | 31 | 3,148 | 5.1 | 44 | 31 | 3,164 | 5.2 | 57 |
| 650 | 28 | 3,796 | 4.1 | 67 | 30 | 3,679 | −2.8 | 49 | 31 | 3,753 | 1.8 | 40 | 30 | 3,769 | 2.0 | 53 |
| 600 | 28 | 4,440 | .5 | 66 | 30 | 4,304 | −6.4 | 54 | 31 | 4,392 | −2.0 | 38 | 30 | 4,410 | −1.7 | 49 |
| 550 | 28 | 5,132 | −3.3 | 66 | 30 | 4,984 | −10.4 | 46 | 31 | 5,078 | −5.9 | 35 | 30 | 5,095 | −5.9 | 46 |
| 500 | 28 | 5,883 | −7.4 | 62 | 30 | 5,707 | −15.2 | 45 | 31 | 5,819 | −10.5 | ---- | 30 | 5,838 | −10.3 | 42 |
| 450 | 28 | 6,704 | −12.2 | 59 | 30 | 6,502 | −20.6 | ---- | 30 | 6,631 | −16.1 | ---- | 30 | 6,646 | −15.2 | ---- |
| 400 | 28 | 7,589 | −17.8 | 59 | 30 | 7,357 | −27.0 | ---- | 30 | 7,500 | −22.6 | ---- | 30 | 7,523 | −21.2 | ---- |
| 350 | 27 | 8,576 | −24.5 | ---- | 30 | 8,305 | −34.3 | ---- | 30 | 8,467 | −29.5 | ---- | 30 | 8,494 | −28.2 | ---- |
| 300 | 26 | 9,680 | −32.6 | ---- | 30 | 9,365 | −42.2 | ---- | 30 | 9,548 | −37.6 | ---- | 29 | 9,575 | −36.5 | ---- |
| 250 | 26 | 10,937 | −42.5 | ---- | 30 | 10,577 | −49.0 | ---- | 30 | 10,783 | −46.5 | ---- | 29 | 10,813 | −45.9 | ---- |
| 200 | 26 | 12,403 | −54.5 | ---- | 29 | 12,030 | −51.2 | ---- | 30 | 12,238 | −54.1 | ---- | 24 | 12,275 | −54.3 | ---- |
| 175 | 25 | 13,243 | −60.7 | ---- | 29 | 12,898 | −50.9 | ---- | 30 | 13,088 | −57.0 | ---- | 23 | 13,122 | −57.9 | ---- |
| 150 | 24 | 14,185 | −66.5 | ---- | 26 | 13,895 | −51.2 | ---- | 27 | 14,052 | −59.6 | ---- | 17 | 14,071 | −60.3 | ---- |
| 125 | 16 | 15,274 | −70.6 | ---- | 25 | 15,074 | −51.7 | ---- | 20 | 15,167 | −60.5 | ---- | 9 | 15,219 | −64.3 | ---- |
| 100 | 7 | 16,612 | −71.3 | ---- | 22 | 16,522 | −52.1 | ---- | 17 | 16,543 | −60.6 | ---- | ---- | ---- | ---- | ---- |
| 80 | ---- | ---- | ---- | ---- | 19 | 17,963 | −51.8 | ---- | 8 | 17,907 | −57.7 | ---- | ---- | ---- | ---- | ---- |
| 60 | ---- | ---- | ---- | ---- | 14 | 19,853 | −50.6 | ---- | 5 | 19,742 | −54.3 | ---- | ---- | ---- | ---- | ---- |
| 50 | ---- | ---- | ---- | ---- | 8 | 21,070 | −49.1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

[1] Data not yet received.

(*) Temperature and relative humidity data for this level are not available or are available only for certain days. See note entitled "Change in Summarization of Radiosonde Data," p. 6, in the January 1946 issue of the MONTHLY WEATHER REVIEW.

