

The total accumulated monthly departures from January 1 to the end of the current month are given in the second column of the following table: The third column gives the percentage of the current accumulated precipitation relative to its normal value.

| Districts.                  | Accumulated departures. | Accumulated precipitation. | Districts.            | Accumulated departures. | Accumulated precipitation. |
|-----------------------------|-------------------------|----------------------------|-----------------------|-------------------------|----------------------------|
|                             | Inches.                 | Per ct.                    |                       | Inches.                 | Per ct.                    |
| Florida Peninsula .....     | + 4.60                  | 122                        | New England .....     | - 0.80                  | 96                         |
| Ohio Valley and Tenn. ....  | + 1.20                  | 105                        | Middle Atlantic ..... | - 2.40                  | 89                         |
| Upper Mississippi Valley .. | + 2.80                  | 113                        | South Atlantic .....  | - 2.30                  | 91                         |
| Missouri Valley .....       | + 0.50                  | 108                        | East Gulf .....       | - 3.90                  | 87                         |
| Middle Slope .....          | + 1.00                  | 106                        | West Gulf .....       | - 3.90                  | 83                         |
| Southern Slope .....        | + 2.10                  | 119                        | Lower Lake .....      | - 2.10                  | 88                         |
| Southern Plateau .....      | + 2.60                  | 194                        | Upper Lake .....      | - 0.60                  | 97                         |
| Middle Plateau .....        | + 0.10                  | 101                        | Northern Slope .....  | - 0.90                  | 90                         |
| Northern Plateau .....      | + 0.30                  | 103                        | North Pacific .....   | - 1.80                  | 94                         |
| South Pacific .....         | + 0.50                  | 110                        | Middle Pacific .....  | - 2.20                  | 88                         |
| North Dakota .....          | + 0.00                  | 100                        |                       |                         |                            |

SNOWFALL.

The total monthly snowfall at each station is given in Tables I and II. The chart of geographical distribution is omitted for this month.

The reported snowfalls may be classified as follows: California, 2 stations; Colorado, 17 stations, with amounts ranging from Trace to 10 inches; Idaho, 2; Michigan, 2; Minnesota, 1; Montana, 4; Nevada, 9; New Jersey, 1; Utah, 1.

HAIL.

The following are the dates on which hail fell in the respective States:

Alabama, 3, 8, 23, 26. Arizona, 29, 30. Arkansas, 1, 3, 27. California, 14, 15, 16. Colorado, 1 to 12, 21, 25 to 29. Connecticut, 14, 15, 16. Georgia, 4, 13, 15, 16, 19, 20, 21, 24. Idaho, 1, 6, 7, 8, 13, 16, 17, 19, 21, 24 to 27. Illinois, 1, 11 to 14, 16, 18, 19, 20, 23, 24. Indiana, 3, 11, 13, 17 to 20, 24. Indian Territory, 14. Iowa, 5, 10, 14, 18, 19, 22, 23, 24, 29. Kansas, 2, 5, 7, 8, 10, 14, 17, 19 to 26, 29, 30. Kentucky, 12, 13, 17 to 20, 24. Louisiana, 3, 6, 12, 22. Maine, 25, 29. Maryland, 13, 15, 25. Massachusetts, 13, 15. Michigan, 5, 6, 7, 15, 30. Minnesota, 1, 10, 16 to 19, 22, 27. Mississippi, 14, 19, 20, 22, 26. Missouri, 2, 3, 4, 7, 10, 13, 15, 18, 19, 21 to 26. Montana, 4, 7, 14, 15, 17, 21, 22, 26, 27. Nebraska, 11, 17 to 21, 24, 25, 26. Nevada, 2, 9, 15, 16, 18, 23, 25, 26, 27. New Jersey, 12, 20, 25, 30. New Mexico, 1, 11, 12, 26. New York, 1, 15. North Carolina, 4, 7, 12, 15, 16, 17, 19, 24, 28, 29. North Dakota, 8, 18. Ohio, 10, 13, 16, 19. Oklahoma, 1, 4, 13, 14, 17, 18. Oregon, 17, 19, 20, 21, 30. Pennsylvania, 1, 13, 25. South Carolina, 4, 5, 7, 8, 15, 17, 18, 23, 24, 27. South Dakota, 2, 5, 6, 14, 15, 16, 19, 21, 23, 28. Tennessee, 3, 16, 17, 24. Texas, 1, 3, 4, 6, 14. Utah, 9, 13, 15, 17. Vermont, 13. Virginia, 4, 9, 12, 13, 16, 17, 20. Washington, 26. West Virginia, 12, 13, 16, 18, 20, 29. Wisconsin, 15, 16, 17, 19, 22, 23. Wyoming, 2, 7, 29.

