U. S. DEPARTMENT OF AGRICULTURE
WEATHER BUREAU

REPORT

OF THE

CHIEF OF THE WEATHER BUREAU

1919-1920

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Of the Annual Report of the Chief of the Weather Bureau, four thousand copies; one thousand copies for the Senate, two thousand copies for the House, and one thousand copies for the Bureau.

LETTER OF TRANSMITTAL.

UNITED STATES DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU,
Washington, D. C., October 8, 1920.

SIR: I have the honor to submit herewith a report of the operations of the Weather Bureau during the fiscal year ended June 30, 1920.

Respectfully,

C. F. MARVIN,
Chief of Bureau.

Hon. E. T. MEREDITH,
Secretary of Agriculture.

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PART I.

ADMINISTRATIVE REPORT.

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REPORT

OF THE

CHIEF OF THE WEATHER BUREAU.

It seems appropriate in this report to lay special emphasis upon the limitations which now surround practically all the activities and service the Weather Bureau is charged by law to render. For several years the annual appropriations of the bureau have remained practically stationary, while costs for services and supplies of all kinds have advanced greatly. To the difficulties these conditions bring in maintaining the service of meteorology applied to the interests of agriculture, commerce, and navigation at its proper standard of completeness and efficiency there are added the necessities of meeting, as far as possible, the new demands created by simply the normal growth of the Nation as well as needs which are now a permanent part of the national existence as a result of war experiences and developments. Meteorological service for aeronautics and military operations must be supplied. The Weather Bureau is the logical Federal agency for this purpose and needs the strongest possible support of Congress and the people to enable it to meet all its new obligations.

Every national activity, industry, and interest has become aroused to the immediate practical value of weather advices, warnings, forecasts, and information in the daily sequence of affairs. Aviation and the aerial mail service are protected and assured a greater percentage of safety and success by a foreknowledge of flying conditions. The total number of stations now equipped to render the special free-air data required is only 11, to represent the continental United States. Even supplemented by about an equal number of reports from Army posts and naval bases, the number of stations is ridiculously inadequate and must be increased to meet the present demands and future growth of aviation.

Limited personnel, whose rate of pay has remained stationary with stationary appropriations, has compelled the bureau to make numerous curtailments of useful activities. For example, it was formerly the custom for employees of the bureau to prepare daily the large glass weather maps on the principal exchanges, boards of trade, chambers of commerce, etc., in the larger cities of the country. Much dissatisfaction prevails whenever it is imperatively necessary from lack of funds and trained employees to curtail this service.

The enormous development of motor traffic and trucking has created an urgent demand upon the bureau for weather reports and statements of road conditions for vicinities surrounding each of its principal stations. This has been met as far as possible, but the Highway Weather Service, as it is called, falls far short of supplying the motoring public with the aid and service to which it is entitled.

A new enterprise in the form of weather and rain insurance imposes other important obligations of preparedness upon the bureau to supply facts and data this undertaking requires. This is not a burden at the present time, but is doubtless destined to crystallize into an activity which in the aggregate for the country will entail a very material added expenditure of time and effort.

Obviously meteorology can not be limited by either national or even continental boundaries. Its logical field must embrace the entire globe. Every success attained in great storm warnings and forecasts simply increases the confidence of those served and benefited, awakens greater expectations and imposes added obligations upon the forecasters. The greatest hope in meeting this situation comes through the collection of numerous reports from the vast ocean expanses and international exchange of observations. A circumpolar service of this character, but of small extent, which existed before the war, has not yet been restored, but happily agencies are at work

which give promise that the future will ultimately bring about the realization of a daily weather map, first of the Northern Hemisphere and, possibly, later of the world. In the meantime, every effort is now being directed to the restoration of the meteorological reports of the oceans.

In general terms, the Weather Bureau is suffering from the ravages of the war and the consequences of an enormous change in economic conditions. Its work is conducted under strained conditions by a faithful personnel, largely discouraged by the slow and inadequate adjustment of Federal occupations to existing conditions of life. The rehabilitation of the service is now a most urgent need.

Comments are submitted in the following regarding the principal features of the work.

FORECAST SERVICE.

No material changes have been made in the regular forecast service of the bureau, which was somewhat fully described in the annual report for last year. The bureau can not adequately meet the demands for forecasting with the funds at present available. Some of the special service rendered, during the year just closed, illustrates the nature of these demands.

SPECIAL FORECASTS AND WARNINGS.

ARMY AND NAVY BALLOON RACE.

This race was confined to officers of the Army and Navy, three balloons being entered from each of these branches of the service. It was scheduled to start at 6 p. m., September 25, 1919, and complete arrangements were made to furnish not only forecasts of surface and upper-air conditions that would be encountered, but also weather observations taken at the surface and aloft. Temporary headquarters were located at the starting grounds and telegraphic and telephonic communication established directly with the St. Louis office of the Weather Bureau. Each contestant was supplied with the observations, forecasts, and advices without delay. The information furnished was of pronounced value and the forecasts were accurate to a remarkable degree.

RECRUITING TOUR OF NAVY HYDROPLANE "NC-4."

The naval flying boat *NC-4* began its recruiting trip from Rockaway Beach, Long Island, the latter part of September, the first part being a return trip to Atlantic City, thence to Portland, Me., from which place the route extended down the coast to the Florida Straits, thence over the Gulf of Mexico to Pensacola and New Orleans, up the Mississippi and Ohio Rivers as far as St. Louis and Cincinnati, back again to the Gulf, and westward to Galveston. During this cruise, which covered several months, the Weather Bureau furnished a. m. and p. m. forecasts of weather and wind directions and velocities, both at the surface and aloft, for the aviation zone in which the boat happened to be at the time.

NATIONAL BALLOON RACE.

This race was scheduled to start from St. Louis, Mo., at 6 p. m., October 1, 1919. A special message was sent that morning stating that there would be showers and thunderstorms to the east and north of St. Louis that night and the following day, and that the conditions would not be favorable for free ballooning. A second forecast, based on special observations, was sent at 2.33 p. m., advising that the race be postponed, as the balloons would be carried northward toward the Great Lakes, where squalls and thunderstorms would be experienced. Notwithstanding this advice, the race was started at the appointed time. The contestants, 10 in number, were carried northward as predicted, and squalls, thunderstorms, and generally unfavorable weather occurred. One of the balloons, with its two occupants, was lost in Lake Huron.

TRANSCONTINENTAL RELIABILITY AEROPLANE RACE.

This race was confined to aviators of the United States Army. Starting points were San Francisco, Calif., and Mineola, N. Y., the course being a round trip between the two points. It began October 7 and ended October 31, 1919. Special forecasts were prepared for the benefit of the contestants each morning and evening during the entire period. For this purpose the

route was divided into seven zones, and a separate prediction of weather that would be encountered was issued for each zone and telegraphed to the control stations. These forecasts were of great assistance to the flyers. The race was won by Lieut. Belvin W. Maynard. In commenting on the race the official news bulletin of the Air Service said:

> Lieut. Maynard's wonderful time was due to the fact that he took advantage of the splendid service rendered by the Weather Bureau in sending the weather forecasts to all of the control stops. If he had been informed that the weather would be bad for the next control stop, he would immediately take off and get to this stop before the storm had approached. This enabled him to gain a distinct advantage over the other participants at the very outset of the race.

OPEN-AIR ENTERTAINMENTS AND WEATHER INSURANCE.

For many years the bureau has been called on to furnish special forecasts covering periods of State and county fairs, round-ups, picnics, and other large assemblages in the open air. This year more applications of this kind were received than ever before. However, a new and important feature has been involved in such service, due to the rapid increase of weather insurance written by companies to cover owners and directors of such enterprises against losses due to bad weather. Extensive and expensive preparations have to be made in advance for such enterprises. The entertainments are extensively advertised to occur at stated times, and large losses are sure to occur if weather of a character to prevent attendance prevails. Insurance companies now underwrite such risks, and settlements are made on stipulated weather occurrences. The insurer and the insured are vitally concerned, especially the latter, in the forecasts that are made for them a day or two in advance of the opening, and daily thereafter if the performances continue for several days. These special forecasts are made available to the public also and are appreciated by those who expect to attend. Moreover, an important and difficult problem has been injected because of questions of settlement based on records of actual weather occurrences that naturally arise. The bureau has been obliged to decline to install apparatus and make observations on the premises; but it has freely advised as to the kind of apparatus to be used, how the observations should be made, etc. Service to the people is incumbent on the bureau, but it often becomes a question as to differentiation between public service and individual service. However strict an interpretation may be placed thereupon, it is patent that the rapid increase in weather insurance is bound to place large additional duties upon the bureau in making weather observations, compiling data, and furnishing special information, all of which will severely tax the bureau with its present limited appropriations.

FLYING-WEATHER FORECASTS.

A new form of forecasts, known as "Flying Weather," was begun in July, 1919, at the request of the War Department, for the especial benefit of the Air Service of the Army. The country was divided into 7 zones, and a separate forecast made for each of them in the a. m., and certain of the eastern zones in the p. m. Later the number of zones was increased to 13. These forecasts are telegraphed directly to the Air Service, which distributes them to the air fields. A typical forecast, which will explain their character, is as follows:

> Zones Nos. 1 and 2: Poor flying weather to-day; local thundershowers probable: moderate to fresh south and southwest surface winds, becoming west and moderately strong above 3,000 feet.

Similar service has been furnished the Post Office Department as an aid to mail-route aviators ever since the aerial-mail system was inaugurated. It is likely that arrangements will be made for supplying similar information for the coastal zones of the Navy. Increased demands for aerial observations and forecasts are inevitable in other directions as aerial navigation develops and as an essential factor of success. Meteorological information and forecasts are destined to become of as much importance to navigators of the air as to navigators of the seas.

STORMS.

Although only two or three storms of extraordinary character and violence occurred, cold waves, storms, heavy snows, frosts, etc., which required the issuance of warnings and advices, were in excess of the average. It was a year of weather abnormalities, which necessitated extra

vigilance on the part of the forecasters. The general excellence of their work is deserving of commendation.

The most notable storm was the hurricane that occurred in September. It was first detected a little west of the island of Antigua on September 2. It passed inland near Corpus Christi, Tex., on the 14th. A detailed description of this storm was published in the Monthly Weather Review for September, 1919. It was of exceptional violence. The barometer at the center was nearly the lowest on record, and its path, after passing Key West, was abnormal. From the time it passed Key West until it struck the southern Texas coast its course was entirely over water and was beyond the range of all land observation stations. Owing to the effectiveness of the warnings that were issued few vessels remained in the Gulf of Mexico; therefore wireless reports from vessels were not available, and the forecasters of the bureau were placed at a disadvantage in determining its course and progress.

The most violent storm that has visited the Great Lakes, measured by low barometric pressure and high-wind velocities, occurred November 29 and 30. Warnings were issued well in its advance. The winds reached hurricane force, velocities of 72 miles per hour at Port Huron, 84 miles at Detroit, and 80 miles at Buffalo and Toledo being recorded. However, so thoroughly had shipping been warned that there was not a single marine casualty—probably an unprecedented occurrence for a storm of such magnitude and intensity.

Another storm of unusual intensity passed up the Atlantic coast between February 2 and 8. Its outstanding characteristics were its slowness of movement, being nearly stationary off the Virginia coast for nearly two days, and the record-breaking tides that occurred. A unique incident of this storm was that the Weather Bureau was able to profit by its own warnings. Its observatory building at Cape Henry, Va., was seriously menaced by the high tide and encroaching waves, but advantage was taken of foreknowledge of conditions and the building was saved by the erection of sand-bag bulkheads, in which work the officers and men of the Army Engineer Corps located at Fort Story, near by, rendered invaluable assistance.

HIGHWAY WEATHER SERVICE.

No material changes were made in the highway weather service during the year. This was due entirely to the fact that funds were not available, and that station officials were repeatedly informed that no extension of this work could be made if it involved increased expense of any kind. Bulletins giving information of the conditions of roads, the effect of weather thereon, and other information of value to automobilists and those engaged in the transportation of goods by trucks are issued from 62 stations located in 30 States. There has been so much demand for an extension of this work, so many expressions of its value by automobile associations, road commissioners, and the traveling public that it has been difficult to resist pressure for extensions. It is a work that the Weather Bureau is best fitted to perform; its value is unquestionable, and it is hoped that appropriations may become available whereby the public demands may be met.

WEATHER MAPS.

The demands for the resumption of the weather maps, which were discontinued at more than 50 stations during the war, are numerous and insistent. Weather maps have been issued for more than 40 years. They are the most effective means of distributing weather information, and the educational, scientific, agricultural, commercial, and navigation interests of the country appreciate their value and expect the service in this form. No serious objection was made to their discontinuance during the war and as a war necessity. Now that nearly two years have elapsed since the war terminated, they can not understand why this service should not be resumed. However, the high cost of paper, materials, and service, which made their discontinuance necessary, has not abated. No additional funds have been appropriated, and it is impossible for the bureau to resume the service with present appropriations. Weather maps should be resumed at a considerable number of the stations that are located in large cities and populous centers.

VERIFICATION OF FORECASTS.

The question of the accuracy of the forecasts and warnings issued by the Weather Bureau is of public interest. The present system of verification has not been changed for five years. The following table shows the percentage of accuracy attained in the forecasts issued for all States and sections of the country from 1915 to 1919, inclusive:

Verification of a. m. 36-hour weather and temperature forecasts.

Year.	1915		1916		1917		1918		1919		Average.		
	Weather.	Temperature.	Weather.	Temperature.	Weather.	Temperature.	Weather.	Temperature.	Weather.	Temperature.	Weather.	Temperature.	Combined.
	P. ct.	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*
Washington district:													
Northern New England	84.3	90.4	83.8	89.9	83.8	90.7	82.6	86.1	84.5	88.4	83.8	89.1	86.5
Southern New England	85.9	91.1	85.8	91.5	85.6	92.4	82.9	89.4	84.7	90.0	85.0	90.9	88.0
Eastern New York	86.6	91.2	86.2	91.5	88.1	92.2	81.4	86.6	86.4	88.1	85.7	89.9	87.8
Western New York	84.6	91.4	84.7	89.0	84.7	89.9	83.2	86.0	84.7	88.1	84.4	88.9	86.7
Eastern Pennsylvania	87.2	91.6	84.6	90.4	86.4	92.7	83.1	89.2	85.8	87.7	85.4	90.3	87.9
Western Pennsylvania	85.5	92.4	85.7	90.7	83.7	91.8	83.5	87.6	84.3	90.7	84.5	90.6	87.6
New Jersey	86.8	92.8	84.8	91.8	85.8	93.9	83.2	90.4	87.4	90.4	85.6	91.9	88.8
District of Columbia, Maryland, and Delaware	87.5	94.2	86.2	93.4	85.9	93.9	83.8	90.1	86.3	92.0	85.9	92.7	89.3
Virginia	87.0	93.1	85.2	92.9	85.0	91.8	84.2	89.7	86.1	91.7	85.5	91.8	88.7
West Virginia	84.7	92.2	86.3	89.9	84.7	88.7	81.9	86.0	83.5	89.8	84.2	89.3	86.8
Kentucky	85.2	92.8	87.7	89.7	87.5	91.8	83.5	88.4	86.0	91.1	86.0	90.8	88.4
Ohio	84.6	92.2	86.4	89.8	84.6	89.7	83.4	87.9	83.7	89.4	84.5	89.8	87.2
Indiana	86.0	92.3	86.8	89.0	85.2	89.8	81.8	87.7	85.2	88.5	85.0	89.5	87.3
Lower Michigan	82.8	91.2	84.6	89.6	82.9	89.6	81.8	86.3	83.2	89.2	83.1	89.2	86.2
Upper Michigan	82.6	89.7	81.4	88.2	83.7	86.9	79.2	87.3	81.0	87.0	81.6	87.8	84.7
North Carolina	86.8	92.2	87.0	93.3	85.2	92.5	84.7	90.9	85.1	93.8	85.8	92.5	89.2
South Carolina	87.3	93.7	87.4	95.0	87.4	93.5	85.5	92.2	83.6	95.4	86.2	94.0	90.1
Georgia	87.0	94.7	87.5	94.6	86.8	92.1	85.2	92.1	82.2	94.0	85.7	93.5	89.6
Florida	88.6	96.6	86.6	96.3	86.7	95.8	85.6	96.2	83.4	97.3	86.2	96.4	91.3
Alabama	86.7	95.0	86.4	93.6	86.6	91.5	84.2	92.0	82.7	94.7	85.3	93.4	89.4
Mississippi	85.7	94.3	87.5	92.9	85.7	91.1	84.4	92.5	83.2	93.3	85.3	92.8	89.1
Tennessee	85.6	92.6	86.4	89.1	86.3	90.9	83.4	89.4	84.0	91.6	85.1	90.7	87.9
District average	85.9	92.6	85.9	91.5	85.6	91.5	83.3	89.3	84.4	91.0	85.0	91.2	88.1
Chicago district:													
Illinois	84.3	92.0	86.9	90.6	87.2	91.8	83.8	89.4	86.4	90.0	85.7	90.8	88.3
Missouri	84.8	90.6	86.0	89.6	87.1	90.2	84.4	89.0	86.2	89.3	85.7	89.7	87.7
Kansas	84.6	87.6	87.3	87.1	91.0	88.3	86.0	89.0	89.2	91.0	87.6	88.6	88.1
Nebraska	86.2	86.4	85.3	86.0	89.5	86.3	88.2	87.4	87.4	88.5	87.3	86.9	87.1
Iowa	84.1	90.1	85.8	88.4	86.9	87.9	83.3	86.4	84.4	88.5	84.9	88.3	86.6
Wisconsin	83.2	90.3	84.8	88.8	86.1	89.3	83.4	89.3	85.6	90.0	84.6	89.5	87.1
Minnesota	86.3	87.5	83.8	87.5	86.5	87.2	85.3	86.7	85.3	88.1	85.4	87.4	86.4
North Dakota	87.5	83.9	86.2	85.9	88.9	85.3	87.5	83.2	88.1	86.7	87.6	85.0	86.3
South Dakota	87.4	84.8	85.0	84.2	88.5	86.0	86.6	84.6	85.8	86.4	86.7	85.2	86.0
Wyoming	85.8	84.7	85.9	85.9	89.7	85.2	86.5	86.4	88.9	86.8	87.4	85.8	86.6
Montana	83.8	84.6	85.8	85.6	88.1	82.7	87.5	84.1	89.1	85.0	86.9	84.4	85.7
District average	85.3	87.5	85.7	87.2	88.1	87.3	85.7	86.8	86.9	88.2	86.3	87.4	86.9
New Orleans district:													
Louisiana	87.0	94.9	88.9	93.3	88.4	92.9	87.4	93.2	82.6	93.7	86.9	93.6	90.3
Arkansas	85.4	91.4	88.0	90.0	87.6	90.4	86.8	90.4	84.8	89.8	86.5	90.4	88.5
Oklahoma	85.3	90.2	88.3	88.5	89.2	87.7	87.1	87.9	86.9	90.6	87.4	89.0	88.2
East Texas	87.4	92.2	89.6	91.6	90.6	91.4	89.1	90.8	86.9	92.6	88.7	91.7	90.2
West Texas	90.6	90.9	94.5	90.4	94.2	91.1	93.6	90.0	89.5	92.5	92.5	91.0	91.8
District average	87.1	91.9	89.9	90.8	90.0	90.7	88.8	90.5	86.1	91.8	88.4	91.1	89.8
Denver district:													
Colorado	86.7	85.8	86.7	86.1	89.1	86.2	87.1	85.9	87.7	85.3	87.5	85.9	86.7
New Mexico	87.8	90.7	89.0	91.2	91.2	91.1	88.4	89.2	87.4	90.6	88.8	90.6	89.7
Arizona	90.7	90.9	90.6	91.9	91.9	91.3	90.0	90.8	90.1	91.4	90.7	91.3	91.0
Utah	88.8	89.3	89.8	87.3	91.7	89.5	87.6	91.1	89.3	89.8	89.4	89.4	89.4
District average	88.5	89.2	89.0	89.1	91.0	89.5	88.3	89.3	88.6	89.3	89.1	89.3	89.2
San Francisco district:													
Washington	86.2	93.8	87.5	92.4	86.0	92.3	86.3	90.2	84.8	90.3	86.2	91.8	89.0
Oregon	87.1	89.8	89.2	89.7	87.1	89.6	83.0	87.6	84.3	88.5	86.1	89.0	87.6
Idaho	84.2	89.2	87.4	85.4	87.8	86.9	84.6	87.1	84.8	86.6	85.8	87.0	86.4
Nevada	89.4	89.8	89.3	89.0	92.2	90.2	91.9	89.7	90.1	89.0	90.6	89.5	90.1
Northern California	88.4	93.4	90.9	92.4	92.8	92.8	91.5	93.3	91.8	92.8	91.1	92.9	92.0
Southern California	91.4	96.6	93.2	97.0	94.2	95.6	90.3	95.9	93.9	95.6	92.6	96.1	94.4
District average	87.8	92.1	89.6	91.0	90.0	91.2	87.9	90.7	88.3	90.5	88.7	91.1	89.9
Grand average, all districts	86.3	91.0	87.0	90.2	87.6	90.3	85.4	89.0	86.0	90.3	86.5	90.2	88.4

The forecast centers are located at Washington, D. C.; New Orleans, La.; Chicago, Ill.; Denver, Colo.; and San Francisco, Calif., and comprise States as indicated in the table. The combined accuracy for all the districts for the five-year period is 88.4 per cent. Verifications

are made of a. m. forecasts based on observations taken at 8 a. m., seventy-fifth meridian time. These forecasts are made 36 hours in advance. It has long been recognized that the complete verification of weather forecasts, by which is meant the finding of the exact relation between the conditions forecast and those which actually occur, involves insurmountable difficulties and that approximately accurate results only are possible according to a series of relatively arbitrary rules. As verifications are based on the results of two observations a day (8 a. m. and 8 p. m., seventy-fifth meridian time), account is taken only of precipitation or its absence during 12-hour periods. For example, the forecast "Rain to-night, fair Wednesday," would be counted a failure in the second period if some rain fell after the morning observation, although the weather was fair for the rest of the day; it would receive a credit of only 50 per cent by the rules of verification, but the public would undoubtedly regard the forecast as a complete success. In the same manner, a rain forecast for both periods would fail if the rain stopped just before the first observation of the second period.

While general rules for the verification of weather forecasts will always fail and succeed, more or less, in individual cases of the kind cited, it is nevertheless generally admitted that in such cases the failures and successes balance each other in the long run, so that after all the general averages under empirical rules fairly represent the true results.

RIVER AND FLOOD WARNINGS.

Increased cost of materials and services required in the upkeep of river gages, including demands for increased compensation on the part of some of the gage readers, has made it difficult to maintain the full program of activities in the safeguarding of life and property from destruction by flood.

The problem was met in part by a revision of the observational work whereby the season was shortened, wherever it could be safely done, and the small amount so saved was applied in granting small increases in compensation at the most important points. At the close of the year the revision had been completed and the maximum possible service was being rendered for the minimum expenditure of funds.

The flood-warning service has functioned efficiently throughout the year, notwithstanding the large number of unusual floods in various parts of the country. In October and November, 1919, serious flooding occurred in the region from northeast Texas to the upper Ohio Valley, and in December of that year the most severe flood in 35 years occurred in the streams of southeastern Mississippi, Alabama, and western Georgia. Notwithstanding the fact that full publicity was given to the coming of these floods, there was a small loss of life and a great loss of property, mostly unavoidable.

The floods of 1919 have emphasized the fact that matured crops grown on lands subject to overflow are not safe until removed to places not subject to overflow. This was particularly noticeable in the case of the 1919 corn crop in the lower Ohio Valley and elsewhere, much of which was lost by flood. Scarcity of farm labor may be the explanation of a large part of the loss, but the fact remains that loss of corn in overflowed regions has been experienced for many years.

MOUNTAIN-SNOWFALL MEASUREMENTS.

On account of the great deficiency of snow for the winter of 1919–20 in large parts of the far West, the measurements of snowfall in mountain regions have clearly indicated the necessity of conserving the water supply in the lowlands. In one case the State has taken formal action toward conservation of the water supply. The number of mountain-snowfall stations is slowly diminishing, since it is rarely possible to replace an observer when he abandons his residence in the mountains.

COOPERATION.

Much valuable aid in determining the amount of snow in the mountains has been given by the forest rangers in Western States. Special acknowledgment is due the Forest Service of the department. By a cooperative agreement with that service, an intensive survey of the

precipitation in the mountains of Los Angeles and San Bernardino Counties is being made. The data collected are to be used in planning a system of flood protection for the lowlands of those counties.

The Wagon Wheel Gap county experiment station maintained in cooperation with the Forest Service of the department has been in operation during the year. The forest cover of watershed B has been removed in accordance with the original agreement and the experiment may be said to have reached and entered upon the second stage. A discussion of the results of meteorological and stream-flow observations during the first stage has been completed.

STATIONS AND ACCOUNTS DIVISION.

WEATHER BUREAU QUARTERS IN FEDERAL BUILDINGS.

Suspension of work on Federal buildings during the period of the war throughout the United States was so general that no new Federal buildings were completed at places where Weather Bureau stations are located, and no removal thereto from rented quarters was made during the fiscal year ended June 30, 1920. Furthermore, in several instances the urgent demand for quarters in Federal buildings by other branches of the Government necessitated relinquishment of rooms already assigned and used by the Weather Bureau, as follows:

At Lewiston, Idaho, Philadelphia, Pa., and Vicksburg, Miss., one room was given up and Weather Bureau furniture and equipment crowded into remaining space. At Baltimore, Md., about one-third of the Weather Bureau space was relinquished for use of the Revenue Service. At Fort Smith, Ark., Cairo, Ill., and Sacramento, Calif., office space was rearranged to better accommodate occupants of the buildings.

RENTED QUARTERS FOR WEATHER BUREAU OFFICES.

A general increase in rentals was demanded for office quarters where leases expired by limitation on June 30, 1920. Where removals to less expensive quarters and reduced space could not be effected, it was necessary to renew existing leases, and the total cost to the bureau by reason of these increases for the next fiscal year, even attended in some cases with reduction of floor space, is $4,548.10.

Status of Weather Bureau offices at stations outside of Washington.

Free quarters and accommodations:		
In observatory buildings (owned and controlled by the Weather Bureau)	45	
In State university buildings	5	
In Federal buildings	74	
Total free of rental		124
Rented buildings, etc., owned by individuals or corporations:		
In office buildings	81	
In buildings with grounds, aerological, and special meteorological stations	16	
Total number rented buildings partly or wholly occupied		97
Total		221

The foregoing does not include Weather Bureau buildings at Narragansett Pier, R. I., and Mount Weather, Va., which continue unoccupied, in charge of caretakers.

TELEGRAPH SERVICE.

No material changes occurred during the year in the operation of the "circuit" system whereby, over the telegraph lines, about 175 coded weather observations are reported to the central office twice daily. By the same means 140 stations connected directly with these circuits, 21 in number, receive a specified number adequate to their needs. In addition to these circuit reports, daily observations are received from approximately 40 other points by special message and cablegram and about 50 from ships at sea by wireless.

Close cooperation of the Western Union Telegraph Co. has existed since the foundation of the circuit system many years ago and is vitally necessary for the effective maintenance of the work. Steadily increasing use by this company of the "multiplex" machine system, mentioned in report of last year, has continued to militate somewhat against accurate and prompt transmission of reports and general miscellaneous business by special message.

Reception of reports from cable stations has not been as prompt as heretofore except in isolated cases. Several important cables were broken or interrupted at various places during the autumn of 1919. In consequence, the wireless systems of the Navy Department became greatly congested in an effort to carry the business, which included numerous daily weather reports from cable stations and also from ships at sea. Embarrassing delays naturally ensued. This condition continued throughout June, the beginning of the hurricane season, and still obtains at this writing. Vigorous efforts have been made to effect improvement without sensible results.

Refusal of one telephone and telegraph company to renew a contract at former favorable rates necessitated, in the interest of economy, transference of a large part of the service performed by that company to the telegraph companies. This amounted to about $5,000 annually. Because of late opening of many of these offices, noted in the last report as having resulted from abridgment of the hours of labor of operators, prompt dispatch of the cotton and corn and wheat messages involved could not be accomplished. This latter condition applies equally to many small offices throughout the Middle and far Western States at which observational reports are prepared for transmission to circuit centers at early hours. At some of these points railroad offices are available from which the telegrams may be transmitted, but frequent delays are inevitable where so filed, due to the pressure of other business, especially at train times. Prompt transmission at early hours could be accomplished by the telegraph companies by assignment of special operators for this purpose, cost of which is prohibitive.

The great disparity between the wages paid commercial telegraphers and the salaries possible for the Weather Bureau to pay its operators leads to repeated resignations and vacancies for long periods before places can be filled. The work has suffered severely on this account and serious delays occur in filling clerical positions, leading to great dissatisfaction and inefficiency.

WEATHER BUREAU TELEGRAPH AND TELEPHONE LINES.

Continued extensive use has been made of facilities afforded by these lines during the year by the Navy Department, the War Department, and the Coast Guard Service, the latter having contributed as heretofore in their maintenance.

The land lines are in excellent condition and the cables are still giving regular and satisfactory service, notwithstanding all but the Key West-Sand Key cable were laid 17 or more years ago. The time is not far distant, however, when new cables must be supplied, and provision should be made by adequate appropriations for such contingency.

BLOCK ISLAND-MATUNUCK BEACH (R. I.) SECTION (TELEGRAPH).

Until early spring telegraphic transmission over this cable was excellent. On April 27, however, a heavy escape developed, stopping communication. Arrangements were at once begun to effect repair, which was completed on June 16 at a cost of $829.75. Since then transmitting conditions have been excellent through the three conductors. Two conductors of this cable are rented to a telephone company for telephonic purposes. During the year the line earned $739.68.

Prompt and satisfactory communication between the mainland and Block Island is impossible because of the inadequate facilities afforded by the Weather Bureau cable. By far the greater part of the business is conducted by telephone. The situation calls for a new cable, with at least 10 conductors, which should be owned and operated by some strong commercial company.

NORFOLK-HATTERAS (VA.-N. C.) SECTION (TELEGRAPH).

The 172 miles of land line, including several short cables totaling about 4 miles, worked unusually well and is in excellent condition. New insulators were installed from Norfolk to Coast Guard station No. 165, a distance of about 35 miles, materially increasing efficiency. Of the four conductors in the new Manteo-Nags Head cable, one became useless in February from the effects of lightning; since then one of the two reserve conductors has been used in lieu thereof. Repair by the Coast Guard Service is expected in the near future.

Between Cape Henry and Coast Guard station No. 163, a distance of 10 miles, 10-pin cross arms were installed by the War Department in place of 4-pin arms, in a first-class manner, in order to provide for stringing several extra wires for the use of that department.

Because of the encroachment of the sea at Nags Head, necessitating removal of numerous cottages to a safe distance from the beach, the poles were moved back about 100 yards for a distance of 1 mile.

During April the pole line across Rudy Inlet was changed to the right of way of the Norfolk & Southern Railway Co., thus removing the line from private property.

This Norfolk-Hatteras line is of great value to the various governmental services using it and to the public generally by reason of the large amount and character of information collected and disseminated through this instrumentality.

The Coast Guard Service has cooperated most efficiently in the maintenance and improvement of the line, practically all of the repair work having been accomplished by them.

KEY WEST-SAND KEY (FLA.) SECTION.

The cable connecting these points is owned by the Navy Department, having been laid by that department in January, 1919. No land line is operated.

ALPENA-THUNDER BAY-MIDDLE ISLAND (MICH.) SECTION (TELEPHONE).

Land lines, 22 miles; cable, 5½ miles.

The total time of interruption during the year was three days on the Thunder Bay line, due to necessity of repairs on the 12 miles of land line.

The lines are in fair condition except that the number of poles breaking off at the ground, due to rot, is increasing. Seventeen poles fell during the year owing to the effect of storms. One thousand dollars should be made available for sawing off and resetting those now in good condition and for replacing about 25 others. This would add approximately 10 years to the life of the line.

The naval communication service contemplates the erection of a radio-compass station on Thunder Bay Island or North Point this fiscal year if possible. The communication between the compass station and the Alpena radio station is to be maintained by two metallic circuits. One of these circuits could be made available to both the Weather Bureau and the radio service for telephonic communication to and from the island.

This offers an opportunity for cooperation by the radio service in the matter of reconstruction and maintenance of the Thunder Bay Island telephone line.

WHITEFISH POINT-GRAND MARAIS (MICH.) SECTION (TELEPHONE).

No interruption of moment occurred on this line. The twice-daily reports received from Whitefish Point during navigation are of decided importance to shipping interests. The reports are addressed "Observer, Sault Ste. Marie," transmitted through to Grand Marais Coast Guard station, including the 10 miles of Weather Bureau line to Vermillion Point, thence by a private telephone line to Seney, where they are transferred to a Western Union Telegraph wire.

The country through which the private telephone wire line runs is sparsely settled. Information has been received that the line is deteriorating and that it is only a question of time when it will be abandoned.

It is understood that the Navy Department is considering placing a radio station at Whitefish Point, which will afford communication with Sault Ste. Marie, provided a 3-mile land line can be built between Detour and Detour Point. If established, this channel can be used for transmission of Weather Bureau reports to and from Whitefish Point.

NORTH AND SOUTH MANITOU ISLANDS-SLEEPING BEAR POINT (MICH.) SECTION AND BEAVER ISLAND-CHARLEVOIX (MICH.) SECTION (TELEPHONE).

These two worked satisfactorily throughout the year.

SAN FRANCISCO-POINT REYES-MOUNT TAMALPAIS (CALIF.) SECTION (TELEPHONE).

Extensive use is made of this line by the Coast Guard Service, which cooperated with the Weather Bureau in the preceding year in a reorganization plan as set forth in the report for June 30, 1919.

About 5 miles of new wire was strung by that service between Point Reyes and Fairfax, replacing faulty wire placed in the course of reconstruction of the line during the previous year.

A plan for the maintenance of the line jointly by the Weather Bureau and the Coast Guard Service was entered into April 1, 1920, which designates certain sections for which the Weather Bureau and Coast Guard will be separately responsible. This has been of material advantage to the Weather Bureau.

A total of 1,518 messages were transmitted during the year, mostly observational reports and requests for information. No commercial business is handled.

The three test stations installed in May, 1919, and mentioned in the report for last year have further demonstrated their usefulness in locating trouble. The portion of the line between Mount Tamalpais and Mill Valley (4 miles) worked generally well throughout the year except from July 17 to 25, during which period an interruption of six days occurred. About 1,000 messages were transmitted to and from Mount Tamalpais. The weather reports from this point are of great benefit to the service.

NORTH HEAD-PORTLAND (OREG.) SECTION (TELEGRAPH).

No extensive changes or repairs were made during the year, the cost for ordinary repairs being but $9.

As detailed in the last report, the Weather Bureau is permitted by the War Department the use of a conductor in the military cable between Fort Canby and Fort Stevens, the cable formerly owned and operated by the Weather Bureau between these points having been abandoned because of further unserviceability. During June the War Department laid a new section of cable for a part of the distance between Fort Canby and Fort Columbia. Much improvement in transmission has been noted. Use of the military cable is subject to recall at any time. Permanency of continuance of communication by wire between Portland and North Head, vital to Weather Bureau interests in that section, can be secured only by the laying of a new cable either by the Weather Bureau or by another agency which would assure preservation of Weather Bureau interests.

A new cable and necessary land lines would cost approximately $25,000 to $30,000 at this time.

TATOOSH ISLAND-PORT ANGELES (WASH.) SECTION (TELEGRAPH).

Length, about 90 miles. Extensive logging operations along a considerable portion of this line continued throughout the year as for several years previous, causing numerous interruptions by breaks and groundings. The number was augmented by results of road building, storms, and falling timber. Communication was thus interrupted for a total of 17 days, 88 breaks having occurred.

The span wire between Tatoosh Island and the mainland parted on July 10, resulting in an interruption of three days and four hours. A new span wire will be strung this autumn, because of faulty character of present span due to rust.

Seven hundred and fifty dollars was expended during the year for ordinary and general repairs. Much of this amount was expended for labor, the cost of which has about doubled in the last few years. About 15,000 commercial messages were handled, resulting in Government tolls of about $2,400. In addition over 3,000 free Government messages were transmitted and about 1,500 long-distance telephone calls passed over the line.

Various alterations were made in the route of the line made necessary by town improvements, by removal from swamps, menacing forest conditions, and changing of county roadbed. Similar changes are contemplated during this year in order to improve general conditions. The line continues to be of substantial benefit to logging companies and the shipping, fishing, and commercial interests.

Regular tri-daily and special vessel reports are special features of the work of the stations along the line and are highly regarded by the interests served.

AEROLOGICAL INVESTIGATIONS.

KITE STATIONS.

Free-air observations by means of kites have been continued throughout the year at Broken Arrow, Okla.; Drexel, Nebr.; Ellendale, N. Dak.; Groesbeck, Tex.; Leesburg, Ga.; and Royal Center, Ind. These observations include daily kite flights and, whenever possible, continuous series of flights covering periods of 24 to 36 hours. Records of air pressure, temperature, humidity, and wind direction and speed are thus obtained. Brief summaries are telegraphed daily to the central office and other district forecast centers.

PILOT BALLOON STATIONS.

Observations by means of pilot balloons were continued at five of the kite stations (all except Drexel, Nebr.), and at Ithaca, N. Y.; Lansing, Mich.; Madison, Wis., and Washington, D. C. Early in the fiscal year this work was organized also at Burlington, Vt., and Denver, Colo. These observations are made twice daily, and the indicated wind conditions at various heights are telegraphed to the central office and other district forecast centers for use in furnishing advices to the military, naval, and postal aviation services. For the most part the balloons are assumed to have a constant rate of ascent and are followed with one theodolite only. In order to check the accuracy of the ascensional rate formula, however, observations are made with two theodolites, whenever opportunity offers, at the five kite stations.

WEST INDIAN HURRICANE SERVICE.

In order to add to our knowledge of the origin, direction, and speed of movement of hurricanes, plans were made late in the fiscal year to organize an aerological service in the West Indies for the period July to November, 1920, inclusive. Owing to the limited funds available, observations were undertaken by the Weather Bureau at two new stations only, viz, at Key West, Fla., and San Juan, P. R. These, however, together with similar stations organized by the Navy at Coco Solo, Canal Zone, and Santo Domingo, Dominican Republic, and several already in operation in the Gulf States, form a network of stations which, it is believed, will furnish information of much aid in the study of these destructive storms and in forecasting their direction and rate of movement. It is to be hoped that this service may be greatly extended during the next two or three years.

COOPERATION.

Throughout the year cooperation with the Army and Navy meteorological services has not only been maintained but has been rendered considerably more effective than heretofore. In addition to the two balloon stations established by the Navy in the West Indies, already referred to, about a dozen similar stations are operated by these two services in various parts of the United States. These stations are so distributed with respect to those of the Weather Bureau that the country east of the one hundredth meridian is well covered. Observations are made and telegraphed in the same manner as are those at the Weather Bureau aerological stations.

Special observations were made during the year in connection with the trans-Atlantic flight of the British dirigible *R-34*, the Army and Navy race from St. Louis, and the recruiting trip of the *NC-4*.

CENTRAL OFFICE.

All observations made at kite and balloon stations, by Weather Bureau, Army, and Navy, are forwarded to the central office of the Weather Bureau for final reduction and study. Data based upon these observations are furnished in answer to numerous inquiries not only from other Government departments, but from commercial aviation concerns as well. A summary of aerological investigations at Drexel, Nebr., was published and widely distributed. Similar summaries for the other kite stations are in preparation. Several papers, containing discussions of aerological data and their application, were published, and work was begun on an aerological survey of the United States east of the Rocky Mountains, based upon all kite and balloon observations thus far obtained.

CLIMATOLOGY.

The work in climatology during the fiscal year just closed was carried forward mainly along the lines pursued in previous years.

The somewhat deranged conditions of the observing force at numerous stations, due to frequent changes, tended to less accurate work and thereby added to the work of the checking and verification. Frequent changes in the clerical force and a lessened efficiency, due to the general lowering of the morale, have hindered progress and added materially to the labors of the more responsible supervising employees.

On the whole, however, the station forms work has been nearer the standard required than might have been expected and much credit is due to officials in charge of the several stations for the diligence shown in securing good work under the frequently continued handicap of untrained assistants.

A considerable increase in work to meet the needs of aviation has been entailed by the call for wind movement and duration from the different direction points, but it is thought the data finally summarized from all sources are of the high standard usually maintained.

No change has been made in the manner of presenting the climatic statistics gathered by the bureau, save in the case of Form 1030, Monthly Meteorological Summary, issued at the close of each month from practically all stations. This form has been revised to include much additional material pertaining to the hourly temperature and moisture values, as well as additional comparative data, and is now being issued at practically all stations provided with proper printing facilities. Also the policy of encouraging the press to print in their daily issues more data on moisture, inaugurated last year, has continued, and this is now being accomplished satisfactorily at the majority of stations.

CLIMATIC DATA.

The various tables, charts, and discussions of weather conditions for the Monthly Review and the Annual Report of the Chief of the Weather Bureau, emanating from the division, were prepared in the usual form. Special effort is being made to secure each year more complete statistics on the occurrence and distribution of hail and the amount of damage from tornadoes and other windstorms for publication in the section reports as well as in the Annual Report of the Chief of the Weather Bureau. It is also contemplated adding to the last-named publication the summarized data on evaporation now being accumulated.

The monthly and annual climatological reports for the several States were issued as in previous years, although considerable delay has occurred at several sections due to insufficient printing force. In the absence of any criticism it is assumed they present the data in the form desired by the public, and despite continued efforts to economize in their issue on account of the high cost of production the mailing lists continue to grow.

COOPERATIVE STATIONS.

As in previous years, effort has been directed toward improved character of records made by the several thousand cooperative observers, rather than to extend their number. This has been accomplished in the main, although some departures from the established regulations governing the distribution of these stations have appeared necessary. On the whole, however, the number of stations has not been materially increased, and opportunity has been afforded in several instances to reduce fully equipped stations to the status of rainfall stations only, so that the number of full temperature and rainfall stations probably remains about as in previous years.

Owing to a general spirit of unrest, changes in observers were probably more frequent than in previous years, this being more especially the case where the observations are maintained by corporations, railroad companies, and municipal institutions. Considering all factors affecting the cooperative work, it is really remarkable that, with labor at such a premium, so many people are willing to give the time necessary to perform this work without a thought of remuneration. In fact, a recent attempt on the part of one or two observers to form an organization of cooperative observers to demand a place on the Government pay roll met with almost universal condemnation and refusal to associate for such a purpose.

INSPECTION OF STATIONS.

The policy adopted several years ago of inspecting the cooperative stations at least once in each three years was carried out as fully as the funds and the general shortage of help at the section centers would permit. The extent of these inspections, however, fell far short of the program outlined and that really necessary to maintain the service at the highest standard of efficiency.

It is becoming more and more apparent that only by frequent contact with the officials of the bureau and a persistent propaganda of encouragement is it possible to maintain among the less enthusiastic observers that unflagging interest so necessary for a continuity of records that will faithfully portray the climate at the point of observation.

STATION PUBLICATIONS.

On account of the frequent changes in the working force at a few of the printing stations and the employment of inexperienced help, the issue of the monthly summaries for several States has been much delayed and the work of assembling, binding, and distributing these combined reports was, as a consequence, greatly hindered. Likewise the annual summaries, 1919, for several States were still unpublished at the close of the fiscal year. These reports serve their best if issued promptly, and it is believed this condition could be improved and at the same time some economies in both labor and funds accomplished by strengthening the printing force at a few stations so that groups of States might be issued from a single point. This, of course, could not be extended to more than three or four States, as some sections would necessarily be always late. It would also afford an opportunity to help out a section where the printer might be sick or where frequent changes had prevented prompt issue.

CENTRAL OFFICE PUBLICATIONS.

At the beginning of the winter of 1919–20, the Snow and Ice Bulletin, heretofore issued as a separate publication by this division, was merged with the National Weather and Crop Bulletin and so continued throughout the winter. The preparation of the material for that portion of the bulletin was continued by the division, but, on account of limited space, the tables of statistical data were not as full as formerly, although the charts showing the distribution of the winter's snowfall were made somewhat more comprehensive than in previous years, including generally more data from the high mountain regions of the West.

On account of lack of funds only a few reprints of the exhausted sections of Bulletin W were provided for, and much inconvenience has been experienced in answering requests for weather data from those now exhausted. A number of these have been prepared for reprinting, and it is hoped opportunity will be afforded during the present fiscal year to issue several of the more important sections.

The climatology of Hawaii in much detail, prepared by the official in charge at Honolulu and revised at this office, is now awaiting an opportunity to print, and similar data for Alaska, now largely under way, should be made available to the public as soon as possible.

A complete revision of all the sections of Bulletin W, bringing the tables down to 1920, and enlarging somewhat on the amount of material presented, particularly in sections where, on account of specialized industries, weather changes and possibilities are factors of the utmost importance, should be provided for as soon as possible.

WORK ACCOMPLISHED DURING THE YEAR.

Requests for data from all classes of our citizens, from the courts, from corporations and industrial interests continued with increasing volume. Publications available for distribution afforded a convenient means of answering many of these requests. In many other cases, however, it was necessary to extract material from the original records. All were answered as fully as possible, and in no instance, as far as official records show, was dissatisfaction expressed at the effort made to meet the wishes of the applicant. On the other hand, hundreds of letters, voicing keen appreciation for the intelligence displayed in interpreting and frequently anticipating the needs of those applying for information, have been received.

OCEAN METEOROLOGY.

In recognition of the increasing importance of marine meteorology consequent upon the growth of our merchant marine and the developments in transoceanic flight, the marine work of the bureau was organized as a division of the central office, effective April 1, 1920. Prior to that date the work at Washington was conducted by the marine section, a branch of the climatological division. Outside of Washington marine work is carried on by officials of the bureau located at the principal ports, in connection with other duties.

During the year the marine work progressed along the usual lines. There was a substantial and satisfactory increase in the number of reports received from ships, sufficient to warrant the expectation that the total number will shortly equal or possibly exceed that of the prewar period. Every effort was made to secure additional reports.

The examination and charting of reports from the North Atlantic Ocean was continued and some tentative work done in connection with the charting of reports from the North Pacific Ocean. Summaries of weather conditions over both these oceans were published in the Monthly Weather Review, and tracks of the more important storms furnished the Hydrographic Office, under departmental arrangement, for publication on the pilot charts. An increased amount of data was supplied for use in Admiralty cases. Officials at Weather Bureau offices located at the principal ports were actively in touch with maritime interests.

The safe and economical operation of ships depends largely upon a fundamental knowledge on the part of their officers of the weather of the oceans. If the United States is to succeed in its efforts to conduct an extensive merchant marine, one of the necessary conditions is that it add to the present-day knowledge of ocean or marine meteorology. The Weather Bureau is the governmental agency charged by law with the duty of furnishing meteorological information in the aid of navigation and has been earnestly endeavoring to meet the demands upon it in this field. War and postwar developments have, however, broadened these demands until the bureau is unable adequately to meet the needs of the situation with the resources now at its command.

AGRICULTURAL METEOROLOGY.

The principal routine work of this division is the collection of temperature and rainfall data and the effect on crops and farm operations and the publication of this information in weekly weather and crop bulletins. These reports are issued at 11 a. m. Wednesday and cover the weather conditions up to 8 a. m. Tuesday. The National Weather and Crop Bulletin is issued at Washington, while local bulletins are published at the section centers in each State. A special Corn and Wheat Region Bulletin is published weekly at Chicago covering the grain-growing States, and a special Cotton Region Bulletin is published at New Orleans covering the cotton belt. There is a growing and insistent demand for these reports, especially for the National Weather and Crop Bulletin.

The weekly issue of the National Weather and Crop Bulletin was continued throughout the winter months and was combined with the Snow and Ice Bulletin, which heretofore had been published as a separate report. This arrangement was found so advantageous that it will be continued in the future, as it seems important to give information each week on the effect of snow cover, or lack of it, on meadows and grain fields, the effect of high or low temperatures on fruit and southern truck crops, and the effect of weather on ranges and stock.

SPECIAL SERVICES.

The collection of temperature and rainfall data and the publication of daily bulletins were continued in the principal grain, cotton, sugar, and rice States. This service should be extended to include the grain-growing districts of Wyoming, Virginia, West Virginia, Maryland, and Pennsylvania. The weekly collection of data in the range districts in Texas, New Mexico, Arizona, Utah, and Wyoming was continued. This service should be extended over Montana and other winter-grazing States. The collection of meteorological data from special stations in the tobacco, fruit, truck, and alfalfa-seed districts was continued during the critical periods to aid in issuing warnings for damaging temperatures.

The special weather-warning service for spraying operations was extended to additional counties in western New York and into the central and lower Hudson Valley in the eastern part of the State. Special forecasts appear to be essential in determining the proper time for spray applications in all fruit districts. The special investigations in the citrus and deciduous fruit-growing districts of the Pacific coast were continued and resulted in the publication of Farmers' Bulletin 1096, "Frost and Prevention of Damage by It."

COOPERATION.

Cooperation was continued with other bureaus of the department in maintaining special meteorological stations at various points in different sections of the country, as an aid to research and investigations of the many agricultural problems in which weather is an important factor.

EFFECT OF WEATHER ON CROPS.

It has been determined that most crops have a critical period of growth, usually short, when favorable weather will cause a good yield and unfavorable weather a poor yield, regardless, mainly, of earlier or later weather conditions. Studies to determine this critical period are carried on as far as time and opportunity will permit. Some of the studies carried to completion relate to the effect of temperature, rainfall, and snow on winter wheat, cultivation and rainfall in the Great Plains, relation between precipitation and the grazing capacity of ranges, the seasonal distribution of precipitation, and sunshine in the United States.

The greatest need in this direction is the establishment of agricultural meteorological stations at the agricultural experiment stations in the principal crop-growing areas. When established a careful and systematic record can be begun of the temperature, rainfall, sunshine, etc., and at the same time a complete record of the development of the various crops. By maintaining these stations for a period of years, the most critical period of growth and the weather factor most affecting the crop can be determined.

WEATHER BUREAU PRINTING OFFICE.

The principal publications issued during the year included the Daily Weather Map, Monthly Weather Review, and Supplements, Daily River Stages at river-gage stations in the United States for 1918, National Weather and Crop and Snow and Ice Bulletins combined, forecast cards, weekly forecast, and Form 1030, Monthly Meteorological Summary for Washington, D. C.

At the end of the year there were 934 paid subscribers on our various mailing lists, exclusive of the Monthly Weather Review, and the total receipts from subscriptions amounted to $823.97. Subscriptions for the Monthly Weather Review are received and filled by the superintendent of documents, Government Printing Office, who requires 200 copies each month.

The amount allotted the Weather Bureau for printing and binding at the Government Printing Office is inadequate, and, as a consequence, several important publications had to be suspended until the allotment for the present fiscal year became available.

MONTHLY WEATHER REVIEW.

The increased size of the Monthly Weather Review, occasioned by the larger number of contributions received during the year following the signing of the armistice, was maintained until January 1, 1920, when a reduction of 30 per cent was rendered necessary by the low state of the printing funds. Although the sections dealing with the weather and earthquakes of the month were condensed somewhat, the major portion of the cut fell on the section devoted to original contributions. During the remainder of the fiscal year this resulted in an appreciable increase in the number of papers awaiting publication and also in a reduction in the supply of new contributions received, for lack of ready publication tends to dampen the enthusiasm of potential contributors. That the Monthly Weather Review is becoming more and more appreciated, and therefore is playing a useful rôle in the development of meteorology, is shown by the necessity of increasing the edition published from 1,525 for the last number in fiscal year 1919 to 1,750 for the corresponding issue a year later. Even with 1,750 copies published, the supply of the last three issues held for sale has been exhausted. A large part of the increase in demand came through paid subscriptions, which nearly doubled.

In addition to the usual editorial work, the results of investigations undertaken mainly in the interests of improved general and local forecasting, especially of winds at flying levels, were prosecuted and published. Specifically, these were—clouds and their significance, effect of winds and other weather conditions on the flight of airplanes and balloons, sleet and ice storms (glaze), preliminary steps in the making of free-air pressure and wind charts. Reprints of the articles on weather and aeronautics were distributed to all aviators of the Army and Navy. During four months daily open-air instruction and lectures on clouds and their significance to classes of naval meteorological officers were given.

LIBRARY.

During the fiscal year 1,050 books and pamphlets were added to the library, the strength of which is now over 39,000. Political changes brought about by the war have greatly complicated the work of libraries in which, as in the case of the Weather Bureau library, a large part of the collection is classified and shelved according to geographical divisions. Reclassification of many books to take account of recent changes of this character is in progress. The same cause has made necessary an extensive revision of the foreign mailing lists of Weather Bureau publications, and this has been carried out by the librarian. A marked growth of interest in meteorology that has followed the war is indicated by the large number of requests which the library now receives from all parts of the United States and elsewhere for information and the loan of books.

INVESTIGATIONS IN SEISMOLOGY.

The important work of collecting and publishing earthquake data, begun December 1, 1914, has been continued during the year.

During the calendar year 1919, 86 separate earthquakes, strong enough to be felt, were reported from different parts of the continental United States. The great majority of these produced no damage whatever and none produced any important damage. No important earthquakes occurred in our outlying possessions.

VOLCANOLOGY.

The work in volcanological observations is conducted at the crater of the volcano Kilauea, Hawaiian Islands, and was taken over by the Weather Bureau on the 15th of February, 1919, under an appropriation by Congress of $10,000, which has been continued yearly since that time. The funds available have been just adequate to carry on the routine activities of observational work organized a number of years ago under the direction of Dr. Thomas A. Jaggar, jr., originally of the Massachusetts Institute of Technology and now in charge of the work under the Weather Bureau. On special occasions the observations are extended to include the volcano at Mauna Loa. A visit to some part of Mauna Loa more than once a year is desirable. Experience proves that Mauna Loa erupts more frequently from places along its rift systems outside of the summit crater than at the summit crater itself. There has been no activity at the summit crater during the 1919 outbreaks from the south flank, and in 1920 Mauna Loa is quiet.

Seismometric registration has continued as heretofore, with no unusual events during the period. The Hilo instrument has been operated nearly continuously.

The general results of observations at Kilauea are brought together from month to month in a small bulletin, which is issued regularly. In addition, a summary has been issued to newspapers and printed with fair regularity.

INSTRUMENTATION.

The instrumental equipment of the field stations has been maintained in a serviceable condition, but at a number of stations repairs to roof equipment needed could not be made owing to difficulty in getting satisfactory estimates.

STORM-WARNING EQUIPMENT.

The three-lantern system was completed during the fall, and is now in effect throughout the country. The storm-warning equipment destroyed in the Corpus Christi district by a hurricane is now being replaced, the larger portion of the expense coming out of funds for 1920. Few additions or improvements have been possible with the limited funds at our disposal.

NEPHOSCOPES.

The bureau now has at the factory ready for distribution 100 nephoscopes of a new pattern.

EVAPORATION.

The evaporation stations have not been increased in number, on account of expense and because it was thought best not to add to the duties of stations at this time.

INVESTIGATIONS IN SOLAR RADIATION.

Observational work has been maintained at Washington, D. C., Madison, Wis., Lincoln, Nebr., and Santa Fe, N. Mex., as in previous years.

A summary has been prepared of the measurements made previous to July, 1919, and utilized in the determination of average monthly sunshine intensities in the United States east of the Rocky Mountains. These have been published in the Monthly Weather Review

for November, 1919, in the form of charts, which are the only sunshine intensity charts yet published for any country.

The above summary also has served as the basis for determinations of the intensity of direct solar illumination, and of the illumination from the sun and sky, which latter is commonly called daylight intensity. These results are also published in the Review for November, 1919, in the form of diagrams, by means of which the illumination of surfaces normal to the incident solar rays, of horizontal surfaces, and of vertical surfaces variously oriented, may be determined for different parts of the United States east of the Rocky Mountains, at any hour of any day of the year, under average clear-sky or overcast-sky conditions.

On account of the few points at which solar radiation measurements have been made, the above results must be considered as a first approximation only. With a view to providing for additional observing stations, two new Marvin pyrheliometers were constructed and standardized during the year, and a few pyrheliometric measurements were made at points in California and Oregon during February to April, 1920. Owing to the lack of adequate funds, however, it has been necessary to defer the establishment of stations on the Pacific and Gulf coasts, where they are urgently needed.

The few measurements obtained indicate that during the spring months, at least, solar radiation near sea level in the Pacific Coast States has about the same intensity as in the Plains States.

Measurements of the intensity of the heat radiated from different types of orchard heaters and of the retardation of nocturnal cooling by a smoke cover were made during the winter of 1919–20 in orchards in California and Oregon. The results, which were published in the Review for June, 1920, indicate that to protect orchards from frost the attempt should be made to warm the air by the total combustion of fuel rather than to retard cooling by the production of a smudge through the imperfect combustion of fuel.

A study of the relation between the solar constant values published by the Smithsonian Institution and the weather conditions in the United States was well under way at the end of the year. It promises interesting developments in the subject of temperature control.

PART II.

GENERAL SUMMARY OF THE WEATHER CONDITIONS IN THE UNITED STATES DURING THE YEAR 1919, WITH CHARTS.

LIST OF OBSERVING STATIONS AND CHANGES THEREIN DURING 1919.

SUNSHINE, 1919.

DETAILS OF EXCESSIVE PRECIPITATION, 1919.

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REVIEW OF WEATHER CONDITIONS DURING THE YEAR 1919.

By P. C. Day, Climatologist and Chief of Division, Weather Bureau.

Marked warmth persisted during much of the year in the northern and eastern parts of the country, and precipitation was somewhat abnormal, being heavy practically every month in the southern portions, save California, while persistently light in northern districts from the upper Mississippi Valley westward. These long-standing abnormalities of temperature and moisture were the most notable features of the weather of 1919, and profoundly affected crop and live-stock conditions.

Chart I shows the average temperature departure during the seven months, March to September. These departures were large and positive in Montana and adjoining States, but in the States from Louisiana to Arizona the period averaged cooler than normal. After September there was a marked reversal of temperature conditions. The Southwest had rather warm weather for the season during the closing months of 1919, while severe cold prevailed in the Northwest.

The peculiarities of precipitation did not extend uniformly over such large areas as those of temperature. However, Chart 3 shows how deficient the rainfall of the crop season was in nearly all northern districts from North Dakota westward, and shows the large excess in the southern border States of the same longitude, with the exception of California. At points in New Mexico and Texas the year was the wettest during the entire period of observations, extending back in some cases nearly 40 years. In most coast districts from Virginia to Massachusetts 1919 brought more rain than any other recent year. Yet the year was the driest in a period of nearly 50 years at Buffalo, N. Y., and was among the driest of record in northern and eastern Maine.

Except in the Northwest the weather conditions of the year 1919, considered as a whole, were reasonably favorable for crops and for live stock.

JANUARY.

At the opening of January mild weather prevailed in the Atlantic and East Gulf States, but a marked cold wave which had already reached the north-central portion of the country soon extended to the southern and eastern coasts, giving the lowest temperatures of the winter nearly everywhere. The readings, however, were usually much above the lowest marks of the preceding winter, and the cold soon gave way to milder conditions, at least in central and northern districts. In the Southeast mild weather prevailed at the middle of the month and afterward, but in Arizona and New Mexico low temperatures persisted, and in those States the month was the coldest January in a record of over 20 years. The remarkable mildness of the middle and latter portions in most central and northern districts contrasted with the severity of January, 1918; and in Montana and the Dakotas, where the State averages have been computed for fully a score of years, this (1919) was the mildest January of all, being from 10° to 20° per day above normal. In nearly all other States the month averaged warmer than normal, save in the Gulf States a trifle cooler, and in New Mexico and the higher parts of Arizona decidedly colder.

There was much precipitation early in the month in the Mississippi Valley and to eastward, heavy rains occurring in a great part of the Ohio River drainage area and of the Atlantic States, and snow falling widely, but seldom to great depth. During the middle decade there was much precipitation in the Pacific States and Idaho, the falls continuing to northward of 40° latitude until about the middle of the last decade. The Atlantic and Gulf States had moderate rainfall at times during the middle and final decades. The monthly totals were

above normal in the Gulf and South Atlantic States and in the North Pacific States, but elsewhere nearly everywhere below normal, particularly in the southern upper Lake region and the central valleys and thence westward to the central Plateau; the 83-year record at St. Louis showing no other January so dry.

The month was mainly very favorable for live stock, for truck crops, fruits, and winter grains, and especially for outdoor work, some plowing being accomplished not far from the northern border, where such a thing is almost unheard of in January.

FEBRUARY.

Temperatures during February continued mostly above normal, yet in the eastern, north-central, and northwestern districts they showed more range and were somewhat lower, as a rule, than they had been during the middle and latter parts of January. The final decade had a rather marked cold wave, from which temperatures in the East soon recovered, but in the central valleys and thence westward to the Rockies cold remained to the month's end. The month averaged warmer than normal in most States, particularly from Missouri, Iowa, and Minnesota eastward; but averaged a little cooler than normal from Colorado and New Mexico westward, also in most parts of Oregon, Montana, and Texas.

Though precipitation was mainly light in the East till almost the middle of the month, and was heavy in California about the 10th, in western Oregon and Washington about the 8th, and in southern Alabama and vicinity about the 25th, yet it was mostly well distributed in time and over the country. It was, however, the wettest month in California for three years, and there was large precipitation for the regions in the Plateau and Plains States and the upper Mississippi Valley; also the totals were large near the Gulf coast. In the Ohio Valley there was a considerable deficiency. The snowfall in the East was mainly light, but in the Western mountains usually heavy.

The month was unfavorably cool for truck in California and both cool and wet in many Gulf districts; yet it was mostly a good month for crops, for outdoor work, and for live stock.

MARCH.

Cold weather prevailed over the central valleys and much of the Northwest as March came in, and it was generally cool in the Southwest also; but elsewhere temperatures were near normal or above. Some rapid changes of temperature occurred during the first decade, but the second was mainly mild, except that there was a brief cold period in the Northeast about the 15th, and at the same time temperatures were low in far Southwestern districts. The third decade was mild, as a rule, in the far West, the central districts, and the Southeast; but in northern districts from Montana eastward there were several cold days. The month averaged somewhat cooler than normal in most of North Dakota and in northeastern and north-central Montana, and mostly a little cooler than normal from the Texas coast northwestward to California and Oregon. For the rest of the country March was warmer than normal, particularly from the middle Plains northeastward and eastward. The five-month cold season, from November to March, inclusive, was in 1918–1919 milder than ever before recorded, or about as mild, in Iowa and Illinois and adjacent regions, and this period in the States to eastward, while not record-breaking, was surprisingly mild. The average daily excess of temperature is computed as about 6° in Iowa and over 4° in New York State.

Precipitation was mainly well distributed through the month in California and Arizona, and in most central and northern districts from the Plains to the Atlantic; but in the far Northwest the last decade was well-nigh rainless; while, on the contrary, New Mexico and Texas had practically all their precipitation after the 20th. From the central Plains southeastward to the Gulf coast and northeastward to the region around Lake Erie there was especially heavy rainfall about the 16th, much of western Tennessee having over 6 inches within one day or a little longer. In the Southeast there was scarcely any rain during the last fortnight of the month, save for one fall, usually liberal in amount, about the 27th. The monthly precipitation

was close to or above normal nearly everywhere, but was somewhat below in the upper Ohio Valley, in much of Nebraska, Wyoming, and Utah, and in most of California. There was a marked excess in middle and western Tennessee and many other parts of the Southeast; also in eastern New Mexico and northwestern Texas. The snowfall of the month was heavy in northern parts of New York and New England and in many elevated districts of the West.

Outdoor work was hindered in much of the South and in parts of the main corn belt by the heavy and frequent rains, but in nearly all States the weather was favorable for fall-sown cereals. In the large majority of the important live-stock States the ranges were aided by good weather, but in northern New Mexico and southeastern Colorado the snowfall led to heavy stock losses.

APRIL.

In the Rocky Mountain States and to westward April was mainly warm, save in the Mountain and the northern Plateau regions about the 7th to 15th, when cool weather prevailed. In the central and eastern portions of the country there was considerable variation of temperature conditions. Cool weather prevailed as the month opened in the Missouri Valley and to eastward of the Mississippi, but it soon gave way to warmer, and the first half of the month was mostly warm, notably in the Lake region and the Ohio Valley. After the middle of the month cool weather was the rule in the central and eastern districts, except for a warm period about the 19th to 23d in the Lake Superior region and to westward and southwestward over the Missouri drainage area. During the early part of the last week there was a severe cold snap for the season, freezing temperatures occurring somewhat southward of the Ohio River, and even locally in northern Georgia. However, by the last day or two of the month mild weather prevailed nearly everywhere. The month averaged a little warmer than normal in most sections, and in Montana and parts of the Plateau the excess was 2° or more; but in much of the Gulf and Plains regions and the Northeast the average temperature was slightly below normal.

The precipitation was rather well distributed in point of time over the great agricultural districts, and was mainly ample and in some districts excessive. During the first decade there was much precipitation in the Plains and large portions of the Rocky Mountain States, with widespread snowfall of considerable amount for April occurring about the 8th. Between the 9th and 17th ample to heavy rains occurred nearly everywhere east of the Plains, with especially large amount in the Ohio Valley and to southward and in northeastern districts. The latter part of the month brought much rain over an area from the middle Mississippi Valley southwestward to New Mexico, northwestern Texas, and eastern Colorado. In the far West the more important precipitation of April came in parts of the northern Plateau and in southeastern Arizona during the first half, and especially in the north Pacific coast region during the first 20 days. The month had less precipitation than normal nearly everywhere west of the Divide, save in the districts just named, also in Montana, near the Gulf coasts of Texas and Florida, near the South Atlantic coast and in a few other areas. Mainly there was near or more than the normal quantity in the Plains and to eastward, with marked excess in the middle and southern Plains and thence northeastward to the upper Lakes. The late winter and early spring (from Feb. 1 to Apr. 30) in many portions of Kansas and Iowa brought more precipitation than had ever before been recorded for this period.

The weather conditions were mainly favorable for small grains, for live stock, and for work in the cotton fields, also for work in the far West. In the chief corn States the wet weather greatly hindered farm work, and in some districts there was frost injury to truck or to fruit.

MAY.

There were several periods in May when temperatures in certain regions departed widely from normal. The first few days were hot in the central Plateau and the interior of California, but in most northern districts it was cool till about the middle of the month. From Texas northeastward to the Ohio Valley cool weather predominated after about the 7th, but on the other hand marked heat set in over Utah and adjacent districts about the 14th, and spread

northeastward, becoming very intense for May in Montana and the Dakotas about the 21st. The warmth later extended eastward over the more northern districts, especially the Lake region, but before the month ended a marked turn to cooler weather had set in over most parts of the West. The month averaged cooler than normal between the Rockies and the Appalachians, save near the northern border from upper Michigan westward; elsewhere the month was warm, notably in Utah, Nevada, and northeastern California.

In central and eastern districts the rains of the month were generally well distributed in time, save that from the northern Plains to the upper Lakes little fell from the 12th to the closing few hours. In the western third of the country most of the rain was received late in the month. The totals were large from southern and eastern Texas eastward to Alabama and northward to the Ohio River and central Missouri, also in parts of Florida and the southern Appalachians, and in some other districts. The amounts were at least two-thirds of the normals nearly everywhere east of the Rocky Mountain States, but from those States to the Pacific coast were usually but a small fraction of the normal May falls, save in New Mexico and parts of Arizona.

In most central and some southern districts the month was too wet and too cool for good progress of crops or of outdoor work. In the Atlantic States conditions usually were more favorable, but locally it was too wet. In the West, on the other hand, the month was usually too dry for crops to grow well, and in several States there was frost injury.

JUNE.

The opening decade of June was remarkably hot east of the Mississippi River, save near the Gulf of Mexico; and the highest temperatures ever recorded in June occurred at several northeastern stations. This period was cool in the Plains and Rocky Mountain States, but in California again it was warm. The middle and last decades were hot in all but the Atlantic, Gulf, Pacific, and Mexican border States, except for a marked cool spell near the end of the month in the Ohio Valley, Lake region, and to eastward. Nearly everywhere from Idaho and Nevada eastward almost to the Atlantic coast the northern and middle portions of the country had average temperature for June considerably above normal, the month being in much of the Lake region warmer than ever before recorded. In the remaining districts the month averaged about as warm as normal, save in Texas and some adjacent districts, where it was considerably cooler.

Most of the Mississippi Valley, the Gulf States, and the eastern part of the Plains had abundant or somewhat excessive rains during the early and middle portions of June; but elsewhere there was usually little, or at least irregular distribution. During the final week there was enough rain in most Atlantic and Gulf districts and in New Mexico and a few scattered areas elsewhere. The June totals were large in Louisiana and southeastern and central Texas, in much of Florida and Georgia, and in northern Iowa and adjacent districts; otherwise the central and southeastern portions of the country usually had about the normal amounts. In the Appalachians moderate to ample falls were the rule as far northward as central Pennsylvania, but with this exception most of the Middle and North Atlantic States, with the bulk of the Lake region and the northern part of the upper Ohio Valley, had rather scanty rainfall. To westward of the Divide and in Wyoming and the upper Missouri Valley the rainfall was decidedly light or completely lacking, and the scarcity of moisture was the more unfortunate because April and May had been decidedly dry here, and because in most portions the temperatures were high. Idaho in June averaged but one-twentieth inch of rain, whereas its normal June rainfall is an inch and a fourth.

The heavy rains over much of the cotton belt were unfavorable for that crop, and to some extent the western corn States had too much moisture for good progress of crops and work. The weather conditions in the Northeast were mainly favorable. In the far West, save in the southernmost States, the dryness was severe on ranges and dry-land crops, and some irrigated districts had not sufficient water supply.

JULY.

More than usual in midsummer, the temperatures fluctuated in the eastern districts. There was considerable cool weather in the East during the first half, interrupted by a marked hot spell about the 5th in the Northeast. In the Lake region the coolest weather came chiefly late in the first decade and early in the second. Most interior districts had little cool weather save about the 15th to 23d; but the central Plateau region had hot weather till the final week. The month averaged slightly cooler than normal in most Mexican border, Gulf, and South Atlantic States, but elsewhere warmer, particularly in the northern half from the upper Lakes and middle Ohio Valley westward to the Cascades.

The rainfall was not well distributed. During the first half there were widespread rains of moderate to heavy amount in the middle and upper Mississippi Valley and the western part of the Lake region, also in some localities in the Southeast and in parts of the Middle Atlantic States. During both first and second decades rains were notably liberal over most of Arizona and New Mexico. During the latter half rainfall was abundant nearly everywhere in the Gulf and Atlantic States, and was excessive over large areas, especially heavy falls occurring about the 19th and 20th in many States, and in much of Texas continuing to about the 24th, while in parts of Georgia and adjoining States there were again unusually heavy falls about the 25th. The monthly amounts were decidedly large practically everywhere in the South Atlantic States, near the Gulf coast, and in large portions of the Middle Atlantic States, also in most of eastern Arizona; and were large for the region in other parts of Arizona, and in most of New Mexico and Colorado. Parts of Nebraska, Minnesota, and Wisconsin, and a few other scattered areas had considerable. There was a marked deficiency from southern Michigan southwestward over the central valleys, in eastern Kansas and much of Oklahoma, and especially throughout the Northwest, including the northern and central parts of Nevada and Utah.

While the month was mainly favorable for harvesting and thrashing small grains, it was in many regions a month of unfavorable weather, being dry in most States where drought had previously set in and too wet in some States which much needed dry weather. In southeastern Texas and the eastern States of the cotton belt the inadequate sunshine and heavy rains were decidedly unfortunate. Conditions were mainly favorable, however, in the far Southwest and in the northern part of the chief corn area.

AUGUST.

During August the first ten days were mainly cool in the East and the West, but hot in central districts, especially Kansas, Oklahoma, and vicinity. The middle and latter portions of the month were mainly warmer than normal, particularly in interior California and the middle Plateau, but it was cool in parts of the Southwest for several days about the 21st. The last week, furthermore, was cool in the eastern half of the country and the Missouri Valley. The month averaged warmer than normal, as a rule, notably in the Plains and Plateau States, but a little cooler than normal from Virginia and Indiana northeastward, also in a few other portions.

There were important rains early in the month from the upper Lakes southward, and in many localities in a strip from Minnesota southwestward to Arizona, also in a few other areas. During the middle and latter parts of August rains of consequence reached most districts east of the 100th meridian, but with irregular distribution, the central valleys and Gulf States getting large amounts; also about the middle of the month there were heavy rains from Chesapeake Bay to Long Island Sound. The month's rainfall was large near the Gulf and South Atlantic coasts and elsewhere in the eastern half was usually close to or above normal, though scanty near Lake Michigan and in a few other localities. In the western half it was mainly much below normal, save near the Mexican and Canadian borders and in southern Colorado.

During August it continued too dry in the drought-stricken Northwest and too rainy in the over-wet southern part of the cotton belt, but the month elsewhere was mainly favorable for outdoor work and crop progress.

SEPTEMBER.

During the early part of the month warm weather prevailed, save in the far West, where it was moderately cool. From about the 10th to 25th temperatures were above normal pretty steadily in nearly all parts of the country. The last few days of the month, however, were cooler than normal in most of the more southern and eastern portions, and were quite cool in the middle and upper Missouri Valley and to eastward as far as the vicinity of Lake Superior. Frosts occurred widely in northern districts, and in the higher Appalachians southward to parts of North Carolina, but the damage was small. The whole month averaged considerably warmer than normal from Michigan westward and southwestward to the central portion of the Rocky Mountains, and in most other regions slightly warmer than normal, save in parts of the Pacific and Mexican border States and the Northeast, where it was a trifle cooler than normal. In the middle and northern Plateau and Rocky Mountain regions and the Dakotas September was usually the sixth consecutive month to average warmer than normal, and over most of Wyoming and Idaho the eighth or ninth; also over the middle Plains and central valleys the fourth consecutive warm month.

The rainfall of the early part of the month was practically confined to a few areas, notably the Northeast, Florida, southwestern Louisiana and vicinity, South Dakota with southwestern Minnesota, and particularly a large part of the Plateau and North Pacific States. During the first half of the middle decade important rains reached most parts of the North and Middle Atlantic States, the Ohio Valley, and the southern part of the Lake region; scattered parts of the northern Plains, most of eastern Colorado, eastern New Mexico, western Texas, and the Gulf coast regions; and especially southern Florida and southern Texas, where large amounts came with the passage of the tropical hurricane. The latter half of September had good rains in most of Arizona and parts of California, but chiefly in a broad belt from the Rio Grande northeastward to and including the Lake region, with large amounts in much of Texas, and from western and northern Kansas northeastward to the vicinity of Lake Michigan. In the Rocky Mountain States and to westward the month's rainfall was mainly above normal and rather well distributed for those regions, but to the eastward distribution was poor. There were large amounts from southern Wisconsin to western Kansas, in most of Texas, and in some other areas; but there was very little in the southern Appalachians and thence westward to southeastern Arkansas and in south-central Kansas and vicinity. Rains about the middle of the month broke dry conditions of long standing in many districts from the middle and northern Plains westward. At Boise, Idaho, almost five months had passed without rain of real value, the latter two-thirds of the time with no measureable rain; and at Concordia, in northern Kansas, an 80-day period had given only an eighth of the normal amount.

September weather was mainly very favorable for outdoor work, for maturing crops, and for ranges, but in some portions it was too dry for plowing and for late crops, while in much of Texas heavy rains and high winds were unfavorable.

OCTOBER.

Temperature conditions during October showed great contrast between different parts of the country, but in each part did not change greatly from time to time. The month was remarkably warm in the Southeast; in fact, nearly everywhere south of the Ohio River it was the warmest October on record. It was warm also in the Northeast; in the central valleys, where the first week was especially hot; and in Texas, where most of the latter part was very mild. To westward of a line drawn from Lake Superior to far-western Texas the month was cold, particularly in Montana, Wyoming, and the Dakotas, where it was usually the coldest October ever known, the last 10 days being remarkably severe for the time of year.

All parts of the month were rainy from Texas northeastward to the middle Ohio Valley, but the second week brought especially large falls. The closing fortnight brought much precipitation for the region in the northern Rocky Mountain States and the western part of the northern Plains, a very large part being snow; so that some portions of the Dakotas had the

greatest single snowfall ever known there. From latitude 40° northward in the West the month brought usually more than normal precipitation, and in the Plains and to eastward almost everywhere more, save in Florida and the southern parts of Georgia and South Carolina. From Texas and Oklahoma northeastward to Ohio and West Virginia the monthly amounts were very large, Arkansas records showing no other month so wet.

The month was largely unfavorable for harvesting and other outdoor work, and snow and cold in some States were severe on live stock, but growth of winter grains was favored.

NOVEMBER.

Apart from the natural decline in temperature, the weather conditions of November were much like those of October. Especially during the first fortnight the October distribution of warmth and cold continued, save that this period was mainly cool in the Northeast. About the 13th cold weather advanced to the Gulf region, and more gradually eastward, but at the same time marked warmth spread over the far West, and this soon came eastward, reaching the Appalachians about the 17th. In most places there was just about a week of mildness, then cold weather returned to western and central districts, with special severity in the middle and upper Missouri Valley. The month averaged warmer than normal in most of the East and parts of the Southwest, but considerably colder in most middle and northern States west of the Mississippi.

The first decade had much precipitation nearly everywhere between the Appalachians and the Rockies, also in the Northeast. Then for a fortnight there was very little precipitation save in the North Pacific States. The final week had widespread precipitation, with quite large amounts from Texas northeastward. The month was dry from Virginia to Georgia, and in most of California and Nevada; but precipitation was elsewhere mainly in excess, particularly from Louisiana and vicinity to the northern and eastern limits of the Ohio River drainage, and in much of Arizona. The snowfall was usually large in high districts of the West and in northern districts eastward as far as the upper Lakes.

In many regions the weather was largely unfavorable for fall work, save during the mild period about the 20th.

DECEMBER.

During the first half of the month cold weather prevailed over most of the country, though the southernmost States mostly had mild weather the first week. The second week brought remarkable cold in the Northwest—in fact, everywhere from central Colorado northward and westward, as far as the Sierra crest in northern California and practically to the coast in Oregon and Washington. At numerous stations in this area the cold exceeded any previous record, and at most other points new marks for December cold were made. During five successive days at Walla Walla, Wash., the temperature averaged 40° below normal. At the middle of the month, however, a marked turn came to most of the area which had been experiencing so many weeks of unseasonable cold. A period of one week more than two months—from October 9 to December 15—averaged at Williston, N. Dak., over 14° colder than normal, but the last fortnight of December there averaged 16° milder than normal. This latter part of the month was mainly mild from the upper Lakes westward and southwestward, though nowhere else so notably as in the northern Plains; but generally it was cold in the East, particularly about the 16th to 22d in the Northeast. The whole month averaged a little warmer than normal in southern California, and generally in the southernmost States to eastward, save Texas. For the greater part of the country the month was colder than normal, emphatically so in the Lake region, the upper Mississippi Valley, and the northern and central Plateau, several stations reporting it the coldest December of record.

About the 9th decidedly heavy rains occurred over large parts of Mississippi, Alabama, and Georgia, and resulted in severe floods, the river heights at several points exceeding the highest previous records. There was considerable precipitation at this time to northward of the area of greatest rain, as far as the Ohio River; also in most of the far Northwest, where the

snowfall was surprisingly heavy at lower levels in Oregon and Idaho. In most other districts the first half of the month was free from notable precipitation, and the second half was usually less stormy than the first half, though widespread rains, mainly moderate, fell in the Gulf States about the 19th, and in the extreme Northwest liberal precipitation, chiefly rain, came from the 16th to 24th. The monthly amounts were large in much of the east Gulf region and likewise in the North Pacific States, though there mostly less than normal. The greater part of the country had considerably less than normal precipitation, and this was especially true of Illinois and Missouri and the States to northward, and of the Plains States, and the eastern parts of the Carolinas and Georgia. In this latter region the drought had been prolonged, Charleston, from September 12 to December 31, having but 8 per cent. of the normal rainfall of the period. The snowfall of December was usually less east of the Rockies than the normal amount of the month.

The first half was severe on live stock and bad for outdoor work, but the second half was much more favorable. Fall-sown grains had experienced mainly beneficial conditions as they entered the winter season.

TORNADOES, 1919.

The details that follow about tornadoes of 1919 have been furnished chiefly by the officials of the climatological services of the several States. Chart 5 indicates the geographic locations of these storms, as summarized below; the arrows show the direction of motion when known, otherwise the most probable direction. On any ordinary chart of the whole country the width of the tornado path must be much exaggerated in scale, and usually the length also, if the path is to be at all visible. The occurrence of tornadoes from year to year is very spasmodic, so the indications of the chart for a single year should not be taken as the normal or usual condition. During 1919 there seem to have been fewer tornadoes than usual, at least fewer of marked violence. This surely was the case in the States to eastward of the Mississippi River, for no tornado there caused more than slight loss of life, save one on March 16, which entered the State of Mississippi from Louisiana, and caused about 35 fatalities. West of the Rocky Mountains and east of the Appalachians tornadoes are of infrequent occurrence and in some places unknown.

Alabama.—Early in the afternoon of March 5 a tornado crossed southern Alabama. It probably began near Century, in the northeastern part of Escambia County, Fla., but within a few miles of its point of origin it crossed the State line into Escambia County, Ala., where it did some damage at Flomaton and Pollard, visiting the former at about 12:35 p. m. It traveled on in a direction about northeast or east-northeast, and was in southern Crenshaw County about 1:30 p. m.; then passed through southeastern Pike County, and was at Eufaula, in central-eastern Barbour County, at 2:45 p. m. From Flomaton to Eufaula the distance is about 130 miles, which was traversed in 2 hours, 10 minutes. The tornado seems to have ended at or very close to Eufaula, its whole path being probably 135 miles in length, with the width of devastation from 100 yards to about 2 miles. There were 4 killed in Eufaula, and from Pike County another fatality is reported; while at several places persons were injured, at least 16 in all. The damage to buildings, trees, and other property was about $200,000, chiefly at Eufaula.

On May 26, about 9 a. m., destructive winds, apparently of the character of a tornado, visited a tract nearly half a mile wide and over a mile long, moving toward the north-northeast, the tract being in Mobile County, about 7 miles southwest of the city of Mobile. No person was killed, but several were hurt, and there was damage to property estimated at $700.

Arizona.—No tornadoes reported.

Arkansas.—A small tornado occurred near Altus, Franklin County, at about 12:30 a. m., March 16. It moved from southwest to northeast, and as far as known the path was short. No deaths resulted, but nine persons were injured, and there was property damage to the amount of $40,000. During the preceding afternoon and evening there were at least two tornadoes in Oklahoma, but the nearest point of reported damage is in Wagoner County, Okla., about 80 miles northwest of Altus, Ark., where the storm passed about eight hours earlier;

therefore the Altus tornado was almost surely not directly connected with either Oklahoma storm.

On April 9, in the forenoon, there was tornado damage at two or more places in southwestern Arkansas, rather probably the work of a single tornado which entered the State from Texas near Ogden, Little River County, about 8 a. m. The track, in the vicinity of Ogden, was from southwest to northeast, and about one-fourth mile wide. Several miles to northeastward, at Saratoga, in southern Howard County, the storm moved to northward, in a very narrow path. There were 6 persons killed in Arkansas, and the property damage was about $50,000.

On October 8, about midnight, normal time, a small tornado occurred in Pulaski County, not far east of Little Rock, causing property loss estimated at $8,000, but no loss of life. The area of destruction was very small.

California.—No tornadoes reported.

Colorado.—No tornadoes reported.

Florida.—On March 5 the tornado which traversed a long path in southeastern Alabama apparently began to westward of Century, Fla., in the northeastern part of Escambia County. There was some damage to buildings at Century from the storm, but no deaths or injuries to persons were reported in Florida.

On August 22 what was probably a tornado destroyed several buildings near Erie, Manatee County, in the west-central part of the Florida peninsula, the damage being about $6,000. No person was injured, as far as known, and it seems likely the path was both short and narrow.

A tornado of unusual interest to scientists because of the pressure conditions attending its occurrence passed over Goulds, Dade County, in far southern Florida, on September 10, between 1 and 1:15 p. m. Goulds is about 20 miles southwest of Miami. At the time the severe tropical hurricane was central over the extreme southeastern Gulf of Mexico, about 125 miles from the locality where the tornado appeared. The tornado probably developed over the ocean or Biscayne Bay, in the form of a waterspout; it moved in a west-northwest direction, directly with the strong southeast wind that was part of the circulation of the tropical disturbance. After leaving the bay it crossed a 3-mile stretch of marsh land, apparently with narrow path, then it traversed a pine wood, with wider path, and came to the village of Goulds, where its path was about 600 feet wide. Beyond Goulds the storm moved over a cleared area for a half mile, then entered another pine wood, where its path was again narrow—100 feet or less in width. The storm continued west-northwestward and was seen to disappear over the Everglades, about 14 miles from the point where it reached the shore of Biscayne Bay. No person was killed, but 6 were somewhat injured, and property loss of about $25,000 resulted from the storm.

Georgia.—No sure tornadoes reported. The tornado that covered a long path in Alabama on the afternoon of March 5 reached and did much damage at Eufaula, on the Alabama side of the Chattahoochee River, across from Quitman County, Ga. There was considerable wind damage in southwestern Georgia that day, though none has been heard of in Quitman County, and much of it, to trees and wire lines, occurred to southeastward of the continuation of the tornado track. However, the most marked damage was in or near Lumpkin, Stewart County, 23 miles northeast of Eufaula, in the track (if continued) of the Alabama storm; here a schoolhouse was demolished, other buildings were damaged, and one person was killed. The information secured does not disclose the features of a tornado, so the damage and death are included in the table of results from damaging winds, on page 43.

Idaho.—No tornadoes reported.

Illinois.—No tornadoes reported.

Indiana.—No tornadoes reported.

Iowa.—About 3:30 p. m., March 15, a small tornado moved to the northeastward in the southern part of Polk County, between Des Moines and Fort Des Moines. Houses and other buildings were damaged to the extent of about $3,000. The same day, near 6 p. m., about 140 miles away, in a direction slightly north of due east from the track of the Des Moines tornado, another occurred at Toronto, in the western part of Clinton County, and caused damage to buildings estimated at $2,000. No lives were reported lost through either storm.

The tornado that passed through the western and northern parts of Omaha, Nebr., on the evening of April 6, seems to have crossed the Missouri River into Pottawattamie County, Iowa, but did no material damage there. On the afternoon of April 23 a small tornado struck about 2 miles south of Grandmound, in the southern part of Clinton County, and injured trees and small buildings.

There seem to have been three distinct tornadoes in northwestern Iowa on May 3, the first of them originating about 4.30 p. m., some 5 miles southwest of Linn Grove, Buena Vista County, moving northeastward and passing near Sioux Rapids, then turning more to northward into Clay County, where it dissipated. The storm path was approximately 12 miles long, and at the widest about 400 feet; many buildings suffered, the total damage being about $25,000. A little later, between 6 and 6.30 p. m., there was a tornado in the northwestern part of Pocahontas County, about 20 miles to eastward, which may possibly have been the coming down to earth again of the Buena Vista County storm, but was more likely a distinct storm. In Pocahontas County the path was from 75 to 200 feet wide and over 4 miles long, and the damage was estimated as $15,000. A very few minutes later, between 6.45 and 7 p. m., there was a tornado about 40 miles to southward, in Sac County, moving east-northeastward and pasing through the village of Grant City, where it destroyed or injured many buildings. The width of path is reported as 200 feet, the length 6 miles, and the damage $10,000.

On May 6, in the south-central part of the State, there was a short tornado noted south of Harvey, Marion County; and the same day in the eastern part, about 110 miles to northeastward of Harvey, a tornado occurred near Langworthy, Jones County; but in each case the damage was immaterial. On May 31 there was probably a tornado at Walcott, western part of Scott County, in east-central Iowa.

On June 23, the day following the disastrous tornado at Fergus Falls, Minn., northern Iowa had two tornadoes, or possibly one tornado doing damage in two counties not far apart. About 6.25 p. m. a tornado was observed near Riceville, and is reported by eyewitnesses to have turned a complete loop, crossing its own path, in the southeastern part of Mitchell County. About $5,000 damage resulted. A little later, about 7.30 to 8 p. m., perhaps 30 miles to southeastward, in Chickasaw County, a tornado did $60,000 damage, or more than any other tornado of the year in Iowa. It seems not impossible that this was the same tornado that had been seen in Mitchell County.

On the afternoon of August 4, a small tornado occurred in the western part of Butler County, starting, as far as known, several miles north of Dumont and moving southeastward to the edge of Bristow. The path of destruction was less than 10 miles long, and the width varied from 20 to more than 1,000 feet. The total damage to buildings, live stock, and crops is estimated at $37,000. As in the case of every other Iowa tornado of 1919, no loss of life was reported.

Kansas.—About noon, March 15, a tornado formed in northeastern Kansas, near Circleville, Jackson County, and moved about 18 miles toward the east-northeast to Muscotah, Atchison County, where there was marked damage to property; then what was probably the same storm blew down a barn about 10 miles north of Muscotah, not far from Horton, Brown County. No damage in Kansas farther to northeastward was reported, and the tornado probably ended near there; but it is worth noting that 55 or more miles farther northeastward or north-northeastward, at 1.30 p. m., a tornado occurred at Maryville, Mo. The path of the Kansas tornado was narrow, no lives were lost, but property injury was about $13,000.

About 5.15 p. m., April 28, there was a tornado at Ellinwood, in the southeastern part of Barton County, central Kansas. It seems to have formed in the southwest part of the town and passed through it northeastward, the whole path being only about a mile long, as far as known, and 150 feet wide. The damage, chiefly to buildings, was about $6,000, and one man was killed.

On May 18, about 5 p. m., a tornado formed 3 miles southwest of Collyer, which is in northwestern Trego County. The cloud appeared to move first slowly northeastward for 2 miles, then back southwestward for a mile and a half, then to southeastward for about 8 miles, when it disappeared. The path of great devastation was 100 feet wide, and fortunately few buildings were in the way; the total damage was about $10,000, and no persons were even injured.

On October 8, Barton County, where the storm of April 28 had occurred, was visited by two more tornadoes, the first being one of the most disastrous of the year 1919. This formed near 4 p. m., about 3 miles southwest of Hoisington, and moved northeastward through the business and main residence section of the town, and continued about 6 miles farther northeastward, after which no damage was noted; however, some papers that had been in business houses at Hoisington were picked up next day at Lincoln, Kans., about 50 miles to northeastward. The width of the path of devastation was about 400 feet, but many houses in this path were injured rather than destroyed. Four deaths resulted, 25 persons were injured, and the property loss is estimated at $200,000. The second storm formed about half an hour after the first, near Dundee, about 18 miles south-southwest of Hoisington, and moved to northeastward 8 miles, disappearing 2 miles northwest of Great Bend. A few buildings were wrecked and some live stock killed, but there was no person even hurt.

Kentucky.—No tornadoes reported. The tornado in Montgomery County, Tennessee, on September 21, seems to have been at nearest 3 or 4 miles south of the Kentucky State line.

Louisiana.—About midday, March 16, a tornado originated near Delhi, in northeastern Louisiana. It is noteworthy that during the preceding day tornadoes occurred in Kansas, Missouri, Iowa, and Oklahoma, and about the middle of the intervening night there was a tornado in northwestern Arkansas. Delhi is in the eastern part of Richland Parish, from which the storm moved northeastward across Madison and East Carroll Parishes, then crossed the Mississippi River into the State of Mississippi, after covering about 30 miles. Reports indicate that in Louisiana 4 lives were lost and the property damage was approximately $25,000.

On May 8, at 11.55 a. m., a tornado occurred at Vinton, Calcasieu Parish, in the southwestern part of the State, close to the Texas boundary. The path was 100 to 200 feet wide, and about 2 miles long, the storm moving northeastward. No person was killed, but a few were hurt, and there was property damage of about $20,000. Later the same day, between 2 and 3 p. m., there was a tornado at Lake Arthur, in Jefferson Davis Parish, which moved northeastward over a short track about 100 feet wide. One person was injured and there was some damage to buildings and trees.

Maryland and Delaware.—No tornadoes reported.

Michigan.—No tornadoes reported as doing damage. The only information as to a storm of this nature is obtained from Lansing and points in the vicinity, where, on May 23, about 11.10 a. m., a tornado cloud, or what seemed to be one, was observed in a westerly direction from the Lansing Weather Bureau station. It was probably about 10 miles distant, and was watched for seven minutes, but never appeared to reach the ground, as seen either from Lansing or from places nearer to it.

Minnesota.—On June 22, about 4.45 p. m., a very destructive tornado passed through Fergus Falls, Ottertail County, in the west-central part of the State. The path seems to have been several hundred feet wide, at least in the town, and extended about 10 miles eastward or southeastward, and an unknown, but probably shorter, distance to westward. The direction of the storm seems to have been eastward or southeastward. There were 59 deaths, and the property loss was estimated as $3,500,000.

Mississippi.—The tornado that was noted near Delhi, La., about noon, March 16, crossed into Mississippi near Tallula, Issaquena County, about 1 p. m., and continued to northeast or north-northeast about 60 miles, crossing Sharkey and Washington Counties and going on to near Moorhead, in the southern part of Sunflower County. The width of the path varied from about 100 yards to nearly a quarter of a mile. It is reported that 35 persons were killed and the property damage from the tornado is estimated at somewhat over a million dollars.

On December 7, at 3.18 p. m., a tornado of moderate intensity damaged part of the village of Marion, Lauderdale County. The cloud moved along the ground in a general northeastward direction, and left a path of destruction about 100 yards wide and about one-fourth mile long. One person was killed and several buildings were wrecked or damaged, the total damage being estimated as $50,000.

Missouri.—On March 15, at 1.30 p. m., a tornado occurred at Maryville, Nodaway County, in the northwestern part of the State. This may have been the same tornado that was noted

in northeastern Kansas about an hour earlier, near Circleville, Muscotah, and Horton; but a space of fully 50 miles intervenes, from which no reports of tornado damage have been obtained. At Maryville the storm moved northeastward, and where a grove of young pines was traversed the path was but 50 feet wide. At the Normal College, in the northern part of the town, the corner of the main building was damaged. No person was reported as even hurt, but the property loss was placed at $23,000. Later in the afternoon there was tornado activity about 160 miles to the southward, where again the reports indicate minor intensity. There was damage at 4.15 p. m., near Nevada, Vernon County, with path 1 mile long and a fourth as wide, the storm moving northeastward. Seven buildings were demolished and others injured, the total damage being $16,000. About 4.30 a tornado struck a farm 3 miles southeast of Appleton City, St. Clair County, which would mean about 30 miles northeast of the place of damage near Nevada. Although about in the course which the Nevada storm took, the Appleton City storm occurred too nearly at the same time to be considered as probably a reappearance of the former. The storm near Appleton City left a path of devastation 150 feet wide, but only for a short distance. It moved northeastward, and what was probably the same storm, after traveling above the surface for about 15 miles, did some damage to buildings at Clinton, Henry County, where a path was left about 60 feet wide, the time being 5 p. m. The total damage in St. Clair and Henry Counties was $12,000, but, as with other storms in Missouri that day, no persons were killed.

There are two reports of damage on the night of May 17 in northwestern Missouri. The damage was of similar character at the two places, and it is probable that one small tornado caused all of it. From Albany, Gentry County, the hour of occurrence and amount of loss were not reported, and no loss of life was mentioned. The other locality is over 30 miles to northeastward, or east-northeastward, at the New Harmony Church community, a few miles northeast of Cainesville, in the eastern edge of Harrison County, or the western edge of Mercer. The time here was about 11 p. m.; the church was completely wrecked and several farmhouses were slightly damaged, involving a total injury of $1,000; but the reports mention no loss of life.

Montana.—There was apparently a small tornado on July 11, near Square Butte, in the southern portion of Chouteau County, near the central part of the State. Some ranch property was damaged, but other details are lacking.

Nebraska.—On the afternoon of March 14 there was tornado damage in two counties of eastern Nebraska. This was the day before tornadoes occurred in portions of Kansas, Iowa, Missouri, and Oklahoma. In the western part of Butler County, about 4 p. m., some farm buildings were damaged near Rising City, the storm moving northeastward over a narrow path about 5 miles long. In Saunders County the tornado was first noted near Touhy, which is in the western part of the county, and is about 23 miles to eastward, or a little south of east, of Rising City, the time being 4.30 p. m. It is thought the Saunders County storm was a separate tornado, for while the times would favor the hypothesis of a reappearance of the Butler County storm, yet the direction taken in Butler County makes the hypothesis unlikely. From near Touhy the Saunders County storm moved northeastward, passing a little north of Colon, where its path was about a mile wide, and continued toward Woodcliff, in the northeastern part of the county, not far from the Platte River and Fremont. In all it traveled about 20 to 22 miles, and did considerable damage, causing the death of one person, the only death from a tornado reported this year in Nebraska.

On April 6, about 6.30 p. m., a tornado near Madison, Madison County, damaged property on six farms. This was about 80 or 90 miles northwest of Elmwood and Omaha, where tornadoes, or two appearances of one tornado, occurred the same evening. At Elmwood, about 6 p. m., the tornado left a narrow path, mainly less than 300 feet wide, and traveled about 7 miles in about 10 minutes, at first northward, then somewhat to west of due north. Several buildings were destroyed or damaged. Conditions were unusually favorable for studying and photographing the long, slender tornado cloud, which at times resembled a dangling rope, though around the portion that was close to the ground there was usually a dark mass of dust.

About 20 or 25 miles northeastward the western and northern parts of Omaha were crossed about 7.30 p. m. by a tornado of wider path, about 200 to 600 feet, which was more likely a separate tornado. The storm entered the city near where the tornado of March 23, 1913, entered, but turned more to north, through less densely built portions; its north-northeastward path covered between 3 and 4 miles in Nebraska, and it probably continued a short distance into Iowa. The property loss was $250,000, a small sum considering the passage through part of a large city; and several were hurt, but no one was killed.

Nevada.—No tornadoes reported.

New England.—No tornadoes reported.

New Jersey—No tornadoes reported.

New Mexico.—What seems to be the first real tornado ever reported to the Weather Bureau as occurring in New Mexico formed September 19 near Hobbs, in Lea County, the most southeastern in the State, a region of flat, open prairie. On account of its westward motion this tornado must probably be associated with the great tropical hurricane of September, though the relation is not so close as with the tornado at Goulds, Fla., on September 10. On September 15 the hurricane center was in the lower or lower-middle Rio Grande Valley, with northwestward motion; but by the 16th no marked center any longer appeared, and the tornado near Hobbs did not come till the afternoon of the 19th, when it was noted about 4 p. m., south, or east of south, of Hobbs, probably four miles distant. It moved in direction a little south of west, for about a mile, but was small—probably never over 100 yards wide. There were no buildings or other improvements near its path, so the damage was insignificant.

New York.—No tornadoes reported. The tornado near Bradford, in northwestern Pennsylvania, on July 10, was but a few miles from southern Cattaraugus County, N. Y., but seems not to have crossed the State line. It is noteworthy that this day hail occurred at several places in western New York, and there was an especially violent storm in the vicinity of Lake Keuka, about 80 miles east-northeast of Bradford, Pa.

North Carolina.—A tornado of moderate intensity is reported as occurring south of Nashville, Nash County, which is somewhat to northeastward of the center of the State. This was about 2:45 p. m., May 1. The storm moved about 2 miles to northeastward, then lifted, but reached the ground again about 6 miles away, though probably for only a short distance. The width of path was from 75 to 150 yards, the damage was only about $1,800, and no personal injuries were reported.

North Dakota.—No tornadoes reported.

Ohio.—No sure tornadoes reported. On August 30, about 5:40 a. m., there were decidedly violent winds over some northern portions of the city of Columbus, but evidence was not secured that would indicate this storm as a tornado.

Oklahoma.—On March 15, the same afternoon that tornadoes occurred in northeastern Kansas and western Missouri, there were two tornadoes, or possibly more, in Oklahoma. The earlier was in the eastern part of the State, forming apparently in the southwestern part of Wagoner County and passing through the town of Porter, and onward at least four or five miles, its course being to northeast or at times more to north-northeast. The hour at Porter was 4:07 p. m., and the width of path there about 200 feet. Two persons were killed and the property loss was figured as $200,000. Later in the day, in the west-central part of the State, a tornado developed near Weatherford, Custer County, the report being that the place was 4 miles southeast and the time between 5 and 6 p. m. The storm moved eastward into Caddo County; it was probably the same storm that was reported as passing Hinton, 17 miles due east of the reported place of formation, at 6:30 p. m.; however, the width of path was reported as a quarter-mile at Weatherford and about two miles at Hinton. To northeast of Hinton lies the western part of Canadian County, from which no report of storm was received; but beyond, in Kingfisher County, the town of Kingfisher, about 40 miles northeast of Hinton, reports a tornado as passing near at about 7:30, and continuing to Dover, in the same county, about 8 miles farther to north-northeast. It is probable that this was the Hinton tornado, though the width of path was about the same as at Weatherford. There were 7 persons killed and the property loss was $140,000,

Kingfisher County suffering more than Caddo and Custer combined. The violent winds during the following night at McAlester, Okla., after 11 p. m.; at Fort Smith, Ark., at 12:07 a. m.; and at Altus, Ark., about 12:30 a. m., occurred along a southwest-northeast line at such times as to make one tornado seem a plausible explanation; but it was only at Altus that the evidence is reported to indicate a real tornado, so the others are rated as wind damage in the table on page 43.

In the early hours of April 9, tornadoes visited portions of southeastern Oklahoma. In point of time Bryan County was first visited, and there was probably but one tornado there; this probably was the tornado that visited Bells, Grayson County, Tex., at 12:45 a. m., for it passed near Roberta, Okla., which is about 20 miles north-northeast of Bells, at about 1:15 or 1:30 a. m. Near Roberta the path was reported as very narrow, but farther north near Durant, as a quarter-mile or more wide. Reports indicate 11 persons killed in Oklahoma and a property loss of fully $50,000. A little later, at 2 a. m., a tornado passed near Stonewall, Pontotoc County, and went on northeastward into Coal County, the path being reported as about 20 miles long. It is likely that this was not the Bells-Roberta tornado, but another one, for Stonewall is about 53 miles north-northwest of Roberta. The Stonewall tornado went mostly through sparsely settled country, but damaged many buildings and caused the death of one person.

On August 30, at 6 p. m., what was probably a tornado occurred at Konawa, which is in Seminole County, somewhat to southeast of the center of the State. The storm moved northeastward, leaving a path half a mile wide; no deaths were reported, but property loss was estimated as $20,000.

On October 8 there was tornado damage at four points in Choctaw County, in southeastern Oklahoma, probably from two distinct storms, one at Soper and Cody, the other at Ervin and Huskey. The only statement as to time was secured from Huskey, where the hour was 8:08 p. m. This was about 4 hours after tornadoes occurred in central Kansas, 340 miles to northwestward, and about 5 hours before a tornado visited central Arkansas, about 180 miles to east-northeastward. The damage in Choctaw County was fully $125,000, and 3 persons were killed.

Oregon.—No sure tornadoes reported. The violent whirlwind near Yonna, in south-central Oregon, on June 7, is reckoned merely as a damaging wind.

Pennsylvania.—A tornado occurred in Bradford County, in the northern part of the State, on April 11, traveling from Rome to Orwell, about 8 miles. No lives were lost, but some buildings and orchards were damaged.

On July 10 a tornado passed over Bradford, in McKean County, northwestern Pennsylvania. The path began a mile southwest, and destruction occurred at places to about 4 miles east of Bradford, the width being about 300 feet. Two persons were killed and there was damage of about $30,000. On July 18 there was a tornado a few miles north of Philadelphia, at Colmar, Montgomery County. It moved to the northward affecting only a very narrow path; the damage was small and no person was even injured.

South Carolina.—In the northern part of the State, about 5:30 p. m., March 5, a tornado covered nearly or quite 20 miles in Chester County, starting from a point to westward of a line joining Cornwell and Chester and moving east-northeastward to near Richburg. Though the path was 600 yards wide, the property loss was but $5,500. The following midnight a small tornado traversed a narrow path for a short distance near Clifton's Mill, in Hampton County, with some injury to houses and live stock, but, as in Chester County, with no loss of human life. This storm occurred in the southern part of the State, about 130 miles south of the earlier storm, and the two storms were but a few hours after a tornado of long path in southern Alabama.

South Dakota.—There was tornado damage in Beadle County, in the eastern part of the State, on the afternoon of August 12, rather likely the work of one storm, reaching the ground at intervals. About 12 miles north-northwest of Huron a path was devastated half a mile wide and two miles long; the storm probably moved southward or a little to east of south. A short distance southwest of Huron there was damage at two places, one of them a half-mile south of the other. The total property loss was not large, and nobody was killed, though several were hurt.

Tennessee.—On September 21, between 5:30 and 6 p. m., a tornado occurred in Montgomery County, about 8 miles north of Clarksville, and close to the northern border of the State. Its path was about 5 miles long, the storm moving nearly from west to east, and passing near St. Bethlehem and Hampton Station. The path was from 50 to 500 yards wide, but no person was even seriously hurt, while the damage was about $8,000.

Texas.—Thirteen counties in west-central and northeastern Texas were visited by tornadoes during the night of April 8–9, eight distinct storms, at least, being indicated by examination of the times and places. Four localities in west-central Texas report the hour from 9 to 10 p. m., the places all falling within a circle of about 35 miles radius. At Blackwell, Nolan County; Anson, Jones County; and Eula, Callahan County, the visits must probably be laid to distinct storms, though the Tennyson, Coke County, tornado might be an earlier appearance of the Blackwell storm or of one of the other two, Blackwell being about 25 miles north of Tennyson and being visited about an hour later. While no one was reported killed in these four counties, the property loss was $40,000 at Blackwell alone; elsewhere it was comparatively small.

From Eula, the nearest of these four points, it is about 75 miles southeastward to Mullin, Mills County, where the next storm in point of time occurred, about 12:10 a. m. of the 9th. The path was rather narrow; again no one was killed, but the damage was $10,000. This Mullin tornado probably had no close connection with any earlier or later storm. It occurred to southeastward of the earlier tornadoes, and fully 160 miles to southwestward of the later tornadoes; also the tornadoes in Grayson and Fannin Counties came so few minutes afterwards that it seems practically impossible for a tornado to have covered the intervening distance.

Grayson and Fannin are adjoining counties in northeastern Texas, bordering on Oklahoma. There were probably two distinct tornadoes here; one at Bells, Grayson County, at 12:45 a. m., the other, passing about 9 miles to eastward, half an hour or so later. The storm at Bells had a rather narrow path, but caused one death and $33,000 property loss, and is probably the tornado that passed near Roberta and Durant, across the Red River in Oklahoma, half an hour or more later, killing 11 more. The second storm visited Leonard, time not reported; Ector, at 1 a. m.; and Ravenna, at 1:30 a. m. This storm was reported as of narrow path, save at Leonard, three-fourths of a mile; at the three places named, all in Fannin County, 20 persons were killed and there was damage of $125,000. Both these storms seem to have moved nearly due northward.

More than two hours later, fully 60 miles to eastward and southeastward, six places were visited, probably all by one tornado. These are Eustace, Henderson County; Canton, Van Zandt County; Mineola and Winnsboro, Wood County; Newsome, Camp County; and a considerable distance to northward, Mulberry, Red River County. The hour of occurrence at Mulberry is not reported, and this may have been a distinct storm; also at Mineola, where the time is reported 5 a. m., there may have been a distinct storm, not many miles from the path of the tornado between Canton and Winnsboro, and half an hour or more later, but probably the reported time is in error. The path was generally northeastward, but at times more to northward, and the width was usually a quarter mile, save at Canton, a mile. At the six places there were 42 persons killed, the greatest number being 14 at Mineola, and the damage aggregated about $450,000.

Finally, in Bowie County, a few miles west of Texarkana, a tornado of narrow path passed about 7:30 a. m., killing one person and causing property loss of $10,000. This storm probably moved nearly due north while in Texas, and very close to the northeast corner of the State crossed into Arkansas; from Texarkana to Saratoga, Ark., it covered about 23 miles, more than half in Arkansas, where most of the deaths and damage occurred.

The storms of May 7 in the lower Rio Grande Valley, when Mission especially suffered severely, are thought not to have been tornadoes.

On September 15, about 3 p. m., a tornado is reported to have passed through the northern part of the town of Uvalde, Uvalde County, in southwestern Texas. The direction of motion and the width of path are not stated. A few houses were destroyed and many goats were killed. This tornado, like the one at Goulds, Fla., five days earlier, and the one, four days later

at Hobbs, N. Mex., only a few miles west of the Texas boundary, seems connected with the great tropical hurricane. At the time of the Uvalde storm the center of low pressure of the hurricane was probably about 300 miles distant to the west-southwest. The very heavy rainfall at Uvalde had ceased about an hour before the tornado came.

Utah.—No tornadoes reported.

Virginia.—No tornadoes reported.

Washington.—No tornadoes reported.

West Virginia.—No tornadoes reported.

Wisconsin.—On August 20, about 2 miles northeast of Ableman, Sauk County, there occurred a small storm that must probably be considered a tornado. It traveled to the northeast, but could not be traced far. The path of damage was about 600 feet wide and the damage was only $500.

Wyoming.—No tornadoes reported.

HAIL, 1919.

Charts 6 and 7 show the occurrence of hail during the warm season (April to September) of 1919, as indicated chiefly by the records of the regular and cooperative stations of the bureau. In preparing these charts effort has been made to show two degrees of intensity—moderately heavy hail, resulting in only slight damage, and heavy or destructive hail. Hail too light to cause damage fell at thousands of stations, and it is considered needless to chart such falls. Hailstorms are often extremely local in character, and in their occurrence from year to year show much irregularity; so the distribution indicated on the accompanying charts should not be construed as the usual condition.

In a few cases severe falls of hail are known to have occurred over paths of sufficient length to justify the use of lines, rather than dots, on Chart 7. On May 23 heavy hail fell over a strip in west-central Maryland, extending from near Weverton to several miles east of Frederick. On June 8 an especially severe hailstorm covered a belt about 50 miles long in South Carolina, east of Columbia. On July 10 much hail damage occurred in west-central New York, especially in Yates County. On the night of August 23 there was great damage from hail in a portion of the Salt River Valley, Arizona, not far east of Phoenix, this storm, unlike the great majority of hailstorms in this country, progressing toward the west. It is likely that in other cases, if many reports could have been secured from different points, the information would have shown clearly that a series of unconnected dots now charted ought to be replaced by a line.

LOSSES FROM WINDSTORMS, 1919.

Effort has been made to collect, through the field service officials of the bureau, statistics as to damage to property and loss of life resulting from windstorms, other than tornadoes, and the figures are presented in the table following. The amounts of damage are estimates only, and in many cases even rough estimates could not be secured, so symbols were entered instead to indicate that losses occurred of which estimates are not possible; in most such instances, however, the losses were comparatively small. Deaths and fire losses from lightning are not included even though high winds occurred at the time, and when wind and rain, or wind and hail did damage together effort is made to estimate the share due to wind.

The first five months of the year ordinarily bring much wind damage, in connection with the circulation around well-developed, large areas of low pressure. During 1919 there was remarkably little wind injury till the last day of February, when a vigorous storm caused violent winds over parts of the central valleys and Lake region. March was surprisingly free from severe winds till the last few days, when the States from Virginia northeastward experienced long-continued winds of great strength. The high winds of April were largely local, and not very damaging, and in May practically all the few losses reported were due to local storms, much the most important of these occurring in Texas on two dates, when 14 lives were lost. During the three warmest months, June to August, nearly all the States, as usually happens, reported damaging winds in one or more localities, in connection with thunderstorms; also on

and about August 13 a strong area of low pressure caused high winds in southeastern Pennsylvania, eastern Maryland, and practically all parts of Delaware, New Jersey, and Long Island. In September one of the most severe tropical hurricanes in the history of the bureau crossed the Gulf of Mexico, doing great damage in southern Florida and vastly greater in southern Texas. In the latter State the damage carefully reported foots up close to $21,700,000, but a few counties on or near the coast, where the winds surely were violent, have not been heard from, though their small population and total of property values leads to the belief that addition of their losses would not greatly increase the figure stated. In the city of Corpus Christi and its immediate environs the property loss was estimated at $16,000,000, and 260 persons perished. No account is made in the table of lives lost or value of vessels sunk in the open Gulf, outside of harbors, though including of these would vastly increase the figures given, the number of lives lost being more than doubled, chiefly through the sinking of the Spanish passenger steamer *Valbanera*, not far from the straits of Florida, when none survived of over 300 on board. During the final three months of the year the most important wind damage occurred late in November, when very high winds were experienced on the 29th and 30th over most of Indiana, Ohio, and eastern and southern Michigan, also portions of States adjoining, in connection with a vigorous area of low pressure. The damage was especially large in and near Toledo and Detroit. On the 26th to 28th there was great damage from wind in California, particularly to shipping in San Francisco Bay, in connection with another low-pressure area.

On October 28, at Muskegon, Mich., the wind drove a steamer on a breakwater pier, where it sank, with loss of 21 lives. The table includes this loss of life, but does not include November losses by two sinkings in gales on Lake Superior, out from shore, when about 37 perished.

Losses from windstorms, other than tornadoes, by months and sections, 1919.

[Figures, except in the right-hand column, indicate dollars.]

Sections.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	Number of lives lost.
Alabama							2,000	(1)					[2] 2,000	
Arizona								[2] 200,000					[2] 200,000	1
Arkansas			225,000	[2] 600		4,000							[2] 229,600	
California			(1)	(1)							1,500,000		[2] 1,500,000	
Colorado				[2] 375								(1)	[2] 375	
Florida					(1)		[2] 1,500		[2] 2,007,500				[2] 2,009,000	3
Georgia			[2] 5,000		(1)	(1)							[2] 5,000	3
Idaho	(1)												(1)	
Illinois		(1)	[2] 10,000	(1)	[2] 125	[2] 65,000	[2] 3,000	(1)		(1)	(1)		[2] 78,125	2
Indiana		(1)	(1)	(1)		[2] 5,000	(1)	(1)	(1)		(1)		[2] 5,000	
Iowa			(1)	(1)		(1)	[2] 23,000	[2] 18,000		(1)	(1)		[2] 41,000	
Kansas			[2] 1,000	(1)	(1)	(1)	(1)	(1)			(1)		[2] 1,000	
Kentucky			[2] 75,500			[2] 6,000	(1)	(1)		(1)	(1)		[2] 81,500	
Louisiana									[2] 30,000				[2] 30,000	
Maryland and Delaware			(1)				(1)	(1)					(1)	3
Michigan		[2] 150		(1)		210	[2] 1,000	(1)	(1)	(1)	[2] 103,700		[2] 105,060	30
Minnesota						(1)	(1)	(1)		(1)			(1)	
Mississippi		(1)		(1)			(1)					(1)	(1)	
Missouri				[2] 900		280,200	[2] 180,000	[2] 21,000	(1)		(1)		[2] 482,100	1
Montana	(1)			(1)	(1)	(1)	(1)	(1)					(1)	
Nebraska														
Nevada														
New England	(1)						(1)				(1)		(1)	
New Jersey			(1)	(1)				(1)					(1)	
New Mexico		[2] 500											[2] 500	
New York			(1)				(1)	(1)		(1)			(1)	
North Carolina						(1)							(1)	
North Dakota						(1)	(1)						(1)	
Ohio		(1)	(1)	(1)		(1)	(1)	(1)	(1)		100,000	(1)	[2] 100,000	
Oklahoma		1,500	[2] 1,000	(1)		(1)							[2] 2,500	2
Oregon	(1)					(1)			(1)				(1)	
Pennsylvania			(1)			(1)	(1)	(1)			(1)		(1)	
South Carolina														
South Dakota				(1)				(1)			(1)		(1)	
Tennessee			[2] 7,000			(1)	(1)	(1)	(1)				[2] 7,000	
Texas		(1)	(1)	(1)	1,500,000				[2] 21,700,000				[2] 23,200,000	296
Utah							(1)				(1)	(1)	(1)	
Virginia			[2] 5,000			(1)		(1)					[2] 5,000	1
Washington	(1)	(1)		(1)					(1)		(1)		(1)	
West Virginia							10,000						10,000	
Wisconsin				6,000			[2] 20,000		50,000		(1)		[2] 76,000	2
Wyoming														

[1] Indicates losses reported, but no estimate of amount obtainable.
[2] Indicates additional losses, but no estimate of amount obtainable.

Annual summary, climatological data, Canadian stations, 1919.

[Data furnished by the Canadian Meteorological Service.]

Stations.	Pressure in inches.			Temperature.						Precipitation.		
	Station reduced to mean of 24 hours.	Sea level reduced to mean of 24 hours.	Departure from normal.	Mean maximum + mean minimum ÷ 2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Total snowfall.
St. Johns, Newfoundland	29.74	29.88	−0.03	40.2	−0.3	47.4	33.1	80	0	57.81	+ 3.18	70.0
Sydney, Cape Breton Island	29.93	29.97	+ .03	43.1	+1.8	51.4	34.8	84	− 5	50.35	+ 0.07	79.0
Halifax, Nova Scotia	29.87	29.98	+ .01	44.1	+1.3	52.2	36.0	87	− 6	56.52	− 0.51	35.6
Yarmouth, Nova Scotia	29.90	29.97	− .01	44.3	+1.1	51.1	37.5	83	− 1	56.17	+ 5.84	31.9
Charlottetown, Prince Edward Island	29.92	29.96	+ .02	42.2	+1.2	48.9	35.4	82	−12	43.13	+ 1.51	61.1
Chatham, New Brunswick	29.96	29.99	+ .05	40.8	+2.1	50.2	31.5	92	−26	35.93	− 5.36	98.0
Father Point, Quebec	29.95	29.97	+ .04	35.3	+0.5	43.2	27.6	84	−22	29.81	− 3.18	124.7
Quebec, Quebec	29.67	30.00	+ .02	39.9	+1.7	48.0	31.9	92	−27	43.14	+ 1.42	115.9
Montreal, Quebec	29.80	30.01	+ .02	43.2	+1.7	50.7	35.8	92	−15	40.45	− 0.54	104.9
Stonecliffe, Ontario	29.39	30.01	+ .02	.....	.....	52.1	.....	98	.....	34.72	+ 4.26	44.8
Ottawa, Ontario	29.75	30.03	+ .03	43.5	+2.9	53.3	33.8	97	−20	34.67	+ 2.07	80.4
Kingston, Ontario	29.71	30.02	+ .01	46.5	+3.4	54.5	38.5	91	−12	34.98	+ 2.17	40.7
Toronto, Ontario	29.61	30.02	00	48.3	+4.1	57.1	39.5	98	− 7	29.66	− 3.06	28.7
Cochrane, Ontario	.....	.....	.....	34.8	.....	44.8	24.7	93	−38	33.77	.....	98.0
White River, Ontario	28.64	29.98	00	34.0	+1.9	46.7	21.5	93	−51	30.49	+ 5.70	83.7
Port Stanley, Ontario	29.39	30.04	+ .01	47.0	+2.3	55.4	38.6	90	− 5	35.09	+ 0.67	44.6
Southampton, Ontario	29.29	.....	.....	45.6	+3.2	53.7	37.6	94	− 8	29.43	− 4.78	84.8
Parry Sound, Ontario	29.32	30.02	+ .02	43.8	+3.6	54.0	33.8	98	−25	40.81	+ 2.54	110.5
Port Arthur, Ontario	29.30	30.01	+ .01	37.8	+3.4	47.3	28.3	92	−28	18.14	− 6.62	34.6
Winnipeg, Manitoba	29.16	30.01	+ .01	36.4	+3.3	46.5	26.4	95	−30	25.13	+ 4.15	67.9
Minnedosa, Manitoba	28.16	30.00	.00	34.0	+2.4	45.4	22.7	98	−41	15.86	− 0.59	45.8
Le Pas, Manitoba	.....	.....	.....	32.1	.....	42.4	21.8	92	−40	15.18	.....	22.2
Qu'Appelle, Saskatchewan	27.69	29.97	− .01	35.2	+1.9	46.7	23.7	94	−50	17.92	+ 1.84	64.6
Medicine Hat, Alberta	27.62	29.91	− .05	43.0	+2.7	55.8	30.3	103	−36	7.64	− 6.16	26.9
Moose Jaw, Saskatchewan	.....	.....	.....	38.6	.....	51.3	25.9	101	−33	14.01	.....	48.9
Swift Current, Saskatchewan	27.34	29.99	+ .02	38.9	+1.4	51.2	26.7	103	−32	12.33	− 3.14	50.5
Calgary, Alberta	26.38	29.98	+ .05	39.5	+2.3	53.0	26.1	97	−33	11.98	− 2.89	36.3
Banff, Alberta	25.33	29.98	+ .05	34.9	+0.2	47.4	22.4	92	−45	14.68	− 7.23	80.4
Edmonton, Alberta	27.61	29.93	.00	35.5	−0.1	47.3	23.7	89	−39	16.43	+ 0.60	75.2
Prince Albert, Saskatchewan	28.39	29.99	+ .01	34.4	+3.9	45.7	23.2	95	−46	15.38	+ 0.47	36.8
Battleford, Saskatchewan	28.19	29.96	− .01	35.5	+2.8	47.7	23.3	103	−50	10.26	− 3.67	32.9
Kamloops, British Columbia	28.76	30.06	+ .13	46.1	−1.0	56.3	35.9	102	−21	9.95	− 1.68	40.7
Victoria, British Columbia	29.78	30.03	+ .03	48.7	+0.1	54.7	42.7	84	16	28.33	− 9.81	0.4
Barkerville, British Columbia	25.64	29.99	+ .09	33.2	−3.0	42.4	24.0	78	−26	41.32	+ 7.76	198.7
Prince Rupert, British Columbia	.....	.....	.....	44.5	.....	49.4	39.5	77	6	86.58	.....	44.4
Dawson, Yukon	.....	.....	.....	20.7	.....	31.0	10.4	87	−54	15.99	.....	65.6
Hamilton, Bermuda	29.94	30.10	+ .01	70.0	+0.3	75.3	64.8	90	47	49.00	−12.91	0.0

CHART I.

DEPARTURE FROM NORMAL TEMPERATURE, IN DEGREES FAHRENHEIT, FOR THE CROP SEASON OF 1919, MARCH 1 TO SEPTEMBER 30.

Shaded portions show excess (+) and unshaded portions deficiency (−) of temperature.
Figures show mean daily excess (+) or deficiency (−) of temperature over areas bounded by light lines.

TOTAL PRECIPITATION, INCHES, FOR THE CROP SEASON OF 1919, MARCH 1 TO SEPTEMBER 30.

CHART 3.

DEPARTURE FROM NORMAL PRECIPITATION FOR THE CROP SEASON OF 1919, MARCH 1 TO SEPTEMBER 30.

Shaded portions show excess (+) and unshaded portions deficiency (−) in rainfall.
Figures show, in inches, amount of excess or deficiency of rainfall over areas bounded by light lines.

TOTAL PRECIPITATION, INCHES, FOR THE YEAR 1919.

OCCURRENCE OF TORNADOES DURING THE YEAR 1919.

The arrows show the location of tornado paths, and point in the direction of storm motion.

OCCURRENCE OF MODERATELY HEAVY HAIL, DOING SLIGHT DAMAGE ONLY, FOR THE WARM SEASON OF 1919, APRIL 1 TO SEPTEMBER 30.

The dots show the localities where moderately heavy hail fell, as reported by observers of the Weather Bureau and others.

OCCURRENCE OF HEAVY HAIL, DOING MATERIAL DAMAGE TO CROPS AND OTHER PROPERTY, FOR THE WARM SEASON OF 1919, APRIL 1 TO SEPTEMBER 30.

The dots and lines show the localities where heavy hail fell, as reported by observers of the Weather Bureau and others.

LIST OF OBSERVING STATIONS.

The following table contains the geographic coordinates of the several stations whose summaries are published in Part III, the adopted height of the barometer cistern above mean sea level and of other instruments above ground, the difference between local mean and seventy-fifth meridian time, and the date on which observations began. The standard of time used by the Weather Bureau in all of its synchronous work is that of the seventy-fifth meridian (Eastern time), which standard is always understood, unless otherwise expressed.

The elevations of the barometers are those adopted January 1, 1900, except at stations established since that date. They are the results of precise levels, and are known as the "station elevation."

Changes in the elevations of other instruments during 1919 are shown by the figures immediately below, and the dates of such changes are given under appropriate heading.

The significance of the bold-face letter or letters following the name of station is as follows:

P = continuous records of pressure (on December 31, 1919);

T = continuous records of temperature (on December 31, 1919);

W = continuous records of wind (direction and velocity) (on December 31, 1919);

V = continuous records of wind (velocity only) (on December 31, 1919);

R = continuous records of rainfall (on December 31, 1919);

S = continuous records of sunshine (on December 31, 1919).

Summary of stations in operation during the year.

Taking two observations daily (all elements)	176
Taking one observation daily (all elements)	26
Taking two observations daily (temperature, rain, wind, and weather)	39
Taking one observation daily (temperature, rain, wind, and weather)	33
Taking one observation daily (special meteorological and cotton)	2
Taking one observation daily (special meteorological and river)	3
Taking one observation daily (special meteorological and storm warning)	4
Taking one observation daily (cotton, sugar, and rice)	107
Taking one observation daily (cotton and river)	28
Taking one observation daily (cotton and rainfall)	36
Taking one observation daily (river stations)	494
Taking one observation daily (rainfall stations)	264
Taking one observation daily (sugar and rice and river)	3
Taking one observation daily (corn and wheat)	136
Taking one observation daily (corn and wheat and river)	16
Taking one observation daily (corn and wheat and rainfall)	34
Taking one observation daily (cranberry)	10
Taking one observation daily (special fruit)	27
Taking one observation daily (special fruit and river)	1
Taking one observation daily (special fruit and rainfall)	1
Taking one observation daily (weekly cattle)	52
Taking one observation daily (tobacco)	11
Taking one observation daily (alfalfa)	1
Taking one observation daily (alfalfa and cattle)	1
Snowfall	132
Snowfall and evaporation	3
Vessel	92
Total paid stations	1,732
Cooperative stations (about)	[1] 4,500
Grand total	6,232

[1] Exclusive of the observers of the cattle, cotton, sugar and rice, and corn and wheat regions, who generally act as cooperative observers during the period when not employed as special observers.

TABLE I.—*Latitude, longitude, elevation, etc., of Weather Bureau stations.*

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.		Elevation Dec. 31, 1919. Barometer above sea level.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Dates of changes in elevation during 1919.
	°	′	°	′	h.	m.	Feet.	Feet.	Feet.	Feet.		
Abilene, P T W R S	32	23	99	40	1	39 S.	1,738	10	3	52	Sept. 14, 1885	
Albany, P T W R S	42	39	73	45		05 F.	97	102	100	115	Dec. 22, 1873	
Alpena, P T W R S	45	05	83	30		34 S.	609	13	4	92	Sept. 10, 1872	
Amarillo, P T W R S	35	13	101	50	1	47 S.	3,676	10	3	49	Jan. 1, 1892	
Anniston, P T W R S	33	39	85	50		43 S.	741	9	3	57	Oct. 16, 1905	
Asheville, P T W R S	35	36	82	32		30 S.	2,255	70	61	84	Aug. 22, 1902	
Atlanta, P T W R S	33	45	84	23		38 S.	1,174	190	182	216	Sept. 25, 1878	
Atlantic City, P T W R S	39	22	74	25		02 F.	52	37	33	48	Dec. 10, 1873	
Augusta, P T W R S	33	28	81	54		28 S.	180	62	54	77	Nov. 2, 1870	
Baker, P T W R S	44	46	117	50	2	51 S.	3,471	48	40	53	July 9, 1889	
Baltimore, P T W R S	39	17	76	37		06 S.	123	100	90	113	Jan. 1, 1871	
Bentonville, P T W R S	36	22	94	12	1	17 S.	1,303	11	3	44	Mar. 16, 1906	
Binghamton, P T W R S	42	06	75	55		04 S.	871	10	3	69 84	Oct. 1, 1896	Apr. 8, 1919
Birmingham, P T W R S	33	32	86	50		47 S.	700	11	3	48	Sept. 14, 1895	
Bismarck, P T W R S	46	47	100	38	1	43 S.	1,674	8	3	57	Sept. 15, 1874	
Block Island, P T W R S	41	10	71	36		14 F.	26	11	3	46	Sept. 1, 1880	
Boise, P T W R S	43	37	116	13	2	45 S.	2,739	78	72	86	July 1, 1877	
Boston, P T W R S	42	21	71	04		16 F.	125	115	154	188	Nov. 1, 1870	
Broken Arrow, P T W R S	36	02	95	49	1	23 S.	765	11	4	52	May 12, 1918	
Brownsville, V	26	00	97	26	1	30 S.	57	4	3	26	Nov. 18, 1875	
Buffalo, P T W R S	42	53	78	53		16 S.	767	247	238	280	Nov. 1, 1870	
Burlington, P T W R S	44	29	73	12		07 F.	404	11	3	48	Mar. 29, 1906	
Cairo, P T W R S	37	00	89	10		57 S.	356	87	80	93	June 1, 1871	
Canton, P T W R S	44	36	75	10		01 S.	448	10	4	61	July 1, 1906	
Cape Henry, P T W R S	36	56	76	00		04 S.	18	8	3	54	Dec. 15, 1873	
Cape May, T W	38	56	74	51		01 F.	17	13	3	49	July 16, 1897	
Charles City, P T W R S	43	04	92	38	1	11 S.	1,015	10	4	49	Nov. 1, 1904	
Charleston, P T W R S	32	47	79	56		20 S.	48	11	76	92	Jan. 5, 1871	
Charlotte, P T W R S	35	13	80	51		23 S.	779	55	47	62	Oct. 6, 1878	
Chattanooga, P T W R S	35	04	85	14		41 S.	762	189	167	213	Sept. 12, 1875	
Cheyenne, P T W R S	41	08	104	48	1	59 S.	6,088	84	75	101	Nov. 1, 1870	
Chicago, P T W R S	41	53	87	37		50 S.	823	140	133	310	.....do.....	
Cincinnati, P T W R S	39	06	84	30		38 S.	628	11	3	51	.....do.....	
Cleveland, P T W R S	41	30	81	42		27 S.	762	190	165	201	.....do.....	
Columbia, Mo., P T W R S	38	57	92	20	1	09 S.	784	11	3	84	Aug. 21, 1889	
Columbia, S. C., P T W R S	34	00	81	03		24 S.	351	41	32	57	June 5, 1887	
Columbus, P T W R S	39	58	83	00		32 S.	824	179	171	222	July 1, 1878	
Concord, P T W R S	43	12	71	32		14 F.	288	70	62	79	Nov. 1, 1902	
Concordia, P T W R S	39	35	97	41	1	31 S.	1,392	50	42	58	May 1, 1885	
Corpus Christi, P T W R S	27	49	97	25	1	30 S.	20	69	61	77	Feb. 1, 1887	
Dallas, P T W R S	32	46	96	47	1	27 S.	512	109	92	117	Oct. 15, 1913	
Davenport, P T W R S	41	30	90	38	1	03 S.	606	71	64	79	May 24, 1871	
Dayton, P T W R S	39	46	84	10		37 S.	899	181	176	216	July 10, 1911	
Del Rio, P T W R S	29	20	100	53	1	44 S.	944	64	56	71	Nov. 9, 1905	
Denver, P T W R S	39	45	105	00	2	00 S.	5,291	106	98	113	Nov. 19, 1871	
Des Moines, P T W R S	41	35	93	37	1	14 S.	861	84	76	97	July 29, 1877	
Detroit, P T W R S	42	20	83	03		32 S.	730	218	214	258	Nov. 1, 1870	
Devils Lake, P T W R S	48	07	98	52	1	35 S.	1,478	11	4	44	Dec. 1, 1904	
Dodge City, P T W R S	37	45	100	00	1	40 S.	2,509	11	3	51	Sept. 15, 1874	
Drexel, P T W R S	41	20	96	16	1	25 S.	1,299	10	3	54	June 1, 1915	
Dubuque, P T W R S	42	30	90	44	1	03 S.	698	81	76	96	July 2, 1873	
Duluth, P T W R S	46	47	92	06	1	08 S.	1,133	11	3	47	Nov. 1, 1870	
Eastport, P T W R S	44	54	66	59		32 F.	76	67	62	85	Apr. 1, 1873	
Elkins, P T W R S	38	53	79	49		19 S.	1,947	59	52	67	Jan. 1, 1899	
Ellendale, P T W R S	45	59	98	34	1	34 S.	1,457	10	3	56	Oct. 8, 1917	
El Paso, P T W R S	31	47	106	30	2	06 S.	3,762	110	102	133	Apr. 1, 1878	
Erie, P T W R S	42	07	80	05		20 S.	714	130	122	166	May 25, 1873	
Escanaba, P T W R S	45	48	87	05		48 S.	612	54	44	60	May 24, 1871	
Eureka, P T W R S	40	48	124	11	3	17 S.	62	73	65	89	Jan. 1, 1887	
Evansville, P T W R S	37	58	87	33		50 S.	431	139	135	175	Dec. 1, 1897	
Flagstaff, P T W R S	35	12	111	37	2	26 S.	6,907	8 10	3	57 59	Sept. 9, 1898	Oct. 29, 1919
Fort Smith, P T W R S	35	22	94	24	1	18 S.	457	79	72	94	Apr. 13, 1879	
Fort Wayne, P T W R S	41	05	85	10		41 S.	856	113	107	124	June 1, 1911	
Fort Worth, P T W R S	32	43	97	15	1	29 S.	670	106	51	114	Sept. 1, 1898	
Fresno, P T W R S	36	43	119	49	2	59 S.	330	89	82	98	Aug. 18, 1887	

TABLE I.—*Latitude, longitude, elevation, etc., of Weather Bureau stations*—Continued.

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.		Elevation Dec. 31, 1919. Barometer above sea level.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.		Dates of changes in elevation during 1919.	
	°	′	°	′	h.	m.	Feet.	Feet.	Feet.	Feet.				
Galveston, P T W R S	29	18	94	50	1	19 S.	54	106	98	114	Apr.	19, 1871		
Grand Haven, P T W R S	43	05	86	13		45 S.	632	54	49	92 89	May	24, 1871	July	1, 1919
Grand Junction, P T W R S	39	04	108	34	2	14 S.	4,602	60	52	68	Jan.	1, 1899		
Grand Rapids, P T W R S	42	58	85	40		43 S.	707	70	70	87	July	1, 1903		
Green Bay, P T W R S	44	31	88	00		52 S.	617	109	101	144	Sept.	1, 1886		
Greenville, P T W R S	34	50	82	24		30 S.	1,039	113	102	122	Oct.	6, 1917		
Groesbeck, P T W R S	31	30	96	28	1	26 S.	461	11	3	56	July	2, 1918		
Hannibal, P T W R S	39	41	91	20	1	05 S.	534	74	68	109	Apr.	16, 1892		
Harrisburg, P T W R S	40	16	76	52		07 S.	374	94	90	104	July	1, 1888		
Hartford, P T W R S	41	46	72	40		09 F.	159	122	116	140	Oct.	7, 1904		
Hatteras, P T W R S	35	15	75	40		03 S.	11	12	37	50	Dec.	1, 1880		
Havre, P T W R S	48	34	109	40	2	19 S.	2,505	11	4	44	May	16, 1892		
Helena, P T W R S	46	34	112	04	2	28 S.	4,110	87	80	112	Apr.	1, 1880		
Honolulu, P T W R S	21	19	157	52	5	31 S.	38	111	99	119	Sept.	1, 1904		
Houghton, P T W R S	47	07	88	34		54 S.	668	62	57	99	Aug.	26, 1900		
Houston, P T W R S	29	47	95	24	1	22 S.	138	111	104	121	Sept.	16, 1909		
Huron, P T W R S	44	21	98	14	1	33 S.	1,306	59	53	74	July	1, 1881		
Independence, P T W R S	36	48	118	12	2	53 S.	3,957	9	4	41	Dec.	1, 1894		
Indianapolis, P T W R S	39	46	86	10		45 S.	822	194	188	230	Feb.	10, 1871		
Iola, P T W R S	37	55	95	25	1	22 S.	984	11	3	50	Aug.	20, 1905		
Ithaca, P T W R S	42	27	76	29		06 S.	836	82	4	100	Oct.	1, 1899		
Jacksonville, P T W R S	30	20	81	39		27 S.	43	209	198	245	Sept.	11, 1871		
Juneau, P T W R S	58	18	134	24	3	58 S.	80	11	5	49	Jan.	5, 1917		
Kalispell, P T W R S	48	10	114	25	2	38 S.	2,973	48	40	56	May	3, 1899		
Kansas City, P T W R S	39	05	94	37	1	18 S.	963	161	141	181	Apr.	21, 1873		
Keokuk, P T W R S	40	22	91	26	1	06 S.	614	64	56	78	July	16, 1871		
Key West, P T W R S	24	33	81	48		27 S.	22	10	3	64	Nov.	1, 1870		
Knoxville, P T W R S	35	56	83	58		36 S.	996	102	96	111	Jan.	20, 1871		
La Crosse, P T W R S	43	49	91	15	1	05 S.	714	11	3	48	Oct.	15, 1872		
Lander, P T W R S	42	50	108	45	2	15 S.	5,372	60	54	68	Aug.	1, 1891		
Lansing, P T W R S	42	44	84	26		38 S.	878	11	3	62	May	1, 1910		
Leesburg, P T W R S	31	47	84	14		37 S.	279	10	4	55	Aug.	1, 1918		
Lewiston, P T W R S	46	25	117	02	2	48 S.	757	40	32	48	Oct.	1, 1900		
Lexington, P T W R S	38	02	84	33		38 S.	989	193	187	230	Oct.	1, 1872		
Lincoln, P T W R S	40	49	96	45	1	27 S.	1,189	11	4	84	Aug.	8, 1894		
Little Rock, P T W R S	34	45	92	06	1	08 S.	357	139	132	147	Aug.	21, 1873		
Los Angeles, P T W R S	34	03	118	15	2	53 S.	333	159	151	191	July	1, 1879		
Louisville, P T W R S	38	15	85	45		43 S.	525	219	214	255	Sept.	11, 1871		
Ludington, P T W R S	43	57	86	27		46 S.	637	60	53	66	Sept.	12, 1912		
Lynchburg, P T W R S	37	25	79	09		17 S.	681	153	146	188	May	24, 1871		
Macon, P T W R S	32	50	83	38		35 S.	370	78	71	87	Apr.	8, 1899		
Madison, P T W R S	43	05	89	23		58 S.	974	70	62	78	Sept.	16, 1904		
Manteo, V	35	54	75	40		03 S.	12	5	3	42	Nov.	10, 1904		
Marquette, P T W R S	46	34	87	24		50 S.	734	77	70	111	May	11, 1871		
Memphis, P T W R S	35	09	90	03	1	00 S.	399	76	69	97	Feb.	28, 1871		
Meridian, P T W R S	32	21	88	40		55 S.	375	85	62	93	Sept.	1, 1889		
Miami, P T W R S	25	48	80	12		21 S.	25	71	64	79	June	3, 1911		
Miles City, P V	46	25	105	49	2	03 S.	2,371	48	39	55	Oct.	1, 1891		
Milwaukee, P T W R S	43	02	87	54		52 S.	681	125	117	139	Nov.	1, 1870		
Minneapolis, P T W R S	44	59	93	18	1	13 S.	918	102	92	208	Nov.	6, 1890		
Mobile, P T W R S	30	41	88	02		52 S.	57	125	119	161	Nov.	7, 1870		
Modena, P T W R S	37	48	113	54	2	36 S.	5,479	10	2	43	Jan.	1, 1901		
Montgomery, P T W R S	32	23	86	18		45 S.	223	100	71	112	Nov.	9, 1870		
Moorhead, P T W R S	46	52	96	44	1	27 S.	940	8	3	57	Jan.	31, 1881		
Mount Tamalpais, P T W R S	37	56	122	35	3	10 S.	2,375	11	5	18	Sept.	2, 1898		
Nantucket P T W R S	41	17	70	06		20 F.	12	14	4	90	Oct.	18, 1886		
Nashville P T W R S	36	10	86	47		47 S.	546	168	161	191	Nov.	1, 1870		
New Haven, P T W R S	41	18	72	56		08 F.	106	117 74	111 68	155 153	Dec.	10, 1872	Mar.	1, 1919
New Orleans, P T W R S	29	57	90	04	1	00 S.	53	76	71	84	Nov.	1, 1870		
New York, P T W R S	40	43	74	00		04 F.	314	414	407	454	.....do.....			
Norfolk, P T W R S	36	51	76	17		05 S.	91	170	178	205	Jan.	1, 1871		
Northfield, P T W R S	44	10	72	41		09 F.	876	12	3	60	Mar.	1, 1887		
North Head, P T W R S	46	16	124	04	3	16 S.	211	11	3	56	Aug.	1, 1902		
North Platte, P T W R S	41	08	100	45	1	43 S.	2,821	11	3	51	Sept.	18, 1874		
Oklahoma, P T W R S	35	26	97	33	1	30 S.	1,214	10	3	47	Nov.	1, 1890		

TABLE I.—*Latitude, longitude, elevation, etc., of Weather Bureau stations*—Continued.

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.		Elevation Dec. 31, 1919. Barometer above sea level.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Dates of changes in elevation during 1919.
	°	′	°	′	h.	m.	Feet.	Feet.	Feet.	Feet.		
Omaha, P T W R S	41	16	95	56	1	24 S.	1,105	115	107	122	Nov. 1, 1870	
Oswego, P T W R S	43	29	76	35		06 S.	335	76	68	91	do	
Palestine, P T W R S	31	45	95	40	1	23 S.	510	64	57	72	Dec. 3, 1881	
Parkersburg, P T W R S	39	16	81	36		26 S.	638	77	70 68	84 82	July 1, 1888	Mar. 28, 1919
Pensacola, P T W R S	30	25	87	13		49 S.	56	149	131	185	Oct. 27, 1879	
Peoria, P T W R S	40	43	89	36		58 S.	609	11	4	45	Feb. 1, 1905	
Philadelphia, P T W R S	39	57	75	09		01 S.	117	123	114	190	Jan. 1, 1871	
Phoenix, P T W R S	33	28	112	00	2	28 S.	1,108	11	68	81	Aug. 6, 1895	
Pierre, P T W R S	44	22	100	21	1	41 S.	1,572	70	63	75	July 1, 1891	
Pittsburgh, P T W R S	40	32	80	02		20 S.	842	353	345	410	Nov. 1, 1870	
Pocatello, P T W R S	42	52	112	29	2	30 S.	4,477	60	52	68	July 1, 1899	
Point Reyes Light, PWRS	38	11	122	51	3	11 S.	490	7	4	18	Mar. 1, 1889	
Port Angeles, P T W R S	48	07	123	06	3	12 S.	29	8	3	53	Mar. 1, 1916	
Port Arthur, P T W R S	29	52	93	55	1	16 S.	34	58	51	66	Feb. 1, 1917	
Port Huron, P T W R S	43	00	82	26		30 S.	638	70	63	120	July 25, 1874	
Portland, Me., P T W R S	43	39	70	15		19 F.	103	82	75	117	Jan. 15, 1871	
Portland, Oreg., PTWRS	45	32	122	41	3	11 S.	153	68	63	106	Nov. 1, 1870	
Providence, P T W R S	41	50	71	25		14 F.	160	215	211	251	Oct. 22, 1904	
Pueblo, P T W R S	38	18	104	36	1	58 S.	4,685	80	72	86	July 1, 1888	
Raleigh, P T W R S	35	45	78	37		14 S.	376	103	94	110	Apr. 1, 1884	
Rapid City, P T W R S	44	04	103	12	1	53 S.	3,234	50	43	58	Jan. 24, 1881	
Reading, P T W R S	40	20	75	58		04 S.	325	81	73	98	Dec. 1, 1912	
Red Bluff, P T W R S	40	10	122	15	3	09 S.	332	50	40	56	July 1, 1877	
Reno, P T W R S	39	32	119	49	2	59 S.	4,532	74	67	81	Nov. 11, 1905	
Richmond, P T W R S	37	32	77	27		10 S.	144	11	3	52	Oct. 5, 1897	
Rochester, P T W R S	43	08	77	42		11 S.	523	86	77	102	Nov. 1, 1870	
Roseburg, P T W R S	43	13	123	20	3	13 S.	510	9	4	57	July 15, 1877	
Roswell, P T W R S	33	24	104	27	1	58 S.	3,566	75	69	85	Dec. 20, 1904	
Royal Center, P T W R S	40	53	86	29		46 S.	736	11	3	55	May 17, 1918	
Sacramento, P T W R S	38	35	121	30	3	06 S.	69	106	100	117	July 1, 1877	
Saginaw, P T W R S	43	26	83	57		36 S.	641	48 69	43 62	82 77	Oct. 10, 1912	Aug. 1, 1919
St. Joseph, P T W R S	39	49	94	51	1	19 S.	967	11	3	49	Apr. 25, 1910	
St. Louis, P T W R S	38	38	90	12	1	01 S.	568	265	258	303	Nov. 1, 1870	
St. Paul, P T W R S	44	58	93	03	1	12 S.	837	236	228	261	do	
Salt Lake City, P T W R S	40	46	111	54	2	28 S.	4,360	163	156	203	Mar. 19, 1874	
San Antonio, P T W R S	29	27	98	28	1	34 S.	693	119	112	132	Jan. 2, 1876	
San Diego, P T W R S	32	43	117	10	2	49 S.	87	62	55	70	Nov. 1, 1871	
Sand Key, P T W R S	24	27	81	52		28 S.	23	39	6	72	June 1, 1903	
Sandusky, P T W R S	41	25	82	40		31 S.	629	62	54	103	Aug. 2, 1877	
Sandy Hook, P T W R S	40	28	74	01		04 F.	22	10	3	57	Nov. 1, 1914	
San Francisco, P T W R S	37	48	122	26	3	10 S.	155	209 208	200 202	213 243	Feb. 2, 1871	Apr. 21, 1919
San Jose, P T W R S	37	20	121	54	3	08 S.	141	12	3	110	Sept. 28, 1905	
San Juan, P T W R S	18	29	66	07		36 F.	82	9	4	54	Nov. 1, 1898	
San Luis Obispo, P T W R S	35	18	120	39	3	03 S.	201	32	23	40	June 1, 1885	
Santa Fe, P T W R S	35	41	105	57	2	04 S.	7,013	57	49	66	Nov. 20, 1871	
Sault Ste. Marie, PTWRS	46	30	84	21		37 S.	614	11	3	61 52	Aug. 5, 1877	June 5, 1919
Savannah, P T W R S	32	05	81	05		24 S.	65	150	143	194	Jan. 1, 1871	
Scranton, P T W R S	41	24	75	42		03 S.	805	111	102	119	Aug. 17, 1900	
Seattle, P T W R S	47	38	122	20	3	09 S.	125	215	209	250	May 1, 1893	
Sheridan, P T W R S	44	48	106	57	2	08 S.	3,790	10	3	47	Apr. 29, 1907	
Shreveport, P T W R S	32	30	93	40	1	15 S.	249	77	70	93	Sept. 3, 1871	
Sioux City, P T W R S	42	29	96	24	1	26 S.	1,135	94	86	164	Dec. 1, 1887	
Spokane, P T W R S	47	40	117	25	2	50 S.	1,929	101	94	110	Feb. 1, 1881	
Springfield, Ill., P T W R S	39	48	89	39		59 S.	636	10	4	91	July 1, 1879	
Springfield, Mo., PTWRS	37	12	93	18	1	13 S.	1,324	98	66	104	June 3, 1882	
Syracuse, P T W R S	43	02	76	10		05 S.	597	97	65	113	Aug. 22, 1902	
Tacoma, P T W R S	47	16	122	23	3	10 S.	213	113	104	120	May 1, 1897	
Tampa, P T W R S	27	57	82	27		30 S.	35	79	71	92	Mar. 13, 1890	
Tatoosh Island, P T W R S	48	23	124	44	3	19 S.	86	7	4	57	Nov. 22, 1902	
Taylor, P T W R S	30	35	97	20	1	29 S.	583	55	48	63	Nov. 13, 1901	
Terre Haute, P T W R S	39	29	87	24		50 S.	575	96	84	129	July 29, 1912	
Thomasville, P T W R S	30	48	83	58		36 S.	273	49	41	58	Aug. 20, 1905	
Toledo, P T W R S	41	40	83	34		34 S.	628	208	201	243	Nov. 1, 1870	

TABLE I.—*Latitude, longitude, elevation, etc., of Weather Bureau stations*—Continued.

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.		Elevation Dec. 31, 1919. Barometer above sea level.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.		Dates of changes in elevation during 1919.
	°	′	°	′	h.	m.	Feet.	Feet.	Feet.	Feet.			
Tonopah, **P T W R S**	38	04	117	14	2	49 S.	6,090	12	9	20	July	9, 1906	
Topeka, **P T W R S**	39	03	95	41	1	23 S.	987	92	83	107	June	1, 1887	
Trenton, **P T W R S**	40	14	74	45		01 F.	190	159	152	183	Apr.	1, 1913	
Valentine, **P T W R S**	42	50	100	32	1	42 S.	2,598	47	36	54	Sept.	1, 1885	
Vicksburg, **P T W R S**	32	22	90	53	1	04 S.	247	65	58	73	Sept.	10, 1871	
Walla Walla, **P T W R S**	46	02	118	20	2	53 S.	1,000	57	50	65	Dec.	1, 1885	
Washington, **P T W R S**	38	54	77	03		08 S.	112	62	42	85	Nov.	1, 1870	
Wausau, **T R**	44	57	89	35		58 S.	1,247	4	38	.....	June	18, 1915	
Wichita, **P T W R S**	37	41	97	20	1	29 S.	1,358	139	132	158	July	1, 1888	
Williston, **P T W R S**	48	09	103	35	1	54 S.	1,878	41	33	48	Nov.	24, 1893	
Wilmington, **P T W R S**	34	14	77	57		12 S.	78	81	76	91	Jan.	1, 1871	
Winnemucca, **P T W R S**	40	58	117	43	2	51 S.	4,344	18	3	56	July	1, 1877	
Wytheville, **P T W R S**	36	56	81	05		24 S.	2,304	49	40	55	Nov.	10, 1902	
Yankton, **P T W R S**	42	54	97	28	1	30 S.	1,233	49	42	57	Apr.	1, 1873	
Yellowstone Park, **PTWRS**	44	58	110	42	2	23 S.	6,200	11	4	48	Dec.	2, 1903	
Yuma, **P T W S**	32	45	114	36	2	38 S.	141	9	2	54	Oct.	4, 1875	

WEST INDIAN STATIONS.

Barbados.[1]													
Bridgetown	13	04	59	37	1	02 F.	30	6	3	30	Aug.	15, 1898	
British Honduras.													
Belize	17	30	88	12		53 S.	17	5	3	46	Dec.	1, 1916	
Caribbean Sea.[1]													
Swan Islands	17	24	83	17		33 S.	35	5	4	58	June	1, 1914	
Cuba.													
Guane	.....		.....		.....		.....	.....	.....	.....	June	15, 1918	
Santa Cruz del Sur	20	48	78	27		14 S.	.....	.....	.....	.....	July	3, 1918	
Curaçao.[1]													
Curaçao, **P T**	12	06	68	56		24 F.	75	42	39	44	Aug.	9, 1898	
Dominica.[1]													
Roseau	15	17	61	23		54 F.	25	.....	.....	.....	Oct.	20, 1898	
Isle of Pines.													
Nueva Gerona	21	54	82	36		30 S.	.....	.....	.....	.....	Sept.	27, 1918	
Jamaica.[1]													
Kingston	17	58	76	48		07 S.	24	48	51	63	Aug.	16, 1898	
Nicaragua.[1]													
Bluefields, **V**	12	00	83	45		35 S.	28	4	3	26	Jan.	1, 1917	
Porto Rico.													
San Juan, **P T W R S**	18	29	66	07		36 F.	82	9	4	54	Nov.	1, 1898	
St. Lucia.[1]													
Castries, **V**	13	50	60	55		56 F.	319	6	3	28	Aug.	16, 1917	

[1] Reports received during the hurricane season, June 1 to Nov. 15.

TABLE I.—*Latitude, longitude, elevation, etc., of Weather Bureau stations*—Continued.

Stations.	Latitude.	Longitude.	Local meridian time faster or slower than 75th meridian.	Elevation Dec. 31, 1919. Barometer above sea level.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Dates of changes in elevation during 1919.
Santo Domingo.[1]	° ′	° ′	h. m.	Feet.	Feet.	Feet.	Feet.		
Puerto Plata, V	19 49	70 43	0 17 F.	27	6	3	30	Sept. 16, 1917	
Santo Domingo	18 28	69 53	20 F.	57	6	3	60	Nov. 1, 1898	
Trinidad.[1]									
Port of Spain, P	10 35	61 30	54 F.	40	.....	.....	.....	Aug. 7, 1898	
Turks Island.[1]									
Grand Turk, P V	21 21	71 07	16 F.	11	6	2	20	July 1, 1900	
Virgin Islands.									
St. Thomas, V	18 13	64 29	42 F.	27	17	18	21	July 1, 1917	

[1] Reports received during the hurricane season, June 1 to Nov 15.

TABLE II.—*Changes in Weather Bureau stations during 1919.*

ESTABLISHED.

Stations.	Date established.
REGULAR.	
Cape May, N. J	May 1
SPECIAL METEOROLOGICAL.	
Bagdad, Calif	Dec. 1
Cima, Calif	Do.
Lake Charles, La	Dec. 15
Mount Wilson, Calif	Nov. 1
Noorvik, Alaska	Oct. 16
Wenden, Ariz	Dec. 1
MOUNTAIN SNOWFALL.	
East Portal, Utah	Nov. 1
COTTON.	
Guin, Ala	July 3
COTTON AND RAINFALL.	
Dumas, Ark	June 3
CORN AND WHEAT.	
Fort Dodge, Iowa	June 1
Ottawa, Ill	Nov. 1
South Bend, Ind	Apr. 1
CORN AND WHEAT AND RIVER.	
Napoleon, Ohio	Apr. 1
Woodward, Okla	May 1
RIVER.	
Alton, Kans	Nov. 1
Bennington, Kans	May 1
Bloody Island, Calif	Apr. 1
Blountstown, Fla	Nov. 1
RIVER—continued.	
Ellsworth, Kans	May 1
Hull, Kans	Nov. 1
Kirwin, Kans	Do.
Niles, Kans	Do.
Scandia, Kans	Do.
Tescott, Kans	Do.
Tracy, Iowa	Dec. 1
Van Meter, Iowa	July 19
Winona, Minn	Apr. 5
RIVER AND RAINFALL.	
Ottawa, Kans	June 15
RAINFALL.	
Ames, Iowa	July 15
Beegum, Calif	Apr. 1
Guthrie Center, Iowa	July 15
Hesston, Kans	Aug. 10
Higden, Ark	Aug. 15
Jefferson, Iowa	July 15
Knoxville, Iowa	Do.
Montezuma, Iowa	Aug. 1
Osage City, Kans	June 15
Oskaloosa, Iowa	July 15
Perry, Iowa	Do.
Pocahontas, Iowa	Do.
Quenemo, Kans	June 15
Reading, Kans	Do.
Rockwell City, Iowa	July 15
Sac City, Iowa	Do.
Storm Lake, Iowa	Do.
Webster City, Iowa	Do.
Winterset, Iowa	Do.
FRUIT.	
Cedaredge, Colo	Apr. 1
Jacksonville No. 2, Fla	Nov. 1

TABLE II.—*Changes in Weather Bureau stations during 1919*—Continued.

ESTABLISHED—Continued.

Stations.	Date established.
WEEKLY CATTLE.	
Artesia, N. Mex	Jan. 1
Cody, Wyo	Oct. 15
Granger, Wyo	Do.
Newcastle, Wyo	Do.
Widtsoe, Utah	Sept. 15
SUGAR AND RICE.	
Lake Charles, La	July 1
RICE AND RIVER.	
Colusa, Calif	Apr. 16
VOLCANOLOGICAL.	
Kilauea, Hawaii, T. H	Feb. 15
VESSEL.	
Advance (American)	Aug. 28
Ancon (American)	Nov. 1
Boxley (American)	Apr. 15
Ceiba (British)	June 7
Chalmette (American)	June 20
Esparta (American)	Sept. 1
General O. H. Ernst (American)	Oct. 1
Lake Arthur (American)	Aug. 10
Limon (American)	Aug. 1
Lynchburg (American)	Do.
Manoa (American)	Dec. 15
San Jacinto (American)	Aug. 24
San Jose (American)	Aug. 1
Santurce (American)	June 11
Tegucigalpa (British)	June 7
Tipton (American)	July 16
Yoro (British)	June 7

TABLE III.—*Changes in Weather Bureau stations during 1919.*

DISCONTINUED.

Stations.	Date discontinued.
SPECIAL METEOROLOGICAL.	
Cape May, N. J	Apr. 30
Hampton, Oreg	July 31
Lake Charles, La	June 30
Laurier, Wash	Dec. 31
SPECIAL METEOROLOGICAL AND STORM WARNING.	
Burrwood, La	Mar. 19
CORN AND WHEAT.	
Fort Dodge, Iowa	Mar. 31
Goodland, Kans	Dec. 31
Notre Dame, Ind	Mar. 31
Streator, Ill	Oct. 29
Utica, Kans	Aug. 31
Wauseon, Ohio	Mar. 31
Woodward, Okla	Apr. 30
RIVER.	
Bennington, Kans	Dec. 31
Colusa, Calif	Apr. 15
Napoleon, Ohio	Mar. 31
Stillwater, Minn	Apr. 15
RAINFALL.	
Calaveras, Calif	Feb. 28
Cardington, Ohio	Apr. 30
Ellsworth, Kans	Do.
Kilbuck, Ohio	Feb. 2
Loudonville, Ohio	Do.
FRUIT.	
Brigham City, Utah	Dec. 31
Gardena, Wash	Feb. 28
FRUIT—continued.	
Provo Bench, Utah	Dec. 31
Roxabel, Ohio	Nov. 30
Tremonton, Utah	Dec. 31
WEEKLY CATTLE.	
Escalante, Utah	Aug. 19
Idaho Falls, Idaho	Oct. 14
COTTON.	
Hamilton, Ala	June 30
COTTON AND RAINFALL.	
Warren, Ark	June 2
TOBACCO.	
Deerfield, Wis	July 31
Edgeton, Wis	Do.
SUGAR AND RICE.	
Lake Charles, La	Dec. 14
MOUNTAIN SNOWFALL.	
Camp Seven, Calif	Oct. 31
VESSEL.	
Almirante (American)	May 15
General Goethals (American)	Do.
General Gorgas (American)	Do.
Proteus (American)	Do.
Sixaola (American)	Do.

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SUNSHINE, 1919.

The following tables give for 165 stations the monthly amounts of sunshine and percentage of the possible, as derived from the automatic records made by an instrument designated the "thermometric recorder," illustrated in a preceding volume of this series.

This instrument does not record satisfactorily the duration of sunshine for about one hour after sunrise and for about one hour before sunset, and on this account it has been considered necessary to apply to the record for these hours what has been designated a "twilight correction." The amount of this correction is found by noting the comparative clearness of the sky during the time that elapses between the hour of sunrise and the moment the instrument begins to record and between the time the instrument ceases to act and the hour of sunset.

The average cloudiness of the whole sky is determined by numerous personal observations at all stations during the daytime, and is given in the column "daylight" under "cloudiness" in the tables of Part III.

Sunshine, 1919.

Stations.	January.		February.		March.		April.		May.		June.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Albany, N. Y	122	42	171	58	171	46	160	40	212	47	281	61
Alpena, Mich	64	22	98	33	190	51	163	40	227	49	302	65
Amarillo, Tex	296	94	252	82	295	79	325	83	334	77	390	90
Anniston, Ala	200	63	144	47	231	62	288	74	210	49	240	56
Asheville, N. C	195	63	143	47	236	63	268	68	248	57	243	56
Atlanta, Ga	204	65	142	46	239	64	302	77	263	61	266	62
Atlantic City, N. J	185	61	182	60	221	60	256	65	239	54	289	65
Augusta, Ga	221	70	174	56	246	66	310	79	223	52	245	57
Baker, Oreg	158	55	121	42	171	46	224	55	272	59	333	71
Baltimore, Md	188	62	181	60	242	65	232	58	221	50	270	61
Bentonville, Ark	192	62	168	55	219	59	228	58	175	40	218	50
Binghamton, N. Y	111	38	109	37	164	44	143	36	219	48	303	67
Birmingham, Ala	206	65	148	48	250	67	277	71	218	51	259	60
Bismarck, N. Dak	178	64	140	49	183	50	183	45	304	65	326	69
Block Island, R. I	130	44	178	60	142	38	175	44	173	38	235	52
Boise, Idaho	170	59	122	41	214	58	299	74	379	83	427	92
Boston, Mass	134	46	213	72	173	47	185	46	276	61	330	73
Broken Arrow, Okla	231	74	180	59	194	52	227	58	168	38	235	54
Buffalo, N. Y	111	38	135	46	205	55	139	35	236	52	363	79
Burlington, Vt	83	28	159	54	158	43	142	35	254	56	306	66
Canton, N. Y	84	29	134	46	169	46	133	33	218	47	358	77
Charles City, Iowa	161	55	135	46	189	51	156	39	269	59	243	53
Charleston, S. C	209	66	173	56	251	68	331	85	320	74	263	61
Charlotte, N. C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	183	58	142	46	231	62	275	70	208	48	278	64
Cheyenne, Wyo	207	69	176	59	214	58	249	62	289	64	313	69
Chicago, Ill	178	60	140	47	223	60	191	48	298	66	325	71
Chicago University, Ill	186	63	140	47	208	56	189	47	292	65	336	74
Cincinnati, Ohio	175	58	130	43	219	59	206	52	233	52	297	67
Cleveland, Ohio	140	47	103	35	197	53	168	42	254	56	364	80
Columbia, Mo	227	75	166	55	213	57	228	57	235	53	328	73
Columbus, Ohio	194	64	139	46	213	57	226	57	269	60	360	80
Concordia, Kans	238	79	154	51	201	54	204	51	300	67	312	70
Dallas, Tex	171	54	174	57	226	61	293	75	239	56	288	67
Dayton, Ohio	178	59	112	37	213	57	187	47	217	49	321	71
Del Rio, Tex	173	53	210	67	217	58	257	67	272	64	228	54
Denver, Colo	238	79	199	66	222	60	210	53	301	67	341	76
Des Moines, Iowa	214	73	136	46	229	62	194	48	278	61	247	54
Detroit, Mich	168	57	128	43	210	57	207	52	280	62	381	84
Devils Lake, N. Dak	136	49	124	43	174	47	170	42	327	69	286	60
Dodge City, Kans	281	92	163	54	202	54	209	53	307	70	295	67
Drexel, Nebr	210	70	122	41	178	48	110	27	246	55	247	55
Dubuque, Iowa	188	64	152	51	234	63	186	46	278	62	297	65
Eastport, Me	114	40	191	65	199	54	190	47	271	59	328	70
Elkins, W. Va	162	53	144	48	193	52	166	42	216	49	270	61
Ellendale, N. Dak	172	61	143	49	217	59	235	58	305	66	334	71
El Paso, Tex	271	85	251	81	314	84	332	85	366	86	385	90
Erie, Pa	108	37	70	23	192	52	149	37	232	51	344	75
Escanaba, Mich	110	39	133	46	229	62	210	52	327	70	330	70
Eureka, Calif	125	42	88	29	161	43	199	50	275	61	319	71
Evansville, Ind	166	54	156	52	242	65	246	62	220	50	297	67
Fort Smith, Ark	202	64	185	61	230	62	267	68	220	51	268	62
Fort Wayne, Ind	165	55	125	42	254	69	219	55	201	45	344	76
Fresno, Calif	234	76	154	51	231	62	330	84	392	89	440	100
Galveston, Tex	160	49	176	56	240	64	281	73	287	68	247	59

Sunshine, 1919—Continued.

Stations.	July.		August.		September.		October.		November.		December.		Annual.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Albany, N. Y	250	54	241	56	156	42	129	38	114	39	111	39	2,120	47
Alpena, Mich	288	61	214	49	172	46	58	17	27	9	77	28	1,881	39
Amarillo, Tex	400	91	372	89	300	81	253	72	230	74	234	77	3,680	82
Anniston, Ala	243	55	184	44	307	83	174	49	183	59	130	42	2,533	57
Asheville, N. C	256	58	232	56	309	83	152	44	173	56	178	59	2,633	59
Atlanta, Ga	234	53	189	45	311	84	153	44	197	63	172	56	2,672	60
Atlantic City, N. J	294	65	267	63	255	68	148	43	154	51	98	33	2,589	57
Augusta, Ga	262	60	256	62	322	87	185	53	203	65	191	62	2,838	64
Baker, Oreg	393	83	321	74	301	80	200	59	121	42	94	34	2,710	58
Baltimore, Md	254	56	281	66	264	71	149	43	175	58	140	48	2,595	58
Bentonville, Ark	368	83	302	72	233	62	98	28	168	54	148	49	2,518	56
Binghamton, N. Y	262	57	194	45	176	47	103	30	67	23	82	29	1,933	42
Birmingham, Ala	224	51	222	54	318	86	178	51	154	49	138	45	2,592	58
Bismarck, N. Dak	344	72	346	79	216	57	177	53	134	47	181	68	2,712	60
Block Island, R. I	208	45	189	44	195	52	115	33	113	38	91	32	1,944	43
Boise, Idaho	447	96	402	93	314	84	244	72	153	53	131	47	3,302	71
Boston, Mass	301	65	260	61	193	52	134	39	125	42	126	44	2,451	54
Broken Arrow, Okla	382	86	336	80	278	75	128	37	192	62	147	49	2,699	60
Buffalo, N. Y	350	75	277	64	223	59	139	40	67	23	53	19	2,299	49
Burlington, Vt	310	66	181	42	144	38	91	27	47	16	87	31	1,962	42
Canton, N. Y	325	69	202	47	144	39	117	35	50	18	85	31	2,020	43
Charles City, Iowa	395	85	364	85	224	60	143	42	105	36	93	33	2,479	54
Charleston, S. C	306	70	277	67	293	79	266	76	225	72	188	61	3,102	70
Charlotte, N. C	.....	.....	.....	.....	.....	.....	156	45	173	56	186	61	.....	.....
Chattanooga, Tenn	252	57	221	53	284	76	101	29	154	50	124	41	2,455	54
Cheyenne, Wyo	322	70	326	76	246	66	215	62	169	57	229	80	2,955	66
Chicago, Ill	399	86	349	81	249	67	175	51	146	50	103	36	2,776	60
Chicago University, Ill	402	87	343	80	272	73	190	55	154	52	101	36	2,813	61
Cincinnati, Ohio	365	81	328	77	286	77	157	45	170	56	136	46	2,700	59
Cleveland, Ohio	367	80	300	70	241	64	164	48	104	35	64	23	2,466	53
Columbia, Mo	384	85	294	69	282	76	148	43	172	57	113	38	2,789	62
Columbus, Ohio	341	75	328	77	263	70	124	36	140	47	98	34	2,695	59
Concordia, Kans	406	89	340	80	279	75	186	54	183	61	156	54	2,960	65
Dallas, Tex	358	82	325	79	236	63	115	33	189	60	123	40	2,738	61
Dayton, Ohio	363	80	324	76	278	74	147	43	146	49	103	35	2,587	56
Del Rio, Tex	237	55	285	70	171	46	107	30	136	42	121	38	2,413	54
Denver, Colo	334	73	345	81	268	72	213	62	170	57	205	71	3,047	68
Des Moines, Iowa	364	79	308	72	234	63	174	51	149	50	105	37	2,632	58
Detroit, Mich	378	82	288	67	240	64	176	51	103	35	103	36	2,663	58
Devils Lake, N. Dak	327	68	322	73	240	64	198	59	146	52	142	54	2,592	57
Dodge City, Kans	336	75	324	85	306	82	217	62	214	71	211	71	3,064	70
Drexel, Nebr	378	82	323	76	227	61	168	49	158	53	160	56	3,526	56
Dubuque, Iowa	382	83	356	83	238	64	174	51	144	49	108	38	2,738	60
Eastport, Me	286	61	202	46	184	49	159	47	84	29	109	40	2,315	51
Elkins, W. Va	264	58	242	57	209	56	94	27	116	28	105	36	2,181	48
Ellendale, N. Dak	372	78	356	81	225	60	153	45	113	40	173	64	2,798	61
El Paso, Tex	333	77	331	80	220	59	213	60	212	67	227	72	3,455	77
Erie, Pa	281	61	194	45	149	40	103	30	49	17	90	32	1,960	42
Escanaba, Mich	349	73	274	63	199	53	159	47	96	34	106	39	2,521	54
Eureka, Calif	230	50	182	43	198	53	242	70	130	44	112	39	2,261	50
Evansville, Ind	389	87	320	76	300	81	169	49	179	59	147	50	2,832	63
Fort Smith, Ark	355	80	309	74	255	69	114	32	182	59	165	54	2,750	61
Fort Wayne, Ind	367	80	313	73	251	67	164	48	143	48	92	32	2,638	58
Fresno, Calif	443	99	410	98	322	87	324	93	268	88	159	53	3,707	82
Galveston, Tex	273	64	271	66	269	73	192	54	198	62	174	54	2,768	62

Sunshine, 1919—Continued.

Stations.	January.		February.		March.		April.		May.		June.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Grand Haven, Mich	118	40	61	21	200	54	189	47	318	70	362	79
Grand Junction, Colo	251	83	158	53	243	65	287	72	348	78	387	87
Grand Rapids, Mich	104	36	91	31	225	61	200	50	287	63	325	71
Green Bay, Wis	133	47	128	44	210	57	208	51	312	68	302	65
Greenville, S. C	202	64	173	57	253	68	289	74	252	58	240	55
Groesbeck, Tex	154	48	151	49	198	53	267	69	242	56	259	61
Harrisburg, Pa	181	60	170	57	233	63	201	50	180	40	225	50
Hartford, Conn	149	50	191	64	176	48	181	45	233	52	279	61
Havre, Mont	175	64	184	64	202	55	287	70	310	65	372	77
Helena, Mont	152	55	123	43	232	63	254	62	283	61	335	71
Honolulu, Hawaii	257	75	243	76	272	73	215	57	284	70	306	76
Houston, Tex	143	44	154	49	218	59	258	67	240	57	244	58
Huron, S. Dak	196	68	157	53	248	67	196	49	294	64	252	55
Independence, Calif	256	83	203	67	283	76	356	90	393	90	406	92
Indianapolis, Ind	190	63	137	46	233	63	219	55	231	52	313	70
Jacksonville, Fla	169	52	149	48	217	58	291	75	262	62	183	43
Juneau, Alaska	51	23	105	40	182	50	156	36	239	46	203	37
Kalispell, Mont	88	32	102	36	194	53	307	75	282	60	374	78
Kansas City, Mo	238	78	170	56	233	63	225	57	279	63	311	70
Key West, Fla	202	60	202	64	301	81	302	79	277	67	197	48
Knoxville, Tenn	141	45	104	34	240	65	251	64	263	60	293	67
La Crosse, Wis	151	52	153	52	190	51	171	42	277	61	240	52
Lander, Wyo	208	71	205	69	255	69	230	57	332	73	373	81
Lansing, Mich	141	48	128	43	224	60	193	48	282	52	336	73
Leesburg, Ga	164	51	126	41	232	62	300	77	256	60	216	51
Lexington, Ky	161	53	107	35	171	46	191	48	170	39	260	59
Little Rock, Ark	159	51	178	58	245	66	267	68	235	54	257	59
Los Angeles, Calif	259	82	212	69	263	71	280	71	178	41	392	91
Louisville, Ky	195	64	138	45	234	63	221	56	191	43	328	74
Ludington, Mich	108	37	93	32	215	58	188	46	343	75	371	80
Lynchburg, Va	181	59	174	57	234	63	233	59	217	49	279	63
Macon, Ga	216	68	161	52	291	78	320	82	303	70	301	70
Madison, Wis	151	52	152	52	220	59	194	48	306	67	312	68
Memphis, Tenn	150	48	162	53	251	68	273	70	208	48	288	66
Meridian, Miss	174	54	157	51	244	66	266	68	263	61	287	67
Miami, Fla	182	55	180	57	253	68	270	70	234	56	219	53
Milwaukee, Wis	144	49	139	47	215	58	192	48	332	73	344	75
Minneapolis, Minn	161	56	186	64	236	64	216	53	313	68	285	61
Mobile, Ala	156	49	132	43	230	62	266	68	197	46	227	53
Modena, Utah	239	78	177	59	236	64	285	72	326	74	418	94
Mount Tamalpais, Calif	195	64	119	39	207	56	335	85	386	88	435	98
New Haven, Conn	156	52	193	65	182	49	196	49	232	52	276	61
New Orleans, La	146	45	152	49	244	65	248	64	216	51	184	44
New York, N. Y	148	50	182	61	203	55	242	60	253	56	318	70
Norfolk, Va	175	57	175	58	200	54	262	66	269	61	309	70
Northfield, Vt	97	33	165	56	182	49	159	39	225	49	280	60
North Head, Wash	93	33	78	27	171	46	190	47	244	53	264	56
North Platte, Nebr	250	84	170	57	193	52	212	53	332	74	342	76
Oklahoma, Okla	250	80	178	58	244	66	285	73	263	61	320	74
Omaha, Nebr	210	71	148	49	231	62	164	41	292	65	296	66
Parkersburg, W. Va	134	44	98	33	181	49	173	44	203	46	253	57
Pensacola, Fla	180	55	142	45	266	71	293	76	276	65	275	65
Peoria, Ill	215	72	159	53	238	64	209	52	252	56	328	73
Philadelphia, Pa	172	57	185	62	240	65	244	61	236	53	266	59
Phoenix, Ariz	277	87	247	80	308	83	345	88	391	91	417	97

Sunshine, 1919—Continued.

Stations.	July.		August.		September.		October.		November.		December.		Annual.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Grand Haven, Mich	380	82	343	80	228	61	141	41	74	25	44	16	2,456	51
Grand Junction, Colo	342	76	348	82	256	69	230	66	200	66	214	73	3,263	72
Grand Rapids, Mich	327	70	280	65	219	58	138	40	68	23	61	22	2,323	49
Green Bay, Wis	357	76	313	72	204	54	164	48	117	41	110	40	2,559	55
Greenville, S. C	260	59	282	68	321	86	169	48	177	57	169	56	2,788	62
Groesbeck, Tex	330	76	332	81	222	60	127	36	179	57	101	32	2,561	56
Harrisburg, Pa	268	59	276	65	260	70	123	36	147	49	118	41	2,383	53
Hartford, Conn	281	61	244	57	194	52	125	37	136	46	124	44	2,313	51
Havre, Mont	404	83	324	73	230	61	131	39	127	46	129	50	2,874	62
Helena, Mont	384	80	267	61	185	49	107	32	121	43	93	35	2,537	55
Honolulu, Hawaii	334	81	328	82	296	81	279	77	252	75	227	67	3,294	74
Houston, Tex	257	60	272	67	238	64	143	40	187	59	128	40	2,482	55
Huron, S. Dak	361	77	301	69	189	50	163	48	138	48	130	47	2,626	58
Independence, Calif	393	88	363	86	336	90	332	95	280	92	237	79	3,839	86
Indianapolis, Ind	386	85	314	74	278	74	174	51	154	51	122	42	2,750	60
Jacksonville, Fla	258	60	242	59	232	63	257	72	180	56	194	61	2,633	59
Juneau, Alaska	111	20	167	35	171	44	61	19	99	42	48	24	1,593	35
Kalispell, Mont	418	87	333	75	240	64	108	32	85	31	101	38	2,632	55
Kansas City, Mo	424	94	324	77	288	77	174	50	185	61	120	41	2,970	66
Key West, Fla	229	55	300	75	229	62	225	63	235	72	204	62	2,902	66
Knoxville, Tenn	304	68	244	58	278	75	107	31	141	46	130	43	2,494	55
La Crosse, Wis	350	75	332	77	203	54	156	46	121	42	97	35	2,440	53
Lander, Wyo	366	79	299	70	271	72	149	43	125	43	199	71	3,012	66
Lansing, Mich	364	78	309	72	246	66	188	55	115	40	107	38	2,633	57
Leesburg, Ga	191	44	211	51	288	78	199	56	172	54	164	52	2,517	56
Lexington, Ky	326	72	274	65	268	72	93	27	152	50	110	38	2,284	50
Little Rock, Ark	327	74	289	69	248	67	108	31	182	59	129	42	2,624	58
Los Angeles, Calif	388	88	336	81	268	72	294	84	258	83	262	85	3,390	76
Louisville, Ky	388	86	342	81	310	83	146	42	179	59	154	52	2,826	62
Ludington, Mich	361	77	333	77	236	63	132	39	82	28	37	13	2,498	52
Lynchburg, Va	320	72	309	74	287	77	164	47	168	55	127	43	2,693	60
Macon, Ga	263	60	277	67	336	90	274	78	244	78	207	67	3,194	72
Madison, Wis	380	82	353	82	219	58	131	38	107	37	83	29	2,608	56
Memphis, Tenn	362	82	315	76	274	74	150	43	193	62	144	47	2,769	61
Meridian, Miss	284	65	258	62	284	77	189	54	190	60	155	50	2,749	61
Miami, Fla	275	65	307	76	236	64	263	73	188	58	213	65	2,819	63
Milwaukee, Wis	401	86	352	82	241	64	193	57	148	50	124	44	2,824	61
Minneapolis, Minn	342	73	344	79	208	55	120	36	89	31	117	43	2,618	57
Mobile, Ala	178	41	174	42	242	65	219	62	151	47	182	58	2,355	53
Modena, Utah	325	72	330	78	279	75	271	78	223	74	202	68	3,312	74
Mount Tamalpais, Calif	445	99	414	98	331	89	325	94	267	88	168	57	3,626	80
New Haven, Conn	264	58	247	58	211	56	147	43	163	55	156	54	2,422	54
New Orleans, La	231	54	176	43	182	49	194	55	170	53	174	55	2,317	52
New York, N. Y	298	65	270	63	220	59	150	44	142	48	117	41	2,543	56
Norfolk, Va	288	64	313	75	275	74	211	61	191	62	105	35	2,774	61
Northfield, Vt	278	59	186	43	147	39	107	31	58	20	71	26	1,952	42
North Head, Wash	258	54	229	52	229	61	160	47	55	19	108	40	2,079	45
North Platte, Nebr	392	86	346	81	280	75	210	61	152	51	188	66	3,069	68
Oklahoma, Okla	388	88	338	81	234	63	85	24	199	64	156	51	2,941	65
Omaha, Nebr	386	84	310	73	227	61	169	49	141	48	136	47	2,710	60
Parkersburg, W. Va	294	65	247	58	210	56	131	38	110	36	87	30	2,119	46
Pensacola, Fla	246	57	220	54	258	70	239	68	178	56	229	72	2,801	63
Peoria, Ill	412	90	359	84	292	78	200	58	160	54	107	37	2,931	64
Philadelphia, Pa	263	58	233	55	232	62	121	35	137	46	100	34	2,429	54
Phoenix, Ariz	352	81	365	88	314	85	289	82	216	69	245	79	3,766	84

Sunshine, 1919—Continued.

Stations.	January.		February.		March.		April.		May.		June.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Pittsburgh, Pa	140	47	106	36	213	57	170	42	231	51	326	72
Pocatello, Idaho	189	65	89	30	176	47	236	59	340	75	431	94
Port Angeles, Wash	51	18	121	42	199	54	251	61	342	73	308	64
Port Arthur, Tex	171	53	177	57	250	67	271	70	268	63	269	64
Port Huron, Mich	109	37	79	27	176	48	154	38	215	47	316	69
Portland, Me	101	35	194	66	175	47	167	41	272	59	293	63
Portland, Oreg	112	40	83	29	177	48	180	44	280	60	327	69
Providence, R. I	133	45	191	64	189	51	206	51	280	62	322	71
Pueblo, Colo	361	85	199	66	237	64	246	62	298	68	329	74
Raleigh, N. C	214	69	185	61	221	60	278	71	239	55	235	54
Rapid City, S. Dak	225	78	136	46	200	54	225	56	348	76	312	67
Reading, Pa	147	49	168	56	224	61	239	60	233	52	244	54
Richmond, Va	199	65	207	69	257	69	279	70	254	58	249	56
Rochester, N. Y	119	41	146	50	207	56	154	38	248	54	361	79
Roswell, N. Mex	273	86	256	83	274	74	313	80	333	77	349	81
Royal Center, Ind	145	48	102	34	202	55	186	46	257	57	329	73
Sacramento, Cal	191	63	122	40	210	57	295	74	408	92	443	99
Saginaw, Mich	126	43	123	42	219	59	211	52	301	66	400	87
St. Joseph, Mo	206	68	157	52	216	58	190	48	270	60	288	64
St. Louis, Mo	228	75	178	59	249	67	223	56	174	39	297	67
St. Paul, Minn	150	52	122	42	196	53	180	44	284	62	231	50
Salt Lake City, Utah	171	57	80	27	214	58	263	66	357	80	420	93
San Antonio, Tex	160	49	168	54	230	62	254	66	273	65	237	57
San Diego, Cal	236	74	193	63	229	62	264	68	218	51	337	79
Sandy Hook, N. J	178	59	196	65	223	60	271	68	272	61	311	69
San Francisco, Calif	224	73	180	59	214	58	247	62	365	83	415	94
San Jose, Calif	224	73	124	41	175	47	225	57	365	83	422	96
San Juan, P. R	230	66	243	75	222	59	176	47	250	62	165	42
San Luis Obispo, Calif	233	74	158	52	198	53	267	68	260	60	380	88
Santa Fe, N. Mex	293	94	215	71	204	55	225	57	294	67	332	76
Sault Ste. Marie, Mich	61	22	121	42	216	58	197	48	314	68	328	70
Savannah, Ga	175	55	173	56	226	61	280	72	232	54	195	46
Seattle, Wash	40	15	61	21	142	38	208	51	272	58	298	62
Sheridan, Wyo	229	80	188	64	263	71	277	68	389	84	390	84
Sioux City, Iowa	221	75	169	57	222	60	139	35	237	52	174	38
Spokane, Wash	136	49	120	42	219	59	311	76	337	72	420	88
Springfield, Ill	218	73	158	53	221	60	224	56	242	54	349	78
Springfield, Mo	197	64	167	55	268	72	258	65	258	59	310	70
Tacoma, Wash	25	9	52	18	119	32	161	40	224	48	220	46
Tampa, Fla	186	57	132	42	265	71	301	78	282	67	233	56
Terre Haute, Ind	199	66	146	48	231	62	203	51	226	51	285	64
Toledo, Ohio	157	53	111	37	201	54	166	41	221	49	334	74
Tonopah, Nev	256	84	161	53	248	67	303	77	341	77	427	96
Trenton, N. J	194	64	187	62	203	55	204	51	228	51	256	57
Vicksburg, Miss	158	50	152	49	223	60	267	69	234	55	249	58
Walla Walla, Wash	137	49	55	19	179	48	272	67	332	72	401	85
Washington, D. C	203	67	203	67	245	66	214	54	244	55	297	67
Wichita, Kans	270	88	157	52	223	60	199	50	229	52	275	62
Williston, N. Dak	137	50	118	41	202	55	243	59	351	75	415	87
Wilmington, N. C	206	65	198	64	214	57	289	74	276	64	263	61
Winnemucca, Nev	210	71	112	38	236	64	298	74	415	92	433	96
Wytheville, Va	180	58	132	44	205	55	235	59	210	48	237	54
Yankton, S. Dak	179	61	100	34	147	40	125	31	244	54	221	48
Yellowstone Park, Wyo	154	54	84	29	179	48	194	48	246	53	364	78
Yuma, Ariz	266	84	252	82	307	83	356	91	407	95	428	100

Sunshine, 1919—Continued.

Stations.	July.		August.		September.		October.		November.		December.		Annual.	
	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.	Hours.	Percentage of possible.
Pittsburgh, Pa	331	72	282	66	230	61	148	43	154	52	75	26	2,404	52
Pocatello, Idaho	398	86	312	73	246	66	133	39	141	48	150	53	2,841	61
Port Angeles, Wash	362	75	323	73	246	65	132	39	47	17	78	30	2,458	51
Port Arthur, Tex	284	66	291	71	289	78	204	58	213	67	158	50	2,845	64
Port Huron, Mich	309	66	218	51	193	51	152	44	79	27	84	30	2,085	45
Portland, Me	292	62	225	52	162	43	132	39	130	45	164	59	2,309	51
Portland, Oreg	370	78	316	72	226	60	136	40	93	33	134	50	2,433	52
Providence, R. I	287	62	236	55	199	53	134	39	139	47	117	41	2,432	53
Pueblo, Colo	322	72	325	77	268	72	226	65	221	73	215	73	3,149	71
Raleigh, N. C	259	58	257	62	274	74	194	56	180	58	112	37	2,649	60
Rapid City, S. Dak	337	72	353	82	238	64	177	52	152	53	198	71	2,902	64
Reading, Pa	240	53	225	53	204	55	135	39	143	48	107	37	2,310	51
Richmond, Va	246	55	291	69	297	80	175	50	187	62	138	47	2,781	62
Rochester, N. Y	341	73	273	63	204	55	158	46	78	27	107	38	2,397	52
Roswell, N. Mex	349	80	353	85	252	68	187	53	195	62	221	71	3,356	75
Royal Center, Ind	399	87	327	77	246	66	166	48	128	43	111	39	2,598	56
Sacramento, Cal	442	98	402	95	313	84	298	86	236	78	100	34	3,461	75
Saginaw, Mich	376	81	340	79	273	73	181	53	94	32	103	37	2,746	59
St. Joseph, Mo	394	86	261	61	281	75	166	48	165	55	115	40	2,707	60
St. Louis Mo	375	83	320	76	282	76	126	36	163	54	110	37	2,725	60
St. Paul, Minn	346	73	317	73	220	58	116	34	101	35	86	31	2,348	51
Salt Lake City, Utah	387	84	320	75	257	69	193	56	147	49	157	55	2,967	64
San Antonio, Tex	260	61	314	77	227	61	133	37	164	51	111	35	2,532	56
San Diego, Cal	336	77	266	64	248	67	264	75	229	73	215	69	3,033	68
Sandy Hook, N. J	319	70	290	68	270	72	204	59	190	63	155	53	2,879	64
San Francisco, Calif	293	65	202	48	265	71	270	78	248	82	140	47	3,063	68
San Jose, Calif	385	86	338	80	293	79	287	82	245	80	162	54	3,244	72
San Juan, P. R	226	56	307	78	182	50	238	65	180	53	220	64	2,639	60
San Luis Obispo, Calif	368	83	341	82	300	81	315	90	278	90	213	70	3,311	74
Santa Fe, N. Mex	259	58	310	74	248	67	236	68	195	63	203	67	3,015	68
Sault Ste. Marie, Mich	332	70	207	47	136	36	70	21	58	20	75	28	2,115	44
Savannah, Ga	257	59	283	69	258	70	227	64	177	56	193	62	2,677	60
Seattle, Wash	357	74	286	65	210	56	90	27	46	17	112	43	2,121	44
Sheridan, Wyo	330	70	286	66	230	61	95	28	129	45	163	60	2,970	65
Sioux City, Iowa	323	70	305	71	201	54	146	42	122	41	135	47	2,393	54
Spokane, Wash	430	89	360	81	294	78	177	53	76	27	59	23	2,938	61
Springfield, Ill	403	88	341	80	290	78	174	50	172	57	130	45	2,922	64
Springfield, Mo	385	86	319	76	279	75	116	33	159	52	156	52	2,873	64
Tacoma, Wash	284	59	207	47	199	53	70	21	19	7	70	26	1,651	33
Tampa, Fla	251	59	266	66	255	69	244	69	188	58	217	67	2,821	64
Terre Haute, Ind	386	85	340	80	277	74	160	46	161	53	117	40	2,731	60
Toledo, Ohio	353	76	294	69	252	67	172	50	119	40	93	33	2,474	54
Tonopah, Nev	398	89	357	85	328	88	328	95	246	81	199	67	3,594	80
Trenton, N. J	236	52	238	56	222	59	133	39	159	53	112	39	2,370	53
Vicksburg, Miss	306	71	248	60	235	63	130	37	161	51	127	40	2,491	55
Walla Walla, Wash	415	87	384	88	296	79	191	56	112	40	83	31	2,858	60
Washington, D. C	278	61	302	71	267	71	143	41	163	54	134	46	2,692	60
Wichita, Kans	397	88	332	79	270	73	122	35	207	68	139	47	2,820	63
Williston, N. Dak	380	79	365	83	256	68	180	54	157	56	154	59	2,958	64
Wilmington, N. C	303	69	288	69	282	76	240	68	213	68	166	54	2,938	66
Winnemucca, Nev	443	97	413	97	333	89	258	75	212	71	190	66	3,555	78
Wytheville, Va	258	58	241	57	267	72	138	40	171	56	144	48	2,418	54
Yankton, S. Dak	336	72	304	71	169	45	134	39	120	41	139	49	2,217	49
Yellowstone Park, Wyo	368	78	257	59	216	57	117	34	132	46	120	44	2,430	52
Yuma, Ariz	366	84	365	88	323	87	305	87	233	74	246	79	3,853	86

EXCESSIVE RAINFALL, 1919.

The following table contains reports of excessive rainfall for the calendar year 1919. Similar records for the years 1896 to 1918, inclusive, have been published in the appropriate Annual Reports of the Chief of the Weather Bureau. The published data prior to 1896 consist of a record of maximum amounts of rainfall in 5 and 10 minute periods, and also in 1 and 24 hours. The Annual Report for 1895–96 contains a summary of the records which up to that time had been made at the principal stations supplied with automatic gages.

The following table shows the accumulated amounts of precipitation for each 5 minutes during all storms of 1919 in which the rate of fall equaled or exceeded 0.25 inch in any 5-minute period or 0.80 inch in one hour at all stations of the Weather Bureau furnished with self-registering gages, except that in the South Atlantic States and the Gulf region, where stations have normally heavy falls, data only for the more important storms are included, these stations being designated with reference mark and footnote.

At Key West, Fla., and Corpus Christi, Tex., the detailed record of the rainfall during the passage of the great September hurricane was not fully secured. At Corpus Christi there was probably no hour with a fall as great as 0.80 inch. At Key West, however, 11.95 inches, partly estimated, fell in the period of 24 hours, and it is likely that as much as 0.80 inch, or somewhat more, fell during certain of the hours.

The times stated in this table of excessive rainfall are given, as usual, by the normal standard time in use at the place of occurrence. The "daylight-saving time," which was employed by most people during about seven months of 1919, has here been disregarded.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
NEW ENGLAND STATES.																				
Eastport, Me.[1]																				
Portland, Me.[1]																				
Concord, N. H.:																				
June 27	11:55 a. m.	3:00 p. m.	0.85	12:09 p. m.	12:21 p. m.	0.01	0.20	0.42	0.48											
Burlington, Vt.:																				
Apr. 11	2:10 p. m.	D.N.p.m.	1.04	4:49 p. m.	4:59 p. m.	.15	.20	.31												
Aug. 24	6:40 a. m.	11:20 a. m.	1.04	7:52 a. m.	8:17 a. m.	.01	.29	.44	.50	0.55	0.60									
Sept. 8	3:25 a. m.	4:40 a. m.	.52	3:56 a. m.	4:21 a. m.	.01	.06	.14	.31	.39	.50									
Oct. 3	[2] 5:33 p. m.	5:20 a. m.	1.82	4:29 a. m.	4:41 a. m.	1.47	.18	.30	.33											
Oct. 10	9:35 p. m.	[3] D.N. a. m.	.58	10:30 p. m.	10:40 p. m.	.09	.20	.31												
Northfield, Vt.:																				
June 14	8:12 a. m.	10:22 a. m.	.51	9:18 a. m.	9:36 a. m.	T.	.05	.15	.35	.50										
Boston, Mass.:																				
July 22	1:05 p. m.	2:10 p. m.	.54	1:34 p. m.	1:50 p. m.	T.	.22	.33	.48	.53										
Nantucket, Mass.:																				
June 27	5:15 p. m.	[3] 10:25 a. m.	1.99	8:44 p. m.	9:01 p. m.	.43	.12	.34	.54	.57										
Aug. 24	8:35 p. m.	9:10 p. m.	.60	8:41 p. m.	8:53 p. m.	.01	.17	.51	.59											
Aug. 24	10:45 p. m.	[3] 12:40 a. m.	.68	10:53 p. m.	11:08 p. m.	.04	.09	.25	.37											
Aug. 25	7:15 a. m.	9:25 a. m.	.70	8:52 a. m.	9:01 a. m.	.15	.40	.51												
Block Island, R. I.:																				
June 27	4:35 p. m.	[3] 12:10 a. m.	1.76	5:30 p. m.	6:00 p. m.	.22	.06	.18	.40	.62	.71	0.85								
Nov. 30	[2] 11:32 a. m.	7:20 a. m.	.80	3:48 a. m.	3:58 a. m.	.12	.17	.32												
Providence, R. I.:																				
Jan. 24	[2] 9:00 p. m.	6:10 a. m.	2.05	1:21 a. m.	2:14 a. m.	.96	.07	.13	.19	.29	.38	.49	0.57	0.72	0.81	0.89	0.98			
June 20	4:25 p. m.	7:35 p. m.	2.01	4:36 p. m.	5:16 p. m.	.02	.07	.19	.39	.74	1.15	1.48	1.66	1.78						
Aug. 24	5:18 p. m.	7:27 p. m.	1.16	5:24 p. m.	5:48 p. m.	.01	.23	.32	.38	.45	.53									
Aug. 24	5:18 p. m.	7:27 p. m.	1.16	6:23 p. m.	6:50 p. m.	.57	.11	.38	.41	.42	.49	.56								
Aug. 30	9:12 a. m.	2:36 p. m.	1.62	1:37 p. m.	2:10 p. m.	.91	.07	.14	.19	.30	.48	.59	.66							
Hartford, Conn.:																				
May 21	D.N.a. m.	[3] 8:05 a. m.	2.68	11:08 a. m.	11:33 a. m.	.42	.06	.19	.38	.47	.54									
Aug. 31	2:26 p. m.	3:15 p. m.	.45	2:32 p. m.	2:47 p. m.	.01	.17	.32	.39											
Oct. 16	7:10 p. m.	D.N.p.m.	.73	7:47 p. m.	7:59 p. m.	.05	.27	.50	.57											
New Haven, Conn.:																				
Aug. 3	4:47 p. m.	7:40 p. m.	1.00	5:05 p. m.	5:44 p. m.	.06	.05	.10	.19	.45	.57	.71	.75	.93						
Sept. 2	5:45 a. m.	[3] 7:05 a. m.	3.44	10:21 p. m.	11:34 p. m.	.66	.14	.34	.46	.52	.59	.65	.74	.91	1.12	1.27	1.59	1.87		
Sept. 11	9:01 p. m.	[3] D.N.a. m.	1.10	10:09 p. m.	10:35 p. m.	T.	.09	.19	.34	.58	.88	.92								

[1] No excessive precipitation. [2] On previous date. [3] On following date.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration. From—	Total duration. To—	Total amount of precipitation (inches).	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
MIDDLE ATLANTIC STATES.																				
Albany, N. Y.:																				
May 4	6:15 p.m.	7:30 p.m.	0.42	6:50 p.m.	6:57 p.m.	0.07	0.25	0.32												
Aug. 6	7:15 a.m.	12:30 p.m.	.81	7:44 a.m.	8:02 a.m.	.01	.11	.31	0.38	0.43										
Aug. 19	5:37 p.m.	6:04 p.m.	.62	5:41 p.m.	5:56 p.m.	.01	.32	.47	.60											
Oct. 4	8:30 p.m.	D.N.p.m.	.79	8:32 p.m.	8:42 p.m.	.01	19	.41												
Binghamton, N. Y.:																				
June 15	2:30 p.m.	3:30 p.m.	.51	2:37 p.m.	2:52 p.m.	.01	.23	.39	.45											
June 20	11:15 a.m.	11:45 a.m.	.35	11:23 a.m.	11:32 a.m.	.01	.17	.34												
Aug. 11	7:55 p.m.	9:50 p.m.	.77	9:15 p.m.	9:33 p.m.	.19	10	.24	.45	.56										
New York, N. Y.:																				
July 19	12:35 p.m.	[3]10:55 a.m.	3.27	12:52 p.m.	1:52 p.m.	.02	.07	.13	.26	.42	0.52	0.60	0.66	0.73	0.74	0.81	0.99			
July 19	12:35 p.m.	[3]10:55 a.m.	3.27	8:25 p.m.	8:45 p.m.	1.32	.08	.32	.51	.64										
Aug. 1	[3]3:30 p.m.	6:30 a.m.	1.12	2:20 a.m.	2:40 a.m.	.23	.07	.24	.43	.57										
Aug. 15	8:00 p.m.	8:55 p.m.	1.23	8:00 p.m.	8:50 p.m.	0	.10	.21	.40	.82	1.05	1.08	1.10	1.14	1.21	1.33				
Aug. 18	[2]10:45 p.m.	10:45 p.m.	2.13	1:10 a.m.	1:55 a.m.	.13	.05	.19	.36	.50	.57	.62	.67	.72	.77					
Harrisburg, Pa.:																				
May 21	12:11 p.m.	1:05 p.m.	.59	12:41 p.m.	12:55 p.m.	.03	.20	.37	.46											
May 21	1:36 p.m.	3:50 p.m.	1.07	2:45 p.m.	3:28 p.m.	.16	.05	.11	.16	.29	.25	.39	.55	.68	.81					
June 15	3:42 p.m.	4:55 p.m.	.82	3:48 p.m.	4:13 p.m.	.01	.16	.35	.57	.73	.78									
June 26	8:58 p.m.	D.N.p.m.	.66	9:05 p.m.	9:20 p.m.	.02	.08	.26	.43											
July 15	4:22 p.m.	5:30 p.m.	.87	4:22 p.m.	4:38 p.m.	0	.22	.62	.80	.84										
July 22	3:10 p.m.	D.N.p.m.	.89	3:58 p.m.	4:16 p.m.	.12	.09	.25	.39	.50										
Aug. 18	4:45 p.m.	7:00 p.m.	1.12	5:01 p.m.	5:22 p.m.	.02	.38	.68	.82	.95	.97									
Philadelphia, Pa.:																				
May 17	12:30 p.m.	3:45 p.m.	.74	12:34 p.m.	12:49 p.m.	.07	.28	.38	.49											
July 6	4:45 p.m.	6:10 p.m.	.70	5:04 p.m.	5:44 p.m.	.01	.10	.10	.17	.28	.41	.51	.62	.67						
July 13	[2]11:23 p.m.	7:00 a.m.	1.79	12:07 a.m.	12:50 a.m.	.03	.06	.11	.25	.53	.57	.59	.79	1.15	1.38	1.56	1.63			
July 20 [4]	12:15 p.m.	1:30 p.m.	.75	12:26 p.m.	12:46 p.m.	.01	.15	.16	.32	.74										
July 21 [4]	9:20 a.m.	11:15 a.m.	.99	10:26 a.m.	10:56 a.m.	.13	.13	.15	.15	.32	.60	.83								
Aug. 25	8:25 a.m.	10:15 a.m.	.38	8:31 a.m.	8:41 a.m.	.01	.24	.33												
Sept. 22	7:35 p.m.	[3]D.N.a.m.	1.26	9:25 p.m.	9:40 p.m.	.04	.18	.35	.42											
Oct. 16	7:26 p.m.	8:10 p.m.	.43	7:30 p.m.	7:45 p.m.	.01	.12	.21	.38											
eading, Pa.:																				
July 15	2:50 a.m.	4:40 a.m.	.54	4:08 a.m.	4:26 a.m.	.03	.19	.39	.47	.50										
Aug. 17-18	5:45 p.m.	1:00 a.m.	5.21	8:26 p.m.	9:16 p.m.	.06	.06	.19	.42	.66	.78	.81	.84	.95	1.07	1.18				
				9:16 p.m.	10:06 p.m.		1.30	1.41	1.49	1.67	1.95	2.21	2.51	2.70	2.77	2.79				
				10:06 p.m.	10:56 p.m.		2.80	2.86	3.02	3.21	3.40	3.52	3.58	3.59	3.62	3.67				
				10:56 p.m.	11:46 p.m.		3.75	3.78	3.79	3.83	3.97	4.14	4.31	4.37	4.48	4.57				
				11:46 p.m.	12:15 a.m.		4.65	4.79	4.87	4.98	5.08	5.13								
Scranton, Pa.:																				
May 16	10:50 p.m.	11:25 p.m.	.34	10:55 p.m.	11:01 p.m.	.01	.29	.31												
June 14	1:20 p.m.	3:30 p.m.	1.75	2:33 p.m.	3:26 p.m.	.08	.07	.21	.52	.86	.90	.91	.94	1.15	1.40	1.59	1.67			
June 15	2:14 p.m.	3:14 p.m.	.65	2:32 p.m.	2:44 p.m.	.02	.21	.52	.58											
July 19 [4]	3:10 p.m.	4:25 p.m.	1.02															1.02		
Atlantic City, N. J.:																				
July 13	7:05 a.m.	10:30 a.m.	1.39	7:13 a.m.	7:43 a.m.	.01	.07	.32	.58	.84	.98	1.07								
July 23	[2]7:16 p.m.	5:50 a.m.	1.46	12:48 a.m.	1:00 a.m.	.03	.15	.35	.39											
Aug. 13	5:30 a.m.	[3]7:30 a.m.	8.70	2:52 p.m.	3:42 p.m.	1.92	.05	.10	.15	.22	.26	.32	.40	.47	.54	.61				
				3:42 p.m.	4:32 p.m.		.70	.83	.98	1.11	1.24	1.37	1.53	1.65	1.72	1.78				
				4:32 p.m.	5:22 p.m.		1.81	1.87	1.92	1.98	2.05	2.08	2.12	2.19	2.26	2.33				
				5:22 p.m.	6:12 p.m.		2.42	2.51	2.56	2.63	2.78	2.91	3.05	3.17	3.34	3.49				
				6:12 p.m.	7:02 p.m.		3.66	3.90	4.06	4.21	4.41	4.59	4.70	4.76	4.83	4.90				
				7:02 p.m.	7:52 p.m.		4.96	4.99	5.02	5.05	5.13	5.19	5.22	5.23	5.25	5.28				
				7:52 p.m.	8:12 p.m.		5.30	5.38	5.56	5.65										
Aug. 25	10:15 a.m.	10:39 a.m.	.54	10:15 a.m.	10:39 a.m.	0	16	.27	.39	.50	.54									
Sept. 10	7:33 p.m.	D.N.p.m.	.69	7:37 p.m.	7:58 p.m.	.03	.05	.21	.33	.44	.48									
Nov. 1	7:40 p.m.	[3]D.N.a.m.	1.16	9:17 p.m.	9:37 p.m.	.43	.08	.31	.37	.43										
Sandy Hook, N. J.:																				
July 5	3:57 p.m.	9:45 p.m.	.88	4:05 p.m.	4:29 p.m.	.01	.08	.14	.21	.37	.51									
Aug. 6	4:05 p.m.	9:45 p.m.	1.23	7:10 p.m.	7:55 p.m.	.11	.06	.13	.24	.50	.78	.90	.95	1.01	1.08					
Aug. 18	[2]3:40 p.m.	12:30 p.m.	1.58	6:31 a.m.	6:58 a.m.	.92	.08	.19	.30	.40	.49	.54								
Sept. 3	10:57 a.m.	12:10 p.m.	.46	11:26 a.m.	11:34 a.m.	.03	.32	.41												
Trenton, N. J.:																				
July 13	[2]11:25 p.m.	6:50 a.m.	2.16	2:30 a.m.	3:04 a.m.	.25	.05	.14	.24	.27	.49	.72	.92							
July 13	[2]11:25 p.m.	6:50 a.m.	2.16	5:21 a.m.	5:49 a.m.	1.32	.17	.21	.30	.49	.67	.73								
July 19	1:42 p.m.	3:10 p.m.	.82	1:46 p.m.	2:26 p.m.	.01	.14	.23	.28	.38	.51	.59	.68	.73						
July 20	11:50 a.m.	5:30 p.m.	1.80	12:05 p.m.	12:15 p.m.	T.	.28	.38												
July 20	11:50 a.m.	5:30 p.m.	1.80	1:46 p.m.	2:10 p.m.	.46	.45	.74	.99	1.12	1.19									
July 21	7:58 a.m.	4:30 p.m.	1.08	11:38 a.m.	12:15 p.m.	.31	.10	.21	.34	.50	.52	.56	.65	.76						
Aug. 6	3:00 p.m.	6:50 p.m.	.65	4:20 p.m.	4:49 p.m.	.05	.07	.10	.15	.20	.40	.55								
Sept. 11	10:10 p.m.	D.N.p.m.	.87	10:12 p.m.	10:25 p.m.	.01	.35	.72	.76											
Baltimore, Md.:																				
Apr. 16	2:05 p.m.	3:40 p.m.	1.05	2:41 p.m.	3:10 p.m.	.07	.09	.32	.63	.75	.81	.91								
June 27	11:10 a.m.	1:20 p.m.	.37	1:03 p.m.	1:11 p.m.	.05	.19	.30												
July 15	6:00 a.m.	9:25 a.m.	.59	7:52 a.m.	8:11 a.m.	.01	.10	.30	.44	.50										
July 15	6:59 p.m.	9:40 p.m.	.76	7:02 p.m.	7:22 p.m.	.01	.15	.22	.35	.41										
July 18	1:38 p.m.	10:20 p.m.	.98	6:04 p.m.	6:12 p.m.	.47	.29	.37												
July 21	5:00 p.m.	7:20 p.m.	.40	5:00 p.m.	5:12 p.m.	0	.19	.35	.38											
Aug. 6	2:15 p.m.	5:38 p.m.	1.36	4:12 p.m.	4:39 p.m.	.04	.16	.58	1.04	1.20	1.27	1.30								
Aug. 15	3:00 p.m.	4:55 p.m.	.73	3:29 p.m.	3:40 p.m.	.02	.16	.47	.48											
Aug. 21	5:32 p.m.	7:45 p.m.	.84	6:23 p.m.	6:38 p.m.	.01	.26	.67	.81											
Sept. 22	10:05 p.m.	[3]D.N.a.m.	1.00	10:20 p.m.	10:36 p.m.	.03	.17	.26	.36	.39										

[2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
MIDDLE ATLANTIC STATES—contd.																				
Washington, D. C.:																				
Mar. 27	3:15 a.m.	2:30 p.m.	1.34	12:41 p.m.	1:18 p.m.	0.64	0.05	0.18	0.31	0.38	0.38	0.43	0.58	0.62						
Apr. 24	1:00 a.m.	4:00 a.m.	.62	1:02 a.m.	1:16 a.m.	.02	.16	.27	.39											
June 27	12:20 p.m.	2:05 p.m.	1.46	12:27 p.m.	12:51 p.m.	.01	.39	.87	1.23	1.32	1.37									
July 10	7:40 a.m.	11:35 a.m.	.78	8:21 a.m.	8:31 a.m.	.03	.15	.30												
July 15	6:30 a.m.	9:20 a.m.	.63	8:05 a.m.	8:22 a.m.	.01	.15	.29	.48	.56										
July 18	6:48 a.m.	9:50 a.m.	.88	7:47 a.m.	8:18 a.m.	.10	.05	.15	.27	.44	.60	.69	.71							
July 18	5:40 p.m.	9:15 p.m.	1.13	6:19 p.m.	6:52 p.m.	.01	.08	.10	.15	.20	.44	.74	.83							
July 19	3:42 p.m.	10:20 p.m.	.96	4:27 p.m.	4:44 p.m.	.30	.10	.27	.37	.40										
July 22	3:35 a.m.	8:40 a.m.	.79	5:24 a.m.	5:48 a.m.	.01	.17	.38	.52	.57	.61									
Aug. 17	6:10 a.m.	9:00 a.m.	.88	7:53 a.m.	8:12 a.m.	.45	.12	.27	.38	.42										
Aug. 21	5:10 p.m.	6:05 p.m.	.49	5:43 p.m.	5:54 p.m.	.01	.10	.39	.48											
Sept. 11	7:00 p.m.	7:45 p.m.	.66	7:10 p.m.	7:23 p.m.	.01	.22	.44	.59											
Cape Henry, Va.:																				
Jan. 23	[2] 12:37 p.m.	9:15 p.m.	.68	8:25 p.m.	8:33 p.m.	.34	.29	.33												
Apr. 17	[2] 10:10 p.m.	3:00 a.m.	.79	12:10 a.m.	12:22 a.m.	.23	.10	.39	.46											
June 27	12:07 p.m.	5:35 a.m.	2.06	3:15 a.m.	3:34 a.m.	1.48	.10	.28	.46	.53										
July 21	10:20 a.m.	10:45 a.m.	.30	10:29 a.m.	10:35 a.m.	T.	.27	.30												
July 21	1:40 p.m.	2:10 p.m.	.29	1:53 p.m.	1:59 p.m.	T.	.25	.29												
July 22	9:13 p.m.	10:40 p.m.	.68	9:46 p.m.	10:25 p.m.	.01	.08	.12	.15	.26	.35	.38	.51	.67						
July 23	7:00 a.m.	12:30 p.m.	1.18	9:25 a.m.	9:49 a.m.	.32	.11	.27	.41	.49	.55									
Aug. 13	1:45 a.m.	7:54 a.m.	1.80	5:43 a.m.	6:18 a.m.	1.00	.08	.18	.30	.36	.43	.55	.65							
Sept. 23	2:15 p.m.	6:25 p.m.	.95	3:09 p.m.	3:24 p.m.	.28	.07	.27	.40											
Lynchburg, Va.:																				
Apr. 16	1:05 p.m.	2:40 p.m.	.39	1:32 p.m.	1:39 p.m.	.04	.22	.31												
May 8	2:45 p.m.	3:30 p.m.	.46	3:06 p.m.	3:28 p.m.	.01	.07	.15	.37	.42	.45									
June 5	8:10 a.m.	5:10 p.m.	1.99	1:45 p.m.	2:11 p.m.	.95	.05	.23	.36	.52	.58	.61								
June 12	1:15 a.m.	7:10 a.m.	1.20	1:30 a.m.	1:54 a.m.	.01	.08	.21	.36	.46	.50									
June 21	1:35 p.m.	2:10 p.m.	.40	1:44 p.m.	1:54 p.m.	.01	.24	.39												
June 26	5:30 a.m.	9:15 a.m.	1.08	6:59 a.m.	7:47 a.m.	.01	.09	.26	.34	.46	.51	.64	.70	.76	0.84	0.88				
July 15	3:15 p.m.	6:35 p.m.	.90	3:26 p.m.	3:58 p.m.	.01	.20	.41	.51	.56	.62	.68	.76							
July 31	7:30 p.m.	[3] D. N. a.m.	.53	7:37 p.m.	7:49 p.m.	.01	.17	.33	.35											
Aug. 6	12:50 p.m.	1:20 p.m.	.46	1:07 p.m.	1:17 p.m.	.01	.06	.44												
Norfolk, Va.: [5]																				
June 7	4:20 p.m.	10:20 p.m.	1.58	5:15 p.m.	5:47 p.m.	.07	.18	.42	.61	.73	.82	.96	1.00							
June 7	4:20 p.m.	10:20 p.m.	1.58	6:14 p.m.	6:33 p.m.	1.10	.05	.14	.34	.41										
July 7	12:12 p.m.	9:15 p.m.	1.55	12:12 p.m.	12:20 p.m.	0	.22	.31												
July 18	1:51 p.m.	6:40 p.m.	.50	3:07 p.m.	3:12 p.m.	.14	.26													
Richmond, Va.:																				
Apr. 16	3:15 p.m.	[3] D. N. a.m.	1.41	4:50 p.m.	5:41 p.m.	.05	.12	.26	.35	.42	.47	.51	.57	.61	.67	.73	0.78			
May 5	9:45 p.m.	[3] D. N. a.m.	.94	11:09 p.m.	11:23 p.m.	T.	.36	.59	.64											
May 9	10:06 p.m.	[3] 6:31 a.m.	1.00	11:29 p.m.	11:45 p.m.	.02	.11	.26	.43	.48										
June 10	1:45 p.m.	5:50 p.m.	1.07	2:37 p.m.	3:33 p.m.	.06	.12	.23	.29	.34	.42	.47	.51	.70	.83	.92	.97			
June 27	1:10 p.m.	8:15 p.m.	.80	2:45 p.m.	3:01 p.m.	.01	.22	.39	.59	.61										
July 11	D. N. a.m.	D. N. a.m.	.36	12:25 a.m.	12:31 a.m.	.01	.26	.29												
July 18	[2] 3:20 p.m.	12 noon.	1.72	1:05 a.m.	1:57 a.m.	.33	.19	.26	.29	.33	.40	.47	.58	.69	.81	.91	1.01			
July 18	3:45 p.m.	[3] D. N. a.m.	1.71	3:54 p.m.	4:00 p.m.	.02	.27	.34												
Wytheville, Va. [1]																				
SOUTH ATLANTIC STATES.																				
Asheville, N. C.: [5]																				
Mar. 27	8:03 a.m.	12:30 p.m.	1.14	8:39 a.m.	8:56 a.m.	.02	.14	.30	.45	.51										
June 21	4:40 p.m.	7:30 p.m.	.88	5:05 p.m.	5:27 p.m.	.03	.07	.22	.33	.43	.47									
June 28	1:45 p.m.	2:50 p.m.	.50	1:58 p.m.	2:12 p.m.	.01	.16	.35	.43											
July 20	2:15 p.m.	3:55 p.m.	.75	2:24 p.m.	2:48 p.m.	.02	.22	.32	.36	.47	.53									
Charlotte, N. C. [5]																				
May 7	5:35 p.m.	6:15 p.m.	.56	5:38 p.m.	5:50 p.m.	.01	.31	.47	.50											
June 9	3:55 p.m.	6:30 p.m.	.90	4:51 p.m.	5:21 p.m.	.12	.08	.20	.41	.53	.62	.70								
July 23	D. N. a.m.	8:36 a.m.	1.86	4:28 a.m.	5:13 a.m.	.02	.17	.43	.70	.91	1.03	1.18	1.32	1.45	1.52					
Aug. 16	5:52 p.m.	8:05 p.m.	1.07	6:03 p.m.	6:12 p.m.	.01	.43	.75												
Hatteras, N. C.: [5]																				
June 28	[6] 9:50 p.m.	2:50 p.m.	7.68	12:56 a.m.	1:17 a.m.	2.42	.10	.22	.35	.45	.49									
June 28	[6] 9:50 p.m.	2:50 p.m.	7.68	6:05 a.m.	7:32 a.m.	3.68	.11	.22	.40	.59	.67	.84	1.21	1.58	1.89	2.14	2.83	3.37	3.55	
Sept. 1	D. N. a.m.	7:28 a.m.	1.00	5:15 a.m.	5:46 a.m.	.03	.16	.27	.55	.71	.78	.85	.89							
Oct. 23	7:15 a.m.	1:12 p.m.	1.29	7:39 a.m.	8:05 a.m.	.09	.13	.23	.35	.55	.66	.67								
Raleigh, N. C.: [5]																				
May 7	6:46 p.m.	D. N. p.m.	1.06	7:43 p.m.	8:08 p.m.	.23	.29	.47	.51	.64	.68									
May 17	2:55 p.m.	4:05 p.m.	1.13	3:05 p.m.	3:26 p.m.	.02	.25	.39	.66	1.03	1.06									
July 16	4:52 p.m.	D. N. p.m.	1.87	6:51 p.m.	8:00 p.m.	.52	.10	.19	.22	.28	.32	.41	.52	.59	.65	.75	1.00	1.16		
July 22	7:05 p.m.	[2] 2:00 p.m.	2.87	9:48 p.m.	10:12 p.m.	.33	.06	.12	.47	.60	.64									
Aug. 1	12:55 a.m.	2:30 a.m.	1.80	1:05 a.m.	1:41 a.m.	.03	.19	.53	.74	1.07	1.34	1.53	1.67	1.69						
Aug. 30	8:20 p.m.	D. N. p.m.	.63	8:29 p.m.	8:35 p.m.	.01	.43	.45												
Nov. 1	7:21 p.m.	8:15 p.m.	1.06	7:23 p.m.	7:59 p.m.	.01	.51	.77	.77	.77	.77	.88	.98	1.04						
Wilmington, N. C.: [5]																				
June 27	D. N. a.m.	6:10 a.m.	1.50	12:21 a.m.	12:51 a.m.	.05	.05	.12	.19	.36	.52	.73								
July 29	9:45 p.m.	[3] D. N. a.m.	1.32	9:45 p.m.	11:04 p.m.	0	.17	.27	.41	.49	.56	.61	.65	.68	.72	.74	.89	1.23		
Aug. 6	10:42 a.m.	1:55 p.m.	1.68	10:51 a.m.	11:33 a.m.	.04	.09	.16	.34	.49	.58	.65	.82	.91	.96					
Aug. 15	7:20 p.m.	10:25 p.m.	1.08	7:34 p.m.	8:10 p.m.	.08	.11	.23	.40	.56	.64	.70	.76	.79						

[1] No excessive precipitation.
[2] On previous date.
[3] On following date.
[5] Only the more important storms recorded.
[6] On June 26.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration. From—	Total duration. To—	Total amount of precipitation (inches).	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began (inches).	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
SOUTH ATLANTIC STATES—contd.																				
Charleston, S. C.:[5]																				
Mar. 9	[2]12:15 p. m.	D. N. a. m.	1.93	1:55 a. m.	2:24 a. m.	0.93	0.11	0.33	0.56	0.73	0.82	0.86								
May 25	2:20 p. m.	7:25 p. m.	.92	2:42 p. m.	3:07 p. m.	.01	.11	.21	.46	.61	.70									
June 4	D. N. a. m.	6:55 a. m.	2.57	2:07 a. m.	3:12 a. m.	.08	.10	.16	.22	.30	.43	.55	0.57	0.63	0.66	0.82	1.20	1.40		
July 22	[2] 7:40 p. m.	2:05 p. m.	5.52	1:58 a. m.	3:14 a. m.	.29	.13	.23	.32	.50	.77	.83	.94	1.02	1.04	1.11	1.46	1.94		
July 22	[2] 7:40 p. m.	2:05 p. m.	5.52	7:47 a. m.	8:48 a. m.	3.48	.20	.30	.36	.36	.37	.43	.51	.58	.67	.75	1.07	1.13		
Aug. 6	11:58 a. m.	1:50 p. m.	1.52	12:58 p. m.	1:23 p. m.	.47	.27	.51	.74	.93	1.02									
Aug. 10	1:50 p. m.	3:50 p. m.	1.04	2:17 p. m.	2:49 p. m.	.04	.18	.36	.50	.65	.72	.82	.87							
Columbia, S. C.:[5]																				
Apr. 11	2:50 p. m.	4:50 p. m.	.41	3:43 p. m.	3:53 p. m.	.05	.21	.34												
July 7	9:00 p. m.	[3]D. N. a. m.	1.38	9:40 p. m.	10:17 p. m.	.12	.06	.24	.37	.65	.86	.96	1.05	1.09						
July 19	1:45 p. m.	4:15 p. m.	.81	2:09 p. m.	2:28 p. m.	.07	.11	.28	.44	.56										
Oct. 23	5:45 p. m.	[3]D. N. a. m.	1.57	9:12 p. m.	9:23 p. m.	.98	.34	.52	.54											
Greenville, S. C.:[5]																				
June 12	3:15 p. m.	4:30 p. m.	.85	3:17 p. m.	3:42 p. m.	.01	.22	.28	.29	.53	.79									
June 25	6:20 p. m.	7:10 p. m.	.68	6:37 p. m.	6:54 p. m.	.02	.21	.41	.59	.63										
July 16	12:55 p. m.	2:00 p. m.	.86	1:02 p. m.	1:30 p. m.	.01	.11	.22	.27	.35	.69	.84								
Aug. 1	3:53 p. m.	5:55 p. m.	.86	3:59 p. m.	4:16 p. m.	.01	.14	.45	.74	.78										
Aug. 29	4:00 p. m.	[3]D. N. a. m.	1.44	5:35 p. m.	6:15 p. m.	.17	.11	.17	.21	.30	.69	.75	.85	.96						
Oct. 22	5:30 p. m.	7:30 p. m.	2.26	5:50 p. m.	6:22 p. m.	.04	.09	.27	.58	.88	1.14	1.43	1.56							
Augusta, Ga.:[5]																				
June 8	4:35 p. m.	6:15 p. m.	1.93	5:03 p. m.	5:43 p. m.	.01	.36	.76	1.10	1.36	1.52	1.69	1.81	1.88						
June 26	2:50 p. m.	[3]D. N. a. m.	2.11	3:45 p. m.	4:13 p. m.	.20	.26	.60	.91	1.17	1.39	1.45								
July 16	1:50 p. m.	4:10 p. m.	1.55	2:31 p. m.	3:21 p. m.	.18	.27	.46	.54	.65	.75	.86	.94	.96	1.14	1.31				
July 24	4:20 p. m.	[3]D. N. a. m.	1.44	5:49 p. m.	6:00 p. m.	.01	.45	.55	.59											
Oct. 17	6:30 p. m.	10:00 p. m.	1.22	7:13 p. m.	7:53 p. m.	.01	.13	.29	.37	.50	.62	.67	.81	.94						
Savannah, Ga.:[5]																				
May 25	4:45 p. m.	9:30 p. m.	1.72	5:08 p. m.	5:48 p. m.	.03	.06	.19	.44	.65	.90	1.04	1.12	1.18						
June 3	7:24 a. m.	1:40 p. m.	1.31	8:43 a. m.	9:10 a. m.	.28	.07	.16	.34	.46	.72	.80								
July 24	11:05 a. m.	12:42 p. m.	1.18	11:21 a. m.	11:47 a. m.	.02	.14	.35	.69	.89	1.14	1.16								
Aug. 11	1:11 p. m.	[3] 8:15 a. m.	6.07	1:18 p. m.	2:08 p. m.	.01	.11	.31	.71	.90	1.10	1.26	1.35	1.46	1.54	1.62				
				2:08 p. m.	2:58 p. m.		1.73	1.88	2.16	2.55	2.84	2.99	3.23	3.54	3.81	4.03				
				2:58 p. m.	3:44 p. m.		4.17	4.27	4.47	4.65	4.77	4.86	5.01	5.12	5.18	5.22				
Aug. 19	3:50 p. m.	4:50 p. m.	1.46	3:58 p. m.	4:35 p. m.	.02	.24	.42	.62	.84	1.04	1.20	1.40	1.44						
Jacksonville, Fla.:[5]																				
Feb. 22	3:24 p. m.	7:10 p. m.	1.40	3:42 p. m.	4:38 p. m.	.04	.07	.17	.23	.34	.45	.57	.70	.78	.88	.91	1.03			
May 27	6:45 p. m.	8:20 p. m.	1.81	6:45 p. m.	7:17 p. m.	0	.10	.46	.87	1.33	1.66	1.74	1.77							
June 24	5:24 p. m.	8:45 p. m.	1.09	5:37 p. m.	6:10 p. m.	.07	.11	.22	.32	.42	.55	.71	.81							
June 30	[2] 4:35 p. m.	6:00 p. m.	7.67	6:21 a. m.	6:51 a. m.	2.88	.08	.22	.44	.73	1.07	1.25								
FLORIDA PENINSULA.																				
Key West, Fla.:[5]																				
Apr. 27–28	D. N. p. m.	D. N. a. m.	2.09	11:30 p. m.	12:18 a. m.	.21	.08	.31	.63	.87	1.02	1.27	1.38	1.61	1.79	1.83				
May 14	9:01 p. m.	D. N. p. m.	1.30	9:35 p. m.	10:29 p. m.	.09	.10	.15	.18	.24	.37	.69	.83	.93	.98	1.07	1.10			
May 28	5:46 p. m.	[3]D. N. a. m.	1.79	5:58 p. m.	6:37 p. m.	.06	.16	.22	.29	.49	.74	.98	1.15	1.27						
May 30	9:12 p. m.	D. N. p. m.	1.01	9:14 p. m.	9:38 p. m.	.01	.19	.51	.71	.86	.91									
June 13	D. N. a. m.	8:20 a. m.	1.82	6:01 a. m.	6:58 a. m.	.01	.28	.54	.54	.74	1.12	1.43	1.51	1.54	1.58	1.63	1.80			
June 18	1:08 p. m.	D. N. p. m.	1.76	1:17 p. m.	1:57 p. m.	.02	.41	.76	1.01	1.16	1.23	1.29	1.34	1.42						
Nov. 6	D. N. a. m.	8:30 a. m.	3.00	2:42 a. m.	3:34 a. m.	1.00	.23	.41	.65	.80	.86	.90	.92	.94	.99	1.11	1.16			
Miama, Fla.:[5]																				
Mar. 14	1:10 p. m.	5:20 p. m.	3.00	3:49 p. m.	4:31 p. m.	1.39	.14	.39	.59	.79	1.08	1.24	1.30	1.38	1.43					
Mar. 14	9:10 p. m.	[3]D. N. a. m.	4.03	9:28 p. m.	10:15 p. m.	.07	.20	.42	.83	1.20	1.66	2.15	2.43	2.60	2.71	2.75				
Apr. 17	2:19 p. m.	3:25 p. m.	1.35	2:25 p. m.	2:47 p. m.	.01	.31	.60	.87	.99	1.03									
May 20	3:32 p. m.	5:25 p. m.	2.28	3:40 p. m.	5:10 p. m.	.01	.15	.22	.30	.38	.51	.66	.74	.78	.82	.96	1.10	1.71	2.26	
May 30	D. N. a. m.	12:30 p. m.	4.60	8:33 a. m.	9:47 a. m.	1.17	.05	.18	.36	.48	.71	.91	.96	.98	1.40	1.71	1.95	2.27		
June 2	2:25 p. m.	6:47 p. m.	2.14	3:05 p. m.	3:33 p. m.	.17	.23	.49	.62	.83	.95	1.03								
Sept. 1	D. N. p. m.	[3]D. N. a. m.	1.65	10:45 p. m.	11:38 p. m.	.02	.16	.24	.31	.41	.56	.81	1.02	1.17	1.32	1.44	1.58			
Dec. 14	4:08 p. m.	5:17 p. m.	1.11	4:23 p. m.	5:02 p. m.	.01	.31	.42	.59	.68	.79	.83	1.01	1.07						
Tampa, Fla.:[5]																				
May 3	4:50 p. m.	5:55 p. m.	1.59	4:55 p. m.	5:34 p. m.	.01	.18	.47	.71	.98	1.24	1.44	1.51	1.56						
June 8	3:58 p. m.	6:05 p. m.	2.74	4:07 p. m.	5:26 p. m.	.02	.10	.36	.59	.88	1.26	1.54	1.67	1.85	2.03	2.16	2.35	2.62		
July 9	4:50 p. m.	5:45 p. m.	1.40	4:53 p. m.	5:31 p. m.	.01	.29	.68	1.03	1.14	1.24	1.29	1.34	1.39						
July 29	6:25 p. m.	7:20 p. m.	1.44	6:32 p. m.	7:04 p. m.	.03	.14	.43	.76	1.09	1.27	1.36	1.38							
Sept. 6	3:55 p. m.	5:00 p. m.	2.03	3:59 p. m.	4:21 p. m.	.01	.40	.91	1.36	1.80	1.95									
Sept. 16	5:15 p. m.	D. N. p. m.	2.05	5:17 p. m.	6:05 p. m.	.01	.20	.45	.68	.95	1.19	1.36	1.50	1.67	1.75	1.80				
Sept. 20	4:36 p. m.	5:55 p. m.	1.68	4:39 p. m.	5:08 p. m.	.01	.37	.85	1.20	1.38	1.47	1.53								
EAST GULF STATES.																				
Atlanta, Ga.:[5]																				
Apr. 29	1:30 p. m.	2:20 p. m.	1.48	1:51 p. m.	2:14 p. m.	.01	.21	.77	1.14	1.44	1.47									
May 7	[2]D. N. p. m.	D. N. a. m.	1.45	12:32 a. m.	1:18 a. m.	.35	.14	.22	.41	.41	.41	.41	.58	.75	.99	1.03				
Oct. 8	1:05 p. m.	3:35 p. m.	2.34	2:30 p. m.	3:29 p. m.	.22	.14	.32	.40	.44	.46	.61	.98	1.34	1.51	1.71	2.11			
Leesburg, Ga.:[5]																				
May 13	9:17 p. m.	[3]D. N. a. m.	1.18	9:34 p. m.	10:11 p. m.	.03	.10	.32	.34	.34	.34	.38	.88	1.01						
May 25	12:58 p. m.	5:17 p. m.	1.33	2:09 p. m.	2:44 p. m.	.14	.18	.38	.54	.77	.96	1.04	1.09							
May 27	8:25 p. m.	[3] 5:15 a. m.	2.16	8:47 p. m.	9:56 p. m.	.01	.08	.22	.41	.58	.67	.68	.69	.77	.99	1.06	1.17	1.32		
Aug. 8	5:25 p. m.	7:45 p. m.	1.94	5:30 p. m.	6:30 p. m.	.02	.12	.27	.35	.39	.46	.75	1.05	1.26	1.43	1.57	1.84			
Aug. 10	2:57 p. m.	7:20 p. m.	3.48	4:05 p. m.	5:11 p. m.	.94	.17	.55	.82	1.08	1.29	1.48	1.64	1.80	1.87	1.91	2.13	2.31		
Aug. 11	10:00 p. m.	[3] 11:02 a. m.	4.85	10:41 p. m.	11:23 p. m.	.22	.28	.70	1.22	1.76	1.82	1.88	1.97	2.03	2.06					
Aug. 12	[2] 10:00 p. m.	11:02 a. m.	4.85	7:17 a. m.	8:27 a. m.	3.38	.06	.10	.18	.29	.39	.47	.53	.59	.67	.82	.96	1.29		
Macon, Ga.:[5]																				
July 18	4:05 p. m.	6:03 p. m.	1.53	4:07 p. m.	4:53 p. m.	.01	.12	.19	.28	.42	.65	.80	1.03	1.13	1.20	1.23				
Aug. 11	5:21 p. m.	9:15 p. m.	1.58	5:32 p. m.	6:22 p. m.	.01	.15	.47	.74	.83	.90	1.02	1.12	1.23	1.33	1.39				

[2] On previous date. [3] On following date. [4] Defective record. [5] Only the more important storms recorded.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration. From—	Total duration. To—	Total amount of precipitation (inches).	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
EAST GULF STATES—continued.																				
Thomasville, Ga.:[5]																				
Mar. 8	4:00 p.m.	[3]D.N.a.m.	4.40	10:29 p.m.	11:13 p.m.	0.66	0.31	0.63	0.83	1.10	1.21	1.35	1.45	1.55	1.60					
Mar. 9	[3]4:00 p.m.	D.N.a.m.	4.40	1:24 a.m.	1:48 a.m.	2.86	.10	.28	.66	1.12	1.33									
July 8	2:26 p.m.	4:59 p.m.	1.70	2:36 p.m.	3:30 p.m.	.01	.26	.59	.72	.82	1.04	1.26	1.40	1.44	1.48	1.56	1.64			
July 12	5:43 p.m.	8:48 p.m.	1.30	5:49 p.m.	6:35 p.m.	.01	.29	.55	.76	.80	.89	.99	1.05	1.15	1.20	1.24				
Aug. 11	2:43 p.m.	6:14 p.m.	1.23	2:45 p.m.	3:19 p.m.	.01	.22	.35	.47	.58	.72	.93	1.00							
Aug. 12	6:30 a.m.	1:20 p.m.	3.10	10:18 a.m.	12:11 p.m.	.03	.13	.26	.34	.44	.56	.71	.86	.97	1.18	1.35	1.76	2.19	2.56	2.93
Aug. 24	5:00 p.m.	9:30 p.m.	1.66	5:57 p.m.	6:26 p.m.	.02	.10	.32	.70	.91	1.00	1.19								
Nov. 1-2	D.N.p.m.	8:15 a.m.	1.53	11:33 p.m.	12:35 a.m.	.07	.07	.13	.23	.40	.61	.73	.81	.88	.92	.99	1.12	1.18		
Pensacola, Fla.:[5]																				
Feb. 22	5:40 a.m.	7:45 a.m.	1.20	6:31 a.m.	6:58 a.m.	.04	.06	.28	.54	.78	.96	1.06								
Feb. 25	6:25 a.m.	7:05 p.m.	3.00	11:56 a.m.	1:51 p.m.	.44	.06	.22	.40	.57	.66	.69	.71	.77	.88	.91	.94	1.17	1.57	1.77
Apr. 10	9:50 a.m.	10:45 p.m.	8.91	2:14 p.m.	3:04 p.m.	.50	.05	.14	.28	.49	.55	.59	.66	.79	1.08	1.49				
				3:04 p.m.	3:54 p.m.		1.92	2.32	2.58	2.84	3.06	3.31	3.47	3.54	3.62	3.69				
				3:54 p.m.	4:44 p.m.		3.77	3.95	4.10	4.20	4.25	4.36	4.42	4.44	4.49	4.55				
				4:44 p.m.	5:34 p.m.		4.68	4.98	5.44	5.82	6.15	6.37	6.49	6.75	7.03	7.17				
				5:34 p.m.	5:49 p.m.		7.47	7.65	7.74											
Apr. 15	5:40 p.m.	[3]3:30 a.m.	1.75	7:13 p.m.	8:10 p.m.	.12	.20	.28	.44	.55	.58	.61	.62	.69	.82	1.13	1.33			
July 17	10:04 a.m.	12:50 p.m.	1.33	10:11 a.m.	11:13 a.m.	.01	.05	.12	.23	.34	.39	.44	.50	.53	.62	.73	1.09	1.25		
Aug. 3	4:25 a.m.	1:40 p.m.	9.59	7:43 a.m.	8:33 a.m.	.89	.09	.14	.20	.23	.29	.33	.36	.46	.66	.83				
				8:33 a.m.	9:23 a.m.		1.03	1.27	1.52	1.66	1.94	2.10	2.34	2.64	2.97	3.27				
				9:23 a.m.	10:13 a.m.		3.51	3.70	3.81	3.94	4.11	4.30	4.51	4.72	4.97	5.05				
				10:13 a.m.	11:03 a.m.		5.18	5.32	5.42	5.64	5.79	5.93	6.13	6.37	6.47	6.58				
				11:03 a.m.	11:53 a.m.		6.66	6.81	7.01	7.17	7.38	7.52	7.57	7.69	7.80	7.85				
				11:53 a.m.	12:20 p.m.		7.95	8.06	8.24	8.49	8.60	8.65								
Aug. 7	5:30 p.m.	7:15 p.m.	1.03	5:34 p.m.	6:00 p.m.	.01	.20	.41	.64	.89	.99	1.02								
Anniston, Ala.:[5]																				
Aug. 23	3:28 p.m.	10:00 p.m.	1.88	3:52 p.m.	4:36 p.m.	.02	.08	.24	.32	.42	.60	.83	1.14	1.29	1.35					
Nov. 1	1:14 p.m.	3:00 p.m.	1.40	1:14 p.m.	2:15 p.m.	0	.12	.20	.31	.44	.52	.58	.75	.90	1.00	1.07	1.22	1.31		
Dec. 7	2:31 p.m.	[3]9:50 a.m.	2.66	2:44 p.m.	3:34 p.m.	.03	.09	.14	.30	.50	.60	.69	.81	.92	1.06	1.20				
Dec. 9	[2]11:31 a.m.	9:30 a.m.	3.92	1:08 a.m.	1:45 a.m.	1.63	.07	.15	.29	.57	.69	.81	1.08	1.15						
Birmingham, Ala.:[5]																				
Dec. 7	D.N.a.m.	D.N.a.m.	2.63	12:22 a.m.	1:02 a.m.	.05	.43	.57	.66	.74	.78	.89	.99	1.05						
Dec. 8	12:51 p.m.	[2]10:37 a.m.	3.70	9:20 p.m.	10:20 p.m.	1.86	.13	.24	.32	.34	.38	.43	.49	.56	.60	.70	1.13			
Mobile, Ala.:[5]																				
Feb. 22	D.N.a.m.	5:40 a.m.	1.37	4:08 a.m.	4:52 a.m.	.07	.29	.87	.95	.98	1.00	1.03	1.10	1.18	1.29					
Apr. 10	9:10 a.m.	D.N.p.m.	2.56	9:34 a.m.	9:59 a.m.	.02	.19	.46	.80	.92	1.05									
Apr. 15	4:55 p.m.	D.N.p.m.	2.42	5:33 p.m.	6:14 p.m.	.16	.20	.62	.89	1.14	1.23	1.32	1.37	1.40						
Aug. 6	11:34 a.m.	1:10 p.m.	1.23	11:37 a.m.	12:11 p.m.	.01	.10	.21	.61	.82	.28	1.09	1.14							
Aug. 12	D.N.a.m.	5:15 a.m.	1.37	2:58 a.m.	3:25 a.m.	.01	.12	.46	.78	1.06	1.32	1.36								
Dec. 9	4:25 p.m.	7:40 p.m.	1.78	4:31 p.m.	5:37 p.m.	.01	.10	.17	.26	.33	.39	.46	.60	.80	1.08	1.32	1.58	1.70		
Dec. 13	12:15 p.m.	3:15 p.m.	1.62	1:33 p.m.	2:31 p.m.	.53	.15	.19	.23	.30	.46	.58	.68	.71	.75	.86	1.04			
Montgomery, Ala.:[5]																				
Feb. 24-25	5:10 p.m.	D.N.p.m.	5.26	11:12 p.m.	12:02 a.m.	.85	.08	.14	.24	.30	.44	.55	.65	.71	.75	.80				
				12:02 a.m.	12:52 a.m.		.88	.93	.98	1.03	1.16	1.22	1.34	1.38	1.40	1.42				
				12:52 a.m.	1:16 a.m.		1.44	1.52	1.67	1.77	1.86									
Mar. 8	8:05 a.m.	7:05 p.m.	6.01	4:07 p.m.	5:07 p.m.	3.21	.14	.48	.73	.91	.94	1.00	1.05	1.30	1.44	1.47	1.62			
Mar. 8	8:05 a.m.	7:05 p.m.	6.01	5:44 p.m.	6:37 p.m.	4.94	.15	.27	.39	.42	.45	.50	.64	.74	.79	.90	1.06			
Mar. 17	7:05 a.m.	10:40 a.m.	1.66	7:14 a.m.	8:04 a.m.	T.	.13	.29	.44	.54	.57	.63	.77	.86	.91	1.00				
Aug. 16	6:48 p.m.	D.N.p.m.	1.73	6:50 p.m.	7:55 p.m.	.01	.12	.24	.64	.80	.88	.91	.91	.91	.92	.94	1.40	1.61		
Dec. 9	6:47 a.m.	1:25 p.m.	3.07	7:27 a.m.	8:12 a.m.	.12	.14	.27	.49	.61	.65	.81	1.01	1.17	1.29					
Dec. 9	2:20 p.m.	5:40 p.m.	1.67	4:12 p.m.	5:18 p.m.	.39	.08	.18	.25	.27	.31	.35	.42	.52	.65	.86	1.12	1.27		
Meridian, Miss.:[5]																				
Mar. 17	D.N.a.m.	7:30 a.m.	1.59	3:13 a.m.	4:00 a.m.	.05	.16	.28	.46	.66	.76	.82	.88	.97	1.04	1.10				
Apr. 15	11:35 a.m.	5:00 p.m.	1.89	1:32 p.m.	2:11 p.m.	.39	.11	.34	.37	.45	.66	.79	1.00	1.08						
May 8	12:50 p.m.	2:05 p.m.	1.62	12:55 p.m.	1:53 p.m.	.02	.14	.42	.71	.85	.89	.99	1.04	1.17	1.35	1.49	1.59			
June 1	8:50 p.m.	D.N.p.m.	1.36	9:45 p.m.	10:13 p.m.	.16	.25	.44	.67	.87	.99	1.04								
June 3	D.N.p.m.	D.N.p.m.	1.41	8:19 p.m.	8:50 p.m.	.01	.18	.41	.69	.92	1.06	1.16	1.20							
June 27	5:35 p.m.	D.N.p.m.	1.39	6:23 p.m.	7:07 p.m.	.04	.07	.20	.37	.47	.58	.68	.84	.95	1.09					
Aug. 3	3:28 p.m.	D.N.p.m.	1.92	3:30 p.m.	4:05 p.m.	.01	.29	.59	.98	1.26	1.42	1.53	1.59							
Aug. 18	3:20 p.m.	4:40 p.m.	3.08	3:22 p.m.	4:32 p.m.	.01	.15	.47	.73	1.33	1.62	1.79	1.81	2.04	2.36	2.52	2.71	3.07		
Dec. 8	7:05 a.m.	[3]8:00 a.m.	7.01	3:39 p.m.	4:51 p.m.	1.68	.13	.24	.29	.42	.55	.61	.72	.80	.84	.91	1.10	1.45		
Vicksburg, Miss.:[5]																				
Mar. 5	D.N.a.m.	10:10 a.m.	2.68	3:57 a.m.	5:28 a.m.	.78	.20	.39	.43	.58	.65	.70	.77	.82	.86	.89	1.10	1.29	1.50	
June 2	3:55 p.m.	D.N.p.m.	2.06	5:29 p.m.	6:08 p.m.	.23	.29	.62	.84	1.03	1.22	1.39	1.50	1.56						
Aug. 10	6:02 p.m.	D.N.p.m.	1.35	6:29 p.m.	7:00 p.m.	.06	.17	.38	.62	.81	.93	.99	1.02							
Aug. 11	5:45 p.m.	6:30 p.m.	1.45	5:53 p.m.	6:18 p.m.	.02	.22	.63	.99	1.32	1.42									
Oct. 8	[2]D.N.p.m.	D.N.a.m.	1.64	12:17 a.m.	12:51 a.m.	.14	.06	.15	.35	.72	1.02	1.24	1.42							
Dec. 13	7:15 a.m.	D.N.p.m.	2.70	8:31 a.m.	10:31 a.m.	.07	.17	.30	.44	.52	.61	.66	.71	.75	.82	1.02	1.22	1.37	2.02	2.31
New Orleans, La.:[5]																				
July 12	5:47 p.m.	7:12 p.m.	1.53	5:53 p.m.	6:52 p.m.	.01	.16	.37	.61	.79	.86	.96	1.05	1.15	1.25	1.35	1.45			
July 25	5:37 p.m.	9:52 p.m.	1.83	5:42 p.m.	6:48 p.m.	.01	.11	.27	.36	.38	.41	.49	.67	.94	1.19	1.35	1.54	1.72		
Aug. 24	3:07 p.m.	4:10 p.m.	1.13	3:34 p.m.	3:48 p.m.	.03	.48	.94	1.09											
Nov. 10	[4]D.N.p.m.	7:17 a.m.	2.11	12:23 a.m.	1:23 a.m.	.51	.06	.12	.23	.32	.42	.52	.59	.79	.99	1.10	1.36			
WEST GULF STATES.																				
Shreveport, La.:[5]																				
June 20	5:15 p.m.	[3]D.N.a.m.	1.35	8:45 p.m.	9:08 p.m.	.22	.35	.61	.88	.99	1.04									
June 27	4:15 p.m.	5:55 p.m.	1.29	4:25 p.m.	4:53 p.m.	.04	.27	.55	.76	1.00	1.10	1.17								
Oct. 22	3:50 p.m.	8:25 p.m.	2.28	5:34 p.m.	6:20 p.m.	.23	.24	.63	.87	.99	1.05	1.14	1.28	1.38	1.50	1.52				
Bentonville, Ark.:[5]																				
June 1	9:20 p.m.	11:25 p.m.	2.15	9:32 p.m.	11:07 p.m.	.01	.11	.34	.66	.96	1.12	1.24	1.33	1.41	1.44	1.46	1.50	1.71	2.14	
July 29	12:05 p.m.	1:05 p.m.	1.45	12:12 p.m.	12:50 p.m.	.05	.26	.32	.42	.73	1.09	1.27	1.35	1.37						
Oct. 8	8:30 a.m.	7:20 p.m.	3.64	5:30 p.m.	6:22 p.m.	1.24	.24	.48	.70	.95	1.28	1.55	1.85	2.13	2.18	2.21	2.31			

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
WEST GULF STATES—continued.																				
Fort Smith, Ark.: [5]																				
June 22	1:31 p.m.	2:14 p.m.	.60	1:36 p.m.	1:49 p.m.	0.01	0.16	0.43	0.54											
Aug. 16	5:04 a.m.	7:33 a.m.	1.37	5:14 a.m.	5:31 a.m.	.01	.19	.48	.64	0.68										
Aug. 17–18	10:17 p.m.	D.N. a.m.	1.42	11:58 p.m.	12:38 a.m.	.29	.15	.45	.56	.61	0.70	0.81	0.85	0.95						
Aug. 26	11:48 a.m.	2:12 p.m.	.80	12:03 p.m.	12:17 p.m.	.01	.17	.47	.60											
Oct. 31	3:59 a.m.	5:55 a.m.	.75	4:09 a.m.	4:22 a.m.	.04	.33	.60	.66											
Little Rock, Ark.: [5]																				
July 8	1:27 p.m.	3:00 p.m.	1.20	1:40 p.m.	2:09 p.m.	.01	.19	.30	.49	.94	1.08	1.15								
Oct. 9	[2] D.N. p.m.	D.N. a.m.	2.84	12:49 a.m.	2:01 a.m.	.96	.09	.23	.48	.62	.68	.74	.84	.93	0.99	1.04	1.07	1.71		
Oct. 10	4:46 p.m.	[3] 8:35 a.m.	5.86	7:25 p.m.	8:09 p.m.	.65	.09	.20	.21	.22	.26	.57	.85	1.11	1.22					
Oct. 11	[3] 4:40 p.m.	8:35 a.m.	5.86	1:08 a.m.	1:53 a.m.	3.56	.13	.25	.29	.40	.62	.77	.87	.95	1.06					
Corpus Christi, Tex.: [5]																				
May 11	3:29 p.m.	5:24 p.m.	1.32	3:48 p.m.	4:42 p.m.	.09	.12	.23	.29	.40	.50	.61	.74	.79	.96	1.03	1.18			
May 24	5:35 a.m.	7:32 a.m.	2.04	5:45 a.m.	6:38 a.m.	.03	.17	.39	.61	.78	.96	1.19	1.47	1.60	1.69	1.81	1.90			
Dallas, Tex.: [5]																				
May 16	11:12 p.m.	[3] 2:35 a.m.	1.68	11:12 p.m.	11:50 p.m.	0	.16	.50	.83	1.09	1.28	1.42	1.48	1.52						
Aug. 22	8:19 a.m.	12:36 p.m.	1.60	11:51 a.m.	12:28 p.m.	.44	.16	.26	.38	.64	.83	.90	1.11	1.16						
Sept. 21	7:10 p.m.	[3] 5:45 a.m.	2.50	9:25 p.m.	10:26 p.m.	.01	.06	.13	.16	.25	.34	.42	.64	.91	1.18	1.48	1.75	1.82		
Oct. 16	4:32 a.m.	6:15 a.m.	1.09	4:34 a.m.	5:35 a.m.	.01	.25	.30	.31	.47	.49	.51	.55	.63	.71	.79	.99	1.04		
Oct. 21	7:15 p.m.	11:55 p.m.	1.50	8:35 p.m.	9:25 p.m.	.10	.12	.22	.34	.38	.40	.50	.66	.88	.98	1.05				
				8:39 p.m.	9:29 p.m.	.08	.08	.16	.36	.61	.76	.82	.87	.93	1.03	1.08				
Oct. 31	8:06 p.m.	[3] 12:20 a.m.	3.42	9:29 p.m.	10:19 p.m.		1.15	1.28	1.42	1.64	1.91	2.11	2.16	2.41	2.55	2.69				
				10:19 p.m.	11:05 p.m.		2.76	2.76	2.77	2.78	2.78	2.83	3.02	3.15	3.21	3.24				
Fort Worth, Tex.: [5]																				
June 22	5:19 p.m.	6:21 p.m.	1.11	5:38 p.m.	6:01 p.m.	.09	.32	.50	.81	.96	1.01									
Sept. 19	2:19 p.m.	7:41 p.m.	3.18	2:32 p.m.	3:41 p.m.	.03	.06	.11	.27	.44	.67	.88	1.35	1.73	2.08	2.39	2.68	2.81		
Galveston, Tex.: [5]																				
Apr. 30	D.N. a.m.	D.N. a.m.	1.63	1:51 a.m.	2:42 a.m.	.01	.31	.53	.83	.92	1.04	1.17	1.24	1.31	1.41	1.48	1.54			
May 24 [4]	7:32 a.m.	1:52 p.m.	2.74	7:53 a.m.	8:47 a.m.	.02	.10	.37	.58	.72	.89	1.10		1.60	1.71	1.83	1.95			
Sept. 5	8:35 p.m.	[3] 6:30 a.m.	1.79	10:54 p.m.	11:52 p.m.	.11	.12	.18	.28	.54	.80	.93	.96	.98	1.04	1.09	1.32			
Groesbeck, Tex.: [5]																				
June 28	8:50 a.m.	12:12 p.m.	1.29	10:37 a.m.	11:03 a.m.	.06	.28	.50	.78	.89	.97	1.01								
Sept. 22	D.N. a.m.	3:01 p.m.	2.53	3:30 a.m.	4:20 a.m.	.27	.05	.17	.33	.43	.52	.74	.84	.90	.98	1.08				
Oct. 21–22	D.N. p.m.	9:30 a.m.	2.07	11:40 p.m.	12:34 a.m.	.20	.10	.25	.42	.55	.63	.69	.73	.76	.87	.96	1.06			
Houston, Tex.: [5]																				
Jan. 22	6:45 a.m.	4:25 p.m.	1.87	8:37 a.m.	10:00 a.m.	.18	.09	.24	.34	.37	.40	.46	.60	.72	.83	.96	1.05	1.31	1.47	
July 22 [4]	4:50 a.m.	4:05 p.m.	1.77	5:49 a.m.	6:20 a.m.	.09	.19	.38	.63	.81	.93	.99	1.00							
July 23	11:44 a.m.	3:48 p.m.	2.02	12:05 p.m.	12:55 p.m.	.03	.22	.42	.55	.69	.79	.93	1.10	1.30	1.42	1.48				
Sept. 14	6:42 p.m.	10:15 p.m.	2.70	6:55 p.m.	8:25 p.m.	.04	.21	.32	.44	.50	.58	.69	.80	.82	.82	.87	1.23	1.98	2.19	
Sept. 15	7:26 a.m.	12:45 p.m.	2.80	11:14 a.m.	12:19 p.m.	1.29	.11	.22	.31	.42	.47	.50	.60	.75	.91	1.05	1.25	1.51		
Oct. 4	6:26 a.m.	10:14 a.m.	2.54	6:30 a.m.	7:30 a.m.	.03	.08	.24	.42	.69	.80	.88	.90	.91	.92	1.09	1.57			
Palestine, Tex.: [5]																				
Sept. 22	4:00 a.m.	2:20 p.m.	3.21	4:17 a.m.	5:07 a.m.	.02	.09	.16	.17	.22	.27	.32	.41	.49	.56	.72				
				5:07 a.m.	5:57 a.m.		.90	1.02	1.24	1.43	1.51	1.65	1.76	1.86	1.95	2.03				
				5:57 a.m.	6:26 a.m.		2.07	2.12	2.14	2.29	2.35	2.38								
Nov. 9	4:47 p.m.	D.N. p.m.	4.01	5:01 p.m.	6:54 p.m.	.01	.08	.38	.77	.94	1.02	1.17	1.53	1.94	2.23	2.27	2.47	2.50	2.88	3.23
Port Arthur, Tex.: [5]																				
Feb. 2–3	8:40 p.m.	D.N. a.m.	2.93	11:26 p.m.	12:36 a.m.	.10	.05	.22	.80	1.14	1.38	1.59	1.71	1.77	1.87	2.00	2.37	2.64		
Feb. 25	D.N. a.m.	9:10 a.m.	1.25	5:17 a.m.	5:58 a.m.	.09	.07	.32	.42	.59	.69	.91	.99	1.05	1.07					
May 8	7:50 a.m.	11:03 a.m.	1.70	9:36 a.m.	10:07 a.m.	.35	.11	.23	.31	.44	.91	1.23	1.26							
July 8	D.N. p.m.	D.N. p.m.	1.08	10:59 p.m.	11:31 p.m.	.01	.25	.57	.71	.81	.91	1.00	1.02							
July 17	2:06 p.m.	3:10 p.m.	1.32	2:06 p.m.	2:40 p.m.	0	.09	.14	.23	.61	1.03	1.20	1.30							
Aug. 22	11:00 a.m.	12:22 p.m.	1.22	11:53 a.m.	12:12 p.m.	.08	.35	.80	.97	1.13										
San Antonio, Tex.: [5]																				
Apr. 29	5:15 a.m.	6:28 a.m.	1.46	5:34 a.m.	5:52 a.m.	.01	.36	1.04	1.36	1.40										
June 24	9:38 p.m.	[3] 12:13 a.m.	1.22	10:00 p.m.	10:35 p.m.	.08	.08	.28	.48	.64	.82	.98	1.05							
June 26	3:00 p.m.	8:20 p.m.	1.53	3:04 p.m.	3:53 p.m.	.01	.05	.28	.50	.62	.75	.95	1.12	1.26	1.34	1.40				
July 21	7:03 a.m.	10:25 a.m.	1.26	7:10 a.m.	7:41 a.m.	.03	.06	.10	.22	.55	.85	.97	1.01							
Oct. 10	9:55 p.m.	[3] 7:16 a.m.	1.61	9:55 p.m.	11:05 p.m.	0	.13	.27	.29	.32	.35	.36	.40	.47	.64	.76	1.04	1.28		
Taylor, Tex.: [5]																				
Sept. 15	[2] 1:39 p.m.	6:30 a.m.	3.01	2:22 a.m.	3:33 a.m.	.86	.06	.13	.15	.20	.34	.47	.62	.88	1.11	1.29	1.71	2.11		
Oct. 10	6:05 p.m.	[3] 8:30 a.m.	2.36	10:09 p.m.	11:47 p.m.	.32	.11	.23	.33	.35	.39	.50	.58	.62	.71	.75	.82	1.04	1.37	
Nov. 9	1:35 p.m.	7:30 p.m.	1.96	2:09 p.m.	2:38 p.m.	.01	.24	.39	.57	.98	1.25	1.51								
OHIO VALLEY AND TENNESSEE.																				
Chattanooga, Tenn.:																				
Mar. 5	[2] 10:30 p.m.	1:53 p.m.	2.09	5:54 a.m.	7:10 a.m.	.31	.17	.29	.37	.48	.50	.55	.58	.63	.68	.76	.83	1.02		
May 26	7:56 p.m.	9:14 p.m.	.50	8:09 p.m.	8:23 p.m.	.01	.14	.31	.48											
July 12	8:15 a.m.	11:30 a.m.	.52	10:07 a.m.	10:27 a.m.	.02	.14	.28	.35	.46										
Aug. 10	12:09 a.m.	1:14 a.m.	.56	12:21 a.m.	12:44 a.m.	T.	.10	.20	.24	.39	.49									
Aug. 29	12:31 p.m.	4:39 p.m.	1.03	2:53 p.m.	3:04 p.m.	.53	.25	.37	.40											
Oct. 16 [4]	2:24 p.m.	3:25 p.m.	.95	2:25 p.m.	2:55 p.m.	T.	.08	.28	.45	.61	.74	.90								
Dec. 7	[2] 9:48 p.m.	1:41 a.m.	.78	12:56 a.m.	1:11 a.m.	.31	.05	.21	.36											
Knoxville, Tenn.:																				
June 21	4:45 p.m.	5:45 p.m.	1.13	4:47 p.m.	5:22 p.m.	.01	.11	.12	.16	.60	.87	.97	1.04							
June 23	3:25 p.m.	4:35 p.m.	1.38	3:33 p.m.	4:22 p.m.	.02	.19	.54	.80	1.01	1.07	1.10	1.10	1.12	1.28	1.35				
June 23	5:05 p.m.	9:40 p.m.	.93	5:08 p.m.	5:33 p.m.	.01	.07	.21	.42	.51	.57									
June 27	12 noon.	12:25 p.m.	.49	12 noon.	12:09 p.m.	0	.37	.47												
July 6	1:00 p.m.	2:00 p.m.	.28	1:07 p.m.	1:12 p.m.	.01	.25													
July 31	8:30 p.m.	D.N. p.m.	.79	8:43 p.m.	9:05 p.m.	.02	.11	.23	.37	.53	.58									
Aug. 1	11:02 a.m.	12:20 p.m.	.93	11:04 a.m.	11:18 a.m.	.01	.37	.77	.85											
Aug. 11	6:22 p.m.	7:45 p.m.	1.72	6:25 p.m.	7:11 p.m.	.01	.18	.66	1.15	1.39	1.45	1.46	1.48	1.53	1.65	1.70				
Oct. 16	3:10 p.m.	3:40 p.m.	.50	3:15 p.m.	3:31 p.m.	.02	.09	.31	.45	.47										

[1] On previous date. [2] On following date. [4] Defective record. [5] Only the more important storms recorded.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration. From—	Total duration. To—	Total amount of precipitation (inches).	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
OHIO VALLEY AND TENNESSEE—con.																				
Memphis, Tenn.:																				
Mar. 16[4]	D.N. a.m.	11:00 p.m.	9.30	10:39 a.m.		1.17														
May 8	8:02 p.m.	[3] 8:50 a.m.	1.77	10:10 p.m.	10:45 p.m.	.35	0.10	0.30	0.46	0.53	0.57	0.62	0.69							
June 3	4:51 p.m.	7:05 p.m.	.49	4:58 p.m.	5:15 p.m.	.02	.10	.22	.32	.40										
June 21	12:01 p.m.	1:25 p.m.	.90	12:03 p.m.	12:45 p.m.	.01	.08	.20	.26	.31	.39	.50	.70	0.86	0.89					
June 23	12:33 p.m.	3:15 p.m.	1.12	12:45 p.m.	1:43 p.m.	.02	.13	.27	.39	.45	.49	.57	.61	.68	.86	0.95	1.06			
June 29	4:51 p.m.	6:33 p.m.	1.16	4:56 p.m.	5:07 p.m.	.01	.55	1.01	1.08											
July 26	12:03 p.m.	1:05 p.m.	.35	12:12 p.m.	12:18 p.m.	.01	.24	.31												
Sept. 21	7:42 p.m.	[3] 2:40 p.m.	1.20	11:34 p.m.	11:51 p.m.	.01	.17	.35	.40	.44										
Oct. 5	6:07 p.m.	D.N. p.m.	.88	7:09 p.m.	7:49 p.m.	.16	.09	.23	.30	.41	.46	.52	.55	.65						
Oct. 31	5:40 p.m.	D.N. p.m.	1.37	5:06 p.m.	5:55 p.m.	.01	.08	.10	.15	.20	.29	.45	.66	1.02	1.15	1.22				
Nov. 9	8:20 a.m.	1:45 p.m.	.95	12:03 p.m.	12:32 p.m.	.32	.19	.27	.35	.42	.49	.56								
Nov. 25	7:41 p.m.	[2] 7:50 a.m.	.94	8:25 p.m.	8:32 p.m.	.04	.25	.30												
Nashville, Tenn.:																				
May 8	D.N. a.m.	7:30 a.m.	1.20	3:32 a.m.	3:49 a.m.	.05	.27	.47	.62	.67										
May 19	5:30 p.m.	7:30 p.m.	1.18	5:40 p.m.	6:23 p.m.	.01	.29	.48	.63	.74	.78	.83	.90	.95	1.00					
June 4	2:25 p.m.	4:50 p.m.	1.15	3:10 p.m.	3:59 p.m.	.07	.10	.24	.30	.58	.78	.80	.81	.89	.97	1.03				
June 9	12:58 p.m.	1:55 p.m.	.95	1:02 p.m.	1:32 p.m.	.02	.21	.34	.53	.67	.79	.87								
June 10	1:05 p.m.	3:20 p.m.	.56	1:16 p.m.	1:30 p.m.	.01	.14	.33	.41											
July 31	4:54 p.m.	8:30 p.m.	1.12	5:30 p.m.	5:38 p.m.	.21	.24	.30												
Aug. 21	8:15 p.m.	D.N. p.m.	1.17	8:19 p.m.	8:31 p.m.	.01	.52	.86	.97											
Aug. 29	4:40 p.m.	8:00 p.m.	1.06	5:10 p.m.	5:32 p.m.	.03	[4] .24	[4] .53	.68	.76	.80									
Aug. 30	[2] D.N. p.m.	5:00 a.m.	.71	2:32 a.m.	2:50 a.m.	.06	.07	.26	.41	.53										
Aug. 31	1:48 a.m.	2:20 a.m.	.84	1:50 a.m.	2:05 a.m.	.01	.45	.66	.80											
Oct. 31	6:45 p.m.	[3] 9:00 a.m.	2.60	8:41 p.m.	9:08 p.m.	.08	.16	.30	.34	.40	.51	.55								
Nov. 29	10:30 a.m.	12:10 p.m.	.64	10:53 a.m.	11:03 a.m.	.02	.25	.33												
Lexington, Ky.:																				
June 20	5:11 p.m.	6:40 p.m.	1.43	5:38 p.m.	6:18 p.m.	.07	.13	.17	.23	.47	.80	1.01	1.24	1.32						
June 23	8:15 a.m.	3:10 p.m.	1.44	8:25 a.m.	8:46 a.m.	.03	.15	.32	.50	.76	.79									
June 26	1:30 p.m.	2:10 p.m.	.45	1:47 p.m.	2:04 p.m.	.01	.07	.22	.42	.44										
July 5	1:37 p.m.	2:50 p.m.	.70	1:41 p.m.	2:06 p.m.	.01	.21	.24	.25	.40	.57									
Sept. 21	6:55 p.m.	D.N. p.m.	.38	7:02 p.m.	7:09 p.m.	.01	.18	.31												
Louisville, Ky.:																				
June 23 [4]	3:25 p.m.	7:20 p.m.	.58	6:13 p.m.	6:38 p.m.	.06	.11	.19	.30	.43	.52									
June 27	12:58 p.m.	1:35 p.m.	.38	12:58 p.m.	1:10 p.m.	0	.21	.34	.36											
July 10	D.N. a.m.	D.N. a.m.	1.34	1:51 a.m.	2:17 a.m.	.24	.16	.44	.50	.64	.82	.85								
July 15 [4]	9:51 a.m.	10:30 a.m.	1.54	9:51 a.m.	10:15 a.m.	0	.22	1.01	1.33	1.45	1.52									
Aug. 13	8:04 p.m.	10:25 p.m.	1.13	8:58 p.m.	9:24 p.m.	.15	.21	.42	.60	.68	.74	.78								
Sept. 19	10:40 a.m.	11:35 a.m.	1.01	11:00 a.m.	11:20 a.m.	T.	.21	.59	.77	.96										
Sept. 21	1:15 p.m.	6:35 p.m.	1.11	4:25 p.m.	5:04 p.m.	.22	.11	.22	.29	.35	.39	.48	.61	.79						
Oct. 26	7:30 a.m.	8:15 a.m.	.54	7:42 a.m.	8:00 a.m.	.01	.17	.30	.46	.52										
Evansville, Ind.:																				
Apr. 29	4:20 a.m.	11:30 a.m.	.76	4:20 a.m.	4:32 a.m.	0	.09	.32	.35											
May 22	1:30 p.m.	2:10 p.m.	.36	1:34 p.m.	1:41 p.m.	.01	.24	.30												
June 2	9:02 p.m.	10:10 p.m.	.54	9:09 p.m.	9:30 p.m.	.01	.12	.20	.30	.46	.47									
June 13	11:20 a.m.	3:45 p.m.	.89	11:56 a.m.	12:36 p.m.	.05	.10	.23	.32	.39	.43	.51	.61	.73						
June 17	5:30 p.m.	6:35 p.m.	.46	5:37 p.m.	5:52 p.m.	.01	.21	.31	.40											
June 23	6:07 a.m.	7:45 a.m.	.37	6:46 a.m.	6:56 a.m.	.01	.16	.31												
June 23	9:00 p.m.	[3] D.N. a.m.	1.87	10:12 p.m.	11:08 p.m.	.19	.11	.19	.29	.48	.70	.85	.98	1.05	1.20	1.37	1.46			
June 24	10:00 p.m.	[3] D.N. a.m.	1.04	10:05 p.m.	10:23 p.m.	.01	.20	.42	.57	.64										
July 5	6:45 p.m.	7:18 p.m.	.77	6:48 p.m.	7:12 p.m.	.01	.14	.33	.45	.58	.76									
Aug. 1	10:28 a.m.	11:52 a.m.	1.41	10:32 a.m.	10:56 a.m.	.01	.33	.47	.93	1.32	1.38									
Sept. 21	12:15 p.m.	4:45 p.m.	1.84	2:59 p.m.	3:10 p.m.	.50	.22	[4] .32	[4] .44	[4] .65	[4] .87	[4] .95	[4] 1.18	[4] 1.32	[4] 1.33					
Oct. 9	[2] 10:00 p.m.	5:05 a.m.	1.38	2:09 a.m.	2:27 a.m.	.35	.32	.39	.44	.49										
Oct. 21	2:00 a.m.	9:35 a.m.	1.08	3:28 a.m.	3:50 a.m.	.16	.11	.31	.50	.58	.62									
Oct. 31	3:00 a.m.	5:55 a.m.	.61	3:45 a.m.	4:02 a.m.	.03	.13	.26	.36	.42										
Indianapolis, Ind.:																				
June 12	1:37 p.m.	6:08 p.m.	1.42	1:38 p.m.	2:15 p.m.	T.	.13	.21	.27	.46	.93	1.06	1.15	1.18						
July 9	9:20 p.m.	11:30 p.m.	.58	9:45 p.m.	9:58 p.m.	.01	.11	.36	.44											
Aug. 5	2:46 p.m.	3:19 p.m.	.38	2:53 p.m.	3:06 p.m.	.01	.18	.31	.36											
Aug. 24	2:51 p.m.	4:52 p.m.	1.29	3:08 p.m.	4:04 p.m.	.01	.10	.29	.29	.29	.29	.33	.35	.55	.79	1.00	1.25			
Sept. 21	6:53 a.m.	4:10 p.m.	1.31	11:47 a.m.	12:07 p.m.	.49	.06	.13	.30	.51										
Royal Center, Ind.:																				
Apr. 9	2:50 p.m.	3:40 p.m.	.34	3:06 p.m.	3:12 p.m.	.02	.25	.32												
May 4	6:07 a.m.	6:41 a.m.	.38	6:17 a.m.	6:29 a.m.	T.	.08	.29	.35											
May 4	5:15 p.m.	8:30 p.m.	1.45	5:30 p.m.	6:13 p.m.	.07	.13	.40	.41	.43	.47	.78	.85	1.07	1.19					
June 17	11:36 a.m.	12:45 p.m.	.61	11:36 a.m.	12:01 p.m.	0	.21	.43	.45	.50	.56									
June 19	1:08 p.m.	4:35 p.m.	1.06	1:10 p.m.	1:43 p.m.	.01	.28	.44	.57	.70	.75	.77	.84							
June 25	D.N. a.m.	D.N. a.m.	.64	3:20 a.m.	3:32 a.m.	.08	.24	.45	.56											
July 12	11:15 p.m.	11:35 p.m.	.57	11:15 p.m.	11:24 p.m.	0	.27	.57												
July 31	1:35 a.m.	D.N. a.m.	1.11	1:47 a.m.	2:11 a.m.	.01	.17	.44	.75	1.00	1.09									
Aug. 13	4:20 p.m.	5:27 p.m.	.79	4:28 p.m.	5:08 p.m.	.01	.08	.14	.18	.30	.49	.64	.66	.76						
Aug. 16	2:50 a.m.	3:50 a.m.	.39	3:00 a.m.	3:15 a.m.	.01	.18	.27	.35											
Aug. 16	6:50 p.m.	8:50 p.m.	.87	6:54 p.m.	7:09 p.m.	.01	.23	.46	.71											
Oct. 1	D.N. a.m.	10:50 a.m.	2.30	1:40 a.m.	2:40 a.m.	.08	.05	.14	.25	.38	.48	.63	.66	.69	.80	.89	1.04			
Oct. 31	6:40 a.m.	11:40 a.m.	.92	7:39 a.m.	8:03 a.m.	.12	.09	.18	.24	.37	.53									
Terre Haute, Ind.:																				
June 6	2:28 p.m.	2:43 p.m.	.32	2:33 p.m.	2:40 p.m.	.01	.27	.31												
June 20	1:30 p.m.	3:10 p.m.	.58	1:42 p.m.	1:57 p.m.	.01	.20	.39	.46											
June 24	4:27 p.m.	6:35 p.m.	1.32	4:44 p.m.	5:09 p.m.	.01	.20	.47	.87	1.15	1.27									
July 9	9:00 p.m.	[3] D.N. a.m.	.75	9:16 p.m.	9:27 p.m.	.10	.09	.38	.42											
July 31	3:03 p.m.	3:55 p.m.	.65	3:20 p.m.	3:32 p.m.	.02	.18	.47	.52											
Sept. 10	5:05 p.m.	6:15 p.m.	.79	5:14 p.m.	5:37 p.m.	.01	.10	.29	.56	.70	.75									
Oct. 31	7:10 a.m.	1:25 p.m.	1.33	8:28 a.m.	8:57 a.m.	.14	.09	.12	.18	.29	.44	.55								

[2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
OHIO VALLEY AND TENNESSEE—con.																				
Cincinnati, Ohio:																				
July 15	10:52 a. m.	11:14 a. m.	0.46	11:00 a. m.	11:10 a. m.	0.01	0.25	0.44												
Sept. 21	1:45 p. m.	6:35 p. m.	.42	2:55 p. m.	3:03 p. m.	.03	.22	.32												
Sept. 22	6:32 a. m.	1:10 p. m.	1.74	6:56 a. m.	7:54 a. m.	.07	.05	.18	0.23	0.25	0.42	0.56	0.68	0.79	0.89	0.95	1.07			
Sept. 30	3:08 p. m.	3:44 p. m.	.60	3:17 p. m.	3:35 p. m.	.01	.11	.36	.56	.59										
Oct. 5	3:50 p. m.	6:30 p. m.	.87	5:03 p. m.	5:21 p. m.	.19	.12	.33	.52	.61										
Oct. 26	D. N. a.m.	6:10 a. m.	.64	4:09 a. m.	4:23 a. m.	.09	.16	.44	.53											
Oct. 27	6:54 a. m.	12:21 p. m.	1.71	7:29 a. m.	7:54 a. m.	.14	.06	.16	.29	.39	.45									
Oct. 31	9:25 a. m.	4:45 p. m.	.91	1:54 p. m.	2:12 p. m.	.38	.20	.30	.38	.43										
Columbus, Ohio:																				
June 11 [4]	11:05 a. m.	12:35 p. m.	1.05	11:18 a. m.	12:20 p. m.	.01	.11	.29	.37	.38	.40	.43	.58	.71	.83	.91	1.00	1.04		
July 12	10:20 p. m.	[2] 6:18 a. m.	1.52	10:46 p. m.	11:06 p. m.	.01	.22	.54	.89	1.01										
July 31	1:30 p. m.	4:10 p. m.	.60	1:32 p. m.	1:45 p. m.	T.	.23	.43	.50											
Aug. 4	9:10 p. m.	[2] D. N. a.m.	1.34	9:19 p. m.	9:40 p. m.	.02	.13	.52	.92	1.25	1.30									
Dayton, Ohio:																				
Feb. 13	6:30 p. m.	7:03 p. m.	.35	6:37 p. m.	6:44 p. m.	.04	.25	.30												
May 7	[2] D. N. p.m.	D. N. a.m.	1.15	12:26 a. m.	12:46 a. m.	.22	.21	.32	.42	.57										
June 16	6:10 p. m.	6:50 p. m.	.87	6:15 p. m.	6:27 p. m.	.01	.33	.76	.83											
Aug. 16	10:10 a. m.	12:14 p. m.	.65	10:19 a. m.	10:28 a. m.	.01	.42	.52												
Aug. 21	D. N. a.m.	6:20 a. m.	1.00	5:02 a. m.	5:22 a. m.	.44	.14	.28	.42	.55										
Elkins, W. Va.:																				
June 1	4:10 p. m.	5:20 p. m.	1.03	4:10 p. m.	4:45 p. m.	0	.12	.39	.57	.63	.72	.89	1.00							
June 11	1:48 p. m.	4:00 p. m.	.53	2:26 p. m.	2:46 p. m.	.01	.21	.31	.44	.49										
June 14	2:26 p. m.	4:50 p. m.	.98	2:41 p. m.	2:51 p. m.	.03	.15	.30												
June 14	2:26 p. m.	4:50 p. m.	.98	3:40 p. m.	4:02 p. m.	.37	.18	.32	.36	.45	.50									
June 15	1:40 p. m.	2:30 p. m.	.39	1:49 p. m.	2:01 p. m.	.02	.09	.32	.36											
July 10	6:35 p. m.	8:10 p. m.	.73	6:49 p. m.	7:19 p. m.	.02	.16	.24	.30	.45	.52	.60								
July 10	8:50 p. m.	D. N. p.m.	1.40	8:58 p. m.	9:47 p. m.	.03	.18	.33	.64	.75	.85	.95	1.02	1.10	1.20	1.30				
July 13	D. N. a.m.	5:20 a. m.	1.24	2:24 a. m.	2:57 a. m.	.02	.12	.30	.35	.43	.49	.64	.71							
July 14	5:28 a. m.	8:42 a. m.	.55	5:37 a. m.	5:46 a. m.	.01	.21	.35												
July 16	[2] 11:55 p. m.	8:12 a. m.	1.68	2:56 a. m.	3:28 a. m.	.61	.11	.19	.25	.33	.46	.51	.55							
July 18	1:55 p. m.	2:40 p. m.	.40	2:03 p. m.	2:18 p. m.	.02	.13	.24	.35											
Aug. 18	10:48 a. m.	11:16 a. m.	.34	10:52 a. m.	11:00 a. m.	.01	.26	.33												
Sept. 9	6:36 p. m.	D. N. p.m.	.42	8:16 p. m.	8:26 p. m.	.06	.13	.34												
Parkersburg, W. Va.:																				
May 5	2:17 p. m.	2:38 p. m.	.54	2:17 p. m.	2:31 p. m.	0	.12	.38	.51											
June 15	3:15 p. m.	5:30 p. m.	.46	3:34 p. m.	3:44 p. m.	.03	.24	.35												
July 12	6:22 p. m.	7:07 p. m.	.42	6:26 p. m.	6:44 p. m.	.01	.24	.30	.35	.41										
July 12	7:26 p. m.	8:33 p. m.	.48	7:44 p. m.	7:53 p. m.	.10	.22	.37												
July 15	4:37 p. m.	6:15 p. m.	.83	4:37 p. m.	4:51 p. m.	0	.21	.56	.80											
Aug. 12	10:23 a. m.	11:50 a. m.	.56	10:23 a. m.	10:44 a. m.	0	.11	.27	.41	.48	.51									
Aug. 13	3:55 p. m.	5:50 p. m.	.46	4:08 p. m.	4:28 p. m.	.02	.09	.21	.33	.40										
Aug. 21	4:50 p. m.	7:30 p. m.	1.24	4:56 p. m.	5:05 p. m.	.02	.10	.30												
Aug. 21	4:50 p. m.	7:30 p. m.	1.34	6:40 p. m.	7:21 p. m.	.54	.08	.16	.30	.40	.44	.51	.60	.74	.80					
Pittsburgh, Pa.:																				
June 16	7:10 p. m.	D. N. p.m.	1.13	7:36 p. m.	7:54 p. m.	.11	.18	.39	.67	.73										
June 20	5:15 p. m.	11:15 p. m.	1.18	6:00 p. m.	6:13 p. m.	.39	.15	.33	.40											
July 10	2:45 p. m.	3:45 p. m.	.90	2:52 p. m.	3:30 p. m.	.04	.07	.19	.43	.44	.48	.55	.77	.83						
July 14	9:15 p. m.	[2] D. N. a.m.	2.13	10:04 p. m.	10:27 p. m.	.05	.11	.34	.48	.81	.86									
July 15	[2] 9:15 p. m.	D. N. a. m.	2.13	3:11 a. m.	3:26 a. m.	1.65	.15	.37	.46											
July 15	12:15 p. m.	D. N. p.m.	1.63	12:22 p. m.	12:42 p. m.	.01	.14	.52	.85	.98										
Aug. 12	1:00 p. m.	8:00 p. m.	1.12	7:18 p. m.	7:24 p. m.	.89	.45	.50												
Aug. 21	3:50 p. m.	5:00 p. m.	.88	4:25 p. m.	4:36 p. m.	.03	.12	.32	.34											
Oct. 16	11:10 a. m.	5:30 p. m.	.68	11:10 a. m.	11:20 a. m.	0	.31	.43												
LOWER LAKE REGION.																				
Buffalo, N. Y.:																				
Aug. 12	4:45 p. m.	5:40 p. m.	.46	4:48 p. m.	4:53 p. m.	.01	.27													
Aug. 16	3:40 p. m.	[2] D. N. a. m.	.84	5:08 p. m.	5:21 p. m.	.06	.19	.32	.35											
Aug. 30	4:55 a. m.	7:20 a. m.	.60	5:02 a. m.	5:17 a. m.	.01	.16	.33	.49											
Oct. 26	D. N. a. m.	1:00 p. m.	.79	2:25 a. m.	2:35 a. m.	.08	.10	.30												
Canton, N. Y.:																				
June 26	6:50 a. m.	[2] D. N. a. m.	3.15	5:50 p. m.	7:10 p. m.	.58	.11	.24	.31	.35	.39	.45	.45	.49	.57	.68	.87	1.11		
July 27	D. N. a. m.	D. N. a. m.	.48	4:14 a. m.	4:31 a. m.	.01	.17	.37	.43	.47										
Aug. 21	5:15 p. m.	7:10 p. m.	.50	5:17 p. m.	5:27 p. m.	.01	.17	.41												
Aug. 24	D. N. a. m.	D. N. a. m.	.42	4:59 a. m.	5:14 a. m.	.04	.11	.30	.38											
Sept. 8	4:45 p. m.	[2] D. N. a.m.	2.11	7:25 p. m.	7:40 p. m.	.74	.14	.36	.49											
Oswego, N. Y.:																				
June 3	4:26 p. m.	11:00 p. m.	2.38	4:59 p. m.	6:41 p. m.	.03	.21	.38	.49	.57	.68	.75	.90	.99	1.04	1.04	1.13	1.23	1.87	1.95
June 26	4:26 p. m.	8:10 p. m.	1.17	6:37 p. m.	6:45 p. m.	.09	.27	.32												
July 27	12:15 a. m.	4:45 a. m.	.88	2:18 a. m.	2:34 a. m.	.04	.07	.18	.37	.42										
Aug. 16	8:18 p. m.	[2] 12:40 p. m.	1.88	8:41 p. m.	9:12 p. m.	.01	.09	.27	.43	.50	.54	.63	.65							
Sept. 2	4:38 a. m.	7:12 a. m.	.54	4:38 a. m.	5:01 a. m.	0	.08	.22	.33	.47	.51									
Rochester, N. Y.:																				
June 8	1:10 p. m.	2:06 p. m.	.55	1:38 p. m.	1:50 p. m.	.03	.25	.43	.51											
June 26	1:39 p. m.	4:20 p. m.	1.17	2:14 p. m.	2:56 p. m.	.04	.18	.33	.39	.43	.46	.55	.66	.84	.94					
July 21	2:17 p. m.	3:00 p. m.	.95	2:29 p. m.	2:45 p. m.	.03	.33	.72	.89	.91										
Aug. 16	5:53 p. m.	[2] D. N. a.m.	1.15	6:38 p. m.	6:46 p. m.	.03	.46	.59												
Aug. 18	1:40 p. m.	3:50 p. m.	.51	2:17 p. m.	2:34 p. m.	.06	.12	.22	.37	.42										
Syracuse, N. Y.:																				
June 20	5:12 a. m.	5:35 a. m.	.57	5:14 a. m.	5:19 a. m.	T.	.56													
July 10	2:55 p. m.	5:30 p. m.	1.27	3:08 p. m.	3:27 p. m.	.04	.23	.52	1.04	1.23										
Oct. 26	8:20 a. m.	2:40 p. m.	.75	9:29 a. m.	9:42 a. m.	.06	.16	.30	.41											