NOTE.—All observations scheduled between 0300 and 0500, G. C. T. except at Ciudad Victoria, Mazatlan, and Merida, where they are taken near 0200, G. C. T. "Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressure surfaces having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

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

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 2200 G. C. T., during August 1948. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Speeds in meters per second*

| Altitude (meters) m. s. l. | Abilene, Tex. (534 m.) | | | Albuquerque, N. Mex. (1,627 m.) | | | Atlanta, Ga. (299 m.) | | | Billings, Mont. (1,095 m.) | | | Bismarck, N. Dak. (505 m.) | | | Boise, Idaho (868 m.) | | | Brownsville, Tex. (7 m.) | | | Buffalo, N. Y. (220 m.) | | | Burlington, Vt. (100 m.) | | | Charleston, S. C. (16 m.) | | | Cincinnati, Ohio (273 m.) | | | Denver, Colo. (1,618 m.) | | | El Paso, Tex. (1,198 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed |
| Surface | 31 | 125 | 1.8 | 31 | 276 | 2.3 | 31 | 44 | 0.7 | 31 | 198 | 1.3 | 30 | 128 | 0.5 | 31 | 328 | 3.5 | 31 | 108 | 5.4 | 30 | 258 | 2.7 | 29 | 281 | 1.3 | 30 | 132 | 2.8 | 31 | 313 | 1.3 | 31 | 99 | 0.8 | 31 | 180 | 1.6 |
| 500 | --- | --- | --- | --- | --- | --- | 31 | 53 | .9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 31 | 117 | 6.5 | 30 | 268 | 3.8 | 29 | 267 | 2.7 | 30 | 138 | 3.8 | 31 | 322 | 1.4 | --- | --- | --- | --- | --- | --- |
| 1,000 | 31 | 128 | 3.3 | --- | --- | --- | 31 | 81 | .8 | --- | --- | --- | 29 | 140 | 3.5 | 31 | 327 | 3.5 | 31 | 123 | 4.2 | 30 | 270 | 4.1 | 29 | 275 | 4.0 | 30 | 147 | 1.7 | 30 | 322 | 1.4 | --- | --- | --- | --- | --- | --- |
| 1,500 | 31 | 124 | 3.3 | --- | --- | --- | 30 | 79 | .5 | 31 | 222 | 2.4 | 29 | 184 | 3.3 | 31 | 309 | 2.7 | 30 | 119 | 2.1 | 27 | 280 | 4.3 | 28 | 277 | 5.9 | 28 | 169 | .6 | 30 | 336 | 1.4 | --- | --- | --- | 31 | 179 | 2.0 |
| 2,000 | 30 | 137 | 3.0 | 31 | 270 | 2.8 | 25 | 341 | .8 | 31 | 228 | 3.2 | 29 | 180 | 2.7 | 31 | 268 | 2.5 | 28 | 90 | 1.4 | 25 | 281 | 5.0 | 27 | 275 | 6.9 | 25 | 12 | .6 | 26 | 310 | 1.5 | 31 | 73 | .6 | 31 | 167 | 1.8 |
| 2,500 | 30 | 145 | 2.9 | 31 | 270 | 2.4 | 24 | 328 | 1.2 | 31 | 230 | 4.0 | 27 | 175 | 1.8 | 31 | 239 | 3.6 | 28 | 80 | 1.8 | 18 | 285 | 6.6 | 23 | 287 | 7.3 | 25 | 342 | .5 | 25 | 300 | 1.4 | 31 | 84 | .8 | 31 | 127 | 1.6 |
| 3,000 | 30 | 141 | 2.6 | 31 | 265 | 2.2 | 21 | 329 | 1.8 | 30 | 240 | 4.7 | 25 | 246 | 4.1 | 31 | 231 | 6.4 | 27 | 74 | 1.1 | 16 | 297 | 7.4 | 20 | 288 | 7.8 | 22 | 317 | .9 | 19 | 321 | 2.4 | 31 | 88 | .8 | 31 | 116 | 1.6 |
| 4,000 | 27 | 151 | .7 | 31 | 254 | 2.3 | 19 | 336 | 2.4 | 27 | 245 | 10.1 | 23 | 278 | 7.4 | 31 | 229 | 9.7 | 26 | 79 | 1.6 | 11 | 295 | 9.2 | 14 | 300 | 9.3 | 20 | 293 | 2.3 | 14 | 319 | 4.4 | 30 | 255 | 2.1 | 31 | 94 | 2.2 |
