U. S. DEPARTMENT OF AGRICULTURE.

WEATHER BUREAU.

REPORT

OF THE

CHIEF OF THE WEATHER BUREAU.

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VOLUME I.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU,
Washington, D. C., August 28, 1899.

SIR: I have the honor to submit a report of the operations of the Weather Bureau during the fiscal year that ended June 30, 1899.

The report is divided into three main heads. The first deals with administrative work (Part I); the second furnishes an account of the climatology of the calendar year 1898 (Parts II, III, IV, and V); and the third embraces the results of the cloud observation made in 1896-97, according to the plan of the International Cloud Committee (Part VI).

Very respectfully,

WILLIS L. MOORE,
Chief United States Weather Bureau.

Hon. JAMES WILSON,
Secretary of Agriculture.

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PART I.

ADMINISTRATIVE REPORT.

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REPORT OF THE CHIEF OF THE WEATHER BUREAU, 1898-99.

FORECASTS AND STORM WARNINGS.

General remarks.—Timely and important warnings of severe storms, hurricanes, cold waves, and frosts were issued on a number of occasions. The closing months of 1898 were especially stormy on the Great Lakes and the New England coast. Probably the most severe storm within the memory of the living swept along the Massachusetts coast on November 26–27, entailing a loss of at least 200 lives and many vessels. This appalling loss of life was largely due to the sailing of one vessel, the *Portland*, with a passenger list of probably 150 souls. The captain of the *Portland* left Boston Harbor at the regular time for sailing (6 p. m.), although storm signals had been flying since 11 a. m., and marine interests had been completely notified of the coming storm. The disasters of this storm will not soon be forgotten, yet what might have been the record of death and destruction if the harbors of the New England coast had not been filled with hundreds of craft which had sought a safe anchorage on the advices of the Weather Bureau?

The extension of the usual time limits of the night forecast from thirty-six to forty-eight hours marked an important change in the forecast work of the Bureau. Persons who receive the forecasts through the morning newspaper frequently wish to know the weather conditions to be expected on the coming day. Although attempts to extend the time covered by the forecasts had been made heretofore, they were not successful. In the full belief that as a result of the special study of the problem of forecasting made during the past two years such an extension was not only practicable but very greatly desired, forecast officials were directed that, beginning March 1, 1899, the period covered by the night forecasts should be increased to forty-eight hours. The success already attained has fully justified the issuance of the order.

Barbados hurricane of September 10, 1898.—The only hurricane in the West Indies during the season of 1898 followed closely the establishment of stations in that region. At 12.40 p. m., September 10, the United States Weather Bureau observer at Bridgetown, Barbados, cabled a special report which showed the presence of a cyclonic disturbance southeast of the Windward Islands. Hurricane warnings were immediately cabled to Weather Bureau stations in the Lesser Antilles, and the officials in charge were instructed to give the widest possible distribution of the warnings in their respective districts. In the meantime, and immediately following the dispatch of his special message, the Weather Bureau observer at Bridgetown warned all local interests of the approach of the hurricane. The storm reached the island of Barbados the night of September 10, and the islands of St. Vincent and St. Lucia the morning of September 11. At Barbados 83 persons were killed, 150 injured, and property to the estimated value of $2,500,000 was destroyed. The following are among comments made by the press in connection with this storm and the warnings issued by the Weather Bureau in advance of its arrival.

The Barbados Advocate, September 17, 1898:

> Saturday morning was dark and lowering, and the indications of approaching bad weather were strong. At noon Mr. McDonough, of the United States Weather Bureau, notified the public that a hurricane was fast approaching Barbados. At 6 p. m. the clouds gathered densely in the northeast, and the wind commenced to blow freshly from that point. The rain fell heavily, and the clouds continued to gather in dark, ever-wheeling columns, the higher banks forming scuds flying rapidly to various points. At 7 p. m. the barometer had fallen to 29.66, and the wind had increased in force and violence until a strong gale was blowing. At 9 p. m. the wind was blowing with hurricane force.
>
> Fiercer and more destructive hurricanes may have visited the West Indies in years past, but, taking into consideration the general condition of her industry and its gloomy prospects, never has a more appalling calamity fallen on this island since it first rose out of these western seas than the fearful hurricane which ravaged it from shore to shore on Saturday night last.

The following is an extract from an editorial which appeared in the New Orleans Times-Democrat of September 24, 1898:

We were able to test this new service in the recent hurricane of September 10 and 11. The storm which prevailed then was first noticed in an inchoate condition near Barbados on September 10. All the other West Indian islands were notified from Washington, and it was in consequence of that notice that the Spanish vessels at San Juan de Porto Rico, which were to have sailed for Spain on that day, delayed doing so, escaping the storm and saving, in all probability, many lives by their delay. Every seaport that could be reached by telegraph was notified; the vessels remained in harbor, and the hurricane, a very severe one, swept through the Caribbean and the Gulf of Mexico without injuring a single vessel. So much for our new weather stations. There was some loss of life in the interior of the islands where the warning could not reach in time, but this was infinitesimal compared with the damage that might have been done and would have been done had the approach of the storm not been known one or two days beforehand.

The hurricane was very severe over the smaller Antilles, and wasted most of its force before it reached Cuba. All we caught of it was a violent rain storm. But, although it was not as widespread as some other Gulf hurricanes, it was as severe in its intensity where it did rage. By the warning given by our weather service, property in value a hundred times the cost of the service was saved. The wisdom of the new stations is thus clearly proved. Louisiana ought to appreciate the improvement, for probably no part of the country is more affected and more directly interested in hearing of the approach of these hurricanes. With timely notice, vessels will not leave here in the face of a storm. The thousands of fishermen along the coast can receive warning in time and escape the fate of their comrades at Cheniere Caminada. Finally, the sugar and rice plantation owners are deeply interested in knowing of an approaching blow, so as to give them a chance to care for the crops, to harvest the rice, or cut the cane before the storm breaks over them.

In enumerating the benefits of the war we must not overlook the improvement it has assured us in our weather service on the Gulf and south Atlantic, an improvement that would scarcely have been made, certainly not made for years, if the safety of Sampson's and Watson's fleets and Shafter's army had not demanded the establishment of additional weather stations in the West Indies.

The Daily Gleaner, Kingston, Jamaica, September 16, 1898:

Among the most notable features attending the hurricane was the action of the United States weather station at Half Way Tree. This station was only established a few weeks ago, under the scheme of the Washington Bureau for covering the meteorological observation of the West Indies more effectually than heretofore; and already the new station has more than justified its existence. From the data which, with more or less regularity, have been coming to hand, Mr. Stockman, on Saturday night, cabled hurricane warnings to Barbados, Martinique, St. Kitts, and St. Thomas. The message prognosticated a hurricane immediately, the central portion of which was south of Barbados, that it was moving north-northwesterly and increasing, with northerly winds and rains. Every one of these details has been substantiated. Fortunately, as we have seen, the warning was not required for the two more northerly of the islands notified, the hurricane abating its force somewhere in the region of St. Kitts. The Weather Bureau has distinctly shown that it can not only inform people that a hurricane has taken place after the damage is done, but can give sufficient warning beforehand to prepare masters of vessels for impending danger.

Galveston and Dallas Daily News, September 25, 1898:

The new branch of the United States Weather Bureau recently established in the West Indies has already shown the wisdom of the Government's action in that direction by the excellent warnings given relative to the development and progress of the recent destructive hurricane which made its appearance in the vicinity of Barbados and moved westward, bringing havoc to several of the Lesser Antilles. The United States fleet in those waters was kept fully advised.

Hurricane on the south Atlantic coast October 2, 1898.—During the last two days of September, 1898, a storm developed in the vicinity of Santo Domingo, and moved thence northwestward to the south Atlantic coast of the United States, where it raged with hurricane violence during October 2. Conservative estimates place the damage caused by this storm in Georgia and Florida at $1,500,000. The value of vessels and cargoes detained by the Weather Bureau warnings of Saturday, October 1, was $380,000, and the crews numbered 56. These were sailing vessels, and doubtless would have suffered the fate of those caught at sea. At Savannah the warnings prompted active measures for the protection of shipping and merchandise, and credit is given the warnings by representatives of business and marine interests for a saving of many thousands of dollars. At Charleston vessels and cargoes valued at nearly $1,000,000 remained in port.

Storms on the Great Lakes October and November, 1898.—Two storms of marked intensity caused dangerous gales over the upper lakes in October, 1898. The more severe of these was centered over northern Illinois the morning of the 25th, and it moved northeastward over lower Michigan during the succeeding twenty-four hours. This storm was attended by northerly gales, which resulted in considerable damage to shipping on Lake Michigan and destroyed much property

along the shore in Chicago. High winds were forecast for the upper lakes the morning of the 24th, and the forecast for Lake Michigan, the morning of the 25th, was as follows:

Winds shifting to brisk and high northerly, probably becoming dangerous; rain to-night, possibly turning into snow flurries.

Vessel masters leaving port during the afternoon and evening of the 24th were cautioned that strong northerly winds would be encountered farther down the lake. Some remained in port, while others proceeded on their way, intending to seek shelter in some harbor on the west shore as soon as the storm should strike.

In referring to the work of the Weather Bureau during the severe gale which visited the Great Lakes from November 9–11, 1898, the Buffalo News of November 13, 1898, remarked, editorially, as follows:

The Government Weather Bureau has again demonstrated, in the view of all the people of the Lake region, its great and growing importance as a factor in the commerce and travel of the inland seas. During the past ten days the Great Lakes have been swept by a continuation of severe storms, the fury of which but few vessels could withstand, although the majority of these vessels are as large, staunch, and seaworthy as any of the ocean liners; yet but comparatively few casualties occurred, which was due to the timely warnings of the Weather Bureau, and it is no exaggeration to say that in this instance alone millions of dollars' worth of merchandise, hundreds of vessels, and probably many lives have been saved by the forecasts.

The great storm on the New England coast November 26–27, 1898.—One of the most disastrous storms of recent years, briefly referred to in the opening paragraph of this report, visited the middle Atlantic and New England coasts November 26–27, 1898. At least 200 lives were lost, and fully 100 vessels wrecked along the New England coast, and railway traffic was blocked by snow. The morning of the 26th storm signals, for easterly gales, were ordered along the Atlantic coast from Eastport to Norfolk, and storm warnings for the lower lakes, including a warning of snow and a cold wave. The Bureau of Navigation, Navy Department, and the Maritime Exchanges of New York and Philadelphia, were informed of the action taken in notifying the marine interests of the impending severe storm of wind and snow. In addition to the above advices the following special warning was telegraphed to all Weather Bureau offices in New York and New England for distribution throughout their respective districts:

Heavy snow indicated for New York and New England to-night; notify railroad and transportation interests.

At the same hour the Pennsylvania and Baltimore and Ohio railroad companies were notified:

A cold wave, with heavy snow, will prevail to-night in the Allegheny Mountain districts.

Among many editorial comments made by the daily press regarding this storm and the action of the Weather Bureau in forecasting its destructive character the following is from The Evening Star, Washington, D. C., November 30, 1898:

The full story of Saturday night's storm may never be told. Its deadly intensity is revealed by degrees in the wreckage which floats ashore, and perhaps in a few days some approximate estimate of the havoc then wrought on the New England coast may be approachable. Meanwhile it is clear that at least one great disaster marked the gale and that many lives were sacrificed. The steamer *Portland* went to pieces some time Saturday night or Sunday morning so far out of her course as to show that the storm was of resistless strength, and that it was the most criminal folly for the captain to put out from port. * * * At half past 10 on Saturday morning the Weather Bureau in this city wired to all its observers along the New England coast the following order: "Hoist northeast storm signals; east to northeast gales, with heavy snow to-night."

Observers were also directed to warn all railroad and transportation interests of the coming of heavy snow throughout New England. The warning about the snow was particularly important. Often a ship can go to sea with comparative safety in the face of a storm if the air is not clouded, but when the snow is flying landmarks are obscured, light-houses are useless, and the vessel is left to fate.

The storm on the lower lakes, Middle Atlantic, and New England coasts of December 4–5, 1898.—A severe storm, for which ample warnings were given, visited the lower lakes and the Middle Atlantic and New England coasts December 4 and 5, 1898. At Cleveland the storm was reported the severest of the season. The Weather Bureau observer at that point reported that the warnings were heeded, and that vessels and their cargoes, valued at upward of $800,000, were sheltered in that port. He also reported that a disregard of the warnings would have resulted in a loss of vessels and lives. On the Atlantic coast many captains heeded the storm warnings, and upward of 100 steamers and sailing vessels sought refuge at Sandy Hook and Gravesend Bay. At Long

Branch the wind reached a velocity of 70 miles an hour from the east, and heavy seas carried away 160 feet of the iron pier. The signals kept many vessels in port at New York and other harbors of the North Atlantic coast, and in view of the exceptional severity of the storm many casualties were doubtless averted by the general regard given to the warnings.

Frost warnings.—One of the defined duties of the Weather Bureau is to issue, for the benefit of farmers, orchardists, and gardeners, warnings of impending conditions favorable for the occurrence of damaging frost. The success which attended this line of work during the last year was very marked. The first important warnings were issued October 21, 1898, for the middle and west Gulf States, Tennessee, and western Kentucky, and on the morning of October 22 the following special bulletin, showing that the warnings had been verified, was telegraphed to the yellow-fever-infected district of the South:

This morning's reports show frost generally throughout the infected district. In Alabama, eastern and northern Mississippi, and northern Louisiana the frosts were heavy and killing; in southwestern Mississippi and southern Louisiana light frost was reported. At Mobile the minimum temperature was 40° and at New Orleans 46°, the lowest previous record for the third decade of October being 34° at Mobile and 42° at New Orleans. November 18 is the earliest date on which freezing temperature has ever occurred at New Orleans, and November 2 is the earliest date of freezing temperature at Mobile.

In central Mississippi and northern Louisiana, and also in northern Alabama and northern Georgia, freezing weather has occurred in the third decade of October. The earliest date of heavy frost at Mobile was November 2, 1874-1878. The earliest date of heavy frost at New Orleans was November 11, 1877.

The first heavy frost has occurred as late as December 29 at Mobile, while at New Orleans November and December have, in a number of years, failed to show the occurrence of heavy frost. The average date of first heavy frost is November 22 at Mobile and December 7 at New Orleans. The average minimum temperatures for the region referred to range from 50° to 55° during November, with occasional periods of freezing temperature.

The occurrence of light frost Tuesday morning, supplemented by heavier frosts and lower temperature this morning, may be considered unfavorable for the further progress of the disease. Present conditions indicate frost, and temperature 40°, or slightly below, to-night in Alabama, Mississippi, and the interior of Louisiana. The temperature will probably remain for several days below the seasonal average, which is 66° at New Orleans and 65° at Mobile.

Acting upon the information contained in this bulletin, Edmond Souchon, president of the Louisiana board of health, issued the following proclamation, October 22, 1898:

Whereas the Weather Bureau reports frosts occurring all over the State; and whereas it is a fact accepted by epidemiologists that no foci of yellow fever can be established in any place after frost is shown: Therefore be it ordained, That all quarantine restrictions on traffic are hereby removed by the Louisiana State board of health, as far as it is concerned.

Referring to frost warnings issued for the sugar and trucking region about Galveston, Tex., during the early part of December, 1898, the Galveston Daily News of December 6, 1898, remarked as follows:

A heavy white frost put in its appearance yesterday morning, just as predicted by the United States Weather Bureau. While heavy white frosts occur nearly every winter on the mainland, Galveston has an average of one winter in five without frost or freezing, and even with freezing weather heavy white frosts are uncommon on the island. Everybody looked for and made preparation for this frost, because the weather service had said it would occur. The warnings of injurious weather conditions made for this section have been so accurate of late years, and consequently of so great value to the public, that they have become a great factor with the sugar planters and truck growers, who care for their extensive crops as the Weather Bureau advises them. One feature which demonstrates their marked confidence in the warnings is that they take action to protect their crops as the warnings suggest. The different localities have systems in operation for the distribution of information. Some localities have distribution by telephone, others by mounted-messenger service, and in others the planters distribute the information from one to his adjoining neighbor until all are advised.

There are few regions, if any, where the weather service can be of greater value than to this part of the country. The large sugar and truck farming interests use the warnings to such an extent that it saves them hundreds of thousands of dollars annually.

Cold-wave warnings.—Among the most important warnings issued by the Weather Bureau are those which give notice to agricultural and commercial interests of the approach of periods of abnormally low temperature. Warnings of this class have been particularly successful during the past year, and a not unimportant feature of the advices has been estimates of the probable continuation of injuriously low temperatures. In fact, a special effort has been made and will be

sustained to afford all interests all the information regarding future weather conditions that is warranted by modern methods, appliances, and skill in forecasting. The recognized accuracy of the temperature forecasts has caused them to be closely watched by various interests, and in the commercial centers movements of perishable goods are almost absolutely controlled by advices received from the Weather Bureau.

By far the most important cold wave, or series of cold waves, of the winter crossed the country from the north Pacific to the south Atlantic coasts during the first half of February, 1899, damaging crops and fruits in the Southern States to the extent of millions of dollars. During the first eight days of the month the lowest temperatures on record were reported at points in the north Pacific coast States; from the 9th to the 12th many places in the Central, Western, and Northwestern States reported the coldest weather on record. During the 13th and 14th the cold wave overspread the Southern and Eastern States, attended on the 13th by the lowest temperature on record from the southern Rocky Mountain slope to the south Atlantic coast, by zero temperature to the Gulf coast of Alabama, and by a snow storm of unprecedented severity in the Middle Atlantic States.

The Weather Bureau forecasts and warnings gave ample and timely notice to all interests of the advance of the cold wave, and special reports and newspaper comments gave unquestionable evidence that the warnings prompted protective measures whereby crops, live stock, and perishable goods and merchandise to the value of hundreds of thousands of dollars were saved. Along the Middle Atlantic and New England coasts the character of the storm called for the display of hurricane signals, the extreme warnings of the Bureau.

The detailed action taken in connection with this cold wave and storm and the numerous newspaper comments relating thereto, for which space can not be given here, will be found in the Monthly Weather Review for February, 1899. All reports and comments bear witness to the fact that the work of the Weather Bureau in connection with this, the severest cold wave in the history of the Southern States, was as nearly perfect as the most approved methods of disseminating warnings would permit. The amount saved by stockmen in the West and Southwest, by truck growers in the Southwest, and by fruit growers, gardeners, and orchardists in the Southern States, and more especially in Florida, was incalculable. The superintendent of the Florida East Coast Line reports that the warnings sent along his line of road, fifteen hours in advance of the cold wave, alone resulted in saving one-half of the vegetable crop, and that the value of the crop was estimated at $1,000,000. The exceptionally severe character of the storm along the middle Atlantic and New England coasts amply justified the special warnings sent to that section.

Floods.—There were several floods of minor importance during the winter in the south Atlantic and east Gulf States, and during the spring in the Missouri, Ohio, and Lower Mississippi. The warnings issued for these floods were remarkably timely and accurate, and a vast amount of property was saved thereby.

Considerable improvement has been made in many of the river gages, and the service has been extended by the establishment of several new special river stations, particularly in the south Atlantic States, where the additional stations are being conducted in cooperation with the United States Geological Survey.

During the next two years, if sufficient funds are available for the purpose, it is proposed to prepare a comprehensive work on the entire navigable water régime, giving a complete history of all river stations, elevations above tide water, rate of flow of water, and data for flood forecasting. It is desired to include in one publication all matters relating to river work, and all persons experienced in river work will be invited to contribute to the same. It is also proposed to measure the discharge of water at various places along the Ohio River. No work of this character has as yet been undertaken, although its importance has long been recognized. Data of this character are also greatly desired by the United States Geological Survey, and the work will be prosecuted in cooperation with that branch of the public service.

Several new special river stations are also to be established during the coming year, owing to the steadily increasing requirements of the navigation interests.

WEST INDIAN SERVICE.

Establishment of stations and beginning of observations.—In my report for the fiscal year ended June 30, 1898, reference was made to the steps that had been taken looking to the organization of a storm-warning service in the West Indies. The conclusion of the war with Spain and the conditions under which the United States occupies the islands of Porto Rico and Cuba are now matters of history. The storm-warning service, although primarily organized for the purpose of warning United States naval vessels of the coming of severe storms, has been continued in the interests of commerce and agriculture and strengthened wherever possible. At the close of the last fiscal year arrangements had been made for the establishment of meteorological stations at Kingston, Santiago de Cuba, Santo Domingo, St. Thomas, Barbados, Port of Spain, Curaçao, and Barranquilla, but neither men nor office equipments had been forwarded. In time of peace the sending of men and materials to the various islands upon which it was desired to establish and maintain stations would have been attended with considerable difficulty and much delay. In time of war the difficulties were greatly increased; the time at our disposal was limited, the act making appropriation for the service not being approved until July 7, 1898, about a week from the beginning of the hurricane season. The needful instruments and supplies had to be purchased, no surplus of either being on hand. By vigorously pushing the work of equipping the stations, both in this city and in New York, it was possible, in spite of many hindrances, to start a party for Kingston, Jamaica, on July 22, 1898. This party, under the lead of Mr. W. B. Stockman, forecast official, in charge of the West India division, arrived at Kingston seven days later, but found it impossible, owing to the great number of Cuban refugees in the city, to secure office accommodations in the city proper. Suitable quarters were obtained in the suburbs, however, and an office of observation was established on August 7, 1898. On August 9 similar offices were established at Port of Spain, Trinidad; Willemstad, Curaçao; Santo Domingo, Republic of Santo Domingo, and at Santiago de Cuba, and the officials in charge began at once to forward weather reports twice daily by cable to the headquarters at Kingston.

Meteorological stations were established at Basseterre, St. Kitts, and Bridgetown, Barbados, on August 25 and 31, respectively; at Colon, United States of Colombia, on September 17; Roseau, Dominica, and San Juan, Porto Rico, on October 20 and 31, respectively. The headquarters of the service were moved from Kingston, Jamaica, to Havana, Cuba, on February 1, 1899, and stations were established on the last-named island at Cienfuegos and at Puerto Principe on April 28 and June 24, 1899. The original intention to establish stations at St. Thomas and Barranquilla was abandoned, and the station at Colon was discontinued April 30, 1899.

Display of hurricane signals.—Immediately after the installation of meteorological observatories in the West Indies, Mr. Stockman, the official in charge, directed all efforts to speedily get into operation a complete and comprehensive system for the display of hurricane signals and the broad dissemination of information in regard to the approach, expected direction, and rate of progression, intensity, etc., of storms and hurricanes. Officials in charge of substations were called upon to report local conditions attending the approach of hurricanes and directed to correspond with all United States consuls and consular agents on the islands and in the near vicinity of their stations, and endeavor to secure their aid in disseminating these warnings to the inhabitants of the several islands and in the Spanish Main at points where there are no Weather Bureau stations, the cost of transmission to be borne by the United States Government. At first it was difficult to interest the people in the warning service, since they are by nature very conservative and slow to adopt any change in their accustomed methods and mode of living. The issue of warnings of hurricanes was a most radical change, the inhabitants being accustomed to hear of these phenomena only upon their near approach. The work was unremittingly pushed forward, and resulted in the inauguration of a system capable of speedily and thoroughly disseminating storm-warning information to the uttermost parts of the several islands, enabling the general public to receive advance information in regard to the coming of hurricanes.

Many expressions of thanks and gratification have been received from local government officials and citizens for the inauguration of the service in the West Indies, and every effort has been made by those in authority to further the work of the Bureau, notably the governor of

Jamaica, who, while in London, personally called upon the honorable secretary for the colonies, with a view to obtaining the very best possible service from the subsidized British cable companies in the West Indies.

Requests have also been received from United States consular officials on the islands of Haiti, Martinique, and Guadaloupe for the establishment of stations on those islands, and a plan is now under consideration to give these officials all information at our disposal, to be by them distributed to insular officials, marine interests, and to the inhabitants of the several islands.

Cable facilities.—The officials of cable companies residing in the various islands extended us every courtesy, but at first it was most difficult to obtain a proper cable communication between several islands, a number of the cable managers declining to receive our reports unless prepaid. This, however, was soon adjusted, but on account of the time of closing the cable offices, generally before 6 p. m., and not opening them until between 7 a. m. and 8 a. m., it was almost impossible to get the reports within a reasonable time. By changing the time of the evening observation to 5 p. m., and by personal interviews with the manager of the West India and Panama Telegraph Company, fairly good service was obtained, yet no service could be obtained after about 7.30 p. m. Upon the personal application of his excellency the governor of Jamaica, the honorable secretary for the colonies wrote the directors of the West India and Panama Telegraph Company, calling attention to the great detriment the early closing of the cable offices in the West Indies was to the efficient transmission of reports and warnings, particularly during seasons of unsettled conditions or the presence of storm conditions. Upon receipt of this communication the cable companies wired their Kingston official to confer with our representative and ascertain what action was necessary in order to render prompt and efficient service at all times, the result of said interview being that the manager and secretary of the West India and Panama Telegraph Company wrote the honorable secretary for the colonies as follows:

> My directors * * * have instructed our general superintendent that when the Weather Report service is resumed next season, each weather report station will be advised in the terms of Mr. Stockman's remarks to keep the office open until a closing signal from Kingston is received. They believe that this will meet the case and will be satisfactory to the United States Weather Bureau in Jamaica.

Every courtesy and facility for the proper performance of the duties of this service have been accorded our representatives by the several governments of the islands where we have concluded to maintain permanent stations. There were but two islands where the local governments imposed obstacles to the installation of our observatories, and in these cases we were able to find hospitable locations in adjacent territory. But one government refused outright to allow us to place our observatory on its territory, and in this case the objection has recently been withdrawn.

The health of the men.—The health of the men in the West India division has been remarkably good, but four having at any time been incapacitated for duty, although almost all have suffered more or less from tropical fevers, and the debilitating effects of the climate, yet the continuity of observation has been interrupted by sickness only at Santiago.

Climate and crop service of Cuba and Porto Rico.—In the latter part of October, 1898, instructions were given to the official at San Juan, Porto Rico, to establish a climate and crop service in that island, and later similar action was taken in Cuba. Sufficient instruments and shelters of standard pattern were sent into both islands and voluntary stations established as rapidly as the cooperation of efficient observers could be secured. By the opening of the new year the issue of the Weekly Climate and Crop Bulletin had begun in Porto Rico, and similar bulletins for Cuba were first issued about the middle of May. The illness of the official in charge unfortunately interrupted the work of the Porto Rico section, which, however, was resumed in May and has since continued. Arrangements have been completed by which monthly section reports, after the standard, for both Porto Rico and Cuba, will be issued hereafter, work on the first report, that for May, 1899, for Porto Rico being well in hand. Notwithstanding the serious difficulties which were encountered in the prosecution of the climate and crop work in these islands, due in a great measure to the fact that the Spanish language is exclusively spoken, much has been successfully accomplished, as evidenced by the fact that both sections issued weekly bulletins with regularity after the middle of May.

From the many courteous and complimentary communications that have been received and notices published in the newspapers, both on the islands and in the United States, it is evident that the efforts to establish this service have been successful and have met a popular need. As the residents of the islands become more conversant with the aims and scope of the service, they will appreciate more fully what a great benefit it is, both climatologically and financially.

CONVENTION OF WEATHER BUREAU OFFICIALS.

A convention of Weather Bureau officials was held at Omaha, Nebr., October 13–14, 1898. In former conventions the attendance was confined mainly to employees engaged on climate and crop work, and, naturally, the deliberations of the convention were limited to that particular feature of the service. In the Omaha convention the discussions covered a wide range of subjects, all of which had an important bearing upon the practical work of the Bureau. The exchange of views and the discussion of methods indulged in were mutually helpful and stimulating. The convention was attended by 83 delegates, including those from the corps of voluntary observers and from the Department proper.

The beneficial results following the conventions of State weather-service directors held in former years were so pronounced as to leave no room for doubt that such gatherings should not only be held at stated times, but that the privilege of attending them should not be restricted to officials engaged in any special line, as had been the case formerly. It was therefore decided that the scope of the convention should be so extended as to cover a wider range of subjects, and that the regular station officials, as well as those in charge of climate and crop centers, should have the privilege of taking part in the proceedings. The results attained were gratifying in the extreme. A complete report of all the papers and discussions was printed and extensively circulated.

DISCIPLINE.

The character of the Weather Bureau service is such as to require the maintenance of the strictest discipline. Observers, in addition to their regular observations taken twice daily at all stations at exactly the same time, must be alert to take and forward special observations when their instruments show the least premonition of storm formation. This is especially important in the new West Indian service. The officials at the central office must be ready to receive and chart reports at almost any hour of the day or night, and to transmit to threatened districts warnings of marine storms, cold waves, or floods. At each port or other point from which danger warnings are distributed or danger signals displayed our representative must be held to a strict accountability for the prompt receipt and distribution of the information which many times is of the utmost importance in the saving of life and property. All who are familiar with the methods of administration in the Weather Bureau recognize the fact that each employee in the service, from the humblest to the most important official, is held to a strict accountability for the proper performance of duty.

No employee removed for cause has been reinstated, and no man has been removed except for just cause and after a full investigation. It may be well to quote from my remarks before the convention of Weather Bureau officials, which met in Omaha in October last, as follows:

I wish to speak especially of one matter which I believe is important in maintaining a kind yet thoroughly efficient discipline at your stations. I speak of this after an extensive experience in charge of several of the large stations of the Bureau. Allow no employee to impeach the official or personal integrity of a companion, unless the accused man is given full opportunity to answer his accuser. Do this and you will find that the harmony and efficiency of your station will be greatly improved. I desire to place all officials, both at the Central Office and throughout the extensive ramifications of the service, in such position that they may feel that they can go on with their work without fear that their standing may be surreptitiously attacked. I feel that your discipline to-day is of a very high standard of excellence.

I do not wish you to be harsh toward those over whom you exercise authority, but I desire that such discipline be applied as will encourage the pride of the men and exalt the spirit of the officials and yet maintain completely the authority of the official in charge. It is possible to have such discipline, and I believe that we have it in the Weather Bureau.

I would encourage all to be students. I know that most of you are. I know that many (myself included) have found the best years of their lives for study while in the weather service. The Central Office has outlined a course of study in which we expect every new appointee to become proficient before he can be considered eligible

for advancement. It is necessary, in writing your reports, that you express yourselves in good English; it is necessary that the local forecast officials be well versed in physics and mathematics, and it is necessary that the section directors be thoroughly conversant with the processes under which plant life has its inception and makes its growth. We carefully scrutinize the qualifications of the man, his education, moral character, and the study he has made since entering the service, before we consider him for advancement.

Several years ago the right of the Chief of Bureau to inquire into the moral character and the personal and social relations of a man before selecting him for an important trust was disputed. It was claimed that he had the right only to consider the scientific character of his work and his standing as an official. However, the right to make such inquiry was claimed, and the honorable Secretary of Agriculture sustained it. Especially in the matter of selecting observers for advancement to the grade of section director or local forecast official it has been insisted that the official nominated to the Secretary of Agriculture for promotion to such important trust shall not only have the necessary educational qualifications and the executive ability, but that his morals, his private character, and his social affiliations shall be such as to reflect credit upon the Government service. A rigid adherence to the foregoing regulations during the last few years has resulted in giving to the Bureau a personnel of such high character as to command the confidence and respect of the many communities through which its numerous ramifications extend.

LOSS OF LIFE AND PROPERTY BY LIGHTNING.

The collection of statistics of loss of life and property by lightning, referred to in a previous report, has been continued. The number of deaths by lightning stroke in the calendar year 1898 was 367, and the number of injuries 491. The places where the proportion of deaths to total population was the greatest were the upper Missouri Valley and portions of the Rocky Mountain region. The proportion of deaths by lightning in the United States to the total population is about five in a million, which, it may be remarked, is higher than the average of most countries.

Nine hundred and sixty-six barns, sheds, etc., 735 dwellings, stores, and office buildings, 95 churches and schools, and 70 other buildings were struck and damaged by lightning, the approximate loss being about a million and a half dollars. Of the buildings struck 40 were provided with lightning rods, 855 were not, and in 952 cases it could not be ascertained whether the building was provided with rods or not.

Nine hundred and sixty-four head of cattle, 306 horses, 30 mules, 426 sheep, and 116 hogs were killed by lightning during the calendar year above referred to. The total value of the stock reported killed was $48,257.

Lightning has caused great loss of life and property thus far during the calendar year 1899.

METEOROLOGICAL CHART OF THE GREAT LAKES.

Ten numbers of the meteorological chart of the Great Lakes were issued since the date of last report. The May and June, 1899, issues contained new and valuable material relating to the meteorology and hydrography of the lake region. It is the present intention to publish such additional portions of the accumulated meteorological data for the lake region as may be useful in the study of problems affecting the free and uninterrupted navigation of the Great Lakes and connecting waterways.

Results of fog investigation.—Two important points have been established by the investigation of fog during the season of 1898. First, that reports of fog from shore stations can not always be depended upon to show whether or not fog exists in midlake; fog was reported quite frequently in the fairway of vessels on the lakes, while very little was observed at land stations; second, that the wind direction appears to have but little influence on the formation of fog, especially on the upper lakes. The formation of fog appears to be due primarily to changes of air and water temperatures, especially those that tend to produce a strong contrast between the temperature of the air and the underlying water. In confirmation of this belief it may be stated that fog appears most frequently on Lake Superior some distance from shore, where the water temperatures are low and the difference between air and water temperatures is the greatest. This is especially true of the region eastward of Keweenaw Point, where water temperatures as low as 39.5° have been observed during July and August.

AERIAL OBSERVATIONS.

At the close of the last fiscal year 17 kite stations were in operation and 248 ascensions had been made, in each of which the elevation attained exceeded 1,000 feet. The work was continued until about the middle of November, 1898, at which time 1,217 ascensions of 1,000 feet and over had been made.

The study of the records of temperature, pressure, and humidity thus secured was intrusted to Mr. H. C. Frankenfield, forecast official, whose first report has been submitted. For the first time in the history of meteorology we have facts instead of hypotheses, as to the average gradient of temperature up to 6,000 or 8,000 feet, free from all injurious influences, and for so many days and over such a large region of country that it has a broad significance; evidently it is the only proper gradient to be used in reducing atmospheric pressures or temperatures, up or down, from any observer's level. Notwithstanding the imperfections attending the beginnings of any such entirely novel work, these 17 stations, with their 1,217 ascensions in the course of six months, have probably added more to our knowledge of vertical gradients of temperature, humidity, and wind, in the daytime of summer, in the lower portion of the atmosphere, than the sum total of all that was previously known upon the subject.

INTERNATIONAL CLOUD OBSERVATIONS.

The report on the cloud observations, which were undertaken by the United States in cooperation with the International Cloud Committee, has been completed, and is published as Part VI of this volume. This work was begun in May, 1896, with observations at Washington, D. C., and at 14 secondary cooperating stations quite uniformly distributed to the eastward of the Rocky Mountains; the observations were completed in June, 1897, and the computation and discussion of the observations in June, 1899.

The report was written by Prof. F. H. Bigelow; it may be briefly summarized under four heads: (1) The execution of the scheme proposed by the International Committee for the observations and publication of the results *in extenso;* (2) the application of the theodolite and nephoscope observations to the discussion of the cyclonic and anticyclonic local circulations over the United States; (3) the construction of a standard system of constants, barometric, thermodynamic, and hydrodynamic formulæ and tables, for the reduction of the cloud observations; (4) the computation of the pressure, temperature, and vapor pressure and the auxiliary constants in the four stages of cloud formation, viz, the unsaturated, the saturated, the freezing, and the frozen stages, the construction of the gradient tables, the formation of auxiliary pressure maps for daily forecast work at selected high levels, also the computation of the amount of heat required to convert an ideal adiabatic atmosphere into the one actually existing, which is the product of the sun's absorbed heat.

The primary object in making concerted observations of cloud heights and motions was to determine the direction and velocity of the horizontal motions of the air over the northern hemisphere, or so much thereof as could be profitably occupied by existing meteorological services. The analysis of the cloud motions has led to a better understanding of the circulation of the air in areas of high and low pressure and materially increased our knowledge of the general circulation. It has also given us a method of constructing weather charts at various levels above the earth's surface whereby we may institute a systematic examination of the pressure and wind systems of the various sections of the atmosphere throughout the storm region.

PLATEAU BAROMETRY.

The reduction of the actual barometric pressures taken at stations located on the Rocky Mountain Plateau to sea level has always been a problem of considerable difficulty. The exact question is to discover the relation between the observed surface temperature and the mean temperature of the air column which should be substituted for the Plateau. Professor Bigelow has made a series of studies on this subject, and will make a report upon it during the next year.

CLIMATE AND CROP WORK.

At the date of last report 42 Climate and Crop sections were in operation. At the present writing there are 44, Cuba and Porto Rico having been added during the year. Improved appliances for printing the monthly reports of section directors have now been supplied in

all cases, and for the first time in the history of the weather service the monthly and annual meteorological summaries for all centers are printed on a uniform plan, and in neat, attractive style.

Three hundred and twenty-two voluntary meteorological stations were established during the year, nearly all of which were equipped with standard instruments, including a thermometer shelter. The policy of the Bureau has been to improve the instrumental equipment of existing stations rather than to direct its energies toward securing a large number of new stations.

The publication of the National Climate and Crop Bulletin, Snow and Ice Bulletin, the monthly and weekly Climate and Crop Bulletins of the various sections, and the daily bulletins issued from 21 centers, around which the corn, wheat, cotton, sugar, and rice stations are grouped, has continued throughout the year without material change.

MONTHLY WEATHER REVIEW.

The Monthly Weather Review has been edited, as heretofore, by Prof. Cleveland Abbe, and published regularly about six weeks after the end of each month. The average size of each number is about fifty pages of text and tables, accompanied by from nine to seventeen charts and illustrations. The principal objects kept in mind in publishing the review are:

1. A full presentation of the climatological characteristics of the current month, for the use of every class of citizens, especially those interested in agriculture, gardening, hygiene, engineering, navigation, railroad transportation, and the study and teaching of meteorology.
2. The presentation of recent progress in the study of the atmosphere and of the ultimate physical causes of the phenomena with which we have to deal in forecasting the weather.
3. The practical art of forecasting daily weather and monthly or seasonal climatic averages.
4. The encouragement of the study of meteorology by every observer of the Weather Bureau, and by all students in schools, colleges, and universities.

The recognition of meteorology as a subject worthy of laborious, profound study, not merely from the climatological point of view, but especially as a most difficult problem in dynamics, is a matter of the highest importance to the future development of the work of the Weather Bureau. No matter how perfect our system of stations and reports may be, yet the officials of the Weather Bureau will fail to derive the full advantage of this unless they keep up with every step in the progress of correlated branches of science. It is very much to be desired that some system be devised by which special opportunities shall be afforded to our best men for advanced study in meteorology and physics. In the absence of any such provision, the Monthly Weather Review will seek to respond to their needs.

There is a steady increase in the number and excellence of the meteorological papers offered for publication in the Monthly Weather Review and, if the resources of our printing office would allow it, an average of from four to eight pages might be added to each number of the Review devoted to strictly technical articles, presenting summaries, or translations, of the best recent publications bearing on the laws of meteorological phenomena. Such an addition would be highly appreciated by our own employees and by the professors of physics, mechanics, and mathematics in our universities and their students, many of whom are looking to the professors of meteorology in the Weather Bureau to take the lead in this study.

CALIFORNIA RAINFALL AND ALASKAN TEMPERATURES.

During the prevalence of severe and greatly prolonged drought in California an attempt was made by Prof. W. H. Hammon, then in charge of the San Francisco Weather Bureau office, to correlate the observed temperatures on Unga Island, Alaska, and the phenomena of rainfall in California three months later. Professor Hammon's paper, while containing a number of interesting suggestions, was not conclusive on any point, nor did it claim to be; the subject, however, was one of very great interest, and possibly of practical importance to the people of the Pacific slope, and as such was referred to a board at the central office, of which Prof. Cleveland Abbe is chairman. Professor Abbe, in his preliminary report, states:

> We have undertaken to collate all that is known with reference to monthly mean temperatures at stations in Alaska and its neighborhood. This extensive work is not yet complete, but is sufficiently advanced to enable me to say that the phenomena over California are not necessarily preceded by anything that happens in Alaska. In order to predict what is to happen in California a month, or even a week, in advance, we must take a wide survey of the whole atmosphere. In order to get a truer comprehension of this important subject, we have therefore rearranged the maps of normal mean pressure and temperature for the Northern and Southern hemispheres, and have included a study of these in our report upon long-range forecasting.

DISTRIBUTION OF DAILY FORECASTS, COLD WAVE, FROST, STORM, RAIN, AND EMERGENCY WARNINGS.

Little can be said regarding this portion of the work that would not be a repetition of statements made in previous reports. The plan of distribution followed during the year was the same as in the past, and no innovation worthy of note has been introduced. There seems to be little opportunity for improvement, except by extending and perfecting the present system.

The following tabulated statement shows the number of addresses supplied with forecasts and special warnings through the various modes of distribution:

DISTRIBUTION OF FORECASTS, WARNINGS, MAPS, AND BULLETINS DURING THE YEAR 1898-99.

States.	At Government expense.			Without expense to the United States, by—				By maps and bulletins.		Grand total.
	Forecasts and special warnings.	Special warnings only.	Emergency warnings.	Mail.	Telegraph or telephone.	Railroad bulletin.	Railroad train service.	Maps.	Bulletins.	
Alabama	7,700	4	159	214,676	2,156	11,396	3,696	97,020	0	336,807
Arizona	616	1	0	0	2,464	0	0	0	4,956	8,037
Arkansas	8,624	6	145	109,648	40,964	1,848	0	52,976	10,780	224,991
California	26,488	19	0	410,872	37,576	105,336	0	180,488	6,160	766,939
Colorado	3,388	16	85	222,992	0	1,848	2,156	93,632	0	324,117
Connecticut	4,620	5	54	255,640	15,092	3,696	46,508	0	0	325,615
Delaware	1,848	0	26	15,708	0	5,236	0	0	0	22,818
District of Columbia	0	0	0	350,504	4,004	0	0	0	0	354,508
Florida	13,244	63	90	159,236	308	19,404	0	76,384	13,168	281,897
Georgia	13,860	42	285	311,388	308	33,264	12,628	123,816	0	495,591
Idaho	2,772	0	0	43,120	616	0	5,236	26,796	0	78,540
Illinois	20,636	29	533	864,556	9,240	36,652	141,372	362,824	0	1,435,842
Indiana	27,104	13	263	686,224	2,772	17,248	88,396	167,860	0	989,880
Indian Territory	1,848	0	5	24,640	308	0	0	0	0	26,801
Iowa	29,876	27	206	532,840	14,784	0	0	150,920	14,784	743,437
Kansas	10,472	7	238	145,068	8,008	11,396	4,620	19,096	30,492	229,397
Kentucky	11,088	39	103	298,452	40,040	4,312	0	85,624	0	439,658
Louisiana	6,468	29	57	131,208	3,080	0	0	165,704	0	306,546
Maine	6,160	5	48	343,420	2,464	7,084	23,716	32,032	0	414,929
Maryland	6,776	4	93	409,332	10,164	27,104	0	0	0	453,473
Massachusetts	6,776	17	79	699,776	6,776	0	101,948	190,344	0	1,005,716
Michigan	29,568	22	487	222,144	8,008	124,124	140,756	204,820	0	729,929
Minnesota	13,552	17	243	417,340	23,716	1,232	0	147,532	9,548	613,180
Mississippi	9,856	11	102	114,884	22,176	4,928	0	126,280	0	278,237
Missouri	24,332	14	210	1,120,504	32,340	11,088	0	326,788	0	515,276
Montana	5,852	0	30	130,900	4,620	0	0	29,876	28,799	200,077
Nebraska	17,556	7	265	287,980	7,084	3,388	0	153,280	7,700	477,260
Nevada	1,232	0	0	29,568	0	0	0	0	0	30,800
New Hampshire	4,312	1	40	155,232	0	3,080	9,548	0	0	172,213
New Jersey	10,472	27	156	362,516	17,556	55,748	0	0	0	446,475
New Mexico	1,540	0	0	3,696	924	1,848	0	0	0	8,008
New York	36,344	60	217	1,671,824	73,612	77,616	51,744	537,768	0	2,449,185
North Carolina	13,860	21	227	240,856	5,236	308	4,928	97,020	0	362,456
North Dakota	5,236	12	130	6,468	22,176	0	0	0	0	34,022
Ohio	33,572	109	456	1,953,028	60,984	16,632	5,236	439,824	0	2,509,841
Oklahoma	924	2	38	15,708	3,388	0	0	0	0	20,060
Oregon	7,084	0	0	222,068	2,772	0	32,032	99,484	616	364,056
Pennsylvania	17,556	21	373	687,764	200,508	225,456	0	225,148	0	1,356,826
Rhode Island	924	0	13	6,776	0	0	8,624	0	0	16,337
South Carolina	10,472	12	133	201,124	19,096	10,472	7,084	63,448	0	311,841
South Dakota	10,780	20	133	164,472	3,696	0	0	24,948	9,703	213,752
Tennessee	10,164	8	318	357,280	19,712	5,852	616	157,696	0	551,646
Texas	16,632	35	219	312,928	45,276	20,944	0	133,364	4,928	534,326
Utah	4,312	0	0	107,492	0	0	0	28,336	4,895	145,035
Vermont	3,388	1	26	163,240	20,020	3,080	4,004	0	0	193,759
Virginia	11,704	13	122	337,568	24,640	20,944	29,568	103,652	0	528,211
Washington	6,468	1	0	139,832	1,232	0	8,932	26,796	0	183,261
West Virginia	5,236	5	79	287,056	23,408	14,476	8,008	35,112	0	373,380
Wisconsin	17,864	19	274	386,848	11,396	308	4,928	136,136	0	557,773
Wyoming	1,540	4	9	7,084	924	6,468	0	8,316	0	24,345
Total	542,696	768	6,769	16,343,480	855,624	893,816	746,284	4,931,140	146,529	24,467,106

WEATHER BUREAU BUILDING AT SAULT STE. MARIE, MICH.

The sum of $3,000 was appropriated by the Fifty-fifth Congress for the purpose of erecting a small brick and stone building on the public reservation at Sault Ste. Marie, Mich., for the use of the Weather Bureau. The building was finished on June 26, 1899, and occupied by the Bureau on July 1, 1899. It is admirably situated for the purpose for which constructed and especially convenient for vessel masters who may wish to learn of the weather conditions existing at any of the Weather Bureau stations on the Great Lakes.

PART II.

LIST OF OBSERVING STATIONS AND CHANGES THEREIN DURING 1898.

HOURLY AVERAGES OF ATMOSPHERIC PRESSURE, TEMPERATURE, AND WIND FROM THE RECORDS OF AUTOMATIC INSTRUMENTS AT TWENTY-EIGHT STATIONS.

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LIST OF OBSERVING STATIONS.

The following table contains the geographic coordinates of the several stations whose summaries are published in Part III, the height of the barometer cistern above mean sea level, and of other instruments above ground, the difference between local and standard time, and the date on which observations began. The standard 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 given are for January 1, 1898, except at stations established subsequent to that date. (See Table II.) Elevations preceded by the letter "B" have been determined by the barometer; all others are the results of precise levels. Changes made during 1898 are given in the second or third set of figures, as the case may be.

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, 1898);

T = continuous records of temperature (on December 31, 1898);

W = continuous records of wind (direction and velocity) (on December 31, 1898);

V = continuous records of wind (velocity only) (on December 31, 1898);

R = continuous records of rainfall (on December 31, 1898);

S = continuous records of sunshine (on December 31, 1898).

Stations having no letter make an observation of temperature, precipitation, direction of the wind, and the state of the weather daily at 8 p. m.

Summary of stations in operation during the year.

Taking two observations daily (all elements)	141
Taking one observation daily (all elements)	19
Taking one observation daily (temperature, rainfall, wind, and weather)	11
Taking one observation daily (temperature and rainfall only, *cotton region*)	124
Taking one observation daily (temperature and rainfall only, *corn and wheat region*)	130
Taking one observation daily (river and rainfall only)	107
Taking one observation daily (rainfall only)	38
Total paid stations	570
Voluntary stations, about	2,430
Grand total	3,000

TABLE I.—LATITUDE, LONGITUDE, ELEVATION, ETC., OF WEATHER BUREAU STATIONS.

Stations.	Latitude.	Longitude.	Local meridian time faster or slower than 75th meridian.	Elevation December 31, 1898. Barometer above sea.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Date of changes in elevation.
	° ′	° ′	h. m.	Feet.	Feet.	Feet.	Feet.		
Abilene, **P T W**	32 23	99 40	1 39 S.	1,749	45	36	54	Sept. 14, 1885	
Albany, **P T W R S**	42 39	73 45	05 F.	97	84	99	113	Dec. 22, 1873	
Alpena, **P T W**	45 05	83 30	34 S.	609	63	54	65	Sept. 10, 1872	
Amarillo, **T V**	35 13	101 50	1 47 S.	3,691	54	46	61	Jan. 1, 1892	
Astoria, **P**	46 57	124 00	3 15 S.	38	18	31	* 60	Nov. 1, 1883	* Not in use.
Atlanta, **P T W R S**	33 45	84 23	37 S.	1,131	92	85	126	Sept. 25, 1878	
Atlantic City, **P T W R S**	39 22	74 25	03 F.	52	68	57	76	Dec. 10, 1873 Reopened. Nov. 1, 1896	

TABLE I.—LATITUDE, LONGITUDE, ELEVATION, ETC., OF WEATHER BUREAU STATIONS—Continued.

Stations.	Latitude.	Longitude.	Local meridian time faster or slower than 75th meridian.	Elevation December 31, 1898. Barometer above sea.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Date of changes in elevation.
	° ′	° ′	h. m.	Feet.	Feet.	Feet.	Feet.		
Augusta, P T W	33 28	81 54	27 S.	180	89	54	103	Nov. 2, 1870	
Baker City, T V	44 50	117 50	2 51 S.	3,470	49	38	55	July 9, 1889	
Baltimore, P T W R S	39 18	76 37	06 S.	123	68	73	82	Jan. 1, 1871	
Binghamton, P T W R S	42 08	75 55	04 S.	875	79	71	90	Oct. 1, 1896	
Bismarck, P T W R S	46 47	100 38	1 42 S.	1,674	16	2	29	Sept. 15, 1874	
Block Island, V	41 10	71 36	14 F.	27	39 11	3 ------	48 ------	Sept. 1, 1880 ------	Oct. 5, 1898
Boise, P T W R S	43 37	116 08	2 45 S.	2,736	61	51	68	July 1, 1877 Reopened. Dec. 1, 1898	
Boston, P T W R S	42 21	71 04	16 F.	125	115	154	181	Nov. 1, 1870	
Buffalo, P T W R S	42 53	78 53	15 S.	768	178	168	206	....do	
Cairo, P T W R	37 00	89 10	56 S.	359	87	78	93	June 1, 1871	
Canby, Fort, P V	46 16	124 04	3 16 S.	179	10	2	34	Sept. 1, 1883	
Cape Henry, V	36 56	76 00	04 S.	20	5	6	34	Dec. 15, 1873	
Cape May, T V	38 56	74 51	0	24	52	46	70	July 16, 1897	
Carson City, V	39 10	119 46	2 59 S.	4,720	82	77	92	Dec. 1, 1887	
Charleston, P T W R S	32 47	79 56	20 S.	48	14	76	92	Jan. 5, 1871	
Charlotte, P T V	35 13	80 51	23 S.	773	68	60	76	Oct. 6, 1878	
Chattanooga, P T W S	35 04	85 15	41 S.	762	106	97	112	Sept. 12, 1875	
Cheyenne, P T W S	41 08	104 48	1 59 S.	a 6,084	56	49	64	Nov. 1, 1870	
Chicago, P T W R S	41 53	87 37	50 S.	824	241	238	274	.....do	
Cincinnati, P T W R S	39 06	84 30	38 S.	628	152	145	157	.....do	
Cleveland, P T W R S	41 30	81 42	27 S.	762	190	161	201	.....do	
Columbia, Mo., T W R S	38 58	92 14	1 09 S.	783	4	2	84	Aug. 21, 1889	
Columbia, S. C	34 00	81 03	24 S.	------	5	3	------	June 5, 1887	
Columbus, P T W R S	39 58	83 00	32 S.	824	87	81	100	July 1, 1878	
Concordia, V	39 35	97 41	1 31 S.	1,398	42	34	47	May 1, 1885	
Corpus Christi, P V	27 49	97 25	1 30 S.	20	42	34	50	Feb. 1, 1887	
Davenport, P T W	41 30	90 38	1 02 S.	599	71	64	79	May 24, 1871	
Denver, P T W R S	39 45	105 00	2 00 S.	5,290	79	74	151	Nov. 19, 1871	
Des Moines, P T W R S	41 35	93 37	1 14 S.	867	84	75	88	July 29, 1877	
Detroit, P T W R S	42 20	83 03	32 S.	730	160	147	166	Nov. 1, 1870	
Dodge, P T W R S	37 45	100 00	1 40 S.	2,504	44	36	52	Sept. 15, 1874	
Dubuque, P T W S	42 30	90 44	1 03 S.	698	101	92	109	July 2, 1873	
Duluth, P T W R	46 47	92 06	1 08 S.	702	95	90	106	Nov. 1, 1870	
Eastport, P T W R S	44 54	66 59	32 F.	76	69	62	74	Apr. 1, 1873	
El Paso, P T W	31 47	106 30	2 06 S.	3,767	10	2	110	Apr. 1, 1878	
Erie, P T W R S	42 07	80 05	20 S.	714	92	82	102	May 25, 1873	
Escanaba, P T W S	45 48	87 05	48 S.	612	43	37	57	May 24, 1871 Reopened. Nov. 1, 1898	
Eureka, P T V S	40 48	124 11	3 17 S.	64	60	52	69	Jan. 1, 1887	
Evansville, P T W	37 58	87 33	0 50 S.	434	72	66	82	Dec. 1, 1897	
Flagstaff, T W	35 12	111 37	2 27 S.	6,885	12	2	25	Sept. 9, 1898	
Fort Smith, P T V	35 22	94 24	1 17 S.	481	63	56	72	Apr. 13, 1879	
Fort Worth, W R	32 43	97 15	1 29 S.	670	106	99	114	Sept. 1, 1898	
Fresno, P T W R S	36 43	119 49	2 59 S.	332	67	54	70	Aug. 18, 1887	
Galveston, P T W R S	29 18	94 50	1 19 S.	42 54	85 84	80 72	96 88	Apr. 19, 1871	June 25, 1898
Grand Haven, P T W	43 05	86 13	45 S.	628	55	48	64	May 24, 1871	
Greenbay, T V	44 31	88 00	52 S.	617	49	41	57	Sept. 1, 1886	
Hannibal, P T V	39 41	91 20	1 05 S.	534	75	68	107	Apr. 16, 1892	
Harrisburg, T W R S	40 16	76 52	07 S.	377	94	87	104	July 1, 1888	
Hatteras, P R V	35 15	75 40	02 S.	11	17	2	36	Dec. 1, 1880	
Havre, P T W	48 34	109 40	2 19 S.	2,494	46	38	47	May 16, 1892	
Helena, P T W S	46 34	112 04	2 28 S.	4,108	88	80	93	Apr. 1, 1880	
Huron, P T W R S	44 21	98 14	1 32 S.	1,306	56	52	67	July 1, 1881	
Idaho Falls, P T W R S	43 29	112 04	2 28 S.	4,742	10	1	56	June 1, 1892	
Independence, V	36 48	118 12	2 53 S.	3,907	51	43	58	Dec. 1, 1894 Reopened. Mar. 5, 1898	
Indianapolis, P T W R S	39 46	86 10	44 S.	823	154	146	164	Feb. 10, 1871	
Jacksonville, P T W R S	30 20	81 39	26 S.	43	69	59	84	Sept. 11, 1871	
Jupiter, P V R	26 57	80 07	20 S.	28	13	1	30	Jan. 1, 1888	
Kansas City, P T W R S	39 05	94 37	1 18 S.	963	78	81	95	Apr. 21, 1873	

a Redetermined July 30, 1898.

TABLE I.—LATITUDE, LONGITUDE, ELEVATION, ETC., OF WEATHER BUREAU STATIONS—Continued.

Stations.	Latitude.	Longitude.	Local meridian time faster or slower than 75th meridian.	Elevation December 31, 1898. Barometer above sea.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Date of changes in elevation.
	° ′	° ′	h. m.	Feet.	Feet.	Feet.	Feet.		
Keokuk, V	40 22	91 26	1 06 S.	614	63	56	78	July 16, 1871	
Key West, P T W R S	24 34	81 49	27 S.	22	43	34	50	Nov. 1, 1870	
Kittyhawk, V	36 00	75 42	03 S.	9	12	2	30	Jan. 15, 1875	
Knoxville, P T W R S	35 56	83 58	36 S.	1,004	10	3	88	Jan. 20, 1871	
Lacrosse, P T V	43 49	91 15	1 05 S.	720	70	61	78	Oct. 15, 1872	
Lander, P T V	42 50	108 45	2 15 S.	5,372	28	17	36	Aug. 1, 1891	
Lansing	42 44	84 32	38 S.	881	72	3	79	Feb. 1, 1895	
Lexington, P T W	38 02	84 33	38 S.	989 990	75	2 68	104 102	Oct. 1, 1872	Dec. 17, 1898
Lincoln, T W R	40 49	96 45	1 27 S.	1,199	75	4	84	Aug. 8, 1894	
Little Rock, P T W R S	34 45	92 06	1 08 S.	302 357	71 93	62 85	79 100	Apr. 21, 1873	Oct. 22, 1898
Los Angeles, P T W R S	34 03	118 15	2 53 S.	330	74	66	82	July 1, 1877	
Louisville, P T W R S	38 15	85 45	43 S.	525	114	106	136	Sept. 11, 1871	
Lynchburg, P T W	37 25	79 09	16 S.	685	83	76	88	May 24, 1871	
Marquette, P T W	46 34	87 24	49 S.	734	67	58	95	May 11, 1871	
Memphis, P T W R	35 09	90 03	1 00 S.	399	140	134	154	Feb. 28, 1871	
Meridian, P T R	32 21	88 40	55 S.	375	84	3	93	Sept. 1, 1889 Reopened. Dec. 28, 1898	
Miles City, P V	46 25	105 49	2 03 S.	2,372	41	34	49	Oct. 1, 1891	
Milwaukee, P T W R	43 02	87 54	51 S.	671	106	100	149	Nov. 1, 1870	
Minneapolis, P T W S	44 59	93 18	1 13 S.	.....	99	95	208	Nov. 6, 1890	
Mobile, P T V	30 41	88 02	52 S.	57	88	78	96	Nov. 7, 1870	
Montgomery, P T W R	32 23	86 18	45 S.	221	100	70	112	Nov. 9, 1870	
Moorhead, P T W	46 52	96 44	1 27 S.	935	54	44	60	Jan. 31, 1881	
Mount Tamalpais, P T W S	37 56	122 35	3 10 S.	2,375	11	5	18	Sept. 2, 1898	
Nantucket, P T W R	41 17	70 06	20 F.	14	43	38	54	Oct. 18, 1886	
Narragansett Pier	41 19	71 17	15 F.	22	10	1	38	Apr. 1, 1882	
Nashville, P T W R S	36 10	86 47	47 S.	545	128	116	134	Nov. 1, 1870	
Neah, P V	48 22	124 32	3 18 S.	50	7	2	24	July 12, 1898	
New Haven, T W	41 18	72 56	08 F.	107	117	110	140	Dec. 10, 1872	
New Orleans, P T W R S	29 58	90 04	1 00 S.	54	112	111	120	Nov. 1, 1870	
New York, P T W R S	40 43	74 00	04 F.	314	298 313	258 304	326 346	.....do	Oct. 16, 1898
Norfolk, P T W R	36 51	76 17	05 S.	57	88	80	93	Jan. 1, 1871	
Northfield, P T W R S	44 10	72 41	09 F.	872	15	2	65	Mar. 1, 1887	
North Platte, T V	41 08	100 45	1 43 S.	2,826	43	35	52	Sept. 18, 1874	
Oklahoma City, P T W R S	35 26	97 33	1 30 S.	1,218	54	46	62	Nov. 1, 1890	
Omaha, P T W R S	41 16	95 56	1 24 S.	1,103	92	86	97	Nov. 1, 1870	
Oswego, P T V	43 29	76 35	06 S.	335	76	68	87	.....do	
Palestine, P V	31 45	95 40	1 22 S.	510	54	54	61	Dec. 3, 1881	
Parkersburg, P T W R S	39 16	81 36	26 S.	638	77	69	84	July 1, 1888	
Pensacola, T V	30 25	87 13	49 S.	56	78	79	90	Oct. 27, 1879	
Philadelphia, P T W R S	39 57	75 09	0	117	168	166	184	Jan. 1, 1871	
Phœnix, T V S	33 28	112 00	2 28 S.	1,076	47	39	57	Aug. 6, 1895	
Pierre, V	44 22	100 21	1 41 S.	1,460 1,572	50 11	46 3	62 19	July 1, 1891	Oct. 5, 1898
Pittsburg, P T W R S	40 32	80 02	20 S.	842	116	101	123	Nov. 1, 1870	
Point Reyes Light, V	38 11	122 51	3 11 S.	.....	12	1	16	Mar. 1, 1889	
Port Angeles	48 07	123 06	3 14 S.	29	47	32	61	Nov. 1, 1883	
Port Crescent, V	48 08	123 41	3 15 S.	256	15	2	20	Oct. 1, 1898	
Port Huron, V	43 00	82 26	30 S.	639	70	63	108	July 25, 1874	
Portland, Me., P T W R S	43 39	70 15	19 F.	103	81	74	89	Jan. 15, 1871	
Portland, Oreg., P T W R S	45 32	122 43	3 11 S.	153	203	145	213	Nov. 1, 1870	
Pueblo, P T V	38 18	104 36	1 58 S.	4,713 4,682	74 80	65 71	81 86	July 1, 1888	Sept. 1, 1898
Pysht	48 12	124 04	3 16 S.	.....	5	4	.....	Dec. 1, 1883	
Raleigh, P T W R S	35 45	78 37	14 S.	375	93	85	101	Apr. 1, 1884	
Rapid City, P T V	44 04	103 12	1 53 S.	3,251	46	35	50	Jan. 24, 1881	
Redbluff, T V	40 10	122 15	3 09 S.	334	54	44	58	July 1, 1877	
Richmond, P T W R	37 32	77 27	10 S.	144	98	89	105	Oct. 5, 1897	
Rochester, P T W R S	43 08	77 42	11 S.	523	81	78	90	Nov. 1, 1870	
Roseburg, P T W	43 13	123 20	3 13 S.	521	56	48	67	July 15, 1877	
Sacramento, P T V	38 35	121 30	3 06 S.	71	106	100	117	July 1, 1877	
St. Louis, P T W R S	38 38	90 12	1 01 S.	567	111	100	210	Nov. 1, 1870	
St. Paul, P T W R S	44 58	93 03	1 12 S.	837	114	93	124	.....do	

TABLE I.—LATITUDE, LONGITUDE, ELEVATION, ETC., OF WEATHER BUREAU STATIONS—Continued.

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.		Elevation December 31, 1898. Barometer above sea.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.	Observations began.	Date of changes in elevation.
	°	′	°	′	h.	m.	Feet.	Feet.	Feet.	Feet.		
Salt Lake City, P T W R S.	40	46	111	54	2	27 S.	4,344	83	75	90	Mar. 19, 1874	
San Antonio, P V	29	27	98	28	1	34 S.	704	95	81	104	Jan. 2, 1876	
San Diego, P T W R S	32	43	117	10	2	49 S.	87	94	86	102	Nov. 1, 1871	
Sandusky, T W	41	25	82	40		30 S.	629	62	55	74	Aug. 2, 1877	
San Francisco, P T W R S.	37	48	122	26	3	10 S.	153	161	154	167	Feb. 2, 1871	
San Luis Obispo, P V	35	18	120	39	3	03 S.	201	10	3	46	June 1, 1885	
Santa Fe, P T W S	35	41	105	57	2	04 S.	6,998	47	39	50	Nov. 20, 1871	
Sault Ste. Marie, P T W	46	28	84	22		37 S.	624	58	47	65	Aug. 5, 1877	
Savannah, P T W R S	32	05	81	05		24 S.	82	63	51	89	Jan. 1, 1871	
Seattle, P T W R S	47	38	122	20	3	09 S.	119	114	107	121	May 1, 1893	
Shreveport, T V	32	30	93	40	1	14 S.	249	77	76	84	Sept. 3, 1871	
Sioux City, V	42	29	96	24	1	26 S.	1,139	96	86	164	Dec. 1, 1887	
Spokane, P T W R S	47	40	117	25	2	49 S.	1,943	99	90	107	Feb. 1, 1881	
Springfield, Ill., V	39	48	89	39		58 S.	644	82	60	92	July 1, 1879	
Springfield, Mo., V	37	12	93	18	1	13 S.	1,324	100	3	103	June 3, 1882	
Tacoma, P T W 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.	36	60	51	67	Mar. 13, 1890	
Tatoosh Island	48	23	124	44	3	19 S.	86	7	1	21	Oct. 1, 1883	
Toledo, P T W	41	40	83	34		34 S.	674	122	113	127	Nov. 1, 1870	
Topeka, T	39	03	95	41	1	23 S.	998	81	73	89	June 1, 1887	
Valentine, V	42	50	100	32	1	42 S.	2,596	39	30	40	Sept. 1, 1885	
Vicksburg, P T W R S	32	22	90	53	1	03 S.	254 247	65	58	73	Sept. 10, 1871	 Feb. 28, 1898
Vineyard Haven, V	41	26	70	43		17 F.	.....	20	3	55	Nov. 6, 1886	
Walla Walla, V	46	02	118	20	2	53 S.	1,018	65	56	73	Dec. 1, 1885	
Washington City, P T W R S.	38	54	77	03		08 S.	112	59	42	76	Nov. 1, 1870	
Wichita, V	37	41	97	20	1	29 S.	1,351	78	71	85	July 1, 1888	
Williston, P T V	48	09	103	35	1	54 S.	1,875 1,872	15	4	31	Nov. 24, 1893	 Aug. 15, 1898
Wilmington, P T W R S	34	14	77	57		12 S.	78	82	76	90	Jan. 1, 1871	
Winnemucca, P W	40	58	117	43	2	51 S.	4,340	59	52	70	July 1, 1877	
Woods Hole, V	41	33	70	40		17 F.	22	51	39	57	Jan. 1, 1873	
Yankton, T W R S	42	54	97	28	1	30 S.	1,234	52	45	58	Apr. 1, 1873	
Yuma, V	32	45	114	36	2	38 S.	141	16	2	50	Oct. 4, 1875	

WEST INDIA STATIONS.

St. Kitts.												
Basseterre, P T W R S	17	18	62	48	0	49 F.	29	41	39	54	Aug. 25, 1898	
Barbados.												
Bridgetown, P T W R S	13	4	59	37	1	2 F.	30	57	49	65	Aug. 15, 1898	
Isth. Panama.												
Colon, P T W R S	9	23	79	53		20 S.	25	34	33	47	Sept. 1, 1898	
Jamaica.												
Kingston, P T W R S	17	58	76	48		7 S.	286	38	38	52	Aug. 16, 1898	
Trinidad.												
Port of Spain, P T W R S.	10	35	61	30		54 F.	40	65	48	66	Aug. 7, 1898	
Dominica.												
Roseau, P T W R S	15	21	61	20		55 F.	25	38	32	47	Oct. 20, 1898	
Porto Rico.												
San Juan, P T W R S	18	27	66	7		35 F.	82	48	40	56	Nov. 1, 1898	

TABLE I.—LATITUDE, LONGITUDE, ELEVATION, ETC., OF WEATHER BUREAU STATIONS—Continued.

Stations.	Latitude.		Longitude.		Local meridian time faster or slower than 75th meridian.	Elevation December 31, 1898.				Observations began.	Date of changes in elevation.
						Barometer above sea.	Thermometer above ground.	Rain gage above ground.	Anemometer above ground.		
Cuba.											
Santiago de Cuba, **P T W R S**	° 19	′ 55	° 75	′ 50	h. m. 3 S.	Feet. 82	Feet. 45	Feet. 28	Feet. 51	Aug. 11, 1898	
Santo Domingo.											
Santo Domingo, **P T W R S**	18	28	69	53	20 F.	59	82	74	88	.....do	
Curaçao.											
Willemstadt, **P T W R S**	12	6	68	56	24 F.	75	39	32	46	Aug. 9, 1898	

TABLE II.—CHANGES IN WEATHER BUREAU STATIONS DURING 1898.

ESTABLISHED.

Stations.	Latitude (north).		Longitude (west).		Date of establishment.
	°	′	°	′	
Boise, Idaho	43	37	116	12	Dec. 1, 1898
Escanaba, Mich	45	44	87	2	Nov. 1, 1898
Flagstaff, Ariz	35	12	111	37	Sept. 10, 1898
Fort Worth, Tex	32	43	97	15	Sept. 1, 1898
Independence, Cal	36	48	118	12	Mar. 5, 1898
Lexington, Ky	38	2	84	33	Dec. 19, 1898
Meridian, Miss	32	21	88	41	Do.
Mt. Tamalpais, Cal	37	59	122	35	Sept. 21, 1898
Neah, Wash	48	22	124	38	July 12, 1898
Port Crescent, Wash	48	8	123	45	Oct. 1, 1898
Sitka, Alaska	57	4	135	20	June 15, 1898
Basseterre, St. Kitts, West Indies.	17	20	62	45	Aug. 25, 1898
Bridgetown, Barbados.	13	4	59	37	Aug. 31, 1898
Colon, Colombia, South America.	9	22	79	55	Sept. 17, 1898
Kingston, Jamaica	17	58	76	48	Aug. 7, 1898
Port of Spain, Trinidad	10	35	61	30	Aug. 9, 1898
Roseau, Dominica	15	21	61	20	Oct. 20, 1898
San Juan, Porto Rico	18	27	66	7	Oct. 31, 1898
Santiago de Cuba, Cuba.	19	55	75	50	Aug. 9, 1898
Santo Domingo, Santo Domingo.	18	35	69	50	Do.
Willemstadt, Curaçao	12	10	69		Do.
RIVER.					
Arkansas City, Ark	33	33	91	8	Aug. 1, 1898
Bridgeport, Ala	34	57	85	39	July 1, 1898
Dublin, Ga	32	30	82	51	Oct. 15, 1898
Philippi, W. Va	39	15	80	5	July 15, 1898
CORN AND WHEAT.					
Pembina, N. Dak	48	57	97	6	Apr. 1, 1898
Redfield, S. Dak	44	52	98	30	Do.
COTTON REGION.					
Beaumont, Tex	30	4	94	5	June 18, 1898
DISPLAY.					
Port Angeles, Wash	48	7	123	30	Oct. 1, 1898
Dry Tortugas, Fla	24	40	83	4	Oct. 29, 1898

DISCONTINUED.

Stations.	Latitude (north).		Longitude (west).		Date of establishment.
Port Angeles, Wash	48	7	123	30	Oct. 1, 1898
Tatoosh Island, Wash	48	23	124	44	July 12, 1898
CORN AND WHEAT.					
Faulkton, S. Dak	45	1	99	6	Mar. 11, 1898
Neche, N. Dak	48	58	97	34	Mar. 25, 1898
COTTON REGION.					
Meridian, Miss	32	21	88	41	Dec. 28, 1898
Orange, Tex	30	5	93	41	June 17, 1898
RIVER.					
Columbus, Ga	32	29	84	59	Oct. 31, 1898

EXPLANATION OF THE TABLES.

(A. J. HENRY, *Chief of Division.*)

Pressure.—The barograph in use at the Washington station is described on page 43, Report of the Chief of the Weather Bureau, 1891-92. Richard barographs are in use at the remaining stations.

The readings of the mercurial barometer at 8 a. m. and 8 p. m. are adopted as the standard of reference, and corrections for intermediate hours, interpolated from the known differences at 8 a. m. and 8 p. m., are applied to the curve throughout the twenty-four hours. The averages given in the tables are therefore those of the standard mercurial barometer at 8 a. m. and 8 p. m., seventy-fifth meridian time, respectively, corrected for temperature and instrumental error, and the corrected barograph readings for the remaining hours.

The corrections applied to individual hourly readings vary in magnitude. The average is about 0.02 of an inch, while in extreme cases it may be 0.06 or 0.08 of an inch, depending somewhat upon the skill of the observer in keeping the instrument in adjustment.

The hourly values are read off to the nearest hundredth of an inch, but the averages in the tables are given to thousandths of an inch, in conformity with the plan adopted in the Monthly Weather Review.

A correction for reduction to standard gravity has not been applied, but it is given at the head of each table.

The probable uncertainty in the figures here given, due to errors in reading from the barograph sheets, and any systematic error of the barograph, not wholly eliminated by the comparison at 8 a. m. and 8 p. m., is about 0.02 of an inch.

Temperature.—The mean hourly temperatures given in the tables have been deduced from thermographs described and figured in the Report of the Chief of the Weather Bureau, 1891-92, page 29. These instruments are placed in the standard shelter with other thermometers, and are checked twice daily for time errors, and for agreement with the standard dry-bulb thermometer of the whirled psychrometer.

In transcribing the hourly values the readings of the dry-bulb thermometer at 8 a. m. and 8 p. m. are adopted as the standard of reference, and these readings are given in the appropriate columns of the tables. Corrections for intermediate hours, interpolated from the known differences at 8 a. m., 8 p. m., and at the time of occurrence of the daily maximum and minimum temperatures, respectively, are applied to the curve throughout the twenty-four hours, thus making it conform as closely as practicable to the readings of standard thermometers. The averages given in the tables are therefore those of the standard dry thermometer at 8 a. m. and 8 p. m., and the corrected thermograph readings for intermediate hours.

The means of the daily maximum and minimum temperatures have been derived from readings of standard self-registering maximum and minimum thermometers.

In general, the magnitude of the corrections applied is about 1° F., although a number of instruments accord with the standard dry thermometer within less than a degree.

Wind.—The arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism described and illustrated in the Report of the Chief of the Weather Bureau, 1891-92, page 19, follow the temperature tables in this report. No corrections have been applied to reduce the registered velocities to true velocities.

In studying the diurnal variation of wind movement the following facts should be kept in mind. In graduating the dials of the various sizes of Robinson anemometers it has been assumed by the makers that the centers of the cups move only one-third as fast as the wind, although numerous experiments have demonstrated that cups and arms of various proportions require different formulæ and tables of reduction even in perfectly steady motion. Professor Marvin has shown that for ordinary gusty winds, when the anemometer cups rapidly vary their rate of rotation, the movement of inertia of the revolving parts is a most important factor. The instruments having the least inertia record most truly, and those having large inertia exceed these in proportion as the gusts are stronger; consequently the anemometer records are liable to be too large in the gusty winds of the daytime as compared with the more steady winds of nighttime. No correction for this inertia error has been determined, nor can be, unless we have simultaneous records with two anemometers having different moments of inertia; therefore the apparent diurnal variation of wind velocity includes a slight inertia error, which is probably periodic in character between the winds of daytime and nighttime.

While the gustiness of the ordinary wind—that is, its sudden and momentary fluctuations of velocity—must be regarded as highly variable, yet in practical anemometry it is not possible to do more than make an average allowance for its effect upon an anemometer.

For the ordinary gusty winds of the free atmosphere Professor Marvin adopts the following equation, expressing the relation between the motion of the cups and the velocity of the wind at any moment:

$$\text{Log. } V = 0.509 + 0.9012 \text{ log. } v;$$

where V is velocity of wind in miles per hour and v is the linear velocity (also in miles per hour) of the cup centers. This equation applies strictly to anemometers that have 4-inch hemispherical brass cups on arms 6.72 inches long,

whose revolving parts weigh about 590 grams (22 ounces) and have a moment of inertia of about 50,000 C. G. S. units.

The following table gives the corrected velocities corresponding to observed velocities up to 90 miles per hour. The tabular values corresponding to indicated velocities greater than 60 miles per hour are uncertain, as direct experiments were not made at the higher velocity:

WIND VELOCITIES, AS INDICATED BY WEATHER BUREAU ANEMOMETER, CONVERTED TO TRUE VELOCITIES (IN MILES PER HOUR).

Indicated velocity.	0	1	2	3	4	5	6	7	8	9
0	.....	.....	.....	.....	.....	5.1	6.0	6.9	7.8	8.7
10	9.6	10.4	11.3	12.1	12.9	13.8	14.6	15.4	16.2	17.0
20	17.8	18.6	19.4	20.2	21.0	21.8	22.6	23.4	24.2	24.9
30	25.7	26.5	27.3	28.0	28.8	29.6	30.3	31.1	31.8	32.6
40	33.3	34.1	34.8	35.6	36.3	37.1	37.8	38.5	39.3	40.0
50	40.8	41.5	42.2	43.0	43.7	44.4	45.1	45.9	46.6	47.3
60	48.0	48.7	49.4	50.2	50.9	51.6	52.3	53.0	53.8	54.5
70	55.2	55.9	56.6	57.3	58.0	58.7	59.4	60.1	60.8	61.5
80	62.2	62.9	63.6	64.3	65.0	65.8	66.4	67.1	67.8	68.5
90	69.2	.....	.....	.....	.....	.....	.....	.....	.....	.....

The maximum wind velocity, in miles per hour, for a five-minute period, is given in the column headed "Max. vel."

The figures under the several headings, "N.," "NE.," etc., indicate the number of hours that the wind blew from the directions given at the top of the columns. In tabulating these data from the original records the direction of the wind at the even hour was considered as the prevailing direction for the hour ending at that time.

The references of former reports—H = Height of barometer above sea level; h_t = Height of thermometer above ground; h_a = Height of anemometer cups above ground—are continued in this.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME.

BISMARCK, N. DAK.

[λ=46° 47′ N.; φ=100° 38′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	28.202	.197	.197	.203	.205	.203	.201	.197	.195	.198	.203	.205	.201
Feb	28.281	.280	.280	.283	.280	.280	.279	.273	.269	.270	.272	.274	.269
Mar	28.218	.217	.215	.212	.202	.205	.206	.205	.205	.207	.212	.214	.211
Apr	28.272	.277	.276	.274	.276	.279	.284	.286	.285	.289	.272	.266	.256
May	28.212	.215	.216	.218	.222	.225	.232	.240	.242	.238	.231	.227	.217
June ...	28.154	.154	.154	.151	.153	.160	.168	.177	.180	.181	.178	.175	.167
July....	28.208	.211	.212	.215	.217	.215	.222	.227	.230	.231	.224	.218	.212
Aug	28.207	.210	.211	.213	.212	.214	.222	.228	.231	.234	.230	.223	.213
Sept....	28.194	.196	.197	.196	.198	.200	.204	.208	.216	.220	.222	.220	.207
Oct	28.266	.261	.260	.261	.257	.261	.263	.262	.265	.270	.273	.269	.263
Nov	28.185	.186	.183	.184	.181	.178	.177	.174	.176	.179	.181	.180	.174
Dec	28.255	.255	.257	.266	.271	.271	.270	.272	.271	.273	.278	.283	.270
Year....	28.221	.222	.222	.223	.223	.224	.227	.229	.230	.232	.231	.230	.222

BOSTON, MASS.

[λ=42° 21′ N.; φ=71° 4′ W.]

Jan	29.820	.823	.819	.812	.807	.818	.830	.839	.847	.852	.839	.822	.807
Feb	29.897	.889	.881	.881	.883	.894	.907	.916	.923	.929	.926	.911	.901
Mar	30.083	.072	.068	.071	.077	.083	.089	.094	.100	.099	.093	.082	.066
Apr	29.794	.784	.784	.782	.789	.798	.802	.806	.805	.802	.794	.785	.777
May....	29.826	.822	.823	.830	.837	.845	.850	.852	.850	.851	.844	.836	.828
June ...	29.829	.825	.823	.828	.835	.847	.854	.856	.856	.854	.849	.842	.835
July ...	29.903	.900	.899	.904	.912	.925	.931	.932	.929	.928	.920	.913	.901
Aug	29.841	.838	.839	.844	.849	.856	.861	.864	.865	.861	.856	.847	.842
Sept....	29.898	.893	.892	.894	.901	.911	.919	.924	.928	.925	.917	.909	.894
Oct	29.976	.970	.967	.970	.972	.979	.992	.000	.000	.998	.989	.976	.963
Nov	29.866	.866	.859	.857	.862	.870	.880	.885	.884	.882	.871	.856	.845
Dec	29.827	.831	.830	.829	.831	.845	.856	.871	.882	.880	.863	.846	.837
Year....	29.880	.876	.874	.875	.880	.889	.898	.903	.906	.905	.897	.885	.875

BUFFALO, N. Y.

[λ=42° 53′ N.; φ=78° 53′ W.]

Jan	29.112	.115	.126	.124	.122	.128	.134	.141	.144	.147	.143	.124	.106
Feb	29.210	.206	.203	.199	.199	.203	.209	.216	.219	.222	.222	.205	.202
Mar	29.292	.289	.285	.283	.290	.296	.309	.314	.320	.323	.321	.318	.310
Apr	29.158	.150	.145	.146	.150	.158	.170	.176	.177	.177	.173	.165	.160
May....	29.098	.095	.097	.097	.101	.112	.121	.126	.126	.125	.122	.117	.110
June ...	29.155	.152	.154	.156	.164	.173	.182	.189	.190	.188	.188	.182	.175
July....	29.220	.220	.220	.220	.228	.235	.245	.248	.246	.245	.243	.239	.229
Aug	29.159	.157	.157	.157	.163	.173	.178	.179	.178	.178	.175	.168	.165
Sept....	29.218	.217	.216	.219	.227	.235	.245	.247	.248	.245	.238	.224	.212
Oct.....	29.212	.207	.209	.206	.212	.221	.232	.238	.242	.244	.242	.230	.216
Nov	29.205	.209	.211	.206	.205	.206	.215	.218	.219	.218	.213	.197	.180
Dec	29.092	.096	.103	.100	.098	.105	.114	.118	.130	.142	.140	.124	.114
Year....	29.178	.176	.177	.176	.180	.187	.196	.201	.203	.204	.202	.192	.182

CHICAGO, ILL.

[λ=41° 53′ N.; φ=87° 37′ W.]

Jan	29.094	.100	.114	.110	.105	.103	.111	.125	.130	.139	.137	.127	.105
Feb	29.167	.162	.162	.158	.157	.161	.171	.184	.190	.192	.199	.195	.183
Mar	29.192	.192	.190	.187	.189	.196	.210	.216	.221	.225	.223	.224	.218
Apr	29.183	.179	.177	.177	.181	.185	.194	.204	.206	.206	.205	.199	.194
May:...	29.069	.063	.061	.059	.067	.073	.083	.095	.097	.095	.092	.090	.086
June ...	29.122	.118	.121	.121	.127	.135	.145	.153	.155	.154	.153	.150	.145
July....	29.173	.173	.172	.169	.176	.184	.196	.205	.209	.212	.207	.208	.198
Aug	29.109	.105	.107	.107	.117	.128	.138	.146	.144	.146	.151	.148	.138
Sept....	29.142	.139	.140	.141	.139	.149	.160	.169	.173	.182	.181	.181	.172
Oct.....	29.124	.124	.121	.119	.120	.127	.131	.141	.144	.148	.145	.145	.133
Nov	29.135	.139	.143	.146	.146	.152	.156	.163	.169	.168	.165	.155	.138
Dec	29.137	.137	.150	.150	.145	.147	.154	.168	.170	.181	.180	.165	.147
Year....	29.137	.136	.138	.137	.139	.145	.154	.164	.167	.171	.170	.166	.155

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME.

BISMARCK, N. DAK.

[H. = 1,674 ft.; gravity correction, 0; local time, 1h 42m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.183	.170	.165	.164	.176	.187	.193	.195	.196	.198	.200	.193	.319	.060	Jan.
.255	.242	.231	.228	.233	.239	.248	.252	.259	.265	.268	.263	.424	.109	Feb.
.203	.191	.186	.185	.188	.195	.201	.210	.217	.225	.231	.207	.338	.094	Mar.
.244	.233	.227	.220	.219	.224	.229	.237	.249	.256	.260	.257	.372	.156	Apr.
.208	.196	.187	.178	.172	.166	.167	.175	.181	.191	.195	.206	.281	.127	May.
.161	.152	.146	.137	.128	.125	.125	.134	.141	.156	.162	.155	.247	.059	June.
.202	.193	.178	.167	.163	.159	.159	.165	.175	.189	.196	.200	.288	.104	July.
.200	.190	.178	.168	.164	.161	.157	.165	.179	.188	.201	.200	.272	.120	Aug.
.194	.181	.168	.160	.154	.153	.152	.161	.172	.179	.184	.189	.283	.081	Sept.
.252	.241	.236	.238	.238	.245	.250	.256	.263	.264	.270	.258	.409	.117	Oct.
.162	.151	.144	.149	.161	.171	.179	.187	.189	.187	.189	.175	.309	.046	Nov.
.257	.246	.244	.248	.259	.267	.273	.276	.275	.273	.272	.266	.401	.114	Dec.
.210	.199	.191	.187	.188	.191	.194	.201	.208	.214	.219	.214	.329	.099	Year.

BOSTON, MASS.

[H. = 125 ft.; gravity correction, —.01.; local time, 16m fast.]

.808	.812	.819	.830	.839	.844	.843	.843	.839	.831	.821	.828	.031	.595	Jan.
.897	.898	.900	.906	.917	.925	.929	.931	.933	.933	.931	.910	.039	.772	Feb.
.060	.055	.055	.058	.064	.075	.080	.086	.089	.088	.086	.078	.191	.961	Mar.
.771	.766	.765	.769	.775	.788	.801	.805	.805	.805	.803	.790	.894	.699	Apr.
.820	.813	.812	.814	.820	.826	.832	.841	.837	.836	.834	.832	.897	.760	May.
.829	.825	.818	.816	.818	.825	.831	.838	.840	.839	.834	.835	.920	.746	June.
.894	.885	.882	.882	.884	.888	.896	.904	.907	.907	.906	.905	.978	.830	July.
.834	.826	.822	.822	.827	.838	.844	.851	.848	.845	.845	.844	.903	.785	Aug.
.882	.874	.874	.877	.880	.892	.904	.908	.910	.908	.907	.901	.996	.806	Sept.
.955	.947	.947	.952	.957	.964	.974	.978	.978	.975	.973	.973	.116	.829	Oct.
.841	.840	.846	.850	.856	.858	.860	.861	.859	.858	.852	.861	.998	.694	Nov.
.838	.845	.852	.858	.865	.870	.865	.867	.862	.860	.853	.853	.985	.702	Dec.
.869	.866	.866	.870	.875	.883	.888	.893	.892	.890	.887	.884	.996	.765	Year.

BUFFALO, N. Y.

[H. = 768 ft.; gravity correction, 0; local time, 15m slow.]

.096	.100	.102	.109	.114	.117	.122	.116	.115	.116	.113	.120	.306	.893	Jan.
.192	.189	.188	.194	.202	.213	.218	.225	.225	.226	.224	.209	.318	.095	Feb.
.298	.292	.290	.288	.294	.298	.299	.302	.302	.303	.303	.301	.401	.184	Mar.
.150	.142	.136	.141	.143	.150	.158	.164	.163	.161	.162	.157	.152	.062	Apr.
.104	.098	.091	.087	.086	.088	.090	.101	.103	.103	.099	.104	.167	.035	May.
.166	.157	.150	.140	.136	.140	.142	.149	.152	.153	.153	.162	.231	.078	June.
.216	.208	.201	.194	.193	.197	.199	.211	.211	.213	.216	.221	.273	.167	July.
.158	.147	.140	.136	.134	.137	.145	.155	.157	.159	.163	.159	.214	.107	Aug.
.197	.183	.178	.177	.179	.187	.200	.206	.210	.214	.217	.214	.291	.135	Sept.
.207	.202	.201	.203	.211	.216	.213	.216	.215	.214	.215	.218	.321	.099	Oct.
.168	.168	.170	.176	.182	.187	.186	.184	.183	.186	.190	.195	.335	.048	Nov.
.108	.111	.115	.120	.124	.131	.129	.131	.128	.125	.119	.117	.255	.960	Dec.
.172	.166	.164	.164	.166	.172	.175	.180	.180	.181	.181	.181	.280	.072	Year.

CHICAGO, ILL.

[H. = 824 ft.; gravity correction, —.01; local time, 50m slow.]

.091	.087	.090	.092	.096	.102	.106	.101	.103	.103	.098	.107	.278	.892	Jan.
.172	.162	.161	.161	.166	.168	.169	.167	.164	.161	.155	.170	.277	.041	Feb.
.207	.189	.182	.180	.183	.182	.185	.195	.198	.196	.200	.199	.304	.079	Mar.
.184	.177	.167	.163	.161	.160	.160	.173	.177	.176	.173	.182	.270	.083	Apr.
.083	.075	.074	.071	.066	.063	.059	.066	.073	.076	.070	.075	.148	.995	May.
.132	.126	.119	.111	.104	.103	.101	.107	.119	.120	.122	.128	.188	.058	June.
.188	.177	.165	.152	.142	.140	.140	.154	.160	.162	.167	.176	.228	.113	July.
.127	.115	.104	.094	.090	.090	.091	.107	.111	.117	.109	.118	.182	.044	Aug.
.161	.148	.140	.134	.132	.130	.131	.139	.143	.145	.145	.151	.228	.064	Sept.
.121	.113	.109	.109	.112	.116	.121	.124	.128	.126	.124	.126	.223	.029	Oct.
.122	.116	.118	.121	.124	.133	.134	.133	.130	.129	.128	.140	.273	.975	Nov.
.129	.122	.130	.138	.146	.153	.157	.165	.166	.168	.168	.153	.287	.012	Dec.
.143	.134	.130	.127	.127	.128	.130	.136	.139	.140	.138	.144	.240	.032	Year.

AVERAGE PRESSURE, IN INCHES, AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

CINCINNATI, OHIO.

[λ=39° 6′ N.; φ=84° 30′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	29.356	.360	.369	.370	.370	.373	.381	.387	.402	.413	.414	.399	.370
Feb	29.458	.454	.449	.441	.438	.441	.447	.454	.464	.469	.474	.472	.461
Mar	29.449	.450	.446	.444	.448	.457	.475	.485	.495	.506	.509	.503	.489
Apr	29.378	.375	.369	.375	.377	.386	.399	.408	.410	.411	.409	.401	.389
May	29.284	.280	.281	.282	.286	.295	.305	.314	.314	.313	.311	.306	.292
June	29.357	.356	.355	.358	.367	.375	.386	.394	.399	.393	.391	.387	.377
July	29.392	.389	.388	.359	.396	.407	.415	.423	.424	.423	.422	.412	.400
Aug	29.357	.352	.349	.350	.358	.366	.378	.384	.389	.392	.389	.381	.368
Sept	29.406	.407	.405	.407	.408	.416	.424	.432	.434	.439	.434	.424	.410
Oct	29.407	.409	.404	.405	.407	.412	.419	.425	.433	.433	.430	.417	.399
Nov	29.459	.454	.452	.447	.444	.445	.451	.463	.474	.483	.484	.470	.453
Dec	29.436	.435	.440	.440	.435	.434	.441	.448	.456	.468	.469	.444	.423
Year	29.395	.393	.392	.392	.394	.401	.410	.418	.424	.429	.428	.418	.403

CLEVELAND, OHIO.

[λ=41° 30′ N.; φ=81° 42′ W.]

Jan	29.146	.147	.156	.158	.155	.154	.152	.160	.164	.173	.179	.165	.145
Feb	29.236	.230	.233	.228	.229	.233	.234	.235	.241	.241	.241	.235	.221
Mar	29.282	.281	.281	.281	.288	.297	.306	.310	.320	.326	.327	.323	.311
Apr	29.193	.190	.188	.191	.195	.205	.216	.218	.220	.221	.219	.212	.207
May	29.129	.124	.122	.124	.129	.136	.145	.152	.152	.149	.149	.147	.143
June	29.191	.191	.188	.190	.197	.208	.216	.221	.224	.225	.224	.217	.210
July	29.239	.237	.234	.237	.244	.251	.255	.264	.263	.264	.265	.262	.251
Aug	29.189	.185	.183	.179	.182	.188	.193	.199	.206	.213	.215	.207	.200
Sept	29.236	.235	.234	.235	.240	.248	.257	.260	.263	.260	.256	.251	.239
Oct	29.212	.212	.212	.218	.226	.232	.245	.252	.255	.251	.245	.235	.220
Nov	29.242	.243	.242	.241	.242	.241	.245	.250	.253	.254	.248	.232	.216
Dec	29.172	.178	.185	.180	.182	.184	.189	.193	.211	.220	.207	.189	.172
Year	29.206	.204	.205	.205	.209	.215	.221	.226	.231	.233	.231	.223	.211

DETROIT, MICH.

[λ=42° 20′ N.; φ=83° 3′ W.]

Jan	29.179	.178	.186	.188	.183	.183	.180	.182	.193	.200	.210	.198	.179
Feb	29.270	.265	.261	.255	.252	.254	.256	.257	.266	.267	.267	.269	.256
Mar	29.316	.315	.311	.307	.309	.315	.324	.336	.345	.347	.345	.342	.336
Apr	29.249	.246	.241	.238	.242	.246	.258	.265	.266	.267	.264	.255	.247
May	29.162	.158	.158	.157	.164	.172	.179	.185	.186	.184	.183	.178	.168
June	29.221	.220	.218	.220	.226	.235	.244	.249	.256	.254	.249	.245	.234
July	29.276	.272	.269	.269	.277	.283	.289	.295	.304	.304	.302	.294	.284
Aug	29.209	.203	.201	.202	.203	.210	.220	.227	.235	.235	.232	.225	.220
Sept	29.261	.259	.255	.257	.260	.265	.276	.279	.284	.285	.282	.269	.260
Oct	29.241	.246	.245	.246	.250	.255	.263	.271	.275	.275	.271	.265	.251
Nov	29.272	.270	.270	.267	.262	.262	.265	.274	.280	.280	.278	.268	.253
Dec	29.189	.192	.200	.200	.198	.200	.205	.213	.224	.236	.238	.225	.206
Year	29.237	.235	.235	.234	.236	.240	.247	.253	.260	.261	.260	.253	.241

DODGE, KANS.

[λ=37° 45′ N.; φ=100° W.]

Jan	27.400	.398	.396	.403	.404	.403	.405	.410	.415	.421	.431	.432	.415
Feb	27.466	.468	.468	.468	.464	.464	.475	.473	.482	.489	.485	.484	.474
Mar	27.361	.365	.369	.370	.367	.367	.377	.382	.392	.396	.396	.392	.377
Apr	27.434	.438	.438	.438	.438	.440	.448	.460	.465	.462	.463	.458	.446
May	27.320	.316	.311	.310	.309	.316	.325	.325	.338	.345	.345	.345	.335
June	27.367	.365	.362	.359	.363	.366	.376	.385	.391	.395	.392	.390	.381
July	27.428	.426	.424	.419	.419	.421	.426	.436	.444	.448	.449	.447	.437
Aug	27.419	.423	.424	.423	.419	.417	.426	.432	.443	.445	.442	.437	.426
Sept	27.391	.388	.391	.390	.389	.391	.394	.400	.413	.419	.423	.418	.403
Oct	27.447	.448	.445	.443	.444	.443	.450	.453	.472	.479	.473	.466	.454
Nov	27.401	.404	.400	.405	.404	.402	.408	.414	.422	.428	.420	.414	.404
Dec	27.518	.514	.515	.523	.524	.518	.519	.520	.527	.534	.545	.542	.523
Year	27.413	.413	.412	.413	.412	.412	.419	.424	.434	.438	.439	.435	.423

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

CINCINNATI, OHIO.

[H.=628 ft.; gravity correction, —.02; local time, 38m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.355	.345	.347	.349	.354	.360	.365	.365	.365	.366	.364	.371	.524	.176	Jan.
.449	.442	.441	.444	.451	.455	.461	.460	.462	.461	.456	.454	.546	.356	Feb.
.473	.459	.453	.448	.447	.451	.453	.459	.462	.463	.460	.466	.558	.362	Mar.
.376	.361	.350	.348	.348	.349	.354	.361	.367	.370	.373	.377	.473	.290	Apr.
.281	.270	.264	.262	.262	.266	.271	.275	.283	.284	.282	.286	.349	.222	May.
.364	.348	.337	.331	.325	.327	.330	.344	.353	.358	.361	.361	.416	.301	June.
.388	.376	.362	.355	.351	.355	.358	.369	.382	.384	.387	.389	.438	.340	July.
.357	.342	.335	.328	.325	.326	.332	.348	.357	.362	.364	.358	.405	.309	Aug.
.396	.377	.372	.369	.374	.378	.387	.396	.400	.401	.405	.404	.461	.347	Sept.
.385	.381	.379	.385	.389	.393	.399	.406	.412	.415	.414	.407	.491	.326	Oct.
.439	.432	.430	.431	.438	.445	.451	.449	.452	.452	.451	.452	.578	.314	Nov.
.411	.412	.413	.422	.433	.444	.451	.457	.461	.463	.462	.442	.569	.307	Dec.
.390	.379	.374	.373	.375	.379	.384	.391	.396	.398	.398	.397	.484	.304	Year.

CLEVELAND, OHIO.

[H.=762 ft.; gravity correction, —.01; local time, 27m slow.]

.133	.135	.139	.143	.147	.151	.158	.161	.160	.155	.152	.154	.326	.063	Jan.
.208	.206	.210	.219	.229	.245	.252	.250	.249	.246	.241	.233	.339	.125	Feb.
.299	.291	.285	.286	.290	.297	.300	.302	.300	.299	.295	.299	.398	.185	Mar.
.199	.188	.182	.178	.178	.185	.191	.198	.196	.194	.193	.198	.294	.099	Apr.
.135	.126	.122	.118	.113	.115	.118	.122	.126	.126	.126	.131	.195	.063	May.
.204	.194	.186	.176	.168	.170	.172	.178	.187	.189	.190	.197	.257	.121	June.
.243	.231	.223	.219	.211	.215	.217	.227	.235	.234	.237	.240	.289	.193	July.
.194	.181	.170	.170	.167	.169	.169	.177	.185	.190	.191	.188	.241	.134	Aug.
.222	.213	.206	.205	.208	.212	.222	.232	.235	.238	.237	.235	.309	.164	Sept.
.210	.205	.206	.208	.213	.215	.218	.219	.219	.215	.215	.223	.317	.112	Oct.
.206	.205	.206	.206	.212	.217	.221	.226	.226	.227	.225	.230	.369	.082	Nov.
.165	.165	.169	.173	.178	.183	.185	.190	.194	.195	.196	.186	.323	.038	Dec.
.202	.195	.192	.192	.193	.198	.202	.207	.209	.209	.208	.210	.305	.104	Year.

DETROIT, MICH.

[H=730 ft.; gravity correction, —.01; local time, 32m slow.]

.160	.161	.164	.168	.178	.185	.195	.195	.195	.188	.187	.184	.358	.966	Jan.
.251	.248	.252	.256	.262	.275	.283	.281	.284	.278	.276	.264	.375	.154	Feb.
.326	.315	.312	.308	.309	.313	.320	.324	.325	.330	.330	.323	.428	.210	Mar.
.241	.230	.226	.226	.229	.232	.240	.251	.250	.249	.247	.246	.345	.154	Apr.
.159	.146	.141	.139	.136	.139	.145	.153	.158	.159	.161	.161	.228	.096	May.
.226	.216	.207	.200	.193	.198	.199	.212	.223	.225	.226	.225	.290	.147	June.
.272	.264	.255	.247	.241	.245	.247	.256	.264	.269	.271	.273	.327	.218	July.
.211	.199	.190	.186	.185	.187	.191	.205	.212	.215	.216	.209	.268	.150	Aug.
.247	.234	.229	.233	.237	.242	.250	.258	.261	.262	.262	.259	.342	.183	Sept.
.241	.235	.234	.233	.236	.240	.244	.244	.247	.248	.245	.250	.345	.145	Oct.
.243	.237	.239	.242	.246	.251	.254	.256	.257	.260	.260	.260	.433	.118	Nov.
.195	.190	.193	.201	.204	.207	.209	.213	.214	.217	.219	.208	.345	.057	Dec.
.231	.223	.220	.220	.221	.226	.231	.237	.241	.242	.242	.238	.340	.133	Year.

DODGE, KANS.

[H=2,504 ft.; gravity correction, —.02; local time, 1h 40m slow.]

.391	.372	.364	.364	.366	.373	.380	.388	.391	.396	.396	.396	.515	.272	Jan.
.455	.434	.419	.414	.409	.412	.425	.434	.440	.443	.443	.454	.592	.324	Feb.
.360	.336	.319	.312	.306	.307	.318	.329	.340	.356	.361	.357	.457	.245	Mar.
.425	.406	.386	.370	.364	.368	.377	.383	.397	.411	.417	.422	.530	.291	Apr.
.324	.311	.299	.285	.279	.274	.275	.284	.301	.317	.323	.313	.395	.221	May.
.372	.363	.351	.342	.333	.327	.332	.342	.350	.363	.367	.364	.419	.304	June.
.429	.418	.403	.391	.385	.379	.386	.391	.405	.422	.429	.419	.478	.359	July.
.411	.395	.375	.362	.354	.352	.359	.369	.387	.400	.405	.406	.457	.345	Aug.
.392	.374	.356	.347	.344	.346	.351	.363	.378	.383	.389	.385	.456	.311	Sept.
.434	.415	.402	.400	.396	.404	.418	.425	.433	.441	.445	.439	.564	.317	Oct.
.378	.362	.349	.345	.348	.355	.374	.381	.389	.395	.403	.392	.515	.266	Nov.
.498	.483	.475	.477	.485	.493	.511	.519	.526	.532	.535	.515	.642	.395	Dec.
.406	.389	.375	.367	.364	.366	.376	.384	.395	.405	.409	.405	.502	.304	Year.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

EASTPORT, ME.

[λ = 44° 54′ N.; φ = 66° 59′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	1h p. m.
Jan	29.816	.820	.815	.812	.807	.811	.827	.845	.856	.857	.838	.823	.807
Feb	29.968	.962	.952	.945	.940	.947	.959	.971	.979	.982	.976	.964	.957
Mar	30.094	.091	.085	.087	.091	.096	.104	.114	.116	.114	.106	.098	.086
Apr	29.774	.771	.768	.768	.774	.784	.794	.802	.807	.808	.802	.795	.787
May	29.877	.875	.875	.880	.886	.896	.903	.905	.906	.905	.900	.895	.889
June	29.850	.847	.845	.850	.857	.866	.872	.874	.874	.874	.871	.867	.859
July	29.925	.924	.923	.926	.932	.941	.945	.948	.947	.945	.939	.933	.928
Aug	29.856	.854	.850	.854	.859	.867	.870	.873	.873	.872	.867	.863	.858
Sept	29.893	.891	.893	.896	.903	.912	.918	.923	.924	.920	.914	.907	.896
Oct	30.008	.004	.002	.000	.005	.009	.020	.024	.024	.021	.009	.997	.982
Nov	29.859	.860	.859	.860	.863	.870	.876	.881	.880	.877	.862	.851	.838
Dec	29.803	.810	.813	.811	.811	.817	.826	.837	.853	.858	.844	.830	.821
Year	29.894	.892	.890	.891	.894	.901	.910	.916	.920	.919	.911	.902	.892

GALVESTON, TEX.

[λ = 29° 18′ N.; φ = 94° 50′ W.]

Jan	30.050	.045	.047	.044	.041	.044	.052	.059	.073	.087	.093	.082	.058
Feb	30.099	.096	.093	.089	.084	.086	.092	.100	.116	.125	.129	.131	.121
Mar	29.987	.984	.976	.971	.971	.978	.988	.997	.009	.015	.020	.021	.011
Apr	30.026	.023	.017	.013	.015	.019	.030	.039	.047	.051	.057	.057	.046
May	29.913	.906	.902	.901	.903	.907	.917	.926	.935	.941	.946	.948	.943
June	29.938	.935	.930	.928	.928	.936	.946	.953	.965	.971	.977	.978	.971
July	29.957	.955	.950	.948	.951	.954	.964	.972	.986	.992	.993	.994	.987
Aug	29.921	.917	.914	.913	.915	.919	.929	.936	.948	.956	.962	.960	.947
Sept	29.885	.881	.876	.872	.872	.877	.886	.891	.903	.912	.919	.914	.896
Oct	30.023	.021	.013	.012	.017	.025	.035	.042	.063	.073	.077	.071	.051
Nov	30.065	.062	.058	.057	.058	.063	.072	.075	.090	.099	.100	.093	.068
Dec	30.139	.134	.132	.131	.130	.134	.144	.153	.172	.187	.195	.185	.156
Year	30.000	.997	.992	.990	.990	.995	.005	.012	.026	.034	.039	.036	.021

HAVRE, MONT.

[λ = 48° 34′ N.; φ = 109° 40′ W.]

Jan	27.263	.263	.260	.264	.267	.262	.255	.252	.251	.255	.265	.275	.271
Feb	27.304	.306	.310	.314	.318	.313	.315	.315	.317	.319	.322	.321	.322
Mar	27.345	.343	.342	.340	.334	.330	.328	.326	.331	.334	.335	.338	.338
Apr	27.364	.364	.361	.358	.359	.363	.368	.371	.377	.379	.379	.380	.374
May	27.320	.321	.320	.318	.320	.321	.325	.326	.327	.329	.327	.322	.317
June	27.305	.306	.310	.308	.307	.309	.317	.321	.324	.325	.320	.317	.311
July	27.319	.321	.319	.316	.319	.323	.332	.336	.341	.344	.340	.335	.329
Aug	27.308	.308	.307	.311	.314	.318	.324	.331	.337	.338	.337	.332	.324
Sept	27.286	.288	.291	.291	.293	.295	.297	.305	.311	.311	.312	.308	.298
Oct	27.395	.397	.401	.398	.396	.394	.394	.392	.392	.403	.405	.404	.405
Nov	27.249	.252	.250	.253	.249	.247	.246	.246	.249	.255	.261	.264	.261
Dec	27.396	.394	.393	.395	.402	.400	.399	.400	.404	.410	.422	.433	.425
Year	27.321	.322	.322	.322	.323	.323	.325	.327	.330	.334	.335	.336	.331

KANSAS CITY, MO.

[λ = 39° 5′ N.; φ = 94° 37′ W.]

Jan	29.037	.035	.042	.043	.036	.031	.033	.036	.044	.058	.069	.064	.044
Feb	29.116	.115	.112	.109	.108	.110	.112	.114	.124	.130	.135	.134	.127
Mar	29.033	.038	.039	.035	.036	.044	.055	.060	.075	.081	.084	.079	.068
Apr	29.075	.075	.072	.074	.073	.079	.088	.096	.105	.105	.107	.101	.089
May	28.925	.917	.913	.911	.915	.923	.933	.946	.952	.955	.952	.950	.943
June	28.974	.965	.963	.964	.965	.973	.984	.992	.006	.006	.002	.000	.995
July	29.025	.025	.021	.019	.019	.027	.034	.041	.053	.055	.057	.055	.044
Aug	28.995	.997	.994	.996	.996	.001	.006	.011	.021	.025	.025	.023	.011
Sept	28.984	.985	.981	.981	.985	.991	.999	.004	.017	.022	.024	.019	.007
Oct	29.020	.021	.024	.022	.024	.029	.034	.040	.050	.059	.057	.053	.037
Nov	29.054	.052	.050	.048	.045	.045	.046	.050	.059	.067	.069	.066	.056
Dec	29.135	.129	.129	.134	.134	.133	.132	.135	.143	.154	.168	.170	.158
Year	29.031	.030	.028	.028	.028	.032	.038	.044	.054	.060	.062	.060	.048

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

EASTPORT, ME.

[H = 76 ft.; gravity correction, 0; local time, 32m fast.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean	Mean Max.	Mean Min.	1898
.804	.807	.815	.827	.835	.844	.846	.843	.839	.829	.824	.827	.028	.580	Jan.
.949	.949	.953	.959	.968	.979	.984	.987	.987	.981	.979	.966	.108	.819	Feb.
.074	.065	.064	.066	.071	.079	.081	.085	.084	.082	.080	.088	.214	.943	Mar.
.782	.778	.776	.778	.782	.790	.796	.797	.795	.792	.789	.787	.891	.676	Apr.
.882	.877	.874	.874	.877	.884	.888	.892	.890	.887	.886	.888	.952	.810	May.
.854	.847	.843	.841	.842	.848	.853	.860	.861	.859	.858	.857	.947	.758	June
.924	.916	.912	.908	.909	.915	.924	.928	.933	.933	.932	.929	.011	.844	July.
.852	.848	.846	.846	.848	.853	.862	.865	.862	.861	.857	.859	.916	.794	Aug.
.887	.880	.878	.879	.884	.894	.898	.904	.907	.904	.903	.900	.998	.788	Sept.
.976	.973	.970	.977	.982	.988	.993	.000	.001	.998	.002	.998	.170	.842	Oct.
.835	.836	.837	.841	.844	.846	.844	.844	.842	.838	.837	.853	.019	.671	Nov.
.819	.825	.831	.838	.844	.852	.855	.854	.853	.845	.841	.833	.984	.661	Dec.
.886	.883	.883	.886	.890	.898	.902	.905	.904	.901	.899	.899	.020	.766	Year.

GALVESTON, TEX.

[H = 42 ft.; gravity correction, —.04; local time 1h 19m slow.]

.035	.023	.017	.015	.019	.023	.031	.038	.045	.049	.049	.047	.141	.955	Jan.
.104	.082	.068	.061	.061	.062	.066	.074	.085	.090	.091	.092	.171	.021	Feb.
.995	.979	.967	.958	.956	.960	.966	.975	.986	.994	.995	.986	.046	.932	Mar.
.036	.019	.004	.991	.986	.980	.981	.994	.009	.021	.024	.020	.091	.950	Apr.
.933	.918	.908	.899	.890	.884	.887	.899	.908	.915	.916	.914	.960	.863	May.
.959	.946	.936	.925	.916	.915	.920	.928	.937	.942	.945	.943	.983	.902	June.
.976	.965	.951	.937	.927	.924	.927	.935	.945	.955	.955	.958	.998	.916	July.
.934	.918	.904	.892	.886	.883	.890	.904	.916	.923	.924	.921	.965	.876	Aug.
.881	.864	.851	.847	.844	.847	.853	.867	.877	.880	.878	.878	.926	.837	Sept.
.029	.011	.999	.994	.992	.003	.011	.029	.041	.045	.045	.030	.097	.965	Oct.
.046	.024	.017	.014	.018	.026	.034	.052	.057	.055	.054	.057	.139	.975	Nov.
.130	.115	.104	.104	.106	.121	.132	.143	.152	.161	.165	.143	.251	.045	Dec.
.005	.989	.977	.970	.967	.969	.975	.986	.996	.002	.003	.999	.064	.936	Year.

HAVRE, MONT.

[H = 2,494 ft.; gravity correction, +.01; local time, 2h 19m slow.]

.256	.244	.235	.238	.240	.242	.245	.250	.252	.256	.257	.255	.381	.126	Jan.
.315	.304	.294	.286	.281	.279	.281	.285	.288	.292	.294	.304	.477	.110	Feb.
.338	.334	.329	.326	.325	.328	.329	.337	.344	.351	.355	.336	.445	.234	Mar.
.366	.360	.355	.348	.343	.341	.339	.341	.350	.359	.358	.361	.480	.246	Apr.
.311	.304	.297	.290	.282	.279	.277	.282	.289	.301	.308	.309	.379	.243	May.
.304	.296	.289	.280	.276	.271	.267	.278	.288	.298	.307	.301	.380	.218	June.
.321	.312	.304	.295	.288	.279	.274	.276	.283	.297	.311	.313	.385	.235	July.
.312	.302	.289	.278	.270	.263	.260	.265	.277	.288	.294	.304	.375	.223	Aug.
.287	.276	.265	.254	.248	.248	.250	.257	.267	.272	.277	.283	.357	.198	Sept.
.400	.392	.384	.382	.380	.386	.386	.393	.395	.397	.399	.395	.518	.265	Oct.
.249	.238	.232	.231	.236	.238	.242	.245	.245	.247	.247	.247	.369	.117	Nov.
.411	.399	.395	.396	.397	.397	.396	.402	.405	.407	.411	.404	.523	.273	Dec.
.322	.313	.306	.300	.297	.296	.296	.301	.307	.314	.318	.318	.422	.207	Year.

KANSAS CITY, MO.

[H = 963 ft.; gravity correction, —.01; local time, 1h 18m slow.]

.025	.014	.017	.020	.023	.029	.035	.040	.044	.047	.045	.038	.182	.886	Jan.
.109	.091	.085	.078	.072	.075	.081	.085	.092	.092	.093	.104	.230	.981	Feb.
.048	.029	.018	.012	.013	.014	.016	.027	.040	.047	.047	.043	.156	.917	Mar.
.074	.059	.042	.027	.022	.024	.025	.038	.050	.057	.059	.067	.164	.971	Apr.
.933	.912	.904	.895	.893	.891	.895	.903	.908	.922	.921	.921	.004	.837	May.
.983	.969	.959	.947	.940	.938	.941	.946	.958	.969	.975	.971	.025	.907	June.
.031	.016	.005	.989	.979	.976	.975	.986	.004	.019	.023	.020	.079	.634	July.
.999	.982	.968	.959	.954	.947	.949	.957	.971	.978	.987	.990	.041	.935	Aug.
.990	.974	.959	.948	.947	.948	.949	.968	.976	.979	.980	.984	.043	.907	Sept.
.018	.007	.000	.996	.997	.003	.007	.014	.021	.023	.021	.024	.118	.920	Oct.
.039	.028	.025	.025	.027	.033	.042	.049	.051	.053	.054	.047	.169	.937	Nov.
.136	.120	.116	.119	.121	.128	.136	.140	.144	.148	.156	.138	.271	.016	Dec.
.032	.017	.008	.001	.999	.000	.004	.013	.022	.028	.030	.029	.124	.904	Year.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

KEY WEST, FLA.

[λ=24° 34′ N.; φ=81° 49′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	30.147	.139	.134	.131	.135	.136	.148	.165	.181	.191	.184	.163	.136
Feb	30.126	.118	.106	.102	.102	.106	.120	.136	.149	.159	.156	.145	.122
Mar	30.108	.094	.081	.077	.082	.091	.105	.118	.129	.136	.137	.127	.110
Apr	30.081	.070	.061	.057	.059	.068	.078	.086	.098	.107	.110	.101	.090
May	30.019	.008	.001	.003	.010	.019	.025	.028	.037	.039	.040	.034	.023
June ...	30.054	.043	.035	.035	.038	.046	.054	.062	.069	.074	.075	.068	.061
July ...	30.059	.050	.043	.039	.039	.044	.050	.054	.064	.070	.074	.073	.065
Aug	30.033	.025	.017	.014	.015	.022	.029	.036	.041	.044	.044	.039	.034
Sept....	29.966	.959	.948	.947	.949	.953	.959	.969	.978	.986	.986	.977	.962
Oct.....	29.943	.934	.929	.926	.930	.938	.956	.976	.983	.989	.982	.971	.951
Nov	30.034	.027	.019	.015	.015	.022	.034	.057	.065	.072	.065	.050	.032
Dec	30.115	.108	.104	.101	.099	.104	.118	.138	.151	.163	.154	.145	.121
Year....	30.057	.045	.040	.037	.039	.046	.056	.069	.079	.086	.084	.074	.059

MARQUETTE, MICH.

[λ=46° 34′ N.; φ=87° 24′ W.]

Jan	29.132	.136	.144	.140	.133	.125	.130	.129	.131	.140	.143	.136	.121
Feb	29.218	.219	.218	.213	.213	.219	.222	.225	.227	.230	.234	.238	.224
Mar	29.187	.187	.184	.177	.177	.179	.184	.184	.183	.184	.184	.190	.178
Apr	29.279	.273	.270	.272	.273	.278	.286	.290	.288	.289	.288	.286	.279
May	29.124	.117	.112	.110	.112	.117	.122	.124	.127	.126	.127	.125	.121
June ...	29.132	.133	.130	.132	.141	.148	.158	.160	.161	.161	.159	.155	.149
July....	29.185	.183	.184	.184	.186	.191	.197	.204	.205	.203	.204	.200	.193
Aug	29.146	.143	.141	.142	.143	.148	.153	.157	.158	.155	.156	.151	.147
Sept....	29.110	.109	.106	.102	.108	.118	.130	.136	.143	.146	.143	.137	.128
Oct.....	29.196	.194	.189	.187	.190	.196	.200	.201	.202	.203	.204	.203	.190
Nov	29.094	.091	.095	.091	.091	.093	.099	.103	.103	.106	.110	.102	.090
Dec	29.081	.083	.093	.095	.089	.090	.095	.097	.095	.101	.103	.098	.082
Year....	29.157	.156	.156	.154	.155	.159	.165	.168	.169	.170	.171	.168	.158

MEMPHIS, TENN.

[λ=35° 9′ N.; φ=90° 3′ W.]

Jan	29.673	.673	.671	.675	.674	.677	.677	.685	.696	.704	.712	.703	.679
Feb	29.746	.744	.742	.740	.738	.740	.749	.754	.767	.776	.779	.780	.770
Mar	29.665	.670	.670	.668	.668	.677	.691	.698	.710	.719	.725	.722	.705
Apr	29.661	.656	.650	.651	.654	.659	.674	.686	.694	.700	.707	.702	.684
May....	29.541	.534	.530	.533	.541	.552	.563	.574	.583	.586	.587	.583	.572
June ...	29.585	.581	.574	.572	.575	.584	.596	.609	.619	.626	.625	.624	.616
July....	29.617	.613	.607	.605	.610	.622	.631	.642	.649	.653	.654	.651	.638
Aug	29.599	.596	.593	.594	.596	.603	.618	.631	.638	.640	.643	.641	.631
Sept....	29.610	.608	.606	.606	.608	.614	.627	.637	.645	.651	.655	.648	.632
Oct.....	29.663	.662	.663	.661	.663	.668	.675	.687	.700	.706	.707	.703	.688
Nov	29.739	.738	.738	.738	.735	.737	.742	.749	.759	.765	.766	.758	.730
Dec	29.746	.747	.751	.754	.755	.754	.762	.773	.784	.797	.809	.801	.776
Year....	29.654	.652	.650	.650	.651	.657	.667	.677	.687	.694	.697	.693	.677

NEW ORLEANS, LA.

[λ=29° 58′ N.; φ=90° 4′ W.]

Jan	30.091	.093	.093	.093	.093	.095	.104	.115	.128	.139	.141	.122	.093
Feb	30.124	.122	.118	.115	.114	.119	.128	.137	.152	.154	.161	.155	.136
Mar	30.044	.034	.027	.021	.026	.036	.048	.061	.072	.077	.078	.072	.057
Apr	30.047	.039	.038	.039	.044	.054	.072	.076	.090	.094	.090	.077	.063
May....	29.961	.954	.952	.954	.961	.971	.984	.990	.999	.996	.994	.985	.970
June ...	29.984	.976	.973	.976	.981	.993	.003	.012	.022	.018	.016	.012	.003
July....	29.984	.978	.971	.973	.976	.984	.996	.003	.014	.015	.014	.010	.997
Aug	29.949	.943	.940	.940	.941	.948	.960	.970	.980	.982	.985	.982	.969
Sept....	29.942	.937	.932	.928	.929	.937	.947	.951	.961	.967	.969	.964	.949
Oct.....	30.044	.043	.040	.039	.044	.051	.061	.075	.090	.098	.095	.088	.067
Nov	30.098	.095	.096	.095	.098	.101	.107	.114	.128	.138	.138	.131	.109
Dec	30.144	.140	.141	.140	.140	.144	.151	.160	.176	.193	.193	.180	.151
Year....	30.034	.030	.027	.026	.029	.036	.047	.055	.068	.073	.073	.065	.047

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

KEY WEST, FLA.

[H = 22 ft.; gravity correction, —.05; local time, 27m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.120	.111	.114	.117	.124	.134	.146	.154	.158	.155	.150	.145	.195	.099	Jan.
.101	.088	.080	.082	.088	.098	.111	.122	.129	.132	.130	.117	.166	.070	Feb.
.094	.081	.075	.075	.082	.090	.102	.116	.127	.126	.121	.104	.153	.056	Mar.
.071	.056	.042	.034	.032	.048	.064	.077	.085	.090	.088	.073	.122	.025	Apr.
.005	.991	.981	.975	.977	.988	.004	.010	.019	.024	.022	.012	.050	.969	May
.049	.035	.021	.014	.015	.027	.044	.053	.062	.066	.063	.048	.085	.008	June.
.051	.038	.027	.022	.028	.037	.049	.055	.063	.065	.062	.051	.086	.014	July.
.018	.007	.996	.995	.998	.011	.026	.035	.041	.041	.038	.025	.058	.987	Aug.
.947	.930	.921	.921	.925	.937	.952	.958	.971	.971	.967	.956	.995	.916	Sept.
.933	.923	.920	.923	.926	.940	.961	.965	.964	.963	.958	.949	.004	.902	Oct.
.014	.003	.999	.001	.006	.015	.038	.040	.042	.042	.040	.031	.078	.989	Nov.
.099	.090	.088	.090	.095	.104	.124	.126	.128	.127	.124	.117	.171	.068	Dec.
.042	.029	.022	.021	.025	.036	.052	.059	.066	.067	.064	.052	.097	.009	Year.

MARQUETTE, MICH.

[H = 734 ft.; gravity correction, — .02; local time, 49m slow.]

.109	.108	.114	.122	.131	.135	.137	.139	.138	.139	.139	.131	.275	.981	Jan.
.210	.201	.202	.207	.209	.210	.209	.208	.206	.204	.201	.215	.327	.088	Feb.
.171	.167	.168	.169	.177	.188	.192	.203	.207	.208	.206	.185	.305	.063	Mar.
.273	.264	.261	.263	.264	.266	.268	.273	.275	.273	.270	.275	.359	.191	Apr.
.119	.119	.119	.118	.117	.119	.116	.122	.124	.122	.123	.120	.213	.030	May.
.140	.141	.136	.135	.132	.133	.133	.139	.146	.143	.144	.143	.238	.039	June.
.185	.176	.168	.164	.166	.167	.167	.173	.176	.175	.180	.184	.263	.101	July.
.144	.137	.134	.133	.133	.135	.135	.145	.149	.148	.146	.145	.214	.075	Aug.
.117	.111	.110	.113	.114	.118	.117	.123	.122	.120	.117	.121	.219	.013	Sept.
.178	.173	.173	.176	.179	.183	.182	.188	.188	.185	.186	.189	.289	.089	Oct.
.079	.073	.073	.079	.084	.089	.090	.091	.089	.089	.088	.091	.236	.940	Nov.
.068	.067	.077	.088	.095	.100	.102	.105	.104	.109	.113	.093	.239	.948	Dec.
.149	.145	.145	.147	.150	.154	.154	.159	.160	.160	.159	.158	.265	.046	Year.

MEMPHIS, TENN.

[H = 399 ft.; gravity correction, —.03; local time, 1h slow.]

.656	.639	.639	.641	.645	.653	.657	.663	.668	.673	.672	.671	.799	.536	Jan.
.752	.732	.726	.719	.716	.720	.726	.729	.733	.737	.736	.744	.827	.660	Feb.
.688	.663	.651	.640	.637	.640	.645	.648	.656	.667	.669	.675	.747	.583	Mar.
.672	.653	.639	.627	.624	.620	.624	.637	.644	.648	.653	.659	.752	.562	Apr.
.558	.544	.533	.520	.514	.512	.514	.526	.536	.541	.540	.546	.601	.483	May.
.603	.589	.575	.561	.553	.558	.568	.575	.581	.589	.594	.589	.634	.541	June.
.621	.606	.591	.582	.581	.582	.591	.597	.608	.613	.616	.616	.661	.566	July.
.617	.595	.577	.569	.566	.565	.570	.581	.593	.599	.601	.602	.650	.551	Aug.
.616	.596	.584	.577	.575	.576	.576	.584	.595	.600	.603	.610	.662	.557	Sept.
.670	.655	.649	.647	.651	.657	.662	.669	.674	.675	.677	.672	.736	.606	Oct.
.706	.692	.689	.689	.690	.694	.704	.713	.721	.726	.729	.727	.817	.629	Nov.
.759	.746	.746	.750	.753	.761	.767	.768	.770	.774	.773	.766	.885	.639	Dec.
.660	.642	.633	.627	.625	.628	.634	.641	.648	.654	.655	.656	.731	.576	Year.

NEW ORLEANS, LA.

[H = 54 ft.; gravity correction, —.04; local time, 1h slow.]

.073	.061	.056	.057	.061	.069	.077	.087	.091	.092	.091	.092	.172	.019	Jan.
.109	.091	.080	.079	.080	.086	.099	.107	.111	.116	.115	.117	.182	.055	Feb.
.040	.029	.025	.025	.029	.035	.043	.052	.060	.060	.055	.046	.099	.000	Mar.
.047	.030	.016	.011	.011	.015	.021	.036	.044	.048	.048	.048	.117	.974	Apr.
.959	.942	.930	.925	.923	.929	.937	.949	.960	.963	.958	.960	.010	.910	May.
.993	.982	.975	.970	.972	.975	.976	.990	.002	.004	.001	.992	.027	.955	June.
.985	.976	.966	.959	.960	.962	.967	.976	.985	.990	.993	.985	.028	.942	July.
.956	.945	.931	.925	.925	.930	.938	.944	.954	.957	.958	.952	.991	.913	Aug.
.931	.913	.903	.900	.902	.906	.911	.925	.934	.939	.937	.934	.975	.893	Sept.
.044	.026	.015	.012	.016	.023	.030	.046	.057	.063	.063	.051	.111	.995	Oct.
.082	.065	.057	.058	.060	.067	.072	.084	.092	.095	.093	.095	.167	.022	Nov.
.127	.117	.113	.114	.120	.132	.142	.156	.164	.167	.165	.149	.239	.070	Dec.
.029	.015	.006	.003	.005	.011	.018	.029	.038	.041	.040	.035	.093	.979	Year.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

NEW YORK, N. Y.

[λ = 40° 43′ N.; φ = 74° 0′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	29.644	.643	.643	.640	.634	.639	.651	.665	.681	.687	.678	.657	.642
Feb	29.715	.715	.711	.710	.714	.718	.730	.741	.746	.745	.742	.732	.716
Mar	29.872	.870	.862	.860	.865	.872	.881	.890	.893	.893	.887	.882	.864
Apr	29.615	.609	.603	.600	.601	.608	.618	.622	.623	.622	.616	.606	.596
May	29.612	.606	.605	.608	.613	.623	.632	.641	.644	.645	.635	.629	.619
June ...	29.659	.657	.651	.652	.659	.667	.678	.685	.685	.684	.677	.671	.664
July ...	29.727	.722	.719	.720	.725	.731	.741	.747	.744	.741	.738	.732	.722
Aug	29.675	.670	.667	.668	.675	.682	.693	.700	.700	.700	.696	.690	.679
Sept....	29.735	.732	.731	.732	.737	.744	.751	.759	.764	.763	.756	.748	.733
Oct.....	29.782	.777	.773	.777	.783	.790	.801	.812	.809	.803	.793	.779	.762
Nov	29.709	.710	.708	.708	.712	.717	.731	.739	.740	.738	.724	.708	.694
Dec	29.672	.679	.686	.683	.683	.693	.707	.716	.726	.730	.713	.694	.679
Year....	29.701	.699	.697	.696	.700	.707	.718	.726	.730	.729	.721	.711	.698

PHILADELPHIA, PA.

[λ = 39° 57′ N.; φ = 75° 9′ W.]

Jan	29.894	.899	.899	.893	.891	.895	.908	.922	.935	.943	.935	.913	.891
Feb	29.966	.966	.964	.967	.970	.975	.986	.994	.998	.995	.990	.979	.960
Mar	30.095	.095	.088	.089	.096	.103	.109	.120	.125	.123	.115	.107	.090
Apr	29.848	.841	.841	.839	.841	.846	.857	.864	.866	.866	.856	.843	.831
May	29.830	.825	.820	.822	.829	.838	.848	.852	.856	.857	.850	.841	.830
June ...	29.881	.878	.876	.880	.888	.893	.902	.910	.912	.910	.903	.893	.882
July ...	29.927	.924	.922	.924	.933	.939	.948	.955	.957	.959	.953	.944	.929
Aug	29.896	.886	.883	.887	.894	.903	.910	.919	.922	.924	.921	.915	.905
Sept....	29.958	.954	.951	.954	.958	.965	.974	.985	.990	.991	.985	.974	.958
Oct.....	30.004	.001	.998	.999	.005	.013	.021	.033	.033	.028	.022	.005	.988
Nov	29.960	.965	.963	.960	.960	.966	.975	.993	.994	.995	.988	.967	.949
Dec	29.924	.934	.938	.935	.937	.947	.955	.968	.982	.988	.977	.958	.937
Year....	29.932	.931	.929	.929	.934	.940	.949	.960	.964	.965	.958	.946	.929

PITTSBURG, PA.