SLEET.

The only States reporting sleet were: Minnesota, 1st, 5th. Montana, 2d, 17th.

WIND.

The prevailing winds for June, 1897, viz, those that were recorded most frequently, are shown in Table I for the regular Weather Bureau stations.

The resultant winds, as deduced from the personal observations made at 8 a. m. and 8 p. m., are given in Table VIII. These latter resultants are also shown graphically on Chart

IV, where the small figure attached to each arrow shows the number of hours that this resultant prevailed, on the assumption that each of the morning and evening observations represents one hour's duration of a uniform wind of average velocity. These figures indicate the relative extent to which winds from different directions counterbalanced each other.

Maximum wind velocities are given in Table I, which also gives the altitudes of the Weather Bureau anemometers above the ground. Maxima of 50 miles or more per hour were reported during this month at regular stations of the Weather Bureau as follows (maximum velocities are averages for five minutes; extreme velocities are gusts of shorter duration, and are not given in this table):

| Stations.              | Date. | Velocity. | Direction. | Stations.              | Date. | Velocity. | Direction. |
|------------------------|-------|-----------|------------|------------------------|-------|-----------|------------|
|                        |       | Miles     |            |                        |       | Miles     |            |
| Amarillo, Tex .....    | 18    | 66        | w.         | Helena, Mont .....     | 16    | 50        | sw.        |
| Chicago, Ill .....     | 2     | 55        | s.         | Lincoln, Nebr .....    | 17    | 55        | sw.        |
| Columbia, Mo .....     | 24    | 59        | nw.        | Montgomery, Ala .....  | 19    | 54        | nw.        |
| Denver, Colo .....     | 20    | 60        | se.        | New York, N. Y .....   | 1     | 53        | nw.        |
| Dodge City, Kans ..... | 17    | 67        | s.         | San Antonio, Tex ..... | 3     | 50        | n.         |
| Fort Canby, Wash ..... | 10    | 54        | s.         | Sioux City, Iowa ..... | 18    | 72        | s.         |
| Galveston, Tex .....   | 8     | 50        | n.         |                        |       |           |            |

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table IX, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—The dates on which the number of reports of thunderstorms for the whole country were most numerous were: 3d, 268; 15th, 334; 16th, 258; 19th, 325; 24th, 283; 25th, 252.

Reports were most numerous in: Florida, 239; Illinois, 329; Missouri, 527; North Carolina, 244; Ohio, 316.

Thunderstorm days were most numerous in: Florida, 30 days; Kansas, Missouri, and South Carolina, 29; Georgia, Louisiana, and North Carolina, 27; Illinois and Colorado, 26.

In Canada.—Thunderstorms were reported as follows: Halifax, 18th; Grand Manan, 16th, 18th, 28th; Yarmouth, 30th; Charlottetown, 18th, 26th; Father Point, 25th; Quebec, 12th, 15th, 21st, 24th, 25th; Montreal, 13th, 24th; Rock-liffe, 6th, 7th, 12th; Toronto, 23d, 24th; White River, 12th; Port Stanley, 3d, 15th, 16th, 20th, 30th; Saugeen, 6th; Parry Sound, 23d; Port Arthur, 29th; Winnipeg, 10th, 14th, 28th, 30th; Qu'Appelle, 14th, 15th, 18th; Banff, 7th, 8th, 15th, 22d, 27th, 28th, 29th; Swift Current, 8th, 13th, 15th, 20th, 30th; Calgary, 7th, 15th, 20th, 21st; Prince Albert, 15th; Edmonton, 16th, 30th; Battleford, 30th.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, from the 10th to the 18th, inclusive. On the remaining twenty-one days of this month 37 reports were received, or an average of about 1 per day. The dates on which the number of reports of auroras for the whole country especially exceeded this average were: 16th and 27th.

Reports were most numerous in: Illinois, New Hampshire, and Ohio, 6; North Dakota, 5; Minnesota, 4.

The number of reports was a large percentage of the number of observers in: Delaware, 50; New Hampshire, 26; North Dakota, 13.

In Canada.—Auroras were reported as follows: Yarmouth, 16th; Father Point, 2d; Quebec, 2d, 16th, 18th, 20th, 26th,