| 5,000 | 22 | 299 | 2.2 | 30 | 259 | 3.1 | 15 | 309 | 4.5 | 24 | 251 | 13.6 | 21 | 270 | 6.6 | 31 | 230 | 12.9 | 21 | 112 | 2.6 | --- | --- | --- | 12 | 306 | 9.4 | 17 | 295 | 3.2 | 10 | 317 | 8.3 | 29 | 253 | 5.8 | 29 | 112 | 2.3 |
| 6,000 | 19 | 330 | 2.4 | 30 | 242 | 2.9 | 14 | 316 | 4.4 | 22 | 246 | 15.3 | 17 | 273 | 7.7 | 26 | 226 | 15.8 | 21 | 91 | 1.9 | --- | --- | --- | --- | --- | --- | 14 | 300 | 2.4 | --- | --- | --- | 18 | 253 | 8.6 | 28 | 180 | .8 |
| 8,000 | 16 | 344 | 4.6 | 27 | 244 | 5.1 | --- | --- | --- | 16 | 249 | 18.6 | 12 | 245 | 13.8 | 14 | 242 | 18.9 | 18 | 84 | 5.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15 | 254 | 13.2 | 25 | 170 | 2.2 |
| 10,000 | 12 | 353 | 5.6 | 25 | 248 | 8.2 | --- | --- | --- | 11 | 264 | 22.0 | --- | --- | --- | --- | --- | --- | 16 | 83 | 5.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17 | 171 | 3.4 |
| 12,000 | --- | --- | --- | 20 | 253 | 10.9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 14 | 96 | 4.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16 | 182 | 3.3 |
| 14,000 | --- | --- | --- | 15 | 257 | 11.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 53 | 4.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 184 | 1.1 |
| 16,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 133 | 2.2 |

| Altitude (meters) m. s. l. | Ely, Nev. (1,910 m.) | | | Grand Junction, Colo. (1,475 m.) | | | Greensboro, N. C. (271 m.) | | | Havre, Mont. (767 m.) | | | Jacksonville, Fla. (16 m.) | | | Joliet, Ill. (178 m.) | | | Las Vegas, Nev. (575 m.) | | | Little Rock, Ark. (88 m.) | | | Medford, Oreg. (416 m.) | | | Miami, Fla. (12 m.) | | | Mobile, Ala. (66 m.) | | | Nashville, Tenn. (182 m.) | | | New York, N. Y. (15 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed |
| Surface | 31 | 215 | 5.5 | 31 | 254 | 0.9 | 30 | 155 | 0.2 | 31 | 246 | 2.7 | 30 | 90 | 2.8 | 31 | 210 | 0.7 | 31 | 189 | 3.2 | 30 | 74 | 2.3 | 31 | 311 | 3.0 | 31 | 135 | 3.6 | 28 | 133 | 1.0 | 31 | 42 | 1.5 | 29 | 220 | 1.2 |
| 500 | --- | --- | --- | --- | --- | --- | 30 | 183 | .6 | --- | --- | --- | 30 | 106 | 3.3 | 31 | 241 | .8 | --- | --- | --- | 30 | 71 | 2.4 | 31 | 310 | 3.0 | 31 | 145 | 4.2 | 28 | 140 | 1.1 | 31 | 45 | 1.7 | 29 | 258 | 2.1 |
| 1,000 | --- | --- | --- | --- | --- | --- | 30 | 235 | .5 | 31 | 244 | 3.3 | 30 | 122 | 2.2 | 31 | 250 | 1.3 | 31 | 193 | 5.2 | 29 | 65 | 1.3 | 31 | 307 | 2.5 | 31 | 165 | 3.0 | 27 | 49 | 1.4 | 31 | 50 | 1.4 | 29 | 286 | 2.7 |
| 1,500 | --- | --- | --- | 31 | 265 | 1.0 | 29 | 286 | 1.2 | 31 | 244 | 3.9 | 28 | 114 | 1.2 | 31 | 263 | 2.3 | 31 | 193 | 5.7 | 25 | 358 | 2.1 | 31 | 270 | 1.7 | 29 | 184 | 1.7 | 25 | 31 | 1.6 | 30 | 16 | 1.1 | 28 | 301 | 4.1 |
| 2,000 | 31 | 214 | 5.6 | 31 | 255 | 1.6 | 29 | 282 | 2.1 | 31 | 238 | 4.4 | 23 | 70 | .7 | 29 | 286 | 2.8 | 31 | 197 | 6.4 | 23 | 18 | 2.9 | 30 | 225 | 3.3 | 29 | 198 | 1.1 | 18 | 27 | 1.8 | 28 | 6 | 1.5 | 28 | 297 | 4.8 |