[λ = 40° 32′ N.; φ = 80° 2′ W.]

Jan	29.097	.100	.103	.103	.104	.108	.110	.115	.126	.133	.127	.118	.097
Feb	29.215	.209	.209	.203	.201	.203	.207	.211	.215	.217	.220	.215	.198
Mar	29.246	.245	.241	.238	.243	.252	.262	.274	.281	.282	.279	.274	.263
Apr	29.124	.118	.111	.110	.114	.122	.135	.144	.145	.146	.141	.136	.124
May	29.072	.068	.065	.067	.073	.081	.090	.094	.094	.092	.089	.081	.068
June ...	29.121	.120	.121	.123	.127	.139	.147	.155	.156	.153	.152	.145	.130
July ...	29.178	.177	.178	.183	.189	.201	.209	.213	.212	.208	.200	.192	.179
Aug	29.104	.104	.104	.105	.106	.111	.119	.142	.142	.143	.137	.135	.130
Sept....	29.163	.162	.164	.165	.172	.177	.198	.215	.213	.212	.211	.197	.187
Oct.....	29.179	.177	.177	.178	.184	.188	.194	.222	.222	.219	.215	.195	.186
Nov	29.190	.191	.191	.189	.193	.191	.196	.212	.209	.209	.202	.183	.167
Dec	29.135	.137	.137	.138	.137	.143	.150	.162	.159	.161	.168	.163	.148
Year....	29.152	.151	.150	.150	.154	.160	.168	.180	.181	.181	.178	.170	.156

PORTLAND, OREG.

[λ = 45° 32′ N.; φ = 122° 43′ W.]

Jan	29.990	.992	.993	.992	.995	.998	.994	.991	.988	.990	.996	.004	.014
Feb	29.843	.844	.845	.843	.844	.844	.838	.836	.828	.829	.832	.840	.846
Mar	29.960	.962	.963	.962	.963	.962	.958	.961	.963	.969	.974	.982	.984
Apr	29.984	.951	.955	.955	.956	.956	.955	.954	.961	.970	.974	.977	.979
May	29.818	.825	.832	.834	.834	.835	.835	.837	.841	.844	.848	.846	.842
June ...	29.823	.832	.837	.841	.844	.850	.855	.860	.865	.871	.871	.870	.865
July ...	29.859	.868	.876	.880	.882	.885	.889	.893	.898	.904	.905	.904	.897
Aug	29.776	.786	.795	.797	.800	.803	.803	.806	.813	.818	.820	.821	.819
Sept....	29.787	.793	.797	.796	.797	.798	.798	.799	.802	.807	.812	.816	.817
Oct	29.928	.933	.935	.938	.943	.944	.941	.940	.943	.945	.953	.961	.964
Nov	29.935	.934	.929	.926	.925	.924	.914	.911	.909	.910	.916	.928	.936
Dec	30.107	.109	.108	.105	.109	.113	.107	.097	.090	.092	.100	.115	.123
Year....	29.898	.902	.905	.906	.908	.909	.907	.907	.908	.912	.917	.922	.924

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

NEW YORK, N. Y.

[H = 314 ft.; gravity correction, —.01; local time, 4m fast.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.635	.639	.647	.655	.660	.666	.668	.666	.666	.658	.651	.655	.838	.455	Jan.
.707	.704	.706	.712	.720	.730	.738	.743	.745	.744	.742	.726	.836	.620	Feb.
.851	.845	.845	.854	.856	.863	.872	.879	.883	.884	.882	.871	.973	.770	Mar.
.585	.575	.572	.573	.580	.589	.603	.618	.620	.620	.621	.604	.704	.515	Apr.
.606	.597	.594	.592	.593	.597	.603	.615	.619	.620	.617	.615	.684	.545	May.
.656	.647	.641	.639	.640	.644	.647	.660	.665	.666	.665	.661	.734	.591	June.
.713	.704	.700	.697	.699	.701	.706	.717	.723	.728	.728	.722	.786	.658	July.
.672	.661	.658	.660	.660	.663	.671	.677	.683	.684	.682	.678	.731	.624	Aug.
.722	.713	.714	.712	.713	.722	.730	.738	.742	.743	.743	.737	.815	.659	Sept.
.755	.753	.757	.762	.767	.774	.781	.786	.789	.786	.783	.781	.901	.656	Oct.
.687	.690	.694	.699	.702	.707	.708	.711	.711	.706	.699	.710	.844	.553	Nov.
.675	.678	.683	.691	.696	.699	.704	.705	.703	.696	.690	.695	.824	.553	Dec.
.689	.684	.684	.687	.690	.696	.703	.710	.712	.711	.709	.705	.806	.600	Year.

PHILADELPHIA, PA.

[H = 117 ft.; gravity correction, —.01; local time, 0m.]

.884	.888	.892	.900	.906	.911	.913	.913	.910	.904	.900	.906	.078	.710	Jan.
.947	.941	.939	.947	.955	.968	.974	.981	.983	.981	.981	.971	.072	.870	Feb.
.074	.064	.062	.065	.072	.083	.091	.102	.103	.106	.105	.095	.193	.996	Mar.
.819	.809	.806	.808	.810	.824	.837	.848	.851	.850	.852	.840	.939	.749	Apr.
.818	.808	.804	.804	.804	.810	.816	.829	.833	.834	.830	.829	.899	.757	May.
.872	.861	.854	.850	.853	.863	.869	.880	.888	.887	.886	.882	.950	.814	June.
.918	.904	.895	.892	.889	.900	.909	.921	.927	.928	.928	.926	.988	.858	July.
.893	.881	.874	.873	.874	.876	.884	.896	.903	.906	.904	.897	.952	.840	Aug.
.942	.930	.922	.922	.924	.934	.947	.955	.961	.961	.963	.957	.037	.880	Sept.
.980	.974	.972	.977	.985	.995	.001	.008	.009	.005	.004	.003	.121	.884	Oct.
.936	.935	.938	.942	.946	.946	.948	.952	.951	.948	.947	.959	.096	.808	Nov.
.928	.928	.930	.930	.932	.935	.940	.944	.947	.941	.938	.945	.078	.799	Dec.
.918	.910	.907	.909	.912	.920	.927	.936	.939	.938	.936	.934	.034	.830	Year.

PITTSBURG, PA.

[H = 842 ft.; gravity correction, —.01; local time, 20m slow.]

.083	.084	.090	.095	.101	.105	.109	.111	.113	.112	.102	.106	.273	.903	Jan.
.181	.173	.170	.172	.179	.194	.206	.211	.216	.218	.216	.202	.300	.101	Feb.
.246	.234	.227	.228	.231	.237	.248	.255	.263	.261	.260	.253	.354	.151	Mar.
.112	.103	.090	.088	.092	.097	.107	.118	.121	.121	.121	.118	.219	.022	Apr.
.061	.050	.040	.035	.035	.049	.056	.065	.069	.073	.070	.068	.138	.000	May.
.120	.110	.097	.088	.086	.090	.100	.110	.117	.121	.123	.123	.190	.050	June.
.165	.154	.149	.141	.140	.143	.149	.158	.164	.168	.174	.176	.232	.123	July.
.124	.117	.110	.109	.105	.105	.106	.106	.104	.107	.109	.115	.161	.068	Aug.
.181	.174	.165	.157	.155	.155	.152	.154	.156	.162	.163	.175	.235	.104	Sept.
.174	.169	.162	.164	.167	.172	.178	.180	.182	.183	.183	.185	.275	.078	Oct.
.159	.157	.152	.156	.155	.156	.165	.162	.166	.170	.173	.179	.311	.036	Nov.
.142	.130	.132	.131	.134	.143	.154	.155	.156	.155	.154	.147	.275	.010	Dec.
.146	.138	.132	.130	.132	.137	.144	.149	.152	.154	.154	.154	.247	.054	Year.

PORTLAND, OREG.

[H = 153 ft.; gravity correction, 0; local time, 3h 11m slow.]

.018	.006	.994	.977	.975	.974	.976	.976	.978	.977	.980	.990	.084	.877	Jan.
.851	.849	.840	.832	.831	.834	.835	.835	.840	.844	.847	.840	.960	.702	Feb.
.982	.975	.966	.952	.940	.932	.925	.926	.931	.941	.946	.957	.039	.871	Mar.
.976	.966	.958	.950	.937	.929	.919	.915	.916	.926	.936	.951	.045	.843	Apr.
.837	.827	.818	.809	.800	.789	.778	.778	.780	.789	.802	.820	.897	.726	May.
.859	.853	.845	.834	.824	.815	.806	.800	.803	.813	.825	.840	.904	.756	June.
.890	.880	.871	.859	.845	.831	.822	.817	.818	.825	.840	.868	.930	.785	July.
.814	.804	.793	.779	.762	.749	.740	.737	.740	.751	.768	.787	.836	.725	Aug.
.815	.807	.799	.786	.778	.772	.765	.763	.764	.775	.783	.793	.858	.707	Sept.
.961	.953	.945	.938	.931	.927	.924	.922	.929	.935	.939	.940	.023	.846	Oct.
.939	.931	.923	.916	.916	.920	.918	.922	.925	.930	.932	.924	.029	.816	Nov.
.124	.115	.101	.090	.085	.087	.088	.084	.085	.089	.091	.101	.195	.004	Dec.
.922	.914	.904	.894	.885	.880	.875	.873	.876	.883	.891	.901	.983	.805	Year.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

ST. LOUIS, MO.

[λ=38° 38′ N.; φ=90° 12′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	29.447	.449	.451	.455	.454	.456	.459	.460	.467	.475	.482	.474	.451
Feb	29.519	.515	.516	.511	.512	.519	.525	.532	.545	.548	.549	.548	.531
Mar	29.489	.489	.487	.483	.488	.493	.503	.514	.523	.527	.525	.519	.509
Apr	29.464	.459	.458	.456	.461	.468	.479	.490	.495	.497	.498	.492	.479
May	29.335	.331	.333	.335	.336	.350	.367	.369	.374	.373	.374	.371	.363
June	29.386	.384	.385	.385	.391	.398	.408	.419	.426	.424	.427	.424	.413
July	29.436	.435	.437	.434	.438	.445	.461	.473	.477	.478	.475	.472	.462
Aug	29.403	.398	.397	.399	.403	.412	.425	.434	.439	.443	.445	.441	.430
Sept	29.414	.415	.416	.417	.419	.422	.433	.447	.453	.459	.454	.447	.435
Oct	29.440	.436	.435	.429	.433	.437	.444	.453	.465	.470	.470	.466	.452
Nov	29.494	.494	.498	.496	.501	.501	.504	.512	.518	.522	.522	.510	.492
Dec	29.521	.519	.522	.524	.521	.525	.533	.547	.557	.572	.579	.567	.547
Year	29.446	.444	.445	.444	.446	.452	.462	.471	.478	.482	.483	.478	.464

ST. PAUL, MINN.

[λ=44° 58′ N.; φ=93° 3′ W.]

Jan	29.093	.092	.094	.100	.100	.092	.092	.088	.090	.098	.105	.109	.092
Feb	29.152	.158	.161	.161	.157	.156	.156	.153	.156	.162	.163	.164	.156
Mar	29.082	.086	.088	.085	.084	.087	.095	.099	.105	.110	.112	.111	.103
Apr	29.163	.167	.165	.165	.169	.172	.181	.189	.195	.194	.193	.188	.176
May	29.018	.018	.015	.016	.023	.028	.037	.044	.048	.049	.045	.040	.030
June	29.031	.032	.029	.035	.036	.041	.048	.055	.063	.063	.060	.055	.050
July	29.098	.097	.095	.097	.100	.109	.118	.124	.128	.125	.121	.119	.111
Aug	29.050	.050	.048	.052	.053	.059	.073	.078	.077	.077	.077	.075	.065
Sept	29.053	.060	.064	.065	.068	.075	.082	.090	.092	.093	.091	.081	.067
Oct	29.085	.088	.091	.090	.090	.095	.096	.098	.108	.110	.109	.101	.089
Nov	29.052	.050	.050	.053	.047	.047	.046	.046	.052	.056	.059	.059	.046
Dec	29.123	.123	.125	.131	.128	.123	.121	.120	.124	.137	.147	.150	.134
Year	29.083	.085	.085	.088	.088	.090	.095	.099	.103	.106	.107	.104	.093

SALT LAKE CITY, UTAH.

[λ=40° 46′ N.; φ=111° 54′ W.]

Jan	25.725	.727	.721	.725	.724	.719	.713	.715	.719	.723	.735	.745	.743
Feb	25.764	.768	.763	.764	.763	.758	.759	.761	.764	.771	.776	.781	.782
Mar	25.582	.586	.586	.589	.584	.578	.580	.586	.595	.603	.612	.617	.619
Apr	25.653	.659	.662	.659	.659	.660	.661	.670	.681	.690	.691	.691	.686
May	25.541	.542	.539	.537	.538	.539	.543	.555	.564	.569	.569	.567	.566
June	25.602	.603	.601	.604	.604	.608	.618	.632	.642	.649	.652	.650	.644
July	25.642	.648	.654	.656	.658	.664	.671	.681	.697	.708	.711	.710	.705
Aug	25.640	.643	.644	.646	.649	.650	.657	.664	.678	.685	.687	.687	.680
Sept	25.631	.636	.639	.645	.649	.651	.656	.666	.680	.685	.692	.695	.684
Oct	25.729	.733	.737	.741	.740	.739	.745	.751	.759	.771	.770	.770	.768
Nov	25.674	.680	.680	.684	.690	.686	.691	.695	.702	.712	.716	.723	.714
Dec	25.857	.856	.855	.857	.865	.860	.856	.856	.865	.874	.880	.892	.887
Year	25.670	.673	.673	.676	.677	.676	.679	.686	.696	.703	.708	.711	.706

SAN DIEGO, CAL.

[λ=32° 43′ N.; φ=117° 10′ W.]

Jan	30.010	.011	.008	.008	.010	.006	.000	.996	.000	.005	.019	.039	.046
Feb	30.003	.006	.003	.003	.002	.994	.988	.988	.992	.997	.011	.022	.022
Mar	29.940	.942	.941	.939	.931	.922	.916	.921	.928	.937	.951	.962	.964
Apr	29.908	.907	.903	.896	.885	.878	.876	.877	.886	.899	.907	.912	.915
May	29.876	.877	.873	.868	.862	.858	.855	.858	.867	.875	.887	.889	.895
June	29.817	.818	.812	.804	.799	.796	.795	.798	.805	.814	.821	.821	.821
July	29.838	.839	.834	.831	.825	.819	.818	.825	.836	.846	.855	.854	.858
Aug	29.782	.782	.775	.771	.765	.761	.760	.765	.775	.782	.789	.792	.795
Sept	29.781	.782	.778	.776	.772	.770	.770	.775	.783	.793	.803	.808	.804
Oct	29.895	.895	.895	.894	.888	.880	.881	.885	.892	.904	.916	.924	.920
Nov	29.917	.917	.919	.915	.911	.906	.904	.904	.911	.924	.936	.943	.940
Dec	30.020	.019	.015	.012	.012	.007	.001	.000	.008	.020	.035	.053	.059
Year	29.899	.900	.896	.893	.888	.883	.880	.882	.890	.900	.911	.918	.920

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

ST. LOUIS, MO.

[H = 567 ft.; gravity correction, —.02; local time, 1h 1m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.432	.423	.419	.430	.432	.435	.439	.448	.449	.452	.450	.450	.612	.267	Jan.
.512	.499	.493	.492	.493	.501	.503	.505	.506	.506	.502	.516	.612	.401	Feb.
.490	.474	.467	.461	.459	.461	.468	.482	.487	.496	.495	.491	.591	.384	Mar.
.466	.449	.436	.423	.423	.426	.430	.441	.449	.451	.452	.460	.551	.359	Apr.
.354	.338	.329	.323	.311	.311	.312	.321	.334	.336	.338	.342	.406	.264	May.
.402	.390	.379	.371	.361	.362	.365	.375	.387	.391	.392	.394	.444	.339	June.
.451	.431	.418	.410	.405	.403	.404	.412	.421	.427	.430	.439	.486	.385	July.
.420	.401	.387	.377	.372	.371	.377	.390	.399	.405	.408	.407	.457	.352	Aug.
.418	.400	.387	.386	.384	.383	.387	.401	.407	.412	.413	.417	.479	.354	Sept.
.439	.429	.428	.428	.430	.436	.444	.448	.449	.451	.449	.444	.528	.358	Oct.
.470	.459	.458	.459	.461	.465	.474	.477	.480	.484	.489	.489	.601	.363	Nov.
.527	.521	.522	.525	.527	.532	.537	.543	.543	.547	.545	.538	.668	.397	Dec.
.448	.434	.427	.424	.422	.424	.428	.437	.443	.446	.447	.449	.536	.352	Year.

ST. PAUL, MINN.

[H = 837 ft.; gravity correction, 0; local time, 1h 12m slow.]

.070	.058	.058	.062	.067	.074	.080	.085	.088	.087	.091	.086	.216	.954	Jan.
.138	.124	.113	.111	.110	.114	.119	.121	.120	.120	.118	.140	.266	.005	Feb.
.093	.077	.067	.063	.066	.067	.074	.077	.085	.092	.098	.088	.205	.967	Mar.
.166	.156	.146	.134	.126	.122	.118	.123	.131	.134	.138	.159	.246	.067	Apr.
.021	.009	.000	.990	.986	.986	.989	.002	.011	.016	.019	.018	.105	.925	May
.043	.037	.029	.021	.012	.008	.008	.015	.025	.037	.041	.036	.113	.952	June
.103	.093	.080	.072	.065	.059	.057	.061	.076	.085	.095	.095	.164	.018	July
.058	.050	.038	.031	.025	.022	.020	.028	.041	.042	.045	.051	.118	.979	Aug.
.052	.038	.025	.016	.010	.010	.014	.022	.032	.043	.049	.054	.137	.954	Sept.
.068	.056	.051	.051	.053	.057	.066	.066	.070	.073	.070	.080	.200	.951	Oct.
.033	.023	.022	.027	.032	.037	.044	.048	.047	.053	.056	.045	.186	.914	Nov.
.119	.111	.115	.122	.128	.134	.140	.144	.146	.147	.152	.131	.277	.999	Dec.
.080	.069	.062	.058	.057	.058	.061	.066	.073	.077	.081	.082	.186	.974	Year.

SALT LAKE CITY, UTAH.

[H = 4,344 ft.; gravity correction, —.01; local time, 2h 27m slow.]

.728	.712	.699	.697	.700	.704	.711	.717	.717	.714	.716	.719	.805	.629	Jan.
.781	.764	.751	.746	.745	.740	.742	.748	.752	.754	.756	.760	.838	.672	Feb.
.616	.605	.591	.583	.579	.571	.569	.568	.574	.574	.579	.589	.685	.483	Mar.
.676	.659	.648	.630	.620	.612	.611	.607	.617	.628	.635	.653	.737	.548	Apr.
.561	.557	.556	.546	.537	.534	.529	.533	.533	.545	.547	.548	.615	.465	May.
.638	.627	.611	.600	.595	.583	.577	.579	.582	.590	.600	.612	.671	.540	June.
.697	.683	.670	.655	.645	.630	.622	.619	.623	.629	.639	.663	.715	.599	July.
.666	.652	.636	.616	.608	.599	.595	.601	.609	.621	.629	.643	.694	.585	Aug.
.671	.652	.634	.617	.607	.598	.594	.596	.607	.613	.620	.642	.710	.558	Sept.
.757	.743	.734	.729	.726	.725	.723	.730	.734	.733	.740	.743	.826	.645	Oct.
.696	.678	.666	.658	.656	.654	.658	.659	.661	.665	.668	.682	.788	.567	Nov.
.869	.848	.838	.838	.839	.839	.843	.843	.840	.845	.849	.856	.945	.763	Dec.
.696	.682	.670	.660	.655	.649	.648	.650	.654	.659	.665	.676	.752	.588	Year.

SAN DIEGO, CAL.

[H = 87 ft.; gravity correction, —.03; local time, 2h 49m slow.]

.040	.015	.996	.983	.979	.982	.984	.988	.996	.004	.009	.006	.081	.932	Jan.
.016	.001	.979	.966	.961	.959	.959	.967	.975	.981	.988	.991	.038	.940	Feb.
.958	.946	.932	.917	.908	.905	.905	.910	.916	.930	.936	.932	.995	.873	Mar.
.912	.903	.894	.881	.869	.862	.864	.866	.875	.886	.896	.890	.942	.841	Apr.
.893	.885	.879	.872	.863	.856	.854	.855	.861	.869	.878	.871	.916	.827	May.
.820	.815	.811	.804	.794	.787	.782	.783	.788	.796	.804	.804	.840	.770	June.
.855	.848	.839	.829	.819	.812	.807	.802	.808	.816	.832	.831	.870	.790	July.
.786	.776	.769	.756	.747	.742	.739	.742	.751	.765	.778	.769	.809	.727	Aug.
.798	.784	.771	.758	.752	.746	.748	.746	.755	.771	.779	.775	.812	.736	Sept.
.911	.895	.877	.869	.866	.865	.866	.873	.884	.894	.900	.890	.935	.849	Oct.
.931	.905	.885	.874	.871	.868	.872	.882	.894	.902	.912	.906	.967	.849	Nov.
.042	.014	.991	.980	.981	.985	.990	.998	.010	.016	.021	.012	.079	.958	Dec.
.914	.899	.885	.874	.868	.864	.864	.868	.876	.886	.894	.890	.940	.841	Year.

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

SAN FRANCISCO, CAL.

[λ=37° 48′ N.; φ=122° 26′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	30.022	.022	.025	.027	.033	.031	.024	.023	.024	.029	.037	.050	.056
Feb	29.974	.977	.982	.978	.977	.974	.971	.972	.976	.980	.994	.999	.004
Mar	29.936	.938	.942	.945	.942	.932	.932	.935	.943	.950	.961	.969	.971
Apr	29.913	.913	.919	.917	.909	.907	.905	.907	.917	.928	.934	.937	.943
May	29.836	.836	.835	.830	.829	.830	.829	.834	.844	.851	.860	.865	.869
June ...	29.813	.811	.809	.807	.802	.801	.803	.810	.819	.825	.832	.831	.833
July....	29.808	.808	.810	.804	.801	.799	.807	.815	.825	.834	.842	.844	.847
Aug	29.776	.778	.779	.776	.770	.770	.772	.777	.788	.796	.804	.809	.812
Sept....	29.792	.795	.799	.796	.795	.794	.795	.801	.811	.821	.828	.836	.833
Oct.....	29.906	.909	.912	.913	.910	.904	.906	.912	.917	.928	.937	.943	.943
Nov	29.960	.963	.965	.962	.962	.959	.956	.957	.962	.971	.984	.992	.000
Dec	30.082	.083	.082	.082	.086	.087	.081	.080	.084	.090	.100	.114	.118
Year....	29.902	.903	.905	.903	.901	.899	.898	.902	.909	.917	.926	.932	.936

SANTA FE, N. MEX.

[λ=35° 41′ N.; φ=105° 57′ W.]

Jan	23.198	.195	.190	.191	.189	.184	.178	.178	.177	.182	.188	.198	.199
Feb	23.288	.289	.286	.285	.280	.278	.279	.280	.284	.289	.295	.301	.301
Mar	23.164	.165	.168	.168	.164	.163	.164	.169	.175	.182	.185	.187	.185
Apr	23.294	.294	.294	.289	.287	.287	.291	.295	.308	.313	.314	.313	.307
May	23.220	.219	.219	.218	.218	.222	.230	.239	.247	.249	.248	.245	.237
June ...	23.331	.331	.330	.330	.332	.336	.342	.353	.359	.361	.360	.356	.351
July ...	23.408	.408	.407	.405	.402	.404	.409	.416	.425	.429	.430	.429	.421
Aug	23.409	.414	.414	.414	.413	.413	.415	.421	.425	.428	.430	.430	.421
Sept....	23.351	.353	.355	.354	.352	.353	.361	.367	.374	.381	.385	.387	.378
Oct.....	23.341	.341	.344	.343	.341	.344	.348	.356	.360	.369	.375	.375	.368
Nov	23.226	.226	.224	.225	.227	.227	.228	.232	.234	.245	.253	.255	.246
Dec	23.273	.271	.268	.269	.269	.265	.261	.263	.272	.280	.294	.302	.295
Year....	23.292	.292	.292	.291	.290	.290	.292	.297	.303	.309	.313	.315	.309

SAVANNAH, GA.

[λ=32° 5′ N.; φ=81° 5′ W.]

Jan	30.058	.058	.058	.058	.061	.065	.075	.080	.097	.109	.102	.082	.051
Feb	30.087	.082	.081	.080	.081	.091	.100	.109	.118	.120	.114	.102	.077
Mar	30.078	.073	.067	.065	.073	.084	.098	.109	.119	.120	.119	.110	.092
Apr	29.968	.961	.958	.962	.969	.983	.001	.008	.011	.011	.007	.992	.973
May	29.904	.900	.902	.905	.916	.929	.941	.945	.948	.947	.939	.925	.910
June ...	29.977	.972	.971	.974	.983	.995	.009	.016	.017	.017	.010	.998	.981
July....	29.979	.976	.974	.976	.986	.995	.006	.016	.019	.020	.018	.009	.994
Aug	29.969	.959	.952	.948	.955	.966	.982	.992	.000	.005	.001	.995	.981
Sept....	29.981	.975	.972	.970	.976	.988	.999	.006	.016	.021	.015	.004	.990
Oct.....	29.980	.976	.971	.972	.983	.994	.009	.017	.024	.021	.016	.003	.981
Nov	30.067	.064	.065	.067	.071	.080	.091	.098	.106	.108	.098	.078	.057
Dec	30.089	.088	.090	.087	.087	.094	.106	.115	.127	.133	.126	.102	.081
Year....	30.011	.007	.005	.005	.012	.022	.035	.043	.050	.053	.047	.033	.014

WASHINGTON, D. C.

[λ=38° 54′ N.; φ=77° 3′ W.]

Jan	29.917	.925	.927	.925	.927	.937	.948	.961	.980	.988	.979	.955	.936
Feb	30.012	.016	.014	.014	.016	.024	.030	.040	.045	.046	.043	.022	.998
Mar	30.097	.097	.092	.090	.100	.109	.120	.128	.134	.135	.129	.118	.102
Apr	29.876	.867	.864	.865	.872	.881	.891	.894	.896	.895	.888	.873	.865
May	29.822	.818	.814	.814	.825	.837	.844	.850	.852	.851	.846	.835	.825
June ...	29.895	.893	.893	.897	.909	.917	.927	.931	.932	.929	.923	.915	.907
July....	29.932	.928	.928	.931	.941	.951	.959	.964	.966	.968	.967	.958	.912
Aug	29.905	.901	.902	.904	.912	.920	.928	.935	.940	.942	.938	.931	.918
Sept....	29.966	.965	.965	.968	.977	.986	.000	.005	.010	.011	.005	.993	.974
Oct.....	30.011	.006	.002	.003	.010	.015	.024	.033	.038	.037	.032	.017	.996
Nov	30.007	.013	.011	.011	.015	.018	.028	.039	.047	.047	.038	.015	.992
Dec	29.965	.972	.976	.972	.974	.979	.994	.004	.015	.022	.011	.986	.966
Year....	29.950	.950	.949	.950	.956	.964	.974	.982	.988	.989	.983	.968	.952

AVERAGE PRESSURE, IN INCHES AND THOUSANDTHS, FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

SAN FRANCISCO, CAL.

[H = 153 ft.; gravity correction, —.02; local time, 3h 10m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
.050	.017	.999	.989	.983	.983	.983	.987	.993	.000	.009	.016	.084	.951	Jan.
.005	.994	.976	.963	.958	.952	.949	.954	.959	.966	.971	.975	.048	.896	Feb.
.967	.954	.938	.922	.913	.903	.898	.897	.905	.918	.927	.935	.999	.861	Mar.
.934	.918	.910	.894	.881	.872	.866	.865	.868	.886	.897	.906	.968	.838	Apr.
.871	.862	.857	.848	.838	.829	.822	.820	.823	.831	.840	.841	.902	.772	May.
.832	.824	.819	.806	.796	.788	.778	.779	.783	.792	.804	.808	.849	.762	June.
.844	.833	.824	.810	.797	.786	.781	.780	.785	.794	.805	.812	.854	.760	July.
.806	.796	.787	.771	.757	.748	.742	.740	.747	.761	.769	.776	.822	.725	Aug.
.832	.821	.809	.793	.785	.772	.767	.767	.777	.792	.797	.800	.847	.752	Sept.
.938	.925	.909	.898	.890	.884	.881	.886	.895	.904	.909	.911	.960	.860	Oct.
.992	.972	.953	.941	.934	.929	.927	.936	.943	.951	.959	.960	.018	.898	Nov.
.100	.075	.057	.047	.044	.043	.044	.050	.056	.065	.074	.076	.136	.022	Dec.
.931	.916	.903	.890	.881	.874	.870	.872	.878	.888	.897	.901	.957	.841	Year.

SANTA FE, N. MEX.

[H = 6.998 ft.; gravity correction, —.02; local time, 2h 4m slow.]

.181	.161	.153	.151	.155	.161	.169	.174	.179	.187	.190	.180	.249	.121	Jan.
.290	.271	.258	.253	.249	.249	.254	.260	.266	.272	.276	.276	.348	.216	Feb.
.175	.156	.145	.133	.128	.126	.128	.138	.149	.160	.166	.160	.225	.091	Mar.
.296	.282	.270	.256	.250	.246	.247	.255	.266	.278	.281	.284	.378	.216	Apr.
.228	.215	.202	.189	.179	.175	.177	.186	.198	.214	.223	.217	.277	.150	May.
.342	.331	.318	.307	.301	.293	.291	.297	.303	.318	.327	.329	.373	.278	June.
.413	.400	.390	.376	.368	.365	.364	.374	.383	.399	.407	.401	.442	.354	July.
.411	.399	.387	.373	.364	.361	.359	.368	.384	.397	.402	.402	.438	.352	Aug.
.368	.351	.337	.320	.311	.308	.308	.313	.326	.335	.342	.349	.399	.296	Sept.
.358	.342	.330	.320	.316	.316	.319	.327	.335	.341	.344	.344	.414	.273	Oct.
.231	.209	.195	.190	.187	.191	.202	.206	.212	.216	.221	.221	.296	.137	Nov.
.278	.261	.253	.249	.251	.255	.262	.268	.274	.279	.281	.270	.348	.197	Dec.
.298	.282	.270	.260	.255	.254	.257	.264	.273	.283	.288	.286	.349	.223	Year.

SAVANNAH, GA.

[H = 82 ft.; gravity correction, —.03; local time, 24m slow.]

.032	.027	.029	.037	.043	.053	.060	.065	.068	.070	.064	.063	.139	.986	Jan.
.055	.041	.036	.037	.042	.054	.063	.070	.079	.083	.084	.079	.147	.011	Feb.
.072	.057	.053	.055	.062	.065	.075	.082	.086	.089	.086	.083	.143	.021	Mar.
.955	.939	.930	.927	.929	.942	.953	.964	.969	.971	.974	.969	.057	.884	Apr.
.891	.874	.864	.862	.864	.872	.880	.892	.900	.903	.903	.905	.959	.845	May.
.962	.949	.940	.937	.943	.951	.957	.972	.984	.989	.987	.979	.023	.925	June.
.978	.963	.955	.955	.955	.966	.970	.981	.989	.988	.987	.986	.035	.932	July.
.966	.954	.952	.950	.951	.960	.966	.979	.984	.983	.978	.972	.024	.910	Aug.
.973	.957	.952	.953	.956	.964	.974	.985	.986	.987	.982	.983	.025	.938	Sept.
.968	.958	.956	.960	.969	.977	.986	.994	.000	.998	.993	.988	.069	.898	Oct.
.042	.037	.037	.042	.045	.050	.053	.059	.064	.067	.066	.067	.144	.981	Nov.
.067	.061	.064	.071	.079	.085	.092	.096	.098	.098	.093	.093	.168	.018	Dec.
.997	.985	.981	.982	.986	.995	.002	.012	.017	.019	.016	.014	.078	.946	Year.

WASHINGTON, D. C.

[H = 112 ft.; gravity correction, —.02; local time, 8m slow.]

.925	.924	.924	.930	.937	.940	.940	.938	.938	.932	.925	.940	.102	.743	Jan.
.981	.976	.973	.979	.988	.998	.006	.014	.017	.020	.022	.012	.112	.912	Feb.
.082	.073	.069	.069	.074	.080	.091	.094	.100	.102	.103	.099	.190	.001	Mar.
.853	.839	.834	.839	.843	.849	.863	.874	.875	.873	.877	.869	.971	.774	Apr.
.812	.796	.788	.789	.792	.795	.802	.815	.821	.823	.823	.820	.892	.746	May.
.894	.882	.873	.866	.864	.869	.874	.889	.896	.900	.902	.899	.963	.836	June.
.928	.917	.906	.902	.904	.907	.916	.926	.929	.930	.932	.935	.993	.874	July.
.902	.890	.885	.884	.884	.886	.895	.905	.908	.909	.912	.910	.962	.851	Aug.
.952	.943	.932	.932	.934	.940	.951	.961	.965	.969	.968	.970	.040	.892	Sept.
.984	.978	.980	.982	.988	.996	.004	.012	.012	.013	.012	.008	.121	.895	Oct.
.976	.972	.973	.974	.981	.987	.990	.994	.995	.994	.996	.005	.138	.863	Nov.
.956	.955	.956	.959	.964	.974	.982	.984	.985	.984	.977	.980	.117	.837	Dec.
.937	.929	.924	.925	.929	.935	.943	.950	.953	.954	.954	.954	.050	.852	Year.

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AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME.

BISMARCK, N. DAK.

[λ=46° 47′ N.; φ=100° 38′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	15.1	14.4	13.7	13.1	12.7	12.5	11.9	11.3	10.6	10.8	12.9	16.4	19.9
Feb	12.3	11.3	10.8	9.6	9.2	8.5	8.4	8.4	7.7	8.8	11.8	15.9	19.4
Mar	20.7	19.9	19.0	18.4	17.5	16.8	16.4	16.2	16.5	18.3	20.9	23.6	26.0
Apr	39.4	38.4	37.3	36.2	35.3	34.5	33.8	33.8	36.5	40.3	44.1	46.7	48.6
May	49.6	48.4	47.0	45.6	44.4	43.6	42.8	44.9	48.0	52.1	55.5	57.9	59.5
June	59.9	58.9	57.8	57.0	56.1	55.1	55.5	57.1	58.7	61.7	64.6	66.8	68.6
July	65.3	63.9	62.3	61.0	60.1	58.8	58.5	61.1	64.7	68.2	70.8	73.3	75.5
Aug	62.7	61.4	60.2	59.1	57.9	57.2	56.4	57.6	60.7	65.1	69.3	72.9	75.7
Sept	53.2	52.6	51.2	50.1	48.8	47.7	47.2	46.7	49.4	53.2	58.3	62.0	64.6
Oct	36.5	36.1	35.4	34.8	34.3	33.7	33.4	33.6	33.7	35.0	37.4	39.5	41.8
Nov	21.0	20.3	19.8	19.3	19.1	18.3	17.7	17.4	16.7	17.6	20.3	24.0	27.5
Dec	14.8	14.4	14.1	13.9	13.5	12.5	12.1	12.1	11.5	11.3	13.6	16.8	19.6
Year	37.5	36.7	35.7	34.8	34.1	33.3	32.8	33.4	34.6	36.9	40.0	43.0	45.6

BOSTON, MASS.

[λ=42° 21′ N.; φ=70° 4′ W.]

Jan	27.5	27.2	26.7	26.3	26.0	25.7	25.7	25.5	25.9	26.8	28.6	30.5	31.7
Feb	30.9	30.6	30.3	29.9	28.9	28.2	28.4	29.5	30.4	31.9	33.8	35.3	36.2
Mar	39.5	38.7	38.4	37.9	37.5	37.5	38.3	39.8	41.4	42.8	44.5	45.5	46.4
Apr	40.6	40.0	39.6	39.1	38.6	38.6	39.7	41.3	42.9	44.2	45.5	46.8	47.5
May	51.6	51.1	50.7	50.2	50.1	50.5	52.4	54.0	56.0	57.0	57.7	58.1	58.8
June	61.6	61.2	60.6	60.3	60.1	60.5	61.9	63.8	65.7	66.6	67.8	69.0	69.4
July	67.7	67.1	66.6	65.9	65.3	66.1	68.0	70.3	72.5	73.9	75.3	76.1	76.4
Aug	68.5	68.0	67.6	67.4	67.1	67.1	68.6	70.7	72.5	74.3	76.4	77.7	78.4
Sept	62.3	61.5	60.9	60.4	59.9	59.6	60.6	63.0	64.7	66.9	68.9	70.5	71.2
Oct	51.9	51.2	50.6	50.4	50.0	49.8	50.4	51.5	52.6	54.3	55.6	56.9	57.8
Nov	39.9	39.6	39.0	38.9	38.6	38.4	38.4	39.3	40.5	41.9	43.4	45.0	45.5
Dec	30.5	30.1	30.0	29.7	29.4	28.8	28.8	29.6	30.4	31.9	33.8	35.1	35.7
Year	47.7	47.2	46.8	46.4	46.0	45.9	46.8	48.2	49.6	51.0	52.6	53.9	54.6

BUFFALO, N. Y.

[λ=42° 53′ N.; φ=78° 53′ W.]

Jan	27.1	27.0	26.8	26.9	27.0	26.9	26.8	27.0	27.6	28.4	29.2	30.1	30.4
Feb	26.7	26.6	26.5	26.2	25.6	25.0	25.1	25.6	25.7	26.2	27.0	28.0	28.9
Mar	38.9	38.7	38.3	37.9	37.7	37.7	37.9	38.5	39.8	40.5	42.0	43.4	44.0
Apr	40.7	40.5	39.7	39.5	39.1	38.6	38.9	40.1	41.8	43.3	44.5	46.1	47.2
May	54.2	53.3	52.3	51.7	51.5	52.0	53.5	54.4	56.5	57.9	59.2	59.9	60.4
June	64.1	63.5	63.1	63.0	62.7	63.1	64.7	65.5	67.0	68.1	69.3	69.8	70.8
July	69.6	68.9	68.0	67.5	67.1	67.6	69.8	71.3	73.6	74.8	75.6	76.5	77.2
Aug	69.1	68.6	68.1	67.5	67.1	67.1	67.9	69.3	71.1	72.4	73.5	74.4	74.6
Sept	63.5	63.1	62.9	62.6	62.1	62.0	62.1	63.9	65.6	67.2	68.5	69.8	70.6
Oct	52.1	51.9	51.7	51.5	51.4	51.1	50.9	51.5	53.1	54.4	56.2	57.2	58.1
Nov	37.9	37.5	37.5	37.6	37.6	37.8	37.8	37.9	38.7	39.7	41.1	42.2	43.2
Dec	29.2	29.1	28.8	28.5	28.3	28.1	28.3	28.5	28.9	29.2	29.6	30.0	30.6
Year	47.8	47.4	47.0	46.7	46.4	46.4	47.0	47.8	49.1	50.2	51.3	52.3	53.0

CHICAGO, ILL.

[λ=41° 53′ N.; φ=87° 37′ W.]

Jan	28.4	27.7	27.1	26.5	26.1	25.7	25.7	25.8	25.9	26.2	27.4	28.9	30.1
Feb	26.4	26.1	25.6	25.2	25.2	25.0	24.9	25.0	24.9	25.1	26.2	27.2	28.2
Mar	38.4	37.9	37.5	37.4	37.0	36.8	36.6	37.4	38.1	39.4	40.5	41.7	42.2
Apr	42.9	42.4	41.8	41.5	41.2	40.9	40.5	41.8	42.8	44.1	44.8	45.6	46.5
May	54.6	54.3	53.7	53.1	53.0	52.5	52.0	53.4	54.0	55.3	55.9	56.5	56.9
June	65.6	65.2	64.7	64.2	63.9	63.9	64.5	66.5	68.3	69.9	71.0	72.1	72.8
July	72.0	71.2	70.8	70.3	69.4	68.8	69.8	71.3	73.6	74.6	74.9	75.3	75.8
Aug	69.8	69.2	68.6	68.1	67.5	66.7	66.9	68.4	70.3	71.7	72.1	73.0	73.3
Sept	65.3	65.0	64.6	64.1	63.7	63.2	62.8	64.0	64.9	66.3	67.0	67.8	68.8
Oct	50.0	49.5	49.2	48.8	48.5	48.3	47.9	48.1	48.2	48.8	49.9	51.4	52.3
Nov	35.7	34.9	34.2	33.5	32.8	32.4	31.9	32.3	32.6	33.5	34.9	36.6	37.8
Dec	23.7	23.2	22.6	22.2	21.8	21.1	20.7	20.9	20.5	21.5	22.8	24.8	25.7
Year	47.7	47.2	46.7	46.2	45.8	45.4	45.4	46.2	47.0	48.0	49.0	50.1	50.9

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME.

BISMARCK, N. DAK.

[h_t=16 ft.; local time, 1h 42m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
22.9	25.3	26.5	27.3	25.9	23.0	20.6	18.4	17.2	16.0	15.1	17.2	29.9	5.7	Jan.
22.1	24.1	25.6	26.3	25.9	24.0	20.9	18.5	16.8	14.9	13.7	15.6	29.3	2.5	Feb.
28.0	29.5	30.5	31.0	30.7	29.5	27.8	25.5	23.9	22.6	21.7	23.0	34.1	13.2	Mar.
50.3	51.7	52.6	53.1	52.9	52.2	50.2	47.1	44.4	42.3	41.2	43.5	55.1	32.3	Apr.
60.2	61.5	62.5	63.0	62.9	62.3	61.2	58.8	55.6	53.8	51.7	53.9	64.4	41.5	May.
70.4	72.1	73.0	73.8	73.5	72.6	71.4	69.5	66.4	63.8	61.9	64.4	75.3	53.4	June.
77.6	78.7	79.7	80.1	80.1	79.1	78.1	75.5	72.2	69.4	66.8	70.0	82.3	57.4	July.
77.5	79.1	80.1	80.8	80.5	79.2	77.5	73.5	69.7	67.3	64.8	68.6	82.1	55.5	Aug.
67.0	68.6	69.8	70.4	69.8	68.5	65.5	61.7	58.9	56.6	54.7	58.2	72.4	44.8	Sept.
43.4	44.7	45.5	45.8	45.2	43.3	41.9	40.0	38.9	37.8	37.0	38.7	48.1	30.8	Oct.
29.7	31.3	31.9	31.8	30.7	28.3	26.1	24.6	23.1	22.3	20.6	23.3	34.7	13.4	Nov.
21.8	23.7	24.6	24.3	22.2	19.7	18.1	17.2	16.1	15.8	15.0	16.6	26.8	7.0	Dec.
47.6	49.2	50.2	50.6	50.0	48.5	46.6	44.2	41.9	40.2	38.7	41.1	52.9	29.8	Year.

BOSTON, MASS.

[h_t=115 ft.; local time, 16m fast.]

32.5	32.8	32.7	32.3	31.7	30.8	29.8	29.3	28.8	28.0	27.7	28.8	35.9	21.5	Jan.
37.2	37.1	36.6	35.6	34.8	33.9	33.1	32.6	32.2	31.5	31.0	32.5	39.8	25.8	Feb.
47.0	47.6	47.3	46.4	45.4	44.0	42.7	42.2	41.6	40.9	40.4	42.4	49.9	35.8	Mar.
48.4	48.2	48.1	47.6	47.1	45.4	44.3	43.9	43.0	42.4	41.8	43.5	50.3	37.2	Apr.
59.7	60.0	60.1	59.7	58.2	56.8	55.6	54.6	53.9	52.9	52.2	55.1	62.9	48.8	May.
70.0	69.6	69.5	69.9	69.5	68.4	66.5	65.4	64.4	63.3	62.7	65.3	73.6	58.0	June.
76.3	76.4	75.2	75.0	74.7	73.1	71.5	70.8	70.0	69.3	68.5	71.3	79.6	64.0	July.
79.1	78.6	77.9	77.0	75.8	73.9	72.4	71.6	70.9	70.0	69.3	72.5	80.8	65.4	Aug.
71.9	71.6	71.4	69.9	68.3	66.5	65.5	64.5	63.8	63.1	62.3	65.4	75.0	57.3	Sept.
58.3	58.5	58.6	57.5	56.6	55.5	54.5	53.9	53.2	52.4	52.0	53.9	61.2	47.3	Oct.
45.8	45.6	45.1	44.6	44.3	43.3	42.5	41.9	41.4	40.8	40.3	41.8	48.2	35.7	Nov.
36.2	35.9	35.0	34.0	33.0	32.3	31.9	31.5	31.3	30.7	30.5	31.9	38.9	25.0	Dec.
55.2	55.2	54.8	54.1	53.3	52.0	50.9	50.2	49.5	48.8	48.2	50.4	58.0	43.5	Year.

BUFFALO, N. Y.

[h_t=178 ft.; local time, 15m slow.]

30.8	30.8	30.6	30.1	29.6	29.0	28.8	28.3	27.8	27.3	27.0	28.4	34.0	22.6	Jan.
29.4	30.0	30.2	30.1	29.4	28.9	28.8	27.5	27.4	27.2	27.0	27.5	33.5	21.1	Feb.
44.3	44.2	44.6	43.7	42.9	42.1	41.5	40.6	40.0	39.7	39.5	40.8	49.1	33.2	Mar.
47.1	47.2	47.3	46.9	46.5	45.4	44.6	43.7	42.5	41.8	41.9	43.1	49.6	37.1	Apr.
60.3	60.7	60.5	59.8	58.5	57.7	57.4	56.4	56.3	55.5	55.1	56.5	63.6	49.6	May.
71.3	71.7	71.7	71.7	71.0	70.1	69.2	68.1	66.8	65.9	65.2	67.4	73.9	60.4	June.
78.0	77.9	77.8	77.3	77.0	75.7	74.6	73.2	72.4	71.0	70.3	73.0	80.3	65.7	July.
75.3	74.9	75.1	75.3	74.6	73.7	73.0	72.5	71.5	70.4	69.8	71.5	77.0	65.2	Aug.
71.1	71.5	71.7	71.3	70.2	68.7	67.6	66.2	65.5	64.7	64.0	66.5	73.5	59.6	Sept.
58.5	58.5	58.0	57.4	56.0	54.8	53.7	52.8	52.1	51.8	51.4	54.0	60.7	47.4	Oct.
43.4	43.3	42.9	42.0	41.3	40.7	40.0	39.2	39.0	38.3	38.1	39.8	45.5	33.6	Nov.
30.8	30.8	30.5	30.3	30.0	29.9	30.0	29.6	29.6	29.3	28.7	29.4	34.6	24.3	Dec.
53.4	53.5	53.4	53.0	52.2	51.4	50.8	49.8	49.2	48.6	48.2	49.8	56.3	43.3	Year.

CHICAGO, ILL.

[h_t=241 ft.; local time, 50m slow.]

30.8	31.5	31.7	31.7	31.4	30.8	30.5	29.7	29.3	28.9	28.4	28.6	34.5	22.8	Jan.
29.1	29.5	30.1	30.1	29.8	29.3	29.0	28.8	28.5	28.1	27.7	27.3	33.7	21.5	Feb.
42.9	43.4	43.8	43.4	43.2	42.4	41.5	41.0	40.8	40.1	39.4	40.1	47.8	32.9	Mar.
46.8	46.9	47.2	46.4	46.5	45.8	45.5	44.7	44.2	43.8	43.8	44.1	50.3	38.5	Apr.
57.7	58.2	59.1	59.7	59.5	58.5	57.2	56.5	56.2	56.0	55.4	55.8	63.5	48.8	May.
73.6	73.3	72.7	72.1	71.9	71.0	69.8	68.8	67.7	67.2	66.7	68.6	76.4	61.1	June.
76.3	76.9	77.0	77.1	76.8	76.5	75.0	73.5	72.7	72.5	72.2	73.5	79.8	67.0	July.
73.9	74.9	75.3	75.6	75.3	74.5	73.4	72.5	71.7	71.1	70.5	71.4	77.5	65.4	Aug.
69.6	70.2	70.7	70.7	70.3	69.4	68.6	67.6	67.0	66.3	65.5	66.8	73.8	61.3	Sept.
52.7	53.2	53.9	53.9	53.5	52.7	51.8	51.5	50.9	50.2	49.6	50.6	56.5	44.8	Oct.
38.8	39.7	40.6	40.7	40.1	39.0	38.2	37.6	37.2	36.6	36.1	36.2	43.8	30.3	Nov.
26.7	27.6	28.2	28.2	27.7	26.9	26.1	25.5	24.9	24.4	23.7	24.2	31.2	17.4	Dec.
51.6	52.1	52.5	52.5	52.2	51.4	50.6	49.8	49.3	48.8	48.2	48.9	55.7	42.6	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

CINCINNATI, OHIO.

[λ = 39° 6′ N.; φ = 84° 30′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	35.6	35.2	34.9	34.7	34.3	34.3	34.5	35.0	34.4	34.6	35.6	36.5	37.3
Feb	33.4	32.8	32.0	31.6	31.4	30.9	31.0	30.8	30.8	31.3	32.5	33.9	35.4
Mar	47.5	47.0	46.1	45.6	44.8	44.2	42.9	43.3	43.8	44.6	46.3	48.0	49.6
Apr	48.3	47.5	46.5	45.7	44.8	43.9	43.4	45.4	46.9	49.4	51.6	53.7	55.2
May	61.2	60.4	59.6	58.7	57.8	57.3	57.4	59.9	62.0	64.6	66.7	68.5	70.0
June ...	71.7	70.6	69.6	68.7	67.5	66.9	67.8	70.4	72.6	74.7	77.2	78.6	80.3
July....	74.9	74.1	73.0	72.1	71.2	70.4	70.2	73.1	75.1	77.8	80.2	82.3	84.0
Aug	73.2	72.3	71.3	70.6	69.9	69.3	68.9	71.3	74.2	76.6	79.0	80.6	82.2
Sept....	68.7	67.8	66.2	65.4	64.7	63.9	63.5	65.2	67.3	70.0	73.2	76.1	78.3
Oct.....	53.7	53.0	52.3	51.8	51.3	50.9	50.5	51.4	52.7	54.8	56.8	59.3	61.0
Nov	41.6	41.4	41.1	40.8	39.9	39.0	38.4	38.4	39.0	39.9	41.9	43.8	44.8
Dec	31.0	30.4	29.8	29.6	29.2	29.1	28.9	29.2	29.2	30.3	31.7	33.2	34.7
Year....	53.4	52.7	51.9	51.3	50.6	50.0	49.8	51.1	52.3	54.0	56.1	57.9	59.4

CLEVELAND, OHIO.

[λ = 41° 30′ N.; φ = 81° 42′ W.]

Jan	30.5	30.0	29.8	29.6	29.5	29.4	29.2	29.3	29.1	30.1	31.2	31.9	32.3
Feb	27.3	27.0	26.4	25.8	25.1	25.3	25.1	25.3	25.4	26.5	27.8	29.1	29.7
Mar	41.9	41.5	40.3	39.7	39.1	38.8	38.6	38.7	39.3	39.9	41.7	43.4	44.5
Apr	42.4	42.1	41.3	40.9	40.6	40.1	40.3	41.3	42.3	42.8	43.8	44.3	44.8
May....	56.6	55.7	54.5	53.9	53.1	52.6	53.1	55.0	56.2	57.5	58.1	58.7	58.8
June ...	65.2	64.4	63.5	63.1	62.8	63.0	64.6	66.6	68.5	69.3	69.9	70.7	71.7
July....	70.7	70.3	69.5	68.7	68.0	68.2	69.3	71.3	73.9	75.0	75.6	75.5	75.5
Aug	68.6	68.4	67.8	67.2	66.5	66.7	67.6	69.0	72.3	74.1	75.2	75.5	76.1
Sept....	64.1	63.3	62.7	62.2	62.0	61.1	60.7	62.3	65.1	68.0	69.3	70.1	71.2
Oct.....	52.0	51.4	51.0	50.4	50.1	49.3	49.0	49.1	51.0	53.1	55.0	56.2	57.0
Nov	38.1	37.8	37.2	37.1	37.0	36.8	36.9	37.2	38.3	39.7	40.7	41.7	42.4
Dec	28.1	27.8	27.6	27.5	27.3	27.1	27.1	27.3	27.6	28.4	29.2	29.8	30.5
Year....	48.8	48.3	47.6	47.2	46.8	46.5	46.8	47.7	49.1	50.4	51.5	52.2	52.9

DETROIT, MICH.

[λ = 42° 20′ N.; φ = 83° 3′ W.]

Jan	27.3	27.2	27.0	26.7	26.4	26.0	25.9	26.3	26.2	27.1	28.4	29.3	29.9
Feb	25.0	24.6	24.2	24.1	23.9	23.8	23.8	24.1	24.5	25.4	26.3	27.2	27.8
Mar	37.4	37.0	36.5	36.2	35.6	35.3	34.5	35.2	36.2	37.6	39.9	41.2	42.5
Apr	41.8	41.5	40.9	40.3	39.4	38.9	38.7	40.9	43.0	45.2	47.2	48.7	50.4
May ...	54.3	53.6	52.6	52.0	51.8	52.1	53.1	54.9	57.3	59.1	61.2	62.4	63.4
June ...	64.3	63.5	62.8	62.1	61.4	61.6	63.6	66.0	68.8	71.2	72.8	74.2	75.5
July ...	68.7	67.7	66.7	66.2	65.4	65.2	66.8	69.7	72.6	74.6	76.6	77.6	78.5
Aug	68.2	67.1	66.6	65.9	65.3	65.0	65.4	67.9	70.3	72.3	74.1	75.2	76.9
Sept....	63.7	63.2	62.5	61.7	61.0	60.8	60.6	61.7	64.7	67.5	70.0	71.3	72.6
Oct.....	51.6	51.1	50.5	50.0	49.6	49.2	49.0	49.2	50.2	51.8	53.2	54.5	55.6
Nov	36.5	36.1	35.6	35.4	35.4	35.1	34.9	34.9	35.6	36.7	37.7	38.5	39.5
Dec	26.4	26.1	26.0	25.8	25.5	25.5	25.3	25.4	25.5	26.0	26.7	27.4	28.2
Year....	47.1	46.6	46.0	45.5	45.1	44.9	45.1	46.4	47.9	49.5	51.2	52.3	53.4

DODGE, KANS.

[λ = 37° 45′ N.; φ = 100° 0′ W.]

Jan	25.4	24.8	23.8	23.3	22.2	21.8	21.3	20.9	20.7	20.7	23.6	28.1	32.6
Feb	33.2	32.3	31.0	29.8	28.6	28.2	27.1	27.1	26.7	29.6	34.7	39.1	42.3
Mar	36.4	35.8	35.1	34.5	33.5	32.9	32.1	31.4	32.4	26.3	40.5	43.9	47.1
Apr	48.6	47.4	46.3	45.6	44.5	43.4	42.6	42.9	46.5	51.2	55.1	58.1	60.1
May ...	56.3	55.7	54.9	54.2	53.3	52.6	51.5	52.8	55.4	58.7	61.2	64.0	66.5
June ...	68.3	67.6	67.0	66.3	65.5	64.8	64.3	65.7	68.5	71.3	74.2	76.6	78.5
July ...	71.3	70.2	69.5	68.7	68.1	67.1	66.5	67.7	71.2	74.3	77.5	80.3	82.3
Aug	72.0	71.0	69.7	68.6	67.9	67.2	66.3	66.5	69.5	74.0	78.3	81.8	84.6
Sept....	62.4	61.4	60.3	59.3	58.3	57.8	56.9	56.1	58.8	63.2	67.8	71.8	74.9
Oct.....	47.8	46.6	45.6	45.2	44.6	43.7	43.4	42.1	43.0	47.3	53.1	56.7	59.6
Nov	35.3	34.1	33.2	32.4	31.5	30.9	29.9	29.4	29.1	32.4	37.2	41.7	44.6
Dec	24.2	23.0	22.3	21.7	21.4	20.6	20.0	19.7	19.1	20.3	23.9	28.0	31.2
Year....	48.4	47.5	46.6	45.8	45.0	44.2	43.5	43.5	45.1	48.3	52.3	55.8	58.7

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

CINCINNATI, OHIO.

[h_t=152 ft.; local time, 38^m slow.]

2^h	3^h	4^h	5^h	6^h	7^h	8^h	9^h	10^h	11^h	Mid.	Mean.	Mean max.	Mean min.	1898
38.1	38.9	39.5	39.6	39.1	38.4	37.8	37.0	36.6	36.0	35.8	36.4	43.3	31.2	Jan.
36.8	37.9	38.8	38.8	38.5	37.6	36.9	36.2	35.6	35.0	34.3	34.3	42.2	27.6	Feb.
51.2	52.2	53.1	53.8	53.4	52.4	51.4	50.6	50.0	49.1	48.5	48.3	57.3	41.1	Mar.
56.1	57.2	57.6	57.6	57.4	56.3	55.3	54.3	53.1	51.8	50.3	51.2	59.4	41.6	Apr.
71.0	71.8	72.2	72.3	71.7	70.1	68.2	66.8	65.4	63.8	62.5	65.0	74.2	56.0	May.
82.2	83.4	84.2	84.4	83.9	82.0	80.2	78.1	76.4	74.9	73.4	75.8	85.2	65.8	June.
84.6	85.2	85.3	85.2	85.0	83.3	81.8	80.3	78.9	77.2	75.9	78.4	87.7	69.4	July.
83.2	83.5	83.3	82.7	82.5	81.2	79.5	78.3	77.3	75.6	74.6	76.7	85.3	68.3	Aug.
79.8	80.6	80.5	80.3	79.3	77.3	75.0	73.1	71.7	70.2	69.4	72.0	81.7	62.9	Sept.
62.3	62.6	62.5	62.2	60.9	59.4	58.0	56.7	55.5	54.6	53.7	56.2	64.2	48.8	Oct.
45.9	46.5	46.9	46.2	45.6	44.7	43.8	43.2	42.7	42.2	41.7	42.5	50.0	34.6	Nov.
35.6	36.4	36.4	36.4	35.6	34.4	33.6	32.7	32.2	31.7	31.1	32.2	39.6	24.7	Dec.
60.6	61.4	61.7	61.6	61.1	59.8	58.5	57.3	56.3	55.2	54.3	55.8	64.2	47.7	Year.

CLEVELAND, OHIO.

[h_t=190 ft.; local time, 27^m slow.]

32.7	32.8	33.0	32.9	32.6	32.3	31.8	31.5	31.0	30.5	30.3	31.0	37.5	25.6	Jan.
30.8	30.9	30.9	31.0	30.3	29.9	29.5	29.1	28.8	28.4	28.1	28.1	34.2	22.4	Feb.
45.1	45.5	45.6	45.4	45.1	44.6	45.1	44.5	43.8	43.3	42.6	42.4	51.1	34.8	Mar.
45.2	45.6	46.4	46.8	47.4	47.2	46.0	45.5	44.8	44.2	43.5	43.7	50.5	37.7	Apr.
59.7	60.3	60.9	61.3	61.5	61.4	60.5	59.5	58.9	57.6	57.3	57.6	64.7	51.0	May.
72.0	72.3	72.6	72.9	72.9	72.6	71.6	70.3	69.6	68.2	67.2	68.6	76.5	61.1	June.
75.6	76.2	75.9	76.5	76.2	75.7	75.5	74.3	73.0	71.8	70.9	73.0	80.5	66.4	July.
76.5	76.3	76.2	76.1	75.2	74.4	73.8	72.3	71.0	70.1	69.7	71.9	78.6	64.8	Aug.
72.1	72.8	72.6	72.4	72.1	70.9	69.7	68.0	66.9	65.4	64.5	67.1	75.3	58.8	Sept.
57.6	58.3	58.4	57.9	57.0	55.5	54.9	53.6	53.0	52.2	51.7	53.5	61.1	46.2	Oct.
42.6	42.6	42.5	42.1	41.4	40.7	40.3	39.4	38.8	38.0	37.9	39.5	46.3	32.1	Nov.
31.0	31.5	31.5	31.1	30.4	29.9	29.7	29.4	28.8	28.4	28.0	29.0	34.8	23.0	Dec.
53.4	53.8	53.9	53.9	53.5	52.9	52.4	51.4	50.7	49.8	49.3	50.4	57.6	43.7	Year.

DETROIT, MICH.

[h_t=160 ft.; local time, 32^m slow.]

30.7	31.1	30.9	30.5	29.9	29.0	29.0	27.8	27.6	27.3	27.0	28.1	33.8	22.5	Jan.
28.6	29.2	29.5	29.6	29.2	28.3	28.1	27.0	26.7	26.4	26.1	26.4	32.0	20.7	Feb.
43.8	44.5	44.7	44.6	44.3	43.0	42.1	40.8	39.7	39.2	38.3	39.6	48.3	32.3	Mar.
51.0	51.5	51.8	51.2	50.3	48.8	47.6	46.3	45.4	44.4	43.7	45.4	53.5	37.2	Apr.
64.3	65.5	65.9	65.2	64.6	62.8	61.3	58.7	57.6	56.7	55.5	58.6	67.2	50.4	May.
76.1	76.5	77.3	76.5	76.0	74.0	72.6	69.9	68.4	66.7	65.9	69.5	79.1	60.1	June.
79.7	79.9	80.4	80.2	79.4	78.0	76.4	73.9	72.0	70.7	69.7	73.2	82.7	63.5	July.
77.9	78.7	78.6	78.4	77.8	75.7	73.9	72.0	71.3	70.3	69.4	71.8	80.2	63.9	Aug.
73.6	74.4	74.2	73.2	71.7	69.5	68.1	66.4	65.6	64.7	64.1	66.9	75.8	59.1	Sept.
56.3	56.8	57.1	56.7	55.5	54.2	53.5	52.8	52.2	51.5	51.1	52.6	59.7	46.3	Oct.
40.6	41.0	41.1	40.2	39.6	38.9	38.1	37.6	37.3	36.7	36.4	37.5	43.5	31.4	Nov.
28.7	29.0	29.0	28.7	28.5	27.9	27.4	26.8	26.5	26.4	26.2	26.9	32.1	21.7	Dec.
54.3	54.8	55.0	54.6	53.9	52.5	51.5	50.0	49.2	48.4	47.8	49.7	57.3	42.4	Year.

DODGE, KANS.

[h_t=44 ft.; local time, 1^h 40^m slow.]

35.1	37.2	38.9	39.5	39.0	36.5	32.4	31.1	29.6	27.8	26.9	28.5	40.5	17.7	Jan.
45.0	47.1	48.8	49.8	49.3	47.2	42.4	40.1	38.1	36.5	35.3	37.1	51.4	25.1	Feb.
49.7	51.4	53.0	54.1	54.2	52.6	49.2	45.6	43.3	40.5	38.5	41.8	56.5	28.8	Mar.
62.4	64.5	66.2	66.4	66.3	64.9	61.4	57.7	54.7	52.6	50.8	54.2	68.2	41.1	Apr.
68.1	69.7	70.5	71.1	71.0	69.5	67.7	64.4	61.9	59.9	58.2	61.2	73.4	50.2	May.
80.4	81.5	81.8	82.0	81.6	80.8	78.7	75.5	72.8	71.2	69.9	73.1	83.8	63.2	June.
84.7	85.1	85.7	85.9	84.9	84.0	82.0	79.2	75.4	73.4	71.8	76.1	88.4	65.1	July.
86.6	88.2	89.5	89.6	88.9	87.8	84.6	80.7	77.5	74.9	73.4	77.5	90.7	64.9	Aug.
77.1	78.3	79.3	79.8	79.4	77.1	72.6	69.5	67.0	65.1	63.7	67.4	81.6	54.7	Sept.
61.7	63.0	63.5	63.5	62.6	59.9	55.1	53.0	51.3	50.1	49.0	52.1	67.0	40.3	Oct.
47.0	48.3	49.4	49.7	48.9	45.5	40.7	38.1	36.8	35.9	34.6	38.2	51.2	26.3	Nov.
33.5	34.8	35.6	35.9	35.0	31.5	28.0	26.8	25.7	24.7	23.8	26.3	38.0	16.6	Dec.
60.9	62.4	63.5	63.9	63.4	61.4	57.9	55.1	52.8	51.0	49.7	52.8	65.9	41.2	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

EASTPORT, ME.

[λ = 44° 54′ N.; φ = 66° 59′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	17.7	17.5	17.5	17.3	16.9	16.7	16.5	16.8	17.7	18.7	19.6	20.6	21.2
Feb	27.1	27.0	26.5	26.1	25.9	25.6	25.5	25.4	26.0	26.8	27.9	28.9	29.5
Mar	33.1	32.5	31.9	31.5	31.3	31.0	30.9	31.3	32.3	33.5	35.0	36.4	37.3
Apr	35.2	35.0	34.4	34.2	33.9	33.8	34.4	35.5	36.9	38.0	39.0	40.1	41.1
May	43.6	43.3	43.1	42.8	42.7	43.1	44.2	45.6	47.3	48.6	50.1	50.7	51.4
June	50.5	50.1	49.6	49.4	49.3	50.0	51.3	52.9	54.3	55.4	56.7	57.2	57.8
July	55.3	55.2	54.8	54.7	54.7	55.6	57.3	59.0	60.6	62.6	63.3	64.2	65.3
Aug	56.9	56.5	56.1	55.6	55.4	56.0	57.1	58.9	60.7	62.3	64.1	64.9	65.8
Sept	51.8	51.5	51.3	51.0	50.9	51.2	52.4	53.8	56.1	57.4	59 2	59.6	60.5
Oct	46.0	45.6	45.3	45.2	45.0	45.0	45.2	46.0	47.3	48.5	49.5	50.2	51.0
Nov	38.5	38.5	38.1	38.0	37.5	37.3	37.3	37.8	38.8	39.6	40.1	40.9	41.2
Dec	26.1	25.8	25.1	24.5	24.0	23.8	23.6	23.8	24.7	25.5	26.4	27.4	28.5
Year	40.2	39.9	39.5	39.2	39.0	39.1	39.6	40.6	41.9	43.1	44.2	45.1	45.9

GALVESTON, TEX.

[λ = 29° 18′ N.; φ = 94° 50′ W.]

Jan	57.1	56.8	56.9	56.9	56.7	56.5	56.1	55.5	55.0	55.3	56.2	57.0	58.1
Feb	58.0	57.6	57.2	56.8	56.2	56.1	55.6	55.9	56.0	56.6	58.0	59.6	60.7
Mar	62.0	61.7	61.3	61.2	60.6	60.4	60.1	60.1	60.2	60.4	61.0	61.8	62.8
Apr	65.5	65.3	65.0	64.8	64.5	64.2	64.3	64.9	65.5	66.5	67.8	68.7	69.3
May	73.3	72.9	72.5	72.2	71.9	71.8	72.3	73.0	73.8	74.6	75.8	76.7	76.9
June	79.8	79.5	79.5	79.3	79.0	78.8	79.0	79.6	80.3	81.3	82.5	82.7	83.6
July	80.9	80.7	80.5	80.3	79.7	79.8	79.7	80.4	80.5	81.6	82.7	84.1	85.0
Aug	82.0	81.7	81.6	81.3	81.1	80.7	80.6	80.8	81.0	82.4	83.6	85.1	85.0
Sept	78.9	78.8	78.4	78.3	77.8	77.5	77.2	77.5	78.5	79.1	80.8	82.3	82.7
Oct	70.3	69.9	69.6	69.1	68.2	68.0	68.1	68.4	69.3	70.5	71.5	73.0	73.8
Nov	57.3	57.0	56.8	56.4	55.9	55.7	55.7	56.0	55.9	56.7	57.9	59.2	60.2
Dec	50.2	49.8	49.4	49.0	48.7	48.2	47.9	47.4	46.9	47.5	48.7	50.4	51.7
Year	67.9	67.6	67.4	67.1	66.7	66.5	66.4	66.6	66.9	67.7	68.9	70.0	70.8

HAVRE, MONT.

[λ = 48° 34′ N.; φ = 109° 40′ W.]

Jan	20.2	19.4	18.9	18.5	18.4	17.8	17.4	17.1	16.6	17.0	17.8	19.5	21.8
Feb	20.1	19.6	18.9	18.1	17.7	16.7	16.3	15.7	14.3	14.7	16.0	18.2	20.9
Mar	17.8	17.2	16.6	16.7	16.5	16.4	16.0	15.4	14.4	14.4	15.6	16.7	18.7
Apr	40.0	38.7	37.8	36.9	35.9	34.9	34.0	33.0	33.5	35.7	38.9	42.0	44.7
May	49.2	48.1	46.7	45.5	44.2	43.0	42.4	43.4	45.4	48.0	51.7	54.1	56.3
June	58.5	56.8	55.9	54.6	53.4	52.4	51.4	52.6	53.9	56.2	58.9	61.5	63.5
July	64.5	62.9	61.8	60.2	58.8	57.7	56.7	57.5	59.9	63.5	67.3	71.1	73.8
Aug	66.2	65.1	63.2	61.8	60.4	58.5	56.9	56.2	56.9	60.6	66.2	70.7	74.9
Sept	54.2	52.7	51.0	49.3	47.8	46.9	46.0	45.4	44.9	48.3	53.6	58.1	61.9
Oct	33.4	32.6	32.1	31.5	30.8	30.4	30.2	30.6	30.3	31.5	33.6	36.4	38.9
Nov	26.0	25.9	25.5	25.0	24.5	24.4	23.6	24.0	23.7	23.8	25.0	26.8	29.3
Dec	21.9	21.5	20.8	20.9	20.8	19.6	19.5	19.9	19.4	18.8	19.2	21.0	23.2
Year	39.3	38.4	37.4	36.6	35.8	34.9	34.2	34.2	34.4	36.0	38.6	41.3	44.0

KANSAS CITY, MO.

[λ = 39° 5′ N.; φ = 94° 37′ W.]

Jan	31.4	30.8	30.1	29.6	29.3	28.7	28.4	28.6	28.3	29.0	30.4	32.2	33.8
Feb	33.0	32.4	31.7	31.0	30.5	30.0	29.7	29.6	29.8	30.8	32.8	34.9	36.8
Mar	43.4	42.7	41.2	40.1	39.2	38.4	38.1	37.5	38.0	39.4	41.5	44.3	46.4
Apr	51.1	50.1	48.8	48.0	47.2	46.5	46.1	46.4	48.8	51.1	53.9	56.0	57.6
May	60.8	60.3	59.5	58.8	58.3	57.9	57.5	58.4	60.8	62.5	64.6	66.7	68.0
June	71.9	71.2	70.5	70.1	69.5	69.0	68.9	70.1	72.6	74.5	76.5	78.3	80.0
July	74.2	73.5	72.4	71.5	70 9	70.0	69.8	70.8	73.3	75.5	78.2	80.1	81.8
Aug	73.2	72.1	71.4	70.6	70.0	69.3	68.7	69.3	71.8	74.5	77.1	79.3	81.3
Sept	67.8	67.3	66.4	65.4	64.8	64.1	63.6	64.0	65.4	68.1	71.1	73.5	75.6
Oct	51.2	50.5	49.5	48.8	48.4	48.0	47.4	47.3	48.4	50.2	52.6	55.2	57.0
Nov	38.3	37.4	36.9	35.7	35.0	34.8	34.2	34.0	34.7	37.2	39.4	41.6	43.6
Dec	26.5	25.8	25.1	24.7	24.4	24.0	23.5	23.6	23.2	23.8	25.5	27.6	29.3
Year	51.9	51.2	50.3	49.5	49.0	48.4	48.0	48.3	49.6	51.4	53.6	55.8	57.6

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

EASTPORT, ME.

[H = 69 ft.; local time, 32m fast.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
21.9	21.9	21.7	20.9	20.6	20.2	20.0	19.2	18.5	18.1	17.8	19.0	26.8	10.5	Jan.
30.2	30.5	30.6	30.3	30.0	29.5	29.1	28.8	28.4	28.0	27.6	27.9	32.6	23.3	Feb.
38.1	38.6	38.8	38.4	37.7	36.8	35.9	35.1	34.6	34.0	33.4	34.6	39.9	29.6	Mar.
41.5	41.8	41.7	41.5	40.5	39.4	38.6	38.0	37.5	36.8	36.3	37.7	43.6	32.2	Apr.
51.9	52.2	52.3	50.7	49.6	48.2	47.2	46.2	45.5	44.9	44.4	47.1	53.9	41.6	May.
58.1	58.6	58.0	58.2	56.9	55.2	53.6	52.6	52.1	51.7	51.2	53.8	60.9	47.7	June.
65.5	65.0	64.2	63.2	62.4	60.1	59.3	57.7	57.0	57.0	56.5	59.6	68.1	52.3	July.
66.2	65.7	65.5	64.7	62.9	61.2	60.4	59.1	58.4	57.7	57.4	60.4	68.8	53.6	Aug.
60.9	60.2	59.9	57.6	56.4	55.2	54.6	53.8	53.3	52.6	52.0	55.1	63.1	48.7	Sept.
51.5	51.5	51.0	49.8	48.9	48.5	48.1	47.8	47.3	46.8	46.2	47.8	53.6	41.9	Oct.
41.3	41.0	40.7	40.2	39.9	39.4	39.4	39.1	38.8	38.6	38.6	39.2	43.8	34.1	Nov.
28.8	28.8	28.3	27.9	27.6	27.3	27.3	26.9	26.6	26.4	25.9	26.3	33.6	19.0	Dec.
46.3	46.3	46.1	45.3	44.4	43.4	42.8	42.0	41.5	41.0	40.6	42.4	49.1	36.2	Year.

GALVESTON, TEX.

[H = 85 ft.; local time, 1h 19m slow.]

58.3	59.2	59.3	59.3	59.0	58.2	58.1	57.9	57.9	57.7	57.5	57.4	62.4	52.3	Jan.
61.6	61.8	62.1	61.8	61.0	60.4	59.8	59.5	59.2	58.8	58.6	58.7	63.7	54.0	Feb.
63.4	63.9	63.8	64.0	63.8	63.4	63.0	62.7	62.4	62.2	62.1	62.0	67.0	58.3	Mar.
70.2	71.0	71.1	71.1	70.5	69.8	68.9	68.0	67.6	67.0	66.3	67.4	72.4	62.6	Apr.
76.9	77.3	77.3	77.0	76.3	75.6	75.0	74.5	74.2	73.9	73.7	74.6	78.6	71.2	May.
83.8	83.7	83.7	82.9	82.4	81.9	81.1	80.5	80.2	80.2	80.2	81.1	85.0	77.1	June.
85.1	85.6	85.2	84.9	84.7	83.9	83.2	82.5	82.1	81.8	81.5	82.3	86.7	78.0	July.
85.8	86.0	85.8	85.7	85.1	84.3	83.8	83.3	82.8	82.6	82.2	83.1	87.8	78.7	Aug.
83.1	83.2	83.5	82.8	82.0	81.2	80.6	80.1	79.9	79.4	79.0	80.1	84.9	75.7	Sept.
74.8	75.2	74.9	74.7	73.9	73.1	72.6	71.9	71.4	70.2	70.1	71.4	76.8	65.9	Oct.
60.4	60.9	61.3	60.9	60.1	59.4	59.2	58.6	58.3	58.0	57.6	58.1	64.1	52.3	Nov.
52.4	53.1	53.7	53.5	52.6	52.0	51.6	51.0	51.0	50.7	50.3	50.3	56.4	44.5	Dec.
71.3	71.7	71.8	71.6	71.0	70.3	69.7	69.2	68.9	68.5	68.3	68.9	73.8	64.2	Year.

HAVRE, MONT.

[H = 46 ft.; local time, 2h 19m slow.]

23.9	26.7	28.0	28.9	28.7	27.3	24.8	23.9	23.1	22.0	21.0	21.6	31.7	11.6	Jan.
24.4	25.9	27.4	28.8	29.2	28.8	25.6	23.8	23.1	22.2	21.8	21.2	34.3	11.2	Feb.
20.2	21.4	22.7	23.5	23.7	23.7	22.7	21.1	20.0	18.7	17.8	18.7	27.4	10.3	Mar.
46.4	48.2	49.0	50.0	50.7	50.6	49.5	47.9	45.9	43.5	42.1	42.1	53.2	31.4	Apr.
57.8	59.1	59.8	61.0	61.3	61.3	60.6	59.3	57.2	53.1	50.9	52.5	62.6	41.3	May.
65.0	67.0	68.2	69.1	69.7	70.2	69.5	68.5	65.8	63.0	60.7	61.1	72.0	50.2	June.
75.2	76.6	77.8	78.3	78.7	78.4	77.6	76.3	74.6	70.7	67.7	68.7	80.6	55.0	July.
77.9	80.7	82.2	83.7	83.9	83.7	82.4	79.6	75.2	71.2	68.5	70.3	85.4	54.8	Aug.
65.2	67.3	69.1	70.5	71.1	70.2	67.8	63.8	60.0	57.4	55.4	57.4	72.4	43.0	Sept.
40.6	42.2	43.2	44.2	44.3	42.8	39.8	37.4	36.0	35.0	34.0	35.9	46.5	27.0	Oct.
31.1	32.3	33.7	33.9	33.0	31.2	28.9	27.7	26.7	27.0	26.0	27.5	37.2	19.4	Nov.
25.6	26.6	27.5	27.7	26.6	24.4	22.8	21.5	21.0	21.0	21.3	22.2	31.2	12.6	Dec.
46.1	47.8	49.0	50.0	50.1	49.4	47.7	45.9	44.0	42.1	40.6	41.6	52.9	30.6	Year.

KANSAS CITY, MO.

[H = 78 ft.; local time, 1h 12m slow.]

35.3	35.9	36.9	37.0	36.4	35.2	34.0	33.1	32.8	32.2	31.8	32.1	39.0	25.9	Jan.
38.5	40.2	41.3	41.8	41.8	40.6	38.9	37.7	36.8	35.7	34.6	35.0	44.6	26.2	Feb.
47.9	48.8	49.5	50.0	49.8	48.8	47.5	46.3	45.2	44.7	44.0	43.9	54.5	35.4	Mar.
58.8	59.8	60.1	60.5	60.5	59.5	58.2	56.3	55.0	53.8	52.8	53.6	62.3	44.3	Apr.
68.9	70.3	71.0	71.4	70.5	69.3	68.1	66.1	64.6	63.4	62.5	64.2	73.1	56.1	May.
81.3	82.2	82.9	83.0	82.3	81.1	79.3	77.4	75.7	74.4	73.4	75.7	84.3	67.8	June.
83.1	84.2	85.0	85.3	85.4	83.9	82.3	80.6	77.5	75.6	74.7	77.5	86.1	68.5	July.
83.0	84.1	85.1	85.3	84.8	83.8	82.0	79.4	77.6	76.3	74.7	76.9	86.1	68.4	Aug.
77.4	78.4	79.1	79.3	78.8	77.3	75.4	73.1	70.7	69.6	68.5	71.0	80.6	62.1	Sept.
58.1	59.2	59.8	59.7	58.7	57.3	56.5	54.8	53.5	52.5	51.5	53.2	61.5	45.4	Oct.
44.9	45.8	45.9	45.4	44.3	43.0	42.0	40.6	39.5	38.8	38.2	39.6	49.0	31.6	Nov.
30.9	32.0	32.5	32.5	31.5	30.5	29.7	29.0	28.2	27.3	26.5	27.4	34.9	20.0	Dec.
59.0	60.1	60.8	60.9	60.4	59.2	57.8	56.2	54.8	53.7	52.8	54.2	63.0	46.0	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

KEY WEST, FLA.

[λ=24° 34′ N.; φ=81° 49′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	67.9	67.9	68.0	67.9	67.7	67.8	67.6	67.8	69.6	70.9	71.4	71.8	72.0
Feb	67.4	66.9	66.6	66.3	66.2	66.4	66.4	66.6	67.9	68.9	69.7	70.4	70.9
Mar	71.1	70.9	70.7	70.6	70.5	70.5	70.7	71.9	73.2	74.2	75.5	75.9	75.8
Apr	73.5	73.4	73.0	72.8	72.6	72.6	73.2	74.3	75.6	76.4	76.5	77.3	77.9
May	75.9	75.6	75.3	75.3	75.4	75.5	76.8	77.6	78.9	79.8	80.5	80.8	81.4
June ...	78.8	79.6	79.5	79.5	79.3	79.5	80.5	82.1	83.4	84.3	84.8	85.7	85.4
July	80.7	80.5	80.4	80.5	80.1	80.5	81.9	83.2	84.0	84.8	85.9	86.4	86.3
Aug	80.2	80.2	80.2	80.0	79.4	79.5	80.0	81.6	83.2	84.3	85.1	86.2	86.3
Sept....	80.4	80.1	79.7	79.7	79.6	79.8	80.4	81.4	83.3	84.4	85.0	85.2	84.8
Oct.....	76.0	76.1	76.1	76.0	75.9	75.9	75.9	76.7	77.6	78.1	78.0	78.9	79.1
Nov	73.8	73.6	73.5	73.5	73.1	73.1	73.1	73.9	75.1	76.2	77.3	78.0	77.9
Dec	68.6	68.5	68.5	68.2	68.3	68.2	67.9	68.3	69.4	70.9	71.5	72.7	72.6
Year....	74.5	74.4	74.3	74.2	74.0	74.1	74.5	75.4	76.8	77.8	78.4	79.1	79.2

MARQUETTE, MICH.

[λ=46° 34′ N.; φ=87° 24′ W.]

Jan	21.3	21.0	20.7	20.5	20.2	19.9	19.5	19.8	19.5	19.8	21.2	22.5	23.7
Feb	19.7	19.7	19.3	19.1	18.7	18.6	18.7	18.3	18.6	19.6	20.8	21.7	22.6
Mar	30.4	30.0	29.9	29.5	28.7	28.5	27.8	29.1	29.8	31.4	32.6	34.5	35.3
Apr	36.6	36.3	36.3	36.1	35.6	35.3	35.5	38.0	39.0	39.9	40.5	41.0	41.7
May....	47.1	46.6	46.2	45.9	45.4	45.4	46.9	49.1	50.6	51.3	51.9	52.2	52.2
June ...	55.0	51.8	53.9	53.3	56.1	52.9	53.9	55.5	57.0	58.0	59.3	60.5	61.5
July....	61.0	60.7	60.2	60.1	60.0	60.4	62.3	64.7	66.5	67.9	68.7	69.2	69.8
Aug	59.0	58.8	58.7	58.3	58.1	57.9	59.4	61.6	63.3	64.8	65.7	66.5	66.8
Sept....	58.1	57.5	57.5	56.9	56.2	55.4	55.0	56.6	59.7	61.7	64.3	65.9	67.0
Oct.....	44.8	44.7	44.5	44.4	44.4	44.0	43.6	43.7	44.8	46.2	47.0	47.2	47.7
Nov	33.2	32.8	32.8	32.6	32.5	32.2	32.1	32.3	32.6	33.4	35.0	36.1	37.4
Dec	19.6	19.2	18.6	18.2	18.3	18.0	18.0	17.7	17.8	18.8	19.9	21.0	22.1
Year....	40.5	40.2	39.9	39.6	39.5	39.0	39.4	40.5	41.6	42.7	43.9	44.9	45.6

MEMPHIS, TENN.

[λ=35° 9′ N., φ=90° 3′ W.]

Jan	45.4	44.8	44.3	44.0	43.6	43.3	43.1	42.9	43.0	43.7	45.0	47.0	48.4
Feb	43.8	43.1	42.4	41.8	41.1	40.6	40.3	40.2	40.0	41.1	42.9	45.1	46.9
Mar	54.8	53.9	53.3	52.5	51.5	50.9	50.5	50.0	50.2	51.5	53.4	55.8	57.9
Apr	56.4	55.6	54.6	53.6	52.7	52.1	51.8	52.3	53.8	56.0	58.1	60.1	61.5
May....	70.5	69.6	68.5	67.5	66.7	65.7	65.3	67.0	68.9	71.1	73.2	75.4	77.1
June ...	75.8	75.0	74.2	73.5	72.9	72.3	72.0	73.6	75.2	77.5	80.2	82.5	83.3
July ...	75.4	74.7	74.2	73.5	72.9	72.4	72.0	74.5	75.5	77.1	79.4	81.5	83.2
Aug	76.7	75.9	74.9	74.2	73.5	72.9	72.3	73.7	75.7	78.0	80.2	82.5	84.0
Sept....	73.3	72.6	71.6	70.9	70.3	69.0	69.1	70.3	72.1	74.3	76.8	78.8	80.5
Oct.....	58.3	57.4	56.7	55.7	54.7	54.1	53.8	54.5	56.4	58.7	61.4	63.4	64.9
Nov	46.6	45.9	45.2	44.7	43.9	43.5	43.6	43.6	44.5	46.4	48.9	51.2	53.2
Dec	40.0	39.2	38.4	37.7	37.1	36.6	36.4	36.6	36.7	38.2	40.6	41.8	43.2
Year....	59.8	59.0	58.2	57.5	56.7	56.1	55.8	56.6	57.7	59.5	61.7	63.8	65.3

NEW ORLEANS, LA.

[λ=29° 58′ N.; φ=90° 4′ W.]

Jan	56.4	56.2	55.9	55.5	54.9	54.6	54.2	53.9	54.8	56.7	58.9	60.4	61.6
Feb	54.3	53.8	53.2	52.6	52.1	51.7	50.8	50.6	50.8	53.2	56.3	58.2	60.0
Mar	61.5	61.1	60.9	60.6	60.4	60.1	59.8	60.2	61.8	64.0	66.7	68.8	69.8
Apr	61.6	61.2	60.5	60.0	59.1	58.5	58.3	59.7	61.7	64.2	66.2	67.7	69.1
May....	70.7	69.9	69.1	68.5	68.1	67.8	68.3	70.2	73.1	75.6	78.1	80.1	81.2
June ...	76.6	76.1	75.8	75.5	75.3	75.2	75.4	77.2	80.1	82.2	84.5	85.3	86.4
July....	77.5	77.1	76.8	76.6	76.3	76.0	76.1	77.6	79.3	80.5	82.2	83.6	84.7
Aug	77.3	76.8	76.7	76.6	76.3	76.1	76.1	77.3	79.2	81.0	82.5	83.7	84.4
Sept....	76.2	75.9	75.6	75.5	75.3	75.1	75.0	76.1	77.8	78.9	80.8	82.1	82.8
Oct.....	64.7	64.3	63.6	63.0	62.5	61.9	61.9	62.5	64.2	66.8	69.0	70.6	71.4
Nov	55.3	54.6	54.1	53.4	52.8	52.4	52.2	52.4	53.1	54.8	56.9	58.9	60.5
Dec	48.8	48.2	47.5	47.2	46.7	46.6	46.7	46.3	46.5	47.4	49.2	51.5	53.1
Year....	65.1	64.6	64.1	63.8	63.3	63.0	62.9	63.7	65.2	67.1	69.3	70.9	72.1

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

KEY WEST, FLA.

[H = 43 ft.; local time, 27m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean Max.	Mean Min.	1898
72.2	72.5	71.7	71.3	70.3	69.6	69.5	69.3	68.8	68.4	68.2	69.6	74.4	65.7	Jan.
70.9	70.9	70.4	69.8	69.2	68.8	68.6	68.6	68.3	68.1	67.8	68.4	72.4	64.7	Feb.
76.2	75.7	75.5	74.9	74.0	73.1	72.9	72.6	72.4	72.1	71.8	73.0	77.3	69.3	Mar.
78.1	77.6	77.4	76.9	76.1	75.3	74.6	74.3	74.2	73.8	73.8	75.1	79.3	71.5	Apr.
81.3	81.2	80.7	80.1	79.2	78.1	77.5	77.0	76.8	76.6	76.3	78.1	82.3	74.2	May.
85.4	84.9	84.5	84.0	82.9	81.8	81.6	80.7	80.7	80.4	80.2	82.1	86.8	78.2	June.
86.3	85.9	85.6	84.6	83.9	82.9	82.6	82.1	81.8	81.5	81.1	83.1	87.7	78.8	July.
86.5	85.6	85.2	84.3	83.5	82.5	82.0	81.3	81.2	80.7	80.3	82.5	87.7	77.3	Aug.
85.2	84.9	84.4	83.5	82.6	81.7	81.5	80.6	80.2	80.4	80.5	82.1	86.8	77.2	Sept.
79.6	79.1	78.4	77.6	77.4	77.0	77.0	76.5	76.3	76.0	75.8	77.1	81.4	73.0	Oct.
77.7	77.2	76.8	76.0	74.9	74.5	74.4	74.3	74.0	74.0	73.9	75.0	79.3	71.8	Nov.
72.8	72.8	72.4	71.5	70.5	70.0	70.0	69.5	69.1	69.1	69.0	70.0	74.8	66.2	Dec.
79.4	79.0	78.6	77.9	77.0	76.3	76.0	75.6	75.3	75.1	74.9	76.3	80.8	72.3	Year.

MARQUETTE, MICH.

[H = 67 ft.; local time, 49m slow.]

24.4	24.9	25.2	24.8	23.9	22.9	22.6	21.7	21.6	21.6	21.4	21.9	28.3	15.8	Jan.
22.9	23.3	23.3	23.0	22.6	22.0	21.5	20.8	21.0	21.0	20.7	20.7	26.5	14.9	Feb.
35.4	35.9	36.0	35.7	34.8	33.7	32.5	31.5	31.1	30.6	30.3	31.9	39.3	24.9	Mar.
41.9	42.2	42.2	42.1	41.2	40.5	39.5	38.1	38.1	37.8	37.6	38.9	44.3	32.4	Apr.
52.3	52.5	51.6	52.0	51.2	50.6	49.7	49.4	48.6	48.5	48.2	49.4	57.2	42.4	May.
61.2	59.6	59.4	59.8	59.3	58.6	57.5	56.2	55.0	54.8	55.0	56.8	67.3	48.0	June.
70.4	70.6	70.5	69.8	67.5	66.3	65.6	64.0	63.1	62.0	61.6	65.1	74.9	55.2	July.
67.0	67.4	67.7	67.0	66.4	65.5	64.2	62.0	60.9	60.1	59.7	62.8	70.0	56.0	Aug.
67.8	67.8	66.9	65.9	65.0	62.9	61.5	60.1	60.0	59.1	58.6	61.1	70.5	52.9	Sept.
48.0	48.1	48.1	47.9	47.3	46.4	45.7	45.2	44.8	44.6	44.5	45.7	51.0	40.2	Oct.
38.0	38.4	38.2	37.5	36.1	35.2	34.8	34.2	33.9	33.5	33.1	34.5	40.6	28.9	Nov.
22.7	23.1	23.0	22.5	21.8	21.1	20.7	20.5	20.3	19.8	19.2	20.1	26.2	14.9	Dec.
46.0	46.2	46.0	43.7	44.8	43.8	43.0	42.0	41.5	41.1	40.8	42.4	49.7	35.5	Year.

MEMPHIS, TENN.

[H = 140 ft.; local time, 1h 0m slow.]

49.8	50.9	51.4	51.5	51.0	49.8	49.2	48.1	47.3	46.7	46.0	46.7	53.5	39.9	Jan.
48.4	49.7	50.6	51.3	51.1	49.6	48.2	47.3	46.5	45.6	44.8	45.1	53.1	38.1	Feb.
59.8	61.6	62.6	63.3	63.0	62.1	60.7	59.4	58.5	57.5	56.2	56.3	65.5	48.1	Mar.
62.4	63.8	64.7	65.0	65.0	64.3	63.3	62.0	60.8	59.8	58.5	58.7	66.7	50.7	Apr.
78.7	80.1	80.7	80.8	80.5	79.2	77.2	75.9	74.2	72.7	71.5	73.2	82.2	64.0	May.
84.3	85.2	85.9	86.0	84.6	82.1	81.3	80.0	78.9	77.8	76.8	78.8	88.0	71.1	June.
84.1	84.5	84.6	85.0	84.8	82.6	80.7	79.1	78.0	76.9	75.8	78.4	87.6	70.8	July.
85.3	85.9	86.5	86.4	85.5	84.1	82.2	81.1	79.9	78.7	77.9	79.5	88.0	71.7	Aug.
81.5	82.7	83.1	82.8	82.2	80.6	78.9	77.8	76.5	75.0	74.1	76.1	84.2	68.2	Sept.
66.1	67.1	67.8	67.1	65.6	63.8	62.4	61.1	60.5	59.7	58.7	60.4	69.9	51.8	Oct.
54.7	56.1	55.8	55.5	54.3	52.9	52.1	50.2	49.4	48.2	47.5	49.1	57.5	40.6	Nov.
44.5	45.7	46.1	45.9	45.2	43.9	43.5	42.2	41.6	40.8	39.9	40.9	48.5	33.6	Dec.
66.6	67.8	68.3	68.4	67.7	66.2	65.0	63.7	62.7	61.6	60.6	61.9	70.4	54.0	Year.

NEW ORLEANS, LA.

[H = 112 ft.; local time, 1h 0m slow.]

62.0	63.1	63.2	63.0	61.7	60.5	59.4	58.9	58.4	57.9	57.4	58.3	65.7	51.5	Jan.
61.4	61.8	62.5	63.0	62.0	60.6	58.5	57.3	56.3	55.5	55.0	56.3	64.1	49.2	Feb.
70.0	69.9	69.0	69.1	68.0	66.4	65.0	63.9	62.9	62.3	61.8	64.4	72.3	57.7	Mar.
70.4	71.0	71.5	71.9	71.2	69.7	68.1	65.9	64.6	63.3	62.4	64.9	73.2	57.0	Apr.
82.1	82.5	83.0	82.9	81.5	79.6	77.4	75.8	74.3	73.0	72.0	75.2	83.9	67.0	May.
85.7	83.1	83.6	83.7	81.9	80.9	80.0	79.2	78.6	77.9	77.2	79.9	88.2	74.0	June.
85.0	84.6	84.5	84.3	84.0	82.9	81.8	80.3	79.2	78.6	78.0	80.3	88.3	74.6	July.
84.3	84.2	84.3	83.3	82.1	80.8	79.9	79.1	78.5	77.9	77.6	79.8	87.2	75.1	Aug.
83.1	83.5	83.0	82.7	81.7	80.6	79.4	77.9	77.3	76.8	76.2	78.7	85.2	73.8	Sept.
72.5	73.5	73.6	73.1	71.8	70.2	68.7	67.3	66.4	65.6	64.9	67.3	75.1	60.2	Oct.
61.2	62.2	62.3	62.5	61.7	60.7	59.3	57.7	57.0	56.6	56.2	57.0	64.9	49.9	Nov.
54.3	55.7	56.2	56.1	54.9	53.5	52.0	50.8	49.7	48.9	48.3	50.3	58.1	43.5	Dec.
72.7	72.9	73.1	73.0	71.9	70.5	69.1	67.8	66.9	66.2	65.6	67.7	75.5	61.1	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

NEW YORK, N. Y.

[λ=40° 43′ N.; φ=74° 0′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	30.3	29.9	29.6	29.7	29.6	29.9	29.9	30.4	31.1	31.7	32.9	33.8	34.3
Feb	31.2	30.6	30.0	29.4	29.2	29.1	29.0	29.2	30.0	31.2	32.8	34.6	35.8
Mar	41.1	40.6	40.1	39.6	39.0	38.5	38.4	39.1	40.2	42.0	43.6	45.1	46.4
Apr	43.1	42.4	41.5	41.2	40.9	40.6	41.0	42.9	44.2	45.7	47.2	49.0	50.1
May	53.2	53.1	52.6	52.2	51.7	51.9	52.7	54.0	55.5	56.3	57.5	58.5	59.4
June ...	64.5	63.7	63.3	62.6	62.2	62.3	63.6	65.8	68.0	70.2	71.9	73.3	74.2
July....	70.5	69.7	69.2	68.9	68.4	68.5	69.1	70.5	72.2	74.4	75.9	76.9	78.0
Aug	71.3	70.7	70.3	69.6	69.3	68.8	69.4	70.4	72.2	73.7	75.6	77.3	78.6
Sept....	65.7	65.0	64.1	63.6	63.5	62.9	63.3	64.7	66.9	69.5	71.4	72.8	73.7
Oct.....	55.2	54.5	54.0	53.4	52.9	52.7	53.0	54.5	55.8	57.2	59.4	61.4	62.0
Nov	43.0	42.4	41.9	41.7	40.9	40.8	40.8	42.7	43.6	45.0	45.9	46.7	47.2
Dec	33.2	32.6	32.5	32.2	32.0	31.6	31.6	32.1	32.5	33.7	34.8	36.0	36.5
Year....	50.2	49.6	49.1	48.7	48.3	48.1	48.5	49.7	51.0	52.6	54.1	55.4	56.4

PHILADELPHIA, PA.

[λ=39° 57′ N.; φ=75° 9′ W.]

Jan	33.4	33.0	32.7	32.6	32.7	32.8	33.1	33.2	33.6	34.9	36.3	37.4	38.5
Feb	32.9	32.3	31.6	31.1	30.8	30.4	30.1	31.0	32.4	33.7	35.7	37.6	39.4
Mar	43.6	42.5	42.3	41.8	41.4	41.0	41.2	42.5	43.8	45.5	47.2	49.6	52.1
Apr	45.3	44.7	44.4	43.7	43.1	43.0	43.9	46.1	47.8	49.8	51.6	53.5	55.0
May	55.8	55.4	55.0	54.6	54.4	54.6	55.9	58.1	60.0	61.4	63.0	64.7	66.5
June ...	65.9	65.3	64.8	64.1	63.9	64.8	67.1	69.2	71.7	73.9	76.0	78.1	79.8
July....	72.3	71.8	71.1	70.6	70.1	70.5	72.2	74.0	75.9	78.3	80.2	82.1	83.7
Aug	72.5	71.9	71.1	70.4	70.3	70.2	71.4	73.5	75.6	77.8	80.0	80.5	81.9
Sept....	66.7	66.0	65.4	65.0	64.5	63.9	64.9	67.0	69.2	71.6	73.8	75.6	77.3
Oct.....	55.1	54.5	54.1	53.7	53.3	53.3	53.5	55.4	57.4	59.7	61.6	63.2	64.6
Nov	42.3	41.9	41.3	40.8	40.4	40.2	40.3	41.5	42.5	43.9	45.7	47.1	48.4
Dec	34.6	34.3	33.8	33.5	33.1	32.7	32.5	32.6	33.1	34.7	36.1	37.5	38.7
Year....	51.7	51.1	50.6	50.2	49.8	49.8	50.5	52.0	53.6	55.4	57.3	58.9	60.5

PITTSBURG, PA.

[λ=40° 32′ N.; φ=80° 2′ W.]

Jan	33.4	33.0	32.9	32.9	32.5	32.6	32.5	33.0	33.3	34.0	35.1	36.1	37.0
Feb	29.9	29.3	28.9	28.3	28.1	28.2	28.2	28.7	29.1	30.5	31.9	33.5	35.1
Mar	44.7	44.2	43.7	43.0	42.6	42.4	41.9	42.3	42.8	44.5	47.3	49.5	51.3
Apr	45.7	44.3	43.5	42.8	42.4	41.9	41.6	43.0	44.8	46.9	48.7	50.2	51.6
May....	59.7	58.5	57.5	56.8	56.2	55.8	56.4	58.6	61.0	63.8	65.8	67.4	68.5
June ...	69.2	68.2	67.6	67.1	66.4	66.0	67.1	69.4	72.1	74.4	76.1	78.1	79.0
July....	73.0	72.0	71.0	70.5	69.7	69.1	70.2	72.5	75.5	77.8	79.6	81.5	83.2
Aug	70.3	69.7	69.1	68.9	68.3	68.0	68.6	70.3	73.3	75.7	77.7	79.5	80.0
Sept....	65.6	64.9	64.2	63.5	63.0	62.5	62.6	63.5	66.9	69.7	71.9	74.1	75.2
Oct.....	53.5	52.8	52.1	51.5	50.8	50.4	49.9	50.8	53.3	55.9	58.0	60.0	61.0
Nov	40.0	39.5	39.2	39.3	39.1	38.7	39.0	39.6	40.3	42.0	43.7	45.5	47.0
Dec	31.7	31.3	31.1	31.2	30.9	30.5	30.5	30.9	31.3	32.5	33.6	34.9	35.6
Year....	51.4	50.6	50.1	49.6	49.2	48.8	49.0	50.2	52.0	54.0	55.8	57.5	58.7

PORTLAND, OREG.

[λ=45° 32′ N.; φ=122° 43′ W.]

Jan	38.3	38.0	37.9	37.7	37.4	36.9	36.7	37.0	36.6	36.5	36.6	37.2	37.7
Feb	45.2	44.9	44.8	44.8	44.6	44.4	44.1	43.9	43.3	42.9	43.0	43.9	45.1
Mar	42.9	42.3	41.4	40.3	39.4	38.8	38.4	38.6	37.9	37.3	37.6	39.2	41.4
Apr	50.4	49.4	48.3	47.3	46.6	45.7	44.8	45.0	43.7	44.4	45.8	48.9	50.8
May....	55.6	54.5	53.0	51.9	51.1	50.2	49.4	48.8	48.3	50.2	52.1	54.4	56.8
June ...	61.8	60.3	59.3	58.2	56.9	56.3	55.0	54.4	54.1	55.7	57.5	59.5	61.8
July....	66.2	64.2	62.6	60.9	59.5	58.4	57.1	56.3	55.9	57.2	59.0	60.9	63.0
Aug	67.5	65.8	64.7	63.2	61.9	60.9	60.1	59.3	58.7	59.5	60.7	62.8	65.1
Sept....	62.9	61.4	60.2	59.0	58.0	57.3	56.2	55.7	54.9	54.6	55.8	57.5	59.8
Oct.....	52.0	50.9	50.8	50.1	49.5	48.6	47.6	47.5	46.8	46.5	47.1	48.9	51.0
Nov	43.0	42.7	42.3	41.9	41.7	41.5	41.3	41.0	41.0	40.9	41.1	41.5	42.5
Dec	36.5	36.4	36.5	36.7	36.3	35.8	35.6	35.7	35.1	34.5	33.9	34.5	35.6
Year....	51.9	50.9	50.2	49.3	48.6	47.9	47.2	46.9	46.4	46.7	47.5	49.1	50.9

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

NEW YORK, N. Y.

[H = 298 ft.; local time, 4m fast.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
34.7	35.2	35.0	33.9	33.1	32.5	32.5	31.4	31.2	30.9	30.7	31.8	38.1	26.4	Jan.
36.1	36.5	36.9	36.0	35.0	34.4	34.0	33.1	32.4	32.1	31.6	32.5	38.8	27.1	Feb.
48.1	48.1	47.8	46.7	45.5	44.8	44.4	43.5	43.2	42.5	42.1	42.9	50.2	37.2	Mar.
51.3	51.9	51.9	50.8	49.5	48.1	47.6	46.7	46.1	45.3	44.8	46.0	54.0	39.5	Apr.
59.7	60.2	60.1	59.4	57.9	56.8	55.7	55.1	54.8	54.1	53.7	55.7	62.7	50.4	May.
74.8	74.5	74.2	72.9	71.6	70.4	68.9	67.9	67.2	66.1	65.4	68.3	76.5	61.3	June.
78.9	78.9	78.4	77.3	76.2	74.6	73.9	73.3	72.6	71.6	71.1	73.3	80.8	67.4	July.
78.9	79.2	79.2	78.3	77.5	76.4	75.3	74.4	73.8	72.6	72.1	74.0	80.5	68.1	Aug.
73.9	74.4	73.4	72.6	70.9	69.7	68.8	68.0	67.2	66.4	65.6	68.2	76.4	61.4	Sept.
62.5	63.0	62.1	60.6	59.5	58.3	57.6	57.0	56.3	55.8	55.3	57.2	64.7	50.6	Oct.
47.6	47.7	47.9	47.4	46.9	46.4	45.8	45.1	44.4	43.6	43.1	44.5	50.8	38.5	Nov.
37.3	37.5	36.8	36.6	36.0	35.5	35.3	34.3	34.3	33.9	33.0	34.3	40.6	28.3	Dec.
57.0	57.3	57.0	56.0	55.0	54.0	53.3	52.5	52.0	51.2	50.7	52.4	59.5	46.4	Year.

PHILADELPHIA, PA.

[H = 168 ft.; local time, 0m.]

39.1	39.2	39.1	38.3	37.4	36.4	35.9	35.2	34.8	34.1	33.8	35.3	41.2	29.5	Jan.
40.5	41.3	41.5	40.8	39.2	37.7	36.5	35.0	34.4	33.8	33.3	35.1	42.9	28.3	Feb.
53.6	54.9	55.0	54.3	52.6	50.1	48.7	47.2	46.4	45.3	44.5	47.0	56.4	39.6	Mar.
55.8	56.1	55.6	55.3	54.1	52.5	51.3	49.5	48.4	47.7	46.8	49.4	57.9	41.1	Apr.
67.6	68.1	68.3	67.0	65.4	63.3	61.8	59.3	58.2	57.4	56.6	60.5	69.7	52.6	May.
80.8	80.9	80.5	79.5	77.4	75.2	72.9	70.6	69.1	68.0	67.0	71.9	82.2	62.6	June.
84.8	85.7	85.5	84.5	82.8	79.9	78.0	76.3	75.0	74.2	73.3	77.2	87.1	69.3	July.
82.5	83.1	83.2	81.9	80.5	78.6	77.1	75.7	74.8	74.0	73.3	76.3	84.4	69.2	Aug.
78.5	79.0	78.8	77.7	75.0	72.9	71.3	69.5	68.5	67.6	66.9	70.7	79.9	62.8	Sept.
65.4	65.2	64.4	63.2	61.3	59.4	58.2	57.2	56.4	55.7	55.1	58.4	66.5	50.7	Oct.
49.4	49.7	49.3	48.4	47.1	46.5	45.5	44.5	43.7	43.4	42.6	44.4	51.3	37.8	Nov.
39.6	39.9	39.5	38.7	37.8	37.0	36.4	35.8	35.1	34.8	34.5	35.7	42.0	29.8	Dec.
61.5	61.9	61.7	60.8	59.2	57.5	56.1	54.6	53.7	53.0	52.3	55.2	63.5	47.8	Year.

PITTSBURG, PA.

[H = 116 ft.; local time, 20m slow.]

37.2	37.9	38.0	37.5	36.9	36.5	35.9	35.5	34.9	34.3	33.7	34.9	42.0	28.6	Jan.
35.9	37.0	37.0	36.6	35.9	34.9	34.3	33.1	32.4	31.4	30.6	32.0	39.1	25.5	Feb.
52.8	53.4	53.9	53.6	52.9	51.7	50.4	48.6	47.3	46.4	45.5	47.4	56.7	38.8	Mar.
52.9	54.1	54.8	55.0	54.7	53.6	52.5	51.1	49.9	48.7	47.5	48.4	56.8	40.2	Apr.
69.2	69.0	70.1	69.9	69.3	68.1	66.0	64.5	63.5	62.3	61.2	63.3	71.9	54.5	May.
80.2	81.4	81.7	81.9	81.2	79.7	77.8	75.5	73.9	72.4	70.8	74.0	83.3	64.4	June.
84.2	84.0	83.8	82.8	81.7	80.5	79.1	77.6	76.4	74.8	74.0	76.9	86.0	68.4	July.
80.4	81.5	81.1	79.6	79.2	77.9	76.5	75.2	73.9	72.7	71.2	74.5	83.1	66.7	Aug.
76.5	77.3	77.4	77.4	76.5	74.2	72.4	70.4	68.7	67.5	66.3	69.7	79.4	61.0	Sept.
61.7	61.8	61.5	60.6	59.4	58.1	57.3	56.2	55.1	54.3	53.5	55.8	64.2	47.9	Oct.
48.1	48.3	47.6	47.0	45.7	44.2	43.4	42.2	41.4	40.7	40.0	42.6	50.5	34.9	Nov.
36.8	36.7	36.4	35.5	34.5	33.5	33.6	32.9	32.6	31.8	31.3	33.0	39.9	25.9	Dec.
59.7	60.2	60.3	59.8	59.0	57.7	56.6	55.2	54.2	53.1	52.1	54.4	62.7	46.4	Year.

PORTLAND, OREG.

[H = 203 ft.; local time, 3h 11m slow.]

38.4	39.4	40.3	41.1	41.6	41.7	40.9	40.7	40.1	39.4	38.8	38.6	42.9	35.1	Jan.
46.2	46.7	47.2	47.9	48.8	48.8	48.0	47.6	47.1	46.5	45.9	45.6	50.6	40.8	Feb.
43.6	45.4	47.0	48.5	49.6	50.0	49.2	48.6	47.0	45.5	44.4	43.1	51.3	36.3	Mar.
52.7	54.3	56.1	57.4	58.2	59.0	58.3	57.7	56.1	54.0	52.1	51.1	60.6	42.7	Apr.
58.7	60.3	61.6	62.7	63.2	63.6	63.6	62.7	61.3	59.1	57.2	56.3	65.5	47.7	May.
63.5	64.7	66.8	68.0	69.2	69.4	69.9	69.5	68.2	65.7	64.0	62.1	71.3	53.7	June.
65.4	68.0	70.2	72.8	74.3	75.8	76.0	75.6	74.2	71.4	68.8	65.6	77.2	55.6	July.
67.1	69.6	71.5	73.8	75.1	76.0	76.2	75.7	73.8	71.3	69.0	67.1	77.8	58.5	Aug.
62.2	65.0	66.7	68.4	69.6	70.1	69.4	68.5	66.6	64.9	63.9	62.0	71.5	54.1	Sept.
52.9	55.4	57.1	58.4	59.3	59.0	58.1	57.1	55.8	54.4	53.3	52.4	60.2	45.7	Oct.
43.6	45.4	46.5	47.2	47.2	47.2	46.2	45.1	44.7	44.2	43.3	43.5	49.0	38.8	Nov.
36.8	38.1	39.2	39.9	39.9	39.7	38.9	38.1	37.6	37.1	36.6	36.9	42.1	32.9	Dec.
52.6	54.4	55.8	57.2	58.0	58.4	57.9	57.2	56.0	54.5	53.1	52.0	60.0	45.2	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

ST. LOUIS, MO.

[λ = 38° 38′ N.; φ = 90° 12′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	35.8	35.5	35.1	34.5	33.9	33.5	33.3	33.3	33.2	34.3	35.7	37.1	38.2
Feb	36.2	35.0	34.1	33.2	32.8	32.6	32.1	31.6	31.4	32.5	34.5	36.6	39.2
Mar	45.0	44.5	43.9	43.4	42.8	42.4	42.3	42.6	43.5	45.2	47.0	49.3	50.8
Apr	51.6	50.7	50.0	49.5	48.7	48.2	48.1	49.2	51.0	52.0	54.1	56.1	57.3
May	63.8	63.0	62.2	61.3	60.5	60.2	60.2	61.7	63.2	65.2	67.7	70.0	71.5
June ...	74.0	73.1	72.1	71.6	70.8	70.4	70.8	72.9	74.7	77.2	79.1	81.5	82.9
July	75.6	74.6	73.7	72.9	72.0	71.6	71.5	73.0	74.7	77.3	79.5	81.5	82.7
Aug	74.5	73.6	72.6	72.2	71.6	71.0	70.7	72.3	74.0	76.7	79.4	81.5	82.6
Sept....	70.9	69.8	69.0	68.3	67.4	66.7	66.5	67.5	69.4	71.8	74.8	77.0	79.2
Oct.....	54.0	53.5	53.0	52.4	51.9	51.4	50.8	51.0	51.5	53.5	55.5	57.6	59.0
Nov	41.4	40.6	39.8	39.1	38.2	38.0	37.8	37.9	38.7	40.1	42.4	44.8	46.9
Dec	31.3	30.3	30.1	29.4	29.0	28.1	27.8	27.3	27.1	27.7	29.7	31.0	32.9
Year....	54.5	53.7	53.0	52.3	51.6	51.2	51.0	51.7	52.7	54.5	56.6	58.7	60.3

ST. PAUL, MINN.

[λ = 44° 58′ N.; φ = 93° 3′ W.]

Jan	20.5	19.7	19.2	18.9	18.5	18.6	18.3	18.1	17.7	17.5	19.0	21.4	23.9
Feb	19.8	19.1	18.3	17.9	17.2	16.7	16.3	16.0	15.5	15.8	17.5	19.5	21.4
Mar	32.3	31.9	31.2	30.4	29.6	29.1	28.3	27.7	27.9	29.4	31.8	34.1	36.3
Apr	42.6	41.4	40.3	39.4	38.7	37.8	37.4	38.0	39.7	42.7	45.5	47.7	49.4
May	54.8	53.5	52.1	51.4	50.4	49.8	49.5	50.8	52.8	55.4	57.9	60.0	62.3
June ...	65.3	64.0	63.0	62.3	61.4	60.8	60.9	62.1	63.7	65.6	67.9	70.3	72.4
July	69.5	68.1	66.4	65.5	64.5	63.5	63.8	65.5	67.7	70.5	73.4	75.7	77.5
Aug	65.6	64.6	63.5	62.6	61.7	60.8	60.0	60.8	62.9	66.1	69.2	71.3	73.9
Sept....	60.5	58.6	57.0	55.9	54.9	53.9	53.0	53.3	54.8	58.4	62.6	65.9	69.4
Oct.....	44.0	43.4	42.5	42.3	41.6	41.5	40.8	40.7	40.8	42.2	43.8	45.4	47.2
Nov	28.5	28.0	27.4	27.1	26.7	26.4	25.9	25.4	25.2	25.9	27.9	30.0	32.1
Dec	12.5	11.6	10.5	10.1	9.5	9.4	9.2	9.3	9.3	9.8	11.0	13.2	15.3
Year....	43.0	42.0	41.0	40.3	39.5	39.0	38.6	39.0	39.8	41.6	44.0	46.2	48.4

SALT LAKE CITY, UTAH.

[λ = 40° 46′ N.; φ = 111° 54′ W.]

Jan	18.3	17.9	17.2	16.7	16.8	16.7	16.2	16.6	15.6	15.3	16.7	19.5	21.9
Feb	32.9	32.2	32.1	31.6	31.1	30.4	30.6	31.0	29.5	30.2	32.2	35.2	38.0
Mar	34.3	33.5	32.6	31.7	31.5	31.0	30.8	30.7	30.4	31.1	33.3	35.8	37.4
Apr	51.1	49.6	48.2	46.8	45.5	44.8	44.1	45.4	45.8	49.1	53.3	56.7	58.8
May	51.6	50.5	49.8	48.9	48.1	47.5	46.6	47.4	48.8	51.2	53.7	56.2	57.6
June ...	63.1	62.1	60.5	59.3	58.6	57.6	56.7	59.5	61.9	65.7	68.5	71.1	73.5
July	72.6	71.3	69.8	68.2	67.9	67.9	66.7	66.5	67.7	71.5	75.1	78.9	81.4
Aug	74.1	72.8	72.0	70.2	70.3	68.9	67.7	68.0	68.7	71.6	75.9	79.8	83.1
Sept....	62.0	61.0	59.3	58.3	58.4	56.4	55.5	56.4	55.1	59.5	63.6	68.8	71.8
Oct.....	45.9	44.2	43.0	42.7	41.9	41.1	41.0	41.5	39.3	41.9	45.9	50.5	52.9
Nov	35.5	34.8	33.6	33.4	32.2	32.0	31.6	32.7	31.1	31.5	34.1	37.6	40.3
Dec	23.6	23.2	22.3	21.8	21.0	20.4	20.6	21.4	20.0	19.7	21.3	24.2	26.9
Year....	47.1	46.1	45.0	44.1	43.6	42.9	42.3	43.1	42.8	44.9	47.8	51.2	53.6

SAN DIEGO, CAL.

[λ = 32° 43′ N.; φ = 117° 10′ W.]

Jan	49.3	48.8	48.0	47.5	46.9	46.3	46.0	45.2	45.0	45.2	46.4	50.8	53.5
Feb	52.7	52.3	51.8	51.3	50.8	50.4	50.3	50.6	50.1	49.5	50.8	54.7	57.0
Mar	53.1	52.0	51.0	50.5	49.9	49.4	49.1	48.9	48.8	49.0	52.0	54.9	57.5
Apr	56.8	56.5	55.6	55.1	54.7	54.5	54.4	54.5	54.4	55.0	57.0	59.5	61.8
May	57.3	57.1	56.7	56.5	56.1	55.8	55.7	55.6	55.7	56.6	57.8	59.2	60.5
June ...	61.3	61.0	60.5	60.4	60.3	60.1	59.9	59.8	59.8	61.0	62.0	63.6	65.2
July	64.3	64.0	63.7	63.5	63.4	63.2	63.1	63.1	63.1	63.5	64.6	66.2	67.6
Aug	68.3	68.1	67.5	67.4	67.4	67.2	66.9	67.0	67.0	67.9	68.9	71.3	72.5
Sept....	66.4	65.8	65.2	64.8	64.3	64.1	63.6	63.7	63.3	64.2	66.3	69.7	71.1
Oct.....	59.9	59.3	58.8	58.5	57.9	57.4	57.2	57.2	56.8	56.9	59.1	61.6	64.1
Nov	56.8	56.2	55.8	55.2	54.5	54.3	53.9	53.6	53.4	53.8	56.0	60.4	63.6
Dec	53.9	53.5	53.3	52.9	52.7	52.4	52.2	51.5	51.2	51.1	52.7	55.9	59.2
Year....	58.3	57.9	57.3	57.0	56.6	56.3	56.0	55.9	55.7	56.1	57.8	60.6	62.8

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

ST. LOUIS, MO.

[H = 111 ft.; local time, 1h 1m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
39.7	40.8	41.6	41.5	40.9	40.1	39.7	38.8	38.2	37.4	36.6	37.0	44.0	30.6	Jan.
41.0	42.5	43.3	43.4	42.4	41.1	40.0	39.3	38.5	37.8	37.4	37.0	46.9	29.8	Feb.
51.7	51.5	52.5	52.7	52.2	51.1	49.8	48.5	47.6	46.7	45.8	47.2	55.7	38.7	Mar.
58.5	59.7	60.3	60.2	59.9	58.4	57.2	55.8	55.2	54.2	53.3	54.1	62.6	46.2	Apr.
72.7	73.3	73.6	74.4	73.4	72.0	70.2	69.1	67.1	65.8	64.6	66.9	75.9	58.3	May.
82.9	83.4	83.9	84.1	83.3	82.2	81.0	79.2	77.9	76.8	75.3	77.5	86.2	69.5	June.
83.6	84.1	84.9	84.7	83.8	82.9	81.5	80.2	78.9	77.5	76.2	78.3	86.0	70.5	July.
83.6	84.8	85.7	85.3	84.6	83.1	81.5	79.7	78.2	77.0	75.8	78.0	86.5	70.3	Aug.
79.9	80.9	81.6	81.4	80.2	78.6	76.6	75.0	73.6	72.3	71.2	73.7	83.1	65.2	Sept.
60.0	60.7	60.8	60.7	59.4	58.1	56.9	55.9	55.3	54.7	53.8	55.5	63.5	48.5	Oct.
48.5	49.1	49.1	48.7	47.7	46.6	45.5	44.5	43.4	42.3	41.5	43.0	51.4	34.8	Nov.
34.6	36.0	36.9	36.7	35.9	35.0	34.4	33.9	33.2	32.4	31.6	31.8	40.3	24.9	Dec.
61.4	62.2	62.8	62.8	62.0	60.8	59.5	58.3	57.3	56.2	55.3	56.7	65.2	48.9	Year.

ST. PAUL, MINN.

[H = 114 ft.; local time, 1h 12m slow.]

25.9	27.7	28.6	28.8	28.2	26.7	25.4	24.3	23.3	22.2	21.3	22.2	30.2	15.0	Jan.
22.6	24.1	25.2	26.0	25.7	25.1	24.3	23.4	22.8	22.1	21.8	20.6	28.6	12.9	Feb.
37.9	39.3	40.2	40.7	40.5	39.4	38.0	36.6	35.5	34.2	33.2	34.0	42.8	26.2	Mar.
50.5	51.6	52.3	52.9	53.3	52.9	51.3	49.6	48.0	46.1	44.8	45.6	54.9	36.4	Apr.
63.7	65.1	65.8	66.4	66.0	65.1	64.0	62.3	60.3	58.0	56.5	58.1	67.7	48.5	May.
73.7	75.0	75.7	75.8	75.5	75.1	73.8	71.7	70.0	68.1	66.6	68.4	77.1	59.4	June.
78.6	80.0	80.9	81.6	81.8	81.1	79.5	77.4	75.1	73.0	71.2	73.0	83.1	62.5	July.
75.5	77.3	78.5	79.1	78.6	77.6	75.0	72.7	71.1	68.8	67.6	69.4	79.9	59.3	Aug.
71.2	73.0	73.7	74.1	73.8	72.2	69.2	66.8	65.0	62.9	61.2	63.4	74.7	52.1	Sept.
48.5	50.4	51.0	51.4	50.8	49.5	48.0	46.9	45.9	45.1	44.4	45.3	53.4	38.2	Oct.
33.3	34.7	35.5	35.4	34.5	33.0	31.6	30.1	29.2	28.7	28.0	29.6	37.7	21.6	Nov.
17.0	18.1	19.0	19.1	18.3	17.1	15.9	15.1	14.3	13.4	12.7	13.4	21.8	4.8	Dec.
49.9	51.4	52.2	52.6	52.2	51.2	49.7	48.1	46.7	45.2	44.1	45.2	54.3	36.4	Year.

SALT LAKE CITY, UTAH.

[H = 83 ft.; local time, 2h 27m slow.]

23.9	25.4	26.5	26.6	27.0	25.5	23.5	21.8	20.6	19.1	18.0	20.1	28.9	12.3	Jan.
39.4	40.7	40.9	41.5	41.4	40.5	39.2	37.5	36.0	35.4	34.6	35.2	44.3	26.9	Feb.
38.5	39.3	41.0	41.7	42.4	42.0	41.6	39.5	37.7	36.4	35.3	35.8	45.4	27.2	Mar.
60.6	62.0	63.2	63.7	63.7	63.4	62.9	60.3	56.7	54.3	52.8	54.3	66.0	41.9	Apr.
58.2	58.7	59.0	60.1	60.6	60.1	60.0	59.0	56.5	54.0	52.5	54.0	64.1	43.7	May.
74.8	75.9	77.2	77.3	76.8	77.1	76.9	74.7	70.6	66.7	65.0	68.0	80.1	54.1	June.
83.2	85.0	85.5	86.4	86.6	86.5	86.4	84.4	79.6	76.4	74.3	76.7	88.9	62.9	July.
84.9	86.3	87.1	87.8	87.8	87.1	86.3	83.1	79.5	77.0	75.8	77.7	89.8	63.7	Aug.
73.8	76.0	76.9	77.6	77.2	76.8	75.3	70.3	66.8	64.3	62.6	66.0	79.6	51.7	Sept.
54.5	55.8	57.1	56.4	56.3	55.2	52.9	50.2	49.1	47.5	46.6	48.1	60.1	36.4	Oct.
41.8	43.1	44.0	43.8	43.7	42.3	40.8	39.6	38.7	37.6	36.4	37.2	46.4	28.2	Nov.
29.0	30.5	31.3	31.0	30.5	28.5	27.5	27.0	26.2	25.4	24.8	24.9	33.3	17.0	Dec.
55.2	56.6	57.5	57.8	57.8	57.1	56.1	54.0	51.5	49.5	48.2	49.8	60.6	38.8	Year.

SAN DIEGO, CAL.

[H = 94 ft.; local time, 2h 49m slow.]

54.9	55.6	56.0	56.6	56.5	55.5	54.3	53.0	51.7	50.9	50.0	50.6	58.3	43.4	Jan.
58.8	59.9	60.3	59.9	59.4	59.1	58.5	56.6	55.5	54.7	53.8	54.5	62.3	48.2	Feb.
58.8	60.1	60.4	60.4	59.8	59.3	58.5	57.2	56.1	54.9	53.9	54.4	62.0	47.0	Mar.
62.3	63.0	63.1	63.6	63.2	62.5	61.8	60.2	59.2	58.2	57.4	58.5	65.3	52.9	Apr.
61.2	61.5	61.9	62.1	62.1	61.1	60.8	59.8	58.9	58.0	57.9	58.6	63.2	54.5	May.
66.0	66.6	66.8	66.9	66.8	65.8	65.0	64.1	63.3	62.3	61.9	62.9	68.5	59.2	June.
68.5	69.3	69.7	69.9	69.7	69.3	68.3	67.4	66.1	65.1	64.6	65.9	71.0	62.4	July.
73.1	73.9	73.9	74.0	73.7	72.9	72.1	70.9	69.5	68.8	68.5	69.9	74.9	66.3	Aug.
71.6	72.0	72.4	72.3	72.6	72.5	71.8	70.3	68.8	68.0	67.2	68.0	74.3	62.7	Sept.
65.5	66.8	67.0	67.4	67.5	66.8	65.3	64.0	62.8	61.8	60.8	61.7	68.9	55.7	Oct.
64.9	65.6	65.8	65.6	65.4	64.5	62.6	61.2	59.8	58.5	57.6	59.1	67.0	51.8	Nov,
61.0	62.4	63.0	62.8	61.9	60.6	*58.8	57.7	56.4	54.8	54.4	56.1	63.8	49.5	Dec.
63.9	64.7	65.0	65.1	64.9	64.2	63.2	61.9	60.7	59.7	59.0	60.0	66.6	54.5	Year.

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

SAN FRANCISCO, CAL.

[λ = 37° 48′ N.; φ = 122° 26′ W.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.
Jan	46.9	46.4	45.6	45.1	44.3	43.9	43.4	43.5	42.9	42.7	42.9	43.5	44.6
Feb	51.8	51.7	50.5	50.5	50.0	49.5	49.2	48.8	48.2	48.0	48.2	49.3	50.4
Mar	50.1	49.6	49.0	48.3	47.9	47.8	47.3	47.1	46.5	46.2	46.9	48.4	50.6
Apr	51.2	50.9	50.2	49.9	49.4	49.3	49.0	49.1	48.7	49.2	51.0	52.9	55.6
May	50.2	49.8	49.6	49.1	49.0	48.9	49.0	49.2	49.0	49.7	50.9	52.1	53.4
June ...	55.8	55.4	54.7	54.0	53.7	53.4	53.3	53.4	53.4	54.6	56.6	59.0	61.3
July	53.0	52.7	52.6	52.2	52.1	52.1	51.9	52.3	51.9	52.4	53.5	55.1	56.9
Aug	54.5	53.9	53.8	53.6	53.4	53.2	53.1	53.5	52.9	52.9	54.0	55.4	57.4
Sept	55.9	55.5	55.0	54.7	54.8	54.8	55.0	55.4	54.7	54.6	55.7	57.3	59.2
Oct.	58.3	57.6	56.9	56.9	56.4	56.1	56.3	56.4	56.2	56.1	57.4	59.3	61.4
Nov	53.5	53.2	52.3	51.8	51.4	50.8	50.6	51.2	50.5	50.2	50.4	51.8	53.6
Dec	49.2	48.8	48.4	47.8	47.5	46.9	46.7	46.8	45.9	45.9	45.6	46.3	47.5
Year....	52.5	52.1	51.6	51.2	50.8	50.6	50.4	50.6	50.1	50.2	51.1	52.5	54.3

SANTA FE, N. MEX.

[λ = 35° 41′ N.; φ = 105° 57′ W.]

Jan	21.9	21.8	21.4	21.2	20.5	19.5	19.4	19.9	18.9	19.9	23.4	26.0	28.2
Feb	32.8	32.1	31.8	31.1	30.0	29.4	28.8	27.7	27.6	31.5	35.7	38.2	40.7
Mar	34.6	33.7	32.5	31.8	30.5	29.7	29.3	28.4	30.5	34.2	36.6	38.9	41.5
Apr	45.8	45.1	43.9	43.0	41.7	40.6	40.5	41.2	44.6	47.2	49.7	51.8	54.1
May	50.8	49.7	48.6	47.3	46.4	45.5	44.2	45.1	50.0	52.5	54.9	57.0	59.8
June ...	59.5	58.5	57.7	56.8	55.5	54.4	54.0	56.3	60.4	63.4	65.8	67.6	69.3
July	64.2	63.1	61.8	61.0	60.0	59.1	58.2	60.2	64.4	66.7	69.2	70.8	73.4
Aug	63.1	62.2	61.0	60.2	59.2	58.4	57.9	58.3	62.6	65.3	67.9	70.5	73.1
Sept	57.2	55.8	54.5	53.3	51.1	50.8	50.1	49.9	55.2	59.5	62.7	65.1	67.6
Oct.	47.6	46.1	44.1	43.0	41.3	39.9	39.2	39.2	42.1	47.6	50.5	53.1	55.5
Nov	33.1	33.0	32.8	32.1	31.1	30.2	30.1	29.6	29.4	33.5	37.0	39.8	41.7
Dec	21.7	21.3	21.1	20.9	20.3	19.3	18.7	18.3	17.6	19.1	22.0	24.6	26.6
Year....	44.4	43.5	42.6	41.8	40.6	39.7	39.2	39.5	41.9	45.0	48.0	50.3	52.6

SAVANNAH, GA.