[2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
LOWER LAKE REGION—contd.																				
Erie, Pa.:																				
Apr. 7	7:24 p. m.	D.N. p.m.	.71	7:44 p. m.	8:22 p. m.	0.03	0.10	0.28	0.31	0.35	0.41	0.50	0.56	0.63						
June 25	7:08 p. m.	[3] D. N. a.m.	2.23	7:39 p. m.	8:26 p. m.	.01	.17	.28	.41	.48	.65	.60	.79	.91	1.14	1.22				
July 10	2:35 a. m.	6:28 a. m.	1.04	2:52 a. m.	3:01 a. m.	.04	.31	.45												
Aug. 18	10:07 a. m.	10:54 a. m.	.75	10:11 a. m.	10:31 a. m.	.01	.24	.35	.65	.74										
Aug. 30	D. N. a. m.	6:10 a. m.	.79	4:22 a. m.	4:52 a. m.	.12	.13	.23	.26	.38	.46	.51								
Cleveland, Ohio:																				
July 5	1:41 p. m.	2:42 p. m.	.47	1:53 p. m.	2:08 p. m.	.02	.12	.32	.43											
Aug. 4	8:24 p. m.	10:20 p. m.	1.23	8:54 p. m.	9:24 p. m.	.03	.08	.29	.54	.69	.83	.96								
Aug. 5	2:23 p. m.	3:09 p. m.	.59	2:33 p. m.	2:59 p. m.	.01	.20	.28	.41	.44	.54	.57								
Aug. 5	3:59 p. m.	8:36 p. m.	2.20	4:18 p. m.	4:47 p. m.	.01	.12	.37	.81	1.15	1.64	1.80								
Aug. 16	2:48 p. m.	5:20 p. m.	.49	2:53 p. m.	3:03 p. m.	.01	.16	.33												
Sandusky, Ohio:																				
Apr. 9	9:05 p. m.	10:25 p. m.	.45	10:03 p. m.	10:16 p. m.	.03	.12	.33	.41											
July 6	5:25 a. m.	8:50 a. m.	.94	8:01 a. m.	8:30 a. m.	.39	.10	.21	.24	.26	.34	.52								
Aug. 4	6:45 p. m.	9:25 p. m.	1.10	8:46 p. m.	9:13 p. m.	.02	.17	.43	.70	.89	1.01	1.07								
Aug. 5	[2] 10:30 p. m.	8:30 a. m.	1.62	2:13 a. m.	2:30 a. m.	.30	.22	.40	.50	.53										
Aug. 5	2:20 p. m.	7:00 p. m.	.90	3:16 p. m.	3:31 p. m.	.11	.18	.29	.37											
Aug. 30	D. N. a. m.	D. N. a. m.	.42	1:44 a. m.	1:53 a. m.	.01	.19	.34												
Sept. 10	D. N. a. m.	9:45 a. m.	.55	7:27 a. m.	7:48 a. m.	.05	.20	.21	.23	.42	.44									
Oct. 31	1:00 p. m.	6:00 p. m.	.52	1:01 p. m.	1:11 p. m.	T.	.19	.32												
Toledo, Ohio:																				
Apr. 23	12:58 p. m.	4:20 p. m.	1.16	3:17 p. m.	3:57 p. m.	.42	.08	.17	.19	.24	.30	.35	.57	.68						
May 4	6:41 p. m.	[3] D. N. a.m.	1.01	7:49 p. m.	8:06 p. m.	.01	.19	.21	.42	.51										
June 7	1:07 p. m.	2:17 p. m.	.68	1:39 p. m.	1:55 p. m.	.08	.18	.43	.53	.58										
June 24	6:42 p. m.	7:08 p. m.	.71	6:43 p. m.	7:05 p. m.	T.	.27	.34	.45	.63	.71									
June 25	4:20 p. m.	4:58 p. m.	.47	4:28 p. m.	4:34 p. m.	.01	.27	.34												
July 21	7:10 p. m.	7:42 p. m.	.82	7:13 p. m.	7:38 p. m.	.01	.22	.37	.51	.66	.81									
Aug. 4	4:55 p. m.	5:54 p. m.	.38	5:38 p. m.	5:48 p. m.	.01	.19	.37												
Aug. 4	9:24 p. m.	10:00 p. m.	.48	9:27 p. m.	9:44 p. m.	.01	.08	.27	.41	.47										
Aug. 5	12:44 p. m.	5:10 p. m.	1.12	12:50 p. m.	1:15 p. m.	.02	.20	.43	.56	.67	.77									
Aug. 29	10:48 p. m.	[3] D. N. a.m.	.92	11:26 p. m.	11:51 p. m.	.04	.10	.31	.45	.66	.76									
Fort Wayne, Ind.:																				
June 7	9:58 a. m.	11:15 a. m.	.95	10:12 a. m.	10:47 a. m.	.01	.08	.14	.20	.46	.68	.83	.88							
July 13	9:30 p. m.	[3] D. N. a.m.	.48	9:34 p. m.	9:48 p. m.	.01	.10	.31	.39											
July 31	2:00 a. m.	3:45 a. m.	1.40	2:05 a. m.	2:55 a. m.	.01	.09	.13	.24	.27	.28	.30	.43	.75	1.04	1.13				
Detroit, Mich.:																				
Apr. 7	4:47 p. m.	5:08 p. m.	.36	4:47 p. m.	4:58 p. m.	0	.23	.32	.35											
June 13	1:38 p. m.	2:50 p. m.	1.12	1:42 p. m.	2:13 p. m.	.01	.17	.43	.69	.81	.93	1.04	1.09							
June 20	12:08 p. m.	1:46 p. m.	1.58	1:05 p. m.	1:36 p. m.	.12	.06	.38	.80	1.15	1.31	1.43	1.45							
July 14	3:51 p. m.	4:23 p. m.	.93	3:53 p. m.	4:14 p. m.	.01	.13	.35	.64	.88	.92									
Aug. 4	5:30 p. m.	7:35 p. m.	.69	7:00 p. m.	7:15 p. m.	.03	.23	.49	.64											
Aug. 4	8:48 p. m.	D. N. p.m.	.48	8:53 p. m.	9:04 p. m.	.01	.27	.37	.40											
Sept. 20	6:35 p. m.	8:55 p. m.	1.16	6:53 p. m.	7:15 p. m.	.01	.09	.14	.41	.65	.69									
Sept. 21	12:13 p. m.	4:55 p. m.	1.71	3:20 p. m.	4:17 p. m.	.64	.07	.21	.40	.59	.66	.77	.80	.81	.83	.89	1.05			
Oct. 5	1:20 p. m.	3:10 p. m.	1.46	1:34 p. m.	2:12 p. m.	.01	.40	.75	.90	.99	1.08	1.15	1.29	1.39						
UPPER LAKE REGION.																				
Alpena, Mich.:																				
June 19	12:20 p. m.	4:10 p. m.	1.88	12:37 p. m.	1:09 p. m.	.01	.32	.75	.98	1.00	1.05	1.14	1.17							
June 19	12:20 p. m.	4:10 p. m.	1.88	1:48 p. m.	2:25 p. m.	1.18	.10	.20	.35	.45	.54	.59	.64	.68						
July 4	2:50 p. m.	5:05 p. m.	.45	3:01 p. m.	3:12 p. m.	.03	.17	.32	.34											
Aug. 23	7:25 a. m.	9:25 a. m.	.98	7:28 a. m.	7:53 a. m.	.01	.09	.18	.42	.66	.75									
Escanaba, Mich.:																				
June 15	4:15 p. m.	7:45 p. m.	1.01	4:27 p. m.	4:51 p. m.	.01	.11	.25	.49	.66	.78									
June 24	D. N. a.m.	7:45 a. m.	1.54	4:52 a. m.	5:37 a. m.	.05	.09	.22	.34	.46	.53	.56	.59	.65	.77					
Grand Haven, Mich.:																				
Sept. 20	4:24 p. m.	8:20 p. m.	2.29	6:09 p. m.	6:54 p. m.	.32	.08	.18	.26	.46	.70	.89	.97	1.12	1.48					
Sept. 20	4:24 p. m.	8:20 p. m.	2.29	7:35 p. m.	7:48 p. m.	1.89	.17	.30	.39											
Oct. 3	7:58 a. m.	8:48 a. m.	.73	8:00 a. m.	8:09 a. m.	T.	.42	.68												
Grand Rapids, Mich.:																				
June 11	12:53 p. m.	1:50 p. m.	.78	12:53 p. m.	1:12 p. m.	0	.08	.37	.61	.73										
Aug. 4	8:55 p. m.	D. N. p.m.	.71	10:33 p. m.	10:55 p. m.	.02	.17	.32	.46	.60	.67									
Sept. 20	10:20 a. m.	2:50 p. m.	1.20	1:51 p. m.	2:26 p. m.	.38	.10	.21	.36	.54	.62	.71	.77							
Oct. 31	[2] 9:40 p. m.	8:30 a. m.	1.25	12:27 a. m.	12:42 a. m.	.16	.20	.38	.45											
Houghton, Mich.:																				
Aug. 13	3:00 p. m.	3:30 p. m.	.55	3:06 p. m.	3:23 p. m.	.03	.10	.31	.48	.52										
Lansing, Mich.:																				
June 19	11:04 a. m.	12:05 p. m.	.79	11:12 a. m.	11:30 a. m.	.02	.26	.53	.69	.73										
Aug. 4	6:19 p. m.	[3] D. N. a.m.	1.75	8:00 p. m.	8:27 p. m.	.82	.11	.20	.36	.40	.53	.62								
Aug. 29	6:21 p. m.	D. N. p.m.	.58	8:42 p. m.	8:58 p. m.	.18	.15	.25	.36	.38										
Ludington, Mich.:																				
Sept. 21	12:25 a. m.	D. N. a.m.	.86	12:26 a. m.	1:00 a. m.	.01	.14	.19	.29	.37	.47	.53	.57							
Sept. 29	[3] D. N. p.m.	D. N. a.m.	1.58	12:28 a. m.	1:00 a. m.	.61	.08	.24	.27	.51	.68	.74	.80							
Marquette, Mich.:																				
July 3	4:35 p. m.	[2] 5:50 a. m.	1.39	5:23 p. m.	5:36 p. m.	.03	.34	.55	.64											
Port Huron, Mich.:																				
Aug. 14	5:25 p. m.	5:50 p. m.	.36	5:32 p. m.	5:42 p. m.	T.	.20	.34												
Sept. 20	7:45 p. m.	[3] 9:10 a. m.	1.44	10:20 p. m.	10:40 p. m.	.23	.10	.17	.31	.44										
Saginaw, Mich.:																				
May 16	12:09 p. m.	2:09 p. m.	.44	12:15 p. m.	12:25 p. m.	.02	.11	.30												
June 11	3:56 p. m.	6:37 p. m.	1.35	4:10 p. m.	4:35 p. m.	.03	.08	.33	.62	.78	1.03									
July 27	7:08 p. m.	10:50 p. m.	.91	9:13 p. m.	9:28 p. m.	.19	.23	.47	.65											
Aug. 18	1:12 p. m.	2:28 p. m.	.52	1:16 p. m.	1:26 p. m.	.01	.35	.47												
Oct. 10	11:38 a. m.	12:40 p. m.	.61	11:54 a. m.	12:11 p. m.	.06	.22	.38	.51	.54										

[2] On previous date. [3] On following date.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
UPPER LAKE REGION—contd.																				
Sault Ste. Marie, Mich.[1]																				
Chicago Univ., Ill.:																				
June 6[4]	11:41 a.m.	12:27 p.m.	.45	11:59 a.m.	12:05 p.m.	0.01	0.35	0.38												
Oct. 9–10	10:45 p.m.	D.N.a.m.	2.24	11:26 p.m.	12:38 a.m.	.06	.13	.31	0.40	0.45	0.53	0.73	1.09	1.41	1.57	1.68	1.87	2.17		
Green Bay, Wis.:																				
May 31	1:45 p.m.	2:55 p.m.	1.28	2:09 p.m.	2:43 p.m.	.06	.08	.17	.49	.67	.86	1.06	1.21							
July 4	11:45 a.m.	12:35 p.m.	.51	11:53 a.m.	12:10 p.m.	.01	.25	.26	.43	.46										
July 14	3:30 a.m.	5:25 a.m.	2.52	4:01 a.m.	4:50 a.m.	.17	.18	.50	.67	.99	1.38	1.63	1.72	1.84	2.10	2.16				
Milwaukee, Wis.:																				
July 14	1:02 p.m.	3:00 p.m.	.78	1:51 p.m.	1:57 p.m.	.27	.41	.43												
July 21	3:45 p.m.	4:20 p.m.	.70	4:00 p.m.	4:15 p.m.	.07	.33	.56	.63											
July 27	4:50 p.m.	7:40 p.m.	.53	5:39 p.m.	5:49 p.m.	.02	.20	.31												
July 30	6:40 p.m.	8:00 p.m.	.49	6:56 p.m.	7:12 p.m.	.02	.12	.28	.40	.42										
Aug. 4	8:50 p.m.	D.N.p.m.	.88	8:56 p.m.	9:17 p.m.	.01	.24	.52	.71	.78	.83									
Sept. 20	2:54 p.m.	3:35 p.m.	.84	3:04 p.m.	3:23 p.m.	.04	.11	.33	.63	.77										
Sept. 21	12:01 a.m.	4:30 a.m.	1.08	12:09 a.m.	12:28 a.m.	.02	.06	.20	.35	.42										
Oct. 3	5:20 a.m.	8:15 a.m.	.59	6:06 a.m.	6:23 a.m.	.07	.14	.28	.36	.41										
Oct. 30	7:05 p.m.	[2]D.N.a.m.	1.49	8:48 p.m.	9:15 p.m.	.07	.14	.31	.39	.55	.63	.68								
Duluth, Minn.:																				
June 1	7:30 p.m.	D.N.p.m.	.81	8:00 p.m.	8:40 p.m.	.19	.11	.26	.32	.37	.43	.46	.51	.61						
July 8	[2]D.N.p.m.	D.N.a.m.	.93	1:51 a.m.	2:04 a.m.	.24	.14	.37	.45											
NORTH DAKOTA.																				
Moorhead, Minn.:																				
June 22	7:25 a.m.	8:05 a.m.	.92	7:33 a.m.	7:46 a.m.	.01	.27	.80	.90											
July 2	7:20 p.m.	[3]3:25 a.m.	.91	7:27 p.m.	7:46 p.m.	.02	.22	.29	.38	.44										
July 13	6:00 p.m.	7:15 p.m.	1.52	6:05 p.m.	6:44 p.m.	.02	.10	.18	.22	.37	.60	.99	1.35	1.46						
July 19	12:15 a.m.	5:10 a.m.	1.82	1:19 a.m.	2:38 a.m.	.18	.10	.17	.29	.47	.54	.55	.57	.63	.64	.70	.92	1.28		
Aug. 3	1:05 a.m.	3:10 a.m.	.58	1:08 a.m.	1:25 a.m.	.01	.18	.22	.43	.45										
Aug. 6	2:10 a.m.	3:25 a.m.	.67	2:25 a.m.	2:40 a.m.	.05	.12	.47	.59											
Aug. 28	8:10 p.m.	9:15 p.m.	.53	8:53 p.m.	9:06 p.m.	.02	.34	.46	.50											
Sept. 13	6:10 a.m.	8:35 a.m.	.52	6:15 a.m.	6:33 a.m.	.01	.13	.27	.38	.43										
Bismarck, N. Dak.:																				
Aug. 4	7:20 a.m.	8:15 a.m.	.89	7:23 a.m.	7:43 a.m.	.01	.24	.53	.69	.79										
Ellendale, N. Dak.:																				
June 21	[3]8:25 p.m.	6:05 a.m.	1.54	12:51 a.m.	1:21 a.m.	.47	.05	.09	.20	.36	.47	.52								
July 2	6:46 p.m.	D.N.p.m.	1.15	6:57 p.m.	7:21 p.m.	.01	.15	.32	.41	.50	.57									
Devils Lake, N. Dak.:																				
May 30	12:40 p.m.	2:00 p.m.	.71	12:41 p.m.	1:21 p.m.	.01	.13	.29	.30	.32	.46	.48	.52	.60						
July 1	6:23 a.m.	6:50 a.m.	.58	6:28 a.m.	6:43 a.m.	.01	.15	.36	.55											
Aug. 2	8:17 p.m.	D.N.p.m.	.93	8:22 p.m.	8:51 p.m.	.01	.31	.55	.61	.69	.80	.84								
Williston, N. Dak.:																				
June 12	[2]11:40 p.m.	5:07 a.m.	2.08	1:44 a.m.	2:13 a.m.	.10	.12	.43	.74	.89	.94	.97								
June 12	[2]11:40 p.m.	5:07 a.m.	2.08	3:25 a.m.	3:41 a.m.	1.11	.07	.24	.85	.92										
June 29	8:50 p.m.	10:10 p.m.	.50	9:04 p.m.	9:25 p.m.	.01	.08	.23	.37	.42	.45									
July 2[4]	D.N.a.m.	D.N.a.m.	.62	12:48 a.m.	1:20 a.m.	T.	.16	.25	.31	.37	.46	.58	.60							
Sept. 6	9:22 p.m.	[3]D.N.a.m.	.93	9:38 p.m.	9:50 p.m.	.06	.31	.55	.60											
UPPER MISS. VALLEY.																				
Minneapolis, Minn.:																				
July 13	10:48 p.m.	[3]D.N.a.m.	2.22	11:10 p.m.	11:58 p.m.	.08	.11	.32	.57	.84	.86	.86	.86	1.28	1.81	1.95				
Aug. 6	8:50 a.m.	9:55 a.m.	.80	9:04 a.m.	9:36 a.m.	.03	.08	.26	.36	.52	.61	.71	.76							
St. Paul, Minn.:																				
June 9	3:35 p.m.	9:00 p.m.	.59	3:40 p.m.	3:55 p.m.	.01	.12	.29	.41											
June 22	10:25 p.m.	[3]12:15 a.m.	.60	10:33 p.m.	10:50 p.m.	.02	.11	.23	.39	.46										
July 13–14	11:05 p.m.	3:00 a.m.	2.72	11:07 p.m.	12:16 a.m.	.01	.14	.25	.52	.79	1.19	1.52	1.62	1.70	1.71	1.88	2.20	2.48		
July 20	3:50 p.m.	7:15 p.m.	1.64	4:20 p.m.	5:25 p.m.	.04	.11	.26	.51	.75	.82	.83	.83	.87	1.04	1.26	1.42	1.50		
Aug. 3	7:15 a.m.	8:55 a.m.	.98	7:52 a.m.	8:16 a.m.	.05	.11	.25	.45	.66	.87									
La Crosse, Wis.:																				
June 19	4:56 p.m.	7:05 p.m.	1.11	4:59 p.m.	5:20 p.m.	.01	.25	.57	.81	.97	1.00									
July 30	5:32 p.m.	7:30 p.m.	.60	5:52 p.m.	6:03 p.m.	.01	.42	.53	.58											
Sept. 9	7:35 p.m.	D.N.p.m.	.70	8:28 p.m.	8:49 p.m.	.19	.10	.18	.31	.45	.49									
Madison, Wis.:																				
May 31	6:30 p.m.	8:15 p.m.	1.71	6:32 p.m.	6:57 p.m.	.01	.20	.54	.89	1.30	1.60									
June 11	1:25 p.m.	3:15 p.m.	.56	1:30 p.m.	1:45 p.m.	.01	.13	.27	.37											
June 14[4]	12:30 p.m.	1:35 p.m.	.60	12:30 p.m.	12:55 p.m.	0	.11	.23	.34	.46	.57									
July 14	1:58 p.m.	2:26 p.m.	.54	2:01 p.m.	2:10 p.m.	.02	.29	.49												
Sept. 20	9:22 p.m.	[3]4:00 a.m.	1.91	10:34 p.m.	11:06 p.m.	.44	.11	.47	.72	.89	.96	1.04	1.09							
Sept. 28	6:10 p.m.	[3]D.N.a.m.	1.26	10:38 p.m.	11:02 p.m.	.08	.12	.24	.41	.57	.67									
October 3	D.N.a.m.	7:15 a.m.	.65	3:25 a.m.	3:39 a.m.	.01	.20	.33	.40											
October 3	11:21 a.m.	2:00 p.m.	.40	11:21 a.m.	11:26 a.m.	0	.27													
October 4	[3]D.N.p.m.	D.N.a.m.	1.33	12 midnt.	12:35 a.m.	.01	.22	.43	.49	.60	.65	.69	.78							
Wausau, Wis.:																				
June 14	6:55 p.m.	8:46 p.m.	.79	7:29 p.m.	8:17 p.m.	.06	.13	.26	.30	.39	.30	.30	.32	.44	.66	.72				
July 14	D.N.a.m.	5:00 a.m.	1.21	2:27 a.m.	2:47 a.m.	.01	.18	.42	.69	.75										
July 25	6:29 p.m.	8:20 p.m.	.80	6:39 p.m.	7:01 p.m.	.01	.16	.32	.49	.53	.65									
July 30	6:01 a.m.	8:41 p.m.	1.70	7:04 a.m.	7:14 a.m.	.12	.21	.31												
Aug. 4	5:20 a.m.	9:45 a.m.	.47	5:43 a.m.	5:53 a.m.	.02	.22	.30												

[1] No excessive precipitation. [2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
UPPER MISS. VALLEY—continued.																				
Charles City, Iowa:																				
May 31	5:27 p.m.	7:45 p.m.	0.87	6:10 p.m.	6:35 p.m.	0.08	0.16	0.35	0.46	0.63	0.69									
June 9	4:59 p.m.	6:30 p.m.	1.12	5:45 p.m.	6:15 p.m.	.09	.05	.10	.17	.37	.76	1.00								
June 10	4:45 p.m.	8:30 p.m.	1.31	6:42 p.m.	7:09 p.m.	.55	.22	.33	.44	.56	.69	.73								
June 15	11:12 a.m.	11:35 a.m.	.34	11:17 a.m.	11:27 a.m.	.01	.13	.31												
June 18	4:42 p.m.	5:18 p.m.	.71	4:51 p.m.	5:06 p.m.	.01	.20	.50	.66											
July 13	8:04 p.m.	10:00 p.m.	1.66	8:41 p.m.	9:21 p.m.	.03	.15	.38	.65	1.01	1.19	1.25	1.32	1.41						
July 13-14	11:15 p.m.	12:15 a.m.	1.15	11:34 p.m.	12:07 a.m.	.04	.24	.55	.71	.83	.94	1.07	1.11							
Sept. 9	10:38 p.m.	[2] 2:20 a.m.	1.27	11:20 p.m.	11:38 p.m.	.15	.15	.25	.36	.43										
Oct. 3-4	9:32 p.m.	3:45 a.m.	1.24	11:57 p.m.	12:12 a.m.	.24	.25	.62	.75											
Davenport, Iowa:																				
Mar. 16 [4]	[2] 7:03 p.m.	7:00 a.m.	2.26	D. N. a.m.	D. N. a.m.															
June 3	3:30 a.m.	5:15 a.m.	.69	3:36 a.m.	3:46 a.m.	.01	.40	.52												
July 9	3:45 p.m.	7:13 p.m.	1.88	4:13 p.m.	5:27 p.m.	.01	.22	.51	.95	1.18	1.24	1.39	1.43	1.45	1.46	1.47	1.62	1.84		
Aug. 6	12:15 p.m.	2:00 p.m.	1.21	12:19 p.m.	12:53 p.m.	.03	.13	.32	.68	.92	1.01	1.08	1.13							
Aug. 20	9:00 p.m.	10:30 p.m.	1.09	9:05 p.m.	9:22 p.m.	.03	.36	.74	.97	1.04										
Sept. 30	[2] 9:45 p.m.	9:35 a.m.	3.48	4:28 a.m.	5:22 a.m.	.77	.20	.52	.74	.93	1.16	1.59	1.99	2.11	2.20	2.28	2.36			
Oct. 4	4:47 p.m.	8:15 p.m.	2.02	5:00 p.m.	5:59 p.m.	.10	.17	.56	.83	.98	1.02	1.06	1.11	1.25	1.38	1.49	1.61			
Des Moines, Iowa:																				
Mar. 15	1:07 p.m.	6:05 p.m.	1.56	1:10 p.m.	1:22 p.m.	.02	.16	.34	.39											
Mar. 15	1:07 p.m.	6:05 p.m.	1.56	2:33 p.m.	2:41 p.m.	.75	.25	.36												
May 4	11:50 p.m.	D. N. a.m.	1.13	12:32 a.m.	1:11 a.m.	.06	.19	.38	.54	.58	.60	.78	.89	.93						
May 6	D. N. a.m.	D. N. a.m.	.43	1:21 a.m.	1:28 a.m.	.06	.20	.33												
June 1	[2] 8:30 p.m.	6:29 a.m.	1.14	6:07 a.m.	6:18 a.m.	.64	.19	.47	.49											
June 3	6:48 p.m.	[3] D. N. a.m.	1.26	7:37 p.m.	8:02 p.m.	.10	.17	.22	.33	.49	.57									
June 18	4:05 p.m.	6:05 p.m.	.62	5:02 p.m.	5:33 p.m.	.01	.15	.26	.33	.39	.46	.54	.58							
June 20	6:48 p.m.	D. N. p.m.	.68	6:56 p.m.	7:12 p.m.	.02	.09	.31	.53	.57										
July 31	4:14 p.m.	6:38 p.m.	1.21	4:23 p.m.	4:39 p.m.	.01	.39	.85	1.01	1.03										
Sept. 18	9:55 a.m.	4:20 p.m.	1.16	1:28 p.m.	2:03 p.m.	.45	.06	.12	.20	.37	.46	.53	.61							
Sept. 18	7:43 p.m.	D. N. p.m.	1.15	8:13 p.m.	8:46 p.m.	.01	.13	.22	.37	.53	.58	.65	.70							
Sept. 20	8:05 p.m.	[3] D. N. a.m.	1.76	8:12 p.m.	8:57 p.m.	.02	.12	.28	.48	.76	.83	.93	1.01	1.13	1.24					
Oct. 4	[2] 10:10 p.m.	4:45 a.m.	.53	4:28 a.m.	4:39 a.m.	.16	.15	.36	.37											
Nov. 9	[2] 9:25 p.m.	[3] D. N. a.m.	2.65	12:01 p.m.	12:27 p.m.	.81	.25	.28	.37	.49	.53	.57								
Dubuque, Iowa:																				
Apr. 7	3:00 p.m.	5:05 p.m.	.63	3:42 p.m.	3:51 p.m.	.04	.19	.30												
June 1	6:15 p.m.	[3] D. N. a.m.	1.72	8:58 p.m.	9:38 p.m.	.67	.18	.29	.40	.47	.49	.53	.58	.66						
June 3	8:10 p.m.	[4] D. N. a.m.	.66	8:22 p.m.	8:37 p.m.	.01	.06	.22	.37											
June 23	8:55 p.m.	D. N. p.m.	1.44	9:30 p.m.	10:03 p.m.	.16	.16	.31	.51	.74	.99	1.17	1.22							
July 4	2:55 p.m.	6:40 p.m.	1.47	3:11 p.m.	3:26 p.m.	.02	.09	.48	.68											
July 9	11:15 a.m.	3:40 p.m.	3.82	11:37 a.m.	11:52 a.m.	.06	.11	.27	.36											
July 9	11:15 a.m.	3:40 p.m.	3.82	1:51 p.m.	2:36 p.m.	1.13	.17	.51	1.17	1.71	1.91	2.16	2.40	2.51	2.64					
July 30	7:40 p.m.	D. N. p.m.	.90	8:17 p.m.	8:54 p.m.	.03	.05	.08	.13	.19	.30	.42	.61	.66						
July 31	D. N. a.m.	D. N. a.m.	.68	2:39 a.m.	2:49 a.m.	.01	.16	.30												
July 31	D. N. a.m.	D. N. a.m.	.68	3:09 a.m.	3:18 a.m.	.34	.17	.32												
Oct. 4	3:05 p.m.	5:30 p.m.	3.06	3:18 p.m.	4:38 p.m.	.04	.15	.35	.70	1.27	1.63	1.98	2.18	2.33	2.44	2.54	2.66	2.97		
Keokuk, Iowa:																				
May 4	[2] 10:55 p.m.	6:23 a.m.	1.30	1:14 a.m.	1:24 a.m.	.03	.12	.43												
May 6	4:55 p.m.	7:20 p.m.	.78	5:22 p.m.	5:47 p.m.	.01	.19	.37	.50	.63	.68									
July 5	5:16 p.m.	D. N. p.m.	1.03	8:52 p.m.	9:12 p.m.	.46	.17	.35	.43	.49										
July 31	10:45 p.m.	[3] 1:05 a.m.	1.06	10:47 p.m.	11:17 p.m.	.01	.14	.40	.59	.69	.82	.92								
Aug. 6	8:55 p.m.	12 midnt.	1.52	9:07 p.m.	10:11 p.m.	.03	.06	.11	.19	.36	.45	.54	.68	.85	1.04	1.24	1.36	1.48		
Aug. 12	9:25 a.m.	10:05 a.m.	1.06	9:29 a.m.	9:59 a.m.	.02	.30	.59	.74	.75	.87	1.01								
Sept. 18	2:25 p.m.	4:00 p.m.	.84	2:43 p.m.	3:02 p.m.	.03	.17	.39	.52	.61										
Sept. 21	D. N. a.m.	7:35 a.m.	1.19	12:55 a.m.	1:25 a.m.	.23	.15	.17	.31	.46	.62	.76								
Sept. 28	D. N. a.m.	7:02 a.m.	1.44	6:08 a.m.	6:43 a.m.	.30	.05	.25	.28	.34	.57	.92	1.12							
Cairo, Ill.:																				
Apr. 8	D. N. a.m.	6:15 a.m.	1.11	4:13 a.m.	4:52 a.m.	.44	.19	.25	.31	.33	.44	.51	.58	.64						
June 3	[2] 2:28 p.m.	8:25 p.m.	.47	2:35 p.m.	2:45 p.m.	.01	.16	.30												
June 8	4:36 p.m.	7:25 p.m.	1.25	4:40 p.m.	5:06 p.m.	.01	.10	.30	.57	.77	.89	.93								
July 15	5:18 a.m.	6:02 a.m.	.37	5:18 a.m.	5:26 a.m.	0	.28	.35												
Aug. 13	6:14 p.m.	7:38 p.m.	1.02	6:22 p.m.	6:53 p.m.	.01	.09	.40	.71	.84	.93	.98	1.00							
Aug. 16	[2] 11:57 p.m.	D. N. a.m.	1.08	12:08 a.m.	12:28 a.m.	.01	.19	.38	.51	.57										
Sept. 20	10:22 a.m.	8:43 p.m.	.76	4:20 p.m.	4:30 p.m.	.29	.09	.31												
Oct. 9	[2] D. N. p.m.	5:43 a.m.	1.40	12:06 a.m.	12:46 a.m.	.10	.15	.17	.19	.23	.29	.39	.65	.78						
Nov. 1	D. N. a.m.	8:44 a.m.	1.23	5:25 a.m.	5:38 a.m.	.71	.15	.36	.44											
Peoria, Ill.:																				
Mar. 15	9:55 a.m.	2:20 p.m.	1.55	10:14 a.m.	10:34 a.m.	.01	.21	.33	.50	.55										
Mar. 16	[2] 10:40 p.m.	6:25 a.m.	.58	4:51 a.m.	5:01 a.m.	.09	.28	.40												
June 20	6:19 p.m.	7:19 p.m.	1.05	6:26 p.m.	6:52 p.m.	.01	.09	.33	.63	.85	1.02	1.03								
July 5	6:09 p.m.	8:00 p.m.	.81	6:16 p.m.	7:05 p.m.	.02	.07	.15	.18	.27	.34	.41	.47	.57	.67	.72				
July 28	3:45 p.m.	5:15 p.m.	.52	3:52 p.m.	4:09 p.m.	.04	.14	.26	.45	.47										
Aug. 6	1:50 p.m.	2:57 p.m.	1.23	2:20 p.m.	2:48 p.m.	.06	.16	.44	.77	1.00	1.09	1.17								
Aug. 20-21	11:35 p.m.	12:20 a.m.	1.48	11:42 p.m.	12:17 a.m.	.01	.09	.32	.56	.68	.87	1.33	1.46							
Aug. 24	11:55 a.m.	12:25 p.m.	.56	12:02 p.m.	12:14 p.m.	.01	.29	.48	.54											
Springfield, Ill.:																				
June 2	D. N. a.m.	D. N. a.m.	.62	12:20 a.m.	12:33 a.m.	.01	.20	.33	.49											
June 3	4:35 p.m.	8:44 p.m.	1.49	6:09 p.m.	6:47 p.m.	.24	.14	.32	.41	.48	.62	.64	.72	.77						
June 22	3:15 p.m.	[7] D. N. a.m.	1.03	3:32 p.m.	3:44 p.m.	.14	.24	.35	.39											
July 9	8:16 p.m.	D. N. p.m.	.80	8:18 p.m.	8:32 p.m.	.01	.18	.40	.58											
Oct. 31	D. N. a.m.	9:40 a.m.	.75	4:11 a.m.	4:19 a.m.	.06	.27	.32												

[2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration. From—	Total duration. To—	Total amount of precipitation (inches).	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began (inches).	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
UPPER MISS. VALLEY—continued.																				
Hannibal, Mo.:																				
Mar. 16	D. N. a. m.	D. N. a. m.	0.64	3:04 a. m.	3:24 a. m.	0.04	0.14	0.38	0.46	0.51										
Apr. 14	5:25 a. m.	6:38 a. m.	.56	6:02 a. m.	6:17 a. m.	.13	.09	.28	.35											
May 6	6:22 p. m.	D. N. p. m.	.87	6:48 p. m.	6:59 p. m.	.01	.22	.46	.50											
May 26	5:37 p. m.	7:06 p. m.	1.51	5:48 p. m.	6:25 p. m.	.01	.16	.38	.56	.85	1.04	1.30	1.45	1.49						
June 18	6:27 p. m.	8:36 p. m.	.64	6:31 p. m.	6:46 p. m.	.01	.26	.47	.57											
July 9	8:39 p. m.	9:18 p. m.	.39	8:53 p. m.	9:01 p. m.	.02	.27	.36												
July 9	D. N. p. m.	[2]D. N. a. m.	1.15	10:14 p. m.	10:38 p. m.	.02	.22	.58	.75	.92	1.00									
July 14	2:51 p. m.	4:55 p. m.	.92	3:02 p. m.	3:28 p. m.	.01	.15	.37	.60	.69	.81	.84								
Aug. 6-7	D. N. p. m.	D. N. a. m.	.78	11:27 p. m.	12:06 a. m.	.01	.07	.11	.18	.23	.35	.42	.55	.60						
Aug. 29	D. N. a. m.	5:15 a. m.	.73	3:20 a. m.	3:36 a. m.	.05	.10	.31	.53	.59										
Sept. 18	7:20 p. m.	9:10 p. m.	.98	8:11 p. m.	8:48 p. m.	.07	.21	.26	.27	.37	.49	.67	.82	.88						
Oct. 4	1:55 p. m.	3:20 p. m.	.65	2:40 p. m.	2:58 p. m.	.07	.05	.22	.47	.53										
St. Louis, Mo.:																				
May 4	4:55 p. m.	6:40 p. m.	.58	5:39 p. m.	5:55 p. m.	.04	.18	.33	.45	.47										
May 4	6:47 p. m.	D. N. p. m.	.82	7:13 p. m.	7:25 p. m.	.02	.43	.68	.72											
May 6	9:40 p. m.	D. N. p. m.	.81	9:59 p. m.	10:24 p. m.	T.	.13	.46	.64	.71	.77									
May 23	2:25 p. m.	4:50 p. m.	.45	2:33 p. m.	2:39 p. m.	.04	.34	.37												
May 26	4:25 p. m.	[3] 6:25 a. m.	1.24	4:50 p. m.	5:09 p. m.	.02	.12	.36	.44											
June 11	2:42 p. m.	2:56 p. m.	.33	2:42 p. m.	2:49 p. m.	0	.25	.32												
June 16	3:05 p. m.	4:15 p. m.	.82	3:16 p. m.	3:33 p. m.	T.	.21	.58	.72	.75										
June 17	2:23 p. m.	3:25 p. m.	1.22	2:23 p. m.	2:52 p. m.	0	.22	.51	.78	1.08	1.12	1.19								
June 22	11:13 a. m.	11:35 a. m.	.54	11:19 a. m.	11:29 a. m.	.01	.29	.52												
Aug. 20	10:30 a. m.	1:15 p. m.	1.10	10:52 a. m.	11:07 a. m.	T.	.32	.47	.53											
Aug. 20	10:30 a. m.	1:15 p. m.	1.10	11:45 a. m.	11:56 a. m.	.55	.17	.37	.38											
Sept. 21	6:55 a. m.	1:45 p. m.	1.25	7:36 a. m.	8:18 a. m.	T.	.12	.14	.21	.24	.43	.50	.61	.68	0.70					
				6:06 p. m.	6:56 p. m.	.12	.14	.42	.70	[4] .90	[4] 1.09	[4] 1.23	[4] 1.38	1.62	1.88	1.99				
Sept. 28	2:30 p. m.	8:45 p. m.	3.73	6:56 p. m.	7:46 p. m.		2.16	2.40	2.44	2.47	2.50	2.50	2.52	2.57	2.65	2.75				
				7:46 p. m.	8:30 p. m.		2.82	2.83	2.87	2.96	3.11	3.33	3.46	3.54	3.59					
MISSOURI VALLEY.																				
Columbia, Mo.:																				
Apr. 29	3:31 p. m.	4:13 p. m.	.65	3:42 p. m.	3:53 p. m.	.01	.42	.61	.64											
May 16	[2]D. N. p. m.	5:05 a. m.	1.12	3:54 a. m.	4:18 a. m.	.41	.17	.31	.44	.57	.67									
May 31	1:55 p. m.	3:25 p. m.	1.08	1:58 p. m.	2:25 p. m.	.01	.05	.22	.40	.67	.86	.91								
July 8	2:35 p. m.	4:07 p. m.	.96	2:53 p. m.	3:10 p. m.	.05	.28	.72	.83	.88										
Aug. 7	12:16 a. m.	7:18 a. m.	1.31	4:46 a. m.	5:03 a. m.	.47	.15	.38	.52	.55										
Aug. 15	6:23 p. m.	[3]D. N. a. m.	1.09	7:13 p. m.	7:38 p. m.	.02	.05	.21	.48	.73	.81									
Sept. 11	D. N. a. m.	D. N. a. m.	.32	12:26 a. m.	12:36 a. m.	.02	.20	.30												
Sept. 17	4:57 p. m.	5:16 p. m.	.27	4:59 p. m.	5:05 p. m.	.01	.25	.26												
Sept. 18	6:11 p. m.	6:49 p. m.	.69	6:20 p. m.	6:41 p. m.	.01	.24	.34	.43	.63	.67									
Kansas City, Mo.:																				
June 11	D. N. a. m.	5:35 a. m.	.60	5:07 a. m.	5:19 a. m.	.16	.22	.40	.44											
June 22	3:30 p. m.	6:13 p. m.	.73	5:17 p. m.	5:47 p. m.	.11	.08	.18	.28	.41	.53	.60								
June 26	2:45 a. m.	5:05 a. m.	.64	2:52 a. m.	3:12 a. m.	.01	.13	.22	.32	.43										
Aug. 27	8:45 p. m.	[3]D. N. a. m.	2.39	10:11 p. m.	11:37 p. m.	.32	.10	.13	.18	.35	.55	.65	.68	.69	.71	.74	0.90	1.10	1.27	
Aug. 28	4:05 a. m.	7:25 a. m.	.77	4:10 a. m.	4:25 a. m.	.01	.13	.26	.35											
				9:06 a. m.	9:56 a. m.	.20	.05	.11	.22	.30	.31	.33	.51	.60	.70	.81				
Aug. 28	8:20 a. m.	12:25 p. m.	2.50	9:56 a. m.	10:46 a. m.		.94	.97	1.00	1.06	1.17	1.31	1.42	1.47	1.55	1.69				
				10:46 a. m.	11:25 a. m.		1.76	1.82	1.85	1.86	1.87	1.96	2.16	2.23						
Sept. 21	2:25 a. m.	8:20 a. m.	1.72	6:19 a. m.	6:41 a. m.	.83	.07	.20	.47	.72	.78									
St. Joseph, Mo.:																				
				1:07 p. m.	1:57 p. m.	.22	.10	.17	.24	.33	.37	.38	.45	.53	.58	.63				
Mar. 15	11:05 a. m.	[3] 7:30 a. m.	5.01	1:57 p. m.	2:47 p. m.		.69	.81	.95	.99	1.03	1.08	1.10	1.12	1.14	1.22				
				2:47 p. m.	3:17 p. m.		1.29	1.41	1.45	1.50	1.53	1.68								
Mar. 15	11:05 a. m.	[3] 7:30 a. m.	5.01	7:17 p. m.	8:47 p. m.	2.43	.21	.42	.44	.45	.50	.60	.77	.87	1.14	1.22	1.37	1.70	1.85	
May 2	8:03 p. m.	[3] 4:50 a. m.	2.06	8:33 p. m.	9:22 p. m.	.04	.33	.34	.35	.41	.43	.48	.61	.84	1.02	1.14				
May 3	10:32 p. m.	[3]D. N. a. m.	1.49	10:59 p. m.	11:36 p. m.	.01	.07	.21	.38	.52	.68	.79	.96	1.03						
June 10	4:20 p. m.	5:32 p. m.	.62	5:10 p. m.	5:22 p. m.	.05	.30	.52	.56											
June 11	9:05 a. m.	9:37 a. m.	.52	9:09 a. m.	9:29 a. m.	.01	.07	.19	.39	.49										
June 30	3:16 p. m.	4:22 p. m.	.49	3:26 p. m.	3:42 p. m.	.01	.24	.36	.44	.47										
Aug. 15	4:27 p. m.	5:44 p. m.	.61	4:34 p. m.	4:53 p. m.	.01	.12	.39	.50	.55										
Sept. 21	[2]D. N. p. m.	8:40 a. m.	1.77	4:46 a. m.	5:20 a. m.	.85	.05	.13	.27	.44	.60	.69	.73							
Sept. 28	5:47 p. m.	D. N. p. m.	1.05	7:35 p. m.	8:03 p. m.	.39	.07	.22	.40	.49	.61	.65								
Springfield, Mo.:																				
Apr. 28	6:37 a. m.	11:14 a. m.	1.50	8:17 a. m.	8:32 a. m.	.30	.17	.26	.37											
June 21	8:30 p. m.	[3]D. N. a. m.	1.23	8:46 p. m.	9:11 p. m.	.01	.09	.24	.43	.69	.88									
June 26	D. N. a. m.	D. N. a. m.	.62	1:57 a. m.	2:14 a. m.	.02	.14	.32	.50	.58										
June 28	7:08 a. m.	8:25 a. m.	.57	7:08 a. m.	7:20 a. m.	0	.19	.30	.34											
July 10	3:10 a. m.	4:48 a. m.	.84	3:42 a. m.	4:02 a. m.	.04	.20	.45	.62	.72										
Sept. 21	6:24 a. m.	7:52 a. m.	.90	6:24 a. m.	7:04 a. m.	0	.10	.20	.26	.49	.59	.65	.72	.80						
Oct. 26	[3] 7:33 p. m.	8:02 a. m.	1.69	1:46 a. m.	2:14 a. m.	.39	.17	.34	.54	.63	.69	.74								
Nov. 9	11:03 a. m.	[3]D. N. a. m.	1.40	11:13 p. m.	11:32 p. m.	.77	.06	.22	.40	.53										
Iola, Kans.:																				
May 18 [4]	10:20 p. m.	[3] 2:00 a. m.	1.73	11:00 p. m.	11:59 p. m.	.11											1.28			
June 13	8:15 p. m.	10:00 p. m.	.54	8:22 p. m.	8:37 p. m.	.01	.13	.33	.41											
June 22	11:25 a. m.	11:55 a. m.	.41	11:33 a. m.	11:43 a. m.	.02	.25	.37												
July 4	7:15 p. m.	[2]D. N. a. m.	.90	7:38 p. m.	8:18 p. m.	.02	.06	.16	.34	.48	.56	.61	.71	.78						
Sept. 10	8:10 p. m.	[2]D. N. a. m.	.95	8:31 p. m.	8:59 p. m.	.07	.07	.22	.41	.52										
Oct. 25	8:00 p. m.	D. N. p. m.	1.22	9:27 p. m.	9:52 p. m.	.41	.09	.20	.30	.41	.61									
Oct. 27	9:25 a. m.	4:50 p. m.	1.13	10:31 a. m.	10:50 a. m.	.13	.07	.15	.29	.41										

[2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
MISSOURI VALLEY—continued.																				
Topeka, Kans.:																				
Mar. 15	11:53 a.m.	11:59 p.m.	5.10	12:57 p.m.	1:31 p.m.	0.03	0.08	0.11	0.27	0.41	0.46	0.51	0.56							
Mar. 15	11:53 a.m.	11:59 p.m.	5.10	2:05 p.m.	3:27 p.m.	.82	.06	.11	.26	.49	.63	.68	.74	0.97	1.04	1.08	1.32	1.71	1.78	
May 15	D.N.a.m.	6:38 a.m.	1.30	5:06 a.m.	5:45 a.m.	.09	.10	.20	.25	.43	.49	.65	1.00	1.06						
June 9	5:12 a.m.	5:50 a.m.	.54	5:21 a.m.	5:33 a.m.	.01	.23	.37	.41											
June 14	10:25 a.m.	12:15 p.m.	.56	10:45 a.m.	10:54 a.m.	.04	.29	.42												
June 20	12:49 p.m.	1:13 p.m.	.43	12:51 p.m.	1:00 p.m.	.01	.16	.32												
June 22	7:25 p.m.	8:30 p.m.	.84	7:31 p.m.	7:55 p.m.	.01	.05	.22	.51	.74	.80									
Aug. 26	9:04 p.m.	D.N.p.m.	1.18	9:35 p.m.	9:46 p.m.	.05	.23	.63	.67											
Aug. 26	9:04 p.m.	D.N.p.m.	1.18	10:53 p.m.	11:03 p.m.	.79	.18	.30												
Aug. 27	9:05 p.m.	D.N.p.m.	.66	10:04 p.m.	10:25 p.m.	.01	.12	.27	.48	.62	.65									
Sept. 21	D.N.a.m.	D.N.a.m.	1.64	4:32 a.m.	5:09 a.m.	.12	.17	.32	.63	.86	1.17	1.26	1.36	1.41						
Drexel, Nebr.:																				
Apr. 21	1:07 p.m.	2:30 p.m.	1.21	1:13 p.m.	2:08 p.m.	.01	.14	.62	.75	.80	.87	.90	.90	.91	.92	1.03	1.19			
Apr. 22	10:52 p.m.	[3]D.N.a.m.	.96	10:52 p.m.	11:02 p.m.	0	.50	.68												
May 27	1:33 p.m.	2:06 p.m.	.44	1:39 p.m.	1:52 p.m.	.01	.23	.31	.42											
May 31	11:45 a.m.	3:10 p.m.	1.46	11:53 a.m.	12:44 p.m.	.04	.06	.11	.22	.35	.49	.57	.66	1.01	1.12	1.22	1.29			
May 31–June 1	7:00 p.m.	D.N.a.m.	2.90	11:22 p.m.	12:54 a.m.	.56	.13	.20	.24	.35	.58	.79	1.01	1.19	1.42	1.66	1.86	1.94	2.19	
June 8	8:13 a.m.	10:15 a.m.	.44	8:59 a.m.	9:11 a.m.	.02	.15	.37	.41											
June 19	12:40 p.m.	1:40 p.m.	.47	1:13 p.m.	1:33 p.m.	.01	.15	.24	.27	.45										
June 25	10:03 p.m.	11:00 p.m.	.64	10:17 p.m.	10:37 p.m.	.02	.17	.41	.51	.58										
June 28	10:20 a.m.	11:45 a.m.	2.15	10:49 a.m.	11:34 a.m.	.08	.14	.47	.83	1.24	1.47	1.60	1.66	1.94	2.06					
Sept. 29	5:37 p.m.	6:35 p.m.	.36	6:16 p.m.	6:26 p.m.	.05	.16	.30												
Lincoln, Nebr.:																				
May 2	10:25 p.m.	11:05 p.m.	.47	10:47 p.m.	10:56 p.m.	.01	.26	.46												
June 27	5:59 p.m.	8:45 p.m.	.81	6:01 p.m.	6:19 p.m.	.01	.16	.31	.45	.53										
Aug. 4	7:07 p.m.	8:25 p.m.	.94	7:33 p.m.	8:00 p.m.	.01	.18	.45	.64	.75	.83	.87								
Aug. 10	7:25 p.m.	8:32 p.m.	.35	7:54 p.m.	8:02 p.m.	.02	.22	.31												
Aug. 12	5:44 a.m.	8:12 a.m.	1.64	6:09 a.m.	6:56 a.m.	.03	.16	.26	.37	.49	.63	.91	1.22	1.38	1.46	1.50				
Sept. 16	2:43 p.m.	3:45 p.m.	.76	3:05 p.m.	3:21 p.m.	.02	.30	.50	.63	.67										
Omaha, Nebr.:																				
Apr. 6	D.N.p.m.	[3]D.N.a.m.	.61	11:07 p.m.	11:16 p.m.	.01	.15	.37												
Apr. 22	11:05 p.m.	[3]D.N.a.m.	.46	11:05 p.m.	11:16 p.m.	0	.21	.33	.36											
June 1	[2]D.N.p.m.	D.N.a.m.	1.04	12:13 a.m.	12:27 a.m.	.11	.21	.52	.68											
June 8	9:13 a.m.	11:10 a.m.	.69	9:29 a.m.	9:52 a.m.	.01	.08	.25	.47	.55	.60									
June 10	2:10 a.m.	4:15 a.m.	.40	2:17 a.m.	2:27 a.m.	.01	.14	.30												
June 25	10:35 p.m.	[3]D.N.a.m.	.58	10:45 p.m.	11:05 p.m.	.02	.08	.21	.38	.48										
Aug. 11	D.N.a.m.	D.N.a.m.	.66	12:51 a.m.	1:02 a.m.	.32	.08	.30	.32											
Sept. 18	5:05 a.m.	3:20 p.m.	3.49	10:35 a.m.	12:03 p.m.	1.01	.06	.12	.21	.28	.35	.43	.51	.55	.61	.69	.84	1.17	1.34	
Sept. 29	6:10 p.m.	8:55 p.m.	.83	6:26 p.m.	6:40 p.m.	.02	.24	.56	.64											
Oct. 4	[3]D.N.p.m.	D.N.a.m.	.63	12:27 a.m.	12:43 a.m.	.18	.22	.29	.42	.44										
Valentine, Nebr.:																				
Aug. 3	1:30 p.m.	3:55 p.m.	1.13	1:52 p.m.	2:16 p.m.	.01	.15	.37	.68	.92	1.02									
Sioux City, Iowa:																				
May 6[4]	D.N.a.m.	11:30 a.m.	.88	4:29 a.m.	4:36 a.m.	.01	.34	.41												
May 18	2:50 p.m.	5:40 p.m.	.78	3:58 p.m.	4:08 p.m.	.08	.21	.34												
June 9	4:30 a.m.	9:45 a.m.	2.00	4:43 a.m.	4:57 a.m.	.05	.17	.45	.66											
June 9	4:30 a.m.	9:45 a.m.	2.00	5:31 a.m.	5:45 a.m.	.74	.15	.36	.43											
June 19	4:00 a.m.	5:00 a.m.	.57	4:09 a.m.	4:29 a.m.	.01	.11	.28	.40	.51										
July 3	4:15 p.m.	5:40 p.m.	1.51	4:34 p.m.	5:16 p.m.	.03	.12	.24	.42	.71	.94	1.14	1.23	1.37	1.45					
Aug. 12	6:30 p.m.	7:15 p.m.	.45	6:42 p.m.	6:59 p.m.	.03	.13	.21	.36	.42										
Huron, S. Dak.:																				
June 15	12:45 a.m.	D.N.a.m.	.62	1:08 a.m.	1:27 a.m.	.03	.17	.30	.48	.55										
June 19	12:02 p.m.	6:20 p.m.	2.05	1:24 p.m.	1:42 p.m.	.62	.10	.24	.44	.58										
June 19	12:02 p.m.	6:20 p.m.	2.05	3:31 p.m.	3:53 p.m.	1.40	.09	.18	.29	.41	.45									
June 26	7:23 a.m.	11:20 a.m.	1.06	8:15 a.m.	8:58 a.m.	.17	.06	.12	.25	.36	.46	.54	.69	.76	.80					
July 18	5:20 p.m.	D.N.p.m.	2.72	6:47 p.m.	7:12 p.m.	.13	.24	.43	.49	.63	.69									
July 18	5:20 p.m.	D.N.p.m.	2.72	7:45 p.m.	9:38 p.m.	1.07	.05	.12	.17	.23	.29	.36	.47	.54	.60	.65	.81	.96	1.18	1.64
July 28	D.N.a.m.	D.N.a.m.	.64	2:57 a.m.	3:21 a.m.	.02	.08	.24	.38	.53	.58									
Aug. 12	3:10 p.m.	6:05 p.m.	.95	3:32 p.m.	3:52 p.m.	.02	.13	.28	.37	.44										
Pierre, S. Dak.:																				
Aug. 8	6:35 p.m.	9:25 p.m.	2.06	6:55 p.m.	7:54 p.m.	.01	.15	.34	.52	.84	1.27	1.38	1.47	1.55	1.72	1.81	1.93			
Sept. 10	8:30 a.m.	10:00 a.m.	1.20	9:02 a.m.	9:42 a.m.	.04	.06	.19	.33	.56	.57	.61	.91	1.13						
Yankton, S. Dak.:																				
July 19	2:50 a.m.	5:40 a.m.	1.06	4:07 a.m.	4:32 a.m.	.45	.10	.22	.30	.40	.49									
Aug. 3	7:15 p.m.	8:10 p.m.	.63	7:22 p.m.	7:36 p.m.	.01	.28	.50	.59											
Aug. 10	12:15 p.m.	2:15 p.m.	.63	12:22 p.m.	12:31 p.m.	.02	.36	.50												
Aug. 12	4:30 a.m.	5:15 a.m.	.54	4:32 a.m.	4:51 a.m.	.01	.20	.37	.40	.51										
Sept. 9	12:30 a.m.	5:10 a.m.	1.04	12:59 a.m.	1:24 a.m.	.03	.11	.26	.37	.45	.53									
NORTHERN SLOPE.																				
Havre, Mont.:																				
May 29	2:55 p.m.	5:47 p.m.	.65	3:01 p.m.	3:10 p.m.	.01	.35	.40												
Helena, Mont.[1]																				
Kalispell, Mont.:																				
Aug. 2	10:10 p.m.	11:00 p.m.	.46	10:17 p.m.	10:34 p.m.	.02	.16	.30	.37	.42										
Rapid City, S. Dak.:																				
June 19	6:10 p.m.	7:12 p.m.	.88	6:13 p.m.	6:45 p.m.	.01	.16	.35	.48	.57	.62	.75	.82							
June 28	6:15 p.m.	7:40 p.m.	.98	6:25 p.m.	6:45 p.m.	.01	.16	.42	.58	.69										
Cheyenne, Wyo.:																				
July 14	4:36 p.m.	6:43 p.m.	.62	5:01 p.m.	5:15 p.m.	.02	.11	.25	.36											
Lander, Wyo.[1]																				
Sheridan, Wyo.[1]																				
Yellowstone Park, Wyo.[1]																				

[1] No excessive precipitation. [2] On previous date. [3] On following date. [4] Defective record.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
NORTHERN SLOPE—continued.																				
North Platte, Nebr.:																				
June 8	1:50 p.m.	[3] D.N.a.m.	1.54	4:50 p.m.	5:15 p.m.	0.49	0.08	0.22	0.48	0.72	0.81									
July 3	1:47 p.m.	3:18 p.m.	1.21	2:04 p.m.	2:28 p.m.	.04	.33	.66	.88	.96	1.01									
July 5	3:23 a.m.	5:18 a.m.	1.35	3:26 a.m.	3:46 a.m.	.01	.22	.56	1.02	1.21										
July 13	4:41 p.m.	6:18 p.m.	.73	5:00 p.m.	5:20 p.m.	.11	.18	.38	.49	.56										
July 20	6:08 p.m.	6:28 p.m.	.40	6:11 p.m.	6:17 p.m.	.01	.32	.39												
Sept. 12	7:57 p.m.	10:50 p.m.	.72	8:01 p.m.	8:15 p.m.	.01	.13	.39	.45											
MIDDLE SLOPE.																				
Denver, Colo.:																				
July 2	4:30 p.m.	11:00 p.m.	1.34	4:40 p.m.	5:37 p.m.	.04	.10	.20	.34	.44	.42	0.52	0.63	0.65	0.76	0.87	0.99			
July 27	3:05 p.m.	6:19 p.m.	.66	3:13 p.m.	3:37 p.m.	.01	.07	.18	.33	.36	.47									
July 31	6:15 p.m.	[3] D.N.a.m.	2.59	6:55 p.m.	7:55 p.m.	.04	.20	.43	.76	1.02	1.25	1.39	1.56	1.62	1.67	1.78	1.90			
Pueblo, Colo.:																				
June 9	3:20 p.m.	4:20 p.m.	.49	3:29 p.m.	3:45 p.m.	.01	.25	.37	.43	.45										
July 19	6:40 p.m.	7:25 p.m.	.83	6:43 p.m.	7:04 p.m.	.01	.33	.60	.71	.79										
July 25	4:30 p.m.	6:05 p.m.	1.13	4:35 p.m.	5:16 p.m.	.01	.12	.22	.50	.76	.82	.89	.95	1.03						
Aug. 8	7:55 p.m.	D.N.p.m.	2.11	8:01 p.m.	8:51 p.m.	.01	.13	.48	.71	.82	1.17	1.38	1.58	1.83	1.94	2.04				
Aug. 9	6:14 p.m.	6:50 p.m.	.60	6:24 p.m.	6:39 p.m.	.01	.19	.45	.54											
Sept. 9–10	11:00 p.m.	D.N.a.m.	1.49	11:17 p.m.	12:08 a.m.	.05	.09	.38	.49	.63	.67	.82	.91	.98	1.04	1.10	1.16			
Concordia, Kans.:																				
May 31	7:59 p.m.	[3] 1:00 a.m.	1.62	8:01 p.m.	9:02 p.m.	.01	.17	.27	.35	.45	.55	.72	.81	.92	.96	1.00	1.19	1.23		
June 9	12:25 a.m.	4:00 a.m.	1.08	12:35 a.m.	1:11 a.m.	.02	.11	.21	.23	.28	.37	.52	.61	.63						
June 28	2:58 p.m.	3:48 p.m.	.83	3:00 p.m.	3:27 p.m.	.01	.22	.35	.45	.50	.71	.75								
Aug. 12	3:12 p.m.	3:50 p.m.	.58	3:21 p.m.	3:46 p.m.	.03	.07	.17	.25	.45	.55									
Dodge City, Kans.:																				
July 19	6:45 p.m.	7:45 p.m.	.64	7:01 p.m.	7:36 p.m.	.03	.07	.12	.23	.35	.43	.52	.59							
Aug. 19	5:25 p.m.	D.N.p.m.	1.02	5:40 p.m.	6:20 p.m.	.04	.14	.31	.42	.49	.51	.54	.63	.71						
Wichita, Kans.:																				
Apr. 28	5:25 a.m.	7:30 a.m.	.83	6:07 a.m.	6:27 a.m.	.03	.23	.49	.56	.70										
May 2–3	D.N.p.m.	D.N.a.m.	.52	11:53 p.m.	12:13 a.m.	.02	.11	.21	.31	.43										
May 16	1:45 a.m.	D.N.a.m.	.86	1:49 a.m.	2:25 a.m.	.01	.17	.36	.50	.56	.60	.68	.82	.85						
May 18	9:15 p.m.	[3] D.N.a.m.	1.04	11:10 p.m.	11:40 p.m.	.08	.18	.62	.72	.78	.84	.89								
May 31	D.N.p.m.	[3] D.N.a.m.	.94	11:45 p.m.	11:55 p.m.	.01	.17	.34												
Aug. 29	4:55 p.m.	7:15 p.m.	1.18	5:01 p.m.	5:19 p.m.	.01	.36	.82	1.05	1.12										
Broken Arrow, Okla.:																				
Apr. 7	D.N.a.m.	D.N.a.m.	.62	2:27 a.m.	2:46 a.m.	.01	.26	.38	.47	.52										
Apr. 9	D.N.a.m.	7:15 a.m.	.88	3:27 a.m.	3:42 a.m.	.08	.20	.50	.58											
June 6	5:40 p.m.	[3] D.N.a.m.	1.05	6:20 p.m.	6:52 p.m.	.06	.06	.17	.29	.43	.60	.70	.72							
June 14	4:45 p.m.	5:25 p.m.	.60	4:49 p.m.	5:12 p.m.	.01	.18	.37	.48	.56	.59									
June 18	3:15 p.m.	D.N.p.m.	1.31	4:24 p.m.	5:05 p.m.	.02	.27	.54	.71	.79	.83	.88	.94	1.00	1.01					
Aug. 29	1:45 a.m.	6:05 a.m.	2.22	3:26 a.m.	4:01 a.m.	.31	.17	.29	.42	.62	.78	1.17	1.36							
Oct. 26	[2] 7:30 p.m.	[7] D.N.a.m.	3.94	1:53 p.m.	2:35 p.m.	.54	.11	.30	.31	.37	.51	.64	.71	.84	.88					
Oklahoma, Okla.:																				
Apr. 7	12:01 a.m.	D.N.a.m.	.52	12:06 a.m.	12:16 a.m.	.01	.29	.35												
Apr. 9	12:23 a.m.	4:15 a.m.	1.06	12:54 a.m.	1:18 a.m.	.19	.30	.45	.57	.65	.71									
Apr. 25	8:43 a.m.	2:00 p.m.	.98	10:42 a.m.	11:08 a.m.	.07	.07	.17	.30	.38	.48	.51								
May 6	5:47 p.m.	10:30 p.m.	.95	6:17 p.m.	6:56 p.m.	.03	.08	.14	.18	.24	.43	.53	.63	.69						
May 24	2:27 p.m.	5:15 p.m.	.86	2:33 p.m.	2:43 p.m.	.02	.23	.38												
June 9	4:57 p.m.	5:35 p.m.	.56	5:01 p.m.	5:28 p.m.	.01	.05	.10	.17	.23	.48	.55								
June 9	7:47 p.m.	9:20 p.m.	.96	7:51 p.m.	8:13 p.m.	.01	.10	.38	.67	.81	.93									
June 21	5:50 p.m.	8:40 p.m.	1.54	5:57 p.m.	6:22 p.m.	.01	.38	.83	1.07	1.36	1.47									
Oct. 4	12:50 p.m.	4:55 p.m.	1.35	1:32 p.m.	2:36 p.m.	.18	.06	.22	.39	.49	.54	.65	.70	.72	.76	.78	.95	1.05		
Oct. 31	6:36 p.m.	9:25 p.m.	.39	7:04 p.m.	7:09 p.m.	.07	.26													
Nov. 9	D.N.a.m.	4:00 p.m.	.98	12:09 p.m.	12:39 p.m.	.03	.10	.14	.28	.42	.47	.58								
SOUTHERN SLOPE.																				
Abilene, Tex.:																				
Mar. 15	6:00 p.m.	6:25 p.m.	.36	6:05 p.m.	6:16 p.m.	.01	.14	.31	.35											
Apr. 8	9:00 p.m.	D.N.p.m.	.66	9:09 p.m.	9:22 p.m.	.01	.33	.46	.51											
May 23–24	8:35 p.m.	D.N.a.m.	1.93	11:40 p.m.	12:48 a.m.	.07	.06	.11	.17	.29	.35	.39	.43	.56	.82	.92	1.08	1.30		
May 25	9:05 p.m.	[3] D.N.a.m.	1.82	10:29 p.m.	11:00 p.m.	.18	.09	.24	.44	.70	1.04	1.32	1.35							
June 24	12:17 p.m.	1:15 p.m.	.54	12:19 p.m.	12:39 p.m.	.01	.11	.30	.40	.48										
June 27	5:30 p.m.	6:35 p.m.	.99	5:43 p.m.	6:05 p.m.	.03	.22	.57	.78	.90	.94									
Aug. 20	7:35 a.m.	2:15 p.m.	2.02	10:20 a.m.	10:32 a.m.	.59	.22	.35	.38											
Aug. 20	7:35 a.m.	2:15 p.m.	2.02	12:36 p.m.	12:48 p.m.	1.38	.11	.30	.34											
Amarillo, Tex.:																				
June 9	7:20 p.m.	D.N.p.m.	1.34	7:34 p.m.	8:10 p.m.	.08	.06	.12	.19	.42	.62	.69	.74	.78						
July 17	3:35 p.m.	5:05 p.m.	1.27	3:39 p.m.	4:07 p.m.	.01	.27	.54	.76	.92	1.07	1.19								
Aug. 7	4:30 p.m.	5:15 p.m.	.54	4:35 p.m.	4:50 p.m.	T.	.27	.42	.49											
Aug. 9	D.N.a.m.	5:20 a.m.	.91	2:24 a.m.	2:50 a.m.	.09	.09	.23	.30	.41	.55	.58								
Sept. 17	[2] 6:10 p.m.	5:40 a.m.	1.48	1:30 a.m.	2:06 a.m.	.58	.05	.10	.28	.34	.48	.53	.66	.68						
Del Rio, Tex.:																				
Mar. 23	[2] 11:30 p.m.	5:00 a.m.	1.18	12:24 a.m.	12:44 a.m.	.07	.07	.21	.36	.68										
Apr. 29	3:05 p.m.	4:25 p.m.	1.03	3:14 p.m.	3:30 p.m.	T.	.25	.73	.98	1.01										
May 23	5:25 p.m.	11:45 p.m.	3.25	5:50 p.m.	7:08 p.m.	.09	.08	.23	.34	.48	.65	.83	.88	.91	.97	1.26	1.71	2.45		
July 27	D.N.p.m.	D.N.p.m.	.49	9:56 p.m.	10:02 p.m.	.01	.40	.47												
Aug. 21	9:35 a.m.	12:30 p.m.	1.00	10:07 a.m.	10:32 a.m.	.26	.13	.26	.44	.56	.63									
Sept. 15	6:45 p.m.	9:40 p.m.	1.06	7:21 p.m.	7:38 p.m.	.06	.10	.26	.54	.69										
Sept. 22	4:00 a.m.	12 midnt.	6.43	5:24 a.m.	7:02 a.m.	.12	.14	.25	.36	.52	.60	.71	.79	.89	1.03	1.18	1.53	2.72	3.16	
Sept. 22	4:00 a.m.	12 midnt.	6.43	7:52 a.m.	8:59 a.m.	3.32	.06	.13	.18	.31	.41	.51	.63	.70	.73	.78	.91	1.00		
Nov. 6	7:45 p.m.	10:45 p.m.	2.45	8:01 p.m.	8:46 p.m.	.06	.12	.25	.48	.69	1.01	1.32	1.53	1.83	1.99					
Roswell, N. Mex.:																				
Mar. 21	2:17 a.m.	10:28 a.m.	1.22	3:21 a.m.	3:35 a.m.	.02	.19	.36	.41											
Apr. 25	5:17 p.m.	6:33 p.m.	1.60	5:19 p.m.	5:55 p.m.	.02	.15	.49	.67	.93	1.08	1.38	1.53	1.57						
June 15	8:32 p.m.	[3] 12:35 a.m.	.70	8:45 p.m.	9:01 p.m.	.01	.17	.30	.39	.42										
June 26–27	11:18 p.m.	4:10 a.m.	1.72	11:32 p.m.	12:22 a.m.	.01	.21	.35	.42	.45	.58	.76	.96	1.05	1.10	1.18				
Sept. 15	7:42 a.m.	[3] 8:12 a.m.	3.52	3:35 p.m.	3:48 p.m.	.70	.18	.51	.61											
Sept. 16	8:19 p.m.	9:25 p.m.	.61	8:22 p.m.	8:40 p.m.	.01	.16	.27	.37	.40										

[2] On previous date. [3] On following date. [7] On Oct. 28.

Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during 1919, at all stations furnished with self-registering gages—Continued.

Station and date.	Total duration.		Total amount of precipitation (inches).	Excessive rate.		Amount before excessive rate began (inches).	Depths of precipitation (in inches) during periods of time indicated.													
	From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	60 min.	70 min.	80 min.	100 min.	120 min.
SOUTHERN PLATEAU.																				
El Paso, Tex.:																				
July 13	3:20 p.m.	4:45 p.m.	0.84	3:33 p.m.	4:01 p.m.	0.02	0.22	0.31	0.45	0.63	0.69	0.76								
Santa Fe, N. Mex.:																				
June 30	4:35 p.m.	5:50 p.m.	.49	5:03 p.m.	5:20 p.m.	.01	.12	.30	.41	.44										
July 2	2:20 p.m.	4:50 p.m.	.43	2:25 p.m.	2:46 p.m.	T.	.10	.24	.37	.41										
July 14	10:01 a.m.	12:30 p.m.	.92	11:23 a.m.	11:32 a.m.	.38	.25	.35												
Aug. 6	1:25 p.m.	3:55 p.m.	.88	1:35 p.m.	1:58 p.m.	T.	.30	.50	.59	.64	.72									
Sept. 13	6:55 p.m.	8:05 p.m.	.34	7:40 p.m.	7:49 p.m.	.04	.17	.30												
Phoenix, Ariz.:																				
Aug. 1	7:33 a.m.	10:00 a.m.	1.12	9:12 a.m.	9:42 a.m.	.25	.28	.35	.43	.58	.75	.80								
Sept. 27	3:55 a.m.	5:50 a.m.	.53	3:58 a.m.	4:10 a.m.	.01	.28	.43	.45											
Nov. 23	3:20 p.m.	5:20 p.m.	.47	3:27 p.m.	3:36 p.m.	.01	.27	.38												
Independence, Calif.[1]																				
MIDDLE PLATEAU.																				
Reno, Nev.:																				
May 28	7:10 p.m.	D. N. p.m.	.90	7:39 p.m.	8:11 p.m.	.02	.06	.26	.41	.53	.66	.79	0.83							
Tonopah, Nev.:																				
May 28	4:52 p.m.	D. N. p.m.	.48	5:25 p.m.	5:36 p.m.	.06	.21	.30	.31											
Winnemucca, Nev.[1]																				
Modena, Utah [1]																				
Salt Lake City, Utah:																				
Sept. 3	1:05 p.m.	1:50 p.m.	.33	1:31 p.m.	1:40 p.m.	.01	.10	.31												
Grand Junction, Colo.:																				
Sept. 2	4:40 p.m.	5:58 p.m.	.37	4:57 p.m.	5:04 p.m.	.01	.26	.32												
NORTHERN PLATEAU.																				
Baker, Oreg.: [1]																				
Boise, Idaho [1]																				
Lewiston, Idaho [1]																				
Pocatello, Idaho:																				
Sept. 2	7:05 p.m.	D. N. p.m.	.52	8:06 p.m.	8:16 p.m.	.03	.14	.30												
Spokane, Wash.[1]																				
Walla Walla, Wash.[1]																				
NORTH PACIFIC COAST REGION.																				
North Head, Wash.[1]																				
Port Angeles, Wash.[1]																				
Seattle, Wash.[1]																				
Tacoma, Wash.[1]																				
Tatoosh Island, Wash.[1]																				
Portland, Oreg.[1]																				
Roseburg, Oreg.[1]																				
MIDDLE PACIFIC COAST REGION.																				
Eureka, Calif.[1]																				
Mount Tamalpais, Calif.[1]																				
Point Reyes Light, Calif.: [1]																				
Red Bluff, Calif.[1]																				
Sacramento, Calif.[1]																				
San Francisco, Calif.[1]																				
San Jose, Calif.[1]																				
SOUTH PACIFIC COAST REGION.																				
Fresno, Calif.[1]																				
Los Angeles, Calif.[1]																				
San Diego, Calif.[1]																				
San Luis Obispo, Calif.:																				
Dec. 5	6:40 a.m.	9:30 p.m.	1.40	3:53 p.m.	4:18 p.m.	.72	.65	.19	.37	.43	.48									
ISLAND POSSESSIONS.																				
San Juan, P. R.:																				
June 11 [4]	11:15 a.m.	[3]D. N. a.m.	5.26	5:05 p.m.	6:40 p.m.	.88	.19	.39	.65	.92	1.18	1.35	1.44	1.55	1.69	1.76	2.15	2.67	2.87	
Sept. 9	2:25 p.m.	3:28 p.m.	1.06	2:29 p.m.	2:49 p.m.	.01	.40	.74	.87	.95										
Nov. 24	7:50 p.m.	9:40 p.m.	1.27	7:52 p.m.	8:22 p.m.	.01	.10	.25	.58	.87	.88	1.04								
Honolulu, Hawaii:																				
Oct. 5	6:55 p.m.	[3]D. N. a.m.	4.57	7:28 p.m.	8:07 p.m.	.03	.11	.19	.29	.33	.54	.64	.71	.74						
Oct. 5	6:55 p.m.	[3]D. N. a.m.	4.57	8:37 p.m.	9:59 p.m.	.82	.09	.16	.35	.52	.74	.99	1.17	1.33	1.51	1.81	2.23	3.02	3.16	
Nov. 6	7:41 p.m.	D. N. p.m.	1.04	8:47 p.m.	9:09 p.m.	.05	.18	.33	.41	.62	.68									

[1] No excessive precipitation. [3] On following date. [4] Defective record.

PART III.

MONTHLY AND ANNUAL METEOROLOGICAL SUMMARIES FOR TWO HUNDRED AND THIRTEEN STATIONS DURING 1919.

EXPLANATION OF THE TABLES.

For a detailed account of the method of reducing the observed barometric pressures the reader is referred to the "Report on the barometry of the United States, Canada, and the West Indies," to be found in the Annual Report of the Chief of the Weather Bureau, 1900–1901, Volume II.

Pressure.—Two mercurial barometers of the well-known Fortin cistern pattern, or a modified form thereof, are furnished each station. One of these, the "station barometer," is used in making all regular observations; the other, the "extra," is held in reserve for use in case of emergency, except that once each month five comparative readings are made on the two instruments for purpose of check upon the deterioration of either instrument.

Each barometer, before issue to station, is compared with the substandard at Washington, and a certificate or correction card furnished showing the several constant corrections that must be applied to the readings of the instrument in order to derive therefrom the actual pressure of the air in standard units at a specified elevation. Each observation as made, therefore, is corrected by the application of the following:

(1) Correction for scale errors, capillarity, etc.

(2) Correction to standard gravity, comprising both latitude and altitude terms.

(3) Correction for removal—a correction applied if any change has been made in the elevation of the barometer, to reduce the readings to the elevation adopted in 1900.

Corrections 1, 2, and 3 are constant for any one station and are combined in a single sum.

(4) Correction for the temperature of the scale and mercurial column.

The monthly mean pressures given in the summary are deduced from the corrected observations of pressure at 8 a. m. and 8 p. m., seventy-fifth meridian time, by taking the mean thereof and applying thereto a correction to reduce to the mean of 24-hourly observations. At several Alaska stations the mean is printed uncorrected.

The extremes are determined from the barograph trace.

The homogeneous system of pressures.—In the report on barometry mentioned above, which comprises a discussion of the Weather Bureau observations for the years 1873–1899, inclusive, it was shown that a "residual-reduction" correction is required for several stations in order to produce a system of homogeneous pressures or smooth isobars on any selected plane, as the sea-level plane, the 3,500-foot plane, or the 10,000-foot plane.

The corrections required to reduce a given observed barometric reading to a true air pressure are fully specified above under 1, 2, 3, and 4. The additional corrections required to reduce the pressure thus obtained to any desired plane, as the sea-level plane, for example, are:

(5) $B_0.—B$. The free-air Laplacean reduction from the station to any other level, including the gravity term but not the aqueous vapor tension.

(6) $C.\Delta\theta.H$. The correction of the free-air reduction for the Plateau effect.

(7) e_1. The correction for the moisture mixed with the dry air.

(8) ΔA. The local correction for certain stations to reduce them to a homogeneous system.

The four corrections to the actual station pressure are united in a "table of reductions to sea level" prepared for the several stations. The table was computed for the mean temperature of the air column θ; the relation between the diurnal surface temperature t and that of the air column θ was determined, and the argument adjusted so as to transfer it from θ to t. The arguments of the table are the diurnal surface temperature t and the actual station pressure B; while the body of the table gives the reduced sea-level pressure in inches. The surface temperature is determined by the customary formula $t=\frac{8\text{ a. m.}+8\text{ p. m.}}{2}$, when two observations are taken, or by $t=\frac{\text{Max.}+\text{Min.}}{2}$ when only one observation is taken each day.

Corrections 5, 6, 7, and 8 constitute solely the reduction required to pass from a given observed air pressure at one elevation to the corresponding pressure that would be observed at another elevation.

We have, finally, in order to produce an entirely homogeneous system of pressures, one remaining correction, viz:

(9) The reduction to the mean of 24-hourly observations.

These diurnal corrections, collected by months for the several stations, are found in Table 27 of the Annual Report, 1900–1901, "Diurnal corrections of barometric pressure, taken at a few selected hours, to the mean of 24-hourly observations." This reduction of the mean monthly and yearly pressures is necessary in order to make the annual results comparable with the system derived from the discussion of the years 1873–1899, inclusive, also for the comparison of international observations where different sets of selected hours have been employed, and for the study of all cosmical problems.

The monthly mean pressures recorded in the annual summary tables have the corrections to the mean of 24-hourly observations applied to them, except as noted above.

It should be noted that the diurnal correction was not applied to the monthly mean pressures published in the Annual Report of the Chief of the Weather Bureau for 1900–1901. This has now been done and the corrected values for that year were given in a special table that appeared on pages 61–63 of the report for 1901–1902. It will be understood that the monthly and annual means given in the special table are comparable with the series of 1873–1899, published in Volume II of the 1900–1901 report.

Temperature.—The temperature of the air at 8 a. m. and 8 p. m., seventy-fifth meridian time, and at noon, local time, is obtained by the use of the whirled dry-bulb thermometer. The latter is a part of the whirled psychrometer and is mounted in the thermometer shelter adopted in 1885. The means of these observations are given in the columns headed 8 a. m., noon, and 8 p. m., respectively.

The maximum temperature is obtained by the use of the Negretti and Zambra mercurial thermometer, having a constriction in the bore of the tube below the scale. The minimum temperature is obtained by the use of the ordinary Rutherford alcohol minimum thermometer. Both instruments are read and the values recorded twice daily, at 8 a. m. and 8 p. m., seventy-fifth meridian time, and are set twice daily, at 8 a. m. and 8 p. m. The extremes given in the summaries are for the civil day, midnight to midnight, normal standard time. The monthly means have been obtained by dividing the sum of the mean maximum and mean minimum temperature by 2.

Moisture.—The monthly means of the dew point, relative humidity, and vapor pressure are given as computed directly from the original daily observations.

The rain gages used at the regular Weather Bureau stations have a circular catchment area of about 8 inches diameter, and the snow, hail, or sleet caught within them is melted and measured as water. The rain gage proper is set within an inclosing cylinder 8 inches in diameter and 2 feet high, which serves as an overflow attachment in the case of heavy rains and as a snow gage in the winter season.

The sum total of the depth of rain and melted snow is measured to within 0.01 inch at 8 a. m. and 8 p. m., seventy-fifth meridian time, daily. The total precipitation is determined from the amounts recorded daily, midnight to midnight, standard of time in local use.

The snow caught and retained in the gage is melted and measured as water. No correction is applied for the snow that is lost out of the gage by the eddying action of the wind; consequently is some cases the record is less than would be given if the observer had measured cylinders of snow cut from the spots representing the average snowfall on the ground. When it is known that the catch of the snow gage is markedly deficient, an independent ground measurement is made and used as the official record. The loss of both rain and snow, caused by high winds, from gages located on the roofs of tall buildings in which some of the regular stations of the Weather Bureau are located is undoubtedly larger than is the case at the cooperative stations, where the gages are located in the open country and near the ground, but this loss does not appear to be sufficient to make the monthly and annual sums derived from these two classes of stations wholly inconsistent with each other.

By the maximum precipitation in twenty-four hours is meant the greatest measurement for any twenty-four consecutive hours; it does not refer to the rate of rainfall for twenty-four hours, as deduced from short heavy showers.

The number of days with precipitation amounting to 0.01 and 0.04 inch, respectively, relates to the rainfall from midnight to midnight, standard of time in local use.

The cloudiness recorded in the summaries is derived from personal observations. The proportion of sky covered with clouds is estimated by the observer at 8 a. m. and 8 p. m., seventy-fifth meridian time, and at noon, local time, on a scale of 0–10. These observations can not be combined into a daily mean in the present state of our knowledge of the diurnal variations in cloudiness, and are therefore given separately. In order, however, to obtain a general record of the sunshine as affecting the growth of plants, the observer keeps some memoranda of the cloudiness, sufficient to enable him at the end of the day to determine the average cloudiness on the scale given above, from sunrise to sunset; the resulting average for each month is given in the column of "daylight" cloudiness.

The number of days that were clear, as given under "Number of days, etc.," includes those on which the daylight cloudiness was 0, 1, 2, or 3 tenths; the days partly cloudy were those on which the daylight cloudiness was 4, 5, 6, or 7 tenths; the cloudy days were those having 8, 9, or 10 tenths of cloudiness during daylight.

Wind.—The direction and velocity of the wind are recorded at nearly all the stations on what is known as the "triple register." On this instrument the direction of the wind is recorded every minute.

The maximum velocities given are for five-minute periods.

Number of days.—The number of days with hail includes all of those on which at least a trace of hail fell.

No record is made of deposits of dew.

The number of days with fog includes all of those on which fog prevailed for at least an hour, and was dense enough to obscure objects 1,000 feet distant.

References and abbreviations.—H_b =height of barometer cistern above mean sea level on January 1, 1900, or when the station was established, if it was established since January 1, 1900, that being the elevation to which all previous readings have been reduced. It is designated as the "station, or adopted, elevation." At stations where a change has been made in the elevation of the barometer since January 1, 1900, a corresponding correction has been applied to the observed reading, thereby reducing all values to the "station, or adopted, elevation." The actual elevation and the station, or adopted, elevation are identical, except at stations where the barometer has been moved since January 1, 1900. h_t=height of thermometer above ground; h_r=height of rain gage above ground; h_a=height of anemometer above ground.

Annual meteorological summary for the year ending December 31, 1919.

ABILENE, TEX.

[ϕ=32° 23′ N.; λ=99° 40′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.329	28.650	27.992	33.9	47.2	44.7	50.9	32.4	41.6	69	18	29	32	33	81	57	66	0.161	0.185	0.199	2.96	1.36	4.0	5.0	4.0	5.0
February	28.138	28.511	27.587	38.4	52.8	51.7	58.5	36.4	47.4	79	24	30	29	28	73	44	44	.175	.171	.163	.45	.23	4.1	5.3	3.2	4.9
March	28.220	28.610	27.730	46.2	59.7	58.2	64.5	43.5	54.0	81	25	38	39	38	75	50	50	.248	.259	.244	2.73	1.24	5.0	5.7	5.0	5.5
April	28.127	28.460	27.678	54.0	70.1	69.8	75.1	51.0	63.5	90	35	47	48	49	77	49	50	.332	.351	.357	2.75	.92	4.4	4.5	3.1	4.0
May	28.055	28.280	27.752	61.2	74.8	73.6	80.0	57.8	68.9	96	47	57	55	56	86	54	57	.468	.446	.465	5.73	1.93	5.8	5.9	5.4	5.6
June	28.185	28.370	27.850	67.2	80.0	77.2	84.8	64.3	74.6	96	44	63	62	62	85	56	62	.589	.568	.585	3.12	1.02	5.9	6.3	6.2	6.2
July	28.192	28.390	27.979	72.6	86.5	85.4	90.2	69.6	79.9	97	66	67	66	65	84	51	51	.669	.638	.612	1.51	1.25	3.5	3.5	2.3	3.2
August	28.189	28.350	28.013	72.7	87.9	87.0	93.1	70.7	81.9	101	63	66	65	64	81	49	49	.649	.621	.591	2.33	2.02	3.8	4.8	3.6	4.2
September	28.176	28.450	27.892	67.0	81.2	77.6	85.0	65.6	75.3	97	55	62	62	61	86	54	60	.580	.563	.550	1.72	1.09	5.5	6.8	4.9	5.8
October	28.162	28.420	27.890	61.0	70.1	66.9	74.8	56.8	65.8	86	38	58	60	60	92	72	80	.511	.535	.534	3.99	1.05	7.8	7.8	7.2	7.6
November	28.252	28.688	27.860	42.8	56.7	51.8	61.8	39.1	50.4	79	21	39	38	40	86	54	67	.261	.252	.271	1.13	.55	5.2	5.1	4.5	5.2
December	28.343	28.850	27.800	36.2	51.1	47.0	55.9	30.6	43.2	73	10	28	29	30	74	48	55	.167	.180	.185	.25	.16	5.2	5.7	4.4	5.6
Year	28.197	28.850	27.587	54.4	68.2	65.9	72.9	51.6	62.2	101	10	49	49	49	82	53	58	.401	.397	.396	28.67	2.02	5.0	5.5	4.5	5.2

ALBANY, N. Y.

[ϕ=42° 39′ N.; λ=73° 45′ W.]

January	29.910	30.660	29.330	26.0	31.4	30.3	37.3	21.7	29.5	56	−3	20	23	23	79	69	73	0.118	0.130	0.129	1.42	0.53	6.7	5.3	4.5	5.9
February	29.874	30.409	29.176	24.3	32.4	30.9	36.1	22.7	29.4	50	12	19	21	23	79	62	70	.102	.116	.125	1.68	.61	5.8	4.5	4.6	4.4
March	30.025	30.802	29.340	33.1	39.0	38.1	45.7	28.1	36.9	65	13	26	28	29	75	66	70	.148	.159	.170	4.86	2.10	6.9	5.6	5.1	5.5
April	29.899	30.277	29.500	41.2	48.9	47.3	54.0	36.6	45.3	73	19	33	35	36	74	61	66	.196	.212	.222	1.98	.92	6.4	6.5	5.7	6.2
May	29.849	30.380	29.570	55.6	64.2	60.9	68.2	49.2	58.7	86	37	46	49	49	73	60	67	.329	.349	.358	5.42	1.36	4.9	5.4	5.9	5.6
June	30.003	30.403	29.671	66.9	76.4	74.2	81.3	60.9	71.1	97	46	59	61	61	74	62	65	.512	.567	.561	1.10	.60	3.9	4.3	4.4	3.9
July	29.872	30.240	29.497	69.7	78.5	76.2	82.7	63.6	73.2	99	54	60	60	64	73	56	68	.540	.536	.603	4.34	1.49	4.6	3.8	3.8	4.8
August	29.833	30.189	29.537	64.9	73.0	69.8	77.0	59.6	68.3	88	52	58	59	61	78	64	74	.485	.515	.545	4.60	1.25	4.3	5.1	3.7	4.8
September	29.912	30.323	29.479	58.3	67.4	63.7	71.8	53.8	62.8	92	40	53	53	55	84	62	74	.432	.424	.455	2.99	.75	6.1	5.6	4.6	5.9
October	30.014	30.489	29.460	50.4	58.0	54.3	62.1	45.0	53.6	82	31	45	46	47	82	66	76	.319	.339	.342	2.60	.80	5.9	6.7	4.8	6.3
November	29.985	30.450	29.270	37.0	42.1	39.7	46.7	33.0	39.8	68	21	30	31	31	77	64	71	.177	.180	.180	3.30	1.36	7.3	6.5	4.7	6.3
December	30.013	30.650	29.270	20.9	25.5	24.2	30.5	15.7	23.1	50	−9	16	18	18	80	72	75	.100	.108	.105	1.23	.46	7.2	5.7	4.1	6.3
Year	29.932	30.802	29.176	45.7	53.1	50.8	57.8	40.8	49.3	99	−9	39	40	41	77	64	71	.238	.303	.316	35.52	2.10	5.8	5.4	4.7	5.5

ALPENA, MICH.

[ϕ=45° 05′ N.; λ=83° 30′ W.]

January	29.285	29.910	28.740	22.8	27.8	26.3	30.8	19.3	25.0	42	−5	19	21	22	85	75	81	0.110	0.119	0.119	0.63	0.20	7.4	6.2	6.3	7.2
February	29.283	29.970	28.370	21.0	26.9	24.5	29.1	16.3	22.7	39	0	17	19	20	84	70	81	.101	.106	.111	1.85	.47	7.4	7.4	6.6	6.9
March	29.526	30.080	28.980	26.7	32.1	30.3	35.8	23.3	29.6	57	11	21	22	23	78	66	74	.117	.127	.130	2.65	.99	6.2	6.0	4.4	6.0
April	29.344	29.780	28.710	36.8	41.7	40.3	45.4	32.1	38.8	70	13	30	29	32	76	64	74	.173	.170	.188	2.03	.89	6.1	6.8	6.1	6.8
May	29.305	29.733	28.670	50.1	54.7	50.6	58.3	42.7	50.6	83	31	41	41	42	74	64	74	.270	.276	.279	3.49	1.47	3.9	4.3	5.3	5.2
June	29.450	29.734	29.140	66.8	70.4	68.8	74.0	60.1	67.0	91	44	59	60	60	78	71	75	.517	.526	.530	3.78	1.88	3.8	4.0	4.4	4.5
July	29.339	29.660	29.040	67.2	74.3	70.2	78.0	58.2	68.1	95	45	58	57	59	72	57	68	.484	.457	.504	2.13	.64	3.5	4.2	5.3	4.1
August	29.250	29.621	28.920	62.0	70.2	66.1	73.2	55.8	64.5	86	43	56	56	58	80	62	75	.451	.459	.489	2.53	.98	5.0	6.4	5.3	6.2
September	29.328	29.680	28.720	56.8	67.2	60.6	69.5	50.6	60.0	95	35	51	51	52	81	57	76	.382	.357	.407	1.55	.64	4.9	6.4	6.2	6.3
October	29.378	29.732	28.830	45.8	52.1	49.2	56.5	40.9	48.7	78	31	41	41	42	83	69	77	.276	.281	.287	2.73	.54	6.8	7.9	6.5	7.8
November	29.356	29.890	28.050	32.0	36.9	34.2	40.0	28.6	34.3	55	15	28	28	28	84	71	78	.158	.160	.161	2.68	1.13	8.2	8.4	7.1	8.7
December	29.376	29.950	28.620	17.8	22.0	18.7	24.9	11.6	18.2	38	−4	14	14	14	82	70	82	.094	.087	.088	.72	.17	8.6	8.4	6.5	7.5
Year	29.352	30.080	28.050	42.2	48.0	45.0	51.3	36.6	44.0	95	−5	36	37	38	80	66	76	.260	.280	.274	26.72	1.88	6.0	6.4	5.9	6.4

AMARILLO, TEX.

[ϕ=35° 13′ N.; λ=101° 50′ W.]

January	26.354	26.740	26.040	22.4	34.6	30.3	37.9	19.5	28.7	48	−8	18	25	24	80	67	74	0.098	0.136	0.127	T.	T.	1.4	1.8	2.6	2.5
February	26.141	26.500	25.410	30.1	44.5	40.4	49.8	26.0	37.9	72	15	24	30	26	77	59	58	.128	.166	.145	0.73	0.32	3.9	3.5	3.6	4.1
March	26.266	26.650	25.790	36.5	52.8	51.3	58.8	33.9	46.4	77	19	32	33	31	82	52	51	.134	.144	.182	1.75	.83	5.0	4.6	4.7	4.5
April	26.208	26.500	25.680	45.1	59.4	60.2	66.4	42.6	54.5	88	26	40	43	42	83	59	56	.254	.285	.277	2.56	.76	4.0	5.3	5.1	5.1
May	26.190	26.400	25.930	54.2	67.7	65.5	73.1	50.5	61.8	87	45	50	54	54	85	63	68	.360	.417	.420	2.08	.64	4.7	4.7	2.7	5.1
June	26.317	26.473	26.188	61.1	74.6	73.7	80.1	57.7	68.9	90	39	56	57	58	85	56	60	.470	.484	.506	2.94	1.34	4.3	4.6	4.5	4.5
July	26.323	26.500	26.155	67.3	82.4	81.4	87.7	64.7	76.2	95	61	61	62	60	82	51	52	.545	.553	.525	1.75	1.35	3.3	3.5	3.3	3.8
August	26.324	26.550	26.129	66.4	84.4	82.6	90.9	64.3	77.6	101	60	60	61	60	81	47	49	.521	.542	.527	3.21	1.57	3.1	2.4	4.7	3.8
September	26.295	26.590	26.000	61.0	76.7	74.5	83.0	59.4	71.2	99	47	54	56	57	80	53	57	.430	.463	.470	4.58	2.93	4.7	4.1	4.3	4.3
October	26.245	26.600	25.960	49.6	63.4	58.7	69.2	46.3	57.8	86	34	44	43	45	84	52	54	.309	.287	.314	.67	.28	5.8	4.2	4.8	5.0
November	26.287	26.700	25.700	32.8	50.6	45.9	56.6	29.3	42.6	77	6	28	31	32	80	53	61	.159	.187	.189	1.26	.77	4.2	4.0	3.0	4.0
December	26.350	26.740	25.870	28.2	46.8	38.6	51.5	22.5	37.0	73	−2	23	28	26	80	52	62	.127	.158	.143	.50	.41	3.0	3.3	2.7	3.5
Year	26.275	26.740	25.410	46.2	61.5	58.6	67.0	43.1	55.0	101	−8	41	44	43	82	55	59	.299	.323	.319	23.01	2.93	4.0	3.8	3.8	4.2

Annual meteorological summary for the year ending December 31, 1919—Continued.

ABILENE, TEX.

[H_b=1,738 ft.; h_t=10 ft.; h_r=3 ft.; h_a=52 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	No. of days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temperature. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Aurora.
	Miles.		*Mi.*																									
January	8.7	S.	29	NE.	0	14	1	0	2	18	9	6	12	0	13	6	12	7	6	2	2	0	0	2	0	13	1	0
February	13.0	S.	48	SW.	3	8	4	1	9	17	6	5	6	0	11	10	7	5	2	1	1	0	0	0	0	9	1	0
March	12.1	SE.	49	W.	2	11	2	2	16	15	5	5	5	1	11	7	13	8	8	0	0	2	1	0	0	1	6	0
April	11.2	S.	42	SW.	1	7	2	4	12	20	8	4	3	0	15	8	7	6	4	0	0	1	0	0	0	0	4	0
May	8.7	S.	34	SE.	0	8	5	3	15	14	5	3	9	0	10	8	13	13	12	0	0	1	2	0	3	0	14	0
June	7.4	S.	32	NW.	0	4	3	5	12	22	8	2	3	1	6	11	13	17	13	0	0	0	0	0	3	0	15	0
July	9.1	S.	30	NW.	0	2	4	5	12	36	3	0	0	0	19	8	4	5	4	0	0	0	0	0	16	0	5	0
August	8.5	S.	24	N.	0	3	0	8	12	32	4	1	1	1	16	7	8	5	4	0	0	0	0	0	23	0	5	0
September	9.0	S.	26	E.	0	3	5	4	15	26	2	1	4	0	11	9	10	11	5	0	0	0	0	0	9	0	3	0
October	9.0	S.	28	SW.	0	10	10	2	3	30	5	1	0	1	5	7	19	13	8	0	0	0	0	0	0	0	3	0
November	8.6	S.	28	W.	0	15	4	2	4	19	6	5	4	1	12	6	12	9	4	2	0	0	3	1	0	7	1	0
December	8.9	S.	35	SW.	0	13	4	4	4	16	12	5	4	0	9	9	13	3	2	2	0	0	1	4	0	18	0	0
Year	9.5	S.	49	W.	6	98	44	40	116	265	73	38	51	5	138	96	131	102	72	7	3	4	7	7	54	48	58	0

ALBANY, N. Y.

[H_b=97 ft.; h_t=102 ft.; h_r=100 ft.: h_a=115 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	No. of days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	7.5	S.	28	NW.	0	8	2	2	0	24	4	7	15	0	8	10	13	8	5	9	5	0	2	8	0	26	0	0
February	7.6	NW.	26	S.	0	12	4	1	1	10	2	1	25	0	13	9	6	8	7	12	5	0	0	7	0	26	0	0
March	10.5	N.	33	N.	0	24	0	0	1	16	3	3	15	0	12	7	12	11	9	10	5	0	0	4	0	20	0	1
April	8.2	NW.	33	S.	0	11	3	3	2	21	1	2	17	0	10	5	15	13	9	4	1	0	1	1	0	6	0	1
May	7.6	S.	30	S.	0	7	11	1	1	22	7	3	10	0	11	9	11	14	14	0	0	0	1	0	0	0	5	1
June	7.4	S.	26	N.	0	9	6	0	4	33	4	0	3	1	16	8	6	8	6	0	0	0	0	0	3	0	4	0
July	7.2	S.	30	S.	0	9	7	0	2	26	3	4	11	0	13	10	8	13	12	0	0	0	0	0	5	0	8	0
August	5.7	S.	23	SW.	0	3	4	0	3	31	6	4	11	0	15	8	8	11	11	0	0	0	0	0	0	0	6	0
September	7.2	S.	32	S.	0	2	4	0	2	28	6	4	14	0	8	12	10	15	11	0	0	0	4	0	1	0	2	0
October	7.6	S.	30	S.	0	3	5	2	2	31	6	3	10	0	6	12	13	13	11	0	0	0	2	0	0	2	1	0
November	9.0	S.	30	S.	0	10	3	0	2	21	6	2	16	0	8	11	11	12	8	5	0	0	1	3	0	16	0	0
December	7.1	S.	38	S.	0	7	7	1	1	20	6	1	19	0	7	12	12	11	8	15	9	0	1	15	0	28	1	0
Year	7.7	S.	38	S.	0	105	56	10	21	283	54	34	166	1	127	113	125	137	111	55	25	0	12	38	9	124	27	3

ALPENA, MICH.

[H_b=609 ft.; h_t=13 ft.; h_r=4 ft.; h_a=92 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	No. of days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	12.0	W.	42	NW.	2	3	1	4	2	11	14	16	11	0	6	5	20	9	4	15	6	0	3	15	0	30	0	2
February	12.8	W.	52	S.	2	3	4	6	7	8	6	14	8	0	5	7	16	12	8	19	8	0	0	16	0	27	0	0
March	14.4	NW.	42	W.	3	7	5	6	9	6	5	8	16	0	9	11	11	9	6	13	5	0	2	12	0	29	0	6
April	13.7	NW.	52	NE.	3	5	6	9	11	5	5	4	15	0	5	10	15	16	10	4	1	0	7	1	0	13	2	0
May	10.5	SE.	38	SE.	0	3	13	3	18	2	4	8	11	0	13	8	10	13	11	1	0	0	6	0	0	1	2	2
June	8.6	SE.	30	NW.	0	6	7	6	24	5	4	3	5	0	13	11	6	8	7	0	0	0	2	0	1	0	7	0
July	9.4	SW.	39	NW.	0	5	3	3	12	3	13	11	12	0	14	10	7	8	7	0	0	0	0	0	2	0	8	1
August	10.6	NW.	33	NW.	0	3	0	3	12	7	6	14	17	0	3	14	14	9	9	0	0	1	1	0	0	0	8	1
September	11.0	NW.	40	NW.	1	3	1	3	8	7	14	8	16	0	6	15	9	13	9	0	0	0	0	0	3	0	3	0
October	11.1	NW.	60	NW.	1	1	4	4	10	7	7	11	17	1	4	2	25	16	13	1	0	0	4	0	0	6	2	4
November	14.3	SW.	46	SW.	3	4	2	3	6	9	15	11	10	0	0	7	23	15	8	13	7	0	1	7	0	19	0	0
December	11.4	SW.	38	SE.	0	2	1	1	0	11	20	16	11	0	3	10	18	9	7	21	9	0	0	24	0	31	0	0
Year	11.6	NW.	60	NW.	15	45	47	51	119	81	113	124	149	1	81	110	174	137	99	87	36	1	26	75	6	156	32	16

AMARILLO, TEX.

[H_b=3,676 ft.; h_t=10 ft.; h_r=3 ft.; h_a=49 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	No. of days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	8.9	NW.	24	S.	0	3	0	0	0	6	18	10	25	0	24	4	3	0	0	3	0	0	2	6	0	31	0	0
February	13.1	S.	44	NW.	2	6	3	2	7	15	9	6	8	0	14	11	3	6	4	5	4	0	2	1	0	24	1	0
March	13.2	S.	40	SW.	1	8	6	2	13	15	11	4	3	0	14	13	4	5	5	4	2	1	2	0	0	15	1	0
April	11.7	SW.	44	N.	2	6	4	5	7	11	15	4	8	0	10	14	6	9	7	2	2	0	4	0	0	3	3	0
May	9.5	SE.	39	N.	0	7	11	6	14	10	5	3	6	0	7	18	6	11	7	0	0	0	2	0	0	0	8	0
June	9.1	SE.	42	SW.	1	4	1	0	28	11	6	4	6	0	11	19	0	10	8	0	0	1	0	0	1	0	5	0
July	11.2	S.	35	SE.	0	4	1	3	24	21	8	0	1	0	17	11	3	7	5	0	0	0	1	0	8	0	6	0
August	9.1	S.	38	SW.	0	3	0	8	18	19	11	1	2	0	15	16	0	7	7	0	0	1	0	0	18	0	6	0
September	10.7	S.	31	NW.	0	4	1	11	13	19	10	2	0	0	13	14	3	3	3	0	0	0	0	0	7	0	1	0
October	11.0	S.	30	SE.	0	9	4	3	11	16	13	2	4	0	10	14	7	8	7	0	0	0	1	0	0	0	3	0
November	10.3	SW.	40	N.	1	7	5	2	10	8	10	8	10	0	15	10	5	6	6	4	3	0	2	3	0	14	1	0
December	10.4	SW.	42	S.	1	13	3	1	3	12	15	6	9	0	19	7	5	6	3	4	4	0	1	4	0	27	0	0
Year	10.7	S.	44	NW.	8	74	39	43	148	163	131	50	82	0	169	151	45	78	62	22	15	3	17	14	34	114	35	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

ANNISTON, ALA.

[ϕ=33° 39′ N.; λ=85° 50′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.367	29.690	28.930	34.7	49.0	41.6	53.3	31.1	42.2	72	4	31	33	....	86	56	....	0.188	0.204	.....	6.36	2.07	4.5	4.5	3.5	4.5
February	29.224	29.560	28.600	39.1	49.8	47.0	54.7	34.8	44.8	72	22	34	36	....	81	61	....	.208	.223	.....	4.09	1.16	6.4	6.3	5.0	6.1
March	29.350	29.650	28.770	47.5	60.7	55.8	66.4	41.8	54.1	76	30	40	40	....	75	50	....	.259	.262	.....	5.97	2.25	5.2	3.8	3.7	4.3
April	29.291	29.547	28.960	56.0	69.7	62.9	73.9	47.9	60.9	85	30	45	46	....	68	44	....	.320	.335	.....	3.97	2.20	4.1	3.3	4.8	3.8
May	29.148	29.360	28.830	63.6	74.3	67.3	77.9	56.5	67.2	87	44	57	56	....	81	56	....	.485	.465	.....	5.57	.82	6.1	5.5	5.4	5.9
June	29.280	29.550	29.040	73.9	83.6	76.1	87.1	66.8	77.0	95	60	66	65	....	77	56	....	.642	.616	.....	3.56	1.06	5.6	4.0	5.3	5.2
July	29.268	29.490	29.080	74.3	83.4	77.1	87.8	68.1	78.0	94	58	69	69	....	84	62	....	.708	.713	.....	3.53	.96	5.2	3.6	4.8	4.7
August	29.258	29.420	29.090	72.6	83.9	76.2	87.9	67.9	77.9	97	56	68	68	....	87	61	....	.694	.695	.....	4.26	2.26	6.4	4.2	4.8	5.4
September	29.278	29.510	29.040	66.6	83.4	71.6	86.6	60.7	73.6	94	52	60	58	....	78	43	....	.524	.488	.....	.55	.55	2.5	2.0	1.6	2.3
October	29.324	29.500	29.160	67.6	79.3	70.5	82.8	64.4	73.6	90	55	64	64	....	88	64	....	.599	.611	.....	4.25	2.18	7.0	5.2	4.4	5.6
November	29.324	29.794	28.930	46.5	62.7	52.4	65.9	43.1	54.5	79	26	42	44	....	84	58	....	.288	.316	.....	3.98	1.66	4.3	4.6	3.9	4.7
December	29.388	29.790	28.940	37.7	50.1	44.8	54.6	34.4	44.5	70	17	33	37	....	85	63	....	.213	.245	.....	10.69	4.46	5.3	5.6	5.1	5.7
Year	29.292	29.794	28.600	56.7	69.2	61.9	73.2	51.5	62.4	97	4	51	51	....	81	56	....	.427	.431	.....	57.38	4.46	5.2	4.4	4.4	4.8

ASHEVILLE, N. C.

[ϕ=35° 36′ N.; λ=82° 32′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	27.741	28.110	27.320	31.3	42.8	40.7	48.0	27.1	37.6	64	0	26	27	28	82	56	61	0.153	0.160	0.161	4.70	1.81	4.8	4.6	3.4	4.2
February	27.631	28.010	27.070	32.0	40.8	39.3	45.4	29.2	37.3	58	16	27	27	28	82	60	66	.153	.156	.165	2.61	.91	6.2	6.4	6.3	5.9
March	27.773	28.090	27.308	41.1	52.7	50.0	58.1	36.9	47.5	71	27	35	34	34	79	53	57	.212	.206	.205	4.23	1.75	5.3	4.4	3.6	4.2
April	27.709	27.980	27.360	48.4	60.2	58.4	65.6	43.1	54.4	81	25	38	37	40	69	45	51	.251	.241	.260	2.11	.72	4.3	4.9	4.0	4.0
May	27.630	27.846	27.210	58.1	68.7	64.2	72.6	53.2	62.9	82	43	53	53	53	84	59	69	.414	.413	.417	3.84	.73	5.9	6.1	5.5	5.4
June	27.803	28.083	27.510	65.1	76.4	70.5	79.7	60.9	70.3	86	55	61	61	62	88	60	74	.544	.533	.553	4.05	.95	5.4	5.9	6.2	5.3
July	27.767	27.993	27.580	67.7	79.2	74.8	83.0	63.4	73.2	91	51	63	64	65	86	62	73	.586	.603	.625	3.88	1.17	6.0	5.4	5.2	5.1
August	27.731	27.922	27.590	64.5	77.5	72.5	80.7	61.5	71.1	91	50	62	60	61	90	55	68	.553	.518	.547	1.77	.81	5.4	5.8	5.7	5.4
September	27.783	28.011	27.540	57.9	75.8	69.5	79.3	53.2	66.2	89	43	53	51	53	84	44	58	.411	.392	.424	.30	.19	1.8	3.2	2.4	2.4
October	27.820	28.050	27.650	59.4	71.2	65.1	74.0	56.2	65.1	84	40	57	58	59	92	64	82	.468	.491	.514	1.93	1.08	6.7	6.7	5.4	6.6
November	27.762	28.220	27.400	41.4	54.1	49.7	58.3	38.6	48.4	73	22	36	35	37	82	53	64	.229	.229	.242	.54	.25	5.6	5.1	4.2	4.8
December	27.754	28.200	27.320	33.6	44.2	41.4	50.5	30.1	40.3	68	14	28	30	30	79	59	64	.167	.179	.184	2.09	1.32	4.7	4.4	4.0	4.8
Year	27.742	28.220	27.070	50.0	62.0	58.0	66.3	46.1	56.2	91	0	45	45	46	83	56	66	.345	.343	.358	31.45	1.81	5.2	5.2	4.7	4.8

ATLANTA, GA.

[ϕ=33° 45′ N.; λ=84° 23′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.886	29.210	28.530	38.9	48.0	46.7	51.9	35.6	43.8	66	5	32	34	34	76	61	64	0.194	0.211	0.208	5.40	1.55	4.9	4.4	2.9	4.5
February	28.761	29.140	28.222	39.5	47.0	47.0	52.3	36.6	44.4	66	23	33	36	36	78	69	68	.198	.223	.227	4.41	1.22	5.0	6.0	5.0	6.3
March	28.889	29.230	28.420	47.7	58.5	57.1	63.7	44.2	54.0	74	32	39	40	39	74	54	56	.250	.280	.255	3.58	1.96	4.6	4.7	2.8	4.5
April	28.829	29.130	28.486	54.9	67.3	65.8	71.8	51.6	61.7	83	30	44	46	46	68	48	51	.307	.325	.329	4.18	1.58	4.6	3.0	3.2	3.7
May	28.715	28.940	28.340	63.3	72.4	69.6	76.3	59.1	67.7	86	47	57	56	57	82	60	66	.481	.464	.475	7.20	2.43	5.4	6.6	5.2	5.7
June	28.856	29.121	28.574	72.3	81.6	77.4	85.4	68.1	76.8	93	63	65	64	65	79	57	68	.620	.605	.622	2.08	1.13	5.2	6.0	6.8	6.8
July	28.838	29.056	28.669	72.9	81.6	77.9	85.4	69.2	77.3	93	61	68	68	68	84	65	75	.682	.695	.703	7.50	1.86	5.8	6.4	6.0	6.6
August	28.820	28.973	28.650	71.6	80.8	77.0	84.5	68.3	76.4	94	64	68	68	68	87	65	74	.681	.678	.684	3.80	1.11	6.6	7.4	5.6	7.1
September	28.838	29.100	28.580	67.5	80.3	77.1	83.7	64.6	74.2	91	56	58	58	58	73	49	54	.501	.501	.495	1.12	.66	2.5	2.7	.7	2.7
October	28.895	29.100	28.760	66.0	74.7	71.3	78.2	63.4	70.8	88	50	63	64	64	91	71	80	.578	.598	.615	5.04	2.40	6.3	7.0	5.0	7.4
November	28.870	29.350	28.550	48.7	59.6	56.8	63.0	46.4	54.7	77	32	42	44	45	78	59	66	.284	.314	.323	2.92	.76	4.3	4.7	3.5	5.0
December	28.911	29.280	28.510	39.1	48.0	46.8	53.0	36.6	44.8	67	18	33	38	40	80	69	77	.210	.246	.262	12.94	5.72	4.5	3.6	3.5	5.1
Year	28.842	29.350	28.222	56.9	66.6	64.2	70.8	53.6	62.2	94	5	50	51	52	79	61	67	.416	.427	.433	60.17	5.72	5.0	5.2	4.2	5.5

ATLANTIC CITY, N. J.

[ϕ=39° 22′ N.; λ=74° 25′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.009	30.690	29.380	33.9	40.5	37.9	44.4	30.4	37.4	54	12	29	30	30	81	66	74	0.171	0.173	0.178	4.44	1.85	5.1	5.1	3.4	4.6
February	29.934	30.420	29.240	32.1	39.2	36.5	42.3	29.3	35.8	51	19	26	28	29	78	65	73	.148	.167	.164	3.22	1.06	5.1	4.2	2.9	4.2
March	30.047	30.718	29.330	41.0	46.4	43.5	49.7	37.1	43.4	62	26	35	36	36	78	69	75	.208	.219	.216	3.82	.88	6.0	5.4	4.6	5.6
April	29.974	30.300	29.610	47.2	51.6	48.2	55.8	41.7	48.8	72	23	38	40	40	73	66	75	.244	.256	.259	3.50	1.66	4.7	4.8	4.7	4.9
May	29.903	30.320	29.620	58.8	62.5	58.9	65.8	54.0	59.9	90	44	52	52	52	81	73	80	.397	.394	.397	5.38	3.06	5.5	5.0	5.7	5.3
June	30.073	30.440	29.700	67.0	69.0	65.5	71.3	61.6	66.4	84	52	61	62	61	82	78	86	.541	.557	.540	2.90	1.50	5.9	4.2	3.9	4.7
July	29.956	30.320	29.630	73.8	77.1	72.5	79.5	68.1	73.8	99	56	66	65	66	78	69	82	.651	.621	.648	5.20	1.68	5.0	4.7	5.5	4.7
August	29.887	30.220	29.550	70.9	75.2	72.1	78.4	65.5	72.0	91	58	65	64	64	82	70	78	.622	.609	.613	11.57	3.64	6.3	4.3	4.9	4.8
September	29.982	30.349	29.510	65.9	71.9	67.9	74.2	61.6	67.9	86	50	59	60	61	80	67	79	.516	.532	.549	1.48	.74	4.2	4.9	4.1	4.7
October	30.070	30.450	29.700	60.2	65.0	62.1	67.7	56.0	61.8	90	41	55	56	56	83	74	82	.451	.468	.472	2.11	.86	6.0	6.5	5.8	6.2
November	30.046	30.600	29.410	45.5	50.9	47.4	54.2	40.1	47.2	74	28	38	39	39	76	65	72	.255	.254	.254	3.27	1.44	5.1	5.3	4.1	5.1
December	30.073	30.750	29.440	31.6	36.1	34.4	41.6	25.8	33.7	58	3	26	26	27	78	67	74	.158	.157	.165	2.45	.48	6.6	6.1	4.1	6.5
Year	29.996	30.750	29.240	52.3	57.1	53.9	60.4	47.6	54.0	99	3	46	46	47	79	69	78	.364	.367	.371	49.44	8.64	5.5	5.1	4.5	5.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

ANNISTON, ALA.

[H_b=741 ft.; h_t=9 ft.; h_r=3 ft.; h_a=57 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	5.2	NW.	22	S.	0	8	1	1	10	8	2	8	19	5	12	11	8	10	9	3	2	0	1	3	0	14	0	0
February	7.6	SE.	33	SE.	0	10	1	2	13	5	3	9	11	2	8	9	11	13	8	3	1	0	0	0	0	12	1	0
March	7.0	NW.	42	E.	1	10	1	3	15	4	0	4	24	1	17	2	12	8	6	0	0	0	0	0	0	2	3	0
April	5.2	S.	20	SE.	0	9	0	5	6	15	5	6	14	0	17	4	9	6	5	0	0	0	1	0	0	2	2	0
May	4.6	S.	27	SW.	0	7	2	7	7	17	7	5	7	3	8	11	12	16	15	0	0	0	0	0	0	0	9	0
June	4.5	E.	24	E.	0	4	4	12	15	7	7	3	2	6	8	18	4	15	9	0	0	0	1	0	8	0	14	0
July	4.3	SE.	30	NW.	0	5	2	8	19	8	2	4	9	5	13	13	5	16	12	0	0	0	0	0	9	0	13	0
August	4.0	S.	19	SW.	0	4	2	4	12	12	9	5	8	6	7	16	8	12	9	0	0	0	2	0	9	0	14	0
September	4.2	SE.	20	SE.	0	11	7	7	14	10	1	0	5	5	23	6	1	2	1	0	0	0	0	0	6	0	2	0
October	4.6	SE.	15	E.	0	3	3	1	23	15	6	4	4	3	6	15	10	14	10	0	0	0	1	0	0	0	5	0
November	5.5	NW.	26	W.	0	15	0	3	13	11	4	1	12	1	17	2	11	7	5	0	0	0	4	0	0	5	2	0
December	6.0	NW.	26	W.	0	8	0	4	7	11	6	6	17	3	10	8	13	12	8	0	0	0	1	0	0	15	0	0
Year	5.2	SE.	42	E.	1	94	23	57	154	123	52	55	132	40	146	115	104	131	97	6	3	0	11	3	32	50	65	0

ASHEVILLE, N. C.

[H_b=2,255 ft.; h_t=70 ft.; h_r=61 ft.; h_a=84 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.7	NW.	38	SE.	0	7	1	4	10	5	0	3	30	2	18	4	9	10	9	4	2	0	1	4	0	22	0	0
February	10.6	NW.	32	SE.	0	8	0	0	15	9	1	1	22	0	9	7	12	11	8	10	4	0	0	2	0	18	2	0
March	11.9	NW.	50	E.	2	4	0	1	18	7	3	1	26	2	17	5	9	8	8	1	0	0	1	0	0	5	0	0
April	10.0	NW.	32	SE.	0	13	0	4	15	8	0	0	20	0	14	10	6	7	6	0	0	0	0	0	0	5	1	0
May	7.7	SE.	31	SE.	0	7	0	8	18	10	0	1	17	1	6	19	6	18	13	0	0	0	3	0	0	0	5	0
June	6.1	SE.	34	NW.	0	4	0	10	17	14	1	1	12	1	6	19	5	15	13	0	0	0	9	0	0	0	12	0
July	5.6	SE.	29	N.	0	6	1	6	19	13	3	4	8	2	10	15	6	13	10	0	0	0	4	0	2	0	9	0
August	5.6	NW.	26	SE.	0	16	1	2	15	6	0	5	16	1	6	17	8	13	9	0	0	0	6	0	1	0	8	0
September	5.3	NW.	29	N.	0	14	1	4	16	9	1	2	11	2	20	8	2	3	2	0	0	0	4	0	0	0	1	0
October	6.0	S.	28	SE.	0	6	2	2	15	21	1	1	13	1	3	17	11	10	8	0	0	0	9	0	0	0	1	0
November	8.7	SE.	31	SE.	0	5	0	2	21	8	0	0	23	1	12	8	10	6	3	0	0	0	0	0	0	10	0	0
December	8.5	NW.	39	NW.	0	13	0	1	17	7	1	1	20	2	12	11	8	10	5	4	2	0	1	2	0	23	0	0
Year	7.9	NW.	50	E.	2	103	6	44	196	117	11	20	218	15	133	140	92	124	94	19	8	0	38	8	3	83	39	0

ATLANTA, GA.

[H_b=1,174 ft.; h_t=190 ft.; h_r=182 ft.; h_a=216 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.6	NW.	42	NW.	1	2	2	8	8	9	2	1	30	0	16	4	11	8	6	3	2	0	0	3	0	8	0	0
February	12.9	NW.	40	NW.	1	1	1	15	5	5	2	4	23	0	9	4	15	9	8	3	1	0	4	0	0	7	1	0
March	13.1	NW.	46	NW.	2	4	1	8	12	4	1	4	28	0	16	4	11	8	5	0	0	0	2	0	0	1	2	0
April	11.4	NW.	33	NW.	0	0	3	2	14	10	1	10	20	0	17	6	7	6	6	0	0	1	0	0	0	1	2	0
May	9.2	NW.	60	W.	2	0	1	5	10	14	7	6	18	1	6	8	17	19	13	0	0	0	0	0	0	0	9	0
June	9.0	E.	42	SE.	1	4	7	14	15	3	1	9	7	0	5	8	17	16	11	0	0	0	0	0	6	0	10	0
July	8.7	SE.	34	NW.	0	2	4	13	19	3	2	10	8	1	5	10	16	18	15	0	0	0	0	0	6	0	16	0
August	8.7	W.	42	W.	1	3	1	6	8	4	8	18	13	1	5	7	19	16	14	0	0	1	2	0	3	0	10	0
September	8.1	E.	30	W.	0	8	5	19	13	2	2	4	6	1	22	4	4	5	4	0	0	0	2	0	3	0	3	0
October	8.9	SE.	28	S.	0	0	1	17	14	11	4	4	11	0	4	6	21	12	10	0	0	0	5	0	0	0	3	0
November	11.4	NW.	33	NW.	0	2	2	17	10	3	3	3	20	0	14	4	12	6	6	0	0	0	2	0	0	1	1	0
December	12.3	NW.	48	NW.	2	2	4	6	5	8	2	14	21	0	14	4	13	9	8	0	0	0	5	0	0	11	1	0
Year	10.4	NW.	60	W.	10	28	32	130	133	76	35	87	205	4	133	69	163	132	106	6	3	2	22	3	18	29	58	0

ATLANTIC CITY, N. J.

[H_b=52 ft.; h_t=37 ft.; h_r=33 ft.; h_a=48 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.7	NW.	32	NW.	0	8	3	3	1	1	18	14	14	0	16	4	11	8	7	3	1	0	4	2	0	16	0	0
February	7.7	NW.	24	SE.	0	2	3	0	7	8	1	12	23	0	14	6	8	11	9	4	3	0	1	0	0	19	1	0
March	10.7	NW.	38	NW.	0	9	6	10	4	5	7	4	17	0	11	8	12	13	10	2	2	0	1	0	0	7	0	0
April	8.8	NW.	28	NW.	0	5	4	3	1	13	12	5	17	0	12	10	8	10	8	1	0	0	2	0	0	3	2	0
May	7.7	SW.	28	E.	0	2	8	4	9	9	16	7	7	0	12	6	13	15	10	0	0	0	2	0	0	0	4	0
June	7.1	S.	36	NE.	0	1	15	8	3	15	10	2	6	0	13	8	9	10	5	0	0	0	6	0	0	0	1	0
July	7.0	S.	23	NE.	0	3	6	2	9	16	12	6	8	0	15	4	12	13	12	0	0	0	0	0	4	0	4	0
August	6.7	SW.	29	NE.	0	6	2	2	5	9	17	7	14	0	11	11	9	15	12	0	0	1	0	0	2	0	4	0
September	6.9	SW.	19	SW.	0	8	4	6	5	6	13	6	12	0	14	7	9	6	4	0	0	0	1	0	0	0	3	0
October	7.6	SW.	20	S.	0	9	8	4	10	3	18	4	6	0	8	11	12	12	7	0	0	0	5	0	0	0	1	0
November	8.1	NW.	27	S.	0	10	4	2	6	6	8	8	16	0	13	5	12	11	11	0	0	0	1	0	0	4	1	0
December	7.6	NW.	29	NW.	0	11	1	4	3	3	8	9	23	0	8	7	16	16	10	9	8	0	5	3	0	24	0	0
Year	7.8	NW.	39	NE.	0	74	64	48	63	94	140	84	163	0	147	87	131	140	105	19	14	1	28	5	6	73	21	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

AUGUSTA, GA.

[ϕ=33° 28′ N.; λ=81° 54′ W.]

Month.	Pressure.			Temperature.												Moisture.											
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.936	30.350	29.500	39.2	53.6	49.9	58.5	36.8	47.6	73	16	36	39	40	87	60	68	0.225	0.261	0.261	4.64	1.69	5.2	5.2	3.3	5.6
February	29.824	30.240	29.320	42.1	53.1	51.2	57.5	39.7	48.6	70	26	38	43	43	86	69	75	.239	.288	.296	4.83	2.27	6.0	5.4	5.7	5.9
March	29.927	30.290	29.480	52.2	64.4	60.4	68.7	47.5	58.1	77	38	46	49	50	80	60	69	.319	.362	.365	1.90	.84	4.8	4.7	4.5	5.0
April	29.858	30.170	29.570	57.4	71.0	69.1	75.9	51.8	63.8	88	34	47	48	51	70	47	55	.350	.302	.394	1.92	.97	4.1	4.2	3.8	4.5
May	29.734	29.960	29.340	67.6	77.7	74.0	82.0	63.0	72.5	89	53	63	66	66	86	68	76	.582	.638	.636	4.45	1.39	7.2	7.5	6.5	7.4
June	29.861	30.160	29.550	74.2	82.7	78.6	86.6	69.3	78.0	95	59	69	70	69	84	66	74	.704	.723	.718	7.05	2.27	6.2	6.8	7.6	6.8
July	29.835	30.070	29.620	76.0	86.2	80.2	89.1	71.8	80.4	98	59	71	71	72	84	62	78	.760	.761	.796	10.26	1.90	5.8	6.4	7.3	6.6
August	29.804	29.990	29.600	74.4	84.8	79.4	88.1	71.0	79.6	95	62	70	68	71	85	60	76	.731	.705	.762	2.89	.78	6.6	6.2	7.1	6.5
September	29.843	30.092	29.596	68.2	83.8	77.9	86.6	64.0	75.3	94	53	63	61	64	83	48	62	.576	.555	.599	.06	.06	3.1	2.6	2.9	3.2
October	29.914	30.140	29.710	68.6	80.7	74.4	83.9	65.9	74.9	94	55	66	67	68	92	64	81	.648	.672	.696	2.97	1.41	6.3	6.5	3.9	6.2
November	29.908	30.440	29.550	50.7	66.2	60.0	69.7	47.8	58.8	86	32	46	46	48	84	51	65	.334	.341	.356	0.43	.24	4.5	4.3	3.5	4.4
December	29.967	30.420	29.590	41.7	53.3	49.9	58.5	38.4	48.4	78	25	37	40	41	83	63	72	.239	.276	.274	1.91	.77	6.2	5.4	3.7	5.3
Year	29.868	30.440	29.320	59.4	71.5	67.1	75.4	55.6	65.5	98	16	54	56	57	84	60	71	.476	.495	.513	43.31	2.27	5.5	5.4	5.0	5.6

BAKER, OREG.

[ϕ=44° 46′ N.; λ=117° 50′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	26.556	27.030	25.940	25.0	34.1	33.5	38.1	21.0	29.6	52	−5	20	24	23	81	65	65	0.113	0.130	0.127	0.62	0.26	4.6	5.2	4.7	5.1
February	26.320	26.660	25.740	26.7	33.0	32.8	35.5	23.2	29.4	47	11	23	25	26	86	72	73	.125	.135	.135	1.39	.38	8.4	8.2	7.8	7.3
March	26.395	26.740	25.830	31.2	44.1	44.7	47.7	28.5	38.1	64	16	26	28	28	78	54	55	.136	.150	.153	.73	.18	5.2	6.0	5.6	5.8
April	26.428	26.740	26.060	36.0	54.9	56.4	59.6	33.6	46.6	77	23	30	29	29	78	38	37	.167	.159	.162	.67	.22	4.8	5.3	5.9	5.4
May	26.390	26.650	26.070	40.0	60.7	62.1	65.6	38.2	51.9	85	26	32	31	32	73	34	35	.187	.185	.193	.19	.11	4.6	5.1	4.8	5.1
June	26.435	26.750	26.237	44.8	69.1	72.0	74.8	43.3	59.0	93	32	33	34	36	56	28	29	.189	.203	.228	T.	T.	3.0	2.8	4.0	3.9
July	26.437	26.600	26.190	53.0	79.0	83.0	85.6	51.1	68.4	99	39	34	39	37	50	25	22	.202	.244	.229	T.	T.	1.4	1.6	1.8	2.3
August	26.458	26.730	26.254	52.6	78.2	81.1	85.1	50.4	67.8	97	39	37	41	40	56	28	26	.223	.258	.258	.46	.39	2.2	1.6	2.8	3.2
September	26.414	26.750	26.050	43.5	66.3	68.9	71.8	40.9	56.4	86	29	34	38	37	70	36	33	.200	.231	.223	.26	.11	1.8	2.4	3.1	3.0
October	26.482	26.750	26.040	32.4	47.7	47.1	51.9	28.2	40.0	73	12	27	30	30	81	53	56	.148	.172	.172	.77	.28	5.0	4.1	5.3	5.4
November	26.509	26.950	26.035	28.2	38.3	35.3	41.3	25.7	33.5	56	3	25	26	27	86	62	72	.135	.144	.151	1.61	.52	5.3	5.5	6.2	6.6
December	26.564	27.000	25.930	15.7	23.5	21.8	27.8	10.5	19.2	46	−24	13	17	16	87	74	77	.087	.101	.099	1.14	.33	4.9	5.4	4.5	6.9
Year	26.449	27.030	25.740	35.8	52.4	53.2	57.1	32.9	45.0	99	−24	28	30	30	74	47	48	.159	.176	.178	7.84	.52	4.3	4.4	4.7	5.0

BALTIMORE, MD.

[ϕ=39° 17′ N.; λ=76° 37′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.960	30.650	29.500	33.7	41.2	39.8	45.9	30.5	38.2	64	11	26	26	28	72	57	62	0.152	0.157	0.162	3.51	1.42	4.8	5.2	3.3	5.1
February	29.894	30.400	29.170	33.0	39.4	38.8	43.7	31.5	37.6	59	22	24	23	27	67	52	62	.132	.132	.151	2.62	.79	4.9	5.3	4.4	4.8
March	30.002	30.609	29.311	41.9	49.4	47.5	54.7	37.7	46.2	75	29	30	33	33	65	56	60	.176	.199	.202	4.22	1.60	5.2	4.5	3.5	4.7
April	29.914	30.250	29.550	49.3	56.9	54.0	61.8	44.0	52.9	73	25	37	38	40	65	51	60	.238	.250	.257	4.05	1.64	5.1	6.5	4.9	5.3
May	29.821	30.230	29.480	61.9	69.4	66.4	73.4	56.4	64.9	93	46	52	52	54	71	56	68	.394	.396	.434	5.46	2.00	5.7	5.8	6.3	5.7
June	29.994	30.342	29.650	70.3	77.3	74.7	81.3	65.4	73.4	95	54	62	62	62	75	62	67	.564	.582	.571	2.69	.69	5.8	5.5	5.0	5.0
July	29.882	30.206	29.600	75.5	82.3	79.0	85.7	70.4	78.0	102	60	65	64	67	71	57	68	.620	.608	.666	7.21	1.64	5.7	5.3	5.9	5.2
August	29.828	30.160	29.600	71.7	79.8	74.7	83.0	66.2	74.6	94	58	62	63	64	74	59	71	.579	.598	.606	6.45	1.45	4.3	4.9	4.9	4.7
September	29.919	30.300	29.490	66.4	76.4	70.9	79.7	61.2	70.4	95	51	57	58	60	73	54	69	.484	.498	.530	2.31	1.40	3.3	4.8	2.8	4.1
October	30.007	30.370	29.670	59.0	66.8	63.6	70.6	55.3	63.0	92	41	52	55	55	80	68	75	.419	.464	.457	2.50	.95	5.9	6.3	6.6	6.5
November	29.990	30.500	29.380	43.1	51.4	48.1	55.2	39.6	47.4	73	31	37	38	39	78	61	69	.231	.242	.247	3.10	.88	4.3	5.2	4.4	5.0
December	30.021	30.710	29.340	29.6	35.0	34.0	40.6	25.7	33.2	68	7	22	22	24	72	61	64	.128	.137	.140	3.11	1.40	7.2	5.6	4.1	5.9
Year	29.936	30.710	29.170	53.0	60.4	57.6	64.6	43.7	56.6	102	7	44	44	46	72	58	66	.343	.355	.369	47.23	2.00	5.2	5.4	4.7	5.2

BENTONVILLE, ARK.

[ϕ=36° 22′ N.; λ=94° 12′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.746	29.080	28.460	30.0	42.7	....	47.7	27.0	37.4	64	−2	25	26	....	80	52	....	0.146	0.150	....	0.68	0.29	7.5	3.8	....	4.1
February	28.551	28.980	27.620	31.3	41.4	....	48.8	27.9	38.4	65	3	26	28	....	80	62	....	.149	.160	....	2.71	.71	4.9	4.6	....	5.0
March	28.721	29.080	28.250	41.3	55.8	....	61.2	38.5	49.8	75	15	34	36	....	76	50	....	.206	.219	....	2.71	1.75	5.4	4.7	....	4.5
April	28.600	28.916	28.140	50.3	64.0	....	69.1	46.7	57.9	85	34	44	44	....	78	50	....	.300	.309	....	3.74	1.74	5.2	4.8	....	4.8
May	28.521	28.742	28.260	58.4	68.3	....	72.3	53.9	63.1	83	42	54	55	....	86	64	....	.428	.445	....	5.00	1.59	6.5	5.9	....	6.5
June	28.644	28.870	28.380	68.6	78.7	....	83.0	64.0	73.5	90	49	64	66	....	87	67	....	.618	.650	....	6.83	2.21	4.9	6.2	....	5.5
July	28.669	28.810	28.460	72.6	85.7	....	89.7	67.5	78.6	96	59	66	66	....	81	54	....	.646	.646	....	2.50	1.83	1.5	2.5	....	2.4
August	28.650	28.830	28.450	69.4	83.1	....	88.4	65.9	77.2	97	55	65	66	....	84	58	....	.623	.647	....	2.95	1.81	3.7	3.6	....	3.6
September	28.678	28.900	28.260	62.5	79.4	....	83.7	59.1	71.4	94	44	58	58	....	84	50	....	.495	.514	....	1.64	1.24	3.6	3.6	....	4.4
October	28.645	28.910	28.270	56.0	66.3	....	71.7	52.2	62.0	85	37	53	54	....	91	68	....	.430	.442	....	10.71	3.64	6.8	7.1	....	7.6
November	28.695	29.140	28.120	38.4	52.1	....	57.1	35.4	46.2	72	16	34	34	....	83	55	....	.208	.214	....	5.16	2.50	4.9	4.6	....	4.9
December	28.763	29.370	28.250	28.9	40.8	....	46.5	25.0	35.8	70	3	24	27	....	79	61	....	.140	.162	....	.46	.23	5.5	5.5	....	5.7
Year	28.657	29.370	27.620	50.6	63.2	....	68.3	46.9	57.6	97	−2	46	47	....	82	58	....	.366	.380	....	45.09	3.64	4.8	4.7	....	4.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

AUGUSTA, GA.

[H_b=180 ft; h_1=62 ft.; h_r=54 ft.; h_a=77 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	5.1	NW.	22	NW.	0	5	5	7	3	6	0	6	26	4	9	9	13	8	6	0	0	0	3	1	0	8	0	0
February	6.4	NW.	33	W.	0	2	6	11	7	4	3	4	19	0	11	4	13	9	9	1	0	0	3	0	0	4	1	0
March	7.0	NW.	29	SW.	0	5	10	10	11	3	3	5	15	0	12	6	13	8	6	0	0	0	0	0	0	0	1	0
April	5.8	NW.	31	SW.	0	6	5	5	13	14	3	3	11	0	14	8	8	4	4	0	0	0	0	0	0	0	0	0
May	5.1	S.	25	SW.	0	3	5	8	17	15	5	2	7	0	4	8	19	12	11	0	0	0	1	0	0	0	8	0
June	5.1	E.	44	NW.	1	1	8	17	14	9	2	0	9	0	5	9	16	10	9	0	0	0	0	0	5	0	6	0
July	4.7	S.	27	S.	0	3	2	11	10	18	9	4	4	1	6	10	15	14	13	0	0	0	0	0	14	0	10	0
August	4.7	S.	31	SW.	0	4	2	9	7	12	11	7	10	0	6	11	14	9	9	0	0	0	2	0	14	0	7	0
September	4.9	NE.	21	NE.	0	4	17	11	12	5	2	0	9	0	20	3	7	1	1	0	0	0	1	0	8	0	0	0
October	4.1	S.	20	S.	0	4	15	6	14	6	5	3	5	4	7	11	13	9	6	0	0	0	2	0	4	0	4	0
November	5.0	NW.	23	SW.	0	5	14	7	3	8	3	5	15	0	13	8	9	3	3	0	0	0	3	0	0	1	0	0
December	5.9	NW.	24	NW.	0	9	6	7	2	8	5	6	19	0	13	3	15	8	7	0	0	0	5	0	0	6	0	0
Year	5.3	NW.	44	NW.	1	51	95	109	113	108	51	45	149	9	120	90	155	95	84	1	0	0	20	1	45	19	37	0

BAKER, OREG.

[H_b=3,471 ft.; h_1=48 ft.; h_r=40 ft.; h_a=53 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.9	SE.	29	SW.	0	0	1	7	32	13	3	4	2	0	11	7	13	9	6	9	3	0	0	8	0	28	0	0
February	6.3	SE.	22	SE.	0	5	1	6	24	4	3	5	8	0	2	8	18	15	11	20	14	0	0	5	0	26	0	0
March	6.7	SE.	22	S.	0	3	0	1	29	8	4	7	10	0	9	7	15	10	7	13	7	0	0	0	0	26	0	0
April	6.8	SE.	25	S.	0	7	2	1	29	8	1	1	11	0	10	9	11	6	5	4	1	0	0	0	0	11	1	0
May	6.5	SE.	30	SW.	0	8	3	3	19	4	1	0	22	2	12	7	12	3	2	2	0	0	0	0	0	9	1	0
June	6.3	NW.	21	N.	0	8	2	0	21	6	4	1	18	0	17	7	6	0	0	0	0	0	0	0	2	1	0	0
July	6.0	NW.	18	N.	0	7	2	0	27	4	1	5	16	0	22	7	2	0	0	0	0	0	0	0	14	0	0	0
August	5.7	SE.	28	SW.	0	7	3	3	27	5	2	2	13	0	17	10	4	4	2	0	0	0	0	0	6	0	5	0
September	6.0	SE.	36	SW.	0	6	2	3	31	4	2	2	9	1	18	9	3	8	2	0	0	0	0	0	0	2	4	0
October	5.7	SE.	25	SW.	0	8	2	1	20	4	3	9	15	0	10	10	11	9	6	7	7	0	0	3	0	20	0	0
November	5.6	SE.	31	N.	0	2	5	8	20	1	3	6	13	2	8	6	16	10	8	9	8	0	0	4	0	27	0	0
December	6.5	SE.	33	S.	0	2	2	2	33	10	3	4	3	3	4	8	19	9	6	9	5	0	2	20	0	27	0	0
Year	6.3	SE.	36	SW.	0	63	25	35	312	71	30	46	140	8	140	95	130	83	55	73	45	0	2	40	22	177	11	0

BALTIMORE, MD.

[H_b=123 ft.; h_1=100 ft.; h_r=90 ft.; h_a=113 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.4	SW.	20	SW.	0	9	2	4	5	11	14	7	9	1	13	9	9	7	6	5	2	0	4	4	0	14	0	0
February	7.0	NW.	24	NW.	0	2	4	1	5	8	10	5	20	1	11	9	8	11	9	6	2	0	4	0	0	16	1	0
March	9.2	NW.	32	NW.	0	13	7	3	6	9	4	2	18	0	14	8	9	10	8	4	1	0	3	0	0	4	1	0
April	7.4	SW.	30	NW.	0	9	4	4	8	9	14	3	8	1	8	13	9	6	6	2	0	0	2	0	0	2	2	0
May	6.6	SW.	22	SW.	0	6	10	7	7	10	12	1	9	0	12	6	13	14	11	0	0	1	1	0	2	0	7	0
June	6.2	SE.	30	N.	0	7	10	10	12	17	0	1	3	0	12	8	10	10	8	0	0	0	2	0	1	0	6	0
July	6.1	S.	26	NW.	0	12	2	3	12	14	8	3	8	0	11	6	14	10	8	0	0	0	0	0	10	0	4	0
August	6.0	SW.	29	SW.	0	9	3	3	4	12	11	5	15	0	12	12	7	9	9	0	0	1	1	0	4	0	5	0
September	5.7	NW.	25	NW.	0	13	3	3	7	11	4	2	15	2	16	6	8	4	4	0	0	0	1	0	3	0	2	0
October	5.6	SE.	24	NW.	0	13	11	3	12	6	6	1	6	4	5	10	16	10	6	0	0	0	7	0	1	0	0	0
November	5.9	SW.	26	NW.	0	13	5	4	10	5	7	12	4	0	11	11	8	12	12	0	0	0	1	0	0	2	1	0
December	6.9	N.	29	NW.	0	11	4	4	2	10	11	6	14	0	9	9	13	12	9	9	5	0	3	5	0	24	0	0
Year	6.5	NW.	32	NW.	0	117	65	49	90	122	101	43	129	9	134	107	124	115	96	26	10	2	29	9	21	62	29	0

BENTONVILLE, ARK.

[H_b=1,303 ft.; h_1=11 ft.; h_r=3 ft.; h_a=44 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.1	S.	20	S.	0	2	1	0	2	8	6	4	5	3	17	6	8	6	5	3	2	0	0	5	0	18	0	0
February	7.6	S.	33	S.	0	5	2	2	3	5	5	1	5	0	16	3	9	13	11	7	5	0	1	4	0	17	1	0
March	6.5	S.	28	SW.	0	4	3	4	6	7	2	2	1	2	13	10	8	6	4	2	2	0	0	0	0	7	1	0
April	7.2	S.	30	SW.	0	0	1	4	3	13	4	1	4	0	13	7	10	11	9	0	0	0	0	0	0	0	7	0
May	4.8	NE.	21	S.	0	2	9	5	3	3	2	3	3	1	8	9	14	16	12	0	0	0	0	0	0	0	11	0
June	3.3	SE.	23	S.	0	0	1	6	9	7	3	2	2	0	7	17	6	16	15	0	0	1	0	0	1	0	20	0
July	3.3	S.	14	E.	0	4	5	2	6	7	2	2	2	1	24	6	1	4	4	0	0	0	0	0	16	0	7	0
August	3.7	S.	18	W.	0	3	2	3	3	12	3	2	1	2	18	8	5	7	6	0	0	0	0	0	12	0	10	0
September	4.3	S.	22	SE.	0	3	2	2	6	10	4	1	1	1	16	6	8	4	3	0	0	0	1	0	4	0	2	0
October	5.1	S.	21	S.	0	5	7	2	6	8	0	1	2	0	6	3	22	15	12	0	0	0	0	0	0	0	7	0
November	5.4	SW.	19	SW.	0	6	5	1	4	2	7	3	2	0	14	4	12	10	8	1	0	0	0	0	0	8	2	0
December	6.0	N.	24	S.	0	10	2	2	2	6	2	3	4	0	11	9	11	5	4	1	1	0	0	3	0	25	0	0
Year	5.2	S.	33	S.	0	44	40	33	53	88	40	25	32	10	163	88	114	113	93	14	11	1	2	12	33	75	68	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

BINGHAMTON, N. Y.

[ϕ=42° 06′ N.; λ=75° 55′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.062	29.760	28.600	26.6	32.4	....	38.5	21.5	30.0	58	1	21	24	....	80	69	....	0.120	0.134	....	1.29	0.48	7.8	6.1	....	6.4
February	29.029	29.560	28.360	25.4	31.8	....	35.9	23.1	29.5	55	14	21	23	....	81	68	....	.112	.123	....	1.16	.46	7.2	6.4	....	6.6
March	29.178	29.782	28.500	33.2	40.6	....	46.5	26.9	36.7	72	13	27	29	....	76	64	....	.151	.166	....	3.22	1.23	7.4	6.4	....	6.8
April	29.061	29.433	28.680	40.6	49.5	....	54.8	35.5	45.2	79	16	34	34	....	78	60	....	.206	.209	....	2.22	.48	6.6	7.1	....	7.1
May	29.022	29.470	28.670	54.3	64.1	....	68.7	47.6	58.2	86	36	49	51	....	82	65	....	.352	.384	....	3.68	.95	5.1	6.4	....	6.2
June	29.201	29.540	28.888	65.6	78.1	....	82.3	59.4	70.8	96	44	60	62	....	83	60	....	.534	.571	....	2.49	.91	3.4	4.5	....	3.8
July	29.094	29.371	28.640	65.8	77.7	....	82.2	59.7	71.0	96	51	60	60	....	81	58	....	.521	.543	....	3.55	.73	5.0	6.0	....	5.2
August	29.024	29.375	28.760	61.0	67.2	....	76.2	56.1	66.2	88	45	57	59	....	86	64	....	.467	.506	....	2.95	.77	6.9	6.6	....	6.4
September	29.098	29.466	28.700	56.8	69.6	....	73.8	52.2	63.0	89	35	54	60	....	91	73	....	.438	.527	....	1.19	.37	6.8	5.5	....	5.8
October	29.174	29.510	28.680	50.8	60.0	....	63.7	44.5	54.1	87	29	47	48	....	86	66	....	.344	.369	....	3.40	.78	7.5	7.7	....	7.2
November	29.134	29.600	28.480	35.8	41.9	....	46.8	31.8	39.3	62	15	30	30	....	80	64	....	.177	.175	....	3.48	1.41	7.9	7.7	....	7.5
December	29.126	29.780	28.467	21.3	26.4	....	31.2	14.9	23.0	52	−14	17	18	....	83	69	....	.103	.108	....	1.55	.58	8.3	7.2	....	7.2
Year	29.100	29.782	28.300	44.8	53.3	....	58.4	39.4	48.9	96	−14	40	42	....	82	65	....	.294	.318	....	30.18	1.41	6.7	6.5	....	6.4

BIRMINGHAM, ALA.

[ϕ=33° 32′ N.; λ=86° 50′ W.]

January	29.402	29.740	28.920	37.5	49.9	46.2	53.5	34.3	43.9	71	4	32	32	31	81	53	58	0.195	0.198	0.185	6.21	2.11	4.5	4.5	4.4	4.5
February	29.253	29.580	28.620	40.6	50.3	48.8	55.0	37.0	46.0	69	23	34	35	35	77	60	61	.211	.217	.213	5.22	1.39	6.0	6.4	4.6	6.3
March	29.378	29.680	28.860	48.1	61.6	58.6	66.5	44.5	55.5	77	28	39	39	39	72	47	51	.255	.255	.254	5.91	1.98	4.5	4.1	4.0	4.2
April	29.309	29.590	28.950	56.1	69.6	65.6	73.7	51.9	62.8	85	32	45	44	45	67	42	50	.315	.315	.320	1.55	.64	3.9	3.6	4.0	3.7
May	29.177	29.370	28.850	63.2	73.6	69.5	76.7	59.3	68.0	85	48	57	58	58	83	61	69	.484	.492	.495	4.59	1.13	5.9	6.8	5.5	6.4
June	29.299	29.570	29.050	73.4	83.9	77.7	87.2	69.2	78.2	95	65	67	66	66	80	57	69	.656	.651	.650	3.30	.89	5.1	5.7	5.1	5.6
July	29.288	29.504	29.080	73.6	84.7	78.4	88.0	70.1	79.0	93	65	69	69	69	86	62	75	.707	.724	.718	5.53	1.82	5.3	6.1	6.5	5.9
August	29.287	29.440	29.120	72.0	84.4	78.1	87.9	69.3	78.6	98	61	69	69	69	91	62	76	.717	.718	.721	5.33	1.57	6.6	6.3	5.4	6.0
September	29.294	29.530	29.040	67.5	84.1	75.9	87.2	64.6	75.9	95	55	60	60	60	78	46	60	.534	.529	.537	1.09	1.06	2.5	3.9	2.4	2.9
October	29.335	29.520	29.190	67.9	79.4	73.6	83.0	66.0	74.5	94	54	64	65	65	88	63	74	.606	.624	.614	2.31	.68	6.4	7.0	4.7	6.7
November	29.352	29.810	28.950	49.3	62.1	56.7	66.0	46.0	56.0	75	28	42	44	45	78	56	66	.298	.316	.324	4.01	1.94	5.0	4.8	3.2	5.1
December	29.419	29.880	28.950	40.1	51.0	48.5	54.9	36.8	45.8	70	17	34	37	38	81	61	68	.226	.246	.250	9.56	4.12	5.4	6.0	4.5	5.6
Year	29.316	29.880	28.620	57.4	69.6	64.8	73.3	54.1	63.7	98	4	51	52	52	80	56	65	.434	.440	.440	54.61	4.12	5.1	5.4	4.5	5.2

BISMARCK, N. DAK.

[ϕ=46° 47′ N.; λ=100° 38′ W.]

January	28.192	28.720	27.750	18.8	28.8	27.4	35.7	13.1	24.4	52	−35	14	20	21	82	69	76	0.090	0.114	0.120	0.09	0.05	4.4	4.7	3.5	5.0
February	28.260	28.640	27.730	6.2	14.3	13.2	18.1	1.9	10.0	52	−24	5	8	9	92	73	84	.059	.068	.072	.63	.17	7.9	6.2	5.6	6.1
March	28.315	28.920	27.500	14.5	23.5	23.5	28.4	9.8	19.1	50	−25	12	16	18	91	72	81	.087	.099	.109	1.17	.65	6.9	6.7	5.5	6.1
April	28.214	28.859	27.510	35.9	49.3	49.5	53.4	33.4	43.4	76	19	31	30	31	82	54	54	.175	.173	.178	1.71	.80	6.0	5.9	6.5	5.9
May	28.175	28.530	27.800	48.1	63.2	64.2	67.9	44.2	56.0	91	30	42	39	39	79	47	44	.275	.250	.247	4.06	1.41	4.0	5.0	4.0	4.5
June	28.226	28.530	27.836	60.7	76.2	77.0	81.1	57.0	69.0	98	35	55	56	56	82	50	51	.455	.475	.493	.63	.24	5.7	4.7	4.4	4.8
July	28.192	28.510	27.754	64.2	81.7	82.8	87.1	59.5	73.3	100	47	54	52	51	72	39	36	.438	.416	.391	.76	.56	3.7	4.4	3.2	4.3
August	28.208	28.540	27.910	58.8	78.7	79.6	84.5	56.7	70.6	95	45	50	52	50	74	40	37	.373	.392	.381	1.46	1.15	4.0	3.1	3.4	3.3
September	28.207	28.590	27.680	51.7	67.5	66.8	73.2	48.9	61.0	93	34	44	44	44	78	46	46	.306	.300	.303	.34	.14	5.3	4.7	4.1	4.7
October	28.260	28.610	27.570	27.3	41.9	38.4	46.1	23.2	34.6	83	−10	24	26	26	86	59	66	.138	.150	.150	.98	.39	6.5	5.6	5.2	5.6
November	28.309	28.890	27.760	15.8	23.3	20.0	26.2	10.1	18.2	49	−14	13	16	15	87	72	80	.089	.097	.096	.92	.71	5.1	6.2	5.8	5.2
December	28.319	28.870	27.700	7.8	15.9	12.9	20.8	2.2	11.5	46	−26	3	10	9	81	75	83	.062	.082	.081	.23	.19	3.5	4.3	4.8	4.2
Year	28.240	28.920	27.500	34.2	47.0	46.3	51.9	30.0	40.9	100	−35	29	31	31	82	58	62	.212	.218	.218	12.98	1.41	5.2	5.1	4.7	5.1

BLOCK ISLAND, R. I.

[ϕ=41° 10′ N.; λ=71° 36′ W.]

January	29.963	30.627	29.050	34.6	37.2	35.2	40.7	29.5	35.1	55	6	30	32	30	84	80	80	0.180	0.187	0.173	3.76	1.38	5.5	5.8	3.9	6.5
February	29.891	30.390	29.180	30.9	35.2	34.4	38.4	27.9	33.2	47	19	26	28	29	80	74	80	.144	.156	.162	3.81	1.22	5.2	4.4	2.6	4.8
March	30.034	30.841	29.080	38.4	41.7	39.2	44.8	34.3	39.6	54	21	36	38	37	90	87	91	.216	.236	.225	4.16	.88	6.0	6.5	4.5	6.8
April	29.963	30.370	29.620	42.3	46.7	43.5	50.1	38.4	44.2	59	20	40	43	41	91	88	91	.251	.289	.260	2.49	1.28	5.4	5.8	4.7	6.3
May	29.926	30.410	29.680	53.4	56.9	52.8	59.9	47.9	53.9	75	41	51	54	51	92	91	93	.378	.427	.373	3.42	1.46	6.0	5.8	4.9	6.8
June	30.102	30.460	29.740	61.8	65.9	60.3	68.4	56.0	62.2	90	51	60	63	58	94	90	94	.519	.577	.491	2.45	2.13	5.4	5.0	4.3	6.0
July	29.972	30.380	29.580	68.7	72.5	67.9	75.3	63.4	69.4	90	55	66	68	65	91	88	92	.639	.697	.626	4.94	1.79	5.3	5.8	4.9	6.1
August	29.922	30.273	29.630	66.5	69.6	66.0	71.7	62.1	66.9	81	58	62	63	62	87	81	89	.568	.590	.568	4.87	1.68	5.9	5.5	3.4	6.5
September	30.002	30.410	29.480	62.6	65.8	62.8	67.8	58.6	63.2	80	48	58	59	59	86	80	89	.495	.516	.511	3.78	1.32	4.7	4.6	4.0	5.4
October	30.103	30.580	29.600	55.8	58.2	56.5	61.3	51.2	56.2	76	41	52	53	53	88	84	89	.403	.416	.412	3.13	1.09	7.1	5.6	5.3	7.4
November	30.033	30.520	29.400	43.7	47.3	44.8	50.4	39.2	44.8	66	26	40	42	40	86	81	85	.258	.275	.262	3.54	1.13	5.3	5.9	5.3	6.7
December	30.064	30.710	29.360	30.8	33.3	32.4	37.5	25.5	31.5	54	−1	27	28	28	85	80	82	.164	.167	.164	3.53	.99	5.5	6.8	3.8	7.5
Year	29.998	30.841	29.050	49.1	52.5	49.6	55.5	44.5	50.0	90	−1	46	48	46	88	84	88	.351	.378	.352	43.88	2.13	5.6	5.6	4.3	6.4

Annual meteorological summary for the year ending December 31, 1919—Continued.

BINGHAMTON, N. Y.

[H_b=871 ft.; h_t=10 ft.; h_r=3 ft.; h_a=84 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	6.2	NW.	28	NW.	0	3	4	8	0	3	3	1	9	0	6	12	13	8	5	13	5	0	0	7	0	27	0	0
February	7.0	NW.	27	SE.	0	1	5	4	1	1	0	4	11	1	6	6	16	11	7	17	4	0	0	10	0	26	0	0
March	8.0	NW.	36	NW.	0	5	1	3	3	3	3	4	8	1	7	7	17	10	7	10	4	0	0	5	0	23	0	0
April	6.7	NW.	34	SW.	0	3	4	2	3	1	4	6	7	0	6	6	18	15	13	5	2	0	1	1	0	8	2	0
May	5.7	SE.	34	SW.	0	3	5	3	6	2	3	6	2	1	7	12	12	14	13	0	0	0	1	0	0	0	2	1
June	4.7	NE.	34	E.	0	3	14	2	2	3	1	3	2	0	17	7	6	9	7	0	0	1	3	0	3	0	4	0
July	4.7	NE.	28	SW.	0	1	13	3	4	0	3	1	6	0	10	10	11	10	10	0	0	1	1	0	5	0	7	0
August	4.5	NE.	28	NW.	0	1	14	2	4	1	3	3	3	0	7	11	13	11	11	0	0	2	2	0	0	0	5	0
September	4.7	NW.	31	S.	0	1	10	3	2	0	2	4	7	1	8	9	13	13	7	0	0	0	3	0	0	0	1	0
October	4.7	NW.	27	SW.	0	4	7	4	5	1	4	1	4	1	2	15	14	15	14	0	0	0	4	0	0	3	1	0
November	7.5	NW.	40	SW.	1	1	9	2	3	2	4	4	5	0	6	5	19	13	10	10	2	0	0	1	0	16	0	0
December	6.1	NW.	27	NW.	0	0	2	9	1	2	6	6	5	0	5	10	16	10	8	15	7	0	0	14	0	26	0	0
Year	5.9	NW.	40	SW.	1	26	88	45	34	19	36	43	69	5	87	110	168	139	112	70	24	4	15	38	8	129	22	1

BIRMINGHAM, ALA.

[H_b=700 ft.; h_t=11 ft.; h_r=3 ft.; h_a=48 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.7	N.	28	S.	0	14	5	7	8	5	6	8	7	2	14	8	9	11	9	4	2	0	0	3	0	10	0	0
February	8.2	N.	32	S.	0	12	4	10	8	7	3	5	7	0	8	5	15	12	11	2	1	0	0	0	0	6	1	0
March	8.2	N.	38	SE.	0	25	6	1	17	2	2	2	7	0	17	2	12	7	6	0	0	0	0	0	0	1	2	0
April	7.0	S.	28	SE.	0	8	2	1	10	14	8	9	7	1	19	2	9	5	4	0	0	0	1	0	0	1	2	0
May	6.0	S.	28	SW.	0	8	5	7	9	14	6	2	11	0	6	12	13	18	14	0	0	0	0	0	0	0	8	0
June	5.4	E.	24	S.	0	4	6	13	17	5	7	4	4	0	10	10	10	13	12	0	0	0	0	0	5	0	12	0
July	5.1	E.	30	S.	0	10	8	9	12	4	7	1	10	1	6	16	9	18	13	0	0	0	0	0	10	0	20	0
August	4.5	S.	23	SE.	0	5	2	7	8	13	14	4	9	0	6	13	12	15	14	0	0	0	0	0	8	0	15	0
September	5.0	N.	23	SE.	0	13	12	11	6	7	2	2	7	0	18	9	3	4	1	0	0	0	0	0	7	0	2	0
October	6.1	S.	24	SE.	0	10	1	7	15	18	7	3	1	0	5	13	13	12	8	0	0	0	1	0	1	0	3	0
November	6.7	N.	39	S.	0	16	9	6	9	5	5	2	8	0	13	6	11	8	7	0	0	0	1	0	0	3	2	0
December	6.7	N.	28	W.	0	14	6	5	4	10	10	6	7	0	10	7	14	9	8	1	1	0	2	1	0	10	1	0
Year	6.2	N.	39	S.	0	139	66	84	123	104	77	48	85	4	132	103	130	132	107	7	4	0	5	4	31	31	68	0

BISMARCK, N. DAK.

[H_b=1,674 ft.; h_t=8 ft.; h_r=3 ft.; h_a=57 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.8	NW.	40	NW.	3	3	6	10	6	2	3	11	21	0	11	14	6	4	0	8	4	0	1	9	0	30	0	0
February	8.4	NW.	25	NW.	0	14	5	14	2	1	1	2	17	0	5	11	12	11	5	18	11	0	0	24	0	28	0	0
March	9.5	E.	36	SE.	0	6	7	10	14	6	2	4	12	1	8	9	14	7	5	12	4	0	1	17	0	30	0	2
April	11.6	NW.	48	W.	1	8	10	8	6	3	2	6	17	0	8	8	14	8	7	3	2	0	0	1	0	14	1	0
May	11.4	SE.	44	S.	1	7	4	15	11	6	2	3	12	2	13	9	9	13	12	1	1	1	1	1	0	2	3	2
June	11.8	SE.	63	SW.	2	6	2	16	18	4	1	1	11	1	9	15	6	5	3	0	0	2	0	0	6	0	4	0
July	9.9	SE.	42	SE.	1	6	9	12	11	9	2	2	11	0	11	17	3	5	4	0	0	0	0	0	11	0	5	0
August	9.8	NW.	47	NW.	2	5	7	13	6	4	1	4	21	1	19	10	2	6	5	0	0	1	0	0	7	0	8	0
September	10.2	NW.	32	NW.	0	5	9	11	10	4	0	3	17	1	13	8	9	4	3	1	1	0	0	0	3	0	2	2
October	8.1	NW.	36	NW.	0	10	9	7	4	7	2	4	19	0	10	10	11	7	5	8	6	0	0	6	0	22	0	1
November	10.7	NW.	40	NW.	1	7	2	13	5	2	3	6	20	2	8	8	14	4	4	8	4	0	0	18	0	28	0	0
December	8.6	NW.	38	NW.	0	7	1	8	3	3	6	11	22	1	15	10	6	3	3	10	3	0	0	19	0	31	0	0
Year	10.0	NW.	63	SW.	11	84	71	137	96	51	25	57	200	9	130	129	106	77	56	69	36	4	3	94	29	186	22	5

BLOCK ISLAND, R. I.

[H_b=26 ft.; h_t=11 ft.; h_r=3 ft.; h_a=46 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	21.0	NW.	60	W.	11	3	4	3	2	1	20	10	18	1	9	5	17	11	8	4	3	0	2	4	0	17	0	0
February	22.3	NW.	60	NW.	12	5	3	5	2	3	3	7	27	0	12	8	8	9	7	5	4	1	1	2	0	23	1	0
March	22.9	NE.	70	NW.	8	9	11	5	6	5	10	6	10	0	10	1	20	11	10	3	2	0	2	2	0	9	0	0
April	17.8	SW.	56	W.	4	2	3	5	7	5	16	9	13	0	9	4	17	12	8	3	0	0	1	0	0	5	0	0
May	16.8	SW.	53	E.	2	3	4	6	13	7	16	7	6	0	8	6	17	14	12	0	0	0	6	0	0	0	3	1
June	14.2	SW.	36	NE.	0	2	10	8	11	4	19	4	2	0	9	10	11	5	4	0	0	0	6	0	0	0	2	0
July	13.6	SW.	35	SW.	0	2	3	3	2	10	24	13	4	1	9	10	12	13	10	0	0	0	8	0	1	0	2	0
August	14.2	SW.	56	NE.	2	2	4	8	8	5	18	9	7	1	10	6	15	11	10	0	0	1	5	0	0	0	3	0
September	13.8	NE.	36	NW.	0	7	9	5	9	8	10	4	8	0	12	7	11	10	8	0	0	0	3	0	0	0	1	0
October	16.0	NE.	48	NW.	3	4	14	9	7	3	10	8	7	0	6	3	22	13	11	0	0	0	5	0	0	0	0	0
November	20.4	NW.	69	NW.	8	10	7	4	2	5	11	6	14	1	7	6	17	11	11	0	0	0	3	0	0	5	0	0
December	19.4	NW.	60	NW.	11	10	6	5	0	2	13	11	15	0	7	5	19	14	13	7	5	0	6	10	0	23	0	0
Year	17.7	SW.	70	NW.	61	60	78	66	69	58	170	94	131	4	108	71	186	134	112	22	14	2	48	18	1	82	12	1

Annual meteorological summary for the year ending December 31, 1919—Continued.

BOISE, IDAHO.

[ϕ=43° 37′ N.; λ=116° 13′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	27.359	27.830	26.750	29.3	37.1	36.8	41.4	24.2	32.8	59	0	20	23	24	70	56	59	0.115	0.128	0.131	0.85	0.50	5.0	5.1	5.3	5.1
February	27.091	27.430	26.570	33.4	38.2	38.8	42.4	29.3	35.8	56	19	26	28	28	75	66	64	.141	.149	.150	1.79	.54	7.2	8.3	7.9	7.9
March	27.146	27.500	26.610	37.3	47.9	49.2	52.1	33.4	42.8	68	22	28	28	28	70	49	49	.152	.155	.157	1.82	.62	5.5	6.1	6.7	6.2
April	27.146	27.510	26.800	42.9	58.6	61.2	64.1	39.6	51.8	83	29	32	31	31	66	38	35	.182	.177	.179	1.18	.42	4.4	5.9	5.7	5.5
May	27.073	27.410	26.770	47.6	67.5	70.7	73.7	44.9	59.3	99	31	35	34	35	62	30	28	.212	.213	.222	.08	.04	4.1	4.6	4.5	4.0
June	27.098	27.500	26.810	51.8	75.7	80.7	82.5	50.2	66.4	100	36	36	37	35	57	25	20	.218	.227	.213	T.	T.	3.0	2.9	3.2	2.9
July	27.095	27.360	26.870	61.1	84.6	90.9	92.1	59.0	75.6	104	48	38	37	35	44	20	14	.236	.233	.210	T.	T.	1.0	1.1	.7	1.1
August	27.129	27.390	26.910	61.8	83.9	88.8	90.3	58.6	74.4	98	49	39	38	37	44	20	17	.244	.231	.222	T.	T.	2.1	2.1	2.3	2.0
September	27.101	27.470	26.720	51.9	70.8	72.6	76.5	48.0	62.2	94	38	38	39	39	61	33	31	.234	.240	.243	.79	.45	2.9	3.3	3.7	3.5
October	27.210	27.510	26.720	37.4	51.6	51.6	55.7	34.1	44.9	70	19	31	30	30	77	46	47	.175	.172	.172	1.41	.68	4.0	4.8	4.2	4.7
November	27.252	27.750	26.810	33.3	41.5	41.2	44.7	29.4	37.0	58	8	28	28	30	79	61	66	.154	.160	.173	2.34	.76	4.0	5.4	5.8	5.5
December	27.352	27.810	26.480	21.9	27.4	26.4	31.0	16.2	23.6	58	− 7	18	20	20	84	73	78	.108	.115	.118	1.20	.64	5.4	5.6	5.3	5.9
Year	27.171	27.830	26.480	42.5	57.1	59.1	62.2	38.9	50.6	104	− 7	31	31	31	66	43	42	.181	.183	.182	11.46	.76	4.0	4.6	4.6	4.5

BOSTON, MASS.

[ϕ=42° 21′ N.; λ=71° 04′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.832	30.470	29.000	31.0	35.1	33.8	40.9	25.6	33.2	59	2	23	26	24	72	69	68	0.135	0.149	0.139	3.62	1.44	6.8	7.0	3.5	6.5
February	29.771	30.230	29.110	28.7	35.7	34.4	39.8	25.4	32.6	52	16	19	21	24	66	54	63	.108	.114	.130	2.66	.95	4.8	4.2	3.4	4.6
March	29.936	30.770	28.890	38.6	43.9	41.3	48.4	33.3	40.8	63	15	30	32	31	70	66	68	.171	.193	.183	4.11	1.03	7.2	7.7	5.5	7.5
April	29.853	30.270	29.471	44.5	49.7	47.5	54.1	39.5	46.8	68	19	34	35	36	67	60	66	.203	.213	.219	2.33	1.60	6.8	6.7	5.8	7.0
May	29.829	30.336	29.570	57.3	63.0	58.8	67.5	50.7	59.1	93	41	46	47	47	68	60	68	.317	.326	.327	4.25	1.19	5.0	6.0	6.5	6.4
June	29.995	30.391	29.620	66.5	71.7	66.9	76.0	58.5	67.2	98	49	54	56	56	67	61	70	.445	.466	.461	1.68	.54	4.4	5.8	6.0	5.6
July	29.842	30.239	29.450	72.5	77.9	73.8	81.9	66.1	74.0	101	55	62	61	63	70	60	70	.564	.554	.583	4.63	1.75	5.3	6.3	6.4	6.0
August	29.811	30.180	29.490	66.6	72.2	68.6	76.4	61.2	68.8	90	55	57	57	58	73	62	72	.474	.478	.499	5.07	1.86	4.9	6.5	4.9	6.1
September	29.889	30.280	29.370	61.5	68.6	62.1	72.0	55.8	63.9	91	45	55	56	55	80	66	79	.444	.455	.444	5.83	2.94	5.1	5.7	5.9	6.2
October	29.999	30.490	29.390	52.6	59.4	54.5	62.8	47.4	55.1	81	33	45	47	47	76	66	77	.321	.349	.340	2.13	.57	7.4	6.4	6.1	7.4
November	29.923	30.370	29.210	40.4	46.0	43.2	49.9	35.6	42.8	65	25	34	37	36	79	71	76	.210	.225	.220	5.36	1.69	6.6	6.2	6.1	6.7
December	29.952	30.560	29.290	26.8	32.1	30.2	36.1	21.3	28.7	61	− 6	18	20	18	68	60	60	.122	.123	.120	1.63	.78	5.9	6.3	4.3	6.7
Year	29.886	30.770	28.890	48.9	54.6	51.3	58.8	43.4	51.1	101	− 6	40	41	41	71	63	70	.293	.304	.305	42.70	2.94	5.8	6.2	5.4	6.4

BROKEN ARROW, OKLA.

[ϕ=36° 02′ N.; λ=95° 49′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.330	29.820	28.980	30.9	43.1	40.9	48.5	28.9	38.7	64	− 2	29	33	33	90	68	75	0.168	0.197	0.199	0.28	0.22	3.8	3.1	2.2	3.6
February	29.139	29.520	28.180	32.0	42.8	41.8	49.0	29.4	39.2	62	10	29	34	35	89	71	77	.168	.205	.214	1.42	.54	4.5	4.8	5.4	5.4
March	29.272	29.670	28.760	42.7	54.2	53.9	60.2	39.9	50.0	73	21	39	42	44	87	67	71	.250	.288	.306	2.30	1.37	5.4	5.7	4.2	6.1
April	29.141	29.480	28.600	51.4	63.8	63.0	69.3	48.5	58.9	86	35	47	49	50	85	62	66	.334	.370	.381	2.66	.88	5.1	5.1	5.2	5.9
May	29.063	29.290	28.810	60.0	69.2	68.1	73.5	56.5	65.0	85	48	57	58	60	90	70	75	.473	.503	.524	2.34	.59	7.3	7.5	6.1	7.5
June	29.175	29.380	28.860	69.3	78.5	76.5	83.4	65.0	74.2	91	47	67	67	69	93	70	78	.680	.680	.712	4.81	1.43	5.7	6.4	5.4	6.4
July	29.173	29.360	28.993	74.5	89.2	87.2	93.0	70.5	81.8	100	64	69	68	69	82	52	56	.708	.699	.702	.54	.28	2.5	4.3	2.6	3.1
August	29.155	29.400	28.960	72.9	89.4	86.1	94.2	70.0	82.1	103	60	66	66	65	81	48	53	.655	.645	.634	2.44	2.24	4.3	3.7	3.6	4.2
September	29.186	29.470	28.770	64.3	81.1	76.5	84.8	62.5	73.6	96	50	61	61	62	86	53	63	.553	.562	.580	.44	.35	5.0	5.4	4.1	5.5
October	29.176	29.490	28.830	55.0	64.5	61.3	69.9	51.5	60.7	90	36	53	56	56	94	77	84	.426	.469	.464	8.22	2.20	7.4	8.1	6.8	7.7
November	29.256	29.750	28.770	39.1	50.9	47.6	56.3	36.2	46.2	74	19	36	39	40	90	64	74	.226	.249	.254	3.33	1.83	4.9	4.8	4.1	4.6
December	29.360	30.010	28.810	28.8	38.3	35.1	43.4	24.6	34.0	70	4	26	31	31	89	75	83	.152	.189	.182	.18	.08	5.3	5.1	4.9	5.8
Year	29.202	30.010	28.180	51.7	63.8	61.5	68.8	48.6	58.7	103	− 2	48	50	51	88	65	71	.399	.421	.429	28.96	2.24	5.1	5.3	4.6	5.5

BUFFALO, N. Y.

[ϕ=42° 53′ N.; λ=78° 53′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.156	29.807	28.700	29.2	31.8	31.2	37.3	24.6	31.0	56	5	24	25	24	80	75	74	0.140	0.142	0.135	1.28	0.38	8.6	7.4	6.6	7.5
February	29.116	29.695	28.430	26.3	30.7	30.0	35.0	22.6	28.8	60	14	21	22	23	78	70	73	.114	.124	.125	1.61	.43	7.9	7.2	6.9	7.1
March	29.315	29.800	28.540	31.6	38.7	34.9	43.5	27.5	35.5	70	12	26	26	26	79	66	70	.150	.149	.152	2.47	1.03	6.1	5.9	5.1	6.2
April	29.165	29.550	28.720	39.7	43.8	42.9	50.0	35.0	42.5	75	11	34	34	35	80	72	75	.206	.210	.209	3.40	1.01	7.2	7.2	6.8	7.3
May	29.110	29.547	28.740	51.2	56.2	55.0	61.3	46.7	54.0	90	38	44	45	46	80	70	74	.297	.307	.312	4.32	1.17	6.2	6.2	6.4	6.4
June	29.276	29.580	28.990	70.3	75.5	73.5	80.1	64.6	72.4	94	48	60	60	62	70	62	68	.528	.540	.567	.54	.27	2.6	4.3	4.8	4.1
July	29.181	29.490	28.760	68.1	72.1	71.8	77.4	63.4	70.4	90	51	58	59	58	72	66	64	.497	.514	.491	1.33	.34	3.8	4.3	5.0	4.6
August	29.118	29.465	28.870	64.6	70.1	68.0	73.2	60.6	66.9	86	52	57	58	57	77	67	70	.474	.495	.486	3.04	.84	6.1	6.7	6.2	6.5
September	29.191	29.490	28.780	60.6	65.6	64.4	69.8	56.4	63.1	80	44	53	54	54	78	67	71	.424	.434	.436	1.47	.46	7.6	5.7	5.2	6.3
October	29.243	29.570	28.760	53.1	56.1	55.0	62.3	48.2	55.2	76	37	47	47	47	80	73	76	.345	.349	.348	5.32	1.62	7.9	6.6	5.5	7.3
November	29.217	29.670	28.360	37.1	40.6	38.7	45.0	31.9	38.4	63	21	32	32	32	81	72	77	.186	.189	.186	1.33	.68	8.0	7.6	6.9	8.4
December	29.227	29.860	28.480	22.0	24.5	23.8	30.1	16.8	23.3	55	− 3	17	18	18	81	73	77	.102	.101	.106	1.96	.50	8.2	7.3	6.8	8.4
Year	29.193	29.860	28.360	46.2	50.3	49.1	55.4	41.5	48.5	94	− 3	39	40	40	78	69	72	.289	.296	.296	28.12	1.62	6.7	6.4	6.0	6.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

BOISE, IDAHO.

[H_b=2,739 ft.; h_1=78 ft.; h_2=72 ft.; h_3=86 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90°	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	5.2	SE.	25	W.	0	10	0	4	26	3	2	5	11	1	14	7	10	7	6	5	1	0	0	8	0	21	0	0
February	6.5	SE.	30	SE.	0	5	3	1	21	5	0	10	11	0	3	5	20	15	11	17	10	0	0	0	0	21	1	0
March	6.0	SE.	25	SE.	0	6	1	6	16	7	3	7	15	1	9	7	15	11	10	10	7	0	0	0	0	13	1	0
April	5.9	NW.	26	NW.	0	8	3	5	16	3	4	8	12	1	8	12	10	9	7	0	0	1	0	0	0	5	3	0
May	6.1	NW.	32	SW.	0	5	5	2	11	7	1	11	20	0	15	11	5	3	1	1	0	0	0	0	4	1	1	0
June	5.5	NW.	21	W.	0	1	0	3	16	6	2	12	20	0	19	10	1	0	0	0	0	0	0	0	0	0	0	0
July	5.1	NW.	23	NW.	0	0	0	2	14	5	2	18	21	0	27	4	0	0	0	0	0	0	0	0	19	0	4	0
August	4.4	NW.	27	W.	0	4	0	2	16	5	2	6	27	0	24	5	2	0	0	0	0	0	0	0	17	0	3	0
September	4.9	NW.	39	NE.	0	5	2	2	8	2	4	15	19	3	17	7	6	3	3	0	0	1	0	0	2	0	4	0
October	4.2	NW.	31	NW.	0	5	1	2	17	4	2	12	19	0	13	8	10	9	8	4	4	0	1	0	0	12	1	0
November	4.2	NW.	31	W.	0	6	3	7	11	6	5	7	15	0	13	5	12	9	8	7	3	0	1	3	0	19	0	0
December	3.9	NW.	29	SE.	0	6	5	4	8	2	5	11	18	3	8	10	13	7	5	11	6	0	2	13	0	31	0	0
Year	5.2	NW.	39	NE.	0	61	23	40	180	55	32	122	208	9	170	91	104	74	59	55	31	2	4	24	51	123	18	0

BOSTON, MASS.

[H_b=125 ft.; h_1=115 ft.; h_2=154 ft.; h_3=188 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90°	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.7	W.	40	NW.	1	4	5	0	3	2	18	17	13	0	6	11	14	8	8	7	3	0	5	4	0	23	0	0
February	11.9	NW.	34	NW.	0	6	2	2	2	3	4	19	18	0	11	13	4	7	5	8	4	0	0	1	0	24	0	3
March	12.3	NW.	40	W.	1	14	6	5	8	3	7	8	11	0	5	9	17	12	11	5	3	0	2	2	0	12	0	0
April	10.5	W.	36	W.	0	6	3	7	8	4	8	13	11	0	6	7	17	12	7	3	0	0	0	0	0	5	1	0
May	10.5	E.	36	E.	0	4	9	12	7	5	7	9	9	0	5	15	11	13	12	0	0	0	2	0	1	0	2	0
June	8.6	SW.	25	N.	0	4	8	12	5	2	18	7	4	0	7	14	9	3	3	0	0	0	2	0	5	0	2	0
July	9.0	SW.	28	E.	0	4	2	3	1	7	20	17	8	0	7	10	14	10	9	0	0	0	0	0	5	0	2	0
August	9.0	W.	28	S.	0	3	3	8	1	9	12	18	8	0	8	13	10	11	9	0	0	0	1	0	0	0	1	1
September	8.9	SW.	29	SW.	0	7	5	3	6	8	15	7	9	0	9	10	11	12	11	0	0	0	3	0	1	0	2	0
October	8.4	SW.	38	NW.	0	7	4	7	5	9	14	8	8	0	5	8	18	16	11	0	0	0	3	0	0	0	1	1
November	11.2	SW.	36	NW.	0	9	7	3	1	7	13	7	13	0	7	7	16	13	11	3	2	0	1	0	0	8	0	0
December	10.0	W.	43	NW.	1	5	1	1	2	4	14	22	13	0	4	14	13	11	7	10	7	0	3	13	0	26	0	0
Year	10.1	SW.	43	NW.	3	73	55	63	49	63	150	152	125	0	80	131	154	128	104	36	19	0	22	20	12	98	11	5

BROKEN ARROW, OKLA.

[H_b=765 ft.; h_1=11 ft.; h_2=4 ft.; h_3=52 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90°	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.5	S.	29	NW.	0	17	1	0	3	20	10	3	8	0	19	7	5	4	3	2	0	0	1	3	0	16	0	0
February	16.0	SE.	49	S.	6	10	3	2	17	6	4	2	12	0	11	7	10	10	5	6	3	0	0	2	0	18	0	0
March	13.5	S.	46	S.	3	15	4	4	17	16	2	2	2	0	9	10	12	8	7	3	0	1	2	0	0	6	3	0
April	15.8	S.	53	SE.	5	3	7	5	12	16	6	3	8	0	8	12	10	7	7	0	0	0	0	0	0	0	5	0
May	12.3	SE.	41	N.	1	11	17	4	15	8	2	1	4	0	3	10	18	14	12	0	0	1	0	0	0	0	11	0
June	9.4	SE.	67	NW.	2	3	5	3	15	17	7	3	7	0	3	17	10	15	11	0	0	2	0	0	5	0	16	0
July	9.9	S.	36	E.	0	3	8	4	11	24	12	0	0	0	19	10	2	4	3	0	0	0	0	0	22	0	5	0
August	11.1	S.	57	NE.	2	6	9	5	14	18	9	0	1	0	15	11	5	6	4	0	0	0	1	0	24	0	9	0
September	11.2	S.	40	NW.	1	5	9	3	14	21	6	2	0	0	9	10	11	3	2	0	0	0	0	0	7	0	2	0
October	12.7	S.	50	N.	2	16	9	4	15	17	0	0	1	0	3	6	22	14	12	0	0	0	0	0	1	0	11	0
November	13.1	N.	37	N.	0	16	4	1	10	15	3	6	5	0	15	4	11	9	6	1	0	0	0	0	0	7	1	0
December	13.3	N.	42	N.	2	18	5	0	6	10	9	5	9	0	13	2	16	4	4	2	0	0	4	6	0	26	0	0
Year	12.5	S.	67	NW.	24	123	81	35	149	188	70	27	57	0	127	106	132	98	76	14	3	4	8	11	59	73	63	0

BUFFALO, N. Y.

[H_b=767 ft.; h_1=247 ft.; h_2=238 ft.; h_3=280 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90°	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	22.5	SW.	78	SW.	16	0	1	3	6	16	17	15	4	0	4	8	19	11	6	15	8	0	0	8	0	22	0	0
February	16.9	W.	62	SW.	7	2	5	6	8	4	7	21	3	0	4	7	17	17	11	13	13	0	1	13	0	24	0	0
March	19.4	SW.	76	SW.	9	10	11	4	6	7	10	7	7	0	10	3	18	10	6	11	4	0	0	6	0	25	0	0
April	16.8	SW.	52	W.	7	2	10	6	5	11	14	8	3	1	7	4	19	17	15	5	3	1	5	1	0	5	5	0
May	14.8	SW.	60	SW.	7	3	14	4	6	4	24	5	2	0	9	5	17	16	14	0	0	0	0	0	0	0	2	0
June	11.2	SW.	37	SW.	0	7	8	12	1	14	14	4	0	0	15	11	4	5	3	0	0	0	0	0	4	0	6	0
July	14.0	SW.	47	SW.	4	5	7	7	6	6	19	9	3	0	13	9	9	8	6	0	0	2	0	0	1	0	6	0
August	14.1	SW.	46	NW.	6	3	2	7	6	11	15	13	5	0	5	11	15	12	9	0	0	1	1	0	0	0	10	0
September	15.5	SW.	74	SW.	7	5	5	3	4	10	18	7	8	0	8	7	15	15	8	0	0	1	0	0	0	0	3	0
October	16.7	SW.	78	W.	7	4	3	11	7	12	11	8	5	1	5	9	17	14	12	0	0	0	1	0	0	0	4	0
November	21.3	W.	82	SW.	12	5	5	8	5	9	5	16	7	0	0	11	19	11	5	10	2	0	1	3	0	14	1	0
December	18.6	W.	58	SW.	9	4	1	3	7	8	10	22	7	0	3	5	23	17	11	20	16	0	1	17	0	29	0	0
Year	16.8	SW.	82	SW.	91	50	72	74	67	112	164	135	54	2	83	90	192	153	106	79	46	5	10	48	5	119	37	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

BURLINGTON, VT.

[ϕ=44° 29′ N.; λ=73° 12′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.532	30.280	28.950	20.7	23.9	....	31.5	14.5	23.0	48	−11	17	19	....	83	80	....	0.102	0.107	....	1.18	0.51	8.3	8.0	....	7.9
February	29.517	30.067	28.808	17.7	25.4	....	29.1	14.1	21.6	40	− 2	12	17	....	79	70	....	.078	.098	....	1.02	.46	8.7	5.6	....	6.0
March	29.695	30.445	28.970	27.2	32.3	....	39.8	22.7	31.2	62	− 2	23	24	....	83	72	....	.133	.137	....	3.32	1.57	8.0	6.1	....	6.5
April	29.544	29.940	29.090	37.2	43.0	....	47.4	31.6	39.5	70	12	30	31	....	76	64	....	.175	.183	....	2.42	1.31	7.2	7.7	....	7.6
May	29.523	30.080	29.240	53.3	59.1	....	63.5	46.1	54.8	78	33	44	44	....	72	60	....	.298	.297	....	3.54	1.30	6.1	6.5	....	6.6
June	29.680	30.090	29.320	65.1	72.6	....	76.7	57.0	66.8	94	37	57	58	....	75	62	....	.479	.506	....	1.64	.56	6.0	5.1	....	5.5
July	29.532	29.870	29.100	68.6	76.2	....	80.2	59.1	69.6	94	49	58	58	....	68	56	....	.484	.492	....	1.47	.68	4.3	3.7	....	4.7
August	29.487	29.865	29.140	63.3	70.4	....	74.0	56.1	65.0	87	46	55	54	....	74	57	....	.435	.420	....	2.91	1.15	7.6	6.7	....	7.1
September	29.555	29.970	29.130	56.8	63.6	....	67.4	49.1	58.2	84	32	50	51	....	80	65	....	.381	.389	....	3.40	1.71	6.6	6.7	....	6.5
October	29.650	30.101	28.980	46.7	52.4	....	56.2	39.5	47.8	77	24	40	42	....	79	68	....	.274	.287	....	6.02	2.08	7.6	7.4	....	7.5
November	29.616	30.120	28.810	33.0	36.7	....	40.6	28.5	34.6	56	12	27	27	....	77	68	....	.151	.152	....	2.10	1.06	8.0	8.5	....	8.4
December	29.613	30.220	28.920	16.1	20.5	....	25.2	9.2	17.2	47	−13	11	13	....	79	71	....	.082	.088	....	1.08	.31	7.5	7.2	....	7.0
Year	29.579	30.445	28.810	42.1	48.0	....	52.6	35.6	44.1	94	−13	35	36	....	77	66	....	.256	.263	....	30.10	2.08	7.0	6.6	....	6.8

CAIRO, ILL.

[ϕ=37° 00′ N.; λ=89° 10′ W.]

January	29.762	30.040	29.380	33.4	41.7	42.4	47.3	31.6	39.4	63	4	28	29	30	81	62	64	0.163	0.172	0.179	1.16	0.57	5.5	5.5	4.1	5.4
February	29.603	30.080	28.700	35.3	41.6	41.8	48.0	31.3	39.6	60	18	30	28	28	81	59	60	.174	.162	.164	1.25	.46	7.1	5.4	4.9	5.8
March	29.765	30.087	29.200	43.1	52.0	53.0	57.3	41.0	49.2	72	20	36	36	38	76	57	58	.226	.228	.237	6.61	3.97	5.8	5.4	5.9	5.6
April	29.621	30.000	29.233	53.4	62.0	62.9	67.8	51.3	59.6	84	31	44	44	46	71	55	57	.307	.315	.340	4.78	1.57	6.5	6.7	6.9	7.0
May	29.513	29.720	29.100	60.0	68.3	66.9	72.2	57.6	64.9	86	47	55	55	56	85	65	70	.450	.459	.473	3.53	.64	7.5	7.7	7.5	7.5
June	29.641	29.940	29.440	72.9	82.6	79.1	86.1	69.8	78.0	93	62	68	70	69	86	67	72	.696	.744	.718	4.61	1.28	6.4	6.6	5.9	6.1
July	29.620	29.851	29.410	75.0	87.0	84.9	90.6	72.3	81.4	95	65	65	68	69	81	56	60	.704	.704	.719	1.51	.73	3.3	5.0	3.8	4.1
August	29.609	29.790	29.410	70.4	82.2	79.3	85.8	68.5	77.2	98	61	65	65	66	83	57	65	.620	.626	.646	3.41	1.09	5.6	5.7	5.8	5.5
September	29.653	29.860	29.200	65.8	79.4	76.5	83.5	64.2	73.8	95	52	59	59	62	80	51	63	.522	.518	.581	1.80	1.34	4.8	5.4	3.7	4.6
October	29.666	29.910	29.400	60.6	67.5	65.8	71.9	57.5	64.7	88	44	58	58	59	91	72	79	.502	.493	.515	5.97	1.49	7.7	7.7	6.1	7.5
November	29.717	30.140	28.990	43.2	51.2	49.1	56.5	39.2	47.8	67	23	39	40	39	86	67	70	.254	.259	.250	6.47	1.61	5.1	5.0	4.0	5.3
December	29.790	30.530	29.130	29.9	36.2	36.2	41.5	26.5	34.0	63	8	26	28	29	86	72	76	.148	.161	.171	2.16	1.19	5.3	6.3	5.1	6.1
Year	29.663	30.530	28.700	53.6	62.6	61.5	67.4	50.9	59.1	98	4	48	48	49	82	62	66	.397	.403	.416	43.25	3.97	5.9	6.0	5.3	5.9

CANTON, N. Y.

[ϕ=44° 36′ N.; λ=75° 10′ W.]

January	29.474	30.280	28.810	19.3	24.4	....	31.1	12.8	22.0	51	−17	16	18	....	85	73	....	0.102	0.104	....	1.37	0.29	7.4	6.1	....	7.1
February	29.477	30.080	28.823	16.5	24.9	....	29.5	14.2	21.8	49	− 1	13	17	....	86	71	....	.083	.096	....	1.65	1.11	6.3	5.1	....	5.5
March	29.651	30.347	28.840	26.3	32.2	....	38.6	21.1	29.8	62	− 2	22	23	....	83	67	....	.127	.131	....	3.97	1.06	6.7	5.6	....	5.4
April	29.484	29.887	29.070	38.0	43.0	....	47.4	31.2	39.3	69	7	31	32	....	77	68	....	.184	.196	....	3.39	1.13	6.8	6.3	....	6.7
May	29.463	30.012	29.150	52.8	59.8	....	63.7	45.9	54.8	81	32	44	46	....	75	62	....	.305	.321	....	3.04	.66	5.9	5.4	....	5.4
June	29.622	29.990	29.260	68.0	76.0	....	80.2	58.7	69.4	97	42	58	59	....	72	58	....	.502	.526	....	4.83	3.50	3.6	2.4	....	2.3
July	29.484	29.820	28.980	69.1	75.7	....	79.2	59.0	69.1	90	46	59	58	....	71	57	....	.509	.502	....	3.10	1.15	3.7	3.1	....	3.1
August	29.423	29.799	29.010	63.7	71.0	....	74.1	56.4	65.2	85	39	56	56	....	78	61	....	.462	.467	....	2.60	.55	5.1	5.2	....	5.4
September	29.494	29.860	29.060	57.7	64.6	....	68.2	49.3	58.8	85	35	51	53	....	80	68	....	.391	.424	....	4.69	2.42	5.8	5.4	....	6.2
October	29.584	30.010	28.924	47.2	52.9	....	56.0	39.0	47.5	73	25	43	43	....	84	72	....	.293	.297	....	3.81	1.08	7.5	5.8	....	6.7
November	29.563	30.067	28.700	31.5	36.4	....	41.1	27.2	34.2	69	7	27	29	....	83	72	....	.156	.165	....	1.13	.38	7.9	7.7	....	8.3
December	29.553	30.150	28.890	14.7	20.4	....	25.8	8.5	17.2	53	−19	10	13	....	80	72	....	.083	.087	....	1.12	.32	7.2	6.0	....	6.9
Year	29.523	30.347	28.700	42.1	48.4	....	52.9	35.3	44.1	97	−19	36	37	....	80	67	....	.266	.276	....	34.70	3.50	6.2	5.3	....	5.8

CAPE HENRY, VA.

[ϕ=36° 56′ N.; λ=76° 00′ W.]

January	30.077	30.647	29.499	39.0	44.9	42.7	49.9	35.6	42.8	67	20	....	38	36	....	77	80	....	0.240	0.232	3.70	1.02	....	3.9	3.3	5.1
February	29.992	30.498	29.309	39.7	43.5	41.3	47.9	36.6	42.2	72	29	....	40	39	....	87	91	....	.251	.242	2.47	.71	....	4.6	3.6	4.7
March	30.099	30.630	29.440	46.6	52.1	48.5	56.8	42.0	49.4	77	34	....	47	45	....	84	87	....	.329	.301	4.05	1.05	....	5.0	3.7	5.2
April	30.035	30.330	29.700	53.8	59.1	54.1	63.3	46.0	54.6	87	31	....	51	49	....	77	84	....	.394	.355	2.09	.84	....	3.9	2.9	4.5
May	29.935	30.230	29.600	65.9	70.2	64.2	73.9	57.9	65.9	90	50	....	60	59	....	73	84	....	.535	.506	3.65	1.08	....	4.7	4.7	5.1
June	30.099	30.400	29.700	72.0	75.5	70.2	77.2	64.8	71.0	84	57	....	71	66	....	85	88	....	.752	.656	2.48	2.24	....	4.6	5.2	4.9
July	30.005	30.330	29.780	76.2	82.0	75.4	84.4	69.9	77.2	98	61	....	76	72	....	82	91	....	.902	.804	6.58	2.64	....	4.0	5.0	4.7
August	29.947	30.210	29.690	75.1	81.4	74.6	84.1	69.2	76.6	91	60	....	70	69	....	71	83	....	.759	.710	4.18	2.17	....	3.7	4.7	4.3
September	30.041	30.340	29.710	71.5	78.0	70.6	79.8	64.6	72.2	95	56	....	64	63	....	63	78	....	.606	.583	1.08	1.00	....	4.1	3.0	4.1
October	30.097	30.420	29.850	68.4	74.7	68.5	77.2	63.5	70.4	92	52	....	64	63	....	71	82	....	.611	.583	1.68	.77	....	5.1	4.1	5.1
November	30.098	30.580	29.530	52.0	55.8	52.8	60.1	45.9	53.0	86	32	....	45	43	....	68	71	....	.316	.304	.08	.06	....	4.6	4.0	5.1
December	30.135	30.750	29.620	39.7	42.6	41.2	49.2	33.5	41.4	74	20	....	37	36	....	80	80	....	.236	.228	2.50	.74	....	7.0	5.1	7.0
Year	30.047	30.750	29.309	58.3	63.3	58.7	67.0	52.5	59.7	98	20	....	55	53	....	76	83	....	.494	.459	34.54	2.64	....	4.6	4.1	5.0

Annual meteorological summary for the year ending December 31, 1919—Continued.

BURLINGTON, VT.

[H_b=404 ft.; h_i=11 ft.; h_r=3 ft.; h_a=48 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	13.0	S.	60	S.	3	5	4	2	3	8	3	0	6	0	4	3	24	11	7	15	9	0	1	13	0	29	0	1
February	9.9	NW.	34	S.	0	4	0	7	3	4	0	1	9	0	9	7	12	12	7	16	12	0	1	18	0	28	0	2
March	12.5	N.	37	W.	0	11	6	1	2	7	0	1	3	0	7	9	15	15	11	12	8	0	2	7	0	27	0	4
April	10.8	S.	46	S.	2	5	1	3	2	10	2	0	6	1	4	7	19	16	8	8	4	0	1	3	0	14	0	1
May	9.7	N.	42	S.	1	7	1	3	3	7	4	1	5	0	5	11	15	17	11	0	0	0	0	0	0	0	4	0
June	9.6	S.	34	S.	0	3	0	2	2	15	2	0	6	0	10	9	11	9	6	0	0	0	2	0	3	0	7	0
July	10.7	S.	38	S.	0	4	1	0	0	19	3	0	4	0	12	11	8	9	6	0	0	0	0	0	2	0	6	0
August	8.7	S.	30	S.	0	3	1	1	4	15	3	0	3	1	3	10	18	14	11	0	0	0	0	0	0	0	7	1
September	11.9	S.	49	S.	2	9	2	0	2	14	1	1	1	0	6	9	15	16	12	0	0	1	1	0	0	1	2	0
October	12.3	S.	44	S.	5	3	2	1	2	17	0	0	6	0	2	11	18	18	16	1	0	0	2	0	0	7	5	1
November	14.4	S.	52	S.	3	7	2	3	2	10	0	1	5	0	2	4	24	15	10	10	5	0	1	5	0	22	0	0
December	12.2	S.	52	S.	5	4	4	3	3	11	2	0	4	0	7	7	17	8	8	17	6	0	1	21	0	30	0	0
Year	11.3	S.	60	S.	21	65	24	26	28	137	20	5	58	2	71	98	196	160	113	79	44	1	12	67	5	158	31	10

CAIRO, ILL.

[H_b=356 ft.; h_i=87 ft.; h_r=80 ft.; h_a=93 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.5	S.	28	N.	0	5	2	2	11	20	6	5	11	0	13	5	13	8	7	4	2	0	1	4	0	12	0	0
February	11.2	S.	44	SW.	1	6	7	8	5	11	7	6	6	0	11	4	13	9	6	3	2	0	0	2	0	15	0	0
March	10.6	N.	46	NE.	1	12	13	5	10	12	1	2	7	0	10	8	13	9	8	0	0	0	0	0	0	4	3	0
April	9.3	S.	38	S.	0	7	5	3	11	22	7	3	2	0	3	12	15	11	10	0	0	1	0	0	0	1	9	0
May	8.0	N.	30	S.	0	11	12	5	9	7	8	2	7	1	3	9	19	15	12	0	0	0	1	0	0	0	7	0
June	6.6	S.	59	SW.	2	11	5	2	17	8	10	0	6	1	6	13	11	11	9	0	0	1	0	0	3	0	17	0
July	5.9	N.	47	NW.	1	17	5	3	3	15	8	4	6	1	15	11	5	3	3	0	0	1	1	0	16	0	8	0
August	6.6	N.	57	N.	2	15	7	1	6	15	9	5	4	0	8	14	9	7	5	0	0	0	1	0	8	0	9	0
September	6.5	S.	32	SW.	0	12	10	4	4	20	6	0	3	1	12	11	7	4	3	0	0	0	0	0	4	0	1	0
October	7.9	S.	26	SW.	0	11	8	6	6	24	2	2	3	0	4	6	21	16	14	0	0	0	1	0	0	0	3	0
November	9.3	N.	56	SW.	1	12	8	7	7	12	6	2	6	0	13	4	13	9	8	0	0	0	0	0	0	5	3	0
December	9.8	SW.	35	NW.	0	15	7	5	3	12	12	3	5	0	11	4	16	9	8	4	0	0	4	4	0	25	1	0
Year	8.3	S.	59	SW.	8	134	89	51	92	178	82	34	66	4	109	101	155	111	93	11	4	3	9	10	31	62	61	0

CANTON, N. Y.

[H_b=448 ft.; h_i=10 ft.; h_r=4 ft.; h_a=61 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.5	SW.	43	W.	1	1	2	5	0	0	10	6	7	0	7	6	18	13	9	16	12	0	0	14	0	30	0	5
February	9.1	W.	37	SW.	0	3	4	4	0	0	2	12	3	0	10	4	14	10	6	16	10	0	0	18	0	27	0	4
March	11.3	N.	51	W.	2	4	6	7	0	2	4	3	5	0	12	6	13	15	13	13	11	0	0	9	0	29	0	5
April	10.5	SW.	38	W.	0	2	3	3	1	1	9	7	4	0	8	4	18	15	13	5	3	0	1	2	0	16	1	1
May	11.3	SW.	44	W.	1	2	4	9	0	1	9	6	0	0	12	7	12	18	14	0	0	0	0	0	0	0	5	1
June	7.7	SW.	31	E.	0	1	4	5	2	2	10	6	0	0	24	3	3	10	8	0	0	0	0	0	5	0	6	3
July	9.2	SW.	39	SW.	0	2	0	3	1	1	17	6	1	0	20	6	5	11	10	0	0	0	0	0	0	0	7	2
August	8.2	SW.	38	SW.	0	3	1	3	2	5	10	6	1	0	10	10	11	15	10	0	0	0	0	0	0	0	8	1
September	9.7	SW.	41	SW.	2	4	3	2	0	3	14	0	4	0	8	9	13	14	10	0	0	0	0	0	0	0	5	4
October	9.7	SW.	60	W.	1	1	4	6	1	2	11	4	2	0	8	6	17	17	15	0	0	0	0	0	0	7	2	4
November	13.6	SW.	57	SW.	2	4	3	6	0	1	8	5	3	0	5	1	24	12	8	15	5	0	0	6	0	22	0	0
December	10.9	SW.	42	NW.	1	1	4	1	1	1	13	7	3	0	8	6	17	15	10	16	13	0	0	20	0	30	0	5
Year	10.2	SW.	60	W.	10	28	38	54	8	19	117	68	33	0	132	68	165	165	126	81	54	0	1	69	5	161	34	35

CAPE HENRY, VA.

[H_b=18 ft.; h_i=8 ft.; h_r=3 ft.; h_a=54 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	12.8	SW.	48	NW.	6	4	4	2	2	4	10	3	2	0	13	8	10	11	11	4	2	0	7	2	0	10	0	0
February	15.2	N.	62	N.	5	7	3	0	5	6	2	1	4	0	13	6	9	6	6	1	0	0	4	0	0	5	0	2
March	18.9	NE.	66	NW.	11	7	5	5	1	7	1	2	3	0	12	8	11	12	11	1	0	0	2	0	0	0	0	0
April	13.2	SW.	54	N.	3	4	1	1	5	10	6	2	1	0	13	9	8	7	7	1	0	0	4	0	0	2	2	0
May	10.7	SW.	48	N.	1	2	1	2	4	8	13	0	1	0	12	9	10	9	7	0	0	0	5	0	1	0	3	0
June	11.6	S.	50	NE.	3	2	3	5	4	11	4	0	1	0	12	10	8	5	3	0	0	0	0	0	0	0	3	0
July	10.3	SW.	45	N.	2	2	1	1	3	12	7	4	0	1	14	8	9	13	12	0	0	0	0	0	8	0	7	0
August	10.9	SW.	62	N.	2	1	3	3	2	10	8	0	4	0	14	13	4	15	9	0	0	0	0	0	3	0	13	0
September	12.9	SW.	56	N.	2	5	6	1	2	5	10	0	1	0	15	10	5	3	2	0	0	0	1	0	3	0	5	0
October	12.3	SW.	41	N.	1	0	5	5	4	2	13	0	2	0	10	11	10	9	7	0	0	0	3	0	2	0	0	0
November	15.9	NE.	50	N.	7	6	7	1	4	1	10	0	1	0	14	5	11	3	1	0	0	0	1	0	0	0	1	0
December	17.1	N.	68	N.	7	8	8	1	1	0	7	3	3	0	6	8	17	13	8	4	2	0	4	1	0	16	0	0
Year	13.5	SW.	68	N.	50	48	47	27	37	76	91	15	23	1	148	105	112	107	84	11	4	0	31	3	17	33	35	2

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

CAPE MAY, N. J.

[ϕ=38° 56′ N.; λ=74° 51′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.084	30.744	29.584	34.6	....	37.9	43.5	31.6	37.6	55	12	31	....	34	87	....	86	0.185	.....	0.203	3.54	1.06	4.0	....	3.3	4.5
February	30.010	30.493	29.305	32.8	....	37.2	41.6	31.2	36.4	50	21	29	....	34	85	....	86	.164	.....	.195	2.50	.88	5.1	....	2.7	4.3
March	30.112	30.747	29.448	41.7	....	43.9	49.9	38.3	44.1	62	29	35	....	38	78	....	80	.213	.....	.235	3.99	1.34	6.5	....	4.0	5.8
April	30.051	30.345	29.780	48.9	....	48.8	56.8	43.1	50.0	72	26	40	....	43	72	....	81	.258	.....	.281	4.45	1.87	5.5	....	5.7	6.2
May	29.973	30.315	29.714	59.8	....	58.9	66.9	54.6	60.8	86	46	54	....	53	82	....	83	.419	.....	.412	5.36	2.46	5.1	....	5.7	5.0
June	30.140	30.456	29.795	68.1	....	66.7	73.6	61.3	67.4	85	50	62	....	62	82	....	85	.567	.....	.554	1.15	.69	5.7	....	4.4	5.3
July	30.026	30.387	29.773	73.6	....	72.7	81.2	67.7	74.4	98	55	68	....	67	83	....	83	.683	.....	.661	5.68	1.75	4.1	....	5.3	4.8
August	29.957	30.288	29.586	71.1	....	71.9	79.6	67.1	73.4	92	59	65	....	66	83	....	83	.636	.....	.647	12.60	8.17	4.2	....	4.8	4.6
September	30.054	30.418	29.647	65.8	....	67.5	75.0	61.6	68.3	88	48	60	....	62	83	....	84	.543	.....	.574	1.59	.80	3.6	....	3.3	3.9
October	30.136	30.508	29.888	60.2	....	62.5	69.2	57.0	63.1	88	41	56	....	58	86	....	85	.470	.....	.491	2.92	1.24	5.5	....	6.3	6.2
November	30.115	30.621	29.589	45.5	....	48.0	54.5	41.2	47.8	72	29	40	....	40	81	....	75	.262	.....	.268	2.80	1.49	5.0	....	5.2	5.5
December	30.144	30.809	29.537	31.0	....	35.4	42.1	27.3	34.7	60	3	27	....	30	84	....	80	.162	.....	.181	2.17	.50	5.5	....	4.2	6.8
Year	30.067	30.809	29.305	52.8	....	54.3	61.2	48.5	54.8	98	3	47	....	49	82	....	83	.380	.....	.392	48.75	8.17	5.0	....	4.6	5.2

CHARLES CITY, IOWA.

[ϕ=43° 04′ N.; λ=92° 38′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.943	29.300	28.610	18.4	28.2	25.5	32.8	15.3	24.0	51	—23	17	21	21	92	75	82	0.107	0.127	0.130	0.22	*0.30	3.9	4.4	2.6	4.9
February	28.887	29.350	28.009	17.3	23.8	22.2	28.5	12.6	20.6	48	— 5	15	19	18	90	80	84	.096	.110	.107	2.56	.95	6.4	6.2	5.0	5.9
March	29.066	29.660	28.490	27.1	38.9	37.5	44.0	24.3	34.2	69	— 6	24	28	29	88	63	72	.140	.164	.172	2.48	1.83	5.1	6.1	4.2	5.7
April	28.889	29.440	28.270	41.4	50.7	49.1	54.8	37.4	46.1	73	24	37	38	39	83	63	70	.224	.238	.242	3.29	.92	7.0	6.8	6.8	6.7
May	28.888	29.190	28.581	52.3	63.9	61.9	67.6	46.0	56.8	89	32	45	45	46	78	53	57	.314	.316	.324	2.72	1.02	5.5	6.1	5.5	5.2
June	28.964	29.180	28.622	65.5	75.8	73.3	79.6	61.5	70.6	90	51	62	64	64	88	69	75	.565	.614	.612	6.05	1.57	6.9	5.5	6.1	5.7
July	28.928	29.132	28.655	69.3	83.4	81.4	87.2	63.5	75.4	98	54	62	61	63	78	48	54	.559	.549	.582	4.47	3.00	3.9	3.3	3.2	3.2
August	28.911	29.220	28.621	61.9	77.7	74.4	81.6	57.7	69.6	91	45	57	57	59	83	51	59	.467	.484	.511	1.90	1.03	3.6	3.0	2.9	3.5
September	28.922	29.225	28.416	57.5	71.6	67.3	74.9	55.0	65.0	91	42	53	54	56	84	58	69	.413	.438	.464	3.94	1.55	5.6	4.6	5.3	5.1
October	28.939	29.270	28.384	42.9	52.4	48.9	56.5	39.0	47.8	84	19	39	41	41	85	66	74	.254	.281	.277	3.56	1.40	6.9	6.4	6.5	6.3
November	28.984	29.499	28.151	26.0	34.3	31.0	38.6	22.2	30.4	58	2	23	26	24	89	68	76	.132	.147	.137	3.78	2.58	6.3	6.2	6.7	6.4
December	29.060	29.660	28.530	7.7	15.5	12.5	17.9	2.5	10.2	40	—22	6	11	10	92	81	89	.065	.078	.077	.47	.26	6.2	6.0	5.0	7.0
Year	28.948	29.660	28.009	40.6	51.4	48.8	55.3	36.4	45.9	98	—23	37	39	39	86	65	72	.278	.296	.303	35.44	3.00	5.6	5.4	4.9	5.5

CHARLESTON, S. C.

[ϕ=32° 47′ N.; λ=79° 56′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.072	30.480	29.670	45.4	56.1	51.4	59.2	43.0	51.1	70	22	39	40	42	79	56	71	0.262	0.273	0.288	1.68	0.65	5.2	5.2	4.3	5.0
February	29.969	30.390	29.490	47.1	55.4	52.1	58.2	45.1	51.6	70	32	40	40	42	76	60	71	.263	.271	.284	5.51	3.18	5.1	5.6	5.4	5.4
March	30.071	30.460	29.600	56.0	63.4	59.3	66.7	52.3	59.5	76	43	47	48	50	73	62	75	.340	.363	.380	4.05	1.97	4.9	4.9	4.6	4.9
April	30.018	30.300	29.750	61.4	69.5	64.6	72.2	56.7	64.4	89	38	50	51	55	69	55	73	.395	.406	.452	.73	.51	3.2	3.0	2.7	3.2
May	29.901	30.150	29.550	73.2	78.5	73.2	80.1	68.4	74.2	89	60	66	65	66	78	64	80	.644	.619	.654	1.69	.92	6.2	5.2	4.6	5.3
June	30.011	30.292	29.660	76.6	80.7	77.1	82.8	72.1	77.4	92	64	69	68	69	77	66	76	.705	.688	.708	6.33	3.19	5.6	6.2	5.6	5.8
July	30.000	30.250	29.810	80.3	84.2	79.8	86.6	74.6	80.6	97	64	72	72	73	77	68	80	.796	.784	.819	8.53	5.65	5.2	5.7	6.0	5.3
August	29.958	30.160	29.740	78.8	85.0	79.8	87.5	74.4	81.0	97	67	72	70	72	79	63	78	.778	.752	.789	5.70	1.63	5.7	6.0	6.5	5.7
September	29.982	30.190	29.740	73.5	80.4	76.1	82.6	70.0	76.3	90	60	67	65	68	80	62	76	.661	.684	.679	1.76	.80	3.4	3.6	2.7	3.3
October	30.069	30.270	29.900	74.1	81.5	75.2	83.3	70.4	76.8	95	59	69	68	70	86	66	84	.724	.694	.733	.28	.20	4.3	5.4	2.1	4.2
November	30.051	30.570	29.650	57.5	68.1	61.4	69.6	54.8	62.2	83	41	50	48	51	76	51	70	.339	.368	.404	.23	.11	5.4	5.0	2.8	4.8
December	30.105	30.500	29.730	46.0	57.1	52.4	59.8	43.0	51.4	79	30	39	41	42	77	58	70	.267	.290	.295	.19	.17	5.0	4.5	3.4	4.5
Year	30.017	30.570	29.490	64.2	71.7	66.9	74.0	60.4	67.2	97	22	57	56	58	77	61	75	.519	.512	.540	36.68	5.65	4.9	5.0	4.2	4.8

CHARLOTTE, N. C.

[ϕ=35° 13′ N.; λ=80° 51′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.270	29.730	28.740	36.5	49.7	47.7	55.0	35.1	45.0	70	15	32	35	34	83	58	60	0.192	0.222	0.209	5.45	1.74	4.5	4.3	3.6	4.9
February	29.170	29.610	28.590	36.8	46.9	45.2	51.1	34.5	42.8	67	19	30	31	32	76	55	53	.173	.184	.194	4.85	1.53	4.0	5.1	5.3	5.4
March	29.291	29.720	28.740	46.4	57.4	54.0	62.3	41.8	52.0	73	34	40	42	42	79	59	66	.254	.282	.273	2.70	1.18	5.0	4.9	3.7	5.4
April	29.213	29.540	28.860	53.7	65.8	64.2	71.0	48.9	60.0	87	30	46	50	49	77	59	61	.337	.380	.369	3.90	1.07	4.5	4.8	4.4	4.9
May	29.113	29.360	28.720	63.8	74.1	71.0	78.6	59.5	69.0	89	47	60	60	60	85	62	68	.526	.525	.519	6.38	2.72	6.7	7.3	5.7	6.1
June	29.261	29.592	28.941	71.7	81.3	77.6	85.0	66.6	75.8	94	57	65	62	64	80	55	66	.614	.570	.609	2.43	.90	4.7	7.3	7.5	6.2
July	29.216	29.480	29.000	73.9	83.1	79.7	87.6	69.7	78.6	97	56	68	66	68	83	60	69	.693	.658	.684	7.40	2.46	5.5	7.3	7.4	6.7
August	29.175	29.416	28.970	71.9	82.1	76.7	86.3	67.6	77.0	94	60	66	65	66	83	58	72	.653	.635	.650	3.94	1.22	6.2	7.8	7.1	7.0
September	29.237	29.530	28.920	65.8	79.9	74.6	83.8	61.6	72.7	93	50	58	58	58	75	48	57	.488	.497	.488	.84	.48	2.4	3.6	3.5	3.5
October	29.301	29.580	29.090	64.2	74.2	69.5	78.5	61.3	69.9	93	48	61	62	60	90	67	75	.649	.550	.538	4.46	2.10	7.5	7.4	5.2	6.9
November	29.277	29.810	28.810	46.8	58.1	54.6	62.1	43.7	52.9	79	28	39	37	39	74	49	59	.256	.249	.266	1.02	.47	5.8	5.7	4.1	5.4
December	29.297	29.860	28.840	35.6	45.7	43.8	50.8	32.5	41.6	66	21	29	30	30	75	57	59	.178	.188	.188	2.20	.68	4.8	4.9	3.7	5.0
Year	29.235	29.860	28.590	55.6	66.5	63.2	71.0	51.9	61.4	97	15	50	50	50	80	57	65	.409	.412	.416	45.57	2.72	5.1	5.9	5.1	5.6

*December 31–January 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

CAPE MAY, N. J.

[H_b=17 ft.; h_s=13 ft.; h_r=3 ft.; h_a=49 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.	*	*Mi.*																									
January	9.7	NW.	34	S.	0	8	2	6	2	5	11	9	19	0	16	8	7	11	9	3	2	0	6	3	0	11	0	0
February	10.8	NW.	37	NW.	0	13	4	4	2	9	2	7	15	0	15	7	6	11	9	4	2	0	3	0	0	16	0	0
March †	13.6	S.	46	NW.	2	10	6	10	0	13	6	3	13	0	11	9	11	12	11	2	1	0	3	0	0	3	0	0
April	10.7	NW.	38	NW.	0	4	2	8	3	14	6	3	20	0	8	10	12	10	6	1	1	0	0	0	0	2	1	0
May	9.3	SE.	36	NE.	0	2	6	9	13	12	6	7	7	0	14	4	13	13	11	0	0	0	2	0	0	0	5	0
June	7.6	S.	30	NE.	0	3	11	11	9	15	5	2	4	0	11	8	11	7	5	0	0	0	5	0	0	0	1	0
July	7.1	S.	24	SE.	0	4	5	1	10	16	12	6	8	0	14	4	13	13	13	0	0	0	1	0	4	0	6	0
August	5.9	SW.	35	E.	0	3	4	2	8	12	13	7	12	1	14	8	9	14	12	0	0	0	1	0	1	0	6	0
September	6.2	S.	21	NW.	0	10	5	7	3	13	7	6	9	0	18	4	8	7	5	0	0	0	1	0	0	0	3	0
October	8.1	E.	24	NW.	0	6	9	10	7	10	8	5	5	2	9	9	13	13	8	0	0	0	3	0	0	0	0	0
November	10.5	NW.	36	NW.	0	11	6	2	9	5	6	6	15	0	11	5	14	10	7	0	0	0	0	0	0	2	2	0
December	10.3	NW.	42	NW.	1	14	7	4	5	4	7	4	17	0	7	4	20	12	10	6	4	0	4	3	0	24	0	0
Year	9.2	NW.	46	NW.	3	88	67	74	71	128	89	65	144	3	148	80	137	133	106	16	10	0	29	6	5	58	24	0

CHARLES CITY, IOWA.

[H_b=1,015 ft.; h_s=10 ft.; h_r=4 ft.; h_a=49 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.3	NW.	22	NW.	0	5	1	1	8	10	7	7	23	0	10	15	6	4	2	5	4	0	4	8	0	30	0	0
February	8.5	NW.	26	S.	0	5	10	4	13	1	3	0	20	0	9	7	12	11	10	10	9	0	0	12	0	27	0	0
March	7.9	S.	25	NE.	0	11	7	6	14	10	6	1	7	0	8	14	9	8	5	5	3	0	1	5	0	25	3	0
April	7.7	NE.	25	N.	0	8	12	8	6	10	4	2	10	0	4	12	14	16	12	2	2	0	0	0	0	7	2	0
May	5.7	SE.	23	S.	0	7	11	6	24	4	1	1	8	0	9	15	7	10	8	0	0	0	0	0	0	1	3	0
June	5.5	SE.	20	NE.	0	7	6	5	18	13	4	2	5	0	5	18	7	14	11	0	0	0	0	0	2	0	12	0
July	5.7	SE.	23	SW.	0	14	9	2	11	14	10	1	1	0	19	12	0	8	8	0	0	0	0	0	10	0	6	0
August	5.3	NW.	24	SW.	0	9	3	5	6	12	6	3	18	0	15	16	0	9	6	0	0	0	0	0	3	0	6	0
September	6.0	S.	26	S.	0	6	6	2	10	18	6	3	8	1	14	7	9	12	11	0	0	0	0	0	2	0	4	2
October	6.4	S.	23	NW.	0	9	9	2	15	8	3	2	14	0	7	13	11	13	10	1	0	0	0	1	0	11	3	0
November	8.3	NW.	36	SW.	0	7	6	5	11	8	2	4	17	0	5	12	13	10	8	5	5	0	0	9	0	26	0	0
December	6.5	NW.	23	N.	0	10	8	4	5	6	9	10	10	0	6	8	17	7	4	10	7	0	0	29	0	31	0	0
Year	6.6	NW.	36	SW.	0	98	88	50	141	114	61	36	141	1	111	149	105	122	95	38	30	0	5	64	17	158	39	2

CHARLESTON, S. C.

[H_b=48 ft.; h_s=11 ft.; h_r=76 ft.; h_a=92 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.5	N.	30	SW.	0	11	15	1	6	3	9	11	6	0	14	6	11	8	6	0	0	0	0	0	0	6	0	0
February	11.6	NE.	39	N.	0	6	16	5	0	4	6	10	9	0	10	7	11	13	12	0	0	0	1	0	0	1	0	0
March	11.7	N.	35	NE.	0	15	12	5	5	9	4	4	8	0	14	3	14	11	7	0	0	0	1	0	0	0	2	0
April	9.8	S.	33	SW.	0	9	2	5	5	18	9	9	3	0	20	3	7	3	2	0	0	0	0	0	0	0	2	0
May	9.6	S.	41	NE.	1	2	6	10	6	17	10	7	4	0	12	8	11	8	6	0	0	0	1	0	0	0	6	0
June	11.1	E.	44	NE.	1	4	13	15	9	5	6	5	3	0	11	5	14	10	8	0	0	0	0	0	1	0	1	0
July	9.8	S.	51	NE.	1	2	6	5	4	20	17	8	0	0	10	14	7	13	11	0	0	0	0	0	9	0	7	0
August	8.8	SW.	29	SE.	0	4	4	4	5	7	26	10	2	0	7	12	12	11	10	0	0	0	0	0	9	0	12	0
September	10.4	E.	30	N.	0	13	16	12	5	4	3	4	3	0	20	5	5	5	4	0	0	0	1	0	1	0	2	0
October	8.9	S.	27	E.	0	6	10	8	6	11	11	6	3	1	15	12	4	2	2	0	0	0	2	0	4	0	1	0
November	11.0	NE.	27	NE.	0	14	17	7	2	7	6	5	2	0	12	9	9	5	2	0	0	0	1	0	0	0	1	0
December	11.6	N.	32	N.	0	18	11	1	0	9	11	9	3	0	14	9	8	3	1	0	0	0	2	0	0	2	0	0
Year	10.3	NE.	51	NE.	3	104	128	78	53	114	118	88	46	1	159	93	113	92	71	0	0	0	9	0	24	9	34	0

CHARLOTTE, N. C.

[H_b=779 ft.; h_s=55 ft.; h_r=47 ft.; h_a=62 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.1	SW.	28	NW.	0	14	12	2	6	7	11	3	6	1	12	12	7	8	8	1	0	0	1	2	0	9	0	0
February	6.2	N.	29	SW.	0	13	10	8	6	5	7	4	3	0	10	9	9	11	11	2	1	0	1	0	0	10	1	0
March	6.9	N.	26	NW.	0	16	15	3	3	5	3	4	8	0	8	15	8	9	8	0	0	0	2	0	0	0	1	0
April	5.8	SW.	20	NW.	0	5	6	3	4	10	16	5	10	1	10	12	8	7	7	0	0	0	1	0	0	2	1	0
May	4.8	S.	25	NW.	0	4	6	6	8	18	13	5	1	1	7	13	11	11	10	0	0	0	0	0	0	0	4	0
June	4.3	SE.	26	SW.	0	3	13	10	12	4	7	6	2	3	3	17	10	10	6	0	0	0	2	0	7	0	5	0
July	4.2	SW.	22	NW.	0	3	6	5	11	12	17	5	2	1	3	18	10	14	11	0	0	0	0	0	13	0	9	0
August	3.9	SW.	20	N.	0	4	5	3	6	6	22	10	4	2	1	21	9	7	6	0	0	0	1	0	6	0	5	0
September	4.2	NE.	22	NW.	0	7	16	6	10	6	13	1	1	0	18	6	6	2	2	0	0	0	0	0	5	0	2	0
October	4.3	NE.	18	W.	0	7	21	0	6	10	13	2	2	1	3	12	16	11	8	0	0	0	1	0	1	0	2	0
November	4.6	NE.	24	S.	0	7	22	5	7	6	8	1	3	1	10	7	13	4	3	0	0	0	0	0	0	4	0	0
December	6.0	SW.	22	S.	0	13	13	5	3	6	16	3	3	0	15	4	12	9	7	0	0	0	2	1	0	20	0	0
Year	5.0	SW.	29	SW.	0	96	145	56	87	95	146	49	45	11	100	146	119	103	87	3	1	0	11	3	32	45	30	0

* By eye observations at this station.

† Cape May, month of March, number of winds for only 30½ days.

Annual meteorological summary for the year ending December 31, 1919—Continued.

CHATTANOOGA, TENN.

[ϕ=35° 04′ N.; λ=85° 14′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.356	29.650	28.960	34.4	45.2	45.1	50.5	32.2	41.4	66	4	28	31	31	77	59	59	0.164	0.187	0.180	6.13	1.87	4.8	4.4	5.0	5.0
February	29.216	29.610	28.540	37.3	44.6	45.9	50.4	34.4	42.4	68	25	30	32	32	76	63	60	.176	.194	.186	5.18	1.32	6.7	5.8	5.3	6.2
March	29.347	29.660	28.850	45.4	56.3	56.6	62.4	42.6	52.5	75	27	35	36	35	68	51	49	.217	.231	.222	7.33	2.49	4.7	4.2	4.4	4.4
April	29.256	29.560	28.840	53.1	66.0	66.0	70.9	49.6	60.2	84	32	42	42	45	67	43	49	.289	.288	.316	2.90	1.07	4.2	4.4	5.2	4.6
May	29.127	29.350	28.770	61.1	71.1	70.8	75.4	57.6	66.5	84	44	55	55	56	80	59	62	.439	.444	.467	4.32	.95	6.4	6.7	7.5	6.6
June	29.266	29.570	29.000	72.1	82.8	79.6	86.5	68.3	77.4	93	63	64	62	65	76	52	62	.601	.570	.614	2.27	.91	4.0	5.5	6.5	5.5
July	29.242	29.480	29.050	72.9	84.0	80.8	87.8	70.1	79.0	93	62	66	66	68	80	56	66	.647	.648	.678	2.07	1.29	5.3	5.4	6.5	5.6
August	29.226	29.410	29.030	71.3	82.6	78.7	86.0	69.0	77.5	98	59	65	65	66	82	57	66	.630	.630	.641	4.71	1.90	7.1	6.1	6.1	6.1
September	29.265	29.494	29.000	64.5	80.3	78.4	84.9	62.7	73.8	93	54	56	56	58	75	44	50	.464	.460	.489	.04	.03	2.7	2.7	3.3	3.4
October	29.307	29.530	29.150	64.2	72.9	70.7	76.7	62.6	69.6	90	54	60	62	63	86	70	78	.524	.561	.587	6.12	1.54	7.4	7.9	6.3	7.3
November	29.320	29.800	28.850	45.5	57.0	55.1	61.1	43.5	52.3	74	31	39	40	40	78	55	60	.258	.274	.275	2.68	1.11	5.5	4.9	3.5	4.9
December	29.368	29.890	28.830	37.4	46.2	45.8	50.4	34.5	42.4	68	17	30	32	34	75	60	64	.193	.203	.216	4.88	1.86	6.3	6.1	5.5	6.0
Year	29.275	29.890	28.540	54.9	65.8	64.5	70.2	52.3	61.2	98	4	48	48	49	77	56	60	.384	.391	.406	48.63	2.49	5.4	5.3	5.4	5.5

CHEYENNE, WYO.

[ϕ=41° 08′ N.; λ=104° 48′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	23.996	24.320	23.710	27.4	30.9	33.6	42.2	21.4	31.8	60	−2	10	16	15	48	44	46	0.068	0.106	0.085	T.	T.	2.5	4.6	3.2	3.8
February	23.787	24.060	23.320	21.1	31.4	27.8	35.5	15.6	25.6	56	−2	14	16	14	72	52	59	.078	.089	.080	0.26	0.17	2.6	5.2	5.8	5.0
March	23.918	24.239	23.390	27.3	39.7	38.0	44.0	23.4	33.7	65	7	19	23	24	71	55	60	.103	.123	.129	1.52	.70	3.6	6.2	6.9	5.5
April	23.942	24.290	23.440	34.1	48.2	46.8	52.2	31.2	41.7	73	16	28	26	28	78	47	53	.153	.147	.153	1.23	.76	5.1	6.2	7.0	5.9
May	23.946	24.190	23.650	41.4	59.8	60.3	64.5	37.9	51.2	76	28	32	31	32	71	36	36	.187	.177	.182	.70	.54	3.4	4.8	6.1	4.7
June	24.074	24.270	23.900	52.9	73.6	69.9	77.1	48.1	62.6	90	23	39	36	37	62	28	33	.246	.223	.226	.72	.19	3.1	4.5	6.8	4.5
July	24.096	24.320	23.930	61.6	77.6	76.0	82.1	57.4	69.8	94	50	49	47	49	66	39	44	.354	.337	.362	2.83	.93	3.1	4.9	6.7	4.7
August	24.130	24.290	23.966	57.1	76.8	75.7	81.3	54.6	68.0	89	45	43	45	44	62	34	35	.286	.304	.293	.43	.16	3.2	3.7	4.9	4.0
September	24.067	24.290	23.790	51.1	67.4	63.4	70.8	47.2	59.0	81	32	43	42	46	75	44	56	.283	.278	.320	1.76	.60	4.7	4.2	5.3	4.7
October	23.949	24.260	23.600	34.0	44.8	42.4	51.3	29.7	40.5	68	19	26	27	26	73	53	58	.137	.146	.147	1.67	.64	4.7	3.7	4.9	4.3
November	23.950	24.360	23.460	27.6	35.8	31.2	41.4	19.8	30.6	62	−12	17	20	20	66	58	65	.097	.111	.111	1.63	.51	4.3	5.9	4.7	5.3
December	23.983	24.260	23.440	23.6	33.4	28.4	39.0	17.1	28.0	59	−28	11	15	13	60	49	54	.075	.091	.083	1.10	.51	3.1	3.1	2.4	3.0
Year	23.986	24.360	23.320	38.3	52.4	49.5	56.8	33.6	45.2	94	−28	28	29	29	67	45	50	.172	.178	.181	13.85	.93	3.6	4.8	5.4	4.6

CHICAGO, ILL.

[ϕ=41° 53′ N.; λ=87° 37′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.157	29.500	28.740	28.7	33.2	33.5	37.1	24.8	31.0	52	−11	22	23	24	74	66	67	0.129	0.136	0.142	0.20	0.14	4.7	5.4	4.3	5.2
February	29.071	29.680	28.250	28.8	32.5	32.8	36.1	24.9	30.5	52	11	22	24	24	74	70	69	.124	.137	.136	2.78	.95	6.0	6.7	5.6	6.5
March	29.284	29.750	28.840	36.5	41.2	40.7	44.9	32.1	38.5	68	8	29	30	30	73	65	66	.170	.181	.176	4.32	1.14	5.7	5.5	4.5	5.7
April	29.108	29.560	28.600	45.3	49.7	49.7	54.7	41.3	48.0	75	28	40	40	40	82	70	71	.257	.258	.259	3.16	1.04	7.0	6.9	6.6	7.0
May	29.071	29.410	28.664	53.3	57.3	56.5	61.3	49.2	55.2	83	40	46	46	45	78	69	67	.323	.325	.310	3.84	1.60	4.5	5.4	5.8	5.0
June	29.189	29.470	28.820	70.6	75.4	73.7	78.3	66.9	72.6	88	55	62	63	63	75	67	70	.571	.604	.590	3.16	1.33	3.7	5.8	3.7	4.5
July	29.138	29.384	28.890	74.1	79.9	78.6	83.8	70.3	77.0	96	62	61	61	62	65	55	58	.550	.545	.556	1.59	1.03	3.1	2.8	2.7	2.8
August	29.094	29.400	28.850	68.9	77.6	76.0	80.6	66.1	73.4	98	57	58	56	57	68	49	54	.486	.462	.481	1.10	.44	3.6	4.6	2.5	3.5
September	29.149	29.410	28.530	64.2	72.4	71.1	75.9	61.9	68.9	93	52	53	52	54	67	52	57	.413	.413	.432	3.85	1.79	5.4	5.3	3.8	4.8
October	29.162	29.425	28.803	54.4	59.8	59.7	64.6	49.9	57.2	85	35	48	48	48	79	67	66	.362	.361	.358	6.41	2.28	5.5	6.1	5.4	5.5
November	29.186	29.590	28.160	36.8	41.9	41.2	45.8	32.7	39.2	60	15	30	30	29	75	64	62	.174	.179	.170	2.38	1.56	5.4	6.6	5.2	6.1
December	29.240	29.920	28.610	19.3	23.6	24.8	27.9	14.9	21.4	44	−8	14	17	18	78	75	73	.088	.100	.105	.70	.25	6.4	7.3	6.3	6.9
Year	29.154	29.920	28.160	48.4	53.7	53.2	57.6	44.6	51.1	98	−11	40	41	41	74	64	65	.304	.308	.310	33.49	2.28	5.1	5.7	4.7	5.3

CHICAGO UNIVERSITY, ILL.

[ϕ=41° 47′ N.; λ=87° 35′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	.....	.....	.....	26.2	32.1	31.0	36.0	22.7	29.4	52	−13	22	24	24	82	70	75	0.127	0.137	0.141	0.20	0.12	3.9	4.9	3.5	4.1
February	.....	.....	.....	26.9	31.7	30.9	35.5	23.6	29.6	51	10	21	23	23	77	69	72	.119	.132	.130	2.83	.95	6.0	6.2	5.2	6.4
March	.....	.....	.....	34.6	40.8	38.6	44.1	30.7	37.4	67	7	29	30	31	79	66	73	.169	.181	.179	4.43	1.33	4.7	4.9	3.6	5.0
April	.....	.....	.....	44.0	50.5	48.5	54.9	39.8	47.4	75	26	38	38	39	79	54	71	.238	.239	.247	3.17	.80	6.3	5.9	5.8	6.8
May	.....	.....	.....	51.2	56.6	54.6	61.0	47.2	54.1	86	38	45	44	44	79	66	70	.302	.297	.303	4.26	1.68	3.7	4.8	5.2	4.5
June	.....	.....	.....	69.1	75.8	72.0	78.8	65.1	72.0	89	54	62	64	64	79	67	76	.573	.603	.599	1.88	.66	3.4	4.8	4.7	4.4
July	29.308	29.553	29.050	72.1	80.0	76.6	83.3	67.5	75.4	94	57	62	62	62	70	56	62	.558	.562	.533	1.75	1.06	2.5	2.4	2.4	2.2
August	29.262	29.590	29.020	66.9	77.2	73.5	80.1	63.1	71.6	97	54	58	56	58	74	50	60	.494	.465	.497	.73	.25	3.6	4.0	2.5	3.5
September	29.320	29.580	28.710	61.7	73.0	69.0	75.7	58.8	67.2	92	44	54	54	55	76	54	63	.431	.432	.450	2.56	1.52	5.6	5.1	3.8	4.8
October	29.337	29.609	28.970	52.3	60.5	57.9	64.5	47.9	56.2	85	31	48	49	48	84	67	70	.356	.370	.358	6.25	2.25	5.2	5.9	5.4	5.6
November	29.364	29.770	28.300	35.4	41.9	39.8	45.1	31.4	38.2	60	15	30	30	29	78	64	64	.176	.178	.167	2.30	1.51	5.6	6.7	5.2	6.2
December	29.427	30.140	28.770	17.8	23.0	23.1	26.9	13.5	20.2	43	−11	14	17	17	82	76	77	.085	.098	.101	.70	.25	7.5	7.7	6.9	7.7
Year	.....	.....	.....	46.5	53.6	51.3	57.2	42.6	49.9	97	−13	40	41	41	78	64	69	.302	.308	.310	31.05	2.25	4.8	5.3	4.5	5.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

CHATTANOOGA, TENN.

[H_b=762 ft.; h_t=189 ft.; h_r=167 ft.; h_a=213 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles	*	*Mi.*																									
January	6.9	NW.	33	NW.	0	0	11	1	2	13	9	11	15	0	12	9	10	12	11	4	3	0	4	3	0	11	0	0
February	9.2	NE.	38	NW.	0	7	12	5	5	9	7	4	7	0	7	7	14	14	7	5	3	0	1	0	0	8	1	0
March	9.8	NE.	36	NW.	0	11	17	0	5	9	5	6	9	0	15	7	9	8	7	0	0	0	0	0	0	1	2	0
April	8.1	S.	33	S.	0	5	4	1	1	18	11	10	10	0	13	10	7	8	7	0	0	0	0	0	0	1	2	0
May	7.5	SW.	34	SW.	0	0	7	2	0	16	17	13	7	0	4	12	15	19	14	0	0	0	0	0	0	0	7	0
June	6.0	S.	36	SW.	0	4	10	4	8	12	7	12	3	0	4	19	7	12	9	0	0	1	0	0	7	0	11	0
July	6.8	W.	38	S.	0	2	7	1	7	14	12	15	4	0	5	20	6	9	3	0	0	0	0	0	12	0	11	0
August	7.2	W.	37	E.	0	5	4	2	2	8	12	19	10	0	6	13	12	13	11	0	0	1	0	0	6	0	11	0
September	6.5	S.	24	S.	0	5	14	2	5	15	6	6	7	0	19	5	6	2	0	0	0	0	0	0	5	0	0	0
October	6.4	SE.	42	W.	1	3	10	0	21	8	9	4	7	0	3	11	17	16	15	0	0	0	3	0	1	0	7	0
November	7.2	NE.	33	S.	0	7	12	6	11	5	6	7	6	0	13	6	11	10	9	0	0	0	5	0	0	4	0	0
December	8.3	SW.	36	SW.	0	7	7	2	8	8	17	8	5	0	9	6	16	9	8	1	1	0	5	0	0	12	1	0
Year	7.5	S.	42	W.	1	56	115	26	75	135	118	115	90	0	110	125	130	132	101	10	7	2	18	3	31	37	53	0

CHEYENNE, WYO.

[H_b=6088 ft.; h_t=84 ft.; h_r=75 ft.; h_a=101 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	17.6	W.	58	W.	13	3	0	0	0	2	7	32	18	0	16	11	4	0	0	1	0	0	0	4	0	28	0	0
February	15.5	W.	58	W.	8	7	2	2	1	8	6	19	11	0	11	9	8	4	3	10	4	0	0	8	0	27	0	0
March	13.0	W.	56	W.	7	8	6	1	4	10	1	26	6	0	8	14	9	11	7	13	9	0	3	8	0	27	0	0
April	15.6	N.	54	W.	7	13	5	5	5	6	2	16	8	0	4	19	7	8	5	5	2	0	1	3	0	14	1	0
May	11.3	S.	47	W.	5	4	5	7	7	13	2	13	11	0	9	18	4	4	3	3	2	1	1	0	0	4	4	0
June	10.6	W.	44	S.	3	11	6	3	7	7	2	16	8	0	11	16	3	8	5	1	1	1	0	0	2	3	13	0
July	9.7	W.	39	W.	0	9	3	3	11	9	4	16	7	0	12	13	6	8	6	0	0	1	1	0	5	0	12	0
August	10.5	S.	36	NW.	0	4	2	2	6	14	7	15	12	0	15	11	5	6	3	0	0	0	0	0	0	0	9	0
September	9.4	W.	36	NW.	0	7	4	6	4	14	5	11	9	0	12	12	6	8	6	1	1	1	0	0	0	2	8	0
October	12.4	W.	48	W.	4	8	7	1	2	14	5	17	8	0	16	9	6	7	7	11	7	0	0	2	0	22	1	0
November	14.6	W.	66	W.	5	6	4	2	2	8	8	20	10	0	12	8	10	8	7	9	8	0	0	7	0	24	0	0
December	16.3	W.	60	W.	10	5	2	4	1	4	11	25	10	0	20	7	4	6	5	9	6	0	0	9	0	23	0	0
Year	13.0	W.	66	W.	62	85	46	36	50	109	60	226	118	0	146	147	72	78	57	63	40	4	6	41	7	174	48	0

CHICAGO, ILL.

[H_b=823 ft.; h_t=140 ft.; h_r=133 ft.; h_a=310 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	13.9	W.	38	SW.	0	1	3	1	2	13	18	16	8	0	11	10	10	2	2	7	2	0	4	7	0	18	0	0
February	12.8	NW.	50	SW.	1	2	5	5	8	4	7	12	13	0	8	6	14	11	7	14	8	0	0	10	0	23	1	0
March	13.6	NE.	44	S.	2	9	11	6	4	8	9	4	11	0	10	8	13	13	11	8	6	0	2	4	0	16	4	0
April	13.1	S.	42	SW.	1	10	10	8	2	12	9	3	6	0	3	12	15	16	13	2	0	0	2	0	0	2	5	0
May	10.3	N.	29	N.	0	22	11	8	2	2	3	6	8	0	13	7	11	11	8	0	0	0	1	0	0	0	6	0
June	9.3	N.	31	S.	0	15	10	6	8	6	8	6	1	0	10	16	4	15	10	0	0	0	0	0	0	0	13	0
July	10.7	N.	46	W.	1	16	10	4	6	4	13	5	4	0	19	9	3	4	3	0	0	0	0	0	9	0	7	0
August	11.0	W.	31	S.	0	8	7	4	2	7	10	9	15	0	15	14	2	7	7	0	0	0	1	0	4	0	7	0
September	11.3	SW.	36	S.	0	5	7	5	3	13	10	4	13	0	11	12	7	9	8	0	0	0	0	0	3	0	6	0
October	11.8	W.	40	SW.	1	5	7	2	9	8	12	12	7	0	11	9	11	14	13	0	0	0	1	0	0	0	5	0
November	15.2	W.	50	SW.	3	6	5	2	6	9	11	15	6	0	9	8	13	6	5	6	2	0	0	3	0	13	0	0
December	11.9	W.	38	W.	0	4	3	1	4	2	17	13	18	0	6	6	19	8	6	20	8	0	0	20	0	31	0	0
Year	12.1	SW.	50	SW.	9	103	89	52	56	88	127	105	110	0	126	117	122	116	93	57	26	0	11	44	16	103	54	0

CHICAGO UNIVERSITY, ILL.

[H_b=673 ft.; h_t=7 ft.; h_r=3 ft.; h_a=131 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	12.7	SW.	37	SW.	0	1	3	1	4	13	18	14	8	0	17	7	7	2	2	7	2	0	2	9	0	25	0	0
February	12.2	NW.	49	SW.	1	0	5	5	12	2	7	9	16	0	7	8	13	13	9	12	7	0	0	10	0	25	0	0
March	13.7	NE.	40	N.	1	3	15	10	9	6	6	5	8	0	14	4	13	13	11	7	5	0	1	4	0	16	3	0
April	12.6	NE.	42	SW.	1	5	12	7	11	6	10	4	5	0	4	13	13	14	13	2	0	0	1	0	0	3	3	0
May	10.3	NE.	33	NE.	0	7	24	4	6	5	4	4	7	1	13	10	8	16	10	0	0	1	0	0	0	0	5	0
June	8.9	NE.	30	SW.	0	5	15	10	9	8	9	4	0	0	11	16	3	15	12	0	0	0	0	0	0	0	13	0
July	10.2	NE.	48	SW.	1	8	10	10	6	8	13	3	4	0	22	7	2	7	4	0	0	0	0	0	9	0	7	0
August	10.5	NE.	30	N.	0	2	10	6	3	10	8	10	13	0	15	14	2	7	6	0	0	0	1	0	3	0	7	0
September	10.2	SW.	30	NW.	0	2	8	8	3	15	9	6	10	0	14	8	8	9	7	0	0	0	0	0	3	0	4	0
October	10.7	SW.	42	SW.	1	2	8	4	7	15	11	9	6	0	10	9	12	13	12	0	0	0	0	0	0	2	4	0
November	14.3	SW.	54	SW.	2	2	7	4	9	8	10	12	8	0	9	8	13	8	4	6	2	0	0	3	0	14	0	0
December	11.5	W.	34	SW.	0	4	0	4	4	6	13	14	17	0	4	7	20	8	6	18	8	0	0	24	0	31	0	0
Year	11.5	SW.	54	SW.	7	41	117	73	83	102	118	93	102	1	140	111	114	124	96	52	24	1	5	50	15	116	46	0

*By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

CINCINNATI, OHIO.

[ϕ=39° 06′ N.; λ=84° 30′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.445	29.750	28.980	30.0	39.3	36.8	44.2	26.3	35.2	61	1	26	27	26	83	62	65	0.146	0.153	0.146	1.44	1.43	5.2	4.8	4.3	5.2
February	29.325	29.900	28.500	30.5	38.5	35.6	42.6	26.1	34.4	64	15	25	26	26	80	61	67	.141	.153	.146	1.05	.42	7.4	7.6	5.5	7.4
March	29.495	29.870	28.820	36.9	48.1	46.3	53.9	33.5	43.7	73	18	31	32	32	79	55	60	.181	.195	.196	5.27	1.50	5.4	4.9	5.4	5.5
April	29.351	29.690	28.790	47.1	57.6	55.9	62.7	42.4	52.6	84	25	38	40	42	71	54	62	.243	.272	.285	3.29	.97	6.4	6.7	6.3	6.6
May	29.244	29.530	28.810	57.3	66.0	63.2	69.3	50.9	60.1	88	42	50	50	51	77	60	68	.367	.383	.389	3.56	1.12	6.8	7.3	6.1	6.9
June	29.393	29.700	29.130	72.0	82.1	77.1	84.9	65.7	75.3	91	54	64	64	64	78	56	67	.614	.608	.616	2.44	.89	3.9	5.4	6.2	5.2
July	29.349	29.610	29.109	72.5	84.8	81.7	88.2	65.9	77.0	95	55	64	63	63	76	51	55	.610	.598	.588	2.08	.83	2.5	4.3	3.4	3.4
August	29.316	29.568	29.110	67.9	80.8	75.5	84.2	62.2	73.2	94	52	60	56	58	76	45	57	.533	.471	.501	.92	.29	3.9	4.5	3.6	4.0
September	29.385	29.600	29.010	63.5	77.8	73.2	81.5	57.6	69.6	95	44	55	54	54	75	46	53	.452	.435	.437	3.79	2.23	3.4	5.0	3.1	4.0
October	29.409	29.650	29.160	57.6	67.2	62.9	70.8	52.9	61.8	90	37	54	55	54	80	68	76	.447	.461	.446	9.51	2.15	7.5	7.3	5.8	7.2
November	29.432	29.870	28.610	38.5	47.4	43.8	50.6	33.9	42.2	65	20	34	34	34	83	62	68	.207	.210	.201	3.65	1.17	6.1	5.9	4.1	5.8
December	29.471	30.160	28.770	23.0	30.2	29.9	36.1	18.6	27.4	57	2	20	22	23	87	71	76	.113	.125	.133	2.56	1.11	6.0	6.0	5.4	6.1
Year	29.385	30.160	28.500	49.7	60.0	56.8	64.1	44.7	54.4	95	1	43	44	44	80	58	64	.338	.339	.340	39.56	2.23	5.4	5.8	4.9	5.6

CLEVELAND, OHIO.

[ϕ=41° 30′ N.; λ=81° 42′ W.]

January	29.232	29.730	28.770	30.3	33.5	33.0	39.2	25.9	32.6	56	5	24	24	26	77	68	73	0.139	0.141	0.146	0.63	0.43	5.7	6.5	5.4	5.9
February	29.150	29.770	28.440	29.2	32.7	33.0	37.0	25.6	31.3	61	17	23	23	26	75	66	73	.126	.128	.141	1.11	.29	8.6	8.0	6.8	7.8
March	29.345	29.740	28.614	34.5	38.4	38.5	43.5	30.7	37.1	67	18	27	28	31	74	66	76	.155	.158	.186	2.67	1.00	6.3	5.4	4.3	5.4
April	29.186	29.550	28.630	44.6	49.2	50.2	54.7	39.4	47.0	74	23	35	37	40	70	64	69	.216	.234	.255	2.96	.83	7.4	6.8	6.7	6.9
May	29.109	29.470	28.648	54.5	57.4	58.6	62.9	50.0	56.4	80	42	46	48	48	74	72	72	.319	.341	.346	4.15	1.03	6.3	6.7	5.9	5.7
June	29.269	29.548	28.990	71.1	74.9	76.1	79.6	67.1	73.4	91	52	61	61	62	71	64	63	.548	.557	.562	1.24	.50	3.7	5.0	4.4	4.1
July	29.197	29.510	28.900	70.9	75.5	77.7	80.3	66.1	73.2	91	58	59	60	59	66	62	56	.505	.537	.520	2.46	.78	3.9	4.3	3.8	4.0
August	29.142	29.480	28.930	66.0	71.9	72.1	76.8	62.8	69.8	86	55	57	58	58	74	63	62	.487	.495	.492	7.19	4.13	5.2	5.0	5.8	5.3
September	29.225	29.470	28.790	62.0	69.3	68.8	73.7	59.1	66.4	88	48	53	55	55	74	61	63	.421	.439	.449	1.79	.58	6.5	5.2	4.0	5.3
October	29.258	29.550	28.920	55.4	61.2	60.2	65.5	52.1	58.8	86	38	49	51	51	80	71	73	.373	.399	.396	3.17	.93	7.3	5.9	5.9	6.5
November	29.255	29.713	28.340	38.7	42.3	41.4	47.3	34.9	41.1	62	23	31	32	31	73	66	67	.177	.182	.179	1.31	.31	7.8	6.9	7.3	7.0
December	29.279	29.916	28.560	23.3	25.6	26.4	31.8	19.6	25.7	56	5	17	18	20	73	72	74	.100	.106	.113	1.32	.22	7.9	7.9	8.5	7.9
Year	29.221	29.916	28.340	48.4	52.7	53.0	57.7	44.4	51.1	91	5	40	41	42	73	66	68	.297	.310	.315	30.00	4.13	6.4	6.1	5.7	6.0

COLUMBIA, MO.

[ϕ=38° 57′ N.; λ=92° 20′ W.]

January	29.281	29.650	28.990	28.0	36.8	....	43.1	25.2	34.2	63	−11	23	26	....	82	66	....	0.134	0.156	.....	0.07	0.07	3.4	2.4	....	3.0
February	29.117	29.580	28.100	29.3	36.5	....	43.8	26.4	35.1	63	10	24	26	....	78	65	....	.131	.147	.....	1.73	.70	5.4	4.6	....	5.1
March	29.304	29.740	28.810	38.3	50.2	....	57.5	35.7	46.6	73	12	32	36	....	77	59	....	.189	.221	.....	1.30	.58	5.0	4.9	....	5.4
April	29.134	29.580	28.700	47.9	60.1	....	64.7	45.2	55.0	82	27	40	44	....	76	58	....	.268	.311	.....	2.84	1.12	5.5	5.7	....	5.9
May	29.071	29.340	28.720	55.8	66.8	....	70.3	52.7	61.5	87	43	51	52	....	85	61	....	.391	.413	.....	6.21	1.45	7.1	6.2	....	6.5
June	29.171	29.440	28.900	70.2	81.3	....	84.3	65.9	75.1	91	53	66	67	....	86	63	....	.641	.675	.....	3.96	1.59	4.3	4.4	....	4.6
July	29.181	29.391	28.900	72.3	86.3	....	89.7	68.1	78.9	97	59	66	66	....	82	53	....	.656	.650	.....	2.52	.96	2.4	2.4	....	2.2
August	29.159	29.410	28.940	67.3	81.4	....	85.1	64.3	74.7	102	53	62	63	....	84	55	....	.563	.583	.....	5.37	2.11	3.4	3.3	....	3.4
September	29.198	29.440	28.650	62.4	79.2	....	82.4	59.8	71.1	96	48	57	58	....	83	50	....	.482	.512	.....	3.31	1.24	3.6	3.1	....	3.0
October	29.195	29.470	28.770	51.4	61.8	....	67.2	48.0	57.6	88	32	48	50	....	90	68	....	.304	.384	.....	7.68	2.27	5.5	6.3	....	6.1
November	29.250	29.680	28.510	35.3	44.9	....	51.3	33.0	42.2	64	16	30	32	....	81	64	....	.171	.191	.....	2.84	1.08	5.2	4.5	....	4.9
December	29.326	30.020	28.790	22.5	30.5	....	35.3	18.6	27.0	59	−4	19	23	....	86	74	....	.110	.131	.....	.55	.42	5.6	6.2	....	6.3
Year	29.199	30.020	28.100	48.4	59.6	....	64.6	45.2	54.9	102	−11	43	45	....	82	61	....	.342	.364	.....	38.38	2.27	4.7	4.5	....	4.7

COLUMBIA, S. C.

[ϕ=34° 00′ N.; λ=81° 03′ W.]

January	29.752	30.150	29.270	39.6	52.3	50.8	58.0	37.2	47.6	75	18	33	34	36	76	54	60	0.200	0.218	0.233	3.81	1.59	5.3	3.9	3.1	4.5
February	29.646	30.080	29.120	39.7	50.5	49.8	55.5	38.0	46.8	69	26	33	34	36	77	54	61	.198	.205	.221	3.50	1.14	5.5	4.9	4.2	5.5
March	29.755	30.150	29.230	50.4	62.2	59.1	67.1	46.5	56.8	76	37	43	44	42	76	56	58	.289	.318	.291	1.11	.60	5.4	5.3	3.1	5.0
April	29.687	30.010	29.370	55.7	69.4	67.6	74.9	52.2	63.6	87	32	45	44	45	69	42	47	.326	.309	.326	2.14	.68	3.9	3.3	3.6	3.6
May	29.565	29.810	29.170	66.7	75.7	72.4	80.5	62.5	71.5	89	52	61	60	61	83	60	69	.550	.527	.544	4.37	1.74	6.3	6.4	5.4	6.2
June	29.700	30.022	29.360	72.7	82.3	78.6	86.6	68.5	77.6	96	58	66	63	65	80	55	64	.643	.588	.620	2.65	1.72	5.8	6.3	6.3	6.1
July	29.674	29.940	29.440	75.1	84.8	80.3	88.5	71.3	79.9	98	60	69	68	68	82	59	68	.710	.694	.690	10.83	3.85	5.4	5.9	6.5	6.0
August	29.638	29.850	29.420	73.2	83.8	78.3	87.5	70.1	78.8	95	63	68	67	68	85	59	71	.696	.673	.682	5.70	3.49	6.4	6.0	5.7	6.4
September	29.689	29.950	29.380	67.5	81.6	76.4	85.4	63.7	74.6	94	53	60	57	59	77	44	56	.532	.465	.510	.08	.08	2.7	2.5	3.0	2.7
October	29.756	30.010	29.530	67.0	78.4	73.9	83.0	64.8	73.9	94	53	64	63	64	89	61	71	.596	.582	.606	3.27	1.96	6.2	6.5	4.1	6.0
November	29.743	30.290	29.350	49.8	63.3	59.6	67.4	47.3	57.4	85	29	43	41	42	77	46	53	.298	.285	.290	.10	.05	5.1	4.2	3.8	4.8
December	29.790	30.280	29.390	40.0	50.9	48.1	55.7	36.8	46.2	78	26	34	35	36	80	57	64	.230	.224	.233	2.64	1.73	5.5	4.3	3.7	4.8
Year	29.700	30.290	29.120	58.1	69.6	66.2	74.2	54.9	64.6	98	18	52	51	52	79	54	62	.439	.424	.437	40.20	3.85	5.3	5.0	4.4	5.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

CINCINNATI, OHIO.

[H_b=628 ft.; h_1=11 ft.; h_2=3 ft.; h_3=51 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	7.7	SW.	23	SW.	0	2	5	0	5	13	21	9	7	0	12	8	11	6	3	7	1	0	2	5	0	22	0	0
February	9.1	SW.	44	SW.	1	1	7	4	7	8	12	10	7	0	5	5	18	10	6	9	2	0	0	1	0	23	2	0
March	9.0	NE.	42	SW.	1	11	17	2	3	10	8	4	7	0	11	6	14	11	9	4	0	1	0	0	0	18	2	0
April	8.4	S.	34	SE.	0	3	9	2	3	13	16	4	10	0	7	8	15	12	11	1	0	0	1	0	0	5	4	0
May	7.2	NE.	26	SW.	0	5	24	1	2	6	14	1	8	0	6	8	17	14	10	0	0	0	0	0	0	0	2	0
June	5.2	SW.	25	NE.	0	4	12	7	5	14	11	2	5	0	8	14	8	10	9	0	0	0	0	1	0	2	0	0
July	5.8	SW.	32	NW.	0	8	20	2	2	3	23	2	2	0	17	11	3	7	4	0	0	0	0	0	0	13	0	0
August	6.4	SW.	29	NW.	0	7	12	0	1	9	20	6	7	0	15	12	4	10	9	0	0	0	0	0	0	7	0	0
September	6.0	SW.	37	SW.	0	8	13	5	4	7	13	3	7	0	15	9	6	7	6	0	0	1	0	0	0	5	0	0
October	6.4	SW.	30	NW.	0	6	16	1	4	17	11	3	4	0	6	6	19	15	14	0	0	0	5	0	1	0	6	1
November	8.3	SW.	48	SW.	1	8	12	7	5	7	13	5	5	0	9	8	13	11	7	1	0	0	2	0	0	11	0	0
December	8.4	SW.	26	SW.	0	10	14	5	2	6	13	6	6	0	10	7	14	9	6	10	6	0	1	10	0	30	0	0
Year	7.3	SW.	48	SW.	3	71	161	36	44	113	175	55	75	0	121	102	142	122	94	32	9	2	12	16	28	109	51	2

CLEVELAND, OHIO.

[H_b=762 ft.; h_1=190 ft.; h_2=165 ft.; h_3=201 ft.]

January	15.2	SW.	48	NW.	2	1	1	0	6	13	18	16	7	0	10	9	12	8	5	10	6	0	1	8	0	24	0	0
February	14.6	NW.	46	SW.	3	1	2	1	10	7	10	12	12	1	2	10	16	15	10	14	10	0	0	11	0	22	2	0
March	14.7	NE.	56	W.	6	9	12	4	3	11	4	5	14	0	14	3	14	11	9	9	4	0	0	3	0	20	0	0
April	13.8	NW.	45	S.	2	4	7	4	6	8	8	8	15	0	7	8	15	15	12	4	1	0	4	1	0	5	7	0
May	11.4	NE.	48	W.	1	5	21	2	5	5	11	5	8	0	9	10	12	16	15	0	0	0	0	0	0	0	3	0
June	10.3	NE.	39	NE.	0	7	12	4	16	6	9	3	3	0	14	12	4	6	4	0	0	0	0	0	1	0	5	0
July	10.6	NE.	36	NE.	0	5	19	4	8	9	9	4	4	0	16	10	5	9	8	0	0	0	0	0	3	0	7	0
August	11.9	S.	48	W.	4	7	6	1	5	14	12	11	6	0	10	16	5	12	9	0	0	1	0	0	0	0	10	0
September	11.6	SW.	44	NE.	3	9	8	0	9	9	12	5	8	0	9	13	8	8	7	0	0	0	0	0	0	0	3	0
October	12.4	SW.	56	W.	2	2	8	2	10	18	11	5	6	0	6	12	13	12	11	0	0	0	0	0	0	0	3	0
November	16.0	SW.	60	W.	5	8	7	4	8	8	11	9	5	0	8	4	18	11	10	8	2	1	0	0	0	11	1	0
December	14.2	SW.	49	NW.	5	5	3	2	4	12	16	12	8	0	4	7	20	15	11	20	14	0	1	16	0	30	0	0
Year	13.1	SW.	60	W.	33	63	106	28	90	120	131	95	96	1	109	114	142	138	111	65	37	2	6	39	4	112	41	0

COLUMBIA, MO.

[H_b=784 ft.; h_1=11 ft.; h_2=3 ft.; h_3=84 ft.]

January	7.4	SW.	26	NW.	0	1	0	1	4	7	9	4	5	0	20	6	5	1	1	4	1	0	4	5	0	21	0	0
February	9.9	SE.	38	SW.	0	1	3	4	8	2	4	2	4	0	13	3	12	7	6	6	5	0	0	5	0	23	0	1
March	8.3	SE.	29	W.	0	3	2	8	9	1	1	2	5	0	11	9	11	8	7	2	1	1	0	1	0	9	2	0
April	9.6	SE.	39	NW.	0	2	2	6	5	4	3	6	2	0	7	11	12	12	7	1	0	1	1	0	0	1	6	0
May	7.3	NE.	26	NW.	0	4	9	6	5	3	0	1	3	0	4	16	11	15	14	0	0	0	0	0	0	0	10	0
June	5.8	SE.	33	NE.	0	1	1	8	10	6	3	1	0	0	10	17	3	12	10	0	0	0	0	0	3	0	11	0
July	5.4	S.	31	N.	0	3	2	6	5	9	2	0	3	1	23	7	1	6	6	0	0	0	1	0	16	0	8	0
August	6.1	NE.	35	NW.	0	2	6	2	6	5	4	4	2	0	17	10	4	11	11	0	0	0	2	0	7	0	12	0
September	6.5	SE.	36	SW.	0	2	6	3	8	6	3	0	2	0	20	4	6	7	6	0	0	0	0	0	2	0	6	0
October	6.6	SE.	24	NW.	0	2	4	1	9	6	3	2	3	1	9	6	16	14	13	0	0	0	0	0	0	1	5	0
November	9.0	SE.	39	SW.	0	3	2	8	2	5	3	3	4	0	16	4	10	9	5	3	1	0	0	2	0	13	1	0
December	8.3	SW.	30	NW.	0	5	4	2	4	3	8	3	2	0	8	7	16	5	4	6	3	0	5	13	0	31	1	0
Year	7.5	SE.	39	NW.	0	29	41	55	75	57	43	28	35	2	158	100	107	107	90	22	11	2	13	26	28	99	62	1

COLUMBIA, S. C.

[H_b=351 ft.; h_1=41 ft.; h_2=32 ft.; h_3=57 ft.]

		*																										
January	6.3	NE.	29	SW.	0	12	13	2	3	4	7	10	11	0	15	7	9	8	7	0	0	0	0	1	0	8	0	0
February	7.6	NE.	40	SW.	1	7	13	7	6	5	5	5	8	0	11	7	10	12	11	2	1	0	1	0	0	4	1	0
March	8.0	N.	36	SW.	0	15	14	5	6	8	2	5	7	0	12	7	12	7	4	0	0	0	0	0	0	0	1	0
April	7.0	S.	30	SW.	0	5	8	3	5	17	6	5	11	0	18	7	5	5	5	0	0	0	0	0	0	0	3	0
May	6.7	S.	34	SE.	0	2	10	5	10	15	12	2	4	2	8	11	12	10	10	0	0	0	1	0	0	0	9	0
June	5.9	E.	21	E.	0	1	9	23	7	10	2	7	0	1	7	11	12	9	8	0	0	0	1	0	8	0	6	0
July	5.6	S.	26	SW.	0	5	3	10	5	20	12	5	1	1	9	9	13	15	12	0	0	0	2	0	17	0	12	0
August	5.4	SW.	39	SW.	0	11	4	5	3	11	16	6	5	1	5	11	15	11	7	0	0	0	0	0	11	0	10	0
September	6.1	N.	23	N.	0	19	13	4	6	10	4	1	2	1	21	5	4	1	1	0	0	0	1	0	4	0	3	0
October	5.8	S.	23	SW.	0	10	10	8	1	20	7	4	2	0	5	15	11	5	4	0	0	0	6	0	4	0	2	0
November	5.6	NE.	31	S.	0	11	22	3	4	3	7	3	6	1	12	12	6	3	2	0	0	0	0	0	0	1	0	0
December	7.3	N.	27	W.	0	19	10	1	0	10	5	13	4	0	13	6	12	8	7	0	0	0	3	0	0	8	2	0
Year	6.5	S.	40	SW.	1	117	129	76	55	133	85	56	61	7	136	108	121	94	78	2	1	0	15	1	44	21	49	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

COLUMBUS, OHIO.

[ϕ=39° 58′ N.; λ=83° 00′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.217	29.600	28.770	29.6	35.8	35.0	41.1	25.1	33.1	60	3	24	26	26	80	66	69	0.142	0.150	0.149	1.28	0.94	6.2	6.3	3.8	5.5
February	29.110	29.630	28.350	29.3	36.0	35.0	40.0	25.1	32.6	61	15	24	26	26	79	67	70	.133	.148	.147	1.27	.26	6.5	7.4	6.1	7.1
March	29.288	29.643	28.600	35.9	44.3	44.5	51.2	32.3	41.8	71	19	30	31	33	78	60	64	.173	.179	.196	4.58	1.78	6.1	5.9	5.3	5.8
April	29.150	29.479	28.580	44.7	53.2	54.2	59.7	41.9	50.8	81	21	39	42	43	81	67	68	.255	.291	.299	2.26	.72	6.6	7.9	7.2	7.1
May	29.054	29.370	28.600	55.6	63.6	62.7	68.3	50.1	59.2	91	40	50	52	51	83	69	68	.375	.405	.382	5.19	1.44	6.3	7.4	5.5	6.3
June	29.213	29.520	28.950	71.2	80.4	78.0	84.9	66.2	75.6	91	56	64	68	65	78	67	67	.603	.668	.636	1.76	1.05	4.5	6.0	6.5	5.6
July	29.156	29.426	28.910	71.1	82.8	81.0	86.7	66.3	76.5	97	56	63	61	64	77	50	60	.588	.553	.620	4.93	1.52	5.0	3.7	3.5	4.3
August	29.119	29.402	28.910	65.7	76.6	74.2	80.3	61.0	70.6	91	52	59	59	60	80	55	61	.506	.515	.522	3.71	1.65	4.1	5.9	5.0	4.9
September	29.192	29.420	28.799	61.8	73.3	71.8	78.4	57.8	68.1	92	42	55	56	55	78	52	57	.448	.482	.455	1.15	.57	4.4	4.8	3.7	4.9
October	29.220	29.480	28.930	56.1	64.2	61.7	68.6	52.2	60.4	88	38	52	54	53	87	72	74	.409	.445	.422	5.33	.92	7.5	7.6	5.3	7.3
November	29.222	29.670	28.440	36.9	44.7	42.4	48.4	32.8	40.6	61	21	32	35	34	83	68	71	.194	.211	.198	4.23	1.25	6.7	6.2	4.9	6.6
December	29.248	29.890	28.570	22.6	27.7	28.2	34.0	18.1	26.0	58	6	18	21	22	81	75	74	.106	.122	.123	2.26	.81	6.7	7.8	6.5	7.3
Year	29.182	29.890	28.350	48.4	56.9	55.7	61.8	44.1	52.9	97	3	42	44	44	80	64	67	.328	.345	.346	37.95	1.78	5.9	6.4	5.3	6.0

CONCORD, N. H.

[ϕ=43° 12′ N.; λ=71° 32′ W.]

January	29.645	30.300	28.877	21.1	27.4	....	34.3	15.1	24.7	44	−7	17	20	....	85	72	....	0.105	0.120	....	3.05	1.80	6.7	7.7	....	5.5
February	29.596	30.080	28.900	22.0	30.9	....	34.6	18.3	26.4	44	4	16	21	....	78	65	....	.094	.113	....	1.94	1.00	4.9	5.3	....	3.3
March	29.773	30.617	28.700	32.9	40.7	....	45.5	27.9	36.7	65	10	28	32	....	80	72	....	.157	.192	....	3.28	1.17	6.6	6.7	....	4.5
April	29.675	30.090	29.250	40.0	48.8	....	52.9	33.7	43.3	71	15	34	39	....	78	70	....	.202	.251	....	1.92	.94	6.5	6.7	....	5.3
May	29.673	30.153	29.400	53.8	63.3	....	67.4	44.7	56.0	89	32	50	55	....	86	76	....	.365	.452	....	5.11	2.36	6.0	6.0	....	4.1
June	29.828	30.250	29.430	64.1	75.1	....	80.0	53.6	66.8	101	39	60	67	....	86	77	....	.535	.704	....	1.64	.97	5.6	6.4	....	3.8
July	29.676	30.058	29.260	68.7	78.8	....	82.5	60.0	71.2	97	46	61	62	....	78	59	....	.553	.581	....	1.47	.41	6.2	7.3	....	4.0
August	29.640	30.030	29.310	61.6	71.7	....	75.5	53.9	64.7	84	39	56	56	....	82	60	....	.450	.456	....	1.60	.47	5.1	7.2	....	5.3
September	29.710	30.110	29.220	54.5	66.3	....	70.2	49.3	59.8	89	33	52	56	....	91	72	....	.395	.469	....	3.07	1.22	6.2	6.7	....	7.2
October	29.825	30.340	29.160	43.9	54.8	....	58.7	38.7	48.7	78	24	41	46	....	90	75	....	.275	.336	....	2.71	.72	7.8	7.1	....	7.5
November	29.750	30.220	28.997	34.2	41.9	....	45.4	30.0	37.7	63	18	30	34	....	84	75	....	.177	.206	....	3.98	1.28	6.5	6.9	....	6.7
December	29.765	30.360	29.100	17.4	25.7	....	30.1	12.5	21.3	57	−10	12	18	....	78	70	....	.088	.105	....	.99	.49	5.5	5.8	....	5.8
Year	29.713	30.617	28.700	42.8	52.1	....	56.4	36.5	46.4	101	−10	38	42	....	83	70	....	.283	.332	....	30.76	2.36	6.1	6.6	....	5.2

CONCORDIA, KANS.

[ϕ=39° 35′ N.; λ=97° 41′ W.]

January	28.620	29.030	28.240	26.2	36.2	36.1	43.2	24.0	33.6	60	−14	22	26	28	85	67	73	0.127	0.147	0.162	0.02	0.02	1.2	2.4	1.4	3.3
February	28.461	28.940	27.550	26.6	34.2	33.0	39.2	22.6	30.9	60	−2	24	27	28	91	76	82	.136	.151	.158	2.36	.92	5.1	6.5	6.0	6.4
March	28.616	29.150	28.040	34.6	46.0	45.5	52.0	32.0	42.0	72	11	30	34	34	82	65	66	.170	.200	.199	.90	.34	5.8	6.6	6.0	6.8
April	28.478	29.030	27.780	44.4	55.0	55.7	60.1	42.0	51.0	82	30	39	40	42	83	60	63	.253	.265	.282	4.20	1.97	6.8	7.2	6.5	7.1
May	28.459	28.760	28.120	54.8	66.7	67.2	70.6	51.6	61.1	84	42	50	50	51	84	56	58	.371	.372	.387	5.68	2.48	5.9	7.1	5.7	6.5
June	28.525	28.720	28.190	66.0	78.7	77.3	82.7	63.0	72.8	99	47	62	63	63	87	60	64	.570	.587	.585	6.14	1.54	5.5	6.0	5.3	5.6
July	28.504	28.750	28.244	72.4	89.4	89.1	92.9	70.4	81.6	103	57	63	61	61	73	40	40	.582	.538	.546	.03	.03	2.4	3.2	2.5	3.2
August	28.519	28.820	28.240	67.3	84.4	83.9	88.9	65.1	77.0	101	52	59	57	58	76	43	45	.508	.490	.503	1.00	.61	4.6	4.5	4.0	4.5
September	28.516	28.850	28.040	62.0	78.2	76.9	82.5	60.2	71.4	100	46	55	54	53	78	47	48	.448	.439	.426	3.03	2.87	4.2	4.9	2.5	4.4
October	28.530	28.930	27.990	45.7	56.8	54.2	61.7	42.5	52.1	91	23	41	42	43	84	60	68	.278	.291	.298	1.05	.46	5.4	5.5	5.1	6.0
November	28.610	29.080	27.980	30.9	42.5	39.1	48.6	27.8	38.2	66	6	26	28	29	83	59	70	.149	.161	.172	1.71	1.22	4.6	5.3	4.2	5.3
December	28.689	29.230	28.180	20.5	27.8	25.7	32.6	16.3	24.4	62	−14	18	21	21	88	77	82	.106	.121	.121	.24	.22	3.8	5.3	3.8	5.7
Year	28.544	29.230	27.550	46.0	58.0	57.0	62.9	43.1	53.0	103	−14	41	42	43	83	59	63	.308	.314	.320	26.36	2.87	4.6	5.4	4.4	5.4

CORPUS CHRISTI, TEX.

[ϕ=27° 49′ N.; λ=97° 25′ W.]

January	30.158	30.610	29.723	47.9	54.7	53.5	58.4	46.1	52.2	70	30	44	47	47	86	77	81	0.309	0.345	0.343	3.99	1.23	5.7	6.6	5.3	6.4
February	29.993	30.380	29.400	53.9	60.4	58.7	63.9	50.8	57.4	78	37	49	50	50	84	72	76	.361	.379	.386	1.03	.47	6.3	6.6	5.9	6.6
March	30.034	30.390	29.650	61.2	67.2	65.7	69.9	59.1	64.5	82	45	57	58	59	86	75	80	.481	.501	.509	1.18	.64	7.1	6.2	5.0	5.5
April	29.963	30.300	29.560	66.8	73.5	71.4	75.9	65.1	70.5	85	52	62	62	64	86	70	78	.578	.582	.602	.67	.64	5.4	5.2	5.8	5.2
May	29.842	30.030	29.540	71.4	78.7	76.5	81.9	68.8	75.4	90	60	68	69	68	88	73	78	.686	.714	.702	7.48	2.04	5.5	5.4	5.2	4.9
June	29.919	30.130	29.640	76.5	81.9	80.4	84.3	74.3	79.3	91	56	72	72	72	88	73	77	.807	.801	.801	3.33	.99	6.7	6.0	6.2	5.9
July	29.973	30.150	29.780	78.8	84.7	82.6	87.0	76.4	81.7	93	72	75	74	75	88	72	78	.868	.853	.859	6.24	1.95	5.6	6.2	6.6	5.8
August	29.986	30.100	29.830	78.4	86.6	84.2	89.0	77.2	83.1	96	74	75	74	75	90	67	74	.878	.845	.864	.13	.09	4.1	4.2	4.6	4.3
September	29.892	30.090	29.630	76.5	83.7	81.2	86.0	74.3	80.2	94	68	72	73	73	87	72	78	.798	.813	.823	5.81	3.33	5.1	5.5	5.7	5.5
October	29.930	30.120	29.760	74.8	79.8	77.5	81.7	72.7	77.2	88	60	72	72	72	90	78	85	.784	.791	.805	3.98	1.23	6.3	7.4	6.3	6.9
November	30.029	30.440	29.610	61.8	69.8	67.9	72.7	58.5	65.6	84	42	57	59	60	86	70	77	.510	.537	.553	.27	.20	6.2	6.9	5.7	6.5
December	30.162	30.656	29.580	50.7	60.3	56.5	65.7	46.2	56.0	82	27	47	50	50	85	70	79	.359	.389	.389	.20	.19	6.8	7.3	6.5	6.9
Year	29.990	30.656	28.630	66.6	78.4	71.3	76.4	64.1	70.3	96	27	62	63	64	87	72	78	.618	.629	.636	34.31	3.33	5.9	6.1	5.7	5.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

COLUMBUS, OHIO.

[H_b=824 ft.; h_t=179 ft.; h_r=171 ft.; h_a=222 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	11.8	W.	38	NW.	0	1	1	2	5	18	6	20	9	0	8	13	10	5	2	7	2	0	2	6	0	26	0	0
February	13.1	NW.	46	W.	3	3	1	8	11	6	9	7	11	0	3	10	15	15	11	11	7	3	2	6	0	23	3	0
March	13.0	NW.	51	W.	3	14	6	6	9	7	7	2	11	0	9	8	14	13	9	7	2	0	0	1	0	17	0	0
April	12.2	NW.	49	W.	2	4	3	4	6	11	8	10	14	0	4	8	18	11	10	1	0	0	1	0	0	5	2	0
May	10.7	NE.	48	NW.	1	1	13	9	6	6	8	8	10	1	7	11	13	12	12	0	0	0	2	0	1	0	1	0
June	9.1	SE.	30	W.	0	2	7	12	14	8	8	4	5	0	6	13	11	8	6	0	0	1	0	0	6	0	11	0
July	9.3	SW.	52	NW.	1	7	8	8	5	7	18	4	3	2	14	11	6	11	9	0	0	0	0	0	11	0	9	0
August	9.9	SW.	53	NW.	2	10	6	2	10	9	12	4	9	0	9	15	7	13	10	0	0	2	0	0	1	0	10	0
September	9.6	SE.	41	NW.	1	8	9	3	10	13	8	3	4	2	12	9	9	6	5	0	0	0	0	0	2	0	2	0
October	10.2	S.	50	W.	1	6	5	11	8	15	8	5	4	0	4	10	17	16	13	0	0	0	4	0	0	0	1	1
November	12.4	SE.	52	S.	2	4	8	9	7	11	6	7	8	0	8	10	12	13	10	3	0	0	0	0	0	12	1	0
December	11.9	NW.	40	W.	1	9	6	4	8	6	10	10	8	1	5	7	19	11	8	15	10	0	5	11	0	30	0	0
Year	11.1	SW.	53	NW.	17	69	73	78	99	117	108	84	96	6	89	125	151	134	105	44	21	6	16	24	21	113	40	1

CONCORD, N. H.

[H_b=288 ft.; h_t=70 ft.; h_r=62 ft.; h_a=79 ft.]

January	4.3	NW.	30	NW.	0	6	3	1	7	1	3	2	8	0	10	12	9	9	7	15	6	0	0	11	0	30	0	0
February	6.3	NW.	28	NW.	0	9	0	1	2	1	0	4	11	0	17	7	4	4	4	8	4	0	0	7	0	28	0	1
March	6.1	NW.	35	W.	0	4	2	2	4	3	0	3	13	0	13	8	10	10	7	7	2	0	0	1	0	21	0	1
April	4.5	NW.	13	NW.	0	5	4	2	2	2	1	3	10	1	11	7	12	12	6	4	1	0	0	0	0	10	0	0
May	5.1	N.	23	W.	0	11	4	4	4	1	2	1	4	0	17	6	8	14	11	0	0	0	1	0	0	1	3	0
June	4.0	SE.	18	NW.	0	6	6	3	4	4	2	1	3	1	17	7	6	4	4	0	0	0	0	0	4	0	3	0
July	4.5	S.	19	NW.	0	5	9	0	3	4	3	4	3	0	15	10	6	8	6	0	0	0	1	0	3	0	3	0
August	4.0	NW.	26	NW.	0	4	4	6	3	1	3	4	6	0	11	11	9	12	10	0	0	1	0	0	0	0	3	0
September	2.6	NW.	15	N.	0	8	3	3	2	6	1	3	4	0	4	10	16	13	10	0	0	0	4	0	0	0	4	0
October	3.9	N.	27	W.	0	10	7	2	5	0	0	3	4	0	3	8	20	17	10	0	0	0	4	0	0	12	1	1
November	5.8	NW.	32	NW.	0	3	3	1	5	3	2	4	6	3	9	5	16	13	10	4	2	0	0	1	0	19	0	0
December	4.8	NW.	28	NW.	0	7	0	3	2	1	4	5	9	0	10	8	13	7	6	12	5	0	0	20	0	31	0	0
Year	4.7	NW.	35	W.	0	78	45	28	43	27	21	37	81	5	137	99	129	123	91	50	20	1	10	40	7	152	17	3

CONCORDIA, KANS.

[H_b=1,392 ft.; h_t=50 ft.; h_r=42 feet.; h_a=58 ft.]

January	7.0	SW.	36	NW.	0	1	2	3	4	7	20	13	12	0	19	9	3	2	0	2	2	0	3	5	0	25	0	0
February	10.7	NW.	44	NW.	2	7	6	4	6	11	4	4	14	0	6	10	12	11	10	9	7	0	1	8	0	23	0	0
March	9.3	S.	36	SW.	0	9	9	12	7	10	4	3	8	0	5	11	15	6	4	2	1	2	3	2	0	13	3	0
April	10.4	NW.	36	SW.	0	4	11	8	11	5	3	4	14	0	4	11	15	11	11	1	1	0	1	0	0	5	4	0
May	7.3	NE.	36	NW.	0	12	12	11	10	8	0	5	4	0	4	17	10	10	6	0	0	1	0	0	0	0	4	0
June	6.8	S.	30	NE.	0	2	4	8	17	14	5	5	5	0	6	15	9	13	9	0	0	0	0	0	8	0	8	0
July	7.8	S.	27	NW.	0	3	1	7	7	35	4	1	2	2	20	9	2	1	0	0	0	0	1	0	22	0	4	0
August	7.3	S.	30	SE.	0	7	9	12	11	13	2	4	3	1	13	11	7	5	5	0	0	1	0	0	15	0	6	0
September	8.1	S.	28	S.	0	3	7	13	7	19	2	4	5	0	13	10	7	4	3	0	0	0	2	0	6	0	2	0
October	7.6	S.	26	S.	0	16	5	2	11	9	4	6	8	1	11	6	14	7	5	0	0	0	2	0	1	6	0	0
November	8.9	NW.	33	NW.	0	6	7	6	6	9	4	12	10	0	14	5	11	8	6	7	4	0	2	6	0	19	1	0
December	7.8	W.	28	NW.	0	10	2	4	3	9	9	16	8	1	11	6	14	4	2	6	3	0	6	17	0	26	0	0
Year	8.2	S.	44	NW.	2	80	75	90	100	149	61	77	93	5	126	120	119	82	61	27	18	4	21	38	52	117	32	0

CORPUS CHRISTI, TEX.

[H_b=20 ft.; h_t=69 ft.; h_r=61 ft.; h_a=77 ft.]

		*																										
January	8.3	NW.	37	SE.	0	15	6	14	4	1	2	3	16	1	11	2	18	14	8	0	0	0	3	0	0	3	0	0
February	11.2	N.	48	SE.	1	14	6	8	11	7	2	1	7	0	6	7	15	9	5	0	0	0	3	0	0	0	3	0
March	12.9	SE.	38	SE.	0	11	5	8	26	9	0	1	2	0	9	14	8	7	4	0	0	0	1	0	0	0	4	0
April	12.5	SE.	32	S.	0	4	2	2	38	8	2	0	3	1	13	8	9	5	1	0	0	0	0	0	0	0	1	0
May	11.7	SE.	40	N.	1	8	5	7	25	8	6	1	1	1	11	9	11	9	8	0	0	1	1	0	1	0	10	0
June	11.9	SE.	39	SE.	0	7	7	8	23	7	2	1	5	0	4	16	10	14	11	0	0	0	0	0	1	0	13	0
July	10.5	SE.	46	SE.	1	1	4	3	31	13	7	0	1	2	11	7	13	9	8	0	0	0	0	0	4	0	2	0
August	13.0	SE.	35	SE.	0	0	0	2	33	22	3	0	0	2	16	8	7	3	1	0	0	0	0	0	5	0	3	0
September	15.0	SE.	72	NE.	2	11	4	12	27	2	0	0	4	0	8	14	8	13	10	0	0	0	0	0	4	0	3	0
October	12.8	SE.	56	N.	1	10	2	8	26	13	0	0	0	3	1	16	14	13	10	0	0	0	1	0	0	0	4	0
November	10.0	N.	42	SE.	1	13	11	10	10	2	1	0	9	4	7	7	16	4	1	0	0	0	3	0	0	0	1	0
December	9.8	N.	37	N.	0	21	8	3	7	6	1	4	7	5	7	6	16	2	1	0	0	0	9	0	0	3	2	0
Year	11.6	SE.	72	NE.	7	115	60	85	261	98	26	11	55	19	104	114	147	102	68	0	0	1	21	0	15	6	46	0

*By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

DALLAS, TEX.

[ϕ=32° 46′ N.; λ=96° 47′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.611	29.990	29.290	37.9	49.3	....	53.5	36.0	44.8	67	17	36	37	....	91	66	....	0.221	0.239	.....	1.80	0.99	4.3	5.4	....	5.1
February	29.440	29.880	28.780	40.1	49.8	....	56.1	37.9	47.0	72	25	35	37	....	82	63	....	.210	.234	.....	2.29	1.15	4.0	4.6	....	4.9
March	29.518	29.850	29.110	48.4	61.2	....	67.0	46.2	56.6	76	28	42	43	....	80	54	....	.286	.300	.....	2.97	1.23	4.8	5.2	....	4.8
April	29.424	29.740	28.960	57.6	70.9	....	75.7	55.3	65.5	84	40	51	49	....	79	49	....	.387	.373	.....	2.55	.72	4.8	4.1	....	4.0
May	29.321	29.540	29.030	63.5	74.9	....	78.5	61.4	70.0	87	53	60	61	....	88	64	....	.519	.551	.....	4.38	1.68	6.1	7.2	....	6.5
June	29.428	29.650	29.120	70.6	81.3	....	86.2	68.9	77.6	94	53	66	65	....	85	60	....	.651	.643	.....	1.42	.57	6.3	6.0	....	5.3
July	29.451	29.620	29.310	76.0	87.1	....	91.0	74.2	82.6	98	69	70	70	....	84	57	....	.745	.723	.....	3.30	1.81	2.6	4.2	....	3.8
August	29.447	29.570	29.310	75.2	87.8	....	91.4	73.8	82.6	99	70	70	71	....	86	59	....	.744	.745	.....	4.62	2.14	3.0	3.7	....	3.6
September	29.449	29.700	29.170	69.8	80.8	....	84.0	68.4	76.2	96	61	65	64	....	85	59	....	.630	.617	.....	3.89	2.55	5.2	5.1	....	5.5
October	29.430	29.660	29.150	64.4	72.7	....	76.3	61.1	68.7	86	47	62	63	....	94	72	....	.586	.588	.....	10.94	3.47	7.5	7.9	....	7.2
November	29.530	29.980	29.070	47.6	59.5	....	63.2	45.0	54.1	79	28	43	42	....	85	55	....	.301	.294	.....	3.79	2.18	4.4	4.1	....	4.4
December	29.645	30.218	29.100	37.2	47.7	....	54.1	34.5	44.3	78	15	32	33	....	81	62	....	.188	.212	.....	.48	.35	6.9	7.4	....	6.5
Year	29.474	30.218	28.780	57.4	68.6	....	73.1	55.2	64.2	99	15	53	53	....	85	60	....	.456	.460	.....	42.43	3.47	5.0	5.4	....	5.1

DAVENPORT, IOWA.

[ϕ=41° 30′ N.; λ=90° 38′ W.]

January	29.412	29.740	29.020	23.3	29.9	29.4	36.1	19.5	27.8	56	−16	21	22	23	90	72	77	0.123	0.126	0.135	0.07	*0.38	3.4	4.8	2.1	4.4
February	29.304	29.860	28.320	24.1	30.5	30.1	36.6	19.7	28.2	59	4	21	22	24	88	70	76	.122	.125	.132	2.20	.93	5.2	5.3	4.9	5.7
March	29.500	30.020	28.930	33.9	42.7	43.0	49.6	30.3	40.0	69	1	30	29	32	84	60	66	.176	.171	.192	3.98	3.01	6.1	5.8	4.3	5.6
April	29.311	29.813	28.810	45.1	54.3	54.3	59.7	42.2	51.0	77	30	38	40	42	78	60	66	.243	.258	.277	3.60	1.12	6.2	6.8	6.7	6.8
May	29.287	29.620	28.970	52.9	63.3	62.6	67.5	48.8	58.2	90	39	46	47	49	79	58	63	.321	.335	.356	4.85	2.35	5.8	6.4	6.1	6.2
June	29.372	29.640	29.030	69.3	79.7	78.0	83.9	65.3	74.6	92	52	64	63	64	82	58	64	.598	.590	.616	3.90	1.49	4.2	4.9	4.4	5.1
July	29.338	29.558	29.040	73.0	86.1	83.7	89.7	68.8	79.2	96	61	64	62	63	73	46	52	.594	.580	.588	2.56	1.88	2.3	2.6	2.0	2.5
August	29.324	29.620	29.070	66.1	77.7	77.1	83.1	62.9	73.0	96	50	59	58	60	78	52	57	.509	.497	.534	3.58	1.32	3.7	3.8	2.4	3.5
September	29.357	29.630	28.690	61.3	74.4	71.4	78.8	58.7	68.8	92	48	56	54	56	82	51	60	.454	.434	.459	7.23	3.48	4.9	3.9	3.6	4.1
October	29.374	29.674	28.900	48.5	59.1	56.2	64.1	45.1	54.6	86	28	45	46	48	88	64	74	.319	.339	.352	5.32	2.09	5.8	4.5	5.4	5.5
November	29.426	29.870	28.480	32.2	39.8	37.6	44.4	28.9	36.6	59	12	28	28	28	85	63	68	.163	.158	.162	2.70	1.14	5.7	5.5	5.4	5.9
December	29.505	30.180	28.890	15.6	20.7	19.3	24.2	10.8	17.5	42	−14	14	16	15	92	80	83	.087	.095	.092	.58	.21	5.8	7.2	5.5	6.9
Year	29.376	30.180	28.320	45.4	54.8	53.6	59.8	41.8	50.8	96	−16	40	41	42	83	61	67	.309	.309	.325	40.57	3.48	4.9	5.1	4.4	5.2

DAYTON, OHIO.

[ϕ=39° 46′ N.; λ=84° 10′ W.]

January	29.108	29.450	28.668	29.9	37.1	35.1	42.3	26.5	34.4	60	1	26	27	27	82	66	72	0.147	0.152	0.154	0.97	0.85	4.6	5.1	4.0	5.1
February	28.996	29.580	28.220	30.3	36.5	34.3	41.0	26.5	33.8	59	16	25	27	27	80	68	75	.140	.156	.155	1.11	.64	7.0	7.2	5.4	7.1
March	29.177	29.570	28.490	36.5	46.4	45.3	52.5	33.2	42.8	71	17	30	33	33	77	61	64	.176	.197	.198	5.16	1.70	5.0	5.2	4.8	5.2
April	29.032	29.347	28.510	45.7	55.2	54.4	60.6	42.3	51.4	82	22	38	40	42	75	58	65	.243	.271	.283	3.87	1.40	6.2	7.2	6.1	6.6
May	28.936	29.240	28.480	55.0	64.3	62.5	68.2	49.9	59.0	92	40	48	48	49	78	59	64	.345	.345	.358	4.33	1.15	6.2	7.1	5.4	6.4
June	29.091	29.388	28.810	71.2	82.4	77.2	85.4	65.9	75.6	94	54	63	63	64	77	53	65	.592	.579	.586	2.59	.87	3.6	5.1	5.6	4.8
July	29.039	29.305	28.790	70.6	83.8	82.4	87.8	66.1	77.0	96	54	62	62	62	75	50	52	.569	.564	.566	4.20	2.36	3.1	3.2	3.1	3.1
August	29.010	29.272	28.820	65.6	77.4	74.6	81.4	61.6	71.5	93	53	60	59	59	81	56	60	.523	.508	.515	3.12	1.11	3.3	4.5	3.8	3.9
September	29.080	29.290	28.700	61.7	76.2	72.8	79.7	57.9	68.8	93	44	54	57	54	77	53	53	.440	.487	.437	1.26	.74	3.6	4.3	3.0	3.8
October	29.103	29.321	28.820	56.0	65.6	61.6	69.6	52.1	60.8	89	38	52	56	54	88	74	77	.420	.482	.437	7.08	1.54	7.0	6.8	5.0	6.6
November	29.111	29.570	28.300	37.9	45.7	42.7	49.7	34.1	41.9	63	20	33	34	34	82	66	72	.199	.208	.204	3.23	.79	5.6	5.3	4.1	5.6
December	29.143	29.840	28.450	23.2	28.4	28.8	34.7	18.7	26.7	53	5	19	21	23	82	74	78	.109	.121	.132	1.66	.65	5.6	6.3	5.4	6.5
Year	29.069	29.840	28.220	48.6	58.2	56.0	62.7	44.6	53.6	96	1	42	44	44	80	62	66	.325	.339	.335	38.28	2.36	5.1	5.6	4.6	5.4

DEL RIO, TEX.

[ϕ=29° 20′ N.; λ=100° 53′ W.]

January	29.161	29.580	28.700	40.2	51.7	....	57.1	38.3	47.7	68	23	36	36	....	84	60	....	0.222	0.227	.....	0.58	0.25	4.2	4.8	....	4.6
February	28.993	29.320	28.500	44.6	56.8	....	63.1	41.4	52.2	74	29	35	35	....	74	49	....	.219	.224	.....	.45	.27	3.8	4.4	....	4.0
March	29.026	29.430	28.570	53.0	64.7	....	71.4	50.8	61.1	81	39	44	45	....	75	52	....	.321	.649	.....	1.42	1.30	5.4	4.7	....	4.6
April	28.942	29.290	28.440	59.6	73.5	....	79.9	58.2	69.0	90	44	54	53	....	82	52	....	.433	.424	.....	2.43	1.14	5.3	3.2	....	3.6
May	28.850	29.060	28.440	67.0	80.5	....	86.4	64.9	75.6	96	55	60	58	....	80	50	....	.531	.497	.....	4.04	3.25	5.9	2.8	....	3.8
June	28.944	29.160	28.650	70.9	82.1	....	87.8	69.2	78.5	93	49	66	65	....	84	57	....	.651	.624	.....	1.30	.45	5.5	4.7	....	5.0
July	28.968	29.160	28.710	74.1	84.2	....	89.4	72.8	81.1	99	69	70	69	....	87	63	....	.728	.711	.....	3.48	1.36	6.7	5.2	....	5.0
August	28.971	29.100	28.800	74.3	86.4	....	91.6	73.8	82.7	98	70	69	69	....	85	57	....	.718	.702	.....	1.58	1.28	3.5	2.9	....	3.0
September	28.923	29.190	28.386	70.1	80.5	....	85.1	69.4	77.2	97	57	66	66	....	87	64	....	.643	.646	.....	9.74	5.45	6.4	6.4	....	5.6
October	28.924	29.200	28.720	67.7	74.4	....	78.7	65.7	72.2	85	48	66	66	....	94	76	....	.657	.656	.....	1.58	.41	8.3	7.7	....	7.4
November	29.039	29.470	28.668	52.8	63.2	....	67.9	49.6	58.4	83	32	49	49	....	87	63	....	.378	.375	.....	3.27	2.47	6.6	5.2	....	5.7
December	29.164	29.665	28.630	43.8	52.8	....	59.1	40.1	49.6	75	25	39	38	....	84	62	....	.264	.251	.....	.28	.13	5.7	5.8	....	6.3
Year	28.992	29.665	28.386	59.8	70.9	....	76.5	57.8	67.1	99	23	54	54	....	84	59	....	.430	.490	.....	30.15	5.45	5.6	4.8	....	4.9

* December 31–January 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

DALLAS, TEX.

[H_b=512 ft.; h_t=109 ft.; h_r=92 ft.; h_a=117 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	7.7	NW.	31	S.	0	3	2	4	4	6	1	2	8	1	9	13	9	10	7	1	1	0	2	2	0	9	1	0
February	10.4	S.	55	SW.	2	3	0	1	10	3	2	3	4	2	11	7	10	7	5	1	1	3	5	0	0	6	3	0
March	9.9	SE.	46	SE.	1	3	2	10	7	2	1	1	4	1	12	7	12	9	7	0	0	1	0	0	0	3	5	0
April	11.0	S.	51	NW.	3	1	1	4	8	8	2	4	0	2	14	10	6	10	8	0	0	2	0	0	0	0	8	0
May	8.1	S.	44	NW.	1	4	0	3	6	7	1	6	4	0	2	15	14	13	10	0	0	1	1	0	0	0	11	0
June	8.0	SE.	39	SE.	0	3	1	8	8	6	0	1	3	0	6	17	7	9	8	0	0	0	0	0	7	0	8	0
July	6.9	S.	42	NE.	1	3	1	4	6	9	4	4	0	0	17	9	5	8	7	0	0	0	1	0	22	0	5	0
August	7.6	S.	25	NW.	0	0	2	3	3	16	3	3	1	0	19	5	7	9	7	0	0	0	0	0	19	0	8	0
September	8.0	SE.	29	NE.	0	2	5	5	9	4	0	0	4	1	8	10	12	7	6	0	0	0	0	0	3	0	2	0
October	8.5	S.	29	S.	0	5	1	4	8	10	0	0	3	0	3	11	17	15	12	0	0	0	0	0	0	0	8	0
November	7.3	NW.	35	SW.	0	4	1	3	4	2	2	4	9	1	14	8	8	7	6	0	0	0	0	0	0	0	4	0
December	7.6	NW.	31	NW.	0	1	1	2	4	5	1	4	13	0	7	8	16	5	3	2	0	0	4	1	0	11	0	0
Year	8.4	S.	55	SW.	8	32	17	51	77	78	17	32	53	8	122	120	123	109	86	4	2	7	13	3	51	31	63	0

DAVENPORT, IOWA.