| 2,500 | 31 | 208 | 6.3 | 31 | 265 | 2.8 | 28 | 286 | 2.4 | 31 | 235 | 5.5 | 23 | 24 | .6 | 25 | 304 | 3.7 | 31 | 204 | 7.9 | 22 | 33 | 5.3 | 30 | 213 | 5.1 | 29 | 187 | 1.1 | 15 | 354 | 2.4 | 24 | 3 | 1.7 | 25 | 292 | 6.4 |
| 3,000 | 30 | 210 | 6.5 | 31 | 262 | 3.6 | 28 | 290 | 3.1 | 27 | 240 | 7.8 | 19 | 349 | 1.3 | 25 | 302 | 4.8 | 31 | 209 | 8.4 | 18 | 38 | 6.2 | 30 | 222 | 6.1 | 27 | 201 | .7 | 15 | 323 | 2.0 | 20 | 10 | 2.6 | 20 | 293 | 6.8 |
| 4,000 | 30 | 212 | 7.2 | 29 | 244 | 5.5 | 24 | 299 | 4.8 | 21 | 249 | 11.5 | 10 | 69 | 4.1 | 20 | 301 | 8.5 | 31 | 217 | 9.8 | 18 | 33 | 5.9 | 30 | 230 | 8.5 | 25 | 189 | .9 | 11 | 317 | 2.4 | 16 | 24 | 2.7 | 11 | 288 | 6.5 |
| 5,000 | 27 | 222 | 10.1 | 28 | 247 | 7.8 | 22 | 286 | 6.7 | 18 | 253 | 13.7 | --- | --- | --- | 14 | 310 | 8.8 | 31 | 225 | 9.5 | 13 | 22 | 7.5 | 27 | 231 | 9.7 | 22 | 177 | 1.2 | --- | --- | --- | 16 | 15 | 3.1 | --- | --- | --- |
| 6,000 | 24 | 227 | 13.1 | 23 | 254 | 8.2 | 18 | 293 | 8.9 | 11 | 248 | 17.7 | --- | --- | --- | --- | --- | --- | 31 | 223 | 9.0 | --- | --- | --- | 24 | 238 | 12.2 | 19 | 185 | 2.1 | --- | --- | --- | 12 | 357 | 4.4 | --- | --- | --- |
| 8,000 | 22 | 233 | 17.9 | 18 | 255 | 13.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 29 | 233 | 14.5 | --- | --- | --- | 20 | 235 | 16.2 | 10 | 145 | .2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10,000 | 18 | 239 | 23.0 | 13 | 259 | 17.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 24 | 232 | 21.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12,000 | 11 | 254 | 23.7 | 11 | 265 | 17.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 18 | 239 | 25.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 250 | 22.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Altitude (meters) m. s. l. | Oakland, Calif. (8 m.) | | | Oklahoma City, Okla. (396 m.) | | | Omaha, Nebr. (306 m.) | | | Phoenix, Ariz. (338 m.) | | | Rapid City, S. Dak. (982 m.) | | | St. Louis, Mo. (181 m.) | | | St. Cloud, Minn. (318 m.) | | | San Antonio, Tex. (240 m.) | | | San Diego, Calif. (13 m.) | | | Sault Ste. Marie, Mich. (221 m.) | | | Seattle, Wash. (116 m.) | | | Spokane, Wash. (725 m.) | | | Washington, D. C. (24 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed |
| Surface | 31 | 278 | 5.2 | 31 | 144 | 2.6 | 31 | 168 | 2.4 | 31 | 222 | 0.6 | 31 | 125 | 2.3 | 31 | 313 | 0.5 | 30 | 196 | 1.8 | 31 | 112 | 2.5 | 31 | 276 | 3.7 | 28 | 288 | 3.8 | 30 | 233 | 3.0 | 31 | 230 | 3.0 | 29 | 288 | 1.1 |
| 500 | 31 | 284 | 4.6 | 31 | 144 | 3.0 | 31 | 169 | 3.3 | 31 | 253 | .9 | --- | --- | --- | 31 | 328 | .9 | 30 | 190 | 2.6 | 31 | 100 | 3.0 | 31 | 264 | 2.5 | 28 | 292 | 5.2 | 30 | 223 | 4.1 | --- | --- | --- | 29 | 281 | 1.6 |