[λ = 32° 5′ N.; φ = 81° 5′ W.]

Jan	51.9	51.4	51.1	50.7	50.3	49.9	49.5	49.1	50.7	53.5	57.1	59.9	61.6
Feb	47.1	46.1	45.0	44.4	43.8	43.3	42.9	43.2	45.8	49.8	53.6	56.5	58.2
Mar	59.1	58.6	58.0	57.5	57.0	56.5	56.3	57.6	60.6	64.4	67.3	64.4	70.4
Apr	58.9	58.1	57.2	56.3	55.6	54.7	55.5	58.0	62.2	65.2	67.7	69.8	71.1
May	69.5	68.9	68.2	67.3	66.7	66.4	68.1	71.0	75.4	78.7	81.4	83.6	84.3
June ...	74.2	73.7	73.3	72.6	72.3	72.3	74.8	77.4	81.9	84.5	86.6	88.1	88.7
July	76.2	76.0	75.6	75.3	75.1	75.0	76.4	78.4	80.9	82.8	83.8	85.4	86.0
Aug	76.0	75.6	75.2	75.1	74.7	74.5	75.5	77.6	80.0	82.2	83.9	84.9	85.1
Sept	73.7	73.5	73.3	72.8	72.3	72.0	72.6	74.0	77.0	79.6	81.3	82.7	83.0
Oct.	64.7	64.2	63.7	63.3	62.8	62.0	62.0	63.3	66.2	69.0	70.9	72.4	73.2
Nov	54.1	53.6	53.0	52.3	51.8	51.1	51.0	51.6	54.5	57.6	60.1	62.2	63.4
Dec	48.2	47.8	47.3	46.6	46.3	46.2	45.9	46.4	48.0	50.7	53.5	55.4	56.8
Year....	62.8	62.3	61.7	61.2	60.7	60.3	60.9	62.3	65.3	68.2	70.6	72.5	73.5

WASHINGTON, D. C.

[λ = 38° 54′ N.; φ = 77° 3′ W.]

Jan	33.9	33.7	33.6	33.8	33.7	33.7	33.5	33.6	34.8	36.2	37.8	39.1	40.1
Feb	31.2	30.3	29.5	29.1	28.5	28.1	28.0	28.8	31.0	33.6	36.5	38.2	40.0
Mar	45.3	44.7	43.9	43.5	43.2	42.6	42.5	44.1	46.0	47.8	49.9	51.6	53.2
Apr	46.6	45.6	44.7	44.2	43.4	43.2	44.4	47.2	49.4	51.5	53.6	55.3	56.5
May	59.1	58.1	57.2	56.5	56.2	56.4	58.0	60.5	62.6	64.5	66.8	68.8	70.3
June ...	67.5	66.4	65.2	64.5	63.5	64.3	67.2	70.8	73.3	76.0	78.1	79.9	81.4
July	73.2	72.8	72.0	71.3	70.7	70.7	72.4	75.0	77.9	79.7	81.8	83.6	85.0
Aug	71.6	71.2	70.8	70.3	70.0	69.4	70.6	73.3	75.7	77.9	80.1	81.8	83.0
Sept	65.4	65.0	64.1	63.7	62.8	62.5	62.9	66.4	70.0	73.3	75.6	77.5	79.1
Oct.	54.1	53.5	52.7	52.4	52.1	52.0	52.4	54.5	57.0	59.3	61.5	63.1	63.8
Nov	40.0	39.6	39.2	38.9	38.9	38.7	38.7	39.8	42.1	44.4	46.3	48.0	49.6
Dec	32.8	32.5	31.8	31.8	30.8	30.8	30.5	30.9	32.5	34.7	37.1	38.8	40.1
Year....	51.7	51.1	50.4	50.0	49.5	49.4	50.1	52.1	54.4	56.6	58.8	60.5	61.8

AVERAGE TEMPERATURE (DEGREES FAHRENHEIT) FOR EACH HOUR OF SEVENTY-FIFTH MERIDIAN TIME—Continued.

SAN FRANCISCO, CAL.

[H = 161 ft.; local time, 3h 10m slow.]

2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Mid.	Mean.	Mean max.	Mean min.	1898
45.6	47.5	49.1	50.3	50.8	50.9	50.2	49.3	48.6	48.0	47.4	46.4	51.8	41.6	Jan.
51.2	53.1	54.8	56.0	56.1	56.3	55.2	54.1	53.4	53.0	52.4	51.8	58.1	47.1	Feb.
52.5	54.4	54.8	55.4	54.8	54.5	54.0	52.9	51.5	50.6	50.2	50.5	56.8	45.6	Mar.
57.3	58.6	59.3	59.4	59.2	58.1	56.5	54.8	53.8	52.2	51.8	53.2	61.4	47.5	Apr.
54.7	55.5	55.3	56.0	55.9	55.0	54.1	53.2	52.3	51.3	50.9	51.8	57.2	48.0	May.
62.1	63.0	63.7	64.1	63.7	63.0	61.8	60.6	59.1	57.6	57.0	58.1	66.1	51.9	June.
58.1	59.4	59.9	60.0	59.5	58.4	57.3	56.2	54.9	53.7	53.0	55.0	61.8	50.5	July.
58.6	59.8	60.2	60.6	60.4	59.7	59.1	57.5	56.4	55.3	54.8	56.0	62.2	51.9	Aug.
60.6	62.4	62.9	63.1	62.4	61.6	61.0	59.2	57.8	56.8	56.2	57.8	64.6	53.4	Sept.
63.4	65.3	66.3	66.3	65.3	64.4	63.5	61.7	60.7	59.7	59.2	60.0	68.4	54.1	Oct.
55.4	57.2	58.6	59.9	60.1	59.8	57.4	55.7	55.2	55.0	54.5	54.2	61.6	49.2	Nov.
48.9	50.5	52.2	53.5	54.4	54.3	53.6	52.4	51.6	50.5	49.9	49.4	54.9	44.5	Dec.
55.7	57.2	58.1	58.7	58.6	58.0	57.0	55.6	54.6	53.6	53.1	53.7	60.4	48.8	Year.

SANTA FE, N. MEX.

[H = 47 ft.; local time, 2h 4m slow.]

29.7	31.0	31.8	32.2	31.7	29.7	26.8	24.8	24.0	23.3	22.5	24.6	34.1	15.2	Jan.
42.5	44.0	45.4	45.4	45.6	44.3	41.7	37.2	35.9	34.9	34.1	36.2	47.4	25.8	Feb.
42.7	44.3	45.8	46.5	46.5	45.8	44.1	41.0	38.7	37.1	35.6	37.5	48.6	26.6	Mar.
55.5	57.1	58.3	58.4	57.9	56.5	55.5	52.6	50.5	48.6	47.3	49.5	60.6	38.3	Apr.
60.9	62.6	63.7	64.8	64.7	64.5	63.3	61.1	57.5	54.8	52.9	55.1	66.4	42.6	May.
71.3	72.6	72.4	72.5	71.9	71.4	70.5	67.9	64.9	62.9	61.7	64.1	75.7	52.6	June.
75.2	75.6	75.1	75.4	75.5	73.6	72.2	70.0	67.3	65.9	65.1	67.6	78.9	57.4	July.
74.8	75.4	75.4	74.8	74.4	72.5	71.5	67.7	66.2	65.0	64.4	66.7	78.6	56.9	Aug.
69.3	70.6	71.3	72.6	72.3	71.3	68.7	64.0	61.3	59.4	58.1	61.3	73.8	48.4	Sept.
56.9	58.2	59.5	60.1	59.8	58.4	54.6	51.5	50.5	49.1	48.2	49.8	61.3	37.4	Oct.
43.4	45.1	45.5	45.7	44.8	41.3	39.4	36.7	35.9	35.1	34.4	36.7	47.4	26.6	Nov.
28.0	29.6	30.6	31.0	30.2	27.5	25.7	23.4	22.5	22.0	21.4	23.5	33.3	14.8	Dec.
54.2	55.5	56.2	56.6	56.3	54.7	52.8	49.8	47.9	46.5	45.5	47.7	58.8	36.9	Year.

SAVANNAH, GA.

[H = 63 ft.; gravity correction, ——; local time, 24m slow.]

63.0	63.5	62.8	61.4	58.6	56.9	55.7	54.6	53.5	53.2	52.7	55.1	64.7	46.3	Jan.
59.2	59.2	54.2	58.1	55.6	53.3	52.1	51.1	50.1	49.1	48.0	50.6	61.1	41.3	Feb.
71.3	70.9	69.8	68.2	65.8	63.7	62.1	61.3	60.8	60.3	59.9	62.8	72.9	55.2	Mar.
71.9	71.9	71.0	69.7	67.9	65.3	63.7	62.3	61.1	60.3	59.7	63.1	73.5	53.8	Apr.
84.2	83.4	81.8	80.2	77.7	76.2	74.5	72.9	71.8	71.3	70.4	74.7	86.2	65.7	May.
87.5	86.3	84.0	82.1	80.3	78.9	77.9	76.7	76.2	75.6	75.0	79.2	89.8	71.0	June.
86.2	85.8	84.2	82.2	81.3	80.2	79.2	78.2	77.7	77.1	76.6	79.8	88.8	73.5	July.
84.1	83.2	80.9	80.3	79.5	78.5	78.0	77.3	77.1	76.7	76.3	78.8	87.2	73.4	Aug.
82.8	82.2	81.9	80.8	79.1	77.3	76.5	75.6	75.1	74.8	74.3	77.0	84.7	71.3	Sept.
73.3	73.6	72.9	71.7	69.5	68.2	67.4	66.6	66.1	65.3	64.5	67.4	75.3	60.2	Oct.
64.0	63.9	63.1	61.1	59.2	58.2	57.4	56.4	55.7	55.1	54.7	56.9	65.3	49.2	Nov.
57.7	57.9	57.3	55.5	53.4	52.1	51.5	50.6	50.1	49.7	49.3	51.0	59.1	43.7	Dec.
73.8	73.5	72.4	70.9	69.0	67.4	66.3	65.3	64.6	64.0	63.4	66.4	75.7	58.7	Year.

WASHINGTON, D. C.

[H = 59 ft.; local time, 8m slow.]

40.9	41.3	41.5	40.6	39.4	37.9	37.3	36.4	35.9	35.2	34.2	36.6	43.7	29.6	Jan.
41.6	42.5	42.3	41.3	39.9	37.9	36.4	35.0	33.9	33.0	32.2	34.5	44.0	25.9	Feb.
54.7	55.1	55.5	54.9	53.9	52.1	50.7	49.3	47.9	47.1	46.4	48.6	57.3	40.4	Mar.
57.0	57.7	57.8	57.2	56.2	54.8	53.4	51.4	50.1	49.2	48.5	50.8	60.0	41.8	Apr.
71.9	72.4	71.9	71.1	69.8	67.3	65.1	63.2	62.1	61.4	60.2	63.8	74.1	54.8	May.
82.1	81.9	81.8	81.5	80.4	77.7	75.8	73.3	71.7	70.1	69.0	73.5	84.1	62.9	June.
85.1	85.4	85.3	84.3	83.3	81.5	79.0	77.3	75.7	74.8	74.1	78.0	87.9	69.8	July.
83.8	83.5	83.2	82.4	80.9	78.8	76.8	75.3	74.4	73.3	72.5	76.3	85.7	68.1	Aug.
80.0	80.4	79.6	79.0	77.1	73.6	70.5	69.3	68.1	66.7	65.5	70.7	81.4	60.6	Sept.
64.7	65.2	64.8	64.2	62.3	60.1	57.8	56.8	56.2	55.1	54.0	57.9	67.1	48.4	Oct.
50.5	51.0	50.9	50.0	48.2	46.4	44.9	43.6	42.9	41.6	40.6	44.0	52.5	35.6	Nov.
41.3	41.7	42.0	41.5	39.6	37.9	36.8	35.5	34.8	34.1	33.3	35.6	44.0	27.1	Dec.
62.8	63.2	63.0	62.3	60.9	58.8	57.0	55.5	54.5	53.5	52.5	55.9	65.2	47.1	Year.

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WIND—VELOCITY AND FREQUENCY.

BISMARCK, N. DAK.

[λ=46° 47′ N.; φ=100° 38′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	4.8	5.5	6.1	5.6	5.5	5.6	6.7	6.7	6.1	6.3	6.4	7.5	8.7	10.0	11.1	11.9	11.9
Feb	10.8	10.2	9.4	9.1	9.1	8.5	8.7	8.8	9.7	9.2	9.4	10.4	11.6	12.2	12.7	13.0	13.3
Mar	10.2	9.3	9.0	8.6	8.6	8.1	7.8	7.1	7.5	9.3	10.9	11.1	12.2	12.6	14.0	14.3	14.4
Apr	10.2	9.4	10.0	9.9	10.1	9.1	9.2	8.8	10.2	12.2	14.3	15.4	16.0	16.1	16.1	17.6	18.8
May	7.2	7.0	6.5	6.5	6.0	6.1	6.2	6.7	7.7	9.3	10.6	11.4	12.5	12.5	12.8	12.9	13.4
June	8.3	8.2	8.4	8.8	8.8	8.4	9.0	9.7	10.9	11.8	11.2	13.0	13.5	13.6	13.6	13.6	13.6
July	7.3	7.3	6.8	6.3	6.6	6.6	7.1	7.0	8.1	9.5	10.6	11.1	12.0	12.7	12.0	11.9	13.5
Aug	6.7	6.2	6.0	6.1	6.2	7.0	7.4	7.2	8.1	8.8	10.0	10.7	12.3	11.9	12.0	11.6	12.0
Sept	5.5	6.2	6.0	6.1	7.1	6.9	6.6	6.5	6.8	8.3	9.8	12.5	13.7	14.2	14.2	14.0	13.9
Oct	10.5	9.9	9.8	9.7	8.8	8.9	9.6	9.4	9.7	10.6	11.9	12.9	13.8	14.7	14.9	14.9	15.4
Nov	8.0	7.3	7.4	7.8	8.3	7.8	8.5	8.7	9.1	9.2	9.7	11.9	13.7	14.4	14.9	15.5	14.0
Dec	7.7	7.5	7.4	7.1	7.1	7.6	7.8	7.5	7.8	8.8	9.4	11.1	12.6	14.2	14.4	14.2	13.7
Year	8.1	7.8	7.7	7.6	7.7	7.6	7.9	7.8	8.5	9.4	10.4	11.6	12.7	13.3	13.6	13.8	14.0

BOSTON, MASS.

[λ=42° 21′ N.; Φ=71° 4′ W.]

Jan	9.9	9.4	9.9	10.5	11.2	11.1	11.7	11.7	11.7	12.9	12.9	13.5	13.3	13.6	13.1	12.2	10.8
Feb	10.3	11.4	11.3	11.1	11.1	11.3	11.5	11.2	11.9	11.6	11.9	12.0	13.2	12.9	12.6	12.9	13.0
Mar	8.5	8.1	8.0	7.3	7.6	8.5	8.4	8.7	9.7	10.6	10.7	11.3	12.0	12.6	12.2	12.4	12.2
Apr	11.6	11.5	11.3	11.7	11.7	11.4	12.3	12.7	13.4	14.1	13.9	14.2	14.4	14.6	15.0	14.5	14.7
May	9.5	9.6	9.6	10.5	10.1	10.2	10.7	11.2	11.0	11.2	12.0	13.0	12.5	12.5	11.9	12.1	12.0
June	9.2	9.5	9.6	9.3	8.7	9.0	9.9	10.0	11.0	12.0	12.5	12.4	12.9	13.1	13.3	13.2	12.7
July	8.5	8.1	7.5	7.3	7.2	7.3	8.1	8.2	8.1	9.3	9.8	10.6	11.2	11.9	11.6	12.1	11.3
Aug	8.8	9.0	8.2	7.9	8.3	7.8	8.2	8.5	9.1	10.0	9.9	10.5	11.0	11.6	11.5	12.3	11.0
Sept	7.9	8.4	8.5	8.2	7.9	8.5	8.6	9.1	10.1	10.3	10.6	11.0	12.0	12.0	11.8	11.8	11.3
Oct	10.6	10.3	9.8	9.8	9.8	9.8	10.6	10.7	11.3	11.9	12.3	12.3	12.7	13.4	13.0	12.7	12.1
Nov	12.5	11.8	11.8	12.2	12.4	12.2	12.4	12.5	12.8	13.5	13.3	13.7	13.2	13.5	13.3	13.2	12.4
Dec	11.0	11.2	11.0	10.5	10.2	10.5	11.2	11.3	12.2	11.7	12.4	13.5	13.5	13.6	13.5	13.2	11.8
Year	9.9	9.9	9.7	9.7	9.7	9.8	10.3	10.5	11.0	11.6	11.8	12.3	12.7	12.9	12.7	12.7	12.1

BUFFALO, N. Y.

[λ=42° 53′ N.; φ=78° 53′ W.]

Jan	16.1	15.8	15.2	15.1	15.7	15.3	15.1	15.0	14.6	13.8	15.6	16.1	17.5	17.7	18.2	16.4	16.8
Feb	15.0	14.6	14.4	14.6	14.9	14.5	14.2	14.8	15.5	15.9	16.6	16.4	16.9	17.0	16.9	16.6	16.5
Mar	14.7	14.3	14.3	13.3	13.7	13.5	13.3	13.4	14.0	14.6	14.9	15.3	16.1	16.6	15.9	14.8	15.4
Apr	12.6	12.9	12.6	13.1	13.0	12.5	12.9	13.1	14.2	15.0	15.3	15.2	15.9	16.8	18.3	18.2	18.3
May	10.1	10.6	10.7	10.0	9.4	9.2	9.4	9.3	10.8	10.9	11.5	12.5	13.2	14.4	14.0	14.0	13.9
June	9.9	10.8	11.3	11.5	11.9	12.3	12.6	13.2	14.5	14.8	14.8	14.8	15.4	14.9	15.7	15.5	15.7
July	10.1	9.3	9.5	9.3	8.8	8.8	8.8	9.0	10.2	11.0	11.5	12.3	13.1	12.3	12.8	13.2	12.5
Aug	11.9	12.0	11.6	11.5	11.1	10.1	10.5	10.6	11.5	12.7	14.0	14.5	15.6	15.5	15.7	14.9	15.3
Sept	12.0	11.4	11.4	11.1	11.0	11.8	10.8	11.6	13.0	13.9	15.0	15.5	16.8	17.8	17.2	16.8	16.7
Oct	14.0	13.9	14.4	14.2	13.8	13.5	13.6	14.3	13.5	15.5	15.7	15.8	16.2	16.4	16.4	16.3	16.1
Nov	16.1	16.8	16.8	16.1	17.0	16.2	16.1	16.1	16.5	16.6	17.1	17.8	17.3	16.9	16.8	16.0	16.6
Dec	25.0	24.9	24.9	25.4	25.3	24.4	23.0	22.5	22.1	21.9	23.5	24.1	24.9	24.5	24.3	23.5	23.2
Year	14.0	13.9	13.9	13.8	13.8	13.5	13.4	13.6	14.2	14.7	15.5	15.9	16.6	16.7	16.8	16.4	16.4

CHICAGO, ILL.

[λ=41° 53′ N; φ=87° 37′ W.]

Jan	16.4	15.4	15.9	16.8	16.5	17.0	16.9	16.0	16.2	17.0	17.8	18.3	19.2	18.7	19.3	19.2	20.1
Feb	18.9	18.6	18.9	18.9	18.4	18.7	19.4	19.5	19.6	19.6	20.0	20.2	21.1	19.9	20.6	21.0	20.5
Mar	16.9	16.5	16.4	16.2	16.3	15.7	16.4	15.9	17.3	17.6	18.4	18.6	19.5	18.8	18.6	18.4	18.1
Apr	18.5	17.7	17.9	17.6	18.3	19.2	19.4	18.8	18.4	18.7	19.1	19.9	20.6	19.4	19.3	19.3	20.2
May	15.4	16.5	17.4	17.8	17.9	17.9	17.4	16.9	16.9	16.7	17.7	18.0	19.3	19.2	19.3	19.2	18.9
June	14.8	14.6	14.9	15.0	14.9	15.6	14.9	14.4	14.1	14.9	14.6	14.9	16.1	16.7	17.0	17.0	16.8
July	11.7	11.2	11.5	13.0	12.6	12.2	11.8	10.7	10.8	11.6	12.1	12.9	14.0	15.0	16.2	16.6	17.1
Aug	15.2	14.7	14.7	14.1	15.3	14.1	14.3	13.9	13.8	14.5	14.7	14.9	15.7	15.3	15.6	15.7	15.0
Sept	17.7	16.6	15.6	16.0	16.7	16.3	16.0	15.1	16.1	15.6	15.4	15.5	15.2	15.2	16.2	16.5	16.1
Oct	17.1	17.5	17.5	17.7	17.2	17.1	16.8	16.5	17.5	18.7	18.2	18.8	20.5	20.0	19.8	19.7	19.7
Nov	20.6	18.9	18.7	19.2	19.4	19.4	20.2	20.5	21.7	21.9	22.5	22.7	24.6	23.9	24.1	23.0	22.9
Dec	18.6	18.1	18.3	18.1	18.1	18.0	17.9	19.0	19.1	19.1	19.6	20.9	22.8	23.1	23.9	23.1	22.3
Year	16.8	16.4	16.5	16.7	16.8	16.8	16.8	16.4	16.8	17.2	17.5	18.0	19.0	18.8	19.2	19.1	19.0

Wind Velocity and Frequency.

BISMARCK, N. DAK.

[h_a = 29 ft.; local time, 1h 42m slow.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
9.8	7.8	6.6	6.4	6.7	5.9	5.1	7.3	40	24	46	64	49	85	25	74	347	30	Jan.
13.0	11.6	11.1	11.3	11.5	11.4	11.4	10.7	40	45	44	105	93	35	8	38	301	3	Feb.
14.4	13.5	11.4	10.6	10.1	10.2	10.5	10.7	48	112	57	99	40	43	77	96	216	4	Mar.
18.9	18.5	17.2	13.0	10.9	10.9	10.6	13.5	48	92	118	81	110	68	29	36	184	2	Apr.
13.0	12.9	11.4	9.0	7.9	8.2	7.5	9.4	33	112	111	162	96	33	28	44	144	14	May.
13.1	13.1	11.3	9.9	8.9	8.3	7.9	10.7	40	63	73	87	105	76	43	89	178	6	June.
13.3	12.5	11.4	8.7	7.1	6.9	6.7	9.3	34	75	46	113	139	92	54	52	168	5	July.
12.0	11.6	10.5	8.3	7.9	8.6	7.6	9.0	38	89	87	140	126	87	15	17	175	8	Aug.
12.8	10.7	8.6	7.9	7.5	6.5	5.9	9.1	50	71	82	81	89	45	56	62	220	14	Sept.
13.8	11.8	10.5	11.1	11.5	11.3	10.5	11.5	46	110	66	50	85	17	31	91	280	14	Oct.
11.6	9.2	8.0	7.3	7.5	7.7	8.0	9.8	48	35	44	67	77	31	76	60	310	20	Nov.
11.9	9.5	8.5	8.5	8.8	7.5	7.7	9.5	36	78	29	45	40	33	38	73	391	17	Dec.
13.1	11.9	10.5	9.3	8.9	8.6	8.3	10.0	50	904	804	1,094	1,050	646	480	731	2,914	137	Year.

BOSTON, MASS.

[h_a = 181 ft.; local time, 16m fast.

10.1	10.6	10.5	10.9	10.8	10.2	10.6	11.4	39	68	33	50	42	53	75	160	263	0	Jan.
11.6	11.9	11.2	10.8	10.5	9.8	9.3	11.5	50	43	85	41	30	102	110	134	127	0	Feb.
10.9	10.7	10.1	9.8	9.1	9.3	8.3	9.9	39	65	39	111	44	100	177	125	83	0	Mar.
14.0	12.8	12.0	11.8	11.8	11.7	11.8	12.9	42	102	203	49	10	25	56	126	149	0	Apr.
11.2	10.5	9.7	9.4	9.1	8.8	8.7	10.7	36	62	160	141	36	83	119	56	87	0	May.
11.7	11.0	10.1	9.9	10.0	9.3	8.8	10.8	30	53	126	127	16	35	162	119	82	0	June.
10.5	9.7	8.9	9.1	8.2	8.4	8.2	9.2	36	59	83	123	24	67	205	96	86	1	July.
9.8	10.0	9.3	9.5	8.7	8.4	8.5	9.5	29	40	42	62	19	63	214	231	73	0	Aug.
9.4	8.9	8.4	9.0	8.4	8.5	8.7	9.6	36	47	33	95	23	51	175	190	106	0	Sept.
11.2	12.2	11.2	11.4	11.4	10.6	10.5	11.3	36	93	50	119	31	87	114	131	118	1	Oct.
11.9	11.6	11.2	11.4	11.8	12.2	12.4	12.5	60	74	88	30	17	42	95	171	203	0	Nov.
11.4	11.7	11.4	12.1	12.1	12.2	11.8	11.9	50	52	56	37	21	17	235	225	100	1	Dec.
11.1	11.0	10.3	10.4	10.2	10.0	9.8	10.9	60	759	996	985	315	723	1,739	1,764	1,476	3	Year.

BUFFALO, N. Y.

[h_a = 206 ft.; local time, 15m slow.]

17.4	18.0	18.1	17.7	17.5	17.7	16.8	16.4	68	64	55	81	58	77	127	231	51	0	Jan.
15.5	15.6	15.9	15.8	13.8	14.0	13.6	15.4	48	44	38	57	26	120	188	146	53	0	Feb.
14.3	13.7	14.5	14.7	14.6	14.0	14.1	14.5	60	44	44	52	56	173	191	140	44	0	Mar.
16.5	15.0	14.0	13.9	13.6	13.1	12.5	14.5	57	35	175	81	35	31	162	117	80	4	Apr.
13.7	12.9	11.5	10.8	10.9	10.9	10.5	11.5	46	59	106	53	37	75	251	132	30	1	May.
15.1	15.0	12.8	11.5	11.2	11.2	10.4	13.2	47	44	84	78	20	67	210	176	41	0	June.
11.6	11.6	11.5	10.3	10.2	11.6	10.6	10.8	36	70	107	60	50	53	252	126	23	3	July.
14.7	13.4	12.5	11.9	12.2	11.9	11.8	12.8	51	69	69	31	16	92	274	166	25	2	Aug.
15.5	13.8	13.5	13.0	12.9	12.5	12.6	13.6	47	84	32	26	27	116	229	164	40	2	Sept.
16.3	16.5	16.8	16.7	15.4	14.3	13.6	15.1	56	68	68	98	89	116	149	96	60	0	Oct.
15.3	15.6	16.5	16.2	16.0	17.2	17.0	16.5	68	32	68	18	58	82	144	175	141	2	Nov.
24.0	25.6	25.6	24.6	23.6	23.7	23.2	24.1	68	32	58	27	30	27	244	266	60	0	Dec.
15.8	15.6	15.3	14.8	14.3	14.3	13.9	14.9	68	645	905	660	501	1,030	2,422	1,936	647	14	Year.

CHICAGO, ILL.

[h_a = 274 ft.; local time, 50m slow.]

20.1	20.9	19.9	18.4	17.6	16.5	16.7	17.8	66	55	72	41	61	119	93	158	145	0	Jan.
19.2	19.0	19.1	19.0	18.6	18.5	18.3	19.4	48	36	94	37	43	163	71	139	89	0	Feb.
18.5	18.3	17.8	17.5	17.6	17.9	17.6	17.5	62	126	35	65	44	214	76	134	48	2	Mar.
19.4	19.3	18.7	18.6	17.2	16.8	17.0	18.7	48	268	67	43	67	115	54	41	65	0	Apr.
18.6	17.7	14.9	14.0	15.4	14.7	15.3	17.2	48	80	283	30	46	116	102	73	14	0	May.
16.5	16.0	15.4	14.5	14.0	13.9	14.7	15.3	50	57	171	78	35	127	138	83	31	0	June.
15.8	15.3	14.0	13.0	13.2	13.1	11.6	13.2	48	28	255	109	66	67	134	49	28	8	July.
15.0	14.4	13.2	13.3	14.1	14.2	15.2	14.6	72	30	183	68	98	125	151	50	39	0	Aug.
15.9	15.5	15.4	15.5	15.9	16.3	16.4	15.9	41	74	136	111	83	114	105	117	40	0	Sept.
19.1	19.4	19.0	18.9	18.5	17.7	17.4	18.3	63	47	114	46	82	160	92	127	76	0	Oct.
20.4	20.8	21.2	21.1	20.9	20.2	19.3	21.2	76	1	57	0	51	162	169	168	112	0	Nov.
20.8	21.1	20.8	19.8	19.3	18.3	17.8	19.9	47	50	50	32	7	62	199	232	112	0	Dec.
18.3	18.1	17.4	17.0	16.9	16.5	16.4	17.4	76	793	1,519	658	684	1,544	1,384	1,370	799	10	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

CINCINNATI, OHIO.

[λ = 39° 6′ N.; φ = 84° 30′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	9.6	9.5	9.4	8.7	8.6	8.5	9.6	10.1	10.3	10.3	11.4	11.3	12.1	12.1	11.8	11.8	11.9
Feb	8.4	8.4	8.2	8.2	8.1	8.5	8.2	8.2	9.4	10.2	10.8	10.7	11.7	11.2	11.1	10.8	10.7
Mar	6.6	5.8	6.5	6.5	7.1	7.1	7.8	7.6	8.3	8.7	9.3	9.4	10.0	10.0	9.4	9.1	8.7
Apr	5.9	5.8	5.5	5.5	5.6	5.4	5.9	6.8	8.7	9.7	10.7	11.0	10.9	11.9	11.9	11.5	10.9
May	5.4	5.5	5.2	5.0	5.2	5.1	5.5	6.7	8.0	9.0	10.2	11.1	11.9	12.2	12.1	12.1	11.6
June	4.4	4.5	3.9	3.8	3.6	3.1	3.8	5.2	6.1	7.3	7.8	8.5	8.2	9.1	9.9	9.4	9.3
July	4.1	4.2	4.1	3.9	3.8	3.7	4.1	5.3	6.4	6.4	7.1	8.1	9.2	9.5	10.0	9.8	8.2
Aug	3.3	3.5	3.5	3.0	3.5	3.2	3.7	3.6	4.8	6.6	7.6	8.2	8.5	8.4	8.6	8.6	8.3
Sept	4.6	4.8	4.8	4.8	5.0	5.3	6.0	6.1	7.0	7.7	7.7	8.2	8.6	8.8	8.8	9.0	9.0
Oct	6.9	6.5	6.4	6.5	6.1	6.0	6.7	6.9	7.9	8.7	9.9	9.8	10.6	10.7	10.8	9.8	9.6
Nov	6.8	5.7	5.8	5.7	6.0	7.0	6.9	7.4	8.3	9.3	9.9	10.7	11.3	11.1	10.8	10.7	10.3
Dec	8.8	8.3	7.6	7.8	7.9	8.2	8.1	8.3	9.0	9.8	10.7	10.3	10.9	11.4	11.3	11.2	10.9
Year	6.2	6.0	5.9	5.8	5.9	5.9	6.4	6.8	7.8	8.6	9.4	9.8	10.3	10.5	10.5	10.3	10.0

CLEVELAND, OHIO.

[λ = 41° 30′ N.; φ = 81° 42′ W.]

Jan	17.1	16.7	16.7	17.0	16.8	17.3	17.6	18.2	18.3	17.5	17.5	17.6	18.9	18.7	18.8	17.9	16.8
Feb	16.5	15.9	15.1	15.2	15.4	15.2	15.0	16.0	16.2	16.2	15.8	16.3	17.0	17.0	17.5	17.5	17.3
Mar	14.1	14.6	14.6	14.6	14.3	14.5	14.7	15.2	15.2	15.2	14.9	13.9	14.3	14.1	14.0	14.5	13.7
Apr	12.1	12.3	13.1	14.0	13.9	13.8	13.7	14.0	13.9	14.9	15.7	16.2	16.9	16.6	16.1	15.5	14.7
May	10.3	11.7	11.3	10.9	10.9	11.1	10.4	11.9	12.6	13.2	13.8	14.3	14.3	13.1	12.7	12.3	11.8
June	11.8	12.4	12.2	11.8	11.4	11.3	10.3	10.7	11.7	12.0	12.1	13.0	13.5	13.5	13.2	12.9	13.0
July	10.6	10.5	10.6	10.7	11.0	10.6	9.8	10.3	9.8	10.6	11.8	12.1	12.7	13.6	13.9	14.0	13.7
Aug	10.5	10.5	10.0	10.6	10.9	11.0	11.0	11.0	11.1	10.8	11.0	11.2	12.4	12.9	12.7	12.3	11.1
Sept	13.8	14.1	14.7	14.6	14.2	13.6	13.5	13.1	11.6	11.4	12.5	13.2	13.2	13.6	14.5	14.2	14.1
Oct	16.6	17.2	17.2	16.4	16.3	17.3	17.1	17.4	16.8	16.9	16.9	16.6	16.1	14.9	13.9	14.4	13.9
Nov	19.0	18.7	18.4	17.7	17.5	16.9	16.8	16.5	16.8	17.1	16.5	16.4	16.4	16.3	16.1	16.1	16.1
Dec	18.7	18.4	18.3	17.6	17.6	18.0	17.5	18.1	18.3	18.1	18.2	18.1	18.4	18.1	18.4	18.0	18.1
Year	14.3	14.4	14.4	14.3	14.2	14.2	14.0	14.4	14.4	14.5	14.7	14.9	15.4	15.2	15.2	15.0	14.5

DETROIT, MICH.

[λ = 42° 20′ N.; φ = 83° 3′ W.]

Jan	9.8	9.6	9.6	9.3	10.1	9.7	9.6	9.6	10.0	10.5	11.2	12.0	12.9	13.2	13.5	13.4	12.7
Feb	10.8	10.8	10.3	10.6	10.2	10.4	10.0	10.4	10.7	10.9	12.3	12.6	13.0	12.9	12.6	12.4	11.4
Mar	8.0	8.0	8.5	8.9	8.6	8.5	8.7	8.9	9.6	10.1	10.5	10.8	11.4	12.0	11.5	11.5	11.0
Apr	8.8	8.2	8.2	8.9	9.0	9.0	9.0	9.1	9.5	9.8	9.8	11.0	11.5	11.6	11.9	12.4	12.4
May	7.0	7.0	7.1	7.1	7.1	6.7	6.7	7.5	8.3	8.8	10.0	10.6	11.2	11.3	11.2	11.2	11.5
June	6.8	7.1	7.1	6.7	6.9	6.5	6.8	7.1	8.5	9.1	9.8	10.9	11.6	12.0	11.7	11.0	10.6
July	5.4	5.3	5.4	5.3	5.4	5.0	4.7	4.7	5.7	6.6	7.1	7.5	8.1	8.3	8.6	8.2	8.1
Aug	5.3	5.5	5.6	5.5	5.6	5.8	5.3	5.5	5.7	6.5	7.2	7.5	8.4	8.4	8.4	8.3	7.9
Sept	7.7	7.8	7.1	7.6	8.3	7.9	7.5	8.2	8.4	9.6	10.3	11.0	12.0	12.3	12.7	12.4	11.7
Oct	9.2	9.6	9.5	10.1	10.1	10.0	9.8	9.8	10.4	11.0	12.2	12.2	11.9	12.3	12.0	11.4	10.6
Nov	10.9	11.1	11.3	11.2	10.8	10.8	10.7	10.5	10.8	11.5	12.1	12.1	12.9	13.1	13.0	12.8	12.0
Dec	13.8	13.2	12.6	12.6	12.6	12.7	12.5	12.4	12.2	13.5	13.6	13.7	14.5	14.5	14.9	14.6	13.9
Year	8.6	8.6	8.5	8.6	8.7	8.6	8.4	8.6	9.2	9.8	10.5	11.0	11.6	11.8	11.8	11.6	11.2

DODGE, KANS.

[λ = 37° 45′ N.; φ = 100° W.]

Jan	7.4	8.1	8.8	9.1	8.6	8.4	8.0	7.3	6.9	7.2	7.3	7.0	7.6	8.4	9.3	8.9	8.2
Feb	8.6	8.5	8.4	7.2	8.2	8.3	8.0	7.9	8.4	9.4	11.0	11.5	11.6	12.7	13.0	12.9	11.7
Mar	11.8	11.9	12.3	12.0	11.4	11.2	10.5	10.1	10.4	11.7	15.1	14.8	15.0	16.0	16.5	16.5	17.6
Apr	12.6	11.9	11.0	11.0	10.9	11.0	11.4	10.6	12.1	15.8	17.9	18.3	18.5	18.5	18.4	18.6	18.8
May	9.8	10.6	11.2	10.8	10.8	10.4	10.6	10.8	11.4	13.3	13.4	13.8	14.0	14.4	14.4	13.6	14.4
June	10.3	10.2	9.5	9.2	8.4	7.8	7.5	8.0	10.8	11.8	12.6	13.1	12.8	13.4	14.1	14.2	14.7
July	9.3	9.4	9.3	8.7	8.1	7.4	7.0	6.3	9.8	11.9	12.3	12.4	12.6	12.8	12.8	13.4	13.2
Aug	8.3	8.1	8.1	7.2	7.2	7.3	6.7	6.3	8.1	10.5	11.1	12.1	12.3	12.7	13.3	13.3	13.4
Sept	9.3	8.7	8.8	8.3	8.3	8.2	7.8	7.8	8.3	10.6	12.0	12.1	12.6	13.5	13.9	13.6	13.1
Oct	10.6	10.2	10.2	10.5	9.9	10.2	9.9	8.9	9.2	11.2	13.4	15.3	16.3	16.3	15.8	15.4	16.1
Nov	12.1	12.1	11.6	11.8	11.1	10.7	10.3	10.1	9.7	11.2	12.9	14.9	16.3	15.9	16.1	15.6	14.8
Dec	8.9	9.0	9.3	9.0	9.8	9.7	9.6	9.7	9.5	9.3	9.4	10.1	11.3	10.9	10.9	10.8	9.5
Year	9.9	9.9	9.9	9.6	9.4	9.2	8.9	8.6	9.6	11.2	12.4	13.0	13.4	13.8	14.0	13.9	13.8

WIND—VELOCITY AND FREQUENCY—Continued.

CINCINNATI, OHIO.

[h_a = 157 ft.; local time, 38^m slow.] [Seventy-fifth Meridian Time.]

6^h	7^h	8^h	9^h	10^h	11^h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
11.1	10.3	10.3	10.4	10.3	10.5	10.3	10.4	44	17	47	134	114	44	131	142	115	0	Jan.
9.4	8.7	7.9	8.0	7.6	7.5	7.4	9.1	38	36	54	29	173	57	89	112	121	1	Feb.
8.3	7.4	6.4	6.1	6.1	6.3	6.4	7.7	34	120	50	55	125	169	65	25	116	19	Mar.
10.4	9.1	7.6	7.2	7.3	6.7	6.5	8.3	33	78	78	53	94	68	66	80	175	28	Apr.
11.4	10.1	7.9	6.6	6.0	5.4	4.9	8.1	36	127	70	102	76	79	106	54	106	24	May.
8.9	8.6	6.7	5.6	5.3	4.3	4.4	6.3	45	60	106	90	96	88	130	57	74	19	June.
8.2	7.6	6.5	5.5	4.8	4.2	4.2	6.2	39	114	112	108	85	111	114	41	43	16	July.
7.3	6.3	4.8	4.3	4.0	3.5	3.5	5.4	30	52	60	100	116	100	153	74	73	16	Aug.
8.6	6.9	6.6	5.5	4.9	4.8	5.2	6.6	30	16	85	57	207	60	156	81	52	6	Sept.
8.2	7.6	7.7	7.5	7.8	7.9	7.0	8.1	25	37	65	85	198	43	107	107	100	2	Oct.
9.4	8.9	8.1	8.1	7.8	7.1	7.0	8.3	36	19	22	46	222	43	164	91	109	4	Nov.
10.3	10.3	10.1	9.3	8.7	8.7	8.4	9.4	34	21	32	36	112	39	306	80	112	6	Dec.
9.3	8.5	7.6	7.0	6.7	6.4	6.3	7.8	45	697	781	894	1,618	902	1,587	944	1,195	142	Year.

CLEVELAND, OHIO.

[h_a = 201 ft.; local time 27^m slow.]

17.1	18.9	19.4	19.7	18.9	18.8	17.9	17.9	72	18	25	70	128	88	119	177	119	0	Jan.
17.5	17.3	17.0	16.3	15.9	16.0	15.5	16.3	65	46	25	6	200	122	103	94	76	0	Feb.
13.0	11.9	12.6	12.7	13.1	13.7	13.9	14.1	61	115	49	24	257	95	34	89	81	0	Mar.
14.2	13.8	14.5	13.0	13.0	13.4	13.0	14.3	48	146	106	18	93	18	67	129	143	0	Apr.
11.3	10.7	10.1	9.6	9.7	9.7	10.4	11.6	48	153	86	13	125	121	52	102	90	2	May.
12.3	11.2	10.8	10.2	11.1	11.0	11.3	11.9	60	145	82	18	121	112	85	78	78	1	June.
12.1	11.5	10.5	10.4	10.2	9.9	10.0	11.3	52	190	91	53	147	104	47	41	71	0	July.
10.2	9.0	7.9	8.6	9.5	10.5	10.8	10.7	33	92	69	17	177	157	89	54	87	2	Aug.
13.0	11.7	12.5	13.4	13.2	13.8	13.8	13.4	48	66	37	15	227	139	96	72	67	1	Sept.
13.3	12.7	13.8	15.4	16.0	16.4	16.8	15.8	50	36	32	45	311	104	109	69	38	0	Oct.
16.3	16.8	17.1	17.6	17.9	19.3	19.3	17.2	52	32	43	9	220	107	156	109	44	0	Nov.
18.6	19.3	20.8	20.9	21.5	20.7	20.2	18.8	60	41	17	26	110	223	242	51	34	0	Dec.
14.1	13.7	13.9	14.0	14.2	14.4	14.4	14.4	72	1,078	664	314	2,115	1,390	1,202	1,065	926	6	Year.

DETROIT, MICH.

[h_a = 166 ft.; local time, 32^m slow.]

11.7	11.5	10.8	11.3	10.8	10.7	10.8	11.0	41	32	97	47	62	57	178	199	66	6	Jan.
11.2	9.8	9.2	9.8	10.1	10.1	10.5	11.0	34	97	78	17	33	102	169	125	51	0	Feb.
9.9	9.1	9.3	9.3	9.1	8.4	8.5	9.6	42	74	93	56	82	132	124	136	47	0	Mar.
12.0	9.9	8.7	8.6	8.5	9.0	9.1	9.8	43	145	154	66	56	37	67	136	59	0	Apr.
11.1	10.0	8.7	7.7	7.6	7.5	7.0	8.7	34	150	104	44	58	95	158	105	28	2	May.
9.5	8.7	7.6	7.1	6.9	6.9	6.9	8.5	36	82	115	56	26	70	250	96	23	2	June.
7.0	6.5	5.6	5.5	5.5	5.0	5.1	6.2	38	101	175	103	24	42	191	63	40	5	July.
7.4	6.7	6.1	5.7	5.4	5.5	5.5	6.5	27	73	122	62	23	64	237	116	43	4	Aug.
9.8	7.5	6.8	7.4	7.6	7.8	7.6	9.1	30	66	58	37	61	82	229	149	35	3	Sept.
9.5	9.0	9.4	9.8	9.5	9.0	9.3	10.3	44	45	82	56	118	113	159	106	65	0	Oct.
11.1	11.0	11.4	11.6	11.9	11.7	10.9	11.6	36	24	47	8	73	113	243	164	48	0	Nov.
13.8	13.3	14.4	14.1	14.0	14.4	14.2	13.6	40	63	62	19	6	35	396	129	33	1	Dec.
10.3	9.4	9.0	9.0	8.9	8.8	8.8	9.7	44	950	1,186	571	623	941	2,404	1,524	538	23	Year.

DODGE, KANS.

[h_a = 52 ft.; local time, 1^h 40^m slow.]

7.5	6.0	5.6	6.5	7.0	6.7	6.6	7.6	34	91	53	27	83	40	80	174	185	11	Jan.
11.8	9.9	8.2	7.9	8.4	8.6	8.8	9.6	34	129	54	43	100	104	69	64	105	4	Feb.
17.5	16.5	14.2	11.7	11.4	11.7	12.0	13.3	59	144	61	21	141	182	79	37	72	7	Mar.
17.8	16.5	14.8	11.9	11.0	11.9	12.0	14.3	50	126	106	30	142	152	57	21	79	7	Apr.
14.1	14.3	13.3	10.9	10.0	10.5	10.5	12.1	48	80	163	53	134	112	56	30	113	3	May.
14.5	14.2	13.1	12.2	10.6	10.8	11.0	11.4	39	53	100	32	196	227	51	24	36	1	June.
13.0	12.7	12.2	10.5	8.5	8.1	8.4	10.4	44	39	64	68	297	217	41	3	7	8	July.
13.3	13.3	12.3	10.3	9.9	9.7	9.1	10.2	31	41	60	18	202	304	63	11	30	15	Aug.
12.4	12.1	10.0	9.1	9.2	9.0	9.1	10.3	55	91	105	31	109	204	79	45	50	6	Sept.
14.8	12.1	9.7	10.4	10.9	11.0	11.1	12.1	41	124	128	3	76	136	41	40	188	8	Oct.
12.4	9.2	8.3	8.9	9.8	10.8	11.1	12.0	48	68	45	28	166	89	70	54	194	6	Nov.
8.1	6.7	7.6	7.3	8.3	8.1	8.4	9.2	38	110	26	3	38	31	100	155	281	0	Dec.
13.1	12.0	10.8	9.8	9.6	9.7	9.8	11.0	59	1,097	965	357	1,683	1,799	786	658	1,338	77	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

EASTPORT, ME.

[λ=44° 54′ N.; φ=66° 59′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	13.7	13.2	13.9	13.9	13.8	14.3	13.5	14.1	14.8	14.8	15.1	14.6	14.3	15.0	15.7	15.8	15.5
Feb	15.1	15.2	15.4	15.6	15.0	15.1	15.5	16.2	16.2	16.5	16.5	16.5	14.7	14.5	14.0	14.1	13.8
Mar	9.0	8.4	8.2	7.9	8.3	9.0	9.7	9.8	9.3	9.2	9.1	9.5	10.7	12.2	11.5	11.1	11.5
Apr	11.3	10.7	10.7	11.3	11.7	12.4	12.3	13.4	14.0	13.8	14.5	14.6	13.8	13.9	13.8	14.6	14.0
May	7.9	7.3	7.0	7.3	6.5	6.9	6.7	6.8	7.8	8.4	8.7	9.0	9.6	10.4	10.2	10.0	10.3
June	7.4	7.4	6.8	6.6	6.6	7.4	7.3	6.9	7.6	8.7	9.6	11.0	10.5	11.2	11.2	10.8	10.7
July	6.5	6.9	6.3	6.8	6.9	6.9	6.2	6.1	6.7	6.0	6.6	7.6	8.4	8.9	9.6	10.1	9.8
Aug	5.6	5.3	4.9	4.7	4.6	4.6	4.9	5.3	5.8	6.6	6.9	7.4	8.1	8.6	8.8	8.6	7.9
Sept	7.2	6.9	7.1	7.0	6.5	6.6	6.8	7.4	8.4	9.0	9.6	10.2	10.5	11.0	10.7	10.9	9.9
Oct	9.3	9.4	9.5	9.9	9.9	9.9	10.3	10.9	11.0	11.7	12.5	12.4	12.4	12.2	12.0	11.0	10.7
Nov	14.9	13.9	14.0	14.1	13.9	13.7	13.7	14.0	15.1	15.8	15.9	15.6	15.3	15.5	15.1	14.1	13.8
Dec	11.7	11.4	11.9	12.2	12.3	11.8	12.6	12.6	12.4	12.8	13.0	12.8	12.1	12.1	11.8	10.9	10.6
Year	10.0	9.7	9.6	9.8	9.7	9.9	10.0	10.3	10.8	11.1	11.5	11.8	11.7	12.1	12.0	11.8	11.5

GALVESTON, TEX.

[λ=29° 18′ N.; φ=94° 50′ W.]

Jan	11.8	12.0	11.5	11.0	10.5	10.1	11.4	12.0	12.1	12.1	12.1	12.8	12.8	11.8	11.4	11.7	11.8
Feb	10.2	10.4	10.6	9.8	10.3	10.5	10.9	10.4	10.2	11.4	11.9	11.7	11.9	11.4	11.4	11.0	10.8
Mar	13.4	13.4	13.1	13.5	13.1	12.9	12.9	13.7	14.0	13.7	14.5	14.3	14.6	14.4	13.7	13.3	13.4
Apr	10.1	10.5	10.7	10.3	10.2	10.3	11.1	10.9	11.6	12.0	12.5	12.1	12.7	12.3	11.6	11.9	12.4
May	11.5	11.4	11.4	11.4	10.9	10.7	11.0	11.2	11.5	11.5	12.2	12.3	11.9	12.3	12.0	12.6	12.8
June	9.0	9.1	8.9	8.4	8.4	7.7	7.4	7.5	8.0	8.2	8.6	9.5	9.4	10.2	10.5	10.8	11.1
July	6.3	6.6	6.6	6.4	6.4	5.6	5.7	5.7	6.2	6.8	7.0	6.8	7.1	7.6	7.6	7.4	7.0
Aug	4.5	4.5	4.5	4.5	4.2	4.1	4.4	4.5	4.9	4.9	5.0	5.5	5.6	6.2	5.9	5.9	6.1
Sept	8.7	8.2	7.8	7.2	6.8	6.6	7.2	7.2	8.0	8.5	8.2	8.1	8.7	8.9	9.0	8.9	8.8
Oct	9.0	8.6	8.3	8.4	8.6	8.4	8.8	9.4	9.3	10.6	11.3	11.1	11.1	11.0	10.9	10.5	10.2
Nov	10.6	10.6	10.4	10.6	11.2	11.7	11.4	11.8	11.5	11.6	11.7	11.6	12.0	11.7	11.7	10.8	11.0
Dec	11.1	10.9	11.2	11.1	11.0	11.0	11.0	10.8	10.5	11.2	11.2	11.1	11.8	11.8	11.5	11.6	11.7
Year	9.7	9.7	9.6	9.4	9.3	9.1	9.4	9.6	9.8	10.2	10.5	10.6	10.8	10.8	10.6	10.5	10.6

HAVRE, MONT.

[λ=48° 34′ N.; φ=109° 40′ W.]

Jan	9.5	9.4	9.7	10.2	9.8	9.3	10.3	9.9	9.6	10.8	11.0	11.4	11.4	12.8	13.6	13.5	13.5
Feb	10.0	9.8	9.6	10.6	10.9	10.3	9.8	10.0	9.9	9.7	9.6	9.8	10.4	11.6	13.1	13.2	12.6
Mar	10.5	10.6	11.5	11.8	10.3	10.2	10.0	8.6	9.8	9.4	9.9	10.9	12.3	13.1	13.3	13.2	13.5
Apr	10.7	10.4	9.6	10.4	11.5	10.2	9.6	8.7	9.2	10.8	11.7	12.3	13.3	13.7	13.5	14.2	14.1
May	6.9	8.0	9.5	9.4	9.1	9.5	9.4	10.1	11.5	12.9	14.0	14.9	15.4	15.8	15.7	15.2	15.2
June	8.4	8.4	7.9	8.3	8.1	8.3	7.6	7.9	8.9	10.5	11.5	12.5	14.1	13.4	13.3	13.2	13.6
July	7.9	7.8	7.4	7.7	8.2	7.8	6.8	7.3	8.2	9.5	10.5	10.3	12.4	13.2	13.0	12.9	14.1
Aug	6.6	5.7	6.6	6.5	6.3	5.6	6.4	6.1	6.2	7.6	8.1	8.7	9.9	9.4	9.3	9.8	9.6
Sept	7.1	7.0	7.1	7.1	7.4	8.4	8.9	8.2	8.5	9.2	10.8	11.2	11.5	12.0	11.9	11.5	11.9
Oct	7.8	7.5	7.1	7.5	7.4	6.5	7.0	7.2	7.9	8.5	9.3	9.7	11.7	12.8	11.8	12.0	11.5
Nov	12.1	12.3	12.4	12.2	12.9	13.7	12.0	12.3	12.8	12.0	12.3	12.5	14.9	17.0	17.1	16.9	15.9
Dec	12.8	13.4	14.1	13.4	14.5	13.8	12.8	13.6	13.9	13.5	12.1	12.3	13.8	15.0	15.4	14.3	14.3
Year	9.2	9.2	9.4	9.6	9.6	9.5	9.2	9.2	9.7	10.4	10.9	11.4	12.6	13.3	13.4	13.3	13.3

KANSAS CITY, MO.

[λ=39° 5′ N.; φ=94° 37′ W.]

Jan	6.4	6.4	6.0	6.0	6.2	6.2	6.1	6.8	6.7	6.6	7.4	8.6	8.9	8.6	8.2	8.3	8.2
Feb	9.7	9.3	9.5	9.6	9.4	9.1	8.6	8.2	8.9	9.1	9.5	10.2	11.4	10.4	10.5	10.2	10.0
Mar	8.1	8.0	8.0	8.2	7.3	7.3	7.3	7.2	8.7	9.6	9.8	10.2	11.4	11.3	11.2	11.5	11.0
Apr	6.7	7.1	6.8	7.1	6.8	6.8	7.1	7.6	9.0	10.1	11.5	12.3	12.4	11.7	11.5	11.5	11.8
May	6.2	5.6	5.5	5.7	6.0	6.2	7.0	7.3	7.5	8.3	8.0	8.7	9.7	9.9	10.4	10.1	9.9
June	6.9	6.2	6.3	6.0	5.8	5.5	5.5	6.1	6.7	7.1	7.4	7.7	8.6	8.7	9.5	9.6	9.1
July	6.3	6.4	6.4	6.2	6.3	5.8	6.0	6.4	7.2	8.0	8.5	8.5	9.0	9.3	9.1	9.2	9.2
Aug	7.1	6.5	6.8	6.9	6.4	6.2	5.8	6.0	6.8	7.7	8.6	8.7	9.3	9.6	9.6	9.9	9.5
Sept	7.3	7.1	7.2	7.2	7.2	7.0	6.4	6.4	6.8	7.5	8.6	8.9	10.3	10.5	10.9	10.7	10.5
Oct	10.3	10.2	10.3	10.0	9.5	8.8	9.0	9.0	9.5	10.5	10.9	11.5	12.5	12.0	12.4	12.9	12.1
Nov	7.8	8.0	8.2	8.6	7.9	8.5	8.7	8.9	9.0	10.1	11.1	11.1	12.1	11.5	11.0	10.2	10.1
Dec	9.6	10.1	10.0	9.4	9.6	9.1	9.0	9.2	9.2	9.6	9.9	10.2	11.2	10.9	11.0	10.5	10.6
Year	7.7	7.6	7.6	7.6	7.4	7.2	7.2	7.4	8.0	8.7	9.3	9.7	10.6	10.4	10.4	10.4	10.2

WIND—VELOCITY AND FREQUENCY—Continued.

EASTPORT, ME.

[h_a=74 ft.; local time, 32m fast.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
16.0	15.2	15.1	14.2	14.1	14.8	14.3	14.6	60	178	44	57	28	34	80	140	176	7	Jan.
13.6	13.1	12.2	12.0	12.1	12.6	12.9	14.5	66	93	104	68	33	105	86	60	114	9	Feb.
9.7	9.3	9.2	10.1	10.4	10.5	10.3	9.7	40	82	66	20	16	171	172	92	95	30	Mar.
13.3	12.1	12.1	11.6	11.5	10.8	10.4	12.6	52	103	154	77	16	50	85	162	69	4	Apr.
9.3	8.5	8.9	8.7	8.4	8.5	8.5	8.4	29	86	99	62	31	244	82	26	46	68	May.
9.2	9.5	8.3	7.7	7.5	7.4	7.6	8.5	32	56	95	59	39	170	133	64	53	51	June.
9.5	8.3	7.5	7.6	7.2	6.2	6.0	7.5	24	133	31	30	26	278	107	32	76	31	July.
7.0	6.3	5.9	5.9	6.3	6.2	6.2	6.4	26	49	69	42	44	179	100	105	49	107	Aug.
9.3	8.2	8.0	8.0	7.3	7.4	7.1	8.4	36	98	52	40	8	166	112	153	81	10	Sept.
10.0	9.5	9.4	10.2	10.3	9.9	10.2	10.6	60	115	54	98	41	89	159	74	73	41	Oct.
13.9	13.9	13.9	13.7	14.2	15.1	15.1	14.5	52	165	109	52	11	51	95	128	106	3	Nov.
10.0	10.9	10.9	11.5	11.4	11.4	11.7	11.8	72	80	78	44	24	23	138	242	97	18	Dec.
10.9	10.4	10.1	10.1	10.1	10.1	10.0	10.6	72	1,237	958	646	316	1,560	1,350	1,280	1,036	377	Year.

GALVESTON, TEX.

[h_a=96 ft.; local time, 1h 19m slow.]

11.5	11.1	10.3	10.4	11.2	11.0	10.8	11.5	37	108	65	74	236	109	32	43	75	2	Jan.
10.4	9.6	10.0	10.4	10.6	10.9	10.5	10.7	32	97	81	87	191	112	51	13	34	6	Feb.
13.3	12.6	12.7	12.6	12.8	13.3	13.3	13.4	36	83	151	47	258	182	5	7	10	1	Mar.
11.7	11.6	12.0	12.3	12.1	11.4	10.8	11.5	36	86	61	63	154	207	63	28	58	0	Apr.
12.3	12.5	12.5	11.7	11.2	11.6	11.2	11.7	36	35	33	17	227	348	58	17	9	0	May.
10.9	10.1	10.2	9.6	9.3	9.2	9.0	9.2	32	4	7	15	204	355	90	27	18	0	June.
6.5	6.3	5.7	5.5	5.5	5.4	5.7	6.4	22	51	47	23	169	276	108	50	15	5	July.
6.3	5.9	5.0	4.8	4.5	4.6	4.5	5.0	18	38	84	70	195	184	78	49	28	18	Aug.
8.4	7.9	7.8	7.4	7.8	7.8	7.8	8.0	26	94	193	54	262	36	20	3	54	4	Sept.
10.1	9.5	8.8	8.3	8.5	9.3	9.2	9.5	40	61	143	108	181	89	48	22	86	6	Oct.
10.4	10.5	11.0	10.7	10.3	10.3	10.4	11.1	36	110	228	100	136	34	32	14	66	0	Nov.
10.5	10.5	10.7	11.0	11.5	11.8	11.7	11.2	39	106	192	67	63	95	48	54	117	2	Dec.
10.2	9.8	9.7	9.6	9.6	9.7	9.6	9.9	40	873	1,283	725	2,277	2,029	633	327	568	45	Year.

HAVRE, MONT.

[h_a=47 ft.; local time, 2h 19m slow.]

12.5	11.0	10.3	9.6	9.4	9.6	9.3	10.7	39	14	90	8	0	3	388	177	37	27	Jan.
12.4	11.2	10.9	9.9	10.2	10.2	10.6	10.7	36	22	167	21	10	0	173	162	78	39	Feb.
13.5	13.0	12.2	11.3	10.7	9.9	9.6	11.3	42	52	173	59	1	13	151	111	125	59	Mar.
14.7	14.6	14.1	12.4	11.4	10.8	10.2	11.7	48	26	167	102	16	0	120	188	83	18	Apr.
15.1	14.3	13.8	12.8	10.4	8.8	7.9	11.9	52	23	158	235	40	18	125	80	44	21	May.
12.5	12.9	13.6	12.0	10.5	9.4	8.4	10.6	52	34	89	120	26	32	179	157	60	23	June.
14.3	14.4	14.0	13.6	11.0	9.2	9.0	10.4	49	58	76	109	17	18	244	142	54	26	July.
10.1	9.9	10.0	9.3	8.5	7.9	7.7	8.0	60	71	148	112	10	30	63	163	117	30	Aug.
11.0	11.7	10.3	8.7	7.3	7.1	8.3	9.3	42	34	105	35	4	7	194	239	92	10	Sept.
10.0	8.7	8.0	7.0	6.5	6.8	7.4	8.7	37	40	103	66	1	18	196	201	59	60	Oct.
13.3	11.5	10.6	9.9	10.5	11.4	11.2	12.9	52	14	100	24	2	0	352	169	42	17	Nov.
12.4	11.2	11.6	11.6	10.9	11.6	12.3	13.1	50	12	64	30	18	0	328	214	66	12	Dec.
12.6	12.0	11.6	10.6	9.8	9.4	9.3	10.8	60	402	1,437	922	146	140	2,514	2,002	857	340	Year.

KANSAS CITY, MO.

[h_a=95 ft.; local time, 1h 18m slow.]

6.8	6.2	7.0	7.5	6.4	6.4	6.0	7.0	33	101	60	98	60	52	46	58	269	0	Jan.
9.2	8.5	7.6	7.7	7.9	9.2	9.5	9.3	35	89	53	41	78	107	37	54	212	1	Feb.
10.3	9.6	8.6	8.4	8.0	7.9	8.1	9.0	36	105	59	35	227	80	43	16	178	1	Mar.
11.5	10.2	9.2	8.1	7.6	7.3	6.7	9.1	39	137	54	80	135	67	13	53	178	3	Apr.
9.3	8.3	7.7	7.0	6.6	6.8	6.8	7.7	40	108	148	45	158	55	67	49	109	5	May.
8.7	8.0	7.1	6.3	6.3	6.9	6.7	7.2	30	82	104	60	245	125	49	12	43	0	June.
8.8	8.5	7.3	6.2	6.1	6.5	6.4	7.4	50	155	161	63	219	76	18	3	49	0	July.
8.6	7.7	6.4	6.2	6.3	6.8	7.0	7.5	24	65	31	28	270	146	74	16	112	2	Aug.
9.5	8.1	7.1	7.3	6.9	7.7	7.0	8.1	31	74	85	35	197	128	105	24	72	0	Sept.
11.3	9.9	9.3	8.5	9.3	10.8	10.7	10.5	33	67	57	21	235	34	33	44	249	4	Oct.
8.7	7.3	7.4	7.3	7.8	7.6	7.2	9.0	39	79	22	61	208	58	97	56	139	0	Nov.
9.7	8.5	8.6	9.2	9.5	9.0	9.3	9.7	30	74	34	15	62	106	174	59	217	0	Dec.
9.4	8.4	7.8	7.5	7.4	7.7	7.6	8.5	50	1,139	868	581	2,094	1,034	756	444	1,827	17	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

KEY WEST, FLA.

[λ=24° 34′ N.; φ=81° 49′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	7.9	8.0	8.4	8.3	8.9	8.8	8.6	9.0	9.4	9.8	10.7	10.6	11.3	11.8	11.6	11.3	10.7
Feb	10.9	11.6	11.6	11.6	11.6	11.8	12.1	12.7	12.3	12.9	12.6	12.1	12.6	12.8	12.9	13.1	13.0
Mar	10.9	10.5	10.1	9.9	9.4	9.5	9.6	9.9	10.8	11.8	11.9	12.8	13.0	12.9	13.0	12.3	11.9
Apr	10.4	10.3	10.8	10.3	10.7	10.6	10.7	11.4	12.6	13.0	13.0	12.8	12.6	12.0	11.9	11.8	11.5
May	8.4	8.0	7.3	7.5	7.2	7.1	7.3	8.7	9.1	9.7	10.5	10.4	11.0	10.9	10.7	10.5	10.3
June	7.8	7.0	6.3	6.0	6.0	6.0	6.8	8.0	9.4	9.6	9.8	10.1	10.3	10.2	10.0	10.0	9.9
July	7.1	7.1	6.9	6.5	6.5	6.1	6.3	7.6	8.8	9.1	8.9	9.5	9.3	9.5	9.3	9.1	8.9
Aug	6.2	6.0	5.8	6.2	6.2	6.2	6.3	6.8	7.9	8.4	8.7	8.9	8.7	8.4	7.9	7.5	7.6
Sept	7.2	7.2	6.8	5.9	5.8	6.2	6.7	7.0	7.4	8.2	8.9	8.7	8.6	8.5	8.2	8.0	7.7
Oct	11.1	10.7	10.4	9.8	10.4	10.1	10.1	9.6	11.1	11.0	11.3	11.7	12.5	11.5	11.1	11.5	11.8
Nov	10.9	10.0	10.4	10.3	10.0	10.5	10.6	10.9	12.3	12.4	12.8	12.9	12.9	13.3	13.5	13.5	12.7
Dec	10.7	10.2	10.3	10.5	10.7	10.6	10.7	10.6	11.3	11.7	11.8	11.9	12.0	11.8	11.9	11.7	11.1
Year	9.1	8.9	8.8	8.6	8.6	8.6	8.8	9.4	10.2	10.6	10.9	11.0	11.2	11.1	11.0	10.9	10.6

MARQUETTE, MICH.

[λ=46° 34′ N.; φ=87° 24′ W.]

Jan	10.9	11.6	11.6	11.6	11.6	11.3	11.0	11.0	10.9	11.3	10.5	10.9	11.9	11.9	11.8	11.1	10.5
Feb	12.5	13.1	13.7	13.2	12.8	13.0	12.9	12.9	12.2	11.8	11.3	11.6	11.6	11.3	10.7	10.1	9.5
Mar	10.5	10.6	10.3	10.0	10.4	10.2	10.3	11.0	12.2	12.9	13.5	13.5	14.5	14.8	14.6	14.0	13.2
Apr	8.2	8.3	8.6	8.9	9.2	8.9	8.7	9.5	11.2	11.9	12.6	12.9	13.1	13.4	13.7	13.3	12.7
May	8.7	9.3	9.1	9.1	8.9	8.9	8.4	9.0	10.2	11.2	10.8	11.5	12.2	12.0	11.6	11.3	10.5
June	8.6	9.2	9.4	9.3	9.1	8.8	8.9	9.4	9.7	10.3	10.5	10.6	10.6	10.6	11.5	10.4	10.0
July	9.3	9.2	9.6	8.6	9.1	9.3	9.0	9.3	9.8	10.1	10.3	9.7	10.6	10.6	10.7	11.1	10.6
Aug	8.0	8.6	8.4	7.8	7.3	7.9	6.8	7.2	7.5	8.0	8.7	8.9	8.7	9.0	8.6	8.5	8.7
Sept	9.6	9.5	9.3	9.8	9.9	10.6	9.7	9.7	9.3	10.6	10.7	12.3	13.1	12.9	13.0	12.2	10.9
Oct	10.5	10.0	10.1	10.3	10.7	10.9	10.7	12.2	12.2	12.2	12.6	13.4	13.9	14.0	14.5	14.5	13.5
Nov	11.1	11.6	11.6	11.4	11.9	11.7	11.2	11.6	12.4	12.2	11.9	12.0	12.3	12.4	11.9	11.7	10.8
Dec	10.7	10.7	10.5	10.8	11.1	12.0	10.8	10.4	11.9	12.7	12.6	12.7	11.8	11.8	11.3	10.6	10.2
Year	9.9	10.1	10.2	10.1	10.2	10.3	9.9	10.3	10.8	11.3	11.3	11.7	12.0	12.1	12.0	11.6	10.9

MEMPHIS, TENN.

[λ=35° 9′ N.; φ=90° 3′ W.]

Jan	13.2	13.0	13.5	12.8	11.6	11.5	11.9	12.0	11.1	11.8	13.0	12.4	11.8	12.2	11.6	11.2	11.2
Feb	11.0	10.5	10.1	9.7	10.0	10.5	10.8	10.8	11.2	11.8	13.0	12.8	13.4	13.2	13.0	12.7	12.8
Mar	12.4	12.7	12.4	12.3	12.4	12.1	13.0	12.0	12.5	13.2	13.3	13.3	13.4	13.3	13.5	12.8	12.5
Apr	11.4	11.0	9.8	9.3	10.1	9.7	10.4	10.5	11.3	11.5	11.8	11.8	11.9	11.0	11.5	11.0	11.7
May	8.2	8.5	8.7	8.5	8.4	8.2	8.9	8.9	9.5	9.7	10.7	10.1	10.6	10.8	11.4	11.4	11.0
June	6.9	6.7	6.8	7.2	7.2	6.3	6.6	7.2	7.4	7.4	7.3	8.4	9.4	10.3	9.1	9.0	9.0
July	6.2	6.0	6.1	6.5	6.7	6.9	6.2	6.8	7.8	8.1	8.2	8.3	9.0	9.2	9.5	9.8	9.5
Aug	5.1	5.0	5.4	5.7	5.5	5.6	5.5	5.1	5.1	5.8	5.7	6.6	6.9	7.5	7.5	7.4	7.6
Sept	9.1	8.7	8.2	9.0	9.3	8.9	9.5	9.5	9.0	9.6	10.1	10.3	11.1	11.1	10.8	9.9	10.7
Oct	10.3	10.2	9.6	9.4	9.5	9.6	9.6	9.8	10.1	10.6	11.6	11.6	12.5	12.3	12.1	11.9	12.4
Nov	10.8	10.2	10.4	10.5	10.3	10.4	9.8	9.5	10.2	10.8	11.6	11.5	11.5	11.4	11.8	10.8	10.1
Dec	11.3	11.0	11.5	11.5	11.2	10.5	11.0	10.8	10.5	11.2	11.5	11.3	11.3	12.0	12.1	12.1	11.9
Year	9.7	9.5	9.4	9.4	9.4	9.2	9.4	9.4	9.6	10.1	10.6	10.7	11.1	11.2	11.2	10.8	10.9

NEW ORLEANS, LA.

[λ=29° 58′ N.; φ=90° 4′ W.]

Jan	10.1	9.8	9.8	10.0	10.1	9.8	9.8	9.5	9.8	11.0	11.7	11.9	11.8	12.1	12.3	11.7	11.3
Feb	8.4	8.1	7.9	8.1	8.4	8.3	7.5	7.6	8.9	10.0	10.4	10.7	10.6	10.2	10.6	10.5	10.1
Mar	9.7	9.2	9.0	9.1	8.8	8.6	8.1	7.9	8.7	11.0	12.0	12.7	13.1	13.7	13.6	14.0	13.7
Apr	8.0	8.3	7.9	7.4	7.6	7.1	6.8	7.8	8.9	10.4	11.3	11.4	12.6	12.9	13.4	13.4	13.3
May	6.7	6.1	6.2	5.7	5.8	5.5	5.3	5.8	7.4	8.9	9.5	9.9	10.3	10.3	9.9	9.7	10.4
June	4.9	5.3	4.8	4.3	4.2	4.0	3.9	4.7	6.2	7.4	8.0	8.3	9.3	9.7	10.7	9.7	9.6
July	6.1	5.6	5.7	5.3	5.6	5.4	5.2	5.9	7.7	8.4	8.5	9.2	9.4	10.0	10.1	9.1	8.7
Aug	4.5	4.2	4.3	4.0	4.7	4.5	4.5	4.7	6.2	7.1	8.0	8.0	8.8	8.9	8.7	8.5	9.0
Sept	6.5	6.5	6.4	7.0	7.0	7.4	7.8	7.4	8.7	9.9	10.1	10.6	10.6	10.6	10.7	9.6	8.7
Oct	7.2	7.0	6.5	6.6	7.5	7.2	7.3	7.9	8.8	9.9	10.0	10.3	10.8	10.8	10.8	10.3	10.2
Nov	9.1	8.9	9.2	9.3	9.2	9.1	9.3	9.7	10.0	10.2	11.0	11.2	12.1	11.5	11.3	11.1	10.3
Dec	8.3	8.6	9.3	9.3	9.3	9.6	9.9	9.9	10.0	10.4	11.0	10.6	11.3	10.8	11.0	10.8	10.5
Year	7.5	7.3	7.2	7.2	7.4	7.2	7.1	7.4	8.4	9.6	10.1	10.4	10.9	11.0	11.1	10.7	10.5

WIND—VELOCITY AND FREQUENCY—Continued.

KEY WEST, FLA.

[h_a=50 ft.; local time, 27^m slow.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
9.9	9.3	8.9	9.3	9.6	8.9	8.2	9.5	40	109	220	177	153	21	12	20	31	1	Jan.
13.1	12.4	12.8	13.0	12.8	12.8	11.8	12.4	31	163	285	87	88	6	5	2	36	0	Feb.
11.4	11.2	10.9	10.5	10.4	10.0	10.0	11.0	36	28	161	335	178	10	16	5	11	0	Mar.
11.4	11.1	11.3	11.3	11.2	11.7	11.2	11.5	28	99	133	136	157	72	19	16	87	1	Apr.
10.0	9.5	9.0	9.0	8.6	8.5	8.4	9.1	28	46	96	278	183	15	41	15	69	1	May.
9.1	8.7	8.6	8.2	8.8	8.8	8.3	8.5	22	17	55	314	316	13	2	0	3	0	June.
8.3	8.1	7.1	7.5	7.4	7.3	7.1	7.9	22	2	29	260	323	88	36	6	0	0	July.
6.7	6.2	6.5	6.3	6.3	6.5	6.5	7.0	25	9	38	244	235	183	24	5	6	0	Aug.
7.4	6.9	7.1	7.2	7.5	7.2	7.1	7.4	20	101	109	263	160	10	9	8	59	1	Sept.
12.1	13.1	12.9	13.1	12.5	12.3	11.8	11.4	31	65	267	221	74	27	35	12	43	0	Oct.
12.0	11.5	11.2	10.8	10.1	10.4	10.1	11.5	32	20	223	281	91	54	35	11	5	0	Nov.
10.2	10.8	10.4	11.0	11.3	10.9	10.3	11.0	36	47	192	193	150	59	35	9	59	0	Dec.
10.1	9.9	9.7	9.8	9.7	9.6	9.2	9.8	40	706	1,807	2,787	2,110	557	268	111	409	5	Year.

MARQUETTE, MICH.

[h_a=95 ft.; local time, 49^m slow.]

9.7	9.5	9.7	9.3	10.0	10.9	10.9	10.9	39	82	15	12	30	106	132	115	252	0	Jan.
8.7	7.4	7.9	9.0	10.2	11.4	12.2	11.3	38	106	60	5	56	76	89	87	189	4	Feb.
12.8	11.5	10.3	9.9	10.5	10.7	10.6	11.8	44	113	43	19	87	122	175	55	127	3	Mar.
11.6	9.5	7.7	6.8	6.9	8.0	8.8	10.2	39	116	73	38	90	52	22	42	286	1	Apr.
9.6	8.3	7.2	7.2	7.8	8.0	8.6	9.6	32	132	34	36	91	58	57	70	263	3	May.
9.4	7.3	5.8	5.2	5.3	6.1	7.2	8.9	38	152	45	43	90	61	87	43	197	2	June.
10.0	8.3	7.2	6.4	7.6	8.7	9.5	9.4	52	66	132	26	64	104	141	57	148	6	July.
7.7	7.3	6.0	5.3	6.1	6.7	7.4	7.7	38	137	123	42	60	74	71	118	116	3	Aug.
9.2	7.7	7.8	8.3	9.9	9.9	10.2	10.3	38	50	27	38	81	111	165	122	126	0	Sept.
12.6	11.8	11.8	12.1	11.3	11.4	11.5	12.0	38	149	70	20	141	100	53	64	147	0	Oct.
10.3	11.3	11.3	11.5	12.2	12.0	11.2	11.6	40	16	21	2	105	141	160	127	147	1	Nov.
9.4	9.6	10.2	10.7	11.2	11.0	11.0	11.1	44	17	11	15	22	86	179	214	200	0	Dec.
10.1	9.1	8.6	8.5	9.1	9.6	9.9	10.4	52	1,135	653	295	918	1,093	1,330	1,114	2,199	23	Year.

MEMPHIS, TENN.

[h_a=154 ft.; local time, 1^h slow.]

10.1	9.8	10.0	10.8	11.5	11.7	12.0	11.7	52	27	44	124	74	99	153	84	138	1	Jan.
11.2	10.4	10.0	10.2	10.5	10.7	10.8	11.3	39	52	74	67	138	76	62	37	162	4	Feb.
11.8	10.2	9.9	10.3	11.0	11.1	12.4	12.2	44	110	135	83	138	105	66	6	41	0	Mar.
11.3	10.7	9.3	8.9	9.5	10.0	10.5	10.7	54	119	76	73	74	82	67	56	169	4	Apr.
10.1	8.8	7.5	6.7	7.5	8.1	7.9	9.2	48	47	50	72	44	152	225	36	113	5	May.
9.4	9.6	8.0	6.2	6.7	6.6	6.9	7.7	52	38	89	62	56	169	188	63	53	2	June.
9.5	9.6	7.8	6.4	6.6	6.7	6.5	7.7	42	111	134	50	59	100	167	48	67	8	July.
7.4	6.2	5.2	5.1	5.1	5.3	5.3	5.9	40	94	119	116	45	65	80	71	143	11	Aug.
9.3	8.1	8.3	8.3	8.5	8.9	9.3	9.4	34	28	108	94	85	114	156	57	71	7	Sept.
10.5	8.7	8.5	8.8	9.5	9.7	9.6	10.4	40	48	75	49	121	85	87	71	204	4	Oct.
8.7	8.0	9.3	9.8	10.0	10.6	10.6	10.4	52	53	114	28	126	146	60	75	118	0	Nov.
11.1	9.6	9.6	10.3	11.0	11.6	11.4	11.1	40	91	84	71	74	117	126	66	115	0	Dec.
10.0	9.1	8.6	8.5	9.0	9.2	9.4	9.8	54	817	1,101	889	1,035	1,370	1,439	669	1,395	45	Year.

NEW ORLEANS, LA.

[h_a=120 ft.; local time, 1^h slow.]

10.4	9.1	8.9	9.1	8.9	9.1	9.5	10.3	30	99	75	60	99	183	70	44	114	0	Jan.
9.9	9.0	7.6	7.9	8.2	8.4	8.1	9.0	34	114	98	70	133	58	65	27	106	1	Feb.
13.1	12.4	10.8	10.4	9.9	10.1	10.1	10.8	35	80	126	67	302	125	13	7	24	0	Mar.
12.6	11.3	10.0	9.9	10.1	9.5	8.2	10.0	32	104	105	37	159	65	68	49	132	1	Apr.
11.0	10.9	10.0	8.8	8.0	8.0	7.3	8.2	33	43	28	12	126	246	129	86	74	0	May.
9.3	7.8	6.4	5.8	5.4	5.0	4.6	6.6	34	12	46	31	195	173	141	60	57	5	June.
8.2	7.6	6.8	6.2	6.4	6.4	6.2	7.2	32	99	85	38	85	191	111	82	50	3	July.
8.2	7.6	5.9	5.2	5.0	5.0	5.1	6.3	25	71	123	43	176	158	84	39	30	20	Aug.
8.6	7.8	7.0	7.1	7.4	7.4	6.7	8.2	42	34	193	175	210	48	37	13	6	4	Sept.
8.9	7.6	7.4	6.8	7.3	7.5	7.1	8.4	35	199	83	122	123	47	33	25	88	24	Oct.
9.4	8.4	9.0	9.2	9.0	8.6	8.9	9.8	34	196	170	95	111	41	5	42	57	3	Nov.
9.9	8.7	9.4	9.5	9.2	9.1	8.6	9.8	35	208	125	74	27	105	58	68	75	4	Dec.
10.0	9.0	8.3	8.0	7.9	7.8	7.5	8.7	35	1,259	1,258	826	1,747	1,439	814	541	811	65	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

NEW YORK, N. Y.

[λ = 40° 43′ N.; φ = 74° W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	12.5	12.4	12.8	12.8	12.9	13.8	13.9	14.1	13.7	13.6	14.1	14.5	13.7	15.0	14.5	13.1	13.8
Feb	11.8	12.4	12.3	12.2	12.8	12.6	12.4	12.6	12.1	12 7	12.7	13.2	13.0	12.9	13.6	13.6	14.2
Mar	9.4	9.3	9.2	9.6	9.7	9.8	10.4	10.8	10.6	10.7	10.7	11.1	11.5	12.2	13.5	13.1	12.9
Apr	11.3	11.9	11.9	12.2	13.2	12.8	14.1	14.4	14.8	14.5	14.9	15.6	16.3	16.2	16.5	16.5	15.9
May	9.9	9.8	9.2	9.1	9.9	9.7	10.2	10.0	10.6	10.7	10.6	10.7	11.4	12.2	13.0	12.3	12.1
June	9.8	10.3	10.2	10.3	9.6	9.6	10.3	10.0	9.4	10.5	10.8	11.6	13.1	12.1	12.8	13.0	13.1
July	8.0	7.8	7.8	8.1	7.3	7.2	8.0	8.0	8.5	7.9	8.1	9.2	9.5	9.9	9.7	10.0	10.2
Aug	9.7	8.9	7.7	8.5	8.5	8.7	8.7	9.0	9.4	9.0	9.0	9.8	11.2	12.3	12.3	12.7	13.4
Sept	10.4	9.6	9.3	8.9	8.3	9.1	8.9	8.9	8.8	8.7	8.9	9.7	10.7	11.4	12.4	12.5	12.2
Oct	12.7	12.8	12.2	12.3	12.1	12.4	12.5	12.6	14.2	15.2	15.8	15.9	16.2	16.5	15.9	15.7	16.4
Nov	16.6	17.0	16.8	16.4	16.6	15.5	17.2	16.6	16.4	17.4	17.4	17.8	17.9	18.6	19.8	19.3	17.7
Dec	15.5	15.1	14.9	15.5	15.8	16.5	15.6	15.3	16.1	17.5	18.5	19.4	19.7	19.6	19.5	18.5	17.5
Year	11.5	11.4	11.2	11.3	11.4	11.5	11.8	11.9	12.0	12.4	12.6	13.2	13.7	14.1	14.5	14.2	14.1

PHILADELPHIA, PA.

[λ = 39° 57′ N.; φ = 75° 9′ W.]

Jan	9.4	10.3	10.7	10.7	10.7	10.3	10.4	10.6	11.0	11.0	11.8	11.8	11.8	12.1	11.9	11.1	10.5
Feb	9.9	10.2	9.8	9.5	9.3	9.3	9.4	10.3	10.6	11.3	11.3	10.5	10.9	10.9	11.5	11.4	11.1
Mar	8.8	9.3	9.2	9.2	9.2	8.6	9.1	10.2	10.5	10.9	11.0	10.5	10.6	10.5	10.7	11.6	11.0
Apr	9.5	9.8	9.9	10.7	10.5	11.2	11.7	12.3	13.2	14.0	14.3	14.6	15.8	15.3	15.4	15.2	14.3
May	8.0	8.1	8.5	7.6	8.6	8.6	9.2	10.8	11.5	11.1	10.8	10.3	11.3	11.4	11.6	11.5	11.2
June	8.3	8.0	7.8	8.0	8.0	8.2	8.2	9.6	9.6	10.0	9.9	9.9	11.2	11.1	11.2	12.0	11.6
July	7.2	7.2	7.1	7.4	7.3	7.3	7.5	8.1	8.2	8.1	8.5	8.9	9.0	9.6	10.1	10.5	10.2
Aug	7.1	7.0	6.9	7.0	6.4	6.2	6.8	7.4	8.2	8.7	9.4	9.9	10.8	10.6	11.3	11.1	10.6
Sept	7.3	7.4	7.1	6.9	6.8	7.1	7.7	8.2	8.8	9.2	9.7	9.5	10.2	10.1	10.2	10.8	10.4
Oct	8.5	7.8	8.1	8.4	8.2	8.3	8.6	9.0	9.9	11.2	11.8	12.3	12.0	12.0	11.5	11.1	10.5
Nov	9.4	9.0	9.2	8.5	8.7	8.6	9.1	9.7	10.0	11.4	11.7	11.7	11.6	12.4	12.7	11.8	10.8
Dec	9.5	9.1	9.3	9.3	9.3	9.0	9.4	9.9	10.3	11.0	11.6	12.5	13.0	12.4	12.8	12.3	11.4
Year	8.6	8.6	8.6	8.6	8.6	8.6	8.9	9.7	10.2	10.7	11.0	11.0	11.5	11.5	11.7	11.7	11.1

PITTSBURG, PA.

[λ = 40° 32′ N.; φ = 80° 2′ W.]

Jan	7.8	7.4	7.1	7.5	7.7	7.3	7.5	7.4	7.9	8.5	9.7	10.0	9.5	8.9	9.2	8.8	8.6
Feb	6.7	5.9	6.2	6.2	5.8	5.7	6.1	6.8	6.8	7.3	7.8	8.6	8.5	8.6	8.5	8.2	8.0
Mar	6.0	6.1	6.4	6.3	6.0	6.0	6.0	6.0	6.5	7.1	7.8	7.5	8.2	8.1	7.3	7.1	7.3
Apr	5.7	5.9	5.6	5.5	5.9	5.5	6.1	7.1	7.6	7.9	8.6	9.4	9.0	9.5	9.6	9.5	9.3
May	3.9	3.8	3.6	3.4	3.8	3.6	3.9	4.5	5.8	6.6	7.1	7.3	7.5	7.8	7.9	7.6	8.1
June	4.2	4.2	3.7	3.7	3.8	4.1	4.4	4.9	5.8	6.5	6.6	6.7	7.0	7.4	7.7	7.4	7.3
July	3.4	3.3	3.0	2.9	2.9	3.4	3.7	4.4	5.1	5.3	5.7	5.6	6.6	6.9	7.5	7.1	7.1
Aug	3.4	3.6	3.2	3.5	3.4	3.5	3.8	4.5	4.7	5.6	5.8	6.1	6.6	6.6	6.4	6.3	6.7
Sept	3.6	3.4	3.6	3.3	3.3	3.6	3.5	4.0	4.9	5.9	6.7	7.0	7.4	8.0	7.8	8.1	7.9
Oct	5.3	4.9	5.3	5.0	5.0	4.8	4.7	5.0	5.5	6.7	7.4	7.6	8.2	8.1	8.1	8.0	7.3
Nov	5.9	5.8	5.5	5.6	5.3	5.4	5.5	5.7	6.4	6.8	6.9	7.5	7.6	7.7	7.7	7.5	7.0
Dec	7.1	6.8	6.6	6.8	7.1	6.5	6.7	7.1	7.5	8.0	8.8	9.2	9.8	8.9	9.2	8.6	7.9
Year	5.2	5.1	5.0	5.0	5.0	5.0	5.2	5.6	6.2	6.8	7.4	7.7	8.0	8.0	8.1	7.8	7.7

PORTLAND, OREG.

[λ = 45° 32′ N.; φ = 122° 43′ W.]

Jan	9.0	8.5	7.8	7.4	7.3	7.6	7.9	8.6	8.3	8.5	8.3	7.5	8.2	9.0	8.7	8.6	9.5
Feb	9.9	9.8	9.6	9.5	9.3	8.9	9.2	10.2	10.4	12.0	11.4	11.1	11.8	12.0	12.8	13.0	13.0
Mar	8.2	8.6	8.2	7.6	7.4	6.7	6.7	7.5	8.0	7.7	7.9	8.0	8.0	9.8	9.4	9.5	9.9
Apr	9.1	8.5	8.2	8.0	7.4	7.1	8.0	7.2	7.4	6.9	7.7	7.6	8.7	9.4	9.5	8.7	8.7
May	7.8	7.6	7.1	6.5	6.2	5.5	6.1	5.4	5.0	6.0	7.3	7.7	8.0	9.1	9.7	10.2	10.8
June	8.9	8.3	7.5	6.7	6.5	6.1	6.4	6.1	5.4	5.3	6.5	7.6	7.9	8.1	9.3	9.4	10.2
July	8.9	8.1	6.9	6.6	6.1	5.5	5.7	5.1	4.8	6.0	7.6	7.8	7.7	7.5	7.7	7.5	8.1
Aug	9.1	7.5	6.7	6.5	5.4	4.5	4.2	3.7	3.8	4.7	6.2	6.6	6.8	7.1	6.8	6.8	7.2
Sept	9.0	8.2	7.1	7.3	6.6	6.8	6.5	6.6	7.1	6.5	6.9	8.4	9.1	9.0	10.2	10.4	11.1
Oct	6.8	7.3	7.7	7.8	7.5	7.1	8.0	7.4	7.6	7.2	7.1	7.1	7.6	7.8	8.6	9.0	8.6
Nov	9.2	9.4	10.0	10.3	9.9	9.4	9.3	9.9	9.9	9.0	9.1	9.7	9.5	10.1	10.5	10.1	10.3
Dec	8.2	8.5	8.7	9.0	8.2	8.6	8.4	8.5	8.6	8.9	7.9	8.4	9.2	10.1	10.0	10.0	9.7
Year	8.7	8.4	8.0	7.8	7.3	7.0	7.2	7.2	7.2	7.4	7.8	8.1	8.5	9.1	9.4	9.4	9.8

WIND—VELOCITY AND FREQUENCY—Continued.

NEW YORK, N. Y.

[h_a = 326 ft.; local time, 4m fast.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
14.2	14.2	13.7	14.5	13.0	12.4	12.2	13.6	61	43	90	85	26	28	115	106	251	0	Jan.
13.6	14.1	13.3	12.5	12.3	11.2	11.3	12.7	48	36	65	71	40	63	114	141	141	1	Feb.
12.9	12.7	11.7	11.5	11.1	10.8	10.0	11.1	33	75	100	130	125	92	46	28	147	1	Mar.
15.4	15.7	14.9	13.4	12.4	12.6	12.2	14.2	38	103	147	52	45	30	75	64	204	0	Apr.
11.0	11.5	10.6	10.1	9.1	9.2	9.0	10.5	40	100	124	96	141	117	61	28	77	0	May.
12.1	12.3	11.2	11.2	9.8	9.4	9.4	10.9	40	91	61	30	82	120	133	86	115	0	June.
9.9	9.8	9.2	8.6	8.6	8.3	7.7	8.6	36	86	106	81	98	119	140	51	62	1	July.
12.0	10.9	10.7	10.1	9.7	9.9	9.8	10.1	48	67	68	39	72	99	198	116	85	0	Aug.
11.4	11.8	11.4	11.1	10.5	10.0	10.6	10.2	72	60	71	32	52	118	161	107	119	0	Sept.
15.7	15.3	14.5	14.1	14.0	14.4	13.7	14.3	52	41	120	106	108	70	71	66	160	2	Oct.
17.8	18.1	19.9	18.4	16.8	16.8	16.7	17.5	65	29	117	43	55	60	88	63	265	0	Nov.
15.9	15.7	16.4	16.1	16.4	16.4	15.0	16.8	78	32	152	40	19	45	146	108	202	0	Dec.
13.5	13.5	13.1	12.6	12.0	11.8	11.5	12.5	78	763	1,223	804	863	961	1,348	964	1,829	5	Year.

PHILADELPHIA, PA.

[h_a = 184 ft.; local time, 0m.]

9.5	9.5	9.5	9.8	9.7	9.7	9.1	10.5	41	85	91	68	40	35	73	89	263	0	Jan.
10.5	10.5	10.4	10.5	9.8	9.4	8.9	10.3	41	83	77	33	38	54	109	63	222	0	Feb.
10.4	10.5	10.2	9.8	9.0	9.0	8.6	9.9	31	128	118	114	119	86	63	19	97	0	Mar.
12.8	11.8	11.5	11.3	10.8	9.7	9.2	12.3	36	103	124	69	41	45	63	60	215	0	Apr.
10.9	9.5	8 8	9.5	9.3	8.8	8.2	9.8	44	113	136	113	110	101	63	28	74	0	May.
11.3	10.3	9.5	9.2	8.4	8.2	8.4	9.5	36	80	62	50	101	84	153	59	131	0	June.
10.3	10.1	10.1	8.7	8.4	7.6	7.2	8.5	36	70	105	100	85	97	194	44	49	0	July.
9.7	7.9	7.7	7.4	7.2	6.5	7.1	8.3	38	68	60	60	60	77	231	109	79	0	Aug.
10.3	8.9	8.0	8.1	7.6	7.7	8.0	8.6	32	74	95	44	37	57	212	93	108	0	Sept.
10.0	10.3	9.6	9.1	8.9	8.5	8.3	9.7	27	69	104	72	117	83	68	56	175	0	Oct.
10.2	9.8	9.9	9.8	9.0	9.8	10.4	10.2	42	77	56	39	42	67	114	72	251	2	Nov.
10.8	10.8	10.7	10.2	9.7	9.5	9.6	10.6	48	36	79	33	25	36	211	148	176	0	Dec.
10.6	10.0	9.7	9.4	9.0	8.7	8.6	9.8	48	986	1,106	794	815	822	1,553	841	1,841	2	Year.

PITTSBURG, PA.

[h_a = 123 ft.; local time, 20m slow.]

8.0	7.8	8.0	8.4	8.9	8.7	8.5	8.3	36	31	39	34	103	128	279	104	24	2	Jan.
8.2	7.4	7.4	6.9	7.2	7.2	6.8	7.2	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	Feb.
6.9	6.4	6.3	6.3	5.9	6.3	6.1	6.7	32	171	35	47	111	138	113	26	103	0	Mar.
8.7	7.9	6.8	6.4	5.9	5.9	5.5	7.3	25	182	74	58	60	46	49	50	201	0	Apr.
7.8	6.2	5.5	5.3	5.0	4.6	4.1	5.6	25	273	23	24	26	75	98	65	139	21	May.
7.2	6.7	6.3	6.1	5.0	4.8	4.8	5.7	48	181	21	37	38	64	164	99	104	12	June.
7.1	5.9	5.3	5.1	4.7	4.0	3.7	5.0	24	131	19	48	67	104	153	130	71	21	July.
5.5	4.7	4.3	4.0	4.1	4.0	4.1	4.8	22	102	36	25	55	57	201	152	104	12	Aug.
6.8	5.8	5.1	4.5	4.3	4.1	4.1	5.3	24	86	55	30	75	65	130	115	116	48	Sept.
6.3	6.1	6.2	5.5	5.4	5.5	5.7	6.1	20	87	30	35	175	105	95	43	163	11	Oct.
6.8	6.5	6.3	6.3	6.0	6.5	6.4	6.4	24	74	35	23	92	58	122	62	245	9	Nov.
7.5	7.3	7.3	7.6	7.6	7.8	7.3	7 7	30	48	18	20	53	46	219	70	267	3	Dec.
7.2	6.6	6.2	6.0	5.8	5.8	5.6	6.3	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	Year.

PORTLAND, OREG.

[h_a = 213 ft.; local time, 3h 11m slow.]

9.1	7.8	8.6	8.5	8.2	9.0	9.0	8.4	36	28	12	88	194	161	52	28	175	6	Jan.
12.9	11.5	10.8	9.7	9.6	10.3	11.0	10.8	46	12	31	89	181	195	79	13	67	5	Feb.
10.0	10.0	10.5	9.5	8.6	8.7	8.7	8.5	44	37	17	39	111	117	86	36	294	7	Mar.
9.5	10.0	10.5	10.1	9.7	10.1	9.9	8.7	40	30	8	32	128	91	38	49	340	4	Apr.
10.8	9.5	9.5	9.2	8.6	8.2	8.5	7.9	35	68	44	30	95	98	74	53	264	18	May.
10.6	10.9	10.6	10.0	10.4	9.7	8.8	8.2	33	49	28	25	99	84	77	42	300	16	June.
8.7	9.5	9.5	10.2	10.0	9.5	9.6	7.7	28	104	10	21	72	33	38	24	422	20	July.
7.8	8.0	9.3	9.2	9.3	9.9	9.8	7.0	29	62	16	34	95	36	41	14	415	31	Aug.
10.2	9.6	9.8	9.3	9.3	9.0	9.3	8.5	34	37	41	12	110	119	43	32	309	17	Sept.
8.4	8.4	7.7	7.2	6.8	5.6	5.9	7.5	33	31	30	29	173	119	76	36	249	1	Oct.
10.0	8.8	8.0	8.0	9.0	9.5	9.4	9.5	36	27	22	35	136	211	72	34	176	7	Nov.
9.6	10.0	9.1	8.3	7.3	7.9	8.0	8.8	34	22	88	143	155	99	68	25	140	4	Dec.
9.8	9.5	9.5	9.1	8.9	9.0	9.0	8.5	46	505	348	577	1,550	1,363	742	386	3,151	138	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

ST. LOUIS, MO.

[λ=38° 38′ N.; φ=90° 12′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon.	1h p. m.	2h	3h	4h	5h
Jan	10.3	10.2	10.3	9.9	9.5	9.6	10.0	10.1	10.6	10.7	11.7	12.7	13.3	12.8	13.3	13.1	12.5
Feb	10.6	10.8	11.0	10.9	10.9	10.9	11.0	11.5	12.7	12.5	12.7	13.2	12.9	13.5	13.7	13.9	13.9
Mar	10.0	9.6	9.6	9.5	8.8	8.5	8.4	8.5	9.1	9.7	9.7	10.1	10.2	10.6	10.9	11.1	10.7
Apr	9.1	9.6	9.5	9.8	10.7	10.6	10.6	10.8	11.2	11.8	12.9	12.5	13.0	13.6	13.9	13.3	12.7
May	8.0	7.7	8.5	8.4	9.1	8.9	8.5	8.9	9.7	10.2	10.7	10.9	11.3	11.1	11.0	10.8	11.0
June	6.7	6.5	6.3	6.3	5.9	6.2	5.9	6.2	7.1	7.6	8.7	9.4	9.8	10.6	10.5	10.2	9.6
July	7.3	7.5	8.0	7.2	7.1	6.5	6.3	7.5	6.9	7.4	8.5	8.7	9.0	9.1	9.9	9.4	9.6
Aug	5.4	6.0	6.3	6.1	5.9	6.4	6.1	6.3	6.9	7.3	7.6	8.5	8.4	8.5	8.6	8.8	8.8
Sept	8.4	8.7	8.7	7.7	7.9	8.0	7.7	8.1	8.9	9.5	10.1	9.8	9.8	10.7	11.1	10.7	10.7
Oct	9.0	9.1	9.0	9.6	9.7	9.6	9.5	10.2	10.9	11.3	11.8	11.9	12.3	12.4	12.6	12.7	12.8
Nov	10.5	10.9	10.2	10.3	10.0	9.8	9.6	10.4	11.0	11.4	12.0	12.5	12.8	12.9	12.8	12.8	12.1
Dec	11.5	11.4	10.9	10.7	10.7	11.1	10.9	11.3	12.0	12.3	12.2	12.0	13.0	13.4	13.5	13.1	12.9
Year	8.9	9.0	9.0	8.9	8.8	8.8	8.7	9.2	9.8	10.1	10.7	11.0	11.3	11.6	11.8	11.7	11.4

ST. PAUL, MINN.

[λ=44° 58′ N.; φ=93° 3′ W.]

Jan	6.7	6.4	6.3	6.1	6.1	6.2	6.2	6.5	6.6	6.8	6.7	7.0	7.8	7.7	8.5	8.5	8.8
Feb	7.6	8.2	7.6	7.3	7.4	6.9	6.9	7.4	7.4	8.0	8.2	9.0	9.1	9.6	9.6	10.0	9.6
Mar	7.3	7.8	8.1	7.6	7.8	7.5	7.9	8.0	8.6	9.4	9.9	10.3	11.2	11.4	11.6	11.3	11.0
Apr	5.2	5.2	5.8	6.4	6.4	6.0	6.5	7.2	7.8	8.7	9.5	10.3	10.8	10.7	10.8	9.7	9.0
May	6.0	6.0	5.3	5.3	5.5	5.4	5.8	6.0	6.8	7.8	8.5	9.2	9.8	9.8	9.4	10.2	9.5
June	5.9	5.8	5.0	4.6	5.3	5.4	5.1	5.7	6.9	7.8	8.4	8.7	9.3	10.1	10.3	10.6	9.9
July	5.5	5.5	5.4	5.2	5.2	5.0	4.6	5.6	6.4	7.7	8.4	8.6	9.4	9.7	9.6	9.8	9.2
Aug	4.2	4.2	4.1	3.9	4.2	4.0	4.3	4.5	5.5	6.0	7.2	8.0	8.2	8.2	8.5	8.6	8.6
Sept	5.4	4.9	4.7	4.3	4.3	4.2	4.2	4.3	4.7	5.7	7.0	8.7	9.5	10.0	10.2	9.8	10.0
Oct	7.2	7.4	7.1	7.4	7.5	8.2	8.2	8.3	8.8	9.7	9.6	10.5	11.0	10.4	10.7	10.5	10.2
Nov	8.1	8.4	8.5	8.2	8.1	8.3	7.9	8.8	8.4	8.6	8.8	9.4	10.2	10.7	11.1	10.8	10.4
Dec	6.9	6.6	6.6	6.5	6.6	6.6	6.8	6.7	7.0	7.2	8.0	8.5	8.4	8.4	9.1	9.0	8.8
Year	6.3	6.4	6.2	6.1	6.2	6.1	6.2	6.6	7.1	7.8	8.4	9.0	9.6	9.7	10.0	9.9	9.6

SALT LAKE CITY, UTAH.

[λ=40° 46′ N.; φ=111° 54′ W.]

Jan	3.3	3.3	3.4	3.5	3.2	3.7	3.5	3.6	3.6	4.0	3.7	4.0	5.2	5.5	6.0	6.6	6.3
Feb	4.1	4.4	3.9	3.9	3.9	3.6	3.3	3.5	4.2	4.4	4.8	5.1	5.8	6.5	7.7	8.0	8.1
Mar	5.5	5.4	5.1	5.7	5.2	5.5	4.8	4.7	5.0	5.4	6.3	6.9	9.4	9.7	10.1	9.2	11.1
Apr	5.3	5.9	5.9	5.4	4.7	5.0	4.7	5.0	4.7	4.9	5.4	6.9	7.7	9.0	10.2	10.9	10.8
May	4.9	4.7	4.1	4.4	4.2	4.5	3.8	4.5	4.7	5.2	5.9	6.5	7.7	8.8	9.6	9.3	8.9
June	4.3	5.9	5.6	5.4	4.5	4.4	4.5	4.4	3.6	4.1	5.3	7.1	8.4	9.9	10.4	10.2	10.2
July	4.6	5.5	5.2	4.5	5.2	4.6	4.5	4.7	4.0	3.6	4.7	5.5	7.1	7.5	7.9	7.9	8.0
Aug	5.2	5.3	5.3	5.0	4.4	4.5	4.6	4.6	4.4	4.0	4.4	4.9	6.7	8.3	9.3	9.7	9.2
Sept	4.7	4.8	4.8	5.0	4.9	4.9	4.7	4.7	5.5	5.0	5.2	5.9	6.9	7.5	9.0	9.1	9.8
Oct	4.8	5.2	4.5	4.4	4.4	3.9	4.2	3.8	4.5	4.3	3.3	4.3	5.5	6.5	7.7	8.2	8.2
Nov	4.3	4.6	4.2	3.5	3.6	4.5	4.1	3.9	4.2	4.4	4.3	4.4	5.1	6.9	7.3	8.0	7.7
Dec	4.6	4.5	4.3	4.5	3.9	4.4	4.3	4.9	4.5	4.1	4.2	4.7	5.5	6.5	7.0	7.8	7.5
Year	4.6	5.0	4.7	4.6	4.3	4.5	4.2	4.4	4.4	4.4	4.8	5.5	6.8	7.7	8.5	8.7	8.8

SAN DIEGO, CAL.

[λ=32° 43′ N.; φ=117° 10′ W.]

Jan	4.7	4.5	5.1	5.0	5.1	5.5	5.2	5.4	5.6	6.0	4.7	4.5	4.7	5.5	6.9	7.8	7.9
Feb	3.0	3.1	2.7	3.9	3.8	3.6	3.3	3.8	3.8	3.7	3.6	3.5	4.9	6.6	8.7	10.2	11.5
Mar	4.6	5.0	4.2	4.6	5.3	5.3	5.1	5.1	5.0	4.5	4.1	4.8	6.2	8.1	9.6	10.4	11.6
Apr	4.5	3.8	3.5	3.7	3.8	3.7	3.9	3.9	3.6	3.4	4.0	5.1	7.4	9.7	10.9	11.8	11.3
May	3.6	3.8	3.8	3.6	3.8	4.5	4.2	4.2	4.0	4.2	5.1	6.6	8.5	10.2	11.5	11.8	11.7
June	3.3	3.1	3.1	3.3	3.3	3.1	3.1	3.2	3.5	3.4	4.1	5.3	6.8	8.4	9.5	10.0	10.3
July	3.4	3.4	3.2	2.9	3.2	3.1	3.2	3.1	3.4	4.0	4.7	6.7	7.9	9.5	10.6	11.0	11.3
Aug	2.6	2.5	1.9	2.0	1.9	1.9	2.4	2.1	2.0	2.1	3.1	4.4	6.8	8.8	10.1	10.1	10.1
Sept	2.2	2.3	2.5	2.3	2.4	2.5	2.6	2.7	2.6	2.5	2.8	4.1	6.4	9.2	10.5	11.0	11.5
Oct	3.7	2.6	2.7	2.6	2.8	2.9	3.1	3.0	3.4	2.8	2.5	3.3	5.1	7.2	8.8	9.8	9.7
Nov	3.7	4.3	4.4	4.0	4.4	4.5	4.8	4.6	4.6	4.9	3.4	3.8	5.0	6.3	8.0	9.4	10.2
Dec	3.7	3.9	3.9	4.3	4.6	5.0	4.5	4.4	5.0	4.6	4.0	3.2	4.0	5.0	6.4	6.9	8.3
Year	3.6	3.5	3.4	3.5	3.7	3.8	3.8	3.8	3.9	3.8	3.8	4.6	6.1	7.9	9.3	10.0	10.4

WIND—VELOCITY AND FREQUENCY—Continued.

ST. LOUIS, MO.

[h_a = 201 ft.; local time, 1h 1m slow.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898
11.9	11.0	11.4	11.2	11.5	10.7	10.5	11.2	66	33	70	80	115	92	81	186	87	0	Jan.
12.8	10.9	11.0	11.3	10.4	9.9	9.4	11.8	42	52	34	32	95	154	35	156	114	0	Feb.
11.1	10.4	10.3	10.4	10.2	10.3	9.6	9.9	49	126	69	81	138	162	30	53	85	0	Mar.
11.7	10.9	9.9	8.5	8.8	8.9	9.2	11.0	47	123	39	53	118	109	50	101	127	0	Apr.
10.3	9.2	9.6	8.2	8.8	8.5	8.1	9.5	62	125	115	53	73	157	65	94	62	0	May.
9.4	8.5	7.3	6.3	6.2	6.0	6.7	7.7	37	67	68	95	91	214	92	58	34	1	June.
9.5	8.7	7.6	6.6	6.5	6.3	7.1	7.8	35	107	132	76	68	215	72	36	36	2	July.
8.5	8.3	6.9	5.9	5.8	6.1	5.7	7.0	25	40	96	45	85	230	83	90	70	5	Aug.
10.7	10.1	8.9	8.5	8.8	8.7	8.5	9.2	30	38	70	76	81	248	107	61	31	8	Sept.
11.7	10.3	10.4	10.1	10.0	9.9	9.6	10.7	39	79	50	37	126	163	52	134	101	2	Oct.
10.5	10.3	11.0	11.6	11.6	10.9	10.2	11.2	58	58	25	49	121	178	70	151	67	1	Nov.
11.7	11.2	11.2	11.9	12.2	11.8	11.3	11.8	33	65	29	14	18	188	154	154	122	0	Dec.
10.8	10.0	9.6	9.2	9.2	9.0	8.8	9.9	66	913	797	690	1,130	2,109	891	1,274	936	20	Year.

ST. PAUL, MINN.

[h_a = 124 ft.; local time, 1h 12m slow.]

7.9	7.4	7.4	7.2	7.4	6.9	6.7	7.1	30	85	16	26	99	153	60	103	194	8	Jan.
9.4	8.0	7.4	7.4	7.5	7.8	7.7	8.1	29	81	57	30	96	90	45	55	211	7	Feb.
10.3	9.6	8.3	7.8	7.7	7.6	7.4	9.0	32	65	45	32	114	114	107	97	163	7	Mar.
8.3	7.5	6.7	5.7	6.0	6.5	6.2	7.6	30	107	83	47	131	72	41	41	166	32	Apr.
9.4	9.0	8.2	6.8	6.8	6.5	6.1	7.5	24	87	121	86	95	56	79	83	127	10	May.
9.7	8.8	7.9	6.5	6.0	6.3	6.2	7.3	36	58	40	35	129	82	98	101	130	47	June.
9.1	8.5	7.6	5.8	5.0	5.0	4.9	7.0	29	75	24	26	152	122	130	63	129	23	July.
7.9	7.0	5.7	5.0	4.0	4.4	4.3	5.9	27	88	38	23	159	84	77	34	178	64	Aug.
9.3	7.4	7.2	7.3	7.4	6.5	5.9	6.8	32	55	21	34	144	59	126	91	122	68	Sept.
9.3	7.8	7.4	7.3	7.1	7.1	7.7	8.6	30	83	31	32	213	41	28	50	220	46	Oct.
9.7	9.3	8.8	8.5	8.2	8.0	8.1	9.0	36	37	18	10	200	60	103	84	194	14	Nov.
7.6	6.6	7.0	7.1	6.7	7.4	6.7	7.4	35	33	13	19	124	40	105	148	239	23	Dec.
9.0	8.1	7.5	6.9	6.6	6.7	6.5	7.6	36	854	506	399	1,655	974	1,000	950	2,072	349	Year.

SALT LAKE CITY, UTAH.

[h_a = 90 ft.; local time, 2h 27m slow.]

5.7	5.3	3.7	3.5	3.5	4.0	4.0	4.3	22	30	17	36	210	130	75	111	127	8	Jan.
7.9	7.1	6.0	4.8	4.3	4.2	4.0	5.1	26	28	58	47	170	90	48	95	119	17	Feb.
10.5	9.4	7.9	6.0	5.4	6.0	6.0	6.9	36	62	53	35	124	125	49	94	201	1	Mar.
10.7	9.2	9.5	7.4	6.4	6.1	5.5	7.0	38	43	37	76	131	98	49	91	190	5	Apr.
7.4	7.7	7.0	6.6	5.1	5.2	5.6	6.1	37	45	39	60	159	132	59	87	153	10	May.
10.1	9.0	7.8	6.6	5.6	5.9	4.4	6.6	37	58	55	96	159	133	35	38	144	2	June.
8.2	7.6	7.1	5.7	5.7	5.9	4.4	5.8	29	53	76	86	180	105	40	74	128	2	July.
8.6	7.1	6.0	5.4	6.1	5.9	5.7	6.0	29	19	64	81	212	149	47	41	130	1	Aug.
9.9	7.9	6.5	5.6	5.0	5.1	5.0	6.2	33	49	68	80	204	70	28	44	172	5	Sept.
7.3	6.3	4.9	4.7	4.8	4.6	4.8	5.2	34	45	84	78	201	59	28	66	174	9	Oct.
7.0	6.1	4.9	4.5	4.8	5.2	5.1	5.1	47	38	53	44	213	124	57	68	116	7	Nov.
6.6	5.9	4.8	4.1	4.0	5.2	4.7	5.1	48	30	44	80	205	92	61	86	138	8	Dec.
8.3	7.4	6.3	5.4	5.1	5.3	4.9	5.8	48	500	649	799	2,166	1,308	575	895	1,792	76	Year.

SAN DIEGO, CAL.

[h_a = 102 ft.; local time, 2h 49m slow.]

8.8	8.4	7.2	5.3	4.4	4.3	4.9	5.7	26	61	136	149	73	46	92	54	119	14	Jan.
11.7	11.0	8.5	6.9	4.6	3.9	3.1	5.6	23	105	86	49	30	50	74	36	209	33	Feb.
11.4	10.6	9.8	8.0	6.3	5.5	4.7	6.7	30	62	136	67	38	28	97	82	216	18	Mar.
10.9	9.7	8.7	7.5	6.3	5.4	4.6	6.3	24	62	51	10	36	82	165	88	193	33	Apr.
11.4	10.5	9.0	8.0	6.3	4.7	3.6	6.6	24	25	11	6	28	58	168	144	281	23	May.
9.9	9.3	8.5	7.9	6.3	5.1	3.9	5.7	18	34	9	1	11	84	237	118	193	33	June.
10.9	10.4	9.6	8.1	6.7	5.5	4.4	6.3	24	32	0	0	1	37	214	108	331	21	July.
9.9	9.7	8.6	7.5	6.0	4.4	3.6	5.2	18	18	8	6	9	35	169	112	309	78	Aug.
11.1	10.0	8.7	7.4	5.7	3.9	3.2	5.4	22	57	13	8	18	44	106	83	308	83	Sept.
9.3	8.6	7.7	5.5	3.6	2.4	2.3	4.8	18	129	35	29	31	35	59	90	268	68	Oct.
9.4	8.2	6.8	4.5	3.4	4.1	3.8	5.4	26	105	175	55	38	41	39	57	187	23	Nov.
8.4	7.3	5.4	4.5	3.8	3.7	4.0	5.0	33	66	206	157	73	42	41	34	109	16	Dec.
10.3	9.5	8.2	6.8	5.3	4.4	3.8	5.7	33	755	867	538	384	581	1,460	1,007	2,724	444	Year.

WIND—VELOCITY AND FREQUENCY—Continued.

SAN FRANCISCO, CAL.

[λ=37° 48′ N.; φ=122° 26′ W.] [Seventy-fifth Meridian Time.]

1898	1h a. m.	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	1h p. m.	2h	3h	4h	5h
Jan	7.8	7.2	6.6	6.7	6.5	5.8	6.4	6.8	6.5	6.5	7.0	6.9	8.3	8.2	8.0	8.0	8.5
Feb	7.6	7.6	6.8	6.9	7.0	6.6	6.8	7.6	7.2	6.9	6.8	6.7	7.3	7.3	8.1	8.6	10.2
Mar	9.3	7.9	7.8	8.1	7.5	6.8	7.3	8.4	7.8	7.0	7.8	8.3	8.0	9.0	10.9	12.9	15.7
Apr	10.9	11.1	10.3	8.6	8.1	7.9	7.7	7.6	6.9	6.6	7.5	8.2	9.1	10.6	13.1	16.3	19.2
May	12.7	11.7	10.6	10.2	9.1	8.9	8.3	8.1	7.6	7.9	8.8	9.5	10.8	12.8	15.8	18.2	18.7
June	11.4	10.9	9.3	9.0	8.6	8.5	7.4	7.2	7.5	7.4	8.2	9.0	9.9	12.0	15.0	18.1	19.9
July	15.9	13.5	11.3	10.7	10.8	9.8	9.7	8.7	8.8	9.7	10.4	10.7	12.1	14.6	17.5	20.6	23.8
Aug	13.6	12.8	11.4	10.6	10.8	9.6	9.7	9.2	8.8	8.5	9.2	10.0	11.5	13.6	16.5	19.4	21.2
Sept	11.4	11.0	9.8	9.1	8.2	7.8	6.7	6.5	7.0	6.7	6.8	7.2	8.8	10.5	13.0	15.5	18.1
Oct	6.6	5.3	4.3	4.3	4.3	4.4	4.3	4.5	4.6	4.5	4.6	5.7	6.3	6.7	7.4	9.7	12.0
Nov	6.3	5.1	5.2	4.9	5.5	5.8	5.9	5.7	5.5	5.5	5.8	6.5	7.6	7.0	7.1	7.5	9.9
Dec	6.8	6.3	6.2	6.6	6.4	6.7	7.4	6.8	7.0	7.0	7.4	7.8	8.0	7.3	6.7	7.2	7.6
Year	10.0	9.2	8.3	8.0	7.7	7.4	7.3	7.3	7.1	7.0	7.5	8.0	9.0	10.0	11.6	13.5	15.4

SANTA FE, N. MEX.

[λ=35° 41′ N.; φ=105° 57′ W.]

Jan	3.6	3.5	4.1	4.5	4.8	4.6	4.8	5.5	6.0	5.9	6.4	7.9	8.4	9.0	8.9	9.1	8.3
Feb	3.8	3.7	4.2	4.3	4.2	4.1	3.8	3.5	3.7	3.4	5.2	7.4	8.5	8.2	8.8	8.4	8.5
Mar	5.1	4.1	4.0	4.1	4.4	3.8	3.8	3.5	3.5	4.0	6.9	8.5	10.2	10.8	11.1	12.1	12.2
Apr	7.4	7.4	7.0	6.6	5.8	5.4	5.3	5.3	4.9	5.9	6.8	8.4	10.7	11.3	11.6	11.5	11.5
May	5.5	5.2	5.1	4.8	4.6	3.9	4.0	4.0	5.1	6.2	8.3	9.5	10.6	12.3	13.3	13.8	14.2
June	6.6	5.7	5.4	4.7	3.9	3.2	2.8	2.4	2.9	3.5	4.8	6.0	7.4	7.8	8.5	9.0	9.0
July	7.2	5.2	4.0	3.9	3.1	2.5	1.8	1.7	2.4	3.3	4.2	5.0	6.3	7.2	7.7	8.5	8.0
Aug	6.0	5.2	4.5	3.9	3.5	3.2	3.0	2.8	2.6	4.1	5.5	5.5	6.4	6.5	6.5	6.9	8.1
Sept	3.8	3.7	3.8	3.3	3.2	2.8	3.1	2.8	3.0	2.9	4.4	5.5	7.4	7.6	8.1	9.2	9.3
Oct	5.9	5.4	4.7	4.1	3.7	3.1	3.1	3.4	3.4	3.8	5.8	7.9	9.2	9.6	10.0	9.6	9.5
Nov	5.9	5.8	5.4	5.5	4.9	5.0	4.3	4.5	4.6	4.2	5.1	7.5	9.1	9.5	9.9	10.3	10.4
Dec	6.3	5.9	5.9	5.8	5.6	6.2	6.6	6.9	6.5	6.5	6.8	7.9	8.4	9.0	10.0	9.8	8.7
Year	5.6	5.1	4.8	4.6	4.3	4.0	3.9	3.9	4.0	4.5	5.8	7.2	8.6	9.1	9.5	9.8	9.8

SAVANNAH, GA.

[λ=32° 5′ N.; φ=81° 5′ W.]

Jan	8.2	8.1	8.0	8.5	8.3	8.3	8.5	8.9	8.7	9.7	9.6	10.7	11.2	10.9	11.1	11.5	10.0
Feb	8.2	8.2	8.7	8.0	7.8	7.6	7.9	7.6	7.9	8.5	9.0	9.6	10.7	10.4	11.1	10.6	9.9
Mar	7.7	7.4	6.8	6.2	5.9	6.7	6.9	7.0	7.5	8.7	9.7	10.5	11.6	11.0	11.4	11.9	12.2
Apr	8.1	7.8	7.6	7.4	7.0	6.8	6.9	7.5	8.6	10.0	10.1	10.7	12.3	12.5	12.5	13.2	13.7
May	7.5	6.9	6.6	6.0	5.8	5.6	5.9	7.4	8.0	7.6	7.6	7.3	9.3	10.8	11.6	12.7	12.4
June	5.6	5.6	5.5	4.9	4.7	4.8	5.6	6.5	6.7	6.7	6.8	6.8	8.0	9.0	11.1	12.1	11.7
July	6.3	5.9	6.0	5.2	5.6	5.3	5.6	6.5	7.1	7.3	7.6	7.4	8.1	8.7	8.9	9.4	9.7
Aug	6.1	6.4	6.4	6.1	6.1	5.9	5.5	6.2	7.4	8.3	8.7	8.5	9.4	11.1	10.7	10.9	9.5
Sept	5.8	5.8	5.9	6.4	6.5	6.2	5.6	6.9	8.1	9.2	9.6	9.7	10.1	10.6	10.8	10.9	10.4
Oct	8.5	8.6	8.2	9.0	9.0	9.1	8.8	9.6	11.2	12.3	12.6	12.3	12.5	12.5	12.8	12.8	12.0
Nov	8.2	7.9	7.7	7.7	7.1	6.9	7.5	7.4	8.7	10.1	10.5	10.5	11.2	11.0	11.4	10.8	10.4
Dec	7.8	8.2	7.5	7.5	7.6	7.5	7.6	7.9	8.3	8.5	9.1	9.5	10.2	10.0	10.1	9.9	9.5
Year	7.3	7.2	7.1	6.9	6.8	6.7	6.9	7.4	8.2	8.9	9.2	9.5	10.4	10.7	11.1	11.4	11.0

WASHINGTON, D. C.

[λ=38° 54′ N.; φ=77° 3′ W.]

Jan	6.2	6.1	6.5	6.6	6.5	6.6	6.5	6.0	6.3	8.4	9.9	10.6	10.6	11.0	10.5	9.2	8.4
Feb	8.0	7.3	6.5	6.1	5.9	5.9	5.5	6.0	7.8	8.5	7.7	8.4	8.9	9.5	9.1	9.2	9.2
Mar	5.5	5.3	5.4	5.7	5.8	6.4	5.9	6.8	7.7	8.1	8.6	9.4	9.3	8.9	8.8	9.1	8.5
Apr	6.2	6.6	6.4	6.6	6.8	6.2	6.4	8.3	10.0	11.6	11.6	11.7	12.6	13.7	13.5	13.0	12.3
May	4.6	4.4	4.6	4.4	4.0	4.0	4.8	6.0	6.6	7.3	7.6	7.7	8.2	8.3	8.8	9.3	8.2
June	3.4	3.6	3.5	3.5	3.7	3.4	4.0	5.0	6.3	7.1	7.4	7.7	8.2	8.2	8.3	8.8	8.4
July	3.6	4.0	3.5	3.8	3.5	3.3	3.6	4.7	5.6	6.2	6.4	6.5	6.7	7.2	7.7	7.7	7.6
Aug	3.0	3.1	2.8	2.9	2.7	2.9	3.2	4.5	5.3	5.7	6.2	7.0	7.8	7.9	8.3	7.7	6.9
Sept	3.7	3.6	3.5	3.6	3.4	3.4	3.8	4.4	4.8	6.1	6.7	7.2	7.6	7.7	7.9	7.3	6.6
Oct	4.6	4.6	4.5	4.1	4.4	4.5	4.5	5.2	7.5	8.8	9.5	10.0	10.2	10.0	9.7	8.8	7.9
Nov	5.8	5.7	5.5	5.7	5.3	6.2	6.1	6.2	7.3	9.1	9.7	10.2	10.5	10.0	9.6	8.7	7.4
Dec	4.5	4.8	5.0	5.1	5.3	5.2	5.3	4.6	4.5	6.1	8.0	8.8	9.4	9.5	9.5	8.4	7.3
Year	4.9	4.9	4.8	4.8	4.8	4.8	5.0	5.6	6.6	7.8	8.3	8.8	9.2	9.3	9.3	8.9	8.2

WIND—VELOCITY AND FREQUENCY—Continued.

SAN FRANCISCO, CAL.

[h_a = 167 ft.; local time, 3h 10m slow.] [Seventy-fifth Meridian Time.]

6h	7h	8h	9h	10h	11h	Mid.	Mean.	Max. vel.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.	1898.
8.2	8.0	7.7	8.0	8.2	8.7	8.7	7.5	32	243	57	16	106	48	33	77	162	2	Jan.
11.8	12.5	13.0	11.4	9.9	8.4	7.1	8.3	36	94	43	6	124	79	60	182	75	9	Feb.
17.4	17.5	16.5	13.9	13.3	11.5	10.0	10.4	40	89	22	14	63	34	89	320	110	3	Mar.
19.8	20.9	20.1	19.4	17.5	15.3	11.9	12.3	42	20	17	13	32	26	285	283	42	2	Apr.
19.3	20.8	20.5	19.4	18.6	16.0	13.9	13.3	36	4	11	5	48	66	312	291	7	0	May.
20.6	21.4	21.2	21.1	20.0	17.0	13.6	13.1	40	27	12	5	22	28	298	295	32	1	June
24.8	26.3	26.1	24.5	22.6	19.4	16.6	15.8	41	12	7	1	6	6	505	203	4	0	July
23.1	24.2	22.6	21.8	19.5	17.4	15.7	14.6	38	1	3	1	3	13	439	283	1	0	Aug.
19.8	20.0	20.1	19.6	16.6	14.2	11.9	11.9	35	1	4	11	25	36	305	315	15	8	Sept.
14.4	14.3	14.1	13.5	10.8	8.7	6.8	7.6	30	90	23	23	42	52	146	288	70	10	Oct.
10.9	11.8	12.7	11.2	9.2	7.7	7.0	7.4	30	115	28	19	90	41	90	249	84	4	Nov.
7.3	6.7	6.1	6.4	6.2	6.4	6.7	6.9	44	272	97	30	92	36	31	50	134	2	Dec.
16.4	17.0	16.7	15.8	14.4	12.6	10.8	10.8	44	966	323	143	654	466	2,594	2,834	737	43	Year

SANTA FE, N. MEX.

[h_a = 50 ft.; local time, 2h 4m slow.]

8.0	5.5	3.7	3.8	3.8	4.1	3.9	5.8	27	126	238	20	56	57	59	22	69	97	Jan.
8.1	7.3	5.3	3.4	3.0	3.9	3.8	5.4	26	84	176	23	83	18	62	29	76	121	Feb.
12.1	11.4	10.4	6.9	6.0	6.1	5.5	7.1	36	50	61	29	89	109	138	67	109	92	Mar.
10.6	10.5	10.8	8.7	7.3	7.3	7.2	8.1	36	60	81	31	176	97	129	52	72	22	Apr.
14.1	13.7	12.7	9.6	7.0	6.3	5.6	8.3	38	62	64	32	117	79	189	88	61	52	May
8.8	8.3	8.4	7.4	5.6	6.5	7.0	6.1	30	30	76	56	151	89	156	46	36	80	June
7.2	7.9	8.9	8.9	7.4	7.5	7.8	5.7	34	67	108	61	120	117	89	31	56	95	July
8.2	7.6	8.3	7.5	8.1	7.2	7.1	5.8	25	*51	77	70	196	114	102	34	36	60	Aug.
9.5	8.7	7.3	5.1	5.3	5.8	4.9	5.4	30	66	89	48	169	70	121	44	67	46	Sept.
8.2	7.9	5.4	5.0	5.8	5.4	5.7	6.1	30	76	107	18	175	72	148	39	53	56	Oct.
9.9	7.9	4.9	5.7	6.0	6.3	6.2	6.6	41	106	125	23	141	64	135	36	55	35	Nov.
8.4	7.4	6.1	5.7	5.6	5.9	6.2	7.0	36	107	336	31	52	30	53	19	64	52	Dec.
9.4	8.7	7.7	6.5	5.9	6.0	5.9	6.4	41	887	1,539	440	1,525	916	1,379	506	755	808	Year

* Record missing for 34 miles and 4 hours 35 minutes on 26th.

SAVANNAH, GA.

[h_a = 89 ft.; local time, 24m slow.]

8.2	7.6	7.7	8.0	8.4	8.7	8.5	9.1	30	29	64	48	23	101	147	144	187	1	Jan.
8.7	7.9	7.3	7.1	7.2	7.6	7.3	8.5	36	76	65	99	65	32	67	91	176	1	Feb.
11.1	9.9	9.1	9.2	8.8	8.5	8.3	8.9	51	45	141	117	111	170	86	24	45	5	Mar.
11.7	10.5	9.2	9.3	8.7	9.1	8.5	9.6	42	104	28	10	64	171	95	110	135	3	Apr.
11.9	10.4	8.2	7.8	8.0	8.1	7.5	8.4	30	20	32	44	111	254	127	77	70	9	May.
11.0	9.9	8.7	8.0	7.5	7.2	5.6	7.5	28	25	23	92	120	203	157	80	18	2	June.
9.6	8.6	7.4	7.0	6.2	6.5	5.9	7.2	35	52	43	47	104	166	231	55	44	2	July.
9.1	7.3	6.8	6.5	6.5	6.2	6.6	7.6	76	40	48	79	163	227	129	13	23	22	Aug.
9.0	7.6	6.9	6.5	6.6	6.3	6.6	7.8	25	61	220	138	106	100	56	11	19	9	Sept.
10.2	9.3	9.5	8.8	8.8	8.5	8.2	10.2	60	98	196	58	80	77	17	49	167	2	Oct.
8.0	7.5	7.7	8.2	8.6	8.5	8.3	8.8	31	159	186	77	42	51	38	32	135	0	Nov.
8.6	7.9	7.6	8.0	7.9	8.1	8.4	8.5	31	122	91	20	23	88	137	136	125	2	Dec.
9.8	8.7	8.0	7.9	7.8	7.8	7.5	8.5	76	831	1,135	827	1,012	1,642	1,287	824	1,143	59	Year.

