

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: 9th, 191; 12th, 180; 20th and 23d, 154; 21st, 179; 24th, 162.

Reports were most numerous in: Colorado, 171; Missouri, 183; North Carolina, 172; Ohio, 170; Texas, 130.

Thunderstorm days were most numerous in: Colorado, 29; Missouri, 21; New Mexico, 24; North Carolina, 22; Texas, 20.

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 11th to the 19th, inclusive. On the remaining twenty-two days of this month 77 reports were received, or an average of about 4 per day. The dates on which the

number of reports of auroras for the whole country especially exceeded this average were: 20th, 12; 21st, 14; 29th, 16.

Reports were most numerous in: Michigan, 7; Minnesota, Montana, and Wisconsin, 8; North Dakota, 15.

The number of reports was a large percentage of the number of observers in: North Dakota, 40; Montana, 20; Delaware, 50.

CANADIAN REPORTS.

Thunderstorms were reported as follows: Grindstone, 21st; Grand Manan, 22d; Yarmouth, 13th, 31st; Charlottetown, 21st; Father Point, 31st; Quebec, 24th; Montreal, 20th; Rockliffe, 12th, 14th; Toronto, 10th, 12th; White River, 23d; Ottawa, 14th, 31st; Port Stanley, 9th, 12th, 14th, 21st; Parry Sound, 9th, 12th, 30th; Winnipeg, 8th; Minnedosa, 7th; Qu'Appelle, 21st; Swift Current, 6th, 15th to 18th; Prince Albert, 22d; Esquimalt, 6th, 30th; Kamloops, 29th; Banff, 6th, 30th.

Auroras were reported as follows: Charlottetown, 19th; Father Point, 19th; Quebec, 21st; Montreal, 29th; Port Arthur, 22d; Winnipeg, 5th, 20th, 21st, 27th; Minnedosa, 6th, 21st, 31st; Qu'Appelle, 29th; Esquimalt, 21st; Kamloops, 20th.

CLIMATE AND CROP SERVICE.

By JAMES BERRY, Chief of Climate and Crop Service Division.

The following extracts relating to the general weather conditions in the several States and Territories are taken from the monthly reports of the respective sections of the Climate and Crop Service. The name of the section director is given after each summary.

Snowfall and rainfall are expressed in inches.

Alabama.—The mean temperature was 68.6°, or 4.7° below normal; the highest was 97°, at Eufaula on the 29th, and the lowest, 32°, at Maple Grove on the 2d. The average precipitation was 1.56, or 2.39 below normal; the greatest monthly amount, 5.63, occurred at Scottsboro, and the least, trace, at Fort Deposit.—*P. P. Chaffee.*

Arizona.—The mean temperature was 73.7°, or 4.8° above normal; the highest was 112°, at Parker on the 22d, and the lowest, 32°, at Fort Apache on the 3d. The average precipitation was 0.02, or 0.30 below normal; the greatest monthly amount, 0.95, occurred at Russellville; twelve stations report no precipitation and seven stations report only traces.—*W. T. Blythe.*

Arkansas.—The mean temperature was 68.3°, or 0.7° below normal; the highest was 99°, at Lutherville on the 28th, and the lowest, 33°, at Jonesboro on the 26th. The average precipitation was 2.13, or 2.75 below normal; the greatest monthly amount, 7.47, occurred at Arkansas City, and the least, 0.34, at Helena.—*F. H. Clarke.*

California.—The mean temperature was 66.9°, or 2.8° above normal; the highest was 116°, at Volcano Springs on the 28th, and the lowest, 18°, at Bodie on the 9th. The average precipitation was 0.18, or 0.71 below normal; the greatest monthly amount, 2.47, occurred at Fordyce Dam, while none fell at numerous places.—*J. A. Barwick.*