| 1,000 | 30 | 278 | 3.0 | 31 | 150 | 3.4 | 30 | 188 | 4.0 | 31 | 253 | 2.0 | 31 | 123 | 2.3 | 31 | 311 | .5 | 30 | 202 | 3.4 | 31 | 88 | 3.3 | 30 | 255 | 1.5 | 28 | 288 | 4.5 | 27 | 213 | 5.1 | 31 | 230 | 4.6 | 29 | 277 | 2.3 |
| 1,500 | 30 | 258 | 2.5 | 31 | 174 | 2.9 | 30 | 211 | 4.2 | 31 | 225 | 2.3 | 31 | 130 | 1.7 | 31 | 296 | .8 | 29 | 222 | 4.9 | 31 | 88 | 3.6 | 29 | 250 | 1.5 | 25 | 297 | 4.0 | 24 | 208 | 5.3 | 31 | 221 | 4.8 | 29 | 282 | 2.8 |
| 2,000 | 30 | 242 | 2.7 | 29 | 201 | 2.3 | 29 | 224 | 5.2 | 31 | 225 | 2.9 | 30 | 180 | 1.9 | 30 | 293 | 1.5 | 28 | 235 | 5.4 | 30 | 89 | 3.7 | 29 | 230 | 2.5 | 24 | 304 | 4.5 | 20 | 204 | 5.2 | 30 | 218 | 4.8 | 29 | 291 | 3.5 |
| 2,500 | 30 | 228 | 3.2 | 25 | 227 | 2.7 | 26 | 246 | 5.2 | 31 | 222 | 3.1 | 30 | 234 | 2.9 | 24 | 339 | 3.5 | 24 | 263 | 6.1 | 30 | 79 | 3.9 | 29 | 223 | 3.5 | 22 | 307 | 5.5 | 15 | 205 | 7.0 | 28 | 222 | 6.5 | 25 | 298 | 3.9 |
| 3,000 | 30 | 235 | 3.6 | 23 | 249 | 3.8 | 24 | 268 | 5.4 | 31 | 208 | 3.4 | 27 | 250 | 5.5 | 22 | 323 | 3.7 | 24 | 280 | 6.6 | 27 | 81 | 3.9 | 29 | 217 | 4.9 | 20 | 308 | 6.9 | 10 | 214 | 8.1 | 24 | 221 | 8.6 | 25 | 296 | 5.2 |
| 4,000 | 30 | 239 | 6.0 | 22 | 279 | 5.4 | 22 | 295 | 6.6 | 29 | 178 | 3.0 | 25 | 263 | 9.3 | 20 | 338 | 5.9 | 17 | 286 | 7.8 | 25 | 86 | 3.3 | 29 | 204 | 6.1 | 20 | 317 | 6.9 | 10 | 205 | 9.1 | 18 | 218 | 11.2 | 23 | 291 | 6.2 |
| 5,000 | 30 | 240 | 8.2 | 20 | 290 | 5.5 | 21 | 299 | 7.7 | 27 | 181 | 4.3 | 22 | 268 | 11.1 | 16 | 350 | 6.6 | 16 | 300 | 12.0 | 18 | 84 | 1.6 | 29 | 203 | 6.0 | 16 | 301 | 10.2 | --- | --- | --- | 13 | 230 | 11.1 | 19 | 284 | 4.7 |
| 6,000 | 30 | 239 | 10.5 | 14 | 309 | 7.6 | 20 | 306 | 8.7 | 26 | 182 | 4.3 | 20 | 267 | 14.9 | 11 | 354 | 9.2 | 15 | 294 | 13.2 | 16 | 63 | 2.2 | 28 | 214 | 6.5 | 12 | 291 | 12.4 | --- | --- | --- | 12 | 227 | 11.3 | 16 | 297 | 6.6 |
| 8,000 | 28 | 243 | 14.8 | 10 | 303 | 10.0 | 16 | 291 | 10.4 | 22 | 191 | 5.4 | 15 | 264 | 20.0 | --- | --- | --- | 10 | 304 | 15.2 | 14 | 39 | 2.8 | 27 | 229 | 7.9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 282 | 9.6 |
| 10,000 | 25 | 239 | 19.5 | --- | --- | --- | 12 | 285 | 13.5 | 15 | 238 | 8.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 24 | 232 | 11.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12,000 | 17 | 248 | 25.3 | --- | --- | --- | --- | --- | --- | 11 | 243 | 13.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16 | 239 | 13.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11 | 230 | 15.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

TABLE 3.—*Free-air resultant winds based on rawin observations made near 0300 G. C. T., during August 1948. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Speeds in meters per second*