WASHINGTON, D. C.

[h_a = 76 ft.; local time, 8m slow.]

7.2	6.6	6.4	6.5	6.8	6.4	6.3	7.6	38	119	58	57	46	117	49	83	204	11	Jan.
8.2	7.3	6.8	7.2	7.2	6.5	7.0	7.5	46	101	51	36	20	133	24	61	214	32	Feb.
7.4	6.7	6.2	6.7	6.2	6.2	6.0	7.1	25	150	86	125	94	172	10	11	79	17	Mar.
10.2	7.8	6.6	7.0	6.5	6.1	5.7	8.9	34	142	100	33	24	80	32	93	205	11	Apr.
7.7	6.4	5.7	5.1	5.2	4.9	4.5	6.2	25	163	103	59	60	201	45	31	69	13	May.
7.9	6.7	4.6	4.4	4.0	3.8	3.5	5.6	30	87	67	85	73	134	76	78	104	16	June.
7.6	6.0	5.0	4.3	4.3	3.8	3.5	5.3	32	115	90	62	59	215	85	48	58	12	July.
6.4	4.5	3.7	3.3	3.3	3.4	3.1	4.8	30	90	64	25	42	269	124	44	65	21	Aug.
5.6	4.9	4.3	3.9	3.5	3.3	3.4	5.0	30	81	81	85	38	155	99	88	75	18	Sept.
6.5	5.7	5.5	5.5	5.5	5.3	4.7	6.6	28	66	87	96	72	123	36	73	168	23	Oct.
6.2	6.2	6.3	5.7	5.6	6.2	6.2	7.2	32	45	37	18	74	148	32	89	242	35	Nov.
6.0	6.1	5.8	5.7	5.4	5.2	5.2	6.3	36	53	78	17	36	167	64	140	148	41	Dec.
7.2	6.2	5.6	5.4	5.3	5.1	4.9	6.5	46	1,208	903	698	639	1,916	674	840	1,631	251	Year.

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PART III.

MONTHLY AND ANNUAL METEOROLOGICAL SUMMARIES FOR ONE HUNDRED AND FIFTY-NINE WEATHER BUREAU STATIONS.

EXPLANATION OF THE TABLES.

(A. J. HENRY, Chief of Division.)

For a detailed account of the methods of reduction, etc., the reader is referred to the article on that subject, page 37, Report of the Chief of the Weather Bureau, 1891-92.

Pressure.—The barometer used at Weather Bureau stations for personal observations is the ordinary portable mercurial open cistern. Each instrument is compared with the substandard at Washington before being issued, and a certificate is given showing both the corrections to the attached thermometer and the so-called correction for instrumental error. The latter is not applied except when it exceeds ±.006 inch.

The monthly means and the extremes given in the summaries have been reduced to 32° F., but not to standard gravity. The latter correction is given for each station at the head of the table. The means have been deduced from the personal observations at 8 a. m. and 8 p. m., seventy-fifth meridian time, and the extremes from the 8 a. m. and 8 p. m. and all special observations.

Temperature.—The temperature of the air at 8 a. m. and 8 p. m., seventy-fifth meridian 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 wooden-roof thermometer shelter adopted in 1885. The means of these observations are given in the columns headed 8 a. m. and 8 p. m., respectively.

The maximum thermometer used is of the mercurial Negretti and Zambra pattern, 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 recorded twice daily, at 8 a. m. and 8 p. m., seventy-fifth meridian time. The maximum and minimum thermometers are set daily at 8 a. m. and 8 p. m. The extremes given in the summaries are for the civil day, midnight to midnight. The monthly means have been obtained by dividing the sum of the mean maxima and mean minima temperatures 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.

In using the tables by means of which the amount of atmospheric moisture is computed from the readings of the whirled psychrometer, that one which gives the influence on the psychrometer of the prevailing pressure has been neglected. Caution should be exercised in using the published vapor pressure, dew-point, and relative humidity for high stations as computed by tables appropriate for low stations. The accuracy at present attained is confessedly below the demands of special laboratory studies, the needs of climatologists, and others, but answers fairly well for the use of forecast officials in the current daily routine of weather predictions.

The rain gauges 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 gauge 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 gauge in the winter season.

The sum total of the depth of rain and melted snow is measured to within 0.01 inch not only at the end of every shower, but also at 8 a. m. and 8 p. m., standard time, daily. By adding these two regular observations we obtain the total precipitation for the twenty-four hours preceding 8 p. m. of the civil day to which it is accredited.

The snow caught and retained in the gauge is melted and measured as water. No correction is applied for the snow that is lost out of the gauge by the eddying action of the wind; consequently in 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 gauge 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 is undoubtedly larger at the regular telegraph stations of the Weather Bureau than is the case at the voluntary stations whose gauges are located in the open country and near the ground, but this loss does not appear to be so large as to make the monthly and annual sums derived from these two classes of gauges wholly inconsistent with each other; on the contrary, except at a few stations, the differences between the annual rainfall at city and country gauges are not larger than is plausibly due to actual differences in the geographical distribution of rain.

By the maximum precipitation in twenty-four hours is meant the actual measurements for any twenty-four 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 8 p. m. to 8 p. m. and not from midnight to midnight.

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, on a scale of 0-10. The two simultaneous observations can not be combined into a normal daily mean in the present state of our knowledge of the diurnal variation 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 assign a percentage representing the average condition of the sky from sunrise to sunset; the resulting average for each month is given in the column of "daylight."

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

Wind.—The velocity of the wind is recorded at all Weather Bureau stations; the direction and velocity are recorded at about two-thirds of the stations on what is known as the "triple register." The records from 28 of the stations that are furnished with triple registers will be found in Part II. On some of these instruments the direction of the wind is recorded every five minutes, while on the latest pattern a record is made every minute.

The maximum velocities given are for five-minute periods.

A wind velocity of 40 miles per hour is considered as a gale.

Number of days.—The number of days with snow includes all of those on which at least 0.01 inch of melted snow, corresponding to about one-tenth of an inch of unmelted snow, has fallen in the twenty-four hours preceding 8 p. m.

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

No record of amounts of dew is given.

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 = height of barometer cistern above mean sea level; h_t = height of thermometer above ground; h_r = height of rain gauge above ground; h_a = height of anemometer above ground.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898.

ABILENE, TEX.

[λ = 32° 23′ N.; φ = 99° 40′ W.; gravity corr., −0.03.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.24	28.85	27.63	38.7	50.7	57.3	36.4	46.8	75	21	32	32	76	51	.188	.190	0.75	0.46	3.9	3.4	4.6
February	28.30	28.74	27.87	41.4	56.9	63.2	39.0	51.1	80	21	36	35	80	47	.221	.217	1.08	1.02	2.1	2.5	2.5
March	28.19	28.59	27.83	48.4	61.7	67.5	45.2	56.4	87	23	42	38	79	48	.301	.248	1.41	.70	4.8	4.7	5.2
April	28.23	28.64	27.80	54.2	71.6	76.2	53.0	64.6	92	34	46	42	76	39	.330	.288	1.78	.94	3.5	3.0	4.0
May	28.09	28.54	27.79	64.7	79.8	83.6	62.9	73.2	101	43	58	52	81	43	.505	.414	2.60	1.68	4.3	2.6	3.9
June	28.16	28.34	27.97	69.6	82.5	87.5	68.1	77.8	98	61	66	63	87	54	.630	.573	4.55	1.45	3.4	3.9	4.3
July	28.18	28.33	27.99	72.2	87.5	91.7	70.9	81.3	102	62	64	60	77	43	.612	.536	1.46	1.05	3.1	3.6	4.0
August	28.19	28.37	28.04	70.9	87.1	92.0	70.2	81.1	98	61	62	57	75	39	.573	.486	1.94	1.32	3.6	4.2	4.0
September	28.18	28.52	27.96	64.9	81.4	86.6	64.1	75.4	100	46	57	55	77	44	.479	.447	3.44	1.42	3.1	3.0	3.5
October	28.26	28.74	27.88	54.9	71.0	78.3	52.9	65.6	94	30	42	42	64	36	.311	.291	T.	T.	2.1	1.8	2.3
November	28.27	28.58	27.72	42.0	55.0	62.5	40.1	51.3	81	24	32	32	69	44	.190	.187	.98	.66	4.2	4.8	4.9
December	28.37	28.98	27.85	31.3	41.4	48.6	28.8	38.7	78	1	23	26	71	59	.131	.149	2.14	1.12	3.5	3.1	4.2
Year	28.22	28.98	27.63	54.4	68.9	74.6	52.6	63.6	102	1	47	44	76	45	.373	.336	22.13	1.68	3.5	3.4	4.0

ALBANY, N. Y.

[λ = 42° 39′ N.; φ = 73° 45′ W.; gravity corr., −0.01.]

January	29.92	30.48	29.24	22.1	25.2	32.3	16.7	24.5	54	−12	18	19	84	75	.110	.111	2.96	0.94	8.2	6.9	7.4
February	29.99	30.51	29.23	24.5	28.2	35.3	20.6	28.0	52	− 6	20	21	83	72	.119	.119	3.57	1.39	7.2	6.0	7.0
March	30.12	30.60	29.51	37.0	42.9	50.9	33.4	42.2	64	18	32	32	82	64	.187	.184	1.08	.49	6.2	3.5	5.0
April	29.87	30.25	29.45	41.6	46.9	53.8	37.2	45.5	73	20	34	33	74	60	.202	.200	2.63	1.05	6.3	5.7	6.7
May	29.86	30.20	29.55	55.2	59.4	66.1	50.2	58.2	79	40	47	48	74	70	.331	.351	4.07	1.25	7.4	7.9	7.2
June	29.88	30.28	29.39	66.8	70.9	79.5	60.3	69.9	95	48	57	60	72	68	.480	.528	5.58	2.14	4.9	6.1	5.4
July	29.94	30.37	29.62	71.0	77.4	85.5	64.8	75.2	100	50	60	62	70	60	.542	.568	1.97	.46	5.2	4.7	5.1
August	29.89	30.20	29.63	68.4	72.0	82.3	63.9	73.1	92	51	62	64	81	76	.564	.594	6.67	2.06	6.1	7.0	6.6
September	29.95	30.33	29.52	61.2	66.1	76.8	56.5	66.6	94	40	56	57	82	73	.463	.490	1.61	.70	5.2	3.9	4.2
October	30.02	30.36	29.26	49.1	53.8	61.0	45.3	53.2	84	30	45	47	87	78	.321	.346	4.29	1.07	6.4	5.3	6.7
November	29.97	30.47	29.30	35.1	39.1	45.8	31.5	38.6	59	15	30	32	81	76	.173	.185	4.22	1.82	6.6	6.4	7.4
December	29.93	30.42	29.13	25.5	29.7	36.4	21.5	29.0	51	− 5	20	23	78	77	.113	.130	1.02	.52	7.0	6.0	6.9
Year	29.94	30.60	29.13	46.5	51.0	58.8	41.8	50.3	100	−12	40	42	79	71	.300	.317	38.77	2.14	6.4	5.8	6.3

ALPENA, MICH.

[λ = 45° 5′ N.; φ = 83° 30′ W.; gravity corr., 0.00.]

January	29.29	29.70	28.49	21.1	24.4	29.2	16.2	22.7	38	− 7	17	19	81	79	.095	.106	3.43	1.80	7.8	7.1	7.0
February	29.37	29.75	29.02	19.4	23.7	28.1	15.3	21.7	45	− 8	16	19	83	80	.095	.108	2.41	.70	8.7	6.4	7.8
March	29.41	29.71	28.82	29.5	33.7	39.0	26.0	32.5	58	9	24	28	80	78	.135	.154	2.51	.68	5.5	4.1	5.8
April	29.40	29.68	28.78	36.7	41.6	47.8	32.3	40.0	64	14	30	32	76	71	.170	.188	1.47	.91	5.2	5.1	5.4
May	29.27	29.57	28.86	49.9	53.5	59.5	44.4	52.0	81	33	44	45	80	75	.293	.308	2.78	.73	5.5	4.6	5.5
June	29.31	29.71	28.66	60.0	62.4	71.1	53.1	62.1	93	43	55	54	84	77	.442	.433	5.76	2.15	5.0	4.6	5.2
July	29.37	29.68	29.05	65.6	68.6	76.2	57.4	66.8	93	42	58	58	76	70	.492	.494	.82	.72	4.0	3.4	3.9
August	29.31	29.57	29.06	60.9	66.6	72.6	55.7	64.2	94	45	57	59	86	77	.464	.507	4.24	1.28	5.4	5.4	5.6
September	29.33	29.93	28.95	58.0	61.7	70.4	52.5	61.4	91	37	53	55	84	80	.421	.449	2.91	1.08	4.2	3.3	4.2
October	29.36	29.76	28.72	45.8	48.4	53.1	41.0	47.0	75	22	43	44	91	86	.294	.299	5.43	1.37	6.9	6.8	7.0
November	29.31	29.82	28.59	34.4	36.7	42.2	30.7	36.4	66	18	31	32	88	83	.181	.185	1.09	.41	6.9	6.6	6.9
December	29.25	29.92	28.72	22.3	34.4	29.4	17.8	23.6	45	2	19	20	86	82	.105	.110	1.22	.44	8.8	7.1	8.3
Year	29.33	29.93	28.49	42.0	45.5	51.6	36.9	44.2	94	− 8	37	39	83	78	.266	.278	34.07	2.15	6.2	5.4	6.0

AMARILLO, TEX.

[λ = 35° 13′ N.; φ = 101° 50′ W.; gravity corr., −0.03.]

January	26.22	26.73	25.79	27.0	38.9	46.2	23.7	35.0	71	9	19	20	72	53	.099	.109	0.86	0.43	3.9	5.1	4.5
February	26.28	26.74	25.86	31.8	48.4	55.4	28.4	41.9	75	19	23	19	71	34	.124	.104	.82	.82	3.0	2.8	2.9
March	26.19	26.56	25.82	34.6	52.8	59.9	32.2	46.0	76	11	22	11	62	26	.128	.090	.35	.16	5.2	4.6	4.8
April	26.27	26.61	25.76	44.5	64.6	69.7	42.4	56.0	89	22	34	27	68	27	.201	.156	.98	.60	4.9	4.1	4.4
May	26.16	26.61	25.85	53.0	72.7	76.6	50.7	63.6	93	32	45	35	78	32	.325	.229	3.52	1.00	4.5	4.3	4.2
June	26.25	26.48	26.03	62.7	78.6	81.9	59.5	70.7	93	53	58	52	86	45	.488	.407	4.81	1.16	3.3	3.1	3.2
July	26.31	26.49	26.07	65.7	80.8	85.2	63.3	74.2	95	56	59	56	81	46	.510	.462	3.88	1.74	4.1	4.1	3.2
August	26.31	26.46	26.15	64.4	81.3	85.5	62.5	74.0	92	59	58	54	80	42	.484	.434	4.03	1.78	2.9	2.2	2.5
September	26.28	26.64	26.05	56.2	73.6	80.5	53.4	67.0	95	37	46	44	72	39	.328	.302	.48	.23	2.7	2.6	2.8
October	26.32	26.72	25.93	45.2	61.3	70.8	42.1	56.4	89	26	34	32	68	37	.216	.195	.41	.22	1.3	2.0	2.0
November	26.25	26.60	25.66	31.8	46.3	54.6	29.5	42.0	80	13	25	28	75	52	.134	.158	34	.21	2.3	2.3	2.6
December	26.34	26.88	25.81	24.0	30.2	36.1	19.1	27.6	64	− 1	20	23	83	75	.107	.124	2.06	.87	3.5	2.8	3.0
Year	26.26	26.88	25.66	45.1	60.8	66.9	42.2	54.5	95	− 1	37	33	75	42	.262	.231	22.54	1.78	3.5	3.3	3.3

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898.

ABILENE, TEX.

[H=1,749 ft.; h_t=45 ft.; h_r=36 ft.; h_a=54 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.0	SW.	60	W.	3	12	2	2	10	6	15	9	6	0	11	13	7	6	5	1	0	2	0	0	10	0	0
February	9.8	SW.	36	SW.	0	15	3	0	6	9	17	0	6	0	18	8	2	2	2	0	0	0	0	0	3	2	0
March	11.4	SE.	32	NW.	0	13	5	1	15	13	5	5	5	0	8	14	9	7	5	1	0	2	0	0	5	2	0
April	12.8	SE.	48	W.	1	9	3	5	18	8	9	3	5	0	13	12	5	4	4	0	0	0	0	2	0	2	0
May	12.4	SE.	32	SE.	0	9	2	3	23	12	11	0	2	0	13	13	5	3	3	0	0	0	0	7	0	4	0
June	9.3	SE.	42	NE.	1	1	3	3	21	16	14	0	2	0	11	16	3	14	10	0	1	0	0	9	0	9	0
July	8.9	S.	30	S.	0	3	8	4	19	23	5	0	0	0	14	15	2	7	4	0	0	0	0	18	0	4	0
August	7.2	SE.	36	NE.	0	5	5	4	21	19	4	1	3	0	15	10	6	7	6	0	0	0	0	23	0	6	0
September	8.8	S.	31	SE.	0	4	7	3	14	21	4	1	6	0	18	6	6	6	4	0	0	0	0	14	0	2	0
October	10.1	S.	36	NE.	0	7	4	2	4	22	12	3	8	0	19	11	1	0	0	0	0	0	0	5	1	1	0
November	10.8	SW.	36	NW.	0	4	6	2	14	11	11	5	7	0	13	7	10	4	4	0	0	0	0	0	7	1	0
December	9.9	SW.	44	NW.	1	13	6	0	2	9	15	3	14	0	15	9	7	6	4	2	0	1	4	0	15	0	0
Year	10.1	S.	60	W.	6	95	54	29	167	169	122	30	64	0	168	134	63	66	51	4	1	5	4	78	41	33	0

ALBANY, N. Y.

[H=97 ft.; h_t=84 ft.; h_r=99 ft.; h_a=113 ft.]

January	7.6	S.	32	W.	0	16	3	1	3	16	1	9	13	0	3	12	16	15	8	11	0	0	12	0	28	0	0
February	8.3	S.	34	S. E.	0	9	0	1	4	16	2	15	9	0	7	6	15	11	8	7	0	1	5	0	22	0	0
March	9.1	S.	35	S. E.	0	11	3	0	10	22	0	6	10	0	15	5	11	6	6	1	0	1	0	0	10	0	1
April	8.2	N.	29	W.	0	13	6	3	3	11	1	11	12	0	8	7	15	15	11	3	1	0	2	0	8	0	0
May	7.0	S.	25	N.	0	17	2	2	10	19	0	7	5	0	7	6	18	18	15	0	0	0	0	0	0	2	0
June	6.5	S.	34	S.	0	11	7	1	9	17	2	7	6	0	8	17	5	12	11	0	0	0	0	1	0	5	0
July	6.8	S.	24	W.	0	9	5	2	5	26	0	6	8	1	9	18	4	9	5	0	0	0	0	4	0	3	0
August	6.2	S.	36	W.	0	6	1	1	8	29	0	8	8	1	5	12	14	19	17	0	1	0	0	2	0	10	0
September	6.3	S.	24	S. E.	0	7	3	1	7	30	2	5	5	0	15	8	7	9	7	0	0	3	0	4	0	5	0
October	7.5	S.	32	S.	0	15	2	2	4	18	2	13	6	0	6	10	15	10	9	0	0	2	0	0	2	1	0
November	8.1	S.	36	S.	0	18	1	0	5	14	3	11	8	0	4	9	17	14	7	4	0	3	3	0	12	0	0
December	8.0	S.	b60	N. E.	2	6	2	3	3	20	9	9	10	0	6	10	15	8	4	5	1	1	9	0	24	0	0
Year	7.5	S.	b60	N. E.	2	138	35	17	71	238	22	107	100	2	93	120	152	148	108	31	3	11	31	11	106	26	1

ALPENA, MICH.

[H=609 ft.; h_t=63 ft.; h_r=54 ft.; h_a=65 ft.]

January	9.6	NW.	36	NE.	0	6	4	1	3	8	8	15	16	1	3	14	14	16	8	16	0	0	18	0	31	0	0
February	10.7	NW.	37	NW.	0	5	8	3	4	10	8	10	8	0	2	11	15	15	8	13	0	1	19	0	25	0	0
March	9.9	SE.	36	NW.	0	4	1	8	12	6	10	8	13	0	10	10	11	13	10	4	0	3	5	0	23	0	1
April	10.0	NW.	40	E.	1	11	8	0	16	1	4	1	19	0	9	12	9	7	4	3	0	2	2	0	16	0	0
May	9.2	NW.	36	SE.	0	7	3	3	18	5	4	4	18	0	11	8	12	13	11	0	0	1	0	0	0	3	0
June	8.4	SE.	46	NW.	2	7	5	5	14	7	4	8	10	0	9	15	6	17	14	0	0	1	0	1	0	7	0
July	8.1	NW.	28	SE.	0	8	6	4	11	5	6	5	15	2	16	13	2	2	2	0	0	0	0	2	0	2	0
August	6.6	NW.	27	S.	0	6	8	4	12	4	5	6	17	0	10	12	9	12	8	0	0	0	0	1	0	4	0
September	8.5	W.	39	SE.	0	6	1	3	7	12	8	15	8	0	15	10	5	13	11	0	0	0	0	1	0	3	0
October	11.1	SE.	38	SE.	0	10	1	8	12	13	3	10	9	1	5	10	16	18	13	2	0	0	0	0	3	1	0
November	11.3	SW.	37	SE.	0	2	2	1	4	16	12	15	8	0	6	8	16	11	8	6	0	0	3	0	18	0	0
December	10.5	W.	35	NW.	0	6	0	1	2	6	14	21	12	0	1	11	19	15	6	13	0	0	18	0	31	0	0
Year	9.5	NW.	46	NW.	3	78	47	36	115	93	86	118	153	4	97	134	134	152	103	57	0	8	65	5	141	20	1

AMARILLO, TEX.

[H=3,691 ft.; h_t=54 ft.; h_r=46 ft.; h_a=61 ft.]

January	14.3	S.	56	SW.	5	19	2	1	1	20	7	10	1	1	14	6	11	7	5	5	0	0	4	0	25	0	0
February	16.6	N.	48	N.	4	17	2	2	1	15	7	8	3	1	20	5	3	2	2	1	0	0	1	0	18	0	0
March	18.8	S.	60	SW.	9	16	0	1	5	24	8	7	1	0	11	10	10	5	4	1	0	1	0	0	16	0	0
April	19.4	S.	66	W.	13	15	1	6	7	19	3	7	2	0	13	14	3	8	4	1	0	1	0	0	5	3	0
May	18.3	S.	64	W.	9	12	0	6	6	17	12	6	3	0	15	10	6	14	12	0	2	1	0	1	0	11	0
June	15.0	S.	50	N.	3	2	10	7	7	24	6	3	1	0	19	8	3	11	10	0	1	0	0	5	0	9	0
July	14.1	S.	54	N.	5	5	4	7	3	37	2	2	2	0	21	6	4	12	11	0	0	0	0	9	0	11	0
August	12.5	S.	46	SE.	1	2	3	5	4	32	11	4	1	0	24	5	2	5	4	0	1	1	0	3	0	7	0
September	15.2	S.	48	S.	3	10	3	3	5	22	10	6	1	0	19	6	5	5	2	0	0	1	0	7	0	2	0
October	18.5	S.	60	SW.	8	12	7	2	5	16	14	3	3	0	22	6	3	4	4	0	0	2	0	0	4	4	0
November	18.5	S.	68	N.	8	12	3	1	11	12	10	8	3	0	20	8	2	3	2	3	0	0	0	0	19	1	0
December	14.7	N.	48	N.	7	17	2	2	2	6	13	9	11	0	23	2	6	9	7	8	0	0	11	0	30	0	0
Year	16.3	S.	68	N.	75	139	37	43	57	244	103	73	32	2	221	86	58	85	67	19	4	7	16	25	117	48	0

a By eye observations at 8 p. m. when there is no self-register at station. b For 30⅔ days. C.=Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ATLANTA, GA.

[λ = 33° 45′ N.; φ = 84° 23′ W.; gravity corr., — 0.03.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a.m.	8 p.m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	Total.	Maximum in 24 hours.	8 a.m.	8 p.m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.93	29.18	28.57	42.2	49.0	54.1	39.7	46.9	73	17	40	41	92	76	.268	.287	2.99	1.37	7.6	4.2	6.3
February	28.97	29.30	28.68	36.5	46.2	51.9	34.6	43.2	67	13	30	31	77	58	.175	.190	.62	.33	3.8	2.6	4.3
March	28.97	29.24	28.67	50.9	59.7	66.4	48.6	57.5	80	31	48	50	88	72	.353	.376	4.09	1.36	8.1	5.1	6.6
April	28.87	29.17	28.40	51.1	60.1	65.2	47.8	56.5	80	32	40	39	68	48	.259	.248	5.15	2.19	5.6	3.9	5.1
May	28.81	29.01	28.56	67.4	76.8	84.1	61.6	72.8	94	38	55	52	66	44	.446	.405	1.35	.93	1.8	4.8	3.4
June	28.89	29.03	28.72	73.6	82.8	89.0	69.4	79.2	95	65	64	63	75	55	.613	.591	.89	.38	3.0	4.3	4.3
July	28.90	29.09	28.67	73.5	77.7	86.0	70.0	78.0	96	58	70	69	87	77	.724	.714	10.22	5.56	7.0	7.7	7.0
August	28.89	29.02	28.72	72.6	77.5	84.2	70.3	77.2	92	67	70	71	92	82	.736	.767	6.66	2.38	6.7	8.0	7.5
September	28.92	29.10	28.77	68.6	74.2	81.1	66.4	73.8	89	59	64	65	87	75	.611	.626	6.33	3.26	6.2	6.1	6.5
October	28.92	29.22	28.51	54.4	61.5	67.9	52.4	60.2	85	34	50	53	85	75	.407	.441	5.06	2.16	4.5	3.7	4.4
November	28.97	29.24	28.50	43.2	50.1	56.9	40.2	48.6	73	18	38	40	82	70	.243	.267	3.36	.70	5.0	4.2	4.8
December	28.97	29.35	28.46	38.9	44.8	50.5	36.7	43.6	67	18	32	36	76	72	.208	.232	3.84	1.31	6.5	5.1	5.7
Year	28.92	29.35	28.40	56.1	63.4	69.8	53.1	61.5	96	13	50	51	81	67	.420	.429	50.56	5.56	5.5	5.0	5.5

ATLANTIC CITY, N. J.

[λ = 39° 22′ N.; φ = 74° 25′ W.; gravity corr., —0.02.]

January	29.99	30.46	29.31	33.9	35.8	42.3	29.6	36.0	60	12	30	30	86	80	.177	.174	3.39	0.97	6.5	4.3	6.0
February	30.06	30.59	29.35	31.2	35.5	41.4	27.8	34.6	59	7	27	30	82	79	.156	.174	1.86	1.40	3.2	3.6	4.0
March	30.18	30.60	29.75	41.9	44.4	49.3	38.7	44.0	68	23	39	41	89	88	.242	.258	2.56	.70	5.4	6.5	6.1
April	29.91	30.19	29.35	45.5	47.7	53.7	40.1	46.9	77	24	40	41	82	79	.259	.266	2.67	.75	6.2	6.1	6.3
May	29.90	30.24	29.41	55.0	55.0	60.7	50.3	55.5	76	42	51	52	88	90	.383	.394	5.17	1.22	6.0	6.1	6.6
June	29.96	30.24	29.58	66.8	65.4	73.3	60.0	66.6	92	50	60	60	80	83	.529	.525	2.49	1.59	4.0	5.2	4.4
July	30.00	30.29	29.71	73.0	72.5	77.9	68.6	73.2	94	58	68	68	84	87	.696	.702	2.23	1.18	5.3	5.9	4.9
August	29.98	30.18	29.75	73.0	73.5	79.1	69.3	74.2	91	60	69	69	87	87	.711	.718	3.99	1.93	3.8	5.3	4.3
September	30.04	30.34	29.70	67.1	67.5	74.3	61.7	68.0	89	50	61	63	82	85	.559	.582	1.81	1.14	3.3	3.3	3.5
October	30.08	30.41	29.45	57.2	58.4	63.9	52.1	58.0	75	35	52	53	82	82	.410	.422	4.60	1.75	3.8	4.7	5.0
November	30.03	30.49	29.30	43.1	45.0	50.5	37.7	44.1	62	24	39	40	85	82	.247	.255	5.51	1.25	5.7	5.1	5.9
December	30.03	30.54	29.24	34.5	36.3	42.9	29.8	36.4	56	12	30	30	82	79	.172	.180	2.40	.79	5.1	4.5	5.6
Year	30.01	30.60	29.24	51.8	53.1	59.1	47.1	53.1	94	7	47	48	84	83	.378	.388	38.68	1.93	4.9	5.0	5.2

AUGUSTA, GA.

[λ = 33° 28′ N.; φ = 81° 54′ W.; gravity corr., — 0.03.]

January	29.94	30.22	29.59	44.0	53.4	60.7	41.7	51.2	77	18	38	41	81	63	.255	.278	1.72	0.84	5.7	4.3	5.6
February	29.97	30.37	29.63	36.2	50.7	57.7	34.5	46.1	74	19	31	32	81	52	.186	.192	.53	.40	2.2	3.5	3.6
March	29.97	30.29	29.71	54.0	65.3	71.0	52.7	61.8	87	34	50	51	86	63	.378	.393	3.14	1.28	6.2	4.9	5.9
April	29.86	30.15	29.40	52.5	63.4	70.4	47.4	58.9	84	35	46	46	78	56	.319	.323	4.96	2.35	3.1	3.3	4.0
May	29.78	30.03	29.52	68.0	79.5	87.4	62.3	74.8	99	44	59	55	74	45	.511	.450	.52	.28	2.5	3.0	3.0
June	29.85	30.01	29.64	75.5	83.0	91.3	69.9	80.6	97	64	67	64	76	55	.666	.603	3.92	1.59	1.5	3.8	3.5
July	29.87	30.08	29.60	76.4	81.5	89.1	72.1	80.6	97	57	71	70	84	71	.768	.748	6.70	2.75	5.8	6.4	5.9
August	29.87	30.00	29.74	75.1	78.5	86.9	71.8	79.4	93	69	72	72	90	81	.781	.784	9.25	2.19	5.9	6.5	6.5
September	29.89	30.08	29.72	70.5	77.3	85.2	67.7	76.4	92	57	66	67	87	71	.652	.668	2.92	1.74	4.6	5.0	5.2
October	29.90	30.24	29.46	58.0	65.0	73.5	54.4	64.0	89	35	53	56	84	73	.451	.492	2.84	1.29	3.8	2.9	3.8
November	29.98	30.26	29.48	45.3	54.3	62.1	41.8	52.0	77	26	41	43	85	68	.273	.297	5.10	1.87	4.7	4.7	4.9
December	29.98	30.40	29.48	42.0	49.2	56.1	39.5	47.8	73	25	36	39	79	68	.234	.265	2.39	1.40	5.4	4.9	5.2
Year	29.90	30.40	29.40	58.1	66.8	74.3	54.6	64.5	99	18	52	53	82	64	.456	.458	43.99	2.75	4.3	4.4	4.8

BAKER CITY, OREG.

[λ = 44° 50′ N.; φ = 117° 50′ W.; gravity corr., 0.00.]

January	26.52	26.86	26.18	15.3	22.7	27.7	12.4	20.0	39	— 4	11	16	80	72	.072	.091	0.82	0.21	6.5	7.8	7.1
February	26.47	26.88	26.04	30.5	37.5	42.0	28.3	35.2	59	9	24	26	75	63	.129	.138	.58	.18	7.3	8.5	8.3
March	26.40	26.72	25.99	26.7	38.5	42.8	24.4	33.6	56	11	19	20	71	48	.103	.112	.27	.10	5.5	6.4	6.1
April	26.45	26.83	26.01	36.6	56.5	60.3	34.8	47.6	83	24	27	23	66	30	.146	.128	.27	.18	6.1	6.9	6.2
May	26.35	26.58	26.01	40.7	58.8	62.0	39.3	50.6	79	30	30	28	66	36	.172	.161	2.17	.62	5.3	6.4	6.0
June	26.41	26.80	26.16	47.9	68.2	72.9	46.5	59.7	90	34	38	36	70	34	.236	.218	.74	.32	4.0	6.0	5.1
July	26.44	26.66	26.19	51.8	79.4	82.8	51.0	66.9	98	42	37	36	59	24	.224	.220	.33	.11	2.3	2.7	2.4
August	26.40	26.55	26.23	56.5	82.3	85.9	55.2	70.6	101	46	35	34	46	22	.204	.209	.31	.20	2.6	3.3	3.0
September	26.41	26.69	26.16	44.8	69.2	74.0	43.0	58.5	92	30	31	29	61	26	.177	.166	.47	.30	3.5	3.5	3.3
October	26.53	26.83	26.18	35.6	50.8	56.3	32.8	44.6	69	24	27	26	71	38	.152	.138	.55	.20	5.6	5.0	5.4
November	26.46	26.80	26.03	26.6	35.0	39.9	23.9	31.9	55	10	21	27	78	70	.116	.145	1.33	.28	5.4	6.4	7.0
December	26.66	27.01	26.24	16.9	23.5	30.0	13.9	22.0	42	— 3	11	17	77	72	.077	.093	.71	.28	5.5	6.0	5.9
Year	26.46	27.01	25.99	35.8	51.9	56.4	33.8	45.1	101	— 4	26	26	68	45	.151	.152	8.55	.62	5.0	5.7	5.5

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ATLANTA, GA.

[H = 1,131 ft.; h_t = 92 ft.; h_r = 85 ft.; h_a = 126 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	11.6	NW.	43	SW.	1	1	6	4	4	7	14	8	18	0	8	7	16	11	8	1	0	2	2	0	4	1	0
February	10.2	NW.	36	NW.	0	1	6	12	4	0	5	10	18	0	14	5	9	5	5	0	0	2	1	0	10	0	0
March	9.7	SW.	30	NW.	0	2	13	10	5	8	10	3	11	0	3	14	14	12	9	0	0	3	0	0	2	1	0
April	10.1	NW.	32	NW.	0	1	3	1	8	1	11	7	28	0	11	8	11	10	9	0	1	0	0	0	0	2	0
May	8.9	NW.	34	NW.	0	4	2	3	5	3	16	12	17	0	17	13	1	6	4	0	0	0	0	2	0	5	0
June	7.6	SW.	30	SW.	0	2	5	4	6	7	15	9	12	0	11	16	3	8	6	0	0	0	0	12	0	8	0
July	7.6	SW.	52	SW.	1	0	9	9	8	10	12	9	4	1	3	11	17	16	13	0	0	0	0	6	0	17	0
August	6.4	SE.	30	NE.	0	3	14	5	18	9	7	5	1	0	1	12	18	15	13	0	0	0	0	1	0	6	0
September	7.5	NE.	36	S.	0	2	24	9	5	4	2	7	7	0	9	3	18	12	9	0	0	0	0	0	0	4	0
October	10.1	NW.	40	NE.	1	1	13	11	7	4	4	5	17	0	14	8	9	13	10	0	0	0	0	0	0	1	0
November	9.6	NW.	32	NW.	0	2	18	7	9	2	2	4	16	0	12	7	11	11	9	0	0	0	0	0	6	0	0
December	9.8	NW.	35	NW.	0	1	7	4	9	2	11	7	21	0	11	7	13	11	9	1	0	3	0	0	14	2	0
Year	9.1	NW.	52	SW.	3	20	120	79	88	57	109	86	170	1	114	111	140	130	104	2	1	10	3	21	36	47	0

ATLANTIC CITY, N. J.

[H = 52 ft.; h_t = 68 ft.; h_r = 57 ft.; h_a = 76 ft.

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	12.3	NW.	50	NW.	2	8	7	5	4	2	5	12	19	0	6	13	12	13	10	3	0	6	3	0	17	0	0
February	10.9	NW.	49	NW.	3	7	1	6	8	4	4	8	18	0	15	8	5	8	6	1	0	5	3	0	16	0	0
March	11.2	E.	41	NE.	1	5	14	15	6	3	9	0	10	0	7	12	12	11	11	0	0	6	0	0	5	0	1
April	14.4	NW.	48	NE.	3	3	12	8	1	1	10	7	18	0	4	16	10	13	11	0	1	0	0	0	7	0	0
May	11.2	SW.	46	NE.	2	5	13	12	4	12	11	2	3	0	6	13	12	16	13	0	1	6	0	0	0	7	0
June	10.5	SW.	38	NE.	0	6	10	13	3	3	15	5	5	0	13	14	3	10	9	0	0	3	0	1	0	5	0
July	9.4	SW.	50	NE.	2	1	7	15	6	9	18	4	2	0	11	14	6	8	6	0	0	2	0	1	0	5	0
August	9.2	SW.	42	NW.	1	2	2	7	2	4	31	6	8	0	14	13	4	6	6	0	0	1	0	1	0	3	0
September	9.5	SW.	28	N.	0	6	9	6	4	5	17	7	6	0	19	4	7	8	7	0	0	2	0	0	0	2	0
October	11.9	NW.	40	SE.	1	7	4	10	8	7	8	4	14	0	9	14	8	11	11	0	0	3	0	0	0	0	0
November	12.0	NW.	43	NW.	2	6	4	3	5	3	9	7	23	0	9	9	12	13	12	4	0	1	1	0	8	0	0
December	11.7	NW.	50	SE.	2	5	4	4	2	4	13	15	15	0	10	9	12	10	9	1	0	4	1	0	20	0	0
Year	11.2	SW.	50	NW., NE., & SE.	19	61	87	104	53	57	150	77	141	0	123	139	103	127	111	9	2	39	8	3	73	22	1

AUGUSTA, GA.

[H = 180 ft.; h_t = 89 ft.; h_r = 54 ft.; h_a = 103 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.9	W.	36	S.	0	3	4	4	5	5	17	20	4	0	12	5	14	10	5	0	0	2	0	0	4	1	0
February	6.5	W.	39	W.	0	13	4	1	2	0	2	24	10	0	15	8	5	2	2	0	0	2	0	0	11	0	0
March	6.8	NE.	26	NW.	0	10	16	3	13	1	11	4	4	0	8	11	12	6	5	0	0	3	0	0	0	0	0
April	6.7	NW.	35	SW.	0	2	7	1	3	6	7	15	19	0	15	8	7	10	10	0	0	0	0	0	0	2	0
May	6.2	S.	41	W.	1	4	6	0	12	15	10	5	10	0	18	10	3	4	2	0	0	0	0	16	0	5	0
June	5.7	SE.	36	NW.	0	4	7	5	13	9	10	9	3	0	14	15	1	11	9	0	0	0	0	17	0	9	0
July	5.8	SW.	29	SE.	0	3	9	5	7	8	20	7	2	1	9	10	12	12	12	0	0	1	0	14	0	11	0
August	5.3	S.	26	NE.	0	0	10	3	10	23	11	1	3	1	5	13	13	19	16	0	0	0	0	8	0	9	0
September	5.4	NE.	28	SE.	0	6	15	7	7	5	6	2	12	0	11	10	9	8	7	0	0	0	0	5	0	3	0
October	7.5	NW.	36	NE.	0	4	11	8	8	4	2	9	16	0	14	13	4	8	8	0	0	0	0	0	0	2	0
November	6.2	NE.	29	NW.	0	9	11	7	6	0	3	10	14	0	12	7	11	13	11	0	0	2	0	0	3	0	0
December	6.2	NW.	36	SW.	0	2	8	3	2	9	10	13	15	0	13	6	12	11	9	0	0	1	0	0	8	0	0
Year	6.3	W.	41	W.	1	60	108	47	88	85	109	119	112	2	146	116	103	114	96	0	0	11	0	60	26	42	0

BAKER CITY, OREG.

[H = 3,470 ft.; h_t = 49 ft.; h_r = 38 ft.; h_a = 55 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.5	S.	22	SE.	0	3	1	0	16	26	5	0	6	5	2	14	15	13	7	13	0	0	20	0	31	0	0
February	6.3	SE.	28	SE.	0	2	2	1	24	11	6	1	4	5	3	4	21	11	5	7	0	0	0	0	18	0	0
March	6.3	NW.	34	NW.	0	6	3	0	9	13	8	3	18	2	8	9	14	8	3	8	0	0	1	0	29	0	0
April	7.9	S.	28	SE.	0	9	2	0	10	17	5	2	14	1	6	12	12	6	2	1	0	0	0	0	11	0	0
May	6.6	NW.	29	NW.	0	10	7	1	12	13	1	0	15	3	8	11	12	11	8	1	0	0	0	0	3	3	0
June	5.5	S.	26	NW.	0	7	2	0	2	23	2	1	19	4	10	10	10	9	4	0	0	0	0	0	0	3	0
July	5.4	S.	27	NE.	0	10	7	1	2	29	2	1	7	3	20	10	1	6	3	0	0	0	0	8	0	5	0
August	5.1	S.	23	NW.	0	4	2	0	8	24	2	1	19	2	18	7	6	4	3	0	0	0	0	12	0	2	0
September	5.8	S.	23	NW.	0	8	1	4	12	23	2	0	10	0	19	3	8	5	3	0	0	0	0	1	1	0	0
October	4.9	S.	20	NW.	0	3	3	1	15	17	4	1	11	7	7	16	8	7	4	1	0	0	0	0	13	0	0
November	4.7	SE.	24	NE.	0	2	6	2	18	11	6	1	8	6	5	6	19	15	11	12	0	1	5	0	26	0	0
December	4.7	S.	18	SE.	0	2	0	0	16	19	8	1	7	9	11	3	17	8	4	7	0	0	20	0	31	0	0
Year	5.7	S.	34	NW.	0	66	36	10	144	226	51	12	138	47	117	105	143	103	57	50	0	1	46	21	163	13	0

a By eye observations at 8 a. m. and 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BALTIMORE, MD.

[λ=39° 18′ N.; φ=76° 37′ W.; gravity corr., −0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.92	30.40	29.29	34.3	36.8	42.9	31.0	37.0	60	17	28	28	76	70	.159	.160	2.99	0.04	5.9	4.9	5.7
February	29.99	30.50	29.26	30.5	36.5	42.6	27.9	35.2	65	10	22	25	68	62	.128	.138	1.32	.64	4.7	3.9	4.4
March	30.10	30.53	29.69	44.2	50.6	55.8	41.3	48.6	77	27	36	38	73	65	.223	.243	2.58	1.01	7.3	5.5	6.4
April	29.85	30.12	29.33	48.5	52.8	59.5	42.9	51.2	81	26	35	37	61	57	.215	.229	1.84	.49	5.2	4.8	5.7
May	29.81	30.16	29.36	61.0	64.5	72.6	55.2	63.9	92	40	52	51	73	65	.401	.401	3.86	1.38	6.8	6.6	6.4
June	29.88	30.15	29.52	71.8	74.7	83.1	64.4	73.8	98	55	58	59	63	60	.493	.515	1.06	.51	4.0	4.6	3.8
July	29.92	30.20	29.61	76.3	79.2	86.9	70.5	78.7	104	57	65	66	69	66	.630	.666	3.51	1.36	5.9	4.9	4.4
August	29.89	30.12	29.68	75.0	77.8	85.8	68.9	77.4	95	59	66	68	74	74	.650	.705	6.09	1.47	4.3	4.5	4.2
September	29.96	30.29	29.59	68.5	71.7	80.6	62.3	71.4	97	52	58	60	69	67	.496	.531	1.56	1.10	3.3	2.1	3.3
October	29.99	30.33	29.52	56.3	58.5	66.2	49.8	58.0	84	34	48	49	76	71	.374	.379	3.97	1.01	4.9	3.3	4.4
November	29.98	30.42	29.29	41.1	45.1	51.7	37.4	44.6	67	24	34	35	75	68	.199	.214	4.34	1.00	4.7	4.2	5.0
December	29.90	30.46	29.11	32.8	37.0	43.0	29.5	36.2	66	14	25	26	72	66	.140	.150	3.34	.97	5.8	3.7	4.6
Year	29.94	30.53	29.11	53.4	57.1	64.2	48.4	56.3	104	10	44	45	71	66	.342	.361	36.46	1.47	5.2	4.4	4.9

BASSETERRE, ST. KITTS, WEST INDIES.

[λ=17° 20′ N.; φ=62° 45′ W.; gravity corr., 0.64.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	29.94	30.02	29.81	79.7	79.5	86.3	75.2	80.8	89	70	74	74	83	84	.834	.848	12.37	5.50	4.4	5.0	4.6
October	29.96	30.05	29.84	79.3	79.6	85.9	75.0	80.4	88	68	72	72	79	79	.791	.799	4.47	1.21	4.5	4.2	4.4
November	29.94	30.01	29.79	76.1	77.5	83.2	73.4	78.3	86	70	70	69	80	77	.722	.719	4.42	1.18	4.2	4.2	4.0
December	30.03	30.09	29.95	74.7	76.8	82.4	71.3	76.8	85	67	69	70	82	80	.706	.730	3.69	.52	3.4	1.8	4.7
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

BINGHAMTON, N. Y.[1]

[λ=42° 08′ N.; φ=75° 55′ W.; gravity corr., −0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.04	29.56	28.40	24.1	.....	33.5	19.1	26.3	58	−3	19	....	81	....	.112	.....	2.86	.64	9.1	.....	6.8
February	29.12	29.53	28.42	24.2	.....	34.2	20.8	27.5	54	−3	19	....	80	....	.115	.....	2.51	.60	8.1	.....	6.6
March	29.27	29.66	28.77	36.3	.....	49.8	32.3	41.0	68	15	31	....	82	....	.188	.....	2.31	.70	6.9	.....	5.5
April	29.05	29.35	28.62	38.5	.....	50.2	33.4	41.8	70	17	32	....	76	....	.187	.....	2.79	1.69	5.9	.....	6.5
May	29.04	29.30	28.77	53.6	.....	64.8	47.9	56.4	78	35	47	....	78	....	.331	.....	4.02	1.00	6.7	.....	6.9
June	29.10	29.41	28.67	63.5	.....	78.0	55.5	66.8	89	39	56	....	77	....	.457	.....	2.16	.94	5.2	.....	6.0
July	29.17	29.50	28.88	68.5	.....	83.7	61.0	72.4	95	40	60	....	74	....	.537	.....	2.05	1.19	4.8	.....	6.2
August	29.11	29.36	28.90	66.2	.....	80.3	60.5	70.4	90	43	61	....	83	....	.542	.....	6.48	1.74	6.3	.....	5.7
September	29.17	29.50	28.76	57.7	.....	74.9	52.4	63.6	93	36	54	....	89	....	.445	.....	2.70	1.31	3.8	.....	4.8
October	29.19	29.49	28.49	47.1	.....	59.6	41.9	50.8	83	30	45	....	92	....	.319	.....	5.79	1.27	6.7	.....	7.4
November	29.15	29.59	28.54	34.1	.....	45.7	31.1	38.4	61	15	32	....	91	....	.185	.....	3.15	1.53	7.9	.....	7.9
December	29.06	29.49	28.29	25.4	.....	34.9	20.6	27.8	58	−3	19	....	76	....	.108	.....	1.45	.37	7.2	.....	7.5
Year	29.12	29.66	28.29	44.9	.....	57.5	39.7	48.6	95	−3	40	....	82	....	.294	.....	38.27	1.74	6.6	.....	6.5

BISMARCK, N. DAK.

[λ=46° 47′ N.; φ=100° 38′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	28.20	28.78	27.83	11.3	20.6	29.9	5.7	17.8	46	−10	4	6	71	50	.053	.053	0.20	0.16	4.0	2.4	3.3
February	28.26	28.84	27.73	8.4	20.9	29.3	2.5	15.9	57	−18	2	4	72	45	.051	.057	.48	.15	4.2	4.2	4.2
March	28.20	28.71	26.89	16.2	27.9	34.1	13.2	23.6	66	−11	10	11	72	48	.072	.076	1.00	.56	7.1	5.5	5.1
April	28.26	28.75	27.73	34.0	50.2	55.1	32.3	43.7	79	18	25	34	68	53	.135	.201	1.12	.39	5.3	5.2	4.2
May	28.20	28.62	27.64	45.0	61.2	64.4	41.5	53.0	84	28	37	39	73	49	.231	.256	2.65	1.34	5.6	5.3	4.4
June	28.15	28.54	27.75	57.1	71.3	75.3	53.4	64.4	95	40	50	51	77	52	.366	.396	1.21	.50	6.4	4.4	4.7
July	28.19	28.49	27.75	61.1	78.1	82.3	57.4	69.8	97	38	53	54	75	45	.410	.424	1.64	.53	3.9	3.3	4.0
August	28.19	28.43	27.91	57.6	77.6	82.1	55.5	68.8	99	43	50	50	77	42	.368	.375	1.35	1.00	4.9	2.8	3.3
September	28.18	28.88	27.66	46.8	65.5	72.4	44.8	58.6	97	28	39	42	76	45	.250	.282	.76	.32	4.9	2.5	2.8
October	28.26	28.80	27.66	33.6	42.0	48.1	30.8	39.4	87	19	29	33	81	72	.160	.194	2.66	1.18	7.4	6.8	6.5
November	28.18	28.75	27.70	17.5	26.2	34.7	13.4	24.0	58	−15	12	17	77	66	.084	.106	.16	.06	4.8	2.7	4.6
December	28.27	29.06	27.55	12.1	18.1	26.8	7.0	16.9	50	−18	6	5	73	54	.062	.056	.44	.20	3.7	2.8	4.5
Year	28.21	29.06	26.89	33.4	46.6	52.9	29.8	41.3	99	−18	26	29	74	52	.187	.206	13.67	1.34	5.2	4.0	4.4

[1] One observation only.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BALTIMORE, MD.

[H = 123 ft.; h_t = 68 ft.; h_r = 73 ft.; h_a = 82 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	5.5	W.	32	SW.	0	4	8	10	2	4	9	19	6	0	6	14	11	12	10	3	0	5	3	0	14	1	0
February	5.5	W.	28	SW.	0	9	7	6	5	1	4	16	8	0	15	5	8	6	6	0	0	1	3	0	17	0	0
March	5.7	E.	24	NW.	0	10	7	16	11	2	1	5	10	0	7	10	14	19	9	1	0	0	0	0	2	0	0
April	6.7	W.	25	E.	0	8	7	6	5	3	7	11	13	0	7	14	9	12	8	2	0	0	0	0	5	1	0
May	5.7	SE.	24	N.	0	10	11	13	9	2	5	5	5	2	5	13	13	12	9	0	1	0	0	1	0	6	0
June	5.2	SW.	22	N.	0	9	10	9	8	7	7	5	4	1	11	17	2	6	4	0	0	0	0	4	0	4	0
July	5.1	SE.	20	NE.	0	8	13	5	11	9	6	4	4	2	14	10	7	8	6	0	0	0	0	9	0	7	0
August	4.2	SW.	20	N.	0	3	7	4	8	10	18	5	5	2	13	12	6	11	10	0	0	0	0	8	0	9	0
September	4.8	b SW.	19	W.	0	11	6	5	4	4	14	6	10	0	20	4	6	4	4	0	0	0	0	7	0	1	1
October	5.5	SE.	30	SE.	0	8	6	11	10	5	6	10	4	2	15	6	10	12	8	0	0	0	0	0	0	0	0
November	4.9	W.	20	W.	0	9	1	8	6	7	3	19	6	1	12	6	12	14	13	3	0	1	0	0	5	0	0
December	5.6	W.	54	E.	1	5	5	5	2	3	19	15	6	2	16	5	10	9	9	2	1	2	1	0	19	1	0
Year	5.4	W.	54	E.	1	94	88	98	81	57	99	120	81	12	141	116	108	125	96	11	2	9	7	29	62	30	1

BASSETERRE, ST. KITTS, WEST INDIES.

[H = 29 ft.; h_t = 41 ft.; h_r = 39 ft.; h_a = 54 ft.]

[Observations were taken at Basseterre at 6 a. m. and 6 p. m.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	9.6	E.	54	S.	2	3	7	20	15	6	3	4	2	0	14	9	7	19	14	0	0	0	0	0	0	4	0
October	7.5	E.	24	SE.	0	5	27	23	2	1	0	2	2	0	13	14	4	18	12	0	0	0	0	0	0	2	0
November	8.7	NE.	26	E.	0	4	39	15	1	0	1	0	0	0	15	11	4	17	15	0	0	0	0	0	0	0	0
December	9.4	E.	30	SE.	0	5	26	30	0	0	0	0	1	0	12	18	1	22	17	0	0	0	0	0	0	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

BINGHAMTON, N. Y.

[H = 875 ft.; h_t = 79 ft.; h_r = 71 ft.; h_a = 90 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	NW.	38	W.	0	2	8	4	3	1	0	7	6	0	4	12	15	15	12	10	0	1	11	0	27	0	0
February	.....	NW.	30	W.	0	2	2	5	6	3	0	3	7	0	5	10	13	15	11	9	0	0	11	0	21	0	0
March	.....	NW.	36	SW.	0	7	3	2	6	5	1	3	4	0	10	10	11	13	10	4	0	0	1	0	18	2	0
April	.....	NE.	27	W.	0	3	10	3	2	0	1	5	6	0	6	11	13	15	8	4	0	0	3	0	11	0	0
May	.....	NE.	27	W.	0	6	7	1	5	6	0	5	1	0	5	11	15	18	16	0	1	1	0	0	0	2	0
June	.....	W.	25	W.	0	3	5	3	6	1	2	7	2	1	5	16	9	10	8	0	1	0	0	0	0	5	0
July	.....	W.	20	SW.	0	4	6	5	1	2	1	6	3	3	8	11	12	9	8	0	0	0	0	5	0	6	0
August	.....	SW.	33	SW.	0	1	8	2	1	2	5	4	6	2	7	16	8	15	13	0	0	4	0	0	0	8	0
September	.....	W.	31	W.	0	4	4	6	5	2	0	4	4	1	11	11	8	9	7	0	1	11	0	4	0	3	0
October	.....	NW.	31	SE.	0	2	5	5	7	2	0	5	4	1	2	12	17	14	11	0	0	7	0	0	3	0	0
November	.....	NW.	31	SW.	0	1	4	7	3	0	0	3	12	0	4	5	21	16	12	5	0	1	4	0	16	0	0
December	.....	W.	34	SE.	0	2	5	4	3	1	5	8	3	0	2	12	17	15	10	10	0	0	11	0	28	0	0
Year	.....	NE.	38	W.	0	37	67	47	48	25	15	60	58	8	69	137	159	164	126	42	3	25	41	9	122	26	0

BISMARCK, N. DAK.

[H = 1,674 ft.; h_t = 16 ft.; h_r = 3 ft.; h_a = 29 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.3	NW.	40	W.	1	2	4	8	3	10	0	4	31	0	25	2	4	4	1	4	0	0	17	0	31	0	0
February	10.7	NW.	40	NW.	2	3	1	11	9	2	0	3	26	1	17	6	5	6	5	6	0	0	15	0	28	0	0
March	10.7	NW.	48	W.	2	11	6	8	1	3	7	9	16	1	14	5	12	10	5	9	0	0	12	0	31	0	0
April	13.5	NW.	48	NW.	1	9	8	9	8	6	1	4	15	0	16	10	4	5	4	1	0	0	0	0	10	0	1
May	9.4	E.	33	W.	0	10	5	18	7	3	2	3	14	0	18	6	7	8	8	0	0	0	0	0	3	2	0
June	10.7	NW.	40	NW.	1	5	9	7	8	5	4	8	14	0	13	10	7	7	5	0	0	0	0	5	0	6	0
July	9.3	NW.	34	NW.	0	7	7	11	7	5	5	8	12	0	15	12	4	6	6	0	0	0	0	9	0	8	0
August	9.0	NW.	38	NW.	0	8	6	14	10	6	0	2	16	0	21	7	3	5	3	0	0	0	0	5	0	2	0
September	9.1	NW.	50	NW.	1	6	8	6	9	2	4	7	17	1	18	6	6	5	4	0	0	0	0	2	3	1	0
October	11.5	NW.	46	W.	1	10	8	5	7	1	2	8	21	0	9	6	16	9	8	4	1	0	1	0	19	2	0
November	9.8	NW.	48	NW.	3	4	3	6	7	3	4	6	25	2	16	5	9	7	2	6	0	0	9	0	29	0	0
December	9.5	NW.	36	NW.	0	5	4	3	4	3	3	5	34	1	16	7	8	5	3	5	0	0	19	0	31	0	0
Year	10.0	NW.	50	NW.	12	80	69	106	80	49	32	67	241	6	198	82	85	77	54	35	1	0	73	21	185	21	1

a By eye observations at 8 p. m. when there is no self-register at station. b For 29 17/24 days. C.=Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BLOCK ISLAND, R. I.

[λ = 41° 10′ N.; φ = 71° 36′ W.; gravity corr., — 0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.96	30.53	29.22	31.5	33.1	37.1	27.3	32.2	54	6	25	25	75	72	.148	.146	5.42	1.10	5.9	2.9	5.4
February	30.05	30.61	29.06	32.3	34.3	36.1	28.5	33.3	51	5	26	28	79	79	.154	.167	5.20	2.20	4.7	3.6	4.5
March	30.21	30.73	29.66	39.2	40.3	43.7	36.0	39.8	56	27	35	36	86	85	.211	.215	3.89	.88	5.7	3.7	5.2
April	29.91	30.29	29.45	41.4	42.7	47.6	38.5	43.0	63	26	37	37	83	83	.224	.228	5.66	1.21	6.4	5.1	5.9
May	29.95	30.35	29.60	50.4	51.0	55.6	47.3	51.4	73	38	46	47	87	87	.317	.324	6.54	1.50	5.7	6.4	6.2
June	29.97	30.32	29.54	60.1	59.7	65.8	55.3	60.6	78	46	55	56	86	88	.444	.455	.92	.56	4.1	4.2	4.7
July	30.04	30.40	29.71	66.1	67.5	72.5	62.8	67.6	83	54	63	63	90	86	.582	.580	7.87	6.22	4.2	4.5	4.7
August	29.99	30.24	29.73	69.3	69.1	73.7	65.5	69.6	81	59	65	65	88	88	.634	.633	7.69	2.70	4.3	3.7	4.6
September	30.04	30.39	29.68	64.5	64.7	69.7	60.1	64.9	84	49	58	59	81	83	.513	.523	.96	.35	2.7	3.3	3.5
October	30.11	30.43	29.49	54.7	55.2	59.7	50.7	55.2	74	40	48	49	81	80	.363	.365	7.18	1.90	3.6	4.2	4.8
November	29.99	30.52	29.08	43.5	44.1	48.9	38.2	43.6	61	27	37	37	78	76	.231	.232	7.55	2.04	5.4	4.9	5.3
December	30.01	30.53	29.34	34.6	35.1	39.5	29.7	34.6	53	8	27	27	74	71	.156	.155	3.22	1.99	4.9	4.4	5.4
Year	30.02	30.73	29.06	49.0	49.7	54.3	45.0	49.6	84	5	44	44	82	82	.331	.335	62.10	6.22	4.8	4.2	5.0

BOISE, IDAHO.

[λ = 43° 37′ N.; φ = 116° 8′ W.; gravity corr., — 0.08.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	27.46	27.86	27.05	21.9	29.1	32.7	18.5	25.6	47	5	17	22	78	74	.099	.118	0.71	0.24	5.5	5.8	5.8
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

BOSTON, MASS.

[λ = 42° 21′ N.; φ = 71° 4′ W.; gravity corr., — 0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.84	30.43	29.10	25.5	29.9	35.9	21.5	28.7	55	1	19	21	74	70	.116	.129	3.50	1.35	5.5	5.0	5.2
February	29.92	30.49	28.75	29.5	33.1	39.8	25.8	32.8	59	5	24	26	77	74	.135	.148	4.81	2.49	6.0	5.4	5.9
March	30.09	30.67	29.45	39.8	42.8	49.9	35.8	42.8	66	25	33	34	76	71	.193	.199	1.82	.45	6.8	4.6	5.8
April	29.80	30.24	29.40	41.3	44.3	50.3	37.2	43.8	72	23	32	35	70	73	.187	.208	6.39	1.94	6.1	5.4	6.5
May	29.84	30.23	29.52	54.1	55.7	62.9	46.8	55.8	84	39	46	47	75	74	.316	.329	4.33	1.74	6.8	6.8	6.7
June	29.84	30.21	29.36	63.8	66.6	73.6	58.0	65.8	92	50	57	57	79	73	.464	.472	1.60	.56	6.2	6.2	6.0
July	29.91	30.34	29.56	70.3	71.6	79.6	64.0	71.8	99	55	62	62	76	74	.566	.575	4.42	2.26	5.9	5.2	5.7
August	29.85	30.14	29.57	70.8	72.5	80.8	65.4	73.1	94	55	63	64	77	76	.587	.608	6.38	2.13	6.1	5.3	5.4
September	29.91	30.30	29.51	63.1	65.6	75.0	57.3	66.2	92	44	55	56	76	73	.456	.475	1.93	.74	2.8	4.0	3.7
October	29.99	30.34	29.31	51.6	54.4	61.2	47.3	54.2	85	35	46	47	81	78	.324	.350	7.17	1.83	5.2	4.6	5.4
November	29.87	30.40	29.04	39.3	42.5	48.2	35.7	42.0	63	22	33	34	78	73	.196	.206	5.32	1.34	5.7	3.9	5.9
December	29.87	30.39	29.17	29.6	31.9	38.9	25.0	32.0	58	0	22	22	72	67	.127	.124	2.19	.72	5.1	4.7	5.3
Year	29.89	30.67	28.75	48.2	50.9	58.0	43.5	50.8	99	0	41	42	76	73	.306	.319	49.86	2.49	5.7	5.1	5.6

BRIDGETOWN, BARBADOS, WEST INDIES.

[λ = 13° 4′ N.; φ = 59° 37′ W.; gravity corr., — 0.70.]

[Observations at Bridgetown were taken at 6 a. m. and 6 p. m.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August[1]	29.97	30.04	29.90	79.3	80.4	87.2	74.7	81.0	90	71	75	75	88	83	.878	.866	0.94	0.36	5.6	4.8	7.4
September	29.93	30.00	29.43	77.8	78.7	85.4	73.6	79.5	88	69	74	74	88	87	.842	.852	19.72	8.36	5.2	6.3	6.7
October	29.93	30.01	29.84	78.0	79.4	86.5	73.2	79.8	90	65	74	75	89	87	.853	.871	7.14	2.27	5.1	4.8	6.5
November	29.90	29.99	29.80	77.3	77.7	84.7	73.6	79.2	87	68	72	73	86	86	.799	.810	6.76	3.01	6.1	3.5	7.5
December	29.98	30.06	29.94	74.9	76.4	83.8	72.2	78.0	85	69	70	70	84	82	.727	.740	3.35	1.01	4.2	2.5	6.3
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] For 16½ days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BLOCK ISLAND, R. I.

[H = 27 ft.; h_t = 11 ft.; h_r = 3 ft.; h_a = 48 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	16.8	NW.	60	NE.	6	4	10	4	4	3	5	7	24	1	7	18	6	11	9	4	0	2	8	0	19	1	0
February	14.9	NW.	66	E.	5	2	7	4	1	6	12	7	16	1	12	10	6	12	11	3	0	3	6	0	14	1	0
March	12.7	SE.	64	NE.	3	1	7	9	12	4	12	6	11	0	8	17	6	11	11	3	0	5	0	0	7	0	2
April	19.3	NE.	72	NE.	5	4	21	2	1	2	9	7	14	0	8	13	9	17	16	3	0	0	0	0	5	0	0
May	14.0	SW.	72	NE.	3	2	10	10	6	8	13	7	6	0	5	14	12	18	15	0	0	6	0	0	0	1	0
June	13.4	SW.	50	NE.	4	1	13	5	5	6	17	8	5	0	11	14	5	11	4	0	0	6	0	0	0	4	0
July	11.5	SW.	60	NE.	1	5	10	8	3	6	21	7	2	0	15	6	10	10	8	0	0	10	0	0	0	4	0
August	12.1	SW.	37	NE.	0	0	5	4	5	4	28	9	7	0	10	14	7	14	12	0	0	6	0	0	0	6	0
September	13.5	SW.	55	NE.	1	0	9	2	6	0	22	12	8	1	18	6	6	6	5	0	0	5	0	0	0	3	1
October	16.2	SW.	46	SE.	4	5	7	7	7	4	14	7	11	0	14	6	11	12	10	0	0	5	0	0	0	0	0
November	18.2	NW.	90	NE.	4	7	9	4	1	2	8	10	19	0	13	6	11	13	12	2	0	1	0	0	6	0	0
December	18.4	NW.	69	E.	4	5	2	8	2	2	9	14	20	0	10	11	10	9	7	2	0	3	4	0	17	0	0
Year	15.1	SW.	90	NE.	40	36	110	67	53	47	170	101	143	3	131	135	99	144	120	17	0	52	18	0	68	20	3

BOISE, IDAHO.

[H = 2,736 ft.; h_t = 61 ft.; h_r = 51 ft.; h_a = 68 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
January	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	3.5	SE.	22	NW.	0	3	2	4	14	4	7	10	18	0	9	8	14	11	6	7	0	0	14	0	30	0	0
Year	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

BOSTON, MASS.

[H = 125 ft.; h_t = 115 ft.; h_r = 154 ft.; h_a = 181 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
January	11.4	NW.	39	NE.	0	6	3	2	5	4	7	14	21	0	13	5	13	10	8	6	0	1	8	0	26	0	0
February	11.5	W.	50	NE.	2	4	5	3	3	9	11	9	12	0	9	5	14	10	8	4	0	0	3	0	17	1	0
March	9.9	SW.	39	W.	0	5	4	5	6	13	13	10	6	0	11	6	14	11	9	4	0	0	0	0	9	0	0
April	12.9	NE.	42	NE.	1	10	15	3	3	1	5	9	14	0	7	10	13	17	15	4	0	0	0	0	8	0	0
May	10.7	NE.	36	NE.	0	8	13	8	4	13	6	5	5	0	6	11	14	10	9	0	0	1	0	0	0	0	0
June	10.8	SW.	30	NE.	0	6	11	8	1	4	12	10	8	0	10	9	11	10	7	0	0	0	0	1	0	0	0
July	9.2	SW.	36	N.	0	8	7	7	4	9	10	12	5	0	9	13	9	12	9	0	1	2	0	4	0	5	0
August	9.5	W.	29	NW.	0	4	6	1	1	8	15	21	6	0	11	10	10	12	11	0	1	0	0	3	0	6	0
September	9.6	W.	36	NW.	0	4	3	4	2	9	10	18	10	0	16	7	7	6	4	0	0	3	0	1	0	3	1
October	11.3	W.	36	S.	0	10	4	8	3	9	10	9	9	0	12	7	12	12	10	0	0	1	0	0	0	1	0
November	12.5	NW.	60	N.	2	6	6	3	0	5	9	16	15	0	12	4	14	13	13	3	0	1	0	0	7	0	0
December	11.9	SW.	50	E.	2	3	5	4	1	1	18	20	9	1	14	4	13	7	6	3	0	3	5	0	22	0	0
Year	10.9	W.	60	N.	7	74	82	56	33	85	126	153	120	1	130	91	144	130	109	24	2	12	16	9	87	16	1

BRIDGETOWN, BARBADOS, WEST INDIES.

[H = 30 ft.; h_t = 57 ft.; h_r = 49 ft.; h_a = 65 ft.]

[Observations at Bridgetown were taken at 6 a. m. and 6 p. m.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
January	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	.....	NE.	26	SE.	0	0	14	15	4	0	0	0	0	0	0	8	9	8	8	0	0	0	0	0	0	0	0
September	6.7	NE.	62	NE.	1	4	27	19	6	4	0	0	0	0	5	9	16	21	19	0	0	0	0	0	0	6	0
October	6.6	NE.	33	SW.	0	1	33	24	4	0	0	0	0	0	0	22	9	14	12	0	0	0	0	0	0	3	9
November	7.4	E.	26	NW.	0	0	19	34	7	0	0	0	0	0	0	15	15	13	10	0	0	0	0	0	0	2	0
December	8.2	E.	25	E.	0	0	11	50	1	0	0	0	0	0	1	22	8	22	15	0	0	0	0	0	0	0	0
Year	.....	.....	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

a By eye observations at 8 a. m. and 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BUFFALO, N. Y.

[λ=42° 53′ N.; φ=78° 53′ W.; gravity corr.,—0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.13	29.60	28.38	27.1	28.9	34.0	22.6	28.3	58	3	21	23	74	78	.116	.128	4.51	1.02	8.7	7.9	8.1
February	29.22	29.58	28.66	25.7	28.8	33.5	21.1	27.3	63	—3	20	23	78	77	.117	.130	2.97	.80	9.2	8.7	7.9
March	29.31	29.62	28.69	38.6	41.5	49.1	33.2	41.2	63	16	31	31	72	68	.184	.183	1.97	.75	6.0	5.5	6.3
April	29.17	29.45	28.73	40.2	44.7	49.6	37.1	43.4	65	19	30	31	68	61	.170	.183	1.37	.65	6.3	6.1	6.3
May	29.11	29.37	28.82	54.4	57.5	63.6	49.6	56.6	82	38	47	48	78	72	.343	.350	1.66	.55	7.8	6.7	7.1
June	29.16	29.47	28.66	65.5	69.2	73.9	60.4	67.2	82	47	58	61	78	76	.497	.540	2.14	.60	6.5	7.1	5.6
July	29.22	29.57	29.01	71.3	74.7	80.3	65.7	73.0	90	47	63	65	75	72	.588	.631	1.20	.47	4.6	5.8	5.5
August	29.16	29.41	28.95	69.2	73.0	77.0	65.2	71.1	86	49	62	65	77	77	.556	.632	2.65	.94	6.3	7.1	6.2
September	29.22	29.68	28.80	63.9	67.6	73.5	59.6	66.6	83	46	56	58	75	72	.465	.496	3.04	.86	4.9	3.2	4.7
October	29.22	29.55	28.56	51.5	53.7	60.7	47.4	54.0	86	30	44	44	76	71	.309	.309	4.49	1.28	7.3	5.7	7.4
November	29.20	29.62	28.67	38.0	40.1	45.5	33.6	39.6	66	18	30	32	72	73	.169	.186	3.98	1.36	8.1	5.5	7.9
December	29.12	29.64	28.50	28.5	29.9	34.6	24.3	29.4	53	9	22	23	77	74	.124	.125	3.52	.86	8.7	8.3	8.9
Year	29.19	29.68	28.38	47.8	50.8	56.3	43.3	49.8	90	—3	40	42	75	73	.303	.324	33.50	1.36	7.0	6.5	6.8

CAIRO, ILL.

[λ=37° 0′ N.; φ=89° 10′ W.; gravity corr.,—0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.68	30.19	28.96	37.6	43.5	48.8	34.3	41.6	70	12	35	36	91	75	.219	.219	6.26	2.26	6.1	6.3	6.3
February	29.76	30.15	29.38	35.5	42.7	47.7	33.0	40.4	68	11	31	33	82	70	.182	.209	1.18	.46	4.6	5.0	5.2
March	29.70	30.02	29.26	45.7	55.1	60.0	42.4	51.2	78	28	41	46	84	74	.279	.350	9.20	2.67	6.7	6.9	6.8
April	29.66	30.11	29.20	50.5	59.4	63.9	47.4	55.6	81	32	46	49	84	70	.317	.364	2.13	.78	6.2	5.2	5.4
May	29.55	29.72	29.31	63.9	73.2	78.1	60.5	69.3	88	42	60	64	87	73	.525	.608	5.36	1.33	5.2	4.9	5.3
June	29.61	29.77	29.42	72.8	80.2	86.5	69.5	78.0	91	63	69	72	87	77	.704	.792	1.73	1.05	5.4	5.9	5.3
July	29.64	29.78	29.46	73.3	80.6	85.9	70.9	78.4	94	62	69	71	86	74	.714	.768	5.67	2.74	4.8	4.9	4.9
August	29.62	29.81	29.49	72.2	79.4	86.1	69.8	78.0	92	62	70	72	91	79	.727	.791	3.56	1.11	2.8	3.6	3.8
September	29.64	29.94	29.37	68.1	75.3	82.7	65.8	74.2	93	55	65	68	89	78	.626	.690	6.11	4.42	4.3	4.3	4.9
October	29.68	30.02	29.27	52.4	58.2	65.6	49.5	57.6	86	33	50	50	90	74	.393	.403	4.64	.67	5.3	3.4	5.2
November	29.74	30.05	29.16	40.0	47.5	53.5	36.8	45.2	75	15	34	37	80	68	.211	.231	1.55	.73	5.2	5.8	5.4
December	29.77	30.44	29.19	31.4	37.2	44.1	28.5	36.3	64	7	27	27	82	66	.156	.158	1.27	.81	4.2	3.9	4.6
Year	29.67	30.44	28.96	53.6	61.0	66.9	50.7	58.8	94	7	50	52	86	73	.421	.465	48.66	4.42	5.1	5.0	5.3

FORT CANBY, WASH.

[λ=46° 16′ N.; φ=124° 4′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.90	30.30	29.45	40.2	42.6	44.5	37.7	41.1	52	30	36	37	86	82	.215	.222	6.17	.83	7.2	7.9	7.5
February	29.73	30.15	29.04	44.7	45.9	48.5	41.2	44.8	58	35	41	42	87	87	.260	.269	12.49	1.64	8.4	8.9	9.1
March	29.90	30.28	29.52	41.3	45.6	49.1	39.2	44.2	62	32	38	40	89	83	.233	.254	2.94	.48	5.4	7.0	6.5
April	29.91	30.30	29.41	45.3	49.1	52.9	43.1	48.0	67	37	42	45	87	85	.264	.298	3.80	.79	8.2	6.0	6.4
May	29.78	30.09	29.35	50.0	54.5	59.1	47.9	53.5	76	44	46	50	88	85	.315	.362	2.56	.73	7.0	5.7	6.4
June	29.82	30.22	29.57	54.1	58.5	62.1	52.3	57.2	85	45	51	55	90	87	.374	.430	3.35	.69	8.3	6.2	6.8
July	29.87	30.09	29.51	54.1	59.0	63.2	53.0	58.1	77	48	53	56	95	90	.397	.449	.67	.49	6.2	4.8	5.9
August	29.78	29.94	29.59	57.8	60.9	65.1	56.1	60.6	87	52	56	57	92	88	.444	.468	.62	.41	7.8	6.6	7.5
September	29.75	29.99	29.34	55.3	59.0	62.7	53.3	58.0	85	46	52	53	91	83	.393	.407	4.83	1.00	5.6	5.2	6.1
October	29.86	30.19	29.40	51.3	54.8	57.9	48.6	53.2	67	44	47	49	86	83	.324	.351	4.70	1.21	5.6	7.4	7.0
November	29.83	30.24	29.31	45.7	47.6	50.5	42.6	46.6	60	36	42	43	90	85	.276	.283	8.87	1.06	7.0	8.1	7.7
December	29.97	30.32	29.32	42.9	44.8	47.0	39.8	43.4	58	32	35	37	76	77	.210	.226	8.84	2.99	5.6	7.0	6.5
Year	29.84	30.32	29.04	48.6	51.9	55.2	46.2	50.7	87	30	45	47	88	85	.309	.335	59.84	2.99	6.9	6.7	7.0

CAPE HENRY, VA.

[λ=36° 56′ N.; φ=76° W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	53.5	35.9	44.7	79	22	.....	.....	.....	.....	.....	.....	1.67	.64	.....	.....	.....
February	.....	.....	.....	.....	.....	47.4	32.8	40.1	70	18	.....	.....	.....	.....	.....	.....	1.51	.77	.....	.....	.....
March	.....	.....	.....	.....	.....	57.1	43.6	50.4	85	29	.....	.....	.....	.....	.....	.....	3.38	1.24	.....	.....	.....
April	.....	.....	.....	.....	.....	61.8	45.9	53.8	86	33	.....	.....	.....	.....	.....	.....	6.90	1.80	.....	.....	.....
May	.....	.....	.....	.....	.....	72.4	56.7	64.6	93	43	.....	.....	.....	.....	.....	.....	5.17	1.26	.....	.....	.....
June	.....	.....	.....	.....	.....	79.9	65.3	72.6	102	55	.....	.....	.....	.....	.....	.....	2.83	1.20	.....	.....	.....
July	.....	.....	.....	.....	.....	85.3	71.8	78.6	99	65	.....	.....	.....	.....	.....	.....	6.10	1.58	.....	.....	.....
August	.....	.....	.....	.....	.....	87.2	71.9	79.6	97	69	.....	.....	.....	.....	.....	.....	3.45	1.68	.....	.....	.....
September	.....	.....	.....	.....	.....	80.7	68.0	74.4	95	59	.....	.....	.....	.....	.....	.....	3.20	2.48	.....	.....	.....
October	.....	.....	.....	.....	.....	69.8	59.1	64.4	85	43	.....	.....	.....	.....	.....	.....	6.38	1.74	.....	.....	.....
November	.....	.....	.....	.....	.....	56.7	44.1	50.4	78	30	.....	.....	.....	.....	.....	.....	3.48	.89	.....	.....	.....
December	.....	.....	.....	.....	.....	50.7	34.6	42.6	69	18	.....	.....	.....	.....	.....	.....	1.54	.47	.....	.....	.....
Year	.....	.....	.....	.....	.....	66.9	52.5	59.7	102	18	.....	.....	.....	.....	.....	.....	45.61	2.48	.....	.....	.....

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

BUFFALO, N. Y.

[H = 768 ft.; h_t = 178 ft.; h_r = 168 ft.; h_a = 206 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	16.4	W.	68	W.	11	4	3	9	5	6	12	20	3	0	1	11	19	20	17	14	0	2	13	0	25	2	0
February	15.4	SW.	48	SW.	6	5	3	5	5	7	17	11	3	0	0	10	18	20	13	14	0	2	13	0	22	0	0
March	14.5	SW.	60	SW.	4	3	4	5	6	16	12	10	6	0	7	12	12	14	10	2	0	6	3	0	12	2	1
April	14.5	NE.	57	SW.	1	4	8	14	0	3	14	8	8	1	5	14	11	9	5	2	0	0	4	0	7	1	0
May	11.5	SW.	46	NW.	2	6	5	9	4	9	20	9	0	0	4	14	13	12	7	0	0	1	0	0	0	5	0
June	13.2	SW.	47	SW.	2	2	11	6	0	4	21	13	3	0	4	20	6	10	8	0	0	0	0	0	0	5	0
July	10.8	SW.	36	SW.	0	4	11	8	3	3	24	7	2	0	7	18	6	8	5	0	0	0	0	0	0	6	0
August	12.8	SW.	51	W.	3	5	6	5	1	6	24	12	3	0	5	15	11	8	8	0	0	0	0	0	0	6	0
September	13.6	SW.	47	W.	5	7	3	1	2	13	19	10	5	0	13	10	7	10	8	0	0	0	0	0	0	5	1
October	15.1	SW.	56	SW.	5	7	6	10	8	9	12	8	2	0	3	12	16	13	12	0	1	0	0	0	1	2	0
November	16.5	W.	68	W.	8	2	4	5	4	7	11	16	11	0	1	9	20	12	10	5	0	0	4	0	10	0	0
December	24.1	W.	68	SW.	18	3	6	2	2	5	17	23	4	0	1	4	26	19	12	14	0	1	12	0	25	0	0
Year	14.9	SW.	68	SW.	65	52	70	79	40	88	203	147	50	1	51	149	165	155	115	51	1	12	49	0	102	34	2

CAIRO, ILL.

[H = 359 ft.; h_t = 87 ft.; h_r = 78 ft.; h_a = 93 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.1	SW.	56	SW.	4	7	8	4	8	10	10	5	10	0	5	15	11	12	12	1	0	0	1	0	9	0	0
February	9.9	NW.	36	NW.	0	5	6	4	6	14	4	1	16	0	10	9	9	10	4	3	0	1	3	0	12	0	0
March	10.9	N.	36	N.	0	14	8	5	13	12	5	0	5	0	3	12	16	15	14	0	0	1	0	0	6	7	0
April	10.5	NW.	46	W.	2	10	4	5	9	10	4	7	11	0	8	14	8	11	9	0	0	0	0	0	0	3	0
May	8.3	S.	38	SW.	0	11	7	4	3	16	12	4	3	2	10	11	10	13	10	0	0	1	0	0	0	12	0
June	6.4	S.	40	W.	1	6	11	4	11	13	8	1	6	0	6	20	4	13	5	0	0	0	0	2	0	14	0
July	6.9	S.	38	N.	0	9	14	2	9	15	8	3	2	0	9	17	5	14	10	0	0	0	0	6	0	12	0
August	4.7	S.	36	NW.	0	7	5	2	5	19	7	5	11	1	15	13	3	9	8	0	0	0	0	6	0	10	0
September	6.8	S.	36	S.	0	1	12	8	8	21	6	1	2	1	9	14	7	10	8	0	0	0	0	3	0	8	0
October	8.5	SE.	33	W.	0	11	4	1	14	9	7	5	11	0	10	9	12	10	8	0	0	1	0	0	0	2	0
November	9.5	S.	42	SW.	1	9	8	3	11	11	4	7	7	0	8	13	9	9	6	0	0	1	1	0	8	1	0
December	10.0	N.	40	N.	1	15	4	1	6	10	13	7	6	0	14	8	9	6	4	1	0	0	6	0	18	0	0
Year	8.5	S.	56	SW.	9	105	91	43	103	160	88	46	90	4	107	155	103	132	98	5	0	5	11	17	53	69	0

FORT CANBY, WASH.

[H = 179 ft.; h_t = 10 ft.; h_r = 2 ft.; h_a = 34 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	13.6	E.	69	SE.	8	9	1	21	10	7	0	12	2	0	6	7	18	26	20	3	0	3	0	0	5	0	0
February	22.5	S.	75	S.	17	0	0	15	14	16	0	8	3	0	0	3	25	26	21	2	0	4	0	0	0	0	0
March	10.5	NW.	54	S.	3	9	3	12	2	7	0	12	17	0	7	8	16	22	17	3	0	2	0	0	0	0	0
April	12.8	N.	60	SE.	6	17	4	7	4	10	2	4	12	0	7	10	13	16	14	0	0	1	0	0	0	0	0
May	11.3	N.	52	SE.	2	13	2	7	6	10	8	7	9	0	7	9	15	18	15	0	0	0	0	0	0	0	0
June	12.2	N.	56	SE.	2	14	0	5	8	9	7	4	13	0	7	6	17	15	13	0	0	3	0	0	0	0	0
July	8.9	N.	50	SE.	1	25	2	0	3	3	2	7	20	0	9	9	13	9	3	0	0	4	0	0	0	0	0
August	8.4	N.	32	S.	0	21	2	0	6	10	5	6	12	0	5	5	21	11	3	0	0	6	0	0	0	0	0
September	12.0	N.	60	SE.	5	16	1	6	14	6	4	3	10	0	9	5	16	15	12	0	0	7	0	0	0	3	0
October	13.3	SE.	58	SE.	9	6	4	14	14	6	5	4	9	0	6	8	17	18	17	0	0	4	0	0	0	1	0
November	13.6	E.	69	SE.	11	3	2	16	10	8	5	12	4	0	3	6	21	23	23	0	0	0	0	0	0	2	0
December	16.5	E.	78	SE.	11	4	3	33	9	2	1	5	4	1	9	5	17	19	18	2	0	1	0	0	0	0	0
Year	13.0	N.	78	SE.	75	137	24	136	100	94	39	84	115	1	75	81	209	218	179	10	0	35	0	0	5	6	0

CAPE HENRY, VA.

[H = 20 ft.; h_t = 5 ft.; h_r = 6 ft.; h_a = 34 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	13.8	NW.	....	.....	....	4	2	0	7	0	7	1	10	0	5	10	16	8	7	0	0	0	0	0	7	0	0
February	12.0	N.	....	.....	....	6	3	0	5	2	1	6	5	0	5	16	7	6	4	0	0	3	1	0	11	0	0
March	13.1	NE.	....	.....	....	3	10	0	9	6	1	0	2	0	5	18	8	15	9	0	0	4	0	0	1	1	1
April	16.0	S.	....	.....	....	2	2	1	6	7	3	3	6	0	9	12	9	11	10	0	0	1	0	0	0	3	0
May	11.9	S.	....	.....	....	1	5	1	8	13	2	0	1	0	10	12	9	14	12	0	0	9	0	1	0	5	0
June	12.4	SE.	....	.....	....	0	6	4	9	7	3	1	0	0	8	13	9	15	7	0	0	3	0	7	0	6	0
July	11.8	SE.	....	.....	....	0	7	2	8	5	8	0	1	0	5	13	13	15	11	0	0	1	0	8	0	5	0
August	9.9	S.	....	.....	....	0	2	0	7	16	6	0	0	0	4	17	10	15	12	0	0	0	0	9	0	7	0
September	12.9	S.	....	.....	....	4	5	3	7	8	2	0	1	0	15	12	3	8	3	0	0	2	0	6	0	2	0
October	15.6	SE.	....	.....	....	3	2	5	8	5	2	2	4	0	9	17	5	13	12	0	0	0	0	0	0	0	0
November	15.9	S.	....	.....	....	1	2	1	4	8	3	4	7	0	10	11	9	13	13	1	0	0	0	0	2	1	0
December	12.7	SW.	....	.....	....	4	0	1	4	8	10	0	4	0	17	8	6	9	7	1	0	3	0	0	13	1	0
Year	13.2	S.	....	.....	....	28	46	18	82	85	48	17	41	0	102	150	104	142	107	2	0	26	1	31	34	31	1

a By eye observations at 8 p. m. when there is no self-register at station. C. = calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CARSON CITY, NEV.

[λ = 39° 10′ N.; φ = 119° 46′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	25.29	25.57	24.92	15.9	31.0	37.7	10.9	24.3	57	—5	10	16	78	52	.071	.088	0.52	0.21	2.4	5.0	4.4
February	25.28	25.62	24.96	32.6	47.8	53.2	28.0	40.6	65	20	24	23	71	39	.127	.121	.80	.37	2.3	6.1	4.8
March	25.21	25.51	24.86	27.0	45.5	49.9	23.3	36.6	65	12	21	17	76	32	.110	.093	.99	.40	2.1	4.0	3.6
April	25.25	25.58	24.85	38.9	61.5	66.4	36.0	51.2	80	23	25	20	59	23	.135	.113	.43	.18	2.6	3.9	3.5
May	25.16	25.38	24.83	41.5	59.8	64.4	39.2	51.8	78	31	28	26	61	28	.156	.139	.39	.23	3.9	5.6	4.9
June	25.24	25.51	25.05	48.7	72.0	76.9	46.4	61.6	88	32	31	28	52	21	.177	.160	T.	T.	1.3	2.8	2.1
July	25.29	25.42	25.11	55.0	82.5	86.5	52.5	69.5	99	45	34	29	45	15	.199	.165	.05	.05	0.8	1.2	0.9
August	25.25	25.43	24.96	56.2	81.6	86.1	53.4	70.8	100	43	35	31	46	16	.213	.181	.18	.18	1.6	3.6	2.4
September	25.24	25.41	24.99	51.1	73.6	78.7	46.0	62.4	91	34	30	25	46	19	.169	.140	.12	.12	1.7	2.7	2.2
October	25.33	25.57	25.04	36.8	59.2	64.9	33.0	49.0	76	24	23	22	58	26	.126	.123	.72	.49	2.4	2.9	2.9
November	25.31	25.58	24.95	30.3	46.8	52.9	24.7	38.8	73	12	18	22	61	37	.103	.116	1.56	.98	2.1	2.6	3.4
December	25.42	25.76	25.14	22.6	36.6	43.2	18.4	30.8	57	4	14	15	68	40	.084	.089	.13	.12	2.0	3.7	3.2
Year	25.27	25.76	24.83	38.0	58.2	63.6	34.3	49.0	100	—5	24	23	60	29	.139	.127	5.89	.98	2.1	3.7	3.2

CHARLESTON, S. C.

[λ = 32° 47′ N.; φ = 79° 56′ W.; gravity corr., —0.03.]

January	30.12	30.36	29.82	50.2	55.2	61.8	48.0	54.9	77	27	41	43	72	66	.282	.302	0.19	0.15	5.2	4.2	4.9
February	30.14	30.52	29.72	44.1	50.1	57.4	42.8	50.1	76	26	33	36	65	61	.208	.235	.51	.36	2.9	2.6	3.4
March	30.16	30.43	29.84	57.3	60.7	67.8	55.4	61.6	81	39	51	54	81	78	.394	.424	1.71	1.28	4.4	4.5	4.8
April	30.03	30.33	29.58	58.4	63.1	70.8	55.2	63.0	82	43	46	49	64	62	.327	.364	2.48	.85	3.6	4.0	3.7
May	29.97	30.22	29.68	71.7	73.9	81.8	67.9	74.8	98	50	61	63	71	70	.566	.592	.64	.41	2.8	3.5	3.4
June	30.05	30.20	29.83	78.0	78.7	86.3	73.8	80.0	94	67	68	70	73	75	.706	.738	4.68	1.23	3.4	4.0	3.5
July	30.05	30.28	29.78	79.0	80.5	87.4	75.3	81.4	98	65	74	74	84	82	.829	.849	12.99	3.38	6.2	6.1	6.3
August	30.05	30.16	29.90	79.0	80.2	86.1	75.8	81.0	90	72	74	74	86	83	.843	.849	11.34	2.63	6.9	5.9	6.8
September	30.05	30.22	29.85	74.9	78.1	83.9	72.7	78.3	89	64	70	71	85	79	.741	.756	1.49	.52	5.6	4.1	5.1
October	30.06	30.40	29.66	64.1	68.3	74.6	60.9	67.8	84	39	57	59	78	73	.511	.545	3.44	1.52	5.2	4.2	4.6
November	30.13	30.40	29.60	52.5	57.7	64.1	49.7	56.9	77	30	44	48	74	72	.315	.362	4.63	2.07	4.6	5.0	4.6
December	30.16	30.57	29.67	46.5	51.7	58.3	44.1	51.2	71	29	39	41	74	67	.263	.285	2.32	.61	4.9	5.1	5.8
Year	30.08	30.57	29.58	63.0	66.5	73.4	60.1	66.8	98	26	55	57	76	72	.499	.525	46.42	3.38	4.6	4.4	4.7

CHARLOTTE, N. C.

[λ = 35° 13′ N.; φ = 80° 51′ W.; gravity corr., —0.03.]

January	29.26	29.55	28.93	39.3	46.4	53.1	36.9	45.0	72	15	33	34	77	64	.209	.219	2.08	1.00	5.1	4.7	5.7
February	29.31	29.72	28.72	34.4	44.6	50.6	32.4	41.5	69	12	25	25	66	48	.145	.145	.81	.54	3.6	2.8	3.8
March	29.35	29.70	29.11	48.8	57.3	63.4	46.8	55.1	84	28	44	46	85	68	.311	.328	5.83	2.75	6.1	6.1	6.6
April	29.20	29.52	28.66	49.9	58.3	65.3	46.1	55.7	82	30	38	39	66	52	.240	.251	2.71	.89	3.6	4.4	4.4
May	29.14	29.39	28.79	65.7	74.7	83.6	60.2	71.9	95	42	56	53	72	49	.464	.417	2.08	.48	3.2	4.6	3.9
June	29.23	29.40	29.03	72.2	79.0	88.3	66.5	77.4	97	58	63	61	74	59	.584	.555	3.79	2.09	2.9	4.4	4.1
July	29.25	29.46	28.98	73.6	77.9	87.3	69.6	78.4	97	58	68	68	83	73	.694	.688	4.82	1.10	5.9	7.1	5.9
August	29.26	29.39	29.11	72.7	77.0	85.5	68.9	77.2	92	65	70	70	91	81	.736	.743	8.74	3.00	6.0	6.6	6.4
September	29.28	29.48	29.10	67.3	74.2	82.2	64.1	73.2	90	53	62	64	85	71	.575	.602	4.04	1.43	5.4	4.2	4.8
October	29.29	29.61	28.82	55.2	61.6	69.7	51.3	60.5	84	34	50	50	84	68	.406	.411	3.63	1.00	3.7	3.3	4.1
November	29.33	29.64	28.71	41.9	50.0	56.4	38.7	47.6	73	22	37	37	82	62	.230	.239	2.42	.76	5.0	4.7	4.9
December	29.30	29.76	28.72	37.6	45.2	51.4	34.6	43.0	68	15	31	32	76	61	.192	.207	2.12	.69	4.9	3.7	4.9
Year	29.27	29.76	28.66	54.9	62.2	69.7	51.3	60.5	97	12	48	48	78	63	.399	.400	43.07	3.00	4.6	4.7	5.0

CHATTANOOGA, TENN.

[λ = 35° 4′ N.; φ = 85° 15′ W.; gravity corr., —0.03.]

January	29.32	29.66	28.84	41.4	48.1	53.1	38.5	45.8	75	19	36	37	82	67	.233	.242	5.38	1.68	7.2	5.5	6.1
February	29.38	29.74	29.00	34.4	45.1	50.5	31.8	41.2	65	12	28	29	76	57	.163	.175	.68	.35	4.7	3.5	4.8
March	29.36	29.63	29.10	50.5	59.3	65.0	48.3	56.6	82	29	46	46	84	65	.337	.339	2.68	.95	7.5	5.4	6.4
April	29.28	29.64	28.79	48.9	60.2	65.1	45.6	55.4	82	30	42	39	76	48	.274	.246	4.83	1.35	5.0	4.8	4.9
May	29.20	29.40	28.88	65.8	76.2	83.7	60.0	71.8	93	42	56	54	73	49	.468	.440	.61	.17	4.0	4.5	4.3
June	29.26	29.42	29.12	72.7	82.4	88.7	67.5	78.1	97	59	64	62	75	52	.603	.555	4.05	1.88	4.5	5.1	4.1
July	29.29	29.45	29.06	74.2	79.6	87.4	70.9	79.2	97	59	69	68	83	71	.705	.705	6.48	1.80	5.6	7.0	5.3
August	29.27	29.42	29.11	72.2	80.0	86.8	69.5	78.2	95	66	69	69	88	69	.700	.704	.83	.38	5.4	5.1	4.7
September	29.31	29.51	29.10	67.2	74.6	82.3	65.0	73.6	90	57	64	67	90	77	.604	.660	6.50	4.30	5.6	4.6	5.2
October	29.32	29.61	28.98	52.8	60.4	67.9	50.1	59.0	87	32	49	50	88	71	.390	.410	4.08	1.42	4.2	3.8	4.4
November	29.38	29.67	28.95	41.4	49.2	55.5	37.9	46.7	70	18	36	37	81	65	.225	.248	2.31	.51	5.6	5.0	5.2
December	29.38	29.86	28.82	35.2	43.5	49.5	32.7	41.1	69	16	29	31	78	63	.177	.197	2.04	1.29	6.3	4.2	5.7
Year	29.31	29.86	28.79	54.7	63.2	69.6	51.5	60.6	97	12	49	49	81	63	.407	.410	40.47	4.30	5.5	4.9	5.1

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CARSON CITY, NEV.

[H = 4,720 ft.; h_t = 82 ft.; h_r = 77 ft.; h_a = 92 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		Mi.																								
January	4.5	NE.	34	W.	0	3	14	5	7	9	5	3	10	6	12	17	2	8	3	8	0	1	9	0	31	0	0
February	6.6	SW.	46	S.	3	2	6	7	6	2	12	9	10	2	7	19	2	6	5	4	0	0	0	0	22	0	0
March	7.4	W.	54	SW.	5	4	10	1	4	10	8	14	9	2	14	14	3	8	6	8	0	0	0	0	28	0	0
April	8.2	W.	49	W.	2	3	4	0	3	5	14	15	12	4	14	14	2	4	3	2	0	0	0	0	9	0	0
May	8.7	SW.	43	SW.	1	2	2	4	3	7	21	15	7	1	10	13	8	4	3	0	0	0	0	0	3	0	0
June	8.8	W.	45	SW.	1	2	2	1	1	9	11	28	4	2	23	7	0	0	0	0	0	0	0	0	0	2	0
July	6.9	W.	35	W.	0	0	2	1	3	8	11	26	7	4	29	2	0	1	1	0	0	0	0	7	0	1	0
August	6.2	W.	40	S.	1	3	1	0	5	5	9	24	8	7	19	12	0	1	1	0	0	0	0	8	0	6	0
September	6.6	SW.	48	SW.	1	3	6	2	2	11	15	13	6	2	22	5	3	1	1	0	0	0	0	3	0	0	0
October	5.2	NW.	33	SW.	0	2	6	3	0	7	8	11	15	10	19	9	3	4	3	3	0	0	0	0	15	0	0
November	6.5	W.	49	SW.	3	8	8	0	2	2	11	13	12	4	17	9	4	5	3	1	0	0	0	0	24	0	0
December	4.7	NE.	47	SW.	2	4	17	4	7	3	1	6	10	10	16	12	3	2	1	1	0	0	2	0	29	0	0
Year	6.7	W.	54	SW.	19	36	78	28	43	78	126	177	110	54	202	133	30	44	30	27	0	1	11	18	161	9	0

CHARLESTON, S. C.

[H = 48 ft.; h_t = 14 ft.; h_r = 76 ft.; h_a = 92 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.6	SW.	30	W.	0	9	5	3	2	5	13	12	13	0	9	18	4	4	1	0	0	6	0	0	2	0	0
February	10.1	N.	40	NW.	1	12	7	9	2	2	8	7	9	0	15	9	4	4	3	0	0	7	0	0	5	1	0
March	11.6	SW.	45	NE.	1	11	12	5	10	4	18	1	1	0	9	17	5	6	3	0	0	5	0	0	0	1	0
April	11.5	SW.	42	NW.	1	11	4	0	3	12	13	7	10	0	16	11	3	8	6	0	0	0	0	0	0	4	0
May	10.6	S.	34	N.	0	3	2	6	2	20	15	8	6	0	14	16	1	5	4	0	0	2	0	3	0	8	0
June	10.4	S.	35	W.	0	3	4	5	6	20	11	8	3	0	13	17	0	10	8	0	0	0	0	8	0	12	0
July	9.9	SW.	38	NE.	0	3	5	9	5	9	18	8	5	0	5	16	10	17	16	0	0	0	0	7	0	17	0
August	10.3	S.	52	E.	2	4	10	6	7	18	13	2	2	0	0	20	11	20	17	0	0	1	0	1	0	19	0
September	11.5	NE.	38	E.	0	6	19	10	5	9	7	3	1	0	4	24	2	8	5	0	0	3	0	0	0	5	0
October	13.7	N.	62	E.	3	15	16	3	7	7	1	5	8	0	8	19	4	12	11	0	0	0	0	0	0	2	0
November	11.5	NE.	32	N.	0	17	16	6	3	2	3	4	9	0	12	10	8	15	11	0	0	3	0	0	1	0	0
December	10.0	N.	34	SW.	0	14	7	3	2	6	13	11	6	0	8	12	11	10	9	0	0	11	0	0	2	2	0
Year	11.0	SW.	62	E.	8	108	107	65	54	114	133	76	73	0	113	189	63	119	94	0	0	38	0	19	10	71	0

CHARLOTTE, N. C.

[H = 773 ft.; h_t = 68 ft.; h_r = 60 ft.; h_a = 76 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.9	SW.	38	SW.	0	3	12	4	8	9	17	2	7	0	11	10	10	14	7	1	0	2	0	0	9	0	0
February	6.4	NE.	40	W.	1	4	17	8	8	6	4	2	5	2	14	7	7	3	2	0	1	1	1	0	13	0	0
March	8.4	NE.	33	SW.	0	4	26	5	7	9	6	2	1	2	9	9	13	14	10	1	0	2	0	0	1	2	0
April	7.6	S.	37	S.	0	7	13	4	6	13	6	4	6	1	11	13	6	10	8	0	0	0	0	0	1	2	0
May	6.7	S.	37	SW.	0	3	7	9	10	20	5	4	2	2	14	16	1	11	8	0	0	0	0	4	0	13	0
June	6.2	E.	36	NW.	0	2	14	15	5	10	9	3	1	1	19	8	3	12	9	0	0	0	0	13	0	9	0
July	6.1	E.	26	S.	0	1	16	16	6	9	11	1	2	0	4	19	8	20	15	0	0	0	0	13	0	13	0
August	5.7	S.	28	SE.	0	0	9	7	8	20	15	1	1	1	5	17	9	22	16	0	0	2	0	7	0	9	0
September	5.7	NE.	24	N.	0	7	21	10	5	5	6	1	2	3	11	12	7	9	7	0	0	0	0	0	0	5	0
October	6.5	NE.	28	N.	0	6	21	9	7	7	2	4	6	0	15	9	7	11	11	0	0	1	0	0	0	2	0
November	6.8	N.	36	NW.	0	15	14	7	5	7	6	1	4	1	13	6	11	10	8	0	0	0	0	0	5	0	0
December	7.5	SW.	45	SW.	1	5	11	6	3	13	17	4	3	0	12	9	10	7	6	0	0	3	0	0	13	0	0
Year	6.8	NE.	45	SW.	2	57	181	100	78	128	104	29	40	13	138	135	92	143	107	2	1	11	1	37	42	55	0

CHATTANOOGA, TENN.

[H = 762 ft.; h_t = 106 ft.; h_r = 97 ft.; h_a = 112 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.9	SW.	58	SW.	1	5	11	1	5	8	15	6	11	0	4	17	10	17	12	1	0	6	1	0	7	2	0
February	7.5	NW.	44	NW.	1	3	9	4	8	4	4	11	13	0	13	6	9	9	4	2	0	8	3	0	16	0	0
March	8.8	S.	28	S.	0	6	11	2	10	17	8	2	6	0	5	15	11	13	10	0	0	3	0	0	1	4	0
April	7.9	NW.	36	W.	0	6	3	1	6	8	6	11	19	0	12	10	8	12	11	0	0	0	0	0	1	2	0
May	6.9	NW.	33	NW.	0	3	9	2	2	8	16	5	17	0	9	21	1	7	5	0	0	1	0	2	0	10	0
June	5.8	SW.	40	SW.	1	5	8	5	5	8	22	6	1	0	15	12	3	9	8	0	0	0	0	13	0	10	0
July	6.0	SE.	35	NW.	0	10	8	1	15	11	11	5	1	0	8	15	8	15	12	0	0	0	0	10	0	16	0
August	4.9	SW.	26	SW.	0	5	16	2	8	8	17	4	2	0	8	19	4	8	5	0	0	4	0	4	0	7	0
September	5.2	NE.	27	SW.	0	5	17	3	6	12	3	7	5	2	9	13	8	6	6	0	0	6	0	0	0	5	0
October	7.4	SE.	34	W.	0	6	10	3	11	7	8	7	10	0	14	9	8	11	10	0	0	5	0	0	0	0	0
November	8.1	SE.	36	NW.	0	8	8	4	12	7	7	5	9	0	11	8	11	11	8	0	0	7	0	0	8	0	0
December	7.5	W.	38	W.	0	2	11	7	5	7	9	13	8	0	9	10	12	9	4	2	0	7	0	0	17	0	0
Year	7.1	SW.	58	SW.	3	64	121	35	93	105	126	82	102	2	117	155	93	127	95	5	0	47	4	29	50	56	0

a By eye observations at 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CHEYENNE, WYO.

[λ = 41° 8′ N.; φ = 104° 48′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	23.89	24.28	23.59	20.4	26.9	35.8	14.0	24.9	58	— 9	3	8	51	44	.052	.062	0.48	0.42	2.4	4.0	4.5
February	23.98	24.28	23.51	27.0	36.2	45.1	20.4	32.8	58	3	8	10	46	37	.062	.073	.06	.04	4.1	4.6	4.8
March	23.85	24.16	23.34	23.0	33.6	41.6	16.4	29.0	59	— 9	7	3	55	34	.063	.058	.39	.20	4.7	4.9	5.3
April	24.01	24.28	23.54	33.9	50.1	56.6	29.0	42.8	79	11	20	15	58	35	.107	.099	.68	.49	4.2	5.3	4.8
May	23.95	24.26	23.65	40.5	52.7	57.2	37.7	47.4	79	24	33	30	78	51	.195	.176	3.72	.64	6.3	7.1	6.3
June	24.05	24.30	23.72	52.8	69.6	75.0	47.3	61.2	91	34	40	35	66	34	.253	.212	2.33	1.18	3.4	5.6	3.7
July	24.12	24.30	23.87	57.2	75.5	80.1	52.5	66.3	93	40	42	34	60	32	.280	.249	1.83	.93	3.6	3.1	4.0
August	24.11	24.27	23.90	56.2	75.7	82.8	53.0	67.9	91	42	42	37	61	28	.270	.229	.90	.54	3.5	5.9	3.8
September	24.06	24.42	23.68	45.2	64.4	73.0	41.1	57.0	86	28	23	16	46	22	.133	.104	.47	.20	2.7	3.5	3.3
October	24.04	24.39	23.51	34.5	45.4	55.2	29.4	42.3	78	19	20	19	55	38	.105	.103	.25	.09	3.6	5.1	4.1
November	23.91	24.20	23.42	24.4	29.1	40.9	16.4	28.6	66	— 8	13	11	62	50	.081	.073	1.58	1.01	4.7	3.3	4.1
December	24.01	24.39	23.57	20.0	22.0	34.9	12.2	23.6	54	—17	2	4	48	46	.049	.051	.36	.23	2.5	2.5	4.1
Year	24.00	24.42	23.34	36.3	48.4	56.5	30.8	43.6	93	—17	21	18	57	38	.138	.124	13.05	1.18	3.8	4.6	4.4

CHICAGO, ILL.

[λ = 41° 53′ N.; φ = 87° 37′ W.; gravity corr., — 0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.12	29.52	28.36	25.8	30.5	34.5	22.8	28.6	55	6	23	26	88	85	.128	.146	3.54	1.13	4.2	5.1	5.2
February	29.18	29.55	28.80	25.1	29.1	33.7	21.5	27.6	60	— 8	22	25	85	84	.127	.145	2.59	1.05	7.2	5.9	5.7
March	29.20	29.60	28.74	37.4	41.6	47.8	32.9	40.4	68	21	32	34	80	74	.190	.201	4.60	1.84	5.8	4.9	4.4
April	29.18	29.57	28.70	41.9	45.4	50.3	38.5	44.4	76	19	33	35	72	69	.192	.206	.76	.43	5.0	6.0	4.6
May	29.08	29.38	28.73	53.4	57.2	63.5	48.8	56.2	79	37	46	48	77	74	.321	.358	2.23	.52	5.7	6.1	4.4
June	29.13	29.45	28.64	66.4	69.8	76.4	61.1	68.8	90	52	58	60	74	72	.485	.520	5.30	2.50	5.4	5.1	5.0
July	29.17	29.45	28.87	71.4	75.0	79.8	67.0	73.4	94	59	61	61	71	63	.553	.546	1.94	1.22	3.5	2.9	2.3
August	29.12	29.31	28.88	68.4	73.5	77.5	65.4	71.4	93	59	60	63	74	72	.518	.591	3.03	.89	4.5	4.9	3.7
September	29.15	29.67	28.75	64.0	68.7	73.8	61.3	67.6	92	49	55	57	75	68	.454	.480	3.16	1.20	3.5	3.3	4.2
October	29.13	29.50	28.70	48.1	51.8	56.5	44.8	50.6	75	30	43	46	84	81	.306	.330	3.26	.86	5.8	6.2	7.4
November	29.15	29.55	28.53	32.4	38.2	43.8	30.3	37.0	67	2	27	31	82	75	.161	.179	2.25	1.20	4.8	5.0	5.6
December	29.16	29.86	28.62	20.8	26.0	31.2	17.4	24.3	46	0	18	22	89	83	.105	.124	1.11	.42	5.4	4.9	5.3
Year	29.15	29.86	28.36	46.3	50.6	55.7	42.6	49.2	94	—8	40	42	79	75	.295	.319	33.77	2.50	5.1	5.0	4.8

CINCINNATI, OHIO.

[λ = 39° 6′ N.; φ = 84° 30′ W.; gravity corr., — 0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.38	29.72	28.68	35.0	37.8	43.3	31.2	37.2	68	11	31	32	84	79	.179	.189	7.76	2.35	6.9	5.7	6.1
February	29.46	29.81	28.87	30.7	36.8	42.2	27.6	34.9	67	1	26	26	81	63	.143	.149	2.21	.99	6.8	5.4	6.2
March	29.47	29.76	29.06	43.4	51.5	57.3	41.1	49.2	74	27	38	42	80	70	.237	.287	6.70	.94	6.6	5.8	6.1
April	29.38	29.76	28.88	45.4	55.3	59.4	41.6	50.5	77	22	37	39	74	57	.229	.248	1.15	.44	4.4	4.7	4.8
May	29.29	29.48	29.07	60.0	68.2	74.2	56.0	65.1	86	34	50	51	71	57	.373	.382	3.03	.97	5.1	4.0	4.3
June	29.36	29.56	29.04	70.4	80.3	85.2	65.8	75.5	92	56	60	59	70	49	.527	.508	1.58	.52	3.8	3.4	3.5
July	29.39	29.61	29.17	73.1	81.8	87.7	69.4	78.6	98	58	64	63	74	56	.619	.605	3.26	1.00	2.8	4.1	4.2
August	29.36	29.54	29.20	71.2	79.5	85.3	68.3	76.8	94	61	65	66	81	64	.620	.640	2.61	1.21	2.0	5.2	3.7
September	29.41	29.76	29.09	65.3	75.0	81.7	62.9	72.3	94	49	58	60	78	62	.504	.540	2.62	1.24	3.1	2.8	3.2
October	29.41	29.64	29.02	51.3	58.1	64.2	48.8	56.5	87	31	45	49	79	72	.330	.368	2.90	1.14	5.4	5.1	5.5
November	29.46	29.80	28.98	38.4	43.8	50.0	34.6	42.3	70	11	32	34	77	69	.190	.204	2.69	1.89	3.9	5.2	5.3
December	29.45	30.09	28.71	29.1	33.6	39.6	24.7	32.2	60	1	24	27	80	77	.139	.160	2.46	.87	5.0	4.5	4.9
Year	29.40	30.09	28.68	51.1	58.5	64.2	47.7	55.9	98	1	44	46	77	65	.341	.357	38.97	2.35	4.6	4.7	4.8

CLEVELAND, OHIO.

[λ = 41° 30′ N.; φ = 81° 42′ W.; gravity corr., — 0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.16	29.58	28.36	29.4	31.9	37.5	25.6	31.6	64	9	24	25	81	74	.136	.141	3.51	0.89	8.3	8.2	7.8
February	29.24	29.59	28.62	25.3	29.5	34.2	22.4	28.3	64	— 4	21	22	83	71	.124	.127	2.62	.91	8.6	7.8	7.8
March	29.31	29.61	28.71	38.7	45.1	51.1	34.8	43.0	74	15	33	34	80	67	.205	.216	4.06	1.66	5.7	5.4	5.7
April	29.20	29.53	28.71	41.3	46.0	50.5	37.7	44.1	66	20	31	30	67	56	.181	.175	1.62	.85	5.8	5.9	5.5
May	29.13	29.35	28.83	55.0	60.5	64.7	51.0	57.8	79	39	48	47	79	62	.355	.339	2.07	.39	3.8	6.0	6.1
June	29.20	29.46	28.73	66.6	71.7	76.5	61.1	68.8	88	51	57	58	72	64	.476	.498	2.74	.77	3.5	4.9	2.4
July	29.24	29.52	29.02	71.3	75.5	80.5	66.4	73.4	95	53	61	61	71	62	.558	.551	2.19	.52	3.4	3.9	2.7
August	29.18	29.39	29.01	69.1	73.7	78.6	64.8	71.7	92	54	61	61	77	66	.549	.552	1.79	.68	4.1	4.3	4.7
September	29.24	29.66	28.84	62.3	69.8	75.3	58.8	67.0	92	46	54	56	75	63	.441	.465	2.53	.66	4.2	3.9	4.8
October	29.24	29.52	28.73	49.1	54.8	61.1	46.2	53.6	87	30	43	44	79	68	.307	.313	4.61	2.18	6.2	6.4	7.2
November	29.24	29.66	28.71	37.3	40.3	46.3	32.1	39.2	67	17	29	30	73	67	.166	.174	2.67	1.24	6.8	5.6	7.4
December	29.19	29.74	28.53	27.3	29.7	34.8	23.0	28.9	55	5	19	21	70	68	.116	.119	2.13	.82	8.3	6.3	7.7
Year	29.21	29.74	28.36	47.7	52.4	57.6	43.7	50.6	95	— 4	40	41	76	66	.301	.306	32.54	2.18	5.7	5.7	5.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CHEYENNE, WYO.

[H = 6,084 ft.; h_t = 56 ft.; h_r = 49 ft.; h_a = 64 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	11.5	NW.	49	NW.	3	8	1	0	1	5	12	11	23	1	14	10	7	3	2	3	0	0	13	0	30	0	0
February	12.7	NW.	49	NW.	5	10	2	1	1	3	6	17	16	0	10	13	5	3	1	3	0	0	2	0	27	0	0
March	11.6	W.	51	W.	4	8	3	1	5	7	8	14	16	0	7	16	8	5	4	4	0	0	3	0	31	0	1
April	11.6	NW.	48	W.	2	12	9	2	1	8	3	10	15	0	10	13	7	8	4	4	1	0	1	0	18	2	0
May	11.3	NW.	51	S.	5	9	5	5	6	12	4	9	11	1	8	8	15	20	16	5	2	1	3	0	7	9	0
June	9.5	S.	44	SW.	1	6	1	5	2	17	10	12	6	1	15	13	2	8	4	0	2	0	0	1	0	11	0
July	9.7	S.	37	S.	0	7	4	1	4	16	8	9	13	0	14	14	3	10	7	0	3	0	0	1	0	12	0
August	7.8	NW.	38	SW.	0	14	4	3	3	9	5	7	17	0	12	18	1	6	4	0	0	1	0	4	0	9	0
September	9.6	NW.	43	NW.	2	7	4	3	7	5	5	8	21	0	18	8	4	5	3	2	0	0	0	0	5	1	0
October	12.2	NW.	48	W.	2	11	2	2	3	4	10	10	20	0	16	10	5	4	3	4	0	0	0	0	18	0	0
November	11.5	NW.	54	NW.	2	9	1	2	0	1	12	11	23	1	14	12	4	7	6	7	0	0	8	0	28	0	0
December	13.2	NW.	42	NW.	1	10	1	0	0	2	5	9	35	0	17	8	6	6	3	6	0	0	13	0	29	0	0
Year	11.0	NW.	54	NW.	27	111	37	25	33	89	88	127	216	4	155	143	67	85	57	38	8	2	43	6	193	44	1

CHICAGO, ILL.

[H = 824 ft.; h_t = 241 ft.; h_r = 238 ft.; h_a = 274 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	17.8	W.	66	NE.	7	6	4	4	5	10	9	12	12	0	12	9	10	11	10	7	0	5	10	0	27	1	0
February	19.4	S.	48	NE.	7	5	9	3	1	13	6	11	8	0	11	6	11	15	11	12	0	2	12	0	25	0	0
March	17.5	S.	62	W.	9	9	3	4	6	18	5	11	6	0	15	7	9	14	12	3	0	2	3	0	12	3	0
April	18.7	N.	48	NE.	6	24	5	4	3	10	3	5	6	0	13	7	10	8	4	0	0	1	0	0	4	0	0
May	17.2	NE.	48	W.	5	12	17	3	4	10	11	4	1	0	12	11	8	13	10	0	1	0	0	0	0	4	0
June	15.3	NE.	50	SW.	3	8	11	5	7	8	13	6	2	0	10	14	6	10	8	0	1	0	0	0	0	6	0
July	13.2	NE.	48	N.	2	6	21	7	3	6	12	3	4	0	22	9	0	5	5	0	1	0	0	6	0	5	0
August	14.6	NE.	72	SW.	2	5	13	6	8	10	14	2	4	0	17	9	5	9	9	0	0	0	0	2	0	6	0
September	15.9	NE.	41	E.	2	1	11	7	8	7	12	12	2	0	16	8	6	11	9	0	0	1	0	2	0	8	2
October	18.3	S.	63	SE.	6	6	5	6	8	12	7	8	10	0	2	12	17	16	14	2	0	2	0	0	1	2	0
November	21.2	SW.	76	S.	10	2	3	0	5	15	11	14	10	0	11	7	12	13	10	6	0	1	6	0	13	0	0
December	19.9	W.	47	S.	5	4	3	2	2	6	16	18	11	0	12	7	12	8	6	6	0	2	13	0	28	0	0
Year	17.4	S.	76	S.	64	88	105	51	60	125	119	106	76	0	153	106	106	133	108	36	3	16	44	10	110	35	2

CINCINNATI, OHIO.

[H = 628 ft.; h_t = 152 ft.; h_r = 145 ft.; h_a = 157 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.4	W.	44	SW.	4	2	5	13	9	4	9	15	5	0	8	7	16	13	11	3	1	1	2	0	15	1	0
February	9.1	SE.	38	NW.	0	3	4	3	15	7	5	10	9	0	7	8	13	11	7	5	1	0	6	0	19	1	0
March	7.7	S.	34	W.	0	11	3	5	9	18	2	3	11	0	9	7	15	19	19	3	1	0	0	0	5	2	1
April	8.3	NW.	33	W.	0	8	7	7	7	6	3	11	11	0	13	7	10	9	6	1	0	0	0	0	4	0	0
May	8.1	N.	36	N.	0	17	6	4	9	10	4	3	7	2	12	16	3	12	9	1	0	0	0	0	0	6	0
June	6.3	SW.	45	W.	1	3	10	8	8	11	9	2	8	1	16	12	2	11	9	0	0	0	0	5	0	7	0
July	6.2	SW.	39	NW.	0	9	11	8	10	8	11	1	4	0	14	12	5	9	8	0	0	0	0	10	0	7	0
August	5.4	SW.	30	W.	0	4	8	5	15	7	11	6	6	0	18	10	3	7	6	0	0	0	0	5	0	6	0
September	6.6	SE.	30	NE.	0	1	11	3	19	3	12	8	3	0	21	6	3	9	6	0	0	1	0	3	0	4	0
October	8.1	SE.	25	NW.	0	3	7	11	15	3	4	12	7	0	11	8	12	12	9	0	0	2	0	0	1	0	0
November	8.3	SE.	36	W.	0	1	2	3	22	3	10	12	7	0	12	8	10	9	7	4	0	1	2	0	8	1	0
December	9.4	SW.	34	W.	0	2	3	4	10	2	23	12	6	0	13	6	12	12	8	7	0	0	7	0	23	0	0
Year	7.8	SE.	45	W.	5	64	77	74	148	82	103	95	84	3	154	107	104	133	105	24	3	5	17	23	75	35	1

CLEVELAND, OHIO.

[H = 762 ft.; h_t = 190 ft.; h_r = 161 ft.; h_a = 201 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	17.9	W.	72	W.	9	1	3	4	15	5	11	12	11	0	4	7	20	16	12	8	0	3	11	0	25	2	0
February	16.3	SE.	65	NW.	4	3	2	0	20	7	10	6	8	0	5	5	18	19	13	14	0	4	12	0	22	0	0
March	14.1	SE.	61	W.	3	8	5	3	24	5	5	5	7	0	10	10	11	13	12	2	0	2	5	0	11	1	1
April	14.3	N.	48	W.	1	9	13	2	7	3	4	12	10	0	9	10	11	8	3	1	0	1	0	0	7	1	0
May	11.6	N.	48	W.	1	13	10	0	10	12	4	8	5	0	7	12	12	15	9	0	1	1	0	0	0	6	1
June	11.9	N.	60	NW.	2	8	10	0	12	8	11	7	4	0	21	9	0	11	10	0	0	0	0	0	0	11	0
July	11.3	N.	52	W.	2	10	17	4	13	9	5	2	2	0	19	12	0	10	8	0	0	0	0	2	0	8	0
August	10.7	SE.	33	S.	0	5	11	1	12	18	8	2	4	1	7	21	3	7	6	0	0	0	0	1	0	8	0
September	13.4	SE.	48	S.	5	2	6	1	20	16	5	5	5	0	9	18	3	11	8	0	0	1	0	1	0	8	0
October	15.8	SE.	50	W.	5	2	3	5	28	5	12	4	3	0	4	11	16	13	10	0	0	2	0	0	2	0	0
November	17.2	SE.	52	W.	6	1	4	1	20	10	11	8	5	0	2	11	17	13	9	4	0	0	3	0	13	0	0
December	18.8	SW.	60	W.	5	3	2	3	9	17	21	4	3	0	2	12	17	13	9	9	0	0	13	0	25	0	0
Year	14.4	SE.	72	W.	43	65	86	24	190	115	107	75	67	1	99	138	128	149	109	38	1	14	44	4	105	45	2

a By eye observations at 8 a. m. and 8 p. m. when there is no self register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

COLON, COLOMBIA, SOUTH AMERICA.

[λ=9° 23′ N.; φ=79° 53′ W.; gravity corr., —0.07.]

[Observations at Colon taken at 6 a. m. and 5 p. m.; during September the evening observation at 5.30.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	29.86	29.93	29.78	74.3	80.7	.....	.....	.....	.....	.....	72	74	93	82	.787	.852	.....	.....	5.3	8.6	6.0
October	29.85	29.93	29.76	73.5	79.3	84.4	72.7	78.6	88	70	72	74	95	85	.797	.844	12.08	2.69	6.6	9.0	7.2
November	29.82	29.92	29.74	73.8	80.3	84.3	73.1	78.7	89	71	73	75	96	85	.810	.869	12.50	2.55	6.4	9.0	6.8
December	29.88	29.97	29.75	76.5	81.3	84.2	74.7	79.4	87	69	74	74	92	80	.846	.844	7.73	4.02	6.9	4.6	5.3
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

COLUMBIA, MO.[1]

[λ=38° 58′ N.; φ=92° 14′ W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.19	29.71	28.70	.....	34.8	43.5	25.0	34.2	63	8	....	29	....	79	.....	.164	3.37	1.13	.....	6.2	6.5
February	29.24	29.67	28.85	.....	37.0	46.2	25.2	35.7	67	2	....	28	....	69	.....	.164	1.84	1.01	.....	6.1	5.9
March	29.22	29.55	28.88	.....	46.1	56.7	34.0	45.4	73	20	....	35	....	67	.....	.217	4.41	1.41	.....	6.0	6.2
April	29.19	29.60	28.90	.....	54.7	62.9	41.4	52.2	84	21	....	41	....	62	.....	.269	2.76	.97	.....	5.2	5.8
May	29.07	29.28	28.82	.....	66.3	75.1	54.3	64.7	89	39	....	58	....	76	.....	.495	8.39	2.29	.....	5.4	5.9
June	29.12	29.28	28.88	.....	78.3	85.8	65.4	75.6	92	56	....	70	....	76	.....	.729	9.02	3.18	.....	4.3	5.6
July	29.16	29.34	28.93	.....	78.8	87.1	65.5	76.3	97	52	....	69	....	74	.....	.720	4.60	2.21	.....	3.7	4.7
August	29.14	29.27	29.01	.....	77.6	88.8	65.1	77.0	99	52	....	68	....	74	.....	.699	.47	.30	.....	3.0	4.0
September	29.14	29.56	28.91	.....	71.3	83.3	61.2	72.2	98	43	....	64	....	77	.....	.599	5.43	1.68	.....	4.0	4.9
October	29.18	29.57	28.68	.....	53.7	62.8	44.2	53.5	87	22	....	46	....	78	.....	.356	2.61	.89	.....	6.2	6.9
November	29.21	29.54	28.78	.....	39.9	51.2	29.3	40.2	76	6	....	30	....	70	.....	.175	2.29	.97	.....	4.3	5.2
December	29.30	29.97	28.77	.....	28.7	38.1	18.2	28.2	66	—12	....	22	....	77	.....	.130	1.52	.61	.....	3.9	4.9
Year	29.18	29.97	28.68	.....	55.6	65.1	44.1	54.6	99	—12	....	47	....	73	.....	.394	46.71	3.18	.....	4.9	5.5

COLUMBIA, S. C.[1]

[λ=34° N.; φ=81° 3′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	60.2	39.6	49.9	78	17	....	....	....	....	.....	.....	1.78	1.27	.....	.....	.....
February	.....	.....	.....	.....	.....	56.7	33.3	45.0	76	14	....	....	....	....	.....	.....	.60	.37	.....	.....	.....
March	.....	.....	.....	.....	.....	69.5	50.4	60.0	89	30	....	....	....	....	.....	.....	3.29	1.51	.....	.....	.....
April	.....	.....	.....	.....	.....	69.9	46.2	58.0	85	33	....	....	....	....	.....	.....	4.90	1.52	.....	.....	.....
May	.....	.....	.....	.....	.....	87.7	62.1	74.9	101	44	....	....	....	....	.....	.....	1.15	.44	.....	.....	.....
June	.....	.....	.....	.....	.....	92.6	68.3	80.4	99	61	....	....	....	....	.....	.....	3.12	1.07	.....	.....	.....
July	.....	.....	.....	.....	.....	89.9	70.9	80.4	98	57	....	....	....	....	.....	.....	12.17	4.16	.....	.....	.....
August	.....	.....	.....	.....	.....	88.9	71.2	80.0	94	69	....	....	....	....	.....	.....	9.85	3.29	.....	.....	.....
September	.....	.....	.....	.....	.....	86.3	65.9	76.1	95	55	....	....	....	....	.....	.....	3.04	1.54	.....	.....	.....
October	.....	.....	.....	.....	.....	74.2	52.9	63.6	88	34	....	....	....	....	.....	.....	2.39	.47	.....	.....	.....
November	.....	.....	.....	.....	.....	61.4	40.5	51.0	75	24	....	....	....	....	.....	.....	5.78	1.43	.....	.....	.....
December	.....	.....	.....	.....	.....	56.4	37.2	46.8	75	22	....	....	....	....	.....	.....	1.46	.60	.....	.....	.....
Year	.....	.....	.....	.....	.....	74.5	53.2	63.8	101	14	....	....	....	....	.....	.....	49.53	4.16	.....	.....	.....

COLUMBUS, OHIO.

[λ=39° 58′ N.; φ=83° W; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.[illegible]4	29.49	28.55	30.9	34.2	39.8	26.7	33.2	66	0	27	30	83	86	.154	.178	5.29	1.37	6.6	7.3	7.3
February	29.22	29.55	28.58	27.4	32.3	38.5	24.5	31.5	66	—5	23	26	83	76	.134	.150	1.67	.57	6.9	5.8	6.7
March	29.25	29.52	28.79	40.8	48.1	54.6	38.0	46.3	77	23	35	41	79	77	.213	.271	7.03	2.52	5.8	6.2	6.1
April	29.16	29.49	28.64	42.6	51.8	58.4	38.9	48.6	80	22	35	41	76	68	.216	.267	2.05	.78	4.9	6.1	5.4
May	29.08	29.28	28.83	57.4	64.8	72.3	53.1	62.7	86	40	48	54	73	70	.356	.432	6.04	1.89	6.3	5.0	5.5
June	29.14	29.35	28.76	68.0	77.5	84.5	63.2	73.8	95	51	61	61	79	60	.545	.560	1.63	.49	3.6	3.9	3.7
July	29.17	29.38	28.94	71.9	80.0	88.1	67.3	77.7	100	52	65	64	80	60	.638	.615	2.33	1.26	3.6	4.8	4.3
August	29.14	29.32	28.98	68.7	76.3	84.5	65.4	75.0	94	54	65	67	89	73	.631	.662	7.16	2.23	3.9	4.9	4.6
September	29.19	29.54	29.86	62.1	72.2	80.6	59.1	69.8	95	44	58	63	86	73	.495	.588	1.77	1.18	3.5	3.0	3.6
October	29.19	29.43	28.75	49.0	56.4	63.1	46.8	55.0	89	31	46	52	89	85	.334	.415	2.95	1.30	5.3	6.2	6.3
November	29.22	29.61	28.74	36.2	40.4	47.3	31.9	39.6	68	14	32	35	86	81	.195	.215	2.30	1.49	5.4	5.2	5.6
December	29.19	29.79	28.50	26.3	30.3	37.2	22.8	30.0	58	—1	23	25	86	80	.135	.143	1.09	.38	5.7	5.6	5.9
Year	29.17	29.79	28.50	48.4	55.4	62.4	44.8	53.6	100	—5	43	47	82	74	.337	.375	41.31	2.52	5.2	5.3	5.4

[1] One observation daily.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

COLON, COLOMBIA, SOUTH AMERICA.