[H_b=606 ft.; h_t=71 ft.; h_r=64 ft.; h_a=79 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.3	W.	23	W.	0	0	1	8	1	6	15	22	8	1	14	10	7	3	1	6	3	0	5	8	0	27	0	0
February	9.1	E.	34	W.	0	4	3	15	3	5	2	7	17	0	12	3	13	8	6	14	5	0	0	9	0	26	0	0
March	8.3	E.	30	E.	0	6	6	16	2	10	7	4	11	0	8	13	10	8	7	3	0	0	0	3	0	21	4	0
April	9.0	E.	28	E.	0	2	6	14	3	10	9	7	9	0	3	12	15	17	12	0	0	1	1	0	0	2	3	0
May	7.3	E.	34	NW.	0	8	12	22	1	0	6	2	9	2	6	12	13	11	10	0	0	0	1	0	1	0	6	0
June	6.5	E.	30	S.	0	5	6	15	6	11	9	2	6	0	8	15	7	11	10	0	0	0	0	0	6	0	13	0
July	6.2	SW.	35	NE.	0	8	11	9	3	9	19	1	2	0	22	7	2	7	4	0	0	1	0	0	16	0	6	0
August	6.2	SW.	26	W.	0	1	6	6	3	6	13	14	13	0	19	7	5	7	7	0	0	0	0	0	3	0	7	0
September	6.3	SW.	25	S.	0	3	6	11	4	7	15	3	11	0	15	9	6	9	8	0	0	0	0	0	3	0	8	0
October	6.9	E.	25	NW.	0	5	7	13	4	8	8	10	7	0	12	7	12	13	10	0	0	0	0	0	0	2	4	1
November	9.0	W.	40	SW.	1	4	7	11	5	3	7	11	11	1	10	7	13	8	6	6	2	0	1	4	0	18	0	0
December	7.5	SW.	23	NW.	0	7	11	7	2	3	11	12	9	0	5	8	18	8	7	15	8	0	0	26	0	31	0	0
Year	7.5	E.	40	SW.	1	53	82	147	37	78	121	95	113	4	134	110	121	110	88	44	18	2	8	50	29	127	51	1

DAYTON, OHIO.

[H_b=899 ft.; h_t=131 ft.; h_r=176 ft.; h_a=216 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.4	SW.	33	N.	0	2	1	3	1	9	26	10	10	0	12	12	7	3	3	6	1	0	0	7	0	20	0	0
February	12.0	NW.	62	SW.	3	4	4	4	8	5	10	6	15	0	5	7	16	14	7	9	6	1	0	3	0	23	1	0
March	11.6	NE.	46	W.	1	8	18	6	3	6	8	4	8	1	13	7	11	13	8	4	1	0	0	0	0	16	1	0
April	11.4	SW.	46	S.	1	6	4	7	2	10	14	6	10	1	7	8	15	11	11	0	0	1	0	0	0	5	4	0
May	10.0	NE.	34	SW.	0	5	22	3	4	3	9	9	7	0	7	9	15	14	12	0	0	0	1	0	2	0	3	1
June	7.5	SW.	50	NE.	1	3	12	8	11	7	13	5	0	1	10	14	6	11	10	0	0	0	0	0	6	0	11	0
July	8.0	SW.	51	NW.	2	4	18	3	2	6	18	4	3	4	20	9	2	6	6	0	0	0	0	0	13	0	9	0
August	8.2	SW.	57	W.	1	5	13	0	3	1	24	7	8	1	14	13	4	11	7	0	0	1	0	0	3	0	7	0
September	8.1	SW.	47	SW.	1	9	7	3	4	10	15	4	6	2	16	10	4	6	3	0	0	0	1	0	2	0	2	0
October	9.3	SW.	37	NW.	0	9	10	7	6	3	21	3	3	0	7	7	17	16	15	0	0	0	1	0	0	0	3	0
November	11.6	SW.	56	SW.	2	5	9	6	4	6	14	9	5	2	11	8	11	11	8	2	0	0	0	0	0	11	0	0
December	10.7	SW.	38	SW.	0	9	10	3	7	3	13	8	9	0	9	7	15	9	6	11	7	0	3	12	0	29	0	0
Year	9.9	SW.	62	SW.	12	69	128	53	55	69	185	75	84	12	131	111	123	125	96	32	15	3	6	22	26	104	41	1

DEL RIO, TEX.

[H_b=944 ft.; h_t=64 ft.; h_r=56 ft.; h_a=71 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.5	NW.	33	NW.	0	5	0	10	1	0	0	2	13	0	13	10	8	5	4	0	0	0	4	0	0	7	0	0
February	10.7	SE.	56	NW.	2	4	1	3	8	2	2	2	6	0	11	13	4	6	4	0	0	0	4	0	0	2	0	0
March	12.2	SE.	39	NW.	0	2	1	9	11	1	0	2	5	0	9	17	5	5	2	0	0	1	1	0	0	0	1	0
April	11.7	SE.	39	NW.	0	1	1	7	15	1	0	1	4	0	15	10	5	5	4	0	0	1	1	0	1	0	4	0
May	9.7	SE.	50	E.	1	2	2	19	4	1	0	0	3	0	14	14	3	8	5	0	0	1	0	0	8	0	6	0
June	9.9	SE.	39	S.	0	3	3	13	7	0	0	2	1	1	6	21	3	10	7	0	0	0	0	0	13	0	6	0
July	10.2	SE.	32	N.	0	3	0	12	14	0	0	0	1	1	8	15	8	13	7	0	0	0	1	0	13	0	2	0
August	9.2	SE.	39	N	0	0	0	22	8	0	0	0	1	0	20	8	3	4	4	0	0	0	0	0	20	0	2	0
September	9.4	SE.	58	E.	1	1	3	12	9	0	0	3	1	1	9	14	7	9	6	0	0	0	0	0	9	0	1	0
October	9.3	SE.	32	NW.	0	1	3	5	18	0	1	0	3	0	0	16	15	16	9	0	0	0	4	0	0	0	4	0
November	7.8	SE.	38	NW.	0	2	0	7	9	1	0	4	6	1	10	7	13	9	7	0	0	0	2	0	0	1	1	0
December	6.5	SE.	42	NW.	1	5	0	5	6	1	0	4	7	3	9	6	16	8	2	0	0	0	5	0	0	5	0	0
Year	9.6	SE.	58	E.	5	29	14	124	110	7	3	20	51	7	124	151	99	98	61	0	0	3	22	0	64	15	27	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

DENVER, COLO.

[ϕ=39° 45′ N.; λ=105° 00′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	24.751	25.090	24.440	26.4	41.7	37.9	45.7	22.6	34.2	58	−12	17	20	22	65	43	53	0.094	0.108	0.120	0.12	0.12	1.7	4.1	2.3	3.2
February	24.534	24.850	24.050	24.9	37.8	35.0	41.3	20.9	31.1	61	8	16	21	21	68	54	58	.087	.112	.109	.51	.20	3.6	5.2	5.4	4.9
March	24.656	25.070	24.150	33.0	46.8	46.2	51.4	30.2	40.8	72	17	22	21	25	65	41	46	.120	.117	.136	.66	.21	5.5	5.4	6.1	5.8
April	24.659	25.030	24.118	40.0	54.4	55.0	60.6	37.6	49.1	81	24	28	32	32	63	47	47	.156	.181	.186	2.18	1.90	5.7	5.9	8.1	6.8
May	24.652	24.880	24.314	47.9	64.0	64.4	69.6	46.0	57.8	82	36	39	40	39	72	44	41	.241	.244	.237	.22	.07	4.1	4.9	6.3	5.1
June	24.771	25.020	24.573	55.4	77.3	75.2	81.7	53.6	67.6	96	32	44	36	38	66	26	29	.293	.220	.233	.28	.15	2.7	3.8	7.4	4.5
July	24.792	25.040	24.625	65.3	82.8	79.7	86.6	63.2	74.9	95	56	53	49	50	66	36	42	.407	.375	.380	5.24	2.76	3.4	4.1	6.6	4.9
August	24.838	25.020	24.660	61.7	80.1	79.7	85.1	60.0	72.6	93	54	47	45	46	62	32	34	.337	.310	.316	1.00	.46	2.9	3.5	6.0	4.0
September	24.771	25.060	24.451	54.3	72.0	68.7	76.0	52.9	64.4	86	36	45	42	45	73	37	47	.312	.281	.319	1.04	.51	4.8	4.2	5.6	5.0
October	24.677	25.010	24.320	37.7	52.3	51.1	57.7	35.1	46.4	78	24	29	27	27	72	43	44	.161	.148	.151	.65	.36	4.5	4.7	4.7	4.8
November	24.701	25.130	24.270	28.8	42.3	36.3	46.4	22.8	34.6	68	−6	18	20	21	65	46	58	.105	.110	.123	1.29	.61	4.4	5.5	4.7	5.1
December	24.744	25.040	24.110	26.0	39.3	34.8	45.2	20.8	33.0	68	−20	10	15	15	55	44	50	.074	.078	.090	.44	.16	2.6	3.8	3.1	3.5
Year	24.712	25.130	24.050	41.8	57.6	55.3	62.3	38.8	50.5	96	−20	31	31	32	66	41	46	.199	.190	.200	13.63	2.76	3.8	4.6	5.5	4.8

DES MOINES, IOWA.

[ϕ=41° 35′ N.; λ=93° 37′ W.]

January	29.145	29.550	28.840	23.5	32.3	32.3	38.6	20.9	29.8	62	−17	20	22	25	85	67	74	0.119	0.132	0.148	0.08	0.02	2.9	3.3	2.5	4.0
February	29.046	29.490	28.080	22.8	29.3	28.7	35.1	17.9	26.5	57	−1	19	22	22	86	74	74	.114	.126	.123	3.00	1.09	5.8	5.9	6.1	6.1
March	29.230	29.770	28.680	32.1	42.2	43.2	48.6	29.3	39.0	68	1	28	30	33	84	65	70	.166	.179	.199	3.67	2.88	5.9	6.3	4.7	5.6
April	29.053	29.630	28.450	44.3	52.9	53.5	57.3	41.3	49.3	76	31	39	42	43	82	68	70	.248	.278	.291	5.30	1.68	6.0	7.0	7.2	6.9
May	29.049	29.330	28.700	54.5	65.5	64.7	68.9	50.8	59.8	86	40	47	47	49	76	54	60	.331	.338	.361	2.96	1.61	5.3	6.8	5.5	6.2
June	29.112	29.340	28.810	67.9	78.2	76.3	82.2	64.5	73.4	92	52	64	65	65	86	65	70	.596	.630	.629	7.36	2.46	5.7	6.1	5.8	6.3
July	29.082	29.290	28.820	72.4	86.0	85.1	90.8	68.8	79.8	98	59	64	62	63	74	46	49	.598	.565	.579	2.68	1.22	4.1	2.7	3.0	3.4
August	29.084	29.370	28.820	65.7	78.7	78.2	83.3	63.4	73.4	94	49	60	59	61	81	54	56	.519	.528	.548	2.19	.70	4.8	4.0	3.0	3.8
September	29.083	29.350	28.580	60.6	74.6	73.0	79.0	58.8	68.9	94	45	55	55	56	83	54	59	.451	.447	.471	7.47	2.31	5.3	4.4	5.0	5.0
October	29.094	29.430	28.580	46.2	57.5	53.8	61.6	42.6	52.1	86	22	42	42	44	86	60	70	.292	.301	.310	2.20	.78	5.3	6.1	5.2	6.2
November	29.160	29.650	28.400	30.3	38.6	38.3	44.8	26.7	35.8	59	5	25	27	27	80	65	64	.145	.157	.156	3.84	2.61	6.1	7.2	5.8	6.6
December	29.246	29.860	28.737	14.5	19.6	18.8	23.6	9.5	16.6	46	−19	11	14	14	85	78	78	.080	.088	.091	.93	.50	7.2	6.6	5.0	6.6
Year	29.115	29.880	28.080	44.6	54.6	53.8	59.5	41.2	50.4	98	−19	40	41	42	82	62	66	.305	.314	.326	41.68	2.88	5.4	5.5	4.9	5.6

DETROIT, MICH.

[ϕ=42° 20′ N.; λ=83° 03′ W.]

January	29.235	29.770	28.750	28.4	32.9	31.7	37.8	24.3	31.0	51	4	24	25	25	83	71	76	0.135	0.138	0.142	0.91	0.54	5.7	5.1	4.5	5.5
February	29.169	29.810	28.430	27.1	31.9	30.5	35.8	22.9	29.4	53	11	23	25	24	85	75	76	.128	.139	.132	1.50	.43	6.4	6.8	5.6	7.0
March	29.383	29.821	28.630	32.4	39.3	37.4	44.2	28.4	36.3	64	16	27	29	29	79	66	72	.151	.156	.169	3.22	1.06	5.6	5.0	4.8	5.3
April	29.214	29.610	28.590	41.9	48.8	47.9	54.5	37.4	46.0	73	21	37	40	40	83	72	76	.232	.260	.264	5.29	1.88	6.6	6.7	6.5	6.6
May	29.152	29.540	28.670	53.4	59.9	58.7	64.7	48.4	56.6	88	39	45	45	47	75	62	68	.305	.307	.329	3.80	1.16	4.8	6.0	5.0	5.2
June	29.310	29.570	29.000	71.0	79.0	75.0	82.4	65.6	74.0	92	49	62	63	63	75	59	67	.573	.586	.583	3.61	1.59	2.7	3.3	4.8	3.1
July	29.233	29.521	28.960	71.1	80.9	76.9	84.6	65.4	75.0	94	52	59	57	58	66	46	54	.506	.484	.494	2.09	1.01	3.2	3.7	4.1	3.4
August	29.169	29.500	28.940	64.9	74.7	72.1	79.0	61.3	70.2	89	52	57	55	56	76	53	58	.478	.456	.464	2.49	1.53	4.7	5.2	4.3	4.8
September	29.247	29.510	28.690	61.3	71.7	67.3	75.5	58.0	66.8	90	45	53	52	52	74	52	60	.408	.408	.410	4.09	3.07	4.6	5.2	4.0	4.8
October	29.280	29.580	28.880	52.4	59.2	57.2	64.3	48.6	56.4	94	38	48	51	50	87	76	79	.355	.390	.387	4.98	2.10	5.5	5.6	4.9	5.9
November	29.277	29.740	28.260	35.7	40.7	38.3	44.7	32.4	38.6	57	21	30	31	32	80	68	76	.174	.179	.182	1.91	1.43	6.5	6.9	5.9	7.0
December	29.305	29.950	28.600	20.1	24.1	24.4	29.4	16.9	23.2	48	3	15	18	18	79	75	76	.090	.102	.104	.97	.34	7.0	6.7	5.6	6.7
Year	29.248	29.950	28.260	46.6	53.6	51.4	58.1	42.5	50.3	94	3	40	41	41	78	65	70	.295	.301	.305	34.86	3.07	5.3	5.5	5.0	5.4

DEVILS LAKE, N. DAK.

[ϕ=48° 07′ N.; λ=98° 52′ W.]

January	28.335	28.860	27.840	11.8	18.5	16.0	24.2	4.6	14.4	44	−34	9	14	13	89	83	88	0.076	0.092	0.085	0.22	0.15	3.8	5.0	4.3	5.1
February	28.447	28.820	27.820	.2	7.8	6.3	11.8	−4.6	3.6	39	−32	−1	4	4	96	83	88	.049	.058	.057	.70	.34	7.5	6.6	4.3	6.6
March	28.500	29.120	27.580	10.3	19.9	18.2	24.0	4.8	14.4	40	−21	9	15	16	93	82	88	.076	.096	.096	1.49	.82	5.9	5.7	5.6	5.9
April	28.395	29.100	27.580	34.4	44.7	44.8	48.9	32.1	40.5	72	18	30	31	32	84	62	65	.167	.175	.185	1.14	.66	5.7	6.2	6.4	6.0
May	28.366	28.738	28.027	48.9	62.9	61.9	67.2	44.2	55.7	94	25	41	42	41	76	52	51	.273	.274	.273	3.47	1.21	4.5	4.9	3.9	4.5
June	28.432	28.730	28.115	61.3	72.9	71.3	76.6	55.6	66.1	90	36	56	57	58	84	60	64	.475	.506	.515	3.58	1.98	4.8	4.5	4.8	4.7
July	28.367	28.640	27.990	62.4	77.4	76.9	82.6	57.3	70.0	95	48	56	56	57	80	51	51	.455	.468	.475	1.76	.64	4.8	4.5	2.8	4.1
August	28.366	28.700	28.045	57.6	75.5	73.7	79.8	54.2	67.0	96	42	51	51	52	80	44	50	.382	.388	.408	2.28	.99	4.1	4.1	2.9	3.7
September	28.373	28.830	27.760	49.0	63.6	60.3	68.0	46.2	57.1	86	30	44	44	44	83	51	58	.301	.297	.310	.95	.77	5.5	5.7	5.4	5.3
October	28.419	28.780	27.700	26.0	39.1	34.6	42.9	20.7	31.8	80	−1	21	25	24	82	60	66	.125	.142	.135	.65	.22	5.7	5.6	5.7	5.7
November	28.461	29.050	27.840	10.3	18.2	15.1	20.6	5.0	12.8	39	−20	8	14	12	89	82	89	.071	.091	.087	1.01	.30	4.8	6.7	5.6	6.5
December	28.461	28.990	27.770	2.8	8.1	6.2	13.5	−3.4	5.0	40	−27	1	4	4	92	83	88	.058	.064	.062	.42	.18	4.7	5.5	4.5	5.2
Year	28.410	29.120	27.580	31.2	42.4	40.4	46.7	26.4	36.5	96	−34	27	30	30	86	66	70	.209	.221	.224	17.67	1.98	5.2	5.4	4.7	5.3

Annual meteorological summary for the year ending December 31, 1919—Continued.

DENVER, COLO.

[H_b=5,291 ft.; h_t=106 ft.; h_r=98 ft.; h_a=113 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	8.1	S.	28	W.	0	4	4	1	6	33	5	5	4	0	18	10	3	1	1	1	1	0	0	2	0	29	0	0
February	7.8	S.	31	NW.	0	4	7	2	6	16	10	3	9	0	12	9	7	6	5	9	6	0	0	5	0	26	0	0
March	7.8	S.	36	W.	0	5	10	2	5	17	5	4	14	0	8	12	11	10	8	9	7	1	1	1	0	18	2	0
April	8.6	NE.	40	N.	1	11	9	4	4	11	10	7	4	0	1	17	12	8	3	7	5	0	1	1	0	8	0	0
May	7.5	S.	39	W.	0	8	8	8	9	16	6	2	5	0	9	17	5	5	3	0	0	0	0	0	0	0	4	0
June	7.8	S.	36	N.	0	6	2	2	8	22	11	1	6	0	11	16	3	3	2	1	1	0	0	0	7	0	8	0
July	7.1	S.	38	E.	0	11	3	3	7	19	6	5	8	0	9	17	5	8	5	0	0	1	0	0	10	0	7	0
August	6.6	S.	35	SE.	0	7	3	3	9	14	14	5	7	0	15	11	5	5	5	0	0	0	0	0	6	0	6	0
September	6.4	S.	36	N.	0	7	5	1	8	23	9	3	4	0	10	12	8	8	5	0	0	0	0	0	0	0	7	0
October	6.9	S.	29	NE.	0	11	9	2	6	14	6	5	8	1	13	10	8	7	5	3	2	0	1	0	0	12	0	0
November	7.3	S.	39	NE.	0	8	13	3	3	17	6	4	6	0	12	7	11	6	4	8	5	0	1	6	0	20	1	0
December	8.1	S.	38	N.	0	7	10	4	3	18	9	6	5	0	17	8	6	5	4	8	5	0	1	5	0	21	0	0
Year	7.5	S.	40	N.	1	89	84	36	74	219	97	50	80	1	135	146	84	72	50	46	32	2	5	20	23	134	35	0

DES MOINES, IOWA.

[H_b=861 ft.; h_t=84 ft.; h_r=76 ft.; h_a=97 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.0	NW.	24	NW.	0	4	1	3	5	7	17	7	18	0	15	8	8	3	1	5	3	0	2	6	0	26	0	0
February	8.8	NW.	35	NW.	0	11	3	10	8	2	4	4	14	0	11	2	15	12	9	11	9	0	0	10	0	28	0	0
March	8.2	N.	34	SW.	0	11	5	13	9	7	6	2	8	1	9	12	10	8	6	2	2	0	1	5	0	17	2	0
April	8.6	E.	40	SW.	1	6	7	11	4	5	11	4	11	1	5	12	13	15	14	1	1	1	0	0	0	2	6	0
May	7.1	SE.	27	SE.	0	11	6	12	18	2	4	1	8	0	5	13	13	9	7	0	0	0	1	0	0	0	4	0
June	6.3	S.	26	S.	0	6	4	9	11	9	12	4	5	0	5	12	13	13	11	0	0	1	1	0	6	0	11	0
July	6.9	S.	32	SW.	0	6	5	4	7	15	17	3	5	0	19	11	1	9	7	0	0	0	0	0	16	0	8	0
August	6.1	SW.	35	SW.	0	8	4	7	7	5	12	6	13	0	15	12	4	7	5	0	0	1	0	0	4	0	6	0
September	7.0	SW.	32	SW.	0	8	7	4	11	6	19	2	3	0	12	8	10	7	7	0	0	0	0	0	4	0	4	0
October	6.8	S.	37	SW.	0	6	3	5	9	12	9	6	12	0	7	12	12	11	6	0	0	0	2	0	0	4	3	1
November	7.8	NW.	48	SW.	1	6	5	6	8	5	7	11	12	0	6	10	14	8	7	6	3	0	0	6	0	21	2	1
December	7.2	SW.	25	SW.	0	12	5	4	4	4	15	9	9	0	10	5	16	6	4	10	6	0	3	24	0	30	0	0
Year	7.3	SW.	48	SW.	2	95	55	88	101	79	133	59	118	2	119	117	129	108	84	35	24	3	10	51	30	126	46	2

DETROIT, MICH.

[H_b=730 ft.; h_t=218 ft.; h_r=214 ft.; h_a=258 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	13.3	W.	54	W.	3	2	1	3	4	4	17	24	7	0	9	11	11	6	4	7	4	0	1	7	0	27	0	0
February	12.3	W.	62	W.	3	6	2	10	4	5	6	17	6	0	4	8	16	14	10	19	8	2	1	9	0	26	2	0
March	12.7	N.	50	SW.	1	10	7	12	3	8	10	4	8	0	12	9	10	10	9	9	5	0	1	4	0	25	0	0
April	12.2	SW.	40	SW.	1	1	7	7	6	2	15	8	14	0	5	13	12	13	10	5	0	1	2	0	0	5	6	0
May	11.5	NE.	45	SW.	1	4	15	18	4	4	6	6	5	0	12	8	11	13	9	0	0	1	1	0	0	0	4	2
June	9.0	E.	38	SE.	0	9	5	15	7	11	6	3	4	0	17	10	3	8	7	0	0	0	0	0	4	0	10	0
July	10.1	E.	40	SW.	1	8	8	11	7	6	7	9	6	0	17	11	3	9	8	0	0	0	0	0	8	0	6	0
August	9.7	W.	36	SW.	0	10	3	3	1	6	10	20	9	0	9	18	4	9	9	0	0	0	0	0	0	0	7	0
September	10.7	SW.	39	SW.	0	7	4	5	4	9	10	10	11	0	12	10	8	9	7	0	0	0	0	0	0	0	5	0
October	10.4	SW.	40	W.	1	8	6	6	9	5	15	7	8	0	13	2	16	13	12	0	0	0	3	0	0	0	5	0
November	14.7	W.	87	SW.	6	7	3	7	4	6	12	13	8	0	4	7	19	8	6	8	2	0	1	2	0	13	0	0
December	12.4	W.	38	SW.	0	7	5	3	1	4	12	19	11	0	6	7	18	11	6	18	11	0	1	18	0	31	0	0
Year	11.6	W.	87	SW.	17	79	66	100	54	70	126	140	95	0	120	114	131	123	97	66	30	4	11	40	12	127	45	2

DEVILS LAKE, N. DAK.

[H_b=1,478 ft.; h_t=11 ft.; h_r=4 ft.; h_a=44 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.6	W.	33	NW.	0	4	3	6	6	9	10	15	9	0	13	6	12	4	2	7	4	0	1	23	0	31	0	0
February	8.6	NW.	31	N.	0	8	6	4	4	1	2	14	17	0	6	8	14	6	5	12	6	0	0	26	0	28	0	2
March	10.6	W.	38	N.	0	5	7	5	9	7	11	13	5	0	10	10	11	5	5	8	4	0	1	20	0	30	0	3
April	12.4	NE.	48	NE.	1	12	15	1	11	7	4	6	4	0	8	11	11	5	5	6	3	0	1	2	0	18	1	0
May	10.7	SE.	42	NE.	1	8	9	6	15	11	4	3	5	1	15	6	10	13	9	1	1	1	0	0	2	3	2	1
June	10.6	SE.	34	S.	0	5	9	8	23	4	1	3	7	0	13	10	7	7	7	0	0	0	0	0	1	0	6	0
July	8.8	SE.	33	NE.	0	10	5	2	15	10	7	8	5	0	15	10	6	8	6	0	0	2	0	0	5	0	5	0
August	8.6	NW.	34	NW.	0	5	9	4	8	11	5	8	12	0	15	12	4	10	6	0	0	2	2	0	2	0	7	1
September	10.0	NW.	36	NW.	0	8	8	6	10	3	8	6	10	1	9	11	10	4	3	1	1	0	1	0	0	2	2	3
October	9.5	W.	32	N.	0	8	9	3	3	7	10	12	9	1	10	8	13	9	7	8	7	0	1	9	0	26	0	4
November	12.5	W.	46	N.	1	7	5	3	8	6	11	9	10	1	8	7	15	8	6	11	8	0	0	21	0	30	0	0
December	10.7	W.	40	NW.	1	2	4	4	3	8	11	22	8	0	15	4	12	6	4	10	6	0	2	24	0	31	0	0
Year	10.3	W.	48	NE.	4	82	89	52	115	84	84	119	101	4	137	103	125	85	65	64	40	5	9	125	10	199	24	14

Annual meteorological summary for the year ending December 31, 1919—Continued.

DODGE CITY, KANS.

[ϕ=37° 45′ N.; λ=100° 00′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	27.473	27.860	27.090	22.4	37.5	32.8	41.6	20.4	31.0	60	− 7	15	20	17	72	46	50	0.082	0.108	0.093	0.06	0.06	0.9	1.0	1.3	1.2
February	27.267	27.670	26.530	25.0	36.1	34.7	41.4	22.4	31.9	67	2	22	36	25	85	67	68	.118	.142	.139	1.50	.61	4.1	4.7	5.7	4.9
March	27.404	27.890	26.880	35.5	48.8	47.9	54.5	33.1	43.8	77	14	32	37	35	86	61	62	.187	.219	.211	.94	.56	5.1	5.8	5.8	5.5
April	27.316	27.780	26.650	44.2	59.5	56.8	63.9	41.4	52.6	85	25	40	46	42	85	62	62	.257	.323	.283	1.65	.76	5.7	5.3	5.8	5.7
May	27.306	27.570	26.970	53.2	67.6	66.3	71.7	50.6	61.2	87	40	49	52	53	87	59	64	.359	.398	.413	1.56	.39	5.2	4.8	5.1	4.6
June	27.390	27.622	27.193	63.4	78.7	75.8	81.2	60.2	70.7	94	42	58	60	60	84	55	60	.500	.535	.525	1.72	.65	3.9	4.1	4.2	3.8
July	27.413	27.654	27.162	70.3	88.5	85.6	91.1	68.1	79.6	100	56	62	60	59	78	41	46	.559	.530	.507	1.83	1.13	2.8	2.9	3.3	3.0
August	27.399	27.670	27.104	67.8	87.9	84.8	92.6	66.1	79.4	104	55	60	61	59	77	43	43	.522	.547	.507	1.23	1.02	3.5	2.7	3.1	2.9
September	27.404	27.715	26.980	61.8	81.7	78.3	86.0	60.2	73.1	96	43	56	57	56	81	46	48	.453	.486	.458	1.01	.99	4.3	2.7	2.8	3.4
October	27.390	27.730	26.990	44.5	61.1	55.0	65.8	40.8	53.3	92	21	41	41	41	87	51	62	.278	.272	.271	1.01	.54	4.8	4.0	4.2	4.7
November	27.458	27.910	26.980	28.7	46.5	40.5	52.4	25.0	38.7	77	5	25	28	28	85	54	66	.138	.162	.162	1.11	.81	3.6	3.7	4.0	3.5
December	27.526	27.970	26.930	20.6	35.8	30.2	42.7	16.4	29.6	69	−10	18	22	22	90	62	72	.103	.121	.124	.08	.05	4.3	3.8	2.6	3.6
Year	27.396	27.970	26.530	44.8	60.8	57.4	65.4	42.1	53.7	104	−10	40	42	41	83	54	59	.297	.320	.308	13.70	1.13	4.0	3.8	4.0	3.9

DREXEL, NEBR.

[ϕ=41° 20′ N.; λ=96° 16′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.640	29.080	28.290	23.1	34.1	31.7	39.5	19.8	29.6	61	−20	21	25	25	90	71	76	0.123	0.147	0.143	0.12	0.12	3.6	3.6	2.8	3.9
February	28.515	28.990	27.580	21.7	28.6	27.4	33.9	17.6	25.8	59	− 5	20	23	23	94	78	83	.118	.132	.133	3.01	1.72	6.6	6.7	6.4	6.4
March	28.680	29.237	28.030	30.9	42.2	41.7	48.6	28.2	38.4	72	1	28	33	34	88	70	73	.160	.196	.203	.98	.38	6.6	5.4	5.3	5.7
April	28.523	29.150	27.880	42.1	50.5	51.4	55.5	39.0	47.2	73	28	38	40	40	84	70	69	.234	.258	.203	4.53	1.24	7.2	8.4	7.1	7.5
May	28.518	28.800	28.180	53.2	65.6	63.7	69.6	48.8	59.2	86	39	48	50	48	83	58	59	.349	.368	.351	5.59	4.47	4.7	6.2	4.7	5.4
June	28.643	28.790	28.270	65.4	75.9	75.1	79.9	61.9	70.9	94	47	62	65	65	90	70	72	.579	.632	.633	7.79	2.41	5.5	5.8	4.6	5.4
July	28.555	28.800	28.284	71.7	86.2	84.7	91.2	68.3	79.8	101	58	64	65	66	78	52	54	.607	.630	.643	.69	.39	3.3	2.7	2.5	2.6
August	28.576	28.870	28.250	64.7	79.8	77.4	83.8	61.3	72.6	101	50	60	61	62	84	54	60	.519	.539	.497	3.63	1.06	4.5	4.1	3.5	3.6
September	28.563	28.840	28.120	59.7	74.9	69.4	78.9	57.7	68.3	95	42	55	57	57	84	56	68	.443	.478	.487	3.80	2.37	5.3	4.7	4.9	5.0
October	28.580	28.980	27.990	42.3	53.5	49.4	57.7	38.3	48.0	85	17	39	41	42	88	66	77	.265	.282	.292	1.72	.80	4.9	6.0	5.8	5.8
November	28.642	29.170	27.876	27.5	38.0	34.2	43.4	24.1	33.8	60	− 1	24	28	27	86	68	74	.138	.162	.156	2.79	1.57	6.7	6.3	5.7	6.5
December	28.712	29.330	28.190	13.9	21.2	17.9	25.6	9.2	17.4	48	−23	12	16	15	94	79	87	.088	.101	.099	.75	.45	5.0	4.5	4.5	5.4
Year	28.596	29.330	27.580	43.0	54.2	52.0	59.0	39.5	49.2	101	−23	39	42	42	87	66	71	.302	.327	.325	35.40	4.47	5.3	5.4	4.8	5.3

DUBUQUE, IOWA.

[ϕ=42° 30′ N.; λ=90° 44′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.307	29.610	28.910	21.5	28.7	28.0	33.8	18.0	25.9	51	−23	19	20	22	88	71	76	0.113	0.119	0.129	0.17	*0.25	3.8	5.1	2.8	5.2
February	29.230	29.800	28.340	21.7	28.0	27.9	33.3	18.1	25.7	55	2	19	21	21	87	72	75	.110	.120	.118	2.87	1.21	6.8	5.9	4.9	6.1
March	29.426	29.980	28.859	30.1	38.9	40.0	46.2	27.1	36.6	66	− 4	25	28	30	81	66	66	.147	.167	.173	2.24	1.49	5.5	5.9	4.7	5.5
April	29.237	29.748	28.660	43.4	52.3	52.1	57.2	40.7	49.0	75	28	36	38	39	77	60	64	.224	.236	.247	4.47	1.06	6.3	6.7	6.8	6.6
May	29.224	29.570	28.885	51.0	62.6	62.8	67.6	47.9	57.8	90	37	45	45	47	79	55	59	.305	.308	.337	2.79	.75	5.7	5.8	6.0	5.7
June	29.306	29.550	28.960	67.4	77.2	76.4	82.0	63.7	72.8	92	52	63	64	65	86	64	69	.586	.598	.632	6.24	1.88	5.5	6.0	5.1	5.5
July	29.265	29.500	28.999	70.7	82.2	81.4	86.7	66.6	76.6	95	56	63	63	64	77	54	56	.585	.586	.598	7.82	3.87	3.2	4.4	3.3	3.6
August	29.243	29.556	28.973	63.9	76.0	74.4	80.5	61.0	70.8	95	50	57	56	60	80	52	61	.481	.473	.523	1.58	.84	4.5	4.4	3.6	4.2
September	29.277	29.570	28.720	59.2	71.6	68.2	75.4	56.8	66.1	91	43	54	54	56	82	57	66	.424	.439	.465	5.35	1.94	5.1	4.9	4.3	5.1
October	29.296	29.610	28.794	46.6	56.6	53.5	61.0	43.1	52.0	82	25	43	44	45	86	63	73	.296	.309	.324	6.22	3.38	6.6	5.6	5.2	6.3
November	29.341	29.810	28.344	30.8	37.8	35.2	42.0	27.1	34.6	58	8	26	26	26	81	64	68	.150	.147	.145	3.59	2.02	5.8	6.3	5.7	6.4
December	29.423	30.090	28.822	12.5	18.1	16.7	21.3	7.4	14.4	41	−18	9	12	12	87	77	81	.074	.083	.082	.63	.16	6.9	7.0	6.1	7.3
Year	29.298	30.090	28.340	43.2	52.5	51.4	57.2	39.8	48.5	95	−23	38	39	41	83	63	68	.291	.299	.314	43.97	3.87	5.5	5.7	4.9	5.6

DULUTH, MINN.

[ϕ=46° 47′ N.; λ=92° 06′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.712	29.120	28.266	14.3	20.4	19.3	24.5	11.0	17.8	39	−22	13	17	16	94	85	87	0.088	0.102	0.100	0.46	0.27	5.7	5.1	4.6	5.6
February	28.739	29.240	28.280	9.5	16.6	16.9	21.4	6.3	13.8	35	−22	8	13	13	92	83	83	.072	.082	.085	.94	.48	6.1	6.2	5.5	5.8
March	28.916	29.610	28.340	18.7	26.7	26.1	31.3	16.5	23.9	55	−14	16	20	20	88	76	78	.099	.117	.118	1.16	.59	5.6	5.4	5.2	5.7
April	28.777	29.360	28.120	35.5	41.8	41.0	46.4	32.1	39.2	70	18	29	31	30	79	68	69	.164	.176	.173	1.82	.72	6.2	6.1	6.2	6.1
May	28.777	29.140	28.460	48.7	54.9	52.8	59.4	41.6	50.5	90	31	39	40	39	72	60	64	.257	.264	.261	1.72	.56	3.6	4.6	5.2	4.8
June	28.858	29.133	28.500	56.2	60.6	59.8	66.0	50.2	58.1	85	41	54	57	56	94	88	88	.433	.478	.471	3.77	.92	5.3	5.5	5.2	6.5
July	28.764	29.010	28.390	64.1	71.5	70.8	76.1	58.1	67.1	88	50	53	60	59	80	68	67	.483	.522	.502	2.62	.93	4.1	4.9	4.3	5.0
August	28.723	29.030	28.360	60.8	70.1	67.2	73.9	56.0	65.0	84	46	55	55	55	81	61	68	.434	.445	.449	2.99	.76	4.0	5.7	4.6	4.9
September	28.753	29.144	28.220	50.6	60.0	55.8	63.9	47.8	55.8	77	36	47	48	48	87	69	78	.327	.350	.344	1.42	.42	5.0	5.7	5.4	6.0
October	28.775	29.150	28.250	35.4	43.3	39.5	47.2	31.5	39.4	73	18	31	32	30	85	67	71	.182	.196	.179	2.71	.91	6.1	6.2	5.1	5.9
November	28.789	29.370	27.881	18.9	24.6	22.9	28.4	14.7	21.6	50	−18	16	20	20	88	83	88	.102	.119	.119	3.86	1.36	5.5	5.7	5.3	5.1
December	28.823	29.360	28.170	2.5	8.6	6.6	13.0	−1.8	5.6	38	−25	1	4	4	93	82	87	.056	.062	.060	.30	.12	6.0	5.7	4.5	5.1
Year	28.784	29.610	27.881	34.6	41.6	39.9	46.0	30.3	38.2	90	−25	31	33	32	86	74	77	.225	.243	.238	23.77	1.36	5.3	5.6	5.1	5.5

* December 31-January 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

DODGE CITY, KANS.

[H_b=2,509 ft.; h_s=11 ft.; h_r=3 ft.; h_a=51 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	7.7	W.	28	NW.	0	4	0	1	0	3	6	25	23	0	26	4	1	1	1	1	1	0	0	5	0	30	0	0
February	11.7	NW.	48	NW.	1	12	2	3	9	6	6	4	14	0	14	3	11	9	9	7	6	0	4	5	0	25	0	0
March	11.4	NE.	38	SW.	0	14	8	8	10	11	6	0	5	0	11	8	12	7	6	4	3	1	7	1	0	14	0	0
April	13.1	SE.	48	NE.	2	9	9	5	11	6	4	4	12	0	7	12	11	10	5	2	2	0	5	1	0	4	2	0
May	9.6	SE.	34	SE.	0	8	12	10	13	11	2	1	5	0	13	11	7	10	10	0	0	1	2	0	0	0	5	0
June	8.9	SE.	32	NW.	0	2	3	1	31	10	2	1	10	0	16	8	6	9	6	0	0	1	0	0	9	0	6	0
July	10.6	S.	32	SE.	0	1	5	3	12	31	6	2	2	0	19	7	5	5	4	0	0	0	0	0	21	0	5	0
August	8.7	S.	28	NE.	0	2	3	7	13	19	9	7	2	0	22	8	1	2	2	0	0	0	0	0	21	0	7	0
September	10.7	S.	35	NE.	0	4	2	4	16	19	7	4	4	0	18	9	3	2	1	0	0	0	0	0	12	0	0	0
October	9.8	S.	28	NE.	0	22	4	1	5	16	6	5	3	0	13	12	6	5	2	0	0	0	1	0	2	8	0	0
November	10.4	NW.	40	NW.	1	6	8	2	8	10	6	6	14	0	21	0	9	7	6	5	4	1	0	4	0	21	2	0
December	9.1	NW.	36	S.	0	14	5	4	0	10	5	12	12	0	17	9	5	3	1	6	3	0	0	7	0	31	0	0
Year	10.1	S.	48	NW.	4	98	61	49	128	152	65	71	106	0	197	91	77	70	53	25	19	4	19	23	65	133	27	0

DREXEL, NEBR.

[H_b=1,299 ft.; h_s=10 ft.; h_r=3 ft.; h_a=54 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.7	NW.	27	NW.	0	7	0	3	3	9	15	4	21	0	18	7	6	2	1	4	2	0	3	6	0	30	0	0
February	13.6	SE.	39	SW.	0	16	6	9	7	5	6	2	5	0	6	10	12	12	6	13	8	0	0	12	0	28	0	0
March	12.1	SE.	44	SW.	2	12	8	4	13	11	7	0	7	0	9	10	12	6	5	6	3	0	2	2	0	18	2	1
April	13.4	NW.	70	W.	4	10	8	6	10	8	4	5	9	0	2	11	17	17	14	3	3	3	1	0	0	6	9	0
May	9.8	SE.	31	SE.	0	8	11	8	13	8	0	3	11	0	10	13	8	12	11	0	0	0	1	0	0	0	8	0
June	8.6	S.	56	E.	2	5	7	10	16	12	4	4	2	0	9	9	12	15	14	0	0	1	0	0	3	0	14	0
July	10.0	S.	31	S.	0	5	9	5	17	17	6	1	2	0	21	7	3	6	3	0	0	0	0	0	16	0	9	0
August	8.5	SE.	47	SW.	1	4	8	7	10	13	7	4	8	1	18	7	6	10	8	0	0	0	1	0	5	0	9	0
September	9.8	S.	42	SW.	1	6	12	5	9	15	5	4	4	0	12	8	10	9	8	0	0	0	1	0	3	0	5	3
October	9.3	S.	34	SW.	0	13	8	6	8	12	5	3	7	0	10	6	15	8	5	2	0	0	2	1	0	12	4	0
November	11.6	NW.	44	NW.	1	5	9	5	6	7	10	0	18	0	7	9	14	9	9	7	5	0	0	7	0	21	0	0
December	10.4	SW.	30	SW.	0	13	7	1	6	9	12	5	9	0	10	10	11	5	4	10	4	0	7	22	0	30	0	0
Year	10.6	S.	70	W.	11	104	93	69	118	126	81	35	103	1	132	107	126	111	88	45	25	4	18	50	27	145	60	4

DUBUQUE, IOWA.

[H_b=698 ft.; h_s= 81 ft.; h_r=76 ft.; h_a=96 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.0	NW.	23	NW.	0	6	2	1	5	17	10	7	14	0	9	12	10	4	1	6	4	0	5	9	0	26	0	0
February	7.5	NW.	24	NE.	0	11	3	6	10	3	3	3	17	0	8	7	13	10	8	9	8	0	1	11	0	26	0	0
March	7.1	S.	28	NW.	0	13	7	4	7	9	9	3	8	2	11	9	11	7	5	4	1	0	2	4	0	21	1	0
April	7.2	S.	29	SW.	0	12	7	8	7	12	3	2	8	1	7	8	15	15	13	1	1	0	0	0	0	2	5	0
May	5.9	N.	39	SE.	0	19	8	7	8	6	3	3	7	1	7	14	10	12	10	0	0	1	2	0	0	0	5	1
June	5.5	SE.	24	SE.	0	5	6	6	17	15	2	0	9	0	7	16	7	15	12	0	0	0	0	0	1	0	14	1
July	5.2	S.	24	N.	0	13	2	4	7	17	6	2	9	2	17	11	3	7	6	0	0	1	1	0	9	0	7	0
August	5.2	NW.	24	N.	0	11	4	0	3	14	9	2	18	1	14	13	4	7	5	0	0	0	1	0	1	0	9	0
September	5.4	S.	22	S.	0	8	3	0	4	24	3	1	14	3	12	7	11	10	9	0	0	0	0	0	1	0	5	0
October	5.7	S.	26	NE.	0	5	2	6	8	18	6	2	13	2	6	13	12	14	12	0	0	0	1	0	0	4	7	0
November	7.7	NW.	33	SW.	0	7	3	5	7	10	6	8	11	3	7	11	12	7	7	6	3	0	1	5	0	20	1	0
December	6.3	NW.	23	NW.	0	8	6	1	3	9	9	6	19	1	5	9	17	7	7	16	7	0	0	27	0	31	0	0
Year	6.2	S.	39	SE.	0	118	53	48	86	154	69	39	147	16	110	130	125	115	95	42	24	2	14	56	12	130	54	2

DULUTH, MINN.

[H_b=1,133 ft.; h_s=11 ft.; h_r=3 ft.; h_a=47 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	14.0	SW.	51	W.	4	1	4	4	1	6	22	13	11	0	11	8	12	4	3	11	3	0	3	18	0	31	0	2
February	15.9	W.	57	NW.	7	4	9	2	5	0	7	17	12	0	11	4	13	8	4	16	8	0	0	22	0	28	0	2
March	13.2	NE.	50	W.	8	3	21	4	1	1	11	11	10	0	9	11	11	10	6	10	6	0	4	12	0	20	0	4
April	13.6	NE.	57	NE.	4	7	27	2	0	3	8	3	10	0	9	6	15	12	9	7	1	0	4	1	0	13	2	3
May	10.9	NE.	40	NE.	1	8	38	5	1	1	3	3	3	0	13	9	9	9	8	1	1	0	6	0	0	3	1	3
June	10.7	NE.	41	NE.	1	0	43	3	0	1	4	2	6	1	7	9	14	17	13	0	0	0	17	0	0	0	6	0
July	10.7	NE.	42	W.	1	2	20	4	1	11	9	8	7	0	11	12	8	12	7	0	0	0	0	0	0	0	10	2
August	11.2	NW.	40	NW.	1	2	7	2	3	4	8	19	17	0	11	13	7	15	14	0	0	0	2	0	0	0	9	4
September	11.1	NE.	44	NW.	1	4	22	3	4	0	6	8	13	0	8	9	13	11	7	0	0	0	6	0	0	0	3	6
October	12.8	W.	44	NE.	2	4	8	6	1	2	11	14	16	0	11	4	16	12	7	5	2	0	6	4	0	17	1	2
November	16.5	NW.	53	NW.	7	4	7	4	2	2	11	15	15	0	10	7	13	15	10	14	14	0	2	15	0	29	0	0
December	13.4	SW.	51	NW.	5	4	1	1	2	1	24	15	14	0	12	7	12	8	3	20	8	0	0	27	0	31	0	0
Year	12.8	NE.	57	NW.	42	43	207	40	21	32	124	128	134	1	123	99	143	133	91	84	43	0	50	99	0	181	32	28

Annual meteorological summary for the year ending December 31, 1919—Continued.

EASTPORT, ME.

[ϕ=44° 54′ N.; λ=66° 59′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.816	30.476	28.830	22.4	26.1	25.3	32.1	16.3	24.2	49	−10	20	20	21	88	78	83	0.116	0.121	0.119	3.06	0.86	6.9	7.2	5.5	7.1
February	29.721	30.260	29.076	21.7	27.5	27.1	31.0	19.0	25.2	38	8	17	19	20	81	68	73	.095	.102	.106	1.86	.83	5.7	6.5	5.2	5.7
March	29.989	30.838	29.210	31.6	35.3	34.5	40.2	27.8	34.0	56	6	26	25	26	79	67	72	.145	.143	.153	2.67	.73	6.1	6.9	6.5	6.6
April	29.886	30.370	29.352	37.3	40.7	38.6	44.0	32.8	38.4	51	19	32	32	32	80	71	78	.185	.183	.185	2.15	.61	7.2	7.8	7.0	7.4
May	29.895	30.399	29.350	47.1	51.5	47.2	56.0	40.9	48.4	71	37	39	39	39	76	65	74	.248	.244	.244	3.98	1.43	6.5	7.0	5.5	6.8
June	30.031	30.430	29.630	53.5	59.4	53.8	64.5	46.0	55.2	84	39	48	50	48	84	72	82	.346	.369	.341	1.25	.70	5.5	5.4	5.4	5.7
July	29.861	30.244	29.460	58.9	64.2	58.7	68.9	51.3	60.1	82	45	55	57	55	87	80	87	.436	.475	.434	2.82	.79	6.0	5.3	5.1	6.1
August	29.852	30.262	29.470	57.0	61.0	57.1	65.1	51.2	58.2	79	47	54	54	53	88	81	86	.413	.424	.400	2.98	1.49	5.2	7.1	3.8	6.7
September	29.921	30.311	29.320	51.2	58.8	53.6	61.3	48.6	55.0	72	41	50	49	49	87	74	85	.373	.361	.349	3.85	1.62	5.5	6.4	5.7	6.4
October	30.032	30.570	29.257	44.7	48.7	45.7	51.9	40.2	46.0	68	26	38	38	39	79	69	77	.247	.248	.248	3.36	.76	5.6	6.1	5.1	6.5
November	29.955	30.443	29.160	36.8	39.8	38.0	43.1	32.1	37.6	56	19	30	32	32	78	74	80	.183	.192	.192	4.10	.74	7.0	7.1	5.5	7.7
December	29.955	30.510	29.317	19.0	23.0	21.7	27.6	12.3	20.0	47	−16	12	17	16	72	75	79	.094	.112	.107	3.02	.65	5.5	5.8	4.1	6.3
Year	29.910	30.838	28.830	40.4	44.7	41.8	48.8	34.9	41.8	84	−16	35	36	36	82	73	80	.240	.248	.240	35.10	1.62	6.1	6.6	5.4	6.6

ELKINS, W. VA.

[ϕ=38° 53′ N.; λ=79° 49′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.015	28.410	27.610	25.5	36.7	32.3	43.1	20.2	31.6	61	−14	21	25	25	84	65	75	0.127	0.146	0.143	4.20	1.04	6.6	6.7	4.2	6.5
February	27.912	28.390	27.260	25.2	36.4	34.0	41.6	22.2	31.9	62	5	21	24	26	84	62	73	.120	.137	.147	2.04	.51	6.5	6.8	5.8	6.8
March	28.072	28.390	27.530	34.0	46.1	42.4	52.5	29.3	40.9	72	20	30	30	30	84	56	63	.169	.170	.169	2.76	.84	6.8	5.6	5.5	6.4
April	27.975	28.299	27.550	42.6	54.6	51.8	60.4	36.5	48.4	80	16	36	34	38	78	51	60	.224	.208	.234	1.94	.57	7.2	7.5	6.7	7.5
May	27.910	28.168	27.525	53.9	66.2	61.3	70.2	47.5	58.8	92	34	48	48	49	81	55	67	.341	.342	.361	3.88	.66	6.2	6.7	6.1	6.5
June	28.095	28.398	27.840	63.8	77.8	70.3	81.1	56.9	69.0	89	45	59	58	60	84	52	72	.502	.490	.520	6.40	1.42	4.3	5.8	7.2	6.5
July	28.040	28.297	27.760	64.6	78.8	71.8	82.2	58.8	70.5	91	46	60	60	64	87	54	76	.531	.520	.594	8.75	2.59	5.1	5.4	5.5	5.8
August	27.992	28.246	27.820	64.4	73.2	66.6	76.8	56.0	66.4	88	45	58	57	60	89	58	81	.488	.472	.533	3.09	.71	5.1	5.8	5.8	6.4
September	28.064	28.312	27.730	53.0	71.7	61.8	75.3	48.8	62.0	86	35	51	52	55	93	52	80	.385	.413	.453	2.28	1.57	4.6	4.7	4.0	5.9
October	28.087	28.310	27.890	54.3	66.1	59.8	70.5	50.1	60.3	85	34	51	52	54	90	64	82	.391	.414	.429	5.69	1.45	7.1	7.5	7.0	8.3
November	28.035	28.490	27.490	36.1	47.1	41.5	51.8	31.0	41.4	65	17	33	34	33	88	62	73	.200	.213	.204	3.25	.79	7.4	6.7	4.9	6.9
December	28.021	28.580	27.390	23.9	32.8	29.4	40.8	17.4	29.1	68	− 6	21	24	24	89	73	79	.129	.143	.141	4.73	1.39	8.1	7.3	6.1	7.3
Year	28.018	28.580	27.260	44.9	57.3	51.9	62.2	39.6	50.9	92	−14	41	42	43	86	59	73	.301	.306	.328	49.01	2.59	6.2	6.4	5.7	6.7

ELLENDALE, N. DAK.

[ϕ=45° 59′ N.; λ=98° 34′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.407	28.930	27.980	16.8	....	22.2	31.0	10.6	20.8	48	−33	14	....	19	88	....	55	0.093	....	0.113	0.06	0.05	3.4	....	3.5	5.1
February	28.454	28.860	27.960	7.5	....	12.3	18.6	3.2	10.9	44	−30	5	....	9	90	....	85	.064	....	.072	.74	.36	6.8	....	6.0	7.1
March	28.532	29.190	27.720	17.3	....	25.1	29.6	12.9	21.2	52	−22	15	....	22	90	....	86	.098	....	.126	.71	.57	5.7	....	6.5	6.3
April	28.406	29.074	27.670	36.4	....	47.8	51.9	33.6	42.8	74	19	33	....	35	87	....	65	.191	....	.213	2.23	1.44	6.3	....	6.1	6.4
May	28.382	28.740	28.040	49.0	....	61.8	65.7	43.6	54.6	86	31	44	....	44	84	....	56	.299	....	.300	5.22	1.67	5.6	....	5.4	5.5
June	28.445	28.726	28.228	62.0	....	71.8	75.5	57.8	66.6	90	37	53	....	62	87	....	73	.501	....	.584	2.91	1.59	6.5	....	5.0	6.1
July	28.402	28.680	27.980	63.1	....	76.4	82.0	57.4	69.7	97	49	59	....	64	87	....	66	.508	....	.597	4.17	1.60	4.2	....	4.6	4.9
August	28.415	28.740	28.120	57.9	....	75.0	81.1	53.8	67.4	92	42	52	....	56	83	....	54	.406	....	.465	.68	.30	3.7	....	4.8	4.5
September	28.401	28.790	27.890	50.8	....	65.5	73.3	47.7	60.5	94	30	46	....	46	88	....	52	.321	....	.330	.19	.13	6.4	....	5.0	6.2
October	28.456	28.790	27.830	28.9	....	38.5	47.4	24.5	36.0	78	− 4	25	....	28	85	....	69	.150	....	.169	1.50	.51	7.2	....	5.4	6.6
November	28.506	29.090	27.680	16.0	....	20.8	26.3	10.7	18.5	50	−12	13	....	17	89	....	85	.094	....	.108	.95	.64	5.9	....	5.4	7.4
December	28.532	29.092	27.920	8.2	....	11.6	18.4	2.3	10.4	46	−21	6	....	9	88	....	89	.067	....	.080	.38	.14	5.5	....	4.4	5.8
Year	28.445	29.190	27.670	34.5	....	44.1	50.1	29.8	40.0	97	−33	31	....	34	87	....	72	.233	....	.283	19.74	1.67	5.6	....	5.2	6.0

EL PASO, TEX.

[ϕ=31° 47′ N.; λ=106° 30′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	26.287	26.640	25.880	30.7	46.6	48.8	53.0	28.4	40.7	66	16	20	22	22	63	36	35	0.106	0.115	0.117	0.08	0.08	1.3	1.2	2.2	2.1
February	26.121	26.430	25.770	36.3	52.0	54.7	58.6	33.4	46.0	74	24	22	22	21	54	31	28	.116	.115	.113	.20	.17	1.4	3.0	1.4	2.6
March	26.139	26.500	25.740	44.0	59.9	64.0	67.4	41.8	54.6	79	28	28	28	24	55	31	24	.162	.157	.134	.62	.29	1.7	2.5	2.0	2.5
April	26.103	26.310	25.770	53.9	71.6	74.3	78.3	51.7	65.0	92	39	32	28	24	46	23	19	.188	.161	.166	.65	.54	1.9	2.1	3.0	2.8
May	26.054	26.250	25.835	60.7	78.8	81.2	84.5	59.5	72.0	92	48	38	36	30	47	22	18	.243	.216	.177	.14	.09	1.4	2.1	3.1	2.8
June	26.150	26.380	25.980	66.7	84.1	86.4	90.2	64.9	77.6	97	46	50	44	39	55	26	21	.375	.309	.262	.27	.20	1.3	1.5	2.1	3.1
July	26.180	26.350	26.020	70.3	84.2	84.6	89.8	68.9	79.4	95	54	59	56	54	70	40	38	.508	.459	.424	1.87	1.14	2.7	2.8	4.4	3.8
August	26.197	26.340	26.045	70.2	87.0	87.9	92.7	69.3	81.0	100	64	59	55	52	68	34	31	.496	.431	.394	.72	.31	2.4	1.4	3.9	3.1
September	26.169	26.460	25.947	64.8	76.7	77.1	82.2	63.0	72.6	92	48	55	54	52	72	51	48	.438	.433	.401	3.39	1.58	4.0	4.2	3.9	4.5
October	26.152	26.380	25.980	57.6	69.4	69.5	74.4	55.8	65.1	84	43	47	46	45	71	46	46	.333	.324	.310	.97	.47	3.8	4.8	3.2	4.6
November	26.196	26.500	25.770	44.2	58.5	57.0	63.1	41.7	52.4	76	28	34	33	34	69	41	45	.209	.199	.207	.93	.44	2.7	3.0	3.9	3.8
December	26.287	26.540	25.800	37.3	53.5	54.6	59.2	35.3	47.2	74	26	28	30	28	70	41	38	.158	.169	.161	.12	.11	2.8	2.4	2.4	2.7
Year	26.170	26.640	25.740	53.1	68.5	70.0	74.4	51.1	62.3	100	16	39	38	35	62	35	33	.278	.257	.236	9.87	1.58	2.3	2.6	3.0	3.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

EASTPORT, ME.

[H_b=76 ft.; h_t=67 ft.; h_r=62 ft.; h_a=85 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	11.7	W.	52	E.	2	6	6	3	2	1	11	16	17	0	5	10	16	14	12	17	11	0	0	12	0	29	0	3
February	13.4	NW.	59	NE.	1	3	0	5	1	0	4	19	24	0	9	8	11	9	4	10	8	0	0	17	0	28	0	6
March	14.0	NW.	56	E.	3	11	4	5	5	6	7	5	18	1	9	5	17	16	11	7	5	0	0	3	0	21	0	0
April	11.3	S.	44	S.	1	6	6	7	1	15	11	5	9	0	4	4	22	14	8	7	7	0	3	0	0	9	0	4
May	10.2	S.	46	NE.	1	10	9	7	2	21	6	2	5	0	5	13	13	13	10	0	0	0	4	0	0	0	0	2
June	8.3	S.	29	NE.	0	5	10	3	0	26	5	0	11	0	5	17	8	7	5	0	0	1	3	0	0	0	2	0
July	7.4	S.	24	E.	0	3	4	2	1	22	18	2	10	0	5	16	10	13	11	0	0	0	11	0	0	0	8	0
August	7.7	S.	32	SE.	0	2	4	2	1	28	10	7	7	1	6	10	15	10	9	0	0	0	16	0	0	0	1	2
September	9.4	S.	30	W.	0	5	4	3	2	16	11	4	15	0	6	10	14	10	8	0	0	0	5	0	0	0	1	4
October	9.8	S.	32	W.	0	8	4	3	3	11	14	7	12	0	9	4	18	13	9	1	1	0	4	0	0	3	0	2
November	14.3	NW.	72	NE.	3	10	9	1	2	10	13	4	11	0	4	6	20	16	13	5	4	0	3	1	0	15	0	1
December	12.0	NW.	38	W.	0	6	2	3	2	4	11	17	17	0	7	10	14	12	12	13	9	0	2	17	0	30	0	0
Year	10.8	S.	72	NE.	11	75	62	44	22	160	121	88	156	2	74	113	178	147	112	60	45	1	51	50	0	135	12	24

ELKINS, W. VA.

[H_b=1,947 ft.; h_t=59 ft.; h_r=52 ft.; h_a=67 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.3	W.	26	W.	0	5	2	0	2	6	8	15	14	10	6	10	15	12	11	11	8	0	2	5	0	27	0	0
February	6.2	W.	34	W.	0	6	2	0	2	10	4	15	11	6	6	7	15	17	15	12	9	0	1	9	0	25	1	0
March	7.0	NW.	35	W.	0	12	4	1	5	5	1	5	23	6	10	5	16	12	9	10	7	0	2	0	0	23	0	0
April	5.3	W.	27	W.	0	7	0	1	4	3	7	17	14	7	2	8	20	13	9	5	3	0	3	1	0	11	3	0
May	4.4	NW.	20	S.	0	7	4	3	4	10	5	11	17	1	6	11	14	16	13	0	0	0	4	0	1	0	5	0
June	3.7	S.	32	SE.	0	7	4	4	17	8	8	4	3	5	2	16	12	14	12	0	0	2	8	0	0	0	13	0
July	3.7	NW.	24	NW.	0	11	3	4	9	14	4	7	8	2	11	7	13	15	13	0	0	0	12	0	2	0	12	0
August	4.0	W.	26	W.	0	5	4	1	16	7	7	11	7	4	7	11	13	15	12	0	0	0	8	0	0	0	10	0
September	3.5	W.	20	W.	0	12	3	0	9	9	3	6	9	9	7	13	10	6	5	0	0	0	18	0	0	0	3	0
October	4.5	NW.	26	S.	0	11	5	2	11	10	9	6	8	0	3	5	23	20	16	0	0	0	9	0	0	0	0	0
November	5.7	W.	34	SW.	0	7	10	4	5	12	5	8	6	3	8	5	17	15	11	4	3	0	1	0	0	19	0	0
December	5.8	W.	31	W.	0	7	11	2	4	5	9	11	12	1	4	9	18	17	14	17	14	0	4	8	0	26	0	0
Year	4.9	W.	35	W.	0	97	52	22	88	99	70	116	132	54	72	107	186	172	140	59	44	2	72	23	3	131	47	0

ELLENDALE, N. DAK.

[H_b=1,457 ft.; h_t=10 ft.; h_r=3 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	14.2	NW.	52	NW.	5	5	6	2	2	12	10	6	19	0	10	10	11	3	1	7	3	0	1	13	0	31	0	0
February	14.6	NE.	50	NW.	2	9	18	6	3	5	1	2	12	0	2	12	14	6	6	12	6	0	1	24	0	28	0	0
March	14.1	SE.	52	E.	3	9	10	7	10	9	4	3	10	0	7	12	12	5	3	9	2	0	3	16	0	29	1	2
April	16.1	NE.	54	W.	5	11	15	1	9	8	4	4	8	0	8	8	14	10	6	3	3	0	2	2	0	15	1	2
May	15.0	S.	48	NE.	4	7	10	2	12	17	1	1	12	0	12	5	14	14	11	1	0	1	0	0	0	1	2	3
June	14.5	S.	44	NE.	1	6	10	7	12	14	0	1	9	1	7	13	10	8	7	0	0	0	1	0	1	0	1	0
July	11.7	S.	46	S.	1	13	9	4	9	15	6	0	6	0	10	15	6	9	6	0	0	0	1	0	4	0	8	2
August	12.2	NW.	52	N.	4	9	7	4	9	12	3	2	16	0	13	10	8	3	3	0	0	0	2	0	3	0	5	1
September	13.2	NW.	41	S.	1	7	8	8	6	7	4	4	16	0	6	11	13	4	2	0	0	0	0	0	2	1	4	2
October	12.3	NW.	41	S.	2	9	12	6	3	7	6	5	14	0	8	7	16	11	9	11	7	0	0	6	0	22	1	4
November	15.8	NW.	66	NW.	6	11	4	5	7	6	6	2	19	0	2	13	15	6	4	10	6	0	0	15	0	29	0	2
December	13.2	NW.	50	NW.	2	5	8	1	5	6	9	4	24	0	7	12	12	7	5	14	7	0	2	22	0	31	0	0
Year	13.9	NW.	66	NW.	36	101	117	53	87	118	51	34	165	1	92	128	145	86	63	67	34	1	13	98	10	187	23	18

EL PASO, TEX.

[H_b=3,762 ft.; h_t=110 ft.; h_r=102 ft.; h_a=133 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.0	NW.	42	NE.	1	5	12	3	1	1	3	11	26	0	24	5	2	1	1	1	1	0	0	0	0	23	0	0
February	13.5	W.	62	W.	5	2	1	5	4	0	5	28	11	0	18	9	1	3	1	3	1	0	0	0	0	12	0	0
March	13.2	NW.	56	NW.	3	2	6	10	11	1	3	12	17	0	24	5	2	6	2	0	0	3	0	0	0	1	4	0
April	12.1	NW.	54	W.	4	2	7	7	6	0	4	15	19	0	19	8	3	3	2	0	0	0	0	0	4	0	2	0
May	11.5	W.	43	SW.	1	3	3	16	6	0	3	18	13	0	21	9	1	3	1	0	0	0	0	0	3	0	3	0
June	10.8	SE.	53	NE.	5	0	8	23	16	4	1	6	2	0	27	3	0	2	2	0	0	0	0	0	23	0	5	0
July	10.5	SE.	46	S.	3	0	13	17	17	2	0	5	8	0	16	13	2	12	6	0	0	0	0	0	16	0	7	0
August	8.4	SE.	42	NE.	1	1	7	13	25	2	4	4	6	0	20	11	0	8	5	0	0	0	0	0	22	0	6	0
September	8.9	E.	46	NE.	1	1	4	17	18	2	0	4	14	0	13	9	8	11	7	0	0	0	0	0	7	0	5	0
October	9.8	NW.	38	NE.	0	2	4	12	5	2	4	13	20	0	12	15	4	5	5	0	0	0	0	0	0	0	2	0
November	11.6	W.	49	SW.	1	1	7	16	5	3	4	15	9	0	16	10	4	9	3	2	1	0	0	0	0	5	2	0
December	9.3	NW.	48	W.	1	1	10	7	6	1	2	12	23	0	21	7	3	3	2	0	0	0	0	0	0	10	1	0
Year	10.7	NW.	62	W.	26	20	82	146	120	18	33	143	168	0	231	104	30	66	37	6	3	3	0	0	75	51	37	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

ERIE, PA.

[ϕ=42° 07′ N.; λ=80° 05′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.250	29.830	28.750	30.3	34.5	32.4	38.7	25.1	31.9	56	5	24	25	25	78	68	73	0.140	0.146	0.138	1.18	0.34	6.5	5.9	6.2	6.1
February	29.181	29.800	28.490	29.2	32.6	32.1	36.8	25.1	31.0	61	14	22	23	25	75	67	75	.123	.126	.135	1.23	.20	7.6	7.6	7.2	7.6
March	29.379	29.760	28.630	34.3	38.2	37.0	44.7	29.9	37.3	69	18	26	28	28	72	66	68	.147	.156	.156	1.63	.45	6.6	5.6	4.4	5.5
April	29.234	29.610	28.700	42.6	46.3	45.6	52.1	37.3	44.7	74	18	34	36	36	72	68	71	.201	.219	.225	4.76	1.20	7.1	7.2	7.3	6.8
May	29.158	29.537	28.710	54.5	57.2	57.7	63.5	48.6	56.0	88	39	46	46	46	73	70	69	.311	.319	.323	4.91	1.06	5.6	6.4	6.4	5.7
June	29.325	29.602	29.040	72.3	76.7	74.8	80.8	65.4	73.1	92	49	60	60	61	67	58	63	.537	.533	.544	3.07	2.44	3.4	3.6	3.9	3.5
July	29.243	29.554	28.880	71.3	75.9	74.8	80.7	64.8	72.8	91	55	60	60	58	68	61	59	.522	.531	.501	2.18	1.04	4.6	3.5	4.0	4.3
August	29.181	29.523	28.950	66.4	72.2	69.8	76.4	61.9	69.2	88	54	58	61	57	74	68	65	.486	.545	.478	4.64	1.12	5.9	4.6	5.2	5.7
September	29.260	29.530	28.880	62.9	68.9	65.8	73.1	58.0	65.6	87	47	54	56	53	74	64	65	.432	.454	.426	1.27	.56	6.4	5.2	3.7	5.6
October	29.301	29.595	28.900	55.3	60.0	57.6	64.7	50.7	57.7	84	38	48	50	49	78	72	74	.358	.380	.374	3.04	.76	7.3	6.9	5.2	7.0
November	29.287	29.748	28.420	39.0	42.4	41.2	46.5	34.0	40.2	63	23	30	32	31	69	66	68	.171	.183	.176	1.84	.61	8.4	7.5	6.4	8.0
December	29.302	29.950	28.570	24.4	26.0	26.1	31.6	19.3	25.4	57	0	19	19	19	79	72	72	.107	.107	.108	1.80	.40	8.9	7.6	6.3	7.6
Year	29.258	29.950	28.420	48.5	52.6	51.2	57.5	43.3	50.4	92	0	40	41	41	73	67	68	.295	.308	.299	31.55	2.44	6.5	6.0	5.5	6.1

ESCANABA, MICH.

[ϕ=45° 48′ N.; λ=87° 05′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.288	29.870	28.874	21.3	25.6	24.8	28.9	18.0	23.4	40	− 4	18	20	21	87	76	84	0.105	0.108	0.118	0.69	0.15	7.5	7.5	4.9	6.2
February	29.292	29.950	28.530	18.9	24.9	24.1	28.4	15.7	22.0	37	− 8	17	19	20	91	77	86	.099	.109	.115	2.11	.70	7.4	6.7	6.4	5.6
March	29.528	30.140	28.960	23.9	31.1	28.8	35.2	20.8	28.0	50	− 3	21	24	24	87	73	83	.118	.134	.135	1.79	1.19	5.5	5.1	5.3	4.0
April	29.349	29.780	28.650	35.5	40.6	38.8	44.5	32.0	38.2	59	12	30	32	32	81	74	79	.171	.187	.187	2.68	.97	5.5	5.6	6.4	5.0
May	29.327	29.720	28.900	47.9	54.0	53.3	58.5	43.5	51.0	80	34	41	43	42	78	69	68	.267	.286	.278	1.91	.49	3.8	4.1	4.0	3.1
June	29.433	29.680	29.110	63.3	70.2	68.6	73.5	59.7	66.6	87	44	59	60	60	86	72	76	.504	.535	.531	4.45	1.91	4.6	4.1	5.0	3.1
July	29.333	29.650	29.055	65.2	73.3	72.2	77.6	59.7	68.6	88	47	58	59	59	78	62	65	.491	.511	.511	1.78	1.03	3.5	3.9	3.3	2.7
August	29.266	29.622	28.890	60.7	69.1	67.1	72.9	56.2	64.6	84	44	55	56	57	82	64	70	.448	.464	.475	2.49	.93	4.2	4.8	4.2	4.5
September	29.321	29.691	28.750	54.0	61.5	60.0	65.5	50.7	58.1	79	32	49	52	54	84	73	80	.361	.404	.419	2.15	.74	4.7	6.1	5.0	5.1
October	29.363	29.720	28.870	42.0	49.2	46.4	53.2	38.0	45.6	74	24	38	38	39	84	67	78	.238	.242	.258	4.70	1.64	5.4	6.0	4.7	5.4
November	29.345	29.920	27.980	29.2	32.7	32.2	37.2	24.8	31.0	55	2	25	24	26	83	70	78	.142	.140	.149	4.45	1.19	8.2	8.0	6.0	6.7
December	29.401	29.970	28.710	10.1	15.4	14.7	19.8	6.2	13.0	38	−14	8	9	10	90	76	82	.068	.071	.075	.43	.20	6.7	6.4	6.3	6.2
Year	29.354	30.140	27.980	39.3	45.6	44.2	49.6	35.4	42.5	88	−14	35	36	37	84	71	77	.251	.266	.271	29.63	1.91	5.6	5.7	5.1	4.8

EUREKA, CALIF.

[ϕ=40° 48′ N.; λ=124° 11′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.076	30.495	29.540	46.3	52.8	51.9	55.2	42.8	49.0	70	31	43	47	46	87	81	83	0.223	0.328	0.320	7.84	3.37	5.3	6.2	6.1	6.4
February	29.995	30.326	29.440	44.8	49.7	49.9	52.2	41.7	47.0	62	32	42	46	46	92	87	86	.274	.310	.309	8.18	1.56	7.9	8.4	8.3	7.7
March	30.048	30.430	29.330	44.2	51.3	50.4	53.4	41.8	47.6	68	34	42	46	45	91	82	83	.266	.308	.304	6.25	2.25	6.2	7.6	6.6	6.7
April	30.058	30.360	29.760	47.7	53.6	53.4	55.6	45.4	50.5	64	36	45	48	48	92	84	82	.304	.343	.333	4.03	1.33	6.5	6.7	6.4	6.4
May	29.987	30.249	29.700	48.6	54.4	54.5	56.9	47.3	52.1	67	42	46	48	48	90	80	78	.308	.338	.331	1.48	.75	6.7	3.9	4.4	5.1
June	30.032	30.200	29.830	49.5	55.2	56.3	58.9	48.2	53.6	66	42	47	50	50	91	81	80	.321	.368	.364	.14	.14	6.3	4.4	3.1	4.5
July	29.968	30.140	29.800	51.2	56.1	55.8	58.1	50.3	54.2	64	46	49	50	50	92	79	81	.346	.356	.358	.01	.01	8.4	5.9	5.0	6.4
August	29.984	30.170	29.760	52.5	57.3	57.1	60.3	51.5	55.9	68	48	50	52	52	93	82	83	.365	.386	.383	.01	.01	6.4	6.0	7.4	7.0
September	29.895	30.200	29.655	52.6	60.1	59.4	62.0	51.0	56.5	67	45	50	52	53	92	75	78	.365	.391	.400	1.52	.66	3.9	4.7	4.4	5.5
October	30.044	30.283	29.811	46.2	55.3	54.2	57.5	43.6	50.6	73	35	43	46	46	90	71	76	.283	.307	.314	.24	.05	1.6	3.3	3.5	3.4
November	30.096	30.260	29.810	45.8	52.0	50.7	54.3	42.1	48.2	65	32	43	45	44	90	77	80	.283	.300	.299	2.99	.85	5.2	6.3	5.8	6.7
December	30.043	30.440	29.530	45.5	52.3	51.2	54.8	41.4	48.1	66	26	41	45	44	84	77	77	.261	.308	.294	4.33	1.05	4.0	5.9	6.6	6.4
Year	30.019	30.495	29.330	47.9	54.3	53.7	56.6	45.6	51.1	73	26	45	48	48	90	80	81	.305	.337	.334	37.02	3.37	5.7	5.8	5.6	6.0

EVANSVILLE, IND.

[ϕ=37° 58′ N.; λ=87° 33′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.688	29.950	29.260	33.1	41.2	40.8	46.1	30.9	38.5	62	5	28	29	30	89	62	66	0.161	0.170	0.178	1.14	0.56	5.3	4.8	4.6	5.2
February	29.538	30.080	28.670	33.8	41.0	39.4	45.9	29.5	37.7	62	18	28	28	29	78	59	67	.164	.159	.166	1.30	.56	6.3	5.8	5.0	6.0
March	29.709	30.060	29.060	41.6	51.5	51.3	56.8	38.6	47.7	76	18	35	36	38	76	58	61	.215	.227	.236	5.05	2.78	5.1	5.2	4.2	5.6
April	29.555	29.960	29.160	52.6	61.9	61.5	67.1	48.2	57.6	83	27	43	44	46	70	53	60	.295	.308	.337	3.71	1.25	5.5	6.0	5.8	6.2
May	29.450	29.680	29.010	59.5	68.5	66.2	71.8	55.9	63.8	91	44	53	53	55	80	60	69	.417	.419	.449	4.74	1.00	6.5	7.5	6.7	6.9
June	29.583	29.890	29.348	74.3	83.7	80.4	87.8	68.6	78.2	94	61	66	66	68	76	57	68	.645	.649	.695	6.75	2.53	4.7	5.3	6.2	5.4
July	29.553	29.790	29.360	76.3	83.4	85.7	92.3	71.9	82.1	99	61	66	65	66	70	48	52	.637	.641	.641	1.32	.97	1.6	3.4	3.7	3.7
August	29.539	29.740	29.350	71.1	83.4	79.2	87.0	67.4	77.2	98	59	62	61	62	75	49	57	.579	.562	.565	2.49	1.43	3.3	4.3	4.1	4.4
September	29.589	29.810	29.220	66.8	81.7	77.9	85.2	63.5	74.4	97	50	56	56	57	70	42	49	.472	.463	.476	3.59	3.04	3.1	3.8	3.2	3.9
October	29.608	29.840	29.360	59.6	68.7	65.5	72.2	56.2	64.2	93	42	55	56	56	86	66	73	.458	.472	.474	8.40	1.81	6.7	6.7	5.8	6.7
November	29.650	30.060	28.880	42.0	50.3	48.0	54.5	38.1	46.3	71	23	37	38	37	81	63	68	.232	.237	.233	3.73	1.10	4.9	5.3	4.9	5.3
December	29.703	30.480	29.020	28.0	34.9	34.9	39.6	24.8	32.2	59	6	24	25	28	84	67	74	.134	.140	.161	1.86	1.38	4.9	5.8	5.5	5.7
Year	29.597	30.480	28.670	53.2	62.9	60.9	67.2	49.5	58.3	99	5	46	46	48	77	57	64	.367	.371	.384	44.08	3.04	4.8	5.3	5.0	5.4

Annual meteorological summary for the year ending December 31, 1919—Continued.

ERIE, PA.

[H_b=714 ft.; h_t=130 ft.; h_r=122 ft.; h_a=166 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	17.2	SW.	43	SW.	3	2	1	0	3	17	24	6	9	0	8	11	12	10	6	11	8	0	0	6	0	23	0	0
February	15.2	W.	60	SE.	5	2	2	4	9	10	9	9	11	0	3	8	17	15	10	16	8	0	0	11	0	23	0	0
March	16.7	NE.	67	SE.	6	8	15	2	11	3	8	7	8	0	10	11	10	9	8	11	2	0	0	3	0	33	0	1
April	13.7	SW.	52	SE.	3	3	10	4	7	7	13	6	10	0	3	11	16	18	14	4	2	0	3	1	0	5	6	0
May	11.8	NE.	42	SE.	2	3	16	1	10	5	9	9	8	1	9	12	10	19	17	0	0	0	0	0	0	0	5	0
June	10.6	NE.	34	NE.	0	3	18	1	10	15	8	1	4	0	17	10	3	9	5	0	0	0	0	0	2	0	5	0
July	11.0	NE.	46	W.	2	7	14	1	4	7	16	5	8	0	12	14	5	8	6	0	0	0	0	0	1	0	8	0
August	12.5	S.	42	SE.	1	4	4	2	7	16	16	3	10	0	5	19	7	14	11	0	0	1	0	0	0	0	10	0
September	13.0	SW.	40	SW.	1	7	6	1	5	14	17	5	5	0	7	16	7	9	6	0	0	0	0	0	0	0	2	1
October	13.7	SW.	50	W.	2	6	10	2	8	10	15	5	6	0	5	7	19	14	10	0	0	0	0	0	0	0	2	0
November	17.9	SW.	54	SW.	4	3	11	2	8	8	11	5	12	0	2	6	22	13	9	10	5	1	0	0	0	11	0	0
December	16.0	SW.	50	SE.	4	5	2	0	8	11	15	7	14	0	4	9	18	16	12	21	13	0	1	17	0	30	0	0
Year	14.1	SW.	67	SE.	33	53	109	20	90	123	161	68	105	1	85	134	146	154	114	73	38	2	4	38	3	115	38	2

ESCANABA, MICH.

[H_b=612 ft.; h_t=54 ft.; h_r=44 ft.; h_a=60 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.3	NW.	35	NW.	0	8	1	2	1	7	16	10	17	0	8	10	13	11	5	17	10	0	4	15	0	29	0	1
February	10.3	NW.	40	N.	1	12	7	4	2	7	3	4	16	1	9	7	12	13	8	21	12	0	1	15	0	28	0	0
March	10.3	S.	32	NE.	0	16	8	6	4	15	5	2	6	0	15	8	8	5	5	13	3	0	4	10	0	28	1	6
April	10.8	S.	36	N.	0	19	11	3	2	16	2	1	6	0	13	5	12	13	8	5	3	0	6	1	0	12	2	2
May	9.6	N.	38	N.	0	17	14	5	2	12	5	2	4	1	20	4	7	10	6	0	0	0	1	0	0	0	0	2
June	8.7	S.	30	NE.	0	8	20	2	6	20	3	0	1	0	16	12	2	8	7	0	0	0	2	0	0	0	8	1
July	9.0	S.	32	S.	0	15	7	1	2	18	12	4	3	0	20	8	3	9	6	0	0	0	0	0	0	0	5	1
August	8.3	S.	27	N.	0	10	5	0	5	9	12	7	14	0	11	15	5	7	6	0	0	0	1	0	0	0	4	1
September	9.0	S.	31	S.	0	15	5	0	1	12	14	5	8	0	11	9	10	13	8	1	0	0	0	0	0	0	4	4
October	9.5	S.	35	NE.	0	9	5	1	4	12	9	11	11	0	11	7	13	15	12	3	2	0	4	0	0	7	3	3
November	11.4	NW.	48	S.	2	8	4	6	5	6	10	8	13	0	5	11	14	14	12	15	9	0	0	8	0	22	0	0
December	9.3	NW.	36	N.	0	6	3	0	1	2	18	17	15	0	10	2	19	5	4	20	5	0	0	30	0	31	0	0
Year	9.6	N.	48	S.	3	143	90	30	35	136	109	71	114	2	149	98	118	123	87	95	44	0	23	79	0	157	27	21

EUREKA, CALIF.

[H_b=62 ft.; h_t=73 ft.; h_r=65 ft.; h_a=89 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.4	SE.	43	SW.	1	5	7	5	19	12	7	2	1	4	9	6	16	17	12	0	0	0	4	0	0	2	0	0
February	8.8	SE.	35	SW.	0	8	1	2	20	7	10	1	5	2	4	4	20	24	23	0	0	1	0	0	0	0	0	0
March	7.6	SE.	37	N.	0	11	2	5	17	6	11	3	4	3	6	8	17	15	13	0	0	1	2	0	0	0	0	0
April	8.8	N.	38	SW.	0	19	5	4	8	2	6	4	9	3	6	10	14	12	11	9	0	0	2	0	0	0	0	0
May	9.7	N.	39	N.	0	19	1	1	8	3	9	4	11	6	9	13	9	7	6	0	0	0	2	0	0	0	0	0
June	7.1	NW.	28	SW.	0	14	0	2	2	5	5	2	20	10	11	14	5	1	1	0	0	0	0	0	0	0	0	0
July	6.6	NW.	28	N.	0	20	1	0	2	5	10	7	15	2	5	12	14	1	0	0	0	0	0	0	0	0	0	0
August	5.4	NW.	20	N.	0	12	4	1	3	2	10	8	17	5	3	14	14	1	0	0	0	0	9	0	0	0	0	0
September	5.5	SW.	35	N.	0	12	1	4	9	3	11	6	7	7	0	8	13	10	8	0	0	0	7	0	0	0	1	0
October	5.9	N.	34	N.	0	18	8	4	6	2	0	4	12	8	18	9	4	6	4	0	0	0	6	8	0	0	0	0
November	6.9	N.	42	N.	1	17	3	6	9	3	6	5	3	8	4	10	16	12	10	0	0	1	4	0	0	0	0	0
December	7.1	SE.	42	SW.	1	4	4	6	25	4	6	2	5	6	9	5	17	14	11	0	0	0	4	0	0	3	0	0
Year	7.2	N.	43	SW.	3	159	37	40	128	54	91	48	109	64	93	113	159	120	99	0	0	3	42	0	0	5	1	0

EVANSVILLE, IND.

[H_b=431 ft.; h_t=139 ft.; h_r=135 ft.; h_a=175 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.7	SW.	32	SW.	0	5	2	2	3	11	19	4	16	0	12	8	11	10	4	6	4	0	1	4	0	13	0	0
February	14.1	SW.	53	W.	3	9	5	9	5	6	9	10	3	0	7	11	10	7	6	6	2	0	0	1	0	17	0	0
March	12.0	NE.	58	SW.	1	12	14	6	5	8	7	3	7	0	10	11	10	9	8	0	0	0	0	0	0	6	2	0
April	12.4	SW.	46	SW.	3	3	8	5	6	10	17	7	4	0	6	16	8	13	8	0	0	0	0	0	0	1	7	0
May	10.2	NE.	28	SW.	0	8	13	10	5	2	12	5	7	0	3	14	14	16	10	0	0	0	2	0	1	0	9	0
June	8.5	SW.	67	S.	1	1	16	8	10	9	12	3	1	0	5	22	3	13	13	0	0	2	0	0	9	0	16	0
July	8.2	SW.	42	SW.	1	4	15	8	3	4	16	6	6	0	11	19	1	3	3	0	0	1	0	0	21	0	8	0
August	9.1	SW.	53	NW.	4	8	10	1	5	6	17	6	8	1	9	18	4	11	9	0	0	0	1	0	8	0	9	0
September	9.6	SW.	45	W.	2	5	12	5	2	8	18	4	5	1	13	15	2	6	5	0	0	0	0	0	9	0	1	0
October	9.9	SW.	41	W.	1	5	17	7	1	8	19	1	3	1	7	8	16	14	12	0	0	0	3	0	2	0	5	0
November	11.0	SW.	67	SW.	2	5	12	9	4	4	10	5	11	0	11	8	11	8	7	0	0	0	1	0	0	8	3	0
December	10.6	SW.	33	SW.	0	11	10	5	5	3	14	6	8	0	9	9	13	7	7	2	2	0	4	3	0	27	1	0
Year	10.5	SW.	67	SW.	18	76	134	75	54	79	170	60	79	3	103	159	103	117	92	14	8	3	12	8	50	72	61	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

FORT SMITH, ARK.

[ϕ=35° 22′ N.; λ=94° 24′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.675	30.070	29.340	33.7	44.7	45.9	51.0	31.9	41.4	66	7	29	32	33	82	61	61	0.169	0.192	0.203	1.51	0.48	4.5	4.5	3.2	4.2
February	29.482	29.960	28.560	36.0	45.1	46.8	53.4	33.1	43.2	66	15	31	33	34	81	64	62	.179	.198	.206	2.30	.84	5.1	4.7	5.4	4.6
March	29.612	29.980	29.190	45.8	58.5	59.8	65.0	43.5	54.2	76	23	39	43	42	78	59	54	.254	.291	.277	1.25	.99	5.0	5.3	4.9	5.5
April	29.488	29.850	29.050	54.3	67.5	67.6	72.9	51.0	62.0	86	38	49	50	51	82	57	58	.361	.386	.395	2.90	.89	5.2	5.3	4.8	5.1
May	29.387	29.630	29.144	62.3	71.7	71.3	75.8	59.6	67.7	87	50	58	59	61	87	67	71	.497	.518	.541	4.70	1.03	8.1	7.7	6.6	7.3
June	29.507	29.720	29.220	71.6	82.4	80.3	86.5	68.4	77.4	94	53	67	67	69	87	61	69	.679	.666	.714	2.49	.71	5.9	6.7	5.9	6.3
July	29.507	29.660	29.334	76.4	90.9	89.3	94.7	73.4	84.0	101	66	69	67	67	78	46	50	.716	.671	.668	.24	.12	2.8	3.9	4.2	3.3
August	29.495	29.700	29.317	75.1	87.9	87.6	93.0	71.9	82.4	104	66	68	69	67	80	57	55	.694	.724	.678	4.92	1.42	4.1	4.4	4.1	3.9
September	29.525	29.760	29.178	67.2	82.0	79.4	86.1	65.2	75.6	97	52	61	63	64	82	54	60	.560	.592	.601	.56	.43	4.4	5.4	4.3	4.9
October	29.515	29.760	29.170	60.9	70.6	67.2	74.1	57.3	65.7	89	43	58	60	60	90	72	80	.500	.534	.539	7.38	2.36	7.7	8.0	6.9	7.6
November	29.595	30.046	29.040	43.0	54.0	53.6	59.4	40.6	50.0	75	25	38	40	40	82	62	62	.238	.264	.265	2.81	.97	5.0	4.7	3.9	4.6
December	29.692	30.320	29.140	32.9	42.3	42.5	49.0	29.5	39.2	72	12	28	31	32	81	64	67	.158	.184	.192	.15	.09	5.2	5.8	4.7	5.6
Year	29.540	30.320	29.040	54.9	66.5	65.9	71.7	52.1	61.9	104	7	50	51	52	82	60	62	.417	.435	.440	31.21	2.36	5.2	5.5	4.9	5.2

FORT WAYNE, IND.

[ϕ=41° 05′ N.; λ=85° 10′ W.]

January	29.147	29.550	28.660	27.5	35.1	32.9	38.9	23.9	31.4	57	−4	23	24	25	80	64	71	0.128	0.136	0.139	0.72	0.55	5.3	5.3	3.6	5.3
February	29.045	29.660	28.240	27.7	34.5	32.0	37.9	23.9	30.9	55	9	23	24	25	81	67	74	.127	.138	.137	1.51	.50	5.6	7.8	6.0	7.0
March	29.248	29.676	28.530	33.8	43.9	41.3	47.5	29.7	38.6	69	12	28	28	31	79	56	67	.165	.169	.178	5.34	2.43	4.7	5.5	4.6	5.3
April	29.090	29.438	28.580	44.0	53.8	51.4	57.4	39.7	48.6	80	19	36	38	39	75	58	65	.226	.247	.250	2.54	1.00	6.3	6.9	5.7	6.4
May	29.017	29.370	28.570	52.6	62.8	60.6	66.7	47.8	57.2	92	39	46	45	46	78	56	63	.314	.314	.328	4.77	1.25	5.9	5.7	6.1	5.8
June	29.162	29.440	28.849	69.3	81.2	76.3	84.4	64.6	74.5	93	51	62	60	62	77	50	63	.562	.537	.568	2.23	1.19	3.5	4.5	4.7	4.5
July	29.104	29.382	28.900	70.2	84.6	82.2	88.2	64.9	76.6	94	52	60	58	58	70	42	46	.520	.496	.498	2.68	1.43	3.5	3.3	2.7	3.2
August	29.078	29.363	28.850	64.6	78.3	74.4	81.5	60.8	71.2	95	53	58	54	56	79	46	54	.489	.445	.457	1.61	.58	3.6	4.9	3.5	4.5
September	29.131	29.360	28.610	61.1	75.1	70.7	77.8	57.4	67.6	93	42	53	50	52	75	46	54	.416	.391	.408	2.61	1.84	4.5	4.6	3.9	4.6
October	29.148	29.418	28.830	51.9	62.6	59.2	66.4	47.9	57.2	87	32	48	50	51	86	65	75	.357	.382	.398	5.05	1.16	5.5	5.7	5.2	6.2
November	29.161	29.620	28.160	35.1	42.8	39.5	46.2	31.7	39.0	59	19	30	31	30	82	63	70	.175	.181	.178	2.70	1.43	5.9	6.1	5.5	6.1
December	29.198	29.870	28.530	19.7	25.5	24.5	29.5	16.3	22.9	50	−4	14	16	17	76	67	72	.087	.097	.101	.48	.38	6.6	6.7	7.2	6.7
Year	29.126	29.870	28.160	46.5	56.7	53.8	60.2	42.4	51.3	95	−4	40	40	41	78	57	64	.297	2.94	.303	32.24	2.43	5.1	5.6	4.9	5.5

FORT WORTH, TEX.

[ϕ=32° 43′ N.; λ=97° 15′ W.]

January	29.442	29.820	29.090	40.4	48.2	49.6	54.8	36.7	45.8	67	16	36	40	42	85	74	75	0.227	0.259	0.279	3.03	1.48	5.1	5.4	4.3	5.1
February	29.265	29.700	28.600	41.0	48.4	50.9	56.6	38.0	47.3	77	25	37	39	41	86	71	70	.229	.252	.266	2.03	1.31	3.8	4.2	3.7	4.6
March	29.330	29.750	28.880	48.9	59.7	61.3	66.6	45.6	56.1	77	27	44	47	44	84	64	58	.306	.341	.315	3.34	1.67	4.9	5.2	5.0	5.4
April	29.223	29.580	28.770	56.9	69.1	70.8	75.7	54.4	65.0	85	38	53	55	56	87	62	62	.409	.450	.468	2.06	.64	4.6	4.1	3.1	3.9
May	29.135	29.350	28.900	63.1	72.9	74.2	78.7	60.9	69.8	88	53	60	62	62	90	71	66	.524	.565	.555	3.99	.95	5.8	6.1	5.3	5.9
June	29.237	29.420	28.960	69.9	79.4	79.7	85.6	67.8	76.7	94	52	66	65	66	87	64	65	.650	.643	.648	3.72	1.13	4.9	6.3	5.9	5.8
July	29.249	29.450	29.110	74.0	85.1	86.2	90.6	72.2	81.4	97	68	70	69	69	89	60	59	.739	.711	.713	5.25	3.24	3.0	5.1	2.4	3.7
August	29.254	29.410	29.110	73.8	86.5	85.9	91.6	72.5	82.0	100	66	69	69	70	87	58	61	.722	.721	.732	5.00	2.39	4.3	4.6	3.4	4.2
September	29.251	29.540	28.950	69.1	79.1	78.6	83.6	67.5	75.6	95	59	65	65	66	87	64	67	.626	.630	.650	4.12	3.20	5.1	6.5	4.6	5.6
October	29.246	29.510	28.940	63.9	71.1	70.3	76.8	60.1	68.4	87	45	62	63	63	94	77	80	.572	.595	.599	9.44	1.72	7.4	8.3	5.8	7.4
November	29.337	29.780	28.894	47.8	57.9	56.1	63.2	43.9	53.6	80	26	43	44	44	84	62	67	.298	.314	.314	3.32	2.27	4.1	5.0	3.9	4.8
December	29.448	29.990	28.910	38.7	46.9	48.1	54.8	33.9	44.4	77	15	34	38	39	83	73	72	.206	.244	.254	.44	.32	6.3	7.0	4.4	6.6
Year	29.285	29.990	28.600	57.3	67.0	67.6	73.2	54.5	63.8	100	15	53	55	55	87	67	67	.459	.477	.483	45.74	3.24	4.9	5.6	4.3	5.2

FRESNO, CALIF.

[ϕ=36° 43′ N.; λ=119° 49′ W.]

January	29.827	30.180	29.130	40.0	54.6	56.3	59.9	36.6	48.2	66	26	35	37	37	82	53	49	0.204	0.220	0.222	0.40	0.36	1.8	2.8	2.8	2.8
February	29.743	30.030	29.190	44.0	53.3	55.3	57.6	41.4	49.5	70	33	39	39	39	84	60	56	.244	.240	.241	1.33	.41	4.4	5.1	5.6	5.7
March	29.727	30.040	29.320	44.3	57.4	60.4	62.7	42.7	52.7	74	36	40	42	41	87	58	51	.256	.267	.263	1.07	.53	3.5	5.4	4.3	4.9
April	29.654	29.890	29.443	50.1	70.1	73.2	75.8	49.0	62.4	93	40	44	42	39	81	37	30	.298	.267	.243	.06	.06	2.1	3.8	3.3	3.4
May	29.506	29.690	29.260	56.3	77.5	82.7	84.4	55.2	69.8	98	47	45	44	41	68	32	25	.310	.301	.276	.10	.07	2.3	1.7	1.6	2.1
June	29.537	29.750	29.290	59.9	84.3	90.4	91.8	59.3	75.6	102	51	41	40	33	51	22	14	.259	.254	.192	.00	.00	.1	.2	.1	.2
July	29.489	29.750	29.300	66.7	91.5	98.2	99.9	65.9	82.9	106	56	44	44	42	47	20	15	.297	.295	.268	.00	.00	.3	.0	.0	.0
August	29.541	29.770	29.330	65.7	89.9	96.8	98.2	64.1	81.2	108	54	46	45	40	50	22	15	.307	.299	.253	.00	.00	.7	.5	.7	.5
September	29.493	29.810	29.252	60.5	80.4	85.9	87.3	59.0	73.2	99	52	46	46	42	62	32	24	.317	.309	.270	.29	.24	1.4	1.7	1.0	1.5
October	29.623	29.960	29.310	51.2	69.8	73.1	75.3	48.8	62.0	87	37	38	38	34	62	33	25	.231	.230	.196	.29	.29	.9	.7	1.0	.9
November	29.697	29.950	29.180	43.1	61.1	62.3	65.7	40.4	53.0	74	30	30	33	31	59	36	32	.168	.193	.178	.04	.02	1.1	1.8	1.5	1.4
December	29.799	30.100	29.350	41.4	51.9	52.1	55.7	38.5	47.1	70	28	37	40	39	85	65	64	.223	.248	.243	.89	.45	3.5	3.9	4.5	4.6
Year	29.636	30.180	29.130	51.9	70.2	73.9	76.2	50.1	63.1	108	26	40	41	38	68	39	33	.260	.261	.237	4.50	.53	1.8	2.3	2.2	2.3

Annual meteorological summary for the year ending December 31, 1919—Continued.

FORT SMITH, ARK.

[H_b=457 ft.; h_t=79 ft.; h_r=72 ft.; h_a=94 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	6.9	E.	26	NW.	0	3	3	22	2	3	10	8	11	0	16	5	10	7	7	2	2	0	0	4	0	12	0	0
February	11.3	E.	52	SW.	2	2	3	21	1	5	6	7	11	0	12	8	8	12	11	4	1	0	1	0	0	11	3	0
March	6.9	E.	58	SW.	1	7	1	29	7	3	6	2	7	0	11	8	12	4	3	0	0	0	0	0	0	4	2	0
April	10.1	E	41	W.	1	0	5	21	6	13	6	1	8	0	9	14	7	10	8	0	0	0	1	0	0	0	7	0
May	7.3	E.	40	NW.	1	6	9	25	5	4	5	3	5	0	1	14	16	17	14	0	0	0	0	0	0	0	11	0
June	5.9	E.	42	NW.	1	1	8	29	8	2	4	5	2	1	6	11	13	12	9	0	0	0	0	0	11	0	10	0
July	5.6	E.	20	SE.	0	3	6	32	6	4	4	4	3	0	20	8	3	3	3	0	0	0	0	0	28	0	3	0
August	6.1	E.	46	SW.	2	5	7	27	5	9	8	0	1	0	16	10	5	9	8	0	0	0	0	0	24	0	7	0
September	5.9	E.	26	S.	0	7	10	24	6	9	1	2	1	0	14	8	8	5	2	0	0	0	1	0	8	0	3	0
October	7.1	E.	26	SW.	0	6	3	32	6	4	5	2	4	0	5	4	22	13	13	0	0	0	0	0	0	0	4	0
November	7.8	E.	37	W.	0	3	8	25	3	1	10	4	6	0	15	3	12	10	10	1	0	0	3	0	0	5	1	0
December	7.1	E.	29	SW.	0	6	3	21	1	2	13	4	12	0	11	6	14	4	1	1	0	0	2	2	0	18	0	0
Year	7.3	E.	58	SW.	8	49	66	308	56	59	78	42	71	1	136	99	130	106	89	8	3	0	8	6	71	50	51	0

FORT WAYNE, IND.

[H_b=856 ft.; h_t=113 ft.; h_r=107 ft.; h_a=124 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.0	SW.	36	SW.	0	0	2	3	3	5	32	12	5	0	10	12	9	5	3	7	2	0	0	7	0	26	2	0
February	9.3	W.	47	SW.	2	0	1	13	2	8	7	13	12	0	4	10	14	12	8	11	6	1	2	7	0	22	1	0
March	10.4	NE.	40	SW.	1	7	12	10	3	8	10	5	7	0	11	10	10	12	10	7	4	0	0	2	0	21	1	0
April	10.9	SW.	36	SW.	0	1	7	9	1	9	12	8	13	0	6	11	13	11	11	0	0	1	0	0	0	6	4	0
May	9.1	NE.	34	S.	0	8	14	15	2	5	6	7	5	0	11	7	13	9	8	0	0	0	0	0	2	0	4	0
June	6.5	NE.	31	SW.	0	6	13	13	3	8	9	5	3	0	11	15	4	11	6	0	0	0	0	0	6	0	9	0
July	7.4	SW.	31	W.	0	8	12	8	4	4	16	3	9	0	18	10	3	6	6	0	0	0	0	0	14	0	6	0
August	8.0	SW.	27	NW.	0	6	9	2	0	7	15	9	14	0	10	18	3	8	7	0	0	1	0	0	4	0	8	0
September	8.3	SW.	32	NW.	0	9	7	2	3	8	13	6	11	1	12	11	7	5	5	0	0	0	0	0	3	0	3	0
October	8.1	SW.	40	SW.	1	1	9	10	5	4	17	8	7	1	8	8	15	14	12	0	0	0	1	0	0	1	3	0
November	11.5	SW.	66	SW.	2	2	8	9	5	8	12	10	6	0	8	8	14	10	9	5	2	0	1	3	0	17	0	0
December	9.5	W.	32	SW.	0	5	7	6	1	10	14	13	6	0	7	6	18	5	2	17	4	0	1	20	0	30	0	0
Year	9.2	SW.	66	SW.	6	51	101	100	32	84	163	99	98	2	116	126	123	108	87	47	18	3	5	39	29	123	41	0

FORT WORTH, TEX.

[H_b=670 ft.; h_t=106 ft.; h_r=51 ft.; h_a=114 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.7	NW.	28	NW.	0	8	4	1	7	6	15	3	17	1	11	10	10	8	7	2	0	0	1	1	0	7	1	0
February	12.1	S.	42	W.	2	5	2	3	5	12	12	6	11	0	11	7	10	6	4	1	0	1	2	0	0	6	2	0
March	10.3	S.	42	S.	2	7	4	12	12	10	3	3	11	0	11	7	13	7	5	0	0	0	0	0	0	2	3	0
April	12.2	S.	46	NW.	2	2	1	7	8	17	12	7	6	0	16	8	6	9	9	0	0	1	0	0	0	0	7	0
May	9.4	NW.	37	NW.	0	8	2	9	10	9	9	3	12	0	8	12	11	12	9	0	0	1	0	0	0	0	13	0
June	7.9	SE.	38	SE.	0	3	3	8	13	14	5	3	10	1	7	12	11	8	8	0	0	0	1	0	7	0	15	0
July	7.8	S.	31	E.	0	2	1	2	15	20	17	3	1	1	18	8	5	7	6	0	0	0	1	0	22	0	5	0
August	8.6	S.	29	S.	0	2	4	4	8	24	14	5	1	0	18	5	8	8	8	0	0	0	0	0	21	0	7	0
September	8.6	SE.	29	N.	0	5	7	14	19	9	4	1	1	0	8	11	11	8	5	0	0	0	0	0	3	0	6	0
October	9.6	S.	28	SW.	0	7	6	4	18	16	5	0	6	0	2	12	17	12	10	0	0	0	5	0	0	0	10	0
November	8.8	NW.	38	W.	0	8	3	4	7	4	12	3	18	1	15	5	10	7	6	0	0	0	3	0	0	6	2	0
December	9.3	NW.	36	NW.	0	7	0	6	7	12	6	6	18	0	6	11	14	6	2	3	0	0	3	1	0	12	0	0
Year	9.5	S.	46	NW.	6	64	37	74	129	153	114	43	112	4	131	108	126	98	79	6	0	3	16	2	53	33	71	0

FRESNO, CALIF.

[H_b=330 ft.; h_t=89 ft.; h_r=82 ft.; h_a=98 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.6	* NW.	23	NW.	0	7	4	13	5	1	3	2	22	5	19	8	4	5	1	0	0	0	5	0	0	6	0	0
February	6.3	NW.	29	S.	0	7	1	14	9	2	0	1	19	3	5	14	9	9	6	1	0	0	2	0	0	0	0	0
March	6.8	NW.	30	NW.	0	8	6	13	5	1	1	3	24	1	12	10	9	7	5	0	0	0	4	0	0	0	0	0
April	8.3	NW.	34	NW.	0	4	3	2	1	1	1	4	41	3	16	13	1	1	1	0	0	0	0	0	1	0	0	0
May	9.5	NW.	36	NW.	0	1	1	2	1	2	1	7	46	1	22	7	2	3	1	0	0	0	0	0	5	0	2	0
June	10.5	NW.	27	NW.	0	2	1	1	0	1	1	6	44	4	29	1	0	0	0	0	0	0	0	0	20	0	0	0
July	8.8	NW.	25	NW.	0	1	0	1	0	1	1	4	52	2	31	0	0	0	0	0	0	0	0	0	29	0	0	0
August	7.9	NW.	25	NW.	0	4	2	0	1	2	2	4	45	2	30	1	0	0	0	0	0	0	0	0	29	0	0	0
September	7.3	NW.	29	NW.	0	1	1	4	6	1	1	4	39	3	24	4	2	3	2	0	0	0	0	0	14	0	0	0
October	5.5	NW.	27	NW.	0	2	7	5	6	1	1	4	32	4	27	3	1	2	1	0	0	0	0	0	0	0	0	0
November	5.0	NW.	29	NW.	0	3	1	19	5	0	1	3	23	5	25	3	2	2	0	0	0	0	0	0	0	2	0	0
December	5.2	NW.	25	NW.	0	2	1	9	11	3	2	5	19	10	14	7	10	7	4	0	0	0	12	0	0	6	0	0
Year	7.1	NW.	36	NW.	0	42	28	83	50	16	15	47	406	43	254	71	40	39	21	1	0	0	23	0	98	14	2	0

* By eye observations at this station

Annual meteorological summary for the year ending December 31, 1919—Continued.

GALVESTON, TEX.

[ϕ=29° 18′ N.; λ=94° 50′ W.]

Month.	Pressure.			Temperature.									Moisture.													
		Extremes.		Mean.							Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.124	30.540	29.750	47.7	51.7	51.2	55.3	46.0	50.6	66	28	44	45	46	88	79	84	0.306	0.315	0.326	6.22	2.77	5.9	6.4	5.3	6.2
February	29.987	30.320	29.450	53.1	56.9	56.6	60.9	49.8	55.4	70	37	47	46	48	82	70	76	.348	.332	.354	2.43	.66	5.5	5.4	6.4	5.7
March	30.038	30.310	29.660	58.1	62.9	61.6	65.9	55.5	60.7	76	39	54	53	55	86	74	81	.429	.423	.447	2.20	.99	5.3	4.7	5.4	5.2
April	29.970	30.290	29.620	66.5	70.3	69.2	72.5	64.4	68.4	79	53	60	60	62	80	71	78	.531	.536	.559	2.17	1.75	5.6	4.4	4.8	4.8
May	29.830	30.020	29.550	71.2	75.7	74.2	78.5	67.6	73.0	86	62	66	65	66	83	71	76	.639	.622	.640	9.96	2.76	5.9	5.5	4.5	5.4
June	29.916	30.120	29.580	76.1	79.8	78.4	81.5	73.2	77.4	86	59	71	71	71	85	76	80	.773	.772	.778	15.49	5.10	6.3	5.9	5.0	6.0
July	29.963	30.130	29.785	80.3	84.2	82.9	86.7	77.3	82.0	96	69	74	74	74	83	72	76	.851	.836	.854	3.73	1.29	4.7	5.2	5.6	5.4
August	29.974	30.090	29.850	81.2	86.3	83.4	88.2	78.5	83.4	91	71	75	74	74	83	68	75	.878	.847	.851	2.17	1.06	3.6	4.4	5.1	4.6
September	29.900	30.090	29.520	77.9	82.3	80.7	84.3	75.8	80.0	91	68	71	72	71	79	71	73	.757	.783	.764	5.29	1.85	3.3	4.1	4.1	4.0
October	29.935	30.120	29.790	76.2	79.9	77.2	81.5	73.7	77.6	85	62	72	73	72	87	80	84	.785	.815	.789	8.30	2.62	5.2	5.7	5.9	5.7
November	30.008	30.360	29.660	62.6	68.3	67.7	71.2	59.5	65.4	82	43	58	58	58	86	70	74	.512	.512	.524	1.97	1.26	5.3	5.3	4.4	5.3
December	30.132	30.590	29.610	54.7	59.7	58.0	64.3	50.0	57.2	76	30	51	51	51	87	74	80	.414	.406	.412	2.02	.74	5.9	5.7	5.3	5.8
Year	29.980	30.590	29.450	67.1	71.5	70.1	74.2	64.3	69.3	96	28	62	62	62	84	73	78	.602	.600	.608	61.95	5.10	5.2	5.2	5.2	5.3

GRAND HAVEN, MICH.

[ϕ=43° 05′ N.; λ=86° 13′ W.]

January	29.319	29.820	28.810	28.9	30.9	29.8	35.2	24.9	30.0	46	4	24	26	25	82	79	82	0.137	0.142	0.140	1.62	0.51	6.2	7.1	5.5	6.8
February	29.258	29.910	28.450	25.9	29.2	29.1	33.0	23.0	28.0	46	10	22	24	23	83	73	76	.129	.129	.127	2.94	.81	8.8	8.5	7.8	8.2
March	29.494	29.990	29.020	30.6	37.4	35.3	41.5	26.3	33.9	64	5	26	27	28	82	66	74	.146	.153	.158	5.28	2.21	6.3	5.3	5.2	5.5
April	29.313	29.730	28.779	41.6	47.1	45.4	51.1	36.3	43.7	66	20	36	37	36	80	69	72	.217	.226	.225	2.40	.68	7.1	6.3	6.6	6.9
May	29.269	29.640	28.770	50.9	58.2	56.3	62.9	44.7	53.8	88	36	43	44	44	76	63	68	.286	.294	.299	3.56	1.95	4.0	4.5	5.3	4.6
June	29.388	29.640	29.010	69.4	77.2	74.5	81.4	62.7	72.0	90	47	61	60	62	76	58	66	.549	.540	.565	1.07	.46	4.4	4.2	5.1	4.6
July	29.325	29.595	29.090	69.1	76.5	74.8	81.2	62.5	71.8	92	49	59	59	58	72	57	59	.517	.514	.497	1.39	.39	2.7	3.0	3.6	3.2
August	29.266	29.600	28.980	65.5	71.4	69.1	74.3	59.7	67.0	82	47	58	60	59	79	66	71	.501	.519	.514	1.49	.61	3.0	4.1	4.1	3.9
September	29.330	29.600	28.720	60.7	66.5	64.7	69.9	55.9	62.9	82	40	54	56	54	79	70	76	.432	.456	.429	4.85	2.98	5.2	6.0	4.7	5.6
October	29.351	29.670	28.970	49.4	56.5	54.2	60.4	44.9	52.6	83	34	45	47	47	85	71	77	.321	.342	.339	4.39	1.71	7.4	6.3	5.9	6.7
November	29.362	29.850	28.200	35.8	39.2	37.6	42.5	30.8	36.6	58	17	31	32	31	84	76	77	.182	.190	.181	2.77	1.34	8.3	8.4	6.9	8.2
December	29.407	30.014	28.780	20.1	23.5	23.5	27.0	16.0	21.5	41	1	16	18	19	83	79	81	.093	.104	.108	2.31	.75	9.2	8.9	9.0	8.7
Year	29.340	30.014	28.200	45.7	51.1	49.5	55.0	40.6	47.8	92	1	40	41	40	80	69	73	.292	.301	.298	34.07	2.98	6.0	6.0	5.8	6.1

GRAND JUNCTION, COLO.

[ϕ=39° 04′ N.; λ=108° 34′ W.]

January	25.596	25.950	25.040	8.8	26.3	25.6	32.6	6.6	19.6	45	−15	7	13	16	94	56	64	0.060	0.078	0.086	0.05	0.05	2.3	2.5	3.1	2.9
February	25.294	25.660	24.767	25.9	37.9	36.9	42.2	22.9	32.6	59	11	20	17	20	76	43	50	.106	.096	.104	.36	.18	6.2	6.0	5.7	6.2
March	25.338	25.770	24.900	34.0	49.0	49.2	54.0	31.2	42.6	70	14	24	23	23	68	36	38	.133	.121	.126	.87	.29	5.3	5.8	6.2	5.7
April	25.309	25.540	24.780	44.2	61.8	63.4	66.5	42.3	54.4	84	30	30	27	27	59	28	27	.170	.147	.147	.61	.44	5.0	5.2	6.5	5.6
May	25.255	25.480	25.014	52.9	72.3	74.3	78.4	50.4	64.4	89	39	34	30	27	49	23	21	.197	.174	.154	.54	.41	4.4	3.9	4.9	4.2
June	25.359	25.690	25.162	62.3	83.2	85.6	88.6	59.8	74.2	98	35	34	32	27	35	16	13	.194	.181	.154	.06	.06	1.1	3.4	3.1	2.7
July	25.384	25.590	25.180	68.2	86.7	88.6	93.9	66.4	80.2	100	60	51	48	45	55	28	24	.377	.347	.304	.46	.28	3.4	3.6	4.4	3.9
August	25.442	25.590	25.282	64.8	85.4	87.4	91.6	63.3	77.4	99	59	45	44	41	51	25	24	.306	.292	.272	.63	.35	2.5	2.6	3.3	2.8
September	25.378	25.700	25.130	58.3	75.4	75.7	81.1	56.2	68.6	90	41	45	44	44	63	35	36	.319	.305	.305	1.17	.59	4.0	4.1	4.2	4.2
October	25.358	25.650	24.984	40.0	55.4	54.1	60.5	36.4	48.4	73	24	28	27	28	64	35	39	.154	.152	.157	.76	.30	3.9	3.6	4.3	4.2
November	25.405	25.890	24.870	28.4	44.8	42.3	49.4	24.7	37.0	63	12	23	22	24	79	42	49	.121	.116	.126	1.89	1.29	4.5	4.8	5.1	4.9
December	25.555	25.950	24.630	7.1	22.4	20.8	29.1	2.2	15.6	48	−20	6	14	16	97	68	79	.062	.083	.090	.75	.46	3.2	3.4	3.4	3.5
Year	25.389	25.950	24.630	41.2	58.4	58.7	64.0	38.5	51.2	100	−20	29	28	28	66	36	39	.183	.174	.169	8.15	1.29	3.8	4.1	4.5	4.2

GRAND RAPIDS, MICH.

[ϕ=42° 58′ N.; λ=85° 40′ W.]

January	29.244	29.732	28.760	27.5	31.7	29.6	35.7	24.2	30.0	51	0	23	25	25	83	74	82	0.131	0.138	0.142	0.30	0.09	6.7	7.0	5.9	7.1
February	29.181	29.850	28.405	25.7	30.7	29.1	34.2	22.8	28.5	45	9	21	22	22	81	70	72	.117	.124	.121	2.16	.70	7.5	8.0	7.3	7.9
March	29.414	29.902	28.890	31.3	39.3	36.6	44.0	26.9	35.4	68	10	25	28	27	78	65	68	.144	.165	.151	4.93	1.47	5.5	5.6	4.9	5.4
April	29.236	29.640	28.700	41.6	50.9	48.0	54.3	37.0	45.6	71	20	34	35	34	75	56	62	.205	.212	.209	2.60	.59	6.5	6.7	6.3	6.4
May	29.187	29.550	28.680	52.2	63.2	59.1	66.6	45.1	56.4	94	37	42	42	42	71	51	57	.278	.278	.279	4.78	2.13	4.6	5.6	5.5	5.1
June	29.317	29.580	28.960	70.7	81.2	76.8	84.4	64.0	74.2	94	49	61	60	61	72	51	60	.552	.545	.558	1.84	.78	4.8	5.0	5.6	5.2
July	29.252	29.516	29.020	71.3	84.1	78.8	87.1	64.3	75.7	97	50	58	55	56	64	39	47	.495	.447	.456	.66	.41	3.5	3.8	4.0	4.3
August	29.191	29.534	28.940	65.1	76.3	72.4	79.5	60.2	69.8	89	50	57	53	55	76	46	56	.482	.420	.447	1.67	.92	3.7	5.2	4.0	4.7
September	29.255	29.530	28.620	60.3	71.5	66.9	74.4	56.2	65.3	92	41	52	51	52	76	52	62	.405	.396	.405	3.86	2.05	5.3	7.0	5.7	5.9
October	29.281	29.590	28.880	50.0	59.0	55.9	63.5	45.7	54.6	85	34	45	45	46	82	62	72	.319	.330	.338	3.91	1.71	7.2	6.2	6.2	7.0
November	29.284	29.746	28.145	35.0	40.0	37.6	43.2	31.2	37.2	58	19	30	30	29	81	68	72	.169	.176	.170	2.30	1.31	7.9	8.2	6.9	8.4
December	29.330	29.932	28.690	18.2	23.3	23.1	26.8	16.1	21.4	42	3	14	16	17	81	72	77	.086	.094	.100	1.19	.52	8.1	8.9	8.7	8.5
Year	29.264	29.932	28.145	45.8	54.3	51.2	57.8	41.2	49.5	97	0	38	38	39	77	59	66	.282	.277	.281	30.20	2.13	5.9	6.4	5.9	6.3

Annual meteorological summary for the year ending December 31, 1919—Continued.

GALVESTON, TEX.

[H_b=54 ft.; h_t=106 ft.; h_r=98 ft.; h_a=114 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	10.7	N.	37	N.	0	13	9	13	10	2	0	6	8	1	10	3	18	10	9	1	0	0	2	0	0	3	1	0
February	12.7	SE.	47	N.	2	7	7	7	11	6	3	9	6	0	8	8	12	12	10	0	0	0	3	0	0	0	3	0
March	11.7	SE.	39	NW.	0	8	5	15	21	5	0	0	8	0	10	10	11	6	4	0	0	0	4	0	0	0	4	0
April	12.1	SE.	36	SE.	0	8	1	4	29	15	2	0	1	0	12	9	9	6	5	0	0	0	0	0	0	0	4	0
May	10.3	SE.	37	SE.	0	6	7	5	14	15	1	6	6	2	7	14	10	14	13	0	0	2	0	0	0	0	15	0
June	10.9	SE.	38	S.	0	0	7	15	20	12	1	0	5	0	7	10	13	11	11	0	0	0	0	0	0	0	9	0
July	7.1	S.	40	NE.	1	3	2	3	14	19	5	9	4	3	10	11	10	10	8	0	0	0	0	0	4	0	12	0
August	8.8	S.	41	SE.	1	3	0	1	9	21	13	11	4	0	11	15	5	10	9	0	0	0	0	0	4	0	11	0
September	12.4	SE.	53	E.	1	9	11	8	25	4	1	0	2	0	15	11	4	7	6	0	0	0	0	0	3	0	3	0
October	11.4	SE.	31	SE.	0	5	4	3	27	21	0	0	2	0	9	11	11	10	10	0	0	0	0	0	0	0	4	0
November	10.5	N.	38	N.	0	15	11	11	6	4	2	3	6	2	8	12	10	10	8	0	0	0	2	0	0	0	4	0
December	11.7	N.	40	N.	1	14	6	10	5	10	4	5	8	0	9	9	13	9	7	0	0	0	0	0	0	2	1	0
Year	10.9	SE.	53	E.	6	91	70	95	191	134	32	49	60	8	116	123	126	115	100	1	0	2	11	0	11	5	71	0

GRAND HAVEN, MICH.

[H_b=632 ft.; h_t=54 ft.; h_r=49 ft.; h_a=89 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	14.2	W.	42	NW.	3	1	1	3	11	7	13	16	10	0	6	8	17	13	7	11	10	0	2	5	0	20	0	0
February	11.4	W.	38	W.	0	4	4	13	6	4	3	14	8	0	1	8	19	17	13	19	14	0	0	11	0	26	2	0
March	13.7	N.	46	S.	1	13	4	10	7	5	8	8	6	1	11	9	11	12	9	10	5	0	0	4	0	24	1	0
April	13.4	E.	43	N.	1	9	1	13	5	10	8	7	7	0	5	12	13	17	9	4	2	0	2	0	0	5	3	0
May	9.8	W.	36	NE.	0	9	12	11	5	4	0	11	10	0	16	7	8	9	7	0	0	0	1	0	0	0	3	1
June	7.9	E.	44	S.	1	2	4	16	8	6	7	10	6	1	11	14	5	5	5	0	0	0	0	0	1	0	11	0
July	9.5	W.	37	W.	0	7	5	8	7	12	7	6	10	0	20	7	4	7	7	0	0	0	0	0	2	0	8	0
August	10.0	W.	32	W.	0	9	1	3	4	7	9	17	12	0	17	8	6	11	8	0	0	0	1	0	0	0	8	0
September	10.9	S.	33	W.	0	8	2	5	7	13	5	9	11	0	8	10	12	10	9	0	0	0	0	0	0	0	2	3
October	10.5	S.	49	NW.	2	11	5	7	11	11	5	8	4	0	7	8	16	16	14	0	0	0	2	0	0	0	5	1
November	15.5	W.	56	SW.	7	8	7	5	14	5	8	8	5	0	1	6	23	11	9	10	5	0	0	3	0	15	0	0
December	13.6	W.	47	W.	3	11	6	5	7	2	9	14	8	0	2	3	26	15	14	21	15	0	0	21	0	31	0	0
Year	11.7	W.	56	SW.	18	92	52	99	92	86	82	128	97	2	105	100	160	143	111	75	51	0	8	44	3	121	43	5

GRAND JUNCTION, COLO.

[H_b=4,602 ft.; h_t=60 ft.; h_r=52 ft.; h_a=68 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	3.5	SE.	17	SE.	0	6	1	4	14	6	3	8	19	1	19	9	3	1	1	3	1	0	1	16	0	31	0	0
February	5.6	SE.	32	S.	0	10	1	6	8	6	2	5	18	0	7	8	13	7	3	13	6	0	0	0	0	27	0	0
March	6.0	SE.	40	SW.	1	11	1	7	13	5	3	6	15	1	9	11	11	9	7	6	4	0	0	0	0	16	2	0
April	6.8	SE.	38	SE.	0	11	1	6	13	7	3	5	14	0	10	10	10	5	3	2	1	0	0	0	0	1	4	0
May	6.2	SE.	31	NW.	0	8	4	5	24	2	2	6	11	0	14	12	5	6	3	0	0	0	0	0	0	0	3	0
June	7.3	SE.	30	SW.	0	6	5	10	26	3	5	1	4	0	21	7	2	1	1	0	0	0	0	0	17	0	9	0
July	5.9	SE.	33	SE.	0	5	8	13	27	3	0	3	3	0	14	13	4	7	4	0	0	0	0	0	27	0	18	0
August	5.9	SE.	29	NE.	0	11	4	8	23	0	2	5	6	3	19	9	3	7	3	0	0	0	0	0	21	0	9	0
September	6.0	SE.	30	SW.	0	8	1	4	22	6	4	2	12	1	13	10	7	7	5	0	0	0	0	0	1	0	8	0
October	5.5	SE.	29	S.	0	10	0	3	13	7	6	4	14	5	14	10	7	7	6	3	2	0	0	0	0	7	1	0
November	4.4	SE.	29	S.	0	3	3	4	14	6	7	12	8	3	12	9	9	6	4	7	4	0	0	4	0	28	0	0
December	3.2	NW.	28	NW.	0	14	6	4	4	0	3	3	25	3	19	4	8	4	3	3	3	0	2	22	0	31	1	0
Year	5.5	SE.	40	SW.	1	103	35	74	201	51	40	60	149	17	171	112	82	67	43	37	21	0	3	42	66	141	55	0

GRAND RAPIDS, MICH.

[H_b=707 ft.; h_t=70 ft.; h_r=70 ft.; h_a=87 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.2	SW.	25	NW.	0	0	2	1	12	2	19	10	9	0	6	8	17	10	4	12	7	0	2	7	0	24	0	0
February	7.8	SE.	27	W.	0	2	5	7	14	3	3	9	13	0	4	5	19	13	7	18	10	0	1	9	0	25	0	0
March	7.5	NW.	26	NW.	0	1	8	9	12	3	9	7	13	0	9	11	11	11	10	10	7	0	0	4	0	25	0	0
April	7.7	NW.	27	NW.	0	2	3	9	10	9	5	11	11	0	8	8	14	15	11	4	2	1	1	0	0	5	2	0
May	6.3	E.	24	SE.	0	0	13	12	16	0	2	4	13	2	11	10	10	11	9	0	0	0	0	0	2	0	4	0
June	5.1	SE.	19	SE.	0	0	2	16	20	1	6	8	7	0	9	17	4	9	8	0	0	0	0	0	6	0	10	0
July	5.2	NW.	23	NW.	0	2	10	8	9	6	10	4	12	1	15	9	7	8	5	0	0	0	0	0	12	0	6	0
August	5.3	NW.	24	NW.	0	2	7	1	5	10	11	13	12	1	10	15	6	11	5	0	0	0	0	0	0	0	5	0
September	5.3	NW.	23	NW.	0	0	1	6	7	14	9	9	13	1	8	11	11	11	9	0	0	1	3	0	3	0	5	0
October	5.5	SE.	31	W.	0	3	8	4	16	7	10	8	5	1	5	10	16	16	12	0	0	0	0	0	0	0	7	0
November	7.9	W.	30	SW.	0	0	6	5	13	9	5	12	10	0	0	9	21	10	9	11	3	0	0	4	0	15	1	0
December	6.5	NW.	24	W.	0	3	4	7	6	10	7	9	14	2	2	4	25	11	9	18	10	0	2	24	0	31	0	0
Year	6.4	NW.	31	W.	0	15	69	85	140	81	96	104	132	8	87	117	161	136	98	73	39	2	9	48	23	125	40	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

GREEN BAY, WIS.

[ϕ=44° 31′ N.; λ=88° 00′ W.]

Month.	Pressure.			Temperature.									Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.309	29.796	28.930	21.2	25.6	25.3	30.1	17.4	23.8	44	−18	17	18	18	82	70	74	0.102	0.105	0.109	0.67	0.36	6.7	6.2	5.2	6.5
February	29.284	29.950	28.480	19.2	25.6	25.4	29.6	16.3	23.0	40	− 6	15	19	19	80	70	76	.092	.106	.111	1.51	.64	6.9	6.2	6.3	6.9
March	29.508	30.120	28.930	27.8	35.4	34.2	40.2	24.6	32.4	58	1	22	24	26	79	63	70	.130	.138	.141	1.26	.59	5.7	6.3	6.4	6.5
April	29.315	29.780	28.650	39.3	47.7	45.7	51.7	35.3	43.5	69	19	33	34	34	78	62	66	.193	.205	.207	3.20	1.16	7.0	7.0	6.8	6.6
May	29.299	29.680	28.880	49.9	59.9	58.5	63.5	45.7	54.6	89	36	42	43	43	76	56	60	.278	.290	.297	4.53	1.30	3.9	5.1	5.2	5.2
June	29.397	29.607	29.030	67.5	76.3	73.0	80.1	62.4	71.2	90	51	61	62	62	79	62	70	.540	.563	.564	.83	.17	5.9	5.9	7.1	6.2
July	29.322	29.590	29.050	67.5	78.0	76.9	81.8	62.2	72.0	94	52	60	60	60	77	56	57	.520	.532	.523	5.39	2.52	4.1	5.2	4.5	4.7
August	29.265	29.650	28.940	61.9	73.0	71.0	76.6	58.4	67.5	86	49	56	55	57	81	56	63	.457	.450	.479	1.60	.65	3.9	5.5	4.9	5.1
September	29.313	29.660	28.756	57.1	67.0	64.9	71.1	54.2	62.6	90	40	52	52	53	82	61	67	.393	.403	.420	2.97	1.04	5.8	6.8	6.0	6.6
October	29.362	29.700	28.880	44.5	52.4	49.4	56.4	40.3	48.4	75	24	40	39	41	83	62	74	.259	.258	.281	2.37	1.23	7.0	6.2	6.2	6.7
November	29.359	29.910	28.090	29.5	34.1	32.1	38.0	25.2	31.6	58	0	25	25	24	82	69	71	.143	.148	.139	2.26	1.00	7.3	7.0	6.2	6.9
December	29.425	30.020	28.750	10.1	15.2	14.6	18.8	5.1	12.0	40	−15	6	7	8	80	68	74	.063	.067	.068	.36	.15	6.9	7.0	7.3	7.2
Year	29.346	30.120	28.090	41.3	49.2	47.6	53.2	37.3	45.2	94	−18	36	36	37	80	63	68	.264	.272	.278	26.95	2.52	5.9	6.2	6.0	6.3

GREENVILLE, S. C.

[ϕ=34° 50′ N.; λ=82° 24′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.996	29.430	28.540	38.2	48.7	46.9	54.9	35.3	45.1	68	12	30	33	33	72	57	59	0.177	0.203	0.201	6.53	1.79	4.5	4.2	3.1	4.0
February	28.896	29.330	28.340	37.3	46.1	44.7	52.1	35.1	43.6	64	22	27	32	34	68	59	67	.158	.186	.201	6.48	1.83	4.5	4.9	5.1	4.9
March	29.018	29.410	28.510	47.9	57.6	55.3	63.0	44.2	53.6	74	34	36	45	42	67	65	63	.227	.310	.279	3.58	1.63	4.8	4.8	3.8	4.6
April	28.940	29.270	28.600	53.5	66.0	65.0	71.5	50.0	60.8	85	32	42	46	46	66	51	52	.287	.334	.329	1.89	.76	3.9	3.5	3.5	3.7
May	28.838	29.070	28.420	62.4	71.6	70.1	76.4	59.0	67.7	87	47	59	63	61	88	76	75	.504	.535	.547	6.61	2.36	6.2	6.3	6.2	6.2
June	28.991	29.310	28.680	71.0	80.7	76.1	84.0	66.6	75.3	93	59	64	62	64	80	56	68	.606	.572	.600	3.99	1.14	4.4	5.8	7.7	6.2
July	28.955	29.210	28.750	73.0	81.2	79.1	85.3	69.6	77.4	95	60	67	67	68	82	64	70	.669	.665	.693	4.84	1.86	5.9	5.5	7.7	6.1
August	28.919	29.150	28.740	71.3	81.3	75.6	84.7	67.8	76.2	93	61	65	64	67	82	58	75	.626	.605	.661	4.34	1.44	5.9	5.6	7.3	6.3
September	28.972	29.232	28.680	65.7	78.4	75.2	83.0	62.4	72.7	92	53	57	57	56	74	49	54	.472	.482	.472	.07	.04	2.1	2.5	2.9	2.6
October	29.030	29.300	28.860	63.8	72.5	69.6	76.9	61.5	69.2	90	48	61	62	62	90	70	78	.538	.556	.565	5.50	3.70	6.6	6.5	5.8	6.4
November	29.006	29.530	28.600	48.1	57.7	53.9	62.2	44.7	53.4	77	30	39	39	40	72	54	63	.259	.266	.273	3.09	1.78	5.1	5.0	4.0	4.8
December	29.020	29.550	28.580	37.1	46.8	44.6	52.9	34.7	43.8	69	21	31	31	33	76	58	66	.189	.195	.208	6.70	3.48	3.8	4.0	3.4	4.3
Year	28.965	29.550	28.340	55.8	65.7	63.0	70.6	52.6	61.6	95	12	48	50	50	76	60	66	.393	.413	.419	53.62	3.70	4.8	4.9	5.0	5.0

GROESBECK, TEX.

[ϕ=31° 30′ N.; λ=96° 28′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.672	30.080	29.300	40.1	49.9	49.0	54.0	38.0	46.0	66	21	38	42	41	92	74	75	0.243	0.281	0.275	2.84	1.26	5.8	5.9	5.1	5.6
February	29.507	29.950	28.850	41.9	52.5	51.7	57.6	39.5	48.6	73	28	37	40	40	84	65	68	.235	.260	.265	2.41	.67	3.9	5.6	5.4	5.3
March	29.568	29.940	29.170	49.2	62.3	63.1	67.7	46.2	57.0	79	28	46	49	48	88	64	60	.327	.363	.350	3.04	1.23	4.8	5.5	5.3	5.5
April	29.480	29.820	29.050	58.1	72.2	71.1	76.5	55.7	66.1	83	42	55	54	54	90	55	57	.418	.434	.434	1.81	.69	5.6	4.0	3.1	4.1
May	29.364	29.580	29.070	64.4	74.8	73.7	78.7	61.5	70.1	86	52	61	61	62	88	64	69	.539	.545	.561	5.34	1.65	5.6	6.3	6.0	5.7
June	29.472	29.690	29.140	70.1	77.3	78.8	83.5	67.3	75.4	90	52	67	67	68	90	66	72	.671	.636	.711	8.12	2.46	5.5	6.3	4.8	5.5
July	29.498	29.680	29.309	74.6	86.5	84.8	89.3	71.9	80.6	95	69	72	71	72	91	60	66	.781	.751	.775	1.50	.64	3.4	5.5	3.7	4.9
August	29.491	29.630	29.350	74.3	87.4	83.7	90.6	72.3	81.4	97	67	72	71	71	93	59	67	.786	.754	.757	4.84	2.24	4.6	4.8	4.1	4.9
September	29.473	29.680	29.239	69.4	81.2	77.1	83.7	67.3	75.5	92	58	67	67	68	92	62	76	.668	.664	.704	4.70	2.53	5.7	5.8	4.9	5.9
October	29.477	29.700	29.230	66.2	73.9	71.5	78.2	63.9	71.0	89	50	65	66	67	97	78	87	.640	.650	.677	12.71	5.51	6.5	7.6	5.9	7.7
November	29.577	30.010	29.110	48.8	61.8	57.6	66.7	46.1	56.4	82	30	46	48	49	91	62	75	.333	.359	.374	3.67	1.52	4.9	5.0	4.3	5.1
December	29.698	30.270	29.100	39.9	49.1	48.1	56.5	36.9	46.7	76	18	37	39	40	90	71	74	.241	.262	.271	1.68	.76	6.0	7.4	5.7	7.0
Year	29.523	30.270	28.850	58.1	69.1	67.5	73.6	55.6	64.6	97	18	55	56	57	90	65	70	.490	.497	.513	52.66	5.51	5.2	5.8	4.9	5.6

HANNIBAL, MO.

[ϕ=39° 41′ N.; λ=91° 20′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.528	29.890	29.210	26.4	35.9	....	41.6	23.0	32.3	61	−12	22	24	....	81	64	....	0.126	0.141	.....	0.02	0.02	3.2	3.8	....	3.5
February	29.381	29.910	28.366	28.6	35.0	....	41.7	24.9	33.3	60	10	24	24	....	80	63	....	.133	.135	.....	2.22	.76	5.8	5.1	....	5.5
March	29.572	30.021	29.040	37.3	48.0	....	54.5	34.4	44.4	73	10	31	32	....	78	56	....	.188	.194	.....	2.58	1.63	5.5	6.2	....	5.5
April	29.397	29.860	28.950	47.1	58.6	....	63.5	44.0	53.8	81	28	40	41	....	76	56	....	.253	.285	.....	2.44	.70	6.0	6.2	....	6.0
May	29.336	29.810	29.050	55.2	65.5	....	69.5	51.6	60.6	87	42	50	52	....	82	63	....	.366	.404	.....	6.36	2.01	6.8	6.2	....	6.4
June	29.434	29.710	29.100	71.4	81.2	....	85.3	66.8	76.0	94	57	66	65	....	82	59	....	.639	.622	.....	3.41	1.54	4.5	5.5	....	4.2
July	29.429	29.650	29.190	73.2	86.8	....	91.0	67.8	79.4	98	59	66	64	....	79	49	....	.645	.606	.....	3.73	1.54	1.9	2.0	....	1.9
August	29.411	29.670	29.220	67.8	79.7	....	84.1	64.1	74.1	99	54	62	63	....	80	57	....	.555	.580	.....	3.83	.94	4.2	5.3	....	4.1
September	29.452	29.710	28.840	62.0	78.0	....	81.8	59.5	70.6	95	49	57	57	....	83	51	....	.475	.491	.....	3.28	1.48	3.9	3.3	....	3.2
October	29.463	29.740	29.030	50.8	61.6	....	67.3	47.4	57.4	87	30	48	50	....	89	67	....	.353	.376	.....	4.87	1.31	5.1	5.9	....	6.2
November	29.515	29.950	28.690	34.9	44.0	....	49.8	32.4	41.1	62	15	29	30	....	79	58	....	.168	.171	.....	2.63	1.08	6.1	5.0	....	5.5
December	29.599	30.330	29.010	21.0	27.5	....	32.5	17.4	25.0	54	− 6	17	19	....	82	70	....	.098	.108	.....	.36	.24	5.9	6.9	....	6.6
Year	29.460	30.330	28.366	48.0	58.5	....	63.6	44.4	54.0	99	−12	43	43	....	81	59	....	.334	.343	.....	35.73	2.01	4.9	5.1	....	4.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

GREEN BAY, WIS.

[H_b=617 ft.; h_t=109 ft.; h_r=101 ft.; h_a=144 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.01 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	11.7	SW.	40	NW.	1	8	5	1	1	13	17	11	6	0	11	6	14	7	4	8	6	0	4	14	0	30	0	0
February	13.0	W.	38	NE.	0	6	12	3	5	4	6	14	6	0	5	8	15	9	7	8	8	0	1	13	0	26	0	0
March	12.4	S.	36	NE.	0	10	10	5	8	13	8	6	2	0	8	9	14	8	5	6	2	0	0	6	0	25	0	0
April	13.0	NE.	60	NE.	3	9	13	3	9	7	12	3	4	0	7	7	16	14	10	3	3	1	2	0	0	7	2	0
May	10.8	NE.	42	NE.	2	11	15	5	10	12	4	2	2	1	15	6	10	10	10	0	0	0	0	0	0	0	3	0
June	9.4	SE.	39	NW.	0	5	15	3	14	13	6	1	3	0	6	13	11	11	9	0	0	0	0	0	1	0	10	0
July	9.9	S.	49	NW.	2	10	9	3	10	11	14	2	3	0	16	8	7	9	8	0	0	0	0	0	4	0	7	0
August	9.8	SW.	38	S.	0	4	6	0	4	14	15	10	9	0	12	13	6	10	8	0	0	0	0	0	0	0	4	0
September	10.5	S.	32	S.	0	6	7	1	8	18	10	7	3	0	5	11	14	9	7	0	0	0	1	0	1	0	2	0
October	11.4	S.	42	W.	1	8	6	2	7	11	14	9	5	0	8	9	14	12	10	0	0	0	1	0	0	4	4	0
November	13.9	SW.	56	SW.	6	11	5	8	2	8	11	11	4	0	8	5	17	13	7	9	8	0	1	5	0	22	0	0
December	11.7	SW.	38	NW.	0	12	1	0	3	7	20	11	8	0	6	8	17	7	3	9	7	0	0	29	0	31	0	0
Year	11.5	S.	60	NE.	15	100	104	34	81	131	137	87	55	1	107	103	155	119	88	43	34	1	10	67	6	145	32	0

GREENVILLE, S. C.

[H_b=1,039 ft.; h_t=113 ft.; h_r=102 ft.; h_a=122 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.01 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.9	NE.	38	NW.	0	9	10	3	2	4	8	8	6	12	16	6	9	8	8	1	0	0	0	2	0	9	0	0
February	8.8	NE.	39	W.	0	6	20	9	3	1	6	8	3	0	13	4	11	11	10	2	2	0	0	0	0	9	2	0
March	9.6	N.	35	W.	0	18	12	8	5	4	7	5	2	1	14	8	9	10	9	0	0	0	3	0	0	0	0	0
April	8.4	SW.	33	W.	0	5	12	3	2	13	13	7	5	0	15	9	6	5	5	0	0	0	1	0	0	1	1	0
May	8.0	SW.	36	NW.	0	1	14	9	9	8	14	6	1	0	5	14	12	13	11	0	0	0	1	0	0	0	10	0
June	6.9	NE.	33	N.	0	3	24	18	5	3	1	1	5	0	3	18	9	12	10	0	0	1	0	0	2	0	9	0
July	6.3	NE.	31	SW.	0	3	14	8	10	6	8	10	3	0	5	15	11	12	8	0	0	0	0	0	10	0	10	0
August	6.6	W.	46	N.	1	4	9	6	4	3	16	15	4	1	4	18	9	13	10	0	0	0	0	0	4	0	11	0
September	6.8	NE.	35	N.	0	6	14	11	9	2	8	5	5	0	19	10	1	2	1	0	0	0	0	0	3	0	2	0
October	7.5	NE.	27	NE.	0	2	15	6	2	5	14	12	4	2	6	11	14	10	7	0	0	0	3	0	1	0	4	0
November	7.8	NE.	37	W.	0	7	24	7	3	1	7	5	5	1	12	7	11	7	4	0	0	0	2	0	0	1	1	0
December	8.7	SW.	33	NE.	0	5	16	7	4	4	15	7	4	0	17	4	10	8	7	0	0	0	3	0	0	15	1	0
Year	7.7	NE.	46	N.	1	69	184	95	58	54	117	89	47	17	129	124	112	111	90	3	2	1	13	2	20	35	51	0

GROESBECK, TEX.

[H_b=461 ft.; h_t=11 ft.; h_r=3 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.01 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.1	N.	35	SW.	0	17	6	2	5	14	6	2	9	1	9	10	12	8	8	0	0	0	1	3	0	11	1	0
February	12.3	N.	40	NW.	2	12	3	5	8	10	5	4	8	1	11	5	12	10	7	0	0	0	3	0	0	5	4	0
March	11.4	S.	42	S.	1	10	6	10	9	22	0	3	2	0	10	8	13	7	6	0	0	0	0	0	0	3	7	0
April	12.4	S.	44	SW.	1	5	2	4	12	22	7	4	2	2	13	10	7	6	6	0	0	0	1	0	0	0	4	0
May	9.1	S.	42	NW.	1	16	6	5	4	21	3	3	4	0	9	7	15	13	10	0	0	0	0	0	0	0	10	0
June	7.9	SE.	37	E.	0	5	4	14	18	14	1	1	2	1	10	11	9	16	15	0	0	0	1	0	1	0	13	0
July	6.3	S.	36	NE.	0	1	2	6	18	17	13	3	2	0	10	15	6	8	6	0	0	0	1	0	16	0	8	0
August	7.9	SW.	36	NW.	0	0	4	3	12	21	21	0	0	1	12	11	8	8	8	0	0	0	0	0	21	0	10	0
September	8.4	SE.	29	E.	0	3	12	10	18	15	0	1	0	1	6	15	9	9	6	0	0	0	0	0	3	0	4	0
October	9.3	S.	31	SW.	0	7	11	7	11	21	4	1	0	0	3	8	20	14	10	0	0	0	6	0	0	0	8	0
November	8.5	N.	36	NW.	0	20	8	6	7	4	9	2	4	0	11	7	12	8	6	0	0	1	2	0	0	3	4	0
December	10.2	N.	39	N.	0	21	9	4	2	7	11	5	3	0	6	6	19	8	6	2	0	0	4	1	0	10	2	0
Year	9.5	S.	44	SW.	5	117	73	76	124	188	80	29	36	7	110	113	142	115	94	2	0	1	19	4	41	32	75	0

HANNIBAL, MO.

[H_b=534 ft.; h_t=74 ft.; h_r=68 ft.; h_a=109 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.01 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.3	SW.	28	SW.	0	0	0	1	2	1	18	4	5	0	18	7	6	1	0	4	1	0	1	7	0	27	0	0
February	10.0	NW.	37	W.	0	2	3	4	3	4	3	4	5	0	12	3	13	9	7	7	5	0	0	6	0	25	0	0
March	9.6	NW.	50	SW.	1	4	5	4	0	5	4	4	5	0	12	6	13	8	5	4	2	0	0	1	0	14	3	0
April	10.7	SW.	40	SW.	1	0	4	3	2	2	14	3	2	0	8	10	12	12	6	1	0	1	1	0	0	2	5	0
May	8.2	NE.	32	SW.	0	3	8	6	2	0	6	1	5	0	6	11	14	14	11	0	0	2	0	0	0	0	8	0
June	6.6	SW.	43	NE.	1	1	2	4	2	7	12	0	1	1	12	15	3	12	10	0	0	1	0	0	7	0	9	0
July	7.0	SW.	37	W.	0	0	2	2	1	3	18	1	2	2	24	6	1	7	6	0	0	1	0	0	19	0	7	0
August	7.1	SW.	34	NE.	0	3	2	3	1	1	18	1	2	0	15	10	6	13	10	0	0	0	1	0	6	0	11	0
September	8.0	SW.	39	SW.	0	3	2	2	0	2	12	2	4	3	18	6	6	5	5	0	0	0	0	0	4	0	4	0
October	7.4	SW.	27	SW.	0	1	4	5	1	1	12	2	5	0	8	7	16	11	10	0	0	0	5	0	0	2	3	0
November	9.9	SW.	48	SW.	2	3	1	6	1	1	10	2	4	2	11	8	11	8	7	3	2	0	0	2	0	15	1	0
December	8.9	SW.	25	SW.	0	2	5	2	0	4	10	2	6	0	6	11	14	7	3	6	4	0	1	14	0	31	0	0
Year	8.5	SW.	50	SW.	5	22	38	42	15	31	137	26	46	8	150	100	115	107	80	25	14	5	9	30	36	116	51	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

HARRISBURG, PA.

[ϕ=40° 16′ N.; λ=76° 52′ W.]

Month.	Pressure.			Temperature.									Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.675	30.330	29.250	29.2	36.3	35.2	41.8	25.9	33.8	59	5	22	24	24	76	62	64	0.128	0.137	0.139	2.75	1.08	5.2	5.6	3.3	5.3
February	29.611	30.120	28.920	29.9	35.7	36.3	40.0	28.2	34.1	55	20	21	20	23	68	54	59	.118	.117	.131	2.06	.40	4.1	5.4	5.2	5.1
March	29.745	30.359	29.090	37.9	45.2	44.8	52.0	34.0	43.0	69	23	27	28	29	65	52	54	.154	.158	.164	3.28	1.29	4.0	4.2	3.5	4.7
April	29.631	29.962	29.300	46.4	54.8	53.5	60.3	41.6	51.0	81	23	34	35	36	64	49	53	.215	.217	.222	1.93	.90	5.8	6.6	5.6	6.5
May	29.561	29.970	29.190	57.9	66.4	64.5	71.4	52.2	61.8	92	43	48	47	49	72	54	60	.347	.330	.362	5.82	2.42	6.3	6.9	7.2	6.8
June	29.730	30.070	29.420	68.1	76.4	74.3	82.1	63.1	72.6	96	52	59	60	61	75	59	65	.521	.537	.544	3.90	1.17	5.2	5.8	5.9	5.8
July	29.621	29.926	29.300	71.0	79.2	77.2	84.5	65.9	75.2	101	54	61	61	63	73	56	64	.555	.549	.589	6.83	1.77	5.4	6.0	5.0	5.5
August	29.573	29.879	29.330	66.9	75.7	72.3	79.5	62.4	71.0	89	54	59	58	60	76	57	65	.509	.506	.523	4.07	1.27	4.3	5.7	4.8	5.2
September	29.659	30.020	29.190	61.5	71.9	69.0	76.6	57.3	67.0	92	42	54	54	57	77	54	67	.429	.430	.488	1.63	.94	4.2	5.0	3.6	4.4
October	29.749	30.077	29.360	54.0	61.7	59.3	66.3	50.4	58.4	88	38	49	50	51	84	68	76	.367	.387	.395	2.70	.73	6.1	6.9	6.2	7.1
November	29.721	30.190	29.130	39.7	46.0	44.5	51.1	36.9	44.0	67	28	32	32	35	73	58	69	.190	.192	.216	3.56	.87	5.1	5.6	4.4	5.6
December	29.753	30.380	29.090	24.5	28.9	28.7	34.0	21.0	27.5	54	2	18	19	21	76	66	73	.106	.112	.123	2.29	.68	7.4	6.2	5.7	6.8
Year	29.669	30.380	28.920	48.9	56.5	55.0	61.6	44.9	53.3	101	2	40	41	42	73	57	64	.303	.306	.325	40.82	2.42	5.3	5.8	5.0	5.7

HARTFORD, CONN.

[ϕ=41° 46′ N.; λ=72° 40′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.831	30.510	29.150	29.2	33.9	33.1	39.7	24.6	32.2	56	2	22	23	24	75	64	67	0.127	0.130	0.137	2.95	1.23	7.2	6.5	4.4	6.6
February	29.777	30.260	29.080	26.5	33.9	32.6	39.0	24.0	31.5	48	14	18	18	20	70	52	59	.102	.104	.113	3.39	1.04	5.4	5.5	3.7	5.1
March	29.920	30.730	29.070	35.7	43.2	40.7	49.3	31.5	40.4	67	15	27	29	28	70	60	63	.151	.171	.164	6.10	1.92	7.6	6.9	5.8	6.7
April	29.828	30.240	29.490	43.0	50.7	48.0	56.2	38.6	47.4	72	18	33	33	35	68	52	64	.197	.197	.215	2.79	1.63	6.2	6.8	5.8	6.6
May	29.790	30.280	29.550	56.4	65.7	60.5	70.0	49.8	59.9	90	39	47	47	48	72	55	67	.330	.334	.346	5.70	2.61	5.6	5.8	6.3	5.8
June	29.956	30.343	29.550	65.1	75.5	69.8	80.0	58.1	69.0	98	46	56	57	58	74	55	67	.472	.489	.492	1.54	.94	4.6	4.5	5.1	4.5
July	29.818	30.220	29.430	70.3	78.6	74.3	82.3	64.9	73.6	99	55	63	60	63	77	56	70	.582	.538	.587	2.44	.64	5.6	6.0	5.6	6.0
August	29.774	30.121	29.480	65.0	72.7	68.6	76.5	59.4	68.0	91	51	58	58	60	80	62	75	.495	.495	.523	3.05	1.01	5.5	6.3	5.3	6.0
September	29.856	30.240	29.370	59.6	68.1	63.6	72.1	54.7	63.4	90	41	55	54	57	84	64	79	.442	.439	.478	4.30	2.31	5.8	6.0	5.8	5.8
October	29.956	30.450	29.400	51.2	59.6	55.9	64.1	45.9	55.0	85	32	46	47	48	82	65	76	.333	.350	.360	2.95	.75	7.0	6.8	6.3	7.1
November	29.907	30.373	29.240	38.9	45.8	42.3	50.1	33.9	42.0	71	22	32	32	33	75	58	69	.196	.189	.200	4.69	1.49	6.7	7.1	5.4	6.7
December	29.936	30.570	29.220	23.4	28.5	27.5	34.2	18.6	26.4	56	−6	18	18	19	78	64	68	.109	.109	.116	2.06	.85	5.8	7.1	4.4	6.4
Year	29.862	30.730	29.070	47.0	54.7	51.4	59.5	42.0	50.7	99	−6	40	40	41	75	59	69	.295	.295	.311	41.96	2.61	6.1	6.3	5.3	6.1

HATTERAS, N. C.

[ϕ=35° 15′ N.; λ=75° 40′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.090	30.554	29.560	45.5	50.6	47.1	54.1	41.5	47.8	69	28	40	42	42	82	73	84	0.267	0.284	0.288	4.84	1.44	4.2	5.5	2.8	5.2
February	30.002	30.447	29.430	43.7	48.7	45.3	51.8	39.7	45.8	63	29	38	39	39	80	69	79	.237	.245	.249	2.39	.80	4.8	4.2	3.4	4.9
March	30.096	30.560	29.503	51.5	55.2	51.7	59.1	46.0	52.6	71	37	45	47	47	80	74	84	.313	.334	.329	2.94	.70	5.6	6.3	5.7	5.8
April	30.050	30.348	29.730	58.0	62.3	57.5	65.3	51.5	58.4	77	34	49	48	50	73	62	78	.368	.364	.383	1.80	.68	4.6	4.1	3.5	4.8
May	29.969	30.220	29.640	69.6	72.7	67.5	74.4	63.4	69.0	86	54	63	63	64	81	73	87	.591	.589	.597	2.12	.90	4.7	4.5	4.0	4.4
June	30.085	30.361	29.651	74.0	76.2	71.3	77.5	67.7	72.8	86	62	66	65	66	77	71	83	.647	.636	.642	9.76	6.31	6.1	5.0	5.5	5.6
July	30.044	30.306	29.790	78.1	80.5	75.8	82.7	71.9	77.3	88	62	72	73	72	82	75	88	.793	.806	.791	2.13	.69	4.9	4.7	6.3	5.0
August	29.971	30.210	29.740	78.2	81.3	77.8	83.8	73.3	78.6	89	68	70	71	71	77	72	82	.742	.769	.769	1.27	.79	5.6	4.8	3.7	5.3
September	30.035	30.227	29.700	74.9	78.6	72.2	79.8	68.2	74.0	85	61	66	65	66	76	66	80	.652	.634	.638	1.99	1.02	4.2	3.9	3.2	4.3
October	30.112	30.375	29.880	72.7	76.6	71.5	78.2	67.7	73.0	89	60	68	68	67	85	75	86	.689	.686	.674	2.69	1.30	4.5	4.1	4.2	4.9
November	30.098	30.620	29.630	56.3	60.7	55.3	62.5	50.8	56.6	78	37	50	50	49	78	69	79	.380	.385	.362	.25	.13	4.5	5.6	3.9	6.0
December	30.124	30.660	29.690	45.0	49.9	46.0	52.6	39.1	45.8	69	26	40	42	41	85	75	84	.276	.291	.281	.98	.27	5.8	6.5	5.6	7.1
Year	30.056	30.660	29.430	62.8	66.1	61.5	68.5	56.7	62.6	89	26	56	56	56	80	71	83	.496	.502	.500	33.16	6.31	5.0	4.9	4.3	5.3

HAVRE, MONT.

[ϕ=48° 34′ N.; λ=109° 40′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	27.288	27.750	26.740	30.8	37.5	36.7	44.5	23.7	34.1	61	−14	22	22	23	72	56	60	0.121	0.122	0.127	0.40	0.18	5.7	4.5	5.1	4.4
February	27.297	27.630	26.720	7.7	17.6	21.0	25.5	4.3	14.9	55	−23	6	11	15	91	76	79	.060	.074	.095	.97	.26	5.5	5.4	5.5	5.0
March	27.363	27.800	26.996	10.3	21.6	24.1	27.7	7.2	17.4	59	−26	8	17	20	90	84	85	.071	.104	.120	.74	.23	7.0	5.7	6.1	5.3
April	27.313	27.715	26.730	36.6	53.6	55.8	59.0	35.3	47.2	78	24	32	31	32	82	47	46	.179	.181	.187	.29	.12	5.2	5.4	5.6	4.3
May	27.245	27.630	26.750	45.4	66.0	66.2	70.0	43.4	56.7	96	30	39	36	37	80	38	40	.248	.222	.234	1.25	.65	4.2	4.0	5.5	4.3
June	27.317	27.640	26.980	55.7	76.1	78.1	81.9	53.3	67.6	100	33	47	43	43	74	34	33	.331	.293	.291	1.68	.60	2.3	2.3	4.6	3.0
July	27.322	27.590	26.930	59.1	80.3	83.6	86.8	56.9	71.8	103	45	48	42	41	70	28	24	.349	.283	.265	.12	.09	2.2	2.2	2.7	2.4
August	27.328	27.590	27.036	57.0	77.6	81.9	85.1	55.6	70.4	97	47	48	47	46	73	35	30	.344	.330	.315	.76	.30	3.5	3.4	3.2	3.2
September	27.341	27.690	26.835	45.6	63.0	66.0	70.0	44.0	57.0	94	26	41	43	43	84	51	48	.261	.286	.285	.79	.18	3.9	3.8	4.7	4.5
October	27.365	27.650	26.725	27.5	39.9	39.2	45.8	22.9	34.4	79	−7	24	29	30	88	67	72	.140	.167	.174	.75	.25	5.7	5.6	6.4	6.4
November	27.404	28.096	26.850	17.2	26.5	22.4	31.0	11.3	21.2	58	−18	14	20	18	88	78	82	.100	.119	.116	.90	.32	5.0	5.4	6.1	5.9
December	27.424	27.940	27.030	13.1	20.6	19.1	26.5	7.3	16.9	58	−31	9	14	13	83	76	78	.092	.106	.103	.20	.14	3.4	5.7	5.1	5.6
Year	27.334	28.096	26.720	33.8	48.4	49.5	54.5	30.4	42.5	103	−31	28	30	30	81	56	56	.191	.191	.193	8.85	.65	4.5	4.4	5.0	4.5

Annual meteorological summary for the year ending December 31, 1919—Continued.

HARRISBURG, PA.

[H_b=374 ft.; h_t=94 ft.; h_r=90 ft.; h_a=104 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	6.8	NW.	31	NW.	0	4	1	7	1	4	10	17	18	0	9	11	11	6	5	7	2	0	3	6	0	20	0	0
February	7.7	NW.	26	NW.	0	7	5	6	6	1	5	8	18	0	11	7	10	11	10	7	4	0	2	1	0	21	1	2
March	10.3	N.	36	NW.	0	15	10	6	7	3	2	6	13	0	13	9	9	11	9	4	3	0	2	0	0	10	0	6
April	7.8	NW.	29	NW.	0	6	6	7	8	8	6	10	9	0	5	13	12	8	5	3	0	0	0	0	0	2	0	0
May	6.1	W.	36	SW.	0	10	12	6	7	6	2	15	4	0	4	12	15	12	8	0	0	0	0	0	1	0	7	1
June	5.4	S.	39	N.	0	8	8	12	10	13	3	5	1	0	6	14	10	11	8	0	0	1	0	0	3	0	9	0
July	5.3	N.	34	NW.	0	10	9	12	9	5	4	7	6	0	9	8	14	13	12	0	0	0	0	0	7	0	9	0
August	4.9	W.	21	N.	0	5	10	9	4	7	3	17	7	0	13	7	11	11	10	0	0	0	1	0	0	0	8	0
September	5.3	W.	22	NW.	0	8	7	11	6	7	3	12	6	0	15	7	8	6	5	0	0	0	1	0	2	0	2	0
October	5.0	NE.	36	SW.	0	10	15	9	11	4	4	5	4	0	4	8	19	19	12	0	0	0	6	0	0	0	2	0
November	7.2	E.	31	W.	0	6	8	14	3	6	2	11	10	0	9	9	12	12	8	1	0	0	1	0	0	7	0	0
December	7.0	NW.	33	NW.	0	8	7	6	6	7	7	6	15	0	6	7	18	12	11	10	7	0	3	14	0	27	0	0
Year	6.6	W.	39	N.	0	97	98	105	78	71	51	119	111	0	104	112	149	132	103	32	16	1	19	21	13	87	38	3

HARTFORD, CONN.

[H_b=159 ft.; h_t=122 ft.; h_r=116 ft.; h_a=140 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.1	NW.	38	NW.	0	9	4	0	3	9	14	3	20	0	7	8	16	8	6	8	2	0	1	5	0	27	0	0
February	8.1	NW.	31	NW.	0	6	6	3	0	4	6	3	28	0	14	4	10	9	7	8	4	0	0	1	0	24	0	3
March	9.6	N.	36	SE.	0	22	2	4	2	10	5	4	13	0	7	5	19	11	10	5	2	0	1	1	0	14	0	2
April	8.4	NW.	36	S.	0	8	6	1	3	13	6	8	15	0	8	6	16	14	11	3	0	1	0	1	0	5	2	1
May	7.5	S.	36	S.	0	9	12	5	4	13	7	2	10	0	9	9	13	14	12	0	0	0	0	0	1	0	2	2
June	7.3	S.	26	SW.	0	6	15	3	1	21	11	0	3	0	15	6	9	5	4	0	0	1	0	0	3	0	1	0
July	7.1	SW.	31	SW.	0	6	4	2	1	17	20	2	10	0	9	7	15	11	10	0	0	0	0	0	3	0	7	0
August	6.4	SW.	27	SE.	0	10	6	3	4	12	15	2	10	0	7	11	13	12	9	0	0	0	2	0	1	0	5	0
September	6.2	S.	32	SW.	0	13	4	1	4	16	10	0	12	0	10	7	13	10	9	0	0	0	2	0	2	0	4	3
October	6.1	SW.	34	SW.	0	16	6	2	3	16	12	0	7	0	5	8	18	15	11	0	0	0	1	0	0	0	2	3
November	8.6	N.	42	SW.	1	15	5	1	3	8	13	1	14	0	6	10	14	11	11	1	0	0	0	1	0	11	0	2
December	7.1	N.	40	NW.	1	17	4	0	3	4	14	3	17	0	8	8	15	13	9	10	7	0	2	12	0	27	0	0
Year	7.5	NW.	42	SW.	2	137	74	25	31	143	133	28	159	0	105	89	171	133	109	35	15	2	9	21	10	108	23	16

HATTERAS, N. C.

[H_b=11 ft.; h_t=12 ft.; h_r=37 ft.; h_a=50 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	13.5	N.	44	N.	4	17	14	5	3	3	9	5	6	0	13	6	12	13	12	1	0	0	0	0	0	5	0	0
February	15.7	N.	54	N.	4	18	15	3	4	2	4	8	2	0	13	4	11	12	8	2	0	0	2	0	0	2	1	0
March	18.0	N.	51	NW.	9	21	11	3	4	7	8	2	6	0	8	9	14	14	12	0	0	0	1	0	0	0	3	0
April	13.1	SW.	50	N.	3	4	12	10	0	7	14	9	4	0	11	11	8	10	8	0	0	9	1	0	0	0	4	0
May	11.5	SW.	37	W.	0	5	11	7	4	6	20	8	1	0	10	13	8	8	8	0	0	0	0	0	0	0	4	0
June	13.3	NE.	44	N.	1	7	22	4	11	9	5	1	1	0	8	13	9	4	4	0	0	0	0	0	0	0	2	0
July	13.7	SW.	41	NW.	2	2	8	4	3	13	25	6	1	0	10	10	11	11	8	0	0	0	0	0	0	0	5	0
August	13.8	SW.	43	W.	1	4	6	5	2	4	29	8	4	0	8	17	6	8	5	0	0	0	0	0	0	0	5	0
September	11.2	NE.	33	W.	0	14	21	9	2	2	8	1	3	0	13	11	6	4	4	0	0	0	0	0	0	0	3	0
October	11.7	SW.	36	W.	0	6	16	2	5	7	18	6	2	0	11	12	8	11	9	0	0	0	2	0	0	0	2	0
November	14.6	N.	39	W.	0	20	17	6	1	3	6	3	4	0	5	14	11	7	2	0	0	0	1	0	0	0	0	0
December	17.0	N.	48	N.	3	20	12	1	1	6	13	4	5	0	7	4	20	9	8	0	0	0	2	0	0	8	0	0
Year	13.9	NE.	54	N.	27	138	165	59	40	69	159	61	39	0	117	124	124	111	88	3	0	0	9	0	0	15	29	0

HAVRE, MONT.

[H_b=2,505 ft.; h_t=11 ft.; h_r=4 ft.; h_a=44 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.7	SW.	43	W.	2	1	3	5	0	0	37	6	8	2	13	13	5	4	3	3	3	0	0	2	0	23	0	0
February	6.0	E.	30	SW.	0	2	13	13	2	0	5	9	11	1	9	12	7	10	8	13	10	0	2	16	0	28	0	0
March	6.6	W.	30	SW.	0	4	10	15	0	1	8	12	11	1	9	15	7	10	6	11	10	0	3	18	0	31	0	0
April	9.1	E.	48	N.	2	3	6	14	2	3	11	11	9	1	13	12	5	5	3	3	1	0	0	0	0	10	0	0
May	8.5	SW.	43	SW.	1	0	4	14	7	2	17	8	10	0	15	12	4	12	7	2	1	0	0	0	4	5	3	0
June	6.8	E.	38	NW.	0	4	5	15	7	1	8	10	10	0	19	9	2	9	7	0	0	0	0	0	8	0	13	0
July	6.9	NW.	33	NW.	0	8	5	11	4	0	10	8	15	1	25	5	1	3	1	0	0	0	0	0	12	0	5	0
August	6.0	E.	36	SW.	0	7	9	13	1	1	10	11	10	0	17	12	2	3	3	0	0	0	0	0	6	0	4	2
September	7.3	E.	37	N.	0	3	1	18	3	0	10	11	12	2	14	8	8	12	8	2	2	0	0	0	1	4	1	1
October	6.9	SW.	33	SW.	0	6	6	13	1	0	12	14	7	3	9	7	15	9	6	8	4	0	2	7	0	22	0	3
November	8.0	SW.	38	SW.	0	1	5	10	0	2	20	6	14	2	11	5	14	7	6	12	7	0	1	15	0	25	0	0
December	9.9	SW.	36	SW.	0	3	2	2	2	0	30	17	4	2	10	7	14	3	1	6	3	0	1	15	0	25	0	0
Year	7.8	SW.	48	N.	5	42	69	143	29	10	178	123	121	15	164	117	84	87	59	60	41	0	9	73	31	173	26	6

Annual meteorological summary for the year ending December 31, 1919—Continued.

HELENA, MONT.

[ϕ=46° 34′ N.; λ=112° 04′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	Total.	Maximum in 24 hours.	8 a. m.*	Noon, local time.	8 p. m.*	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	25.813	26.232	25.300	28.3	36.6	35.8	41.1	23.6	32.4	57	− 3	15	17	18	57	44	48	0.084	0.092	0.097	0.14	0.05	4.8	6.1	5.3	6.0
February	25.646	25.980	25.250	15.7	24.9	24.6	28.6	12.1	20.4	51	−18	11	12	14	81	57	65	.074	.075	.084	1.19	.27	7.0	6.9	6.1	7.5
March	25.724	26.090	25.195	22.5	34.3	37.5	41.2	19.7	30.4	67	−15	15	17	18	74	50	50	.090	.098	.101	.70	.16	5.9	6.6	6.7	6.5
April	25.768	26.040	25.310	38.2	53.4	54.9	58.2	36.4	47.3	72	24	24	23	21	55	31	28	.130	.123	.116	.01	.01	5.4	5.9	6.1	6.1
May	25.725	26.020	25.380	45.0	60.8	61.6	66.7	42.1	54.4	95	24	30	32	29	56	38	34	.175	.190	.172	.96	.29	6.0	6.3	7.1	6.7
June	25.777	26.100	25.440	54.2	74.5	75.9	79.4	51.8	65.6	98	35	39	44	42	58	36	33	.240	.291	.282	.32	.16	3.0	4.5	4.8	4.4
July	25.807	26.010	25.441	59.7	80.8	83.3	86.7	57.2	72.0	99	46	39	40	39	48	25	22	.243	.259	.245	.16	.12	2.1	1.5	3.5	2.7
August	25.832	26.010	25.645	57.8	77.6	79.5	82.9	56.5	69.7	93	49	38	39	39	49	27	26	.229	.247	.246	.12	.08	2.5	3.2	3.8	4.3
September	25.805	26.110	25.470	47.6	61.9	64.1	68.7	45.4	57.0	89	28	35	36	38	64	41	42	.210	.222	.232	.57	.27	4.3	4.9	4.6	5.0
October	25.798	26.040	25.342	31.0	40.0	38.5	44.9	26.5	35.7	70	− 1	24	27	27	76	60	66	.139	.133	.157	1.25	.43	5.9	6.8	6.5	6.9
November	25.833	26.266	25.280	22.4	28.3	25.7	33.6	16.1	24.8	56	−12	16	17	18	77	62	70	.103	.105	.108	1.07	.56	7.2	6.4	6.0	6.9
December	25.879	26.160	25.510	12.5	18.3	17.1	24.6	7.6	16.1	57	−28	8	9	9	80	67	71	.078	.082	.086	.98	.32	4.5	6.4	5.0	6.4
Year	25.784	26.266	25.195	36.2	49.3	49.9	54.7	32.9	43.8	99	−28	24	26	26	65	45	46	.150	.161	.160	7.47	.56	4.9	5.5	5.5	5.8

HONOLULU, T. H.

[ϕ=21° 19′ N.; λ=157° 52′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	Total.	Maximum in 24 hours.	8 a. m.*	Noon, local time.	8 p. m.*	Daylight.
January	30.022	30.120	29.870	69.4	74.1	70.3	75.8	66.4	71.1	79	60	58	58	58	67	57	66	0.477	0.482	0.485	1.49	0.71	3.7	3.4	2.2	4.1
February	30.118	30.280	29.910	71.1	74.7	71.2	76.7	68.1	72.4	79	63	58	58	59	64	57	66	.484	.482	.502	.27	.15	3.1	4.6	3.7	4.0
March	30.034	30.170	29.860	71.2	74.8	70.9	76.5	67.1	71.8	80	62	58	58	59	64	58	67	.489	.495	.508	1.24	.76	4.9	4.1	3.4	4.6
April	30.035	30.155	29.870	73.8	76.8	72.6	78.9	69.4	74.2	81	67	62	62	61	66	60	68	.552	.550	.542	.38	.14	4.9	5.5	3.4	4.6
May	30.008	30.110	29.860	74.4	78.2	73.6	80.1	70.0	75.0	84	64	61	60	61	64	54	66	.537	.525	.544	.68	.33	4.8	4.2	2.9	4.0
June	29.990	30.070	29.870	77.3	80.7	75.9	82.3	72.6	77.4	85	68	65	64	65	66	58	70	.617	.596	.624	.85	.33	3.8	3.9	4.6	4.3
July	29.984	30.048	29.870	77.5	81.1	76.4	82.4	72.9	77.6	84	70	64	64	65	65	57	68	.608	.602	.615	.84	.26	5.0	4.0	4.8	4.2
August	29.969	30.030	29.880	78.4	82.0	77.4	83.7	74.5	79.1	88	72	66	65	66	66	58	68	.636	.623	.633	.58	.25	4.2	3.0	3.6	3.5
September	29.939	30.020	29.780	78.1	81.1	77.2	83.0	73.1	78.0	85	70	65	65	65	66	59	66	.623	.621	.612	1.19	.50	3.9	4.1	2.6	4.3
October	29.944	30.040	29.810	77.9	81.5	76.7	82.8	72.8	77.8	86	70	66	66	66	68	61	70	.643	.728	.643	4.90	4.58	3.1	5.0	3.2	4.6
November	29.944	30.040	29.770	75.8	79.0	75.0	80.8	71.2	76.0	83	69	64	64	64	67	59	69	.595	.587	.597	1.27	1.04	3.4	3.9	3.6	4.2
December	29.961	30.160	29.700	72.7	77.1	72.7	78.4	68.4	73.4	82	64	63	63	63	71	62	72	.574	.574	.576	.90	.35	4.1	4.8	2.8	4.4
Year	29.996	30.280	29.700	74.8	78.4	74.2	80.1	70.5	75.3	88	60	62	62	63	66	58	68	.570	.572	.573	14.59	4.58	4.1	4.2	3.4	4.2

HOUGHTON, MICH.

[ϕ=47° 07′ N.; λ=88° 34′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	Total.	Maximum in 24 hours.	8 a. m.*	Noon, local time.	8 p. m.*	Daylight.
January	29.189	29.730	28.780	21.1	25.0	....	28.9	17.7	23.3	45	2	18	20	....	88	82	....	0.104	0.114	....	1.13	0.35	8.5	7.6	....	8.3
February	29.220	29.820	28.770	19.8	23.9	....	27.7	16.1	21.9	42	1	17	19	....	89	81	....	.096	.104	....	2.18	.47	9.5	9.1	....	9.2
March	29.413	30.120	28.830	22.6	29.7	....	34.2	19.2	26.7	59	− 2	15	21	....	73	70	....	.094	.117	....	1.42	.49	6.6	6.8	....	6.9
April	29.279	29.820	28.520	34.7	42.6	....	46.1	30.7	38.4	69	16	24	31	....	62	65	....	.134	.179	....	1.76	.94	5.9	6.2	....	6.3
May	29.269	29.660	28.930	48.1	58.4	....	61.6	41.8	51.7	90	33	39	38	....	73	51	....	.255	.260	....	1.54	.50	4.8	4.0	....	4.6
June	29.351	29.620	28.090	60.7	70.9	....	74.2	54.4	64.3	92	42	56	58	....	84	66	....	.452	.487	....	3.41	1.04	5.1	5.2	....	5.8
July	29.240	29.530	28.900	65.2	73.3	....	77.9	59.1	68.5	93	52	57	57	....	75	59	....	.469	.467	....	3.14	1.43	3.6	3.9	....	4.1
August	29.176	29.530	28.810	62.2	69.1	....	72.8	57.3	65.0	87	48	56	59	....	80	72	....	.451	.519	....	2.28	.81	5.3	5.1	....	6.2
September	29.247	29.620	28.650	53.8	61.3	....	64.2	48.7	56.4	92	35	51	54	....	90	79	....	.383	.430	....	1.33	.27	6.2	6.6	....	7.6
October	29.283	29.650	28.760	40.2	45.3	....	48.7	35.4	42.0	74	25	35	39	....	82	79	....	.219	.249	....	3.02	.87	7.5	7.5	....	7.8
November	29.273	29.840	28.079	26.8	30.0	....	34.1	23.3	28.7	58	5	20	24	....	78	78	....	.113	.136	....	9.21	2.40	9.5	8.6	....	9.0
December	29.318	29.840	28.630	12.1	14.6	....	18.7	6.5	12.6	36	−10	8	10	....	81	78	....	.065	.069	....	5.67	1.10	9.7	9.1	....	9.4
Year	29.272	30.120	28.079	38.9	45.3	....	49.1	34.2	41.6	93	−10	33	36	....	80	72	....	.238	.261	....	36.09	2.40	6.8	6.6	....	7.1

HOUSTON, TEX.

[ϕ=29° 47′ N.; λ=95° 24′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	Total.	Maximum in 24 hours.	8 a. m.*	Noon, local time.	8 p. m.*	Daylight.
January	30.019	30.440	29.660	44.8	54.4	....	58.3	43.0	50.6	73	24	41	43	....	88	66	....	0.276	0.293	....	8.52	3.25	4.9	6.1	....	5.9
February	29.865	30.230	29.320	49.6	57.9	....	62.8	46.6	54.7	72	32	43	42	....	80	59	....	.299	.288	....	3.12	.89	4.3	5.3	....	5.4
March	29.932	30.260	29.520	54.8	67.0	....	71.2	52.6	61.9	81	35	50	49	....	86	57	....	.386	.377	....	3.25	1.74	4.5	4.2	....	4.7
April	29.856	30.170	29.500	62.9	74.8	....	77.9	60.1	69.0	85	49	58	54	....	84	51	....	.500	.448	....	1.16	1.01	4.0	4.8	....	4.5
May	29.717	29.920	29.430	67.9	77.4	....	81.3	64.9	73.1	88	59	64	63	....	87	63	....	.602	.581	....	6.14	1.38	5.7	5.8	....	5.1
June	29.809	30.020	29.470	73.1	81.2	....	85.0	70.1	77.6	91	57	69	67	....	88	65	....	.726	.682	....	15.85	7.22	5.7	6.4	....	5.3
July	29.858	30.020	29.680	77.1	86.6	....	90.2	74.6	82.4	97	69	73	70	....	87	59	....	.807	.741	....	7.30	2.04	4.0	6.4	....	5.4
August	29.869	29.970	29.750	77.3	88.0	....	91.9	75.4	83.6	96	71	74	71	....	89	58	....	.829	.751	....	3.82	1.20	2.9	5.3	....	4.9
September	29.804	29.990	29.480	72.9	83.4	....	86.2	71.7	79.0	93	64	69	68	....	87	62	....	.717	.706	....	8.68	6.15	3.7	5.9	....	4.9
October	29.832	30.020	29.680	71.2	80.9	....	82.8	69.3	76.0	88	59	70	69	....	95	69	....	.728	.714	....	9.72	3.60	5.2	7.4	....	7.2
November	29.914	30.270	29.540	57.2	69.2	....	72.5	54.2	63.4	87	36	53	53	....	86	59	....	.436	.440	....	1.78	.97	5.0	5.4	....	5.2
December	30.025	30.540	29.470	50.7	60.5	....	65.4	45.3	55.4	82	27	47	47	....	87	64	....	.367	.362	....	3.04	1.96	6.3	6.5	....	6.5
Year	29.875	30.540	29.320	63.3	73.4	....	77.1	60.6	68.9	97	24	59	58	....	87	61	....	.556	.532	....	72.38	7.22	4.8	5.8	....	5.4

* At Honolulu observations at 8 a. m. and 8 p. m., time of meridian of 157° 30′.

Annual meteorological summary for the year ending December 31, 1919—Continued.

HELENA, MONT.

[H_b=4,110 ft.; h_t=87 ft.; h_r=80 ft.; h_a=112 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m.* North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	T. or more.	Snow. 0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	9.0	SW.	40	SW.	1	1	0	2	3	3	44	4	4	1	9	8	14	7	2	10	6	0	0	3	0	27	0	0
February	6.4	SW.	36	SW.	0	2	1	1	1	5	20	8	18	0	4	4	20	14	11	20	13	0	1	13	0	28	0	0
March	6.6	SW.	27	SW.	0	6	2	1	1	3	23	11	15	0	5	11	15	10	6	12	7	0	3	9	0	25	0	0
April	8.9	SW.	36	SW.	0	6	6	1	1	2	27	7	10	0	6	13	11	1	0	5	0	0	0	0	0	8	1	0
May	9.2	SW.	37	SW.	0	5	4	1	0	5	28	13	6	0	4	11	16	7	7	7	1	2	0	0	1	5	6	1
June	8.3	SW.	44	SE.	1	3	3	3	1	1	33	5	11	0	13	10	7	6	3	11	1	0	0	0	8	0	7	0
July	8.7	SW.	36	SW.	0	7	6	3	0	2	32	5	4	2	19	11	1	4	1	0	0	0	0	0	11	0	5	0
August	8.1	SW.	39	SE.	0	2	5	2	1	7	34	4	7	0	12	12	7	3	1	0	0	0	0	0	2	0	6	0
September	8.3	SW.	40	SW.	1	5	4	3	1	1	29	8	9	0	10	9	11	6	3	2	2	2	0	0	0	4	3	1
October	7.3	SW.	28	SW.	0	5	0	3	2	4	32	3	11	2	4	9	18	10	8	10	7	0	0	6	0	17	0	0
November	6.2	SW.	30	SW.	0	2	1	0	1	4	32	8	12	0	6	5	19	9	5	11	8	0	0	11	0	27	0	0
December	6.1	SW.	42	SW.	2	1	0	2	1	1	38	11	8	0	4	12	15	8	5	11	8	0	0	16	0	27	0	0
Year	7.8	SW.	44	SE.	5	45	32	22	13	38	373	87	115	5	96	115	154	85	52	92	53	4	4	58	22	168	29	2

HONOLULU, T. H.

[H_b=38 ft.; h_t=111 ft.; h_r=99 ft; h_a=119 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.9	NE.	27	NE.	0	7	27	19	3	0	2	0	3	1	15	10	6	10	7	0	0	0	0	0	0	0	0	0
February	9.6	E.	28	NE.	0	0	28	26	1	0	1	0	0	0	13	13	2	7	2	0	0	0	0	0	0	0	0	0
March	9.3	NE.	30	NE.	0	8	34	14	2	1	1	0	1	1	11	15	5	12	6	0	0	0	0	0	0	0	0	0
April	7.4	NE.	23	NE.	0	0	24	25	5	0	2	0	0	4	12	11	7	10	3	0	0	0	0	0	0	0	0	0
May	8.4	NE.	28	NE.	0	2	36	22	0	0	0	0	1	1	15	13	3	11	5	0	0	0	0	0	0	0	0	0
June	7.1	E.	20	E.	0	1	21	33	3	2	0	0	0	0	14	12	4	9	3	0	0	0	0	0	0	0	0	0
July	8.5	NE.	26	NE.	0	2	36	23	0	1	0	0	0	0	12	17	2	20	6	0	0	0	0	0	0	0	0	0
August	8.6	NE.	35	NE.	0	0	28	29	2	1	1	0	1	0	18	10	3	8	4	0	0	0	0	0	0	0	0	0
September	8.6	E.	26	E.	0	1	21	34	3	0	1	0	0	0	10	18	2	10	6	0	0	0	0	0	0	0	0	0
October	7.4	NE.	24	NE.	0	1	23	36	0	0	2	0	0	0	14	9	8	9	5	0	0	0	0	0	0	0	2	0
November	6.4	E.	23	E.	0	1	25	26	2	0	1	1	0	4	16	9	5	7	3	0	0	0	0	0	0	0	1	0
December	7.4	NE.	37	S.	0	8	33	8	3	1	1	2	3	3	18	5	8	8	7	0	0	0	0	0	0	0	0	0
Year	8.0	NE.	37	S.	0	31	336	295	24	6	12	3	9	14	168	142	55	121	57	0	0	0	0	0	0	0	3	0

HOUGHTON, MICH.

[H_b=668 ft.; h_t=62 ft.; h_r=57 ft.; h_a=99 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.5	W.	45	NW.	2	3	1	8	1	4	1	11	2	0	3	7	21	15	7	22	13	0	0	16	0	31	0	1
February	11.9	E.	44	W.	3	2	3	11	1	0	0	8	3	0	0	4	24	19	14	24	18	0	0	18	0	28	0	0
March	10.1	E.	41	W.	1	1	2	13	1	0	0	6	6	2	4	12	15	14	8	13	9	0	1	10	0	27	1	4
April	11.2	E.	46	E.	1	4	2	17	0	0	1	1	2	0	10	6	14	11	8	4	3	0	0	1	0	21	2	1
May	9.7	E.	38	W.	0	2	2	15	0	0	3	7	0	2	13	9	9	9	6	5	4	0	1	0	0	0	1	0
June	8.8	E.	36	NW.	0	1	3	17	1	1	1	5	0	1	7	13	10	12	8	0	0	0	5	0	1	0	6	0
July	9.5	E.	37	W.	0	1	1	15	0	0	8	9	2	0	16	9	6	7	7	0	0	0	0	0	2	0	5	1
August	9.5	W.	35	W.	0	1	0	12	0	0	1	12	5	0	8	10	13	8	7	0	0	0	1	0	0	0	2	0
September	8.4	E.	63	NW.	2	3	1	10	2	0	6	6	2	0	6	3	21	15	10	0	0	0	0	0	1	0	5	1
October	9.9	W.	48	SW.	2	0	1	10	3	0	0	10	6	1	5	5	21	16	13	6	4	0	0	3	0	11	1	1
November	11.9	E.	42	W.	3	3	1	10	1	0	3	7	4	1	1	4	25	18	15	20	15	0	0	11	0	23	0	0
December	10.5	W.	39	W.	0	3	1	5	0	2	4	10	4	2	1	1	29	21	17	24	20	0	1	28	0	31	0	0
Year	10.2	E.	63	NW.	14	24	18	143	10	7	23	95	36	9	74	83	208	165	120	118	86	0	9	87	4	172	23	9

HOUSTON, TEX.

[H_b=138 ft.; h_t=111 ft.; h_r=104 ft.; h_a=121 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.4	NW.	22	NW.	0	5	5	3	3	1	1	1	10	2	9	7	15	11	10	1	0	0	3	0	0	4	0	0
February	9.1	NW.	36	E.	0	3	5	5	3	2	2	3	5	0	10	5	13	12	9	0	0	0	2	0	0	0	1	0
March	9.3	SE.	45	SE.	1	5	6	5	9	1	1	0	3	1	13	7	11	8	6	0	0	0	3	0	0	0	4	0
April	9.9	SE.	32	SE.	0	2	2	3	13	5	2	1	2	0	12	8	10	7	4	0	0	0	1	0	0	0	4	0
May	7.6	SE.	38	NW.	0	1	4	4	8	2	1	3	7	1	10	11	10	15	13	0	0	0	0	0	0	0	14	0
June	7.4	SE.	30	SE.	0	1	11	2	9	1	2	1	2	1	10	8	12	13	12	0	0	0	0	0	1	0	9	0
July	5.0	SE.	29	E.	0	2	8	3	3	3	5	2	1	4	9	13	9	12	10	0	0	0	0	0	18	0	11	0
August	5.8	S.	25	NE.	0	2	2	1	6	6	8	4	2	0	10	14	7	11	9	0	0	0	0	0	25	0	12	0
September	8.3	SE.	38	E.	0	7	8	6	8	0	0	1	0	0	8	17	5	9	7	0	0	0	1	0	4	0	3	0
October	7.5	SE.	33	S.	0	3	5	5	9	4	2	1	2	0	2	13	16	13	10	0	0	0	5	0	0	0	7	0
November	7.2	N.	32	NW.	0	8	7	3	1	1	1	2	7	0	10	10	10	7	6	0	0	0	4	0	0	0	1	0
December	8.2	NW.	31	NW.	0	3	5	2	3	5	3	3	5	0	6	10	15	8	6	0	0	0	0	0	0	4	1	0
Year	7.7	SE.	45	SE.	1	44	68	42	75	31	28	22	36	9	109	123	133	126	102	1	0	0	19	0	48	8	67	0

* At the observation hours at Honolulu; see preceding page.

Annual meteorological summary for the year ending December 31, 1919—Continued.

HURON, S. DAK.

[ϕ=44° 21′ N.; λ=98° 14′ W.]

Month.	Pressure.	Temperature.														Moisture.												
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.629	29.160	28.200	21.2	29.5	27.7	34.8	16.4	25.6	55	−27	17	20	21	84	67	76	0.106	0.117	0.123	0.11	0.11	2.8	4.4	3.1	3.9
February	28.619	29.040	28.100	11.5	18.9	18.4	24.2	8.5	16.4	41	−15	8	13	13	86	76	79	.077	.090	.093	1.10	.31	5.9	6.6	5.0	6.1
March	28.713	29.360	27.930	23.5	33.1	32.2	39.1	20.0	29.6	64	−11	20	23	25	87	66	75	.121	.140	.151	.75	.40	5.7	4.8	4.6	5.0
April	28.582	29.243	27.960	38.4	49.8	50.1	54.0	35.9	45.0	73	23	34	35	36	82	61	62	.196	.216	.225	2.47	.96	6.5	6.2	6.5	6.4
May	28.564	28.880	28.177	50.7	63.7	64.4	67.4	46.5	57.0	84	35	45	44	44	82	53	51	.312	.299	.301	2.52	.74	4.5	5.8	4.1	4.9
June	28.616	28.879	28.365	64.3	73.4	73.7	76.8	61.0	68.9	92	39	61	62	63	88	68	70	.552	.573	.596	5.98	2.52	6.9	6.7	4.1	5.9
July	28.574	28.850	28.230	67.0	81.1	80.0	85.0	63.3	74.2	97	57	62	62	64	83	54	60	.550	.568	.600	4.83	2.72	2.7	3.4	2.8	3.2
August	28.598	28.870	28.240	60.6	79.0	77.1	83.0	57.6	70.3	94	43	55	56	58	82	46	54	.444	.459	.490	1.31	1.03	2.8	2.5	4.0	3.2
September	28.579	28.910	28.073	54.4	69.9	67.9	74.7	52.3	63.5	94	36	49	52	52	83	57	60	.372	.411	.417	.77	.26	5.0	5.2	4.1	4.6
October	28.635	29.000	28.020	33.9	47.2	44.0	52.1	30.7	41.4	87	2	30	31	32	85	57	65	.180	.189	.191	1.08	.30	6.1	5.3	4.5	5.8
November	28.700	29.290	27.910	20.2	27.5	24.8	31.2	16.2	23.7	51	−10	16	18	19	84	69	79	.103	.115	.116	1.77	.74	4.9	5.8	5.8	5.8
December	28.748	29.328	28.190	11.0	17.9	15.7	21.7	7.0	14.4	46	−15	6	10	11	80	72	79	.071	.086	.087	.29	.18	3.9	5.1	4.4	5.5
Year	28.630	29.360	27.910	38.1	49.2	48.0	53.7	34.6	44.2	97	−27	34	36	36	84	62	68	.257	.272	.282	22.98	2.72	4.8	5.2	4.4	5.0

INDEPENDENCE, CALIF.

[ϕ=36° 48′ N.; λ=118° 12′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	26.113	26.460	25.390	31.9	50.7	47.2	56.3	27.8	42.0	66	16	14	14	14	45	22	26	0.080	0.083	0.084	0.00	0.00	1.9	3.0	2.7	2.9
February	25.925	26.220	25.370	33.1	47.7	46.2	51.7	30.0	40.8	65	21	22	22	23	64	38	42	.120	.122	.128	1.13	.63	3.5	5.4	5.5	5.3
March	25.954	26.300	25.560	35.2	54.6	54.2	58.3	32.3	45.3	73	23	22	20	22	58	29	32	.118	.113	.119	.66	.49	2.0	3.9	3.9	3.9
April	25.921	26.150	25.670	46.6	69.8	70.6	73.9	44.0	59.0	86	33	26	21	22	43	16	16	.140	.115	.116	.02	.02	1.9	3.9	4.5	4.0
May	25.849	26.030	25.690	56.0	79.3	79.8	83.1	54.6	68.8	96	49	34	30	33	45	19	20	.207	.184	.199	.34	.18	2.7	2.6	3.6	3.4
June	25.903	26.190	25.674	57.1	85.6	87.2	89.9	56.0	73.0	97	48	28	26	24	33	11	10	.153	.138	.126	T.	T.	.4	.6	1.7	1.2
July	25.937	26.090	25.757	65.6	91.7	92.4	95.0	64.1	79.6	99	54	40	37	37	41	16	16	.265	.243	.237	T.	T.	1.3	2.0	2.8	2.0
August	25.974	26.170	25.827	63.9	90.7	91.7	94.1	61.7	77.9	101	52	33	32	33	32	13	14	.194	.187	.204	.00	.00	1.3	1.7	2.5	1.7
September	25.886	26.110	25.541	58.0	81.4	80.9	84.8	54.9	69.8	91	41	30	29	27	35	16	16	.169	.163	.151	T.	T.	.4	1.0	1.5	1.3
October	25.960	26.250	25.644	41.2	65.0	61.6	68.0	38.2	53.1	77	24	21	22	20	42	19	20	.109	.117	.107	T.	T.	.5	.7	.6	.7
November	26.005	26.400	25.530	34.6	56.4	50.4	60.7	31.5	46.1	71	18	15	16	16	43	20	26	.084	.089	.090	.03	.03	.3	2.2	2.5	1.9
December	26.072	26.500	25.530	31.5	47.1	41.6	51.0	28.0	39.5	62	18	21	24	24	64	41	50	.113	.129	.130	.67	.34	1.5	2.8	3.0	2.9
Year	25.958	26.500	25.370	46.2	68.3	67.0	72.2	43.6	57.9	101	16	26	24	25	45	22	24	.146	.140	.141	2.85	.63	1.5	2.5	2.9	2.6

INDIANAPOLIS, IND.

[ϕ=39° 46′ N.; λ=86° 10′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.208	29.500	28.750	29.6	36.4	35.5	41.6	26.5	34.0	59	− 2	26	26	26	84	68	70	0.145	0.153	0.152	0.91	0.74	4.9	5.6	4.2	5.6
February	29.096	29.080	28.230	30.1	36.0	34.1	40.2	26.1	33.2	61	14	25	27	25	81	68	70	.141	.152	.142	1.21	.33	6.7	7.5	5.5	7.2
March	29.274	29.660	28.560	37.1	46.7	45.6	51.8	33.5	42.6	72	14	31	33	34	78	61	66	.185	.205	.210	6.72	3.06	5.3	5.8	5.2	5.3
April	29.124	29.499	28.670	46.8	55.9	54.4	60.8	43.5	52.2	81	25	39	41	41	75	60	64	.252	.278	.279	3.35	1.31	7.0	7.0	6.2	6.6
May	29.036	29.340	28.630	55.3	64.4	62.8	68.0	50.9	59.4	91	11	48	50	50	79	63	65	.349	.374	.364	3.34	1.01	6.5	7.2	7.0	6.5
June	29.181	29.475	28.820	71.4	81.4	77.7	84.8	66.7	75.8	92	52	63	63	65	76	55	66	.584	.578	.616	3.33	1.42	4.0	5.4	6.0	5.1
July	29.138	29.390	28.930	72.4	85.7	83.4	89.3	68.0	78.6	96	58	62	62	63	69	47	51	.557	.576	.579	.97	.58	3.1	3.3	3.1	3.3
August	29.111	29.380	28.900	66.9	79.3	76.1	83.1	63.6	73.4	95	55	59	58	58	77	50	56	.518	.507	.504	3.43	1.29	3.4	4.5	3.9	4.1
September	29.169	29.410	28.730	63.2	76.7	73.8	80.2	60.4	70.3	93	46	55	55	55	74	49	53	.446	.456	.451	1.86	1.47	4.7	4.3	3.6	4.3
October	29.186	29.406	28.900	55.6	64.5	61.4	68.7	52.0	60.4	88	38	52	52	52	88	66	74	.414	.413	.420	8.98	1.73	6.6	6.2	5.9	6.4
November	29.206	29.630	28.360	37.3	45.3	43.0	49.5	33.7	41.6	64	20	32	34	33	82	66	69	.192	.205	.199	3.27	1.57	6.4	6.8	4.6	6.0
December	29.248	29.970	28.570	22.2	28.4	28.3	33.3	18.9	26.1	53	0	18	20	22	82	69	76	.100	.112	.125	.85	.71	6.8	6.5	6.4	6.8
Year	29.164	29.970	28.230	49.0	58.4	56.3	62.6	45.3	54.0	96	− 2	42	43	44	79	60	65	.324	.334	.337	38.22	3.06	5.4	5.8	5.1	5.6

IOLA, KANS.

[ϕ=37° 55′ N.; λ=95° 25′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.074	29.490	28.720	25.9	37.9	35.8	43.4	23.8	33.6	64	−10	23	28	....	88	69	....	0.134	0.168	....	0.02	0.02	2.3	2.9	....	3.3
February	28.874	29.300	27.810	29.1	38.9	37.1	44.4	25.8	35.1	61	4	26	30	....	87	69	....	.145	.173	....	.96	.26	5.2	5.5	....	5.8
March	29.046	29.470	28.520	38.3	52.1	50.9	59.1	36.5	47.8	76	10	34	38	....	84	60	....	.206	.238	....	1.06	.46	6.1	5.9	....	5.7
April	28.901	29.350	28.350	48.6	60.5	59.6	65.8	45.8	55.8	86	32	44	46	....	84	61	....	.301	.325	....	4.37	1.18	6.8	6.1	....	6.1
May	28.850	29.100	28.550	56.7	68.9	67.4	73.3	53.3	63.3	85	42	54	57	....	90	67	....	.423	.474	....	4.15	1.75	6.2	6.6	....	6.4
June	28.941	29.200	28.680	67.8	79.9	76.7	84.7	64.5	74.6	94	47	65	66	....	90	66	....	.627	.669	....	4.21	.78	6.3	5.9	....	5.4
July	28.957	29.130	28.680	72.6	88.9	85.7	92.7	68.6	80.6	101	58	67	68	....	83	52	....	.667	.694	....	2.21	1.30	1.7	2.2	....	2.4
August	28.946	29.200	28.670	68.8	84.3	81.4	90.3	66.4	78.4	100	53	64	65	....	85	54	....	.605	.625	....	2.22	.62	4.3	4.1	....	4.6
September	28.966	29.250	28.440	62.4	80.3	75.1	85.7	60.2	73.0	98	45	59	61	....	89	56	....	.519	.558	....	1.02	.95	4.5	4.5	....	4.7
October	28.968	29.270	28.530	51.0	62.1	59.5	67.4	47.3	57.4	90	29	48	49	....	90	66	....	.361	.379	....	5.38	1.69	6.1	7.0	....	7.2
November	29.028	29.500	28.450	34.8	47.7	44.2	53.6	32.3	43.0	73	15	31	32	....	85	58	....	.179	.193	....	2.12	1.15	4.7	5.2	....	5.0
December	29.100	29.720	28.536	23.6	31.9	29.3	37.1	20.1	28.6	65	− 3	21	25	....	90	79	....	.120	.140	....	.19	.16	5.1	6.8	....	6.5
Year	28.970	29.720	27.810	48.3	61.1	58.6	66.5	45.4	55.9	101	−10	45	47	....	87	63	....	.357	.386	....	27.85	1.75	4.9	5.2	....	5.3

Annual meteorological summary for the year ending December 31, 1919—Continued.

HURON, S. DAK.

[H_b=1,306 ft.; h_t=59 ft.; h_r=53 ft.; h_a=74 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	10.2	NW.	40	N.	1	5	2	1	9	13	6	10	16	0	17	7	7	2	1	6	2	0	3	8	0	31	0	0
February	11.4	SE.	42	NW.	1	9	4	4	16	2	0	7	14	0	7	9	12	10	6	17	10	0	1	17	0	28	0	0
March	11.7	SE.	41	SE.	1	11	5	3	23	7	1	1	11	0	12	9	10	6	5	6	4	0	1	8	0	25	1	1
April	13.2	SE.	44	E	3	9	6	3	16	7	2	2	15	0	8	7	15	12	10	3	3	0	1	0	0	11	2	0
May	11.3	SE.	36	SE.	0	9	2	4	20	10	0	1	16	0	13	8	10	10	10	0	0	1	0	0	0	0	3	2
June	10.4	SE.	36	S.	0	10	5	5	25	8	0	2	5	0	9	9	12	10	10	0	0	0	0	0	2	0	5	1
July	9.9	SE.	35	S.	0	11	6	3	21	11	1	1	8	0	19	8	4	10	9	0	0	0	0	0	7	0	10	0
August	9.3	SE.	43	NW.	1	5	6	5	21	9	1	2	13	0	19	9	3	5	3	0	0	0	2	0	3	0	6	0
September	9.8	SE.	36	S.	0	5	5	9	13	11	2	3	12	0	12	8	10	8	4	0	0	0	0	0	2	0	4	2
October	9.7	NW.	35	NW.	0	7	10	4	13	5	3	7	13	0	10	6	15	14	8	7	4	0	1	4	0	15	1	3
November	12.0	NW.	43	N.	1	9	1	3	10	9	1	5	22	0	8	13	9	10	7	9	7	0	1	13	0	26	0	0
December	10.2	NW.	31	N.	0	7	3	2	17	5	5	6	17	0	10	8	13	7	2	13	7	0	1	20	0	30	0	1
Year	10.8	SE.	44	E.	8	97	55	40	204	97	22	47	162	0	144	101	120	104	75	61	37	1	11	70	14	166	32	10

INDEPENDENCE, CALIF.

[H_b=3,957 ft.; h_t=9 ft.; h_r=4 ft.; h_a=41 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.4	NW.	24	NW.	0	2	3	0	14	6	4	7	26	0	19	8	4	0	0	0	0	0	0	0	0	25	0	0
February	6.6	NW.	40	SE.	1	3	2	0	17	7	4	4	18	1	10	9	9	6	5	4	2	0	0	0	0	20	0	0
March	7.7	NW.	34	SE.	0	3	2	0	14	8	4	6	24	1	15	11	5	3	3	3	2	0	0	0	0	17	0	0
April	8.2	NW.	60	NW.	2	12	3	2	11	1	3	4	24	0	11	18	1	1	0	0	0	0	0	0	0	0	1	0
May	6.3	NW.	29	SE.	0	8	1	3	12	4	0	11	23	0	17	10	4	4	2	0	0	0	0	0	2	0	3	0
June	6.3	NW.	27	SW.	0	2	0	0	16	9	6	10	17	0	25	5	0	0	0	0	0	0	0	0	17	0	0	0
July	5.9	SE.	29	SE.	0	0	0	2	14	15	10	7	14	0	24	7	0	0	0	0	0	0	0	0	30	0	4	0
August	5.7	SE.	25	SE.	0	1	3	0	16	19	5	5	13	0	24	7	0	0	0	0	0	0	0	0	26	0	0	0
September	7.4	S.	30	SE.	0	4	1	2	14	13	8	5	13	0	26	4	0	0	0	0	0	0	0	0	6	0	0	0
October	6.0	NW.	26	SE.	0	11	2	0	5	10	1	3	28	2	28	3	0	0	0	0	0	0	0	0	0	5	0	0
November	7.2	N.	38	N.	0	9	1	0	5	12	2	12	19	0	24	6	0	1	0	1	1	0	0	1	0	16	0	0
December	4.7	NW.	40	W.	1	11	1	0	1	7	7	6	29	0	20	7	4	5	4	3	3	0	0	0	0	25	0	0
Year	6.4	NW.	60	NW.	4	66	19	9	139	111	54	80	248	4	243	95	27	20	14	11	8	0	0	1	81	108	8	0

INDIANAPOLIS, IND.

[H_b=822 ft.; h_t=194 ft.; h_r=188 ft.; h_a=230 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.7	SW.	34	W.	0	1	0	1	6	11	19	16	8	0	10	8	13	4	3	7	1	0	2	6	0	20	0	0
February	14.0	S.	44	S.	2	1	3	5	8	14	2	11	12	0	4	7	17	11	8	12	6	0	1	4	0	22	0	0
March	13.3	S.	54	S.	2	7	10	7	7	12	4	7	8	0	10	11	10	12	9	6	1	0	0	0	0	14	2	0
April	12.9	S.	38	SW.	0	5	4	7	5	14	9	6	10	0	6	11	13	11	11	1	0	1	0	0	0	4	4	0
May	12.2	NE.	48	W.	1	5	20	5	7	5	12	4	4	0	7	11	13	12	10	0	0	0	0	0	2	0	2	0
June	9.1	SE.	36	SE.	0	6	11	7	12	10	10	3	1	0	7	16	7	9	8	0	0	0	0	0	6	0	12	0
July	9.6	SW.	40	NW.	1	6	12	10	6	5	17	3	3	0	18	12	1	7	4	0	0	0	0	0	18	0	6	0
August	9.8	SW.	52	W.	4	5	10	1	1	4	18	12	11	0	12	16	3	10	9	0	0	0	1	0	5	0	8	0
September	10.3	SW.	34	SW.	0	3	9	3	9	11	16	2	7	0	14	10	6	8	5	0	0	0	0	0	3	0	3	0
October	10.7	S.	44	W.	1	6	10	7	4	18	10	5	2	0	7	10	14	14	11	0	0	0	1	0	0	0	4	1
November	13.4	S.	58	SW.	3	5	8	4	9	10	8	11	5	0	11	5	14	10	7	1	0	0	0	2	0	13	0	0
December	11.8	W.	42	SW.	1	7	10	5	7	6	10	8	9	0	7	5	19	5	4	19	5	0	2	11	0	30	0	0
Year	11.6	S.	58	SW.	15	57	107	62	81	120	135	88	80	0	113	122	130	113	89	46	13	1	7	23	34	103	41	1

IOLA, KANS.

[H_b=984 ft.; h_t=11 ft.; h_r=3 ft.; h_a=50 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.8	S.	19	S.	0	4	0	0	1	9	5	1	11	0	22	3	6	1	0	1	1	0	3	4	0	27	0	0
February	9.4	S.	29	SE.	0	6	1	2	7	4	3	1	4	0	9	6	13	8	7	5	3	0	0	7	0	21	0	0
March	8.5	S.	29	S.	0	8	4	3	7	5	0	1	3	0	8	14	9	10	5	2	1	0	1	0	0	9	2	0
April	9.1	S.	31	S.	0	3	2	5	4	8	2	2	4	0	5	15	10	10	10	1	0	0	0	0	0	1	5	0
May	6.6	NE.	28	NW.	0	4	9	2	6	4	1	1	4	0	5	15	11	13	10	0	0	0	1	0	0	0	6	0
June	4.8	SE.	25	NW.	0	1	2	6	10	7	2	1	1	0	10	11	9	19	16	0	0	0	1	0	8	0	12	0
July	5.1	S.	18	N.	0	3	0	3	5	16	3	0	1	0	23	8	0	3	3	0	0	0	0	0	22	0	2	0
August	5.7	S.	33	N.	0	2	4	5	6	8	2	0	4	0	12	14	5	9	9	0	0	0	1	0	15	0	8	0
September	6.3	S.	26	N.	0	3	2	4	6	11	2	1	1	0	12	10	8	4	2	0	0	0	0	0	8	0	3	0
October	6.0	S.	22	S.	0	9	2	2	5	8	1	2	1	1	5	9	17	14	9	0	0	0	4	0	2	2	3	0
November	7.4	N.	27	NE.	0	8	3	5	2	8	2	1	1	0	14	6	10	4	3	3	1	0	0	4	0	13	0	0
December	7.3	SW.	24	N.	0	8	3	2	1	7	7	0	3	0	8	6	17	3	1	4	2	0	2	8	0	31	1	0
Year	6.9	S.	33	N.	0	59	32	39	60	95	30	11	38	1	133	117	115	98	75	16	8	0	13	23	55	104	42	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

JACKSONVILLE, FLA.

[ϕ=30° 20′ N.; λ=81° 39′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	8 a. m.*	Noon, local time.	8 p. m.*	Total.	Maximum in 24 hours.	8 a. m.*	Noon, local time.	8 p. m.*	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.074	30.470	29.740	19.5	59.4	55.1	63.6	47.9	55.3	75	23	44	45	47	81	62	75	0.312	0.333	0.341	1.73	0.68	5.2	5.6	3.2	5.6
February	29.975	30.280	29.590	52.6	61.3	58.8	64.9	50.2	57.6	76	32	46	47	48	80	62	71	.336	.349	.366	3.77	1.40	5.0	5.6	4.2	5.6
March	30.063	30.350	29.770	59.3	68.3	63.6	70.8	56.9	63.8	81	46	53	52	55	81	59	72	.425	.407	.426	3.24	1.79	4.9	4.7	2.9	4.9
April	30.025	30.280	29.790	62.3	71.8	66.7	75.1	59.5	67.3	87	42	53	52	56	74	50	69	.427	.402	.453	1.26	.80	3.2	3.6	1.9	3.3
May	30.003	30.125	29.590	71.9	80.1	72.9	82.7	66.9	74.8	90	60	65	62	64	79	55	75	.624	.564	.602	7.32	2.06	3.8	4.7	5.3	4.5
June	29.977	30.190	29.700	76.2	80.8	76.3	82.8	71.9	77.4	93	66	71	69	70	84	68	82	.753	.703	.745	13.79	7.66	5.2	5.9	6.3	6.1
July	30.002	30.220	29.810	78.3	85.7	79.3	87.8	74.3	81.0	94	70	74	72	73	86	65	82	.827	.783	.815	6.32	3.14	2.9	5.0	6.5	4.8
August	29.990	30.140	29.820	78.3	85.7	78.8	89.0	74.6	81.5	94	68	74	72	74	86	64	84	.829	.777	.826	6.26	1.71	3.4	5.3	5.8	4.8
September	29.947	30.100	29.760	74.7	80.8	76.3	82.6	72.1	77.4	91	64	71	69	70	88	69	82	.760	.721	.742	5.63	3.22	3.1	5.9	2.5	4.9
October	30.048	30.210	29.820	74.7	82.7	76.5	84.4	72.7	78.6	90	65	72	70	72	90	66	86	.775	.734	.781	1.81	.98	2.1	4.9	2.2	3.9
November	30.024	30.480	29.680	61.9	70.6	67.0	73.2	60.1	66.6	85	46	57	58	57	85	66	72	.488	.496	.484	1.06	.44	4.1	4.7	2.4	5.0
December	30.109	30.470	29.800	50.1	61.0	57.1	64.8	47.4	56.1	80	34	46	50	49	87	71	77	.338	.389	.374	4.61	2.94	3.7	4.3	3.3	4.4
Year	30.011	30.480	29.590	65.8	74.0	69.0	76.8	62.8	69.8	94	23	60	60	61	83	63	77	.574	.555	.580	57.50	7.66	3.9	5.0	3.9	4.8

JUNEAU, ALASKA.

[ϕ=58° 18′ N.; λ=134° 24′ W.]

January	29.526	30.364	28.803	31.3	33.7	32.4	35.8	28.3	32.0	46	14	26	27	28	81	76	83	0.148	0.151	0.159	11.41	3.44	7.7	7.9	8.6	8.1
February	29.675	30.193	28.830	29.0	32.3	30.0	34.0	26.2	30.1	43	9	21	23	22	73	69	71	.125	.136	.130	3.07	.86	7.0	6.6	6.2	7.0
March	29.836	30.299	29.403	25.9	30.6	28.1	32.8	23.6	28.2	50	7	16	19	18	66	61	67	.109	.131	.118	4.43	1.24	6.6	6.1	5.8	6.6
April	29.787	30.355	29.200	40.1	46.7	41.4	48.8	35.9	42.4	57	29	34	34	36	79	63	79	.197	.198	.209	6.50	1.17	7.8	8.7	7.8	8.4
May	29.801	30.450	28.900	44.6	51.8	46.2	54.6	37.8	46.2	63	29	37	37	38	74	59	74	.218	.224	.229	4.96	.63	7.2	7.6	6.5	7.5
June	29.955	30.340	29.620	50.8	55.7	52.7	58.1	44.9	51.5	68	38	45	45	44	81	68	74	.298	.296	.290	3.73	1.19	8.2	8.2	8.3	8.4
July	29.980	30.190	29.630	53.3	57.8	55.0	60.3	49.5	54.9	85	47	50	50	50	89	78	86	.358	.362	.364	6.39	.95	9.2	8.8	8.8	8.8
August	29.957	30.140	29.790	53.0	60.3	55.3	62.5	48.6	55.6	74	39	50	51	51	90	73	86	.361	.372	.374	5.91	1.16	7.3	7.7	7.4	7.5
September	29.890	30.280	29.070	48.1	57.2	50.9	59.2	44.4	51.8	69	35	45	47	46	90	71	85	.305	.325	.315	11.35	2.38	6.5	6.0	5.9	6.4
October	29.966	30.490	29.000	38.8	43.4	40.5	44.9	36.0	40.4	56	25	35	37	37	88	80	88	.216	.228	.227	12.49	3.06	8.2	8.5	7.4	8.4
November	29.822	30.640	28.890	30.0	33.7	30.2	35.1	25.7	30.4	50	14	23	22	23	74	65	74	.132	.134	.134	9.03	2.48	5.7	6.2	4.6	6.1
December	29.871	30.540	28.870	29.1	31.5	29.9	34.0	25.3	29.6	46	14	24	25	24	81	77	78	.136	.143	.135	7.69	2.26	7.1	8.5	7.0	8.1
Year	29.839	30.357	29.166	39.5	44.6	41.0	46.7	35.5	41.1	85	7	34	35	35	80	70	79	.217	.225	.224	87.86	3.44	7.4	7.6	7.0	7.6

KALISPELL, MONT.

[ϕ=48° 10′ N.; λ=114° 25′ W.]

January	26.973	27.470	26.380	22.8	28.6	30.1	34.5	19.0	26.8	54	−6	19	23	24	85	79	79	0.107	0.126	0.132	0.72	0.34	5.5	7.8	6.9	7.5
February	26.788	27.140	26.220	19.1	26.3	27.1	31.2	14.9	23.0	44	−17	16	20	20	88	75	75	.095	.110	.111	1.69	.37	7.0	7.6	8.3	7.8
March	26.849	27.250	26.370	25.6	37.5	40.1	42.9	22.6	32.8	63	−4	21	24	25	81	58	56	.114	.128	.134	.45	.29	5.1	7.1	6.5	6.0
April	26.892	27.220	26.430	36.2	53.1	55.2	58.6	34.3	46.4	76	27	29	26	25	74	37	32	.160	.144	.138	.24	.10	4.4	4.6	5.5	4.6
May	26.846	27.150	26.540	41.5	56.8	59.7	63.0	38.9	51.0	86	27	33	32	32	73	41	38	.196	.188	.184	1.72	.64	4.6	6.6	5.4	5.8
June	26.899	27.240	26.620	47.1	68.5	73.0	75.1	45.2	60.2	95	33	35	35	33	64	31	25	.206	.209	.193	.55	.42	2.2	4.0	3.8	3.6
July	26.903	27.110	26.600	52.2	77.0	80.3	83.3	50.7	67.0	99	40	36	36	34	56	24	21	.218	.225	.208	.88	.49	1.3	2.3	2.5	2.8
August	26.920	27.160	26.685	51.6	74.2	76.3	79.9	50.1	65.0	93	43	42	41	40	70	34	30	.267	.267	.257	1.06	.53	2.6	2.6	3.4	3.5
September	26.919	27.250	26.541	43.4	61.1	63.3	66.9	41.1	54.0	84	24	36	37	38	75	43	41	.213	.224	.228	.50	.23	4.3	4.4	3.6	4.6
October	26.944	27.190	26.440	30.2	41.5	42.2	46.5	26.3	36.4	73	7	25	28	29	80	59	61	.137	.158	.165	1.05	.30	7.2	7.5	6.2	7.2
November	26.980	27.480	26.400	23.4	29.7	28.7	34.3	19.1	26.7	57	−1	20	20	21	87	68	74	.115	.117	.122	1.35	.36	7.0	7.3	6.2	7.2
December	27.051	27.370	26.630	14.4	20.3	19.7	24.9	10.4	17.6	53	−24	11	12	14	86	72	78	.094	.096	.100	.91	.31	6.3	6.9	6.3	6.9
Year	26.914	27.480	26.220	34.0	47.9	49.6	53.4	31.0	42.2	99	−24	27	28	28	77	52	51	.160	.166	.164	11.12	.64	4.8	5.7	5.4	5.6

KANSAS CITY, MO.

[ϕ=39° 05′ N.; λ=94° 37′ W.]

January	29.068	29.500	28.755	28.8	38.2	37.2	42.5	26.2	34.4	63	−13	23	25	27	77	60	66	0.133	0.147	0.158	0.07	0.07	2.5	2.8	2.3	2.8
February	28.901	29.320	27.870	28.8	37.1	36.6	42.9	25.6	34.2	61	3	23	26	27	77	64	68	.130	.148	.155	2.09	.62	5.1	4.8	5.9	5.1
March	29.077	29.550	28.500	38.4	49.6	49.0	54.8	35.8	45.3	70	9	31	35	36	74	59	60	.185	.216	.224	1.54	.82	4.8	4.8	5.1	4.8
April	28.918	29.420	28.380	48.6	58.4	58.8	63.3	45.5	54.4	85	34	42	44	43	77	59	59	.278	.303	.293	3.49	1.05	6.2	5.4	7.5	5.6
May	28.880	29.140	28.600	56.9	67.5	67.3	71.0	54.7	62.8	84	45	50	50	51	78	55	58	.373	.375	.394	3.43	.73	5.5	5.7	7.4	5.4
June	28.964	29.210	28.680	69.6	80.5	78.3	84.1	66.2	75.2	97	50	63	63	64	81	57	62	.591	.592	.594	5.09	1.27	4.1	4.7	5.4	4.8
July	28.965	29.170	28.690	75.1	87.7	86.4	91.4	72.3	81.8	98	66	64	62	63	70	44	48	.610	.565	.583	1.14	.44	1.2	2.8	2.4	2.2
August	28.959	29.280	28.720	69.8	81.6	80.1	85.6	67.6	76.6	100	57	61	60	61	74	52	54	.545	.538	.540	8.14	5.66	3.6	4.0	3.8	4.0
September	28.971	29.230	28.375	65.1	77.9	76.4	81.8	63.0	72.4	96	51	56	55	57	74	48	53	.475	.463	.487	2.26	1.73	3.5	3.4	3.3	3.3
October	28.971	29.300	28.500	50.8	60.7	60.4	65.5	47.6	56.6	90	28	46	46	46	82	61	61	.330	.333	.325	1.38	.36	4.9	5.9	5.6	5.9
November	29.046	29.490	28.395	35.2	44.7	44.6	50.0	32.6	41.3	66	13	28	29	30	75	57	59	.153	.173	.178	2.44	1.21	4.4	4.8	3.4	4.6
December	29.130	29.752	28.560	22.6	28.3	28.0	33.2	18.6	25.9	61	−5	18	20	21	80	72	75	.106	.116	.121	.16	.11	5.8	5.9	4.9	6.3
Year	28.988	29.752	27.870	49.1	59.4	58.7	63.8	46.3	55.1	100	−13	42	43	44	77	57	60	.327	.331	.338	31.23	5.66	4.3	4.6	4.8	4.6

At Juneau, observations at 8 a. m. and 8 p. m., 135th meridian time.

Annual meteorological summary for the year ending December 31, 1919—Continued.

JACKSONVILLE, FLA.

[H_b=43 ft.; h_t=209 ft.; h_r=198 ft.; h_a=245 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m.* North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	12.6	NW.	32	S.	0	14	13	4	4	4	5	5	12	1	8	13	10	7	5	0	0	0	1	0	0	3	0	0
February	13.9	NW.	50	SW.	7	2	11	3	4	10	8	6	12	0	10	6	12	11	9	0	0	0	0	0	0	0	1	2
March	13.4	NE.	43	SE.	3	9	12	5	15	4	4	5	8	0	12	9	10	8	6	0	0	0	1	0	0	0	5	0
April	12.0	SE.	35	SE.	0	6	8	10	19	2	10	1	4	0	20	5	5	3	3	0	0	0	0	0	0	0	3	0
May	10.9	SE.	54	SW.	3	1	4	7	20	5	10	8	6	1	10	15	6	16	15	0	0	0	0	0	1	0	16	0
June	11.0	NE.	39	E.	0	3	22	7	9	3	8	4	4	0	8	10	12	15	15	0	0	0	0	0	1	0	6	0
July	11.4	SW.	51	SW.	1	2	4	5	17	16	13	5	0	0	10	15	6	18	12	0	0	0	0	0	13	0	17	0
August	10.0	SW.	45	NW.	2	1	2	0	10	11	30	7	1	0	11	17	3	16	13	0	0	0	0	0	11	0	16	0
September	12.3	NE.	36	NE.	0	12	23	10	6	3	3	0	3	0	11	13	6	13	11	0	0	0	0	0	3	0	7	0
October	9.5	E.	32	SW.	0	5	10	18	14	9	2	0	4	0	18	9	4	7	6	0	0	0	0	0	3	0	4	0
November	12.7	NE.	31	NE.	0	14	17	1	7	3	7	5	6	0	13	7	10	6	5	0	0	0	2	0	0	0	1	0
December	13.4	N.	44	N.	1	21	7	2	6	3	13	3	7	0	17	6	8	6	5	0	0	0	3	0	0	0	4	0
Year	11.9	NE.	54	SW.	17	90	133	72	131	73	113	49	67	2	148	125	92	126	105	0	0	0	7	0	32	4	81	0

JUNEAU, ALASKA.

[H_b=80 ft.; h_t=11 ft.; h_r=5 ft.; h_a=49 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.4	SE.	23	SE.	0	4	16	13	14	7	2	3	2	1	5	2	24	26	21	19	19	0	0	11	0	20	0	0
February	5.7	SE.	22	NE.	0	1	11	14	17	5	0	3	0	5	7	4	17	15	11	16	14	0	1	6	0	24	0	3
March	6.1	NE.	25	E.	0	4	22	9	10	9	1	1	3	3	7	9	15	15	14	18	12	0	0	10	0	23	0	1
April	4.6	SE.	19	SE.	0	1	7	22	15	8	4	3	0	0	3	3	24	25	19	3	1	0	0	0	0	5	0	0
May	4.5	SE.	18	E.	0	3	6	19	14	4	1	14	0	1	3	8	20	21	17	2	1	0	1	0	0	4	0	2
June	3.7	S.	17	NE.	0	9	4	9	15	12	2	8	1	0	2	6	22	18	12	0	0	0	1	0	0	0	0	0
July	3.2	S.	14	SE.	0	5	4	6	20	14	2	11	0	0	3	3	25	25	22	0	0	0	2	0	0	0	0	1
August	3.4	W.	16	W.	0	5	5	6	11	12	2	13	3	5	5	6	20	17	16	0	0	0	1	0	0	0	0	0
September	4.1	SE.	24	E.	0	5	5	12	15	8	0	6	1	8	11	2	17	17	17	0	0	0	0	0	0	0	0	0
October	4.0	W.	26	NE.	0	10	5	12	11	9	2	7	2	4	2	5	24	22	20	7	4	0	2	0	0	8	0	2
November	5.4	SE.	26	SE.	0	9	13	13	12	4	0	5	2	2	10	3	17	17	16	11	10	0	0	11	0	21	0	1
December	4.4	SE.	26	NE.	0	7	15	8	15	5	2	2	2	6	4	2	25	22	18	18	16	0	0	15	0	26	0	1
Year	4.5	SE.	26	NE.	0	63	113	143	169	97	18	76	16	35	62	53	250	240	203	94	77	0	8	53	0	131	0	11

KALISPELL, MONT.

[H_b=2,973 ft.; h_t=48 ft.; h_r=40 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.2	NW.	37	SW.	0	2	0	0	7	6	12	3	28	4	5	7	19	9	5	9	5	0	0	12	0	27	0	0
February	4.7	NW.	26	NE.	0	3	4	0	7	4	6	5	25	2	5	3	20	13	9	16	12	0	0	12	0	26	0	0
March	5.3	NW.	26	SW.	0	6	3	0	3	7	12	11	20	0	8	10	13	8	4	10	7	0	0	2	0	26	0	0
April	6.7	NW.	40	NW.	1	2	3	0	8	6	7	7	27	0	13	11	6	4	3	1	0	0	0	0	0	13	1	1
May	6.7	NW.	26	SW.	0	1	2	3	7	5	8	8	28	0	7	13	11	11	10	1	1	1	0	0	0	7	2	0
June	5.8	NW.	39	W.	0	1	2	0	15	1	5	4	32	0	16	11	3	3	3	0	0	1	0	9	5	0	4	0
July	6.4	NW.	40	SW.	1	3	2	2	5	4	5	5	36	0	23	5	3	4	4	0	0	2	0	0	5	0	3	0
August	5.5	NW.	35	SE.	0	2	2	0	12	1	4	11	29	1	20	7	4	8	6	0	0	0	0	0	2	0	6	0
September	5.5	NW.	31	NE.	0	2	3	1	11	2	5	5	29	2	13	9	8	6	4	1	1	0	0	0	0	3	2	0
October	4.7	NW.	29	SW.	0	6	9	0	11	3	3	4	24	2	7	4	20	9	8	10	6	0	0	7	0	21	1	0
November	4.4	NW.	28	NE.	0	4	8	1	1	1	5	10	27	3	3	11	16	12	9	11	9	0	1	12	0	25	0	0
December	4.1	NW.	25	NE.	0	4	4	1	3	6	8	2	32	2	7	5	19	10	4	8	7	0	2	17	0	26	0	0
Year	5.3	NW.	40	NW.	2	36	42	8	90	46	80	75	337	16	127	96	142	97	69	67	48	4	3	62	12	174	19	1

KANSAS CITY, MO.

[H_b=963 ft.; h_t=161 ft.; h_r=141 ft.; h_a=181 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.5	S.	31	N.	0	4	1	1	4	14	20	8	10	0	23	1	7	1	1	3	1	0	1	5	0	16	0	0
February	13.5	NW.	42	NW.	2	6	4	7	10	9	2	6	12	0	11	6	11	10	7	11	7	0	1	6	0	20	1	0
March	12.3	N.	40	NW.	1	18	4	7	8	16	3	3	3	0	11	14	6	6	5	3	0	1	1	0	0	7	3	0
April	13.6	S.	40	NW.	1	6	4	5	8	16	3	7	11	0	11	9	10	10	10	2	0	0	0	0	0	0	6	0
May	11.5	N.	39	N.	0	15	11	12	8	5	3	1	7	0	0	15	7	16	12	0	0	1	0	0	0	0	8	0
June	8.8	S.	50	N.	2	5	6	5	12	19	6	3	4	0	11	13	4	12	9	0	0	0	0	0	7	0	15	0
July	9.2	S.	46	NW.	1	9	4	4	11	20	12	1	1	0	24	6	1	5	4	0	0	0	0	0	19	0	6	0
August	9.5	S.	40	N.	1	10	5	9	7	19	5	5	2	0	14	11	6	9	8	9	0	2	0	0	7	0	12	0
September	10.0	S.	33	SE.	0	8	7	5	8	21	8	1	2	0	20	4	6	5	4	0	0	0	0	0	3	0	3	0
October	10.3	S.	30	NW.	0	13	0	3	17	16	3	2	8	0	11	7	13	11	7	0	0	0	3	0	0	1	3	0
November	13.0	N.	46	SW.	1	13	5	6	7	10	6	7	6	0	17	3	10	6	6	4	4	0	1	4	0	14	1	0
December	12.0	N.	37	N.	0	13	5	3	3	9	12	8	9	0	13	0	18	5	2	11	2	0	3	14	0	29	0	0
Year	11.2	S.	50	N.	9	120	56	67	103	174	83	52	75	0	175	91	99	96	75	34	14	4	10	29	36	87	58	0

* At the observation hours at Juneau; see preceding page.

Annual meteorological summary for the year ending December 31, 1919—Continued.

KEOKUK, IOWA.

[ϕ=40° 22′ N.; λ=91° 26′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.432	29.760	29.150	25.2	33.4	32.9	39.7	21.7	30.7	60	−18	21	23	24	82	65	69	0.124	0.135	0.142	0.01	0.01	3.8	4.0	1.7	2.6
February	29.295	29.820	28.300	28.7	33.6	33.4	40.0	22.9	31.4	62	6	22	25	26	82	70	73	.126	.139	.143	1.57	.67	6.4	5.4	5.5	5.0
March	29.485	29.948	28.930	38.1	46.1	46.3	52.4	33.7	43.0	71	8	30	33	34	79	62	64	.182	.204	.208	1.49	1.21	5.8	6.1	4.9	4.6
April	29.300	29.790	28.860	47.0	57.2	57.0	61.9	43.9	52.9	77	31	40	45	42	77	66	61	.256	.320	.285	1.94	1.00	6.4	6.0	6.3	6.0
May	29.266	29.550	28.960	55.1	63.8	63.8	68.6	51.3	60.0	88	42	48	53	52	79	71	66	.350	.419	.397	4.24	1.36	6.0	6.4	6.2	5.9
June	29.356	29.620	29.040	71.1	80.8	78.7	84.9	66.7	75.8	93	56	65	67	65	81	64	64	.617	.679	.628	2.38	.82	4.8	4.8	6.0	4.2
July	29.333	29.553	29.111	74.2	87.4	86.2	91.9	70.1	81.0	100	62	64	65	64	72	50	49	.616	.633	.607	2.47	1.06	2.1	2.5	2.8	2.5
August	29.327	29.590	29.108	67.9	78.0	78.4	84.1	64.5	74.3	97	53	60	62	59	76	60	53	.532	.568	.521	3.85	1.63	4.2	3.8	3.9	3.8
September	29.356	29.620	28.740	63.2	76.3	74.6	81.1	60.6	70.8	94	47	56	55	56	78	52	54	.464	.454	.462	4.89	1.44	4.4	3.4	3.9	3.3
October	29.369	29.660	28.930	50.5	61.1	58.0	66.3	46.7	56.5	87	29	45	47	47	83	62	68	.327	.347	.343	1.68	.38	5.3	5.1	5.0	5.3
November	29.430	29.850	28.570	33.8	42.7	40.5	47.6	31.0	39.3	60	13	28	29	29	79	58	64	.159	.168	.172	2.53	1.25	6.2	5.0	4.4	5.4
December	29.507	30.230	28.910	19.3	25.0	23.5	29.4	15.2	22.3	50	−8	14	15	16	78	63	71	.088	.093	.095	.18	.14	5.7	6.9	4.3	6.8
Year	29.371	30.230	28.300	47.5	57.1	56.1	62.3	44.0	53.2	100	−18	41	43	43	79	62	63	.320	.347	.334	27.63	1.63	5.1	5.0	4.6	4.6

KEY WEST, FLA.

[ϕ=24° 33′ N.; λ=81° 48′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.040	30.350	29.850	65.6	70.4	66.7	72.7	63.5	68.1	80	52	60	61	60	82	72	81	0.532	0.547	0.538	0.74	0.39	4.4	3.8	4.9	4.6
February	30.004	30.230	29.790	67.7	72.8	68.8	75.3	65.4	70.4	83	55	61	62	62	80	70	78	.567	.581	.570	1.44	.81	5.2	4.1	3.8	4.4
March	30.037	30.220	29.910	72.8	77.8	73.4	79.7	70.4	75.0	84	63	65	64	64	76	64	72	.626	.621	.600	.25	.16	3.3	2.6	3.0	3.1
April	30.003	30.160	29.850	74.5	79.0	78.7	80.8	70.2	75.5	86	63	65	64	64	71	61	72	.614	.608	.601	3.11	2.99	3.1	2.8	3.6	3.1
May	29.904	30.070	29.690	79.1	82.1	77.9	84.4	74.1	79.2	88	68	71	72	70	77	72	77	.760	.780	.737	6.81	2.30	4.4	4.4	4.7	4.5
June	29.956	30.070	29.670	80.4	82.6	79.6	85.3	75.7	80.5	89	71	73	73	73	80	75	81	.823	.823	.806	11.04	3.27	6.8	5.9	7.0	6.6
July	30.010	30.140	29.860	82.8	85.6	81.9	87.7	77.4	82.6	89	70	74	74	73	75	68	76	.836	.824	.822	5.25	1.66	5.7	6.1	5.5	5.9
August	30.019	30.140	29.900	83.8	87.1	83.0	89.4	79.0	84.2	92	75	74	75	74	73	68	74	.843	.870	.820	1.46	.52	4.2	4.1	4.0	4.2
September	29.870	30.010	28.810	81.7	85.2	81.0	87.1	77.7	82.4	90	73	73	74	73	76	71	78	.822	.854	.818	14.26	11.95	5.0	4.7	4.6	5.0
October	29.993	30.110	29.890	80.6	84.4	80.6	86.4	76.9	81.6	89	70	72	72	72	77	69	76	.798	.800	.797	2.66	1.16	4.3	4.3	3.4	4.3
November	29.989	30.270	29.740	74.7	78.5	74.7	80.5	71.5	76.0	85	64	67	66	66	77	68	75	.662	.657	.653	5.23	3.25	3.3	3.9	2.6	3.5
December	30.070	30.270	29.900	69.6	74.1	71.1	76.4	67.7	72.0	83	59	64	64	64	83	71	78	.608	.609	.600	1.10	.65	3.4	3.5	2.7	3.5
Year	29.991	30.350	28.810	76.1	80.0	76.0	82.1	72.5	77.3	92	52	68	68	68	77	69	76	.708	.714	.698	53.35	11.95	4.4	4.2	4.2	4.4

KNOXVILLE, TENN.

[ϕ=35° 56′ N.; λ=83° 58′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.071	29.300	28.660	32.6	43.1	43.0	48.2	30.0	39.1	69	3	29	31	32	86	63	67	0.170	0.183	0.191	4.67	2.36	5.8	5.9	3.9	5.7
February	28.943	29.370	28.270	35.2	43.5	43.3	48.6	32.2	40.4	67	23	30	32	32	82	68	68	.172	.193	.189	2.78	.83	6.6	7.1	5.1	6.5
March	29.080	29.400	28.590	44.2	55.4	55.4	62.1	40.0	51.0	76	28	36	38	37	74	55	55	.224	.236	.234	4.85	1.66	5.0	4.5	3.8	4.6
April	28.993	29.296	28.580	51.7	64.4	62.8	70.1	47.1	58.6	86	30	43	48	45	74	57	56	.297	.358	.329	3.68	1.29	4.8	5.5	4.6	5.2
May	28.870	29.090	28.480	61.3	71.8	69.6	76.2	57.2	66.7	91	46	56	58	58	84	64	67	.462	.503	.491	4.11	1.16	6.9	7.1	7.1	6.7
June	29.022	29.340	28.750	71.7	82.6	78.9	86.5	66.9	76.7	93	59	65	66	65	79	60	64	.612	.650	.619	5.54	2.59	4.5	6.4	6.7	5.7
July	28.990	29.230	28.816	73.4	84.8	80.9	89.5	69.5	79.5	95	62	66	66	66	79	55	63	.653	.655	.652	3.09	2.10	4.2	5.5	6.8	5.4
August	28.967	29.150	28.820	70.1	80.8	76.9	85.0	67.0	76.0	95	60	66	66	65	86	63	68	.637	.657	.624	4.67	2.13	6.1	6.4	5.0	5.6
September	29.024	29.261	28.785	63.9	79.2	75.3	83.7	60.4	72.0	93	50	56	55	58	77	45	58	.462	.455	.504	.96	.70	2.9	3.2	3.4	3.0
October	29.058	29.260	28.890	63.2	74.4	69.3	77.0	59.8	68.9	89	54	60	61	62	90	65	79	.525	.547	.561	5.51	1.26	7.8	8.5	6.7	7.5
November	29.050	29.530	28.570	44.8	55.9	53.2	59.7	42.4	51.0	73	28	40	41	41	82	58	65	.267	.275	.278	2.19	.85	6.1	6.0	3.8	5.5
December	29.087	29.620	28.540	35.9	45.0	43.9	49.0	33.1	41.0	72	18	32	33	33	84	63	67	.194	.204	.218	4.25	1.60	6.7	6.2	6.6	6.4
Year	29.013	29.620	28.270	54.0	65.1	62.7	69.6	50.6	60.1	95	3	48	50	50	81	60	65	.390	.410	.408	46.30	2.59	5.6	6.0	5.3	5.6

LA CROSSE, WIS.

[ϕ=43° 49′ N.; λ=91° 15′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.235	29.600	28.890	19.8	28.0	25.8	32.5	15.8	24.2	52	−26	18	20	....	92	73	....	0.109	0.120	....	0.31	0.12	6.0	5.9	3.8	5.8
February	29.203	29.730	28.387	18.8	26.1	24.4	30.1	14.8	22.4	52	−4	15	18	....	84	70	....	.095	.105	....	2.07	.79	6.7	5.9	5.2	5.8
March	29.389	29.992	28.790	26.7	37.0	37.0	43.6	23.8	33.7	64	−5	22	24	....	84	60	....	.131	.139	....	2.36	1.94	6.0	3.7	6.2	6.7
April	29.193	29.730	28.564	41.8	51.0	49.9	55.4	38.3	46.8	75	25	36	34	....	80	58	....	.216	.208	....	3.41	.84	7.1	7.0	7.3	7.1
May	29.191	29.510	28.850	50.6	64.6	63.3	68.7	46.4	57.6	90	35	44	43	....	80	49	....	.307	.291	....	2.34	.85	5.0	6.6	6.0	6.1
June	29.256	29.460	28.860	66.1	77.0	73.5	80.8	62.2	71.5	90	51	62	64	....	87	64	....	.570	.602	....	6.52	1.48	7.5	5.4	6.8	6.6
July	29.217	29.440	28.920	68.1	81.3	78.7	85.6	64.1	74.8	98	55	63	63	....	83	55	....	.573	.586	....	2.55	.95	4.4	4.4	3.7	4.3
August	29.185	29.510	28.890	61.1	76.5	73.6	80.3	58.2	69.2	88	45	57	56	....	87	51	....	.474	.467	....	1.39	.50	3.7	3.5	3.1	3.6
September	29.220	29.530	28.600	56.6	70.2	66.7	74.2	54.7	64.4	91	42	52	54	....	86	59	....	.406	.437	....	2.35	1.00	5.2	5.5	5.4	5.8
October	29.241	29.580	28.705	43.1	52.5	49.5	56.9	39.5	48.2	83	25	39	40	....	86	64	....	.255	.269	....	3.20	1.94	6.7	7.3	6.4	7.3
November	29.275	29.860	28.300	27.8	34.0	32.1	38.8	23.4	31.1	59	4	24	24	....	84	67	....	.138	.137	....	3.29	2.15	7.2	7.3	6.0	7.4
December	29.365	29.970	28.896	8.7	15.5	13.8	19.2	4.0	11.6	43	−18	7	9	....	90	75	....	.067	.073	....	.70	.31	6.1	7.8	6.2	7.5
Year	29.248	29.992	28.300	40.8	51.1	49.0	55.5	37.1	46.3	98	−26	37	37	....	85	62	....	.278	.286	....	30.49	2.15	6.0	5.9	5.5	6.2

Annual meteorological summary for the year ending December 31, 1919—Continued.

KEOKUK, IOWA.

[H_b=614 ft.; h_t=64 ft.; h_r=56 ft.; h_a=78 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	7.2	SW.	24	S.	0	0	3	1	10	7	23	11	6	1	20	9	2	1	0	3	1	0	2	5	0	24	0	0
February	9.1	W.	43	W.	1	2	3	10	10	0	6	13	12	0	14	4	10	9	6	3	6	0	0	6	0	25	0	0
March	8.3	NW.	39	SE.	0	2	12	10	9	6	3	9	11	0	14	10	7	6	5	2	1	0	0	2	0	10	2	0
April	9.1	NE.	36	SW.	0	1	13	3	7	7	9	13	7	0	6	12	12	15	6	1	0	1	0	0	0	1	7	0
May	6.6	NE.	25	W.	0	5	26	4	4	5	2	3	13	0	6	17	8	14	11	0	0	0	0	0	0	0	6	0
June	5.9	SE.	25	SE.	0	10	6	3	12	9	9	6	5	0	10	17	3	7	6	0	0	1	0	0	8	0	9	0
July	6.2	S.	34	NW.	0	7	6	8	5	22	5	4	5	0	21	10	0	7	4	0	0	0	0	0	18	0	9	0
August	6.3	S.	22	NW.	0	7	9	4	4	12	7	7	12	0	15	15	1	10	9	0	0	2	0	0	4	0	10	0
September	6.6	S.	29	SE.	0	7	5	4	3	18	10	3	9	1	18	7	5	5	5	0	0	0	0	0	2	0	4	0
October	6.8	S.	27	SE.	0	1	8	4	13	10	10	5	11	0	11	8	12	12	10	0	0	0	1	0	0	2	4	1
November	9.0	NW.	63	SW.	1	4	9	3	9	7	6	11	11	0	12	7	11	9	7	5	2	0	1	3	0	16	1	0
December	7.9	SW.	28	W.	0	5	12	2	4	4	13	10	12	0	6	7	18	5	2	7	3	0	3	21	0	31	0	0
Year	7.4	NW.	63	SW.	2	51	112	56	90	107	103	95	114	2	153	123	89	100	71	26	13	4	7	37	32	109	52	1

KEY WEST, FLA.

[H_b=22 ft.; h_t=10 ft.; h_r=3 ft.; h_a=31 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.0	N.	34	NW.	0	22	13	6	11	1	0	0	9	0	11	12	8	5	2	0	0	0	0	0	0	0	0	0
February	10.2	SE.	38	SW.	0	11	9	9	11	4	4	1	7	0	14	7	7	7	5	0	0	0	0	0	0	0	1	0
March	11.8	SE.	31	NW.	0	7	14	15	17	2	0	1	6	0	20	6	5	3	2	0	0	0	0	0	0	0	0	0
April	10.4	E.	25	NW.	0	11	10	20	8	1	1	1	8	0	19	7	4	5	4	0	0	0	0	0	0	0	2	0
May	9.7	SE.	43	SE.	1	7	7	22	12	5	3	0	6	0	14	8	9	11	9	0	0	0	0	0	0	0	9	0
June	8.2	E.	34	SE.	0	3	6	26	8	10	4	1	2	0	4	13	13	16	13	0	0	0	0	0	0	0	12	0
July	7.6	SE.	41	SE.	1	3	4	15	29	7	2	0	2	0	5	16	9	18	11	0	0	0	0	0	0	0	16	0
August	7.9	SE.	31	SE.	0	3	1	14	30	6	5	1	2	0	15	13	3	12	9	0	0	0	0	0	13	0	10	0
September	11.9	E.	110	E.	2	4	10	22	15	3	3	0	3	0	12	9	9	12	8	0	0	0	0	0	2	0	8	0
October	11.4	E.	32	E.	0	0	15	41	6	0	0	0	0	0	16	9	6	13	10	0	0	0	0	0	0	0	3	0
November	10.2	NE.	41	W.	1	9	25	9	4	1	4	3	5	0	17	9	4	7	6	0	0	0	0	0	0	0	2	0
December	11.1	NE.	25	NW.	0	9	34	5	5	1	1	1	6	0	18	9	4	5	4	0	0	0	0	0	0	0	2	0
Year	10.1	E.	110	E.	5	89	148	204	156	41	27	9	55	0	166	118	81	114	83	0	0	0	0	0	15	0	65	0

KNOXVILLE, TENN.

[H_b=996 ft.; h_t=102 ft.; h_r=96 ft.; h_a=111 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	4.7	NE.	36	S.	0	12	17	8	2	6	8	4	3	2	10	9	12	12	8	3	2	0	0	4	0	15	0	0
February	6.0	NE.	38	S.	0	8	26	0	1	2	10	7	2	0	7	6	15	12	8	5	4	0	1	1	0	14	0	0
March	6.9	N.	28	S.	0	17	16	6	2	6	8	1	6	0	14	7	10	8	7	1	0	0	0	0	0	2	1	0
April	6.4	SW.	26	SW.	0	11	13	4	2	5	18	5	2	0	9	13	8	10	9	0	0	0	2	0	0	2	2	0
May	5.7	SW.	23	SW.	0	5	13	4	0	10	21	6	2	1	5	13	13	16	12	0	0	0	0	0	1	0	4	0
June	4.9	NE.	32	NE.	0	9	24	4	3	4	11	5	0	0	7	15	8	9	7	0	0	1	0	0	5	0	12	0
July	4.8	SW.	25	N.	0	7	14	5	3	8	19	4	2	0	8	15	8	10	8	0	0	0	2	0	15	0	6	0
August	5.5	SW.	30	S.	0	9	5	2	2	5	27	9	3	0	7	17	7	15	11	0	0	1	2	0	4	0	8	0
September	4.6	NE.	24	S.	0	10	22	0	1	8	5	8	2	4	21	3	6	4	4	0	0	0	0	0	2	0	1	0
October	5.1	SW.	24	SW.	0	9	13	5	3	6	16	7	2	1	3	12	16	14	11	0	0	0	4	0	0	0	2	0
November	5.7	NE.	27	SW.	0	12	22	0	1	4	11	3	2	5	10	9	11	10	8	0	0	0	1	0	0	6	0	0
December	7.0	SW.	40	SW.	1	13	12	3	0	5	15	7	3	4	8	6	17	8	6	2	0	0	3	0	0	15	0	0
Year	5.6	NE.	40	SW.	1	122	197	41	20	69	169	66	29	17	109	125	131	128	99	11	6	2	15	5	27	54	36	0

LA CROSSE, WIS.

[H_b=714 ft.; h_t=11 ft.; h_r=3 ft.; h_a=48 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	5.3	W.	24	NW.	0	3	1	0	7	7	2	8	3	0	12	4	15	3	3	6	3	0	2	11	0	29	0	0
February	6.4	NW.	25	NE.	0	3	2	1	6	1	1	6	8	0	8	9	11	9	8	12	8	0	0	12	0	25	0	0
March	5.9	NW.	19	W.	0	4	1	1	6	7	1	2	8	1	7	7	17	7	4	6	9	0	0	5	0	25	2	1
April	5.9	S.	20	S.	0	4	3	2	2	7	4	3	4	1	5	8	17	15	10	2	1	1	0	0	0	8	3	0
May	4.1	S.	17	W.	0	7	1	5	3	8	1	3	1	2	8	6	17	16	8	0	0	1	0	0	0	0	5	0
June	3.7	SE.	20	SW.	0	3	1	1	15	2	1	2	5	0	5	8	17	15	15	0	0	1	2	0	1	0	13	1
July	3.0	S.	16	S.	0	4	0	1	7	9	3	1	5	1	14	11	6	11	6	0	0	0	1	0	7	0	8	0
August	3.8	SW.	16	NW.	0	2	1	0	2	7	9	5	3	2	18	10	3	10	6	0	0	0	3	0	0	0	0	0
September	4.2	SE.	21	S.	0	3	1	0	8	4	7	1	5	1	12	4	14	9	7	0	0	0	3	0	3	0	4	0
October	4.7	SE.	17	SW.	0	5	1	1	7	6	2	4	5	0	5	3	21	13	8	1	0	0	1	0	0	11	3	0
November	6.3	S.	31	SW.	0	5	1	2	5	6	3	4	4	0	6	4	20	10	8	8	4	0	0	8	0	24	0	0
December	5.3	NW.	20	NW.	0	5	1	1	6	6	0	5	7	0	4	9	18	7	5	11	7	0	0	27	0	31	0	0
Year	5.0	S.	31	SW.	0	48	14	15	74	70	34	44	58	8	104	85	176	119	88	46	23	3	12	63	11	153	44	2

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

LANDER, WYO.

[ϕ=42° 50′ N.; λ=108° 45′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	24.692	25.068	24.310	12.1	26.1	27.7	37.5	7.0	22.2	55	−18	6	15	15	73	60	56	0.055	0.088	0.085	0.00	0.00	2.9	4.3	3.5	3.9
February	24.450	24.760	23.990	16.3	29.4	29.7	36.1	10.5	23.3	51	− 4	10	16	16	71	55	56	.073	.085	.089	.57	.26	3.2	5.1	5.9	4.9
March	24.550	24.940	24.000	27.1	43.5	45.8	50.3	24.1	37.2	67	9	17	19	18	64	37	33	.095	.102	.103	.13	.11	3.5	5.7	5.5	5.5
April	24.605	24.900	24.200	33.8	51.2	52.9	57.3	32.2	44.8	72	21	26	28	27	71	44	44	.141	.154	.151	.93	.44	4.3	5.8	6.7	5.4
May	24.562	24.820	24.164	42.6	64.5	66.1	70.7	40.1	55.4	88	24	29	26	25	60	26	24	.161	.146	.140	.30	.16	3.7	4.7	5.2	4.5
June	24.662	24.939	24.405	52.7	77.0	78.3	82.7	49.5	66.1	96	33	35	30	30	52	21	21	.207	.172	.174	.34	.15	1.6	2.2	4.5	3.3
July	24.693	24.930	24.493	59.9	82.3	84.9	88.9	57.2	73.0	96	46	39	38	38	48	24	22	.251	.246	.246	1.42	.70	2.5	3.2	3.9	3.7
August	24.736	24.950	24.525	53.7	78.9	80.6	85.3	52.0	68.6	93	41	36	35	36	52	22	23	.212	.214	.221	.31	.25	2.8	3.1	4.9	4.2
September	24.671	24.990	24.300	48.3	67.9	69.1	74.5	45.0	59.8	88	32	36	40	38	63	40	36	.213	.256	.240	1.01	.64	2.9	3.4	5.2	3.7
October	24.617	24.950	24.225	25.7	37.5	36.7	44.2	22.0	33.1	61	4	20	26	26	79	64	65	.111	.145	.142	4.64	1.23	5.5	5.7	6.1	6.0
November	24.641	25.067	24.250	14.4	24.4	22.4	32.5	7.7	20.1	58	−22	8	13	11	73	63	62	.066	.085	.075	2.20	1.60	4.1	5.5	6.2	5.7
December	24.681	24.958	23.919	8.5	19.3	18.4	26.9	1.6	14.2	54	−36	2	9	8	75	62	63	.052	.067	.066	.57	.24	3.1	4.1	4.9	4.3
Year	24.630	25.068	23.919	32.9	50.2	51.0	57.2	29.1	43.2	96	−36	22	25	24	65	43	42	.136	.147	.144	12.42	1.60	3.3	4.4	5.2	4.6

LANSING, MICH.

[ϕ=42° 44′ N.; λ=84° 26′ W.]

January	29.066	29.570	28.600	25.8	31.5	27.8	34.7	22.3	28.5	52	− 2	22	24	23	84	74	81	0.125	0.135	0.131	0.36	0.19	6.1	6.5	6.0	6.3
February	29.001	29.670	28.255	23.6	30.9	27.2	33.9	20.2	27.0	45	6	20	23	22	87	70	77	.115	.125	.118	1.50	.43	7.1	7.2	6.2	7.7
March	29.222	29.701	28.603	29.7	39.6	35.2	43.0	24.5	33.8	66	9	25	28	28	81	63	75	.141	.163	.161	3.48	1.41	5.4	6.5	4.9	6.1
April	29.048	29.446	28.500	40.4	50.8	46.8	54.4	35.3	44.8	73	17	35	38	37	81	64	69	.212	.246	.226	4.13	1.24	6.3	6.5	6.2	7.0
May	28.996	29.360	28.460	50.9	62.3	57.3	65.8	43.2	54.5	93	35	44	46	46	79	59	69	.297	.322	.322	4.29	1.85	4.9	6.1	4.4	5.8
June	29.144	29.410	28.811	68.9	79.7	73.5	83.8	60.0	71.9	93	44	62	63	63	80	59	71	.577	.597	.597	3.18	1.49	3.8	5.2	4.5	4.7
July	29.072	29.350	28.829	68.1	83.4	74.6	86.1	58.8	72.4	95	42	60	60	59	75	46	61	.520	.525	.518	1.69	.51	3.0	2.5	3.8	3.7
August	29.016	29.354	28.780	62.0	75.6	68.7	79.2	55.4	67.3	87	45	58	58	59	87	56	70	.493	.494	.508	4.03	2.22	5.1	4.5	3.9	5.2
September	29.085	29.350	28.500	57.9	72.5	63.3	75.4	52.1	63.8	90	34	52	53	53	82	53	71	.405	.426	.421	2.61	.96	4.9	5.7	4.6	5.5
October	29.111	29.410	28.670	47.7	60.3	52.9	63.9	42.7	53.3	84	28	44	47	47	88	62	81	.313	.346	.344	2.90	.97	6.1	5.8	4.8	6.1
November	29.107	29.550	28.010	32.9	40.4	35.3	42.9	28.5	35.7	57	15	29	31	30	85	69	79	.163	.179	.167	2.44	1.34	7.5	8.1	6.6	7.9
December	29.137	29.751	28.480	16.3	23.4	20.6	26.8	12.0	19.4	43	− 5	13	18	17	85	76	85	.081	.099	.098	.86	.45	8.1	7.4	7.4	7.9
Year	29.084	29.751	28.010	43.7	54.2	48.6	57.5	37.9	47.7	95	− 5	39	41	40	83	63	74	.287	.305	.301	31.47	2.22	5.7	6.0	5.3	6.2

LEESBURG, GA.

[ϕ=31° 47′ N.; λ=84° 14′ W.]

January	29.860	30.270	29.440	39.9	53.9	49.8	58.7	37.4	48.0	72	16	36	37	38	88	55	66	0.233	0.243	0.250	4.01	2.21	5.7	5.4	3.8	5.5
February	29.733	30.050	29.250	45.2	55.5	53.5	59.7	41.8	50.8	72	27	40	41	44	84	61	72	.271	.282	.310	7.26	3.60	6.2	6.9	5.8	6.6
March	29.833	30.150	29.450	54.1	65.2	63.0	70.2	50.1	60.2	79	40	47	45	48	79	52	61	.342	.320	.356	3.26	.87	5.0	5.4	4.6	5.2
April	29.777	30.070	29.480	57.9	72.9	68.8	77.2	51.4	64.3	88	35	49	46	49	75	40	50	.377	.334	.361	1.91	1.10	4.4	4.1	3.1	4.2
May	29.648	29.860	29.290	67.5	77.8	72.6	82.0	61.3	71.6	88	52	62	60	61	83	57	70	.566	.526	.551	6.51	2.16	4.8	6.5	6.1	6.6
June	29.748	29.985	29.450	74.5	84.0	79.3	87.6	68.7	78.2	94	59	69	66	67	83	57	67	.710	.656	.659	2.16	1.04	7.3	7.7	6.9	7.8
July	29.746	29.980	29.540	75.5	83.3	78.5	88.0	71.1	79.6	94	56	72	72	71	88	69	81	.774	.776	.777	8.12	1.98	6.2	7.3	7.8	7.4
August	29.744	29.910	29.540	74.1	85.1	77.9	88.4	70.4	79.4	95	65	72	71	72	92	64	84	.779	.764	.793	14.18	5.07	6.6	6.4	7.0	6.6
September	29.732	29.950	29.480	69.3	83.6	76.3	86.4	65.2	75.8	92	55	66	65	65	88	54	70	.635	.619	.637	.71	.40	3.6	4.7	4.7	4.9
October	29.805	29.980	29.590	69.8	82.9	75.6	86.2	66.1	76.2	92	56	68	68	69	94	62	80	.686	.687	.703	1.39	.99	5.4	7.3	3.5	6.3
November	29.805	30.280	29.470	53.4	69.0	61.7	72.5	49.9	61.2	86	35	49	50	52	85	54	70	.373	.396	.409	1.19	.33	6.2	4.8	4.2	5.3
December	29.893	30.300	29.530	41.3	55.9	50.9	61.2	38.1	49.6	78	23	38	40	42	89	58	71	.255	.274	.289	.94	.44	4.9	5.8	3.6	5.5
Year	29.777	30.300	29.250	60.2	72.4	67.3	76.5	56.0	66.2	95	16	56	55	56	86	57	70	.500	.490	.508	51.64	5.07	5.5	6.0	5.1	6.0

LEWISTON, IDAHO.

[ϕ=46° 25′ N.; λ=117° 02′ W.]

January	29.345	29.930	28.740	29.9	40.4	....	44.8	26.9	35.8	61	5	24	28	....	79	60	....	0.137	0.154	.....	1.27	0.58	5.6	6.8	....	6.4
February	29.127	29.560	28.540	33.8	41.9	....	45.0	31.9	38.4	55	16	30	30	....	83	64	....	.160	.166	.....	1.32	.60	8.2	8.8	....	8.6
March	29.185	29.580	28.550	38.0	52.0	....	56.6	36.1	46.4	74	28	32	33	....	80	51	....	.185	.193	.....	1.36	.46	6.0	7.0	....	6.6
April	29.224	29.600	28.770	42.6	61.3	....	66.4	41.6	54.0	83	31	38	38	....	82	44	....	.228	.237	.....	1.25	.42	6.0	7.5	....	6.8
May	29.141	29.460	28.680	48.3	66.9	....	72.7	46.4	59.6	92	32	40	38	....	73	36	....	.253	.243	.....	.98	.23	6.7	5.7	....	6.2
June	29.185	29.570	28.870	53.6	76.0	....	81.9	51.3	66.6	99	38	40	39	....	59	28	....	.248	.246	.....	.13	.12	3.7	3.8	....	4.1
July	29.129	29.390	28.800	61.1	87.8	....	93.7	59.2	76.4	108	51	41	38	....	48	18	....	.263	.229	.....	T.	T.	2.0	1.5	....	2.1
August	29.136	29.360	28.900	59.2	82.8	....	91.0	57.9	74.4	101	50	42	41	....	55	24	....	.277	.260	.....	.12	.11	2.9	1.3	....	2.0
September	29.149	29.500	28.740	49.6	70.7	....	78.0	48.1	63.0	91	36	42	41	....	75	36	....	.267	.259	.....	.73	.33	4.6	4.0	....	4.0
October	29.263	29.610	28.850	40.8	54.0	....	59.7	37.5	48.6	80	24	36	35	....	82	51	....	.213	.209	.....	1.12	.37	5.8	6.5	....	6.7
November	29.319	29.780	28.760	35.1	43.4	....	46.6	32.1	39.4	62	12	30	32	....	83	65	....	.174	.184	.....	2.55	.98	6.6	7.8	....	7.8
December	29.434	29.940	28.840	19.7	25.8	....	29.1	14.7	21.9	56	−23	15	18	....	82	73	....	.103	.117	.....	2.14	.80	7.0	6.7	....	7.2
Year	29.220	29.940	28.540	42.6	58.6	....	63.8	40.3	52.0	108	−23	34	34	....	73	46	....	.209	.209	.....	12.97	.98	5.4	5.6	....	5.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

LANDER, WYO.

[H_b=5,372 ft.; h_t=60 ft.; h_r=54 ft.; h_a=68 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	3.1	SW.	30	NW.	0	4	6	6	2	4	18	14	6	2	16	11	4	0	0	0	0	0	0	8	0	31	0	0
February	4.4	SW.	46	SW.	2	3	1	5	4	6	18	15	2	2	10	10	8	7	6	9	7	0	0	9	0	27	0	0
March	5.5	W.	48	W.	1	5	5	3	5	7	18	13	6	0	9	13	9	3	1	3	2	0	1	0	0	26	1	0
April	6.2	W.	40	W.	2	6	7	7	1	4	13	14	8	0	9	13	8	6	5	4	3	0	0	0	0	16	2	0
May	6.5	SW.	48	SW.	3	2	6	9	7	4	11	15	8	0	13	14	4	2	2	3	2	0	0	0	0	6	0	0
June	6.3	SW.	40	SE.	1	2	3	2	5	2	24	15	6	1	19	9	2	3	3	0	0	0	0	0	10	0	3	0
July	5.4	SW.	42	W.	1	3	8	4	2	6	14	14	12	0	16	11	4	5	4	0	0	0	0	0	17	0	5	0
August	5.1	SW.	44	NW.	1	3	5	4	2	7	14	18	8	1	15	10	6	4	1	0	0	0	0	0	4	0	2	0
September	5.1	SW.	30	SW.	0	4	6	3	3	4	10	23	7	0	16	9	5	9	7	0	0	0	0	0	0	1	1	0
October	3.9	SW.	34	W.	0	3	7	3	12	5	20	5	5	2	9	9	13	10	9	11	10	0	0	5	0	29	0	0
November	3.5	SW.	34	W.	0	3	7	4	4	8	16	8	8	2	9	11	10	6	6	6	6	0	0	14	0	30	0	0
December	4.6	SW.	56	SW.	2	5	6	7	5	2	18	12	4	3	15	10	6	5	5	7	5	0	0	15	0	31	0	0
Year	5.0	SW.	56	SW.	13	43	65	57	52	59	194	166	81	13	156	130	79	60	49	43	35	0	1	51	31	197	14	0

LANSING, MICH.

[H_b=878 ft.; h_t=11 ft.; h_r=3 ft.; h_a=62 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.9	SW.	26	W.	0	1	3	0	5	12	25	7	9	0	7	9	15	10	2	12	7	0	2	9	0	28	0	0
February	7.7	W.	34	SW.	0	5	2	7	14	3	5	11	9	0	3	6	19	12	8	17	9	1	0	11	0	26	2	0
March	7.8	SW.	24	SW.	0	10	7	9	8	6	9	6	6	1	9	8	14	11	9	11	7	0	0	3	0	26	0	2
April	7.7	SW.	25	S.	0	4	4	7	9	4	12	10	10	0	6	6	18	15	12	4	1	0	1	0	0	10	4	0
May	6.0	NE.	20	SW.	0	8	14	7	11	1	4	8	5	4	9	8	14	11	10	0	0	0	2	0	1	0	1	1
June	4.0	SE.	25	SW.	0	8	6	8	13	6	8	1	4	6	9	15	6	10	9	0	0	0	0	0	6	0	9	0
July	4.4	SW.	26	NW.	0	14	6	2	10	6	13	3	6	2	16	10	5	11	11	0	0	1	0	0	9	0	9	1
August	4.4	SW.	18	NW.	0	10	1	1	3	10	16	6	12	3	7	20	4	10	7	0	0	0	3	0	0	0	8	2
September	5.1	SW.	23	S.	0	4	2	6	6	9	19	4	8	2	7	14	9	11	6	0	0	0	0	0	1	0	4	2
October	5.6	SW.	24	SE.	0	9	3	4	12	6	14	7	5	2	6	12	13	17	10	0	0	0	1	0	0	5	5	1
November	8.4	W.	35	SW.	0	2	9	3	8	10	9	11	8	0	2	9	19	12	9	9	8	1	0	5	0	20	0	0
December	7.0	NW.	24	NW.	0	4	3	4	3	9	12	10	16	1	3	8	20	13	5	22	12	0	0	23	0	31	0	0
Year	6.3	SW.	35	SW.	0	79	60	58	102	82	146	84	98	21	84	125	156	143	98	75	42	3	9	51	17	146	42	9

LEESBURG, GA.

[H_b=279 ft.; h_t=10 ft.; h_r=4 ft.; h_a=55 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.8	NW.	26	W.	0	10	13	2	1	6	8	13	9	0	10	9	12	7	6	0	0	0	0	1	0	8	0	0
February	8.1	NW.	37	NW.	0	12	4	5	5	7	4	6	12	1	5	7	16	11	9	0	0	0	0	0	0	5	2	0
March	8.2	N.	51	W.	1	17	10	11	6	2	1	5	9	1	13	5	13	9	8	0	0	0	1	0	0	0	4	0
April	6.9	SE.	31	SE.	0	6	3	3	12	10	4	10	10	2	14	9	7	4	4	0	0	0	0	0	0	0	2	0
May	6.6	S.	30	S.	0	4	2	7	5	17	10	7	9	1	6	10	15	15	11	0	0	0	2	0	0	0	15	0
June	6.7	E.	35	E.	0	4	9	23	9	0	6	6	1	2	1	8	21	12	10	0	0	0	0	0	12	0	12	0
July	6.2	S.	37	SW.	0	1	8	8	10	14	14	6	0	1	1	13	17	18	15	0	0	0	1	0	14	0	20	0
August	4.6	SW.	36	N.	0	3	1	1	3	11	21	12	8	2	5	9	17	15	13	0	0	0	2	0	10	0	17	0
September	6.1	NE.	23	NE.	0	10	20	15	7	1	2	2	3	0	10	12	8	6	4	0	0	0	0	0	6	0	7	0
October	4.8	S.	36	SW.	0	0	11	8	9	16	8	6	2	2	3	17	11	4	4	0	0	0	6	0	4	0	5	0
November	7.0	NE.	28	S.	0	8	15	8	6	7	4	4	8	0	13	6	11	6	5	0	0	0	2	0	0	0	1	0
December	7.9	N.	34	NW.	0	17	11	0	0	10	6	10	7	1	11	4	16	7	6	0	0	0	3	0	0	12	0	0
Year	6.7	NE.	51	W.	1	92	107	91	73	101	88	87	78	13	92	109	164	114	95	0	0	0	17	1	46	25	85	0

LEWISTON, IDAHO.

[H_b=757 ft.; h_t=40 ft.; h_r=32 ft.; h_a=48 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.0	E.	34	NW.	0	3	7	9	2	5	0	2	2	1	8	9	14	9	6	3	1	0	0	1	0	22	0	0
February	3.8	E.	24	W.	0	0	4	10	4	3	2	3	0	0	1	4	23	17	9	8	7	0	0	1	0	15	0	0
March	3.4	E.	20	S.	0	1	6	9	3	1	3	3	1	4	8	4	19	13	7	2	1	0	0	0	0	5	0	0
April	4.0	E.	33	W.	0	1	4	14	3	2	1	2	0	3	3	16	11	9	6	0	0	0	0	0	0	2	2	0
May	4.4	E.	29	NW.	0	2	4	8	3	3	3	3	3	2	8	8	15	7	6	0	0	0	0	0	0	2	0	1
June	4.2	E.	28	W.	0	1	6	15	5	0	0	1	1	1	15	11	4	3	2	0	0	1	0	0	6	0	3	0
July	4.1	E.	25	NW.	0	0	2	18	5	0	1	2	0	3	20	9	2	0	0	0	0	0	0	0	21	0	3	0
August	3.3	E.	25	NW.	0	2	3	14	6	2	0	0	2	2	21	8	2	2	1	0	0	0	0	0	20	0	3	0
September	2.8	E.	21	W.	0	3	2	9	5	5	3	2	0	1	13	10	7	6	5	0	0	1	0	0	2	0	4	0
October	3.0	E.	26	NW.	0	0	3	12	6	2	2	4	0	2	7	7	17	11	8	3	2	0	0	0	0	8	1	0
November	3.7	E.	29	N.	0	3	5	9	3	1	1	6	2	0	3	7	20	13	9	3	3	0	0	3	0	13	0	0
December	3.8	E.	24	NE.	0	1	4	19	3	1	1	0	1	1	6	7	18	14	12	9	9	0	1	15	0	22	0	0
Year	3.7	E.	34	NW.	0	17	50	146	48	27	17	28	12	20	113	100	152	104	71	28	23	2	1	20	51	87	17	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

LEXINGTON, KY.

[ϕ=38° 02′ N.; λ=84° 33′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.059	29.350	28.630	33.1	39.0	....	44.7	29.1	36.9	63	3	28	31	....	81	73	....	0.163	0.184	....	2.48	1.15	6.0	4.8	....	5.0
February	28.941	29.460	28.190	32.3	39.0	....	43.9	28.0	36.0	64	17	28	31	....	85	73	....	.162	.184	....	1.61	.43	6.9	7.1	....	6.6
March	29.094	29.440	28.490	39.5	48.5	....	54.9	36.3	45.6	73	19	33	38	....	78	67	....	.200	.238	....	3.71	1.42	6.1	5.3	....	5.5
April	28.982	29.280	28.470	48.8	58.2	....	63.6	45.0	54.3	84	24	40	42	....	74	57	....	.269	.290	....	3.51	1.39	5.6	6.2	....	5.8
May	28.857	29.110	28.430	57.8	66.4	....	70.2	54.3	62.2	90	43	52	55	....	83	68	....	.405	.439	....	6.38	1.74	7.0	7.3	....	7.0
June	29.022	29.332	28.820	72.0	80.3	....	85.1	67.6	76.4	93	59	64	65	....	78	61	....	.609	.616	....	4.49	1.70	4.1	5.3	....	5.0
July	28.988	29.210	28.890	73.7	84.2	....	88.2	69.3	78.8	94	61	65	64	....	74	52	....	.620	.601	....	2.28	.71	3.2	4.0	....	3.4
August	28.954	29.162	28.890	68.2	78.2	....	82.4	64.6	73.5	91	58	61	61	....	78	57	....	.547	.553	....	2.30	.74	3.7	4.6	....	3.8
September	29.021	29.222	28.710	64.6	77.4	....	81.2	61.8	71.5	92	49	55	53	....	72	45	....	.449	.426	....	1.12	.70	2.9	3.9	....	3.5
October	29.034	29.210	28.880	60.3	67.3	....	71.5	56.5	64.0	89	42	56	57	....	88	72	....	.477	.496	....	7.95	2.20	7.8	7.4	....	7.3
November	29.040	29.480	28.340	41.3	48.6	....	52.9	36.9	44.9	69	21	37	37	....	83	66	....	.232	.236	....	8.50	3.95	4.9	5.0	....	5.1
December	29.077	29.740	28.450	27.8	33.2	....	39.2	23.2	31.2	60	9	25	27	....	88	78	....	.141	.155	....	6.70	3.63	5.3	6.5	....	6.6
Year	29.006	29.740	28.190	51.6	60.0	....	64.8	47.7	56.3	94	3	45	47	....	80	64	....	.356	.367	....	51.12	3.95	5.3	5.6	....	5.4

LINCOLN, NEBR.

[ϕ=40° 49′ N.; λ=96° 45′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.788	29.240	28.450	25.8	36.9	34.7	42.6	23.2	32.9	66	−16	20	26	27	76	66	73	0.114	0.154	0.156	0.03	0.03	4.3	3.6	2.7	4.0
February	28.662	29.130	27.680	23.9	30.8	30.0	36.3	19.4	27.8	59	− 2	19	22	23	80	70	73	.110	.132	.132	2.92	1.90	6.3	7.2	6.9	6.9
March	28.826	29.360	28.180	33.0	44.5	44.7	50.9	30.6	40.8	73	6	27	30	32	78	60	61	.159	.181	.188	1.00	.48	6.7	6.2	5.8	6.1
April	28.668	29.280	27.990	43.6	53.1	53.5	57.8	41.2	49.5	79	30	38	39	40	81	62	63	.238	.254	.266	3.39	1.56	7.5	8.1	7.2	7.5
May	28.663	28.970	28.280	54.0	67.5	66.5	70.5	50.9	60.7	87	40	48	48	48	82	52	53	.354	.351	.344	3.83	2.87	5.5	7.1	4.7	5.9
June	28.723	28.920	28.490	66.4	78.3	77.2	81.8	64.1	73.0	97	48	62	62	63	87	60	64	.574	.579	.597	4.99	1.55	6.3	6.7	5.2	5.9
July	28.694	28.940	28.411	73.0	89.1	88.8	93.8	70.7	82.2	103	57	64	62	62	74	44	43	.604	.577	.562	.38	.32	3.5	3.4	2.5	3.0
August	28.724	29.030	28.490	66.1	82.5	80.4	86.0	63.7	74.8	102	50	59	60	61	80	49	53	.514	.534	.545	4.67	1.84	5.1	6.2	4.5	5.0
September	28.710	29.010	28.270	62.0	77.4	74.1	81.7	60.2	71.0	99	47	55	56	56	79	51	56	.448	.474	.458	5.75	2.62	4.9	5.1	4.7	4.9
October	28.730	29.120	28.150	44.9	55.1	52.5	59.0	41.3	50.2	87	22	40	41	43	83	62	71	.272	.284	.299	1.41	.63	6.2	6.1	5.8	5.8
November	28.807	29.310	28.070	29.8	40.8	37.3	45.5	26.7	36.1	64	3	25	27	28	82	59	70	.143	.156	.170	3.20	1.85	5.9	6.0	5.4	5.8
December	28.884	29.480	28.370	17.0	24.6	21.6	28.7	12.4	20.6	54	−20	14	18	18	88	76	85	.093	.108	.108	.73	.37	5.3	5.1	4.2	5.6
Year	28.740	29.480	27.680	45.0	56.7	55.1	61.2	42.0	51.6	103	−20	39	41	42	81	59	64	.302	.315	.319	32.30	2.87	5.6	5.9	5.0	5.5

LITTLE ROCK, ARK.

[ϕ=34° 45′ N.; λ=92° 06′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.785	30.090	29.480	37.2	45.9	47.3	51.8	34.6	43.2	66	10	31	32	33	79	62	60	0.184	0.196	0.200	2.72	1.01	4.5	5.7	4.6	5.3
February	29.599	30.020	28.756	40.0	47.6	48.2	53.9	36.0	45.0	69	22	33	33	33	77	57	56	.201	.198	.197	3.55	1.25	5.6	4.5	4.9	4.9
March	29.750	30.060	29.260	46.5	57.7	58.8	63.0	44.6	53.8	74	24	41	41	42	80	55	55	.267	.270	.278	6.44	3.16	4.1	4.8	4.5	4.6
April	29.632	29.990	29.280	55.3	66.2	66.8	71.8	51.5	61.6	84	37	47	48	49	75	54	55	.344	.361	.368	4.09	2.08	5.1	4.5	4.7	4.7
May	29.509	29.730	29.200	61.4	71.2	70.7	74.8	59.4	67.1	88	50	57	56	59	87	62	68	.481	.468	.508	4.67	1.03	7.4	7.5	7.4	7.1
June	29.627	29.840	29.370	72.3	81.9	79.7	85.2	69.3	77.2	92	54	67	67	67	85	63	68	.678	.672	.677	2.75	1.29	6.2	6.4	6.0	6.0
July	29.629	29.897	29.460	76.2	87.4	87.0	91.2	73.2	82.2	98	66	69	67	67	78	51	53	.707	.661	.677	2.36	1.23	3.9	4.2	3.0	3.9
August	29.621	29.760	29.460	74.8	86.2	84.8	89.7	72.3	81.0	99	65	68	68	69	80	56	61	.688	.688	.705	3.45	.83	5.6	4.5	3.9	4.5
September	29.651	29.850	29.340	68.5	80.8	78.6	84.1	66.5	75.3	95	55	62	60	62	79	52	58	.566	.543	.566	2.78	2.71	5.1	5.1	4.6	4.9
October	29.654	29.880	29.390	62.8	69.6	67.7	73.3	60.0	66.6	87	47	60	61	61	92	76	82	.541	.552	.564	15.29	6.32	7.8	7.8	7.9	7.8
November	29.712	30.150	29.130	46.0	56.2	55.8	62	43.0	52.8	75	26	42	42	42	86	63	61	.281	.292	.285	8.21	2.83	4.8	4.6	4.0	4.4
December	29.799	30.430	29.210	35.9	44.1	43.7	49.9	31.3	40.6	69	14	31	33	33	82	68	68	.184	.210	.202	2.34	1.85	5.0	5.5	4.3	5.9
Year	29.664	30.430	28.756	56.4	66.2	65.8	70.9	53.5	62.2	99	10	51	51	52	82	6[illegible]	62	.427	.426	.436	58.65	6.32	5.4	5.4	5.0	5.3

LOS ANGELES, CALIF.

[ϕ=34° 03′ N.; λ=118° 15′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.723	30.110	29.155	52.8	66.8	64.7	70.9	49.5	60.2	79	36	33	32	36	50	32	42	0.194	0.192	0.239	0.96	0.87	1.7	2.7	3.5	3.2
February	29.696	29.940	29.230	48.4	57.9	57.3	61.1	46.2	53.6	73	41	41	44	43	77	62	63	.260	.291	.290	1.02	.37	3.0	5.3	4.2	4.3
March	29.678	29.900	29.400	49.7	61.5	58.9	64.0	47.3	55.6	78	40	41	40	43	75	53	62	.265	.271	.296	2.18	1.11	2.8	4.2	4.1	4.5
April	29.614	29.800	29.380	53.2	66.2	64.1	69.6	52.2	60.9	82	48	48	51	49	85	60	61	.341	.379	.358	.17	.17	4.9	3.4	3.2	4.3
May	29.552	29.660	29.437	56.5	65.3	63.3	68.2	55.1	61.6	76	50	54	55	55	90	70	74	.410	.431	.429	.19	.16	9.3	6.0	4.3	6.4
June	29.536	29.700	29.370	59.2	76.9	73.1	79.4	58.0	68.7	96	53	52	56	53	79	52	52	.395	.462	.408	.00	.00	3.1	.7	(*)	1.0
July	29.547	29.720	29.436	62.5	77.9	74.1	80.5	61.4	71.0	87	55	58	60	58	87	56	59	.494	.526	.492	.00	.00	4.1	.4	.3	1.5
August	29.586	29.740	29.428	61.6	77.4	73.3	80.1	60.4	70.2	89	55	58	60	59	90	57	62	.492	.521	.506	T	T	5.4	.9	.9	2.6
September	29.501	29.730	29.345	60.8	75.5	70.0	77.9	58.7	68.3	92	53	55	57	57	84	56	66	.438	.474	.472	1.29	.68	4.9	2.2	2.3	3.4
October	29.594	29.800	29.430	56.4	70.9	65.7	73.4	54.3	63.8	88	47	48	48	50	76	48	61	.339	.350	.376	.56	.55	4.2	2.0	1.4	2.4
November	29.630	29.870	29.110	54.4	69.1	63.3	71.4	51.6	61.5	88	37	41	39	43	64	40	53	.265	.251	.292	.46	.46	2.6	2.0	2.0	2.4
December	29.736	29.910	29.450	52.6	65.4	61.2	68.5	49.3	58.9	87	43	39	39	43	64	42	55	.247	.241	.279	1.99	1.24	3.1	3.2	3.1	2.9
Year	29.616	30.110	29.110	55.7	69.2	65.8	72.1	53.7	62.9	96	36	47	48	49	77	52	59	.345	.366	.370	8.82	1.24	4.1	2.8	2.4	3.2

* Few.

Annual meteorological summary for the year ending December 31, 1919—Continued.

LEXINGTON, KY.

[H_b=989 ft.; h_t=193 ft.; h_r=187 ft.; h_a=230 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	12.9	SW.	35	S.	0	1	0	0	5	6	9	7	3	0	13	8	10	7	4	3	2	0	0	6	0	16	0	0
February	15.4	NW.	56	SW.	4	1	2	4	6	3	5	3	4	0	6	8	14	13	9	6	4	0	2	3	0	22	0	0
March	14.4	NE.	68	SW.	5	2	8	2	3	5	5	2	4	0	13	4	14	11	9	2	1	0	1	0	0	10	2	0
April	14.0	SW.	42	SW.	2	2	0	2	5	7	8	2	4	0	9	8	13	14	11	0	0	0	0	0	0	5	2	0
May	11.7	SW.	34	SW.	0	1	3	7	5	4	7	1	3	0	8	3	20	15	14	0	0	0	2	0	1	0	6	0
June	9.9	SW.	38	SE.	0	1	3	6	4	5	9	1	1	0	10	13	7	14	12	0	0	0	0	0	6	0	12	0
July	10.3	SW.	48	S.	5	1	3	7	1	3	12	3	1	0	15	13	3	8	5	0	0	1	0	0	14	0	8	0
August	10.9	SW.	42	NW.	1	0	5	2	1	3	15	2	3	0	16	9	6	8	7	0	0	0	0	0	4	0	5	0
September	11.7	SW.	48	SW.	1	1	6	3	1	8	7	3	1	0	18	6	6	5	4	0	0	0	0	0	3	0	2	0
October	12.1	SW.	38	SW.	0	1	3	6	2	3	12	1	2	1	4	7	20	18	15	0	0	0	3	0	0	0	3	0
November	13.2	SW.	62	SW.	2	2	6	1	5	5	5	3	3	0	13	5	12	12	7	0	0	0	4	0	0	8	0	0
December	13.4	SW.	36	SW.	0	2	3	5	3	2	8	3	5	0	9	4	18	7	6	6	2	0	6	6	0	25	1	0
Year	12.5	SW.	68	SW.	20	15	42	45	41	54	102	31	34	1	134	88	143	132	103	17	9	1	18	15	28	86	41	0

LINCOLN, NEBR.

[H_b=1,189 ft.; h_t=11 ft.; h_r=4 ft.; h_a=84 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.2	* SW.	33	N.	0	9	1	2	5	9	16	6	14	0	16	10	5	1	0	3	1	0	3	6	0	28	0	0
February	10.8	N.	43	N.	2	10	7	5	10	6	4	4	10	0	6	7	15	11	7	13	9	0	1	11	0	25	0	0
March	11.2	S.	33	S.	0	13	10	4	12	16	2	2	3	0	5	14	12	8	5	5	3	1	0	2	0	16	3	0
April	11.7	NW.	43	NW.	3	10	8	5	12	8	2	3	12	0	4	7	19	15	12	2	2	1	0	0	0	3	5	0
May	9.1	SE.	36	NW.	0	12	10	9	17	5	1	2	5	1	8	13	10	9	6	0	0	1	0	0	0	0	4	0
June	8.3	S.	33	NE.	0	9	3	6	17	18	3	1	2	1	6	14	10	13	12	0	0	1	0	0	7	0	8	0
July	9.5	S.	29	S.	0	6	3	3	12	28	2	0	1	1	21	7	3	4	2	0	0	0	0	0	23	0	5	0
August	8.4	SE.	70	NW.	2	13	4	7	15	14	1	4	4	0	11	10	10	8	7	0	0	1	0	0	9	0	8	1
September	9.6	S.	30	S.	0	4	11	4	14	20	3	1	3	0	15	3	12	8	7	0	0	0	0	0	6	0	5	0
October	9.0	S.	30	NW.	0	16	6	4	8	19	1	5	3	0	11	6	14	6	5	0	0	0	0	1	0	9	2	0
November	10.8	N.	44	NW.	1	10	6	5	10	5	9	5	10	0	9	9	12	9	9	7	5	0	0	6	0	17	1	0
December	9.6	S.	32	N.	0	14	5	2	3	17	5	8	8	0	11	5	15	3	3	8	3	0	2	18	0	26	0	0
Year	9.5	S.	70	NW.	8	126	80	56	135	165	49	41	75	3	123	105	137	95	75	38	23	5	6	44	45	124	41	1

LITTLE ROCK, ARK.

[H_b=357 ft.; h_t=139 ft.; H_r=132 ft.; h_a=147 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.1	NW.	30	NW.	0	8	2	5	3	10	13	9	12	0	11	9	11	6	6	4	1	0	1	3	0	9	0	0
February	11.1	E.	40	W.	1	4	4	12	8	5	6	8	9	0	12	7	9	11	9	2	1	0	0	0	0	8	0	0
March	8.9	E.	52	W.	1	4	11	18	10	7	2	6	4	0	15	8	8	7	5	1	0	1	0	0	0	3	4	0
April	10.2	S.	36	SE.	0	0	9	8	7	12	12	6	6	0	13	5	12	10	8	0	0	0	0	0	0	0	7	0
May	8.3	E.	36	NW.	0	6	8	15	4	11	5	4	9	0	2	14	15	16	13	0	0	0	0	0	0	0	6	0
June	6.5	E.	42	N.	1	2	6	15	4	13	8	7	5	0	7	11	12	11	8	0	0	0	0	0	3	0	10	0
July	6.2	E.	48	NW.	1	4	6	14	4	7	12	6	9	0	15	15	1	8	6	0	0	0	0	0	22	0	8	0
August	7.3	SW.	52	W.	2	4	7	8	4	17	13	7	2	0	14	12	5	10	8	0	0	0	0	0	16	0	7	0
September	6.8	S.	30	S.	0	8	9	2	9	19	4	5	3	1	12	8	10	4	2	0	0	0	1	0	6	0	2	0
October	7.5	S.	40	W.	1	8	13	9	5	20	5	0	2	0	3	7	21	17	17	0	0	0	2	0	0	0	6	0
November	7.8	E.	39	NW.	0	10	11	9	5	4	8	6	7	0	15	7	8	10	8	0	0	0	1	0	0	3	5	0
December	8.3	N.	36	N.	0	12	9	9	2	7	14	4	5	0	10	8	13	8	6	0	0	0	2	2	0	16	1	0
Year	8.1	S.	52	W.	7	70	95	124	65	132	102	68	73	1	129	111	125	118	96	7	2	1	7	5	47	39	56	0

LOS ANGELES, CALIF.

[H_b=338 ft.; H_t=159 ft.; h_r=151 ft.; h_a=191 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.1	NE.	28	NW.	0	3	21	0	3	2	12	6	15	0	19	5	7	4	3	0	0	0	0	0	0	0	1	0
February	7.0	SW.	29	NW.	0	2	15	0	6	3	17	2	11	0	11	8	9	7	6	1	0	1	0	0	0	0	1	0
March	6.9	NE.	26	NW.	0	0	25	1	1	2	20	4	9	0	16	5	10	7	4	0	0	3	1	0	0	0	3	0
April	5.9	SW.	24	W.	0	2	19	3	3	9	15	7	2	0	11	13	6	1	1	0	0	0	3	0	0	0	0	0
May	5.4	SW.	20	S.	0	0	8	3	11	3	30	3	4	0	4	12	15	4	1	0	0	0	0	0	0	0	1	0
June	5.7	SW.	17	S.	0	4	9	2	3	4	31	2	5	0	27	3	0	0	0	0	0	0	2	0	3	0	0	0
July	5.5	SW.	16	SW.	0	2	4	3	6	5	32	3	7	0	26	5	0	0	0	0	0	0	0	0	0	0	0	0
August	5.2	SW.	16	S.	0	0	8	2	9	1	33	2	7	0	22	9	0	0	0	0	0	0	2	0	0	0	0	0
September	5.1	SW.	18	SW.	0	2	8	4	5	3	26	8	4	0	19	6	5	4	4	0	0	0	3	0	1	0	1	0
October	5.5	NE.	18	SW.	0	1	20	3	5	1	26	3	3	0	23	5	3	2	1	0	0	0	0	0	0	0	0	0
November	5.6	NE.	23	NW.	0	2	25	0	2	3	16	4	8	0	21	6	3	2	2	1	0	0	0	0	0	0	1	0
December	5.4	NE.	22	E.	0	3	23	2	2	5	15	2	9	1	18	10	3	6	5	0	0	0	2	0	0	0	2	0
Year	5.8	SW.	29	NW.	0	21	185	23	56	41	273	46	84	1	217	87	61	37	27	2	0	4	13	0	4	0	10	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

LOUISVILLE, KY.

[ϕ=38° 15′ N.; λ=85° 45′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.571	29.850	29.100	33.4	41.3	40.3	46.4	30.6	38.5	63	6	27	30	28	76	63	63	0.157	0.173	0.166	1.63	0.87	4.5	4.8	4.2	4.6
February	29.441	29.960	28.620	33.6	41.1	39.6	45.6	30.1	37.8	65	19	28	31	28	78	66	63	.158	.179	.157	.99	.42	6.6	6.0	4.7	6.0
March	29.606	29.960	28.920	40.8	51.4	50.8	57.4	38.1	47.8	75	19	33	34	35	74	54	57	.198	.210	.217	5.72	2.94	5.1	4.6	3.5	4.7
April	29.463	29.820	28.960	51.0	60.9	60.1	66.1	47.1	56.6	84	25	41	42	44	70	53	59	.277	.294	.314	3.15	.82	5.7	6.4	4.0	5.7
May	29.340	29.590	28.910	59.4	68.0	66.9	71.5	55.4	63.4	90	45	52	53	55	76	61	67	.403	.422	.445	4.22	.93	7.0	7.5	6.6	6.8
June	29.487	29.800	29.250	73.1	83.3	79.2	86.7	68.9	77.8	92	58	66	65	66	77	56	65	.633	.630	.636	4.41	2.78	4.8	5.1	5.0	4.4
July	29.449	29.680	29.250	74.2	85.8	84.8	90.6	70.0	80.3	97	62	66	66	66	76	52	55	.647	.640	.654	3.47	1.69	3.0	4.3	2.5	2.8
August	29.426	29.650	29.250	69.2	80.5	79.1	85.1	66.5	75.8	94	60	62	60	63	78	53	60	.582	.541	.597	1.57	1.23	3.3	4.8	3.0	3.6
September	29.487	29.700	29.160	65.5	79.1	77.0	83.8	62.3	73.0	95	49	57	61	60	75	55	58	.487	.544	.539	2.53	1.31	3.6	5.0	1.6	3.4
October	29.506	29.720	29.300	59.6	69.0	66.5	72.8	56.5	64.6	91	43	56	60	60	89	75	82	.471	.530	.538	6.89	2.11	6.8	7.2	4.4	6.6
November	29.540	29.980	28.750	42.0	51.1	48.6	54.2	37.8	46.0	70	22	37	39	40	83	66	73	.240	.262	.261	5.59	1.91	4.9	4.6	3.7	4.6
December	29.592	30.310	28.880	27.9	34.1	34.5	40.1	24.5	32.3	61	8	22	25	27	78	69	73	.126	.141	.157	5.89	2.80	4.6	5.4	4.9	5.5
Year	29.492	30.310	28.620	52.5	62.1	60.5	66.7	49.0	57.8	97	6	46	47	48	78	60	65	.363	.380	.390	46.06	2.94	5.0	5.5	4.0	4.9

LUDINGTON, MICH.