| Altitude (meters) m. s. l. | Albuquerque, N. Mex. (1,636 m.) | | | Big Spring, Tex. (774 m.) | | | Bismarck, N. Dak. (505 m.) | | | Brownsville, Tex. (7 m.) | | | Caribou, Maine (191 m.) | | | Charleston, S. C. (13 m.) | | | Columbia, Mo. (237 m.) | | | Grand Junction, Colo. (1,473 m.) | | | Greensboro, N. C. (275 m.) | | | Hatteras, N. C. (3 m.) | | | International Falls, Minn. (358m.) | | | Little Rock, Ark. (80 m.) | | | Miami, Fla. (12 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed |
| Surface | 31 | 82 | 0.7 | 31 | 127 | 3.1 | 31 | 108 | 1.9 | 31 | 127 | 3.5 | 31 | 212 | 1.5 | 31 | 303 | 0.1 | 31 | 145 | 1.8 | 31 | 138 | 0.4 | 31 | 187 | 0.6 | 31 | 201 | 0.7 | 31 | 172 | 0.7 | 31 | 76 | 1.1 | 31 | 124 | 0.8 |
| 500 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 31 | 133 | 8.0 | 31 | 251 | 4.6 | 30 | 156 | 2.8 | 31 | 181 | 2.4 | --- | --- | --- | 31 | 190 | 2.1 | 31 | 227 | 1.9 | 30 | 198 | 1.4 | 31 | 92 | 3.1 | 31 | 151 | 3.0 |
| 1,000 | --- | --- | --- | 31 | 131 | 6.4 | 31 | 152 | 3.8 | 31 | 132 | 6.4 | 30 | 277 | 5.2 | 30 | 145 | 1.3 | 31 | 211 | 2.0 | --- | --- | --- | 31 | 223 | 1.5 | 31 | 228 | 1.7 | 30 | 242 | 2.7 | 31 | 74 | 2.2 | 31 | 147 | 2.8 |
| 1,500 | --- | --- | --- | 31 | 142 | 7.2 | 31 | 166 | 3.4 | 31 | 107 | 3.7 | 30 | 279 | 6.4 | 31 | 134 | 1.1 | 31 | 256 | 1.8 | 31 | 141 | .4 | 31 | 262 | 1.3 | 30 | 233 | 1.5 | 30 | 265 | 3.5 | 31 | 51 | 1.9 | 30 | 137 | 2.9 |
| 2,000 | 31 | 247 | 1.5 | 31 | 147 | 5.6 | 31 | 169 | 2.5 | 31 | 82 | 3.9 | 30 | 283 | 6.8 | 31 | 132 | .8 | 31 | 295 | 2.6 | 31 | 203 | 2.1 | 31 | 281 | 1.4 | 30 | 229 | 2.2 | 30 | 280 | 4.1 | 31 | 359 | 1.9 | 30 | 135 | 2.5 |
| 2,500 | 31 | 243 | 2.5 | 31 | 148 | 4.1 | 31 | 222 | 2.2 | 31 | 64 | 3.9 | 30 | 280 | 7.3 | 31 | 200 | .8 | 31 | 309 | 3.1 | 31 | 234 | 3.0 | 31 | 286 | 2.1 | 30 | 237 | 2.6 | 31 | 280 | 4.9 | 31 | 355 | 2.6 | 30 | 146 | 2.0 |
| 3,000 | 31 | 251 | 3.0 | 31 | 139 | 2.3 | 31 | 271 | 2.9 | 31 | 56 | 3.4 | 30 | 278 | 7.8 | 31 | 228 | 1.2 | 31 | 327 | 3.9 | 31 | 237 | 3.6 | 31 | 274 | 2.2 | 31 | 233 | 3.3 | 31 | 286 | 5.4 | 31 | 342 | 3.6 | 30 | 171 | .8 |
| 4,000 | 30 | 270 | 2.5 | 31 | 16 | 3.5 | 30 | 263 | 4.5 | 31 | 61 | 2.9 | 30 | 269 | 9.7 | 29 | 246 | 2.6 | 31 | 333 | 5.1 | 31 | 239 | 4.3 | 30 | 266 | 2.7 | 29 | 227 | 3.8 | 29 | 287 | 6.7 | 31 | 330 | 5.4 | 29 | 186 | .6 |
| 5,000 | 30 | 299 | 2.1 | 31 | 5 | 3.9 | 30 | 281 | 5.6 | 31 | 52 | 3.8 | 29 | 260 | 10.4 | 29 | 259 | 3.1 | 31 | 330 | 5.7 | 31 | 249 | 5.2 | 29 | 279 | 4.5 | 26 | 246 | 4.9 | 29 | 290 | 9.3 | 31 | 329 | 6.2 | 30 | 200 | 1.1 |
| 6,000 | 29 | 281 | 1.8 | 31 | 354 | 3.3 | 29 | 300 | 4.1 | 31 | 62 | 3.9 | 29 | 262 | 13.0 | 28 | 274 | 3.9 | 29 | 326 | 8.2 | 31 | 252 | 8.1 | 30 | 281 | 6.1 | 26 | 263 | 6.2 | 29 | 286 | 10.2 | 31 | 329 | 6.0 | 30 | 217 | .7 |
| 8,000 | 28 | 251 | 4.4 | 30 | 331 | 2.9 | 27 | 290 | 4.3 | 31 | 55 | 4.6 | 26 | 262 | 11.6 | 28 | 266 | 6.9 | 29 | 308 | 12.0 | 30 | 251 | 13.8 | 29 | 272 | 9.3 | 25 | 261 | 9.6 | 26 | 303 | 12.8 | 30 | 312 | 6.8 | 30 | 260 | 2.1 |