[H = 25 ft.; h_t = 34 ft.; h_r = 33 ft.; h_a = 47 ft.]
[Observations at Colon taken at 6 a. m. and 5 p. m.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
February	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
March	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
April	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
June	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
July	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
August	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
September	.....	S.	....	.....	....	2	5	0	14	25	9	1	4	0	5	17	8	....	....	0	0	0	....	....	....	17	0
October	5.5	SE.	20	W.	0	1	4	1	29	16	5	3	3	0	1	18	12	24	21	0	0	0	0	0	0	17	0
November	5.4	SE.	20	NW.	0	1	17	2	14	12	6	3	5	0	0	22	8	23	18	0	0	0	0	0	0	8	0
December	7.1	NE.	20	N.	0	9	44	2	2	1	1	1	2	0	8	16	7	20	11	0	0	0	0	0	0	1	0
Year	.....	.....	....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

COLUMBIA, MO.

[H = 788 ft.; h_t = 4 ft.; h_r = 2 ft.; h_a = 84 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.8	E.	38	SW.	0	0	2	8	2	0	6	5	8	0	8	6	17	10	9	5	2	0	2	0	24	4	0
February	11.0	NW.	35	NW.	0	4	0	2	6	3	3	5	5	0	9	7	12	6	4	1	0	0	4	0	24	1	0
March	9.6	SE.	33	NW.	0	4	3	5	7	5	1	1	5	0	9	6	16	12	11	2	0	0	0	0	14	3	0
April	10.0	N.	60	NW.	1	6	3	6	3	3	0	2	7	0	10	6	14	13	8	0	0	0	0	0	4	3	0
May	8.2	E.	44	SE.	2	3	6	3	6	3	3	4	3	0	8	12	11	19	17	0	1	0	0	0	0	13	0
June	6.1	S.	40	NW.	1	3	4	4	5	7	4	3	0	0	7	16	7	13	10	0	0	0	0	7	0	14	0
July	6.2	S.	34	NW.	0	3	4	8	5	8	2	0	1	0	14	8	9	12	11	0	0	0	0	12	0	10	0
August	5.8	S.	18	W.	0	1	0	4	4	6	8	2	6	0	16	7	8	6	4	0	0	0	0	11	0	5	0
September	7.1	S.	44	N.	1	0	4	5	3	7	5	4	2	0	10	12	8	11	9	0	0	0	0	9	0	8	0
October	8.9	S.	31	NW.	0	2	1	2	5	9	0	6	6	0	7	6	18	11	8	2	0	0	0	0	7	5	0
November	9.8	S.	35	NW.	0	2	2	4	4	4	5	7	2	0	12	10	8	10	6	6	0	0	4	0	17	1	0
December	9.8	SW.	29	N.	0	4	4	0	0	3	8	6	6	0	15	6	10	8	4	3	0	0	6	0	28	0	0
Year	8.5	S.	60	NW.	5	32	33	51	50	58	45	45	51	0	125	102	138	131	101	19	3	0	16	39	118	67	0

COLUMBIA, S. C.

[H = — ft.; h_t = 5 ft.; h_r = 3 ft.; h_a = — ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	NW.	....	.....	....	2	3	1	3	4	4	6	8	0	9	12	10	9	6	1	0	4	0	0	8	0	0
February	.....	NE.	....	.....	....	3	9	2	3	2	1	0	8	0	14	7	7	5	5	0	0	0	0	0	13	0	0
March	.....	NE.	....	.....	....	2	11	2	0	2	9	3	2	0	7	12	12	6	6	0	0	1	0	0	2	0	0
April	.....	NE.	....	.....	....	3	8	0	1	2	3	5	7	1	11	9	10	9	9	0	0	0	0	0	0	3	0
May	.....	SW.	....	.....	....	0	7	2	0	1	14	4	2	1	14	13	4	5	4	0	0	0	0	12	0	6	0
June	.....	SW.	....	.....	....	0	7	1	1	4	11	2	4	0	13	11	6	9	7	0	0	0	0	19	0	9	0
July	.....	SW.	....	.....	....	0	6	1	3	6	9	4	2	0	7	10	14	15	13	0	0	0	0	18	0	10	0
August	.....	SW.	....	.....	....	0	4	1	4	5	11	4	2	0	5	15	11	17	15	0	0	1	0	14	0	12	0
September	.....	SW.	....	.....	....	2	8	4	4	0	9	1	2	0	10	9	11	9	7	0	0	0	0	9	0	3	0
October	.....	NE.	....	.....	....	1	11	4	2	3	3	2	5	0	15	6	10	9	7	0	0	1	0	0	0	1	0
November	.....	NE.	....	.....	....	3	13	2	2	1	2	1	6	0	12	8	10	12	11	0	0	0	0	0	2	0	0
December	.....	SW.	....	.....	....	2	6	1	0	2	13	2	5	0	9	6	16	8	7	0	0	1	0	0	11	0	0
Year	.....	NE.	....	.....	....	18	93	21	23	32	89	34	53	2	126	118	121	113	97	1	0	8	0	72	37	44	0

COLUMBUS, OHIO.

[H = 824 ft.; h_t = 87 ft.; h_r = 81 ft.; h_a = 100 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.7	NW.	36	SE.	0	0	1	9	10	4	9	15	14	0	5	7	19	14	13	1	0	2	4	0	19	1	0
February	8.6	W.	38	NW.	0	3	2	5	12	6	9	13	6	0	5	10	13	12	8	7	0	0	10	0	20	1	0
March	7.9	SE.	37	W.	0	11	5	7	20	4	3	3	9	0	9	7	15	17	15	2	0	0	1	0	8	4	1
April	8.7	NW.	33	W.	0	10	8	5	3	4	6	8	15	1	13	5	12	10	6	0	2	0	0	0	7	0	0
May	7.5	NE.	28	NE.	0	16	6	4	6	9	10	2	9	0	10	10	11	15	15	0	0	0	0	0	0	7	0
June	6.6	SW.	28	W.	0	4	11	6	3	5	12	12	7	0	15	13	2	6	5	0	0	0	0	4	0	4	0
July	6.4	SW.	32	W.	0	5	10	8	7	6	16	5	5	0	14	11	6	9	6	0	0	0	0	14	0	4	0
August	5.6	SW.	27	W.	0	8	5	3	4	14	18	2	7	1	14	12	5	12	12	0	0	0	0	5	0	7	0
September	6.7	SW.	23	W.	0	4	5	4	7	18	10	5	5	2	16	10	4	9	6	0	0	0	0	3	0	3	0
October	8.6	SE.	26	SE.	0	3	5	9	16	5	9	7	8	0	4	15	12	11	9	0	0	1	0	0	2	0	0
November	8.4	SW.	30	SW.	0	2	0	13	10	7	14	8	6	0	8	13	9	7	7	2	0	2	4	0	15	1	0
December	9.7	SW.	29	NW.	0	3	3	4	3	16	20	9	4	0	11	4	16	9	6	6	0	0	9	0	25	0	0
Year	7.9	SW.	38	NW.	0	69	61	77	101	98	136	89	95	4	124	117	124	131	108	18	2	5	28	26	96	32	1

a By eye observations at 8 a. m. and 8 p. m., when there is no self-register at station.

C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CONCORDIA, KANS.

[λ = 39° 35′ N.; φ = 97° 41′ W.; gravity corr., — 0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.55	29.13	28.18	24.9	32.1	39.5	22.1	30.8	64	5	22	26	86	78	.117	.141	1.15	0.51	5.3	4.3	5.5
February	28.60	29.15	28.02	26.8	37.8	44.5	24.2	34.4	63	6	23	29	83	71	.123	.160	.32	.18	5.1	3.7	4.7
March	28.51	28.98	27.90	32.4	47.2	52.8	30.6	41.7	76	10	26	28	77	49	.143	.153	1.00	.70	4.7	4.6	4.9
April	28.56	29.01	28.14	43.8	58.8	64.7	41.1	52.9	87	23	35	36	73	46	.215	.226	1.95	.65	4.8	5.3	5.3
May	28.42	28.79	28.06	55.7	67.6	72.4	51.9	62.2	93	36	50	51	81	59	.371	.392	2.67	.66	5.0	5.6	6.2
June	28.46	28.69	28.13	68.2	80.2	85.2	64.8	75.0	99	57	63	63	83	58	.572	.579	3.65	1.56	4.6	3.3	4.8
July	28.51	28.77	28.16	69.1	83.9	89.1	65.3	77.2	106	53	62	61	78	47	.557	.543	2.87	1.06	4.2	2.8	4.5
August	28.47	28.65	28.25	68.8	86.4	92.8	66.0	79.4	104	50	62	60	79	43	.555	.523	1.03	.54	3.0	1.9	3.5
September	28.47	28.98	28.20	58.8	74.0	82.8	57.1	70.0	100	41	52	54	79	54	.407	.432	3.40	1.74	2.7	2.4	3.9
October	28.55	29.00	28.09	43.6	54.8	63.5	42.0	52.8	87	20	36	39	75	57	.231	.254	.87	.48	5.0	4.8	5.3
November	28.54	28.89	27.92	29.4	38.7	47.4	26.6	37.0	77	— 5	21	26	72	62	.117	.142	1.09	.72	3.9	3.2	4.3
December	28.66	29.45	27.98	19.4	27.7	34.0	17.4	25.7	57	— 1	16	22	86	78	.094	.121	.33	.18	2.2	2.1	3.4
Year	28.52	29.45	27.90	45.1	57.4	64.1	42.4	53.3	106	— 5	39	41	79	58	.292	.306	20.33	1.74	4.3	3.7	4.7

CORPUS CHRISTI, TEX.

[λ = 27° 49′ N.; φ = 97° 25′ W.; gravity corr., — 0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	30.08	30.73	29.64	55.2	61.3	65.9	53.1	59.5	77	36	50	54	82	80	.382	.455	0.69	0.20	4.5	4.0	5.1
February	30.11	30.54	29.76	58.0	63.9	67.1	55.9	61.5	77	41	54	57	88	80	.440	.483	1.00	.53	4.7	2.6	3.9
March	29.99	30.28	29.68	61.7	65.3	69.4	59.0	64.2	80	40	59	60	91	83	.530	.554	2.74	2.18	6.5	5.3	6.5
April	30.03	30.38	29.70	66.3	72.3	75.5	64.2	69.8	87	51	62	63	88	76	.584	.605	2.41	2.35	4.7	3.1	4.2
May	29.90	30.23	29.66	74.2	76.9	79.5	71.8	75.6	85	58	70	71	87	81	.744	.762	1.83	1.36	4.1	3.9	5.1
June	29.94	30.06	29.78	79.3	82.2	84.5	75.7	80.1	88	64	76	76	89	81	.890	.889	2.44	.80	2.4	2.7	3.7
July	29.98	30.12	29.86	79.0	83.5	87.0	76.2	81.6	94	72	75	76	87	78	.859	.887	.43	.16	1.7	2.3	3.2
August	29.95	30.08	29.83	79.3	83.6	87.5	77.5	82.5	92	74	76	76	89	78	.886	.890	T.	T.	2.6	3.2	3.8
September	29.91	30.06	29.66	76.4	82.6	86.1	74.7	80.4	94	69	72	74	87	75	.798	.829	2.33	.91	2.9	2.3	3.4
October	30.06	30.56	29.70	67.4	74.9	78.5	66.0	72.2	86	47	60	62	78	66	.571	.607	.51	.24	2.3	0.5	1.4
November	30.09	30.43	29.64	57.1	60.9	66.0	54.3	60.2	80	38	53	54	87	80	.426	.448	3.61	1.80	5.4	5.3	5.9
December	30.20	30.71	29.82	47.2	52.3	57.8	43.9	50.8	73	28	42	45	85	78	.293	.315	1.33	.52	5.8	4.9	5.8
Year	30.02	30.73	29.64	66.8	71.6	75.4	64.4	69.9	94	28	62	64	86	78	.617	.644	19.32	2.35	4.0	3.3	4.3

DAVENPORT, IOWA.

[λ = 41° 30′ N.; φ = 90° 38′ W.; gravity corr., — 0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.36	29.84	28.77	22.1	29.0	33.5	19.1	26.3	45	4	19	23	85	76	.106	.124	3.68	1.08	6.2	5.4	5.9
February	29.41	29.91	28.92	22.6	28.8	33.2	19.9	26.6	57	— 6	18	23	82	78	.107	.132	1.86	.92	6.6	7.0	7.3
March	29.40	29.83	28.97	35.4	42.6	49.3	31.8	40.6	62	20	30	32	80	68	.178	.189	4.85	1.60	6.6	5.9	5.8
April	29.39	29.81	28.86	43.3	53.5	58.5	40.2	49.4	80	24	35	37	74	55	.211	.227	3.01	1.27	6.4	5.7	6.1
May	29.27	29.58	28.86	55.8	64.9	69.4	52.9	61.2	84	39	48	52	78	66	.358	.408	6.73	1.85	7.6	6.2	6.4
June	29.31	29.59	28.88	67.6	77.3	81.5	64.0	72.8	91	54	60	63	79	64	.539	.592	3.53	1.12	6.3	4.5	5.6
July	29.37	29.62	29.05	70.0	81.2	86.1	65.5	75.8	97	58	60	63	72	55	.536	.583	1.85	.72	3.9	2.8	3.4
August	29.31	29.50	29.11	66.8	76.9	82.2	63.9	73.0	93	56	62	65	85	68	.567	.635	4.96	2.24	5.7	4.1	5.0
September	29.34	29.87	29.02	60.7	70.2	77.4	58.8	68.1	91	46	55	59	83	68	.454	.515	3.14	1.51	4.1	4.5	4.4
October	29.34	29.70	28.73	45.6	51.3	57.0	43.0	50.0	78	26	42	44	86	77	.283	.310	3.38	1.66	7.4	7.1	7.5
November	29.37	29.78	28.65	30.1	37.2	43.0	26.2	34.6	68	— 1	25	30	81	76	.148	.178	1.37	.47	6.8	3.5	5.3
December	29.43	30.17	28.78	18.9	25.0	31.1	15.4	23.2	52	— 6	15	20	83	79	.094	.112	.59	.31	4.3	4.0	4.3
Year	29.36	30.17	28.65	44.9	53.2	58.5	41.7	50.1	97	— 6	39	43	81	69	.298	.334	38.95	2.24	6.0	5.1	5.6

DENVER, COLO.

[λ = 39° 45′ N.; φ = 105° W.; gravity corr., — 0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	24.64	25.06	24.29	21.3	33.2	41.4	17.0	29.2	63	— 3	9	15	59	48	.064	.088	0.20	0.15	2.0	3.9	4.5
February	24.73	25.09	24.22	28.4	43.9	51.0	24.6	37.8	65	10	17	17	62	36	.093	.094	.68	.61	3.5	5.0	4.6
March	24.60	24.92	24.04	26.2	42.3	49.5	21.9	35.7	67	0	12	6	56	28	.076	.065	.28	.10	4.5	5.1	4.7
April	24.73	25.04	24.23	38.5	57.6	63.2	35.7	49.4	83	20	26	24	64	36	.144	.136	1.20	.60	4.7	6.2	5.5
May	24.67	25.03	24.40	44.4	58.9	64.0	41.9	53.0	80	27	36	33	76	44	.221	.193	4.88	1.25	5.2	6.9	6.5
June	24.75	25.01	24.36	56.4	73.8	80.9	53.0	67.0	98	41	42	39	62	34	.273	.244	.94	.33	3.7	6.3	4.4
July	24.81	25.03	24.56	62.2	79.1	85.2	59.5	72.4	96	49	47	42	60	33	.337	.293	.67	.23	3.9	5.2	4.4
August	24.81	24.98	24.54	59.9	79.9	87.0	58.1	72.6	95	50	46	42	60	30	.308	.278	.96	.59	3.4	6.3	4.0
September	24.77	25.18	24.37	47.0	72.1	78.7	45.1	61.9	90	32	31	24	56	22	.178	.133	.28	.13	3.9	4.6	3.4
October	24.77	25.18	24.12	39.3	54.9	62.8	35.1	49.0	84	20	22	19	58	29	.118	.108	1.05	.54	3.6	3.5	3.8
November	24.66	24.99	24.12	28.5	38.3	48.3	22.0	35.2	74	2	14	16	56	46	.081	.092	.85	.32	3.4	3.1	3.6
December	24.77	25.21	24.28	18.1	28.3	39.3	12.2	25.8	60	—20	7	11	61	48	.063	.073	.99	.40	1.5	3.6	3.2
Year	24.73	25.21	24.04	39.2	55.2	62.6	35.5	49.1	98	—20	26	24	60	36	.163	.150	12.98	1.25	3.6	5.0	4.4

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

CONCORDIA, KANS.

[H = 1,398 ft.; h_t = 42 ft.; h_r = 34 ft.; h_a = 47 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorm.	Aurora.
	Miles.		*Mi.*																								
January	4.8	SW.	24	SW.	0	9	1	6	4	7	10	8	8	9	10	8	13	6	5	6	0	2	6	0	27	0	0
February	6.9	S.	26	NW.	0	11	1	2	6	13	4	2	11	6	11	13	4	4	4	3	0	0	7	0	23	1	0
March	9.2	S.	40	S.	1	13	8	4	6	18	3	2	3	5	10	15	6	5	5	1	0	0	2	0	17	1	0
April	8.9	S.	39	SE.	0	14	3	3	8	17	1	7	6	1	11	9	10	10	8	0	0	0	0	0	3	4	0
May	7.4	SE.	34	W.	0	8	9	7	11	6	5	4	11	1	7	14	10	13	11	0	1	0	0	1	0	8	0
June	6.8	S.	26	S.	0	8	7	3	10	22	2	2	3	3	11	12	7	14	11	0	0	0	0	8	0	4	0
July	6.3	S.	30	S.	0	6	6	13	13	17	1	1	1	4	13	15	3	5	3	0	1	0	0	12	0	4	0
August	6.7	S.	24	S.	0	2	5	6	6	33	0	2	1	7	18	13	0	6	3	0	0	0	0	21	0	7	0
September	7.1	S.	32	S.	0	6	10	4	6	16	7	4	3	4	17	8	5	6	6	0	0	0	0	10	0	1	0
October	8.6	S.	35	NW.	0	12	5	2	5	17	1	7	10	3	12	8	11	4	4	0	0	0	0	0	6	2	0
November	8.0	S.	30	S.	0	8	0	2	9	16	10	5	6	4	13	11	6	4	4	4	0	0	5	0	21	0	0
December	6.1	S.	25	N.	0	10	3	2	2	14	10	14	2	5	19	8	4	3	3	1	0	0	11	0	30	0	0
Year	7.2	S.	40	S.	1	107	58	54	86	196	54	58	65	52	152	134	79	80	67	15	2	2	31	52	127	32	0

CORPUS CHRISTI, TEX.

[H = 20 ft.; h_t = 42 ft.; h_r = 34 ft.; h_a = 50 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	10.6	SE.	39	W.	0	11	4	9	19	3	0	5	8	3	12	8	11	12	8	0	0	5	0	0	0	0	0
February	11.3	SE.	36	N.	0	12	7	12	19	3	1	0	2	0	11	13	4	7	7	0	0	1	0	0	0	2	0
March	15.4	SE.	41	NE.	1	15	5	8	31	1	0	1	1	0	6	9	16	11	6	0	0	1	0	0	0	3	0
April	12.8	SE.	40	NE.	1	8	4	11	23	4	1	4	2	0	13	9	8	6	1	0	0	1	0	0	0	2	0
May	16.7	SE.	37	SE.	0	4	1	5	49	2	0	0	1	0	9	13	9	3	3	0	0	0	0	0	0	4	0
June	13.6	SE.	34	SE.	0	1	0	5	47	5	2	0	0	0	17	9	4	7	6	0	0	0	0	0	0	5	0
July	12.5	SE.	30	E.	0	1	2	4	34	14	3	0	4	0	19	12	0	6	5	0	0	0	0	2	0	2	0
August	10.8	SE.	26	SE.	0	5	1	4	32	5	6	2	5	2	15	13	3	0	0	0	0	0	0	4	0	4	0
September	11.3	SE.	34	NE.	0	14	5	12	20	3	0	0	5	1	16	10	4	9	6	0	0	0	0	2	0	4	0
October	11.3	SE.	39	N.	0	12	6	12	15	7	6	1	2	1	26	5	0	5	3	0	0	0	0	0	0	1	0
November	10.7	N.	36	N.	0	24	6	8	11	1	1	4	4	1	9	8	13	11	11	0	0	3	0	0	0	1	0
December	10.2	N.	36	NW.	0	24	6	1	4	6	2	3	16	0	9	11	11	9	4	0	0	2	0	0	2	0	0
Year	12.3	SE.	41	NE.	2	131	47	91	307	54	22	20	50	8	162	120	83	86	60	0	0	13	0	8	2	28	0

DAVENPORT, IOWA.

[H = 599 ft.; h_t = 71 ft.; h_r = 64 ft.; h_a = 79 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	7.6	NW.	29	NE.	0	2	11	8	4	2	7	16	12	0	10	6	15	8	8	7	0	1	10	0	28	0	0
February	8.6	NW.	27	NW.	0	2	8	2	3	8	11	11	11	0	6	5	17	13	10	9	0	2	13	0	24	0	0
March	7.5	SW.	32	W.	0	5	5	8	7	9	6	9	12	1	10	8	13	12	10	3	1	1	1	0	15	6	1
April	7.9	NE.	30	NW.	0	6	12	3	9	6	4	10	10	0	10	6	14	9	8	0	0	0	0	0	5	2	0
May	7.6	NE.	41	NW.	1	4	14	8	5	4	15	6	6	0	8	8	15	17	14	0	1	0	0	0	0	9	0
June	6.8	SW.	26	SW.	0	4	8	11	2	4	15	12	4	0	9	8	13	10	9	0	0	0	0	3	0	9	0
July	6.2	SW.	38	NW.	0	6	14	6	10	6	10	4	6	0	20	8	3	7	7	0	1	0	0	6	0	5	0
August	5.9	SW.	30	NW.	0	6	8	12	6	7	11	7	5	0	15	6	10	12	8	0	0	0	0	3	0	8	0
September	6.7	SW.	28	NW.	0	8	8	9	6	8	8	8	4	1	14	10	6	7	6	0	0	1	0	1	0	3	0
October	8.6	SE.	26	E.	0	4	4	5	15	10	2	9	11	2	5	5	21	10	8	1	0	1	0	0	3	0	0
November	8.9	SW.	37	NW.	0	1	4	4	12	5	11	16	7	0	11	8	11	12	7	6	0	2	7	0	17	1	0
December	8.7	SW.	27	W.	0	3	2	0	5	0	19	20	13	0	18	4	9	6	3	4	0	0	14	0	30	0	0
Year	7.6	W.	41	NW.	1	51	98	76	84	69	119	128	101	4	136	82	147	123	98	30	3	8	45	13	122	43	1

DENVER, COLO.

[H = 5,290 ft.; h_t = 79 ft.; h_r = 74 ft.; h_a = 151 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	7.2	S.	36	NW.	0	6	8	6	3	18	10	1	10	0	10	17	4	2	2	2	0	0	5	0	30	0	0
February	7.6	S.	53	W.	1	6	4	8	5	9	11	3	10	0	11	13	4	4	1	4	0	1	1	0	25	0	0
March	9.2	S.	53	NW.	3	8	14	0	2	12	13	3	10	0	8	18	5	7	3	6	0	1	1	0	27	0	0
April	8.5	S.	58	SW.	2	12	11	3	5	15	7	2	5	0	9	15	6	10	7	5	0	1	0	0	9	2	0
May	7.5	NE.	38	S.	0	7	12	4	8	14	11	2	4	0	5	13	13	16	12	5	4	1	0	0	6	10	0
June	7.7	S.	41	S.	1	3	4	7	7	14	14	4	7	0	11	15	4	8	5	0	1	0	0	6	0	14	0
July	7.9	S.	45	NW.	1	4	8	3	3	13	18	2	10	1	11	18	2	10	6	0	0	0	0	9	0	10	0
August	7.2	S.	40	SW.	1	12	5	0	8	19	14	1	3	0	14	15	2	6	4	0	0	0	0	13	0	10	0
September	7.7	S.	41	S.	1	8	11	5	9	18	7	0	2	0	17	10	3	6	3	0	0	0	0	1	0	0	0
October	8.3	S.	40	SW.	1	7	8	2	5	13	6	3	17	1	16	11	4	6	3	4	0	0	0	0	12	0	0
November	8.2	S.	50	NW.	2	7	8	2	2	16	9	4	12	0	17	10	3	7	5	7	0	0	4	0	26	0	0
December	8.2	S.	38	NW.	0	5	10	3	4	25	6	5	4	0	21	7	3	4	4	4	0	0	7	0	30	0	0
Year	7.9	S.	58	SW.	13	85	103	43	61	186	126	30	94	2	150	162	53	86	55	37	5	4	18	29	165	46	0

a By eye observations at 8 p. m. when there is no self-register at station.

C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

DES MOINES, IOWA.

[λ=41° 35′ N.; φ=93° 37′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.12	29.66	28.63	22.3	28.2	33.6	17.7	25.6	43	2	16	22	73	77	.095	.121	1.59	0.46	4.8	3.8	4.8
February	29.16	29.68	28.66	21.3	28.9	35.0	17.5	26.2	48	— 7	16	21	77	72	.097	.118	.82	.51	4.6	4.9	4.1
March	29.13	29.60	28.67	31.6	43.8	50.1	29.4	39.8	67	13	25	29	76	57	.139	.164	1.35	.66	3.9	5.4	3.9
April	29.15	29.55	28.83	41.9	55.4	61.0	39.1	50.0	90	25	34	37	73	54	.199	.237	2.64	.92	4.3	4.3	4.1
May	29.02	29.30	28.62	54.6	65.0	69.9	51.5	60.7	87	38	48	52	79	65	.345	.403	4.22	.97	5.9	6.4	5.8
June	29.05	29.28	28.64	66.6	77.7	81.1	63.2	72.2	92	54	61	64	83	63	.545	.598	6.85	2.19	4.9	4.3	3.8
July	29.12	29.34	28.76	67.7	79.6	84.9	63.5	74.2	97	54	60	61	77	54	.528	.542	1.86	.64	2.3	3.8	2.6
August	29.06	29.23	28.83	65.1	79.5	85.0	62.7	73.8	99	51	61	62	85	57	.538	.571	1.09	.68	3.3	2.6	2.9
September	29.07	29.63	28.71	58.4	72.5	78.5	56.4	67.4	94	45	53	56	84	59	.425	.473	1.91	1.08	4.1	3.9	4.1
October	29.09	29.48	28.43	43.0	51.7	58.1	40.4	49.2	85	26	38	40	83	67	.248	.268	3.56	1.88	6.9	5.1	6.0
November	29.11	29.49	28.56	28.2	36.6	43.6	24.6	34.1	69	— 2	22	25	78	64	.127	.143	1.87	1.27	4.2	3.9	4.2
December	29.20	29.95	28.48	17.6	22.7	28.9	12.2	20.6	46	—10	14	17	85	78	.091	.102	.57	.35	4.1	4.1	4.7
Year	29.11	29.95	28.43	43.2	53.5	59.1	39.8	49.5	99	—10	37	40	79	64	.281	.312	28.33	2.19	4.4	4.4	4.2

DETROIT, MICH.

[λ=42° 20′ N.; φ=83° 3′ W.; gravity corr., —0.01.]

January	29.19	29.64	28.23	26.2	29.0	33.8	22.5	28.2	57	2	23	24	86	81	.123	.134	3.32	0.92	7.3	7.3	7.6
February	29.27	29.60	28.70	24.1	28.1	32.0	20.7	26.4	56	—4	21	24	88	82	.124	.135	3.27	1.25	7.9	5.9	7.4
March	29.33	29.62	28.71	35.3	42.1	48.3	32.3	40.3	69	16	30	34	80	73	.173	.207	3.11	1.18	6.1	5.2	6.4
April	29.25	29.56	28.73	40.8	47.7	53.5	37.2	45.4	66	18	31	33	68	59	.175	.196	1.51	.59	5.2	5.4	5.5
May	29.16	29.41	28.84	54.9	61.4	67.2	50.4	58.8	77	37	46	50	74	67	.328	.374	1.65	.50	5.4	4.1	5.0
June	29.22	29.55	28.67	66.1	72.5	79.1	60.1	69.6	93	49	57	59	73	64	.474	.511	5.15	1.80	3.8	5.3	4.4
July	29.27	29.56	29.02	69.7	76.4	82.7	63.5	73.1	94	49	60	60	74	59	.538	.532	2.03	.60	3.1	2.8	3.8
August	29.21	29.43	28.98	67.8	73.9	80.2	63.9	72.0	97	51	62	62	82	68	.559	.569	1.84	1.09	4.8	2.9	5.4
September	29.26	29.76	28.82	61.7	68.2	75.8	59.1	67.4	95	47	55	54	79	63	.452	.440	3.30	1.01	3.3	3.0	4.1
October	29.26	29.61	28.73	49.1	53.5	59.7	46.3	53.0	85	30	44	45	83	74	.309	.322	3.49	.92	7.2	6.2	7.0
November	29.26	29.66	28.74	34.8	38.2	43.5	31.4	37.4	64	14	30	30	82	72	.173	.171	2.92	1.21	6.6	6.2	6.9
December	29.21	29.79	28.59	25.4	27.5	32.1	21.7	26.9	49	4	22	23	85	81	.122	.126	2.75	1.07	7.9	7.0	7.8
Year	29.24	29.79	28.23	46.3	51.5	57.3	42.4	49.9	97	—4	40	42	80	70	.296	.310	34.34	1.80	5.7	5.2	5.9

DODGE, KANS.

[λ=37° 45′ N.; φ=100° W.; gravity corr., —0.02.]

January	27.39	27.95	26.94	20.9	32.3	40.5	17.7	29.1	66	0	16	22	80	68	.092	.121	1.74	0.63	3.4	4.5	4.5
February	27.45	28.00	26.87	27.1	42.4	51.4	25.1	38.2	70	11	22	28	80	57	.119	.152	.70	.70	2.6	3.1	3.5
March	27.35	27.80	26.86	31.4	49.1	56.5	28.8	42.6	78	8	25	26	76	44	.141	.146	.24	.06	4.5	4.8	5.2
April	27.42	27.82	26.77	42.9	61.3	68.2	41.1	54.6	87	19	35	35	73	41	.215	.216	.97	.35	4.8	4.3	4.0
May	27.30	27.73	26.95	52.8	67.7	73.4	50.2	61.8	90	35	48	50	85	58	.349	.376	10.31	5.32	5.1	5.5	5.0
June	27.36	27.61	27.15	65.6	78.7	83.8	63.2	73.5	96	53	61	62	86	59	.545	.561	4.57	1.58	3.8	4.1	4.0
July	27.41	27.63	27.14	67.8	82.0	88.4	65.1	76.8	102	57	62	62	82	52	.560	.558	3.14	1.38	3.7	3.9	3.8
August	27.40	27.56	27.19	66.4	84.6	90.7	64.9	77.8	100	58	60	59	80	43	.515	.509	2.26	2.04	2.1	2.1	1.9
September	27.38	27.80	27.13	56.1	72.5	81.6	54.7	68.2	97	36	50	51	81	52	.375	.388	3.16	.94	2.8	3.3	3.6
October	27.44	27.88	26.95	42.1	55.1	67.0	40.3	53.6	91	23	35	36	76	51	.221	.227	1.87	1.26	2.5	3.2	3.7
November	27.39	27.76	26.78	29.3	40.7	51.2	26.3	38.8	78	5	22	25	75	57	.122	.140	.96	.35	3.0	1.9	3.4
December	27.52	28.26	26.86	19.7	28.0	38.0	16.6	27.3	58	—5	15	20	80	70	.091	.111	1.54	1.18	3.5	2.9	3.6
Year	27.40	28.26	26.77	43.5	57.9	65.9	41.2	53.5	102	—5	38	40	80	54	.279	.292	31.46	5.32	3.5	3.6	3.8

DUBUQUE, IOWA.

[λ=42° 30′ N.; φ=90° 44′ W.; gravity corr., —0.01.]

January	29.26	29.72	28.72	19.0	26.6	31.7	16.5	24.1	44	4	16	20	87	73	.094	.108	2.19	0.92	5.9	3.7	5.0
February	29.30	29.80	28.85	19.3	26.8	31.6	16.6	24.1	50	— 4	17	22	91	79	.099	.122	2.01	.91	6.5	6.4	5.4
March	29.29	29.73	28.84	32.4	40.9	46.7	28.5	37.6	60	13	29	30	87	65	.168	.171	2.78	.65	6.8	5.2	4.4
April	29.30	29.69	28.93	40.6	51.9	57.2	37.9	47.6	82	22	33	36	76	56	.196	.217	4.06	2.07	5.3	5.4	3.9
May	29.17	29.51	28.75	54.6	64.4	69.2	50.5	59.8	83	37	47	48	75	58	.332	.350	4.47	1.34	6.1	6.0	5.0
June	29.22	29.54	28.75	65.3	76.1	80.4	61.8	71.1	90	52	60	62	83	64	.521	.573	4.36	1.26	6.1	5.7	5.5
July	29.27	29.52	28.93	67.8	80.1	85.2	63.0	74.1	95	53	60	61	78	54	.535	.554	2.83	2.23	3.0	3.5	2.7
August	29.22	29.41	28.97	63.9	75.2	80.9	61.6	71.2	92	53	60	62	86	65	.520	.564	4.37	2.46	5.2	3.6	4.3
September	29.25	29.82	28.91	57.9	68.8	75.7	55.9	65.8	91	40	52	54	83	59	.413	.433	3.07	1.34	3.8	4.0	3.6
October	29.24	29.64	28.68	44.0	49.5	55.6	42.0	48.8	74	25	40	42	85	76	.259	.283	3.86	1.26	6.5	6.5	6.8
November	29.25	29.69	28.54	29.0	36.0	42.5	25.1	33.8	67	— 2	24	26	80	68	.139	.155	1.15	.56	5.5	5.1	5.0
December	29.31	30.05	28.65	15.5	21.3	27.4	11.0	19.2	48	—10	12	15	83	75	.080	.092	.33	.18	4.4	3.6	4.6
Year	29.26	30.05	28.54	42.4	51.5	57.0	39.2	48.1	95	—10	38	40	83	66	.280	.302	35.48	2.46	5.4	4.9	4.7

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

DES MOINES, IOWA.

[H=867 ft.; h_t=84 ft.; h_r=75 ft.; h_a=88 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorm.	Aurora.
	Miles.		*Mi.*																								
January	7.0	NW.	26	NW.	0	13	8	6	5	4	5	7	13	1	14	4	13	9	8	9	0	1	7	0	30	1	0
February	9.3	N.	31	SW.	0	12	6	3	6	5	9	3	12	0	15	6	7	7	4	5	0	0	10	0	27	0	0
March	9.2	SW.	38	SW.	0	14	6	2	10	8	9	4	9	0	16	8	7	7	4	3	1	0	1	0	18	1	0
April	9.4	NE.	33	SW.	0	15	11	4	6	7	8	2	7	0	16	7	7	11	8	0	0	0	0	0	4	3	0
May	7.9	SE.	37	SW.	0	8	6	8	11	9	3	10	7	0	9	11	11	12	11	0	1	0	0	0	0	8	0
June	7.8	SW.	36	SW.	0	9	3	6	10	10	15	4	3	0	14	12	4	13	12	0	2	0	0	4	0	9	0
July	4.9	S.	40	W.	1	14	2	6	8	16	10	2	3	1	22	8	1	7	7	0	0	0	0	6	0	6	0
August	5.2	SW.	27	SW.	0	8	8	7	7	9	14	1	7	1	21	6	4	5	2	0	0	0	0	9	0	5	0
September	6.6	SW.	35	SW.	0	9	12	5	7	5	11	4	6	1	17	8	5	9	6	0	0	0	0	5	0	4	0
October	8.1	N.	31	NW.	0	17	6	3	4	12	4	2	13	1	8	9	14	10	8	1	0	0	0	0	5	1	0
November	8.6	NW.	37	SW.	0	10	0	1	4	10	12	10	13	0	16	8	6	10	7	8	0	0	7	0	18	0	0
December	7.7	NW.	28	SW.	0	14	1	1	0	2	10	20	14	0	14	8	9	6	3	5	0	0	15	0	31	0	0
Year	7.6	N.	40	W.	1	143	69	52	78	97	110	69	107	5	182	95	88	106	80	31	4	1	40	24	133	38	0

DETROIT, MICH.

[H=730 ft.; h_t=160 ft.; h_r=147 ft.; h_a=166 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	11.0	W.	41	SW.	2	2	8	5	7	4	13	16	6	1	4	6	21	11	7	9	0	4	11	0	28	0	0
February	11.0	SW.	34	N.	0	9	5	1	4	9	15	10	3	0	5	5	18	14	10	8	0	3	13	0	23	0	0
March	9.6	W.	42	S.	1	8	9	4	9	9	9	10	4	0	9	5	17	13	11	1	0	2	1	0	14	1	1
April	9.8	NE.	43	W.	2	13	12	3	6	5	4	10	7	0	10	11	9	10	7	2	0	0	0	0	8	0	0
May	8.7	SW.	34	SW.	0	11	13	1	6	5	13	10	3	0	11	11	9	14	11	0	0	1	0	0	0	7	0
June	8.5	SW.	36	SW.	0	6	13	1	5	8	16	10	1	0	12	12	6	6	6	0	1	0	0	1	0	7	0
July	6.2	SW.	38	W.	0	4	20	5	4	3	17	5	4	0	16	10	5	6	6	0	1	0	0	6	0	5	1
August	6.5	SW.	27	SW.	0	5	15	1	3	8	17	8	4	1	11	10	10	5	5	0	0	0	0	2	0	3	0
September	9.1	SW.	30	W.	0	2	10	2	7	5	24	6	4	0	13	12	5	9	8	0	1	2	0	3	0	6	0
October	10.3	SW.	44	SW.	1	2	10	7	11	8	16	4	4	0	3	12	16	11	7	0	0	2	0	0	1	1	0
November	11.6	SW.	36	SW.	0	1	3	1	8	6	22	12	7	0	4	11	15	10	8	4	0	2	3	0	12	0	0
December	13.6	SW.	40	SW.	1	2	7	1	0	3	34	9	6	0	2	9	20	11	9	7	0	2	15	0	27	0	0
Year	9.7	SW.	44	SW.	7	65	125	32	70	73	200	110	53	2	100	114	151	120	95	31	3	18	43	12	113	30	2

DODGE, KANS.

[H=2,504 ft.; h_t=44 ft.; h_r=36 ft.; h_a=52 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	7.6	NW.	34	NW.	0	9	4	4	4	4	10	14	12	1	14	10	7	7	7	6	0	4	10	0	29	0	0
February	9.6	N.	34	S.	0	8	8	2	5	13	4	8	7	1	18	7	3	1	1	1	0	2	1	0	23	0	0
March	13.3	S.	59	SW.	5	12	1	3	10	21	3	4	7	1	12	11	8	7	4	4	1	2	1	0	20	1	0
April	14.3	S.	50	S.	5	10	7	3	9	15	3	4	9	0	12	14	4	10	6	1	1	0	0	0	4	4	0
May	12.1	NE.	48	NW.	3	8	13	2	12	11	3	5	8	0	11	11	9	17	13	0	3	2	0	0	0	9	0
June	11.4	S.	39	S.	0	7	7	3	13	18	5	3	2	2	14	12	4	7	6	0	1	3	0	7	0	7	0
July	10.4	SE.	44	S.	1	3	7	2	24	20	3	1	0	2	16	14	1	10	9	0	0	1	0	12	0	9	0
August	10.2	S.	31	S.	0	3	5	4	14	25	6	0	3	2	23	8	0	3	2	0	0	1	0	19	0	3	0
September	10.3	S.	55	NW.	1	6	8	4	6	21	1	7	5	2	19	6	5	5	5	0	0	2	0	10	0	2	0
October	12.1	NW.	41	SW.	3	15	9	1	2	16	1	4	13	1	18	7	6	6	3	2	1	3	0	2	8	1	0
November	12.0	NW.	48	NW.	2	4	3	5	13	5	6	9	14	1	18	8	4	4	3	4	0	2	3	0	23	0	0
December	9.2	NW.	38	NW.	0	11	1	0	5	2	6	22	14	1	19	9	3	7	5	5	0	0	9	0	31	0	0
Year	11.0	S.	59	SW.	20	96	73	33	117	171	51	81	94	14	194	117	54	84	64	23	7	22	24	50	138	36	0

DUBUQUE, IOWA.

[H=698 ft.; h_t=101 ft.; h_r=92 ft.; h_a=109 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorm.	Aurora.
January	6.9	NW.	30	NW.	0	2	5	5	8	3	11	11	16	1	13	6	12	9	8	8	0	3	16	0	30	0	0
February	8.5	NW.	35	NW.	0	5	2	3	5	11	6	9	15	0	9	10	9	11	6	10	0	2	15	0	25	0	0
March	7.8	S.	28	SE.	0	1	2	2	9	21	5	9	12	1	17	5	9	12	9	3	0	1	1	0	21	2	0
April	8.7	NW.	32	NW.	0	4	12	2	9	7	4	5	17	0	16	7	7	10	9	0	0	1	0	0	6	2	0
May	7.3	NE.	28	SE.	0	2	10	6	5	9	9	7	13	1	11	11	9	14	12	0	1	0	0	0	0	6	0
June	6.7	SE.	28	SW.	0	3	3	8	8	13	7	6	12	0	9	12	9	14	10	0	0	2	0	1	0	9	0
July	5.7	S.	56	NW.	1	6	7	2	12	12	7	5	11	0	24	4	3	7	4	0	1	3	0	8	0	5	0
August	5.8	NW.	27	N.	0	4	7	3	10	11	7	4	13	3	13	11	7	11	10	0	0	3	0	3	0	5	0
September	6.0	S.	28	SE.	0	2	4	3	10	11	9	4	16	1	17	10	3	9	6	0	0	3	0	1	0	7	1
October	9.1	NW.	36	NW.	0	2	3	1	18	9	5	8	16	0	3	14	14	14	12	2	0	2	0	0	4	0	0
November	8.6	SE.	42	NW.	1	4	3	0	14	12	9	8	9	1	11	9	10	9	7	5	0	0	8	0	20	1	0
December	7.5	NW.	36	NW.	0	2	4	1	3	8	14	11	19	0	14	11	6	4	3	2	0	1	19	0	30	0	0
Year	7.4	NW.	56	NW.	2	37	62	36	111	127	93	87	169	8	157	110	98	124	96	30	2	21	59	13	126	37	1

a By eye observations, at 8 p.m. when there is no self-register at station. C.=Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

DULUTH, MINN.

[λ=46° 47′ N.; φ=92° 6′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.20	29.79	28.62	15.9	22.1	26.2	11.9	19.0	38	— 6	12	17	84	78	.079	.095	0.38	0.15	4.9	4.9	5.2
February	29.28	29.70	28.92	13.9	21.2	24.7	9.8	17.2	38	—18	10	17	84	83	.077	097	.89	.31	5.4	5.1	5.4
March	29.20	29.68	28.71	25.8	33.0	38.0	23.3	30.6	57	6	22	26	83	74	.121	.139	.75	.17	6.2	5.7	5.5
April	29.31	29.70	28.69	36.4	42.9	46.6	34.0	40.3	64	18	28	28	73	57	.166	.155	.41	.28	4.6	4.0	4.1
May	29.17	29.60	28.68	47.3	52.8	58.0	43.4	50.7	80	35	38	39	73	63	.238	.245	3.30	1.30	5.2	5.0	4.8
June	29.18	29.58	28.60	54.5	58.4	65.4	48.5	57.0	88	38	48	48	82	72	.352	.342	3.52	.97	6.9	5.8	5.9
July	29.21	29.48	28.74	60.4	69.4	74.7	57.1	65.9	90	46	54	55	80	62	.425	.441	1.33	.65	4.9	4.1	4.0
August	29.18	29.40	28.88	60.1	66.3	70.5	58.2	64.4	86	50	55	56	84	72	.440	.455	3.39	1.17	5.6	3.9	5.1
September	29.16	29.87	28.70	52.8	61.4	68.1	50.3	59.2	86	40	47	49	82	66	.335	.352	1.21	.43	4.4	4.6	5.1
October	29.23	29.61	28.75	39.9	45.0	49.5	38.0	43.8	79	28	34	36	81	73	.207	.223	3.39	1.00	7.1	6.5	7.0
November	29.15	29.80	28.62	25.6	29.6	36.0	22.1	29.0	58	4	21	20	80	68	.124	.119	.94	.56	5.6	4.6	5.7
December	29.22	29.95	28.54	9.4	15.6	21.6	5.4	13.5	43	—24	5	9	81	74	.060	.071	.19	.09	4.0	3.0	4.6
Year	29.21	29.95	28.54	36.8	43.1	48.3	33.5	40.9	90	—24	31	33	81	70	.219	.228	19.70	1.30	5.4	4.8	5.2

EASTPORT, ME.

[λ=44° 54′ N.; φ=66° 59′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.85	30.42	28.91	16.8	20.0	26.8	10.5	18.6	42	— 9	12	14	79	76	.085	.092	5.41	1.26	6.1	3.9	6.4
February	29.98	30.56	28.92	25.5	29.2	32.6	23.3	28.0	42	4	21	25	82	83	.121	.139	6.37	1.80	7.0	7.2	7.4
March	30.10	30.77	29.33	31.3	35.9	39.9	29.6	34.8	53	18	26	30	80	78	.144	.164	2.65	1.20	3.9	3.1	5.6
April	29.80	30.26	29.40	35.4	38.5	43.6	32.2	37.9	62	15	30	33	80	81	.169	.188	3.80	1.19	5.7	5.2	6.8
May	29.90	30.25	29.55	45.6	47.2	53.9	41.6	47.8	65	32	40	42	81	82	.254	.270	2.14	1.26	5.9	4.7	6.9
June	29.86	30.28	29.30	52.9	53.6	60.9	47.7	54.3	79	43	49	50	88	87	.351	.357	3.09	.75	6.5	6.0	7.0
July	29.94	30.39	29.55	59.0	59.3	68.1	52.3	60.2	87	47	54	55	86	86	.430	.433	.66	.35	3.5	4.6	6.4
August	29.87	30.17	29.58	58.9	60.4	68.8	53.6	61.2	81	49	56	56	89	85	.445	.444	2.15	.90	4.3	3.8	7.3
September	29.91	30.31	29.48	53.8	54.6	63.1	48.7	55.9	80	39	48	49	82	82	.346	.351	2.93	.83	5.2	3.1	6.6
October	30.01	30.44	29.36	46.0	48.2	53.6	41.9	47.8	83	30	42	44	87	86	.281	.302	6.85	2.50	6.4	4.7	6.8
November	29.86	30.41	28.96	37.8	39.4	43.8	34.1	39.0	55	18	34	36	87	87	.205	.215	6.12	1.49	7.9	7.1	8.6
December	29.85	30.50	29.15	23.8	27.3	33.6	19.0	26.3	46	— 7	19	22	80	80	.114	.127	2.99	.66	5.9	4.7	6.8
Year	29.91	30.77	28.91	40.6	42.8	49.1	36.2	42.6	87	— 9	36	38	83	83	.245	.257	45.16	2.50	5.7	4.8	6.9

EL PASO, TEX.

[λ=31° 47′ N.; φ=106° 30′ W.; gravity corr., —0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	26.20	26.64	25.81	31.7	48.7	55.4	28.5	42.0	71	17	19	17	62	31	.108	.100	0.25	0.09	2.2	3.6	3.8
February	26.23	26.51	25.92	38.5	62.3	67.0	36.5	51.8	79	24	21	17	50	18	.110	.093	.04	.04	1.4	2.8	2.6
March	26.12	26.39	25.91	42.1	64.8	68.9	40.4	54.6	80	23	21	8	44	14	.119	.077	.43	.26	3.9	4.0	3.7
April	26.17	26.42	25.80	53.0	73.8	77.7	52.4	65.0	91	39	28	22	43	19	.170	.143	.81	.41	1.7	3.1	2.8
May	26.09	26.41	25.89	57.5	81.8	84.9	56.9	70.9	96	48	27	16	34	9	.150	.095	.01	.01	1.9	2.8	2.3
June	26.13	26.33	25.93	64.7	85.6	90.2	63.6	76.9	102	53	48	39	61	24	.368	.268	.46	.20	1.7	3.4	2.7
July	26.19	26.34	26.03	69.9	86.0	90.8	68.9	79.8	101	63	59	54	70	36	.498	.419	1.46	.31	5.6	5.4	5.3
August	26.19	26.38	26.00	67.9	85.2	89.8	67.2	78.5	95	60	56	53	68	36	.461	.415	1.00	.50	3.8	4.7	4.0
September	26.18	26.45	26.00	61.0	80.8	86.8	59.7	73.2	93	46	45	42	59	29	.317	.284	.50	.29	2.2	2.8	2.3
October	26.24	26.59	25.95	49.0	71.4	79.8	47.5	63.6	92	32	28	24	44	17	.163	.142	T.	T.	0.7	0.9	0.9
November	26.19	26.44	25.78	40.0	58.4	65.9	38.4	52.2	81	20	22	20	50	25	.124	.117	.16	.16	2.3	1.9	2.5
December	26.30	26.67	26.01	31.3	43.7	49.9	29.0	39.4	67	15	21	18	66	42	.116	.111	1.04	.41	3.3	3.0	3.4
Year	26.19	26.67	25.78	50.6	70.2	75.6	49.1	62.3	102	15	33	28	54	25	.225	.189	6.16	.50	2.6	3.2	3.0

ERIE, PA.

[λ=42° 7′ N.; φ=80° 5′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.20	29.66	28.43	29.4	31.2	35.8	26.0	30.9	63	10	25	25	84	81	.137	.146	3.41	0.75	8.9	8.0	8.2
February	29.30	29.64	28.58	26.3	29.7	34.0	23.7	28.8	64	—1	23	24	87	82	.130	.138	2.02	.74	8.1	7.0	8.1
March	29.37	29.67	28.72	39.0	42.8	50.9	34.6	42.8	74	20	33	36	81	81	.203	.229	3.24	1.30	5.4	5.1	6.2
April	29.26	29.57	28.80	40.9	44.0	48.9	37.0	43.0	62	20	32	35	74	73	.190	.211	1.83	.76	5.5	6.3	6.1
May	29.19	29.40	28.90	55.1	58.5	64.4	49.5	57.0	80	36	49	50	80	76	.357	.380	2.79	.67	6.8	5.8	6.1
June	29.25	29.53	28.77	67.5	70.0	74.9	60.8	67.8	86	50	58	61	73	73	.493	.537	2.87	.80	5.0	5.1	4.6
July	29.29	29.61	29.09	72.4	74.5	80.1	66.5	73.3	89	54	62	63	71	68	.579	.583	1.63	.86	3.4	4.0	4.5
August	29.24	29.46	29.04	69.9	73.1	78.1	65.3	71.7	88	53	63	65	80	76	.588	.621	4.19	1.39	5.2	5.5	5.7
September	29.30	29.72	28.92	64.1	67.6	74.2	59.9	67.0	88	46	58	58	81	71	.503	.492	2.62	.80	4.1	2.6	4.5
October	29.30	29.60	28.68	52.2	53.8	60.8	47.7	54.2	86	31	46	44	79	71	.334	.307	3.05	.92	6.3	6.2	5.9
November	29.29	29.70	28.74	38.7	39.7	45.7	34.0	40.4	68	21	32	32	77	76	.182	.186	3.58	1.29	6.9	6.4	6.6
December	29.23	29.72	28.64	28.6	29.7	35.4	23.9	29.6	58	10	24	22	83	76	.133	.126	2.84	1.03	8.4	7.1	8.2
Year	29.27	29.72	28.43	48.7	51.2	57.0	44.1	50.5	89	—1	42	43	79	75	.319	.330	34.07	1.39	6.2	5.8	6.2

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

DULUTH, MINN.

[H = 702 ft.; h_t = 95 ft.; h_r = 90 ft.; h_a = 106 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Aurora.
	Miles.		*Mi.*																								
January	7.9	SW.	36	W.	0	6	4	1	2	7	18	10	14	0	8	17	6	6	4	6	0	0	22	0	31	0	0
February	10.6	NE.	35	NW.	0	10	13	1	1	3	14	4	10	0	8	13	7	10	5	10	0	2	22	0	28	0	0
March	12.2	SW.	46	NE.	5	5	21	0	0	2	17	9	8	0	5	21	5	10	6	9	1	0	9	0	26	1	2
April	8.8	NE.	42	S.	2	12	28	4	1	3	2	1	8	1	10	16	4	5	3	1	0	0	1	0	7	0	1
May	9.3	NE.	33	NW.	0	8	30	3	0	1	5	4	11	0	14	6	11	8	8	0	1	1	0	0	0	2	0
June	8.9	NE.	32	NE.	0	8	37	3	0	1	3	2	6	0	6	16	8	12	10	0	0	1	0	0	0	6	1
July	9.2	NE.	30	NW.	0	4	27	2	0	0	10	8	11	0	11	17	3	10	6	0	0	0	0	1	0	7	3
August	8.8	NE.	28	NE.	0	5	26	4	0	1	9	5	11	1	9	17	5	12	7	0	0	0	0	0	0	5	3
September	10.0	SW.	34	SW.	0	9	13	1	1	1	16	13	6	0	10	11	9	10	8	0	1	0	0	0	0	5	1
October	11.4	NE.	34	SW.	0	8	17	2	3	3	7	8	14	0	6	4	21	12	11	1	0	0	0	0	4	2	0
November	11.5	NW.	56	NW.	3	4	6	2	2	2	17	7	20	0	8	13	9	7	4	6	0	0	10	0	24	0	0
December	9.2	SW.	45	NW.	3	1	3	2	4	2	32	4	14	0	13	11	7	4	2	4	0	0	26	0	31	0	0
Year	9.8	NE.	56	NW.	13	80	225	25	14	26	150	75	133	2	108	162	95	106	74	37	3	4	90	1	151	28	11

EASTPORT, ME.

[H = 76 ft.; h_t = 69 ft.; h_r = 62 ft.; h_a = 74 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Aurora.
January	14.6	N.	60	E.	5	16	4	5	2	2	7	12	14	0	9	8	14	15	14	11	1	13	21	0	31	1	0
February	14.5	NW.	66	NE.	5	7	8	6	4	8	7	5	11	0	6	4	18	16	11	8	0	8	9	0	22	0	1
March	9.7	SW.	40	SW.	1	4	5	2	3	11	16	10	9	2	11	9	11	12	8	3	0	13	0	0	20	0	2
April	12.6	W.	52	E.	3	7	12	8	1	2	7	13	10	0	7	8	15	15	14	5	0	12	0	0	11	0	0
May	8.4	S.	29	S.	0	8	14	2	2	13	10	4	3	6	7	9	15	9	7	0	1	13	0	0	1	2	0
June	8.5	S.	32	NE.	0	6	10	5	0	13	13	4	3	6	5	11	14	13	10	0	0	19	0	0	0	2	0
July	7.5	S.	24	S.	0	17	1	1	1	24	9	3	3	3	8	11	12	6	4	0	0	14	0	0	0	1	0
August	6.4	S.	26	S.	0	4	5	3	4	12	7	8	5	14	4	9	18	12	9	0	0	25	0	0	0	1	0
September	8.4	S.	36	NE.	0	8	6	3	0	11	7	15	8	2	6	11	13	9	7	0	0	14	0	0	0	1	2
October	10.6	SW.	60	E.	3	8	6	7	3	7	15	5	8	3	9	5	17	15	12	0	0	14	0	0	1	0	1
November	14.5	N.	52	NE.	4	13	11	3	3	4	7	12	7	0	2	5	23	15	15	2	0	11	1	0	11	0	1
December	11.8	W.	72	E.	2	5	9	4	1	2	9	22	8	2	5	13	13	16	14	12	0	9	8	0	27	0	0
Year	10.6	S.	72	E.	23	103	91	49	24	109	114	113	89	38	79	103	183	153	125	41	2	165	39	0	124	8	7

EL PASO, TEX.

[H = 3,767 ft.; h_t = 10 ft.; h_r = 2 ft.; h_a = 110 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Aurora.
January	10.6	NW.	62	SW.	3	2	7	5	3	1	3	13	28	0	16	9	6	6	2	2	0	0	0	0	21	0	0
February	10.1	NW.	44	W.	1	1	7	10	3	3	2	9	21	0	16	11	1	1	1	0	0	0	0	0	8	0	0
March	13.2	NW.	63	SW.	9	5	4	7	2	2	8	19	15	0	14	12	5	4	3	0	0	0	0	0	6	1	0
April	12.8	NE.	56	W.	6	1	12	9	7	3	2	11	14	1	18	9	3	5	4	0	0	0	0	1	0	4	0
May	13.0	NW.	46	SW.	6	1	3	7	2	1	14	20	14	0	21	9	1	1	0	0	0	0	0	9	0	0	0
June	10.0	E.	48	NW.	4	1	16	16	9	1	2	5	10	0	20	9	1	7	2	0	0	0	0	16	0	4	0
July	9.6	NE.	47	NE.	6	1	23	13	14	1	0	2	8	0	7	18	6	12	10	0	0	0	0	17	0	10	0
August	8.7	E.	42	NW.	2	0	11	26	13	0	1	2	9	0	14	15	2	6	5	0	0	0	0	17	0	2	0
September	9.9	E.	45	NE.	2	0	11	17	7	2	5	4	14	0	19	9	2	6	4	0	0	0	0	14	0	2	0
October	10.0	E.	51	NE.	2	2	10	19	2	0	5	9	15	0	29	2	0	0	0	0	0	0	0	2	1	0	0
November	11.9	NW.	64	SW.	3	1	9	16	5	3	3	6	17	0	20	8	2	1	1	0	0	0	0	0	6	0	0
December	12.3	NW.	52	NE.	5	2	14	6	1	0	1	6	32	0	18	7	6	7	5	4	0	0	2	0	21	0	0
Year	11.0	NW.	64	SW.	49	17	127	151	68	17	46	106	197	1	212	118	35	56	37	6	0	0	2	76	63	23	0

ERIE, PA.

[H = 714 ft.; h_t = 92 ft.; h_r = 82 ft.; h_a = 102 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Aurora.
January	13.2	W.	50	S.	3	5	1	7	2	15	9	17	6	0	0	7	24	18	13	11	0	0	12	0	23	1	0
February	11.9	S.	39	N.	0	3	4	2	1	18	12	8	8	0	1	6	21	15	11	11	0	1	12	0	22	0	0
March	12.2	S.	42	W.	1	4	5	7	0	21	8	12	5	0	8	10	13	10	9	1	0	0	1	0	12	1	0
April	11.1	NE.	48	S.	1	5	12	8	2	5	8	14	6	0	8	10	12	11	7	2	0	0	2	0	8	0	0
May	8.0	W.	28	S.	0	4	6	8	0	13	7	18	6	0	8	10	13	14	11	0	1	0	0	0	0	7	0
June	8.9	W.	28	W.	0	7	7	8	1	9	13	14	1	0	13	15	2	11	9	0	0	0	0	0	0	7	0
July	8.6	SW.	27	N.	0	8	10	7	0	13	15	7	2	0	13	15	3	8	6	0	0	0	0	0	0	5	0
August	8.2	SW.	28	W.	0	3	2	8	1	14	18	10	6	0	9	12	10	11	9	0	0	0	0	0	0	7	0
September	10.4	S.	30	S.	0	6	3	2	1	16	18	8	6	0	12	14	4	7	7	0	0	0	0	0	0	5	0
October	12.7	S.	48	S.	1	7	3	6	5	20	13	3	5	0	7	10	14	14	12	0	1	0	0	0	1	0	0
November	13.5	S.	38	W.	0	8	2	4	2	18	11	8	7	0	6	9	15	14	13	5	0	0	3	0	11	0	0
December	16.0	SW.	40	W.	2	4	3	2	1	7	30	8	7	0	0	7	24	18	12	14	0	0	12	0	23	0	0
Year	11.2	S.	50	S.	8	64	58	69	16	169	162	127	65	0	85	125	155	151	119	44	2	1	42	0	100	33	0

a By eye observations at 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ESCANABA, MICH.

[λ = 45° 48′ N.; φ = 87° 5′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	29.27	29.87	28.68	31.4	35.8	40.6	28.0	34.3	55	8	29	31	90	82	.168	.182	1.39	0.86	6.7	6.4	6.7
December	29.28	30.00	28.69	15.7	20.5	26.8	11.5	19.2	38	−8	13	16	88	80	.081	.092	.43	.12	5.8	2.8	5.8
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EUREKA, CAL.

[λ = 40° 48′ N.; φ = 124° 11′ W.; gravity corr., −0.01.]

January	30.14	30.46	29.86	40.4	47.3	50.3	37.8	44.0	60	30	37	40	88	76	.222	.251	3.23	0.68	5.3	5.2	6.0
February	30.03	30.42	29.39	46.5	52.6	56.8	43.1	50.0	70	33	42	44	85	75	.267	.293	8.00	2.14	5.6	7.6	7.9
March	30.08	30.49	29.81	41.4	48.9	50.7	40.5	45.6	61	30	38	41	89	75	.236	.258	1.80	.62	4.5	4.7	5.3
April	30.06	30.38	29.67	45.0	51.3	54.3	43.4	48.8	64	35	42	44	88	78	.265	.293	2.78	1.85	5.2	5.7	6.0
May	29.95	30.21	29.55	47.1	52.6	54.5	46.2	50.4	59	39	44	46	90	79	.294	.311	2.62	.86	6.7	5.7	6.4
June	29.95	30.22	29.78	53.0	58.4	60.9	51.7	56.3	75	45	49	51	86	76	.345	.370	1.21	.60	6.6	5.0	5.6
July	29.98	30.17	29.77	51.9	56.6	58.0	51.2	54.6	63	47	50	51	93	80	.357	.369	T.	T.	7.8	4.9	6.0
August	29.92	30.06	29.72	53.4	57.7	59.5	52.3	55.9	64	49	52	53	95	84	.386	.401	.06	.06	7.9	6.2	6.6
September	29.93	30.13	29.59	53.9	58.3	60.3	51.8	56.0	70	47	51	52	90	81	.372	.394	1.48	.80	5.1	4.6	6.4
October	30.04	30.24	29.78	50.1	56.8	59.7	48.1	53.9	66	41	47	51	90	80	.329	.370	2.13	.62	4.9	4.2	5.2
November	30.07	30.31	29.78	44.8	51.7	54.2	42.4	48.3	63	34	42	46	91	81	.276	.312	4.43	1.02	4.6	4.5	6.2
December	30.14	30.51	29.86	42.1	50.3	53.8	38.7	46.2	63	32	35	41	79	73	.212	.264	3.17	.80	4.3	4.2	5.1
Year	30.02	30.51	29.39	47.5	53.5	56.1	45.6	50.8	75	30	44	47	89	78	.297	.324	30.91	2.14	5.7	5.2	6.1

EVANSVILLE, IND.[1]

[λ = 37° 58′ N.; φ = 87° 33′ W.; gravity corr., −0.02.]

January	29.62	29.95	29.10	35.4	.....	45.2	33.9	39.6	58	15	33	.....	91	.....	.200	.....	6.97	2.54	6.2	.....	6.0
February	29.68	30.05	29.33	33.4	.....	45.6	32.0	38.8	70	6	30	.....	87	.....	.180	.....	1.52	.65	5.5	.....	5.4
March	29.67	29.98	29.31	44.8	.....	57.9	42.8	50.4	74	26	40	.....	84	.....	.268	.....	8.73	1.69	6.4	.....	5.9
April	29.62	30.02	29.18	48.8	.....	62.4	45.1	53.8	80	29	42	.....	78	.....	.277	.....	4.15	1.90	4.8	.....	4.8
May	29.51	29.68	29.29	63.2	.....	76.6	59.0	67.8	87	38	57	.....	81	.....	.475	.....	4.61	1.15	4.1	.....	4.4
June	29.57	29.71	29.27	73.1	.....	87.7	68.6	78.2	93	60	66	.....	79	.....	.651	.....	1.71	.93	3.0	.....	2.7
July	29.60	29.74	29.40	73.7	.....	87.3	70.0	78.6	96	57	68	.....	82	.....	.694	.....	2.90	1.51	5.0	.....	4.2
August	29.58	29.72	29.44	71.7	.....	87.0	68.7	77.8	95	61	68	.....	88	.....	.689	.....	3.85	1.74	3.6	.....	3.5
September	29.60	29.90	29.30	67.2	.....	83.2	64.6	73.9	95	52	63	.....	88	.....	.598	.....	3.26	1.25	3.2	.....	3.5
October	29.62	29.92	29.21	51.9	.....	65.1	49.0	57.0	87	32	49	.....	89	.....	.377	.....	4.50	2.58	4.8	.....	5.2
November	29.68	29.97	29.24	38.8	.....	52.2	36.7	44.4	72	14	34	.....	83	.....	.217	.....	1.05	.40	4.9	.....	4.3
December	29.68	30.37	29.11	29.8	.....	41.4	27.0	34.2	61	8	26	.....	87	.....	.152	.....	1.53	.70	5.5	.....	4.7
Year	29.62	30.37	29.10	52.6	.....	66.0	49.8	57.9	96	6	48	.....	85	.....	.398	.....	44.78	2.58	4.8	.....	4.6

FORT SMITH, ARK.

[λ = 35° 22′ N.; φ = 94° 24′ W.; gravity corr., −0.03.]

January	29.54	30.13	29.02	38.4	47.5	52.8	36.1	44.4	73	21	34	38	84	72	.204	.243	2.97	1.20	5.5	5.8	5.6
February	29.61	30.08	29.22	37.8	51.2	57.0	35.6	46.3	71	17	34	38	84	61	.200	.238	.81	.36	3.6	2.5	4.0
March	29.52	29.82	29.16	48.0	56.4	63.4	42.7	53.0	84	29	42	45	81	67	.296	.324	10.53	3.83	5.0	6.4	5.7
April	29.54	30.01	29.05	52.7	64.7	69.8	49.7	59.8	83	34	46	46	79	53	.324	.330	2.73	.88	4.8	3.7	4.2
May	29.40	29.66	29.14	67.1	75.9	81.9	62.9	72.0	91	48	60	61	79	63	.528	.559	7.48	2.78	4.3	3.8	4.0
June	29.46	29.60	29.26	73.0	80.4	87.5	70.0	78.8	93	65	69	69	87	70	.704	.718	5.64	1.80	6.0	6.2	6.2
July	29.48	29.65	29.30	75.2	85.5	91.2	71.7	81.4	99	60	70	69	83	58	.736	.711	2.31	.84	5.4	5.6	5.5
August	29.47	29.64	29.33	72.5	83.4	90.2	70.5	80.4	96	66	70	70	92	65	.734	.737	6.10	4.59	3.3	4.7	3.8
September	29.46	29.76	29.21	67.5	78.6	86.2	66.2	76.2	96	52	64	66	90	67	.613	.648	5.00	3.07	5.0	3.8	4.8
October	29.55	29.94	29.19	51.9	63.1	70.8	50.7	60.8	93	32	48	50	89	66	.394	.410	4.04	2.32	4.4	3.7	4.3
November	29.58	29.86	28.94	40.2	51.0	58.8	37.3	48.0	78	19	35	34	81	56	.214	.212	1.55	1.19	4.9	3.2	4.3
December	29.66	30.30	29.07	32.5	41.5	49.2	29.7	39.4	74	14	28	28	84	62	.166	.163	1.96	.85	5.0	3.6	4.4
Year	29.52	30.30	28.94	54.7	64.9	71.6	51.8	61.7	99	14	50	51	84	63	.426	.441	51.12	4.59	4.8	4.4	4.7

[1] One observation daily.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ESCANABA, MICH.

[H = 612 ft.; h_t = 43 ft.; h_r = 37 ft.; h_a = 57 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	10.7	SW.	40	S.	1	2	2	1	4	9	18	9	15	0	8	6	16	6	5	3	0	1	5	0	19	0	0
December	9.1	SW.	36	S.	0	4	2	0	0	1	19	16	20	0	9	13	9	6	5	6	0	0	26	0	31	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EUREKA, CAL.

[H = 64 ft.; h_t = 60 ft.; h_r = 52 ft.; h_a = 69 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.4	SE.	36	NE.	0	9	5	7	12	2	8	4	10	5	7	11	13	18	17	0	2	3	0	0	3	1	0
February	6.7	SE.	34	N.	0	5	5	6	16	9	4	1	10	0	0	11	17	21	18	0	0	4	0	0	0	0	0
March	7.2	NW.	43	NW.	1	8	1	7	10	5	6	2	23	0	14	8	9	15	7	0	2	2	0	0	3	0	0
April	8.9	NW.	36	NW.	0	4	2	1	8	4	13	1	26	1	10	9	11	10	8	0	0	2	0	0	0	0	0
May	7.2	NW.	28	NW.	0	3	0	1	11	1	11	5	25	5	9	7	15	12	10	0	0	1	0	0	0	0	0
June	8.7	NW.	38	NW.	0	1	1	4	9	2	10	3	28	2	11	6	13	9	6	0	0	1	0	0	0	0	0
July	6.4	NW.	32	NW.	0	2	0	2	0	3	10	5	36	4	10	7	14	0	0	0	0	4	0	0	0	0	0
August	5.0	NW.	28	NW.	0	2	1	0	4	6	5	10	28	6	5	12	14	1	1	0	0	5	0	0	0	1	0
September	4.8	NW.	30	NW.	0	5	3	1	7	8	10	3	18	5	6	10	14	6	6	0	0	6	0	0	0	0	0
October	4.5	NW.	29	NW.	0	4	4	2	8	3	11	5	22	3	9	14	8	12	9	0	1	1	0	0	0	0	0
November	4.7	NW.	33	NW.	0	1	1	2	13	7	11	1	14	10	10	4	16	16	15	0	1	5	0	0	0	0	0
December	3.9	NW.	36	SE.	0	3	3	4	14	5	11	3	15	4	12	8	11	13	11	0	1	2	0	0	1	0	0
Year	6.1	NW.	43	NW.	1	47	26	37	112	55	110	43	255	45	103	107	155	133	108	0	7	36	0	0	7	2	0

EVANSVILLE, IND.

[H = 434 ft.; h_t = 72 ft.; h_r = 66 ft.; h_a = 82 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.9	SW.	45	SW.	3	0	0	6	4	2	7	7	5	0	9	9	13	12	12	1	1	4	3	0	13	1	0
February	9.0	W.	38	SW.	0	2	1	3	2	6	2	8	4	0	10	7	11	8	6	2	0	1	4	0	16	0	0
March	8.4	S.	35	S.	0	7	7	1	4	8	0	0	4	0	10	5	16	16	15	0	0	2	0	0	4	2	0
April	7.9	NW.	32	SW.	0	3	4	4	1	5	3	4	6	0	13	8	9	12	10	0	0	0	0	0	2	2	0
May	7.4	S.	30	SW.	0	4	4	5	3	6	6	2	1	0	15	8	8	13	11	0	0	0	0	0	0	8	0
June	6.5	NE.	29	SW.	0	3	10	2	3	5	5	1	1	0	20	7	3	10	5	0	0	0	0	7	0	5	0
July	6.3	S.	26	NW.	0	1	10	0	6	10	1	1	1	1	15	11	5	15	9	0	0	0	0	9	0	9	0
August	4.6	S.	28	N.	0	1	4	1	5	7	7	1	5	0	17	10	4	8	8	0	0	0	0	9	0	4	0
September	6.1	S.	31	S.	0	2	6	3	2	10	5	2	0	0	17	6	7	10	8	0	0	1	0	6	0	6	0
October	7.7	S.	32	SW.	0	3	5	1	5	5	5	3	4	0	14	4	13	12	8	0	0	1	0	0	0	1	0
November	8.2	W.	42	SW.	1	4	3	1	4	7	1	8	2	0	15	7	8	8	7	1	0	0	1	0	7	1	0
December	8.5	SW.	30	S.	0	2	2	2	1	6	10	3	5	0	14	6	11	8	7	3	0	3	6	0	23	0	0
Year	7.5	S.	45	SW.	4	32	56	29	40	77	52	40	38	1	169	88	108	132	106	7	1	12	14	31	65	39	0

FORT SMITH, ARK.

[H = 481 ft.; h_t = 63 ft.; h_r = 56 ft.; h_a = 72 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.7	E.	44	SW.	2	3	3	27	1	4	6	11	5	2	12	5	14	11	6	0	0	1	0	0	8	2	0
February	7.6	E.	28	E.	0	7	2	21	2	2	6	4	11	1	17	4	7	5	5	0	0	1	0	0	9	1	0
March	7.3	E.	34	NW.	0	9	4	27	7	7	2	0	4	2	12	3	16	15	11	1	0	0	0	0	6	6	0
April	7.1	E.	36	NW.	0	12	3	23	4	3	2	4	7	2	14	8	8	11	8	0	0	0	0	0	6	6	0
May	6.3	E.	44	N.	1	7	7	19	8	8	5	1	5	2	18	6	7	9	9	0	0	0	0	3	0	8	0
June	5.3	E.	34	E.	0	4	11	24	4	8	3	3	2	1	7	10	13	17	14	0	0	0	0	10	0	9	0
July	5.2	E.	24	NW.	0	4	8	33	5	5	2	3	1	1	12	5	14	9	7	0	0	0	0	20	0	5	0
August	4.5	E.	22	W.	0	4	9	36	1	3	4	3	0	2	16	9	6	9	6	0	0	0	0	17	0	5	0
September	4.5	E.	16	N.	0	3	10	27	3	8	1	3	0	5	12	11	7	7	6	0	0	1	0	13	0	2	0
October	5.0	E.	16	NW.	0	3	6	22	4	2	5	10	5	5	15	8	8	10	6	0	0	0	0	4	1	0	0
November	7.2	E.	36	W.	0	4	4	27	3	4	6	6	6	0	12	11	7	4	2	2	0	1	1	0	8	1	0
December	7.1	E.	32	NE.	0	5	7	15	4	2	7	11	10	1	17	3	11	10	4	6	0	0	3	0	20	0	0
Year	6.2	E.	44	N.	3	65	74	301	46	56	49	59	56	24	164	83	118	117	84	9	0	4	4	67	52	45	0

a By eye observations at 8 a. m. and 8 p. m when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

FORT WORTH, TEX.

[λ = 32° 43′ N.; φ = 97° 15′ W.; gravity corr., —0.03.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	[1]29.28	29.52	29.11	67.7	.....	89.0	65.4	77.2	98	55	62	.....	82	.....	574	.....	0.29	0.17	2.7	.....	3.2
October	[1]29.38	29.84	29.03	55.4	.....	78.2	51.5	64.8	98	31	47	.....	73	.....	.372	.....	1.59	1.57	2.4	.....	2.5
November	[1]29.40	29.68	28.93	43.6	.....	62.5	39.5	51.0	85	23	36	.....	75	.....	.223	.....	1.42	.78	4.4	.....	3.6
December	[1]29.49	30.05	28.98	34.5	.....	50.7	31.1	40.9	78	11	27	.....	74	.....	.153	.....	2.70	2.06	3.9	.....	3.9
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FRESNO, CAL.

[λ = 36° 43′ N.; φ = 119° 49′ W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.76	29.95	29.44	34.0	49.7	51.9	31.5	41.7	64	24	31	33	91	55	.177	.192	0.42	0.17	1.5	4.6	5.4
February	29.73	30.00	29.43	45.4	62.7	64.5	43.2	53.8	76	33	42	42	89	49	.274	.277	1.15	.49	3.3	4.5	4.0
March	29.64	30.06	29.30	42.5	64.4	66.1	39.5	52.8	80	30	37	29	82	28	.225	.168	.71	.30	1.7	3.1	3.0
April	29.59	29.88	29.14	51.7	79.7	81.0	49.9	65.4	101	39	38	31	61	19	.233	.176	0	0	1.8	2.4	1.8
May	29.53	29.72	29.27	52.7	77.3	78.7	51.6	65.2	97	47	42	37	70	26	.274	.224	.79	.74	3.2	3.5	3.1
June	29.47	29.72	29.25	61.3	92.6	93.9	60.5	77.2	107	51	42	38	51	16	.270	.232	0	0	0.9	1.1	1.2
July	29.45	29.62	29.21	67.0	101.4	102.3	65.5	83.9	114	58	42	35	42	11	.265	.204	0	0	1.2	0.7	1.0
August	29.43	29.58	29.22	65.9	98.4	99.0	64.2	81.8	113	55	44	38	48	13	.290	.233	0	0	0.6	1.7	1.4
September	29.49	29.69	29.33	59.8	87.8	88.6	57.1	72.8	105	50	45	39	60	22	.301	.245	1.12	1.12	0.9	1.4	1.4
October	29.63	29.90	29.44	53.2	76.8	78.3	50.9	64.6	90	44	46	40	77	29	.314	.262	.03	.03	1.4	2.6	2.1
November	29.69	29.93	29.42	42.5	62.3	65.1	39.9	52.5	80	27	36	32	78	37	.210	.193	.34	.34	1.5	2.1	2.4
December	29.82	30.19	29.47	38.1	52.2	55.2	35.3	45.2	68	26	33	32	82	50	.189	.192	.43	.32	2.9	4.6	5.6
Year	29.60	30.19	29.14	51.2	75.4	77.0	49.1	63.1	114	24	40	36	69	30	.252	.216	4.99	1.12	1.7	2.7	2.7

GALVESTON, TEX.

[λ = 29° 18′ N.; φ = 94° 50′ W.; gravity corr., —0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	30.04	30.62	29.59	55.4	58.0	62.4	52.3	57.4	70	36	51	52	87	82	.405	.411	4.48	2.64	6.2	4.2	5.9
February	30.08	30.51	29.69	55.9	59.8	63.7	54.0	58.8	75	39	52	54	87	82	.406	.432	4.03	1.72	4.7	3.4	3.8
March	29.98	30.25	29.71	60.2	62.9	67.0	58.3	62.6	75	42	58	59	92	88	.506	.535	4.10	1.95	7.4	7.9	6.5
April	30.01	30.38	29.69	64.9	69.0	72.4	62.6	67.5	84	50	58	60	80	75	.510	.536	3.04	1.87	5.0	3.6	3.8
May	29.91	30.14	29.74	73.1	75.0	78.6	71.2	74.9	84	56	67	68	82	80	.682	.702	1.58	1.22	5.1	5.9	4.6
June	29.94	30.05	29.78	79.6	81.1	85.0	77.1	81.0	89	71	73	73	81	77	.819	.812	1.94	.47	5.0	5.8	4.8
July	29.95	30.08	29.81	80.4	83.2	86.7	78.0	82.4	91	72	73	72	80	71	.823	.799	3.62	1.21	5.1	5.2	4.9
August	29.91	30.03	29.78	80.9	83.8	87.8	78.7	83.2	90	73	74	73	81	72	.848	.820	3.68	1.47	5.8	6.0	5.3
September	29.87	30.02	29.59	77.6	80.7	84.9	75.7	80.3	89	68	72	72	82	77	.782	.797	6.78	4.67	5.3	5.2	5.2
October	30.03	30.45	29.67	68.4	72.6	76.8	65.9	71.4	87	44	59	58	74	63	.555	.540	.84	.54	3.1	2.0	2.5
November	30.05	30.28	29.67	56.0	59.2	64.1	52.3	58.2	81	34	49	51	80	76	.382	.407	5.65	1.91	5.8	5.0	6.0
December	30.14	30.57	29.77	47.5	51.5	56.4	44.3	50.4	67	28	42	44	81	76	.289	.301	2.26	.78	5.5	4.5	5.7
Year	29.99	30.62	29.59	66.7	69.7	73.8	64.2	69.0	91	28	61	61	82	77	.584	.591	42.00	4.67	5.3	5.0	4.9

GRAND HAVEN, MICH.

[λ = 43° 5′ N.; φ = 86° 13′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.28	29.66	28.65	26.5	29.4	35.0	23.3	29.2	50	8	23	25	86	82	.124	.134	3.85	1.36	8.1	6.5	8.3
February	29.35	29.72	29.03	23.5	27.4	32.9	19.6	26.2	57	—1	21	24	90	87	.119	.134	3.12	.50	8.5	8.3	8.8
March	29.39	29.74	28.94	34.1	38.0	45.4	29.8	37.6	62	12	31	32	87	79	.182	.188	3.55	.87	6.9	4.8	5.7
April	29.36	29.73	28.88	39.2	45.0	52.6	35.0	43.8	68	15	31	32	74	63	.180	.188	1.71	.75	5.1	5.5	5.7
May	29.25	29.55	28.85	52.2	56.3	64.5	44.8	54.6	81	32	44	44	76	65	.300	.295	2.21	1.24	4.5	5.3	5.0
June	29.30	29.65	28.70	63.2	68.4	75.0	56.4	65.7	85	41	55	56	76	66	.446	.452	2.45	1.26	4.7	4.5	5.0
July	29.36	29.65	29.04	67.1	74.5	79.8	60.6	70.2	90	45	58	55	72	53	.491	.454	.88	.68	2.1	2.0	2.3
August	29.30	29.53	29.02	64.1	70.5	76.3	58.8	67.6	85	50	59	60	85	71	.515	.530	4.04	1.79	3.7	3.9	3.7
September	29.33	29.92	28.92	60.4	65.2	72.4	55.9	64.2	85	38	55	55	82	71	.451	.445	4.06	1.03	4.8	4.1	4.2
October	29.32	29.74	28.86	47.6	51.4	57.9	44.1	51.0	79	32	43	45	83	80	.287	.321	5.19	1.10	8.1	7.2	7.6
November	29.32	29.73	28.76	35.3	38.5	44.7	30.9	37.8	65	6	30	31	83	76	.176	.180	2.81	.62	8.2	6.6	7.7
December	29.30	29.94	28.77	26.6	28.2	33.5	22.5	28.0	44	8	22	24	83	82	.122	.128	2.15	.92	8.5	7.7	8.2
Year	29.32	29.94	28.65	45.0	49.4	55.8	40.1	48.0	90	—1	39	40	81	73	.283	.287	36.02	1.79	6.1	5.5	6.0

[1] One observation daily.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

FORT WORTH, TEX.

[H = 670 ft.; h_t = 106 ft.; h_r = 99 ft.; h_a = 114 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January																											
February																											
March																											
April																											
May																											
June																											
July																											
August																											
September		S.				6	1	0	0	11	8	1	2	1	19	9	2	4	2	0	0	1	0	17	0	3	0
October	11.1	SW.	42	NW.	3	0	2	6	3	6	6	2	6	0	21	8	2	2	1	0	0	1	0	3	1	1	0
November	11.1	SW.	42	NW.	2	2	3	3	0	3	10	1	8	0	19	8	3	5	4	0	0	1	0	0	5	1	0
December	10.0	NW.	30	NW.	0	4	3	0	1	3	6	3	11	0	18	6	7	5	4	1	0	1	3	0	16	0	0
Year																											

FRESNO, CAL.

[H = 332 ft.; h_t = 67 ft.; h_r = 54 ft.; h_a = 70 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.4	NW.	32	NW.	0	5	6	14	6	0	6	7	17	1	11	7	13	7	4	0	0	9	0	0	17	0	0
February	4.9	NW.	28	SW.	0	1	3	11	3	5	4	3	26	0	17	4	7	8	6	0	0	2	0	0	0	0	0
March	5.1	NW.	29	N.	0	14	5	4	5	1	1	5	27	0	21	6	4	5	4	0	0	1	0	0	2	0	0
April	6.6	NW.	25	NW.	0	0	4	1	3	1	1	4	46	0	25	5	0	0	0	0	0	0	0	7	0	0	0
May	6.5	NW.	24	NW.	0	1	1	2	3	4	5	9	37	0	21	7	3	4	1	0	0	0	0	4	0	0	0
June	7.4	NW.	22	NW.	0	7	0	0	0	1	1	3	48	0	27	3	0	0	0	0	0	0	0	20	0	0	0
July	6.9	NW.	21	NW.	0	1	3	0	3	1	3	11	40	0	29	2	0	0	0	0	0	0	0	31	0	0	0
August	6.1	NW.	17	NW.	0	4	0	0	1	1	3	8	45	0	25	6	0	0	0	0	0	0	0	31	0	0	0
September	4.6	NW.	18	NW.	0	2	0	5	0	0	7	10	35	1	26	0	4	1	1	0	0	2	0	16	0	0	0
October	3.9	NW.	18	NW.	0	1	3	5	7	3	8	6	29	0	25	3	3	1	0	0	0	0	0	0	0	0	0
November	3.5	NW.	17	NW.	0	3	6	9	5	7	2	4	23	1	23	4	3	1	1	0	0	4	0	0	2	0	0
December	3.4	NW.	20	NW.	0	2	1	8	10	5	1	16	19	0	12	5	14	4	2	0	0	8	0	0	10	0	0
Year	5.3	NW.	29	NW.	0	41	32	59	46	29	42	86	392	3	262	52	51	31	19	0	0	26	0	109	31	0	0

GALVESTON, TEX.

[H = 54 ft.; h_t = 84 ft.; h_r = 72 ft.; h_a = 88 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	11.5	SE.	37	NW.	0	8	5	7	19	7	3	5	8	0	8	9	14	15	9	0	0	8	0	0	0	1	0
February	10.7	SE.	32	N.	0	10	6	6	18	10	2	1	3	0	15	9	4	8	5	0	0	0	0	0	0	4	0
March	13.4	SE.	36	NE.	0	7	13	4	23	14	1	0	0	0	4	13	14	11	8	0	0	3	0	0	0	3	0
April	11.5	S.	36	NW.	0	4	7	5	12	19	5	3	5	0	16	7	7	5	3	0	0	0	0	0	0	6	0
May	11.7	S.	36	N.	0	2	2	2	21	28	4	2	1	0	11	13	7	3	3	0	0	0	0	0	0	3	0
June	9.2	S.	32	NW.	0	1	1	1	18	28	8	2	1	0	7	19	4	12	8	0	0	0	0	0	0	7	0
July	6.4	S.	22	SW.	0	4	6	0	15	23	8	6	0	0	9	15	7	15	11	0	0	0	0	1	0	9	0
August	5.0	SE.	18	S.	0	2	6	5	17	17	8	3	4	0	8	16	7	13	10	0	0	0	0	2	0	14	0
September	8.0	SE.	26	NE.	0	10	13	6	21	4	1	0	5	0	10	11	9	11	7	0	0	0	0	0	0	3	0
October	9.5	SE.	40	NW.	1	7	12	9	13	9	4	3	5	0	23	7	1	5	2	0	0	0	0	0	0	3	0
November	11.1	NE.	36	NW.	0	10	18	10	10	3	2	2	5	0	8	8	14	14	11	0	0	2	0	0	0	2	0
December	11.2	NE.	39	NW.	0	8	14	8	4	9	4	6	9	0	11	8	12	10	5	0	0	6	0	0	2	0	0
Year	9.9	SE.	40	NW.	1	73	103	63	191	171	50	33	46	0	130	135	100	122	82	0	0	19	0	3	2	55	0

GRAND HAVEN, MICH.

[H = 628 ft.; h_t = 55 ft.; h_r = 48 ft.; h_a = 64 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	11.2	NW.	42	NW.	2	5	12	8	10	3	6	4	13	1	2	7	22	15	7	12	0	3	9	0	26	0	0
February	11.7	SE.	36	SW.	0	7	7	5	14	4	8	3	8	0	0	7	21	16	13	12	0	3	16	0	25	0	0
March	10.4	SE.	40	SW.	1	4	0	6	17	6	8	5	10	0	9	10	12	12	10	2	0	3	0	0	19	0	2
April	9.4	NW.	36	NW.	0	12	11	9	7	3	1	3	14	0	9	8	13	9	7	1	0	1	0	0	8	0	0
May	9.2	NW.	42	W.	1	10	6	5	4	8	11	6	12	0	11	9	11	10	6	0	0	3	0	0	0	3	0
June	8.4	SW.	30	SW.	0	7	3	6	8	4	16	7	9	0	8	15	7	9	6	0	0	1	0	0	0	5	0
July	7.8	NW.	42	NW.	1	10	5	5	6	4	10	4	18	0	23	6	2	4	4	0	0	0	0	0	0	2	0
August	7.6	SW.	28	SW.	0	9	10	3	4	6	11	5	14	0	17	9	5	8	5	0	0	1	0	0	0	2	0
September	8.2	NW.	33	NW.	0	10	3	6	11	5	10	2	13	0	13	12	5	10	10	0	0	0	0	0	0	4	1
October	10.0	SE.	31	NW.	0	9	6	7	21	3	5	3	8	0	3	9	19	17	14	1	0	0	0	0	1	1	0
November	13.4	SE.	40	SW.	1	2	4	4	17	6	10	7	10	0	3	8	19	15	11	10	0	0	2	0	16	0	0
December	13.6	SW.	42	SW.	2	7	5	4	4	1	14	11	16	0	2	8	21	17	11	13	0	0	11	0	28	0	0
Year	10.1	NW.	42	NWW SW.	8	92	78	68	123	53	110	60	145	1	100	108	157	142	104	51	0	15	38	0	123	17	3

a By eye observations at 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

GREEN BAY, WIS.

[λ=44° 31′ N.; φ=88° 0′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.32	29.72	28.79	17.9	23.4	28.6	14.3	21.4	39	— 1	14	18	85	79	.084	.103	1.20	0.84	5.5	5.5	6.6
February	29.38	29.80	29.04	16.9	23.8	28.5	13.8	21.2	44	— 8	14	19	87	82	.087	.108	1.09	.35	5.9	6.5	6.3
March	29.38	29.76	28.84	29.4	35.8	42.5	27.8	35.2	56	15	25	28	84	73	.140	.158	2.96	.75	6.4	4.9	5.5
April	29.40	29.80	29.00	36.9	46.1	52.5	34.3	43.4	73	16	30	34	76	64	.171	.199	2.57	1.40	4.9	4.7	4.8
May	29.27	29.66	28.84	49.7	59.5	65.5	45.2	55.4	81	35	42	46	77	62	.283	.320	3.13	.71	4.6	5.4	4.8
June	29.30	29.72	28.66	61.7	68.7	75.8	54.8	65.3	90	44	55	56	80	66	.444	.470	3.60	1.17	5.5	4.6	5.2
July	29.36	29.62	28.97	65.7	73.5	81.6	59.5	70.6	92	46	57	59	74	61	.479	.504	3.16	1.35	2.8	4.1	3.7
August	29.30	29.55	28.98	61.6	70.2	76.7	58.0	67.4	93	48	57	61	85	72	.471	.544	2.65	.90	4.6	4.3	5.2
September	29.32	29.97	28.91	56.7	65.2	73.4	54.0	63.7	94	40	51	53	82	66	.393	.419	3.07	1.50	4.2	4.2	4.5
October	29.33	29.76	28.93	43.6	48.3	53.8	40.6	47.2	77	19	39	41	84	77	.256	.272	4.04	1.31	7.3	7.6	7.8
November	29.30	29.80	28.77	30.1	35.6	41.8	27.4	34.6	66	2	25	28	81	72	.148	.159	.87	.36	6.0	5.7	6.0
December	29.33	30.01	28.71	12.9	19.3	25.6	9.3	17.4	42	—11	9	13	83	75	.069	.084	.74	.42	4.0	3.2	4.6
Year	29.33	30.01	28.66	40.3	47.4	53.9	36.6	45.2	94	—11	35	38	82	71	.252	.278	29.08	1.50	5.1	5.1	5.4

HANNIBAL, MO.[1]

[λ=39° 41′ N.; φ=91° 20′ W.; gravity corr., —0.02.]

January	29.48	29.98	28.69	27.5	.....	40.1	24.3	32.2	56	6	24	....	87	....	.137	.....	3.64	1.00	5.6	.....	5.2
February	29.54	30.03	29.12	27.9	.....	42.6	25.5	34.0	63	2	22	....	77	....	.126	.....	1.60	.60	5.6	.....	5.3
March	29.51	29.94	29.08	38.8	.....	54.1	34.3	44.2	69	21	33	....	79	....	.203	.....	6.41	3.62	5.8	.....	5.6
April	29.52	29.95	29.08	46.0	.....	60.6	42.8	51.7	82	26	37	....	72	....	.228	.....	3.48	1.22	5.1	.....	5.1
May	29.37	29.59	29.10	58.9	.....	72.9	54.9	63.9	89	42	52	....	80	....	.405	.....	6.90	1.17	6.5	.....	4.9
June	29.43	29.59	29.05	71.4	.....	84.4	66.2	75.3	91	55	65	....	80	....	.616	.....	4.83	1.17	4.7	.....	3.8
July	29.49	29.69	29.28	71.5	.....	84.8	67.5	76.2	96	53	64	....	76	....	.599	.....	4.20	1.86	4.5	.....	2.9
August	29.44	29.59	29.27	69.6	.....	85.2	66.5	75.8	96	56	64	....	83	....	.608	.....	1.05	.38	4.8	.....	3.2
September	29.46	29.91	29.12	64.6	.....	80.3	61.9	71.1	95	48	60	....	86	....	.536	.....	8.86	2.30	4.8	.....	3.7
October	29.47	29.81	28.87	48.5	.....	60.4	45.8	53.1	83	28	44	....	83	....	.310	.....	2.94	1.22	6.8	.....	6.4
November	29.51	29.88	28.89	34.0	.....	42.4	30.6	39.5	73	4	27	....	76	....	.157	.....	2.58	.86	4.8	.....	3.8
December	29.57	30.32	28.96	22.6	.....	35.3	20.1	27.7	61	— 1	18	....	84	....	.110	.....	1.12	.60	4.6	.....	4.5
Year	[1]29.48	30.32	28.69	48.4	.....	62.4	45.0	53.7	96	— 1	42	....	80	....	.336	.....	47.61	3.62	5.3	.....	4.5

HARRISBURG, PA.

[λ=40° 16′ N.; φ=76° 52′ W.; gravity corr., —0.01.]

January	29.64	30.14	29.02	30.7	32.9	37.8	27.7	32.8	54	12	23	23	72	68	.127	.129	3.23	0.65	7.6	6.9	7.1
February	29.71	30.18	28.96	27.1	33.1	38.0	25.5	31.8	57	6	20	22	73	63	.116	.126	1.60	.83	4.9	4.1	5.4
March	29.81	30.25	29.39	41.5	49.0	54.2	39.3	46.8	76	26	35	35	78	61	.214	.219	3.04	.72	7.3	6.4	6.8
April	29.59	29.89	29.10	44.8	50.8	56.3	41.0	48.6	74	22	32	32	62	52	.190	.196	1.95	.65	5.8	5.9	6.6
May	29.55	29.88	29.12	58.1	63.6	70.1	53.4	61.8	86	41	50	51	75	66	.371	.387	6.13	1.56	6.6	6.9	6.5
June	[2]29.65	29.90	29.28	68.5	.....	81.5	62.5	72.0	95	53	57	....	67	....	.472	.....	1.98	1.09	4.8	.....	5.0
July	[2]29.69	29.96	29.43	74.1	.....	86.8	68.1	77.4	101	53	63	....	70	....	.593	.....	5.07	2.25	5.2	.....	5.2
August	[2]29.65	29.86	29.46	70.2	.....	82.5	65.9	74.2	92	54	64	....	82	....	.612	.....	8.44	2.82	6.4	.....	5.5
September	[2]29.71	30.02	29.38	63.9	.....	78.2	58.6	68.4	94	46	57	....	80	....	.491	.....	2.08	1.36	4.1	.....	4.2
October	[2]29.74	30.04	29.06	52.4	.....	63.1	48.5	55.8	79	33	46	....	80	....	.339	.....	5.26	1.40	5.3	.....	5.5
November	[2]29.73	30.15	29.11	38.2	.....	49.0	35.9	42.4	65	25	31	....	75	....	.178	.....	3.15	.90	7.2	.....	6.4
December	[2]29.69	30.14	28.84	28.7	.....	38.1	25.5	31.8	57	11	21	....	72	....	.115	.....	3.16	.92	4.9	.....	5.5
Year	29.69	30.25	28.84	49.8	.....	61.3	46.0	53.6	101	6	42	....	74	....	.318	.....	45.09	2.82	5.8	.....	5.8

HATTERAS, N. C.

[λ=35° 15′ N.; φ=75° 40′ W.; gravity corr., —0.03.]

January	30.09	30.38	29.64	48.2	49.3	53.8	43.3	48.6	70	25	44	45	85	86	.310	.321	2.21	0.89	4.2	3.1	4.8
February	30.13	30.58	29.50	42.1	45.2	49.9	39.4	44.6	66	22	37	40	82	84	.230	.266	1.75	.86	3.5	3.4	4.2
March	30.18	30.49	29.60	55.2	54.9	61.0	50.6	55.8	71	36	51	51	88	88	.396	.395	2.45	1.22	4.9	4.2	5.4
April	29.99	30.31	29.43	55.8	56.2	62.0	51.9	57.0	73	38	50	51	81	82	.379	.385	4.39	2.08	4.6	4.4	4.1
May	29.96	30.20	29.45	65.7	65.7	71.0	61.1	66.0	85	48	64	64	95	93	.615	.662	1.79	.74	4.5	4.5	4.2
June	30.04	30.21	29.76	71.7	71.0	76.5	67.9	72.2	84	56	69	68	92	92	.731	.706	3.27	.87	4.0	4.1	4.5
July	30.06	30.30	29.79	78.6	78.2	82.8	74.4	78.6	86	67	74	74	87	87	.849	.839	4.36	1.04	4.4	5.2	4.9
August	30.08	30.21	29.93	78.9	78.9	83.6	74.8	79.2	87	69	74	74	86	86	.842	.846	6.48	1.46	4.8	4.7	4.7
September	30.08	30.27	29.87	75.7	74.8	80.2	72.2	76.2	86	67	70	69	82	82	.733	.712	1.59	.83	3.5	3.0	3.2
October	30.10	30.44	29.62	67.7	67.5	72.2	63.2	67.7	84	48	61	60	79	79	.566	.554	12.45	3.82	4.6	4.9	4.8
November	30.14	30.47	29.39	53.6	54.8	60.0	49.4	54.7	74	31	47	49	80	80	.350	.365	4.08	1.52	4.6	4.7	5.1
December	30.14	30.64	29.52	45.4	48.3	53.0	42.2	47.6	68	28	40	43	81	82	.262	.292	3.38	1.59	4.6	4.3	5.2
Year	30.08	30.64	29.39	61.6	62.1	67.2	57.5	62.4	87	22	57	57	85	85	.522	.524	48.20	3.82	4.4	4.2	4.6

[1] One observation daily.

[2] From 8 a. m. observation.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

GREEN BAY, WIS.

[H=617 ft.; h_t=49 ft.; h_r=41 ft.; h_a=57 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	8.1	S.	33	N.	0	12	0	2	1	21	11	6	9	0	7	12	12	7	4	7	0	2	19	0	31	0	0
February	9.5	SW.	36	N.	0	12	4	2	2	9	13	6	7	1	5	13	10	15	8	11	0	1	20	0	28	0	0
March	9.1	S.	37	SW.	0	8	5	2	8	17	9	8	5	0	10	12	9	11	9	5	0	2	4	0	19	1	1
April	8.4	N.	29	N.	0	18	11	2	12	7	3	3	4	0	10	12	8	9	6	2	0	0	1	0	8	1	0
May	7.9	N.	25	N.	0	14	8	6	9	9	5	3	6	2	13	13	5	10	7	0	0	0	0	0	0	5	0
June	7.1	N.	30	S.	0	12	7	6	10	8	9	5	3	0	10	11	9	11	10	0	0	0	0	0	0	4	0
July	6.5	S.	48	SW.	1	4	5	13	8	17	8	2	4	1	19	8	4	10	10	0	0	0	0	5	0	5	0
August	5.8	SW.	24	SW.	0	10	7	6	9	9	10	3	5	3	8	16	7	10	6	0	0	1	0	1	0	3	0
September	7.1	W.	32	S.	0	3	3	4	8	12	11	16	2	1	13	9	8	7	5	0	1	0	0	1	0	3	1
October	9.2	SE.	36	N.	0	9	3	3	17	6	8	5	11	0	2	11	18	15	11	2	0	0	1	0	4	0	0
November	9.4	S.	30	W.	0	3	2	1	7	18	8	16	4	1	7	10	13	10	4	6	0	0	6	0	20	1	0
December	8.7	SW.	31	W.	0	3	3	0	0	9	25	10	12	0	14	11	6	7	6	6	0	0	23	0	31	0	0
Year	8.1	S.	48	SW.	1	108	58	47	91	142	120	83	72	9	118	138	109	122	86	39	1	6	74	7	141	23	2

HANNIBAL, MO.

[H=534 ft.; h_t=75 ft.; h_r=68 ft.; h_a=107 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.4	SW.	39	NE.	0	2	3	5	4	1	6	4	5	1	14	5	12	11	10	6	1	2	4	0	24	3	0
February	11.2	NW.	36	S.	0	4	1	3	2	5	2	3	8	0	11	5	12	11	5	3	0	2	4	0	24	1	0
March	9.9	SE.	40	SW.	1	3	3	2	7	6	3	3	3	1	11	6	14	11	10	2	1	1	0	0	14	5	0
April	10.5	NW.	42	NW.	1	2	3	1	2	6	6	3	7	0	11	10	9	11	8	0	0	0	0	0	3	2	0
May	9.2	SW.	37	S.	0	4	3	3	2	5	9	1	4	0	10	13	8	18	16	0	0	0	0	0	0	12	0
June	7.5	SW.	40	W.	1	3	2	5	4	5	7	4	0	0	15	11	4	14	11	0	0	0	0	3	0	9	0
July	7.2	SW.	42	W.	1	4	5	5	2	4	8	0	2	1	23	4	4	7	6	0	0	0	0	7	0	8	0
August	7.4	SW.	25	S.	0	0	2	3	5	4	10	2	4	1	18	11	2	8	6	0	0	0	0	0	0	6	0
September	8.8	SW.	38	N.	0	2	3	3	2	6	10	4	0	0	16	8	6	12	11	0	2	1	0	4	0	12	0
October	10.1	S.	38	S.	0	4	2	3	2	6	4	5	5	0	9	6	16	10	8	2	1	0	0	0	4	3	0
November	10.5	SW.	44	S.	2	1	1	4	4	3	7	4	5	1	20	2	8	10	6	5	1	0	5	0	15	2	0
December	10.9	SW.	32	SW.	0	2	3	0	1	2	12	3	7	1	17	4	10	5	4	3	0	2	8	0	27	0	0
Year	9.4	SW.	44	S.	6	31	31	37	37	53	84	36	50	6	175	85	105	128	101	21	6	8	21	23	111	63	0

HARRISBURG, PA.

[H=377 ft.; h_t=94 ft.; h_r=87 ft.; h_a=104 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.3	W.	52	W.	1	1	5	16	2	6	7	10	15	0	5	9	17	13	12	7	0	0	8	0	17	0	0
February	8.8	W.	48	NW.	2	8	9	7	2	2	3	14	11	0	11	9	8	8	5	4	0	0	5	0	20	0	0
March	7.7	E.	33	W.	0	6	6	17	10	7	3	5	8	0	6	7	18	14	12	1	0	1	0	0	5	0	0
April	9.2	W.	36	W.	0	11	9	4	5	2	6	12	11	0	6	12	12	14	11	3	0	0	0	0	5	2	0
May	6.2	E.	26	NW.	0	9	11	15	8	3	3	6	7	0	6	10	15	16	14	0	1	0	0	0	0	6	0
June	6.2	W.	34	W.	0	2	3	2	3	3	2	9	6	0	10	12	8	9	6	0	1	1	0	2	0	6	0
July	5.6	SE.	22	NW.	0	6	4	3	2	3	1	9	3	0	11	11	9	9	7	0	0	0	0	11	0	9	0
August	4.9	W.	25	NW.	0	1	3	2	1	2	6	10	6	0	10	11	10	13	11	0	0	1	0	3	0	8	0
September	5.6	SW.	30	NW.	0	2	3	5	2	0	6	8	4	0	12	12	6	9	5	0	0	0	0	3	0	3	0
October	7.9	E.	39	E.	0	2	3	9	2	2	0	8	5	0	8	11	12	11	10	0	0	2	0	0	0	0	0
November	8.6	W.	42	W.	1	3	1	5	2	2	0	10	7	0	6	9	15	12	10	4	0	0	1	0	9	0	0
December	8.8	W.	44	E.	2	0	1	4	2	2	6	10	6	0	13	7	11	10	9	4	0	2	6	0	25	0	0
Year	7.4	W.	52	W.	6	51	58	89	41	34	43	111	89	0	104	120	141	138	112	23	2	7	20	19	81	34	0

HATTERAS, N. C.

[H=11 ft.; h_t=17 ft.; h_r=2 ft.; h_a=36 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	15.6	N.	48	W.	2	14	10	2	1	8	7	12	8	0	14	9	8	11	9	0	0	2	1	0	2	0	0
February	14.9	N.	52	W.	3	23	6	3	3	3	4	9	5	0	17	4	7	7	6	0	0	2	0	0	4	0	0
March	14.2	N.	39	N.	0	27	8	5	2	12	6	1	1	0	14	6	11	12	7	0	0	1	0	0	0	2	0
April	16.1	N.	76	N.	4	13	8	0	2	8	12	6	11	0	13	11	6	8	8	0	0	0	0	0	0	0	0
May	12.2	S.	56	NW.	2	10	9	4	7	18	3	7	4	0	14	14	3	12	11	0	1	1	0	0	0	4	0
June	13.5	S.	42	N.	1	14	10	4	0	22	5	1	4	0	16	6	8	8	8	0	0	2	0	0	0	5	0
July	10.9	S.	34	NW.	0	11	5	5	6	21	10	3	1	0	12	14	5	11	11	0	0	1	0	0	0	4	0
August	9.8	S.	32	SW.	0	3	1	7	7	23	17	4	0	0	13	11	7	16	16	0	0	0	0	0	0	8	0
September	13.4	N.	36	N.	0	26	8	3	2	15	3	3	0	0	18	9	3	5	5	0	0	0	0	0	0	0	0
October	15.5	N.	48	SE.	1	19	5	8	6	8	2	4	10	0	13	9	9	19	17	0	0	0	0	0	0	0	0
November	15.4	N.	56	NW.	6	17	6	1	1	7	1	12	15	0	12	7	11	12	11	0	0	1	0	0	1	0	0
December	13.4	N.	38	N.	0	18	0	2	2	8	10	14	8	0	11	11	9	11	11	0	0	1	0	0	3	0	0
Year	13.7	N.	76	N.	19	195	76	44	39	153	80	76	67	0	167	111	87	132	120	0	1	11	1	0	10	23	0

a By eye observations at 8 a. m. and 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

HAVRE, MONT.

[λ = 48° 34′ N.; φ = 109° 40′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m. b	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	27.25	27.72	26.86	17.2	24.9	31.7	11.6	21.6	41	—14	14	19	86	76	.083	.101	0.17	0.13	4.4	4.0	4.6
February	27.30	28.00	26.80	15.6	25.6	34.3	11.2	22.8	58	—12	12	18	87	74	.086	.101	.14	.06	5.1	5.8	5.5
March	27.33	27.72	26.88	15.4	22.8	27.4	10.3	18.8	53	—20	12	18	87	79	.087	.104	1.06	.40	5.7	5.8	5.8
April	27.35	27.77	26.90	33.1	49.5	53.2	31.4	42.3	83	— 2	29	30	84	53	.162	.171	1.50	.78	5.7	6.1	5.1
May	27.30	27.70	26.91	43.4	30.7	62.6	41.3	52.0	76	29	37	35	79	42	.225	.207	1.06	.44	5.6	5.8	5.0
June	27.29	27.72	26.94	52.6	69.5	72.0	50.2	61.1	94	38	44	43	76	41	.303	.285	1.81	.89	5.2	4.8	4.4
July	27.31	27.61	26.87	57.6	77.6	80.6	55.0	67.8	98	44	49	45	75	35	.352	.306	2.57	1.18	3.5	4.3	3.8
August	27.30	27.54	26.93	56.2	82.3	85.4	54.8	70.1	97	43	46	45	72	30	.318	.311	.10	.04	2.7	2.7	2.6
September	27.28	27.77	26.91	45.5	67.7	72.4	43.0	57.7	90	32	38	39	75	38	.230	.248	1.06	.50	3.8	5.0	4.1
October	27.39	27.80	26.84	30.7	39.9	46.5	27.0	36.8	69	9	26	32	84	74	.143	.180	2.16	1.02	5.9	5.2	5.8
November	27.24	27.72	26.80	24.1	29.0	37.2	19.4	28.3	59	— 7	18	21	78	74	.106	.121	.24	.13	5.9	5.9	5.3
December	27.40	28.06	26.71	20.0	22.8	31.2	12.6	21.9	55	—22	14	16	79	77	.093	.097	.24	.10	5.4	4.6	5.0
Year	27.31	28.06	26.71	34.3	47.7	52.9	30.6	41.8	98	—22	28	30	80	58	.182	.186	12.11	1.18	4.9	5.0	4.8

HELENA, MONT.

[λ = 46° 34′ N.; φ = 112° 4′ W.; gravity corr., 0.00.]

January	25.80	26.27	25.50	20.9	25.7	29.9	16.4	23.2	41	— 1	13	17	69	68	.078	.092	0.20	0.10	4.5	7.4	5.4
February	25.80	26.31	25.38	29.0	37.5	42.8	25.5	34.2	55	— 1	18	20	64	48	.102	.109	.52	.34	5.2	6.8	5.1
March	25.78	26.15	25.35	19.6	27.2	32.2	14.5	23.4	58	—16	13	16	76	62	.084	.092	2.39	.78	6.5	6.9	5.8
April	25.86	26.24	25.39	36.4	51.9	55.8	34.9	45.4	80	14	25	23	63	35	.134	.122	.56	.28	4.8	5.0	4.1
May	25.79	26.11	25.45	43.0	54.1	57.5	41.3	49.4	77	30	34	32	72	48	.201	.187	4.88	1.51	7.6	8.1	6.5
June	25.84	26.25	25.59	50.2	64.2	68.7	48.3	58.5	88	37	40	38	69	42	.251	.234	3.52	1.14	4.6	6.4	4.3
July	25.88	26.13	25.45	54.9	75.3	77.6	53.1	65.4	90	36	41	38	62	28	.265	.238	1.71	1.28	1.9	4.4	3.0
August	25.86	26.06	25.58	56.4	79.9	82.4	55.6	69.0	93	46	40	36	56	24	.249	.214	.71	.39	2.6	4.3	3.4
September	25.85	26.27	25.47	47.3	64.7	68.5	44.9	56.7	87	32	34	32	62	32	.198	.182	.87	.35	3.4	4.3	4.3
October	25.92	26.25	25.54	35.7	43.9	49.1	32.5	40.8	65	21	26	27	68	52	.138	.143	1.10	.37	5.1	4.7	5.8
November	25.79	26.13	25.46	27.0	30.1	35.9	22.3	29.1	51	—10	16	17	63	56	.092	.094	.66	.29	5.1	6.4	6.9
December	25.96	26.41	25.47	19.2	22.0	28.0	13.4	20.7	54	—12	12	11	75	61	.091	.079	.28	.10	4.6	4.8	5.6
Year	25.84	26.41	25.35	36.6	48.0	52.4	33.6	43.0	93	—16	26	26	67	46	.157	.149	17.40	1.51	4.7	5.8	5.0

HURON, S. DAK.

[λ = 44° 21′ N.; φ = 98° 14′ W.; gravity corr., 0.00.]

January	28.61	29.17	28.12	15.9	26.7	34.4	12.2	23.3	47	— 2	14	20	90	75	.081	.110	0.01	0.01	3.0	2.5	4.1
February	28.67	29.26	27.97	12.4	26.2	34.5	10.2	22.4	54	— 9	10	19	90	72	.072	.105	.22	.16	4.1	4.6	4.1
March	28.60	29.10	27.73	21.1	34.9	42.0	18.6	30.3	67	— 4	17	22	84	60	.099	.122	.84	.37	4.9	4.3	5.1
April	28.65	29.07	28.21	34.6	52.4	58.7	32.0	45.4	86	15	29	28	81	42	.166	.161	2.89	2.14	3.4	5.4	5.4
May	28.54	28.92	27.93	48.4	61.5	66.2	44.4	55.3	85	34	43	44	81	56	.288	.306	2.90	1.16	5.9	5.4	6.4
June	28.53	28.86	28.18	60.2	74.2	79.6	55.3	67.4	90	44	54	56	80	57	.428	.476	1.81	.91	4.2	4.1	4.8
July	28.57	28.85	28.13	63.3	76.6	83.2	58.9	71.0	92	45	57	58	82	55	.478	.499	3.83	.94	3.8	3.9	4.5
August	28.54	28.79	28.25	59.1	80.5	85.9	56.6	71.2	102	46	54	54	83	43	.421	.435	.46	.41	2.3	2.2	3.7
September	28.56	29.24	28.16	49.7	68.3	77.6	46.9	62.2	100	29	43	41	78	42	.291	.271	1.31	.82	3.3	3.3	3.8
October	28.62	29.14	28.03	35.6	45.5	52.4	32.5	42.4	81	17	30	32	82	62	.178	.188	1.01	.55	5.3	5.5	5.6
November	28.58	29.13	28.02	19.1	29.5	39.3	14.2	26.8	68	—11	13	18	77	62	.088	.102	.23	.10	3.6	3.2	4.7
December	28.69	29.47	28.02	11.1	18.9	29.2	6.1	17.6	58	—20	8	13	86	77	.067	.083	.11	.04	3.5	2.7	4.5
Year	28.60	29.47	27.73	35.9	49.6	56.0	32.3	44.6	102	—20	31	34	83	59	.221	.238	15.62	2.14	3.9	3.9	4.7

IDAHO FALLS, IDAHO.

[λ = 43° 29′ N.; φ = 112° 4′ W.; gravity corr., — 0.01.]

January	25.29	25.73	24.82	2.2	12.1	19.5	—2.7	8.4	36	—33	—1	9	85	66	.046	.069	1.76	0.46	4.6	6.5	5.8
February	25.30	25.68	24.78	20.7	29.8	34.0	14.6	24.3	45	0	18	26	86	86	.101	.143	.34	.07	5.5	8.3	5.8
March	25.15	25.49	24.73	23.0	33.7	38.4	20.0	29.2	56	— 3	21	29	89	83	.112	.161	1.33	.46	6.8	6.4	5.4
April	25.23	25.63	24.69	33.4	57.6	62.6	31.9	47.2	79	21	27	32	78	42	.148	.190	.19	.07	5.5	5.3	3.2
May	25.13	25.38	24.83	40.4	58.5	63.2	38.5	50.8	78	28	34	38	79	50	.198	.238	1.74	.55	7.9	8.1	6.4
June	25.21	25.56	24.89	47.7	71.1	76.8	45.1	61.0	91	32	38	39	71	36	.235	.254	1.33	.54	4.2	6.7	4.7
July	25.26	25.45	24.98	53.3	80.9	85.8	50.4	68.1	95	36	40	34	63	24	.261	.281	.93	.81	2.5	3.8	2.5
August	25.25	25.41	24.97	53.0	83.0	87.9	51.3	69.6	95	41	42	45	68	29	.277	.320	.34	.33	3.5	4.1	2.8
September	25.24	25.56	24.86	40.0	70.5	74.6	38.5	56.6	91	29	29	35	65	34	.162	.257	.03	.03	1.2	2.8	1.9
October	25.33	25.68	24.88	29.4	48.0	54.1	27.7	40.9	68	14	23	26	76	44	.126	.143	.49	.29	4.8	5.2	5.1
November	25.25	25.56	24.76	21.0	31.6	37.4	16.0	26.7	61	—11	17	25	84	77	.104	.135	1.34	.31	4.7	6.5	6.5
December	25.44	25.82	24.89	7.5	15.0	22.0	2.8	12.4	39	—19	6	12	91	87	.062	.079	.76	.52	5.3	6.1	6.8
Year	25.26	25.82	24.69	31.0	49.3	54.7	27.8	41.3	95	—33	24	29	78	56	.153	.184	10.58	.81	4.7	5.8	4.7

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

HAVRE, MONT.

[H = 2,494 ft.; h_t = 46 ft.; h_r = 38 ft.; h_a = 47 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.7	SW.	39	SW.	0	1	8	2	0	0	29	18	2	2	12	13	6	5	2	5	0	1	13	0	31	0	2
February	10.7	SW.	36	SW.	0	1	16	1	0	0	14	14	6	4	9	10	9	7	1	6	0	0	11	0	27	0	2
March	11.3	NE.	42	NW.	3	4	15	6	0	0	13	10	9	5	9	14	8	10	6	10	0	1	17	0	31	0	0
April	11.7	W	48	W.	1	3	13	13	0	0	10	19	4	1	11	12	7	10	6	2	0	1	1	0	10	0	0
May	11.9	E.	52	E.	3	3	13	20	4	2	12	4	3	1	10	15	6	8	5	0	0	0	0	0	3	0	2
June	10.6	SW.	52	SW.	3	2	9	10	4	1	14	11	6	3	12	13	5	12	9	0	1	1	0	2	0	6	1
July	10.4	SW.	49	SW.	4	8	7	9	0	2	20	9	3	4	22	5	4	7	6	0	0	0	0	6	0	4	4
August	8.0	W.	60	SW.	3	3	9	12	0	2	4	11	15	6	21	7	3	3	1	0	0	1	0	11	0	5	2
September	9.3	W.	42	NW.	1	6	7	2	1	0	18	16	8	2	15	11	4	8	5	0	0	0	0	1	0	2	4
October	8.7	W.	37	NW.	0	5	8	5	1	3	14	16	7	3	8	13	10	9	8	6	0	3	3	0	19	0	1
November	12.9	SW.	52	NW.	2	2	11	1	0	0	27	15	4	0	8	16	6	7	2	7	0	0	6	0	24	0	3
December	13.1	SW.	50	SW.	4	1	6	4	2	0	27	16	4	2	11	14	6	6	3	6	0	1	13	0	29	0	2
Year	10.8	SW.	60	SW.	24	39	122	82	12	10	202	159	71	33	148	143	74	92	54	42	1	9	64	20	174	17	23

HELENA, MONT.

[H = 4,108 ft.; h_t = 88 ft.; h_r = 30 ft.; h_a = 93 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.5	SW.	34	SW.	0	5	1	0	1	1	39	9	6	0	9	12	10	5	3	5	0	0	19	0	31	0	0
February	9.2	SW.	50	SW.	2	1	5	0	0	6	33	4	7	0	7	15	6	6	4	3	0	0	4	0	21	0	0
March	7.0	SW.	40	SW.	1	9	4	3	1	1	24	14	6	0	10	7	14	15	11	14	0	0	16	0	29	0	1
April	8.7	SW.	38	SW.	0	8	2	1	1	0	34	7	7	0	15	9	6	7	5	3	0	0	0	0	8	0	0
May	7.5	SW.	36	SW.	0	12	6	2	2	0	25	12	3	0	5	11	15	17	15	1	0	0	0	0	2	6	0
June	7.7	SW.	36	SW.	0	6	3	5	1	1	27	15	2	0	13	9	8	14	12	0	3	0	0	0	0	12	0
July	8.0	SW.	39	SW.	0	5	8	3	0	1	32	9	4	0	21	8	2	7	3	0	1	0	0	0	0	5	0
August	6.5	SW.	27	NW.	0	3	7	5	1	1	33	8	4	0	18	9	4	5	3	0	1	0	0	3	0	8	0
September	7.5	SW.	32	SW.	0	3	9	5	1	2	29	10	1	0	15	6	9	8	5	0	0	0	0	0	1	0	4
October	7.2	SW.	37	SW.	0	4	1	1	0	0	37	10	7	2	8	11	12	8	7	4	1	0	2	0	15	0	0
November	7.9	SW.	45	SW.	2	6	0	0	1	4	30	11	7	1	3	10	17	10	3	6	0	0	7	0	23	0	0
December	7.6	SW.	36	SW.	0	5	2	4	3	4	23	16	3	2	8	10	13	7	2	6	0	0	18	0	29	0	0
Year	7.6	SW.	50	SW.	5	67	48	29	12	21	366	125	57	5	132	117	116	109	73	42	6	0	66	3	159	31	5

HURON, S. DAK.

[H = 1,306 ft.; h_t = 56 ft.; h_r = 52 ft.; h_a = 67 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	0.7	SE.	38	NW.	0	8	5	2	16	4	7	7	12	1	17	10	4	1	0	1	0	1	8	0	31	0	1
February	13.0	NW.	39	NW.	0	14	2	2	18	3	3	2	11	1	11	15	2	5	1	5	0	0	12	0	28	0	2
March	13.4	NW.	51	SE.	2	14	5	2	10	8	4	7	10	2	13	12	6	6	4	5	0	0	7	0	29	1	3
April	14.8	NW.	60	S.	4	11	9	6	10	8	1	5	10	0	12	10	8	10	5	0	0	1	0	0	17	0	0
May	11.5	N.	54	SE.	1	11	12	12	5	6	2	3	11	0	7	11	13	11	6	0	0	1	0	0	0	2	0
June	11.0	SE.	48	S.	2	7	4	5	16	8	1	7	12	0	10	16	4	8	6	0	1	1	0	4	0	6	0
July	11.8	S.	58	S.	3	10	3	3	15	21	1	3	6	0	11	17	3	14	9	0	2	0	0	7	0	12	0
August	10.0	SE.	38	S.	0	7	4	7	13	14	1	4	12	0	20	9	2	4	1	0	1	0	0	8	0	2	0
September	11.5	SE.	44	S.	1	5	6	7	12	11	0	6	12	1	17	10	3	7	5	0	0	0	0	4	2	2	0
October	13.5	NW.	56	S.	4	6	2	4	17	2	0	6	22	3	12	8	11	6	5	4	0	0	1	0	14	1	0
November	12.9	NW.	45	NW.	1	6	0	1	16	8	0	10	19	0	10	16	4	4	2	2	0	2	7	0	28	0	0
December	10.7	NW.	40	NW.	1	5	0	0	14	4	4	14	20	1	11	14	6	6	1	5	0	1	16	0	31	0	0
Year	12.0	SE.	60	S.	19	104	52	51	162	97	24	74	157	9	151	148	66	82	45	22	4	7	51	23	180	26	6

IDAHO FALLS, IDAHO.

[H = 4,742 ft.; h_t = 10 ft.; h_r = 1 ft.; h_a = 56 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.5	N.	37	SW.	0	31	1	0	1	11	4	2	12	0	12	3	16	15	10	15	0	2	27	0	31	0	0
February	10.1	S.	46	S.	1	17	1	2	1	21	6	4	3	1	9	9	10	8	4	8	0	0	10	0	26	0	0
March	11.8	S.	43	SW.	1	18	2	0	3	23	9	4	3	0	12	7	12	11	8	11	0	0	2	0	31	0	3
April	11.7	S.	51	SW.	2	13	1	2	6	21	8	3	5	1	20	5	5	5	2	2	0	0	0	0	14	0	0
May	11.5	S.	44	SW.	3	9	4	3	1	28	7	4	5	1	7	6	18	11	8	1	0	0	0	0	6	3	0
June	10.7	S.	46	SW.	2	20	1	1	2	27	5	1	3	0	14	4	12	7	5	0	3	0	0	3	1	6	0
July	11.6	S.	44	SE.	5	15	0	3	6	16	12	4	6	0	23	6	2	3	2	0	0	0	0	10	0	4	0
August	8.8	N.	42	N.	1	26	3	5	3	11	7	2	4	1	23	3	5	3	2	0	0	0	0	13	0	0	0
September	10.8	S.	40	S.	1	18	1	0	0	26	12	0	2	1	24	1	5	1	0	0	0	0	0	1	5	0	0
October	9.0	S.	40	S.	1	14	1	1	1	22	13	4	5	1	11	12	8	4	3	2	0	0	0	0	23	0	0
November	9.8	S.	46	SW.	1	10	0	0	4	30	9	2	5	0	9	4	17	12	9	10	0	0	9	0	26	0	0
December	7.8	N.	42	S.	1	30	1	3	0	20	2	1	5	0	9	4	18	9	3	9	0		28	0	31	0	0
Year	10.0	S.	51	SW.	19	221	16	20	28	256	94	31	58	6	173	64	128	89	55	58	3	2	76	27	194	13	3

a By eye observations at 8 p. m. when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued

INDEPENDENCE, CAL.

[λ = 36° 48′ N.; φ = 118° 12′ W.: gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	[1]25.93	[1]26.26	[1]25.56	[2]35.4	[2]52.7	[2]55.8	[2]32.1	[2]44.0	[2]67	[2]19	[2]19	[2]14	[2]52	[2]22	[2].104	[2].085	[2]0.00	[2]0.00	[2]1.2	[2]2.5	[2]2.1
April	25.95	26.30	25.44	52.7	72.3	75.2	48.7	62.0	87	34	22	17	30	14	.119	.098	.16	.12	1.4	2.5	2.5
May	25.85	26.11	25.56	52.4	71.8	74.3	49.9	62.1	84	41	27	20	40	16	.147	.112	.23	.18	2.0	4.1	3.1
June	25.90	26.20	25.65	64.0	85.1	87.7	60.6	74.2	99	38	25	20	24	10	.140	.113	T.	T.	0.5	[2]1.9	1.3
July	25.96	26.09	25.78	69.9	92.0	93.9	66.9	80.4	105	49	29	22	24	10	.170	.142	T.	T.	0.9	2.3	1.5
August	25.94	26.14	25.63	70.8	91.4	93.2	67.0	80.1	104	54	30	24	24	11	.179	.146	.11	.10	0.4	1.9	1.4
September	25.93	26.11	25.64	62.2	83.3	85.9	58.0	72.0	94	48	22	14	24	11	.125	.098	.20	.20	0.9	1.0	0.9
October	26.03	26.33	25.73	50.8	69.1	73.4	46.7	60.0	83	36	18	12	28	11	.103	.081	.00	.00	0.7	1.3	0.8
November	26.03	26.29	25.52	40.5	53.9	60.8	35.5	48.2	81	24	16	9	36	19	.092	.074	.10	.06	0.7	2.0	1.4
December	26.15	26.51	25.84	33.4	44.8	50.9	28.5	39.7	68	19	14	9	44	26	.081	.075	.20	.20	2.0	3.3	2.6
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

INDIANAPOLIS, IND.

[λ = 39° 46′ N.; φ = 86° 10′ W.; gravity corr., —0.02.]

January	29.15	29.54	28.41	30.6	34.6	40.3	27.4	33.8	67	5	25	29	79	79	.144	.162	4.93	1.43	7.0	5.5	6.9
February	29.22	29.54	28.68	28.4	34.8	39.4	25.1	32.2	68	— 4	22	30	77	82	.130	.177	1.47	.48	7.8	7.0	6.6
March	29.24	29.57	28.74	40.3	49.6	54.5	38.3	46.4	72	23	34	38	78	67	.204	.255	9.90	2.71	6.9	6.3	6.4
April	29.17	29.56	28.68	44.9	54.9	59.7	40.9	50.3	76	20	34	38	66	56	.204	.231	1.73	.80	4.7	5.8	5.7
May	29.09	29.30	28.81	58.3	67.2	72.5	54.5	63.5	84	40	50	50	76	56	.378	.375	2.59	.63	5.4	5.5	5.8
June	29.15	29.34	28.79	68.5	78.4	83.7	63.6	73.6	91	54	59	60	72	56	.508	.537	1.77	.51	4.6	5.1	5.0
July	29.18	29.40	28.97	72.1	81.2	87.1	66.7	76.9	95	54	62	60	72	51	.571	.536	5.52	2.89	4.1	3.7	4.5
August	29.15	29.33	28.98	68.9	78.0	83.5	65.7	74.6	93	59	63	64	81	63	.577	.605	2.63	1.08	4.6	5.5	5.8
September	29.19	29.58	28.82	63.7	72.7	79.7	60.6	70.2	93	47	58	60	82	66	.498	.532	4.23	1.30	3.9	4.1	5.1
October	29.18	29.43	28.80	49.2	54.5	60.7	46.0	53.4	84	27	43	47	80	77	.308	.348	4.86	1.67	6.9	5.9	7.1
November	29.21	29.54	28.71	34.3	41.8	47.4	31.9	39.6	69	3	29	30	81	63	.178	.170	2.39	.97	5.6	5.8	6.5
December	29.20	29.87	28.58	26.1	30.3	36.6	22.0	29.3	60	— 2	21	24	79	76	.122	.134	2.08	1.09	5.7	5.0	6.1
Year	29.18	29.87	28.41	48.8	56.5	62.1	45.2	53.6	95	— 4	42	44	77	66	.318	.338	44.10	2.89	5.6	5.4	6.0

JACKSONVILLE, FLA.