Colorado.—The mean temperature was 56.1°, or 3.9° above normal; the highest was 96°, at Lamar on the 25th, and the lowest, 15°, at Breckenridge on the 11th. The average precipitation was 2.05, or about normal; the greatest monthly amount, 5.37, occurred at Santa Clara, and the least, 0.09, at Rangely.—*F. H. Brandenburg.*

Florida.—The mean temperature was 74.0°, or 2.0° below normal; the highest was 99°, at Emerson and Lake City on the 22d, and the lowest, 47°, at Fort Meade and Tallahassee on the 2d and at Manatee on the 3d. The average precipitation was 2.22, or about 1.50 below normal; the greatest monthly amount, 11.00, occurred at Boca Raton, and the least, 0.27, at Mullet Key.—*A. J. Mitchell.*

Georgia.—The mean temperature was 69.3°, or 2.2° below normal; the highest was 98°, at Bellville on the 29th, and the lowest, 34°, at Greenbush and Ramsey on the 2d. The average precipitation was 1.52, or 2.04 below normal; the greatest monthly amount, 4.61, occurred at Monticello, while none fell at Gillsville.—*J. B. Marbury.*

Idaho.—The mean temperature was 59.1°; the highest was 100°, at Boise and Lewiston on the 29th, and the lowest, 18°, at Swan Valley on the 8th. The average precipitation was 0.96; the greatest monthly amount, 2.94, occurred at Lewiston and Warren, and the least, 0.23, at Blackfoot.—*D. P. McCallum.*

Illinois.—The mean temperature was 2.6° below normal; the highest was 90°, at Atwood on the 7th, at Olney on the 8th, and at Mascoutah on the 20th; the lowest was 27°, at Scales Mound on the 31st. The average precipitation was 2.43 below normal; the greatest monthly amount, 4.09, occurred at Morrisonville, and the least, 0.84, at Chicago.—*C. E. Linney.*

Indiana.—The mean temperature was 58.1°, or 3.7° below normal; the highest was 91°, at Washington on the 9th, and the lowest, 23°, at Laporte on the 2d. The average precipitation was 3.20, 0.96 below normal; the greatest monthly amount, 5.94, occurred at Bluffton, and the least, 1.39, at Columbus.—*C. F. R. Wappenhans.*

Iowa.—The mean temperature was 59.6°, or 1.5° below normal; the highest was 96°, at Fort Madison on the 6th, and the lowest, 20°, at New Hampton on the 31st. The average precipitation was 1.92, or 2.26, below normal; the greatest monthly amount, 3.59, occurred at Indianola, and the least, 0.21, at Larchwood.—*G. M. Chappel.*

Kansas.—The mean temperature was 64.1°, or 0.1° below normal; the highest was 98°, at Frankfort on the 26th, and the lowest, 30°, at Minneapolis, Phillipsburg, and Salina on the 14th. The average precipitation was 2.04, or 1.59 below normal; the greatest monthly amount, 5.02, occurred at Newton, and the least, 0.01, at Lakin.—*T. B. Jennings.*

Kentucky.—The mean temperature was 61.5°, or 3.6° below normal; the highest was 91°, at Henderson and Shelbyville on the 8th, and the lowest, 32°, at Caddo on the 2d. It was the coolest May since the organization of the service, and light frosts were reported frequently during the month, but no material damage resulted from them. The average precipitation was 3.27, or 1.04 below normal; the greatest monthly amount, 6.04, occurred at Middlesboro, and the least, 1.22, at Pilot Oak.—*Frank Burke.*

Louisiana.—The mean temperature was 72.0°, or 1.3° below normal; the highest was 96°, at Montgomery on the 26th, and at Oakridge on the 27th; the lowest was 42°, at Cheneyville and Robeline on the 2d. The average precipitation was 2.14, or 1.34 below normal; the greatest monthly amount, 5.29, occurred at Alexandria, and the least, 0.15, at Houma.—*R. E. Kerkam.*