[ϕ=43° 57′ N.; λ=86° 27′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.288	29.880	28.830	27.5	29.3	29.4	33.9	24.2	29.0	45	2	24	26	25	86	85	84	0.132	0.142	0.141	1.06	0.24	7.0	7.0	6.4	7.5
February	29.244	29.940	28.400	24.8	28.4	27.4	32.0	21.8	26.9	42	6	22	23	23	87	80	81	.119	.130	.124	1.56	.79	8.3	7.4	6.5	7.9
March	29.479	30.000	28.840	30.2	34.9	35.6	39.8	26.3	33.0	59	13	26	27	27	83	74	76	.146	.154	.151	2.92	.95	5.9	5.8	5.7	5.7
April	29.293	29.710	28.720	39.9	43.3	43.2	48.4	35.7	42.0	64	22	36	37	36	85	78	78	.216	.224	.219	2.94	1.09	6.9	7.2	6.0	6.5
May	29.264	29.600	28.750	49.9	55.3	55.2	60.6	43.4	52.0	81	35	40	40	40	72	61	61	.257	.258	.259	2.24	.91	3.5	3.8	4.6	3.7
June	29.379	29.630	29.020	67.6	72.6	72.6	77.6	60.7	69.2	87	43	59	59	60	75	64	66	.519	.513	.528	2.47	.88	3.8	3.5	4.7	3.8
July	29.311	29.570	29.040	67.5	71.7	71.5	76.6	60.7	68.6	85	50	58	59	58	72	65	63	.489	.502	.481	2.45	.85	3.0	3.9	3.1	3.6
August	29.247	29.573	28.950	64.5	68.9	67.6	72.4	59.5	66.0	80	47	57	57	57	77	66	70	.474	.473	.479	1.47	.89	3.5	3.6	3.8	3.7
September	29.306	29.610	28.710	58.9	63.4	63.0	67.8	54.6	61.2	79	39	52	53	53	80	72	73	.406	.422	.419	4.02	2.40	4.5	5.7	4.9	5.0
October	29.332	29.670	28.900	48.2	53.6	52.0	57.1	43.7	50.4	70	30	43	44	44	84	72	76	.301	.310	.312	3.17	1.27	6.8	7.0	5.8	6.6
November	29.336	29.850	28.120	34.3	36.8	35.9	41.1	29.4	35.2	58	13	30	30	30	83	77	77	.172	.177	.170	3.10	1.33	8.0	7.1	6.9	7.6
December	29.383	29.978	28.745	19.7	22.4	22.6	26.0	15.9	21.0	39	0	16	18	18	84	82	82	.094	.102	.105	1.29	.41	9.2	9.4	8.8	8.9
Year	29.322	30.000	28.120	44.4	48.4	47.8	52.8	39.7	46.2	87	0	39	39	39	81	73	74	.277	.284	.282	28.69	2.40	5.9	6.0	5.6	5.9

LYNCHBURG, VA.

[ϕ=37° 25′ N.; λ=79° 09′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.348	29.910	28.847	33.8	44.3	43.2	51.8	30.2	41.0	68	10	26	31	31	73	59	62	0.154	0.184	0.182	4.11	2.02	4.9	4.3	2.2	4.7
February	29.262	29.750	28.570	33.3	42.6	41.8	49.0	30.7	39.8	65	20	24	27	30	69	56	63	.134	.154	.172	2.23	.70	4.5	4.3	3.7	5.0
March	29.389	29.914	28.740	42.6	53.2	51.7	60.3	38.6	49.4	73	31	32	37	35	67	58	56	.187	.232	.213	3.02	.99	4.9	4.0	3.2	4.9
April	29.297	29.630	28.920	49.7	61.1	59.9	67.6	43.7	55.6	86	27	40	42	42	69	52	53	.261	.286	.281	2.18	.89	4.6	4.5	4.2	5.2
May	29.205	29.500	28.800	59.9	70.5	67.7	76.0	54.1	65.0	94	43	53	54	55	80	59	67	.418	.435	.452	3.64	.99	5.9	4.6	5.2	5.7
June	29.377	29.740	29.050	69.1	78.1	74.6	83.2	63.7	73.4	96	50	62	63	65	80	62	73	.574	.582	.625	7.61	2.01	4.6	4.8	5.8	5.1
July	29.299	29.610	29.050	72.8	82.8	78.3	87.1	67.3	77.2	97	53	66	67	68	80	61	72	.645	.667	.687	5.21	1.36	4.5	3.9	5.2	4.5
August	29.250	29.537	29.050	69.0	79.5	75.1	84.3	63.5	73.9	92	52	62	63	64	78	58	70	.559	.587	.605	3.03	1.73	4.4	4.4	4.4	4.7
September	29.331	29.670	28.950	61.3	76.9	71.8	82.7	56.8	69.8	95	42	54	54	58	78	48	62	.437	.441	.496	.47	.47	2.4	2.5	2.3	3.4
October	29.401	29.707	29.160	58.8	70.1	66.1	75.3	55.5	65.4	94	38	54	57	57	85	65	74	.434	.478	.483	2.65	.75	6.1	4.8	5.4	6.2
November	29.379	29.870	28.820	42.0	52.5	49.0	58.5	38.0	48.2	79	24	34	38	40	74	58	72	.212	.242	.265	2.48	.91	4.7	3.7	4.1	5.3
December	29.394	30.023	28.850	30.4	38.8	37.0	47.3	24.9	36.1	71	12	23	27	28	72	63	69	.130	.157	.164	1.96	.77	6.3	4.6	3.5	5.7
Year	29.328	30.023	28.570	51.9	62.5	59.7	68.6	47.2	57.9	97	10	44	47	48	75	58	66	.345	.370	.385	38.59	2.02	4.8	4.2	4.1	5.0

MACON, GA.

[ϕ=32° 50′ N.; λ=83° 38′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.741	30.140	29.340	37.9	52.3	49.8	57.0	35.4	46.2	72	12	34	33	35	86	50	58	0.210	0.209	0.222	5.01	2.22	5.0	4.7	2.9	4.7
February	29.618	30.000	29.100	42.1	52.7	52.5	57.8	39.5	48.6	75	25	36	37	38	80	59	62	.227	.244	.252	7.66	4.81	6.4	7.0	4.7	6.3
March	29.728	30.070	29.290	50.5	63.4	61.5	68.9	46.9	57.9	78	36	44	42	42	78	50	52	.297	.285	.284	3.21	1.04	4.3	4.8	3.1	4.3
April	29.662	29.960	29.350	56.1	70.6	69.4	76.0	51.5	63.8	87	33	46	42	44	70	38	42	.334	.290	.311	1.83	1.08	4.6	4.4	3.2	3.9
May	29.533	29.770	29.160	66.0	76.4	74.2	81.9	60.7	71.3	89	50	60	57	58	80	54	60	.519	.484	.496	3.99	.75	5.2	7.4	5.4	6.0
June	29.659	29.950	29.360	73.4	83.5	78.3	86.9	68.4	77.6	94	58	67	64	65	80	53	68	.663	.599	.645	2.52	.87	5.7	6.4	6.7	6.3
July	29.642	29.890	29.430	74.8	84.7	78.9	87.7	70.6	79.2	97	59	70	69	70	86	60	76	.742	.709	.738	12.88	3.44	6.1	6.1	7.3	6.5
August	29.628	29.790	29.440	73.6	84.2	78.3	87.6	69.9	78.8	95	61	69	69	70	87	61	76	.721	.707	.732	4.98	1.97	6.5	6.4	6.3	6.3
September	29.642	29.890	29.370	68.2	82.2	77.1	85.8	64.1	75.0	94	54	62	59	61	80	46	60	.557	.568	.557	.77	.46	4.0	3.8	2.5	3.5
October	29.708	29.910	29.530	68.0	80.0	74.9	83.7	65.2	74.4	92	55	65	65	66	91	62	75	.629	.623	.643	2.82	2.14	5.6	6.9	2.6	6.4
November	29.701	30.230	29.370	49.7	64.8	60.0	68.9	47.3	58.1	83	31	44	43	47	83	49	64	.313	.310	.354	.64	.25	4.8	4.7	3.4	4.4
December	29.772	30.200	29.400	40.2	52.7	50.2	58.6	37.6	48.1	75	24	35	35	38	82	55	66	.225	.229	.258	2.76	1.43	5.1	4.9	4.1	5.0
Year	29.670	30.230	29.100	58.4	70.6	67.1	75.1	54.8	64.9	97	12	53	51	53	82	53	63	.453	.433	.458	49.07	4.81	5.3	5.6	4.4	5.3

Annual meteorological summary for the year ending December 31, 1919—Continued.

LOUISVILLE, KY.

[H_b=525 ft.; h_t=219 ft.; h_r=214 ft.; h_a=255 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Aurora.
	Miles.	*	*Mi.*																									
January	10.5	S.	30	W.	0	2	6	4	6	17	5	17	5	0	15	6	10	8	5	5	1	0	0	4	0	15	0	0
February	13.6	S.	60	SW.	3	7	9	2	4	12	5	10	7	0	9	6	13	9	7	5	3	0	0	1	0	20	0	0
March	12.9	NE.	56	SW.	5	11	18	3	5	8	5	3	9	0	13	9	9	9	7	2	0	1	0	0	0	6	1	0
April	12.8	S.	44	S.	2	9	8	5	3	15	8	6	6	0	11	5	14	11	8	0	0	0	0	0	0	3	4	0
May	10.6	NE.	48	NW.	1	9	18	4	4	5	14	4	4	0	5	9	17	15	13	0	0	0	0	0	1	0	3	0
June	8.6	SW.	40	NE.	1	8	10	9	4	11	12	2	4	0	12	15	3	13	10	0	0	0	0	0	7	0	13	0
July	9.1	SW.	56	N.	2	8	15	5	3	8	16	5	2	0	20	9	2	5	5	0	0	0	0	0	19	0	7	0
August	9.7	SW.	54	W.	2	6	10	1	2	13	15	8	7	0	20	4	7	6	3	0	0	0	0	0	6	0	8	0
September	10.0	S.	46	N.	2	11	8	7	1	13	10	4	6	0	20	7	3	5	4	0	0	0	0	0	4	0	1	0
October	10.4	S.	44	W.	3	11	13	4	2	19	8	1	4	0	7	6	18	14	9	0	0	0	1	0	2	0	2	1
November	12.1	N.	58	SW.	3	13	6	8	3	10	8	3	9	0	16	3	11	8	7	0	0	0	1	0	0	7	0	0
December	12.1	N.	42	NW.	1	15	6	5	6	10	9	7	4	0	12	5	14	7	7	6	1	0	4	5	0	25	2	0
Year	11.0	S.	60	SW.	25	110	127	57	43	141	115	70	67	0	160	84	121	108	85	18	5	1	6	10	39	76	39	1

LUDINGTON, MICH.

[H_b=637 ft.; h_t=60 ft.; h_r=53 ft.; h_a=66 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	12.6	W.	50	SW.	2	3	2	2	9	9	9	15	13	0	5	7	19	13	9	15	10	0	3	9	0	24	0	0
February	11.8	E.	42	NW.	1	6	6	10	12	2	1	12	6	1	1	7	20	15	6	18	12	0	0	12	0	26	0	0
March	12.2	N.	44	S.	2	12	6	8	10	15	1	4	5	1	11	9	11	10	6	14	7	0	0	7	0	24	0	3
April	11.8	S.	38	S.	0	16	2	9	8	16	4	1	4	0	6	9	15	16	13	6	3	0	2	1	0	8	5	0
May	8.4	E.	30	NW.	0	14	10	14	6	3	5	5	4	1	18	5	8	8	7	0	0	0	0	0	0	0	2	6
June	7.3	E.	30	S.	0	9	4	8	12	18	3	3	2	1	16	10	4	9	6	0	0	0	0	0	0	0	8	0
July	8.7	S.	44	W.	1	14	3	6	13	19	2	3	0	2	15	11	5	12	7	0	0	0	0	0	0	0	8	1
August	8.9	S.	30	NW.	0	9	4	3	6	13	8	9	9	1	16	10	5	10	6	0	0	0	0	0	0	0	8	2
September	10.5	S.	35	S.	0	11	2	5	7	19	5	3	8	0	11	7	12	11	7	0	0	0	0	0	0	0	5	2
October	10.5	SE.	42	W.	1	4	5	12	18	8	4	11	2	0	6	8	17	17	14	0	0	0	1	0	0	1	6	3
November	14.4	W.	54	SW.	4	8	9	6	10	6	6	13	2	0	3	7	20	14	8	13	7	0	1	5	0	14	1	0
December	13.3	W.	37	SW.	0	7	2	9	7	2	11	14	10	0	0	5	26	15	8	22	15	0	0	22	0	31	0	0
Year	10.9	S.	54	SW.	11	113	55	92	116	130	59	93	65	7	108	96	162	150	97	88	54	0	7	56	0	128	43	17

LYNCHBURG, VA.

[H_b=681 ft.; h_t=153 ft.; h_r=146 ft.; h_a=188 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	8.1	NW.	37	NW.	0	7	5	5	1	4	11	16	12	1	15	10	6	7	7	1	0	0	1	2	0	14	0	0
February	7.6	NW.	33	S.	0	13	3	8	1	8	6	7	10	0	13	6	9	8	8	2	2	0	0	0	0	17	0	0
March	10.1	N.	51	N.	1	15	8	7	1	7	5	7	12	0	12	14	5	10	7	0	0	0	0	0	0	2	1	0
April	8.1	NW.	37	NW.	0	14	4	7	1	9	8	7	9	1	14	7	9	9	6	0	0	0	0	0	0	3	1	0
May	6.5	W.	27	SW.	0	10	7	13	1	9	8	10	4	0	8	13	10	15	13	0	0	0	2	0	2	0	4	0
June	5.0	E.	34	NW.	0	13	8	19	3	4	5	5	3	0	10	13	7	15	12	0	0	0	1	0	4	0	11	0
July	5.9	W.	48	NW.	1	5	5	8	4	7	12	10	11	0	14	10	7	14	12	0	0	0	0	0	11	0	7	0
August	5.2	W.	36	NE.	0	8	6	5	2	4	8	16	13	0	13	16	2	10	9	0	0	0	0	0	6	0	7	0
September	5.0	N.	34	N.	0	14	7	5	1	8	3	9	11	2	20	8	2	2	2	0	0	0	3	0	4	0	1	0
October	6.0	W.	23	W.	0	6	8	13	0	2	7	17	8	1	10	8	13	13	8	0	0	0	2	0	2	0	1	0
November	6.1	E.	34	NW.	0	5	4	16	3	4	5	7	12	4	14	3	13	9	8	0	0	0	1	0	0	9	1	0
December	7.1	W.	38	NW.	0	8	6	11	3	0	6	19	9	0	9	11	11	11	7	4	4	0	0	2	0	26	0	0
Year	6.7	W.	51	N.	2	118	71	117	21	66	84	130	114	9	152	119	94	123	99	7	6	0	10	4	29	71	34	0

MACON, GA.

[H_b=370 ft.; h_t=78 ft.; h_r=71 ft.; h_a=87 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
January	5.9	NW.	24	S.	0	10	7	5	2	4	4	8	19	3	12	10	9	9	6	0	0	0	0	1	0	9	0	0
February	6.8	NW.	28	NW.	0	5	10	4	5	6	2	9	13	2	6	8	14	11	9	1	0	0	0	0	0	5	2	0
March	7.4	NW.	31	S.	0	14	5	7	9	3	3	5	14	2	14	5	12	7	5	0	0	0	0	0	0	0	3	0
April	6.0	NW.	21	S.	0	6	3	3	7	11	2	6	16	6	16	6	8	6	4	0	0	0	1	0	0	0	1	0
May	5.4	S.	32	SE.	0	5	1	7	9	11	13	4	11	1	8	11	12	14	10	0	0	1	0	0	0	0	9	0
June	5.3	E.	28	NW.	0	9	14	17	9	4	1	3	3	0	5	13	12	14	10	0	0	0	0	0	9	0	11	0
July	5.0	SE.	28	NW.	0	5	5	11	6	13	12	7	2	1	5	12	14	18	16	0	0	0	0	0	12	0	18	0
August	4.3	SW.	27	W.	0	6	3	3	3	9	17	5	13	3	7	7	17	15	12	0	0	0	1	0	10	0	12	0
September	5.1	NE.	19	NE.	0	19	11	9	8	4	0	2	4	3	16	8	6	4	3	0	0	0	0	0	6	0	3	0
October	4.4	S.	22	SE.	0	3	12	12	3	10	8	2	5	7	5	14	12	6	3	0	0	0	3	0	3	0	4	0
November	5.8	N.	28	SW.	0	12	11	5	2	10	3	1	14	2	15	4	11	4	4	0	0	0	1	0	0	2	0	0
December	6.8	NW.	31	NW.	0	5	12	2	1	9	8	8	16	1	13	6	12	10	8	0	0	0	0	0	0	8	2	0
Year	5.7	NW.	32	SE.	0	99	94	85	64	94	73	60	130	31	122	104	139	118	90	1	0	1	6	1	40	24	65	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MADISON, WIS.

[ϕ=43° 05′ N.; λ=89° 23′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.964	29.330	28.570	21.0	26.9	25.9	31.0	17.2	24.1	48	−23	18	20	19	87	75	76	0.108	0.114	0.115	0.26	*0.28	5.3	5.9	3.2	6.4
February	28.910	29.520	28.090	19.4	25.7	25.4	31.0	16.4	23.7	52	−2	16	18	18	84	72	74	.097	.111	.108	2.12	1.06	7.0	6.8	4.6	6.6
March	29.119	29.680	28.560	28.0	35.5	36.7	42.0	24.5	33.2	60	−5	23	24	27	81	64	68	.136	.139	.155	2.17	1.45	5.9	7.4	6.5	7.4
April	28.938	29.450	28.373	40.9	48.1	48.2	53.6	38.0	45.8	71	23	35	34	36	79	61	67	.209	.203	.224	2.90	.57	7.3	8.3	7.8	8.1
May	28.931	29.290	28.560	49.1	59.5	59.6	64.2	46.3	55.2	91	37	42	39	41	76	52	54	.272	.251	.265	3.55	1.98	6.4	7.2	6.8	7.0
June	29.031	29.270	28.650	66.3	73.4	73.2	79.5	62.8	71.2	90	50	62	63	63	86	67	71	.561	.597	.584	3.35	.84	6.9	7.0	6.8	6.9
July	28.981	29.220	28.690	69.1	79.6	78.2	84.4	65.3	74.8	95	55	60	60	61	75	53	58	.533	.528	.545	3.96	1.53	4.3	5.3	4.3	4.8
August	28.942	29.250	28.660	63.0	74.1	72.5	77.8	60.1	69.0	88	51	56	56	56	79	54	58	.462	.461	.471	.89	.42	3.9	5.1	4.9	4.7
September	28.976	29.280	28.397	58.6	68.3	66.9	72.5	56.0	64.2	91	44	53	52	53	82	60	62	.411	.410	.412	6.83	2.05	6.4	6.7	5.2	6.1
October	28.991	29.303	28.510	45.6	53.4	51.5	58.1	42.3	50.2	78	25	42	43	44	88	70	78	.288	.304	.317	5.95	2.48	7.2	6.4	6.2	7.2
November	29.009	29.500	27.900	30.8	35.9	33.0	39.5	25.7	32.6	57	5	25	25	24	79	65	69	.141	.142	.137	2.25	.92	7.3	7.3	6.4	7.1
December	29.079	29.680	28.470	10.7	15.7	14.6	19.3	5.9	12.6	39	−16	7	9	9	85	74	78	.066	.073	.072	.93	.25	8.3	7.0	6.5	8.0
Year	28.988	29.680	27.900	41.9	49.8	48.8	54.4	38.4	46.4	95	−23	37	37	38	82	64	68	.274	.278	.284	35.16	2.48	6.4	6.7	5.8	6.7

MANTEO, N. C.

[ϕ=35° 54′ N.; λ=75° 40′ W.]

January	.....	.....	.....	.....	.....	.....	53.5	34.3	43.9	69	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.52	0.70	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	52.1	35.2	43.6	71	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.44	.84	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	60.6	40.9	50.8	70	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.25	.68	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	66.6	44.2	55.4	83	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.45	.70	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	75.4	60.2	67.8	87	51	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.45	1.78	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	80.3	61.5	70.9	91	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.72	2.76	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	86.5	67.1	76.8	96	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.70	1.60	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	85.8	68.2	77.0	94	61	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.54	2.64	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	80.3	63.7	72.0	90	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.66	1.96	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	80.7	63.6	72.2	94	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.00	1.10	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	63.9	44.8	54.4	85	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.16	.16	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	54.4	35.0	44.7	72	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.86	.34	.....	.....	.....	.....
Year	.....	.....	.....	.....	.....	.....	70.0	51.6	60.8	96	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	43.75	2.76	.....	.....	.....	.....

MARQUETTE, MICH.

[ϕ=46° 34′ N.; λ=87° 24′ W.]

January	29.145	29.730	28.770	22.5	26.2	25.5	30.1	19.1	24.6	45	3	18	21	21	83	80	82	0.103	0.118	0.118	2.21	0.72	8.5	9.1	8.1	7.9
February	29.171	29.820	28.550	21.4	25.4	24.3	29.0	17.6	23.3	39	−6	17	20	20	80	78	81	.098	.108	.112	1.50	.73	8.6	8.6	7.4	8.4
March	29.399	30.000	28.790	24.9	31.2	29.6	36.3	20.9	28.6	56	1	19	24	24	77	72	79	.111	.132	.133	.92	.51	6.4	7.5	7.5	7.1
April	29.239	29.690	28.490	37.3	40.5	39.2	45.6	32.7	39.2	66	23	29	33	31	72	74	73	.162	.189	.177	3.24	1.61	7.3	7.6	7.0	7.5
May	29.223	29.620	28.850	49.7	52.1	51.4	57.8	42.5	50.2	92	31	38	41	42	68	68	71	.242	.269	.280	2.77	.79	4.4	4.4	4.9	4.9
June	29.317	29.580	29.003	61.9	66.8	62.3	72.3	52.3	62.3	92	40	54	56	55	78	70	77	.433	.455	.439	2.01	.65	4.6	5.5	5.3	6.2
July	29.206	29.510	28.880	66.6	72.4	70.3	77.8	59.1	68.4	94	50	55	58	58	68	62	66	.445	.487	.494	2.47	2.26	4.1	5.7	4.0	4.8
August	29.132	29.461	28.740	64.1	68.7	65.9	72.4	57.9	65.2	85	47	55	58	58	72	70	76	.438	.492	.485	1.60	.64	5.8	6.7	6.4	6.5
September	29.187	29.570	28.590	56.3	62.1	58.5	66.6	51.9	59.2	93	36	48	50	51	76	67	77	.352	.379	.386	2.49	.68	8.9	8.1	7.8	7.7
October	29.231	29.578	28.720	41.8	48.6	44.1	52.6	37.4	45.0	80	24	35	36	36	76	64	75	.211	.222	.230	3.26	.80	7.0	7.9	6.2	7.6
November	29.215	29.810	27.879	28.5	31.5	30.6	36.1	23.8	30.0	56	5	23	26	25	77	79	79	.128	.147	.142	4.18	.89	9.0	9.3	6.4	8.8
December	29.254	29.760	28.590	11.1	16.5	13.7	20.2	7.2	13.7	37	−9	6	11	10	80	79	82	.064	.076	.069	1.89	.68	7.2	7.5	7.7	7.2
Year	29.227	30.060	27.879	40.5	45.2	43.0	49.7	35.2	42.5	94	−9	33	36	36	76	72	76	.232	.256	.255	28.54	2.26	6.6	7.3	6.6	7.0

MEMPHIS, TENN.

[ϕ=35° 09′ N.; λ=90° 03′ W.]

January	29.771	30.050	29.360	38.2	44.8	45.3	49.6	36.4	43.0	65	11	31	37	39	75	75	78	0.182	0.240	0.252	3.77	1.36	4.6	6.3	4.4	5.9
February	29.603	29.990	28.810	39.8	46.9	47.8	52.9	36.2	44.6	69	21	32	36	37	75	67	66	.196	.222	.233	2.66	.65	5.0	4.7	4.7	5.4
March	29.748	30.030	29.200	46.9	56.0	57.5	61.8	45.3	53.6	74	23	38	40	43	72	58	60	.243	.262	.289	12.41	9.30	4.2	4.4	4.7	4.2
April	29.635	29.960	29.280	56.1	64.7	65.7	70.1	53.3	61.7	82	35	45	49	50	68	57	59	.321	.365	.376	3.17	1.12	4.5	5.2	5.4	4.9
May	29.510	29.710	29.170	62.2	70.6	69.6	73.9	60.1	67.0	84	50	57	60	60	84	71	75	.480	.531	.539	5.51	1.81	6.6	7.4	7.3	7.2
June	29.626	29.880	29.432	74.1	82.7	80.1	86.5	71.0	78.8	95	61	68	69	70	81	65	72	.688	.714	.733	5.64	1.23	4.9	5.8	6.3	5.5
July	29.618	29.821	29.436	76.8	83.3	85.1	90.4	73.8	82.1	94	66	69	70	70	78	60	62	.709	.746	.759	1.94	.53	2.7	3.2	4.2	3.4
August	29.609	29.760	29.470	74.7	84.2	84.0	88.2	72.5	80.4	97	64	68	69	70	82	64	63	.699	.724	.735	.82	.31	4.5	4.5	4.0	3.9
September	29.645	29.820	29.381	69.0	81.4	78.9	86.1	67.2	76.2	95	56	62	63	64	78	56	62	.562	.592	.618	1.34	1.21	3.3	4.5	3.8	4.1
October	29.659	29.861	29.440	63.5	70.6	68.7	74.5	61.4	68.0	89	46	60	62	62	90	77	81	.542	.579	.574	10.13	2.11	6.9	7.7	6.4	7.4
November	29.708	30.110	29.080	47.0	55.4	55.1	60.6	43.6	52.1	72	28	41	45	44	80	70	68	.279	.313	.301	7.75	3.05	4.1	4.2	3.6	4.1
December	29.787	30.410	29.230	36.5	41.8	42.6	48.3	32.5	40.4	68	15	31	33	33	80	73	71	.181	.202	.205	2.61	1.33	4.2	5.7	4.6	5.6
Year	29.660	30.410	28.810	57.1	65.4	65.0	70.2	54.4	62.3	97	11	50	53	54	79	66	68	.423	.458	.466	57.75	9.30	4.6	5.3	5.0	5.1

* Dec. 31–Jan. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MADISON, WIS.

[H_b=974 ft.; h_t=70 ft.; h_r=62 ft.; h_a=78 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	9.3	W.	31	SW.	0	2	1	2	8	10	14	16	9	0	9	6	16	4	2	6	4	0	3	15	0	29	0	3
February	10.6	NW.	31	NW.	0	8	6	5	10	3	3	8	13	0	6	9	13	9	9	10	7	0	1	12	0	27	0	0
March	10.6	SE.	38	N.	0	9	5	6	14	7	5	5	11	0	6	4	21	8	5	5	3	0	3	4	0	23	2	3
April	10.3	SE.	34	S.	0	9	6	7	7	10	7	5	9	0	3	5	22	15	11	3	1	0	1	0	0	4	5	0
May	8.3	SE.	32	N.	0	8	9	11	14	5	2	2	11	0	7	6	18	11	8	0	0	2	1	0	1	0	5	2
June	7.2	SE.	33	SW.	0	3	7	7	13	10	9	3	7	1	5	10	15	13	9	0	0	1	1	0	1	0	15	2
July	7.6	SW.	39	NE.	0	9	7	5	8	9	13	5	5	1	13	11	7	10	8	0	0	1	0	0	7	0	7	0
August	8.2	NW.	30	SW.	0	5	4	1	5	11	9	16	11	0	14	10	7	7	6	0	0	0	2	0	0	0	7	2
September	8.3	S.	28	S.	0	3	3	5	4	14	11	9	9	2	9	7	14	10	9	0	0	0	1	0	1	0	8	4
October	8.7	S.	28	SW.	0	5	7	4	11	13	6	4	12	0	6	6	19	13	13	0	0	0	3	0	0	2	4	1
November	11.8	W.	45	SW.	1	6	5	2	14	4	7	14	8	0	7	5	18	9	6	8	3	0	1	6	0	21	0	0
December	9.0	W.	31	N.	0	10	3	1	4	7	11	15	11	0	5	2	24	9	6	15	9	0	1	28	0	31	0	1
Year	9.2	NW.	45	SW.	1	77	63	56	112	103	97	102	116	4	90	81	194	118	92	47	27	4	18	65	10	137	53	18

MANTEO, N. C.

[H_b=12 ft.; h_t=5 ft.; h_r=3 ft.; h_a=42 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	.....	* NW.	....	.....	....	4	5	0	2	4	5	5	6	0	18	0	13	6	6	0	0	....	....	0	0	14	....	....
February	.....	N.	....	.....	....	7	4	1	1	3	6	1	5	0	18	1	9	6	6	0	0	....	....	0	0	8	....	....
March	.....	N.	....	.....	....	10	6	1	1	5	2	0	6	0	14	3	14	8	8	0	0	....	....	0	0	5	....	....
April	.....	NE.	....	.....	....	4	10	1	3	3	5	2	2	0	14	11	5	4	3	0	0	....	....	0	0	3	....	....
May	.....	S.	....	.....	....	3	6	0	2	11	5	4	0	0	18	7	6	8	8	0	0	....	....	0	0	0	....	....
June	.....	NE.	....	.....	....	2	13	1	3	4	7	0	0	0	21	3	6	6	5	0	0	....	....	0	1	0	....	....
July	.....	SW.	....	.....	....	2	3	1	2	7	15	1	0	0	17	8	6	8	8	0	0	....	....	0	11	0	....	....
August	.....	SW.	....	.....	....	2	3	0	6	0	11	8	1	0	15	9	7	9	9	0	0	....	....	0	3	0	....	....
September	.....	N.	....	.....	....	7	6	3	3	6	3	1	1	0	21	5	4	2	2	0	0	....	....	0	1	0	....	....
October	.....	NE.	....	.....	....	3	10	2	7	5	4	0	0	0	17	7	7	4	4	0	0	....	....	0	4	0	....	....
November	.....	N.	....	.....	....	10	8	0	4	3	0	2	3	0	15	7	8	1	1	0	0	....	....	0	0	3	....	....
December	.....	N.	....	.....	....	8	1	3	0	7	4	3	5	0	11	5	15	6	5	0	0	....	....	0	0	14	....	....
Year	.....	NE.	....	.....	....	62	75	13	34	58	67	27	29	0	199	66	100	68	65	0	0	....	....	0	20	47	....	....

MARQUETTE, MICH.

[H_b=734 ft.; h_t=77 ft.; h_r=70 ft.; h_a=111 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.9	W.	40	NW.	2	0	3	2	5	10	8	19	15	0	1	10	20	14	10	21	14	0	0	12	0	30	0	0
February	12.0	W.	41	NW.	1	3	4	4	8	5	7	11	14	0	1	6	21	12	7	22	11	0	0	17	0	26	0	0
March	12.0	NW.	38	S.	0	1	1	4	17	7	7	4	21	0	5	9	17	10	5	15	4	0	1	10	0	28	0	1
April	10.6	NW.	32	NW.	0	0	9	6	10	5	5	2	23	0	4	11	15	10	9	6	2	1	1	2	0	11	1	0
May	7.9	NW.	32	NW.	0	3	3	10	9	4	9	3	21	0	13	7	11	9	7	3	3	0	4	0	2	2	1	0
June	7.2	NW.	29	SW.	0	2	2	5	15	9	5	3	19	0	5	13	12	10	6	0	0	0	9	0	2	0	7	0
July	9.2	NW.	41	S.	1	3	1	8	7	10	8	6	19	0	11	15	5	6	3	0	0	0	3	0	5	0	3	0
August	10.0	W.	35	SW.	0	1	1	6	4	8	8	19	15	0	5	14	12	12	8	0	0	0	0	0	0	0	5	0
September	10.3	NW.	38	SW.	0	1	5	2	5	11	11	13	12	0	5	3	22	14	10	1	0	0	0	0	2	0	3	1
October	8.5	SW.	39	SW.	0	3	0	3	9	7	17	13	10	0	3	8	20	16	12	4	4	0	0	0	0	5	2	0
November	8.9	NW.	38	S.	0	1	2	2	14	6	12	6	17	0	1	4	25	18	14	17	14	0	0	9	0	25	0	0
December	10.4	SW.	29	SW.	0	2	0	0	1	7	29	13	10	0	6	6	19	14	5	18	14	0	0	28	0	31	0	0
Year	9.8	NW.	41	NW.	4	20	31	52	104	89	126	112	196	0	60	106	199	145	96	107	66	1	18	78	11	158	22	2

MEMPHIS, TENN.

[H_b=399 ft.; h_t=76 ft.; h_r=69 ft.; h_a=97 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.7	S.	25	NW.	0	11	1	5	5	17	7	3	12	1	10	6	15	8	7	3	1	0	0	4	0	9	0	0
February	10.8	SW.	56	SW.	4	8	5	7	9	10	7	7	3	0	12	4	12	12	9	4	3	0	2	1	0	9	1	0
March	8.5	N.	54	NW.	2	11	12	7	11	10	4	2	5	0	17	4	10	9	7	1	1	0	0	0	0	3	4	0
April	9.5	S.	36	SW.	0	4	7	5	6	18	11	7	2	0	14	8	8	8	6	0	0	1	0	0	0	0	3	0
May	7.5	S.	35	NW.	0	9	11	9	4	14	6	2	5	2	4	8	19	15	0	0	0	0	0	0	0	0	9	0
June	6.2	E.	44	NW.	1	8	3	13	10	10	9	5	1	1	11	6	13	13	12	0	0	0	0	0	6	0	11	0
July	5.4	SW.	32	NE.	0	11	9	10	6	3	13	1	7	2	18	9	4	5	5	0	0	0	0	0	18	0	8	0
August	7.7	SW.	30	SW.	0	8	9	3	2	7	27	2	4	0	18	7	6	10	8	0	0	0	0	0	11	0	6	0
September	6.2	SW.	29	SW.	0	11	10	4	4	9	12	5	3	2	14	11	5	4	4	0	0	0	2	0	7	0	1	0
October	7.2	S.	24	SW.	0	15	9	3	7	21	3	1	3	0	4	8	19	18	15	0	0	0	1	0	0	0	7	0
November	7.4	N.	48	SW.	1	15	10	6	10	5	7	5	1	1	17	3	10	9	8	0	0	0	0	0	0	3	1	0
December	8.9	N.	34	NW.	0	14	11	3	3	8	14	3	6	0	13	3	15	8	7	0	0	0	4	2	0	16	0	0
Year	7.3	SW.	56	SW.	8	125	97	75	77	132	120	43	52	9	152	77	136	123	103	8	5	1	9	7	42	40	51	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MERIDIAN, MISS.

[ϕ=32° 21′ N.; λ=88° 40′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.762	30.090	29.390	37.5	50.2	47.2	54.7	34.3	44.5	72	10	34	34	36	87	58	66	0.212	0.213	0.220	6.31	2.33	5.0	5.2	4.9	5.1
February	29.608	29.940	29.020	43.4	52.6	51.9	58.4	39.4	48.9	73	27	38	38	38	83	61	62	.244	.245	.242	5.69	1.58	6.0	5.8	4.7	5.5
March	29.722	30.022	29.215	49.3	62.8	61.7	67.7	45.8	56.8	77	30	42	42	43	78	50	51	.293	.282	.297	5.31	1.59	4.7	4.6	4.7	4.4
April	29.658	29.930	29.323	55.1	69.3	68.4	74.0	51.4	62.7	86	33	48	48	50	79	49	54	.358	.363	.380	3.74	2.10	4.3	4.0	4.0	3.9
May	29.512	29.700	29.219	64.4	74.3	71.5	77.6	60.4	69.0	86	50	60	60	60	86	62	71	.524	.525	.534	6.77	2.64	5.9	7.0	6.3	5.7
June	29.626	29.830	29.380	73.2	83.0	79.4	86.5	68.4	77.4	95	59	68	67	69	84	60	72	.685	.664	.703	8.81	2.40	5.6	6.5	6.9	5.6
July	29.621	29.831	29.420	74.5	85.4	81.4	89.1	70.8	80.0	94	63	70	69	71	86	60	72	.733	.723	.767	3.69	.95	5.8	6.1	6.8	5.7
August	29.631	29.770	29.460	74.1	85.3	78.8	88.4	70.8	79.6	94	66	72	70	72	91	62	80	.773	.750	.774	12.10	3.08	6.3	6.6	6.3	5.9
September	29.624	29.840	29.385	68.4	82.7	77.8	85.2	65.7	75.4	92	56	63	62	65	83	50	66	.585	.563	.632	.22	.21	4.3	4.6	4.6	4.4
October	29.662	29.820	29.540	67.8	78.9	74.1	83.2	65.6	74.4	92	55	66	66	67	94	67	80	.647	.645	.670	2.81	.89	6.5	6.8	4.7	6.0
November	29.687	30.110	29.300	50.4	62.8	59.0	68.0	48.3	58.2	77	30	46	47	51	86	60	76	.342	.355	.398	6.62	3.18	5.4	5.3	4.0	4.9
December	29.780	30.270	29.260	42.0	54.8	51.0	59.4	38.8	49.1	74	20	38	40	42	86	59	72	.257	.283	.289	11.34	7.15	5.2	5.1	5.7	5.5
Year	29.658	30.270	29.020	58.3	70.2	66.8	74.4	55.0	64.7	95	10	54	54	55	85	58	69	.471	.468	.493	73.41	7.15	5.4	5.6	5.3	5.2

MIAMI, FLA.

[ϕ=25° 48′ N.; λ=80° 12′ W.]

January	30.052	30.360	29.860	61.7	70.2	66.2	71.6	58.6	65.1	78	37	56	59	58	82	69	77	0.472	0.516	0.513	1.07	0.32	5.5	4.9	4.8	6.0
February	30.014	30.230	29.780	63.0	71.5	67.6	73.5	59.8	66.6	82	41	58	59	58	83	65	73	.507	.532	.516	3.20	1.99	5.6	6.4	3.9	6.1
March	30.061	30.310	29.850	69.4	75.6	72.5	77.1	66.3	71.7	82	51	62	62	62	78	64	72	.571	.576	.581	9.74	9.04	4.9	4.2	3.5	5.3
April	30.028	30.200	29.870	71.7	76.5	72.9	78.0	67.3	72.6	84	56	62	61	62	72	61	70	.564	.556	.570	3.07	1.92	3.6	5.4	4.6	4.7
May	29.933	30.130	29.680	76.2	79.6	76.6	82.0	70.7	76.4	88	64	69	69	69	78	71	79	.705	.715	.719	13.31	5.26	5.7	6.1	6.8	6.1
June	29.980	30.100	29.700	79.5	82.1	79.2	83.7	74.2	79.0	89	68	72	72	71	77	71	76	.779	.774	.759	7.26	2.41	7.0	7.4	7.5	7.8
July	30.032	30.180	29.890	81.9	84.5	81.4	86.2	75.4	80.8	89	71	73	73	73	75	68	76	.813	.806	.817	5.90	1.32	4.5	5.8	7.0	5.7
August	30.040	30.180	29.910	82.9	86.5	82.5	88.2	76.9	82.6	92	72	74	73	74	74	65	75	.832	.816	.826	3.73	1.10	4.0	6.5	6.4	5.7
September	29.914	30.040	29.640	80.3	84.0	80.8	85.5	75.3	80.4	90	69	73	72	73	79	69	77	.812	.798	.808	3.72	1.74	4.9	7.0	7.1	6.0
October	30.029	30.150	29.930	80.6	83.0	80.4	84.0	76.2	80.1	87	70	72	72	72	76	70	77	.791	.787	.799	3.73	1.60	4.1	5.6	4.7	4.8
November	30.009	30.320	29.680	71.3	77.2	73.6	78.7	68.0	73.4	85	54	64	63	64	80	64	73	.616	.998	.609	3.48	.75	5.4	5.6	4.5	5.8
December	30.085	30.280	29.860	64.2	73.8	70.2	75.5	62.1	68.8	80	40	59	60	60	83	62	72	.516	.555	.542	1.83	1.55	3.8	5.1	4.0	5.0
Year	30.014	30.360	29.640	73.6	78.7	75.3	80.3	69.2	74.8	92	37	66	66	66	78	67	75	.665	.667	.672	60.04	9.04	4.9	5.8	5.4	5.8

MILES CITY, MONT.

[ϕ=46° 25′ N.; λ=105° 49′ W.]

January	27.462	27.850	27.006	23.7	....	35.4	44.2	21.0	32.6	64	−22	20	....	28	86	....	74	0.116	.....	0.159	0.02	*0.03	2.5	....	3.6	3.3
February	27.426	27.730	26.900	14.5	....	22.7	29.3	12.2	20.8	56	−15	12	....	16	87	....	75	.081	.....	.101	.82	.32	6.6	....	6.8	6.4
March	27.465	27.950	26.970	18.7	....	33.2	38.9	16.5	27.7	69	−11	16	....	25	88	....	73	.103	.....	.148	.57	.47	6.1	....	5.1	5.2
April	27.445	27.950	26.865	38.6	....	56.0	60.2	38.0	49.1	76	26	33	....	36	82	....	49	.191	.....	.215	1.03	.33	4.6	....	5.2	5.1
May	27.372	27.700	26.773	49.6	....	69.1	72.8	48.8	60.8	93	30	42	....	47	77	....	50	.276	.....	.331	1.79	.48	3.7	....	4.6	4.3
June	27.416	27.770	26.965	62.8	....	84.8	88.2	60.7	74.4	107	34	50	....	47	65	....	31	.379	.....	.337	.46	.30	2.5	....	4.1	3.0
July	27.431	27.722	27.050	65.6	....	87.0	90.8	64.2	77.5	104	52	54	....	50	66	....	31	.417	.....	.368	1.12	.73	3.2	....	2.8	2.5
August	27.448	27.691	27.188	62.1	....	85.4	88.5	61.5	75.9	101	46	53	....	55	72	....	37	.402	.....	.452	.38	.35	3.0	....	3.0	2.9
September	27.453	27.780	26.900	51.9	....	69.5	74.8	51.5	63.2	95	34	48	....	50	87	....	53	.348	.....	.378	1.32	.48	3.9	....	4.4	4.3
October	27.496	27.800	26.870	29.2	....	39.2	46.9	26.9	36.9	77	−4	26	....	31	86	....	72	.151	.....	.185	2.47	.78	5.6	....	6.2	5.4
November	27.546	28.150	27.017	19.9	....	25.2	33.8	17.1	25.4	56	−9	18	....	20	90	....	78	.111	.....	.120	.71	.24	4.3	....	5.4	5.7
December	27.582	28.090	27.101	10.7	....	17.8	25.3	5.9	15.6	47	−30	9	....	13	93	....	80	.089	.....	.103	.55	.30	2.3	....	3.7	3.8
Year	27.464	28.150	26.773	37.3	....	52.1	57.8	35.4	46.6	107	−30	32	....	35	82	....	59	.222	.....	.241	11.24	.78	4.0	....	4.6	4.3

MILWAUKEE, WIS.

[ϕ=43° 02′ N.; λ=87° 54′ W.]

January	29.268	29.700	28.820	24.4	29.0	28.1	33.9	21.1	27.5	51	−14	21	23	23	85	79	81	0.122	0.135	0.134	0.15	*0.44	4.4	5.6	3.8	5.7
February	29.209	29.850	28.390	23.5	28.8	28.4	33.6	20.6	27.1	50	0	17	22	22	75	75	77	.106	.138	.127	2.20	.82	6.6	6.1	5.6	5.4
March	29.428	29.940	28.880	32.2	36.2	35.3	41.8	28.1	35.0	65	4	27	29	28	81	75	76	.159	.167	.161	3.38	1.10	6.2	5.8	4.5	5.6
April	29.242	29.688	28.640	40.9	47.3	44.7	51.3	37.0	44.2	71	20	35	36	36	80	68	74	.212	.219	.219	2.49	.46	6.4	6.1	6.4	6.7
May	29.214	29.570	28.760	50.2	55.5	53.6	60.0	45.8	52.9	79	37	41	42	42	73	62	67	.263	.279	.275	2.45	.72	3.9	4.9	5.4	4.3
June	29.324	29.550	28.950	67.8	71.3	70.2	75.9	63.5	69.7	88	56	62	64	62	81	77	76	.553	.594	.564	1.49	.52	4.5	6.1	4.7	4.9
July	29.260	29.510	28.960	71.3	78.0	75.2	82.0	66.1	74.0	97	59	62	64	61	72	63	64	.553	.595	.545	4.00	1.26	2.4	3.8	2.9	3.0
August	29.215	29.540	28.940	65.8	75.3	73.0	78.4	62.4	70.4	89	53	56	57	57	72	56	59	.464	.486	.479	1.87	1.38	2.6	4.5	3.2	3.5
September	29.264	29.560	28.850	61.2	69.2	67.6	73.0	58.0	65.5	93	46	54	54	54	78	61	64	.433	.427	.434	5.36	2.35	4.9	5.3	4.4	4.9
October	29.289	29.600	28.870	49.0	55.0	53.6	59.6	44.8	52.2	82	29	44	44	45	84	69	73	.311	.314	.318	3.92	1.97	5.6	5.5	6.0	6.0
November	29.305	29.780	28.160	34.1	38.8	36.4	42.4	28.8	35.6	58	8	28	30	28	79	70	70	.164	.172	.158	2.23	1.09	6.5	5.8	5.9	6.0
December	29.367	30.000	29.750	14.7	19.7	19.0	23.3	9.6	16.4	40	−9	12	14	14	86	79	81	.080	.090	.088	.92	.31	6.4	7.0	7.1	6.8
Year	29.282	30.000	28.160	44.6	50.3	48.8	54.6	40.5	47.5	97	−14	38	40	39	79	70	72	.285	.301	.292	30.46	2.35	5.0	5.5	5.0	5.2

*Dec. 31–Jan. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MERIDIAN, MISS.

[H_b=375 ft.; h_1=85 ft.; h_r=62 ft.; h_a=93 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles	*	*Mi.*																									
January	4.5	N.	25	NE.	0	13	11	5	7	0	7	3	9	7	13	9	9	11	10	3	2	0	1	2	0	9	0	0
February	7.1	NW.	31	W.	0	8	6	6	7	3	6	8	9	3	10	8	10	14	13	2	0	0	0	0	0	7	2	0
March	6.0	NE.	28	SE.	0	11	15	8	5	4	5	1	8	5	14	6	11	6	5	0	0	0	0	0	0	1	2	0
April	5.2	S.	27	NW.	0	5	6	2	6	13	12	7	3	6	17	5	8	8	5	0	0	0	1	0	0	0	3	0
May	5.0	E.	39	SE.	0	3	4	15	7	6	9	3	8	7	7	12	12	14	10	0	0	0	1	0	0	0	9	0
June	4.4	E.	33	E.	0	1	4	15	10	7	11	5	5	2	7	16	7	12	10	0	0	0	0	0	7	0	12	0
July	3.9	SW.	40	N.	1	4	9	5	6	3	16	7	5	7	6	17	8	12	10	0	0	0	0	0	14	0	14	0
August	4.1	SW.	26	N.	0	6	2	5	0	10	26	8	1	5	7	13	11	18	14	0	0	0	0	0	9	0	17	0
September	4.2	E.	18	E.	0	12	12	13	4	3	4	2	1	9	12	14	4	2	1	0	0	0	0	0	6	0	1	0
October	4.3	SE.	16	NW.	0	7	7	6	17	11	8	1	0	5	7	15	9	8	7	0	0	0	0	0	2	0	5	0
November	5.5	NE.	31	W.	0	13	14	9	5	2	9	3	1	4	11	10	9	6	5	0	0	0	1	0	0	1	1	0
December	6.0	SW.	27	NW.	0	12	10	4	2	5	15	2	6	6	10	9	12	6	6	1	0	0	3	0	0	9	4	0
Year	5.0	SW.	40	N.	1	95	100	93	76	67	127	50	56	66	121	134	110	117	96	6	2	0	7	2	38	27	70	0

MIAMI, FLA.

[H_b=25 ft.; h_1=71 ft.; h_r=64 ft.; h_a=79 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.0	NW.	26	NW.	0	10	3	10	5	7	3	2	22	0	11	8	12	9	7	0	0	0	0	0	0	0	0	0
February	8.4	NW.	29	W.	0	5	1	5	10	9	5	5	16	0	8	7	13	8	6	0	0	0	1	0	0	0	1	0
March	10.2	E.	33	NE.	0	4	6	14	9	11	5	2	11	0	12	10	9	8	5	0	0	0	0	0	0	0	1	0
April	9.6	E.	28	NE.	0	4	14	18	9	6	2	4	3	0	13	12	5	8	5	0	0	0	0	0	0	0	7	0
May	8.1	SE.	26	E.	0	1	4	15	18	10	5	1	8	0	7	13	11	16	11	0	0	2	0	0	0	0	12	0
June	7.5	E.	25	NE.	0	3	7	21	11	7	3	5	3	0	1	11	18	14	11	0	0	0	0	0	0	0	11	0
July	6.9	E.	26	E.	0	1	6	18	24	4	0	3	6	0	10	11	10	19	14	0	0	0	0	0	0	0	16	0
August	6.6	SE.	37	SW.	0	1	2	16	20	9	3	3	8	0	4	19	8	12	9	0	0	0	0	0	0	3	13	0
September	9.6	E.	46	SE.	1	5	7	23	13	2	1	6	3	0	8	10	12	13	9	0	0	0	0	0	1	0	8	0
October	10.0	E.	34	E.	0	1	10	46	5	0	0	0	0	0	12	12	7	15	10	0	0	0	0	0	0	0	4	0
November	8.3	E.	32	NW.	0	6	12	10	6	5	5	7	9	0	9	10	11	11	9	0	0	0	0	0	0	0	1	0
December	8.7	NW.	25	E.	0	8	11	9	9	1	4	6	13	1	9	15	7	6	4	0	0	0	0	0	0	0	1	0
Year	8.6	E.	46	SE.	1	49	83	205	139	71	36	44	102	1	104	138	123	139	100	0	0	2	1	0	4	0	75	0

MILES CITY, MONT.

[H_b=2,371 ft.; h_1=48 ft.; h_r=39 ft.; h_a=55 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.9	* SE.	28	NW.	0	1	8	2	23	9	10	4	5	0	13	17	1	2	0	4	2	0	0	2	0	27	0	0
February	5.5	NE.	26	N.	0	14	23	2	1	3	1	3	9	0	3	16	9	9	5	10	8	0	0	15	0	27	0	0
March	6.2	N.	24	N.	0	15	12	6	5	4	7	4	9	0	9	16	6	5	4	10	5	0	0	8	0	28	0	0
April	8.2	N.	36	NE.	0	14	10	8	10	2	0	7	9	0	8	18	4	7	5	2	1	0	1	0	0	6	0	0
May	7.3	E.	36	W.	0	5	8	16	7	5	3	8	10	0	14	13	4	10	9	1	1	0	0	0	6	2	2	0
June	7.6	E.	32	NW.	0	13	10	15	6	2	1	5	8	0	16	14	0	3	3	0	0	0	0	0	15	0	2	0
July	6.7	NE.	36	W.	0	10	23	7	3	2	2	3	11	1	20	10	1	6	4	0	0	0	0	0	18	0	2	0
August	6.1	SE.	24	N.	0	13	8	5	15	3	3	12	3	0	16	15	0	2	1	0	0	0	0	0	16	0	3	0
September	6.2	N.	30	W.	0	16	9	12	7	5	3	3	5	0	12	13	5	10	8	0	0	0	0	0	1	0	2	0
October	5.3	NE.	27	N.	0	10	13	3	16	4	7	4	5	0	8	13	10	12	10	9	9	0	0	5	0	20	0	0
November	5.7	SE.	25	W.	0	5	7	1	25	1	2	4	15	0	8	11	11	9	6	1	7	0	0	11	0	24	0	0
December	5.1	SE.	28	NW.	0	2	5	0	20	12	4	10	9	0	16	9	6	7	5	7	7	0	1	16	0	30	0	0
Year	6.3	SE.	36	W.	0	118	136	77	138	52	43	67	88	1	143	165	57	82	60	44	40	0	2	57	56	164	11	0

MILWAUKEE, WIS.

[H_b=681 ft.; h_1=125 ft.; h_r=117 ft.; h_a=139 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.7	W.	35	SW.	0	4	2	2	6	5	18	20	5	0	11	7	13	2	1	8	2	0	3	11	0	24	0	0
February	12.0	W.	46	E.	1	9	2	8	8	0	3	17	9	0	9	5	14	9	6	11	7	6	0	11	0	24	0	0
March	11.8	NE.	39	SE.	0	8	12	4	9	10	5	7	7	0	12	6	13	9	7	8	3	0	1	4	0	21	1	0
April	10.8	NE.	48	SE.	2	9	17	2	11	4	8	7	2	0	8	6	16	15	11	4	0	0	2	0	0	4	5	0
May	9.8	NE.	45	E.	1	4	29	3	13	2	0	4	6	1	15	7	9	10	8	0	0	0	0	0	0	0	6	2
June	8.5	SE.	36	SE.	0	5	14	5	20	6	4	4	2	0	9	16	5	10	10	0	0	1	0	0	0	0	9	0
July	9.3	SW.	30	SW.	0	11	13	4	10	3	11	9	1	0	20	7	4	8	7	0	0	0	0	0	5	0	7	1
August	9.1	W.	27	NE.	0	7	5	3	5	6	11	17	8	0	19	10	2	7	5	0	0	2	2	0	0	0	6	0
September	9.2	SW.	33	SW.	0	7	4	5	4	5	17	10	8	0	13	7	10	12	9	0	0	1	0	0	2	0	7	0
October	10.0	SW.	36	SW.	0	7	9	3	6	6	11	12	8	0	8	12	11	13	11	0	0	0	4	0	0	2	2	1
November	13.3	SW.	42	SW.	2	7	4	3	7	6	12	12	9	0	10	7	13	10	7	8	3	0	1	5	0	18	0	0
December	10.5	W.	28	SW.	0	11	1	1	2	3	13	20	11	0	7	5	19	8	6	16	8	0	2	24	0	31	0	0
Year	10.4	W.	48	E.	6	89	112	43	101	50	113	139	76	1	141	95	129	113	88	55	23	4	15	55	7	124	43	4

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MINNEAPOLIS, MINN.

[ϕ=44° 59′ N.; λ=93° 18′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.985	29.380	28.590	....	25.5	25.0	29.6	14.9	22.2	45	−23	....	17	19	....	70	76	....	0.110	0.115	0.43	0.17	....	5.5	4.3	5.4
February	28.976	29.410	28.300	....	18.7	19.7	23.6	9.2	16.4	37	−13	....	12	12	....	74	71	....	.085	.084	2.02	.80	....	6.9	5.6	6.2
March	29.118	29.790	28.590	....	33.4	34.4	38.9	21.9	30.4	63	− 8	....	23	25	....	66	67	....	.138	.148	.84	.35	....	6.5	5.2	6.4
April	28.965	29.560	28.320	....	48.3	48.8	52.9	37.4	45.2	74	27	....	36	36	....	64	65	....	.212	.226	3.44	1.72	....	6.8	6.8	6.7
May	28.953	29.300	28.640	....	63.8	63.6	67.5	48.0	58.2	88	34	....	40	41	....	45	46	....	.207	.270	1.71	.46	....	7.0	6.2	6.0
June	29.024	29.220	28.690	....	74.7	73.1	78.1	62.2	70.2	91	49	....	62	62	....	66	69	....	.573	.563	4.04	2.32	....	7.5	6.8	7.3
July	28.963	29.165	28.630	....	80.0	78.8	83.7	65.4	74.6	96	56	....	60	61	....	52	56	....	.530	.553	6.19	2.41	....	5.3	3.6	4.7
August	28.952	29.250	28.640	....	74.9	74.8	79.1	59.7	69.4	89	51	....	55	55	....	51	52	....	.443	.451	1.88	.82	....	4.5	2.9	3.9
September	28.964	29.340	28.400	....	69.5	67.3	73.3	55.3	64.3	91	41	....	51	50	....	55	65	....	.396	.385	1.47	.42	....	5.8	5.9	6.0
October	29.005	29.340	28.450	....	47.5	46.7	52.6	36.8	44.7	77	19	....	34	35	....	61	65	....	.209	.217	1.69	.34	....	7.1	6.2	7.1
November	29.046	29.640	28.170	....	29.4	28.6	33.7	19.6	26.6	56	− 8	....	20	21	....	67	72	....	.117	.122	2.73	1.17	....	6.3	6.2	6.7
December	29.117	29.700	28.510	....	13.6	13.1	17.5	4.3	10.9	40	−14	....	7	7	....	74	74	....	.070	.067	.68	.31	....	7.4	6.6	7.1
Year	29.006	29.790	28.170	....	48.3	47.8	52.5	36.3	44.4	96	−23	....	35	35	....	62	65	....	.262	.266	27.12	2.41	....	6.4	5.5	6.1

MOBILE, ALA.

[ϕ=30° 41′ N.; λ=88° 02′ W.]

January	30.090	30.450	29.640	43.4	53.4	52.0	58.2	40.9	49.6	67	17	38	39	40	80	61	66	0.242	0.255	0.270	6.57	2.14	6.1	5.5	4.3	5.6
February	29.945	30.270	29.450	48.7	55.8	55.6	61.8	45.4	53.6	78	31	43	43	45	82	66	70	.305	.298	.322	7.49	2.24	5.9	6.4	4.5	6.1
March	30.042	30.320	29.610	55.0	66.1	64.5	70.6	52.6	61.6	80	44	47	46	49	75	53	62	.339	.336	.369	5.09	1.75	4.5	4.8	4.4	5.2
April	29.999	30.250	29.680	59.7	70.3	67.4	74.4	56.8	65.6	89	42	53	51	54	79	53	66	.421	.400	.445	6.84	2.56	3.8	3.4	3.4	3.8
May	29.848	30.030	29.590	68.5	76.2	73.3	79.9	64.9	72.4	85	56	64	64	64	84	67	75	.596	.597	.617	6.04	1.61	5.0	6.4	4.9	6.2
June	29.948	30.110	29.700	75.9	84.2	80.1	87.3	72.7	80.0	96	67	71	70	71	84	63	73	.749	.732	.750	2.12	.64	5.3	6.8	7.4	6.5
July	29.948	30.164	29.750	77.4	85.6	81.6	89.2	74.0	81.6	95	69	72	72	72	85	66	75	.802	.795	.800	6.94	1.70	5.0	5.2	7.6	5.9
August	29.972	30.100	29.810	77.1	86.2	80.5	89.9	73.9	81.9	98	69	73	72	73	88	65	79	.816	.798	.816	6.04	1.80	5.2	5.7	6.9	6.2
September	29.930	30.140	29.660	72.2	83.3	79.5	86.8	70.3	78.6	94	62	66	66	68	82	58	69	.661	.662	.697	1.10	.44	3.9	4.7	4.1	4.6
October	29.992	30.130	29.870	73.5	81.7	77.9	84.2	70.8	77.5	91	59	71	70	71	91	70	81	.757	.748	.772	8.53	3.28	5.0	4.5	3.7	5.2
November	30.011	30.430	29.710	58.4	67.8	64.8	71.8	55.7	63.8	81	35	53	55	57	84	66	76	.439	.473	.486	4.58	3.35	6.0	5.4	4.5	6.0
December	30.114	30.510	29.710	48.5	59.4	56.0	63.8	46.1	55.0	77	29	43	45	45	81	66	69	.306	.332	.335	5.42	1.83	5.0	4.4	3.6	4.9
Year	29.987	30.510	29.450	63.2	72.5	69.4	76.5	60.3	68.4	98	17	58	58	59	83	62	72	.536	.536	.557	66.76	3.35	5.1	5.3	4.9	5.5

MODENA, UTAH.

[ϕ=37° 48′ N.; λ=113° 54′ W.]

January	24.730	25.070	24.100	14.6	35.1	32.4	40.2	11.1	25.6	54	−18	10	17	17	78	46	52	0.069	0.092	0.094	0.32	*0.59	1.9	2.9	2.0	2.8
February	24.501	24.780	24.070	24.6	35.0	35.3	38.8	20.1	29.4	53	6	19	23	22	79	59	68	.104	.121	.118	1.19	.49	3.9	5.0	5.5	5.1
March	24.552	24.940	24.170	28.1	45.0	44.4	48.7	24.8	36.8	64	10	22	21	21	76	40	41	.116	.114	.112	.85	.33	4.9	4.7	5.3	4.7
April	24.553	24.780	24.200	35.1	60.1	61.0	64.7	33.4	49.0	78	24	22	18	16	58	20	18	.117	.099	.092	.27	.27	3.8	4.1	4.4	4.3
May	24.516	24.700	24.349	44.2	70.7	69.4	74.9	42.6	58.8	84	29	27	27	27	52	21	24	.159	.156	.158	.38	.16	2.6	3.2	4.8	3.5
June	24.601	24.870	24.420	46.9	79.3	80.8	84.1	44.5	64.3	93	35	17	19	16	30	12	10	.094	.107	.096	.13	.13	.4	.9	1.5	1.0
July	24.648	24.790	24.494	59.2	84.4	82.1	88.8	58.0	73.4	97	51	44	41	41	61	24	28	.305	.271	.274	1.37	.57	2.1	3.3	4.9	3.8
August	24.690	24.860	24.559	56.2	83.5	83.6	88.1	54.5	71.3	96	46	35	36	35	47	22	20	.219	.223	.220	.50	.34	2.5	3.4	3.4	3.1
September	24.607	24.850	24.304	49.7	70.1	70.4	74.3	47.5	61.2	84	32	40	38	37	69	37	35	.259	.248	.237	3.29	1.04	3.1	3.5	2.6	3.2
October	24.596	24.850	24.260	31.1	52.0	50.1	56.1	28.2	42.2	67	17	22	23	22	70	33	34	.120	.125	.119	.63	.35	1.5	2.5	3.0	2.8
November	24.607	25.030	24.177	24.7	45.6	39.1	50.4	19.3	34.8	63	− 4	17	22	21	72	42	50	.094	.119	.113	1.12	.90	2.1	3.4	3.2	3.3
December	24.701	25.110	23.990	18.9	34.8	29.9	38.3	13.9	26.1	51	− 8	14	20	20	80	54	64	.084	.111	.107	.40	.37	3.0	3.1	2.7	3.7
Year	24.608	25.110	23.990	36.1	58.0	56.5	62.3	33.2	47.7	97	−18	24	25	25	64	34	36	.145	.149	.145	10.45	1.04	2.6	3.3	3.6	3.4

MONTGOMERY, ALA.

[ϕ=32° 23′ N.; λ=86° 18′ W.]

January	29.923	30.310	29.490	40.4	51.0	50.3	56.0	38.0	47.0	76	13	37	37	37	86	60	64	0.235	0.232	0.229	5.03	1.96	4.7	5.3	4.2	5.1
February	29.776	30.100	29.223	44.4	52.8	53.4	58.4	41.0	50.2	74	28	41	40	41	89	65	64	.276	.270	.270	10.05	5.21	5.4	6.7	4.2	5.6
March	29.882	30.210	29.422	52.3	64.3	63.6	69.6	49.3	59.4	78	37	46	45	44	79	53	52	.322	.317	.304	10.31	6.06	3.7	4.6	4.5	4.6
April	29.821	30.120	29.500	57.1	71.1	69.5	75.6	54.6	65.1	88	36	50	47	48	76	43	49	.372	.342	.358	4.61	2.51	3.7	4.0	3.7	3.9
May	29.678	29.880	29.370	65.5	76.0	73.1	79.6	62.2	70.9	87	51	60	59	59	84	57	65	.539	.506	.522	5.11	2.07	6.4	7.3	5.8	6.7
June	29.787	30.029	29.520	74.4	84.2	81.9	88.2	71.2	79.7	95	64	68	66	66	80	57	61	.680	.657	.649	3.34	.82	4.8	5.9	5.9	5.5
July	29.778	30.030	29.570	75.3	85.0	80.2	88.8	72.2	80.5	94	64	70	70	70	85	62	73	.743	.735	.741	4.67	1.23	5.6	6.8	6.2	6.0
August	29.789	29.960	29.600	74.0	84.2	79.5	88.5	71.3	79.9	97	66	71	72	71	89	68	76	.750	.786	.761	8.46	1.91	7.3	6.4	6.4	6.5
September	29.783	30.030	29.520	69.4	83.8	80.0	87.3	66.9	77.1	94	56	63	60	61	80	46	54	.580	.522	.550	.13	.07	2.4	3.3	3.1	3.1
October	29.835	30.020	29.680	70.0	81.9	77.0	85.3	68.1	76.7	91	60	67	67	67	89	62	72	.659	.666	.661	3.61	1.21	5.9	5.3	5.6	5.5
November	29.858	30.350	29.490	52.1	65.1	61.3	68.9	49.6	59.2	82	35	46	48	49	82	56	68	.343	.366	.381	3.07	1.71	6.2	4.8	3.7	5.0
December	29.946	30.400	29.520	43.2	54.3	52.9	59.4	41.4	50.4	74	24	37	40	40	80	61	64	.243	.276	.278	10.04	4.86	5.7	4.6	4.4	4.8
Year	29.821	30.400	29.223	59.8	71.1	68.6	75.5	57.2	66.3	97	13	55	54	54	83	58	64	.478	.474	.475	68.43	6.06	5.2	5.5	4.8	5.2

* Jan. 31–Feb. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MINNEAPOLIS, MINN.

[H_b=918 ft.; h_t=102 ft.; h_r=92 ft.; h_a=208 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	11.0	W.	40	NW.	1	2	0	1	3	6	4	12	3	0	10	12	9	6	4	8	6	0	2	12	0	29	0	0
February	12.9	NW.	45	NW.	2	3	4	0	4	2	1	4	10	0	6	11	11	7	7	12	7	0	1	16	0	28	0	0
March	12.7	SE.	39	S.	0	3	3	4	8	5	1	4	3	0	4	15	12	6	4	5	3	0	1	5	0	25	1	0
April	12.5	N.	42	N.	2	7	6	1	2	6	3	1	4	0	8	6	16	14	10	4	3	0	0	0	0	6	3	0
May	11.3	SE.	41	NE.	1	6	6	2	9	4	1	1	2	0	9	8	14	7	5	0	0	1	0	0	0	0	2	0
June	10.6	SE.	39	W.	0	5	4	2	10	3	3	2	1	0	5	7	18	13	10	0	0	0	0	0	2	0	8	0
July	10.6	SE.	50	NW.	2	1	5	0	8	7	3	3	4	0	13	10	8	12	9	0	0	2	0	0	5	0	10	0
August	10.4	NW.	37	N.	0	3	2	1	5	5	3	2	10	0	13	15	3	10	8	0	0	0	1	0	0	0	7	0
September	11.2	S.	48	S.	1	4	1	3	3	8	0	5	6	0	9	10	11	11	5	0	0	0	0	0	1	0	2	2
October	11.4	NW.	34	SE.	0	3	2	1	7	4	0	7	7	0	5	10	16	11	10	3	1	0	1	2	0	12	2	0
November	12.6	W.	40	W.	1	4	1	3	5	1	5	7	4	0	7	6	17	11	9	14	10	0	1	11	0	23	0	0
December	10.5	NW.	32	W.	0	4	1	1	4	5	3	8	5	0	6	7	18	5	3	11	5	0	4	26	0	31	0	0
Year	11.5	SE.	50	NW.	10	45	35	19	68	56	27	56	59	0	95	117	153	113	84	57	35	3	11	72	8	154	35	2

MOBILE, ALA.

[H_b=57 ft.; h_t=125 ft.; h_r=119 ft.; h_a=161 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	9.7	N.	34	N.	0	20	4	6	3	6	4	4	15	0	12	6	13	10	9	1	0	0	2	0	0	5	0	0
February	11.0	N.	44	NW.	1	11	4	4	9	7	10	3	8	0	8	4	16	17	15	0	0	0	3	0	0	1	3	0
March	11.5	N.	35	SE.	0	20	7	5	11	7	5	0	7	0	12	7	12	6	5	0	0	0	2	0	0	0	3	0
April	9.4	NW.	32	SE.	0	7	5	2	9	12	6	4	14	1	16	5	9	6	5	0	0	0	3	0	0	0	3	0
May	9.5	SW.	41	E.	1	9	3	6	10	10	14	4	6	0	7	8	16	16	13	0	0	0	0	0	0	0	12	0
June	8.2	E.	32	E.	0	3	9	11	5	9	11	4	8	0	5	11	14	8	8	0	0	1	0	0	9	0	8	0
July	7.6	SW.	57	N.	2	6	10	8	4	1	15	7	11	0	4	19	8	11	10	0	0	0	0	0	17	0	12	0
August	7.7	SW.	37	NE.	0	9	5	2	4	7	17	6	11	1	7	12	12	17	15	0	0	0	0	0	16	0	15	0
September	9.0	N.	35	E.	0	20	13	9	2	10	2	2	2	0	10	16	4	8	8	0	0	0	0	0	8	0	0	0
October	8.7	S.	34	E.	0	7	1	13	14	18	1	5	3	0	12	11	8	8	8	0	0	0	0	0	2	0	5	0
November	10.7	N.	39	SE.	0	21	9	5	6	5	4	4	6	0	7	10	13	7	6	0	0	0	0	0	0	0	1	0
December	10.8	N.	41	N.	1	18	13	2	2	7	14	1	5	0	13	8	10	9	6	0	0	0	0	0	0	2	3	0
Year	9.5	N.	57	N.	5	151	83	73	79	99	103	44	96	2	113	117	135	123	108	1	0	1	10	0	52	8	65	0

MODENA, UTAH.

[H_b=5,479 ft.; h_t=10 ft.; h_r=2 ft.; h_a=43 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.0	W.	31	NW.	0	5	10	9	1	0	8	25	2	2	20	7	4	2	1	2	2	0	0	4	0	31	0	0
February	11.5	SW.	66	S.	4	6	3	4	0	5	21	11	5	1	10	9	9	8	7	10	8	0	0	2	0	27	1	0
March	10.4	W.	56	S.	1	9	3	2	6	1	16	21	4	0	12	14	5	9	5	10	8	0	0	0	0	26	2	0
April	11.5	W.	57	SW.	4	5	6	3	6	4	11	19	2	4	13	13	4	1	1	3	0	2	0	0	0	10	2	0
May	11.5	SW.	46	NW.	3	3	2	4	1	4	22	23	2	1	18	10	3	7	4	0	0	1	0	0	0	1	8	0
June	13.8	SW.	51	SW.	6	1	2	1	3	2	25	24	2	0	28	2	0	1	1	0	0	0	0	0	10	0	1	0
July	11.3	SW.	38	E.	0	1	3	1	4	5	26	21	1	0	14	15	2	10	7	0	0	2	0	0	15	0	14	0
August	10.8	SW.	40	S.	2	2	1	4	1	7	24	22	1	0	18	10	3	6	3	0	0	0	0	0	13	0	12	0
September	11.9	SW.	56	SW.	3	0	5	4	2	7	21	16	2	3	17	8	5	7	7	0	0	1	0	0	0	0	5	0
October	10.5	SW.	43	S.	3	5	9	10	2	2	13	17	4	0	20	8	3	4	2	4	1	0	0	0	0	24	0	0
November	10.1	W.	39	SW.	0	4	8	12	4	0	9	23	0	0	17	7	6	4	3	4	3	0	0	2	0	29	1	0
December	8.6	W.	46	SW.	1	3	3	9	3	2	11	27	3	1	18	5	8	4	2	4	3	0	0	6	0	31	0	0
Year	10.7	W.	66	S.	27	44	55	63	33	39	207	249	28	12	205	108	52	63	43	37	25	6	0	14	38	179	46	0

MONTGOMERY, ALA.

[H_b=223 ft.; h_t=100 ft.; h_r=71 ft.; h_a=112 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	6.0	NW.	23	SW.	0	10	3	8	9	3	5	10	11	3	12	8	11	8	8	3	1	0	0	2	0	8	0	0
February	7.3	N.	30	W.	0	10	6	10	7	3	7	6	7	0	6	12	10	13	9	0	0	0	1	0	0	3	3	0
March	7.5	N.	24	SW.	0	20	5	3	14	4	4	4	7	1	12	11	8	4	4	0	0	0	0	0	0	0	3	0
April	6.3	SW.	21	W.	0	12	2	3	9	7	14	7	5	1	17	4	9	8	6	0	0	0	1	0	0	0	4	0
May	6.0	SW.	32	SW.	0	7	3	8	6	12	14	2	9	1	5	8	18	15	13	0	0	0	0	0	0	0	4	0
June	5.6	E.	29	SE.	0	2	3	20	14	1	8	4	6	2	8	12	10	9	6	0	0	0	0	0	13	0	8	0
July	5.6	SE.	31	S.	0	3	11	4	12	6	11	10	3	2	6	13	12	18	11	0	0	0	0	0	14	0	15	0
August	4.8	S.	28	N.	0	5	4	8	4	13	11	11	5	1	8	7	16	11	10	0	0	0	1	0	8	0	16	0
September	5.5	E.	22	SW.	0	7	14	21	6	4	3	2	2	1	17	11	2	2	2	0	0	0	0	0	7	0	1	0
October	5.2	SE.	35	SW.	0	7	6	9	22	8	7	2	1	0	8	15	8	9	7	0	0	0	1	0	1	0	4	0
November	6.5	E.	30	SW.	0	12	8	15	4	7	4	4	5	1	13	6	11	6	6	0	0	0	3	0	0	0	0	0
December	7.2	N.	27	NW.	0	13	10	6	4	8	11	5	5	0	15	5	11	8	7	0	0	0	0	0	0	5	4	0
Year	6.1	E.	35	SW.	0	108	75	115	111	76	99	67	66	13	127	112	126	111	89	3	1	0	7	2	43	16	62	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

MOORHEAD, MINN.

[ϕ=46° 52′ N.; λ=96° 44′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.981	29.510	28.520	13.2	....	18.4	24.3	7.1	15.7	41	−35	10	....	11	86	....	83	0.079	....	0.094	0.21	0.08	5.6	....	4.5	4.4
February	29.041	29.436	28.500	5.1	....	12.2	17.4	2.0	9.7	35	−25	2	....	8	86	....	82	.058	....	.072	.58	.22	5.5	....	5.5	5.8
March	29.134	29.830	28.440	17.7	....	26.7	31.7	14.5	23.1	54	−19	15	....	23	89	....	86	.101	....	.137	.74	.23	5.2	....	4.7	4.5
April	28.980	29.698	28.220	35.9	....	48.6	54.0	34.4	44.2	75	20	32	....	34	87	....	62	.188	....	.206	2.06	1.47	6.2	....	6.5	5.0
May	28.950	29.323	28.599	48.7	....	63.6	69.6	44.4	57.0	91	30	44	....	46	83	....	57	.297	....	.327	4.01	1.06	3.7	....	4.2	3.2
June	29.012	29.312	28.730	63.0	....	74.2	78.6	59.5	69.0	90	38	59	....	64	88	....	73	.521	....	.629	2.50	1.48	3.7	....	4.3	3.2
July	28.949	29.220	28.480	64.0	....	78.4	84.2	59.8	72.0	99	50	60	....	63	87	....	60	.521	....	.562	5.56	2.03	3.4	....	3.6	2.2
August	28.949	29.251	28.600	58.1	....	74.3	80.5	55.9	68.2	93	42	55	....	58	89	....	59	.442	....	.502	2.83	.67	3.2	....	3.0	2.0
September	28.960	29.370	28.420	51.2	....	64.2	71.8	49.3	60.6	91	32	47	....	51	87	....	64	.339	....	.394	1.34	.64	5.0	....	4.1	4.6
October	29.025	29.380	28.350	28.9	....	39.2	47.2	25.8	36.5	79	−4	26	....	31	86	....	73	.154	....	.184	1.22	.34	5.2	....	4.4	4.8
November	29.084	29.702	28.206	15.1	....	18.9	25.3	9.6	17.4	44	−14	12	....	16	86	....	87	.090	....	.102	1.92	1.24	4.9	....	6.1	5.2
December	29.116	29.677	28.460	6.7	....	8.7	15.4	−.9	7.2	41	−22	2	....	5	85	....	86	.058	....	.065	.78	.30	5.0	....	4.5	5.0
Year	29.015	29.830	28.209	34.0	....	44.0	50.0	30.1	40.0	99	−35	30	....	34	87	....	73	.237	....	.274	23.75	2.03	4.7	....	4.6	4.2

MOUNT TAMALPAIS, CALIF.

[ϕ=37° 56′ N.; λ=122° 35′ W.]

January	27.662	27.970	26.990	44.4	....	47.2	51.7	40.9	46.3	62	30	32	....	32	68	....	63	0.194	....	0.195	3.54	2.20	2.4	....	3.6	4.5
February	27.554	27.830	26.980	39.7	....	41.8	45.7	36.9	41.3	52	32	36	....	39	90	....	89	.222	....	.237	10.09	2.29	3.8	....	5.4	6.9
March	27.574	27.860	26.970	40.5	....	44.8	48.4	37.4	42.9	60	31	35	....	38	83	....	80	.209	....	.232	3.64	.92	3.3	....	3.8	4.9
April	27.568	27.780	27.340	48.5	....	53.5	59.0	45.3	52.2	77	35	35	....	38	66	....	61	.213	....	.239	.35	.10	2.3	....	4.5	4.4
May	27.468	27.620	27.280	53.0	....	59.1	64.1	47.8	56.0	85	38	36	....	41	59	....	55	.227	....	.266	.15	.15	1.3	....	1.4	3.0
June	27.517	27.700	27.330	58.0	....	65.0	69.2	53.8	61.5	88	39	34	....	39	46	....	43	.198	....	.246	T.	T.	.2	....	.2	.4
July	27.500	27.650	27.330	64.4	68.0	71.8	75.7	60.3	68.0	90	43	37	47	42	42	50	37	.229	0.328	.277	T.	T.	.4	0.4	.2	.6
August	27.541	27.720	27.380	65.5	71.3	72.5	76.5	60.4	68.4	90	44	34	45	41	37	43	35	.205	.307	.263	T.	T.	.8	1.3	.8	1.1
September	27.468	27.700	27.237	60.4	65.5	64.8	69.6	56.4	63.0	92	42	39	46	44	56	56	55	.250	.310	.296	1.26	.62	1.6	1.8	1.8	2.5
October	27.547	27.780	27.270	54.6	59.8	58.3	63.9	51.2	57.6	78	37	29	38	35	44	47	46	.168	.232	.208	1.35	.74	.9	.8	1.8	1.5
November	27.586	27.820	27.180	49.4	54.2	52.6	57.8	45.7	51.8	72	27	27	31	31	48	47	49	.159	.187	.182	1.09	.91	.7	1.6	1.9	2.4
December	27.612	27.900	27.060	43.7	45.7	45.8	49.6	39.7	44.6	71	28	32	35	33	73	72	69	.204	.215	.199	4.45	1.18	4.1	4.2	3.9	5.1
Year	27.550	27.970	26.970	51.8	....	56.4	60.9	48.0	54.5	92	27	34	....	38	59	....	57	.206	....	.237	25.92	2.29	1.8	....	2.4	3.1

NANTUCKET, MASS.

[ϕ=41° 17′ N.; λ=70° 06′ W.]

January	29.963	30.602	29.080	34.0	37.4	35.2	41.2	29.5	35.4	52	8	30	30	30	85	77	80	0.178	0.189	0.172	4.83	2.12	5.5	6.4	4.7	6.8
February	29.878	30.331	29.140	31.0	35.7	32.9	38.5	27.7	33.1	45	20	25	27	25	77	68	72	.139	.146	.138	1.86	.70	5.0	4.6	3.4	5.1
March	30.047	30.860	29.170	38.2	41.4	37.5	43.6	33.6	38.6	57	24	35	36	35	88	84	90	.207	.220	.207	3.81	.97	6.2	7.4	5.6	7.8
April	29.978	30.390	29.580	43.2	46.0	42.0	48.4	37.9	43.2	58	22	39	40	40	86	80	91	.246	.252	.246	2.46	1.33	5.6	6.0	5.6	7.0
May	29.948	30.430	29.650	54.4	57.3	56.8	59.5	47.3	53.4	73	39	49	49	48	83	77	89	.350	.357	.334	4.67	2.21	4.5	6.0	4.8	6.3
June	30.120	30.454	29.770	61.3	65.0	58.3	67.0	54.7	60.8	78	49	56	56	55	85	75	91	.460	.469	.445	2.82	2.01	3.3	4.0	4.7	5.0
July	29.985	30.367	29.610	69.5	73.1	66.3	75.7	61.9	68.8	92	51	64	64	63	84	76	89	.598	.612	.575	4.76	2.16	4.6	5.1	4.6	6.1
August	29.936	30.296	29.620	67.2	70.4	64.1	72.6	61.3	67.0	82	56	61	61	61	83	74	90	.547	.548	.541	7.17	2.33	4.7	4.9	4.8	5.7
September	30.011	30.411	29.490	62.7	66.3	60.5	68.4	56.7	62.6	79	48	57	58	57	84	76	89	.485	.500	.476	3.45	1.14	4.7	5.6	4.1	6.5
October	30.115	30.607	29.590	55.3	58.2	54.0	60.9	49.2	55.0	77	39	50	51	49	85	78	84	.384	.397	.364	4.25	1.25	5.9	7.0	4.3	7.7
November	30.028	30.500	29.350	44.6	47.4	43.6	50.0	39.3	44.6	61	27	40	40	38	84	77	82	.261	.263	.242	4.20	1.64	6.6	5.8	5.6	7.1
December	30.068	30.699	29.400	31.5	34.5	32.6	37.9	26.2	32.0	56	3	26	28	26	79	78	76	.158	.169	.157	3.67	1.02	3.5	6.5	6.0	7.5
Year	30.006	30.860	29.080	49.4	52.7	48.2	55.3	43.8	49.5	92	3	44	45	44	84	77	85	.334	.343	.325	47.95	2.33	5.0	5.8	4.8	6.6

NASHVILLE, TENN.

[ϕ=36° 10′ N.; λ=86° 47′ W.]

January	29.592	29.870	29.156	34.7	43.9	42.9	49.2	31.0	40.1	65	5	29	31	30	79	61	62	0.170	0.182	0.173	4.71	1.14	5.4	4.5	4.3	4.8
February	29.443	29.880	28.670	36.7	44.5	43.5	49.8	32.6	41.2	65	22	31	32	30	79	61	61	.181	.185	.175	2.19	.58	6.8	5.8	5.0	5.8
March	29.591	29.890	29.018	43.0	54.2	54.8	60.4	40.4	50.4	76	22	35	35	36	73	52	52	.214	.219	.223	8.67	4.53	4.5	4.5	3.8	4.3
April	29.472	29.768	29.060	52.6	64.6	64.1	69.4	49.1	59.2	84	23	43	42	43	72	46	48	.302	.297	.298	2.66	1.49	5.1	5.1	5.1	5.1
May	29.345	29.550	28.940	60.6	70.6	68.2	74.6	57.5	66.0	85	48	55	55	56	83	61	67	.451	.459	.461	8.67	1.73	6.3	6.6	5.7	6.5
June	29.484	29.775	29.270	73.2	83.5	79.9	87.2	69.2	78.2	94	63	66	65	66	79	55	64	.649	.628	.634	3.96	1.56	4.9	5.3	5.1	5.1
July	29.456	29.692	29.270	75.1	86.2	82.8	90.5	70.8	80.6	95	66	68	66	67	78	52	62	.681	.646	.676	1.83	1.51	2.8	3.3	4.3	3.4
August	29.446	29.620	29.320	71.5	81.7	80.5	86.3	68.8	77.6	98	60	66	65	65	83	60	61	.644	.632	.628	6.80	3.03	5.2	5.4	4.5	4.9
September	29.489	29.700	29.254	64.2	80.8	77.9	84.2	61.5	72.8	92	52	58	59	59	81	48	53	.497	.510	.507	1.33	1.31	2.9	3.8	2.8	3.2
October	29.511	29.700	29.360	63.9	79.8	69.2	75.4	60.9	68.2	91	46	60	62	61	88	75	78	.536	.571	.552	8.35	1.71	7.1	7.6	5.0	6.9
November	29.543	29.964	28.870	44.3	54.7	52.7	59.2	40.2	49.7	76	23	40	43	40	86	67	63	.271	.296	.258	7.89	3.61	4.4	4.7	3.4	4.5
December	29.599	30.260	28.990	34.9	41.2	40.6	47.7	29.8	38.8	66	12	30	30	31	80	64	70	.174	.175	.187	3.28	1.18	5.0	6.0	5.0	6.2
Year	29.497	30.260	28.670	54.6	64.7	63.1	69.5	51.0	60.2	98	5	48	49	49	80	58	62	.398	.400	.398	60.34	4.53	5.0	5.2	4.5	5.1

Annual meteorological summary for the year ending December 31, 1919—**Continued.**

MOORHEAD, MINN.

[H_b=940 ft.; h_t=8 ft.; h_r=3 ft.; h_a=57 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.	*	*Mi.*																									
January	8.7	NW.	28	NW.	0	7	4	1	12	12	5	6	15	0	15	9	7	5	3	5	5	0	0	19	0	31	0	0
February	8.6	N.	28	N.	0	20	4	1	7	4	1	0	18	1	10	5	13	9	3	10	9	0	0	24	0	28	0	0
March	9.4	SE.	40	E.	1	13	2	0	16	10	6	4	11	0	12	12	7	10	8	6	6	0	0	14	0	29	0	0
April	10.5	SE.	34	W.	0	11	10	3	14	6	3	3	10	0	12	8	10	8	7	3	2	0	0	0	0	9	0	0
May	9.1	SE.	31	E.	0	8	9	5	19	11	4	1	5	0	20	3	8	12	12	0	0	0	1	0	2	3	2	0
June	8.6	SE.	30	SE.	0	13	5	7	23	6	0	0	6	0	17	7	6	10	7	0	0	0	0	0	2	0	2	0
July	7.7	SE.	36	SE.	0	14	3	3	14	11	7	1	9	0	21	8	2	8	8	0	0	0	0	0	6	0	6	0
August	7.6	NW.	34	NW.	0	12	3	3	15	6	0	6	17	0	23	6	2	8	7	0	0	0	0	0	4	0	6	0
September	8.0	SE.	30	NW.	0	7	6	2	16	5	4	7	12	1	13	7	10	5	4	0	0	0	0	0	2	1	2	0
October	7.9	N.	27	S.	0	14	5	3	7	11	4	8	10	0	15	4	12	9	6	5	4	0	0	6	0	21	1	0
November	9.6	N.	36	NW.	0	13	3	4	8	8	4	8	12	0	14	4	12	9	7	8	8	0	0	16	0	27	0	0
December	8.4	NW.	31	NW.	0	10	4	0	6	13	8	7	14	0	16	5	10	11	7	11	11	0	0	27	0	31	0	0
Year	8.7	SE.	40	E.	1	142	58	32	157	103	46	51	139	2	188	78	99	104	79	48	45	0	1	106	16	180	19	0

MOUNT TAMALPAIS, CALIF.

[H_b=2,375 ft.; h_t=11 ft.; h_r=5 ft.; h_a=18 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	18.1	NW.	62	S.	9	6	11	5	6	8	4	3	18	1	14	8	9	10	9	0	0	0	11	0	0	2	0	0
February	21.3	NW.	66	S.	17	4	0	3	4	14	4	5	22	0	4	9	15	22	18	1	1	0	24	0	0	0	0	0
March	18.2	NW.	62	NW.	15	6	1	2	3	8	11	6	25	0	12	7	12	15	11	1	1	0	18	0	0	2	0	0
April	15.3	NW.	68	NW.	10	7	2	2	1	1	6	16	25	0	12	13	5	5	4	0	0	0	10	0	0	0	0	0
May	19.9	NW.	84	NW.	17	8	4	1	0	0	10	11	28	0	21	7	3	1	1	0	0	0	11	0	0	0	0	0
June	21.6	NW.	88	NW.	21	5	2	0	0	0	3	15	35	0	28	2	0	0	0	0	0	0	1	0	0	0	0	0
July	13.1	NW.	58	NW.	9	2	2	0	1	0	14	15	27	1	28	3	0	0	0	0	0	0	2	0	1	0	0	0
August	15.9	NW.	78	NW.	12	0	0	0	0	1	7	22	31	1	27	4	0	0	0	0	0	0	3	0	0	0	0	0
September	17.9	NW.	70	NW.	16	6	3	0	2	1	6	19	23	0	20	7	3	4	3	0	0	0	11	0	2	0	1	0
October	17.0	NW.	78	NW.	13	12	9	1	0	0	3	12	24	0	24	5	2	3	2	0	0	0	5	0	0	0	0	0
November	21.6	NW.	88	N.	16	18	9	3	0	2	2	4	19	3	22	5	3	6	3	0	0	0	7	0	0	2	0	0
December	20.1	NE.	66	SE.	12	4	12	5	10	8	8	3	12	0	13	5	13	13	11	0	0	1	16	0	0	4	1	0
Year	18.3	NW.	88	NW.	167	79	55	22	27	43	78	131	289	6	225	75	65	79	62	2	2	1	119	0	3	10	2	0

NANTUCKET, MASS.

[H_b=12 ft.; h_t=14 ft.; h_r=4 ft.; h_a=90 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	17.0	SW.	56	SW.	6	3	8	2	2	5	12	13	17	0	8	5	18	10	10	5	4	0	5	2	0	15	0	0
February	15.9	NW.	49	SE.	3	5	3	1	5	2	6	13	21	0	11	10	7	9	5	5	3	0	4	1	0	24	0	0
March	20.6	NE.	48	NE.	7	6	15	4	7	4	10	5	11	0	5	3	23	18	13	4	3	0	8	2	0	12	0	0
April	16.2	SW.	42	W.	3	6	6	3	5	4	17	13	6	0	7	7	16	12	9	3	0	0	9	0	0	6	2	0
May	16.6	SW.	48	E.	2	5	6	5	13	4	20	7	2	0	9	9	13	13	11	0	0	0	15	0	0	0	1	0
June	15.7	NE.	42	SW.	2	1	19	5	3	4	19	8	1	0	10	12	8	8	4	0	0	0	12	0	0	0	1	0
July	14.3	SW.	37	SW.	0	2	9	0	2	6	26	15	2	0	8	12	11	11	9	0	0	0	14	0	2	0	4	0
August	13.8	SW.	49	E.	1	1	6	2	10	7	19	12	5	0	10	9	12	13	11	0	0	0	8	0	0	0	5	0
September	12.9	SW.	34	NE.	0	2	12	7	7	11	13	3	5	0	9	8	13	12	9	0	0	0	10	0	0	0	2	0
October	15.0	NE.	42	S.	1	6	10	9	9	6	12	5	5	0	5	2	24	16	13	0	0	0	11	0	0	0	1	2
November	18.1	NE.	54	NE.	7	7	14	1	0	8	6	6	12	0	5	6	19	15	13	0	0	0	8	0	0	3	0	0
December	15.5	NW.	52	NE.	3	8	8	1	2	3	9	13	18	0	5	7	19	17	12	10	7	0	7	10	0	23	1	0
Year	16.0	SW.	56	SW.	35	52	116	40	71	64	169	113	105	0	92	90	183	154	119	27	17	0	111	15	2	83	17	2

NASHVILLE, TENN.

[H_b=546 ft.; h_t=168 ft.; h_r=161 ft.; h_a=191 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.5	NW.	30	S.	0	2	9	6	8	11	4	9	13	0	16	4	11	8	7	2	1	0	1	4	0	15	0	0
February	9.8	NW.	39	SW.	0	3	9	3	13	7	5	7	9	0	8	8	12	11	7	7	4	0	0	0	0	17	0	0
March	10.7	NE.	46	SE.	2	12	16	2	11	5	0	4	12	0	14	8	9	9	7	1	0	0	0	0	0	4	5	0
April	8.9	S.	40	SW.	1	2	7	8	11	8	8	11	5	0	13	6	11	8	7	1	0	0	1	0	0	2	4	0
May	7.9	SW.	41	W.	1	2	9	8	7	7	7	9	13	0	7	11	13	17	14	0	0	1	0	0	0	0	12	0
June	7.1	SE.	43	NW.	1	4	7	10	10	9	9	4	7	0	9	16	5	8	8	0	0	1	0	0	6	0	11	0
July	6.7	W.	42	NW.	1	5	6	3	8	4	11	19	6	0	16	14	1	8	6	0	0	1	0	0	20	0	13	0
August	7.2	W.	50	W.	1	4	7	0	4	6	14	16	11	0	10	14	7	11	10	0	0	0	0	0	9	0	10	0
September	6.9	NW.	29	SW.	0	6	10	4	6	7	3	5	19	0	19	8	3	2	2	0	0	0	0	0	4	0	1	0
October	7.9	S.	37	S.	0	3	9	4	6	16	10	5	9	0	6	8	17	16	14	0	0	0	1	0	1	0	6	0
November	8.9	NE.	56	SE.	2	6	11	5	9	7	4	12	6	0	14	7	9	10	7	0	0	0	3	0	0	6	1	0
December	9.4	SW.	40	NW.	1	9	9	6	5	6	10	4	13	0	9	7	15	11	9	1	0	0	3	2	0	21	2	0
Year	8.2	NW.	55	SE.	10	58	100	59	98	93	85	105	123	0	141	111	113	119	98	12	5	3	9	6	40	65	65	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

NEW HAVEN, CONN.

[ϕ=41° 18′ N.; λ=72° 56′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.901	30.590	29.210	30.8	36.2	34.1	40.9	26.6	33.8	54	5	25	27	26	77	68	70	0.142	0.152	0.148	3.17	1.24	5.6	6.2	2.7	5.5
February	29.844	30.310	29.160	28.5	36.1	34.1	40.5	25.8	33.2	50	16	21	24	24	71	61	65	.115	.130	.132	4.22	1.44	4.6	5.0	3.8	4.5
March	29.981	30.767	29.150	37.3	44.3	41.0	49.7	32.7	41.2	68	19	29	32	29	72	62	64	.162	.186	.169	4.55	1.17	6.5	5.7	4.6	6.0
April	29.900	30.280	29.530	44.0	50.6	47.3	54.8	39.3	47.0	66	20	33	33	35	67	54	65	.197	.199	.215	3.71	2.52	5.6	5.9	4.6	5.5
May	29.851	30.315	29.620	57.5	64.6	59.9	68.8	50.9	59.8	92	42	46	46	46	69	54	66	.325	.318	.323	6.16	2.55	5.4	5.3	5.7	5.4
June	30.024	30.393	29.670	65.6	72.2	68.0	76.8	58.9	67.8	93	48	56	56	58	72	61	72	.462	.476	.493	2.19	1.52	5.1	3.7	3.3	4.3
July	29.891	30.270	29.500	71.9	78.3	73.2	81.2	65.5	73.4	98	55	62	62	64	72	59	74	.567	.596	.599	3.75	1.03	5.0	5.4	5.2	5.2
August	29.838	30.180	29.570	66.9	73.1	69.6	76.4	60.9	68.6	91	53	58	59	60	75	64	73	.500	.508	.532	7.02	2.67	4.5	5.6	4.7	4.9
September	29.925	30.314	29.490	61.7	68.6	64.7	72.0	56.4	64.2	91	43	55	54	57	79	63	77	.445	.442	.484	7.09	3.44	5.3	4.9	3.9	5.0
October	30.024	30.500	29.510	53.4	61.4	57.6	64.5	47.7	56.1	87	36	47	49	49	80	66	74	.354	.373	.373	3.62	.80	6.5	5.8	5.7	6.2
November	29.974	30.460	29.320	41.0	47.3	43.6	50.5	35.5	43.0	71	22	34	34	34	75	59	70	.215	.266	.213	4.30	1.10	5.6	5.2	5.0	5.7
December	30.006	30.650	29.330	25.2	30.1	28.5	34.5	20.6	27.6	53	−4	20	21	20	80	69	69	.123	.125	.122	2.78	1.07	5.6	6.1	4.3	5.9
Year	29.930	30.767	29.150	48.6	55.2	51.8	59.2	43.4	51.3	98	−4	40	41	42	74	62	70	.301	.307	.317	52.56	3.44	5.4	5.4	4.5	5.3

NEW ORLEANS, LA.

[ϕ=29° 57′ N.; λ=90° 04′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.098	30.440	29.690	47.1	54.6	51.7	57.8	44.7	51.2	76	23	43	47	46	87	78	82	0.300	0.341	0.323	8.03	3.01	6.5	6.4	5.2	6.2
February	29.951	30.300	29.490	52.1	60.1	57.9	64.0	49.1	56.6	75	36	48	51	49	86	72	75	.354	.393	.376	6.52	1.65	6.5	6.1	5.5	6.1
March	30.043	30.310	29.640	58.2	68.0	66.7	71.9	56.2	64.0	81	47	52	54	52	80	62	62	.403	.433	.408	3.22	1.17	5.9	5.0	3.5	4.5
April	29.979	30.270	29.600	62.8	72.7	69.5	75.8	60.4	68.1	86	48	57	59	60	83	63	74	.491	.517	.538	7.88	2.48	4.9	5.1	3.9	4.5
May	29.838	30.010	29.621	70.2	78.1	74.2	81.3	66.6	74.0	89	61	65	65	66	85	65	76	.633	.619	.643	7.02	2.35	5.7	5.8	5.4	5.7
June	29.935	30.082	29.630	77.2	83.3	80.3	86.3	73.8	80.0	92	70	72	72	72	84	70	77	.789	.780	.788	4.50	1.62	6.1	6.0	7.2	6.5
July	29.956	30.133	29.790	78.9	86.3	82.0	89.8	75.3	82.6	95	70	74	74	74	85	69	77	.839	.851	.832	7.62	1.83	4.5	6.7	7.1	6.1
August	29.972	30.110	29.860	80.0	87.2	82.6	90.4	76.1	83.2	96	70	76	76	76	87	69	81	.886	.886	.893	7.38	2.24	4.9	7.4	6.8	6.9
September	29.916	30.100	29.650	75.6	84.5	80.4	86.5	73.8	80.2	94	69	69	66	68	79	56	67	.711	.661	.690	2.93	1.18	4.5	5.4	4.4	6.1
October	29.969	30.110	29.870	74.5	84.1	77.9	86.5	72.5	79.5	90	65	72	70	73	90	64	84	.774	.736	.803	4.21	1.56	5.0	6.8	4.6	5.6
November	30.004	30.380	29.700	61.7	69.7	66.6	73.2	59.5	66.4	81	41	58	61	61	89	75	83	.518	.564	.557	7.29	3.48	6.5	5.9	4.7	6.0
December	30.122	30.570	29.660	51.5	61.8	58.3	64.6	49.3	57.0	81	34	48	52	50	87	72	76	.360	.434	.398	.83	.48	6.0	5.5	3.5	5.1
Year	29.982	30.570	29.490	65.8	74.2	70.7	77.3	63.1	70.2	96	23	61	62	62	85	68	76	.588	.601	.604	67.43	3.48	5.6	6.0	5.2	5.8

NEW YORK, N. Y.

[ϕ=40° 43′ N.; λ=74° 00′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.688	30.360	29.100	32.3	36.9	36.3	42.2	28.1	35.2	60	9	23	24	25	67	59	64	0.134	0.139	0.148	3.35	1.33	6.5	5.5	4.3	6.3
February	29.618	30.081	28.930	30.9	35.9	35.3	41.4	28.0	34.7	51	16	21	22	23	64	55	60	.114	.121	.129	3.45	1.28	5.5	4.7	4.1	5.2
March	29.751	30.464	29.070	38.5	44.6	42.8	50.0	34.0	42.0	65	22	29	28	29	67	54	59	.165	.162	.167	4.69	1.59	4.3	6.4	4.6	6.7
April	29.671	30.021	29.360	44.9	51.4	49.6	57.2	40.4	48.8	76	21	32	32	34	62	50	56	.192	.190	.202	2.55	1.30	6.0	6.0	5.8	6.5
May	29.623	30.080	29.350	58.6	65.0	61.4	69.0	53.0	61.0	90	42	46	45	47	67	53	63	.325	.311	.329	3.81	1.09	4.9	5.5	5.6	6.4
June	29.795	30.155	29.450	66.8	73.9	68.8	77.8	61.6	69.7	92	52	57	57	58	72	59	71	.479	.482	.490	2.23	.95	5.2	5.1	3.4	5.3
July	29.675	30.035	29.340	72.1	77.8	74.2	80.8	67.1	74.0	98	58	62	61	63	72	60	72	.557	.551	.589	7.93	3.27	5.1	6.2	5.3	6.1
August	29.611	29.930	29.375	67.4	73.8	70.9	77.2	63.3	70.2	89	56	60	59	60	78	63	70	.525	.517	.527	7.74	2.39	5.4	6.1	4.0	5.9
September	29.698	30.076	29.240	62.5	70.3	66.7	73.7	59.3	66.5	91	51	55	56	57	79	62	73	.453	.466	.489	3.60	2.27	5.8	4.9	3.2	5.6
October	29.790	30.202	29.370	56.0	61.2	59.6	65.6	51.2	58.4	85	39	50	50	50	81	70	74	.382	.389	.392	3.17	.83	6.0	7.1	6.0	7.2
November	29.745	30.223	29.150	41.9	47.1	44.9	51.6	37.2	44.4	70	26	33	34	35	72	61	68	.208	.209	.218	3.33	.69	6.0	6.2	4.5	6.5
December	29.771	30.405	29.130	28.0	31.9	31.0	37.1	23.0	30.0	60	0	21	20	20	74	62	64	.128	.124	.127	2.53	1.03	6.8	6.4	4.7	7.2
Year	29.700	30.464	28.930	50.0	55.8	53.5	60.3	45.5	52.9	98	0	41	41	42	71	59	66	.305	.305	.317	48.38	3.27	5.6	5.8	4.6	6.2

NORFOLK, VA.

[ϕ=36° 51′ N.; λ=76° 17′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.014	30.610	29.400	38.3	45.3	44.6	51.8	35.7	43.8	68	22	32	33	34	80	63	68	0.198	0.202	0.212	3.10	0.76	3.6	4.1	3.4	4.8
February	29.931	30.420	29.250	38.1	44.2	43.2	49.5	35.8	42.6	68	26	31	30	31	75	57	64	.181	.171	.185	2.15	.71	5.2	4.1	4.1	4.5
March	30.036	30.558	29.370	46.1	53.1	50.6	59.2	41.6	50.4	75	33	40	37	39	80	58	67	.263	.241	.247	3.36	1.27	5.7	5.1	3.8	5.3
April	29.963	30.280	29.630	53.3	61.2	57.4	66.9	46.9	56.9	84	27	43	41	43	68	48	61	.296	.278	.290	1.61	.82	3.9	4.0	3.1	5.4
May	29.866	30.160	29.530	65.2	72.2	67.2	77.3	63.5	67.9	88	49	58	55	57	79	58	71	.494	.450	.469	3.63	.85	4.6	5.2	4.0	4.9
June	30.023	30.344	29.630	71.8	78.0	71.9	81.6	65.3	73.4	92	58	63	60	62	75	56	73	.586	.535	.572	3.48	1.58	5.0	4.7	3.4	4.5
July	29.943	30.250	29.690	74.7	82.0	78.0	86.0	69.5	77.8	94	58	68	67	69	81	62	75	.704	.672	.714	7.21	1.83	4.6	4.7	4.5	4.8
August	29.879	30.180	29.650	72.5	80.6	76.5	84.5	68.7	76.6	93	59	66	64	67	80	58	73	.641	.616	.666	3.47	1.10	4.7	4.8	5.0	4.7
September	29.967	30.270	29.580	68.0	77.2	72.0	80.6	64.6	72.6	91	58	60	59	61	78	55	70	.538	.512	.549	.70	.66	4.5	4.6	3.6	4.4
October	30.038	30.350	29.760	65.7	73.5	69.2	77.3	62.8	70.0	91	54	61	62	62	86	68	78	.556	.566	.560	2.27	.91	5.0	5.3	3.2	5.1
November	30.034	30.560	29.460	48.9	55.8	52.9	61.3	44.7	53.0	81	33	42	39	40	78	55	64	.291	.256	.276	.20	.12	4.7	3.8	3.6	4.3
December	30.060	30.700	29.540	37.9	41.3	40.8	48.6	32.4	40.5	74	20	32	32	32	80	70	70	.210	.201	.203	1.71	.51	6.1	6.6	5.4	6.5
Year	29.980	30.700	29.250	56.7	63.7	60.4	68.7	52.2	60.5	94	20	50	48	50	78	59	70	.413	.391	.418	32.89	1.83	4.8	4.8	3.9	4.8

Annual meteorological summary for the year ending December 31, 1919—Continued.

NEW HAVEN, CONN.

[H_b=106 ft.; h_t=74 ft.; h_r=68 ft.; h_a=153 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	9.4	SW.	38	W.	0	12	12	3	1	3	13	8	10	0	10	8	13	8	7	8	2	0	2	5	0	23	0	0
February	10.1	N.	35	N.	0	25	10	1	2	2	3	5	8	0	13	6	9	10	8	5	3	0	0	0	0	23	0	0
March	14.0	N.	48	N.	2	19	16	1	5	4	7	7	3	0	9	6	16	10	9	4	1	0	0	2	0	14	0	0
April	10.1	N.	32	W.	0	13	14	2	6	4	10	3	8	0	9	9	12	13	9	2	0	0	0	0	0	5	2	0
May	9.2	NE.	28	SW.	0	11	13	3	9	8	11	3	4	0	12	8	11	12	12	0	0	0	2	0	1	0	2	0
June	8.2	SW.	26	NE.	0	3	16	8	4	12	14	7	2	0	13	10	7	6	4	0	0	0	0	0	2	0	4	0
July	8.2	SW.	32	SW.	0	10	9	1	0	5	21	11	5	0	11	10	10	13	11	0	0	0	0	0	5	0	5	0
August	8.0	SW.	34	NE.	0	14	9	8	3	4	12	6	6	0	16	6	9	14	11	0	0	0	0	0	1	0	4	0
September	7.9	W.	26	SW.	0	8	8	6	3	13	4	12	6	0	13	7	10	8	7	0	0	0	1	0	1	0	1	1
October	8.0	NE.	31	W.	0	14	11	2	5	9	13	2	6	0	7	9	15	16	13	0	0	0	1	0	0	0	2	0
November	11.0	N.	46	NW.	1	14	9	0	5	6	7	7	12	0	10	8	12	11	10	1	0	0	0	1	0	9	0	0
December	9.0	N.	34	NW.	0	17	9	0	1	2	13	9	11	0	9	10	12	14	11	10	6	0	3	13	0	27	0	0
Year	9.4	N.	48	N.	3	160	130	35	44	72	128	80	81	0	132	97	136	135	112	30	12	0	9	21	10	101	20	1

NEW ORLEANS, LA.

[H_b=53 ft.; h_t=76 ft.; h_r=71 ft.; h_a=84 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.9	N.	25	NW.	0	15	13	9	8	2	4	1	8	2	9	8	14	10	9	0	0	0	1	0	0	4	0	0
February	7.5	SE.	30	N.	0	5	5	6	10	9	8	2	9	2	9	6	13	16	13	0	0	0	1	0	0	0	1	0
March	7.1	SE.	26	NW.	0	10	14	4	16	8	2	3	5	0	14	9	8	5	5	0	0	0	1	0	0	0	2	0
April	6.6	SE.	24	N.	0	6	5	3	22	9	3	7	4	1	15	6	9	7	6	0	0	0	2	0	0	0	4	0
May	5.0	S.	25	SE.	0	4	10	3	12	7	12	8	5	1	8	12	11	13	10	0	0	0	2	0	0	0	11	0
June	6.2	SE.	24	SE.	0	1	3	9	22	6	6	4	8	1	1	18	11	13	11	0	0	0	0	0	6	0	7	0
July	5.3	W.	28	SE.	0	4	0	4	6	5	10	23	10	0	3	19	9	14	13	0	0	0	0	0	17	0	12	0
August	5.0	SW.	28	NE.	0	4	2	2	5	11	17	11	10	0	4	13	14	16	15	0	0	0	0	0	19	0	18	0
September	7.3	NE.	32	SE.	0	2	17	14	14	7	1	0	5	0	11	5	14	9	5	0	0	0	0	0	4	0	3	0
October	5.5	S.	23	SE.	0	5	7	3	24	21	0	2	0	0	7	15	9	13	11	0	0	0	0	0	2	0	6	0
November	7.5	NE.	30	NW.	0	6	19	16	7	10	0	0	2	0	8	9	13	9	9	0	0	0	0	0	0	0	2	0
December	7.5	NE.	27	NE.	0	9	13	7	8	8	5	3	7	2	12	9	10	6	3	0	0	0	2	0	0	0	2	0
Year	6.4	SE.	32	SE.	0	71	108	80	154	103	68	64	73	9	101	129	135	131	110	0	0	0	9	0	48	4	68	0

NEW YORK, N. Y.

[H_b=314 ft.; h_t=414 ft.; h_r=407 ft.; h_a=454 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	18.7	NW.	84	NW.	14	4	3	2	2	4	15	13	19	0	9	8	14	7	6	6	1	0	2	5	0	18	0	0
February	19.8	NW.	66	NW.	10	5	3	9	2	4	5	4	24	0	12	4	12	11	10	6	4	0	2	0	0	19	0	0
March	24.1	NW.	92	NW.	18	11	9	8	1	7	7	4	15	0	6	9	16	12	10	3	3	0	1	1	0	10	0	0
April	19.1	NW.	62	NW.	12	6	5	6	2	12	4	7	18	0	5	13	12	11	7	4	0	0	1	0	0	4	2	0
May	15.3	E.	55	NW.	4	8	5	14	3	10	7	5	10	0	9	6	16	12	9	0	0	0	4	0	1	0	4	0
June	12.0	S.	48	N.	2	5	8	4	9	19	8	4	3	0	10	11	9	6	6	0	0	1	3	0	3	0	2	0
July	14.8	S.	65	SW.	6	7	4	0	11	15	10	7	8	0	8	12	11	14	14	0	0	1	3	0	4	0	5	0
August	14.3	NW.	40	NE.	2	6	5	6	4	10	5	10	16	0	7	13	11	11	10	0	0	0	0	0	0	0	4	0
September	13.8	NW.	49	NW.	3	5	5	8	5	10	7	8	12	0	9	10	11	8	7	0	0	0	4	0	1	0	1	0
October	14.4	E.	63	W.	4	5	7	11	7	7	12	1	12	0	6	9	16	14	12	0	0	0	7	0	0	0	3	0
November	19.8	NW.	61	NW.	12	9	5	5	4	8	9	5	15	0	7	9	14	13	10	1	0	0	2	0	0	6	0	0
December	17.2	NW.	72	NW.	12	6	5	4	2	4	12	6	23	0	5	9	17	14	12	2	7	0	5	12	0	27	0	0
Year	16.9	NW.	92	NW.	99	77	64	77	52	110	101	74	175	0	93	113	159	133	113	29	15	2	34	18	9	84	21	0

NORFOLK, VA.

[H_b=91 ft.; h_t=170 ft.; h_r=178 ft.; h_a=205 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	12.6	SW.	44	W.	2	4	10	1	8	14	10	6	9	0	14	8	9	9	8	1	1	0	4	1	0	12	0	0
February	13.8	NW.	40	N.	2	14	9	5	13	4	3	4	4	0	14	6	8	7	7	1	0	0	2	0	0	7	0	0
March	17.2	NE.	56	NW.	4	16	13	3	7	7	3	4	9	0	9	12	10	11	11	0	0	0	0	0	0	0	0	0
April	13.4	S.	44	SW.	2	8	5	8	8	15	5	5	6	0	13	9	8	8	7	1	0	0	0	0	0	2	2	0
May	11.6	S.	36	NW.	0	4	6	8	15	13	10	4	2	0	12	9	10	10	8	0	0	0	3	0	0	0	3	0
June	11.0	NE.	67	NW.	2	3	16	11	17	5	6	2	0	0	12	13	5	5	5	0	0	1	0	0	2	0	2	0
July	11.5	S.	56	NW.	4	2	3	6	13	14	18	3	3	0	14	7	10	12	11	0	0	0	0	0	10	0	8	0
August	11.5	SW.	50	NW.	2	2	6	4	11	14	16	6	3	0	9	18	4	13	10	0	0	0	0	0	1	0	8	0
September	11.4	S.	40	W.	1	9	11	4	9	12	9	2	4	0	16	8	6	3	1	0	0	0	0	0	2	0	3	0
October	11.4	SW.	43	W.	1	6	10	4	5	16	15	1	5	0	11	14	6	9	7	0	0	0	3	0	2	0	1	0
November	13.2	N.	42	NW.	2	11	10	4	8	10	3	2	12	0	13	9	8	5	2	0	0	0	3	0	0	0	0	0
December	14.2	N.	46	N.	4	15	6	3	3	10	9	5	11	0	8	7	16	11	6	4	1	0	3	1	0	19	0	0
Year	12.7	S.	67	NW.	26	94	105	61	117	134	107	44	68	0	145	120	100	103	83	7	2	1	18	2	17	40	27	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

NORTHFIELD, VT.

[ϕ=44° 10′ N.; λ=72° 41′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.998	29.690	28.399	18.0	25.0	21.5	32.1	10.1	21.1	58	−15	15	14	16	86	71	78	0.095	0.101	0.097	1.02	0.47	7.9	7.1	6.5	7.3
February	28.936	29.500	28.320	13.7	25.1	20.8	28.9	9.1	19.0	39	−10	11	13	15	87	58	77	.072	.078	.088	1.47	.55	7.2	5.9	5.9	6.0
March	29.164	29.927	28.436	25.6	33.9	30.7	40.5	19.5	30.0	59	− 1	22	22	23	85	64	74	.121	.127	.131	5.42	3.38	7.6	6.0	5.5	6.9
April	29.043	29.424	28.570	36.4	44.1	39.3	48.2	29.0	38.6	70	8	28	30	32	73	61	77	.158	.173	.189	1.39	.52	7.4	7.9	7.8	7.9
May	29.037	29.556	28.760	51.6	59.8	54.2	63.9	41.2	52.6	81	26	42	42	43	72	55	69	.281	.275	.294	4.26	1.65	6.9	7.0	7.1	6.8
June	29.199	29.610	28.828	62.7	74.1	65.6	78.0	51.2	64.6	96	32	56	55	58	79	55	77	.468	.457	.493	2.47	.87	5.7	5.3	5.4	5.7
July	29.051	29.410	28.630	65.9	76.4	67.4	79.4	53.6	66.5	92	42	58	55	59	76	50	76	.486	.445	.512	1.54	.44	4.6	6.2	4.6	5.8
August	29.014	29.397	28.680	59.9	68.5	61.6	72.4	50.5	61.4	82	37	53	52	55	80	58	81	.414	.400	.447	2.40	.54	7.0	7.5	5.6	7.3
September	29.081	29.477	28.619	53.2	63.7	55.4	67.1	43.7	55.4	84	26	49	48	50	86	60	84	.362	.359	.382	2.88	1.14	6.9	6.8	5.5	7.2
October	29.168	29.630	28.521	43.5	52.0	45.4	55.6	34.8	45.2	76	20	38	40	40	83	64	83	.256	.270	.267	3.48	1.21	7.3	7.7	6.6	7.9
November	29.107	29.590	28.337	31.9	36.7	33.4	41.3	26.1	33.7	64	10	26	27	26	80	68	76	.151	.152	.147	2.36	.86	8.3	7.6	7.4	8.2
December	29.102	29.680	28.420	12.1	20.2	15.5	26.0	4.4	15.2	56	−22	9	12	11	87	69	83	.076	.086	.081	1.29	.50	7.2	6.6	4.8	7.5
Year	29.079	29.927	28.320	39.5	48.3	42.6	52.8	31.1	41.9	96	−22	34	34	36	81	61	78	.245	.244	.261	29.98	3.38	7.0	6.8	6.1	7.0

NORTH HEAD, WASH.

[ϕ=46° 16′ N.; λ=124° 04′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.795	30.429	29.170	44.3	46.3	46.3	48.5	41.2	44.8	60	32	41	43	41	90	89	84	0.265	0.284	0.261	9.46	2.99	7.1	6.9	7.1	7.4
February	29.665	30.207	29.050	41.6	44.5	43.9	46.4	39.6	43.0	53	34	40	40	40	93	86	87	.246	.250	.248	7.79	1.34	7.5	8.5	8.1	8.4
March	29.803	30.180	29.190	44.0	46.8	46.5	48.7	41.2	45.0	66	36	42	42	43	92	86	87	.265	.273	.275	4.90	1.13	6.7	7.5	7.5	7.2
April	29.856	30.227	29.360	46.0	49.0	48.9	51.1	43.9	47.5	65	40	44	45	45	92	88	86	.285	.301	.297	3.71	.93	8.1	6.8	7.1	7.2
May	29.819	30.210	29.442	48.7	52.6	52.2	54.2	46.9	50.6	72	43	45	45	45	88	78	77	.300	.299	.297	2.36	.69	7.7	5.9	6.2	6.5
June	29.900	30.180	29.650	50.2	54.0	54.2	55.5	49.4	52.4	61	46	48	49	48	92	84	80	.330	.349	.333	1.28	.63	7.8	5.3	5.2	6.2
July	29.871	30.120	29.690	51.6	54.4	54.7	55.9	50.2	53.0	63	46	50	51	51	96	89	88	.362	.374	.375	.10	.06	6.2	5.5	3.8	7.2
August	29.850	30.100	29.620	53.5	56.7	56.7	58.8	52.4	55.6	71	50	52	54	54	97	92	91	.396	.422	.415	.26	.13	5.8	6.8	4.5	7.5
September	29.765	30.140	29.300	55.6	60.2	54.6	62.8	53.1	58.0	84	48	50	53	52	85	79	83	.370	.399	.395	2.18	.92	5.2	5.1	4.4	4.9
October	29.916	30.210	29.400	47.5	50.4	50.3	53.3	45.3	49.3	72	36	45	46	46	90	86	86	.300	.313	.315	2.38	.62	5.4	5.5	4.1	5.9
November	29.864	30.325	29.250	45.6	47.1	46.7	49.2	42.4	45.8	59	32	42	42	42	87	85	85	.268	.278	.275	6.53	1.02	6.3	8.1	7.8	8.1
December	29.841	30.290	29.220	39.9	42.2	41.9	45.2	36.4	40.8	58	18	34	36	36	79	78	80	.211	.221	.225	5.67	1.43	5.5	6.8	6.8	6.2
Year	29.829	30.429	29.050	47.4	50.4	49.7	52.5	45.2	48.8	84	18	44	46	45	90	83	84	.300	.314	.309	46.62	2.99	6.6	6.6	6.0	6.9

NORTH PLATTE, NEBR.

[ϕ=41° 08′ N.; λ=100° 45′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	27.139	27.460	26.770	19.5	30.0	31.6	40.8	16.5	28.6	62	−17	15	20	23	81	64	69	0.089	0.108	0.123	0.03	*0.14	0.5	2.1	1.4	2.1
February	26.988	27.390	26.400	17.3	25.6	26.4	33.8	13.5	23.6	55	−11	15	19	20	89	75	78	.090	.106	.115	1.50	.53	5.4	4.7	4.2	4.9
March	27.119	27.670	26.430	28.3	38.7	41.7	48.3	25.6	37.0	76	4	25	28	30	86	68	66	.140	.159	.172	.44	.22	6.1	6.2	5.3	5.9
April	27.046	27.540	26.240	39.1	51.1	52.3	58.4	36.6	47.5	84	24	35	37	36	85	62	59	.208	.232	.221	2.21	.95	6.3	5.8	6.4	5.8
May	27.044	27.280	26.660	48.1	64.3	65.9	71.0	45.3	58.2	83	37	44	46	46	86	54	51	.296	.320	.322	2.33	1.11	4.5	4.3	4.4	3.8
June	27.106	27.350	26.951	60.3	74.7	76.7	81.0	57.6	69.3	97	38	56	59	60	87	60	60	.466	.524	.536	4.15	1.56	5.1	3.3	3.2	3.5
July	27.084	27.350	26.837	66.1	83.3	83.0	89.8	64.5	77.2	103	52	60	61	62	80	50	52	.514	.547	.563	4.98	1.35	2.8	1.8	3.3	2.4
August	27.124	27.327	26.880	60.5	79.2	80.6	86.7	59.2	73.0	97	48	54	56	57	82	48	47	.433	.459	.478	.76	.61	4.8	2.8	3.3	3.5
September	27.091	27.450	26.748	56.2	72.4	71.9	80.4	55.3	67.8	97	36	50	52	53	82	52	54	.378	.413	.410	1.56	.72	5.8	4.2	4.5	4.5
October	27.096	27.430	26.601	36.4	50.3	47.8	57.4	33.2	45.3	82	15	32	34	33	83	58	60	.193	.210	.200	1.36	.51	4.3	5.0	4.7	4.7
November	27.133	27.559	26.560	20.8	30.5	30.1	38.4	18.1	28.2	63	− 8	17	22	23	86	72	76	.105	.126	.131	2.83	1.00	4.6	5.5	4.1	5.4
December	27.190	27.660	26.710	13.1	22.3	20.5	29.6	9.2	19.4	55	−25	9	15	15	83	72	80	.073	.094	.098	.32	.17	2.9	3.7	2.0	3.8
Year	27.096	27.670	26.240	38.8	51.9	52.3	59.6	36.2	47.9	103	−25	34	37	38	84	61	63	.249	.275	.281	23.47	1.56	4.4	4.1	3.9	4.2

OKLAHOMA, OKLA.

[ϕ=35° 26′ N.; λ=97° 33′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.860	29.280	28.460	30.3	43.8	40.5	48.3	28.5	38.4	65	1	27	30	31	88	60	69	0.155	0.171	0.178	0.29	0.15	2.5	2.9	1.5	2.4
February	28.663	29.100	27.780	32.3	43.9	42.6	49.9	30.4	40.2	76	12	28	31	32	85	63	68	.160	.187	.191	1.52	.58	4.9	6.4	4.6	5.4
March	28.786	29.190	28.200	43.0	55.5	54.8	61.9	40.2	51.0	78	19	37	38	39	81	56	57	.237	.250	.252	1.88	1.38	6.2	6.8	4.3	5.6
April	28.670	29.020	28.100	50.5	64.4	63.5	69.2	48.3	58.8	83	33	44	49	48	80	60	58	.304	.361	.346	5.04	1.91	5.2	6.4	5.5	5.3
May	28.610	28.840	28.340	59.6	70.2	68.4	74.5	56.9	65.7	84	46	56	57	57	88	64	70	.452	.472	.480	5.66	1.45	7.5	6.9	5.7	7.0
June	28.722	28.890	28.370	68.9	79.2	76.7	82.8	64.8	73.8	93	48	64	65	65	88	64	69	.615	.636	.629	4.87	1.33	5.2	7.3	5.7	6.4
July	28.728	28.920	28.530	73.4	88.7	87.1	92.1	70.6	81.4	98	65	67	66	65	81	48	49	.666	.635	.623	.53	.30	2.1	4.6	1.5	2.7
August	28.707	28.970	28.520	73.6	89.8	86.3	93.7	70.3	82.0	101	60	67	66	65	81	47	51	.662	.645	.628	2.28	.72	4.5	5.1	4.0	4.4
September	28.730	29.040	28.402	65.9	81.3	76.5	84.7	63.9	74.3	98	50	61	61	62	85	52	61	.551	.556	.561	1.03	.48	5.5	6.2	3.9	4.9
October	28.716	29.060	28.341	54.8	62.5	60.7	68.5	50.9	59.7	88	37	53	54	55	93	78	82	.419	.442	.450	8.12	2.49	8.3	8.2	6.3	7.6
November	28.801	29.250	28.344	38.7	51.0	47.3	55.7	35.0	45.4	73	19	35	37	38	86	62	71	.213	.236	.239	2.84	1.07	4.4	4.4	3.3	4.1
December	28.892	29.470	28.350	28.2	38.0	34.5	43.5	24.1	33.8	72	3	25	28	26	88	70	74	.143	.161	.147	.12	.05	5.7	6.1	4.7	5.9
Year	28.740	29.470	27.780	51.5	64.0	61.5	68.7	48.7	58.7	101	1	47	48	49	85	60	65	.381	.396	.394	34.18	2.49	5.2	5.9	4.2	5.1

* Dec. 31–Jan. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

NORTHFIELD, VT.

[H_b=876 ft.; h_t=12 ft.; h_r=3 ft.; h_a=60 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	7.6	S.	33	SW.	0	17	4	1	0	18	18	0	4	0	3	10	18	8	5	17	6	0	0	14	0	31	0	0
February	6.8	N.	32	NW.	0	16	5	0	0	22	4	0	9	0	9	8	11	9	6	17	9	0	0	19	0	25	0	2
March	9.4	N.	30	NW.	0	25	6	0	3	20	6	0	2	0	6	11	14	13	8	9	6	0	1	6	0	20	0	2
April	7.3	N.	28	S.	0	22	3	0	2	20	6	1	6	0	3	7	20	13	7	7	2	0	2	3	0	18	0	0
May	7.4	S.	30	SE.	0	18	4	0	3	30	6	0	1	0	5	13	13	16	13	0	0	0	0	0	0	4	3	1
June	5.8	S.	26	N.	0	11	10	1	1	34	3	0	0	0	5	18	7	11	7	0	0	0	0	0	3	1	7	2
July	6.3	S.	27	SW.	0	12	5	0	3	29	7	0	5	1	6	17	8	10	6	0	0	0	4	0	3	0	3	0
August	6.3	S.	29	S.	0	17	4	0	3	34	3	0	1	0	2	15	14	16	10	0	0	0	4	0	0	0	5	2
September	7.4	S.	30	S.	0	14	5	0	2	33	5	0	1	0	5	9	16	17	9	0	0	0	3	0	0	8	3	4
October	8.0	S.	32	SW.	0	14	5	0	1	38	1	0	3	0	2	11	18	17	13	0	0	0	2	0	0	16	3	2
November	8.2	N.	35	SW.	0	22	4	0	3	21	9	0	1	0	2	6	22	16	12	13	8	0	1	4	0	25	0	0
December	6.7	S.	33	NW.	0	14	2	1	1	26	10	0	8	0	6	3	22	11	6	17	8	0	0	21	0	30	0	0
Year	7.3	S.	35	SW.	0	202	57	3	22	325	78	1	41	1	54	128	183	157	102	80	39	0	17	67	6	185	24	15

NORTH HEAD, WASH.

[H_b=211 ft.; h_t=11 ft.; h_r=3 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	21.1	SE.	88	SE.	15	8	3	11	15	13	4	3	5	0	7	2	22	18	16	1	0	0	2	0	0	1	1	0
February	20.0	E.	78	SE.	11	2	1	12	15	7	6	3	10	0	1	3	24	24	22	0	0	2	0	0	0	0	1	0
March	19.3	S.	72	S.	11	7	2	3	6	15	5	9	14	1	3	11	17	19	19	0	0	0	1	0	0	0	0	0
April	18.6	NW.	62	SE.	9	4	0	4	9	12	3	3	25	0	3	11	16	17	13	0	0	0	2	0	0	0	0	0
May	19.0	NW.	64	SE.	10	7	0	1	11	10	4	4	25	0	5	14	12	14	11	0	0	0	0	0	0	0	0	0
June	16.5	NW.	52	SE.	4	5	3	2	4	6	6	4	30	0	6	13	11	11	8	0	0	0	0	0	0	0	0	0
July	17.3	NW.	40	N.	2	17	0	0	1	0	2	2	40	0	4	10	17	4	1	0	0	0	10	0	0	0	0	0
August	13.1	NW.	38	S.	0	13	0	0	8	9	2	4	26	0	3	12	16	8	1	0	0	0	17	0	0	0	1	0
September	11.8	N.	72	S.	1	17	1	3	11	10	1	1	16	0	11	11	8	9	5	0	0	0	3	0	0	0	0	0
October	12.0	NW.	60	S.	7	13	2	5	2	9	2	4	25	0	6	13	12	18	10	0	0	0	8	0	0	0	0	0
November	16.4	SE.	70	SE.	10	4	3	10	20	8	1	7	7	0	2	7	21	21	19	0	0	1	2	0	0	1	0	0
December	17.7	E.	70	S.	9	4	4	26	21	4	1	0	1	1	10	6	15	19	14	4	3	0	2	4	0	9	0	0
Year	16.9	NW.	88	SE.	89	101	19	77	123	103	37	44	224	2	61	113	191	182	139	5	3	3	47	4	0	11	3	0

NORTH PLATTE, NEBR.

[H_b=2,821 ft.; h_t=11 ft.; h_r=3 ft.; h_a=51 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.8	W.	33	W.	0	3	1	3	0	2	3	46	4	0	25	3	3	2	0	2	2	0	1	5	0	31	0	0
February	8.2	W.	52	NW.	1	14	5	6	5	4	6	8	7	1	13	5	10	11	10	13	11	0	3	13	0	28	0	0
March	6.8	SE.	28	N.	0	5	7	8	14	8	6	7	7	0	9	9	13	5	3	8	2	0	3	2	0	22	0	0
April	9.9	N.	42	NE.	1	10	4	7	8	6	5	8	12	0	9	10	11	10	8	2	2	1	0	0	0	12	2	0
May	7.1	SE.	24	NW.	0	10	6	6	18	5	1	7	7	2	19	5	7	5	4	0	0	0	0	0	0	0	2	0
June	7.5	SE.	28	N.	0	9	2	5	26	10	2	2	3	1	20	3	7	11	9	0	0	0	0	0	8	0	9	0
July	6.2	S.	28	NW.	0	4	5	10	19	15	5	2	1	1	23	2	4	5	5	0	0	1	0	0	16	0	6	0
August	5.8	SE.	25	N.	0	5	9	11	19	7	2	4	4	1	20	6	5	5	2	0	0	0	0	0	10	0	4	0
September	6.5	S.	24	NE.	0	3	12	5	16	9	2	8	5	0	14	8	8	8	5	0	0	0	0	0	8	0	3	0
October	7.0	N.	29	NE.	0	13	8	6	9	9	6	8	3	0	15	6	10	8	5	4	2	0	1	1	0	15	0	0
November	7.3	W.	35	NW.	0	8	3	5	11	2	7	19	5	0	14	2	14	10	8	10	8	0	0	9	0	26	0	0
December	6.5	W.	27	NW.	0	9	3	2	2	4	7	32	3	0	19	5	7	3	3	6	3	0	1	14	0	31	0	0
Year	7.0	W.	52	NW.	2	93	65	74	147	81	52	151	61	6	202	64	99	83	62	45	30	2	9	44	42	165	26	0

OKLAHOMA, OKLA.

[H_b=1,214 ft.; h_t=10 ft.; h_r=3 ft.; h_a=47 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.4	S.	28	S.	0	18	0	1	1	22	10	1	9	0	22	8	1	4	2	2	0	0	1	3	0	18	0	0
February	16.9	S.	58	NW.	7	15	3	3	2	22	3	0	8	0	11	6	11	7	5	4	3	0	2	1	0	17	0	0
March	15.1	S.	50	S.	2	13	4	4	7	26	3	0	5	0	10	8	13	7	6	1	1	0	1	0	0	6	1	0
April	15.4	S.	58	W.	5	10	4	5	4	21	6	4	6	0	12	8	10	9	9	0	0	2	0	0	0	0	4	0
May	11.4	N.	37	NW.	0	15	8	5	7	18	2	2	5	0	5	9	17	14	10	0	0	0	0	0	0	0	7	0
June	9.5	S.	43	SW.	1	3	4	6	14	24	5	0	3	1	3	16	11	14	9	0	0	2	0	0	2	0	10	0
July	10.7	S.	37	NE.	0	4	3	3	8	41	2	0	1	0	22	5	4	3	2	0	0	0	0	0	23	0	4	0
August	10.9	S.	39	E.	0	1	6	2	3	39	6	2	3	0	14	10	7	7	5	0	0	0	0	0	25	0	8	0
September	11.8	S.	34	S.	0	3	6	3	12	32	3	0	1	0	12	10	8	3	3	0	0	0	0	0	5	0	2	0
October	12.5	S.	38	NW.	0	22	2	2	8	27	0	0	1	0	5	4	22	16	14	0	0	0	3	0	0	0	9	0
November	13.0	S.	43	N.	2	14	4	2	7	16	6	2	9	0	15	7	8	8	6	1	1	0	0	2	0	0	2	0
December	14.2	N.	42	S.	3	24	4	1	1	17	8	1	6	0	9	9	13	4	1	2	2	0	8	6	0	24	0	0
Year	12.7	S.	58	NW.	20	142	48	37	74	305	54	12	57	1	140	100	125	96	72	10	7	4	15	12	56	74	47	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

OMAHA, NEBR.

[ϕ=41° 16′ N.; λ=95° 56′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.878	29.330	28.550	25.9	34.5	34.7	40.4	23.4	31.9	62	−18	21	23	25	80	63	68	0.124	0.136	0.149	0.10	0.10	2.8	3.9	1.7	4.1
February	28.761	29.230	27.800	23.9	29.6	29.7	35.9	19.8	27.8	61	− 3	20	22	22	84	72	71	.117	.125	.128	2.07	1.09	6.0	6.5	5.1	6.6
March	28.928	29.480	28.360	33.3	43.6	44.6	50.5	30.5	40.5	74	2	28	31	33	80	62	64	.164	.185	.203	1.59	1.00	5.0	4.8	4.0	5.3
April	28.764	29.360	28.100	44.2	51.7	53.1	66.6	41.6	49.1	73	29	40	42	44	84	72	72	.253	.284	.297	4.66	.98	6.2	7.7	7.1	7.2
May	28.757	29.040	28.420	55.6	67.3	66.0	70.6	52.6	61.6	86	43	48	50	50	77	56	59	.353	.376	.373	1.70	1.31	4.1	6.1	4.7	5.6
June	28.816	29.020	28.550	67.7	78.0	77.1	82.3	64.6	73.4	98	48	63	65	65	84	65	69	.582	.630	.640	4.44	.79	5.5	5.8	3.7	5.4
July	28.793	29.020	28.517	74.1	86.7	86.8	91.8	71.7	81.8	101	63	64	65	65	72	51	50	.606	.624	.633	.63	.25	2.7	2.5	2.0	2.7
August	28.812	29.082	28.509	67.8	80.4	80.2	84.6	65.5	75.0	101	53	60	59	60	76	49	53	.520	.504	.538	2.91	.85	4.5	3.9	3.3	4.4
September	28.805	29.070	28.360	62.6	75.4	73.1	80.5	61.2	70.8	98	48	54	55	57	76	54	59	.442	.460	.477	5.28	3.49	4.9	4.2	4.3	4.8
October	28.826	29.180	28.230	45.3	55.3	52.6	59.2	41.9	50.6	87	19	40	41	42	81	61	68	.270	.282	.288	2.79	.98	5.2	5.5	5.5	5.8
November	28.897	29.334	28.149	30.0	38.4	37.5	44.7	27.2	36.0	62	4	24	25	27	77	60	66	.138	.150	.169	2.84	1.42	5.6	5.8	4.6	6.1
December	28.974	29.560	28.480	16.6	22.1	21.2	26.5	12.3	19.4	50	−16	13	15	16	86	73	80	.091	.097	.101	.69	.33	5.8	5.3	4.5	5.5
Year	28.834	29.560	27.800	45.6	55.2	54.7	60.3	42.7	51.5	101	−18	40	41	42	80	62	65	.305	.321	.332	29.70	3.49	4.9	5.2	4.2	5.3

OSWEGO, N. Y.

[ϕ=43° 29′ N.; λ=76° 35′ W.]

January	29.622	30.351	29.070	20.7	30.1	30.3	35.8	21.6	28.7	54	− 1	22	24	25	83	77	79	0.126	0.135	0.140	1.29	0.34	8.3	7.5	6.2	7.3
February	29.597	30.174	28.920	25.0	28.8	29.7	33.2	22.4	27.8	53	10	21	22	23	84	75	74	.113	.118	.125	.92	.28	9.0	8.4	6.5	8.0
March	29.780	30.380	29.040	30.4	33.6	34.1	41.2	25.8	33.5	67	7	24	26	27	78	75	75	.139	.150	.151	2.94	.92	6.9	7.3	6.4	6.9
April	29.623	30.020	29.250	39.9	42.0	42.7	48.5	34.3	41.4	70	11	33	34	34	78	75	73	.200	.203	.206	3.20	1.13	7.7	7.5	7.1	7.3
May	29.575	30.080	29.270	52.4	55.6	53.7	60.9	46.1	53.5	74	39	44	44	45	76	67	73	.301	.299	.306	4.25	1.11	5.8	7.4	7.4	6.6
June	29.729	30.065	29.390	68.2	72.9	70.6	77.3	61.8	69.6	87	48	59	60	60	75	65	71	.523	.529	.537	4.40	2.39	4.1	4.5	4.1	4.0
July	29.613	29.930	29.140	68.3	73.4	71.2	78.1	61.9	70.0	90	52	59	58	60	72	62	68	.505	.495	.519	2.66	1.05	4.2	4.0	4.3	4.0
August	29.553	29.890	29.210	64.1	69.3	67.4	73.2	59.7	66.4	88	51	57	57	58	78	66	73	.472	.475	.493	4.14	1.83	6.7	6.1	5.4	6.1
September	29.627	29.980	29.230	60.2	65.7	63.2	69.5	54.8	62.2	89	40	53	53	53	77	66	71	.417	.423	.418	2.47	.88	7.1	6.7	4.7	6.2
October	29.706	30.090	29.171	51.4	55.9	53.3	60.5	45.4	53.0	79	34	46	46	46	81	71	77	.329	.339	.336	3.99	1.13	8.6	6.4	5.7	6.8
November	29.686	30.150	28.940	36.3	40.0	39.2	44.9	32.1	38.5	63	19	30	32	31	79	73	72	.175	.185	.174	1.70	.50	9.2	8.7	7.8	8.5
December	29.701	30.300	29.026	20.0	23.8	22.9	29.4	14.6	22.0	51	−13	17	20	19	89	84	85	.104	.112	.109	2.36	.68	9.0	9.0	8.0	8.6
Year	29.651	30.380	28.920	45.2	49.3	48.2	54.4	40.0	47.2	90	−13	39	40	40	79	71	74	.284	.289	.293	34.32	2.39	7.2	7.0	6.1	6.7

PALESTINE, TEX.

[ϕ=31° 45′ N.; λ=95° 40′ W.]

January	29.638	30.020	29.300	40.7	54.3	49.3	54.7	39.1	46.9	66	18	38	40	39	88	68	70	0.238	0.257	0.255	2.54	1.23	4.8	6.0	4.4	5.9
February	29.473	29.880	28.920	42.8	53.2	51.6	58.2	40.2	49.2	73	28	38	41	41	85	65	70	.242	.268	.270	2.70	.84	4.0	5.5	5.3	5.4
March	29.553	29.890	29.150	49.8	62.7	62.5	68.0	47.5	57.8	80	29	46	52	51	87	69	68	.328	.413	.385	3.83	1.35	6.0	5.3	5.6	5.6
April	29.469	29.800	29.090	57.9	71.5	71.3	76.8	55.7	66.2	85	41	54	57	56	88	63	59	.441	.492	.458	1.42	.64	6.1	5.0	3.5	5.0
May	29.348	29.560	29.090	63.7	75.2	73.0	78.8	61.5	70.2	86	54	61	65	62	91	72	71	.540	.628	.572	3.96	1.09	6.0	6.8	6.2	6.3
June	29.457	29.650	29.170	70.4	80.1	77.7	84.7	67.9	76.3	92	53	67	68	68	89	68	74	.671	.682	.692	6.33	1.86	6.2	6.3	6.4	6.3
July	29.483	29.630	29.314	74.9	86.2	83.5	89.9	72.7	81.3	97	66	72	70	72	90	61	69	.783	.746	.778	1.50	.47	4.6	4.6	4.6	4.6
August	29.483	29.630	29.300	74.2	85.8	83.1	90.2	72.2	81.2	97	67	72	70	71	92	62	68	.775	.743	.754	3.36	1.32	5.5	4.4	4.2	4.6
September	29.461	29.650	29.220	69.2	81.7	78.1	85.0	67.6	76.3	93	57	66	64	66	89	56	68	.650	.612	.654	4.12	3.21	5.4	5.9	4.7	5.4
October	29.459	29.630	29.231	66.5	74.6	72.1	78.4	64.9	71.6	87	52	65	66	66	96	76	83	.633	.644	.649	3.32	2.51	7.0	7.7	6.2	7.3
November	29.545	29.930	29.140	50.7	62.4	58.8	67.0	48.0	57.5	80	31	47	46	48	88	59	69	.347	.346	.357	7.10	4.12	4.6	4.5	3.5	4.5
December	29.657	30.190	29.150	42.4	51.7	50.2	58.4	38.7	48.6	75	17	38	40	40	85	67	71	.253	.272	.274	2.16	.74	6.2	6.7	5.4	6.3
Year	29.502	30.190	28.920	58.6	70.0	67.6	74.2	56.3	65.3	97	17	55	57	57	88	66	70	.492	.509	.508	47.34	4.12	5.5	5.7	5.0	5.6

PARKERSBURG, W. VA.

[ϕ=39° 16′ N.; λ=81° 36′ W.]

January	29.474	29.850	28.990	30.1	39.7	37.2	44.7	26.5	35.6	63	5	24	29	27	78	65	68	0.139	0.167	0.155	2.48	1.64	5.7	5.5	3.9	5.9
February	29.366	29.940	28.620	30.6	38.4	38.2	43.6	28.0	35.8	66	18	25	28	29	80	66	69	.139	.158	.163	1.76	.43	6.5	7.5	6.2	7.1
March	29.527	29.850	28.896	38.1	47.7	47.3	55.0	34.3	44.6	76	23	31	32	34	76	56	60	.132	.188	.200	2.37	.30	6.0	5.3	5.0	5.6
April	29.392	29.760	28.899	46.1	57.8	57.0	63.9	41.9	52.9	84	21	36	38	40	74	49	55	.237	.239	.264	2.09	.60	6.7	6.8	6.4	6.8
May	29.286	29.567	28.850	57.4	68.5	65.6	73.3	52.8	63.0	93	43	50	51	53	76	55	66	.363	.378	.411	5.06	1.08	6.2	6.6	6.2	6.5
June	29.447	29.770	29.220	70.4	81.3	77.6	86.0	65.9	76.0	93	57	62	61	64	75	52	66	.559	.547	.609	2.80	.69	4.7	5.0	6.3	5.3
July	29.388	29.692	29.080	71.1	83.3	80.0	87.9	66.6	77.2	97	56	63	62	64	75	50	60	.575	.563	.605	3.30	1.06	4.2	4.6	3.9	4.9
August	29.351	29.619	29.174	66.5	78.3	73.5	82.5	62.4	72.4	94	50	60	59	62	80	53	67	.528	.508	.560	4.60	1.59	4.2	5.3	5.0	5.7
September	29.432	29.700	29.100	60.6	76.5	70.4	80.4	55.8	68.6	94	45	54	54	58	79	46	65	.430	.432	.494	.98	.65	3.5	5.1	2.3	5.4
October	29.459	29.720	29.250	58.7	67.7	63.8	72.5	54.4	63.4	91	39	54	55	56	85	66	78	.439	.456	.472	5.37	1.18	7.3	7.1	4.8	7.0
November	29.471	29.960	28.760	39.2	48.4	45.3	53.6	36.1	44.8	65	22	33	30	35	79	62	68	.202	.223	.213	4.75	2.21	6.6	6.6	4.1	6.8
December	29.502	30.130	28.760	25.9	32.0	31.3	39.5	21.2	30.4	65	2	21	22	24	81	66	74	.123	.130	.140	4.07	1.64	7.0	6.8	5.5	7.1
Year	29.425	30.130	28.620	49.6	60.0	57.3	65.2	45.6	55.4	97	2	43	44	46	78	57	66	.326	.332	.357	39.58	2.21	5.7	6.1	4.9	6.2

Annual meteorological summary for the year ending December 31, 1919—Continued.

OMAHA, NEBR.

[H_b=1,105 ft.; h_t=115 ft.; h_r=107 ft.; h_a=122 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	7.0	NW.	35	NW.	0	2	1	6	2	15	9	6	21	0	15	8	8	2	1	3	2	0	2	5	0	20	0	0
February	11.0	NW.	40	NW.	1	13	2	13	4	8	3	0	13	0	4	11	13	11	8	15	8	0	0	11	0	24	0	0
March	9.1	S.	33	NW.	0	7	5	11	8	15	2	0	14	0	10	12	9	4	4	2	1	1	1	2	0	14	2	0
April	10.0	NW.	42	NW.	2	12	5	12	3	9	2	3	13	1	4	9	17	17	14	1	1	2	0	0	0	2	7	0
May	8.2	E.	31	N.	0	16	5	10	8	11	0	1	11	0	8	17	6	14	9	0	0	1	0	0	0	0	6	0
June	7.0	S.	42	NW.	1	7	7	9	11	16	4	3	3	0	8	16	6	14	12	0	0	3	0	0	9	0	9	0
July	7.1	S.	30	NE.	0	9	5	5	9	26	4	0	4	0	22	7	2	4	4	0	0	0	0	0	17	0	4	0
August	6.6	S.	35	S.	0	8	5	4	9	17	3	7	9	0	12	14	5	10	9	0	0	0	0	0	6	0	10	0
September	7.1	S.	27	N.	0	8	5	5	10	19	3	3	7	0	16	3	11	9	5	0	0	1	1	0	5	0	5	0
October	7.6	S.	34	NW.	0	11	1	5	5	19	1	3	17	0	10	8	13	14	9	1	0	0	3	0	0	7	4	0
November	9.4	NW.	32	NW.	0	7	6	2	7	11	4	5	18	0	8	10	12	9	9	7	5	0	0	6	0	16	1	0
December	8.6	NW.	36	N.	0	11	3	3	7	10	7	7	14	0	11	7	13	5	3	6	4	0	2	20	0	28	0	0
Year	8.2	S.	42	NW.	4	111	50	85	83	176	42	38	144	1	128	122	115	113	87	35	21	8	9	44	37	111	48	0

OSWEGO, N. Y.

[H_b=335 ft.; h_t=76 ft.; h_r=68 ft.; h_a=91 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	12.8	* S.	43	W.	2	1	1	3	5	18	12	6	16	0	5	6	20	11	7	16	8	0	0	6	0	26	0	0
February	12.0	NW.	34	NW.	0	4	1	3	14	9	3	6	16	0	4	2	22	15	6	18	11	0	0	14	0	26	0	0
March	14.5	NE.	50	NW.	2	5	13	2	9	12	4	5	12	0	7	6	18	12	9	11	5	0	0	5	0	23	0	1
April	10.8	W.	39	NW.	0	5	7	3	6	10	8	11	10	0	5	6	19	14	10	3	1	0	1	2	0	7	0	0
May	8.7	W.	30	SE.	0	3	4	5	12	11	7	14	5	1	7	7	17	18	15	0	0	0	1	0	0	0	5	0
June	7.5	S.	30	NE.	0	6	8	3	8	23	7	3	0	2	16	6	8	8	6	0	0	0	2	0	0	0	5	0
July	8.1	S.	33	NW.	0	3	7	1	7	18	11	10	5	0	16	8	7	7	7	0	0	0	0	0	1	0	8	0
August	8.8	SW.	27	NE.	0	4	3	1	15	12	15	3	9	0	7	9	15	12	10	0	0	0	1	0	0	0	7	0
September	9.3	S.	33	NE.	0	9	5	2	4	19	11	6	3	1	7	10	13	10	6	0	0	0	0	0	0	0	1	1
October	10.3	S.	40	W.	1	2	6	5	9	23	7	4	6	0	8	4	19	14	12	0	0	0	1	0	0	0	4	0
November	13.7	S.	41	W.	1	5	8	2	10	16	3	6	10	0	0	7	23	9	7	9	2	0	0	1	0	14	0	0
December	11.8	S.	41	NE.	1	1	1	1	9	26	13	2	9	0	1	6	24	20	11	26	18	0	0	19	0	28	0	0
Year	10.7	S.	50	NW.	7	48	64	31	108	197	101	76	101	4	83	77	205	150	106	83	45	0	6	47	1	124	30	2

PALESTINE, TEX.

[H_b=510 ft.; h_t=64 ft.; h_r=57 ft.; h_a=72 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.4	* S.	20	NE.	0	11	12	1	3	16	6	3	9	1	9	8	14	7	7	1	1	0	5	2	0	6	0	0
February	9.0	SE.	30	W.	0	10	6	2	11	10	4	5	8	0	10	7	11	11	8	0	0	0	3	0	0	4	3	0
March	7.9	NE.	33	S.	0	5	16	7	10	16	1	4	3	0	12	6	13	7	7	0	0	0	0	0	0	3	5	0
April	8.2	S.	30	S.	0	3	3	4	9	20	12	2	7	0	11	9	10	7	5	0	0	0	0	0	0	0	5	0
May	6.4	S.	27	E.	0	8	6	6	8	15	8	4	7	0	7	11	13	12	8	0	0	0	0	0	0	0	12	0
June	5.7	NE.	24	SE.	0	0	14	11	9	14	7	2	3	0	8	6	16	15	13	0	0	0	0	0	0	5	11	0
July	4.8	S.	27	E.	0	0	4	6	6	21	17	7	0	1	12	14	5	11	8	0	0	0	0	0	0	20	8	0
August	5.8	SW.	39	NE.	0	2	2	3	5	23	26	1	0	0	16	8	7	7	7	0	0	0	0	0	0	22	8	0
September	6.9	E.	28	S.	0	4	14	20	9	13	0	0	0	0	10	9	11	4	2	0	0	0	1	0	0	5	2	0
October	6.7	S.	30	NW.	0	4	12	9	12	20	4	0	0	1	4	11	16	14	13	0	0	0	2	0	0	0	7	0
November	6.4	NE.	30	W.	0	8	14	6	9	5	6	3	9	0	16	3	11	8	6	0	0	0	1	0	0	2	5	0
December	7.1	N.	24	SW.	0	16	7	3	4	8	13	3	8	0	7	9	15	11	8	2	2	0	3	1	0	7	2	0
Year	6.8	S.	39	NE.	0	71	110	78	95	181	104	34	54	3	122	101	142	114	92	3	3	0	15	3	52	22	68	0

PARKERSBURG, W. VA.

[H_b=638 ft.; h_t=77 ft.; h_r=70 ft.; h_a=84 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.6	* SE.	34	W.	0	2	3	1	18	10	14	9	5	0	12	5	14	9	7	6	3	0	0	5	0	22	0	0
February	6.2	SE.	30	SE.	0	5	6	1	17	2	12	6	8	0	6	3	19	14	11	9	5	0	0	1	0	20	2	0
March	7.1	NW.	31	SW.	0	10	2	1	11	6	4	2	26	0	13	5	13	11	6	3	2	0	0	0	0	15	0	0
April	6.2	SE.	30	NW.	0	6	5	3	15	7	9	5	10	0	7	8	15	11	9	1	0	0	0	0	0	0	3	0
May	4.9	SW.	22	NW.	0	9	4	1	13	5	13	6	11	0	8	9	14	13	13	0	0	0	1	0	2	0	8	0
June	4.1	SE.	22	NW.	0	7	6	7	19	4	8	5	4	0	11	8	11	11	10	0	0	0	1	0	7	0	10	0
July	4.5	SE.	27	NW.	0	6	7	4	15	7	9	5	9	0	13	8	10	10	9	0	0	1	0	0	12	0	8	0
August	4.9	SW.	30	W.	0	5	1	2	13	4	16	10	10	1	11	9	11	13	11	0	0	0	1	0	3	0	12	0
September	4.2	NW.	31	S.	0	5	3	1	10	9	7	9	16	0	11	10	9	5	4	0	0	0	5	0	3	0	3	0
October	4.6	SE.	26	W.	0	8	8	1	18	11	3	6	7	0	4	10	17	17	16	0	0	0	0	0	1	0	1	0
November	5.9	SW.	26	SE.	0	6	6	1	11	6	16	2	11	1	6	8	16	11	10	3	1	0	0	0	0	9	0	0
December	6.2	SW.	32	W.	0	7	5	2	12	5	15	4	12	0	6	7	18	11	10	14	6	0	1	8	0	26	0	0
Year	5.4	SE.	34	W.	0	76	56	25	172	76	126	68	129	2	108	90	167	136	116	36	17	1	9	14	28	97	47	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

PENSACOLA, FLA.

[ϕ=30° 25′ N.; λ=87° 13′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.090	30.450	29.610	45.6	53.0	52.7	57.4	42.8	50.1	69	17	41	44	44	83	74	73	0.272	0.313	0.310	5.94	2.37	5.9	5.1	4.5	5.5
February	29.953	30.290	29.460	50.5	55.2	55.5	60.1	47.0	53.6	74	31	46	48	49	86	80	79	.337	.359	.362	12.53	3.88	6.4	6.9	4.5	6.3
March	30.046	30.330	29.660	56.6	64.9	64.0	68.5	54.3	61.4	80	44	51	55	54	82	72	73	.390	.444	.434	2.96	1.16	4.7	4.2	4.6	4.7
April	30.007	30.270	29.690	61.0	68.0	67.0	71.1	58.8	65.0	87	41	56	58	58	83	72	76	.462	.507	.506	11.72	8.91	3.8	4.0	3.5	3.8
May	29.856	30.060	29.590	69.8	74.3	73.2	76.9	66.5	71.7	82	55	65	66	66	86	78	80	.628	.659	.657	4.47	1.10	5.8	6.0	5.9	5.9
June	29.949	30.130	29.690	76.7	80.8	79.4	83.0	73.8	78.4	89	68	71	70	70	83	71	75	.768	.740	.748	2.24	.88	6.3	5.8	6.1	6.0
July	29.948	30.155	29.430	78.1	82.2	80.4	85.1	74.9	80.0	93	70	73	74	73	85	76	79	.818	.823	.813	7.74	3.11	5.0	6.6	6.8	6.2
August	29.972	30.120	29.790	77.5	83.0	80.1	86.2	74.0	80.1	93	69	73	72	72	86	71	78	.811	.796	.798	15.69	9.60	5.7	6.1	6.7	6.5
September	29.927	30.140	29.630	73.4	81.7	79.4	84.0	71.6	77.8	89	60	68	67	68	78	63	69	.655	.684	.694	.76	.39	5.1	5.6	4.8	5.4
October	29.998	30.150	29.870	74.9	80.2	78.3	82.2	72.5	77.4	85	61	71	72	72	89	77	82	.774	.786	.793	8.73	2.57	5.5	6.6	4.1	5.7
November	30.006	30.440	29.730	60.5	67.7	66.4	71.2	57.8	64.5	80	37	55	57	58	83	71	76	.469	.497	.512	2.68	1.53	5.9	5.8	4.9	5.9
December	30.117	30.520	29.740	50.2	58.4	57.4	63.0	47.6	55.3	74	30	43	46	47	78	66	69	.314	.350	.359	4.15	2.82	4.6	4.7	4.0	4.8
Year	29.989	30.520	29.430	64.6	70.8	69.5	74.1	61.8	67.9	93	17	59	61	61	84	73	76	.558	.580	.582	80.61	9.60	5.4	5.6	5.0	5.6

PEORIA, ILL.

[ϕ=40° 43′ N.; λ=89° 38′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.430	29.730	29.000	23.6	33.5	30.2	38.1	20.2	29.2	55	−14	21	26	25	91	74	82	0.126	0.155	0.148	0.07	0.03	4.2	4.5	3.6	3.8
February	29.303	29.890	28.361	26.1	33.5	31.7	38.9	22.7	30.8	56	8	23	27	27	88	77	81	.131	.143	.150	2.32	.54	6.4	6.3	5.3	5.6
March	29.500	29.950	29.040	34.9	45.2	43.7	50.3	31.4	40.8	70	6	31	36	35	86	71	72	.191	.221	.213	4.52	2.17	5.3	5.7	4.4	5.2
April	29.322	29.781	28.880	45.4	54.8	54.9	61.0	41.6	51.3	76	23	40	42	42	83	67	66	.251	.290	.284	2.35	.52	6.4	7.0	5.5	6.2
May	29.278	29.600	28.946	53.1	63.1	62.2	68.0	48.4	58.2	90	40	48	49	50	83	64	68	.340	.364	.382	3.79	.93	6.6	7.0	6.2	6.6
June	29.383	29.650	29.020	69.3	80.2	76.7	84.7	65.0	74.8	92	55	65	67	66	87	64	70	.632	.665	.643	3.96	1.24	5.4	6.0	4.4	4.8
July	29.352	29.580	29.120	71.3	86.0	81.7	90.5	66.3	78.4	98	57	65	65	64	80	50	58	.622	.625	.616	3.09	1.11	2.7	2.8	2.4	2.2
August	29.330	29.608	29.114	64.6	78.3	73.9	83.0	60.8	71.9	96	49	60	60	61	85	55	66	.528	.543	.556	4.73	1.49	4.3	5.1	3.2	3.2
September	29.370	29.630	28.756	60.0	74.1	69.3	79.9	56.6	68.2	94	43	56	56	57	86	55	66	.460	.465	.479	3.48	1.20	4.1	4.0	2.5	3.2
October	29.383	29.650	28.993	49.0	60.5	56.5	66.6	44.9	55.8	88	26	47	49	50	94	69	79	.354	.379	.378	2.12	.39	5.5	6.0	5.1	4.6
November	29.428	29.813	28.528	32.7	43.0	38.8	46.9	28.9	37.9	63	14	30	31	31	89	64	74	.207	.184	.182	2.91	1.67	5.5	5.3	5.1	5.7
December	29.501	30.205	28.890	17.4	24.3	22.1	27.9	13.3	20.6	45	−9	16	18	18	92	77	85	.092	.105	.104	.30	.24	6.4	7.2	5.4	6.7
Year	29.382	30.205	28.361	45.6	56.4	53.5	61.3	41.7	51.5	98	−14	42	44	44	87	66	72	.329	.345	.344	33.64	2.17	5.2	5.6	4.4	4.8

PHILADELPHIA, PA.

[ϕ=39° 57′ N.; λ=75° 09′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.952	30.630	29.430	34.2	39.6	39.3	44.5	30.9	37.7	61	13	29	33	33	80	77	79	0.169	0.195	0.197	3.35	1.30	4.5	4.5	3.1	4.7
February	29.885	30.360	29.170	33.6	39.3	38.8	44.0	31.1	37.6	61	21	27	28	28	77	64	67	.151	.161	.162	3.04	1.13	6.0	4.6	3.8	4.6
March	30.003	30.658	29.321	41.7	49.0	46.8	54.0	36.8	45.4	73	24	35	38	36	77	66	69	.211	.238	.227	4.81	1.80	6.4	5.6	3.9	5.4
April	29.915	30.255	29.580	47.9	56.4	53.4	61.5	43.3	52.4	77	24	39	43	41	72	62	64	.257	.293	.264	3.17	1.59	5.0	5.8	5.7	5.6
May	29.839	30.280	29.500	60.9	68.6	64.8	72.6	55.3	64.0	92	44	51	52	54	72	58	70	.379	.392	.431	4.53	1.12	6.1	5.7	6.5	6.0
June	30.011	30.390	29.680	68.4	76.6	73.1	80.8	63.3	72.0	97	53	60	61	63	76	60	73	.535	.547	.597	2.19	.67	6.0	4.2	5.1	5.0
July	29.894	30.260	29.580	74.6	81.3	78.2	84.5	69.8	77.2	100	61	64	64	66	72	60	70	.622	.620	.654	10.30	1.98	4.9	5.5	6.3	5.7
August	29.834	30.170	29.600	70.6	77.7	73.9	80.8	65.8	73.3	92	59	62	60	63	76	58	70	.576	.543	.587	6.19	3.92	5.7	5.5	4.7	5.3
September	29.925	30.302	29.460	64.8	72.9	69.4	76.7	60.8	68.8	92	50	57	58	60	76	61	72	.481	.506	.531	2.82	1.61	4.1	5.1	4.1	4.7
October	30.018	30.400	29.630	57.3	63.9	61.9	68.7	53.7	61.2	90	41	52	54	55	83	73	79	.407	.451	.447	2.59	1.03	6.0	6.7	6.4	7.0
November	29.991	30.500	29.390	43.0	49.5	47.0	54.1	39.4	46.8	72	29	36	37	37	76	62	68	.225	.231	.237	2.80	.66	5.2	5.2	4.8	5.7
December	30.023	30.690	29.330	30.2	34.0	33.6	39.3	25.7	32.5	61	4	22	23	24	70	64	66	.130	.140	.142	3.33	1.01	7.5	6.7	5.6	6.7
Year	29.941	30.690	29.170	52.3	59.1	56.7	63.5	48.0	55.7	100	4	44	46	47	76	64	71	.345	.360	.373	49.12	3.92	5.6	5.5	5.0	5.5

PHOENIX, ARIZ.

[ϕ=33° 28′ N.; λ=112° 00′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.922	29.300	28.360	39.5	60.4	60.1	66.0	35.5	50.8	74	23	24	23	25	56	24	27	0.131	0.124	0.139	0.22	0.22	1.5	2.0	2.0	2.1
February	28.819	29.120	28.450	41.2	57.9	59.4	63.8	38.7	51.2	74	32	34	32	31	77	41	37	.199	.189	.178	.75	.42	2.2	3.2	3.5	3.6
March	28.739	29.120	28.460	45.2	65.7	68.5	71.3	43.7	57.5	86	34	36	33	32	70	32	28	.212	.196	.187	.97	.82	2.0	3.5	3.5	3.3
April	28.696	28.950	28.470	54.5	79.4	83.1	85.6	62.9	69.2	97	42	38	32	35	56	20	19	.233	.187	.204	.17	.14	3.1	2.6	3.4	3.3
May	28.616	28.750	28.455	62.7	85.9	90.1	92.2	61.6	76.9	101	57	42	42	42	48	23	21	.276	.270	.267	.06	.06	1.6	.9	2.1	1.4
June	28.618	28.950	28.409	69.2	95.9	101.4	103.3	67.5	85.4	113	56	40	39	38	36	15	12	.266	.255	.243	T.	T.	1.3	.9	.5	.7
July	28.675	28.850	28.466	77.9	93.1	96.9	99.6	76.5	88.2	110	72	68	65	63	72	42	36	.675	.618	.590	1.05	.55	5.1	2.7	4.3	3.3
August	28.700	28.900	28.496	77.2	94.8	98.7	101.3	75.9	88.6	110	70	64	63	63	66	38	33	.608	.590	.574	2.40	1.48	2.8	1.6	2.9	1.9
September	28.644	28.820	28.406	70.7	88.7	89.4	94.0	69.0	83.5	106	61	60	59	60	71	40	40	.529	.508	.528	1.93	1.73	2.8	2.2	2.7	2.2
October	28.735	28.960	28.520	54.6	76.3	73.0	80.7	52.7	66.7	90	42	47	46	49	76	36	44	.322	.321	.356	.26	.22	2.2	2.3	2.5	2.5
November	28.784	29.060	28.315	45.4	66.2	62.1	71.3	42.7	57.0	84	29	39	38	41	79	41	50	.249	.239	.268	2.38	1.30	1.9	2.6	3.6	3.4
December	28.907	29.120	28.520	41.6	64.1	60.9	68.8	39.6	54.2	76	32	36	36	37	79	37	44	.211	.215	.229	.13	.11	1.7	2.3	3.0	2.4
Year	28.741	29.300	28.310	56.6	77.4	78.6	83.2	54.7	68.9	113	23	44	42	43	66	32	33	.326	.309	.314	10.31	1.73	2.3	2.3	2.8	2.5

Annual meteorological summary for the year ending December 31, 1919—Continued.

PENSACOLA, FLA.

[H_b=56 ft.; h_t=149 ft.; h_r=131 ft.; h_a=185 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T, or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	13.2	N.	60	S.	2	18	14	8	2	8	0	8	4	0	10	8	13	8	7	1	0	0	3	0	0	3	0	0
February	14.5	N.	50	S.	5	11	8	8	6	4	6	8	5	0	9	4	15	16	15	0	0	0	3	0	0	1	6	0
March	15.0	SE.	60	S.	4	15	17	3	13	5	3	4	2	0	12	9	10	6	5	0	0	0	2	0	0	0	4	0
April	12.2	SE.	50	SE.	1	9	8	6	8	9	5	10	5	0	17	3	10	7	5	0	0	0	3	0	0	0	3	0
May	12.8	S.	62	SW.	1	10	3	9	11	11	6	6	6	0	7	12	12	15	14	0	0	0	1	0	0	0	14	0
June	12.0	S.	42	E.	1	3	4	18	5	12	7	8	3	0	7	12	11	9	9	0	0	0	0	0	0	0	8	0
July	11.2	W.	58	NE.	1	7	6	4	2	7	11	19	6	0	5	12	14	14	12	0	0	0	0	0	1	0	20	0
August	9.9	W.	49	NW.	4	9	8	1	2	8	8	15	11	0	5	12	14	20	16	0	0	0	1	0	2	0	20	0
September	12.6	NE.	30	SE.	0	9	17	13	5	7	2	4	3	0	9	11	10	7	5	0	0	0	0	0	0	0	4	0
October	11.0	S.	50	SE.	1	4	8	8	7	19	7	7	1	1	7	15	9	10	9	0	0	0	0	0	0	0	8	0
November	15.3	NE.	49	SE.	2	16	12	12	5	6	1	6	2	0	11	4	15	8	6	0	0	0	1	0	0	0	2	0
December	14.5	NE.	46	NE.	1	9	21	4	4	5	8	6	5	0	15	5	11	6	5	0	0	0	1	0	0	3	0	6
Year	12.8	S.	62	SW.	23	120	126	94	70	101	64	101	53	1	114	107	144	126	108	1	0	0	15	0	3	7	89	0

PEORIA, ILL.

[H_b=609 ft.; h_t=11 ft.; h_r=4 ft.; h_a=45 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T, or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.9	W.	22	SW.	0	0	1	2	3	16	10	15	10	5	18	6	7	3	0	6	2	0	4	8	0	29	0	0
February	8.3	NW.	38	W.	0	4	5	7	9	9	2	9	10	1	12	4	12	10	6	9	7	0	0	6	0	25	0	0
March	8.4	S.	29	S.	0	9	12	6	10	14	2	2	6	1	13	9	9	12	8	6	4	1	0	3	0	17	4	0
April	8.2	S.	30	E.	0	5	3	12	5	12	6	5	8	4	8	10	12	14	12	0	0	0	1	0	0	5	4	0
May	6.1	NE.	32	SW.	0	13	18	9	3	5	3	1	7	3	6	9	16	12	11	0	0	1	0	0	0	0	6	0
June	4.5	SE.	21	NE.	0	9	6	6	13	12	2	3	6	3	13	8	9	9	7	0	0	0	0	0	4	0	15	0
July	4.8	S.	22	N.	0	7	11	7	7	16	7	0	5	2	22	8	1	6	5	0	0	0	0	0	20	0	7	0
August	4.8	S.	30	NW.	0	3	7	4	5	12	5	7	17	2	19	6	6	9	9	0	0	0	0	0	3	0	9	2
September	4.9	S.	21	W.	0	7	0	4	7	14	9	3	8	8	19	5	6	8	8	0	0	0	1	0	3	0	6	2
October	5.5	S.	22	SW.	0	7	3	4	10	14	6	6	7	5	15	4	12	12	10	0	0	0	0	0	0	3	4	3
November	8.5	W.	37	SW.	0	6	5	6	8	10	4	12	8	1	7	13	10	9	9	6	2	0	1	4	0	22	1	0
December	7.3	W.	22	NW.	0	12	4	4	6	8	6	11	10	1	7	7	17	5	3	15	5	0	0	21	0	31	0	1
Year	6.5	S.	38	W.	0	82	75	71	86	142	62	74	102	36	159	89	117	109	88	42	20	2	7	42	30	132	56	8

PHILADELPHIA, PA.

[H_b=117 ft.; h_t=123 ft.; h_r=114 ft.; h_a=190 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T, or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.9	SW.	41	NW.	1	10	5	2	1	3	19	6	16	0	14	8	9	8	6	6	2	0	4	4	0	13	0	0
February	11.0	NW.	32	N.	0	6	4	3	5	3	6	4	24	1	15	3	10	11	11	5	3	0	0	0	0	17	1	0
March	13.8	N.	47	NW.	2	19	7	6	2	7	8	3	10	0	11	9	11	12	9	4	1	1	1	0	0	8	1	0
April	11.4	NW.	37	NW.	0	12	4	3	3	11	9	3	15	0	9	11	10	8	6	2	0	0	0	0	0	2	1	0
May	10.1	S.	34	E.	0	7	2	12	7	13	7	4	10	0	11	5	15	13	12	0	0	1	1	0	1	0	5	0
June	8.8	S.	33	NE.	0	8	5	9	8	16	7	2	5	0	11	10	9	8	6	0	0	0	0	0	4	0	6	0
July	8.9	S.	27	S.	0	14	1	3	6	13	11	2	12	0	10	8	13	15	13	0	0	1	0	0	8	0	10	0
August	8.5	NW.	47	NE.	2	10	4	4	4	9	12	7	11	1	9	14	8	10	10	0	0	1	0	0	1	0	5	0
September	8.8	NW.	26	NW.	0	12	3	3	6	7	11	6	12	0	13	8	9	7	6	0	0	0	2	0	2	0	0	0
October	9.0	N.	30	NW.	0	12	9	5	7	6	13	3	7	0	5	11	15	15	9	0	0	0	7	0	0	0	2	0
November	10.6	NW.	34	NW.	0	9	7	6	5	11	7	0	15	0	9	9	12	11	10	1	0	0	2	0	0	2	1	0
December	10.7	NW.	37	NW.	0	13	7	3	2	7	7	4	19	0	8	5	18	14	10	11	8	0	1	10	0	26	0	0
Year	10.2	NW.	47	NW.	5	132	58	59	56	106	117	44	156	2	125	101	139	132	108	29	14	4	18	14	16	68	32	0

PHOENIX, ARIZ.

[H_b=1,108 ft.; h_t=11 ft.; h_r=68 ft.; h_a=81 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T, or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.6	E.	29	NE.	0	1	6	18	11	2	3	13	8	0	23	6	2	1	1	0	0	0	0	0	0	10	2	0
February	5.8	E.	30	W.	0	2	3	15	8	3	7	13	5	0	14	11	3	5	5	0	0	0	0	0	0	0	2	0
March	5.6	E.	30	W.	0	4	4	19	7	2	5	11	10	0	18	9	4	5	3	0	0	0	0	0	0	0	2	0
April	5.5	E.	29	W.	0	4	3	19	6	2	4	14	8	0	17	11	2	2	1	0	0	0	0	0	10	0	0	0
May	5.9	E.	24	E.	0	4	3	27	2	1	5	14	6	0	28	2	1	1	1	0	0	0	0	0	0	25	0	2
June	5.6	E.	25	SE.	0	4	5	18	5	0	0	20	8	0	28	2	0	0	0	0	0	0	0	0	29	0	0	0
July	5.2	E.	42	SE.	1	5	3	17	4	2	11	12	8	0	16	11	4	10	5	0	0	0	0	0	29	0	9	0
August	4.7	E.	49	E.	1	6	3	16	7	2	4	17	7	0	26	3	2	5	5	0	0	0	0	0	30	0	5	0
September	5.2	E.	19	S.	0	2	1	26	12	2	3	4	10	0	21	7	2	5	3	0	0	0	0	0	21	0	1	0
October	4.2	E.	27	E.	0	7	2	19	5	4	6	10	9	0	22	5	4	2	1	0	0	0	0	0	1	0	1	0
November	5.2	E.	36	S.	0	1	6	18	7	5	4	12	7	0	19	4	7	6	3	1	1	0	0	0	0	2	2	0
December	4.1	E.	20	W.	0	2	5	15	10	3	2	17	8	0	22	5	4	2	1	0	0	0	0	0	0	1	0	0
Year	5.2	E.	49	E.	2	42	44	227	84	28	54	157	94	0	254	76	35	44	29	1	1	0	0	0	145	13	26	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

PIERRE, S. DAK.

[ϕ=44° 22′ N.; λ=100° 21′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	28.338	28.900	27.900	22.8	31.5	32.5	40.7	18.7	29.7	60	−23	16	20	23	75	64	67	0.103	0.119	0.133	0.04	0.04	2.9	3.2	3.5	3.7
February	28.332	28.760	27.772	9.6	15.9	17.1	21.5	6.4	14.0	47	−19	5	10	12	78	78	80	.060	.078	.086	1.29	.44	6.8	7.2	5.7	7.1
March	28.412	29.090	27.634	22.5	31.8	32.7	39.0	19.8	29.4	70	−7	18	24	27	80	71	73	.109	.140	.146	1.30	.60	5.8	5.6	5.4	5.7
April	28.298	28.880	27.630	38.6	50.3	52.8	55.7	36.8	46.2	79	23	34	36	34	84	63	54	.203	.226	.201	2.95	1.42	6.3	6.2	6.0	6.2
May	28.257	28.760	27.840	49.7	64.9	66.3	69.7	47.2	58.4	86	36	45	44	44	85	51	48	.316	.295	.300	2.78	1.09	3.8	4.1	3.5	4.2
June	28.208	28.600	28.023	63.7	74.4	78.1	80.2	61.9	71.0	100	39	60	61	61	87	67	59	.532	.566	.549	2.55	1.74	4.9	4.9	3.8	4.7
July	28.275	28.600	27.916	67.7	81.8	84.7	88.8	64.8	76.8	102	55	60	60	59	77	50	44	.522	.528	.515	2.80	1.16	3.9	4.4	4.0	4.4
August	28.305	28.640	28.010	63.3	80.2	83.7	88.3	61.9	75.1	103	50	55	52	51	74	40	36	.444	.410	.398	2.24	2.06	4.3	3.7	4.2	4.2
September	28.297	28.660	27.800	56.1	69.0	71.8	77.7	55.1	66.4	97	38	47	48	48	74	53	46	.342	.356	.351	1.59	1.22	4.8	5.4	3.8	5.2
October	28.356	28.710	27.720	33.2	43.2	44.1	51.6	29.9	40.8	83	1	28	32	30	82	66	62	.171	.189	.176	2.19	.96	6.2	5.1	4.5	5.5
November	28.428	29.060	27.872	20.8	25.8	26.8	33.5	17.1	25.3	58	−6	16	19	20	80	74	75	.100	.116	.123	1.27	.78	5.4	5.9	5.7	6.3
December	28.456	29.080	27.890	15.5	19.0	19.3	26.7	10.5	18.6	54	−15	10	11	13	79	70	76	.087	.093	.097	.12	.06	3.7	4.6	4.1	4.8
Year	28.338	29.090	27.630	38.6	49.0	50.8	56.1	35.8	46.0	103	−23	33	35	35	80	62	60	.249	.260	.256	21.15	2.06	4.9	5.0	4.5	5.2

PITTSBURGH, PA.

[ϕ=40° 32′ N.; λ=80° 02′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.174	29.650	28.710	30.6	37.4	35.8	42.3	26.4	34.4	61	1	25	27	26	80	65	66	0.146	0.155	0.146	1.42	0.80	6.2	5.4	4.2	6.1
February	29.081	29.650	28.380	29.9	36.4	35.4	40.6	26.4	33.5	65	17	24	26	26	77	68	70	.132	.150	.147	1.58	.31	7.8	7.4	6.9	7.5
March	29.252	29.570	28.610	36.7	44.9	43.4	52.1	32.4	42.2	72	19	29	31	30	72	60	61	.165	.182	.177	1.89	.65	6.6	6.1	5.5	6.2
April	29.120	29.480	28.680	45.3	53.6	52.8	60.2	41.7	51.0	80	19	36	36	38	72	55	60	.227	.230	.240	3.07	.94	7.1	7.9	7.2	8.1
May	29.031	29.353	28.620	56.5	65.0	63.7	70.0	51.5	60.8	94	42	48	47	49	74	56	62	.340	.337	.354	4.89	1.10	5.9	7.2	7.0	6.6
June	29.197	29.503	28.950	71.0	80.3	76.5	84.4	65.7	75.0	92	52	60	59	60	69	50	60	.531	.515	.538	3.58	1.20	3.6	4.8	6.1	4.4
July	29.123	29.423	28.800	70.9	81.3	79.3	85.1	65.8	75.4	96	55	60	59	61	69	49	56	.528	.518	.541	6.20	3.76	4.0	4.5	4.1	4.2
August	29.083	29.383	28.870	65.7	74.2	71.3	78.3	61.8	70.0	88	53	58	57	58	78	58	65	.499	.487	.498	7.15	1.54	4.6	6.4	5.0	5.7
September	29.164	29.450	28.800	60.7	72.3	68.1	75.6	57.2	66.4	88	45	54	55	55	81	56	65	.434	.452	.452	1.64	.59	4.5	5.8	3.3	5.4
October	29.202	29.480	28.880	57.8	64.3	61.9	68.3	53.0	60.6	86	39	52	54	53	83	70	74	.414	.433	.425	5.37	1.15	7.4	7.2	6.1	7.2
November	29.189	29.660	28.480	39.2	46.2	44.2	50.2	35.1	42.6	63	23	33	34	33	78	65	67	.198	.211	.197	3.82	1.71	6.7	6.8	4.7	6.4
December	29.211	29.840	28.480	25.7	29.7	29.2	36.1	20.3	28.2	62	6	20	21	21	79	68	70	.122	.124	.124	2.88	.82	7.7	8.1	5.2	8.0
Year	29.152	29.840	28.380	49.2	57.1	55.1	61.9	44.8	53.3	96	1	42	42	42	76	60	65	.311	.316	.320	43.49	3.76	6.0	6.5	5.4	6.3

POCATELLO, IDAHO.

[ϕ=42° 52′ N.; λ=112° 29′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	25.615	26.020	25.134	20.9	30.9	32.0	37.9	16.9	27.4	51	−2	15	20	22	79	64	65	0.088	0.107	0.118	0.19	0.13	4.2	4.3	4.5	4.6
February	25.338	25.672	24.870	26.7	31.4	32.2	35.9	25.5	29.7	48	15	22	25	25	81	75	72	.117	.130	.133	2.06	.82	8.0	8.2	7.6	8.0
March	25.416	25.800	24.890	32.8	40.9	42.7	46.3	30.3	38.3	63	19	25	28	28	74	61	58	.135	.150	.153	.99	.25	6.7	7.0	6.5	6.7
April	25.428	25.660	25.090	39.7	53.9	55.0	59.4	37.0	48.2	78	27	31	29	28	71	42	40	.172	.164	.158	1.31	.58	6.9	5.4	6.4	6.1
May	25.378	25.660	25.150	46.5	65.2	67.3	71.3	43.0	57.2	94	26	32	30	28	56	28	24	.185	.171	.161	.35	.25	3.5	3.6	4.8	4.4
June	25.427	25.750	25.155	55.7	77.2	82.0	84.1	52.8	68.4	96	33	29	30	27	37	19	14	.158	.165	.138	T.	T.	1.3	1.2	2.3	2.0
July	25.403	25.670	25.241	62.0	84.0	87.1	90.7	59.3	75.0	99	48	34	33	30	38	18	16	.212	.198	.185	.27	.17	1.6	2.2	3.1	2.6
August	25.509	25.710	25.285	61.8	81.5	83.3	87.9	58.7	73.3	99	51	35	33	32	39	22	20	.209	.229	.188	.44	.38	3.4	3.9	3.8	4.3
September	25.447	25.780	25.120	51.9	67.8	69.2	74.2	48.8	61.5	88	31	39	40	39	65	39	38	.210	.261	.252	2.13	.82	3.0	3.8	4.4	3.9
October	25.471	25.770	25.060	36.3	45.1	44.6	50.4	33.1	41.8	65	19	30	30	28	77	57	55	.165	.169	.159	1.26	.67	5.4	6.5	5.5	6.2
November	25.507	26.020	25.080	29.4	37.5	36.9	43.3	25.3	34.3	64	−3	23	25	26	78	60	64	.129	.139	.144	.55	.16	5.4	6.4	5.9	6.1
December	25.584	26.080	24.760	17.7	24.7	23.5	30.8	11.1	21.0	46	−13	13	17	17	81	72	77	.083	.100	.099	1.48	.85	4.4	5.6	4.8	6.0
Year	25.465	26.030	24.760	40.1	53.3	54.6	59.4	36.6	48.0	99	−13	27	28	27	65	46	45	.158	.165	.157	11.03	.85	4.4	4.8	5.0	5.1

POINT REYES, CALIF.

[ϕ=38° 11′ N.; λ=122° 51′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.591	29.940	28.903	.....	.....	52.8	56.1	46.9	51.5	68	40	.....	.....	48	.....	.....	86	.....	.....	0.339	2.78	1.32	.....	.....	3.3	4.6
February	29.528	29.800	28.960	.....	.....	49.7	51.7	45.4	48.6	56	40	.....	.....	48	.....	.....	94	.....	.....	.335	4.77	.87	.....	.....	6.0	6.5
March	29.529	29.840	28.900	.....	.....	49.8	51.5	44.6	48.0	58	37	.....	.....	48	.....	.....	92	.....	.....	.330	1.97	.46	.....	.....	4.4	5.8
April	29.509	29.740	29.270	.....	.....	51.3	53.7	46.7	50.2	60	45	.....	.....	48	.....	.....	91	.....	.....	.341	.60	.20	.....	.....	4.7	6.6
May	29.380	29.530	29.170	.....	.....	52.6	54.3	47.2	50.8	60	44	.....	.....	49	.....	.....	89	.....	.....	.349	.19	.15	.....	.....	3.7	5.5
June	29.429	29.590	29.200	.....	.....	53.6	55.9	47.5	51.7	72	44	.....	.....	50	.....	.....	88	.....	.....	.356	.01	.01	.....	.....	1.5	3.5
July	29.404	29.560	29.200	.....	.....	54.2	57.2	48.4	52.8	71	45	.....	.....	51	.....	.....	92	.....	.....	.380	T.	T.	.....	.....	2.9	7.0
August	29.452	29.610	29.270	.....	.....	55.2	57.7	49.8	53.8	67	45	.....	.....	53	.....	.....	93	.....	.....	.405	0	0	.....	.....	3.0	8.3
September	29.360	29.670	29.100	.....	.....	57.5	60.7	51.9	56.3	86	49	.....	.....	55	.....	.....	92	.....	.....	.434	.16	.16	.....	.....	2.6	5.9
October	29.455	29.700	29.140	.....	.....	55.3	60.0	49.4	54.7	72	45	.....	.....	50	.....	.....	85	.....	.....	.366	.44	.21	.....	.....	1.7	3.3
November	29.509	29.720	29.140	.....	.....	51.4	56.8	46.5	51.6	75	38	.....	.....	45	.....	.....	82	.....	.....	.304	.40	.37	.....	.....	2.3	4.7
December	29.557	29.850	28.960	.....	.....	50.5	54.4	45.8	50.1	70	37	.....	.....	43	.....	.....	78	.....	.....	.283	3.85	1.15	.....	.....	4.7	6.2
Year	29.475	29.940	28.900	.....	.....	52.8	55.8	47.5	51.7	86	37	.....	.....	49	.....	.....	88	.....	.....	.352	15.17	1.32	.....	.....	3.4	5.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

PIERRE, S. DAK.

[H_b=1,572 ft.; h_t=70 ft.; h_r=63 ft.; h_a=75 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	8.8	NW.	40	NW.	1	2	2	8	9	3	6	6	24	2	17	8	6	1	1	2	1	0	0	7	0	29	0	0
February	9.2	NW.	39	NW.	0	8	9	13	8	1	4	2	11	0	4	9	15	9	5	12	9	0	0	22	0	28	0	0
March	9.9	E.	37	NW.	0	8	9	18	8	0	0	2	16	1	10	6	15	6	3	7	3	0	0	10	0	25	0	0
April	11.4	NW.	58	NW.	2	8	7	9	12	2	1	6	15	0	8	7	15	9	5	1	1	0	0	1	0	9	0	0
May	9.1	SE.	36	W.	0	9	5	13	19	1	1	1	13	0	17	4	10	9	7	0	0	0	0	0	0	0	3	0
June	9.8	SE.	54	NE.	2	9	8	14	21	0	1	0	7	0	15	2	13	11	10	0	0	0	0	0	8	0	5	0
July	8.4	E.	36	NE.	0	8	9	16	17	4	2	1	5	0	14	10	7	7	5	0	0	0	0	0	14	0	5	0
August	9.1	E.	35	N.	0	4	5	12	17	2	4	3	14	1	15	7	9	5	3	0	0	0	0	0	12	0	6	0
September	8.7	E.	30	SE.	0	8	9	12	12	0	3	6	10	0	10	8	12	3	3	0	0	0	0	0	6	0	1	2
October	7.1	NW.	44	W.	1	9	12	13	4	2	3	5	13	1	10	8	13	9	7	4	4	0	1	4	0	17	0	0
November	9.8	NW.	42	NW.	1	9	4	9	8	2	3	6	19	0	8	10	12	6	5	8	5	0	0	12	0	25	0	0
December	6.9	NW.	32	NW.	0	2	5	12	4	1	7	8	22	1	12	8	11	3	2	4	3	0	0	18	0	27	0	0
Year	8.8	NW.	58	NW.	7	84	84	149	139	18	35	46	169	6	140	87	138	78	58	38	26	0	1	74	40	161	20	2

PITTSBURGH, PA.

[H_b=842 ft.; h_t=353 ft.; h_r=345 ft.; h_a=410 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.9	SW.	43	NW.	2	1	3	2	5	7	23	9	12	0	9	4	18	8	6	10	3	0	4	5	0	17	0	0
February	12.1	NW.	49	S.	2	1	3	6	5	2	10	13	16	0	4	4	20	14	10	13	7	0	0	5	0	20	1	1
March	13.6	NW.	48	SW.	4	2	4	5	8	3	7	0	27	0	11	4	16	10	7	9	2	0	0	1	0	16	0	0
April	11.7	SW.	39	NW.	0	2	1	5	8	2	17	5	19	1	2	5	23	14	10	6	1	0	1	1	0	5	4	0
May	10.2	NW.	34	W.	0	8	7	4	9	5	8	7	14	0	7	6	18	15	14	0	0	0	0	0	2	0	5	1
June	8.8	SE.	38	NE.	0	5	7	6	15	8	7	3	7	2	12	12	6	10	8	0	0	1	1	0	5	0	11	0
July	9.3	SW.	58	NW.	2	4	6	6	6	2	13	10	14	1	15	5	11	10	8	0	0	1	0	0	4	0	8	0
August	9.4	SW.	49	NW.	1	6	2	1	8	3	15	11	14	2	7	12	12	17	14	0	0	0	0	0	0	0	12	0
September	8.7	NW.	49	NW.	1	3	3	2	8	4	12	11	15	2	11	6	13	6	4	0	0	0	7	0	0	0	5	0
October	9.4	SW.	42	NW.	1	5	4	8	12	6	14	4	9	0	8	1	22	18	17	0	0	0	3	0	0	0	2	0
November	12.4	SW.	49	SW.	2	2	8	3	8	3	16	5	15	0	7	6	17	11	8	5	1	0	0	0	0	8	1	0
December	11.7	NW.	53	NW.	2	4	5	6	2	2	18	6	18	1	5	3	23	13	11	18	8	0	4	11	0	27	2	0
Year	10.8	SW.	58	NW.	17	43	53	54	94	47	160	90	180	9	98	68	199	146	117	61	22	2	20	23	11	93	51	2

POCATELLO, IDAHO.

[H_b=4,477 ft.; h_t=60 ft.; h_r=52 ft.; h_a=68 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.6	SE.	33	SW.	0	1	2	0	27	5	8	13	6	0	13	9	9	5	1	7	3	0	1	5	0	28	0	0
February	12.4	SE.	40	SW.	1	1	0	1	18	8	19	6	3	0	0	10	18	16	10	21	14	0	1	4	0	27	0	0
March	10.0	SE.	42	SW.	1	2	1	2	21	10	14	9	3	0	5	8	18	10	8	13	6	0	1	2	0	19	1	0
April	9.4	SE.	36	SW.	0	1	2	1	20	6	16	13	1	0	7	11	12	10	6	5	4	0	1	0	0	10	2	0
May	8.8	SW.	42	SW.	1	3	1	1	20	3	16	12	6	0	10	18	3	4	3	3	1	0	0	0	1	4	2	0
June	8.9	SE.	28	SW.	0	2	0	0	25	7	5	11	10	0	22	7	1	0	0	0	0	0	0	0	10	0	0	1
July	8.7	SE.	48	S.	2	4	1	3	22	6	8	15	3	0	20	9	2	2	2	0	0	0	0	0	18	0	6	0
August	8.9	SE.	38	SE.	0	4	0	1	27	2	11	10	7	0	12	14	5	5	1	0	0	0	0	0	10	0	4	0
September	8.8	SE.	44	S.	3	3	2	0	23	11	9	5	7	0	13	10	7	10	7	0	0	1	0	0	0	1	9	0
October	9.2	SE.	52	SW.	1	2	1	0	20	5	21	8	5	0	7	8	16	10	6	9	5	0	0	0	0	11	0	0
November	9.2	SE.	38	SW.	0	3	1	1	21	6	17	8	3	0	10	7	13	10	7	10	6	0	2	3	0	25	0	0
December	9.4	SE.	52	SW.	3	2	1	0	15	5	11	16	12	0	11	5	15	10	7	10	10	0	4	14	0	30	0	0
Year	9.4	SE.	52	SW.	12	28	12	10	250	74	155	126	66	0	130	116	119	92	58	78	49	1	10	28	39	155	24	1

POINT REYES, CALIF.

[H_b=490 ft.; h_t=7 ft.; h_r=4 ft.; h_a=18 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	17.3	SE.	80	NW.	7	3	3	2	9	3	1	0	10	0	15	6	10	11	9	0	0	1	9	0	0	0	0	0
February	25.8	NW.	73	NW.	19	0	0	0	1	9	4	0	14	0	5	11	12	23	18	0	0	1	13	0	0	0	0	0
March	21.5	NW.	80	NW.	16	0	0	0	1	7	5	0	18	0	11	5	15	14	11	0	0	1	13	0	0	0	0	0
April	21.4	NW.	65	NW.	11	0	0	0	0	4	2	1	23	0	5	13	12	7	6	0	0	0	16	0	0	0	0	0
May	26.8	NW.	83	NW.	17	0	0	0	0	5	0	1	25	0	11	8	12	3	1	0	0	0	14	0	0	0	0	0
June	31.6	NW.	68	NW.	18	1	0	0	0	3	1	0	25	0	17	8	5	1	0	0	0	0	11	0	0	0	0	0
July	20.4	NW.	55	NW.	12	2	0	0	0	4	1	0	24	0	7	5	19	0	0	0	0	0	22	0	0	0	0	0
August	19.4	NW.	58	NW.	8	0	0	0	1	2	2	0	26	0	4	4	23	0	0	0	0	0	27	0	0	0	0	0
September	18.7	NW.	48	NW.	9	1	0	0	3	2	3	2	19	0	9	10	11	2	1	0	0	0	20	0	0	0	0	0
October	18.2	NW.	73	NW.	10	4	0	0	0	0	0	0	27	0	17	8	6	3	2	0	0	0	12	0	0	0	0	0
November	22.2	NW.	73	NW.	12	8	1	0	0	1	0	0	20	0	14	6	10	4	2	0	0	0	16	0	0	0	0	0
December	17.6	SE.	85	S.	8	3	3	1	9	4	1	0	10	0	10	5	16	14	10	0	0	0	8	0	0	0	1	0
Year	21.7	NW.	85	S.	147	22	7	3	24	44	20	4	241	0	125	89	151	82	60	0	0	3	181	0	0	0	1	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

PORT ANGELES, WASH.

[ϕ=48° 07′ N.; λ=123° 06′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.034	30.730	29.270	....	43.8	42.1	45.2	34.9	40.0	56	28	....	40	38	....	86	87	....	0.247	0.233	7.09	1.94	....	8.5	8.3	8.7
February	29.888	30.460	29.220	....	42.9	42.3	44.9	32.9	38.9	51	27	....	38	38	....	85	84	....	.232	.229	2.93	.90	....	7.0	7.1	6.6
March	30.011	30.470	29.370	....	46.8	46.8	49.5	35.6	42.6	61	30	....	42	41	....	81	80	....	.260	.255	1.27	.30	....	6.6	7.9	5.7
April	30.044	30.450	29.520	....	51.2	51.4	54.4	38.4	46.4	64	31	....	44	43	....	77	73	....	.287	.278	2.67	.67	....	6.8	6.3	6.0
May	30.021	30.410	29.580	....	57.9	56.1	58.4	40.2	49.3	69	33	....	45	44	....	71	66	....	.299	.293	.40	.11	....	5.5	5.3	4.9
June	30.114	30.430	29.850	....	56.8	57.9	60.4	44.1	52.2	68	35	....	47	47	....	71	68	....	.326	.323	.72	.32	....	4.8	4.9	4.5
July	30.032	30.310	29.830	....	60.8	62.6	65.1	46.2	55.6	82	42	....	51	51	....	70	66	....	.371	.369	.17	.14	....	1.9	2.2	2.9
August	30.064	30.300	29.807	....	62.2	63.5	65.9	48.2	57.0	79	41	....	52	52	....	70	67	....	.390	.387	T.	T.	....	2.1	2.1	3.2
September	29.985	30.360	29.450	....	60.9	62.0	64.8	46.4	55.6	82	34	....	50	49	....	69	66	....	.363	.356	.91	.54	....	3.6	3.8	4.2
October	30.129	30.390	29.570	....	51.0	49.7	53.1	38.7	45.9	62	27	....	43	43	....	76	80	....	.287	.287	1.72	.91	....	6.0	5.5	7.0
November	30.066	30.690	29.500	....	45.4	43.9	46.8	36.6	41.7	59	25	....	41	40	....	86	85	....	.264	.257	3.55	1.01	....	7.8	7.5	8.8
December	30.118	30.500	29.540	....	40.8	37.7	42.1	31.2	36.6	52	13	....	36	34	....	85	89	....	.225	.208	2.69	.75	....	6.1	6.1	7.7
Year	30.046	30.730	29.220	....	51.7	51.3	54.2	39.4	46.8	82	13	....	44	43	....	77	76	....	.296	.290	24.12	1.94	....	5.6	5.6	5.8

PORT ARTHUR, TEX.

[ϕ=29° 52′ N.; λ=93° 55′ W.]

January	30.121	30.500	29.760	44.4	51.3	50.0	55.9	42.4	49.2	68	22	42	42	44	91	72	80	0.279	0.285	0.299	6.13	2.47	5.9	5.9	4.9	5.6
February	29.961	30.360	29.480	50.6	57.7	55.8	61.2	47.1	54.2	72	34	45	44	47	83	63	75	.324	.307	.341	6.20	2.97	5.8	6.1	6.1	6.0
March	30.040	30.310	29.660	56.2	65.1	62.5	68.7	53.5	61.1	78	38	51	50	53	84	61	73	.393	.381	.418	2.31	1.16	5.9	4.5	4.9	4.9
April	29.971	30.270	29.650	63.6	71.8	68.8	74.1	61.0	67.6	82	50	58	56	58	82	60	71	.500	.476	.508	1.83	1.07	6.5	4.2	5.0	4.8
May	29.824	30.020	29.510	69.3	75.3	73.4	78.8	65.0	71.9	84	58	64	63	65	85	69	76	.614	.594	.625	9.55	2.61	5.2	5.5	5.8	5.8
June	29.918	30.110	29.610	75.2	80.6	77.8	83.0	71.5	77.2	88	61	71	70	70	86	71	78	.764	.734	.739	7.71	1.52	7.3	6.9	6.6	6.9
July	29.958	30.160	29.795	78.2	84.9	81.7	88.1	74.2	81.2	96	69	74	73	73	88	68	76	.848	.808	.810	10.06	2.15	5.6	6.9	7.2	6.5
August	29.966	30.090	29.830	78.3	85.9	82.8	89.0	75.4	82.2	94	70	75	73	75	90	67	78	.868	.815	.869	6.32	3.08	4.5	6.5	5.3	5.7
September	29.908	30.070	29.610	73.7	82.4	79.9	84.8	72.1	78.4	92	62	69	69	70	86	65	74	.722	.718	.757	3.98	2.16	4.7	5.0	4.0	4.6
October	29.936	30.100	29.799	73.5	79.9	76.4	81.9	71.2	76.6	86	59	71	73	72	93	79	87	.776	.807	.799	6.49	2.29	6.2	7.1	5.3	6.6
November	30.005	30.350	29.650	57.7	68.0	65.3	71.9	54.9	63.4	82	35	54	56	56	89	66	74	.455	.483	.489	2.77	1.43	6.1	5.6	3.6	5.8
December	30.122	30.590	29.610	50.5	59.4	55.8	63.5	46.4	55.0	80	28	47	48	49	87	69	78	.361	.382	.377	1.91	0.51	5.9	6.9	4.9	6.5
Year	29.978	30.590	29.480	64.3	71.9	69.2	75.1	61.2	68.2	96	22	60	60	61	87	68	77	.575	.566	.586	65.26	3.08	5.8	5.9	5.3	5.8

PORT HURON, MICH.

[ϕ=43° 00′ N.; λ=82° 26′ W.]

January	29.301	29.890	28.822	27.0	31.7	29.8	35.8	22.9	29.4	51	5	24	24	24	87	74	80	0.133	0.138	0.136	0.85	0.54	6.6	6.1	5.7	6.5
February	29.240	29.890	28.500	25.0	30.8	28.9	33.7	21.5	27.6	53	10	22	23	24	88	72	79	.123	.129	.128	1.18	.60	7.2	7.2	7.1	7.5
March	29.468	29.920	28.710	30.9	37.0	34.9	40.8	27.4	34.1	62	12	26	28	28	84	68	76	.147	.159	.163	1.96	.69	5.9	5.5	5.5	5.7
April	29.298	29.710	28.640	39.7	46.2	43.9	50.8	36.0	43.4	69	20	35	35	37	82	65	77	.204	.213	.227	3.94	1.61	6.7	6.6	6.5	6.4
May	29.240	29.660	28.730	51.3	57.3	54.7	61.0	45.5	53.2	88	38	44	46	45	79	71	71	.302	.326	.303	3.00	1.00	5.4	4.9	4.7	5.3
June	29.296	29.680	29.030	69.5	77.3	72.6	80.5	63.2	71.8	92	51	61	61	61	76	59	69	.554	.551	.559	1.11	.42	2.4	3.0	4.7	3.5
July	29.314	29.608	29.020	68.8	76.9	73.7	80.8	61.4	71.1	96	46	60	59	58	72	58	60	.515	.509	.492	1.71	.56	3.3	3.6	4.7	3.6
August	29.247	29.600	29.020	64.6	73.4	69.0	76.6	58.3	67.4	90	47	58	56	58	79	56	68	.494	.464	.488	2.29	1.00	4.0	5.1	4.3	5.1
September	29.323	29.580	28.760	59.4	69.9	65.2	73.4	54.8	64.1	92	38	53	55	54	81	61	68	.418	.444	.433	3.77	2.01	4.2	4.9	5.5	5.0
October	29.366	29.690	28.890	50.1	58.0	54.7	62.8	45.9	54.4	85	33	45	47	47	83	68	76	.323	.344	.347	2.68	.88	5.9	5.6	4.3	5.8
November	29.337	29.790	28.270	34.5	40.0	36.7	43.3	30.7	37.0	57	18	30	30	30	84	68	77	.174	.172	.174	1.71	1.07	6.7	7.3	6.5	7.1
December	29.388	30.020	28.650	18.9	23.1	22.3	27.4	15.7	21.6	45	1	16	16	18	88	74	84	.094	.097	.103	.62	.19	6.5	6.3	6.8	7.2
Year	29.329	30.020	28.270	45.0	51.8	48.9	55.6	40.3	47.9	96	1	40	40	40	82	66	74	.290	.296	.296	24.82	2.01	5.4	5.5	5.5	5.7

PORTLAND, ME.

[ϕ=43° 39′ N.; λ=70° 15′ W.]

January	29.840	30.480	28.870	22.8	28.0	27.3	33.0	18.5	25.8	43	−8	18	18	18	81	66	67	0.108	0.108	0.106	4.69	2.48	6.8	7.2	3.7	6.9
February	29.788	30.263	29.100	23.0	31.3	28.8	34.2	20.6	27.4	43	12	15	15	16	68	49	56	.088	.088	.091	2.34	1.17	5.0	4.1	2.8	4.2
March	29.975	30.853	29.000	33.7	38.7	37.1	42.9	30.0	36.4	60	10	26	25	29	72	61	72	.145	.148	.164	4.02	1.32	6.1	6.8	5.3	6.1
April	29.878	30.340	29.370	40.3	45.7	43.0	48.7	35.9	42.3	63	17	31	30	32	69	58	68	.177	.177	.187	2.20	1.23	6.6	5.9	6.5	6.7
May	29.870	30.367	29.550	53.5	59.0	53.1	61.7	46.8	54.2	88	39	42	43	42	69	60	70	.284	.299	.279	5.16	1.41	5.1	5.3	5.1	5.2
June	30.018	30.458	29.620	62.9	67.5	62.0	71.5	54.3	62.9	92	45	54	55	53	73	67	75	.425	.451	.419	1.71	.79	5.8	4.9	3.7	4.7
July	29.852	30.232	29.460	69.3	73.9	68.6	78.0	60.8	69.4	98	50	59	59	59	72	62	75	.509	.505	.513	1.62	.71	4.5	5.3	4.6	4.9
August	29.834	30.210	29.480	63.0	68.7	63.4	71.4	56.7	64.0	83	49	56	55	56	78	64	77	.453	.441	.449	1.85	.59	5.2	5.9	4.6	5.7
September	29.911	30.320	29.390	56.5	62.6	57.3	65.0	50.7	57.8	87	39	51	51	51	83	69	82	.385	.389	.391	3.68	1.20	5.3	5.3	3.9	6.5
October	30.026	30.560	29.370	46.6	52.8	50.2	56.4	42.4	49.4	78	20	40	41	42	80	68	76	.271	.282	.285	3.49	.84	5.7	6.8	4.9	6.7
November	29.948	30.460	29.170	35.9	41.4	38.9	44.7	32.0	38.4	62	19	30	30	31	80	67	74	.178	.176	.181	4.71	1.22	7.0	6.4	5.3	6.4
December	29.966	30.540	29.310	19.9	26.4	24.4	30.1	15.6	22.8	52	−10	14	14	14	77	60	65	.097	.098	.099	1.78	.68	3.5	4.3	3.0	4.3
Year	29.909	30.853	28.870	44.0	49.7	46.2	53.1	38.7	45.9	98	−10	36	36	37	75	63	71	.260	.263	.264	37.25	2.48	5.6	5.7	4.4	5.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

PORT ANGELES, WASH.

[H_b=29 ft.; h_t=8 ft.; h_r=3 ft.; h_a=53 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a.m. and 8 p.m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	5.6	S.	38	SW.	0	0	0	1	10	10	6	4	0	0	1	5	25	17	9	1	0	0	0	0	0	4	0	0
February	5.6	S.	32	NW.	0	0	0	6	4	6	7	4	1	0	5	8	15	18	12	3	2	0	0	0	0	12	0	0
March	5.8	S.	26	NW.	0	2	3	10	3	0	2	8	3	0	8	13	10	14	9	0	0	1	0	0	0	4	0	0
April	6.3	S.	28	NW.	0	1	3	6	1	1	1	5	12	0	5	15	10	15	12	0	0	0	0	0	0	1	0	1
May	7.5	NW.	32	NW.	0	0	4	1	0	1	1	5	19	0	10	13	8	7	5	0	0	1	0	0	0	0	0	1
June	7.2	NW.	28	NW.	0	0	0	1	0	1	1	3	24	0	13	11	6	8	4	0	0	0	0	0	0	0	0	0
July	7.1	NW.	32	W.	0	0	0	1	0	0	1	4	25	0	22	1	8	3	1	0	0	0	0	0	0	0	1	0
August	5.8	NW.	20	NW.	0	0	0	3	0	0	0	5	23	0	19	7	5	0	0	0	0	0	3	0	0	0	1	0
September	5.4	S.	36	W.	0	1	2	10	1	1	3	4	8	0	15	8	7	5	3	0	0	0	0	0	0	0	0	0
October	5.6	S.	34	W.	0	0	2	13	2	7	0	5	2	0	6	6	19	12	8	1	1	0	1	0	0	5	0	1
November	5.6	S.	35	NW.	0	0	3	3	5	6	8	5	0	0	2	2	26	19	14	2	1	0	3	0	0	7	0	0
December	5.7	S.	32	NE.	0	0	2	2	9	9	7	1	1	0	5	4	22	15	11	3	1	0	7	4	0	15	0	0
Year	6.1	NW.	38	SW.	0	4	19	57	35	42	37	53	118	0	111	93	161	133	88	10	5	2	14	4	0	48	2	3

PORT ARTHUR, TEX.

[H_b=34 ft.; h_t=58 ft.; h_r=51 ft.; h_a=66 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.1	N.	32	S.	0	19	6	5	13	9	2	2	6	0	10	9	12	10	10	1	1	0	1	0	0	3	2	0
February	10.7	N.	45	SE.	1	9	6	7	7	9	4	7	7	0	7	8	13	12	9	0	0	1	1	0	0	0	4	0
March	10.1	SE.	37	NW.	0	8	9	9	16	10	5	0	5	0	13	8	10	8	6	0	0	0	0	0	0	0	3	0
April	10.5	S.	31	S.	0	7	3	5	12	19	10	1	3	0	13	8	9	6	6	0	0	0	1	0	0	0	5	0
May	8.8	S.	45	E.	4	9	4	6	7	15	7	3	11	0	9	12	10	14	13	0	0	0	1	0	0	0	11	0
June	9.2	E.	38	E.	0	3	3	17	7	16	7	3	4	0	4	11	15	17	16	0	0	0	0	0	0	0	12	0
July	6.2	S.	41	NE.	1	5	5	4	5	13	15	7	7	1	5	15	11	16	15	0	0	0	0	0	0	0	19	0
August	7.0	SW.	45	SE.	1	3	7	3	3	8	23	6	8	1	8	12	11	13	11	0	0	0	0	0	15	0	14	0
September	9.6	E.	43	SE.	2	4	18	16	6	16	0	0	0	0	14	9	7	8	8	0	0	0	0	0	3	0	3	0
October	8.5	S.	30	S.	0	2	12	5	11	23	5	4	0	0	4	16	11	15	10	0	0	0	1	0	0	0	5	0
November	8.5	E.	43	NW.	1	10	17	12	1	8	5	0	5	2	10	7	13	8	6	0	0	0	3	0	0	0	4	0
December	9.8	E.	33	N.	0	12	9	13	4	6	10	4	4	0	8	7	16	9	8	0	0	0	2	0	0	4	1	0
Year	8.9	S.	45	SE.	10	91	99	102	92	152	93	37	60	4	105	122	138	136	118	1	1	1	10	0	27	7	83	0

PORT HURON, MICH.

[H_b=638 ft.; h_t=70 ft.; h_r=63 ft.; h_a=120 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	12.7	W.	46	NW.	1	2	1	3	3	10	15	20	8	0	4	16	11	6	3	13	4	0	4	8	0	28	0	0
February	12.5	NW.	54	W.	1	3	0	4	12	6	3	13	15	0	4	8	16	13	8	18	7	0	0	12	0	26	2	0
March	14.0	NE.	44	NE.	1	10	14	6	5	5	9	3	10	0	7	15	11	9	9	12	5	0	1	5	0	26	0	3
April	12.1	SW.	41	NW.	2	5	11	3	5	13	12	2	9	0	4	13	13	11	11	4	0	0	1	1	0	6	4	0
May	10.2	NE.	43	W.	1	6	2	6	10	1	1	7	6	0	12	6	13	12	9	0	0	0	1	0	0	0	4	2
June	8.4	NE.	44	NW.	1	4	17	7	8	14	4	1	5	0	14	15	1	8	5	0	0	0	0	0	3	0	5	1
July	8.9	NE.	48	NW.	1	4	16	6	7	2	10	8	9	0	17	10	4	8	6	0	0	0	0	0	4	0	7	0
August	9.7	NW.	37	NW.	0	7	6	4	5	6	9	13	12	0	6	20	5	12	10	0	0	0	0	0	0	0	9	0
September	10.7	SW.	32	SW.	0	3	6	7	3	9	11	10	11	0	9	14	7	9	8	0	0	0	1	0	2	0	4	1
October	10.4	SW.	44	NW.	1	3	6	4	10	10	12	4	13	0	8	10	13	11	10	0	0	0	3	0	0	0	4	0
November	14.3	NW.	76	W.	4	1	4	7	8	4	11	13	12	0	5	6	19	6	4	9	2	0	1	2	0	15	0	0
December	12.1	NW.	37	NW.	0	2	4	3	1	3	18	12	18	1	4	10	17	11	4	20	11	0	1	23	0	31	0	0
Year	10.5	NW.	76	W.	13	50	110	60	77	83	115	106	128	1	94	141	130	116	87	76	29	0	13	51	9	132	39	7

PORTLAND, ME.

[H_b=103 ft.; h_t=82 ft.; h_r=75 ft.; h_a=117 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.1	SW.	48	NW.	1	9	0	2	3	4	15	14	14	1	7	7	17	11	9	14	10	0	1	13	0	30	0	0
February	9.3	NW.	38	NW.	0	9	1	2	2	4	3	15	19	1	14	5	9	8	6	8	7	0	0	7	0	28	0	0
March	11.4	N.	38	E.	0	17	1	3	9	5	4	7	15	1	8	8	15	15	12	7	7	0	1	3	0	19	0	0
April	9.1	NW.	30	E.	0	12	5	4	4	8	7	8	12	0	7	6	17	13	9	4	2	0	3	0	0	5	0	0
May	9.9	S.	36	NW.	0	9	9	4	5	10	8	6	11	0	11	11	9	15	13	0	0	0	2	0	0	0	1	0
June	8.0	S.	2[illegible]	NE.	0	5	6	6	4	18	6	6	9	0	12	10	8	8	5	0	0	0	4	0	2	0	1	0
July	8.2	S.	28	NW.	0	9	3	3	3	18	12	10	4	0	12	9	10	9	6	0	0	0	6	0	3	0	1	0
August	7.7	S.	32	NE.	0	4	5	4	1	13	19	7	8	1	8	13	10	13	10	0	0	0	3	0	0	0	1	1
September	9.1	S.	30	N.	0	7	6	4	2	15	9	8	9	0	7	8	15	15	10	0	0	0	8	0	0	0	1	0
October	8.1	S.	30	W.	0	11	4	3	5	13	8	6	12	0	6	6	19	19	14	0	0	0	5	0	0	1	1	0
November	10.3	N.	38	S.	0	14	1	3	3	6	11	11	11	0	9	4	17	15	15	5	4	0	1	2	0	13	0	0
December	8.6	SW.	36	NW.	0	7	1	1	0	8	16	14	14	1	17	3	11	10	7	10	7	0	4	15	0	30	1	0
Year	9.1	NW.	48	NW.	1	113	42	39	41	122	118	112	138	5	118	90	157	151	116	48	37	0	38	40	5	126	7	1

Annual meteorological summary for the year ending December 31, 1919—Continued.

PORTLAND, OREG.

[ϕ=45° 32′ N.; λ=122° 41′ W.]

Month.	Pressure. Monthly mean.	Pressure. Extremes. Maximum.	Pressure. Extremes. Minimum.	Temperature. Mean. 8 a. m.	Temperature. Mean. Noon, local time.	Temperature. Mean. 8 p. m.	Temperature. Mean. Maximum.	Temperature. Mean. Minimum.	Temperature. Mean. Monthly.	Temperature. Extremes. Maximum.	Temperature. Extremes. Minimum.	Moisture. Dew point. 8 a. m.	Moisture. Dew point. Noon, local time.	Moisture. Dew point. 8 p. m.	Moisture. Relative humidity. 8 a. m.	Moisture. Relative humidity. Noon, local time.	Moisture. Relative humidity. 8 p. m.	Moisture. Vapor pressure. 8 a. m.	Moisture. Vapor pressure. Noon, local time.	Moisture. Vapor pressure. 8 p. m.	Moisture. Precipitation. Total.	Moisture. Precipitation. Maximum in 24 hours.	Moisture. Cloudiness. 8 a. m.	Moisture. Cloudiness. Noon, local time.	Moisture. Cloudiness. 8 p. m.	Moisture. Cloudiness. Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.931	30.540	29.328	39.7	44.4	44.9	47.6	36.9	42.2	61	23	35	36	37	84	72	74	0.216	0.220	0.227	9.08	1.82	6.3	7.4	6.2	6.5
February	29.779	30.300	29.220	39.9	44.4	45.4	47.1	38.0	42.6	53	33	36	38	38	87	79	76	.216	.229	.228	8.36	1.93	7.5	8.9	8.6	7.9
March	29.870	30.250	29.235	42.8	50.4	53.5	55.5	40.8	48.2	73	33	39	42	40	85	73	63	.236	.267	.251	4.64	.93	6.8	7.0	6.0	6.5
April	29.912	30.330	29.450	46.5	56.1	60.3	61.9	44.8	53.4	75	34	42	43	43	84	62	56	.268	.277	.283	3.60	1.24	6.9	7.3	5.2	6.7
May	29.868	30.260	29.501	48.7	61.3	64.4	66.8	47.7	57.2	82	39	42	40	41	79	48	46	.272	.257	.268	1.95	.67	6.3	6.2	5.2	5.3
June	29.923	30.200	29.710	51.0	64.7	69.3	70.8	50.4	60.6	83	44	45	44	45	81	48	44	.301	.289	.306	.91	.45	5.1	5.1	4.4	377
July	29.863	30.146	29.625	57.3	71.6	78.9	79.8	56.1	68.0	100	49	50	51	50	77	50	38	.359	.381	.363	.23	.13	3.1	2.8	1.7	2.6
August	29.860	30.100	29.631	58.4	72.2	79.1	80.1	57.0	68.6	96	50	53	53	51	82	52	40	.398	.399	.376	.10	.09	4.8	3.4	2.4	3.1
September	29.809	30.210	29.434	55.1	66.5	69.8	71.4	53.6	62.5	85	44	50	49	48	84	58	52	.369	.358	.353	3.18	1.36	4.9	4.7	4.5	4.4
October	29.973	30.300	29.501	46.3	53.9	56.1	58.3	43.5	50.9	78	30	43	43	45	88	68	67	.279	.285	.308	1.43	.65	6.2	6.5	6.2	6.9
November	29.962	30.415	29.412	42.7	47.4	48.0	50.3	39.7	45.0	65	26	39	39	40	87	74	76	.245	.250	.260	7.44	1.72	8.1	7.8	8.2	7.2
December	29.979	30.440	29.340	31.7	35.6	35.3	38.5	28.6	33.6	61	3	26	28	29	81	74	77	.161	.169	.178	4.78	1.40	5.7	6.0	6.5	5.9
Year	29.895	30.540	29.220	46.7	56.5	58.8	60.7	44.8	52.7	100	3	42	42	42	83	63	59	.285	.282	.283	45.70	1.93	6.0	6.1	5.4	5.6

PROVIDENCE, R. I.

[ϕ=41° 50′ N.; λ=71° 25′ W.]

Month.	Pressure. Monthly mean.	Pressure. Extremes. Maximum.	Pressure. Extremes. Minimum.	Temperature. Mean. 8 a. m.	Temperature. Mean. Noon, local time.	Temperature. Mean. 8 p. m.	Temperature. Mean. Maximum.	Temperature. Mean. Minimum.	Temperature. Mean. Monthly.	Temperature. Extremes. Maximum.	Temperature. Extremes. Minimum.	Moisture. Dew point. 8 a. m.	Moisture. Dew point. Noon, local time.	Moisture. Dew point. 8 p. m.	Moisture. Relative humidity. 8 a. m.	Moisture. Relative humidity. Noon, local time.	Moisture. Relative humidity. 8 p. m.	Moisture. Vapor pressure. 8 a. m.	Moisture. Vapor pressure. Noon, local time.	Moisture. Vapor pressure. 8 p. m.	Moisture. Precipitation. Total.	Moisture. Precipitation. Maximum in 24 hours.	Moisture. Cloudiness. 8 a. m.	Moisture. Cloudiness. Noon, local time.	Moisture. Cloudiness. 8 p. m.	Moisture. Cloudiness. Daylight.
January	29.808	30.470	28.990	30.4	35.9	33.0	40.2	25.4	32.8	58	2	24	25	24	76	66	69	0.139	0.147	0.141	4.34	2.05	6.5	6.0	4.1	6.4
February	29.744	30.210	29.060	28.3	35.7	32.9	38.8	24.3	31.6	47	15	20	20	22	69	52	63	.111	.113	.122	3.09	.96	5.3	4.1	3.4	4.6
March	29.900	30.710	28.890	37.6	43.8	40.1	48.4	31.8	40.1	60	15	31	32	31	76	65	71	.179	.188	.181	4.21	1.40	5.9	7.0	5.5	6.4
April	29.818	30.230	29.450	43.7	49.9	46.3	54.6	38.0	46.3	66	20	34	33	34	70	56	65	.206	.198	.205	3.32	2.14	5.8	6.3	6.0	6.0
May	29.793	30.280	29.530	57.2	64.4	58.2	68.6	50.0	59.3	92	41	46	45	47	69	55	68	.322	.313	.326	3.79	1.18	4.7	5.5	5.5	5.3
June	29.961	30.338	29.590	65.9	73.7	65.8	77.1	56.6	66.8	94	46	55	56	55	70	57	71	.451	.464	.452	3.23	2.17	4.4	4.6	4.8	4.7
July	29.821	30.210	29.430	72.4	78.8	72.1	81.9	64.7	73.3	99	52	62	60	62	71	57	73	.567	.543	.570	3.68	1.37	5.4	6.4	5.2	6.0
August	29.778	30.130	29.480	66.3	72.8	67.4	76.1	59.7	67.9	91	52	58	56	58	76	59	75	.491	.464	.498	5.14	1.90	5.5	5.6	4.2	5.4
September	29.855	30.250	29.340	61.6	68.6	61.7	71.1	54.9	63.0	90	42	55	54	55	79	62	80	.445	.437	.449	5.80	1.66	5.7	5.2	5.2	5.2
October	29.957	30.450	29.370	52.0	60.4	54.7	63.2	46.4	54.8	83	32	46	47	46	81	63	75	.338	.350	.335	1.49	.43	6.4	6.0	6.3	6.6
November	29.889	30.350	29.210	39.4	45.7	42.2	49.5	34.7	42.1	65	23	34	34	35	79	64	75	.206	.204	.213	3.79	1.09	5.3	6.1	6.0	5.9
December	29.917	30.540	29.250	26.1	31.2	29.1	35.6	20.2	27.9	57	−7	20	21	21	77	66	71	.131	.131	.130	2.11	.93	5.6	6.2	4.2	6.5
Year	29.853	30.710	28.890	48.4	55.1	50.3	58.8	42.2	50.5	99	−7	40	40	41	74	60	71	.299	.296	.302	44.09	2.17	5.5	5.8	5.0	5.8

PUEBLO, COLO.

[ϕ=38° 18′ N.; λ=104° 36′ W.]

Month.	Pressure. Monthly mean.	Pressure. Extremes. Maximum.	Pressure. Extremes. Minimum.	Temperature. Mean. 8 a. m.	Temperature. Mean. Noon, local time.	Temperature. Mean. 8 p. m.	Temperature. Mean. Maximum.	Temperature. Mean. Minimum.	Temperature. Mean. Monthly.	Temperature. Extremes. Maximum.	Temperature. Extremes. Minimum.	Moisture. Dew point. 8 a. m.	Moisture. Dew point. Noon, local time.	Moisture. Dew point. 8 p. m.	Moisture. Relative humidity. 8 a. m.	Moisture. Relative humidity. Noon, local time.	Moisture. Relative humidity. 8 p. m.	Moisture. Vapor pressure. 8 a. m.	Moisture. Vapor pressure. Noon, local time.	Moisture. Vapor pressure. 8 p. m.	Moisture. Precipitation. Total.	Moisture. Precipitation. Maximum in 24 hours.	Moisture. Cloudiness. 8 a. m.	Moisture. Cloudiness. Noon, local time.	Moisture. Cloudiness. 8 p. m.	Moisture. Cloudiness. Daylight.
January	25.348	25.710	25.020	21.9	39.7	33.9	45.1	16.6	30.8	64	−20	14	21	23	72	49	65	0.085	0.114	0.127	0.03	0.03	1.4	3.4	1.7	3.2
February	25.124	25.480	24.540	22.6	38.5	36.5	43.9	17.9	30.9	65	1	16	22	22	75	55	60	.088	.117	.118	.86	.43	3.3	4.3	4.2	5.1
March	25.246	25.670	24.810	32.7	48.3	49.3	53.9	29.4	41.6	73	21	24	24	25	71	44	44	.129	.132	.137	1.43	.54	5.4	6.6	5.5	5.6
April	25.228	25.590	24.610	41.4	58.0	57.4	63.0	38.1	50.6	86	24	33	32	36	75	44	50	.189	.192	.219	2.33	.94	5.3	5.2	7.4	6.1
May	25.218	25.453	24.881	48.4	63.0	68.0	73.0	46.4	59.7	84	39	41	39	40	76	38	39	.258	.244	.247	.38	.25	4.1	4.7	6.1	5.5
June	25.331	25.600	25.090	55.0	79.1	77.0	83.8	52.9	68.4	96	32	45	41	44	70	28	35	.301	.273	.297	1.39	.50	2.3	2.7	7.2	3.5
July	25.331	25.600	25.110	64.0	85.5	81.7	90.0	62.0	76.0	98	54	54	52	52	72	34	40	.425	.396	.402	2.95	1.13	3.5	2.8	6.0	3.8
August	25.362	25.540	25.183	61.5	84.5	82.9	89.0	60.2	74.6	98	53	51	50	51	70	33	36	.381	.375	.384	3.23	2.71	2.7	2.5	5.8	4.1
September	25.307	25.640	24.970	55.6	76.1	73.8	81.0	54.0	67.5	95	35	48	46	46	76	38	42	.347	.325	.331	2.04	1.54	4.6	4.5	6.0	5.3
October	25.239	25.600	24.896	38.8	59.0	55.9	63.9	35.9	49.9	88	17	30	28	28	73	36	42	.171	.165	.168	.30	.16	4.6	3.7	3.6	4.1
November	25.279	25.710	24.820	26.5	47.5	41.6	52.4	21.3	36.8	72	0	18	20	22	72	41	50	.100	.111	.123	.64	.30	3.0	4.2	3.6	3.8
December	25.335	25.640	24.680	23.9	38.4	32.7	45.5	16.3	30.9	69	−22	13	18	20	67	50	62	.082	.104	.114	.59	.30	2.6	3.2	3.2	3.5
Year	25.279	25.710	24.540	41.0	60.2	57.6	65.4	37.6	51.5	99	−22	32	33	34	72	41	47	.213	.212	.222	16.17	2.71	3.6	3.9	5.0	4.5

RALEIGH, N. C.

[ϕ=35° 45′ N.; λ=78° 37′ W.]

Month.	Pressure. Monthly mean.	Pressure. Extremes. Maximum.	Pressure. Extremes. Minimum.	Temperature. Mean. 8 a. m.	Temperature. Mean. Noon, local time.	Temperature. Mean. 8 p. m.	Temperature. Mean. Maximum.	Temperature. Mean. Minimum.	Temperature. Mean. Monthly.	Temperature. Extremes. Maximum.	Temperature. Extremes. Minimum.	Moisture. Dew point. 8 a. m.	Moisture. Dew point. Noon, local time.	Moisture. Dew point. 8 p. m.	Moisture. Relative humidity. 8 a. m.	Moisture. Relative humidity. Noon, local time.	Moisture. Relative humidity. 8 p. m.	Moisture. Vapor pressure. 8 a. m.	Moisture. Vapor pressure. Noon, local time.	Moisture. Vapor pressure. 8 p. m.	Moisture. Precipitation. Total.	Moisture. Precipitation. Maximum in 24 hours.	Moisture. Cloudiness. 8 a. m.	Moisture. Cloudiness. Noon, local time.	Moisture. Cloudiness. 8 p. m.	Moisture. Cloudiness. Daylight.
January	29.709	30.210	29.114	37.7	48.9	47.1	55.0	35.3	45.2	70	15	32	40	40	79	72	76	0.195	0.266	0.264	3.14	1.11	5.5	4.4	3.6	4.9
February	29.616	30.110	28.990	36.7	46.3	45.6	50.9	34.5	42.7	65	22	31	37	37	79	71	73	.176	.227	.226	3.49	.94	4.6	5.0	4.5	4.9
March	29.726	30.188	29.110	46.6	57.0	54.7	62.8	41.8	52.3	75	35	41	48	45	82	73	72	.271	.346	.310	2.38	.91	6.1	6.6	4.4	5.7
April	29.645	29.970	29.280	54.2	65.7	63.4	70.5	49.0	59.8	86	30	45	50	49	72	59	61	.322	.379	.356	1.69	.94	3.6	5.0	4.1	4.8
May	29.548	29.793	29.170	63.8	73.7	70.5	78.2	59.2	68.7	92	50	59	59	59	85	62	70	.505	.508	.512	6.15	1.26	6.1	6.4	6.2	6.4
June	29.698	30.037	29.349	70.3	79.8	76.2	83.8	64.9	74.4	94	52	64	62	63	80	56	67	.601	.567	.592	2.22	1.19	5.6	5.8	6.9	6.1
July	29.639	29.914	29.390	73.7	82.5	79.0	86.8	68.9	77.8	95	53	68	69	70	85	66	76	.704	.718	.728	10.26	3.06	5.9	5.7	6.3	5.5
August	29.588	29.860	29.330	71.7	82.9	78.4	86.4	67.4	76.9	93	60	65	65	67	81	56	69	.633	.639	.670	4.88	2.27	5.5	5.1	6.7	5.3
September	29.665	29.940	29.310	65.3	78.6	73.4	82.3	61.0	71.6	92	52	59	60	61	80	54	67	.505	.534	.553	.51	.21	3.3	3.9	3.7	3.8
October	29.734	30.025	29.510	63.4	74.4	69.5	78.1	60.4	69.2	92	48	61	62	62	91	67	78	.546	.566	.564	2.61	1.18	6.2	5.5	4.1	6.3
November	29.724	30.260	29.230	46.3	57.5	54.2	61.9	42.3	52.1	81	28	40	42	42	80	59	65	.266	.304	.292	1.44	1.06	4.7	5.3	3.0	5.3
December	29.751	30.340	29.283	35.9	43.7	42.1	49.5	30.9	40.2	75	18	31	34	34	81	70	72	.197	.221	.208	1.96	.47	5.5	6.3	4.7	6.5
Year	29.670	30.340	28.990	55.5	65.9	62.8	70.5	51.3	60.9	95	15	50	52	52	81	64	70	.410	.440	.440	40.73	3.06	5.2	5.5	4.8	5.5

Annual meteorological summary for the year ending December 31, 1919—Continued.

PORTLAND, OREG.

[H_b=153 ft.; h_t=68 ft.; h_r=63 ft.; h_a=106 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	6.9	SE.	34	W.	0	5	1	7	12	12	12	2	10	1	9	5	17	17	15	0	0	1	5	0	0	7	1	0
February	6.7	SE.	30	S.	0	2	3	5	14	10	8	4	9	1	1	8	19	22	20	1	0	0	0	0	0	0	0	0
March	7.1	NW.	24	SW.	0	5	2	1	5	9	17	7	16	0	6	9	16	20	14	0	0	3	1	0	0	0	0	0
April	6.2	NW.	33	W.	0	4	0	5	6	10	7	7	21	0	3	14	13	10	14	0	0	2	1	0	0	0	0	0
May	6.6	NW.	23	W.	0	6	0	2	8	8	6	7	25	0	9	13	9	10	8	0	0	1	0	0	0	0	0	0
June	6.2	NW.	18	SW.	0	8	3	0	10	4	5	7	23	0	16	9	5	8	5	0	0	0	0	0	0	0	0	0
July	6.6	NW.	19	NW.	0	14	3	2	5	2	0	1	35	0	22	3	6	4	2	0	0	0	0	0	2	0	1	0
August	5.6	NW.	21	E.	0	9	2	0	1	5	3	5	32	5	21	4	6	2	1	0	0	0	0	0	3	0	1	0
September	5.7	NW.	25	E.	0	6	3	10	4	8	3	3	21	2	16	3	11	10	8	0	0	0	1	0	0	0	1	0
October	4.7	NW.	23	SW.	0	11	2	3	7	8	7	5	17	2	6	7	18	10	6	0	0	0	5	0	0	1	0	0
November	5.7	SE.	30	E.	0	4	3	1	18	8	6	5	13	2	5	9	16	15	14	0	0	0	4	0	0	1	0	0
December	5.6	E.	31	E.	0	4	6	21	11	2	2	2	14	0	9	9	13	16	13	4	3	0	3	7	0	18	0	0
Year	6.1	NW.	34	W.	0	78	28	57	101	86	76	55	236	13	123	93	149	150	120	5	3	7	20	7	5	27	4	0

PROVIDENCE, R. I.

[H_b=160 ft.; h_t=215 ft.; h_r=211 ft.; h_a=251 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	13.4	NW.	79	NW.	6	7	3	1	3	1	21	7	19	0	6	12	13	9	6	8	4	0	4	5	0	24	0	0
February	15.8	NW.	55	NW.	8	6	1	2	2	3	4	5	33	0	11	11	6	8	6	7	3	0	0	2	0	26	0	0
March	16.4	NW.	59	NW.	6	12	3	4	7	6	8	3	19	0	7	8	16	12	8	5	2	0	2	1	0	17	0	0
April	13.5	W.	55	W.	2	9	5	2	7	12	3	12	10	0	7	12	11	12	11	3	0	0	0	0	0	5	2	0
May	12.4	S.	41	W.	2	6	8	3	14	13	5	3	10	0	10	12	9	15	11	0	0	0	1	0	1	0	1	0
June	9.8	SW.	30	NE.	0	8	9	5	7	10	12	3	6	0	11	12	7	7	6	0	0	0	0	0	2	0	2	0
July	10.4	NW.	36	NW.	0	3	4	0	1	13	14	8	19	0	8	11	12	11	10	0	0	0	0	0	4	0	2	0
August	10.6	NW.	36	NW.	0	7	5	1	7	10	7	15	10	0	11	11	9	10	8	0	0	1	0	0	1	0	4	0
September	10.4	NW.	42	NW.	1	6	7	4	5	6	16	5	11	0	11	9	10	11	11	0	0	0	0	0	1	0	3	0
October	10.5	NW.	48	NW.	2	8	6	6	7	7	10	5	13	0	6	11	14	15	9	0	0	0	2	0	0	1	1	1
November	13.9	NW.	55	W.	5	10	5	1	3	10	6	4	21	0	8	10	12	13	11	2	0	0	3	1	0	10	0	0
December	11.6	NW.	66	NW.	2	6	3	2	0	5	14	10	22	0	6	12	13	11	10	11	4	0	4	12	0	27	0	0
Year	12.4	NW.	79	NW.	34	88	59	31	63	96	120	80	193	0	102	131	132	134	107	36	13	1	16	21	9	110	15	1

PUEBLO, COLO.

[H_b=4,685 ft.; h_t=80 ft.; h_r=72 ft.; h_a=86 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.9	NW.	27	W.	0	10	7	10	6	1	2	2	23	1	19	6	6	1	0	2	1	0	0	4	0	30	0	0
February	6.6	NW.	40	W.	1	9	4	13	10	0	0	10	10	0	10	8	10	4	4	7	4	0	0	5	0	26	0	0
March	6.8	NW.	39	W.	0	3	7	10	10	1	6	11	13	1	11	7	13	9	5	8	7	0	0	1	0	22	1	0
April	7.5	E.	50	W.	2	6	7	16	9	3	1	7	10	1	7	10	13	10	9	3	2	0	1	0	0	5	1	0
May	6.1	E.	46	W.	1	6	2	14	12	1	2	9	14	2	8	16	7	5	3	0	0	1	0	0	0	0	6	0
June	6.7	NW.	39	W.	0	9	3	9	6	2	2	8	21	0	18	9	3	4	4	0	0	0	0	0	9	1	4	0
July	6.3	NW.	33	NW.	0	12	1	9	13	1	0	5	21	0	18	9	4	9	7	0	0	1	0	0	19	0	9	0
August	6.4	NW.	30	NW.	0	4	1	17	9	0	1	7	22	1	13	16	2	6	5	0	0	1	0	0	14	0	7	0
September	5.1	NW.	37	NW.	0	5	4	10	11	0	5	5	14	6	7	15	8	8	6	0	0	1	0	0	3	0	7	0
October	5.9	E.	30	E.	0	5	6	10	13	2	3	12	10	1	15	7	9	7	3	3	0	0	0	0	0	11	1	0
November	6.1	NW.	42	W.	1	8	4	7	17	2	0	10	12	0	16	5	9	6	4	6	6	0	0	4	0	27	0	0
December	5.4	NW.	46	W.	1	5	3	6	14	0	0	11	18	5	17	9	5	5	3	6	5	0	0	6	0	28	0	0
Year	6.2	NW.	50	W.	6	82	49	131	130	13	22	97	188	18	159	117	89	74	53	35	25	4	1	20	45	150	36	0

RALEIGH, N. C.

[H_b=376 ft.; h_t=103 ft.; h_r=94 ft.; h_a=110 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.3	SW.	33	NW.	0	14	10	3	1	4	12	7	10	1	13	6	12	8	7	0	0	0	0	2	0	12	0	0
February	8.2	N.	31	SW.	0	10	13	3	5	5	6	5	9	0	14	4	10	11	8	2	1	0	1	0	0	11	1	0
March	8.5	NE.	36	N.	0	4	20	6	3	8	8	2	11	0	9	6	16	11	7	0	0	0	1	0	0	0	2	0
April	8.2	SW.	34	SW.	0	8	6	4	3	10	12	5	12	0	10	12	8	6	6	0	0	0	0	0	0	2	1	0
May	6.3	SW.	29	SW.	0	3	7	7	4	8	23	6	2	2	9	4	18	13	9	0	0	0	3	0	2	0	6	0
June	6.6	SE.	38	NW.	0	1	10	8	18	12	5	4	2	0	5	16	9	11	8	0	0	0	0	0	3	0	6	0
July	7.0	SW.	35	SE.	0	1	8	1	5	12	16	15	2	2	9	12	10	13	12	0	0	0	0	0	14	0	7	0
August	6.8	SW.	31	W.	0	5	10	2	5	3	17	14	6	0	10	12	9	12	8	0	0	0	0	0	8	0	7	0
September	6.5	SW.	28	NE.	0	8	13	4	5	10	14	4	2	0	14	12	4	3	3	0	0	0	0	0	3	0	1	0
October	6.6	SW.	25	W.	0	4	17	4	3	7	16	6	4	1	7	12	12	10	7	0	0	0	4	0	2	0	1	0
November	7.3	NE.	28	SW.	0	9	17	8	4	5	9	2	6	0	13	3	14	5	4	0	0	0	0	0	0	2	1	0
December	8.7	NE.	40	NW.	1	9	18	5	0	4	13	9	4	0	7	8	16	8	7	0	0	0	3	2	0	22	0	0
Year	7.3	SW.	40	NW.	1	76	149	55	56	88	151	79	70	6	120	107	138	111	86	2	1	0	12	4	32	49	33	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

RAPID CITY, S. DAK.

[ϕ=44° 04′ N.; λ=103° 12′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	26.595	26.930	26.200	29.2	44.9	36.4	47.8	22.0	34.9	64	−13	15	15	16	54	32	44	0.088	0.088	0.091	0.04	0.04	1.8	3.9	3.6	3.5
February	26.501	26.840	26.009	16.3	24.1	21.5	28.5	9.9	19.2	53	−20	9	14	12	71	65	65	.069	.086	.077	.55	.26	6.7	6.0	6.4	6.5
March	26.585	27.094	25.957	26.2	39.0	37.2	45.8	20.9	33.4	71	− 5	16	23	23	65	55	60	.095	.128	.130	.66	.38	5.9	6.2	6.6	6.3
April	26.575	27.050	26.060	38.3	49.1	49.2	53.7	34.4	44.0	76	18	28	30	31	68	53	54	.158	.173	.177	3.16	.91	6.2	5.6	6.3	6.2
May	26.554	26.830	26.220	48.0	64.0	63.1	67.6	43.6	55.6	87	33	36	36	38	64	37	42	.217	.220	.230	1.82	.93	3.4	3.7	4.9	4.0
June	26.615	26.876	26.293	59.2	76.2	77.2	80.4	54.2	67.3	99	35	48	51	52	67	44	44	.356	.409	.415	3.60	1.32	3.2	3.9	5.0	4.2
July	26.509	26.895	26.283	65.5	82.7	83.4	87.4	61.5	74.4	102	56	51	52	51	62	38	37	.386	.398	.390	2.33	1.20	4.9	3.2	2.9	4.1
August	26.636	26.900	26.390	62.2	80.8	81.6	85.5	58.1	71.8	97	48	44	45	44	56	32	28	.306	.311	.297	.35	.33	3.0	3.0	2.8	2.9
September	26.609	26.950	26.213	54.9	69.8	68.8	75.0	50.9	63.0	92	36	45	47	46	71	48	49	.306	.340	.332	2.27	1.87	4.5	3.5	4.5	4.3
October	26.605	26.900	26.056	30.8	43.5	40.4	47.8	27.2	37.5	73	2	24	27	28	75	56	63	.135	.150	.160	3.26	1.20	5.4	5.2	5.1	5.6
November	26.629	27.120	26.150	25.9	34.4	27.9	38.4	18.3	28.4	62	− 3	17	21	20	67	60	71	.103	.125	.118	.71	.24	4.9	5.2	4.7	5.9
December	26.658	27.110	26.170	19.8	28.4	22.2	33.7	11.7	22.7	58	−23	8	13	10	62	53	60	.077	.093	.082	.30	.23	3.4	3.6	2.6	4.0
Year	26.598	27.120	25.957	39.7	53.1	50.7	57.6	34.4	46.0	102	−23	28	31	31	65	48	51	.191	.210	.208	19.05	1.87	4.4	4.4	4.6	4.8

READING, PA.

[ϕ=40° 20′ N.; λ=75° 58′ W.]

January	29.734	30.380	29.290	30.1	36.4	35.3	41.7	26.6	34.2	59	7	23	26	25	75	65	68	0.132	0.147	0.146	3.24	1.04	6.2	5.4	4.4	5.4
February	29.659	30.146	28.984	30.5	36.3	35.7	40.8	28.4	34.6	57	19	23	25	26	72	63	66	.126	.138	.144	3.23	1.20	5.5	5.3	4.4	5.4
March	29.783	30.440	29.130	39.5	46.7	44.1	52.7	34.4	43.6	69	23	28	31	32	65	56	66	.163	.181	.195	4.72	1.91	5.5	5.2	3.2	5.3
April	29.678	30.030	29.350	46.6	55.3	52.3	60.7	41.3	51.0	83	23	38	39	39	73	57	63	.241	.254	.251	2.07	.84	5.6	6.4	5.6	5.8
May	29.607	30.043	29.262	58.7	67.3	64.3	72.2	52.7	62.4	92	44	50	51	51	75	59	66	.374	.381	.384	3.55	.96	5.4	5.7	6.6	6.0
June	29.782	30.134	29.441	67.4	76.7	76.2	81.6	62.6	72.1	97	51	59	59	60	77	58	66	.521	.529	.541	2.46	.76	5.5	4.8	5.5	5.3
July	29.666	30.010	29.344	72.0	80.5	76.8	84.5	66.0	75.2	100	54	62	60	62	73	55	64	.571	.545	.580	5.21	1.04	5.9	6.2	5.5	6.0
August	29.610	29.933	29.374	67.3	76.8	71.8	79.6	62.1	70.8	90	54	60	59	60	79	56	68	.532	.519	.533	7.51	5.45	5.0	5.2	5.5	5.4
September	29.700	30.081	29.240	61.8	72.7	67.9	77.1	57.3	67.2	92	43	55	54	57	79	56	69	.447	.440	.481	2.08	1.10	3.8	5.5	3.8	4.7
October	29.790	30.148	29.407	54.6	61.7	59.2	66.4	50.3	58.4	88	37	50	50	51	84	70	76	.379	.395	.399	2.96	.74	7.4	7.6	6.3	7.2
November	29.756	30.246	29.150	39.8	47.1	44.7	51.6	36.3	44.0	68	26	33	33	34	76	59	67	.198	.201	.215	4.57	.87	5.7	6.2	4.4	5.9
December	29.786	30.424	29.130	25.6	30.0	29.0	34.7	21.3	28.0	56	0	19	21	22	76	68	72	.111	.120	.125	2.49	.88	7.0	7.4	5.4	7.2
Year	29.713	30.440	28.984	49.5	57.3	54.5	62.0	44.9	53.5	100	0	42	42	43	75	60	68	.310	.321	.333	44.09	5.45	5.7	5.9	5.0	5.8

RED BLUFF, CALIF.

[ϕ=40° 10′ N.; λ=122° 15′ W.]

January	29.808	30.230	29.120	39.5	50.3	54.5	57.3	36.8	47.0	70	24	36	36	37	83	62	56	0.213	0.221	0.229	2.74	1.31	3.8	4.3	5.0	4.7
February	29.685	30.030	29.170	42.8	49.6	52.2	53.6	40.3	47.0	62	29	39	42	39	86	73	66	.241	.268	.248	5.16	1.59	6.5	6.2	6.6	7.4
March	29.700	30.030	29.030	44.5	55.3	59.5	60.9	42.8	51.8	80	33	39	41	39	83	61	51	.245	.267	.249	3.44	2.13	4.7	4.0	4.0	4.7
April	29.637	29.930	29.370	51.2	66.2	72.2	73.3	48.6	61.0	89	38	42	43	41	73	47	36	.275	.293	.276	.25	.12	3.0	2.8	2.8	2.5
May	29.501	29.720	29.240	58.7	75.3	82.9	83.7	55.6	69.6	105	48	43	45	40	59	36	26	.291	.319	.279	.03	.03	.9	1.9	1.8	1.3
June	29.543	29.750	29.295	61.5	81.7	88.5	89.2	60.4	74.8	101	52	43	41	34	53	26	18	.283	.268	.203	.00	.00	.3	.5	.7	.4
July	29.485	29.710	29.270	69.4	88.9	97.8	98.4	66.7	82.6	108	54	49	47	42	49	25	16	.350	.327	.281	.00	.00	.2	.3	.1	.1
August	29.531	29.760	29.315	66.8	86.6	95.4	95.9	63.3	79.6	108	53	47	48	42	52	28	17	.326	.349	.268	.00	.00	.3	.5	.6	.7
September	29.495	29.830	29.200	62.1	77.6	83.9	84.7	59.5	72.1	101	49	46	45	41	60	37	28	.313	.304	.267	.66	.47	1.7	2.2	2.5	2.6
October	29.636	29.910	29.351	51.9	67.4	74.3	74.8	48.4	61.6	91	38	37	35	32	60	34	24	.226	.208	.182	.36	.24	1.2	1.8	1.4	1.5
November	29.731	29.960	29.450	41.9	59.1	63.0	66.0	38.6	52.3	82	30	31	33	31	66	41	33	.182	.200	.181	.32	.28	1.6	2.5	3.0	3.0
December	29.787	30.110	29.180	38.3	45.9	48.9	50.9	35.7	43.3	65	24	35	36	38	88	72	68	.211	.224	.237	2.75	.90	5.2	5.4	5.5	6.1
Year	29.628	30.230	29.030	52.4	67.0	72.8	74.1	49.7	61.9	108	24	41	41	38	68	45	36	.263	.271	.242	15.71	2.13	2.4	2.7	2.8	2.9

RENO, NEV.

[ϕ=39° 32′ N.; λ=119° 49′ W.]

January	25.590	26.040	24.862	25.3	40.5	42.8	46.5	20.9	33.7	58	6	18	24	22	75	53	43	0.098	0.131	0.116	0.42	0.27	3.1	3.1	4.0	3.4
February	25.379	25.630	24.860	30.4	39.2	38.7	43.5	26.2	34.8	59	13	24	28	27	78	62	64	.131	.150	.148	3.05	1.47	6.1	7.7	7.2	6.9
March	25.428	25.720	24.830	32.5	48.0	47.5	52.7	29.2	41.0	67	17	24	26	25	72	43	43	.131	.140	.132	.84	.38	4.7	4.4	5.1	4.6
April	25.450	25.680	25.240	38.9	58.7	59.2	63.2	35.7	49.4	80	26	30	29	26	69	34	30	.166	.168	.147	.25	.10	4.8	5.2	5.5	5.1
May	25.381	25.620	25.190	46.4	71.4	71.9	76.8	44.8	60.8	93	33	35	30	30	65	24	23	.212	.174	.187	1.18	.93	1.8	3.2	4.2	2.7
June	25.449	25.760	25.244	47.2	75.5	76.0	80.1	45.6	62.8	92	33	32	29	31	55	19	19	.178	.163	.174	T.	T.	1.3	1.2	.8	1.0
July	25.464	25.620	25.275	55.6	86.0	85.5	91.3	55.2	73.2	99	45	40	36	37	54	17	19	.254	.218	.232	T.	T.	.8	1.0	1.0	.9
August	25.499	25.760	25.320	54.9	84.2	84.4	89.1	53.5	71.3	99	44	37	33	34	52	16	18	.227	.192	.203	.08	.08	1.6	.9	2.1	1.4
September	25.419	25.690	25.140	46.5	71.1	71.1	75.9	43.1	59.5	88	36	32	30	29	59	24	24	.185	.170	.159	.40	.39	2.0	2.4	2.7	2.3
October	25.492	25.730	25.160	33.3	55.3	55.5	59.7	30.4	45.0	74	18	26	32	32	75	41	42	.140	.187	.189	.24	.16	1.9	2.3	2.0	2.2
November	25.527	25.910	25.170	28.1	48.0	47.3	54.6	23.9	39.2	68	6	20	24	26	71	40	45	.108	.129	.143	.18	.14	2.2	3.1	3.4	2.9
December	25.543	25.950	25.010	24.6	35.9	35.4	41.2	19.7	29.4	65	−1	20	25	25	85	66	67	.113	.132	.137	3.00	1.34	5.2	4.1	4.2	4.6
Year	25.468	26.040	24.830	33.7	59.5	59.6	64.6	35.7	50.1	99	−1	28	29	29	68	37	36	.162	.163	.164	9.64	1.47	2.9	3.2	3.6	3.2

Annual meteorological summary for the year ending December 31, 1919—Continued.

RAPID CITY, S. DAK.

[H_b=3,234 ft.; h_t=50 ft.; h_r=43 ft.; h_a=58 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	8.7	W.	44	NW.	2	6	1	1	3	2	5	32	12	0	19	9	3	1	1	2	1	0	0	3	0	27	0	0
February	8.3	N.	36	N.	0	12	6	1	12	2	0	15	8	0	6	8	14	7	4	13	7	0	1	19	0	28	0	0
March	9.2	SE.	44	N.	1	15	6	8	14	4	2	10	3	0	6	15	10	7	6	8	7	0	4	3	0	27	1	0
April	12.1	N.	38	N.	0	14	3	3	5	6	2	11	15	1	8	10	12	9	6	6	4	0	0	2	0	10	1	0
May	9.9	SE.	38	SE.	0	7	5	3	14	4	5	13	11	0	17	10	4	8	5	2	0	1	0	0	0	0	5	0
June	9.1	SE.	44	S.	1	8	4	1	20	6	4	10	7	0	14	11	5	8	7	0	0	1	0	0	8	0	11	0
July	8.5	N.	40	N.	2	11	6	5	12	6	3	13	6	0	14	14	3	9	7	0	0	0	0	0	11	0	9	0
August	8.5	W.	36	NW.	0	10	1	3	9	8	3	20	8	0	20	10	1	2	1	0	0	0	0	0	8	0	6	0
September	7.7	N.	33	NW.	0	10	4	3	9	7	5	14	7	1	14	9	7	7	5	0	0	0	0	0	3	0	4	1
October	7.0	N.	38	SW.	0	16	1	2	7	0	4	19	13	0	10	8	13	12	8	10	8	0	1	5	0	19	1	0
November	8.5	W.	35	NW.	0	13	5	2	10	1	2	16	11	0	7	12	11	7	6	10	7	0	0	11	0	24	0	0
December	8.4	W.	37	N.	0	11	0	0	6	1	1	28	15	0	17	8	6	5	2	8	5	0	1	13	0	25	0	0
Year	8.8	W.	44	S.	6	133	42	32	121	47	36	201	116	2	152	124	89	82	58	59	39	2	7	56	30	160	38	1

READING, PA.

[H_b=325 ft.; h_t=81 ft.; h_r=73 ft.; h_a=98 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.6	NW.	36	NW.	0	12	1	4	2	2	9	8	23	1	10	11	10	8	5	6	3	0	0	5	0	19	0	0
February	9.1	NW.	32	NW.	0	10	0	13	0	0	1	12	20	0	13	5	10	12	11	5	4	0	0	1	0	21	0	0
March	10.9	N.	44	NW.	2	15	6	6	8	2	6	2	17	0	11	8	12	9	8	6	1	0	0	0	0	10	0	0
April	8.4	NW.	40	SE.	1	8	2	2	12	5	11	3	17	0	9	11	10	9	5	3	0	0	0	0	0	3	1	0
May	7.1	SE.	31	E.	0	12	1	4	19	3	6	9	8	0	11	5	15	14	11	0	0	1	0	0	1	0	4	0
June	5.6	SE.	28	NW.	0	6	1	3	19	10	10	5	6	0	12	8	10	10	10	0	0	0	0	0	3	0	8	0
July	5.7	SE.	26	NW.	0	9	5	2	19	8	9	2	8	0	10	6	15	13	11	0	0	0	0	0	8	0	8	0
August	5.6	SE.	31	SW.	0	6	3	3	15	7	11	8	9	0	12	6	13	12	8	0	0	0	0	0	0	0	5	0
September	5.2	N.	23	SW.	0	7	1	2	14	11	6	5	11	3	13	9	8	5	5	0	0	0	1	0	2	0	2	0
October	5.2	SE.	30	NW.	0	11	2	5	19	4	8	6	7	0	7	7	17	15	11	0	0	0	1	0	0	0	1	0
November	7.7	SE.	30	NW.	0	10	0	2	15	5	5	7	16	0	10	8	12	11	10	1	0	0	1	0	0	10	2	0
December	7.1	NW.	37	NW.	0	14	4	1	7	6	7	8	15	0	6	5	20	13	11	9	7	0	4	11	0	27	0	0
Year	7.0	NW.	44	NW.	3	120	26	47	149	63	89	75	157	4	124	89	152	131	106	30	15	1	7	17	14	90	31	0

RED BLUFF, CALIF.

[H_b=332 ft.; h_t=50 ft.; h_r=40 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.6	* NW.	27	N.	0	10	0	1	17	6	0	2	25	1	14	4	13	8	5	0	0	0	1	0	0	6	0	0
February	7.6	SE.	33	SE.	0	4	1	0	21	7	2	2	17	2	4	6	18	13	13	0	0	0	0	0	0	2	0	0
March	6.6	S.	32	SE.	0	8	0	0	13	21	4	2	13	1	16	5	10	9	8	0	0	1	0	0	0	0	1	0
April	6.3	SE.	32	SE.	0	6	1	2	18	12	4	6	10	1	21	8	1	4	3	0	0	0	0	0	0	0	0	0
May	5.8	SE.	29	NW.	0	11	0	1	19	11	0	2	17	1	28	2	1	1	0	0	0	0	0	0	0	6	0	0
June	6.1	SE.	21	NW.	0	8	0	5	20	11	3	2	11	0	29	1	0	0	0	0	0	0	0	0	0	16	0	0
July	4.8	SE.	20	NW.	0	4	3	3	29	14	1	1	4	3	31	0	0	0	0	0	0	0	0	0	0	28	0	0
August	4.6	SE.	17	S.	0	3	1	1	35	9	1	5	6	1	31	0	0	0	0	0	0	0	0	0	0	25	0	0
September	6.2	NW.	24	NW.	0	8	1	1	13	11	1	7	18	0	22	3	5	5	3	0	0	0	0	0	0	14	0	0
October	6.4	NW.	33	NW.	0	9	2	2	7	2	2	4	32	2	25	3	3	2	2	0	0	0	0	0	0	1	0	0
November	6.2	NW.	36	NW.	0	15	0	2	0	7	1	6	29	0	21	5	4	5	2	0	0	0	0	0	0	0	2	0
December	4.5	NW.	31	SE.	0	11	1	3	12	4	2	4	22	3	9	7	15	12	11	0	0	0	1	0	0	10	0	0
Year	6.0	NW.	36	NW.	0	97	10	21	204	115	21	43	204	15	251	44	70	64	52	0	0	1	2	0	90	20	1	0

RENO, NEV.

[H_b=4,532 ft.; h_t=74 ft.; h_r=67 ft.; h_a=81 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.9	* W.	39	W.	0	2	3	3	5	6	9	30	2	2	19	4	8	3	2	3	2	0	0	1	0	28	0	0
February	7.1	W.	37	W.	0	2	2	1	7	5	5	25	9	0	4	12	12	8	7	12	8	0	0	0	0	22	0	0
March	7.7	W.	45	SW.	2	3	3	5	6	5	7	20	8	0	12	12	7	6	6	9	5	0	0	0	0	24	0	0
April	8.1	W.	48	W.	2	3	5	3	4	2	4	35	4	0	10	9	11	6	2	3	2	0	0	0	0	9	1	0
May	7.3	W.	33	W.	0	5	6	1	0	5	9	35	1	0	19	11	1	4	3	0	0	2	0	0	1	0	6	0
June	8.2	W.	33	W.	0	0	4	1	2	2	4	47	0	0	27	3	0	0	0	0	0	0	0	0	4	0	0	0
July	7.3	W.	41	SE.	1	0	1	1	1	3	6	47	1	2	39	2	0	0	0	0	0	0	0	0	22	0	5	0
August	7.0	W.	32	W.	0	4	2	1	2	2	8	39	4	0	26	5	0	2	1	0	0	0	0	0	17	0	3	0
September	7.0	W.	35	W.	0	3	4	5	2	2	6	34	4	0	22	4	4	2	1	0	0	0	0	0	0	0	0	0
October	5.9	W.	32	W.	0	6	8	13	2	3	4	25	1	0	21	9	1	2	2	4	1	0	0	0	0	18	0	0
November	5.6	W.	37	W.	0	7	2	5	3	4	1	30	6	2	20	7	3	4	1	2	2	0	0	1	0	28	0	0
December	4.9	W.	44	SW.	1	2	3	3	2	6	8	29	4	5	15	6	10	8	7	8	7	0	2	8	0	29	0	0
Year	6.8	W.	48	W.	6	42	43	42	36	45	71	396	44	11	224	84	57	45	32	41	27	2	2	10	44	158	15	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

RICHMOND, VA.

[ϕ=37° 32′ N.; λ=77° 27′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In	In.	In.	In.				
January	29.958	30.600	29.430	33.7	45.9	42.3	50.7	30.5	40.6	66	15	28	29	30	79	54	62	0.170	0.178	0.179	3.04	1.09	4.3	6.0	3.8	5.4
February	29.879	30.370	29.150	33.7	43.8	42.0	48.1	31.5	39.8	68	18	27	27	27	74	48	56	.150	.140	.157	2.22	.86	5.2	5.2	4.5	5.1
March	29.968	30.528	29.230	43.7	54.9	50.7	59.8	39.2	49.5	75	29	34	34	36	71	48	61	.208	.209	.225	3.51	1.07	5.9	5.8	4.2	5.6
April	29.894	30.230	29.520	51.4	63.9	58.0	68.5	44.6	56.6	83	24	44	48	42	76	58	58	.303	.356	.290	3.25	1.41	5.2	5.9	5.3	5.7
May	29.797	30.130	29.410	62.7	72.4	66.8	76.6	55.6	66.1	90	45	57	58	58	82	65	76	.468	.492	.495	5.19	1.65	6.1	6.8	6.5	6.6
June	29.965	30.310	29.580	70.3	79.9	73.6	82.6	63.8	73.2	89	50	65	64	65	83	59	75	.618	.593	.618	3.90	1.39	6.6	6.8	8.0	6.9
July	29.878	30.198	29.600	74.1	83.9	77.6	86.7	68.5	77.6	96	54	68	68	69	82	61	76	.696	.689	.719	9.92	3.39	5.5	6.8	6.1	6.3
August	29.823	30.149	29.590	71.0	81.7	75.3	84.8	65.2	75.0	92	53	64	66	67	80	58	76	.617	.651	.665	2.62	.98	6.0	6.0	5.2	6.1
September	29.913	30.250	29.500	65.0	78.9	71.0	82.7	59.9	71.3	94	49	59	59	60	80	51	68	.508	.516	.526	.54	.41	4.1	4.9	4.0	4.4
October	29.986	30.340	29.690	61.9	72.6	67.0	77.2	57.2	67.2	94	41	57	58	58	84	63	74	.484	.496	.505	1.71	.52	5.4	6.4	4.9	6.2
November	29.981	30.501	29.360	42.6	54.9	49.4	59.5	38.0	48.8	82	27	36	37	38	78	53	65	.227	.237	.248	1.31	.45	4.2	4.4	3.7	4.6
December	30.010	30.680	29.430	31.9	39.3	36.7	45.8	26.0	35.9	71	14	26	28	27	78	64	68	.159	.165	.164	2.30	.83	6.4	5.7	4.7	6.1
Year	29.921	30.680	29.150	53.5	64.3	59.2	68.6	48.3	58.5	96	14	47	48	48	79	57	68	.384	.394	.399	40.11	3.39	5.4	5.9	5.1	5.8

ROCHESTER, N. Y.

[ϕ=43° 08′ N.; λ=77° 42′ W.]

January	29.432	30.128	28.910	28.2	32.4	31.0	38.3	23.7	31.0	54	3	22	22	22	74	65	69	0.122	0.128	0.128	0.95	0.33	7.3	6.7	7.1	6.9
February	29.401	29.962	28.700	26.4	31.0	30.1	35.1	23.4	29.2	55	12	19	20	22	72	63	69	.106	.115	.121	1.43	.42	8.4	7.8	6.5	7.1
March	29.595	30.140	28.850	31.8	36.9	35.4	44.1	27.1	35.6	74	13	22	22	24	66	58	63	.128	.134	.138	2.66	.83	6.3	6.4	6.0	6.3
April	29.443	29.830	29.080	40.8	45.4	44.5	51.4	35.6	43.5	76	15	32	32	34	72	62	68	.192	.188	.200	2.99	.62	7.2	7.3	7.1	7.6
May	29.387	29.867	29.045	53.6	60.6	57.7	65.0	47.9	56.4	86	40	44	47	46	73	59	68	.301	.308	.326	5.20	1.56	5.7	7.4	5.4	6.3
June	29.519	29.881	29.240	70.1	78.3	74.0	81.9	63.6	72.8	93	50	60	60	61	71	57	66	.530	.533	.552	2.96	1.56	3.3	4.2	3.3	3.4
July	29.443	29.760	28.970	69.5	77.9	74.4	82.2	62.2	72.2	96	50	58	58	57	68	52	58	.496	.492	.485	3.40	1.77	3.8	4.7	3.7	4.1
August	29.382	29.731	29.090	61.0	72.0	67.8	76.3	59.4	67.8	91	52	56	56	56	76	59	69	.455	.468	.469	3.60	1.92	5.4	6.0	4.0	5.7
September	29.455	29.756	29.071	59.8	67.5	63.8	72.2	54.6	63.4	89	42	52	52	52	75	61	67	.397	.407	.409	1.26	.70	6.9	6.1	4.5	5.7
October	29.520	29.880	29.093	52.2	58.4	54.6	62.4	46.9	54.6	84	34	46	46	47	79	65	75	.332	.339	.344	5.46	2.14	7.4	6.3	5.5	6.7
November	29.495	29.950	28.680	36.8	41.0	38.6	45.1	32.4	38.8	67	20	29	30	29	73	65	70	.165	.173	.166	1.49	.44	8.9	8.4	7.0	8.3
December	29.508	30.140	28.810	21.6	24.7	23.9	30.8	16.1	23.4	57	−7	15	15	15	73	65	67	.094	.095	.095	1.68	.31	7.8	8.0	6.9	7.6
Year	29.468	30.140	28.680	46.2	52.2	49.6	57.1	41.1	49.1	96	−7	38	38	39	73	61	67	.276	.282	.285	33.08	2.14	6.5	6.6	5.6	6.3

ROSEBURG, OREG.

[ϕ=43° 13′ N.; λ=123° 20′ W.]

January	29.575	30.120	29.000	37.5	42.7	44.9	47.7	34.9	41.3	68	18	35	37	38	90	81	78	0.206	0.222	0.235	7.33	2.13	5.0	5.9	5.8	6.6
February	29.444	29.900	28.930	39.5	45.8	46.3	49.0	37.5	43.2	66	29	37	38	38	90	74	75	.218	.225	.233	8.05	1.95	7.6	7.9	8.5	7.6
March	29.527	29.900	28.810	39.8	50.6	54.2	56.4	38.3	47.4	71	30	37	38	37	90	64	56	.221	.235	.225	4.50	.89	7.8	6.1	5.4	6.1
April	29.538	29.910	29.000	42.8	57.1	62.9	61.7	41.2	53.0	79	34	40	41	39	89	56	44	.246	.260	.245	2.53	.66	5.6	4.6	3.8	4.6
May	29.489	29.849	29.138	44.8	63.3	68.3	70.4	43.5	57.0	87	34	42	44	41	88	52	41	.268	.293	.272	1.23	.51	5.5	4.4	3.5	4.3
June	29.533	29.751	29.290	47.2	68.0	73.0	74.6	46.6	60.6	87	39	44	49	45	88	51	39	.286	.348	.299	.68	.30	3.4	3.1	2.5	2.7
July	29.468	29.730	29.244	54.6	76.2	83.4	85.4	53.2	69.3	103	42	48	49	46	78	41	29	.333	.357	.321	.06	.05	3.4	2.0	.8	2.0
August	29.465	29.710	29.220	54.8	76.0	83.9	85.5	53.8	69.6	100	47	49	49	48	82	42	30	.351	.366	.338	.02	.02	3.6	1.8	.8	2.5
September	29.424	29.790	29.154	50.4	65.6	70.6	72.8	49.2	61.0	88	40	48	51	50	90	62	51	.332	.379	.363	3.36	1.03	5.2	3.9	3.3	4.0
October	29.610	29.910	29.240	41.6	53.7	57.3	59.3	39.5	49.4	77	32	41	44	44	96	69	62	.256	.288	.290	2.28	1.08	3.5	4.8	3.4	4.9
November	29.617	29.940	29.127	41.1	48.3	48.5	52.3	37.8	44.8	62	17	39	40	41	92	74	76	.246	.276	.263	3.90	1.05	6.4	5.3	5.3	5.7
December	29.564	30.040	28.900	37.2	41.6	42.6	45.6	33.7	39.6	64	11	33	36	37	87	81	81	.200	.222	.227	4.51	1.98	7.3	6.3	7.2	6.6
Year	29.521	30.120	28.810	44.3	57.4	61.3	63.6	42.4	53.0	103	11	41	43	42	88	62	55	.264	.288	.276	38.45	2.13	5.4	4.7	4.2	4.8

ROSWELL, N. MEX.

[ϕ=33° 24′ N.; λ=104° 27′ W.]

January	26.468	26.830	26.080	24.4	41.2	40.1	47.5	21.5	34.5	66	−2	19	26	22	80	55	47	0.109	0.137	0.119	0.02	0.02	1.6	2.0	1.7	2.1
February	26.255	26.610	25.830	33.8	50.7	52.8	58.3	29.6	44.0	79	20	19	20	14	54	31	22	.102	.114	.082	.15	.12	2.0	3.4	2.2	2.5
March	26.336	26.720	25.980	38.5	56.0	58.9	62.9	35.7	49.3	80	22	26	29	27	60	41	36	.147	.170	.185	5.19	3.34	3.9	4.2	3.7	3.6
April	26.284	26.560	25.820	47.5	66.5	69.1	73.7	44.9	59.3	90	29	39	42	40	72	47	41	.249	.293	.264	3.70	1.79	3.8	3.1	4.1	3.5
May	26.251	26.460	25.974	56.0	74.0	75.5	79.0	53.6	66.3	90	48	47	46	46	75	41	39	.334	.325	.325	1.00	.42	4.1	2.8	4.3	3.7
June	26.371	26.640	26.180	59.9	77.5	79.1	83.2	57.4	70.3	92	43	53	53	52	81	46	41	.430	.430	.402	4.02	1.72	2.7	2.7	3.2	3.4
July	26.376	26.560	26.167	66.3	83.1	84.2	88.5	63.9	76.2	95	59	60	60	58	80	48	44	.516	.530	.486	.15	.06	3.7	3.1	4.0	3.4
August	26.387	26.560	26.200	65.6	86.3	88.6	92.0	63.8	77.9	98	58	57	58	54	74	38	32	.472	.477	.425	.72	.32	2.3	1.3	3.1	2.7
September	26.366	26.670	26.123	60.0	77.1	76.8	81.6	58.4	70.0	94	48	53	57	56	81	54	54	.421	.480	.472	6.33	3.52	5.1	3.0	4.9	4.2
October	26.326	26.600	26.120	50.4	66.0	65.3	71.0	48.0	59.5	88	39	45	46	45	84	51	53	.310	.318	.315	.62	.47	6.6	4.9	4.6	5.5
November	26.380	26.760	25.910	36.0	52.9	53.3	60.0	32.7	46.4	79	10	29	32	32	76	49	48	.174	.192	.194	.55	.21	5.1	2.8	2.8	4.3
December	26.456	26.790	25.910	29.6	47.2	48.0	54.7	25.4	40.0	71	12	23	26	26	77	48	44	.126	.142	.141	.24	.21	3.2	3.2	2.8	3.2
Year	26.355	26.830	25.820	47.3	64.9	66.0	71.0	44.6	57.8	98	−2	39	41	39	74	46	42	.282	.301	.282	22.69	3.52	3.7	3.0	3.4	3.5

Annual meteorological summary for the year ending December 31, 1919—Continued.

RICHMOND, VA.

[H_b=144 ft.; h_t=11 ft.; h_r=3 ft.; h_a=52 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.	*	*Mi.*																									
January	7.7	SW.	30	NW.	0	4	9	1	9	11	15	2	11	0	11	9	11	9	8	1	0	0	3	3	0	19	0	0
February	8.1	SE.	33	S.	0	8	11	1	12	7	7	0	10	0	13	3	12	9	6	0	0	0	0	0	0	16	2	0
March	10.2	NW.	45	NW.	1	10	13	3	3	8	6	4	15	0	10	9	12	13	11	0	0	1	1	0	0	2	1	0
April	7.3	SE.	24	S.	0	6	8	4	11	7	10	1	10	3	10	7	13	7	6	0	0	0	2	0	0	4	3	0
May	5.3	SW.	26	W.	0	4	10	8	9	10	15	0	3	3	7	8	16	13	11	0	0	1	2	0	2	0	11	0
June	5.4	SE.	24	W.	0	2	9	13	17	7	7	1	4	0	5	9	16	10	9	0	0	1	0	0	0	0	8	0
July	4.1	S.	26	SW.	0	2	5	3	14	18	9	1	5	5	7	10	14	12	12	0	0	0	1	0	10	0	9	0
August	6.2	SW.	30	NW.	0	4	9	4	5	12	16	1	9	2	8	12	11	11	7	0	0	0	0	0	4	0	8	0
September	6.9	S.	37	NW.	0	6	9	3	10	11	10	1	9	1	12	9	9	3	2	0	0	0	1	0	5	0	3	0
October	6.9	NE.	33	SW.	0	6	14	3	6	12	13	3	5	0	8	8	15	9	6	0	0	0	5	0	4	0	0	0
November	7.2	NE.	32	SW.	0	6	15	1	7	11	6	1	13	0	15	4	11	9	8	0	0	0	3	0	0	8	0	0
December	6.4	NE.	34	SW.	0	5	15	1	4	14	7	3	11	2	9	4	18	10	6	5	2	0	3	4	0	27	0	0
Year	6.8	S.	45	NW.	1	63	127	45	107	128	121	18	105	16	115	92	158	115	92	6	2	3	21	7	25	76	45	0

ROCHESTER, N. Y.

[H_b=523 ft.; h_t=86 ft.; h_r=77 ft.; h_a=102 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	10.8	SW.	39	W.	0	1	0	0	5	8	24	17	7	0	7	4	20	8	4	14	6	0	1	6	0	24	0	0
February	9.8	W.	34	W.	0	2	3	2	7	7	10	18	7	0	5	6	17	14	10	16	8	0	0	13	0	25	0	0
March	10.7	NW.	39	W.	0	4	7	7	1	7	13	5	18	0	7	9	15	13	7	11	5	0	0	3	0	24	0	1
April	9.3	W.	29	NW.	0	2	5	3	5	6	13	18	7	1	6	4	20	17	13	4	3	0	1	2	0	5	3	0
May	8.2	SW.	40	SW.	1	3	0	8	5	8	11	13	5	0	7	10	14	16	16	0	0	0	0	0	0	0	5	0
June	6.2	SW.	19	W.	0	7	9	5	4	10	16	4	5	0	19	6	5	8	6	0	0	0	0	0	7	0	7	0
July	7.5	SW.	30	W.	0	2	8	4	5	4	22	10	6	1	18	5	8	9	7	0	0	1	0	0	4	0	4	0
August	7.5	SW.	31	W.	0	5	1	0	13	3	21	13	6	0	8	13	10	12	8	0	0	0	0	0	1	0	8	0
September	7.7	SW.	30	SW.	0	4	5	4	2	7	23	7	8	0	9	10	11	13	8	0	0	0	0	0	0	0	2	0
October	7.8	SW.	39	W.	0	2	5	5	9	10	21	7	3	0	8	5	18	16	14	0	0	0	0	0	0	0	3	0
November	10.2	W.	42	W.	1	1	5	1	7	7	15	13	11	0	1	9	20	15	8	11	5	0	0	3	0	14	0	0
December	9.7	SW.	35	W.	0	2	0	1	9	9	19	17	5	0	4	6	21	15	9	17	13	0	2	17	0	29	0	0
Year	8.8	SW.	42	W.	2	35	57	40	72	86	208	142	88	2	99	87	179	156	110	73	40	1	4	44	12	121	32	1

ROSEBURG, OREG.

[H_b=510 ft.; h_t=9 ft.; h_r=4 ft.; h_a=57 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	3.2	S.	33	SW.	0	10	7	6	14	13	4	3	4	1	4	14	13	16	14	0	0	0	12	2	0	11	0	0
February	3.6	S.	21	SW.	0	4	1	5	9	17	4	5	11	0	0	12	16	24	20	0	0	1	1	0	0	4	0	0
March	3.5	S.	20	W.	0	10	6	2	9	10	10	6	8	1	3	20	8	17	14	0	0	0	3	0	0	2	1	0
April	3.6	N.	30	W.	0	22	1	6	2	6	5	6	10	2	9	19	2	12	11	0	0	0	0	0	0	0	0	0
May	3.5	NW.	18	SW.	0	22	5	3	0	6	4	4	18	0	9	18	4	9	7	0	0	0	0	0	0	0	0	0
June	3.8	N.	17	N.	0	23	4	3	0	4	4	0	13	9	17	13	0	5	5	0	0	1	0	0	0	0	0	0
July	4.2	N.	20	N.	0	31	3	0	0	1	1	5	14	7	20	10	1	2	1	0	0	0	0	0	10	0	1	0
August	3.4	N.	17	N.	0	23	2	2	0	2	0	2	22	9	20	9	2	1	0	0	0	0	0	0	12	0	1	0
September	2.6	N.	21	SW.	0	17	5	5	4	0	4	5	10	10	16	7	7	9	8	0	0	0	3	0	0	0	0	0
October	2.2	NW.	17	SW.	0	14	3	5	0	15	4	7	12	2	11	12	8	10	8	0	0	0	15	0	0	0	0	0
November	2.6	S.	24	SW.	0	9	8	2	3	12	5	2	17	2	6	15	9	12	11	0	0	0	6	0	0	5	0	0
December	2.6	NW.	18	W.	0	6	8	1	12	12	4	4	14	1	1	17	13	16	13	2	2	0	8	4	0	14	0	0
Year	3.2	N.	33	SW.	0	191	53	40	53	98	49	49	153	44	116	166	83	133	112	2	2	2	48	6	22	36	3	0

ROSWELL, N. MEX.

[H_b=3,566 ft.; h_t=75 ft.; h_r=69 ft.; h_a=85 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.6	N.	26	NW.	0	21	6	5	3	7	1	5	13	1	24	5	2	1	0	2	1	0	0	3	0	28	0	0
February	11.1	S.	48	NW.	4	11	2	3	6	12	4	6	11	1	18	9	1	2	1	0	0	0	0	0	0	20	1	0
March	10.1	S.	44	W.	3	12	3	2	8	13	6	5	11	2	18	9	4	7	5	1	0	2	0	0	0	7	7	0
April	8.9	S.	46	NW.	3	7	5	5	6	9	4	5	17	2	19	7	4	8	8	2	2	4	0	0	1	2	7	0
May	8.0	S.	44	W.	1	6	7	6	10	9	8	8	5	3	15	11	5	6	5	0	0	1	0	0	1	0	9	0
June	6.5	S.	36	W.	0	2	6	9	12	16	3	6	5	1	13	16	1	11	9	0	0	1	0	0	2	0	11	0
July	7.0	S.	37	E.	0	2	4	1	12	23	7	4	3	6	15	15	1	5	2	0	0	0	0	0	6	0	8	0
August	6.0	S.	35	W.	0	7	2	4	17	15	1	5	6	5	19	11	1	4	4	0	0	0	0	0	21	0	6	0
September	6.5	S.	33	NW.	0	3	5	6	5	23	2	5	5	6	15	9	6	7	6	0	0	0	1	0	5	0	10	0
October	6.5	S.	29	SW.	0	10	5	8	6	15	10	4	3	1	11	7	13	4	4	0	0	0	1	0	0	0	1	0
November	6.6	S.	33	W.	0	5	7	3	6	21	3	4	9	2	12	10	8	6	4	2	2	0	0	2	0	12	0	0
December	6.0	S.	34	W.	0	13	6	3	4	16	5	3	11	1	21	1	9	3	1	0	0	0	2	0	0	27	0	0
Year	7.4	S.	48	NW.	11	99	58	55	95	179	54	60	99	31	200	110	55	64	49	7	5	8	4	5	36	96	60	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

ROYAL CENTER, IND.

[ϕ=40° 53′ N.; λ=86° 29′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.282	29.582	28.820	25.8	34.4	30.7	38.1	21.4	29.8	57	− 7	22	30	25	86	72	79	0.127	0.155	0.145	0.41	0.24	6.8	6.7	5.0	6.6
February	29.171	29.780	28.330	27.2	33.7	31.2	37.4	22.9	30.2	55	8	24	27	26	85	74	81	.131	.150	.148	1.62	.44	7.0	8.3	6.6	8.0
March	29.370	29.820	28.73	34.2	44.8	40.6	48.7	29.4	39.0	70	11	30	34	33	84	67	75	.176	.207	.197	3.84	1.46	6.4	6.7	4.6	6.0
April	29.206	29.614	28.730	44.4	53.8	50.8	57.4	39.0	48.2	79	24	40	42	41	84	66	70	.256	.279	.267	2.83	.94	7.7	7.8	5.7	7.2
May	29.137	29.450	28.745	53.0	63.5	60.2	66.2	46.9	56.6	90	38	48	50	51	83	63	74	.339	.3 2	.390	5.07	1.92	6.8	6.6	6.5	6.5
June	29.272	29.560	28.931	9.5	80.2	75.0	82.9	62.7	72.8	90	51	64	64	66	82	60	74	.601	.604	.642	4.31	1.08	4.5	5.4	6.2	5.5
July	29.222	29.475	29.000	70.9	85.1	80.6	88.3	62.5	75.4	94	48	61	61	62	72	46	55	.556	.546	.576	2.82	1.43	3.6	3.5	4.0	3.6
August	29.186	29.461	28.980	64.9	78.6	72.8	81.0	58.1	69.6	96	48	59	57	58	83	49	62	.517	.484	.503	2.57	1.40	3.5	5.0	4.4	4.5
September	29.251	29.488	28.720	60.3	75.5	68.3	78.5	54.3	66.4	92	37	54	53	54	80	48	62	.427	.420	.430	2.94	2.86	5.2	5.4	3.2	4.8
October	29.262	29.518	28.938	51.5	63.5	57.9	66.6	46.5	56.6	86	28	48	52	51	89	68	79	.366	.414	.397	5.89	1.24	5.7	6.3	6.0	6.5
November	29.306	29.700	28.290	34.4	42.8	38.3	46.1	30.2	38.2	62	17	30	32	32	82	67	78	.172	.193	.189	2.78	1.68	6.3	6.8	4.4	6.3
December	29.340	30.040	28.701	18.5	24.9	23.5	28.3	13.7	21.0	50	− 7	14	17	17	82	70	75	.086	.099	.100	.60	.48	7.2	7.4	7.1	7.2
Year	29.251	30.040	28.290	46.2	56.7	52.5	60.0	40.6	50.3	96	− 7	41	43	43	83	62	72	.313	.326	.332	35.68	2.86	5.9	6.3	5.3	6.1

SACRAMENTO, CALIF.

[ϕ=38° 35′ N.; λ=121° 30′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.119	30.500	29.400	40.0	48.1	54.0	55.2	37.1	46.2	60	24	38	42	44	90	80	69	0.228	0.269	0.291	1.77	1.34	2.1	2.8	3.5	4.1
February	30.007	30.320	29.420	44.6	50.2	53.6	54.9	42.0	48.4	61	33	42	44	44	89	78	72	.227	.310	.294	6.29	2.08	5.7	6.0	5.1	6.4
March	30.011	30.330	29.450	44.8	53.0	58.1	59.3	43.0	51.2	76	34	41	43	44	87	71	61	.258	.284	.289	1.50	.89	3.7	4.5	3.8	4.5
April	29.951	30.200	29.725	48.4	63.8	69.1	70.6	47.1	58.8	86	40	42	48	44	80	59	43	.271	.346	.300	.11	.05	2.3	3.6	3.0	3.2
May	29.798	29.951	29.590	52.2	70.3	77.7	79.4	51.1	65.2	100	43	46	54	51	79	58	43	.309	.422	.389	.01	.01	.4	.6	1.3	1.1
June	29.836	30.010	29.610	54.6	76.1	83.7	85.1	53.8	69.4	101	47	48	50	47	78	42	30	.332	.366	.333	.00	.00	.0	.3	.1	.2
July	29.789	30.030	29.609	57.0	79.8	88.3	89.6	56.1	72.8	106	50	50	56	53	80	45	32	.319	.452	.404	T.	T.	.2	.4	.2	.3
August	29.834	30.050	29.637	57.0	79.2	88.0	89.3	56.2	72.8	107	50	49	53	50	77	42	29	.353	.407	.366	T.	T.	1.1	.8	1.0	.8
September	29.781	30.090	29.557	58.2	74.4	82.1	83.4	56.0	69.7	100	47	50	50	49	75	46	37	.356	.360	.355	.53	.40	1.8	2.2	1.9	2.1
October	29.909	30.210	29.600	50.0	67.4	72.6	73.8	47.4	60.6	86	39	40	40	42	70	39	33	.257	.258	.282	.01	*.04	1.2	1.5	1.8	1.3
November	29.993	30.250	29.600	43.4	57.4	62.4	64.6	40.1	52.4	74	30	31	34	33	64	43	36	.181	.204	.199	.36	.18	.4	1.8	2.6	2.1
December	30.081	30.430	29.590	40.4	46.8	48.8	50.5	37.7	44.1	64	27	39	42	43	94	83	81	.240	.269	.278	2.22	1.18	3.7	4.9	5.5	6.6
Year	29.926	30.500	29.400	49.2	63.9	69.9	71.3	47.3	59.3	107	24	43	46	45	80	57	47	.285	.329	.315	12.80	2.08	1.9	2.4	2.5	2.7

SAGINAW, MICH.

[ϕ=43° 26′ N.; λ=83° 57′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.296	29.870	28.790	25.3	30.3	28.3	34.1	22.3	28.2	46	− 1	22	22	23	87	72	80	0.123	0.126	0.130	0.29	0.16	5.6	6.7	6.1	6.4
February	29.248	29.890	28.450	23.2	30.1	27.6	33.6	19.7	26.6	47	7	20	21	21	86	68	74	.111	.119	.115	1.92	.52	6.3	7.0	6.2	6.5
March	29.477	29.980	28.780	29.2	37.0	35.4	41.6	25.4	33.5	65	11	25	26	27	83	63	70	.139	.147	.154	3.05	.91	6.2	5.6	5.7	5.7
April	29.297	29.711	28.680	40.0	49.2	46.1	53.2	35.1	44.2	72	16	34	36	36	80	61	70	.207	.220	.219	2.31	.80	6.2	7.3	6.8	6.8
May	29.246	29.660	28.650	51.4	60.5	58.1	64.5	45.1	54.8	95	37	44	44	45	77	59	64	.303	.308	.316	4.11	1.57	5.1	5.3	4.3	4.8
June	29.393	29.659	29.040	69.7	80.5	75.6	84.4	62.7	73.6	94	47	61	61	62	75	54	66	.550	.563	.582	2.83	1.35	3.6	3.9	3.8	3.6
July	29.311	29.599	29.030	68.9	81.2	74.8	85.5	59.8	72.6	96	45	58	58	57	70	47	57	.498	.489	.481	2.18	.91	3.3	4.0	3.5	3.5
August	29.247	29.594	28.980	62.0	73.8	70.6	78.0	56.7	67.4	88	48	56	54	56	82	52	61	.466	.436	.462	1.63	.52	4.0	5.0	3.8	4.6
September	29.317	29.610	28.710	57.3	70.9	65.4	74.3	53.7	64.0	91	36	51	50	51	81	51	63	.390	.389	.395	2.52	.95	4.1	5.8	5.7	5.0
October	29.356	29.690	28.880	47.8	57.2	53.9	61.9	43.7	52.8	84	31	44	45	46	88	66	76	.316	.335	.335	3.53	1.03	6.4	6.2	6.5	6.4
November	29.355	29.838	28.190	32.7	38.6	35.5	41.4	28.9	35.2	57	18	28	29	28	84	69	73	.161	.168	.157	1.46	.89	7.9	8.2	7.0	7.8
December	29.386	30.010	28.680	16.8	22.0	21.4	25.8	13.0	19.4	42	− 3	13	14	15	84	70	80	.083	.088	.097	.49	.30	7.3	7.8	7.0	7.0
Year	29.327	30.010	28.190	43.7	52.6	49.4	56.5	38.8	47.7	96	− 3	38	38	39	81	61	70	.279	.282	.287	26.32	1.57	5.5	6.1	5.5	5.7

ST. JOSEPH, MO.

[ϕ=39° 49′ N.; λ=94° 51′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.052	29.500	28.748	25.2	36.0	35.3	40.7	22.8	31.8	61	−16	21	25	26	85	66	69	0.125	0.147	0.152	0.03	0.03	2.4	2.9	2.4	3.0
February	28.897	29.320	27.857	26.9	36.6	34.7	41.5	23.7	32.6	61	2	23	25	26	83	64	68	.128	.145	.145	2.26	.86	4.9	4.4	5.6	5.0
March	29.074	29.570	28.520	36.3	47.6	48.3	53.1	33.7	43.4	70	8	30	34	35	77	61	60	.179	.209	.214	6.00	5.37	4.5	4.9	4.1	4.6
April	28.908	29.450	28.340	46.5	56.8	56.5	62.0	43.3	53.2	83	33	39	41	42	76	59	60	.255	.279	.279	3.55	1.59	6.1	6.3	5.9	5.7
May	28.882	29.150	28.590	55.9	68.7	66.9	72.3	53.3	62.8	86	43	49	50	51	79	52	57	.373	.373	.389	4.69	2.19	5.3	4.9	5.8	4.9
June	28.956	29.190	28.704	68.2	80.6	77.5	84.7	65.4	75.0	96	51	63	64	65	85	59	66	.563	.600	.619	4.97	1.55	3.7	4.7	4.7	4.2
July	28.951	29.150	28.702	73.2	87.9	86.1	91.9	70.3	81.1	100	61	65	64	65	76	47	52	.623	.613	.634	2.68	1.67	1.7	2.4	1.3	1.8
August	28.951	29.240	28.710	67.7	81.1	79.3	87.3	65.4	75.4	100	52	61	61	62	81	53	58	.551	.552	.575	2.68	.83	3.6	4.6	2.6	4.3
September	28.960	29.198	28.385	62.6	78.6	74.6	81.7	60.8	71.2	94	49	56	56	58	81	49	59	.473	.478	.502	4.40	1.78	3.1	2.8	2.8	3.0
October	28.966	29.294	28.470	48.3	60.2	56.3	64.2	44.5	54.4	89	24	44	45	45	84	59	67	.311	.326	.320	2.46	.72	4.8	5.4	5.0	5.5
November	29.038	29.470	28.388	33.3	43.6	42.3	48.8	30.4	39.6	65	9	27	28	30	78	55	64	.156	.161	.178	2.44	1.15	5.1	4.7	4.2	4.9
December	29.124	29.715	28.560	19.4	25.8	24.8	29.8	15.9	22.8	59	−11	16	18	19	85	70	78	.099	.106	.112	.22	.12	5.6	6.3	5.2	6.2
Year	28.980	29.715	27.857	47.0	58.6	56.9	63.0	44.1	53.6	100	−16	41	42	44	81	58	63	.321	.332	.343	36.38	5.37	4.2	4.5	4.1	4.4

* Sept. 30–Oct. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

ROYAL CENTER, IND.