[λ=30° 20′ N.; φ=81° 39′ W.; gravity corr., — 0.04.]

January	30.12	30.41	29.89	51.9	59.7	68.6	49.7	59.2	81	24	49	51	88	74	.369	.398	0.43	0.20	4.7	2.1	4.3
February	30.13	30.42	29.83	47.3	56.6	65.4	45.7	55.6	76	27	44	47	88	71	.308	.346	2.10	.92	3.1	1.7	3.5
March	30.12	30.33	29.74	60.8	65.2	75.2	58.2	66.7	87	42	57	58	89	78	.483	.494	2.04	2.02	3.4	2.6	3.7
April	30.03	30.28	29.65	60.9	67.6	76.8	56.6	66.7	86	42	55	57	80	69	.442	.472	2.45	1.06	3.6	2.3	3.7
May	29.96	30.18	29.70	71.0	75.4	87.1	65.9	76.5	97	52	65	67	81	75	.622	.668	1.81	.90	1.1	2.4	3.4
June	30.03	30.16	29.88	77.3	78.4	90.9	72.0	81.4	96	64	72	71	83	79	.774	.768	2.13	.85	1.8	4.6	4.4
July	30.02	30.21	29.77	78.6	78.9	90.8	73.2	82.0	98	67	74	73	86	83	.835	.813	12.03	3.25	4.6	6.2	5.5
August	30.01	30.11	29.88	78.6	78.8	89.8	74.4	82.1	94	70	74	74	87	85	.848	.831	5.44	1.84	4.9	7.3	5.5
September	29.99	30.12	29.82	77.0	77.8	86.5	73.1	79.8	93	69	73	72	88	84	.818	.797	3.46	1.28	4.8	5.6	5.7
October	30.00	30.29	29.04	66.7	69.6	78.1	61.8	70.0	90	40	61	64	83	82	.583	.626	6.74	3.59	4.8	4.4	5.0
November	30.09	30.30	29.63	57.8	62.4	70.6	54.5	62.6	81	36	54	57	88	82	.442	.478	2.34	.90	5.2	4.4	6.1
December	30.14	30.45	29.79	48.9	55.1	63.2	46.5	54.8	78	33	45	49	87	81	.320	.371	4.74	1.55	5.2	4.5	5.1
Year	30.05	30.45	29.04	64.7	68.8	78.6	61.0	69.8	98	24	60	62	86	79	.570	.588	45.71	3.59	3.9	4.0	4.7

JUPITER, FLA.

[λ=26° 57′ N.; φ=80° 7′ W.; gravity corr., —0.05.

January	30.14	30.44	29.96	60.9	65.9	71.7	58.0	64.8	83	31	55	57	80	74	.465	.506	0.36	0.13	3.2	2.4	3.8
February	30.11	30.28	29.83	59.3	64.7	71.1	57.0	64.0	80	40	53	54	80	69	.415	.434	.95	.55	2.7	2.4	3.6
March	30.12	30.26	29.79	69.2	70.4	74.7	65.0	69.8	79	47	59	61	72	71	.513	.537	3.26	2.32	4.3	3.3	3.9
April	30.05	30.26	29.74	69.8	71.1	78.7	64.9	71.8	87	51	60	59	72	67	.535	.521	1.90	1.67	3.3	2.9	3.4
May	30.00	30.18	29.74	74.9	75.0	83.0	68.6	75.8	91	53	66	66	74	74	.643	.639	1.15	.83	2.2	2.6	3.1
June	30.06	30.16	29.91	80.2	79.4	86.5	72.2	79.4	89	67	71	71	74	76	.767	.763	.12	.06	2.7	3.2	3.5
July	30.05	30.17	29.86	81.0	80.1	87.1	75.0	81.0	91	69	74	74	80	81	.839	.832	6.80	2.13	3.6	4.6	4.5
August	30.03	30.13	29.95	81.5	80.2	86.2	75.5	80.8	88	71	75	74	80	82	.860	.840	6.62	2.68	4.3	4.6	4.5
September	29.96	30.11	29.76	81.2	80.4	86.5	76.1	81.3	91	72	74	74	79	81	.838	.836	3.38	1.27	4.1	3.7	3.8
October	29.97	30.19	29.58	75.9	75.9	81.2	72.3	76.8	89	55	70	70	83	82	.737	.742	10.89	3.32	5.5	4.9	5.6
November	30.06	30.21	29.71	70.8	72.4	77.5	68.3	72.9	82	56	64	64	80	77	.601	.614	1.11	.71	3.8	3.4	4.5
December	30.13	30.29	29.94	62.6	66.3	72.7	59.8	66.2	84	41	56	59	81	78	.480	.520	2.56	1.05	4.3	3.6	4.3
Year	30.06	30.44	29.53	72.3	73.5	79.7	67.7	73.7	91	31	65	65	78	76	.641	.649	39.10	3.32	3.7	3.5	4.0

[1] For 26½ days. [2] For 26 days. [3] For 27 days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

INDEPENDENCE, CAL.

[H = 3,907 ft.; h_t = 51 ft.; h_r = 43 ft.; h_a = 58 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	[1]11.9	[2]NW.	[2]50	[2]W.	[2]4	[2]10	[2]1	[2]0	[2]7	[2]8	[2]4	[2]5	[2]18	[2]0	[2]20	[2]6	[2]0	[2]0	[2]0	[2]0	[2]0	[2]0	[2]0	[2]0	[2]13	[2]0	[2]0
April	11.0	NW.	51	W.	2	8	0	0	9	8	4	5	26	0	20	9	1	2	2	1	0	0	0	0	0	0	0
May	10.7	NW.	38	W.	0	4	3	1	11	5	5	7	26	0	18	12	1	4	3	0	0	0	0	0	0	0	0
June	9.4	NW.	50	W.	2	3	1	3	17	3	3	8	21	1	24	6	0	0	0	0	0	0	0	12	0	0	0
July	8.7	SE.	30	NW.	0	5	3	0	20	6	3	7	18	0	23	8	0	0	0	0	0	0	0	20	0	1	0
August	7.8	NW.	30	NW.	0	2	0	0	12	16	3	10	19	0	26	4	1	3	2	0	0	0	0	22	0	3	0
September	7.4	NW.	52	NW.	1	1	0	1	18	10	4	4	22	0	28	1	1	2	2	0	0	0	0	11	0	1	0
October	7.3	NW.	48	NW.	1	4	1	0	15	8	2	7	25	0	30	1	0	0	0	0	0	0	0	0	0	0	0
November	8.6	NW.	36	NW.	0	10	0	0	13	7	3	1	26	0	24	5	1	3	2	0	0	0	0	0	8	0	0
December	8.3	NW.	66	NW.	3	10	0	0	7	6	4	2	33	0	22	6	3	1	1	1	0	0	0	0	22	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

INDIANAPOLIS, IND.

[H = 823 ft.; h_t = 154 ft.; h_r = 146 ft.; h_a = 164 ft.]

January	12.6	W.	56	SW.	6	0	3	6	9	4	10	15	15	0	5	9	17	15	11	4	1	2	5	0	21	2	0
February	12.1	S.	41	NW.	2	4	4	1	3	17	5	12	10	0	6	8	14	13	7	5	0	0	8	0	20	0	0
March	10.9	S.	44	S.	1	16	5	1	8	17	4	5	6	0	7	8	16	17	16	4	0	0	1	0	9	4	1
April	10.8	N.	36	W.	0	10	12	3	4	7	6	5	13	0	9	10	11	8	5	0	0	1	0	0	5	0	0
May	10.0	NE.	42	SW.	1	9	14	4	2	9	9	7	8	0	8	11	12	17	12	0	0	0	0	0	0	9	0
June	8.7	NE.	36	SW.	0	6	18	0	3	12	11	3	7	0	9	16	5	9	6	0	0	1	0	3	0	10	0
July	7.9	NE.	38	SW.	0	6	19	2	2	9	17	3	4	0	12	13	6	7	6	0	0	0	0	10	0	8	0
August	7.0	SW.	42	SW.	1	8	6	1	2	11	16	4	14	0	6	17	8	8	5	0	0	1	0	3	0	7	0
September	9.4	S.	27	S.	0	2	9	3	5	20	10	6	5	0	13	4	13	10	9	0	0	1	0	3	0	7	0
October	11.2	S.	33	S.	0	5	3	4	8	15	5	9	13	0	6	8	17	11	8	0	0	0	0	0	1	2	0
November	11.9	S.	46	SW.	3	4	2	1	4	18	8	8	15	0	5	12	13	8	6	3	0	2	5	0	14	1	0
December	12.9	SW.	39	SW.	0	4	3	1	3	15	13	12	11	0	12	3	16	9	6	5	0	1	8	0	24	0	0
Year	10.4	S.	56	SW.	14	74	98	27	53	154	114	89	121	0	98	119	148	132	97	21	1	9	27	19	94	50	1

JACKSONVILLE, FLA.

[H = 43 ft.; h_t = 69 ft.; h_r = 59 ft.; h_a = 84 ft.]

January	7.0	SW.	24	SE.	0	4	6	4	2	9	18	7	12	0	13	16	2	7	6	0	0	1	0	0	3	0	0
February	7.2	NE.	30	SW.	0	6	12	2	5	4	4	11	12	0	17	9	2	6	5	0	0	1	0	0	2	1	0
March	8.2	S.	26	NE.	0	3	17	2	21	8	4	3	4	0	22	6	3	3	2	0	0	1	0	0	0	0	0
April	7.6	SW.	36	SW.	0	4	7	6	10	2	13	13	4	1	16	12	2	7	7	0	0	0	0	0	0	1	0
May	7.9	SW.	37	NE.	0	2	2	6	20	11	13	4	4	0	20	11	0	5	4	0	1	0	0	13	0	4	0
June	7.6	SW.	36	SW.	0	2	8	7	13	8	15	2	5	0	14	16	0	8	6	0	0	0	0	18	0	9	0
July	7.2	S.	36	S.	0	3	2	5	20	15	12	2	3	0	8	18	5	23	17	0	0	0	0	17	0	12	0
August	7.7	S.	36	SE.	0	2	9	3	23	17	4	2	2	0	4	22	5	17	15	0	0	0	0	14	0	9	0
September	7.6	NE.	28	SE.	0	7	29	3	11	6	1	1	2	0	4	23	3	13	11	0	0	0	0	6	0	4	0
October	8.3	NE.	60	W.	1	10	21	7	3	7	0	4	10	0	13	10	8	17	11	0	0	0	0	0	0	0	0
November	7.5	NE.	30	W.	0	8	24	5	4	4	4	5	6	0	5	13	12	15	11	0	0	1	0	0	0	0	0
December	7.5	N.	36	SW.	0	19	4	0	5	10	8	12	4	0	11	11	9	14	10	0	0	0	0	0	0	3	0
Year	7.6	NE.	60	W.	1	70	141	50	137	101	96	66	68	1	147	167	51	135	105	0	1	4	0	68	5	43	0

JUPITER, FLA.

[H = 28 ft.; h_t = 13 ft.; h_r = 1 ft.; h_a = 30 ft.

January	8.9	NW.	30	S.	0	5	1	7	7	16	2	7	17	0	15	13	3	6	4	0	0	0	0	0	2	0	0
February	10.3	NW.	29	S.	0	3	3	8	2	6	4	7	23	0	13	13	2	5	5	0	0	0	0	0	0	0	0
March	10.8	E.	34	S.	0	2	4	22	12	12	1	2	7	0	16	13	2	7	5	0	0	0	0	0	0	1	0
April	11.1	S.	30	SE.	0	7	3	10	7	12	6	8	7	0	18	11	1	6	3	0	0	0	0	0	0	3	0
May	9.6	E.	27	S.	0	2	0	20	14	11	3	10	1	1	24	5	2	5	4	0	0	0	0	2	0	4	0
June	8.4	SE.	25	SE.	0	6	6	9	25	7	4	0	3	0	18	11	1	8	2	0	0	0	0	0	0	5	0
July	8.9	SE.	36	NE.	0	0	2	13	26	11	5	3	2	0	13	14	4	11	10	0	0	0	0	1	0	11	0
August	9.5	SE.	34	E.	0	0	4	11	25	13	2	5	2	0	12	16	3	15	12	0	0	0	0	0	0	11	0
September	11.0	SE.	28	SE.	0	8	13	11	18	1	0	2	7	0	16	14	0	24	20	0	0	0	0	1	0	3	0
October	12.5	E.	32	NE.	0	7	11	17	4	7	2	5	9	0	10	10	11	19	16	0	0	0	0	0	0	4	0
November	12.0	E.	32	NE.	0	5	8	14	6	12	3	6	6	0	13	13	4	8	4	0	0	0	0	0	0	0	0
December	10.3	NW.	28	S.	0	1	1	16	1	15	3	8	17	0	14	12	5	8	6	0	0	0	0	0	0	3	0
Year	10.3	E.	36	NE.	0	46	56	158	147	123	35	63	101	1	182	145	38	117	91	0	0	0	0	4	2	45	0

a By eye observations at 8 p. m. when there is no self-register at station. C. = Calm.

[1] For 27½ days. [2] For 26½ days. [3] For 26 days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

KANSAS CITY, MO.

[λ=39° 5′ N.; φ=94° 37′ W.; gravity corr., −0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.04	29.58	28.43	28.6	34.0	39.0	25.9	32.4	58	12	24	26	83	72	.135	.143	4.12	1.50	5.5	4.2	6.2
February	29.10	29.59	28.61	29.7	38.9	44.6	26.2	35.4	65	4	24	28	76	64	.136	.162	1.14	.81	4.6	2.3	4.6
March	29.04	29.47	28.55	37.5	47.4	54.5	35.4	45.0	70	18	31	36	76	67	.178	.230	4.50	1.58	4.9	5.3	5.3
April	29.06	29.50	28.73	46.5	58.1	62.3	44.3	53.3	85	31	38	41	73	56	.238	.267	3.77	.99	4.6	5.1	5.2
May	28.92	29.20	28.60	58.4	68.0	73.1	56.1	64.6	89	40	53	55	82	67	.410	.450	7.69	2.63	5.6	6.7	6.1
June	28.97	29.13	28.69	70.1	79.3	84.3	67.8	76.0	93	63	66	67	86	68	.633	.667	6.05	1.73	5.1	4.8	5.5
July	29.01	29.24	28.70	70.8	82.3	86.1	68.5	77.3	96	61	64	66	80	56	.610	.643	4.93	1.03	3.3	3.7	3.8
August	28.98	29.14	28.81	69.4	81.9	86.1	68.4	77.2	96	59	64	67	84	61	.606	.666	5.01	2.81	3.5	2.6	2.9
September	28.98	29.42	28.69	64.1	75.4	80.6	62.1	71.4	94	48	59	62	84	64	.522	.567	4.48	1.73	2.9	4.1	3.6
October	29.02	29.43	28.51	47.3	56.5	61.5	45.4	53.4	89	30	42	43	80	63	.304	.309	4.40	2.61	4.8	5.6	5.6
November	29.04	29.39	28.43	34.1	42.0	49.0	31.6	40.3	73	6	26	28	71	59	.147	.159	2.72	1.54	3.2	3.8	4.2
December	29.14	29.96	28.48	23.6	29.7	34.9	20.4	27.4	59	−2	18	22	80	71	.112	.127	1.44	.80	2.9	3.2	3.7
Year	29.02	29.96	28.43	48.3	57.8	63.0	46.0	54.5	96	−2	42	45	80	64	.336	.366	50.25	2.81	4.2	4.3	4.7

KEOKUK, IOWA.

[λ=40° 22′ N.; φ=91° 26′ W.; gravity corr., −0.01.]

January	29.38	29.91	28.65	24.9	31.5	37.1	22.8	30.0	52	4	21	26	85	81	.119	.146	3.13	1.19	4.3	4.6	5.1
February	29.43	29.94	28.97	25.2	32.2	38.9	22.7	30.8	61	−4	19	26	76	78	.113	.149	1.16	.49	4.4	5.6	5.2
March	29.41	29.87	28.99	37.0	44.5	52.5	33.5	43.0	65	19	31	34	77	67	.184	.204	5.98	2.07	4.3	5.7	5.3
April	29.40	29.85	28.83	45.1	54.7	60.5	43.0	51.8	80	25	37	42	75	64	.232	.279	4.80	1.82	4.0	4.9	4.8
May	29.28	29.56	28.92	57.9	65.7	72.4	55.6	64.0	87	42	51	54	80	68	.392	.430	6.70	3.10	5.7	5.2	5.9
June	29.32	29.54	28.93	70.7	78.3	84.2	66.9	75.6	92	58	63	66	78	66	.586	.637	4.77	1.08	3.4	3.0	4.4
July	29.37	29.61	29.10	70.8	81.4	86.5	67.7	77.1	97	56	62	64	73	57	.559	.613	3.06	1.85	3.3	2.9	3.3
August	29.32	29.51	29.14	68.9	78.7	84.2	67.2	75.7	97	56	63	66	81	67	.576	.658	6.92	2.15	4.5	3.2	4.2
September	29.34	29.85	29.01	63.7	72.0	78.9	62.2	70.6	94	49	58	61	83	70	.497	.556	8.07	2.89	3.6	4.3	4.3
October	29.36	29.74	28.73	47.5	53.1	58.6	45.3	52.0	82	28	42	44	81	73	.288	.323	3.99	1.90	6.1	6.4	6.5
November	29.40	29.80	28.72	32.5	39.7	46.8	30.1	38.4	72	0	26	30	76	68	.155	.175	1.52	.69	4.6	2.9	4.2
December	29.47	30.22	28.87	21.1	27.6	33.2	18.9	26.0	57	−4	15	20	74	73	.094	.117	1.38	.94	3.7	5.4	4.4
Year	29.37	30.22	28.65	47.1	55.0	61.2	44.7	53.0	97	−4	41	44	78	69	.316	.357	51.48	3.10	4.3	4.5	4.8

KEY WEST, FLA.

[λ=24° 34′ N.; φ=81° 49′ W.; gravity corr., −0.05.]

January	30.16	30.44	30.04	67.8	69.6	74.4	65.7	70.0	82	46	61	62	80	78	.562	.578	.34	.20	3.6	2.2	3.1
February	30.12	30.28	29.93	66.6	68.5	72.4	64.7	68.6	81	54	58	59	76	73	.500	.518	.22	.14	4.5	3.0	4.0
March	30.11	30.24	29.81	71.9	72.9	77.3	69.3	73.3	82	60	62	63	73	71	.570	.574	.70	.65	4.3	1.8	3.9
April	30.08	30.23	29.85	74.3	74.7	79.3	71.5	75.4	84	65	65	64	73	70	.626	.606	.61	.52	4.2	3.5	3.2
May	30.02	30.17	29.82	77.7	77.6	82.3	74.2	78.2	86	69	68	68	72	72	.683	.680	3.26	2.58	4.4	2.1	2.6
June	30.05	30.14	29.91	82.1	81.5	86.8	78.2	82.5	89	70	72	72	73	73	.792	.786	2.44	1.44	5.1	3.5	2.9
July	30.05	30.15	29.88	83.1	82.6	87.7	78.8	83.2	90	72	74	74	73	75	.826	.834	2.28	1.02	5.0	4.9	3.8
August	30.03	30.11	29.93	81.6	81.9	87.7	77.3	82.5	90	69	73	74	76	77	.808	.835	5.73	1.75	6.4	4.7	4.2
September	29.96	30.08	29.81	81.3	81.6	86.8	77.2	82.0	89	69	74	73	78	77	.823	.820	5.33	1.45	5.7	4.3	5.4
October	29.97	30.16	29.76	76.7	77.0	81.4	73.0	77.2	86	64	71	72	84	84	.772	.779	16.99	5.16	6.6	5.5	5.9
November	30.05	30.13	29.89	73.9	74.4	79.3	71.8	75.6	84	67	68	70	83	86	.702	.727	2.24	1.13	6.2	4.5	5.0
December	30.13	30.30	29.97	68.2	69.9	74.8	66.2	70.5	81	55	63	65	84	84	.595	.629	3.25	1.53	5.9	3.1	4.9
Year	30.06	30.44	29.76	75.4	76.0	80.8	72.3	76.6	91	46	67	68	77	77	.688	.697	43.39	5.16	5.2	3.6	4.1

KINGSTON, JAMAICA, WEST INDIES.

[λ=17° 58′ N.; φ=76° 48′ W.; gravity corr., −0.06.]

[Observations at Kingston were taken at 6 a. m. and 6 p. m.]

January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	29.64	29.71	29.50	72.6	79.4	86.5	71.4	79.0	91	68	68	73	84	81	.674	.808	3.13	1.17	6.2	8.0	5.8
October	29.62	29.71	29.54	73.4	78.3	84.9	71.6	78.2	90	69	69	73	87	83	.718	.802	9.37	2.67	7.1	7.9	7.6
November	29.63	29.70	29.54	71.4	77.4	85.2	70.7	78.0	87	68	67	72	86	84	.663	.779	.73	.27	4.4	6.5	5.4
December	29.72	29.81	29.67	69.0	76.5	84.8	67.8	76.3	88	64	63	69	82	80	.575	.719	.19	.05	3.0	6.4	5.3
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

KANSAS CITY, MO.

[H = 963 ft.; h_t = 78 ft.; h_r = 81 ft.; h_a = 95 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	7.0	NW.	33	S.	0	7	4	12	4	4	7	4	20	0	9	7	15	10	8	8	0	3	5	0	25	2	0
February	9.3	NW.	35	NW.	0	7	2	5	6	11	1	5	19	0	11	11	6	4	3	1	0	2	6	0	22	1	0
March	9.0	SE.	36	NW.	0	6	7	4	17	7	2	2	16	1	12	8	11	12	8	2	2	1	0	0	9	6	0
April	9.1	NW.	39	NW.	0	11	5	4	15	4	2	5	14	0	10	9	11	13	11	0	0	0	0	0	2	3	0
May	7.7	SE.	40	S.	1	5	12	4	17	4	6	5	8	1	7	12	12	16	14	0	1	1	0	0	0	13	0
June	7.2	SE.	30	NW.	0	8	9	4	24	8	4	1	2	0	8	11	11	14	13	0	0	1	0	4	0	13	0
July	7.4	SE.	50	NW.	2	12	14	4	22	6	1	0	3	0	17	10	4	9	8	0	1	1	0	7	0	8	0
August	7.5	SE.	24	S.	0	6	2	1	25	12	6	2	8	0	18	10	3	6	4	0	0	0	0	10	0	5	0
September	8.1	SE.	31	SE.	0	4	9	3	18	8	8	2	7	1	15	9	6	10	9	0	0	0	0	6	0	6	0
October	10.5	NW.	33	NW.	0	5	4	3	20	3	3	4	20	0	11	6	14	7	6	3	0	2	0	0	4	3	0
November	9.0	SE.	39	SE.	0	7	1	4	22	2	10	4	10	0	14	9	7	9	7	6	1	0	5	0	14	1	0
December	9.7	NW.	30	NW.	0	5	5	0	4	11	15	3	19	0	16	9	6	7	6	4	0	3	9	0	25	0	0
Year	8.5	SE.	50	NW.	3	83	64	48	194	80	65	37	146	3	148	111	106	117	97	24	5	14	25	27	101	61	0

KEOKUK, IOWA.

[H = 614 ft.; h_t = 63 ft.; h_r = 56 ft.; h_a = 78 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.9	SW.	30	SW.	0	3	4	10	10	0	15	10	9	1	13	4	14	11	9	7	0	2	7	0	26	2	0
February	9.3	NW.	35	W.	0	5	4	5	5	7	7	9	14	0	12	4	12	8	6	4	0	2	6	0	23	0	0
March	8.2	SE.	31	W.	0	11	0	6	14	10	7	5	9	0	11	5	15	9	9	2	1	0	0	0	14	7	1
April	8.6	NW.	32	NW.	0	10	3	3	8	8	9	6	12	1	11	10	9	14	13	1	0	0	0	0	3	4	0
May	7.5	NE.	48	W.	1	9	15	5	8	4	12	4	5	0	7	14	10	14	12	0	0	1	0	0	0	8	0
June	6.3	SW.	36	SE.	0	6	12	6	6	8	15	1	5	1	15	7	8	11	10	0	0	0	0	3	0	10	0
July	5.8	NE.	38	W.	0	8	14	5	2	14	10	1	4	4	20	6	5	5	5	0	0	0	0	8	0	6	0
August	6.1	SW.	20	SW.	0	5	7	4	4	9	18	9	6	0	17	4	10	7	6	0	1	0	0	8	0	8	0
September	6.6	SW.	24	SE.	0	5	7	12	5	9	12	4	2	4	10	13	7	10	10	0	0	1	0	3	0	8	0
October	8.9	NW.	32	S.	0	4	5	5	13	9	9	2	15	0	8	8	15	8	7	1	0	0	0	0	4	1	0
November	9.3	SW.	36	NW.	0	5	0	4	13	5	15	6	12	0	12	12	6	10	8	4	0	1	5	0	15	1	0
December	9.4	SW.	26	NW.	0	8	1	1	1	3	25	6	17	0	16	6	9	6	4	3	0	2	11	0	27	0	0
Year	7.8	SW.	48	W.	1	79	72	66	89	86	154	63	110	11	152	93	120	113	99	22	2	9	29	22	112	55	1

KEY WEST, FLA.

[H = 22 ft.; h_t = 43 ft.; h_r = 34 ft.; h_a = 50 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.5	NE.	40	N.	1	8	18	18	7	3	0	3	3	2	21	7	3	5	2	0	0	0	0	0	0	0	0
February	12.4	NE.	34	N.	0	21	17	9	7	1	0	0	1	0	14	11	3	3	3	0	0	0	0	0	0	0	0
March	11.0	E.	36	W.	0	4	11	32	11	1	1	1	1	0	17	12	2	4	1	0	0	0	0	0	0	1	0
April	11.5	SE.	28	NE.	0	8	9	18	12	2	3	3	5	0	20	9	1	2	2	0	0	0	0	0	0	0	0
May	9.1	E.	28	NW.	0	4	6	27	14	1	4	1	5	0	25	4	2	7	4	0	0	0	0	0	0	1	0
June	8.5	SE.	22	SW.	0	1	6	34	18	1	0	0	0	0	20	9	1	8	6	0	0	0	0	0	0	2	0
July	7.9	SE.	22	E.	0	0	0	31	21	7	2	1	0	0	17	12	2	11	9	0	0	0	0	1	0	6	0
August	7.0	E.	25	NE.	0	1	4	29	13	12	2	1	0	0	14	14	3	16	13	0	0	0	0	0	0	11	0
September	7.4	E.	20	SE.	0	5	9	25	10	1	2	1	7	0	5	20	5	16	10	0	0	0	0	0	0	1	0
October	11.4	NE.	31	N.	0	4	20	24	5	0	4	1	3	1	6	14	11	20	18	0	0	0	0	0	0	3	0
November	11.5	E.	32	NE.	0	3	19	25	5	4	2	1	1	0	10	16	4	11	8	0	0	0	0	0	0	1	0
December	11.0	E.	36	N.	0	5	17	19	10	3	3	1	3	1	11	15	5	6	4	0	0	0	0	0	0	1	0
Year	9.8	E.	40	N.	1	64	136	291	133	36	23	14	29	4	180	143	42	109	80	0	0	0	0	1	0	27	0

KINGSTON, JAMAICA, WEST INDIES.

[H = 286 ft.; h_t = 38 ft.; h_r = 38 ft.; h_a = 52 ft.]

[Observations at Kingston were taken at 6 a. m. and 6 p. m.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	5.6	NE.	32	SE.	0	12	31	1	11	3	0	0	2	0	3	19	8	14	11	0	0	0	0	1	0	21	0
October	5.9	NE.	26	SE.	0	11	27	5	13	2	0	0	4	0	2	10	19	14	11	0	0	0	0	0	0	15	0
November	5.3	NE.	23	SE.	0	15	31	2	5	0	0	2	4	1	6	20	4	13	3	0	0	0	0	0	0	2	0
December	5.7	NE.	26	SE.	0	15	30	0	3	1	0	4	9	0	6	18	7	7	2	0	0	0	0	0	0	0	0
Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

a By eye observations when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

KNOXVILLE, TENN.

[λ=35° 50′ N.; φ=83° 58′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.04	29.35	28.49	38.5	44.9	51.3	35.3	43.3	70	19	35	40	87	85	.223	.272	7.68	2.61	6.7	5.4	5.7
February	29.10	29.43	28.68	32.6	41.6	48.2	30.1	39.2	65	10	28	35	82	78	.163	.217	.56	.25	4.5	4.5	4.4
March	29.09	29.40	28.83	48.9	57.8	64.5	46.0	55.2	79	30	45	49	85	74	.320	.370	3.97	1.04	6.5	5.0	5.1
April	29.00	29.36	28.48	45.6	56.5	63.5	42.4	53.0	81	29	39	40	79	58	.248	.260	3.34	.86	4.5	4.1	4.2
May	28.93	29.16	28.59	63.4	72.8	82.1	56.9	69.5	90	40	56	55	77	55	.458	.443	1.60	.36	3.3	3.6	2.4
June	29.00	29.16	28.84	71.9	79.3	88.7	65.5	77.1	99	57	63	63	74	60	.580	.581	3.47	1.22	3.8	3.1	1.8
July	29.03	29.20	28.80	78.2	78.4	87.9	68.8	78.4	98	59	68	68	83	72	.687	.696	2.97	.49	5.1	5.1	5.4
August	29.01	29.18	28.84	71.0	79.2	87.5	67.5	77.5	92	63	68	68	89	71	.684	.699	4.86	2.38	3.6	3.8	4.1
September	29.05	29.25	28.84	65.6	73.3	82.9	62.5	72.7	89	51	62	66	89	78	.571	.639	7.44	5.68	4.1	4.0	4.7
October	29.05	29.34	28.64	50.1	59.2	68.0	47.6	57.8	86	30	47	50	89	74	.369	.400	3.13	1.05	3.0	3.6	5.0
November	29.10	29.40	28.60	38.3	46.5	53.6	34.4	44.0	72	16	34	36	85	69	.211	.229	2.10	.65	5.2	4.3	5.3
December	29.10	29.62	28.42	32.3	40.2	46.5	29.3	37.9	66	12	28	33	82	75	.161	.198	1.67	.69	5.3	4.3	5.1
Year	29.04	29.62	28.42	52.6	60.8	68.7	48.9	58.8	99	10	48	50	83	71	.389	.417	42.79	5.68	4.6	4.2	4.4

LA CROSSE, WIS.

[λ=43° 49′ N.; φ=91° 15′ W.; gravity corr., 0.00.]

January	29.24	29.72	28.81	17.7	.....	29.8	14.3	22.0	41	— 1	14	....	86	....	.086	.....	.74	.64	5.8	.....	6.1
February	29.30	29.79	28.88	16.2	.....	29.3	13.8	21.6	46	— 9	12	....	80	....	.080	.....	1.16	.52	6.4	.....	6.3
March	29.26	29.70	28.84	31.3	.....	45.0	28.4	36.7	61	10	26	....	79	....	.143	.....	1.99	.69	4.8	.....	5.1
April	29.32	29.68	28.92	40.0	.....	56.3	37.1	46.7	76	17	31	....	72	....	.183	.....	3.07	.76	4.9	.....	5.6
May	29.19	29.54	28.83	52.5	.....	69.8	48.7	59.2	85	38	44	....	75	....	.313	.....	1.10	.46	5.6	.....	5.5
June	29.21	29.56	28.65	64.0	.....	79.3	61.0	70.2	90	49	58	....	82	....	.492	.....	2.13	.55	5.6	.....	5.3
July	29.28	29.50	28.90	66.4	.....	84.5	61.6	73.0	94	50	60	....	81	....	.533	.....	1.75	.62	2.4	.....	4.1
August	29.22	29.43	28.98	61.3	.....	80.7	59.1	69.9	95	50	58	....	91	....	.497	.....	3.25	1.56	4.4	.....	5.8
September	29.25	29.85	28.90	54.2	.....	76.1	52.5	64.3	95	35	50	....	86	....	.377	.....	1.64	1.04	3.3	.....	4.8
October	29.24	29.65	28.70	42.8	.....	54.8	39.7	47.2	74	26	38	....	83	....	.239	.....	4.53	1.63	7.3	.....	7.3
November	29.21	29.70	28.58	27.7	.....	40.3	24.2	32.2	64	— 6	22	....	79	....	.133	.....	1.84	1.34	6.4	.....	5.7
December	29.27	30.03	28.57	11.4	.....	24.6	7.0	15.8	40	—19	7	....	80	....	.065	.....	.29	.24	4.9	.....	4.4
Year	29.25	30.03	28.57	40.5	.....	55.9	37.3	46.6	95	—19	35	....	81	....	.262	.....	23.49	1.63	5.2	.....	5.5

LANDER, WYO.

[λ=42° 50′ N.; φ=108°, 45′ W.; gravity corr.,—0.01.]

January	24.59	25.07	24.32	1.2	13.8	24.0	—2.9	10.6	46	—22	—2	8	86	78	.038	.063	.33	.29	2.9	2.7	3.2
February	24.64	25.03	24.08	19.1	33.6	41.0	14.8	27.9	52	— 4	12	18	72	56	.073	.103	T.	T.	3.9	4.6	4.7
March	24.52	24.86	24.08	18.8	33.4	39.2	15.0	27.1	60	— 9	12	19	73	58	.075	.107	2.73	1.18	6.3	6.3	5.9
April	24.65	25.01	24.24	33.8	55.0	59.3	31.3	45.3	78	14	24	18	67	51	.128	.106	1.08	.66	5.7	4.8	5.1
May	24.58	24.88	24.26	46.7	54.4	58.2	38.1	48.2	76	24	34	34	79	53	.198	.208	6.02	1.98	4.4	4.5	7.4
June	24.66	24.97	24.34	49.4	69.6	74.5	45.1	59.8	87	32	40	37	72	35	.253	.228	3.02	1.54	2.9	5.4	4.4
July	24.72	24.97	24.44	52.9	78.6	82.5	49.7	66.1	91	40	42	35	67	24	.272	.220	.67	.28	1.9	3.2	2.8
August	24.72	24.91	24.40	51.8	76.6	81.9	49.3	65.6	92	45	42	43	70	33	.266	.288	.62	.46	3.4	5.5	4.7
September	24.68	25.09	24.19	41.4	66.8	72.7	38.2	55.4	86	26	29	27	63	24	.158	.148	.36	.24	2.3	3.4	3.1
October	24.70	25.09	24.25	30.8	43.4	51.7	27.0	39.4	71	11	24	27	76	56	.127	.149	2.22	.74	4.8	4.6	5.2
November	24.58	24.92	24.16	20.4	32.4	43.8	16.2	30.0	64	— 8	13	14	72	48	.080	.079	.25	.16	3.3	3.6	4.6
December	24.72	25.14	24.19	5.2	18.1	30.6	0.4	15.5	56	—25	0	8	78	65	.044	.062	.69	.54	2.5	3.4	3.9
Year	24.65	25.14	24.08	30.5	48.0	55.0	26.8	40.9	92	—25	22	24	73	47	.143	.147	17.99	1.98	3.7	4.3	4.6

LEXINGTON, KY.

[λ=38° 2′ N.; φ=84° 33′ W.; gravity corr., —0.02.]

January	28.98	29.30	28.29	35.4	38.5	45.2	30.9	38.0	62	11	30	30	79	71	.176	.182	9.56	2.57	8.1	6.8	7.6
February	29.05	29.40	28.55	31.0	36.8	44.1	28.1	36.1	66	— 1	24	25	72	62	.135	.149	2.20	.88	8.5	5.4	7.2
March	29.06	29.33	28.69	44.8	51.6	56.2	41.7	49.0	72	26	37	39	74	65	.237	.265	8.18	1.19	8.5	6.7	8.1
April	29.00	29.47	28.55	46.9	52.9	59.2	42.2	50.7	77	22	35	35	65	54	.215	.216	3.29	.84	5.7	7.0	6.9
May	28.90	29.08	28.59	62.4	66.8	74.6	56.3	65.4	85	33	53	54	71	65	.413	.425	6.13	2.61	6.4	5.0	5.5
June	28.98	29.15	28.72	71.7	76.6	84.0	64.7	74.4	93	57	62	62	72	62	.562	.563	7.94	4.45	4.5	5.8	5.2
July	29.00	29.16	28.83	74.2	77.0	85.5	66.9	76.2	96	54	67	68	80	75	.686	.702	5.72	1.40	5.9	5.7	5.7
August	28.98	29.15	28.84	72.6	76.4	85.3	66.3	75.8	92	60	69	69	88	80	.708	.717	2.99	1.70	4.0	4.6	5.0
September	29.03	29.31	28.73	66.5	72.0	82.1	61.9	72.0	92	49	63	64	87	76	.561	.600	3.55	.96	5.6	3.8	5.3
October	29.01	29.25	28.67	51.6	56.3	63.9	48.2	56.0	87	27	48	49	86	78	.366	.386	5.27	1.93	6.7	4.8	6.2
November	29.05	29.37	28.61	38.9	43.1	51.0	34.9	43.0	71	12	33	33	79	68	.198	.202	2.89	1.01	6.2	5.9	6.3
December	29.05	29.66	28.33	29.2	33.7	41.6	24.7	33.2	63	— 1	23	26	78	72	.137	.150	2.80	1.29	4.7	4.4	5.8
Year	29.01	29.66	28.29	52.1	56.8	64.4	47.2	55.8	96	— 1	45	46	78	69	.368	.380	60.52	4.45	6.2	5.5	6.2

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

KNOXVILLE, TENN.

[H = 1,004 ft.; h_t = 10 ft.; h_r = 3 ft.; h_a = 88 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	9.4	SW.	54	SW.	3	4	11	4	3	5	16	12	7	0	13	3	15	16	14	1	0	1	2	0	14	1	0
February	8.0	SW.	52	W.	2	8	9	2	3	4	19	4	7	0	17	2	9	6	3	1	0	0	5	0	17	0	0
March	9.0	SW.	40	S.	1	13	12	2	2	7	15	1	10	0	10	14	7	10	9	1	0	0	0	0	2	0	0
April	7.7	SW.	34	SW.	0	4	16	1	3	7	18	4	7	0	15	7	8	13	11	0	0	0	0	0	4	0	0
May	7.5	SW.	48	SW.	1	9	11	8	3	6	19	3	3	0	22	8	1	8	6	0	0	1	0	0	0	5	0
June	6.7	NE.	36	N.	0	13	19	3	2	5	16	2	0	0	22	8	0	10	8	0	0	0	0	11	0	8	0
July	6.5	SW.	34	NW.	0	11	13	3	3	4	22	3	2	1	7	15	9	15	14	0	0	0	0	13	0	13	0
August	5.0	NE.	30	S.	0	11	18	3	2	5	16	3	4	0	14	11	6	8	8	0	0	5	0	5	0	6	0
September	5.3	N.	30	NW.	0	15	11	5	4	7	13	2	3	0	12	9	9	9	6	0	0	4	0	0	0	5	0
October	7.2	NE.	36	SE.	0	9	17	5	2	7	10	9	3	0	13	9	9	10	8	0	0	9	0	0	2	0	0
November	7.4	NE.	44	NW.	1	8	23	4	2	1	12	5	4	1	12	9	9	11	10	0	0	1	0	0	12	1	0
December	8.5	SW.	50	SW.	1	11	14	2	0	4	22	7	2	0	12	10	9	9	6	2	0	2	2	0	22	0	0
Year	7.4	SW.	54	SW.	9	116	174	42	29	62	198	55	52	2	160	105	91	125	103	5	0	23	9	29	73	39	0

LA CROSSE, WIS.

[H = 720 ft.; h_t = 70 ft.; h_r = 61 ft.; h_a = 78 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.3	S.	30	W.	0	7	0	0	5	8	4	4	1	2	9	8	14	4	2	4	0	2	18	0	31	0	0
February	7.7	N.	30	NW.	0	6	3	1	1	5	1	5	4	2	8	9	11	12	8	11	0	1	17	0	26	0	0
March	8.4	SE.	30	NW.	0	6	2	0	9	5	4	1	3	1	14	8	9	9	7	4	1	1	1	0	19	2	1
April	7.3	N.	28	S.	0	9	3	0	4	5	2	1	3	3	10	11	9	13	11	0	0	1	0	0	6	0	0
May	6.8	S.	24	N.	0	6	2	1	4	9	4	0	2	3	10	12	9	7	4	0	0	0	0	0	0	1	0
June	6.3	S.	29	SW.	0	1	3	1	4	8	5	2	4	2	11	9	10	11	9	0	0	1	0	0	0	7	0
July	5.7	S.	36	SW.	0	4	2	0	6	13	2	0	2	2	14	12	5	8	7	0	0	0	0	5	0	2	0
August	5.1	S.	22	SW.	0	3	0	1	3	13	3	0	3	5	9	10	12	7	5	0	0	5	0	4	0	2	0
September	6.0	S.	36	SE.	0	4	0	0	7	10	2	3	4	0	13	10	7	7	5	0	0	5	0	2	0	1	0
October	8.4	NW.	32	N.	0	4	1	1	5	8	1	1	10	0	5	7	19	15	10	0	0	0	0	0	5	0	0
November	8.1	S.	30	NW.	0	3	0	0	7	8	4	1	7	0	13	3	14	7	5	4	0	0	9	0	18	0	0
December	6.4	NW.	26	SE.	0	3	0	0	5	7	4	3	8	1	16	9	6	6	2	6	0	0	22	0	31	0	0
Year	6.9	S.	36	SW.	0	56	16	5	60	99	36	21	51	21	132	108	125	106	75	29	1	16	67	11	136	15	1

LANDER, WYO.

[H = 5,372 ft.; h_t = 28 ft.; h_r = 17 ft.; h_a = 36 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	2.5	S.W.	12	S.E.	0	1	10	3	6	18	19	3	2	0	18	9	4	2	2	2	0	0	23	0	31	0	0
February	4.2	S.W.	36	S.W.	0	0	8	2	9	9	14	5	9	0	10	15	3	0	0	0	0	1	3	0	28	0	0
March	4.9	S.W.	34	W.	0	6	10	3	9	5	19	3	7	0	6	16	9	14	11	13	0	0	5	0	30	0	2
April	5.6	S.W.	34	S.W.	0	4	9	1	4	4	25	8	5	0	10	11	9	7	5	3	1	0	0	0	16	0	0
May	4.7	N.W.	30	W.	0	1	11	3	7	2	15	7	16	0	3	11	17	14	11	5	1	0	0	0	7	5	0
June	4.8	W.	40	S.W.	1	5	4	1	7	7	7	17	12	0	12	15	3	10	9	1	3	0	0	0	0	8	0
July	4.8	S.W.	30	S.W.	0	3	12	3	5	6	15	9	9	0	19	11	1	7	4	0	2	0	0	1	0	4	0
August	3.9	S.W.	35	S.W.	0	0	8	3	9	6	19	8	9	0	11	15	5	5	3	0	0	0	0	2	0	10	0
September	4.7	S.W.	36	S.W.	0	0	11	4	6	4	19	8	8	0	17	11	2	5	2	0	0	0	0	0	4	0	2
October	4.0	S.W.	32	W.	0	1	7	1	13	5	13	12	10	0	9	14	8	10	9	9	0	0	0	0	24	0	0
November	4.4	S.W.	42	W.	1	1	9	4	5	9	16	6	10	0	13	14	3	4	2	4	0	0	1	0	28	0	0
December	3.4	S.E.	32	S.W.	0	1	8	3	19	2	19	3	7	0	17	10	4	6	3	6	0	0	17	0	31	0	0
Year	4.3	S.W.	42	W.	2	23	107	31	99	77	200	89	104	0	145	152	68	84	61	43	7	1	49	3	199	27	4

LEXINGTON, KY.

[H = 990 ft.; h_t = 75 ft.; h_r = 68 ft.; h_a = 102 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	14.3	SW.	60	SW.	4	0	6	13	4	3	20	10	6	0	5	6	20	16	14	3	0	1	2	0	17	1	0
February	12.7	SW.	60	SW.	3	1	4	5	10	10	11	11	4	0	4	8	16	10	8	4	0	0	6	0	20	1	0
March	12.0	S.	44	W.	1	7	8	11	10	12	5	2	6	1	2	8	21	16	14	2	0	0	0	0	6	2	0
April	11.5	NE.	42	SW.	3	2	12	6	5	4	10	9	10	2	5	10	15	11	10	1	0	0	0	0	5	1	0
May	10.5	SW.	36	NW.	0	0	11	3	6	9	14	4	6	0	7	16	8	11	10	1	0	0	0	0	0	4	0
June	8.3	E.	46	SW.	1	2	9	13	5	9	12	3	5	2	10	14	6	10	8	0	0	0	0	2	0	9	0
July	7.3	SW.	44	SW.	2	2	6	13	6	11	13	4	4	3	11	9	11	16	10	0	0	0	0	3	0	9	0
August	6.7	SW.	40	SW.	1	4	2	7	0	13	21	5	6	4	11	11	9	10	9	0	0	0	0	4	0	9	0
September	8.4	S.	38	S.	0	3	8	10	5	17	10	5	2	0	9	13	8	15	8	0	0	0	0	2	0	4	0
October	10.8	S.	36	SE.	0	1	5	9	10	12	8	7	9	1	9	7	15	13	11	1	0	1	0	0	1	2	0
November	11.2	S.	46	NW.	4	1	2	6	9	15	4	10	13	0	8	7	15	13	11	4	0	0	1	0	12	2	0
December	13.0	S.	45	W.	1	4	4	2	6	15	9	10	12	0	10	10	11	13	8	8	0	1	6	0	23	0	0
Year	10.6	SW.	60	SW.	20	36	77	98	76	130	137	80	83	13	91	119	155	154	121	24	0	2	15	11	84	44	0

a By eye observations when there is no self-register at station.

C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

LINCOLN, NEBR.

[λ = 40° 49′ N.; φ = 96° 45′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.75	29.29	28.33	25.0	30.7	36.8	21.8	29.3	49	8	20	21	80	66	.109	.113	0.83	0.39	5.2	3.5	5.0
February	28.80	29.36	28.21	25.1	33.2	41.3	22.2	31.8	58	—1	20	20	78	56	.108	.105	.99	.77	4.9	3.6	4.9
March	28.72	29.20	28.14	31.0	43.6	50.0	28.5	39.2	74	9	25	31	78	62	.139	.175	1.40	.45	5.0	4.4	5.0
April	28.77	29.20	28.39	43.4	56.0	61.7	39.7	50.7	87	26	35	39	74	56	.214	.246	3.88	1.44	4.6	3.7	4.4
May	28.63	28.99	28.26	54.7	64.4	69.6	51.1	60.4	85	37	49	48	82	58	.361	.345	4.33	1.55	5.9	6.2	6.3
June	28.66	28.88	28.32	67.6	78.0	82.8	64.2	73.5	95	53	63	62	85	62	.574	.574	3.99	1.67	4.5	4.2	4.7
July	28.73	28.97	28.37	68.6	79.9	86.0	63.4	74.7	97	54	62	61	79	54	.562	.540	3.93	3.52	3.9	2.6	3.9
August	28.68	28.86	28.41	67.4	81.3	88.6	64.0	76.3	101	48	61	62	82	55	.548	.574	3.45	1.68	2.3	3.0	2.4
September	28.69	29.25	28.41	58.2	72.1	80.3	56.0	68.2	97	43	51	50	78	51	.393	.384	2.32	1.02	3.1	3.4	3.5
October	28.74	29.22	28.22	42.4	51.9	59.9	39.6	49.8	83	24	36	37	79	60	.228	.234	1.55	.54	5.9	4.5	5.0
November	28.74	29.13	28.16	28.2	35.8	44.9	23.7	34.3	76	—2	20	23	73	64	.115	.130	.95	.79	4.0	3.3	4.4
December	28.85	29.65	28.17	18.1	25.1	32.0	14.5	23.2	50	—8	15	18	87	74	.093	.105	.48	.26	2.9	3.5	4.2
Year	28.73	29.65	28.14	44.1	54.3	61.2	40.7	51.0	101	—8	38	39	80	60	.287	.294	28.10	3.52	4.4	3.8	4.5

LITTLE ROCK, ARK.

[λ = 34° 45′ N.; φ = 92° 6′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.72	30.21	29.20	42.2	47.9	53.3	38.6	46.0	72	19	37	38	84	71	.240	.250	8.10	1.79	5.2	6.1	7.0
February	29.78	30.22	29.45	39.6	50.5	55.5	36.4	46.0	71	18	33	35	79	57	.208	.214	1.23	.71	3.9	3.8	4.3
March	29.70	30.00	29.27	49.0	59.7	65.5	45.5	55.5	84	29	44	45	83	60	.322	.321	2.64	1.39	5.4	7.5	6.4
April	29.70	30.17	29.15	52.5	64.5	69.2	49.8	59.5	83	32	44	44	75	51	.307	.306	2.76	1.45	3.9	3.5	5.5
May	29.58	29.74	29.34	67.4	77.6	83.0	63.0	73.0	93	48	61	61	80	58	.546	.549	7.52	3.17	4.2	3.5	4.9
June	29.63	29.77	29.46	74.4	81.1	88.2	70.6	79.4	93	64	69	70	85	70	.720	.721	3.03	1.70	5.8	5.5	6.7
July	29.65	29.79	29.50	74.7	83.1	89.2	71.0	80.1	97	64	69	70	84	65	.727	.728	2.60	1.63	4.9	3.8	5.7
August	29.62	29.79	29.49	73.7	82.4	89.5	71.0	80.2	96	68	70	70	88	68	.736	.744	2.07	1.03	3.0	3.7	4.5
September	29.62	29.86	29.39	69.4	78.1	84.4	67.0	75.7	96	56	66	68	88	73	.644	.696	10.23	3.52	4.1	4.2	4.9
October	29.71	30.08	29.35	54.1	62.9	70.5	50.8	60.6	90	32	50	52	88	68	.415	.434	5.04	1.89	4.7	2.4	5.0
November	29.76	30.03	29.23	42.6	51.0	58.2	38.3	48.2	78	19	37	36	82	58	.243	.220	2.89	2.09	5.7	2.9	5.4
December	29.82	30.42	29.31	35.1	43.5	49.1	31.5	40.3	69	16	30	29	80	59	.181	.179	1.43	.63	5.5	2.9	4.3
Year	29.69	30.42	29.15	56.2	65.2	71.3	52.8	62.0	97	16	51	52	83	63	.440	.447	49.54	3.52	4.7	4.2	5.4

LOS ANGELES, CAL.

[λ = 34° 3′ N.; φ = 118° 15′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.73	29.96	29.44	45.1	54.5	60.9	42.1	51.5	84	31	33	41	66	63	.200	.267	1.26	0.41	2.6	3.7	4.4
February	29.73	29.94	29.50	50.4	60.2	68.9	46.6	57.8	85	40	41	49	74	69	.266	.351	.51	.28	2.9	3.5	4.4
March	29.66	29.94	29.34	47.4	59.7	66.7	43.9	55.3	81	36	37	40	71	53	.227	.263	.98	.50	1.4	3.3	3.1
April	29.61	29.82	29.34	54.2	65.6	74.3	51.3	62.8	99	41	46	49	76	59	.316	.354	.03	.03	4.7	1.8	3.6
May	29.60	29.74	29.46	52.3	62.2	69.3	50.8	60.0	80	46	49	50	88	67	.347	.368	1.75	1.46	5.2	3.1	4.7
June	29.53	29.67	29.38	58.2	69.8	77.8	56.4	67.1	95	50	54	55	87	64	.423	.447	T.	T.	5.4	1.2	3.9
July	29.56	29.71	29.33	60.9	72.4	81.6	59.2	70.4	91	56	57	59	87	63	.465	.496	.07	.07	5.6	.5	3.1
August	29.51	29.65	29.38	63.4	76.3	85.9	61.9	73.9	96	56	59	60	85	57	.496	.513	T.	T.	4.7	.8	3.1
September	29.51	29.63	29.40	60.6	73.0	84.0	58.0	71.0	99	48	52	57	78	60	.404	.467	.02	.01	3.3	.9	2.4
October	29.62	29.77	29.44	53.8	66.5	77.9	51.3	64.6	91	45	46	53	78	65	.313	.412	.09	.08	2.5	1.6	2.7
November	29.64	29.89	29.47	51.7	63.3	74.1	47.2	60.6	94	41	34	47	54	59	.206	.336	T.	T.	1.6	1.6	2.2
December	29.75	30.12	29.51	50.0	59.7	68.6	45.1	56.8	83	34	30	40	51	54	.176	.267	.12	.11	1.9	3.4	3.6
Year	29.62	30.12	29.33	54.0	65.3	74.2	51.2	62.6	99	31	45	50	75	61	.320	.378	4.83	1.46	3.5	2.1	3.4

LOUISVILLE, KY.

[λ = 38° 15′ N.; φ = 85° 45′ W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.49	29.89	28.77	36.4	40.5	46.7	33.1	39.9	70	15	30	30	78	68	.179	.180	9.04	2.55	7.5	5.3	7.0
February	29.56	29.95	29.08	33.3	39.9	46.4	30.1	38.2	71	4	25	28	71	63	.146	.168	1.73	.62	7.6	5.2	6.6
March	29.56	29.87	29.11	44.9	53.8	59.9	42.6	51.2	75	28	37	41	76	65	.241	.284	9.94	1.91	7.6	5.8	7.5
April	29.49	29.89	29.00	47.1	56.6	62.7	44.3	53.5	82	25	36	38	67	52	.224	.236	2.80	.73	6.1	6.0	6.0
May	29.39	29.58	29.16	62.2	70.8	77.8	57.8	67.8	89	33	53	54	72	57	.411	.425	4.22	1.72	5.7	4.0	4.9
June	29.45	29.65	29.18	70.8	81.1	88.0	66.8	77.4	94	58	62	62	74	54	.561	.576	5.00	2.35	5.3	4.9	4.5
July	29.48	29.66	29.28	73.2	82.9	89.2	70.1	79.6	97	58	65	64	76	55	.638	.621	2.15	.94	6.0	4.1	5.7
August	29.45	29.64	29.30	71.3	80.1	87.8	68.7	78.2	96	63	65	66	82	64	.630	.646	5.14	3.68	3.6	4.3	4.6
September	29.50	29.84	29.21	66.0	75.3	83.7	63.9	73.8	97	52	61	62	84	66	.553	.577	2.97	1.36	4.1	4.5	4.7
October	29.51	29.78	29.15	51.8	58.6	66.4	50.0	58.2	90	31	47	48	85	69	.360	.374	2.85	1.02	5.5	4.6	6.5
November	29.56	29.89	29.10	39.1	45.8	53.3	36.1	44.7	74	14	32	34	77	65	.196	.211	2.55	1.43	5.9	5.0	6.5
December	29.57	30.23	28.87	31.0	35.7	42.2	27.2	34.7	62	7	26	27	80	69	.150	.156	2.61	.93	4.9	4.0	5.8
Year	29.50	30.23	28.77	52.3	60.1	67.0	49.2	58.1	97	4	45	46	77	62	.357	.371	51.00	3.68	5.8	4.8	5.9

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

LINCOLN, NEBR.

[H = 1,199 ft.; h_t = 75 ft.; h_r = 4 ft.; h_a = 84 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	8.6	SE.	34	NW.	0	6	9	4	11	9	10	3	9	1	14	7	10	7	7	7	0	1	6	0	30	0	0
February	12.2	NW.	44	NW.	4	12	5	2	10	8	4	2	13	0	12	10	6	4	4	2	0	0	6	0	27	0	0
March	13.3	S.	52	NW.	4	14	10	2	10	16	2	3	5	0	8	20	3	5	5	3	0	0	2	0	19	1	0
April	13.6	N.	40	NW.	1	17	7	2	15	9	1	4	5	0	13	13	4	9	9	0	0	0	0	0	4	3	0
May	10.9	NE.	42	SE.	1	10	18	2	9	10	5	3	5	0	5	13	13	12	10	0	0	0	0	0	0	4	0
June	9.8	S.	34	N.	0	7	12	6	9	21	2	2	1	0	12	12	6	10	7	0	0	1	0	6	0	2	0
July	9.6	SE.	36	NW.	0	3	14	7	19	14	2	1	2	0	14	13	4	7	5	0	0	1	0	9	0	3	0
August	9.0	S.	38	NW.	0	2	11	7	12	16	3	6	4	1	24	6	1	6	6	0	0	0	0	15	0	3	0
September	9.7	S.	36	N.	0	3	19	3	5	19	7	1	3	0	20	5	5	5	4	0	0	0	0	7	0	1	0
October	14.4	N.	48	N.	3	16	8	0	7	11	3	3	14	0	14	6	11	9	6	2	0	0	0	0	9	3	0
November	12.3	S.	48	NW.	2	5	3	2	11	19	6	7	7	0	14	8	8	6	2	5	0	0	7	0	22	0	0
December	9.7	SW.	36	N.	0	15	3	0	2	9	16	6	11	0	16	9	6	4	3	3	0	0	12	0	31	0	0
Year	11.1	S.	52	NW.	15	110	119	37	120	161	61	41	79	2	166	122	77	84	68	22	0	3	33	37	142	20	0

LITTLE ROCK, ARK.

[H = 357 ft; h_t = 93 ft.; h_r = 85 ft.; h_a = 100 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.6	W.	29	SW.	0	0	9	8	4	9	9	13	9	1	7	5	19	12	11	0	1	2	0	0	4	2	0
February	7.7	W.	30	W.	0	6	6	7	7	4	5	14	7	0	16	4	8	7	6	0	0	1	0	0	9	0	0
March	9.2	SE.	29	W.	0	6	6	9	13	12	1	5	10	0	8	7	16	11	7	0	0	1	0	0	5	2	0
April	8.5	NW.	41	NW.	1	6	2	9	8	6	5	9	14	1	11	10	9	10	7	0	2	1	0	0	1	5	0
May	7.4	S.	36	W.	0	5	5	5	14	17	3	7	5	1	12	14	5	9	8	0	1	0	0	2	0	7	0
June	5.7	S.	40	S.	1	3	5	7	6	22	5	10	1	1	0	21	9	12	7	0	0	0	0	7	0	13	0
July	6.5	S.	27	W.	0	8	8	6	9	21	4	2	4	0	9	11	11	7	4	0	0	0	0	14	0	10	0
August	4.5	E.	24	W.	0	5	8	17	12	5	3	4	7	1	10	18	3	7	6	0	0	0	0	14	0	9	0
September	6.3	S.	32	N.	0	3	9	10	6	14	11	1	2	4	15	7	8	10	10	0	0	1	0	6	0	2	0
October	7.3	NW.	37	NW.	0	5	5	6	9	6	8	13	6	4	14	6	11	10	9	0	1	1	0	0	0	4	0
November	7.6	SE.	37	W.	0	7	7	3	15	8	5	9	5	1	9	9	12	5	4	0	0	2	0	0	7	1	0
December	8.9	NW.	35	W.	0	5	8	2	8	8	15	7	9	0	16	7	8	4	4	1	0	0	2	0	17	0	0
Year	7.3	S.	41	NW.	2	59	78	89	111	132	74	94	79	14	127	119	119	104	83	1	5	9	2	43	43	55	0

LOS ANGELES, CAL.

[H = 330 ft.; h_t = 74 ft.; h_r = 66 ft.; h_a = 82 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.9	NE.	24	E.	0	4	18	3	2	7	3	14	11	0	12	10	9	6	5	0	0	1	0	0	1	0	0
February	3.9	W.	17	W.	0	9	9	5	3	2	7	20	1	0	11	12	5	4	2	0	0	2	0	0	0	0	0
March	5.1	W.	24	NW.	0	8	12	2	2	1	11	18	7	1	15	14	2	4	3	0	1	3	0	0	0	0	0
April	4.7	W.	20	W.	0	2	5	3	5	4	10	26	3	2	15	12	3	1	0	0	0	0	0	5	0	0	0
May	4.6	W.	15	W.	0	0	0	0	7	6	21	23	1	4	8	18	5	2	2	0	0	2	0	0	0	0	0
June	4.3	W.	15	W.	0	1	0	0	3	5	15	33	2	1	6	22	2	0	0	0	0	7	0	3	0	0	0
July	4.5	W.	15	W.	0	1	0	0	3	2	20	31	0	5	12	19	0	1	1	0	0	0	0	1	0	0	0
August	4.2	SW.	13	SW.	0	0	0	0	1	0	29	27	1	4	12	19	0	0	0	0	0	2	0	8	0	0	0
September	3.8	W.	17	W.	0	0	0	0	0	0	19	31	3	7	10	10	1	2	0	0	0	1	0	8	0	0	0
October	3.3	W.	20	W.	0	1	0	0	1	1	15	33	7	4	18	13	0	2	1	0	0	2	0	1	0	0	0
November	3.8	W.	24	NE.	0	4	3	2	0	2	12	18	14	5	18	10	2	0	0	0	0	0	0	2	0	0	0
December	4.0	W.	22	NW.	0	9	12	6	1	1	7	13	9	4	14	13	4	3	1	0	0	0	0	0	0	0	0
Year	4.3	W.	24	E.	0	39	59	21	28	31	169	287	59	37	160	172	33	25	15	0	1	20	0	28	1	0	0

LOUISVILLE, KY.

[H = 525 ft.; h_t = 114 ft.; h_r = 107 ft.; h_a = 136 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.3	W.	53	W.	4	2	6	8	6	9	12	12	5	2	6	8	17	13	11	2	0	5	2	0	14	1	0
February	9.7	W.	46	W.	1	5	2	1	14	9	8	11	6	0	9	6	13	9	7	4	0	0	4	0	16	0	0
March	9.1	N.	42	W.	1	15	6	7	9	10	6	2	5	2	7	4	20	17	16	3	1	2	0	0	4	3	0
April	9.3	N.	36	NE.	0	7	9	6	6	7	7	10	7	1	6	12	12	10	7	1	0	0	0	0	2	1	0
May	8.7	N.	41	SW.	1	16	0	5	6	11	12	4	8	0	14	6	11	10	10	1	0	1	0	0	0	5	0
June	7.0	SW.	45	S.	2	13	9	2	5	8	13	2	8	0	14	12	4	7	7	0	0	0	0	11	0	5	0
July	6.8	S.	31	W.	0	15	6	6	5	18	5	6	0	1	9	11	11	7	6	0	0	0	0	15	0	6	0
August	5.2	S.	30	S.	0	8	4	5	6	19	9	5	2	4	16	9	6	9	8	0	0	0	0	10	0	7	0
September	6.8	SW.	48	W.	1	9	6	4	12	8	13	2	5	1	14	7	9	9	7	0	0	0	0	3	0	5	0
October	8.3	SE.	32	S.	0	6	6	3	15	5	13	12	2	0	7	7	17	12	9	0	0	2	0	0	1	1	0
November	9.1	SE.	43	SE.	1	6	5	2	15	10	8	8	5	1	9	5	16	11	9	3	0	0	1	0	8	1	0
December	9.6	SW.	36	W.	0	7	3	1	6	15	18	7	5	0	12	7	12	10	8	6	0	1	7	0	23	0	0
Year	8.4	S.	53	W.	11	109	62	50	105	129	124	81	58	12	123	94	148	124	105	20	1	11	14	39	68	35	0

a By eye observations when there is no self-register at station.

C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

LYNCHBURG, VA.

[λ = 37° 25′ N.; φ = 79° 9′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.34	29.73	28.89	35.9	39.8	47.1	31.3	39.2	63	15	29	30	75	68	.164	.173	2.16	0.66	5.2	4.2	5.5
February	29.40	29.81	28.89	29.3	39.5	48.1	26.9	37.5	72	8	24	26	79	60	.138	.146	.74	.37	3.6	1.9	3.2
March	29.47	29.85	29.16	45.3	53.2	60.0	41.6	50.8	82	21	39	41	80	64	.256	.267	3.25	1.09	6.2	4.5	5.8
April	29.29	29.57	28.74	48.6	55.8	63.1	42.7	52.9	86	26	36	36	63	51	.224	.226	2.94	1.15	5.0	4.4	5.1
May	29.23	29.51	28.85	62.6	68.9	78.5	56.4	67.4	91	40	56	56	79	66	.452	.470	9.08	3.54	5.5	5.0	5.2
June	29.32	29.51	29.05	71.0	75.6	84.4	63.4	73.9	94	54	61	64	73	69	.550	.606	2.98	.60	3.6	5.1	4.8
July	29.35	29.59	29.08	74.3	77.1	86.4	68.5	77.4	99	57	67	68	79	77	.669	.705	7.17	2.56	4.9	6.4	6.0
August	29.34	29.50	29.10	72.6	77.3	86.3	68.2	77.2	95	64	68	70	86	78	.690	.726	2.82	.89	5.5	4.3	4.9
September	29.39	29.63	29.14	65.7	71.9	81.9	60.5	71.2	93	46	60	62	83	71	.540	.560	4.50	4.16	3.0	3.5	3.8
October	29.40	29.72	28.90	53.7	58.2	68.0	49.7	58.8	85	31	49	52	85	79	.385	.416	7.33	1.98	4.5	3.1	4.6
November	29.41	29.79	28.72	39.9	45.6	54.3	35.8	45.0	71	24	34	37	81	74	.206	.240	2.61	.65	5.0	4.4	5.1
December	29.36	29.85	28.71	33.8	39.6	48.2	29.5	38.8	66	14	28	30	77	71	.159	.174	4.35	1.32	4.5	2.6	4.6
Year	29.36	29.85	28.71	52.7	58.5	67.2	47.9	57.5	99	8	46	48	78	69	.369	.392	49.93	4.16	4.7	4.1	4.9

MARQUETTE, MICH.

[λ = 46° 34′ N.; φ = 87° 24′ W.; gravity corr., —0.00.]

January	29.13	29.52	28.52	19.8	22.6	28.3	15.8	22.0	39	2	17	20	88	89	.094	.108	1.43	.58	8.8	6.1	7.8
February	29.22	29.60	28.81	18.4	21.5	26.5	14.9	20.7	42	— 8	16	18	87	87	.092	.106	3.08	1.03	8.1	7.7	8.3
March	29.19	29.57	28.73	29.1	32.5	39.3	24.9	32.1	56	12	24	26	80	78	.133	.145	2.32	.79	6.4	6.3	6.8
April	29.28	29.63	28.82	38.0	39.4	44.3	32.4	38.4	66	17	30	29	73	67	.166	.165	1.72	1.32	4.5	4.4	5.3
May	29.12	29.54	28.66	49.3	49.8	57.2	42.4	49.8	78	36	40	41	73	75	.253	.268	3.16	.87	5.8	5.3	6.4
June	29.15	29.55	28.48	55.5	57.5	67.3	48.0	57.6	90	40	47	50	77	78	.339	.371	3.86	1.62	5.6	4.8	6.7
July	29.18	29.48	28.73	64.6	65.6	74.9	55.2	65.0	93	45	56	56	75	74	.463	.463	2.57	.63	4.7	5.2	5.9
August	29.15	29.41	28.91	61.6	64.2	70.0	56.0	63.0	82	45	55	56	80	76	.439	.457	1.16	.79	5.8	5.3	6.5
September	29.13	29.82	28.65	56.6	61.5	70.5	52.9	61.7	94	38	51	52	83	72	.394	.407	1.47	.42	5.0	4.2	5.6
October	29.19	29.58	28.77	43.7	45.7	51.0	40.2	45.6	76	29	40	40	88	82	.260	.262	3.40	1.14	7.8	7.2	7.9
November	29.10	29.75	28.45	32.3	34.8	40.6	28.9	34.8	66	11	29	31	87	86	.166	.180	1.79	.57	8.2	6.9	8.1
December	29.10	29.81	28.48	17.6	20.8	26.2	14.9	20.6	40	— 6	15	18	88	88	.087	.100	1.52	.49	8.1	5.8	7.5
Year	29.16	29.82	28.45	40.5	43.0	49.7	35.5	42.6	94	— 8	35	36	82	79	.240	.253	27.48	1.62	6.6	5.8	6.9

MEMPHIS, TENN.

[λ = 35° 9′ N.; φ = 90° 3′ W.; gravity corr., —0.03.]

January	29.67	30.13	29.06	43.1	49.2	53.5	39.9	46.7	70	18	38	38	82	66	.251	.247	10.72	2.65	5.9	4.8	6.1
February	29.74	30.15	29.43	40.5	48.3	53.1	38.1	45.6	67	19	32	33	72	58	.193	.204	1.82	.73	3.7	3.6	5.3
March	29.67	29.96	29.24	50.1	60.8	65.5	48.1	56.8	83	30	43	44	76	55	.307	.313	4.73	1.71	6.5	5.7	6.0
April	29.65	30.12	29.25	52.3	63.3	66.7	50.7	58.7	84	35	43	41	71	47	.286	.270	2.30	.66	5.0	4.4	5.1
May	29.54	29.69	29.32	67.1	77.2	82.2	64.0	73.1	89	46	60	64	79	65	.534	.615	4.39	1.83	4.6	3.7	4.3
June	29.59	29.73	29.44	73.7	81.4	88.0	71.1	79.6	92	65	69	71	86	73	.717	.771	2.76	.89	4.8	5.5	5.1
July	29.62	29.76	29.48	74.5	80.7	87.6	70.8	79.2	95	62	70	73	87	77	.750	.807	4.28	1.84	5.6	6.1	5.8
August	29.60	29.76	29.48	73.7	82.2	88.0	71.7	79.8	95	66	70	72	88	71	.731	.774	2.69	1.29	2.9	4.1	3.9
September	29.61	29.81	29.37	70.3	78.9	84.2	68.2	76.2	93	57	66	68	86	70	.646	.688	5.57	2.57	3.5	4.6	4.8
October	29.67	30.01	29.35	54.6	62.4	69.9	51.8	60.8	90	35	49	51	82	63	.394	.425	3.14	1.27	3.9	2.7	4.1
November	29.73	29.98	29.16	43.6	52.1	57.5	40.6	49.0	75	20	35	37	73	59	.226	.241	3.22	1.13	5.8	3.7	5.6
December	29.77	30.38	29.24	36.6	43.4	48.5	33.6	41.0	67	14	29	28	74	57	.175	.171	2.96	1.76	5.2	3.5	5.3
Year	29.66	30.38	29.06	56.7	65.0	70.4	54.0	62.2	95	14	50	52	80	64	.434	.460	48.58	2.65	4.8	4.4	5.1

MILES CITY, MONT.

[λ = 46° 25′ N.; φ = 105° 49′ W.; gravity corr., 0.00.]

January	27.44	27.96	27.07	14.1	24.7	32.1	11.9	22.0	44	—10	12	19	89	77	.073	.101	.17	.04	3.1	3.4	4.5
February	27.48	28.11	26.91	19.0	31.2	38.4	16.1	27.2	54	— 9	17	23	93	73	.104	.130	.35	.16	4.5	4.3	5.1
March	27.45	27.87	26.83	17.5	29.1	32.5	15.5	24.0	66	—13	16	22	92	77	.096	.122	1.54	.45	6.6	5.7	6.2
April	27.49	27.93	27.09	36.1	54.2	59.5	35.4	47.4	88	12	31	32	83	49	.179	.188	.77	.44	4.9	5.2	5.2
May	27.42	27.80	26.98	47.1	62.5	65.9	45.1	55.5	87	30	41	40	80	47	.364	.261	2.61	1.78	5.5	7.0	6.4
June	27.42	27.78	27.10	56.8	71.8	75.9	55.2	65.6	102	45	49	52	79	56	.369	.411	1.99	.78	5.5	5.5	4.6
July	27.44	27.72	27.08	60.9	81.6	85.9	58.9	72.4	103	43	52	50	75	37	.401	.371	1.01	.30	3.3	5.2	4.3
August	27.42	27.68	27.14	60.4	85.1	88.1	59.5	73.8	102	52	51	52	71	33	.377	.391	.12	.07	4.2	3.9	3.2
September	27.44	28.03	26.97	47.3	68.8	73.2	46.0	59.6	91	34	42	44	82	44	.270	.292	.89	.53	3.6	5.0	4.1
October	27.54	27.98	27.06	33.6	44.6	51.1	32.5	41.8	72	22	30	35	86	73	.165	.216	1.77	.49	5.2	6.3	5.7
November	27.42	27.90	27.01	21.1	30.6	37.9	19.0	28.4	60	—12	17	23	83	73	.101	.134	.92	.66	4.0	4.2	4.1
December	27.56	28.24	27.00	15.6	22.1	30.0	12.2	21.1	56	—10	12	15	85	72	.081	.092	.31	.12	4.1	4.5	5.4
Year	27.46	28.24	26.83	35.8	50.5	55.9	33.9	44.9	103	—13	31	34	83	59	.207	.226	12.45	1.78	4.5	5.0	4.9

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

LYNCHBURG, VA.

[H = 685 ft.; h_t = 83 ft.; h_r = 76 ft.; h_a = 88 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction.a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	5.2	NW.	35	NW.	0	2	10	7	4	1	15	2	20	1	13	7	11	13	8	1	0	3	2	0	17	0	0
February	4.7	NW.	46	NW.	1	1	4	10	3	8	5	9	16	0	18	7	3	5	2	1	0	1	3	0	20	0	0
March	4.1	E.	22	NW.	0	4	15	13	8	3	6	3	10	0	10	8	13	11	8	2	0	1	0	0	7	0	0
April	5.6	NW.	28	NE.	0	2	9	0	1	6	8	7	26	1	11	8	11	10	8	0	0	0	0	0	4	0	0
May	4.2	NE.	34	NW.	0	1	18	3	3	13	12	0	12	0	13	10	8	15	14	0	2	0	0	2	0	7	0
June	3.6	SW.	24	NW.	0	3	18	7	0	6	19	1	6	0	12	11	7	11	11	0	0	0	0	9	0	6	0
July	3.4	NE.	22	NW.	0	5	18	9	6	5	7	7	5	0	7	13	11	17	16	0	0	0	0	13	0	5	0
August	3.1	SW.	22	SE.	0	3	11	5	4	8	24	5	2	0	13	10	8	10	7	0	0	2	0	8	0	5	0
September	3.1	NE.	21	NW.	0	0	18	9	2	1	13	4	7	6	17	9	4	6	5	0	0	1	0	3	0	3	0
October	4.0	NE.	23	W.	0	2	16	4	6	3	4	5	15	7	14	7	10	15	14	0	0	2	0	0	1	0	0
November	4.5	NW.	30	NW.	0	6	2	2	2	5	15	5	21	2	12	9	9	11	9	1	0	4	0	0	7	0	0
December	4.4	SW.	27	NW.	0	1	7	0	3	4	22	8	15	2	14	10	7	9	9	1	1	3	0	0	21	0	0
Year	4.2	NW.	46	NW.	1	30	146	69	42	63	150	56	155	19	154	109	102	133	111	6	3	17	5	35	77	26	0

MARQUETTE, MICH.

[H = 734 ft.; h_t = 67 ft.; h_r = 58 ft.; h_a = 95 ft.]

Month.	Average hourly velocity.	Prevailing direction.a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.9	NW.	39	NW.	0	8	1	1	2	8	12	12	18	0	2	8	21	16	8	16	0	0	17	0	31	0	1
February	11.3	NW.	38	SW.	0	9	6	1	6	9	4	8	12	1	3	2	23	18	11	17	0	2	21	0	28	0	0
March	11.8	SW.	44	S.	1	7	4	1	7	11	12	8	12	0	6	9	16	12	8	10	0	4	10	0	24	0	0
April	10.2	NW.	39	S.	0	7	6	1	7	4	2	4	29	0	10	14	6	7	3	3	0	0	4	0	8	0	0
May	9.6	NW.	32	SW.	0	9	2	4	7	4	7	6	23	0	7	10	14	17	12	0	0	2	0	0	0	2	0
June	8.9	NW.	38	SW.	0	8	2	4	9	6	7	4	20	0	5	11	14	13	10	0	0	7	0	0	0	3	0
July	9.4	NW.	52	SW.	1	3	10	1	5	11	10	4	17	1	7	13	11	14	11	0	0	1	0	4	0	8	0
August	7.7	N.	38	S.	0	9	7	2	5	8	6	8	17	0	5	16	10	10	5	0	0	0	0	0	0	1	0
September	10.3	SW.	38	SW.	0	3	0	5	6	12	11	11	12	0	8	11	11	15	12	0	0	1	0	1	0	6	0
October	12.0	N.	38	S.	0	13	4	2	10	10	4	6	13	0	4	6	21	20	15	7	0	0	0	0	3	0	0
November	11.6	SW.	40	S.	1	1	2	0	7	14	13	10	13	0	3	3	24	13	8	12	0	0	8	0	18	0	0
December	11.1	W.	44	S.	1	0	1	1	1	7	17	17	18	0	2	12	17	13	9	13	0	0	26	0	31	0	0
Year	10.4	NW.	52	SW.	4	77	45	23	72	104	105	98	204	2	62	115	188	168	112	75	0	17	86	5	143	20	1

MEMPHIS, TENN.

[H = 399 ft.; h_t = 140 ft.; h_r = 134 ft.; h_a = 154 ft.]

Month.	Average hourly velocity.	Prevailing direction.a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	11.7	SW.	52	W.	3	5	2	15	5	7	12	7	9	0	9	8	14	11	10	0	0	1	1	0	2	4	0
February	11.3	NW.	39	NW.	0	6	6	9	13	5	4	2	11	0	10	10	8	9	5	0	0	2	0	0	7	1	0
March	12.2	S.	44	W.	1	8	13	7	16	11	3	0	4	0	6	14	11	10	8	0	0	0	0	0	2	7	0
April	10.7	NW.	54	NW.	3	8	9	5	8	5	6	5	14	0	10	4	10	9	8	0	1	1	0	0	0	4	0
May	9.2	SW.	48	NW.	2	5	4	6	6	13	18	0	10	0	15	13	3	8	7	0	0	0	0	0	0	5	0
June	7.7	SW.	52	W.	2	2	8	5	4	13	17	7	4	0	10	13	7	12	9	0	0	0	0	11	0	12	0
July	7.7	SW.	42	SE.	2	6	14	4	6	12	13	2	5	0	6	14	11	13	8	0	0	1	0	10	0	11	0
August	5.9	NW.	40	NW.	1	9	10	12	2	8	5	6	10	0	14	12	5	7	6	0	0	1	0	9	0	6	0
September	9.4	SW.	34	E.	0	2	11	9	5	11	11	4	5	2	13	7	10	9	8	0	0	0	0	5	0	4	0
October	10.4	NW.	40	SW.	1	4	6	6	10	9	4	8	15	0	16	7	8	9	6	0	0	1	0	0	0	2	0
November	10.4	S.	52	SW.	2	7	8	2	13	8	8	6	8	0	8	10	12	7	6	0	0	0	0	0	7	1	0
December	11.1	SW.	40	NW.	1	7	8	6	9	7	12	3	10	0	12	6	13	7	5	3	0	3	2	0	14	0	0
Year	9.8	SW.	54	NW.	18	69	99	86	97	109	113	50	105	2	135	118	112	111	86	3	1	10	3	35	32	57	0

MILES CITY, MONT.

[H = 2,372 ft.; h_t = 41 ft.; h_r = 34 ft.; h_a = 49 ft.]

Month.	Average hourly velocity.	Prevailing direction.a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.3	S.	30	W.	0	1	4	1	4	20	19	5	2	6	14	10	7	6	2	6	0	0	13	0	31	0	0
February	6.9	S.	40	NW.	1	6	5	1	5	15	7	1	12	4	10	11	7	5	3	3	0	0	7	0	28	0	0
March	8.1	N.	40	W.	1	16	8	0	3	9	7	5	11	3	8	8	15	16	9	16	0	0	14	0	30	0	0
April	10.7	NW.	48	NW.	2	7	8	2	9	6	6	4	13	5	5	18	7	8	5	2	0	0	0	0	8	0	0
May	8.5	E.	39	W.	0	12	5	13	4	3	6	9	8	2	4	14	13	10	9	0	0	0	0	0	1	3	0
June	7.6	N.	40	W.	1	18	7	6	1	1	4	7	14	2	10	13	7	9	8	0	1	1	0	5	0	6	0
July	7.8	N.	45	N.	1	21	2	2	2	7	5	15	3	5	11	17	3	10	7	0	0	0	0	11	0	8	0
August	5.6	N.	27	SW.	0	17	4	7	3	6	4	5	8	8	18	10	3	3	2	0	0	0	0	15	0	2	0
September	5.8	W.	33	SW.	0	12	6	2	3	9	8	13	2	5	12	14	4	4	4	0	0	0	0	1	0	0	0
October	6.3	W.	39	W.	0	11	2	1	3	13	4	15	9	4	8	12	11	13	9	6	0	1	1	0	15	0	0
November	6.4	SW.	36	W.	0	5	1	3	2	9	17	11	8	4	13	13	4	7	2	5	0	0	6	0	24	0	0
December	6.2	SW.	31	W.	0	8	0	2	1	16	17	13	4	1	8	16	7	10	2	8	0	0	16	0	29	0	0
Year	7.1	N.	48	NW.	6	134	52	40	40	114	104	103	94	49	121	156	88	101	62	46	1	2	57	32	166	19	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

MILWAUKEE, WIS.

[λ = 43° 2′ N.; φ = 87° 54′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.28	29.67	28.69	22.3	28.3	32.4	19.6	26.0	43	2	18	24	81	81	.101	.131	3.52	1.18	5.3	5.0	6.6
February	29.33	29.73	28.97	21.8	26.8	31.4	18.6	25.0	49	— 7	17	22	78	82	.101	.130	3.36	1.31	7.0	7.2	7.5
March	29.35	29.73	28.85	33.0	38.3	44.9	30.2	37.6	62	17	27	32	77	78	.154	.186	3.45	1.01	5.9	4.4	6.4
April	29.35	29.74	28.96	40.4	44.9	51.0	37.0	44.0	80	24	31	34	69	68	.173	.201	1.77	1.15	5.1	5.9	6.7
May	29.23	29.56	28.82	52.2	57.6	63.4	46.7	55.0	80	36	44	47	74	69	.295	.340	1.65	.40	5.2	6.2	5.6
June	29.27	29.65	28.69	64.4	67.2	74.7	57.2	66.0	91	48	57	56	77	69	.472	.468	2.44	.77	5.9	5.6	6.5
July	29.32	29.60	28.97	68.3	74.7	79.6	62.8	71.2	92	51	59	60	74	62	.515	.539	3.28	2.37	3.8	3.5	4.1
August	29.27	29.49	29.02	65.7	72.4	77.6	62.5	70.0	93	55	60	64	82	77	.522	.612	4.86	2.33	5.3	4.8	5.7
September	29.30	29.87	28.90	60.9	66.5	73.2	57.5	65.4	94	44	54	55	79	68	.438	.457	1.98	.70	3.7	4.1	4.6
October	29.29	29.69	28.84	46.1	49.9	55.3	43.3	49.3	76	23	41	43	81	78	.272	.293	4.38	1.03	7.8	6.3	8.0
November	29.29	29.71	28.72	31.5	37.4	43.5	29.1	36.3	66	6	25	30	77	74	.152	.177	1.16	.21	6.0	4.9	5.8
December	29.30	29.99	28.74	18.0	22.9	28.3	14.6	21.4	51	— 5	11	16	72	74	.078	.098	.58	.44	4.8	3.2	4.5
Year	29.30	29.99	28.69	43.7	48.9	54.6	39.9	47.3	94	— 7	37	40	77	73	.273	.303	32.43	2.37	5.5	5.1	6.0

MINNEAPOLIS, MINN.

[λ = 44° 59′ N.; φ = 93° 18′ W.; gravity corr., —0.00.]

January					24.9	30.6	15.3	23.0	43	— 2							.05	.03			
February					24.1	28.7	12.3	20.5	46	—14							1.47	.73			
March					37.6	42.8	26.5	34.6	61	11							1.67	.75			
April					50.9	54.7	36.0	45.4	78	18							1.46	.60			
May					63.2	67.5	48.7	58.1	83	37							5.17	2.41			
June					73.1	77.7	59.5	68.6	93	50							2.69	.85			
July					78.4	83.3	63.1	73.2	92	54							2.91	2.65			
August					74.2	79.9	59.7	69.8	97	50							2.60	1.95			
September					67.9	75.1	53.1	64.1	96	39							.83	.32			
October					47.4	53.5	38.2	45.8	81	26							5.51	1.90			
November					31.4	38.1	21.3	29.7	61	— 7							1.49	.88			
December					16.6	22.5	5.7	14.1	41	—20							.07	.03			
Year					49.1	54.5	36.6	45.6	97	—20							25.92	2.65			

MOBILE, ALA.

[λ = 30° 41′ N.; φ = 88° 2′ W.; gravity corr., —0.04.]

January	30.11	30.57	29.78	50.2	56.8	63.0	46.8	54.9	73	20	46	51	87	82	.348	.406	2.15	.45	4.8	5.4	6.4
February	30.13	30.50	29.83	45.0	55.1	61.6	43.6	52.6	74	29	41	47	82	76	.275	.345	5.58	2.25	4.3	1.5	3.9
March	30.08	30.28	29.89	58.7	63.2	70.2	54.9	62.6	82	35	56	58	90	83	.482	.500	1.90	.77	5.2	5.2	6.1
April	30.04	30.40	29.63	56.7	65.4	71.4	53.6	62.5	82	40	50	50	80	59	.384	.378	2.61	1.20	3.1	3.7	4.0
May	29.96	30.11	29.70	70.3	76.9	83.3	66.2	74.8	92	46	63	62	79	60	.601	.569	.81	.81	1.5	2.7	1.8
June	30.00	30.12	29.84	78.0	80.2	87.4	73.0	80.2	93	70	73	71	85	74	.810	.761	4.86	1.56	2.8	4.7	3.7
July	29.99	30.14	29.73	77.7	81.2	87.6	74.3	81.0	97	66	72	72	83	76	.786	.799	5.60	1.86	2.3	4.1	3.4
August	29.96	30.10	29.84	76.3	78.4	86.8	73.2	80.0	94	71	73	74	89	85	.804	.829	12.35	3.18	3.7	6.3	4.5
September	29.96	30.10	29.76	73.8	78.6	84.2	71.7	78.0	90	66	70	72	88	81	.746	.787	16.40	5.00	3.9	4.6	4.7
October	30.04	30.34	29.76	58.8	67.3	74.5	56.2	65.4	87	37	55	57	87	70	.488	.514	3.30	2.34	1.7	1.2	1.6
November	30.10	30.35	29.75	49.8	57.6	64.3	47.0	55.6	77	31	46	50	86	77	.320	.388	7.44	2.04	3.7	4.1	4.0
December	30.14	30.50	29.73	45.0	50.1	56.8	41.9	49.4	70	25	42	44	89	80	.292	.312	3.11	1.28	4.5	3.9	4.3
Year	30.04	30.57	29.63	61.8	67.6	74.3	58.5	66.4	97	20	57	59	85	75	.529	.549	66.11	5.00	3.5	4.0	4.0

MONTGOMERY, ALA.

[λ = 32° 23′ N.; φ = 86° 18′ W.; gravity corr., —0.03.]

January	29.91	30.31	29.59	47.3	54.9	61.1	44.3	52.7	79	18	43	49	84	83	.304	.377	1.52	.30	5.3	4.5	5.8
February	29.94	30.30	29.67	41.0	53.5	59.4	39.0	49.2	74	22	33	39	74	60	.209	.259	2.33	.72	3.0	2.7	3.3
March	29.01	30.10	29.70	55.5	65.3	71.6	52.5	62.0	86	33	51	52	86	63	.404	.407	2.05	.85	6.1	5.0	4.5
April	29.85	30.23	29.46	53.8	66.5	71.8	50.3	61.0	86	34	45	47	73	51	.312	.333	4.31	2.85	3.5	4.7	3.5
May	29.75	29.96	29.51	68.7	82.9	88.0	64.2	76.1	96	43	59	57	72	43	.512	.479	.50	.21	2.4	4.3	2.1
June	29.80	29.95	29.64	75.1	83.9	91.8	71.6	81.7	98	67	67	66	78	57	.675	.637	1.41	.60	3.1	6.2	4.6
July	29.81	29.97	29.54	75.7	81.1	89.3	71.9	80.6	100	61	71	70	85	70	.762	.728	5.26	1.63	3.9	7.2	6.3
August	29.79	29.92	29.59	74.5	79.0	85.7	72.0	78.8	93	70	72	73	92	82	.791	.805	7.92	1.08	5.2	7.6	6.6
September	29.80	29.96	29.65	70.6	79.6	85.2	68.3	76.8	92	60	67	69	87	71	.660	.704	1.13	.38	4.8	5.9	5.4
October	29.85	30.14	29.43	56.0	66.0	73.6	53.6	63.6	90	34	52	54	86	67	.435	.468	2.54	.93	3.1	2.2	3.6
November	29.92	30.20	29.48	46.0	56.4	62.5	43.7	53.1	78	26	41	44	84	66	.282	.319	7.09	1.61	4.0	5.5	5.8
December	29.96	30.40	29.53	42.0	50.2	56.7	39.4	48.0	74	20	36	39	80	67	.246	.258	3.69	1.41	5.8	5.3	5.6
Year	29.86	30.40	29.43	58.8	68.3	74.7	55.9	65.3	100	18	53	55	82	65	.466	.481	39.75	2.85	4.2	5.1	4.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

MILWAUKEE, WIS.

[H = 671 ft.; h_t = 106 ft.; h_r = 100 ft.; h_a = 149 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.8	NW.	42	N.	2	4	5	2	6	5	12	11	17	0	9	3	19	12.	8	11	0	2	11	0	29	0	0
February	11.6	SW.	33	E.	0	10	6	1	6	6	8	10	8	1	4	6	18	16	12	12	0	3	15	0	25	0	0
March	9.9	SW.	42	SW.	1	6	6	6	8	10	10	7	9	0	4	13	14	13	10	3	1	2	1	0	16	1	1
April	11.2	NE.	40	N.	1	18	12	6	11	4	3	3	3	0	6	7	17	12	4	2	0	0	0	0	8	1	0
May	9.6	N.	34	SE.	0	15	14	4	8	3	8	5	5	0	11	11	9	12	9	0	0	3	0	0	0	2	0
June	8.4	NE.	33	SW.	0	7	13	4	9	5	12	6	4	0	4	11	15	10	8	0	0	1	0	1	0	6	0
July	7.7	E.	46	NW.	1	7	15	8	10	6	8	4	4	0	15	10	6	4	3	0	0	0	0	4	0	3	0
August	8.8	SW.	28	SW.	0	9	7	7	6	8	15	3	7	0	6	16	9	8	6	0	0	0	0	2	0	3	0
September	8.4	SE.	45	SE.	1	5	5	7	8	9	8	13	5	0	9	13	8	8	7	0	0	2	0	2	0	3	2
October	11.5	NW.	40	E.	2	9	1	6	6	18	4	3	15	0	3	7	21	16	14	2	0	0	0	0	2	2	0
November	12.4	SW.	36	NW.	0	0	4	1	6	14	9	16	10	0	10	4	16	14	8	6	0	0	6	0	13	1	0
December	12.5	NW.	38	W.	0	2	2	2	0	0	16	19	21	0	14	6	11	8	4	6	0	0	19	0	27	0	0
Year	10.2	SW.	46	NW.	8	92	90	54	84	88	113	100	108	1	95	107	163	133	93	42	1	13	52	9	120	22	3

MINNEAPOLIS, MINN.

[H = —— ft.; h_t = 99 ft.; h_r = 95 ft.; h_a = 208 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.7	NW.	40	NW.	1	....	....	....	....	....	....	....	....	....	5	18	8	3	0	3	0	0	19	0	31	0	0
February	12.3	NW.	38	SE.	0	....	....	....	....	....	....	....	....	....	6	10	12	11	7	10	0	1	18	0	28	0	0
March	13.2	S.	55	SE.	2	....	....	....	....	....	....	....	....	....	7	12	12	11	8	10	0	0	3	0	22	1	3
April	11.1	NE.	48	SE.	1	....	....	....	....	....	....	....	....	....	8	11	11	10	9	3	0	0	0	0	8	1	0
May	10.1	NE.	25	SE.	0	....	....	....	....	....	....	....	....	....	8	10	13	10	8	0	0	0	0	0	0	5	0
June	5.3	W.	20	NW.	0	....	....	....	....	....	....	....	....	....	3	18	9	11	9	0	1	0	0	1	0	7	0
July	9.2	S.	34	S.	0	....	....	....	....	....	....	....	....	....	12	14	5	4	3	0	0	0	0	5	0	3	0
August	8.6	S.	28	N.	0	....	....	....	....	....	....	....	....	....	9	16	6	8	8	0	0	2	0	3	0	5	0
September	9.6	NW.	30	S.	0	....	....	....	....	....	....	....	....	....	11	11	8	6	5	0	0	0	0	3	0	2	1
October	12.2	N.	36	NE.	0	....	....	....	....	....	....	....	....	....	3	11	17	13	8	0	0	0	0	0	4	3	0
November	10.1	SW.	50	N.	2	....	....	....	....	....	....	....	....	....	6	13	11	8	7	5	0	0	10	0	22	0	0
December	10.2	NW.	38	NW.	0	....	....	....	....	....	....	....	....	....	11	14	6	5	0	7	0	1	22	0	31	0	0
Year	10.2	NW.	55	SE.	6	....	....	....	....	....	....	....	....	....	89	158	118	100	72	38	1	4	72	12	146	27	4

MOBILE, ALA.

[H = 57 ft.; h_t = 88 ft.; h_r = 78 ft.; h_a = 96 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.0	NW.	34	SE.	0	7	6	2	6	14	4	5	14	4	8	6	17	15	11	0	0	5	0	0	3	1	0
February	7.1	N.	36	SE.	0	16	6	1	13	3	8	3	6	0	13	10	5	9	5	0	0	3	0	0	4	4	0
March	9.9	S.	27	N.	0	13	4	2	11	18	7	1	5	1	4	18	9	7	5	0	0	3	0	0	0	0	0
April	7.6	N.	31	N.	0	18	2	1	3	11	7	2	15	1	16	10	4	8	6	0	0	0	0	0	0	6	0
May	8.2	S.	36	S.	0	6	1	1	1	23	10	9	11	0	28	2	1	1	1	0	1	1	0	1	0	4	0
June	6.7	SW.	38	NW.	0	6	9	1	3	11	14	8	8	0	15	13	2	12	11	0	0	0	0	3	0	16	0
July	6.7	N.	25	N.	0	14	7	2	2	12	13	5	6	1	18	13	0	14	13	0	0	0	0	6	0	17	0
August	5.0	N.	26	SW.	0	14	9	5	7	9	9	4	2	3	10	18	3	23	18	0	0	0	0	6	0	14	0
September	6.5	N.	26	S.	0	20	8	11	9	5	3	1	2	1	13	6	11	13	12	0	0	0	0	0	0	4	0
October	7.2	N.	27	NW.	0	27	5	3	5	8	2	1	11	0	27	2	2	6	6	0	0	1	0	0	0	4	0
November	8.0	N.	28	N.	0	32	4	2	10	4	0	3	5	0	15	9	6	14	12	0	0	1	0	0	2	1	0
December	8.0	N.	32	W.	0	24	4	2	3	11	3	4	10	1	15	8	8	12	10	0	0	3	0	0	5	1	0
Year	7.4	N.	38	NW.	0	197	65	33	73	129	80	46	95	12	182	115	68	134	110	0	1	17	0	16	14	72	0

MONTGOMERY, ALA.

[H = 221 ft.; h_t = 100 ft.; h_r = 70 ft.; h_a = 112 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.6	W.	35	W.	0	6	8	4	4	9	10	11	10	0	11	5	15	13	11	0	0	2	0	0	4	0	0
February	6.7	N.	32	SE.	0	11	6	10	10	1	5	8	5	0	17	4	7	7	7	0	0	1	0	0	8	2	0
March	7.5	S.	24	SW.	0	10	5	8	12	13	11	0	3	0	15	11	5	9	6	0	0	3	0	0	0	0	0
April	7.1	N.	36	SW.	0	14	4	1	6	6	8	8	12	1	19	5	6	6	4	0	0	0	0	0	0	4	0
May	6.5	SW.	26	E.	0	5	5	1	3	5	19	17	7	0	23	8	0	4	3	0	0	0	0	15	0	3	0
June	6.3	SW.	31	W.	0	2	1	4	8	13	21	9	2	0	10	18	2	8	6	0	0	0	0	25	0	13	0
July	5.9	SW.	36	W.	0	1	9	2	5	13	18	10	3	1	2	20	9	17	13	0	0	0	0	16	0	19	0
August	5.4	SE.	28	N.	0	0	12	10	14	13	11	1	1	0	7	11	13	19	17	0	0	0	0	5	0	11	0
September	5.6	NE.	21	NE.	0	1	21	15	7	0	12	0	2	2	12	6	12	10	8	0	0	0	0	9	0	3	0
October	6.8	N.	28	NW.	0	13	9	12	7	3	4	4	8	2	18	7	6	7	5	0	0	1	0	0	0	1	0
November	7.3	E.	28	NW.	0	9	11	13	12	1	3	4	6	1	9	6	15	12	9	0	0	2	0	0	3	0	0
December	7.0	NE.	38	W.	0	8	14	3	6	8	7	8	8	0	11	6	14	9	7	0	1	3	0	0	9	1	0
Year	6.6	SW.	38	W.	0	80	105	83	94	85	129	80	67	7	154	107	104	121	96	0	1	12	0	70	24	57	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

MOORHEAD, MINN.

[λ=46° 52′ N.; φ=96° 44′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.96	29.58	28.49	10.0	19.2	27.4	4.6	16.0	40	—11	9	16	94	87	.067	.092	.15	.04	4.8	4.2	5.0
February	29.06	29.59	28.60	6.2	18.2	26.2	2.1	14.2	51	—20	4	14	92	84	.060	.088	.54	.20	5.5	4.1	5.1
March	28.97	29.45	28.18	18.1	30.7	37.0	16.1	26.6	62	— 6	16	24	92	76	.097	.130	1.32	.50	5.7	6.0	5.8
April	29.03	29.49	28.38	32.5	51.2	55.9	29.8	42.8	72	14	28	29	85	46	.158	.165	2.38	1.63	3.3	4.6	4.3
May	28.93	29.36	28.30	46.0	61.6	65.4	41.6	53.5	83	26	40	41	80	50	.258	.267	3.10	1.10	4.0	4.8	4.7
June	28.89	29.23	28.42	57.5	69.7	74.1	52.6	63.4	96	38	53	57	87	66	.420	.480	2.34	1.34	6.1	4.5	5.6
July	28.94	29.23	28.45	60.9	75.2	80.0	55.6	67.8	94	40	56	61	86	62	.463	.551	2.48	1.50	3.8	4.0	3.9
August	28.92	29.19	28.65	55.1	73.3	78.9	52.3	65.6	92	40	53	57	91	57	.403	.472	2.72	1.00	2.9	4.3	3.5
September	28.90	29.63	28.48	48.5	64.0	71.6	46.0	58.8	94	30	44	44	84	52	.302	.311	1.56	.68	4.2	3.6	4.8
October	28.98	29.51	28.38	35.0	42.7	48.2	31.9	40.0	76	21	32	34	88	73	.186	.203	1.74	.82	6.6	6.7	6.6
November	28.93	29.54	28.40	18.1	25.5	33.3	13.9	23.6	66	—12	16	20	91	81	.101	.115	.68	.46	4.9	4.0	5.5
December	29.02	29.77	28.29	6.6	12.2	20.5	—0.2	10.2	50	—24	5	10	91	90	.063	.079	.32	.14	3.3	1.8	3.7
Year	28.96	29.77	28.18	32.9	45.3	51.5	28.9	40.2	96	—24	30	34	88	69	.215	.246	19.33	1.63	4.6	4.4	4.9

MOUNT TAMALPAIS, CAL.

[λ=37° 56′ N.; ψ=122° 35′ W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	27.61	27.78	27.32	48.8	51.4	56.1	46.6	51.4	71	34	32	36	59	61	.197	.220	1.35	.55	2.5	2.3	4.1
December	27.69	28.05	27.43	43.8	46.2	51.0	40.4	45.7	63	30	25	28	53	56	.149	.164	1.42	.59	2.8	3.5	4.7
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NANTUCKET, MASS.

[λ=41° 17′ N.; φ=70° 6′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.96	30.54	29.04	31.8	32.8	38.4	27.2	32.8	52	10	26	26	77	76	.152	.151	2.76	.96	6.7	4.3	6.7
February	30.05	30.67	28.97	31.9	33.8	39.8	28.3	34.0	56	12	27	29	82	83	.156	.171	1.87	1.10	5.0	3.9	5.8
March	30.22	30.76	29.65	40.3	39.4	45.3	35.9	40.6	56	30	36	35	84	84	.215	.203	2.56	.60	5.4	4.7	5.8
April	29.90	30.30	29.42	42.1	41.8	46.6	38.1	42.4	60	25	37	37	82	84	.225	.226	2.97	.62	6.5	5.5	6.7
May	29.97	30.36	29.62	50.9	49.4	56.7	46.2	51.4	68	40	47	47	89	92	.333	.329	3.53	1.13	6.0	6.5	7.6
June	29.97	30.32	29.59	59.8	57.1	65.2	53.9	59.6	76	44	56	55	89	93	.459	.436	.63	.40	6.5	5.3	6.9
July	30.05	30.41	29.71	66.9	64.9	72.9	61.7	67.3	80	54	64	63	92	94	.604	.583	2.93	1.16	3.7	3.2	6.8
August	30.00	30.25	29.75	70.4	68.3	75.6	65.5	70.6	83	56	67	67	90	95	.675	.666	2.20	.80	6.2	3.9	6.5
September	30.04	30.42	29.60	65.2	63.4	70.5	59.8	65.2	85	52	60	60	84	89	.539	.539	.83	.44	4.2	2.8	5.3
October	30.11	30.43	29.51	55.0	54.7	59.7	50.9	55.3	74	42	51	50	87	86	.389	.381	3.09	1.03	5.8	4.3	6.6
November	29.98	30.52	28.92	44.3	44.5	49.8	39.8	44.8	60	28	40	40	85	84	.258	.254	5.15	.95	6.6	5.4	6.9
December	30.02	30.53	29.40	34.8	35.4	41.1	30.3	35.7	52	10	29	29	78	78	.168	.170	2.22	.95	5.9	3.2	6.3
Year	30.02	30.76	28.92	49.4	48.8	55.1	44.8	50.0	85	10	45	45	85	86	.348	.342	31.34	1.16	5.7	4.4	6.5

NARRAGANSETT PIER, R. I.

[λ=41° 19′ N.; φ=71° 17′ W.; gravity corr., ———.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	38.2	21.5	29.8	52	0	.....	.....	.....	.....	.....	.....	4.93	1.70	.....	.....	.....
February	.....	.....	.....	.....	.....	38.6	22.9	30.8	51	0	.....	.....	.....	.....	.....	.....	7.42	3.20	.....	.....	.....
March	.....	.....	.....	.....	.....	47.5	33.4	40.4	61	23	.....	.....	.....	.....	.....	.....	3.75	1.27	.....	.....	.....
April	.....	.....	.....	.....	.....	50.4	36.0	43.2	66	20	.....	.....	.....	.....	.....	.....	5.13	2.00	.....	.....	.....
May	.....	.....	.....	.....	.....	61.1	46.7	53.9	83	32	.....	.....	.....	.....	.....	.....	8.96	2.65	.....	.....	.....
June	.....	.....	.....	.....	.....	71.4	56.5	64.0	85	47	.....	.....	.....	.....	.....	.....	.10	.05	.....	.....	.....
July	.....	.....	.....	.....	.....	77.5	62.7	70.1	88	52	.....	.....	.....	.....	.....	.....	3.49	2.00	.....	.....	.....
August	.....	.....	.....	.....	.....	77.7	64.4	71.0	85	58	.....	.....	.....	.....	.....	.....	3.72	2.00	.....	.....	.....
September	.....	.....	.....	.....	.....	73.2	56.3	64.7	90	39	.....	.....	.....	.....	.....	.....	1.99	1.16	.....	.....	.....
October	.....	.....	.....	.....	.....	61.1	46.9	54.0	75	30	.....	.....	.....	.....	.....	.....	9.16	2.55	.....	.....	.....
November	.....	.....	.....	.....	.....	48.0	33.3	40.6	60	19	.....	.....	.....	.....	.....	.....	6.84	2.01	.....	.....	.....
December	.....	.....	.....	.....	.....	39.2	24.3	31.8	50	—1	.....	.....	.....	.....	.....	.....	2.61	1.46	.....	.....	.....
Year	.....	.....	.....	.....	.....	57.0	42.1	49.5	90	—1	.....	.....	.....	.....	.....	.....	58.10	3.20	.....	.....	.....

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

MOORHEAD, MINN.

[H = 935 ft.; h_t = 54 ft.; h_r = 44 ft.; h_a = 60 ft.]

Month.	Wind. By self registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	9.4	SE.	34	SE.	0	9	2	2	20	4	6	4	15	0	6	21	4	5	3	5	0	0	19	0	31	0	0
February	11.5	NW.	35	SE.	0	3	3	2	18	1	3	3	23	0	9	11	8	10	6	10	0	0	19	0	28	0	0
March	12.5	NW.	52	SE.	2	4	3	3	17	2	9	1	22	1	10	8	13	8	6	8	0	0	9	0	29	0	0
April	11.6	SE.	48	SE.	1	8	11	4	17	0	3	0	17	0	10	15	5	9	7	1	0	0	0	0	15	0	0
May	10.0	NW.	32	SE.	0	13	14	6	10	0	2	2	15	0	15	8	8	9	7	0	0	0	0	0	2	3	0
June	10.0	SE.	40	SE.	1	4	9	1	22	0	7	0	17	0	9	8	13	7	6	0	1	0	0	1	0	6	0
July	8.8	SE.	34	SE.	0	8	3	0	28	1	3	5	14	0	15	12	4	12	9	0	0	0	0	4	0	7	0
August	8.1	SE.	38	SE.	0	6	9	2	21	1	1	4	18	0	15	12	4	9	7	0	0	0	0	1	0	9	0
September	9.9	NW.	38	NW.	0	4	5	1	17	1	10	8	14	0	11	11	8	8	7	0	0	0	0	1	3	2	1
October	12.6	NW.	36	SE.	0	6	2	2	18	1	8	1	24	0	6	9	16	13	7	1	0	0	0	0	14	0	0
November	11.9	NW.	40	SE.	1	3	2	1	24	1	3	5	21	0	11	6	13	7	4	6	0	0	10	0	29	0	0
December	10.1	NW.	36	NW.	0	2	3	0	17	2	8	9	21	0	18	8	5	7	4	6	0	0	23	0	31	0	0
Year	10.5	SE.	52	SE.	5	70	66	24	229	14	63	42	221	1	135	129	101	104	73	37	1	0	80	7	182	27	1

MOUNT TAMALPAIS, CAL.

[H = 2,375 ft.; h_t = 11 ft.; h_r = 5 ft.; h_a = 18 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	21.1	NW.	83	NW.	14	10	10	1	1	1	3	5	29	0	15	9	6	5	5	0	0	7	0	0	0	0	0
December	21.4	NE.	62	NW.	11	5	17	7	5	3	4	4	17	0	12	7	12	4	4	1	0	6	0	0	3	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NANTUCKET, MASS.

[H = 14 ft.; h_t = 43 ft.; h_r = 38 ft.; h_a = 54 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	13.1	NW.	71	SE.	1	11	5	0	9	4	6	7	20	0	7	9	15	14	9	5	1	5	7	0	21	0	0
February	11.3	NW.	50	SE.	3	4	3	4	3	12	7	3	20	0	11	5	12	12	9	4	0	7	4	0	17	2	0
March	11.2	S.	46	N.	4	7	5	6	10	12	9	4	9	0	11	8	12	11	9	1	0	4	0	0	4	0	2
April	15.2	NE.	48	NE.	2	6	17	3	5	4	6	5	14	0	6	8	16	18	15	2	1	3	0	0	4	2	0
May	11.1	SW.	40	E.	1	9	11	5	7	12	15	2	1	0	4	7	20	16	14	0	0	8	0	0	0	2	0
June	11.2	SW.	36	NE.	0	4	12	4	2	6	20	10	2	0	5	11	14	8	5	0	0	7	0	0	0	1	0
July	8.7	SW.	34	N.	0	2	7	6	10	3	25	6	3	0	9	6	16	8	7	0	0	16	0	0	0	4	0
August	7.8	SW.	31	NW.	0	1	3	2	3	7	29	11	6	0	5	16	10	9	7	0	0	6	0	0	0	4	0
September	9.8	SW.	36	NE.	0	5	8	2	9	0	17	11	8	0	13	6	11	7	5	0	0	7	0	0	0	4	0
October	12.2	SE.	32	NW.	0	5	9	2	11	9	5	8	13	0	7	9	15	15	12	0	0	4	0	0	0	0	0
November	13.7	NW.	72	NE.	3	9	7	5	2	3	9	8	17	0	7	7	16	14	14	1	0	1	0	0	5	0	0
December	12.6	NW.	54	SE.	2	5	4	3	4	1	12	9	24	0	6	13	12	9	7	3	0	6	2	0	15	0	0
Year	11.5	SW.	72	NE.	16	68	91	42	75	73	160	84	137	0	91	105	169	141	113	16	2	74	13	0	66	19	2

NARRAGANSETT PIER, R. I.

[H = — ft.; h_t = 10 ft.; h_r = 1 ft.; h_a = — ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	NW.	.....	.....	0	0	2	1	5	2	4	3	14	0	16	4	11	9	8	1	0	2	6	0	26	0	0
February	.....	S.	.....	.....	1	1	2	0	4	9	3	5	4	0	15	4	9	9	5	1	0	2	4	0	21	0	0
March	.....	S.	.....	.....	1	2	3	5	6	9	3	3	0	0	17	1	13	14	12	1	0	2	0	0	14	0	1
April	.....	NE.	.....	.....	2	3	8	2	3	5	4	3	2	0	13	2	15	12	9	1	0	0	0	0	10	0	0
May	.....	S.	.....	.....	0	1	7	2	2	15	4	0	0	0	15	3	13	16	15	0	1	0	0	0	0	1	0
June	.....	W.	.....	.....	0	3	3	1	3	6	4	7	3	0	20	3	7	5	1	0	0	2	0	0	0	1	0
July	.....	SW.	.....	.....	0	1	2	3	2	7	8	6	2	0	19	2	10	9	8	0	0	2	0	0	0	3	0
August	.....	SW.	.....	.....	0	1	1	1	2	5	13	8	0	0	22	4	5	8	7	0	0	1	0	0	0	6	0
September	.....	W.	.....	.....	0	0	1	3	1	6	6	7	6	0	23	3	4	7	7	0	0	1	0	0	0	3	0
October	.....	NW.	.....	.....	0	0	2	4	6	3	7	1	8	0	16	1	14	13	12	0	0	3	0	0	1	0	0
November	.....	NW.	.....	.....	1	0	6	2	3	2	5	5	7	0	16	2	12	13	13	3	0	0	1	0	14	0	0
December	.....	NW.	.....	.....	1	0	4	5	0	1	4	8	9	0	16	2	13	8	7	2	1	3	2	0	23	0	0
Year	.....	S.	.....	.....	6	12	41	29	37	70	65	56	55	0	208	31	126	123	104	9	2	18	13	0	109	14	1

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

NASHVILLE, TENN.

[λ=36° 10′ N.; φ=86° 47′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.51	29.92	28.88	40.6	46.8	53.0	37.2	45.1	70	17	35	36	81	65	.225	.228	9.46	3.33	6.8	5.1	6.2
February	29.58	29.97	29.20	34.6	43.4	49.9	31.9	40.9	70	9	26	28	72	55	.155	.167	.63	.43	5.5	3.9	4.9
March	29.54	29.81	28.19	47.9	57.5	63.7	45.8	54.8	80	27	41	43	77	60	.283	.305	5.36	1.39	6.4	4.8	5.7
April	29.48	29.91	29.04	47.8	58.9	64.2	44.7	54.4	80	30	39	39	74	51	.252	.251	3.16	1.25	4.3	3.4	4.2
May	29.39	29.57	29.15	64.9	75.4	82.0	60.5	71.2	90	41	56	54	74	50	.463	.443	1.80	.80	3.2	2.7	3.4
June	29.45	29.61	29.28	73.0	81.1	88.9	68.5	78.7	95	61	64	64	75	58	.608	.603	4.97	1.99	3.4	3.7	3.8
July	29.46	29.61	29.29	74.4	81.3	87.4	70.7	79.0	96	62	67	67	79	64	.675	.676	4.50	1.73	5.0	4.0	4.6
August	29.45	29.62	29.30	71.4	82.0	87.6	68.8	78.2	94	63	67	67	87	62	.671	.666	6.56	5.65	2.2	1.8	2.7
September	29.48	29.71	29.27	67.6	77.8	85.1	65.2	75.2	93	51	63	63	84	62	.578	.588	4.87	2.05	2.6	2.9	3.5
October	29.51	29.79	29.20	52.2	60.4	67.6	49.5	58.6	86	29	48	48	86	66	.376	.379	3.21	1.15	3.4	3.6	4.2
November	29.56	29.85	29.14	40.8	49.4	54.8	37.7	46.2	74	16	36	39	83	69	.221	.253	3.09	1.61	4.2	5.2	5.2
December	29.58	30.17	28.94	33.4	40.5	47.5	29.8	38.6	67	10	29	30	84	67	.173	.179	2.41	1.16	4.1	3.2	4.6
Year	29.50	30.17	28.88	54.0	62.9	69.3	50.9	60.1	96	9	48	48	80	61	.390	.395	50.02	5.65	4.3	3.7	4.4

NEAH, WASH.

[λ=48° 22′ N.; φ=124° 32′ W.; gravity corr., +0.01.]

January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July b	30.00	30.23	29.62	55.3	63.0	66.2	52.4	59.3	78	48	52	52	87	69	.385	.397	1.06	.80	6.3	4.0	4.8
August	29.91	30.08	29.75	54.8	60.1	63.6	52.4	58.0	75	48	53	54	96	82	.409	.424	.15	.12	4.6	5.5	5.9
September	29.88	30.11	29.41	52.3	56.7	60.6	49.6	55.1	77	42	50	51	91	82	.357	.375	4.87	1.28	3.9	5.0	7.2
October	29.99	30.34	29.58	49.2	52.4	54.2	45.7	50.0	58	42	44	45	83	78	.288	.303	8.51	2.26	7.3	7.7	7.1
November	29.91	30.39	29.39	43.2	44.7	47.5	39.9	43.7	53	33	40	41	89	87	.248	.257	15.60	1.58	9.0	9.0	8.8
December	30.11	30.52	29.28	41.3	42.1	45.4	38.3	41.8	57	28	37	38	86	85	.228	.229	12.66	2.74	6.7	7.5	7.0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NEW HAVEN, CONN.

[λ=41° 18′ N.; φ=72° 56′ W.; gravity corr., —0.01.]

January	29.88	30.44	29.18	26.3	29.6	36.4	22.4	29.4	55	0	20	21	78	71	.122	.125	4.96	1.62	6.5	4.7	5.7
February	29.96	30.50	29.11	27.4	32.8	38.3	24.2	31.2	57	2	23	26	83	75	.134	.143	4.55	2.46	3.6	3.4	5.6
March	30.12	30.62	29.60	38.4	42.7	49.7	35.1	42.4	64	23	34	34	84	73	.202	.204	2.54	.46	5.6	3.7	5.7
April	29.83	30.22	29.38	43.0	46.1	53.0	37.8	45.4	70	23	35	36	75	68	.216	.218	4.43	2.03	5.1	5.6	6.0
May	29.85	30.23	29.48	54.1	55.4	63.0	48.5	55.8	84	35	48	48	80	78	.341	.340	8.03	1.80	6.4	6.0	6.3
June	29.87	30.24	29.44	65.6	67.6	75.8	58.0	66.9	90	47	58	58	77	72	.486	.488	.21	.10	4.6	4.8	5.3
July	29.94	30.30	29.59	70.4	73.1	80.2	63.8	72.0	97	51	64	65	81	78	.609	.635	5.03	2.10	5.1	4.5	5.0
August	29.89	30.15	29.61	69.6	72.9	80.2	64.5	72.4	90	54	65	66	86	82	.626	.658	6.65	1.68	5.9	4.4	5.0
September	29.94	30.30	29.58	64.0	67.0	75.9	57.4	66.6	93	42	58	59	82	77	.509	.534	2.30	1.09	2.6	3.3	3.2
October	30.00	30.34	29.41	51.2	55.3	61.6	46.4	54.0	81	33	46	49	84	79	.344	.368	7.22	1.93	4.1	3.8	5.2
November	29.92	30.44	29.13	38.0	42.2	48.4	33.7	41.0	60	20	33	35	81	76	.195	.213	5.69	1.79	4.8	4.0	5.2
December	29.92	30.41	29.20	28.4	32.1	37.8	24.3	31.0	53	2	23	25	80	74	.131	.141	2.11	.64	3.8	4.4	4.9
Year	29.93	30.62	29.11	48.0	51.4	58.4	43.6	50.7	97	0	42	44	81	75	.326	.339	53.72	2.46	4.8	4.4	5.3

NEW ORLEANS, LA.

[λ=29° 58′ N.; φ=90° 4′ W.; gravity corr., —0.01.]

January	30.10	30.56	29.80	53.9	59.4	65.7	51.5	58.6	78	30	48	51	81	74	.375	.404	1.71	.61	4.5	5.4	5.2
February	30.12	30.50	29.81	50.5	58.6	64.1	49.2	56.6	74	36	45	48	84	68	.328	.344	6.20	2.78	3.5	2.8	2.8
March	30.05	30.27	29.85	60.2	65.1	72.3	57.7	65.0	82	39	57	55	88	71	.487	.453	.80	.49	5.5	4.9	5.4
April	30.05	30.41	29.65	59.7	68.1	73.2	57.0	65.1	82	43	52	51	77	57	.408	.396	2.80	1.28	3.0	2.7	3.5
May	29.96	30.10	29.73	70.2	77.4	83.9	67.0	75.4	93	53	65	62	83	59	.622	.560	.02	.01	1.8	2.8	2.9
June	29.99	30.09	29.85	77.2	80.1	88.2	74.0	81.1	91	70	72	69	84	70	.784	.718	3.79	1.18	3.3	6.1	5.6
July	29.98	30.13	29.77	77.7	81.8	88.3	74.6	81.4	97	70	72	70	83	69	.792	.744	4.57	1.25	3.1	5.6	4.8
August	29.95	30.07	29.86	77.4	79.9	87.2	75.1	81.2	91	72	73	73	86	78	.804	.800	6.24	2.07	4.2	7.5	7.3
September	29.93	30.10	29.64	76.2	79.4	85.2	73.8	79.5	92	68	71	74	85	82	.765	.824	13.90	3.01	4.4	6.0	5.4
October	30.05	30.35	29.75	62.6	68.7	75.1	60.2	67.6	89	43	55	57	78	68	.488	.518	1.77	1.07	2.5	2.1	2.9
November	30.09	30.32	29.76	52.6	59.4	64.9	49.9	57.4	81	34	47	52	81	79	.338	.426	5.17	1.75	5.9	4.5	6.2
December	30.15	30.46	29.82	46.3	52.0	58.1	43.5	50.8	75	30	40	42	80	72	.271	.296	2.03	.82	5.8	3.9	6.7
Year	30.04	30.56	29.64	63.7	69.2	75.5	61.1	68.3	97	30	58	59	82	71	.538	.540	49.00	3.01	4.0	4.5	4.9

b For 19 days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

NASHVILLE, TENN.

[H = 545 ft.; h_t = 128 ft.; h_r = 116 ft.; h_a = 134 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	8.7	NW.	37	SW.	0	6	5	4	9	6	12	7	13	0	8	9	14	12	11	1	0	1	2	0	11	1	0
February	8.0	NW.	31	NW.	0	5	4	2	11	10	4	3	17	0	13	4	11	5	4	2	0	1	4	0	15	0	0
March	9.3	S.	32	SW.	0	10	12	3	10	18	3	0	6	0	11	9	11	11	8	0	0	0	0	0	6	2	0
April	7.9	NW.	33	NE.	0	8	4	3	4	11	8	4	17	1	14	7	9	11	10	0	0	0	0	0	2	5	0
May	6.9	NW.	36	NW.	0	5	8	5	1	8	9	9	17	0	16	12	3	8	5	0	0	2	0	0	0	10	0
June	5.7	SW.	29	S.	0	5	12	3	6	5	11	8	10	0	13	16	1	11	9	0	0	0	0	13	0	13	0
July	5.5	SW.	34	NW.	0	4	11	3	10	7	12	5	9	1	10	17	4	16	14	0	0	0	0	12	0	13	0
August	4.1	NW.	25	SW.	0	5	5	5	8	4	10	9	16	0	21	8	2	5	5	0	0	8	0	6	0	4	0
September	5.7	S.	26	NW.	0	2	10	5	7	12	4	8	12	0	19	7	4	8	8	0	0	8	0	8	0	6	0
October	7.1	NW.	33	SE.	0	3	7	4	12	9	4	11	11	1	15	9	7	13	9	0	0	7	0	0	2	0	0
November	7.7	S.	43	S.	1	8	4	2	14	12	2	7	10	1	11	8	11	9	7	0	0	5	0	0	9	0	0
December	7.0	NW.	30	SW.	0	8	2	4	5	9	11	6	16	1	13	8	10	7	6	3	0	2	3	0	19	0	0
Year	7.0	NW.	43	S.	1	69	84	43	97	111	90	77	154	5	164	114	87	116	96	6	0	34	9	39	64	54	0

a By eye observations at 8 a. m. and 8 p. m. when there is no self-register at station.

NEAH, WASH.

[H = 50 ft.; h_t = 7 ft.; h_r = 2 ft.; h_a = 24 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	7.7	W.	24	W.	0	0	0	10	0	3	10	14	2	0	10	3	7	2	2	0	0	1	0	0	0	0	0
August	7.4	W.	28	W.	0	1	0	10	1	1	2	45	2	0	8	9	14	4	1	0	0	14	0	0	0	0	0
September	5.7	W.	27	W.	0	0	0	18	3	1	7	30	1	0	7	1	22	11	9	0	0	15	0	0	0	0	0
October	6.2	E.	24	W.	0	0	2	26	6	1	3	20	0	4	4	10	17	19	17	0	0	0	0	0	0	0	0
November	7.6	W.	60	SW.	1	0	1	17	5	3	9	23	0	2	0	5	25	23	22	1	0	0	0	0	0	1	0
December	9.7	E.	45	W.	2	0	0	29	6	6	1	20	0	0	6	7	18	19	18	1	0	0	0	0	2	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NEW HAVEN, CONN.

[H = 107 ft.; h_t = 117 ft.; h_r = 110 ft.; h_a = 140 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.1	N.	44	W.	3	24	8	3	1	2	4	8	12	0	10	9	12	15	11	7	0	2	8	0	24	0	0
February	9.6	N.	40	W.	1	16	12	0	2	7	5	7	7	0	10	5	13	13	11	2	0	4	5	0	21	0	0
March	8.1	N.	40	N.	1	17	6	4	12	11	6	4	2	0	10	9	12	14	13	4	0	4	0	0	10	2	1
April	12.1	NE.	40	NE.	1	7	17	6	3	4	5	6	12	0	7	11	12	13	10	1	0	0	0	0	7	0	0
May	9.0	S.	45	N.	1	13	7	11	6	16	6	2	1	0	9	7	15	23	20	0	0	2	0	0	0	3	0
June	9.4	S.	38	NE.	0	8	12	3	3	15	8	8	3	0	7	18	5	6	2	0	0	0	0	1	0	1	0
July	7.6	S.	33	NE.	0	11	12	5	7	15	6	4	2	0	13	12	6	9	8	0	1	1	0	3	0	5	0
August	7.0	SW.	30	NW.	0	13	4	2	3	8	18	13	1	0	10	15	6	12	10	0	0	1	0	0	0	8	0
September	7.5	SW.	36	NW.	0	13	8	1	3	6	15	8	6	0	19	4	7	8	6	0	0	0	0	3	0	2	0
October	9.5	NE.	34	W.	0	16	9	2	3	9	7	8	7	1	14	5	12	12	10	0	0	2	0	0	0	1	0
November	10.8	NW.	45	NW.	2	17	8	2	0	2	7	10	14	0	13	5	12	12	11	5	0	1	2	0	10	0	0
December	9.3	SW.	54	E.	2	11	8	1	0	4	18	15	5	0	14	7	10	10	10	4	0	3	6	0	26	0	0
Year	9.2	N.	54	E.	11	166	111	40	43	99	105	93	72	1	136	107	122	147	122	23	1	20	21	7	98	22	1

NEW ORLEANS, LA.

[H = 54 ft.; h_t = 112 ft ; h_r = 111 ft.; h_a = 120 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.3	S.	30	NE.	0	13	8	4	7	16	2	4	8	0	13	7	11	15	11	0	1	4	0	0	2	0	0
February	9.0	SE.	34	SW.	0	8	6	8	9	7	4	2	12	0	18	5	5	7	7	0	0	3	0	0	0	5	0
March	10.8	SE.	35	SE.	0	7	9	7	23	14	0	1	1	0	8	14	9	6	5	0	0	3	0	0	0	0	0
April	10.0	SE.	32	NW.	0	8	7	5	11	6	5	4	13	1	16	10	4	6	5	0	0	0	0	0	0	2	0
May	8.2	S.	33	N.	0	2	3	0	7	29	9	9	3	0	22	8	1	2	0	0	0	0	0	5	0	1	0
June	6.6	SE.	34	SE.	0	1	3	1	16	17	15	3	4	0	2	22	6	11	8	0	0	0	0	6	0	13	0
July	7.2	S.	32	NW.	0	6	9	3	6	17	7	10	4	0	8	16	7	14	11	0	0	0	0	10	0	9	0
August	6.3	SE.	25	NW.	0	6	8	3	14	12	8	8	1	2	0	13	18	14	12	0	0	0	0	9	0	9	0
September	8.2	SE.	42	SE.	1	2	19	13	18	1	3	2	1	1	9	9	12	18	14	0	0	0	0	2	0	0	0
October	8.4	N.	35	NW.	0	17	8	10	10	3	4	1	6	3	18	10	3	6	3	0	0	0	0	0	0	1	0
November	9.8	N.	34	NW.	0	12	17	11	6	5	0	4	4	1	10	6	14	14	10	0	0	2	0	0	0	2	0
December	9.8	N.	35	W.	0	16	12	5	1	10	3	6	8	1	7	7	17	11	7	0	0	5	0	0	2	1	0
Year	8.7	SE.	42	SE.	1	98	109	70	128	137	60	54	65	9	131	127	107	124	93	0	1	17	0	32	4	43	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

NEW YORK CITY, N. Y.

[λ=40° 43′ N.; φ=74° 0′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.67	30.19	28.95	30.4	32.5	38.1	26.4	32.2	55	5	24	24	77	70	.142	.138	3.95	1.43	6.2	5.0	6.0
February	29.74	30.26	29.00	29.1	33.9	38.8	27.1	33.0	60	5	24	26	79	71	.137	.149	4.06	2.84	5.2	5.1	5.4
March	29.88	30.34	29.40	39.2	44.4	50.2	37.2	43.7	69	24	34	36	82	74	.204	.218	2.92	.81	5.7	4.8	5.9
April	29.61	29.96	29.14	42.9	47.6	54.0	39.5	46.8	74	25	32	33	68	62	.193	.202	3.23	1.29	5.8	6.1	6.6
May	29.62	30.00	29.18	54.0	55.7	62.7	50.4	56.6	86	38	48	48	82	79	.347	.355	5.55	1.60	6.5	7.3	6.8
June	29.67	30.00	29.27	65.9	68.8	76.5	61.3	68.9	89	53	57	56	73	65	.468	.458	1.28	.30	4.3	4.9	4.6
July	29.73	30.06	29.41	70.5	73.8	80.8	67.4	74.1	99	57	63	64	79	74	.599	.619	4.76	1.96	5.5	6.5	5.5
August	29.69	29.93	29.45	70.4	75.3	80.5	68.1	74.3	90	60	65	65	84	72	.631	.634	3.12	.81	6.4	6.2	5.8
September	29.74	30.09	29.38	64.7	68.8	76.4	61.4	68.9	94	49	58	59	79	72	.507	.522	1.28	.94	3.6	2.9	3.9
October	29.80	30.10	29.09	54.7	57.6	64.7	50.6	57.6	80	38	49	50	81	78	.369	.392	6.14	1.55	3.9	5.1	5.3
November	29.72	30.18	29.02	42.7	45.7	50.8	38.5	44.6	63	25	36	38	78	74	.222	.236	5.90	1.60	5.4	4.5	6.0
December	29.71	30.19	29.01	32.1	35.4	40.6	28.3	34.4	57	12	25	28	75	75	.141	.160	2.93	.84	5.4	5.1	5.8
Year	29.72	30.34	28.95	49.7	53.3	59.5	46.4	52.9	99	5	43	44	78	72	.330	.340	45.12	2.84	5.3	5.3	5.6

NORFOLK, VA.