Maryland and Delaware.—The mean temperature was 61.1°, or 1.2° below normal; the highest was 86°, at Flintstone on the 20th and at Westernport on the 9th and 20th; the lowest was 27°, at Deerpark on the 29th. The average precipitation was 5.13, or 1.20 above normal; the greatest monthly amount, 7.52, occurred at Westernport, and the least, 2.41, at Solomons.—*F. J. Wals.*

Michigan.—The mean temperature was 51.9°, or 3.1° below normal; the highest was 89°, at Grand Rapids on the 9th and 20th and at Carsonville on the 10th; the lowest was 14°, at Humboldt on the 16th and 26th. The average precipitation was 3.23, or 0.35 below normal; the greatest monthly amount, 5.89, occurred at Rogers, and the least, 1.13, at Muskegon.—*C. F. Schneider.*

Minnesota.—The mean temperature was 55.2°, or 1.2° below normal; the highest was 94°, at Bonniwells Mills on the 5th, and the lowest, 20°, at Tower on the 2d. The average precipitation was 1.38, or 1.69 below

normal; the greatest monthly amount, 3.50, occurred at Milaca, and the least, 0.03, at Bermidji.—*T. S. Outram.*

Mississippi.—The mean temperature was 70.1°, or 2.2° below normal; the highest was 100°, at Columbus on the 29th, and the lowest, 37°, at French Camp on the 2d. The average precipitation was 1.69, or 2.46 below normal; the greatest monthly amount, 4.63, occurred at Magnolia, and the least, 0.37, at Austin.—*E. J. Hyatt.*

Missouri.—The mean temperature was 62.4°, or 1.3° below normal; the highest was 93°, at Darksville on the 20th, and the lowest, 28°, at Potosi on the 2d. The average precipitation was 2.57, or 2.24 below normal; the greatest monthly amount, 5.38, occurred at Sedalia, and the least, 0.70, at Sublett.—*A. E. Hackett.*

Montana.—The mean temperature was 59.0°, or 5.0° above normal; the highest was 98°, at Glendive on the 17th, and the lowest, 20°, at Radersburg on the 1st and at St. Pauls on the 2d. The average precipitation was 1.10 below normal; the greatest monthly amount, 2.91, occurred at Virginia City, and the least, 0.18, at Glasgow.—*R. M. Crawford.*

Nebraska.—The mean temperature was 61.3°, or 2.2° above normal; the highest was 101°, at Franklin on the 25th, and the lowest, 19°, at Kennedy on the 13th. The average precipitation was 1.66, or 1.95 below normal; the greatest monthly amount, 7.09, occurred at Tecumseh, and the least, 0.01, at Wallace.—*G. A. Loveland.*

Nevada.—The mean temperature was 60.0°, or 3.7° above normal; the highest was 99°, at Downeyville on the 29th, and the lowest, 12°, at Monitor Hill on the 8th. The average precipitation was 0.59, or 0.38 below normal; the greatest monthly amount, 1.85, occurred at Toano, while none fell at Beowawe and Mill City.—*R. F. Young.*

New England.—The mean temperature was 55.6°, or about normal; the highest was 85°, at Lawrence, Mass., on the 18th, and at Westboro, Mass., on the 10th; the lowest was 17°, at West Milan, N. H., on the 8th. The average precipitation was 4.80, or 1.10 above normal; the greatest monthly amount, 7.86, occurred at Eastport, Me., and the least, 2.30, at Nantucket, Mass.—*J. W. Smith.*

New Jersey.—The mean temperature was 60.6°, or 0.4° below normal; the highest was 88°, at Allaire on the 10th, and the lowest, 29°, at Charlotteburg on the 8th. The average precipitation was 5.68, or 1.50 above normal; the greatest monthly amount, 9.11, occurred at Sergeantsville, and the least, 1.71, at Atlantic City.—*E. W. McGann.*