[H_b=736 ft.; h_t=11 ft.; h_r=3 ft.; h_a=55 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	11.2	W.	32	W.	0	2	0	3	8	12	14	19	4	0	6	10	15	3	2	7	1	0	0	8	0	28	0	1
February	12.1	W.	46	W.	1	5	1	4	12	7	6	11	10	0	4	5	19	11	8	11	5	1	1	7	0	25	1	0
March	12.1	S.	37	NW.	0	10	6	9	9	9	4	6	7	2	8	12	11	12	11	4	3	1	0	2	0	22	3	3
April	12.8	E.	42	E.	1	8	2	9	8	13	7	8	5	0	3	11	16	14	12	1	0	2	1	0	0	7	7	0
May	10.1	E.	36	NW.	0	12	8	12	10	2	6	9	3	0	4	12	15	11	9	0	0	1	0	0	0	0	3	0
June	7.6	SE.	50	SE.	2	4	5	9	19	12	4	2	4	1	6	13	11	13	12	0	0	0	0	0	2	0	16	0
July	7.8	SW.	42	NW.	1	10	4	8	8	11	13	4	3	1	15	13	3	8	5	0	0	2	0	0	14	0	7	0
August	8.0	SW.	43	NW.	1	13	7	0	4	7	14	12	5	0	14	8	9	10	6	0	0	0	1	0	2	0	6	0
September	8.4	N.	30	SW.	0	11	9	2	8	10	11	2	6	1	10	11	9	6	6	0	0	0	1	0	4	0	3	0
October	8.7	SW.	34	SW.	0	5	4	6	14	12	10	7	4	0	7	6	18	15	14	0	0	0	1	0	0	2	4	2
November	12.2	W.	65	W.	3	8	7	5	10	8	9	13	2	1	7	9	14	9	6	5	0	0	1	3	0	18	0	0
December	10.4	W.	33	S.	0	5	7	4	8	5	11	13	9	0	6	6	19	6	3	12	6	0	0	24	0	31	0	0
Year	10.1	SE.	65	W.	9	90	60	71	118	108	109	106	62	6	90	116	159	118	94	40	15	7	6	44	22	133	50	6

SACRAMENTO, CALIF.

[H_b=69 ft.; h_t=106 ft.; h_r=100 ft.; h_a=117 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.8	SE.	24	SW.	0	13	7	6	19	6	2	1	5	3	17	5	9	7	5	0	0	0	5	0	0	6	1	0
February	9.4	SE.	42	SE.	1	3	2	3	24	13	3	0	8	0	5	9	14	18	14	0	0	0	1	0	0	0	1	0
March	8.5	SE.	42	SE.	1	3	0	0	21	13	4	2	14	5	12	11	8	8	6	0	0	1	2	0	0	0	0	0
April	8.5	S.	33	NW.	0	3	0	0	14	26	6	2	9	0	17	10	3	4	1	0	0	0	2	0	0	0	0	0
May	9.7	S.	35	NW.	0	2	0	0	16	29	7	0	8	0	28	2	1	1	0	0	0	0	0	0	2	0	0	0
June	8.8	S.	22	S.	0	1	0	0	21	28	4	2	4	0	30	0	0	0	0	0	0	0	0	0	9	0	0	0
July	9.1	S.	23	S.	0	0	0	0	15	42	2	1	0	2	30	1	0	0	0	0	0	0	0	0	18	0	0	0
August	8.9	S.	23	S.	0	0	0	0	21	36	0	1	4	0	28	3	0	0	0	0	0	0	0	0	14	0	0	0
September	8.0	S.	31	SW.	0	4	0	0	20	14	5	3	13	1	23	2	5	5	2	0	0	0	1	0	9	0	0	0
October	8.0	NW.	32	NW.	0	11	2	0	16	8	2	3	20	0	25	6	0	1	0	0	0	0	0	0	0	0	0	0
November	7.5	NW.	48	NW.	2	8	6	8	8	5	2	4	14	5	24	4	2	4	3	0	0	1	0	0	0	1	1	0
December	6.6	SE.	42	SE.	1	14	7	2	19	5	2	3	9	1	7	9	15	10	8	0	0	0	13	0	0	5	0	0
Year	8.2	S.	48	NW.	5	62	24	19	214	225	39	22	108	17	246	62	57	58	39	0	0	2	24	0	52	12	3	0

SAGINAW, MICH.

[H_b=641 ft.; h_t=69 ft.; h_r=62 ft.; h_a=77 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January [3]	11.3	SW.	40	NW.	1	3	3	3	2	12	19	15	5	0	7	10	14	5	2	13	3	0	4	12	0	28	0	0
February	10.7	W.	39	SW.	0	2	5	9	7	5	4	16	8	0	7	7	14	11	8	16	7	0	1	13	0	27	0	0
March	11.7	NE.	37	SW.	0	8	12	4	8	9	6	6	9	0	8	12	11	10	7	14	7	0	1	5	0	27	0	4
April	11 1	NW.	36	S.	0	7	11	4	5	8	6	7	12	0	7	5	18	12	9	3	2	1	1	0	0	6	4	0
May	9.0	NE.	32	NE.	0	6	16	7	9	4	2	6	9	3	13	5	13	12	9	0	0	1	2	0	2	0	2	1
June	7.1	SE.	32	S.	0	3	14	7	11	14	5	2	4	0	14	15	1	5	5	0	0	0	0	0	8	0	10	3
July	7.9	SW.	40	NW.	1	7	11	4	6	9	10	7	8	0	16	11	4	9	8	0	0	0	0	0	0	11	0	7	1
August [4]	6.9	NW.	26	SW.	0	5	8	2	6	9	7	12	13	0	10	16	5	9	7	0	0	1	2	0	0	0	11	0
September	8.0	SW.	35	S.	0	4	7	3	6	8	13	7	12	0	10	13	7	9	8	0	0	0	0	0	1	0	4	1
October	8.1	SW.	32	W.	0	3	8	6	13	3	17	3	9	0	6	10	15	16	11	1	0	0	2	0	0	1	7	1
November	11.3	SW.	53	SW.	2	6	5	4	10	7	13	7	8	0	2	9	19	11	6	12	5	0	0	5	0	19	0	1
December	9.1	SW.	27	SW.	0	4	4	2	6	6	16	8	16	0	7	6	18	9	3	18	9	0	0	25	0	31	0	0
Year	9.4	SW.	53	SW.	4	58	104	55	89	94	118	96	113	3	107	119	139	118	83	78	33	3	13	60	22	139	45	12

ST. JOSEPH, MO.

[H_b=967 ft.; h_t=11 ft.; h_r=3 ft.; h_a=49 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.4	SW.	29	NW.	0	1	2	5	1	16	18	6	13	0	20	5	6	1	0	3	1	0	2	5	0	22	0	0
February	11.0	NW.	42	NW.	2	3	6	7	13	4	5	3	15	0	13	4	11	12	8	12	7	0	0	6	0	23	1	0
March	9.2	SE.	37	NW.	0	5	12	10	13	12	2	2	6	0	11	14	6	9	4	3	3	1	1	2	0	13	4	0
April	11.1	NW.	38	NW.	0	5	5	7	11	10	5	2	15	0	9	10	11	9	8	2	0	0	1	0	0	0	10	0
May	7.9	NE.	34	NW.	0	6	12	15	14	1	2	1	11	0	11	14	6	10	10	0	0	2	0	0	0	0	6	0
June	6.5	SE.	54	NW.	1	4	2	15	15	9	6	2	7	0	11	15	4	13	12	0	0	0	0	0	9	0	15	0
July	6.6	S.	33	NW.	0	0	5	4	15	20	10	4	4	0	25	6	0	4	4	0	0	0	0	0	19	0	5	0
August	6.3	SE.	50	W.	1	1	7	14	9	14	4	5	7	1	13	11	7	6	6	0	0	0	1	0	7	0	6	0
September	7.0	S.	24	SE.	0	3	7	10	15	15	7	1	2	0	20	3	7	7	6	0	0	0	0	0	3	0	4	0
October	7.3	SE.	30	NW.	0	8	6	3	18	9	4	1	13	0	10	9	12	12	5	0	0	0	5	0	0	3	1	0
November	9.2	NW.	39	NW.	0	3	11	6	10	7	9	5	9	0	14	7	9	8	7	5	4	0	0	6	0	14	2	0
December	8.1	SW.	29	NW.	0	7	7	1	6	7	12	6	16	0	12	2	17	4	3	8	2	0	0	18	0	30	0	0
Year	8.1	SE.	54	NW.	4	46	82	97	140	124	84	38	118	1	169	100	96	95	73	33	17	3	10	37	38	105	54	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

ST. LOUIS, MO.

[ϕ=38° 38′ N.; λ=90° 12′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.510	29.810	29.150	32.9	41.1	41.1	46.0	29.7	37.8	62	− 3	25	27	26	73	58	59	0.146	0.154	0.159	0.13	0.07	3.3	3.4	2.6	2.9
February	29.359	29.880	28.340	32.1	37.7	38.4	44.9	28.5	36.7	59	16	26	26	26	75	51	60	.142	.145	.144	1.54	.44	5.5	4.7	3.5	4.5
March	29.534	29.921	29.070	41.0	51.3	50.1	56.3	37.9	47.1	73	16	34	36	35	76	58	58	.210	.227	.221	1.72	.55	5.7	4.6	4.7	4.0
April	29.368	29.800	28.960	51.0	62.0	60.6	66.8	48.2	57.5	82	32	41	40	42	70	47	53	.270	.267	.291	1.76	.71	5.2	5.1	5.8	5.0
May	29.298	29.563	28.960	57.8	65.9	65.7	70.7	55.2	63.0	88	46	51	52	52	80	62	64	.390	.403	.412	7.86	1.49	6.3	6.4	6.6	6.4
June	29.412	29.690	29.130	72.3	82.9	79.9	86.1	68.5	77.3	92	60	65	64	65	78	54	62	.619	.605	.629	5.30	2.04	4.3	4.5	5.2	4.3
July	29.397	29.613	29.170	75.9	87.2	86.1	90.9	72.3	81.6	99	66	64	62	63	68	45	46	.604	.572	.567	1.50	.79	1.5	2.4	2.6	2.2
August	29.383	29.610	29.200	70.7	81.9	80.4	86.5	67.7	77.1	102	58	61	59	60	72	48	50	.544	.517	.512	3.03	1.30	3.5	4.0	3.2	3.1
September	29.422	29.670	28.930	66.8	79.2	76.7	83.0	64.2	73.6	96	50	56	56	56	68	46	51	.466	.464	.466	6.13	3.73	3.5	2.7	3.1	2.9
October	29.431	29.674	29.070	56.5	64.7	62.1	68.5	53.2	60.8	89	39	51	51	51	82	64	70	.395	.395	.401	8.52	3.44	5.6	6.0	6.8	6.5
November	29.482	29.860	28.680	39.6	47.1	46.0	53.0	36.6	44.8	68	20	33	32	33	76	58	62	.198	.190	.198	2.08	.70	5.8	5.2	4.3	4.8
December	29.553	30.290	28.930	25.5	31.4	31.9	37.6	21.7	29.6	56	1	20	22	21	78	68	68	.111	.121	.124	1.22	1.18	4.9	6.6	5.5	6.4
Year	29.429	30.290	28.340	51.8	61.0	59.9	65.9	48.6	57.2	102	− 3	44	44	44	75	56	59	.341	.338	.344	40.79	3.73	4.6	4.6	4.5	4.4

ST. PAUL, MINN.

[ϕ=44° 58′ N.; λ=93° 03′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.080	29.500	28.700	18.2	25.0	....	29.5	14.2	21.8	44	−23	14	17	....	83	71	....	0.093	0.105	.....	0.44	0.15	4.3	4.5	....	5.1
February	29.087	29.520	28.410	13.3	19.4	....	24.5	9.4	17.0	38	−11	9	11	....	81	68	....	.072	.082	.....	2.52	.72	6.5	6.5	....	6.2
March	29.247	29.922	28.710	24.2	33.4	....	39.2	22.0	30.6	61	− 9	18	21	....	76	59	....	.111	.124	.....	.81	.35	6.2	6.2	....	5.9
April	29.059	29.680	28.410	39.7	48.2	....	53.6	37.4	45.5	72	26	32	33	....	76	59	....	.189	.196	.....	3.98	1.51	6.6	6.5	....	6.3
May	29.064	29.420	28.750	51.7	63.4	....	67.7	48.4	58.0	89	36	43	42	....	72	49	....	.285	.284	.....	2.13	.72	5.6	5.8	....	5.1
June	29.116	29.320	28.790	64.6	74.2	....	78.1	61.9	70.0	92	50	61	64	....	87	70	....	.547	.607	.....	4.40	1.55	7.2	6.2	....	6.1
July	29.069	29.270	28.750	67.9	78.7	....	83.1	64.2	73.6	94	56	62	64	....	82	62	....	.559	.612	.....	7.47	3.13	5.0	4.1	....	4.1
August	29.048	29.360	28.750	61.8	74.0	....	78.3	58.7	68.5	86	50	56	54	....	81	52	....	.450	.437	.....	2.22	1.10	3.1	3.7	....	3.7
September	29.067	29.425	28.520	56.2	68.6	....	72.9	54.9	63.9	89	41	50	50	....	80	54	....	.376	.382	.....	1.25	.49	5.1	5.4	....	5.1
October	29.103	29.450	28.540	39.3	46.9	....	52.2	36.3	44.2	77	19	34	34	....	81	63	....	.209	.214	.....	1.91	.35	6.8	6.7	....	7.1
November	29.141	29.750	28.270	23.7	28.9	....	33.8	19.3	26.6	55	− 8	19	20	....	80	68	....	.116	.117	.....	2.59	1.22	6.9	6.1	....	7.0
December	29.214	29.800	28.640	7.5	12.7	....	17.4	2.9	10.2	40	−17	4	7	....	84	76	....	.060	.069	.....	.66	.35	5.5	7.2	....	7.0
Year	29.108	29.922	28.270	39.0	47.8	....	52.5	35.8	44.2	94	−23	34	35	....	80	63	....	.256	.269	.....	30.38	3.13	5.7	5.7	....	5.7

SALT LAKE CITY, UTAH.

[ϕ=40° 46′ N.; λ=111° 54′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	25.782	26.150	25.210	26.2	36.6	34.7	40.3	23.7	32.0	55	8	15	20	21	60	51	57	0.088	0.108	0.113	T.	T.	3.1	4.9	5.1	4.7
February	25.515	25.840	25.060	31.1	36.9	36.7	40.5	27.8	34.2	55	20	24	26	27	75	64	67	.128	.139	.143	2.11	0.58	6.8	8.9	8.0	8.2
March	25.576	25.990	25.110	37.2	47.5	47.2	50.8	34.4	42.6	68	22	28	30	30	68	52	52	.154	.172	.166	.54	.25	5.0	5.3	5.9	5.5
April	25.571	25.840	25.120	44.5	57.1	57.7	62.1	42.1	52.1	83	31	35	38	36	72	53	49	.206	.228	.218	2.50	1.24	4.6	6.9	6.0	5.6
May	25.507	25.740	25.290	54.4	68.2	70.2	74.0	51.0	62.5	90	33	37	40	37	54	38	32	.228	.259	.233	1.24	.43	3.5	4.2	5.0	4.4
June	25.552	25.900	25.300	64.2	82.2	83.7	86.1	62.0	74.0	98	37	39	39	37	42	26	21	.244	.242	.226	T.	T.	.6	.7	2.2	.9
July	25.590	25.780	25.400	70.7	87.7	89.8	92.1	68.5	80.3	98	59	49	45	42	48	23	21	.355	.304	.280	.06	.03	1.7	1.7	2.2	2.2
August	25.648	25.850	25.440	67.7	84.7	85.9	89.3	65.5	77.4	100	59	44	44	40	44	26	23	.296	.297	.261	.50	.31	4.0	3.3	3.6	3.0
September	25.580	25.870	25.250	59.4	71.7	72.6	77.3	56.3	66.8	90	47	44	45	45	59	42	40	.300	.314	.306	1.76	.53	2.6	4.1	3.3	4.0
October	25.626	25.920	25.230	39.3	49.7	48.0	53.0	36.1	44.6	70	23	30	31	30	68	50	55	.166	.170	.171	2.52	.67	5.4	5.5	4.9	5.8
November	25.654	26.130	25.250	34.3	42.5	40.7	46.2	30.7	38.4	67	10	26	29	28	70	59	63	.146	.162	.162	.81	.56	4.4	5.7	5.2	5.6
December	25.759	26.170	25.050	21.8	29.1	27.6	32.2	16.9	24.6	52	0	16	20	21	80	69	75	.094	.110	.115	1.38	.56	3.4	5.8	4.3	5.4
Year	25.613	26.170	25.050	45.9	57.8	57.9	62.0	42.9	52.5	100	0	32	34	33	62	46	46	.200	.209	.200	13.42	1.24	3.8	4.8	4.7	4.7

SAN ANTONIO, TEX.

[ϕ=29° 27′ N.; λ=98° 28′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.433	29.840	29.000	43.0	53.8	53.4	58.4	41.0	49.7	71	24	40	40	39	88	61	60	0.261	0.264	0.259	3.78	1.45	5.5	5.7	5.1	5.9
February	29.275	29.640	28.700	46.4	55.9	57.3	61.9	44.0	53.0	83	32	39	39	38	78	59	55	.255	.264	.257	1.56	.66	4.5	5.1	4.6	5.2
March	29.318	29.690	28.950	53.1	64.9	66.1	70.4	51.6	61.0	83	36	48	48	47	85	58	55	.362	.358	.353	1.39	.84	5.2	5.2	4.1	5.3
April	29.241	29.560	28.834	59.7	73.6	74.0	78.5	58.2	68.4	85	45	56	53	53	89	51	50	.471	.423	.421	3.60	2.12	5.5	4.9	2.9	4.6
May	29.132	29.330	28.793	65.9	78.9	78.4	83.4	63.4	73.4	90	57	62	61	62	89	59	59	.569	.550	.584	3.06	1.05	5.5	4.8	4.9	4.9
June	29.230	29.450	28.970	70.7	81.7	80.2	86.5	68.5	77.5	92	48	68	66	66	90	60	66	.692	.646	.661	7.01	3.59	6.7	6.1	5.6	6.2
July	29.271	29.470	29.077	73.9	84.2	82.7	89.0	72.4	80.7	97	68	72	70	71	94	64	69	.787	.736	.752	7.88	3.40	6.0	6.2	6.2	6.0
August	29.277	29.400	29.131	74.1	86.8	85.7	91.7	72.7	82.2	96	70	72	69	69	94	56	58	.789	.707	.705	2.14	1.10	5.3	3.3	3.7	3.9
September	29.221	29.420	28.765	70.8	82.1	79.4	86.2	69.5	77.8	94	61	68	68	68	92	64	70	.702	.684	.701	7.61	4.32	6.5	5.8	4.1	6.1
October	29.232	29.440	29.020	68.8	76.6	74.4	81.1	66.6	73.8	90	53	68	69	68	97	77	82	.699	.712	.701	8.66	2.82	8.1	7.6	5.8	7.5
November	29.330	29.740	28.900	53.3	66.4	63.6	70.7	50.8	60.8	83	33	49	49	50	86	57	63	.380	.388	.388	1.56	.94	5.3	5.3	4.6	5.2
December	29.451	29.950	28.900	46.6	55.3	53.7	61.3	42.1	51.7	76	25	42	42	41	85	64	66	.296	.294	.290	2.05	.93	5.7	6.1	6.1	6.6
Year	29.284	29.950	28.700	60.5	71.6	70.7	76.6	58.4	67.5	97	24	57	56	56	89	61	63	.522	.502	.504	50.30	4.32	5.8	5.5	4.8	5.6

Annual meteorological summary for the year ending December 31, 1919—Continued.

ST. LOUIS, MO.

[H_b=568 ft.; h_t=265 ft.; h_r=258 ft.; h_a=303 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a.m. and 8 p.m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	12.6	NW.	37	S.	0	0	2	3	2	17	11	8	19	0	19	10	2	5	1	3	3	0	0	5	0	11	0	0
February	15.5	NW.	52	W.	4	2	5	6	6	14	5	4	14	0	13	7	8	8	7	7	4	0	0	2	0	18	0	0
March	13.9	S.	50	NE.	3	6	9	9	7	15	6	0	10	0	14	10	7	9	6	3	2	0	1	1	0	9	2	0
April	15.0	S.	50	S.	3	4	8	6	4	18	10	3	7	0	10	12	8	11	8	1	0	0	1	0	0	1	4	0
May	11.6	NE.	40	SW.	1	5	16	8	6	10	4	3	10	0	6	12	13	17	12	0	0	2	1	0	0	0	5	0
June	10.5	S.	69	SW.	1	4	10	2	5	22	9	2	6	0	9	19	2	12	11	0	0	1	0	0	5	0	11	0
July	9.9	SW.	38	NW.	0	5	12	4	4	11	15	5	6	0	22	8	1	8	7	0	0	0	0	0	21	0	6	0
August	10.8	NW.	50	SW.	3	9	10	5	5	8	10	3	12	0	18	9	4	7	6	0	0	1	0	0	9	0	4	0
September	11.3	SW.	48	S.	4	5	8	5	6	14	15	2	5	0	20	7	3	6	5	0	0	0	0	0	3	0	3	0
October	11.9	S.	50	S.	2	6	5	4	11	12	15	0	9	0	6	9	16	13	12	0	0	0	0	0	0	0	4	0
November	13.6	NW.	64	SW.	3	1	10	6	11	1	12	2	17	0	14	6	10	7	6	1	0	0	0	0	0	8	1	0
December	12.3	NW.	51	SW.	2	4	10	3	4	10	11	2	18	0	10	5	16	4	2	5	2	0	3	7	0	29	0	0
Year	12.4	S.	69	SW.	26	51	105	61	71	152	123	34	133	0	161	114	90	107	83	20	11	4	6	15	38	76	40	0

ST. PAUL, MINN.

[H_b=837 ft.; h_t=236 ft.; h_r=228 ft.; h_a=261 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.7	SW.	42	NW.	2	1	0	1	8	1	11	3	6	0	9	13	9	6	4	6	6	0	3	12	0	30	0	0
February	13.5	NW.	38	NW.	0	2	4	1	5	1	1	9	5	0	7	9	12	7	7	9	6	0	0	16	0	28	0	0
March	12.4	SE.	49	SE.	2	2	3	1	12	3	1	3	6	0	6	14	11	7	5	6	3	1	2	6	0	24	1	0
April	12.4	SE.	46	E.	4	0	2	7	8	2	4	0	7	0	7	10	13	16	13	4	2	0	0	0	0	6	5	0
May	11.1	SE.	41	S.	3	5	1	7	11	2	1	2	2	0	11	14	6	8	7	0	0	0	0	0	0	0	4	0
June	10.7	SE.	47	SE.	1	3	1	4	10	2	5	1	4	0	4	17	9	12	11	0	0	0	0	0	1	0	8	0
July	10.7	SE.	57	SW.	3	2	2	2	8	3	7	1	6	0	14	14	3	11	9	0	0	1	0	0	2	0	11	0
August	11.0	NW.	49	NW.	2	0	1	3	6	3	7	3	8	0	14	15	2	10	9	0	0	0	1	0	0	0	5	1
September	11.6	SE.	51	S.	2	2	1	2	11	2	4	5	3	0	11	13	6	8	5	0	0	0	1	0	0	0	2	2
October	11.8	SE.	34	S.	0	4	1	4	7	2	2	4	7	0	4	10	17	11	11	3	1	0	1	2	0	13	2	2
November	13.2	NW.	50	S.	1	3	0	2	9	0	4	6	6	0	6	7	17	11	9	12	9	0	0	11	0	28	0	0
December	11.0	SW.	39	W.	0	0	0	4	4	6	7	2	8	0	5	8	18	8	3	14	8	0	2	26	0	31	0	0
Year	11.8	SE.	57	SW.	20	24	16	38	99	27	54	39	68	0	98	144	123	115	93	54	35	2	10	73	3	160	38	5

SALT LAKE CITY, UTAH.

[H_b=4,360 ft.; h_t=163 ft.; h_r=156 ft.; h_a=203 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	4.7	SE.	23	SE.	0	3	2	4	17	6	6	1	23	0	13	8	10	0	0	7	0	0	7	3	0	27	0	0
February	7.8	NW.	52	NW.	2	2	0	5	12	7	13	4	13	0	1	7	20	17	13	22	15	0	0	0	0	22	1	0
March	8.4	SE.	44	SE.	1	3	2	7	15	8	6	1	18	2	11	7	13	9	5	10	6	0	0	0	0	13	0	0
April	7.3	NW.	50	NW.	2	8	3	8	6	10	3	2	19	1	9	10	11	7	6	5	4	0	0	0	0	4	0	0
May	7.5	NW.	40	E.	2	9	8	9	8	5	3	2	13	5	15	8	8	6	4	2	1	3	0	0	2	0	5	0
June	9.3	SE.	44	SE.	1	11	2	2	12	12	3	1	17	0	28	2	0	0	0	0	0	0	0	0	13	0	1	0
July	7.6	NW.	34	S.	0	8	3	5	11	16	4	2	13	0	21	7	3	3	0	0	0	0	0	0	24	0	3	0
August	7.6	S.	42	SE.	1	9	5	1	19	12	3	2	11	0	16	7	8	6	3	0	0	0	0	0	10	0	7	0
September	8.5	SE.	48	E.	2	2	5	2	9	18	0	1	17	0	14	7	9	12	8	0	0	0	0	0	0	0	10	0
October	6.4	SE.	39	NW.	0	3	6	3	14	10	3	2	21	0	9	9	13	13	9	7	3	0	0	0	0	8	0	0
November	6.4	SE.	42	NE.	1	6	7	9	11	7	3	2	16	0	12	4	14	8	4	6	3	0	1	3	0	15	0	0
December	6.1	SE.	48	N.	2	5	1	10	12	8	8	3	15	0	11	6	14	6	5	10	6	0	5	18	0	29	0	0
Year	7.3	NW.	52	NW.	14	68	44	65	146	119	61	23	196	8	160	82	123	87	57	69	38	3	13	24	49	118	27	0

SAN ANTONIO, TEX.

[H_b=693 ft.; h_t=119 ft.; h_r=112 ft.; h_a=132 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.4	N.	30	W.	0	21	14	5	3	9	3	1	6	0	9	7	15	9	6	0	0	2	2	0	0	4	1	0
February	8.9	NW.	44	NW.	2	10	7	7	7	6	7	1	11	0	11	5	12	6	4	0	0	1	3	0	0	1	2	0
March	9.4	SE.	42	NW.	1	8	16	7	19	4	4	1	3	0	10	11	10	9	5	0	0	0	3	0	0	0	3	0
April	9.3	SE.	40	SE.	1	7	7	4	19	15	5	1	2	0	11	10	9	3	2	0	0	1	1	0	0	0	1	0
May	7.7	SE.	43	NW.	2	13	9	7	16	7	5	0	5	0	10	11	10	10	7	0	0	0	2	0	1	0	9	0
June	7.7	SE.	30	S.	0	10	15	7	14	10	1	1	2	0	5	13	12	14	11	0	0	1	0	0	7	0	7	0
July	6.4	SE.	38	SE.	0	4	8	12	19	10	7	0	2	0	8	9	14	13	11	0	0	0	3	0	15	0	8	0
August	6.5	SE.	30	SW.	0	4	10	4	18	24	1	0	1	0	16	10	5	7	4	0	0	0	0	0	25	0	7	0
September	8.3	SE.	52	SE.	2	14	6	16	17	4	0	0	3	0	6	14	10	13	10	0	0	0	0	0	6	0	2	0
October	7.5	S.	32	N.	0	6	10	17	12	17	0	0	0	0	0	14	17	13	10	0	0	0	3	0	1	0	4	0
November	7.4	N.	38	NW.	0	20	13	5	7	5	4	1	5	0	11	6	13	7	4	0	0	0	2	0	0	0	2	0
December	6.9	N.	34	NW.	0	18	15	4	2	5	9	9	0	0	8	5	18	9	4	0	0	0	4	0	0	6	0	0
Year	7.8	SE.	52	SE.	8	135	130	95	153	116	46	15	40	0	105	115	145	113	78	0	0	5	23	0	55	11	46	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAN DIEGO, CALIF.

[ϕ=32° 43′ N.; λ=117° 10′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.985	30.350	29.450	50.4	63.9	61.4	66.5	46.7	56.6	77	35	37	40	44	62	46	58	0.228	0.262	0.300	0.61	0.48	2.6	3.0	3.4	2.8
February	29.988	30.170	29.560	49.1	58.3	56.5	60.4	46.8	53.6	67	41	44	46	47	85	67	72	.297	.321	.328	1.46	.50	4.3	4.1	4.1	4.7
March	29.958	30.150	29.718	50.2	59.3	58.3	61.9	48.1	55.0	71	40	44	46	47	81	64	65	.296	.320	.327	1.83	1.11	5.1	4.1	3.7	4.3
April	29.897	30.070	29.675	54.8	62.6	61.4	65.1	53.3	59.2	76	49	51	53	53	88	70	74	.376	.399	.401	.30	.29	8.1	3.6	3.7	4.4
May	29.825	29.920	29.710	57.6	63.3	62.1	65.3	56.6	61.0	68	54	53	54	54	86	72	75	.409	.418	.418	.34	.26	9.1	5.1	6.1	6.5
June	29.807	29.950	29.642	61.1	69.4	68.8	72.3	60.0	66.2	91	57	56	58	59	84	68	71	.452	.484	.495	.00	.00	7.6	.0	1.0	2.3
July	29.819	29.970	29.704	64.6	71.5	70.2	73.5	63.6	68.6	79	60	61	63	62	88	74	74	.539	.569	.545	T.	T.	6.9	2.7	1.8	3.4
August	29.848	29.980	29.694	64.7	70.8	70.0	72.9	63.8	68.4	78	60	62	63	63	90	78	78	.550	.583	.570	.01	.01	9.4	2.0	2.6	3.9
September	29.759	29.970	29.615	62.6	69.8	67.9	71.8	61.2	66.5	79	57	60	61	61	90	74	79	.510	.541	.540	.26	.13	8.2	2.3	2.9	3.8
October	29.852	30.010	29.690	57.0	67.1	65.0	69.1	54.9	62.0	83	46	50	54	55	79	64	70	.370	.417	.431	1.04	1.01	5.4	2.0	2.3	3.1
November	29.880	30.100	29.430	53.0	64.7	61.7	66.8	50.3	58.6	82	36	42	47	49	70	56	66	.290	.333	.352	.43	.29	3.7	3.0	2.5	3.0
December	29.990	30.150	29.740	50.5	62.5	59.8	65.5	47.6	56.6	84	42	40	44	46	72	56	63	.258	.300	.315	.48	.26	3.4	3.5	3.3	3.5
Year	29.884	30.350	29.430	56.3	65.3	63.6	67.6	54.4	61.0	91	35	50	52	53	81	66	71	.381	.412	.418	6.76	1.11	6.2	3.0	3.1	3.8

SANDUSKY, OHIO.

[ϕ=41° 25′ N.; λ=82° 40′ W.]

January	29.362	29.850	28.860	29.4	34.7	....	39.6	25.8	32.7	58	4	24	26	....	80	69	....	0.140	0.148	.....	0.74	0.42	5.9	6.2	....	5.2
February	29.303	29.950	28.500	28.8	33.7	....	37.9	24.9	31.4	60	16	24	26	....	80	71	....	.131	.142	.....	.94	.23	7.2	7.5	....	7.3
March	29.478	29.910	28.692	35.5	39.9	....	44.0	31.2	37.6	68	17	29	30	....	78	68	....	.170	.178	.....	3.37	1.12	5.8	5.8	....	5.9
April	29.328	29.710	28.713	43.7	49.4	....	54.2	39.3	46.8	77	24	37	39	....	76	68	....	.229	.250	.....	3.41	.91	7.0	7.5	....	7.6
May	29.239	29.620	28.770	54.0	58.5	....	63.4	49.3	56.4	81	41	48	48	....	80	70	....	.340	.343	.....	3.46	.80	6.3	6.8	....	6.0
June	29.396	29.660	29.110	71.9	77.9	....	81.3	66.9	74.1	91	55	62	63	....	72	60	....	.572	.562	.....	.91	.55	3.4	3.8	....	3.8
July	29.334	29.607	29.020	72.6	79.9	....	83.5	67.6	75.6	96	59	61	61	....	68	54	....	.542	.543	.....	2.23	1.30	3.6	3.9	....	3.9
August	29.272	29.605	29.040	66.6	75.8	....	79.8	62.7	71.2	91	53	59	59	....	77	57	....	.516	.514	.....	5.37	3.62	4.2	5.1	....	5.4
September	29.358	29.580	28.860	62.7	72.3	....	76.0	59.2	67.6	90	49	55	55	....	76	56	....	.441	.442	.....	2.17	.97	5.6	3.8	....	4.7
October	29.388	29.680	29.020	54.9	62.1	....	66.2	51.3	58.8	87	36	50	51	....	84	69	....	.381	.399	.....	4.16	1.06	6.3	6.5	....	6.2
November	29.391	29.870	28.430	37.6	43.8	....	47.2	33.9	40.6	63	22	32	32	....	80	64	....	.186	.189	.....	1.36	.39	6.7	6.4	....	6.8
December	29.439	30.090	28.700	21.8	26.1	....	31.7	18.8	25.2	54	7	16	18	....	77	68	....	.094	.100	.....	.66	.33	7.5	7.3	....	7.1
Year	29.357	30.090	28.430	48.3	54.5	....	58.7	44.2	51.5	96	4	41	42	....	77	64	....	.312	.319	.....	28.78	3.62	5.8	5.9	....	5.9

SANDY HOOK, N. J.

[ϕ=40° 28′ N.; λ=74° 01′ W.]

January	30.026	30.730	29.400	33.0	37.2	36.1	40.7	29.4	35.0	58	12	28	30	30	81	74	76	0.161	0.171	0.171	2.94	1.27	5.8	4.8	4.6	5.0
February	29.958	30.443	29.260	32.0	35.8	35.7	39.5	29.9	34.7	49	20	26	27	28	76	70	73	.142	.148	.157	3.41	1.03	5.6	4.4	4.0	4.5
March	30.084	30.807	29.360	39.4	43.9	42.0	48.1	36.1	42.1	57	23	34	36	36	83	75	79	.204	.220	.215	3.94	.86	6.9	5.9	4.5	5.9
April	29.997	30.350	29.660	44.7	50.2	48.1	54.7	41.4	48.0	69	23	37	38	40	76	66	73	.230	.239	.248	2.61	1.22	5.6	5.7	5.7	5.3
May	29.939	30.410	29.660	57.1	62.7	58.7	66.8	52.3	59.6	84	45	50	50	52	80	67	79	.374	.377	.386	3.06	.93	4.8	4.9	6.2	5.3
June	30.112	30.500	29.750	65.9	71.3	66.8	74.9	61.2	68.0	87	55	59	59	60	81	67	81	.514	.514	.532	2.50	1.66	5.8	4.3	4.3	4.8
July	29.986	30.354	29.610	71.7	77.0	72.8	80.1	67.1	73.6	98	59	64	64	66	78	68	80	.606	.612	.640	5.79	1.41	4.6	5.0	5.5	5.0
August	29.924	30.260	29.660	69.0	74.3	70.8	77.1	65.1	71.1	89	59	63	62	63	81	68	78	.579	.567	.592	5.76	1.78	5.4	4.3	4.7	5.4
September	30.014	30.404	29.540	64.3	69.9	67.0	72.7	61.5	67.1	89	53	58	59	60	81	69	79	.496	.510	.532	2.80	1.10	4.8	4.9	3.8	4.9
October	30.112	30.527	29.670	57.6	62.0	60.3	65.2	54.0	59.6	83	46	53	55	55	86	80	82	.420	.456	.442	2.61	.79	5.9	6.5	6.6	6.5
November	30.075	30.580	29.430	43.2	47.9	46.0	51.3	40.1	45.7	69	29	39	41	39	84	77	78	.249	.267	.254	2.98	.92	5.3	5.4	4.9	5.8
December	30.107	30.765	29.420	29.6	32.2	32.0	36.1	25.3	30.7	57	3	25	25	26	82	73	76	.147	.146	.150	2.72	1.13	6.9	5.6	4.1	6.5
Year	30.028	30.807	29.260	50.6	55.4	53.0	58.9	47.0	52.9	98	3	45	46	46	81	71	78	.344	.352	.360	41.12	1.78	5.7	5.1	4.9	5.4

SAN FRANCISCO, CALIF.

[ϕ=37° 48′ N.; λ=122° 26′ W.]

January	30.000	30.350	29.330	46.8	53.3	55.1	58.0	44.5	51.2	63	37	41	41	42	82	66	64	0.264	0.265	0.278	2.57	1.79	2.8	4.1	4.2	3.6
February	29.913	30.200	29.360	48.5	53.3	53.6	56.9	46.3	51.6	61	40	43	43	43	82	70	70	.282	.285	.287	9.31	3.36	5.3	7.5	6.4	6.2
March	29.924	30.240	29.350	48.3	55.7	55.0	59.0	46.3	52.6	67	40	43	43	44	81	64	67	.277	.280	.288	2.74	1.12	5.5	6.1	4.9	5.2
April	29.889	30.130	29.660	50.7	60.2	57.2	62.6	49.4	56.0	70	47	46	47	47	84	64	70	.310	.334	.328	.10	.07	6.1	5.0	5.4	4.8
May	29.767	29.920	29.580	51.8	61.7	58.5	64.0	50.3	57.2	80	48	47	48	48	85	62	69	.326	.332	.335	T.	T.	5.7	2.3	2.9	2.8
June	29.810	29.980	29.600	52.3	62.9	60.1	65.0	50.6	57.8	88	48	47	48	48	84	60	67	.324	.336	.340	T.	T.	3.4	.4	.7	.9
July	29.780	29.973	29.550	52.8	60.2	58.6	62.9	51.2	57.0	78	47	49	51	51	89	72	75	.352	.369	.368	.01	.01	7.6	3.0	2.0	4.3
August	29.821	30.000	29.633	54.0	61.5	59.4	64.3	52.4	58.4	78	50	51	53	52	90	73	78	.373	.397	.395	T.	T.	8.3	3.8	3.8	5.8
September	29.730	30.040	29.510	56.8	67.1	63.1	69.2	54.7	62.0	93	52	52	52	53	86	61	71	.388	.396	.404	.39	.22	5.5	2.8	2.1	3.3
October	29.834	30.110	29.560	54.2	65.5	61.8	69.5	51.9	60.7	83	48	47	43	45	80	47	58	.332	.283	.308	.27	.17	2.8	1.5	1.9	2.5
November	29.897	30.120	29.570	50.7	59.6	58.6	63.8	48.2	56.0	73	38	40	38	40	70	48	54	.258	.242	.255	.44	.44	1.4	2.5	2.3	2.1
December	29.952	30.250	29.391	46.4	50.4	51.2	54.1	43.6	48.8	62	37	41	40	40	82	70	68	.263	.256	.258	3.21	1.09	4.2	5.4	5.0	5.5
Year	29.860	30.350	29.330	51.1	59.3	57.7	62.4	49.1	55.8	93	37	46	46	46	83	63	68	.312	.315	.320	19.04	3.36	4.9	3.7	3.5	3.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAN DIEGO, CALIF.

[H_b=87 ft.; h_1=62 ft.; h_2=55 ft.; h_3=70 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	4.5	NW.	25	W.	0	8	9	11	3	4	3	0	24	0	20	6	5	3	2	0	0	0	1	0	0	0	0	0
February	7.0	W.	34	S.	0	2	8	9	3	2	4	11	17	0	11	8	9	13	8	0	0	1	0	0	0	0	1	0
March	6.5	NW.	39	S.	0	7	3	10	5	5	3	14	15	0	15	8	8	6	6	0	0	0	0	0	0	0	0	0
April	6.2	W.	20	NW.	0	3	5	8	6	4	5	14	15	0	13	12	5	2	1	0	0	0	1	0	0	0	0	0
May	6.2	SW.	19	W.	0	2	0	2	4	9	18	20	7	0	4	17	10	6	1	0	0	0	0	0	0	0	0	0
June	6.4	NW.	22	NW.	0	5	3	3	1	5	7	15	20	1	24	6	0	0	0	0	0	0	3	0	1	0	0	0
July	5.6	W.	17	NW.	0	6	4	0	1	5	20	16	10	0	20	10	1	0	0	0	0	0	0	0	0	0	0	0
August	5.9	NW.	20	NW.	0	10	3	0	0	3	9	16	20	1	17	11	3	1	0	0	0	0	0	0	0	0	1	0
September	6.3	NW.	20	S.	0	3	2	4	3	7	6	10	25	0	16	11	3	3	2	0	0	0	2	0	0	0	0	0
October	5.5	NW.	26	S.	0	4	7	12	3	0	11	8	17	0	20	8	3	3	1	0	0	0	1	0	0	0	0	0
November	6.0	NW.	34	W.	0	8	6	3	4	6	2	7	24	0	19	5	6	3	3	0	0	0	0	0	0	0	0	0
December	4.9	NW.	29	SE.	0	7	7	5	5	2	2	3	30	1	18	6	7	7	4	0	0	0	1	0	0	0	0	0
Year	5.9	NW.	39	S.	0	65	57	67	38	52	90	134	224	3	197	108	60	47	28	0	0	1	9	0	1	0	2	0

SANDUSKY, OHIO.

[H_b=629 ft.; h_1=62 ft.; h_2=54 ft.; h_3=103 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	14.3	SW.	44	NW.	1	0	0	1	2	5	13	7	3	0	8	10	13	8	2	8	6	0	0	8	0	25	0	0
February	13.1	W.	56	SW.	3	3	0	4	1	7	6	3	4	0	3	9	16	13	7	13	8	0	1	10	0	24	2	0
March	15.0	NE.	48	N.	3	2	8	2	5	3	5	1	5	0	9	8	14	11	9	9	4	0	0	4	0	22	0	0
April	13.8	SW.	58	SW.	3	1	3	4	1	4	10	1	6	0	4	12	14	14	12	3	0	0	2	1	0	3	3	0
May	11.1	NE.	37	NE.	0	2	7	6	3	5	4	4	0	0	8	9	14	15	13	0	0	0	0	0	0	0	5	0
June	9.5	E.	26	NE.	0	2	4	6	5	4	7	1	1	0	15	10	5	5	4	0	0	0	0	0	2	0	6	0
July	10.0	NE.	42	NW.	1	4	3	4	2	5	7	6	0	0	15	10	6	7	7	0	0	0	0	0	6	0	6	0
August	10.3	SW.	42	W.	1	3	3	0	3	5	6	11	0	0	5	19	7	13	8	0	0	0	0	0	1	0	10	0
September	11.2	SW.	46	NW.	2	3	2	0	1	8	10	4	2	0	13	10	7	8	6	0	0	0	0	0	2	0	3	0
October	11.0	SW.	42	W.	1	1	1	3	3	5	11	4	3	0	5	11	15	14	11	0	0	0	1	0	0	0	4	0
November	15.6	SW.	68	SW.	4	3	2	2	4	4	11	3	1	0	6	7	17	10	8	8	0	0	0	1	0	12	0	0
December	13.4	SW.	46	NW.	3	4	2	0	4	1	9	9	2	0	5	9	17	11	4	18	11	0	0	18	0	30	0	0
Year	12.4	SW.	68	SW.	22	28	35	32	34	56	99	54	27	0	96	124	145	129	91	59	29	0	4	40	11	116	39	0

SANDY HOOK, N. J.

[H_b=22 ft.; h_1=10 ft.; h_2=3 ft.; h_3=55 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	17.1	W.	58	W.	7	4	5	1	2	12	14	12	12	0	14	6	11	8	5	4	1	0	2	4	0	16	0	0
February	18.0	NW.	60	NW.	8	3	3	3	3	8	6	13	17	0	14	5	9	11	10	4	3	0	1	0	0	20	1	0
March	22.7	NW.	74	NW.	12	7	9	5	5	8	6	4	18	0	8	9	14	13	10	3	2	0	2	0	0	8	0	0
April	16.9	W.	61	S.	6	4	5	3	5	10	9	13	11	0	10	11	9	11	7	4	1	0	1	0	0	3	1	0
May	13.9	W.	56	NE.	4	3	11	7	6	13	7	9	6	0	12	7	12	11	10	0	0	0	2	0	0	0	4	0
June	12.0	SE.	49	NW.	2	3	10	5	11	18	5	4	4	0	12	13	5	7	5	0	0	0	7	0	0	0	2	0
July	12.4	S.	42	S.	2	3	3	3	11	21	7	8	6	0	13	9	9	15	13	0	0	0	1	0	4	0	8	0
August	13.4	SW.	58	N.	2	1	8	3	5	17	10	8	10	0	9	14	8	11	9	0	0	0	1	0	0	0	6	0
September	13.5	S.	39	W.	0	4	9	5	6	13	7	6	10	0	13	8	9	7	7	0	0	0	1	0	0	0	2	0
October	14.3	NE.	48	NW.	3	2	12	3	10	9	12	4	10	0	6	12	13	15	9	0	0	0	3	0	0	0	2	0
November	19.0	NW.	64	NW.	10	8	7	2	5	11	6	8	13	0	9	9	12	12	11	0	0	0	4	0	0	3	0	0
December	17.4	NW.	52	NW.	9	3	8	0	2	6	14	11	18	0	4	13	14	12	10	9	5	0	4	11	0	27	0	0
Year	15.9	NW.	74	NW.	65	45	90	40	71	146	103	100	135	0	124	116	125	133	106	24	12	0	29	15	4	77	26	0

SAN FRANCISCO, CALIF.

[H_b=155 ft.; h_1=208 ft.; h_2=202 ft.; h_3=243 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.3	N.	26	SW.	0	17	10	3	3	8	6	7	6	2	19	3	9	7	6	0	0	0	1	0	0	0	1	0
February	8.5	NW.	41	SW.	1	4	3	1	7	11	6	12	12	0	7	9	12	18	17	0	0	0	0	0	0	0	0	0
March	7.7	SW.	37	SW.	0	5	4	2	1	10	17	10	13	0	11	9	11	9	7	0	0	2	0	0	0	0	0	0
April	9.3	SW.	30	SW.	0	1	2	2	0	5	20	23	7	0	6	18	6	3	1	0	0	0	0	0	0	0	0	0
May	13.1	SW.	36	SW.	0	0	1	0	3	2	31	24	1	0	18	11	2	0	0	0	0	0	1	0	0	0	0	0
June	14.4	SW.	37	NW.	0	0	0	1	1	1	28	29	0	0	28	2	0	0	0	0	0	0	0	0	0	0	0	0
July	14.1	SW.	36	W.	0	0	0	0	0	0	51	10	1	0	14	12	5	1	0	0	0	0	1	0	0	0	0	0
August	12.3	SW.	38	SW.	0	0	0	0	0	4	41	15	0	2	6	16	9	0	0	0	0	0	1	0	0	0	0	0
September	11.1	SW.	42	SW.	2	1	0	1	2	2	24	27	2	1	17	8	5	3	3	0	0	0	0	0	1	0	1	0
October	8.8	SW.	32	W.	0	8	0	2	6	4	17	23	2	0	23	4	4	2	2	0	0	0	1	0	0	0	1	0
November	9.6	N.	62	NE.	2	16	3	0	7	1	5	15	13	0	24	3	3	2	1	0	0	0	2	0	0	0	0	0
December	8.1	SE.	36	SE.	0	10	11	4	9	2	5	6	15	0	12	4	15	10	8	0	0	0	4	0	0	0	0	0
Year	10.2	SW.	62	NE.	5	62	34	16	39	50	261	201	72	5	185	99	81	55	45	0	0	2	11	0	1	0	3	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAN JOSE, CALIF.

[ϕ=37° 2′ N.; λ=121° 54′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.016	30.390	29.414	....	55.3	57.0	60.7	34.5	47.6	67	22	....	43	42	....	66	60	....	0.284	0.278	1.06	0.74	....	2.5	3.2	2.8
February	29.959	30.215	29.510	....	55.2	54.6	57.5	41.0	49.2	66	31	....	45	44	....	68	69	....	.302	.296	4.87	1.89	....	6.1	6.2	6.6
March	29.951	30.240	29.430	....	56.4	57.6	60.5	41.6	51.0	71	32	....	44	45	....	67	65	....	.299	.305	2.87	1.34	....	5.3	4.9	5.8
April	29.910	30.150	29.755	....	64.8	62.8	68.9	44.1	56.5	78	36	....	48	47	....	56	57	....	.342	.322	.06	.06	....	3.7	3.8	4.7
May	29.807	30.010	29.600	....	70.0	68.3	74.0	47.4	60.7	91	39	....	49	51	....	49	56	....	.358	.377	.01	.01	....	1.1	1.6	2.0
June	29.844	29.980	25.621	....	73.6	72.2	77.2	47.2	62.2	95	41	....	50	48	....	46	50	....	.370	.386	T.	T.	....	.3	.1	.6
July	29.813	29.974	29.676	....	73.5	73.8	78.6	52.2	65.4	95	44	....	53	56	....	55	56	....	.453	.458	T.	T.	....	.4	.0	1.6
August	29.842	30.000	29.676	....	74.5	74.3	79.1	52.5	65.8	92	44	....	55	53	....	53	54	....	.442	.453	.01	.01	....	.6	.5	2.3
September	29.774	30.009	29.587	....	73.6	70.9	78.0	49.8	63.9	97	45	....	54	55	....	52	59	....	.414	.434	.25	.24	....	2.3	1.9	2.6
October	29.862	30.120	29.688	....	68.4	67.5	73.5	42.9	58.2	86	35	....	45	44	....	47	46	....	.309	.298	.28	.28	....	1.3	1.6	2.0
November	29.918	30.093	29.589	....	61.3	60.7	66.5	37.6	52.0	76	32	....	41	42	....	50	53	....	.266	.281	.09	.04	....	1.2	2.1	2.2
December	29.988	30.250	29.460	....	53.2	52.8	56.9	37.5	47.2	67	25	....	43	45	....	72	76	....	.285	.303	2.48	1.09	....	3.9	4.3	5.1
Year	29.890	30.390	29.414	....	65.0	64.4	69.3	44.0	56.6	97	22	....	48	48	....	57	58	....	.344	.350	11.98	1.89	....	2.4	2.5	3.2

SAN JUAN, PORTO RICO.

[ϕ=18° 29′ N.; λ=66° 7′ W.]

January	29.909	30.040	29.750	73.9	78.6	....	80.4	68.9	74.6	85	64	68	69	....	82	74	....	0.682	0.713	....	1.87	0.93	3.0	3.9	....	3.3
February	29.930	30.050	29.780	74.9	79.0	....	81.3	69.4	75.4	89	65	68	68	....	79	70	....	.677	.690	....	1.81	1.38	1.6	2.8	....	2.4
March	29.938	30.080	29.810	75.7	78.4	....	79.9	70.1	75.0	86	64	65	67	....	72	68	....	.631	.659	....	2.33	.96	4.3	3.4	....	4.5
April	29.884	30.040	29.770	77.3	78.8	....	80.2	72.6	76.4	88	69	70	70	....	78	76	....	.726	.744	....	3.09	.92	5.8	4.8	....	5.4
May	29.896	29.992	29.790	81.3	82.0	....	84.5	74.8	79.6	91	70	73	73	....	76	74	....	.805	.805	....	2.49	.68	5.0	4.1	....	4.3
June	29.923	30.010	29.800	82.2	82.8	....	85.3	75.0	80.2	91	71	73	74	....	75	75	....	.819	.832	....	8.95	5.26	6.2	6.5	....	6.4
July	29.944	30.070	29.850	81.4	81.7	....	83.8	74.1	79.0	86	70	74	74	....	79	79	....	.848	.848	....	8.03	1.46	5.3	5.9	....	5.7
August	29.951	30.090	29.840	82.9	83.3	....	84.6	76.4	80.5	88	72	74	75	....	76	75	....	.851	.856	....	1.53	.26	4.4	4.4	....	4.1
September	29.849	29.945	29.700	81.5	83.3	....	85.2	74.5	79.8	91	72	73	74	....	77	75	....	.822	.853	....	5.63	2.61	5.6	6.7	....	6.0
October	29.866	29.972	29.730	81.1	82.7	....	84.2	74.5	79.4	89	70	74	74	....	78	76	....	.830	.845	....	5.78	1.74	5.1	4.5	....	4.7
November	29.835	29.990	29.670	77.5	80.7	....	82.5	72.0	77.2	86	67	71	72	....	81	76	....	.761	.794	....	5.83	1.58	4.7	4.9	....	4.8
December	29.924	30.038	29.730	76.2	79.4	....	81.7	70.9	76.3	86	68	70	71	....	81	76	....	.731	.765	....	5.16	1.03	4.6	4.7	....	4.9
Year	29.904	30.090	29.670	78.8	80.9	....	82.8	72.8	77.8	91	64	71	72	....	78	74	....	.765	.784	....	52.50	5.26	4.6	4.7	....	4.7

SAN LUIS OBISPO, CALIF.

[ϕ=35° 18′ N.; λ=120° 39′ W.]

January	29.928	30.280	29.360	43.9	63.7	59.7	67.2	39.9	53.6	78	27	34	33	39	70	35	48	0.200	0.196	0.242	1.51	1.35	2.8	3.3	3.0	3.4
February	29.900	30.160	29.410	44.6	55.8	54.0	58.8	41.5	50.2	68	34	40	41	44	85	61	70	.255	.267	.292	5.48	2.09	4.5	5.4	5.9	5.5
March	29.881	30.140	29.507	45.8	58.2	55.9	61.2	43.1	52.2	78	33	40	43	42	80	59	64	.249	.279	.278	3.35	2.06	4.2	5.3	5.1	4.9
April	29.833	30.020	29.652	48.4	64.0	58.5	67.0	46.4	56.7	80	39	43	46	47	84	54	66	.282	.315	.321	.09	.08	5.1	3.6	3.7	4.2
May	29.733	29.840	29.560	50.2	65.1	60.1	68.9	48.0	58.4	83	39	46	48	48	88	57	66	.314	.342	.337	.19	.03	5.7	4.0	3.4	4.1
June	29.747	29.890	29.590	52.0	72.8	64.6	76.2	47.7	62.0	93	40	44	46	48	78	42	57	.288	.313	.337	.00	.00	4.0	.1	.2	1.2
July	29.737	29.900	29.610	51.4	72.9	68.3	75.4	50.9	63.2	90	43	49	51	50	91	49	54	.345	.373	.365	T.	T.	7.2	.5	.2	2.2
August	29.768	29.910	29.614	53.9	74.1	68.5	77.0	52.3	64.8	91	48	51	52	53	91	48	58	.371	.392	.398	.00	.00	8.0	.6	1.0	2.4
September	29.679	29.890	29.489	54.6	73.9	67.1	76.8	52.0	64.4	93	48	50	50	51	87	47	59	.360	.366	.378	.42	.30	6.5	1.5	1.7	2.6
October	29.772	29.990	29.580	48.3	72.5	64.9	75.4	45.5	60.4	92	35	40	38	41	78	31	47	.258	.226	.269	.12	.12	1.9	1.6	1.3	1.6
November	29.817	30.020	29.390	46.8	69.5	61.1	71.6	41.2	56.4	89	24	32	30	36	61	28	47	.185	.178	.228	.14	.10	1.8	1.1	1.1	1.4
December	29.906	30.090	29.460	44.4	62.0	57.3	65.7	40.5	53.1	83	29	37	37	40	75	45	56	.225	.231	.252	4.52	1.56	3.6	3.8	4.2	4.1
Year	29.808	30.280	29.360	48.7	67.0	61.7	70.1	45.8	58.0	93	24	42	43	45	81	46	58	.278	.290	.308	15.82	2.09	4.6	2.6	2.6	3.1

SANTA FE, N. MEX.

[ϕ=35° 41′ N.; λ=105° 57′ W.]

January	23.253	23.600	22.930	17.5	28.9	26.7	34.4	14.3	24.4	46	−10	12	15	16	76	52	62	0.072	0.084	0.089	0.12	0.08	0.9	1.2	1.8	2.1
February	23.071	23.300	22.660	21.5	30.7	32.0	36.3	18.1	27.2	52	8	16	18	19	77	59	57	.086	.098	.102	.69	.31	3.5	3.7	3.4	4.1
March	23.180	23.520	22.850	30.0	41.5	42.3	47.0	28.3	37.6	62	16	24	26	25	78	55	53	.130	.141	.137	1.70	.79	5.3	5.5	5.1	5.3
April	23.188	23.400	22.840	39.8	53.2	53.3	58.4	37.6	48.0	74	24	30	30	30	70	45	48	.170	.170	.172	1.96	.62	4.8	5.3	6.4	5.7
May	23.182	23.351	22.980	47.1	63.4	60.8	67.5	44.5	56.0	76	36	38	37	37	71	40	47	.227	.228	.227	3.37	1.71	3.4	4.9	5.3	4.9
June	23.321	23.480	23.128	53.7	71.1	68.2	75.8	50.4	63.1	87	33	43	46	45	68	42	46	.282	.320	.311	1.50	.71	1.7	3.9	6.7	4.5
July	23.357	23.520	23.220	58.8	73.1	69.9	77.6	58.1	67.8	85	54	52	53	52	78	52	56	.384	.407	.388	4.02	1.37	3.8	5.8	8.0	5.5
August	23.385	23.507	23.243	58.3	75.7	74.1	80.5	57.6	69.0	85	53	47	48	48	66	39	41	.321	.338	.334	2.06	.91	2.9	4.2	6.2	4.4
September	23.324	23.500	23.103	53.0	67.7	64.9	71.4	51.3	61.4	84	37	44	46	44	73	47	51	.293	.314	.300	2.53	.81	5.0	4.3	4.2	4.6
October	23.216	23.440	23.000	39.3	53.2	49.7	57.1	37.1	47.1	70	24	32	30	30	77	45	50	.182	.174	.175	1.82	.73	3.9	3.7	3.3	3.7
November	23.202	23.530	22.770	31.2	43.7	40.2	48.8	28.3	38.6	61	9	22	24	24	68	48	51	.121	.129	.125	.75	.31	3.5	3.7	3.5	4.0
December	23.271	23.500	22.700	27.7	39.4	34.6	43.7	24.7	34.2	54	7	17	19	18	63	44	49	.095	.107	.100	.39	.31	3.2	3.3	2.8	3.7
Year	23.246	23.600	22.660	39.8	53.5	51.4	58.2	37.5	47.9	87	−10	31	33	32	72	47	51	.197	.209	.205	20.33	1.71	3.5	4.1	4.8	4.4

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAN JOSE, CALIF.

[H_b=141 ft.; h_t=12 ft.; h_r=3 ft.; h_a=110 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	4.9	SE.	24	SE.	0	1	0	0	5	1	0	15	9	0	21	5	5	4	4	0	0	0	1	0	0	11	0	0
February	7.5	SE.	35	SE.	0	1	2	0	2	0	3	6	14	0	6	5	17	17	12	0	0	0	0	0	0	2	0	0
March	6.4	NW.	34	S.	0	0	0	1	2	2	1	11	14	0	10	8	13	10	7	0	0	0	1	0	0	0	0	0
April	6.3	NW.	29	NW.	0	0	0	0	0	1	2	7	20	0	12	10	8	1	1	0	0	0	0	0	0	0	0	0
May	7.2	NW.	27	SE.	0	1	0	0	0	5	3	22	0	0	28	2	1	1	0	0	0	0	0	0	1	0	0	0
June	6.8	NW.	24	NW.	0	0	0	0	0	0	0	0	30	0	29	1	0	0	0	0	0	0	0	0	4	0	0	0
July	6.1	NW.	23	SE.	0	0	0	0	0	0	0	1	30	0	28	3	0	0	0	0	0	0	1	0	2	0	0	0
August	5.7	NW.	19	NW.	0	0	0	0	0	0	0	5	26	0	26	5	0	1	0	0	0	0	1	0	2	0	0	0
September	5.3	NW.	20	S.	0	0	0	0	0	2	1	2	25	0	20	6	4	2	1	0	0	0	2	0	4	0	0	0
October	5.5	NW.	24	NW.	0	1	0	0	1	0	0	5	24	0	24	4	3	1	1	0	0	0	2	0	0	0	0	0
November	5.9	NW.	35	N.	0	0	0	0	0	0	0	6	24	0	22	5	3	5	1	0	0	0	1	0	0	1	0	0
December	5.8	SE.	36	SE.	0	4	0	0	6	1	1	8	11	0	11	7	13	9	7	0	0	0	4	0	0	9	0	0
Year	6.1	NW.	36	SE.	0	8	2	1	16	7	13	69	249	0	237	61	67	51	34	0	0	0	13	0	13	23	0	0

SAN JUAN, PORTO RICO.

[H_b=82 ft.; h_t=9 ft.; h_r=4 ft.; h_a=54 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.8	SE.	40	NE.	1	0	2	4	11	9	5	0	0	0	21	7	3	17	8	0	0	0	0	0	0	0	0	0
February	10.5	NE.	44	N.	1	1	2	8	6	6	4	0	1	0	22	5	1	6	5	0	0	0	0	0	0	0	0	0
March	14.6	NE.	40	NE.	2	1	10	13	4	2	2	2	0	0	13	14	4	16	11	0	0	0	0	0	0	0	0	0
April	14.1	NE.	33	NE.	0	1	15	7	1	2	2	1	1	0	9	14	7	13	8	0	0	0	0	0	0	0	0	0
May	14.4	E.	35	NE.	0	2	5	13	5	0	1	0	0	0	10	18	3	12	9	0	0	0	0	0	6	0	2	0
June	10.2	SE.	36	NE.	0	0	0	21	8	1	0	0	0	0	5	12	13	20	14	0	0	0	0	0	3	0	5	0
July	12.3	E.	49	E.	1	0	1	23	5	1	0	0	0	0	4	19	8	21	15	0	0	0	0	0	0	0	9	0
August	15.7	E.	38	E.	0	0	1	30	0	0	0	0	0	0	15	16	0	16	10	0	0	0	0	0	0	0	4	0
September	9.2	S.	32	E.	0	0	1	12	9	3	2	1	1	1	3	20	7	17	10	0	0	0	0	0	2	0	8	0
October	11.2	NE.	44	NE.	3	0	7	13	4	3	2	2	0	0	4	26	1	24	20	0	0	0	0	0	0	0	4	0
November	8.7	S.	35	E.	0	1	1	5	6	12	3	2	0	0	12	10	8	15	13	0	0	0	0	0	0	0	5	0
December	11.4	E.	44	E.	2	1	2	8	3	14	3	0	0	0	9	16	6	22	16	0	0	0	0	0	0	0	0	0
Year	11.8	E.	44	E.	10	7	47	160	62	53	24	8	3	1	127	177	61	199	140	0	0	0	0	0	11	0	37	0

SAN LUIS OBISPO, CALIF.

[H_b=201 ft.; h_t=32 ft.; h_r=23 ft.; h_a=40 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	3.7	N.	22	NE.	0	23	3	2	4	4	1	1	18	6	19	6	6	6	4	0	0	0	0	0	0	6	0	0
February	4.3	NW.	24	SE.	0	9	2	1	3	5	2	13	18	3	9	10	9	14	10	0	0	0	1	0	0	0	0	0
March	4.5	NW.	22	NW.	0	10	7	1	3	3	5	7	25	0	13	4	14	9	5	1	0	2	1	0	0	0	1	0
April	4.9	NW.	21	NE.	0	14	4	0	1	3	2	3	31	2	14	12	4	3	1	0	0	0	0	0	0	0	0	0
May	4.5	NW.	20	W.	0	9	2	0	0	5	8	4	33	1	16	7	8	6	2	0	0	0	0	0	0	0	4	0
June	5.0	NW.	20	NE.	0	8	6	0	0	4	2	6	34	0	30	0	0	0	0	0	0	0	1	0	2	0	0	0
July	3.5	NW.	12	W.	0	6	1	1	2	4	11	0	34	3	27	4	0	0	0	0	0	0	0	0	0	0	0	0
August	3.7	NW.	14	NW.	0	7	1	0	2	5	8	4	32	3	27	4	0	0	0	0	0	0	0	0	1	0	0	0
September	4.2	NW.	18	NE.	0	10	4	1	5	9	8	2	19	2	25	3	2	3	3	0	0	0	0	0	4	0	0	0
October	3.8	NW.	18	NW.	0	12	6	0	3	3	4	6	24	4	25	4	2	1	1	0	0	0	4	0	1	0	0	0
November	3.7	N.	22	W.	0	21	7	1	1	4	0	6	15	5	25	3	2	2	2	0	0	0	1	0	0	2	0	0
December	3.8	N.	22	SE.	0	15	0	3	4	11	2	3	11	7	16	8	7	7	6	0	0	1	1	0	0	2	1	0
Year	4.1	NW.	24	SE.	0	144	49	10	28	60	53	55	295	36	246	65	54	51	34	1	0	3	9	0	8	10	6	0

SANTA FE, N. MEX.

[H_b=7,013 ft.; h_t=57 ft.; h_r=49 ft.; h_a=66 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.7	NE.	26	N.	0	14	25	7	6	1	5	1	3	0	21	10	0	2	2	3	2	0	0	9	0	31	0	0
February	9.3	N.	40	NW.	1	18	5	6	7	2	10	4	4	0	14	8	6	5	5	9	5	0	0	7	0	28	0	0
March	8.7	SE.	38	SE.	0	14	9	10	6	5	11	4	3	0	8	13	10	10	8	10	5	0	0	0	0	20	2	0
April	8.1	SW.	37	SW.	0	6	11	10	6	5	14	3	5	0	6	17	7	11	9	4	3	0	0	0	0	7	7	0
May	7.9	E.	41	N.	1	8	9	11	12	6	7	3	6	0	5	24	2	14	10	3	0	0	0	0	0	0	15	0
June	7.1	E.	31	SE.	0	2	11	20	15	2	7	0	3	0	8	21	1	11	7	1	0	0	0	0	0	0	21	0
July	5.2	E.	24	NW.	0	6	16	21	11	4	3	1	0	0	4	24	3	10	14	0	0	0	0	0	0	0	23	0
August	6.2	E.	29	SE.	0	5	13	20	10	1	6	0	7	0	7	24	0	6	5	0	0	1	0	0	0	0	17	0
September	6.3	E.	29	SW.	0	6	8	15	10	7	11	2	1	0	13	12	5	10	7	0	0	0	0	0	0	0	5	0
October	6.5	SW.	30	SW.	0	8	14	6	13	9	8	1	3	0	17	8	6	7	5	1	0	1	0	0	0	2	4	0
November	8.4	N.	42	S.	2	9	13	7	15	2	6	3	5	0	15	7	3	8	5	4	4	0	0	2	0	19	1	0
December	7.5	N.	32	SW.	0	19	16	7	8	2	5	2	3	0	18	6	7	4	2	4	2	0	0	2	0	28	0	0
Year	7.4	E.	42	S.	4	115	150	140	119	40	93	24	43	0	136	174	55	104	79	39	21	2	0	20	0	135	95	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAULT STE MARIE, MICH.

[ϕ=46° 30′ N.; λ=84° 21′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.246	29.900	28.770	18.1	22.5	22.3	26.9	14.0	20.4	38	−13	14	19	18	83	84	84	0.095	0.111	0.109	1.05	0.23	8.1	8.6	7.2	8.4
February	29.264	29.950	28.390	16.3	24.4	22.9	28.1	11.8	20.0	38	−13	11	18	18	78	74	81	.080	.099	.102	1.24	.37	6.5	6.2	5.9	6.7
March	29.507	30.070	28.500	22.3	31.3	28.7	35.6	19.1	27.4	51	− 2	16	22	22	74	68	74	.096	.125	.120	.94	.69	5.3	5.3	4.6	5.1
April	29.325	29.751	28.683	33.9	42.5	39.1	45.9	30.2	38.0	67	6	27	30	32	75	62	75	.154	.171	.181	4.87	1.37	6.8	6.6	6.0	6.0
May	29.289	29.730	28.650	47.9	59.3	53.7	63.5	40.5	52.0	91	30	40	41	44	74	56	70	.255	.270	.303	2.16	.74	4.3	4.8	4.0	3.9
June	29.427	29.720	29.140	62.4	73.7	70.3	79.2	55.4	67.3	92	43	56	60	59	81	66	68	.461	.539	.503	2.16	1.08	5.3	4.0	3.6	4.3
July	29.304	29.670	29.010	62.1	74.9	70.0	78.8	54.6	66.7	92	46	56	58	61	80	58	74	.456	.497	.554	.52	.34	3.8	3.2	3.7	3.8
August	29.220	29.590	28.860	59.4	67.7	64.9	71.5	54.6	63.0	87	43	55	56	58	87	69	80	.443	.467	.489	1.09	.54	4.8	6.0	5.7	6.2
September	29.281	29.700	28.730	53.9	63.4	58.1	66.5	49.1	57.8	89	35	50	51	53	87	65	84	.374	.386	.416	4.05	.85	6.9	6.5	7.2	7.2
October	29.335	29.666	28.890	41.3	48.2	46.0	51.8	37.2	44.5	74	27	37	39	41	86	73	83	.233	.252	.267	4.83	1.22	7.4	7.9	6.9	8.4
November	29.308	29.920	27.888	27.6	31.7	31.1	36.1	23.5	29.8	54	− 4	24	27	26	84	81	82	.136	.153	.152	4.62	1.18	8.6	7.9	7.3	8.3
December	29.328	29.830	28.650	10.3	15.3	15.3	20.4	6.1	13.2	34	−22	7	11	11	85	81	80	.067	.076	.076	1.86	.56	8.0	7.4	6.8	7.8
Year	29.320	30.070	27.888	38.0	46.2	43.5	50.4	33.0	41.7	92	−22	33	36	37	81	70	78	.238	.262	.273	29.39	1.37	6.3	6.2	5.7	6.3

SAVANNAH, GA.

[ϕ=32° 05′ N.; λ=81° 05′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	30.055	30.450	29.670	45.6	57.2	52.9	60.7	43.1	51.9	74	20	39	39	41	78	54	65	0.260	0.269	0.283	1.96	0.79	5.3	5.4	4.2	5.2
February	29.951	30.350	29.520	47.8	57.0	53.5	60.1	45.6	52.8	70	30	41	41	43	79	59	71	.278	.283	.299	5.32	2.67	4.7	5.9	5.5	5.8
March	30.051	30.410	29.660	56.3	65.1	61.2	68.0	53.2	60.6	75	44	48	48	49	76	58	68	.362	.359	.368	3.07	1.42	4.9	5.3	4.4	5.0
April	30.001	30.280	29.740	60.7	71.0	65.5	74.6	57.0	65.8	89	39	52	50	53	74	51	66	.412	.395	.423	.55	.30	3.7	4.2	3.7	4.0
May	29.879	30.118	29.530	71.2	78.8	72.7	81.7	66.2	74.0	90	58	66	65	66	84	63	80	.644	.618	.644	4.34	1.73	5.0	5.9	6.5	5.8
June	29.982	30.240	29.680	75.3	81.0	76.2	83.7	70.6	77.2	92	64	70	68	69	83	67	80	.734	.701	.719	6.98	2.54	5.8	6.7	6.8	6.5
July	29.977	30.210	29.810	77.5	85.1	78.5	88.2	72.6	80.4	97	66	72	72	73	85	66	83	.796	.790	.810	9.04	1.96	5.6	5.9	7.2	5.9
August	29.946	30.130	29.760	76.7	84.7	78.3	88.4	72.3	80.4	94	65	72	72	73	86	66	85	.796	.768	.820	12.86	6.36	5.9	7.2	6.6	6.7
September	29.955	30.160	29.700	71.6	80.8	75.2	83.4	68.5	76.0	92	57	67	66	69	87	62	80	.673	.650	.706	1.73	1.11	3.8	4.9	3.4	4.5
October	30.044	30.230	29.760	72.3	82.3	74.7	84.6	69.7	77.2	94	58	69	68	71	91	63	87	.720	.689	.752	1.51	.51	3.7	5.7	2.9	5.2
November	30.030	30.513	29.660	56.8	68.0	62.4	70.6	54.6	62.6	84	39	50	53	52	80	60	71	.395	.424	.421	.75	.50	5.5	5.5	4.3	5.6
December	30.094	30.500	29.710	46.2	57.8	53.7	61.4	43.7	52.6	79	31	40	40	42	78	55	66	.269	.280	.288	.12	.08	5.1	4.7	3.6	5.0
Year	29.997	30.513	29.520	63.2	72.4	67.1	75.4	59.8	57.6	97	20	57	57	58	82	60	75	.528	.519	.544	48.23	6.36	4.9	5.6	4.9	5.4

SCRANTON, PA.

[ϕ=41° 24′ N.; λ=75° 42′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.166	29.820	28.690	28.3	32.5	32.7	39.5	23.9	31.7	56	3	24	27	29	83	79	86	0.138	0.153	0.171	2.44	1.00	7.5	6.0	5.1	6.1
February	29.111	29.620	28.460	27.9	33.7	32.3	39.1	25.5	32.3	58	18	24	30	29	84	84	86	.129	.165	.159	2.13	.56	7.2	6.4	5.2	6.3
March	29.259	29.879	28.600	35.1	42.5	40.3	48.8	29.4	39.1	76	18	30	34	36	80	72	83	.170	.202	.218	3.02	.97	6.4	6.0	5.2	6.3
April	29.148	29.496	28.800	43.0	51.6	49.8	57.4	38.4	47.9	82	19	38	44	44	82	75	80	.237	.304	.300	2.71	1.01	6.7	6.6	7.5	6.4
May	29.105	29.560	28.780	56.6	65.9	62.5	70.3	49.8	60.0	89	40	51	54	56	82	68	79	.380	.438	.456	3.33	.91	5.5	6.2	6.5	6.0
June	29.276	29.640	28.960	67.6	78.3	72.9	83.0	60.4	71.7	99	46	60	62	62	78	61	70	.538	.599	.571	4.46	2.04	5.2	4.8	7.1	6.0
July	29.169	29.480	28.782	68.2	77.4	74.7	82.9	61.9	72.4	98	50	60	60	60	74	59	63	.518	.539	.539	4.81	1.67	5.8	6.7	6.1	6.4
August	29.118	29.448	28.878	63.2	73.3	68.4	77.3	57.8	67.6	88	47	58	60	59	83	66	72	.487	.530	.507	2.30	.75	6.0	6.7	5.9	6.5
September	29.191	29.550	28.770	58.5	69.1	64.8	74.0	53.8	63.9	90	40	54	55	54	84	63	69	.426	.450	.435	2.21	.96	5.9	6.8	5.1	5.6
October	29.271	29.620	28.840	52.0	59.6	56.1	64.1	47.1	55.6	85	32	49	52	48	90	76	75	.371	.411	.361	3.94	.70	7.1	7.4	5.3	6.8
November	29.222	29.680	28.610	37.3	42.7	41.2	48.0	33.9	41.0	65	22	33	33	33	83	69	71	.195	.199	.196	2.76	.91	7.7	7.4	6.2	7.4
December	29.235	29.840	28.560	23.1	27.5	25.5	31.9	17.9	24.9	51	− 6	19	20	18	84	72	72	.111	.119	.111	2.52	.94	8.0	7.9	5.9	7.5
Year	29.189	29.879	28.460	46.7	54.5	51.8	59.7	41.6	50.7	99	− 6	42	44	44	82	70	76	.308	.342	.335	36.63	2.04	6.6	6.6	5.9	6.4

SEATTLE, WASH.

[ϕ=47° 38′ N.; λ=122° 20′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.941	30.610	29.230	40.1	42.7	43.2	46.2	36.5	41.4	56	27	36	37	37	87	80	80	0.219	0.220	0.224	7.95	2.47	7.2	7.9	7.1	8.6
February	29.796	30.340	29.220	39.4	42.3	43.1	45.1	36.5	40.8	50	27	36	36	36	87	78	77	.210	.210	.213	3.77	.76	8.4	8.7	8.2	8.8
March	29.904	30.325	29.300	40.9	46.2	48.5	50.7	38.7	44.7	70	34	38	39	36	91	76	66	.233	.235	.218	1.84	.53	8.1	8.1	7.8	8.0
April	29.959	30.350	29.490	44.5	51.0	54.1	56.6	42.6	49.6	70	34	41	41	40	88	70	62	.258	.258	.251	3.20	.61	7.3	6.7	6.4	7.3
May	29.914	30.300	29.510	46.8	56.0	58.6	61.6	45.5	53.6	73	40	42	42	40	85	60	54	.273	.265	.256	2.08	.64	7.2	5.9	6.0	6.3
June	29.983	30.292	29.780	50.3	59.4	63.4	65.6	49.4	57.5	77	45	45	44	43	84	57	49	.305	.286	.284	.35	.18	6.7	5.4	5.0	5.7
July	29.946	30.190	29.740	54.6	63.6	70.6	72.5	53.4	63.0	85	49	49	50	47	83	61	45	.351	.359	.325	.22	.13	4.1	3.4	2.8	3.4
August	29.933	30.180	29.710	55.5	64.0	70.4	71.8	54.1	63.0	86	49	52	52	52	89	66	53	.391	.390	.386	.08	.06	5.9	3.9	2.7	4.5
September	29.879	30.250	29.470	53.5	61.6	65.2	67.1	52.1	59.6	80	40	50	49	48	89	66	57	.305	.357	.345	2.00	1.32	5.2	5.2	4.3	5.1
October	30.022	30.300	29.520	45.6	49.9	51.8	53.6	43.4	48.5	67	29	43	43	43	91	79	73	.283	.287	.287	1.50	.56	7.1	7.5	6.8	7.2
November	29.974	30.540	29.420	43.5	46.5	46.8	48.9	40.9	44.9	64	28	40	40	40	86	80	79	.253	.258	.259	4.13	1.61	8.0	8.3	8.6	8.3
December	30.014	30.440	29.562	36.9	40.6	40.7	43.6	33.5	38.6	60	12	32	32	32	82	71	73	.196	.197	.201	4.10	1.15	6.5	5.9	5.2	6.4
Year	29.939	30.610	29.220	46.0	52.0	54.7	56.9	43.9	50.4	86	12	42	42	41	87	70	64	.278	.277	.271	31.34	2.47	6.8	6.4	5.9	6.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

SAULT STE MARIE, MICH.

[H_b=614 ft.; h_1=11 ft.; h_r=3 ft.; h_a=52 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	9.9	SE.	44	NW.	1	3	11	9	11	2	9	11	6	0	2	6	23	16	9	19	16	0	0	17	0	30	0	0
February	10.1	E.	40	W.	1	2	4	13	11	0	6	10	9	1	8	3	17	14	12	16	14	0	2	17	0	28	0	0
March	11.3	NW.	36	NW.	0	7	5	9	12	3	4	6	16	0	12	7	12	6	4	8	3	0	1	10	0	30	0	2
April	10.6	NW.	48	NW.	2	3	5	13	11	3	0	9	16	0	11	7	12	13	12	1	1	0	1	1	0	18	1	0
May	8.4	W.	46	NW.	1	2	8	9	4	3	10	16	10	0	18	6	7	7	6	1	1	0	0	0	2	5	0	1
June	5.3	SE.	22	NE.	0	1	6	12	17	5	4	8	5	2	14	11	5	4	4	0	0	1	0	0	3	0	2	0
July	6.6	NW.	33	NW.	0	2	7	13	7	3	11	5	13	1	15	13	3	4	2	0	0	0	0	0	2	0	4	0
August	8.1	NW.	38	NW.	0	2	1	8	11	4	6	6	22	2	7	10	14	11	6	0	0	0	4	0	0	0	2	0
September	6.9	NW.	36	NW.	0	3	2	6	16	4	4	3	19	3	4	9	17	17	15	0	0	0	2	0	0	0	2	1
October	8.3	SE.	37	NW.	0	7	5	6	17	4	3	4	16	0	6	10	21	19	16	3	3	0	3	0	0	11	2	0
November	10.5	SE.	38	NW.	0	6	9	7	11	3	10	4	10	0	3	4	23	21	17	19	16	0	0	9	0	23	0	0
December	7.5	SW.	42	NW.	1	3	13	6	13	4	15	2	5	1	3	7	21	18	14	23	18	0	0	29	0	31	0	0
Year	8.6	NW.	48	NW.	6	41	76	111	141	38	82	84	147	10	97	93	175	150	117	90	72	1	13	83	7	176	13	4

SAVANNAH, GA.

[H_b=65 ft.; h_1=150 ft.; h_r=143 ft.; h_a=194 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.7	NE.	39	NW.	0	8	15	5	6	2	9	11	6	0	14	5	12	6	5	0	0	0	4	0	0	5	0	0
February	13.6	NW.	44	W.	4	6	9	5	5	3	10	8	10	0	10	4	14	13	12	0	0	1	3	0	0	2	1	0
March	12.2	E.	46	W.	2	10	13	12	4	9	3	6	5	0	14	4	13	10	6	0	0	0	1	0	0	0	2	0
April	11.8	S.	48	S.	1	5	5	5	9	21	4	7	4	0	16	7	7	3	2	0	0	0	1	0	0	0	1	0
May	10.4	S.	34	SW.	0	2	3	6	15	19	8	6	3	0	7	11	13	13	11	0	0	1	2	0	1	0	9	0
June	10.2	E.	32	E.	0	4	13	14	7	6	4	9	3	0	10	4	16	14	10	0	0	0	0	0	2	0	6	0
July	9.5	SW.	42	N.	3	1	7	6	8	14	14	9	2	1	7	14	10	16	13	0	0	0	0	0	12	0	12	0
August	9.5	SW.	36	N.	0	3	1	2	7	11	18	14	6	0	4	13	14	12	12	0	0	0	0	0	15	0	16	0
September	9.7	NE.	42	NE.	1	12	17	12	8	5	3	1	1	1	12	13	5	4	4	0	0	0	2	0	3	0	1	0
October	9.5	SE.	42	SE.	1	5	5	12	12	10	12	3	3	0	12	10	9	9	7	0	0	0	5	0	4	0	2	0
November	11.2	NE.	44	W.	1	6	20	7	4	6	6	6	5	0	10	7	13	4	4	0	0	0	1	0	0	0	2	0
December	12.4	N.	39	W.	0	13	12	1	0	7	10	14	5	0	12	9	10	4	1	0	0	0	2	0	0	1	0	0
Year	11.0	NE.	48	S.	13	75	120	87	85	113	101	94	53	2	128	101	136	108	87	0	0	2	21	0	37	8	52	0

SCRANTON, PA.

[H_b=805 ft.; h_1=111 ft.; h_r=102 ft.; h_a=119 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.4	SW.	36	NW.	0	9	7	1	2	3	22	11	7	0	6	14	11	12	10	11	7	0	0	5	0	25	0	0
February	7.6	NW.	31	SW.	0	2	5	1	9	1	14	7	16	1	6	11	11	11	9	11	6	0	0	4	0	24	0	0
March	9.4	NW.	39	SW.	0	7	16	2	5	2	10	3	17	0	8	10	13	8	7	8	3	0	0	5	0	20	0	0
April	8.3	SW.	34	NW.	0	6	9	2	7	3	16	5	12	0	7	7	16	14	12	3	2	0	0	1	0	6	1	0
May	6.9	SW.	30	E.	0	8	7	8	5	9	14	2	9	0	9	8	14	14	13	0	0	0	0	0	0	0	3	0
June	5.2	N.	27	E.	0	11	6	2	10	9	11	2	9	0	9	8	13	9	9	0	0	2	0	0	5	0	5	0
July	6.2	NW.	34	W.	0	7	13	2	5	7	14	5	9	0	7	9	15	13	11	0	0	0	0	0	5	0	9	0
August	6.0	N.	23	SW.	0	7	12	2	3	14	9	3	12	0	5	11	15	13	9	0	0	0	0	0	0	0	4	0
September	5.8	SW.	35	S.	0	9	5	2	6	8	10	4	16	0	11	8	11	10	9	0	0	0	0	0	1	0	4	0
October	5.9	S.	34	SW.	0	9	7	2	6	20	8	2	8	0	8	5	18	19	16	0	0	0	1	0	0	0	1	0
November	8.1	NW.	46	SW.	1	13	5	0	4	9	14	3	12	0	3	9	18	10	8	5	0	1	0	1	0	15	1	0
December	7.1	SW.	34	SW.	0	5	11	0	5	4	16	7	14	0	1	12	18	15	12	17	9	0	2	12	0	27	0	0
Year	6.9	SW.	46	SW.	1	98	103	24	67	89	158	54	141	1	80	112	173	148	125	55	27	3	3	28	11	117	28	0

SEATTLE, WASH.

[H_b=125 ft.; h_1=215 ft.; h_r=209 ft.; h_a=250 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.8	SE.	52	SW.	4	7	6	8	20	14	3	0	3	1	1	5	25	16	11	0	0	0	6	0	0	8	0	0
February	9.4	SE.	38	S.	0	6	4	6	16	12	7	3	2	0	1	3	24	21	17	2	0	0	1	0	0	3	0	0
March	11.0	S.	40	S.	2	8	6	0	12	17	10	4	5	0	2	9	20	17	14	0	0	0	1	0	0	0	0	0
April	9.6	N.	50	SW.	2	13	4	3	12	8	8	1	11	0	2	12	16	13	12	0	0	1	1	0	0	0	1	0
May	9.6	S.	38	SW.	0	6	5	6	13	11	9	2	10	0	6	11	14	14	10	0	0	0	0	0	0	0	1	1
June	8.4	N.	32	SW.	0	13	14	1	8	9	5	4	6	0	7	15	8	5	3	0	0	0	0	0	0	0	0	0
July	7.2	N.	32	SW.	0	17	10	2	5	6	4	5	13	0	19	4	8	3	2	0	0	1	0	0	0	0	1	0
August	6.6	N.	27	S.	0	14	6	0	9	8	8	7	9	1	12	12	7	3	1	0	0	0	1	0	0	0	0	0
September	7.1	N.	23	S.	0	13	6	5	9	8	4	8	6	1	11	7	12	8	5	0	0	0	2	0	0	0	0	0
October	7.0	N.	38	SW.	0	14	8	5	11	8	2	6	8	0	1	11	19	15	11	0	0	0	8	0	0	1	1	0
November	9.7	SE.	45	S.	2	8	7	6	21	12	4	1	1	0	2	2	26	22	13	1	0	0	1	0	0	1	0	0
December	9.0	SE.	41	S.	1	11	11	8	15	12	3	2	0	0	10	3	18	13	12	2	1	0	4	5	0	14	0	0
Year	8.7	SE.	52	SW.	11	130	87	50	151	125	67	43	74	3	74	94	197	150	111	5	1	2	25	5	0	27	4	1

Annual meteorological summary for the year ending December 31, 1919—Continued.

SHERIDAN, WYO.

[ϕ=44° 48′ N.; λ=106° 57′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	26.100	26.493	25.710	19.1	37.7	31.1	43.3	12.5	27.9	62	−15	13	19	17	75	47	56	0.077	0.101	0.095	0.33	0.25	3.6	5.1	2.9	3.4
February	25.968	26.262	25.520	13.7	28.2	26.6	32.9	10.3	21.6	58	− 6	10	14	15	83	55	61	.070	.084	.085	.20	.06	5.5	6.1	6.1	6.4
March	26.050	26.470	25.510	20.7	42.9	41.3	48.1	17.8	33.0	71	− 8	15	20	21	78	44	48	.087	.114	.117	.43	.15	5.3	4.9	5.8	4.1
April	26.074	26.430	25.500	35.7	53.4	53.0	58.0	32.5	45.2	72	21	29	30	30	78	45	44	.165	.171	.170	1.16	.28	5.7	5.2	6.1	4.5
May	26.017	26.270	25.560	44.5	66.4	65.3	70.5	39.1	54.8	94	28	34	36	36	68	35	38	.205	.213	.221	.81	.32	2.6	4.0	5.6	2.8
June	26.078	26.400	25.710	55.8	79.8	80.8	85.6	50.5	68.0	103	30	46	47	46	71	35	34	.322	.330	.318	.54	.37	3.0	2.5	3.6	2.7
July	26.105	26.335	25.806	60.8	83.9	84.4	89.3	55.8	72.6	101	42	48	49	49	64	32	33	.339	.352	.356	.37	.31	2.8	1.8	4.0	3.2
August	26.128	26.379	25.887	52.9	82.8	80.2	86.7	49.8	68.2	98	35	44	44	44	72	28	30	.293	.305	.298	.18	.18	2.2	3.0	3.9	3.6
September	26.098	26.430	25.740	48.1	69.2	65.7	74.1	45.2	59.6	91	30	42	45	45	81	45	51	.279	.317	.315	1.10	.58	4.2	3.5	4.1	4.1
October	26.098	26.370	25.530	29.1	43.8	38.3	47.1	24.3	35.7	75	5	25	28	29	85	57	70	.146	.162	.165	2.87	.77	6.8	6.0	6.4	7.4
November	26.126	26.610	25.610	18.1	29.2	25.8	36.0	12.8	24.4	59	−14	14	19	19	81	66	75	.092	.115	.117	1.05	.46	5.0	6.5	5.5	6.1
December	26.159	26.500	25.780	8.0	21.2	16.2	26.4	1.0	13.7	52	−41	3	10	11	81	60	79	.059	.078	.085	.35	.12	2.8	4.5	4.6	4.6
Year	26.083	26.610	25.500	33.9	53.2	50.7	58.2	29.3	43.7	103	−41	27	30	30	76	46	52	.178	.195	.195	9.39	.77	4.1	4.4	4.9	4.3

SHREVEPORT, LA.

[ϕ=32° 30′ N.; λ=93° 40′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.916	30.280	29.560	39.6	49.3	49.6	54.4	37.6	46.0	66	16	36	37	37	85	66	65	0.223	0.242	0.239	3.28	1.14	4.7	5.0	3.4	4.9
February	29.737	30.180	29.090	44.0	53.4	52.4	58.7	40.4	49.6	73	29	37	38	39	79	58	63	.235	.237	.255	3.46	1.02	4.7	4.0	4.7	4.7
March	29.841	30.180	29.410	49.6	62.6	63.1	68.2	48.3	58.2	79	28	42	43	44	77	52	53	.286	.295	.302	3.14	1.17	4.2	4.0	4.5	4.4
April	29.750	30.070	29.380	58.0	70.2	70.6	75.7	54.6	65.2	87	43	52	50	50	80	52	51	.407	.390	.383	3.93	1.13	3.8	2.6	3.4	3.8
May	29.614	29.830	29.360	64.4	74.1	73.0	78.7	61.5	70.1	88	53	60	60	61	87	63	66	.534	.526	.543	5.78	2.01	5.5	5.3	5.2	5.3
June	29.732	29.910	29.477	71.5	82.3	79.0	86.6	69.0	77.8	95	57	68	68	68	88	64	72	.688	.696	.696	5.53	1.89	5.7	4.3	6.3	5.7
July	29.746	29.910	29.587	76.0	87.1	85.5	91.5	73.7	82.6	97	70	71	70	70	86	58	61	.767	.732	.728	.70	.28	2.6	3.5	4.1	3.6
August	29.747	29.880	29.610	75.7	86.6	84.5	91.5	73.7	82.6	98	69	72	71	72	88	60	66	.780	.748	.770	3.85	1.31	4.3	4.2	3.4	4.1
September	29.743	29.930	29.491	69.8	82.0	78.4	84.9	68.0	76.4	93	59	65	64	67	86	56	68	.635	.610	.667	2.16	1.45	3.6	4.5	4.2	4.6
October	29.746	29.940	29.512	66.6	74.8	72.3	78.4	64.5	71.4	89	50	65	66	66	96	76	83	.633	.649	.658	11.75	2.84	7.7	6.4	4.8	6.6
November	29.821	30.240	29.370	51.2	62.6	59.8	67.1	48.6	57.8	79	32	47	48	50	87	61	70	.353	.365	.379	4.68	1.57	4.2	4.1	3.9	4.5
December	29.930	30.490	29.430	43.2	52.3	50.8	58.2	39.4	48.8	75	21	37	38	39	81	62	67	.243	.257	.264	2.08	1.00	5.9	5.2	5.6	6.0
Year	29.777	30.490	29.090	59.1	69.8	68.2	74.5	56.6	65.5	98	16	54	54	55	85	61	66	.482	.479	.490	50.34	2.84	4.7	4.4	4.5	4.8

SIOUX CITY, IOWA.

[ϕ=42° 29′ N.; λ=96° 24′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.821	29.280	28.450	22.7	33.0	31.7	38.1	20.3	29.2	58	−22	17	21	22	80	63	68	0.110	0.125	0.127	0.26	0.24	4.7	5.3	2.6	3.9
February	28.744	29.210	27.971	19.4	25.1	24.9	30.6	16.1	23.4	50	− 5	17	20	19	87	79	78	.100	.116	.112	2.91	1.38	8.1	6.4	5.9	6.1
March	28.900	29.500	28.250	29.0	39.2	40.5	45.5	27.1	36.3	73	− 2	26	30	31	86	70	70	.148	.177	.182	1.14	.40	6.6	5.7	4.6	5.7
April	28.742	29.380	28.060	41.9	50.3	51.5	55.2	39.5	47.4	73	26	37	38	38	84	67	63	.230	.242	.233	3.02	.80	8.0	7.9	7.6	7.8
May	28.735	29.030	28.370	53.3	65.1	65.2	69.0	49.8	59.4	85	39	48	51	48	84	62	56	.349	.385	.349	2.52	.96	4.8	6.7	5.3	6.0
June	28.790	28.990	28.507	65.5	75.8	75.3	79.6	63.3	71.4	96	48	62	63	63	90	68	68	.581	.599	.563	6.06	2.10	7.2	7.2	4.2	6.6
July	28.757	29.010	28.460	70.9	84.1	84.1	88.2	68.0	78.1	101	59	64	64	63	81	52	52	.611	.604	.584	4.16	2.61	4.3	3.4	3.4	3.8
August	28.775	29.070	28.440	64.2	78.7	79.1	83.4	61.9	72.6	99	45	59	59	58	83	52	51	.508	.508	.497	1.91	1.03	4.6	3.7	4.0	3.9
September	28.763	29.057	28.240	59.1	72.6	71.1	76.7	57.6	67.2	92	42	55	55	53	86	63	58	.444	.490	.416	2.56	.95	5.6	5.5	5.5	5.5
October	28.795	29.180	28.210	41.4	50.8	49.9	55.8	38.0	46.9	84	15	38	42	38	87	74	67	.246	.289	.245	1.12	.46	5.9	6.4	5.8	6.4
November	28.868	29.420	27.980	26.8	34.0	33.1	39.4	23.8	31.6	58	1	22	26	26	83	72	76	.132	.149	.149	3.15	1.82	6.1	6.5	5.0	6.4
December	28.932	29.540	28.380	13.5	19.6	18.2	24.2	10.2	17.2	46	−16	10	14	14	85	79	82	.090	.093	.093	.40	.21	6.7	5.0	4.1	5.5
Year	28.802	29.540	27.971	42.3	52.4	52.0	57.1	39.6	48.4	101	−22	38	40	39	85	67	66	.295	.315	.298	29.21	2.61	6.0	5.8	4.8	5.6

SPOKANE, WASH.

[ϕ=47° 40′ N.; λ=117° 25′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.044	28.586	27.410	27.8	34.0	35.4	38.4	25.1	31.8	56	0	24	28	28	84	78	72	0.136	0.157	0.156	2.11	0.58	7.8	7.9	6.9	7.7
February	27.854	28.240	27.280	29.0	34.5	35.6	38.0	26.5	32.2	45	8	26	29	27	87	79	70	.140	.157	.147	3.26	.96	8.5	8.5	8.1	8.3
March	27.920	28.300	27.375	33.8	44.1	46.7	48.5	32.0	40.2	66	19	29	28	30	82	62	55	.160	.175	.167	1.36	.32	6.9	7.4	6.8	6.8
April	27.950	28.280	27.526	41.0	56.5	58.8	61.1	39.1	50.1	75	30	33	33	28	74	43	35	.189	.191	.165	.93	.42	5.0	6.9	7.5	6.7
May	27.892	28.200	27.520	45.7	61.4	64.6	66.4	44.5	55.4	88	35	36	34	33	70	38	33	.221	.201	.194	.75	.23	6.1	7.2	6.9	6.7
June	27.951	28.280	27.740	49.6	70.9	74.9	76.4	48.4	62.4	96	36	36	35	32	61	28	21	.215	.206	.182	.01	.01	3.3	4.5	5.0	4.4
July	27.917	28.160	27.660	57.4	80.8	85.7	87.1	56.5	71.8	102	47	40	38	34	53	23	16	.252	.235	.198	.07	.05	2.7	3.2	2.9	3.2
August	27.936	28.140	27.73	57.6	77.8	82.5	83.9	55.8	69.8	95	47	43	44	41	61	32	26	.287	.260	.265	1.02	.84	3.1	3.1	3.4	3.3
September	27.933	28.250	27.550	48.4	66.4	68.9	72.1	45.4	58.8	87	28	38	40	38	70	41	35	.238	.258	.226	.48	.20	3.4	4.9	3.7	4.0
October	28.010	28.270	27.580	35.8	48.9	51.1	54.5	32.4	43.4	76	12	30	32	30	79	54	46	.172	.185	.168	.69	.12	4.5	5.6	4.9	6.2
November	28.043	28.525	27.510	31.0	37.0	37.7	40.2	28.3	34.2	61	7	26	28	29	83	72	72	.149	.162	.170	1.82	.48	6.5	7.2	5.9	7.5
December	28.126	28.480	27.640	19.5	26.5	26.9	30.0	15.2	22.6	55	−15	16	19	20	84	72	75	.109	.119	.122	1.3	.40	6.4	7.2	7.2	7.9
Year	27.965	28.586	27.280	39.8	53.2	55.8	58.0	37.4	47.7	102	−15	31	32	31	74	52	46	.189	.195	.181	13.85	.96	5.4	6.1	6.1	6.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

SHERIDAN, WYO.

[H_b=3,790 ft.; h_1=10 ft.; h_2=3 ft.; h_3=47 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	4.4	NW.	34	NW.	0	2	1	3	11	22	7	0	16	0	16	10	5	4	2	6	4	0	0	2	0	30	0	0
February	5.1	NW.	33	NW.	0	1	6	5	5	12	8	0	19	0	8	9	11	8	3	14	8	0	0	13	0	28	0	0
March	5.6	NW.	34	NW.	0	4	10	3	6	11	8	3	17	0	17	6	8	7	4	8	6	0	0	2	0	31	0	0
April	7.6	NW.	38	NW.	0	1	3	3	7	11	7	3	25	0	14	7	9	10	7	6	3	0	0	0	0	17	1	0
May	7.5	NW.	40	NW.	1	4	2	5	22	7	5	2	15	0	20	8	3	11	6	3	1	0	0	0	3	5	2	0
June	6.5	SE.	36	SE.	0	3	10	2	16	11	6	0	12	0	23	5	2	5	3	0	0	1	0	0	13	1	6	0
July	5.8	NW.	39	W.	0	3	12	5	9	7	6	3	17	0	19	8	4	6	1	0	0	0	0	0	18	0	6	0
August	4.9	NW.	38	SW.	0	9	5	4	13	11	6	3	10	1	14	13	4	3	1	0	0	0	0	0	10	0	6	0
September	4.7	NW.	34	SW.	0	4	6	2	5	20	6	6	11	0	19	2	9	7	5	0	0	2	0	0	1	1	3	0
October	4.7	NW.	38	NW.	0	0	6	4	7	15	6	7	17	0	5	3	23	16	12	11	9	0	1	6	0	26	0	0
November	4.5	NW.	24	NW.	0	0	5	0	5	16	7	3	24	0	11	5	14	10	7	12	9	0	1	10	0	29	0	0
December	4.0	S.	22	NW.	0	5	3	0	8	18	9	5	14	0	15	8	8	8	5	8	8	0	0	15	0	30	0	0
Year	5.4	NW.	40	NW.	1	36	69	36	114	161	81	35	197	1	181	84	100	95	56	68	48	3	2	48	45	198	24	0

SHREVEPORT, LA.

[H_b=249 ft.; h_1=77 ft.; h_2=70 ft.; h_3=93 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.4	NW.	27	SE.	0	7	5	2	11	9	10	3	15	0	16	2	13	9	7	1	1	0	0	2	0	9	0	0
February	9.0	NW.	38	W.	0	4	0	6	13	7	3	5	18	0	12	8	8	13	11	0	0	0	1	0	0	3	4	0
March	7.6	SE.	40	S.	1	6	12	10	19	5	2	2	6	0	17	4	10	6	4	0	0	0	0	0	0	2	2	0
April	8.4	S.	26	W.	0	0	4	5	11	20	8	5	7	0	17	6	7	6	6	0	0	1	0	0	0	0	6	0
May	6.4	S.	24	E.	0	4	9	7	12	14	5	6	5	0	8	12	11	12	11	0	0	0	0	0	0	0	7	0
June	5.8	S.	27	SE.	0	3	8	10	13	15	3	4	4	0	6	16	8	15	9	0	0	0	0	0	7	0	10	0
July	4.9	S.	28	E.	0	2	3	5	12	13	13	11	3	0	20	5	6	9	5	0	0	0	0	0	22	0	3	0
August	5.7	SW.	28	S.	0	0	4	3	10	12	25	4	4	0	19	4	8	11	9	0	0	0	0	0	23	0	10	0
September	5.0	E.	23	S.	0	8	13	15	15	5	1	0	2	1	14	9	7	6	4	0	0	0	0	0	4	0	2	0
October	6.6	SE.	20	SE.	0	3	12	5	19	16	2	0	5	0	7	6	18	15	11	0	0	0	0	0	0	0	3	0
November	6.3	N.	37	W.	0	12	11	7	7	6	4	5	7	1	15	6	9	8	6	0	0	0	0	0	0	0	3	0
December	7.1	N.	28	W.	0	13	6	2	8	12	7	5	9	0	8	10	13	7	6	0	0	0	0	0	0	7	1	0
Year	6.7	SE.	40	S.	1	62	87	77	150	134	83	50	85	2	159	88	118	117	89	1	1	1	1	2	56	21	51	0

SIOUX CITY, IOWA.

[H_b=1,135 ft.; h_1=94 ft.; h_2=86 ft.; h_3=164 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	11.0	NW.	42	NW.	1	3	1	3	10	11	3	9	21	1	15	8	8	3	1	3	3	0	2	5	0	27	0	0
February	13.5	NW.	41	NW.	2	11	7	11	5	5	0	2	15	0	7	10	11	10	8	15	9	0	0	13	0	26	0	0
March	12.5	SE.	45	SE.	2	6	6	6	18	12	2	1	11	0	10	8	13	5	4	5	2	0	1	5	0	18	0	0
April	14.3	N.	45	NW.	6	11	7	8	12	6	1	6	9	0	3	6	21	13	12	3	3	1	2	0	0	4	4	0
May	11.5	SE.	40	NW.	1	6	8	8	16	6	0	4	14	0	7	12	12	8	7	0	0	0	0	0	0	0	4	1
June	10.8	SE.	39	N.	0	13	3	5	16	19	0	2	2	0	4	13	13	15	13	0	0	1	0	0	3	0	10	0
July	10.9	S.	38	W.	0	7	9	13	11	18	2	0	2	0	16	12	3	9	8	0	0	0	0	0	10	0	10	0
August	8.5	S.	38	W.	0	5	10	6	12	11	5	3	10	0	13	14	4	6	4	0	0	0	0	0	5	0	5	0
September	11.2	S.	45	S.	1	7	9	5	12	14	2	3	8	0	9	8	13	10	10	0	0	0	0	0	3	0	3	0
October	11.2	N.	40	NW.	2	12	7	2	12	6	3	7	12	1	6	9	16	11	6	1	1	0	2	1	0	11	3	1
November	11.1	NW.	52	W.	3	8	7	4	10	4	2	3	22	0	8	6	16	10	9	10	6	0	0	9	0	21	0	0
December	10.2	NW.	36	NW.	0	11	3	0	11	10	3	6	18	0	9	10	12	5	2	7	4	0	2	21	0	29	0	0
Year	11.4	SE.	52	W.	18	100	77	71	145	122	23	46	144	2	107	116	142	105	84	44	28	2	9	54	21	136	39	2

SPOKANE, WASH.

[H_b=1,929 ft.; h_1=101 ft.; h_2=94 ft.; h_3=110 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.6	S.	40	SW.	1	6	13	5	5	11	15	3	4	0	1	11	19	11	9	6	3	0	3	9	0	22	0	0
February	5.5	SW.	32	SW.	0	3	9	3	6	10	15	3	7	0	1	7	20	20	17	21	15	0	0	1	0	24	0	0
March	6.7	SW.	30	SW.	0	3	6	8	3	18	13	9	2	0	7	6	18	12	9	6	5	0	0	1	0	17	1	0
April	7.4	SW.	36	SW.	0	2	9	3	4	10	17	10	4	1	3	13	14	9	7	0	0	1	2	0	0	4	1	0
May	8.3	SW.	31	SW.	0	2	9	7	3	9	15	9	8	0	4	12	15	9	5	0	0	2	0	0	0	0	1	0
June	6.6	SW.	38	W.	0	1	5	6	1	11	16	18	2	0	10	16	4	1	0	0	0	0	0	0	2	0	0	0
July	5.9	SW.	27	SW.	0	4	7	3	6	8	15	8	11	0	16	14	1	2	1	0	0	0	0	0	14	0	3	0
August	5.6	SW.	36	W.	0	4	8	8	3	10	12	15	2	0	16	10	5	4	2	0	0	0	0	0	5	0	4	0
September	5.3	NE.	35	SW.	0	7	16	6	0	6	9	8	5	1	16	10	4	5	4	0	0	0	0	0	0	2	2	0
October	4.0	SW.	23	SW.	0	12	7	2	2	7	22	7	3	0	7	11	13	11	5	6	6	1	1	6	0	17	0	0
November	5.5	NE.	32	SW.	0	7	20	6	2	8	10	4	3	0	6	4	20	12	10	8	7	0	1	7	0	21	0	0
December	4.5	NE.	29	SW.	0	5	17	6	2	13	11	1	7	0	2	6	23	12	7	8	5	0	3	17	0	22	0	0
Year	6.0	SW.	40	SW.	1	56	128	63	37	121	170	95	58	2	89	120	156	108	76	55	41	4	10	35	21	129	12	0

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

SPRINGFIELD, ILL.

[ϕ=39° 48′ N.; λ=89° 39′ W.]

Month.	Pressure.			Temperature.								Moisture.															
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.413	29.720	29.030	27.8	36.8	34.5	41.1	24.6	32.8	55	− 8	24	25	26	83	64	71	0.135	0.147	0.151	0.09	0.05	4.7	5.1	3.8	4.9
February	29.275	29.840	28.300	28.4	34.8	33.9	40.8	25.0	32.9	57	12	25	26	26	84	70	73	.140	.150	.147	2.15	.56	7.0	6.6	4.9	6.2
March	29.462	29.910	28.980	36.3	46.3	45.9	52.4	33.4	42.9	71	10	32	34	36	84	64	70	.194	.211	.224	2.26	.69	5.2	6.4	5.8	5.9
April	29.292	29.741	28.840	47.2	59.0	57.4	64.2	43.8	54.0	79	27	41	42	43	80	57	61	.267	.293	.298	1.26	.29	6.4	7.3	6.8	6.9
May	29.232	29.520	28.900	54.7	65.2	63.8	69.6	51.4	60.5	88	42	49	50	52	81	62	67	.357	.385	.403	3.87	1.01	6.6	7.0	7.2	7.1
June	29.340	29.630	28.950	70.6	81.9	78.2	85.6	66.3	76.0	92	56	65	65	66	83	58	67	.627	.638	.648	5.46	2.88	4.8	6.5	5.0	5.5
July	29.315	29.340	29.100	72.8	87.5	84.1	91.0	68.6	79.8	100	61	64	63	65	75	46	53	.609	.589	.620	1.25	.80	2.4	2.7	2.8	2.8
August	29.299	29.550	29.070	66.6	80.8	77.2	84.7	63.3	74.0	98	52	60	60	61	80	51	58	.535	.541	.550	1.85	.51	3.4	5.1	3.4	4.3
September	29.338	29.590	28.780	62.2	77.8	72.9	81.6	59.4	70.5	96	45	55	55	57	79	48	60	.464	.462	.498	2.74	1.06	4.9	5.0	3.5	4.2
October	29.357	29.640	28.950	51.5	61.9	58.6	67.0	48.5	57.8	88	34	49	49	51	92	66	77	.378	.380	.392	5.63	2.09	6.1	6.3	5.6	6.1
November	29.404	29.830	28.570	35.7	43.1	41.6	48.6	32.7	40.6	64	17	32	32	32	84	65	70	.187	.186	.193	3.10	1.81	6.0	5.8	4.1	5.4
December	29.473	30.220	28.888	20.7	26.6	26.2	31.3	17.1	24.2	49	− 4	18	20	20	87	74	76	.100	.111	.113	.30	.29	6.9	7.1	4.8	6.5
Year	29.350	30.220	28.300	47.9	58.5	56.2	63.2	44.5	53.8	100	− 8	43	43	45	83	60	67	.332	.341	.358	29.96	2.88	5.4	5.9	4.8	5.5

SPRINGFIELD, MO.

[ϕ=37° 12′ N.; λ=93° 18′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.713	29.010	28.440	30.2	38.5	39.8	45.4	27.8	36.6	62	− 6	25	27	28	80	65	66	0.140	0.153	0.164	0.34	0.19	4.1	3.9	3.9	3.8
February	28.531	28.930	27.570	30.5	35.9	37.9	44.8	26.8	35.8	63	5	26	27	29	83	71	72	.145	.152	.169	2.44	.63	5.1	4.9	6.3	4.7
March	28.706	29.070	28.250	40.5	51.5	51.7	58.7	38.1	48.4	73	14	33	35	36	76	56	57	.200	.216	.223	2.23	1.18	4.3	3.9	5.1	3.4
April	28.572	28.940	28.160	49.7	60.1	61.5	66.1	46.8	56.4	84	30	42	44	43	76	58	53	.284	.300	.289	3.55	2.15	4.9	5.1	5.9	3.7
May	28.506	28.718	28.159	56.8	66.0	64.5	70.3	53.7	62.0	81	44	53	52	55	88	64	72	.411	.412	.441	4.52	1.33	6.0	6.4	6.2	5.0
June	28.629	28.870	28.380	68.8	78.0	76.0	81.8	65.4	73.6	89	50	64	64	65	86	64	69	.611	.614	.620	4.00	1.29	5.0	5.3	5.1	3.7
July	28.638	28.820	28.449	72.4	84.4	81.7	88.1	69.1	78.6	94	63	65	62	64	79	50	58	.625	.579	.606	1.96	.84	2.1	3.5	3.5	2.0
August	28.620	28.810	28.452	70.0	82.5	80.0	86.8	67.6	77.2	97	57	62	62	63	78	52	57	.570	.560	.578	.53	.20	3.5	3.5	3.9	2.8
September	28.643	28.860	28.185	64.2	78.8	75.8	83.1	62.1	72.6	95	52	56	56	57	77	48	54	.472	.478	.489	1.62	1.25	2.9	3.0	4.4	2.6
October	28.626	28.880	28.266	54.1	63.5	60.2	68.9	50.9	59.9	85	35	51	52	51	91	68	75	.397	.412	.401	11.94	4.06	5.4	6.0	6.5	6.7
November	28.675	29.110	28.020	38.0	47.1	45.8	53.6	35.3	44.4	68	17	33	33	35	82	62	68	.197	.203	.211	4.49	1.68	4.4	4.4	4.2	4.9
December	28.735	29.320	28.220	27.5	35.6	33.5	42.1	23.0	32.6	66	0	25	27	26	89	75	75	.141	.160	.144	.44	.20	5.0	4.8	4.4	4.8
Year	28.653	29.320	27.570	50.2	60.2	59.0	65.8	47.2	56.5	97	− 6	45	45	46	82	61	65	.349	.354	.361	38.06	4.06	4.4	4.6	5.0	4.0

SYRACUSE, N. Y.

[ϕ=43° 02′ N.; λ=76° 10′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.365	30.080	28.900	27.2	31.4	....	37.5	22.3	29.9	59	− 1	22	23	....	80	71	....	0.127	0.128	....	2.09	0.51	7.6	7.2	6.5	7.0
February	29.335	29.889	28.660	25.4	29.2	....	33.7	21.9	27.8	54	12	20	22	....	77	74	....	.106	.120	....	1.59	.50	7.7	7.9	6.8	7.3
March	29.504	30.080	28.820	30.8	35.6	....	43.7	25.9	34.8	69	7	23	26	....	72	68	....	.129	.146	....	4.30	1.24	6.7	6.4	6.0	6.5
April	29.352	29.745	29.000	41.0	45.8	....	51.3	34.9	43.1	72	12	33	35	....	73	68	....	.196	.213	....	3.80	.67	7.4	7.9	6.9	7.1
May	29.320	29.800	29.000	53.9	60.6	....	65.4	48.2	56.8	83	38	45	44	....	74	58	....	.308	.296	....	4.91	1.18	6.1	6.2	7.0	6.2
June	29.485	29.814	29.140	68.7	77.8	....	81.2	61.5	71.4	95	45	58	58	....	71	51	....	.505	.494	....	1.59	.66	4.3	5.1	3.5	4.4
July	29.373	29.668	28.930	68.8	76.8	....	80.7	61.6	71.2	93	50	58	56	....	69	52	....	.490	.460	....	5.44	1.94	4.9	5.1	4.5	4.6
August	29.306	29.643	29.000	63.8	70.1	....	74.0	59.3	66.6	87	50	56	56	....	76	61	....	.456	.450	....	2.00	.58	5.8	6.7	5.7	5.9
September	29.372	29.724	28.990	60.1	67.0	....	70.9	55.1	63.0	89	39	52	52	....	77	61	....	.406	.410	....	1.60	.86	6.7	6.3	4.8	6.3
October	29.448	29.810	28.941	52.3	57.2	....	61.5	46.0	53.8	83	32	45	45	....	76	66	....	.325	.328	....	3.69	.78	7.8	7.0	5.0	7.1
November	29.431	29.870	28.700	35.7	39.9	....	45.4	31.1	38.2	65	16	29	29	....	76	66	....	.165	.163	....	2.00	.47	7.6	8.0	7.2	7.8
December	29.423	30.030	28.756	20.7	23.9	....	30.3	14.9	22.6	55	−13	16	17	....	82	73	....	.100	.101	....	2.24	.54	8.1	7.9	6.5	7.2
Year	29.393	30.080	28.660	45.7	51.3	....	56.3	40.2	48.3	95	−13	38	39	....	75	64	....	.276	.276	....	35.25	1.94	6.7	6.8	5.9	6.4

TACOMA, WASH.

[ϕ=47° 16′ N.; λ=122° 23′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.837	30.500	29.145	38.9	41.8	43.3	46.4	35.2	40.8	57	25	36	36	37	91	82	79	0.219	0.219	0.224	9.81	3.38	6.5	7.7	8.1	8.6
February	29.688	30.220	29.110	38.6	42.6	44.3	46.1	35.9	41.0	52	26	36	37	38	88	81	78	.211	.223	.228	3.15	.73	7.6	8.4	8.7	8.0
March	29.802	30.210	29.200	40.4	47.6	49.3	51.8	38.0	44.9	73	32	38	40	39	91	77	72	.232	.253	.243	3.51	.98	7.3	7.5	7.8	7.0
April	29.852	30.250	29.390	44.2	52.6	55.5	57.8	42.2	50.0	73	32	42	44	44	91	74	65	.266	.292	.286	3.61	.84	6.7	7.4	6.5	6.6
May	29.808	30.190	29.430	46.3	57.5	59.9	62.5	44.8	53.6	75	38	43	47	46	89	68	60	.281	.323	.313	2.48	.74	5.9	7.2	6.0	6.5
June	29.879	30.190	29.650	49.7	60.6	65.0	66.9	48.7	57.8	81	42	46	48	47	88	64	56	.312	.336	.328	.63	.18	5.3	5.8	6.1	5.9
July	29.842	30.080	29.643	54.0	67.1	71.9	73.3	52.6	63.0	85	48	49	51	50	83	58	47	.348	.379	.363	.05	.05	4.4	5.8	3.6	4.9
August	29.831	30.070	29.614	54.7	66.2	71.7	73.1	53.1	63.1	90	47	51	54	53	88	65	53	.374	.411	.401	.02	.02	6.5	5.8	4.5	5.8
September	29.775	30.150	29.381	52.5	62.2	65.7	67.2	50.5	58.8	81	37	50	51	50	90	69	59	.357	.379	.362	1.62	.58	5.1	5.2	5.1	5.7
October	29.917	30.210	29.409	45.0	50.9	52.6	54.4	42.7	48.6	70	29	43	45	44	92	81	74	.281	.306	.301	1.85	.63	6.1	7.6	7.3	8.0
November	29.871	30.390	29.330	43.0	46.0	47.1	49.1	40.2	44.6	64	25	41	43	44	92	90	89	.265	.288	.293	4.52	1.16	6.7	9.0	9.0	8.9
December	29.902	30.320	29.429	34.7	39.9	41.0	43.4	31.4	37.4	62	7	31	35	34	87	83	77	.193	.222	.212	4.22	1.40	6.0	6.4	6.5	7.4
Year	29.834	30.500	29.110	45.2	52.9	55.6	57.7	42.9	50.3	90	7	42	44	44	89	74	67	.278	.303	.296	35.47	3.38	6.2	6.8	6.6	6.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

SPRINGFIELD, ILL.

[H_b=636 ft.; h_t=10 ft.; h_r=4 ft.; h_a=91 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	8.3	W.	23	SW.	0	2	0	1	3	15	10	22	9	0	11	10	10	3	1	6	2	0	0	6	0	25	0	0
February	10.2	NW.	34	W.	0	6	3	9	8	6	5	8	11	0	8	5	15	7	7	9	5	0	0	5	0	23	0	0
March	9.5	S.	34	S.	0	10	5	5	8	18	2	6	8	0	9	8	14	10	7	3	2	0	0	2	0	13	3	0
April	9.8	S.	34	S.	0	5	5	4	10	11	9	11	5	0	5	9	16	10	7	1	0	0	0	0	0	1	4	0
May	7.8	NE.	26	W.	0	9	14	8	6	7	3	6	9	0	6	8	17	17	15	0	0	1	0	0	0	0	6	0
June	6.2	SE.	31	SW.	0	5	10	6	11	16	2	7	3	0	7	16	7	9	7	0	0	1	0	0	9	0	13	0
July	6.5	SW.	40	NW.	1	6	6	6	9	11	11	8	4	1	20	10	1	7	3	0	0	0	0	0	20	0	7	0
August	7.2	W.	27	W.	0	3	8	4	6	8	10	12	11	0	12	13	6	10	9	0	0	0	0	0	5	0	9	0
September	7.4	S.	36	SE.	0	9	0	9	6	11	13	8	4	0	13	12	5	7	5	0	0	0	0	0	5	0	4	0
October	7.3	S.	24	SW.	0	7	2	5	14	15	6	5	8	0	9	7	15	13	9	0	0	0	1	0	0	0	4	0
November	9.4	W.	36	SW.	0	7	4	4	10	7	8	13	6	1	9	10	11	9	6	3	1	0	0	2	0	14	3	0
December	8.6	NW.	28	SE.	0	5	10	3	6	7	6	8	17	0	8	7	16	3	2	10	2	0	2	17	0	31	0	0
Year	8.2	S.	40	NW.	1	74	67	64	97	132	85	114	95	2	117	115	133	105	78	32	12	2	3	32	39	107	53	0

SPRINGFIELD, MO.

[H_b=1,324 ft.; h_t=98 ft.; h_r=66 ft.; h_a=104 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.9	S.	23	NW.	0	5	1	0	11	17	11	5	12	0	18	6	7	5	4	4	3	0	2	5	0	15	0	1
February	13.5	SE.	45	W.	2	5	5	2	18	5	4	9	8	0	15	2	11	9	8	8	5	0	1	4	0	22	0	0
March	11.4	SE.	38	SE.	0	7	8	5	25	6	3	0	8	0	17	10	4	7	6	1	1	0	3	0	0	8	2	0
April	12.2	S.	40	S.	1	2	4	6	18	8	6	6	10	0	17	8	5	11	9	0	0	0	0	0	0	1	5	0
May	9.7	NE.	31	NW.	0	6	12	7	13	9	3	5	7	0	8	16	7	15	13	0	0	0	1	0	0	0	9	0
June	8.0	SE.	37	SE.	0	2	4	9	21	10	7	5	2	0	15	11	4	14	11	0	0	0	0	0	0	0	11	0
July	7.6	SE.	26	NW.	0	6	4	2	24	13	9	2	2	0	21	10	0	6	4	0	0	0	0	0	10	0	8	0
August	8.8	S.	33	N.	0	6	3	6	12	18	5	4	8	0	20	8	3	6	4	0	0	0	0	0	9	0	9	0
September	9.2	S.	35	S.	0	4	4	8	18	12	9	3	2	0	20	7	3	4	4	0	0	0	0	0	3	0	3	0
October	9.6	S.	30	SW.	0	11	8	2	20	15	1	1	4	0	7	7	17	15	15	0	0	1	4	0	0	0	5	0
November	11.4	SE.	36	W.	0	8	5	4	16	6	5	8	8	0	14	5	11	9	7	1	0	0	1	0	0	7	5	0
December	10.8	NW.	31	SE.	0	4	7	1	7	9	9	6	19	0	15	5	11	6	3	5	1	0	5	7	0	27	0	0
Year	10.1	S.	45	W.	3	66	65	52	203	128	72	54	90	0	187	95	83	107	88	19	10	1	17	16	22	80	57	1

SYRACUSE, N. Y.

[H_b=597 ft.; h_t=97 ft.; h_r=65 ft.; h_a=113 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	12.8	S.	48	NW.	2	1	0	3	2	20	10	16	10	0	7	6	18	14	9	17	10	0	0	7	0	25	0	0
February	12.4	NW.	41	S.	1	3	2	10	4	7	3	15	12	0	2	11	15	12	8	19	7	0	0	13	0	26	0	0
March	13.3	NW.	48	NW.	4	10	2	6	4	10	5	12	13	0	4	13	14	11	8	11	5	0	1	6	0	23	0	0
April	11.5	NW.	46	S.	2	2	6	4	5	13	7	14	9	0	4	8	18	16	15	5	4	0	0	2	0	7	1	0
May	10.2	NW.	39	NW.	0	5	2	13	4	11	1	14	12	0	7	12	12	16	15	0	0	1	0	0	0	0	3	1
June	8.0	S.	39	NE.	0	10	7	3	7	20	8	1	4	0	15	10	5	9	8	0	0	0	1	0	3	0	8	0
July	9.6	S.	40	W.	1	2	1	4	6	16	10	13	10	0	13	11	7	11	10	0	0	1	0	0	3	0	10	0
August	9.2	SW.	34	SW.	0	0	1	5	10	16	12	12	6	0	6	15	10	13	9	0	0	0	0	0	0	0	9	0
September	10.2	S.	47	S.	2	2	3	4	1	18	12	8	11	1	5	15	10	14	10	0	0	0	0	0	0	0	3	0
October	11.0	S.	54	W.	3	5	4	0	2	28	9	8	6	0	3	11	17	16	14	0	0	0	0	0	0	0	4	0
November	13.1	S.	52	S.	3	5	2	4	7	14	7	11	10	0	0	13	17	15	9	10	5	0	1	3	0	17	0	0
December	11.9	S.	47	W.	2	1	1	7	4	17	13	16	3	0	3	12	16	17	12	20	16	0	1	18	0	29	0	0
Year	11.1	S.	54	W.	20	46	31	63	56	190	97	140	100	1	69	137	159	164	127	82	47	2	4	49	6	127	38	1

TACOMA, WASH.

[H_b=213 ft.; h_t=113 ft.; h_r=104 ft.; h_a=120 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	5.4	S.	36	SW.	0	3	6	0	8	21	18	4	0	2	0	8	23	17	15	0	0	1	9	0	0	9	0	0
February	5.9	SW.	28	SW.	0	11	4	2	5	8	21	5	0	0	1	9	18	21	19	3	0	1	2	0	0	5	0	0
March	6.7	SW.	31	SW.	0	12	4	0	4	8	27	3	2	2	2	15	14	16	14	1	0	2	3	0	0	0	0	0
April	6.5	SW.	32	SW.	0	15	5	1	3	3	18	8	6	1	3	15	12	15	13	0	0	0	2	0	0	0	1	0
May	6.7	SW.	27	SW.	0	17	1	1	3	8	20	10	1	1	4	16	11	16	10	0	0	0	0	0	0	0	0	0
June	5.7	N.	22	SW.	0	16	2	0	3	2	15	14	5	3	6	13	11	8	6	0	0	0	0	0	0	0	0	0
July	5.9	N.	24	SW.	0	30	2	0	0	1	12	7	7	3	13	10	8	1	1	0	0	0	0	0	0	0	1	0
August	5.1	N.	24	W.	0	26	2	0	4	1	12	10	5	2	5	16	10	1	0	0	0	0	1	0	1	0	1	0
September	5.0	N.	24	N.	0	27	1	1	2	4	15	5	1	4	10	10	10	7	4	0	0	0	1	0	0	0	0	0
October	5.4	N.	26	SW.	0	19	6	2	3	4	16	4	6	2	2	8	21	11	9	0	0	0	5	0	0	2	0	0
November	6.0	SW.	30	SW.	0	5	3	2	10	12	25	1	0	2	1	3	26	21	16	2	0	0	3	0	0	2	0	0
December	5.5	SW.	29	SW.	0	9	10	6	6	10	17	3	0	1	7	4	20	15	12	4	2	0	7	5	0	16	0	0
Year	5.8	SW.	36	SW.	0	190	46	15	51	82	216	74	33	23	54	127	184	149	119	10	2	4	33	5	1	34	3	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

TAMPA, FLA.

[ϕ=27° 57′ N.; λ=82° 27′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.071	30.460	29.760	53.5	64.7	59.8	67.9	51.5	59.7	78	33	48	50	50	81	60	71	0.357	0.380	0.385	2.44	1.71	6.0	6.2	5.8	6.4
February	30.000	30.250	29.680	57.0	65.9	62.1	68.8	54.9	61.8	83	38	51	51	52	80	60	71	.394	.404	.416	5.98	1.84	5.8	7.2	7.2	7.1
March	30.037	30.320	29.850	63.4	74.3	69.4	77.5	60.2	68.8	82	49	57	56	57	81	56	67	.489	.486	.487	4.97	1.81	4.3	4.5	3.5	4.6
April	30.021	30.234	29.850	66.1	76.8	71.4	80.5	61.1	70.8	88	46	57	54	57	73	47	60	.480	.442	.471	.41	.26	3.5	4.9	4.3	4.6
May	29.908	30.110	29.650	73.7	82.2	75.5	85.1	68.6	76.8	92	64	67	63	65	79	73	71	.656	.580	.622	4.40	1.59	4.8	6.6	5.0	5.8
June	29.970	30.110	29.650	77.4	84.4	78.1	87.7	71.7	79.7	93	66	70	68	69	79	58	75	.743	.673	.718	7.93	3.02	6.7	7.9	7.6	7.5
July	30.017	30.190	29.830	78.7	84.8	79.2	88.6	73.4	81.0	94	67	73	72	72	84	66	78	.821	.774	.771	11.80	3.57	4.6	7.5	7.7	6.5
August	30.020	30.150	29.870	80.9	86.4	81.0	90.0	75.4	82.7	95	70	74	72	73	79	64	76	.830	.791	.803	3.63	.82	4.9	7.0	7.2	6.5
September	29.920	30.060	29.650	77.0	86.0	79.4	89.3	72.4	80.8	93	67	72	69	70	84	56	75	.780	.700	.746	6.82	2.05	3.9	7.5	5.5	6.2
October	30.032	30.170	29.900	74.8	85.6	80.0	88.7	72.1	80.4	93	68	71	68	70	87	56	71	.746	.687	.724	1.41	.68	3.6	6.4	4.0	5.3
November	30.012	30.410	29.710	65.4	76.8	70.3	78.9	63.4	71.2	86	55	59	59	61	82	56	73	.519	.514	.546	2.47	1.47	4.6	5.9	4.0	5.4
December	30.103	30.420	29.880	55.8	68.8	63.1	71.9	54.0	63.0	84	39	50	53	54	82	58	73	.390	.427	.441	1.42	1.16	3.5	4.3	2.7	4.4
Year	30.081	30.460	29.650	68.6	78.1	72.4	81.2	64.9	73.1	95	33	62	61	62	81	58	72	.600	.572	.594	53.68	3.57	4.7	6.3	5.4	5.9

TATOOSH ISLAND, WASH.

[ϕ=48° 23′ N.; λ=124° 44′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.873	30.590	29.000	43.9	44.6	44.6	47.7	40.4	44.0	60	36	40	39	39	85	82	82	0.245	0.244	0.239	10.30	1.40	7.0	8.4	7.8	8.0
February	29.748	30.320	29.090	41.1	43.6	43.1	45.3	37.9	41.6	54	34	36	38	37	84	80	79	.218	.228	.221	8.06	1.03	6.4	7.8	7.2	7.5
March	29.881	30.330	29.240	42.7	46.1	45.5	48.0	39.5	43.8	56	34	39	40	40	88	79	82	.240	.249	.250	10.19	1.94	6.6	7.1	6.6	6.8
April	29.952	30.360	29.400	45.9	49.2	49.1	51.6	43.4	47.5	57	39	42	42	43	86	79	80	.266	.273	.277	6.15	1.38	7.3	6.9	6.9	6.7
May	29.923	30.320	29.450	47.5	52.4	51.6	54.5	45.8	50.2	62	43	42	44	44	83	74	77	.272	.289	.292	4.53	1.60	6.0	5.0	5.5	5.1
June	30.020	30.330	29.780	48.8	51.4	53.8	56.2	47.4	51.8	61	44	46	48	48	90	79	81	.309	.335	.335	1.49	.51	7.4	5.9	4.6	5.4
July	29.994	30.210	29.790	50.5	54.2	54.4	56.1	49.2	52.6	62	46	49	51	52	96	89	91	.352	.371	.380	.31	.08	6.0	5.0	4.2	5.1
August	29.972	30.210	29.720	52.2	55.4	55.4	57.9	50.0	54.0	66	46	51	52	53	96	90	92	.372	.392	.404	.35	.12	5.8	4.4	5.8	6.5
September	29.893	30.280	29.370	52.2	56.0	55.3	59.2	49.7	54.4	68	44	49	50	50	89	82	85	.351	.366	.369	3.12	1.64	4.5	3.8	4.2	4.1
October	30.024	30.260	29.460	45.6	48.8	48.2	50.3	43.7	47.0	64	37	43	44	44	91	86	87	.230	.295	.297	3.46	1.13	3.9	5.0	5.6	6.0
November	29.940	30.540	29.330	44.3	45.1	44.8	46.7	41.5	44.1	55	35	40	41	41	87	87	87	.260	.266	.263	14.66	4.06	7.3	8.0	7.6	8.3
December	29.960	30.390	29.430	40.5	41.6	41.4	43.5	38.7	41.1	55	23	37	37	37	87	84	84	.231	.235	.234	11.28	2.29	6.5	5.6	5.5	6.4
Year	29.932	30.590	29.080	46.3	49.3	48.9	51.4	43.9	47.7	68	23	43	44	44	88	83	84	.283	.295	.297	73.90	4.06	6.2	6.1	6.0	6.3

TAYLOR, TEX.

[ϕ=30° 35′ N.; λ=97° 20′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.570	29.980	29.110	40.4	49.7	....	56.2	37.5	46.8	70	19	38	41	....	90	72	....	0.242	0.270	....	3.07	1.32	4.7	6.1	....	5.9
February	29.416	29.820	28.810	43.5	52.6	....	58.8	39.9	49.4	79	28	38	41	....	83	68	....	.241	.275	....	3.09	1.41	4.4	5.9	....	5.6
March	29.470	29.830	29.110	49.9	61.6	....	68.2	46.9	57.6	77	30	46	49	....	86	65	....	.330	.366	....	2.09	.78	5.3	5.8	....	5.5
April	29.393	29.710	28.950	58.9	71.2	....	77.8	55.7	66.8	85	40	56	55	....	90	59	....	.470	.453	....	1.86	.98	5.9	4.7	....	4.8
May	29.278	29.490	28.900	64.9	75.3	....	80.6	62.3	71.4	88	55	62	61	....	90	64	....	.557	.536	....	4.54	1.51	6.3	5.9	....	5.9
June	29.374	29.590	29.030	69.6	80.4	....	85.3	67.3	76.3	92	49	67	66	....	92	64	....	.684	.666	....	8.84	2.61	8.0	6.1	....	6.4
July	29.412	29.590	29.220	73.8	85.9	....	89.1	71.8	80.4	97	68	72	70	....	94	60	....	.784	.735	....	4.27	2.29	6.3	6.2	....	6.0
August	29.418	29.550	29.260	71.0	87.9	....	91.0	72.0	81.5	96	68	72	70	....	94	56	....	.790	.730	....	4.27	1.68	5.7	4.9	....	5.3
September	29.378	29.580	29.090	69.5	82.6	....	85.1	67.9	76.5	94	59	67	67	....	93	60	....	.679	.666	....	5.99	3.01	6.1	7.2	....	6.8
October	29.378	29.600	29.130	67.2	75.6	....	79.4	64.4	71.9	91	49	66	66	....	96	74	....	.659	.642	....	8.71	2.94	8.2	8.4	....	8.2
November	29.480	29.900	29.070	51.0	63.3	....	67.9	47.6	57.8	84	30	47	49	....	86	62	....	.347	.378	....	3.19	2.35	5.9	5.3	....	5.6
December	29.595	30.130	29.020	41.4	51.3	....	58.0	38.3	48.6	75	19	37	39	....	84	67	....	.241	.266	....	1.60	1.33	6.2	7.3	....	7.2
Year	29.430	30.130	28.810	58.7	69.8	....	74.9	56.0	65.4	97	19	56	56	....	90	64	....	.502	.499	....	51.52	3.01	6.1	6.2	....	6.1

TERRE HAUTE, IND.

[ϕ=39° 29′ N.; λ=87° 24′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	29.487	29.770	29.040	28.4	36.8	36.6	42.1	26.3	34.2	58	−2	24	26	28	83	65	71	0.139	0.150	0.161	0.98	0.89	4.9	6.4	4.5	5.1
February	29.354	29.630	28.450	30.4	36.8	35.2	41.7	26.5	34.1	60	15	26	26	28	82	65	76	.146	.150	.160	1.57	.50	7.2	6.4	5.9	6.8
March	29.537	29.910	28.900	37.5	48.8	47.6	53.8	34.6	44.2	70	14	33	38	38	82	66	69	.199	.244	.236	3.90	1.55	5.1	5.8	5.9	5.6
April	29.377	29.790	28.950	48.4	57.0	57.3	63.3	45.1	54.2	80	26	42	46	46	80	65	68	.286	.326	.323	2.98	1.27	7.0	6.7	6.6	6.5
May	29.291	29.570	28.950	56.2	66.0	64.9	69.3	52.5	60.9	91	44	49	51	52	78	61	64	.357	.388	.398	3.61	1.10	6.5	7.1	7.0	6.8
June	29.421	29.710	29.090	71.5	81.9	78.8	84.9	67.4	76.2	92	57	65	65	66	81	59	66	.621	.632	.642	5.04	1.99	4.3	5.6	6.3	6.1
July	29.385	29.620	29.180	72.9	86.8	85.2	91.0	68.3	79.6	98	57	64	63	64	73	46	50	.600	.589	.600	1.70	.75	2.3	3.0	3.1	3.8
August	29.364	29.620	29.190	66.8	81.0	78.1	84.6	63.8	74.2	97	54	60	58	58	78	46	52	.521	.492	.496	1.30	.73	3.1	4.0	3.7	4.6
September	29.416	29.660	28.940	62.6	78.4	75.4	81.9	59.8	70.8	95	45	55	56	56	76	50	53	.450	.478	.489	1.50	.79	4.4	4.7	3.5	4.0
October	29.435	29.660	29.140	55.1	65.3	62.4	68.4	51.8	60.1	90	38	51	51	52	87	64	54	.402	.404	.411	8.85	2.14	6.7	6.7	5.8	6.9
November	29.471	29.870	28.570	37.6	45.7	44.1	50.5	34.5	42.5	68	20	33	33	33	82	62	65	.199	.197	.195	2.65	1.19	5.6	6.3	4.8	5.9
December	29.526	30.270	28.870	22.4	29.7	29.4	34.1	19.5	26.8	54	0	17	21	22	79	68	71	.099	.117	.122	.83	.82	6.2	7.5	6.0	6.8
Year	29.422	30.270	28.450	49.2	59.6	57.9	63.8	45.8	54.8	98	−2	43	44	45	80	60	63	.335	.347	.351	34.97	2.14	5.3	5.8	5.3	5.7

Annual meteorological summary for the year ending December 31, 1919—Continued.

TAMPA, FLA.

[H_b=35 ft.; h_t=79 ft.; h_r=71 ft.; h_a=92 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	7.0	NW.	21	SW.	0	17	11	2	5	1	4	2	20	0	5	13	13	6	6	0	0	0	3	0	0	0	0	0
February	7.2	NE.	30	SW.	0	8	12	4	7	2	8	9	6	0	5	6	17	11	9	0	0	0	3	0	0	0	3	0
March	8.0	NE.	27	NE.	0	8	19	6	3	6	6	4	10	0	13	9	9	11	8	0	0	0	0	0	0	0	2	0
April	6.9	NE.	27	SW.	0	5	18	1	7	3	4	9	13	0	12	12	6	2	2	0	0	0	2	0	0	0	3	0
May	6.3	SW.	26	S.	0	0	10	11	10	2	9	11	8	1	5	18	8	14	11	0	0	0	0	0	3	0	13	0
June	6.3	NE.	36	NE.	0	3	30	7	5	0	7	4	4	0	0	13	17	15	13	0	0	0	0	0	4	0	15	0
July	5.6	SW.	33	S.	0	1	15	9	14	6	8	6	3	0	3	17	11	19	13	0	0	0	0	0	13	0	18	0
August	4.8	SW.	28	SW.	0	1	11	7	11	4	14	10	4	0	4	14	13	13	11	0	0	0	0	0	16	0	21	0
September	6.9	NE.	34	E.	0	4	30	10	5	1	2	3	5	0	2	21	7	10	7	0	0	0	1	0	14	0	11	0
October	6.0	E.	24	NE.	0	4	15	28	4	2	5	2	2	0	9	18	4	7	6	0	0	0	2	0	7	0	7	0
November	7.0	NE.	24	NW.	0	5	25	6	3	2	7	2	9	1	9	12	9	7	4	0	0	0	2	0	0	0	2	0
December	6.4	N.	24	E.	0	13	10	3	6	1	6	7	16	0	14	6	11	7	4	0	0	0	6	0	0	0	2	0
Year	6.5	NE.	36	NE.	0	69	206	94	80	30	80	69	100	2	84	159	125	122	94	0	0	0	19	0	57	0	97	0

TATOOSH ISLAND, WASH.

[H_b=86 ft.; h_t=7 ft.; h_r=4 ft.; h_a=57 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	21.4	E.	91	S.	18	1	4	26	8	12	6	3	2	0	3	6	22	21	21	3	1	2	0	0	0	0	4	3
February	18.7	E.	80	SW.	10	1	5	22	9	5	4	5	5	0	4	5	19	22	21	7	5	1	0	0	0	0	0	2
March	17.0	S.	63	S.	10	0	7	12	5	14	10	7	7	0	6	10	15	22	19	5	1	0	1	0	0	0	0	1
April	16.0	W.	54	S.	9	3	4	9	2	14	8	17	3	0	4	14	12	19	15	5	3	0	1	0	0	0	1	0
May	14.7	W.	62	S.	10	1	4	8	2	14	10	18	5	0	11	10	10	18	14	0	0	0	2	0	0	0	0	1
June	8.7	W.	45	S.	1	1	2	5	5	7	14	22	4	0	8	12	10	12	10	0	0	0	0	0	0	0	0	0
July	10.3	SW.	29	S.	0	1	1	1	0	24	23	9	2	1	14	4	13	10	4	0	0	0	17	0	0	0	0	0
August	10.8	S.	42	S.	3	1	3	5	2	31	12	3	5	0	7	5	19	12	4	0	0	0	18	0	0	0	0	0
September	12.4	NE.	43	NE.	1	1	19	7	2	13	8	5	5	0	15	8	7	9	6	0	0	0	14	0	0	0	0	0
October	11.1	S.	49	W.	2	5	8	10	6	15	7	9	2	0	8	9	14	13	10	0	0	0	14	0	0	0	0	1
November	19.8	E.	64	S.	10	0	5	21	6	17	0	10	1	0	4	2	24	23	22	0	0	0	2	0	0	0	0	0
December	25.1	E.	70	NE.	15	0	8	34	6	13	1	0	0	0	10	5	16	14	14	1	0	0	3	4	0	6	0	0
Year	15.5	S.	91	S.	89	15	70	160	53	179	103	108	41	1	94	90	181	195	160	21	10	3	72	4	0	6	5	8

TAYLOR, TEX.

[H_b=583 ft.; h_t=55 ft.; h_r=48 ft.; h_a=63 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.5	NW.	32	S.	0	4	0	0	0	5	8	0	14	0	10	7	14	8	7	0	0	1	3	0	0	10	1	0
February	9.3	NW.	44	NW.	1	2	3	3	4	1	4	3	8	0	11	4	13	10	6	0	0	0	3	0	0	5	3	0
March	9.1	SE.	36	N.	0	8	1	6	6	2	2	2	4	0	11	7	13	9	7	0	0	0	3	0	0	1	4	0
April	10.6	SE.	47	SE.	1	3	1	1	6	12	3	1	3	0	12	8	10	7	4	0	0	0	2	0	0	0	3	0
May	7.9	SE.	31	NW.	0	1	2	2	3	7	1	2	12	1	8	12	11	11	8	0	0	1	0	0	0	0	11	0
June	7.3	SE.	31	NW.	0	2	5	4	7	6	0	0	6	0	5	12	13	11	11	0	0	0	1	0	3	0	13	0
July	5.9	S.	28	SE.	0	0	1	1	7	16	4	1	1	0	7	14	10	12	8	0	0	0	2	0	19	0	8	0
August	6.8	S.	27	S.	0	0	0	1	1	13	10	0	0	6	8	16	7	9	6	0	0	0	1	0	23	0	11	0
September	7.3	SE.	30	NE.	0	9	3	4	5	4	0	2	1	2	3	14	13	9	7	0	0	0	3	0	4	0	4	0
October	7.9	S.	30	NW.	0	6	3	2	5	12	1	0	1	1	1	12	18	14	10	0	0	0	6	0	1	0	7	0
November	7.4	N.	36	NW.	0	15	2	2	1	3	2	1	4	0	10	6	14	8	6	0	0	1	2	0	0	3	3	0
December	8.1	N.	31	N.	0	11	3	2	0	5	4	1	5	0	5	6	20	7	4	1	0	0	3	1	0	9	2	0
Year	8.0	S.	47	SE.	2	61	24	28	45	86	39	13	59	10	91	118	156	115	84	1	0	3	28	1	52	28	70	0

TERRE HAUTE, IND.

[H_b=575 ft.; h_t=96 ft.; h_r=84 ft.; h_a=129 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	9.4	S.	27	SW.	0	3	0	1	10	19	8	9	12	0	8	16	7	6	2	5	3	0	1	6	0	20	1	0
February	11.3	NW.	42	SW.	1	3	8	4	7	8	7	5	14	0	5	11	12	7	7	8	3	0	0	3	0	21	1	0
March	11.2	S.	42	SE.	1	8	11	5	10	15	1	3	9	0	6	17	8	9	8	2	1	1	0	0	0	12	3	0
April	10.7	S.	34	SE.	0	3	5	9	4	19	5	7	8	0	2	17	11	14	10	0	0	0	0	0	0	3	4	0
May	9.5	NE.	35	SW.	0	7	17	5	3	8	9	5	8	0	1	19	11	11	10	0	0	0	0	0	1	0	4	0
June	7.5	S.	35	NW.	0	7	6	10	13	10	1	3	6	0	0	25	5	10	9	0	0	0	0	0	6	0	9	0
July	7.3	SW.	40	N.	1	6	19	11	4	10	17	0	6	0	12	19	0	4	3	0	0	0	0	0	22	0	4	0
August	8.2	SW.	33	NW.	0	6	11	2	5	8	12	5	13	0	8	20	3	8	6	0	0	1	0	0	3	0	10	0
September	8.5	SW.	40	NW.	1	6	6	6	7	14	7	6	8	0	13	15	2	6	4	0	0	0	0	0	4	0	4	0
October	8.7	S.	28	SW.	0	8	9	2	10	17	8	0	8	0	5	10	16	13	12	0	0	0	3	0	0	0	5	0
November	10.5	SE.	48	W.	2	7	2	0	13	10	7	4	10	0	8	10	12	10	7	0	0	0	0	1	0	12	1	0
December	9.8	NW.	37	S.	0	9	8	3	5	7	12	3	15	0	8	6	17	3	2	9	3	0	4	13	0	31	0	0
Year	9.4	S.	48	W.	6	73	100	58	88	148	101	48	114	0	76	185	104	101	80	24	10	2	8	23	36	99	46	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

THOMASVILLE, GA.

[ϕ=30° 48′ N.; λ=83° 58′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.830	30.220	29.450	44.1	55.7	52.9	61.2	41.7	51.4	72	18	38	39	39	80	55	62	0.256	0.262	0.265	2.32	1.13	5.5	5.6	4.5	5.4
February	29.713	30.000	29.260	48.1	57.4	55.0	62.0	45.5	53.8	73	29	42	43	46	80	62	75	.292	.306	.334	8.86	2.75	6.3	6.9	6.1	6.7
March	29.803	30.100	29.480	56.0	67.2	64.6	72.3	53.6	63.0	80	41	49	46	48	78	51	59	.362	.339	.362	7.36	4.40	5.0	4.9	4.9	4.8
April	29.762	30.010	29.490	59.6	73.2	68.9	77.7	55.1	66.4	88	37	49	45	49	70	39	51	.377	.329	.373	2.78	2.06	3.8	4.1	4.0	3.9
May	29.636	29.840	29.290	68.6	78.5	72.6	82.4	63.0	72.7	89	54	63	60	62	82	55	71	.579	.528	.563	8.02	2.06	5.0	6.6	6.2	6.2
June	29.728	29.950	29.450	75.1	83.7	78.4	87.4	69.7	78.6	94	65	69	66	67	81	57	70	.705	.646	.669	6.38	1.62	6.3	6.8	7.0	6.4
July	29.736	29.961	29.540	75.6	83.9	77.9	87.9	71.3	79.6	94	64	71	71	71	87	66	80	.770	.749	.758	9.81	1.71	6.9	7.5	7.9	7.2
August	29.738	29.890	29.550	75.6	85.2	77.4	89.5	72.1	80.8	94	66	72	69	71	88	61	81	.781	.717	.764	8.16	4.33	2.7	5.7	6.9	5.0
September	29.706	29.900	29.482	71.2	83.7	77.0	87.3	67.9	77.6	93	57	66	64	67	84	52	71	.646	.602	.662	.34	.12	3.8	5.7	3.3	4.6
October	29.788	29.950	29.580	71.4	84.2	77.2	87.8	69.2	78.5	94	60	68	67	68	90	56	73	.694	.655	.678	.43	.18	4.7	6.1	2.2	5.2
November	29.780	30.230	29.460	57.0	70.1	64.2	73.7	54.6	64.2	84	38	54	52	55	80	55	67	.396	.420	.419	3.40	1.78	5.7	5.4	3.4	5.4
December	29.868	30.250	29.570	45.8	58.5	54.2	63.1	42.8	53.0	78	29	40	40	42	81	55	66	.279	.276	.300	2.56	1.51	5.2	4.8	3.3	4.9
Year	29.758	30.250	29.260	62.3	73.4	68.4	77.7	58.9	68.3	94	18	57	55	57	82	55	69	.511	.486	.512	30.42	4.40	5.1	5.8	5.0	5.6

TOLEDO, OHIO.

[ϕ=41° 40′ N.; λ=83° 34′ W.]

January	29.371	29.840	28.900	29.1	35.0	33.5	40.1	25.0	32.6	57	3	24	25	24	80	66	66	0.137	0.141	0.135	0.77	0.50	5.3	5.5	4.6	4.9
February	29.290	29.920	28.520	27.7	33.4	31.4	38.2	23.9	31.0	57	15	22	24	24	77	68	72	.121	.134	.131	1.13	.32	6.8	7.3	5.9	6.6
March	29.495	29.924	28.730	33.4	41.0	39.3	45.1	29.8	37.4	65	17	27	29	29	76	62	66	.154	.166	.170	3.55	1.30	5.2	4.9	4.5	5.1
April	29.327	29.700	28.750	43.3	51.0	49.4	55.5	38.6	47.0	76	20	36	37	39	75	61	68	.222	.242	.247	5.15	1.50	6.0	6.2	5.7	6.4
May	29.252	29.640	28.780	53.7	60.2	59.1	64.7	48.9	56.8	87	38	46	47	47	78	64	67	.322	.328	.328	4.17	1.20	6.1	6.0	4.9	5.6
June	29.402	29.660	29.084	71.7	79.4	75.1	82.9	66.0	74.4	94	50	62	61	63	73	55	68	.574	.554	.589	2.93	1.49	2.7	3.3	5.3	3.6
July	29.332	29.616	29.070	71.6	81.5	79.3	85.4	66.1	75.8	95	52	60	60	60	68	51	54	.525	.539	.538	1.40	.87	3.1	2.9	3.8	2.9
August	29.284	29.630	29.050	65.4	76.3	73.9	80.4	61.4	70.9	90	52	58	57	57	78	54	57	.494	.488	.480	4.54	2.38	3.8	4.4	3.9	4.0
September	29.364	29.590	28.810	61.3	73.4	70.0	77.1	58.1	67.6	91	44	53	54	53	75	52	57	.412	.433	.420	1.51	.69	4.7	4.1	3.9	4.0
October	29.394	29.680	29.050	53.3	60.9	58.8	65.8	49.0	57.4	86	36	49	50	50	84	70	74	.364	.391	.387	4.35	.86	5.5	5.8	5.3	5.4
November	29.402	29.860	28.420	36.3	42.6	39.3	46.5	32.5	39.5	61	21	31	32	31	80	67	72	.177	.189	.181	1.60	.79	6.6	6.5	5.2	6.2
December	29.437	30.090	28.740	20.8	25.5	25.6	30.3	17.3	23.8	50	5	15	17	18	77	68	72	.090	.098	.105	.33	.14	7.0	7.1	6.8	6.8
Year	29.362	30.090	28.420	47.3	55.0	52.9	59.3	43.0	51.2	95	3	40	41	41	77	62	66	.299	.309	.309	31.43	2.38	5.2	5.3	5.0	5.1

TONOPAH, NEV.

[ϕ=38° 04′ N.; λ=117° 14′ W.]

January	24.148	24.510	23.420	28.4	36.7	37.1	40.1	26.2	33.2	52	5	16	22	21	59	53	52	0.092	0.116	0.116	0.10	*0.26	0.7	1.9	2.1	2.1
February	23.938	24.240	23.400	23.4	33.4	34.5	37.0	23.0	30.0	46	15	20	22	22	80	63	61	.108	.119	.119	.40	.09	4.3	5.1	6.0	5.4
March	23.987	24.310	23.520	29.5	41.2	43.2	45.4	27.7	36.6	60	10	20	22	21	68	48	44	.106	.116	.116	1.05	.53	2.8	4.4	4.5	3.8
April	24.009	24.230	23.771	41.3	56.3	58.0	60.6	38.9	49.8	74	25	22	22	22	47	28	28	.118	.121	.122	.03	.02	1.8	3.6	3.7	2.8
May	23.978	24.180	23.845	50.6	66.9	67.9	71.1	48.8	60.0	84	35	20	25	25	46	22	23	.170	.145	.149	1.36	.76	1.3	2.5	3.8	2.5
June	24.044	24.270	23.837	56.3	74.9	77.8	79.3	55.1	67.2	88	39	22	26	25	27	18	15	.119	.147	.136	T.	T.	.4	.7	1.3	.6
July	24.098	24.260	23.945	65.3	83.6	84.3	87.4	63.8	75.6	91	57	35	34	33	34	18	17	.214	.207	.196	.34	.14	.4	1.2	2.3	1.5
August	24.136	24.320	23.978	64.9	81.6	83.3	85.5	63.4	74.4	92	55	30	32	27	29	17	14	.176	.184	.151	.01	.01	1.1	1.7	2.3	2.0
September	24.056	24.280	23.714	53.4	70.2	71.2	74.3	51.7	63.0	82	33	33	29	26	48	24	21	.193	.162	.143	.39	.35	2.0	2.4	2.3	2.2
October	24.057	24.301	23.650	35.9	49.5	50.6	54.0	33.5	43.8	68	19	19	23	20	51	37	32	.104	.120	.106	.32	.32	.9	1.7	2.2	1.8
November	24.079	24.460	23.680	33.2	42.8	42.9	48.4	29.7	39.0	61	3	19	17	17	53	41	39	.093	.099	.093	.20	.13	1.2	2.2	3.0	2.7
December	24.125	24.530	23.640	28.8	36.3	35.6	39.5	25.4	32.4	54	4	19	21	21	68	55	56	.104	.114	.108	33	.18	2.5	3.8	3.2	3.9
Year	24.054	24.530	23.400	42.8	56.1	57.2	60.2	40.6	50.4	92	3	24	25	23	51	35	34	.133	.138	.130	4.53	.76	1.6	2.6	3.1	2.6

TOPEKA, KANS.

[ϕ=39° 03′ N.; λ=95° 41′ W.]

January						35.4	42.0	23.1	32.6	65	−15										0.06	0.06				2.9
February						36.2	42.4	24.3	33.4	59	2										2.13	.88				5.6
March						48.8	54.3	34.1	44.2	70	7										5.73	5.33				5.5
April						57.6	62.9	44.0	53.4	86	32										4.09	1.49				5.8
May						67.3	71.9	53.3	62.6	84	44										2.68	1.32				5.0
June				66.6			83.6	64.4	74.0	98	48										3.93	.84				5.0
July				71.8			92.8	70.4	81.6	102	62										.48	.27				2.1
August				67.4			88.0	63.5	76.8	101	52										3.06	1.26				4.0
September				62.6			83.0	61.2	72.1	96	48										2.50	1.64				3.3
October				49.0			65.1	45.0	55.0	91	25										1.13	.48				6.1
November				33.2			50.1	30.5	40.3	70	12										2.19	1.42				5.1
December				21.1			33.0	17.6	25.3	67	−9										.07	.04				6.1
Year							64.1	44.4	54.3	102	−15										28.05	5.33				4.7

*Jan. 31–Feb. 1.

Annual meteorological summary for the year ending December 31, 1919—Continued.

THOMASVILLE, GA.

[H_b=273 ft.; h_t=49 ft.; h_r=41 ft.; h_a=58 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	32° or below.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	4.6	N.	18	SW.	0	12	12	7	1	3	2	7	17	1	12	6	13	6	5	1	0	0	0	0	0	7	0	0
February	5.5	SW.	27	SW.	0	12	10	6	0	4	11	4	7	2	6	6	16	13	13	0	0	0	0	0	0	3	2	0
March	5.0	N.	24	SW.	0	13	13	9	0	7	2	5	11	2	12	7	12	8	7	0	0	0	1	0	0	0	3	0
April	4.2	N.	16	SW.	0	15	8	8	0	9	8	7	5	0	15	8	7	3	3	0	0	0	0	0	0	0	1	0
May	3.9	SW.	25	SW.	0	8	4	13	1	10	12	8	4	2	7	9	15	18	14	0	0	0	1	0	0	0	13	0
June	4.4	NE.	21	E.	0	10	18	16	0	1	4	5	3	3	4	16	10	15	12	0	0	0	0	0	11	0	9	0
July	3.9	SW.	22	E.	0	5	9	11	1	15	12	7	1	1	2	13	16	21	19	0	0	0	0	0	15	0	14	0
August	3.4	SW.	20	SW.	0	6	3	5	0	17	8	12	6	5	4	18	9	15	11	0	0	0	1	0	15	0	20	0
September	4.2	NE.	19	E.	0	6	31	9	0	1	3	3	3	4	10	16	4	6	5	0	0	0	1	0	9	0	2	0
October	3.3	NE.	15	SW.	0	4	12	15	2	16	7	2	1	3	10	14	7	5	3	0	0	0	2	0	9	0	5	0
November	4.7	NE.	19	SW.	0	15	17	9	2	7	2	6	2	0	10	10	10	6	6	0	0	0	0	0	0	0	1	0
December	5.4	N.	20	SW.	0	15	12	2	0	13	6	7	5	2	15	5	11	6	4	0	0	0	1	0	0	3	0	0
Year	4.4	NE.	27	SW.	0	121	149	110	7	103	77	73	65	25	107	128	130	122	102	1	0	0	7	0	59	13	70	0

TOLEDO, OHIO.

[H_b=628 ft.; h_t=208 ft.; h_r=201 ft.; h_a=243 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	32° or below.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	16.0	SW.	52	SW.	4	1	1	2	3	7	29	13	6	0	12	8	11	5	2	8	2	0	0	7	0	26	0	0
February	14.0	W.	72	SW.	3	5	3	9	4	6	9	15	5	0	7	5	16	12	9	14	4	1	1	5	0	23	3	0
March	15.2	N.	50	SW.	3	13	8	12	3	4	10	4	8	0	13	6	12	11	8	8	4	0	0	3	0	22	0	0
April	14.8	SW.	52	S.	3	2	8	9	1	6	16	8	10	0	8	9	13	14	13	1	0	0	1	0	0	5	8	0
May	12.9	NE.	48	SW.	4	6	13	15	6	3	6	8	5	0	11	6	14	13	11	0	0	0	0	0	0	0	3	0
June	10.5	SW.	45	SW.	1	7	7	14	5	8	8	6	5	0	15	10	5	8	8	0	0	0	0	0	5	0	11	0
July	11.6	SW.	47	NW.	1	10	5	11	4	4	12	8	8	0	20	8	3	6	5	0	0	0	0	0	9	0	7	0
August	11.8	SW.	53	W.	2	10	2	3	3	1	17	16	10	0	16	12	3	10	8	0	0	0	0	0	2	0	8	0
September	13.1	SW.	64	S.	3	5	3	2	8	8	16	5	13	0	14	11	5	6	5	0	0	0	0	0	2	0	4	0
October	12.7	SW.	48	SW.	2	8	5	4	9	5	19	4	8	0	12	6	13	15	12	0	0	0	0	0	0	0	4	0
November	17.0	SW.	82	SW.	6	5	6	4	4	6	19	8	8	0	10	6	14	11	8	8	3	0	0	2	0	13	0	0
December	14.1	SW.	39	W.	0	6	4	2	5	3	17	16	9	0	6	10	15	7	3	20	5	0	0	16	0	30	0	0
Year	13.6	SW.	82	SW.	32	78	65	87	55	61	178	111	95	0	144	97	124	118	92	59	18	1	2	33	18	119	48	0

TONOPAH, NEV.

[H_b=6,090 ft.; h_t=12 ft.; h_r=9 ft.; h_a=20 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	32° or below.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	8.1	SE.	27	NW.	0	0	0	1	25	2	4	19	10	1	23	7	1	1	1	1	1	0	0	2	0	24	0	0
February	11.6	SE.	43	SE.	3	0	0	2	26	1	2	8	17	0	7	9	12	8	3	10	7	0	0	8	0	26	1	0
March	10.4	SE.	41	NW.	1	0	0	1	21	1	2	21	16	0	14	10	7	5	5	9	5	0	0	2	0	21	1	0
April	9.5	NW.	53	W.	2	3	0	1	16	3	1	16	20	0	18	12	0	2	0	2	0	0	0	0	0	8	1	0
May	9.1	W.	40	NW.	1	0	1	2	14	3	1	18	23	0	21	9	1	6	5	0	0	2	0	0	0	0	6	0
June	8.0	SE.	27	SE.	0	1	0	1	22	2	1	22	10	1	20	1	0	0	0	0	0	0	0	0	0	0	0	0
July	8.4	SE.	32	E.	0	1	0	5	26	4	3	17	6	0	27	4	0	4	4	0	0	0	0	0	7	0	5	0
August	7.9	SE.	29	E.	0	1	0	1	29	5	4	13	9	0	21	10	0	1	0	0	0	0	0	0	3	0	2	0
September	10.7	SE.	34	SE.	0	1	1	1	37	2	0	9	9	0	20	10	0	3	3	1	0	0	0	0	0	0	2	0
October	7.7	W.	44	NW.	1	1	1	1	8	1	0	29	21	0	25	6	0	1	1	1	1	0	0	0	0	13	1	0
November	8.5	W.	36	NW.	0	0	1	2	10	5	5	19	18	0	21	5	4	2	2	4	2	0	0	3	0	16	0	0
December	9.1	SE.	34	W.	0	0	0	0	33	2	2	21	4	0	13	14	4	3	2	3	3	0	0	8	0	23	0	0
Year	9.1	SE.	53	W.	8	8	4	18	267	31	25	212	163	2	239	97	29	36	26	31	19	2	0	23	10	131	19	0

TOPEKA, KANS.

[H_b=987 ft.; h_t=92 ft.; h_r=83 ft.; h_a=107 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	32° or below.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
		*																										
January	8.7	SW.	30	NW.	0	2	0	1	1	6	9	6	6	0	21	5	5	1	1	2	1	0	6	4	0	22	0	0
February	12.6	SE.	39	NW.	0	2	1	1	7	5	2	4	6	0	9	8	11	11	9	11	7	0	1	7	0	23	0	0
March	11.3	N.	36	S.	0	9	2	7	2	8	1	1	1	0	9	12	10	9	6	6	3	1	1	1	0	10	2	0
April	12.5	S.	37	SW.	0	4	3	1	5	5	5	3	4	0	7	12	11	11	11	2	0	0	1	0	0	1	8	1
May	9.8	E.	33	NE.	0	6	2	8	6	3	1	0	5	0	7	21	3	9	9	0	0	0	0	0	0	0	6	0
June	7.8	SE.	39	N.	0	3	2	3	9	4	4	4	0	1	6	20	4	14	12	0	0	0	1	0	4	0	11	0
July	9.0	SW.	45	NW.	1	0	0	3	6	5	9	5	3	0	24	7	0	3	3	0	0	0	0	0	21	0	4	0
August	9.4	SW.	56	SE.	2	2	2	7	2	6	7	2	3	0	10	18	3	8	6	0	0	1	1	0	14	0	9	0
September	9.7	SW.	29	SW.	0	1	2	5	4	7	8	2	1	0	17	8	5	4	3	0	0	0	0	0	6	0	5	0
October	9.5	S.	32	SW.	0	6	3	3	5	5	3	2	4	0	10	5	16	6	5	0	0	0	1	0	2	4	1	1
November	10.8	N.	42	N.	1	4	3	2	5	2	5	6	3	0	10	11	9	6	5	5	3	0	0	5	0	14	1	0
December	9.8	N.	32	N.	0	8	4	0	0	4	9	5	1	0	11	3	17	3	1	7	1	0	5	15	0	27	0	0
Year	10.0	SW.	56	SE.	4	47	24	41	52	60	63	40	37	1	141	130	94	85	71	33	15	2	17	32	47	101	47	2

*By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

TRENTON, N. J.

[ϕ=40° 14′ N.; λ=74° 45′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.833	30.500	29.290	30.8	37.6	36.0	42.3	27.4	34.8	60	9	24	29	28	76	71	71	0.142	0.165	0.159	3.28	1.26	6.1	5.3	3.2	5.3
February	29.766	30.250	29.080	30.4	37.3	35.5	41.1	27.8	34.4	58	17	24	26	27	74	63	70	.130	.143	.150	3.25	.92	5.4	4.5	3.0	4.8
March	29.897	30.565	29.230	39.0	47.2	44.1	52.1	33.9	43.0	72	22	30	31	32	71	54	64	.178	.185	.190	4.64	1.93	7.0	6.0	3.8	6.0
April	29.812	30.140	29.440	45.4	54.7	50.8	59.5	40.3	49.9	77	21	36	35	36	69	50	59	.220	.220	.232	2.91	1.44	4.7	6.4	5.6	5.9
May	29.746	30.190	29.420	58.9	67.2	62.4	71.5	52.4	62.0	90	43	49	49	50	73	56	66	.359	.360	.365	4.18	1.05	5.0	6.6	6.4	6.2
June	29.917	30.275	29.580	66.8	76.7	71.4	81.1	60.6	70.8	96	50	57	57	58	75	54	66	.490	.489	.506	1.39	.62	6.0	5.3	5.5	5.7
July	29.798	30.150	29.480	72.8	80.0	76.0	83.6	66.0	75.1	101	56	63	62	64	74	58	71	.594	.563	.619	10.41	2.63	4.7	5.8	6.2	5.9
August	29.737	30.060	29.460	68.0	76.4	71.3	79.0	62.1	70.6	90	55	62	59	60	81	58	70	.558	.524	.538	4.82	2.51	6.0	5.6	4.8	5.8
September	29.826	30.212	29.365	62.0	71.7	66.5	75.2	56.8	66.0	91	46	56	56	57	82	60	72	.465	.467	.478	2.74	1.21	4.2	6.0	3.5	5.3
October	29.922	30.330	29.520	55.1	62.9	59.4	66.7	50.3	58.5	87	36	52	54	53	89	75	81	.405	.443	.424	3.09	1.07	6.5	7.1	5.9	7.2
November	29.889	30.390	29.280	41.0	47.8	44.6	52.2	35.5	43.8	70	25	35	37	37	82	68	74	.220	.237	.236	3.10	.76	4.6	5.8	4.8	5.8
December	29.918	30.570	29.260	26.6	31.7	30.4	36.0	21.8	28.9	59	−1	21	23	23	81	71	74	.131	.140	.143	2.94	1.02	6.5	6.2	4.4	6.8
Year	29.838	30.570	29.080	49.7	57.6	54.0	61.7	44.6	53.2	101	−1	42	43	44	77	62	70	.324	.328	.336	46.75	2.63	5.6	5.9	4.8	5.9

VALENTINE, NEBR.

[ϕ=42° 50′ N.; λ=100° 32′ W.]

January	27.291	27.650	26.940	23.0	37.8	33.4	42.6	17.9	30.2	58	−21	18	25	24	81	62	68	0.103	0.144	0.131	0.06	0.04	2.2	3.3	2.6	3.4
February	27.190	27.570	26.660	14.3	22.5	20.8	26.9	10.1	18.5	51	−16	12	18	18	91	84	88	.081	.107	.107	.73	.35	6.3	6.7	4.5	6.1
March	27.300	27.890	26.580	27.0	39.7	38.9	46.1	23.0	34.6	73	−3	24	27	28	86	65	68	.133	.152	.162	.51	.18	5.4	5.6	4.6	5.5
April	27.233	27.790	26.600	38.2	49.4	49.6	54.5	34.9	44.7	85	23	33	34	33	84	61	59	.197	.199	.194	1.67	.73	6.3	6.9	6.0	6.6
May	27.228	27.476	26.800	47.8	63.6	64.3	67.8	42.5	55.2	83	30	43	43	42	84	50	47	.291	.288	.276	2.14	.77	3.3	5.3	3.5	4.2
June	27.286	27.521	27.080	61.7	76.3	76.3	80.6	57.7	69.2	100	35	56	56	58	84	54	57	.475	.473	.498	2.17	1.42	5.1	4.0	4.3	4.2
July	27.269	27.540	27.000	67.1	85.4	83.2	89.5	63.1	76.3	107	50	60	55	58	79	39	45	.525	.442	.487	1.34	.46	3.2	3.4	3.3	3.5
August	27.304	27.560	27.050	61.5	81.3	80.2	85.7	58.0	71.8	101	46	52	50	51	74	38	40	.408	.399	.393	1.60	1.13	3.6	2.6	3.9	2.8
September	27.274	27.590	26.850	55.8	73.0	71.0	77.8	53.4	65.6	96	36	48	50	49	78	48	49	.353	.374	.353	1.04	.57	4.3	4.0	4.2	4.3
October	27.279	27.602	26.730	34.4	48.4	45.2	53.0	30.6	41.8	80	9	31	32	32	88	60	64	.188	.191	.184	1.20	.38	5.6	5.1	4.0	5.2
November	27.328	27.820	26.783	21.6	31.1	27.0	34.6	15.7	25.2	59	−8	18	22	21	87	69	79	.109	.126	.124	2.61	1.11	5.3	5.8	4.4	5.5
December	27.366	27.860	26.860	15.3	24.1	19.4	30.0	10.0	20.0	53	−22	11	16	15	83	71	82	.083	.102	.100	.22	.09	3.1	3.3	2.5	3.6
Year	27.279	27.890	26.580	39.0	52.7	50.8	57.4	34.7	46.1	107	−22	34	36	36	83	58	62	.246	.249	.251	15.29	1.42	4.5	4.7	4.0	4.7

VICKSBURG, MISS.

[ϕ=32° 22′ N.; λ=90° 53′ W.]

January	29.905	30.207	29.540	40.6	49.0	48.8	54.9	38.0	46.4	70	10	36	39	38	84	71	69	0.226	0.254	0.243	5.28	1.96	4.8	6.0	4.6	6.4
February	29.734	30.090	29.160	44.6	54.5	53.4	59.6	42.0	50.8	71	28	40	44	42	84	71	68	.261	.304	.281	3.92	1.09	6.5	5.8	5.5	5.8
March	29.844	30.130	29.350	50.8	63.6	63.5	69.7	49.3	59.5	80	30	45	50	48	82	64	60	.319	.377	.349	4.95	2.68	4.8	4.8	3.9	4.6
April	29.764	30.060	29.440	56.5	68.2	68.3	73.9	54.5	64.2	86	37	52	51	56	86	56	66	.410	.395	.462	5.21	1.79	4.6	4.4	2.6	4.1
May	29.618	29.810	29.320	64.0	74.1	71.2	78.6	61.5	70.0	86	52	61	61	65	91	66	82	.547	.552	.623	5.96	2.04	6.2	6.9	5.9	6.7
June	29.740	29.930	29.460	72.7	83.3	78.4	85.5	69.7	78.1	95	58	68	68	70	85	60	77	.683	.680	.735	5.85	2.30	5.7	6.6	6.8	6.5
July	29.743	29.933	29.590	75.0	85.8	82.4	89.5	72.2	80.8	93	69	70	71	74	86	62	76	.739	.753	.832	5.72	2.80	4.5	5.3	4.9	5.6
August	29.748	29.870	29.590	75.7	86.1	80.7	89.6	73.2	81.4	95	65	70	72	74	84	64	81	.742	.799	.839	8.26	3.15	5.9	6.0	5.3	6.3
September	29.741	29.920	29.490	69.0	82.4	77.6	85.6	67.0	76.3	95	57	65	66	69	87	58	76	.621	.646	.717	.68	.29	5.1	4.9	5.2	5.1
October	29.762	29.930	29.612	67.2	76.9	72.6	80.9	65.3	73.1	90	50	65	68	68	94	75	86	.633	.689	.689	8.29	2.41	6.2	6.9	5.4	6.9
November	29.793	30.170	29.290	52.0	63.3	60.7	68.0	50.0	59.0	78	29	48	50	52	85	65	76	.360	.398	.423	7.66	3.08	5.9	5.3	3.3	5.4
December	29.903	30.390	29.410	44.3	52.6	51.8	58.4	40.4	49.4	74	23	39	41	41	83	68	68	.270	.283	.282	6.21	2.79	5.4	5.4	5.9	6.4
Year	29.775	30.390	29.160	59.4	70.0	67.4	74.6	56.9	65.8	95	10	55	57	58	86	65	74	.484	.511	.540	67.99	3.15	5.5	5.7	4.9	5.8

WALLA WALLA, WASH.

[ϕ=46° 02′ N.; λ=118° 20′ W.]

January	29.064	29.643	28.455	34.7	39.1	39.5	44.3	29.2	36.8	63	9	25	27	29	71	65	67	0.140	0.154	0.161	2.12	0.70	5.1	5.2	6.5	5.8
February	28.870	29.310	28.280	35.9	40.7	41.6	45.3	32.6	39.0	59	24	30	31	32	79	69	71	.163	.170	.182	1.93	.70	7.8	8.0	8.3	8.4
March	28.930	29.316	28.320	41.5	49.7	52.8	55.0	38.6	46.8	76	34	32	33	33	70	56	50	.180	.193	.189	1.91	.77	6.4	6.9	6.3	6.2
April	28.952	29.350	28.560	45.9	58.5	62.5	64.5	43.6	54.0	78	33	36	36	36	69	45	39	.214	.217	.214	1.62	.81	5.9	6.0	4.9	5.3
May	28.889	29.250	28.524	50.0	65.1	69.2	70.9	48.0	59.4	89	36	37	37	36	62	37	34	.227	.229	.229	.58	.18	6.0	5.4	4.5	4.5
June	28.929	29.280	28.670	54.8	72.7	77.4	79.5	53.2	66.4	93	46	38	39	37	54	30	24	.231	.239	.226	.04	.04	3.1	3.1	4.0	3.1
July	28.869	29.170	28.570	64.0	82.7	89.1	90.7	62.0	76.4	104	52	40	43	40	43	26	20	.254	.277	.258	.09	.05	2.2	1.9	1.3	2.1
August	28.887	29.150	28.670	63.9	82.0	87.4	89.0	62.1	75.6	100	53	41	43	41	45	26	21	.260	.277	.261	.06	.06	2.5	2.5	1.5	2.0
September	28.890	29.250	28.530	53.4	68.3	71.9	74.6	51.3	63.0	88	39	41	43	44	65	42	40	.268	.288	.301	1.20	.57	2.6	3.2	3.3	3.1
October	29.011	29.310	28.610	44.8	55.0	55.8	59.3	41.2	50.2	82	25	35	35	36	71	51	50	.211	.211	.215	1.95	.61	5.6	5.0	5.1	5.3
November	29.047	29.470	28.510	37.3	43.8	42.8	47.5	33.5	40.5	70	12	30	32	33	75	66	70	.171	.189	.200	3.16	1.23	6.6	6.3	6.7	7.0
December	29.154	29.580	28.650	21.1	25.6	23.8	29.6	15.5	22.6	64	−14	17	20	21	86	81	88	.111	.122	.125	1.92	.74	7.2	6.8	6.6	7.3
Year	28.958	29.643	28.280	45.6	56.9	59.5	62.5	42.6	52.6	104	−14	34	35	35	66	50	48	.202	.214	.214	16.64	1.23	5.1	5.0	4.9	5.0

Annual meteorological summary for the year ending December 31, 1919—Continued.

TRENTON, N. J.

[H_b=190 ft.; h_1=159 ft.; h_2=152 ft.; h_3=183 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8. p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	12.1	SW.	46	NW.	3	11	6	1	1	7	16	12	8	0	12	10	9	7	6	5	1	0	3	5	0	23	0	0
February	12.5	NW.	40	NW.	2	6	5	5	3	3	4	14	16	0	14	4	10	11	11	4	3	0	1	0	0	23	1	1
March	16.3	N.	62	NW.	4	16	10	8	2	11	3	4	8	0	10	7	14	13	9	5	2	0	2	0	0	12	0	0
April	13.2	NW.	48	W.	3	8	4	5	2	11	6	13	11	0	8	13	9	9	5	4	0	0	1	0	0	3	1	0
May	11.3	SW.	44	W.	2	4	10	10	5	12	8	5	8	0	11	4	16	11	10	0	0	1	1	0	1	0	4	0
June	9.1	S.	34	NE.	0	5	5	9	10	15	8	7	1	0	8	12	10	6	4	0	0	0	2	0	3	0	5	0
July	9.8	S.	42	W.	1	6	5	1	13	13	8	5	10	1	10	8	13	14	13	0	0	0	1	0	8	0	14	0
August	9.1	W.	51	N.	2	6	7	4	6	6	11	7	13	2	6	16	9	11	10	0	0	0	1	0	0	0	5	0
September	9.5	N.	33	N.	0	11	9	5	4	8	9	7	7	0	11	8	11	7	6	0	0	0	6	0	2	0	2	0
October	9.6	N.	46	W.	1	10	13	3	8	2	13	10	3	0	5	8	18	15	9	0	0	0	7	0	0	0	1	0
November	12.1	N.	45	SW.	2	13	7	4	1	11	11	2	10	1	9	7	14	11	10	1	0	0	3	0	0	9	1	0
December	11.7	N.	48	NW.	2	12	7	3	3	7	8	9	13	0	7	7	17	13	10	11	7	0	4	12	0	27	0	0
Year	11.4	N.	62	NW.	22	108	88	58	58	106	105	95	108	4	111	104	150	128	103	30	13	1	32	17	14	97	34	1

VALENTINE, NEBR.

[H_b=2,598 ft.; h_1=47 ft.; h_2=36 ft.; h_3=54 ft.]

January	9.3	W.	36	NW.	0	1	0	1	0	3	6	34	17	0	20	7	4	2	0	4	2	0	1	5	0	31	0	0
February	9.4	NW.	39	NW.	0	9	6	7	1	1	6	15	11	0	5	11	12	10	5	15	10	0	0	19	0	28	0	0
March	10.2	N.	36	E.	0	13	8	5	5	11	8	7	5	0	9	11	11	6	5	6	2	0	2	5	0	26	1	0
April	12.7	NW.	38	NW.	0	9	7	7	4	7	6	7	13	0	5	12	13	10	6	8	4	0	1	1	0	11	1	0
May	10.5	S.	39	NW.	0	6	9	3	12	9	4	7	12	0	12	12	7	10	8	1	0	1	1	0	0	1	2	0
June	11.2	S.	32	S.	0	9	6	8	12	17	2	3	3	0	16	8	6	9	5	0	0	0	0	0	10	0	7	0
July	10.9	S.	39	SE.	0	5	11	11	8	15	5	4	3	0	15	13	3	6	4	0	0	1	0	0	13	0	3	0
August	9.2	S.	56	W.	3	8	4	6	9	13	6	7	8	1	13	15	3	6	4	0	0	1	1	0	9	0	5	0
September	9.7	S.	33	S.	0	13	8	7	3	10	6	8	5	0	13	12	5	9	4	0	0	0	2	0	5	0	3	0
October	9.4	W.	33	W.	0	8	8	7	1	8	8	15	7	0	12	9	10	10	6	4	4	0	1	4	0	15	0	0
November	10.0	W.	42	NW.	1	9	4	3	2	5	5	23	9	0	10	10	10	10	8	12	10	0	1	12	0	26	0	0
December	8.9	W.	42	NW.	1	5	3	0	1	4	6	32	11	0	17	8	6	6	2	7	6	0	1	16	0	30	0	0
Year	10.1	W.	56	W.	5	95	74	65	58	103	68	162	104	1	147	128	90	94	57	57	38	3	11	62	37	168	22	0

VICKSBURG, MISS.

[H_b=247 ft.; h_1=65 ft.; h_2=58 ft.; h_3=73 ft.]

January	6.1	SE.	26	NW.	0	11	8	5	13	6	11	2	6	0	7	8	16	11	8	3	1	0	4	2	0	6	0	0
February	9.0	SE.	40	W.	1	6	7	5	15	5	7	2	9	0	8	9	11	14	11	1	0	0	0	0	0	2	3	0
March	7.8	SE.	42	W.	1	9	10	12	18	5	2	1	5	0	15	5	11	6	6	0	0	0	0	0	0	1	4	0
April	7.5	SE.	30	S.	0	2	7	2	16	15	8	4	6	0	16	5	9	8	6	0	0	0	0	0	0	0	2	0
May	6.2	SE.	35	NW.	0	4	6	10	17	6	9	1	9	0	3	12	16	11	9	0	0	0	1	0	0	0	10	0
June	5.4	SE.	23	S.	0	8	2	10	18	6	10	5	5	1	5	7	18	13	10	0	0	0	0	0	5	0	11	0
July	4.9	SW.	35	NW.	0	3	8	6	9	6	18	6	6	0	5	20	6	10	9	0	0	0	0	0	17	0	11	0
August	5.4	SW.	25	NE.	0	2	2	3	13	9	20	5	8	0	2	19	10	11	10	0	0	0	1	0	16	0	15	0
September	5.3	N.	24	NW.	0	15	11	11	12	3	4	1	3	0	11	9	10	4	3	0	0	0	0	0	4	0	4	0
October	5.9	SE.	20	SW.	0	8	9	3	24	10	6	1	1	0	4	11	16	17	13	0	0	0	3	0	0	0	10	0
November	6.6	SE.	30	NW.	0	8	15	7	15	3	4	5	3	0	8	11	11	8	8	0	0	0	1	0	0	1	4	0
December	7.0	N.	28	NW.	0	13	10	2	10	10	11	2	4	0	6	9	16	9	7	1	0	0	1	0	0	7	4	0
Year	6.4	SE.	42	W.	2	84	95	76	180	84	110	35	65	1	90	125	150	122	100	5	1	0	11	2	42	17	78	0

WALLA WALLA, WASH.

[H_b=1,000 ft.; h_1=57 ft.; h_2=50 ft.; h_3=65 ft.]

January	6.0	S.	38	W.	0	3	4	1	10	24	7	8	4	1	11	8	12	11	9	2	2	0	2	9	0	15	0	0
February	5.8	S.	32	SE.	0	0	3	2	5	24	15	6	1	0	2	4	22	16	10	8	7	0	1	0	0	13	0	0
March	5.8	S.	25	SW.	0	2	1	5	4	26	14	8	2	0	8	10	13	13	11	2	1	0	0	0	0	0	0	0
April	5.4	S.	34	SW.	0	4	2	2	7	24	4	15	2	0	11	11	8	10	8	0	0	0	0	0	0	0	2	0
May	5.8	S.	32	W.	0	4	5	3	2	27	7	11	3	0	13	13	5	4	4	0	0	0	0	0	0	0	0	1
June	5.0	S.	28	W.	0	2	1	3	4	23	9	13	5	0	18	9	3	2	0	0	0	0	0	0	3	0	2	0
July	4.8	S.	20	SW.	0	4	2	2	6	20	10	15	1	2	22	8	1	2	2	0	0	0	0	0	18	0	4	0
August	4.6	S.	19	W.	0	3	1	3	4	25	7	14	3	2	27	3	1	1	1	0	0	0	0	0	17	0	2	1
September	4.2	S.	22	W.	0	4	1	2	3	24	12	8	3	3	20	6	4	7	6	0	0	0	0	0	0	0	2	0
October	4.9	S.	32	NW.	0	2	0	2	3	30	11	11	1	2	11	11	9	8	6	2	2	2	0	0	0	5	0	0
November	5.0	S.	38	SW.	0	5	2	1	6	27	8	5	4	2	4	10	16	11	11	5	4	0	3	3	0	12	0	0
December	3.4	S.	24	S.	0	5	1	2	5	28	12	4	2	3	5	9	17	13	9	10	6	0	4	18	0	27	0	0
Year	5.1	S.	38	W.	0	38	23	28	59	302	116	118	31	15	152	102	111	98	77	29	22	2	10	30	38	72	12	2

Annual meteorological summary for the year ending December 31, 1919—Continued.

WASHINGTON, D. C.

[ϕ=38° 54′ N.; λ=77° 03′ W.]

Month	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.970	30.648	29.521	32.6	41.3	39.5	46.4	29.8	38.1	64	11	24	25	27	72	54	61	0.144	0.147	0.158	3.47	1.53	5.0	6.3	3.1	5.0
February	29.902	30.402	29.149	31.8	39.2	38.3	43.6	30.8	37.2	60	21	24	24	27	73	54	63	.135	.134	.152	2.01	.42	4.4	5.4	4.1	5.2
March	30.017	30.613	29.355	40.9	50.2	48.6	56.1	36.8	46.4	76	29	31	31	32	70	50	55	.183	.187	.190	4.02	1.81	4.8	5.7	3.5	5.3
April	29.917	30.262	29.560	49.2	58.9	55.7	63.7	43.9	53.8	83	24	38	36	38	67	44	54	.249	.233	.248	3.72	1.93	5.9	6.8	5.6	6.0
May	29.820	30.216	29.471	61.0	69.2	66.0	74.3	55.0	64.6	92	47	52	51	55	74	55	71	.396	.381	.450	5.27	1.40	6.7	6.6	6.9	6.2
June	29.997	30.343	29.641	70.7	79.0	75.6	83.2	64.6	73.9	93	50	61	60	63	74	55	68	.560	.548	.596	3.44	1.48	6.4	6.1	6.1	5.4
July	29.888	30.217	29.607	74.2	82.1	78.3	86.0	68.3	77.2	101	56	66	64	68	77	57	72	.654	.613	.695	6.80	2.51	5.6	5.8	5.7	5.5
August	29.836	30.160	29.625	70.0	79.2	73.8	82.9	64.3	73.6	93	55	62	60	64	77	54	73	.572	.540	.617	3.41	1.02	5.5	5.1	5.2	4.9
September	29.929	30.300	29.475	64.2	75.2	68.5	79.5	59.3	69.4	94	46	56	56	60	77	52	76	.472	.462	.537	1.77	.77	3.8	4.7	4.2	4.5
October	30.009	30.345	29.639	58.4	67.0	63.1	71.7	54.6	63.2	91	40	53	53	56	83	65	78	.423	.436	.465	3.64	1.46	6.0	6.4	5.5	6.8
November	30.001	30.510	29.390	41.5	50.5	47.3	55.7	38.0	46.8	73	28	35	34	37	78	55	69	.218	.215	.240	2.32	.67	5.1	5.0	4.3	5.4
December	30.033	30.704	29.379	27.8	34.3	32.9	41.2	23.9	32.6	69	8	21	22	23	75	60	67	.125	.122	.140	3.32	1.53	7.2	5.5	4.0	6.2
Year	29.943	30.704	29.149	51.9	60.5	57.3	65.4	47.4	56.4	101	8	44	43	46	75	55	67	.344	.336	.374	43.19	2.51	5.5	5.8	4.8	5.5

WAUSAU, WIS.

[ϕ=44° 57′ N.; λ=89° 35′ W.]

Month	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.609	28.931	28.354	18.0	24.6	....	28.5	14.1	21.3	46	−21	....	....	....	....	....	....	....	....	....	0.31	0.12	6.5	5.3	....	5.6
February	28.607	29.174	27.991	13.7	22.5	....	25.4	9.9	17.6	38	−14	....	....	....	....	....	....	....	....	....	1.45	.67	6.1	5.2	....	5.5
March	28.801	29.402	28.300	22.2	34.3	....	38.7	20.1	29.4	60	−10	....	....	....	....	....	....	....	....	....	1.06	.56	5.6	4.8	....	4.6
April	28.631	29.094	28.067	37.5	48.8	....	51.4	33.7	42.6	71	16	....	....	....	....	....	....	....	....	....	3.07	1.32	6.2	6.4	....	6.4
May	28.645	28.946	28.333	48.7	62.8	....	64.9	42.8	53.8	88	34	....	....	....	....	....	....	....	....	....	2.25	.70	3.6	4.4	....	4.2
June	28.735	28.965	28.292	64.3	76.2	....	78.5	59.7	69.1	88	44	....	....	....	....	....	....	....	....	....	4.80	1.09	5.8	5.8	....	6.0
July	28.681	28.882	28.465	64.5	77.7	....	80.5	58.5	69.5	94	47	....	....	....	....	....	....	....	....	....	6.99	2.27	3.2	4.5	....	3.8
August	28.620	28.942	28.336	58.7	71.8	....	74.4	54.8	64.6	84	44	....	....	....	....	....	....	....	....	....	2.51	.72	3.5	4.5	....	3.9
September	28.605	28.982	28.173	53.0	66.2	....	69.4	50.3	59.8	87	35	....	....	....	....	....	....	....	....	....	2.76	1.02	5.9	5.7	....	5.5
October	28.678	28.997	28.223	39.3	49.6	....	53.4	36.1	44.8	81	22	....	....	....	....	....	....	....	....	....	3.57	1.70	6.5	6.3	....	5.9
November	28.661	29.186	28.028	24.9	31.5	....	34.8	20.7	27.8	58	− 5	....	....	....	....	....	....	....	....	....	2.81	1.16	6.6	5.2	....	5.6
December	28.710	29.188	28.167	5.2	12.9	....	16.4	.9	8.6	36	−20	....	....	....	....	....	....	....	....	....	.56	.18	5.7	7.4	....	6.4
Year	28.670	29.402	27.991	37.5	48.2	....	51.4	33.5	42.4	94	−21	....	....	....	....	....	....	....	....	....	32.14	2.27	5.4	5.5	....	5.3

WICHITA, KANS.

[ϕ=37° 41′ N.; λ=97° 20′ W.]

Month	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.671	29.110	28.300	25.9	37.1	36.1	41.2	23.6	32.4	63	−12	23	27	29	89	68	78	0.132	0.159	0.172	T.	T.	0.3	2.1	1.7	1.9
February	28.483	28.920	27.540	30.3	37.3	37.3	42.0	26.1	34.0	59	3	28	29	31	88	72	78	.156	.169	.183	2.49	1.28	5.8	6.0	5.1	5.8
March	28.638	29.100	28.000	39.3	51.1	50.8	56.5	36.6	46.6	73	15	35	38	38	84	62	64	.213	.249	.239	2.37	1.80	5.1	5.2	4.7	5.3
April	28.505	28.950	27.893	47.8	58.7	59.7	63.6	45.3	54.4	81	31	43	44	46	83	60	63	.288	.301	.329	4.40	1.06	6.8	6.0	5.5	6.3
May	28.474	28.730	28.184	57.3	67.6	67.4	71.5	54.9	63.2	82	44	53	53	54	87	62	65	.418	.422	.437	4.72	1.18	6.2	6.1	4.3	5.9
June	28.567	28.780	28.260	67.0	79.6	76.8	83.0	64.2	73.6	95	46	63	62	63	87	60	65	.592	.577	.596	2.68	1.28	5.1	6.3	4.9	5.1
July	28.504	28.780	28.344	72.6	87.6	87.7	91.9	70.8	81.4	100	65	65	63	63	78	44	45	.627	.547	.578	.71	.36	1.8	2.3	1.8	2.0
August	28.550	28.830	28.318	71.0	86.8	87.5	91.9	68.9	80.4	102	58	63	62	61	78	46	43	.592	.571	.553	1.61	1.13	3.3	3.0	3.4	3.5
September	28.555	28.863	28.080	64.7	80.6	80.0	85.0	63.6	74.3	98	48	50	58	57	82	48	47	.518	.504	.480	.23	.22	4.2	4.2	3.0	3.7
October	28.557	28.900	28.080	50.1	60.8	59.0	65.5	46.8	56.2	90	27	47	48	48	88	65	69	.345	.358	.360	1.64	.68	6.2	6.8	4.6	6.3
November	28.638	29.120	28.130	34.6	46.4	43.8	51.9	31.1	41.5	69	14	30	32	34	82	59	67	.175	.188	.202	1.99	1.13	4.6	3.6	3.9	4.1
December	28.725	29.300	28.140	24.5	30.3	30.1	36.0	20.4	28.2	62	− 4	21	23	24	88	76	79	.122	.130	.138	.14	.12	4.2	5.7	4.3	5.5
Year	28.577	29.300	27.540	48.8	60.3	59.8	65.0	46.0	55.5	102	−12	44	45	46	84	60	64	.348	.348	.356	22.98	1.80	4.5	4.7	3.9	4.6

WILLISTON, N. DAK.

[ϕ=48° 09′ N.; λ=103° 35′ W.]

Month	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	27.929	28.440	27.430	21.0	29.8	27.4	33.8	14.9	24.4	51	−30	15	19	17	76	64	64	0.091	0.107	0.099	0.07	0.04	3.6	5.9	5.2	5.8
February	28.009	28.330	27.420	4.1	12.0	11.8	16.0	−1.5	7.2	49	−28	1	6	6	86	76	78	.049	.069	.062	1.02	.60	7.0	6.3	7.1	6.8
March	28.053	28.600	27.370	10.7	20.7	22.5	26.5	6.2	16.4	52	−26	7	13	15	84	71	73	.066	.084	.095	1.08	.53	6.1	5.6	6.4	5.8
April	27.968	28.560	27.340	35.9	50.0	50.5	54.0	33.2	43.6	75	21	29	31	30	77	51	50	.103	.171	.167	1.12	.34	6.0	6.4	6.5	5.7
May	27.920	28.260	27.360	47.6	64.0	65.4	68.6	44.3	56.4	96	29	39	39	38	74	44	41	.251	.243	.239	2.16	.85	4.4	4.3	4.8	4.0
June	27.966	28.270	27.480	59.9	77.3	80.3	82.7	56.0	69.4	99	33	51	50	51	73	40	36	.403	.336	.290	2.64	2.09	3.7	3.2	2.7	2.9
July	27.955	28.245	27.540	61.3	79.4	81.8	84.5	57.5	71.0	101	51	51	48	48	71	37	34	.386	.350	.348	1.33	.96	4.3	3.1	3.2	3.4
August	27.967	28.310	27.672	57.3	77.3	79.0	82.6	55.3	69.0	94	41	48	48	48	72	38	35	.343	.341	.342	.65	.29	3.9	3.6	3.6	3.4
September	27.972	28.360	27.400	50.3	64.0	64.7	68.8	47.1	58.9	88	32	42	42	42	74	48	47	.278	.281	.281	.99	.93	6.2	5.1	5.1	4.8
October	28.017	28.350	27.320	26.0	39.4	36.7	43.1	21.1	32.1	76	− 2	20	24	23	76	66	68	.118	.135	.132	1.65	1.07	6.1	5.8	6.8	5.9
November	28.067	28.673	27.500	13.2	19.7	17.0	23.8	6.1	15.0	48	−20	10	12	11	86	72	76	.081	.085	.082	.46	.29	3.6	5.5	5.3	5.4
December	28.072	28.630	27.485	5.8	12.4	12.4	17.9	1.5	9.7	42	−27	3	7	8	89	79	81	.062	.071	.073	.25	.14	2.3	4.0	4.0	4.7
Year	27.991	28.673	27.320	32.8	45.5	45.8	50.2	28.5	39.4	101	−30	26	28	28	78	56	56	.191	.193	.192	13.42	2.09	4.8	4.9	5.1	4.9

Annual meteorological summary for the year ending December 31, 1919—Continued.

WASHINGTON, D. C.

[H_b=112 ft.; h_t=62 ft.; h_r=42 ft.; h_a=85 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																									
January	6.9	NW.	35	NW.	0	4	6	1	4	9	11	7	20	0	12	10	9	9	5	5	1	0	3	4	0	17	0	0
February	8.1	NW.	32	NW.	0	10	4	2	5	5	6	6	18	0	11	8	9	10	9	3	2	1	2	1	0	18	0	1
March	10.8	NW.	46	NW.	3	13	7	6	4	10	3	2	16	1	13	5	13	10	9	3	1	0	0	0	0	5	1	0
April	8.0	NW.	42	NW.	1	9	1	8	7	10	6	3	14	2	7	11	12	8	6	2	0	1	1	0	0	2	3	0
May	5.9	NW.	27	NW.	0	7	8	9	8	8	11	4	6	1	10	7	14	10	10	0	0	0	0	0	2	0	8	1
June	5.1	S.	24	N.	0	7	5	13	9	13	8	4	1	0	11	9	10	10	8	0	0	0	0	0	3	0	6	0
July	4.9	S.	28	NW.	0	12	2	3	5	14	13	4	7	2	10	7	14	12	8	0	0	0	0	0	10	0	8	0
August	5.2	NW.	26	NE.	0	12	6	0	9	6	11	4	13	1	12	12	7	10	8	0	0	0	0	0	2	0	5	1
September	5.3	NW.	30	NW.	0	16	4	3	0	11	7	5	13	1	12	12	6	6	5	0	0	0	2	0	3	0	4	1
October	5.0	N.	27	NW.	0	11	13	5	9	6	9	2	6	1	5	9	17	10	8	0	0	0	4	0	2	0	2	1
November	6.7	NW.	36	NW.	0	9	6	2	4	10	8	4	16	1	11	7	12	13	12	1	0	0	1	0	0	8	1	0
December	7.1	NW.	42	NW.	1	9	5	2	3	9	10	4	20	0	7	10	14	10	10	8	4	0	1	4	0	27	0	1
Year	6.6	NW.	46	NW.	5	119	67	54	67	111	103	49	150	10	121	107	137	118	98	22	8	2	14	9	22	77	38	6

WAUSAU, WIS.

[H_b=1,247 ft.; h_t=4 ft.; h_r=38 ft.; h_a=— ft.]

		(*)																										
January	.....	NW.	....	.....	....	6	1	0	4	4	0	6	8	2	13	1	17	8	3	11	6	0	3	15	0	31	0	0
February	.....	NW.	....	.....	....	2	4	1	5	1	1	1	13	0	12	3	13	8	6	13	7	0	0	20	0	28	0	0
March	.....	NW.	....	.....	....	3	1	2	9	3	1	2	9	1	14	8	9	5	4	10	2	0	1	6	0	28	1	3
April	.....	SE.	....	.....	....	4	1	6	9	0	3	1	6	0	11	3	16	11	10	4	2	0	0	0	0	10	1	1
May	.....	SE.	....	.....	....	5	4	3	7	0	0	0	3	9	17	4	10	9	7	0	0	0	0	0	0	0	1	0
June	.....	SE.	....	.....	....	4	5	2	13	1	1	0	0	4	7	11	12	14	11	0	0	1	0	0	0	0	14	0
July	.....	SE.	....	.....	....	4	2	3	8	4	2	0	5	3	17	6	8	10	10	0	0	0	1	0	3	0	7	0
August	.....	NW.	....	.....	....	5	0	2	4	5	0	6	8	1	17	7	7	9	8	0	0	0	1	0	0	0	8	3
September	.....	N.	....	.....	....	7	1	3	5	6	1	2	5	0	10	8	12	12	7	0	0	0	0	0	0	0	1	0
October	.....	NW.	....	.....	....	1	4	2	6	3	3	4	8	0	12	2	17	14	10	3	2	0	1	1	0	12	3	0
November	.....	NW.	....	.....	....	2	3	4	5	3	0	6	7	0	12	4	14	13	10	13	8	0	0	9	0	25	0	0
December	.....	NW.	....	.....	....	1	0	1	2	4	5	8	9	1	7	6	18	7	5	16	7	0	1	28	0	31	0	0
Year	.....	NW.	....	.....	....	44	26	29	77	34	17	36	81	21	149	63	153	120	91	70	34	1	8	79	3	165	36	7

WICHITA, KANS.

[H_b=1,358 ft.; h_t=139 ft.; h_r=132 ft.; h_a=158 ft.]

January	10.7	SW.	42	SW.	1	11	4	1	1	12	21	3	9	0	24	5	2	0	0	1	0	0	6	4	0	20	0	0
February	15.6	S.	53	N.	4	12	6	2	3	22	4	1	6	0	8	9	11	10	6	9	6	0	0	5	0	22	1	0
March	14.6	S.	88	NW.	4	10	11	9	7	19	2	0	4	0	12	8	11	7	7	3	1	1	0	0	0	7	2	0
April	15.6	S.	52	W.	4	4	9	4	9	15	4	2	13	0	7	13	10	10	10	0	0	1	0	0	0	2	7	0
May	11.1	NE.	42	W.	1	11	18	5	12	9	3	0	4	0	9	11	11	13	11	0	0	1	1	0	0	0	8	0
June	9.8	S.	38	S.	0	5	3	8	18	20	2	1	3	0	9	14	7	7	5	0	0	0	0	0	7	0	9	0
July	12.0	S.	33	SW.	0	3	4	2	18	28	5	1	0	1	25	5	1	5	4	0	0	0	0	0	20	0	5	0
August	11.3	S.	67	N.	4	3	10	2	17	17	7	1	5	0	15	14	2	6	5	0	0	1	0	0	21	0	8	0
September	13.6	S.	43	NW.	2	3	2	5	11	34	2	0	3	0	14	12	4	2	1	0	0	0	1	0	5	0	0	0
October	12.7	S.	46	S.	1	21	0	0	0	34	3	0	4	0	8	10	13	11	8	0	0	0	1	0	1	2	2	0
November	13.6	S.	46	N.	2	11	9	2	2	21	2	5	8	0	16	6	8	4	3	4	2	1	0	5	0	13	1	0
December	12.1	S.	36	S.	0	12	8	0	5	11	9	5	12	0	12	6	13	3	1	5	1	0	6	11	0	26	1	0
Year	12.7	S.	88	NW.	23	106	84	40	103	242	64	19	71	1	159	113	93	78	61	22	10	5	15	25	54	92	44	0

WILLISTON, N. DAK.

[H_b=1,878 ft.; h_t=41 ft.; h_r=33 ft.; h_a=48 ft.]

January	8.3	SW.	42	NW.	1	2	5	4	10	9	14	15	3	0	8	14	9	4	1	7	4	0	0	10	0	31	0	1
February	6.7	N.	36	W.	0	13	13	5	6	2	2	3	12	0	4	12	12	10	7	18	10	0	1	25	0	27	0	0
March	7.8	SE.	52	SE.	1	8	3	9	14	4	9	8	7	0	8	14	9	7	6	12	7	0	1	20	0	31	0	2
April	9.9	SE.	44	NE.	2	8	7	8	11	4	6	8	8	0	6	14	10	9	8	4	3	0	2	1	0	11	0	0
May	9.9	SE.	43	NW.	2	5	5	8	24	4	5	5	6	0	14	12	5	10	6	2	0	0	0	0	2	5	1	0
June	11.2	SE.	60	W.	1	8	8	10	22	2	1	5	4	0	19	11	0	4	3	0	0	1	0	0	8	0	8	0
July	8.0	N.	64	W.	5	13	8	7	8	2	9	6	9	0	18	11	2	5	4	0	0	0	0	0	10	0	5	0
August	8.7	SE.	40	W.	1	8	6	3	17	3	4	14	7	0	15	16	0	5	3	0	0	0	0	0	4	0	7	0
September	9.1	SE.	40	W.	1	3	10	5	12	2	4	12	12	0	9	15	6	4	3	0	0	0	0	0	0	0	5	1
October	7.9	SW.	36	NW.	0	10	8	4	7	5	12	9	7	0	8	11	12	11	5	11	9	0	3	8	0	26	0	0
November	8.7	W.	36	E.	0	5	3	7	8	8	6	12	11	0	8	14	8	5	4	9	5	0	1	20	0	29	0	0
December	7.9	SW.	45	NW.	1	7	4	2	7	5	18	14	5	0	10	13	8	4	4	6	3	0	3	18	0	31	0	0
Year	8.7	SE.	64	W.	15	90	80	72	146	50	90	111	91	0	127	157	81	78	54	69	41	1	11	102	24	191	26	4

*By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

WILMINGTON, N. C.

[ϕ=34° 14′ N.; λ=77° 57′ W.]

Month.	Pressure.			Temperature.									Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	30.040	30.470	29.510	42.7	54.3	50.1	58.7	39.6	49.2	75	20	36	37	38	78	54	66	0.236	0.242	0.260	3.23	1.48	4.8	4.5	3.3	4.5
February	29.943	30.406	29.400	42.3	52.0	48.2	55.9	38.7	47.3	68	24	36	37	39	80	59	72	.232	.238	.251	2.83	.65	4.1	4.6	3.6	4.5
March	30.042	30.480	29.440	51.2	60.2	57.1	64.8	46.4	55.6	75	38	44	45	45	77	60	66	.308	.312	.309	2.20	.99	5.6	5.8	3.5	5.6
April	29.991	30.278	29.720	56.2	67.5	62.0	71.4	51.8	61.6	87	33	48	45	50	74	47	67	.356	.334	.386	3.23	1.20	2.9	3.5	3.7	3.6
May	29.881	30.140	29.530	68.7	76.0	70.5	78.4	63.3	70.8	86	52	63	62	64	83	63	81	.586	.560	.608	1.26	.36	5.4	5.9	4.5	5.5
June	30.005	30.310	29.530	71.5	79.3	73.8	81.8	66.3	74.0	92	57	66	64	66	84	62	78	.652	.610	.640	4.25	2.05	4.8	5.2	4.8	5.1
July	29.975	30.220	29.750	75.8	84.1	77.8	86.6	70.5	78.6	95	54	71	69	71	85	63	81	.762	.723	.765	8.43	1.63	4.9	5.2	4.5	4.7
August	29.916	30.170	29.680	75.2	83.2	76.9	86.3	70.3	78.3	95	64	70	68	70	83	62	80	.726	.706	.747	5.52	1.68	4.0	5.2	4.5	4.6
September	29.909	30.190	29.670	68.1	79.6	73.4	81.7	64.5	73.1	89	56	63	60	65	84	54	76	.588	.533	.624	1.90	.93	3.3	3.5	3.0	3.5
October	30.050	30.303	29.850	68.5	78.7	71.8	81.8	65.9	73.8	93	53	66	64	67	90	62	85	.641	.608	.673	1.03	.37	3.9	4.6	2.3	4.0
November	30.039	30.560	29.600	51.1	63.4	57.3	66.6	46.9	56.8	82	30	46	44	47	82	51	69	.339	.325	.347	.07	.05	4.0	3.7	2.8	4.2
December	30.075	30.570	29.700	41.5	52.1	48.4	56.7	37.5	47.1	74	24	35	38	39	79	60	70	.240	.262	.264	1.87	.63	3.7	5.5	4.4	5.2
Year	29.994	30.570	29.400	59.4	69.2	63.9	72.6	55.1	63.8	95	20	54	53	55	82	58	74	.472	.455	.490	35.82	2.05	4.3	4.8	3.7	4.6

WINNEMUCCA, NEV.

[ϕ=40° 58′ N.; λ=117° 43′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	25.766	26.213	25.090	19.7	38.5	35.5	42.8	15.5	29.2	56	−15	16	23	21	84	54	61	0.096	0.124	0.127	0.10	0.04	3.7	4.3	4.6	4.2
February	25.522	25.810	25.080	29.7	38.1	37.1	41.1	25.6	33.4	59	13	26	28	27	85	68	68	.138	.156	.147	1.52	.35	8.2	9.0	8.0	8.5
March	25.584	25.890	25.044	30.9	46.4	46.6	50.6	27.7	39.2	68	14	26	28	28	81	51	52	.138	.148	.152	.57	.29	5.7	6.8	6.4	6.2
April	25.591	25.900	25.260	35.9	58.2	60.1	64.4	33.3	48.8	82	18	28	30	28	73	37	32	.151	.166	.153	.49	.23	5.8	6.1	5.7	5.9
May	25.528	25.810	25.300	43.7	72.2	72.2	76.6	42.3	59.4	96	28	32	30	28	63	22	21	.189	.175	.161	1.25	1.12	2.8	3.6	5.2	3.8
June	25.581	25.890	25.330	47.5	77.9	78.6	82.2	46.1	64.2	94	34	29	29	28	49	17	18	.160	.162	.150	.00	.00	1.2	1.5	1.9	1.5
July	25.598	25.750	25.410	57.6	88.1	88.8	92.5	55.4	74.0	100	43	33	35	33	40	16	14	.195	.212	.196	T.	T.	.8	.4	1.3	.9
August	25.638	25.900	25.449	53.6	86.6	86.4	90.8	51.6	71.2	97	42	31	34	33	42	16	15	.173	.197	.190	T.	T.	1.2	.4	2.1	1.3
September	25.565	25.860	25.260	43.7	73.2	71.8	77.3	41.4	59.4	87	30	28	33	32	55	25	26	.167	.191	.184	.40	.38	1.6	2.5	2.6	2.4
October	25.654	25.950	25.290	30.2	53.0	50.1	56.5	27.4	42.0	72	14	24	28	28	79	42	46	.133	.155	.155	.68	.17	3.9	3.8	3.5	3.8
November	25.682	26.090	25.305	25.4	46.0	41.5	50.8	21.3	36.6	67	−1	20	25	26	79	44	55	.109	.133	.141	.72	.40	2.8	4.1	4.2	4.0
December	25.719	26.170	25.070	22.0	34.4	31.4	39.1	17.2	28.2	54	−10	17	23	23	78	62	70	.101	.127	.127	.94	.26	5.2	4.7	5.2	4.7
Year	25.619	26.213	25.044	36.7	59.4	58.3	63.7	33.7	48.8	100	−15	26	29	28	67	38	40	.145	.162	.157	6.67	1.12	3.6	3.9	4.2	3.9

WYTHEVILLE, VA.

[ϕ=36° 56′ N.; λ=81° 05′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	27.680	28.110	27.280	29.0	39.6	36.1	44.4	25.8	35.1	60	0	24	26	25	80	60	65	0.137	0.152	0.144	3.30	1.21	5.1	4.0	2.7	4.2
February	27.578	27.987	26.980	28.8	38.0	35.8	42.3	26.7	34.5	55	18	23	26	28	78	63	71	.127	.144	.156	2.34	.58	5.5	5.9	4.0	5.6
March	27.731	28.110	27.280	38.4	49.6	46.1	55.3	33.7	44.5	70	25	30	32	32	73	53	61	.178	.187	.190	1.95	.65	5.2	4.7	4.0	4.5
April	27.662	27.949	27.320	46.6	57.6	54.7	62.6	40.0	51.3	80	20	36	37	39	69	48	58	.231	.233	.255	3.45	.99	4.8	4.9	3.9	4.3
May	27.595	27.838	27.200	56.2	65.8	62.5	70.8	50.8	60.8	82	39	51	51	53	85	62	72	.390	.391	.410	3.83	1.15	5.8	5.4	5.9	5.3
June	27.778	28.064	27.478	64.6	75.4	68.9	78.6	58.8	68.7	86	49	60	59	61	86	59	76	.528	.513	.534	3.98	1.24	3.6	4.8	6.5	4.7
July	27.724	27.951	27.520	67.2	78.9	73.5	82.9	61.7	72.3	90	46	63	62	64	86	57	74	.570	.556	.604	1.75	.65	4.5	4.2	5.1	4.3
August	27.679	27.903	27.553	64.2	75.6	69.3	79.1	58.2	68.6	90	47	59	58	60	83	56	73	.503	.491	.524	1.40	.41	4.4	4.6	4.2	4.9
September	27.737	27.984	27.450	57.2	74.2	66.4	77.6	50.7	64.2	88	37	52	51	53	83	45	64	.399	.385	.429	1.48	.62	2.1	3.0	3.0	2.9
October	27.773	28.004	27.610	56.6	67.7	61.7	71.5	52.6	62.0	84	41	54	56	56	93	68	83	.432	.456	.465	3.98	.83	5.3	4.9	4.5	6.2
November	27.701	28.134	27.280	39.6	50.9	45.9	55.6	36.7	46.2	74	22	34	34	35	78	54	67	.209	.212	.225	1.06	.35	5.3	4.4	4.2	4.5
December	27.688	28.169	27.200	29.3	38.3	35.7	44.1	25.6	34.8	67	13	24	27	26	81	63	68	.145	.156	.153	2.55	.89	5.8	4.9	4.1	5.3
Year	27.694	28.169	26.980	48.1	59.3	54.7	63.7	43.4	53.6	90	0	42	43	44	81	57	69	.321	.323	.341	31.07	1.24	4.8	4.7	4.3	4.7

YANKTON, S. DAK.

[ϕ=42° 54′ N.; λ=97° 28′ W.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	Noon, local time.	8 p. m.	Daylight.
January	28.701	29.210	28.314	23.3	34.4	....	39.5	19.2	29.4	58	−22	18	21	....	79	59	....	0.108	0.124	....	0.15	0.14	3.0	4.7	....	4.8
February	28.636	29.120	27.993	17.5	24.3	....	28.6	14.3	21.4	49	−10	14	18	....	85	74	....	.092	.107	....	2.17	1.23	7.2	6.5	....	7.3
March	28.773	29.400	28.080	27.9	37.4	....	44.1	23.9	34.0	74	−4	23	27	....	81	67	....	.135	.157	....	1.09	.50	5.4	6.2	....	6.7
April	28.633	29.290	27.970	41.3	50.1	....	54.4	38.2	46.3	72	25	35	37	....	80	63	....	.210	.229	....	3.02	.98	7.4	7.9	....	7.7
May	28.622	28.922	28.270	52.4	64.7	....	68.9	48.2	58.6	84	38	46	45	....	80	51	....	.322	.311	....	2.91	.95	4.3	6.7	....	6.4
June	28.664	28.870	28.420	65.8	75.0	....	78.6	62.8	70.7	93	48	61	62	....	85	66	....	.552	.571	....	4.04	1.40	7.1	6.8	....	6.6
July	28.624	28.882	28.320	70.9	84.9	....	88.3	66.9	77.6	99	56	63	64	....	78	51	....	.586	.612	....	2.65	1.06	4.1	3.4	....	4.3
August	28.658	28.943	28.310	63.8	80.2	....	84.0	60.6	72.3	98	48	58	60	....	83	52	....	.497	.543	....	3.12	.93	4.5	3.3	....	4.3
September	28.644	28.950	28.201	58.7	73.0	....	77.2	56.3	66.8	94	40	52	54	....	80	55	....	.407	.430	....	2.87	1.06	5.7	5.7	....	6.1
October	28.675	29.080	28.100	40.0	50.6	....	55.2	36.5	45.8	85	14	36	37	....	85	63	....	.225	.242	....	1.50	.55	7.4	6.5	....	6.7
November	28.743	29.340	27.889	26.1	33.9	....	38.1	21.6	29.8	61	0	21	24	....	81	68	....	.123	.138	....	2.56	.93	6.7	6.5	....	6.9
December	28.805	29.420	28.270	13.2	21.8	....	25.7	9.2	17.4	49	−16	10	15	....	88	73	....	.081	.098	....	.22	.07	5.6	4.8	....	5.5
Year	28.682	29.420	27.889	41.7	52.5	....	56.9	38.1	47.5	99	−22	36	39	....	82	62	....	.278	.297	....	26.30	1.40	5.7	5.8	....	6.1

Annual meteorological summary for the year ending December 31, 1919—Continued.

WILMINGTON, N. C.

[H_b=78 ft.; h_t=81 ft.; h_r=76 ft.; h_a=91 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 46 miles and over.	Number of winds, 8 a. m. and 8 p. m. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	6.4	N.	29	SW.	0	14	9	7	3	5	10	11	2	1	13	8	10	10	8	1	0	0	0	0	0	5	0	0
February	7.7	N.	27	SW.	0	12	13	7	4	3	4	11	2	0	13	7	8	13	9	2	2	0	0	0	0	5	0	0
March	8.7	N.	34	SW.	0	15	15	1	4	9	3	8	7	0	9	11	11	10	8	0	0	0	0	0	0	0	0	0
April	7.7	SW.	32	SW.	0	4	9	3	2	8	16	16	1	1	18	7	5	7	6	0	0	0	1	0	0	0	5	0
May	7.8	SW.	24	S.	0	5	9	7	3	12	23	2	1	0	8	14	9	14	7	0	0	0	4	0	0	0	4	0
June	7.1	E.	28	N.	0	6	14	19	6	7	3	3	2	0	12	9	9	13	7	0	0	0	2	0	1	0	3	0
July	7.4	SW.	36	NE.	0	1	7	3	4	15	21	10	1	0	13	9	9	14	13	0	0	0	0	0	6	0	11	0
August	6.7	SW.	29	E.	0	3	9	2	2	5	23	15	3	0	9	18	4	10	9	0	0	0	0	0	4	0	9	0
September	6.3	NE.	22	NE.	0	20	15	6	3	4	8	3	0	1	17	8	5	4	4	0	0	0	0	0	0	0	2	0
October	6.3	SW.	26	E.	0	11	13	3	4	5	18	6	2	0	18	8	5	7	4	0	0	0	4	0	3	0	2	0
November	7.5	NE.	25	SW.	0	13	27	3	2	6	4	4	1	0	15	8	6	4	0	0	0	0	1	0	0	1	0	0
December	8.1	N.	29	SW.	0	21	9	2	0	7	11	8	3	1	12	5	14	8	7	0	0	0	4	0	0	11	1	0
Year	7.3	NE.	36	NE.	0	125	149	63	37	86	144	97	25	4	158	112	95	114	82	3	2	0	16	0	14	22	37	0

WINNEMUCCA, NEV.

[H_b=4,344 ft.; h_t=18 ft.; h_r=3 ft.; h_a=56 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 46 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.7	NE.	39	SW.	0	4	23	5	0	3	18	8	1	0	19	0	12	3	2	4	2	0	0	2	0	27	0	0
February	8.7	SW.	42	SW.	1	5	8	0	0	0	29	13	1	0	1	6	21	15	12	18	14	0	0	0	0	25	0	0
March	8.0	SW.	45	SW.	1	3	12	2	2	7	24	3	9	0	8	9	14	6	4	9	5	0	0	0	0	24	0	0
April	7.2	NE.	42	SW.	1	8	16	1	1	3	15	8	8	0	10	9	11	5	3	2	1	1	0	0	0	14	0	0
May	6.2	NE.	30	SW.	0	3	16	1	3	6	8	10	14	1	16	11	4	5	4	0	0	0	0	0	2	2	4	0
June	6.3	SW.	24	SW.	0	2	15	1	0	0	29	7	6	0	27	1	2	0	0	0	0	0	0	0	6	0	0	0
July	6.0	SW.	29	SW.	0	2	13	1	2	2	23	7	12	0	27	4	0	0	0	0	0	0	0	0	21	0	0	0
August	5.9	SW.	23	SW.	0	1	13	0	0	1	23	12	12	0	28	3	0	0	0	0	0	0	0	0	19	0	1	0
September	6.2	NE.	31	SW.	0	4	20	1	2	2	16	7	8	0	21	7	2	3	3	0	0	0	0	0	0	1	2	0
October	5.6	NE.	30	NW.	0	4	26	1	0	3	15	7	6	0	16	8	7	7	4	6	5	1	0	0	0	24	1	0
November	7.3	NE.	34	SW.	0	5	22	1	0	2	21	8	1	0	16	6	8	5	5	7	4	0	0	3	0	27	0	0
December	7.0	NE.	42	SW.	1	1	34	5	0	2	11	8	1	0	14	6	11	5	4	6	5	0	0	6	0	30	0	0
Year	6.8	SW.	45	SW.	4	42	218	19	10	31	232	98	79	1	203	70	92	54	41	52	36	2	0	11	48	174	8	0

WYTHEVILLE, VA.

[H_b=2,304 ft.; h_t=49 ft.; h_r=40 ft.; h_a=55 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 46 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.6	W.	31	SW.	0	2	3	5	0	2	6	29	13	2	17	4	10	8	8	3	3	0	0	5	0	23	0	0
February	7.3	W.	31	W.	0	1	2	8	0	4	3	21	15	2	8	8	12	11	7	6	2	0	1	3	0	22	0	0
March	7.9	NW.	40	SW.	1	4	1	13	0	7	2	15	19	1	14	6	11	9	8	2	0	0	0	0	0	13	0	0
April	7.4	NW.	31	S.	0	2	3	2	0	2	7	23	19	2	13	10	7	9	8	0	0	0	0	0	0	6	2	0
May	5.3	W.	24	W.	0	2	2	12	5	2	6	23	9	1	9	13	9	18	14	0	0	0	2	0	0	0	4	0
June	3.8	E.	25	SW.	0	2	7	18	10	2	8	6	6	1	9	16	5	16	13	0	0	0	7	0	0	0	14	0
July	4.0	W.	30	W.	0	3	4	4	3	5	9	20	8	6	12	14	5	11	7	0	0	0	3	0	0	0	10	0
August	5.3	W.	21	W.	0	4	0	4	2	0	10	26	12	4	12	11	8	13	8	0	0	0	1	0	0	0	4	0
September	4.1	NW.	23	SW.	0	13	3	6	1	2	8	10	14	3	21	6	3	6	6	0	0	0	0	0	0	0	1	0
October	4.6	W.	22	SW.	0	4	9	11	0	1	9	19	5	4	9	8	14	16	12	0	0	0	8	0	0	0	3	0
November	6.6	W.	33	NW.	0	3	3	11	1	1	6	25	6	4	14	5	11	8	6	0	0	0	0	0	0	12	0	0
December	7.8	W.	38	W.	0	1	11	7	0	0	6	22	12	3	12	6	13	7	7	3	0	0	2	3	0	27	0	0
Year	5.9	W.	40	SW.	1	41	48	101	22	28	80	239	138	33	150	107	108	132	104	14	5	0	24	11	0	103	38	0

YANKTON, S. DAK.

[H_b=1,233 ft.; h_t=49 ft.; h_r=42 ft.; h_a=57 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 46 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	7.5	NW.	36	NW.	0	2	1	1	2	2	8	5	9	1	11	14	6	3	2	5	3	0	2	6	0	30	0	0
February	9.7	NW.	36	NW.	0	3	2	6	3	1	0	1	9	3	3	10	15	11	9	12	8	0	1	12	0	27	0	0
March	8.4	SE.	32	NW.	0	2	5	2	6	4	2	2	6	2	7	10	14	8	4	9	6	0	4	5	0	24	0	0
April	10.0	NW.	36	S.	0	3	5	3	5	4	0	0	8	2	3	9	18	13	8	3	3	1	1	0	0	6	3	0
May	7.7	SE.	33	S.	0	2	3	3	8	4	0	4	5	2	4	18	9	7	6	0	0	0	3	0	0	0	5	0
June	7.2	S.	24	S.	0	3	2	2	7	9	3	0	3	1	7	9	14	11	10	0	0	0	0	0	4	0	6	0
July	7.5	S.	30	NW.	0	0	6	3	4	10	4	1	3	0	14	14	3	9	8	0	0	0	0	0	12	0	9	0
August	6.4	W.	35	W.	0	2	3	6	4	2	2	7	4	1	12	14	5	6	5	0	0	1	0	0	7	0	9	0
September	6.9	S	27	S.	0	5	2	2	4	8	3	3	1	2	8	8	14	10	7	0	0	0	0	0	3	0	5	0
October	5.8	N.	24	NW.	0	8	2	1	4	3	4	3	5	1	6	10	15	9	6	1	0	0	1	2	0	10	1	0
November	8.7	NW.	38	NW.	0	2	3	1	3	2	2	6	9	2	5	12	13	12	8	10	8	0	0	9	0	23	0	0
December	7.3	W.	26	NW.	0	1	2	1	6	1	4	7	6	3	11	7	13	7	4	7	6	0	0	17	0	30	0	0
Year	7.8	NW.	38	NW.	0	33	36	31	56	50	32	39	68	20	91	135	139	106	77	47	34	2	12	51	26	150	38	0

Annual meteorological summary for the year ending December 31, 1919—Continued.

YELLOWSTONE PARK, WYO.

[ϕ=44° 58′ N.; λ=110° 42′ W.]

Month.	Pressure.			Temperature.											Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	23.939	24.350	23.520	16.9	25.5	25.1	30.9	13.4	22.2	40	−5	11	15	16	74	62	67	0.073	0.086	0.099	0.88	0.18	3.8	4.6	5.2	4.8
February	23.669	23.977	23.220	14.8	23.9	22.7	28.7	9.8	19.2	40	−2	10	14	16	78	63	73	.067	.082	.088	1.64	.35	6.7	6.4	7.4	7.0
March	23.782	24.110	23.500	21.8	34.1	34.5	39.6	18.9	29.2	59	−6	15	20	21	74	56	60	.088	.110	.114	1.00	.32	5.2	5.3	6.1	5.7
April	23.840	24.065	23.480	30.4	46.0	46.0	50.7	28.1	39.4	69	15	22	24	26	71	44	48	.121	.131	.141	1.41	.66	5.3	5.1	5.7	5.3
May	23.828	24.072	23.470	35.6	56.1	54.5	60.5	32.8	46.6	84	17	26	33	32	67	46	49	.145	.193	.189	1.29	.52	3.5	5.0	5.4	5.1
June	23.919	24.137	23.684	45.4	71.3	72.0	75.2	43.4	59.3	88	28	34	33	31	64	29	23	.193	.192	.173	.14	.12	1.9	2.4	3.4	2.7
July	23.966	24.193	23.760	50.1	75.0	76.3	81.0	48.6	64.8	91	36	37	35	35	63	26	20	.228	.209	.219	.80	.48	1.2	1.9	3.1	2.8
August	24.006	24.155	23.811	47.9	71.6	71.7	76.8	45.9	61.4	88	37	36	34	36	64	27	31	.213	.201	.219	.40	.27	2.5	3.2	4.4	4.6
September	23.922	24.210	23.600	41.9	59.4	57.8	65.1	39.0	52.0	78	26	34	36	35	75	44	46	.203	.220	.207	2.51	.78	5.2	4.0	5.1	4.6
October	23.837	24.150	23.397	25.7	36.5	33.8	40.5	20.2	30.4	63	−6	20	24	23	79	63	66	.113	.130	.123	2.69	1.19	5.6	6.5	6.7	7.0
November	23.859	24.310	23.440	19.6	28.6	25.2	33.2	13.1	23.2	48	−19	13	17	17	74	62	70	.083	.098	.099	.80	.31	4.4	6.5	6.3	6.0
December	23.902	24.260	23.260	13.5	19.3	17.3	26.1	4.8	15.4	44	−31	8	11	9	78	69	71	.070	.080	.075	2.13	.79	4.4	7.1	5.5	6.7
Year	23.872	24.350	23.220	30.3	45.6	44.7	50.7	26.5	38.6	91	−31	22	25	25	72	49	52	.133	.144	.145	15.69	1.19	4.1	4.8	5.4	5.2

YUMA, ARIZ.

[ϕ=32° 45′ N.; λ=114° 36′ W.]

Month.	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
January	29.945	30.360	29.376	45.7	65.8	64.6	68.9	41.2	55.0	75	28	23	24	24	42	21	22	0.126	0.133	0.132	0.24	0.24	0.4	0.9	1.4	1.3
February	29.854	30.160	29.450	44.5	65.4	65.4	69.0	42.5	55.8	77	35	31	31	30	70	28	28	.207	.175	.173	T.	T.	.5	1.3	1.9	1.6
March	29.817	30.130	29.550	48.8	70.9	71.1	75.2	47.2	61.2	91	38	37	32	32	67	26	27	.232	.192	.192	.41	.18	1.4	1.4	2.6	1.7
April	29.693	29.960	29.466	57.3	85.0	86.0	89.5	55.6	72.6	99	47	43	41	41	62	17	17	.281	.201	.204	T.	T.	.9	.6	1.4	.8
May	29.599	29.750	29.450	62.7	88.6	90.6	93.5	61.7	77.6	102	57	50	43	40	62	22	18	.369	.288	.255	T.	T.	.4	.6	.6	.5
June	29.597	29.960	29.392	69.9	99.0	101.5	104.3	68.6	86.4	116	59	49	40	42	52	14	14	.383	.267	.292	.00	.00	.1	.0	.1	.0
July	29.617	29.800	29.400	79.3	99.7	101.6	104.5	78.0	91.2	113	73	67	64	63	68	32	30	.676	.604	.579	.06	.05	2.0	1.9	1.3	2.3
August	29.645	29.850	29.440	76.6	99.7	101.3	105.3	74.6	90.0	116	68	67	65	64	73	34	34	.663	.629	.615	.88	.56	1.1	1.4	1.0	1.6
September	29.591	29.820	29.378	71.8	93.6	93.4	97.8	70.6	84.2	106	60	62	61	60	73	36	35	.550	.552	.533	.03	.03	1.5	1.8	1.2	2.1
October	29.719	30.070	29.520	55.7	80.2	76.8	82.7	53.0	67.8	93	40	39	42	41	57	28	30	.249	.276	.265	.14	.14	1.2	1.2	1.5	1.5
November	29.793	30.070	29.360	50.1	70.2	66.5	72.9	47.0	60.0	84	31	37	34	37	65	30	38	.237	.214	.237	.28	.14	1.2	1.7	1.8	2.2
December	29.937	30.210	29.561	47.6	65.8	62.7	68.7	45.0	56.8	78	35	31	34	34	57	32	37	.178	.199	.206	T.	T.	.5	1.2	1.3	1.8
Year	29.734	30.360	29.360	59.2	82.0	81.8	86.0	57.1	71.6	116	28	45	42	42	62	27	28	.347	.311	.307	2.01	.56	.9	1.2	1.3	1.1

DUTCH HARBOR, ALASKA.

[ϕ=53° 55′ N.; λ=166° 30′ W.]

Month.	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
January	29.430	30.114	29.568	23.1	....	23.5	28.1	18.5	23.3	41	6	....	....	....	....	....	....	....	....	....	7.98	2.86	9.7	....	7.1	....
February	29.126	29.650	28.380	28.1	....	30.1	33.5	24.4	29.0	40	10	....	....	....	....	....	....	....	....	....	4.54	.68	6.2	....	7.6	....
March	29.628	30.390	28.740	34.0	....	35.6	38.6	31.6	33.1	45	24	....	....	....	....	....	....	....	....	....	7.67	1.03	9.1	....	8.9	....
April	29.724	30.650	28.460	31.3	....	33.0	36.3	28.3	32.3	42	22	....	....	....	....	....	....	....	....	....	4.30	2.04	8.3	....	8.1	....
May	29.526	30.150	28.699	36.8	....	39.1	42.7	34.4	38.6	48	32	....	....	....	....	....	....	....	....	....	5.17	1.44	....	....	....	....
June	30.272	30.670	29.730	43.0	....	48.2	51.3	40.3	45.8	62	33	....	....	....	....	....	....	....	....	....	.31	.24	4.4	....	4.6	....
July	30.016	30.340	29.480	48.4	....	52.6	56.6	45.0	50.8	77	40	....	....	....	....	....	....	....	....	....	2.96	.60	7.6	....	7.1	....
August	29.816	30.410	29.230	49.1	....	51.8	55.8	43.8	49.8	69	35	....	....	....	....	....	....	....	....	....	4.58	1.75	....	....	....	....
September	....	....	....	....	....	....	54.7	43.6	49.2	64	36	....	....	....	....	....	....	....	....	....	3.88	1.06	....	....	....	....
October	29.868	30.352	29.097	41.7	....	45.1	47.6	37.6	42.0	61	29	....	....	....	....	....	....	....	....	....	9.38	1.96	....	....	....	....
November	29.774	30.450	29.154	35.5	....	37.1	40.1	31.6	35.8	48	23	....	....	....	....	....	....	....	....	....	2.27	.36	6.6	....	5.8	....
December	....	....	....	34.7	....	34.6	38.6	30.3	31.4	48	15	....	....	....	....	....	....	....	....	....	11.94	2.26	....	....	....	....
Year	....	....	....	....	....	....	43.7	34.1	38.9	77	6	....	....	....	....	....	....	....	....	....	64.98	2.86	....	....	....	....

EAGLE, ALASKA.

[ϕ=64° 46′ N.; λ=141° 12′ W.]

Month.	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
January	28.714	29.281	28.187	−9.9	....	−9.8	−2.9	−18.6	−10.8	26	−52	....	....	....	....	....	....	....	....	....	0.22	0.06	5.7	....	3.4	5.7
February	28.862	29.244	28.286	−1.7	....	2.6	9.6	−6.9	1.4	27	−32	....	....	....	....	....	....	....	....	....	.05	.05	3.8	....	2.5	3.4
March	29.100	29.687	28.693	−5.4	....	7.1	16.5	−11.6	2.4	44	−40	....	....	....	....	....	....	....	....	....	.02	.02	3.7	....	4.2	4.0
April	28.874	29.466	28.534	25.2	....	37.4	42.3	17.9	30.1	53	−4	....	....	....	....	....	....	....	....	....	.40	.20	5.4	....	6.4	5.8
May	28.840	29.427	28.130	40.5	....	50.5	55.1	30.5	42.8	69	17	....	....	....	....	....	....	....	....	....	1.09	.21	5.6	....	6.7	6.6
June	28.998	29.315	28.708	49.0	....	57.8	62.5	40.0	51.2	79	28	....	....	....	....	....	....	....	....	....	1.58	.41	7.4	....	7.8	8.1
July	28.994	29.386	28.750	57.8	....	67.4	71.7	47.4	59.6	86	38	....	....	....	....	....	....	....	....	....	1.72	.42	6.1	....	6.9	7.1
August	28.925	29.330	28.696	52.3	....	65.5	69.6	44.3	57.0	84	32	....	....	....	....	....	....	....	....	....	2.39	.59	6.9	....	7.8	7.4
September	28.887	29.416	28.256	40.8	....	51.2	54.8	34.6	44.7	73	24	....	....	....	....	....	....	....	....	....	1.23	.35	7.8	....	7.3	7.5
October	29.128	29.796	28.716	18.1	....	25.8	30.2	13.9	22.0	48	−8	....	....	....	....	....	....	....	....	....	.25	.06	6.7	....	6.2	6.1
November	29.088	29.790	28.410	−5.6	....	−2.1	1.4	−9.3	−4.0	19	−47	....	....	....	....	....	....	....	....	....	.78	.24	5.5	....	5.9	6.8
December	29.040	29.867	28.035	−14.1	....	−9.9	−4.4	−18.8	−12.1	24	−61	....	....	....	....	....	....	....	....	....	.68	.15	4.1	....	6.3	6.6
Year	28.954	29.867	28.035	20.6	....	28.6	33.9	13.5	23.7	86	−61	....	....	....	....	....	....	....	....	....	10.41	.59	5.7	....	6.0	6.3

* No diurnal correction applied for Dutch Harbor and Eagle, Alaska.

† 1 a. m. and 1 p. m., local time, at Dutch Harbor; 8 a. m. and 7 p. m., normal time, at Eagle.

Annual meteorological summary for the year ending December 31, 1919—Continued.

YELLOWSTONE PARK, WYO.

[H_b=6,200 ft.; h_t=11 ft.; h_r=4 ft.; h_a=48 ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	Number of winds, 8 a. m. and 8 p. m.* North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	9.0	S.	40	S.	1	0	1	3	8	34	14	1	0	1	11	9	11	13	9	14	13	0	0	18	0	31	0	0
February	8.0	S.	34	S.	0	5	2	0	5	24	8	5	7	0	3	11	14	19	17	19	19	0	0	22	0	28	0	0
March	8.4	S.	40	SW.	1	5	1	0	1	23	21	2	8	0	8	12	11	15	11	15	14	0	0	9	0	30	0	0
April	7.7	NW.	40	S.	1	5	0	0	4	12	14	3	22	0	8	14	8	8	6	8	6	0	0	0	0	23	1	0
May	7.4	S.	42	S.	1	6	1	0	5	23	13	4	12	0	9	14	8	13	9	8	7	0	0	0	0	16	2	0
June	7.9	S.	35	S.	0	2	0	1	3	19	28	2	10	0	19	9	2	3	1	0	0	0	0	0	0	2	1	0
July	7.2	SW.	38	SW.	0	2	0	0	1	17	15	5	21	0	18	12	1	8	6	0	0	0	0	0	1	0	7	0
August	7.0	S.	38	S.	0	2	1	2	2	26	10	3	16	0	11	14	6	7	4	0	0	1	0	0	0	0	5	1
September	7.1	S.	30	S.	0	2	3	0	2	27	16	6	6	0	9	15	6	13	10	3	3	0	0	0	0	6	7	0
October	7.7	S.	42	S.	1	11	1	0	4	20	14	1	11	0	6	5	20	15	10	19	14	0	0	9	0	26	0	0
November	8.2	S.	35	S.	0	1	0	0	6	25	10	8	6	1	8	8	14	11	8	13	10	0	0	11	0	29	0	0
December	9.0	S.	40	S.	1	3	0	1	2	31	15	6	4	0	5	10	16	12	9	15	12	0	0	17	0	31	0	0
Year	7.9	S.	42	S.	6	47	10	7	43	275	176	47	123	2	115	133	117	137	100	114	98	1	0	86	1	222	23	1

YUMA, ARIZ.

[H_b=141 ft.; h_t=9 ft.; h_r=2 ft.; h_a=54 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January	6.6	N.	28	N.	0	36	11	2	1	2	0	2	8	0	26	3	2	1	1	0	0	0	0	0	0	1	0	0
February	5.7	W.	33	W.	0	9	12	0	4	5	2	16	8	0	22	6	0	0	0	0	0	0	0	0	0	0	0	0
March	5.4	N.	37	NW.	0	12	8	3	5	12	7	13	3	0	25	4	2	3	3	0	0	0	0	0	1	0	0	0
April	5.3	W.	24	N.	0	11	6	4	2	9	15	8	5	0	28	1	1	0	0	0	0	0	0	0	17	0	0	0
May	6.0	S.	25	SE.	0	3	1	1	9	22	11	11	4	0	29	2	0	0	0	0	0	0	0	0	25	0	0	0
June	5.4	W.	28	N.	0	8	2	2	10	11	12	13	2	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0
July	6.6	S.	42	SE.	1	4	1	4	12	13	7	10	3	8	22	5	4	2	1	0	0	0	0	0	31	0	3	0
August	5.1	SW.	36	SE.	0	6	3	4	8	4	22	11	3	1	25	4	2	4	4	0	0	0	0	0	31	0	4	0
September	5.0	W.	30	S.	0	7	7	2	8	6	12	10	4	4	22	4	4	1	0	0	0	0	0	0	24	0	2	0
October	5.1	N.	30	N.	0	23	8	2	1	5	8	8	7	0	25	3	3	1	1	0	0	0	0	0	4	0	0	0
November	5.6	N.	30	W.	0	23	10	0	6	3	2	5	5	0	21	5	4	3	3	0	0	0	0	0	0	1	1	0
December	6.1	N.	29	N.	0	37	7	1	1	5	1	7	3	0	25	3	3	0	0	0	0	0	0	0	0	0	0	0
Year	5.7	N.	42	SE.	1	179	76	31	66	97	99	114	55	13	300	40	25	15	13	0	0	0	0	0	163	2	10	0

DUTCH HARBOR, ALASKA.

[H_b=13 ft.; h_t=4 ft.; h_r=3 ft.; h_a= —ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January		† NW.				0	8	3	10	1	1	1	26	12	1	3	27	26	23					19	0	31		
February		SE.				0	2	3	15	0	4	2	10	20	3	5	20	27	22					11	0	27		
March		SE.				0	2	2	27	3	4	2	12	10	3	6	22	21	17					1	0	19		
April		NW.				0	7	2	11	1	0	4	17	18	3	3	24	8	7					7	0	24		
May		SE.				0	4	1	27	0	0	2	10	18	4	6	21	21	17					0	0	2		
June		SE.				0	2	0	23	0	1	0	3	31	10	6	11	2	2				2	0	0	0		
July		SE.				0	2	0	24	5	1	0	3	27	5	10	16	14	12				3	0	0	0		
August		SE.				0	4	0	25	3	1	1	5	23	5	5	21	18	14				2	0	0	0		
September		SE. SW. NW.				5	4	0	6	1	5	0	6	2	2	8	20	17	15					0	0	0		
October		SE.				1	10	0	20	1	0	1	5	24	4	9	18	20	18				1	0	0	4		
November		SE.				1	5	0	15	0	0	1	9	29	7	5	18	17	17				1	2	0	15		
December		SE.				9	4	2	23	1	0	0	8	15	2	5	24	27	26					5	0	17		
Year		SE.				16	54	13	226	16	18	14	114	229	49	71	242	218	190					45	0	139		

EAGLE, ALASKA.

[H_b=834 ft.; h_t=4 ft.; h_r=3 ft.; h_a= — ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
January		† E.				1	4	21	0	0	0	4	1	31	7	15	9	5	3	14	5		0	31	0	31		19
February		E.				3	12	18	3	1	2	4	1	12	17	5	6	1	0	4	1	0	0	28	0	28	0	21
March		E.				6	5	18	2	1	1	12	0	17	17	5	9	1	0	4	1	0	0	28	0	31	0	19
April		E.				5	3	9	5	5	1	8	4	20	7	13	10	5	3	4	2	1	0	6	0	27		10
May		NE.				1	13	5	12	3	4	1	7	16	4	13	14	15	12	2		0	0	0	0	19		0
June		NE.				1	17	6	8	0	2	3	15	8	2	7	21	18	9	0	0	0	0	0	0	4		0
July		E.				10	7	10	7	8	0	5	5	10	4	8	19	12	9	0	0	0	0	0	0	0	0	0
August		E.				2	5	15	4	9	1	13	2	11	2	14	15	17	13	0	0	0	0	0	0	0	1	2
September		E.				1	1	23	1	1	0	4	5	24	5	5	20	13	8	1	1	0	1	1	0	12		13
October		E.				1	0	25	1	1	0	8	11	15	9	7	15	7	4	12	7	0	0	21	0	29	0	17
November		E.				2	4	25	0	0	0	3	7	19	7	3	20	10	7	14	10	0	0	30	0	30		7
December		NE.				3	11	9	2	0	0	2	4	31	7	6	18	10	6	14	10	0	1	31	0	31		14
Year		E.				36	82	184	45	29	11	67	62	214	88	101	176	114	74	69			2	176	0	242		122

* At the observation hours at Dutch Harbor and Eagle see preceding page.
† By eye observations at Dutch Harbor and Eagle, Alaska.

Annual meteorological summary for the year ending December 31, 1919—Continued.

KODIAK, ALASKA (RADIO STATION).

[ϕ=57° 47′ N.; λ=152° 22′ W.]

Month.	Pressure.			Temperature.								Moisture.														
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.340	30.117	28.807	23.5		25.9	30.4	18.8	24.6	43	−6										4.13	0.80	5.5		6.2	
February	29.357	29.971	28.653	33.0		34.5		28.2			16										5.48	.90	8.3		7.6	
March	29.738	30.360	28.970	31.8		35.5	37.4	28.7	33.0	41	20										2.88	.68	5.6		5.7	
April	29.615	30.423	29.173	34.4		39.4	41.6	32.2	36.9	53	28										4.35	.82				
May	29.671	30.215	29.013	39.5		42.6	45.4	37.1	41.2	57	30										7.57	1.10				
June	30.015	30.456	29.673	47.0		55.4	58.7	45.0	51.8	69	39										2.40	.78				
July	29.942			58.4		57.3	63.6	47.8	55.7	80	39										6.49	1.47	6.9		6.5	
August	29.830			49.5		55.1	58.4	49.7	54.0	66	38										8.76	2.32	6.0		6.0	
September	29.742	30.244	28.973	47.2		51.9	55.4	44.1	49.8	65	36										5.98	1.56	4.5		6.5	
October	29.934	30.483	29.183	42.0		44.1	47.6	38.7	43.2	53	31										6.45	1.37	3.7		6.4	
November	29.680	30.353	28.713	35.1		36.5	40.2	30.6	35.4	50	20										6.13	1.69	4.6		5.8	
December							36.2	25.4	30.8	42	5										3.54	1.30				
Year								35.5			−6										64.16	2.32				

NOME, ALASKA.

[ϕ=64° 30′ N.; λ=165° 24′ W.]

January	29.636	30.300	29.130	−6.3		−6.3	−1.2	−11.8	−5.3	30	−47										0.30	0.13	2.7		2.7	2.8
February	29.571	30.020	29.190	9.2		10.7	16.1	2.3	9.2	36	−33										.26	.12	6.2		5.7	6.0
March	29.868	30.580	29.351	14.3		16.6	21.5	10.0	15.8	38	−16										.15	.15	6.5		5.4	6.1
April	29.858	30.561	29.302	15.6		20.5	24.4	7.9	16.2	36	− 8										.15	.08	5.0		3.9	4.8
May	29.693	30.239	29.250	37.1		39.0	43.0	29.6	36.3	56	3										.37	.20	6.3		6.0	6.2
June	30.032	30.398	29.360	40.2		41.7	44.7	35.7	40.2	55	30										1.79	.82	8.0		7.4	8.1
July	29.834	30.140	29.415	49.2		50.5	54.5	44.3	49.4	74	36										3.69	.77	7.9		7.0	7.4
August	29.806	30.346	29.382	45.2		51.0	53.6	41.5	47.6	62	25										2.81	.94	6.3		5.3	5.8
September	29.669	30.230	29.165	39.8		42.0	46.1	35.5	40.8	57	25										2.65	.52	8.1		7.7	7.9
October	29.916	30.677	29.068	26.7		28.3	32.1	21.4	26.8	44	8										2.86	1.10	6.8		7.5	7.1
November	29.840	30.504	29.236	18.7		19.7	23.3	13.5	18.4	34	−13										1.75	.48	6.0		6.5	6.3
December	29.835	30.581	28.646	9.1		9.5	12.9	3.0	8.0	35	−33										2.26	.84	4.0		4.2	4.1
Year	29.796	30.677	28.646	24.9		26.9	30.9	19.4	25.3	74	−47										19.04	1.10	6.2		5.8	6.0

SITKA, ALASKA.

[ϕ=57° 04′ N.; λ=135° 20′ W.]

January		30.266	28.946			35.7	40.5	29.9	35.2	50	19										10.34	2.75			8.9	
February		30.120	28.809			33.2	40.3	29.1	34.7	56	15										3.08	1.18			6.2	
March		30.227	29.303			33.1	40.2	27.2	33.7	54	7										4.12	.81			7.3	
April		30.317	29.182			40.0	49.2	35.2	42.2	56	29										3.95	.60			8.1	
May		30.390	29.019	46.5		44.8	53.7	37.1	45.4	62	29										3.27	1.01	6.7		6.8	
June	29.966	30.326	29.598	49.7		49.8	56.8	43.5	50.2	66	38										1.69	.50	8.8		7.7	
July	29.972	30.163	29.618	54.3		53.4	59.4	49.1	54.2	70	45										2.87	.49	9.2		9.1	
August	29.903	30.170	29.740	55.2		54.7	62.7	49.7	56.2	74	40										5.15	.95	7.8		7.7	
September	29.876	30.300	29.040	52.5		51.5	61.0	45.7	53.4	74	35										8.04	1.57	6.2		6.3	
October	29.936	30.393	28.810	43.0		43.2	50.5	38.5	44.5	60	25										13.89	2.98	7.9		8.8	
November	29.725	30.560	28.751	34.5		34.4	42.3	28.6	35.4	52	18										9.22	1.85	5.9		6.3	
December	29.800	30.401	28.750	34.0		34.5	39.6	29.2	34.4	50	15										7.92	1.25	7.6		6.2	
Year		30.560	28.750			42.4	49.7	36.9	43.3	74	7										73.54	2.98			7.4	

TANANA, ALASKA.

[ϕ=65° 10′ N.; λ=152° 06′ W.]

January	29.400	30.130	28.590	−15.2		−13.5	−8.7	−20.1	−14.4	22	−66										0.13	0.03	4.8		5.4	5.5
February	29.470	29.910	28.940	− 2.8		1.6	6.3	− 5.6	.4	14	−28										.03	.02	5.0		4.2	4.8
March	29.764	30.360	29.260	− 2.6		8.5	14.3	− 5.1	4.6	34	−30										.10	.04	4.5		4.5	4.2
April	29.588	30.270	29.058	20.4		31.6	37.6	14.9	26.2	50	− 5										.08	.04	4.7		5.5	5.1
May	29.541	30.128	28.851	43.4		52.9	57.7	35.0	46.4	67	25										.76	.40	5.9		5.8	6.1
June	29.761	30.150	29.410	48.1		55.3	60.6	38.0	49.3	74	28										1.42	.66	7.1		8.1	8.0
July	29.697	30.102	29.360	58.6		65.5	70.0	49.2	59.6	89	44										3.49	.76	7.3		7.0	6.8
August	29.630	30.002	29.280	51.2		59.0	64.1	43.0	53.6	84	27										1.85	.44	7.6		7.6	7.3
September	29.541	30.051	28.901	38.6		45.2	52.1	32.6	42.4	68	18										2.29	.95	7.5		9.0	8.2
October	29.794	30.500	29.250	20.7		24.7	30.3	17.2	23.8	40	− 2										.96	.18	6.4		6.6	6.4
November	29.718	30.418	29.124	− 2.3		− 1.0	3.3	− 8.3	− 2.5	34	−36										1.14	.58	6.9		6.6	7.1
December	29.683	30.360	28.600	− 7.6		− 6.7	.0	−13.2	− 6.6	37	−56										1.08	.52	5.7		6.5	6.3
Year	29.632	30.500	28.590	20.9		26.9	32.3	14.8	23.6	89	−66										13.33	.95	6.1		6.4	6.3

* No diurnal correction applied for stations on this page.

† 2 a. m. and 2 p. m., local time, at Kodiak; 6 a. m. and 6 p. m. at Nome; 8 a. m. and 8 p. m., 135th meridian time, at Sitka; 7 a. m. and 7 p.m., local time, at Tanana.

Annual meteorological summary for the year ending December 31, 1919—Continued.

KODIAK, ALASKA.

[H_b=15 ft.; h_t=6 ft.; h_r=3 ft.; h_a=— ft.]

Month.	Wind. By self-register. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity	Days with 40 miles and over.	Number of winds at observation hours. North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Number of days. Clear.	Partly cloudy.	Cloudy.	Precipitation. 0.01 inch and over.	0.04 inch and over.	Snow. T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	Maximum temp. 32° or below.	90° or above.	Minimum temperature 32° or below.	Electricity. Thunderstorms.	Aurora.
	Miles.	*	Mi.																									
January	.....	W.	....	.....	....	3	5	6	3	2	3	13	10	17	8	7	16	16	16	....	....	....	....	11	0	31	....	....
February	.....	NE.	....	.....	....	3	16	8	6	3	1	6	7	6	1	4	23	20	19	....	....	....	....	....	....	19	....	....
March	.....	NW.	....	.....	....	2	6	9	3	1	2	5	20	14	8	9	14	12	12	....	....	....	1	2	0	28	....	....
April	.....	NW.	....	.....	....	4	4	7	12	0	2	0	17	14	8	5	17	16	14	....	....	....	....	0	0	15	....	....
May	.....	SE.	....	.....	....	8	4	3	17	0	0	0	8	22	4	1	26	20	18	....	....	....	1	0	0	1	....	....
June	.....	NW.	....	.....	....	2	2	1	8	1	2	0	16	28	11	6	13	9	9	....	....	....	1	0	0	0	....	....
July	.....	NW.	....	.....	....	2	3	2	8	0	1	1	17	28	9	2	20	15	12	....	....	....	2	0	0	0	....	....
August	.....	SE.	....	.....	....	3	4	4	19	0	3	0	15	14	11	2	18	20	17	....	....	....	4	0	0	0	....	....
September	.....	SE.	....	.....	....	1	3	3	21	2	2	2	8	18	7	8	15	14	13	....	....	....	1	0	0	0	....	....
October	.....	NW.	....	.....	....	6	5	1	8	1	3	8	14	16	4	6	21	18	13	....	....	....	1	0	0	3	....	....
November	.....	W.	....	.....	....	5	5	5	4	2	3	13	11	12	5	7	18	13	12	....	....	....	....	4	0	20	....	....
December	.....	W.	....	.....	....	0	6	4	1	1	3	12	4	0	11	4	16	14	12	....	....	....	....	8	0	23	....	....
Year	.....	NW.	....	.....	....	39	63	53	110	13	25	60	147	189	87	61	217	187	167	....	....	....	....	....	0	140	....	....

NOME, ALASKA.

[H_b=22 ft.; h_t=— ft.; h_r=34 ft.; h_a=38 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
		*																										
January	6.9	N.	38	.....	0	35	6	5	1	0	3	3	5	4	20	4	7	4	3	4	4	....	....	31	0	31	....	1
February	7.9	N.	42	.....	....	19	18	6	0	1	0	6	5	1	8	5	15	4	1	7	4	....	....	27	0	28	....	1
March	8.7	NE.	36	.....	0	17	36	5	0	0	0	0	4	0	8	8	15	1	1	10	1	....	....	30	0	31	....	1
April	6.3	N.	45	.....	....	32	8	3	6	1	0	1	6	3	13	6	11	6	2	9	6	....	....	26	0	30	....	1
May	6.2	NE.	20	.....	0	9	17	3	5	10	5	10	0	3	7	9	15	4	2	2	2	....	1	1	0	19	....	....
June	6.7	SW.	24	.....	0	4	0	1	11	14	14	11	5	0	4	2	24	12	8	0	0	....	....	0	0	8	....	....
July	7.2	S.	29	.....	0	4	2	7	4	29	4	11	1	0	5	6	20	14	13	0	0	....	....	0	0	0	1	....
August	6.9	N.	34	.....	0	17	4	9	6	10	2	9	5	0	10	5	16	12	10	0	0	....	1	0	0	4	....	....
September	8.4	N.	32	.....	0	16	11	3	6	16	7	4	3	0	5	2	23	12	12	6	....	....	....	0	0	15	....	....
October	8.2	N.	30	.....	0	24	10	8	2	6	2	6	4	0	8	3	20	13	13	9	....	....	....	17	0	25	....	....
November	9.7	N.	34	.....	0	27	13	9	2	3	3	2	1	0	8	5	17	10	10	5	10	....	....	23	0	30	....	1
December	9.3	N.	36	.....	0	27	11	6	2	5	2	1	6	2	16	4	11	5	5	8	3	....	1	28	0	31	....	1
Year	7.7	N.	45	.....	....	231	136	65	45	89	42	64	45	13	112	59	194	97	80	60	....	....	....	183	0	252	....	....

SITKA, ALASKA.

[H_b=90 ft.; h_t=3 ft.; h_r=2 ft.; h_a=— ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
		*																										
January	.....	E.	....	.....	....	0	1	18	0	3	1	3	2	3	3	6	22	22	21	13	....	0	....	3	0	18	....	....
February	.....	E.	....	.....	....	2	4	12	3	0	0	6	1	6	7	4	17	13	10	12	....	....	....	3	0	21	....	3
March	.....	E.	....	.....	....	2	2	14	2	0	2	0	0	9	11	4	16	18	14	8	....	....	....	5	0	21	....	0
April	.....	E.	....	.....	....	1	4	8	1	1	0	0	0	15	2	10	18	21	18	1	1	0	....	0	0	4	....	0
May	.....	E.	....	.....	....	1	7	21	3	2	2	9	1	6	5	9	17	17	11	1	0	0	....	0	0	3	....	....
June	.....	W.	....	.....	....	0	1	7	1	1	2	20	3	25	4	11	15	17	12	0	0	1	....	0	0	0	....	....
July	.....	E.	....	.....	....	0	1	7	0	6	1	5	1	41	1	2	28	20	18	0	0	....	....	0	0	0	....	....
August	.....	W.	....	.....	....	1	1	3	1	4	2	13	0	37	5	4	22	18	14	0	0	0	....	0	0	0	....	....
September	.....	W.	....	.....	....	1	0	5	5	3	0	6	1	39	9	6	15	19	14	0	0	....	....	0	0	0	....	....
October	.....	W.	....	.....	....	2	1	8	0	4	3	9	1	34	2	13	16	23	20	1	0	2	....	0	0	6	....	....
November	.....	E.	....	.....	....	6	4	23	3	3	1	3	0	17	11	4	15	17	17	5	1	....	....	0	0	20	....	....
December	.....	E.	....	.....	....	2	5	24	9	2	1	2	1	16	8	2	21	20	19	5	3	....	....	2	0	22	....	....
Year	.....	E.	....	.....	....	18	31	150	28	29	15	70	11	248	68	75	222	225	188	40	....	....	....	13	0	115	....	....

TANANA, ALASKA.

[H_b=242 ft.; h_t=4 ft.; h_r=3 ft.; h_a=— ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Aurora.
		*																										
January	.....	NE.	....	.....	....	0	15	11	4	1	8	4	4	15	12	7	12	6	0	13	6	....	....	31	0	31	....	....
February	.....	NE.	....	.....	....	0	32	6	2	0	5	4	0	7	9	13	6	2	0	2	2	....	....	28	0	28	....	....
March	.....	NE.	....	.....	....	0	23	12	3	0	2	3	0	19	15	6	10	3	2	4	3	....	....	30	0	31	....	....
April	.....	W.	....	.....	....	6	8	8	5	0	1	9	5	18	10	10	10	3	1	4	3	....	....	9	0	30	....	....
May	.....	E.	....	.....	....	1	16	20	9	0	4	5	1	6	7	14	10	6	3	0	0	....	....	0	0	10	....	....
June	.....	W.	....	.....	....	3	3	1	5	0	14	20	12	2	3	7	20	9	8	0	0	....	....	0	0	8	....	....
July	.....	SE.	....	.....	....	0	3	10	17	1	10	8	3	10	9	3	19	15	14	0	0	....	....	0	0	0	....	....
August	.....	SE.	....	.....	....	2	3	5	17	2	8	6	6	13	4	8	19	15	11	0	0	0	1	0	0	4	0	1
September	.....	E.	....	.....	....	3	8	19	7	0	5	5	3	10	1	8	21	11	10	0	0	0	3	0	0	15	0	3
October	.....	NE.	....	.....	....	12	18	12	3	0	3	0	3	11	8	5	18	11	10	9	5	0	1	18	0	27	0	12
November	.....	NE.	....	.....	....	3	17	12	6	0	3	5	2	12	7	7	16	7	4	4	7	....	....	29	0	30	....	3
December	.....	NE.	....	.....	....	3	17	5	9	2	5	13	1	7	8	7	16	9	7	1	9	0	1	30	0	31	....	1
Year	.....	NE.	....	.....	....	33	163	121	87	6	68	82	40	130	93	95	177	97	70	37	35	....	....	175	0	245	....	....

* By eye observations at this station.

Annual meteorological summary for the year ending December 31, 1919—Continued.

VALDEZ, ALASKA.

[ϕ=61° 07′ N.; λ=146° 16′ W.]

Month.	Pressure.			Temperature.								Moisture.													
		Extremes.		Mean.						Extremes.		Dew point.			Relative humidity.			Vapor pressure.			Precipitation.		Cloudiness.			
	Monthly mean.*	Maximum.	Minimum.	8 a. m.†	Noon, local time.	8 p. m.†	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	8 a. m.	Noon, local time.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.†	Noon, local time.	8 p. m.†	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	%	%	%	In.	In.	In.	In.	In.				
January	29.480	30.300	28.790	17.4	....	17.8	22.5	11.1	16.8	37	−14	....	....	....	....	....	....	....	....	....	3.37	0.66	7.4	....	6.1	....
February	29.633	30.200	28.920	16.2	....	18.3	28.1	10.4	19.2	37	− 5	....	....	....	....	....	....	....	....	....	1.48	.72	6.4	....	5.9	....
March	29.878	30.430	29.420	17.5	....	21.7	31.1	12.4	21.8	43	− 7	....	....	....	....	....	....	....	....	....	.77	.21	5.2	....	5.5	....
April	29.789	30.450	29.240	34.1	....	35.3	43.6	28.9	36.2	52	20	....	....	....	....	....	....	....	....	....	2.35	.40	6.1	....	4.3	....
May	29.838	30.524	28.980	42.5	....	44.6	50.5	33.9	42.2	57	28	....	....	....	....	....	....	....	....	....	2.30	.85	6.1	....	6.3	....
June	30.040	30.430	29.740	48.8	....	51.5	56.0	42.5	49.2	68	39	....	....	....	....	....	....	....	....	....	1.63	.59	7.2	....	6.5	....
July	30.028	30.302	29.710	52.2	....	54.8	59.8	45.6	52.7	77	42	....	....	....	....	....	....	....	....	....	1.71	.27	6.9	....	7.0	....
August	29.990	30.270	29.691	48.3	....	50.4	56.1	43.1	49.6	66	32	....	....	....	....	....	....	....	....	....	5.45	.74	7.7	....	7.8	....
September	29.881	30.375	29.100	42.8	....	45.0	52.0	38.7	45.4	60	30	....	....	....	....	....	....	....	....	....	7.14	1.11	8.1	....	7.5	....
October	30.005	30.588	29.460	34.1	....	36.1	41.8	31.6	36.7	50	24	....	....	....	....	....	....	....	....	....	4.46	1.31	7.7	....	6.0	....
November	29.816	30.660	28.640	24.0	....	26.7	31.8	19.1	25.4	41	6	....	....	....	....	....	....	....	....	....	1.87	.84	6.0	....	4.6	....
December	29.836	30.690	28.750	17.9	....	16.9	23.1	11.0	17.0	38	− 5	....	....	....	....	....	....	....	....	....	6.59	2.16	7.1	....	6.4	....
Year	29.851	30.690	28.640	33.0	....	34.9	41.4	27.4	34.4	77	−14	....	....	....	....	....	....	....	....	....	39.12	2.16	6.8	....	6.2	....

* No diurnal correction applied for Valdez.

† 7 a. m. and 7 p. m., local time, at Valdez.

Annual meteorological summary for the year ending December 31, 1919—Continued.

VALDEZ, ALASKA.

[H_b=27 ft.; h_1=4 ft.; h_r=6 ft.; h_a=—ft.]

Month.	Wind.													Number of days.													
	By eye observations.					Number of winds, at observation hours.											Precipitation.		Snow.				Maximum temp.				
	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Days with 40 miles and over.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	T. or more.	0.01 inch or more melted.	Hail.	Dense fog.	32° or below.	90° or above.	Minimum temperature 32° or below.	Thunderstorms.	Auroras.
	Miles		*Mi.*																									
January	.....	N.	....	.....	....	12	10	0	0	0	0	0	0	40	5	4	22	19	13	20	19	....	....	23	0	31	....	....
February	.....	NE.	....	.....	....	4	15	0	0	0	0	0	0	37	9	4	15	13	8	2	15	....	....	23	0	28	....	....
March	.....	NE.	....	.....	....	14	18	0	0	0	0	0	0	30	15	5	11	8	6	10	8	....	....	16	0	31	....	....
April	.....	N.	....	.....	....	9	4	0	0	0	1	0	0	46	10	3	17	16	13	4	....	....	....	0	0	29	....	....
May	.....	SW.	....	.....	....	1	2	0	0	0	24	0	0	35	12	6	13	15	10	2	1	....	....	0	0	14	....	....
June	.....	SW.	....	.....	....	0	2	0	0	0	36	0	0	22	11	5	14	9	8	0	0	....	....	0	0	0	....	....
July	.....	SW.	....	.....	....	0	1	0	0	0	23	0	0	38	8	8	15	16	10	0	0	....	....	0	0	0	....	....
August	.....	SW.	....	.....	....	9	7	0	0	0	15	0	0	31	5	4	22	21	19	0	0	....	....	0	0	1	....	....
September	.....	N.	....	.....	....	12	7	0	0	0	12	0	0	29	6	4	20	20	17	0	0	....	1	0	0	4	....	1
October	.....	N.	....	.....	....	24	15	0	0	0	4	0	0	19	8	9	14	16	13	4	4	....	....	0	0	18	....	....
November	.....	N.	....	.....	....	27	15	0	0	0	4	0	0	14	13	4	13	8	8	9	7	....	....	16	0	30	....	....
December	.....	N.	....	.....	....	24	12	0	0	0	6	0	0	20	7	5	19	14	12	15	14	....	....	27	0	31	....	....
Year	.....	N.	....	.....	....	136	108	0	0	0	125	0	0	361	109	61	195	175	137	66	....	....	....	165	0	217	....	....

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PART IV.

MONTHLY AND ANNUAL PRECIPITATION, 1919 (ALL STATIONS)—MONTHLY AND SEASONAL SNOWFALL, SEASON 1919-20 (SELECTED STATIONS)—MONTHLY AND ANNUAL EVAPORATION, 1919.

The precipitation values given in the following tables have been taken largely from the records of unpaid cooperating observers. Most of these observers have standard rain gages, a few having gages similar in pattern to the standard.

Occasionally the record for a station may be incomplete from various causes, either for a single storm or for a longer period. Where conditions were favorable the missing data have been supplied by interpolation from the records of nearby stations. The monthly amounts in such cases are inclosed in brackets to show that some portion has been estimated.

The discrepancies between the amounts recorded by separate observers when two reports are received from the same place are often considerable; in general, they are due to differences in exposure, although at times one observer may make the last measurement of the month at 6 o'clock a. m., whereas the other may defer it to 9 p. m., thus causing a difference in the amounts recorded on the first and last days of the month.

The monthly and seasonal amounts of snowfall for the winter of 1919–20 are given for selected stations in the United States and Canada.

The monthly and annual amounts of evaporation during the year 1919 appear for the first time in this volume. The number of these reports at the present time is small, records appearing from only about half the States.

The evaporation measurements are all made from cylindrical pans, 4 feet in diameter, 10 inches deep, placed on framework laid on the ground, and exposed as far as possible to full sunshine. A description of equipment and methods of observation appears in the Monthly Weather Review of December, 1916, pages 674 to 677.