[λ=36° 51′ N.; φ=76° 17′ W.; gravity corr., —0.02.]

January	30.03	30.41	29.46	41.4	44.3	52.7	36.2	44.4	75	20	36	38	82	80	.229	.248	1.44	.44	5.6	4.4	5.4
February	30.09	30.58	29.44	35.5	40.9	49.2	32.5	40.8	69	15	31	35	84	80	.186	.211	1.48	.98	2.4	3.0	3.0
March	30.16	30.54	29.74	49.1	51.9	60.2	44.9	52.6	84	31	46	47	88	83	.322	.335	3.51	1.52	7.1	5.6	7.0
April	29.94	30.23	29.33	50.8	55.2	62.4	45.9	54.2	86	31	44	44	78	69	.306	.300	6.69	2.63	5.0	5.1	5.5
May	29.90	30.18	29.35	63.5	64.8	75.1	57.2	66.2	92	43	60	59	89	82	.537	.511	5.12	1.13	5.6	6.0	5.9
June	29.98	30.15	29.68	70.8	72.9	82.5	65.4	74.0	96	55	66	67	85	84	.644	.682	3.76	1.60	4.8	4.5	4.0
July	30.00	30.26	29.71	76.3	77.5	86.2	71.3	78.8	96	64	72	73	87	87	.790	.820	8.89	2.25	5.6	6.3	4.8
August	30.01	30.17	29.88	76.2	77.3	87.1	72.0	79.6	94	69	72	72	88	86	.795	.801	8.48	5.00	5.5	5.3	3.9
September	30.04	30.29	29.78	71.9	72.8	80.8	66.9	73.8	92	60	65	65	80	78	.634	.632	3.34	1.98	3.1	1.6	4.0
October	30.07	30.43	29.49	62.1	63.0	69.9	56.4	63.2	84	42	57	56	83	79	.495	.484	5.63	1.67	4.5	3.8	5.4
November	30.09	30.47	29.31	46.1	50.2	57.0	42.8	49.9	76	29	41	42	83	74	.275	.287	2.90	.76	5.0	4.4	5.2
December	30.08	30.60	29.36	39.0	44.0	51.5	35.0	43.2	70	20	34	34	80	69	.219	.216	1.90	.92	4.0	3.2	4.3
Year	30.03	30.60	29.31	56.9	59.6	67.9	52.2	60.1	96	15	52	53	84	79	.453	.461	53.14	5.00	4.8	4.4	4.9

NORTHFIELD, VT.

[λ=44° 10′ N.; φ=72° 41′ W.; gravity corr., 0.00.]

January	29.01	29.56	28.28	9.5	15.2	24.7	1.5	13.1	56	—22	6	11	85	81	.066	.083	3.30	.86	6.6	6.6	6.3
February	29.10	29.54	28.18	18.2	23.3	30.4	12.8	21.6	47	—21	14	18	83	81	.093	.110	3.72	1.12	7.9	6.9	7.2
March	29.24	29.76	28.59	29.4	35.2	44.9	23.3	34.1	58	— 4	24	27	84	73	.140	.151	.64	.30	5.3	4.0	5.1
April	29.01	29.41	28.63	36.2	40.8	49.4	28.2	38.8	67	6	28	32	74	73	.162	.185	2.74	.96	5.8	5.9	6.3
May	29.02	29.35	28.78	51.3	54.7	62.1	41.4	51.8	75	27	42	45	72	72	.281	.310	2.10	.72	6.8	6.7	7.3
June	29.04	29.40	28.52	61.8	64.0	73.7	51.0	62.4	86	36	53	56	74	77	.429	.461	2.28	.67	6.8	7.2	6.5
July	29.12	29.56	28.73	67.8	68.8	81.3	54.6	68.0	94	34	57	60	69	73	.486	.524	1.66	.72	4.7	5.2	5.0
August	29.06	29.36	28.78	64.1	65.2	76.8	55.2	66.0	85	38	59	60	84	85	.505	.531	5.22	2.22	6.4	6.6	6.7
September	29.11	29.47	28.74	54.9	58.4	70.9	47.0	59.0	90	30	50	53	84	83	.376	.419	2.66	1.01	5.8	4.8	5.9
October	29.17	29.52	28.50	44.0	46.5	56.1	37.0	46.6	80	20	39	40	84	80	.263	.275	2.87	1.02	7.8	6.2	7.4
November	29.09	29.58	28.41	28.8	32.9	40.0	24.7	32.4	61	1	23	26	80	77	.131	.146	1.97	1.03	7.2	5.4	6.9
December	29.00	29.49	28.32	19.8	23.0	30.5	11.6	21.0	56	—24	15	18	81	81	.097	.109	1.36	.44	8.0	7.0	7.8
Year	29.08	29.76	28.18	40.5	44.0	53.4	32.4	42.9	94	—24	34	37	80	78	.252	.275	30.52	2.22	6.6	6.0	6.5

NORTH PLATTE, NEBR.

[λ=41° 8′ N.; φ=100° 45′ W.; gravity corr., —0.02.]

January	27.06	27.59	26.73	18.0	30.0	38.5	15.1	26.8	59	— 6	13	18	78	60	.078	.097	.77	.54	2.8	3.2	3.6
February	27.12	27.62	26.54	24.2	38.4	45.3	21.8	33.6	62	3	18	24	74	57	.098	.133	.19	.19	3.2	4.2	4.1
March	27.03	27.40	26.40	24.8	42.1	48.4	22.8	35.6	73	— 1	19	26	76	54	.104	.139	.64	.52	4.0	4.8	4.3
April	27.11	27.46	26.61	38.1	56.7	62.1	35.9	49.0	86	22	30	34	73	46	.172	.202	1.42	.70	4.4	4.5	4.6
May	27.03	27.42	26.66	48.4	61.1	65.2	46.2	55.7	84	30	44	48	86	65	.302	.341	4.12	1.54	6.5	6.7	6.6
June	27.05	27.36	26.74	60.7	75.2	79.2	57.7	68.4	98	46	56	58	85	57	.454	.488	2.54	.74	4.3	4.8	4.5
July	27.09	27.34	26.71	62.7	81.1	84.7	60.2	72.4	99	50	57	60	82	50	.468	.521	1.29	.61	3.2	3.9	3.5
August	27.06	27.26	26.82	61.5	81.4	87.6	60.1	73.8	101	50	56	58	84	48	.459	.488	1.40	.68	2.8	3.3	3.1
September	27.07	27.62	26.73	49.0	69.5	76.7	47.9	62.3	98	35	44	48	84	51	.298	.341	2.56	1.18	3.5	3.0	3.0
October	27.11	27.56	26.48	35.1	51.1	60.6	33.3	47.0	84	18	29	33	77	50	.168	.196	.07	.04	3.5	3.7	4.2
November	27.04	27.46	26.44	22.1	34.4	44.7	18.1	31.4	68	— 6	16	20	76	56	.096	.113	.51	.22	3.5	4.0	4.4
December	27.16	27.83	26.62	15.6	27.9	39.6	11.5	25.6	62	—12	9	14	73	55	.069	.084	.03	.02	2.4	2.5	3.4
Year	27.08	27.83	26.40	38.4	54.1	61.0	35.9	48.5	101	—12	33	37	79	54	.230	.262	15.54	1.54	3.7	4.0	4.1

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

NEW YORK CITY, N. Y.

[H=314 ft.; h_t=313 ft.; h_r=304 ft.; h_a=346 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	13.6	NW.	61	W.	2	6	8	8	2	2	8	10	18	0	7	14	10	15	13	7	0	4	6	0	18	0	0
February	12.7	W.	48	W.	5	6	5	5	7	4	7	11	11	0	10	6	12	14	11	4	0	4	4	0	16	0	0
March	11.1	NW.	33	N.	0	9	7	13	13	4	3	4	9	0	7	11	13	17	12	4	0	4	0	0	6	2	0
April	14.2	NW.	38	N.	0	7	11	6	3	3	3	7	20	0	4	14	12	12	11	1	1	1	0	0	5	2	0
May	10.5	SE.	40	NE.	1	7	16	9	11	10	2	2	5	0	6	7	18	21	14	0	0	3	0	0	0	6	0
June	10.9	SW.	40	SW.	2	6	5	4	6	11	12	8	8	0	10	16	4	9	7	0	0	0	0	0	0	5	0
July	8.6	SW.	36	NE.	0	5	11	8	7	10	11	4	6	0	11	11	9	12	10	0	0	1	0	3	0	7	0
August	10.1	SW.	48	NW.	1	4	6	5	6	9	17	9	6	0	6	15	10	10	9	0	0	0	0	0	0	5	0
September	10.2	SW.	72	SW.	1	6	7	4	1	13	9	9	11	0	17	4	9	6	5	0	0	2	0	2	0	2	0
October	14.3	NW.	52	NE.	4	3	8	15	6	5	3	12	10	0	13	6	12	12	11	0	0	8	0	0	0	1	0
November	17.5	NW.	65	NW.	11	1	11	2	4	6	5	8	23	0	9	9	12	12	11	4	0	4	1	0	7	0	0
December	16.8	NW.	78	E.	8	2	10	3	0	6	11	11	19	0	9	11	11	10	7	3	0	3	2	0	18	0	0
Year	12.5	NW.	78	E.	35	62	105	82	66	83	91	95	146	0	109	124	132	150	121	23	1	34	13	5	70	30	0

NORFOLK, VA.

[H=57 ft.; h_t=88 ft.; h_r=96 ft.; h_a=111 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.7	NE.	38	NW.	0	6	15	5	10	2	8	5	11	0	11	6	14	12	8	0	0	1	1	0	5	0	0
February	8.0	NW.	59	NW.	2	9	6	9	6	5	7	3	11	0	19	3	6	7	6	0	0	4	0	0	13	0	0
March	8.0	NE.	28	SW.	0	11	21	8	8	4	7	0	3	0	6	5	20	12	8	0	0	1	0	0	2	1	0
April	10.5	NW.	35	NW.	0	11	7	2	5	5	11	4	15	0	13	4	13	11	9	0	1	0	0	0	1	3	0
May	7.8	NE.	42	NW.	2	9	8	9	11	7	14	1	3	0	10	8	13	13	11	0	0	0	0	2	0	5	0
June	7.6	SW.	36	SW.	0	6	10	10	11	4	12	3	4	0	15	9	6	8	7	0	0	0	0	0	0	5	0
July	7.2	SW.	29	NE.	0	0	13	10	13	4	14	4	4	0	11	12	8	18	14	0	0	0	0	10	0	5	0
August	7.0	SW.	34	SW.	0	2	3	4	9	14	25	3	2	0	16	10	5	12	12	0	0	0	0	8	0	6	0
September	7.7	NE.	27	SW.	0	6	22	6	4	2	15	3	2	0	18	6	6	7	5	0	0	0	0	5	0	1	0
October	8.4	NE.	32	SE.	0	8	13	7	14	3	5	4	8	0	12	11	8	12	11	0	0	0	0	0	0	0	0
November	9.3	NW.	42	NW.	2	13	8	5	4	8	7	6	8	1	15	4	11	14	11	1	0	0	0	0	4	0	0
December	8.3	SW.	36	SW.	0	10	6	3	4	9	16	7	6	1	17	7	7	9	6	1	0	2	1	0	14	1	0
Year	8.3	SW.	59	NW.	6	91	132	78	99	67	141	43	77	2	163	85	117	135	168	2	1	8	2	34	39	27	0

NORTHFIELD, VT.

[H=872 ft.; h_t=15 ft.; h_r=2 ft.; h_a=65 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.0	S.	36	SW.	0	19	2	0	2	30	1	3	5	0	6	11	14	15	12	12	0	0	21	0	31	0	0
February	8.8	S.	54	NW.	2	17	3	1	2	25	2	1	5	0	4	8	16	14	9	13	0	0	14	0	25	0	0
March	9.8	S.	36	S.	0	10	1	0	0	44	4	1	2	0	12	11	8	8	7	1	0	0	1	0	22	0	3
April	9.4	N.	35	NW.	0	24	5	0	1	16	1	3	10	0	5	13	12	16	10	5	0	0	2	0	18	0	4
May	9.3	S.	34	N.	0	16	4	0	2	31	2	1	6	0	4	11	16	12	9	0	0	0	0	0	4	1	0
June	7.6	S.	36	SW.	0	16	4	1	2	20	8	1	8	0	1	21	8	14	11	0	0	1	0	0	0	4	0
July	7.8	S.	36	NW.	0	9	3	2	2	34	5	0	7	0	7	19	5	11	7	0	0	0	0	1	0	6	0
August	7.1	S.	35	NW.	0	7	0	1	4	32	13	3	2	0	2	19	10	15	14	0	0	1	0	0	0	8	0
September	7.7	S.	42	SW.	1	6	1	1	1	37	5	4	5	0	8	11	11	7	6	0	0	1	0	0	3	3	0
October	8.2	S.	34	S.	0	9	1	1	2	32	7	1	8	1	2	13	16	14	9	1	0	0	0	0	9	0	1
November	9.6	S.	42	SW.	3	19	0	0	3	25	3	1	7	2	7	6	17	10	6	5	0	1	6	0	22	0	0
December	9.5	S.	34	S.	0	9	2	1	4	30	11	1	4	0	3	8	20	14	9	12	0	0	17	0	29	0	2
Year	8.6	S.	54	NW.	6	161	26	8	25	356	62	20	69	3	61	151	153	150	109	49	0	4	61	1	163	22	10

NORTH PLATTE, NEBR.

[H=2,826 ft.; h_t=43 ft.; h_r=35 ft.; h_a=52 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.1	W.	27	NW.	0	3	3	3	5	5	3	23	17	0	21	6	4	4	2	4	0	0	7	0	31	0	0
February	9.2	NW.	38	NW.	0	2	1	1	6	8	3	8	27	0	14	9	5	1	1	1	0	0	3	0	26	0	0
March	10.7	NW.	48	NW.	1	6	3	4	12	6	7	9	15	0	18	9	4	5	3	4	0	0	1	0	24	0	0
April	12.9	NW.	44	S.	2	11	5	2	8	11	6	4	12	1	12	14	4	6	2	0	0	0	0	0	10	2	0
May	10.1	NW.	49	W.	2	7	9	4	10	10	1	9	12	0	8	7	16	20	17	0	1	0	0	0	1	9	0
June	9.1	S.	36	NW.	0	6	2	9	9	18	3	5	8	0	14	12	4	10	7	0	0	1	0	4	0	6	0
July	8.9	S.	31	S.	0	4	5	3	10	21	5	3	8	3	18	12	1	6	5	0	0	0	0	6	0	6	0
August	8.1	S.	36	S.	0	6	7	5	13	17	3	1	8	2	21	8	2	7	5	0	0	0	0	12	0	9	0
September	8.3	S.	40	N.	1	3	13	2	5	13	5	6	11	2	22	3	5	6	6	0	0	0	0	3	0	2	0
October	11.0	NW.	42	NW.	2	11	4	2	3	12	5	4	21	0	15	11	5	3	1	1	0	0	0	0	16	1	0
November	9.2	NW.	45	N.	1	6	6	1	7	10	0	6	23	1	13	12	5	7	5	6	0	0	5	0	27	0	0
December	8.7	NW.	36	NW.	0	6	4	1	0	3	7	12	29	0	17	13	1	2	0	2	0	0	7	0	30	0	0
Year	9.4	NW.	49	W.	9	71	62	37	88	134	48	90	191	9	193	116	56	77	54	18	1	1	23	25	165	35	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

OKLAHOMA, OKLA.

[λ = 35° 26′ N.; φ = 97° 33′ W.; gravity corr., —0.03.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.75	29.37	28.28	34.6	42.6	49.0	31.9	40.4	74	17	29	34	80	73	.166	.203	4.38	1.34	5.0	4.6	5.0
February	28.82	29.36	28.33	34.4	49.1	56.1	32.1	44.1	76	18	29	37	79	64	.164	.228	2.37	2.35	2.8	3.6	2.5
March	28.73	29.10	28.31	42.2	52.7	60.1	38.6	49.4	79	20	37	40	81	65	.243	.273	2.34	1.30	6.6	4.4	5.8
April	28.75	29.24	28.19	48.8	64.9	69.6	46.0	57.8	83	28	40	46	74	52	.264	.325	.95	.64	4.2	4.3	3.8
May	28.62	28.99	28.34	62.2	72.8	77.4	58.9	68.2	87	41	57	59	83	63	.479	.509	9.96	5.01	4.7	3.8	3.4
June	28.68	28.83	28.44	70.1	80.3	85.9	67.7	76.8	93	62	66	67	87	65	.640	.663	1.75	.95	5.1	3.2	2.8
July	28.72	28.91	28.52	71.8	81.5	88.0	68.6	78.3	97	60	67	66	85	63	.672	.663	4.06	2.14	3.7	3.2	1.9
August	28.71	28.88	28.56	69.3	82.0	88.5	67.8	78.2	97	59	66	68	89	63	.639	.679	2.82	1.31	2.7	2.0	1.3
September	28.69	29.07	28.42	63.9	77.6	85.6	62.6	74.1	97	45	59	60	85	56	.511	.526	1.72	.74	3.0	2.9	2.2
October	28.78	29.23	28.39	49.6	63.1	72.6	47.6	60.1	97	27	43	45	78	54	.316	.332	2.08	1.38	3.2	2.3	2.5
November	28.78	29.12	28.23	38.1	48.7	57.8	34.2	46.0	82	14	30	35	74	61	.175	.217	.91	.80	3.8	3.3	3.5
December	28.89	29.63	28.20	28.3	36.6	44.9	25.3	35.1	68	8	24	28	82	71	.134	.163	2.54	2.45	3.5	2.6	3.7
Year	28.74	29.63	28.19	51.1	62.7	69.6	48.4	59.0	97	8	46	49	81	62	.367	.398	35.88	5.01	4.0	3.4	3.2

OMAHA, NEBR.

[λ = 41° 16′ N.; φ = 95° 56′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	28.86	29.39	28.43	24.2	30.4	34.9	21.7	28.3	45	8	20	24	84	77	.110	.131	.62	.21	3.9	4.1	5.0
February	28.91	29.44	28.38	24.5	32.2	38.5	21.3	29.9	52	—2	20	24	82	70	.112	.130	.67	.34	4.8	2.8	4.7
March	28.84	29.32	28.25	31.3	44.0	49.3	29.2	39.2	68	11	24	30	74	61	.135	.178	1.15	.57	4.7	4.0	4.6
April	28.88	29.29	28.47	43.8	56.8	61.2	41.3	51.2	88	26	33	34	67	47	.200	.212	2.74	1.03	4.9	4.3	4.8
May	28.75	29.08	28.37	54.7	65.2	70.0	52.4	61.2	87	39	48	49	80	60	.353	.363	4.33	1.16	5.2	6.2	6.3
June	28.78	28.98	28.40	67.5	78.6	82.5	65.3	73.9	95	55	62	62	82	60	.559	.570	5.16	2.94	4.3	3.8	4.4
July	28.84	29.06	28.47	68.9	80.4	84.6	66.0	75.3	95	59	61	60	78	52	.554	.534	4.20	3.56	3.5	2.4	3.3
August	28.79	28.97	28.52	68.0	81.7	86.2	66.5	76.4	100	55	61	63	79	54	.537	.580	1.98	1.21	2.9	2.5	2.6
September	28.80	29.38	28.47	59.3	72.9	78.9	57.7	68.3	96	43	52	53	79	52	.414	.418	2.94	1.42	3.0	2.9	3.0
October	28.84	29.25	28.27	43.2	52.9	58.9	41.0	50.0	82	27	36	38	76	58	.228	.239	2.54	.87	6.7	4.8	5.8
November	28.84	29.23	28.23	29.2	36.9	44.7	25.5	35.1	76	—1	22	25	73	62	.125	.145	1.20	1.05	4.0	2.7	4.6
December	28.95	29.74	28.26	18.5	24.8	29.6	14.5	22.0	48	—10	14	18	82	73	.092	.104	.31	.14	1.9	2.8	4.0
Year	28.84	29.74	28.23	44.4	54.7	59.9	41.9	50.9	100	—10	38	40	78	60	.285	.300	27.94	3.56	4.2	3.6	4.4

OSWEGO, N. Y.

[λ = 43° 29′ N.; φ = 76° 35′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.60	30.10	28.90	22.1	25.9	31.7	17.8	24.8	54	—8	18	21	85	81	.107	.122	5.16	1.15	8.7	8.5	8.0
February	29.68	30.08	28.99	24.7	27.8	32.3	20.9	26.6	53	—7	21	22	88	79	.120	.125	2.61	.50	8.5	7.6	8.3
March	29.79	30.19	29.25	38.2	42.0	48.6	34.2	41.4	68	20	32	33	79	70	.191	.200	2.08	.44	5.6	5.7	4.9
April	29.61	29.94	29.18	39.6	43.0	47.2	35.4	41.3	60	19	31	32	71	65	.179	.183	2.32	1.03	5.5	5.3	5.1
May	29.56	29.82	29.29	52.2	55.8	61.8	47.4	54.6	78	39	45	46	78	70	.311	.320	4.14	.87	6.2	5.4	6.2
June	29.60	29.98	29.07	64.1	66.5	72.4	58.4	65.4	88	46	56	57	75	73	.454	.479	1.12	.31	6.1	5.2	5.2
July	29.66	30.07	29.39	70.4	73.6	80.1	63.2	71.6	93	48	59	60	68	64	.518	.548	3.23	1.00	4.1	4.5	3.7
August	29.59	29.90	29.36	68.5	70.9	77.4	63.4	70.4	88	49	61	62	76	73	.537	.558	3.27	1.50	6.0	6.0	6.0
September	29.65	30.10	29.22	62.0	65.7	72.7	56.5	64.6	89	41	55	56	77	72	.450	.471	4.40	2.04	5.1	2.3	3.9
October	29.70	30.05	28.99	49.2	52.1	58.9	45.0	52.0	81	33	43	44	80	74	.300	.304	5.53	1.06	7.3	6.1	6.8
November	29.67	30.09	29.11	36.9	40.5	45.4	33.9	39.6	62	20	30	32	76	71	.170	.185	3.33	1.38	8.6	6.6	7.3
December	29.60	30.13	28.76	26.6	29.4	34.1	22.0	28.0	53	4	22	23	80	76	.121	.125	3.25	1.17	9.3	8.6	8.5
Year	29.64	30.19	28.76	46.2	49.4	55.2	41.5	48.4	93	—8	39	41	77	72	.288	.302	40.44	2.04	6.8	6.0	6.2

PALESTINE, TEX.

[λ = 31° 45′ N.; φ = 95° 40′ W.; gravity corr., —0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.54	30.14	29.08	45.7	55.0	60.5	43.8	52.2	76	25	42	48	86	78	.291	.360	5.70	2.11	5.8	6.2	6.5
February	29.59	30.04	29.29	45.9	60.0	65.0	44.1	54.6	77	23	43	50	88	71	.290	.386	4.68	3.74	4.4	4.1	4.5
March	29.50	29.76	29.18	52.5	62.4	68.2	50.2	59.2	86	31	50	56	90	80	.397	.474	2.24	.91	7.3	6.8	7.2
April	29.52	29.94	29.15	56.0	68.7	74.9	53.5	64.2	83	39	52	57	86	68	.399	.484	1.43	.88	5.2	4.4	5.3
May	29.40	29.68	29.16	66.8	78.1	83.2	64.5	73.8	90	46	64	68	90	72	.610	.698	3.24	2.86	6.8	4.0	5.1
June	29.45	29.58	29.30	72.5	79.2	87.8	69.5	78.6	93	64	71	74	94	83	.758	.826	5.50	1.81	7.8	7.1	7.4
July	29.47	29.62	29.35	73.3	83.6	90.5	71.2	80.8	101	62	71	73	92	73	.760	.824	2.29	1.15	4.6	4.9	4.6
August	29.44	29.60	29.30	73.0	83.9	92.1	71.1	81.6	96	66	71	75	93	75	.758	.859	3.22	1.04	3.1	5.0	4.6
September	29.42	29.60	29.19	68.8	80.6	87.9	67.7	77.8	95	55	67	72	94	75	.672	.780	1.92	.70	5.4	3.6	5.0
October	29.56	30.00	29.18	55.4	69.1	78.1	54.1	66.1	97	34	52	58	87	69	.427	.523	2.42	1.00	2.5	2.2	3.2
November	29.58	29.81	29.06	46.0	55.5	63.8	42.7	53.2	85	26	42	46	86	71	.288	.331	4.19	1.50	6.3	4.3	5.7
December	29.66	30.18	29.20	38.9	47.1	53.8	36.3	45.0	75	14	34	38	80	70	.211	.243	5.22	2.50	5.1	3.6	5.5
Year	29.51	30.18	29.06	57.9	68.6	75.5	55.7	65.6	101	14	55	60	89	74	.488	.566	42.05	3.74	5.4	4.7	5.4

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

OKLAHOMA, OKLA.

[H=1,218 ft.; h_t=54 ft.; h_r=46 ft.; h_a=62 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.7	N.	38	NW.	0	14	5	4	6	10	5	4	14	0	13	7	11	10	9	1	2	0	0	0	16	2	0
February	11.5	N.	44	NW.	1	16	4	2	4	15	3	2	10	0	21	3	4	3	2	0	0	1	0	0	12	1	0
March	13.0	S.	36	S.	0	14	7	6	7	20	1	2	4	1	12	4	15	11	7	0	0	0	0	0	9	2	0
April	13.4	S.	50	S.	5	18	7	2	9	18	1	0	4	0	18	5	7	6	3	0	0	0	0	0	2	4	0
May	11.9	S.	40	SE.	1	10	3	5	11	23	6	2	2	0	18	8	5	8	7	0	0	0	0	0	0	6	0
June	9.7	S.	36	S.	0	1	7	6	13	28	2	0	3	0	20	9	1	9	5	0	0	0	0	4	0	5	0
July	8.6	S.	36	S.	0	2	11	15	7	23	2	1	1	0	24	6	1	7	6	0	0	0	0	11	0	5	0
August	7.8	S.	30	SW.	0	8	2	4	12	28	5	3	0	0	24	7	0	6	4	0	0	0	0	13	0	3	0
September	9.0	S.	30	S.	0	11	4	3	9	25	3	2	2	1	25	1	4	4	3	0	0	1	0	13	0	2	0
October	11.0	S.	36	S.	0	12	3	2	8	21	4	4	7	1	23	4	4	5	4	0	0	0	0	3	3	0	0
November	11.8	S.	40	S.	1	13	2	3	6	19	4	5	8	0	15	9	6	3	2	1	0	0	1	0	12	0	0
December	8.8	N.	36	N.	0	15	0	5	1	13	12	3	13	0	20	1	10	5	3	3	0	0	6	0	21	0	0
Year	10.6	S.	50	S.	8	134	55	58	93	243	48	28	68	3	233	64	68	77	55	5	2	2	7	44	75	30	0

OMAHA, NEBR.

[H=1,103 ft.; h_t=92 ft.; h_r=86 ft.; h_a=97 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.5	NW.	24	N.	0	11	0	5	5	9	6	8	17	1	14	4	13	7	5	6	0	1	9	0	30	0	0
February	8.2	NW.	27	NW.	0	9	2	0	8	9	3	0	24	1	13	8	7	8	4	5	0	0	7	0	27	0	0
March	9.2	NW.	36	SE.	0	10	4	0	13	14	3	3	15	0	12	10	9	8	6	4	0	1	1	0	17	2	0
April	9.1	N.	30	NW.	0	13	8	1	6	12	4	3	13	0	14	6	10	12	9	0	0	0	0	0	3	2	0
May	7.7	N.	38	SE.	0	8	9	2	12	5	7	5	14	0	7	11	13	13	12	0	0	0	0	0	0	7	0
June	7.6	SE.	28	SE.	0	12	4	4	16	12	3	2	7	0	15	7	8	10	7	0	1	1	0	6	0	6	0
July	7.3	SE.	32	NE.	0	14	3	3	24	9	1	1	5	2	18	11	2	7	4	0	0	0	0	6	0	6	0
August	6.8	SE.	24	S.	0	13	6	2	18	10	3	1	8	1	23	4	4	5	4	0	0	1	0	10	0	5	0
September	7.4	SE.	30	S.	0	10	8	3	12	11	8	3	4	1	21	3	6	6	6	0	1	0	0	4	0	2	0
October	9.5	NW.	30	NW.	0	10	3	2	14	6	2	3	22	0	7	13	11	8	7	3	0	0	0	0	5	4	0
November	8.6	NW.	34	NW.	0	4	0	1	10	14	4	7	20	0	13	10	7	6	3	5	0	0	7	0	21	0	0
December	7.4	NW.	28	NW.	0	12	1	1	0	11	2	15	20	0	13	10	8	6	2	4	0	3	14	0	31	0	0
Year	7.9	NW.	38	SE.	0	126	48	24	138	122	46	51	169	6	170	97	98	96	69	27	2	7	38	26	134	34	0

OSWEGO, N. Y.

[H = 335 ft.; h_t = 76 ft.; h_r = 68 ft.; h_a = 87 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	13.4	SE.	41	W.	1	9	3	0	20	11	3	6	10	0	5	2	24	21	17	18	0	1	13	0	28	1	0
February	12.0	SE.	42	N.	1	2	6	2	18	11	3	4	10	0	1	5	22	17	10	12	0	2	11	0	24	0	0
March	12.4	SE.	37	W.	0	0	5	1	18	11	8	11	8	0	12	8	11	11	8	0	0	0	1	0	12	1	0
April	10.8	W.	31	SE.	0	5	9	3	8	4	5	16	9	1	10	8	12	14	9	4	0	1	3	0	7	0	0
May	9.2	SE.	33	NE.	0	4	5	1	18	4	10	15	4	1	7	13	11	13	13	0	0	1	0	0	0	3	0
June	8.3	W.	31	N.	0	9	6	2	9	6	10	15	3	0	10	11	9	11	7	0	0	0	0	0	0	5	0
July	7.7	S.	37	W.	0	6	5	1	9	17	8	9	7	0	16	12	3	8	8	0	0	0	0	2	0	6	0
August	8.4	S.	26	NW.	0	4	0	0	13	17	11	11	6	0	9	9	13	10	10	0	0	0	0	0	0	5	0
September	9.7	SE.	34	N.	0	2	1	0	17	14	11	3	12	0	15	8	7	10	10	0	0	0	0	0	0	4	0
October	11.4	SE.	33	NW.	0	3	3	1	31	7	3	6	8	0	6	8	17	16	14	1	0	2	0	0	0	0	0
November	13.3	SE.	36	SW.	0	1	5	1	19	6	9	3	16	0	2	13	15	16	11	7	0	0	3	0	10	0	0
December	15.0	SW.	37	NW.	0	4	1	3	8	13	17	8	8	0	1	4	26	21	15	17	0	0	13	0	26	0	0
Year	11.0	SE.	42	N.	2	49	49	15	188	121	98	107	101	2	94	101	170	168	132	59	0	7	44	2	107	25	0

PALESTINE, TEX.

[H=510 ft.; h_t=54 ft.; h_r=54 ft.; h_a=61 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.1	S.	28	SW.	0	9	9	5	9	13	4	4	9	0	7	8	16	12	11	0	0	1	0	0	4	2	0
February	7.1	S.	26	S.	0	12	7	1	9	14	5	3	5	0	13	9	6	6	4	0	0	1	0	0	4	3	0
March	9.2	NE.	27	SE.	0	4	18	3	15	14	2	0	6	0	4	10	17	11	9	0	0	1	0	0	2	1	0
April	7.9	NE.	25	SW.	0	10	11	6	10	9	5	2	5	2	12	10	8	6	5	0	0	1	0	0	0	1	0
May	7.8	S.	25	SW.	0	7	2	1	8	35	6	1	2	0	11	9	11	4	4	0	0	0	0	1	0	3	0
June	5.7	S.	28	S.	0	3	8	0	16	26	5	2	0	0	1	10	19	18	17	0	0	1	0	4	0	11	0
July	5.6	S.	30	SE.	0	7	8	4	9	25	7	1	1	0	12	13	6	9	7	0	0	1	0	17	0	9	0
August	4.6	SE.	20	N.	0	9	14	4	17	9	3	2	3	1	13	12	6	7	6	0	0	2	0	26	0	8	0
September	5.8	NE.	18	SW.	0	8	19	6	12	10	2	0	3	0	14	7	9	7	4	0	0	2	0	16	0	1	0
October	6.4	SE.	36	NW.	0	12	9	2	19	7	1	2	9	1	19	7	5	8	6	0	1	2	0	5	0	6	0
November	7.5	NE.	28	S.	0	10	12	4	11	10	6	1	6	0	8	13	9	11	8	0	0	1	0	0	3	0	0
December	8.1	N.	30	NW.	0	13	13	2	2	9	12	1	10	0	11	10	10	7	4	1	0	2	1	0	10	0	0
Year	7.0	S.	36	NW.	0	104	130	38	137	181	58	19	59	4	125	118	122	106	85	1	1	15	1	69	23	45	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PARKERSBURG, W. VA.

[λ = 39° 16′ N.; φ = 81° 36′ W.; gravity corr., — 0.02.]

Month.	Pressure.			Temperature.							Moisture.											
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.38	29.71	28.74	33.4	37.9	44.5	29.2	36.8	70	5	30	32	88	80	.178	.192	5.73	1.66	8.6	6.5	8.1
February	29.46	29.80	28.80	27.9	34.8	42.3	24.8	33.6	72	— 2	25	28	89	74	.146	.160	2.24	.49	7.4	5.0	7.4
March	29.49	29.75	29.01	43.0	51.2	58.2	38.9	48.6	81	20	38	40	83	67	.246	.261	5.43	.94	7.0	6.6	6.8
April	29.36	29.70	28.84	44.0	53.5	59.5	39.2	49.4	82	20	36	36	76	55	.224	.222	2.17	.70	5.0	5.6	5.5
May	29.29	29.50	28.97	59.5	67.4	74.8	53.7	64.2	90	40	51	53	76	63	.393	.416	2.76	1.10	5.6	6.5	5.5
June	29.36	29.56	29.05	68.8	76.7	84.4	61.7	73.0	94	48	60	61	76	61	.535	.558	4.98	2.96	5.0	4.3	4.3
July	29.40	29.62	29.19	73.1	79.4	87.7	67.3	77.5	100	51	65	65	77	63	.639	.640	4.38	1.64	3.9	5.8	4.9
August	29.36	29.53	29.21	69.9	76.6	85.6	65.9	75.8	94	56	66	68	86	76	.639	.691	4.66	2.14	5.4	5.9	5.6
September	29.42	29.74	29.11	63.2	71.6	82.0	59.2	70.6	96	45	58	61	82	70	.490	.551	2.09	1.02	3.2	3.8	3.6
October	29.42	29.67	28.93	49.8	56.9	66.0	47.1	56.6	89	30	45	47	83	72	.322	.352	3.90	1.28	5.8	4.6	5.7
November	29.45	29.82	28.95	37.4	42.3	51.4	32.9	42.2	72	16	32	33	82	72	.189	.201	2.50	1.39	5.6	5.6	6.8
December	29.44	30.03	28.74	29.1	34.1	41.4	24.3	32.8	66	— 2	24	26	82	72	.144	.152	2.36	.72	5.5	4.7	5.2
Year	29.40	30.03	28.74	49.9	56.9	64.8	45.4	55.1	100	— 2	44	46	82	69	.345	.366	43.20	2.96	5.7	5.4	5.8

PENSACOLA, FLA.

[λ = 30° 25′ N.; φ = 87° 13′ W.; gravity corr., — 0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	30.11	30.54	29.84	52.6	58.0	63.2	49.5	56.4	72	20	47	50	82	78	.360	.406	1.75	1.02	4.6	4.8	5.0
February	30.13	30.46	29.91	48.2	55.6	60.4	46.1	53.2	69	29	41	47	77	73	.285	.343	5.97	4.25	3.5	2.2	3.1
March	30.08	30.27	29.85	60.4	64.8	69.5	57.9	63.7	78	38	57	60	88	84	.501	.534	3.01	2.33	6.2	5.6	5.5
April	30.04	30.36	29.68	60.6	66.6	71.6	56.3	64.0	80	40	51	52	72	64	.406	.420	1.68	.68	2.7	3.4	3.5
May	29.96	30.13	29.69	73.7	76.4	81.5	68.2	74.8	93	44	65	64	74	67	.635	.617	.04	.04	3.2	3.2	3.5
June	30.00	30.11	29.84	79.9	81.6	86.5	75.4	81.0	91	69	72	72	78	74	.795	.794	2.88	1.02	5.1	5.7	5.6
July	29.98	30.13	29.71	79.5	81.5	86.3	75.5	80.9	97	65	73	73	80	75	.807	.807	4.84	1.04	5.3	5.8	6.4
August	29.95	30.08	29.82	78.0	79.9	85.5	74.5	80.0	92	71	73	73	85	81	.814	.822	18.58	5.39	5.6	7.7	6.7
September	29.95	30.08	29.79	76.0	79.9	84.5	73.6	79.0	90	69	71	73	86	80	.770	.812	17.93	6.35	5.4	6.3	6.1
October	30.03	30.31	29.74	62.3	68.8	75.2	59.6	67.4	88	39	55	57	78	68	.483	.515	4.74	3.09	2.8	2.0	2.7
November	30.09	30.33	29.75	53.7	59.7	65.5	49.9	57.7	75	32	45	51	74	74	.333	.398	6.73	1.83	4.9	5.1	5.3
December	30.14	30.49	29.75	47.3	52.3	58.5	44.6	51.6	70	26	41	44	80	75	.292	.320	4.05	1.01	5.6	4.9	5.5
Year	30.04	30.54	29.68	64.4	68.8	74.0	60.9	67.5	97	20	58	60	80	74	.540	.566	72.20	6.35	4.6	4.7	4.9

PHŒNIX, ARIZ.

[λ = 33° 28′ N.; φ = 112° 0′ W.; gravity corr., — 0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	28.89	29.18	28.52	39.6	53.5	57.9	36.5	47.2	73	23	29	30	69	44	.164	.179	1.63	.77	5.0	4.1	4.3
February	28.85	29.07	28.52	46.8	70.2	73.7	43.8	58.8	81	36	31	32	56	26	.177	.184	T.	T.	1.8	2.8	2.1
March	28.77	29.07	28.46	45.7	68.1	70.9	43.2	57.0	83	33	26	24	46	20	.145	.136	.03	.03	1.8	3.0	2.5
April	28.72	28.91	28.27	58.9	83.4	86.6	56.8	71.7	102	41	35	33	42	18	.210	.200	.18	.17	2.0	3.4	2.8
May	28.66	28.86	28.48	60.2	85.7	87.8	58.9	73.4	99	48	34	31	38	15	.196	.177	.01	.01	2.2	2.7	1.6
June	28.65	28.80	28.46	70.3	98.1	100.2	69.3	84.8	110	57	40	41	35	16	.272	.273	.08	.07	1.3	2.2	1.8
July	28.70	28.84	28.50	81.4	101.7	104.1	80.4	92.2	111	73	60	56	50	24	.525	.450	.24	.22	3.6	5.2	2.4
August	28.70	28.85	28.54	79.5	97.8	101.2	78.4	89.8	109	71	62	58	58	30	.560	.498	1.03	.34	4.7	6.0	4.0
September	28.69	28.82	28.51	70.4	96.3	99.2	69.2	84.2	106	64	47	46	45	19	.348	.320	.04	.04	0.2	0.5	0.4
October	28.81	29.04	28.55	56.9	82.9	88.6	54.4	71.5	99	47	25	31	29	16	.137	.179	.00	.00	0.9	1.9	1.5
November	28.83	29.04	28.59	44.8	66.4	72.8	42.1	57.4	90	30	24	26	44	26	.136	.159	1.01	.95	1.6	1.6	1.9
December	28.00	29.44	28.73	40.8	55.4	60.6	37.0	48.8	73	28	28	28	62	39	.159	.162	1.70	1.12	2.2	4.5	3.5
Year	28.77	29.44	28.27	57.9	80.0	83.6	55.8	69.7	111	23	37	36	48	24	.252	.243	5.95	1.12	2.3	3.2	2.4

PHILADELPHIA, PA.

[λ = 39° 57′ N.; φ = 75° 9′ W.; gravity corr., — 0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.92	30.42	29.25	33.0	36.0	41.2	29.5	35.4	58	12	26	27	75	70	.150	.154	4.10	1.22	7.4	4.8	6.6
February	29.98	30.50	29.26	31.0	36.5	42.9	28.3	35.6	61	8	25	27	76	69	.144	.152	2.80	2.27	5.6	3.9	4.8
March	30.11	30.54	29.68	42.4	48.7	56.4	39.6	48.0	72	25	36	37	79	66	.225	.231	3.05	.68	6.5	5.5	6.8
April	29.85	30.16	29.33	46.0	51.3	57.9	41.1	49.5	78	25	35	35	68	57	.219	.260	2.93	1.00	5.7	6.7	6.8
May	29.83	30.19	29.42	58.1	61.7	69.7	52.6	61.2	91	40	49	52	74	72	.367	.394	4.84	1.19	7.1	7.1	7.0
June	29.89	30.19	29.50	69.1	72.9	82.2	62.6	72.4	94	53	58	57	68	60	.491	.487	1.75	.79	4.2	5.6	5.3
July	29.93	30.24	29.63	74.0	78.0	87.1	69.3	78.2	100	57	65	65	76	67	.642	.651	3.63	1.32	5.8	6.8	6.0
August	29.90	30.14	29.66	73.5	77.0	84.4	69.2	76.8	93	60	66	67	77	73	.646	.680	9.06	5.89	5.2	3.9	5.4
September	29.97	30.30	29.60	67.0	71.2	79.9	62.8	71.4	96	51	59	60	76	69	.526	.542	1.82	1.01	3.5	1.7	3.4
October	30.02	30.34	29.35	55.4	58.3	66.5	50.7	58.6	83	35	48	49	78	72	.373	.375	4.85	1.53	4.4	3.6	5.3
November	29.97	30.45	29.25	41.5	45.5	51.3	37.8	44.6	66	26	35	36	79	70	.215	.221	4.19	1.85	6.1	4.7	5.9
December	29.95	30.45	29.06	32.7	36.3	42.0	29.8	35.9	60	16	25	26	73	67	.140	.151	3.21	1.00	4.9	3.8	6.0
Year	29.94	30.54	29.06	52.0	56.1	63.5	47.8	55.6	100	8	44	45	75	68	.345	.354	49.23	5.89	5.5	4.8	5.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PARKERSBURG, W. VA.

[H = 638 ft.; h_t = 77 ft.; h_r = 69 ft.; h_a = 84 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	4.7	NW.	28	SW.	0	4	9	2	9	7	9	5	14	3	3	6	22	16	12	5	0	2	3	0	18	0	0
February	6.1	NW.	37	NW.	0	7	3	1	9	7	7	4	9	9	1	12	15	15	10	10	0	0	6	0	21	0	0
March	5.9	NW.	34	NW.	0	6	9	4	12	7	6	1	13	4	7	7	17	15	13	2	0	0	0	0	9	1	0
April	7.0	NW.	30	NW.	0	8	7	2	8	7	5	9	12	2	10	7	13	12	7	1	0	0	0	0	8	0	0
May	5.2	N.	25	NW.	0	14	5	3	7	7	8	10	7	1	9	11	11	14	13	0	1	0	0	0	0	5	0
June	4.7	S.	52	NW.	1	11	5	1	12	13	8	4	6	0	14	12	4	12	10	0	0	0	0	5	0	8	0
July	4.5	SE.	28	NW.	0	5	9	10	14	10	7	5	2	0	13	9	9	12	10	0	0	1	0	12	0	8	0
August	3.9	SE.	35	NW.	0	4	4	4	17	13	9	6	1	4	10	9	12	11	8	0	0	2	0	5	0	9	0
September	4.6	SE.	41	NW.	1	7	5	3	16	7	5	5	4	8	15	10	5	7	5	0	0	2	0	4	0	3	0
October	5.7	SE.	28	S.	0	5	4	7	16	6	10	7	6	1	9	10	12	12	11	0	0	1	0	0	2	0	0
November	6.2	S.	36	NW.	0	2	2	5	11	14	10	5	9	2	8	5	17	13	9	5	0	1	1	0	11	0	0
December	7.4	SW.	32	W.	0	3	6	1	3	15	16	10	7	1	12	8	11	11	9	4	0	0	6	0	22	0	0
Year	5.5	SE.	52	NW.	2	76	68	43	134	113	100	71	90	35	111	106	148	150	117	27	1	9	16	26	91	34	0

PENSACOLA, FLA.

[H = 56 ft.; h_t = 78 ft.; h_r = 79 ft.; h_a = 90 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.0	N.	34	W.	0	15	9	1	10	6	12	5	4	0	13	8	10	14	9	0	0	3	0	0	3	0	0
February	9.0	NE.	36	SW.	0	8	12	6	8	4	6	4	8	0	16	9	3	7	6	0	0	3	0	0	4	2	0
March	9.3	S.	30	N.	0	8	9	0	16	16	11	0	2	0	9	13	9	4	3	0	0	2	0	0	0	0	0
April	10.4	SW.	38	NW.	0	11	9	0	6	5	14	5	10	0	17	8	5	6	4	0	0	0	0	0	0	1	0
May	9.2	SW.	29	NW.	0	6	2	0	4	8	27	9	6	0	18	12	1	1	1	0	0	0	0	1	0	1	0
June	8.1	SW.	44	NW.	1	0	6	0	6	8	29	4	7	0	6	18	6	8	7	0	0	0	0	3	0	10	0
July	9.0	SW.	33	NE.	0	2	11	1	7	10	17	2	12	0	1	22	8	19	16	0	0	0	0	3	0	9	0
August	7.7	SW.	40	SW.	1	2	16	4	6	2	23	3	6	0	0	20	11	22	16	0	0	0	0	4	0	10	0
September	9.6	NE.	39	SE.	0	0	20	6	18	4	11	0	1	0	7	13	10	13	10	0	0	0	0	1	0	0	0
October	9.7	NE.	37	NW.	0	14	19	1	7	2	5	2	12	0	19	9	3	7	6	0	0	0	0	0	0	1	0
November	10.4	NE.	37	NW.	0	15	21	5	11	2	1	0	5	0	11	8	11	13	9	0	0	0	0	0	0	0	0
December	9.8	NE.	36	NW.	0	14	15	3	4	2	10	1	12	1	12	6	13	13	9	0	0	3	0	0	3	1	0
Year	9.3	SW.	44	NW.	2	95	149	27	103	69	166	35	85	1	129	146	90	127	86	0	0	11	0	12	10	35	0

PHŒNIX, ARIZ.

[H = 1,076 ft.; h_t = 47 ft.; h_r = 39 ft.; h_a = 57 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.1	E.	23	E.	0	9	0	18	10	0	2	16	5	2	15	6	10	7	5	0	1	3	0	0	11	1	0
February	3.3	W.	17	N.	0	5	8	13	2	1	3	14	10	0	20	7	1	0	0	0	0	0	0	0	0	0	0
March	4.9	W.	24	SW.	0	4	6	13	3	1	9	13	11	2	19	9	3	2	0	0	0	0	0	0	0	0	0
April	4.9	E.	26	E.	0	6	5	15	2	4	5	12	9	2	22	5	3	2	1	0	0	0	0	10	0	1	0
May	4.4	W.	18	SW.	0	3	9	10	3	1	8	14	11	3	24	6	1	1	0	0	0	0	0	16	0	0	0
June	4.1	W.	28	E.	0	8	8	11	3	0	3	14	10	3	24	5	1	2	1	0	0	0	0	28	0	1	0
July	4.7	NW.	32	N.	0	4	4	10	6	0	3	11	15	9	22	8	1	2	1	0	0	0	0	31	0	4	0
August	4.6	NW.	40	E.	1	5	4	15	4	0	7	9	16	2	15	12	4	9	9	0	0	0	0	28	0	12	0
September	4.5	E.	27	SE.	0	3	6	19	2	0	5	9	16	0	29	1	0	1	1	0	0	0	0	30	0	0	0
October	3.8	E.	16	NE.	0	9	5	18	3	1	3	11	11	1	25	4	2	0	0	0	0	0	0	10	0	0	0
November	3.7	E.	26	W.	0	4	6	15	6	5	4	10	8	2	24	4	2	3	2	0	1	0	0	0	2	0	0
December	4.1	E.	26	E.	0	4	9	17	7	2	7	7	7	2	20	4	7	4	4	2	0	0	0	0	6	0	0
Year	4.3	E.	40	E.	1	64	70	174	51	15	59	140	129	28	259	71	35	33	24	2	2	3	0	153	19	19	0

PHILADELPHIA, PA.

[H = 117 ft.; h_t = 168 ft.; h_r = 166 ft.; h_a = 184 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.5	NW.	41	W.	1	9	7	5	3	4	7	10	17	0	5	13	13	15	14	5	0	2	6	0	14	0	0
February	10.3	NW.	41	NW.	1	7	7	3	4	3	10	1	21	0	12	8	8	10	6	2	0	1	3	0	16	1	0
March	9.9	N.	31	NW.	0	10	8	10	13	7	5	2	7	0	6	7	18	12	10	3	0	3	0	0	3	0	0
April	12.3	NW.	36	NE.	0	8	9	9	3	4	3	4	20	0	6	8	16	14	9	3	0	0	0	0	5	1	0
May	9.8	NE.	44	NE.	1	7	13	9	12	10	4	2	5	0	5	6	20	20	11	0	0	0	0	1	0	7	0
June	9.5	SW.	36	NW.	0	4	5	3	10	5	16	6	11	0	10	12	8	9	8	0	0	0	0	4	0	6	0
July	8.5	SW.	36	NW.	0	6	8	10	8	5	14	8	3	0	7	12	12	8	7	0	0	0	0	12	0	7	0
August	8.3	SW.	38	NW.	0	6	2	6	6	9	19	8	6	0	9	13	9	13	11	0	0	0	0	5	0	6	0
September	8.6	SW.	32	NW.	0	6	10	3	3	5	15	10	8	0	18	5	7	7	5	0	0	3	0	5	0	5	0
October	9.7	NW.	27	NE.	0	8	8	7	10	6	5	6	12	0	11	8	12	11	9	0	0	2	0	0	0	0	0
November	10.2	NW.	42	NW.	1	5	6	4	3	8	7	6	21	0	8	11	11	15	14	4	0	2	0	0	7	0	0
December	10.6	SW.	48	SE.	1	4	7	2	2	5	16	10	16	0	10	8	13	12	8	3	0	3	1	0	17	1	0
Year	9.8	NW.	48	SE.	5	80	90	71	77	71	121	73	147	0	107	111	147	146	112	20	0	16	10	27	62	34	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PIERRE, S. DAK.

[λ=44° 22′ N.; φ=100° 21′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	28.31	28.90	27.89	17.5	28.9	37.6	14.3	26.0	53	4	13	24	80	80	.075	.127	.01	.01	3.2	2.5	3.5
February	28.36	28.99	27.87	17.6	33.1	41.6	14.8	28.2	64	— 5	14	22	84	65	.084	.120	.13	.06	3.5	3.7	4.6
March	28.30	28.81	27.35	20.4	36.3	42.3	18.3	30.3	67	— 1	14	24	76	62	.084	.131	.60	.18	4.8	5.4	5.7
April	28.38	28.85	27.93	36.8	55.9	61.1	34.8	48.0	92	13	26	35	65	49	.146	.207	.90	.25	3.2	5.1	5.1
May	28.29	28.65	27.71	48.6	63.7	66.6	46.3	56.4	89	33	41	46	77	56	.275	.325	3.55	1.68	6.6	6.3	6.4
June	28.26	28.59	27.90	61.5	78.0	82.4	58.3	70.4	101	46	52	55	72	49	.404	.454	.77	.38	3.7	3.1	3.9
July	28.29	28.59	27.86	66.4	82.6	88.8	63.1	76.0	102	51	54	56	66	44	.432	.460	3.05	1.54	2.9	3.0	3.3
August	28.27	28.54	27.98	62.5	83.8	88.4	60.3	74.4	105	52	52	54	69	39	.393	.433	.78	.42	3.5	2.4	3.5
September	28.29	28.99	27.87	52.7	71.8	78.2	51.1	64.6	100	34	38	40	60	35	.244	.259	.26	.18	3.9	3.4	3.8
October	28.36	28.92	27.68	37.4	49.3	56.2	35.8	46.0	88	12	26	29	64	48	.147	.162	.15	.09	5.6	5.1	6.4
November	28.31	28.87	27.81	20.2	32.5	41.1	17.5	29.3	71	—10	9	14	61	49	.066	.088	.17	.10	3.3	2.8	4.1
December	28.43	29.19	27.71	15.7	24.7	31.9	12.5	22.2	51	—11	5	14	60	61	.059	.086	.28	.10	3.0	2.4	4.9
Year	28.32	29.19	27.35	38.1	53.4	59.7	35.6	47.6	105	—11	29	34	70	53	.201	.238	10.65	1.68	3.9	3.8	4.6

PITTSBURG, PA.

[λ=40° 32′ N.; φ=86° 2′ W.; gravity corr., —0.01.]

January	29.11	29.52	28.41	33.1	36.0	42.0	28.6	35.3	67	10	29	31	83	80	.166	.179	3.40	.67	7.7	7.4	8.2
February	29.21	29.54	28.60	28.7	34.3	39.1	25.5	32.3	70	0	25	28	86	78	.147	.162	1.60	.74	7.0	4.9	7.5
March	29.26	29.58	28.75	42.3	50.4	56.7	38.8	47.8	78	20	38	44	86	81	.248	.308	5.45	2.04	5.9	5.1	6.5
April	29.12	29.46	28.62	43.1	52.5	56.8	40.2	48.5	78	20	35	38	75	62	.220	.240	1.60	.61	5.1	5.1	6.6
May	29.08	29.32	28.80	58.7	66.0	71.9	54.5	63.2	86	40	50	53	75	64	.383	.408	3.99	1.18	6.0	6.5	6.6
June	29.13	29.32	28.72	69.4	77.7	83.3	64.4	73.8	92	55	60	60	72	56	.517	.534	3.98	1.35	4.5	5.5	5.2
July	29.18	29.46	28.95	72.4	79.1	86.0	68.4	77.2	99	51	64	63	76	60	.615	.595	2.56	.96	3.9	4.6	5.9
August	29.13	29.29	28.96	70.2	76.5	83.1	66.7	74.9	92	56	64	64	81	67	.604	.614	4.01	1.02	5.0	4.5	6.0
September	29.18	29.53	28.84	63.5	72.4	79.4	61.0	70.2	94	48	58	58	82	61	.493	.492	1.06	.42	4.0	2.8	4.5
October	29.20	29.45	28.71	50.9	57.3	64.2	47.9	56.0	86	32	45	47	81	69	.327	.346	3.85	1.55	5.1	5.5	6.6
November	29.19	29.61	28.62	39.6	43.4	50.5	34.9	42.7	70	18	33	34	78	70	.196	.202	2.34	1.00	5.9	6.1	7.4
December	29.16	29.69	28.43	30.9	33.5	39.9	25.9	32.9	65	8	24	26	77	74	.138	.147	1.92	.65	5.8	6.4	7.1
Year	29.16	29.69	28.41	50.2	56.6	62.7	46.4	54.6	99	0	44	46	79	68	.338	.352	35.76	2.04	5.5	5.4	6.5

POINT REYES LIGHT, CAL.

[λ=38° 11′ N.; φ=122° 51′ W.; gravity corr., ——.]

January						50.7	41.8	46.2	66	33							1.60	.67			
February						54.0	45.0	49.5	66	41							4.48	1.17			
March						53.7	43.2	48.4	70	36							.47	.23			
April						55.1	44.5	49.8	80	42							.29	.29			
May						52.8	45.7	49.2	62	43							2.82	1.80			
June						60.1	48.8	54.4	85	45							.42	.32			
July						57.2	47.5	52.4	75	45							.00	.00			
August						58.4	49.4	53.9	71	47							T.	T.			
September						58.5	50.8	54.6	68	48							.80	.52			
October						63.2	50.3	56.8	80	47							1.27	.61			
November						56.6	46.4	51.5	80	42							1.00	.32			
December						55.6	44.4	50.0	67	36							.85	.45			
Year						56.3	46.5	51.4	85	33							14.00	1.80			

PORT ANGELES, WASH.

[λ=48° 7′ N.; φ=123° 6′ W.; gravity corr., +0.01.]

January	30.02	30.46	29.68		41.3	43.5	33.7	38.6	49	26		38		89		.233	2.39	.63		8.3	7.3
February	29.85	30.35	29.27		45.7	48.0	36.2	42.1	57	30		41		84		.258	3.62	.80		7.0	6.9
March	30.03	30.42	29.61		45.8	47.3	33.7	40.5	53	26		40		81		.249	1.38	.27		5.4	5.5
April	30.05	30.47	29.54		51.1	52.8	37.6	45.2	67	30		45		81		.301	.80	.22		4.5	4.9
May	29.91	30.21	29.58		56.6	59.1	42.9	51.0	77	35		50		80		.367	1.22	.46		5.1	5.0
June	29.95	30.41	29.64		59.4	61.7	48.2	55.0	74	42		54		82		.416	1.24	.51		5.2	5.3
July	29.99	30.18	29.71		61.1	63.3	49.1	56.2	82	42		55		82		.441	.17	.08		2.4	2.6
August	29.90	30.07	29.74		62.2	64.7	52.2	58.4	82	46		57		85		.474	.17	.17		2.5	3.3
September	29.89	30.11	29.47		59.3	62.5	47.6	55.0	76	38		55		86		.433	1.78	1.01		3.7	3.9
October																					
November																					
December																					
Year																					

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PIERRE, S. DAK.

[H=1,572 ft.; h_t=11 ft.; h_r=3 ft.; h_a=19 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	6.5	SE.	36	NW.	0	7	2	3	19	2	7	7	12	3	16	11	4	1	0	1	0	0	6	0	31	0	0
February	9.4	SE.	35	N.	0	6	5	1	22	0	2	3	17	0	8	13	7	4	2	3	0	0	7	0	27	0	0
March	10.7	NW.	53	W.	1	13	3	4	14	0	6	6	15	1	8	11	12	9	6	8	0	1	4	0	30	1	0
April	12.1	SE.	58	NW.	2	6	13	8	13	3	3	5	9	0	12	8	10	7	5	0	0	0	0	1	9	0	0
May	9.6	E.	48	SE.	1	12	7	15	12	2	3	2	9	0	10	5	16	14	11	0	0	0	0	0	0	3	0
June	10.1	SE.	55	NW.	2	5	6	4	22	3	6	6	8	0	14	13	3	7	3	0	1	1	0	9	0	8	0
July	10.5	SE.	46	E.	3	8	9	7	24	5	2	1	6	0	19	8	4	12	9	0	1	0	0	16	0	13	0
August	8.4	SE.	60	NW.	4	14	4	5	25	2	4	5	3	0	16	9	6	4	3	0	0	0	0	13	0	6	0
September	8.3	SE.	37	S.	0	12	6	4	18	5	3	5	7	0	18	5	7	2	2	0	0	0	0	7	0	1	0
October	13.4	NW.	49	NW.	7	8	7	5	9	2	3	5	22	1	7	8	16	6	2	2	0	1	0	0	9	0	0
November	11.1	NW.	59	NW.	5	2	5	5	14	1	6	1	24	2	13	12	5	3	2	3	0	0	8	0	25	0	0
December	8.3	NW.	48	NW.	2	7	4	3	9	1	3	9	24	2	11	7	13	9	4	8	0	0	14	0	29	0	0
Year	9.9	SE.	60	NW.	27	100	71	64	201	26	48	55	156	9	152	110	103	78	49	25	2	3	39	46	160	32	0

PITTSBURG, PA.

[H=842 ft.; h_t=116 ft.; h_r=101 ft.; h_a=123 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.3	SW.	36	SW.	0	3	3	6	4	11	24	10	1	0	1	9	21	18	14	5	0	5	5	0	19	1	0
February	7.2	W.	26	SW.	0	6	2	4	5	6	7	17	8	1	4	9	15	10	8	6	0	1	8	0	18	0	0
March	6.7	N.	32	NW.	0	15	5	5	9	15	3	3	7	0	4	14	13	13	12	2	0	2	0	0	7	1	0
April	7.3	NW.	25	NW.	0	16	5	8	3	3	3	6	16	0	6	10	14	13	7	3	0	2	0	0	8	1	0
May	5.6	N.	25	S.	0	24	1	3	4	5	10	5	9	1	3	16	12	14	13	0	0	4	0	0	0	6	0
June	5.7	N.	48	NW.	1	17	2	3	3	5	15	10	3	2	7	21	2	10	8	0	0	2	0	3	0	8	0
July	5.0	SW.	24	W.	0	9	3	9	7	9	12	11	2	0	6	15	10	11	11	0	0	1	0	8	0	6	0
August	4.8	SW.	22	W.	0	4	6	3	5	6	19	13	6	0	4	19	8	12	10	0	0	2	0	2	0	8	0
September	5.3	SW.	24	N.	0	8	5	2	8	3	11	13	8	2	14	12	4	8	7	0	0	6	0	3	0	1	0
October	6.1	SE.	20	SE.	0	5	5	5	15	8	7	2	15	0	5	12	14	11	8	0	0	4	0	0	1	0	0
November	6.4	NW.	24	NW.	0	6	2	0	11	9	12	5	15	0	3	10	17	17	12	6	0	4	3	0	8	0	0
December	7.7	NW.	30	NW.	0	3	1	2	5	3	20	9	19	0	5	9	17	14	10	9	0	1	6	0	21	0	0
Year	6.3	SW.	48	NW.	1	116	40	50	79	83	143	104	109	6	62	156	147	151	120	31	0	34	22	16	82	32	0

POINT REYES LIGHT, CAL.

[H=— ft.; h_t=12 ft.; h_r=1 ft.; h_a=16 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	18.7	NW.	70	NW.	12	3	1	1	5	0	0	0	21	0	15	7	9	9	9	0	0	2	0	0	0	0	0
February	17.9	NW.	64	NW.	5	1	0	0	8	2	1	1	15	0	7	8	13	14	11	0	0	7	0	0	0	0	0
March	21.8	NW.	78	NW.	8	0	0	0	4	1	1	2	22	1	21	4	6	5	3	0	0	5	0	0	0	0	0
April	25.7	NW.	80	NW.	12	0	0	0	2	2	1	0	25	0	17	8	5	1	1	0	0	4	0	0	0	0	0
May	23.6	NW.	72	NW.	14	0	0	0	6	0	4	1	20	0	12	3	16	8	7	0	0	10	0	0	0	0	0
June	20.6	NW.	64	NW.	8	1	0	0	2	2	3	0	22	0	18	5	7	3	3	0	0	11	0	0	0	0	0
July	22.1	NW.	54	NW.	6	1	0	0	2	2	0	1	25	0	15	6	10	0	0	0	0	19	0	0	0	0	0
August	20.4	NW.	60	NW.	4	0	0	1	2	2	2	2	22	0	5	9	17	0	0	0	0	22	0	0	0	0	0
September	19.6	NW.	70	NW.	6	0	0	0	5	2	1	2	20	0	11	7	12	5	5	0	0	15	0	0	0	0	0
October	14.2	NW.	54	NW.	3	0	0	0	5	1	2	2	21	0	19	9	3	7	5	0	0	6	0	0	0	0	0
November	17.0	NW.	70	NW.	9	1	0	0	3	1	0	1	23	1	17	7	6	7	5	0	0	7	0	0	0	0	0
December	14.0	NW.	76	NE.	4	7	3	1	6	0	0	0	14	0	11	7	13	4	4	0	0	5	0	0	0	0	0
Year	19.6	NW.	80	NW.	91	14	4	3	50	15	15	12	250	2	168	80	117	63	53	0	0	113	0	0	0	0	0

PORT ANGELES, WASH.

[H=29 ft.; h_t=47 ft.; h_r=32 ft.; h_a=61 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.3	W.	30	W.	0	0	0	7	5	2	5	10	2	0	0	18	13	15	13	2	1	0	0	0	3	0	0
February	5.4	W.	38	W.	0	0	5	6	1	0	3	9	4	0	0	17	11	14	13	1	0	0	0	0	3	0	0
March	6.7	E.	30	W.	0	0	2	13	0	1	0	10	5	0	8	15	8	13	10	0	0	1	0	0	10	0	0
April	6.4	E.	24	W.	0	0	0	12	0	0	0	11	7	0	9	15	6	10	6	0	0	0	0	0	4	0	0
May	6.1	NW.	26	W.	0	0	0	8	0	0	0	5	18	0	10	11	10	9	7	0	0	1	0	0	0	0	0
June	5.8	NW.	24	NW.	0	0	0	7	0	0	0	6	17	0	9	10	11	10	9	0	0	4	0	0	0	0	0
July	8.0	NW.	28	NW.	0	0	0	4	0	0	0	3	24	0	19	11	1	4	2	0	0	4	0	0	0	0	0
August	6.2	NW.	22	NW.	0	0	0	3	0	0	0	1	27	0	17	10	4	2	1	0	0	6	0	0	0	0	0
September	4.9	NW.	30	NW.	0	0	0	12	0	0	2	2	14	0	13	13	4	9	7	0	0	5	0	0	0	0	0
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PORT CRESCENT, WASH.

[λ = 48° 8′ N.; φ = 123° 41′ W.; gravity corr., +0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	29.77	30.10	29.34	.....	51.7	54.9	39.5	47.2	60	32	....	48	....	88	.....	.335	4.80	2.20	.....	7.0	6.3
November	29.69	30.10	29.15	.....	43.6	49.1	36.7	42.9	55	30	....	41	....	91	.....	.257	5.10	.56	.....	8.1	7.6
December	29.87	30.27	29.10	.....	40.4	44.8	34.0	39.4	58	27	....	38	....	91	.....	.229	4.41	.76	.....	6.7	7.2
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PORT HURON, MICH.

[λ = 43° 0′ N.; φ = 82° 26′ W.; gravity corr., — 0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.28	29.74	28.33	25.2	27.2	33.3	21.1	27.2	52	3	21	22	81	79	.114	.122	2.97	0.66	8.2	6.5	7.0
February	29.36	29.71	28.84	22.8	25.8	31.8	19.5	25.6	55	—5	19	21	82	81	.111	.123	2.99	.93	7.1	5.5	6.8
March	29.42	29.73	28.71	33.5	40.0	46.6	30.0	38.3	68	11	29	34	82	78	.166	.203	3.64	1.82	5.4	4.5	4.9
April	29.36	29.67	28.93	38.6	42.6	49.7	34.4	42.0	67	15	31	33	74	70	.176	.195	1.24	.43	4.4	5.6	5.3
May	29.27	29.52	28.92	51.8	56.5	63.4	46.8	55.1	77	35	45	46	78	70	.307	.332	1.61	.72	4.5	4.5	4.7
June	29.32	29.66	28.78	63.7	68.4	77.2	56.7	67.0	92	45	57	57	79	70	.474	.478	3.40	.88	3.8	4.0	4.2
July	29.36	29.67	29.09	67.2	72.3	80.7	61.0	70.8	95	47	59	62	76	70	.521	.556	1.44	.47	2.7	2.6	3.7
August	29.30	29.52	29.04	65.5	71.9	79.1	61.4	70.2	98	48	60	60	83	68	.529	.531	2.87	1.17	6.0	3.5	4.8
September	29.35	29.86	28.90	59.5	65.9	76.2	56.0	66.1	95	39	54	57	84	74	.446	.472	2.34	.59	3.4	4.6	4.4
October	29.36	29.71	28.76	48.3	51.8	58.7	45.5	52.1	85	28	44	45	85	78	.306	.318	4.28	1.13	7.0	5.6	6.7
November	29.36	29.74	28.77	34.4	37.2	44.1	30.9	37.5	65	15	31	33	89	85	.182	.192	3.19	1.40	6.3	5.1	6.3
December	29.30	29.88	28.64	24.4	26.7	32.2	20.9	26.6	48	3	22	24	90	88	.122	.132	3.17	1.53	7.0	6.4	7.4
Year	29.34	29.88	28.33	44.6	48.9	56.1	40.4	48.2	98	—6	39	41	82	76	.288	.304	33.14	1.82	5.5	4.9	5.5

PORTLAND, ME.

[λ = 43° 39′ N.; φ = 70° 15′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.84	30.43	28.89	18.4	22.7	29.2	13.6	21.4	45	— 6	15	16	85	72	.096	.096	6.61	1.33	6.2	3.3	5.1
February	29.92	30.48	28.69	24.4	29.1	34.1	21.1	27.6	50	— 4	22	24	89	80	.122	.134	7.61	3.06	5.8	6.1	6.9
March	30.08	30.68	29.38	34.0	37.3	44.0	30.7	37.4	62	21	28	30	80	75	.160	.167	1.21	.34	5.2	2.6	4.5
April	29.80	30.25	29.42	38.6	41.9	48.5	33.9	41.2	70	17	31	34	75	74	.179	.197	4.33	1.66	6.2	4.6	6.4
May	29.85	30.22	29.54	52.0	50.8	59.2	46.0	52.6	79	35	44	44	77	79	.296	.295	2.62	1.03	5.9	5.7	6.0
June	29.83	30.19	29.29	60.7	60.2	68.3	54.3	61.3	89	45	52	52	76	78	.403	.402	3.98	1.13	6.6	6.5	6.6
July	29.90	30.36	29.52	67.1	67.7	75.0	60.5	67.8	97	52	58	59	74	75	.498	.505	1.78	.80	5.5	5.2	5.8
August	29.83	30.12	29.55	67.5	69.0	77.4	62.1	69.8	88	54	61	61	80	78	.541	.549	3.88	1.31	6.1	6.6	6.4
September	29.89	30.28	29.44	58.8	60.3	69.7	52.7	61.2	87	41	52	52	79	76	.407	.405	3.48	1.38	3.8	3.1	4.2
October	29.93	30.39	29.30	47.9	50.1	57.1	42.9	50.0	81	31	42	44	80	81	.283	.308	5.90	1.63	5.7	3.8	5.7
November	29.86	30.39	29.10	36.6	39.5	44.6	32.7	38.6	58	18	31	33	81	77	.179	.191	5.51	1.71	6.2	6.1	6.7
December	29.84	30.40	29.12	23.7	26.6	34.2	19.1	26.6	48	— 6	19	20	83	74	.112	.114	2.85	.97	5.9	3.7	5.5
Year	29.88	30.68	28.69	44.1	46.3	53.4	39.1	46.3	97	— 6	38	39	80	77	.273	.280	49.76	3.06	5.8	4.8	5.9

PORTLAND, OREG.

[λ = 45° 32′ N.; φ = 122° 43′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.98	30.36	29.65	37.0	41.0	42.9	35.1	39.0	50	25	33	34	86	78	.191	.203	3.91	1.04	6.8	7.5	7.1
February	29.84	30.23	29.24	43.9	48.0	50.6	40.8	45.7	61	32	39	38	85	70	.246	.235	6.51	1.10	7.4	8.5	7.8
March	29.94	30.34	29.58	38.6	49.2	51.3	36.3	43.8	63	27	35	33	86	55	.201	.192	2.17	.72	5.9	6.0	5.5
April	29.94	30.31	29.47	45.0	58.3	60.6	42.7	51.6	81	32	39	37	82	48	.244	.225	2.12	.58	5.9	5.6	5.2
May	29.81	30.12	29.46	48.9	63.6	65.5	47.7	56.6	85	39	42	40	78	48	.265	.251	1.78	.54	4.8	6.0	4.6
June	29.83	30.25	29.50	54.3	70.0	71.3	53.7	62.5	90	43	48	47	81	47	.340	.324	1.88	.49	5.7	8.7	3.4
July	29.86	30.10	29.55	56.3	76.0	77.2	55.6	66.4	95	48	52	51	84	44	.384	.383	.79	.45	4.5	1.7	3.1
August	29.77	29.93	29.57	59.4	76.2	77.8	58.5	68.2	97	52	56	56	86	52	.441	.457	.15	.13	6.1	2.7	4.4
September	29.78	30.02	29.48	55.8	69.5	71.5	54.1	62.8	88	44	50	49	83	51	.364	.348	2.69	1.27	5.3	4.6	4.4
October	29.93	30.23	29.56	47.5	58.0	60.2	45.7	53.0	70	41	44	44	87	62	.288	.294	1.58	.31	5.9	6.9	5.5
November	29.92	30.31	29.44	41.1	46.1	49.0	38.8	43.9	57	29	38	40	90	80	.232	.250	6.03	1.46	6.8	6.0	7.1
December	30.09	30.39	29.60	35.7	38.8	42.1	32.9	37.5	55	21	30	31	78	74	.172	.182	4.29	1.18	5.2	6.1	6.5
Year	29.89	30.39	29.24	47.0	57.9	60.0	45.2	52.6	97	21	42	42	84	59	.281	.279	33.90	1.46	5.9	5.4	5.4

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PORT CRESCENT, WASH.

[H = 256 ft.; h_t = 15 ft.; h_r = 2 ft.; h_s = 20 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	3.5	E.	20	SW.	0	0	0	12	1	1	7	9	1	0	3	17	11	19	11	0	0	0	0	0	1	0	0
November	4.0	SW.	40	SE.	1	0	0	4	3	1	12	10	0	0	0	15	15	25	20	0	0	0	0	0	6	0	0
December	3.7	E.	24	SW.	0	0	0	14	2	2	8	5	0	0	4	11	16	19	16	3	0	0	0	0	9	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PORT HURON, MICH.

[H = 639 ft.; h_t = 70 ft.; h_r = 63 ft.; h_s = 108 ft.]

January	12.6	NW.	56	W.	1	4	3	2	11	12	9	8	13	0	2	12	17	13	10	10	0	2	13	0	28	1	0
February	13.1	S.	44	NW.	1	2	8	1	5	14	13	4	8	1	7	9	12	15	10	10	0	4	14	0	24	0	0
March	11.3	S.	46	W.	1	7	4	2	6	24	6	8	5	0	13	8	10	14	10	1	0	2	2	0	17	0	0
April	11.7	N.	40	W.	1	28	5	4	2	7	3	4	7	0	11	8	11	9	6	3	0	1	1	0	8	1	0
May	10.5	N.	44	SW.	1	24	6	0	3	19	3	5	2	0	12	12	7	12	10	0	1	2	0	0	0	3	0
June	9.4	N.	52	W.	1	18	8	0	5	13	9	5	2	0	12	14	4	10	8	0	2	2	0	1	0	0	0
July	8.3	NE.	36	W.	0	9	21	4	4	16	4	0	4	0	17	13	1	8	8	0	0	0	0	3	0	6	0
August	8.4	S.	30	SW.	0	7	13	2	2	14	13	3	8	0	11	16	4	11	8	0	0	0	0	2	0	4	0
September	9.8	S.	35	SW.	0	4	5	2	6	17	16	5	5	0	15	8	7	14	8	0	0	3	0	3	0	3	0
October	11.2	SE.	35	NW.	0	4	4	4	17	12	5	8	8	0	2	17	12	14	12	0	0	1	0	0	2	0	0
November	12.8	S.	52	N.	2	1	5	0	10	18	12	10	4	0	7	9	14	12	9	6	1	1	3	0	17	1	0
December	13.7	SW.	35	S.	0	6	2	1	3	16	19	9	6	0	3	11	17	13	12	8	0	1	14	0	29	0	0
Year	11.1	S.	56	W.	8	114	84	22	74	182	112	69	72	1	112	137	116	145	111	38	4	19	47	9	125	25	0

PORTLAND, ME.

[H = 103 ft.; h_t = 81 ft.; h_r = 74 ft.; h_s = 89 ft.]

January	7.5	NW.	36	NE.	0	18	2	0	2	3	6	13	16	2	10	12	9	13	12	9	0	2	18	0	30	0	0
February	8.2	NW.	38	NW.	0	9	7	2	2	7	9	7	13	0	5	8	15	10	8	8	0	4	8	0	25	0	0
March	6.9	S.	28	NW.	0	7	5	2	1	13	18	5	9	2	12	11	8	9	7	2	0	2	0	0	17	0	2
April	8.6	NW.	29	NE.	0	10	12	3	4	3	5	8	15	0	7	9	14	12	12	2	0	2	0	0	7	0	0
May	7.6	S.	30	S.	0	4	6	6	5	17	12	2	9	1	5	12	14	13	7	0	1	4	0	0	0	1	0
June	6.9	S.	24	S.	0	6	6	7	9	12	9	3	8	0	4	11	15	15	11	0	0	0	0	0	0	3	0
July	7.0	S.	27	NW.	0	6	8	2	2	16	15	4	7	2	10	8	13	11	5	0	0	3	0	2	0	2	0
August	5.9	W.	25	S.	0	3	3	1	2	13	14	14	9	3	5	14	12	15	8	0	1	0	0	0	0	4	0
September	6.1	W.	30	NW.	0	7	3	2	2	8	13	16	6	3	13	13	4	11	10	0	0	1	0	0	0	5	0
October	8.2	NW.	37	S.	0	10	6	3	3	9	10	7	10	4	9	8	14	13	12	0	0	3	0	0	1	0	0
November	8.4	NW.	42	NE.	1	9	6	1	0	5	10	12	16	1	4	10	16	13	11	3	0	1	2	0	12	0	0
December	7.5	SW.	50	E.	1	10	5	0	1	2	21	13	8	2	9	15	7	13	8	11	0	1	11	0	29	0	0
Year	7.4	SW.	50	E.	2	99	69	29	33	108	142	104	126	20	93	131	141	148	111	35	2	23	39	2	121	15	2

PORTLAND, OREG.

[H = 153 ft.; h_t = 203 ft.; h_r = 145 ft.; h_s = 213 ft.]

January	8.4	SE.	36	S.	0	0	1	5	16	13	4	7	15	1	4	10	17	20	18	3	0	6	0	0	6	0	0
February	10.8	S.	46	S.	2	4	1	6	14	19	6	0	6	0	0	9	19	20	16	0	1	3	0	0	1	0	0
March	8.5	NW.	44	SW.	1	5	2	3	6	11	7	3	23	2	7	17	7	13	11	4	3	4	0	0	5	0	0
April	8.7	NW	40	S.	1	0	2	0	11	11	2	4	30	0	11	8	11	10	9	0	0	1	0	0	0	0	0
May	7.9	NW.	35	SW.	0	7	2	2	9	9	4	6	19	4	14	10	7	12	9	0	0	1	0	0	0	0	0
June	8.2	NW.	33	SW.	0	2	2	3	7	10	7	4	24	1	16	12	2	10	9	0	0	0	0	0	0	1	0
July	7.7	NW.	28	W.	0	16	0	1	8	5	3	1	28	0	23	5	3	2	2	0	0	0	0	3	0	1	0
August	7.0	NW.	29	SW.	0	3	0	3	8	3	9	3	29	4	14	10	7	2	1	0	0	1	0	5	0	0	0
September	8.5	NW.	34	NE.	0	3	4	0	10	9	1	1	28	4	11	11	8	8	7	0	0	1	0	0	0	1	0
October	7.5	NW.	33	S.	0	3	3	3	12	8	8	5	19	1	8	12	11	13	9	0	0	1	0	0	0	0	0
November	9.5	S.	36	S.	0	5	2	2	8	20	3	3	12	5	3	10	17	18	18	1	0	8	0	0	3	0	0
December	8.8	SE.	34	S.	0	0	4	17	10	9	3	0	15	4	8	6	17	16	15	4	1	4	1	0	12	0	0
Year	8.5	NW.	46	S.	4	48	23	45	119	127	57	37	248	26	119	120	126	144	124	12	5	30	1	8	27	3	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PORT OF SPAIN, TRINIDAD, WEST INDIES.

[λ = 10° 35′ N.; φ = 61° 30′ W.; gravity corr., —0.07.]

[Observations at Port of Spain were taken at 6 a. m. and 5 p. m.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	a29.92	a30.00	a29.85	b74.0	b80.0	b85.5	b72.1	b78.8	89	70	b72	c74	b91	c81	b.785	c.828	a4.91	a1.05	b5.3	c6.2	a6.5
September	29.89	29.97	29.75	74.8	81.1	86.6	72.2	79.4	91	70	72	73	90	77	.775	.812	6.76	2.05	3.6	6.4	6.3
October	29.89	29.98	29.79	75.4	80.5	87.6	72.4	80.0	92	70	72	73	88	78	.778	.807	3.03	.88	3.6	6.0	6.3
November	29.85	29.92	29.75	74.3	78.6	85.0	71.7	78.4	89	70	71	72	91	81	.768	.785	8.22	2.23	5.9	6.0	7.0
December	29.92	30.02	29.87	73.1	78.3	85.3	70.7	78.0	89	67	70	70	88	78	.719	.745	3.07	1.23	4.2	4.5	6.6
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PUEBLO, COLO.

[λ = 38° 18′ N.; φ = 104° 36′ W.; gravity corr., —0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	25.28	25.75	24.91	15.3	33.6	42.2	10.8	26.5	67	—11	6	17	66	51	.059	.092	0.69	0.59	3.1	4.0	4.4
February	25.31	25.73	24.81	27.2	46.6	54.1	22.1	38.1	69	12	14	20	57	36	.078	.104	.06	.06	4.2	4.3	4.4
March	25.18	25.53	24.66	25.2	48.5	53.6	22.1	37.8	70	— 5	13	13	60	29	.076	.083	.47	.14	3.8	4.3	4.4
April	25.30	25.56	24.79	39.4	61.5	67.2	37.2	52.2	82	21	28	27	64	31	.154	.149	1.11	.86	4.2	6.2	4.9
May	25.23	25.62	24.88	46.6	63.5	68.5	44.2	56.4	86	32	39	35	78	42	.246	.211	3.59	.70	4.6	6.8	5.5
June	25.30	25.61	24.98	57.8	76.9	82.7	55.1	68.9	101	47	46	42	68	34	.318	.274	1.34	.52	3.1	6.2	4.0
July	25.36	25.59	25.08	62.5	80.2	88.3	60.3	74.3	100	54	50	47	67	37	.376	.337	.57	.11	4.6	6.6	4.3
August	25.35	25.55	25.03	59.8	82.4	90.0	58.2	74.1	98	52	45	43	61	29	.306	.290	.54	.33	1.5	5.4	3.4
September	25.33	25.76	24.98	46.5	72.8	79.2	44.3	61.8	94	33	32	30	60	27	.182	.170	.51	.25	2.5	3.0	3.2
October	25.35	25.79	24.79	38.0	56.2	64.4	34.6	49.5	85	21	24	25	60	34	.133	.137	.30	.26	2.4	2.5	3.2
November	25.25	25.62	24.68	27.0	42.2	52.0	21.5	36.8	74	4	16	19	64	43	.089	.104	.43	.32	4.0	3.0	4.6
December	25.37	25.87	24.77	19.9	28.1	36.7	10.3	24.5	63	—16	10	15	65	59	.069	.090	1.24	.52	3.1	4.7	4.5
Year	25.30	25.87	24.66	38.8	57.7	65.1	35.1	50.1	101	—16	27	28	64	38	.174	.170	10.85	.86	3.4	4.8	4.2

PYSHT, WASH.

[λ = 48° 12′ N.; φ = 124° 4′ W.; gravity corr. ——.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	43.2	34.0	38.6	48	26	.....	.....	.....	.....	.....	.....	5.10	.93	.....	.....	.....
February	.....	.....	.....	.....	.....	47.5	37.1	42.3	54	30	.....	.....	.....	.....	.....	.....	11.97	1.71	.....	.....	.....
March	.....	.....	.....	.....	.....	49.0	32.9	41.0	54	25	.....	.....	.....	.....	.....	.....	2.76	.58	.....	.....	.....
April	.....	.....	.....	.....	.....	58.5	37.0	47.8	83	29	.....	.....	.....	.....	.....	.....	3.51	1.46	.....	.....	.....
May	.....	.....	.....	.....	.....	65.0	42.2	53.6	81	36	.....	.....	.....	.....	.....	.....	2.00	.57	.....	.....	.....
June	.....	.....	.....	.....	.....	66.8	48.3	57.6	81	42	.....	.....	.....	.....	.....	.....	2.65	.81	.....	.....	.....
July	.....	.....	.....	.....	.....	71.5	48.6	60.0	83	43	.....	.....	.....	.....	.....	.....	.55	.36	.....	.....	.....
August	.....	.....	.....	.....	.....	71.3	51.2	61.2	85	43	.....	.....	.....	.....	.....	.....	.51	.43	.....	.....	.....
September (b)	.....	.....	.....	.....	.....	62.3	47.6	55.0	76	41	.....	.....	.....	.....	.....	.....	4.21	.75	.....	.....	.....
October (d)	.....	.....	.....	.....	.....	54.1	41.9	48.0	57	36	.....	.....	.....	.....	.....	.....	5.89	2.33	.....	.....	.....
November (e)	.....	.....	.....	.....	.....	46.6	37.1	41.8	52	30	.....	.....	.....	.....	.....	.....	9.58	1.22	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

RALEIGH, N. C.

[λ = 35° 45′ N.; φ = 78° 37′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.71	30.04	29.31	40.0	46.4	53.2	37.1	45.2	73	16	33	35	76	67	.203	.226	1.81	0.74	6.0	4.4	5.7
February	29.77	30.22	29.11	33.3	44.8	50.5	31.1	40.8	70	14	25	30	72	55	.150	.176	.42	.24	2.9	3.8	4.5
March	29.81	30.15	29.55	48.3	57.6	64.4	46.0	55.2	87	28	44	46	85	67	.304	.324	4.16	1.71	7.4	6.0	6.8
April	29.64	29.94	29.09	50.5	57.8	66.0	45.6	55.8	86	30	40	40	68	56	.258	.263	3.05	1.06	3.8	4.8	5.0
May	29.58	29.82	29.16	64.7	72.3	80.9	59.2	70.0	94	41	56	57	76	61	.469	.478	7.46	3.21	5.7	5.2	4.8
June	29.65	29.82	29.39	72.3	76.7	86.2	65.9	76.0	97	56	63	63	74	66	.588	.589	3.28	1.88	3.5	5.5	4.1
July	29.68	29.90	29.41	75.4	79.0	87.8	71.2	79.5	96	61	69	70	81	75	.751	.738	6.48	2.53	6.7	6.2	6.1
August	29.69	29.82	29.57	74.2	77.1	86.8	70.8	78.8	93	66	71	70	88	81	.748	.747	5.13	.99	6.4	5.9	6.3
September	29.72	29.90	29.50	68.4	73.9	82.2	64.7	73.4	90	51	63	64	83	73	.587	.617	3.95	2.14	5.2	2.9	4.4
October	29.73	30.08	29.27	57.4	61.6	70.7	52.6	61.6	86	36	52	53	84	75	.434	.437	3.00	.88	5.0	3.3	4.7
November	29.77	30.10	29.11	42.6	50.7	57.5	40.3	48.9	73	24	37	39	81	67	.237	.265	2.73	.67	5.7	4.7	5.0
December	29.75	30.23	29.19	38.1	45.1	52.3	34.9	43.6	68	14	32	33	78	63	.206	.214	1.88	.68	4.8	4.6	5.5
Year	29.71	30.23	29.09	55.4	61.9	69.9	51.6	60.7	97	14	49	50	79	67	.411	.423	43.35	3.21	5.3	4.8	5.2

a For 24½ days. b For 24 days. c For 25 days. d For 26 days. e For 27 days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

PORT OF SPAIN, TRINIDAD, WEST INDIES.

[H = 40 ft.; h_t = 65 ft.; h_r = 48 ft.; h_a = 66 ft.]

[Observations at Port of Spain were taken at 6 a. m. and 5 p. m.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	b E.	b18	b S.	b 0	c16	c10	c16	c 2	c 0	c 0	c 1	c 2	c 2	d3	d13	d 9	d19	d14	b 0	b 0	b 0	b 0	b 0	b 0	d10	0
September	3.4	E.	20	SW.	0	10	16	21	4	0	1	2	2	4	2	21	7	21	20	0	0	0	0	1	0	9	0
October	3.6	E.	18	N.	0	19	16	20	4	1	1	1	0	0	4	17	10	17	15	0	0	0	0	4	0	7	0
November	3.4	E.	26	SW.	0	13	20	19	1	2	1	2	2	0	2	17	11	22	18	0	0	0	0	0	0	8	0
December	3.7	NE.	22	E.	0	18	18	18	2	2	1	0	1	2	3	21	7	19	14	0	0	0	0	0	0	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PUEBLO, COLO.

[H = 4,682 ft.; h_t = 80 ft.; h_r = 71 ft.; h_a = 86 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.1	NW.	33	N.	0	12	0	10	5	3	1	14	17	0	13	13	5	4	3	4	0	0	7	0	30	0	0
February	7.4	NW.	43	NW.	3	10	4	7	7	4	0	12	12	0	13	11	4	2	1	2	0	0	1	0	25	0	0
March	8.9	SE.	50	SW.	4	9	3	6	14	2	10	10	8	0	12	13	6	7	4	6	0	1	1	0	27	0	0
April	9.4	E.	52	N.	1	10	3	19	8	4	2	3	11	0	10	14	6	5	4	1	0	0	0	0	9	2	0
May	8.2	SE.	42	SE.	1	12	3	11	13	3	4	6	10	0	8	15	8	13	8	2	1	1	0	0	0	7	0
June	7.7	NW.	38	NW.	0	11	2	7	10	3	6	7	13	1	15	10	5	10	9	0	3	0	0	9	0	10	0
July	7.9	N.	36	N.	0	16	6	7	8	1	2	11	9	2	11	18	2	12	7	0	0	0	0	12	0	14	0
August	6.6	NW.	38	N.	0	5	2	9	6	3	5	9	22	1	17	13	1	7	3	0	0	1	0	17	0	11	0
September	6.7	E.	38	NE.	0	8	2	14	13	2	0	6	13	2	18	10	2	4	4	0	0	1	0	5	0	1	0
October	6.7	NW.	36	W.	0	7	4	9	9	5	4	12	12	0	20	10	1	2	2	1	0	0	0	0	14	0	0
November	7.3	W.	52	N.	3	8	3	13	4	6	2	13	11	0	13	11	6	4	3	4	0	0	1	0	25	0	0
December	6.0	W.	40	N.	1	8	7	3	5	2	1	18	14	4	14	11	6	8	4	8	0	0	7	0	31	0	0
Year	7.4	NW.	52	N.	13	116	39	115	102	38	37	121	152	10	164	149	52	78	52	28	4	4	17	43	161	45	0

PYSHT, WASH.

[H = 5 ft.; h_t = 4 ft.; h_r = — ft.; h_a = — ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	C. E.	.....	.....	.....	0	0	5	1	0	0	0	0	25	2	1	28	21	18	1	0	0	0	0	8	0	0
February	.....	W.	.....	.....	.....	0	0	2	1	1	2	5	0	17	0	5	23	24	22	2	0	0	0	0	2	0	0
March	.....	W.	.....	.....	.....	0	1	9	0	0	0	11	2	8	14	3	14	14	11	1	0	0	0	0	12	0	0
April	.....	W.	.....	.....	.....	0	0	3	0	0	0	14	2	11	15	3	12	13	11	0	0	0	0	0	5	0	0
May	.....	W.	.....	.....	.....	0	0	6	0	2	2	13	1	7	12	7	12	12	11	0	0	0	0	0	0	0	0
June	.....	C. W.	.....	.....	.....	0	0	4	0	0	0	8	4	13	12	1	16	14	14	0	0	0	0	0	0	0	0
July	.....	W.	.....	.....	.....	0	0	4	0	0	0	15	4	8	21	2	8	4	2	0	0	0	0	0	0	0	0
August	.....	W.	.....	.....	.....	0	0	4	0	0	0	20	0	6	23	1	6	3	2	0	0	0	0	0	0	0	0
September	.....	C. W.	.....	.....	.....	0	0	4	0	0	0	6	0	14	13	3	8	9	9	0	0	0	0	0	0	0	0
October	.....	C. E.	.....	.....	.....	0	0	2	0	0	0	0	0	24	3	4	19	15	13	0	0	0	0	0	0	0	0
November	.....	C. E.	.....	.....	.....	0	0	5	0	1	0	4	0	15	1	2	24	21	18	0	0	0	0	0	2	0	0
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

RALEIGH, N. C.

[H = 375 ft.; h_t = 93 ft.; h_r = 85 ft.; h_a = 101 ft.]

Month.	Average hourly velocity.	Prevailing direction.	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.1	W.	31	SW.	0	6	8	5	0	7	11	16	9	0	10	9	12	11	7	2	0	0	1	0	8	0	0
February	5.3	N.	33	NW.	0	20	3	3	2	2	7	11	6	2	13	5	10	5	3	0	0	0	2	0	15	0	0
March	6.9	NE.	26	SW.	0	18	19	4	4	4	9	2	2	0	5	9	17	10	8	0	0	0	0	0	1	1	0
April	7.5	NW.	36	N.	0	15	4	0	1	1	14	11	14	0	11	10	9	11	9	0	0	0	0	0	1	3	0
May	6.3	SW.	31	N.	0	12	5	3	1	13	16	5	7	0	11	12	8	12	10	0	1	0	0	4	0	10	0
June	6.0	SW.	26	SW.	0	13	13	4	1	3	20	4	2	0	15	11	4	10	6	0	0	0	0	11	0	11	0
July	5.6	SW.	25	SW.	0	7	15	4	4	3	18	5	5	1	4	17	10	15	12	0	0	0	0	15	0	10	0
August	5.1	SW.	25	SW.	0	5	2	6	5	11	27	4	1	1	6	13	12	21	16	0	0	0	0	6	0	9	0
September	6.0	NE.	25	SW.	0	15	17	3	3	2	14	3	3	0	13	10	7	7	6	0	0	0	0	0	0	3	0
October	6.8	NE.	26	SE.	0	14	10	7	7	5	4	6	9	0	13	7	11	13	11	0	0	0	0	0	0	0	0
November	6.4	N.	32	NW.	0	10	7	4	6	7	6	7	10	3	13	3	14	14	9	1	0	0	0	0	3	0	0
December	6.5	SW.	36	W.	0	7	5	2	4	5	16	13	9	1	11	8	12	9	4	0	0	1	0	0	12	0	0
Year	6.3	SW.	36	SW.	0	142	108	45	38	63	162	87	77	8	125	114	126	138	101	3	1	1	3	36	40	47	0

a By eye observations when there is no self-register at station. b For 24 days. c For 24½ days. d For 25 days.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

RAPID CITY, S. DAK.

[λ = 44° 4′ N.; φ = 103° 12′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	26.55	27.05	26.23	21.3	25.7	36.2	14.5	25.4	57	4	13	18	71	73	.077	.096	.56	.25	3.6	3.7	4.1
February	26.60	27.09	26.05	24.1	35.6	45.9	18.5	32.2	60	—6	16	19	74	52	.094	.102	.24	.13	4.6	4.4	5.0
March	26.54	26.95	25.85	21.2	32.7	40.2	16.8	28.5	65	—5	15	17	78	57	.086	.097	.51	.21	6.4	7.3	7.1
April	26.63	27.00	26.20	37.2	51.6	57.5	33.6	45.6	87	17	26	27	66	46	.140	.151	1.66	.98	5.7	6.8	6.5
May	26.57	26.96	26.15	47.2	58.2	62.0	44.2	53.1	88	32	40	37	79	51	.259	.231	3.26	.77	7.4	7.5	7.6
June	26.58	26.91	26.26	59.3	73.4	77.8	53.5	65.6	95	43	46	44	64	39	.324	.302	.50	.21	3.9	5.2	4.6
July	26.62	26.89	26.23	64.2	80.6	85.5	59.5	72.5	99	50	48	42	59	33	.351	.298	1.50	.38	3.8	4.1	4.3
August	26.61	26.83	26.35	61.8	81.8	86.6	59.1	72.8	102	51	46	42	58	28	.317	.282	.72	.29	3.8	4.5	4.3
September	26.61	27.21	26.20	51.4	66.7	74.8	47.7	61.2	99	34	34	34	56	36	.207	.214	1.27	1.21	4.0	3.8	4.1
October	26.65	27.12	26.08	37.2	45.8	53.9	31.6	42.8	77	15	25	26	63	50	.134	.141	.51	.41	4.9	5.7	6.0
November	26.55	26.99	26.18	25.2	31.7	42.9	19.7	31.3	68	—7	16	17	69	59	.091	.096	.06	.05	4.3	4.0	4.8
December	26.66	27.30	26.03	22.2	25.2	37.4	16.0	26.7	62	—14	15	14	73	64	.087	.084	.19	.09	3.8	3.2	4.0
Year	26.60	27.30	25.85	39.4	50.8	58.4	34.6	46.5	102	—14	28	28	68	49	.181	.174	10.98	1.21	4.7	5.0	5.2

RED BLUFF, CAL.

[λ = 40° 10′ N.; φ = 122° 15′ W.; gravity corr., —0.01.]

January	29.81	30.06	29.50	35.1	49.5	51.7	33.1	42.4	65	24	29	29	80	48	.163	.166	.59	.25	1.9	4.3	3.5
February	29.74	30.04	29.30	45.0	57.2	59.2	42.7	51.0	76	34	41	41	86	59	.259	.266	5.45	1.54	5.2	6.5	5.9
March	29.69	30.08	29.33	42.9	62.3	64.2	40.5	52.4	76	30	31	30	64	32	.180	.179	.01	.01	1.5	2.6	2.0
April	29.63	29.96	29.14	52.9	76.4	77.7	51.1	64.4	96	43	39	35	61	24	.241	.208	.63	.41	3.0	3.9	3.2
May	29.55	29.75	29.27	53.5	73.0	75.0	52.3	63.6	91	47	42	40	68	37	.272	.258	2.28	1.09	3.9	4.5	4.1
June	29.52	29.86	29.30	62.8	87.4	89.0	61.9	75.4	102	44	46	43	56	24	.310	.284	.14	.12	2.3	2.9	2.4
July	29.50	29.68	29.29	68.9	97.7	98.9	67.3	83.1	112	57	42	39	39	14	.270	.244	.00	.00	.1	.2	.1
August	29.47	29.62	29.20	68.8	95.3	96.2	66.4	81.3	111	56	46	44	45	18	.308	.298	T.	T.	1.4	1.8	1.6
September	29.52	29.69	29.36	61.2	84.8	86.5	58.6	72.6	102	52	44	41	54	25	.290	.263	.45	.20	1.7	2.3	2.2
October	29.68	29.93	29.45	54.4	74.5	76.4	52.2	64.3	90	41	39	36	60	29	.249	.225	.46	.23	3.0	2.9	3.1
November	29.73	29.96	29.42	45.8	61.2	63.8	43.3	53.6	82	33	32	31	62	38	.184	.183	1.21	.58	3.6	3.6	3.5
December	29.89	30.25	29.69	39.3	52.1	55.0	36.4	45.7	68	26	31	31	74	49	.177	.181	1.69	.92	2.6	3.5	3.2
Year	29.64	30.25	29.14	52.6	72.6	74.5	50.5	62.5	112	24	38	37	62	33	.242	.230	12.91	1.54	2.5	3.2	2.9

RICHMOND, VA.

[λ = 37° 32′ N.; φ = 77° 26′ W.; gravity corr., —0.02.]

January	.....	30.32	29.40	36.5	.....	49.6	33.2	41.4	70	17	31	....	80	....	1.79	.....	1.05	.34	5.5	.....	6.6
February	.....	30.47	29.58	30.6	.....	47.9	29.0	38.4	71	11	25	....	78	....	1.42	.....	1.05	.52	3.2	.....	4.1
March	.....	30.46	29.72	46.3	.....	60.8	43.3	52.0	82	28	41	....	83	....	2.76	.....	3.78	1.12	6.3	.....	6.6
April	.....	30.15	29.32	48.9	.....	63.4	44.3	53.8	86	28	42	...	78	....	2.80	.....	4.83	1.17	4.9	.....	5.3
May	.....	30.09	29.29	63.1	.....	76.6	57.7	67.2	92	40	56	....	79	....	4.59	.....	5.28	1.58	6.0	.....	5.6
June	.....	30.08	29.66	70.9	.....	85.0	64.5	74.8	97	56	62	....	74	....	5.60	.....	2.98	1.00	4.5	.....	5.0
July	.....	30.16	29.62	75.5	.....	87.4	70.4	78.9	99	58	69	....	80	....	7.14	.....	4.15	1.90	6.2	.....	5.6
August	.....	30.07	29.76	75.0	.....	87.6	70.1	78.8	95	65	70	....	84	....	7.33	.....	6.31	2.95	5.0	.....	5.8
September	.....	30.20	29.69	67.9	.....	82.8	63.4	73.1	94	50	61	....	79	....	5.54	.....	2.33	1.88	3.6	.....	4.6
October	.....	30.33	29.36	56.6	.....	68.9	52.4	60.6	84	34	53	....	88	....	4.41	.....	4.59	1.04	4.7	.....	5.0
November	.....	30.38	29.43	41.2	.....	55.1	38.9	47.0	71	26	37	....	84	....	2.30	.....	2.22	.65	4.2	.....	5.2
December	.....	30.50	29.47	35.4	.....	49.8	31.3	40.6	69	16	29	....	76	....	1.69	.....	3.08	.85	4.7	.....	5.2
Year	.....	30.50	29.29	54.0	.....	67.9	49.9	58.9	99	11	48	....	80	....	3.95	.....	41.65	2.95	4.9	.....	5.4

ROCHESTER, N. Y.

[λ = 43° 8′ N.; φ = 77° 42′ W.; gravity corr., —0.01.]

January	29.39	29.88	28.66	25.4	27.5	33.7	21.6	27.6	57	2	20	22	79	78	.114	.126	5.24	.77	8.5	7.6	8.4
February	29.48	29.83	28.83	25.3	28.6	33.3	21.4	27.4	63	—2	20	22	80	76	.122	.122	3.08	1.00	8.1	7.6	8.2
March	29.57	29.92	28.97	38.9	41.5	51.4	34.0	42.7	72	16	31	31	73	67	.186	.186	2.34	.84	5.2	5.4	4.6
April	29.42	29.72	29.02	40.9	44.4	51.5	35.5	43.5	67	19	31	30	68	59	.175	.175	1.72	.65	5.8	4.9	5.2
May	29.37	29.65	29.09	55.2	58.3	66.8	48.9	57.8	86	35	46	47	73	68	.329	.343	2.94	1.08	5.7	5.7	5.9
June	29.42	29.74	28.90	66.5	68.2	77.2	58.8	68.0	91	47	56	58	70	72	.462	.499	.89	.31	5.0	5.0	5.4
July	29.47	29.85	29.24	72.0	74.4	84.0	64.1	74.0	95	45	58	60	63	61	.507	.535	2.03	1.56	3.3	4.0	3.3
August	29.41	29.67	29.20	68.5	71.7	80.6	62.6	71.6	92	47	60	61	74	70	.519	.546	5.05	2.53	4.8	5.4	5.9
September	29.46	29.91	29.05	61.5	64.9	75.7	56.3	66.0	94	41	54	56	78	76	.439	.471	3.36	1.48	4.3	1.5	4.2
October	29.49	29.82	28.83	49.8	51.8	60.6	45.1	52.8	87	32	44	44	80	76	.306	.307	4.30	1.80	7.0	4.9	6.3
November	29.47	29.88	28.93	36.0	38.8	45.6	32.2	38.9	67	17	29	33	76	80	.163	.194	3.54	1.17	7.5	6.4	7.8
December	29.40	29.90	28.62	26.8	28.2	33.9	22.2	28.0	55	6	21	22	77	77	.117	.124	3.01	.89	8.7	7.7	8.8
Year	29.45	29.92	28.62	47.2	49.9	57.9	41.9	49.9	95	—2	39	40	74	72	.287	.302	37.50	2.53	6.2	5.5	6.2

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

RAPID CITY, S. DAK.

[H = 3,251 ft.; h_t = 46 ft.; h_r = 35 ft.; h_a = 50 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	6.3	W.	36	NW.	0	2	3	3	7	1	6	22	18	0	15	10	6	5	4	5	0	0	13	0	31	0	0
February	9.1	W.	36	NW.	0	5	3	3	8	2	10	13	12	0	11	9	8	6	2	5	0	0	3	0	26	0	0
March	8.3	NW.	36	NW.	0	7	5	2	10	0	5	16	17	0	6	9	16	8	3	8	0	0	6	0	30	0	0
April	10.0	NW.	48	NW.	1	12	7	1	12	3	2	10	13	0	8	9	13	11	6	3	1	0	1	0	9	1	0
May	8.0	SE.	36	W.	0	9	9	6	14	0	5	10	9	0	4	8	19	17	13	1	0	0	0	0	0	4	0
June	8.2	W.	30	N.	0	3	10	4	13	3	2	16	9	0	13	10	7	7	4	0	0	0	0	5	0	8	0
July	7.7	W.	36	W.	0	5	8	6	10	2	7	15	9	0	13	11	7	10	9	0	0	1	0	10	0	10	0
August	7.4	W.	36	N.	0	5	8	2	11	0	6	20	10	0	10	17	4	6	3	0	0	0	0	10	0	4	0
September	7.8	W.	48	W.	2	4	5	1	7	1	11	19	12	0	14	11	5	3	2	0	0	0	0	5	0	0	0
October	9.3	NW.	36	NW.	0	6	3	1	9	1	4	12	25	1	7	11	13	7	1	5	0	0	2	0	14	2	0
November	7.8	NW.	36	NW.	0	2	2	0	10	1	2	19	23	1	11	13	6	2	1	2	0	0	6	0	25	0	0
December	8.0	NW.	39	W.	0	2	2	1	3	0	5	24	25	0	14	12	5	7	2	7	0	0	9	0	28	0	0
Year	8.2	W.	48	NW.	3	62	65	30	114	14	65	196	182	2	126	130	109	89	50	36	1	1	40	30	163	29	0

RED BLUFF, CAL.

[H = 334 ft.; h_t = 54 ft.; h_r = 44 ft.; h_a = 58 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.4	N.	29	N.	0	24	1	2	10	1	2	4	17	1	17	8	6	5	3	1	0	1	0	0	10	0	0
February	6.4	NW.	28	SE.	0	11	0	3	9	8	1	1	22	1	10	5	13	14	9	0	2	1	0	0	0	2	0
March	7.0	N.	36	W.	0	18	2	1	14	2	2	6	17	0	25	4	2	1	0	0	0	0	0	0	3	0	0
April	7.2	SE.	35	N.	0	13	1	4	16	4	5	3	14	0	18	10	2	2	2	0	0	0	0	3	0	0	0
May	7.2	SE.	28	SE.	0	9	3	0	20	11	1	1	17	0	16	6	9	7	6	0	0	0	0	2	0	1	0
June	7.5	SE.	36	NW.	0	14	3	2	24	4	1	3	7	2	21	6	3	2	1	0	0	0	0	16	0	2	0
July	5.4	SE.	24	N.	0	15	1	2	25	11	0	1	6	1	31	0	0	0	0	0	0	0	0	27	0	0	0
August	4.6	SE.	20	SE.	0	10	0	1	33	11	0	0	6	1	27	3	1	0	0	0	0	0	0	26	0	0	0
September	5.4	SE.	26	SE.	0	10	2	1	26	6	0	0	14	1	21	7	2	4	3	0	0	0	0	12	0	1	0
October	5.8	N.	24	N.	0	26	2	1	14	5	1	3	10	0	18	9	4	5	3	0	0	0	0	0	0	0	0
November	6.6	NW.	33	SE.	0	19	1	1	3	6	1	4	24	1	19	4	7	4	4	0	0	0	0	0	0	0	0
December	5.6	N.	27	N.	0	26	2	4	5	3	2	2	16	2	20	6	5	3	3	0	0	3	0	0	6	0	0
Year	6.2	SE.	36	WNW	0	195	18	22	199	72	16	28	170	10	243	68	54	47	34	1	2	5	0	86	19	6	0

RICHMOND, VA.

[H = 144 ft.; h_t = 98 ft.; h_r = 89 ft.; h_a = 105 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.6	SW.	30	SW.	1	6	2	2	3	3	6	8	1	0	8	7	16	11	5	1	0	3	0	0	13	0	0
February	5.5	N.	31	W.	0	7	1	0	6	2	4	4	3	1	15	7	6	6	4	0	0	2	3	0	17	0	0
March	7.5	N.	25	S.	1	26	15	1	10	5	0	2	3	0	8	9	14	15	12	0	0	2	0	0	2	0	0
April	8.2	W.	35	N.	0	13	5	3	8	7	10	10	9	0	11	9	10	12	10	1	0	0	0	0	2	1	0
May	6.8	N.	26	N.	0	13	7	2	12	8	5	5	10	0	10	11	10	20	14	0	0	0	0	3	0	8	0
June	6.1	N.	28	W.	0	13	6	3	11	7	12	3	5	0	9	14	7	12	9	0	0	0	0	10	0	5	0
July	5.9	N.	25	SE.	0	16	6	5	13	12	4	3	3	0	6	17	8	17	13	0	0	0	0	13	0	7	0
August	5.9	S.	34	SW.	0	8	7	4	9	22	9	2	1	0	4	21	6	12	9	0	0	0	0	11	0	5	0
September	5.7	N.	24	W.	0	16	11	3	6	7	12	3	1	1	14	9	7	6	4	0	0	0	0	7	0	3	0
October	6.4	SE.	28	SE.	0	13	9	6	12	2	6	7	7	0	12	7	12	15	12	0	0	2	0	0	0	0	0
November	5.8	SE.	26	S.	0	9	2	0	13	10	6	13	6	1	10	10	10	13	12	1	0	3	0	0	6	0	0
December	6.0	SW.	36	SW.	0	13	2	1	9	8	16	5	4	4	11	8	12	10	9	1	0	3	0	0	17	0	0
Year	6.3	N.	36	SW.	2	153	73	30	107	93	90	65	53	7	118	129	118	149	113	4	0	15	3	44	57	29	0

ROCHESTER, N. Y.

[H = 523 ft.; h_t = 81 ft.; h_r = 78 ft.; h_a = 90 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.9	SW.	36	SW.	0	1	2	1	9	5	21	7	16	0	0	8	23	22	19	18	0	0	14	0	26	1	0
February	8.3	SW.	28	SW.	0	0	0	8	1	6	5	19	9	8	0	1	10	17	16	11	12	0	0	12	0	22	0	0
March	8.5	SW.	47	SW.	1	0	4	1	5	11	22	6	13	0	15	6	10	14	10	2	0	0	1	0	14	2	1
April	8.3	NW.	26	NW.	0	1	18	1	4	1	12	5	18	0	11	9	10	16	11	4	0	1	3	0	8	0	1
May	6.6	SW.	28	SW.	0	1	9	5	8	2	15	8	14	0	7	11	13	11	10	0	1	1	0	0	0	5	0
June	8.0	SW.	29	SW.	0	3	11	4	4	1	16	10	11	0	11	9	10	9	5	0	0	0	0	1	0	4	0
July	6.7	SW.	28	SW.	0	2	8	2	3	3	31	4	6	3	19	11	1	5	4	0	0	0	0	5	0	8	0
August	6.7	SW.	28	SW.	0	2	3	1	4	5	35	5	7	0	7	14	10	10	8	0	0	0	0	2	0	8	0
September	7.1	SW.	26	SW.	0	1	2	2	7	6	32	5	4	1	15	8	7	9	8	0	0	0	0	3	0	5	1
October	7.2	SW.	30	NW.	0	0	4	2	12	10	17	6	11	0	7	11	13	16	12	0	0	0	0	0	0	1	0
November	8.4	SW.	34	SW.	0	1	1	5	4	5	21	10	13	0	4	6	20	16	12	7	0	0	4	0	11	0	0
December	10.4	SW.	38	SW.	0	1	4	0	3	8	21	16	9	0	2	4	25	21	13	19	0	0	12	0	27	0	0
Year	7.9	SW.	47	SW.	1	13	74	25	69	62	262	91	130	4	99	107	150	165	123	62	1	2	46	11	108	34	3

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ROSEAU, DOMINICA, WEST INDIES.

[λ = 15° 21′ N.; φ = 61° 21′ W.; gravity corr., — 0.07.]

[Observations at Roseau taken at 6 a. m. and 6 p. m.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	29.91	29.99	29.81	75.5	77.0	86.2	71.6	78.9	88	69	70	70	84	80	.736	.742	5.93	1.91	4.6	3.9	4.0
December	30.00	30.08	29.93	73.6	76.3	85.1	70.9	78.0	88	68	68	68	83	76	.685	.688	4.18	1.08	4.9	3.7	4.1
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

ROSEBURG, OREG.

[λ = 43° 13′ N.; φ = 123° 20′ W.; gravity corr., — 0.01.]

January	29.60	29.92	29.21	36.2	42.5	44.3	34.4	39.4	55	22	34	36	94	80	.202	.216	3.90	1.18	6.2	8.0	7.1
February	29.45	29.84	28.85	41.3	52.5	55.1	38.6	46.8	68	29	37	40	88	64	.227	.251	1.91	.87	5.4	8.7	7.1
March	29.55	29.95	29.24	36.5	50.6	52.6	34.6	43.6	66	24	34	35	91	58	.201	.213	2.15	.57	6.2	5.6	5.9
April	29.52	29.91	29.05	41.7	61.0	63.3	40.5	51.9	84	29	38	38	88	46	.235	.232	1.07	.30	6.0	6.0	6.0
May	29.40	29.69	29.06	44.1	62.8	65.8	43.3	54.6	81	33	41	42	90	51	.258	.270	1.86	.64	5.6	5.4	5.5
June	29.42	29.81	29.14	50.4	72.0	73.5	49.9	61.7	89	39	48	48	90	44	.333	.338	1.04	.54	5.7	4.9	5.3
July	29.44	29.64	29.20	52.4	80.0	81.1	51.6	66.4	101	42	48	49	86	36	.341	.353	.03	.03	3.1	1.2	2.0
August	29.36	29.51	29.14	56.1	79.8	81.7	55.2	68.4	99	48	52	53	88	42	.396	.406	.89	.89	5.4	2.8	4.1
September	29.38	29.63	29.09	51.9	72.5	73.6	49.8	61.7	95	43	49	48	90	45	.348	.343	1.63	.60	4.7	4.3	4.4
October	29.53	29.79	29.18	44.8	60.0	61.8	43.3	52.6	75	35	44	47	96	63	.289	.325	1.53	.34	4.8	5.7	5.2
November	29.54	29.82	29.15	41.2	48.8	51.4	38.9	45.2	61	31	40	43	96	80	.254	.278	6.21	.93	6.7	6.5	6.6
December	29.67	29.96	29.25	34.0	41.6	44.5	32.0	38.2	58	20	32	36	94	81	.187	.215	3.71	.84	5.2	6.2	5.7
Year	29.49	29.96	28.85	44.2	60.3	62.4	42.7	52.5	101	20	41	43	91	58	.273	.287	25.93	1.18	5.4	5.4	5.4

SACRAMENTO, CAL.

[λ = 38° 35′ N.; φ = 121° 30′ W.; gravity corr., —0.02.]

January	30.08	30.27	29.79	36.0	49.6	51.5	32.6	42.0	59	26	31	34	82	58	.174	.202	.98	.40	1.4	4.5	4.2
February	30.03	30.28	29.61	46.6	59.3	60.5	43.2	51.8	72	35	42	44	85	58	.272	.291	3.19	1.12	4.1	5.4	5.9
March	29.96	30.36	29.60	44.0	61.0	62.9	40.7	51.8	76	30	37	35	77	41	.226	.216	.04	.04	1.6	2.7	3.4
April	29.91	30.18	29.43	49.9	72.6	75.5	47.4	61.4	89	39	42	42	75	35	.266	.267	.28	.24	1.4	3.0	3.0
May	29.84	30.02	29.51	50.0	69.4	71.4	48.4	59.9	87	44	45	44	84	44	.299	.290	1.50	1.00	4.4	3.9	5.1
June	29.80	30.08	29.58	56.5	82.0	83.9	55.2	69.6	99	47	48	49	75	35	.334	.360	.14	.14	1.4	1.9	2.5
July	29.78	29.94	29.60	58.1	88.4	91.5	56.9	74.2	104	50	48	49	71	27	.336	.350	.00	.00	0.4	0.3	1.0
August	29.75	29.88	29.52	59.3	87.4	90.1	57.6	73.8	110	52	49	49	72	29	.353	.348	.00	.00	1.7	1.6	2.0
September	29.80	29.95	29.63	56.3	81.4	83.8	53.9	68.8	98	45	48	46	76	32	.345	.318	.36	.36	0.8	1.9	2.2
October	29.94	30.16	29.73	53.9	73.4	75.8	50.9	63.4	88	44	43	45	68	39	.281	.303	.64	.34	2.5	3.3	4.2
November	30.00	30.23	29.70	45.6	62.2	64.8	42.1	53.4	81	32	34	36	67	42	.205	.225	.61	.50	2.6	3.7	3.7
December	30.15	30.55	29.87	38.5	50.7	53.4	35.0	44.2	68	28	32	33	76	56	.183	.199	2.30	1.00	2.5	4.0	4.7
Year	29.92	30.55	29.43	49.6	69.8	72.1	47.0	59.5	110	26	42	42	76	41	.273	.281	10.04	1.12	2.1	3.0	3.6

ST. LOUIS, MO.

[λ = 38° 38′ N.; φ = 90° 12′ W.; gravity corr., — 0.02.]

January	29.45	29.96	28.74	33.2	39.7	44.0	30.6	37.3	63	10	28	30	81	69	.165	.171	4.53	1.28	6.4	5.5	5.8
February	29.52	29.96	29.11	31.6	40.1	46.9	29.8	38.4	71	6	25	29	75	64	.144	.171	1.71	.77	5.4	6.1	5.9
March	29.49	29.89	29.06	42.7	49.8	55.7	38.7	47.2	75	27	37	37	80	63	.237	.240	7.73	1.76	6.5	6.5	6.5
April	29.46	29.93	28.85	49.2	57.3	62.6	46.2	54.4	82	29	40	40	70	55	.249	.257	3.85	1.11	5.6	5.3	5.4
May	29.34	29.58	29.04	61.7	70.2	75.9	58.3	67.1	90	41	56	56	82	62	.456	.455	8.55	2.13	6.2	5.0	5.6
June	29.39	29.55	29.09	72.9	81.0	86.2	69.5	77.8	92	61	66	65	79	60	.640	.630	3.85	1.59	5.0	5.6	5.4
July	29.44	29.63	29.20	73.1	81.5	86.0	70.5	78.2	96	57	66	66	78	62	.648	.663	7.44	5.08	5.0	4.3	4.9
August	29.40	29.58	29.26	72.3	81.4	86.5	70.3	78.4	95	63	69	70	90	68	.717	.725	.87	.64	4.4	3.0	4.0
September	29.42	29.81	29.10	67.6	76.6	83.1	65.2	74.2	95	51	63	65	85	68	.590	.632	2.23	.85	4.6	3.4	4.2
October	29.45	29.80	28.94	51.0	57.0	63.5	48.5	56.0	86	32	46	47	84	71	.351	.363	4.34	1.48	5.5	5.0	5.7
November	29.49	29.86	28.90	38.0	45.5	51.4	34.8	43.1	74	10	30	33	74	62	.185	.198	2.07	1.09	5.9	4.2	4.8
December	29.54	30.30	28.97	27.4	34.3	40.3	24.9	32.6	62	3	22	26	81	69	.129	.149	1.03	.58	3.7	4.2	4.5
Year	29.45	30.30	28.74	51.7	59.5	65.2	48.9	57.1	96	3	46	47	80	64	.376	.388	49.20	5.08	5.4	4.3	5.2

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ROSEAU, DOMINICA, WEST INDIES.

[H = 25 ft.; h_t = 37 ft.; h_r = 32 ft.; h_a = 47 ft.]

[Observations at Roseau taken at 6 a. m. and 6 p. m.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	5.2	E.	19	S.	0	4	21	28	6	0	0	0	1	0	14	12	4	14	11	0	0	0	0	0	0	0	0
December	4.5	NE.	20	NE.	0	4	29	23	4	0	0	0	2	0	15	13	3	21	16	0	0	0	0	0	0	1	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

ROSEBURG, OREG.

[H = 521 ft.; h_t = 56 ft.; h_r = 48 ft.; h_a = 67 ft.]

January	2.8	E.	16	SW.	0	7	9	12	3	7	10	4	8	2	3	13	15	17	14	5	0	7	0	0	12	0	0
February	3.5	S.	28	W.	0	2	1	8	11	13	11	5	4	1	2	13	13	13	10	2	0	3	0	0	2	0	0
March	3.6	NW.	24	NW.	0	6	7	10	4	4	7	6	15	3	9	10	12	14	12	5	2	2	0	0	10	0	0
April	4.1	NW.	24	E.	0	7	10	3	3	4	5	2	21	5	9	8	13	9	7	0	0	0	0	0	3	0	0
May	4.1	N.	26	W.	0	15	7	5	10	1	5	2	13	4	11	6	14	15	11	0	1	1	0	0	0	2	0
June	4.0	NW.	20	SW.	0	14	8	5	1	0	4	2	21	5	12	6	12	9	5	0	0	0	0	0	0	0	0
July	4.5	NW.	19	NE.	0	17	18	6	0	1	0	3	15	2	22	6	3	1	0	0	0	0	0	5	0	0	0
August	3.4	NW.	15	NW.	0	20	14	1	0	1	3	3	13	7	14	9	8	2	2	0	0	0	0	7	0	1	0
September	3.6	NW.	18	SW.	0	14	14	3	3	3	5	3	10	5	12	11	7	6	5	0	0	2	0	2	0	1	0
October	2.5	NW.	14	S.	0	6	6	8	6	3	4	6	18	5	11	10	10	16	12	0	0	9	0	0	0	0	0
November	3.0	SE.	18	SW.	0	7	5	4	13	9	6	4	12	0	5	14	11	18	16	0	0	7	0	0	3	0	0
December	2.7	E.	27	W.	0	2	9	13	9	6	4	6	11	2	8	12	11	13	11	2	0	8	1	0	13	0	0
Year	3.5	NW.	28	SW.	0	117	108	78	63	52	64	46	161	41	118	118	129	133	105	14	3	39	1	14	43	4	0

SACRAMENTO, CAL.

[H = 71 ft.; h_t = 106 ft.; h_r = 100 ft.; h_a = 117 ft.]

January	8.4	N.	30	N.	0	23	2	0	16	6	5	1	9	0	16	8	7	6	6	0	0	5	0	0	15	0	0
February	7.9	SE.	30	SW.	0	14	2	1	17	8	8	0	6	0	7	11	10	9	8	0	0	5	0	0	0	1	0
March	9.4	N.	42	N.	1	19	2	2	12	12	9	0	6	0	17	11	3	1	1	0	0	2	0	0	2	0	0
April	9.4	SE.	32	N.	0	10	2	0	17	12	12	0	7	0	19	10	1	2	2	0	0	0	0	0	0	0	0
May	9.8	SW.	32	SW.	0	1	1	0	10	18	25	0	7	0	12	7	12	5	5	0	0	0	0	0	0	0	0
June	10.6	SW.	36	N.	0	5	0	1	11	11	28	0	4	0	24	5	1	1	1	0	0	0	0	9	0	0	0
July	9.8	SW.	25	SW.	0	4	1	0	6	19	28	0	2	0	30	1	0	0	0	0	0	0	0	19	0	0	0
August	9.5	SW.	24	SW.	0	1	3	0	6	23	28	0	1	0	25	6	0	0	0	0	0	0	0	13	0	0	0
September	8.0	SW.	24	SW.	0	2	9	0	10	14	17	1	7	0	24	2	4	1	1	0	0	1	0	9	0	0	0
October	7.2	N.	28	N.	0	17	7	0	10	9	8	0	11	0	16	8	7	3	3	0	0	0	0	0	0	0	0
November	8.0	SE.	36	N.	0	12	9	0	14	10	6	0	9	0	18	5	7	4	3	0	0	0	0	0	0	0	0
December	7.0	N.	31	NE.	0	21	15	0	14	2	5	0	5	0	9	12	10	4	4	0	0	13	0	0	12	0	0
Year	8.8	SW.	42	N.	1	129	53	4	143	144	179	2	74	0	217	85	62	36	34	0	0	26	0	50	29	1	0

ST. LOUIS, MO.

[H = 567 ft.; h_t = 111 ft.; h_r = 100 ft.; h_a = 210 ft.]

January	11.2	W.	66	SW.	3	1	9	9	7	6	8	12	10	0	11	7	13	11	9	2	3	2	1	0	12	4	0
February	11.8	W.	42	SW.	1	5	7	0	11	10	3	12	8	0	8	8	12	10	3	3	0	2	3	0	18	0	0
March	9.9	S.	49	SW.	1	10	4	9	13	11	2	1	12	0	8	6	17	14	14	2	1	1	1	0	9	6	0
April	11.0	NW.	47	W.	1	13	1	5	11	8	3	6	13	0	11	8	11	15	11	0	1	0	0	0	2	1	0
May	9.5	S.	62	SW.	2	11	10	3	8	11	3	7	9	0	10	10	11	16	14	0	4	1	0	0	0	11	0
June	7.7	S.	37	SW.	0	5	8	9	6	20	3	5	4	0	7	15	8	9	8	0	1	0	0	6	0	11	0
July	7.8	S.	35	W.	0	8	12	6	7	18	5	3	3	0	10	15	6	12	7	0	0	0	0	9	0	8	0
August	7.0	S.	25	SW.	0	4	7	1	10	19	8	6	6	1	16	8	7	7	5	0	0	0	0	12	0	5	0
September	9.2	S.	30	SW.	0	4	5	9	6	19	9	4	3	1	14	9	7	12	7	0	0	0	0	7	0	6	0
October	10.7	S.	39	SW.	0	8	4	3	11	11	4	10	10	1	11	5	15	13	9	1	0	0	0	0	0	1	0
November	11.2	S.	58	SW.	1	5	2	6	12	12	5	14	4	0	11	10	9	8	5	2	0	0	2	0	7	1	0
December	11.8	S.	33	N.	0	5	2	0	1	16	14	10	14	0	16	5	10	6	4	2	0	6	6	0	21	0	0
Year	9.9	S.	66	SW.	9	79	71	60	103	161	67	90	96	3	133	106	126	133	96	12	10	12	13	34	69	54	0

a By eye observations when there is no self-register at station. C. = Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ST. PAUL, MINN.

[λ = 44° 58′ N.; φ = 93° 03′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.09	29.62	28.55	18.2	25.4	30.2	15.0	22.6	43	— 2	15	18	87	70	.088	.098	.04	.03	4.7	3.9	5.0
February	29.14	29.62	28.73	16.0	24.4	28.6	12.9	20.8	46	—13	13	18	87	74	.085	.101	1.69	.81	5.4	5.6	6.0
March	29.09	29.58	28.64	27.7	38.0	42.8	26.2	34.5	61	11	23	26	82	62	.126	.145	1.96	1.02	5.4	5.5	5.8
April	29.15	29.55	28.70	38.1	51.3	54.9	36.4	45.6	77	19	30	30	74	47	.172	.174	1.22	.52	5.3	5.0	5.0
May	29.02	29.42	28.50	50.9	63.9	67.7	48.5	58.1	84	38	43	41	76	47	.289	.278	3.40	1.56	6.3	5.7	5.5
June	29.03	29.39	28.50	62.2	73.7	77.1	59.4	68.2	93	49	56	57	82	58	.467	.472	2.71	.90	5.7	5.4	5.5
July	29.09	29.34	28.64	65.6	79.5	83.1	62.5	72.8	91	54	58	57	76	48	.484	.483	1.94	1.35	3.9	4.4	3.9
August	29.05	29.26	28.71	60.8	75.0	79.9	59.3	69.6	95	50	57	56	88	54	.475	.464	3.93	2.62	4.0	4.0	4.4
September	29.05	29.73	28.69	53.3	69.2	74.7	52.1	63.4	95	38	47	46	81	46	.342	.332	.90	.46	2.9	4.3	4.3
October	29.08	29.52	28.51	40.7	47.9	53.4	38.2	45.8	81	26	36	36	83	67	.220	.224	5.81	1.74	7.1	6.8	6.9
November	29.04	29.60	28.50	25.5	31.5	37.7	21.6	29.6	60	—10	21	20	82	64	.125	.117	1.59	.92	5.5	4.6	5.8
December	29.13	29.89	28.41	9.2	15.9	21.8	4.8	13.3	40	—19	7	10	89	75	.063	.075	.15	.06	4.2	4.0	4.0
Year	29.08	29.89	28.41	39.0	49.6	54.3	36.4	45.4	95	—19	34	35	82	59	.245	.247	25.34	2.62	5.0	4.9	5.2

SALT LAKE CITY, UTAH.