New Mexico.—The mean temperature was about normal; the highest was 101°, at San Marcial on the 9th, and the lowest, 19°, at Goldhill on the 4th. The average precipitation was above normal, except in the southwest quarter; extremely heavy rain fell in the northeastern portion; the greatest monthly amount, 9.73, occurred at Fort Union.—*H. B. Hersey.*

New York.—The mean temperature was 55.5°, or 0.8° below normal; the highest was 97°, at Cortland on the 9th, and the lowest, 23°, at Saranac Lake on the 7th and New Lisbon on the 8th. The average precipitation was 4.05, or 0.57 above normal; the greatest monthly amount, 9.83, occurred at Bedford, and the least, 1.33, at Rochester.—*R. M. Hardinge.*

North Carolina.—The mean temperature was 64.6°, or 2.4° below normal; the highest was 92°, at Goldsboro on the 24th, at Lumberton on the 30th, and at Rockingham and Southern Pines on the 29th, the lowest was 28°, at Highlands on the 2d. The average precipitation was 3.73, or 0.52 below normal; the greatest monthly amount, 6.98, occurred at Chapelhill, and the least, 0.99, at Waynesville.—*C. F. von Herrmann.*

North Dakota.—The mean temperature was 55.4°, or 1.8° above normal; the highest was 97°, at Ashley on the 17th, and the lowest, 16°, at Galatin on the 24th. The average precipitation was 0.71, or 1.93 below normal; the greatest monthly amount, 1.84, occurred at Hamilton, and the least, trace, at Milton.—*B. H. Bronson.*

Ohio.—The mean temperature was 56.3°, or 3.9° below normal; the highest was 91°, at Cherryfork and Portsmouth on the 7th, and the lowest, 25°, at Millport on the 31st. The month was the coolest May on record. The average precipitation was 3.93, or 0.05 below normal; the greatest monthly amount, 7.40, occurred at Ripley, and the least, 1.83, at New Paris.—*H. W. Richardson.*

Oklahoma.—The mean temperature was 67.1°; the highest was 95°, at Alva on the 25th, and the lowest, 36°, at Ponca City on the 6th, and at Prudence on the 1st. The average precipitation was 5.20; the greatest monthly amount, 8.80, occurred at Arapaho, and the least, 0.26, at Wagoner.—*J. I. Widmeyer.*

Oregon.—The mean temperature was 59.4°, or 3.6° above normal; the highest was 106°, at Vernonia on the 12th, and the lowest, 16°, at Silverlake on the 7th. The average precipitation was 1.29, or 0.89 below

normal; the greatest monthly amount, 2.88, occurred at Government Camp, while none fell at Canyon City.—*B. S. Pague.*

Pennsylvania.—The mean temperature was 57.7°, or 1.1° below normal; the highest was 88°, at Lockhaven on the 9th, and the lowest, 25°, at Dushore and Shinglehouse on the 8th. The average precipitation was 5.24, or 0.25 above normal; the greatest monthly amount, 10.06, occurred at Smiths Corners, and the least, 1.71, at Brookville.—*T. F. Townsend.*

South Carolina.—The mean temperature was 69.3°, or 1.5° below normal; the highest was 97°, at Gillisonville on the 29th, and the lowest, 38°, at Cheraw on the 3d. The average precipitation was 2.39, or 1.63 below normal; the greatest monthly amount, 5.17, occurred at St. Stephen, and the least, 0.88, at St. George.—*J. W. Bauer.*

South Dakota.—The mean temperature was 58.0°, or 2.0° below normal; the highest was 97°, at Nowlin on the 18th, and the lowest, 19°, at Rosebud on the 14th. The average precipitation was 1.11, or 2.00 below normal; the greatest monthly amount, 4.97, occurred at Wentworth, and the least, trace, at Cherry Creek.—*S. W. Glenn.*