Monthly and annual precipitation (in inches and hundredths) for 1919.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Alabama.													
Alaga	5.05	9.60	3.85	4.35	6.90	5.25	9.15	6.00	1.25	0.95	5.65	1.60	59.60
Anniston	6.36	4.69	5.97	3.97	5.57	3.56	3.53	4.26	0.55	4.25	3.98	10.69	57.38
Ashville	5.67	7.60	7.11	2.00	3.86	4.32	1.91	5.48	0.00	1.92	3.40	.....	.....
Auburn	5.03	9.58	6.35	3.23	3.47	2.86	6.99	7.08	0.36	4.60	2.75	9.63	61.93
Bay Minette	5.74	6.65	3.75	6.57	6.80	7.90	13.60	11.13	0.90	5.80	3.20	6.60	78.64
Benton	4.69	9.64	8.93	5.03	5.59	2.51	6.80	8.08	1.04	2.35	3.85	8.51	67.02
Bermuda	5.35	5.35	11.86	3.81	7.40	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham	6.21	5.22	5.91	1.55	4.59	3.30	5.53	5.33	1.09	2.31	4.01	9.56	54.61
Bridgeport	6.14	4.38	7.31	1.99	5.12	4.21	2.58	5.71	T.	8.36	3.10	5.03	53.93
Calera	6.19	5.11	6.68	2.67	4.63	3.55	8.91	9.15	1.10	2.54	3.61	11.05	66.19
Camp Hill	4.72	6.80	8.02	3.05	3.48	4.37	6.00	7.64	0.00	1.61	3.60	8.13	57.42
Centerville	5.76	5.48	6.66	2.03	5.42	3.85	7.97	10.23	1.38	2.05	4.30	10.04	65.17
Citronelle	6.58	6.62	10.32	9.55	11.98	6.91	6.31	14.43	1.28	6.45	4.51	5.92	90.86
Clanton	5.08	6.02	9.18	5.06	6.67	2.27	7.70	6.06	0.20	2.31	4.35	10.50	65.40
Cochrane	11.11	4.05	5.53	3.78	7.95	4.86	3.85	7.05	0.15	3.92	4.97	6.66	63.88
Dadeville	3.01	7.27	7.11	3.31	3.23	5.69	5.02	7.12	0.00	3.97	3.26	11.93	61.82
Decatur	4.57	2.38	9.27	1.78	7.13	4.96	6.02	11.95	0.70	5.09	5.18	4.13	63.14
Demopolis	5.95	5.16	7.69	2.71	7.17	5.00	5.31	.....	0.00	1.87	5.20	12.31	.....
Eufaula	6.99	7.87	3.43	2.78	6.85	7.33	9.43	10.60	4.77	1.30	3.80	4.26	69.41
Evergreen	5.79	7.57	8.83	3.55	6.41	3.68	7.74	7.98	2.60	5.69	3.15	5.59	68.58
Flomaton	.....	.....	.....	.....	.....	.....	10.65	13.35	1.32	.....	4.10	.....	.....
Florence	4.58	4.22	11.38	3.52	6.98	2.72	1.54	5.24	1.34	10.54	7.38	2.82	62.24
Fort Deposit	.....	.....	.....	3.37	4.03	2.74	6.49	9.28	0.31	4.30	.....	.....	.....
Gadsden	6.61	9.44	7.12	2.44	5.36	7.00	5.42	6.96	0.00	2.85	4.06	6.24	63.50
Goodwater	6.02	6.18	5.34	3.43	5.90	4.85	7.73	3.72	0.30	3.74	3.49	7.38	58.08
Greensboro	5.13	4.95	6.93	1.97	6.25	4.56	7.68	7.50	0.75	2.13	5.29	9.82	62.96
Greenville	5.34	9.33	8.80	3.56	6.01	2.51	9.05	9.72	0.84	4.53	5.38	4.31	69.38
Guin	.....	.....	.....	.....	.....	.....	2.94	3.53	0.00	6.03	5.99	5.01	.....
Guntersville	5.29	4.69	6.84	1.73	3.25	6.97	6.48	6.32	T.	9.13	4.37	4.75	59.82
Healing Springs	6.87	9.62	10.56	3.01	11.80	4.90	4.82	11.82	3.03	2.29	7.59	7.75	84.06
Helena	5.98	5.43	6.85	2.36	5.46	3.67	6.59	5.50	1.37	2.14	3.83	10.53	59.71
Highland Home	5.36	8.48	8.05	3.09	5.28	2.92	8.32	5.66	0.46	3.90	5.60	5.60	62.81
Leeds	.....	.....	5.90	1.76	4.72	3.04	5.07	6.11	.....	.....	.....	8.04	.....
Livingston	.....	2.27	.....	1.72	5.80	.....	.....	.....	.....	.....	.....	.....	.....
Lock No. 4	7.05	7.15	7.83	2.87	6.17	4.32	3.22	7.32	0.10	2.73	3.77	6.62	59.15
Madison	4.95	3.86	7.60	2.10	6.18	7.63	4.05	8.57	0.42	6.45	4.94	5.70	62.45
Maple Grove	5.89	7.78	6.34	3.48	4.61	4.48	4.79	6.41	0.10	3.29	3.61	6.34	57.12
Marion	4.42	8.53	7.55	2.48	8.35	3.72	8.05	7.51	0.30	3.14	4.35	10.74	59.14
Mentone	6.10	5.74	6.27	2.43	3.68	5.65	6.28	5.00	0.00	5.10	3.50	4.40	54.15
Milstead	5.95	13.60	7.77	3.32	7.43	4.15	12.08	9.08	1.59	5.23	4.49	9.51	83.60
Mobile	6.57	7.49	5.09	6.84	6.04	2.12	6.94	6.04	1.10	8.53	4.58	5.42	66.76
Montgomery	5.03	10.05	10.31	4.61	5.11	3.34	4.67	8.46	0.13	3.61	3.07	10.04	68.43
Oneonta	6.26	6.07	6.11	2.26	6.30	5.31	5.12	6.22	0.00	5.63	3.91	7.33	60.52
Ozark	7.07	9.98	3.49	3.23	5.74	2.40	8.86	6.03	0.56	2.32	5.20	2.28	57.16
Prattville	5.06	10.47	8.84	4.30	4.35	3.25	6.06	9.43	1.20	2.45	5.51	10.91	71.83
Pushmataha	5.49	8.07	7.41	4.22	7.73	2.95	5.90	14.21	0.00	2.58	6.51	11.93	77.00
Riverton	3.59	3.46	9.76	3.80	6.92	2.88	3.98	5.51	0.53	8.21	9.05	3.83	61.52
Robertsdale	6.97	10.97	5.93	6.93	7.50	1.62	9.39	5.24	1.12	11.81	3.25	3.58	74.31
Scottsboro	4.61	5.50	6.20	2.12	4.08	3.38	5.30	5.61	0.00	7.75	3.30	3.46	51.41
Selma	5.69	8.32	6.91	4.27	5.88	2.19	5.32	11.50	0.79	3.00	6.39	12.86	73.12
Silverhill	.....	.....	6.05	5.22	6.72	1.85	13.44	9.44	2.80	11.56	3.21	3.50	.....
Spring Hill	5.48	6.63	3.51	5.13	9.05	3.50	.....	.....	.....	10.19	5.37	5.91	.....
St. Bernard	11.05	4.82	8.57	3.08	7.30	11.42	4.56	4.51	0.24	7.17	4.17	4.59	71.48
Talladega	7.45	5.75	7.60	5.95	5.60	4.79	4.47	4.75	0.10	4.42	3.73	15.35	69.96
Tallassee	4.35	9.87	9.88	3.68	5.74	3.74	7.80	9.67	0.47	5.67	3.28	13.40	77.55
Thomasville	7.07	9.24	6.98	2.87	9.04	3.56	8.36	8.02	0.45	3.05	2.13	6.12	66.89
Troy	6.54	6.47	4.60	2.64	7.09	3.26	9.10	6.84	2.75	3.37	5.42	4.75	62.83
Tuscaloosa	6.30	6.36	8.24	2.74	7.85	4.28	8.88	4.98	1.53	3.08	6.14	8.27	69.25
Tuscumbia	3.33	3.63	10.36	3.46	5.94	2.69	2.20	4.96	1.68	10.31	7.41	3.14	59.11
Tuskegee	4.99	9.05	7.33	2.92	4.28	4.54	7.46	7.93	T.	2.67	2.70	7.45	61.32
Union Springs	6.22	7.94	5.20	3.69	5.71	3.94	6.57	8.07	0.70	4.86	5.80	5.76	64.46
Uniontown	5.32	6.16	6.98	3.46	5.98	4.26	9.75	8.56	0.10	1.14	6.52	7.54	65.77
Valley Head	6.55	5.10	5.30	2.75	3.90	5.55	5.45	5.75	0.00	5.73	3.90	2.80	52.73
Wetumpka	5.19	9.73	8.30	3.39	5.12	1.29	9.94	6.81	0.24	3.46	4.51	12.07	70.05
Alaska.													
Akiak	0.38	0.03	0.77	0.01	0.45	.....	.....	.....	.....	.....	.....	.....	.....
Akulurak	T.	0.35	T.	0.22	0.52	1.10	3.41	2.66	2.63	0.72	1.50	.....	.....
Allakaket	0.55	0.14	0.15	0.27	T.	4.14	2.93	.....	2.40	0.72	1.27	1.04	.....
Anchorage	0.90	0.10	0.15	0.23	0.14	0.24	3.01	3.42	2.63	1.89	1.53	3.49	17.73
Annex Creek	14.10	4.71	5.61	5.52	2.70	2.04	5.46	7.87	14.76	15.27	8.40	7.88	94.32
Atka	.....	.....	.....	.....	4.37	1.43	.....	.....	.....	.....	.....	.....	.....
Beaver Dam	.....	.....	0.21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Calder	15.30	9.62	9.41	8.30	8.92	2.93	3.41	3.69	7.54	7.43	12.36	14.02	102.93
Candle	.....	.....	.....	.....	0.16	0.99	1.33	1.31	[2.22]	0.73	.....	.....	.....
Chickaloon	.....	T.	.....	.....	0.10	0.75	1.83	1.80	.....	[0.44]	.....	.....	.....
Chitina	0.89	0.04	0.03	0.02	0.02	1.03	2.03	0.88	1.98	0.89	0.59	1.77	10.17
Copper Center	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.55	.....	.....	.....
Cordova	10.45	6.68	2.29	13.53	4.57	5.03	3.16	19.43	13.37	6.12	9.57	16.97	118.19
Crooked Creek	.....	.....	.....	.....	1.50	3.30	1.64	2.61	0.78	.....	.....	.....	.....
Dawson	1.11	0.15	0.10	0.75	1.24	2.02	2.41	2.16	.....	0.36	3.75	0.88	16.09
Dillingham	.....	.....	.....	.....	.....	[0.76	3.30	.....	5.54	5.51	1.85	.....	.....
Dutch Harbor (A)	.....	.....	.....	.....	3.52	.....	2.81	4.12	.....	10.20	2.23	.....	.....
Dutch Harbor (B)	7.98	4.54	7.67	4.30	5.17	0.31	2.96	4.58	3.88	9.38	2.27	11.94	64.98
Eagle	0.22	0.05	0.02	0.40	1.09	1.58	1.72	2.39	1.23	0.25	0.78	0.68	10.41
Fairbanks	0.18	0.00	T.	0.11	1.38	2.08	2.79	1.02	1.03	0.95	1.19	0.71	11.44
Fortmann Hatchery	18.52	11.26	11.55	9.92	11.26	4.53	1.36	5.98	7.38	7.43	18.32	15.74	121.25
Fort Yukon	0.56	0.08	0.16	T.	0.10	0.91	0.55	0.98	0.56	0.19	0.34	1.07	5.50

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Alaska—Continued.													
Gambel													
Goodnews Bay	0.94	0.61	1.03	0.69	0.93		1.78	1.99	1.82		3.60		
Gulkana				0.03	0.38	1.10	2.43	0.36		1.50			
Herendeen Bay	2.52	2.92	3.25	1.09	3.29		2.37	4.77	5.99				
Hogan													
Holy Cross		0.01	0.17	0.06	0.66	1.43	6.49	4.15	1.10	3.05	1.78		
Hot Springs		T.	0.09	T.					1.98	1.55	1.83	2.11	
Indian River	1.89	0.08	1.40	0.96	1.55	1.66	2.84	3.23	7.44	3.90	0.88	3.75	29.58
Jumbo Mine	27.87												
Juneau	11.41	3.07	4.43	6.50	4.96	3.73	6.39	5.91	11.35	12.49	9.93	7.69	87.86
Kake					4.59	1.42	2.67	2.93	4.02	3.94	5.99	5.99	
Kasaan (near)	14.50						2.39	4.25		5.81	9.69	9.96	
Kennecott	1.03	0.15	0.18	T.	1.44	T.	2.20		2.00	1.07	1.04	1.55	
Ketchikan	18.44	8.75	10.21	11.76	9.77	5.14	3.72	7.10	10.64	8.56	15.62	13.93	123.64
Klukwan	3.15	0.76	1.00	0.20	0.33		1.44	0.38	8.43	3.90	3.02	3.99	
Kodiak (A)		5.48	2.88	2.39	9.56		4.86		4.09		4.88		
Kodiak (radio station)	4.13	[5.48]	[2.88]	4.35	7.57	2.40	6.49	8.76	5.98	6.45	6.13	3.54	64.16
Latouche	15.51	16.88	7.33	17.78	4.36	1.28	5.33	22.21	22.08	11.71	12.23	12.40	120.10
Matanuska	0.58	T.	0.09	0.00	0.27	0.87	2.00	2.23	1.90	1.62	0.46	1.42	11.44
McCarty													
Nakat Inlet					10.67	5.37	3.70	6.48	7.07	16.57	15.30	8.52	
Naknek	0.40	0.41	1.02	0.54	3.07	1.08	4.96	6.18	7.67	4.40			
Nenana	0.16	0.00	0.03	T.	0.82	3.07	2.43	1.93	1.70	0.75	0.81	5.83	17.53
Noatak	0.10	0.10	0.06	0.42	T.						1.20	0.69	
Nome	0.30	0.26	0.15	0.15	0.37	1.79	3.69	2.81	2.65	2.86	1.75	2.26	19.04
Noorvik		0.31	0.02	0.42	1.17	1.62							
Nulato	1.04	0.28	0.08	0.07	0.63	0.66	2.54	3.27	2.78	3.33	1.24	1.26	17.18
Paxson										1.77	0.67	0.70	
Perseverance	18.19			16.26	11.24	4.80	7.75	9.80	18.36	17.52		12.06	
Prince Rupert, B. C.	13.54	7.05	8.25	6.93	7.47	5.08	1.97	3.07	4.66	10.56	10.56	7.44	86.58
Rampart	0.66	0.05	0.12		0.46	1.22	1.14	1.73	2.63	0.61	0.97	1.17	
Richardson													
St. Paul	0.32	1.48	1.80	0.61	0.44	0.58	1.91	3.63	3.03				
Salcha													
Salmon Creek Beach	9.08	2.02	2.65	6.99	5.02	[3.89]	7.22	4.98	10.39	11.58	7.36	6.09	77.27
Salmon River													
Seldovia	5.31	6.76	0.76	3.09	0.02	1.55	2.00	2.10	8.96	3.70	1.91	3.23	39.39
Seward	7.85	4.38	1.74	2.73	1.52	1.13	[2.04]	10.12	12.77	7.70	1.32	5.90	59.26
Sitka	10.34	3.08	4.12	3.95	3.27	1.69	2.87	5.15	8.04	13.89	9.22	7.92	73.54
Skagway	2.78	0.30	0.86	1.41	0.45	0.40	1.81	0.80	5.96	3.01	3.95	2.39	24.12
Strelna													
Sulzer	21.02	10.69	12.83	9.52	15.18								
Tacotna				0.10	0.76	0.34	2.65	3.90					
Talkeetna				T.	0.11	1.48	3.24	3.90	4.99	4.99			
Tanana	0.13	0.03	0.10	0.08	0.76	1.42	3.49	1.85	2.29	0.96	1.14	1.08	13.33
Thane	7.10	2.18	2.98	5.87	4.44	3.03	5.19	6.60	12.25	14.11	6.46		
Unga													
Valdez	3.37	1.48	0.77	2.35	2.30	1.63	1.71	5.45	7.14	4.46	1.87	6.59	39.12
Wales							1.23	2.37	[2.36]				
Wiseman	0.33	0.20	0.19	0.69	1.05							0.75	
Wrangel	12.14	4.30	5.56	4.19	4.26	1.62	4.24	6.32	6.93	7.60	7.83	8.83	74.0
Yakutat	14.19	6.44	4.55	7.60	3.84	3.44	7.00	7.30	15.15	9.85	10.07	14.52	103.95
Arizona.													
Ajo	T.	1.14	1.08	0.26	0.05	0.00	1.79	2.31	0.90	0.29	2.39	0.31	10.52
Alamo Ranger Station	0.48	2.85	0.56	0.39		0.79	7.09	1.37	4.37	0.58	2.10	2.20	
Alpine							6.44				3.49	2.39	
Arivaca									4.76	0.15			
Ashdale Ranger Station		1.21	0.91	0.52	0.55	0.00	7.84	1.81		1.75	6.75	0.20	
Ashfork	0.42	1.82	0.58	0.99	0.79	0.24	7.93	0.87	1.49	0.78	2.13	0.42	18.46
Avondale	0.30	1.03	1.35	0.10	0.06	0.00	2.33	2.45	1.56	0.04	2.20	0.05	11.47
Aztec	0.10	0.79	0.63	0.00	0.18	0.00	0.38			0.47	1.83	0.08	
Baseline Ranger Station	0.14	0.53	0.98				3.38	4.39		1.63			
Benson	0.14	1.13	0.19	0.55	0.45	0.06	6.86	3.68	1.82	1.06	3.63	0.00	19.57
Bisbee	0.46	1.31	0.34	1.99	0.54	0.41	7.86	3.01	4.02	1.69	5.20	0.03	26.86
Blue	0.60	0.78	1.28	0.92	1.25	1.30	4.82	3.59	2.77	1.58	3.14	0.73	22.76
Bly Ranger Station	1.50	2.40		T.			6.91	3.65	2.03	1.07	3.21	0.76	
Bowie	0.00	0.13		0.48	0.62	0.15	6.35	1.89	1.41	0.89	3.20	T.	
Buckeye	0.40	0.59	1.13	0.19	0.06	0.00	1.93	0.78	1.43	0.40	1.79	0.04	8.74
Camille	0.58	1.89	0.73	0.87	0.33	0.57	10.45	3.76	2.08	1.08	3.00	0.20	25.54
Canon	1.90	1.51	0.71	0.62	0.46	0.00	5.19	4.13	3.61	3.65	4.81	0.16	26.75
Casa Grande	0.22	1.13	0.55	0.38	0.16	0.35	3.33	3.10	3.50	0.18	2.02	0.74	15.66
Cedar Glade	0.75	2.14	1.01	0.74	1.40	T.	7.20	1.43	1.83	1.87	2.62	0.00	20.99
Chandler	0.72	1.74	1.10	0.22	0.12	0.00	1.67	1.65	2.80	0.57	2.07	0.55	13.21
Childs	2.20	1.63	0.56	0.48		0.20	4.93			2.64	4.30	0.02	
Chin Lee	0.06	0.36	0.97	0.57	1.39	T.	1.25	0.78	1.18	1.24	0.68	0.03	8.42
Clifton	0.30	1.38	1.50	1.51	1.05	0.41	5.35	4.08	2.53	2.03	1.99	0.40	22.53
Cochise	0.23	0.57	0.09	0.36	0.65	0.02	3.69	1.43	3.15	1.51	3.87	0.09	15.66
Colmar					1.83			2.61		0.64			
Cornville	0.71	2.16	1.05	0.69	1.04	T.	4.37	2.14	3.31			0.01	
Cosnino	1.00	2.16	2.80	0.09		0.00	3.69		1.80		2.60	0.60	
Crown King						0.00	7.62	2.35	1.01	2.04	6.31	0.06	
Douglas	0.38	0.56	0.07	1.81	0.39	0.56	8.44	3.29	2.33	1.41	4.36	0.01	23.61
Dudleyville	0.78	2.32	0.63	0.86	0.77	0.01	4.21	1.87	2.57	0.16	3.30	1.58	19.06
El Dorado	0.00		0.80	2.02	1.32	0.87	12.17						
Elfin (near)	0.10	1.32	0.18	0.53	0.23	2.12	10.75	3.26	2.42	1.82	2.84	0.20	25.77
Fairbank	0.15	T.	0.00	0.10	0.40	0.00	7.80	1.80	0.00	T.	3.55	T.	13.80
Flagstaff	0.94	2.17	1.38	0.37	1.78	T.	7.58	2.87	1.54	3.42	5.50	0.73	28.28
Florence										0.25			
Fort Apache	0.49				1.12					0.50	2.50		
Fort Grant	0.50			0.65	1.26	0.15	5.72	0.95	2.72	1.50	3.22	0.45	
Fort Huachuca		0.55	0.40	0.50	0.45	2.47	4.24			0.25	1.34		
Fort Valley	T.	2.75	1.68	0.68	3.54	T.	8.39	2.32	3.22	3.91	4.56	0.98	32.03
Gila Bend	0.10	0.46	1.25	0.10	0.20	0.20	1.05	1.25	2.45	0.00	1.95	0.00	9.01
Gisela	0.65	2.56	0.65	0.23	0.31	T.	6.92	2.23	4.19	1.15	4.97	2.08	26.64
Globe	0.53	2.46	0.36	0.54	0.27	0.05	5.97	2.26	4.88	0.31	2.94	2.54	23.11

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Arizona—Continued.													
Goodyear	0.53	1.82	0.87	0.25	0.03	0.00	4.87	1.26	1.50	0.23	1.52	0.52	13.40
Goulds Ranch	0.40	0.93	1.05	0.08	0.09	0.00	1.40	2.23	2.03	0.26	1.72		
Grand Canyon	0.60	2.70	1.90	0.50	0.65	0.91		0.60	1.45	2.30	3.05	1.37	
Granite Reef Dam	0.35	0.87	0.95	0.20	0.19	0.00	3.68	0.82	1.00	0.45	2.27	0.58	11.36
Greer							5.40	3.72		0.47	1.97	0.63	
Hackberry Ranger Station	1.17	3.20	0.58	0.23	0.39	T.	5.19	2.15			3.34	0.22	
Heber	0.65		1.40	0.35	0.78	0.67	4.31	3.58		1.20	4.89		
Helvetia	0.40	1.97	0.73	0.77	0.57	0.22	8.04	3.30	2.70	0.39	4.40		
Henry's Camp	0.06	3.94	3.44	1.88	0.17	0.47	4.70	2.87	4.20	0.92	3.40	1.38	27.43
Hereford	0.71	0.31	0.00	1.44	0.12	0.82	6.21	4.27	3.03	0.44	3.93	0.07	21.35
Higley	0.09	1.95	0.78	0.28	0.21	0.00	1.95	1.15	2.89	0.92	2.22	0.67	13.11
Holbrook	0.25	0.94	1.01	1.04				2.08	1.49	0.24	1.92	0.31	
Honeymoon								4.57				1.60	
Ideal Ranger Station					0.78	0.77	9.82	5.14					
Indian Oasis	0.37	0.48	0.46	0.95	0.46	1.20	8.17	1.59	3.40	0.15	2.32	0.73	20.28
Intake	0.06	2.96	0.53	0.44	0.26		7.53	0.99	2.58	0.30	2.50	1.74	
Jerome	0.60	2.41	1.41	0.79	0.72	0.08	8.63	2.76	3.86	2.24	5.24	0.03	28.77
Kayenta	1.50		0.61		0.38	0.00				4.21	1.83	0.03	
Keams Canyon	T.	1.15	1.80	0.55	0.45	0.00	3.60	0.60					
Kingman	0.17	1.65	0.78	0.00	0.15	0.00	5.15	1.45	4.67	0.34	6.28	0.58	21.22
Klondyke	0.61	2.75	0.42	0.44	1.04								
Lakeside	1.67	3.77	1.91	1.90	0.52	0.43	9.27	2.20	2.13		3.61	2.86	
Lee's Ferry			0.38	0.72	0.23	T.	0.62		0.68	0.18	1.09	0.06	
Leslie Canyon	0.16	0.79	0.05	1.45	0.78	1.03	5.05	2.24	2.41	1.38	5.07	T.	20.41
Leupp	0.10	0.58	0.78		0.60	0.10	0.82	T.	1.73	0.95	0.80	T.	
Lewis Springs	0.45	0.25	T.	0.52	0.00	0.37	9.06	2.15	2.13	0.74	3.75	0.17	19.59
Light	0.31	0.07	0.00	1.56	0.77	0.00	4.67	0.80	1.90	1.65	3.32	0.00	15.05
Long Valley Ranger Station							13.21	4.24	3.67	3.36			
Lukachukai		1.35	0.94	0.38					0.35	0.30			
Maricopa	0.56	1.05	0.78	0.92	T.	0.12	2.79	3.62	1.39	0.35	1.95	0.40	13.93
Marquette Ranger Station				0.69							4.69	1.52	
Mesa Experiment Farm	0.05	1.36	0.69	0.32	0.06	0.00	2.60	1.38	2.85	0.48	2.15	0.57	12.51
Miami	T.	3.55	0.80	0.70	0.25	0.05	5.76	3.03	5.52	0.93	2.84	2.86	26.29
Moccasin	0.10	0.80	0.09	0.44	0.30	0.15	3.75	0.03	0.86	0.65	1.41	0.75	9.33
Mohawk	0.00		1.11	0.09	0.00	0.00	0.51	T.	0.08	0.37	1.47	0.02	
Mormon Lake Ranger Station						T.	6.72	2.87	2.31	4.93			
Naco	0.65	0.10	T.	2.42	0.15	0.60	4.58	3.45	2.25	1.50	3.85	0.00	19.55
Natural Bridge	0.65	4.65	1.88	0.79	2.39	0.00	6.92	3.64	2.60	2.32	5.78	1.50	33.12
Nogales	0.48	1.31	0.38	0.58	0.13	0.56	3.93	2.86	4.47	0.44	2.70	0.15	17.99
Oracle	0.22	2.97	0.61	1.82	0.70	1.55	5.78	2.98	3.82	0.67	5.02	1.10	27.24
Osborn	0.10	0.73	0.03	0.89	0.24	0.77		2.88	2.07	1.71	3.46	T.	
Paradise	0.77	2.26	0.30	1.90	1.10	0.72	6.14	2.03	1.84	2.04	6.92	0.07	26.09
Parker	0.42	0.17	1.53	0.22	T.	0.00	0.43	0.08	1.74	0.28	1.41	0.20	6.48
Payson	0.56	4.94	1.80	0.62	0.56	0.00	6.33	2.65	2.65	2.20	6.95	1.30	30.56
Phoenix	0.22	0.75	0.97	0.17	0.06	T.	1.05	2.40	1.93	0.25	2.38	0.13	10.31
Pinal Ranch	1.80	4.08	1.19	1.08	0.36	0.25	6.80	2.35	5.49	0.79	3.67	3.13	30.99
Pinedale	0.29	2.81	1.85	0.46	0.87	1.05	7.78	2.27	2.57	1.74	4.92	2.93	29.54
Pinto	0.17	1.14	1.34	0.70	1.04	T.	4.70	1.01	1.67	0.85	1.03	1.00	14.65
Portal	0.63	1.04	0.34	1.82	0.91	0.46	7.98	2.97	2.23	2.42	7.13	0.01	27.94
Prescott	T.	3.39	1.03	0.82	1.72	T.	4.53	4.75	3.27	3.44	6.41	0.45	29.81
Prescott Dry Farm	0.63	1.89	0.80	0.72	0.72	T.	6.85	3.49	1.44	1.25	3.16	0.05	21.00
Redrock	1.08	0.83	0.05	0.65	0.29	0.10	4.12	1.05	1.95	0.25	3.70	1.09	15.16
Roosevelt	0.17	4.58	0.62			0.15	4.63	2.22	3.51	0.96	4.11	2.08	
Rosemont	0.80	1.77	0.80	1.95	0.41	0.48	11.08	3.07	2.83	0.54	3.66	0.40	27.79
Rucker Canyon	0.55	1.58	0.39	2.84	1.39	0.39	8.76	2.72	2.29	2.42	5.48	0.15	28.96
Sacaton	0.01	1.47	0.55	0.20	0.04	T.	3.76	1.63	1.80	0.15	2.48	0.89	12.98
St. Johns	0.36									0.36	0.86	1.21	
St. Michaels	0.11	0.96	2.24	0.36	1.08	0.50	5.29	3.65	2.57	1.51	0.90	1.69	20.86
Salome	0.25	0.81	1.39	0.15	T.	0.00	2.66	0.48	1.26	0.81	2.45	0.22	10.48
San Carlos	0.40			0.18		0.11							
Santa Marguerita	0.83	1.88		0.85	0.73	0.72	7.88	2.62		0.23	3.40	0.86	
Seligman	0.00	0.60	0.01	0.02	0.37	1.00	7.13	2.44	2.86	0.66	1.66	0.03	16.78
Sentinel	0.20	0.39	1.18	0.03	0.43								
Show Low		2.25				0.65	5.22	1.32	2.09	1.38	3.91	2.38	
Silverbell			0.40	0.96	0.42	0.03	8.03	1.57	2.18	0.00	2.47	0.68	
Snowflake	0.43	0.95	1.27	0.48	0.85	0.40	4.16	2.37	3.40	0.35	2.93	0.76	18.35
Springerville	0.23	1.20	0.27	0.30	0.20	0.01	4.58	3.60	1.68	0.20	0.75	0.60	13.62
Spring Valley Ranger Station	1.35	3.10	0.80		3.73								
Sunflower Ranger Station	2.10	4.84	0.92		0.59	0.08	7.04	1.94	3.04	1.74	6.12		
Sunset Ranger Station	1.83				2.83		7.37	2.61		2.92	3.70		
Sycamore Ranger Station							3.74	2.75	5.65	2.44	7.76	0.04	
Tempe	0.10	1.44	0.86	0.15	0.03	0.00	3.13	2.30	3.06	0.27	2.32	0.38	14.04
Thatcher	T.	0.50	0.07	0.29	0.73	0.75	2.88	1.05	2.20	0.57	2.24	0.35	11.63
Tombstone	0.38	0.48	0.09	0.69	1.07	0.33	7.17	3.45	2.37	0.74	4.68	0.05	21.50
Tonto Ranger Station	0.70	1.81	0.74	0.55	0.14	T.	9.45	3.07	3.05	2.26	4.76	0.08	26.61
Truxton	0.51												
Tuba City	0.10	0.10	0.45	0.16	0.17	0.50					1.05	0.10	
Tucson	0.18	1.13	0.76	1.13	0.60	0.19	5.64	1.61	2.22	0.36	2.60	0.30	16.81
University of Arizona	0.26	0.87	0.63	1.10	0.82	0.32	5.53	1.82	2.54	0.35	3.13	0.64	18.01
Walnut Creek Ranger Station	1.00	2.23	1.26	0.60	1.53	0.00	8.75	1.74		1.19	2.73	1.11	
Walnut Grove	0.50	2.77	0.65	0.74	0.15	T.	7.38	1.13	3.24	2.12	5.96	0.22	24.86
Waters Ranger Station					0.49		5.33		2.66	3.10			
Wickenburg	1.23	0.77	0.68	0.32	0.21	0.00	4.96	1.92	1.89	1.50	3.71	0.22	17.41
Willcox	0.00	0.82	0.24	0.45	1.17	0.04	3.24	1.45	2.41	0.99	2.81	0.16	13.78
Williams	0.19	3.81	1.94	0.35	1.56	0.00	10.47	4.04	2.31	5.41	3.17	1.36	35.11
Willow Creek Ranger Station	1.58	1.56	1.23	0.60	1.04	0.09	7.43						
Willow Wash		1.95											
Windmill Ranch		2.03	1.04	0.92	1.27	0.00	6.69	2.24	2.61	1.34		0.50	
Winona	0.30		0.40	0.32	1.78	T.	3.28						
Winslow	0.33	0.78	0.63	0.19	0.61	T.	1.84	0.68	0.65	0.48	1.85	0.36	8.40
Yaeger Canyon	0.50	3.00	0.70	1.90	0.79	0.80	11.22	1.89	2.71	1.60	2.86	0.22	28.19
Young								1.98	4.74	2.03	5.47	2.17	
Yuma (Weather Bureau)	0.24	T.	0.41	T.	T.	0.00	0.06	0.88	0.03	0.14	0.28	T.	2.04
Yuma (Date Orchard)	0.32	T.	0.66	T.	T.	0.00	0.10	1.24	0.71	0.15	0.37	0.02	3.57
Yuma (Evaporation Station)	0.00	0.28	0.43	T.	0.06	0.00	0.08	1.08	0.34	0.17	0.34	T.	2.78

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Arkansas.													
Alicia	3.67	2.45	.....	6.55	11.15	.....	.....	.....	.....	.....	.....	.....	.....
Amity	.....	.....	.....	1.47	3.94	4.13	.....	.....	3.58	12.56	4.93	.....	.....
Arkadelphia	3.69	5.18	5.00	0.83	6.17	3.48	1.90	3.33	2.70	12.50	6.85	3.20	54.83
Arkansas City	4.77	3.44	4.52	3.46	6.11	4.17	1.04	7.06	0.76	9.30	7.94	4.22	56.73
Batesville	3.58	3.48	3.96	3.98	6.43	8.59	1.61	2.80	2.87	7.90	4.82	0.90	50.98
Bee Branch	1.77	3.65	3.70	3.95	4.60	7.00	2.90	3.40	2.25	9.60	6.30	0.50	49.62
Bentonville	0.68	2.71	2.71	3.74	5.00	6.83	2.50	2.95	1.64	10.71	5.16	0.46	45.09
Bergman	1.08	2.59	1.99	4.20	6.03	5.35	7.35	1.83	3.69	6.31	5.36	0.22	46.00
Black Rock	3.40	2.64	5.67	2.44	5.66	9.48	2.01	1.71	2.16	9.82	6.57	1.21	52.77
Booneville	.....	.....	.....	.....	.....	2.75	0.86	1.29	1.50	8.17	3.79	0.41	.....
Brinkley	4.70	4.12	11.66	2.25	7.26	3.89	2.79	1.51	4.42	10.66	8.26	3.41	64.92
Calico Rock	2.03	2.57	3.01	2.46	5.18	4.85	1.76	1.16	2.49	6.35	5.59	0.41	37.86
Camden	4.02	3.39	7.19	3.73	5.54	5.77	2.96	6.24	1.42	16.62	6.44	3.12	66.44
Centerpoint	.....	.....	.....	3.97	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clarendon	4.73	4.20	9.97	2.49	8.30	3.06	2.14	4.43	2.90	9.10	8.15	3.60	63.07
Conway	3.29	3.28	4.71	5.70	5.80	4.13	1.19	2.64	3.64	8.28	6.40	1.80	50.86
Corning	1.70	3.50	3.90	2.10	6.10	8.70	0.50	4.50	1.50	11.50	11.30	0.30	55.60
Crosett	3.79	3.56	5.79	7.02	10.09	7.42	2.67	9.00	1.62	.....	.....	.....	.....
Danville	2.80	2.09	2.16	3.09	7.79	2.21	3.99	2.59	4.02	12.11	4.86	0.56	48.27
Dardanelle	2.58	2.05	2.21	2.92	6.07	4.51	0.35	1.38	3.09	7.67	4.73	0.37	37.93
Dodd City	1.26	3.71	1.61	2.60	4.64	5.61	3.42	1.17	2.73	6.31	4.15	0.11	37.32
Dumas	5.72	2.69	8.45	3.34	8.36	4.76	1.07	3.63	2.23	11.22	7.73	3.32	62.52
Dutton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.85	0.39	.....
Eldorado	3.92	3.74	9.85	5.06	8.51	4.24	2.85	7.13	1.84	16.02	5.99	1.86	71.01
England	3.79	4.30	8.65	5.14	4.24	4.12	0.50	5.31	3.75	11.70	7.14	3.23	61.96
Eureka Springs	0.47	2.50	2.55	4.06	5.15	6.28	3.00	2.94	2.20	9.24	5.54	0.47	45.00
Fayetteville	0.53	2.83	2.49	3.12	5.88	6.63	2.62	6.55	1.42	8.28	4.63	0.56	45.54
Fort Smith	1.51	2.30	1.25	2.90	4.70	2.49	0.24	4.92	0.56	7.38	2.81	0.15	31.21
Fulton	3.59	4.11	4.95	1.79	4.45	3.46	0.45	5.85	2.87	13.46	6.18	2.17	53.33
Georgetown	5.71	3.41	8.84	3.11	5.57	4.50	1.05	3.02	3.87	12.06	8.79	2.73	62.66
Gillett	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.81	.....	.....	.....
Grannis	.....	.....	.....	.....	3.05	3.85	2.09	9.89	4.60	13.31	6.47	1.70	.....
Gravette	0.52	2.06	2.41	4.40	5.02	7.17	2.09	3.46	2.34	9.52	7.91	0.55	47.45
Hardy	1.48	3.47	4.36	3.08	5.58	7.23	1.63	1.95	3.59	8.10	6.60	.....	.....
Helena	5.96	3.87	8.61	3.12	7.32	5.29	1.20	2.60	1.16	11.64	9.81	4.41	64.99
Higden	.....	.....	.....	.....	.....	.....	.....	.....	6.30	10.91	4.55	0.50	.....
Hope	4.05	4.44	6.60	1.88	5.84	5.36	0.54	10.24	2.52	13.98	7.26	3.30	66.01
Hot Springs	2.59	2.65	3.46	3.09	3.46	4.10	1.78	5.51	5.60	15.64	4.70	0.47	53.05
Huttig	3.44	3.58	7.15	6.20	7.17	5.02	0.26	4.64	0.96	13.20	9.40	2.96	63.98
Jonesboro	2.60	2.46	8.55	4.94	4.74	6.57	2.47	1.99	2.45	9.25	6.03	3.70	55.75
Junction	5.18	4.22	7.35	4.58	6.56	5.83	1.39	8.56	0.69	11.43	5.18	2.65	63.62
Lewisville	.....	.....	.....	2.54	7.00	3.10	.....	.....	.....	.....	.....	.....	.....
Little Rock	2.72	3.55	6.44	4.09	4.67	2.75	2.36	3.45	2.78	15.29	8.21	2.34	58.65
Lutherville	1.46	3.03	2.38	4.74	6.87	3.73	3.83	2.12	2.50	10.79	4.94	0.32	46.71
Magnolia	.....	.....	.....	.....	.....	3.69	0.78	9.07	0.87	18.04	7.60	3.71	.....
Malvern	4.20	5.56	6.34	1.49	4.99	3.50	3.89	5.42	2.50	13.78	8.90	4.10	64.67
Mammoth Spring	0.76	2.38	3.14	3.14	3.03	5.90	0.80	3.87	2.37	7.94	6.61	0.16	40.90
Marianna	2.53	2.99	10.91	2.93	6.56	5.12	1.41	2.20	2.80	13.40	6.69	6.94	64.48
Marked Tree	5.45	3.39	9.12	3.34	8.27	4.07	1.16	3.58	2.04	11.05	9.26	3.77	64.50
Marshall	1.37	2.56	2.20	4.05	5.13	5.72	.....	3.44	2.52	7.31	4.14	0.20	.....
Mena	3.80	2.35	2.97	4.61	5.01	5.41	3.64	6.37	5.25	9.39	4.81	0.87	54.48
Morrilton	.....	.....	.....	.....	.....	.....	0.10	1.40	3.10	9.60	4.80	0.50	.....
Mountain Home	0.87	2.55	2.24	4.16	6.45	9.27	1.45	2.22	2.04	7.81	4.54	0.19	43.79
Mount Ida	2.98	2.40	1.45	2.88	6.17	7.09	1.85	5.34	4.04	12.05	5.62	0.89	52.76
Murfreesboro	2.65	4.04	2.48	1.43	1.82	2.79	1.61	9.33	3.45	10.32	4.88	2.07	46.87
Nail	0.65	2.98	3.57	4.26	.....	5.76	4.25	3.58	3.69	8.37	3.60	0.30	.....
Newport	5.00	3.27	7.05	5.93	9.20	4.58	0.93	4.23	2.56	9.96	7.32	2.97	63.00
Okay	1.05	3.56	4.15	4.70	11.01	.....	1.38	2.99	2.59	9.45	5.21	.....	.....
Osceola	3.50	.....	10.12	3.73	9.86	4.62	3.02	1.65	3.10	10.43	11.06	4.40	.....
Ozark	1.25	2.94	3.22	4.67	5.73	7.89	1.87	3.09	1.18	8.11	3.71	0.06	43.72
Patterson [1]	5.02	4.03	9.25	4.55	6.50	4.68	0.41	2.60	2.63	15.16	11.05	3.00	68.88
Pine Bluff	3.11	5.01	10.40	1.50	5.69	9.25	0.29	4.58	3.98	11.74	5.51	2.44	63.50
Pocahontas	2.15	2.65	5.10	3.87	4.35	9.80	0.80	2.69	2.30	8.92	6.55	0.90	50.08
Portland	4.52	2.25	4.94	4.38	6.79	4.71	3.97	5.58	0.94	9.68	.....	4.65	.....
Prescott	3.52	4.58	5.34	2.14	4.88	3.78	0.97	8.66	3.03	12.63	5.82	2.36	57.71
Princeton	3.49	4.26	9.29	3.67	4.88	2.07	3.44	6.50	4.00	10.74	6.65	4.92	63.91
Rison	3.83	4.18	8.82	2.94	5.92	3.60	0.53	5.95	1.33	10.65	4.43	1.77	53.95
Rogers	0.32	1.44	2.94	4.20	7.24	6.22	2.60	4.03	1.72	9.76	6.20	0.52	47.19
Searcy	3.14	3.15	6.66	4.75	7.09	2.74	1.06	3.90	3.68	11.75	8.58	3.40	59.90
Sheridan	7.80	5.10	.....	.....	2.90	.....	.....	.....	.....	.....	.....	.....	.....
Springbank	3.73	4.51	3.60	3.64	3.83	5.81	1.85	9.69	2.52	13.28	2.42	1.94	56.82
Stuttgart	2.11	3.64	8.75	4.95	6.71	3.63	1.13	4.99	4.00	8.73	7.84	4.24	60.72
Subiaco	1.80	1.96	2.07	3.98	5.33	5.52	2.73	1.93	2.06	8.93	4.02	0.29	40.62
Texarkana	3.40	4.14	4.95	3.20	3.30	3.63	3.10	7.71	2.93	18.28	7.55	1.82	64.01
Umphers	.....	.....	0.98	2.37	3.95	.....	1.99	2.84	3.55	10.80	4.62	0.73	.....
Waldron	.....	.....	.....	.....	.....	.....	.....	3.23	4.36	8.17	3.44	0.77	.....
Warren	3.35	3.75	9.05	3.20	10.60	3.71	1.48	4.60	0.46	10.46	5.17	3.95	59.74
Whitecliffs	2.20	3.90	3.80	0.33	3.08	2.65	1.10	2.95	4.10	14.35	6.40	1.20	46.06
Wynne	2.49	3.35	9.56	4.21	8.65	6.92	2.23	1.63	4.72	12.88	11.97	3.33	71.94
California.													
Abbotts	0.84	5.56	3.06	0.00	0.00	0.00	0.00	0.00	0.34	0.16	0.15	6.17	16.28
Aguanga	0.05	2.55	2.48	0.21	0.70	0.00	1.04	0.26	0.29	0.85	0.98	0.36	9.77
Alturas	0.57	3.47	1.05	0.67	0.02	0.00	0.00	0.03	1.92	0.63	0.47	3.00	11.83
Angiola	0.42	1.02	1.93	0.40	0.23	0.00	0.00	T.	0.34	0.01	T.	0.32	4.67
Antelope Valley	0.00	1.15	2.49	0.00	T.	0.00	0.00	0.00	T.	0.01	0.00	1.58	5.23
Antioch	0.96	5.35	0.99	0.00	0.00	0.00	0.00	0.00	0.34	T.	T.	3.35	10.99
Arrowhead Springs	0.00	1.36	4.31	1.26	0.89	0.00	0.00	0.00	2.16	1.13	1.20	0.90	13.21
Atascadero	0.57	4.14	2.97	0.26	0.67	0.00	0.00	0.00	0.16	0.12	0.00	5.23	14.12
Auberry	1.21	7.52	4.16	0.16	0.10	0.00	0.00	0.00	1.67	0.00	0.22	4.06	19.20
Auburn	3.65	14.60	4.60	0.58	0.04	0.00	0.00	0.00	0.44	0.06	0.15	5.15	29.27
Avalon	.....	.....	.....	.....	.....	.....	0.00	0.00	0.52	0.71	0.37	0.86	.....
Azusa	0.95	2.52	3.37	0.45	0.39	T.	0.00	0.00	2.70	0.77	1.14	3.24	15.53

[1] Name changed from Jelks.

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
California—Continued.													
Bagdad	0.00	T.	0.01	0.00	T.	0.00	0.00	0.00	T.	T.	0.00	0.00	0.01
Bakersfield	0.18	0.99	0.42	0.49	0.82	0.00	0.00	0.00	0.30	0.15	0.28	0.16	3.79
Barrett Dam	0.36	0.10	3.68	1.54	0.14	0.00	0.70	0.05	0.21	0.64	2.95	.....	.....
Barstow	0.10	0.50	1.68	0.24	0.17	0.00	0.06	0.00	0.15	0.11	0.11	T.	3.12
Beaumont	0.71	3.86	3.69	0.70	0.36	0.00	0.12	0.00	1.43	1.35	1.27	1.37	14.86
Beaumont (near)	0.31	3.92	3.18	0.80	0.75	0.09	0.74	0.00	1.88	1.60	1.75	1.67	16.60
Bellota	1.31	6.35	2.10	0.14	0.00	0.00	0.00	0.00	0.30	0.33	0.08	2.58	14.19
Benson's Ferry	1.18	7.35	1.88	0.00	0.00	0.00	0.00	0.00	0.38	0.05	0.22	2.07	11.13
Berkeley	2.09	10.85	2.70	0.13	0.02	T.	T.	T.	0.90	0.34	0.44	3.42	20.89
Betteravia	0.54	3.08	1.62	0.15	0.47	0.00	0.00	0.00	0.21	0.17	0.12	1.99	8.35
Big Bar	10.17	10.25	4.83	3.30	0.63	0.00	T.	T.	0.89	0.84	2.16	6.01	39.08
Big Sur	1.98	11.14	4.15	0.20	0.08	0.00	0.00	0.00	1.61	0.14	0.36	12.39	32.05
Bishop Creek	0.04	4.02	3.15	0.16	0.98	0.00	0.94	T.	0.07	0.02	0.35	1.60	11.33
Blue Canon	3.75	20.89	6.40	3.08	0.08	0.00	0.00	0.00	0.48	3.70	1.40	9.80	49.58
Blythe	0.35	0.03	0.53	T.	0.07	0.00	1.06	0.30	1.11	0.02	0.13	0.06	3.66
Bonita	0.25	2.44	1.52	0.59	0.10	0.00	T.	T.	0.23	0.88	0.85	0.89	7.75
Branscomb	21.54	17.68	6.96	6.00	0.90	0.00	0.00	0.00	2.54	0.95	3.70	8.79	68.76
Brawley	0.10	0.38	0.23	0.00	T.	0.00	0.00	T.	0.02	T.	0.57	0.18	1.57
Burkhart Ranch	0.31	1.65	1.73	0.18	0.54	0.00	1.16	T.	0.94	0.32	1.09	2.00	9.92
Calaveras Ranger Station	2.09	14.39	5.10	0.64	0.23	0.00	0.00	0.00	2.75	0.30	0.97	9.48	35.95
Calexico	0.08	0.40	0.26	0.00	0.02	0.00	0.08	0.00	0.89	0.28	0.84	T.	2.85
Campbell	1.29	6.60	2.36	0.15	T.	0.00	T.	0.01	0.25	0.20	0.03	2.59	13.48
Campo	0.75	4.04	3.07	1.08	0.17	0.00	0.57	0.15	0.20	1.20	3.66	1.01	15.90
Camptonville (near)	6.62	21.14	7.37	2.81	0.28	0.00	0.00	T.	1.11	2.34	2.18	10.39	54.24
Canon Dam	4.72	12.74	4.20	1.84	0.14	0.00	T.	T.	1.79	0.14	0.99	5.28	31.84
Cascada	1.23	8.35	4.35	0.53	1.17	0.00	0.00	0.00	1.93	0.70	0.50	4.46	23.22
Cedarville	0.42	2.66	0.96	1.10	T.	0.00	0.25	T.	1.30	1.06	0.54	2.20	10.49
Centerville	5.03	13.49	5.01	1.23	0.03	0.00	0.00	0.00	0.58	0.89	0.92	6.64	33.82
Chester	3.94	7.57	3.48	1.71	0.11	0.00	T.	T.	1.26	1.04	0.66	4.28	24.05
Chico	3.38	7.36	3.37	0.78	0.10	0.00	0.00	0.00	0.90	0.36	0.77	4.72	21.74
China Flat	8.95	12.42	7.20	3.87	0.49	T.	T.	T.	0.68	0.67	3.45	5.87	43.60
Chula Vista	0.61	1.72	1.61	0.50	0.08	0.00	0.00	0.15	0.38	0.58	0.86	0.93	7.42
Churn Creek	3.89	9.00	4.32	1.53	0.83	0.00	0.00	0.00	1.79	0.73	0.33	4.98	27.40
Claremont	0.83	1.92	2.81	0.99	0.62	0.00	0.00	0.00	2.52	0.77	1.14	2.35	13.95
Cloverdale	6.41	11.45	5.05	0.62	0.15	0.00	T.	T.	1.44	0.35	0.45	5.41	31.33
Clovis	1.00	2.62	1.10	0.00	.....	.....	.....	.....	.....	0.19	0.00	1.80	.....
Coalinga	T.	1.06	1.50	0.00	T.	0.00	0.00	0.00	0.10	0.00	0.01	1.33	4.00
Colfax	4.25	17.75	4.85	1.12	T.	0.00	0.00	0.00	1.47	0.41	1.18	5.75	36.78
Colgate	3.67	14.17	5.91	1.47	0.20	0.00	0.00	0.00	0.64	0.84	1.10	5.99	33.99
Colusa	2.04	3.79	1.23	0.51	0.00	0.00	0.00	0.00	0.65	0.12	0.43	2.59	11.36
Corona	0.48	1.68	1.82	0.53	0.26	0.00	T.	0.00	0.56	0.54	0.42	1.82	8.11
Crescent City	16.92	17.32	12.24	7.56	3.04	0.47	T.	0.00	3.19	3.00	7.92	10.07	81.73
Crockett	1.44	7.05	2.23	0.26	T.	0.00	0.00	0.00	0.71	0.09	0.03	2.74	14.55
Cuyamaca	0.67	7.32	6.98	1.41	0.34	0.00	1.25	1.00	0.50	2.30	2.54	4.60	28.91
Davis	2.49	7.12	1.54	0.02	0.00	0.00	0.00	0.00	0.55	0.00	0.31	2.61	14.64
Deer Creek	5.88	22.96	6.88	2.26	0.30	0.00	0.00	0.00	0.98	2.03	2.44	10.59	54.32
Del Monte	1.45	2.69	0.76	0.00	0.00	0.00	0.00	0.00	0.22	T.	0.02	3.22	8.36
Denair	0.79	2.32	1.48	0.24	T.	0.00	0.00	0.00	0.25	0.05	0.03	2.38	7.54
De Sabla	9.53	21.44	8.44	2.46	0.08	0.00	T.	0.00	0.89	2.05	1.31	8.26	54.46
Devore Ranch	0.17	5.54	4.21	0.09	1.00	0.00	0.00	0.00	1.52	1.73	2.69	5.42	22.37
Dinuba	1.07	2.51	2.15	0.00	0.40	0.00	0.00	0.00	0.68	0.13	0.00	1.61	8.55
Dobbins (near)	4.47	14.59	5.55	1.37	0.22	0.00	0.00	0.00	0.65	0.87	1.55	5.56	34.83
Dobie Ranch	0.00	0.70	1.33	0.16	0.11	0.00	0.46	0.00	0.15	0.00	1.07	0.07	4.05
Dodgeland	2.85	4.65	1.69	0.23	0.07	0.00	0.00	0.00	0.80	0.15	0.55	3.33	14.32
Downieville	5.75	21.61	8.50	2.38	0.25	0.00	0.00	T.	1.54	1.93	1.99	11.20	55.15
Drum Forebay	5.00	18.98	5.43	2.21	0.36	0.00	0.00	0.00	1.42	2.07	1.36	8.20	44.97
Dudley	0.00	0.75	1.33	0.06	0.09	0.00	0.00	0.00	0.32	0.00	0.07	0.47	3.09
Dudleys	1.73	10.98	4.57	0.09	0.60	0.00	0.00	T.	1.69	0.58	0.34	6.71	27.29
Durham	3.00	6.93	2.23	1.63	0.14	0.00	0.00	0.00	0.82	T.	0.76	4.35	19.86
East Park	2.04	3.52	1.35	0.15	0.00	0.00	0.00	0.00	0.66	0.03	0.19	3.39	11.33
Echo Mountain	1.31	3.74	3.47	1.10	0.34	0.00	0.00	T.	4.20	0.71	1.36	3.20	19.44
Edison	0.93	2.79	2.18	0.28	0.32	0.00	0.00	0.00	0.30	0.29	0.82	0.55	8.46
El Cajon	0.33	2.88	2.27	1.20	0.14	0.00	T.	0.10	0.30	0.75	1.26	0.87	10.10
Electra	1.77	10.98	4.74	0.29	0.04	0.00	T.	0.00	1.17	0.22	0.24	5.18	24.63
Elsinore	0.11	2.35	1.48	0.25	0.33	0.00	T.	0.04	0.45	0.46	0.66	1.08	7.21
Emigrant Gap	3.35	20.55	8.20	3.17	0.50	0.00	0.00	0.00	1.60	0.30	1.55	8.05	47.27
Escondido (No. 1)	0.19	3.34	2.73	0.71	0.17	0.00	0.34	0.08	0.50	0.85	1.13	1.28	11.32
Escondido (No. 2)	0.67	2.89	2.89	0.97	0.14	0.00	0.50	T.	0.42	1.07	1.13	1.33	12.01
Eureka	7.84	8.18	6.25	4.03	1.48	0.14	0.01	0.01	1.52	0.24	2.99	4.33	37.02
Fairmont	0.17	1.42	2.32	0.07	0.14	0.00	T.	0.00	0.35	0.13	0.40	1.22	6.22
Firebaugh	0.25	1.23	0.59	0.27	0.10	0.00	0.00	0.00	0.03	0.21	0.01	0.33	3.02
Fish Canon	1.39	2.29	3.25	0.43	0.75	0.00	0.00	0.00	2.92	0.78	2.00	2.79	16.60
Folsom	2.20	8.72	2.64	0.32	T.	0.00	0.00	0.00	0.49	0.30	0.17	2.62	17.46
Fontana	0.69	3.19	2.41	0.84	0.62	0.00	0.00	0.00	1.34	0.94	1.17	1.35	12.55
Fordyce Dam	4.80	20.32	9.11	3.36	0.23	0.00	0.00	T.	1.68	1.52	2.06	9.36	52.44
Fort Bidwell	1.51	4.01	1.24	2.01	0.06	T.	0.01	0.01	0.86	1.61	0.68	1.82	13.82
Fort Bragg	9.29	10.78	6.35	2.35	0.44	0.04	0.00	0.00	1.22	0.08	2.25	4.32	37.12
Fort Ross	11.47	15.71	5.78	1.55	0.69	0.00	0.00	0.00	1.51	0.99	1.67	9.60	48.97
Fresno	0.40	1.36	1.07	0.06	0.10	0.00	0.00	0.00	0.29	0.29	0.04	0.89	4.50
Friant	0.70	2.08	2.32	0.00	0.00	0.00	0.00	0.00	.....	.....	.....	1.64	.....
Georgetown	4.48	22.58	7.66	1.30	0.00	0.00	0.00	0.00	1.43	1.22	1.45	9.94	50.06
Glennville (near)	0.44	6.70	3.66	0.05	1.44	0.00	0.00	T.	0.61	0.52	1.35	2.52	17.29
Goffs	0.89	0.87	1.08	0.03	0.09	0.00	0.41	0.80	1.50	0.10	.....	.....	.....
Gold Run	3.00	13.25	4.00	1.22	0.24	0.00	0.00	0.00	0.06	1.04	1.29	5.00	29.10
Grass Valley	5.54	19.75	5.73	1.88	0.20	0.00	0.00	T.	0.66	1.54	1.69	5.29	42.28
Gray Mountain	T.	0.90	0.17	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.15	T.	1.30
Greenland Ranch	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.20	0.30	0.52
Hanford	0.39	0.95	1.01	0.15	0.10	0.00	0.00	0.00	0.22	0.03	T.	0.97	3.82
Happy Camp	10.71	11.52	4.15	5.41	0.14	0.00	T.	0.00	1.21	0.61	3.56	7.61	45.11
Hayfork	6.66	8.08	3.90	1.67	0.10	0.00	0.00	0.00	1.12	0.28	0.84	5.65	28.30
Head Dam	5.07	19.27	6.90	1.60	0.24	0.00	0.00	0.00	0.81	1.20	2.44	7.03	44.56
Healdsburg	6.50	11.73	3.90	0.64	0.08	0.00	0.00	0.00	0.58	0.00	0.48	7.07	30.98
Helen Mine	12.51	26.58	10.94	2.36	0.68	0.00	0.00	0.00	1.58	1.68	1.80	12.31	70.44
Hetch Hetchy	1.44	9.92	6.42	0.36	1.06	0.00	0.00	0.00	1.86	0.75	1.35	5.73	28.89
Hollister	0.64	3.68	1.83	0.06	0.00	0.00	0.00	0.00	0.35	0.08	0.09	2.91	9.64
Hullville (near)	13.02	19.08	6.18	3.21	0.37	0.00	T.	T.	0.75	0.70	1.83	8.93	54.07

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
California—Continued.													
Huntington Lake	1.96	8.32	5.18	0.84	0.96	0.00	0.00	0.00	1.96	0.90	0.59	4.35	25.06
Idria	0.31	3.81	2.83	0.00	T.	0.00	0.00	0.00	0.01	0.00	0.00	0.34	7.30
Independence	0.00	1.13	0.66	0.02	0.24	T.	T.	0.00	T.	T.	0.03	0.67	2.85
Indio	0.10	0.13	0.27	T.	T.	0.00	0.39	0.20	1.59	T.	0.52	T.	3.11
Inskip	11.56	26.35	10.08	3.92	0.20	0.00	0.00	0.00	1.17	2.28	1.81	11.17	68.54
Jenny Lind	1.17	8.02	2.56	0.12	0.00	0.00	0.00	0.00	0.74	0.09	0.11	3.30	16.11
Jolon	0.45	2.60	1.59	T.	T.	0.00	0.00	0.00	0.13	0.00	0.00	4.04	8.81
Julian	0.46	7.09	4.60	0.82	0.72	0.00	1.02	0.39	0.96	2.80	4.16	2.32	25.34
Kennedy Mine	1.89	11.13	3.92	0.44	0.00	0.00	0.00	0.00	1.31	0.21	0.17	5.85	24.92
Kennett	10.41	16.75	7.62	2.03	0.15	T.	T.	T.	5.39	2.17	1.01	8.60	54.13
Kentfield	6.72	20.81	6.18	0.28	0.00	0.00	0.00	T.	1.34	1.70	1.94	11.35	50.32
Kernville	0.28	2.18	2.60	0.00	0.93	0.00	0.00	0.00	0.00	0.12	0.39	1.30	7.80
King City	0.34	2.12	1.48	0.00	0.10	0.00	0.00	0.00	0.01	0.01	0.01	1.92	5.99
Knights Landing	2.74	5.32	1.21	0.51	0.00	0.00	0.00	0.00	0.45	0.11	0.33	3.13	13.80
La Crescenta	1.38	3.68	3.73	0.63	0.26	0.00	0.00	0.00	3.55	0.92	1.30	4.21	19.66
La Jolla	0.54	5.76	4.59	1.02	1.24	0.00	1.37	0.49	0.79	1.49	2.61	2.21	22.02
Lake Eleanor	1.62	12.40	6.77	0.33	0.75	0.00	0.00	0.00	1.98	0.82	0.95	7.60	33.22
Lakeport [2]	4.49	8.27	4.05	0.87	0.08	0.00	0.00	0.00	1.24	0.16	0.56	3.90	23.62
Lake Spaulding	5.35	24.36	10.33	2.37	T.	0.00	0.00	0.00	1.44	2.54	2.22	10.71	59.32
La Porte	7.21	18.44	12.12	2.92	0.45	0.00	0.00	0.00	1.77	3.35	1.67	8.52	56.45
Las Plumas	5.03	15.77	5.54	2.52	0.65	0.00	0.00	0.00	0.03	0.62	1.25	3.95	35.36
Lathrop	0.89	2.84	1.34	0.02	0.00	0.00	T.	0.00	0.41	0.11	0.06	2.07	7.74
La Verne	.....	.....	.....	.....	.....	.....	.....	.....	2.01	0.64	1.12	2.07	.....
Le Grand	1.40	2.55	1.79	0.10	0.10	0.00	0.00	0.00	2.00	0.03	0.00	1.08	9.02
Lemon Cove	0.43	3.47	2.26	T.	0.65	0.00	0.00	0.00	0.71	0.39	0.23	2.00	10.14
Lick Observatory	1.74	9.28	4.80	0.42	T.	0.00	T.	T.	0.72	0.35	0.68	4.81	22.80
Lindsay	0.35	2.11	2.11	0.06	0.77	0.00	T.	0.00	0.58	0.23	0.12	1.14	7.47
Livermore	1.03	4.58	2.33	0.05	T.	0.00	T.	T.	0.48	0.15	0.33	2.21	11.16
Llano	0.15	0.80	1.05	0.10	1.00	0.00	0.04	0.00	0.26	0.03	1.26	1.45	6.08
Lompoc	0.63	3.06	2.18	0.08	1.05	0.00	0.00	0.00	0.35	0.11	0.22	1.03	8.71
Lone Pine	T.	0.10	0.90	T.	0.59	0.00	0.73	0.00	T.	0.00	0.20	1.45	3.96
Los Alamos	0.46	2.75	1.65	0.06	1.35	0.00	0.00	0.00	0.58	0.18	0.17	2.67	9.87
Los Angeles	0.96	1.02	2.18	0.17	0.19	0.00	0.00	T.	1.29	0.56	0.46	1.99	8.82
Los Gatos	2.48	12.00	4.42	0.05	T.	T.	T.	T.	0.52	0.22	0.11	7.24	27.04
Lytle Creek	1.20	3.91	4.40	0.71	0.75	0.00	0.00	T.	1.48	1.96	2.16	4.05	20.62
McCloud	9.29	11.31	5.36	2.44	0.45	T.	0.00	0.00	3.12	0.96	0.59	6.30	39.91
Madeline	0.57	3.39	1.25	0.43	0.11	0.00	0.10	T.	0.55	0.55	0.40	1.11	8.46
Mariposa	T.	0.70	0.47	0.18	0.59	0.00	0.00	0.00	0.14	0.10	0.22	0.22	2.62
Mariposa	1.38	8.69	5.04	0.16	0.20	0.00	0.00	0.00	1.30	0.41	0.15	5.48	22.81
Markleeville	0.61	0.21	2.32	0.45	1.96	0.00	0.20	0.00	0.69	0.15	0.66	3.22	16.32
Marysville	2.84	7.47	2.30	0.30	T.	0.00	0.00	0.00	1.20	0.00	0.48	2.77	17.36
May Canon	0.95	2.75	2.60	0.00	0.00	0.00	0.00	T.	1.40	0.83	0.80	2.60	11.93
Mecca	T.	0.17	0.25	T.	T.	0.00	0.00	0.00	0.04	0.00	0.58	0.02	1.96
Melones	1.73	7.22	3.55	0.15	0.09	0.00	0.00	0.00	1.40	0.12	0.10	5.01	19.37
Merced	0.59	2.11	1.59	0.70	0.05	0.00	0.00	0.00	1.04	0.41	0.04	1.43	7.96
Merced Falls	1.05	5.01	2.88	0.10	0.13	0.00	T.	0.00	1.11	0.39	0.22	2.24	13.13
Mesa Grande	0.20	6.10	4.42	0.91	0.46	0.00	0.46	0.11	0.62	2.74	2.82	1.79	20.63
Middlewater	T.	0.65	2.16	0.00	0.39	0.00	0.00	0.00	0.44	0.00	0.08	0.16	3.88
Mill Creek (No. 1)	2.72	15.42	5.82	0.62	0.23	0.00	0.00	0.00	2.16	0.86	0.83	7.05	35.72
Mill Creek (No. 2)	1.40	4.08	4.55	0.75	1.16	0.00	0.20	0.00	1.95	0.95	1.94	1.64	18.62
Milo	1.50	4.37	5.90	T.	1.62	0.00	0.21	0.00	0.74	1.07	0.63	2.33	18.37
Milton (near)	1.30	7.17	2.80	0.18	T.	0.00	0.00	0.00	0.47	0.08	0.10	3.65	15.75
Mission Valley	0.40	1.40	1.93	T.	0.12	0.00	1.32	T.	T.	0.15	1.23	0.70	7.25
Mokelumne Hill	1.69	8.89	4.63	0.29	0.03	0.00	0.00	0.00	1.09	0.17	0.41	2.88	20.08
Monroeville	2.29	4.41	1.70	0.42	0.19	0.00	0.00	0.00	1.03	0.14	0.45	3.21	13.84
Montague	1.48	3.75	1.38	0.39	0.07	0.11	0.08	0.00	0.76	0.13	0.55	1.83	10.53
Montgomery Creek	10.30	17.00	5.32	3.60	0.85	0.00	T.	0.00	4.30	2.45	0.40	4.10	48.32
Mount Tamalpais	3.54	10.09	3.64	0.35	0.15	T.	T.	T.	1.26	1.35	1.09	4.45	25.92
Mount Wilson	1.12	4.05	3.96	0.74	0.16	0.00	T.	T.	4.05	1.37	1.72	4.36	21.53
Napa	3.75	11.46	2.98	0.14	0.02	0.00	0.00	0.00	0.44	0.37	0.30	4.62	24.08
Needles	0.18	0.61	0.65	T.	T.	0.00	0.34	0.20	1.37	0.13	0.82	0.14	4.44
Nellie	0.54	9.79	6.65	1.58	0.56	0.00	1.58	0.98	1.73	2.93	5.11	4.09	35.54
Nevada City	5.31	17.08	5.97	1.44	0.22	0.00	0.00	T.	0.82	1.26	1.61	6.44	40.15
Newman	0.28	1.62	1.71	0.23	0.00	0.00	0.00	0.00	0.28	0.02	0.00	1.72	5.86
Nicolaus	2.72	6.53	1.14	0.23	0.00	0.00	0.00	0.00	0.83	0.00	0.18	2.70	14.33
North Bloomfield	4.66	15.33	4.37	1.49	0.30	0.00	0.00	0.00	0.94	1.52	1.68	6.94	37.23
North Fork	1.65	10.80	5.44	0.11	0.45	0.00	0.00	T.	2.05	1.14	0.43	6.74	28.81
Oakdale (near)	0.83	3.16	1.69	0.01	T.	0.00	0.00	0.00	0.27	T.	0.09	2.08	8.13
Oak Grove	1.00	2.78	2.22	0.28	0.45	0.00	0.92	0.30	0.18	0.87	1.50	0.92	11.42
Oakland	2.13	12.30	2.89	0.13	0.02	0.04	0.09	T.	0.81	0.88	0.71	2.80	22.80
Ojai Valley	1.58	2.45	2.59	0.40	0.54	0.01	0.00	0.00	1.15	0.32	0.26	2.52	11.82
O'Melveny Camp	1.78	2.80	3.24	0.48	0.26	0.00	T.	T.	2.43	0.89	2.23	3.19	17.30
Orland	1.82	3.93	1.80	0.14	0.18	0.00	0.00	T.	0.74	0.02	0.19	2.12	10.94
Orleans	9.54	12.84	6.58	5.26	0.58	0.11	0.00	0.00	2.66	0.40	4.69	5.86	48.52
Oroville (near)	3.05	9.12	2.12	0.91	0.08	0.00	0.00	0.00	0.82	0.70	0.67	4.34	21.81
Ozena	0.80	2.47	2.94	0.09	2.19	0.00	0.00	0.00	0.43	0.11	0.36	1.62	11.01
Parkfield	0.44	2.62	2.60	0.00	0.28	0.00	0.00	0.00	0.42	0.00	0.00	3.17	9.53
Pasadena	1.34	2.53	2.91	0.72	0.36	0.00	0.00	0.00	2.70	0.62	1.22	2.94	15.34
Paso Robles	0.61	3.61	2.26	0.00	0.15	0.00	0.00	0.00	0.10	0.03	0.05	4.55	11.36
Pattiway	T.	3.26	2.95	0.52	1.77	0.00	T.	0.00	0.26	0.10	0.90	0.85	10.61
Peachland	6.50	13.12	3.76	0.73	0.16	0.00	T.	T.	0.95	0.80	0.69	8.14	34.85
Petaluma	3.78	7.60	2.13	0.19	T.	0.00	0.00	0.00	0.25	0.37	0.31	4.35	18.98
Piedra	0.73	4.25	3.56	0.00	0.20	0.00	0.00	0.00	0.87	0.33	0.18	2.33	12.45
Placerville	3.36	15.56	5.53	0.59	T.	0.00	T.	0.00	1.34	0.43	0.79	7.96	35.56
Point Loma	0.30	1.73	2.02	0.25	0.14	0.01	0.01	0.00	0.35	2.58	0.56	1.28	9.29
Point Reyes Light	2.78	4.77	1.97	0.60	0.19	0.01	T.	0.00	0.16	0.44	0.40	3.85	15.17
Pomona	0.48	2.49	3.01	0.40	0.54	0.00	0.00	0.02	1.95	0.75	0.82	2.51	12.97
Porterville	0.25	1.96	2.79	0.19	1.05	0.00	0.00	0.00	0.45	0.32	0.27	1.23	8.51
Portola	0.66	5.68	2.10	0.05	0.00	0.00	0.00	0.00	0.00	0.03	1.20	3.10	12.82
Priest Valley	0.78	4.64	3.51	0.00	0.20	0.00	0.00	0.00	0.16	0.00	0.05	4.08	13.42
Quincy	4.00	13.72	5.18	1.19	0.25	0.00	T.	T.	3.49	0.33	0.70	6.82	35.68
Raywood Flat	0.30	5.94	3.68	0.95	0.56	0.00	0.79	1.12	0.00	3.50	2.38	2.15	21.37
Red Bluff	2.74	5.16	3.44	0.25	0.03	0.00	0.00	0.00	0.66	0.36	0.32	2.75	15.71
Redding	5.04	11.62	5.55	2.38	0.30	0.00	0.00	0.00	2.50	1.30	0.43	7.57	36.69
Redlands	0.59	2.70	2.45	0.82	0.89	0.00	0.00	0.09	1.62	0.36	1.70	0.77	11.99

[2] Name changed from North Lakeport.

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
California—Continued.													
Reedley	0.40	2.02	2.50	0.00	0.10	0.00	0.00	0.00	0.50	0.50	0.15	0.50	6.67
Represa	2.18	9.79	2.87	0.83	0.00	0.00	0.00	0.00	0.34	0.28	0.29	3.92	20.50
Rio Vista	1.18	6.79	1.35	T.	0.00	0.00	0.00	T.	0.41	0.17	0.05	2.53	12.48
Riverside	0.68	2.27	1.65	0.57	0.56	0.00	0.00	0.05	1.35	0.24	0.59	0.70	8.66
Rocklin	1.94	6.49	1.91	0.36	0.00	0.00	0.00	0.00	0.20	0.15	0.07	1.91	13.03
Rohnerville	8.55	11.67	8.77	4.37	1.23	0.07	0.00	0.00	1.31	0.65	3.13	5.97	45.72
Rose Mine	0.42	1.29	4.10	0.29	0.08	0.00	2.43	3.37	0.50	0.10	1.43	T.	14.01
Ruth	14.82	14.87	5.34	3.85	0.62	0.04	0.00	0.00	1.23	0.18	2.73	9.86	53.35
Sacramento	1.77	6.29	1.50	0.11	0.01	0.00	T.	T.	0.53	0.01	0.36	2.22	12.80
St. Helena	5.49	11.89	4.16	0.26	0.05	0.00	0.00	0.00	0.65	0.46	0.54	6.02	29.52
St. John	2.21	4.51	1.87	0.46	0.16	0.00	0.00	0.00	0.86	0.14	0.43	2.96	13.06
Salinas	1.01	3.28	2.08	0.03	0.01	0.00	0.00	0.00	0.43	0.15	0.29	3.82	11.10
San Antonio Canon	1.29	3.67	4.02	0.55	0.37	0.00	T.	0.02	2.47	0.92	2.50	3.05	18.86
San Bernardino	0.52	3.79	2.60	1.08	0.70	0.00	0.02	0.14	2.37	0.67	1.20	0.90	13.99
San Diego	0.61	1.46	1.83	0.30	0.34	0.00	T.	0.01	0.26	1.04	0.43	0.48	6.76
San Fernando	0.91	2.41	2.64	0.51	0.22	0.00	0.00	0.00	1.19	0.38	0.65	2.56	11.47
San Francisco	2.57	9.31	2.74	0.10	T.	T.	0.01	T.	0.39	0.27	0.44	3.21	19.04
San Jacinto	0.25	2.84	2.10	0.65	0.42	0.00	0.16	0.01	0.60	0.72	1.02	1.26	10.03
San Jose	1.06	4.87	2.87	0.06	0.01	T.	T.	0.01	0.25	0.28	0.09	2.48	11.98
San Luis Obispo	1.51	5.48	3.35	0.09	0.19	0.00	T.	0.00	0.42	0.12	0.14	4.52	15.82
San Miguel Island	0.75	1.79	0.85	0.00	1.67	0.00	0.00	0.00	0.05	0.12	0.10	0.55	5.88
San Pedro	1.33	0.81	1.41	0.20	0.18	0.00	0.00	0.00	1.12	0.64	0.32	0.60	6.61
Santa Ana	0.48	1.38	1.45	0.45	0.27	0.00	0.00	0.00	1.83	0.84	0.30	2.28	9.28
Santa Ana River	1.46	3.82	4.17	0.73	0.31	0.00	0.53	0.04	3.80	1.59	2.89	2.03	21.37
Santa Barbara	1.20	1.95	2.62	0.17	1.07	0.00	0.00	0.00	0.84	0.27	0.23	2.11	10.46
Santa Clara	1.14	5.52	2.98	0.13	0.00	T.	T.	T.	0.40	0.25	0.07	3.22	13.71
Santa Cruz	1.70	9.12	3.07	0.04	0.07	0.00	0.00	T.	0.60	0.25	1.10	6.18	22.13
Santa Maria	0.68	2.36	1.57	0.00	0.74	0.00	0.00	0.00	0.41	0.00	0.15	1.88	7.79
Santa Monica	1.15	1.72	2.11	0.31	0.17	0.00	0.00	0.00	1.03	0.35	0.31	2.30	9.45
Santa Rosa	5.59	8.52	2.30	0.50	0.20	0.00	0.00	0.00	0.58	0.25	0.30	4.35	22.59
Seven Oaks	0.13	4.10	4.59	0.27	0.20	0.00	0.57	0.37	1.73	2.37	1.86	2.41	18.60
Shield's Ranch	T.	2.08	2.11	0.40	0.54	0.00	0.90	T.	0.17	T.	0.68	1.87	8.70
Shively	10.15	15.24	8.06	4.54	0.94	0.00	0.00	T.	1.09	0.32	2.58	9.42	52.34
Sierra Madre	1.08	2.73	3.42	0.65	0.57	0.00	0.00	T.	3.39	0.54	1.73	3.02	17.13
Sierraville	0.90	9.30	2.00	0.60	0.00	0.00	0.50	0.00	0.55	0.00	0.55	1.60	16.00
Sisson	5.41	8.41	4.30	1.13	0.20	0.20	0.00	0.00	1.26	0.13	0.30	3.26	24.60
Sonora	1.87	8.63	4.40	0.09	0.00	0.00	0.00	0.00	0.47	0.14	8.33	6.09	29.73
Spreckels	0.96	3.06	1.94	0.08	0.00	0.00	0.00	0.00	0.44	0.08	0.06	4.21	10.83
Springville (near)	1.84	8.63	5.35	0.44	1.23	0.00	0.21	0.00	1.04	1.53	0.77	6.45	27.49
Squirrel Inn	0.62	0.95	6.34	1.26	0.30	0.00	T.	0.20	4.05	0.13	2.96	3.71	20.52
Standish	0.28	4.02	0.61	0.05	0.00	0.00	0.00	0.10	0.35	0.30	0.10	3.25	9.06
Stanley-Miller Mine	0.64	3.60	2.94	0.42	0.34	0.00	0.45	0.11	2.99	1.28	1.73	2.91	17.51
Stanwood	7.96	15.18	5.69	2.00	0.12	0.00	0.00	0.00	1.54	1.29	1.78	6.81	42.37
Sterling	0.00	0.04	1.07	0.00	T.	0.00	0.14	0.28	0.94	0.00	0.61	0.00	3.08
Stockton	1.22	4.91	1.88	T.	T.	0.00	T.	T.	0.20	0.04	0.04	1.79	10.08
Story	T.	2.55	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	4.03
Stratton Ranch	1.02	7.60	3.61	1.04	0.31	0.00	0.81	0.00	0.71	0.39	2.04	2.74	20.27
Summit	4.80	13.30	3.60	0.60	0.00	0.00	0.00	0.00	0.10	1.00	1.80	6.50	31.70
Tahoe	2.15	14.20	5.04	1.23	0.22	0.00	0.00	0.01	0.41	0.57	0.88	7.19	31.90
Tamarack	2.20	10.80	4.04	1.71	2.75	0.00	1.30	0.10	1.03	1.40	2.00	5.94	33.27
Tejon Rancho	0.35	3.01	2.25	0.35	0.00	0.00	0.00	0.00	0.30	0.25	0.75	1.12	8.38
Three Rivers	0.53	6.28	3.93	0.04	0.70	0.00	0.00	0.00	0.90	0.59	0.16	3.44	16.57
Towle	5.31	22.09	6.43	1.63	0.42	0.00	0.00	0.00	1.15	3.60	1.03	12.69	54.36
Truckee	1.70	13.90	2.30	0.70	0.50	0.00	0.00	0.00	0.18	T.	0.60	6.55	26.43
Tustin (near)	0.51	1.91	1.56	0.37	0.39	0.00	0.00	0.00	0.98	0.83	0.31	2.23	9.09
Twin Lakes	.....	.....	.....	.....	.....	0.00	T.	T.	0.63	0.69	1.41	9.35	.....
Twin Valley	9.05	15.31	4.89	1.58	0.18	0.00	0.00	0.00	0.54	0.68	0.81	8.22	41.26
Ukiah	7.82	12.47	5.21	1.54	0.11	0.00	0.00	0.00	1.02	0.47	0.75	5.83	35.22
Upper Mattole	22.92	21.52	12.67	7.98	1.98	0.07	0.00	0.00	2.01	0.76	3.38	14.00	86.69
Vacaville	.....	.....	.....	.....	.....	0.00	0.00	0.00	0.86	0.05	0.41	4.24	.....
Valyermo	0.50	1.36	2.25	0.40	1.10	0.00	0.57	T.	0.49	0.09	1.10	1.52	9.38
Visalia	0.34	1.86	1.62	0.01	0.58	0.00	0.00	0.00	0.97	0.16	0.12	1.13	6.79
Walnut Creek	1.74	10.09	3.07	0.06	0.00	T.	0.00	0.00	0.70	0.00	0.18	3.51	19.35
Warner Springs	0.19	3.12	3.21	0.22	0.25	0.00	2.47	0.54	0.16	0.75	2.08	0.84	13.83
Wasco	0.25	1.50	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35
Wasioja	0.48	2.91	3.43	T.	1.07	0.00	0.00	0.00	0.70	0.00	0.00	2.55	11.14
Watsonville	1.20	6.93	2.96	0.21	0.00	0.00	0.00	0.00	0.18	0.24	0.25	6.88	18.85
Weaverville	8.07	11.51	4.91	1.95	0.25	T.	T.	T.	0.97	0.78	1.87	5.71	36.05
West Branch	10.02	23.64	8.01	3.31	0.03	0.00	T.	0.00	0.95	2.32	1.81	8.86	58.95
West Point	2.25	12.14	3.71	0.13	0.13	0.00	0.00	0.00	2.18	0.77	0.36	6.31	27.98
Willows	1.67	3.63	1.42	0.10	0.10	0.00	T.	0.00	0.84	0.00	0.24	2.85	10.85
Wrights	3.86	18.58	9.94	0.06	0.00	0.00	0.00	0.00	1.38	1.08	0.31	8.79	44.00
Yorba Linda	1.39	1.96	2.43	0.56	0.38	0.00	0.00	0.00	2.76	0.95	0.77	1.80	13.00
Yosemite	1.15	8.28	3.42	0.56	1.68	0.00	T.	T.	1.22	0.69	0.60	5.25	22.85
Yreka	2.57	6.16	1.76	1.19	0.02	0.31	0.10	0.00	0.81	0.23	0.58	2.84	16.57
Colorado.													
Akron	0.07	0.50	0.31	2.24	1.59	2.21	1.77	0.44	2.62	1.64	1.29	0.70	15.38
Ames	0.43	3.69	4.02	2.06	1.29	0.12	4.61	2.68	2.76	1.49	2.59	2.15	27.89
Ashcroft	0.26	.....	1.11	1.98	1.32	0.32	2.44	1.72	1.66	2.23	.....	0.95	.....
Aspen	0.42	1.20	1.43	2.25	1.77	.....	.....	.....	.....	.....	.....	.....	.....
Auldhurst	0.17	1.04	1.05	2.23	0.28	1.22	6.07	2.28	2.75	0.65	0.73	0.15	18.62
Barker	.....	.....	.....	.....	.....	.....	3.28	0.42	2.19	.....	.....	.....	.....
Bennett	0.00	0.13	0.05	2.22	.....	0.73	4.95	.....	.....	.....	.....	.....	.....
Boulder	0.00	0.32	1.49	1.65	0.88	1.10	7.46	0.95	0.88	1.31	2.07	0.50	18.61
Buena Vista	0.02	0.67	.....	.....	.....	.....	1.52	1.15	1.90	1.25	1.07	.....	.....
Branson	0.20	2.66	1.82	3.70	0.94	1.28	2.45	1.18	.....	.....	.....	.....	.....
Burlington	0.00	1.00	0.96	1.52	0.87	5.14	2.20	1.18	1.88	0.65	1.33	0.20	16.92
Byers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.11	.....
Calhan	0.24	2.01	0.80	2.05	0.56	0.82	2.81	2.06	0.70	0.36	0.23	0.26	12.90
Canon City	0.16	0.95	2.15	1.54	1.10	0.98	2.07	3.53	2.75	0.75	2.01	0.92	18.91
Cascade	.....	3.95	6.31	1.62	0.99	0.33	3.96	1.51	3.80	* 2.32	3.90	1.40	.....
Cathedral	0.10	1.50	0.70	0.75	0.93	0.26	3.49	0.52	1.25	0.50	1.43	0.30	11.73
Cedaredge	.....	.....	.....	0.98	1.62	.....	0.52	0.75	1.09	1.10	.....	0.27	.....
Cheesman	0.08	0.68	1.14	3.11	0.13	1.77	2.97	1.91	2.31	0.85	0.65	0.36	15.9

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Colorado—Continued.													
Cheyenne Wells	0.15	1.29	1.22	2.82	0.55	2.16	3.11	2.10	0.76	0.57	1.10	0.35	16.18
Collbran	0.30	1.37	1.71	1.97	1.41	0.50	0.99	1.57	0.67	1.44	2.26	0.87	15.06
Colorado Springs	T.	0.33	1.01	1.16	0.56	0.38	3.36	1.38	.....	0.38	0.16	0.09	.....
Columbine	0.34	2.32	1.45	2.45	1.95	0.30	1.87	1.45	1.30	2.20	2.70	1.90	20.23
Columbine Ranch	0.46	3.35	1.09	0.86	1.83	0.27	2.27	1.55	2.50	3.65	4.47	2.26	24.30
Crawford (near)	0.41	0.40	0.00	0.55	1.26	0.07	1.67	1.51	0.00	0.95	1.73	.....	.....
Crested Butte	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.13	5.03	2.30	.....
Cuchara Camps	0.69	1.60	3.15	2.84	1.33	1.84	4.01	0.23	2.61	2.51	1.38	1.07	23.26
Cumbres	0.52	4.98	5.14	2.26	1.63	2.53	1.97	.....	1.43	6.50	2.91	5.31	.....
Del Norte	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.44	1.14	0.58	.....
Delta	0.00	0.54	0.97	0.30	1.73	T.	0.24	1.42	0.82	0.62	3.30	0.11	10.05
Denver	0.12	0.51	0.66	2.18	0.22	0.28	5.24	1.00	1.04	0.65	1.29	0.44	13.63
Dillon	0.16	0.85	0.82	1.33	0.87	0.51	1.85	1.31	1.58	1.78	1.28	0.74	13.08
Dolores	0.00	2.31	2.41	0.96	0.61	0.00	3.76	2.91	1.50	1.75	2.33	1.56	20.10
Dove Creek	0.10	0.75	1.74	0.52	0.83	0.00	3.75	1.26	1.52	1.84	3.07	0.68	16.06
Durango	0.17	2.71	2.70	2.56	0.99	0.66	3.24	2.03	3.24	2.42	3.43	1.66	25.81
Eads	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.60	0.15	.....
Edgewater	0.00	.....	0.28	.....	0.90	.....	0.88	3.40	1.67	0.73	0.91	0.59	.....
Elk Creek	.....	.....	.....	.....	.....	.....	4.21	3.08	2.75	0.95	0.86	0.11	.....
Estes Park Fish Hatchery	0.05	0.18	1.71	1.46	1.12	0.84	3.80	1.57	2.29	2.35	2.73	0.58	18.68
Fairplay	0.03	0.06	1.20	0.27	0.20	0.05	1.67	0.97	2.87	.....	0.52	0.75	.....
Flagler	.....	.....	.....	.....	.....	.....	0.37	0.36	3.55	0.56	1.12	0.57	.....
Flebbe Ranch	0.13	0.65	0.57	1.04	0.92	0.01	0.90	1.44	1.37	2.38	1.79	0.92	12.12
Fort Collins	0.00	0.30	1.65	0.93	0.45	0.19	0.64	0.61	2.61	1.93	1.22	0.39	10.92
Fort Lewis	0.10	3.32	1.28	1.75	0.55	0.00	5.51	2.59	1.89	2.27	1.45	1.19	21.90
Fort Lupton	0.00	0.28	0.34	1.66	1.10	0.45	1.55	0.45	1.21	0.70	1.01	0.13	8.88
Fort Morgan	0.20	0.55	0.57	1.04	0.43	2.17	5.01	1.82	2.18	0.37	0.69	0.30	15.33
Fraser	0.63	1.24	0.90	1.28	1.76	0.56	3.09	1.14	2.08	2.34	1.29	1.31	17.62
Fremont Experiment Station	.....	.....	.....	.....	0.51	0.74	4.31	1.31	1.81	0.75	0.94	0.24	.....
Fruita	T.	0.76	0.77	1.00	0.85	T.	.....	0.54	0.88	1.08	2.13	0.83	.....
Fry's Ranch	0.00	0.40	1.12	1.47	0.45	0.14	1.20	0.93	3.37	1.87	1.59	0.57	13.11
Garfield	0.14	2.23	2.20	2.81	1.38	0.92	4.55	1.95	1.70	1.43	2.04	1.24	22.59
Garnett	T.	0.15	1.35	0.69	1.09	0.28	2.37	0.59	0.11	0.16	0.58	0.16	7.53
Georgetown	0.00	0.57	0.85	1.58	0.33	0.26	2.93	1.88	2.31	1.04	1.57	T.	13.32
Glendevey	.....	.....	.....	.....	.....	0.00	.....	1.10	2.06	.....	.....	.....	.....
Glenwood Springs	.....	.....	.....	.....	.....	.....	.....	.....	1.09	1.35	2.20	1.12	.....
Goodpasture	T.	1.05	1.85	3.75	0.40	0.60	2.15	1.30	0.75	0.77	1.45	0.70	14.77
Grand Junction	0.05	0.36	0.87	0.61	0.54	0.06	0.46	0.63	1.17	0.76	1.89	0.75	8.15
Grand Lake	0.15	1.95	0.53	0.22	1.19	T.	0.78	.....	.....	0.72	2.15	0.74	.....
Greeley	T.	0.22	0.14	0.75	0.67	0.04	1.02	0.47	4.15	0.61	1.01	0.12	9.20
Grover	0.15	0.65	0.55	1.35	0.35	1.10	4.25	0.32	2.94	0.61	1.75	1.15	15.17
Gunnison	0.05	0.81	0.22	0.80	0.48	0.43	3.92	1.89	1.36	1.14	0.75	0.57	12.36
Hamps	0.20	0.65	0.94	2.89	0.68	0.88	1.28	0.83	1.29	0.19	0.54	0.37	10.74
Hartsel	0.02	0.51	1.28	1.36	0.25	0.81	4.65	0.55	2.32	0.41	0.93	0.13	13.22
Hawthorne	T.	0.40	1.40	4.52	1.35	1.15	7.15	1.25	2.04	1.18	1.85	0.30	22.59
Haxtun	.....	.....	.....	.....	2.67	2.54	3.52	0.43	0.67	0.76	0.85	1.20	.....
Hermit	T.	2.13	2.84	2.01	2.22	0.50	2.65	1.35	1.45	1.69	5.14	0.57	22.55
Holly	.....	0.65	.....	2.52	0.65	0.68	3.60	3.70	.....	.....	.....	.....	.....
Holyoke	0.05	0.56	0.49	1.38	1.79	4.11	2.65	0.85	4.68	0.74	1.70	2.00	21.00
Hoyt	0.00	0.56	0.02	1.00	1.18	1.30	1.06	1.06	1.52	0.10	.....	.....	.....
Huerfano	0.51	1.85	1.15	4.49	1.67	3.32	2.38	1.62	1.36	0.63	1.81	0.58	21.37
Idaho Springs	0.06	0.17	0.74	1.94	0.82	0.34	2.86	1.44	2.14	1.15	0.94	0.04	12.65
Ignacio	0.07	1.16	2.41	1.27	1.11	0.28	3.66	1.57	1.73	2.33	0.91	1.18	17.68
Ironton	0.27	1.57	2.71	1.63	1.00	0.05	4.99	2.27	2.27	1.72	2.13	1.02	21.68
Julesburg	0.03	0.91	0.35	1.95	1.24	4.29	0.85	1.46	2.28	1.44	1.36	0.40	16.56
Kassler	0.18	0.88	1.03	4.25	0.30	0.90	1.33	1.87	3.22	0.92	1.08	0.27	16.23
La Junta	0.10	0.96	1.26	3.82	0.96	2.29	1.24	0.76	0.26	1.58	0.94	0.37	14.48
Lake Moraine	0.10	1.37	3.10	4.67	1.07	1.97	4.59	1.67	2.43	1.08	1.43	1.39	23.87
Lamar	0.13	0.63	1.53	3.13	1.01	1.67	3.31	1.41	0.98	1.15	1.53	0.73	17.11
La Porte	0.74	0.17	1.23	0.59	0.35	0.34	1.32	2.30	1.87	0.73	0.91	0.36	10.91
Las Animas	T.	0.94	1.67	5.08	0.77	2.57	3.70	1.42	0.67	0.94	0.60	0.20	18.56
La Veta Pass	0.45	1.04	2.48	0.59	0.45	0.70	2.03	1.02	2.94	1.02	1.29	0.42	14.43
Lay	0.10	1.66	1.87	1.07	0.81	0.02	0.15	0.72	1.85	1.28	1.67	0.88	12.08
Leadville	0.27	1.50	1.35	2.46	0.77	1.46	7.72	1.12	3.77	1.09	2.24	0.90	24.65
Le Roy (near)	0.06	0.92	0.52	2.43	1.32	3.45	1.55	1.17	1.50	0.70	1.38	0.76	15.77
Limon	.....	0.40	1.00	0.60	0.88	0.49	.....	0.42	0.50	0.40	0.63	0.38	.....
Longmont	0.00	0.53	0.38	1.27	1.10	0.16	1.44	1.61	1.45	0.80	1.33	0.14	10.21
Longs Peak	0.27	0.56	2.46	2.63	.....	0.11	1.44	3.13	3.12	2.66	2.63	0.42	.....
Lost Creek	0.79	.....	1.03	2.26	.....	0.30	0.96	0.41	1.92	2.77	4.01	1.61	.....
Madrid	0.12	1.37	2.55	3.09	0.94	1.26	4.61	2.00	1.57	1.93	1.17	0.24	20.86
Manassa	0.00	0.18	1.42	0.61	1.05	0.10	1.44	.....	0.20	0.75	0.55	0.31	.....
Mancos	0.15	1.96	2.51	1.81	1.43	T.	2.65	1.30	2.00	2.05	.....	.....	.....
McClave	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.40	.....	.....
Meeker	T.	0.70	0.95	1.16	0.81	T.	1.42	0.94	1.44	.....	2.25	1.25	.....
Montrose	0.43	0.78	1.01	0.81	1.00	0.13	0.75	0.65	0.90	1.23	1.98	0.26	9.93
Monument	0.21	1.12	1.32	2.01	0.82	1.34	4.16	1.36	2.81	0.50	0.33	0.26	16.24
North Lake	T.	1.22	3.09	2.62	3.70	2.47	10.07	0.69	3.13	1.82	1.10	0.81	30.72
Ordway	0.05	0.47	1.59	2.29	0.57	3.33	2.84	2.52	.....	.....	.....	.....	.....
Palisade Lake	0.19	4.27	3.50	2.95	1.41	0.42	8.91	2.01	3.86	3.79	7.12	2.40	40.83
Palisades	0.07	0.32	0.62	0.80	1.10	.....	.....	.....	0.53	0.75	.....	.....	.....
Paonia	0.47	0.95	0.98	1.33	1.52	0.00	1.23	0.83	1.09	2.38	3.63	0.79	15.20
Peetz	0.13	0.64	0.25	2.35	2.09	3.55	1.72	2.00	2.36	2.50	0.82	.....	.....
Piney	0.13	2.42	0.96	2.75	1.74	0.15	2.42	2.09	1.99	.....	.....	.....	.....
Pitkin	0.12	1.65	1.74	3.15	1.37	0.35	4.81	2.21	1.35	2.21	2.31	1.67	22.94
Platoro	.....	.....	.....	.....	.....	0.79	4.80	2.10	1.84	5.10	5.23	3.73	.....
Pueblo	0.03	0.86	1.43	2.33	0.38	1.39	2.95	3.23	2.04	0.30	0.64	0.59	16.17
Pyramid	.....	.....	.....	.....	.....	0.26	1.14	0.49	1.57	3.88	3.45	1.85	.....
Redvale	0.39	1.30	1.80	0.56	0.94	0.17	2.41	1.17	0.68	1.57	3.26	0.83	15.08
Rico	0.14	2.62	1.96	2.28	1.74	0.82	4.88	2.25	3.82	2.43	3.27	1.34	27.55
Rifle	T.	0.67	0.35	1.82	0.79	0.01	1.99	0.53	1.43	1.09	2.89	1.13	13.30
Rocky Ford (near)	0.06	0.40	1.20	3.10	1.93	2.68	3.66	0.25	0.15	2.51	0.80	0.20	16.94
Saguache	0.00	0.28	1.25	0.90	1.75	T.	3.35	0.65	0.44	0.15	1.35	T.	10.12
St. Elmo	0.07	1.54	1.95	2.68	1.53	0.51	3.90	1.72	1.52	1.10	1.99	0.97	19.48
Salida	0.05	0.54	1.49	0.97	0.33	0.40	2.42	1.98	2.14	T.	1.90	0.24	12.46
San Luis	0.06	0.27	0.99	0.47	0.64	0.11	2.54	1.17	0.82	0.64	0.88	.....	.....
Sapinero (near)	0.51	2.58	1.57	1.90	1.89	0.25	2.33	3.07	2.49	2.00	1.90	1.24	21.73

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Colorado—Continued.													
Savage Basin	1.07	4.34	4.21	2.71	1.83	0.52	3.73	1.81	2.86	2.61	5.35	1.52	32.56
Sedgwick	0.03	0.98	0.18	1.43	2.62	3.99	0.89	0.90	1.84	1.17	1.12	0.44	15.59
Shoshone	0.23	1.49	1.21	0.87	2.15	0.17	1.94	0.83	1.53	1.82	1.91	1.44	15.37
Silver Lake	0.44	1.56	2.28	4.56	1.50	1.76	4.56	1.64	5.07	2.40	3.25	1.09	30.21
Silverton (near)	0.03	3.83	2.65	1.33	1.68	0.09	4.76	2.70	2.34	2.43	3.35	1.62	26.84
Spicer (near)	0.00	0.25	0.50	0.53	0.02	T.	0.57	0.38	0.99	2.25	2.56	0.64	8.69
Springfield	0.10	1.20	2.50	3.60	0.96	1.70	4.05	0.00	3.05	0.70	1.00	.....	.....
Steamboat Springs	0.23	2.90	1.09	1.49	0.87	T.	1.15	0.69	0.63	2.95	.....	2.41	.....
Sterling	0.09	0.45	0.40	1.72	2.19	1.90	1.47	0.37	1.50	0.55	1.29	1.26	13.19
Tacoma	0.08	2.72	2.34	2.45	1.06	0.12	4.35	1.72	2.93	2.72	3.10	0.96	24.55
Telluride	0.20	2.18	2.05	1.51	1.05	0.14	4.23	1.10	1.55	1.26	3.17	0.41	18.85
Terminal Dam	0.01	4.10	2.00	1.53	1.10	0.10	5.23	1.65	3.15	1.19	6.10	2.40	28.56
Trinidad	0.12	1.55	2.45	3.79	1.19	1.17	2.32	1.58	1.10	1.37	1.53	0.29	18.46
Trout Lake	0.45	.....	3.75	2.33	1.41	0.30	4.73	2.43	3.55	1.98	2.54	1.50	.....
Two Buttes	0.20	0.70	1.80	2.19	0.92	0.79	3.92	0.02	3.75	2.12	0.70	0.40	17.51
Two Buttes Reservoir	0.05	0.33	1.77	1.09	1.97	0.95	3.82	0.62	2.35	1.65	0.62	T.	14.22
Victor (near)	0.00	0.74	1.24	1.47	0.99	1.74	5.47	3.98	3.71	0.50	1.31	0.10	21.25
Wagon Wheel Gap (Experiment Station)	0.05	1.25	1.93	1.53	1.12	0.90	3.70	0.75	1.27	1.55	3.51	0.65	18.21
Wagon Wheel Gap (River Valley)	0.06	0.72	1.00	1.63	1.86	0.36	4.14	0.38	2.75	0.19	3.23	0.72	17.04
Waterdale	.....	.....	.....	.....	0.95	0.37	1.48	0.30	1.41	0.62	1.03	T.	.....
Westcliffe	0.30	0.75	2.16	2.72	0.59	1.42	3.85	1.72	0.97	1.24	5.19	1.35	22.26
Willard	0.03	0.75	0.98	1.66	0.51	1.87	2.92	0.43	1.18	0.62	0.88	0.91	12.74
Wortman	0.38	1.11	0.70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wray	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.45	.....
Yampa (near)	0.57	2.18	1.73	1.11	0.52	.....	.....	.....	.....	.....	.....	.....	.....
Yuma	0.04	0.90	0.28	1.68	0.83	3.82	0.51	0.70	1.71	1.00	1.48	0.62	13.57
Connecticut.													
Bridgeport	3.61	4.14	5.11	2.28	5.15	1.24	5.01	9.50	7.77	3.91	4.30	2.89	54.91
Canton	2.65	3.49	6.81	2.88	7.81	1.36	3.33	3.29	5.02	2.98	4.66	2.45	46.73
Colchester	4.43	4.17	7.78	4.11	6.49	2.15	5.10	7.33	4.77	2.91	5.11	3.06	58.75
Cream Hill	3.09	2.22	6.11	3.74	5.16	2.27	5.40	3.06	4.36	2.51	6.43	2.72	47.07
Danielson	5.40	2.10	7.10	5.52	4.57	4.30	4.88	5.22	6.55	.....	.....	.....	.....
Hartford	2.95	3.39	6.10	2.79	5.70	1.54	2.44	3.05	4.30	2.95	4.69	2.06	41.96
New Haven	3.17	4.22	4.55	3.71	6.16	2.19	3.75	7.02	7.09	3.62	4.30	2.78	52.56
New London	3.85	3.53	6.74	4.91	5.68	7.71	4.28	7.80	5.76	3.49	3.43	3.44	55.62
North Grosvenor Dale	5.22	3.69	7.20	3.93	5.24	2.70	4.28	4.25	7.06	3.67	5.84	2.67	55.75
Norwalk	3.59	3.90	5.28	3.40	4.61	1.84	6.58	7.20	5.15	5.15	3.92	3.19	53.81
Southington	3.25	3.00	5.80	2.45	7.05	1.45	2.95	2.45	5.30	2.35	4.35	1.90	42.30
Storrs	2.40	2.49	5.74	2.78	5.30	2.07	3.61	2.46	3.66	3.00	[4.78]	[2.27]	40.56
Torrington	2.92	1.88	4.72	1.71	4.46	3.16	2.94	4.47	5.27	4.25	5.33	2.18	43.29
Voluntown	5.10	2.16	5.99	1.27	4.37	2.73	4.37	5.15	5.28	2.45	4.10	2.87	45.84
Waterbury	3.83	0.43	6.24	2.83	6.22	3.07	5.26	4.72	[5.42]	5.00	4.95	2.45	50.42
Delaware.													
Delaware City	3.23	2.41	2.57	3.45	3.84	3.61	10.23	8.38	2.08	1.30	3.62	3.11	47.83
Dover	.....	.....	.....	.....	.....	.....	.....	10.60	1.27	2.98	3.67	3.29	.....
Milford	4.42	3.20	3.84	4.92	6.13	2.54	9.42	12.18	0.77	3.96	4.11	3.07	58.56
Millsboro	3.87	2.62	4.71	4.14	5.46	0.84	6.03	12.01	2.72	3.02	2.28	3.46	51.16
Newark	3.44	2.97	5.12	3.15	7.14	1.63	15.06	6.60	2.95	3.14	3.28	3.21	57.69
Seaford	4.70	2.69	3.17	3.85	6.26	1.46	10.51	8.35	2.57	2.89	3.19	2.67	52.31
Wilmington	3.98	3.42	4.93	3.95	6.72	3.34	14.13	8.65	3.22	1.76	3.29	3.50	60.84
District of Columbia.													
Washington (U. S. Weather Bu.)	3.47	2.01	4.02	3.72	5.27	3.44	6.80	3.41	1.77	3.64	2.32	3.32	43.19
Florida.													
Apalachicola	2.90	10.44	10.59	6.01	7.80	3.37	12.43	4.72	5.98	2.17	2.54	2.30	71.25
Arcadia	.....	.....	.....	0.91	6.26	6.91	5.48	5.61	4.89	1.68	2.82	1.98	.....
Archer	.....	.....	.....	.....	.....	8.96	8.94	7.58	3.92	1.87	3.18	.....	.....
Avon Park	2.44	4.22	1.62	0.87	6.04	8.46	18.71	6.50	7.01	0.85	1.46	1.51	59.69
Bartow	1.84	4.91	6.56	0.34	4.67	7.73	10.16	6.71	3.39	0.77	2.16	2.35	51.59
Boca Grande	0.10	2.47	4.64	0.22	4.75	3.33	7.29	2.41	4.02	.....	.....	0.08	.....
Bonifay	5.48	10.59	5.58	4.05	9.67	1.25	13.79	5.59	2.41	.....	11.92	3.03	.....
Bradentown	2.94	3.98	4.62	1.66	4.56	7.31	14.02	5.83	5.15	1.63	2.84	3.26	57.80
Bristol	.....	9.44	8.39	.....	4.85	.....	.....	.....	.....	.....	.....	.....	.....
Brooksville	2.69	3.31	3.97	1.24	7.92	10.72	9.68	3.45	4.37	0.74	2.39	1.63	52.11
Camp Johnston	1.77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carrabelle	1.57	4.89	6.83	4.40	2.69	2.67	7.96	8.08	1.02	1.00	2.52	2.96	46.59
Cedar Keys	2.36	3.72	5.07	1.10	2.35	6.00	10.60	13.63	5.78	1.80	3.00	1.50	56.91
Clermont	2.72	4.90	4.86	1.74	10.21	5.59	5.09	10.62	2.79	0.93	2.05	4.58	56.08
Crescent City	1.41	4.04	4.94	1.51	10.88	9.06	12.85	5.94	5.18	1.51	2.25	3.77	63.34
Davie	1.21	2.62	8.26	8.52	7.18	7.94	6.79	6.53	7.07	4.87	1.95	1.53	64.47
De Funiak Springs	.....	.....	.....	.....	.....	6.19	12.45	7.95	1.95	4.67	11.33	3.82	.....
De Land	1.40	3.33	4.99	1.50	9.65	5.03	8.37	5.65	4.00	1.27	1.93	3.33	51.95
Eustis	1.98	4.07	4.37	1.41	6.47	8.83	5.53	5.47	5.28	1.02	5.49	3.64	53.53
Federal Point	1.74	4.13	8.14	2.50	4.11	11.93	9.27	8.75	10.27	4.98	3.02	5.57	74.41
Fellsmere	1.19	3.06	2.44	0.61	3.29	4.52	9.20	9.27	10.13	1.19	5.73	2.63	53.26
Fenholloway	2.77	.....	5.41	4.53	3.57	5.85	10.89	.....	.....	.....	.....	2.31	.....
Fernandina	1.15	4.35	4.85	0.97	4.35	12.19	7.79	10.55	4.75	1.75	1.35	3.90	57.95
Fort Lauderdale	1.38	1.89	12.21	5.84	13.56	6.95	4.19	7.06	6.60	4.81	1.72	0.98	67.19
Fort Meade	2.28	3.85	5.53	0.76	6.87	11.81	12.02	9.36	6.00	0.66	2.02	1.06	62.22
Fort Myers	1.29	2.78	4.64	0.40	5.18	10.89	8.21	3.12	5.04	0.81	3.09	1.17	46.82
Fort Pierce	2.16	4.30	5.64	2.15	2.94	4.18	9.43	5.33	2.82	0.60	7.32	2.14	49.01
Gainesville	2.06	4.50	5.37	1.36	4.67	7.83	6.49	8.12	6.90	3.32	1.46	2.28	54.31
Garniers	6.45	8.65	3.28	5.29	6.86	0.95	15.59	7.06	0.72	3.00	6.95	3.58	68.29
Griffin	1.44	2.41	6.00	3.51	6.59	8.46	12.70	7.13	7.27	4.21	1.49	1.43	62.64
Hilliard	2.52	4.24	4.47	1.57	8.16	9.16	13.58	9.68	4.71	2.27	1.05	2.82	64.23
Homestead	1.39	3.06	3.02	2.67	7.05	12.15	5.13	12.36	5.28	2.62	1.82	0.76	57.31
Hypoluxo	2.05	5.12	6.24	3.56	3.88	6.12	7.16	3.80	3.48	6.93	7.46	0.94	56.74

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Florida—Continued.													
Inverness	2.05	3.39	.....	0.87	5.13	8.83	8.81	4.56	5.74	0.88	3.97	2.56	.....
Isleworth	2.90	5.25	4.20	1.47	8.55	7.64	6.42	6.53	4.49	0.58	3.00	4.15	55.18
Jacksonville (Weather Bureau)	1.73	3.77	3.24	1.26	7.32	13.79	6.32	6.96	5.63	1.81	1.06	4.61	57.50
Jacksonville (No. 2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.62	.....
Jasper	2.55	7.00	4.56	.....	.....	3.50	.....	.....	.....	.....	.....	0.40	.....
Johnston	2.20	4.78	6.56	1.38	6.75	11.77	11.27	4.78	2.88	1.29	.....	.....	.....
Key West	0.74	1.44	0.25	3.11	6.81	11.04	5.25	1.46	14.26	2.66	5.23	1.10	53.35
Kissimmee	2.68	4.81	6.18	3.81	5.77	9.75	.....	.....	.....	.....	.....	.....	.....
Lake City	3.21	4.85	5.41	2.67	3.84	8.01	9.98	8.75	3.80	1.83	3.11	2.48	57.94
Lakeland	3.40	5.55	5.72	0.94	7.96	6.84	10.16	8.99	5.30	1.96	3.71	3.26	63.79
Live Oak	.....	.....	.....	.....	.....	4.03	5.59	.....	.....	.....	.....	.....	.....
Lock No. 1	1.32	3.46	9.89	6.49	6.45	11.52	6.77	5.44	5.29	8.87	2.75	1.18	69.43
Long Key	0.20	4.38	0.98	4.43	3.14	5.05	5.55	6.77	7.69	3.47	2.32	1.95	45.93
Lucerne Park	2.97	4.53	4.43	2.18	11.71	4.64	7.22	.....	.....	.....	.....	.....	.....
Lynne	1.56	2.95	4.86	1.38	6.99	5.73	7.33	6.71	3.74	0.85	1.98	2.83	46.91
Macclenny	2.12	5.24	4.90	1.85	.....	11.27	.....	.....	.....	.....	.....	.....	.....
Madison	1.85	7.67	5.85	3.33	5.51	6.10	6.34	4.45	2.59	1.78	2.33	2.83	50.63
Malabar	1.66	4.70	2.68	0.54	2.77	5.66	4.90	.....	3.72	4.27	9.09	2.02	.....
Marianna	4.70	7.66	5.81	4.40	5.90	2.77	7.44	2.54	3.45	1.98	4.90	3.15	54.70
McDonald	2.70	3.08	4.71	0.92	6.64	5.72	5.87	3.70	4.59	1.68	4.62	3.90	48.13
Melrose	1.89	4.44	7.41	1.80	5.15	7.98	5.57	6.26	5.72	1.27	1.49	2.82	51.80
Merritts Island	2.74	6.13	4.69	0.37	3.42	6.82	4.12	11.84	8.39	1.49	4.34	3.06	57.31
Miami (Weather Bureau)	1.07	3.20	9.74	3.07	13.31	7.26	5.90	3.73	3.72	3.73	3.48	1.83	60.04
Miami (No. 2)	1.81	4.03	9.32	3.62	14.97	8.15	5.26	3.86	3.92	2.91	2.80	2.11	62.76
Middleburg	1.76	4.18	7.24	1.22	9.35	15.02	4.44	3.69	6.29	5.19	1.78	7.13	67.29
Molino	5.10	.....	.....	.....	10.29	6.13	9.25	.....	.....	.....	.....	.....	.....
Monticello	.....	.....	.....	.....	.....	.....	11.82	4.74	0.86	0.95	1.41	2.68	.....
Moore Haven	1.25	3.70	2.83	0.62	6.70	10.59	6.88	1.12	2.78	0.90	4.86	1.15	46.38
Mortons Farm	1.76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mount Pleasant	2.85	9.52	9.17	4.16	8.64	4.66	8.29	7.03	0.43	1.32	1.80	2.37	60.31
New Smyrna	1.84	3.53	5.28	0.85	6.71	3.50	8.29	5.23	.....	5.45	4.72	3.82	.....
Ocala	2.38	2.95	5.07	0.75	10.74	3.89	4.52	8.99	4.03	3.85	3.93	3.80	54.81
Okeechobee	0.51	3.22	3.18	0.90	4.50	6.70	3.12	5.40	3.84	1.00	.....	.....	.....
Old Town	2.74	4.41	6.81	2.79	4.93	7.81	9.36	10.69	4.72	4.69	3.38	2.14	64.47
Orange City	1.60	2.88	4.24	0.62	8.95	2.96	7.25	4.94	4.29	0.61	2.49	3.44	43.67
Orlando	3.01	4.25	5.68	1.17	10.37	5.19	11.49	5.46	2.38	0.80	3.99	3.45	57.24
Oxford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pensacola	5.94	12.53	2.96	11.72	4.47	2.24	7.74	16.69	0.76	8.73	2.68	4.15	80.61
Pinellas Park	3.06	6.02	6.85	0.64	2.29	3.61	16.87	3.53	3.91	2.09	1.61	2.70	53.18
Plant City	2.95	6.77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Punta Gorda	1.46	.....	.....	1.12	.....	.....	6.52	4.08	8.94	3.11	1.27	1.78	.....
Quincy	3.24	10.33	6.78	3.54	6.95	4.83	9.18	9.72	1.02	1.57	2.72	3.79	63.67
Ritta	.....	.....	.....	.....	6.44	6.82	4.33	4.44	10.81	0.04	1.69	1.47	.....
Rockwell	2.33	.....	.....	1.50	4.67	7.44	.....	.....	.....	.....	.....	.....	.....
St. Andrew	4.47	6.91	5.59	4.95	3.77	.....	18.87	5.82	3.38	3.63	6.39	2.69	.....
St. Augustine	1.64	3.80	4.70	1.66	4.71	9.74	4.21	5.96	10.26	5.53	2.46	5.09	59.79
St. Cloud	.....	3.99	4.57	1.57	4.76	7.66	6.23	8.14	3.56	0.56	.....	2.78	.....
St. Leo	3.73	4.80	5.49	0.63	9.43	12.10	8.71	8.32	2.97	1.60	3.12	2.42	63.38
St. Petersburg	2.70	5.57	5.94	1.41	2.46	1.56	14.97	3.37	6.59	3.32	2.34	1.84	55.07
Sand Key	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sanford	2.16	3.66	4.10	1.63	7.25	8.19	9.40	6.11	4.46	1.55	4.37	5.04	57.92
Satsuma Heights	1.82	4.49	6.35	2.46	9.55	8.61	6.11	9.35	6.19	1.52	2.32	5.18	63.95
Switzerland	2.18	4.04	4.30	2.06	4.88	15.48	9.95	10.32	7.56	4.70	1.19	4.03	70.69
Tallahassee	2.22	8.31	6.63	3.09	5.06	7.10	10.23	7.54	1.26	0.57	0.81	2.32	55.14
Tampa	2.44	5.98	4.97	0.41	4.40	7.93	11.80	3.63	6.82	1.41	2.47	1.42	53.68
Tarpon Springs	2.55	3.51	2.91	1.22	2.92	3.53	15.02	6.56	2.65	1.04	5.13	2.73	49.77
Titusville	2.32	4.75	5.27	0.63	6.57	4.12	7.66	15.57	7.06	1.78	5.96	2.67	64.36
Wausau	5.50	7.70	5.05	4.81	6.89	2.99	11.57	4.68	1.40	4.32	1.68	1.59	58.18
Georgia.													
Abbeville	3.18	7.40	2.85	2.19	5.04	5.28	10.81	7.11	1.53	0.80	1.02	1.29	48.53
Adairsville	.....	.....	5.05	1.10	3.27	3.10	4.62	2.72	0.10	4.10	1.40	4.95	.....
Alapaha	2.30	9.19	6.80	1.68	4.50	5.71	7.21	2.45	1.03	0.44	0.96	1.23	43.59
Albany	3.60	7.61	4.05	2.10	7.74	6.58	6.77	6.85	3.93	1.47	1.28	0.84	52.80
Americus	6.08	8.45	3.97	1.93	6.95	4.92	13.82	6.44	1.67	0.99	2.70	1.21	59.13
Athens	6.28	5.02	3.38	2.24	3.94	7.80	11.79	2.29	1.61	5.21	.....	10.82	.....
Atlanta	5.40	4.41	3.58	4.18	7.20	2.08	7.50	3.80	1.12	5.04	2.92	12.94	60.17
Augusta	4.64	4.83	1.90	1.92	4.45	7.05	10.26	2.89	0.06	2.97	0.43	1.91	43.31
Bainbridge	3.29	8.86	5.51	4.27	6.22	5.41	12.09	9.26	2.83	0.92	3.63	3.11	65.40
Blakely	6.29	9.76	4.59	4.03	7.29	4.73	11.09	9.21	1.33	1.22	3.82	2.70	66.06
Brunswick	2.60	6.97	5.24	1.36	5.53	11.56	6.77	5.90	4.50	2.00	2.20	.....	.....
Butler	5.94	8.11	3.31	2.23	5.21	6.85	14.78	7.70	1.01	3.42	2.05	3.81	64.42
Canton	7.59	5.43	5.79	2.56	3.72	6.03	5.73	7.88	1.79	4.04	2.23	11.26	64.05
Carlton	4.53	5.47	2.76	1.78	2.50	5.67	5.54	2.90	2.20	3.79	1.43	8.30	46.87
Clayton	7.33	9.65	7.09	3.62	5.71	7.93	5.19	3.83	0.10	4.54	.....	.....	.....
Columbus	6.31	9.60	3.80	1.98	6.90	3.50	11.87	5.22	0.98	2.43	3.23	4.84	60.75
Concord	6.18	7.85	4.32	2.26	2.54	5.13	18.14	10.72	0.00	2.82	2.46	9.54	71.96
Cornelia	.....	.....	.....	.....	3.59	4.94	8.82	2.42	1.01	4.33	3.96	10.59	.....
Covington	5.60	5.48	4.05	1.55	1.56	4.38	6.50	5.15	0.90	3.40	1.70	11.20	51.47
Dahlonega	7.47	6.03	6.54	3.88	3.61	4.83	5.18	3.50	0.32	5.73	4.90	8.38	60.37
Dublin	4.24	8.37	2.20	2.37	4.33	11.81	6.43	6.91	1.22	0.94	0.56	1.72	51.10
Eastman	3.26	7.68	2.10	2.05	4.66	13.30	9.10	8.68	1.85	1.75	1.21	1.20	56.84
Fatonton	5.94	7.90	2.40	2.12	3.28	6.79	8.25	2.55	0.29	2.49	1.62	4.96	48.59
Fair View	6.28	6.90	3.07	2.35	4.73	3.35	14.16	5.51	1.75	3.68	1.88	5.35	59.10
Fort Gaines	5.60	7.72	3.73	4.55	7.45	4.27	13.48	4.73	0.80	1.78	3.87	1.80	59.78
Fort Valley	.....	.....	.....	.....	.....	.....	11.50	6.91	.....	3.45	0.39	.....	.....
Gainesville	6.50	5.55	5.20	2.26	4.20	5.16	8.60	1.75	1.50	4.06	3.05	8.57	56.40
Gillsville	6.57	5.70	5.40	1.73	3.67	5.81	8.93	1.60	2.77	4.38	2.88	8.99	58.43
Glennville	1.99	6.61	5.40	1.13	5.05	4.73	6.44	5.53	0.47	2.07	0.51	0.39	40.32
Goat Rock	5.28	9.18	2.45	2.88	5.47	5.33	10.73	7.47	1.68	6.43	4.14	8.16	69.20
Greensboro	5.84	5.38	2.37	2.09	2.67	7.18	7.29	7.21	1.19	2.95	0.47	.....	.....
Griffin	5.76	6.58	4.34	2.17	3.48	1.46	11.48	6.49	1.12	3.69	2.53	10.01	59.71
Hartwell	6.37	4.98	2.89	1.31	3.89	7.04	6.59	4.47	1.00	3.31	.....	7.81	.....
Hawkinsville	4.13	7.68	2.61	2.32	6.27	5.46	9.64	7.77	1.08	1.17	0.61	0.97	49.71
Hazlehurst	2.65	7.33	3.83	1.78	7.50	9.85	8.17	10.80	2.24	2.54	0.38	0.74	57.81

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Georgia—Continued.													
Leesburg	4.01	7.26	3.26	1.91	6.51	2.16	8.12	14.18	0.71	1.39	1.19	0.94	51.64
Lisbon	5.36	4.58	2.09	1.90	2.21	7.63	6.02	6.26	0.71	1.86	0.88	7.85	47.35
Lost Mountain	5.07	5.75	6.70	1.65	4.59	2.55	5.24	3.02	2.14	6.00	2.66	10.09	55.37
Louisville	4.13	7.08	2.55	2.00	.....	4.77	10.51	4.25	.....	.....	.....	.....	.....
Lumber City	2.15	7.49	4.32	1.79	6.12	8.80	3.71	6.61	1.26	0.81	0.38	1.45	44.89
Macon	5.01	7.66	3.21	1.83	3.99	2.52	12.88	4.98	0.77	2.82	0.64	2.76	49.07
Marshallville	6.19	9.51	4.28	1.82	4.49	6.63	15.26	5.82	2.24	2.26	1.75	2.38	62.63
Milledgeville	5.73	6.98	2.96	2.18	2.76	7.07	13.42	3.87	0.44	6.40	0.41	3.43	55.65
Millen	2.85	8.50	1.80	2.03	3.95	7.70	6.85	5.90	0.00	0.35	0.60	1.32	41.85
Montezuma	6.58	6.98	2.64	1.43	5.08	4.36	7.07	7.02	2.02	1.18	1.44	2.73	48.53
Monticello	6.04	7.18	3.15	1.36	2.57	7.45	9.84	4.20	1.51	4.08	1.88	5.93	55.19
Newnan	4.99	5.20	5.57	2.03	2.61	2.29	4.36	2.02	0.06	1.70	2.57	10.17	43.57
Norcross	6.34	4.89	4.58	2.42	3.40	1.68	10.66	3.27	0.12	4.51	2.31	14.24	58.42
Point Peter	6.45	4.85	2.47	1.84	3.21	5.56	5.23	4.84	2.56	4.59	1.24	9.28	52.12
Putney	.....	.....	.....	.....	6.91	5.12	3.61	9.53	2.75	0.86	0.87	.....	.....
Quitman	2.09	8.41	7.66	3.40	6.80	6.00	10.33	10.67	6.35	1.28	1.55	3.25	67.79
Ramhurst	6.17	4.86	5.97	3.14	5.76	6.06	5.53	6.42	0.73	5.43	2.70	5.04	57.81
Resaca	6.42	6.40	7.47	3.60	4.75	5.82	8.45	4.90	0.00	4.89	3.24	5.53	61.47
Rome	7.16	6.57	6.56	2.63	3.39	7.85	1.72	4.75	0.29	3.59	3.22	6.29	54.02
St. George	3.03	5.12	4.83	1.72	5.58	14.99	9.75	6.07	2.69	.....	.....	2.35	.....
Savannah	1.96	5.32	3.07	0.55	4.34	6.98	9.04	12.86	1.73	1.51	0.75	0.12	48.23
Statesboro	2.34	6.56	1.84	1.25	5.09	16.55	7.11	8.14	4.94	0.74	0.57	0.82	55.95
Talbotton	6.74	9.98	2.83	1.90	7.82	3.47	10.73	6.31	4.41	2.09	2.47	7.12	65.87
Tallapoosa	8.03	4.87	6.57	2.87	4.18	3.74	6.05	3.77	0.15	6.01	3.49	10.87	60.60
Tate	7.95	6.53	7.09	5.10	3.33	7.87	4.73	.....	.....	.....	.....	.....	.....
Thomasville	2.32	8.86	7.36	2.78	8.02	6.28	9.81	8.16	0.34	0.43	3.40	2.56	60.42
Toccoa	7.00	6.24	6.04	2.36	4.23	8.98	6.69	4.83	0.93	3.51	3.29	9.67	63.77
Valdosta	2.70	9.86	7.10	2.20	4.50	5.10	7.35	6.52	1.50	0.20	1.80	2.45	51.22
Warrenton	5.21	5.82	2.52	2.58	3.91	3.18	12.08	5.79	0.52	1.99	0.57	3.58	47.75
Washington	5.77	4.72	2.92	2.38	3.48	4.96	7.39	4.40	0.33	2.51	1.02	7.74	47.02
Waycross	1.67	8.49	5.55	2.39	4.07	3.19	8.32	6.13	2.62	1.23	1.85	0.63	46.14
Waynesboro	3.20	6.32	2.18	1.55	4.12	5.09	13.24	3.47	0.25	1.20	.....	1.12	.....
West Point	4.37	7.58	6.09	3.00	3.21	3.62	7.94	5.26	0.07	2.52	3.55	.....	.....
Woodbury	5.02	7.85	3.56	1.82	3.33	4.73	9.60	7.23	0.85	4.37	2.40	6.14	56.90
Idaho.													
Aberdeen	0.29	0.97	0.34	0.50	0.25	0.00	0.46	0.16	1.64	1.06	0.32	0.40	6.33
Alpha	.....	.....	.....	2.07	0.31	0.00	0.16	0.14	1.35	1.46	4.44	2.61	.....
American Falls	0.85	1.94	2.03	0.97	0.38	0.00	0.72	0.06	1.92	1.03	0.16	0.82	10.88
Arrowrock	2.60	4.15	2.90	1.30	0.40	0.00	T.	T.	0.35	1.90	4.85	1.30	19.75
Ashton	0.87	1.59	0.82	0.31	0.56	0.00	0.39	0.19	1.94	1.53	0.62	0.76	9.58
Atlanta	1.86	4.08	1.14	.....	.....	T.	1.92	.....	.....	.....	.....	1.28	.....
Avery	3.21	3.77	3.62	2.08	2.11	0.35	0.05	0.39	0.58	3.42	3.68	2.14	25.40
Bear Creek Ranger Station	1.85	1.55	1.17	1.91	1.94	0.12	.....	.....	.....	.....	.....	.....	.....
Bear Valley Ranger Station	.....	.....	.....	.....	.....	.....	0.10	0.50	.....	.....	.....	.....	.....
Big Smoky Ranger Station	1.88	.....	.....	.....	.....	0.41	.....	0.39	.....	.....	.....	.....	.....
Big Springs	.....	.....	.....	.....	0.49	0.07	.....	.....	.....	.....	.....	.....	.....
Blackfoot	0.05	1.34	0.28	0.64	0.15	0.00	0.22	0.25	1.78	1.19	0.22	0.66	6.88
Blackfoot Dam	0.38	2.51	0.84	0.51	0.31	0.00	0.36	0.07	3.52	1.49	0.19	1.93	12.11
Bliss	0.61	1.29	0.71	.....	0.12	0.00	0.00	0.00	.....	1.30	1.25	.....	.....
Bogus Creek	3.26	4.26	4.06	2.25	0.24	0.00	T.	0.03	0.84	2.84	3.63	1.47	22.88
Boise	0.85	1.79	1.82	1.18	0.08	T.	T.	T.	0.79	1.41	2.34	1.20	11.48
Boise King	2.64	6.05	3.77	2.71	2.64	T.	0.56	0.23	1.21	2.41	4.36	2.03	28.61
Bonanza	1.88	4.45	2.92	1.35	0.52	0.00	0.09	.....	.....	.....	.....	.....	.....
Bostetter	.....	.....	.....	.....	.....	0.00	0.38	0.16	2.09	1.68	.....	.....	.....
Boulder Mine	4.09	6.86	4.54	2.12	0.52	0.00	0.10	0.15	1.15	2.25	5.52	2.22	29.52
Brownlee	2.25	4.47	2.44	1.85	0.50	0.00	0.20	0.29	0.42	1.22	3.48	3.11	20.23
Buhl	0.16	0.59	0.64	T.	0.00	0.00	0.34	0.00	0.49	0.58	0.08	0.26	3.06
Burke	4.18	6.41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burley	0.31	1.33	0.65	2.02	0.41	0.00	0.41	0.12	1.20	0.54	1.02	0.64	8.65
Caldwell	0.77	1.97	1.20	0.76	0.03	0.00	T.	0.05	0.22	0.86	1.31	1.28	8.45
Cambridge	2.51	2.77	1.67	1.22	0.15	0.00	T.	T.	0.41	1.17	2.33	2.29	14.52
Challis	0.05	1.44	0.14	0.56	0.17	T.	0.13	0.25	0.52	0.62	0.51	0.91	5.30
Chattins Ranch	0.43	.....	0.62	.....	.....	0.00	.....	.....	.....	.....	.....	.....	.....
Chesterfield	0.01	3.80	1.56	2.79	.....	.....	.....	.....	.....	.....	.....	.....	.....
Couer d'Alene	3.61	6.09	2.94	1.67	1.30	0.59	0.00	1.13	0.77	0.98	1.28	1.12	21.48
Cottonwood Creek	3.58	5.49	4.04	1.44	0.51	0.00	T.	0.17	0.53	2.16	5.39	1.95	25.26
Council	2.39	4.21	1.68	1.20	0.56	0.00	0.14	T.	0.59	2.11	.....	.....	.....
Cuprum	1.56	2.49	2.86	3.29	0.85	T.	T.	0.18	0.66	1.97	2.46	2.28	18.60
Deer Flat	.....	1.46	0.86	0.77	0.03	0.00	0.00	0.02	0.02	0.47	.....	1.65	.....
Driggs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.61	0.70	.....
Elk City	1.46	2.06	3.07	3.26	1.76	T.	0.35	0.31	0.53	3.36	3.49	2.56	22.21
Emmett	0.89	1.30	1.30	0.90	T.	0.00	0.00	0.00	1.13	1.27	2.11	1.74	10.64
Felt	.....	.....	.....	0.85	.....	0.00	0.18	0.82	1.82	1.01	0.59	0.72	.....
Flowers	1.02	5.30	1.39	0.35	0.18	T.	0.44	0.48	1.28	2.12	.....	.....	.....
Fort Hall	0.15	0.73	0.96	0.57	0.41	0.00	0.34	0.17	1.93	0.79	0.31	0.42	6.78
Garden Valley	2.68	4.25	2.94	2.00	0.00	0.00	0.27	0.10	0.79	1.53	4.36	2.23	21.24
Geneva	0.60	1.04	1.66	1.14	0.39	0.00	0.08	0.06	1.96	1.92	0.84	0.75	10.44
Glenns Ferry	1.47	2.50	0.45	0.34	0.80	0.00	T.	T.	0.72	0.20	2.26	0.45	9.19
Gooding	0.71	2.43	1.21	0.37	T.	0.00	0.40	0.00	1.41	0.78	1.23	0.57	9.11
Grace	0.05	0.99	0.54	1.17	0.74	0.00	0.13	0.99	1.09	1.56	0.95	0.80	9.01
Grandview Ranger Station	.....	.....	.....	.....	0.68	0.00	0.47	0.63	3.63	.....	.....	.....	.....
Grays Lake	1.49	1.95	2.24	0.97	.....	0.08	0.16	0.67	.....	.....	.....	1.82	.....
Grimes Pass	3.86	6.06	3.13	2.26	0.61	0.00	0.10	0.02	1.53	2.01	4.14	2.45	26.17
Hailey	0.46	4.84	1.61	0.16	0.38	0.01	0.05	0.42	1.04	1.44	0.98	2.03	13.42
Hawley Gulch	1.71	.....	.....	.....	.....	.....	.....	.....	2.57	3.35	.....	.....	.....
Hazelton	0.46	1.64	1.23	1.45	0.13	0.00	T.	T.	1.58	0.62	0.74	1.38	9.23
Hereford	.....	.....	.....	.....	.....	0.00	0.67	0.38	2.18	.....	.....	.....	.....
Hill City	.....	.....	.....	0.45	0.23	0.00	T.	0.12	.....	.....	.....	.....	.....
Hollister	0.34	0.84	0.60	0.30	0.00	0.00	0.83	0.00	1.14	0.48	0.59	0.56	5.68
Idaho City	2.96	4.77	2.20	0.92	0.90	.....	.....	.....	.....	.....	3.11	1.99	.....
Idaho Falls	0.30	1.52	0.51	0.65	0.38	0.00	0.65	0.12	1.45	1.52	0.44	1.05	8.59
Indian Cove	0.42	.....	0.37	0.75	0.87	0.00	0.55	.....	.....	.....	.....	2.44	.....
Irwin	0.14	1.08	0.98	0.59	0.31	0.08	0.26	0.34	2.18	1.73	0.90	0.75	9.34
Jerome	0.39	1.47	1.21	0.69	0.05	0.00	T.	T.	0.70	0.92	0.97	0.48	6.88

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Idaho—Continued.													
Kamiah	0.84	1.97	2.07	1.92	1.69	0.10	0.10	0.12	0.22	1.63	4.30	1.75	16.71
Kellogg	3.54	4.10	3.19	2.47	2.41	0.70	0.35	0.47	1.17	2.22	3.33	2.16	26.11
Kirkham	2.95	4.06	1.61	1.46	0.13	0.00	0.00	T.	0.89	1.47	.....	.....	.....
Kooskia	1.05	2.01	2.16	2.09	2.73	0.00	T.	0.71	0.45	1.54	3.19	3.03	18.96
Lapwai	2.99	1.80	2.12	2.36	1.52	0.04	T.	T.	0.26	1.49	4.11	1.34	18.02
Lemhi	0.14	0.94	.....	0.74	.....	0.00	0.03	0.10	0.25	0.91	0.19	1.87	.....
Lewiston	1.27	1.32	1.36	1.25	0.98	0.13	T.	0.12	0.73	1.12	2.55	2.14	12.97
Lifton	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.09	0.43	0.52	.....
Little Camas	1.70	2.65	1.34	1.37	1.02	T.	T.	0.19	2.12	2.17	3.35	1.87	17.78
Loon Creek	0.90	2.73	0.65	1.15	0.55	0.00	0.47	0.31	1.05	.....	.....	.....	.....
McCall	3.02	4.59	2.24	2.40	1.05	T.	0.05	0.09	0.62	2.10	3.42	3.85	23.43
Mackay	0.01	1.71	0.66	0.31	0.09	0.00	0.27	0.78	1.79	1.13	0.19	1.11	8.05
Malad	0.20	2.24	1.00	1.70	0.89	0.00	0.77	0.53	2.15	1.76	1.43	1.02	13.69
Meridian	0.87	1.91	1.54	1.16	0.04	0.00	T.	0.07	1.17	1.50	1.72	1.26	11.24
Middle Fork	1.98	3.26	3.75	3.89	2.34	0.07	.....	.....	0.40	2.52	.....	.....	.....
Montpelier	0.12	3.11	0.94	1.35	0.58	0.00	0.00	0.92	1.79	2.99	1.57	0.86	14.23
Moscow	2.26	4.58	1.57	1.55	1.27	0.04	0.00	0.48	0.83	1.61	3.87	2.34	20.40
Mountain Home	1.19	2.30	1.31	1.19	0.82	0.00	0.54	0.00	0.71	0.96	1.61	0.96	11.59
Murphy	.....	.....	.....	.....	.....	.....	0.00	0.03	0.10	0.42	0.10	0.53	.....
Murtaugh	0.22	1.11	0.74	1.03	0.10	0.00	0.22	0.00	1.82	0.50	0.78	0.57	7.09
Musselshell	3.23	6.27	5.35	3.21	3.31	0.04	.....	.....	0.29	4.00	6.24	3.21	.....
New Meadows	3.33	4.47	2.75	1.89	0.72	0.00	0.02	0.15	0.55	1.85	2.22	3.50	21.45
Nezperce	0.90	1.81	2.31	2.06	2.81	0.08	0.01	0.24	0.32	1.33	2.72	1.64	16.23
Oakley	0.10	1.16	1.09	1.73	0.61	0.00	0.46	0.37	1.67	0.44	0.46	0.48	8.57
Obsidian	.....	.....	.....	.....	.....	0.00	0.35	0.40	1.71	1.35	2.59	2.14	.....
Orofino	1.60	3.91	2.51	1.99	1.28	0.07	0.21	0.19	0.30	2.85	4.67	1.59	21.18
Oxford Ranger Station	2.91	.....	.....	.....	.....	0.11	0.05	0.39	0.28	3.34	.....	.....	.....
Payette	1.00	1.53	0.88	0.18	0.10	T.	T.	T.	0.51	0.76	1.92	1.68	8.56
Peace Valley	.....	.....	.....	.....	.....	.....	0.00	.....	1.25	.....	.....	.....	.....
Pine	2.54	6.90	2.82	0.72	0.75	0.00	0.05	0.09	2.48	1.88	2.85	1.83	22.91
Pleasant Valley	0.73	1.34	1.48	1.01	0.05	0.00	0.00	T.	0.56	1.42	1.70	1.34	9.43
Pocatello	0.19	2.06	0.99	1.31	0.35	T.	0.27	0.44	2.13	1.26	0.55	1.48	11.03
Porcupine	1.38	3.59	2.03	1.23	0.79	0.00	0.15	0.70	.....	.....	.....	1.57	.....
Porthill	3.61	2.55	1.64	1.50	0.73	0.30	0.17	1.04	0.53	0.83	1.88	1.66	16.44
Potlatch	2.79	4.70	1.98	2.64	1.98	0.13	0.01	0.21	0.89	1.53	4.07	2.34	23.22
Prichard	4.57	4.27	3.60	1.72	5.24	0.43	T.	0.72	1.29	4.01	3.97	1.80	31.64
Priest River Experiment Station	5.75	5.35	4.31	2.28	2.23	0.20	0.04	1.52	1.62	1.44	2.68	2.30	29.72
Pyle Creek	3.98	5.60	4.21	2.00	0.24	0.00	0.25	T.	0.61	2.34	5.15	3.07	27.45
Rattlesnake	3.12	4.44	3.31	1.37	1.02	0.00	0.20	T.	0.10	1.57	3.82	1.44	20.39
Rice	0.77	4.05	2.14	1.43	0.60	0.10	0.40	0.03	1.70	2.04	0.40	1.50	15.76
Richfield	0.76	2.51	0.93	0.44	T.	0.00	0.03	0.08	1.51	0.66	0.55	0.89	8.94
Riggins	0.45	2.25	.....	0.86	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rupert	0.31	1.21	0.69	1.29	0.08	0.00	0.31	0.00	0.89	0.55	0.86	0.99	7.18
St. Maries	0.98	4.40	3.00	1.52	1.10	0.07	T.	0.23	0.10	2.10	2.63	1.51	17.64
St. Michaels Priory	0.66	1.55	2.21	2.41	2.74	0.28	T.	0.36	0.18	1.88	2.14	1.45	15.86
Salmon	.....	.....	.....	.....	.....	T.	0.08	0.21	0.81	.....	0.35	0.60	.....
Sandpoint	5.99	3.84	3.48	2.23	2.52	0.44	T.	0.94	1.29	0.91	3.18	2.79	27.61
Sheep Hill	3.98	7.23	4.08	0.90	0.13	0.00	0.05	0.05	0.98	1.56	4.89	1.99	25.84
Shoshone	0.64	2.20	0.97	0.96	0.15	T.	T.	0.02	1.52	1.22	0.83	0.72	9.23
Shoshone Ranger Staion	.....	.....	.....	.....	.....	0.00	T.	.....	.....	.....	.....	.....	.....
Soldier Creek	3.43	7.46	2.77	1.11	0.14	0.00	0.04	0.60	0.21	2.50	1.77	3.49	23.52
South Fork Ranger Station	.....	.....	.....	.....	.....	0.00	0.40	.....	0.74	.....	.....	.....	.....
Spencer	0.54	2.73	1.11	1.24	0.62	0.03	0.39	0.57	1.94	1.52	0.04	1.80	12.53
Springfield	0.25	1.68	0.49	0.59	0.06	0.00	0.41	0.10	1.66	0.98	0.54	1.41	8.17
Stanley	1.54	2.72	1.53	2.08	0.41	0.00	0.57	0.17	1.06	1.94	2.45	1.02	15.49
Sublett	.....	.....	.....	.....	0.33	.....	.....	.....	.....	.....	.....	.....	.....
Sugar	0.21	1.89	0.37	0.75	0.12	0.00	0.46	0.05	1.73	1.22	0.37	0.96	7.53
Sunnyside	1.41	1.90	1.73	1.32	0.70	0.00	0.96	T.	0.67	1.37	2.33	1.10	13.49
Sunset Lookout	.....	.....	.....	.....	.....	.....	0.08	0.95	.....	.....	.....	.....	.....
Tripod Mountain	3.26	5.30	4.95	1.35	0.10	T.	T.	0.50	0.80	1.97	4.32	2.31	24.86
Twin Falls	0.51	1.23	1.24	0.98	0.14	0.00	0.24	0.01	1.49	0.72	1.07	0.90	8.53
Wallace	8.20	5.65	4.49	2.10	2.13	0.71	T.	0.52	1.03	2.88	3.96	2.68	33.85
Weiser	1.24	3.21	1.42	1.98	0.16	0.00	T.	0.06	0.56	0.82	2.20	2.01	13.66
Wendell	0.46	1.46	1.54	0.49	0.05	0.00	0.05	0.02	0.96	1.29	1.06	0.67	8.05
Wrensted Ranch	0.48	2.32	1.53	1.23	0.93	0.00	0.90	0.56	2.85	1.53	0.74	0.33	13.40
Illinois.													
Aledo	0.30	1.96	2.18	4.09	6.34	3.55	3.35	1.55	7.10	3.26	2.35	0.23	36.26
Alexander	0.10	1.80	2.17	1.71	4.92	5.43	2.25	3.75	5.23	6.38	2.42	0.35	36.51
Anna	0.94	1.69	4.97	2.82	3.84	2.73	0.85	4.62	3.07	10.50	5.65	1.47	43.15
Antioch	0.51	2.98	3.87	4.47	3.81	4.64	1.79	2.17	4.86	6.23	1.73	.....	.....
Astoria	0.16	2.44	3.19	1.43	5.18	6.61	0.92	4.44	4.81	3.53	3.44	0.30	36.45
Aurora	0.18	2.59	4.27	3.03	4.12	3.26	2.35	0.35	4.19	5.29	2.67	1.60	33.90
Beardstown	0.27	1.68	4.20	1.90	5.39	3.61	0.79	2.68	3.05	4.39	2.71	0.30	30.97
Benton [2]	1.12	1.34	3.62	4.84	4.93	5.04	0.60	3.32	1.43	11.26	4.53	1.08	43.11
Bloomington	0.05	1.92	3.40	1.22	3.24	6.10	2.54	3.74	3.17	5.18	3.97	0.26	34.79
Cairo	1.15	1.25	6.61	4.78	3.53	4.61	1.51	3.41	1.80	5.07	6.47	2.16	43.25
Camp Point	0.03	2.07	1.90	.....	.....	.....	1.36	3.80	4.75	1.92	.....	.....	.....
Carbondale	0.87	1.52	4.28	3.56	7.73	3.41	2.33	2.87	3.72	10.11	5.63	0.90	46.93
Carlinville	0.24	1.55	1.83	1.37	6.03	7.19	0.94	2.95	5.26	8.81	2.60	0.71	39.48
Casey	0.70	2.26	2.78	2.86	4.85	4.98	0.81	1.88	1.66	11.01	3.40	0.83	38.02
Charleston	0.71	2.92	3.81	2.01	4.03	5.91	2.06	3.99	2.81	8.89	4.21	0.50	41.85
Chester	1.06	1.45	2.82	2.07	6.02	7.02	1.91	2.35	2.83	8.44	4.65	0.55	41.17
Chicago	0.20	2.78	4.32	3.16	3.84	3.16	1.59	1.10	3.85	6.41	2.38	0.70	33.49
Clinton	0.43	.....	.....	1.05	5.14	7.95	1.63	8.12	3.25	5.03	3.96	0.19	.....
Danville	0.63	2.66	3.78	1.64	3.93	4.15	2.54	2.25	2.53	6.34	3.36	0.25	34.06
Decatur	0.31	1.43	2.43	1.30	4.04	7.46	1.31	2.23	2.15	6.97	3.00	0.25	32.88
Dixon	0.26	2.70	4.28	4.10	5.34	3.39	1.77	1.71	3.81	5.38	3.07	0.51	36.32
Du Quoin	1.03	1.60	3.37	2.65	5.23	5.63	1.10	4.63	2.71	9.44	6.05	0.76	44.20
Dwight	0.18	2.34	4.64	2.53	5.22	1.82	1.97	1.48	3.39	2.38	3.58	0.55	30.08
Edwardsville	0.09	1.43	1.95	1.74	6.37	4.43	1.48	1.80	5.05	8.89	2.37	1.14	36.74
Effingham	0.70	1.85	3.51	1.35	6.32	8.18	0.69	2.52	2.67	9.60	3.80	0.92	42.11

[2] Records at Ewing, January to May, inclusive.

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Illinois—Continued.													
Elgin	0.33	.....	2.14	2.78	5.20	2.32	3.56	0.96	3.10	4.70	2.01	0.73	.....
Equality	1.07	1.67	6.09	3.20	7.48	4.83	1.60	3.65	2.39	.....	.....	.....	.....
Fairfield	0.75	1.75	4.76	3.55	8.33	6.27	1.03	3.57	0.75	16.00	4.40	1.77	52.93
Fairview	0.23	2.26	3.00	1.39	4.46	5.45	3.61	2.88	3.53	1.68	3.55	0.27	32.31
Flora	1.26	1.49	3.18	2.40	7.44	2.53	1.10	3.22	2.34	13.95	4.13	1.40	44.44
Freeport	.....	2.72	3.79	4.46	3.88	3.21	4.21	2.21	7.18	8.20	2.33	1.44	.....
Galva	0.10	1.71	2.64	2.96	4.30	3.15	2.27	4.53	3.14	3.07	2.77	0.25	30.89
Grafton	0.50	1.35	2.33	1.23	5.72	3.49	0.88	3.58	5.98	6.59	2.89	0.37	34.91
Greenville	0.32	.....	.....	1.26	8.37	6.61	0.30	0.62	2.49	10.58	2.38	0.90	.....
Griggsville	0.06	1.80	2.81	1.97	6.66	1.74	1.25	3.22	3.14	7.33	2.66	0.39	33.03
Havana	0.02	1.51	3.12	1.42	5.36	3.14	1.00	2.40	2.92	3.98	2.53	0.26	27.67
Henry	0.20	1.21	4.44	2.91	4.23	3.52	1.40	2.85	4.28	3.25	2.73	0.36	31.47
Hillsboro	0.08	1.76	2.11	1.40	9.07	6.45	0.34	2.54	4.45	7.69	3.16	0.68	39.73
Hoopeston	0.59	2.14	3.83	1.97	3.10	3.74	1.12	2.56	2.89	4.98	.....	.....	.....
Joliet	0.09	1.90	3.08	3.01	3.45	1.53	2.15	1.25	3.17	6.37	3.10	0.88	29.98
Kankakee	0.35	1.74	3.08	2.43	4.61	4.06	1.42	1.74	2.15	4.50	3.88	0.64	30.60
La Harpe	0.23	2.45	1.94	1.56	4.70	3.81	0.31	4.07	5.52	1.58	3.09	0.50	29.76
La Salle	0.36	1.94	4.30	3.34	4.28	4.36	1.05	2.34	4.62	4.45	2.83	0.63	34.50
Lincoln	0.07	1.86	2.74	1.18	5.31	8.92	2.73	4.14	3.97	4.36	3.79	0.28	39.35
Macomb	T.	2.31	2.31	1.22	5.06	5.66	6.67	2.44	4.47	1.30	3.01	0.40	34.85
McLeansboro	1.09	1.76	5.35	4.63	5.99	3.60	0.45	3.55	0.95	10.73	3.98	1.21	43.20
Marengo	0.27	2.09	2.90	4.02	3.78	2.61	3.98	3.47	6.11	4.91	2.34	0.60	37.08
Mascoutah	0.22	1.88	2.20	2.54	5.15	3.40	0.87	5.42	3.70	12.25	3.22	0.93	41.75
Minonk	0.14	1.72	1.93	2.04	5.75	2.81	2.20	2.42	3.00	3.21	3.73	0.24	29.19
Monmouth	0.04	2.28	2.11	2.27	4.22	6.48	2.08	2.83	4.49	3.19	2.93	0.28	33.20
Morris	0.28	1.61	.....	3.03	4.49	2.42	3.23	1.68	3.93	3.87	3.01	0.73	.....
Morrison	0.37	2.46	2.40	2.74	5.52	2.64	3.86	2.02	6.12	6.60	2.79	0.75	38.27
Morrisonville	0.40	1.45	2.12	1.30	4.88	9.33	0.50	3.19	4.57	7.23	3.15	0.49	38.61
Mount Carmel	1.35	1.51	4.88	3.05	6.15	5.02	1.23	1.89	1.86	11.13	3.34	2.28	43.69
Mount Carroll	0.53	3.10	4.12	3.75	5.89	5.52	4.07	2.65	7.74	7.43	3.36	1.35	49.51
Mount Vernon	.....	.....	2.84	4.24	7.36	6.05	0.53	3.66	2.16	13.91	2.63	0.99	.....
Nashville	0.90	1.91	4.68	2.45	4.68	9.97	1.27	8.07	2.10	14.04	4.65	0.73	55.45
New Burnside	1.41	1.68	6.61	3.43	6.50	3.47	1.32	2.95	2.06	10.41	6.46	1.81	48.11
Olney	1.21	1.23	3.27	2.49	5.15	8.61	1.41	2.19	2.29	12.32	5.01	1.10	46.18
Oregon	0.30	2.43	4.30	3.37	5.43	3.50	2.08	1.92	5.22	5.46	2.63	0.63	37.27
Ottawa	0.42	2.02	.....	.....	.....	.....	.....	.....	.....	.....	2.94	0.62	.....
Palestine	1.77	1.27	4.15	2.37	5.49	5.68	2.77	2.21	1.77	10.95	3.16	0.83	42.42
Pana	0.37	1.75	2.65	1.50	4.97	4.83	1.54	2.23	3.67	8.75	3.47	0.60	36.33
Paris	0.72	1.80	7.01	1.69	5.41	3.71	0.62	2.41	3.68	8.43	2.90	0.14	38.52
Paw Paw	0.39	2.27	5.21	3.54	3.81	2.86	3.57	1.28	4.27	6.47	2.57	0.69	36.93
Pearl	0.07	1.25	2.18	2.74	5.33	2.09	1.44	2.95	4.25	7.10	2.04	0.18	31.62
Peoria	0.07	2.32	4.52	2.35	3.79	3.96	3.09	4.73	3.48	2.12	2.91	0.30	33.64
Pontiac	0.26	1.91	3.77	1.83	5.26	2.61	1.85	2.46	3.07	2.91	3.18	0.45	29.56
Quincy	0.28	1.98	1.44	2.10	9.50	5.09	2.21	3.65	3.70	2.31	2.98	0.22	35.46
Roberts	0.14	1.91	2.47	1.66	3.42	3.74	2.41	2.58	1.99	3.18	2.82	0.14	26.46
Rockford	0.66	2.39	3.70	4.21	3.74	1.86	5.40	3.00	6.14	6.60	3.66	1.26	42.62
Rushville	0.05	1.92	2.13	2.56	5.42	5.88	1.46	2.59	4.35	2.94	2.98	0.10	32.38
Salem	0.71	1.86	3.39	2.40	6.61	5.44	1.69	2.56	1.66	14.08	4.04	1.33	45.77
Shawneetown	1.57	1.68	7.01	2.47	7.09	3.17	1.00	2.48	1.16	7.27	7.70	2.54	45.14
Sparta	0.95	1.99	2.67	2.55	5.27	5.31	2.19	1.70	1.91	15.07	3.39	0.42	43.42
Springfield	0.09	2.15	2.26	1.26	3.87	5.46	1.25	1.85	2.74	5.63	3.10	0.30	29.96
Streator	0.23	2.30	3.96	2.87	4.18	2.95	2.93	1.74	3.27	.....	.....	.....	.....
Sycamore	0.34	1.73	5.43	3.16	5.78	1.52	1.42	2.62	4.48	6.42	2.73	0.76	36.39
Tiskilwa	T.	2.32	3.95	3.22	4.29	2.50	1.61	3.17	3.97	4.41	2.98	0.40	32.82
Tuscola	0.62	1.67	2.82	1.79	3.84	7.22	0.57	1.92	2.00	5.68	2.87	0.14	31.14
Urbana	0.21	1.92	4.12	0.75	3.29	6.90	2.04	4.47	2.47	5.59	3.37	0.12	35.25
Walnut	0.39	2.06	2.81	3.52	4.64	4.13	1.28	2.43	6.79	3.45	2.52	0.63	34.65
Warsaw	0.34	1.97	1.25	1.68	5.25	5.99	1.29	4.50	5.41	2.66	2.62	0.24	33.20
Waterloo	0.34	2.20	1.59	2.60	5.40	3.31	5.97	3.28	1.25	11.79	3.21	0.82	41.56
White Hall	0.15	2.10	2.10	1.82	5.13	2.91	2.99	2.33	4.66	8.27	2.91	0.40	35.77
Windsor	0.29	1.90	4.12	1.07	6.33	7.91	3.98	2.70	3.52	9.97	4.04	0.51	46.34
Indiana.													
Albion	0.80	1.59	3.35	3.03	4.90	4.08	0.84	2.70	3.40	3.91	2.57	0.47	31.73
Anderson	1.08	0.73	5.09	2.33	4.68	2.45	2.42	4.26	3.30	8.21	2.73	0.25	37.53
Auburn	0.68	1.34	3.38	1.92	5.35	1.69	0.80	2.77	1.95	3.98	.....	.....	.....
Bedford	1.44	1.90	5.33	3.39	4.59	7.08	1.33	4.35	1.90	10.42	3.96	1.73	47.40
Berne	0.78	0.83	5.75	2.40	3.46	2.01	2.64	1.20	2.08	8.95	3.23	0.54	33.87
Bloomington	1.27	2.05	5.54	2.09	5.79	4.25	1.96	3.64	1.35	11.55	3.02	0.87	43.38
Bluffton	0.93	1.37	6.14	3.64	4.89	2.92	3.15	1.71	0.98	8.53	3.03	0.39	37.68
Butlerville	1.87	0.96	5.04	3.47	5.13	2.15	2.05	2.13	2.18	13.70	5.13	2.41	46.22
Cambridge City	1.30	1.23	6.90	3.46	4.71	2.14	4.30	2.44	1.59	8.94	4.95	1.36	43.32
Collegeville	0.23	2.62	3.42	2.00	5.75	1.75	1.61	1.13	3.29	6.90	2.97	0.56	32.23
Columbus	1.17	0.59	4.80	2.54	2.17	4.05	0.18	2.52	0.96	7.87	4.65	0.95	32.45
Connersville	0.88	0.87	5.15	3.63	4.31	2.45	2.26	1.46	2.73	8.98	3.80	0.95	37.47
Crawfordsville	1.00	1.90	4.40	3.25	3.75	2.90	1.40	2.35	2.25	11.00	3.47	0.20	37.87
Dam No. 39, Ohio River	1.48	1.70	6.13	4.07	4.30	3.22	2.63	0.69	1.75	7.13	6.53	4.01	43.64
Decker	1.35	1.41	4.81	2.60	5.51	9.83	0.74	2.93	1.41	12.39	4.01	1.82	48.81
Delphi	0.80	1.50	3.50	2.11	4.80	4.92	3.13	3.10	3.65	5.50	2.95	1.15	37.11
Elliston	0.72	1.89	6.86	1.98	7.17	6.20	2.32	2.95	2.22	10.06	4.83	1.66	48.86
Evansville	1.14	1.30	5.05	3.71	4.74	6.75	1.32	2.49	3.59	8.40	3.73	1.86	44.08
Farmersburg	1.24	1.65	4.02	1.93	6.28	3.94	0.79	1.69	1.97	11.56	2.18	0.73	37.98
Farmland	0.80	0.93	3.83	3.77	3.33	1.30	1.99	2.62	0.45	4.47	1.37	0.62	25.48
Forest Reserve	1.58	1.10	4.06	3.55	4.41	4.51	1.90	3.50	2.07	8.00	5.55	3.44	43.67
Fort Wayne	0.72	1.51	5.34	2.54	4.77	2.23	2.68	1.61	2.61	5.05	2.70	0.48	32.24
Frankfort	1.03	1.42	4.37	3.79	4.54	2.79	4.15	1.85	1.38	6.55	3.32	0.56	35.75
Goshen	0.45	1.88	2.92	4.19	3.86	2.07	0.64	2.44	2.37	3.88	1.13	0.44	26.27
Greencastle	1.64	1.35	5.68	2.64	5.00	1.36	0.53	2.25	1.15	8.72	4.58	0.02	34.92
Greenfield	1.21	1.07	6.10	2.40	4.67	3.78	.....	.....	.....	.....	.....	0.71	.....
Greensburg	1.47	0.75	6.21	2.95	3.63	1.82	1.96	1.89	1.60	9.27	3.53	1.35	36.43
Hammond	.....	1.43	1.84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hickory Hill	0.29	1.41	5.42	1.93	4.59	1.47	1.12	2.38	3.74	10.59	3.44	0.50	36.88
Hobart	.....	.....	.....	.....	.....	.....	1.45	1.08	3.25	2.72	3.77	1.16	.....
Howe	0.58	2.19	3.33	5.31	4.41	3.89	2.36	1.96	3.98	6.45	2.85	0.90	38.21

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Indiana—Continued.													
Huntingburg	1.84	1.99	6.60	5.42	5.77	4.20	0.67	4.78	3.29	10.10	5.15	3.47	53.28
Huntington	0.87	1.87	5.05	2.19	4.94	2.31	1.73	1.63	2.62	7.13	2.69	0.60	33.63
Indianapolis	0.91	1.21	6.72	3.35	3.34	3.33	0.97	3.43	1.86	8.98	3.27	0.85	38.22
Jeffersonville	1.92	1.09	5.91	3.19	4.79	4.70	2.84	1.85	2.90	7.39	5.87	6.11	48.56
Kokomo	1.32	2.12	5.74	3.42	5.32	2.50	5.88	1.45	4.63	9.05	3.77	0.48	45.08
Lafayette	0.78	1.60	3.44	2.11	3.28	3.48	2.11	3.80	1.81	7.60	3.04	0.60	33.65
Laporte	0.60	1.58	3.46	3.88	3.92	.....	1.48	0.91	.....	.....	3.64	0.69	.....
Madison	1.96	1.12	4.99	4.56	4.72	2.59	2.00	1.06	2.10	11.46	5.56	3.57	45.69
Marengo	1.65	2.15	6.35	4.25	5.35	4.30	4.25	3.40	2.80	8.35	4.55	3.15	50.55
Marion	1.09	1.26	6.03	3.86	3.28	5.34	2.96	1.92	4.79	8.82	2.76	0.72	42.83
Mauzy	1.10	0.96	6.18	3.56	4.61	2.55	1.66	1.59	2.02	9.11	3.55	1.39	38.28
Monticello	0.53	2.22	3.63	.....	5.67	2.38	1.83	1.89	4.07	5.63	2.78	0.47	.....
Moores Hill	1.86	1.00	4.59	3.01	4.61	3.15	2.39	3.55	2.32	11.09	3.80	2.08	43.45
Mount Vernon	1.82	1.41	5.96	2.74	5.51	4.04	1.30	2.31	2.62	8.09	5.69	2.72	44.21
Noblesville	0.80	0.55	4.98	.....	4.56	4.00	2.15	1.50	4.00	7.19	.....	0.40	.....
Notre Dame	0.35	2.07	2.40	3.48	3.16	2.42	1.50	1.40	1.58	3.41	2.13	0.94	24.84
Paoli	1.51	1.93	5.67	2.99	4.31	6.32	0.20	5.61	3.17	13.57	4.52	2.78	52.61
Plymouth	0.28	2.37	3.61	3.01	5.70	2.33	4.38	4.75	2.87	3.88	3.10	0.81	37.09
Princeton	.....	2.42	6.64	3.37	4.99	6.06	.....	.....	3.47	.....	3.51	0.70	.....
Richmond	0.85	1.10	6.56	2.72	3.65	2.91	4.64	3.74	1.79	7.52	4.42	1.16	41.05
Rockville	1.03	2.43	4.24	3.08	3.52	1.92	1.43	0.97	2.35	10.44	4.02	0.40	35.83
Rome	2.29	1.77	6.17	3.44	6.34	6.61	1.64	2.89	0.96	7.86	6.94	5.67	52.58
Royal Center	0.41	1.62	3.84	2.83	5.07	4.31	2.82	2.57	2.94	5.89	2.78	0.60	35.68
Salamonia	0.66	1.23	5.37	4.40	5.32	2.45	4.25	.....	2.93	7.98	4.51	.....	.....
Salem	1.53	1.79	5.60	2.93	4.91	3.65	1.78	3.87	2.26	9.07	4.45	2.67	44.51
Scottsburg	0.90	0.54	5.50	3.71	4.62	4.23	1.33	2.39	1.47	11.34	6.23	3.10	45.36
Seymour	0.65	.....	6.34	2.72	4.86	3.88	0.84	2.10	2.87	11.28	3.04	1.70	.....
Shelbyville	1.43	1.01	6.17	3.31	4.50	2.27	0.80	1.64	2.00	9.67	3.02	2.35	38.17
Shoals	1.62	1.24	5.40	3.23	5.88	5.70	0.50	2.13	1.62	14.32	4.15	0.95	46.74
South Bend	0.31	1.55	2.37	4.09	4.18	4.50	1.56	2.52	1.85	4.11	2.75	0.72	30.51
Terre Haute	0.98	1.57	3.90	2.98	3.61	5.04	1.70	1.30	1.56	8.85	2.65	0.83	34.97
Valparaiso	0.34	2.63	3.76	3.19	4.65	3.67	1.90	1.16	3.73	3.46	2.61	0.90	32.00
Veedersburg	T.	1.61	2.59	1.74	3.78	1.22	0.75	1.84	1.02	6.33	2.18	0.32	23.38
Vevay	1.10	1.59	5.88	4.63	4.64	3.86	2.43	1.03	1.69	9.76	.....	.....	.....
Vincennes	1.36	2.08	5.13	3.38	6.51	9.67	0.56	3.04	2.39	12.92	3.89	1.40	52.33
Washington	0.98	1.64	5.12	2.93	4.08	3.50	0.38	2.24	1.60	13.71	3.56	2.02	41.76
Wheatfield	0.31	2.47	3.48	2.13	3.93	3.58	0.32	2.90	2.32	4.89	3.50	0.50	30.33
Whitestown	1.20	1.33	5.88	2.88	5.62	2.28	2.80	1.80	1.85	7.42	4.19	0.63	37.88
Whiting	0.10	1.78	5.28	3.72	5.06	.....	1.94	1.05	3.09	4.93	3.62	1.05	.....
Winamac	0.52	2.10	3.57	2.84	5.71	2.36	1.91	1.58	3.12	6.44	2.39	0.72	33.26
Winona Lake	0.47	1.63	3.55	2.62	4.59	4.48	2.74	1.59	2.28	3.75	.....	.....	.....
Worthington	1.34	1.50	4.87	2.18	5.09	5.57	1.68	2.77	3.16	13.94	1.93	.....	.....
Iowa.													
Afton	0.20	2.95	2.75	6.49	4.02	9.47	0.65	1.80	8.55	1.93	.....	0.36	.....
Albia	0.65	2.10	2.82	5.96	4.48	4.31	4.42	3.33	5.89	2.64	4.02	0.08	40.10
Algona	0.17	2.13	0.99	6.24	2.97	5.00	0.81	1.88	3.19	1.73	2.69	0.28	28.08
Allerton	0.47	1.78	3.18	5.33	3.18	.....	3.60	1.62	.....	.....	.....	.....	.....
Allison	0.55	3.01	1.82	4.36	2.16	4.50	0.39	1.80	2.94	3.56	3.49	0.55	29.13
Alta	0.10	2.35	1.39	3.90	1.51	12.25	2.17	2.12	2.28	1.14	2.79	0.44	32.44
Alta (near)	0.21	1.91	1.13	3.78	1.99	11.63	3.58	2.10	2.39	1.08	2.66	0.28	32.74
Alton	0.25	1.43	1.34	3.46	2.31	4.89	4.45	2.40	2.81	1.27	3.39	0.40	28.40
Ames	0.11	.....	1.95	6.35	2.34	2.68	1.01	3.65	7.70	3.84	3.46	0.48	.....
Atlantic	0.18	2.46	2.43	5.86	1.73	6.34	1.92	2.18	4.85	2.44	3.36	1.13	34.88
Audubon	.....	.....	.....	6.99	2.54	6.40	.....	.....	.....	.....	.....	.....	.....
Baxter	0.18	1.86	2.79	4.49	2.29	4.93	1.81	2.73	6.79	1.97	3.46	0.53	33.83
Bedford	0.15	2.72	2.94	5.20	4.61	6.14	2.60	2.59	7.15	2.69	4.35	0.86	42.00
Belle Plaine	0.32	2.90	3.37	5.70	3.97	5.56	2.82	3.23	6.18	3.35	4.19	0.57	41.88
Belmond	0.56	3.03	1.26	6.81	3.17	6.80	1.81	1.70	5.51	2.50	3.44	0.81	37.40
Bloomfield	0.10	3.04	2.56	3.49	6.67	3.45	2.52	4.31	5.21	2.25	3.56	0.74	37.92
Bonaparte	0.50	1.32	1.58	3.33	5.73	2.72	3.04	1.92	4.45	2.40	3.45	0.16	30.60
Boone	0.16	2.53	2.42	6.89	1.57	4.48	2.25	3.77	8.64	3.74	3.32	0.31	39.08
Britt	0.24	1.67	1.05	5.48	2.80	5.15	1.42	2.04	2.06	2.12	2.56	0.29	26.88
Burlington	0.40	2.49	2.03	2.55	4.01	4.34	1.61	3.05	4.52	2.35	3.42	0.20	30.37
Carroll	0.25	2.25	1.49	4.37	6.96	5.54	2.79	2.77	5.45	3.56	2.77	0.35	32.48
Cedar Rapids	0.22	2.13	1.59	4.93	3.90	3.47	1.55	5.38	3.35	3.20	2.89	0.80	33.41
Centerville	0.05	1.65	4.11	5.24	7.02	3.31	4.00	3.15	5.50	2.07	2.84	0.60	39.54
Chariton	T.	2.20	3.28	5.78	4.02	5.41	4.98	2.53	6.92	1.98	3.28	0.28	40.64
Charles City	0.22	2.56	2.48	3.29	2.72	6.05	4.47	1.90	3.94	3.56	3.78	0.47	35.11
Clarinda	0.51	3.00	3.63	5.89	2.67	6.55	2.27	1.57	7.87	2.58	3.98	0.58	41.10
Clinton	0.25	2.34	3.70	2.99	5.72	2.84	2.12	2.18	6.71	7.74	2.42	0.81	39.62
Columbus Junction	0.08	2.29	3.18	3.35	5.32	3.73	1.82	2.56	5.69	4.98	2.57	0.58	36.05
Corning	0.20	2.40	3.48	6.55	4.10	5.62	2.77	2.14	11.82	2.92	3.93	0.50	46.43
Corydon	0.09	2.27	3.17	6.07	4.89	8.98	6.08	2.60	6.44	3.09	3.39	0.22	47.29
Creston	0.42	2.47	3.44	7.89	8.33	9.45	2.67	2.30	8.87	1.75	4.47	1.10	48.16
Cumberland	0.30	2.00	1.98	9.00	3.50	4.37	1.99	1.42	4.29	2.30	2.54	0.70	34.39
Davenport	0.07	2.20	3.98	3.60	4.85	3.90	2.56	3.58	7.23	5.32	2.70	0.58	40.57
Decorah	0.10	1.47	2.00	2.97	2.60	7.24	3.53	2.29	6.75	3.96	3.11	0.85	36.87
Delaware	0.02	2.28	2.35	5.07	2.02	6.79	2.98	2.80	5.15	8.65	.....	.....	.....
Dennison	0.08	.....	1.90	3.27	2.28	6.14	4.36	1.15	4.46	4.31	2.69	0.14	.....
Des Moines	0.08	3.00	3.67	5.30	2.96	7.36	2.68	2.19	7.47	2.20	3.84	0.93	41.68
Dubuque	0.17	2.87	2.24	4.47	2.79	6.24	7.82	1.58	5.35	6.22	3.59	0.63	43.97
Earlham	0.57	2.82	3.10	5.78	2.15	5.24	1.68	1.88	4.74	1.48	4.39	1.55	35.38
Elkader	.....	.....	.....	3.95	2.54	6.33	4.10	2.74	4.42	3.48	3.91	0.83	.....
Estherville	0.15	2.10	1.10	3.73	1.90	9.07	6.81	3.30	4.64	0.85	2.23	0.23	36.11
Fairfield	0.01	2.92	2.79	4.40	4.15	3.26	0.94	2.72	6.11	4.46	3.55	0.32	35.63
Fayette	0.60	2.66	2.92	3.27	1.90	6.21	2.22	3.04	4.21	4.37	4.95	0.85	37.20
Forest City	0.55	2.80	1.22	5.67	1.73	5.74	2.24	2.06	1.49	2.30	3.15	0.36	29.31
Fort Dodge	0.35	2.58	2.46	4.76	0.73	6.73	3.38	4.38	3.15	3.20	2.80	0.39	34.91
Glenwood	0.30	3.37	1.87	5.91	2.55	6.13	1.53	3.67	7.89	3.91	3.75	1.10	41.98
Greenfield	0.40	1.50	2.68	8.26	3.86	7.52	.....	.....	.....	.....	.....	.....	.....
Grinnell	0.30	2.48	.....	.....	2.81	4.52	1.56	4.33	11.82	2.88	3.71	0.68	.....
Grundy Center	0.40	2.39	2.97	5.10	1.76	5.56	0.64	1.82	6.52	6.84	2.40	0.35	36.75
Guthrie Center	0.02	2.92	2.61	6.04	2.69	8.55	3.42	1.42	9.44	4.53	3.26	0.63	45.53
Harlan	0.43	2.80	1.93	5.90	1.93	6.12	4.25	1.38	5.12	3.19	3.70	0.60	37.25

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Iowa—Continued.													
Humboldt	0.04	2.42	0.97	3.45	1.74	6.65	1.32	2.56	3.26	2.35	3.29	0.28	28.33
Independence	0.45	1.88	2.47	4.94	1.89	4.83	0.46	2.68	5.09	7.27	3.93	0.59	36.48
Indianola	0.13	1.75	3.70	5.32	4.07	8.88	4.85	0.70	7.55	1.20	6.22	0.85	45.22
Inwood	0.35	1.47	1.34	3.18	1.81	8.48	4.83	0.99	2.76	1.59	2.54	0.27	29.61
Iowa City	0.08	2.63	2.65	4.28	4.49	7.07	1.03	2.67	5.10	4.01	3.84	0.61	38.46
Iowa Falls	0.66	2.85	2.27	4.20	1.76	9.09	0.56	1.61	4.35	2.86	3.72	0.68	34.61
Jefferson	0.23	2.02	1.81	5.72	1.13	4.89	2.64	2.72	7.51	2.28	3.52	0.80	35.27
Keokuk	0.01	1.57	1.49	1.94	4.24	2.38	2.47	3.85	4.69	1.68	2.53	0.18	27.03
Keosauqua	0.02	1.66	1.89	3.12	5.38	1.82	0.84	3.41	3.98	2.93	3.80	0.30	29.15
Knoxville	0.23	3.43	3.84	6.27	3.12	3.64	2.76	4.03	8.74	2.92	4.36	0.68	44.02
Lacona	0.50	1.73	5.40	6.90	3.75	6.35	2.80	1.77	6.45	3.31	2.75	0.85	42.56
Lamoni	0.07	2.69	4.14	4.87	4.68	9.11	4.98	1.93	3.21	3.07	3.56	0.28	44.59
Lansing	0.56	1.09	1.72	3.44	4.27	6.35	2.37	2.32	5.55	4.13	3.57	.....	.....
Le Claire	0.29	1.99	4.61	3.39	4.70	6.55	1.39	4.06	7.07	6.89	3.06	0.63	44.63
Le Mars	0.17	1.95	1.16	.....	.....	.....	7.38	1.75	2.30	2.81	3.64	0.92	.....
Lenox	0.12	2.33	3.12	6.58	3.90	4.96	2.76	2.07	10.87	2.46	3.81	0.64	43.62
Little Sioux	0.20	2.62	1.04	4.55	2.08	5.61	1.92	2.56	3.40	1.91	2.72	0.54	29.15
Logan	0.20	2.11	1.23	4.62	2.87	7.34	1.57	1.09	2.91	2.00	2.72	0.53	29.19
Maquoketa	0.01	2.24	2.50	3.84	7.14	4.16	1.96	5.72	6.29	4.91	3.64	0.78	43.19
Marshalltown	0.24	1.61	2.00	6.05	2.33	5.35	2.58	3.93	5.98	5.43	3.42	0.46	39.38
Mason City	0.30	2.17	1.32	5.24	2.47	8.07	3.36	1.95	1.85	2.63	3.50	0.28	33.14
Milford (near)	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.83	2.89	0.35	.....
Monroe	0.14	2.38	2.93	5.78	3.03	5.52	3.77	3.45	7.20	2.20	4.73	0.94	42.07
Montezuma	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.52	2.51	.....	.....
Mount Ayr	0.25	2.39	3.63	5.87	4.28	6.65	2.52	1.68	5.56	1.47	3.51	0.30	38.11
Mount Pleasant	T.	2.00	2.29	3.46	5.43	2.81	4.91	3.40	4.47	2.32	4.08	0.25	35.42
Murray	0.16	2.34	3.44	5.49	3.71	7.20	1.53	2.10	6.00	1.47	3.73	0.51	37.68
Muscatine	0.34	2.29	4.18	3.71	5.26	2.86	1.05	3.87	7.39	3.89	3.43	0.53	38.80
New Hampton	0.42	2.62	3.03	3.99	2.16	7.91	1.99	1.78	4.40	3.89	3.13	0.45	35.77
Nora Springs	0.86	4.12	2.12	5.52	3.16	8.75	3.31	2.43	3.68	3.16	3.86	0.31	41.28
Northboro	.....	.....	3.72	5.43	1.61	4.88	2.81	.....	7.45	.....	.....	.....	.....
Northwood	0.30	2.75	2.00	5.40	2.52	5.68	4.40	2.74	4.40	.....	.....	0.35	.....
Oakland	0.56	2.39	1.56	5.13	1.48	7.63	0.87	2.07	5.70	3.79	3.29	1.05	35.52
Olin	T.	3.20	2.25	5.25	6.95	6.70	2.40	5.17	4.80	6.00	4.18	0.40	47.30
Onawa	0.30	2.51	0.91	4.83	2.66	6.52	2.71	1.81	3.92	2.50	3.25	0.39	32.31
Oskaloosa	0.12	3.09	4.69	6.10	3.69	4.95	5.22	2.69	6.76	4.82	5.27	0.73	48.13
Ottumwa	.....	3.31	2.53	4.70	3.96	4.27	3.58	3.23	7.70	2.52	3.95	0.62	.....
Pella	0.07	1.52	2.01	4.88	3.13	4.10	2.20	2.47	7.07	2.57	2.87	0.55	33.44
Perry	0.13	2.41	2.44	6.87	1.67	6.97	2.17	3.66	8.16	4.03	3.67	1.03	43.21
Pocahontas	0.15	2.39	1.31	3.55	1.95	5.72	2.07	4.76	3.51	1.53	2.31	0.35	29.60
Postville	0.66	2.06	2.32	4.03	2.58	6.40	3.17	2.59	3.43	4.07	3.05	0.67	35.03
Rock Rapids	0.22	1.84	1.94	3.91	2.95	7.12	4.32	1.44	3.83	1.81	2.49	0.31	32.18
Rockwell City	0.19	2.37	0.68	3.80	1.62	7.08	.....	3.78	3.49	2.35	2.77	0.60	.....
Sac City	0.25	2.85	1.20	3.20	2.28	10.86	2.47	2.28	4.16	2.02	2.51	0.56	34.64
Sanborn	0.17	3.15	1.59	4.65	2.64	6.83	4.13	3.05	4.38	1.31	2.94	0.15	34.99
Shenandoah	0.10	2.42	2.58	3.65	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sibley	0.61	2.88	1.17	4.84	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sigourney	0.14	2.36	3.14	4.64	2.97	3.46	3.36	1.48	6.38	3.21	3.63	0.75	35.52
Sioux Center	0.40	2.25	1.16	3.61	3.12	4.59	5.43	0.97	2.94	0.45	5.08	0.35	30.35
Sioux City	0.26	2.91	1.14	3.02	2.52	6.06	4.16	1.91	2.56	1.12	3.15	0.40	29.21
Spencer	.....	.....	0.81	4.61	3.47	6.36	4.17	2.06	4.09	1.28	2.90	0.40	.....
Stockport	T.	1.64	2.20	3.27	5.70	2.60	3.16	2.76	4.27	3.49	3.60	0.25	32.94
Storm Lake	0.08	2.33	1.14	4.05	2.10	11.97	2.40	1.74	2.31	1.22	1.97	0.41	31.72
Thurman	0.15	3.26	2.77	5.01	2.66	3.72	0.62	2.13	8.04	3.12	4.94	0.70	37.12
Tipton	T.	3.10	3.09	4.56	4.16	4.28	3.98	1.82	5.39	6.60	3.08	0.75	40.81
Toledo	0.25	2.10	3.04	6.46	3.74	11.49	0.82	2.22	6.30	4.00	3.88	0.48	44.78
Van Meter (near)	.....	.....	.....	.....	.....	.....	.....	3.44	6.84	2.09	3.75	.....	.....
Washington	0.06	2.49	3.92	1.58	4.04	4.97	4.23	1.92	6.01	4.30	3.64	0.42	40.58
Washta	0.05	2.60	0.96	4.08	2.79	0.30	6.84	3.39	2.83	1.37	5.10	0.45	39.76
Waterloo	0.45	2.48	2.30	4.85	2.02	5.92	1.45	1.67	6.84	4.85	3.02	0.41	36.26
Waukee	0.10	3.11	3.21	6.31	2.41	6.04	2.82	4.38	7.77	2.29	3.99	0.95	43.38
Waverly	0.49	2.30	2.46	4.13	2.01	5.59	1.20	3.69	3.92	5.31	3.10	1.00	35.20
Webster City	0.60	3.89	2.02	5.35	1.88	5.05	2.00	3.60	3.77	2.76	4.03	0.60	35.55
West Bend	0.28	2.31	1.23	4.93	2.79	5.80	1.69	1.85	3.15	1.52	2.06	0.37	27.98
Whitten	0.60	2.24	2.90	4.04	1.48	.....	2.35	2.94	.....	5.96	2.80	0.72	.....
Williamsburg	0.02	2.48	2.58	4.56	4.28	4.83	2.32	3.96	7.30	2.75	4.50	0.49	40.07
Winterset	T.	2.96	3.18	6.54	3.30	8.49	1.85	2.61	5.76	1.62	2.34	0.47	39.12
Kansas.													
Abilene	0.13	2.08	3.41	3.76	3.14	5.09	0.80	0.77	1.27	1.30	1.97	0.09	23.81
Agricultural College	0.26	1.24	5.03	3.40	3.15	4.66	1.45	1.40	2.65	0.68	2.62	0.08	26.62
Alden	0.01	3.13	2.14	6.32	3.38	3.67	0.94	1.48	1.07	0.54	1.50	0.04	24.22
Alton	T.	1.89	0.59	3.48	3.63	4.89	0.52	0.40	8.56	2.63	2.23	0.95	29.77
Anthony	0.18	2.84	2.65	3.91	3.04	5.88	0.80	1.23	0.38	2.69	1.74	T.	25.34
Arkansas City	0.25	2.19	0.39	5.31	3.73	5.05	1.86	2.26	0.07	7.48	2.30	0.12	31.01
Ashland	0.00	1.13	1.96	2.37	5.60	2.40	1.84	0.91	0.34	0.48	1.50	T.	18.53
Atchison	0.05	2.51	6.43	3.22	2.61	5.64	1.17	4.78	3.61	2.13	3.43	.....	.....
Bazaar	0.10	1.22	3.72	5.21	3.09	3.77	0.51	1.26	0.73	2.84	2.00	0.09	24.54
Beloit	T.	1.82	0.96	5.14	2.98	6.28	0.47	1.88	4.18	1.59	2.27	0.09	27.73
Bird City	0.15	1.31	0.37	0.99	1.49	4.10	5.29	0.12	1.87	1.11	1.01	0.10	17.91
Blakeman	0.00	1.25	0.82	1.80	0.72	4.21	1.58	0.09	0.23	1.58	1.32	0.20	13.75
Blue Rapids	0.04	1.19	2.42	4.56	4.46	5.65	0.29	1.80	4.24	2.41	2.23	0.20	29.49
Burlington	0.00	1.67	3.92	3.68	3.34	7.48	1.57	3.55	1.81	1.81	3.15	0.23	32.21
Burr Oak	0.01	3.33	0.55	4.38	3.90	7.59	0.25	0.47	9.02	1.53	3.05	0.40	34.48
Cawker City	T.	1.94	0.79	5.65	3.67	8.40	3.74	2.40	8.01	1.62	2.71	0.33	39.26
Centralia	0.11	1.95	4.45	4.04	2.93	6.21	2.24	.....	2.38	1.57	2.75	0.20	.....
Chanute	T.	0.55	0.60	5.39	5.58	8.49	3.97	1.34	0.61	6.13	.....	.....	.....
Chapman	0.16	2.38	7.15	4.42	2.46	4.22	0.73	.....	1.92	1.05	.....	0.17	.....
Cimarron	0.20	1.30	1.12	3.03	2.04	2.57	2.06	0.62	2.12	0.97	1.07	0.07	17.17
Clay Center	0.00	1.45	2.01	4.95	2.66	7.27	0.75	2.17	4.40	1.10	2.17	0.10	29.03
Clyde	T.	1.49	1.75	2.30	.....	8.70	0.13	.....	3.67	1.18	2.51	0.24	.....
Colby	T.	1.57	0.59	3.17	2.05	2.76	3.19	0.40	2.19	0.91	1.63	0.19	18.65
Coldwater	0.00	2.27	1.47	3.14	2.38	2.98	0.33	1.71	0.13	0.43	1.95	T.	16.79
Columbus	0.23	1.82	2.01	4.33	3.27	6.62	1.70	2.42	2.23	10.25	1.95	0.76	37.59

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Kansas—Continued.													
Concordia	0.02	2.36	0.90	4.20	5.68	6.14	0.03	1.00	3.03	1.05	1.71	0.24	26.36
Council Grove	0.15	1.69	4.17	4.89	2.49	3.48	0.19	4.25	1.14	1.30	2.17	T.	25.92
Dalton	0.37	2.12	0.93	3.97	3.47	7.12	1.00	2.27	0.18	5.47	2.01	0.03	28.94
Deerfield	0.12	1.61	1.15	4.60	1.64	0.32	4.35	0.16	3.74	1.58	1.12	0.14	20.56
Densmore	0.00	3.24	.....	3.66	3.79	3.88	2.81	3.00	5.14	1.92	2.34	0.31	.....
Dodge City	0.06	1.50	0.94	1.65	1.56	1.72	1.83	1.23	1.01	1.01	1.11	0.08	13.70
Dresden	0.00	1.93	0.41	3.86	2.00	3.09	3.88	0.30	3.00	1.21	1.29	0.27	21.24
El Dorado	0.10	1.82	2.52	3.32	5.14	2.44	0.45	2.26	0.20	2.80	1.06	T.	22.11
Elkhart	0.10	0.64	2.50	1.83	1.34	0.96	3.55	1.37	2.65	1.83	0.96	0.20	17.93
Ellinwood	0.03	4.29	1.83	5.27	3.62	6.07	1.38	2.36	2.17	0.68	1.89	0.11	29.70
Ellsworth	0.14	3.11	1.21	4.89	3.44	5.34	0.25	0.22	1.43	1.24	1.89	0.12	23.28
Emmett	0.05	1.28	3.74	5.40	3.57	5.20	0.91	1.47	3.12	1.75	2.01	0.15	28.65
Emporia	0.00	1.11	1.17	4.01	3.76	4.97	1.47	0.57	4.92	1.90	1.83	0.00	22.71
Eskridge	0.15	2.17	4.56	5.89	2.65	6.33	0.10	2.24	1.55	2.47	3.45	0.27	31.83
Eureka	0.00	1.19	1.18	3.53	4.40	2.63	1.94	1.05	2.40	2.65	.....	.....	.....
Fort Riley	0.00	.....	2.75	4.03	3.46	5.57	0.69	2.22	2.96	0.72	1.87	0.19	.....
Fort Scott	T.	1.09	1.48	4.59	4.98	8.27	2.52	3.29	1.53	7.71	1.61	1.09	38.16
Fredonia	0.12	1.12	0.81	3.90	4.69	3.47	3.66	3.85	0.80	5.73	2.36	0.27	30.78
Garden City	0.10	1.75	1.45	4.52	1.32	1.14	3.19	0.54	1.23	1.23	1.28	0.27	21.02
Garnett	0.00	1.13	1.52	3.24	5.69	4.76	1.77	3.56	0.75	2.23	2.71	0.59	29.96
Goodland	0.07	0.92	0.50	.....	.....	.....	.....	.....	.....	0.56	1.41	0.12	.....
Grove	T.	1.69	0.50	4.43	1.47	2.12	1.00	0.70	5.30	0.87	1.69	0.18	19.95
Greensburg	0.00	1.78	1.45	2.58	2.71	4.29	1.19	0.61	0.25	0.43	1.52	0.05	16.86
Grenola	0.23	1.85	0.88	5.53	4.64	4.87	5.58	2.50	0.49	5.37	2.57	0.19	34.70
Hanover	0.17	2.02	1.79	3.82	3.67	5.42	0.12	1.48	5.72	1.36	2.54	0.30	31.41
Hays	T.	2.18	0.33	4.51	6.85	3.51	1.16	0.77	3.32	1.81	1.54	0.15	26.13
Healy	0.00	1.29	0.68	4.09	2.90	4.39	3.85	0.36	8.91	0.67	1.07	0.16	28.37
Herington	0.05	2.13	4.42	4.74	1.96	.....	.....	0.83	1.26	1.26	2.14	0.10	.....
Hill City	0.00	3.19	0.46	4.35	1.65	4.81	2.54	2.22	7.57	1.12	1.81	0.21	29.93
Holton	0.20	3.51	3.31	5.59	5.89	4.39	1.22	4.74	2.67	1.30	2.55	0.23	35.60
Horton	0.13	1.83	2.81	4.49	3.50	4.75	1.09	3.38	2.91	1.48	3.24	0.34	29.95
Howard	T.	1.10	1.40	4.70	4.86	4.22	2.55	4.45	1.05	6.30	2.80	T.	33.43
Hoxie	T.	2.52	0.65	3.76	4.06	3.51	1.88	0.03	5.43	1.49	1.43	0.56	25.32
Hugoton	0.00	0.60	.....	.....	.....	.....	3.00	1.16	2.40	2.87	0.74	0.16	.....
Hutchinson	0.01	1.95	3.75	4.45	2.84	4.46	1.30	0.60	0.91	1.15	2.75	0.50	24.67
Independence	0.34	1.63	1.02	4.09	3.74	4.00	5.42	4.50	0.82	7.50	2.62	0.47	36.15
Iola	0.02	0.95	1.06	4.37	4.15	4.21	2.21	2.22	1.02	5.33	2.12	0.19	27.85
Irene	0.20	1.80	2.19	2.14	0.76	0.66	3.09	.....	6.04	2.34	1.20	0.38	.....
Jetmore	0.60	1.59	1.70	3.13	1.34	2.55	2.45	0.23	1.55	1.07	1.57	0.04	17.22
Johnson	0.02	0.86	3.69	0.89	1.60	0.85	2.08	1.33	3.53	1.57	0.85	0.12	17.39
Kismet (near)	T.	0.98	1.16	1.44	1.57	1.87	3.35	1.82	3.30	1.61	0.48	0.15	17.73
La Crosse	T.	2.28	1.64	3.97	2.63	2.44	2.47	1.77	.....	.....	.....	.....	.....
Lakin	0.09	1.23	1.23	1.35	1.16	0.78	2.23	0.34	3.24	1.41	1.23	0.13	14.42
Larned	0.00	2.78	1.09	5.00	0.97	4.07	1.51	1.05	1.00	0.56	1.75	0.10	19.88
Lawrence	0.10	2.61	1.26	4.57	3.48	4.51	1.97	3.26	2.64	2.54	2.47	.....	.....
Leavenworth	0.05	1.90	2.13	6.60	3.75	6.59	2.25	5.57	3.98	1.51	2.44	0.30	37.07
Lebo	0.10	1.52	1.63	3.46	2.71	4.60	1.71	1.15	0.81	1.89	2.57	0.10	22.25
Leoti	0.15	1.53	1.14	3.15	1.35	1.70	2.16	0.70	5.52	1.46	1.15	0.35	20.36
Le Roy	0.48	0.94	1.43	4.31	3.87	3.44	1.52	5.04	.....	3.04	2.78	0.16	.....
Liberal	T.	1.50	1.35	0.51	1.63	1.08	5.44	1.05	1.51	1.46	0.65	0.02	16.23
Lincoln	0.05	2.71	1.34	5.21	3.48	5.12	0.18	1.14	1.65	0.66	1.92	0.15	23.61
Lindsborg	0.20	1.85	3.81	5.11	3.18	5.02	1.70	0.26	1.65	1.82	2.10	0.08	26.78
McCracken	0.00	.....	.....	.....	.....	3.47	1.77	3.11	2.24	1.52	1.54	.....	.....
McFarland	.....	.....	.....	5.05	2.19	7.50	.....	.....	.....	.....	.....	.....	.....
McPherson	0.30	3.58	4.16	6.58	4.90	5.11	0.48	1.58	1.69	0.80	2.18	0.10	31.46
Macksville	0.00	3.64	1.42	3.94	2.40	3.72	1.31	2.83	1.63	0.49	2.43	0.07	23.88
Madison	T.	1.30	2.15	3.85	3.68	4.84	0.90	0.93	1.13	.....	.....	.....	.....
Manhattan	0.05	1.38	4.97	3.06	3.13	4.91	1.17	1.89	2.33	0.70	3.23	0.13	26.95
Marion	0.06	2.04	3.15	5.99	2.61	8.74	0.26	0.54	4.50	0.66	2.45	0.05	31.05
Medicine Lodge	0.03	1.92	1.85	3.71	2.83	8.73	0.43	0.98	0.83	0.87	1.76	0.04	23.98
Medora	0.30	2.34	3.40	4.58	3.61	4.59	1.56	0.54	0.74	1.40	2.22	0.25	25.53
Minneapolis	T.	1.93	1.24	4.47	3.06	6.39	0.57	2.67	2.35	1.46	1.80	0.01	25.95
Minneola	0.02	1.34	1.37	1.77	2.35	2.63	1.92	1.92	0.48	0.78	1.67	0.15	16.40
Mount Hope	0.00	2.52	2.53	4.79	3.08	4.69	2.01	1.53	0.16	0.85	2.59	T.	24.75
Neosho Rapids	0.30	1.10	1.48	3.42	2.64	7.55	1.65	1.29	0.97	2.15	2.64	0.08	25.27
Newton	0.02	1.18	2.63	4.05	3.89	4.30	1.06	0.91	0.28	0.84	2.24	0.07	21.56
Ness City	.....	.....	.....	.....	.....	.....	.....	.....	1.80	0.93	1.36	0.05	.....
New Ulysses	T.	0.54	1.82	1.45	1.18	1.77	6.17	0.60	2.84	1.22	0.88	T.	18.47
Norton	T.	2.92	0.96	3.90	3.74	3.55	3.68	3.26	8.82	2.35	1.95	0.10	35.23
Norwich	T.	2.22	1.65	3.57	1.93	5.77	0.92	1.44	0.32	1.37	2.10	0.17	21.46
Oberlin	T.	1.98	1.00	3.68	1.74	2.83	4.40	0.19	1.98	1.78	2.13	0.14	21.85
Oketo	0.06	1.30	1.65	5.09	3.86	6.38	0.19	1.88	6.32	1.24	2.11	0.05	30.13
Olathe	0.10	1.56	1.31	3.38	3.05	4.36	0.83	4.42	1.12	2.16	2.20	0.50	24.99
Osage City	0.04	1.85	.....	3.82	2.68	4.15	.....	1.08	2.31	1.10	2.58	0.32	.....
Oswego	0.10	1.70	1.13	4.82	4.62	6.05	1.43	3.63	0.80	8.44	2.07	0.62	35.41
Ottawa	0.24	1.67	1.37	3.10	4.03	3.82	1.47	6.08	1.98	1.32	2.56	0.56	28.20
Paola	0.12	1.75	1.97	3.42	4.47	4.90	1.96	2.87	1.70	2.11	1.99	0.15	27.41
Phillipsburg	T.	2.14	0.46	4.72	2.33	5.23	4.37	0.46	8.74	2.06	2.90	0.10	33.51
Pittsburg	.....	2.45	0.99	4.62	4.29	7.44	2.15	3.36	1.16	10.61	1.69	0.15	.....
Plains	0.00	1.45	1.37	1.25	1.82	1.80	0.85	2.10	1.30	1.00	1.05	0.20	14.19
Plainville	0.00	2.53	1.65	5.41	3.01	4.18	1.27	1.82	6.19	2.38	2.48	0.63	31.55
Pleasanton	0.14	1.71	0.63	4.31	9.20	4.30	2.40	4.79	1.31	5.49	1.65	0.43	36.36
Pratt	T.	1.90	3.03	1.92	1.75	4.48	1.71	0.94	3.20	0.85	1.35	0.60	21.73
Quenemo	0.05	2.11	1.42	3.89	3.15	7.59	1.54	1.85	.....	1.70	2.87	T.	.....
Randolph	0.04	0.93	3.38	4.15	2.93	6.70	0.99	1.89	3.13	1.30	1.89	0.07	27.40
Republic	0.00	.....	0.70	4.02	2.11	5.58	0.87	0.58	7.23	1.00	2.37	1.20	.....
Reading	.....	.....	.....	.....	.....	.....	1.24	1.31	1.79	1.74	2.82	0.17	.....
Richfield	T.	0.93	2.42	2.98	1.68	0.58	2.56	0.15	2.25	1.34	0.86	0.02	15.77
Russell	.....	.....	.....	6.11	2.92	4.51	0.05	0.70	1.71	1.42	2.72	0.07	.....
Russell Springs	0.00	1.10	0.70	5.38	.....	3.99	2.95	1.23	.....	.....	.....	.....	.....
St. Francis	T.	1.00	0.77	2.31	1.43	5.80	2.48	0.13	3.00	0.91	1.79	0.19	19.81
Salina	0.05	2.39	2.66	3.18	2.20	4.90	0.88	0.78	1.88	0.92	1.95	0.14	21.93
Scott City	0.09	1.41	0.74	5.28	0.52	4.81	3.09	0.33	5.57	1.01	1.49	0.42	24.76
Sedan	0.23	2.41	1.34	4.78	4.71	4.89	5.35	4.04	0.45	5.65	2.51	0.34	36.70
Sedgwick	0.26	1.53	2.04	3.22	3.12	4.07	0.68	1.48	0.20	0.86	2.33	0.10	19.89

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Kansas—Continued.													
Smith Center	0.00	1.81	0.40	4.27	.....	5.62	1.49	.....	7.17	2.13	.....	.....	.....
Sublette	0.08	2.15	1.58	1.77	1.32	6.22	2.88	2.09	3.13	1.08	0.59	0.11	23.60
Syracuse	0.13	1.25	2.23	2.43	1.31	0.80	2.90	0.69	5.12	1.78	.....	.....	.....
Topeka	0.06	2.13	5.73	4.09	2.68	3.93	0.18	3.06	2.50	1.13	2.19	0.07	28.05
Toronto	0.00	0.74	1.15	4.25	4.82	2.97	2.98	4.01	1.25	4.36	2.70	0.08	29.31
Tribune	0.00	0.36	1.89	2.79	1.69	1.30	2.67	0.32	2.32	1.27	0.68	0.22	15.51
Trousdale	T.	2.28	1.13	2.81	2.85	1.93	2.11	1.78	2.14	0.38	1.96	0.04	19.41
Utica	0.00	1.75	0.62	3.23	3.04	4.48	.....	.....	.....	.....	.....	.....	.....
Valley Falls	0.08	1.55	5.07	5.68	2.92	5.77	1.48	3.13	2.05	1.50	2.98	0.09	32.30
Vinland	0.20	2.05	1.27	4.33	2.29	8.56	1.71	2.29	2.21	2.42	2.42	0.11	29.86
Wakeeney	0.00	2.16	0.74	5.20	2.65	3.40	3.42	1.08	6.93	1.62	1.44	0.12	28.76
Wallace	0.00	0.74	.....	2.92	0.39	3.20	4.85	1.57	0.94	1.20	.....	.....	.....
Walnut	0.08	2.08	1.59	4.89	.....	.....	.....	.....	0.36	6.14	.....	.....	.....
Wamego	0.49	1.72	3.88	4.74	2.76	4.34	0.95	1.98	1.23	0.71	2.62	0.15	25.57
Wheaton	T.	1.60	5.17	2.99	4.38	6.18	0.73	1.97	3.43	1.14	2.76	0.02	30.37
Wichita (Weather Bureau)	T.	2.49	2.37	4.40	4.72	2.68	0.71	1.61	0.23	1.64	1.99	0.14	22.98
Wichita (evaporation station)	.....	.....	.....	3.81	3.93	4.20	1.58	2.12	0.15	1.54	.....	.....	.....
Winfield	0.30	2.47	0.70	4.37	3.65	3.58	1.00	2.22	0.20	5.90	2.17	T.	27.16
Yates Center	0.10	1.23	1.34	4.21	4.04	3.65	1.22	2.47	1.94	4.95	2.80	0.23	28.18
Kentucky.													
Alpha	7.10	2.22	3.95	2.97	5.88	4.60	.....	3.15	2.30	6.35	3.25	2.30	.....
Anchorage	2.28	1.04	6.78	3.95	5.25	3.94	2.18	3.92	2.09	7.24	6.05	5.97	50.69
Bardstown	3.56	1.79	6.75	3.78	7.02	5.05	1.25	3.85	1.28	12.46	8.14	6.29	61.22
Beatryville	4.87	1.53	3.67	2.67	4.84	4.21	2.60	3.70	1.74	8.85	7.63	5.41	51.12
Beaver Dam	2.83	1.75	4.72	3.40	5.44	2.71	0.80	2.59	1.00	7.98	8.05	2.15	43.42
Berea	.....	.....	2.43	2.04	6.90	3.41	2.39	5.73	1.13	6.02	6.38	6.90	.....
Blandville	1.68	1.74	8.02	4.12	4.20	4.79	1.36	4.32	2.13	9.47	7.44	3.84	53.41
Bowling Green	3.18	2.93	9.61	4.38	9.31	3.36	1.36	2.81	2.89	6.96	7.17	4.74	58.70
Brownsville	4.30	3.14	9.59	4.26	8.53	5.29	2.59	3.18	2.04	7.65	10.63	4.61	65.81
Burnside	7.10	2.62	4.23	3.42	4.56	2.55	3.76	3.74	1.90	9.71	7.75	5.54	56.88
Calhoun	2.40	1.62	7.93	5.55	6.39	2.68	1.07	2.78	0.75	7.87	7.60	4.32	50.96
Carrollton	2.21	0.87	5.50	4.69	3.94	3.10	1.37	1.92	1.81	7.12	6.74	4.33	43.60
Catlettsburg	3.94	0.98	2.84	2.84	6.90	3.53	1.48	3.48	1.72	5.40	6.87	5.11	45.09
Cloverport	2.56	2.57	6.19	3.34	5.84	4.34	1.60	3.63	0.86	6.28	7.07	5.19	49.47
Cynthiana	2.95	1.30	4.00	3.52	4.90	4.45	3.05	2.25	2.60	8.90	8.00	6.25	52.17
Earlington	2.39	2.32	8.16	3.80	5.60	2.40	0.65	2.87	0.56	5.79	10.39	3.46	48.39
Eubank	5.84	1.73	3.05	1.48	8.21	4.57	3.34	6.21	2.03	8.44	7.93	6.08	58.91
Falmouth	2.79	1.56	5.21	2.93	3.81	5.04	4.04	1.22	2.21	4.88	6.87	1.30	45.46
Farmers	4.84	2.16	3.33	2.82	5.21	.....	.....	3.22	1.30	6.23	9.30	4.44	.....
Frankfort	2.92	1.21	5.47	3.25	4.39	4.97	2.12	1.69	1.77	9.14	7.27	6.88	51.08
Franklin	4.32	3.03	7.75	4.12	11.62	1.48	4.67	3.46	3.65	8.99	6.01	5.68	64.78
Greensburg	5.99	2.13	4.71	3.11	7.72	3.23	0.91	2.66	1.33	6.37	7.23	4.92	50.31
Greenville	2.80	1.62	7.80	4.65	5.62	2.58	1.75	3.38	1.32	9.08	10.21	3.05	53.86
Harlan	.....	2.38	3.53	2.44	7.19	3.80	2.55	5.95	.....	8.69	5.05	4.60	.....
Henderson	1.98	1.98	6.10	3.25	5.13	3.28	0.17	2.59	1.16	7.59	5.91	3.20	42.34
High Bridge	5.35	1.63	4.37	3.14	6.62	2.21	2.35	4.21	1.23	9.15	9.10	7.54	56.90
Hopkinsville	4.22	2.42	7.89	4.78	9.72	2.89	3.38	6.22	1.87	10.47	9.03	3.53	66.42
Irvington	2.17	1.04	5.93	3.20	5.13	7.37	2.93	3.67	1.21	7.37	6.44	5.93	52.39
Jackson	5.31	1.45	3.80	2.21	5.33	2.87	0.20	2.72	2.22	7.04	6.90	5.94	46.49
Junction City	4.93	2.06	3.58	3.58	5.99	2.56	3.42	4.48	1.75	6.38	7.26	6.46	52.45
Leitchfield	2.13	1.52	5.10	5.09	11.04	2.49	1.85	2.88	0.82	10.67	9.58	5.17	58.34
Lexington	2.48	1.61	3.71	3.51	6.38	4.49	2.28	2.39	1.12	7.95	8.50	6.70	51.12
London	5.50	1.77	2.84	3.32	6.65	2.92	1.70	4.45	1.40	9.71	6.63	4.59	51.48
Louisville (Weather Bureau)	1.63	0.99	5.72	3.15	4.22	4.41	3.47	1.57	2.53	6.89	5.59	5.89	46.06
Louisville (No. 2)	2.12	1.28	6.26	4.00	4.92	6.15	2.94	2.77	2.60	5.95	6.63	6.07	51.69
Louisa	4.68	1.65	3.38	2.84	.....	.....	.....	.....	2.59	5.93	6.03	5.84	.....
Marion	2.07	1.55	7.60	3.40	5.35	2.62	0.97	4.45	0.86	7.53	7.64	4.72	48.76
Mayfield	4.13	2.20	5.67	3.64	6.09	3.65	0.84	4.94	1.77	5.59	7.91	3.43	49.77
Maysville	2.57	1.05	2.56	2.73	5.01	2.32	1.86	6.84	1.23	6.61	8.11	5.90	40.79
Middlesboro	.....	.....	.....	.....	.....	4.09	3.16	5.68	0.72	10.01	4.07	4.02	.....
Mount Sterling	3.94	2.48	4.03	3.58	6.93	4.59	2.88	4.67	2.12	8.61	.....	7.80	.....
Owensboro	1.70	1.26	6.30	3.22	4.74	6.20	1.73	3.15	0.92	7.85	6.14	4.95	48.16
Paducah (near)	2.84	1.53	8.61	4.47	5.02	5.34	1.77	6.98	1.72	9.43	6.72	4.31	58.74
Pikeville	5.12	1.84	4.54	3.27	4.03	4.06	3.42	4.20	3.01	9.34	4.34	3.80	50.97
Princeton	4.15	2.48	7.34	4.68	7.40	2.28	3.12	5.24	1.10	8.51	9.15	2.84	58.29
Richmond	3.45	2.11	.....	2.96	5.17	5.46	0.40	5.27	2.21	6.10	7.53	6.02	.....
Russellville	.....	.....	.....	.....	.....	.....	.....	.....	3.13	5.56	7.98	3.50	.....
St. John	3.42	1.61	7.98	4.44	7.51	5.58	0.66	2.17	0.76	10.62	8.21	5.94	58.90
Scott	2.29	1.46	6.41	3.42	4.66	2.78	3.16	1.55	2.14	11.13	5.15	3.95	48.10
Shelbyville	3.02	1.52	7.56	2.37	4.89	6.31	1.42	1.97	1.72	8.95	8.83	5.62	54.18
Taylorsville	2.86	1.37	7.46	4.09	5.83	4.19	2.88	2.63	1.39	10.33	8.04	6.43	57.50
Vanceburg	.....	.....	.....	.....	.....	.....	.....	.....	1.32	8.11	7.25	5.84	.....
Weeksbury	4.50	1.35	.....	.....	.....	8.04	3.17	.....	.....	.....	.....	.....	.....
Williamsburg	5.23	2.21	4.53	3.82	3.72	3.91	1.36	3.85	1.10	10.12	6.64	3.09	49.58
Williamstown	2.35	1.13	5.70	2.50	5.04	3.28	1.43	1.71	1.78	5.80	6.29	2.59	39.60
Woodbury	6.20	2.51	7.78	4.86	6.31	5.18	1.88	2.86	1.39	7.91	8.21	3.39	58.48
Louisiana.													
Abbeville	6.57	6.36	1.54	6.92	11.42	6.00	8.62	2.57	5.56	13.16	4.93	0.65	74.30
Alexandria	6.87	5.50	6.40	5.30	8.31	9.60	7.10	5.05	2.40	10.30	13.38	5.23	85.44
Amite	5.20	8.74	4.87	5.85	10.45	6.60	6.00	5.35	3.15	5.80	5.50	4.40	71.91
Angola	.....	6.28	2.10	6.00	4.47	3.39	4.51	.....	.....	3.29	.....	.....	.....
Antioch	4.75	.....	9.35	5.80	12.95	.....	.....	.....	.....	.....	.....	.....	.....
Avoca Island	6.46	4.63	5.02	5.38	6.76	9.87	7.42	7.52	4.22	3.26	6.17	1.52	68.23
Baton Rouge	8.02	9.78	4.20	5.35	6.94	5.59	7.26	2.56	2.49	6.89	5.40	3.71	68.19
Burrwood	6.85	4.66	3.18	8.12	5.45	1.88	5.78	8.52	3.94	5.88	5.98	1.07	61.31
Cades	6.87	7.49	1.48	4.51	8.26	2.70	7.24	5.59	3.35	11.89	3.99	4.03	67.40
Calhoun	3.88	2.05	4.60	3.60	8.85	5.16	0.43	6.59	0.76	13.17	6.92	3.53	59.63
Cheneyville	6.23	5.04	4.10	8.49	7.97	5.79	7.15	3.65	3.17	11.11	8.42	7.65	78.77
Cinclare	8.18	9.87	4.53	7.29	6.12	9.54	5.61	3.17	3.32	7.40	5.48	4.19	74.68
Clinton	7.11	8.85	3.59	5.56	11.50	7.34	4.50	7.56	0.78	4.60	5.38	6.38	73.15
Covington	7.43	7.36	5.55	8.50	10.16	9.29	8.16	3.05	2.18	10.02	9.14	2.89	83.73
De Ridder	6.52	4.16	9.02	.....	9.07	.....	.....	.....	.....	.....	.....	.....	.....
Dodson	4.90	2.30	5.66	3.46	6.50	1.54	3.34	2.45	1.95	8.16	5.43	2.89	48.58

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Louisiana—Continued.													
Donaldsonville	7.26	5.99	5.59	6.92	8.26	4.96	4.95	3.64	2.17	6.00	9.39	2.61	67.74
Dutchtown	7.78	5.90	6.45	9.23	7.77	5.08	4.45	.....	3.42	7.25	.....	4.10	.....
Farmerville	3.68	3.89	7.71	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Franklin	7.45	5.20	3.66	5.08	9.74	3.95	8.06	6.05	2.56	12.04	4.04	1.00	68.83
Franklinton	5.30	10.40	4.30	6.70	8.35	7.45	3.55	4.25	1.05	4.10	6.65	5.35	67.45
Grand Cane	.....	5.25	5.42	2.18	8.83	5.86	4.46	3.75	1.90	9.35	5.01	2.03	.....
Grand Coteau	.....	6.22	1.93	3.40	10.55	3.22	6.16	.....	.....	.....	1.80	.....	.....
Hammond	.....	6.40	6.80	5.65	9.45	3.80	4.60	2.60	0.85	7.05	6.70	2.20	.....
Houma	5.77	4.19	.....	.....	.....	.....	.....	.....	.....	8.46	17.53	.....	.....
Jeanerette	6.71	5.66	2.21	6.24	8.30	5.94	12.41	5.65	3.40	9.09	6.45	1.55	73.61
Jennings	6.42	7.05	1.92	2.41	6.83	6.80	4.95	4.59	1.54	9.18	5.74	0.94	58.37
Kelly (near)	4.33	4.53	4.02	3.22	5.10	6.06	4.42	5.26	1.32	9.84	8.47	3.32	61.89
Lafayette	7.31	7.21	2.34	4.14	6.50	5.94	7.89	3.69	6.72	6.90	5.97	3.70	69.31
Lake Charles	6.31	5.27	3.61	1.19	7.47	11.35	8.22	9.39	1.18	15.79	5.00	2.10	79.88
Lakeside	6.98	6.58	.....	6.69	9.07	8.89	5.49	7.22	3.50	15.40	10.10	2.75	.....
La Rose (near)	.....	.....	.....	.....	.....	2.28	.....	.....	.....	2.00	.....	.....	.....
Lawrence	4.68	6.38	1.59	7.04	11.77	6.12	7.08	8.26	7.62	3.00	7.00	.....	.....
Liberty Hill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logansport	4.30	3.95	4.05	1.89	4.66	.....	.....	2.10	1.77	9.72	.....	1.52	.....
Melville	6.55	6.75	2.00	4.30	7.00	4.80	3.65	1.05	.....	5.25	3.70	3.10	.....
Merryville	8.12	.....	6.35	.....	11.21	12.02	.....	4.40	2.22	10.04	5.57	2.52	.....
Minden	6.55	5.56	7.21	4.73	8.96	6.13	6.29	4.08	1.25	12.55	5.46	2.37	71.14
Monroe	5.12	4.30	7.14	4.35	7.89	8.61	2.01	4.53	0.47	13.95	7.80	4.69	70.86
Morgan City	5.73	3.77	5.61	4.59	6.66	6.11	10.80	7.36	2.59	2.31	4.76	1.16	61.45
Napoleonville	8.80	5.45	6.09	.....	7.13	8.60	9.87	6.63	.....	.....	.....	.....	.....
Newellton	5.89	3.97	5.10	4.80	4.71	7.41	4.47	4.51	1.51	7.36	8.16	4.90	62.79
New Iberia	7.99	6.61	1.80	6.69	9.65	5.35	5.90	6.43	3.72	11.85	6.15	2.45	74.59
New Orleans (Weather Bureau)	8.03	6.52	3.22	7.88	7.02	4.50	7.62	7.38	2.93	4.21	7.29	0.83	67.43
New Orleans (No. 2)	6.88	6.54	3.87	7.60	9.13	6.63	8.60	5.50	3.41	4.66	9.94	1.38	74.14
New Orleans (No. 3)	5.49	3.62	3.05	6.23	7.55	5.71	6.12	3.10	3.29	5.57	8.65	0.72	59.10
New Orleans (No. 5)	7.05	6.64	3.59	7.42	10.11	4.36	5.61	4.82	4.00	5.98	6.94	0.54	67.06
New Orleans (No. 6)	7.55	6.44	3.17	7.75	6.99	4.93	7.87	7.07	3.17	4.67	7.71	0.89	68.21
New Orleans (No. 7)	6.16	5.43	2.93	6.91	6.89	5.68	5.80	4.97	2.34	7.78	6.67	1.08	62.64
New Orleans (No. 8)	7.36	6.35	2.98	7.61	6.72	4.65	8.04	7.26	3.22	6.34	7.30	0.92	68.75
Opelousas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paradis	6.85	5.02	3.87	7.32	7.45	13.74	7.67	3.02	0.81	2.10	10.10	0.30	68.25
Pearl River	7.74	6.68	4.09	6.95	11.20	6.84	4.29	4.75	1.80	9.05	7.86	1.90	73.13
Plain Dealing	3.30	4.00	3.92	5.68	4.24	6.53	1.99	9.62	1.77	14.80	3.89	2.88	62.62
Rayne	7.70	8.57	2.06	5.50	9.89	4.97	7.46	6.80	2.30	11.40	6.20	2.10	74.95
Reserve	6.85	6.09	4.55	4.99	10.30	7.15	9.15	6.75	5.15	7.45	9.50	1.10	78.85
Richland Plantation	6.08	5.21	5.34	5.90	7.15	8.69	4.98	5.60	2.00	12.21	10.80	7.27	82.13
Robeline	4.04	3.67	4.06	1.84	4.85	5.01	4.20	3.80	1.97	6.95	4.45	3.10	47.94
Ruston	3.19	3.43	6.33	2.82	9.68	9.58	0.90	4.17	0.81	7.91	7.62	2.66	59.10
St. Francisville	8.32	.....	.....	.....	10.96	4.93	7.48	5.62	0.44	6.23	5.11	5.09	.....
Schriever	8.10	5.70	5.10	7.40	6.20	10.00	5.20	6.90	4.50	3.70	13.80	2.00	78.60
Shreveport	3.28	3.46	3.14	3.93	5.78	5.53	0.70	3.85	2.16	11.75	4.68	2.08	50.34
Simmesport	.....	.....	.....	7.24	7.92	.....	4.69	.....	.....	.....	7.35	3.67	.....
Stables	7.09	4.80	10.07	3.94	11.29	9.32	8.74	3.46	.....	.....	.....	.....	.....
Ten Mile	5.74	4.32	7.31	8.06	7.50	.....	9.17	4.24	1.41	10.12	6.05	6.43	.....
Maine.													
Bar Harbor	4.54	3.13	6.63	4.94	[5.60]	1.82	3.61	4.92	6.95	3.85	6.05	3.30	55.34
Cornish	3.51	1.86	5.29	2.84	5.48	1.70	3.19	2.21	4.28	3.54	6.88	1.89	42.67
Eastport	3.06	1.88	2.67	2.15	3.98	1.25	2.82	2.98	3.85	3.36	4.10	3.02	35.10
Farmington	2.62	1.51	5.79	2.57	5.77	3.10	2.49	2.57	5.08	4.15	5.43	1.49	42.57
Gardiner	3.99	1.61	4.90	2.37	3.92	2.07	1.84	1.92	5.06	5.42	4.00	1.85	38.95
Greenville	2.85	2.27	4.03	2.96	4.76	2.25	5.82	3.77	3.71	4.13	3.58	1.81	41.94
Houlton	2.00	1.25	2.02	2.75	3.26	1.87	1.57	0.46	4.48	2.05	2.94	1.63	26.28
Lewiston	3.59	1.80	4.71	2.38	4.78	0.93	2.85	1.94	4.65	4.34	5.89	1.97	39.83
Madison	2.09	1.80	4.56	3.10	4.97	1.82	3.05	2.06	3.47	4.05	3.90	1.38	36.25
Millinocket	3.06	2.68	4.59	3.74	4.07	2.60	4.01	3.47	3.32	4.24	5.09	1.95	43.82
North Bridgeton	3.70	1.80	5.12	2.05	5.24	1.61	4.03	2.25	4.52	4.29	5.19	1.49	41.29
Orono	3.45	1.10	2.92	2.29	3.08	1.44	4.07	0.92	3.07	2.31	2.61	1.42	28.68
Patten	2.40	2.50	3.40	3.30	6.80	1.20	.....	.....	.....	.....	.....	.....	.....
Portland	4.69	2.34	4.02	2.20	5.16	1.71	1.62	1.85	3.68	3.49	4.71	1.78	37.25
Presque Isle	2.35	3.02	2.94	[3.40]	3.32	1.26	3.80	1.75	4.56	2.92	2.17	1.10	32.59
Rumford	2.72	1.50	5.10	1.99	3.94	1.74	1.42	2.41	3.98	5.57	4.19	1.24	35.80
Van Buren	3.03	2.63	2.88	2.00	2.55	3.08	.....	.....	.....	.....	2.68	2.25	.....
Winslow	3.36	1.42	3.93	2.27	4.15	1.93	2.80	1.79	4.41	4.18	3.63	1.23	35.10
Maryland.													
Aberdeen	.....	.....	.....	.....	.....	4.27	9.45	7.93	1.89	2.59	3.62	3.32	.....
Annapolis	4.11	2.38	3.48	4.69	6.30	.....	6.87	5.33	.....	.....	.....	.....	.....
Bachmans Valley	.....	.....	.....	4.55	5.31	4.05	7.07	1.82	.....	.....	.....	.....	.....
Baltimore (Weather Bureau)	3.51	2.62	4.22	4.05	5.46	2.69	7.21	6.45	2.31	2.50	3.10	3.11	47.23
Baltimore (Lake Montebello)	.....	.....	4.14	4.02	.....	2.63	8.97	5.25	2.21	2.64	3.90	2.90	.....
Baltimore (Sledds Point)	3.52	2.25	4.14	4.10	5.71	2.81	8.82	4.32	2.11	2.74	3.19	3.22	46.93
Cambridge	4.28	2.71	3.84	4.01	6.17	2.02	6.32	7.74	2.12	4.07	4.48	2.84	50.60
Cecilton	.....	.....	.....	.....	.....	.....	.....	.....	1.66	2.44	3.51	3.96	.....
Cheltenham	4.02	2.44	3.84	4.10	7.64	2.23	7.02	2.95	1.88	3.09	3.32	2.84	45.37
Chewsville	2.97	2.02	3.37	2.08	4.77	3.51	6.61	2.99	3.35	3.47	3.77	2.01	40.92
Coleman	4.48	2.72	4.84	4.19	6.46	3.80	11.24	6.94	2.29	2.47	4.08	3.93	57.44
College Park	3.93	2.46	4.07	3.50	5.82	2.48	7.32	3.69	2.68	2.75	2.58	3.46	44.74
Crisfield	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.95	.....
Cumberland	1.72	1.61	2.91	1.47	4.84	3.76	5.26	4.53	1.77	2.56	2.20	2.28	34.91
Darlington	3.89	2.82	5.09	2.90	4.47	3.79	8.55	5.66	3.05	2.26	3.36	2.97	48.81
Denton	3.26	2.06	3.09	4.22	6.30	2.69	9.05	12.99	2.74	3.55	3.68	3.28	57.41
Easton	3.13	1.97	3.73	3.99	6.41	2.81	9.03	9.90	2.92	3.33	4.33	3.51	55.06
Eklo	3.51	3.22	4.60	2.63	4.02	3.29	7.21	7.67	2.14	.....	.....	.....	.....
Emmitsburg	2.89	2.88	4.78	2.79	5.99	4.92	7.64	2.09	3.42	3.50	4.71	1.94	47.55
Fairview	3.28	2.31	3.65	1.95	5.49	4.66	5.73	4.42	1.86	3.32	3.49	1.47	41.63
Fallston	3.75	2.44	4.89	3.54	5.40	3.28	7.65	10.35	1.86	2.55	3.43	3.33	52.47
Ferry Landing	4.08	2.43	4.08	4.54	7.84	2.53	10.46	7.34	2.85	4.46	3.90	2.91	57.42
Frederick	3.30	2.77	4.23	2.96	4.41	5.47	6.54	1.66	3.10	3.06	3.77	2.15	43.42
Friendsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.30	4.72	4.34	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
***Maryland*—Continued.**													
Frostburg	1.91	2.18	2.69	1.55	4.48	4.56	6.13	4.77	2.21	3.47	3.35	2.69	39.99
Grantsville	2.42	2.48	1.79	2.13	4.68	3.59	5.96	4.72	1.86	5.26	4.45	3.48	42.82
Great Falls										3.18	2.90	3.52	
Hancock									1.74	2.92	2.77	2.20	
Keedysville	3.10	1.90	3.06	2.17	4.18	3.66	5.47	2.01	2.97	3.90	3.55	1.83	37.80
Laurel	3.49	3.15	4.33	4.04		4.42	9.59	4.11	3.61	3.70	3.04	4.08	
Oakland	2.97	2.46	3.09	2.19	4.66	4.53	5.69	3.90	3.05	6.55	3.97	4.26	47.32
Princess Anne	3.97	2.62	5.35	4.77	4.63	2.45	5.40	6.16	1.70	2.33	1.80	2.52	43.70
Public Landing	2.78	2.52	3.58	4.32	4.70	1.81	6.37	3.92	2.32	1.91	1.69	2.17	38.09
Rock Hall									2.45	3.25	3.55	3.30	
Salisbury	4.26	2.65	4.17	3.89	6.78	1.62	5.91	10.20	3.28	3.16	2.25	3.09	51.26
Solomons	3.18	2.11	3.69	2.98	4.08	2.76	7.46	4.09	2.66	1.81	2.21	2.04	39.07
State Sanatorium	3.62		3.71	2.61	6.25				4.09	4.13	4.59		
Sudlersville	3.64	2.44	4.22	4.55	5.88	2.38	10.89	9.33	2.05	2.96	3.61	3.32	55.27
Takoma	3.80	2.27	4.15	3.66	4.53	2.06	6.48	3.80	1.96	3.09	2.76	3.36	41.92
Union Bridge							7.25	3.26	4.00				
Western Port	1.45	1.40	1.87	1.30	3.33	3.77	6.45	2.56	1.54	3.31	1.67	2.04	30.69
Woodstock	3.70	2.49	3.98	3.59	4.58	3.05	6.06	4.02	1.79	3.38	3.16	2.48	42.28
Yarrow (Rockville)	3.70	2.39	3.67	3.20	5.35	3.99	7.81	4.16	2.80	2.93	2.97	3.60	46.07
Massachusetts.													
Amherst	2.02	2.80	4.22	2.37	6.20	1.09	4.17	4.80	4.45	1.81	6.20	1.48	41.61
Blue Hill	4.20	3.59	5.52	3.17	5.62	2.56	5.51	7.39	7.28	3.14	5.81	2.45	56.24
Boston	3.62	2.66	4.11	2.33	4.25	1.08	4.63	5.07	5.83	2.13	5.36	1.63	42.70
Chestnut Hill	3.16	3.89	5.04	3.09	4.99	1.51	5.08	4.75	6.96	2.55	5.13	2.00	48.15
Clinton	2.97	3.63	5.19	2.42	5.78	1.81	6.13	4.08	5.73	2.50	6.79	2.26	49.29
Concord	3.63	3.58	4.21	2.58	5.53	1.17	3.74	4.09	4.77	1.84	5.85	1.61	42.60
Fall River	5.07	3.80	5.29	3.24	4.62	1.93	5.52	7.26	7.48	2.51	3.71	2.33	52.76
Fitchburg	3.48	2.21	5.55	2.08	5.39	0.92	3.86	2.93	5.44	2.51	5.36	1.61	41.34
Framingham	3.45	3.41	4.67	2.91	4.92	1.99	4.96	3.90	5.36	2.18	6.09	1.94	45.78
Lawrence	3.44	2.55	4.59	3.68	5.61	1.97	2.67	2.60	4.49	3.19	5.71	1.60	42.10
Lowell	3.29	3.00	4.09	2.75	6.17	1.98	3.24	2.96	4.25	2.94	6.10	1.85	42.62
Nantucket	4.83	1.86	3.81	2.46	4.67	2.82	4.76	7.17	3.45	4.25	4.20	3.67	47.95
New Bedford	3.44	3.75	3.15	2.83	3.91	3.22	6.83	5.70	4.74	2.13	3.28	2.48	45.44
Plymouth	4.96	3.62						7.59	5.29	3.13	5.46	2.42	
Provincetown	4.15	3.40	2.45	3.25	4.15	1.00	4.45	3.95	3.38	2.73	3.25	2.31	38.47
Rockport	3.35	3.33	3.92	2.34	3.63	2.10	1.84	4.74	5.71	2.81	6.44	1.93	42.14
Rutland	3.48	3.54	5.87	2.46	6.66	1.31	4.84	4.62	8.58	2.42	3.58	1.92	49.28
Springfield	1.94	3.44	5.32	2.76	5.58	2.06	3.76	2.56	4.72	1.67	4.91	2.16	40.88
Turners Falls	2.25	2.58	5.37	1.82	5.85	0.96	3.08	3.44	3.29	2.39	5.72	1.83	38.58
Westboro	3.66	3.43	5.26	3.39	5.93	2.54	4.15	3.81	6.03	1.88	6.92	1.80	48.80
Williamstown	2.68	1.29	7.39	3.18	5.81	2.23	3.03	4.51	6.43	3.32	5.05	1.55	46.53
Worcester	2.99	2.05	4.87	2.03	3.86	1.61	4.72	3.49	3.89	1.96	4.87	2.06	38.40
Michigan.													
Adrian	0.70	0.98	2.84		5.41	1.83			3.36	4.16	1.78		
Albion	0.17				3.81	1.59	1.06	1.55	2.90	2.56	1.64	0.47	
Allegan (No. 1)	0.19	2.19	6.15	2.80		3.90	1.60	2.70	6.30	4.81	1.64	1.36	
Allegan (No. 2)			2.65	2.52	4.67	4.04	1.19	2.18	4.84	3.14	1.80	1.33	
Alma (No. 1)	0.73	2.38	5.02	2.37	4.50	3.44	2.23	2.09	3.74	4.11	2.48	1.06	34.15
Alma (No. 2)			3.62	1.75	4.22								
Alpena	0.63	1.85	2.65	2.03	3.49	3.78	2.13	2.53	1.55	2.73	2.63	0.72	26.72
Alpena (near)	0.63	1.74	3.20	3.30	4.58	2.12	4.28	2.98	2.11	3.49	3.52	0.92	32.87
Ann Arbor	1.40	2.90	3.50	5.40	4.17	4.34	1.53	3.06	2.67	2.94	2.95	0.51	35.37
Ann Arbor (near)	0.86	1.38	2.90	5.66	3.68	3.51	0.93	3.55	3.14	3.48	1.70		
Arbela		1.68	3.58	2.66	3.86	1.13	1.71	2.44	2.84		1.53	0.94	
Armada	1.03	1.77	2.39	4.26	2.18	1.65	2.00	1.92	3.77	3.95		0.81	
Baraga	0.45		1.12		1.22								
Battle Creek (No. 1)	0.20	1.45	1.54	4.01	3.80	2.24	1.94	2.26	3.61	3.96	2.94	0.43	28.38
Battle Creek (No. 2)						0.87	1.78		1.93	3.36		0.42	
Bay City	0.30	1.82	3.11	2.06	3.38	0.88	2.95	1.91	3.77	3.74	1.79	0.45	26.16
Benzonia	1.99	0.92	1.69	3.70	3.06	1.42	4.85	1.88	3.74	5.25	3.74	1.42	33.66
Bergland	1.55	2.39		2.88	2.32	1.93	4.42	2.60	2.41	5.31	3.14	2.25	
Big Rapids	0.54	1.61	4.61	2.31	3.52	2.23	3.64	1.32	2.11	6.12	2.28	0.59	30.88
Bloomingdale	0.60	1.07	3.23		4.85	1.71	1.33	3.18	5.07	3.46	1.00	0.64	
Bridgeport			3.07	2.36	4.42								
Cadillac	0.80	0.96	1.30	2.09	3.31	1.73	4.19	2.30	2.74	4.11	1.46	0.45	26.04
Calumet	1.44	2.32	1.51	1.85	1.86	4.24	2.10	2.28	2.35	3.29	6.33	4.24	33.81
Cassopolis	0.20	1.14	3.27	5.88	3.85	4.04	2.64	2.44	2.68	4.61	1.92	0.71	33.38
Ceresco	0.23	1.91	2.27	5.04	3.66	2.37	1.61	1.85	4.57	4.19	0.52	0.46	28.68
Charlevoix				2.73	3.98	3.02	1.75	1.80	3.56	6.38	2.04	0.78	
Charlotte	0.14	1.20	2.80	3.97	4.06	2.46	2.36	3.11	2.45	3.25	0.72		
Chatham	0.82	2.07			1.51	2.44	0.93	2.72	3.35	4.54	4.14	0.34	
Cheboygan		1.11	1.64	4.08	4.22	1.03	2.95	3.28	3.77	6.19	3.70	0.68	
Chesaning			3.60	2.75	4.34								
Coldwater	0.45	1.35	3.14	5.49	4.08	1.93	1.78	2.09	4.20	4.23	2.36	0.51	31.61
Cooke Site	0.66	1.15	1.89	1.79	3.67	1.60	1.19	0.39	2.06	4.14	3.14	0.32	22.00
Croswell							1.82	1.61	1.60				
Croton	1.22	1.07	5.34	2.62	3.25	3.95	2.61	1.66	3.49	6.04	2.09	0.75	34.09
Deer Park (near)	1.33	2.28				2.65	1.55	3.64	4.49	3.17	3.41	2.05	
Detroit	0.91	1.50	3.22	5.29	3.80	3.61	2.09	2.49	4.09	4.98	1.91	0.97	34.86
Dimondale				4.09	4.20								
Durand				3.14	3.70	2.13	0.52		1.45	2.70	1.33	0.32	
Eagle Harbor	1.14	2.53				2.67	1.51	2.07	3.27	3.96	5.59	1.10	
East Tawas	0.43	1.38	3.00	2.78	4.97	1.69	3.26	2.56	1.89	4.95	1.84	0.17	28.92
Eaton Rapids			2.80	3.87	3.96								
Edmore							1.54	2.94	3.52	4.04			
Eloise	0.79	0.79	2.81	4.78	3.61	1.99	1.05	3.26	4.46	3.49	1.49	0.35	28.87
Escanaba	0.69	2.11	1.79	2.68	1.91	4.45	1.78	2.49	2.15	4.70	4.45	0.43	29.63
Ewen	1.96	2.68	1.41	3.20	1.53	2.45	4.05	2.11	2.96	3.00	4.72	2.18	32.25
Fife Lake (near)		1.33	1.73	2.91	2.62	1.81	2.44	2.35	3.14	4.91	2.56	1.00	
Five Channels	0.63	1.42	2.54	2.21	4.53	1.96	3.03	0.47	1.64	4.45	3.47	0.48	26.83
Flint (No. 1)			2.36	3.17	4.14	0.86	3.61	1.84	2.69	3.98	1.48	0.82	
Flint (No. 2)			2.91	3.50	4.45								
Fosters			3.31	2.28	4.38								

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Michigan—Continued.													
Frankfort	1.23	0.64	1.21	2.06	3.07	2.14	3.87	1.52	4.02	5.03	1.99	0.76	27.54
Ganges	0.43	1.89	3.14	3.63	5.18	1.16	2.63	2.82	4.28	6.24	1.06	1.22	33.68
Gaylord	0.86	1.83	1.65	2.53	3.41					4.51	4.82		
Grand Haven	1.62	2.94	5.28	2.40	3.56	1.07	1.39	1.49	4.85	4.39	2.77	2.31	34.07
Grand Ledge (No. 1)							1.29	3.80	1.74	3.43			
Grand Ledge (No. 2)				2.55	3.53								
Grand Marais	1.69	2.31	0.45	2.72	2.18	1.26	0.74	1.52	2.58	3.32	5.48	2.69	26.94
Grand Rapids (Weather Bureau)	0.30	2.16	4.93	2.60	4.78	1.84	0.66	1.67	3.86	3.91	2.30	1.19	30.20
Grand Rapids (Consumers P. Co.)	0.14		4.06	2.93	2.83	1.03	0.82	1.04	3.62	3.51	1.94	1.42	
Grayling	0.46	2.30	1.96	3.11	3.20	2.44	3.83	2.36	2.92	5.76	3.22	0.64	32.20
Greenville	0.19	1.98					1.66	2.50	5.02	3.87	2.55	0.70	
Hamburg	0.47	0.86	2.18	5.26	2.75	3.46	1.25	2.55	3.22	2.94			
Harbor Beach					4.81	1.08	2.50	1.92	2.90	3.26	2.06	0.40	
Harrison	0.51					2.70	3.66		2.77		3.10		
Harrisville	0.25	1.61	3.56	2.09	4.05	0.63	1.65	1.48	1.25	3.69	1.82		
Hart	1.89	2.58	2.66	2.26	2.41	2.79	3.50	2.11	2.94	5.45		1.02	
Hastings	0.62	2.33	3.94	2.59	2.18	2.18		3.25		3.13	2.09	0.76	
Highland		1.27	2.40	4.79	2.43	3.03	2.08		2.73	4.56	2.25	0.96	
Hillsdale	0.70	1.72	2.96		3.90	1.25	0.64	2.17	3.41	5.31	2.70	0.55	
Holland	0.68	1.93	5.02	3.29	4.40	1.59	0.64	1.71	4.14	4.72	2.46	1.15	31.73
Houghton	1.13	2.18	1.42	1.76	1.54	3.41	3.14	2.28	1.33	3.02	9.21	5.67	36.09
Houghton Lake (near)	0.41	1.68	3.28	2.61	2.93	1.80	3.77	0.89	2.34	4.55	2.85	0.76	27.87
Howard City		1.78	3.63	2.45	2.29	4.27	1.35	1.77	3.56	5.67	2.59	0.52	
Howell	0.34	2.45	3.00	5.14	3.19	4.56	1.84		2.21	5.13	2.33	0.10	
Humboldt	0.52			3.23	2.27	3.50	3.02	2.52	2.56	3.60	4.81	0.64	
Ionia		2.08	4.47	3.34									
Iron Mountain	0.47	1.48	1.10	1.40	1.20	3.56	1.23	2.71	3.10	4.93	4.44	0.37	25.99
Iron River	1.50	2.05	1.19	3.24	3.08	4.52	2.08	3.12	3.94	3.61	2.90	0.75	31.98
Ironwood	1.71	2.20	1.23	3.19	1.07	3.89	4.47	3.48	1.37	3.44	4.41	1.41	31.90
Ishpeming	1.18	1.57	1.17	3.47	2.10	2.88	3.29	2.11	2.91	3.70	4.59	0.70	29.67
Ivan	1.06	1.52	2.12	3.00	2.80	0.70	2.95	2.85	3.34	4.48	3.43	0.86	29.11
Jackson (No. 1)	0.32	1.30	2.56	5.92	3.58	3.34	0.93	3.11	3.37	4.51	2.17	0.61	31.72
Jackson (No. 2)			2.34	5.93	3.95		1.47	2.99				1.19	
Jeddo	1.00	1.91	2.58	3.68	2.75	3.58	3.59	1.75	2.28	2.84	1.72	0.95	28.63
Johannesburg	0.70	1.55	1.25	2.37	2.69	1.55	2.65	1.99	2.60	4.27	2.97	0.53	25.12
Kalamazoo (No. 1)	0.55	1.95	3.27	4.05	4.19	1.44	1.43	2.06	4.73	3.27	2.87	0.60	30.41
Kalamazoo (No. 2)		2.13	1.98	3.80	3.88	1.53	1.45	1.27	5.22	2.36	2.46	1.38	
Kent City							1.40	1.53	4.25	3.76			
Lansing	0.36	1.50	3.48	4.13	4.29	3.18	1.69	4.03	2.61	2.90	2.44	0.86	31.47
Lapeer		1.53	2.93		3.12		2.43	2.08	2.77	2.50	1.56	0.60	
Loud	0.57	2.10	2.41	1.50				0.51	2.02	4.43	3.60	0.41	
Lowell (No. 1)	0.55	2.49	5.20	3.18	5.33	1.86	0.94	2.53	5.24	3.66	2.72	1.00	34.70
Lowell (No. 2)		1.79	3.82	2.95									
Ludington	1.06	1.56	2.92	2.94	2.24	2.47	2.45	1.47	4.02	3.17	3.10	1.29	28.69
Luther	1.20	1.45	3.12	2.97	2.86	2.09	5.69	2.51	4.05	5.23	3.02	1.28	35.47
Mackinac Island	0.26	0.71		3.59	4.38	0.32	0.86	1.26	3.52	2.61	2.74	1.11	
Mackinaw	0.84				2.90	0.30	2.37	2.68	4.57	3.74	2.37	0.76	
Mancelona		2.23	1.24				1.90	3.00	3.45	6.01	3.19	1.80	
Manistee	0.97			2.79	2.23	2.00	3.00	2.00	3.82	4.28			
Manistique											4.14		
Maple Ridge	0.50	1.26	1.50	4.13	2.27	5.33	0.53	4.18	3.57	5.69	6.15		
Marquette	2.21	1.50	0.92	3.24	2.77	2.01	2.47	1.60	2.49	3.26	4.18	1.89	28.54
Menominee	0.85	1.78	1.25	3.24	3.85	2.93	3.34	3.58	2.23	3.61	3.28	0.61	29.65
Midland (No. 1)		0.87	2.65			1.64	2.82	2.00	2.72	3.17	1.00	0.64	
Midland (No. 2)			2.45	2.19	3.47								
Mio	0.49	1.74	2.63	1.89	3.14	2.29	3.10	2.62	1.76	5.11	3.43	0.52	28.72
Monroe	0.94	1.10	3.90	4.33	3.95	2.23	1.37	3.87	1.88	4.13	2.10	0.43	30.23
Morenci	0.87	1.13		5.82	4.79	2.57	1.50	3.50	1.90	4.40	2.11	0.11	
Mount Clemens	0.88	2.19	2.17	5.60	2.86	1.15	1.51	2.45	4.16	4.54	1.33	0.72	29.56
Mount Pleasant (No. 1)	0.29	1.98	3.89		3.10	1.39	4.07	1.25	2.84	4.31	2.41		
Mount Pleasant (No. 2)			3.80		3.12								
Munising	1.86	3.10	0.87	4.11	3.34	0.94	0.96	2.18	3.74	3.66	4.46	2.17	31.39
Muskegon	1.63	2.19	4.89	2.15	2.91	2.25	1.66	1.61	4.25	5.13	2.36	1.34	32.28
Newberry	1.37	1.00	1.08	3.50	2.96	0.68	1.19	3.29	3.09	4.58	4.48	1.31	28.53
Norways	1.38			5.55	3.78		0.85	3.35	4.26	4.88	4.29	1.42	
Old Mission	1.19	0.87	1.25	3.23	4.75	1.21	3.28	0.70	3.49	5.00	2.90	0.88	28.75
Olivet		1.49											
Omer	0.10	2.97	3.78	2.35	5.21	0.95	6.51	2.53	0.80	6.46	3.59	0.38	35.63
Onaway (near)	1.79	2.29	1.70		3.87	2.28	2.70	2.26	1.86	4.80	2.40	1.35	
Otsego	0.62	2.60	3.77	2.98	5.50	3.41	1.57	2.73	4.49	4.75	2.86	1.16	36.44
Owosso (No. 1)			2.20	2.97		2.99	2.89	1.93	2.47	3.55	1.70		
Owosso (No. 2)			3.54	3.42	4.15								
Paines				2.57	4.22								
Petoskey	1.60	1.63	1.40	2.61	2.80	2.05			3.32	3.18			
Plainwell	0.38	1.03	3.52	3.08		3.21	0.98	2.84	4.85	3.52	2.71	1.00	
Plymouth	0.76	1.35	3.37	5.45	3.73	2.56	1.05	2.59	3.19	3.96			
Pontiac	0.56	1.36	2.19	4.72	2.56	2.91	1.79	3.62	3.56	3.91	1.43	0.74	29.34
Port Austin	0.40	1.16	1.98	3.96			1.89	1.05	2.52	2.10	1.40	0.79	
Port Huron	0.85	1.18	1.96	3.94	3.00	1.11	1.71	2.29	3.77	2.68	1.71	0.62	24.82
Portland		1.17	4.46	3.07									
Reed City	0.49	1.32	3.82	1.89	2.35	1.31	5.11	1.25	2.70	6.36	3.16	0.64	30.40
Rogers	0.60	2.22	4.91	3.13	2.72	2.23	3.69	1.19	3.21	7.20	3.47	0.52	35.09
Roscommon	0.92	1.38	2.86	3.55	2.17	1.42	4.30	3.21	2.94	5.26	2.53	0.46	31.00
Saginaw (Weather Bureau)	0.29	1.92	3.05	2.31	4.11	2.83	2.18	1.63	2.52	3.53	1.46	0.49	26.32
Saginaw (No. 2)	0.12	1.19	1.71		3.55	2.55	1.30	1.68	1.97	3.11	1.51	0.56	
Saint Ignace						0.23		1.90	3.04	4.53		0.34	
Saint James	0.76	0.79		2.46	3.12	0.48	0.93	2.55	3.08	5.05	3.50	1.78	
Saint Joseph	1.45	0.88	3.12	4.23	4.58	1.63	1.15		2.32	4.52	1.76	1.80	
Sandusky	0.42		2.39						3.15	3.05			
Saranac					4.74	1.06	1.04	3.28	4.40	2.52	3.12		
Sault Ste. Marie	1.05	1.24	0.94	4.87	2.16	2.16	0.52	1.09	4.05	4.83	4.62	1.86	*29.39
Scottville							1.18	1.81				1.19	
Sopey	1.19	1.29	0.39			0.18							
Sidnaw	1.71	2.00			1.96	4.67	3.20	2.52	2.56		1.64	0.77	
South Haven				4.06	5.75	1.78	2.14	2.06	4.29	3.29	1.94	1.12	

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Michigan—Continued.													
Stronach	1.28	1.17	2.41	3.61	2.72	1.87	5.67	2.03	3.23	4.04	3.55	1.30	32.88
Traverse City	0.90	.....	1.53	3.43	2.47	0.49	2.22	0.93	3.17	4.38	3.58	.....	.....
Trowbridge	0.72	1.79	3.41	2.16	4.39	1.47	1.00	1.77	4.16	3.43	1.93	0.82	27.05
Vassar	.....	.....	2.78	2.83	4.61	.....	.....	.....	.....	.....	.....	.....	.....
Victoria	1.36	1.83	0.96	1.75	1.23	2.35	5.72	2.03	2.63	4.30	4.78	1.28	30.22
Wasepi	0.53	1.88	3.16	6.40	4.21	4.24	2.23	3.07	2.86	5.47	2.90	0.58	37.53
Webber Dam	0.32	1.21	3.45	3.01	4.41	2.46	1.16	4.26	2.90	3.38	1.68	0.64	28.88
Wellston	0.69	1.28	1.97	2.48	2.77	2.18	.....	.....	3.07	.....	.....	.....	.....
West Branch (near)	0.53	1.92	3.21	2.26	3.17	2.85	5.52	1.96	2.80	5.40	3.60	0.44	33.66
Williamston	.....	.....	.....	.....	3.60	.....	.....	.....	.....	.....	.....	.....	.....
Whitefish Point	1.40	1.77	0.29	4.23	2.72	1.61	1.48	1.27	4.58	3.76	5.22	5.62	33.86
Ypsilanti	0.65	1.61	3.18	4.63	3.88	2.11	0.58	2.84	5.12	4.51	2.09	0.49	31.69
Minnesota.													
Ada	0.50	0.93	0.39	1.52	3.17	2.24	3.48	6.76	1.23	0.48	0.85	0.61	22.16
Albert Lea	0.40	2.20	1.20	5.05	2.20	7.15	3.92	1.70	4.95	2.40	2.60	0.17	33.94
Alexandria	0.25	2.74	1.15	2.46	2.78	3.98	3.54	2.09	0.80	0.75	2.00	0.09	22.63
Angus	0.21	0.35	0.50	1.15	2.74	3.85	5.62	4.80	1.22	1.19	0.78	0.12	22.53
Argyle	0.30	0.27	1.13	1.31	3.68	3.78	4.60	4.44	1.03	0.68	1.51	0.48	23.21
Artichoke Lake	0.08	0.39	1.08	3.46	2.75	6.92	2.54	0.70	0.98	1.16	1.87	0.16	22.09
Baudette	0.14	0.45	0.90	0.87	2.00	3.75	7.88	3.57	2.34	1.19	1.61	0.39	25.09
Beardsley	0.30	1.02	1.77	4.25	4.27	8.03	.....	1.38	0.76	1.67	0.82	0.60	.....
Bemidji	0.14	0.47	0.47	1.00	1.99	2.92	3.73	6.20	1.94	1.93	1.63	0.05	22.56
Bird Island	0.27	1.67	1.37	2.33	2.42	8.93	5.11	1.00	1.23	1.82	2.63	0.38	29.16
Brainerd	0.23	0.81	1.44	2.01	3.82	4.94	4.14	2.94	1.80	2.05	2.27	0.29	26.74
Caledonia	0.90	1.75	2.05	2.87	1.88	9.03	3.27	1.21	3.95	.....	.....	.....	.....
Campbell	0.25	1.19	0.95	2.28	2.85	5.54	4.73	2.98	1.02	2.13	1.68	0.45	26.05
Canby	0.25	1.50	1.07	4.44	2.47	10.10	4.10	0.43	1.05	1.59	2.13	0.10	29.23
Cass Lake	0.25	0.77	0.66	1.09	3.06	5.09	3.47	8.22	2.30	2.21	0.90	0.13	28.15
Centerville	.....	.....	.....	.....	.....	.....	.....	2.40	0.89	1.36	1.96	0.31	.....
Chatfield	0.50	2.01	2.07	2.95	1.18	6.20	2.26	1.37	2.83	2.47	1.55	1.20	26.59
Cloquet	0.82	1.09	1.00	1.60	2.53	4.80	3.11	3.77	1.51	3.24	4.20	0.24	28.00
Collegeville	0.16	1.34	1.13	2.27	2.02	4.42	3.59	2.32	0.58	1.38	1.60	0.34	21.15
Coon Creek Farm	.....	.....	.....	.....	.....	3.50	.....	2.88	1.07	.....	.....	.....	.....
Crookston	0.48	0.68	1.01	1.63	3.85	2.64	8.83	3.86	1.94	0.75	1.80	0.32	27.79
Crookston (No. 2)	0.30	0.43	0.71	1.38	3.59	.....	.....	.....	.....	.....	.....	.....	.....
Detroit	0.11	0.62	0.58	1.78	3.26	2.81	5.72	4.78	1.25	2.63	1.96	0.73	26.23
Duluth	0.46	0.94	1.16	1.82	1.72	3.77	2.62	2.99	1.42	2.71	3.86	0.30	23.77
Fairmont	0.60	2.42	0.91	4.23	2.45	5.75	5.40	2.68	2.38	0.89	3.15	0.30	31.16
Faribault	0.25	1.15	0.42	3.40	0.66	3.72	4.45	2.08	2.61	1.93	1.03	0.60	22.60
Farmington	0.30	1.32	0.53	3.93	1.24	3.26	5.66	1.00	.....	.....	.....	0.60	.....
Fergus Falls	0.49	1.29	1.28	3.11	4.36	7.92	5.40	2.31	2.34	2.13	2.73	1.15	34.42
Fort Ripley	0.30	0.49	0.93	1.58	2.38	4.59	2.61	3.96	1.27	1.07	1.76	0.27	21.21
Fosston	0.30	0.35	0.29	0.94	2.35	5.35	9.28	6.81	3.19	0.93	2.82	T.	32.61
Glencoe	0.25	2.78	0.72	2.63	1.00	5.03	.....	.....	1.13	1.73	2.28	0.51	.....
Golden Valley	0.23	0.52	0.71	0.81	1.96	4.74	9.69	5.27	1.22	.....	1.72	0.18	.....
Goodridge	.....	.....	.....	.....	.....	.....	.....	4.04	1.36	.....	1.37	0.15	.....
Grand Marais	0.90	1.60	.....	0.36	1.55	1.84	1.02	4.25	1.52	1.95	1.93	0.07	.....
Grand Meadow	0.44	1.77	1.68	4.14	2.20	3.51	4.14	1.73	4.41	2.49	3.16	0.84	30.51
Grand Rapids	0.10	1.40	0.41	0.91	2.05	6.29	4.25	4.67	1.50	1.63	2.43	0.46	26.10
Grandy	0.44	1.77	1.12	3.21	2.51	4.98	7.29	3.15	1.22	3.77	3.16	0.60	33.22
Grygla	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.50	.....
Gull Lake Dam	0.17	0.73	1.52	2.14	2.69	3.71	7.21	3.53	1.41	2.09	1.57	0.23	27.03
Hallock	0.15	0.35	1.55	1.15	2.80	1.66	3.07	3.44	1.04	0.82	2.15	0.79	18.97
Hanson	.....	.....	.....	.....	.....	.....	3.17	.....	.....	.....	.....	.....	.....
Hinckley	0.23	1.18	0.89	3.05	2.25	4.39	4.42	2.86	1.53	1.95	2.39	0.26	25.40
Hutchinson	0.57	2.51	1.01	3.29	2.16	7.21	4.92	0.78	0.96	2.05	2.28	0.30	28.04
International Falls	0.25	0.45	0.98	1.17	1.79	5.10	7.31	4.58	2.35	1.27	3.63	0.67	29.55
Itasca State Park	0.48	0.90	0.78	1.86	3.00	4.72	4.35	4.69	1.81	2.79	.....	.....	.....
Lake Crystal	0.20	0.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leech Lake Dam	0.54	0.80	0.78	1.29	3.56	5.16	4.42	7.37	3.09	2.39	1.98	0.26	31.64
Little Falls	0.62	1.65	1.02	2.35	1.97	5.76	2.34	3.41	.....	2.43	.....	0.33	.....
Luverne	0.09	1.32	1.11	4.77	2.63	6.53	3.63	1.40	2.04	1.63	1.71	0.06	26.92
Lynd	0.14	3.50	0.85	3.74	3.31	6.87	4.03	1.05	1.37	1.18	1.67	0.01	27.72
Mankato	0.73	2.17	1.07	4.01	1.62	6.83	5.64	2.44	2.26	1.63	2.92	0.27	31.59
Mapleplain	0.62	3.07	1.02	3.58	2.50	6.49	6.72	2.37	1.08	2.35	3.13	0.99	33.92
Meadowlands	0.41	1.46	1.09	2.02	1.28	4.70	1.53	.....	.....	2.25	.....	.....	.....
Milaca	0.16	0.84	0.98	5.32	2.55	3.72	2.83	2.65	0.93	1.88	1.78	0.42	24.06
Milan	0.30	1.50	0.75	2.21	2.13	7.97	2.58	1.43	0.95	1.15	2.50	0.50	23.97
Minneapolis (Weather Bureau)	0.43	2.02	0.84	3.44	1.71	4.04	6.19	1.88	1.47	1.69	2.73	0.68	27.12
Minneapolis (No. 1)	0.50	2.53	1.00	3.62	1.83	4.38	5.51	2.23	1.36	1.50	2.69	0.71	28.36
Montevideo	0.55	1.56	1.76	2.44	1.68	8.88	3.21	1.16	1.45	1.52	2.17	0.47	26.85
Moorhead	0.21	0.58	0.74	2.06	4.01	2.50	5.56	2.83	1.34	1.22	1.92	0.78	23.75
Mora	0.59	1.33	1.39	2.60	2.22	3.98	4.15	2.39	0.86	2.11	3.22	0.65	25.49
Morris	.....	0.96	.....	.....	2.73	5.01	2.24	1.08	.....	0.88	1.22	0.73	.....
New London	0.18	1.10	1.20	1.39	1.61	5.97	4.44	1.32	0.20	2.32	1.11	0.38	21.22
New Richland	0.24	1.99	0.93	5.11	1.81	6.07	.....	2.52	3.13	2.11	1.88	.....	.....
New Ulm	0.70	4.12	1.38	5.77	2.54	8.26	6.49	2.53	2.16	2.14	3.51	0.73	40.33
Nickerson	.....	.....	.....	2.71	2.40	.....	.....	.....	.....	.....	.....	.....	.....
Park Rapids	0.23	0.71	0.71	1.68	2.85	6.98	6.08	4.29	1.24	2.57	2.18	0.35	29.87
Pine River Dam	1.50	0.94	1.08	1.68	4.09	2.92	5.91	3.55	1.92	2.68	1.81	0.24	28.32
Pipestone	0.10	1.95	0.66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pokegama Falls	0.30	0.77	0.99	0.93	2.89	5.53	3.78	5.41	1.09	2.27	1.98	0.28	26.17
Red Lake	0.12	0.48	0.86	0.65	3.85	4.32	7.56	5.09	1.37	1.76	2.44	0.26	28.76
Red Lake Falls	0.45	1.10	0.49	1.20	3.94	4.52	8.62	5.00	1.21	0.89	3.52	0.43	31.37
Red Wing	0.74	2.14	1.48	3.50	1.52	5.44	5.54	1.14	3.48	3.20	2.32	0.58	31.08
Redwood Falls	1.60	3.29	2.08	3.01	1.88	8.97	3.62	1.26	1.46	2.44	3.35	0.81	33.77
Reeds	0.28	0.79	0.46	2.71	1.10	6.33	5.43	1.98	2.67	1.75	1.48	0.31	25.29
Rochester	0.47	1.12	1.73	4.44	2.25	6.66	4.23	1.48	2.16	2.46	2.37	0.57	29.94
Roseau	0.17	0.57	0.82	1.02	1.65	3.03	9.13	2.25	1.63	0.84	1.50	0.15	23.36
St. Charles	0.47	2.24	2.24	3.46	1.28	3.39	4.75	2.07	0.92	3.57	1.97	0.52	26.88
St. Cloud	0.30	2.22	1.17	2.53	2.85	5.30	3.83	2.10	0.89	2.18	.....	0.42	.....
St. Paul	0.44	2.52	0.81	3.98	2.13	4.40	7.47	2.22	1.25	1.91	2.59	0.66	30.38
St. Peter	0.65	1.32	0.47	3.23	1.79	5.38	4.19	3.05	2.73	1.08	2.63	0.65	27.17
Sandy Lake Dam	0.26	0.43	1.43	2.53	2.45	3.92	4.85	4.69	2.12	2.31	2.20	0.06	27.25

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Minnesota—Continued.													
State Sanatorium	0.49	0.70	0.55	1.18	2.26	6.67	3.52	5.67	1.28	2.56	2.37	0.34	27.50
Stillwater	0.40	2.08	2.39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Taylors Falls	0.07	1.23	0.99	3.28	2.51	3.78	6.50	4.07	1.95	2.74	2.52	0.25	29.89
Thief River Falls	0.26	0.71	1.06	1.92	3.10	4.16	6.77	7.50	1.09	1.26	1.62	0.19	29.64
Tracy	0.05	2.98	1.24	4.22	2.40	9.47	3.84	0.48	1.52	1.73	2.84	0.02	30.79
Two Harbors	0.45	0.88	1.15	1.48	1.51	3.44	1.30	2.62	2.10	1.70	3.49	0.31	20.43
Tyler	.....	.....	.....	.....	.....	6.53	4.70	0.15	0.90	.....	.....	T.	.....
University Farm	0.50	1.75	0.72	3.50	2.17	4.75	6.15	1.46	1.92	1.67	2.61	0.70	27.90
Virginia	0.40	0.90	1.19	1.13	1.75	5.29	3.36	5.44	3.55	2.76	2.36	0.49	28.62
Wadena	.....	0.63	0.99	1.49	3.26	6.72	5.05	3.01	2.50	3.54	1.08	0.31	.....
Warren	0.50	0.40	.....	0.98	3.16	3.58	6.70	5.01	0.79	0.83	0.85	0.14	.....
Warroad	0.07	0.40	1.12	0.89	2.12	4.96	9.87	2.73	3.09	1.22	1.64	0.18	28.29
Waseca	0.47	2.52	.....	4.37	1.07	5.28	5.70	4.66	1.88	1.42	2.33	0.35	.....
Wheaton	0.21	0.56	1.00	2.98	3.38	4.57	3.28	1.22	0.70	1.43	1.49	0.36	21.18
Willmar	0.13	3.10	1.30	2.38	2.09	6.59	4.25	0.92	0.76	1.77	1.74	0.47	25.50
Winnebago	.....	.....	1.04	3.49	2.98	7.33	6.83	3.00	3.11	0.76	3.28	0.15	.....
Winnibigoshish	0.27	0.71	0.96	1.33	2.89	5.78	4.38	10.08	1.76	2.36	1.58	0.15	32.25
Winona	0.63	2.41	2.16	3.11	1.46	5.59	4.84	1.78	3.82	2.82	1.80	0.55	30.97
Winthrop	0.45	1.95	1.15	3.41	2.02	6.88	5.68	2.00	1.68	1.29	2.32	0.28	29.11
Winton	0.40	1.30	0.70	0.52	0.74	3.60	4.00	4.71	2.82	1.55	2.70	0.40	23.44
Worthington	0.30	3.89	1.15	3.58	1.20	8.38	5.44	2.19	5.24	1.25	2.40	0.11	35.13
Zumbrota	0.60	2.36	0.85	4.38	0.98	8.58	5.92	2.69	2.21	2.37	2.31	0.36	33.61
Mississippi.													
Aberdeen	3.99	4.77	8.63	4.19	6.23	5.30	2.62	4.48	0.74	5.42	9.26	3.77	59.40
Agricultural College	3.85	5.52	6.23	4.09	5.33	7.15	3.44	7.67	1.48	4.31	8.41	5.14	62.62
Anguilla	4.17	4.52	4.80	6.46	12.07	2.51	2.67	8.93	0.70	10.00	12.21	7.38	76.42
Austin	6.25	3.41	8.56	3.50	5.71	5.44	1.61	2.42	1.52	10.66	8.89	2.35	60.32
Batesville	4.23	2.66	9.78	2.42	5.17	7.28	2.38	4.74	0.90	6.65	10.54	3.93	60.68
Bay St. Louis	6.91	8.10	6.10	6.14	7.75	5.65	5.86	5.95	2.63	5.98	5.43	5.04	71.54
Biloxi	6.31	5.88	5.70	6.13	12.36	2.73	4.07	7.89	2.08	4.30	5.11	3.71	66.27
Booneville	3.60	3.40	7.72	6.07	6.25	6.41	3.28	4.50	0.45	9.87	8.79	2.16	62.50
Brookhaven	6.29	8.34	5.15	5.59	11.06	3.93	3.49	8.07	2.83	7.00	9.53	13.76	85.04
Canton	6.00	5.41	6.21	3.94	5.89	5.54	2.09	4.85	1.11	7.43	7.15	4.96	60.58
Charleston	.....	3.03	8.21	3.12	6.00	4.97	2.43	2.89	0.72	10.82	12.13	.....	.....
Clarksdale	5.16	2.83	5.97	2.68	7.76	3.61	1.13	4.67	0.69	10.02	10.42	2.84	57.78
Cleveland	4.85	3.20	4.05	3.00	.....	.....	.....	6.46	.....	.....	13.96	6.44	.....
Collins	.....	6.86	7.33	6.54	8.32	3.10	5.09	7.76	2.58	.....	.....	12.68	.....
Columbia	7.74	8.63	3.97	5.42	9.75	4.08	4.84	9.35	2.04	5.42	6.24	7.39	74.87
Columbus	5.59	5.82	5.87	2.92	6.89	5.33	2.40	4.56	1.58	4.75	7.54	4.97	58.22
Corinth	5.00	3.60	8.26	3.74	5.36	5.84	1.78	5.98	0.40	7.10	8.80	3.06	58.02
Crenshaw	2.80	2.57	5.12	3.97	5.17	3.07	3.40	1.29	0.60	11.28	10.08	1.40	50.75
Crystal Springs	6.35	7.20	6.09	4.26	7.40	4.33	5.81	2.80	0.93	10.17	7.43	7.96	70.73
Duck Hill	5.07	4.00	.....	7.43	4.97	6.43	1.14	6.82	0.99	7.70	13.75	3.37	.....
Edinburg	5.79	5.61	6.89	3.37	6.77	7.39	1.30	6.47	0.38	5.59	6.38	5.06	61.00
Edwards	8.93	5.35	9.27	5.22	6.39	2.08	2.95	5.79	1.34	7.58	7.17	7.23	69.30
Enterprise	6.32	7.33	6.68	3.02	7.69	9.95	4.83	10.36	0.04	2.29	9.15	12.17	73.83
Fayette	6.48	6.16	5.53	4.45	7.66	8.37	3.80	7.55	1.06	9.82	7.20	9.65	77.83
Fruitland Park	6.55	7.60	7.65	7.35	12.20	3.55	8.90	6.75	1.70	10.20	6.55	4.83	84.13
Fulton	1.36	4.18	8.87	4.38	5.60	3.81	1.70	4.09	1.13	8.54	9.97	4.78	58.41
Greenville	4.85	3.34	6.89	6.38	7.87	2.63	4.94	6.47	0.67	8.64	12.09	4.25	69.02
Greenwood	4.51	4.60	6.40	6.80	6.80	5.19	1.65	5.25	0.45	9.23	14.63	6.26	71.57
Grenada	3.25	2.92	9.51	6.68	4.31	4.89	1.55	4.95	1.96	7.77	10.85	4.25	62.97
Hattiesburg	7.25	8.35	7.44	3.08	12.72	2.59	5.81	8.38	1.94	4.02	7.44	4.81	73.83
Hazlehurst	8.19	7.22	6.98	5.27	12.43	6.92	4.87	5.83	0.83	10.68	9.36	8.71	87.09
Hernando	5.11	2.70	8.22	3.45	7.08	5.27	1.19	4.58	0.94	11.04	8.18	2.19	59.95
Hickory	6.77	6.76	6.43	5.22	7.84	7.01	5.77	9.14	0.16	5.20	7.75	13.03	81.08
Holly Bluff	4.34	3.97	6.35	6.74	7.26	4.37	3.15	4.63	0.58	9.56	8.52	5.58	65.05
Holly Springs	.....	3.33	8.50	4.26	7.10	3.88	1.08	1.65	1.51	9.06	10.40	2.78	.....
Jackson	6.16	5.25	5.15	5.67	5.09	5.12	3.55	5.18	0.31	7.16	7.55	7.20	63.39
Kosciusko	5.11	5.30	7.75	5.18	7.50	3.45	3.20	6.78	1.22	6.09	11.90	7.09	70.57
Lake	6.40	5.88	6.84	4.11	7.00	2.51	3.21	11.58	0.78	4.24	6.65	10.13	69.13
Laurel	6.44	9.77	6.08	3.94	7.68	6.72	3.40	10.07	0.27	4.49	9.99	9.43	78.28
Leakesville	4.50	7.41	11.06	5.81	14.92	2.61	7.61	4.77	1.05	5.76	5.81	9.32	80.63
Louisville	5.53	6.34	7.59	5.24	7.39	4.13	2.25	7.93	2.07	4.72	8.80	6.01	68.06
McNeill	8.45	6.75	5.56	9.00	11.34	4.22	.....	.....	.....	.....	.....	.....	.....
Macon	7.21	5.82	6.08	3.95	8.35	4.93	3.15	8.13	2.81	4.46	6.00	7.39	68.28
Magnolia	6.90	9.77	4.37	6.85	7.45	3.56	2.97	4.38	1.05	3.21	6.46	5.26	62.23
Meadville	8.47	.....	.....	.....	.....	.....	.....	.....	1.67	8.00	5.21	8.16	.....
Mendenhall	.....	6.00	.....	8.25	7.79	5.70	1.31	.....	.....	.....	.....	.....	.....
Meridian	6.31	5.69	5.31	3.74	6.77	8.81	3.69	12.10	0.22	2.81	6.62	11.34	73.41
Merrill	6.15	7.65	13.60	6.84	10.63	3.25	4.91	8.42	2.60	5.13	5.51	7.71	82.40
Monticello	6.64	6.26	5.65	7.69	6.75	3.61	2.71	6.43	0.92	7.40	5.47	12.07	71.60
Moorhead	4.40	3.31	9.77	7.33	11.92	2.80	3.65	5.55	0.60	9.87	10.31	5.00	74.51
Natchez	7.55	7.70	5.03	7.93	10.03	7.21	7.93	4.01	0.25	9.51	9.88	7.64	84.67
Okolona	3.29	2.61	6.87	3.02	4.75	5.63	2.89	5.15	1.17	8.12	6.08	3.41	52.99
Pascagoula	5.73	6.66	3.75	4.64	7.23	6.66	5.25	8.71	2.52	5.24	4.84	3.25	64.48
Pearlington	7.66	6.54	4.09	6.26	10.55	6.53	8.44	7.60	2.39	7.20	7.37	2.87	77.50
Pontotoc	1.35	.....	7.24	4.80	.....	6.12	2.54	2.63	0.40	8.12	10.02	3.75	.....
Poplarville	.....	.....	.....	.....	.....	.....	.....	4.74	0.74	6.76	7.57	4.87	.....
Port Gibson	6.17	6.48	4.03	3.89	6.10	6.56	5.54	4.99	0.97	8.19	9.36	5.75	68.03
Rosedale	4.60	2.76	5.52	2.36	7.64	5.45	1.90	7.68	0.54	8.69	8.75	3.32	59.21
Scott	5.23	3.03	3.78	4.09	6.13	4.66	1.91	9.67	0.70	8.24	9.94	3.85	61.23
Shubuta	4.99	9.87	9.19	2.86	11.41	5.73	4.86	8.74	0.78	2.98	8.01	7.13	76.55
Stoneville	3.28	3.90	7.11	5.25	7.24	3.90	1.52	7.87	0.65	7.39	10.64	3.86	62.61
Swan Lake	3.35	2.52	9.35	.....	.....	.....	.....	.....	.....	9.65	10.16	4.21	.....
Tchula	4.08	4.32	6.95	7.10	7.05	5.50	1.67	5.75	0.65	8.72	12.92	5.70	70.41
Tupelo	3.39	2.54	13.51	3.99	7.33	.....	2.42	4.81	1.47	9.71	9.84	4.57	.....
University	3.85	2.75	11.45	4.00	7.51	2.71	3.45	3.85	T.	6.75	12.25	5.95	64.52
Utica	5.48	5.64	5.20	6.20	6.92	5.75	3.20	2.06	1.74	5.65	5.88	6.64	60.36
Vicksburg	5.28	3.92	4.95	5.21	5.96	5.85	5.72	8.26	0.68	8.29	7.66	6.21	67.99
Water Valley	3.27	4.68	7.20	4.06	7.29	3.87	2.45	4.02	2.05	10.83	14.00	4.50	69.12
Waynesboro	7.60	9.55	7.92	2.31	14.88	4.59	8.25	9.31	0.99	6.72	9.37	3.81	85.30
Woodville	8.86	8.33	2.84	11.72	10.13	6.01	15.11	7.01	0.26	4.65	6.46	7.10	88.48
Yazoo City	4.36	4.13	8.81	5.48	7.84	5.77	1.72	5.22	1.07	7.32	11.72	7.38	70.82

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Missouri.													
Amoret	1.25	1.98	0.37	3.31	5.29	2.43	1.44	3.63	1.26	4.81	1.90	0.23	27.90
Appleton City	0.34	2.05	1.47	3.97	5.67	6.61	1.12	.....	.....	.....	.....	0.33	.....
Arcadia	0.89	1.94	2.39	1.75	4.65	3.13	0.59	3.44	4.87	7.99	5.70	0.50	37.84
Arlington	0.00	1.54	1.27	1.85	6.11	4.93	3.81	3.44	1.50	.....	.....	.....	.....
Aurora	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.88	0.38	.....
Avalon	0.00	2.43	1.10	2.60	4.92	5.20	4.97	6.70	3.30	2.10	2.30	1.30	36.92
Bethany	0.10	2.29	5.45	5.15	8.15	6.56	4.98	3.07	5.55	2.98	4.32	0.15	48.75
Birchtree	0.70	1.73	2.31	2.45	1.40	6.14	1.26	2.37	2.49	6.69	5.65	0.40	36.59
Bolivar	T.	2.53	1.56	5.65	9.37	5.54	2.19	3.19	0.73	14.11	2.59	0.67	48.13
Boonville	0.52	1.94	1.62	3.24	5.06	5.43	3.85	5.83	2.33	6.04	2.54	0.65	39.05
Brunswick	0.08	1.05	1.21	2.61	5.04	5.63	4.01	4.56	4.82	1.98	2.79	0.29	34.07
Cape Girardeau	2.13	2.01	5.60	2.05	4.76	7.42	0.50	7.10	4.12	7.92	4.06	1.67	49.34
Caruthersville	2.81	2.16	8.67	5.50	7.94	4.22	1.28	5.10	2.02	7.26	7.23	4.30	58.49
Cassville	T.	2.33	0.85	1.98	.....	4.21	2.41	2.25	1.24	8.30	4.22	.....	.....
Chillicothe	0.00	0.67	0.81	2.15	3.43	3.35	2.95	6.45	2.85	1.15	2.70	.....	.....
Clifton Hill	0.08	2.12	2.11	2.09	5.52	3.65	2.19	7.10	4.78	1.49	2.62	0.30	34.05
Clinton	0.70	2.44	1.12	3.72	6.46	8.04	1.15	5.35	2.55	7.93	1.40	0.43	41.29
Columbia	0.07	1.73	1.30	2.84	6.21	3.96	2.52	5.37	3.31	7.68	2.84	0.55	38.38
Conception	0.00	1.98	3.84	4.76	7.15	6.64	8.52	1.91	6.05	2.19	2.78	0.26	46.08
Dean	0.35	2.08	1.39	2.84	4.11	6.40	2.14	4.55	1.70	12.90	5.74	0.69	44.89
Doniphan	1.27	1.64	4.21	3.05	4.23	7.02	1.44	3.08	3.05	6.07	7.96	0.27	43.29
Edgerton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.63	0.09	.....
Eldon	0.10	1.12	1.37	4.33	5.81	3.81	2.69	4.11	3.48	12.23	3.01	0.35	42.41
Farmington	0.44	1.72	2.12	1.50	5.60	4.86	0.32	2.74	4.92	11.78	3.93	0.46	40.39
Fayette	0.06	2.20	1.57	2.13	5.12	5.11	2.62	.....	3.14	4.01	3.14	0.51	.....
Fulton	0.15	1.72	0.85	1.90	5.89	4.24	.....	7.23	3.08	10.31	2.67	0.71	.....
Gallatin	0.20	2.31	3.02	3.83	4.85	7.96	2.71	.....	.....	.....	.....	.....	.....
Gano	0.20	2.14	1.95	1.49	5.75	7.58	1.29	3.03	2.80	11.07	2.64	0.39	40.33
Glencoe	0.12	1.94	2.42	2.55	6.39	2.58	2.13	5.44	2.90	8.93	2.35	0.90	38.65
Goodland	0.05	1.95	2.32	1.48	5.48	5.95	2.93	3.84	3.00	8.67	3.60	0.97	40.24
Gorin	0.00	1.26	0.85	3.59	7.49	1.91	2.17	2.90	3.55	3.77	3.06	0.18	30.73
Grant City	0.10	3.02	3.74	5.72	5.47	7.15	3.19	1.73	5.00	1.82	2.94	0.20	40.08
Hannibal	0.02	2.22	2.58	2.44	6.36	3.41	3.73	3.83	3.28	4.87	2.63	0.36	35.73
Harrisonville	0.50	1.20	.....	3.10	5.39	2.47	1.81	6.46	1.02	2.88	1.94	0.26	.....
Hermann	0.41	2.06	2.28	2.27	4.32	3.39	1.04	4.07	4.00	9.91	3.28	0.76	37.79
Holister	0.30	1.38	2.42	.....	9.36	8.29	1.84	2.60	3.20	9.50	5.65	0.60	.....
Houston	0.05	1.98	1.59	1.77	4.44	5.62	0.62	3.06	3.65	8.21	3.36	0.35	34.70
Jackson	1.41	1.43	4.67	2.68	5.22	8.90	2.18	4.99	4.70	8.35	6.91	0.87	52.31
Jefferson City	0.48	1.86	1.11	2.72	4.74	5.83	1.37	3.60	4.10	11.91	3.16	0.68	41.56
Kansas City	0.07	2.09	1.54	3.49	3.43	5.09	1.14	8.14	2.26	1.38	2.44	0.16	31.23
Kidder	0.20	2.18	2.15	3.80	3.11	8.06	2.78	3.82	2.80	1.71	2.99	0.12	33.72
Kirksville	T.	1.19	1.05	3.36	8.13	2.76	1.32	5.53	3.30	2.10	3.10	0.18	32.02
Koshkonong	0.96	2.55	3.53	3.94	2.74	8.26	1.24	1.93	1.87	7.53	7.85	0.54	42.94
Lamar	0.04	1.81	1.68	5.16	5.20	6.67	1.22	2.45	1.98	9.32	1.63	0.90	38.06
Lamonte	T.	2.13	2.40	1.72	5.72	6.70	3.77	11.27	1.81	5.75	2.87	0.50	44.64
Lebanon	T.	2.69	2.01	3.05	9.10	3.27	2.88	4.03	1.79	13.83	3.57	1.97	48.19
Lexington	0.67	2.20	1.34	2.14	4.43	4.15	2.08	4.51	1.70	1.92	2.13	0.27	27.54
Liberty	0.00	2.11	1.92	4.19	3.78	5.32	1.46	.....	.....	1.81	2.55	0.14	.....
Lockwood	0.18	1.83	0.95	3.91	5.81	3.99	2.09	1.37	0.30	12.53	2.81	0.86	36.57
Louisiana	0.05	2.74	1.95	2.03	4.67	3.76	1.31	5.71	5.63	8.20	2.93	0.56	39.54
Macon	0.33	2.13	2.06	2.36	5.52	4.47	3.36	7.40	2.93	2.38	2.95	0.21	36.10
Marble Hill	1.10	1.80	3.55	2.78	3.90	.....	.....	.....	.....	.....	.....	0.75	.....
Marshall	0.20	2.52	1.65	1.99	5.43	5.11	2.82	4.87	2.81	4.27	2.88	1.57	36.12
Maryville	0.65	2.65	2.57	4.67	5.74	6.95	2.61	1.79	5.43	1.60	3.95	0.71	39.32
Mexico	0.38	1.02	1.15	1.55	7.85	6.94	3.51	6.74	8.66	6.92	2.74	0.83	48.29
Mountain Grove	0.99	1.98	2.37	2.27	7.95	9.49	4.43	3.20	1.96	10.35	4.41	0.47	49.87
Neosho	0.18	2.34	1.92	2.10	3.93	8.85	1.61	1.87	1.98	11.39	5.84	0.47	42.48
Nevada	0.00	1.77	1.10	5.71	4.70	10.69	1.92	4.99	0.89	7.76	1.17	1.15	41.85
New Madrid	4.47	2.00	8.43	2.60	5.62	9.14	0.45	5.77	3.01	6.48	7.17	3.25	58.39
Oakfield	0.04	1.74	2.29	2.26	8.66	3.61	2.25	3.28	3.01	9.84	2.59	0.91	40.48
Oregon	0.09	1.97	2.29	4.14	5.91	6.47	3.41	1.63	6.09	2.05	4.39	0.39	38.83
Osceola	0.00	1.19	0.55	3.97	9.63	9.18	2.25	4.17	1.86	9.26	2.65	0.49	45.20
Pacific	0.65	1.70	2.78	2.14	6.38	3.14	1.99	4.45	2.29	9.55	2.20	0.93	38.20
Palmyra	0.00	2.06	2.20	.....	.....	.....	.....	4.45	4.43	2.27	2.84	0.24	.....
Patton	0.50	2.00	4.87	1.77	4.33	4.40	1.35	4.55	3.31	8.86	4.79	0.70	41.46
Poplar Bluff	1.42	1.56	4.74	2.19	4.88	6.08	1.23	7.67	5.01	9.25	6.47	1.19	51.69
Rolla	0.11	2.46	2.85	2.64	7.04	6.77	4.26	4.40	1.84	14.87	2.98	0.67	50.89
St. Catherine	0.06	1.38	1.08	2.31	5.57	7.11	3.07	4.35	2.58	1.82	2.68	0.16	32.17
St. Charles	T.	1.10	1.89	1.79	6.06	3.03	1.75	2.45	6.40	7.96	1.96	0.72	35.11
St. Joseph	0.03	2.26	6.00	3.55	4.69	4.97	2.68	2.68	4.40	2.46	2.44	0.22	36.38
St. Louis (Weather Bureau)	0.13	1.54	1.72	1.76	7.86	5.30	1.50	3.03	6.13	8.52	2.08	1.22	40.79
St. Louis (No. 2)	0.16	1.57	1.30	1.65	6.47	3.80	1.36	2.30	6.25	8.87	2.71	1.19	37.63
Shelbina	0.00	1.70	1.90	1.96	6.41	2.59	2.00	6.16	4.38	1.60	3.35	0.30	32.35
Springfield	0.34	2.44	2.23	3.55	4.52	4.00	1.96	0.53	1.62	11.94	4.49	0.44	38.06
Steelville	0.54	1.60	1.59	2.04	8.29	5.38	1.57	2.72	2.62	14.73	2.48	0.66	44.22
Steffenville	0.50	2.03	1.57	2.53	6.32	4.45	1.84	6.14	2.65	3.16	4.04	0.39	35.62
Tarkio	0.60	2.53	3.53	5.21	1.84	5.50	1.66	1.21	4.94	1.21	2.97	0.92	32.12
Trenton	T.	2.25	3.26	3.80	9.09	7.86	6.48	1.14	3.31	2.27	3.35	0.02	42.83
Tuscumbia	0.51	2.11	1.74	3.64	5.92	6.66	.....	5.31	2.23	10.93	3.20	0.95	.....
Union	0.50	2.04	3.11	2.78	4.74	3.29	2.51	4.86	1.94	9.69	3.51	0.87	39.84
Unionville	0.04	2.52	3.10	5.04	8.56	5.20	3.80	3.04	3.89	2.47	4.13	1.30	43.09
Valley Park	0.21	1.46	3.95	2.85	6.45	3.11	2.96	5.44	3.68	11.17	2.74	.....	.....
Warrensburg	0.42	3.69	0.76	2.24	.....	.....	.....	.....	1.79	2.14	.....	.....	.....
Warrenton	0.50	2.46	2.84	1.98	6.57	4.93	2.75	4.60	4.24	8.63	4.41	0.79	44.70
Warsaw	0.40	3.70	1.35	4.71	8.09	7.55	0.32	10.36	3.30	11.89	3.51	0.74	55.92
Waverly	0.29	1.99	1.29	2.90	5.48	9.16	2.48	5.24	1.79	2.21	2.57	0.33	35.73
Montana.													
Adel	0.72	2.40	1.17	1.36	1.47	1.35	0.60	0.24	1.87	2.70	1.88	1.07	16.83
Agricultural College	0.51	0.78	0.65	0.96	2.10	0.09	0.36	0.97	0.87	1.81	0.59	1.33	11.02
Anaconda	0.50	0.77	0.22	1.73	0.64	0.50	0.39	0.66	0.26	1.71	0.98	1.77	10.13
Augusta	0.00	.....	0.48	T.	1.06	0.50	0.25	0.40	1.55	1.24	0.96	1.12	.....
Babb	1.20	.....	.....	0.03	2.03	0.42	0.05	0.17	1.05	2.08	0.64	0.71	.....
Ballantine	.....	.....	.....	0.34	1.09	0.34	0.84	1.07	3.36	1.46	0.65	0.52	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Montana—Continued.													
Belton	1.61	.....	0.07	0.70	5.40	0.65	0.12	0.90	1.42	1.24	2.62	2.69	.....
Biddle	0.08	0.05	0.24	0.78	0.94	0.45	3.24	0.16	.....	2.03	1.02	0.29	.....
Big Ox	0.00	1.60	0.00	0.00	1.17	0.80	0.27	1.71	0.58	0.74	3.42	1.84	12.13
Big Timber	0.00	1.05	0.65	0.89	0.77	0.19	1.18	0.25	0.65	3.17	2.03	1.02	11.85
Billings	0.04	0.17	0.43	0.17	1.22	0.36	0.75	0.58	0.60	2.57	1.24	0.77	8.90
Blackleaf	0.02	.....	.....	.....	.....	.....	0.41	0.65	2.49	2.10	.....	1.06	.....
Boulder	0.20	0.38	0.20	.....	0.82	.....	0.93	.....	.....	.....	.....	.....	.....
Bowen	0.21	1.06	0.48	0.75	0.65	0.02	0.03	0.25	0.19	1.02	0.43	1.41	6.50
Brenner	0.16	0.65	0.20	1.84	0.13	0.06	0.11	0.07	0.18	1.65	0.88	0.86	6.79
Bridger	T.	0.30	T.	0.09	0.59	0.40	0.30	1.24	0.85	2.94	0.16	0.27	7.14
Browning	0.53	0.54	0.71	T.	1.67	0.64	0.02	0.80	4.96	.....	0.36	0.30	.....
Busby	0.26	0.08	0.27	0.38	1.12	1.42	0.90	0.68	0.89	1.93	0.60	0.54	9.07
Busteed	0.01	0.32	0.49	0.21	1.07	0.20	1.00	0.66	1.55	2.36	1.40	0.94	10.21
Butte	0.26	0.88	.....	0.71	0.53	0.47	0.15	0.59	0.40	1.43	1.24	1.84	.....
Canyon Ferry	0.27	1.22	0.51	0.03	1.08	0.20	0.42	0.13	0.24	1.11	0.35	0.45	6.01
Cascade	0.23	0.73	0.72	0.29	1.19	0.70	0.19	0.85	0.89	1.74	0.34	0.92	8.79
Chester	.....	.....	0.34	0.01	1.74	1.05	0.07	0.17	.....	.....	.....	.....	.....
Chinook	0.27	0.68	0.41	0.12	1.51	2.20	0.25	1.43	1.59	0.67	0.48	0.16	9.77
Choteau	T.	0.51	.....	0.05	2.22	2.23	0.15	0.63	1.49	1.22	0.27	0.56	.....
Christensen	0.24	0.68	0.12	0.02	1.74	2.05	0.35	1.01	1.34	2.21	0.19	0.82	10.77
Clear Creek	.....	0.08	.....	.....	1.67	1.52	0.08	.....	.....	.....	.....	.....	.....
Columbia Falls	1.27	2.64	0.76	0.78	3.85	0.38	0.73	1.21	0.65	1.26	2.13	0.71	16.37
Como	0.90	1.85	0.55	1.98	1.25	0.41	0.27	0.57	0.97	1.20	1.34	1.10	12.37
Copper	0.21	0.61	0.86	0.03	1.26	1.03	1.45	0.11	0.87	1.56	1.43	0.85	10.27
Crow Agency	0.36	0.09	0.55	T.	1.60	0.72	1.58	0.34	0.98	4.17	1.55	0.64	12.58
Culbertson	T.	0.32	0.48	1.00	2.10	0.99	2.88	0.99	0.39	0.78	0.10	0.20	10.23
Cut Bank	0.32	0.48	0.00	0.00	1.39	0.68	T.	1.58	0.71	0.35	0.03	0.05	5.59
Dayton	0.51	1.65	0.39	0.56	2.04	0.11	0.32	0.44	0.65	1.27	1.14	0.70	9.78
Deer Lodge	0.01	0.40	0.29	0.42	0.81	0.72	0.13	T.	.....	0.43	.....	0.87	.....
Dell	0.11	0.06	.....	1.02	0.21	0.04	0.33	0.14	0.91	1.21	0.06	0.42	.....
Denton	0.36	0.26	0.37	0.06	0.32	1.60	0.72	0.12	1.98	1.03	0.35	0.68	7.85
Dillon	0.85	1.05	0.90	1.65	0.49	0.18	0.14	0.40	1.14	2.50	1.22	2.37	12.89
Dunkirk	0.40	0.65	0.27	0.01	1.34	1.39	0.08	1.02	0.85	0.91	0.34	0.40	7.67
East Anaconda	0.12	0.51	0.11	1.10	0.71	0.09	0.15	0.57	0.13	1.14	1.32	1.70	7.65
Ekalaka	0.05	0.09	0.10	1.44	1.04	0.70	0.51	0.21	0.67	0.97	0.44	0.10	6.32
Elliston	0.29	.....	.....	0.10	0.75	0.43	0.12	0.06	0.55	1.61	1.13	0.75	.....
Ennis	0.16	0.80	0.26	.....	0.50	.....	0.10	.....	0.36	.....	0.80	2.24	.....
Findon	0.18	0.69	1.07	0.17	0.87	1.01	2.86	0.29	0.80	1.80	1.26	0.86	11.86
Flatwillow	0.20	0.28	0.45	0.15	1.00	1.48	2.18	0.28	.....	1.92	0.45	0.24	.....
Fortine	.....	2.70	0.67	0.61	1.72	0.71	0.44	1.19	0.60	0.22	1.13	2.15	.....
Fort Shaw	T.	0.56	0.96	T.	1.22	0.93	1.70	0.10	1.20	0.55	0.22	0.83	8.27
Foster	0.40	0.13	0.00	T.	0.89	0.04	0.98	1.19	0.85	0.85	1.40	0.75	7.48
Geraldine	.....	.....	.....	.....	.....	.....	0.91	0.26	1.48	3.20	1.37	1.36	.....
Glasgow	0.00	0.45	0.24	0.84	1.22	1.01	1.81	0.89	0.36	0.46	0.31	0.15	7.74
Glendive	T.	0.63	0.80	0.79	1.55	0.81	0.69	0.09	1.60	1.33	0.23	0.65	9.17
Goldbutte	0.03	0.41	0.48	0.08	1.04	0.95	.....	0.84	1.41	.....	0.58	0.75	.....
Great Falls	0.06	0.57	0.53	0.12	1.16	1.35	0.37	0.37	0.81	2.21	1.45	1.38	10.38
Hamilton	.....	.....	.....	0.44	1.07	0.07	T.	0.26	.....	.....	.....	.....	.....
Harlowton	T.	0.40	0.56	0.00	0.15	0.00	1.40	0.15	0.30	2.22	0.72	0.32	6.22
Haugan	5.10	2.93	3.62	1.41	1.55	0.19	T.	0.60	0.44	2.23	3.06	2.36	23.49
Havre	0.40	0.97	0.74	0.29	1.25	1.68	0.12	0.76	0.79	0.75	0.90	0.20	8.85
Hebgen Dam	1.18	3.25	1.84	1.01	1.77	0.09	0.77	0.74	3.15	3.76	1.70	1.80	21.06
Helena	0.14	1.19	0.70	0.01	0.96	0.32	0.16	0.12	0.57	1.25	1.07	0.98	7.47
Hercules Ranch	T.	0.06	0.40	0.62	1.73	0.92	0.75	1.19	0.88	1.98	.....	.....	.....
Heron	5.91	5.00	3.75	2.06	1.91	0.65	0.23	1.04	0.63	1.60	3.08	3.10	28.96
Highwood	0.20	0.43	0.89	0.27	1.02	1.92	0.43	0.28	1.64	1.79	0.29	0.76	9.92
Holter	0.00	1.12	0.00	0.00	0.87	0.27	0.00	0.15	0.49	0.78	0.43	0.43	4.54
Jordan	0.05	0.99	0.51	0.54	2.36	0.13	1.70	.....	1.04	1.87	0.43	0.47	.....
Kalispell	0.72	1.69	0.45	0.24	1.72	0.55	0.88	1.06	0.50	1.65	1.35	0.91	11.12
Knobles Ranch	0.04	0.55	0.54	0.08	1.52	2.01	0.16	1.23	2.08	0.90	0.44	0.19	9.74
Knowlton	T.	0.60	0.79	1.68	1.60	0.96	1.15	0.17	1.08	1.34	0.48	.....	.....
Lewistown	0.40	0.73	0.54	0.23	1.05	1.28	0.89	0.25	2.01	2.22	0.95	0.79	11.34
Libby	3.40	2.49	0.88	0.63	0.61	0.34	0.32	1.46	0.61	.....	1.37	1.30	.....
Lindsay	.....	0.62	0.79	0.83	1.56	T.	.....	.....	.....	.....	.....	.....	.....
Livingston	0.11	0.56	0.23	0.53	1.34	0.18	1.17	0.16	0.73	1.84	1.05	0.86	8.76
Lonepine	1.17	2.10	0.20	0.10	.....	T.	T.	0.30	T.	1.28	1.30	1.18	.....
Lytle	T.	0.95	0.38	0.09	1.95	0.95	0.01	0.84	1.62	0.93	0.32	0.49	8.53
Malta	T.	0.69	0.35	0.37	2.36	1.84	1.09	0.93	0.56	0.43	0.47	0.09	9.18
McClary's Ranger Station	.....	.....	.....	.....	.....	2.28	1.60	0.18	.....	.....	.....	.....	.....
Medicine Lake	T.	0.32	0.48	1.49	1.40	1.52	2.05	1.54	1.17	.....	.....	.....	.....
Mildred	0.08	0.20	T.	0.86	1.28	0.57	0.89	0.07	0.78	0.38	0.10	0.80	6.01
Miles City	0.02	0.82	0.57	1.03	1.79	0.46	1.12	0.38	1.32	2.47	0.71	0.55	11.24
Missoula	0.95	2.36	0.77	0.04	1.83	0.69	0.02	0.59	0.63	0.95	1.98	1.31	12.12
Mount Silcox	.....	.....	.....	.....	.....	.....	0.03	0.96	.....	.....	.....	.....	.....
Norris	0.21	1.11	0.48	1.47	1.98	0.12	0.09	0.64	0.71	3.18	0.79	0.89	11.67
Outlook	.....	0.56	.....	0.70	1.79	0.99	1.87	1.95	1.45	0.46	0.32	.....	.....
Ovando	0.70	1.60	0.88	0.30	1.70	0.26	0.88	0.93	0.41	1.43	1.07	0.46	10.62
Philipsburg	0.38	0.65	0.34	0.76	1.11	0.23	0.47	0.18	0.52	1.87	1.12	1.04	8.67
Pinegrove	0.33	0.40	1.02	0.25	1.22	1.15	1.62	1.34	2.35	2.11	0.63	0.32	12.74
Plains	1.77	2.77	.....	0.92	1.33	0.04	0.12	0.54	0.57	0.95	2.22	1.39	.....
Plevna	0.03	0.51	0.40	1.23	1.16	0.82	0.70	0.22	0.27	1.14	0.52	0.25	7.26
Polson	0.38	2.21	0.78	.....	2.00	0.15	0.37	1.27	0.55	1.32	1.75	1.80	.....
Poplar	0.12	0.41	0.46	0.29	2.17	0.39	1.86	0.41	0.82	0.74	0.36	0.10	8.13
Red Lodge	0.40	0.60	0.19	0.80	1.19	0.65	0.83	0.29	1.17	4.11	0.84	1.40	12.47
Renova	T.	0.89	0.19	0.79	0.48	0.12	0.30	0.46	0.52	1.73	0.59	0.41	6.48
Rock Springs	0.37	0.92	0.88	0.89	1.88	0.23	0.93	0.50	0.87	2.16	1.29	1.09	12.01
Roundup	0.40	0.18	1.08	0.07	1.12	0.37	1.49	0.42	1.22	2.76	1.76	2.08	12.95
Rudyard	0.15	.....	.....	T.	1.50	0.94	0.03	0.57	.....	.....	.....	.....	.....
Ryegate	.....	.....	.....	.....	1.03	0.22	.....	.....	.....	.....	.....	.....	.....
St. Ignatius	0.28	1.81	.....	0.26	3.11	0.17	0.24	0.37	0.95	1.63	1.48	1.14	.....
Savage	T.	0.76	0.73	0.66	1.82	0.90	1.79	0.24	0.59	1.58	0.37	0.20	9.64
Shelby	0.24	0.50	0.07	0.03	1.38	1.08	0.05	1.20	0.76	1.21	0.23	0.11	6.86
Sidney	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	0.22	.....
Snowbelt	0.05	0.86	0.81	0.54	2.37	0.40	1.74	0.36	1.99	1.68	0.61	0.41	11.82
Springbrook	0.25	1.06	1.56	1.31	2.13	0.52	0.80	0.22	0.59	3.62	0.55	0.70	13.33

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Montana—Continued.													
Stevensville	0.16	0.57	T.	0.25	1.80	0.16	0.14	0.34	0.92		1.46	1.16	
Stryker	2.01			0.66			0.30	0.92	0.60		1.84	0.80	
Suffolk	0.40			0.02	2.26						0.61	0.32	
Sula	1.35	1.43	0.55	2.72	1.05	0.49	0.16	0.67	0.29	1.18	0.76	1.20	11.76
Sun River Canyon	0.08	1.52	0.52	0.59	1.42	0.75	0.63	0.74	2.05	1.53	1.00	1.00	11.83
Sunset Orchard	0.22	0.64	0.81	0.24	1.58	T.	T.						
Superior			1.18	1.39	1.84	0.17	0.34		0.59			1.67	
Thompson Falls	2.33	2.13	1.66	1.37	1.47	0.40	0.20	0.56	0.22	1.11	1.71	1.30	14.46
Three Forks	0.11	0.65	0.16	0.20	0.44	0.34	0.00	0.00	0.44	1.35	0.55	1.13	5.38
Trout Creek	5.80	3.71	3.58	2.73	2.15	0.85	0.08	0.19	0.67	1.44	3.91	3.38	28.49
Upper Yaak River	2.98	2.73	1.67	1.76	1.31	1.04	0.25	0.63	0.43	0.41	1.05	0.97	14.63
Utica	0.80	0.34	1.20	0.04	0.95	1.02	0.68	0.28	1.71	1.58	1.16	0.53	10.29
Valentine	0.33	0.86	0.10	0.00	1.14	1.34	0.55	0.75	0.57	1.00	0.18	0.06	6.82
Valier	0.04	0.34	T.	0.13	1.40	0.70	0.38	0.64	0.97	0.58	0.28	0.20	5.66
Vananda	0.00	0.44	0.50	0.01	1.05	0.20	2.02	0.99	1.05	2.30	0.42	0.95	9.93
Victor	0.49	0.82	0.20	0.74	2.19	0.70	0.00	0.55	0.87	1.81	2.79	1.60	12.76
Virginia City	0.21	1.12	0.53	0.88	2.05	0.07	0.09	0.00	0.32	0.82		1.77	
Wheaton	0.16	0.68	0.89	0.36	0.94	0.20	1.67	0.83	1.20	1.33	1.50	1.07	10.83
White Sulphur Springs	T.	0.51	0.74	0.00	0.77	0.87	0.78	0.10	0.69	0.67	0.32	0.67	6.12
White Water	0.03	0.33	0.25	0.49	1.33	3.42	0.89	1.68	0.45	0.40	0.37	0.03	9.67
Wibaux	0.00	0.11	0.44	1.35	2.64	0.80	1.88	0.20	0.44	2.18	1.64	0.41	12.09
Willow Creek Reservoir								0.31	1.49	1.46	0.67	0.98	
Nebraska..													
Ainsworth	0.20	1.20	1.10	2.42	1.21	3.07	3.25	2.72	2.66	3.44	2.93	0.60	24.80
Albion	0.25	2.35	0.36	2.50	2.36	3.57	3.58	4.36	1.14	2.17	3.18	0.53	26.35
Alliance	0.22	1.30	0.12	1.10	1.33	2.14	3.94	0.28	1.90	1.03			
Alma	0.15	1.73	1.38	4.63	2.91	3.53	4.69	0.50	5.52	2.56	2.86	0.41	30.87
Antioch	0.04												
Arcadia	0.00			2.86	3.29	8.09	3.63	1.68	0.90	1.26	2.67		
Arden	0.21	4.82	0.54	4.83	3.72	2.52	2.24	4.53	1.00	2.04	3.33	0.50	30.28
Ashland	0.11	1.90	1.05	2.24	2.00	6.49	1.47	3.15	5.40	1.78	2.94	0.72	29.25
Atkinson	0.75	1.87	0.27	2.63	2.85	3.38	2.07	2.12	2.20	1.35	3.05	0.80	23.35
Auburn	0.53	3.00	3.75	4.80	1.38	6.44	3.02	1.18	8.19	1.12	3.19	0.47	37.07
Beatrice	0.15	1.15	0.82	3.96	3.61	5.19	0.25	2.20	6.43	1.89	2.62	0.60	28.88
Beaver City	T.	1.63	0.94	3.90	2.21	3.60	5.13	0.42	2.28	1.09	2.68	0.19	24.07
Bertrand	0.05	1.40	1.01	4.27	2.61	4.06	3.54	0.81	1.27	1.45	1.82	0.75	23.04
Bigspring	T.	1.19	0.91			4.73	2.45	0.81	1.09				
Blair	0.30	2.86	1.06	4.15	2.63	9.58	1.70	2.29	2.66	1.81	3.05	0.63	32.72
Bradshaw	0.02	3.22	1.87	5.50	3.95	9.94	1.84	4.74	4.30	2.13	4.08	0.62	42.21
Brewster	0.20	1.09	0.93	2.57	3.58	6.50	2.75	0.86	1.43	1.44	2.60	0.38	24.33
Bridgeport	0.05	1.13	0.53	0.87	1.21	1.97	1.64	0.40	1.91	1.14	0.88	0.69	12.42
Broken Bow	0.03	2.16	0.59	3.09	3.75	5.53	4.29	1.05	1.18	1.11	2.28	0.15	25.21
Brownlee	0.10	1.51	0.35	1.42	1.68	2.57	1.75	0.62	1.83	1.67	2.20	T.	15.70
Bruning	0.04	3.12	0.41	3.94	3.76	6.99	0.52	0.86	10.05	2.06	2.77	0.56	35.08
Burwell	0.00	1.55	0.40	2.05	3.28	4.39	3.10	0.85	0.74	0.90	2.43	0.45	19.94
Butte	0.15	1.30	0.73	3.64	2.51	4.66	2.62	1.30	2.76	1.55	2.69	0.25	24.16
Cairo	0.18	2.68	0.51	4.84	2.69	3.55	4.50	0.15	1.09	2.57	3.34	0.48	26.58
Callaway	0.09			1.65	2.56	3.78	4.49	0.58	1.38	0.45	2.43	0.37	
Canton									2.25	0.65	1.35	0.80	
Central City	0.05	1.99	1.02	3.89	2.11	5.21	4.05	2.25	2.43	3.20	3.35	0.35	29.90
Chadron	0.00	1.14	1.46	4.10	1.50	1.40	3.09	0.09	0.46	1.96	1.11	0.14	16.45
Clay Center	T.	2.51	0.50	4.44	3.62	4.32	1.55	0.16	8.55	2.20	3.70	0.90	32.45
Columbus	0.06	2.27	1.14	1.99	1.62	6.72	2.23	4.55	0.91	3.07	4.12	0.16	28.84
Crete	0.01	0.92	0.66	3.83	3.74	8.38	0.60	2.47	6.95	2.37	2.64	0.85	33.42
Culbertson	0.00	1.66	1.52	2.25	1.20	5.07	1.38	0.78	0.73	1.27	2.52	1.42	19.80
Curtis	0.00	1.42	0.80	2.50	1.40	4.10	2.80	0.20	1.10	1.68	1.50	1.30	18.80
David City	0.28	2.15	0.82	3.38	2.31	9.11	2.65	3.95	2.30	1.55	4.14	0.65	33.82
Drexel	0.12	3.01	0.98	4.53	5.59	7.79	0.69	3.63	3.80	1.72	2.79	0.75	35.40
Dumas	0.15	1.21	0.72	1.67	3.24	4.35	2.20	2.72	1.04	1.38	2.34	0.20	21.22
Elm Creek	0.00	1.79	0.80	5.75		5.47	3.68	1.92	0.78	0.92	2.32	1.23	
Elsie	0.00	1.50	0.58	3.48	1.49	6.29	2.05	0.86	2.63	2.12	2.02	0.95	23.97
Ericson	0.20	1.85	0.25	2.80	3.86	2.28	2.07	0.97	0.10	1.59	2.13	0.50	18.60
Ewing	0.09	1.41	0.77	3.38	3.55	6.51	1.46	2.96	2.62	2.78	1.97	0.30	27.80
Fairbury	0.08	3.05	0.86	5.83	4.95	4.80	0.56	1.51	7.38	1.80	2.38	0.48	33.68
Fairmont	0.12	2.55	0.65	3.66	3.13	8.03	0.53	0.72	7.37	2.35	3.75	0.80	33.66
Falls City	0.10	2.07	3.40	4.83	5.72	5.63	4.02	1.08	7.63	1.38	2.93	0.40	39.19
Fort Omaha	0.09	2.36	0.80	5.54	1.85	4.08	0.92	0.97	5.04	2.05	2.24	0.84	26.78
Fort Robinson	0.00	1.28	0.88	2.41	2.03	0.79	1.23	0.61	0.47	2.01		0.52	
Franklin	T.	2.69	0.73	5.05	3.87	3.20	2.47	1.37	8.72	2.01	3.25	0.75	34.11
Fremont	0.14	2.58	1.34	5.48	2.68	6.92	1.22	3.85	2.17	1.58	3.70	0.60	32.36
Fullerton	0.08	2.47	0.64	4.27	1.99	3.25	3.22	3.21	0.95	2.28	3.75	0.44	26.55
Geneva	0.32		0.46	2.94	3.39	7.12	0.52	0.41	9.56	1.82	3.60	0.84	
Genoa	0.10	1.85	0.75	2.20	2.22	5.62	2.33	2.22	0.95	3.17	2.88	0.37	24.66
Gibbon						3.93	6.77	1.04	2.18	1.93	3.32	0.51	
Gordon	0.04	0.67	1.35	2.28	1.29	0.92	1.98	0.33	1.39	2.11	1.54	0.32	14.22
Gosper	0.00	1.89	0.75	2.88	2.80	4.15	4.47	1.13	0.55	1.34	2.12	0.40	22.48
Gothenburg	0.00	2.00	0.73	2.90	2.18	4.10	2.65	0.73	1.00	1.66	2.85	0.80	21.60
Grand Island	0.20	2.07	0.66	5.08	2.16	4.74	4.20	0.33	2.87	1.84	2.85	0.83	27.83
Greeley							4.20	1.63	0.47	1.84	3.35	0.34	
Guide Rock	0.00	2.22	0.54	4.21	3.04	6.12	0.27	0.66	6.89	2.00	3.37	0.63	29.95
Haigler	T.	0.45	0.86	1.80	1.10	4.60	1.01		3.67	1.00	1.50	T.	
Halsey	0.07	0.92	0.28	1.62	2.55	4.55	2.59	0.78	0.94	2.12	2.25	0.17	18.84
Hardy	0.03	3.93	0.68	4.40	2.77	4.64	0.13		7.09	1.86	3.13	0.91	
Harrison							0.39	0.55	1.16				
Hartington	0.30	2.76	0.94	3.36	3.59	5.07	2.27	1.84	2.49	2.22	2.89	0.35	28.02
Hastings	0.10	2.50	0.86	5.04	2.26	4.20	4.25	0.37	8.35	1.95	3.45	0.80	34.13
Hayes Center	0.05	1.84	0.93	2.95	0.81	5.62	3.71	1.37	1.82	3.13	2.15	1.20	25.58
Hay Springs	0.00	1.10	1.80	2.72	2.33	1.57	2.13	0.30	0.79	1.54	1.97	0.10	16.35
Hebron	0.06	2.85	0.48	4.59	4.13	7.29	0.37	1.07	7.29	1.93	2.89	0.35	33.30
Hemingford	0.13	1.21	1.66										
Hershey	0.00	1.10	0.47	3.33	1.54	6.31	1.90	0.86	2.13	2.16	2.35	1.13	23.28
Hillside			1.10	1.21	3.67	4.09	1.59	1.27	2.61	2.70	2.61	0.83	
Holdrege	0.08	1.55	1.40	3.71	2.61	5.44	4.14	0.43	1.80	2.17	1.78	0.67	25.83
Hull	T.												