| 10,000 | 28 | 246 | 7.6 | 29 | 316 | 3.6 | 26 | 264 | 11.8 | 31 | 62 | 4.6 | 22 | 255 | 14.3 | 28 | 260 | 10.6 | 28 | 306 | 13.7 | 29 | 250 | 18.5 | 28 | 266 | 12.6 | 22 | 278 | 12.0 | 23 | 297 | 17.5 | 29 | 309 | 9.4 | 31 | 312 | 2.7 |
| 12,000 | 27 | 257 | 9.3 | 29 | 331 | 6.4 | 25 | 271 | 26.0 | 30 | 71 | 5.3 | 16 | 276 | 15.7 | 27 | 263 | 11.2 | 28 | 310 | 19.3 | 23 | 260 | 21.4 | 27 | 267 | 16.7 | 18 | 290 | 12.0 | 19 | 294 | 21.3 | 26 | 285 | 13.3 | 30 | 331 | 5.6 |
| 14,000 | 24 | 248 | 8.8 | 26 | 334 | 4.2 | 22 | 267 | 22.2 | 30 | 72 | 7.3 | --- | --- | --- | 25 | 258 | 8.9 | 21 | 304 | 18.2 | 18 | 261 | 16.4 | 19 | 279 | 9.7 | 13 | 292 | 8.0 | 14 | 308 | 20.0 | 24 | 282 | 10.2 | 25 | 23 | 4.6 |
| 16,000 | --- | --- | --- | 15 | 4 | 2.9 | 14 | 276 | 13.5 | 25 | 81 | 8.7 | --- | --- | --- | 19 | 267 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 305 | 14.6 | 10 | 337 | 8.5 | 17 | 96 | 4.4 |
| 18,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | 69 | 6.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Altitude (meters) m. s. l. | Nantucket, Mass. (14 m.) | | | Nashville, Tenn. (180 m.) | | | New Orleans, La. (2 m.) | | | Oakland, Calif. (8 m.) | | | Oklahoma City, Okla. (392 m.) | | | Rapid City, S. Dak. (980 m.) | | | San Antonio, Tex. (242 m.) | | | San Juan, P. R. (28 m.) | | | St. Cloud, Minn. (318 m.) | | | Santa Maria, Calif. (72 m.) | | | Sault Ste. Marie, Mich. (225 m.) | | | Spokane, Wash. (726 m.) | | | Tatoosh Island, Wash. (33 m.) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed | Observations | Direction | Speed |
| Surface | 27 | 222 | 2.1 | 31 | 93 | 0.6 | 31 | 131 | 1.0 | 31 | 283 | 4.7 | 31 | 113 | 4.1 | 31 | 170 | 2.2 | 31 | 123 | 4.1 | 30 | 104 | 4.3 | 31 | 139 | 0.9 | 31 | 273 | 3.2 | 31 | 290 | 1.5 | 31 | 215 | 2.1 | 31 | 194 | 3.4 |
| 500 | 27 | 256 | 4.9 | 31 | 96 | 2.0 | 31 | 129 | 2.8 | 31 | 285 | 5.5 | 30 | 120 | 5.7 | --- | --- | --- | 31 | 125 | 6.7 | 29 | 101 | 8.8 | 29 | 164 | 1.9 | 31 | 324 | 3.1 | 31 | 301 | 2.8 | --- | --- | --- | 28 | 235 | 3.9 |
| 1,000 | 27 | 261 | 4.5 | 31 | 82 | 1.5 | 31 | 93 | 2.9 | 31 | 277 | 4.9 | 30 | 146 | 6.9 | 30 | 170 | 2.3 | 31 | 120 | 6.7 | 29 | 100 | 9.2 | 29 | 197 | 2.7 | 31 | 296 | 4.4 | 31 | 298 | 3.4 | 31 | 233 | 3.6 | 29 | 241 | 3.3 |
| 1,500 | 27 | 274 | 5.3 | 31 | 44 | 1.1 | 31 | 72 | 3.8 | 31 | 257 | 3.7 | 30 | 171 | 4.6 | 29 | 164 | 3.8 | 31 | 108 | 4.9 | 29 | 91 | 9.0 | 30 | 242 | 2.2 | 31 | 14 | 2.1 | 30 | 296 | 4.3 | 31 | 235 | 4.4 | 29 | 248 | 3.1 |
| 2,000 | 26 | 275 | 5.1 | 31 | 16 | 1.3 | 31 | 63 | 4.0 | 31 | 236 | 3.3 | 30 | 200 | 3.2 | 29 | 183 | 2.7 | 30 | 99 | 3.7 | 29 | 102 | 8.6 | 30 | 283 | 2.7 | 31 | 95 | 1.3 | 30 | 290 | 4.6 | 31 | 233 | 5.4 | 31 | 255 | 3.5 |