Tennessee.—The mean temperature was 63.5°, or 2.6° below normal; the highest was 94°, at Arlington on the 28th, and the lowest, 30°, at Hohenwald on the 2d. The average precipitation was 2.82, or 1.14 below normal; the greatest monthly amount, 6.89, occurred at Decatur, and the least, 0.10, at Sewanee.—*H. C. Bate.*

Texas.—The mean temperature for the State was 0.9° below the normal. There was a general deficiency, except over the central and western portions of north Texas, west Texas, and the southern portion of central Texas, where there was an excess ranging from 0.2° to 2.2°, with the greatest excess in the vicinity of Burnet. The deficiency ranged from 0.1° to 2.5° over east Texas, the panhandle, and the eastern portion of north Texas; from 0.2° to 3.7° over southwest Texas and the north and central portions of central Texas, and from 0.1° to 4.4° over the coast district, with the greatest deficiency in the vicinity of Fort McIntosh. The highest was 100°, at Midland on the 22d, and the lowest, 36°, at Midland on the 15th. The average precipitation for the State was 0.17 above the normal. There was a general excess ranging from 0.54 to 4.25 over the western portion of southwest Texas and the coast district and over central Texas, and from 0.76 to 5.06 over the panhandle and the central and eastern portions of north Texas, with the greatest excess in the vicinity of Forestburg. Over the other portions of the State there was a general deficiency ranging from 0.29 to 2.49 over east Texas and the central portion of north Texas, and from 0.10 to 2.56 over the eastern portion of the coast district and southwest Texas, and there was a slight deficiency over west Texas. The greatest local deficiency was 2.56 in the vicinity of Galveston. The greatest monthly amount, 9.39, occurred at Forestburg, and the least, 0.20, at Point Isabel.—*I. M. China.*

Utah.—The mean temperature was 60.1°; the highest was 104°, at St. George on the 29th, and the lowest, 12°, at Soldier Summit on the 7th. The average precipitation was 0.42; the greatest monthly amount, 1.31, occurred at Alpine, and the least, trace, at Manti.—*J. H. Smith.*

Virginia.—The mean temperature was 61.3°, or 4.2° below normal; the highest was 91°, at Guinea on the 17th, and the lowest, 18°, at Hot Springs on the 3d. The average precipitation was 4.15, or 0.29 below normal; the greatest monthly amount, 7.04, occurred at Monterey, and the least, 2.46, at Bonair.—*E. A. Evans.*

Washington.—The mean temperature was 59.0°, or 4.0° above normal; the highest was 102°, at Bridgeport on the 28th, and the lowest, 26°, at Hunters on the 7th. The average precipitation was 1.62, or 0.84 below normal; the greatest monthly amount, 7.51, occurred at West Ferndale, and the least, 0.10, at Bridgeport.—*G. N. Salisbury.*

West Virginia.—The mean temperature was 57.6°, or about 4° below normal; the highest was 90°, at New Martinsville on the 8th, and the lowest, 23°, at Philippi on the 3d. The average precipitation was 4.60, or 0.50 above normal; the greatest monthly amount, 7.06, occurred at Marlinton, and the least, 2.17, at Wheeling.—*H. L. Ball.*

Wisconsin.—The mean temperature was 54.2°, or 2.1° below normal; the highest was 93°, at Osceola Mills on the 7th, and the lowest, 14°, at Spooner on the 1st. The average precipitation was 1.82, or 1.98 below normal; the greatest monthly amount, 5.27, occurred at Citypoint, and the least, 0.51, at Madison.—*W. M. Wilson.*

Wyoming.—The mean temperature was 57.5°, or 8.0° above normal; the highest was 92°, at Carbon on the 24th and at Lusk on the 18th; the lowest was 23°, at Fort Yellowstone and Lusk on the 8th and at Green River on the 9th. The average precipitation was 1.23, or 0.65 below normal; the greatest monthly amount, 3.07, occurred at Cheyenne, and the least, trace, at Wamsutter.—*M. G. Renoe.*