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Nebraska—Continued.													
Imperial	0.04	1.13	1.41	1.97	0.80	13.73	2.16	0.73	2.78	2.32	1.49	1.38	29.94
Kearney	0.00	1.66	0.77	4.53	2.61	7.58	5.25	1.17	1.96	2.07	2.74	0.78	31.12
Kimball	0.10	0.85	1.00	1.96	1.29	4.87	1.25	1.79	2.80	1.24	1.60	0.80	19.55
Kirkwood	0.00	.....	0.23	2.56	3.44	4.87	4.87	0.24	3.42	1.53	2.13	0.10	23.62
Kola	T.	.....	.....	1.48	4.64	3.04	0.94	3.61	1.16	0.93	.....	.....	.....
Kowanda	T.	0.90	0.21	0.47	1.32	2.51	3.29	0.51	1.38	.....	1.45	0.35	.....
Lexington	T.	2.90	0.18	2.77	2.33	5.37	2.57	3.44	0.86	3.43	1.95	1.27	27.07
Lincoln	0.03	2.92	1.00	3.39	3.83	4.99	0.38	4.67	5.75	1.41	3.20	0.73	32.30
Lodgepole	0.30	1.50	0.25	1.73	2.72	3.91	1.91	1.21	1.94	1.42	1.53	0.53	18.95
Loup City	T.	0.88	0.45	2.40	3.16	.....	.....	0.10	0.48	1.63	2.64	0.45	.....
McCook	0.00	1.46	1.01	2.26	1.03	3.45	1.92	2.11	0.45	1.15	1.47	0.30	16.61
McCool Junction	0.00	3.40	0.40	2.68	5.21	6.79	0.89	1.00	6.41	1.91	3.66	0.80	33.15
Madison	0.05	.....	0.90	4.21	1.88	5.57	3.24	4.11	0.85	3.17	3.80	0.35	.....
Madrid	0.12	1.07	1.02	2.21	3.92	7.98	2.12	0.39	2.10	1.93	1.95	0.77	25.58
Marquette	0.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mary	0.26	1.51	0.98	.....	.....	3.23	2.82	0.92	0.77	2.57	2.22	0.20	.....
Mason City	0.00	2.25	0.50	3.87	4.40	6.00	2.75	0.91	0.72	2.02	2.95	0.60	27.00
Melbeta	0.00	0.93	0.83	1.29	0.55	0.71	0.74	0.44	7.38	1.37	1.51	0.38	16.13
Merriman	0.00	1.18	1.26	1.55	.....	1.95	5.99	0.66	1.65	2.84	1.99	0.28	.....
Minden	T.	2.88	1.12	4.64	2.28	6.25	5.93	1.40	2.46	1.85	3.39	0.50	32.70
Mitchell	0.00	0.63	0.35	0.84	1.61	1.03	0.68	0.47	3.90	1.28	1.00	0.40	12.19
Nebraska City	0.20	2.95	1.99	4.03	1.77	4.31	0.80	1.61	6.68	0.80	3.65	0.75	30.14
Neligh	0.27	2.22	0.86	4.11	3.06	3.69	2.86	1.65	2.41	2.16	2.67	0.16	26.10
Nenzel	0.25	1.28	1.10	1.49	2.18	5.06	0.59	1.41	0.84	1.97	1.96	0.14	18.27
Norfolk	0.22	2.81	1.00	4.77	2.78	7.41	4.83	2.11	2.30	2.26	3.27	0.91	34.67
North Loup	0.09	1.87	T.	3.52	3.16	5.43	5.37	0.73	0.56	1.63	3.54	0.18	26.08
North Platte	0.03	1.50	0.44	2.21	2.33	4.15	4.98	0.76	1.56	1.36	2.83	0.32	23.47
Oakdale	0.16	2.59	0.32	2.75	2.80	3.10	2.37	2.36	1.57	3.36	2.90	0.33	24.61
Ogallala	.....	.....	.....	1.69	2.32	6.00	3.43	.....	.....	.....	.....	.....	.....
Omaha	0.10	2.07	1.59	4.66	1.70	4.44	0.63	2.91	5.28	2.79	2.84	0.60	29.70
O'Neill	0.19	1.65	0.77	3.26	3.25	5.63	1.26	1.89	2.50	1.70	2.71	0.32	25.21
Ord	0.00	1.50	0.12	1.71	3.08	4.61	3.73	0.30	0.77	1.54	4.07	0.20	21.63
Orleans	0.15	1.80	1.93	4.00	2.57	3.62	4.85	0.40	2.83	2.53	2.17	0.68	27.33
Osceola	0.10	.....	.....	.....	1.50	7.40	1.75	5.13	.....	1.45	.....	.....	.....
Oshkosh	T.	1.58	0.71	1.46	1.20	3.54	2.81	0.64	1.38	1.65	1.83	0.68	17.48
Palisade	0.03	1.55	1.05	1.72	0.81	3.99	2.16	1.16	0.77	1.44	2.33	1.00	18.01
Pawnee City	0.10	1.88	3.15	5.03	6.60	5.92	3.37	1.70	9.24	1.43	2.35	0.40	41.17
Paxton	T.	2.42	0.74	2.71	2.38	5.79	4.01	0.48	2.30	2.21	2.90	1.58	27.42
Plattsmouth	.....	.....	1.70	9.09	2.87	4.97	0.25	.....	.....	.....	.....	.....	.....
Purdum	0.45	1.50	1.00	1.78	2.48	2.52	4.18	0.47	1.36	1.65	4.16	0.74	22.29
Ravenna	0.05	1.77	0.18	4.01	3.55	7.13	5.74	0.47	1.23	1.65	3.10	1.05	29.93
Red Cloud	T.	4.03	0.68	5.71	4.20	4.73	0.60	0.32	8.41	2.05	2.80	0.65	34.18
St. Paul	0.03	2.01	0.64	2.96	2.77	4.60	7.51	0.94	1.52	1.75	2.87	0.28	27.88
Santee	0.33	0.90	0.42	1.93	3.36	8.63	3.59	1.80	3.23	2.06	2.93	0.04	29.22
Schuyler	0.22	2.46	0.77	4.78	2.57	4.85	2.37	6.86	.....	.....	.....	.....	.....
Scottsbluff	0.03	0.96	0.58	0.83	0.89	1.99	1.16	0.08	2.91	1.16	1.32	0.42	12.33
Seward	0.05	4.11	0.69	3.90	3.76	8.76	0.63	1.60	7.04	2.46	3.62	0.67	37.29
Sidney	0.20	0.78	0.90	2.40	1.65	2.43	1.70	1.42	2.43	1.05	1.15	0.88	16.99
Springfield	0.45	2.26	0.52	6.27	2.20	7.40	0.34	3.53	9.84	2.52	3.18	0.92	39.43
Stanton	0.15	2.07	0.93	3.67	2.79	6.03	4.97	2.54	0.86	2.11	4.18	0.61	30.91
Stratton	0.00	1.06	0.97	.....	1.24	5.36	0.80	0.30	0.91	1.09	1.63	0.20	.....
Syracuse	0.20	2.78	1.55	4.76	1.71	7.03	0.30	3.45	6.24	2.26	3.06	1.11	34.45
Table Rock	0.15	1.74	3.01	4.36	2.92	7.51	2.29	1.17	7.42	1.36	2.87	0.44	35.24
Tecumseh	0.09	2.53	1.64	2.28	2.15	7.93	0.10	1.25	5.96	1.55	2.99	0.60	29.07
Tekamah	0.35	2.95	1.10	3.44	1.95	7.02	2.10	3.34	2.31	2.05	3.60	0.60	30.81
Trenton	.....	.....	0.24	.....	.....	.....	1.41	0.22	0.74	1.29	2.19	.....	.....
University Farm	0.03	2.98	1.21	3.49	1.72	7.36	0.43	3.39	5.28	1.65	3.19	0.73	31.46
Upland	0.00	1.87	1.15	3.66	4.03	3.80	4.30	1.13	5.37	1.76	3.80	1.35	32.22
Utica	0.06	2.87	0.54	4.30	3.01	6.62	0.76	2.60	4.71	1.52	3.38	0.68	31.05
Valentine	0.06	0.73	0.51	1.67	2.14	2.17	1.34	1.60	1.04	1.20	2.61	0.22	15.29
Wahoo	0.20	.....	1.52	3.63	2.00	6.54	0.31	5.12	3.51	1.91	3.49	0.90	.....
Wakefield	0.35	3.08	1.36	3.23	2.73	7.56	3.48	1.79	4.78	1.71	3.81	0.36	34.24
Walthill	0.36	3.46	0.83	4.24	2.97	8.76	3.42	1.32	3.26	2.23	3.40	0.42	34.67
Watertown	T.	2.85	0.30	2.54	1.67	5.37	2.95	1.49	0.66	1.20	1.98	1.10	22.11
Wauneta	0.00	0.95	0.51	2.72	1.22	5.80	2.38	0.67	1.25	1.22	1.83	1.12	19.67
Weeping Water	0.25	3.00	0.85	4.62	3.32	3.01	1.90	2.87	8.40	1.23	2.65	0.77	32.87
West Point	0.10	2.51	1.17	4.31	2.83	4.69	1.60	5.42	2.62	3.83	4.66	0.64	34.38
Wisner	0.10	3.45	1.30	6.35	3.70	9.47	3.66	4.02	1.77	2.44	4.29	0.05	40.60
York	0.08	3.60	0.78	4.47	3.14	5.96	1.26	2.29	4.56	2.61	4.27	0.97	33.99
Nevada.													
Arthur	T.	4.46	1.20	0.77	0.27	0.00	0.19	0.45	1.33	1.41	1.10	2.61	13.79
Austin	T.	2.02	1.33	0.59	1.59	0.00	0.00	0.11	0.74	0.48	1.20	1.09	9.15
Battle Mountain	0.00	.....	.....	0.05	0.08	0.00	0.00	0.00	0.06	0.03	.....	.....	.....
Beatty	0.07	0.16	0.59	0.31	0.00	0.00	0.62	0.00	0.06	0.00	0.20	0.62	2.63
Beowawe	0.01	.....	.....	0.37	0.10	0.00	0.00	0.10	.....	0.02	.....	.....	.....
Clover Valley	0.33	2.04	1.72	0.94	0.14	0.00	0.17	0.00	1.58	1.34	0.80	1.43	10.49
Duck Flat	0.35	1.53	0.36	T.	0.00	0.00	0.00	0.13	0.71	0.14	T.	1.53	4.75
Elko	T.	1.35	0.55	0.10	0.20	0.00	0.00	0.00	0.15	0.80	0.30	0.90	4.35
Eureka	0.01	1.07	1.70	0.31	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fallon	T.	0.25	0.35	0.40	0.36	0.00	0.09	0.00	0.73	0.18	0.20	0.74	3.30
Gerlach	0.11	1.08	0.47	0.13	0.10	0.00	0.00	0.07	0.35	0.15	0.17	1.59	4.12
Golconda	T.	0.87	0.34	0.36	0.95	0.00	0.00	0.00	0.39	0.86	0.38	1.34	5.29
Gold Creek	0.57	5.40	1.32	1.91	2.07	0.00	0.20	0.23	1.60	3.47	0.87	2.31	19.95
Goldfield	T.	0.36	1.35	0.06	0.90	0.00	0.09	0.04	0.09	0.76	0.02	0.21	3.88
Hylton	0.09	1.48	1.32	0.61	0.43	T.	0.37	0.42	1.19	1.40	1.35	0.96	9.62
Imlay	T.	.....	.....	0.40	0.95	0.00	0.00	0.00	0.25	0.35	0.59	0.29	.....
Indian Springs	.....	0.09	0.75	0.10	.....	0.00	0.45	.....	.....	.....	.....	.....	.....
Junco	0.00	0.54	0.12	T.	0.50	0.00	0.00	0.00	0.30	T.	0.00	0.64	2.10
Lahontan	T.	0.70	0.28	0.86	0.27	0.00	T.	T.	0.40	T.	T.	0.31	2.82
Lamoille	T.	2.10	1.42	0.97	0.55	0.00	0.28	0.05	0.83	1.29	0.99	1.07	9.55
Las Vegas	0.37	0.30	0.28	0.60	0.02	0.00	1.25	0.32	0.31	0.18	0.42	0.06	4.11
Lemmons Valley	0.05	3.38	0.63	0.32	0.22	T.	0.10	0.01	0.40	0.15	0.12	2.67	8.05
Logandale	0.36	0.17	0.15	0.04	0.56	0.00	2.43	0.17	1.48	0.30	0.43	0.28	6.37
Lovelock	T.	0.83	0.60	0.16	0.46	0.00	0.00	0.02	0.49	0.20	0.25	0.75	3.76

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Nevada—Continued.													
McDermitt	0.28	1.75	0.59	0.44	0.55	0.00	0.00	0.01	0.97	0.76	0.85	0.40	6.00
McGill	T.	1.69	0.90	0.29	1.10	T.	0.33	0.24	1.33	0.64	1.00	0.42	7.94
Marlette Lake	1.43	11.39	3.92	1.29	0.38	0.00	0.05	0.07	0.47	2.36	0.86	7.23	29.47
Metropolis	0.04	1.11	3.12	0.56	0.75	0.00	0.19	T.	1.37	1.73	0.45	0.50	9.82
Millett	T.	1.00	0.33	0.12	1.07	0.00	T.	T.	0.51	0.20	0.12	0.66	4.01
Mina	0.00	0.77	0.99	0.66	2.21	0.00	0.00	0.00	0.71	0.03	0.00	0.19	5.56
Minden	0.35	2.25	0.19	0.80	0.58	0.00	0.15	0.00	0.39	0.15	0.19	2.22	7.27
North Fork	0.00	1.10	0.64	1.34	0.70	0.00	T.	0.00	0.70	1.29	0.38	1.27	7.62
Oasis Ranch	0.00	0.24	.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Owyhee	0.65	2.62	1.68	1.66	1.22	0.00	.....	0.06	0.60	3.05	1.43	1.77	.....
Paradise Valley	0.13	3.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potts	0.04	0.82	0.63	0.10	1.00	0.00	0.00	T.	T.	0.56	0.64	0.32	4.11
Quinn River Ranch	0.37	1.01	0.15	T.	0.10	0.00	0.00	0.09	0.26	0.16	0.15	0.40	3.20
Rebel Creek	0.07	2.78	0.59	0.33	0.72	0.00	0.00	0.00	0.70	1.18	0.82	0.61	7.80
Reno	0.42	3.05	0.84	0.25	1.18	T.	T.	0.08	0.40	0.24	0.18	3.00	9.64
Sand Pass	0.16	1.75	0.15	0.18	T.	0.00	0.00	T.	0.50	0.11	0.10	2.01	4.96
San Jacinto	T.	0.67	0.67	0.45	0.71	0.00	0.39	0.17	1.97	0.84	0.13	0.45	6.16
Searchlight	0.50	0.78	0.48	0.17	0.09	0.00	4.01	0.98	0.86	0.79	0.41	0.42	9.49
Sharp	0.08	1.39	1.19	0.00	1.30	0.60	0.84	0.49	0.78	0.40	0.67	0.29	7.37
Smith	0.47	0.49	0.48	0.64	0.47	0.00	0.22	T.	0.46	0.05	0.12	1.04	4.44
Sulphur	0.03	0.40	0.15	0.61	0.23	0.00	0.00	0.00	T.	0.37	0.17	0.54	2.50
Tecoma	0.00	0.40	0.66	0.06	0.31	0.00	0.00	0.03	0.16	0.28	0.08	0.19	2.17
Thorne	T.	0.75	0.30	.....	0.40	0.00	0.05	0.00	1.00	0.00	0.00	0.15	.....
Tonopah	0.10	0.40	1.05	0.03	1.36	T.	0.34	0.01	0.39	0.32	0.20	0.13	4.53
Tuscarora	0.51	2.53	1.24	0.45	0.72	0.00	0.26	0.00	0.45	2.52	0.91	1.10	10.79
Vya	0.45	1.76	0.22	0.08	0.01	0.00	T.	0.10	1.74	.....	.....	1.15	.....
Winnemucca	0.10	1.52	0.57	0.49	1.25	0.00	T.	T.	0.40	0.88	0.72	0.94	6.67
Yerington	0.05	1.28	0.23	0.82	0.41	0.00	T.	T.	0.33	0.00	0.08	0.55	3.75
New Hampshire.													
Alstead Center	2.18	1.81	4.60	1.79	6.67	2.10	2.38	4.37	6.36	2.91	5.26	1.56	41.90
Berlin	2.49	1.05	4.65	1.81	2.51	2.27	1.44	2.39	4.21	5.29	4.82	1.42	31.85
Bethlehem	.....	.....	.....	3.32	2.39	2.26	1.88	2.81	4.67	4.81	5.11	1.79	.....
Concord	3.05	1.94	3.28	1.92	5.11	1.64	1.47	1.60	3.07	2.71	3.98	0.99	30.76
Durham	2.81	2.46	3.85	2.33	4.66	1.87	1.61	2.16	5.36	2.79	5.20	1.65	36.75
Franklin	2.57	1.79	4.24	1.59	6.36	2.22	2.59	2.75	2.97	3.44	3.54	1.25	37.36
Glencliff	2.27	1.66	4.77	2.09	3.83	2.96	2.73	3.32	6.64	5.00	4.77	1.43	41.47
Hanover	1.84	1.23	3.41	1.74	5.56	1.70	2.17	3.88	4.88	4.04	4.15	1.62	36.22
Keene	2.15	1.81	4.93	1.82	5.93	1.03	2.26	3.87	4.69	2.72	4.95	1.53	36.74
Pittsburg	3.46	1.95	3.16	3.72	2.80	2.65	4.23	4.63	6.59	7.13	3.22	1.80	45.34
Plymouth	2.27	1.50	4.68	1.66	6.01	2.66	2.47	3.30	4.78	4.98	4.97	1.29	40.57
New Jersey.													
Asbury Park	.....	3.30	4.69	.....	3.45	4.53	7.29	7.37	3.31	2.20	4.15	4.42	.....
Atlantic City	4.44	3.22	3.82	3.50	5.38	2.90	5.30	11.57	1.48	2.11	3.27	2.45	49.44
Belvidere	3.70	3.86	4.75	3.44	5.36	5.39	6.92	6.75	2.02	4.35	5.54	2.46	54.48
Bergen Point	3.52	3.73	.....	2.55	5.80	3.02	4.81	7.55	3.83	2.77	3.96	2.87	.....
Boonton	3.40	3.66	6.26	2.73	4.19	2.32	14.40	5.28	4.21	3.90	4.17	1.84	56.36
Bridgeton	3.81	3.65	3.77	3.45	5.85	5.56	11.38	8.30	1.98	3.54	3.28	5.14	59.69
Burlington	3.72	3.51	5.58	3.15	4.45	1.69	8.23	6.34	2.48	2.73	3.61	3.33	48.82
Camp Dix	3.56	2.93	4.43	1.97	5.36	1.98	8.37	5.57	3.13	2.67	2.88	3.76	46.61
Cape May	3.54	2.50	3.99	4.45	5.36	1.15	5.68	12.60	1.59	2.92	2.80	2.17	48.75
Charlotteburg	3.03	3.50	6.08	2.86	4.97	3.48	11.09	5.86	4.00	4.96	4.40	2.29	56.52
Chatham	.....	3.72	.....	2.87	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clayton	4.06	2.97	4.31	.....	5.62	3.41	9.80	.....	1.65	2.59	2.62	2.82	.....
Culvers Lake	2.79	3.23	4.71	2.20	4.97	6.45	7.09	5.09	3.39	4.54	6.18	2.16	52.80
Dover	3.58	3.83	6.23	2.72	4.17	4.17	10.40	6.08	4.41	4.97	4.50	3.09	58.15
Elizabeth	3.53	3.74	5.86	2.87	5.37	3.43	8.88	6.68	4.41	4.24	3.44	2.85	55.30
Flemington	3.73	3.27	5.06	2.49	4.10	3.96	12.66	6.06	4.54	3.56	4.02	3.07	56.64
Hammonton	4.10	3.29	4.39	3.23	4.82	3.13	7.75	5.82	1.74	3.22	3.16	3.97	48.62
Hightstown	.....	3.26	5.02	3.38	5.85	2.20	8.62	5.26	2.63	3.48	3.75	3.58	.....
Highwood	3.13	3.20	6.50	2.86	4.37	3.47	7.89	5.63	6.08	2.47	3.43	2.86	51.69
Imlaystown	.....	.....	.....	.....	.....	.....	.....	5.79	2.80	2.95	3.33	3.49	.....
Indian Mills	3.93	3.30	4.62	2.98	4.88	3.83	9.11	7.84	1.43	2.65	3.26	4.08	51.91
Jersey City	3.36	3.46	5.88	2.55	4.72	2.84	7.78	7.12	4.78	3.78	3.52	2.68	52.47
Kearny	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.89	4.36	2.79	.....
Lakewood	3.35	3.45	5.01	3.23	4.63	2.62	7.71	9.70	2.25	2.35	3.31	3.84	51.45
Lambertville	3.53	.....	5.95	2.96	4.66	4.18	10.98	7.07	3.78	2.90	3.16	2.91	.....
Layton	2.24	1.37	5.92	2.82	4.46	4.08	9.71	3.09	2.40	4.22	5.19	2.17	47.67
Little Falls	3.26	3.22	6.08	3.35	5.41	2.17	7.32	4.74	5.01	3.92	3.82	2.74	51.04
Long Branch	4.07	0.48	6.75	4.72	5.45	2.70	9.51	9.64	2.26	3.71	4.54	3.80	63.63
Moorestown	3.02	3.12	5.26	3.08	4.96	1.73	10.10	5.94	2.42	2.75	2.68	3.67	48.73
Newark	3.07	3.44	5.03	2.51	4.74	2.73	8.83	6.82	4.38	4.05	3.68	3.12	52.40
New Brunswick	3.41	3.60	6.09	2.73	5.11	5.31	8.33	6.30	2.01	3.13	3.72	2.67	52.41
New Milford	3.00	3.20	6.45	2.61	4.48	1.67	6.46	4.40	5.93	3.76	3.58	2.43	47.97
Newton	3.77	2.98	4.22	2.41	4.39	5.10	5.73	5.83	1.75	4.87	5.36	2.36	48.77
Northfield	3.96	3.25	4.14	4.33	5.17	1.95	4.45	12.32	1.56	2.01	2.94	2.64	48.72
Palisades Park	3.41	3.46	6.09	2.67	4.29	2.62	8.10	6.15	5.18	3.22	3.39	2.60	51.18
Paterson	2.99	3.17	7.40	2.68	5.28	2.00	7.96	4.05	5.18	3.64	2.56	2.09	49.00
Phillipsburg	3.40	3.30	4.61	2.30	4.71	4.61	6.87	6.41	3.83	4.14	4.95	2.67	51.80
Plainfield	.....	.....	6.20	2.91	6.15	3.54	8.56	5.13	4.21	4.33	3.86	2.96	.....
Pleasantville	3.94	3.50	4.17	4.44	5.07	2.04	4.91	8.21	1.65	2.40	3.28	2.75	46.34
Pompton Plains	3.65	3.55	6.28	2.52	4.22	3.12	12.78	5.47	6.28	4.25	4.10	2.41	58.63
Sandy Hook	2.94	3.41	3.94	2.61	3.06	2.50	5.79	5.76	2.80	2.61	2.98	2.72	41.12
Somerville	3.47	3.30	6.69	2.97	4.63	2.81	12.33	5.74	4.21	.....	4.22	2.88	.....
South Orange	3.63	3.87	6.23	2.97	6.54	3.27	7.44	7.44	4.42	3.62	4.62	3.04	57.09
Sussex	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.08	5.88	2.20	.....
Trenton	3.28	3.25	4.64	2.91	4.18	1.39	10.41	4.82	2.74	3.09	3.10	2.94	46.75
Tuckerton	4.21	2.97	4.84	4.79	7.68	2.66	8.72	12.46	1.92	3.64	3.83	3.00	60.72
Vineland	3.36	3.40	.....	3.20	6.09	2.41	6.38	7.59	2.35	3.79	1.98	4.35	.....
Woodbine	.....	.....	.....	.....	.....	0.37	5.53	12.88	1.04	2.44	2.32	.....	.....
Woodcliff Lake	2.51	2.97	5.46	2.21	4.69	2.81	5.24	3.74	5.18	3.61	2.94	.....	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New Mexico.													
Abbott	0.00	0.57	4.04	1.86	1.80	1.60	1.39	1.00	2.60	1.74	0.39	0.15	17.05
Agricultural College	0.10	T.	1.31	0.46	0.05	0.29	1.21	0.90	2.09	0.61	0.78	0.25	8.05
Alamogordo (No. 1)	0.02	0.09	2.32	1.67	0.23	1.43	2.47	1.10	3.16	0.69	1.59	0.25	15.02
Alamogordo (No. 2)	T.	T.	2.28	1.87	0.27	1.76	2.81	1.14	3.30	0.69	0.95	0.44	15.51
Alamos Ranch	1.10	0.84	3.27	3.26	3.44	0.48	7.98	4.70	1.27	1.17	0.96	0.70	29.17
Albuquerque	T.	0.13	1.25	1.93	1.34	0.84	4.12	0.98	1.36	1.61	0.68	0.79	15.03
Alma	0.33	0.91	0.78	0.68	0.89	0.88	2.31	1.35	2.42	0.89	2.63	0.47	14.54
Ancho	T.	0.39	0.86	1.95	2.27	2.63	1.37	2.16	1.96	0.31	1.26	0.40	15.56
Anchor Mine	0.55	3.87	4.24	4.02	4.51	3.05	8.45	4.15	1.97	2.72	3.08	1.48	42.12
Aragon	0.07	1.88	0.38	0.64	0.80	0.60	3.30	0.75	1.60	0.20	1.47	0.30	11.99
Artesia	0.15	0.02	4.57	1.01	0.62	1.68	1.41	0.37	6.44	1.00	0.58	0.30	18.15
Aspen Grove Ranch	0.39	1.91	4.13	3.00	3.04	1.13	6.02	2.71	1.81	3.00	1.71	2.36	31.21
Aurora	0.00	1.50	4.37	2.26	3.47	2.89	4.25	2.34	3.14	1.77	0.88	0.35	27.22
Aztec	0.04	0.29	1.11	0.63	0.07	T.	1.44	0.63	0.24	0.75	0.47	0.68	6.36
Baca Ranch Ranger Station	0.14	T.	2.79	1.45	1.47	2.51	2.36	1.66	5.28	0.81	1.05	0.00	19.51
Baldwin Ranger Station	T.	0.90	1.30	1.47	0.70	1.20	5.00	.....	1.40	0.60	.....	.....	.....
Bateman's Ranch	1.13	1.25	1.15	2.55	3.43	0.70	5.15	4.82	2.86	2.93	1.52	1.81	29.30
Barton	0.17	1.21	3.37	3.40	2.06	1.41	5.61	2.17	2.98	1.43	0.93	1.82	26.56
Bell Ranch	0.00	0.43	4.16	3.97	2.87	3.29	3.57	1.33	5.87	4.81	0.93	0.37	31.60
Black Lake	0.40	2.14	1.67	1.47	2.62	3.61	3.62	1.59	1.63	1.85	0.47	0.06	21.13
Blackrock	0.05	0.85	1.38	0.67	0.79	T.	5.39	0.92	3.57	0.41	1.17	1.74	16.94
Bland (near)	0.08	1.09	3.74	3.16	6.29	1.00	7.45	2.46	1.48	1.82	1.54	0.44	30.55
Bloomfield	0.08	0.23	0.50	0.09	0.74	0.08	2.21	0.55	0.53	1.49	0.46	1.04	8.60
Bluewater	T.	0.28	0.46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boaz	0.10	0.08	3.85	1.29	1.04	1.56	0.53	1.78	6.23	1.45	0.19	0.32	18.42
Buchanan (near)	0.11	0.14	5.50	2.32	2.31	0.77	1.28	1.14	7.16	0.35	0.35	0.48	21.91
Cabeza	T.	0.52	3.67	2.45	2.24	1.90	4.40	1.90	4.20	5.25	0.82	T.	27.35
Cambray	0.00	0.30	0.60	0.75	0.20	1.60	0.70	1.15	1.35	0.85	1.36	0.15	9.01
Camp Cody	0.30	0.22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Campana	0.05	0.78	3.18	2.14	2.83	2.07	4.50	0.80	7.99	3.17	0.35	T.	27.86
Capitan	0.08	0.05	2.56	2.18	2.01	2.30	2.95	3.34	5.54	0.48	0.59	0.16	22.24
Capulin Ranger Station	0.06	1.00	1.16	1.85	2.69	1.24	4.94	0.69	2.18	2.31	1.06	1.11	23.29
Carlsbad	0.14	0.05	4.39	1.64	0.76	1.28	0.34	0.77	6.10	2.60	0.85	0.18	19.10
Carrizozo	T.	0.11	0.97	1.53	0.59	1.59	1.30	0.83	0.68	0.10	1.96	0.38	10.04
Carson Seep Ranger Station	0.80	T.	3.48	0.85	0.57	0.66	1.85	1.60	14.85	2.81	2.80	.....	.....
Chacon	0.00	1.40	5.61	1.79	3.90	3.62	5.52	2.23	2.55	2.02	0.66	0.17	29.47
Chama	0.20	1.75	1.78	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cimarron (near)	T.	2.02	5.24	4.21	2.22	1.94	2.79	2.87	1.86	2.57	0.87	0.25	26.84
Clack's Ranch	.....	.....	.....	3.12	2.82	1.66	5.43	1.81	3.49	1.74	0.89	0.81	.....
Clayton	T.	0.80	4.04	4.30	2.25	1.67	1.74	3.02	4.95	2.77	1.44	0.03	27.01
Cloudcroft	0.43	1.56	3.67	2.74	0.51	4.65	5.63	2.69	5.82	0.65	2.14	0.51	31.00
Cloverdale	1.33	0.83	0.20	2.07	0.88	0.63	6.21	1.92	1.79	1.88	3.44	0.00	21.18
Clovis	0.13	T.	2.71	2.93	3.00	1.98	2.88	0.52	4.97	1.51	0.58	0.42	21.63
Columbus	0.00	T.	0.35	.....	0.46	0.65	2.13	0.85	1.60	0.80	1.06	0.00	.....
Corona	0.19	0.29	1.12	3.22	1.10	3.14	1.38	1.57	2.56	0.40	0.77	0.18	15.92
Costilla	0.00	0.78	1.71	.....	2.03	0.36	2.13	1.57	1.51	2.09	1.05	0.34	.....
Crown Point	0.14	T.	1.16	0.75	1.87	T.	6.89	3.25	1.00	0.90	0.13	0.90	16.99
Cuervo	T.	0.57	4.55	1.73	2.20	2.25	1.10	0.70	6.40	1.23	0.55	0.40	21.68
Cundiyo	0.03	0.69	0.86	0.42	1.37	1.20	2.02	1.75	0.70	1.88	0.51	0.26	11.69
Dawson	T.	1.34	3.11	3.11	1.42	1.25	1.52	1.47	1.90	2.60	1.15	0.22	19.09
Deming	0.02	0.00	0.42	0.44	0.30	0.37	1.44	1.55	1.05	0.39	1.60	0.20	7.78
Deming (Courthouse)	.....	.....	0.42	0.36	0.17	0.37	2.24	1.46	1.22	0.34	1.93	0.25	.....
Demonstration Farm	T.	0.68	4.09	3.02	1.88	1.36	2.28	4.22	2.41	1.88	0.58	0.10	22.50
Des Moines	0.31	1.53	6.51	1.62	1.04	1.77	2.97	2.07	2.65	2.63	1.95	0.24	25.29
Dulce	0.16	1.90	1.70	2.14	1.43	0.55	6.74	1.53	2.30	3.03	1.65	1.86	24.99
Duran	0.55	T.	2.50	1.41	3.06	1.87	2.00	3.03	3.84	1.12	0.22	0.28	19.88
Eagle Rock Ranger Station	0.05	0.59	1.62	2.22	2.01	0.64	3.03	1.50	1.44	2.61	1.61	0.50	17.82
Elephant Butte Dam	0.00	0.25	1.72	1.49	0.07	0.69	3.45	0.65	1.05	0.70	1.27	0.30	11.64
Elida	0.16	0.00	2.30	2.47	1.37	4.13	1.20	0.93	7.04	0.37	0.15	0.60	20.72
Elizabethtown	0.02	1.30	2.81	1.87	1.70	2.10	4.34	1.85	1.93	1.98	1.12	0.83	21.85
Espanola	0.00	0.71	2.03	2.17	.....	.....	1.28	1.36	.....	.....	.....	.....	.....
Estancia	0.12	0.18	1.72	3.25	1.30	1.09	3.83	.....	.....	.....	.....	.....	.....
Farmington	.....	.....	0.70	1.11	0.20	0.00	2.42	0.53	1.38	0.82	0.24	0.55	.....
Felix	.....	.....	4.55	.....	.....	.....	.....	.....	6.75	.....	.....	.....	.....
Fort Bayard	0.44	0.30	1.39	2.84	0.27	1.01	6.07	2.79	1.72	0.90	1.39	0.30	19.42
Fort Stanton	0.23	0.05	2.40	2.17	2.04	3.44	4.17	1.15	6.12	0.30	0.88	0.16	23.11
Fort Sumner	0.12	0.36	6.79	3.41	2.20	5.37	2.26	1.18	4.27	0.92	1.57	2.06	39.51
Fort Union	T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fruitland	0.06	0.46	1.41	0.50	0.20	T.	2.31	0.20	0.46	0.54	0.10	0.36	6.60
Gage	0.20	0.20	0.73	.....	.....	2.20	1.64	1.35	2.27	1.08	2.01	0.00	.....
Gallinas Planting Station	0.23	2.52	6.13	3.58	4.32	6.49	8.86	2.68	4.10	2.70	1.24	0.70	43.55
Gallinas Ranger Station	0.25	0.62	1.45	3.06	1.96	2.09	1.46	3.13	2.27	0.73	1.04	.....	.....
Gallup	0.06	0.47	0.84	0.91	1.75	0.10	4.26	0.75	1.35	1.01	0.91	1.33	13.74
Gila Planting Station	0.40	0.85	.....	2.03	0.76	.....	.....	.....	.....	.....	.....	.....	.....
Glorieta Ranch	0.00	0.40	1.59	1.48	0.40	0.53	2.99	1.84	1.20	0.85	0.83	0.85	12.96
Grogan's Ranch	1.16	1.26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hachita	T.	0.54	0.60	0.85	0.25	T.	3.48	0.79	1.66	1.48	2.27	T.	11.92
Harvey's Upper Ranch	0.50	2.75	6.97	3.33	4.13	7.48	11.94	4.49	4.51	2.03	1.85	1.00	50.98
Hayden (near)	0.00	0.53	3.87	4.09	2.19	2.71	1.16	3.35	4.87	3.06	1.04	T.	27.47
Hermanes	0.00	0.57	0.55	0.20	0.12	0.57	3.14	0.59	1.61	0.65	1.88	0.57	10.45
Hermosa	0.28	0.42	1.24	2.04	0.61	0.47	4.54	3.67	1.91	0.91	2.34	0.22	18.65
Hobbs	0.16	T.	2.78	1.59	0.75	1.75	0.13	1.61	10.72	1.95	0.33	0.14	21.91
Hood Ranger Station	0.93	1.18	0.88	0.84	0.84	0.43	3.00	4.23	3.48	1.49	2.84	1.08	21.22
Hoosier Ranch	T.	0.72	2.98	2.25	1.32	2.77	2.32	.....	5.70	1.99	0.36	T.	.....
Hope	.....	.....	4.58	0.81	3.36	1.74	0.39	0.01	11.62	.....	1.12	0.32	.....
Ione	T.	0.40	4.12	4.62	4.35	3.84	2.65	2.58	6.83	4.10	1.17	T.	34.66
Jal	.....	.....	1.04	0.15	0.31	0.97	0.09	.....	6.17	3.69	0.80	0.00	.....
Jemez Springs	0.10	1.31	2.62	2.28	2.90	1.66	6.04	1.71	1.60	2.05	1.03	0.99	24.29
Johnson's Park	0.04	0.11	3.64	1.75	3.90	0.57	3.17	2.49	1.45	2.20	0.15	0.32	19.79
Kappus	0.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston Ranger Station	0.04	1.19	1.55	1.13	0.40	1.58	4.55	3.97	2.59	1.15	2.44	0.00	20.59
Laguna	.....	.....	.....	0.60	1.25	0.23	5.20	1.75	1.30	0.25	1.30	0.88	.....
Lagunita	0.04	0.07	*5.07	2.95	0.34	0.68	0.85	0.74	6.24	0.63	0.50	1.35	19.46
Lake Alice	0.60	0.99	4.28	5.02	1.48	1.44	4.62	1.79	1.75	3.77	.....	.....	.....
Lake Aavlon	0.09	0.06	3.82	0.75	0.50	1.20	0.20	0.13	6.43	1.52	0.81	0.27	15.78
Lake Valley	0.26	0.31	0.98	1.05	0.04	0.43	2.71	0.92	1.59	1.05	1.43	0.18	10.95

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New Mexico—Continued.													
Lakewood	0.00	T.	5.02	0.80	0.95	0.85	1.09	0.00	5.15	0.55	0.59	0.25	15.25
Lamark	0.00	0.00	1.85	0.55	2.10	.....	.....	.....	.....	.....	.....	0.32	.....
Las Vegas	T.	0.46	4.07	3.29	2.04	2.99	4.26	3.49	3.64	1.74	0.68	0.29	26.95
Logan	.....	.....	.....	4.01	2.87	3.51	6.13	1.87	3.28	1.89	1.00	0.46	.....
Lordsburg	0.00	0.07	0.50	0.02	0.08	0.13	2.08	0.20	1.93	1.95	0.90	0.00	7.86
Los Lunas (near)	0.12	0.05	2.54	1.53	0.18	T.	2.75	0.12	2.41	0.22	0.52	0.40	10.84
Loving	0.05	0.02	1.92	1.52	0.70	0.25	0.01	0.26	6.63	1.59	1.41	0.01	14.39
Lovington	0.30	.....	.....	.....	.....	.....	.....	1.96	6.77	2.22	0.53	0.13	.....
Luna Ranger Station	0.45	1.21	.....	.....	.....	.....	.....	.....	2.15	0.25	2.63	0.63	.....
Magdalena	T.	0.49	2.00	2.13	0.79	1.30	3.67	1.76	1.62	0.44	0.94	1.03	16.17
Maxwell (near)	0.00	0.28	3.42	2.04	2.12	1.50	2.60	1.07	1.36	2.39	0.19	0.07	17.04
Mayhill Ranger Station	0.26	0.26	2.75	1.09	0.65	2.07	2.76	1.49	8.43	0.55	1.36	0.07	21.76
Meek	.....	.....	.....	.....	2.15	4.63	2.07	2.66	13.54	0.89	2.20	0.43	.....
Melrose	0.07	0.25	3.92	3.77	3.79	3.36	2.54	2.13	5.72	1.24	0.93	0.35	28.07
Mescalero	0.10	.....	.....	1.36	0.55	3.93	5.14	2.82	4.63	1.04	2.72	0.30	.....
Miami Ranch	T.	1.18	4.52	2.72	2.04	0.92	3.66	0.95	2.43	3.08	0.62	0.02	22.14
Mills	0.00	1.00	4.39	.....	1.16	2.56	1.85	2.27	3.60	2.55	0.56	0.00	.....
Mimbres	0.20	0.62	0.64	0.47	0.50	.....	.....	2.74	3.28	0.61	1.51	.....	.....
Mineral Hill	0.15	0.87	3.59	5.43	2.27	6.73	5.31	2.17	2.65	2.11	0.91	0.25	32.44
Mogollon Ranger Station	1.20	1.08	1.51	0.95	1.40	1.00	7.00	2.50	3.75	1.32	3.05	0.75	25.51
Montoya	0.05	0.35	2.20	2.64	1.44	1.93	0.50	2.34	2.98	1.34	1.15	1.02	17.94
Moriarty (near)	.....	0.33	1.77	.....	0.70	1.13	3.12	0.83	1.76	1.27	0.58	.....	.....
Mosquero	0.00	0.84	0.74	2.19	0.84	2.05	3.89	1.91	4.91	1.58	0.51	T.	19.37
Mountainair	0.32	0.71	2.02	3.71	1.76	1.86	2.84	2.38	3.65	0.72	0.60	0.47	21.04
Mountain Park	0.05	0.54	2.30	2.38	0.65	1.48	4.39	2.86	5.26	1.02	2.45	0.46	23.84
Nara Visa	0.00	1.33	3.64	.....	.....	5.22	2.61	1.31	4.41	2.03	0.72	0.00	.....
Newman	0.18	0.18	0.52	1.11	0.94	0.71	3.54	0.61	3.54	1.08	0.48	0.05	12.04
Nogal (near)	0.83	1.43	3.04	2.84	1.78	3.59	4.79	3.15	6.84	1.01	2.21	0.25	31.76
Noria	0.09	0.00	0.61	0.81	0.69	0.48	0.78	1.86	2.55	1.04	0.78	0.84	10.53
Orogrande	0.06	0.00	0.77	0.98	0.20	0.85	1.45	1.30	3.73	0.99	0.30	0.23	10.86
Oscura (No. 1)	0.03	0.30	1.65	1.88	0.54	0.67	1.48	1.80	2.86	0.63	3.04	0.38	15.26
Oscura (No. 2)	0.02	T.	1.62	1.32	0.42	0.48	1.01	1.41	3.02	0.67	2.18	0.38	12.53
Palma	0.26	0.20	2.55	2.40	2.66	2.78	0.15	1.53	0.90	1.98	0.22	0.80	16.43
Palo Verde	T.	0.97	3.46	3.98	2.22	2.87	2.37	2.23	5.22	1.71	.....	.....	.....
Pasamonte	0.00	0.43	4.45	4.19	2.47	3.30	2.74	4.78	5.83	1.29	0.90	0.25	30.63
Pastura	T.	0.15	1.49	2.43	1.34	1.30	1.73	2.76	6.09	1.30	0.36	0.70	19.65
Pearl (near)	0.25	0.04	2.90	1.35	1.46	1.08	1.18	0.46	9.89	1.54	0.44	0.18	20.77
Pecos	.....	.....	1.75	2.96	3.30	1.32	3.50	3.29	.....	.....	.....	.....	.....
Pinon (near)	0.14	0.45	2.32	1.38	0.92	1.60	2.02	1.12	6.13	1.38	1.21	0.16	18.83
Pinos Altos (near)	0.52	2.32	1.68	2.81	0.62	2.61	5.35	4.58	3.32	1.84	3.18	0.21	29.04
Plainview (near)	.....	.....	.....	.....	.....	.....	.....	1.15	8.01	2.89	0.41	0.25	.....
Pleasant Hill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.29	0.34	.....
Portales	0.20	0.06	2.85	1.84	1.51	3.74	4.48	0.85	5.85	5.23	0.36	0.06	27.03
Quemado	0.06	1.49	0.68	0.60	.....	0.65	4.24	1.03	0.77	.....	.....	.....	.....
Raton (near)	0.23	1.15	4.37	4.92	2.31	1.86	3.26	0.99	1.23	1.89	0.89	0.58	23.68
Red River Canyon	0.05	2.74	2.82	2.01	2.90	1.78	5.29	2.20	2.14	2.97	1.48	1.23	27.61
Redrock	0.08	0.40	0.73	2.20	0.22	0.53	5.25	2.55	.....	1.44	1.23	0.00	.....
Regina	0.14	1.71	2.18	3.64	2.15	1.15	6.17	0.91	2.84	2.57	.....	.....	.....
Richland (near)	0.32	T.	3.03	1.37	0.83	4.63	2.06	0.45	5.94	1.62	0.29	0.35	20.89
Rio Grande Industrial School	T.	0.33	1.44	2.07	1.21	1.30	2.62	0.50	.....	.....	.....	.....	.....
Rociada	0.06	0.89	4.28	2.29	2.51	3.29	6.39	3.36	3.08	1.89	0.33	0.12	28.40
Rodeo	0.51	.....	.....	1.06	0.60	1.92	7.98	2.80	2.50	0.75	2.24	0.20	.....
Rosedale	T.	0.66	2.04	3.40	1.08	1.33	4.01	3.45	1.58	0.76	1.88	0.85	21.04
Roswell (Weather Bureau)	0.02	0.15	5.19	3.70	1.00	4.02	0.15	0.72	6.33	0.62	0.55	0.24	22.69
Roswell (No. 2)	0.02	0.12	5.66	3.26	0.82	3.84	0.59	1.36	6.55	0.64	0.56	0.21	23.63
Roy	T.	0.87	2.05	1.43	1.98	2.83	2.92	2.24	2.32	1.16	0.34	T.	18.14
Saint Vrain	1.03	0.35	3.03	3.60	3.78	2.59	1.75	1.70	4.50	0.95	0.58	0.25	23.11
San Antone Ranger Station	T.	1.42	2.22	1.51	0.90	0.61	4.00	1.73	1.72	2.12	1.47	2.60	20.30
San Jon	0.02	0.14	2.87	6.27	4.86	4.42	2.34	2.06	4.14	1.55	0.40	0.29	29.36
San Marcial	0.00	0.60	1.61	0.97	.....	0.20	2.70	0.03	.....	0.40	0.80	.....	.....
San Mateo	1.12	0.36	1.12	0.04	0.30	.....	.....	.....	1.53	.....	.....	.....	.....
Santa Fe	0.12	0.69	1.70	1.94	3.37	1.50	4.02	2.06	2.53	1.52	0.75	0.33	20.83
Santa Rosa	0.00	0.00	3.75	3.37	2.17	1.26	0.50	0.50	5.00	1.10	0.18	1.20	18.97
Schuster Springs Ranger Station	T.	1.73	3.40	0.74	1.32	0.03	5.47	.....	1.80	0.51	1.24	1.70	.....
Senorito (near)	0.15	2.32	2.97	3.41	3.17	.....	7.02	1.64	1.16	2.79	.....	.....	.....
Silver City	0.42	0.61	1.28	2.88	0.62	1.24	3.85	1.96	2.86	1.33	1.50	0.18	18.73
Skeleton Canyon Ranger Station	0.92	0.45	0.35	2.40	1.05	1.20	5.30	4.50	3.00	3.20	.....	.....	.....
Socorro	0.60	0.16	3.21	2.62	0.48	0.76	2.85	1.36	1.81	0.73	1.22	0.51	16.31
Soham	0.36	0.35	5.13	2.29	2.30	2.40	6.34	2.58	2.96	2.14	0.52	0.33	27.70
Solano (No. 1)	0.00	0.87	2.98	3.15	1.56	.....	.....	.....	.....	.....	.....	.....	.....
Solano (No. 2)	0.00	0.87	2.61	2.71	1.76	3.32	4.05	2.65	4.80	2.09	1.00	0.00	25.86
Springer	0.00	0.74	2.71	1.50	2.14	1.76	3.54	0.46	2.00	2.17	0.73	0.19	17.88
Stanley	0.00	0.40	0.93	2.85	1.90	4.65	1.49	1.25	2.48	0.95	0.45	0.40	17.75
Tajique (near)	0.06	2.20	4.10	3.45	3.10	.....	.....	.....	.....	.....	.....	.....	.....
Taos	0.03	0.99	1.17	2.00	3.04	0.46	2.40	1.27	2.12	1.68	0.63	1.58	17.37
Taos Canyon	0.07	2.62	2.71	3.93	2.95	1.51	3.37	2.03	1.94	2.55	1.37	1.03	26.08
Tatum	.....	.....	.....	.....	.....	2.02	0.64	0.77	6.35	2.08	.....	.....	.....
Taylor	0.00	0.63	2.64	2.03	2.37	2.31	1.34	1.42	2.09	2.79	0.85	0.11	18.58
Tecolote	0.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Texico (near)	0.25	0.25	2.69	3.84	3.25	1.87	2.16	1.66	5.28	1.69	0.61	0.10	23.65
Three Rivers	0.00	0.29	1.94	1.52	0.30	0.93	1.34	3.25	1.24	0.60	1.11	0.24	12.76
Tijeras Canyon	0.13	0.93	2.62	3.74	1.96	2.58	4.53	1.41	2.52	1.13	0.70	1.80	24.05
Tohatchi	0.17	0.47	.....	0.12	0.70	0.01	.....	.....	.....	.....	.....	0.44	.....
Torrance	0.21	0.15	1.94	2.27	1.12	1.76	2.13	3.57	2.71	0.37	0.34	0.25	16.82
Tres Piedras	0.09	1.21	1.16	1.64	3.30	0.38	5.06	1.85	1.15	2.48	1.08	1.22	20.62
Truchas	0.04	0.69	1.40	2.14	2.76	1.37	3.90	2.20	2.71	1.89	0.76	0.48	20.34
Trujillo (near)	0.00	0.35	4.95	2.09	5.91	1.36	1.74	0.45	5.03	2.95	0.80	0.70	26.33
Tucumcari (near)	0.04	0.32	3.69	3.61	5.85	6.39	3.16	2.53	4.16	2.31	0.71	0.93	33.70
Tucumcari (No. 2)	0.04	T.	3.62	2.97	4.34	4.20	3.57	2.85	3.16	2.04	0.90	0.90	28.59
Tularosa	0.00	0.16	1.79	1.15	0.10	1.32	2.01	0.62	4.39	0.75	1.17	0.10	13.56
Turney's Ranch	0.00	0.00	1.50	0.83	0.28	0.11	3.13	2.52	2.55	0.64	0.72	0.50	12.78
Tyrone	0.40	0.79	0.49	0.60	1.36	1.41	3.94	2.87	2.99	1.68	1.64	0.20	18.37
Valmora	0.05	0.75	4.10	3.42	3.54	2.19	5.31	1.83	3.12	2.37	0.55	0.05	27.28
Vance (near)	0.06	0.58	3.78	2.87	2.91	1.34	1.63	2.90	4.21	1.66	1.66	T.	23.60
Vaughn	0.23	0.08	1.94	2.60	3.85	1.30	2.00	1.42	4.60	2.45	0.24	0.14	20.85

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New Mexico—Continued.													
Vermejo Park	T.	1.15	2.89				1.40	0.29	1.70		0.83	0.60	
Virsylvia	0.92	0.74	1.31	1.20	1.94	0.63	3.13	1.27	1.31	2.29	1.43	0.90	17.07
Wagon Mound (near)	0.00	0.90		2.36	2.29								
Weed Ranger Station	0.35	1.06	2.96	1.15	0.62	3.01	3.38	2.48	7.10	1.32	1.40	0.10	24.93
White Tail	0.52	0.33	2.77	1.33									
Whitewater					1.47		5.41						
Willard (near)										1.23	0.40		
Winsor's Ranch	0.13	2.76	4.19	3.62	4.81	3.90	6.99	2.93	3.13	2.72	1.47	0.60	37.25
New York.													
Adams Center	6.79	2.80	4.26	6.00	7.69	3.87	4.74	5.21	6.51	8.05	4.27	5.25	65.40
Addison	0.91	0.97	2.81	2.99	7.70	2.34	3.70	3.53	1.25	3.52	2.27	0.77	32.26
Albany	1.42	1.68	4.86	1.98	5.42	1.10	4.34	4.60	2.99	2.60	3.30	1.23	35.52
Alfred	1.26	1.12	2.33	3.67	7.63	3.98	3.03	5.06	1.48	3.52	2.93	1.36	37.37
Amsterdam	1.72	1.86	3.05	2.39	4.37	3.70	4.09	4.36	3.29	4.85	3.95	1.14	38.77
Angelica	1.29	0.82	2.51	4.45	7.79	2.58	2.72	4.52	1.84	3.42	2.95	2.18	37.07
Appleton	0.65	1.34	2.98	2.47	4.81	1.53	1.59	1.32	1.52	3.02	0.97	0.96	23.14
Athens						3.51	4.22	2.88	2.60	2.53			
Auburn	0.99	0.68	2.75	3.95	4.25	4.76	6.63	2.48	2.02	3.45	2.33	1.60	35.89
Avon	0.23	0.93		3.36	6.33	2.13	1.79	3.98	1.30	4.58	0.77	0.60	
Bainbridge	1.90	0.81	3.13	2.74	4.49	3.32	5.29	2.50	2.94	3.41	4.02	1.59	36.14
Ballston Lake	1.64	2.08	4.68	2.15	5.20	2.07	4.58	2.35	3.49	3.26	3.84	1.70	37.04
Bedford Hills	3.60	2.85	6.72	2.72	4.60	2.12	7.05	4.55	7.52	5.02	3.45	1.93	52.13
Binghamton	1.29	1.16	3.22	2.22	3.68	2.49	3.55	2.95	1.19	3.40	3.48	1.55	30.18
Bolivar	1.29	1.37	1.94	3.13	6.29	6.22	6.39	4.90	1.95	3.28	2.90	3.63	43.29
Boyds Corners	2.91	3.12	7.08	3.01	5.37	1.88	7.12	4.51	4.94	3.34	5.93	2.85	52.06
Brockport	0.56	1.20	2.54	3.48	7.15	3.36	2.77	3.82	1.22	4.70	1.49	0.92	33.21
Buffalo	1.28	1.61	2.47	3.40	4.32	0.54	1.33	3.04	1.47	5.32	1.38	1.96	28.12
Canisius College	1.16	1.72	2.08	4.31	4.62	0.58							
Canton	1.37	1.65	3.97	3.39	3.04	4.83	3.10	2.60	4.69	3.81	1.13	1.12	34.70
Cape Vincent	0.22	0.35		3.13	7.39	2.97	1.03	2.99	0.78	2.42			
Carmel	3.10	2.81	7.59	2.88	4.42	2.45	6.62	4.67	4.86	3.50	5.65	2.98	51.53
Cazenovia	2.16	1.88	3.73	3.97	4.52	4.00	7.53	1.40	2.75	4.02	3.20	2.58	41.74
Chatham	2.28	2.44	6.84	2.48	4.15	2.75	3.86	2.45	3.07	2.61	4.82	1.57	39.32
Chazy	0.60	0.70	2.05	1.60	2.76	2.65	2.93	2.45	2.56	3.42	1.08	0.68	23.48
Cooperstown	2.01	1.70	3.00	2.36	4.51	4.15	6.76	3.37	1.93	4.96	3.17	1.70	39.62
Corinth	2.20	2.69	4.59	3.13	5.68							1.60	
Cortland	2.65	1.54	1.91	2.31	5.18	2.12	4.43	2.46	1.14	3.59	3.49	1.42	32.24
Cutchogue	4.15	4.39	5.33	4.39	3.90	3.68	4.79	5.79	4.61	3.38	3.14	3.89	51.44
Dannemora	1.89	1.90	4.97	5.96	4.55	2.82	2.46	2.89	3.39	6.13	3.79	1.44	41.99
Dansville	0.82	0.34	1.49	3.25	7.05	2.15	4.43	4.15	1.43	2.03	1.10	0.82	29.06
De Ruyter	2.14	1.84	4.23	4.03	5.28	2.88	4.59	1.44	1.89	4.60	3.35	1.81	38.08
Elba					6.09								
Elmira	0.92	0.91	2.61	2.50	5.58	3.80	4.48	2.65	1.41	3.45	2.31	0.96	31.58
Farmingdale								5.84	5.70	2.99			
Fayetteville	2.14	1.08	1.75	2.69	4.43	1.94	6.64	2.73	2.12	3.68		1.20	
Fishs Eddy	1.92	1.75	1.72	1.97		2.52	5.33	2.62	2.95	2.68	2.85	1.34	
Flushing	3.53	3.95	5.25	3.26	3.91	3.67	7.48	6.65	4.29	3.66	4.17	2.81	52.63
Fredonia	1.60	1.67	2.66	4.39	5.78	3.46	1.53	1.38	1.42	2.98	2.66	2.45	31.98
Gabriels	1.44	1.94	4.41	1.30	4.84	3.45	2.41	3.83	3.77	5.61		0.72	
Geneva	0.78	0.96	4.15	4.34	6.52	2.47	3.52	3.58	1.00	3.73	2.47	1.91	35.40
Glens Falls (No. 1)	2.20	2.81	4.45	2.43	5.08	3.08	7.26	3.48	3.96	3.89	3.97	1.67	44.28
Glens Falls (No. 2)	2.27	2.50	4.47	2.76	4.64	2.89	7.79	3.68	4.23	3.75	4.05	1.69	44.72
Gloversville	2.32	2.81	3.53	2.44	4.38	2.14	5.26	4.53	4.32	5.94	3.71	1.75	43.13
Greenfield Center	2.20	2.12	5.02	2.34	4.34	1.69	3.09	2.41	3.67	3.04	3.18	1.87	34.97
Harkness	0.43	0.64	2.83	1.63	3.66	2.48	1.50	2.13	2.57	4.94	1.35	0.61	24.77
Haskinville	0.99	1.11		4.41	8.17	5.09	2.87	4.45	1.49	3.64	1.64	1.02	
Hemlock	0.89	0.55	1.65	2.04	7.58	3.32	3.15	3.39	1.32	3.68	1.60	1.15	30.32
Homestead Sanatorium	2.71	2.54	4.64	4.74	5.80	3.51	8.25	4.80	7.47		3.99		
Hoosick Falls	2.07	1.37	3.94	1.96	4.34	1.67	4.21	4.08	4.65	3.45	5.03	1.56	38.33
Hunt	0.71	0.65	2.44	3.52	6.51		2.44	4.32	1.58	3.45	2.04	1.20	
Indian Lake	2.75	1.69	2.36	4.94	5.86	5.39	5.89	3.70	4.97	4.55	1.23	1.41	44.74
Ithaca	1.11	1.30	2.70	2.21	5.25	1.77	3.30	1.32	1.63	2.83	2.22	1.61	27.25
Jeffersonville	2.16	1.76	3.30	3.33	4.01	4.49	4.71	6.05	2.03	3.33	5.50	2.65	43.38
Lake George	2.76	1.90	4.95	4.19			1.03						
Lake Grove		4.47	5.35	4.65									
Lake Placid Club	1.22	2.26	4.05	2.40	4.08				2.84	4.02	2.43		
Lauterbrunnen		0.58	1.83	3.69	8.39	2.05	3.06	4.46	1.32	3.41	1.11	1.19	
Little Falls	1.22	0.52	1.24	2.93	3.89	3.62	5.98	3.22	1.76	5.22	3.11	1.19	33.90
Lockport	0.65	1.43	2.87	3.50	6.44	2.70	1.45	2.20	1.38	4.18	1.49	1.02	29.31
Lowville	2.68	1.89	3.31	2.72	3.39	3.01	3.43		3.64	5.72	2.56	3.43	
Mechanicsville	1.52	1.95	3.82	2.40	4.86	1.10	4.46	3.01	4.02	2.42	4.92	1.20	35.68
Medford	4.27	4.13	6.27	4.80	4.36	1.51	6.29	6.94	5.50	4.05	4.05	4.20	56.37
Mohonk Lake	2.87	3.25	5.53	2.95	5.39	2.40	6.76	5.90	6.29	2.75	5.86	2.24	52.19
Moira	3.03	2.35	6.96	2.80	3.49	4.50	1.47	6.17	2.07	5.12	1.90	1.19	41.05
Morrisville	1.90	0.70	1.65	3.99	3.33	3.45	5.66	0.65	2.95	2.57	2.40	1.65	30.90
Mount Hope	2.36	3.09	8.20	3.35	5.05	2.43	6.71		4.77	4.91	4.26	3.55	
Mount McGregor	1.79	2.70	5.04	2.71	6.68	2.51	7.96		3.14	3.66	3.41	2.15	
Mount Vernon	3.59	3.74	6.62	2.98	4.99	2.23	6.92	7.03	6.24	4.25	3.69	3.30	55.58
Newark Valley	1.53	1.56	3.04		5.56	2.65	2.90	3.06	1.39	4.33	4.20	1.93	
New Berlin	3.52	1.41		2.92	5.25	3.71	8.54						
New Lisbon	1.92	1.81	3.33	2.58	4.34	2.80	9.38	3.31	2.00	4.09	3.05	1.20	39.81
New York City	3.35	3.45	4.69	2.55	3.81	2.23	7.93	7.74	3.60	3.17	3.33	2.53	48.38
North Lake	3.45	4.16	5.38	4.57	3.94	2.12	4.55	4.47		7.29	4.65	1.83	
North Rose				2.97	4.98	5.82	3.98	3.61	0.74	4.81	1.94	1.93	
Northville	2.19	2.95	4.20	2.94								0.94	
Norwich	1.68	1.67	2.69	2.93	4.98	1.40	6.73	2.79	2.58	3.65	3.61	1.69	36.40
Ogdensburg	1.08	1.31	3.46	2.45	4.29	5.10	2.00	2.62	4.10	4.58	1.57	0.65	33.81
Olean	1.48	1.00	2.50	4.74	7.51	3.19	3.00	6.47	2.35	3.15	3.23	2.07	40.69
Oneonta	2.45		2.07	0.93	2.78	2.79	3.99	3.82	4.20	2.61	1.97	1.83	
Oswego	1.29	0.92	2.94	3.20	4.25	4.40	2.66	4.14	2.47	3.99	1.70	2.36	34.32
Otisville				4.47	5.21	3.95	7.86	4.88	4.31	3.74			
Palermo	2.49	1.62	2.85	3.86	5.42	2.11	4.88	5.52	2.23	4.64	3.06	4.05	42.73
Penn Yan	0.80	1.00	2.61	3.20	3.82	3.00	3.15	3.32	0.61	1.69	1.54	1.67	26.41
Perrysburg	2.40	2.08	1.87	5.52	5.81	1.88		3.98	1.38	2.90		1.75	

Monthly and annual precipitation (in inches and hundredths) for 1919—**Continued.**

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New York—Continued.													
Philadelphia	2.36	1.96	5.24	3.97	5.73	5.50	3.70	3.03	3.24	4.66	2.02	2.32	43.73
Port Jervis (No. 1)	2.54	2.28	4.77	2.60	3.79	4.01	5.83	4.06	3.57	3.70	4.82	1.91	43.88
Port Jervis (No. 2)	2.53	2.61	4.18	2.79	3.78	3.10	5.57	3.99	3.57	3.40	4.75	1.76	42.03
Raquette Lake	4.05	2.52	6.09	4.39	4.30	2.63	2.97	3.36	4.13	5.24	4.04	3.08	46.80
Rhinebeck	2.20	2.72	5.46	2.35	5.11	1.82	3.93	3.61	3.41	2.19	4.90	2.41	40.11
Rochester	0.95	1.43	2.66	2.99	5.20	2.96	3.40	3.60	1.26	5.46	1.49	1.68	33.08
Romulus	0.97	0.68	1.41	2.60	4.46	2.17	.....	.....	.....	2.67	0.74	1.58	.....
Roslyn	3.94	3.43	4.60	3.21	4.50	3.62	5.43	7.67	5.72	3.56	4.75	2.83	53.35
Roxbury	2.09	1.20	3.62	3.16	3.50	3.51	6.41	2.97	4.59	3.23	4.52	2.08	40.88
Salisbury	2.48	1.27	3.20	4.06	5.84	5.97	7.38	6.22	2.84	11.39	5.17	1.97	57.79
Scarsdale	3.83	3.64	6.66	2.34	5.38	2.32	6.83	8.16	6.50	4.90	6.00	3.13	59.69
Setauket	3.14	4.04	5.39	4.51	4.52	2.17	5.47	6.15	4.49	3.74	4.26	3.21	51.09
Sharon Springs (No. 1)	2.00	2.01	2.94	2.64	4.31	2.45	4.09	3.49	3.29	4.12	2.86	2.35	36.55
Sharon Springs (No. 2)	2.15	2.70	2.39	2.43	4.13	1.58	4.58	3.38	3.06	4.23	2.80	1.94	35.37
Sherburne	2.20	2.05	4.11	3.66	4.01	2.34	7.64	1.97	2.12	3.67	3.11	2.03	38.91
Shortsville	0.27	1.10	2.47	3.81	5.76	3.27	3.43	2.86	1.15	3.78	1.58	1.54	31.02
Skaneateles	1.59	0.89	3.73	4.42	5.30	1.63	6.89	4.81	2.50	3.66	2.72	1.95	40.09
Southeast Reservoir	2.96	3.02	6.93	2.77	4.49	2.12	5.29	3.95	5.08	3.73	4.99	2.06	47.99
Spier Falls	1.96	2.48	4.88	2.56	5.35	2.54	10.88	3.30	2.85	3.51	3.73	1.59	45.63
Syracuse	2.09	1.59	4.39	3.80	4.91	1.59	5.44	2.00	1.60	3.69	2.00	2.24	35.25
Trenton Falls	2.35	1.74	3.70	4.03	5.35	2.96	5.41	5.19	3.11	7.93	3.56	2.09	47.42
Tribes Hill	3.05	1.95	3.35	3.56	4.95	4.27	6.94	3.72	4.09	4.26	4.38	0.95	45.47
Troy	1.63	1.99	3.59	1.67	4.79	0.81	3.53	3.42	3.15	2.57	3.26	1.06	31.47
Utica	1.63	0.82	2.81	.....	.....	.....	.....	.....	.....	.....	.....	1.47	.....
Volusia	1.93	1.61	1.69	3.98	5.53	3.24	2.42	2.75	1.71	3.41	2.09	2.51	32.78
Walton	2.34	1.29	1.81	3.01	3.44	1.55	4.85	3.62	2.62	3.56	4.67	1.98	34.74
Wanakena	1.30	0.89	3.48	2.89	2.86	1.41	3.09	3.48	4.76	4.75	1.86	2.85	33.62
Wappingers Falls	2.79	3.31	5.39	2.42	4.66	1.37	6.10	4.30	3.89	2.53	5.39	2.50	44.65
Warwick	2.52	3.05	4.30	1.94	2.49	3.27	6.76	4.94	6.85	4.83	4.97	2.84	48.76
Watertown	2.09	1.32	4.62	3.86	5.27	2.67	4.62	3.51	3.97	5.18	2.42	2.67	42.20
Wedgwood	1.09	1.14	2.87	2.94	6.19	2.72	1.77	3.92	1.38	3.12	2.59	1.17	30.90
West Berne	0.70	0.85	3.07	2.28	4.39	3.25	4.40	3.25	4.86	2.65	2.96	1.66	34.32
Westfield	2.27	2.49	3.82	5.13	6.71	3.84	3.35	3.23	2.15	4.78	4.28	4.00	46.05
West Point	2.61	1.97	4.28	4.74	4.30	3.83	7.21	4.74	4.59	2.37	6.19	3.71	50.54
York	0.88	0.95	2.18	3.70	6.58	3.20	2.31	3.57	1.75	4.76	1.68	0.89	32.45
North Carolina.													
Albemarle	5.44	3.79	2.33	2.99	5.46	7.48	9.21	7.22	0.98	5.03	1.06	1.83	52.82
Altapass	.....	1.54	4.14	3.96	5.38	3.83	.....	1.84	1.00	3.20	0.85	1.20	.....
Andrews	.....	.....	.....	.....	.....	.....	.....	.....	2.20	6.62	1.07	5.25	.....
Asheville	4.70	2.01	4.23	2.11	3.84	4.05	3.88	1.77	0.30	1.93	0.54	2.09	31.45
Banners Elk	6.00	3.38	2.55	4.65	7.82	5.01	7.04	4.62	2.55	5.59	1.50	3.55	54.26
Beaufort	4.80	.....	.....	2.59	4.13	4.19	10.57	3.10	1.66	5.15	0.17	2.00	.....
Belhaven	4.05	2.59	2.40	3.00	4.02	2.85	7.87	6.73	1.98	3.20	0.60	2.25	41.54
Brevard	6.83	5.23	7.23	3.69	5.50	7.69	5.23	3.01	1.13	3.82	3.58	3.82	56.86
Brewers	5.41	3.93	4.68	5.13	7.72	7.81	7.53	3.96	0.91	5.76	2.71	3.41	58.90
Bryson City	6.56	3.55	4.10	3.60	4.13	6.13	9.41	3.25	0.10	5.42	2.22	5.55	54.02
Caroleen	6.16	4.40	5.71	2.58	5.45	6.77	9.41	2.42	0.64	3.36	2.53	3.88	53.30
Chapel Hill	5.05	3.85	3.45	3.11	6.28	3.65	12.99	.....	.....	.....	0.44	1.74	.....
Charlotte	5.45	4.85	2.70	3.90	6.38	2.43	7.40	3.94	0.84	4.46	1.02	2.20	45.57
Chimney Rock	4.56	4.53	6.25	2.99	5.70	6.14	4.29	.....	0.37	.....	3.04	1.65	.....
Cullowhee	4.93	3.97	4.10	2.95	2.68	4.47	2.27	2.32	0.56	3.44	1.88	4.46	38.03
Durham	5.66	3.34	2.93	3.15	5.62	1.66	12.12	3.70	0.21	2.95	0.43	0.59	42.41
Eagletown	3.45	3.76	2.90	2.15	6.00	5.54	13.03	3.97	1.18	3.41	0.22	2.40	48.06
Edenton	2.30	3.40	3.40	2.40	6.75	3.10	14.35	5.37	1.00	2.04	0.65	2.50	47.26
Elizabeth City	4.63	3.65	8.05	2.50	4.40	2.70	9.75	4.43	2.28	1.40	0.18	2.52	46.49
Elizabethtown	2.89	3.88	3.28	1.80	4.31	3.86	7.17	3.01	1.59	2.68	1.18	1.31	36.96
Elkin	5.24	3.37	5.34	3.12	5.75	3.11	5.26	4.33	0.86	4.20	2.03	2.87	45.48
Ellijay	5.98	3.76	4.45	4.30	4.36	8.16	3.28	3.53	0.80	4.62	2.54	5.53	51.31
Enfield	3.49	3.47	2.92	1.49	10.42	4.20	15.70	3.82	1.64	2.75	0.43	1.70	52.03
Fayetteville	3.27	2.64	2.86	2.50	4.57	4.31	8.92	2.92	1.57	5.22	0.12	1.14	40.04
Goldsboro	5.24	4.66	1.86	1.81	7.29	6.10	11.26	3.43	3.49	3.19	0.29	1.32	49.94
Gorge	5.76	4.09	5.50	4.93	7.51	8.54	13.01	10.09	1.40	4.04	2.20	3.60	70.67
Graham	6.37	3.28	3.21	2.66	7.04	3.78	12.09	5.50	0.25	4.38	0.65	1.68	50.89
Greensboro	5.64	3.97	4.09	3.47	5.63	3.73	10.28	3.79	0.44	4.47	1.37	2.25	49.13
Greenville	3.85	3.96	3.68	1.63	4.98	3.10	9.00	4.06	1.50	4.47	0.43	1.89	42.55
Hatteras	4.84	2.39	2.94	1.80	2.12	9.76	2.13	1.27	1.99	2.69	0.25	0.98	33.16
Henderson	4.06	2.55	2.97	4.27	5.79	4.01	13.58	4.75	0.59	2.53	0.44	2.19	47.73
Hendersonville	6.23	4.07	7.87	2.52	6.30	8.28	5.12	4.36	0.22	3.03	1.80	2.18	51.98
Hickory	5.36	3.80	5.41	3.32	6.10	4.04	9.74	3.07	0.37	4.41	3.31	3.25	52.18
Highlands	8.53	8.32	10.53	6.66	6.28	10.00	5.64	7.98	0.52	6.96	8.58	9.49	89.49
Hot Springs	3.54	2.05	2.53	2.44	3.50	6.16	1.48	1.99	0.94	5.45	0.82	3.29	34.19
Jefferson	4.70	3.31	3.77	3.56	6.03	5.78	2.52	2.44	2.14	3.58	1.50	3.48	42.81
Kinston	.....	3.45	2.88	3.30	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lenoir	5.32	4.06	4.61	4.15	5.82	6.12	6.93	4.92	0.81	3.64	1.67	3.83	51.88
Lillington	3.82	4.94	1.83	.....	.....	.....	12.06	2.66	1.38	2.75	0.20	0.90	.....
Lincolnton	5.48	5.29	5.24	2.54	5.62	4.19	13.62	4.70	0.70	3.65	2.57	3.44	57.04
Louisburg	2.57	4.35	2.58	3.40	6.23	5.50	16.05	1.97	0.35	2.99	0.37	0.66	47.02
Lumberton	2.42	3.60	3.57	3.83	3.13	3.26	7.02	2.99	1.61	4.48	0.40	1.33	37.64
Manteo	2.52	2.44	3.25	1.45	4.45	7.72	7.70	8.54	2.66	2.00	0.16	0.86	43.75
Marion	5.79	4.55	5.52	2.79	8.16	9.68	6.24	3.84	0.90	4.72	2.18	2.54	56.91
Marshall	3.19	1.55	2.70	2.69	2.81	8.56	3.40	1.15	0.50	2.95	0.77	2.32	32.59
Moncure	4.56	3.50	2.95	3.27	4.68	2.72	13.09	2.69	0.45	3.65	0.46	1.82	43.84
Monroe	5.42	4.44	2.67	2.75	5.89	2.88	8.49	3.50	1.01	3.51	0.56	1.95	43.07
Montreat	4.67	3.01	4.30	3.12	6.39	9.64	5.48	1.75	0.96	3.81	1.77	3.04	47.94
Morganton	5.03	4.32	4.98	3.75	6.05	4.08	6.19	4.68	0.75	4.33	1.69	2.78	48.83
Mount Airy	6.42	3.64	5.05	3.71	7.06	5.72	5.68	2.00	0.40	3.64	2.61	2.71	48.64
Mount Holly	5.89	4.90	4.35	3.98	7.33	2.79	5.86	2.51	1.55	5.20	1.00	2.54	47.90
Murphy	6.45	4.21	5.35	3.17	6.01	7.59	3.38	5.62	1.09	7.45	2.26	4.41	56.81
Nashville	3.53	3.81	3.62	1.59	4.71	3.28	15.49	4.02	0.63	3.99	0.56	1.48	46.71
Newbern	5.22	4.12	6.49	1.05	3.89	4.60	8.41	3.90	2.08	4.80	0.22	1.76	46.54
New Holland	4.40	3.38	4.29	2.28	2.18	2.17	5.56	3.31	1.60	2.11	0.21	0.98	31.47
Neuse	3.51	3.43	3.02	1.87	5.01	3.38	13.86	4.23	0.15	2.44	1.41	2.04	44.35
Parker	5.29	3.28	2.92	4.59	6.40	6.27	2.92	3.50	1.43	4.50	2.20	4.38	47.77
Pinehurst	.....	3.09	2.46	2.14	.....	3.14	8.62	1.84	T.	5.05	T.	1.00	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
North Carolina—Continued.													
Raleigh (Weather Bureau)	3.14	3.49	2.38	1.69	6.15	2.22	10.26	4.88	0.51	2.61	1.44	1.96	40.73
Raleigh (No. 2)	3.75	3.55	2.90	2.17	5.35	2.17	11.76	4.64	0.73	2.57	0.85	2.10	42.54
Randleman	5.32	3.81	2.92	2.50	6.07	2.76	9.97	3.13	0.24	4.11	0.52	2.03	43.38
Reidsville	4.61	3.38	4.03	4.55	6.43	3.29	6.52	2.26	0.83	4.18	1.65	1.55	43.30
Rock House (No. 1)	7.88	7.29	9.05	5.60	8.69	10.67	7.77	6.60	0.27	7.05	7.62	8.41	86.90
Rock House (No. 2)	7.58	5.98	8.93	5.30	7.38	9.55	9.58	5.75	0.22	6.65	6.60	8.79	82.31
Rockingham	.....	.....	1.73	2.81	3.38	3.17	9.89	5.13	2.22	5.48	0.24	2.81	.....
Rocky Mount (No. 1)	3.36	3.63	2.26	1.40	4.37	2.50	12.55	6.90	1.41	3.79	0.44	2.02	44.63
Rocky Mount (No. 2)	3.80	4.24	2.85	1.76	4.64	5.11	10.34	6.03	0.24	3.80	0.34	2.19	45.34
Rougemont	4.95	3.15	3.05	3.70	5.93	5.75	11.45	2.50	1.05	3.40	0.90	0.10	45.93
Salisbury	5.60	4.64	4.40	3.34	6.13	4.69	8.13	3.36	0.19	3.85	0.82	2.42	45.57
Sanatorium	.....	3.57	.....	.....	2.12	5.38	10.81	2.99	2.15	3.83	.....	2.38	.....
Scotland Neck	3.18	3.86	2.18	1.95	5.31	3.93	10.69	1.93	0.88	3.41	0.55	2.17	40.04
Settle	5.84	4.28	4.51	4.63	5.81	4.84	10.10	3.62	0.39	6.70	1.82	3.06	55.60
Siler City	5.90	2.26	2.94	2.84	6.11	9.53	12.22	4.18	1.75	3.44	0.62	1.77	53.56
Sloan	3.01	3.22	4.59	1.29	3.47	9.20	10.69	4.99	1.87	4.40	0.74	1.30	48.77
Smithfield	3.11	4.17	2.93	2.18	4.53	5.05	10.23	3.50	5.33	4.16	0.34	1.98	47.51
Southern Pines	4.47	5.01	2.25	1.75	2.18	4.78	8.42	4.44	2.60	4.80	0.02	1.67	42.39
Southport	4.65	4.81	2.67	1.84	1.97	3.84	8.25	9.87	4.62	0.85	0.70	1.46	45.53
Statesville (No. 1)	5.62	5.00	6.48	4.00	6.06	4.09	9.40	4.16	0.75	4.09	1.89	2.97	54.51
Statesville (No. 2)	5.16	4.60	5.72	4.18	5.32	3.23	13.82	3.59	0.80	4.77	2.61	4.46	58.06
Tarboro	3.56	4.05	2.89	1.74	5.27	5.09	10.57	5.40	1.79	3.53	0.24	2.77	46.90
Tryon	6.75	7.04	6.09	3.25	5.69	7.62	10.95	5.59	0.81	3.78	4.49	5.67	67.73
Waynesville	.....	.....	.....	.....	.....	4.26	1.89	1.55	0.51	3.11	1.97	4.11	.....
Weldon	3.32	3.03	4.53	1.93	6.82	4.45	13.55	6.11	2.68	2.02	0.45	1.24	50.13
Wenona	4.62	3.61	4.19	1.79	5.22	3.59	6.81	5.73	2.46	3.06	0.43	2.04	43.55
Willard	.....	.....	.....	1.01	2.99	4.26	8.19	5.20	1.15	1.63	1.32	1.17	.....
Wilmington	3.23	2.83	2.20	3.23	1.26	4.25	8.43	5.52	1.90	1.03	0.07	1.87	35.82
Wilson	3.53	6.36	2.69	2.83	4.42	.....	.....	.....	.....	.....	.....	.....	.....
Winston-Salem	5.51	3.72	4.61	3.49	7.53	2.68	10.11	2.90	0.35	4.80	1.37	1.86	48.93
North Dakota.													
Amenia	0.37	1.40	0.30	0.70	4.35	2.42	2.59	2.67	1.49	0.74	2.77	1.10	20.90
Arnegard	.....	.....	.....	.....	1.34	1.18	0.16	2.61	0.53	1.33	0.40	0.03	.....
Ashley	0.20	1.40	0.70	1.50	2.31	2.86	3.03	1.03	0.09	2.11	1.00	0.40	16.63
Beach	0.20	0.19	1.78	.....	.....	0.90	0.50	0.30	0.48	1.06	.....	.....	.....
Berthold Agency	T.	0.45	0.46	1.30	2.71	0.84	1.16	1.52	1.70	1.00	0.46	0.68	12.28
Bierman	0.15	0.44	0.93	3.70	1.40	0.98	1.14	0.04	0.77	1.60	1.12	.....	.....
Bismarck	0.09	0.63	1.17	1.71	4.06	0.63	0.76	1.46	0.34	0.98	0.92	0.23	12.98
Bottineau	0.28	0.36	0.42	0.74	1.61	1.30	0.71	3.15	0.96	0.84	0.40	0.32	11.09
Bowbells	0.00	0.30	0.80	1.48	2.06	3.18	2.11	0.61	0.65	1.32	0.91	0.66	14.08
Bowman	0.04	0.18	0.49	1.15	0.67	1.30	0.70	0.24	0.46	1.19	0.62	0.03	7.07
Cando	.....	0.39	0.64	0.99	2.58	8.70	1.30	2.33	1.12	0.24	0.67	0.60	.....
Carson	0.10	0.64	0.45	2.35	2.50	1.73	1.70	1.26	0.80	1.04	1.10	0.14	13.81
Colgate	0.60	0.55	1.00	1.15	3.34	2.93	2.95	3.35	1.17	0.50	2.00	0.60	20.14
Cooperstown	T.	0.20	0.30	1.20	4.35	3.45	3.15	3.05	0.50	0.50	1.70	1.30	19.70
Crosby	0.15	0.50	0.45	1.10	2.38	2.25	3.67	1.37	0.78	0.98	0.34	0.20	14.17
Devils Lake	0.22	0.70	1.49	1.14	3.47	3.58	1.76	2.28	0.95	0.65	1.01	0.42	17.67
Dickinson	T.	0.67	0.51	1.28	2.49	0.52	0.53	0.59	0.70	0.58	0.34	0.16	8.37
Donnybrook	T.	0.60	0.50	2.40	2.97	2.26	0.72	0.37	0.97	2.52	0.13	0.20	13.64
Dunn Center	0.15	0.35	0.55	1.25	2.07	0.75	0.21	0.29	0.66	1.00	0.43	0.30	8.01
Dunseith	0.35	0.52	0.70	0.98	2.42	1.54	0.69	5.13	1.62	0.92	0.35	0.60	15.82
Eckman	T.	0.23	0.57	1.17	2.49	1.20	0.47	1.54	0.82	1.47	0.96	0.70	11.68
Edgeley	0.10	0.42	0.73	1.29	4.00	4.74	3.68	0.46	0.33	1.18	0.43	0.29	17.65
Ellendale	0.06	0.74	0.71	2.23	5.22	2.91	4.17	0.68	0.19	1.50	0.95	0.38	19.74
Energy	0.07	0.47	0.54	1.22	2.49	1.58	0.42	1.35	0.72	0.80	0.48	0.02	10.16
Epping	0.20	0.33	1.03	1.15	2.79	1.57	1.38	0.40	1.76	2.12	1.66	0.12	14.51
Fessenden	0.25	0.95	0.70	1.30	2.97	3.52	0.72	2.02	0.88	0.80	1.50	0.90	16.51
Forman	0.10	1.65	0.48	1.70	3.86	1.62	4.22	0.06	0.06	1.23	.....	.....	.....
Fryburg	0.10	0.54	0.86	1.70	2.06	0.70	0.85	0.57	0.62	3.63	0.62	0.30	12.61
Fullerton	0.15	1.90	0.74	1.51	7.02	2.92	5.25	0.94	0.35	2.01	1.89	0.50	25.18
Garrison	0.05	1.39	0.61	1.28	3.54	1.64	1.12	0.48	1.29	1.24	0.31	0.14	13.09
Grafton	0.23	0.47	0.57	1.38	3.49	2.46	1.98	2.71	0.89	0.75	2.04	0.23	17.20
Grand Forks	0.45	0.45	0.71	1.73	4.62	2.39	4.16	2.98	2.23	0.82	2.25	0.22	23.01
Grand Rapids	0.05	1.20	0.35	1.51	4.71	2.65	6.10	1.76	.....	.....	.....	.....	.....
Granville	0.66	1.20	1.52	0.61	2.30	2.23	0.59	1.34	1.80	1.64	1.92	1.10	16.91
Hannah	T.	0.60	1.11	0.77	2.31	3.46	1.82	2.62	2.49	1.29	1.70	0.80	18.67
Hansboro	0.53	0.36	1.22	1.53	2.09	3.00	0.97	2.77	2.73	1.35	1.11	0.40	18.06
Hettinger	T.	0.10	2.63	4.23	1.63	1.22	1.80	0.18	0.34	0.34	0.50	0.00	12.97
Hillsboro	0.25	0.42	0.67	1.21	4.19	1.88	4.01	5.65	0.93	0.59	2.12	0.60	22.52
Howard	T.	1.20	1.41	.....	1.92	2.17	1.60	2.10	0.94	1.24	0.20	0.39	.....
Jamestown	0.55	1.05	0.55	1.14	4.29	6.74	2.32	1.36	0.85	0.39	1.55	0.90	21.69
Lakota	0.47	0.71	0.55	1.95	3.80	1.83	0.74	1.43	1.03	.....	.....	.....	.....
Lamoine	0.10	1.20	1.40	1.38	4.06	2.22	0.11	1.12	0.22	0.20	1.00	0.60	13.61
Langdon	0.25	0.90	1.10	0.60	2.68	3.20	0.71	4.38	0.97	1.02	1.92	0.50	18.23
Larimore	0.32	0.61	0.16	2.32	6.68	2.64	3.36	3.19	1.25	0.89	3.40	0.50	25.32
Linton	.....	.....	.....	1.21	5.11	1.19	1.95	1.00	0.20	1.25	0.80	0.11	.....
Lisbon	0.00	1.20	0.88	1.08	4.29	2.51	4.04	2.78	0.52	0.70	2.90	T.	20.40
McClusky	0.00	0.45	0.85	1.04	3.80	2.28	1.12	0.72	0.64	0.45	1.25	0.65	13.25
McHenry	0.15	0.24	1.03	2.15	6.72	4.33	1.02	3.70	0.52	0.63	1.80	2.40	24.69
McKinney	0.10	0.20	1.10	2.17	2.41	2.79	2.05	1.55	0.55	2.37	0.50	0.40	16.19
McLeod	0.30	0.90	0.75	2.06	4.22	3.78	4.42	1.54	0.31	1.34	2.17	0.27	22.06
Maddock	0.36	0.33	0.94	1.25	2.95	2.02	0.92	2.06	1.49	0.31	0.75	0.32	13.70
Mandan	0.08	0.68	0.95	1.31	3.90	1.17	0.85	1.22	0.49	0.83	1.19	0.25	13.92
Manfred	0.07	0.59	0.75	1.46	3.26	5.08	1.23	1.26	0.96	0.55	1.12	0.90	17.23
Marmarth	0.09	0.58	0.30	1.11	0.66	1.19	0.23	0.78	0.94	1.38	0.76	0.15	8.17
Mavville	0.16	0.39	0.74	1.17	5.18	2.62	3.18	3.70	0.99	0.26	1.94	0.82	21.15
Melville	0.00	1.30	0.40	1.25	3.84	2.96	0.84	1.70	0.68	0.56	1.60	0.60	15.73
Milnor	T.	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minot	0.23	0.80	1.62	1.56	3.11	2.02	0.43	0.99	3.18	1.88	1.25	0.80	17.86
Minto	0.14	0.58	0.64	1.62	3.93	3.60	3.30	2.43	0.86	0.92	2.68	.....	.....
Mott	0.50	0.68	1.09	2.01	3.12	2.14	2.23	2.05	1.25	1.13	0.86	0.25	17.31
Napoleon	0.05	1.00	0.90	1.27	4.18	1.78	1.57	0.95	0.66	1.00	0.30	0.35	14.01
New England	0.02	.....	.....	1.50	1.94	1.07	0.74	0.78	0.60	0.80	0.60	0.00	.....
New Salem	0.01	0.65	0.73	1.63	2.50	1.31	0.76	2.48	0.83	0.98	1.37	0.43	13.68

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
North Dakota—Continued.													
Orange	0.00	0.50	0.60	1.53	1.78	2.12	1.09	0.54	.....	.....	0.60	0.00	.....
Park River	0.15	0.26	0.20	0.67	2.52	.....	0.73	2.96	0.90	0.73	1.49	0.21	.....
Parshall	0.00	0.70	0.20	.....	3.29	0.93	0.53	0.52	.....	.....	.....	T.	.....
Pembina	0.31	0.02	1.98	0.70	1.16	2.21	0.82	2.24	1.00	0.50	1.66	0.20	12.80
Pettibone	.....	.....	.....	1.41	3.95	1.44	1.27	0.83	0.35	0.15	1.20	0.70	.....
Power	0.45	0.85	0.50	1.69	3.48	1.54	3.97	1.41	0.29	1.08	1.42	0.80	17.48
Powers Lake	0.20	0.50	0.85	2.95	1.31	2.09	2.37	0.58	1.28	1.79	0.55	0.65	15.12
Selfridge	0.12	1.34	2.35	2.42	4.53	0.24	2.38	0.92	0.46	1.45	0.28	0.03	16.52
Sherwood	.....	.....	.....	2.07	2.36	2.65	3.32	2.94	1.11	.....	.....	.....	.....
Steele	0.40	1.07	0.67	1.30	7.74	2.16	1.94	0.76	1.49	1.61	0.50	0.18	19.82
Taylor	0.33	0.18	0.08	2.52	1.90	1.25	0.85	0.42	0.29	0.54	0.44	0.02	8.82
Towner	0.40	0.80	0.90	0.55	2.35	1.44	0.25	1.71	2.13	0.76	1.20	0.50	13.29
Turtle Lake	.....	.....	.....	1.13	3.37	2.98	0.51	0.59	0.82	0.51	0.90	0.79	.....
Valley City	.....	1.00	.....	.....	3.77	.....	.....	0.48	0.44	0.32	1.65	0.85	.....
Wahpeton	0.26	0.40	0.80	2.54	5.37	4.07	4.43	2.30	0.59	1.92	1.75	0.90	25.33
Walhalla	0.50	0.25	0.80	0.93	2.60	1.49	1.25	1.65	0.62	1.84	1.00	0.60	13.53
Washburn	.....	.....	.....	.....	4.09	5.18	0.89	0.40	1.19	1.25	0.97	0.49	.....
Westhope	T.	T.	0.50	0.97	2.39	2.07	1.80	1.43	0.53	0.32	2.40	0.87	13.28
Williston	0.07	1.02	1.08	1.12	2.16	2.64	1.33	0.65	0.99	1.65	0.46	0.25	13.42
Willow City	0.50	1.00	1.80	1.17	2.45	1.01	0.56	1.03	0.96	1.22	1.00	1.10	13.80
Zap	T.	0.46	0.18	1.57	2.66	0.83	0.78	1.11	0.57	0.80	.....	0.60	.....
Ohio.													
Akron	1.20	0.81	.....	3.00	7.38	3.67	1.98	4.24	1.67	6.13	2.81	1.89	.....
Amesville	2.43	1.13	2.99	2.49	4.55	3.07	4.20	5.62	1.08	6.28	6.41	4.45	44.70
Ashland	0.80	0.72	4.07	3.07	4.71	4.46	4.48	7.93	1.56	5.14	3.45	1.55	41.94
Bangorville	1.76	1.01	4.72	3.73	4.86	1.42	9.89	4.48	1.16	6.27	3.83	1.22	44.35
Batavia	1.95	0.87	5.31	3.39	4.74	2.98	3.85	1.76	1.85	9.56	4.64	3.46	44.36
Bellefontaine	1.40	0.91	3.37	4.20	3.93	3.82	5.64	3.68	1.13	7.40	4.35	1.07	40.91
Bellpoint	1.24	0.84	4.22	2.96	.....	.....	.....	2.21	2.17	3.97	4.00	1.04	.....
Benton Ridge	1.13	1.11	4.84	3.45	3.57	3.98	1.50	5.77	2.13	8.90	2.74	0.72	39.84
Beverly	2.20	0.90	2.64	2.69	4.32	3.89	2.57	5.65	2.73	4.71	6.54	3.79	42.63
Bowling Green	0.84	1.89	4.12	3.89	3.92	3.18	0.69	5.76	1.50	.....	.....	0.47	.....
Brilliant	2.00	1.07	2.10	2.63	5.06	4.16	7.47	8.31	3.45	5.47	3.40	3.77	48.89
Bucyrus	1.25	1.50	4.19	3.77	4.75	3.67	4.09	4.82	2.33	9.10	2.95	0.98	43.31
Cadiz	2.00	1.79	3.69	2.26	5.87	3.79	7.30	8.23	2.03	8.10	3.49	3.03	51.49
Cambridge	1.85	1.09	4.18	2.89	6.40	2.08	4.49	8.57	3.05	6.41	4.88	2.91	48.80
Canfield	1.70	1.26	2.75	1.93	5.17	1.34	3.20	5.82	2.58	4.78	2.45	1.74	34.72
Canton	1.30	1.79	3.14	2.18	6.76	3.61	3.41	4.24	1.53	5.51	2.66	1.75	37.94
Catawba Island	0.90	0.86	3.01	3.63	3.31	1.57	1.66	4.73	1.62	4.41	1.36	0.54	27.60
Chillicothe	1.93	0.67	3.05	2.89	4.73	2.35	5.72	4.54	2.27	7.22	4.77	3.60	43.74
Cincinnati	1.44	1.05	5.27	3.29	3.56	2.44	2.08	6.92	3.79	9.51	3.65	2.56	39.56
Circleville	2.09	1.41	4.32	2.79	6.27	2.92	3.25	6.75	2.64	9.99	5.67	3.79	51.80
Clarington	2.98	1.93	3.25	2.44	5.34	3.32	5.63	9.18	2.17	6.98	6.44	4.31	53.97
Cleveland (Weather Bureau)	0.63	1.11	2.67	2.96	4.15	1.24	2.48	7.19	1.79	3.17	1.31	1.32	30.00
Cleveland (St. Ignatius)	0.70	1.06	2.68	3.08	4.93	1.23	2.58	6.29	2.06	3.21	1.19	1.29	30.30
Columbus	1.28	1.27	4.58	2.26	5.19	1.76	4.93	3.71	1.15	5.33	4.23	2.26	37.95
Coshocton	2.10	1.30	4.56	3.09	7.02	2.43	2.86	6.25	3.14	6.21	4.42	2.91	46.29
Dam No. 28, Ohio River	4.06	1.40	3.10	2.72	6.38	4.33	2.39	3.12	2.99	5.07	6.92	4.95	47.43
Danbury	0.70	0.89	3.41	4.81	3.92	0.97	2.16	5.92	1.57	4.65	1.31	0.34	30.65
Dayton (Weather Bureau)	0.97	1.11	5.16	3.57	4.33	2.59	4.20	3.12	1.26	7.08	3.23	1.66	38.28
Dayton (Boyer)	1.24	1.19	5.49	3.59	5.37	3.25	4.77	5.55	1.31	7.60	4.49	1.76	45.61
Delaware	1.44	0.52	4.40	2.80	6.06	3.24	3.56	3.80	1.21	3.76	3.51	1.05	35.35
Demos	2.43	1.86	3.56	2.27	4.98	2.12	9.25	6.21	2.88	6.93	4.89	3.18	50.36
Dennison	1.92	1.18	4.31	2.91	3.92	1.81	6.64	5.90	2.06	7.31	3.85	2.82	44.63
Dover	1.60	0.82	3.90	2.18	5.94	2.61	7.41	5.45	1.45	5.15	3.86	2.28	42.65
Dublin	1.39	0.66	4.63	2.53	5.16	1.29	2.59	4.77	0.99	4.87	3.96	1.53	34.37
Eaton	1.09	1.22	6.72	4.88	2.88	1.25	4.62	2.47	1.58	7.13	4.85	2.19	40.88
Fernbank	1.96	0.90	5.40	2.18	4.06	2.17	4.15	1.17	2.72	9.17	5.40	3.13	42.41
Findlay	1.06	1.71	4.37	3.71	3.86	3.62	1.78	4.03	2.36	5.33	2.42	0.60	34.85
Frankfort	1.76	1.24	3.26	2.48	4.38	1.75	5.60	2.52	2.18	9.29	5.80	3.85	44.11
Fremont	0.96	0.76	4.32	3.46	4.38	0.95	0.88	8.28	1.28	4.96	1.98	0.58	32.79
Gallipolis	3.46	1.33	2.86	2.34	7.47	3.37	7.30	2.13	1.70	5.78	5.53	4.32	47.59
Gambier	1.77	0.97	4.54	1.81	6.23	5.73	4.88	4.32	1.66	6.64	2.98	1.27	42.80
Geneva	1.58	0.99	3.44	4.16	4.90	3.44	1.94	3.18	1.75	3.33	1.42	0.94	31.07
Germantown	1.08	0.68	4.85	4.16	4.53	1.50	4.34	3.73	1.02	7.93	3.97	2.30	40.09
Granville	2.06	0.89	4.95	3.07	5.20	1.39	5.83	2.38	1.47	5.45	4.58	2.90	40.17
Green	3.10	3.77	3.34	4.06	4.64	4.46	1.22	3.28	1.26	6.68	7.40	4.77	47.98
Greenfield	1.78	1.76	3.99	3.09	5.41	3.84	7.47	1.09	2.39	9.56	5.52	3.68	49.58
Green Hill	1.59	1.16	3.19	2.50	4.79	6.47	5.81	3.41	2.01	4.69	2.45	1.61	39.63
Greenville	0.86	1.18	5.77	3.29	4.40	3.26	5.15	2.84	1.12	7.80	4.19	0.76	40.62
Hamilton	1.78	0.79	5.56	3.54	4.07	3.26	2.54	2.82	1.06	6.94	5.22	1.97	39.55
Haydenville	2.46	1.40	3.63	2.42	4.24	4.73	3.95	3.95	1.87	7.08	5.96	3.51	45.20
Hillhouse	1.12	1.13	2.52	3.80	4.83	4.74	1.59	3.90	2.59	4.44	2.30	1.68	34.64
Hillsboro	.....	0.70	3.35	2.26	3.65	3.79	3.24	1.68	2.35	5.90	4.32	.....	.....
Hiram	1.49	1.66	2.74	3.11	7.12	2.02	3.50	6.66	2.57	5.93	2.90	1.77	41.47
Hudson	1.29	1.20	2.59	3.74	5.95	1.69	5.69	5.15	2.81	5.33	2.44	1.43	39.31
Ironton	3.68	1.16	2.92	3.17	4.81	2.69	3.95	3.69	2.60	6.13	6.64	4.90	46.34
Jackson	2.94	1.37	2.75	2.48	5.22	3.62	4.73	2.80	1.56	5.87	6.26	4.62	44.22
Kenton	1.02	1.36	4.32	3.13	2.94	4.44	3.35	3.41	2.07	7.27	3.28	0.43	37.02
King's Mills	2.30	1.27	5.63	3.36	4.00	3.58	2.99	1.14	1.60	8.06	6.61	2.46	43.00
Lakeview	1.32	0.91	5.36	2.79	3.19	1.90	3.14	1.91	2.23	6.33	2.55	0.56	32.19
Lancaster	1.92	1.99	3.88	3.27	5.63	2.82	3.47	4.60	2.79	7.52	5.62	3.59	47.10
Larue	1.03	0.53	3.32	3.45	4.30	4.72	3.61	3.50	1.26	6.93	3.95	1.08	37.68
Lima	1.15	1.29	4.89	2.62	2.90	3.35	2.18	2.20	2.95	7.73	3.27	0.71	35.24
London	1.30	1.14	3.94	2.73	5.32	2.49	3.61	2.66	0.83	5.85	4.78	1.51	36.16
McArthur	2.45	1.52	2.85	2.89	4.34	5.18	6.14	6.68	1.26	6.83	.....	.....	.....
McConnelsville	2.54	1.50	3.95	2.92	4.54	2.38	4.88	6.15	1.09	7.50	5.62	3.36	46.48
Mansfield	1.31	0.76	4.41	3.15	4.65	3.53	6.23	6.91	2.41	7.02	.....	.....	.....
Marietta (No. 1)	2.85	1.24	3.13	2.59	4.65	3.15	4.52	6.79	1.14	5.84	6.53	4.33	46.76
Marietta (No. 2)	3.51	1.37	3.15	2.48	5.13	4.10	4.61	6.02	0.99	4.72	6.92	4.42	47.42
Marietta Experiment Farm	2.77	1.36	3.13	2.85	3.97	3.86	3.07	5.89	2.66	5.30	6.67	4.09	45.62
Marion	1.05	1.15	3.97	3.74	4.64	3.55	6.27	3.02	1.39	7.76	3.35	0.89	40.78
Marysville	0.93	1.10	4.60	4.45	4.64	5.46	2.89	5.86	1.49	4.75	3.94	0.98	41.09
Medina	1.08	1.02	3.37	2.83	4.62	1.93	3.81	5.33	2.14	5.73	2.11	1.70	35.67

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
***Ohio*—Continued.**													
Milfordton	1.54	0.91	2.81	2.32	4.79	4.24	4.69	2.31	2.01	4.85	2.43	1.60	34.59
Millersburg	.....	0.82	4.07	3.15	7.26	3.49	7.33	5.75	1.27	7.32	3.05	1.89	.....
Milligan	2.25	1.36	.....	2.26	4.31	2.68	.....	6.50	1.08	.....	5.54	3.11	.....
Millport	1.75	1.05	3.15	3.15	4.90	4.88	5.99	4.49	2.18	5.26	2.35	2.42	41.57
Milton Dam	1.13	0.76	2.77	2.49	5.51	2.30	3.62	5.90	1.82	4.82	2.34	1.66	35.12
Minersville	.....	.....	.....	.....	5.51	3.80	.....	.....	.....	.....	.....	.....	.....
Montpelier	0.93	2.36	3.54	5.86	5.53	1.00	0.27	6.14	2.92	4.87	3.39	0.98	37.79
Mount Healthy	.....	.....	4.60	3.77	4.39	1.92	3.13	1.96	2.94	10.70	4.15	2.55	.....
Mulberry	2.19	1.91	5.52	3.91	4.84	.....	.....	1.88	2.67	11.19	4.53	3.45	.....M
Napoleon	0.99	1.57	4.96	4.01	4.14	1.81	0.33	5.85	1.87	7.99	2.31	0.26	36.09
New Bremen	0.89	0.56	4.13	2.36	3.47	0.95	3.74	2.88	2.59	6.02	2.27	0.47	30.33
New Carlisle	1.46	1.14	5.90	3.56	4.89	1.38	7.24	3.34	1.59	5.23	4.42	1.42	41.48
North Bass Island	0.48	0.32	2.56	3.35	3.17	2.07	0.71	5.01	3.01	3.36	1.19	.....	.....
North Royalton	1.62	1.39	2.16	3.73	5.46	3.91	4.49	4.81	3.10	5.24	1.84	1.78	39.53
Norwalk	0.94	0.95	3.73	2.69	3.93	1.48	3.03	9.23	2.17	4.60	2.02	0.59	35.36
Oberlin	0.69	0.52	3.32	2.67	4.31	0.85	4.73	4.61	1.84	4.34	1.55	1.06	30.49
Ohio State University	1.39	1.60	4.99	2.43	5.46	0.78	4.27	3.66	1.17	5.71	4.16	2.08	37.70
Ottawa	0.92	1.27	4.76	2.56	3.47	5.19	0.88	4.32	1.92	7.59	2.64	0.95	36.47
Oxford	1.00	0.82	7.95	3.84	.....	3.52	2.69	2.59	2.00	7.57	5.67	2.17	.....
Pataskala	1.89	1.80	4.52	2.78	6.02	1.77	4.76	3.26	2.76	5.71	4.86	2.86	42.99
Paulding	.....	1.64	4.02	2.75	4.86	3.34	0.57	2.48	1.73	6.32	.....	0.34	.....
Peebles	2.65	1.70	3.43	3.61	4.07	4.87	3.47	4.23	2.04	7.80	6.21	7.05	51.13
Philo (No. 1)	1.27	0.86	2.89	2.14	4.55	3.02	6.06	7.13	2.13	6.13	5.40	2.21	43.79
Philo (No. 2)	1.94	0.94	3.92	2.44	4.82	3.38	6.37	8.13	1.62	7.79	4.99	3.00	49.34
Piqua	0.80	0.57	5.62	3.63	2.90	1.37	4.26	2.07	1.58	6.85	4.10	1.29	35.13
Portsmouth (No. 1)	4.13	1.30	2.74	2.50	4.32	6.80	4.96	4.65	1.59	6.18	6.53	4.89	50.59
Portsmouth (No. 2)	3.53	1.25	3.17	3.05	4.46	7.89	4.96	4.77	1.59	6.18	6.53	4.86	52.24
Prospect	1.20	0.93	4.12	2.80	4.51	1.67	6.00	3.01	1.43	6.48	5.07	.....	.....
Put-in-Bay	0.81	1.09	3.48	4.43	3.94	1.06	1.13	7.09	2.39	4.06	2.45	0.72	32.65
Roxabell	.....	1.82	3.89	3.16	4.82	1.62	.....	.....	1.90	.....	.....	.....	.....
St. Paris	1.82	1.19	6.77	4.56	3.99	1.40	6.41	3.60	0.98	6.21	4.60	1.59	43.12
Sandusky	0.74	0.94	3.37	3.41	3.46	0.91	2.23	5.37	2.17	4.16	1.36	0.66	28.78
Sidney	1.19	0.85	5.42	3.13	3.98	2.45	3.76	2.16	1.83	6.17	4.49	1.03	36.46
Somerset	2.11	1.09	4.23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield (No. 1)	1.03	0.87	4.35	3.37	5.93	3.73	5.06	3.53	1.47	6.09	4.47	1.57	41.50
Springfield (No. 2)	1.76	0.42	4.65	1.35	4.87	1.85	5.67	3.53	1.37	5.84	5.50	1.63	38.44
Summerfield	2.54	1.68	3.21	2.92	.....	3.62	5.24	7.83	2.03	7.61	5.93	2.87	.....
Tadmor	1.40	1.28	3.35	.....	2.52	.....	5.63	.....	.....	.....	.....	.....	.....
Tiffin	1.25	1.69	4.35	4.30	3.84	1.99	2.89	9.02	2.35	5.89	2.45	0.73	40.75
Toboso	1.83	1.30	4.18	3.13	5.80	2.66	5.06	5.45	2.62	5.21	6.18	2.82	46.24
Toledo	0.77	1.13	3.55	5.15	4.17	2.93	1.40	4.54	1.51	4.35	1.60	0.33	31.43
Upper Sandusky	1.49	1.91	4.64	5.74	3.96	.....	.....	.....	.....	.....	.....	0.84	.....
Urbana	1.45	1.18	5.93	3.93	4.44	2.03	7.97	4.04	1.58	8.62	3.75	1.34	47.16
Valley Crossing	1.50	1.09	4.76	2.26	4.97	2.22	4.97	2.94	1.21	5.39	4.73	2.36	38.40
Versailles	1.04	0.53	5.70	3.07	3.97	1.66	3.68	2.83	1.61	8.43	4.38	0.73	37.63
Vickery	0.87	0.93	3.92	4.00	4.01	1.89	1.39	5.23	1.78	4.55	1.94	0.36	30.87
Walhonding	1.35	1.23	4.41	2.64	6.81	.....	2.57	5.47	1.36	5.79	4.40	2.33	.....
Wapakoneta	0.95	0.98	4.11	3.01	2.44	2.24	2.55	2.33	1.56	7.60	2.76	0.57	31.10
Warren (No. 1)	1.49	1.10	2.91	3.23	6.19	1.97	2.78	3.06	1.41	4.62	2.13	2.05	32.94
Warren (No. 2)	.....	1.25	.....	3.21	6.27	1.06	2.90	3.20	.....	.....	.....	.....	.....
Washington Courthouse	1.56	1.42	3.32	2.92	5.11	2.91	6.54	1.33	2.17	8.40	5.11	2.67	43.46
Wauseon	0.73	1.32	3.62	4.41	5.61	2.80	0.37	5.72	1.26	3.76	2.44	0.41	32.45
Waverly	2.10	1.41	2.48	1.85	3.99	2.31	4.59	2.47	1.63	6.47	5.30	4.68	39.28
Waynesville	1.58	1.03	5.82	2.75	5.12	4.69	3.41	1.87	1.37	7.94	4.18	1.40	41.16
West Manchester	1.55	1.00	8.19	3.54	4.15	1.96	4.09	.....	.....	.....	5.58	1.50	.....
West Milton	1.17	0.51	5.77	3.30	3.68	1.54	5.95	1.93	1.08	6.00	4.55	1.08	36.56
Wickliffe	0.88	1.00	2.75	3.85	4.58	4.86	1.40	5.84	1.45	4.02	1.95	1.47	34.05
Wilmington	1.88	1.51	4.24	3.61	6.35	4.54	3.66	1.95	2.30	10.06	6.00	1.68	47.78
Wooster (No. 1)	1.20	0.96	3.82	2.66	6.17	2.62	6.42	7.37	1.46	6.00	2.71	1.69	43.08
Wooster (No. 2)	1.21	0.90	3.56	2.75	5.63	2.81	5.90	7.60	1.59	4.75	2.79	1.57	41.16
Xenia	1.73	1.63	4.44	.....	.....	.....	4.66	0.72	1.87	6.28	4.28	.....	.....
Youngstown	1.07	1.05	2.48	3.04	5.41	1.89	1.91	5.26	1.82	3.58	3.15	2.16	32.82
Zanesville	1.78	1.24	4.32	2.04	5.82	1.71	2.60	7.67	2.05	6.81	6.36	2.99	45.39
Oklahoma.													
Ada	0.69	2.01	1.68	2.80	5.44	2.80	0.19	7.50	0.40	6.33	2.64	0.30	32.78
Altus	0.25	1.30	2.80	6.36	4.89	3.93	3.94	1.48	2.56	11.18	1.99	0.67	41.35
Alva	0.28	2.71	2.91	3.52	4.12	4.54	0.26	0.98	0.95	2.30	1.74	0.42	24.73
Antlers	3.45	2.78	0.97	3.16	7.58	5.29	T.	6.46	6.18	16.57	.....	.....	.....
Apache	0.57	1.88	1.88	5.01	3.77	4.86	4.70	1.48	0.49	10.69	2.69	0.50	38.52
Arapaho	0.23	1.68	1.89	4.58	5.70	5.99	5.27	2.33	0.92	2.98	1.59	0.08	33.24
Ardmore	2.13	2.22	1.75	3.14	4.52	4.06	6.80	4.41	1.68	5.45	3.32	0.75	40.23
Arnett	T.	1.55	1.12	4.08	5.76	2.83	1.06	3.30	.....	.....	.....	.....	.....
Bartlesville	T.	2.34	1.36	5.04	5.32	4.53	1.73	4.46	2.46	13.00	2.69	1.02	44.15
Beaver	T.	1.25	1.09	1.32	2.10	1.37	2.66	4.39	0.67	0.76	0.90	0.01	16.52
Billings	0.47	2.16	1.67	5.21	3.48	4.35	1.29	0.86	0.29	10.59	2.68	0.20	33.25
Blackwell	0.44	2.47	0.75	4.45	2.48	3.88	0.02	0.65	0.01	8.61	1.35	0.20	25.31
Bristow	T.	1.25	0.50	4.04	4.73	4.34	0.04	1.91	.....	8.63	4.36	0.14	.....
Broken Arrow	0.28	1.42	2.30	2.06	2.34	4.81	0.54	2.44	0.44	8.22	3.33	0.18	28.96
Broken Bow	3.10	3.65	2.32	4.56	.....	4.79	.....	9.10	2.86	7.00	5.78	0.56	.....
Buffalo	T.	1.95	2.03	3.21	2.69	3.26	1.85	2.40	T.	0.45	1.43	0.15	19.42
Calvin	1.64	1.53	1.33	6.27	4.87	5.11	0.85	4.94	0.55	8.77	3.38	0.00	39.22
Camargo	.....	.....	2.22	4.23	6.52	1.53	1.42	3.66	0.90	1.80	.....	.....	.....
Canton	0.20	2.34	1.91	4.21	6.44	2.31	1.12	.....	0.50	2.60	.....	0.26	.....
Carnegie	0.27	0.93	0.87	5.78	5.27	4.95	3.77	1.43	2.06	7.28	2.16	0.42	35.16
Chandler	0.42	1.93	2.14	3.81	5.22	1.29	0.86	2.39	1.01	9.05	3.97	0.25	32.54
Chattanooga	0.84	1.25	3.14	3.76	7.02	4.99	2.67	1.73	1.15	14.37	2.12	0.76	43.80
Cherokee	0.26	2.22	2.78	3.41	2.97	.....	0.21	3.44	0.71	2.91	2.00	0.00	.....
Chickasha	0.43	.....	.....	.....	.....	.....	.....	2.76	1.00	9.71	2.50	.....	.....
Claremore	0.45	1.90	1.96	2.31	6.02	4.68	0.61	8.25	0.87	9.06	3.83	0.37	40.31
Cleveland	0.16	0.87	1.29	3.07	4.65	3.69	0.32	1.39	0.72	7.99	4.27	0.49	29.51
Cloud Chief	0.72	1.99	2.11	7.21	4.29	2.87	5.74	1.76	1.40	7.07	1.74	0.12	37.02
Durant	3.09	3.39	1.41	3.05	5.59	1.59	2.58	3.08	1.97	9.02	2.86	0.97	38.60
Enid	0.20	2.81	1.32	3.36	4.35	4.15	0.92	2.72	0.70	6.44	1.96	0.42	29.35
Erick	0.10	1.25	1.96	4.02	5.95	2.40	3.15	1.50	1.08	1.72	1.26	0.70	25.09

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Oklahoma—Continued.													
Eufaula	0.80	2.02	0.68	4.67	3.30	2.80	0.23	7.67	0.94	8.36	2.72	0.25	34.44
Fort Gibson	0.97	1.47	1.96	3.38	2.26	4.81	0.23	3.82	1.49	6.71	4.24	0.28	31.62
Fort Reno	1.00	1.05	2.90	4.10	5.60	5.44	0.14	2.11	0.57	4.68	.....	.....	.....
Frederick	0.63	1.96	2.81	3.30	4.18	3.30	3.05	1.25	2.57	11.91	4.69	0.32	39.97
Geary	0.39	1.48	1.82	3.82	4.94	6.66	0.80	2.05	1.26	5.08	2.35	0.13	30.78
Goodwell	0.10	1.39	2.60	2.15	2.59	.....	0.48	.....	2.76	1.19	0.93	0.73	.....
Guthrie	.....	.....	.....	.....	.....	5.11	0.49	3.88	0.56	5.86	3.05	0.19	.....
Hammon	0.21	1.04	1.21	3.97	5.95	5.04	2.79	1.22	0.64	3.75	1.09	0.06	26.97
Healdton	2.33	1.94	2.80	3.19	4.38	3.43	4.99	2.58	1.27	9.01	4.71	0.66	41.29
Hennessey	.....	.....	.....	.....	6.08	5.54	0.74	3.05	0.87	3.78	2.45	T.	.....
Hobart	0.16	1.15	2.45	7.78	4.36	5.17	4.67	0.69	1.19	7.94	1.89	0.57	38.01
Holdenville	0.70	1.56	1.60	5.85	4.28	4.04	0.24	4.35	1.04	7.86	2.78	0.22	34.52
Hooker	T.	1.60	1.61	1.73	2.45	2.66	2.43	0.25	2.38	1.26	0.46	0.20	17.03
Hugo	2.59	1.87	0.99	1.25	3.26	1.05	2.24	5.44	4.09	17.39	.....	2.84	.....
Hurley	0.30	1.88	3.95	7.64	3.79	4.38	4.37	2.00	4.51	3.21	2.54	0.40	38.97
Jefferson	0.30	1.86	1.52	3.23	2.29	5.76	0.02	2.37	0.05	4.62	1.70	0.07	23.79
Kenton	0.11	1.69	3.98	6.10	2.00	1.34	5.19	3.55	4.76	2.42	1.17	0.33	32.64
Kingfisher	0.20	1.74	1.83	4.76	8.10	7.00	0.99	0.89	0.90	5.26	2.50	0.10	34.27
Lawton	0.62	1.56	3.66	4.95	4.96	4.36	4.94	1.95	1.65	14.76	3.63	1.00	48.04
Lawtonka Lake	0.65	2.45	1.50	4.60	4.10	3.90	3.80	1.90	1.26	10.21	2.99	0.78	38.14
McAlester	0.93	2.44	1.46	5.49	4.13	4.39	0.24	5.56	0.66	10.67	4.17	0.32	40.46
Mangum	.....	1.57	2.41	7.13	6.17	3.59	5.98	1.44	1.46	6.36	1.68	0.62	.....
Marlow	1.76	2.41	2.78	4.03	4.14	4.36	4.78	2.30	1.42	13.30	5.03	0.44	46.75
Meeker	0.58	2.16	2.48	4.30	6.60	3.90	0.68	4.11	1.80	10.16	4.66	0.10	41.53
Miami	0.05	2.19	2.10	5.24	2.84	4.90	0.89	4.31	0.85	13.15	3.05	0.42	39.99
Muskogee	0.48	1.93	2.30	2.78	2.64	6.31	0.63	5.01	1.65	7.04	4.05	0.39	35.21
Mutual	0.00	0.90	1.47	4.40	5.74	2.28	0.33	1.20	0.70	0.87	3.18	0.00	21.07
Newkirk	0.97	1.27	1.42	5.58	1.90	9.41	0.19	0.65	0.22	10.36	1.60	1.34	34.91
Norman	0.83	1.41	2.58	3.65	5.12	6.98	0.40	.....	.....	.....	.....	.....	.....
North Muskogee	0.65	1.78	2.15	2.33	3.02	5.13	T.	4.60	1.07	7.60	4.66	0.32	33.31
Oakwood	0.15	1.89	1.46	.....	4.44	2.33	1.93	0.91	0.93	3.61	1.54	0.02	.....
Okeene	0.35	2.21	1.16	4.67	4.70	3.82	0.60	2.10	1.30	2.69	1.38	0.05	25.03
Okemah	.....	1.87	1.69	3.39	3.59	2.64	0.47	2.06	1.08	8.26	3.44	0.14	.....
Oklahoma	0.29	1.52	1.88	5.04	5.66	4.87	0.53	2.28	1.03	8.12	2.84	0.12	34.18
Okmulgee	0.28	1.26	1.82	1.88	2.97	8.81	0.72	.....	1.06	.....	1.91	.....	.....
Pauls Valley	0.85	1.38	1.90	3.35	2.27	3.35	2.12	6.36	3.08	9.93	3.53	0.05	38.17
Pawhuska	0.25	1.81	1.15	5.38	4.79	8.81	0.60	4.27	0.60	9.25	3.05	0.65	40.61
Perry	0.30	.....	1.48	.....	.....	.....	0.25	.....	.....	.....	3.28	0.35	.....
Poteau	1.49	3.40	1.83	4.63	5.94	4.06	1.77	2.81	2.30	8.73	3.27	0.73	40.96
Rankin	T.	0.60	1.07	2.71	4.59	.....	.....	.....	.....	.....	.....	.....	.....
Ravia	1.23	2.12	2.26	2.12	6.52	4.41	3.73	4.13	1.55	5.60	4.00	1.01	38.68
Reno Junction	.....	.....	.....	3.31	4.64	7.15	0.15	2.91	0.65	.....	.....	.....	.....
Sac and Fox Agency	0.82	1.90	1.78	3.80	3.94	4.21	.....	.....	.....	.....	.....	.....	.....
Sallisaw	1.60	2.40	1.32	4.65	7.27	5.21	0.38	3.59	1.75	7.45	3.92	0.18	39.72
Shawnee	0.38	1.83	1.92	3.87	5.48	2.59	0.70	2.69	2.17	10.57	3.65	0.16	36.01
Snyder	0.06	.....	.....	5.82	6.43	5.60	.....	.....	1.25	8.25	2.09	.....	.....
Stillwater	0.21	2.47	1.65	4.18	4.07	5.14	0.40	1.88	2.48	6.67	3.76	0.25	33.16
Sulphur	1.21	2.39	2.18	3.40	5.35	3.67	3.81	7.24	0.79	8.04	3.86	1.10	43.04
Tahlequah	0.46	2.85	3.18	2.57	4.28	3.52	0.67	6.84	0.94	8.29	4.30	0.46	38.06
Tamalia	2.12	2.70	1.94	4.46	4.77	6.10	0.28	3.18	0.72	9.57	4.20	T.	40.04
Tulsa	0.50	1.55	2.77	2.67	4.45	9.45	0.79	0.74	0.41	9.79	3.78	0.07	36.97
Tuskahoma	2.86	2.59	1.52	3.39	4.07	3.77	0.92	7.29	3.44	8.54	3.38	0.22	41.99
Union City	.....	.....	1.30	4.50	4.70	2.70	T.	.....	.....	8.70	3.30	T.	.....
Vinita	0.35	2.70	2.93	4.40	3.23	6.34	2.30	4.69	0.69	10.48	3.66	0.51	42.28
Waukomis	0.38	3.17	0.63	4.59	4.84	6.08	0.02	3.50	0.98	3.72	1.80	0.25	29.96
Waurika	2.27	2.04	2.66	2.52	5.90	1.74	3.65	2.23	2.03	7.16	5.15	0.57	37.92
Weatherford	0.33	1.67	2.16	3.68	6.63	7.02	1.73	1.93	1.23	5.61	1.79	0.25	34.03
Webbers Falls	1.61	1.97	2.35	4.18	4.45	2.42	2.06	4.24	2.30	7.26	3.72	0.30	36.86
Wichita National Forest	.....	.....	.....	.....	.....	.....	2.80	3.25	0.95	8.57	.....	0.24	.....
Woodward	0.06	1.46	1.60	4.87	4.63	3.76	1.91	1.72	0.56	2.75	4.54	T.	27.86
Wyandotte	1.14	1.97	0.85	2.40	3.35	5.20	3.20	4.90	0.50	9.80	5.50	0.15	38.96
Oregon.													
Agency Plains	1.72	1.56	0.27	0.71	0.16	0.39	0.29	T.	.....	.....	.....	.....	.....
Agness	12.40	16.29	10.13	8.23	2.10	0.50	0.01	0.03	4.03	2.29	8.84	7.86	72.71
Albany	10.14	9.55	6.22	4.08	1.90	0.28	0.17	0.04	3.12	3.02	7.69	6.64	52.85
Andrews	0.23	2.07	0.40	1.11	0.06	0.00	0.00	0.03	0.25	0.75	0.41	0.99	6.30
Anna Spring	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.52	9.77	12.47	.....
Ashland	2.28	5.03	3.32	1.40	0.08	0.17	0.08	T.	1.16	1.06	2.13	3.53	20.24
Astoria	19.36	11.29	10.81	5.52	3.87	1.72	0.31	0.46	3.06	3.52	10.14	.....	.....
Austin	1.66	.....	3.10	1.50	0.67	0.19	0.00	0.31	.....	.....	.....	1.55	.....
Baker	0.62	1.39	0.73	0.67	0.19	T.	T.	0.46	0.26	0.77	1.61	1.14	7.84
Bear Creek	1.00	2.03	0.95	0.78	0.58	0.37	0.39	0.06	1.32	0.86	1.09	1.80	11.23
Bear Valley	1.43	2.54	2.38	0.36	T.	0.29	T.	0.35	1.35	1.55	1.71	1.46	13.42
Beech Creek	2.11	2.86	1.65	0.97	0.60	0.39	0.13	T.	0.75	1.81	2.71	1.74	15.72
Bend	1.75	1.50	0.25	1.10	0.02	0.28	0.35	0.04	0.50	1.24	0.71	3.33	11.07
Big Eddy	2.30	2.17	0.77	1.00	0.87	0.23	0.12	0.09	0.82	0.60	2.89	2.68	14.54
Blitzen	0.27	3.13	0.51	0.15	T.	T.	T.	T.	0.58	0.41	1.53	1.60	8.18
Brookings	11.82	11.63	10.38	8.35	3.86	0.77	T.	0.06	3.00	2.05	13.18	9.80	74.90
Burns	1.25	2.58	0.70	0.67	0.00	0.00	0.25	0.00	2.57	0.52	0.04	2.58	11.16
Butte Falls	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.80	.....
Cascade Locks	14.17	11.75	11.44	7.59	4.48	2.08	0.12	0.03	3.95	4.55	15.35	8.43	83.94
Cascadia	10.41	11.37	9.76	7.10	5.11	2.26	T.	0.13	3.73	5.64	12.15	9.46	77.12
Cazadero	10.62	7.66	6.90	6.10	3.43	1.09	0.01	0.35	4.02	2.69	13.62	7.28	63.77
Chewaucan	1.37	4.25	1.77	1.70	0.00	0.00	0.11	0.08	1.36	0.36	1.55	1.24	13.79
Chiloquin	2.30	3.63	1.24	0.41	0.05	0.23	0.18	0.00	1.01	0.76	1.59	2.79	14.19
Conder	1.44	1.54	0.83	0.91	0.61	0.13	0.00	0.02	0.36	1.67	.....	.....	.....
Condon	1.30	1.11	0.76	0.87	0.60	0.16	0.35	0.23	1.30	1.23	2.38	2.45	12.74
Coquille River Lighthouse	10.49	11.93	6.62	6.00	3.01	1.03	T.	0.11	3.64	1.54	6.41	9.61	60.39
Cornucopia	7.39	10.19	6.29	3.32	0.95	0.00	0.00	0.18	0.78	2.48	4.58	7.15	43.31
Corvallis	9.97	10.65	5.98	3.47	1.32	0.22	0.10	0.14	3.08	2.04	6.49	7.11	50.57
Cottage Grove	10.47	9.68	8.11	4.95	2.02	0.87	0.02	0.17	2.98	2.88	7.68	6.03	55.86
Cove	1.32	1.94	2.19	2.31	1.46	0.12	T.	0.36	0.30	2.87	4.52	2.29	19.68
Crescent	2.88	4.76	2.01	1.04	0.02	0.58	0.50	.....	0.98	.....	.....	.....	.....
Dayville	1.21	1.78	0.95	1.21	0.18	0.31	T.	0.31	0.64	1.59	1.23	1.64	11.05

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Oregon—Continued.													
Deadwood	24.63	14.61	15.78	10.31	5.13	0.69	0.04	0.00	4.72	4.90	17.57	13.00	111.38
Detroit	14.23	10.61	6.88	3.31	2.88	1.17	0.01	0.01	3.43	6.88	14.51	9.70	73.62
Doraville	11.44	6.46	5.11	3.97	2.60	1.76	0.26	0.46	2.78	2.58	6.14	4.05	47.61
Drain	9.85	11.28	8.45	5.19	2.01	0.72	0.14	0.23	3.38	2.46	7.63	6.14	57.48
Drewsey	1.03	3.02	1.04	1.77	.....	0.00	0.00	2.53	.....	0.81	.....	.....	.....
Dufur	2.56	3.23	0.36	0.93	0.24	0.54	0.94	0.08	1.51	0.91	1.78	4.34	17.42
Echo	1.71	1.87	0.84	0.91	0.45	T.	0.00	0.07	0.61	1.04	2.09	1.67	10.76
Eugene	8.29	9.15	5.61	4.08	1.72	1.11	0.13	0.47	3.05	2.02	5.41	5.23	46.27
Fergusons Ranch	1.91	1.90	1.44	0.99	0.42	0.06	0.11	0.03	0.72	2.50	1.75	2.11	13.94
Fish Lake	3.52	12.49	7.46	4.38	0.63	0.30	0.20	0.00	2.11	3.79	5.59	5.00	45.47
Florence	14.55	15.09	8.87	5.38	3.62	0.57	0.15	0.32	3.10	2.95	10.27	9.18	74.05
Foothills Orchard	2.16	4.04	2.08	1.75	0.06	.....	T.	T.	0.62	.....	2.08	2.81	.....
Forest Grove	11.10	10.25	5.60	4.25	1.93	0.89	0.06	0.12	3.22	1.09	5.39	6.65	50.55
Fremont	0.46	1.47	0.18	0.49	T.	0.91	0.10	T.	0.63	0.35	0.49	2.15	7.23
Gardners Ranch	1.52	2.19	1.84	0.97	0.04	0.13	T.	T.	0.98	0.82	1.57	2.45	12.51
Glencoe	.....	.....	.....	.....	0.64	0.00	T.	0.18	0.43	0.96	2.39	2.40	.....
Gold Hill	5.94	7.49	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Government Camp	10.64	14.22	13.22	7.77	4.58	2.24	0.00	0.80	4.05	9.52	16.89	8.00	91.93
Grants Pass	6.72	7.17	2.82	2.37	0.02	0.15	T.	T.	1.81	0.90	3.19	5.68	30.83
Gumboot	3.70	4.98	1.78	2.73	1.08	T.	T.	0.18	0.39	1.50	1.33	3.28	20.95
Hampton	0.16	0.43	.....	.....	T.	0.10	0.00	.....	.....	.....	.....	.....	.....
Harper	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.58	1.76	.....
Hay Creek	.....	.....	.....	.....	.....	.....	T.	0.17	1.10	0.94	1.06	.....	.....
Headworks	12.38	11.72	9.43	8.80	4.57	1.82	0.48	0.07	5.57	6.28	16.45	13.15	90.72
Heppner	2.37	1.08	0.58	0.96	0.73	0.19	0.05	T.	0.97	1.69	2.42	1.90	12.94
Hermiston	1.45	1.70	0.59	0.64	0.28	0.00	0.00	0.11	0.64	0.66	1.73	1.45	9.25
Hilgard	1.63	3.26	3.37	2.59	2.48	0.06	0.06	0.39	1.08	2.35	3.31	1.62	22.20
Hillcrest Orchard	2.53	3.50	2.36	1.19	0.14	0.14	0.00	0.00	0.99	0.97	2.11	3.05	16.98
Holloway Orchard	.....	.....	.....	.....	0.08	.....	.....	.....	.....	.....	.....	.....	.....
Hood River	6.20	6.11	2.88	2.41	0.72	0.24	0.05	T.	1.94	1.88	6.53	0.24	35.20
Howardville	2.86	4.84	3.06	1.10	1.04	0.36	T.	0.77	0.67	2.37	4.09	2.00	23.76
Ibex Mine	3.73	7.18	3.91	2.95	0.71	0.05	0.00	0.33	1.08	3.14	5.67	3.63	32.38
Jacksonville	3.88	6.36	1.74	2.21	0.07	T.	T.	0.04	0.78	0.80	2.59	3.29	21.76
Jewell	.....	13.86	11.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Joseph	1.90	1.50	1.36	1.83	0.61	0.14	0.00	0.77	0.21	.....	.....	.....	.....
Klamath Falls	0.64	3.02	0.99	0.48	T.	0.47	0.17	T.	0.66	0.28	0.48	2.21	9.40
La Grande	1.48	1.95	2.79	1.30	1.34	0.05	0.00	0.39	0.80	2.28	4.74	2.06	19.18
Lake Creek	1.45	4.08	4.20	2.50	0.73	0.13	0.03	0.00	0.60	1.48	3.02	2.36	20.58
Lakeview	1.06	2.91	1.24	0.56	T.	T.	T.	0.07	1.83	0.44	0.84	1.32	10.27
Lapine	2.01	3.12	1.23	0.68	0.15	0.43	1.13	0.06	1.16	0.72	0.91	2.90	14.50
Lilyglen	3.68	7.95	4.96	2.49	0.36	0.18	0.20	0.00	1.64	3.07	4.44	4.51	33.48
McKinley	13.24	14.76	10.54	7.77	1.98	0.68	0.02	0.16	3.72	4.11	7.30	8.86	73.14
McMinnville	8.74	10.21	5.54	4.16	2.20	0.47	0.13	0.07	2.26	1.40	7.16	4.81	47.15
Madras	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.70	.....
Marshfield	12.99	14.79	9.82	6.63	2.38	0.44	0.20	0.16	2.76	2.78	9.20	10.21	72.36
Maury	0.77	0.65	0.58	0.71	0.35	0.29	0.22	0.00	0.97	0.84	0.93	1.33	7.64
Medford	2.14	4.30	1.76	1.15	0.03	T.	0.03	0.03	0.66	0.60	1.87	2.57	15.14
Merrill	.....	.....	.....	0.66	.....	.....	0.23	0.00	0.64	1.11	.....	.....	.....
Mikkalo	1.48	1.41	0.54	0.69	0.25	0.05	0.10	0.09	0.78	0.79	1.90	1.97	10.05
Milton	1.61	2.26	1.96	1.55	0.57	0.08	0.08	0.04	1.33	1.03	2.38	1.89	14.78
Miramonte Farm	9.69	7.69	5.33	4.65	2.54	0.76	0.02	0.07	3.05	1.12	9.13	4.24	48.29
Modoc Orchard	3.34	5.33	2.13	1.61	0.05	0.03	0.06	0.11	0.93	1.00	3.11	3.07	20.77
Moro	2.29	1.50	0.83	1.00	0.18	0.07	0.03	0.17	1.63	0.85	1.80	1.74	12.09
Mount Angel	10.79	9.31	6.36	4.78	2.31	1.41	0.19	0.05	3.20	1.68	10.51	7.18	57.77
Newhalls Ranch	3.24	5.04	1.98	1.74	0.00	0.00	0.00	0.08	0.83	0.68	2.28	2.87	18.74
Newport	11.12	13.33	10.28	6.21	5.44	0.73	0.38	0.50	3.59	2.55	14.09	9.45	77.67
Nyssa	0.36	1.23	0.54	0.58	T.	0.00	T.	T.	1.32	0.78	0.99	1.46	7.26
Oakridge	7.31	8.01	6.16	3.71	1.61	1.72	T.	0.15	1.50	3.20	5.85	4.86	44.08
Ochoco	2.85	3.10	2.13	1.53	0.44	0.46	0.00	0.37	1.71	1.87	2.51	2.92	19.89
Ortley	2.70	4.47	0.87	1.45	0.51	0.22	0.13	0.26	1.41	1.82	4.36	4.80	22.94
Paisley (near)	0.52	0.97	0.11	0.95	0.05	0.13	.....	.....	.....	.....	.....	.....	.....
Parkdale	7.39	6.67	3.60	2.51	0.74	0.21	0.01	0.02	2.58	1.65	8.86	6.27	40.57
Pendleton	1.99	1.59	1.61	0.96	0.50	0.15	0.04	0.11	0.74	1.41	2.80	2.03	13.93
Pilot Rock	0.75	1.63	0.78	0.95	0.50	0.22	0.06	0.12	0.91	1.78	3.13	3.47	14.30
Portland	9.08	8.36	4.64	3.60	1.95	0.91	0.23	0.10	3.18	1.43	7.44	4.78	45.70
Port Orford	9.14	12.04	9.60	5.93	4.89	1.39	0.01	0.18	3.22	2.32	8.29	9.27	66.28
Power House	1.97	3.02	3.04	1.86	1.05	T.	T.	0.17	1.31	3.20	3.12	2.12	20.86
Prairie City	0.88	1.65	2.37	1.25	0.36	0.10	T.	0.17	1.11	1.39	3.02	1.79	14.09
Princeton	0.22	0.95	0.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prineville	1.31	1.62	0.24	0.36	0.39	0.25	0.15	0.24	0.91	0.92	0.70	1.99	9.08
Prospect	5.17	9.10	4.85	4.28	0.90	0.24	0.01	0.18	2.62	2.79	6.69	5.30	42.13
Range	1.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reservoir No. 3	0.69	1.40	0.39	0.48	0.14	0.00	0.00	0.02	0.84	0.60	1.23	1.10	6.89
Richland	0.38	1.22	0.58	0.90	0.14	0.00	0.00	0.11	0.56	0.71	3.21	2.04	9.85
Riddle	8.93	6.28	3.98	2.86	0.81	0.35	0.00	0.04	2.56	2.00	3.62	5.49	36.92
Rio Hermoso	1.10	2.22	0.00	0.14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Riverside	0.60	2.13	0.76	0.80	T.	0.00	T.	0.23	1.60	0.90	0.40	1.73	9.15
Roseburg	7.33	8.05	4.50	2.53	1.23	0.68	0.06	0.02	3.36	2.28	3.90	4.51	38.45
Salem	8.43	8.10	4.54	3.18	0.81	0.16	0.05	0.00	2.42	1.42	5.85	6.05	41.01
Sherman	1.36	1.55	1.44	0.85	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Lake	0.31	3.21	0.16	0.74	T.	0.24	0.00	0.00	0.98	0.10	0.28	2.34	8.36
Siskiyou	6.69	13.53	5.68	1.91	0.11	0.30	0.24	0.00	1.23	1.91	3.45	7.74	42.79
Sisters	3.16	3.14	0.67	1.14	0.10	0.19	1.43	T.	0.80	1.33	1.93	4.64	18.53
Sparta	1.86	5.11	2.35	0.76	0.29	0.00	T.	0.27	1.34	1.19	2.84	1.98	17.99
Stafford	10.46	7.59	5.54	4.10	2.48	1.22	0.00	0.18	.....	.....	.....	.....	.....
Stanfield	1.74	1.04	0.74	0.81	.....	0.00	0.00	0.02	0.61	.....	.....	.....	.....
Starkey	1.17	2.60	1.94	1.15	0.03	0.22	0.03	0.32	0.65	1.90	3.91	1.51	16.08
Sunrise Valley	0.28	2.19	1.20	1.10	0.04	T.	0.00	T.	0.32	1.34	0.90	1.26	8.63
Talent	1.87	3.35	1.90	1.26	0.09	0.03	T.	0.00	1.17	1.01	1.86	.....	.....
The Dalles	2.57	2.97	1.11	0.87	0.21	0.15	0.22	0.05	0.60	0.66	2.86	2.92	15.19
Tillamook	.....	.....	.....	.....	5.40	1.75	.....	.....	.....	4.70	1.21	13.65	.....
Toledo	12.41	14.61	12.85	7.26	5.31	0.92	0.07	0.20	2.71	3.41	8.06	11.07	78.88
Tule Lake	0.43	1.63	1.23	0.89	T.	T.	0.60	T.	0.79	0.60	0.44	1.46	8.07
Umatilla	1.15	1.36	0.50	0.51	0.07	T.	T.	0.01	0.83	0.76	1.45	1.17	7.81
Umpqua	10.36	12.92	12.32	3.61	4.11	0.89	0.00	0.00	1.76	0.48	.....	.....	.....
Union	0.82	0.93	1.26	0.65	0.68	0.11	T.	0.17	0.17	1.34	2.32	1.07	9.52
Vale	0.62	1.73	0.99	0.50	0.08	0.00	.....	.....	.....	.....	.....	.....	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Oregon—Continued.													
Valley Falls	1.14	2.50	0.53	0.84	0.10	T.	0.22	0.06	1.46	0.50	0.42	1.07	8.84
Waldo	12.07	14.26	6.35	6.71	1.22	0.33	0.00	0.00	2.12	1.27	4.79	9.10	58.22
Wallace Orchard	10.15	10.11	5.53	3.61	1.58	0.58	0.16	0.08	2.44	1.57	6.16	6.21	48.18
Wallowa	1.02	1.57	1.17	1.00	0.64	0.12	0.00	0.53	0.39	1.96	2.85	1.34	12.59
Wamic	3.65	2.55	1.02	0.92	0.24	0.43	0.34	0.15	1.36	.....	3.41	.....	.....
Warmspring	2.23	1.90	0.23	0.52	.....	.....	.....	.....	.....	.....	0.70	3.67	.....
Wasco	2.59	1.92	1.07	1.05	0.38	0.05	0.11	0.05	1.37	0.69	2.07	2.31	13.66
Welches (near)	11.06	10.14	9.59	7.26	4.50	2.33	0.31	0.44	5.31	5.62	17.62	6.91	81.09
Weston	2.68	2.92	2.81	1.75	0.95	0.03	T.	T.	1.41	1.82	3.58	1.77	19.72
Williams	5.80	7.66	2.81	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wolf Creek	.....	.....	.....	4.17	0.43	0.24	T.	T.	2.82	1.43	4.45	7.73	.....
Yonna	0.74	2.01	1.06	0.67	0.00	0.07	0.37	0.00	0.88	0.41	0.76	1.17	8.14
Pennsylvania.													
Allentown	2.50	2.05	5.13	2.34	8.07	4.76	7.61	2.67	2.29	5.60	3.10	1.98	48.10
Altoona	1.53	1.69	1.29	2.42	7.98	3.93	4.71	6.81	1.03	5.72	3.08	1.28	41.47
Ansonia	1.22	1.32	2.85	2.87	7.79	6.12	3.07	1.95	1.91	3.91	3.48	0.90	37.39
Arendtsville	3.00	2.79	3.59	2.30	4.24	1.78	7.23	4.80	1.88	4.62	4.07	2.08	42.98
Austin	2.04	1.60	2.14	2.48	11.60	3.04	1.29	6.88	1.01	2.94	3.12	1.62	39.76
Beaver Dam	1.78	1.49	2.80	2.58	5.25	4.24	5.32	6.23	1.46	5.86	3.56	2.55	43.12
Beaver Falls	1.53	1.17	.....	2.39	4.92	2.13	3.05	6.54	1.65	5.85	2.76	1.81	.....
Bellefonte	1.33	1.94	3.00	1.58	8.21	3.54	3.56	4.82	1.30	4.96	4.11	2.45	41.40
Bethlehem	3.44	3.18	4.63	1.28	4.50	3.25	10.21	5.79	2.39	4.46	4.65	2.43	50.21
Bloserville	3.32	2.43	3.43	1.75	6.99	7.41	5.16	.....	1.95	.....	2.37	3.37	.....
Bradford	1.77	1.47	2.87	3.68	7.83	2.54	4.73	5.13	2.30	4.39	3.06	2.11	42.48
Bradys Bend	1.09	1.61	3.07	2.90	7.09	2.37	3.68	6.93	2.69	7.21	3.24	2.35	44.23
Brookville	.....	2.95	3.32	2.38	6.85	2.96	2.38	6.80	2.49	6.40	2.71	2.24	.....
Browers Lock	3.52	3.24	4.27	2.84	3.67	2.22	10.97	6.67	2.35	3.38	4.35	3.20	50.68
Bustleton	3.54	3.50	5.44	3.41	5.78	2.30	10.32	6.33	2.83	3.38	3.97	.....	.....
Carlisle	2.80	2.38	3.15	1.78	5.23	2.85	5.39	8.41	2.14	4.31	4.48	3.46	46.47
Catawissa	3.14	1.87	3.44	2.14	3.61	2.24	4.62	3.98	1.63	5.19	4.54	3.13	39.53
Center Hall	1.31	1.47	1.99	1.96	13.95	1.94	3.72	3.09	.....	4.84	.....	.....	.....
Clarion	1.73	2.54	2.65	4.70	7.10	2.83	4.09	8.54	2.45	6.43	4.44	3.29	50.79
Claysville	1.79	1.49	2.47	2.10	4.76	2.16	2.73	8.42	1.45	6.96	5.09	3.41	42.83
Clearfield	1.21	1.41	1.46	2.76	7.47	4.97	3.26	7.89	1.04	6.86	3.91	2.67	44.90
Coatesville	4.03	3.31	5.46	2.89	3.68	3.89	9.48	4.78	1.85	2.85	3.98	3.14	49.84
Colebrook	3.46	2.97	3.98	2.82	4.41	4.22	8.37	4.81	3.35	2.87	4.25	2.59	48.10
Confluence	3.57	1.81	1.71	1.51	5.33	3.54	4.85	6.38	3.99	5.46	5.82	3.76	47.73
Coraopolis	1.70	1.53	2.54	2.33	5.75	2.05	6.43	5.99	1.55	5.34	4.24	2.60	42.05
Davis Island Dam	2.03	1.55	2.69	2.74	6.62	2.24	7.11	6.65	2.18	5.36	4.68	2.52	46.37
Derry	2.35	2.40	2.86	2.51	5.33	5.09	5.21	7.61	1.13	6.09	4.28	3.48	48.34
Doylestown	3.54	3.11	4.66	2.80	3.99	4.38	10.54	6.40	3.55	3.23	4.10	2.79	53.18
Drifton	2.55	2.12	5.78	3.05	4.13	5.71	7.90	2.58	3.04	5.05	6.02	3.18	51.11
Ebensburg	2.59	1.40	2.13	2.35	6.04	3.12	4.19	6.86	1.42	7.47	3.92	2.41	43.90
Edinboro	1.60	1.88	1.53	4.39	6.84	3.28	2.68	4.52	2.21	4.69	2.77	2.36	38.75
Elk Lick	2.53	1.86	2.28	1.67	4.41	4.46	5.49	4.76	1.86	4.87	4.28	2.52	40.99
Emporium	2.24	1.82	3.00	3.22	7.61	5.90	5.09	6.66	2.54	5.60	3.78	1.67	49.13
Ephrata	.....	2.62	6.99	3.51	.....	3.66	8.81	4.98	3.77	.....	4.18	.....	.....
Erie	1.18	1.23	1.63	4.76	4.91	3.07	2.18	4.64	1.27	3.04	1.84	1.80	31.55
Everett	.....	.....	1.49	2.20	5.97	5.42	5.49	3.47	.....	.....	.....	1.77	.....
Franklin	1.91	1.73	3.32	4.16	6.19	9.17	1.13	6.40	2.26	3.89	3.58	2.58	46.32
Freeland	2.40	1.90	5.41	2.92	3.53	5.17	7.07	2.56	2.84	5.16	5.93	3.02	47.91
Freeport	2.02	1.97	2.61	1.93	6.49	4.22	3.36	7.76	1.73	6.44	4.14	2.98	45.65
George School	3.51	3.40	4.91	3.52	4.95	3.77	11.84	4.35	3.06	4.69	3.62	2.66	54.28
Gettysburg	3.37	2.67	3.94	3.23	4.70	2.14	7.21	4.53	2.28	4.92	4.99	1.97	45.95
Girard	1.21	.....	2.16	3.73	6.35	2.39	1.75	5.28	.....	.....	.....	.....	.....
Girardville	4.04	2.54	4.34	2.25	3.81	6.17	5.80	2.35	1.98	4.90	3.64	2.06	43.88
Gordon	1.46	2.78	4.97	2.61	4.35	6.77	5.95	3.51	2.04	6.20	5.14	2.97	48.75
Gouldsboro	2.60	3.55	4.26	3.68	5.77	4.32	6.34	4.16	3.33	4.40	5.87	3.36	51.64
Greensboro	2.72	1.52	3.18	2.22	3.32	4.52	3.90	6.24	1.90	5.12	5.58	3.93	44.15
Greensburg	2.19	1.81	1.67	3.06	4.58	3.62	4.46	8.48	0.97	5.57	3.74	3.60	43.75
Greenville	1.56	1.53	2.46	4.34	6.78	3.12	2.35	4.38	2.15	5.94	3.05	.....	.....
Grove City	1.86	1.63	3.12	3.40	5.90	4.23	2.33	6.01	2.69	5.54	2.60	1.87	41.18
Hamburg	3.48	2.83	4.75	2.80	4.30	6.02	5.35	6.66	1.65	4.90	4.75	2.81	50.30
Hanover	3.32	2.54	4.02	2.82	6.27	4.74	8.04	4.49	2.26	4.59	4.35	2.15	49.59
Harrisburg	2.75	2.06	3.28	1.93	5.82	3.90	6.83	4.07	1.63	2.70	3.56	2.29	40.82
Herrs Island Dam	1.61	1.16	2.23	2.38	6.20	3.17	5.23	6.72	1.85	5.51	4.26	2.81	43.13
Holtwood	2.99	3.29	3.93	2.59	4.27	4.04	9.87	4.39	1.55	2.93	2.40	2.82	45.07
Honesdale	.....	.....	.....	2.11	5.13	4.14	.....	.....	2.12	3.42	3.50	2.51	.....
Huntingdon	1.99	2.64	3.24	1.80	7.22	3.53	3.15	5.10	1.56	5.19	3.91	2.75	42.68
Indiana	2.32	2.16	3.53	2.85	7.45	4.54	5.37	7.98	2.45	6.12	4.00	3.34	52.11
Irwin	2.12	1.62	2.50	2.03	5.07	5.64	4.19	7.56	1.15	5.47	3.89	2.83	44.07
Johnstown	2.63	2.13	2.63	2.03	5.96	5.23	6.10	7.20	1.68	6.00	4.54	3.86	49.99
Kennett Square	.....	3.24	5.82	3.01	5.08	2.16	14.31	5.97	2.62	3.00	3.45	2.36	.....
Lancaster	3.34	2.74	3.39	3.22	3.11	3.71	7.82	3.25	2.98	3.39	4.39	2.61	43.95
Lansford	3.25	2.17	5.49	2.94	3.31	6.91	7.52	3.14	2.58	5.32	5.04	2.41	50.08
Lawrenceville	1.00	1.45	5.40	3.01	7.78	3.35	4.52	4.29	1.50	2.75	.....	0.95	.....
Lebanon	3.73	2.85	3.88	2.82	4.73	6.26	6.69	4.78	1.71	3.33	4.68	2.95	48.41
Lewisburg	2.29	2.25	5.16	1.62	5.25	4.54	2.78	4.52	1.05	4.81	4.13	2.81	41.21
Linesville	1.49	1.35	2.70	3.80	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lloyd	1.71	1.42	2.91	1.74	8.41	4.02	5.54	3.97	2.61	3.63	4.41	1.36	41.73
Lock Haven	2.14	2.10	4.43	2.12	10.02	5.63	5.17	3.61	0.92	5.71	4.53	2.57	48.95
Lock No. 4	1.88	1.51	2.21	1.85	4.69	4.12	5.63	7.66	0.88	6.14	3.92	3.20	43.69
Lycippus	2.97	2.70	2.74	2.80	5.08	5.28	5.88	12.03	1.00	8.04	4.21	4.39	57.12
Lykens	3.15	1.76	3.92	2.17	6.46	6.31	5.29	3.58	4.09	5.80	4.98	2.77	50.29
Marcus Hook	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.76	.....	.....
Mauch Chunk	3.27	2.45	6.07	3.25	4.89	7.92	7.28	4.42	2.54	3.89	5.31	2.38	53.67
Media	3.70	1.93	3.66	1.99	4.83	2.29	10.37	5.52	2.70	4.40	3.72	2.95	48.06
Mifflintown	1.77	2.22	3.44	1.85	7.04	4.26	6.64	5.28	1.45	4.40	3.79	2.62	44.70
Milford	2.10	2.40	4.44	2.04	4.17	5.13	7.52	2.78	2.86	3.43	5.48	0.95	43.31
Montrose	1.70	1.19	2.88	3.29	4.83	3.42	5.37	4.42	2.93	4.27	5.24	1.75	41.29
Mosgrove	1.88	1.79	2.83	2.26	7.55	3.02	3.50	8.04	2.16	6.29	.....	2.43	.....
Mount Pocono	2.22	3.47	4.92	3.65	8.32	5.44	8.27	5.03	1.81	6.40	3.72	1.55	54.80
Muney Valley	2.14	1.73	4.14	3.17	9.04	3.55	6.37	4.20	1.89	5.46	5.42	2.10	49.21
Narberth	4.02	3.72	6.19	3.77	6.30	3.39	.....	7.38	.....	3.22	4.00	3.78	.....
Neshaminy Falls	3.19	2.47	5.05	3.39	4.59	2.07	8.64	5.90	2.87	4.06	3.97	3.43	49.63

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
***Pennsylvania*—Continued.**													
New Castle	1.51	1.50	3.05	2.77	6.06	5.54	1.91	6.08	2.45	3.56	3.70	2.75	40.88
Newell	.....	.....	.....	.....	.....	.....	.....	.....	1.36	5.69	4.07	2.89	.....
Palmerton	2.37	2.53	5.13	2.89	4.61	5.60	5.73	3.00	2.30	4.06	5.08	2.11	45.41
Parkers Landing	1.85	1.92	3.26	3.05	6.51	1.78	2.74	6.29	1.45	4.64	3.69	2.33	39.51
Philadelphia (Weather Bureau)	3.35	3.04	4.81	3.17	4.53	2.19	10.30	6.19	2.82	2.59	2.80	3.33	49.12
Philadelphia (d)	3.51	3.43	4.87	3.43	4.32	2.87	8.24	8.20	2.57	2.88	3.12	3.61	51.05
Phoenixville	2.96	4.27	4.58	3.01	3.84	2.31	11.06	7.01	1.35	3.51	3.87	2.03	49.80
Pittsburgh	1.42	1.58	1.89	3.07	4.89	3.58	6.20	7.15	1.64	5.37	3.82	2.88	43.49
Pottstown	2.67	2.98	4.46	2.50	2.86	2.30	7.29	4.70	4.57	2.68	4.04	2.72	43.77
Pottsville	3.26	2.56	5.42	3.20	4.10	5.68	4.47	2.83	2.03	6.48	5.38	2.88	48.29
Punxsutawney	1.98	2.79	3.11	3.47	7.39	2.41	2.45	7.34	1.88	7.91	4.29	3.01	48.03
Quakertown	3.95	3.29	4.66	2.16	3.67	3.18	8.03	4.90	3.27	3.67	4.98	2.85	48.52
Reading	3.24	3.23	4.72	2.07	3.55	2.46	5.21	7.51	2.08	2.96	4.57	2.49	44.09
Renovo	1.48	1.35	2.67	1.18	7.10	2.91	7.62	5.49	1.47	3.82	4.41	0.99	40.49
Ridgway	1.40	1.38	3.03	3.24	6.39	3.06	2.06	.....	.....	6.89	2.18	1.33	.....
Sadsburyville	3.98	3.40	5.09	2.98	4.23	4.42	8.30	5.40	2.12	2.99	4.03	2.52	49.46
Saegerstown	1.58	.....	.....	4.55	6.74	4.80	1.70	5.40	3.08	4.93	2.82	2.35	.....
Saltsburg	1.74	1.77	1.57	1.02	5.67	3.58	6.14	8.68	1.79	6.12	3.69	3.38	45.15
Scranton	2.44	2.13	3.02	2.71	3.33	4.46	4.81	2.30	2.21	3.94	2.76	2.52	36.63
Selinsgrove	2.86	2.57	4.53	2.29	5.63	3.26	3.29	4.20	1.04	4.93	4.21	2.86	41.67
Sharon	1.35	1.22	2.54	3.39	6.16	2.16	1.85	7.86	2.66	4.35	3.37	1.89	38.80
Shawmut	3.37	2.26	4.95	3.08	5.05	2.82	11.86	5.48	1.50	2.75	3.23	3.81	50.16
Somerset	4.94	3.24	1.83	3.36	6.50	1.74	5.39	6.48	2.40	7.97	8.45	4.75	57.05
Springdale	2.00	1.71	2.48	2.61	6.11	2.49	.....	6.63	1.86	5.10	4.90	2.80	.....
State College	1.87	1.53	3.21	2.07	7.56	2.59	6.52	4.94	1.31	4.64	4.15	2.10	42.51
Stroudsburg	2.81	2.92	6.52	2.82	5.38	6.34	8.69	6.23	2.56	4.47	5.70	2.37	56.84
Sunbury	1.99	1.63	3.62	1.67	4.74	3.77	3.26	2.98	0.94	5.47	3.95	2.43	36.45
Towanda	1.13	1.77	3.54	1.82	5.72	3.12	7.04	2.69	1.57	3.06	3.42	1.33	35.21
Uniontown	3.15	2.63	2.80	1.62	3.69	5.71	4.73	8.97	2.64	7.43	5.15	4.13	52.05
Vandergrift	1.95	1.57	2.68	2.40	5.95	4.00	4.42	6.66	1.32	5.84	3.90	2.58	43.27
Warren	1.77	2.15	2.50	4.12	6.66	3.03	3.22	5.02	2.22	5.44	3.31	2.99	43.03
Waterville	1.75	1.67	3.48	2.27	9.93	6.72	5.84	4.58	1.43	3.42	5.30	1.60	47.99
Welkert	1.63	2.75	4.74	2.28	7.83	3.42	5.40	3.66	1.02	5.11	4.32	2.58	44.74
Wellsboro	1.51	1.03	1.32	1.96	7.67	4.91	7.68	3.52	1.42	4.49	3.60	1.08	40.19
West Bingham	2.20	2.51	4.67	4.23	8.31	3.89	6.65	6.48	1.43	3.80	2.78	2.26	49.21
West Chester	4.27	3.27	4.88	3.12	4.87	2.98	14.58	7.52	1.64	3.04	4.14	3.99	58.30
West Newton	2.25	1.90	2.77	2.01	4.77	3.33	6.08	7.49	1.27	6.90	4.62	4.15	47.54
White Haven	3.13	2.18	4.94	3.58	4.61	3.13	8.40	3.83	2.62	4.13	5.69	2.85	49.09
Wilkes-Barre	2.04	1.57	2.72	2.33	3.05	1.52	5.82	3.53	2.90	2.82	4.48	2.01	39.33
Williamsport	1.64	2.13	4.30	1.92	9.91	4.47	4.68	4.32	0.46	4.17	4.35	1.97	44.32
York	2.68	2.32	2.56	2.69	4.78	3.20	5.02	3.96	2.33	3.72	3.81	2.66	39.73
Porto Rico.													
Albonito	5.50	0.77	2.16	4.65	2.70	5.97	8.07	2.29	5.71	2.72	2.93	5.26	48.73
Anasco	1.43	0.51	0.67	7.53	.....	.....	13.61	.....	.....	5.44	.....	.....	.....
Arecibo	7.85	3.80	3.80	7.10	6.35	4.20	12.20	2.50	3.35	5.85	8.41	7.27	72.68
Bacupey	4.27	1.96	1.90	.....	.....	.....	.....	.....	.....	.....	.....	3.66	.....
Barceloneta	2.57	1.19	2.56	6.17	3.92	3.30	9.07	4.39	6.83	6.42	6.66	2.85	55.93
Bayamon	2.91	1.58	2.62	8.41	6.94	13.54	10.12	8.69	8.28	5.25	8.36	4.88	81.58
Cabo Rojo	.....	.....	4.45	6.11	.....	1.12	14.20	5.84	10.08	12.65	3.77	1.39	.....
Caguas	5.85	0.66	3.51	7.67	2.85	7.17	12.39	1.84	10.62	5.55	3.75	7.42	69.28
Camuy	0.80	.....	0.95	4.30	2.28	1.60	1.90	0.90	3.40	5.35	4.15	4.46	.....
Cangrejo	2.00	1.95	1.34	5.63	1.50	14.23	9.35	1.91	6.74	7.18	7.63	4.89	64.35
Canovanas	3.54	1.70	2.53	5.34	6.10	18.54	13.00	4.29	8.06	5.19	8.16	5.42	81.87
Carite Camp	6.97	0.95	1.64	12.04	5.71	7.83	16.77	4.25	11.46	8.89	4.11	7.02	87.64
Cayey	3.79	1.13	1.25	8.82	1.71	4.84	9.99	1.17	7.58	3.45	2.27	4.50	50.50
Central Aguirre	3.56	0.00	0.92	6.49	2.84	2.54	8.16	0.70	6.53	1.89	2.72	3.41	39.76
Cepero	3.25	1.72	2.02	6.60	5.04	7.40	10.01	1.12	3.79	3.30	7.37	5.55	57.17
Coloso	2.72	0.10	1.52	5.45	8.64	12.66	8.83	15.98	11.48	5.19	3.65	1.22	77.44
Comerio Falls	5.93	2.31	4.70	17.49	4.41	12.30	12.65	7.93	5.93	5.70	8.04	11.80	99.19
Corozal	.....	.....	7.32	.....	.....	5.86	14.14	5.49	4.85	.....	.....	.....	.....
Culebra Island	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.78	.....
Destino	1.55	0.00	0.75	6.30	3.10	3.20	6.20	0.32	9.23	3.70	2.45	1.45	38.25
Dorado	2.80	1.20	3.52	6.12	3.20	9.92	8.67	2.90	6.04	9.20	7.96	5.00	66.53
Fajardo	2.07	1.80	2.54	7.17	2.56	6.38	9.56	1.88	13.89	6.29	7.95	5.08	67.17
Guanica Centrale	1.45	0.50	0.00	5.65	0.62	2.83	1.65	0.15	6.25	3.32	.....	.....	.....
Guayama	3.97	0.11	0.21	5.95	4.49	9.10	10.73	1.22	6.11	3.01	1.58	4.82	51.30
Humacao	4.24	0.78	1.50	7.31	8.40	9.73	15.03	6.16	11.15	7.86	7.61	6.51	86.28
Inabon Falls	6.00	3.00	2.50	12.25	8.50	7.75	12.00	7.00	15.00	9.25	9.75	9.50	102.50
Isabela	0.97	0.69	1.36	5.15	2.83	4.05	3.55	2.42	2.95	2.40	7.15	3.30	36.82
Isidora	2.01	0.00	0.00	5.18	1.66	1.36	.....	0.10	8.36	.....	3.00	1.98	.....
Jajome Alto	7.26	0.97	2.56	13.11	3.95	7.12	14.57	3.03	11.88	.....	2.56	5.39	.....
Jayuya	4.97	2.57	3.58	13.45	1.73	6.12	8.65	3.70	11.49	5.36	3.34	3.13	68.14
Josefa	2.35	.....	.....	.....	2.30	.....	.....	.....	.....	.....	3.60	3.45	.....
Juana Diaz	2.77	0.04	1.09	9.65	3.62	9.06	5.34	3.44	9.55	3.22	1.10	5.47	54.35
Juncos	2.27	1.17	2.05	4.05	4.06	7.56	12.24	1.64	8.00	5.64	7.67	4.66	61.01
Lares	5.38	1.02	0.56	16.14	9.52	9.48	11.68	6.01	13.96	10.18	9.73	2.77	96.43
Las Marias	0.65	.....	0.45	5.10	0.95	6.55	8.00	7.05	12.25	8.00	.....	.....	.....
Manati	3.22	1.22	3.77	6.16	4.00	4.64	7.19	4.18	10.11	5.26	6.72	3.48	59.95
Mayaguez	2.61	0.74	2.82	7.97	2.33	.....	9.30	4.22	10.58	12.68	4.06	4.80	.....
Mona Island	1.01	0.25	1.49	6.52	2.35	2.64	1.77	0.86	5.36	4.37	4.40	3.54	34.56
Naguabo	5.50	0.98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Patillas Dam	4.49	0.48	0.56	5.89	5.80	9.30	12.39	2.12	6.95	4.17	4.40	6.19	62.74
Penuelas	2.20	.....	.....	8.05	3.23	6.41	.....	.....	.....	6.23	1.25	.....	.....
Potala	2.38	0.00	0.20	7.11	2.13	3.83	3.01	0.13	6.25	0.35	1.31	3.46	30.16
Rincon	.....	.....	2.10	2.98	0.59	.....	.....	.....	.....	.....	.....	.....	.....
Rio Blanco	6.38	1.76	1.69	9.70	6.09	10.07	16.17	3.19	11.80	8.78	10.59	9.18	95.40
Rio Grande	3.80	3.77	2.80	5.77	6.24	11.68	20.30	4.69	10.41	9.18	10.75	7.52	96.91
Rio Piedras	2.50	1.53	2.59	6.46	4.32	6.24	11.71	3.95	5.02	4.48	5.64	5.11	59.55
San German	2.31	1.39	2.17	11.56	0.41	3.07	6.47	4.58	6.86	15.90	3.11	4.29	62.12
San Juan	1.87	1.81	2.33	3.09	2.49	8.95	8.03	1.53	5.63	5.78	5.83	5.16	52.50
San Salvador	3.95	2.49	3.70	14.18	3.20	4.97	8.38	7.68	14.18	5.49	4.27	3.36	75.85
Toro Negro Dam	7.17	0.85	1.57	15.24	6.24	12.35	7.77	4.26	15.17	5.34	4.44	6.53	87.03
Vieques Island	2.55	.....	.....	5.07	1.87	.....	7.88	.....	.....	4.57	4.72	5.20	.....
Yabucoa	4.82	0.85	0.87	6.98	3.62	8.86	13.04	2.56	15.12	6.24	9.35	5.16	77.47

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Rhode Island.													
Block Island	3.76	3.81	4.16	2.19	3.42	2.45	4.94	4.87	3.78	3.13	3.54	3.53	43.88
Bristol	4.54	4.19	4.26	4.03	4.50	4.47	5.16	6.87	6.58	2.30	3.84	2.93	53.67
Kingston	5.96	5.06	5.76	4.43	6.88	2.52	5.29	8.33	7.61	3.03	4.17	3.51	62.55
Providence	1.34	3.09	4.31	3.32	3.79	3.23	3.68	5.14	5.80	1.49	3.79	2.11	44.09
South Carolina.													
Aiken	3.66	4.33	2.11	1.69	7.13	10.66	9.03	4.25	0.35	1.27	0.20	1.81	46.49
Allendale	.....	5.93	1.48	1.59	4.97	8.17	11.12	3.05	0.20	1.33	0.36	1.48	.....
Anderson	6.44	5.67	3.27	1.65	5.17	5.05	6.67	5.53	0.10	3.32	2.14	8.35	53.36
Batesburg	4.62	4.25	3.23	2.54	5.99	7.57	15.80	6.14	T.	3.52	0.28	4.00	57.94
Blackville	3.45	5.10	1.35	2.59	2.82	5.23	9.65	7.15	0.12	0.50	0.20	0.10	38.17
Blairs	5.10	4.39	2.15	2.40	5.86	3.39	12.74	4.94	0.31	1.81	0.65	5.49	49.23
Bowman	3.39	5.66	3.45	1.81	4.33	4.00	6.86	6.61	1.36	0.36	0.10	0.88	38.84
Calhoun Falls	5.85	4.51	2.97	2.48	5.79	5.04	5.54	2.91	0.55	3.35	0.98	8.93	48.90
Camden	4.86	3.57	2.38	2.52	4.11	3.95	10.99	3.26	0.23	2.11	0.19	3.48	41.65
Catawba	5.62	4.96	2.40	2.28	9.47	3.17	13.44	2.75	2.12	4.04	0.71	4.77	55.73
Centenary	2.43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chapoells	4.91	4.31	3.01	1.92	5.09	6.35	11.81	5.79	0.00	1.79	0.76	5.88	51.62
Charleston	1.68	5.51	4.05	0.73	1.69	6.33	8.53	5.70	1.76	0.28	0.23	0.19	36.68
Cheraw	3.72	2.74	3.43	2.33	4.54	4.08	11.76	7.08	4.14	2.64	0.21	2.26	48.87
Clemson College	6.61	4.48	5.06	2.22	7.78	9.15	6.44	3.10	1.05	5.02	2.60	5.68	59.19
Columbia	3.81	3.50	1.11	2.14	4.37	2.65	10.83	5.70	0.08	3.27	0.10	2.64	40.20
Conway	2.24	3.94	2.99	3.07	2.96	3.34	7.04	4.87	1.33	1.10	0.42	1.08	34.37
Darlington	3.27	3.15	2.01	2.52	2.90	1.49	10.50	4.10	0.89	.....	0.22	0.82	.....
Edgefield	4.88	4.32	2.66	2.00	5.03	7.40	7.18	6.78	0.15	3.38	0.30	5.75	49.83
Edisto	2.89	5.77	2.65	1.77	4.41	5.41	7.82	9.50	0.48	2.65	0.18	1.08	44.63
Effingham	3.22	3.23	2.87	2.10	3.71	4.25	11.20	1.44	1.66	3.68	0.28	1.19	38.83
Ferguson	2.65	5.50	3.14	1.85	5.64	6.03	9.03	5.08	0.82	0.20	0.06	1.34	41.34
Florence (No. 1)	3.14	3.31	2.73	2.35	2.91	3.17	8.94	3.76	0.98	3.54	0.86	0.88	36.57
Florence (No. 2)	2.20	2.94	3.55	1.99	2.32	2.94	9.07	4.40	1.71	3.48	0.52	1.03	36.10
Garnett	2.12	6.26	2.79	1.10	6.06	9.13	7.37	3.28	0.67	0.31	0.37	0.63	40.29
Gaston Shoals	6.97	5.59	4.94	1.84	6.46	5.69	5.27	1.90	0.62	3.86	2.34	4.05	49.53
Georgetown	3.06	5.16	2.42	1.90	4.00	4.77	8.76	6.40	2.05	0.75	0.60	0.75	40.62
Greenville	6.53	6.48	3.58	1.89	6.61	3.99	4.84	4.34	0.07	5.50	3.09	6.70	53.62
Greenwood	5.65	4.06	2.52	2.32	4.20	10.07	8.56	5.10	0.48	2.81	1.03	8.09	54.69
Heath Spring	4.70	2.38	2.07	4.10	6.81	6.02	7.79	2.49	2.01	2.21	0.49	3.09	44.16
Kershaw	4.47	3.08	2.54	3.15	7.66	5.48	7.39	4.06	0.82	4.38	0.42	2.60	46.05
Kingstree	2.01	3.31	2.43	1.92	3.38	5.20	10.35	3.17	2.15	2.10	0.43	1.08	37.53
Landrum	7.99	6.88	5.57	3.11	4.88	4.91	8.48	5.41	0.61	3.19	3.96	5.26	60.25
Laurens	4.45	4.93	2.14	3.58	5.23	10.13	6.21	5.14	T.	3.36	1.21	6.14	52.52
Liberty	8.50	6.32	3.79	1.99	6.77	6.09	3.48	4.42	1.28	3.19	3.72	8.48	58.03
Little Mountain	4.42	3.78	1.70	2.55	4.67	3.34	6.84	5.85	0.34	3.06	0.30	4.81	41.66
Meriwether	.....	4.92	1.10	1.61	3.15	6.35	9.12	.....	0.00	2.54	0.00	4.85	.....
Monetta	4.42	4.10	2.63	1.93	4.75	10.40	15.06	9.00	T.	8.43	0.36	4.15	65.23
Newberry	5.39	4.52	2.24	2.13	5.86	4.86	11.23	5.63	1.21	1.16	0.92	4.55	49.70
Oaks	2.19	4.59	2.68	2.20	2.97	4.02	10.46	6.02	3.02	2.33	0.47	0.91	41.86
Orangeburg (No. 1)	1.72	4.60	2.78	2.05	.....	4.54	10.92	8.05	0.00	1.88	0.16	0.82	.....
Orangeburg (No. 2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.79	0.36	1.11	.....
Paris Island	0.30	6.10	3.62	0.63	3.40	10.87	6.59	6.59	1.56	2.45	0.76	1.81	44.68
Pelzer	7.02	5.42	3.40	2.04	7.88	4.82	5.52	3.18	1.20	2.70	2.98	7.76	53.92
Pinopolis	2.11	4.05	3.48	1.16	0.89	6.19	4.83	7.45	2.28	0.18	0.38	1.67	35.21
Rimini	2.09	4.67	2.62	2.25	4.62	6.35	9.76	6.05	0.50	0.86	0.42	1.57	42.66
St. George	2.20	3.30	2.47	1.83	4.41	5.30	6.48	9.69	1.00	0.55	0.00	1.13	38.36
St. Matthews	3.10	4.37	2.34	2.47	6.50	6.94	7.28	7.34	0.67	1.81	0.09	2.66	45.57
Salu'a	5.04	4.75	2.37	2.21	4.61	8.88	16.52	6.58	0.15	3.52	0.51	6.67	61.81
Santuck	5.39	5.45	2.93	2.13	6.15	3.87	7.47	2.98	0.97	3.16	1.24	5.45	47.19
Society Hill	3.70	3.16	1.64	3.20	2.96	2.77	5.40	3.23	1.52	3.31	0.33	1.79	33.01
Spartanburg	6.93	5.84	3.39	1.92	9.68	5.39	12.15	4.21	1.85	2.51	3.71	4.98	62.56
Summerville	1.96	6.51	2.99	1.08	3.80	6.99	8.43	5.02	3.70	0.33	0.29	0.35	41.45
Trenton	4.41	4.93	1.84	2.30	4.13	6.65	9.06	4.54	0.10	2.31	0.33	5.43	46.03
Walhalla	6.95	6.46	6.99	2.75	7.72	11.99	8.86	3.01	0.20	3.43	3.46	8.83	70.65
Walterboro	2.47	6.51	3.14	0.36	2.67	8.32	8.86	6.23	0.07	.....	.....	1.18	.....
White Oak	4.85	3.73	1.90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winnsboro	.....	.....	.....	.....	7.35	4.44	9.59	3.20	0.40	2.43	0.18	4.02	.....
Winthrop College	6.20	5.80	3.80	1.55	9.90	4.00	8.55	3.25	0.50	4.36	1.00	5.27	54.18
Yemassee	2.13	7.26	2.72	1.07	3.64	9.33	10.67	7.99	1.02	2.41	0.32	0.27	48.83
South Dakota.													
Aberdeen	0.10	1.05	0.75	1.10	4.76	2.93	4.00	1.30	0.50	1.73	1.60	0.24	20.06
Academy	0.15	1.45	0.66	3.54	2.35	5.35	1.68	1.08	1.22	2.49	3.07	0.35	23.39
Alexandria	0.00	0.70	0.50	3.73	3.64	7.52	1.66	1.61	1.72	1.35	.....	.....	.....
Ardmore	T.	0.76	0.93	2.52	2.65	1.50	3.05	0.47	0.38	2.10	0.78	0.65	15.79
Armour	T.	1.26	2.50	2.84	3.86	4.41	1.10	2.20	1.10	1.91	1.28	0.22	22.68
Belle Fourche	T.	0.60	0.56	1.64	1.13	0.48	2.74	0.38	0.88	2.42	0.67	0.35	11.85
Bison	0.20	0.75	0.40	1.01	2.27	0.55	.....	.....	.....	0.95	.....	T.	.....
Britton	0.09	0.91	0.79	1.51	4.79	1.58	3.04	0.44	0.42	2.46	2.41	0.50	18.94
Brookings	0.07	0.63	0.73	1.90	3.87	9.30	5.60	1.48	1.69	1.14	1.35	0.10	27.86
Br ant	0.15	.....	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camp Crook	.....	.....	.....	.....	.....	0.65	1.56	0.12	0.56	1.06	0.33	0.07	.....
Canton	0.00	2.00	1.50	3.53	3.01	5.10	4.71	1.40	2.46	1.95	1.82	0.00	27.48
Castlewood	0.13	1.05	1.31	2.02	2.72	8.68	3.15	1.71	1.62	1.11	1.97	0.08	25.55
Cedarbutte	T.	0.95	0.35	2.91	.....	2.25	.....	.....	.....	.....	.....	.....	.....
Cedar Canyon	.....	.....	.....	.....	.....	.....	2.83	0.37	0.87	.....	.....	.....	.....
Centerville	0.20	2.03	1.32	2.48	2.23	2.47	2.84	2.34	3.37	1.38	2.41	0.25	23.32
Clark	9.25	2.00	1.44	2.73	4.72	4.32	4.72	0.86	0.81	2.20	.....	.....	.....
Colome	0.06	1.96	0.52	3.60	2.48	3.97	1.03	2.11	1.63	1.90	4.03	0.19	23.48
Cottonwood	0.04	0.20	0.71	3.75	1.29	4.97	1.55	0.20	0.25	2.03	0.71	0.20	15.99
Crow Creek	0.07	1.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.15	.....
Custer	0.00	0.42	0.65	2.05	1.63	2.03	3.23	0.82	2.55	1.92	0.99	0.41	16.70
Deadwood	0.30	0.65	0.85	6.50	2.55	1.00	5.90	1.08	2.35	.....	1.10	0.70	.....
Deerfield	0.25	0.68	0.55	2.57	1.59	2.47	3.53	0.28	4.00	2.48	0.59	0.45	19.44
DeSmet	.....	0.52	.....	.....	.....	.....	.....	.....	.....	1.68	.....	.....	.....
Dowling	0.00	0.37	0.35	2.41	3.22	2.88	3.50	0.13	1.11	2.70	0.89	0.15	17.71
Dumont	0.50	0.51	0.44	2.42	0.95	2.10	4.07	0.24	1.20	1.86	0.79	0.73	16.19

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
South Dakota—Continued.													
Eagle Butte	0.02	0.76	0.33	2.15	3.76	1.47	1.35	0.70					
Eales	0.29	2.22	0.77	1.69	2.44	1.30	1.92	0.35	0.19	2.22	0.72	0.05	14.16
Elk Mountain	0.12	0.48	0.56	2.58	1.49	1.68	2.61	0.11	0.47	2.24	0.93	0.24	13.51
Ellingson	T.	0.47	0.83	1.28	2.51	1.52	1.98	0.59	0.48	0.71			
Eureka	0.07	1.04	0.52	1.28	3.68	2.29	4.08	0.77	0.04	1.63	0.22	0.12	15.74
Fairfax	0.50	1.50	0.65	3.62	2.95	3.23	1.79	0.97	2.08	1.66	2.02	0.35	21.23
Faulkton	0.18	2.35	0.80	2.20	6.88	6.00	2.10	0.56	0.90	2.47	2.52	0.06	27.11
Flandreau	0.09	0.83	0.73	3.68	3.61	6.02	4.51	0.41	2.05	1.30	1.76	0.10	25.09
Forestburg	0.17	1.31	0.79	4.45	3.08	6.69	4.10	0.74	2.09	1.36	1.96	0.18	26.92
Fort Meade	0.00												
Gannvalley	T.	1.80	0.33	2.08	3.26	1.85	3.12	0.73	0.61	1.27	2.27	0.10	17.42
Goldfield			1.20										
Greenmont	0.30	0.90	1.20	4.70	0.82	0.07	2.93	0.03	1.51	2.34	1.14	1.00	16.94
Hardingrove	T.	0.89	1.48	4.60	1.58	1.05	3.23	0.29		2.74	0.87	0.25	
Hardy Ranger Station	0.32	0.95	0.73	2.69	1.88	0.81	4.36	0.24	1.93	3.04	0.72	0.64	18.31
Harveys Ranch	1.40	1.24	0.61	6.55	0.70	2.48	3.85	0.15	2.60	3.42	1.68	0.40	25.08
Hermosa	0.00	0.10		1.97	1.68	1.02	1.40	0.37	1.04	2.09	0.68	0.10	
Highmore	0.10	1.35	1.24	1.96	6.63	1.90	2.65	0.82	0.54	2.18	1.80	0.15	21.32
Honewell	0.06	1.08	0.82	2.47	2.82	0.64	1.86	0.73	0.67	2.04	0.81	0.18	14.28
Hot Springs	0.23	1.40	1.00	2.30	1.48	1.03	1.85	0.56	0.48	2.84	0.75	0.65	14.57
Howard	0.04	0.60	0.84	2.69	2.68	4.41	5.94	0.86	1.38	1.12			
Howell	0.04	0.75	0.90	2.47	5.27	2.78	1.80	1.07	0.61	1.51	1.24	T.	18.44
Huron	0.11	1.10	0.75	2.47	2.52	5.98	4.83	1.31	0.77	1.08	1.77	0.29	22.98
Interior	T.	0.69	0.73	1.85	1.10	2.15	2.32	0.22	0.25	1.48	1.60	0.50	12.89
Ipswich	0.03	0.90	0.90	1.32	5.98	3.00	2.88	0.90	0.28	1.83	0.43	0.10	18.55
Jefferson	0.11	0.47	2.31	3.13	2.29	0.38	2.06	0.82	2.18	3.84	0.96	0.28	18.83
Kadoka	0.00	1.15	0.61										
Kennebec	0.20	1.70	0.82	2.75	4.53	3.90	2.07	1.19	1.18	1.92	1.75	0.40	22.41
LaDelle	0.03	1.13	1.01		4.17	5.62	3.95	2.85	1.75	2.69	2.40	0.08	
Lead	0.00	0.95	1.26	4.84	1.41	0.81	4.40	0.65	1.95	3.10	1.20	0.70	21.33
Lemmon	0.10	0.55	0.50	1.10	2.58	1.13	0.85	0.65	0.39	0.52	0.40	T.	8.77
McIntosh	0.20	0.70	0.60	1.32	3.45	0.71	2.96	1.95		0.83		0.00	
Marion	0.19	2.59	1.07	5.53	3.44	7.24	3.37	0.40	1.85	2.40	1.37	0.32	29.68
Marston	0.06	1.60	0.78	2.55	2.87	2.79							
Meadow	0.10	0.90	1.35	3.26	1.58	0.30	1.56	0.72	0.68	2.02	0.40	0.10	12.97
Mellette	0.05	1.10	0.80	1.97	6.06	3.47	4.12	1.15	0.68	0.41	1.40	0.20	21.41
Menno	0.27	2.55	1.28	3.16	4.67	4.15	2.55						
Milbank	0.16	1.51	0.88	3.49	2.63	7.23	2.05	0.81	1.08	1.49	2.74	0.86	24.93
Mitchell	T.	1.51	0.89	4.59	1.89	6.12	2.77	1.58	1.97	1.85	1.69	0.14	25.00
Mobridge	0.25	2.50			3.50	0.80	0.96	0.74					
Murdo	0.00	1.60	1.00	3.70	2.50	4.35	3.95	0.65	0.80	1.75		1.00	
Newell	0.04	0.57	0.87	2.14	1.14	0.35	2.59	1.02	1.20	2.49	1.22	0.02	14.25
Oelrichs	0.00	0.90	1.15	3.37	0.90	0.50	1.44	0.31	0.25	2.90	1.40	0.26	13.38
Onaka	0.10	1.60	0.27	2.37	4.60	4.65	3.18	0.50	0.50	1.90	1.40	0.00	21.07
Onida	0.03	1.05	0.91	3.06	2.63	5.24	1.41	0.68	0.67	1.85	0.86	0.10	18.50
Orman	0.03	0.21	0.77	2.08	0.65	0.18	2.90	0.77	0.99	3.14	1.02	0.60	13.34
Ottumwa	0.20	1.10		2.90	3.48	1.50	3.37				1.30		
Pearl Creek	0.12	0.85											
Pierre	0.04	1.29	1.30	2.98	2.78	2.55	2.80	2.24	1.59	2.19	1.27	0.12	21.15
Pine Ridge	0.00	0.66	1.74	1.89	2.33				0.86	1.55	1.08	0.21	
Pollock	0.15	1.26	0.75	1.30	1.63	0.59	2.49	0.94	0.26	1.08	0.92	0.03	11.40
Pukwana							2.65						
Rapid City	0.04	0.55	0.66	3.16	1.82	3.60	2.33	0.35	2.27	3.26	0.71	0.30	19.05
Redfield	0.00	1.16	0.97	2.18	2.90	4.70	1.71	0.77	0.44	2.77	2.03	0.30	19.93
Redig	0.15	0.45	0.35	1.39	1.26	0.42	1.58	0.18	0.75	1.40	1.11	0.23	9.27
Rochford	0.19	0.66	0.64	2.68	0.08	1.87	3.50	0.13	2.37	3.22	0.94	0.69	17.69
Rosebud Agency	0.10	1.50	0.72	3.31	1.74	3.51	1.35	1.60					
Roslyn	0.09	0.50	0.08	1.37	5.27	3.61	2.39	1.15	0.33	1.26	1.11	0.18	17.34
Sioux Falls	0.27	2.77	0.60	4.48	2.28	7.13	5.32	0.38	1.59	1.31	3.66	0.09	27.88
Spearfish	T.		1.01	3.84	1.89	0.33	1.99	0.85	1.80	4.03	3.49	0.67	
Timber Lake	0.00												
Tyndall	T.	1.05	0.41	3.58	4.47	3.00	2.01	3.21	4.63	3.36	2.46	0.01	28.28
Vale	T.	0.32	0.89	2.07	1.20	0.38	3.81	0.95	1.67	2.11	0.45	0.23	14.08
Vermilion	0.40	2.75	1.23	3.51	2.28	3.95	2.89	1.09	3.37	1.31	3.38	0.58	26.74
Vivian	0.00	0.32	0.66	4.14	3.23	5.01	4.00	0.94	1.70	1.95	1.91	0.13	23.99
Wagner	0.50	1.02	1.11	4.21	2.38	3.48	1.67	1.27	2.01	2.64	2.20	0.50	22.99
Waters Ranch	0.02	0.62	1.08	3.68	1.32	1.73	3.24	1.21	1.50	3.56	1.25	1.64	20.85
Watertown	0.05	0.84	0.60	1.68	2.64	6.50	4.10	1.08	0.53	1.18	2.47	0.02	21.69
Wentworth	0.13	1.15	0.64	3.38	2.91	6.44	6.35	0.57	2.81	1.22	1.67	0.19	27.46
White Lake	0.00	1.17	0.79	3.11	2.20	6.73	1.38	2.23	1.02	1.40	2.98	0.10	23.11
Wood	0.17	2.01	0.56	3.81	2.77	2.78	1.95	2.24	0.27	2.56	2.64	0.14	21.90
Yankton	0.15	2.17	1.09	3.02	2.91	4.04	2.65	3.12	2.87	1.50	2.56	0.22	26.30
Tennessee.													
Arlington	5.22	2.95	11.37	2.09	9.05	5.76	1.73	2.65	1.24	7.63	10.51	2.84	63.04
Ashwood	5.55	3.35	7.65	2.90	10.10	3.50	2.25	7.95	T.	9.05	9.45	4.05	65.80
Bluff City	4.86	2.38	2.91	3.48	6.92	4.07	5.12	5.74	1.99	5.28	1.18	4.45	48.36
Bolivar	4.32	2.83	10.70	3.47	9.21	3.73	1.72	5.05	1.18	8.24	7.72	2.16	60.33
Brownsville	5.27	3.35	10.59	2.80	6.98	2.93	1.05	3.12	1.55	10.06	10.81	3.14	61.65
Byrdstown	6.64	3.48	4.06	2.72	3.95	3.11	2.40	5.05	3.50	7.44	8.11	3.40	53.86
Carthage	6.36	3.03	5.03	2.74	5.03	0.96	1.51	4.22	0.95	8.37	7.80	3.58	49.58
Cedar Hill	4.60	3.34	10.18	4.53	10.96	7.23	5.52	5.65	2.88	9.72	7.35	4.72	76.68
Celina	8.23	2.43	4.48	2.87	5.82	1.94	2.08	3.66	3.05	7.64	8.71	4.22	55.13
Charleston	6.89	5.20	6.96	3.36	6.95	3.60	3.00	6.95	0.04	6.85	3.30	4.63	57.63
Chattanooga	6.13	5.18	7.33	2.90	4.32	2.27	2.07	4.71	0.04	6.12	2.68	4.88	48.63
Clarksville	3.84	2.94	8.92	4.07	10.74	4.54	2.57	8.47	5.28	10.90	6.82	4.80	73.89
Clinton	5.88	2.53	5.42	3.05	3.89	3.24	3.97	2.96	2.45	5.77	3.39	4.49	47.04
Cookeville	6.36	2.95	5.89	3.08	5.07	3.65	2.33	4.45	0.83	11.15	7.61	5.11	58.48
Copperhill	6.06	4.93	6.77	2.55	4.60	5.96	6.83	5.21	0.35	5.07	2.20	3.06	53.59
Covington	4.52	2.98	8.84	2.68	7.69	4.26	2.30	3.26	2.94	11.94	10.17	4.12	65.70
Crossville (near)	4.71	2.72	5.98	3.38	3.15	3.74	2.42	4.44	0.71	7.45	4.52	4.08	47.30
Dandridge	5.10	3.18	2.96	3.75	4.39	3.14	1.54	3.75	1.26	6.31	1.51	5.16	42.05
Decatur	6.37	3.79	6.35	2.30	5.56	3.61	3.87	4.39	0.18	6.07	3.01	5.11	50.61
Dickson				3.49	11.46	2.75	1.58	2.87	1.53	7.55	9.95	2.57	
Dover	3.45	2.56	8.94	3.99	6.54	2.83	1.42	6.73	5.43	10.73	8.60	3.98	65.20

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Tennessee.—Continued.													
Dyersburg	3.92	2.58	7.99	4.48	7.60	7.06	1.25	4.00	3.35	11.98	9.05	3.82	67.08
Elizabethton	4.48	2.83	2.43	2.58	5.62	5.61	4.67	5.35	1.80	5.83	1.45	2.88	45.53
Erasmus	4.87	3.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Florence	7.39	2.37	6.77	2.20	5.11	3.10	5.78	4.22	0.45	7.18	6.84	4.05	55.46
Franklin	5.65	3.20	8.64	3.05	7.23	6.60	1.63	5.28	0.57	8.81	7.75	3.89	62.30
Greeneville (near)	.....	.....	.....	.....	3.11	4.46	2.43	2.37	1.46	4.90	1.16	2.84	.....
Halls Hill	7.17	3.38	6.33	2.35	3.41	2.31	2.49	3.70	0.61	7.90	7.08	3.95	50.68
Henderson	5.38	3.53	15.46	5.06	6.09	4.87	2.74	3.86	1.09	8.77	11.45	3.31	71.61
Hohenwald	7.05	3.69	11.21	4.17	10.06	3.50	2.38	9.86	0.22	7.44	10.38	4.30	74.26
Huntingdon	4.55	3.30	9.68	4.19	12.75	4.57	2.80	6.89	4.19	10.91	7.26	3.59	74.68
Jackson	4.00	3.04	10.60	3.77	5.11	2.12	3.10	3.57	1.67	10.24	9.17	2.68	59.07
Jefferson City	4.97	3.29	3.44	2.68	3.82	2.43	2.61	7.38	1.08	6.17	1.89	3.90	43.66
Johnson City	4.66	2.62	2.22	3.24	5.55	6.75	3.79	6.92	0.65	5.93	1.57	4.08	47.98
Johnsonville	6.80	3.03	10.00	5.19	8.77	6.91	3.07	7.28	1.50	11.44	8.42	3.39	75.80
Kenton	3.54	4.14	8.55	4.46	7.71	3.68	0.94	4.98	4.55	11.97	6.79	3.73	65.04
Kingston	6.21	2.89	5.86	3.43	4.04	2.82	3.55	3.66	0.97	6.50	3.16	4.53	47.62
Knoxville	4.67	2.78	4.85	3.68	4.11	5.54	3.09	4.67	0.96	5.51	2.19	4.25	46.30
Lebanon (near)	6.37	2.11	5.18	3.80	6.49	4.61	3.55	7.25	1.17	9.41	10.83	2.06	62.83
Lewisburg	5.35	2.40	8.16	2.36	7.93	3.87	2.51	3.84	1.28	8.88	5.10	3.42	55.10
Liberty	7.17	3.40	7.05	2.64	4.28	3.23	1.58	5.36	0.77	9.15	7.69	5.53	57.85
Lookout Mountain	7.71	5.48	8.45	3.19	4.35	3.88	4.06	5.74	0.03	6.55	.....	5.20	.....
Loretto	4.04	2.60	10.22	4.06	8.64	5.58	2.58	6.25	0.81	11.38	7.25	4.19	67.60
Loudon	6.75	4.33	6.89	2.72	4.31	3.20	1.33	4.31	1.29	7.17	3.76	5.45	51.51
Lynnville	4.72	3.44	6.94	2.96	7.80	7.17	3.18	6.70	0.46	10.19	5.85	4.02	63.43
McGhee	5.59	4.41	5.44	2.66	4.72	2.48	2.63	3.63	0.44	6.30	2.15	4.07	44.52
McMinnville	5.02	2.79	6.42	2.40	4.39	1.81	2.56	3.38	0.88	7.68	3.76	3.07	44.16
Memphis	3.77	2.66	12.41	3.17	5.51	5.64	1.94	0.82	1.34	10.13	7.75	2.61	57.75
Milan	4.97	3.16	8.13	3.57	9.24	2.85	1.40	2.84	1.86	9.29	8.35	3.32	58.98
Mountain City	4.95	3.88	2.73	4.27	6.00	2.63	3.99	4.37	1.43	.....	.....	4.60	.....
Nashville	4.71	2.19	8.67	2.66	8.67	3.96	1.83	6.80	1.33	8.35	7.89	3.28	60.34
Newport	5.08	2.18	2.05	2.63	3.71	3.05	1.22	3.54	1.55	6.13	1.43	3.34	36.51
New River	5.28	2.96	5.23	4.31	3.69	2.02	2.37	6.55	0.76	7.95	2.71	4.10	47.93
Palmetto	5.15	3.16	7.25	2.64	7.56	2.73	5.61	4.19	0.78	10.35	4.86	3.42	57.70
Perryville	6.11	3.23	12.19	.....	5.20	3.95	1.33	7.90	0.80	9.94	12.41	3.64	.....
Pinewood	6.15	3.83	10.39	4.14	10.20	3.06	1.21	4.37	0.60	10.38	11.19	3.91	70.03
Rogersville	5.08	3.05	3.19	2.47	5.38	4.25	3.04	4.84	0.57	4.50	1.86	4.76	43.03
Rugby	5.65	4.00	6.45	4.50	3.85	2.83	2.64	4.07	0.64	13.17	5.55	4.65	58.00
Savannah	6.59	1.98	10.03	3.60	9.08	4.82	1.70	3.83	0.75	8.94	9.12	2.49	62.93
Sevierville	5.12	3.34	2.99	3.13	4.05	4.59	2.55	4.78	1.70	5.80	1.48	4.54	44.07
Sewanee	6.03	2.94	8.49	1.95	8.81	9.32	1.19	6.83	0.78	7.27	6.71	2.33	62.65
Sparta (near)	5.32	3.41	7.56	2.15	3.46	7.97	2.97	5.36	.....	9.30	7.62	.....	.....
Springville	3.68	2.84	9.01	4.58	7.84	2.81	1.40	8.64	7.05	9.84	9.35	3.43	70.47
Tazewell	5.97	3.01	4.88	3.46	4.74	5.00	1.31	6.44	1.08	7.37	3.05	4.63	50.94
Trenton	3.99	3.50	8.64	2.87	11.45	2.78	2.00	2.54	4.29	10.91	8.84	3.16	64.97
Tullahoma	5.57	3.80	8.09	2.49	7.23	2.37	4.14	6.97	0.58	8.62	5.74	4.39	59.99
Union City	2.49	2.24	8.80	3.05	9.88	3.90	4.10	4.16	2.30	6.67	9.50	4.54	61.63
Walling	6.56	3.50	7.15	3.18	4.22	3.88	2.15	4.13	0.87	7.86	5.08	3.75	52.33
Waynesboro	5.41	3.43	10.79	4.57	5.96	4.65	2.33	10.74	0.14	9.66	9.21	3.63	70.52
Worsham	5.27	2.83	8.71	3.14	7.86	1.79	1.01	9.34	2.58	8.64	9.28	3.32	63.77
Yukon	4.83	4.59	8.18	2.57	7.34	5.37	2.36	6.36	0.30	8.29	7.18	3.80	61.17
Texas.													
Abilene	2.96	0.45	2.73	2.75	5.73	3.12	1.51	2.33	1.72	3.99	1.13	0.25	28.67
Albany	3.20	1.12	3.67	3.84	6.49	4.11	3.75	3.37	2.94	6.10	0.93	0.14	39.66
Alice	2.78	1.95	2.20	1.01	4.70	6.16	9.47	0.52	13.02	7.73	1.37	0.20	51.11
Alvin	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.38	2.06	1.66	.....
Amarillo	T.	0.73	1.73	2.56	2.08	2.94	1.75	3.21	4.58	0.67	1.26	0.50	22.01
Anahuac	8.97	4.08	4.67	1.29	9.44	14.19	6.16	7.39	7.43	15.63	2.54	3.41	85.13
Anderson	2.79	4.79	2.18	2.38	12.21	10.91	3.07	6.79	4.32	10.73	2.19	3.60	65.46
Angleton	6.20	2.59	9.21	1.35	5.27	16.57	6.55	5.42	3.62	5.93	2.30	1.78	66.79
Antelope	3.17	1.34	2.79	2.74	7.24	3.77	0.63	2.60	3.19	6.84	2.13	0.06	36.50
Archer City	2.71	0.82	3.04	1.26	5.11	2.30	0.63	0.47	2.50	6.45	.....	.....	.....
Arthur City	2.52	3.61	2.03	2.16	4.11	2.08	4.51	4.71	3.19	8.23	5.37	2.06	44.58
Aspermont	0.62	0.19	4.38	3.01	3.37	2.85	.....	1.02	1.77	4.92	0.90	0.00	.....
Austin	3.71	2.48	4.30	3.50	8.61	7.31	12.80	3.20	4.41	10.62	1.94	1.50	64.68
Austwell	5.36	0.40	2.96	0.60	4.57	5.10	14.03	0.60	4.40	5.55	0.95	0.88	45.40
Ballinger	3.05	0.70	2.20	1.50	3.35	7.05	4.85	2.00	2.45	5.90	2.05	0.75	35.25
Barstow	0.50	0.00	0.68	0.17	1.00	0.75	0.80	0.00	5.65	3.20	1.00	0.00	13.75
Beaumont	8.79	5.02	3.63	3.16	8.98	.....	9.72	7.58	3.48	13.01	3.34	6.02	.....
Beeville	4.78	1.67	2.97	1.32	7.28	3.59	6.50	1.21	11.75	4.56	1.41	0.40	47.44
Big Spring	0.75	0.05	3.33	1.59	1.57	6.83	1.01	3.42	8.77	7.44	0.79	0.26	35.81
Big Wells	0.92	1.79	1.22	2.35	2.86	4.99	4.67	0.25	8.48	5.61	1.12	1.23	35.49
Blanco	4.12	1.89	1.72	2.51	7.62	7.16	6.89	4.52	7.02	8.82	1.48	1.31	55.06
Boerne	4.14	2.85	1.73	3.84	4.16	5.74	6.27	7.06	13.90	10.49	1.08	1.21	62.47
Bonham	2.55	2.71	1.82	3.98	4.20	4.20	4.56	3.96	2.20	16.13	3.84	1.18	51.33
Bon Wier	8.12	.....	6.35	2.28	11.21	12.02	4.56	4.40	2.28	10.04	5.57	2.52	.....
Bovina	0.05	T.	2.10	3.31	2.23	2.40	4.80	2.73	4.94	0.64	0.84	.....	.....
Bowie	3.10	1.60	4.01	2.77	7.92	4.30	4.66	2.41	1.90	8.51	2.18	0.46	43.82
Brazoria	5.39	2.64	3.47	2.00	6.79	18.04	8.42	3.03	5.03	9.27	2.37	2.06	68.51
Brazos	5.17	1.96	3.03	1.08	5.01	1.99	1.57	2.33	4.51	5.23	1.78	0.43	34.09
Brenham	4.35	2.53	3.19	1.69	12.55	12.09	5.45	7.20	3.74	9.93	1.69	1.98	66.39
Bridgeport	3.94	2.29	3.80	5.24	5.05	0.54	3.81	3.09	2.32	13.07	3.32	1.70	48.17
Brighton	5.08	0.95	1.00	1.90	9.86	2.00	9.43	0.00	.....	5.53	0.15	0.00	.....
Brownfield	0.20	0.05	2.89	3.32	2.29	3.82	1.86	3.30	4.92	4.78	0.25	0.31	27.99
Brownsville	4.56	1.08	0.44	2.39	1.97	5.08	6.79	0.25	7.69	4.52	2.34	1.08	38.19
Brownwood	3.85	1.28	2.12	0.95	5.15	7.65	5.95	0.95	5.85	6.92	4.68	0.65	46.00
Buena Vista	0.54	0.21	1.55	3.29	0.90	0.67	T.	0.97	4.13	2.16	1.37	0.00	15.79
Cameron	.....	.....	2.41	1.42	5.72	8.07	3.72	8.10	5.43	.....	.....	1.75	.....
Canadian	0.00	1.21	1.84	5.41	7.21	0.70	0.57	1.88	0.95	1.64	1.81	0.15	23.37
Childress	0.20	1.50	3.00	9.40	7.00	3.40	4.30	2.80	.....	.....	.....	.....	.....
Chillicothe	0.30	1.15	2.37	5.05	6.22	3.71	1.86	1.76	1.70	11.94	1.84	0.20	38.19
Clarendon	0.00	0.83	2.55	5.96	6.32	2.07	1.27	3.37	1.85	2.06	1.28	0.77	28.33
Clarksville	2.58	3.37	1.88	2.58	2.75	2.02	1.79	7.80	0.76	16.83	4.90	1.72	48.98
Claude	0.00	0.00	2.05	2.75	4.94	2.22	1.07	4.03	2.70	0.86	0.19	1.15	21.96
Claytonville	1.09	0.15	3.53	2.32	1.75	5.99	2.63	2.34	2.51	4.77	1.29	T.	28.37

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Texas—Continued.													
Cleburne	2.73	1.87	4.97	2.54	4.63	9.28	0.42	4.72	3.90	7.98	7.97	0.44	51.45
Clifton	3.92	2.40	5.18	3.51	5.56	6.05	3.44	10.39	7.23	6.71	8.13	0.72	63.24
Clint	0.05	T.	1.87	0.44	0.26	0.27	2.29	0.88	3.71	1.05	0.64	T.	11.46
Coleman	5.09	1.44	3.15	1.90	5.78	6.16	4.98	1.52	4.12	8.22	2.89	0.46	44.81
College Station	3.72	7.19	2.63	1.16	8.41	8.90	3.56	4.69	3.82	8.54	1.81	1.45	55.88
Colorado	1.56	0.24	4.48	2.48	2.19	6.81	7.04	1.65	3.74	5.43	0.93	0.25	36.80
Columbus	5.12	2.83	3.38	2.29	7.92	10.72	8.23	5.69	3.57	11.67	1.65	0.62	63.09
Copperas Cove	4.03	2.03	3.41	2.74	4.04	7.99	2.26	2.31	5.08	6.60	3.41	0.58	44.57
Corpus Christi	3.99	1.03	1.18	0.67	7.48	3.33	6.24	0.13	5.81	3.98	0.27	0.20	34.31
Corsicana	2.25	2.07	3.27	3.01	4.61	3.74	5.06	6.45	3.22	8.79	6.22	0.77	49.46
Crosbyton	0.16	0.07	3.45	3.28	2.78	3.11	2.87	0.19	3.52	7.96	0.39	0.12	27.90
Crowell	T.	1.84	4.10	5.38	8.67	0.00	4.85	0.80	1.45	11.90	T.	0.00	38.99
Cuero	4.06	2.22	2.26	2.73	6.52	7.73	15.31	1.96	2.85	6.30	1.74	0.93	54.61
Dalhart	0.10	0.96	3.18	2.76	2.75	1.88	2.41	3.45	5.12	2.50	1.14	T.	26.25
Dallas	1.80	2.29	2.97	2.55	4.38	1.42	3.30	4.62	3.89	10.94	3.79	0.48	42.43
Danevang	4.00	1.30	4.00	1.80	1.50	10.85	8.95	1.40	4.90	9.30	0.90	0.60	49.50
Del Rio	0.58	0.45	1.42	2.43	4.04	1.30	3.48	1.58	9.74	1.58	3.27	0.28	30.15
Denison (near)	3.83	3.50	1.50	1.24	4.09	1.09	2.51	3.08	2.75	9.00	2.54	1.00	36.16
Denton	2.84	2.64	3.17	2.87	4.00	3.25	4.09	4.09	3.53	10.99	3.31	0.97	45.75
Dialville	4.09	3.60	4.15	4.67	6.08	5.73	1.55	2.08	3.15	10.67	4.27	2.07	52.11
Dilley	3.02	1.71	2.21	3.78	2.89	7.01	3.75	2.05	5.43	5.24	1.12	0.82	39.06
Dublin	4.86	.....	.....	1.35	6.51	6.27	3.24	.....	.....	.....	.....	.....	.....
Eagle Pass	1.38	0.49	2.91	4.29	2.16	3.19	5.88	4.23	7.29	4.74	2.12	0.79	39.47
Eastland	.....	.....	.....	1.40	2.67	2.38	2.85	0.88	2.60	6.57	2.45	T.	.....
Edna	5.24	1.82	3.45	2.03	4.75	14.73	9.54	0.90	4.04	15.34	1.75	1.10	64.69
El Paso	0.08	0.20	0.62	0.65	0.14	0.27	1.87	0.72	3.30	0.97	0.93	0.12	9.87
Encinal	1.84	1.79	2.78	2.60	3.35	5.90	4.59	1.66	11.65	7.74	2.16	0.89	46.95
E V Ranch	.....	0.40	0.10	0.75	1.00	2.48	3.80	1.10	3.70	2.00	0.10	0.10	.....
Fairland	4.72	2.15	3.24	1.29	6.54	8.45	7.66	6.85	5.81	7.18	1.26	1.44	56.59
Falfurrias	1.85	0.74	0.47	1.13	3.21	6.35	9.50	0.73	6.80	4.62	0.68	0.52	36.70
Finley	2.75	1.75	2.10	3.00	3.10	4.68	3.71	6.56	3.69	12.45	9.26	2.65	55.70
Flatonia	4.15	2.89	2.43	3.20	13.69	14.25	7.41	5.55	3.52	7.39	1.55	2.71	68.74
Flint	3.25	3.58	3.30	2.99	7.27	6.24	3.42	6.68	1.54	9.10	6.09	2.42	55.88
Floresville	3.09	1.41	2.81	5.50	3.06	2.96	6.24	3.79	4.86	10.08	0.62	1.80	46.32
Fort Clark	2.43	0.21	4.10	1.92	3.70	4.90	3.10	1.95	5.42	5.20	1.90	1.07	35.90
Fort Davis	0.26	0.12	1.05	0.74	1.55	2.57	2.31	1.96	6.74	2.43	0.49	0.00	20.22
Fort McIntosh	0.60	2.02	1.50	2.30	2.50	.....	.....	0.10	10.07	0.81	6.50	0.78	.....
Fort McKavett (near)	2.00	0.73	1.32	1.34	3.93	7.11	2.65	1.78	8.46	3.35	3.46	0.37	36.50
Fort Stockton	1.40	0.40	0.95	2.57	1.48	1.41	1.11	0.81	10.34	3.52	0.80	T.	24.79
Fort Worth	3.03	2.03	3.34	2.06	3.99	3.72	5.25	5.00	4.12	9.44	3.32	0.44	45.74
Gainesville	3.25	2.66	2.67	2.96	5.84	3.27	11.91	2.19	2.83	7.52	2.20	0.28	47.58
Galveston	6.22	2.43	2.20	2.17	9.96	15.49	3.73	2.17	5.29	8.30	1.97	2.02	61.95
Garden City	1.02	0.05	4.05	2.90	0.90	2.99	1.10	3.43	3.84	4.44	1.10	0.19	26.01
Gatesville	.....	.....	5.92	3.60	7.64	8.23	2.83	6.65	7.75	9.82	9.30	T.	.....
Georgetown	5.53	3.86	3.57	2.29	6.39	10.93	4.33	3.06	10.58	6.12	1.36	2.01	60.03
George West	3.01	1.49	2.17	1.44	4.34	4.62	8.15	1.25	13.70	3.30	1.96	0.87	46.30
Goliad	4.03	1.83	3.18	1.45	7.31	5.10	8.11	0.77	6.05	6.75	1.97	0.70	47.25
Gonzales	4.83	1.48	3.10	2.39	5.83	10.01	4.96	4.16	4.03	10.38	1.38	1.95	54.50
Graham	3.74	1.48	2.84	1.85	7.21	2.99	2.00	0.86	2.60	4.91	1.85	.....	.....
Grand Falls	0.00	0.00	1.89	0.97	1.20	1.30	.....	.....	.....	.....	.....	.....	.....
Greenville	1.75	2.65	2.16	2.64	4.77	0.42	6.27	3.10	3.87	8.29	3.71	0.98	40.61
Groesbeck	2.84	2.41	3.04	1.81	5.34	8.12	1.50	4.84	4.70	12.71	3.87	1.68	52.66
Hallettsville	4.20	2.73	3.35	1.85	10.54	9.03	9.21	4.01	5.87	9.37	1.36	1.05	62.57
Hamilton	4.05	1.36	3.93	4.30	5.51	5.40	6.30	2.65	4.35	5.10	6.30	0.30	49.55
Hamlin	0.99	0.33	3.29	4.45	4.44	4.19	4.69	2.60	1.99	3.05	.....	.....	.....
Harlingen	.....	.....	.....	.....	.....	2.68	5.84	0.13	5.40	4.22	0.13	1.45	.....
Haskell	0.86	0.29	3.73	2.76	6.39	6.15	4.18	2.12	2.47	4.70	1.97	0.31	35.93
Hebbronville	2.10	1.34	1.14	1.87	2.93	2.99	8.26	0.00	11.20	3.53	0.00	0.86	36.22
Hempstead	5.59	3.03	2.07	1.43	13.70	10.05	2.83	5.30	3.29	9.21	1.62	2.07	60.19
Henderson	4.16	4.14	3.42	3.07	5.26	7.16	3.90	2.54	1.36	11.08	4.49	1.82	52.49
Henrietta	1.30	1.35	2.65	2.00	5.40	1.05	3.55	1.60	.....	3.45	1.65	T.	.....
Hewitt	2.58	1.73	4.99	2.72	3.24	5.59	4.65	3.41	3.25	9.37	5.14	1.10	47.77
Hico	5.52	1.60	4.35	3.62	4.71	5.14	1.89	3.70	7.09	6.36	5.50	0.00	49.48
Highbank	2.68	3.82	2.48	1.16	7.11	5.84	4.61	0.91	4.65	.....	2.85	2.80	.....
Hillsboro	2.69	2.16	4.31	4.20	3.76	3.91	3.33	7.88	6.50	6.93	7.35	0.58	53.60
Hill's Ranch	4.63	2.33	2.63	3.37	5.36	9.17	13.86	2.65	3.12	10.70	1.48	1.49	60.79
Hitchcock	8.53	2.65	3.37	1.69	10.19	21.51	5.80	8.50	3.75	7.31	2.83	3.21	79.34
Hondo	2.96	2.15	1.78	2.79	3.74	6.87	7.96	1.39	7.39	4.17	0.74	1.45	43.39
Honey Grove	2.73	2.86	1.95	4.46	3.01	2.62	2.36	6.99	2.09	12.04	3.02	1.30	45.43
Houston	8.52	3.12	3.25	1.16	6.14	15.85	7.30	3.82	8.68	9.72	1.78	3.04	72.38
Huntsville	2.70	5.15	2.73	2.55	10.58	8.36	1.95	8.10	2.65	8.35	1.50	1.15	55.77
Index	3.15	2.81	4.29	1.65	2.93	2.77	1.71	4.72	4.14	10.78	6.03	2.42	47.40
Jayton	.....	0.04	5.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson	3.50	4.58	4.38	4.85	3.89	6.10	5.27	4.75	1.69	11.19	5.05	1.46	56.71
Jourdanton	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.79	0.25	1.12	.....
Junction	3.48	1.95	2.69	1.42	4.62	6.59	3.46	5.50	7.90	4.24	2.40	0.52	44.77
Karnes City	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.42	1.38	0.96	.....
Kaufman	2.45	3.45	3.23	3.97	5.17	5.38	2.38	2.77	6.42	11.88	7.87	0.94	55.91
Kerrville	2.90	1.41	2.32	1.17	4.25	4.95	5.98	14.34	10.49	7.12	1.43	1.21	57.57
Knickerbocker	2.97	0.31	0.52	0.62	3.45	2.97	3.35	1.50	4.80	2.40	1.60	0.60	25.09
Kopperl	2.74	1.30	4.40	2.00	3.40	5.90	2.00	10.70	2.10	8.90	7.40	0.20	51.04
La Grange	4.61	1.95	2.43	1.50	10.29	10.00	3.75	3.07	4.55	8.65	1.80	2.00	54.60
Lamesa	0.40	0.25	2.69	1.86	2.11	3.29	2.38	2.35	6.69	5.01	0.36	0.00	27.39
Lamkin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.20	.....
Lampasas	3.78	1.87	2.12	4.36	2.08	6.60	4.32	2.17	7.21	5.80	4.48	0.31	46.00
La Parra	4.65	1.45	0.75	2.90	4.91	3.85	7.70	0.50	7.65	7.40	1.70	0.10	43.56
La Pryor	3.84	1.30	2.55	2.19	3.59	5.28	6.28	1.62	6.16	7.22	1.04	0.96	42.01
Laredo	1.12	2.55	1.33	2.69	2.96	4.87	10.29	0.06	10.15	9.66	6.14	0.76	52.58
Liberty	7.60	4.62	5.02	1.63	10.31	15.66	6.36	6.60	4.39	16.76	3.29	2.84	85.08
Lieb	0.00	0.85	1.60	1.11	5.42	0.72	1.12	2.44	2.88	0.69	1.25	T.	18.08
Llano	4.29	2.12	3.25	3.35	8.28	6.29	2.66	6.01	4.53	5.17	3.23	0.70	49.88
Long Lake	3.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Longview	3.80	3.33	3.83	3.45	3.25	6.34	5.68	4.58	2.19	12.97	5.68	1.03	56.13
Lubbock	0.12	0.25	3.39	3.53	2.10	3.32	2.28	2.83	5.70	7.34	0.36	0.19	31.61
Lufkin	4.18	4.36	4.88	1.55	5.51	7.48	4.21	2.90	2.85	9.32	1.67	2.80	51.71
Luling	4.74	1.59	2.86	5.37	6.57	9.62	4.78	4.68	4.13	11.70	1.97	1.91	59.92

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Texas—Continued.													
McGregor	2.53	1.38	3.79	3.13	3.75	10.15	2.50	2.12	5.75	6.85	4.83	0.80	47.58
McKinney	2.25	2.70	.....	2.75	6.56	3.67	4.38	4.50	1.45	9.79	2.91	1.37	.....
Madisonville	4.04	5.34	2.81	0.67	7.43	8.56	6.20	6.60	3.04	6.68	2.38	1.36	55.03
Marble Falls	5.61	2.79	2.94	2.43	5.02	6.68	6.17	6.54	4.40	4.98	1.81	1.44	50.81
Marshall	4.09	4.26	2.66	3.93	2.97	5.86	2.59	5.40	2.13	10.37	6.85	2.37	53.42
Matagorda	5.23	1.88	4.48	0.55	8.23	14.06	11.23	3.84	6.73	7.37	3.07	0.28	66.89
Mathis	.....	.....	.....	1.83	7.96	6.34	10.89	0.50	10.81	7.31	2.94	0.25	.....
Memphis	.....	0.30	2.40	4.74	5.82	2.82	3.17	1.78	1.69	4.80	1.00	0.50	.....
Mercedes	3.03	0.47	0.91	1.11	2.65	5.68	3.80	0.51	5.06	2.80	0.21	0.87	27.10
Mexia	3.00	2.58	4.37	2.30	6.00	6.11	3.89	3.60	4.18	12.33	5.31	1.85	55.50
Miami	T.	1.10	2.43	3.47	6.50	2.17	1.67	3.27	2.17	2.31	2.14	0.25	27.48
Midland	0.45	0.00	3.58	0.92	0.85	2.12	0.10	2.05	5.79	4.39	0.65	0.00	20.90
Mission	3.39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montell	2.27	0.97	3.17	1.79	4.83	6.46	3.37	7.70	9.05	3.64	1.32	1.07	45.08
Mount Pleasant	2.71	2.68	3.16	4.01	3.53	2.73	1.77	5.74	5.10	12.69	6.51	1.70	52.33
Munday	0.35	0.97	3.10	2.02	9.54	1.10	4.75	0.63	1.39	4.92	1.22	0.25	30.54
Nacogdoches	4.10	4.49	2.48	1.29	6.96	8.72	1.82	5.49	2.42	9.65	4.06	1.50	53.04
Navasota	4.59	3.47	2.77	1.75	11.69	11.67	2.86	8.11	4.67	9.66	2.25	3.34	66.83
New Braunfels	4.81	1.94	1.47	4.02	5.88	6.72	6.97	3.82	5.54	16.44	1.18	1.42	60.21
Orange	7.50	3.83	3.85	3.07	8.27	10.35	7.15	8.89	5.92	9.84	3.20	3.40	75.27
O 2 Ranch	0.40	0.30	0.40	0.75	4.30	1.25	2.15	1.45	2.95	2.10	0.90	0.10	17.05
Paducah	0.15	0.52	3.11	3.20	7.63	2.01	5.25	1.85	2.71	9.07	0.44	0.24	36.68
Paint Rock	2.40	0.68	1.90	1.21	5.02	6.26	4.46	2.36	.....	.....	.....	.....	.....
Palestine	2.54	2.70	3.83	1.42	3.96	6.33	1.50	3.36	4.12	8.32	7.10	2.16	47.34
Panhandle	.....	0.00	1.25	3.50	3.85	2.45	1.50	3.40	1.80	1.05	1.10	1.25	.....
Paris	2.64	3.18	2.33	3.21	5.88	1.47	2.08	5.57	2.04	12.47	5.04	1.57	47.48
Pearsall	3.47	1.81	1.71	1.72	4.54	10.15	8.77	0.84	8.21	4.60	0.39	0.90	47.11
Pierce	5.60	2.19	1.93	1.48	6.76	13.80	7.79	1.37	2.78	7.68	1.17	0.88	53.43
Plainview	0.17	0.36	2.93	5.41	5.96	2.13	4.20	1.67	5.40	3.37	0.64	0.05	32.29
Port Arthur	6.13	6.20	2.31	1.83	9.55	7.71	10.06	6.32	3.98	6.49	2.77	1.91	65.26
Post	0.32	0.02	3.85	3.78	3.20	2.95	2.34	1.25	3.02	7.93	1.19	0.00	30.44
Putnam	2.84	0.50	3.10	1.69	5.16	4.81	2.75	1.01	1.31	6.06	2.00	0.00	31.23
Quanah	0.20	0.45	1.96	4.43	8.62	4.05	3.75	3.60	2.60	9.02	1.15	0.10	39.93
Ratcliff	5.13	3.90	2.48	1.31	7.22	9.21	2.50	.....	.....	.....	.....	.....	.....
Raymondville	3.62	0.79	0.41	1.48	2.17	4.28	5.78	0.10	8.20	4.07	0.74	1.21	32.85
Ricardo	2.50	1.52	0.71	1.46	8.25	7.92	9.76	1.69	11.51	7.78	0.97	0.97	54.05
Ringo Crossing	3.81	2.94	2.66	2.65	2.69	2.84	4.24	4.79	4.27	12.32	7.27	1.28	51.76
Riogrande	2.70	0.30	0.00	1.70	3.00	1.50	1.60	0.40	3.00	3.20	2.50	1.10	20.80
Riverside	5.49	4.83	2.61	1.49	10.43	13.21	0.86	8.13	2.33	9.25	1.93	3.24	63.80
Rochelle	3.23	1.06	2.14	1.16	3.93	7.18	5.66	5.17	10.55	5.47	3.30	0.56	49.39
Rockland	6.25	4.32	3.60	4.55	11.00	6.80	3.89	2.61	0.86	9.18	4.10	1.93	58.94
Romero	.....	.....	.....	6.64	4.50	4.04	2.28	3.67	7.48	1.91	1.75	0.55	.....
Rosenberg	8.17	2.07	4.49	2.41	6.28	16.34	6.52	.....	.....	.....	1.57	1.41	.....
Rossville	6.14	1.72	1.53	5.89	2.63	1.50	11.18	3.13	13.14	10.53	2.42	1.25	61.06
Runge	4.44	1.94	2.76	2.64	4.96	4.87	5.40	1.19	9.87	5.49	1.41	0.87	45.84
Sabinal	2.75	1.62	0.60	3.32	4.50	6.12	7.05	5.77	5.55	5.91	0.84	1.38	45.41
Salado	3.87	2.25	2.31	0.36	3.10	6.52	2.34	7.15	5.06	9.87	.....	.....	.....
San Angelo	5.41	0.68	2.41	1.85	3.87	6.13	3.32	2.83	6.57	4.89	2.28	0.64	40.88
San Antonio	3.78	1.56	1.39	3.60	3.06	7.01	7.88	2.11	7.61	8.66	1.56	2.05	50.30
San Marcos	2.20	2.23	.....	3.99	4.26	8.96	5.30	1.71	4.56	16.70	1.19	.....	.....
Santa Gertrudes	.....	.....	.....	.....	7.80	5.79	.....	.....	.....	.....	.....	.....	.....
Sealy	4.00	3.69	4.55	2.65	7.03	10.67	7.02	4.13	3.03	11.83	1.77	3.33	63.70
Sherman	2.63	3.06	2.43	3.08	5.66	4.12	4.81	6.41	2.02	8.76	2.28	1.50	46.76
Smithville	3.65	1.86	1.89	2.24	7.44	11.92	3.80	4.14	5.89	7.45	1.05	3.10	54.73
Snyder	0.99	0.21	3.43	3.45	2.19	3.72	1.82	2.93	3.20	5.63	1.13	T.	28.70
Somerville	4.12	3.60	2.40	1.15	12.20	10.20	3.90	5.05	5.95	5.80	0.80	3.55	58.72
Spur	0.30	0.25	3.91	4.16	4.30	1.72	2.68	2.34	4.13	7.06	0.46	0.03	31.34
Stamford	.....	.....	.....	.....	3.42	.....	.....	6.15	0.90	.....	.....	.....	.....
Stephenville	3.85	1.61	3.35	0.99	4.17	4.04	3.10	3.15	2.62	9.38	2.43	1.11	39.80
Sugarland	7.61	3.08	2.27	0.64	4.68	15.51	9.36	1.85	6.56	.....	1.78	2.95	.....
Taylor	3.07	3.09	2.09	1.86	4.54	8.84	4.27	4.27	5.99	8.71	3.19	1.60	51.52
Temple	2.92	2.08	4.40	1.61	3.57	6.79	2.06	4.97	4.04	5.94	3.40	1.76	44.44
Thurber	3.81	1.36	2.00	0.18	5.17	3.57	2.26	1.10	2.37	4.90	1.27	2.01	30.00
Trinidad	2.51	2.02	4.76	2.66	2.44	1.46	2.16	3.40	2.74	7.61	7.17	1.40	40.33
Troup	3.28	3.37	3.95	2.77	5.37	5.60	5.90	4.28	2.96	9.08	7.62	2.19	56.37
Tulia	T.	0.10	2.85	8.25	6.14	2.51	1.40	2.26	.....	.....	.....	.....	.....
Uvalde	3.04	1.36	1.50	2.75	3.91	3.31	4.21	1.63	7.68	6.52	1.42	1.07	38.40
Valley Junction	3.65	3.60	0.90	1.40	7.85	10.20	2.55	4.65	3.70	9.83	3.21	1.69	53.23
Vernon	.....	.....	3.26	3.74	6.21	3.01	3.75	1.94	1.92	11.65	1.34	0.60	.....
Victoria	5.00	1.98	2.77	1.30	7.53	8.19	11.40	2.88	5.61	19.91	1.40	0.90	59.57
Waco	2.29	1.58	5.49	2.44	3.07	9.89	4.58	5.38	3.22	7.13	6.00	1.00	52.07
Waxahachie	2.15	2.53	3.55	2.00	4.05	2.83	7.05	5.00	5.35	9.15	8.05	0.60	52.31
Weatherford	4.41	2.33	3.10	2.43	7.82	2.96	1.81	2.04	3.82	7.01	2.40	0.47	40.60
Wellington	1.50	.....	.....	.....	.....	1.92	2.11	3.43	1.90	4.51	0.55	.....	.....
Whitsett	3.50	1.53	5.95	3.12	4.50	3.97	6.80	3.38	5.56	3.89	1.37	1.90	45.47
Wichita Falls	3.05	1.20	3.05	1.50	9.90	7.15	2.90	1.40	6.50	7.95	2.55	0.00	47.15
Willis	.....	.....	.....	.....	.....	.....	.....	.....	4.58	9.81	1.30	3.70	.....
Wills Point	2.83	2.72	4.17	3.64	5.73	3.14	4.23	4.07	6.37	8.88	6.46	1.02	53.26
Winfield (near)	2.40	3.83	4.64	4.91	3.63	3.90	2.38	7.95	3.42	13.61	9.03	2.24	61.94
Winters	2.33	0.50	3.60	0.79	3.44	8.00	3.85	0.00	1.88	6.34	0.00	0.00	30.73
Woodsboro	4.32	1.44	4.82	1.32	7.06	7.33	11.68	0.70	8.27	3.29	2.39	0.23	52.85
Woodville	7.69	5.97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utah.													
Alpine	0.10	2.57	1.06	1.00	0.49	0.00	0.35	0.46	1.98	1.93	0.39	1.19	11.52
Alton	0.25	1.25	1.04	0.40	1.67	0.32	0.99	0.91	2.21	1.36	.....	0.75	.....
Alunite	0.20	0.68	0.40	0.99	0.45	0.02	0.41	1.40	0.88	0.50	1.44	1.02	8.39
Baker Ranger Station	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.54	1.62	.....
Beaver	0.10	1.61	1.50	0.20	0.75	0.00	0.18	0.86	2.10	0.35	2.00	1.50	11.15
Benmore	0.11	1.63	1.27	.....	0.89	T.	0.50	1.37	1.67	1.39	1.48	1.20	.....
Big Plains	.....	.....	.....	.....	.....	0.00	2.70	0.10	1.90	0.65	2.40	1.05	.....
Black Rock	0.00	0.85	.....	0.45	0.75	0.00	T.	0.75	0.56	0.28	0.40	0.15	.....
Black's Fork	.....	2.29	1.33	3.12	.....	0.14	1.21	1.01	.....	.....	.....	1.52	.....
Blanding	0.05	1.31	1.71	0.25	1.15	T.	1.51	1.44	0.67	1.77	3.35	0.25	13.46
Bluff	.....	.....	.....	0.45	0.58	0.00	0.55	0.59	0.57	0.69	1.75	0.15	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Utah—Continued.													
Bonneta					1.18	0.02	0.27		1.55		1.59		
Brigham City	0.12	2.13	1.00	0.77	1.40	0.30	0.10	0.68	1.34	2.63			
Burrville	0.00	2.95	2.45										
Castle Dale	T.	0.76	0.36	0.33	0.46	0.06	0.37	1.59	0.86	0.05	0.55	0.10	5.43
Castle Rock	0.02	1.51	0.64	1.24	0.18	0.10			1.23	2.34	0.53	1.13	
Cedar City	0.09	1.88	0.75	0.65	1.76	0.08	1.27	0.39	1.25	0.49	2.05	0.38	11.07
Clarkston	0.10	1.97	0.80	1.35	1.20	0.00	0.30	0.75	1.75	1.85	0.95	0.75	11.77
Corinne	0.05	3.10	1.05	0.83	1.12	0.00	T.	0.75	0.74	2.75	0.32	1.00	11.69
Cottonwood Nursery						0.05	0.16	1.45	4.32	4.13			
Cottonwood Sevier								0.70					
Cottonwood Weir	0.10	3.37	0.74	2.57	1.14	T.	0.21	0.50	1.90	3.02	1.31	1.61	16.50
Delle							0.20	0.46	0.55	1.46	0.24	0.37	
Deseret	0.05	0.55	0.63	1.15	0.58	0.00	0.26	1.00	1.80	0.52	1.41	0.68	8.33
Dry Gulch	0.00	1.41	0.78	1.06	0.75	0.00	1.40	0.75	2.92	1.04	1.04		
Duchesne	0.09	0.70	0.27	0.74	0.93	T.	0.57	0.62	2.18	0.87	1.20	0.53	8.61
East Portal	0.14	3.55	1.64	2.41	1.78	0.12	1.72	1.46	3.13	2.16	1.38	1.56	20.92
Elberta	0.00	0.99	1.12	0.85	1.66	0.09	0.14	0.82	1.74	1.03	1.14	0.52	10.59
Elkhorn Ashley				0.71	1.31	T.	1.10	1.53	4.30	0.60	1.60		
Elkhorn Fishlake							1.50	3.00					
Emery	0.00	1.60	0.22	T.	0.71	0.00	1.13	1.86	2.11	T.	0.68	0.18	8.49
Enterprise	0.06	2.70	1.09	0.44	1.61	0.00	2.11	0.30	3.97	0.86	2.53	0.94	16.61
Erekson	0.00	2.27	0.85	0.58	0.59	0.00	1.43	0.94	2.57	1.09		1.65	
Escalante	0.08	1.80	0.90	0.12	0.56	T.	0.16			0.20	1.90	T.	
Farmington	0.16	3.33	0.86	1.01				0.20	2.01	3.44		2.48	
Fillmore	T.	2.09	1.53	0.67	0.45	0.00	0.11	1.17	1.88	0.85	3.30	1.05	13.10
Fishlake							0.64	1.81	1.84				
Fort Duchesne	T.	0.41	0.24						2.37	0.03			
Fruitland	0.05	1.90	0.64	0.98	0.59	T.	0.66	1.28					
Garland	0.06	1.45		0.87	1.53	T.	0.18	0.94	1.11	1.78	0.73	0.70	
Gooseberry Ranger Station							1.44	2.24	0.99				
Government Creek	T.	1.39	1.18	0.41	1.11	T.	0.45	0.72	1.74	1.72	0.86	1.84	11.36
Grantsville	0.13	1.25	0.24	1.01	0.78	0.00	0.82	0.57	1.49	1.89	0.65	0.70	9.33
Great Basin Experiment Station					0.86	0.01	0.88	2.25	2.69	3.21	3.40	2.13	
Great Basin Experiment Station, Alpine					0.55	0.10	1.49	2.01	2.82	2.73	2.82	3.15	
Green River	0.00	0.01	0.10	0.00	0.06	0.00	0.01	2.05	0.07	0.11	1.15	0.10	4.26
Hanksville	0.03	0.79	0.06	0.10	0.11	0.00	0.42	1.33	0.00	0.21	0.34	0.02	3.61
Hatch	0.25	2.14	0.91	0.64	1.62	0.07	0.62	1.10	1.11	0.66	1.42	0.11	10.65
Heber	0.28	2.67	1.33	1.25	0.87	0.00	0.10	0.62	2.52	2.25	1.05	0.85	13.74
Henefer	0.16	3.01	1.40								1.59	1.00	
High Line City Creek	0.05	5.17	1.77	3.22	2.04	0.00	T.	0.85	2.29	3.67	1.78	2.25	23.09
Hole-in-the-Rock	0.05	0.00		1.19	0.57	0.12	1.32	0.78	1.32	2.70	1.33	0.87	
Huntsville			0.70	0.74	1.59		0.07	0.38		1.92			
Hurricane	0.00	0.53	0.13	0.12	0.55	0.00	0.58	0.15	0.39	0.53	0.31	0.47	3.59
Ibapah	0.00	1.91	1.46	1.07	0.26	0.00	0.14	0.66	1.02	1.21	1.04	0.34	9.11
Joseph	0.01	0.65	0.82		0.30	T.	0.48	0.55			0.75	0.93	
Jozella Ranch	0.00	0.88	1.14	0.15	1.05	T.	2.25	0.25	2.61	1.13			
Kanab	0.57	0.52	0.55			0.15	3.22			0.61			
Kanosh	T.	2.23	1.49	0.67	0.28	0.00	0.43	1.80	1.21	0.85	3.51	0.90	13.37
Kelton	0.00	0.62	0.29	0.09	0.79	0.00	T.	0.00	1.00	0.52	0.40	0.20	3.91
Koosharem											1.00	0.30	
Koosharem Ranger Station							1.81	1.02	0.55				
Laketown	0.02	0.84	0.62	1.35	0.80	0.00	0.70	0.20	2.29	3.81	0.72	0.84	12.19
La Sal	0.00	0.90	0.35	0.35	1.43	0.00		2.15	1.19	0.79		0.85	
Leeds	0.00	0.78	0.67	0.22	0.57	T.	1.05	0.05	2.45	1.16	1.20	0.89	9.04
Lehi	0.03	2.20	0.24	0.50	0.65	0.00	0.10	0.35	1.70	1.29	0.70	0.80	8.56
Lemay	0.00	0.15	0.20	0.01	0.25	0.00	0.00	0.10	0.73	0.23	0.05	0.06	1.78
Levan	T.	1.12	1.35	1.21	0.98	0.00	0.42	1.51	2.98	1.19	2.17	0.74	13.67
Lockerby	0.17	1.87	2.58	0.92	1.05	T.	2.17	0.98	1.42	2.62	4.55	1.45	19.79
Logan	0.02	1.88	0.74	1.62	1.20	0.00	0.31	0.40	2.88	4.43	0.73	1.49	15.70
Lone Tree											0.54	0.27	
Low	0.00	0.80	0.00	0.10									
Lowder Ranger Station						0.20	2.98	1.90	3.33				
Lower American Fork	0.12	2.21	1.18	0.81	0.28	0.00	0.64	0.21	2.23	1.86	0.36	0.87	11.47
Lower Mill Creek	0.13	3.56	1.00	2.82	1.09	0.00	0.08	0.84	2.70	3.92	1.37	2.45	19.96
Lucin	T.	0.58			0.60	T.	0.01	0.04	0.05	0.05	0.01	0.03	
Lund											1.20	0.02	
Mammoth Ranger Station							1.55	1.30	2.99				
Manila	0.01	0.15	0.33	1.50	0.73	0.17	0.55	1.24	0.73	1.54	0.79	0.57	8.31
Manti	0.03	1.47	1.02	0.83	0.97	T.	0.59	1.83	1.86	1.05	1.75	0.84	12.24
Maplewood				0.99	1.84			1.51	2.72	3.08	1.47	1.27	
Midlake	T.	0.80	0.01	T.	0.45	0.00		0.05	0.20	1.05	T.	0.07	
Midvale	T.	2.28	0.39	1.63	0.82	T.	0.06	0.38	2.19	2.41	1.02	1.05	12.23
Milford	T.	1.03	1.32	0.05	1.05	T.	0.55	0.67	1.21	0.81	2.25	0.66	9.60
Mills	T.	0.44	0.18	0.72	0.72	0.00	0.43	1.23	2.48	1.26	1.19	0.31	9.26
Millville	T.	2.16	0.58	1.69	1.14	0.00	0.10	0.61	1.58	5.25	2.29	1.96	17.36
Minersville	T.	1.17	1.66	0.12	0.62	0.00	2.62	0.63	0.91	0.30			
Moab				0.20	0.26	T.	1.03	0.55	0.87	0.51	1.48	0.23	
Modena	0.32	1.19	0.85	0.27	0.38	0.13	1.37	0.50	3.20	0.63	1.12	0.40	10.45
Mohrland	0.00	2.35	0.50	0.55	0.63	0.04	1.20	1.75	1.60	0.15	0.55	0.00	9.32
Monticello	0.15	1.65	2.25	0.57	1.44	0.12	1.65	2.60	1.24		5.94	0.95	
Morgan	0.46	3.10	1.59	1.30	2.15	0.25	0.10	0.60	0.85	3.27	2.10	3.00	18.63
Moroni	0.10	1.19	0.70	0.60	1.02	0.07	0.09	1.07	1.18	0.54	0.98	0.55	8.00
Mosida	0.00	1.08	0.71	0.54	0.72	T.	0.15	0.34	1.60	1.08	0.76	0.39	7.37
Mountain Ranch Ranger Station							0.70	1.30	1.40				
Myton	0.00	0.21	0.22	0.38	0.61	0.00	0.58	0.38	2.69	0.37	1.04	0.21	6.69
Nada	0.00	1.15	1.53	0.27	0.69	0.06	0.43	0.13	1.53	0.53	2.12	1.00	9.44
Nephi (near)	T.	0.67	0.95	0.75	0.95	0.00	0.54	0.75	2.39	1.47	0.69	0.40	9.56
New Harmony	0.00	2.02	0.00		0.86	0.00	1.28		2.32		3.07		
Oak City	0.00	0.73	0.87	0.63	0.97	T.	0.54	0.91	1.88	1.11	1.95	1.09	10.68
Ogden	T.	3.10	1.57	1.25	2.75	0.07	0.14	0.68	1.83	3.16	1.06	1.91	17.52
Orderville	0.10	1.28	1.05	0.41	1.11	0.08	2.13	0.39	1.63	0.87	1.00	1.16	11.21
Panguitch	0.09	0.57	0.40	0.54	2.31	0.00	1.44	1.43	0.45				
Park City	0.14			0.45	0.40	0.00		0.06		1.21			
Park Valley	0.08	1.36	0.87	1.12	0.40	0.00	0.05	0.15	1.94	0.43	0.66	1.45	9.12
Parowan	0.20	1.65	0.09	0.51	2.33		1.89	1.00	0.98	0.76	2.35	0.50	

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
***Utah*—Continued.**													
Payson	0.10	2.41	1.15	1.20	1.53	0.00	0.15	0.40	2.59	2.56	2.09	1.60	15.78
Pine Valley	0.09	1.40	0.30	0.42	1.28	.....	1.68	0.61	1.42	1.18	.....	0.79	.....
Pine View	0.25	1.82	0.70	0.90	0.30	0.20	0.10	0.20	3.10	1.60	0.50	0.40	10.17
Pinto	0.03	1.32	0.93	0.25	0.87	0.03	2.27	0.34	2.01	0.82	1.24	1.03	11.11
Plute Dam	0.10	0.81	0.57	0.96	0.57	0.60	0.91	0.72	0.67	0.32	0.99	0.42	7.04
Price	0.00	2.44	0.02	.....	.....	0.06	.....	.....	.....	0.17	0.65	0.22	.....
Provo	0.16	2.01	1.10	0.80	1.22	0.00	0.11	1.06	2.87	2.47	1.36	0.92	14.08
Provo Bench	0.03	1.92	1.08	0.41	1.06	T.	T.	0.75	2.99	2.90	1.46	1.30	13.90
Randolph	T.	0.79	0.48	0.67	0.55	0.00	0.48	0.24	2.40	2.15	0.50	0.65	8.91
Richfield	.....	.....	.....	.....	0.24	.....	.....	.....	.....	.....	.....	.....	.....
Richmond	0.17	2.52	0.89	1.79	1.12	0.06	0.75	0.60	2.73	5.14	1.17	1.44	18.38
Riverdale	0.20	1.79	0.49	1.20	1.61	0.00	T.	0.28	1.33	2.34	0.35	1.27	10.86
Round Valley	.....	.....	.....	.....	0.94	T.	1.80	1.36	1.10	0.94	1.81	0.92	.....
Rozel	T.	0.56	0.18	0.13	0.24	T.	.....	.....	.....	.....	.....	.....	.....
St. George	0.40	1.10	0.24	0.58	0.44	0.00	1.50	0.33	0.83	0.56	0.60	0.44	7.02
St. John	T.	0.49	0.11	0.50	0.92	0.00	0.30	0.09	0.84	1.62	0.51	1.05	6.43
Saltair	0.07	1.34	0.54	1.38	1.12	0.00	0.36	0.28	2.13	1.60	0.36	.....	.....
Salt Creek	.....	.....	.....	.....	.....	.....	.....	0.20	3.62	2.21	1.38	0.55	.....
Salt Lake City	T.	2.11	0.54	2.50	1.24	T.	0.06	0.50	1.76	2.52	0.81	1.38	13.42
Santaquin	0.11	1.99	1.71	1.02	1.16	T.	T.	0.62	2.38	2.70	3.52	2.07	17.28
Scipio	.....	.....	.....	.....	1.82	0.00	0.78	1.27	2.31	0.72	0.80	0.50	.....
Sells	.....	2.27	0.45	0.64	0.45	0.00	0.16	1.25	0.60	.....	0.86	0.10	.....
Silver Lake	0.72	9.78	2.91	3.56	2.45	0.05	0.32	1.15	6.11	3.95	3.12	4.77	38.89
Snake Creek	0.23	6.08	1.82	1.77	1.42	0.00	0.90	1.54	3.66	2.17	1.25	1.49	22.33
Snowville	0.00	1.60	0.64	0.50	1.30	0.00	T.	0.00	1.60	1.07	0.50	1.39	8.00
Soldier Summit	.....	2.71	0.44	0.07	0.81	0.00	1.57	1.32	2.30	1.11	1.51	1.89	.....
South Fork Ranger Station	.....	.....	.....	1.35	1.18	0.01	0.40	1.30	5.56	2.30	.....	.....	.....
Spanish Fork	0.05	2.14	1.30	0.69	1.99	0.00	T.	0.20	2.46	3.41	2.33	2.84	17.41
Springdale	0.02	0.72	0.05	0.55	.....	0.00	2.77	0.15	0.56	0.77	1.53	1.05	.....
Standrod	0.12	1.75	0.86	1.38	0.61	0.00	0.90	0.66	2.62	0.50	0.15	0.92	10.47
Sunnyside	0.02	0.40	0.11	0.29	0.42	0.35	0.87	0.59	1.33	0.10	1.90	.....	.....
Teasdale	0.05	1.52	0.30	0.35	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thistle	0.24	3.82	1.69	3.38	0.97	0.00	0.69	1.03	2.06	2.93	1.79	1.35	19.95
Thompsons	0.00	0.35	0.07	.....	.....	.....	.....	0.82	0.34	0.33	1.20	0.60	.....
Tooele	0.11	2.20	0.72	1.91	1.12	0.00	0.48	0.52	1.19	3.29	1.78	1.55	14.87
Tremonton	0.03	1.87	.....	0.76	1.30	0.00	0.40	1.20	1.15	1.58	0.52	0.80	.....
Tropic	0.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trout Creek Ranger Station	.....	.....	.....	.....	.....	.....	2.28	1.56	.....	1.90	.....	.....	.....
University of Utah	0.02	2.03	0.57	2.35	1.25	0.00	0.06	0.50	.....	.....	.....	.....	.....
Vernal	.....	.....	.....	.....	.....	0.00	0.06	.....	.....	1.04	2.10	0.70	.....
Victor	T.	0.10	0.02	0.07	0.42	0.00	1.31	1.12	1.57	0.15	.....	.....	.....
Warner Ranger Station	.....	.....	.....	.....	.....	.....	3.08	3.08	2.06	.....	.....	.....	.....
Watson	0.00	0.42	0.25	1.19	0.81	0.06	0.67	0.47	2.81	0.83	1.39	0.65	9.55
Wendover	0.00	.....	0.50	0.20	0.40	0.35	0.00	0.06	0.13	0.20	0.30	0.22	.....
Whiskey Creek	.....	.....	.....	0.38	0.76	0.00	0.65	1.09	1.55	0.72	2.18	.....	.....
Widtsoe	0.20	2.80	0.95	.....	.....	0.00	3.41	0.06	.....	0.18	1.91	T.	.....
Winter Quarters	0.09	4.49	0.81	1.85	1.36	0.05	1.41	1.55	2.45	1.70	1.58	1.08	18.42
Woodruff	0.00	0.31	T.	.....	.....	0.00	0.98	0.30	2.30	2.26	.....	0.03	.....
Yellow Pine	.....	.....	.....	1.36	0.58	0.30	0.77	1.19	0.55	.....	.....	.....	.....
Vermont.													
Bloomfield	2.37	1.30	3.03	3.60	2.76	4.71	2.47	3.03	5.38	7.36	3.29	1.41	40.71
Burlington	1.18	1.02	3.32	2.42	3.54	1.64	1.47	2.91	3.40	6.02	2.10	1.08	30.10
Cavendish	1.24	2.14	4.98	1.67	5.71	2.02	3.36	4.19	4.46	2.72	4.80	1.70	39.99
Chelsea	1.45	1.75	[3.14]	1.92	4.36	2.21	1.40	2.85	5.60	3.28	3.30	1.32	32.58
Cornwall	1.05	0.73	1.65	1.47	2.97	3.25	3.26	2.67	3.70	3.25	3.66	1.05	28.71
Enosburg Falls	1.32	0.91	3.36	4.10	3.36	5.12	2.38	6.12	4.87	7.50	2.55	0.88	42.47
Garfield	.....	.....	.....	.....	.....	.....	.....	4.10	3.52	7.49	3.10	1.56	.....
Northfield	1.02	1.47	5.42	1.39	4.26	2.47	1.54	2.40	2.88	3.48	2.36	1.29	29.98
Rutland	2.19	1.14	3.07	1.77	4.20	3.19	2.92	3.11	5.80	4.40	3.71	1.02	36.52
Somerset	3.52	3.16	6.11	2.22	6.36	1.87	4.37	4.23	6.24	5.77	5.05	2.24	52.14
St. Johnsbury	1.93	1.71	2.74	2.53	3.01	2.82	0.96	3.92	2.59	4.88	3.10	1.28	31.47
Vernon	1.29	2.14	4.00	1.69	6.76	0.82	2.88	3.50	4.19	2.30	4.15	1.47	35.10
Wells	2.37	1.35	3.77	2.02	.....	.....	.....	.....	.....	.....	.....	1.24	.....
Woodstock	1.57	1.40	4.83	1.67	5.46	2.31	2.13	3.67	4.99	3.91	4.56	1.46	37.96
Virginia.													
Arcola	3.38	2.00	3.23	2.85	5.51	3.44	4.31	1.07	2.02	3.55	3.56	2.97	37.89
Ashland	4.85	2.43	3.36	3.84	7.04	3.18	9.88	.....	1.97	2.75	2.33	2.21	.....
Blacksburg	4.85	3.91	3.30	3.26	4.84	7.49	6.22	3.02	0.31	4.62	2.07	3.55	47.44
Buchanan	4.62	2.51	3.18	3.14	3.65	6.68	7.89	2.32	0.53	3.64	1.97	2.65	42.78
Burkes Garden	5.02	1.26	3.53	4.04	7.01	5.36	4.44	5.23	1.55	7.22	2.11	3.72	50.49
Callaville	3.23	2.51	3.71	5.06	4.73	3.68	17.41	2.16	0.58	2.59	1.23	1.65	48.54
Cape Henry	3.70	2.47	4.05	2.09	3.65	2.48	6.58	4.18	1.08	1.68	0.08	2.50	34.54
Catawba Sanatorium	3.71	2.23	1.93	1.94	4.53	9.91	6.44	3.66	0.47	3.13	1.81	2.91	42.67
Charlottesville (near)	3.99	2.30	4.15	4.17	6.87	5.96	7.72	2.38	1.25	2.61	3.54	2.47	47.41
Clarksville	6.04	3.10	3.81	3.71	9.00	5.45	7.78	3.54	0.63	2.60	0.60	1.06	47.32
Columbia	4.60	2.28	4.29	3.76	4.17	3.95	12.28	1.74	0.78	3.50	2.36	2.15	45.86
Culpeper	3.05	2.00	3.40	2.30	6.30	5.75	6.00	2.10	1.40	3.45	3.55	2.80	42.10
Dale Enterprise	2.67	1.86	2.69	2.41	5.37	2.99	4.05	3.37	1.26	2.50	2.16	1.99	33.32
Dante	4.45	2.26	4.02	3.87	7.20	2.98	3.60	3.74	1.53	7.62	3.83	3.18	48.37
Danville	5.31	3.53	4.83	3.91	4.95	7.00	7.88	3.76	0.91	2.80	1.87	1.87	48.62
Diamond Springs	4.83	2.54	3.88	1.84	4.78	2.62	9.96	2.80	1.11	2.64	0.34	2.48	39.82
Dry Bridge	4.63	1.99	.....	.....	3.28	3.82	8.97	2.29	0.44	2.30	1.60	2.79	.....
Elk Knob	3.83	2.79	4.52	3.15	6.18	3.61	2.08	3.94	1.79	3.05	4.90	4.61	49.45
Franklin	3.09	3.04	3.53	2.00	4.71	4.39	11.69	2.24	1.33	1.75	0.44	1.31	39.51
Fredericksburg (near)	3.77	2.37	4.96	2.98	7.96	2.88	6.11	1.52	1.03	2.79	2.96	1.91	41.24
Hawfield	4.13	1.94	4.22	3.56	6.48	4.52	6.54	0.58	1.80	2.79	2.46	2.53	42.55
Hopewell	3.36	2.45	4.01	4.46	5.67	2.32	10.63	4.77	0.96	2.42	1.13	2.20	44.36
Hot Springs	5.43	0.94	2.48	3.56	5.72	6.14	6.62	2.62	1.63	2.87	3.53	3.05	44.59
Ivanhoe	4.14	2.61	2.94	2.69	4.98	9.74	4.41	2.25	0.51	3.75	1.22	2.52	41.76
Langley Field	.....	2.66	3.30	2.68	3.35	.....	.....	.....	.....	.....	.....	.....	.....
Lassiter	4.78	2.83	4.81	3.28	4.17	2.93	8.84	2.10	1.88	3.09	1.99	1.89	42.59
Lawrenceville	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.34	0.58	1.14	.....

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Virginia—Continued.													
Leeds Manor	3.17	1.73	3.92	3.47	3.64	3.05	4.39	3.63	1.83	3.41	3.28	2.13	37.65
Lexington	3.28	2.20	3.07	3.05	4.62	7.24	6.41	2.77	0.60	2.95	2.25	3.10	41.54
Lincoln	3.17	1.93	3.94	3.14	3.63	4.60	5.15	2.55	0.84	3.08	3.45	2.33	37.81
Lynchburg	4.11	2.23	3.02	2.18	3.64	7.61	5.21	3.03	0.47	2.65	2.48	1.96	38.59
Mayhurst	5.44	2.10	4.60	2.86	8.62	6.82	9.43	1.01	1.90	3.18	3.77	2.06	51.79
Mendota	5.68	2.76	3.24	4.09	5.46	6.71	2.05	4.67	2.62	6.14	2.25	5.46	51.13
Mineral (near)	3.38	2.59	5.13	2.82	8.44	4.66	6.78	0.67	0.55	2.16	2.80	2.07	42.05
Monterey (near)	3.70	1.27	3.23	2.28	3.38	4.72	8.46	4.62	1.12	2.77	2.46	3.86	41.87
Mount Weather	3.21	1.82	2.86	2.79	5.55	3.53	4.64	3.10	1.80	2.84	3.82	1.31	37.27
Narrows	5.44	2.04	5.10	3.02	4.04	4.42	4.05	2.65	0.31	5.55	1.99	2.59	41.20
New Canton	4.89	2.16	3.76	3.16	4.73	3.71	9.07	1.24	0.82	3.42	2.27	1.89	41.12
Newport News	3.77	2.65	3.59	2.38	4.45	4.13	8.84	4.88	1.70	2.16	0.35	2.08	40.98
Norfolk	3.10	2.15	3.36	1.61	3.63	3.48	7.21	3.47	0.70	2.27	0.20	1.71	32.89
North Holston	4.36	1.78	3.02	3.38	5.97	3.93	4.10	1.81	2.58	5.27	1.48	3.98	41.66
Onley	3.71	3.56	1.97	2.79	5.39	2.46	7.56	3.79	0.48	.....	0.70	2.58	.....
Quantico	3.18	4.33	3.73	3.37	7.44	2.53	8.50	1.24	0.91	2.18	1.84	1.43	40.68
Radford	4.30	3.31	2.62	2.39	5.97	4.39	3.29	2.33	0.83	3.61	2.07	2.99	38.10
Randolph	4.74	3.37	4.74	3.53	4.46	5.05	6.50	2.41	0.53	2.40	1.11	1.28	40.12
Richmond	3.64	2.22	3.51	3.25	5.19	3.90	9.92	2.62	0.54	1.71	1.31	2.30	40.11
Roanoke	3.98	2.58	3.33	2.76	3.40	8.03	4.39	2.38	0.56	3.53	1.87	2.26	39.07
Rocky Mount	3.87	2.67	3.80	3.13	3.86	7.26	7.19	2.01	1.46	1.98	1.54	2.70	41.47
Runnymede (near)	3.65	3.04	4.29	1.65	4.51	5.79	10.06	3.05	1.56	1.95	0.61	2.23	42.39
Speers Ferry	4.64	1.47	3.32	2.10	6.22	5.58	1.61	4.69	2.20	6.28	2.68	5.20	45.99
Staunton	3.54	1.57	3.14	1.89	4.99	4.89	6.47	2.13	0.67	3.63	2.66	2.22	37.80
Swansonville	3.42	1.67	3.73	2.51	4.99	5.53	8.15	1.72	0.20	1.10	1.99	2.28	37.29
Warsaw (near)	3.00	2.93	4.48	3.71	6.69	.....	8.00	5.57	0.80	2.06	2.35	1.72	.....
Washington, D. C.	3.47	2.01	4.02	3.72	5.27	3.44	6.80	3.41	1.77	3.64	2.32	3.32	43.19
West Point	4.76	2.87	4.05	2.79	6.52	2.31	8.13	3.94	0.58	2.22	1.26	2.15	41.56
Williamsburg	3.37	2.85	4.07	2.17	5.13	5.06	7.90	3.94	1.29	3.46	0.51	2.68	42.37
Winchester	1.92	0.97	1.77	3.10	4.29	2.74	3.15	3.05	2.08	3.65	2.98	2.25	31.95
Woodstock	2.37	1.02	2.90	1.73	6.71	2.38	4.54	4.18	2.77	2.26	1.23	2.20	34.29
Wytheville	3.30	2.34	1.95	3.45	3.83	3.98	1.75	1.40	1.48	3.98	1.06	2.55	31.07
Washington.													
Aberdeen	14.49	11.18	10.23	6.15	4.01	1.71	0.00	0.32	3.12	1.92	10.50	8.06	71.69
Anacortes	4.38	3.42	2.45	3.57	2.52	1.00	0.92	0.23	.....	1.56	3.12	2.40	.....
Anatone	1.95	.....	4.20	.....	1.41	.....	.....	.....	.....	.....	4.15	4.51	.....
Attalia	0.92	1.49	0.35	0.61	0.29	0.00	0.11	T.	0.40	0.55	1.80	2.24	8.76
Bellingham	4.60	4.03	3.26	4.59	2.44	1.20	0.58	0.93	1.21	2.53	5.45	4.24	35.06
Blaine	5.35	5.33	3.91	4.72	3.21	0.51	0.00	0.78	1.86	1.68	9.21	5.97	42.56
Blewett	4.70	3.10	1.20	0.70	.....	.....	.....	.....	.....	.....	2.40	1.38	.....
Bremerton	8.62	5.64	3.38	3.30	2.91	0.28	0.25	0.01	1.22	1.40	6.22	5.24	38.47
Brewster	1.79	1.48	0.29	0.24	0.19	0.17	0.07	0.33	1.77	0.05	0.80	1.70	8.98
Buckley	11.54	3.63	5.74	5.69	3.73	1.80	0.38	0.37	3.97	4.06	6.91	4.61	52.43
Bumping Lake	14.64	5.43	2.90	2.13	1.74	0.41	0.22	0.11	1.45	1.72	5.11	6.79	42.65
Camp Lewis	.....	.....	3.54	2.94	3.79	1.40	0.15	T.	1.99	1.28	3.49	3.99	.....
Castle Rock	15.33	8.52	7.51	4.83	5.07	1.38	0.22	0.23	3.47	2.44	7.76	6.51	63.27
Cedar Lake	21.50	11.95	13.45	9.25	10.45	3.15	0.60	0.90	5.25	8.80	15.20	11.30	111.80
Centralia	10.57	7.34	5.85	4.21	3.77	0.91	0.25	0.04	2.94	1.48	2.81	5.44	45.61
Clearbrook	5.07	4.95	3.65	6.76	4.66	1.59	0.37	0.42	2.40	2.72	8.05	7.57	48.71
Cle-Elum	7.33	3.67	3.18	0.58	0.65	0.21	0.15	0.00	0.87	1.88	2.42	2.81	23.75
Colfax	2.42	4.74	2.86	2.14	0.72	0.74	0.00	0.26	0.62	0.95	3.21	1.36	19.96
Colville	3.33	3.04	0.73	1.00	1.46	T.	0.15	0.63	0.79	1.05	1.92	1.12	15.22
Conconully	2.82	2.22	0.44	0.33	0.23	0.30	0.67	0.75	1.42	0.30	0.83	1.33	11.63
Coupeville	3.95	1.79	1.66	2.47	1.53	0.79	0.54	0.44	1.83	2.24	2.43	0.75	20.42
Cowiche	1.39	1.71	0.36	0.21	0.30	0.08	T.	0.10	0.52	0.09	0.49	1.59	6.84
Darrington	13.30	.....	.....	.....	.....	.....	.....	.....	.....	3.86	.....	.....	.....
Davenport	1.75	3.50	1.45	0.76	0.91	0.25	0.00	0.56	0.86	0.40	1.34	0.21	11.99
Davis Ranch	15.26	8.68	7.85	5.56	3.60	1.17	0.55	0.76	2.22	3.77	11.39	10.38	71.19
Dayton	2.15	3.29	3.12	2.11	0.75	0.22	0.02	0.17	0.75	2.03	4.03	2.28	20.92
Deer Park	3.71	4.32	2.58	1.24	1.49	0.05	0.01	1.14	0.96	0.82	1.96	1.43	19.71
Detroit	14.34	6.98	5.88	5.39	3.68	0.57	T.	0.00	1.94	1.33	9.04	6.59	55.74
Dirty Face Mountain	12.70	5.35	4.95	1.57	1.69	0.39	0.25	0.36	1.67	1.43	5.13	4.48	39.97
Douglas Lake	3.83	2.63	2.26	3.13	2.09	.....	.....	.....	.....	.....	.....	.....	.....
Dryden	5.07	2.56	0.81	0.49	0.15	0.05	0.04	0.32	0.90	0.16	1.07	2.71	14.33
Ellensburg	2.01	1.75	0.51	0.15	0.67	T.	T.	0.20	1.28	0.17	0.65	0.78	8.17
Everett	6.47	3.87	3.14	3.26	1.68	0.63	0.29	0.46	2.32	4.21	3.73	2.85	32.91
Fairfax	13.22	5.45	7.14	7.74	4.19	2.58	0.28	0.60	4.24	5.94	7.02	4.81	63.21
Forks	19.33	13.67	17.94	10.57	8.43	3.25	0.58	0.24	3.54	4.16	22.11	18.92	122.74
Fort Simcoe	3.67	3.00	0.32	0.65	0.24	T.	0.06	.....	0.60	0.18	0.80	2.21	.....
Glacier	8.60	.....	.....	5.30	5.13	.....	0.55	.....	.....	.....	5.75	8.55	.....
Glenoma	10.87	5.05	4.87	3.71	3.45	1.84	0.41	.....	2.22	5.17	5.75	6.35	.....
Gold Creek	2.92	1.95	1.00	0.57	0.58	0.25	T.	0.35	0.60	0.04	0.97	1.64	10.87
Goldendale	3.99	3.14	1.72	1.04	0.70	0.10	0.18	T.	2.01	0.67	1.78	3.36	18.69
Granger (near)	.....	.....	0.15	0.48	0.37	0.03	T.	0.09	0.52	0.33	0.64	.....	.....
Granite Falls	7.78	6.30	6.30	5.55	4.44	1.33	0.48	0.55	3.22	6.06	7.10	4.66	53.97
Hanford	1.04	1.09	0.38	0.32	0.64	0.00	T.	T.	0.74	0.21	0.88	1.00	6.30
Harrington	2.67	2.98	1.09	1.04	1.02	0.05	0.00	T.	0.48	0.80	1.00	1.82	12.95
Hatton	1.49	1.84	1.10	1.07	0.40	0.00	0.00	0.05	0.73	0.41	1.33	1.34	9.76
Headworks	14.15	6.22	4.91	5.63	2.72	1.71	0.28	0.00	2.73	2.22	4.79	5.92	51.28
Hunters	2.53	1.27	0.85	1.21	1.13	0.00	0.02	0.50	0.46	0.27	1.20	0.56	10.10
Huntsville	2.03	2.86	2.43	1.42	0.61	0.06	.....	.....	.....	.....	.....	.....	.....
Ione	4.28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irene Mountain	1.17	1.77	.....	0.61	1.42	0.38	0.33	0.37	1.88	0.57	0.82	0.56	.....
Kahlotus	1.63	2.27	1.15	0.99	0.48	T.	0.00	T.	0.37	0.79	1.63	1.18	10.49
Kalama (near)	13.54	12.63	3.96	5.22	4.09	2.22	0.67	0.69	3.75	3.21	9.17	4.01	67.56
Kennewick	1.47	1.40	0.69	0.72	0.24	0.00	0.03	0.00	0.33	0.00	1.12	1.08	7.08
Kent	9.51	4.38	3.36	4.63	2.35	0.85	0.04	0.03	2.27	.....	6.96	4.96	.....
Kettle Falls	3.30	2.96	0.29	1.23	1.00	0.00	0.07	0.96	0.53	1.14	1.57	1.55	14.60
Keystone	2.42	2.47	0.89	1.13	0.75	0.02	0.07	0.24	0.82	0.70	8.66	2.45	20.62
Klona	1.30	1.34	1.26	0.53	0.46	T.	0.04	.....	0.66	0.76	1.22	0.32	.....
La Center	9.08	10.14	4.41	4.36	2.60	1.73	0.22	0.07	4.83	3.03	8.09	6.29	54.85
La Crosse	1.98	2.75	1.42	1.43	0.56	0.12	0.03	0.19	0.64	1.18	2.60	1.62	14.52
Lake Cleatum	10.28	5.05	5.35	1.60	1.47	0.04	0.45	0.24	0.89	3.29	4.94	3.89	37.29

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Washington—Continued.													
Lake Kachess	11.44	7.12	8.39	2.56	2.77	0.38	0.35	0.10	1.32	4.04	7.51	4.33	50.31
Lake Keechelus	15.91	7.60	9.03	3.76	4.15	0.57	0.53	0.16	2.51	3.80	7.36	5.88	61.26
Lakeside	.....	1.71	0.10	T.	0.18	0.10	0.04	0.17	1.66	0.00	0.49	0.51	.....
Landsburg	11.09	5.68	6.02	6.67	4.55	1.99	0.50	0.33	3.04	4.44	9.22	5.90	59.43
Laurel	10.60	6.92	4.41	1.93	0.83	0.13	0.00	0.05	2.19	1.17	4.49	7.04	39.76
Laurier	2.17	2.23	1.00	0.70	1.41	0.31	0.22	0.75	1.83	1.24	1.75	1.07	14.88
Leahy	.....	.....	.....	.....	0.42	.....	.....	.....	.....	.....	.....	.....	.....
Leavenworth	7.12	3.12	2.17	0.34	0.10	0.18	0.00	0.35	1.01	0.38	1.78	3.07	19.62
Lind	1.53	1.82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Locke	.....	.....	.....	.....	.....	.....	.....	1.07	1.19	1.41	2.61	1.78	.....
Longmires	17.52	7.95	8.83	6.56	4.45	1.89	0.51	0.56	3.53	7.23	10.80	8.67	78.50
Lone Tree	14.43	13.15	9.08	5.75	3.57	0.93	0.08	0.24	1.52	4.22	10.67	8.38	72.02
Lost Creek	2.19	1.80	0.49	0.88	1.02	0.09	0.26	0.32	1.94	0.18	0.89	0.80	10.86
Lowden (near)	1.54	2.03	1.09	0.65	0.30	0.01	T.	T.	0.39	0.96	2.41	1.28	10.66
Marietta	3.94	4.21	3.64	3.94	1.98	0.82	0.50	0.61	1.98	1.48	5.05	4.07	32.22
Maryhill	2.11	1.76	1.20	0.62	.....	0.00	T.	0.00	0.01	0.16	0.95	2.63	.....
McCumbers Ranch	8.04	7.34	1.36	1.62	0.26	0.13	0.01	0.10	1.43	1.20	3.76	4.27	29.52
Mill Creek	3.58	5.06	5.71	4.70	2.29	0.07	0.11	0.15	2.31	4.03	6.82	3.11	37.94
Mottinger	1.68	1.46	0.86	0.71	0.23	0.00	0.00	T.	0.63	0.82	1.91	1.48	9.78
Mount Pleasant	10.48	8.85	6.70	5.71	2.79	1.33	0.36	0.16	4.61	4.20	12.78	7.91	65.88
Moxee	1.21	1.33	0.15	0.42	0.43	0.06	0.02	0.09	0.58	0.11	0.62	1.31	6.33
Nespelem	1.00	1.62	0.12	0.06	0.81	0.02	0.51	0.61	1.65	0.60	1.11	0.80	9.00
Newport	3.06	4.02	2.87	1.81	2.01	0.38	0.07	1.36	0.91	1.66	2.27	1.02	21.38
North Head	9.46	7.79	4.90	3.71	2.36	1.28	0.10	0.26	2.18	2.38	6.53	5.67	46.62
Oakville	14.13	7.54	6.91	4.47	2.65	1.18	T.	T.	2.31	1.73	7.24	5.18	53.34
Odessa	1.79	2.24	0.87	0.67	0.42	0.00	0.01	0.28	0.54	0.63	1.30	0.92	9.17
Olga	5.24	3.05	3.33	3.12	1.57	0.62	0.42	0.41	1.88	1.19	4.63	3.45	28.91
Olympia	.....	.....	.....	.....	.....	.....	.....	T.	1.55	2.08	5.60	.....	.....
Omak	2.03	1.82	0.21	0.34	0.22	0.21	T.	0.82	1.37	0.65	0.81	1.64	10.12
Oroville	2.32	2.90	0.13	0.34	0.34	T.	0.30	0.72	2.54	0.15	0.94	1.55	12.23
Paradise Inn	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.81	17.20	13.55	.....
Peola	1.61	3.75	2.18	1.82	1.22	0.11	0.01	0.50	.....	.....	.....	.....	.....
Pomeroy	1.50	2.80	1.20	1.82	1.23	0.50	T.	0.55	0.30	2.10	3.35	2.81	18.16
Port Angeles	7.09	2.93	1.27	2.67	0.40	0.72	0.17	T.	0.91	1.72	3.55	2.69	24.12
Port Townsend	4.61	1.99	1.03	1.79	0.76	0.84	0.76	0.13	1.80	1.08	2.10	1.06	17.95
Poulsbo	9.79	5.94	2.56	3.19	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prosser	1.07	0.48	0.73	0.47	0.39	T.	T.	0.13	1.37	0.23	1.21	0.92	7.00
Pullman	2.10	4.32	1.74	1.84	1.03	0.30	0.04	0.14	0.49	0.94	2.22	2.71	17.87
Puyallup	9.80	3.60	3.92	4.55	3.26	1.01	0.32	0.09	1.94	1.76	5.13	4.83	40.21
Quinault	.....	.....	12.23	11.72	8.76	5.57	0.86	.....	4.92	5.54	22.35	17.81	.....
Republic	2.47	2.57	0.40	0.68	1.19	T.	0.11	0.37	1.95	0.18	1.49	0.84	12.25
Rimrock	7.51	3.09	1.77	0.66	0.17	0.02	0.04	0.04	0.69	1.40	2.80	0.75	18.94
Ritzville	2.31	2.29	0.95	0.76	0.59	T.	0.00	0.19	0.93	0.81	1.60	1.22	11.65
Rock Island	.....	0.78	0.16	0.16	0.23	.....	.....	.....	1.07	0.27	0.57	1.00	.....
Rosalia	2.40	3.74	2.58	1.65	0.79	0.35	T.	0.49	1.12	1.12	2.75	1.22	18.21
Seattle	7.95	3.77	1.84	3.20	2.08	0.35	0.22	0.08	2.03	1.59	4.13	4.10	31.34
Sedro-Wooley	5.49	4.66	5.21	4.30	3.52	1.40	1.20	0.50	2.69	3.80	6.96	3.92	43.65
Sequim	5.09	1.38	1.12	2.01	0.77	0.71	.....	0.00	1.22	1.07	1.71	0.98	.....
Sixprong	1.46	1.38	0.55	0.55	0.60	0.00	0.06	0.11	0.68	0.29	.....	1.75	.....
Snohomish	7.25	4.59	3.45	3.37	2.04	0.90	0.31	.....	2.47	4.59	4.25	.....	.....
Snoqualmie Falls	12.60	5.67	4.58	5.99	3.74	1.47	0.22	0.65	3.38	5.79	6.71	6.38	57.18
Snoqualmie Pass	21.55	12.70	12.30	6.60	2.20	.....	2.50	1.70	.....	5.50	.....	.....	.....
Snyders Ranch	7.92	2.92	1.90	0.50	0.30	0.65	0.20	0.54	0.85	0.90	1.21	1.69	19.58
South Bend	.....	.....	.....	7.93	4.80	2.23	0.26	0.18	3.56	3.06	11.35	9.64	.....
Spokane	2.11	3.26	1.36	0.93	0.76	0.01	0.07	1.02	0.46	0.69	1.82	1.36	13.85
Sprague (near)	1.89	2.70	1.39	1.66	1.07	0.00	0.01	0.45	0.42	1.26	.....	.....	.....
State University	8.13	3.57	1.76	3.02	2.56	.....	.....	.....	2.07	1.51	4.78	4.55	.....
Stehekin	11.60	5.25	3.63	1.92	0.47	0.70	0.11	0.29	0.95	0.75	3.89	4.73	34.29
Stokes Ranch	4.96	2.03	1.00	0.38	0.35	0.46	0.09	0.51	0.49	0.27	0.90	1.23	12.67
Sumner	11.48	3.65	3.92	5.55	3.03	1.59	0.23	0.19	2.27	2.76	6.10	4.88	45.65
Sunnyside	0.63	0.98	0.26	0.43	0.31	T.	0.01	0.12	0.55	0.28	0.80	0.84	5.21
Tacoma	9.81	3.15	3.51	3.61	2.48	0.63	0.05	0.02	1.62	1.85	4.52	4.22	35.47
Tatoosh Island	10.30	8.06	10.19	6.15	4.53	1.49	0.31	0.35	3.12	3.46	14.66	11.28	73.90
Touchet Ridge	4.73	7.28	5.97	4.16	1.81	0.24	0.07	0.39	1.60	3.53	7.06	3.30	40.14
Trinidad	1.17	1.38	0.30	0.17	0.19	0.02	0.00	0.03	0.38	0.35	0.62	1.13	5.74
Twenty-five Mile	4.93	3.33	0.59	0.54	0.17	.....	.....	.....	.....	.....	.....	.....	.....
Vancouver	8.13	6.63	3.09	3.78	2.12	0.89	0.13	0.03	3.79	1.35	6.71	5.13	41.78
Vashon Island	9.16	6.29	3.87	3.92	3.08	0.17	0.35	T.	1.99	1.59	7.13	5.68	43.23
Wahluke	0.97	0.88	0.27	0.23	0.35	T.	0.00	0.12	0.60	0.26	0.72	1.16	5.56
Wallace	2.60	2.54	0.69	1.05	0.51	0.24	0.26	0.91	2.84	0.60	0.75	2.60	15.39
Walla Walla	2.12	1.93	1.91	1.62	0.58	0.04	0.09	0.06	1.26	1.95	3.16	1.92	16.64
Wapato	0.92	0.91	0.07	0.52	0.58	0.03	T.	0.03	0.22	0.00	0.54	.....	.....
Waterville	2.01	1.95	0.58	0.46	0.80	0.10	0.18	0.82	1.58	0.20	1.39	1.55	11.62
Wenatchee	2.62	.....	0.05	T.	0.02	0.06	0.02	0.19	0.96	0.01	1.77	.....	.....
Wenatchee (near)	2.51	2.34	0.40	0.18	0.19	0.38	0.05	0.09	0.93	0.43	1.02	1.75	10.27
Wheeler	1.16	1.39	0.25	0.70	0.35	0.02	0.01	0.13	0.64	0.65	1.00	0.85	6.95
White Salmon	6.47	6.70	3.87	2.66	0.59	0.11	0.23	T.	1.86	1.36	4.21	4.61	32.87
Wilbur	2.05	2.25	0.62	0.85	1.13	T.	T.	0.49	0.80	0.47	1.22	1.12	11.00
Wind River	23.82	15.20	13.61	7.23	4.72	2.08	0.20	0.08	5.08	3.99	13.34	13.93	103.28
Winthrop	3.90	2.11	0.45	0.09	0.22	0.47	0.16	0.53	0.95	0.29	0.99	1.66	11.82
Yacolt	13.74	12.52	9.85	5.20	4.63	2.45	0.15	0.29	4.60	4.88	15.16	6.28	79.73
Yakima	1.00	0.99	0.10	0.38	0.58	0.04	0.03	0.08	0.69	0.12	0.50	0.99	5.52
West Virginia.													
Bancroft	4.70	1.70	2.88	3.20	6.38	7.44	2.85	4.86	3.03	6.75	5.03	4.70	53.52
Bayard	.....	1.98	.....	1.03	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beckley	.....	.....	.....	.....	6.98	5.92	10.25	1.97	1.00	6.57	.....	.....	.....
Bens Run	3.14	1.56	2.58	3.01	5.58	2.22	5.88	8.05	1.52	6.70	5.98	4.92	51.17
Bluefield	5.02	2.75	3.04	3.24	4.65	4.29	7.65	3.86	1.06	6.49	2.00	2.63	46.65
Brandonville	4.55	2.89	2.43	3.09	5.54	3.12	5.08	5.04	.....	.....	.....	.....	.....
Brandywine	2.62	0.95	2.49	1.87	3.94	3.45	5.47	2.77	0.75	2.46	1.18	1.47	29.42
Buckhannon	4.45	2.10	3.25	2.62	6.00	5.20	5.76	5.80	2.51	6.74	4.95	5.00	54.38
Burlington	2.44	1.77	2.08	1.70	4.10	2.38	5.13	3.45	1.42	3.81	1.90	3.05	33.23
Camden-on-Gauley	5.01	3.82	2.74	4.21	10.71	10.15	13.08	8.67	4.00	8.71	5.72	5.90	82.72
Charleston	5.35	3.00	3.52	3.07	7.77	3.92	3.93	6.26	2.62	6.25	5.45	4.43	55.57

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
West Virginia—Continued.													
Clay	3.19	1.22	1.95	2.80	4.55	6.32	5.06	5.06	3.45	5.42	4.22	4.89	48.13
Cortland	4.79	1.56	.....	1.45	4.74	6.18	6.94	3.98	0.96	5.18	2.50	.....	.....
Creston	4.37	1.61	3.09	2.35	5.79	5.82	4.93	4.90	1.24	7.40	5.81	4.31	51.62
Cuba	3.02	1.22	3.24	2.27	3.70	3.78	3.90	2.22	1.49	6.68	4.63	4.98	41.11
Dam No. 12, Ohio River	2.15	1.48	3.33	1.89	4.27	2.19	4.01	7.08	1.85	7.03	5.10	3.14	43.52
Dam No. 13, Ohio River	2.34	1.37	2.65	1.57	5.05	2.13	5.72	7.01	2.02	5.23	6.21	2.60	43.90
Dam No. 19, Ohio River	3.52	1.61	2.94	1.81	5.80	2.94	2.89	5.61	1.92	4.85	7.44	5.01	46.34
Dam No. 20, Ohio River	3.42	1.55	3.07	2.06	5.90	2.85	1.96	4.28	1.44	5.27	5.75	5.40	42.95
Dam No. 22, Ohio River	3.43	1.26	2.64	2.02	4.81	3.36	3.02	3.99	1.64	5.93	4.84	4.97	41.31
Dam No. 26, Ohio River	4.11	0.81	2.49	2.98	7.82	4.23	3.34	2.88	1.66	5.96	4.63	4.40	45.31
Davis	4.03	2.77	2.04	2.50	4.85	.....	5.85	.....	.....	7.30	.....	.....	.....
Elizabeth	3.81	1.16	2.91	2.29	5.06	3.75	4.70	3.84	1.33	6.72	5.92	3.22	44.71
Elkins	4.20	2.04	2.76	1.94	3.88	6.40	8.75	3.09	2.28	5.69	3.25	4.73	49.01
Evans	3.61	1.66	4.22	2.92	6.80	3.75	5.91	2.48	2.14	5.82	5.72	4.89	49.92
Fairmont	4.04	1.67	2.84	1.90	4.08	5.31	4.55	3.64	2.75	5.86	5.51	3.75	45.90
Gary	3.80	2.35	3.58	2.85	4.35	6.13	6.92	3.82	3.13	8.02	3.20	3.43	51.58
Gassaway	.....	.....	.....	.....	.....	.....	4.48	3.87	1.01	3.15	2.99	.....	.....
Glenville	4.62	1.80	2.74	1.81	4.93	6.98	4.08	5.22	2.81	7.52	4.75	4.96	52.22
Grafton	3.34	1.48	1.86	2.46	3.75	3.95	2.47	5.24	1.58	5.35	5.04	4.26	40.78
Green Sulphur Springs	.....	3.93	4.81	2.33	6.35	.....	.....	.....	.....	.....	.....	.....	.....
Harpers Ferry	3.07	1.47	2.48	2.94	3.56	3.75	6.15	2.06	2.30	3.07	2.26	1.17	34.28
Hinton	4.22	2.46	2.80	2.32	5.00	8.04	8.26	4.64	1.26	5.20	3.44	3.58	51.22
Holcomb	4.50	2.34	3.38	3.10	5.09	8.63	5.71	5.97	3.80	7.02	3.40	5.53	58.47
Huntington	4.25	1.52	2.90	2.70	6.40	5.90	4.22	2.88	3.24	4.94	6.70	5.28	50.93
Kanawha Falls	4.84	0.68	1.69	2.17	5.84	5.09	4.89	5.61	1.90	6.53	4.09	4.14	47.47
Kayford	5.11	1.62	3.14	3.04	5.94	5.08	5.36	5.64	1.81	6.50	6.13	5.44	54.81
Lewisburg	4.87	2.35	3.12	2.51	5.02	5.44	7.59	3.30	2.17	4.99	3.74	3.20	48.30
Lost Creek	4.14	1.56	2.53	2.06	5.11	8.42	6.45	3.51	0.99	6.16	4.20	4.60	49.73
Mannington	4.31	1.81	3.06	2.39	4.85	7.00	7.75	4.82	3.24	6.51	5.91	4.31	55.96
Marlinton	5.84	3.41	4.69	3.11	6.71	7.01	9.20	4.58	1.36	4.43	4.99	5.21	60.54
Martinsburg	2.45	1.86	3.51	1.85	4.92	7.25	3.07	3.30	2.27	3.76	3.67	2.21	39.92
Moorefield	1.65	1.14	2.41	1.85	3.49	3.30	3.54	1.93	1.41	3.01	1.44	1.94	27.11
Morgantown	.....	.....	.....	.....	3.77	5.59	4.81	6.28	3.38	7.17	5.65	3.45	.....
Moundsville	1.05	2.30	2.50	2.97	4.18	1.67	4.82	7.35	2.30	5.99	4.77	3.42	43.32
New Cumberland	2.03	1.57	3.19	2.67	5.22	3.55	5.70	6.52	2.22	6.55	3.91	2.69	45.82
New Martinsville	3.22	1.40	2.90	2.18	5.41	4.10	4.28	7.30	2.00	7.10	6.55	4.05	50.49
Parkersburg	2.48	1.76	2.37	2.09	5.00	2.80	3.30	4.60	0.98	5.37	4.76	4.07	39.58
Parsons	2.13	1.79	1.60	2.20	2.75	2.90	5.10	3.55	2.47	6.98	4.12	3.79	39.38
Pickens	6.66	1.96	.....	1.92	7.47	8.27	8.09	8.40	3.09	11.88	6.54	7.35	.....
Piedmont	1.76	1.71	2.39	1.81	4.11	4.15	6.38	2.96	1.33	4.59	1.98	2.36	35.53
Point Pleasant	4.78	1.09	2.77	2.34	5.10	4.21	5.74	2.63	2.10	6.88	5.48	5.12	48.24
Powellton	4.23	1.42	2.88	3.31	5.37	.....	.....	.....	1.33	6.69	5.98	4.85	.....
Raleigh	4.05	3.34	3.63	2.84	5.69	6.06	6.54	4.30	3.80	5.13	4.44	4.79	54.61
Renick	6.00	2.96	3.12	2.62	5.50	5.13	9.66	3.93	1.58	4.80	1.87	3.68	50.85
Robertsburg	4.22	1.20	2.70	2.77	4.92	4.59	3.03	2.70	2.32	5.36	5.54	4.69	44.04
Romney	1.77	1.40	3.68	2.00	5.02	4.07	6.03	3.73	1.91	4.30	3.13	2.63	38.67
Rowlesburg	5.51	2.80	3.66	2.17	4.47	5.90	5.91	3.62	4.37	7.89	5.03	4.87	56.23
Ryan	4.58	1.99	2.88	2.99	5.20	7.20	5.02	4.24	3.00	6.86	4.96	4.46	53.29
St. Marys	3.41	1.66	2.93	3.16	6.07	3.20	4.88	6.10	2.24	5.02	7.01	4.90	50.58
Smithfield	3.03	1.94	2.65	2.36	6.59	3.73	5.55	6.07	2.14	5.78	7.53	4.14	51.51
Spencer	3.99	2.03	3.15	1.99	5.18	5.31	6.43	3.63	1.74	6.62	5.49	4.79	50.35
Sutton	4.52	2.09	3.11	2.81	4.82	7.67	9.55	.....	0.12	2.13	.....	3.43	.....
Terra Alta	4.29	2.76	3.30	2.61	5.47	3.98	4.83	5.31	2.73	7.21	3.51	.....	.....
Union	2.92	3.10	2.75	2.26	5.59	7.26	5.35	2.66	1.70	5.15	2.10	2.60	43.38
Upper Tract	1.60	0.35	2.25	1.70	3.43	3.90	4.50	0.95	1.20	2.90	0.85	1.31	24.94
Wardensville	2.31	1.32	2.60	1.56	4.85	.....	.....	4.55	3.08	3.31	.....	2.17	.....
Wellsburg	1.71	1.31	3.15	2.30	4.56	3.64	6.58	6.16	2.06	6.16	4.06	3.05	44.74
Weston	4.20	1.93	2.80	2.25	3.60	8.00	4.80	5.25	1.15	7.20	4.42	5.39	50.99
Wheeling	2.01	1.38	3.25	1.78	4.52	2.77	6.17	7.10	1.65	5.69	5.10	3.39	44.81
Williamson	5.01	1.59	4.29	2.64	5.51	2.85	3.28	5.17	2.81	5.82	4.98	5.46	49.41
Wisconsin.													
Antigo	0.27	1.55	1.22	3.18	2.02	9.55	6.52	2.38	2.62	5.38	2.98	0.27	37.94
Appleton	0.86	1.09	0.74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashland	0.67	1.61	0.92	3.18	1.16	5.98	3.76	1.93	1.14	2.41	4.04	0.50	27.30
Baraboo	0.55	1.73	1.30	4.03	2.88	4.05	2.72	2.04	6.53	6.69	.....	.....	.....
Barron	0.35	2.24	0.84	3.61	1.57	4.28	8.55	4.39	1.94	2.82	3.44	0.50	34.62
Beloit	0.30	2.10	.....	3.22	2.91	2.59	3.08	1.35	4.90	6.36	2.86	1.45	.....
Big St. Germain Dam	0.57	1.38	0.90	3.97	2.30	4.76	5.77	2.10	1.95	3.52	3.80	0.47	31.49
Brodhead	0.30	2.40	3.77	2.97	2.93	5.33	4.01	1.34	6.32	4.16	2.11	1.65	37.29
Burnett	0.34	0.84	1.21	2.80	2.76	4.75	1.88	3.71	5.61	4.05	2.53	0.59	31.07
Cecil	1.08	1.78	2.12	1.57	3.39	6.07	4.72	2.48	1.09	4.53	2.74	0.94	32.51
Cornucopia	0.84	1.16	0.40	0.60	0.78	6.68	1.92	1.84	.....	3.62	3.36	1.04	.....
Crandon	0.24	2.43	1.19	2.89	1.85	6.11	3.69	.....	.....	.....	.....	.....	.....
Danbury	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.59	.....	.....	.....
Darlington	0.36	2.37	2.18	4.30	3.40	4.27	4.45	2.05	7.60	6.11	3.38	0.89	41.36
Deerskin Dam	0.75	1.63	0.40	1.37	.....	4.86	3.42	1.73	2.41	3.36	2.91	0.71	.....
Delavan	0.29	1.79	1.60	3.20	2.62	1.93	3.60	2.02	7.77	5.87	2.53	1.39	34.61
Downing	0.38	2.04	0.90	3.55	1.90	4.91	5.79	3.97	4.83	4.45	1.83	0.47	35.02
Eau Claire	0.80	2.16	1.62	3.55	1.54	6.80	6.02	3.25	1.73	2.71	2.68	0.57	33.43
Florence	.....	.....	.....	2.64	2.40	4.05	1.95	1.43	2.85	3.05	3.18	0.55	.....
Fond du Lac	0.72	1.60	1.53	3.19	3.02	2.67	2.64	4.55	4.70	4.03	2.86	1.60	33.11
Grand Rapids	0.93	1.25	2.53	4.11	4.72	6.10	3.68	3.03	3.53	4.70	2.83	0.81	38.22
Grand River Locks	0.43	1.09	1.85	4.21	2.46	4.18	1.83	3.52	3.51	4.28	2.71	0.56	30.63
Grantsburg	.....	.....	.....	3.04	2.12	4.21	6.10	1.98	0.94	2.93	3.84	0.87	.....
Green Bay	0.67	1.51	1.26	3.20	4.53	0.83	5.39	1.60	2.97	2.37	2.26	0.36	26.95
Hancock	0.78	1.51	0.94	3.09	4.08	5.69	2.13	2.31	3.10	3.56	2.53	0.64	30.36
Hatfield	0.47	1.66	1.62	3.04	2.69	7.96	5.35	2.42	3.53	2.84	2.44	0.47	34.49
Hayward	0.56	1.70	0.95	3.14	2.01	5.35	5.03	.....	.....	2.93	2.30	1.65	.....
High Falls	0.82	2.62	1.78	3.18	2.81	5.55	2.83	2.33	2.38	5.36	3.26	0.20	33.42
Hillsboro	0.65	2.30	2.14	3.87	3.93	4.77	3.03	1.71	6.17	3.36	.....	0.90	.....
Iron River	0.57	1.38	1.06	2.39	1.73	5.52	3.16	2.92	0.93	2.23	3.63	0.68	26.20
Kewaunee	1.28	1.76	1.61	3.83	3.89	0.43	4.05	2.13	3.52	2.30	2.62	0.90	28.32
La Crosse	0.31	2.07	2.36	3.41	2.34	6.52	2.55	1.39	2.35	3.20	3.29	0.70	30.49

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Wisconsin—Continued.													
Lake Mills	0.11	1.93	2.30	3.00	3.10	3.64	3.88	1.39	7.51	7.28	3.01	0.77	37.92
Long Lake	0.56	1.52	1.13	3.08	2.20	5.01	4.19	2.68	2.52	3.07	3.31	0.62	29.89
Madison	0.26	2.12	2.17	2.90	3.55	3.35	3.96	0.89	6.83	5.95	2.25	0.93	35.16
Manitowoc	0.84	2.24	1.64	4.09	5.56	0.96	3.20	2.98	4.89	3.53	2.82	0.76	33.51
Marinette	.....	2.19	1.53	5.00	4.53	2.98	3.59	3.88	2.43	4.66	4.34	0.50	.....
Marshfield	0.41	1.09	2.20	4.11	3.02	4.71	5.96	.....	.....	.....	3.59	.....	.....
Mather	0.50	1.52	1.71	3.19	3.32	6.05	2.06	2.94	3.93	4.01	3.24	0.60	33.07
Mauston	0.60	.....	2.35	3.17	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meadow Valley	0.96	1.48	1.44	3.03	3.16	5.14	2.40	1.80	3.82	3.98	2.82	0.80	30.83
Medford	0.40	1.45	1.70	3.73	3.46	8.67	5.96	4.05	2.50	3.67	3.44	0.40	39.43
Menasha	0.75	.....	1.77	3.03	2.43	2.45	2.94	2.54	3.68	2.68	1.88	0.75	.....
Merrill	0.40	1.56	1.58	3.86	1.90	6.78	5.48	1.58	2.58	4.45	3.72	0.50	34.39
Milwaukee	0.15	2.20	3.38	2.49	2.45	1.49	4.00	1.87	5.36	3.92	2.23	0.92	30.46
Minocqua	0.62	1.05	1.02	4.06	2.34	6.49	6.98	1.90	1.97	3.49	3.29	0.29	33.48
Mondovi	0.80	3.22	1.95	3.31	1.80	6.02	3.95	2.77	.....	.....	.....	1.40	.....
Mount Horeb	0.70	2.15	1.83	4.49	3.35	6.21	6.83	.....	8.14	6.08	1.71	1.40	.....
Muscoda	0.34	2.12	1.84	2.56	2.35	.....	.....	.....	4.60	2.94	.....	.....	.....
Neillsville	0.63	1.80	1.81	4.57	3.05	5.90	4.77	3.77	2.38	3.79	3.06	0.76	36.29
New London	1.13	2.23	1.12	3.57	3.62	6.20	5.08	3.79	5.52	4.30	2.95	0.79	40.30
Oconto	1.38	1.40	.....	7.55	.....	.....	4.64	.....	3.10	3.09	.....	.....	.....
Osceola	0.63	1.59	1.70	1.80	2.07	3.88	5.95	3.52	1.51	3.00	2.80	0.48	28.93
Oshkosh	0.53	1.02	2.00	4.42	2.55	2.58	2.23	2.30	4.19	3.41	2.30	0.70	28.23
Park Falls	0.60	1.41	1.55	4.05	2.05	6.79	7.70	3.03	1.61	3.94	3.46	.....	.....
Pine River	0.72	2.03	1.49	2.99	4.25	5.17	2.92	2.27	3.06	3.37	3.02	0.67	31.96
Plum Island	1.11	1.65	1.40	4.45	3.14	2.47	3.10	2.20	3.17	3.65	4.00	1.20	31.54
Plymouth	0.45	2.36	1.49	3.78	3.48	1.32	2.76	2.72	6.02	3.84	2.49	0.55	31.26
Portage	0.35	1.68	2.21	3.11	2.68	3.89	1.74	1.64	5.53	4.82	2.22	0.53	30.40
Port Edwards	0.41	0.79	2.02	3.35	4.44	5.56	.....	.....	.....	.....	.....	.....	.....
Port Washington	0.43	2.82	2.08	3.26	3.30	2.40	1.83	1.82	4.45	4.01	2.27	.....	.....
Prairie du Chien	0.46	2.07	1.86	3.96	3.26	5.48	2.84	2.30	6.44	4.06	3.75	1.24	37.72
Prairie du Sac	0.21	1.53	0.61	3.66	2.94	6.12	3.31	1.13	5.09	4.01	1.95	0.32	30.88
Prentice	0.38	1.77	1.51	3.13	3.06	7.02	6.44	4.43	3.72	3.11	3.09	0.12	37.78
Racine	0.35	2.01	3.11	3.12	3.50	2.45	1.63	3.25	5.68	5.45	2.03	0.98	33.56
Reedsburg	0.55	2.15	1.45	4.18	2.95	5.64	4.09	2.70	5.61	5.62	2.58	0.85	38.37
Rest Lake	.....	1.45	1.04	4.16	1.92	5.92	10.74	2.19	1.56	3.21	4.77	1.00	.....
Rhinelander	0.49	1.53	1.32	2.64	1.91	8.88	5.34	2.83	2.94	3.35	3.13	0.21	34.57
Ripon	0.63	1.80	1.59	3.94	3.83	4.59	2.09	2.14	3.95	4.21	1.16	0.87	30.80
River Falls	0.50	1.90	.....	.....	.....	.....	6.00	2.28	2.39	2.90	1.87	0.38	.....
Sheboygan	.....	.....	.....	2.96	2.45	0.80	3.79	3.51	4.78	3.24	1.97	0.88	.....
Shullsburg	0.29	.....	.....	.....	.....	1.76	.....	.....	.....	.....	.....	.....	.....
Solon Springs	0.10	1.85	0.20	2.45	1.30	5.50	5.30	2.65	0.90	3.05	3.30	0.64	27.24
Spooner	0.46	1.91	0.42	2.18	2.18	2.81	6.40	5.36	2.00	3.07	3.40	0.75	30.94
Stanley	0.50	2.75	1.91	3.32	2.71	4.24	6.53	3.77	2.56	3.38	3.31	0.50	35.48
Stevens Point	1.00	1.99	1.80	4.31	3.77	8.40	3.50	4.05	4.52	3.71	2.99	0.99	41.03
Sturgeon Bay	0.75	1.79	1.30	3.35	4.00	1.34	3.40	2.26	2.94	3.58	3.39	0.60	28.70
Sugar Camp Dam	0.70	1.48	1.03	3.88	2.74	5.74	4.64	3.05	2.20	3.17	3.58	0.28	32.49
Superior	0.39	0.87	0.98	2.14	1.75	4.53	2.29	2.74	1.39	3.45	4.26	0.14	24.93
Tomahawk	0.42	1.49	0.58	1.15	2.24	4.31	4.91	3.12	3.52	3.63	.....	0.32	.....
Twin Lakes Dam	.....	2.55	0.90	2.45	1.69	5.88	3.64	2.31	1.50	2.73	3.30	0.57	.....
Viroqua	0.82	1.42	1.57	3.46	3.65	5.34	3.81	.....	4.81	4.89	3.56	.....	.....
Vndesare	0.66	1.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Watertown	0.65	1.89	2.55	3.94	3.20	4.41	1.73	1.18	6.78	4.90	2.53	1.48	35.24
Waukesha	0.32	2.93	4.09	3.45	2.93	3.16	2.93	1.41	6.97	4.39	2.76	1.64	36.98
Waupaca	1.18	2.27	1.99	3.80	5.71	6.38	3.12	3.69	3.69	3.53	3.26	0.57	39.19
Wausau	0.31	1.45	1.06	3.07	2.25	4.80	6.99	2.51	2.76	3.57	2.81	0.56	32.14
Weyerhauser	0.57	2.08	2.24	3.30	2.56	5.09	9.65	3.94	2.26	2.93	3.76	0.29	38.67
Whitehall	0.65	1.81	2.09	3.31	2.00	5.40	5.03	2.30	3.77	3.15	2.43	0.95	32.89
Winter	0.45	1.88	0.54	2.70	2.37	4.45	9.46	4.40	2.21	4.55	3.56	0.86	37.43
Wyoming.													
Afton	0.35	1.51	1.53	1.53	0.92	0.60	0.79	0.03	1.10	3.61	.....	1.32	.....
Alta	0.48	2.06	1.20	1.18	0.60	0.00	0.20	0.85	2.00	3.21	1.04	1.93	14.75
Arapahoe	0.00	0.34	0.14	0.42	0.88	0.62	1.34	0.63	1.09	2.75	0.60	.....	.....
Archer	0.00	0.14	0.70	0.58	0.34	0.59	2.75	1.20	3.10	.....	.....	.....	.....
Barnum	.....	.....	.....	.....	.....	0.29	.....	1.40	0.83	2.50	.....	.....	.....
Basin	0.43	0.15	0.07	0.53	0.00	0.24	0.04	T.	0.30	1.71	0.50	0.66	5.13
Bedford	0.63	2.63	1.69	1.40	0.51	0.08	0.85	0.50	1.77	2.91	2.20	1.35	16.52
Big Creek	0.22	0.57	0.80	2.01	1.58	0.40	1.43	.....	1.05	1.82	2.36	.....	.....
Border	T.	1.38	0.30	0.86	0.34	T.	0.10	0.29	1.70	2.87	0.91	0.99	9.74
Boyd	0.42	0.62	0.71	1.48	0.50	1.01	2.18	0.21	1.97	1.96	0.70	0.34	12.10
Buffalo	0.49	0.15	0.05	1.84	0.53	0.40	0.55	T.	0.68	2.10	0.66	0.30	7.75
Burns	.....	.....	.....	1.16	0.64	.....	1.83	0.18	3.55	1.55	1.10	0.60	.....
Casper	0.00	0.85	0.44	2.08	1.40	0.72	0.71	0.98	0.91	3.78	.....	.....	.....
Centennial	0.09	1.37	0.57	2.53	0.68	0.39	2.96	1.13	1.27	1.49	2.19	0.63	15.30
Cheyenne	T.	0.26	1.52	1.23	0.70	0.72	2.83	0.43	1.76	1.67	1.63	1.10	13.85
Chugwater	0.00	1.05	1.20	1.70	0.20	1.84	1.45	0.22	2.30	1.04	1.85	1.56	14.41
Clark	0.06	0.25	0.25	0.59	0.74	0.68	0.43	0.54	0.94	1.74	0.67	1.15	8.04
Clearmont	0.24	0.10	.....	0.75	0.70	0.42	0.77	1.16	0.27	1.21	0.72	0.17	.....
Cody	0.02	0.17	0.02	1.20	0.02	0.34	0.36	0.42	0.69	1.31	0.33	0.59	5.47
Cokeville	T.	0.76	0.65	1.27	0.80	T.	.....	.....	2.82	1.95	0.70	0.90	.....
Colony	0.04	0.28	0.70	1.50	1.28	0.46	2.63	0.26	1.62	2.97	1.44	0.20	13.38
Crandall Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.86	.....
Crow Hill	0.14	0.37	0.82	1.74	0.34	0.62	0.30	1.35	0.33	3.73	0.81	0.55	11.10
Deaver	0.20	0.06	0.03	0.03	0.05	0.44	0.39	0.13	0.23	1.14	0.10	0.40	3.20
Dome Lake	0.63	0.67	1.47	2.82	1.90	1.37	0.39	.....	.....	.....	.....	0.90	.....
Douglas	T.	0.46	0.48	2.36	0.83	0.61	1.41	0.23	1.10	2.63	0.83	0.55	11.49
Dubois	0.08	0.31	0.17	0.70	0.10	0.60	.....	.....	0.24	0.75	1.60	.....	.....
Dutch Joe	.....	.....	.....	.....	.....	0.79	0.85	0.44	3.25	3.76	.....	.....	.....
Dwyer	.....	.....	.....	.....	.....	.....	.....	0.36	1.76	1.73	0.59	0.36	.....
Echeta	0.60	0.24	T.	2.25	0.66	0.10	0.54	0.08	0.95	2.82	3.41	1.20	12.85
Eden	0.00	0.37	T.	0.96	0.89	T.	0.08	0.12	.....	.....	0.31	0.10	.....
Elk Mountain	T.	.....	T.	5.50	0.20	0.20	0.05	0.03	0.70	0.85	.....	.....	.....
Emblem	0.14	0.00	0.04	0.47	0.10	0.04	0.18	0.05	0.37	1.44	0.82	0.40	4.05
Encampment	T.	0.63	0.32	0.67	0.51	0.23	1.65	0.69	0.91	1.83	1.26	0.91	9.61

Monthly and annual precipitation (in inches and hundredths) for 1919—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Wyoming—Continued.													
Ervay	T.	0.50	0.37	2.03	1.22	1.21	0.76	0.12	1.62	4.82	1.37	0.98	15.00
Evanston	0.00	0.87	0.44	1.46	0.94	0.08	0.36	1.19	1.21	2.82	1.62	0.89	11.88
Fort Laramie	0.06	0.77	0.39	0.89	1.10	0.42	1.71	0.03	0.95	1.34	0.73	0.30	8.69
Fox Park	0.20	0.34	0.42	0.62								1.20	
Gillette	0.23	0.15	0.05	1.82	0.38		1.51						
Green River	0.00	0.19	0.21	1.56	0.45	T.	0.25	0.02	0.46	2.01	0.23	0.24	5.62
Hecla	0.04	0.39		0.77	0.24	1.29	1.55	0.32	3.73	1.90	1.62	0.63	
Hunters Station					1.34	0.79	1.52	0.76	2.36	2.26			
Hyattville	0.00	0.03		1.05	0.03	0.07	0.00	0.00	0.35	2.01	0.60	0.30	
Jireh				1.72	1.65	1.31	2.73						
Kendall	0.87			0.85	0.42	0.23	0.96	0.19	3.66	2.26	1.76	1.16	
Kirtley	0.51	0.94	0.50	2.98	2.26	1.57	2.30	0.60	0.85	1.33	0.69	0.46	14.99
Kirwin							1.91	1.40					
Knowles	T.	0.34	0.53	3.24	0.98	0.99	2.16	0.29	1.73	2.09	1.01	0.55	13.91
Lagrange	0.04	0.75	1.72	1.48	0.21	1.01	1.69	0.08	1.10	1.33		0.60	
Lander	0.00	0.57	0.13	0.93	0.30	0.34	1.42	0.31	1.01	4.64	2.20	0.57	12.42
Laramie	T.	0.22	0.55	0.85	0.22	0.40	1.73	0.56	1.31	0.63	1.09	1.24	8.80
Lenore	0.00	0.21		0.10								0.60	
Lovell	0.32	0.03	T.	0.15	0.42	0.06	0.05	0.12	0.50	0.46	0.04	0.34	2.49
Lusk	0.11	0.48	0.56	0.90	1.22	1.26	2.41	0.00			1.30		
Middle Fork Ranger Station	0.00	0.94	0.24	2.12	0.66	0.71	0.63	0.15	2.14	5.42	1.49	1.30	15.80
Moran	1.36	2.85	1.72	0.35	0.07	0.00	0.08	0.64	2.02	2.58	1.80	1.14	14.61
Newcastle	0.04	0.73	0.67	1.26	0.65	1.01	2.99	0.16	1.19	2.74	0.88	0.25	12.57
Opal											1.30		
Painter	0.00	0.14	0.00	0.32	0.34	0.08	0.16			1.38	0.41	0.87	
Pathfinder	0.00	0.29	0.17	1.93	0.75	0.16	0.47	0.15	1.06	1.34	0.73	0.21	7.26
Pavillion				1.27	0.20		0.35	0.02	1.75	2.55			
Pine Bluff	T.	0.25		0.85	0.53	0.67	3.50	0.57	4.62	1.03	1.00	0.35	
Pinedale	T.	1.31	0.68	1.01	0.34	0.10	0.56	0.31	0.83	1.13	1.32	0.80	8.39
Powell	0.01	T.	T.	T.	T.	0.30	0.20	T.	0.35	0.60	T.	0.27	1.73
Rawlins	T.	0.40	0.41	1.65	1.40	0.11	0.39	0.12	0.72	2.36	1.21	1.24	10.01
Riverton	0.00	0.22	0.22	1.48	0.45	1.17	1.17	0.29	0.99	3.84	0.99	0.43	11.25
Rocky Point	0.10	0.39	0.61	1.54	1.06	0.39	1.29	1.25	0.84	3.60	1.86	0.30	13.23
Saratoga					1.23		0.88						
Sheridan	0.33	0.20	0.43	1.16	0.81	0.54	0.37	0.18	1.10	2.87	1.05	0.35	9.39
Sheridan Creek	0.05	0.85	0.50	0.82	0.38	0.45	0.19	0.52	3.17	2.11	2.07	0.76	11.86
Sheridan Field Station	0.26	0.23	0.10	1.05	1.01	1.12	0.74	0.30	1.16	1.80	0.59	0.17	8.53
Shoshone Dam	T.	0.04	0.05	2.60	0.29	0.51	0.10	0.68	0.90	1.10	0.27	0.72	7.26
South Pass City	T.	1.28	0.32	1.35	0.32	0.49	0.95	0.05	1.39	1.67	1.00	0.93	9.75
Spencer	0.00	0.96	1.30	3.10	0.97	0.12	0.96	0.36	0.80	2.51	0.73	0.20	12.01
Sundance	0.20	0.82	0.70	2.56	1.19	0.58	3.68	0.89	2.47	4.09	1.56	0.60	19.33
Superior				1.54	0.91								
Thermopolis	0.00												
Timber Creek	T.	0.36	0.19	2.49		0.67	0.95	0.35	1.81	2.97	1.04	0.91	
Upton		0.73	0.83	1.13	0.50								
Valley	0.00	0.22									0.55	0.95	
Verona	0.50	0.30	0.40	0.70	1.20	0.42	0.70	0.00	0.90	2.55	0.87	0.21	8.75
Wheatland	0.00	0.72		2.16	0.20	1.08	1.13	0.81	1.90	1.93	1.79	0.89	
Willow Springs Ranger Station	0.21	0.28	0.92	3.98	0.35	0.00	1.91	0.60	1.83	4.24	1.14		
Worland	0.02	0.14	0.06	0.73	0.04	0.21	0.10	T.	0.67	0.76	0.21	0.09	3.03
Wyncote	0.00	0.55	0.44	1.32	0.62	0.64	1.12	0.15	1.14	1.58	1.20	T.	8.76
Yellowstone Park	0.88	1.64	1.00	1.41	1.29	0.14	0.80	0.46	2.51	2.69	0.80	2.13	15.69
Gallatin †									2.25	1.92	0.90	1.29	
Norris Geyser Basin †									2.46				
Riverside †									3.19	3.74	1.20	2.27	
Snake River †										4.87	3.72	1.22	
Soda Butte †									1.99	3.22	0.69	0.84	

† Station in Yellowstone Park.