| 2,500 | 26 | 266 | 5.6 | 31 | 319 | 1.2 | 30 | 65 | 3.4 | 31 | 235 | 3.5 | 31 | 226 | 2.5 | 28 | 244 | 3.1 | 30 | 89 | 3.9 | 29 | 96 | 9.1 | 30 | 288 | 4.3 | 31 | 200 | .9 | 30 | 303 | 5.1 | 31 | 235 | 6.7 | 31 | 260 | 4.5 |
| 3,000 | 26 | 268 | 7.5 | 31 | 338 | 3.0 | 30 | 51 | 2.9 | 31 | 232 | 4.5 | 31 | 249 | 2.3 | 28 | 268 | 5.2 | 30 | 89 | 4.5 | 30 | 94 | 9.0 | 31 | 291 | 6.2 | 31 | 236 | 3.3 | 30 | 302 | 6.2 | 31 | 235 | 8.2 | 31 | 261 | 4.9 |
| 4,000 | 26 | 260 | 8.8 | 31 | 322 | 4.5 | 29 | 29 | 3.1 | 31 | 239 | 5.9 | 31 | 312 | 2.5 | 29 | 277 | 9.3 | 29 | 63 | 4.1 | 30 | 94 | 7.7 | 30 | 288 | 9.3 | 31 | 240 | 5.5 | 30 | 299 | 8.5 | 31 | 238 | 9.4 | 30 | 268 | 5.0 |
| 5,000 | 25 | 259 | 10.7 | 30 | 313 | 5.2 | 29 | 15 | 3.7 | 31 | 237 | 8.7 | 31 | 328 | 4.9 | 28 | 276 | 11.0 | 30 | 45 | 4.4 | 30 | 90 | 6.5 | 28 | 292 | 10.7 | 31 | 245 | 6.9 | 30 | 302 | 9.6 | 30 | 237 | 12.2 | 30 | 266 | 5.8 |
| 6,000 | 25 | 260 | 12.7 | 29 | 297 | 7.1 | 29 | 8 | 2.7 | 31 | 241 | 11.2 | 28 | 330 | 5.6 | 26 | 277 | 13.0 | 30 | 40 | 4.6 | 30 | 82 | 5.7 | 28 | 290 | 12.5 | 31 | 240 | 8.6 | 29 | 298 | 11.0 | 28 | 242 | 12.4 | 30 | 272 | 6.8 |
| 8,000 | 24 | 265 | 15.3 | 28 | 298 | 11.0 | 28 | 350 | 4.1 | 31 | 238 | 16.4 | 27 | 321 | 8.7 | 24 | 279 | 15.9 | 30 | 30 | 4.2 | 30 | 80 | 3.4 | 27 | 292 | 14.1 | 31 | 240 | 13.3 | 27 | 299 | 14.0 | 21 | 248 | 12.4 | 24 | 261 | 5.7 |
| 10,000 | 19 | 264 | 18.6 | 26 | 304 | 13.8 | 28 | 324 | 3.5 | 30 | 242 | 23.8 | 24 | 317 | 11.2 | 22 | 278 | 22.4 | 29 | 35 | 3.0 | 30 | 65 | .6 | 23 | 294 | 18.2 | 31 | 239 | 20.4 | 19 | 291 | 13.7 | 16 | 238 | 14.0 | 23 | 229 | 6.0 |
| 12,000 | --- | --- | --- | 22 | 289 | 18.7 | 27 | 292 | 3.9 | 25 | 239 | 26.7 | 20 | 305 | 12.5 | 22 | 275 | 28.6 | 30 | 19 | 3.3 | 30 | 256 | 2.0 | 16 | 285 | 24.7 | 31 | 242 | 23.1 | 13 | 301 | 18.7 | 15 | 240 | 17.5 | 20 | 239 | 7.8 |
| 14,000 | --- | --- | --- | --- | --- | --- | 26 | 322 | 4.1 | 18 | 244 | 22.3 | 16 | 312 | 8.2 | 18 | 274 | 23.4 | 28 | 31 | 4.5 | 29 | 161 | 1.3 | --- | --- | --- | 17 | 245 | 18.4 | --- | --- | --- | --- | --- | --- | 19 | 230 | 6.8 |
| 16,000 | --- | --- | --- | --- | --- | --- | 21 | 7 | 3.1 | 11 | 240 | 10.9 | --- | --- | --- | 12 | 277 | 10.5 | 18 | 43 | 6.1 | 23 | 107 | 4.9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17 | 233 | 4.0 |
| 18,000 | --- | --- | --- | --- | --- | --- | 11 | 84 | 6.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15 | 207 | 3.5 |
| 20,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | 63 | 1.6 |

NOTE.—Resultants prepared from rawins at high altitudes are biased toward lower wind speeds. Values appearing in this table should therefore be used with caution when the number of observations missing is greater than three. See note following Table III in the June 1948 issue of the MONTHLY WEATHER REVIEW.