SNOWFALL, 1919-20.

Monthly and seasonal snowfall, 1919-20.

NOTE.—Leaders under heading of months indicate no snow; under seasonal, report incomplete; T., a trace; (*), no report.

[Inches and tenths.]

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Alabama.										
Anniston	.....	.....	.....	.....	0.7	0.2	T.	T.	.....	0.9
Auburn	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Birmingham	.....	.....	.....	T.	T.	T.	T.	T.	.....	T.
Decatur	.....	.....	.....	T.	T.	T.	T.	T.	.....	T.
Florence	.....	.....	.....	.....	.....	1.2	.....	.....	.....	1.2
Greensboro	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Highland Home	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Mobile	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Montgomery	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Oneonta	.....	.....	.....	0.5	.....	T.	T.	.....	.....	0.5
Scottsboro	.....	.....	.....	.....	.....	0.3	T.	.....	.....	0.3
St. Bernard	.....	.....	.....	T.	.....	T.	T.	.....	.....	T.
Alaska.										
Allakaket	.....	7.5	21.5	11.5	.....	.....	.....	.....	.....	.....
Anchorage (Ship Creek)	.....	4.6	28.1	29.5	.....	.....	.....	.....	.....	.....
Annex Creek	.....	11.5	36.0	4.7	.....	.....	.....	.....	.....	.....
Beaver Dam	.....	12.0	24.0	34.0	.....	.....	.....	.....	.....	.....
Calder	.....	.....	13.0	6.0	.....	.....	.....	.....	.....	.....
Chitina	.....	9.5	12.6	15.3	.....	.....	.....	.....	.....	.....
Copper Center	(*)	7.0	9.5	(*)	.....	.....	.....	.....	.....	.....
Cordova	.....	2.2	13.0	30.0	.....	.....	.....	.....	.....	.....
Dillingham	T.	T.	2.2	(*)	.....	.....	.....	.....	.....	.....
Eagle	.....	4.5	16.1	12.9	.....	.....	.....	.....	.....	.....
Fairbanks	.....	6.7	13.4	6.5	.....	.....	.....	.....	.....	.....
Fortmann Hatchery	.....	0.5	9.5	3.5	.....	.....	.....	.....	.....	.....
Fort Yukon	.....	2.3	8.5	12.6	.....	.....	.....	.....	.....	.....
Goodnews Bay	.....	7.8	3.4	(*)	.....	.....	.....	.....	.....	.....
Gulkana	0.5	18.4	4.0	(*)	.....	.....	.....	.....	.....	.....
Holy Cross	T.	1.8	8.0	2.0	.....	.....	.....	.....	.....	.....
Hot Springs	.....	4.4	25.1	11.6	.....	.....	.....	.....	.....	.....
Igloo	(*)	(*)	11.0	5.0	.....	.....	.....	.....	.....	.....
Iliamna	(*)	(*)	1.0	1.2	.....	.....	.....	.....	.....	.....
Indian River	.....	11.8	12.8	53.4	.....	.....	.....	.....	.....	.....
Juneau	.....	2.1	18.0	26.7	46.3	6.6	28.3	6.3	0.6	.....
Klukwan	.....	9.5	10.0	37.0	.....	.....	.....	.....	.....	.....
Kodiak	.....	1.5	2.2	3.8	.....	.....	.....	.....	.....	.....
Latouche	.....	T.	7.8	14.2	.....	.....	.....	.....	.....	.....
McCollum	.....	24.5	29.0	24.5	.....	.....	.....	.....	.....	.....
Matanuska	.....	4.5	4.5	11.8	.....	.....	.....	.....	.....	.....
Nenana	T.	5.6	8.7	7.8	.....	.....	.....	.....	.....	.....
Noatak	(*)	(*)	22.5	11.0	.....	.....	.....	.....	.....	.....
Nome	4.0	9.0	16.5	10.0	.....	.....	.....	.....	.....	.....
Nulato	4.5	13.2	12.9	14.4	.....	.....	.....	.....	.....	.....
Paxson	(*)	21.8	14.0	7.0	.....	.....	.....	.....	.....	.....
Perseverance	.....	11.5	18.3	(*)	.....	.....	.....	.....	.....	.....
Rampart	.....	3.9	13.9	7.8	.....	.....	.....	.....	.....	.....
Richardson	(*)	3.3	9.5	T.	.....	.....	.....	.....	.....	.....
Salmon River	(*)	8.4	11.0	12.0	.....	.....	.....	.....	.....	.....
Seldovia	.....	.....	9.0	14.0	.....	.....	.....	.....	.....	.....
Seward	.....	T.	T.	2.0	.....	.....	.....	.....	.....	.....
Shiskmaref	(*)	1.6	1.9	2.6	.....	.....	.....	.....	.....	.....
Sitka	.....	T.	0.5	1.8	.....	.....	.....	.....	.....	.....
Skagway	.....	18.7	18.2	15.4	.....	.....	.....	.....	.....	.....
Strelna	(*)	11.0	12.0	(*)	.....	.....	.....	.....	.....	.....
Talkeetna	.....	T.	13.5	50.5	.....	.....	.....	.....	.....	.....
Tanana	.....	3.0	6.6	7.6	.....	.....	.....	.....	.....	.....
Valdez	.....	3.8	18.0	88.5	.....	.....	.....	.....	.....	.....
Wiseman	(*)	(*)	5.0	14.2	.....	.....	.....	.....	.....	.....
Wrangel	.....	.....	12.5	1.0	.....	.....	.....	.....	.....	.....
Yakutat	.....	1.5	13.5	18.8	.....	.....	.....	.....	.....	.....

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Arizona.										
Benson							0.2			0.2
Bisbee			5.5		10.8		3.0	0.5		19.8
Blue			3.0	0.5	25.5		T.	T.		29.0
Bly Ranger Station			21.6	3.0	8.0	T.	21.0	6.0		59.6
Canille			8.0		12.6		5.5	T.		26.1
Cedar Glade			8.5		7.0		(*)	T.		
Childs			3.0				T.			3.0
Chin Lee		1.5	5.0	1.5	10.0	2.0	T.	T.		20.0
Clifton					2.2					2.2
Cochise			2.2		9.0		1.5			12.7
Cosnino			24.0	6.0	16.0	3.0	9.8	4.0		62.8
Crown King			13.0		13.0		4.0			30.0
Elgin (near)			5.0		5.0		1.5	T.		11.5
Fairbank			T.		3.0					3.0
Flagstaff		0.2	30.3	7.5	12.5	8.0	13.5	1.0		73.0
Gisela			2.5		3.6		0.1	T.		6.2
Globe			T.		4.0		2.0			6.0
Grand Canyon		T.	15.0	12.0	9.7	15.5	10.2	3.2		65.6
Greer		1.0	26.5	4.0	39.0	9.5	22.5	(*)	3.0	
Henry's Camp			9.3	7.2	11.8	0.5	8.8	4.8		42.4
Hereford			T.		3.0					3.0
Holbrook		T.	6.0	10.0	(*)	3.0	4.0			
Jerome			11.0	T.	5.5		T.			16.5
Kingman			7.5	(*)	1.5		T.			
Lakeside		(*)	16.0	2.0	(*)	(*)	10.0	(*)		
Leslie Canyon			4.0				1.0			5.0
Leupp			5.0	T.	T.					5.0
Lewis Springs			2.0		4.5			T.		6.5
Light			6.8				T.	1.0		7.8
Miami			0.5		3.0		3.0			6.5
Moccasin			12.0	7.5	4.0		(*)			
Mount Trumbull		(*)	16.0	2.0	2.5	(*)	9.0	1.0		
Naco			3.0		4.5		T.	T.		7.5
Natural Bridge			9.5	2.0	3.0		2.0			16.5
Nogales			2.0		4.5		T.			6.5
Oracle			10.0			(*)	6.0	(*)		
Osborn			8.0		10.0		T.	T.		18.0
Paradise			4.0		17.5		3.0			24.5
Payson			11.0	3.0			6.0			20.0
Pinal Ranch			3.0		6.0		8.0			17.0
Pinedale			15.0	4.0	9.0	5.0	8.0	4.0		45.0
Pinto		T.	2.5	1.5	4.5	1.0	7.0	5.0		21.5
Portal			5.0		13.0		2.0	1.0		21.0
Prescott			13.0	3.0	16.6	T.	2.0			34.6
Prescott Dry Farm			9.0		0.3			T.		9.3
Roosevelt			T.							T.
Rosemont			7.0		T.		2.5			9.5
St. Johns			4.5	2.0	5.0		12.0	14.6		38.1
St. Michaels		1.2	6.0	2.0	7.5	2.0	1.0	5.5		25.2
Seligman			14.0		1.2	T.	8.0			23.2
Show Low			13.0	2.0	13.5	2.0	1.0	3.5		35.0
Snowflake			9.5		1.5	2.0	6.0	7.0		26.0
Springerville			4.0	2.2	6.0	T.	3.5	(*)		
Tombstone			4.0		6.0					10.0
Tonto Ranger Station			11.8		2.2	1.0	2.0			17.0
Tuba City			3.0	1.0						4.0
Tucson			T.							T.
Walnut Creek Ranger Station			12.7		18.0		1.0	1.8		33.5
Williams			24.5	9.5	15.8	8.8		5.1		63.7
Winslow			7.6	1.0	10.0					18.6
Young			4.0	(*)	15.0			T.		
Arkansas.										
Batesville						T.	T.	T.		T.
Bee Branch					1.0					1.0
Bentonville			T.	0.4	8.7	2.9	1.8	1.0		14.8
Bergman					2.0	8.0		(*)		
Black Rock					T.	1.2	T.	(*)		
Booneville					1.0	0.5				1.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Arkansas—Continued.										
Calico Rock					T.	3.0	T.	T.		3.0
Camden				T.	T.					T.
Clarendon					0.3			(*)		
Corning						2.0		T.		2.0
Danville					0.5	T.		(*)		
Dardanelle					0.5	0.2				0.7
Dodd City					2.5	8.0	1.5	T.		12.0
Dumas						T.				T.
Dutton			T.	T.	3.0	1.3		T.		4.3
Eureka Springs					5.0	2.0	T.	T.		7.0
Fayetteville			T.	T.	4.0	2.5	2.5	T.		9.0
Fort Smith			T.	T.	1.6	0.5	0.3	T.		2.4
Grannis					1.5	T.				1.5
Gravette			T.	T.	7.0	1.0	0.5	0.5		9.0
Helena						T.				T.
Higden					T.	T.	T.			T.
Hope					2.0					2.0
Hot Springs					T.					T.
Jonesboro					T.	2.0	T.			2.0
Little Rock					0.4	T.		T.		0.4
Lutherville						T.		T.		T.
Malvern					T.	T.	T.			T.
Mammoth Spring					T.	6.0	3.0	(*)		
Marianna					T.	T.				T.
Marked Tree						T.				T.
Marshall					T.	5.5	2.0			7.5
Mena					1.0	T.	T.	T.		1.0
Mountain Home						6.0	1.0	T.		7.0
Mount Ida					0.8					0.8
Nail					5.0	7.0	T.	T.		12.0
Newport						T.				T.
Ozark					2.0	T.		T.		2.0
Pine Bluff					0.2					0.2
Pocahontas					0.1	3.0				3.1
Prescott					0.4					0.4
Princeton					T.					T.
Rogers			T.	0.3	4.6	2.2	4.0	0.5		11.6
Stuttgart					0.4	T.				0.4
Subiaco						0.5				0.5
Umphers					0.5	0.5				1.0
Waldron				0.2	0.3	1.6	0.2	T.		2.3
Warren				T.	T.					T.
Whitecliffs					T.					T.
Wynne					T.	T.				T.
California.										
Bishop Creek	T.	0.1	0.8	3.0	0.2	36.0	45.0	0.5	0.9	86.5
Big Bar			2.0	9.2	T.	T.	4.0	T.		15.2
Blue Canon		3.0	6.0	62.0	4.0	25.0	84.0	18.0		202.0
Branscomb				3.0		11.0	5.5			19.5
Calaveras Ranger Station				9.0			35.0	2.0		46.0
Camp Seven	(*)	(*)	(*)	45.0	4.0	37.0	80.0	(*)	(*)	
Camptonville (near)			2.5	26.0	1.5	9.0	40.0	9.0		88.0
Canon Dam		1.0	13.0	26.0	1.0	24.0	48.0	8.0		121.0
Cascada				26.0		38.0	63.5	9.0		136.5
Cedarville		4.0	2.0	23.0	2.0	11.0	9.0			51.0
Chester		3.2	6.0	33.0	1.0	16.0	52.5	20.0	1.0	132.7
Colfax				6.0	2.0	1.0	20.0	3.0		32.0
Cuyamaca			5.5		1.5	2.0	24.5			33.5
Deer Creek			1.5	20.0	2.5	10.5	56.0	11.0		101.5
De Sabla			4.0	20.0		7.0	10.0	4.0		45.0
Downieville		T.	1.0	27.0	0.5	2.5	34.0	4.0		69.0
Dudleys			T.	1.0	T.	9.0	20.0	2.5		32.5
Emigrant Gap		2.0	9.0	62.0	8.0	26.0	115.0	48.0		270.0
Eureka										0.0
Fairmont		T.	4.0			T.	T.			4.0
Fordyce Dam	2.0	15.0	19.0	107.0	11.0	44.0	102.5	51.0		351.5
Fort Bidwell		2.5	6.5	22.0		5.0	17.5			53.5
Fresno										0.0

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May.	
California—Continued.										
Georgetown					1.0					1.0
Glacier Point	(*)	(*)	(*)	31.0	9.0	35.5	57.0	21.0	(*)	
Glennville (near)			7.0	T.		T.	4.0			11.0
Grass Valley				1.0			14.0			15.0
Happy Camp			0.5	2.1	1.5	7.5		3.0		14.6
Hayfork			1.0	18.0	0.5	T.	2.0			21.5
Hetch Hetchy		0.5	2.0	22.0	1.0	5.0	52.0	5.0		87.5
Hot Springs			0.6			T.	1.0			1.6
Hullville (near)				7.2	T.	0.1	13.5	3.0		23.8
Huntington Lake	10.0	9.0	11.5	58.0	8.2	72.5	101.0	36.0	0.1	306.3
Independence			0.2			2.0				2.2
Inskip		0.5	7.0	49.0	3.8	38.5	85.5	20.0		204.3
Julian			5.0	T.	1.0	4.0	14.0	T.		24.0
Kennett			2.0	7.0			2.0			11.0
Lake Eleanor			2.0	39.5	1.0	22.0	71.0	12.0		147.5
Lake Spaulding		3.0	8.2	47.5	7.0	20.0	82.0	34.0		201.7
La Porte		2.2	8.5	59.8	2.5	32.0	70.0	22.0		197.0
Lick Observatory		1.0		5.0		T.	17.0	T.		23.0
Lone Pine			2.0			6.0				8.0
Los Angeles			T.							T.
McCloud		T.	3.0	33.0	T.	4.5	6.5	12.5		59.5
Madeline		2.5	6.0	16.0	3.0	11.0	(*)	5.0		
Markleeville		1.5	7.8	38.0	1.0	2.5	17.0	6.0		73.8
Mill Creek (No. 1)				2.0	0.5	11.0	10.0	2.0		25.5
Mokelumne Hill						1.5				1.5
Montague		T.	1.5	1.2	0.2	T.	0.2	T.		3.1
Mount Tamalpais				T.		T.	0.1			0.1
Mount Wilson		T.	7.0	6.0		3.0	27.0	T.		43.0
Nellie				1.8	T.	4.5	22.5	0.5		29.3
Nevada City			T.	4.5	0.5	1.0	11.0	0.5		17.5
North Bloomfield			T.	17.0		T.	13.5			30.5
North Fork							5.5			5.5
Placerville			T.	3.0		2.0	4.0	T.		9.0
Portola		1.0	12.0	31.0	4.0	9.0	37.0	12.0		106.0
Quincy		T.	5.0	37.5	T.	7.0	26.0	2.0		77.5
Red Bluff										0.0
Ruth			4.0	5.0	T.	3.0	24.0	12.0		48.0
Sacramento										0.0
San Diego										0.0
San Francisco										0.0
San Jose										0.0
San Luis Obispo										0.0
Seven Oaks			3.0	2.0	3.0	8.0	35.0	2.0		53.0
Shields Ranch			7.0	16.0		9.0	8.0	3.0		43.0
Sierraville			5.5	40.0	4.0	6.5	32.0	19.0		107.0
Sisson			2.0	35.0	1.0	10.0	18.0	5.0		71.0
Springville (near)		2.0	3.0	4.5	T.	4.5	46.0	3.0		63.0
Squirrel Inn		T.	8.0	5.0		4.0	29.0	3.0		49.0
Standish			0.5	21.0	2.0	2.0	10.0		0.5	36.0
Stevenson Creek			2.0	15.0	T.	16.0	39.0	T.	(*)	
Summit	1.0	10.0	18.0	65.0	20.0	40.0	111.0	62.0	T.	399.0
Tahoe	T.	1.0	10.0	72.0	8.0	24.5	55.0	35.0		205.5
Tamarack	3.5	11.0	30.0	84.0	24.0	60.0	96.0	47.0		355.5
Towle		1.0		23.0		6.0	43.0			73.0
Truckee			6.0	63.0	T.	12.0	36.0	14.0		131.0
Twin Lakes	0.5	9.0	18.0	102.0	12.0	58.0	130.0	54.0	6.0	389.5
Weaverville			6.0	14.0		T.	3.5	2.5		26.0
West Branch		T.	1.5	20.5	1.5	9.0	21.0	4.0		57.5
Yosemite		T.	T.	36.0	0.5	17.5	40.0	6.0		100.0
Yreka			T.	5.0		0.2	2.5			7.7
Colorado.										
Akron Experiment Station		(*)	11.0	7.0	3.5	1.7	9.0	(*)	(*)	
Ames	(*)	15.0	45.0	26.5	7.0	24.0	63.0	41.5	8.0	
Ashcroft		24.0	(*)	15.0	8.0	26.0	32.0	50.5	(*)	
Auldhurst	T.	4.0	11.5	3.8	13.0	12.4	13.3	56.1		114.1
Boulder			(*)	5.0	12.5	14.4	6.1	40.3		
Buena Vista			12.5	(*)	3.0	2.0		15.0	10.0	

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Colorado—Continued.										
Burlington	.....	1.0	12.3	3.0	.....	2.0	2.0	16.0	.....	36.3
Byers	(*)	(*)	(*)	1.5	7.0	2.2	2.5	16.0	.....	.....
Calhan	.....	1.0	T.	4.5	8.0	10.0	7.0	27.5	T.	58.0
Canon City	.....	T.	17.0	13.5	6.5	5.5	2.5	10.5	(*)	.....
Cascade	.....	19.0	53.0	24.0	27.0	27.0	45.0	36.0	3.0	234.0
Cathedral	.....	T.	14.0	3.0	2.0	10.0	7.5	T.	.....	36.5
Cheesman	.....	T.	14.0	3.0	7.8	7.5	9.6	35.6	T.	77.5
Cheyenne Wells	.....	.....	8.0	4.0	1.2	4.0	3.0	14.0	.....	34.2
Colibran	.....	.....	36.0	18.5	4.0	4.5	1.0	3.0	.....	67.0
Columbine	T.	20.0	34.2	28.5	8.5	19.0	44.5	53.0	1.0	208.7
Columbine Ranch	.....	15.0	28.0	22.0	8.0	17.0	13.5	21.0	.....	124.5
Crested Butte	(*)	21.5	26.0	27.5	21.0	30.0	20.0	80.0	(*)	.....
Cuchara Camps	T.	8.0	15.5	10.2	6.0	16.5	23.5	42.8	6.0	128.5
Cumbres	T.	43.2	31.5	44.0	27.5	51.0	49.5	45.5	9.0	301.2
Del Norte	(*)	T.	1.4	5.7	T.	4.1	(*)	5.1	.....	.....
Delta	.....	T.	41.5	3.2	3.5	7.0	6.5	3.5	.....	65.2
Denver	.....	1.9	13.1	6.1	7.3	7.3	7.3	28.3	.....	71.3
Dillon	.....	14.8	14.5	9.5	12.5	18.2	14.0	37.8	0.8	122.1
Dolores	.....	.....	5.0	11.0	14.5	2.0	6.0	4.0	.....	42.5
Dove Creek	.....	2.5	15.5	11.0	7.0	10.0	7.0	12.0	T.	65.0
Durango	.....	0.2	19.0	19.4	22.4	22.5	5.1	18.1	T.	106.7
Eads	(*)	(*)	T.	3.0	T.	T.	T.	2.5	.....	.....
Edgewater	.....	7.0	12.0	4.7	6.5	8.0	5.7	24.1	.....	68.0
Elk Creek	T.	4.5	14.2	2.0	5.2	9.8	5.5	63.5	T.	104.7
Estes Park Fish Hatchery	2.0	29.0	36.0	8.0	11.0	25.0	5.0	45.0	.....	161.0
Fairplay	T.	(*)	25.2	6.5	(*)	28.0	13.5	42.5	15.0	.....
Flagler	.....	T.	11.0	6.0	2.0	1.0	2.5	19.0	1.0	42.5
Flebbe Ranch	.....	8.0	1.0	7.0	5.0	11.0	9.0	16.0	.....	57.0
Fort Collins	.....	1.5	16.2	5.5	6.3	8.0	2.0	35.8	.....	75.3
Fort Lewis	.....	T.	8.0	13.5	25.8	(*)	(*)	(*)	T.	.....
Fort Lupton	.....	2.5	21.5	5.0	6.5	6.0	1.0	22.5	.....	65.0
Fort Morgan	.....	.....	4.5	7.0	1.2	0.6	(*)	(*)	.....	.....
Fraser	.....	35.0	23.5	24.0	9.5	34.5	31.5	63.5	.....	221.5
Fremont Experiment Station	.....	6.7	19.5	3.9	9.0	20.0	7.2	29.9	6.3	[1] 102.6
Fruita	.....	.....	22.0	8.9	12.0	6.4	5.3	0.4	.....	55.0
Fry's Ranch	.....	12.0	24.8	7.5	7.0	22.8	4.2	69.7	.....	148.0
Garfield	0.5	11.5	25.2	15.5	11.8	20.5	20.0	49.5	16.0	170.5
Garnett	.....	0.8	7.5	5.0	2.5	0.5	T.	8.5	0.5	25.3
Georgetown	.....	12.5	22.0	T.	(*)	12.8	4.0	36.0	(*)	.....
Glenwood Springs	.....	4.0	28.0	16.0	13.0	11.0	20.0	7.0	.....	99.0
Grand Junction	.....	4.5	23.6	11.5	8.1	7.7	7.4	2.2	.....	65.0
Grand Lake	(*)	20.0	29.5	8.0	12.0	25.0	14.0	48.0	.....	.....
Greeley	.....	.....	15.0	3.0	5.0	1.7	1.2	34.0	.....	59.9
Grover	.....	0.5	11.0	8.0	2.0	2.8	5.0	24.0	.....	53.3
Gunnison	.....	1.0	8.0	8.2	2.5	10.0	18.5	11.0	.....	59.2
Hamps	.....	T.	5.0	6.5	1.0	1.2	(*)	(*)	(*)	.....
Hartsel	T.	T.	16.2	3.8	4.8	3.5	2.2	15.3	T.	45.8
Hawthorne	.....	2.0	21.0	4.0	16.0	19.0	9.5	41.5	.....	113.0
Haxtun	.....	(*)	9.0	12.0	.....	(*)	5.0	32.0	.....	.....
Hermit	.....	14.5	55.5	6.0	10.5	19.5	18.5	22.0	2.0	148.5
Holyoke	.....	T.	20.0	12.0	.....	3.0	.....	35.0	(*)	.....
Huerfano	.....	T.	17.5	9.6	5.7	7.7	8.2	32.5	.....	81.2
Idaho Springs	T.	4.2	17.5	1.0	6.6	10.5	2.8	58.0	T.	100.6
Ignacio	.....	T.	2.0	8.0	14.0	.....	1.0	T.	T.	25.0
Ironton	.....	26.0	51.2	19.5	7.0	33.5	66.0	45.0	12.0	260.2
Julesburg	.....	2.0	12.0	5.5	2.4	4.5	1.5	15.6	T.	43.5
Kassler	.....	.....	15.5	4.0	12.0	14.5	7.0	38.5	.....	91.5
La Junta	.....	.....	10.6	5.5	2.6	4.5	0.7	4.2	.....	28.1
Lake Moraine	1.0	5.0	23.0	9.0	15.5	17.0	26.0	48.0	2.0	146.5
La Porte	.....	2.0	13.2	5.4	6.0	8.9	1.1	56.2	.....	92.8
Las Animas	.....	T.	6.0	5.0	4.0	3.0	0.5	12.0	.....	30.5
La Veta Pass	4.0	16.0	31.0	10.0	5.0	1.9	19.0	79.5	30.0	196.4
Lay	.....	4.0	19.5	13.0	13.0	10.5	23.0	25.0	.....	108.0
Leadville	.....	11.3	28.0	11.2	10.6	21.1	22.6	46.5	(*)	.....
Le Roy (near)	.....	3.1	13.4	10.6	2.5	3.6	4.8	27.5	1.0	66.5
Limon	.....	T.	8.0	6.0	3.0	0.5	T.	21.0	.....	38.5
Longmont	.....	T.	16.0	1.2	4.5	7.5	3.2	51.0	.....	83.4
Longs Peak	5.5	30.0	36.0	7.0	13.0	34.5	10.5	73.0	T.	209.5
Lost Creek	.....	49.8	33.0	16.5	17.5	22.0	28.0	58.0	.....	224.8

[1] Includes June, 1920: Fremont Experiment Station, 0.1.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Colorado—Continued.										
Madrid	.....	1.0	13.0	4.5	3.0	7.5	6.5	19.5	.....	55.0
Manassa	.....	1.0	2.0	1.0	3.5	.....	.....	.....	.....	7.5
Meeker	.....	9.0	21.0	10.0	T.	7.0	18.1	16.0	.....	81.1
Montrose	.....	5.0	24.5	4.7	1.0	3.3	1.2	20.5	.....	60.2
Monument	.....	.....	(*)	3.5	10.0	11.0	8.0	56.5	1.5	.....
North Lake	T.	5.7	16.0	11.9	1.5	15.8	3.0	20.0	T.	73.9
Palisade Lake	.....	23.5	63.0	28.5	26.0	38.5	36.5	42.0	7.5	265.5
Paonia	.....	.....	35.0	7.3	5.5	.....	7.2	8.0	.....	63.0
Peetz	.....	.....	11.0	6.0	.....	2.0	1.0	24.0	(*)	.....
Pitkin	.....	25.2	31.9	20.8	7.1	30.6	32.3	34.2	3.2	185.3
Platoro	T.	38.5	51.2	43.3	19.5	54.0	50.8	54.2	8.5	320.0
Pueblo	.....	T.	5.5	6.1	1.0	3.0	0.8	4.3	.....	20.7
Pyramid	.....	42.0	51.2	22.5	15.7	27.1	58.5	78.2	5.7	300.9
Redvale	.....	1.5	34.3	10.2	10.0	4.7	6.0	14.6	.....	81.3
Rico	.....	13.0	33.0	21.0	19.5	27.5	44.5	34.0	4.5	197.0
Rifle	.....	.....	26.0	13.0	8.5	4.0	.....	(*)	.....	.....
Rocky Ford (near)	.....	.....	11.0	4.0	3.0	2.5	T.	18.4	.....	38.9
Saguache	.....	1.0	15.5	T.	1.0	2.0	0.2	14.0	.....	33.7
St. Elmo	T.	10.5	31.0	12.0	7.5	16.5	19.5	38.5	2.0	137.5
Salida	.....	.....	13.0	.....	(*)	1.0	.....	11.0	.....	.....
San Luis	.....	1.0	9.5	(*)	(*)	T.	3.0	2.0	.....	.....
Sapinero (near)	.....	12.6	21.4	18.2	12.0	22.0	60.0	65.0	7.5	218.7
Savage Basin	1.8	33.0	50.0	26.0	18.5	41.5	52.0	66.0	19.0	307.8
Sedgwick	.....	2.3	16.0	6.0	1.8	1.8	T.	20.8	.....	48.7
Shoshone	.....	5.0	35.0	30.0	11.0	23.0	26.5	18.0	.....	148.5
Silver Lake	T.	26.0	37.2	15.5	21.5	31.0	19.0	97.0	9.0	256.2
Silverton (near)	.....	29.0	47.0	28.0	14.0	31.0	42.0	26.0	.....	217.0
Spicer (near)	.....	21.0	37.0	8.0	5.0	17.5	14.0	39.0	.....	141.5
Steamboat Springs	.....	19.0	28.6	27.7	11.6	27.9	41.3	52.4	.....	208.5
Sterling	.....	1.0	16.1	15.0	2.5	3.8	7.0	27.0	.....	72.4
Tacoma	.....	1.5	25.5	7.0	18.0	19.0	11.5	13.0	.....	95.5
Telluride	.....	3.5	46.5	7.5	11.0	12.0	21.0	13.5	T.	115.0
Terminal Dam	.....	1.3	37.0	19.0	27.0	36.0	37.0	32.0	T.	189.3
Trinidad	.....	0.2	12.4	4.0	5.0	7.8	7.4	23.2	.....	60.0
Trout Lake	.....	20.0	32.0	17.5	14.0	30.0	61.0	39.0	16.0	229.5
Two Buttes	.....	.....	3.0	T.	1.0	T.	1.0	4.0	.....	9.0
Victor (near)	0.5	6.8	18.5	4.5	15.0	13.5	9.8	23.8	5.0	[2] 97.6
Wagon Wheel Gap (River Valley)	.....	2.2	36.2	6.9	6.0	23.4	11.0	19.4	T.	105.1
Wagon Wheel Gap (Experiment Station)	.....	13.5	46.8	7.4	5.0	14.3	20.2	22.0	4.3	133.5
Westcliffe	.....	5.0	41.5	9.5	2.5	4.0	2.0	19.0	.....	83.5
Willard	.....	3.0	18.0	11.3	9.5	4.0	2.5	25.0	.....	73.3
Wray	(*)	(*)	(*)	6.0	1.0	4.0	1.0	31.0	.....	.....
Yuma	.....	T.	15.0	7.2	4.5	4.8	3.5	24.0	4.0	63.0
Connecticut.										
Bridgeport	.....	.....	T.	5.3	11.4	26.7	14.2	T.	.....	57.6
Canton	.....	.....	.....	6.5	22.0	26.0	12.0	.....	.....	66.5
Colchester	.....	.....	T.	7.0	15.0	26.2	5.2	.....	.....	53.4
Cream Hill	.....	.....	T.	13.5	23.1	45.5	22.0	6.0	T.	110.1
Hartford	.....	.....	T.	2.9	15.8	24.6	10.0	0.1	.....	53.4
New Haven	.....	.....	T.	3.7	8.7	15.4	8.4	T.	.....	36.2
New London	.....	.....	.....	8.4	11.2	22.5	8.0	T.	.....	50.1
Norwalk	.....	.....	.....	8.0	9.5	30.0	5.0	.....	.....	52.5
Southington	.....	.....	.....	4.2	26.0	29.5	7.2	T.	.....	66.9
Waterbury	.....	.....	.....	4.0	17.0	24.5	6.5	.....	.....	51.0
Delaware.										
Delaware City	.....	.....	.....	5.2	2.0	9.1	4.0	T.	.....	20.3
Dover	.....	.....	.....	6.4	1.0	9.5	1.3	T.	.....	18.2
Milford	.....	.....	.....	6.5	1.5	6.0	1.0	T.	.....	15.0
Millsboro	.....	.....	.....	6.0	4.0	4.0	1.0	T.	.....	15.0
Seaford	.....	.....	.....	5.5	1.5	4.0	1.0	T.	.....	12.0
Wilmington	.....	.....	.....	6.2	2.5	11.2	(*)	T.	.....	.....
District of Columbia.										
Washington	.....	.....	T.	4.8	2.7	7.7	1.2	T.	.....	16.4

[2] Includes June, 1920: Victor (near), 0.2.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Florida.										
Jacksonville	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Pensacola	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Georgia.										
Adairsville	.....	.....	.....	.....	.....	T.	.....	T.	.....	T.
Atlanta	.....	.....	.....	.....	T.	0.1	.....	T.	.....	0.1
Augusta	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Blue Ridge	.....	.....	.....	.....	(*)	(*)	0.5	T.	.....	0.5
Butler	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.
Columbus	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Cornelia	.....	.....	.....	.....	T.	T.	.....	T.	.....	T.
Covington	.....	.....	.....	.....	T.	.....	.....	T.	.....	T.
Dahlonega	.....	.....	.....	.....	T.	T.	T.	T.	.....	T.
Fair View	.....	.....	.....	.....	0.1	.....	.....	T.	.....	0.1
Gainesville	.....	.....	.....	.....	.....	0.2	.....	.....	.....	0.2
Leesburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Louisville	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Marshallville	.....	.....	.....	.....	T.	.....	.....	T.	.....	T.
Newnan	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Norcross	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.
Ramhurst	.....	.....	.....	.....	T.	T.	.....	T.	.....	T.
Rome	.....	.....	.....	.....	T.	T.	.....	T.	.....	T.
Savannah	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Talbotton	.....	.....	.....	.....	T.	.....	.....	T.	.....	T.
Thomasville	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Toccoa	.....	.....	.....	.....	0.3	.....	.....	.....	.....	0.3
Waynesboro	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Idaho.										
Aberdeen	.....	2.5	2.5	4.5	.....	.....	T.	.....	.....	9.5
Alpha	.....	7.9	20.0	16.0	3.8	9.0	29.5	19.8	.....	106.0
American Falls	.....	T.	1.0	3.2	0.5	2.0	T.	T.	.....	6.7
Ashton	.....	11.0	8.3	14.0	2.0	4.0	10.0	1.0	.....	50.3
Avery	.....	15.5	11.6	11.5	13.5	.....	16.0	4.0	.....	72.1
Blackfoot	.....	8.0	4.0	7.5	T.	4.5	2.5	2.5	.....	29.0
Blackfoot Dam	.....	12.0	2.0	20.5	0.5	3.0	(*)	29.0	.....	.....
Bliss	(*)	2.0	1.0	(*)	T.	2.5	1.8	1.6	.....	.....
Bogus Creek	.....	17.0	10.0	10.2	2.3	5.5	9.5	13.5	T.	68.0
Boise	.....	3.5	3.9	12.1	2.4	5.2	2.9	1.7	.....	31.7
Boise King	.....	7.0	27.3	16.6	3.7	9.9	12.8	10.6	T.	87.9
Boulder Mine	.....	9.0	38.4	28.7	5.1	3.6	26.0	16.0	.....	126.8
Brownlee	.....	2.0	19.3	24.2	1.6	5.3	6.7	17.8	T.	76.9
Buhl	.....	1.0	1.0	3.0	T.	7.0	1.0	(*)	.....	.....
Burley	.....	T.	2.0	7.5	0.9	3.5	1.0	1.0	.....	15.9
Caldwell	.....	3.5	4.5	14.5	1.5	2.0	T.	1.0	.....	27.0
Cambridge	.....	7.0	8.0	27.0	5.5	4.0	2.0	7.5	T.	61.0
Challis	.....	4.0	5.0	11.5	1.5	7.5	2.9	T.	.....	32.4
Coeur d'Alene	.....	.....	2.0	4.0	(*)	.....	7.2	8.0	.....	.....
Cottonwood Creek	.....	9.0	25.3	18.1	2.5	3.1	7.5	19.0	.....	84.5
Council	.....	7.3	(*)	(*)	5.0	5.0	4.5	5.0	T.	.....
Cuprum	.....	8.0	15.5	28.5	5.2	11.0	21.0	24.0	1.4	114.6
Elk City	.....	19.5	33.7	26.0	6.0	(*)	46.0	24.0	3.0	.....
Emmett	.....	6.0	4.0	13.0	2.0	3.0	0.2	0.5	.....	28.7
Felt	.....	11.0	8.0	9.0	1.8	4.0	12.0	9.0	.....	54.8
Fort Hall	.....	3.0	2.5	9.8	1.5	3.0	2.5	0.5	.....	22.8
Garden Valley	.....	7.0	22.8	23.6	9.0	7.0	9.0	9.0	.....	87.4
Geneva	.....	11.0	14.0	6.0	3.0	8.0	14.0	7.0	.....	63.0
Glenns Ferry	.....	.....	2.0	8.0	T.	3.5	T.	1.5	.....	15.0
Gooding	.....	2.0	1.8	4.1	T.	4.1	1.5	1.8	.....	15.3
Grace	.....	4.0	4.3	7.4	T.	3.9	3.3	3.8	.....	26.7
Grays Lake	(*)	(*)	(*)	23.2	3.0	7.0	32.0	28.0	5.0	.....
Grimes Pass	.....	13.1	32.3	27.4	4.6	8.8	23.8	13.2	T.	123.2
Hailey	.....	5.5	6.5	26.5	T.	2.2	5.0	7.5	T.	53.2
Hazelton	.....	1.5	4.0	15.0	1.5	6.2	T.	2.1	.....	30.3
Hollister	.....	1.8	6.5	5.0	2.0	5.2	1.2	1.5	.....	23.2
Idaho City	(*)	9.0	25.5	30.0	5.0	(*)	19.0	11.0	.....	.....
Idaho Falls	.....	11.5	6.5	13.7	T.	9.0	2.5	9.0	T.	52.2
Indian Cove	(*)	(*)	(*)	29.0	T.	1.5	4.0	(*)	(*)	.....
Irwin	.....	11.5	9.5	12.3	2.8	2.8	5.8	3.8	.....	48.5

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Idaho—Continued.										
Kamiah	.....	4.3	14.2	21.2	4.0	.....	1.0	7.8	.....	52.5
Kellogg	.....	5.4	10.5	5.3	8.0	.....	4.7	3.5	.....	37.4
Kooskia	.....	4.5	13.9	21.2	3.5	T.	0.5	3.5	.....	47.1
Lapwai	.....	1.5	9.0	18.5	3.8	T.	2.0	.....	.....	34.8
Lemhi	.....	3.5	3.4	20.3	2.0	5.7	10.5	8.0	.....	53.4
Lewiston	.....	1.0	10.6	18.9	1.9	0.1	T.	2.8	.....	35.3
Lifton	(*)	7.9	4.0	4.5	3.5	12.0	2.2	T.	T.	.....
Little Camas	.....	9.9	16.0	17.6	0.4	1.3	11.9	13.6	T.	70.7
McCall	.....	9.0	28.0	39.5	7.0	7.0	41.0	20.5	3.0	155.0
Mackay	.....	3.5	3.0	12.2	.....	6.0	4.0	T.	.....	28.7
Malad	.....	4.8	11.9	8.2	0.2	3.5	9.2	2.5	.....	40.3
Meridian	.....	4.5	4.3	11.9	2.5	3.3	1.4	0.8	.....	28.7
Montpelier	.....	20.0	11.0	10.0	1.5	9.0	6.4	(*)	.....	.....
Moscow	.....	8.5	13.0	9.0	6.0	1.0	8.5	7.5	.....	53.5
Mountain Home	.....	2.0	3.5	9.0	1.0	3.0	1.0	1.5	.....	21.0
Murphy	.....	3.0	1.0	6.5	3.5	2.0	.....	.....	.....	16.0
Murtaugh	.....	1.2	3.0	6.5	T.	2.5	T.	1.5	.....	14.7
Musselshell	.....	19.5	25.0	22.5	8.9	1.0	35.3	16.3	T.	128.5
New Meadows	.....	12.8	15.2	35.3	7.4	5.8	21.0	12.5	2.7	112.7
Nezperce	.....	6.0	10.0	16.0	4.0	1.0	4.0	9.0	.....	50.0
Oakley	.....	T.	2.3	4.0	0.6	3.0	1.0	4.0	.....	14.9
Obsidian	.....	10.3	13.2	25.0	3.0	6.8	20.2	5.5	.....	84.0
Orofino	.....	4.5	5.0	16.5	4.5	0.5	3.0	6.0	.....	40.0
Payette	.....	7.1	4.5	14.3	0.6	2.0	T.	0.2	.....	28.7
Pine	.....	9.0	4.5	20.2	2.0	1.8	12.5	12.5	.....	62.5
Pleasant Valley	.....	3.0	2.0	12.4	2.0	4.0	2.0	1.5	.....	26.9
Pocatello	.....	3.8	3.7	20.4	1.5	5.3	6.2	12.2	.....	53.1
Porthill	.....	4.5	11.0	9.0	22.0	2.0	3.0	3.0	.....	54.5
Potlatch	.....	6.0	16.5	16.0	8.0	0.5	11.5	7.0	.....	65.5
Prichard	.....	(*)	17.9	5.5	.....	.....	4.0	4.0	.....	.....
Priest River Experiment Station	.....	9.5	15.6	3.1	9.2	4.4	6.2	5.1	T.	53.1
Pyle Creek	.....	7.0	22.3	22.2	6.3	4.0	5.8	2.0	T.	69.6
Rattlesnake	.....	5.9	17.8	15.6	1.8	3.0	7.0	8.5	.....	59.6
Rice	.....	15.0	6.0	14.0	0.5	2.0	11.0	3.0	.....	51.5
Richfield	.....	3.0	2.0	14.0	T.	2.7	0.5	.....	.....	22.2
Rupert	.....	.....	0.4	3.6	T.	0.4	.....	.....	.....	4.4
St. Maries	.....	T.	6.0	12.9	11.0	T.	9.0	1.0	.....	39.9
St. Michaels Priory	.....	10.5	16.0	27.5	4.0	4.0	25.5	11.0	6.5	105.0
Salmon	.....	(*)	4.5	9.0	T.	2.5	5.8	1.0	.....	.....
Sandpoint	.....	10.0	13.5	1.5	8.0	1.0	3.5	4.0	.....	41.5
Sheep Hill	.....	8.6	31.1	22.3	2.5	6.5	23.9	17.3	.....	112.2
Shoshone	.....	2.2	1.0	4.0	T.	3.0	T.	1.0	.....	11.2
Soldier Creek	.....	5.4	14.7	34.5	0.5	4.2	5.5	11.0	.....	75.8
Spencer	.....	19.5	T.	23.0	T.	11.0	9.5	11.0	T.	74.0
Springfield	.....	4.2	6.3	15.5	T.	4.0	T.	2.8	.....	32.8
Stanley	.....	13.8	17.0	9.0	0.5	13.0	17.8	4.0	1.0	76.1
Sugar	.....	16.5	4.0	17.5	T.	3.0	9.5	1.8	0.2	52.5
Sunnyside	.....	2.0	2.0	9.0	0.2	.....	.....	(*)	.....	.....
Tripod Mountain	.....	5.4	20.2	21.5	2.0	4.2	24.0	10.2	.....	87.5
Twin Falls	.....	1.5	3.0	10.2	2.8	5.0	1.0	1.0	T.	24.5
Wallace	.....	7.3	13.0	7.2	9.4	0.8	25.8	8.5	T.	72.0
Weiser	.....	5.2	7.0	10.0	1.5	3.5	.....	.....	.....	27.2
Wendell	.....	1.0	0.6	8.9	0.5	1.6	1.5	0.2	.....	14.3
Wrensted Ranch	.....	8.0	8.0	3.1	.....	.....	.....	19.5	.....	38.6
Illinois.										
Aledo	.....	.....	0.2	2.7	6.5	0.7	1.2	6.3	.....	17.6
Alexander	.....	.....	0.2	1.2	4.8	0.3	0.2	11.3	.....	18.0
Anna	.....	.....	.....	T.	T.	1.0	0.4	0.7	.....	2.1
Antioch	.....	.....	0.2	(*)	16.5	6.5	1.0	4.5	.....	.....
Astoria	.....	.....	0.7	0.7	9.0	T.	0.6	15.0	.....	26.0
Aurora	.....	.....	T.	15.0	(*)	2.5	1.7	4.0	.....	.....
Beardstown	.....	.....	T.	1.0	8.6	T.	T.	(*)	.....	.....
Bloomington	.....	.....	0.3	1.3	5.1	0.5	T.	10.5	.....	17.7
Cairo	.....	.....	.....	T.	T.	4.3	0.2	T.	.....	4.5
Carbondale	.....	.....	.....	T.	0.3	1.9	1.0	1.0	.....	4.2
Carlinville	.....	.....	T.	T.	5.8	0.4	0.8	3.5	.....	10.5
Casey	.....	.....	.....	T.	6.3	.....	0.2	T.	.....	6.5
Charleston	.....	.....	.....	0.6	6.3	0.3	1.2	1.5	.....	9.9

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Illinois—Continued.										
Chester	.....	.....	.....	T.	5.0	0.3	3.0	0.2	.....	8.5
Chicago	.....	.....	0.6	8.2	12.0	1.7	3.3	6.4	.....	32.2
Clinton	.....	.....	T.	0.5	5.2	T.	3.0	(*)	.....	.....
Danville	.....	.....	T.	0.5	10.1	1.3	1.0	4.0	.....	16.9
Decatur	.....	.....	T.	0.5	9.0	0.1	4.5	11.0	.....	25.1
Dixon	.....	.....	0.1	5.7	10.7	T.	0.5	1.2	.....	18.2
Du Quoin	.....	.....	.....	T.	5.5	1.6	0.3	1.0	.....	8.4
Dwight	.....	.....	1.1	4.4	20.2	1.5	2.8	12.5	.....	42.5
Edwardsville	.....	.....	.....	0.1	7.6	1.5	2.6	T.	.....	11.
Effingham	.....	.....	.....	T.	5.8	0.1	1.5	0.2	.....	7.6
Elgin	.....	.....	T.	9.5	13.0	2.0	(*)	7.0	.....	.....
Fairfield	.....	.....	.....	T.	6.5	2.0	(*)	T.	.....	.....
Fairview	.....	.....	1.0	1.0	7.2	0.4	0.3	7.7	.....	17.6
Flora	.....	.....	.....	T.	9.2	1.4	0.8	0.2	.....	11.6
Freeport	.....	.....	0.7	18.0	9.3	6.0	3.7	0.2	.....	37.9
Galva	.....	.....	1.6	2.9	5.7	1.0	0.8	7.0	.....	19.0
Golden	.....	.....	.....	.....	5.2	0.1	1.0	(*)	.....	.....
Grafton	.....	.....	T.	T.	4.5	0.5	0.2	1.0	.....	6.2
Greenville	.....	.....	.....	T.	6.7	0.5	T.	T.	.....	7.2
Griggsville	.....	.....	0.3	1.4	6.2	1.5	0.3	11.0	.....	20.7
Harrisburg	.....	.....	.....	.....	4.0	0.6	0.5	0.9	.....	.....
Havana	.....	.....	0.3	0.9	6.3	T.	0.2	11.5	.....	19.2
Henry	.....	.....	1.5	3.0	12.0	T.	(*)	(*)	.....	.....
Hillsboro	.....	.....	T.	T.	7.0	0.2	1.5	1.5	.....	10.2
Hoopeston	.....	.....	(*)	(*)	10.4	1.3	0.5	9.0	.....	.....
Joliet	.....	.....	1.1	9.0	10.9	0.6	0.8	10.0	.....	32.4
Kankakee	.....	.....	T.	7.0	11.1	1.6	T.	11.0	.....	30.7
La Harpe	.....	.....	3.0	4.1	7.5	T.	4.0	12.0	.....	30.6
La Salle	.....	.....	0.6	6.5	12.6	2.2	0.3	8.0	.....	30.2
Lincoln	.....	.....	0.1	T.	6.5	0.2	1.0	7.8	.....	15.6
Macomb	.....	.....	1.5	2.0	6.5	T.	0.5	14.5	.....	25.0
McLeansboro	.....	.....	T.	0.1	2.8	2.0	0.4	0.3	.....	5.6
Marengo	.....	.....	T.	7.5	8.5	2.1	T.	1.0	.....	19.1
Mascoutah	.....	.....	.....	0.1	9.2	0.6	4.5	T.	.....	14.4
Minonk	.....	.....	0.1	T.	11.0	T.	(*)	12.0	.....	.....
Monmouth	.....	.....	2.0	2.2	5.5	0.7	1.8	7.2	.....	19.4
Morris	.....	.....	1.3	8.0	15.1	1.9	0.9	6.0	.....	33.2
Morrison	.....	.....	T.	4.3	8.5	3.3	0.2	1.0	.....	17.3
Morrisonville	.....	.....	.....	0.5	5.4	0.3	1.5	4.7	.....	12.4
Mount Carmel	.....	.....	.....	0.7	2.0	2.7	0.4	T.	.....	5.8
Mount Vernon	.....	.....	.....	T.	6.7	1.2	1.0	0.3	.....	9.2
Nashville	.....	.....	.....	0.4	9.1	1.1	6.3	T.	.....	16.9
New Burnside	.....	.....	.....	0.4	0.5	2.5	1.5	1.0	.....	5.9
Olney	.....	.....	.....	T.	7.0	1.0	T.	T.	.....	8.0
Oregon	.....	.....	0.5	6.9	11.4	2.4	1.0	2.0	.....	24.2
Ottawa	.....	.....	T.	6.2	16.0	1.3	T.	8.0	.....	31.5
Palestine	.....	.....	.....	T.	7.0	T.	T.	T.	.....	7.0
Pana	.....	.....	.....	1.2	7.1	0.2	2.8	2.8	.....	14.1
Paris	.....	.....	.....	0.1	(*)	T.	T.	3.0	.....	.....
Paw Paw	.....	.....	0.9	8.4	13.2	1.8	0.6	4.1	.....	29.0
Pearl	.....	.....	.....	0.1	5.0	1.0	0.3	4.0	.....	10.4
Peoria	.....	.....	0.9	1.2	8.2	0.2	0.3	8.2	.....	19.3
Pontiac	.....	.....	1.5	2.0	20.0	3.0	1.0	11.0	.....	38.5
Quincy	.....	.....	0.8	1.1	6.8	1.7	0.4	13.0	.....	23.8
Roberts	.....	.....	0.4	1.1	8.2	0.8	2.3	5.9	.....	18.7
Rockford	.....	.....	1.5	12.5	(*)	4.5	1.0	0.5	.....	.....
Rushville	.....	.....	T.	1.0	9.0	T.	T.	18.0	.....	28.0
Salem	.....	.....	.....	0.2	11.5	3.8	4.4	0.3	.....	20.2
Shawneetown	.....	.....	.....	0.8	1.7	1.9	0.5	0.3	.....	5.2
Sparta	.....	.....	.....	0.5	13.3	1.8	4.2	0.4	.....	20.2
Springfield	.....	.....	0.1	0.8	4.8	0.3	0.3	8.2	.....	14.5
Sycamore	.....	.....	T.	8.5	7.7	2.7	2.5	4.0	.....	25.4
Tiskilwa	.....	.....	0.9	4.1	11.3	1.0	0.3	7.0	.....	24.6
Tuscola	.....	.....	.....	0.1	5.4	T.	0.6	2.6	.....	8.7
Urbana	.....	.....	.....	0.2	8.1	0.5	3.0	8.0	.....	19.8
Walnut	.....	.....	0.6	6.4	9.0	1.3	2.0	4.0	.....	23.3
Warsaw	.....	.....	1.4	0.7	4.1	0.9	1.7	(*)	.....	.....
Waterloo	.....	.....	T.	0.5	18.7	0.3	1.0	0.5	.....	21.0
White Hall	.....	.....	T.	T.	4.0	0.2	0.3	6.2	.....	10.7
Windsor	.....	.....	.....	1.0	6.1	T.	2.0	4.5	.....	13.6

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Indiana.										
Albion	.....	.....	0.9	3.5	11.6	1.4	4.3	5.8	.....	27.5
Anderson	.....	.....	T.	1.0	10.2	(*)	.....	3.0	.....	.....
Bedford	.....	.....	.....	0.6	5.7	1.6	.....	0.5	.....	8.4
Berne	.....	.....	T.	3.8	13.9	1.1	1.4	4.0	.....	24.2
Bloomington	.....	.....	.....	1.2	10.5	3.1	0.5	2.2	.....	17.5
Bluffton	.....	.....	T.	3.4	16.5	2.2	1.2	1.5	.....	24.8
Butlerville	.....	.....	.....	1.3	2.0	2.1	1.5	4.7	.....	11.6
Cambridge City	.....	.....	.....	6.4	12.8	8.7	1.0	4.0	.....	32.9
Collegeville	.....	.....	T.	5.6	12.0	0.5	1.0	8.0	.....	27.1
Columbus	.....	.....	.....	T.	6.0	T.	.....	(*)	.....	.....
Connersville	.....	.....	T.	3.5	11.5	1.0	T.	4.0	.....	20.0
Crawfordsville	.....	.....	.....	2.0	9.0	2.0	T.	T.	.....	13.0
Dam No. 39, Ohio River	.....	.....	.....	0.5	(*)	0.7	.....	(*)	.....	.....
Decker	.....	.....	.....	2.0	4.5	2.0	T.	T.	.....	8.5
Delphi	.....	.....	.....	6.0	15.0	2.0	.....	(*)	.....	.....
Elliston	.....	.....	.....	0.5	6.0	1.5	0.2	0.7	.....	8.9
Evansville	.....	.....	.....	0.6	0.7	2.9	0.9	T.	.....	5.1
Farmersburg	.....	.....	.....	T.	6.0	0.5	T.	2.0	.....	8.5
Farmland	.....	.....	T.	(*)	15.5	6.7	1.5	(*)	.....	.....
Forest Reserve	.....	.....	.....	1.1	2.5	(*)	.....	(*)	.....	.....
Fort Wayne	.....	.....	0.6	2.6	12.5	1.2	0.6	5.6	.....	23.1
Frankfort	.....	.....	T.	4.5	(*)	(*)	1.0	4.0	.....	.....
Goshen	.....	.....	1.5	3.0	9.2	0.2	1.2	4.0	.....	19.1
Greencastle	.....	.....	.....	.....	6.6	0.5	.....	4.2	.....	11.3
Greenfield	.....	.....	(*)	0.5	8.9	0.5	T.	T.	.....	.....
Greensburg	.....	.....	(*)	(*)	(*)	0.5	0.5	3.0	.....	.....
Hickory Hill	.....	.....	.....	0.5	12.3	2.2	.....	4.0	.....	19.0
Hobart	.....	.....	2.3	10.7	17.1	4.3	0.9	6.0	.....	41.3
Howe	.....	.....	1.5	9.0	13.5	4.5	7.0	7.5	.....	43.0
Huntingburg	.....	.....	.....	(*)	0.8	1.3	.....	0.8	.....	.....
Huntington	.....	.....	T.	6.0	13.0	8.0	1.0	7.0	.....	35.0
Indianapolis	.....	.....	T.	3.7	9.7	2.6	0.3	2.9	.....	19.2
Jeffersonville	.....	.....	.....	0.3	2.4	1.1	0.5	T.	.....	4.3
Kokomo	.....	.....	T.	5.0	20.0	2.0	.....	T.	.....	27.0
Lafayette	.....	.....	T.	4.3	10.3	3.0	0.2	4.8	.....	22.6
Laporte	.....	.....	2.1	6.9	22.1	7.2	1.3	15.0	.....	54.6
Madison	.....	.....	.....	0.8	1.2	0.1	0.8	T.	.....	2.9
Marengo	.....	.....	.....	1.0	1.0	T.	.....	T.	.....	2.0
Marion	.....	.....	T.	6.0	13.5	1.2	0.7	1.1	.....	22.5
Mauzy	.....	.....	T.	5.8	9.7	7.7	1.6	5.2	.....	30.0
Monticello	.....	.....	T.	3.5	11.3	3.0	3.0	12.5	.....	33.3
Moores Hill	.....	.....	.....	1.7	2.5	7.2	2.0	8.6	.....	22.0
Mount Vernon	.....	.....	.....	1.0	2.0	2.0	1.0	T.	.....	6.0
Noblesville	.....	.....	(*)	4.0	19.5	9.0	(*)	(*)	.....	.....
Notre Dame	.....	.....	1.7	9.4	14.8	2.7	2.6	9.1	.....	40.3
Paoli	.....	.....	.....	1.4	2.2	3.2	T.	(*)	.....	.....
Plymouth	.....	.....	1.2	5.7	16.6	(*)	(*)	(*)	.....	.....
Princeton	.....	.....	T.	T.	(*)	(*)	T.	T.	.....	.....
Richmond	.....	.....	.....	2.6	12.9	5.8	0.4	3.4	.....	25.1
Rockville	.....	.....	T.	1.0	12.1	0.5	1.0	3.9	.....	18.5
Rome	.....	.....	.....	T.	T.	0.5	T.	T.	.....	0.5
Royal Center	.....	.....	T.	7.2	7.3	1.8	0.2	4.8	.....	21.3
Salamonia	.....	.....	.....	(*)	10.5	3.9	2.0	0.5	.....	.....
Salem	.....	.....	.....	1.0	2.0	1.5	1.5	2.0	.....	8.0
Scottsburg	.....	.....	.....	1.0	3.0	T.	T.	T.	.....	4.0
Seymour	.....	.....	.....	0.2	0.5	0.5	.....	(*)	.....	.....
Shelbyville	.....	.....	.....	6.5	8.5	4.0	1.5	5.0	.....	25.5
Shoals	.....	.....	.....	1.2	(*)	2.0	T.	T.	.....	.....
South Bend	.....	.....	3.0	7.2	18.1	2.5	3.4	20.0	.....	54.2
Terre Haute	.....	.....	.....	1.6	8.5	0.2	0.9	3.6	.....	14.8
Valparaiso	.....	.....	1.3	8.1	13.0	4.4	6.3	13.0	.....	46.1
Veedersburg	.....	.....	.....	T.	14.5	1.5	T.	4.5	.....	20.5
Vincennes	.....	.....	.....	0.5	5.0	1.0	.....	(*)	.....	.....
Washington	.....	.....	.....	1.0	1.5	1.2	0.5	T.	.....	4.2
Wheatfield	.....	.....	1.0	5.0	5.0	T.	2.1	10.0	.....	23.1
Whitestown	.....	.....	T.	4.8	12.8	5.3	T.	4.5	.....	27.4
Whiting	.....	.....	1.3	9.5	12.9	2.7	5.9	10.0	.....	42.3
Winamac	.....	.....	0.1	4.1	8.8	0.8	0.6	6.5	.....	20.9

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Iowa.										
Afton	.....	.....	(*)	5.5	2.5	(*)	T.	4.0	.....	.....
Albia	.....	.....	2.0	1.0	5.0	4.0	T.	6.0	.....	18.0
Algona	.....	.....	11.0	3.5	5.2	9.3	6.0	0.5	.....	35.5
Allison	.....	.....	8.5	5.5	6.5	2.5	2.0	T.	.....	25.0
Alta	.....	.....	9.5	4.3	3.5	8.6	3.8	T.	.....	29.7
Alta (near)	.....	T.	9.3	3.0	1.2	8.8	(*)	T.	.....	.....
Alton	.....	T.	12.0	4.0	3.4	4.5	6.0	1.5	.....	31.4
Ames	.....	.....	8.0	6.0	3.8	8.4	T.	(*)	.....	.....
Atlantic	.....	T.	8.5	11.3	5.1	3.5	T.	0.5	.....	28.9
Baxter	.....	.....	4.2	5.3	3.3	2.9	T.	T.	.....	15.7
Bedford	.....	.....	4.5	7.1	5.3	1.0	T.	1.8	.....	19.7
Belle Plaine	.....	.....	6.7	7.2	8.9	4.5	3.0	0.6	.....	30.9
Belmond	.....	0.3	9.2	8.2	5.5	6.1	3.2	2.0	.....	34.5
Bloomfield	.....	.....	3.0	3.4	4.0	4.5	T.	12.0	.....	26.9
Bonaparte	.....	.....	0.6	1.4	2.2	0.2	T.	4.4	.....	8.8
Boone	.....	(*)	6.0	4.0	1.0	(*)	T.	T.	.....	.....
Britt	.....	T.	7.4	2.9	2.4	2.7	(*)	0.6	.....	.....
Burlington	.....	.....	2.0	2.0	4.0	T.	2.0	9.0	.....	19.0
Carroll	.....	.....	6.5	3.0	1.5	8.0	.....	(*)	.....	.....
Cedar Rapids	.....	.....	2.0	8.0	5.5	3.6	1.0	T.	.....	20.1
Centerville	.....	.....	1.3	6.0	3.3	0.1	1.0	4.0	.....	15.7
Chariton	.....	.....	3.0	3.0	6.0	2.0	T.	3.0	.....	17.0
Charles City	.....	T.	8.9	4.8	8.4	3.2	6.4	0.7	.....	32.4
Clarinda	.....	.....	7.0	4.7	2.5	0.2	1.0	9.4	.....	24.8
Clinton	.....	.....	1.2	5.3	8.1	2.7	2.6	1.2	.....	21.1
Columbus Junction	.....	.....	0.7	6.6	4.8	1.0	2.0	0.5	.....	15.6
Corning	.....	.....	6.0	5.0	3.0	T.	T.	2.0	.....	16.0
Corydon	.....	.....	2.0	2.7	4.1	0.3	0.5	9.0	.....	18.6
Creston	.....	.....	8.0	10.5	4.5	2.0	.....	5.9	.....	30.9
Cumberland	.....	.....	6.0	7.0	2.0	(*)	(*)	2.0	.....	.....
Davenport	.....	.....	0.5	7.0	5.0	1.4	1.4	1.0	.....	16.3
Decorah	.....	.....	8.7	13.3	12.6	3.0	4.5	2.6	.....	44.7
Dennison	.....	T.	8.0	1.5	T.	4.8	T.	T.	.....	14.3
Des Moines	.....	.....	6.7	12.6	4.7	4.1	0.2	0.7	.....	29.0
Dubuque	.....	.....	1.4	12.6	11.5	6.7	5.6	0.3	.....	38.1
Earlham	.....	.....	6.0	18.0	3.5	2.5	T.	4.0	.....	34.0
Elkader	.....	.....	8.0	8.3	4.7	4.6	T.	(*)	(*)	.....
Estherville	.....	.....	7.0	3.0	3.5	6.5	7.0	(*)	.....	.....
Fairfield	.....	.....	2.1	4.3	4.9	1.3	2.1	6.0	.....	20.7
Fayette	.....	.....	4.0	7.7	5.0	5.0	1.5	1.0	.....	24.2
Forest City	.....	T.	8.0	3.6	12.7	(*)	(*)	(*)	.....	.....
Fort Dodge	.....	T.	7.0	3.9	4.3	4.5	0.5	0.7	.....	20.9
Glenwood	.....	.....	11.0	11.0	4.0	1.0	T.	7.5	.....	34.5
Grinnell	.....	.....	3.8	5.8	5.6	4.0	(*)	(*)	.....	.....
Grundy Center	.....	.....	5.0	3.5	4.0	4.5	(*)	(*)	.....	.....
Guthrie Center	.....	.....	7.2	7.0	3.5	3.8	(*)	2.1	.....	.....
Harlan	.....	.....	17.0	5.0	.....	10.0	(*)	(*)	.....	.....
Humboldt	.....	T.	7.5	3.5	4.0	9.3	3.0	1.0	.....	28.3
Independence	.....	.....	7.0	6.5	(*)	5.0	2.5	T.	.....	.....
Indianola	.....	.....	3.5	8.5	4.2	2.0	0.1	1.0	.....	19.3
Inwood	.....	0.4	9.8	3.7	1.2	8.2	12.7	0.8	.....	35.8
Iowa City	.....	.....	1.5	7.5	9.0	3.5	4.0	0.5	.....	26.0
Iowa Falls	.....	.....	10.2	6.8	4.8	5.8	2.0	1.4	.....	31.0
Jefferson	.....	.....	6.7	8.0	2.0	8.5	T.	T.	.....	25.2
Keokuk	.....	.....	1.6	0.5	3.8	0.3	3.3	8.6	.....	18.1
Keosauqua	.....	.....	1.5	3.5	2.0	1.0	1.5	8.0	.....	17.5
Knoxville	.....	.....	(*)	6.8	4.5	6.5	0.5	0.5	.....	.....
Lacona	.....	.....	4.5	8.0	7.0	3.0	1.0	5.0	.....	28.5
Lamoni	.....	.....	1.0	2.7	3.5	T.	0.2	5.5	.....	12.9
Le Claire	.....	.....	0.8	6.3	4.6	2.9	3.7	1.7	.....	20.0
Le Mars	.....	T.	11.0	11.5	1.4	1.8	5.2	2.1	.....	33.0
Lenox	.....	.....	5.0	6.4	3.1	0.5	0.1	2.7	.....	17.8
Little Sioux	.....	T.	8.5	5.0	1.5	3.0	1.0	1.5	.....	20.5
Logan	.....	.....	9.0	6.0	1.0	7.0	T.	0.7	.....	23.7
Maquoketa	.....	.....	2.2	8.2	8.0	2.6	5.3	0.1	.....	26.4
Marshalltown	.....	.....	6.2	4.0	(*)	8.7	5.1	T.	.....	.....
Mason City	.....	.....	10.6	2.8	(*)	0.4	1.2	T.	.....	.....
Milford (near)	.....	T.	11.1	3.5	7.4	7.7	2.8	0.7	.....	33.2
Monroe	.....	.....	5.9	11.8	7.5	10.0	1.8	T.	.....	37.0

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Iowa.—Continued.										
Mount Ayr	.....	.....	4.5	2.9	4.6	0.2	T.	8.0	.....	20.2
Mount Pleasant	.....	.....	3.6	2.0	5.0	T.	3.0	4.0	.....	17.6
Murray	.....	.....	4.0	5.1	1.8	0.5	T.	2.0	.....	13.4
Muscatine	.....	.....	0.3	6.6	8.6	2.0	1.5	2.6	.....	21.6
New Hampton	.....	.....	8.3	5.5	5.0	3.0	4.5	T.	.....	26.3
Nora Springs	.....	.....	6.9	2.0	2.4	2.1	1.5	0.4	.....	15.3
Northwood	.....	(*)	(*)	3.5	10.5	2.5	9.5	2.5	.....	.....
Oakland	.....	.....	9.4	10.5	3.0	3.0	.....	6.0	.....	31.9
Olin	.....	.....	1.0	4.0	6.0	3.0	3.0	T.	.....	17.0
Onawa	.....	T.	10.0	3.9	1.0	8.5	.....	(*)	.....	.....
Oskaloosa	.....	.....	4.3	7.9	9.1	5.1	3.2	3.3	.....	32.9
Ottumwa	.....	.....	(*)	(*)	2.0	1.0	(*)	7.0	.....	.....
Pella	.....	T.	3.7	7.5	5.0	3.0	0.2	1.0	.....	20.4
Perry	.....	.....	6.0	10.5	2.1	3.1	T.	(*)	.....	.....
Pocahontas	.....	0.6	9.3	4.1	4.0	9.2	3.3	0.7	.....	31.2
Postville	.....	.....	5.0	6.6	9.8	3.9	2.5	1.0	.....	28.8
Rock Rapids	.....	0.5	11.0	3.2	2.0	10.2	16.2	0.5	.....	43.6
Rockwell City	.....	T.	5.0	6.0	2.9	6.3	1.5	T.	.....	21.7
Sac City	.....	.....	10.5	7.0	5.0	9.0	1.0	(*)	.....	.....
Sanborn	.....	0.5	8.5	1.0	4.4	3.5	6.0	0.5	.....	24.4
Sigourney	.....	.....	1.8	8.6	4.2	2.4	0.9	1.8	.....	19.7
Sioux Center	.....	T.	11.5	3.5	5.0	8.0	7.0	3.0	.....	38.0
Sioux City	.....	0.2	10.2	4.9	3.2	6.6	8.2	6.2	.....	39.5
Spencer	.....	1.0	11.5	4.0	4.5	5.0	(*)	(*)	.....	.....
Stockport	.....	.....	1.3	2.5	2.5	1.0	1.0	7.0	.....	15.3
Storm Lake	.....	1.9	6.0	4.2	1.1	6.5	0.7	0.1	.....	20.5
Thurman	.....	.....	5.5	7.5	8.0	1.0	T.	5.5	.....	27.5
Tipton	.....	.....	1.0	7.5	5.5	1.0	3.0	T.	.....	18.0
Toledo	.....	.....	.....	4.5	5.0	3.5	1.5	T.	.....	14.5
Washington	.....	.....	2.0	4.2	5.5	2.1	5.0	2.0	.....	20.8
Washta	.....	T.	11.0	5.0	3.0	3.0	1.0	T.	.....	23.0
Waterloo	.....	.....	7.0	4.1	3.4	2.8	.....	0.2	.....	17.5
Waukee	.....	.....	5.6	11.0	3.1	5.0	T.	0.6	.....	25.3
Waverly	.....	.....	5.5	10.0	6.3	5.0	2.0	0.4	.....	29.2
Webster City	.....	.....	10.0	6.0	3.0	9.5	0.5	T.	.....	29.0
West Bend	.....	.....	7.0	3.0	6.5	12.5	3.0	1.0	.....	33.0
Whitten	.....	.....	4.0	9.0	3.0	3.0	(*)	.....	(*)	.....
Williamsburg	.....	.....	2.5	4.9	5.3	(*)	1.8	0.3	.....	.....
Winterset	.....	.....	7.0	5.0	5.0	(*)	T.	2.0	.....	.....
Kansas.										
Burlington	.....	.....	2.0	0.5	2.5	T.	T.	2.0	.....	7.0
Colby	.....	0.5	9.0	2.0	2.0	3.0	2.0	15.5	T.	34.0
Columbus	.....	.....	T.	0.1	7.3	T.	1.1	0.5	.....	9.0
Concordia	.....	.....	3.8	2.3	0.4	0.6	0.7	9.2	.....	17.0
Dalton	.....	.....	3.0	T.	13.0	T.	T.	1.0	.....	17.0
Dodge City	.....	.....	2.5	0.8	0.7	0.3	0.3	2.9	.....	7.5
Ellinwood	.....	.....	3.9	1.1	T.	1.0	1.0	8.0	.....	15.0
Garden City	.....	.....	7.0	3.5	T.	1.0	2.0	7.0	.....	20.5
Grenola	.....	.....	T.	T.	7.0	T.	T.	1.0	.....	8.0
Horton	.....	.....	3.0	1.8	1.0	T.	1.0	12.5	.....	19.3
Hutchinson	.....	.....	4.0	3.0	1.0	0.1	T.	4.0	.....	12.1
Independence	.....	.....	T.	0.4	10.1	0.1	3.0	0.8	.....	14.4
Iola	.....	.....	T.	0.3	7.9	0.1	1.1	0.6	.....	10.0
Lakin	.....	.....	4.0	1.5	1.0	1.0	1.0	2.0	.....	10.5
Liberal	.....	.....	1.0	1.0	2.5	.....	5.0	.....	.....	9.5
McPherson	.....	.....	6.0	1.0	0.8	1.0	T.	6.8	.....	15.6
Manhattan	.....	.....	3.0	3.2	0.7	T.	.....	10.0	.....	16.9
Marion	.....	.....	4.0	1.0	1.0	0.5	0.2	5.0	.....	11.7
Medicine Lodge	.....	.....	2.2	T.	1.5	1.0	T.	0.5	.....	5.2
Minneapolis	.....	.....	4.0	0.1	1.0	0.2	0.6	8.0	.....	13.9
Oketo	.....	.....	3.2	0.2	1.0	0.2	T.	8.5	.....	13.1
Phillipsburg	.....	T.	8.5	4.5	0.5	0.6	0.5	9.0	.....	23.6
Richfield	.....	T.	3.0	0.5	4.0	2.0	2.0	2.5	.....	14.0
St. Francis	.....	0.2	13.5	2.0	0.4	4.0	2.0	14.2	T.	36.3
Sedan	.....	.....	T.	T.	11.9	T.	2.0	T.	.....	13.9
Topeka	.....	.....	3.4	0.7	0.7	0.3	0.8	7.5	.....	13.4
Tribune	.....	.....	2.5	2.2	0.2	0.8	2.5	(*)	.....	.....
Wakeeney	.....	.....	5.0	2.0	T.	2.0	T.	5.0	.....	14.0
Wichita	.....	.....	1.5	0.2	2.4	0.2	T.	1.5	.....	5.8

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Kentucky.										
Anchorage	.....	.....	.....	1.0	1.4	2.0	0.5	T.	.....	4.9
Bardstown	.....	.....	.....	1.0	1.0	5.7	1.5	T.	.....	9.2
Beattyville	.....	.....	.....	0.2	0.5	4.0	T.	T.	.....	4.7
Beaver Dam	.....	.....	.....	(*)	T.	2.4	T.	0.5	.....	.....
Berea	.....	.....	.....	1.0	3.5	7.0	T.	T.	.....	11.5
Blandville	.....	.....	T.	1.0	0.5	4.7	0.2	T.	.....	6.4
Bowling Green	.....	.....	.....	1.0	T.	5.3	0.2	0.5	.....	7.0
Brownsville	.....	.....	.....	0.1	0.5	6.0	2.0	T.	.....	8.6
Burnside	.....	.....	.....	0.5	T.	3.0	0.5	T.	.....	4.0
Calhoun	.....	.....	.....	0.2	T.	5.3	T.	T.	.....	5.5
Catlettsburg	.....	.....	.....	2.7	0.4	3.3	1.0	(*)	.....	.....
Cloverport	.....	.....	.....	T.	0.4	5.2	0.2	0.4	.....	6.2
Cynthiana	.....	.....	.....	1.0	T.	2.0	T.	T.	.....	3.0
Earlington	.....	.....	.....	T.	T.	3.0	T.	T.	.....	3.0
Eubank	.....	.....	.....	4.0	1.0	6.0	0.5	T.	.....	11.5
Falmouth	.....	.....	.....	0.6	T.	(*)	T.	T.	.....	.....
Farmers	.....	.....	.....	(*)	T.	1.5	1.0	T.	.....	.....
Frankfort	.....	.....	.....	0.2	1.2	1.5	0.2	T.	.....	3.1
Franklin	.....	.....	.....	0.8	T.	6.0	0.5	T.	.....	7.3
Greensburg	.....	.....	.....	0.5	0.1	4.7	0.1	T.	.....	5.4
Greenville	.....	.....	.....	(*)	T.	4.0	T.	.....	.....	.....
Henderson	.....	.....	.....	0.5	T.	3.5	T.	T.	.....	4.0
High Bridge	.....	.....	.....	1.0	(*)	3.0	T.	T.	.....	.....
Hopkinsville	.....	.....	.....	T.	T.	5.0	T.	T.	.....	5.0
Irvington	.....	.....	.....	T.	T.	2.0	T.	T.	.....	2.0
Jackson	.....	.....	.....	T.	3.6	2.7	T.	T.	.....	6.3
Junction City	.....	.....	.....	5.5	2.8	7.0	1.2	0.1	.....	16.6
Leitchfield	.....	.....	.....	T.	0.2	4.0	0.4	T.	.....	4.6
Lexington	.....	.....	.....	2.3	1.4	4.1	1.0	0.1	.....	8.9
London	.....	.....	.....	5.5	2.0	4.5	T.	T.	.....	12.0
Louisville (Weather Bureau)	.....	.....	.....	1.2	2.1	4.4	T.	T.	.....	7.7
Louisville (No. 2)	.....	.....	.....	0.5	2.7	1.1	0.9	T.	.....	5.2
Louisa	.....	.....	.....	(*)	0.2	3.5	3.5	T.	.....	.....
Marion	.....	.....	.....	T.	T.	2.5	T.	T.	.....	2.5
Maysville	.....	.....	.....	(*)	T.	2.0	3.0	T.	.....	.....
Mount Sterling	.....	.....	.....	3.5	1.7	(*)	0.2	T.	.....	.....
Owensboro	.....	.....	.....	T.	T.	2.5	T.	T.	.....	2.5
Paducah (near)	.....	.....	.....	T.	T.	7.8	0.4	T.	.....	8.2
Richmond	.....	.....	.....	2.8	0.1	5.4	0.6	T.	.....	8.9
Russellville	.....	.....	.....	1.0	T.	6.0	T.	T.	.....	7.0
St. John	.....	.....	.....	0.5	0.5	3.5	T.	T.	.....	4.5
Scott	.....	.....	.....	0.6	0.8	3.6	0.2	4.2	.....	9.4
Shelbyville	.....	.....	.....	1.0	2.0	2.4	T.	(*)	.....	.....
Taylorsville	.....	.....	.....	0.3	1.8	2.6	0.6	0.1	.....	5.4
Vanceburg	.....	.....	.....	(*)	0.5	2.5	(*)	T.	.....	.....
Williamsburg	.....	.....	.....	0.2	0.8	5.0	0.5	T.	.....	6.5
Williamstown	.....	.....	.....	0.4	0.9	3.8	0.5	T.	.....	5.6
Woodbury	.....	.....	.....	T.	T.	3.5	T.	T.	.....	3.5
Louisiana.										
Alexandria	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Amite	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Baton Rouge	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Calhoun	.....	.....	.....	.....	.....	.....	0.3	.....	.....	0.3
Cinclare	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Clinton	.....	.....	.....	.....	.....	.....	1.0	.....	.....	1.0
Covington	.....	.....	.....	.....	.....	.....	1.8	.....	.....	1.8
Dodson	.....	.....	.....	.....	.....	.....	0.6	.....	.....	0.6
Franklin	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Franklinton	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Grand Coteau	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Hammond	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Kelly (near)	.....	.....	.....	.....	.....	.....	0.2	.....	.....	0.2
Melville	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Merryville	.....	.....	.....	.....	.....	.....	1.6	.....	.....	1.6
Minden	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Monroe	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Newellton	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
New Orleans (Weather Bureau)	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Louisiana—Continued.										
Pearl River	.....	.....	.....	.....	.....	.....	0.2	.....	.....	0.2
Rayne	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Richland Plantation	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Robeline	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Shreveport	.....	.....	.....	.....	T.	.....	T.	.....	.....	T.
Ten Mile	.....	.....	.....	.....	.....	.....	1.3	.....	.....	1.3
Maine.										
Bar Harbor	.....	.....	T.	8.0	23.5	45.8	10.0	1.0	T.	88.3
Cornish	.....	.....	10.0	5.0	22.0	50.0	17.0	1.0	.....	105.0
Eastport	.....	0.6	1.9	16.9	20.2	37.2	14.2	13.7	4.2	107.9
Farmington	.....	.....	13.0	10.5	19.5	61.0	18.5	T.	.....	122.5
Gardiner	.....	.....	12.0	8.0	16.0	63.0	14.0	0.5	.....	113.5
Greenville	.....	T.	12.7	11.7	28.3	44.8	18.2	8.7	0.2	124.6
Houlton	.....	2.0	18.0	14.0	23.0	66.0	22.0	7.0	.....	152.0
Lewiston	.....	.....	9.5	7.0	22.0	62.0	20.5	0.2	.....	121.2
Madison	.....	.....	4.5	8.5	17.0	45.5	13.0	.....	.....	88.5
Millinocket	.....	0.2	14.5	13.5	22.5	60.2	14.0	2.2	.....	127.1
North Bridgton	.....	.....	9.5	5.0	15.5	56.5	17.0	T.	T.	103.5
Orono	.....	.....	2.0	3.8	25.5	77.5	(*)	0.5	.....	.....
Portland	.....	.....	2.7	4.3	24.2	44.6	13.6	0.3	.....	89.7
Presque Isle	.....	2.0	7.7	7.9	14.9	42.0	9.0	6.0	.....	89.5
Rumford	.....	.....	11.1	8.6	18.4	47.5	19.0	3.5	.....	108.1
Winslow	.....	.....	5.8	6.5	14.5	54.0	12.0	1.0	.....	93.8
Maryland.										
Aberdeen	.....	.....	.....	5.3	1.4	8.5	(*)	T.	.....	.....
Baltimore (Weather Bureau)	.....	.....	.....	5.1	2.0	9.6	2.3	T.	.....	19.0
Baltimore (Lake Montebello)	.....	.....	.....	4.6	2.0	9.7	(*)	T.	.....	.....
Cambridge	.....	.....	.....	5.5	1.5	7.0	(*)	T.	.....	.....
Cecilton	.....	.....	.....	4.8	1.6	8.4	7.2	T.	.....	22.0
Cheltenham	.....	.....	T.	5.5	1.9	5.1	1.8	T.	.....	14.3
Chewsville	.....	.....	T.	5.3	4.0	19.8	3.5	T.	.....	32.6
Coleman	.....	.....	.....	6.0	2.0	8.0	(*)	T.	.....	.....
College Park	.....	.....	T.	4.3	2.4	8.5	1.5	T.	.....	16.7
Crisfield	.....	.....	.....	5.0	T.	3.0	0.5	.....	.....	8.5
Darlington	.....	.....	.....	4.9	2.5	10.0	4.0	T.	.....	21.4
Denton	.....	.....	.....	6.7	1.2	7.5	(*)	(*)	.....	.....
Easton	.....	.....	.....	5.2	1.4	7.8	3.3	T.	.....	17.7
Emmitsburg	.....	.....	T.	6.0	4.6	23.2	5.0	T.	.....	38.8
Fairview	.....	.....	T.	7.3	4.0	26.2	3.8	T.	.....	41.3
Fallston	.....	.....	.....	5.6	2.0	9.5	3.5	T.	.....	20.6
Ferry Landing	.....	.....	T.	5.7	2.3	5.5	1.9	T.	.....	15.4
Frederick	.....	.....	T.	4.5	3.8	21.9	1.5	T.	.....	31.7
Friendsville	.....	.....	1.0	18.7	8.9	25.6	(*)	5.5	.....	.....
Frostburg	.....	.....	T.	4.5	6.0	30.0	(*)	5.5	.....	.....
Grantsville	.....	.....	2.0	12.0	11.1	29.6	(*)	5.5	T.	.....
Great Falls	.....	.....	T.	6.2	2.5	9.6	1.6	T.	.....	19.9
Hancock	.....	.....	T.	7.2	5.0	23.5	(*)	(*)	.....	.....
Keedysville	.....	.....	T.	5.0	2.5	16.5	4.0	T.	.....	28.0
Laurel	.....	.....	T.	4.0	2.5	10.5	(*)	T.	.....	.....
Oakland	.....	.....	2.5	11.5	5.4	22.3	4.9	5.7	T.	52.3
Princess Anne	.....	.....	.....	4.2	0.5	5.0	1.0	.....	.....	10.7
Public Landing	.....	.....	.....	1.5	T.	3.5	(*)	.....	.....	.....
Salisbury	.....	.....	.....	6.7	1.0	4.5	1.5	.....	.....	13.7
Solomons	.....	.....	.....	5.3	1.5	9.0	2.0	T.	.....	17.8
State Sanatorium	.....	.....	0.1	(*)	6.5	20.0	(*)	T.	.....	.....
Sudlersville	.....	.....	.....	6.6	1.4	9.0	5.4	T.	.....	22.4
Takoma	.....	.....	T.	5.5	2.5	8.5	2.5	T.	.....	19.0
Western Port	.....	.....	T.	10.5	3.5	12.3	(*)	1.0	.....	.....
Woodstock	.....	.....	T.	5.3	2.6	11.5	(*)	T.	.....	.....
Yarrow (Rockville)	.....	.....	T.	3.5	2.5	9.5	(*)	T.	.....	.....
Massachusetts.										
Amherst	.....	.....	T.	4.8	21.2	31.0	5.8	1.5	.....	64.3
Blue Hill	.....	.....	1.4	4.5	27.1	40.4	10.6	1.2	0.1	85.3
Boston	.....	.....	0.2	2.9	24.8	32.5	11.0	2.0	T.	73.4
Chestnut Hill	.....	.....	0.5	(*)	24.5	35.2	6.5	4.0	.....	.....

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Massachusetts—Continued.										
Clinton	.....	.....	.....	4.8	24.8	31.5	11.2	2.2	.....	75.5
Concord	.....	.....	0.3	4.2	25.3	35.9	10.9	2.1	T.	78.6
Fall River	.....	.....	.....	5.9	21.5	33.0	6.0	0.1	.....	66.5
Fitchburg	.....	.....	T.	5.2	22.0	42.0	12.0	2.0	T.	83.2
Framingham	.....	.....	.....	2.8	22.8	33.0	9.0	3.0	.....	70.6
Lawrence	.....	.....	0.5	2.8	20.5	34.5	8.0	2.0	.....	68.3
Nantucket	.....	.....	.....	3.5	12.5	8.2	3.6	0.1	.....	27.9
Plymouth	.....	.....	0.5	5.0	30.0	40.0	(*)	2.0	.....	.....
Provincetown	.....	.....	T.	3.0	11.5	19.0	1.0	T.	.....	34.5
Rockport	.....	.....	1.0	1.5	21.5	33.0	8.0	.....	.....	65.0
Rutland	.....	.....	1.1	T.	25.5	36.4	(*)	(*)	.....	.....
Westboro	.....	.....	T.	1.2	19.0	32.0	9.0	2.0	.....	63.2
Williamstown	.....	.....	1.1	9.4	16.4	40.2	20.0	3.0	.....	90.1
Worcester	.....	.....	T.	7.7	29.9	38.1	12.3	2.1	.....	90.1
Michigan.										
Albion	.....	.....	1.7	5.0	17.2	4.5	1.8	4.0	.....	34.2
Allegan (No. 2)	.....	.....	1.3	13.6	11.2	15.3	1.4	5.4	.....	48.2
Alma	.....	.....	1.0	11.0	22.5	12.0	5.0	6.0	.....	57.5
Alpena	.....	T.	7.4	7.9	19.1	9.3	3.0	3.2	.....	49.9
Alpena (near)	.....	T.	10.0	10.5	26.5	10.0	4.0	6.0	.....	67.0
Ann Arbor	.....	.....	1.0	5.8	25.0	10.1	0.7	5.5	.....	48.1
Arbela	.....	.....	T.	11.0	14.0	16.0	2.0	4.0	.....	47.0
Armada	.....	.....	(*)	11.1	14.5	10.7	2.3	2.3	.....	.....
Battle Creek (No. 1)	.....	.....	2.5	5.0	15.5	5.5	T.	10.0	.....	38.5
Bay City	.....	.....	.....	7.3	7.7	7.0	4.0	6.0	.....	32.0
Benzonia	.....	T.	17.5	17.7	33.6	16.4	5.3	6.1	T.	96.6
Bergland	.....	9.2	32.9	35.7	27.5	23.3	17.5	13.7	.....	159.8
Bloomingdale	.....	.....	2.0	7.5	3.0	10.0	T.	7.5	.....	30.0
Cadillac	.....	T.	7.1	8.0	9.7	7.5	5.7	7.5	.....	45.5
Calumet	.....	9.0	41.0	53.0	27.0	11.0	18.0	6.5	.....	165.5
Cassopolis	.....	.....	1.1	8.0	17.0	5.8	3.5	10.0	.....	45.4
Ceresco	.....	.....	0.8	3.8	16.2	6.2	T.	9.6	.....	36.6
Charlotte	.....	.....	T.	(*)	13.0	5.0	T.	7.0	.....	.....
Cheboygan	.....	T.	10.5	6.9	17.7	8.9	3.6	2.0	.....	49.6
Coldwater	.....	.....	2.0	7.0	14.5	3.5	2.0	4.0	.....	33.0
Cooke Site	.....	.....	5.0	3.5	13.0	2.5	2.0	3.0	.....	29.0
Croton	.....	.....	3.0	7.5	16.0	9.0	6.0	3.0	.....	44.5
Deer Park (near)	.....	2.0	12.5	26.0	20.0	6.5	18.0	3.5	.....	88.5
Detroit	.....	.....	0.4	9.3	18.3	9.4	1.1	4.9	.....	43.4
Eagle Harbor	.....	4.0	25.0	15.0	8.0	3.0	4.0	2.5	.....	61.5
East Tawas	.....	.....	(*)	1.7	7.0	5.4	1.1	6.5	.....	.....
Eloise	.....	.....	T.	4.5	10.0	6.0	0.2	0.5	.....	21.2
Escanaba	T.	0.3	12.4	5.5	15.7	4.7	9.4	2.3	.....	50.3
Ewen	.....	11.0	34.0	22.5	19.0	10.0	25.5	10.5	.....	132.5
Fife Lake (near)	.....	T.	7.5	10.0	11.0	6.0	8.0	6.5	.....	49.0
Five Channels	.....	.....	7.0	5.0	16.5	5.0	3.6	5.0	.....	42.1
Flint	.....	.....	0.3	9.1	10.7	8.8	1.5	0.1	.....	30.5
Frankfort	.....	.....	2.8	9.4	11.2	11.9	7.4	2.8	.....	45.5
Ganges	.....	.....	T.	14.0	6.0	12.5	2.0	1.0	.....	35.5
Grand Haven	.....	.....	0.9	29.9	19.2	11.7	7.5	5.6	.....	74.8
Grand Marais	.....	4.0	30.0	34.0	43.0	15.0	20.0	9.0	.....	155.0
Grand Rapids (Weather Bureau)	.....	.....	3.5	15.0	15.8	12.2	3.4	6.5	.....	56.4
Grand Rapids (Consumers' P. Co.)	.....	.....	3.5	14.8	11.8	9.2	1.2	0.5	.....	41.0
Grayling	.....	T.	4.0	10.5	23.5	6.6	0.5	3.0	.....	48.1
Greenville	.....	.....	0.8	6.5	14.5	12.0	3.0	4.0	.....	40.8
Harbor Beach	.....	.....	2.0	4.0	10.0	(*)	4.0	3.0	.....	.....
Harrison	.....	.....	2.0	(*)	5.5	6.0	4.0	1.5	.....	.....
Hart	.....	.....	(*)	11.0	(*)	25.0	4.0	2.0	.....	.....
Hastings	.....	.....	4.5	8.7	(*)	5.4	2.3	9.7	.....	.....
Highland	.....	.....	T.	8.5	28.0	16.5	3.5	15.5	.....	72.0
Hillsdale	.....	.....	1.3	5.5	12.0	4.6	4.5	6.7	.....	34.6
Holland	.....	.....	1.5	14.5	16.7	16.0	4.0	12.5	.....	65.2
Houghton	.....	7.1	66.6	57.6	35.2	7.7	19.9	12.7	.....	206.8
Houghton Lake (near)	.....	T.	3.5	9.0	15.5	8.5	3.5	6.0	.....	46.0
Howard City	.....	.....	0.6	5.8	9.9	6.8	(*)	(*)	.....	.....
Howell	.....	.....	0.4	1.5	13.1	5.7	T.	7.1	.....	27.8

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Michigan—Continued.										
Humboldt	T.	8.0	32.0	8.0	6.0	1.0	17.0	10.0	.....	82.0
Iron Mountain	.....	3.0	18.3	4.0	12.5	5.4	8.7	1.0	.....	52.9
Iron River	.....	5.0	23.0	6.0	13.0	3.0	4.0	1.5	.....	55.5
Ironwood	.....	9.0	29.0	15.0	9.0	15.0	23.0	9.0	.....	109.0
Ishpeming	.....	6.0	24.5	10.0	6.6	(*)	(*)	4.0	.....	.....
Ivan	.....	T.	11.5	10.2	16.0	9.9	7.0	6.8	T.	61.4
Jackson (No. 1)	.....	.....	1.2	7.8	23.7	8.5	4.5	5.2	.....	50.9
Jeddo	.....	.....	0.2	9.5	17.4	13.3	3.5	(*)	(*)	.....
Johannesburg	.....	T.	8.5	7.8	15.8	7.2	7.6	5.0	T.	51.9
Kalamazoo (No. 1)	.....	.....	2.0	6.0	27.0	16.5	1.0	10.0	.....	62.5
Kalamazoo (No. 2)	.....	.....	2.1	13.9	10.7	6.9	1.0	8.8	.....	43.4
Lansing	.....	.....	3.1	10.2	15.9	11.2	3.7	11.5	.....	55.6
Lapeer	.....	.....	T.	6.5	10.5	6.0	2.5	7.5	.....	33.0
Loud	.....	.....	10.0	4.0	19.1	6.5	0.5	8.0	.....	48.1
Lowell	.....	.....	4.3	10.0	13.0	6.0	2.0	5.0	.....	40.3
Ludington	.....	.....	3.6	21.5	20.2	16.9	7.9	2.2	.....	72.3
Luther	.....	T.	4.4	15.0	17.9	9.6	6.2	8.4	.....	61.5
Mackinac Island	.....	0.2	17.0	12.5	24.0	(*)	10.5	8.5	.....	.....
Mackinaw	.....	.....	8.5	9.5	28.0	7.5	(*)	0.7	.....	.....
Mancelona	.....	.....	15.9	20.5	6.0	6.7	(*)	(*)	.....	.....
Manistique	.....	(*)	16.7	(*)	13.0	4.0	16.5	(*)	(*)	.....
Maple Ridge	.....	(*)	11.0	(*)	12.0	8.6	9.0	3.0	.....	.....
Marquette	T.	2.9	26.1	21.5	21.6	13.1	19.3	4.2	T.	108.7
Menominee	.....	.....	4.5	7.5	17.0	7.3	6.5	T.	.....	42.8
Midland	.....	.....	0.5	7.2	(*)	8.0	4.0	(*)	.....	.....
Mio	.....	.....	12.5	6.2	21.5	5.5	3.0	7.5	.....	56.2
Monroe	.....	.....	0.5	6.0	13.5	(*)	2.7	4.2	.....	.....
Morenci	.....	.....	T.	1.2	12.5	(*)	2.0	3.0	.....	.....
Mount Clemens	.....	.....	0.2	8.3	17.1	7.8	(*)	3.8	.....	.....
Munising	.....	4.2	22.2	25.1	36.4	10.6	17.3	4.9	.....	120.7
Muskegon	.....	.....	T.	26.0	21.0	9.0	5.0	3.0	.....	64.0
Newberry	.....	3.5	20.4	17.5	27.5	9.2	10.2	6.4	.....	94.7
Norways	.....	1.2	16.5	19.5	19.5	4.0	4.5	1.0	T.	66.2
Old Mission	.....	.....	8.2	8.5	15.9	4.9	0.4	1.0	.....	38.9
Omer	.....	.....	2.0	5.0	11.0	6.0	(*)	(*)	.....	.....
Onaway (near)	.....	.....	8.5	14.0	30.5	12.5	4.0	6.3	.....	75.8
Otsego	.....	.....	2.0	11.6	16.0	11.0	1.0	3.2	.....	44.8
Plainwell	.....	.....	2.5	10.1	11.6	10.7	(*)	5.2	.....	.....
Pontiac	.....	.....	0.5	9.0	14.0	10.0	3.0	10.0	.....	46.5
Port Austin	.....	.....	2.0	10.0	15.0	7.0	5.0	3.0	.....	42.0
Port Huron	.....	.....	0.4	11.3	19.2	13.4	2.6	7.4	.....	54.3
Reed City	.....	T.	4.6	6.9	8.2	3.6	3.0	1.0	.....	27.3
Rogers	.....	T.	3.0	5.0	15.0	8.0	5.0	5.3	.....	41.3
Roscommon	.....	T.	7.7	5.2	12.8	6.6	4.4	6.8	.....	43.5
Saginaw (Weather Bureau)	.....	T.	0.8	7.0	11.1	8.5	7.5	6.3	.....	41.2
Saginaw (No. 2)	.....	.....	T.	6.5	6.0	9.5	3.0	6.3	.....	31.3
St. Ignace	.....	.....	(*)	4.4	9.0	2.5	3.2	(*)	.....	.....
St. James	.....	T.	7.0	21.0	12.0	3.0	7.5	3.0	.....	53.5
St. Joseph	.....	.....	0.9	20.0	27.0	27.0	2.5	10.0	.....	87.4
Sault Ste. Marie	.....	1.4	18.9	21.0	18.7	4.8	12.0	3.0	T.	79.8
Sidnaw	.....	(*)	13.5	12.3	11.2	3.5	18.8	(*)	.....	.....
South Haven	.....	.....	0.5	15.0	18.3	20.4	2.5	8.0	.....	64.7
Stronach	.....	.....	7.5	12.5	22.0	10.0	4.0	3.0	.....	59.0
Trowbridge	.....	.....	1.3	9.1	14.5	14.0	0.8	5.0	.....	44.7
Wasepi	.....	.....	3.0	5.0	26.5	5.0	3.0	5.5	.....	48.0
Webber Dam	.....	.....	0.2	6.6	13.5	7.5	2.1	5.0	.....	34.9
West Branch (near)	.....	.....	4.5	5.0	11.4	5.2	4.5	4.0	.....	34.6
Whitefish Point	.....	3.7	31.6	59.1	32.8	15.2	27.7	12.3	.....	182.4
Ypsilanti	.....	.....	0.5	4.9	14.5	5.5	0.3	4.2	.....	29.9
Minnesota.										
Albert Lea	.....	T.	8.0	3.0	4.0	1.0	5.0	2.0	.....	23.0
Angus	.....	5.0	7.8	1.2	11.5	4.5	1.2	0.4	.....	31.6
Argyle	.....	.....	26.0	4.0	17.5	5.2	5.5	2.1	.....	60.3
Artichoke Lake	.....	3.0	5.0	1.7	5.1	2.2	6.5	1.0	.....	24.5
Baudette	.....	6.2	17.4	4.5	17.2	5.6	5.0	3.4	.....	59.3
Beardsley	.....	3.0	5.0	6.0	5.0	4.0	9.5	2.5	.....	35.0

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Minnesota—Continued.										
Bird Island	.....	2.0	9.9	4.0	3.3	6.3	16.0	0.8	.....	42.3
Brainerd	.....	6.0	10.0	2.5	5.0	4.5	(*)	2.5	.....	.....
Campbell	.....	6.5	8.4	7.9	10.0	3.0	6.2	0.5	.....	42.5
Canby	.....	7.5	14.5	1.0	7.5	14.5	22.0	.....	.....	67.0
Cass Lake	.....	7.5	16.0	2.5	13.0	3.1	1.5	3.0	.....	46.6
Chatfield	.....	T.	7.0	7.0	17.0	2.5	8.0	1.0	.....	42.5
Cloquet	.....	8.5	18.2	5.6	19.0	7.5	8.0	6.5	.....	73.3
Collegeville	.....	2.5	5.7	(*)	7.0	4.7	7.5	1.8	.....	.....
Crookston	.....	5.0	18.0	3.2	17.7	3.0	1.1	T.	.....	48.0
Detroit	.....	8.0	13.5	6.0	13.5	4.0	8.0	3.0	.....	56.0
Duluth	.....	6.0	28.7	3.0	11.7	4.5	7.0	2.1	.....	63.0
Fairmont	.....	(*)	12.5	1.2	5.5	4.3	5.5	1.0	.....	.....
Faribault	.....	.....	11.5	6.0	7.0	3.0	12.0	2.0	.....	41.5
Fergus Falls	.....	9.7	13.7	11.5	16.1	4.0	6.8	3.7	.....	65.5
Fort Ripley	.....	3.5	17.0	5.5	16.0	2.5	10.5	2.0	.....	57.0
Glencoe	.....	T.	7.0	4.5	6.0	3.0	17.1	(*)	.....	.....
Grand Meadow	.....	T.	11.0	14.5	13.5	1.5	6.5	3.2	.....	50.2
Grand Rapids	.....	7.5	21.3	5.8	11.3	5.7	10.4	2.0	.....	64.0
Grandy	.....	5.0	12.5	7.5	23.0	(*)	(*)	T.	.....	.....
Gull Lake Dam	.....	3.9	9.6	4.6	9.7	1.6	6.3	0.9	.....	36.6
Hallock	.....	4.0	22.0	3.7	14.3	8.0	0.5	T.	.....	52.5
Hinckley	.....	5.5	13.6	2.8	13.9	3.1	6.3	2.0	.....	47.2
Hutchinson	.....	2.1	10.8	7.3	14.9	2.5	21.0	0.3	.....	58.9
Leech Lake Dam	.....	15.4	15.8	5.6	14.5	8.6	10.1	2.2	.....	72.2
Luverne	.....	T.	8.0	2.5	2.0	7.8	16.7	0.5	.....	37.5
Lynd	.....	T.	12.0	0.5	8.2	7.5	(*)	0.5	.....	.....
Mankato	.....	.....	9.0	5.9	11.0	2.6	9.0	0.5	.....	38.0
Mapleplain	.....	3.0	14.5	13.7	24.2	6.5	18.8	4.6	.....	85.3
Milaca	.....	4.0	14.0	6.0	22.0	4.0	12.0	2.0	.....	64.0
Milan	.....	6.0	12.0	5.0	12.2	2.0	11.5	1.5	.....	50.2
Minneapolis (Weather Bureau)	.....	2.6	11.0	8.0	18.1	5.0	14.3	5.5	.....	64.5
Minneapolis No. 1	.....	2.5	9.0	7.3	19.9	5.4	16.1	4.1	.....	64.3
Montevideo	.....	3.0	12.0	5.8	5.0	4.5	12.0	1.5	.....	43.8
Moorhead	.....	4.1	18.4	8.0	14.4	3.1	2.3	2.5	.....	52.8
Mora	.....	4.0	19.0	6.5	17.4	1.5	14.2	4.5	.....	67.1
Morris	(*)	3.3	7.2	9.5	12.0	3.0	6.7	2.0	.....	.....
New London	.....	0.5	9.0	9.0	8.0	0.5	13.5	1.0	.....	41.5
New Ulm	.....	0.5	10.2	7.2	13.4	8.2	12.5	1.0	.....	53.0
Park Rapids	.....	9.5	13.8	3.5	7.7	2.9	2.7	1.6	.....	41.7
Pine River Dam	.....	3.0	13.5	5.0	11.8	2.7	10.2	3.2	.....	49.4
Pokegama Falls	.....	12.0	16.1	5.3	11.4	7.1	7.9	1.0	.....	60.8
Red Lake	.....	8.0	17.5	3.1	11.2	11.0	3.1	.....	.....	53.9
Red Lake Falls	.....	6.0	35.0	4.8	23.5	5.3	6.1	1.2	.....	81.9
Red Wing	.....	T.	12.0	8.6	24.8	9.1	17.1	2.3	.....	73.9
Reeds	.....	.....	6.9	11.1	22.0	5.0	12.5	3.6	.....	61.1
Roseau	.....	4.0	14.0	1.0	15.0	6.0	0.5	T.	.....	40.5
St. Charles	.....	T.	12.0	6.5	17.0	2.0	12.5	(*)	.....	.....
St. Cloud	.....	3.8	(*)	6.0	19.7	7.6	15.5	1.0	.....	.....
St. Paul	.....	2.5	12.6	8.7	22.1	6.3	18.5	5.0	.....	75.7
St. Peter	.....	.....	11.5	6.5	11.5	12.1	10.0	0.6	.....	52.2
Sandy Lake Dam	.....	5.0	24.0	2.0	14.0	4.0	7.5	2.5	.....	59.0
State Sanatorium	.....	10.5	7.8	1.3	15.0	3.1	6.5	2.0	.....	46.2
Taylors Falls	.....	5.0	17.0	(*)	24.0	(*)	3.0	2.0	.....	.....
Thief River Falls	.....	6.9	16.8	1.8	11.7	4.7	1.0	2.4	.....	45.3
Tracy	.....	3.0	13.5	0.2	3.0	9.0	21.0	T.	.....	49.7
Two Harbors	.....	4.0	18.5	4.0	11.5	3.5	5.5	1.5	.....	48.5
Virginia	.....	4.6	23.6	4.9	8.0	2.8	8.3	6.8	.....	59.0
Wadena	.....	7.0	5.1	3.0	16.0	1.7	2.0	2.6	.....	37.4
Waseca	.....	.....	8.5	4.8	7.8	2.3	9.0	1.5	.....	33.9
Wheaton	.....	7.0	6.0	3.0	5.0	0.4	5.0	2.0	.....	28.4
Willmar	.....	3.0	14.1	10.4	10.1	3.5	13.0	1.5	.....	55.6
Winnebago	.....	T.	10.5	1.5	6.5	2.0	14.0	(*)	.....	.....
Winnibigoshish	.....	12.0	15.1	2.7	9.5	6.9	5.2	2.0	.....	53.4
Winona	.....	T.	8.0	7.4	12.2	3.5	12.0	2.5	.....	45.6
Winton	.....	6.5	27.0	4.0	6.8	9.0	1.0	(*)	(*)	.....
Worthington	.....	.....	10.5	2.0	5.5	9.0	12.0	3.0	.....	42.0
Zumbrota	.....	T.	11.0	4.5	11.0	1.0	12.0	(*)	(*)	.....

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Mississippi.										
Anguilla						T.				T.
Austin						T.				T.
Bay St. Louis							0.1			0.1
Biloxi							T.			T.
Brookhaven						T.	0.5			0.5
Canton						T.				T.
Clarksdale				T.		T.				T.
Columbia							1.3			1.3
Columbus						T.	T.			T.
Corinth				0.2		1.5				1.7
Crenshaw					T.	T.				T.
Crystal Springs							0.9			0.9
Duck Hill						T.				T.
Edwards							T.			T.
Fayette				T.		T.	1.8			1.8
Fruitland Park							1.0			1.0
Fulton						T.	T.			T.
Greenville						T.				T.
Greenwood						T.				T.
Hattiesburg							1.0			1.0
Hazlehurst						T.	0.9			0.9
Hernando				0.5		T.	1.0			1.5
Holly Springs				T.		T.	T.			T.
Jackson				T.						T.
Laurel							1.5			1.5
Louisville				T.	T.	T.				T.
Macon						T.				T.
Magnolia						T.	0.3			0.3
Meridian				T.		T.				T.
Merrill							T.			T.
Monticello							0.1			0.1
Moorhead						T.				T.
Pascagoula							T.			T.
Pearlington							0.9			0.9
Pontotoc						T.				T.
Poplarville							T.			T.
Port Gibson							3.0			3.0
Scott						T.				T.
Shubuta							T.			T.
Stoneville						T.	T.			T.
Swan Lake				T.		T.	T.			T.
Tchula						T.				T.
University						T.	T.			T.
Vicksburg				T.		T.	T.			T.
Water Valley					T.	T.	T.			T.
Woodville							T.			T.
Missouri.										
Amoret			T.	T.	6.0	T.	0.5	5.5		12.0
Appleton City				0.2	8.6	T.	0.5	1.5		10.8
Arcadia			T.	0.1	5.8	0.3	1.1	0.7		8.0
Aurora			T.		7.8	2.2	1.2	T.		11.2
Avalon			2.5	0.5	5.5	T.	2.2	8.0		18.7
Bethany			3.2	1.5	4.0	T.	T.	15.0		23.7
Birchtree					2.0	6.0	T.	T.		8.0
Bolivar				T.	8.5	T.	2.5	T.		11.0
Boonville					6.0	0.7	2.5	4.0		13.2
Brunswick			3.0	1.4	7.0	0.2	8.0	9.5		29.1
Cape Girardeau					0.1	1.0	T.	T.		1.1
Caruthersville				T.	T.	6.0	T.	T.		6.0
Clifton Hill			0.2	0.2	7.5	T.	T.	7.5		15.4
Clinton					7.5	0.4	0.7	8.0		16.6
Columbia			0.1	0.8	8.4	0.6	2.1	4.6		16.6
Conception			4.0	1.0	3.5	T.	0.5	10.0		19.0
Doniphan					1.0	2.0	T.	T.		3.0
Edgerton			0.8	0.2	0.9	0.3	1.5	5.2		8.9
Eldon			T.	T.	9.0	1.0	T.	3.2		13.2
Farmington				0.2	6.0	1.5	3.5	1.0		12.2
Fayette			T.	1.0	8.9	0.3	2.0	6.5		18.7

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Missouri—Continued.										
Fulton	.....	.....	.....	0.5	3.0	0.5	1.0	3.6	.....	8.6
Gano	.....	.....	.....	0.8	11.8	2.1	0.8	0.6	.....	16.1
Gorin	.....	.....	1.0	0.5	2.1	0.3	T.	6.0	.....	9.9
Grant City	.....	.....	4.0	2.0	6.0	T.	.....	4.0	.....	16.0
Hannibal	.....	.....	0.3	0.9	9.6	0.8	1.3	13.2	.....	26.1
Harrisonville	.....	.....	0.5	0.2	5.0	0.2	1.0	7.0	.....	13.9
Hermann	.....	.....	.....	T.	10.0	T.	0.8	0.8	.....	11.6
Hollister	.....	.....	.....	.....	6.0	8.0	0.7	T.	.....	14.7
Houston	.....	.....	T.	T.	6.5	0.7	2.5	0.5	.....	10.2
Jackson	.....	.....	.....	0.3	1.2	3.7	1.5	.....	.....	6.7
Jefferson City	.....	.....	T.	0.2	8.2	1.0	0.7	5.0	.....	15.1
Kansas City	.....	.....	2.6	0.5	0.4	0.6	2.0	7.0	.....	13.1
Kidder	.....	.....	2.0	1.5	3.0	0.2	2.0	9.0	.....	17.7
Kirksville	.....	.....	1.6	0.5	1.0	0.5	1.0	8.0	.....	12.6
Koshkonong	.....	.....	.....	T.	T.	7.0	3.0	8.0	.....	18.0
Lamar	.....	.....	.....	.....	6.0	.....	.....	2.0	.....	8.0
Lamonte	.....	.....	T.	T.	6.0	3.0	4.0	10.0	.....	23.0
Lebanon	.....	.....	.....	T.	12.0	T.	0.8	1.5	.....	14.3
Lexington	.....	.....	1.2	0.5	0.8	1.0	0.2	6.0	.....	9.7
Liberty	.....	.....	1.0	0.5	0.7	2.3	1.4	6.6	.....	12.5
Lockwood	.....	.....	T.	T.	8.0	.....	2.0	4.0	.....	14.0
Louisiana	.....	.....	T.	2.0	8.1	1.3	2.0	10.4	.....	23.8
Macon	.....	.....	1.6	1.8	5.0	0.2	3.0	11.5	.....	23.1
Marshall	.....	.....	0.5	0.2	4.0	1.0	0.2	10.0	.....	15.9
Maryville	.....	.....	5.0	6.5	4.5	0.5	0.5	12.2	.....	29.2
Mexico	.....	.....	T.	3.0	10.5	0.7	0.2	7.0	.....	21.4
Mountain Grove	.....	.....	.....	.....	4.0	4.7	1.2	.....	.....	9.9
Neosho	.....	.....	.....	T.	6.0	1.0	1.5	T.	.....	8.5
Nevada	.....	.....	T.	.....	10.0	(*)	T.	3.0	.....	.....
New Madrid	.....	.....	.....	T.	T.	5.0	T.	T.	.....	5.0
Oakfield	.....	.....	.....	1.0	12.5	2.0	1.5	T.	.....	17.0
Oregon	.....	.....	6.0	3.0	2.1	T.	T.	9.9	.....	21.0
Pacific	.....	.....	.....	T.	10.0	0.5	1.0	T.	.....	11.5
Palmyra	.....	.....	0.5	1.1	9.0	0.5	1.0	15.5	.....	27.6
Rolla	.....	.....	T.	2.0	9.2	0.2	2.0	2.0	.....	15.4
St. Catherine	.....	.....	5.5	0.5	0.7	T.	2.2	13.0	.....	21.9
St. Charles	.....	.....	T.	0.2	5.5	0.2	1.2	1.5	.....	8.6
St. Joseph	.....	.....	2.4	1.2	1.7	0.1	0.2	6.3	.....	11.9
St. Louis (Weather Bureau)	.....	.....	T.	0.3	9.3	1.0	1.9	0.2	.....	12.7
St. Louis (No. 2)	.....	.....	T.	2.3	14.8	1.7	6.4	.....	.....	25.2
Springfield	.....	.....	T.	0.3	12.8	2.2	4.1	2.0	.....	21.4
Steelville	.....	.....	.....	0.5	12.0	1.0	2.5	1.0	.....	17.0
Steffenville	.....	.....	2.0	1.0	6.0	1.0	2.0	11.0	.....	23.0
Tarkio	.....	.....	2.0	3.0	2.0	.....	.....	8.0	.....	15.0
Trenton	.....	.....	4.0	T.	2.0	T.	T.	7.0	.....	13.0
Tuscumbia	.....	.....	.....	T.	7.8	T.	T.	0.5	.....	8.3
Union	.....	.....	.....	0.2	11.0	1.0	0.7	T.	.....	12.9
Unionville	.....	.....	2.0	1.5	3.5	0.5	2.0	12.0	.....	21.5
Warrenton	.....	.....	.....	0.5	8.0	1.2	1.5	8.0	.....	19.2
Warsaw	.....	.....	T.	T.	12.2	0.5	5.5	5.0	.....	23.2
Waverly	.....	.....	0.4	1.2	4.5	T.	2.0	6.0	.....	14.1
Montana.										
Adel	2.2	21.0	17.5	15.5	17.5	28.0	18.0	(*)	.....	.....
Agricultural College	.....	20.5	11.4	20.2	5.5	7.1	29.0	(*)	.....	.....
Anaconda	T.	13.4	11.2	26.2	3.0	5.8	14.7	3.3	3.5	81.1
Augusta	15.0	12.0	12.0	14.0	10.0	7.0	6.0	21.0	(*)	.....
Babb	7.5	24.2	6.8	8.9	12.3	17.1	4.5	(*)	(*)	.....
Ballantine	2.5	(*)	17.0	14.2	8.5	10.0	6.0	2.0	.....	.....
Belton	T.	10.5	16.5	8.2	15.5	0.5	(*)	3.0	1.0	.....
Biddle	.....	28.6	15.0	7.5	7.5	6.5	10.0	6.5	.....	81.6
Big Ox	0.5	7.0	27.0	23.0	6.0	10.0	15.0	9.0	.....	97.5
Big Timber	2.0	42.0	28.0	14.0	9.0	8.0	10.0	6.0	.....	119.0
Billings	(*)	18.5	17.5	14.5	14.0	12.0	12.5	3.1	.....	.....
Blackleaf	25.0	26.0	(*)	13.0	25.0	17.0	11.0	38.4	6.0	.....
Bowen	.....	(*)	5.4	18.2	(*)	5.2	15.3	(*)	(*)	.....
Brenner	T.	27.6	19.8	20.9	(*)	14.6	28.1	19.1	6.0	.....
Bridger	0.2	24.5	3.5	5.8	8.8	11.7	4.5	5.5	.....	64.5
Browning	24.0	(*)	4.3	3.3	22.3	3.6	3.5	4.0	(*)	.....

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasons.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Montana—Continued.										
Busby	T.	33.5	12.8	10.8	13.8	9.2	17.0	24.7	T.	121.8
Busteed	4.0	26.7	24.0	12.9	12.3	12.8	12.0	13.2	.....	117.9
Butte	.....	13.5	15.5	22.9	2.5	11.5	19.5	6.6	(*)	.....
Canyon Ferry	.....	(*)	8.6	8.5	3.0	0.7	3.5	*	(*)	.....
Cascade	4.5	20.5	7.0	13.5	10.0	9.5	9.3	13.0	.....	87.3
Choteau	10.3	(*)	3.4	7.1	(*)	5.5	1.7	(*)	.....	.....
Christensen	4.0	22.0	4.0	15.0	9.0	16.0	10.0	(*)	.....	.....
Columbia Falls	T.	13.0	18.0	9.9	11.7	1.8	14.5	7.9	1.0	77.8
Como	0.1	17.8	15.4	17.5	2.8	5.3	6.3	(*)	0.1	.....
Copper	1.5	16.0	19.5	14.0	7.2	12.5	18.0	22.0	4.0	114.7
Crow Agency	.....	32.5	17.0	12.0	12.0	14.0	13.0	2.0	.....	102.5
Culbertson	T.	5.8	1.0	2.0	(*)	(*)	2.0	0.7	.....	.....
Cut Bank	5.0	7.0	1.0	1.5	4.0	3.0	3.0	10.5	(*)	.....
Dayton	.....	5.0	14.2	5.5	6.5	2.0	(*)	1.0	(*)	.....
Deer Lodge	(*)	4.0	(*)	11.5	3.3	2.2	7.0	T.	.....	.....
Dell	0.5	15.0	3.0	12.0	2.0	10.0	11.5	16.0	.....	70.0
Denton	4.7	12.2	6.4	12.5	6.0	5.0	6.7	25.0	T.	78.5
Dillon	T.	22.5	12.0	26.0	4.5	17.5	15.7	9.0	13.5	120.7
Dunkirk	T.	7.0	4.2	5.0	4.9	4.1	15.0	8.2	4.0	52.4
East Anaconda	.....	10.1	2.4	23.8	3.9	7.8	15.3	8.4	3.3	[3] 75.1
Elliston	.....	18.0	20.5	7.8	14.0	(*)	25.7	5.7	3.0	.....
Ennis	0.5	(*)	10.0	28.0	1.0	11.0	24.0	18.0	(*)	.....
Findon	3.5	17.9	17.0	13.6	9.7	7.1	7.3	21.6	T.	97.7
Flatwillow	3.0	26.2	6.7	5.7	8.2	7.7	4.0	6.7	.....	68.2
Fortine	T.	2.5	5.0	2.0	7.0	3.2	6.0	T.	.....	25.7
Fort Shaw	9.2	7.0	6.1	10.3	4.7	3.0	T.	6.5	T.	46.8
Foster	.....	4.0	14.0	7.5	6.0	10.0	8.4	5.0	.....	54.9
Geraldine	2.0	14.7	11.8	11.0	10.7	10.3	8.9	7.9	.....	77.3
Glasgow	2.0	4.0	4.8	4.0	9.2	3.0	2.5	3.1	.....	32.6
Glendive	.....	16.4	2.0	6.5	8.0	1.0	(*)	(*)	.....	.....
Goldbutte	(*)	(*)	7.3	9.5	13.9	11.9	6.2	14.4	3.0	.....
Great Falls	2.2	15.5	12.2	12.3	7.6	7.2	8.0	12.7	T.	77.7
Haugan	T.	13.0	26.6	13.7	16.5	3.0	14.8	5.0	T.	92.6
Havre	1.4	3.3	9.0	2.0	11.4	4.2	3.2	11.6	T.	46.1
Hebgen Dam	4.0	36.0	36.0	(*)	13.5	22.5	49.5	25.0	9.0	.....
Helena	0.1	15.6	17.2	21.6	8.0	6.9	12.5	6.3	2.0	90.2
Highwood	.....	4.4	3.5	9.5	4.4	4.5	9.6	13.5	.....	49.4
Holter	.....	11.0	13.0	13.0	6.0	10.5	3.0	3.5	.....	60.0
Jordan	3.0	11.5	4.0	7.0	14.5	6.5	2.0	6.0	.....	54.5
Kalispell	0.7	6.5	12.5	8.2	6.1	1.3	3.5	2.4	T.	41.2
Knobles Ranch	4.0	12.0	12.5	8.0	12.6	8.1	2.7	18.0	(*)	.....
Knowlton	T.	9.1	3.5	(*)	(*)	8.7	13.4	8.4	.....	.....
Lewistown	1.0	9.5	5.0	10.0	9.7	9.6	6.9	13.0	T.	[4] 65.2
Libby	.....	(*)	9.9	6.5	10.5	7.0	(*)	0.5	.....	.....
Livingston	.....	15.7	17.6	20.7	11.2	8.5	19.6	2.3	0.3	95.9
Lonepine	(*)	8.0	12.5	11.0	9.0	(*)	(*)	(*)	(*)	.....
Lytle	11.0	9.0	4.7	6.0	9.0	6.2	6.8	12.0	2.5	67.2
Malta	1.0	(*)	6.0	3.8	14.8	1.0	0.5	6.0	.....	.....
Mildred	.....	7.0	1.0	10.0	3.0	0.5	3.0	T.	T.	24.5
Miles City	.....	13.8	4.7	11.1	12.4	8.5	9.3	0.9	.....	60.7
Missoula	.....	7.5	12.9	22.5	4.0	1.0	6.5	.....	.....	54.4
Norris	0.2	30.5	9.0	17.5	8.9	18.9	22.5	14.5	2.0	124.0
Outlook	.....	4.5	4.0	(*)	(*)	0.7	(*)	1.5	.....	.....
Ovando	1.5	14.7	22.8	6.5	9.5	1.0	12.5	8.2	0.5	77.2
Philipsburg	1.2	17.0	14.0	16.1	1.0	3.2	24.8	14.0	9.3	100.6
Pinegrove	3.5	27.0	21.0	10.8	16.4	9.2	7.0	10.1	.....	105.0
Plains	T.	(*)	12.0	15.0	7.0	2.0	1.0	1.0	.....	.....
Plevna	.....	13.8	7.1	5.1	10.1	12.8	19.1	4.4	.....	72.4
Polson	(*)	8.0	19.0	16.0	9.0	2.0	(*)	4.0	(*)	.....
Poplar	1.5	11.9	4.5	2.7	12.0	6.0	5.0	3.7	.....	47.3
Red Lodge	T.	41.0	20.0	17.0	14.0	24.5	11.5	33.0	14.0	175.0
Renova	.....	14.5	10.5	7.5	T.	6.0	8.0	6.5	1.0	54.0
Rock Springs	1.2	18.8	11.7	8.0	28.0	9.4	10.5	4.0	.....	91.6
Roundup	5.0	24.0	22.0	26.0	19.0	9.0	13.0	5.0	.....	123.0
St. Ignatius	T.	10.0	20.0	15.2	6.5	.....	1.9	2.6	.....	56.2
Savage	.....	16.5	5.0	2.0	6.0	2.0	7.0	4.0	.....	42.5
Shelby	3.0	10.4	4.0	4.0	5.1	1.5	14.0	16.0	4.0	62.0
Sidney	(*)	(*)	3.6	3.0	7.2	T.	11.3	3.3	.....	.....

[3] Includes June, 1920: East Anaconda, 0.1.

[4] Includes June, 1920: Lewistown, 0.5.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Montana—Continued.										
Snowbelt	5.0	12.5	4.5	5.0	3.5	3.9	7.0	6.2	.....	47.6
Springbrook	T.	30.2	7.0	7.0	10.0	6.5	14.5	5.0	T.	80.2
Stevensville	0.1	7.2	7.0	22.2	0.8	(*)	(*)	6.7	4.0	.....
Stryker	0.5	(*)	23.0	10.0	21.0	6.0	18.0	(*)	(*)	.....
Suffolk	(*)	(*)	7.6	4.0	1.8	6.5	3.9	11.6	2.0	.....
Sula	(*)	4.5	9.5	15.0	(*)	(*)	18.0	(*)	(*)	.....
Sun River Canyon	(*)	(*)	20.5	17.0	(*)	6.0	9.6	25.5	(*)	.....
Superior	.....	(*)	(*)	20.0	5.8	1.2	T.	T.	(*)	.....
Thompson Falls	.....	(*)	21.0	8.0	2.1	.....	6.4	T.	.....	.....
Trout Creek	.....	6.5	26.8	8.0	7.0	T.	0.5	T.	.....	48.8
Upper Yaak River	.....	2.0	4.0	T.	2.2	3.5	4.0	6.3	.....	22.0
Utica	T.	14.4	13.8	9.0	7.0	12.0	3.5	6.0	.....	65.7
Valier	7.2	6.5	3.8	3.0	10.6	5.5	2.0	3.5	.....	42.1
Virginia City	.....	14.0	(*)	20.5	(*)	(*)	36.0	8.0	15.5	.....
Wheaton	4.0	10.0	17.0	14.5	9.0	6.0	8.5	14.0	.....	83.0
White Sulphur Springs	.....	9.0	8.0	13.0	5.0	3.0	4.0	12.0	T.	54.0
White Water	T.	3.0	5.5	0.5	10.0	3.5	T.	6.0	2.0	30.5
Nebraska.										
Ainsworth	.....	T.	27.7	6.0	T.	5.7	16.0	9.0	.....	64.4
Albion	.....	T.	14.0	5.0	T.	2.0	4.0	4.0	(*)	.....
Alma	.....	T.	6.5	5.5	3.5	1.0	1.5	3.5	.....	21.5
Arden	.....	T.	18.5	5.0	1.0	2.5	8.0	12.0	.....	47.0
Ashland	.....	.....	10.0	7.0	2.7	1.5	0.3	4.1	.....	25.6
Atkinson	.....	0.8	23.5	8.0	T.	1.5	10.0	6.6	.....	50.4
Auburn	.....	.....	6.0	4.0	3.0	0.5	.....	10.5	.....	24.0
Beatrice	.....	.....	5.0	6.0	1.0	T.	T.	18.0	.....	30.0
Bertrand	.....	T.	8.0	10.0	T.	T.	0.4	5.0	.....	23.4
Blair	.....	T.	10.0	7.5	1.3	4.5	T.	5.1	.....	28.4
Bradshaw	.....	.....	6.0	6.2	2.0	5.0	T.	5.0	.....	24.2
Brewster	.....	T.	19.7	3.5	T.	4.5	6.0	14.5	.....	48.2
Bridgeport	.....	1.0	11.0	6.9	2.0	5.0	12.0	31.0	.....	68.9
Broken Bow	.....	.....	16.0	1.5	T.	5.5	3.2	9.7	.....	35.9
Brownlee	.....	T.	22.0	T.	1.0	1.5	5.9	15.6	.....	46.0
Bruning	.....	T.	6.0	5.5	0.5	1.0	0.5	11.5	.....	25.0
Burwell	.....	.....	(*)	2.0	(*)	2.0	1.5	9.0	.....	.....
Butte	.....	T.	13.2	2.0	1.5	5.0	17.5	1.5	.....	40.7
Cairo	.....	.....	9.0	5.0	0.5	1.0	1.5	18.0	.....	35.0
Canton	.....	T.	18.0	8.0	6.8	6.0	5.0	33.3	T.	77.1
Central City	.....	T.	11.0	4.7	1.0	7.8	3.5	8.7	.....	36.7
Chadron	.....	5.4	10.2	2.3	5.1	9.9	4.8	33.4	.....	71.1
Clay Center	.....	.....	6.0	9.0	1.0	4.5	(*)	2.0	.....	.....
Columbus	.....	T.	12.0	3.0	0.5	4.0	2.0	5.5	.....	27.0
Crete	.....	.....	7.6	10.5	T.	T.	0.5	9.5	.....	28.1
Culbertson	.....	.....	23.0	9.5	2.0	4.5	3.0	8.0	.....	50.0
Curtis	.....	1.0	13.0	13.0	1.0	4.0	2.0	6.0	.....	40.0
David City	.....	T.	13.2	8.6	1.1	3.7	1.7	8.7	.....	37.0
Drexel	.....	T.	8.9	8.6	1.9	3.5	1.6	4.1	.....	28.6
Dumas	.....	.....	12.0	2.0	T.	4.0	5.5	16.0	.....	39.5
Elm Creek	.....	.....	6.0	10.0	.....	1.0	2.0	5.0	.....	24.0
Ericson	.....	0.5	8.0	(*)	.....	2.0	4.0	6.0	.....	.....
Ewing	.....	T.	6.0	3.0	0.8	2.5	11.0	2.7	.....	26.0
Fairbury	.....	.....	6.5	4.8	1.0	1.2	2.5	27.0	.....	43.0
Fairmont	.....	T.	6.2	8.0	1.0	3.0	0.7	9.0	.....	27.9
Falls City	.....	.....	6.5	4.0	2.0	T.	(*)	(*)	(*)	.....
Fort Omaha	.....	T.	7.5	7.9	2.9	4.8	0.3	6.8	.....	30.2
Fort Robinson	.....	1.0	(*)	5.2	5.3	8.5	11.5	(*)	(*)	.....
Franklin	.....	0.5	5.5	10.0	2.5	1.5	2.0	6.0	.....	28.0
Fremont	.....	T.	9.0	6.0	0.5	3.5	0.2	3.2	.....	22.4
Fullerton	.....	T.	14.4	6.5	1.2	1.7	5.7	6.4	.....	35.9
Geneva	.....	.....	10.5	11.5	3.0	2.5	0.5	14.5	.....	42.5
Genoa	.....	T.	12.6	5.0	1.0	2.0	3.4	4.5	.....	28.5
Gibbon	.....	T.	8.3	6.5	0.2	(*)	3.6	2.0	.....	.....
Gordon	.....	9.5	20.5	4.0	3.5	5.5	6.5	42.0	0.5	92.0
Gosper	.....	.....	5.5	4.0	T.	1.0	1.0	5.5	.....	17.0
Gothenburg	.....	T.	18.0	8.0	1.5	6.5	4.0	5.5	.....	43.5
Grand Island	.....	.....	6.8	10.0	3.0	6.2	5.2	7.5	.....	38.7
Greeley	.....	.....	22.5	3.4	T.	0.4	0.4	0.7	(*)	.....
Guide Rock	.....	.....	11.0	5.5	0.5	1.0	6.5	5.0	.....	29.5
Haigler	.....	T.	10.0	T.	(*)	6.5	2.0	12.5	0.7	.....

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Nebraska—Continued.										
Halsey	.....	T.	23.6	1.0	T.	5.6	5.0	9.0	.....	44.2
Hardy	.....	.....	7.0	8.0	T.	0.5	(*)	23.0	.....	.....
Hartington	.....	.....	6.5	3.5	1.0	5.5	7.0	8.0	.....	31.5
Hastings	.....	T.	6.0	8.0	5.5	5.5	3.5	12.0	.....	40.5
Hayes Center	.....	1.0	14.0	12.0	3.0	4.0	5.5	20.0	.....	59.5
Hay Springs	.....	4.0	19.5	1.0	3.5	12.2	11.5	26.5	.....	78.2
Hebron	.....	.....	7.0	3.5	1.0	1.5	2.4	11.7	.....	27.1
Hershey	.....	0.5	21.5	15.0	T.	6.0	5.0	12.0	.....	60.0
Hillside	.....	1.0	35.0	11.0	2.0	8.5	5.5	17.0	.....	80.0
Holdrege	.....	.....	10.0	9.0	0.5	3.5	3.5	15.0	.....	41.5
Imperial	.....	0.2	14.5	19.2	2.2	8.0	8.5	23.0	T.	75.6
Kearney	.....	0.5	10.0	10.5	1.5	2.0	2.5	5.0	.....	32.0
Kimball	.....	2.0	16.0	7.0	5.5	3.0	4.5	33.0	T.	71.0
Kirkwood	.....	T.	17.0	1.0	T.	1.5	(*)	(*)	(*)	.....
Kowanda	.....	(*)	14.5	3.0	2.4	1.9	(*)	18.5	0.4	.....
Lexington	.....	.....	6.0	17.0	.....	3.5	3.5	8.0	.....	38.0
Lincoln	.....	.....	8.9	9.1	1.8	1.5	0.8	9.0	.....	31.1
Lodgepole	.....	5.0	12.0	5.0	2.0	2.0	3.0	31.0	.....	60.0
Loup City	.....	.....	6.0	6.0	T.	2.0	(*)	(*)	(*)	.....
McCook	.....	T.	11.0	3.0	1.5	3.5	1.0	16.1	.....	36.1
McCool Junction	.....	T.	7.0	8.0	3.0	4.5	T.	T.	.....	22.5
Madison	.....	T.	10.5	2.0	0.5	0.5	4.0	4.5	.....	22.0
Madrid	.....	0.2	23.4	(*)	2.5	9.5	4.0	(*)	1.0	.....
Mary	.....	T.	18.0	2.0	T.	6.0	7.0	31.0	.....	64.0
Mason City	.....	T.	12.0	8.0	(*)	(*)	3.0	12.0	(*)	.....
Melbeta	.....	2.5	17.0	5.0	5.0	5.0	14.0	27.5	.....	76.0
Merriman	.....	3.0	16.0	3.0	2.0	3.0	4.0	38.0	.....	69.0
Minden	.....	T.	7.5	5.2	1.7	3.5	5.2	12.0	.....	35.1
Mitchell	.....	0.5	7.0	4.0	3.5	6.7	4.2	23.0	T.	48.9
Nebraska City	.....	.....	4.5	7.5	2.0	T.	T.	9.0	.....	23.0
Neligh	.....	T.	13.5	2.2	0.5	1.6	8.0	15.2	.....	41.0
Nenzel	.....	3.0	20.0	1.5	2.0	2.0	3.5	33.0	.....	65.0
Norfolk	.....	.....	11.5	8.0	2.2	3.1	7.2	5.5	.....	37.5
North Loup	.....	.....	15.8	1.8	T.	2.3	4.7	5.0	.....	29.6
North Platte	.....	0.1	20.5	3.2	0.6	6.5	2.6	6.9	.....	40.4
Oakdale	.....	T.	8.7	2.6	0.4	2.1	7.7	13.2	.....	34.7
Omaha	.....	T.	11.8	8.1	2.9	2.8	0.5	5.6	.....	31.7
O'Neill	.....	T.	14.0	3.0	T.	1.0	7.0	2.0	.....	27.0
Ord	.....	.....	22.5	2.0	.....	T.	1.0	10.5	.....	36.0
Orleans	.....	.....	(*)	9.0	2.0	1.0	2.0	4.0	.....	.....
Oshkosh	.....	T.	23.0	9.0	2.5	6.0	4.0	26.0	.....	70.5
Palisade	.....	0.4	18.0	13.1	1.4	2.5	2.3	6.5	.....	44.2
Pawnee City	.....	.....	4.0	4.0	0.5	T.	(*)	9.0	.....	.....
Paxton	.....	T.	30.2	21.0	1.0	12.0	5.0	(*)	.....	.....
Purdum	.....	0.3	36.8	7.3	0.2	5.5	5.9	45.2	.....	101.2
Ravenna	.....	T.	13.0	11.0	0.2	3.2	4.7	9.9	.....	42.0
Red Cloud	.....	T.	7.0	6.2	0.7	0.9	3.2	10.0	.....	28.0
St. Paul	.....	.....	7.0	2.5	T.	2.9	1.7	2.0	.....	16.1
Santee	.....	T.	18.0	0.5	1.5	3.0	14.5	2.0	.....	39.5
Scottsbluff	.....	1.5	12.3	4.4	3.5	5.7	13.0	23.8	T.	64.2
Seward	.....	.....	7.5	6.8	1.5	1.0	1.0	9.2	.....	27.0
Sidney	.....	5.5	11.5	11.0	3.5	1.7	4.5	47.5	1.0	86.2
Springfield	.....	.....	8.5	11.0	2.6	T.	(*)	(*)	.....	.....
Stanton	.....	.....	12.2	5.1	3.0	6.5	4.0	1.7	.....	32.5
Stratton	.....	T.	18.5	2.0	2.0	3.0	2.7	13.0	.....	41.2
Syracuse	.....	.....	9.5	13.5	4.0	0.5	T.	8.5	.....	36.0
Table Rock	.....	.....	7.0	4.0	1.5	0.5	1.0	14.0	.....	28.0
Tecumseh	.....	.....	5.1	6.0	2.0	T.	0.1	14.0	.....	27.2
Tekamah	.....	T.	9.0	5.0	1.0	7.0	0.9	4.2	.....	27.1
Upland	.....	T.	8.0	12.0	5.0	4.0	3.0	5.0	.....	37.0
Utica	.....	.....	11.9	5.8	0.5	1.5	0.2	8.5	.....	28.4
Valentine	.....	2.3	33.7	3.9	3.2	4.8	10.2	32.2	.....	90.3
Wahoo	.....	T.	9.0	12.0	2.0	3.7	0.5	5.6	.....	32.8
Wakefield	.....	.....	9.0	4.0	1.0	4.5	6.0	3.0	.....	27.5
Walthill	.....	T.	7.5	4.0	1.7	5.0	2.5	4.0	.....	24.7
Watertown	.....	.....	7.3	11.0	T.	3.0	5.0	5.0	.....	31.3
Wauneta	.....	.....	18.0	15.0	T.	2.0	4.0	9.0	.....	48.0
Weeping Water	.....	.....	9.0	10.5	2.5	T.	T.	6.0	.....	28.0
West Point	.....	T.	15.0	4.0	1.0	5.0	7.0	9.0	.....	41.0
Wisner	.....	.....	(*)	0.5	0.1	3.0	6.0	6.0	.....	.....
York	.....	T.	8.0	10.0	4.0	3.0	1.0	12.1	.....	38.1

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Nevada.										
Arthur			8.6	28.7	2.7	13.0	31.2	31.2	2.3	117.7
Austin	T.	5.0	14.2	12.0	12.0	7.0	31.0	16.0		97.2
Beowawe		0.2	(*)	(*)	(*)	3.0	2.5	3.5		
Clover Valley		6.0	10.0	12.0	(*)	7.2	T.	6.0		
Elko		6.0	6.0	13.0		8.0	8.0	12.0		53.0
Fallon		0.8		6.2		0.5				7.5
Gerlach			T.	7.5	T.	T.	8.0			15.5
Golconda		13.0	5.0	17.0	4.0	3.0	14.0			56.0
Gold Creek	T.	26.0	12.0	42.0	11.0	11.0	35.0	50.0	3.0	190.0
Goldfield		2.0	0.5	1.0		7.0	6.0	1.0		17.5
Hylton		7.5	9.0	9.0	2.0	5.0	25.5	13.0	T.	71.0
Imlay		T.	2.0	7.0	1.0	T.	T.			10.0
Jungo		T.		8.0	1.0		(*)			
Lahontan			T.	0.6						0.6
Lamoille		(*)	12.5	10.0	7.0	3.0	55.5	36.0		
Las Vegas			1.0				T.	(*)		
Lemmons Valley			1.5	19.0	T.	6.0	4.0			30.5
Lovelock		1.0	2.0	6.5		2.0	4.0			15.5
McGill	T.	4.5	9.5	5.9	1.5	15.7	12.7	2.3		52.1
Marlette Lake	1.0	19.4	14.0	75.0	6.5	27.0	56.0	39.0		237.9
Metropolis		11.0	5.0	6.5	T.	1.0	14.0	9.0		46.5
Millett			3.0	6.5		7.5				17.0
Minden		T.	3.5	20.0	2.0	2.0	3.0	3.0		33.5
North Fork		11.0	5.0	11.0	0.2	0.8	17.5	12.0		57.5
Owyhee		14.0	15.0	21.0	15.5	6.0	17.0	14.0		102.5
Rebel Creek		4.0	0.5	5.0	4.0	6.0	4.0	T.		23.5
Reno		1.4	1.9	33.8	0.1	3.2	4.7	2.0		47.1
Sand Pass		0.5		17.5	0.5	1.2	2.0			21.7
San Jacinto		0.5	2.0	8.0	3.0	9.0	7.0	13.5		43.0
Searchlight			1.3		T.		T.			1.3
Sharp		1.0	3.5	2.5	1.5	13.8	25.0			47.3
Smith			3.0	4.0	1.0	5.3	5.0			18.3
Sulphur		0.2	T.	9.0	1.5	T.	4.0			14.7
Tecoma		1.2	1.0	3.0	0.5	4.5	3.0			13.2
Thorne				T.		0.8				0.8
Tonopah	T.	2.5	3.5	2.2	T.	5.0	10.0	0.5		23.7
Tuscarora		16.0	11.5	15.0	3.5	11.2	25.0	31.0	6.2	119.4
Vya		(*)	(*)	15.0	4.0	9.0	18.5	(*)	(*)	
Winnemucca		5.0	1.7	11.2	3.5	2.4	6.5	1.1		31.4
Yerington			1.0	5.0	T.	1.0	0.4			7.4
New Hampshire.										
Alstead Center			16.0	6.0	31.0	50.0	24.0	7.0	T.	134.0
Berlin		T.	25.5	6.2	22.6	39.6	28.3	2.6	T.	124.8
Bethlehem			27.5	7.7	24.0	37.5	35.5	5.4		137.6
Concord			7.0	2.9	18.3	35.0	10.0	2.6		75.8
Durham			0.4	2.0	15.5	33.5	12.0	2.5		65.9
Franklin			3.2	2.5	21.5	40.0	16.0	0.2		83.4
Glencliff			20.5	7.0	25.5	50.5	21.6	6.0	T.	131.1
Hanover			15.8	5.5	26.2	35.5	24.0	T.		107.0
Keene			3.4	4.8	20.2	46.5	15.5	2.5		92.9
Pittsburg			24.6	14.5	38.9	38.5	33.4	15.2	T.	165.1
Plymouth			7.5	5.5	23.0	30.5	15.0	2.0		83.5
New Jersey.										
Atlantic City				3.7	2.6	5.1	2.5	T.		13.9
Belvidere				6.5	7.0	20.2	5.2			38.9
Bergen Point			T.	5.0	8.7	32.5	(*)	T.		
Boonton			T.	5.5	8.3	17.6	3.4	T.		34.8
Bridgeton				4.5	2.0	15.0	7.0	T.		28.5
Burlington				6.4	5.4	13.0	7.9			32.7
Cape May				3.2	1.7	5.2	1.2	T.		11.3
Clayton			T.	4.3	1.6	14.9	1.9			22.7
Culvers Lake			T.	9.5	15.2	35.1	10.5	1.0	T.	71.3
Dover				12.8	8.8	28.0	9.5	T.		59.1
Elizabeth				8.2	6.7	23.5	6.0	T.		44.4
Flemington				7.0	6.5	16.0	3.6	T.		33.1

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New Jersey—Continued.										
Hightstown				5.7	5.2	16.5	5.1			32.5
Highwood				11.3	10.0	23.6	7.0	T.		51.9
Indian Mills				6.0	3.5	13.0	5.5	T.		28.0
Jersey City			T.	8.4	8.8	23.6	6.8	T.		47.6
Kearny			T.	6.5	10.0	23.5	7.0	T.		47.0
Lakewood			T.	7.0	5.0	19.0	4.0	T.		35.0
Layton			T.	5.0	10.8	26.5	5.0	T.		47.3
Little Falls			T.	5.3	8.0	24.6	9.1	T.		47.0
Long Branch			T.	8.9	6.0	19.0	(*)	T.		
Moorestown			T.	5.5	4.0	26.2	(*)			
Newark				8.5	6.8	30.6	14.5	0.2		60.6
New Brunswick			T.	4.9	8.3	16.9	5.2	T.		35.3
Newton			T.	10.2	11.1	25.6	8.8	0.4		56.1
Northfield				4.4	1.8	5.4	2.7			14.3
Paterson			T.	4.5	7.8	23.0	7.0	T.		42.3
Phillipsburg			T.	11.3	7.9	21.4	8.7	T.		49.3
Plainfield				8.0	6.7	24.5	6.3	T.		45.5
Ridgefield			T.	10.0	9.8	22.4	8.0	T.		50.2
Sandy Hook				5.1	5.9	21.1	6.3	T.		38.4
Somerville			T.	8.5	6.0	24.5	5.0	T.		44.0
South Orange			T.	11.5	7.5	21.0	6.5	T.		46.5
Sussex			T.	(*)	11.2	17.5	(*)	T.		
Trenton			T.	4.6	5.0	9.3	6.8	T.		25.7
Tuckerton				7.8	6.0	16.0	3.0	T.		32.8
New Mexico.										
Abbott			3.0	2.0	5.5	5.0	0.2	2.0		17.7
Agricultural College			T.		0.5					0.5
Alamogordo (No. 1)			2.0		3.5					5.5
Alamogordo (No. 2)			2.5		1.8					4.3
Alamos Ranch		0.5	6.0	3.0	14.0	(*)	6.0	(*)	(*)	
Albuquerque			2.8	4.0	0.1		1.2	1.0		9.1
Alma			2.5		8.6	T.	T.	T.		11.1
Ancho			8.0	5.0	7.0	3.0	5.0	1.0		29.0
Anchor Mine	T.	22.0	49.0	16.0	20.0	41.0	42.0	53.0	13.0	256.0
Aragon			18.0		18.0	2.0	7.0	3.5		48.5
Artesia			2.0		7.5					9.5
Aspen Grove Ranch		7.0	17.0	33.0	10.5	10.5	22.0	32.5	(*)	
Aurora		2.0	12.0	4.5	1.5	18.5	6.5	12.5	11.5	69.0
Aztec		T.	1.5	5.0	4.5	T.	T.	1.2		12.2
Bateman's Ranch		16.0	19.7	22.2	13.0	17.7	27.8	19.2	2.0	137.6
Barton			5.0	21.0	31.5	4.0	4.0	3.8		69.3
Bell Ranch			6.2	1.0	2.2	T.	T.	T.		9.4
Black Lake			4.5	1.5	2.5	8.5	2.3	16.4	2.0	37.7
Blackrock		T.	10.2	7.6	15.0	1.1	15.8	6.5	T.	56.2
Bland		T.	5.8	T.	12.0	5.2	7.2	9.5	2.0	41.7
Bloomfield		T.	1.0	8.0	5.0	T.	T.	1.5		15.5
Boaz			2.5		10.0					12.5
Buchanan (near)			4.0	4.0	10.0	7.0	T.	T.		25.0
Cabeza			5.0	T.	2.0	3.5	T.	1.0		11.5
Campana			5.0		3.5	1.0				9.5
Capitan			3.5	T.	9.8	7.0	T.	2.5		22.8
Carlsbad			2.1		6.0					8.1
Carrizozo			4.2		T.	T.	4.0	T.		8.2
Carson Seep Ranger Station			4.5	(*)	10.0	3.0		(*)		
Chacon		T.	2.0	2.5	8.5	20.0	25.5	33.5	6.0	98.0
Cimarron (near)		T.	9.0	3.5	T.	10.0	3.5	2.0	4.0	32.0
Clacks Ranch		T.	6.0	6.0	41.2	7.0	(*)	(*)	(*)	
Clayton			3.0	0.5	2.0	4.0	1.2	2.0		12.7
Cloudcroft		T.	14.0	4.0	16.0	4.5	19.0	6.0	T.	63.5
Cloverdale			6.0				T.	1.5		7.5
Clovis			1.0		6.0	1.0				8.0
Corona			7.0	2.0	10.2	4.5	6.2	0.5		30.4
Crown Point			1.5	5.5	3.0	3.2	7.0	7.0		27.2
Cuervo			1.0	2.5	3.0	1.0				7.5
Cundiyo			4.0	2.0	4.0	1.0	5.0	0.9		16.9
Dawson			6.0	3.0	T.	15.0	T.	(*)	(*)	
Deming			1.7		2.8					4.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					onal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New Mexico—Continued.										
Deming (Courthouse)			1.0		3.0					4.0
Demonstration Farm			3.0	1.5	8.5	7.5	1.0	3.5	4.0	29.0
Des Moines			17.0	3.0	4.0	5.5	5.0	17.0	3.0	54.5
Dulce		8.0	10.0	20.0	16.5	13.5	6.5	12.8	(*)	
Duran			2.0	3.0	11.0	8.0	2.0	9.5		35.5
Eagle Rock Ranger Station			11.0	5.5	5.0	6.0	14.2	15.5		57.2
Elephant Butte Dam			T.		2.8	T.				2.8
Elizabethtown		2.0	15.0	8.0	1.0	9.2	14.0	12.0	7.0	68.2
Fort Bayard			4.6		16.0	0.2	5.0	0.5		26.3
Fort Stanton			2.5		3.8	0.8		(*)		
Fort Sumner			2.0	T.	6.0	T.	T.			8.0
Fruitland		T.	T.	3.5	8.0	(*)	T.	T.		
Gage			1.5		2.0					3.5
Gallinas Planting Station			4.0	5.0	16.0	20.0	14.6	16.5	8.0	84.1
Gallinas Ranger Station			6.0	(*)	(*)	6.0	8.0	T.		
Gallup		0.5	8.5	7.5	(*)	T.	(*)	(*)		
Glorieta Ranch			4.0	4.0	15.0	1.0	1.5			25.5
Hachita			3.0		2.0		T.			5.0
Harvey's Upper Ranch	T.	4.5	21.5	10.0	19.7	18.5	20.0	33.5	10.0	137.7
Hayden (near)			3.0	T.	1.0	T.	T.	T.		4.0
Hermanes			1.0		6.0					7.0
Hermosa			3.0		28.0	T.	5.0	T.		36.0
Hobbs			1.5		3.0					4.5
Hood Ranger Station			12.0		16.0		8.0	2.0		38.0
Hoosier Ranch			2.8	T.	1.5	6.5	T.			10.8
Hope			4.0	4.0	10.0	0.5	0.2			18.7
Ione	T.		1.5	T.	2.0	1.6	T.	T.	T.	5.1
Jal			0.3		4.2					4.5
Jemez Springs		T.	4.5	3.8	9.8	4.0	12.5	11.8		46.4
Johnson's Park		T.	2.0	3.0	T.	T.	1.5	27.5	T.	34.0
Kingston Ranger Station			3.0		12.5		T.	(*)		
Laguna			5.0	0.3	12.3	0.6	(*)	3.0	(*)	
Lagunita			3.0	T.	10.0	3.0	T.	T.		16.0
Lake Alice		1.0	(*)	(*)	T.	2.2	11.0	21.0	1.0	
Lake Avalon			1.2		3.0					4.2
Lake Valley			3.0		8.0	2.0	T.	T.		13.0
Lakewood			1.5		4.6					6.1
Las Vegas			5.2	2.0	8.8	4.0	1.0	0.5	4.0	25.5
Logan			4.0		3.0	2.0	T.	T.		9.0
Lordsburg			2.5		1.8		0.2			4.5
Los Lunas (near)			4.0	4.0	2.0		T.			10.0
Luna Ranger Station			11.0		21.0	0.8	4.5	(*)		
Magdalena			3.9	5.0	23.0	T.	T.	T.		31.9
Maxwell		1.0	3.5	1.0		8.0	1.0	2.0		16.5
Mayhill Ranger Station			3.5		9.8		T.	T.		13.3
Meek			10.0	3.0	17.0	3.0		0.5		33.5
Melrose			2.8	2.5	2.5	0.7				8.5
Mescalero			3.0	T.	T.	T.	(*)	2.0		
Miami Ranch			7.5	0.5	2.2	5.8	2.0	3.0	T.	21.0
Mills			5.0		4.0	7.5	0.5	1.6		18.6
Mineral Hill			5.5	2.0	13.0	18.0	3.5	9.2	6.0	57.2
Mogollon Ranger Station			13.0		21.0	2.0	23.0	18.0		87.0
Montoya			1.5	T.	4.0	1.5				7.0
Mosquero			3.0	T.	3.5	3.5	T.			10.0
Mountainair			5.7	2.6	12.4	2.5	3.2	7.5		33.9
Mountain Park			7.5	1.0	6.5	T.	12.5	2.0		29.5
Nara Visa			1.0		1.5	T.	T.			2.5
Newman			1.0		1.0		T.			2.0
Nogal (near)			14.0	1.0	17.0	4.0	(*)	14.0		
Noria			1.0		T.		T.	(*)	(*)	
Orogrande			2.0		4.0					6.0
Oscura (No. 2)			10.0		T.					10.0
Palma			4.0	5.0	6.0	0.5	T.	T.	2.0	17.5
Pasamonte		0.5	7.0	1.0	1.2	T.		1.0		10.7
Pastura			2.0	2.0	7.5	4.0	T.	T.		15.5
Pearl (near)			2.0		8.0					10.0
Pinon (near)	T.		5.0		13.0	T.	T.	T.		18.0
Pinos Altos (near)			15.5	2.5	23.5	11.0	30.0	14.5		97.0

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New Mexico—Continued.										
Pleasant Hill	(*)	(*)	2.6	3.4	6.5	1.0	4.3	T.	.....	.....
Portales (near)	.....	.....	2.5	.....	7.5	1.2	.....	.....	.....	11.2
Raton (near)	.....	0.5	2.5	7.0	T.	4.5	2.0	(*)	.....	.....
Red River Canyon	T.	4.0	22.0	16.0	5.0	12.0	37.0	36.0	7.0	139.0
Regina	.....	.....	(*)	(*)	4.0	4.2	16.0	18.5	.....	.....
Richland (near)	.....	.....	1.0	.....	4.0	.....	.....	.....	.....	5.0
Rociada	.....	.....	4.5	1.5	11.0	8.0	3.0	8.5	10.0	46.5
Rodeo	.....	.....	3.0	.....	5.8	.....	.....	.....	.....	8.8
Rosedale	.....	.....	8.0	.....	23.0	1.0	2.0	11.0	.....	45.0
Roswell (Weather Bureau)	.....	.....	2.4	.....	13.0	T.	T.	.....	.....	15.4
Roswell (No. 2)	.....	.....	3.0	.....	13.5	T.	T.	.....	.....	16.5
Roy	.....	.....	0.5	T.	1.5	1.0	T.	T.	.....	3.0
Saint Vrain	.....	.....	3.1	2.5	13.0	0.7	.....	T.	.....	19.3
San Antone Ranger Station	.....	2.0	8.0	25.0	8.5	(*)	(*)	(*)	T.	.....
San Jon	.....	.....	.....	T.	12.0	T.	T.	.....	.....	12.0
Santa Fe	.....	T.	3.2	0.2	4.4	7.3	3.4	3.5	T.	22.0
Santa Rosa	.....	.....	T.	.....	2.0	T.	.....	.....	.....	2.0
Schuster Springs Ranger Station	.....	.....	9.5	13.0	(*)	2.5	28.0	14.0	5.5	.....
Senorito (near)	.....	5.0	.....	.....	30.0	10.0	25.5	22.0	1.0	93.5
Silver City	.....	.....	6.5	.....	15.1	0.1	10.0	8.4	.....	40.1
Socorro	.....	.....	6.7	.....	5.0	.....	(*)	.....	.....	.....
Soham	.....	T.	4.0	2.0	4.0	6.5	(*)	T.	T.	.....
Solano	.....	.....	4.0	.....	2.0	2.0	.....	.....	.....	8.0
Springer	.....	.....	8.5	3.0	2.0	4.5	2.5	3.2	.....	23.7
Stanley	.....	.....	2.5	4.0	5.0	(*)	.....	3.0	.....	.....
Taos	.....	.....	2.0	6.5	2.0	2.0	5.0	4.0	.....	21.5
Taos Canyon	.....	1.0	17.5	11.2	1.5	13.5	19.8	18.5	1.0	84.0
Taylor	.....	.....	6.0	1.0	1.5	3.0	1.0	1.5	.....	14.0
Texico (near)	.....	.....	3.0	.....	7.0	0.8	.....	.....	.....	10.8
Three Rivers	.....	.....	5.0	.....	T.	T.	T.	.....	.....	5.0
Tijeras Canyon	.....	.....	8.0	16.0	21.0	2.0	3.0	5.0	.....	55.0
Torrance	.....	.....	3.0	3.0	11.7	5.0	3.0	2.5	.....	28.2
Tres Piedras	.....	2.0	8.5	12.5	10.0	3.0	8.8	20.0	T.	64.8
Truchas	.....	T.	9.5	2.0	4.5	5.5	9.5	11.5	T.	42.5
Trujillo (near)	.....	.....	8.2	4.0	10.0	(*)	(*)	4.0	.....	.....
Tucumcari (near)	.....	.....	3.0	.....	9.0	T.	0.8	.....	.....	12.8
Tucumcari (No. 2)	.....	.....	2.5	T.	4.0	2.0	.....	T.	.....	8.5
Tularosa	.....	.....	4.5	.....	0.8	.....	.....	.....	.....	5.3
Turney's Ranch	.....	.....	.....	.....	T.	.....	T.	.....	.....	T.
Tyrone	.....	.....	6.0	.....	25.5	.....	10.0	3.0	.....	44.5
Valmora	.....	.....	3.5	1.0	7.5	11.2	1.9	1.5	.....	26.6
Vance (near)	.....	.....	1.0	.....	1.0	2.0	.....	.....	.....	4.0
Vaughn	.....	.....	3.0	2.0	10.0	7.0	T.	2.5	.....	24.5
Vermejo Park	.....	3.0	11.0	9.0	2.0	7.0	3.2	(*)	(*)	.....
Virsylvia	.....	0.2	8.8	4.0	1.5	2.0	6.0	13.5	0.2	36.2
Weed Ranger Station	.....	.....	3.8	T.	8.4	1.9	4.0	T.	.....	18.1
Willard	.....	.....	5.0	(*)	4.0	2.0	0.5	8.1	.....	.....
Winsor's Ranch	.....	.....	13.0	2.0	5.5	7.0	14.0	21.0	2.0	64.5
New York.										
Adams Center	.....	T.	(*)	36.5	35.0	52.5	31.0	15.5	.....	.....
Addison	.....	.....	0.3	3.6	14.3	8.3	10.2	2.0	.....	38.7
Albany	.....	.....	T.	5.9	18.4	23.9	16.3	1.1	.....	65.6
Alfred	.....	.....	9.9	8.5	20.1	8.2	6.1	5.9	T.	58.7
Amsterdam	.....	.....	T.	3.0	26.5	(*)	21.5	(*)	.....	.....
Angelica	.....	.....	1.0	9.0	29.0	15.2	16.0	7.0	T.	77.2
Appleton	.....	.....	T.	15.5	19.0	13.4	3.5	5.8	.....	57.2
Auburn	.....	.....	12.1	12.1	20.3	17.1	10.2	1.3	T.	73.1
Avon	.....	.....	2.0	7.0	18.2	17.0	9.0	T.	.....	53.2
Bainbridge	.....	.....	1.3	6.1	21.0	33.8	13.0	2.8	.....	78.0
Ballston Lake	.....	.....	T.	9.1	18.5	29.7	22.6	4.6	.....	84.5
Binghamton	.....	.....	3.1	9.8	16.5	19.9	14.3	0.7	.....	64.3
Bolivar	.....	.....	2.5	18.0	39.5	21.0	8.0	7.0	T.	96.0
Brockport	.....	.....	5.5	18.8	46.0	16.0	9.5	0.5	.....	96.3
Buffalo	.....	.....	2.9	15.5	23.8	19.2	6.3	1.7	.....	69.4
Canton	.....	.....	2.5	8.8	18.0	22.2	11.1	5.1	0.4	68.1
Carmel	.....	.....	.....	10.1	14.2	29.0	11.0	0.2	.....	64.5
Cazenovia	.....	.....	8.5	29.0	37.0	55.0	32.5	T.	.....	162.0

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New York—Continued.										
Chatham			T.	7.5	26.0	35.0	30.0	1.0		99.5
Chazy			8.0	5.0	17.0	17.0	9.0	0.5		56.5
Cooperstown			0.5	5.0	(*)	34.5	23.5	0.3		
Corinth			(*)	7.0	18.0	35.0	16.0	(*)		
Cortland			2.5	9.1	20.0	12.0	14.3	4.3		62.2
Cutchogue				10.5	9.0	24.0	5.0			48.5
Dannemora			9.0	8.0	30.9	66.0	(*)	(*)	T.	
Dansville			3.0	4.2	12.0	6.5	1.0	T.		26.7
De Ruyter			3.6	10.6	23.9	26.2	14.3	7.6	T.	86.2
Elmira		T.	T.	6.7	15.0	9.8	12.0	1.3		44.8
Flushing			T.	6.7	9.0	21.0	4.8	T.		41.5
Fredonia			5.6	22.4	35.3	19.7	5.6	5.3		93.9
Gabriels		T.	(*)	7.2	19.3	31.4	29.5	10.0	1.0	
Geneva			2.0	11.5	31.0	24.0	12.0	2.0		82.5
Glens Falls (No. 1)			1.0	7.0	22.7	31.3	16.0	2.5		80.5
Glens Falls (No. 2)			(*)	7.8	15.5	35.5	25.0	2.5		
Gloversville			T.	7.0	35.5	(*)	20.5	8.0	T.	
Greenfield Center			(*)	9.5	20.0	41.0	1.1	2.0		
Harkness			5.0	4.5	21.2	22.0	26.0	4.0		82.7
Hemlock			2.0	10.5	15.7	9.7	2.5	1.5		41.9
Homestead Sanatorium			2.5	(*)	21.7	37.3	30.1	3.7	T.	
Hoosick Falls			(*)	4.2	28.0	47.5	(*)	1.0		
Hunt			1.0	6.0	20.0	11.0	(*)	(*)		
Indian Lake			(*)	6.2	20.6	20.8	18.4	(*)		
Ithaca			0.4	14.1	16.9	18.6	14.3	2.1	T.	66.4
Jeffersonville			T.	9.0	22.0	30.8	9.0	1.0		71.8
Lake Placid Club			15.8	(*)	27.4	36.1	10.5	1.0		
Lauterbrunnen			1.0	8.5	23.0	20.3	3.0	2.5	T.	58.3
Little Falls			T.	17.5	28.5	31.5	11.0	(*)		
Lockport			1.0	12.8	21.0	12.3	7.5	0.5		55.1
Lowville			5.6	20.1	26.8	35.0	12.6	4.0		104.1
Mechanicsville			T.	8.5	17.0	31.0	22.0	2.0		80.5
Mohonk Lake				8.3	22.0	29.1	11.3	(*)		
Moira			11.0	10.5	41.0	29.0	17.0	7.0		115.5
Morrisville			3.0	15.0	19.0	40.0	10.0	4.0		91.0
Mount Hope				11.0	10.5	39.0	13.0	T.		73.5
Mount McGregor			0.2	4.6	21.1	37.5	(*)	1.5		
Mount Vernon			T.	7.9	13.2	24.2	4.7	T.		50.0
New Lisbon			T.	10.0	23.0	41.0	15.0	2.0	T.	91.0
New York City			T.	7.9	7.8	24.2	5.7	T.		45.6
North Lake			(*)	15.0	43.0	42.0	33.5	11.0		
North Rose			1.5	17.0	37.3	26.1	8.7	4.1		94.7
Northville			(*)	10.2	18.1	55.8	16.5	(*)		
Norwich			1.0	15.0	29.0	33.5	17.5	6.0		102.0
Ogdensburg			0.8	5.7	8.3	20.5	4.0	T.		39.3
Olean			1.5	11.5	21.5	15.2	7.0	4.0		60.7
Oneonta			(*)	10.0	20.1	46.0	19.0	(*)		
Oswego			0.6	47.2	47.4	29.3	16.5	7.5	T.	148.5
Palermo			4.8	54.4	72.6	34.6	14.2	11.8	T.	192.4
Penn Yan			0.5	12.0	14.0	17.0	9.0	2.9		55.4
Perrysburg			(*)	23.0	28.0	18.0	4.0	1.5		
Philadelphia			5.0	25.0	18.0	20.0	10.0	2.0		80.0
Port Jervis (No. 1)			T.	6.7	13.6	25.3	11.4	0.1		57.1
Raquette Lake	T.		17.9	24.0	36.4	40.7	37.4	16.7	1.1	174.2
Rhinebeck				9.4	19.7	28.6	17.5	T.		75.2
Rochester			5.8	19.1	35.4	18.7	16.3	2.2		97.5
Romulus			2.4	13.0	24.5	26.0	0.8	1.0		
Roslyn				8.2	7.5	24.0	5.0	T.		44.7
Roxbury			3.0	9.5	27.8	39.0	23.0	4.5	1.0	107.8
Salisbury			3.0	8.0	30.0	32.0	9.0	8.0		90.0
Scarsdale				10.5	8.7	29.5	6.0	T.		54.7
Setauket				7.0	8.8	28.0	3.5	T.		47.3
Sharon Springs (No. 1)			T.	12.0	23.0	35.0	17.0	2.0		89.0
Sharon Springs (No. 2)			0.4	7.0	19.0	22.0	12.0	2.0		62.4
Sherburne			2.0	11.0	23.3	28.9	12.7	2.0		79.9
Shortsville			4.3	10.1	14.4	11.8	T.	T.		40.6
Skaneateles			5.0	15.0	33.5	29.5	15.5	9.0		107.5
Spier Falls			T.	6.7	16.8	38.8	17.8	2.7		82.8

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New York—Continued.										
Syracuse			7.1	20.3	37.1	21.1	12.6	3.0	T.	101.2
Tribes Hill			(*)	5.5	22.5	30.5	20.0	3.0		
Utica			(*)	17.9	40.7	33.4	30.5	(*)		
Volusia			7.0	33.0	28.5	22.0	6.0	10.0		106.5
Walton			1.0	9.0	22.0	35.0	8.0	2.0	T.	77.0
Wanakena			19.2	28.2	35.5	32.2	11.2	5.8		132.1
Wappingers Falls				7.7	16.0	28.5	15.0	T.		67.2
Warwick			T.	12.0	15.0	28.0	16.0	(*)		
Watertown			4.0	23.0	33.0	25.5	16.0	4.0	T.	105.5
Wedgwood			0.5	8.5	15.5	16.0	13.0	2.0	T.	55.5
West Berne			T.	7.5	22.0	32.0	20.0	2.0		83.5
Westfield			14.0	26.0	20.0	(*)	4.0	3.0		
West Point				9.6	6.0	19.8	8.9	T.		44.3
York			6.0	15.0	27.5	13.7	9.5	3.2	T.	74.9
North Carolina.										
Altapass				T.	5.5	3.7	0.5	T.		9.7
Andrews					0.5	4.3	T.	(*)		
Asheville				0.2	4.6	1.5	0.2	T.		6.5
Banners Elk				0.5	2.0	13.5	8.0	0.2		24.2
Beaufort					T.		T.			T.
Brevard				T.	4.0	T.	T.	T.		4.0
Brewers					6.0	1.0	(*)			
Bryson City					1.0	0.3	T.			1.3
Caroleen					6.0		T.			6.0
Chapel Hill					4.0	0.5	0.2			4.7
Charlotte					2.2	T.	T.			2.2
Cullowhee				T.	2.0	0.5	T.	T.		2.5
Durham					1.5	0.1				1.6
Eagletown					0.2	0.5	T.			0.7
Elkin					3.5	0.5	T.			4.0
Ellijay				T.	1.0	1.0	(*)			
Fayetteville						T.				T.
Goldsboro					T.		T.			T.
Gorge					6.0	1.1	0.6	0.1		7.8
Graham					3.0	T.	0.5			3.5
Greenville				T.	T.					T.
Hatteras					T.	T.				T.
Henderson				0.5	0.2	0.2	T.			0.9
Hendersonville				T.	T.	T.	T.			T.
Hickory					4.5	T.	0.5			5.0
Highlands				T.	4.5	0.5	T.	0.5		5.5
Hot Springs				1.0	2.2	12.5	2.7			17.4
Jefferson				T.	4.5	2.4	0.5	T.		7.4
Lenoir					5.0	0.5	T.			5.5
Louisburg				0.5	1.0	T.	T.			1.5
Lumberton					T.					T.
Marion					8.5	0.5	T.			9.0
Marshall				T.	T.	1.0	T.			1.0
Montreat				T.	5.8	T.	T.			5.8
Morganton				T.	6.0	T.		T.		6.0
Mount Airy					3.0	1.5				4.5
Mount Holly					5.0	(*)				
Murphy					1.0	1.0	T.			2.0
Nashville				T.	1.2	T.	T.			1.2
Newbern					T.	T.	T.			T.
New Holland					1.0	(*)				
Neuse					1.0	0.1	T.			1.1
Parker				2.6	3.0	14.2	8.6	T.		25.8
Pinehurst					1.0	T.				1.0
Raleigh (Weather Bureau)					1.3	0.1	T.			1.4
Raleigh (No. 2)					1.3	0.1	T.			1.4
Randleman					4.5		T.			4.5
Reidsville				0.2	3.0		1.0			4.0
Rock House (No. 1)				T.	4.0	0.8	T.	T.		4.8
Rock House (No. 2)				T.	4.0	0.8	T.	T.		4.8
Rockingham					1.8	T.				1.8
Rougemont					4.5	0.5	0.5			5.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
North Carolina—Continued.										
Salisbury	.....	.....	.....	.....	3.1	T.	T.	.....	.....	3.1
Sanatorium	.....	.....	.....	.....	0.1	T.	T.	.....	.....	0.1
Scotland Neck	.....	.....	.....	.....	0.1	1.0	.....	.....	.....	1.1
Settle	.....	.....	.....	.....	2.0	T.	0.5	.....	.....	2.5
Siler City	.....	.....	.....	.....	1.2	T.	.....	.....	.....	1.2
Sloan	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Smithfield	.....	.....	.....	.....	1.0	.....	T.	.....	.....	1.0
Southport	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Statesville (No. 1)	.....	.....	.....	.....	4.0	.....	.....	.....	.....	4.0
Tarboro	.....	.....	.....	.....	0.2	0.2	.....	.....	.....	0.4
Waynesville	.....	.....	.....	.....	8.0	1.3	(*)	.....	.....	.....
Weldon	.....	.....	.....	0.2	1.0	.....	T.	.....	.....	1.2
Wenona	.....	.....	.....	.....	3.8	T.	.....	.....	.....	3.8
Wilmington	.....	.....	.....	.....	T.	T.	.....	.....	.....	T.
Winston-Salem	.....	.....	.....	.....	3.5	0.1	.....	.....	.....	3.6
North Dakota.										
Amenia	.....	1.0	27.7	11.0	16.5	2.2	2.0	1.0	.....	61.4
Arnegard	.....	12.0	4.0	.....	16.0	6.0	7.0	2.0	.....	47.0
Ashley	.....	13.0	10.0	4.0	6.0	2.0	5.0	8.0	.....	48.0
Beach	1.0	12.5	(*)	(*)	6.0	4.2	24.5	(*)	.....	.....
Berthold Agency	T.	9.0	4.1	2.3	10.2	1.6	13.2	3.7	.....	44.1
Bismarck	T.	11.4	11.7	3.9	6.9	2.0	11.7	0.2	.....	47.8
Bowman	T.	19.4	9.6	0.5	(*)	3.1	7.9	T.	.....	.....
Cando	.....	(*)	(*)	6.0	11.0	1.6	3.4	5.4	.....	.....
Carson	T.	8.4	11.0	1.5	4.8	0.6	7.2	4.2	.....	37.7
Colgate	.....	2.0	20.0	6.0	7.0	2.0	(*)	2.0	.....	.....
Cooperstown	T.	4.0	18.0	13.0	10.0	T.	T.	4.0	.....	49.0
Crosby	.....	9.1	3.4	2.0	5.2	1.5	8.5	2.0	.....	31.7
Devils Lake	0.2	6.4	14.9	7.6	10.0	2.0	3.6	1.0	.....	45.7
Donnybrook	.....	12.5	2.0	2.0	6.5	T.	14.5	0.5	.....	38.0
Dunn Center	T.	10.2	4.0	2.0	3.5	T.	12.0	6.0	T.	37.7
Dunseith	T.	7.0	3.5	6.0	6.0	2.0	T.	T.	.....	24.5
Ellendale	.....	12.4	12.2	5.0	8.0	3.0	4.5	3.5	.....	48.6
Epping	T.	14.5	17.0	2.5	5.0	(*)	16.0	T.	2.0	.....
Fessenden	T.	8.5	14.5	8.5	11.5	1.5	6.0	2.0	.....	52.5
Fryburg	T.	26.0	6.5	4.5	5.0	4.0	9.0	2.5	1.0	58.5
Fullerton	.....	10.1	18.9	5.0	11.7	0.7	5.1	0.5	.....	52.0
Garrison	2.0	10.1	3.0	1.8	7.2	3.5	9.8	3.5	T.	40.9
Grafton	.....	4.9	23.6	1.6	11.1	8.6	6.3	1.4	.....	57.5
Grand Forks	.....	5.0	23.9	1.9	10.3	2.5	3.9	1.2	.....	48.7
Granville	1.0	15.0	19.0	11.0	16.5	4.0	12.0	4.0	.....	82.5
Hannah	.....	12.0	17.0	5.0	19.0	8.0	8.0	1.5	.....	70.5
Hansboro	T.	14.2	10.4	5.0	21.0	3.9	6.0	(*)	.....	.....
Hillsboro	.....	3.0	21.2	6.0	13.0	4.0	2.5	T.	.....	49.7
Howard	1.6	13.0	2.0	2.9	10.1	6.1	15.0	6.8	3.0	60.5
Jamestown	.....	2.3	15.5	9.0	7.0	2.5	T.	T.	.....	36.3
Lamoine	.....	2.0	10.0	6.0	14.0	5.0	2.0	1.0	.....	40.0
Langdon	.....	12.0	19.2	5.0	21.0	3.0	7.5	T.	T.	67.7
Larimore	T.	5.5	34.0	5.0	17.0	8.5	0.5	(*)	.....	.....
Linton	.....	(*)	8.0	(*)	8.5	3.0	8.0	4.0	.....	.....
Lisbon	.....	7.0	29.0	T.	10.0	T.	1.0	0.2	.....	47.2
McClusky	.....	4.5	12.5	6.5	9.5	5.5	5.5	2.0	.....	46.0
McHenry	.....	4.5	20.0	25.0	13.0	14.2	3.0	6.0	.....	85.7
McKinney	.....	19.5	5.0	4.0	5.0	T.	8.0	.....	.....	41.5
Manfred	.....	4.7	11.5	9.0	11.5	4.7	2.0	1.5	.....	44.9
Marmarth	0.3	15.5	8.1	1.8	8.4	7.9	13.1	5.9	.....	61.0
Melville	.....	5.0	16.0	6.0	7.0	0.5	T.	2.0	.....	36.5
Minot	T.	14.5	12.5	8.0	6.0	2.5	15.0	(*)	.....	.....
Mott	.....	9.5	8.5	2.0	8.0	6.0	13.2	2.0	.....	49.2
Napoleon	.....	10.0	3.0	4.0	5.0	1.0	4.0	6.5	.....	33.5
New England	T.	8.0	6.0	.....	(*)	1.0	7.0	3.0	(*)	.....
New Salem	0.2	9.5	13.7	4.2	3.5	1.5	14.0	3.0	.....	49.6
Pembina	.....	2.0	14.0	2.0	27.0	17.0	5.0	.....	.....	67.0
Pettibone	T.	1.5	12.0	7.0	15.0	2.0	4.0	T.	.....	41.5
Power	.....	4.5	13.0	8.0	14.0	4.5	5.0	1.0	.....	50.0
Powers Lake	.....	16.5	5.5	6.5	12.5	3.5	13.0	.....	.....	57.5
Selfridge	.....	10.5	2.5	0.5	2.0	T.	12.0	4.0	.....	31.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
North Dakota—Continued.										
Steele	0.5	10.0	3.2	1.5	12.5	2.0	9.8	2.2	.....	41.7
Towner	T.	8.0	12.0	5.0	7.5	3.5	7.0	3.0	.....	46.0
Turtle Lake	.....	5.5	6.0	3.0	8.0	2.5	4.5	3.3	T.	32.8
Valley City	.....	1.5	16.5	8.5	23.0	3.5	0.5	.....	.....	53.5
Wahpeton	.....	(*)	9.0	9.0	12.0	2.0	3.5	.....	.....	.....
Walhalla	.....	18.0	10.0	6.0	14.0	7.0	5.5	0.5	(*)	.....
Washburn	.....	11.0	10.0	3.5	10.0	3.5	(*)	(*)	(*)	.....
Williston	.....	11.0	3.8	2.1	8.4	1.3	9.8	1.3	T.	37.7
Willow City	T.	11.0	10.0	11.0	14.0	5.0	7.0	T.	.....	58.0
Zap	T.	9.5	(*)	6.0	5.0	T.	8.0	(*)	.....	.....
Ohio.										
Akron	.....	.....	1.0	8.7	12.8	(*)	2.0	3.8	.....	.....
Amesville	.....	.....	T.	7.5	5.5	2.6	T.	0.5	.....	16.1
Ashland	.....	.....	T.	6.0	14.5	6.0	T.	1.0	.....	27.5
Bangorville	.....	.....	2.0	4.2	14.3	8.2	0.7	4.0	.....	33.4
Batavia	.....	.....	.....	4.0	T.	8.0	2.1	4.9	.....	19.0
Bellefontaine	.....	.....	T.	4.0	13.7	2.7	1.1	2.7	.....	24.2
Benton Ridge	.....	.....	0.5	4.4	19.8	1.3	2.7	2.5	.....	31.2
Beverly	.....	.....	T.	7.0	2.5	2.0	T.	0.2	.....	11.7
Bowling Green	.....	.....	(*)	0.2	9.5	1.5	1.5	2.0	.....	.....
Brilliant	.....	.....	T.	10.0	17.0	3.5	3.0	1.0	.....	34.5
Bucyrus	.....	.....	T.	8.0	21.5	3.0	T.	T.	.....	32.5
Cadiz	.....	.....	T.	13.0	9.3	10.2	1.2	6.0	.....	39.7
Cambridge	.....	.....	.....	5.0	9.0	3.0	T.	1.0	.....	18.0
Canfield	.....	.....	0.5	3.9	15.5	6.1	(*)	1.0	.....	.....
Canton	.....	.....	1.0	4.9	15.7	6.1	1.8	3.7	.....	58.7
Catawba Island	.....	.....	.....	1.2	21.0	3.2	2.5	2.2	.....	30.1
Chillicothe	.....	.....	.....	4.0	2.0	(*)	T.	0.1	.....	.....
Cincinnati	.....	.....	T.	4.4	1.1	5.4	0.4	5.2	.....	16.5
Circleville	.....	.....	.....	2.0	6.0	(*)	T.	3.0	.....	.....
Clarington	.....	.....	T.	13.7	7.7	10.3	1.0	0.3	.....	33.0
Cleveland (Weather Bureau)	.....	.....	0.4	7.6	17.1	10.3	2.7	2.9	.....	41.0
Cleveland (St. Ignatius)	.....	.....	T.	7.4	14.4	7.4	0.8	3.6	.....	33.6
Columbus	.....	.....	T.	5.4	12.5	5.4	1.8	5.4	.....	30.5
Coshocton	.....	.....	.....	5.0	8.5	3.1	1.2	2.5	.....	20.3
Dam No. 28, Ohio River	.....	.....	.....	3.0	1.0	5.0	(*)	.....	.....	.....
Danbury	.....	.....	T.	2.9	7.7	3.5	1.5	3.4	.....	19.0
Dayton (Weather Bureau)	.....	.....	T.	2.3	7.3	2.9	0.3	4.3	.....	17.1
Dayton (Boyer)	.....	.....	T.	2.5	8.8	3.3	0.4	4.3	.....	19.3
Delaware	.....	.....	T.	4.7	7.2	2.4	0.4	2.0	.....	16.7
Demos	.....	.....	0.3	4.1	3.1	6.2	2.0	3.0	.....	65.8
Dennison	.....	.....	.....	7.8	9.8	6.8	1.5	2.5	.....	28.4
Dover	.....	.....	.....	4.0	9.0	4.0	0.4	4.0	.....	21.4
Findlay	.....	.....	T.	4.0	14.0	T.	2.0	1.0	.....	21.0
Frankfort	.....	.....	T.	3.0	1.0	1.0	1.5	4.5	.....	11.0
Fremont	.....	.....	T.	2.0	13.0	13.0	2.0	1.0	.....	31.0
Gambier	.....	.....	.....	4.0	6.6	5.6	1.0	(*)	.....	.....
Germantown	.....	.....	.....	1.0	6.0	3.0	.....	4.0	.....	14.0
Granville	.....	.....	T.	7.2	14.4	8.6	1.0	3.1	.....	34.3
Green	.....	.....	.....	3.5	2.0	2.0	2.0	T.	.....	9.5
Greenfield	.....	.....	.....	3.5	0.8	2.5	T.	T.	.....	6.8
Green Hill	.....	.....	2.5	4.5	13.7	10.0	0.5	1.3	.....	32.5
Greenville	.....	.....	.....	3.0	12.0	3.0	1.0	2.0	.....	21.0
Hamilton	.....	.....	.....	5.4	4.8	3.1	T.	(*)	.....	.....
Haydenville	.....	.....	.....	2.5	4.5	2.5	(*)	1.0	.....	.....
Hillhouse	.....	.....	1.5	15.8	13.7	6.2	1.7	2.2	.....	41.1
Hiram	.....	.....	2.5	10.0	18.5	11.3	1.0	9.5	.....	52.8
Hudson	.....	.....	T.	5.5	17.1	8.0	1.5	1.5	.....	33.6
Ironton	.....	.....	.....	2.9	1.1	4.6	0.5	T.	.....	9.1
Kenton	.....	.....	T.	2.0	14.0	2.5	1.0	3.0	.....	22.5
Lancaster	.....	.....	T.	1.5	2.0	1.5	T.	4.5	.....	9.5
Larue	.....	.....	.....	5.5	24.0	2.0	T.	4.5	.....	36.0
Lima	.....	.....	T.	3.0	18.0	T.	T.	2.0	.....	23.0
London	.....	.....	T.	2.0	6.2	(*)	T.	4.0	.....	.....
McConnelsville	.....	.....	0.8	9.8	5.8	4.5	0.8	5.8	.....	27.5
Marietta (No. 1)	.....	.....	.....	4.2	0.5	1.2	0.5	(*)	.....	.....
Marietta (No. 2)	.....	.....	.....	6.7	3.0	3.3	0.6	T.	.....	13.6
Marietta Experiment Farm	.....	.....	T.	6.5	2.5	4.5	0.6	1.0	.....	15.1

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Ohio—Continued.										
Marion			T.	4.6	20.2	5.0	1.5	3.0		34.3
Marysville			T.	6.0	14.0	0.5	T.	4.0		24.5
Medina			T.	7.0	16.0	3.0	2.0	3.0		31.0
Milfordton			T.	4.5	13.5	6.0	0.8	4.2		29.0
Millersburg			T.	3.2	13.5	4.5	1.0	3.2		25.4
Millport			0.7	7.0	9.0	8.5	0.4	1.0		43.3
Milton Dam			1.7	2.3	10.5	4.5	1.0	1.0		21.0
Montpelier			1.5	6.5	19.5	3.0	6.0	5.0		41.5
Mount Healthy			T.	4.0	4.0	3.0	T.	4.0		15.0
Mulberry			T.	6.2	4.2	7.0	1.2	9.0		27.6
Napoleon			0.2	2.7	11.0	1.0	0.5	1.5		16.9
New Bremen				3.0	18.0	2.0	T.	2.0		25.0
North Royalton			T.	9.0	12.0	15.0	2.0	5.0		43.0
Norwalk			1.0	2.0	17.0	4.3	2.0	0.5		26.8
Oberlin			T.	8.5	18.1	5.3	4.5	0.6		37.0
Ohio State University			T.	5.7	16.4	0.5	0.2	3.6		26.4
Ottawa			0.5	2.7	16.7	1.1	0.5	2.5		24.0
Pataskala			2.0	4.7	12.0	6.7	1.8	5.7		32.9
Philo (No. 1)			T.	7.3	6.8	5.4	1.3	4.1		24.9
Philo (No. 2)			T.	5.2	6.2	5.1	0.4	3.7		20.6
Put-in-Bay			T.	4.4	11.0	T.	T.	2.5		40.1
Saint Paris				7.0	16.9	(*)	1.5	(*)		
Sandusky			T.	4.3	11.5	2.8	2.9	1.8		23.3
Sidney				3.9	17.1	3.7		1.5		26.2
Summerfield			T.	5.8	3.3	4.2	1.4	4.5		19.2
Tiffin			T.	2.5	23.0	2.5	2.0	T.		30.0
Toboso			T.	5.2	6.0	(*)	(*)	4.0		
Toledo			0.5	4.2	13.1	1.7	2.4	6.1		28.0
Upper Sandusky			(*)	6.1	17.5	(*)	T.	2.0		
Urbana			T.	4.5	14.0	3.2	0.8	3.2		25.7
Valley Crossing			T.	5.0	6.7	1.7	1.1	4.5		19.0
Versailles			T.	4.0	16.7	1.3	0.9	4.7		27.6
Vickery			T.	0.4	12.8	2.2	1.1	1.4		17.9
Walhonding				8.0	11.5	2.5	1.0	4.0		27.0
Wapakoneta			0.2	4.0	21.5	1.7	1.2	1.6		30.2
Warren			1.0	9.4	15.4	(*)		5.2	T.	
Washington Courthouse			T.	3.4	3.3	1.7	0.2	4.5		13.1
Wauseon			T.	2.2	6.0	1.5	2.0	4.5		16.2
Waverly			T.	7.7	0.7	5.1	2.5	7.5		23.5
Waynesville				4.0	5.2	4.5	(*)	5.0		
West Milton			T.	(*)	8.0	1.5	T.	2.0		
Wickliffe			0.2	7.2	20.3	11.2	1.2	0.3		54.1
Wilmington			T.	4.0	9.8	6.5	T.	10.0		30.3
Wooster (No. 1)			0.4	4.8	17.0	7.0	1.7	1.4		32.3
Wooster (No. 2)			T.	5.5	18.0	(*)	T.	T.		
Youngstown			T.	6.7	16.3	10.5	0.5	1.0		35.0
Zanesville			T.	5.2	7.5	4.2	0.6	2.5		20.0
Oklahoma.										
Ada					1.0					1.0
Altus			0.6	T.	7.5		3.8			11.9
Alva			2.0	T.	6.0	T.	2.0	T.		10.0
Apache			T.	T.	5.5		2.0			7.5
Arapaho					12.0		5.0			17.0
Ardmore					T.					T.
Bartlesville				T.	9.5	0.5		T.		10.0
Beaver			1.0	T.	8.0	0.5		T.		9.5
Billings			0.8	T.	9.0	1.5	T.	T.		11.3
Blackwell					11.0	1.0		T.		12.0
Bristow				T.	(*)	T.	T.	T.		
Broken Arrow			T.	T.	6.4	0.7	T.	T.		7.1
Buffalo			4.0	1.0	7.0		1.0	T.		13.0
Canton			(*)	T.	14.0			T.		
Carnegie			0.5		8.0		1.0			9.5
Chandler				T.	6.0	T.	T.	T.		6.0
Chattanooga					6.0					6.0
Claremore					8.8	2.2	T.	0.4		11.4
Cleveland			T.	T.	7.0	0.5				7.5
Cloud Chief				T.	8.0		4.0			12.0
Durant					T.					T.

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Oklahoma—Continued.										
Enid			1.5	T.	8.0			T.		9.5
Erick			1.0		8.5		3.5			13.0
Fort Gibson				T.	2.8	0.8				3.6
Fort Reno			(*)	(*)	6.0	T.	0.4			
Frederick			0.5		4.0					4.5
Geary			3.0	T.	14.5	T.	7.0	T.		24.5
Goodwell			3.0	4.0	4.0	1.0	3.0	(*)		
Guthrie			0.5	0.2	6.5	T.	T.	T.		7.2
Hammon			1.3	0.5	11.0		2.5			15.3
Healdton					2.0					2.0
Hennessey			2.0	T.	10.0		(*)	T.		
Hobart			1.2	T.	8.5					9.7
Holdenville				T.	1.7	T.		T.		1.7
Hooker			2.0	2.0	5.0	T.	3.0	T.		12.0
Hurley			11.0	4.0	5.0	1.0	5.0	T.		26.0
Jefferson			T.	T.	1.5	1.0		0.2		2.7
Kenton			2.7	2.3	3.5	3.5	1.8	2.8		16.6
Kingfisher			1.0	T.	10.0		T.	T.		11.0
Lawton			T.		6.3		T.			6.3
Lawtonka Lake			0.2		8.7	T.				8.9
Mangum			3.2		10.0					13.2
Marlow				T.	8.0					8.0
Meeker					5.5			T.		5.5
Miami					9.0					9.0
Muskogee				T.	5.5	1.0				6.5
Mutual			2.0		6.0					8.0
Newkirk			T.	T.	16.0	2.5	T.	T.		18.5
North Muskogee			T.	T.	1.4	0.7		T.		2.1
Oakwood			1.2		11.1		3.2			15.5
Okeene			1.0		15.0		5.2			21.2
Okemah					4.8	T.		T.		4.8
Oklahoma			0.2	0.4	10.5	T.	2.5	T.		13.6
Pauls Valley				T.	5.0					5.0
Pawhuska					12.0	1.5		T.		13.5
Perry			0.2	1.0	8.0					9.2
Poteau				T.	0.8	0.5				1.3
Ravia					2.5					2.5
Sallisaw				T.	1.0	0.5				1.5
Shawnee					4.0			T.		4.0
Stillwater			T.	T.	11.0	0.2		0.5		11.7
Sulphur					1.0					1.0
Tahlequah			T.		0.5	1.0	T.	T.		1.5
Tamaha					0.3	1.0		T.		1.3
Tulsa				0.7	9.5		T.	T.		10.2
Tuskahoma				T.	T.	T.				T.
Union City					4.0		T.			4.0
Vinita			T.	T.	8.0	1.5	T.	T.		9.5
Waukomis			T.	T.	13.0	T.	T.	T.		13.0
Waurika			T.		7.0					7.0
Weatherford			1.0	T.	6.0		5.0	T.		12.0
Woodward			1.5	T.	7.5	T.	1.5	T.		10.5
Wyandotte					6.0	0.5				6.5
Oregon.										
Agness				1.0	1.5	1.5	T.			4.0
Albany				25.5			0.8			26.3
Andrews			T.	12.0	T.	14.0	1.5	T.		27.5
Anna Spring	(*)	16.7	47.8	71.8	8.8	11.5	85.5	66.8		
Ashland				18.3		T.	2.0			20.3
Baker		2.0	5.0	7.8	0.8	0.4	4.7	3.6	T.	24.3
Bear Creek		5.7	10.4	22.3	3.0	2.0	16.5	12.4	T.	72.3
Bear Valley		13.8	12.0	16.5	4.0	1.5	16.0	20.0	5.5	89.3
Beech Creek		5.0	11.0	11.0	3.0	2.0	10.5	19.0	4.0	65.5
Bend		7.4	4.0	55.0		2.0	6.0	3.0	T.	77.4
Big Eddy				22.0	2.5		1.0			25.5
Blitzen		2.0	4.0	30.0	6.0	2.0	14.0	3.0		61.0
Brookings				T.		5.0	T.			5.0
Burns				16.0	4.0		(*)	4.0		
Butte Falls	(*)	(*)	(*)	12.0	2.0	T.	10.5	3.8		
Cascade Locks			0.5	21.5	5.0		4.0			31.0

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Oregon—Continued.										
Cascadia		T.	T.	9.8			3.5	T.		13.3
Cazadero			T.	17.0		T.	1.8	T.		18.8
Chiloquin		3.2	4.7	21.2	1.2	1.2	12.8	7.0		51.3
Condon		5.0	3.0	30.5	5.0	2.0	7.0	3.0		55.5
Cornucopia		16.7	36.3	41.2	13.8	3.9	39.2	47.4	4.6	203.1
Corvallis				20.0		T.	1.0			21.0
Cottage Grove				5.0			0.5			5.5
Cove		13.5	8.0	12.0	5.1	1.1	13.5	16.6	T.	69.8
Dayville		1.0	5.0	15.0	2.0	1.3	1.5	0.5		26.3
Deadwood				2.0			1.0	0.6		3.6
Detroit		3.0	3.0	48.0	T.	0.5	17.0	5.0		76.5
Doraville		0.8	T.	22.9	0.4	T.	4.2	T.		28.3
Drain				2.5			2.0			4.5
Dufur		7.7	1.2	37.5	4.5		6.6	1.3		58.8
Echo		T.	0.5	17.5	4.0	T.		T.		21.5
Eugene				8.5			1.8			10.3
Ferguson Ranch		T.	0.8	13.5	3.8	0.4	T.	T.		18.5
Fish Lake		16.0	26.5	32.0	9.0	3.0	73.9	43.0	1.0	204.4
Florence							0.2	T.		0.2
Forest Grove				25.1		T.	1.8	T.		26.9
Fremont	T.	T.	0.1	37.5	1.0	5.0	5.0	6.0	T.	54.5
Gardners Ranch		T.	T.	14.0	T.	T.	1.5	T.		15.5
Glencoe	T.	1.0	1.0	24.0	5.5	3.0	3.0	T.		37.5
Government Camp		24.0	27.0	62.0	5.0	4.0	82.0	60.0	5.0	269.0
Grants Pass				5.5		0.9		0.2		6.6
Gumboot		9.2	10.0	33.0	8.0	4.5	27.2	6.5	0.5	98.9
Harper		2.5	0.5	11.0	1.0	2.5	T.	T.		17.5
Hay Creek		4.0	1.0	30.0	(*)	(*)	T.	T.		
Headworks		1.0		25.0			T.			26.0
Heppner		2.0	1.0	21.0	6.0	1.5	6.0	0.5		38.0
Hermiston		T.	1.0	12.4	4.0	1.0				18.4
Hilgard		6.0	18.0	10.0	3.0	2.0	22.0	21.0		82.0
Hillcrest Orchard				14.0		1.0	3.0			18.0
Hood River		5.0	T.	32.0	2.5		4.0	3.5		47.0
Howardville		20.3	35.6	15.4	7.5	3.0	49.6	33.2	9.1	173.7
Ibex Mine		24.1	51.5	33.0	7.2	4.0	44.0	35.6	3.0	202.4
Jacksonville		T.	T.	10.0	T.	4.2	1.8	T.		16.0
Joseph		(*)	(*)	18.0	4.0	3.0	16.0	11.0	8.0	
Klamath Falls		1.0	T.	11.0	0.5		7.5	3.5		23.5
La Grande		13.0	12.5	12.0	2.2	T.	4.0	24.0		67.7
Lake Creek		1.0		17.5	1.0		3.5	1.0		24.0
Lakeview	T.	0.7	5.3	8.9	5.0	3.4	9.6	6.6	1.0	40.5
Lapine	0.1	2.5	4.5	34.0	0.5	4.2	12.6	4.0	T.	62.4
Lifyglen		11.5	18.5	31.5	5.0	4.0	38.0	25.0	T.	133.5
McKinley				1.0			1.1	T.		2.1
McMinnville				24.0			1.0			25.0
Marshfield										0.0
Maury		T.	3.0	13.5	1.5	2.0	1.5	4.0		25.5
Medford				11.0		2.5	0.5	T.		14.0
Merrill		1.5	3.2	16.7	0.5		7.0	2.2		31.1
Mikkalo		4.0	1.0	18.0	4.0	3.0	2.5			32.5
Milton		1.0	2.5	15.0	2.5	0.5	0.5	T.		22.0
Miramonte Farm				23.5		T.	1.5	T.		25.0
Modoc Orchard				6.8		1.5	0.8	T.		9.1
Mount Angel				16.7			T.			16.7
Newhalls Ranch				7.0		3.0	1.0			11.0
Newport				1.5			T.			1.5
Nyssa		6.0	3.0	9.0	T.	2.0	T.	T.		20.0
Oakridge				4.0						4.0
Ochoco		9.0	4.0	29.5	2.5	1.0	21.0	14.0	T.	81.0
Ortley		4.5	2.5	39.0	2.0	1.0	10.0	0.5		59.5
Parkdale		4.0	0.5	64.0	4.5	0.5	11.5	6.5		91.5
Pendleton		T.	1.0	16.0	4.0	1.5	T.	T.		22.5
Pilot Rock		2.0	1.2	19.8	3.0	1.0	1.0	T.	T.	28.0
Portland				17.5	T.	T.	1.5	T.		19.0
Port Orford				0.2						0.2
Power House		4.0	2.8	10.4	3.1		T.	2.4		22.7
Prairie City		11.6	11.5	13.4	2.3	T.	15.8	12.6	T.	67.2
Prineville		(*)	1.7	32.2	2.0	2.2	1.2	(*)		
Prospect		2.5	5.1	24.5	2.8	1.0	27.5	9.5		72.9

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Oregon—Continued.										
Reservoir No. 3	.....	4.7	8.8	12.1	1.4	0.7	2.7	4.3	.....	34.7
Richland	.....	1.0	7.0	5.0	T.	1.0	(*)	4.0	.....	.....
Riddle	.....	.....	.....	4.6	.....	T.	T.	.....	.....	4.6
Riverside	.....	3.0	(*)	18.0	1.0	0.5	0.7	0.2	.....	.....
Roseburg	.....	.....	.....	4.0	.....	T.	0.6	.....	.....	4.6
Salem	.....	.....	.....	23.0	.....	.....	1.5	.....	.....	24.5
Silver Lake	.....	1.1	2.6	21.8	0.5	8.5	3.0	.....	.....	37.5
Siskiyou	.....	6.0	17.0	53.6	6.0	6.0	33.5	14.0	.....	136.1
Sisters	.....	5.0	5.0	71.0	.....	5.5	18.5	3.5	.....	108.5
Sparta	.....	9.5	33.0	24.0	2.0	3.0	11.0	15.0	0.5	98.0
Starkey	.....	7.0	1.0	16.5	3.0	T.	5.5	11.0	T.	44.0
Sunrise Valley	.....	7.0	3.0	9.0	3.0	3.8	4.0	5.0	0.2	35.0
Talent	.....	.....	.....	(*)	.....	T.	1.0	T.	.....	.....
The Dalles	.....	T.	(*)	26.0	3.0	.....	.....	.....	.....	.....
Tillamook	.....	.....	.....	14.0	.....	.....	T.	.....	.....	14.0
Tule Lake	.....	T.	(*)	8.4	0.4	0.1	2.1	.....	.....	.....
Umatilla	.....	T.	T.	0.8	0.4	T.	.....	T.	.....	1.2
Union	.....	3.7	1.6	3.0	3.0	0.8	3.2	8.0	.....	23.3
Valley Falls	.....	.....	1.5	13.0	0.5	1.0	3.0	3.0	.....	22.0
Waldo	.....	.....	0.5	14.3	2.0	9.8	15.2	T.	.....	41.8
Wallace Orchard	.....	.....	.....	24.0	.....	.....	1.0	T.	.....	25.0
Wallowa	.....	6.8	8.0	18.5	3.5	2.1	2.8	7.7	T.	49.4
Warmspring	.....	.....	.....	47.0	T.	T.	.....	T.	.....	47.0
Wasco	.....	4.0	T.	18.0	4.0	.....	1.0	.....	.....	27.0
Welches	.....	3.0	T.	36.0	.....	T.	13.0	9.0	.....	61.0
Weston	.....	3.0	2.0	14.5	2.5	T.	4.5	4.0	.....	30.5
Wolf Creek	.....	.....	.....	5.8	T.	3.5	1.0	T.	.....	10.3
Yonna	.....	.....	3.0	9.0	1.2	0.5	7.5	5.4	.....	26.6
Pennsylvania.										
Allentown	.....	.....	.....	3.0	6.1	5.2	(*)	.....	.....	.....
Altoona	.....	.....	2.0	18.5	18.0	41.0	8.0	6.0	.....	93.5
Ansonia	.....	.....	2.0	8.0	(*)	5.0	11.0	2.0	.....	.....
Arendtsville	.....	.....	.....	5.8	5.5	21.9	4.3	T.	.....	37.5
Beaver Dam	.....	.....	1.0	7.5	13.4	7.8	1.3	2.5	.....	33.5
Beaver Falls	.....	.....	T.	4.2	11.6	8.9	1.8	2.3	.....	28.8
Bellefonte	.....	.....	T.	7.0	6.0	26.5	8.0	2.0	.....	49.5
Bethlehem	.....	.....	.....	10.5	11.5	23.0	(*)	.....	.....	.....
Bloserville	.....	.....	.....	7.3	7.4	27.0	8.3	T.	.....	50.0
Bradford	.....	.....	4.7	12.4	26.9	12.5	4.6	4.4	T.	65.5
Bradys Bend	.....	.....	1.3	12.8	15.7	7.6	0.1	3.1	.....	40.6
Brookville	.....	.....	2.5	8.0	15.0	16.0	2.0	4.0	.....	47.5
Browers Lock	.....	.....	.....	8.2	6.8	15.0	2.5	(*)	.....	.....
Carlisle	.....	.....	T.	14.0	6.5	42.0	7.5	T.	.....	70.0
Catawissa	.....	.....	T.	10.7	8.7	26.5	7.7	T.	.....	53.6
Center Hall	.....	.....	(*)	(*)	10.5	20.5	10.0	.....	.....	.....
Clarion	.....	.....	1.0	11.5	14.0	14.0	4.0	4.5	.....	49.0
Claysville	.....	.....	T.	7.0	5.0	5.5	2.0	1.0	.....	20.5
Clearfield	.....	.....	T.	9.0	23.0	23.0	6.0	12.0	.....	73.0
Coatesville	.....	.....	T.	7.8	5.2	19.2	12.1	T.	.....	44.3
Colebrook	.....	.....	T.	8.0	4.3	16.3	6.3	T.	.....	34.9
Coraopolis	.....	.....	0.2	(*)	7.5	11.0	1.2	0.5	.....	.....
Derry	.....	.....	2.4	4.6	1.0	16.5	4.7	1.0	.....	30.2
Doylestown	.....	.....	.....	6.0	4.5	11.5	2.5	.....	.....	24.5
Ebensburg	.....	.....	T.	11.0	8.0	16.0	3.0	2.0	T.	40.0
Edinboro	.....	.....	3.5	32.0	27.0	23.4	3.1	5.2	.....	94.2
Elk Lick	.....	.....	4.0	11.5	5.0	28.0	2.0	3.0	.....	53.5
Emporium	.....	.....	T.	4.5	15.1	7.0	9.0	1.9	.....	37.5
Erie	.....	.....	6.6	25.3	21.2	12.7	2.7	2.2	.....	70.7
Franklin	.....	.....	1.3	7.2	7.0	9.0	0.3	2.0	.....	26.8
Freeland	.....	.....	1.0	14.0	(*)	39.5	32.4	4.0	.....	.....
Freeport	.....	.....	0.8	12.2	7.5	(*)	2.0	0.7	.....	.....
George School	.....	.....	.....	10.0	5.8	10.4	2.2	.....	.....	28.4
Gettysburg	.....	.....	.....	2.9	6.2	30.5	2.5	T.	.....	42.1
Girardville	.....	.....	T.	8.1	4.4	24.7	5.0	T.	.....	42.2
Gordon	.....	.....	.....	18.0	6.0	56.0	12.0	T.	.....	92.0
Gouldsboro	.....	.....	0.2	7.9	8.7	36.2	7.4	T.	.....	60.4
Greensboro	.....	.....	T.	11.0	1.5	9.0	5.0	0.3	.....	26.8
Greensburg	.....	.....	1.9	16.8	8.1	15.6	7.5	2.6	.....	52.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Pennsylvania—Continued.										
Grove City			2.4	4.1	10.8	16.1	2.0	3.0		38.4
Hamburg				9.0	9.0	22.0	9.0			49.0
Harrisburg			T.	8.6	7.3	21.0	5.1	T.		42.0
Herrs Island Dam			T.	7.4	(*)	5.1	2.3	0.4		
Holtwood				4.5	2.3	9.9	1.3	T.		18.0
Huntingdon			T.	9.2	8.4	26.1	7.2	T.		50.9
Indiana			1.0	13.8	10.5	14.5	4.0	6.0		49.8
Johnstown			0.4	14.2	11.4	22.0	5.0	2.0		55.0
Kennett Square				9.5	6.0	9.0	5.0			29.5
Lancaster				5.6	3.3	13.8	6.0			28.7
Lansford		T.	T.	8.0	7.5	22.0	4.5	1.0		43.0
Lawrenceville			(*)	9.0	18.0	10.0	13.0	3.0		
Lebanon			T.	9.0	6.9	20.9	6.2	T.		43.0
Lewisburg			T.	6.5	8.5	25.1	5.5	T.		45.6
Lloyd			T.	6.0	18.5	8.0	8.0	1.0		41.5
Lock Haven			T.	9.5	15.5	22.0	11.0	1.5		59.5
Lock No. 4			T.	(*)	(*)	10.0	6.0	T.		
Lycippus			1.0	13.1	4.6	10.2	1.3	1.6		31.8
Lykens			T.	9.0	6.0	24.5	7.0	T.		46.5
Mauch Chunk			T.	9.9	(*)	19.0	9.5	0.5	T.	
Media				6.5	3.0	5.8	(*)	(*)		
Mifflintown			T.	12.3	6.0	21.5	5.5	1.0		46.3
Milford			0.5	3.0	10.0	20.0	8.0	T.		41.5
Montrose			1.0	11.0	17.0	29.0	14.0	T.		72.0
Mount Pocono			T.	7.5	11.7	28.6	6.0	3.0		56.8
Muncy Valley				6.1	10.5	16.4	6.0	T.		39.0
Narberth			T.	9.0	5.5	12.3	6.8	T.		33.6
Neshaminy Falls				5.5	4.4	10.0	2.5	T.		22.4
New Castle				11.0	7.9	10.0	0.6	1.0		30.5
Newell			T.	7.5	2.4	5.1	1.5	T.		16.5
Palmerton			T.	9.3	7.3	19.2	2.0	T.		37.8
Parkers Landing			1.0	7.2	8.4	13.7	1.7			32.0
Philadelphia (Weather Bureau)			T.	6.6	5.9	11.7	4.8	T.		29.0
Philadelphia (d)			T.	8.9	4.2	8.7	4.8			26.6
Pittsburgh			0.5	8.6	11.1	6.6	3.1	1.5		31.4
Pottstown			T.	8.4	5.7	14.1	6.2	T.		34.4
Pottsville			T.	9.5	10.6	27.6	8.0	0.2		55.9
Quakertown			T.	10.0	7.9	17.8	7.0	T.		42.7
Reading			T.	7.1	6.0	10.0	7.0	T.		30.1
Renovo				0.4	16.0	9.0	(*)			
Ridgway			0.2	9.0	16.0	11.0	4.5			40.7
Sadsburyville				3.7	5.4	18.8	12.8			40.7
Saegerstown			6.5	15.0	21.8	15.5	3.0	2.5		64.3
Saltsburg			3.0	10.0	8.4	12.9	3.7	0.3		38.3
Scranton			T.	7.8	18.2	24.5	9.9	0.4		60.8
Selinsgrove			T.	12.0	18.0	34.0	20.0	T.		84.0
Sharon			0.4	3.6	12.5	5.1	(*)	T.		
Shawmut			T.	14.4	11.5	(*)	(*)			
Somerset			3.1	15.0	11.0	40.7	10.5	6.9		87.2
Springdale			0.2	8.7	6.9	7.6	2.3	0.8		26.5
State College			T.	7.7	10.1	26.9	8.0	1.4		54.1
Stroudsburg			T.	5.5	7.7	24.5	(*)	(*)		
Sunbury			T.	7.2	3.9	19.2	(*)	T.		
Towanda			0.2	9.0	12.8	13.0	12.0	1.4		48.4
Uniontown			T.	13.0	3.2	9.0	5.5	0.5		31.2
Vandergrift			2.0	8.0	11.0	25.5	1.0			47.5
Warren			6.1	11.7	16.4	11.4	2.8	9.6		58.0
Waterville				5.5	16.9	11.2	5.4	0.7		39.7
Weikert				8.0	13.0	26.0	2.0	2.0		51.0
Wellsboro			1.0	7.9	17.5	10.3	10.5	2.9	T.	50.1
West Bingham			2.5	8.0	20.0	8.5	10.0	5.0	T.	54.0
West Chester				5.8	5.0	(*)	4.0			
White Haven				5.5	11.6	30.0	6.0			53.1
Wilkes-Barre				3.5	5.5	22.0	9.5	T.		40.5
Williamsport			T.	7.4	10.8	16.0	7.5	0.2		41.9
York				11.5	5.0	13.0	3.0	T.		32.5
Porto Rico.[5]										

[5] No snowfall.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Rhode Island.										
Block Island	.....	.....	.....	6.6	4.6	10.8	1.4	0.2	.....	23.6
Bristol	.....	.....	.....	5.5	14.8	27.0	6.0	T.	.....	53.3
Kingston	.....	.....	.....	6.5	16.5	25.5	5.5	T.	.....	54.0
Providence	.....	.....	T.	4.6	17.2	22.8	4.3	T.	.....	48.9
South Carolina.										
Blackville	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Charleston	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Columbia	.....	.....	.....	.....	.....	T.	T.	.....	.....	T.
Darlington	.....	.....	.....	.....	.....	.....	1.0	.....	.....	1.0
Edgefield	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Effingham	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Florence (No. 1)	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Garnett	.....	.....	.....	.....	.....	.....	0.2	.....	.....	0.2
Gaston Shoals	.....	.....	.....	.....	T.	.....	T.	.....	.....	T.
Greenville	.....	.....	.....	.....	0.5	T.	.....	.....	.....	0.5
Heath Spring	.....	.....	.....	.....	T.	.....	.....	.....	.....	T.
Kingstree	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Landrum	.....	.....	.....	.....	2.7	T.	.....	.....	.....	2.7
Liberty	.....	.....	.....	.....	1.5	T.	.....	.....	.....	1.5
Little Mountain	.....	.....	.....	T.	.....	T.	.....	.....	.....	T.
Meriwether	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Monetta	.....	.....	.....	.....	.....	T.	T.	.....	.....	T.
Newberry	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Oaks	.....	.....	.....	.....	.....	.....	T.	.....	.....	T.
Orangeburg (No. 1)	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Pinopolis	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
St. Matthews	.....	.....	.....	.....	.....	0.2	.....	.....	.....	0.2
Saluda	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Santuck	.....	.....	.....	.....	1.5	T.	.....	.....	.....	1.5
Spartanburg	.....	.....	.....	.....	5.0	T.	.....	.....	.....	5.0
Trenton	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Walhalla	.....	.....	.....	.....	1.0	T.	.....	.....	.....	1.0
Winnsboro	.....	.....	.....	.....	.....	T.	T.	.....	.....	T.
South Dakota.										
Aberdeen	.....	7.0	11.0	2.4	7.0	7.0	21.0	2.0	.....	52.4
Academy	.....	2.0	23.0	2.0	2.0	9.5	10.0	0.7	.....	49.2
Ardmore	.....	6.5	16.0	9.0	7.0	12.5	13.0	29.0	.....	93.0
Armour	.....	0.3	6.8	1.2	1.8	8.2	15.6	0.7	.....	34.6
Bellefourche	.....	(*)	8.5	8.0	2.1	6.3	21.0	7.8	.....	.....
Britton	0.2	11.0	23.7	5.0	3.8	1.1	10.0	T.	.....	54.8
Brookings	.....	1.4	(*)	1.0	3.4	2.4	14.9	0.1	.....	.....
Camp Crook	.....	19.0	11.0	2.5	5.0	6.0	22.0	T.	.....	65.5
Canton	.....	.....	1.2	.....	(*)	6.0	10.0	.....	.....	.....
Castlewood	.....	3.0	1.8	0.5	5.2	5.0	16.5	0.4	.....	32.4
Centerville	.....	T.	9.5	2.5	1.5	10.0	7.5	2.0	.....	33.0
Colome	.....	2.9	30.7	2.0	2.0	4.5	4.9	8.0	.....	55.0
Cottonwood	.....	12.3	13.6	3.2	5.7	4.7	6.5	3.4	.....	49.0
Crow Creek	.....	(*)	(*)	3.0	1.8	2.0	5.0	(*)	.....	.....
Custer	.....	20.4	13.0	7.0	1.5	(*)	11.0	50.0	.....	.....
Deadwood	.....	(*)	11.0	9.5	13.5	14.5	(*)	(*)	4.0	.....
Deerfield	T.	30.3	10.3	8.6	6.5	13.2	10.4	39.9	3.0	122.2
DeSmet	(*)	T.	(*)	(*)	1.0	2.5	17.0	.....	(*)	.....
Dowling	.....	18.0	10.2	2.0	1.8	4.0	(*)	(*)	.....	.....
Dumont	T.	19.0	10.6	8.5	14.5	18.5	12.7	37.5	3.8	[6] 125.5
Eales	.....	15.4	7.2	0.5	1.4	4.2	13.2	5.0	.....	46.9
Elk Mountain	.....	7.5	10.5	7.5	2.0	2.5	5.8	8.0	.....	43.8
Eureka	.....	5.0	2.0	1.0	1.6	0.8	2.5	0.5	.....	13.4
Fairfax	.....	0.5	13.0	1.0	4.5	7.5	10.0	4.5	.....	41.0
Faulkton	.....	8.5	21.2	0.5	4.0	2.8	33.0	T.	.....	70.0
Flandreau	.....	3.5	3.0	0.8	0.8	4.3	11.5	1.5	.....	25.4
Forestburg	.....	T.	9.5	0.4	T.	2.4	25.2	1.4	.....	38.9
Gannvalley	.....	0.5	21.0	1.0	2.0	4.5	17.0	.....	.....	46.0
Greenmont	.....	27.0	15.0	11.0	13.0	24.0	26.0	51.0	6.0	173.0
Hardingrove	(*)	16.0	13.0	3.0	4.5	4.0	(*)	(*)	.....	.....
Hardy Ranger Station	1.5	23.0	12.0	11.0	16.5	23.5	26.0	28.0	T.	141.5

[6] Includes June, 1920: Dumont, 0.4.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
South Dakota—Continued.										
Harveys Ranch	T.	36.4	25.5	5.5	12.0	18.5	32.0	48.2	3.5	[7] 182.1
Hermosa	.....	12.5	(*)	1.0	2.0	8.0	10.0	(*)	.....	.....
Highmore	.....	13.0	15.7	1.5	5.0	2.4	11.0	3.0	.....	51.6
Hopewell	.....	17.5	10.0	4.0	4.0	5.0	15.0	12.0	.....	67.5
Hot Springs	.....	16.5	7.0	6.5	4.0	5.0	3.5	25.0	.....	67.5
Howell	.....	1.5	12.4	T.	0.8	3.1	8.0	(*)	.....	.....
Huron	.....	2.3	11.6	2.5	3.0	6.2	13.6	T.	.....	39.2
Interior	.....	8.0	16.0	5.0	4.0	6.0	4.0	(*)	.....	.....
Ipswich	.....	11.5	4.5	2.0	1.0	2.5	10.0	T.	.....	31.5
Jefferson	T.	23.0	5.5	2.0	3.0	6.0	8.0	T.	.....	47.5
Kennebec	.....	2.5	17.5	4.0	2.0	7.5	(*)	(*)	(*)	.....
La Delle	.....	4.0	19.0	1.0	(*)	5.0	16.0	T.	.....	.....
Lead	.....	21.4	14.0	5.0	12.2	10.6	17.7	47.7	0.5	129.1
Lemmon	.....	8.0	4.0	T.	2.0	0.9	8.5	.....	.....	23.4
McIntosh	(*)	6.5	(*)	.....	2.5	0.5	16.0	.....	.....	.....
Marion	.....	0.2	6.5	2.2	T.	7.2	18.5	(*)	.....	.....
Meadow	.....	19.5	4.0	1.0	2.0	3.5	10.0	4.0	.....	44.0
Mellette	.....	4.1	14.0	2.0	2.0	4.5	24.0	.....	.....	50.6
Milbank	.....	4.5	18.8	5.5	7.5	3.2	25.2	0.5	.....	65.2
Mitchell	.....	1.0	13.0	1.4	1.6	9.9	(*)	0.2	.....	.....
Murdo	.....	2.0	(*)	10.0	11.0	16.0	11.0	10.0	.....	.....
Oelrichs	.....	16.0	14.0	2.6	6.0	7.0	(*)	34.0	.....	.....
Onaka	.....	17.5	14.0	.....	1.0	2.5	9.0	.....	.....	44.0
Onida	.....	13.0	19.0	2.1	3.0	8.0	21.0	10.0	.....	76.1
Orman	.....	23.0	12.0	10.0	6.0	8.5	22.0	6.0	.....	87.5
Ottumwa	(*)	(*)	13.0	(*)	6.0	4.0	17.0	7.0	.....	.....
Pierre	.....	9.5	13.5	1.9	2.4	3.2	17.8	7.9	.....	56.2
Pine Ridge	.....	4.5	23.0	4.0	4.5	6.0	16.0	32.0	.....	90.0
Rapid City	.....	15.1	8.1	4.9	2.6	6.6	4.6	24.7	T.	66.6
Redfield	.....	(*)	19.0	.....	2.4	1.0	20.0	.....	.....	.....
Redig	.....	14.5	12.5	6.0	5.3	6.0	13.8	2.5	.....	60.6
Rochford	T.	23.2	12.4	11.5	10.5	12.2	16.7	42.1	1.1	129.7
Roslyn	.....	4.0	10.8	1.8	3.0	3.4	4.0	1.8	.....	28.8
Sioux Falls	.....	T.	12.3	1.1	1.0	8.0	15.0	.....	.....	37.4
Spearfish	.....	41.0	34.9	8.0	10.5	9.0	19.0	19.0	.....	141.4
Tyndall	.....	T.	6.7	0.2	1.0	4.2	7.0	0.2	.....	19.3
Vale	.....	12.5	8.5	3.0	3.6	6.5	12.5	4.5	.....	51.1
Vermilion	.....	T.	14.0	5.1	2.7	6.5	14.2	6.5	.....	49.0
Vivian	.....	(*)	11.3	1.3	(*)	5.8	(*)	2.0	.....	.....
Wagner	.....	2.0	19.0	4.0	4.5	9.0	19.0	4.7	.....	62.2
Waters Ranch	.....	42.0	28.9	19.9	7.3	15.7	25.4	15.5	.....	154.7
Watertown	.....	4.0	9.5	0.2	5.5	6.0	14.0	T.	.....	39.2
Wentworth	.....	4.6	4.8	1.4	1.5	3.3	15.6	0.5	.....	31.7
Wood	.....	2.5	22.5	1.4	4.9	6.5	4.5	14.0	.....	56.3
Yankton	.....	T.	10.7	2.7	2.8	8.6	10.9	5.2	.....	40.9
Tennessee.										
Ashwood	.....	.....	.....	.....	.....	5.5	0.5	T.	.....	6.0
Bolivar	.....	.....	.....	T.	T.	T.	T.	.....	.....	T.
Byrdstown	.....	.....	.....	T.	.....	7.5	T.	(*)	.....	.....
Chattanooga	.....	.....	.....	0.1	T.	0.7	0.2	0.1	.....	1.1
Clarksville	.....	.....	.....	T.	T.	4.0	2.5	T.	.....	6.5
Decatur	.....	.....	.....	.....	T.	1.5	T.	(*)	.....	.....
Florence	.....	.....	.....	T.	.....	6.2	T.	T.	.....	6.2
Huntingdon	.....	.....	.....	.....	.....	7.0	0.5	(*)	.....	.....
Johnson City	.....	.....	.....	T.	1.5	7.0	4.0	T.	.....	12.5
Knoxville	.....	.....	.....	T.	0.1	0.5	0.5	T.	.....	1.1
McMinnville	.....	.....	.....	0.5	T.	3.0	0.8	T.	.....	4.3
Memphis	.....	.....	.....	.....	T.	0.8	T.	T.	.....	0.8
Nashville	.....	.....	.....	T.	T.	4.3	0.4	0.1	.....	4.8
Palmetto	.....	.....	.....	T.	T.	3.0	0.5	T.	.....	3.5
Rogersville	.....	.....	.....	T.	T.	T.	T.	T.	.....	T.
Rugby	.....	.....	.....	T.	T.	7.5	1.0	T.	.....	8.5
Trenton	.....	.....	.....	T.	.....	4.0	T.	(*)	.....	.....
Union City	.....	.....	.....	T.	T.	5.0	1.0	T.	.....	6.0
Walling	.....	.....	.....	T.	0.5	4.0	T.	T.	.....	4.5
Waynesboro	.....	.....	.....	T.	T.	2.7	0.2	0.2	.....	3.1
Yukon	.....	.....	.....	.....	.....	4.0	.....	(*)	.....	.....

[7] Includes June, 1920: Harveys Ranch, 0.5.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Texas.										
Abilene			T.	T.	0.4					0.4
Albany					0.5					0.5
Amarillo			2.7	1.2	11.1	1.4	0.7	0.5		17.6
Antelope					1.0					1.0
Aspermont					3.0		(*)			
Austin				T.						T.
Ballinger			T.							T.
Big Spring				T.	1.7					1.7
Bonham					1.0					1.0
Bowie				T.	7.0					7.0
Bridgeport				T.	T.					T.
Brownfield			1.0		3.0					4.0
Brownwood				T.						T.
Buena Vista					4.0					4.0
Canadian			0.8		5.0	T.	T.			5.8
Chillicothe					8.0					8.0
Clarendon			0.8	T.	9.5					10.3
Clarksville					T.					T.
Claude			1.5		3.0					4.5
Claytonville			1.0		2.5					3.5
Cleburne					T.					T.
Clifton				T.						T.
Clint			0.2		1.2					1.4
Coleman				T.	1.0					1.0
Colorado					1.0					1.0
Corpus Christi										0.0
Crosbyton			0.5		9.2			T.		9.7
Crowell					6.0					6.0
Dalhart			3.0	T.	3.6		0.2			6.8
Dallas				T.	0.4		T.			0.4
Del Rio					T.					T.
Denison (near)					2.0					2.0
Denton				0.2	0.5					0.7
Eastland			1.0	T.						1.0
El Paso			0.5		3.0					3.5
Encinal					T.					T.
Flint				T.			T.			T.
Fort Stockton			0.2		3.0					3.2
Fort Worth				T.	T.					T.
Gainesville					3.5					3.5
Galveston										0.0
Garden City			0.5		2.5	T.				3.0
Greenville					0.2					0.2
Groesbeck				T.			T.			T.
Haskell			T.		1.5					1.5
Henderson							1.0			1.0
Henrietta					5.2					5.2
Hewitt				T.						T.
Hondo							T.			T.
Honey Grove					0.2					0.2
Houston							T.			T.
Kaufman				T.						T.
Lamesa					4.0					4.0
Lieb			3.0		7.0	0.2	0.2			10.4
Lubbock			0.2		4.5					4.7
McKinney				T.	0.2					0.2
Memphis			T.		8.0		T.			8.0
Mexia				T.						T.
Miami			4.0	1.0	14.0	1.5	1.0	T.		21.5
Munday					1.0					1.0
O 2 Ranch					T.					T.
Paducah			T.		6.0					6.0
Palestine				T.			0.1			0.1
Panhandle			3.0	0.5	8.0					11.5
Paris				T.	T.					T.
Plainview			4.0		9.0					13.0
Port Arthur										0.0
Post					3.0					3.0
Putnam					1.5					1.5
Quanah			0.5		6.5					7.0

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Texas—Continued.										
Romero			6.0	3.0	6.0	8.0	1.0			24.0
San Angelo				T.	T.					T.
San Antonio					T.					T.
Sealy							T.			T.
Sherman					T.	1.0				1.0
Snyder					0.8					0.8
Spur			0.5		2.5					3.0
Taylor				T.	T.					T.
Temple				T.						T.
Troup							T.			T.
Vernon			T.		6.5					6.5
Weatherford				T.	1.3					1.3
Winfield (near)				T.	T.		T.			T.
Utah.										
Alpine		3.0	3.0	16.0	5.0	2.0	7.0			36.0
Alton		0.5	(*)	(*)	16.0	18.5	22.8	(*)		
Alunite		1.5	14.4	9.5	0.4	3.0	0.5	6.6		35.9
Baker Ranger Station	(*)	(*)	35.0	13.0	14.0	24.0	19.0	(*)		
Beaver		1.0	16.3	12.2	5.0	4.0	33.7	39.9		112.1
Benmore		6.0	15.5	10.0	12.0	6.5	36.0	8.5		94.5
Black Rock		T.	4.0	1.5	1.0	3.0	12.0	(*)	(*)	
Black's Fork	(*)	(*)	(*)	17.8	12.0	17.2	(*)	48.5		
Blanding		T.	11.5	3.0	8.5	5.5	5.5	1.0		35.0
Bluff		T.	5.0	1.5	7.0		T.	(*)		
Castle Dale			0.7	1.0	8.0	8.0	T.	(*)		
Cedar City	(*)		28.5	4.0	10.5	(*)	(*)	15.0	(*)	
Corinne		12.0	3.2	10.0	2.0	T.	3.0	3.0		33.2
Cottonwood Weir		10.5	17.5	24.7	11.2	12.0	44.0	19.0		138.9
Delle		1.5	(*)	5.0	1.0	1.0	12.0	2.0		
Deseret			10.0	6.0	16.0	4.0	14.0	T.		50.0
Duchesne			13.5	6.5	10.0	8.0	7.0			45.0
East Portal		14.0	17.0	20.0	9.0	(*)	48.0	(*)	1.0	
Elberta		(*)	12.5	9.0	(*)	4.2	8.0	2.0		
Emery		T.	5.0	4.0	7.0	4.0	T.	3.0		23.0
Enterprise			23.0	1.5	12.0		29.5	(*)		
Fillmore		3.5	35.0	14.5	12.5	7.0	28.0	19.0		119.5
Garland		8.5	4.7	8.5	2.5	2.0	6.0	11.0		43.2
Government Creek		8.0	8.0	16.5	12.6	4.5	21.8	7.0		78.4
Grantsville		6.0	10.0	15.0	11.0	3.5	17.5	4.0		67.0
Great Basin Experiment Station		32.0	45.5	31.0	15.0	22.0	54.0	58.0		257.5
Great Basin Experiment Station, Alpine	2.0	31.0	42.0	34.0	16.0	21.0	53.0	53.0	(*)	
Great Basin Experiment Station, Oak Brush		(*)	31.0	20.0	12.0	15.0	26.0	31.0		
Green River			4.5	1.0	4.2	(*)	0.5	T.		
Hanksville			9.0	1.0	3.0	2.1	(*)			
Hatch		2.0	17.5	3.0	5.0	10.0	11.0	1.0		49.5
Heber		8.0	13.0	15.0	2.0	12.0	33.5	14.0		97.5
Henefer	(*)	(*)	4.7	13.0	12.5	5.0	25.8	10.5	(*)	
High Line City Creek		21.5	16.5	27.0	14.5	8.0	66.0	28.0		181.5
Hole-in-the-Rock		21.0	17.5	11.0	16.0	(*)	(*)	(*)	(*)	
Ibapah		8.0	21.0	(*)	16.8	6.1	27.8	22.0	2.0	
Kanosh		1.0	39.0	15.2	13.0	10.0	24.0	25.0		127.2
Kelton		3.0	4.0	2.0		3.0	5.0	T.		17.0
Koosharem	(*)	(*)	10.0	4.0		7.5	9.5	21.0	(*)	
Laketown		24.0	11.0	13.0	10.0	16.5	8.5	5.5		88.5
LaSal		0.5	(*)	9.5	(*)	8.0	(*)	10.0	(*)	
Leeds			12.0	2.0		8.0	1.0	1.0		
Lehi		2.0	6.0	9.0	6.0	4.0	(*)	4.5		
Lemay		2.3	0.5	0.6	1.5	1.5	3.0	(*)		
Levan		0.5	22.2	13.0	10.0	10.5	28.5	16.8		101.5
Logan		23.0	(*)	14.2	1.5	7.2	(*)	(*)		
Lone Tree	(*)	T.	3.5	4.9	2.3	5.0	5.0	0.3		
Lower American Fork		0.9	2.5	6.5	6.5	1.5	13.8	18.8		50.5
Lower Mill Creek		20.0	12.5	25.0	12.5	6.0	45.0	13.0		134.0
Lucin		(*)	0.2	(*)	T.	0.5	0.2	2.7		
Lund	(*)	(*)	12.0	0.2	3.0	4.0	4.0			
Manila		5.0	15.0	12.0	15.0	9.0	7.0	9.0		72.0
Manti		1.6	18.7	7.5	2.0	4.9	18.3	28.1		81.1
Midlake		T.	T.	(*)	0.2	0.5	4.5			

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Utah—Continued.										
Midvale	.....	8.7	7.3	13.4	14.8	3.0	24.3	9.1	.....	80.6
Milford	.....	T.	22.0	5.5	21.5	5.5	9.8	7.5	.....	71.8
Millville	.....	26.0	8.0	22.0	3.0	7.0	15.0	6.0	.....	87.0
Moab	.....	.....	10.0	3.0	6.0	1.0	T.	1.0	.....	21.0
Modena	.....	0.1	15.8	0.5	4.9	11.3	6.8	0.5	.....	39.9
Mohrland	.....	1.0	5.0	.....	5.0	5.0	9.0	.....	.....	25.0
Monticello	.....	(*)	30.0	8.0	14.0	21.0	11.0	(*)	.....	.....
Morgan	.....	16.5	14.0	33.0	3.0	(*)	(*)	30.0	.....	.....
Moroni	.....	T.	6.5	7.8	3.4	9.3	12.5	12.7	.....	52.2
Mosida	.....	1.0	4.0	7.0	4.5	2.8	T.	2.0	.....	21.3
Mount Dell	(*)	(*)	(*)	(*)	13.5	13.5	63.5	22.0	.....	.....
Nada	.....	T.	21.0	11.0	7.5	8.5	17.0	3.0	.....	68.0
Oak City	T.	1.5	19.1	15.5	11.0	4.7	14.0	3.5	.....	69.3
Ogden	.....	14.5	7.0	23.5	6.0	4.0	(*)	8.3	.....	.....
Park Valley	.....	1.0	6.5	6.5	.....	4.5	(*)	T.	.....	.....
Parowan	.....	(*)	25.0	5.0	6.5	0.5	32.5	14.0	.....	.....
Payson	.....	(*)	16.0	17.0	10.0	2.0	5.0	5.0	.....	.....
Pine View	.....	(*)	5.0	4.0	9.0	6.0	(*)	(*)	(*)	.....
Pinto	.....	.....	17.0	8.0	24.0	17.0	45.0	8.0	.....	119.0
Piute Dam	.....	1.0	15.0	9.0	T.	(*)	(*)	3.0	.....	.....
Price	(*)	.....	9.0	2.3	6.8	8.0	4.0	0.5	.....	.....
Provo Bench	.....	11.0	10.0	15.0	(*)	(*)	21.0	10.0	.....	.....
Richmond	.....	23.5	11.5	19.0	6.0	9.0	11.5	8.7	.....	89.2
Riverdale	.....	7.0	5.0	18.0	4.0	1.0	7.0	9.5	.....	51.5
St. George	.....	.....	16.0	.....	.....	1.5	.....	.....	.....	17.5
St. John	.....	(*)	6.0	11.0	10.0	5.2	10.5	4.5	.....	.....
Saltair	.....	2.0	1.5	(*)	7.8	(*)	17.0	T.	.....	.....
Salt Creek	.....	(*)	(*)	7.0	5.0	12.0	30.0	18.0	.....	.....
Salt Lake City	.....	10.6	6.7	15.2	8.7	1.0	32.0	14.3	.....	88.5
Santaquin	.....	(*)	26.0	19.5	10.0	5.0	21.5	7.0	.....	.....
Snake Creek	.....	10.9	15.0	15.5	4.5	12.2	47.5	28.2	.....	133.8
Snowville	.....	(*)	4.0	12.0	.....	4.0	17.0	6.0	(*)	.....
Soldier Summit	.....	1.5	18.0	(*)	3.5	10.0	47.0	(*)	(*)	.....
Spanish Fork	.....	(*)	15.7	(*)	3.0	(*)	16.5	1.0	.....	.....
Standrod	.....	2.7	3.8	12.1	2.0	4.1	11.5	16.1	.....	52.3
Sunnyside	.....	T.	19.0	(*)	(*)	4.0	13.5	8.7	.....	.....
Thistle	.....	7.0	27.0	27.5	1.5	14.0	33.0	21.0	.....	131.0
Tooele	.....	(*)	17.0	21.0	15.0	7.0	50.0	23.0	.....	.....
Tremonton	.....	(*)	6.0	4.0	3.0	.....	5.0	(*)	.....	.....
Vernal	(*)	(*)	12.0	6.0	(*)	4.5	3.0	.....	.....	.....
Watson	.....	3.0	16.0	18.0	0.5	1.6	16.5	12.9	.....	68.5
Wendover	.....	.....	3.0	3.0	4.0	5.0	2.5	.....	.....	17.5
Whiskey Creek	.....	0.5	19.0	(*)	12.0	5.0	13.5	4.0	(*)	.....
Winter Quarters	.....	12.6	22.7	11.2	5.0	15.0	34.2	29.2	1.0	130.9
Vermont.										
Bloomfield	.....	.....	15.5	7.6	22.6	26.5	25.5	2.0	.....	99.7
Burlington	.....	.....	7.4	11.1	21.2	16.9	25.3	1.4	.....	83.3
Cavendish	.....	.....	7.8	8.5	17.8	33.5	23.0	2.0	.....	92.6
Chelsea	.....	.....	20.0	13.0	27.0	31.0	24.0	5.0	.....	120.0
Cornwall	.....	.....	11.0	8.0	28.0	36.0	28.0	3.5	.....	114.5
Enosburg Falls	.....	.....	20.0	11.0	27.0	23.0	28.5	7.0	.....	116.5
Northfield	.....	.....	18.3	10.5	26.1	24.8	26.0	4.1	.....	109.8
Rutland	.....	.....	4.7	3.3	20.6	28.9	18.3	0.6	.....	76.4
Somerset	.....	.....	15.0	8.5	21.8	49.2	14.5	6.8	1.5	117.3
St. Johnsbury	.....	.....	17.4	6.3	31.3	32.6	23.3	2.5	.....	113.4
Vernon	.....	.....	.....	5.0	15.0	35.0	(*)	.....	.....	.....
Woodstock	.....	.....	11.5	9.5	33.0	42.5	31.5	4.0	.....	132.0
Virginia.										
Arcola	.....	.....	T.	6.6	3.3	7.5	2.0	.....	.....	19.4
Ashland	.....	.....	.....	7.8	2.0	6.5	0.7	T.	.....	17.0
Blacksburg	.....	.....	.....	1.0	0.5	6.0	T.	T.	.....	7.5
Buchanan	.....	.....	.....	1.0	2.0	0.5	0.5	.....	.....	4.0
Burkes Garden	.....	.....	.....	2.0	1.0	9.0	.....	T.	.....	12.0
Callaville	.....	.....	.....	2.5	2.5	2.5	T.	.....	.....	7.5
Cape Henry	.....	.....	.....	1.5	0.3	T.	T.	.....	.....	1.8
Catawba Sanatorium	.....	.....	.....	0.2	0.1	2.2	.....	.....	.....	2.5
Charlottesville (near)	.....	.....	.....	8.0	.....	4.0	.....	.....	.....	12.0

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Virginia—Continued.										
Columbia				6.0	0.5	5.0	1.0	T.		12.5
Culpeper				6.0	0.7	5.5	0.1			12.3
Dale Enterprise				8.0	3.5	9.0	T.	T.		20.5
Dante				T.	1.2	6.0	0.5	T.		7.7
Danville					3.5	0.5	T.			4.0
Diamond Springs				2.5		T.	0.2			2.7
Franklin				2.0	2.0	T.	T.			4.0
Fredericksburg (near)				7.0	0.5	6.5	0.5			14.5
Hawfield				8.9	0.2	T.	T.			9.1
Hopewell				4.3	0.3	0.5	T.			5.1
Hot Springs				5.9	1.9	4.9	1.0	0.8		14.5
Lawrenceville				2.6	0.4	0.5	T.			3.5
Leeds Manor			T.	10.0	1.5	23.0	1.0			35.5
Lexington				5.3	2.2	1.3				8.8
Lincoln				2.5	7.0	15.0	3.0	T.		27.5
Lynchburg				1.4	1.0	2.9	0.3	T.		5.6
Mayhurst				5.0	T.	1.6	T.			6.6
Mendota				T.	0.5	4.0	1.0	T.		5.5
Mineral (near)				8.8	0.5	2.1	T.			11.4
Monterey (near)			0.2	6.5		9.5	1.0	11.0	T.	28.2
Mount Weather				4.0	3.0	9.0				16.0
Narrows				1.0	T.	2.0	(*)			
New Canton				6.0	0.5	7.5	0.5	T.		14.5
Newport News				1.5	0.5	1.5	T.			3.5
Norfolk				1.8	1.5	0.1	0.2			3.6
North Holston				T.	0.8	1.1	T.	(*)		
Quantico				4.1	0.6	3.4	(*)			
Radford				T.	T.	2.0				2.0
Randolph				(*)	3.2	1.0	0.1			
Richmond				6.0	T.	3.6	T.			9.6
Roanoke				T.	T.	T.	T.	T.		T.
Rocky Mount				T.	3.0	T.	T.			3.0
Runnymede (near)				2.5	T.	1.5	T.	T.		4.0
Speers Ferry				(*)	1.0	3.0				
Staunton				7.5	1.5	10.5	T.	0.5		20.0
Warsaw (near)				8.0	(*)	8.0	0.5			
West Point				6.7	1.0	0.8	T.			8.5
Williamsburg				5.5	1.5	T.	T.			7.0
Winchester			T.	10.0	5.0	25.0	1.5	T.		41.5
Woodstock				2.5	T.	T.	T.			2.5
Wytheville				T.	T.	6.0	T.	1.4		7.4
Washington.										
Aberdeen				1.0	1.0		1.0	T.		3.0
Anacortes			0.5					T.		0.5
Anatone		11.0	17.5	32.0	5.0	4.0	21.0	11.5	3.9	105.9
Attalia		T.	1.0	12.0	3.5					16.5
Bedal	(*)	(*)	(*)	1.0	7.5	3.0	22.0	18.0		
Bellingham			2.0	0.5	0.7			T.		3.2
Blaine		T.	2.0	2.0						4.0
Blewett	(*)	(*)	12.0	12.0	16.0	8.0	13.0	5.0		
Bremerton					T.					T.
Brewster			1.5	10.3	5.0					16.8
Buckley		T.	T.		7.0		0.5	5.9		13.4
Bumping Lake		7.0	14.5	15.0	18.5	8.0	11.0	19.0	T.	93.0
Camp Lewis			T.	1.5	2.0		1.0			4.5
Castle Rock				19.0	1.0	T.	T.			20.0
Cedar Lake		4.5	3.0	T.	13.0	5.0	5.0	32.0	T.	62.5
Centralia				10.5	1.2	T.	1.5	0.5		13.7
Clearbrook			3.0	3.0	5.0					11.0
Cle Elum		5.0	7.0	7.0	13.0	5.0	7.0	13.0	T.	57.0
Colfax		3.0	6.5	(*)	5.0	1.0	1.0	3.0		
Colville		6.2	12.5	T.	6.0	0.2		2.5		27.4
Conconully		2.0	2.2	5.5	2.2	1.5	T.	T.		13.4
Coupeville				T.				1.5		1.5
Cowiche		0.5	2.7	13.0	6.0	3.5		1.5		27.2
Davenport		2.0	7.1	2.0	5.0	0.2	2.0	2.5		20.8
Davis Ranch		2.5	1.5	4.5	16.5		22.5	19.4		66.9
Dayton		3.2	6.7	12.4	4.3	T.	T.	T.		29.6
Deer Park		2.0	14.5	4.0	6.0	T.	2.5	4.0		33.0

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Washington—Continued.										
Detroit				0.2	1.0		T.	T.		1.2
Dirty Face Mountain		5.2	16.0	14.6	43.0	5.0	18.2	9.5		113.5
Dryden			3.8	16.0	22.0	4.0	6.0	4.0		45.8
Ellensburg		T.	5.5	5.5	7.0	T.	T.	4.0		22.0
Forks			T.		0.2		T.			0.2
Fort Simcoe				18.5	6.0	7.0				31.5
Glacier		2.0	1.0	3.5	3.5	1.0	12.0	1.0		24.0
Glenoma		0.5	2.0	13.0	5.0	0.5	13.0	22.0		56.0
Gold Creek			8.5	6.0	8.0	11.5	2.0	12.5		48.5
Goldendale				18.0	4.0	T.	2.0			24.0
Granite Falls		T.	1.0	0.5		4.0	3.0	1.0		9.5
Hanford			2.0	7.0	14.0	T.		T.		23.0
Harrington		T.	3.0	5.0	5.0		1.0	8.5		22.5
Hatton		0.5	5.3	10.0	7.2			1.2		24.2
Headworks			T.	13.2	2.5	T.	2.5	2.0		20.2
Hunters		T.	3.3	0.3	5.8			5.0		14.4
Irene Mountain	T.	(*)	(*)	1.8	3.5	5.7	2.0	3.7		
Kahlotus		2.0	3.5	6.5	8.0	0.5	T.	1.5		22.0
Kalama (near)		1.0		15.0		T.	3.0	T.		19.0
Kennewick			1.5	6.0	2.0					9.5
Kent (near)			T.	T.	T.					T.
Kettle Falls		3.7	10.0	(*)	3.5					
Keystone			4.4	4.7	6.0	1.0	1.5	2.0		19.6
Kiona			1.0	7.0	9.0					17.0
La Center				15.0	1.0	T.	3.5			19.5
La Crosse		6.0	5.1	13.9	6.3	2.0	0.5	3.0		36.8
Lake Clealum		1.0	9.0	10.0	21.0	3.0	7.0	18.0		69.0
Lake Kachess		5.0	16.0	9.0	25.0	10.0	23.0	29.0	T.	117.0
Lake Keechelus		7.9	17.0	5.0	26.0	9.0	19.0	18.0		101.9
Landsburg		0.2			7.0					7.2
Laurel		3.0	7.0	30.0	6.5		(*)			
Laurier		10.2	19.9	3.5	9.2	3.5	1.5	1.5		49.3
Leavenworth		T.	5.0	6.8	1.5	2.5	7.0			21.8
Liberty Ranger Station			6.0	5.0	12.0	9.0	5.5			37.5
Little Fish Ranger Station			6.0	9.0	9.0	5.0	3.0			32.0
Locke		14.0	23.8	3.3	10.2	4.0	5.5	7.7	1.5	70.0
Lone Tree				2.0						2.0
Longmire		7.0	18.0	10.0	9.0	8.5	47.0	49.5	2.0	151.0
Lost Creek		1.9	11.4	0.7	4.0	0.7	2.3	3.0	T.	24.0
Lowden (near)		T.	1.0	9.5	3.3	T.	T.	T.		13.8
Marietta		T.	1.2	1.7						2.9
Maryhill				26.0	5.5		T.			31.5
McCumbers Ranch			4.5	24.0	6.5	6.2	7.3	4.0		52.5
Mill Creek Intake		8.0	8.0	20.0	3.0	1.0	24.0	14.0		78.0
Mottinger			1.0	6.8	3.8	T.				11.6
Mount Pleasant				24.0	0.5		2.0			26.5
Moxee		1.0	3.6	6.2	4.7	T.		1.5		17.0
Nespelem		0.2	8.3		2.4		0.8			11.7
North Head				6.5	2.4	T.		T.		8.9
Oakville		7.5		2.0	1.1		T.	T.		10.6
Odessa		3.5	2.5	2.0	8.0	T.	0.5	5.0		21.5
Olga			1.0	T.	0.5		T.	0.5		2.0
Omak		0.5	4.5	4.0	1.0					10.0
Oroville		T.	3.0	0.4	2.7	T.	T.	0.2		6.3
Paradise Inn	4.0	39.0	66.0	51.0	89.0	24.0	90.0	92.2	28.2	483.4
Pomeroy		7.5	6.0	17.4	5.7	0.2	0.1	1.5		38.4
Port Angeles		0.1	0.1	0.1	0.1		0.1	0.2		0.7
Port Townsend				T.			T.			T.
Prosser		T.	1.5	11.0	7.0	T.				19.5
Pullman		3.5	7.8	22.0	5.0	0.5	4.0	7.0		49.8
Puyallup			T.	0.5	7.0		T.	0.2		7.7
Republic		0.9	13.8	2.4	3.4	T.	1.6	2.5		24.6
Rimrock		2.0	18.0	21.0	9.0	22.0	8.0	14.0	T.	94.0
Ritzville		3.0	4.5	1.5	9.0	3.5		3.0		24.5
Rockdale			29.0	4.0	27.0	15.0	58.0	96.0		229.0
Rock Island		T.	4.0	2.0	3.0	1.0	1.5	1.0		12.5
Rosalia		4.7	7.5	3.9	12.2	T.	3.0	3.1		34.4
Seattle			T.	1.0	T.		1.0	1.9		3.9
Sedro-Wooley			T.							T.
Sequim				3.0			T.	2.5		5.5

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Washington—Continued.										
Snoqualmie Falls					7.0					7.0
Snyders Ranch		T.	T.	14.0	27.0	37.0	5.1	0.7		83.8
South Bend				10.0				T.		10.0
Spikeman Ranger Station		4.0	7.0	6.0	3.0	3.0	1.0	(*)		
Spokane		2.1	5.0	2.8	6.5	0.5	3.0	3.9		23.8
State University				1.3						1.3
Stehekin (near)		1.5	13.0	25.5	38.0	3.5	0.5			82.0
Stokes Ranch		4.2	7.5	11.2	21.0	2.0	3.5	2.0		51.4
Sunnyside		T.	1.0	5.3	7.2	T.		T.		13.5
Tacoma			T.	2.2	1.1		1.0	1.5		5.8
Tatoosh Island				T.	0.7		T.	T.		0.7
Touchet Ridge		12.5	10.0	19.0	2.0	2.0	34.0	15.0	0.5	95.0
Trinidad				5.0	6.0		2.0			13.0
Vancouver				18.3	T.		0.5			18.5
Vashon Island				T.	T.		T.			T.
Wahluke			2.0	5.0	5.9	T.				12.9
Wallace		1.5	7.5	8.9	3.6	8.7	1.4	2.0		33.6
Walla Walla		1.8	3.2	13.1	2.7	0.6	2.5	0.5		24.4
Wapato			0.5	9.0	4.9	0.5				14.9
Waterville		T.	5.8	12.0	4.0	1.5	T.	1.0		24.3
Wenatchee (near)		3.0	6.8	12.0	10.5	8.0	3.5	2.5		46.3
Wheeler		2.0	(*)	(*)	6.0			4.0		
White Salmon		0.5	1.5	35.5	3.0	T.	5.5	4.0		50.0
Wilbur		1.0	7.0	T.	2.0	1.0	1.0	2.0		14.0
Willard			3.0	39.0	5.0		15.0	(*)		
Wind River		3.0	4.8	35.0	9.0	T.	22.5	16.0		90.3
Yacolt		0.5	0.5	12.0			6.5			19.5
Yakima		T.	2.3	8.0	7.5	T.	T.	2.0		19.8
West Virginia.										
Bancroft				6.8	0.5	7.8	3.2	0.2		18.5
Bens Run			1.0	14.0	5.0	7.0	4.0	T.		31.0
Bluefield				7.0	6.0	14.0	8.5	1.0		36.5
Brandywine				5.0	1.0	15.0	(*)	3.0		
Buckhannon			T.	15.0	4.0	14.0	3.0	T.		36.0
Burlington			T.	10.0	4.5	22.0	T.	3.0		39.5
Camden-on-Gauley			2.8	6.0	13.0	10.0	9.0	3.0		43.8
Charleston				4.5	T.	4.0	T.	T.		8.5
Clay				(*)	1.3	10.0	2.5	0.5		
Creston				8.8	4.7	6.5	1.3	T.		21.3
Cuba			T.	6.0	2.0	4.0	2.0	T.		14.0
Dam No. 19, Ohio River			T.	6.5	3.5	3.0	0.9	T.		13.9
Dam No. 20, Ohio River				7.0	3.7	3.5	0.9	T.		15.1
Dam No. 22, Ohio River				6.5	2.9	3.5	0.8	T.		13.7
Elkins			3.0	20.5	5.8	20.1	9.1	3.7		62.2
Evans				5.5	3.0	3.5	T.	T.		12.0
Fairmont			T.	11.5	2.5	9.5	2.0	T.		25.5
Gassaway			(*)	(*)	2.0	7.0	2.0	(*)		
Glenville			0.5	12.8	4.4	5.0	2.0	T.		24.7
Grafton			T.	11.0	2.5	7.0	(*)	T.		
Harpers Ferry				2.0	1.0	9.5	1.5			14.0
Hinton				1.0	1.5	1.5	T.			4.0
Holcomb			1.5	14.2	7.8	14.3	7.8	5.2		50.8
Huntington				3.3	1.0	5.6	1.0	T.		10.9
Kanawha Falls				1.0	T.	3.0	(*)	(*)		
Kayford				5.0	(*)	7.0	(*)	T.		
Lewisburg			T.	1.0	1.0	9.0	T.			11.0
Lost Creek			T.	14.0	2.8	5.5	2.0	T.		24.3
Mannington			1.5	7.2	3.5	13.3	4.6	2.9		33.0
Marlinton			0.5	6.5	1.0	5.0	0.5	2.0		15.5
Martinsburg				5.2	3.0	20.3	1.5	T.		30.0
Moorefield				7.0	4.0	18.5	T.	T.		29.5
Morgantown			T.	10.0	0.8	8.0	(*)	(*)		
Moundsville				6.5	6.0	7.3	2.0	2.5		24.3
New Cumberland			1.0	8.7	10.0	6.5	3.0	3.5		32.7
Parkersburg			0.4	7.5	3.1	3.1	0.9	T.		15.0
Parsons				5.0	6.0	10.0	4.0	T.		25.0
Pickens			7.0	39.0	15.0	38.0	23.0	17.0		139.0
Point Pleasant				3.0	T.	2.0	T.	T.		5.0
Powellton			T.	1.5	2.8	6.2	5.1	0.4		16.0

Monthly and seasonal snowfall, 1919-20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
West Virginia—Continued.										
Raleigh	.....	.....	.....	3.6	2.4	14.4	2.0	0.8	.....	23.2
Robertsburg	.....	.....	.....	4.5	2.5	3.5	1.0	T.	.....	11.5
Romney	.....	.....	.....	4.0	4.0	16.0	(*)	1.0	.....	.....
Ryan	.....	.....	.....	7.1	2.1	13.5	2.9	0.4	.....	26.0
St. Marys	.....	.....	.....	7.5	2.8	6.4	1.2	T.	.....	17.9
Smithfield	.....	.....	0.5	8.7	4.8	9.0	4.1	0.7	.....	27.8
Spencer	.....	.....	T.	4.0	2.0	5.0	1.0	(*)	.....	.....
Stony River Dam	(*)	(*)	(*)	(*)	4.8	18.8	4.8	5.0	T.	.....
Sutton	.....	.....	(*)	10.0	4.5	8.2	1.5	(*)	.....	.....
Upper Tract	.....	.....	.....	4.0	(*)	12.6	(*)	T.	.....	.....
Wardensville	.....	.....	(*)	2.2	1.0	17.0	(*)	.....	.....	.....
Wellsburg	.....	.....	T.	7.0	6.5	2.5	T.	0.5	.....	16.5
Weston	.....	.....	T.	17.5	5.3	12.0	4.6	T.	.....	39.4
Wheeling	.....	.....	T.	9.6	6.1	3.4	1.1	1.2	.....	21.4
Williamson	.....	.....	.....	0.9	2.0	3.8	0.6	T.	.....	7.3
Wisconsin.										
Antigo	.....	0.5	9.5	2.8	14.2	3.2	6.0	1.8	.....	38.0
Ashland	.....	4.5	23.2	6.0	9.8	4.2	5.8	6.8	.....	60.3
Barron	.....	5.0	15.2	4.8	19.5	5.1	14.2	4.0	.....	67.8
Beloit	.....	.....	0.7	14.5	9.2	3.5	1.0	T.	.....	28.9
Big St. Germain Dam	.....	4.0	16.5	4.0	8.0	6.0	6.0	2.0	.....	46.5
Brodhead	.....	.....	2.0	16.5	6.6	4.0	4.5	T.	.....	33.6
Burnett	.....	.....	4.5	7.7	11.3	4.9	1.7	T.	.....	30.1
Cecil	.....	.....	10.0	11.0	14.5	8.0	8.0	T.	.....	51.5
Cornucopia	.....	7.3	22.3	11.5	9.4	2.8	11.8	13.6	.....	78.7
Darlington	.....	.....	(*)	9.8	7.0	4.1	3.0	(*)	.....	.....
Deerskin Dam	.....	6.0	19.0	5.4	9.0	5.0	5.5	1.5	.....	51.4
Delavan	.....	.....	2.5	15.5	10.8	5.8	1.8	1.0	.....	37.4
Downing	.....	4.0	10.5	5.0	23.2	10.0	20.0	2.0	.....	74.7
Eau Claire	.....	2.8	11.5	5.7	19.5	4.7	19.0	2.8	.....	66.0
Florence	.....	T.	16.5	6.0	17.0	5.8	9.0	1.0	.....	55.3
Fond du Lac	.....	.....	8.5	18.5	18.5	10.5	10.0	0.5	.....	66.5
Grand Rapids	.....	T.	10.5	8.7	23.3	7.2	11.5	0.9	.....	62.1
Grand River Locks	.....	.....	2.5	4.2	10.8	4.2	4.0	T.	.....	25.7
Grantsburg	.....	4.0	20.5	9.5	26.4	9.6	8.5	7.5	.....	86.0
Green Bay	.....	.....	5.8	6.3	13.6	6.7	13.9	0.6	.....	46.9
Hatfield	.....	T.	7.0	4.7	12.5	4.6	8.5	T.	.....	37.3
Hayward	.....	12.0	11.0	19.0	20.0	12.5	12.2	2.0	.....	88.7
High Falls	.....	0.7	11.0	2.0	17.0	4.0	11.0	0.6	.....	46.3
Hillsboro	.....	.....	(*)	9.0	12.0	4.0	7.0	2.0	.....	.....
Iron River	.....	5.5	27.3	6.8	7.3	3.5	11.5	11.7	.....	73.6
La Crosse	.....	T.	13.1	10.6	14.1	5.9	9.9	2.3	.....	55.9
Lake Mills	.....	.....	1.0	7.8	7.7	5.5	(*)	(*)	.....	.....
Long Lake	.....	6.5	17.2	6.2	9.2	5.2	11.3	(*)	.....	.....
Madison	.....	.....	2.9	10.9	9.6	6.1	3.8	0.6	.....	33.9
Manitowoc	.....	.....	3.0	11.8	29.5	9.5	9.8	1.2	.....	64.8
Marinette	.....	T.	7.5	7.0	19.0	6.0	7.0	T.	.....	46.5
Marshfield	.....	2.0	9.0	(*)	18.0	4.5	(*)	1.0	.....	.....
Mather	.....	.....	9.0	6.0	21.0	5.0	9.0	(*)	.....	.....
Meadow Valley	.....	T.	9.0	12.8	24.0	5.0	12.0	3.0	.....	65.8
Medford	.....	1.0	13.0	4.0	12.0	6.0	15.0	1.0	.....	52.0
Menasha	.....	T.	6.0	8.0	21.5	9.0	15.0	T.	.....	59.5
Merrill	.....	1.2	14.5	5.4	20.6	7.6	11.8	1.7	.....	62.8
Milwaukee	.....	.....	4.0	15.7	22.1	6.1	4.6	2.1	.....	54.6
Minocqua	.....	4.0	14.0	4.0	13.5	7.0	8.5	2.5	.....	53.5
Mondovi	.....	(*)	(*)	17.3	27.0	3.5	19.0	(*)	.....	.....
Neillsville	.....	0.3	10.4	10.1	23.9	5.0	10.0	2.5	.....	62.2
New London	.....	.....	11.5	12.0	30.0	13.0	21.8	.....	.....	88.3
Osceola	.....	6.0	16.0	4.7	13.0	4.5	(*)	(*)	.....	.....
Oshkosh	.....	.....	7.0	9.0	23.0	7.0	10.0	(*)	.....	.....
Park Falls	.....	5.0	15.8	(*)	12.8	9.0	27.0	9.5	.....	.....
Pine River	.....	T.	7.5	9.3	19.4	5.6	15.2	1.1	.....	58.1
Plum Island	.....	.....	3.0	12.0	28.0	13.0	12.0	(*)	.....	.....
Plymouth	.....	.....	3.6	8.0	14.3	6.3	3.6	1.7	.....	37.5
Portage	.....	T.	4.6	6.2	9.4	3.9	6.0	0.4	.....	30.5
Port Washington	.....	.....	(*)	(*)	26.0	4.5	6.0	(*)	.....	.....
Prairie du Chien	.....	.....	3.5	13.0	7.5	4.5	0.5	(*)	.....	.....
Prairie du Sac	.....	T.	4.5	2.3	6.5	3.0	(*)	(*)	.....	.....
Prentice	.....	2.7	16.6	1.2	13.7	5.2	22.0	3.9	.....	65.3

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Wisconsin—Continued.										
Racine	.....	.....	T.	10.5	7.6	1.5	T.	T.	.....	19.6
Rest Lake	.....	5.0	17.0	10.0	14.0	6.0	10.0	(*)	.....	.....
Rhinelander	.....	2.0	17.5	1.5	16.1	10.4	7.3	0.1	.....	54.9
Ripon	.....	.....	3.4	8.7	9.9	6.0	9.5	T.	.....	37.5
River Falls	.....	1.0	8.8	4.7	16.5	6.4	15.5	7.0	.....	59.9
Sheboygan	.....	.....	0.5	12.5	25.2	4.5	6.5	T.	.....	49.2
Solon Springs	.....	12.0	20.0	7.0	22.0	12.0	20.0	6.0	.....	99.0
Spooner	.....	4.0	9.1	7.5	14.2	9.0	11.5	7.5	.....	62.8
Stanley	.....	3.0	13.0	5.0	22.5	4.5	9.5	2.5	.....	60.0
Stevens Point	.....	T.	7.0	11.5	23.0	4.5	10.0	3.0	.....	59.0
Sturgeon Bay	.....	.....	3.0	7.5	17.0	6.0	6.0	1.5	.....	41.0
Sugar Camp Dam	.....	6.0	15.0	3.0	13.0	5.0	11.0	T.	.....	53.0
Superior	.....	4.0	20.7	1.4	10.6	2.3	4.7	1.9	.....	45.6
Tomahawk	.....	2.5	(*)	3.6	9.3	4.2	(*)	(*)	.....	.....
Twin Lakes Dam	.....	4.0	20.5	6.5	8.5	3.0	4.5	T.	.....	47.0
Viroqua	.....	.....	8.0	(*)	10.7	4.2	3.0	3.5	(*)	.....
Watertown	.....	.....	4.8	16.1	15.0	8.1	3.1	0.2	.....	47.3
Waukesha	.....	.....	1.7	17.0	17.0	4.7	4.0	0.5	.....	44.9
Waupaca	.....	.....	10.4	7.2	15.7	5.6	12.3	1.0	.....	52.2
Wausau	.....	1.1	11.4	7.7	17.0	6.8	10.3	2.7	.....	57.0
Weyerhauser	.....	7.0	18.8	3.7	24.0	6.8	14.0	4.0	.....	78.3
Whitehall	.....	1.5	9.0	9.5	23.5	5.5	21.0	2.5	.....	72.5
Winter	.....	5.5	22.5	10.0	17.0	12.3	5.5	6.0	.....	78.8
Wyoming.										
Afton	.....	22.7	(*)	17.9	(*)	9.5	11.0	24.5	T.	.....
Alta	.....	17.3	15.2	23.4	1.2	10.5	33.7	13.9	.....	115.2
Basin	.....	5.8	1.8	5.4	3.0	1.3	3.5	0.8	.....	21.6
Bedford	.....	24.0	22.5	21.5	4.5	10.0	28.0	43.5	1.5	155.5
Big Creek	.....	19.2	35.5	(*)	(*)	9.0	22.4	38.0	T.	.....
Boyd	2.5	19.0	11.8	5.0	9.5	14.5	15.5	14.5	1.5	[8] 93.9
Buffalo	.....	8.5	7.7	3.0	4.0	1.5	3.0	12.5	T.	40.2
Burns	.....	(*)	11.0	6.0	1.0	0.2	(*)	(*)	(*)	.....
Centennial	T.	19.6	34.4	7.4	11.0	12.2	8.5	61.3	0.5	154.9
Cheyenne	0.5	7.8	15.6	11.9	2.0	8.2	6.5	41.5	T.	94.0
Chugwater	.....	6.0	17.0	11.0	2.0	3.0	5.0	61.0	.....	105.0
Clark	T.	24.0	7.5	21.0	2.6	4.7	2.9	8.5	.	71.2
Clearmont	.....	5.7	9.0	(*)	5.2	2.0	(*)	6.0	.....	.....
Cody	.....	13.0	6.0	12.5	1.0	3.0	1.5	6.5	.....	43.5
Cokeville	.....	25.0	7.7	13.0	4.0	10.5	18.5	14.5	1.0	94.2
Colony	.....	27.5	22.0	3.0	6.5	7.5	18.0	19.0	.....	103.5
Crandall Creek	(*)	(*)	(*)	14.3	8.1	6.0	19.0	(*)	1.0	.....
Crow Hill	.....	14.0	10.0	8.5	12.0	5.5	7.0	(*)	T	.....
Deaver	T.	9.0	1.0	4.0	3.0	5.0	1.5	T.	.....	23.5
Dome Lake	(*)	(*)	(*)	8.0	28.0	30.0	(*)	(*)	(*)	.....
Douglas	.....	12.0	11.5	9.5	4.0	11.0	2.0	31.3	.....	81.3
Echeta	T.	18.0	38.0	12.0	10.0	8.0	11.0	15.0	.....	112.0
Elk Mountain	.....	8.5	(*)	(*)	12.0	16.0	20.5	45.0	5.2	.....
Emblem	.....	8.0	9.0	4.0	1.0	1.0	(*)	3.5	.....	.....
Encampment	(*)	3.4	14.0	14.0	7.0	11.5	(*)	(*)	.....	.....
Ervay	.....	58.0	22.0	19.2	8.0	18.0	13.0	35.5	3.0	[9] 177.7
Evanston	.....	13.0	10.0	8.0	8.0	9.0	30.5	22.0	.....	100.5
Fort Laramie	.....	6.0	12.4	4.3	2.5	6.3	12.0	29.0	.....	72.5
Hecla	1.0	6.5	15.2	5.7	3.5	7.5	5.5	39.5	1.5	85.9
Hyattville	.....	13.0	6.0	3.0	10.0	7.5	(*)	6.0	.....	.....
Kirtley	.....	12.0	7.0	8.0	3.5	9.5	(*)	56.0	.....	.....
Knowles	.....	31.0	18.9	13.1	7.4	10.0	17.6	24.3	1.0	123.3
Lagrange	.....	(*)	(*)	6.0	3.0	(*)	11.0	51.0	.....	.....
Lander	.....	30.4	25.9	5.7	10.8	23.5	3.5	29.6	.....	129.4
Laramie	1.5	5.5	13.0	12.0	7.1	8.0	(*)	31.0	.....	.....
Lovell	T.	5.0	0.9	3.8	2.3	5.0	2.5	1.0	.....	20.5
Lusk	(*)	(*)	13.0	(*)	4.7	17.0	16.5	49.2	.....	.....
Middle Fork Ranger Station	8.0	42.0	18.0	27.0	34.0	29.0	19.0	55.0	T.	232.0
Moran	.....	16.0	24.0	12.0	10.0	10.0	18.0	16.0	.....	106.0
Newcastle	.....	11.0	8.3	2.5	2.4	4.0	4.5	4.0	.....	36.7
Opal	(*)	(*)	13.0	(*)	3.0	6.0	14.1	22.0	(*)	.....
Painter	(*)	39.0	11.0	20.5	2.0	(*)	(*)	30.0	3.5	.....
Pathfinder	T.	10.0	9.5	3.8	4.0	12.5	13.0	11.8	2.0	66.6

[8] Includes June, 1920: Boyd, 0.1.

[9] Includes June, 1920: Ervay, 1.0.

Monthly and seasonal snowfall, 1919–20—Continued.

Stations.	1919				1920					Seasonal.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Wyoming—Continued.										
Pavillion	(*)	8.5	(*)	(*)	1.4	7.3	5.4	24.0	.....	.....
Pinedale	(*)	(*)	12.0	13.5	5.0	9.0	7.5	10.0	.....	.....
Powell	.....	6.0	T.	2.7	0.1	T.	0.1	T.	.....	8.9
Rawlins	T.	17.0	13.5	15.0	5.2	10.5	15.7	15.5	.....	92.4
Riverton	.....	23.5	14.0	9.5	2.0	13.0	1.0	29.0	(*)	.....
Rocky Point	.....	17.0	18.5	3.0	12.0	6.5	11.0	12.2	.....	80.2
Sheridan	.....	10.7	15.0	5.8	13.6	12.4	10.1	15.7	T.	83.3
Sheridan Creek	2.0	26.3	29.0	12.0	12.3	25.5	(*)	(*)	(*)	.....
Shoshone Dam	T.	14.7	5.8	14.5	2.7	1.8	1.7	4.3	T.	45.5
South Pass City	5.0	19.4	11.7	16.3	2.7	11.1	9.7	27.2	T.	103.1
Spencer	.....	7.0	5.0	2.5	2.2	3.5	1.0	1.5	.....	22.7
Sundance	.....	18.5	18.5	15.0	13.5	15.0	13.0	25.0	T.	118.5
Timber Creek	4.5	26.0	22.3	13.0	10.0	24.0	11.5	44.5	7.0	[10] 164.3
Valley	(*)	(*)	6.0	15.0	3.5	10.5	9.0	50.0	(*)	.....
Verona	.....	8.5	10.0	2.5	14.0	8.0	9.0	12.0	.....	64.0
Wheatland	.....	9.2	13.2	13.0	1.6	7.8	5.7	44.6	.....	95.1
Willow Springs Ranger Station	.....	27.0	20.0	(*)	14.5	17.0	25.0	(*)	(*)	.....
Worland	0.7	7.0	(*)	2.0	2.1	(*)	(*)	3.5	.....	.....
Wyncote	.....	T.	12.0	T.	3.0	4.0	4.0	11.5	T.	34.5
Yellowstone Park	7.8	26.6	6.4	27.7	2.9	12.3	20.0	4.8	3.2	[10] 111.9
Gallatin †	4.0	21.5	9.0	15.5	11.6	15.4	28.5	16.5	9.6	131.6
Riverside †	(*)	(*)	14.4	30.4	9.0	11.0	33.0	3.2	(*)	.....
Snake River †	(*)	31.5	49.3	18.5	16.2	16.0	50.5	16.0	T.	.....
Soda Butte †	6.5	40.0	17.0	22.0	15.0	(*)	(*)	3.0	T.	.....
Canadian stations.										
St. Johns, Newfoundland	.....	T.	T.	32.0	29.0	13.0	2.0	4.0	3.0	83.0
Sydney, Cape Breton Island	.....	T.	3.5	27.0	18.0	20.0	7.5	23.0	.....	99.0
Halifax, Nova Scotia	.....	T.	3.6	7.5	26.9	14.3	9.7	8.5	.....	70.5
Yarmouth, Nova Scotia	.....	.....	2.4	13.6	28.0	15.2	3.7	8.0	.....	70.9
Charlottetown, Prince Edward Island	.....	.....	4.6	8.2	15.2	18.8	10.5	14.5	T.	71.8
Chatham, New Brunswick	.....	1.5	5.2	8.4	18.3	28.9	13.4	23.0	.....	98.7
Father Point, Quebec	.....	1.6	8.1	18.1	13.4	30.0	11.2	19.9	.....	102.3
Quebec, Quebec	.....	.....	9.3	11.9	26.2	33.9	19.5	8.6	0.1	109.5
Montreal, Quebec	.....	T.	10.7	11.2	29.4	29.3	27.9	7.0	.....	115.5
Stonecliffe, Ontario	.....	.....	6.6	6.2	19.4	17.2	3.7	4.1	0.8	58.0
Ottawa, Ontario	.....	T.	8.3	8.5	29.0	19.4	9.1	3.0	T.	77.3
Kingston, Ontario	.....	.....	0.8	9.8	5.5	13.3	7.9	6.8	.....	44.1
Toronto, Ontario	.....	.....	0.4	9.6	23.8	16.1	5.9	5.9	.....	61.7
Cochrane, Ontario	T.	6.0	16.0	22.0	9.0	5.0	7.0	8.6	T.	73.6
White River, Ontario	.....	5.2	28.7	17.4	11.5	6.7	13.8	10.1	0.2	93.6
Port Stanley, Ontario	.....	.....	1.7	14.0	35.5	29.8	2.8	9.8	.....	93.6
Southampton, Ontario	T.	.....	7.7	29.9	31.5	16.5	10.2	11.4	.....	107.2
Parry Sound, Ontario	.....	.....	2.5	39.5	11.9	17.7	6.4	4.0	.....	82.0
Port Arthur, Ontario	.....	0.6	10.5	2.2	7.5	1.0	9.3	.....	.....	31.1
Winnipeg, Manitoba	.....	15.2	22.8	6.7	15.4	8.5	14.4	0.4	.....	83.4
Minnedosa, Manitoba	1.2	8.3	4.3	8.0	9.8	4.2	9.6	0.4	.....	45.8
Qu'Appelle, Saskatchewan	0.8	12.4	10.4	5.4	21.0	6.2	15.6	4.6	.....	76.4
Medicine Hat, Alberta	.....	3.1	11.5	1.1	16.5	2.8	8.5	1.6	.....	45.1
Moose Jaw, Saskatchewan	T.	7.2	8.8	3.0	18.5	4.6	10.6	10.7	.....	63.4
Swift Current, Saskatchewan	.....	5.1	1.5	1.1	5.5	2.6	3.2	2.9	1.7	23.6
Calgary, Alberta	0.2	3.2	7.6	0.4	11.7	9.9	3.7	19.2	5.0	60.9
Banff, Alberta	0.5	4.0	8.5	7.5	31.6	10.8	14.4	15.9	5.6	[11] 98.8
Edmonton, Alberta	0.2	18.1	18.5	8.2	19.9	2.9	12.6	3.9	4.3	88.6
Prince Albert, Saskatchewan	.....	2.8	9.6	5.3	11.0	8.4	13.0	2.1	.....	52.2
Battleford, Saskatchewan	.....	7.2	5.8	3.8	14.4	3.6	7.0	6.1	.....	47.9
Kamloops, British Columbia	.....	1.8	14.0	5.0	8.2	T.	0.7	.....	.....	29.7
Victoria, British Columbia	.....	.....	0.2	0.1	0.6	.....	0.4	0.1	.....	1.4
Barkerville, British Columbia	.....	25.7	31.6	37.5	50.8	10.5	36.1	48.1	13.4	[12] 254.2
Triangle Island, British Columbia	.....	.....	.....	.....	7.0	.....	T.	0.8	.....	7.8
Dawson, Yukon	.....	3.6	37.5	8.8	2.7	12.2	5.8	1.3	4.2	76.1
Hamilton, Bermuda	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0

† Station in Yellowstone Park.
[10] Includes June, 1920: Timber Creek, 1.5; Yellowstone Park, 0.2.
[11] Includes June, 1920: Banff, T.
[12] Includes June, 1920, Barkerville, 0.5.

EVAPORATION, 1919.

Monthly and annual evaporation (in inches and hundredths) for 1919.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Alabama.													
Silverhill				6.69		6.87		6.21	8.31				
Arizona													
Ajo	4.45	3.94		11.81	15.20	19.40	14.35	14.25	14.81				
Mesa	3.30	3.18	6.30	8.38	10.94	11.37	9.32	7.82	6.95	4.68	3.52	2.86	78.62
Roosevelt Reservoir	2.71	2.68		8.68			10.54	9.52	6.75	4.67		1.88	
Willcox	3.96	3.67	8.05	9.60	10.41	11.42	8.60	8.67	6.60	5.35	4.06	3.34	83.73
Yuma	4.30	4.51	6.64	9.15	7.79	9.08	10.55	7.57	5.63	5.23	3.16	2.99	76.60
California.													
Chula Vista	4.14	3.36	4.78	5.47	6.13	7.88	7.62	6.86	5.92	5.23	4.00	2.98	64.37
Dodgeland	1.36	1.74	2.93	5.65	9.41	11.54	12.54	10.46			2.67	1.14	
Oakdale	1.62	1.68	3.36	4.90	9.15	13.80	15.50	14.39	9.96	6.88	4.44	1.32	87.00
Tahoe	2.09			2.58	3.64	5.40	6.90	6.27	6.04	4.32	3.21		
Hawaii.													
Hoheae Upper								7.06	5.70	5.23	4.31	3.73	
Idaho.													
Arrowrock				3.53	7.10	8.78	10.59	10.20	6.08	1.96			
Deer Flat				6.40		8.09	8.68	6.25	5.12				
Jerome					7.50	10.51	9.37	9.64	5.35	1.89	1.09		
Kansas.													
Lawrence					5.65	5.80	8.70	7.62	7.36	3.52			
Tribune					9.74	10.96	14.84	12.45	9.12	4.45			
Wichita				5.51	5.91	6.65	10.30	9.75	8.35	4.08			
Maine.													
Gardiner (Land pan)					4.47	5.58	5.76						
Minnesota.													
Centerville								6.62	4.51	2.44			
Missouri.													
Columbia			2.19	3.78	4.02	5.37	7.38	6.29	4.10	2.04	1.36		
Columbia (Sub-station 1)			2.88	5.06	4.79	6.39	8.19	7.20	5.70	2.90			
Montana.													
Agricultural College				3.97	6.22	9.07	10.96	7.94	5.23				
Sun River Canyon								7.32	6.31				
Valier				6.49	7.42	8.06	11.28	8.45	5.41				
Willow Creek Reservoir								9.18	5.74				
Nebraska.													
Lincoln				4.58	6.05	7.04	11.70	9.10	7.15	2.62			
Nevada.													
Fallon	0.58	1.62	4.00	6.30	9.41	10.43	11.60	10.07	7.23	3.84	1.60	0.61	67.29
Indian Springs		3.30	5.47	8.31			10.85						
Lamoille					7.12	9.26	10.66	9.59	5.68				
Marlette Lake								9.21	6.66				
New Mexico.													
Agricultural College	2.65	4.19	7.75	9.91	12.25	13.50	12.89	11.48	7.47	5.53	3.90	2.66	94.18
Elephant Butte Dam		3.46	7.20	7.70	12.66	12.68	11.14	11.13	7.88	7.82	3.98	2.73	
Santa Fe	1.59	1.02	2.70	5.50	8.29	9.38	6.81	7.47	5.43	3.84	2.80	1.57	56.40
New York.													
Albany				2.49	4.51	5.29	6.28	4.50	2.98	1.88			
Ithaca				1.41	3.70	5.11	5.60	4.00	3.74	2.42			
Ohio.													
Ohio State University						6.11		5.40	4.25				
Wooster					3.45	6.41	6.84	5.24	3.06				
Oregon.													
Corvallis						4.20	6.22	7.28			1.12		
Porto Rico.													
San Juan	5.18	6.02	8.47	7.37	8.75	6.23	7.48	9.28	6.05	6.87	5.22	4.83	81.75
South Dakota.													
Rapid City (Station No. 1)				4.31	7.89	8.64	9.66	8.80	5.50	2.02			
Texas.													
Austin		2.57	4.19	5.77	5.52	6.97	5.78	6.69	4.83	3.54	3.16	1.89	
Utah.													
Myton					10.28	10.94	11.22	9.54	5.94	3.41			
Piute Dam				7.89	9.14	13.26	11.77	10.52	8.11	5.01			
Provo				4.10	6.90	7.07	8.54	6.52	3.74	1.99			
Virgin Islands.													
St. Croix				5.29	8.56					5.51	4.68	4.42	
Washington.													
Lake Kachess						4.79	6.59	4.77	2.15				
Walla Walla			2.26	3.67	5.43	8.86	11.27	10.25	4.98	2.69			