[λ = 40° 46′ N.; φ = 111° 54′ W.; gravity corr., — 0.02.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	25.71	26.12	25.22	16.7	23.5	28.9	12.3	20.6	48	— 3	12	16	80	71	.076	.092	.58	.17	4.3	5.8	5.1
February	25.75	26.08	25.31	30.9	39.2	44.3	26.9	35.6	60	16	21	28	67	64	.114	.151	.38	.29	4.1	7.4	7.0
March	25.58	25.95	25.15	30.8	41.6	45.4	27.2	36.3	63	11	20	26	64	56	.109	.142	1.71	.45	6.9	6.6	7.3
April	25.64	25.99	25.09	45.4	62.8	66.0	41.9	54.0	83	27	26	29	48	30	.141	.160	1.30	.71	5.9	5.1	5.5
May	25.54	25.80	25.28	47.5	60.1	64.1	43.7	53.9	80	32	35	38	65	47	.206	.227	4.19	.89	7.3	6.7	7.6
June	25.60	25.95	25.29	59.5	76.9	80.1	54.1	67.1	96	33	38	40	47	30	.235	.254	1.45	.90	2.2	3.3	3.4
July	25.65	25.81	25.39	66.6	86.4	88.9	62.9	75.9	97	49	39	40	38	22	.251	.264	.18	.12	3.6	1.8	3.5
August	25.63	25.79	25.30	68.1	86.3	89.8	63.7	76.8	97	58	42	47	40	27	.273	.331	1.35	1.04	3.3	4.7	5.1
September	25.63	25.90	25.07	56.4	75.3	79.6	51.7	65.6	90	36	27	34	33	23	.147	.198	.15	.13	1.3	1.9	2.5
October	25.74	26.11	25.30	41.5	52.9	60.1	36.4	48.2	76	30	25	33	55	48	.140	.193	1.57	.74	3.9	4.2	4.9
November	25.68	25.95	25.11	32.8	40.9	46.4	28.2	37.3	74	10	22	28	64	63	.117	.151	1.95	.66	4.4	6.1	5.9
December	25.85	26.24	25.35	21.4	27.5	33.3	17.0	25.2	47	6	14	21	71	75	.082	.112	1.28	.60	4.1	5.3	5.4
Year	25.67	26.24	25.07	43.1	56.1	60.6	38.8	49.7	97	— 3	27	32	56	46	.158	.190	16.09	1.04	4.3	4.9	5.3

SAN ANTONIO, TEX.

[λ = 29° 27′ N.; φ = 98° 28′ W.; gravity corr., — 0.04.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.34	30.01	28.88	48.1	60.3	65.6	46.4	56.0	82	27	41	42	78	54	.286	.306	.46	.29	5.0	4.2	5.1
February	29.37	29.82	29.02	49.9	63.8	69.4	48.4	58.9	84	33	42	44	74	52	.282	.310	1.16	.86	5.4	3.2	4.3
March	29.26	29.55	28.94	55.1	67.0	71.4	53.3	62.4	90	33	49	50	81	57	.388	.394	1.47	.98	7.6	5.7	6.5
April	29.30	29.68	28.96	60.2	72.7	79.7	58.3	69.0	93	41	53	53	79	53	.427	.421	1.46	.70	6.4	4.8	4.7
May	29.17	29.49	28.92	68.9	79.6	85.2	67.5	76.4	97	50	64	62	83	56	.604	.565	1.06	.79	7.5	4.2	4.9
June	29.22	29.36	29.04	73.7	84.0	89.7	71.2	80.4	95	64	71	68	90	59	.756	.675	7.06	2.20	6.3	4.4	5.0
July	29.25	29.40	29.09	74.1	87.2	93.3	72.8	83.0	103	66	70	64	86	50	.731	.614	2.24	1.22	5.2	4.7	4.2
August	29.23	29.38	29.10	74.5	87.2	94.4	73.5	84.0	99	68	70	66	86	51	.744	.643	3.35	2.15	4.0	5.1	4.7
September	29.21	29.39	28.96	70.5	84.6	89.6	69.5	79.6	95	62	65	63	84	50	.637	.584	1.32	.82	4.5	3.0	3.2
October	29.33	29.84	28.96	59.6	75.5	83.4	58.6	71.0	96	37	50	48	72	40	.427	.391	.03	.03	2.6	1.6	2.4
November	29.36	29.66	28.96	49.9	61.0	66.8	47.0	56.9	89	30	44	43	82	57	.313	.305	1.34	.33	4.9	4.5	5.4
December	29.45	29.97	29.03	40.4	50.7	56.9	37.9	47.4	75	20	32	34	74	56	.199	.215	1.54	.72	4.0	4.1	4.5
Year	29.29	30.01	28.88	60.4	72.8	78.8	58.7	68.8	103	20	54	53	81	53	.483	.452	22.49	2.20	5.3	4.1	4.6

SAN DIEGO, CAL.

[λ = 32° 43′ N.; φ = 117° 10′ W.; gravity corr., — 0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.99	30.24	29.72	45.2	54.3	58.3	43.4	50.8	78	36	36	43	73	66	.227	.285	1.71	.55	2.9	4.4	3.7
February	29.97	30.18	29.75	50.6	58.6	62.3	48.2	55.2	75	42	43	48	78	71	.283	.343	.06	.06	3.5	3.2	3.0
March	29.91	30.18	29.58	49.0	58.6	62.0	47.0	54.5	77	38	40	44	74	61	.254	.300	.91	.47	3.3	3.6	3.2
April	29.87	30.06	29.60	54.5	61.8	65.3	52.9	59.1	86	45	49	51	84	70	.357	.382	.22	.09	5.1	4.2	3.9
May	29.86	30.03	29.74	55.7	60.8	63.2	54.5	58.8	69	51	50	52	82	73	.365	.383	.66	.26	7.6	3.9	3.0
June	29.79	29.92	29.63	59.8	65.0	68.5	59.2	63.8	88	54	54	57	84	75	.428	.460	.02	.02	7.8	4.4	2.8
July	29.82	29.94	29.59	63.1	68.3	71.0	62.4	66.7	77	60	60	60	88	76	.512	.526	.00	.00	8.5	2.1	2.0
August	29.75	29.88	29.61	66.9	72.1	74.9	66.3	70.6	83	63	64	64	90	76	.597	.594	.00	.00	6.5	3.2	2.3
September	29.76	29.88	29.64	63.7	71.7	74.3	62.7	68.5	91	56	59	60	84	70	.496	.530	.07	.06	4.6	1.4	1.9
October	29.88	30.02	29.70	57.1	65.3	68.9	55.7	62.3	81	51	51	56	81	76	.377	.461	.00	.00	2.5	2.1	2.1
November	29.89	30.07	29.68	53.5	62.6	67.0	51.8	59.4	76	43	36	51	56	68	.228	.383	.15	.11	2.0	.8	1.3
December	30.00	30.34	29.70	51.5	58.8	63.8	49.5	56.6	79	43	34	46	55	64	.205	.316	.87	.71	2.7	3.8	2.6
Year	29.87	30.34	29.58	55.9	63.2	66.6	54.5	60.5	91	36	48	53	77	70	.361	.414	4.67	.71	4.8	3.1	2.6

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

ST. PAUL, MINN.

[H = 837 ft.; h_t = 114 ft.; h_r = 93 ft.; h_a = 124 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	7.1	NW.	30	NW.	0	7	0	3	12	10	5	5	20	0	10	14	7	2	0	2	0	0	19	0	31	0	0
February	8.1	NW.	29	NW.	0	6	5	2	10	8	4	4	17	0	7	11	10	12	7	11	0	2	19	0	28	0	0
March	9.0	NW.	32	S.	0	3	6	1	13	9	7	8	15	0	8	13	10	10	8	9	0	1	3	0	23	0	1
April	7.6	NW.	30	SE.	0	7	8	5	15	5	1	1	18	0	14	6	10	9	6	3	0	1	0	0	7	1	0
May	7.5	NW.	24	NW.	0	9	10	10	4	5	9	7	8	0	8	13	10	10	8	0	0	0	0	0	0	4	0
June	7.3	NW.	36	NW.	0	2	2	6	11	6	10	9	12	2	6	17	7	12	11	0	0	2	0	1	0	7	0
July	7.0	SE.	29	W.	0	6	1	2	18	8	9	6	12	0	13	14	4	6	4	0	0	0	0	3	0	3	1
August	5.9	NW.	27	N.	0	10	1	2	14	8	4	1	21	1	14	13	4	8	7	0	1	3	0	3	0	8	0
September	6.8	SE.	32	SE.	0	4	1	4	15	5	10	7	11	3	14	9	7	6	4	0	0	1	0	3	0	2	1
October	8.6	NW.	30	SE.	0	5	2	5	20	2	2	5	20	1	3	15	13	10	9	0	0	0	0	0	7	2	0
November	9.0	SE.	36	NW.	0	2	2	1	20	1	12	3	19	0	6	11	13	8	6	5	0	0	9	0	22	0	0
December	7.4	NW.	35	NW.	0	0	2	1	9	4	11	9	26	0	16	9	6	6	1	6	0	1	23	0	31	0	0
Year	7.6	NW.	36	NW.	0	61	40	42	161	71	84	65	199	7	119	145	101	99	71	36	1	11	73	10	149	25	3

SALT LAKE CITY, UTAH.

[H = 4,344 ft.; h_t = 83 ft.; h_r = 75 ft.; h_a = 90 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.3	SE.	22	NW.	0	4	2	4	13	13	5	8	13	0	12	6	13	9	4	9	0	0	21	0	31	0	0
February	5.1	SE.	26	NW.	0	3	6	5	15	4	2	8	13	0	5	7	16	3	2	3	0	0	0	0	20	0	0
March	6.9	NW.	36	SW.	0	3	5	2	9	11	4	6	22	0	6	7	18	11	9	9	0	0	1	0	23	0	0
April	7.0	NW.	38	W.	0	2	2	4	14	9	3	6	18	2	8	12	10	5	2	1	0	0	0	0	2	1	0
May	6.1	SE.	37	SW.	0	1	1	4	16	12	4	4	17	3	4	7	20	14	13	0	1	0	0	0	0	2	0
June	6.6	SE.	37	NW.	0	2	4	9	15	7	2	5	14	2	18	9	3	6	5	0	0	0	0	6	0	2	0
July	5.8	SE.	29	S.	0	2	3	5	15	9	2	7	16	3	19	9	3	4	2	0	0	0	0	17	0	4	0
August	6.0	SE.	29	NW.	0	1	2	7	23	10	2	2	15	0	10	17	4	4	3	0	1	0	0	16	0	5	0
September	6.2	SE.	33	S.	0	3	3	4	18	3	1	5	22	1	21	7	2	2	1	0	0	0	0	1	0	2	0
October	5.2	SE.	34	SW.	0	5	3	7	10	4	1	7	21	4	11	14	6	4	4	1	0	0	0	0	6	0	0
November	5.1	SE.	47	S.	1	4	4	2	23	5	2	6	12	2	11	8	11	8	7	4	0	1	1	0	21	0	0
December	5.1	SE.	48	NE.	1	3	3	6	18	5	6	7	13	1	10	11	10	9	7	9	0	0	12	0	31	0	0
Year	5.8	SE.	48	NE.	2	33	38	59	189	92	34	71	196	18	135	114	116	79	59	36	2	1	35	40	134	16	0

SAN ANTONIO, TEX.

[H = 704 ft.; h_t = 95 ft.; h_r = 81 ft.; h_a = 104 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.9	NE.	42	N.	2	14	15	1	15	4	2	2	8	1	11	8	12	8	3	0	0	5	0	0	2	1	0
February	8.9	SE.	32	SE.	0	16	14	1	18	2	3	0	2	0	13	7	8	7	4	0	0	1	0	0	0	2	0
March	11.9	SE.	42	N.	1	12	14	4	28	2	1	0	1	0	6	10	15	5	5	0	0	3	0	0	0	0	0
April	9.9	SE.	36	N.	0	8	11	6	25	3	2	2	3	0	13	7	10	7	5	0	0	1	0	1	0	2	0
May	11.3	SE.	48	NW.	1	6	1	3	44	6	1	1	0	0	12	13	6	4	3	0	0	1	0	8	0	1	0
June	8.5	SE.	66	NW.	2	2	6	5	41	2	0	1	2	1	12	10	8	14	8	0	1	0	0	16	0	5	0
July	8.3	SE.	36	SE.	0	7	7	5	34	5	1	0	3	0	17	8	6	8	5	0	0	1	0	24	0	4	0
August	7.3	SE.	36	NE.	0	8	11	2	38	1	0	0	2	0	13	11	7	8	7	0	0	0	0	30	0	4	0
September	7.8	SE.	30	E.	0	12	14	7	23	1	0	1	2	0	20	7	3	5	5	0	0	0	0	15	0	2	0
October	8.5	SE.	42	NW.	2	13	12	2	23	1	2	2	6	1	20	8	3	1	0	0	0	1	0	10	0	0	0
November	9.4	N.	38	N.	0	18	10	4	17	2	2	1	5	1	12	5	13	9	8	0	0	5	0	0	1	0	0
December	10.0	N.	42	N.	1	24	12	4	2	7	6	4	3	0	17	3	11	7	7	1	0	5	0	0	7	0	0
Year	9.2	SE.	66	NW.	9	140	127	44	308	36	20	14	37	4	166	97	102	83	60	1	1	23	0	104	10	21	0

SAN DIEGO, CAL.

[H = 87 ft.; h_t = 94 ft.; h_r = 86 ft.; h_a = 102 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.7	E.	26	SE.	0	5	11	9	3	3	8	7	13	3	19	3	9	12	8	0	0	1	0	0	0	0	0
February	5.6	NW.	23	NW.	0	8	10	6	1	2	7	3	18	1	23	2	3	1	1	0	0	4	0	0	0	0	0
March	6.7	NW.	30	SW.	0	3	12	6	2	2	6	7	20	4	21	2	8	5	3	0	0	2	0	0	0	0	0
April	6.3	NW.	24	NW.	0	6	7	1	5	6	10	9	14	2	18	3	9	4	3	0	0	6	0	0	0	0	0
May	6.6	NW.	24	SW.	0	2	2	1	4	4	9	13	26	1	24	2	5	7	5	0	0	0	0	0	0	0	0
June	5.7	SW.	18	NW.	0	7	1	0	3	8	13	11	12	5	23	3	4	1	0	0	0	0	0	0	0	0	0
July	6.3	NW.	24	NW.	0	3	0	0	0	3	16	8	26	6	30	1	0	0	0	0	0	2	0	0	0	0	0
August	5.2	NW.	18	NW.	0	3	0	0	2	1	15	5	25	11	26	4	1	0	0	0	0	0	0	0	0	0	0
September	5.4	NW.	22	NW.	0	4	3	1	2	3	8	7	24	8	26	2	2	2	1	0	0	3	0	1	0	0	0
October	4.8	NW.	18	NW.	0	16	3	5	1	2	5	3	25	2	27	2	2	0	0	0	0	9	0	0	0	0	0
November	5.4	NW.	26	NE.	0	6	15	6	4	2	3	1	21	2	28	0	2	2	2	0	0	1	0	0	0	0	0
December	5.0	NE.	33	SE.	0	8	13	15	4	3	3	3	13	0	26	2	3	6	2	0	2	0	0	0	0	1	0
Year	5.7	NW.	33	SE.	0	71	77	50	31	39	103	77	237	45	291	26	48	40	25	0	2	28	0	1	0	1	0

a By eye observations when there is no self-register at station. C.=Calm.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SANDUSKY, OHIO.

[λ=41° 25′ N.; φ=82° 40′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.31	29.75	28.47	29.9	31.9	38.1	25.7	31.9	65	9	25	26	81	78	.138	.145	2.93	.84	7.5	8.5	8.0
February	29.39	29.75	28.76	27.0	30.7	36.2	23.4	29.8	65	— 3	22	24	82	75	.133	.139	2.29	.80	9.0	6.8	8.9
March	29.45	29.75	28.90	39.5	43.7	52.4	35.6	44.0	74	17	33	37	79	78	.204	.237	5.53	2.83	7.3	5.8	7.0
April	29.36	29.67	28.87	42.7	46.9	53.1	39.1	46.1	70	21	34	35	71	65	.203	.213	1.95	.86	6.1	6.4	6.6
May	29.27	29.50	28.97	57.2	62.0	67.6	52.9	60.2	83	42	49	50	75	65	.360	.372	2.73	.57	6.7	5.9	6.7
June	29.33	29.62	28.84	68.1	72.4	79.5	62.3	70.9	92	52	59	60	73	67	.508	.534	5.11	1.62	4.8	6.4	6.0
July	29.37	29.66	29.14	73.3	75.6	82.7	66.9	74.8	97	55	62	63	70	67	.584	.594	5.69	2.27	4.5	5.2	5.7
August	29.32	29.53	29.13	69.7	73.9	81.5	65.1	73.3	94	54	62	64	78	71	.570	.595	5.25	2.09	5.8	5.5	6.5
September	29.38	29.81	28.95	63.3	69.5	76.7	59.7	68.2	95	48	56	57	78	67	.464	.493	2.09	.72	5.0	4.0	5.2
October	29.37	29.68	28.90	50.0	54.8	61.7	46.5	54.1	89	31	44	46	79	72	.310	.330	4.88	2.34	7.8	6.1	7.7
November	29.38	29.79	28.90	36.9	39.6	46.5	31.5	39.0	68	15	30	31	78	71	.177	.177	2.37	1.13	7.6	5.4	7.8
December	29.35	29.95	28.74	26.7	29.2	34.5	23.2	28.8	56	3	21	22	77	74	.122	.125	2.35	1.12	8.2	6.5	7.3
Year	29.36	29.95	28.47	48.7	52.5	59.2	44.3	51.8	97	— 3	41	43	77	71	.314	.330	43.17	2.83	6.7	6.0	7.0

SAN FRANCISCO, CAL.

[λ=37° 48′ N.; φ=122° 26′ W.; gravity corr., —0.02.]

January	30.00	30.19	29.70	43.5	50.2	51.8	41.6	46.7	59	36	36	39	78	66	.222	.238	1.12	.33	2.3	5.5	5.6
February	29.96	30.21	29.52	48.9	55.2	58.1	47.1	52.6	70	43	46	47	90	74	.310	.320	2.13	.78	4.0	6.1	5.2
March	29.92	30.30	29.59	47.0	54.0	56.8	45.6	51.2	74	40	40	40	80	64	.261	.262	.24	.13	2.5	2.7	4.3
April	29.89	30.14	29.42	49.1	56.6	61.4	47.5	54.4	87	44	45	45	87	69	.299	.302	.19	.19	2.4	3.0	4.1
May	29.83	29.99	29.49	49.2	54.0	57.2	48.0	52.6	63	46	46	47	90	78	.317	.325	1.44	1.23	7.3	4.9	5.9
June	29.79	30.02	29.61	53.4	61.8	66.1	51.9	59.0	89	49	50	50	90	69	.366	.367	.19	.18	4.5	2.8	3.7
July	29.80	29.95	29.65	52.3	57.3	61.8	50.5	56.2	88	47	50	51	93	79	.358	.368	.00	.00	4.7	1.7	4.0
August	29.76	29.90	29.54	53.5	59.1	62.2	51.9	57.0	72	47	52	54	94	82	.386	.409	T.	T.	7.1	3.2	5.0
September	29.78	29.90	29.64	55.4	60.9	64.6	53.4	59.0	80	50	53	53	91	77	.399	.408	1.06	.73	4.3	3.1	4.5
October	29.90	30.08	29.69	56.4	63.4	68.4	54.1	61.2	81	50	52	50	84	64	.384	.357	.86	.45	3.0	2.6	4.1
November	29.94	30.16	29.69	51.3	57.4	61.6	49.2	55.4	78	43	44	45	79	67	.294	.303	.46	.36	2.5	3.0	4.1
December	30.06	30.45	29.76	46.9	53.5	54.9	44.5	49.7	66	38	38	41	75	65	.238	.261	1.62	.70	2.7	4.7	4.7
Year	29.89	30.45	29.42	50.6	57.0	60.4	48.8	54.6	89	36	46	47	86	71	.320	.327	9.31	1.23	3.9	3.6	4.6

SAN JUAN, PUERTO RICO.

[λ=18° 27′ N.; φ=66° 7′ W.; gravity corr., —0.06.]

[Observations at San Juan were taken at 6 a. m. and 6 p. m.]

January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	29.90	29.97	29.76	73.6	77.4	83.0	71.3	77.2	88	65	71	71	90	81	.757	.757	12.08	2.93	6.3	5.9	3.7
December	29.99	30.10	29.91	72.3	76.1	81.6	70.2	75.9	85	66	69	70	88	81	.700	.730	5.34	1.12	4.3	4.8	2.9
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SAN LUIS OBISPO, CAL.

[λ=35° 18′ N.; φ=120° 39′ W.; gravity corr., —0.03.]

January	29.92	30.11	29.64	39.5	54.7	60.2	34.9	47.6	80	25	31	34	72	49	.175	.206	1.37	.42	2.3	4.0	4.7
February	29.90	30.09	29.69	48.8	60.2	67.6	45.0	56.3	84	36	41	46	77	62	.264	.318	2.20	1.09	2.5	4.4	4.6
March	29.84	30.19	29.43	44.0	57.7	65.7	40.1	52.9	79	28	36	39	75	54	.221	.250	.91	.61	3.1	2.6	3.4
April	29.81	30.04	29.49	51.8	63.9	74.2	45.2	59.7	97	37	40	44	68	52	.248	.288	.06	.06	3.5	2.4	3.0
May	29.78	29.92	29.54	49.5	59.3	66.9	46.2	56.6	83	40	44	46	82	63	.289	.312	1.04	.98	6.2	3.4	5.2
June	29.72	29.90	29.54	54.2	68.7	76.9	49.9	63.4	98	44	46	48	78	52	.313	.346	.04	.02	3.4	1.0	2.5
July	29.74	29.87	29.55	54.0	71.6	78.5	50.5	64.5	89	46	48	52	83	51	.341	.389	.00	.00	5.3	.5	1.9
August	29.70	29.84	29.57	54.4	71.0	79.7	51.6	65.6	97	46	50	53	86	54	.369	.398	.00	.00	6.1	1.0	3.2
September	29.71	29.86	29.61	54.6	66.9	79.0	50.5	64.8	100	41	48	52	81	60	.344	.384	.20	.20	4.1	1.4	2.5
October	29.80	29.98	29.60	54.4	68.1	79.6	49.5	64.6	98	38	43	46	68	50	.281	.324	.39	.22	2.0	2.4	2.7
November	29.84	30.03	29.64	50.0	62.1	72.7	42.5	57.6	94	32	33	37	56	44	.196	.232	.08	.08	1.3	1.9	2.0
December	29.95	30.30	29.65	45.1	58.8	66.7	39.5	53.1	81	27	30	32	56	40	.170	.196	.64	.58	1.8	3.6	3.5
Year	29.81	30.30	29.43	50.0	63.6	72.3	45.4	58.9	100	25	41	44	74	53	.268	.304	6.93	1.09	3.5	2.4	3.3

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SANDUSKY, OHIO.

[H = 629 ft.; h_t = 62 ft.; h_r = 55 ft.; h_a = 74 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.7	W.	44	W.	2	5	1	3	7	10	9	17	10	0	4	3	24	12	7	6	0	1	8	0	24	1	0
February	9.6	SW.	38	NW.	0	5	2	3	0	8	20	10	8	0	0	4	24	12	7	7	0	0	11	0	22	0	0
March	8.4	SW.	40	W.	1	8	6	8	5	10	13	7	5	0	8	4	19	13	12	1	0	0	1	0	12	1	0
April	9.2	NE.	33	NW.	0	7	16	10	1	7	4	8	7	0	5	10	15	11	5	2	0	0	0	0	6	1	0
May	7.8	NE.	26	N.	0	6	13	4	9	6	11	9	4	0	6	8	17	14	13	0	0	0	0	0	0	6	0
June	7.6	SW.	29	NW.	0	0	8	12	4	3	13	11	9	0	9	7	14	11	7	0	1	0	0	2	0	8	0
July	7.2	E.	36	NW.	0	3	12	12	12	6	12	4	1	0	7	16	8	11	7	0	0	0	0	4	0	9	0
August	6.2	SW.	26	W.	0	3	5	4	6	11	21	8	4	0	7	9	15	10	6	0	0	0	0	2	0	7	0
September	7.2	SW.	30	NE.	0	4	4	8	2	12	19	7	4	0	9	12	9	10	7	0	0	0	0	3	0	9	0
October	8.0	S.	31	NW.	0	3	1	6	12	14	14	7	5	0	2	10	19	13	9	0	0	0	0	0	2	0	0
November	9.0	W.	36	NW.	0	2	1	5	2	16	11	18	5	0	1	11	18	10	7	2	0	1	3	0	12	0	0
December	10.3	SW.	41	NW.	1	3	3	2	3	3	30	15	2	1	2	13	16	8	7	4	0	0	11	0	25	0	0
Year	8.4	SW.	44	W.	4	49	72	77	63	106	177	121	64	1	60	107	198	135	94	22	1	2	34	11	103	42	0

SAN FRANCISCO, CAL.

[H = 153 ft.; h_t = 161 ft.; h_r = 154 ft.; h_a = 167 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.5	N.	32	NW.	0	20	4	2	4	4	2	14	12	0	9	11	11	8	5	0	0	1	0	0	0	0	0
February	8.3	W.	36	SE.	0	8	1	0	8	6	9	20	4	0	11	8	9	11	7	0	0	3	0	0	0	0	0
March	10.4	W.	40	W.	1	8	3	0	6	2	5	30	8	0	14	12	5	5	4	0	1	2	0	0	0	0	0
April	12.3	SW.	42	W.	1	0	2	0	1	5	18	32	2	0	17	13	0	1	1	0	0	3	0	0	0	0	0
May	13.3	SW.	36	SW.	0	0	0	0	4	7	18	32	1	0	10	10	11	8	4	0	0	0	0	0	0	0	0
June	13.1	SW.	40	W.	1	0	0	0	1	3	22	33	1	0	18	9	3	2	1	0	0	0	0	0	0	0	0
July	15.8	SW.	41	W.	1	1	0	0	0	0	39	22	0	0	16	14	1	0	0	0	0	3	0	0	0	0	0
August	14.6	SW.	38	W.	0	0	0	0	0	0	35	26	1	0	10	17	4	0	0	0	0	2	0	0	0	0	0
September	11.9	W.	35	W.	0	0	0	0	3	2	23	31	1	0	10	15	5	3	3	0	0	5	0	0	0	0	0
October	7.6	W.	30	W.	0	4	2	2	2	6	13	28	4	1	14	14	3	4	4	0	0	0	0	0	0	0	0
November	7.4	W.	30	W.	0	9	1	0	5	3	8	29	5	0	13	12	5	4	4	0	0	4	0	0	0	0	0
December	6.9	N.	44	NE.	1	17	10	2	6	1	3	5	18	0	10	13	8	4	3	0	0	2	0	0	0	0	0
Year	10.8	W.	44	NE.	5	67	23	6	40	39	195	302	57	1	152	148	65	50	36	0	1	25	0	0	0	0	0

SAN JUAN, PUERTO RICO.

[H = 82 ft.; h_t = 48 ft.; h_r = 40 ft.; h_a = 56 ft.]

[Observations at San Juan were taken at 6 a. m. and 6 p. m.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	6.1	E.	19	E.	0	2	2	24	21	4	6	1	0	0	12	4	2	19	18	0	0	0	0	0	0	0	0
December	6.0	E.	24	E.	0	0	6	19	22	7	8	0	0	0	22	9	0	20	17	0	0	0	0	0	0	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SAN LUIS OBISPO, CAL.

[H = 201 ft.; h_t = 10 ft.; h_r = 3 ft.; h_a = 46 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.5	N.	23	NW.	0	29	1	1	3	8	0	8	11	1	13	11	7	8	8	0	0	0	0	0	7	0	0
February	5.8	N.	28	S.	0	19	0	2	3	13	2	8	9	0	13	5	10	8	7	0	0	2	0	0	0	0	0
March	5.2	N.	22	W.	0	22	1	2	1	7	2	21	4	2	18	9	4	5	5	0	0	1	0	0	5	0	0
April	6.1	W.	20	W.	0	18	0	2	4	5	0	21	10	0	17	9	4	2	1	0	0	0	0	0	6	0	0
May	5.6	W.	20	W.	0	9	0	0	1	4	1	36	8	3	9	15	7	3	2	0	0	3	0	0	0	0	0
June	5.2	W.	24	N.	0	9	1	0	0	8	2	27	12	1	21	8	1	2	0	0	0	3	0	3	0	0	0
July	4.3	N.	18	N.	0	16	0	1	2	16	3	11	11	2	31	0	0	0	0	0	0	2	0	0	0	0	0
August	4.0	W.	13	W.	0	15	0	2	1	11	4	16	13	0	19	12	0	0	0	0	0	2	0	5	0	0	0
September	4.6	W.	19	S.	0	15	0	2	1	9	0	22	10	1	23	5	2	1	1	0	0	1	0	2	0	0	0
October	5.2	N.	24	N.	0	29	1	2	3	10	0	12	4	1	19	8	4	3	2	0	0	2	0	5	0	0	0
November	5.0	N.	20	N.	0	35	3	1	4	0	0	4	12	1	24	4	2	1	1	0	0	3	0	1	0	0	0
December	5.2	N.	26	N.	0	36	3	2	3	3	1	4	8	2	19	5	7	2	2	0	0	1	0	0	6	0	0
Year	5.1	N.	28	S.	0	252	10	17	26	94	15	190	112	14	226	91	48	35	29	0	0	20	0	22	18	0	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SANTA FE, N. MEX.

[λ = 35° 41′ N.; φ = 105° 57′ W.; gravity corr., — 0.03.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	23.17	23.55	22.73	19.8	26.9	34.1	15.2	24.6	48	—6	11	9	67	45	.074	.067	.97	.27	4.6	4.6	4.5
February	23.27	23.51	22.97	27.7	41.7	47.4	25.8	36.6	58	18	17	22	63	43	.095	.115	.30	.27	3.6	2.7	2.8
March	23.15	23.38	22.88	28.4	44.1	48.6	26.6	37.6	61	14	15	9	56	29	.088	.077	.88	.57	4.5	4.0	3.3
April	23.27	23.50	22.89	41.3	55.5	60.6	38.3	49.4	74	26	23	17	51	30	.133	.112	1.37	.69	4.2	5.3	4.1
May	23.21	23.48	22.99	45.1	63.3	66.4	42.6	54.5	79	31	25	16	47	20	.137	.104	.22	.15	2.3	4.6	4.2
June	23.32	23.50	23.16	56.3	70.6	75.7	52.6	64.2	91	41	37	27	52	28	.229	.171	1.53	.70	2.8	4.7	4.1
July	23.39	23.55	23.26	60.3	72.3	78.9	57.4	68.2	89	49	48	44	67	43	.341	.304	2.31	.50	2.5	6.8	6.3
August	23.39	23.54	23.21	58.2	71.5	78.6	56.9	67.8	85	52	46	43	66	38	.319	.282	4.00	1.45	2.5	5.3	4.5
September	23.34	23.57	23.17	49.8	63.8	73.8	48.4	61.1	82	32	28	21	48	19	.162	.123	.18	.12	1.4	1.1	2.1
October	23.34	23.59	23.00	39.2	54.6	61.3	37.4	49.4	73	22	18	9	44	16	.103	.068	.54	.54	1.0	1.9	2.0
November	23.22	23.48	22.79	29.6	39.4	47.4	26.5	37.0	62	12	15	13	54	35	.084	.079	.27	.23	2.2	1.8	2.1
December	23.26	23.52	22.98	18.4	25.7	33.3	14.8	24.0	46	1	10	10	69	50	.070	.067	.40	.21	2.6	2.7	3.0
Year	23.28	23.59	22.73	39.5	52.9	58.8	36.9	47.9	91	—6	24	20	57	33	.153	.131	12.97	1.45	2.8	3.8	3.6

SANTO DOMINGO, SANTO DOMINGO, WEST INDIES.

[λ = 18° 28′ N.; φ = 69° 53′ W.; gravity corr., —0.06.]

[Observations at Santo Domingo made at 6 a. m. and 6 p. m.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	29.97	30.06	29.87	73.0	77.2	85.8	71.6	78.8	92	70	72	74	95	90	.784	.847	8.70	1.98	4.7	8.0	6.8
September	29.90	30.01	29.71	72.6	78.8	86.0	71.4	78.7	90	69	71	73	94	83	.760	.812	6.01	1.11	4.2	6.5	5.8
October	29.91	30.01	29.84	71.6	78.9	85.0	70.7	77.8	89	67	70	73	95	83	.745	.814	7.94	1.77	3.4	6.5	4.9
November	29.92	29.99	29.78	69.8	76.4	84.0	69.1	76.6	87	66	68	71	95	84	.696	.756	4.31	1.21	3.0	4.9	4.2
December	30.02	30.10	29.91	67.3	75.4	82.5	66.7	74.6	87	62	66	70	95	84	.641	.738	3.81	.92	1.9	3.1	3.6
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SAULT STE. MARIE, MICH.

[λ = 46° 28′ N.; φ = 84° 22′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.26	29.64	28.69	14.0	18.1	25.2	6.6	15.9	36	—12	11	15	88	87	.087	.090	1.20	.40	7.6	6.9	7.8
February	29.35	29.77	28.93	13.7	20.9	25.7	9.8	17.8	44	—20	11	18	87	86	.081	.104	1.77	.54	8.0	7.4	8.0
March	29.35	29.67	28.84	24.1	30.8	38.2	19.9	29.0	52	— 3	20	25	86	79	.116	.137	2.98	1.14	6.8	5.4	6.4
April	29.38	29.72	28.85	34.6	40.9	48.8	29.5	39.2	63	8	28	30	75	67	.157	.173	.68	.62	3.7	4.8	4.1
May	29.23	29.59	28.83	46.4	51.0	59.7	40.0	49.8	75	29	43	43	88	76	.280	.286	3.28	.75	6.2	6.3	5.5
June	29.27	29.68	28.64	54.5	59.1	67.3	47.6	57.4	83	39	51	53	89	81	.378	.406	3.07	.98	6.5	6.3	5.7
July	29.33	29.61	28.95	60.3	65.9	74.7	53.1	63.9	89	40	56	57	85	75	.446	.490	1.52	.52	5.5	5.3	4.8
August	29.27	29.55	29.04	57.7	62.8	70.0	53.1	61.6	85	46	55	56	90	80	.430	.455	4.18	1.32	6.7	6.1	5.5
September	29.28	29.93	28.86	54.4	58.4	66.9	49.6	58.2	88	37	51	52	86	81	.390	.406	3.42	1.28	6.0	4.7	5.4
October	29.33	29.70	28.69	41.7	44.6	50.5	37.6	44.0	68	16	38	40	87	83	.245	.255	2.53	.62	7.7	6.8	7.6
November	29.25	29.86	28.59	32.5	34.5	40.6	28.5	34.6	67	10	30	30	90	85	.173	.178	2.02	.77	8.8	6.2	7.9
December	29.20	29.92	28.63	17.4	20.3	26.5	11.8	19.2	37	—17	14	18	86	87	.088	.102	1.26	.18	9.2	6.3	8.7
Year	29.29	29.93	28.59	37.6	42.3	49.5	32.3	40.9	89	—20	34	36	86	81	.239	.256	27.91	1.32	6.9	6.0	6.4

SAVANNAH, GA.

[λ = 32° 5′ N.; φ = 81° 5′ W.; gravity corr., — 0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	30.07	30.33	29.78	49.2	55.7	64.7	46.3	55.5	79	23	43	44	81	68	.307	.322	.36	.14	4.7	3.4	4.2
February	30.08	30.46	29.72	48.3	52.1	61.1	41.3	51.2	76	23	35	38	74	63	.228	.257	.56	.49	2.2	2.2	3.7
March	30.09	30.35	29.70	57.7	62.1	72.9	55.2	64.0	87	37	54	55	88	79	.431	.450	1.93	1.78	4.4	3.5	4.5
April	29.98	30.26	29.55	58.0	63.6	73.5	53.8	63.6	86	42	48	48	71	60	.357	.357	2.46	1.13	2.9	3.9	4.0
May	29.91	30.16	29.66	71.0	74.4	86.2	65.7	76.0	101	48	61	62	72	66	.557	.565	1.01	.82	1.8	2.8	2.7
June	29.99	30.14	29.80	77.4	77.9	89.8	71.0	80.4	97	65	69	70	76	76	.711	.725	4.58	1.64	3.1	4.2	3.9
July	29.99	30.21	29.72	78.4	79.3	88.8	73.5	81.2	99	63	73	73	83	82	.809	.811	8.53	3.18	6.8	6.4	6.0
August	29.98	30.11	29.45	77.7	78.0	87.2	73.4	80.3	92	69	74	74	88	86	.835	.824	22.79	7.31	6.5	6.4	6.6
September	29.99	30.15	29.82	73.9	76.5	84.7	71.3	78.0	91	64	70	71	89	84	.750	.770	5.06	1.94	5.4	3.8	5.4
October	30.00	30.33	29.41	63.2	67.5	75.3	60.2	67.8	89	39	58	60	83	78	.529	.565	4.46	2.85	5.5	3.7	5.0
November	30.08	30.35	29.53	51.7	57.4	65.3	49.2	57.2	79	31	46	51	82	79	.338	.389	6.28	4.15	4.9	4.7	5.3
December	30.10	30.49	29.61	46.4	51.5	59.1	43.7	51.4	73	31	40	41	78	70	.275	.293	2.16	1.07	5.7	5.2	5.7
Year	30.02	30.49	29.41	62.3	66.3	75.7	58.7	67.2	101	23	56	57	80	74	.511	.527	60.18	7.31	4.4	4.3	4.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SANTA FE, N. MEX.

[H = 6,998 ft.; h_t = 47 ft.; h_r = 39 ft.; h_a = 50 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	5.8	NE.	27	SW.	0	12	21	2	4	5	4	1	6	7	15	9	7	11	7	10	0	0	13	0	31	0	0
February	5.4	NE.	26	N.	0	6	19	2	2	2	9	2	5	9	20	8	0	2	1	2	0	0	0	0	26	0	0
March	7.1	SW.	36	SW.	0	4	7	2	6	7	12	7	10	7	21	8	2	5	4	5	0	1	0	0	24	1	0
April	8.1	SE.	36	SW.	0	3	12	0	14	5	11	3	7	5	14	11	5	7	7	0	0	0	0	0	5	3	0
May	8.3	SW.	38	SW.	0	1	4	3	13	3	16	5	8	9	15	9	7	4	1	0	0	0	0	0	1	0	0
June	6.1	SW.	30	SE.	0	1	4	3	11	7	11	4	1	18	12	12	6	8	6	0	0	1	0	1	0	9	0
July	5.7	SE.	34	NE.	0	7	5	5	13	12	4	0	3	13	4	14	13	13	12	0	1	0	0	0	0	21	0
August	5.8	SE.	25	S.	0	1	6	12	17	10	4	0	3	9	9	18	4	12	9	0	3	0	0	0	0	20	0
September	5.4	SE.	30	S.	0	5	10	5	13	5	10	1	8	3	23	5	2	2	2	0	0	0	0	0	0	2	0
October	6.1	SE.	30	NE.	0	5	12	2	15	5	10	1	4	8	23	6	2	1	1	0	1	0	0	0	11	2	0
November	6.6	SE.	41	SW.	1	9	10	1	15	10	4	1	6	4	25	2	3	4	2	4	0	0	0	0	20	2	0
December	7.0	NE.	36	NE.	0	6	31	3	6	5	2	1	5	3	20	7	4	4	3	4	0	0	12	0	31	0	0
Year	6.4	NE.	31	SW.	1	60	141	40	129	76	97	26	66	95	201	109	55	73	55	25	5	2	25	1	149	60	0

SANTO DOMINGO, SANTO DOMINGO, WEST INDIES.

[H = 59 ft; h_l = 82 ft.; h_r = 74 ft.; h_a = 88 ft.]

[Observations at Santo Domingo made at 6 a. m. and 6 p. m.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	4.4	NW.	24	N.	0	15	2	4	1	0	1	1	18	0	0	14	7	16	15	0	0	0	0	1	0	10	0
September	3.5	NW.	15	S.	0	6	2	1	5	6	5	0	35	0	2	18	10	17	13	0	0	0	0	0	0	11	0
October	4.7	NW.	18	S.	0	14	1	8	6	2	2	0	29	0	13	11	7	18	15	0	0	0	0	0	0	5	0
November	4.1	N.	24	NE.	0	30	8	2	1	1	0	0	16	2	12	16	2	21	14	0	0	0	0	0	0	2	0
December	3.9	N.	13	E.	0	37	2	2	1	2	0	0	11	7	12	18	1	18	12	0	0	0	0	0	0	1	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SAULT STE. MARIE, MICH.

[H = 624 ft.; h_l = 58 ft.; h_r = 47 ft.; h_a = 65 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.7	E.	45	NW.	1	10	5	16	10	1	7	2	11	0	2	7	22	17	10	17	0	6	24	0	31	0	0
February	9.7	E.	40	E.	1	6	7	5	16	1	0	11	10	0	1	9	18	14	11	13	0	4	21	0	27	0	0
March	9.6	SE.	38	NW.	0	4	2	9	16	2	8	6	14	1	6	13	12	12	8	9	0	4	8	0	27	0	2
April	9.6	NW.	50	SE.	1	3	5	6	10	4	0	12	20	0	15	8	7	4	3	1	0	0	4	0	14	0	1
May	9.4	NW.	30	E.	0	5	1	16	5	0	5	13	17	0	11	7	13	13	11	0	0	2	0	0	2	2	1
June	8.3	W.	45	NW.	2	1	1	17	5	3	2	14	16	1	9	11	10	12	9	0	1	2	0	0	0	3	0
July	7.8	NW.	42	NW.	1	5	0	14	7	3	4	9	20	0	11	17	3	10	8	0	0	3	0	0	0	5	2
August	6.8	NW.	27	NW.	0	9	5	11	5	4	1	8	19	0	8	14	9	12	11	0	0	5	0	0	0	3	2
September	8.2	NW.	36	NW.	0	5	2	13	8	1	9	8	14	0	8	14	8	14	11	0	0	2	0	0	0	5	2
October	11.0	E.	38	SE.	0	7	5	18	10	4	4	2	11	1	4	7	20	17	10	3	0	2	1	0	5	0	0
November	9.6	SE.	41	NW.	1	6	2	11	15	3	8	7	8	0	3	7	20	13	9	9	0	1	5	0	20	0	0
December	9.2	SW.	39	NW.	0	8	3	13	10	1	16	4	7	0	2	5	24	16	11	16	0	0	22	0	31	0	0
Year	9.0	NW.	50	SE.	7	69	38	149	117	27	64	96	167	3	80	119	166	154	112	68	1	31	85	0	157	18	10

SAVANNAH, GA.

[H = 82 ft.; h_l = 63 ft.; h_r = 54 ft.; h_a = 89 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.1	NW.	30	NW.	0	1	5	4	3	12	11	13	13	0	16	8	7	8	4	0	0	3	0	0	3	0	0
February	8.5	NW.	36	NW.	0	6	8	7	6	4	6	4	15	0	15	6	7	4	3	0	0	4	0	0	5	0	0
March	8.9	S.	51	NE.	1	3	10	12	10	14	9	0	4	0	17	7	7	3	3	0	0	2	0	0	0	0	0
April	9.6	S.	42	NW.	1	14	1	1	4	14	9	7	10	0	17	5	8	7	7	0	0	1	0	0	0	3	0
May	8.4	S.	30	W.	0	2	2	3	6	25	11	7	6	0	21	8	2	4	3	0	1	1	0	11	0	7	0
June	7.5	S.	28	W.	0	3	3	7	6	21	11	8	1	0	15	14	1	8	6	0	0	0	0	15	0	11	0
July	7.2	SW.	35	NW.	0	6	3	1	9	15	19	6	3	0	6	13	12	19	17	0	0	0	0	12	0	17	0
August	7.6	S.	76	NW.	2	6	7	7	11	14	11	1	4	1	6	13	12	20	19	0	0	0	0	5	0	15	0
September	7.8	NE.	25	S.	0	8	18	10	7	8	6	1	2	0	10	14	6	10	10	0	0	3	0	4	0	5	0
October	10.2	NE.	60	NE.	1	11	14	4	8	6	3	2	14	0	11	11	9	12	8	0	0	0	0	0	0	0	0
November	8.8	NE.	31	NW.	0	16	15	4	5	3	5	4	8	0	10	10	10	11	11	0	0	3	0	0	1	0	0
December	8.5	SW.	31	W.	0	11	7	1	3	8	12	8	11	1	11	7	13	11	9	0	0	3	0	0	2	1	0
Year	8.5	S.	76	NW.	5	87	93	61	78	144	113	61	91	2	155	116	94	117	100	0	1	20	0	47	11	59	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SEATTLE, WASH.

[λ=47° 38′ N.; φ=122° 20′ W.; gravity corr., + 0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.98	30.39	29.68	38.5	42.3	43.9	35.9	39.9	51	27	34	36	86	77	.199	.212	1.99	.34	7.2	7.7	7.2
February	29.82	30.26	29.20	43.0	48.2	51.2	40.1	45.6	67	33	38	39	85	73	.237	.243	5.98	1.25	7.6	7.8	7.2
March	29.95	30.38	29.54	39.0	48.2	50.2	36.7	43.4	60	29	34	34	84	60	.201	.203	1.39	.42	6.2	5.8	5.5
April	29.97	30.38	29.42	44.3	55.9	58.3	41.8	50.0	78	32	38	39	81	55	.235	.250	1.51	.41	7.0	6.1	5.9
May	29.84	30.13	29.46	48.2	64.3	67.0	47.2	57.1	89	42	43	42	82	48	.274	.273	.66	.40	4.5	4.7	4.5
June	29.88	30.32	29.52	53.4	67.9	70.4	52.5	61.4	88	46	49	49	84	53	.345	.347	2.13	.84	6.2	4.9	4.8
July	29.91	30.17	29.61	55.5	72.8	74.5	54.6	64.6	91	50	51	51	86	48	.381	.380	.22	.12	5.4	2.9	3.5
August	29.82	30.00	29.63	58.5	73.7	75.2	57.4	66.3	92	54	55	56	87	56	.430	.446	.15	.08	5.0	3.1	3.8
September	29.82	30.04	29.43	54.2	66.5	69.1	52.4	60.8	87	46	50	51	87	61	.367	.376	2.92	1.11	5.6	4.5	5.1
October	29.95	30.30	29.57	48.0	56.2	58.8	45.6	52.2	66	36	44	45	87	68	.291	.303	4.69	2.22	6.8	7.4	6.2
November	29.89	30.32	29.39	43.1	46.5	49.1	40.8	45.0	56	31	39	40	86	77	.240	.244	3.52	.55	7.9	6.8	7.5
December	30.08	30.46	29.50	38.6	42.4	45.0	35.8	40.4	58	27	35	37	87	81	.207	.220	4.12	1.14	5.4	6.3	6.7
Year	29.91	30.46	29.20	47.0	57.1	59.4	45.1	52.2	92	27	42	43	85	63	.284	.291	29.28	2.22	6.2	5.7	5.7

SHREVEPORT, LA.

[λ=32° 30′ N.; φ=93° 40′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.82	30.37	29.34	46.3	54.8	60.8	44.2	52.5	80	24	40	42	80	63	.278	.294	5.79	1.56	6.3	5.7	5.8
February	29.88	30.33	29.43	45.4	57.8	62.5	43.4	53.0	74	25	39	40	78	54	.256	.268	2.41	1.31	3.7	2.9	4.1
March	29.79	30.07	29.46	53.7	63.5	69.4	50.6	60.0	87	34	48	49	82	62	.371	.373	2.24	.79	6.7	6.4	6.8
April	29.81	30.25	29.38	54.8	68.4	73.6	52.4	63.0	84	37	48	48	78	50	.348	.355	2.28	1.22	4.9	4.1	4.5
May	29.68	29.91	29.47	67.9	80.2	85.1	64.5	74.8	94	47	63	62	84	54	.590	.563	1.24	.43	4.1	3.6	4.0
June	29.73	29.87	29.57	73.5	79.7	89.5	70.3	79.9	95	67	70	70	89	74	.739	.732	7.25	1.85	5.5	6.3	6.0
July	29.75	29.90	29.63	75.1	84.3	91.2	72.2	81.7	98	65	70	70	85	64	.743	.743	1.48	.83	3.9	4.5	4.8
August	29.72	29.87	29.57	74.2	84.6	90.6	72.1	81.4	96	68	71	72	90	66	.766	.771	2.91	1.13	3.4	4.8	5.3
September	29.70	29.88	29.46	70.3	79.4	85.9	68.0	77.0	93	56	68	68	90	70	.683	.697	5.42	4.14	4.6	3.0	4.4
October	29.82	30.21	29.44	55.4	67.8	75.4	53.7	64.6	93	35	51	52	86	59	.428	.453	3.44	1.91	2.3	1.5	3.1
November	29.86	30.09	29.33	46.2	54.8	62.0	42.1	52.0	82	25	39	39	77	57	.263	.261	4.28	1.47	6.2	4.2	5.8
December	29.93	30.46	29.46	39.1	47.4	53.8	35.6	44.7	75	18	33	31	77	54	.204	.184	3.07	1.27	5.5	3.4	5.3
Year	29.79	30.46	29.33	58.5	68.6	75.0	55.8	65.4	98	18	53	54	83	61	.472	.474	41.81	4.14	4.8	4.2	5.0

SIOUX CITY, IOWA.

[λ=42° 29′ N.; φ=96° 24′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	.....	29.36	28.35	20.1	.....	32.5	15.5	24.0	40	1	17	....	86	....	.096	.....	.27	.16	4.0	.....	4.8
February	.....	29.40	28.36	19.4	.....	34.0	13.7	23.8	47	— 7	16	....	83	....	.092	.....	.37	.25	4.9	.....	4.8
March	.....	29.26	28.37	27.9	.....	46.0	25.8	35.9	67	6	22	....	78	....	.123	.....	.90	.35	5.5	.....	5.2
April	.....	29.25	28.34	39.9	.....	61.1	38.2	49.6	88	19	31	....	73	....	.183	.....	1.37	.84	4.6	.....	4.9
May	.....	29.04	28.29	52.7	.....	68.3	50.7	59.5	86	35	47	....	82	....	.336	.....	4.69	1.31	6.5	.....	6.9
June	.....	28.95	28.44	64.7	.....	81.3	60.6	71.0	95	51	59	....	83	....	.512	.....	6.61	2.45	4.5	.....	4.9
July	.....	29.01	28.38	66.6	.....	84.6	62.2	73.4	94	56	60	....	81	....	.532	.....	2.78	1.14	3.9	.....	4.1
August	.....	28.91	28.56	64.1	.....	84.6	60.4	72.5	101	52	59	....	84	....	.512	.....	3.10	2.52	3.4	.....	3.6
September	.....	29.34	28.45	55.2	.....	78.4	51.9	65.2	96	41	49	....	82	....	.573	.....	.95	.62	3.7	.....	3.7
October	.....	29.25	28.26	40.3	.....	56.0	36.6	46.3	77	24	34	....	80	....	.214	.....	1.36	.83	7.1	.....	5.6
November	.....	29.23	28.19	25.3	.....	40.9	23.3	32.1	67	— 4	19	....	78	....	.113	.....	.45	.24	4.1	.....	4.8
December	.....	29.69	28.21	16.0	.....	28.9	11.9	20.4	52	—14	12	....	84	....	.083	.....	.06	.02	3.0	.....	4.5
Year	.....	29.69	28.19	41.0	.....	58.0	37.6	47.8	101	—14	35	....	81	....	.264	.....	22.91	2.52	4.6	.....	4.8

SPOKANE, WASH.

[λ=47° 40′ N.; φ=117° 25′ W.; gravity corr., 0.00.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	28.05	28.44	27.67	24.6	29.5	31.8	20.3	26.0	40	2	22	25	88	83	.119	.135	1.45	.42	6.7	8.4	8.2
February	27.94	28.49	27.48	35.2	41.8	44.5	32.0	38.2	58	20	30	31	80	66	.167	.176	1.93	.34	6.5	8.6	7.4
March	27.94	28.35	27.46	31.6	43.0	45.4	28.7	37.0	59	11	26	24	79	49	.144	.136	.92	.23	6.7	6.0	5.9
April	27.98	28.39	27.52	40.6	58.4	61.5	38.5	50.0	78	29	31	28	69	34	.175	.160	.76	.44	5.7	6.8	5.7
May	27.88	28.23	27.57	45.7	65.3	67.1	43.1	55.1	83	34	36	30	69	28	.211	.171	1.63	.88	5.1	5.3	4.7
June	27.92	28.39	27.61	51.9	72.9	75.7	50.4	63.0	90	41	43	36	72	28	.280	.218	1.21	.85	3.6	5.3	4.5
July	27.93	28.15	27.62	56.6	81.3	83.8	54.9	69.4	98	46	43	37	68	22	.279	.228	.43	.32	1.4	3.4	2.8
August	27.87	28.01	27.63	60.3	85.1	88.2	58.3	73.2	104	49	47	41	62	26	.321	.265	1.00	.53	2.5	3.0	2.3
September	27.91	28.30	27.66	49.6	71.2	73.5	47.4	60.4	88	37	41	38	73	33	.255	.238	.47	.15	3.4	4.1	3.8
October	28.05	28.41	27.62	38.5	54.1	57.5	36.2	46.8	67	27	33	32	80	44	.187	.181	.35	.11	3.5	5.8	5.4
November	27.97	28.41	27.59	32.8	38.9	39.8	30.3	35.0	54	20	29	30	87	79	.161	.168	1.99	.34	6.8	8.4	8.2
December	28.19	28.62	27.55	21.9	27.9	30.5	18.5	24.5	50	—2	18	24	87	84	.108	.130	.94	.50	4.5	5.8	6.0
Year	27.97	28.62	27.46	40.8	55.6	58.3	38.2	48.2	104	—2	33	31	76	48	.201	.184	13.08	.88	4.7	5.9	5.4

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SEATTLE, WASH.

[H=119 ft.; h_t=114 ft.; h_r=107 ft.; h_a=121 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	6.1	SE.	26	S.	0	3	6	6	17	17	5	5	3	0	4	9	18	19	16	3	0	3	0	0	6	0	0
February	7.9	SE.	27	S.	0	0	4	4	15	24	5	0	4	0	3	11	14	23	18	2	0	1	0	0	0	0	0
March	5.9	SE.	24	S.	0	10	0	5	10	20	2	4	10	1	7	16	8	13	10	3	1	1	0	0	2	0	0
April	5.2	SE.	24	S.	0	7	9	1	13	10	6	6	8	0	9	7	14	15	8	0	0	1	0	0	0	0	0
May	5.4	SE.	19	SE.	0	10	3	2	9	17	3	4	10	4	13	12	6	6	4	0	0	0	0	0	0	1	0
June	5.0	S.	20	SW.	0	4	6	5	7	12	7	4	10	5	12	11	7	11	10	0	0	0	0	0	0	1	0
July	4.5	NW.	24	SW.	0	6	4	1	5	10	3	9	15	9	21	3	7	4	2	0	0	0	0	1	0	1	0
August	3.9	W.	14	SE.	0	11	3	1	3	18	2	8	13	3	16	6	9	3	2	0	0	1	0	2	0	0	0
September	5.1	SE.	21	SE.	0	11	1	3	10	11	0	5	11	8	11	8	11	10	8	0	0	5	0	0	0	1	0
October	4.7	SE.	21	SW.	0	7	4	1	13	14	6	5	7	5	5	10	16	14	13	0	0	2	0	0	0	0	0
November	7.3	SE.	27	SE.	0	7	3	4	19	19	4	2	1	1	2	11	17	21	19	0	0	3	0	0	1	0	0
December	5.4	SE.	27	S.	0	6	7	8	18	14	5	2	0	2	6	8	17	15	13	3	1	7	0	0	10	0	0
Year	5.5	S.	27	S.	0	82	50	41	139	186	48	54	92	38	109	112	144	154	123	11	2	24	0	3	19	4	0

SHREVEPORT, LA.

[H=249 ft.; h_t=77 ft.; h_r=76 ft.; h_a=84 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	8.4	SE.	36	NW.	0	2	6	2	26	1	5	7	13	0	10	9	12	13	10	0	0	0	0	0	2	0	0
February	7.3	SE.	30	SE.	0	5	4	6	21	1	3	2	13	1	13	8	7	6	4	0	1	1	0	0	2	3	0
March	9.7	SE.	30	NW.	0	4	6	8	31	2	2	0	9	0	7	6	18	11	10	0	0	1	0	0	0	0	0
April	8.3	SE.	33	NW.	0	4	7	5	25	3	0	4	12	0	13	9	8	9	6	0	0	0	0	0	0	4	0
May	7.2	SE.	30	SE.	0	1	2	0	42	2	5	3	5	2	16	8	7	8	4	0	0	0	0	0	0	3	0
June	5.8	SE.	31	SE.	0	0	0	1	38	2	8	7	4	0	6	14	10	16	16	0	0	1	0	13	0	13	0
July	5.5	SE.	28	SE.	0	5	8	4	33	1	6	2	3	0	11	12	8	6	5	0	0	0	0	20	0	8	0
August	4.6	SE.	26	E.	0	7	14	6	23	2	7	1	2	0	9	13	9	9	6	0	0	2	0	20	0	8	0
September	5.7	SE.	26	NE.	0	4	17	4	27	2	1	4	1	0	16	5	9	9	7	0	0	0	0	12	0	1	0
October	7.0	SE.	32	S.	0	1	8	4	27	2	3	7	9	1	18	9	4	7	6	0	0	2	0	3	0	3	0
November	7.8	SE.	35	NW.	0	4	10	5	20	6	3	0	12	0	9	6	15	8	6	0	0	1	0	0	4	1	0
December	7.9	SE.	39	SW.	0	7	11	4	13	3	5	8	11	0	12	6	13	5	5	1	1	1	0	0	11	1	0
Year	7.1	SE.	39	SW.	0	44	93	49	326	27	48	45	94	4	140	105	120	107	85	1	2	9	0	74	19	45	0

SIOUX CITY, IOWA.

[H=1,139 ft.; h_t=96 ft.; h_r=86 ft.; h_a=164 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	10.1	NW.	43	NW.	1	2	2	1	6	7	3	2	8	0	15	4	12	5	4	5	0	1	12	0	31	0	0
February	14.2	NW.	45	NW.	6	2	5	2	3	2	3	0	11	0	10	11	7	3	2	3	0	0	13	0	28	0	0
March	15.2	S.	60	S.	7	4	3	2	6	8	1	1	6	0	11	10	10	8	6	3	0	0	3	0	22	2	0
April	14.7	NW.	44	NW.	4	7	4	2	2	6	1	1	7	0	12	8	10	7	5	0	0	0	0	0	8	0	0
May	11.9	NW.	53	SW.	2	4	5	2	8	2	1	1	8	0	6	8	17	13	12	0	1	0	0	0	0	3	0
June	11.6	SE.	66	NW.	2	5	5	2	7	4	1	0	6	0	13	7	10	13	9	0	1	2	0	5	0	7	0
July	10.6	S.	36	S.	0	2	2	2	9	9	0	1	6	0	16	8	7	11	9	0	1	0	0	7	0	7	0
August	10.4	S.	33	S.	0	4	6	2	6	7	0	1	5	0	16	12	3	3	2	0	0	2	0	7	0	2	0
September	10.9	S.	50	S.	2	5	3	4	5	6	0	2	5	0	18	2	10	3	3	0	0	1	0	3	0	4	0
October	16.2	NW.	50	S.	6	6	2	1	3	7	3	0	9	0	12	5	14	6	5	2	0	0	0	0	10	3	0
November	14.3	NW.	60	NW.	6	3	0	1	6	7	1	2	10	0	14	6	10	6	3	5	0	0	7	0	25	0	0
December	11.2	NW.	44	NW.	2	3	2	0	2	6	1	3	14	0	13	10	8	4	0	4	0	1	13	0	31	0	0
Year	12.6	NW.	66	NW.	38	47	39	21	63	71	15	14	95	0	156	91	118	82	60	22	3	7	48	22	155	28	0

SPOKANE, WASH.

[H=1,943 ft.; h_t=99 ft.; h_r=90 ft.; h_a=107 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.1	S.	24	S.	0	8	4	10	9	10	12	2	5	1	3	5	23	11	9	11	0	5	12	0	30	0	0
February	8.3	S.	32	SW.	0	1	3	17	2	20	12	1	0	0	5	6	17	15	13	5	0	0	0	0	13	0	0
March	6.7	S.	26	SW.	0	3	9	8	7	15	10	4	6	0	9	12	10	11	10	6	0	2	1	0	21	0	0
April	7.0	SW.	30	SW.	0	0	9	10	1	20	15	4	1	0	8	13	9	7	3	0	0	0	0	0	3	0	0
May	7.3	S.	24	S.	0	2	14	9	5	15	10	3	4	0	14	8	9	6	4	0	0	0	0	0	0	1	0
June	6.9	SW.	36	SW.	0	8	8	8	5	13	11	4	2	1	13	10	7	8	4	0	0	0	0	0	0	2	0
July	6.4	SW.	30	SW.	0	5	10	8	7	9	11	9	3	0	21	4	6	4	2	0	0	0	0	8	0	3	0
August	4.6	S.	31	SW.	0	8	9	10	10	8	9	3	4	1	22	4	5	4	4	0	0	0	0	13	0	0	0
September	6.1	NE.	28	SW.	0	8	13	3	4	14	9	2	6	1	15	6	9	5	5	0	0	0	0	0	0	1	0
October	5.4	S.	30	SW.	0	7	10	7	1	13	7	5	5	7	7	19	5	5	4	0	0	1	0	0	7	0	0
November	6.3	S.	41	S.	1	6	3	7	2	18	18	2	4	0	2	6	22	18	12	13	0	6	1	0	18	0	0
December	4.8	SW.	30	SW.	0	9	8	4	3	9	16	3	10	0	12	4	15	7	6	5	0	7	16	0	27	0	0
Year	6.2	S.	41	S.	1	65	100	101	56	164	140	42	50	11	131	97	137	101	76	40	0	21	30	21	119	7	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SPRINGFIELD, ILL.

[λ=39° 48′ N.; φ=89° 39′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.34	29.82	28.54	28.3	33.4	37.9	26.6	32.2	58	7	24	27	81	76	.133	.150	5.81	1.67	5.4	5.1	6.1
February	29.40	29.84	29.00	27.4	34.4	39.1	25.6	32.4	66	0	22	27	77	72	.125	.156	2.70	1.45	6.4	5.8	6.6
March	29.39	29.80	28.95	38.7	46.3	51.9	35.9	43.9	69	24	33	36	79	69	.202	.227	9.65	4.68	6.1	6.5	6.5
April	29.36	29.79	28.76	44.9	54.2	59.1	42.0	50.6	79	25	36	38	73	57	.222	.244	3.76	.90	5.9	5.5	6.0
May	29.25	29.51	28.93	57.2	66.1	71.5	53.8	62.6	86	40	51	55	81	69	.388	.444	5.12	1.98	6.6	5.6	5.9
June	29.31	29.50	28.94	69.5	78.2	83.3	65.3	74.3	91	55	62	63	78	62	.566	.591	4.76	2.24	4.8	5.1	4.6
July	29.35	29.56	29.10	70.3	81.2	86.2	66.1	76.2	96	54	61	62	73	54	.556	.578	2.34	1.66	4.2	4.6	4.2
August	29.31	29.49	29.14	68.0	77.2	83.6	65.6	74.6	94	58	63	66	85	69	.568	.644	4.40	1.26	4.5	5.7	5.1
September	29.33	29.80	28.96	63.0	72.3	79.6	60.5	70.0	92	47	59	61	87	70	.519	.559	6.82	1.92	4.5	4.0	4.8
October	29.34	29.67	28.81	47.7	53.0	59.2	45.6	52.4	85	27	44	45	86	76	.314	.394	6.15	1.30	6.7	5.9	6.8
November	29.38	29.74	28.70	32.9	40.6	45.4	31.0	38.2	69	2	26	30	77	67	.157	.181	2.94	.88	5.5	4.0	5.1
December	29.42	30.12	28.84	23.3	29.5	33.9	21.3	27.6	57	2	18	22	77	73	.105	.129	1.83	1.00	5.0	4.2	5.0
Year	29.35	30.12	28.54	47.6	55.5	60.9	44.9	52.9	96	0	42	44	80	68	.323	.353	56.28	4.68	5.5	5.2	5.6

SPRINGFIELD, MO.

[λ=37° 12′ N.; φ=93° 18′ W.; gravity corr., —0.02.]

January	28.61	29.11	28.01	33.4	40.0	44.4	31.0	37.7	62	12	29	31	83	72	.165	.183	3.06	1.00	5.6	5.6	6.5
February	28.69	29.11	28.30	31.3	41.7	47.0	29.4	38.2	64	8	26	31	78	67	.150	.182	1.68	.94	4.6	4.2	5.0
March	28.64	28.95	28.30	41.5	48.0	54.1	37.0	45.6	73	19	36	36	80	66	.229	.235	9.05	1.80	5.0	5.2	6.1
April	28.65	29.06	28.24	46.3	57.0	61.0	44.7	52.8	79	25	39	40	76	56	.246	.254	3.68	1.01	4.9	5.1	5.3
May	28.54	28.75	28.27	60.3	70.3	74.9	57.3	66.1	85	39	55	55	85	60	.446	.442	8.06	2.13	5.8	4.1	4.5
June	28.60	28.74	28.38	69.5	76.9	82.0	66.0	74.0	87	60	66	67	88	72	.646	.658	5.88	1.24	5.8	5.2	5.3
July	28.64	28.81	28.44	70.3	78.3	83.0	66.9	75.0	91	55	66	67	87	69	.654	.673	7.29	2.62	5.1	3.3	4.7
August	28.63	28.78	28.50	69.0	78.2	83.5	66.7	75.1	90	58	66	67	89	70	.635	.671	5.63	2.92	2.5	3.0	3.7
September	28.61	28.91	28.29	64.7	73.4	79.0	62.7	70.8	88	49	61	64	89	73	.588	.600	6.78	2.88	4.7	4.0	4.3
October	28.65	28.99	28.21	47.8	55.7	61.5	46.5	54.0	86	28	45	46	89	73	.337	.360	4.30	1.60	4.3	4.6	5.3
November	28.66	28.99	28.03	36.9	43.6	50.3	33.4	41.8	72	6	28	30	70	61	.171	.184	2.36	1.74	5.1	3.9	5.2
December	28.73	29.40	28.14	26.8	34.3	39.8	24.5	32.2	66	2	22	25	80	68	.128	.146	1.44	.92	4.7	2.8	4.3
Year	28.64	29.40	28.01	49.8	58.1	63.4	47.2	55.3	91	2	45	47	83	57	.366	.382	59.21	2.92	4.8	4.2	5.0

TACOMA, WASH.

[λ=47° 16′ N.; φ=122° 23′ W.; gravity corr., 0.00.]

January	.....	30.27	29.59	36.3	.....	42.7	34.2	38.4	49	24	34	....	90	....	.193	.....	3.01	.52	7.3	.....	8.0
February	.....	30.14	29.11	41.7	.....	50.8	38.8	44.8	64	31	38	....	87	....	.231	.....	8.68	1.89	7.4	.....	8.0
March	.....	30.28	29.48	36.9	.....	49.0	35.1	42.0	58	24	33	....	88	....	.193	.....	.97	.27	5.6	.....	5.6
April	.....	30.28	29.37	42.5	.....	58.1	40.4	49.2	76	30	38	....	85	....	.231	.....	2.26	.58	6.6	.....	5.8
May	.....	30.04	29.38	46.1	.....	65.8	44.9	55.4	86	39	41	....	83	....	.258	.....	1.12	.83	4.1	.....	4.5
June	.....	30.22	29.56	51.7	.....	69.5	51.1	60.3	88	46	48	....	86	....	.331	.....	2.41	.86	5.7	.....	5.0
July	.....	30.06	29.54	54.2	.....	74.1	53.4	63.8	91	48	49	....	83	....	.349	.....	.26	.26	4.5	.....	3.1
August	.....	29.91	29.58	57.1	.....	74.9	56.2	65.6	92	52	54	....	89	....	.418	.....	.38	.27	5.8	.....	4.3
September	.....	29.94	29.36	52.5	.....	68.5	50.8	59.6	84	43	48	....	87	....	.343	.....	4.24	.92	5.7	.....	5.0
October	.....	30.21	29.52	45.0	.....	57.9	43.2	50.6	66	34	43	....	91	....	.275	.....	1.60	.33	5.2	.....	6.0
November	.....	30.22	29.30	40.9	.....	48.1	38.6	43.4	54	28	38	....	88	....	.226	.....	5.92	.89	6.8	.....	8.0
December	.....	30.35	29.48	36.2	.....	43.5	33.5	38.5	60	22	34	....	90	....	.197	.....	4.73	1.01	5.4	.....	7.4
Year	.....	30.35	29.11	45.1	.....	58.6	43.4	51.0	92	22	42	....	87	....	.270	.....	35.58	1.89	5.8	.....	5.9

TAMPA, FLA.

[λ=27° 57′ N.; φ=82° 27′ W.; gravity corr., —0.04.]

January	30.14	30.44	29.94	55.5	62.3	71.8	52.6	62.2	82	27	51	54	85	75	.411	.442	0.42	0.16	2.1	2.0	3.2
February	30.13	30.38	29.88	51.8	60.2	69.6	49.0	59.3	80	31	46	49	81	67	.337	.365	1.52	.96	3.0	2.1	2.8
March	30.11	30.27	29.70	62.8	69.5	78.7	59.2	69.0	86	46	58	59	86	69	.500	.503	.08	.06	2.8	1.7	2.6
April	30.05	30.28	29.73	64.4	69.3	78.5	59.3	68.9	88	48	55	56	72	65	.448	.478	.16	.11	2.5	2.1	2.5
May	29.98	30.18	29.73	73.1	77.1	86.2	67.1	76.6	93	58	65	63	76	62	.623	.580	.37	.26	1.8	2.6	1.5
June	30.04	30.16	29.93	77.4	79.3	90.7	70.9	80.8	95	64	70	69	78	72	.730	.719	5.96	2.91	1.8	6.4	3.0
July	30.03	30.16	29.79	78.7	78.3	89.4	72.5	81.0	95	68	73	72	83	82	.807	.788	8.29	2.72	2.9	7.9	5.0
August	30.02	30.10	29.90	78.0	77.9	88.7	72.8	80.8	93	70	74	73	86	86	.825	.815	17.83	3.98	3.8	8.6	5.1
September	29.97	30.10	29.79	76.9	78.2	88.7	72.3	80.5	93	69	73	72	88	82	.817	.778	6.57	3.21	2.7	4.9	3.7
October	29.98	30.26	29.64	68.9	72.5	80.3	64.9	72.6	90	47	64	65	83	77	.623	.635	4.50	1.82	4.3	3.8	4.1
November	30.06	30.23	29.75	62.7	68.3	76.0	59.8	67.9	84	46	58	59	84	74	.501	.527	1.96	1.61	5.3	4.7	5.5
December	30.13	30.36	29.91	54.7	59.9	68.5	51.4	60.0	78	36	50	53	85	78	.391	.424	2.87	1.77	5.7	3.8	5.8
Year	30.05	30.44	29.64	67.1	71.1	80.6	62.7	71.6	95	27	61	62	82	74	.584	.588	50.53	3.98	3.2	4.2	3.7

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

SPRINGFIELD, ILL.

[H = 644 ft.; h_t = 82 ft.; h_r = 60 ft.; h_a = 92 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	10.4	NW.	34	SW.	0	2	5	1	12	10	3	13	16	0	9	10	12	12	11	6	0	3	5	0	19	2	0
February	11.9	NW.	34	S.	0	2	4	3	0	18	3	8	18	0	4	12	12	10	9	5	0	3	4	0	22	0	0
March	10.4	S.	36	W.	0	7	2	1	12	18	4	4	14	0	6	9	16	15	13	1	0	2	0	0	12	5	0
April	10.6	S.	30	NE.	0	9	8	4	5	13	3	6	12	0	9	6	13	12	11	0	1	0	0	0	2	4	0
May	9.2	S.	30	NW.	0	8	11	5	5	12	7	5	9	0	6	14	11	19	16	0	0	0	0	0	0	11	0
June	6.8	SW.	25	S.	0	4	8	4	8	12	13	4	7	0	8	17	5	11	8	0	0	0	0	2	0	12	0
July	6.5	S.	30	W.	0	6	9	13	2	18	10	2	2	0	11	17	3	7	7	0	0	0	0	7	0	6	0
August	5.8	SW.	22	E.	0	2	7	9	2	11	14	9	7	1	10	13	8	12	9	0	0	0	0	5	0	8	0
September	8.1	SW.	27	E.	0	3	6	6	9	12	13	8	3	0	12	8	10	11	10	0	0	0	0	3	0	6	0
October	10.6	S.	31	NW.	0	7	4	2	5	21	4	2	17	0	5	11	15	11	10	1	0	0	0	0	3	1	0
November	10.8	S.	36	S.	0	1	4	2	3	22	6	10	12	0	11	10	9	9	9	3	0	1	6	0	12	1	0
December	10.8	SW.	28	N.	0	6	2	3	0	10	17	7	17	0	14	5	12	4	2	2	0	2	10	0	25	0	0
Year	9.3	S.	36	S.	0	57	70	53	63	177	97	78	134	1	105	134	126	133	115	18	1	11	25	17	95	56	0

SPRINGFIELD, MO.

[H = 1,324 ft.; h_t = 100 ft.; h_r = 3 ft.; h_a = 103 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	11.9	SE.	48	W.	2	4	4	0	20	8	5	1	19	1	4	13	14	11	8	2	1	7	3	0	14	2	0
February	12.7	SE.	37	W.	0	8	4	2	14	6	5	2	13	2	8	13	7	10	7	2	2	2	3	0	19	2	0
March	12.5	SE.	37	NW.	0	8	6	1	28	4	4	3	7	1	7	11	13	15	15	2	0	7	1	0	10	9	0
April	12.1	SE.	45	NW.	1	15	4	2	20	4	1	1	13	0	7	15	8	14	13	0	0	2	0	0	3	7	0
May	10.1	SE.	45	SW.	1	3	6	1	20	8	7	5	12	0	9	17	5	13	10	0	1	3	0	0	0	10	0
June	8.0	SE.	35	SW.	0	3	7	3	25	16	0	2	2	2	2	27	1	14	13	0	0	0	0	0	0	14	0
July	8.3	SE.	37	NW.	0	3	12	6	17	14	5	2	3	0	5	23	3	11	11	0	1	1	0	1	0	9	0
August	6.7	SE.	24	SE.	0	7	4	1	24	11	6	1	6	2	11	18	2	6	6	0	0	3	0	0	0	6	0
September	9.2	SE.	35	NW.	0	4	7	5	19	17	4	2	2	0	10	15	5	11	9	0	2	2	0	0	0	6	0
October	11.2	SE.	35	SE.	0	6	2	4	19	8	1	4	17	1	9	9	13	11	8	2	0	8	0	0	3	3	0
November	12.2	SE.	43	W.	1	8	3	4	20	8	6	7	4	0	10	11	9	6	5	3	0	0	4	0	13	0	0
December	11.0	S.	37	N.	0	10	2	2	6	13	8	12	9	0	14	11	6	8	5	4	0	1	9	0	20	0	0
Year	10.5	SE.	48	W.	5	79	61	31	232	117	52	42	107	9	96	183	86	130	110	15	7	36	20	1	82	68	0

TACOMA, WASH.

[H = 213 ft.; h_t = 113 ft.; h_r = 1[illegible]4 ft.; h_a = 120 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.8	SW.	30	SW.	0	6	5	4	5	12	24	5	1	0	2	6	23	22	17	3	0	1	0	0	10	0	0
February	7.6	SW.	27	SW.	0	4	2	3	6	8	27	2	2	2	1	11	16	23	19	1	0	1	0	0	1	0	0
March	7.2	SW.	33	SW.	0	15	4	1	2	7	24	4	3	2	9	12	10	11	7	1	0	2	0	0	7	0	0
April	5.8	N.	26	SW.	0	16	3	0	5	6	13	9	3	5	11	6	13	13	12	0	0	0	0	0	1	0	0
May	6.5	SW.	23	SW.	0	15	2	2	1	4	21	9	5	3	14	7	10	5	3	0	0	0	0	0	0	1	0
June	5.6	N.	23	SW.	0	18	3	1	1	3	17	10	4	3	14	3	13	11	11	0	0	0	0	0	0	0	0
July	5.7	N.	22	SW.	0	24	2	0	0	1	12	13	5	5	19	7	5	1	1	0	0	0	0	2	0	0	0
August	4.3	N.	18	W.	0	22	1	0	2	1	11	14	8	3	16	6	9	3	3	0	0	0	0	2	0	0	0
September	5.3	N.	25	SW.	0	25	1	0	1	6	14	8	3	2	13	6	11	11	10	0	0	3	0	0	0	1	0
October	5.4	SW.	27	SW.	0	11	1	2	4	10	17	7	4	6	8	11	12	16	10	0	0	6	0	0	0	0	0
November	7.2	SW.	28	SW.	0	4	5	3	3	11	29	2	1	2	0	9	21	23	20	0	0	5	0	0	2	0	0
December	5.2	SW.	29	S.	0	7	5	2	4	11	25	4	0	4	7	4	20	15	14	2	0	8	1	0	14	0	0
Year	6.0	SW.	33	SW.	0	167	34	18	34	80	234	87	39	37	114	88	163	154	127	7	0	26	1	4	35	2	0

TAMPA, FLA.

[H = 36 ft.; h_t = 60 ft.; h_r = 51 ft.; h_a = 67 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	5.9	NW.	24	NW.	0	8	5	4	6	7	7	9	16	0	14	16	1	5	4	0	0	1	0	0	2	0	0
February	6.7	NW	28	NW.	0	13	9	3	3	1	3	8	16	0	16	10	2	6	4	0	0	1	0	0	1	2	0
March	6.4	NE.	23	SW.	0	5	13	10	8	2	8	10	6	0	18	12	1	3	1	0	0	0	0	0	0	0	0
April	8.2	W.	30	W.	0	8	5	2	4	3	7	18	13	0	21	6	3	5	1	0	0	0	0	0	0	0	0
May	7.1	W.	26	W.	0	3	8	8	4	2	5	19	13	0	27	3	1	3	3	0	0	0	0	6	0	1	0
June	5.7	SE.	26	SE.	0	5	11	11	19	1	3	4	6	0	17	13	0	15	11	0	0	0	0	18	0	13	0
July	6.0	E.	35	SE.	0	5	7	19	18	4	1	5	3	0	9	17	5	20	17	0	0	0	0	15	0	8	0
August	5.8	SE.	30	SE.	0	6	10	14	18	1	4	7	2	0	5	23	3	23	20	0	0	0	0	12	0	15	0
September	6.7	NE.	36	S.	0	12	24	10	6	2	0	3	3	0	16	9	5	15	13	0	0	0	0	6	0	5	0
October	7.4	NE.	24	SW.	0	20	22	2	3	0	3	2	10	0	17	8	6	9	9	0	0	0	0	0	0	1	0
November	6.7	NE.	24	W.	0	15	16	7	9	2	3	1	7	0	8	15	7	4	3	0	0	0	0	0	0	0	0
December	6.7	NW.	36	SW.	0	11	12	7	7	7	1	3	13	1	10	11	10	9	4	0	0	1	0	0	0	1	0
Year	6.5	NE.	36	{S. SW.}	0	111	142	97	105	32	45	89	108	1	178	143	44	117	89	0	0	3	0	57	3	46	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

TATOOSH ISLAND, WASH.

[λ=48° 23′ N.; φ=124° 44′ W.; gravity corr., + 0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.98	30.44	29.62	41.4	43.1	44.4	38.7	41.6	50	31	36	37	82	78	.216	.219	10.86	1.33	8.2	8.3	8.3
February	29.79	30.29	29.22	42.9	45.3	47.0	39.8	43.4	54	32	36	38	79	77	.219	.232	17.51	2.12	9.6	9.7	9.7
March	30.01	30.41	29.57	41.3	45.5	46.9	39.3	43.1	56	33	33	36	74	70	.193	.212	3.49	.91	6.1	6.5	6.2
April	30.02	30.45	29.50	44.8	49.0	50.5	42.6	46.6	58	38	38	40	79	72	.234	.249	6.70	2.17	7.5	6.9	6.5
May	29.88	30.18	29.38	48.9	53.2	55.7	46.1	50.9	78	42	43	44	80	73	.274	.293	2.37	.40	7.6	6.3	6.3
June	29.93	30.40	29.64	53.5	57.5	58.6	50.5	54.6	70	46	48	50	83	78	.339	.368	5.78	1.30	7.2	7.3	7.2
July																					
August																					
September																					
October																					
November																					
December																					
Year																					

TOLEDO, OHIO.

[λ=41° 40′ N.; φ=83° 34′ W.; gravity corr., —0.01.]

January	29.26	29.69	28.40	27.8	30.6	36.5	24.8	30.6	64	7	23	25	82	77	.129	.136	2.96	0.84	7.4	7.6	7.6
February	29.34	29.68	28.73	25.5	30.0	34.8	22.4	28.6	61	—5	21	23	82	74	.128	.138	1.65	.36	7.7	7.0	7.5
March	29.39	29.70	28.88	37.1	44.2	52.2	34.8	43.5	71	18	31	35	78	70	.182	.216	3.23	1.37	6.0	5.8	6.2
April	29.31	29.64	28.82	41.6	49.1	55.0	38.1	46.6	72	18	33	31	72	52	.193	.181	1.51	.74	5.1	6.1	5.5
May	29.22	29.47	28.92	55.5	63.4	68.3	51.8	60.0	81	36	48	49	76	61	.345	.365	3.02	.49	6.0	5.4	6.4
June	29.29	29.59	28.82	66.8	73.9	79.8	61.3	70.6	91	51	57	58	73	60	.482	.500	1.79	.88	4.5	5.3	5.2
July	29.33	29.60	29.08	71.0	77.5	83.7	64.3	74.0	95	49	61	61	72	58	.557	.550	3.30	1.18	2.8	3.4	4.4
August	29.27	29.50	29.07	67.5	75.9	81.6	64.5	73.0	94	53	62	65	82	70	.552	.623	1.82	1.04	4.7	4.6	5.0
September	29.33	29.79	28.90	61.4	69.3	77.0	58.2	67.6	94	45	56	56	82	64	.462	.476	1.81	.46	4.0	3.8	3.8
October	29.32	29.66	28.85	47.8	54.0	60.7	45.1	52.9	85	28	43	45	83	72	.302	.322	2.81	.98	6.5	6.5	6.4
November	29.33	29.72	28.81	34.2	38.4	44.8	30.7	37.8	68	13	29	30	82	72	.168	.170	2.21	.73	6.5	5.6	6.3
December	29.30	29.90	28.74	25.0	28.0	33.2	21.5	27.4	53	1	20	22	81	75	.119	.121	1.99	.74	8.0	5.9	7.2
Year	29.31	29.90	28.40	46.8	52.9	59.0	43.1	51.0	95	—5	40	42	79	67	.302	.316	28.10	1.37	5.8	5.6	6.0

TOPEKA, KANS.

[λ=39° 3′ N.; φ=95° 41′ W.; gravity corr., ——.]

January						39.2	24.2	31.7	59	10							2.18	.78			
February						46.7	25.1	35.9	65	6							1.78	1.69			
March						54.5	33.0	43.8	72	16							4.21	1.29			
April						63.3	42.8	53.0	86	29							5.27	1.36			
May						73.0	53.9	63.4	89	39							6.10	1.32			
June						84.6	66.5	75.6	94	60							2.65	.91			
July						86.9	66.5	76.7	100	58							2.63	.85			
August						88.5	66.7	77.6	98	55							3.81	2.43			
September						82.3	60.3	71.3	97	46							4.98	2.62			
October						63.4	43.9	53.6	92	27							3.00	1.03			
November						49.4	29.4	39.4	76	4							1.13	1.00			
December						35.2	19.8	27.5	60	1							1.48	.57			
Year						63.9	44.3	54.1	100	1							39.22	2.62			

VICKSBURG, MISS.

[λ=32° 22′ N.; φ=90° 53′ W.; gravity corr., —0.03.]

January	29.83	30.31	29.35	48.7	55.0	60.5	45.3	52.9	80	24	46	48	90	80	.342	.365	7.78	2.41	5.0	5.6	5.6
February	29.87	30.30	29.47	44.7	57.2	61.9	43.7	52.8	73	25	40	50	82	78	.261	.382	2.81	1.27	3.9	1.8	3.5
March	29.82	30.09	29.46	54.5	64.1	69.5	52.7	61.1	84	34	52	57	91	79	.411	.492	3.99	1.48	5.6	6.5	5.3
April	29.81	30.25	29.35	55.0	65.9	71.1	52.8	62.0	83	36	50	56	83	74	.372	.478	2.83	1.25	4.3	3.7	3.6
May	29.72	29.85	29.49	68.7	78.6	83.5	65.4	74.4	91	50	63	68	84	70	.003	.682	1.33	.57	3.6	3.6	3.5
June	29.76	29.91	29.62	74.7	79.4	88.3	70.7	79.5	93	68	72	72	90	79	.782	.779	6.17	2.44	6.2	7.1	6.0
July	29.76	29.90	29.62	75.7	80.5	87.6	71.5	79.6	94	64	72	72	88	78	.781	.802	5.90	1.07	4.4	6.8	4.4
August	29.73	29.88	29.58	75.7	81.8	88.8	72.9	80.8	95	68	73	75	90	81	.802	.871	2.85	.99	4.0	4.8	5.0
September	29.72	29.87	29.47	71.7	78.6	84.9	69.4	77.1	92	55	68	70	89	77	.700	.750	8.93	3.90	3.9	4.8	5.5
October	29.83	30.16	29.50	56.4	65.6	73.2	54.0	63.6	91	36	53	55	87	69	.448	.483	4.26	1.69	3.3	1.6	3.3
November	29.87	30.11	29.41	46.8	54.9	61.1	43.2	52.2	79	26	41	44	80	68	.280	.312	5.49	1.44	5.1	3.7	5.9
December	29.92	30.38	29.52	40.3	48.7	53.9	37.1	45.5	73	21	32	34	74	59	.200	.218	3.33	1.48	5.6	4.6	6.0
Year	29.80	30.38	29.35	59.4	67.5	73.7	56.6	65.1	95	21	55	58	86	74	.498	.551	55.67	3.90	4.6	4.6	4.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

TATOOSH ISLAND, WASH.

[H = 86 ft.; h_t = 7 ft.; h_r = 1 ft.; h_a = 21 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	14.5	E.	53	W.	5	1	2	20	3	19	2	9	6	0	2	5	24	26	24	2	0	1	0	0	1	0	0
February	19.0	E.	54	NW.	14	0	2	15	6	14	7	5	7	0	0	2	26	26	24	2	0	0	0	0	1	0	0
March	13.5	E.	52	NW.	8	2	0	21	0	8	5	12	14	0	7	8	16	14	11	0	0	0	0	0	0	0	0
April	11.7	E.	38	W.	0	4	0	18	1	12	4	6	15	0	9	5	16	15	14	0	0	0	0	0	0	0	0
May	10.6	S.	36	E.	0	1	2	13	3	22	8	10	3	0	7	7	17	16	13	0	0	5	0	0	0	0	0
June	10.2	SW.	38	S.	0	1	2	8	6	13	13	11	6	0	6	5	19	18	16	0	0	3	0	0	0	0	0
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TOLEDO, OHIO.

[H = 674 ft.; h_t = 122 ft.; h_r = 113 ft.; h_a = 127 ft.]

January	11.3	W.	48	SW.	1	1	4	6	7	7	9	18	9	1	3	9	19	12	8	6	0	3	9	0	28	0	0
February	10.8	SW.	36	SW.	0	5	3	2	3	12	11	10	8	2	6	3	19	13	10	6	0	2	11	0	22	0	0
March	10.2	SW.	36	S.	0	6	1	11	3	12	9	9	11	0	9	6	16	13	10	1	0	1	0	0	11	2	0
April	10.1	NW.	35	SE.	0	11	11	7	5	1	2	12	11	0	10	9	11	8	4	0	0	0	0	0	7	1	0
May	8.7	SW.	34	SW.	0	9	9	6	6	10	9	11	2	0	4	16	11	14	13	0	0	0	0	0	0	3	0
June	5.2	SW.	26	SW.	0	5	8	9	3	0	17	14	4	0	7	16	7	7	4	0	0	0	0	2	0	7	0
July	8.1	E.	36	SW.	0	4	14	15	5	3	10	6	4	1	11	16	4	6	6	0	0	0	0	8	0	6	0
August	7.7	SW.	27	SW.	0	3	4	6	4	4	20	14	7	0	13	9	9	9	6	0	0	0	0	3	0	5	0
September	8.8	SW.	60	S.	1	4	3	3	5	12	14	11	8	0	14	9	7	9	9	0	0	2	0	3	0	5	0
October	10.2	S.	38	SW.	0	1	5	6	11	13	8	13	5	0	5	14	12	11	9	0	0	0	0	0	2	0	0
November	11.6	SW.	40	S.	2	2	2	0	5	11	15	19	6	0	10	5	15	9	7	3	0	2	5	0	14	0	0
December	13.1	SW.	36	SW.	0	3	2	2	3	4	25	17	6	0	6	8	17	10	8	5	0	0	13	0	28	0	0
Year	9.6	W.	60	S.	4	54	66	73	60	89	149	154	81	4	98	120	147	121	94	21	0	10	38	16	112	29	0

TOPEKA, KANS.

[H = — ft.; h_t = 81 ft.; h_r = 73 ft.; h_a = 89 ft.]

January	.....	N.	....	.....	....	6	2	6	1	4	4	4	4	0	9	10	12	9	7	7	0	6	3	0	29	0	1
February	.....	NW.	....	.....	....	3	1	4	5	1	1	5	8	0	12	11	5	4	3	0	0	0	4	0	24	0	0
March	.....	SE.	....	.....	....	5	1	3	8	7	2	1	4	0	6	16	9	10	9	2	1	0	0	0	13	5	0
April	.....	E.	....	.....	....	6	1	7	4	3	1	2	6	0	9	14	7	10	10	0	1	0	0	0	0	6	0
May	.....	E.	....	.....	....	6	3	6	4	2	5	0	5	0	5	16	10	18	16	0	3	0	0	0	0	10	0
June	.....	S.	....	.....	....	5	1	6	6	8	2	2	0	0	12	13	5	11	10	0	0	0	0	4	0	9	0
July	.....	E.	....	.....	....	3	7	7	5	7	0	0	2	0	9	21	1	5	5	0	0	1	0	9	0	4	0
August	.....	S.	....	.....	....	1	3	2	9	12	0	1	3	0	17	13	1	6	4	0	0	0	0	13	0	5	0
September	.....	S.	....	.....	....	2	4	6	5	9	2	1	1	0	13	14	3	8	7	0	0	0	0	9	0	4	0
October	.....	NW.	....	.....	....	1	3	5	6	3	0	3	10	0	10	12	9	7	6	2	0	0	0	2	5	2	0
November	.....	W.	....	.....	....	1	0	6	6	3	2	7	5	0	11	12	7	3	3	3	0	0	5	0	16	0	0
December	.....	W.	....	.....	....	5	3	3	0	5	4	7	4	0	13	12	6	6	6	3	0	1	9	0	26	0	0
Year	.....	S.	....	.....	....	44	29	61	59	64	23	33	52	0	126	164	75	97	86	17	5	8	21	37	113	45	1

VICKSBURG, MISS.

[H = 247 ft.; h_t = 65 ft.; h_r = 58 ft.; h_a = 73 ft.]

January	9.1	S.	43	W.	1	11	5	9	10	13	6	4	4	0	10	10	11	14	11	0	0	1	0	0	2	5	0
February	7.5	SE.	42	SE.	1	10	5	4	15	7	7	1	7	0	17	5	6	7	7	0	1	1	0	0	3	3	0
March	8.9	SE.	28	W.	0	8	9	2	20	14	5	1	3	0	10	14	7	9	8	0	0	0	0	0	0	2	0
April	7.7	SE.	36	NW.	0	11	7	3	12	8	6	0	6	1	17	8	5	9	8	0	1	0	0	0	0	6	0
May	6.8	SW.	30	NW.	0	7	2	3	13	12	19	2	3	1	19	10	2	7	7	0	0	0	0	1	0	6	0
June	5.4	SE.	30	SW.	0	2	2	11	11	4	19	7	3	1	3	22	5	15	11	0	0	1	0	10	0	19	0
July	5.4	SW.	36	W.	0	1	13	14	9	8	9	4	3	1	13	12	6	17	13	0	0	0	0	9	0	18	0
August	4.7	SE.	23	E.	0	14	16	7	14	2	4	1	4	0	11	12	8	8	7	0	0	0	0	12	0	10	0
September	6.7	E.	36	SE.	0	6	9	20	12	3	5	1	3	1	11	9	10	8	7	0	0	1	0	4	0	6	0
October	6.7	SE.	28	N.	0	9	10	9	17	3	1	0	11	2	18	9	4	6	5	0	0	1	0	1	0	2	0
November	7.0	SE.	50	NW.	1	7	17	7	17	4	1	2	5	0	10	6	14	15	9	0	0	2	0	0	4	2	0
December	7.6	N.	38	W.	0	14	9	6	11	4	7	8	2	1	10	7	14	7	6	2	0	0	0	0	8	2	0
Year	7.0	SE.	50	NW.	3	100	104	95	161	82	89	37	54	8	149	124	92	122	99	2	2	7	0	37	17	81	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

VINEYARD HAVEN, MASS.

[λ=41° 26′ N.; φ=70° 43′ W.; gravity corr., ——.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a.m.	8 p.m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	Total.	Maximum in 24 hours.	8 a.m.	8 p.m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	40.6	26.6	33.6	54	6	.....	.....	.....	.....	.....	.....	4.83	1.26	.....	.....	.....
February	.....	.....	.....	.....	.....	42.4	28.8	35.6	56	10	.....	.....	.....	.....	.....	.....	4.51	2.33	.....	.....	.....
March	.....	.....	.....	.....	.....	49.2	36.9	43.0	62	28	.....	.....	.....	.....	.....	.....	4.27	.98	.....	.....	.....
April	.....	.....	.....	.....	.....	51.6	38.9	45.2	66	27	.....	.....	.....	.....	.....	.....	6.69	2.20	.....	.....	.....
May	.....	.....	.....	.....	.....	62.1	48.2	55.2	77	37	.....	.....	.....	.....	.....	.....	6.19	1.65	.....	.....	.....
June	.....	.....	.....	.....	.....	71.3	56.9	64.1	84	48	.....	.....	.....	.....	.....	.....	.81	.17	.....	.....	.....
July	.....	.....	.....	.....	.....	78.6	64.0	71.3	91	56	.....	.....	.....	.....	.....	.....	4.74	2.96	.....	.....	.....
August	.....	.....	.....	.....	.....	80.0	66.4	73.2	87	56	.....	.....	.....	.....	.....	.....	4.77	1.24	.....	.....	.....
September	.....	.....	.....	.....	.....	74.4	60.4	67.4	88	48	.....	.....	.....	.....	.....	.....	1.02	.57	.....	.....	.....
October	.....	.....	.....	.....	.....	61.7	51.3	56.5	76	41	.....	.....	.....	.....	.....	.....	7.24	2.06	.....	.....	.....
November	.....	.....	.....	.....	.....	50.9	39.2	45.0	63	25	.....	.....	.....	.....	.....	.....	11.01	3.60	.....	.....	.....
December	.....	.....	.....	.....	.....	42.2	30.3	36.2	56	8	.....	.....	.....	.....	.....	.....	2.95	1.22	.....	.....	.....
Year	.....	.....	.....	.....	.....	58.8	45.7	52.2	91	6	.....	.....	.....	.....	.....	.....	59.03	3.50	.....	.....	.....

WALLA WALLA, WASH.

[λ=46° 2′ N.; φ=118° 20′ W.; gravity corr., 0.00.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a.m.	8 p.m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	Total.	Maximum in 24 hours.	8 a.m.	8 p.m.	Daylight.
January	29.06	29.47	28.73	30.7	34.1	37.3	27.2	32.2	50	16	28	31	90	88	.153	.171	1.88	.68	6.1	6.0	6.3
February	28.94	29.42	28.42	42.6	47.7	52.2	38.5	45.4	65	26	34	38	74	71	.206	.237	1.33	.58	7.0	7.1	6.1
March	28.96	29.38	28.58	37.3	48.2	50.8	33.2	42.0	63	19	31	35	77	60	.173	.208	1.52	.43	4.7	4.7	5.2
April	28.97	29.38	28.38	45.6	62.9	65.3	42.2	53.8	81	34	38	41	76	48	.230	.263	1.83	.51	4.8	5.0	4.4
May	28.85	29.16	28.45	48.4	68.2	70.8	45.9	58.4	84	38	41	44	76	44	.257	.292	2.26	.87	4.1	3.9	3.9
June	28.88	29.32	28.51	56.2	76.0	78.2	53.7	66.0	95	43	47	50	72	44	.320	.370	.84	.30	3.8	3.0	3.8
July	28.88	29.15	28.59	62.2	87.2	88.9	59.1	74.0	101	48	48	52	61	32	.335	.400	.22	.17	1.9	1.6	2.2
August	28.80	28.93	28.56	67.0	90.1	92.1	64.6	78.4	113	55	53	60	62	41	.405	.524	.22	.20	2.5	2.1	2.6
September	28.86	29.21	28.60	55.9	76.0	77.9	53.0	65.4	92	43	47	53	72	48	.321	.416	.56	.25	2.6	2.8	3.1
October	29.02	29.39	28.68	45.5	59.1	63.1	42.2	52.6	78	34	40	47	83	66	.258	.333	1.09	.32	4.5	4.5	3.8
November	29.00	29.43	28.54	38.8	42.3	45.9	35.8	40.8	61	22	35	37	86	83	.206	.229	3.74	1.76	6.8	6.7	7.1
December	29.25	29.66	28.60	27.6	28.8	34.2	23.3	28.8	63	—2	22	24	82	82	.129	.135	.85	.31	6.3	5.9	7.1
Year	28.96	29.66	28.38	46.5	60.0	63.1	43.2	53.2	113	—2	39	43	76	59	.249	.298	16.34	1.76	4.6	4.5	4.6

WASHINGTON, D. C.

[λ=38° 54′ N.; φ=77° 3′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a.m.	8 p.m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	Total.	Maximum in 24 hours.	8 a.m.	8 p.m.	Daylight.
January	29.95	30.41	29.33	33.7	37.2	43.7	29.6	36.6	63	17	27	28	76	68	.153	.158	3.54	1.02	5.6	4.9	5.1
February	30.02	30.52	29.32	28.8	36.4	44.0	25.9	35.0	67	2	22	25	74	63	.130	.143	1.64	.71	3.9	3.9	4.7
March	30.11	30.52	29.72	44.1	50.8	57.3	40.4	48.8	78	25	39	39	81	66	.247	.253	2.52	.65	6.4	5.0	5.9
April	29.88	30.17	29.35	47.2	53.4	60.0	41.8	50.9	83	26	37	37	68	57	.233	.231	2.36	.54	4.8	5.4	5.5
May	29.83	30.15	29.38	60.4	65.1	74.1	54.8	64.4	91	36	56	55	84	73	.456	.457	3.60	1.24	6.1	6.5	5.4
June	29.90	30.16	29.55	70.8	75.8	84.1	62.9	73.5	97	53	61	61	72	61	.546	.543	1.33	.80	3.2	4.6	3.6
July	29.94	30.20	29.65	75.1	79.1	87.9	69.8	78.8	101	54	67	67	78	68	.679	.679	2.86	1.24	5.2	5.5	4.7
August	29.92	30.12	29.71	73.3	76.8	85.7	68.1	76.9	93	57	67	69	82	78	.676	.730	8.76	4.96	4.3	5.1	5.0
September	29.98	30.31	29.63	66.3	70.5	81.4	60.6	71.0	95	48	60	60	79	72	.530	.565	.89	.69	3.2	2.7	3.5
October	30.02	30.35	29.36	54.5	57.8	67.1	48.4	57.8	83	30	49	50	84	76	.388	.399	3.54	1.04	5.2	3.4	4.4
November	30.01	30.44	29.34	39.8	44.8	52.5	35.6	44.0	69	22	33	35	77	70	.196	.218	3.12	.95	5.1	5.2	5.1
December	29.99	30.50	29.17	31.0	36.8	44.0	27.1	35.6	68	12	24	26	74	64	.137	.147	3.56	1.04	4.8	4.4	4.9
Year	29.96	30.52	29.17	52.1	57.0	65.2	47.1	56.1	101	2	45	46	77	68	.364	.377	37.72	4.96	4.8	4.7	4.8

WICHITA, KANS.

[λ=37° 41′ N.; φ=97° 20′ W.; gravity corr., —0.02.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a.m.	8 p.m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	8 a.m.	8 p.m.	Total.	Maximum in 24 hours.	8 a.m.	8 p.m.	Daylight.
January	28.60	29.20	28.16	28.8	37.4	42.5	26.1	34.3	63	11	24	27	81	66	.130	.145	1.97	.62	5.1	4.5	5.7
February	28.67	29.15	28.15	30.4	44.0	50.4	27.6	39.0	72	12	24	26	76	51	.135	.144	3.04	3.04	2.6	2.2	2.7
March	28.58	29.01	28.13	37.2	48.9	54.7	34.2	44.4	73	15	30	30	74	50	.177	.185	.95	.58	5.5	3.9	5.6
April	28.62	29.07	28.04	46.7	59.6	66.1	43.2	54.6	86	26	37	40	70	52	.233	.269	5.16	1.97	4.1	4.6	4.6
May	28.48	28.84	28.15	59.1	68.3	74.6	55.5	65.0	88	40	53	55	80	64	.415	.443	8.32	2.88	5.4	5.0	5.5
June	28.53	28.71	28.27	69.5	79.6	85.6	65.7	75.6	94	59	64	66	84	64	.607	.640	5.24	1.56	4.7	3.4	3.9
July	28.58	28.79	28.30	71.1	83.0	87.8	67.0	77.4	100	57	65	64	81	56	.618	.609	5.30	2.10	3.3	3.5	3.5
August	28.56	28.72	28.38	69.3	82.0	88.4	66.2	77.3	96	57	64	64	84	56	.602	.601	2.78	1.91	2.4	1.8	2.2
September	28.54	28.92	28.31	62.0	75.3	84.6	59.4	72.0	98	44	57	57	83	56	.474	.479	1.55	.57	2.2	2.6	3.0
October	28.61	29.05	28.23	48.0	59.0	67.2	45.5	56.4	95	26	40	42	76	56	.289	.293	2.02	.91	3.5	3.4	3.6
November	28.61	28.95	28.03	33.5	44.5	50.4	31.5	41.0	75	9	24	26	70	51	.132	.143	1.13	1.00	4.7	2.8	4.3
December	28.73	29.48	28.07	23.9	32.2	39.0	22.1	30.6	62	2	20	23	82	69	.112	.127	2.00	1.38	3.2	2.5	3.3
Year	28.59	29.48	28.03	48.3	59.5	65.9	45.3	55.6	100	2	42	43	78	58	.327	.340	39.46	3.04	3.9	3.4	4.0

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

VINEYARD HAVEN, MASS.

[H = — ft.; h_t = 20 ft.; h_r = 3 ft.; h_a = 55 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		Mi.																								
January	9.9	NW.	....	.....	0	5	2	1	4	2	3	5	9	0	11	11	9	12	8	2	0	5	4	0	20	0	0
February	9.0	W.	....	.....	0	1	2	3	3	4	4	6	5	0	10	6	12	11	10	4	0	5	2	0	16	1	0
March	8.4	SW.	....	.....	0	1	4	2	4	5	8	2	5	0	14	3	14	10	9	2	1	2	0	0	5	1	1
April	12.2	NE.	....	.....	1	5	7	1	2	3	5	5	2	0	8	6	16	17	14	1	0	0	0	0	4	1	0
May	9.0	SW.	....	.....	0	2	5	5	3	7	8	1	0	0	7	10	14	17	14	0	0	6	0	0	0	0	0
June	9.5	SW.	....	.....	0	0	7	4	2	1	15	1	0	0	14	9	7	10	7	0	0	8	0	0	0	0	0
July	7.4	SW.	....	.....	0	1	3	1	5	7	10	3	1	0	12	7	12	9	7	0	0	8	0	1	0	2	0
August	7.4	SW.	....	.....	0	1	4	1	1	4	14	4	2	0	7	14	10	10	9	0	0	4	0	0	0	3	0
September	7.9	SW.	....	.....	0	0	4	2	4	2	15	1	2	0	13	8	9	6	6	0	0	6	0	0	0	1	0
October	9.7	S.	....	.....	0	3	5	3	3	6	4	3	4	0	7	10	14	12	12	0	0	5	0	0	0	1	0
November	10.8	SW.	....	.....	2	1	5	2	2	0	8	5	7	0	11	5	14	15	14	4	0	2	0	0	5	0	0
December	10.7	NW.	....	.....	1	1	4	0	2	1	8	7	8	0	9	8	14	8	5	1	0	4	1	0	15	0	0
Year	9.3	SW.	....	.....	4	21	52	25	35	42	102	43	45	0	123	97	145	137	115	14	1	55	7	1	65	10	1

WALLA WALLA, WASH.

[H = 1,018 ft.; h_t = 65 ft.; h_r = 56 ft.; h_a = 73 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	4.9	S.	24	S.	0	2	3	3	2	29	18	5	0	0	3	15	13	13	10	5	0	6	8	0	24	0	0
February	8.4	S.	32	S.	0	2	3	2	2	28	14	3	2	0	2	22	4	13	9	1	0	1	1	0	3	0	0
March	7.3	S.	34	SW.	0	5	6	7	0	24	16	4	0	0	6	18	7	13	9	6	0	0	0	0	12	0	0
April	6.2	S.	31	W.	0	5	1	5	6	25	5	8	5	0	10	19	1	8	7	0	0	0	0	0	0	0	0
May	6.5	S.	27	E.	0	8	3	4	8	25	4	10	0	0	16	13	2	10	8	0	0	0	0	0	0	1	0
June	5.6	S.	28	W.	0	9	3	8	2	19	8	7	4	0	17	12	1	5	4	0	0	0	0	4	0	1	0
July	5.6	S.	22	SW.	0	3	1	8	3	22	12	8	5	0	25	6	0	4	1	0	0	0	0	16	0	1	0
August	5.3	S.	16	S.	0	6	0	0	4	28	9	10	5	0	24	6	1	3	2	0	0	0	0	20	0	0	0
September	5.2	S.	25	SW.	0	10	1	0	7	25	10	3	4	0	19	11	0	6	3	0	0	0	0	2	0	0	0
October	4.9	SW.	25	SW.	0	7	2	8	5	17	20	3	0	0	17	13	1	9	6	0	0	0	0	0	0	0	0
November	5.9	S.	26	S.	0	4	2	6	5	27	11	5	0	0	1	13	16	15	12	5	0	3	2	0	8	0	0
December	4.8	S.	30	SW.	0	2	2	6	3	26	17	4	2	0	3	14	14	10	6	4	0	5	12	0	24	0	0
Year	5.9	S.	34	SW.	0	63	27	57	47	295	144	70	27	0	143	162	60	109	77	21	0	15	23	42	71	3	0

WASHINGTON, D. C.

[H = 112 ft.; h_t = 59 ft.; h_r = 42 ft.; h_a = 76 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.6	NW.	38	NW.	0	11	8	4	4	8	3	9	15	0	14	5	12	15	9	2	0	2	3	0	16	1	0
February	7.5	NW.	46	NW.	1	11	5	5	2	9	1	4	19	0	12	8	8	5	5	0	0	0	3	0	21	0	0
March	7.1	S.	25	NW.	0	13	9	10	9	11	1	2	7	0	10	6	15	15	10	2	0	1	0	0	6	1	0
April	8.9	NW.	34	NW.	0	13	10	2	1	6	5	8	15	0	11	8	11	14	11	2	0	0	0	0	5	1	0
May	6.2	S.	25	N.	0	16	9	8	6	12	4	3	3	1	8	16	7	14	11	0	0	0	0	1	0	5	0
June	5.6	S.	30	NW.	0	8	4	9	8	9	8	7	7	0	15	13	2	5	5	0	0	1	0	7	0	6	0
July	5.3	S.	32	NW.	0	11	10	4	6	17	6	4	4	0	11	14	6	10	7	0	0	0	0	15	0	9	0
August	4.8	S.	30	S.	0	7	6	2	2	20	15	4	6	0	10	16	5	8	8	0	0	0	0	10	0	5	0
September	5.0	S.	30	NW.	0	8	6	7	3	12	8	6	7	3	18	9	3	5	4	0	0	1	0	5	0	2	0
October	6.6	NW.	28	E.	0	8	5	11	7	7	4	9	9	2	15	6	10	12	11	0	0	0	0	0	1	0	0
November	7.2	NW.	32	NW.	0	6	3	2	5	12	2	9	20	1	11	10	9	15	11	4	0	0	0	0	9	0	0
December	6.3	S.	36	E.	0	6	7	0	1	12	8	11	17	0	15	4	12	10	9	1	0	2	2	0	23	1	0
Year	6.5	S.	46	NW.	1	118	82	64	54	135	65	76	129	7	150	115	100	128	101	11	0	7	8	38	81	31	0

WICHITA, KANS.

[H = 1,351 ft.; h_t = 78 ft.; h_r = 71 ft.; h_a = 85 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.7	NW.	28	NW.	0	11	7	4	7	7	6	0	20	0	10	8	13	8	8	6	0	1	4	0	26	0	0
February	9.4	S.	30	N.	0	11	8	3	1	16	1	3	12	1	22	2	4	2	2	0	1	0	2	0	20	1	0
March	10.9	S.	36	N.	0	14	5	3	10	18	4	2	6	0	11	8	12	6	6	0	0	0	2	0	9	4	0
April	10.3	N.	34	N.	0	18	6	1	12	14	0	1	6	2	13	10	7	9	8	0	1	0	0	0	3	6	0
May	9.1	S.	36	S.	0	8	9	4	10	16	4	3	8	0	11	8	12	14	13	0	2	0	0	0	0	12	0
June	7.1	S.	36	N.	0	7	7	3	17	17	6	1	1	1	14	11	5	13	9	0	0	0	0	8	0	10	0
July	7.2	S.	40	SW.	1	4	10	5	16	19	4	1	2	1	18	10	3	6	6	0	1	0	0	13	0	9	0
August	6.7	S.	24	N.	0	4	14	2	11	28	0	0	1	2	24	4	3	4	4	0	0	0	0	13	0	4	0
September	7.4	S.	36	W.	0	9	5	2	8	26	5	0	3	2	20	7	3	6	6	0	0	2	0	12	0	5	0
October	10.1	S.	37	NW.	0	16	8	0	7	17	3	0	11	0	18	8	5	5	5	1	0	0	0	3	4	3	0
November	10.4	SE.	36	S.	0	10	3	4	17	11	2	3	10	0	16	6	8	4	3	3	0	0	3	0	17	1	0
December	9.2	N.	38	N.	0	14	5	0	2	11	11	4	12	3	18	7	6	7	4	3	0	1	9	0	25	0	0
Year	8.8	S.	40	SW.	1	126	87	31	118	200	46	18	92	12	195	89	81	84	74	13	5	4	20	49	104	55	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

WILLEMSTAD, CURAÇAO, WEST INDIES.

[λ=12° 6′ N.; φ=68° 56′ W.; gravity corr., —0.07.]

[Observations at Willemstad taken at 6 a. m. and 6 p. m.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August *a*	29.86	29.95	29.76	79.3	81.6	87.1	78.2	82.6	90	76	73	74	82	77	.806	.829	.48	.25	5.7	6.9	5.8
September	29.83	29.90	29.75	79.1	81.4	87.4	77.3	82.4	89	70	74	74	83	78	.823	.833	2.55	1.32	5.7	5.5	5.4
October	29.82	29.92	29.74	79.7	81.6	87.1	78.3	82.7	90	74	73	74	80	77	.807	.826	.85	.42	6.4	4.7	5.3
November	29.81	29.89	29.73	77.9	79.4	84.8	75.2	80.0	88	71	72	73	82	80	.774	.804	4.07	2.04	5.8	4.4	5.2
December	29.90	30.00	29.84	75.8	77.4	83.4	73.8	78.6	85	70	71	71	84	82	.752	.756	1.88	.37	4.6	3.0	4.2
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a For 20 days.

WILLISTON, N. DAK.

[λ=48° 9′ N.; φ=103° 35′ W.; gravity corr., 0.00.]

January	27.94	28.48	27.54	12.0	22.3	29.8	8.1	19.0	42	— 4	8	18	83	82	.063	.100	.01	.01	2.4	3.6	3.8
February	28.02	28.67	27.49	7.8	17.1	27.2	0.7	14.0	55	—24	4	12	81	81	.059	.085	.74	.58	3.4	4.2	4.8
March	27.98	28.44	27.00	10.0	21.4	27.1	4.4	15.8	60	—17	6	16	82	81	.066	.099	1.25	.70	5.7	4.4	4.7
April	28.04	28.52	27.53	33.3	49.1	52.4	31.0	41.7	85	9	28	29	82	50	.159	.162	1.08	.39	4.5	3.7	4.4
May	28.00	28.40	27.52	44.7	62.3	66.0	41.4	53.7	84	24	37	35	76	39	.229	.216	1.21	.74	3.8	4.5	4.2
June	27.94	28.35	27.50	55.6	68.4	71.9	51.6	61.7	96	36	49	50	80	55	.361	.370	4.56	1.26	5.7	4.6	5.2
July	27.97	28.26	27.56	58.4	76.1	80.1	54.2	67.2	96	37	53	51	82	44	.409	.397	1.93	.65	3.8	3.8	3.2
August	27.97	28.20	27.71	56.1	77.3	81.9	53.1	67.5	97	45	48	49	77	40	.346	.360	.23	.22	3.5	2.8	3.2
September	27.94	28.61	27.35	44.7	63.8	70.5	42.4	56.4	95	26	40	39	82	44	.252	.256	.99	.88	3.3	3.0	3.7
October	28.05	28.52	27.54	31.6	39.9	46.4	29.0	37.7	69	15	29	34	88	80	.159	.197	2.08	.58	6.0	6.3	6.4
November	27.93	28.41	27.41	16.9	22.2	31.2	11.0	21.1	53	—26	12	17	81	80	.092	.108	.30	.22	4.7	3.3	4.2
December	28.05	28.81	27.32	11.4	15.3	24.0	4.3	14.2	44	—22	7	11	78	82	.069	.083	.06	.04	3.9	3.1	4.0
Year	27.99	28.81	27.00	31.9	44.6	50.7	27.6	39.2	97	—26	27	30	81	63	.189	.203	14.44	1.26	4.2	3.9	4.3

WILMINGTON, N. C.

[λ=34° 14′ N.; φ=77° 57′ W.; gravity corr.,—0.03.]

January	30.04	30.30	29.70	44.8	50.2	59.5	41.3	50.4	76	18	40	43	85	77	.276	.306	1.40	.87	4.0	5.1	3.6
February	30.08	30.53	29.50	38.4	46.9	54.7	36.6	45.6	70	18	32	38	78	71	.202	.252	3.27	2.15	2.5	3.9	3.4
March	30.12	30.41	29.75	53.6	58.1	67.4	51.3	59.4	84	33	50	52	87	81	.376	.399	1.52	.78	5.6	4.8	5.3
April	29.95	30.26	29.41	53.8	59.4	68.0	49.0	58.5	81	35	47	47	78	66	.339	.340	2.40	1.23	3.7	3.5	3.4
May	29.90	30.13	29.49	68.0	69.4	80.2	62.9	71.6	96	44	62	62	82	80	.576	.583	2.51	1.03	4.0	3.6	3.2
June	29.98	30.15	29.71	73.4	75.5	85.6	68.4	77.0	94	58	68	68	82	78	.683	.695	4.59	1.82	3.9	4.1	4.3
July	30.00	30.23	29.72	76.9	78.0	85.9	72.2	79.0	95	62	72	73	86	85	.796	.816	7.03	1.48	5.7	6.5	6.4
August	30.02	30.13	29.88	77.2	77.9	85.2	72.8	79.0	90	66	73	74	88	88	.814	.833	5.93	1.35	5.8	5.0	6.9
September	30.01	30.16	29.80	71.8	74.7	83.4	68.0	75.7	91	56	68	69	87	84	.688	.729	1.28	.61	3.9	2.9	4.9
October	30.02	30.37	29.62	62.0	64.9	72.1	56.9	64.5	84	40	56	58	82	80	.500	.523	7.56	2.87	5.0	4.0	5.7
November	30.09	30.39	29.37	48.9	54.3	62.4	45.2	53.8	76	27	43	46	80	75	.301	.336	2.67	1.23	4.7	4.3	4.7
December	30.09	30.58	29.45	42.9	48.6	56.2	40.5	48.4	73	24	37	40	79	72	.246	.272	2.40	1.29	5.0	4.3	6.3
Year	30.02	30.58	29.37	59.3	63.2	71.7	55.4	63.6	96	18	54	56	83	78	.483	.507	42.56	2.87	4.5	4.4	4.8

WINNEMUCCA, NEV.

[λ=40° 58′ N.; φ=117° 43′ W.; gravity corr., —0.02.]

January	25.72	26.10	25.34	13.2	27.7	31.0	4.9	18.0	47	—16	8	21	79	75	.071	.115	.64	.20	3.6	6.8	5.1
February	25.72	26.06	25.31	31.0	44.9	48.3	26.6	37.4	62	14	27	32	83	62	.144	.185	.43	.14	4.2	7.4	5.8
March	25.63	25.94	25.24	24.6	43.8	47.6	21.1	34.4	63	4	19	28	77	55	.103	.158	.75	.28	2.4	5.8	4.7
April	25.66	26.02	25.21	39.1	63.4	66.3	36.0	51.2	83	21	29	37	68	40	.161	.226	.32	.31	4.0	5.6	4.8
May	25.54	25.77	25.24	41.2	61.6	65.1	39.4	52.2	79	30	36	42	82	53	.216	.276	1.59	.49	6.6	6.8	6.4
June	25.55	25.94	25.36	52.4	76.4	78.8	49.6	64.2	90	32	41	44	67	34	.262	.295	.12	.12	3.9	4.5	4.2
July	25.66	25.86	25.48	57.4	87.5	89.6	54.8	72.2	98	40	41	47	57	27	.265	.340	.02	.02	1.6	1.8	1.8
August	25.62	25.81	25.33	59.7	87.2	89.6	55.8	72.7	100	41	35	36	40	18	.210	.222	.09	.09	1.5	3.1	2.5
September	25.64	25.83	25.41	47.4	75.2	78.5	43.5	61.0	93	26	24	25	44	23	.137	.150	.25	.24	2.0	3.6	3.2
October	25.75	26.03	25.46	33.7	57.2	61.0	29.9	45.4	74	17	25	34	69	46	.136	.208	.56	.37	4.5	4.5	4.7
November	25.72	26.00	25.30	26.5	41.4	47.9	22.5	35.2	68	9	18	27	67	59	.107	.153	1.26	.44	4.0	5.5	5.0
December	25.85	26.26	25.42	19.8	31.6	38.5	16.1	27.3	52	0	12	21	71	64	.079	.115	1.05	.50	4.0	4.7	4.5
Year	25.67	26.26	25.21	37.2	58.2	61.8	33.4	47.6	100	—16	26	33	67	46	.158	.203	7.08	.50	3.5	5.0	4.4

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

WILLEMSTAD, CURAÇAO, WEST INDIES.

[H = 75 ft.; h_t = 39 ft.; h_r = 32 ft.; h_a = 46 ft.]

[Observations at Willemstad taken at 6 a. m. and 6 p. m.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August	10.4	E.	20	E.	0	0	7	34	5	0	0	0	0	0	1	18	4	6	3	0	0	0	0	0	0	4	0
September	9.0	E.	28	S.	0	1	12	40	3	1	3	0	0	0	9	12	9	8	7	0	0	0	0	0	0	6	0
October	9.9	E.	26	S.	0	0	6	44	10	0	1	0	1	0	7	19	5	5	3	0	0	0	0	0	0	4	0
November	9.8	E.	23	E.	0	0	15	44	1	0	0	0	0	0	2	27	1	18	11	0	0	0	0	0	0	4	0
December	9.6	E.	23	E.	0	0	6	53	3	0	0	0	0	0	10	21	0	19	12	0	0	0	0	0	0	0	0
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

WILLISTON, N. DAK.

[H = 1,872 ft.; h_t = 15 ft.; h_r = 4 ft.; h_a = 31 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	6.6	SW.	48	NW.	2	9	0	0	1	10	22	9	11	0	20	10	1	1	0	1	0	0	18	0	31	0	0
February	8.7	NW.	38	NW.	0	11	0	1	8	9	3	10	14	0	11	12	5	5	5	5	0	0	17	0	28	0	0
March	8.6	N.	32	N.	0	23	6	1	4	3	8	6	11	0	14	11	6	6	5	6	0	0	20	0	31	0	0
April	10.8	N.	60	N.	2	18	5	4	10	11	1	4	7	0	14	10	6	8	5	0	0	0	2	0	11	0	0
May	7.5	NE.	38	W.	0	12	15	7	8	6	4	5	3	2	13	17	1	8	4	0	1	0	0	0	2	1	0
June	9.6	N.	50	W.	2	16	5	8	7	5	3	7	9	0	10	14	6	16	14	0	1	0	0	2	0	3	0
July	7.4	N.	42	SW.	1	13	4	2	10	11	5	7	9	1	23	7	1	11	6	0	1	0	0	7	0	0	0
August	7.8	N.	42	W.	1	18	8	3	13	10	1	4	5	0	19	11	1	2	1	0	0	0	0	5	0	0	0
September	9.2	SW.	50	NW.	4	10	3	2	8	6	12	8	11	0	21	5	4	4	3	0	0	0	0	1	1	1	0
October	9.7	NW.	46	NW.	4	7	10	1	3	5	9	8	18	1	8	9	14	10	8	4	0	1	1	0	24	0	0
November	8.6	NW.	48	NW.	3	9	6	0	8	8	9	5	15	0	14	13	3	5	2	3	0	0	10	0	29	0	0
December	8.9	SW.	36	NW.	0	9	7	0	3	1	20	9	13	0	15	15	1	2	1	2	0	0	22	0	31	0	0
Year	8.6	N.	60	N.	19	155	69	29	83	85	97	82	126	4	182	134	49	78	54	21	3	1	90	15	188	5	0

WILMINGTON, N. C.

[H = 78 ft.; h_t = 82 ft.; h_r = 76 ft.; h_a = 90 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	9.6	W.	36	SW.	0	4	5	7	3	5	15	16	7	0	17	7	7	6	5	0	0	3	0	0	4	0	0
February	7.8	W.	51	W.	1	11	6	8	3	8	5	10	4	1	16	9	3	6	5	0	0	3	0	0	8	0	0
March	9.3	NE.	37	NE.	0	7	17	11	1	7	13	1	5	0	7	14	10	8	6	0	0	2	0	0	0	1	0
April	9.8	SW.	48	NE.	1	10	2	1	1	11	15	11	9	0	15	11	4	6	6	0	0	0	0	0	0	2	0
May	9.2	SW.	38	W.	0	5	3	6	6	11	19	10	2	0	15	16	0	7	5	0	0	1	0	2	0	8	0
June	8.1	SW.	28	NE.	0	3	9	2	2	4	30	7	3	0	11	15	4	10	8	0	1	0	0	8	0	12	0
July	7.1	SW.	24	NE.	0	3	11	5	6	4	19	8	5	1	6	14	11	19	17	0	0	1	0	6	0	16	0
August	7.0	SW.	29	SW.	0	0	11	3	5	8	26	6	0	3	4	12	15	20	15	0	0	1	0	0	0	11	0
September	8.3	NE.	26	NE.	0	14	17	5	3	5	13	2	1	0	9	16	5	7	5	0	0	2	0	1	0	5	0
October	8.8	NE.	29	W.	0	9	15	9	6	4	1	8	10	0	8	11	12	15	12	0	0	0	0	0	0	2	0
November	8.5	NE.	33	NW.	0	13	15	9	2	5	3	7	6	0	14	7	9	10	6	0	0	1	0	0	3	0	0
December	7.7	W.	36	SW.	0	15	6	2	1	7	13	14	4	0	7	11	13	10	5	0	0	5	0	0	4	1	0
Year	8.4	SW.	51	W.	2	94	117	68	39	79	172	100	56	5	129	143	93	124	95	0	1	19	0	17	19	58	0

WINNEMUCCA, NEV.

[H = 4,340 ft.; h_t = 59 ft.; h_r = 52 ft.; h_a = 70 ft.

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	.....	N	....	.....	....	16	2	15	0	11	2	7	2	7	8	15	8	7	7	7	0	1	17	0	31	0	0
February	.....	E.	....	.....	....	8	2	13	1	6	10	8	1	7	3	17	8	7	6	0	5	0	0	0	23	0	0
March	.....	SW.	40	S.	1	8	9	7	1	11	14	6	4	2	10	15	6	8	5	8	2	0	2	0	29	0	0
April	11.0	SW.	48	SW.	2	12	12	3	0	12	12	6	3	0	12	9	9	3	1	0	1	0	0	0	8	1	0
May	9.6	SW.	36	SW.	0	4	13	1	1	13	16	8	6	0	6	11	14	10	10	0	0	0	0	0	4	0	0
June	10.2	SW.	42	SW.	2	8	5	2	1	15	17	8	4	0	13	11	6	2	2	2	0	0	0	0	1	1	0
July	9.4	SW.	42	SW.	2	3	9	4	4	4	17	11	10	0	25	4	2	1	0	0	0	0	0	15	0	0	0
August	8.4	W.	45	SW.	2	6	6	9	3	5	9	16	7	1	20	11	0	1	1	0	0	0	0	15	0	3	0
September	8.8	NW.	36	N.	0	9	10	5	0	5	10	10	11	0	19	6	5	3	1	0	0	0	0	1	1	0	0
October	8.3	N.	31	SW.	0	15	8	2	0	9	13	7	7	1	12	9	10	4	2	0	0	0	0	0	18	0	0
November	9.7	SW.	46	S.	1	12	9	1	0	9	24	3	2	0	14	4	12	11	9	5	0	0	1	0	22	0	0
December	9.6	N.	52	N.	2	19	14	6	2	12	6	2	1	0	12	11	8	5	3	3	0	0	6	0	30	0	0
Year	.....	SW.	....	.....	....	120	99	68	13	112	150	92	58	18	154	123	88	62	47	25	8	1	26	31	167	5	0

a By eye observations when there is no self-register at station.

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

WOODS HOLE, MASS.

[Lat. 41° 33′ N.; long. 70° 40′ W.; gravity corr., —0.01.]

Month.	Pressure.			Temperature.							Moisture.										
		Extremes.		Mean.					Extremes.		Dew-point.		Relative humidity.		Vapor pressure.		Precipitation.		Cloudiness.		
	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
	In.	In.	In.	°	°	°	°	°	°	°	°	°	%	%	In.	In.	In.	In.			
January	29.95	30.46	29.25	.....	32.0	35.7	25.1	30.4	52	5	....	24	....	72	.....	.143	3.94	1.05	.....	3.7	4.0
February	30.04	30.62	29.05	.....	33.0	37.9	27.1	32.5	49	9	....	27	....	78	.....	.156	4.14	2.14	.....	3.2	4.7
March	30.19	30.73	29.81	.....	40.3	45.1	34.7	39.9	55	28	....	34	....	78	.....	.195	3.12	.71	.....	4.2	5.2
April	29.90	30.23	29.46	.....	43.1	47.0	37.5	42.2	60	26	....	34	....	73	.....	.204	5.83	1.51	.....	5.5	6.3
May	29.94	30.32	29.59	.....	51.6	57.3	47.8	52.6	71	36	....	45	....	80	.....	.311	4.66	1.50	.....	5.7	5.6
June	29.94	30.20	29.53	.....	59.5	65.8	56.1	61.0	80	47	....	54	....	84	.....	.428	1.10	.61	.....	4.4	4.3
July	30.01	30.42	29.69	.....	67.6	73.2	63.3	58.2	85	56	....	62	....	85	.....	.574	5.18	3.41	.....	4.3	4.4
August	29.97	30.24	29.71	.....	69.9	74.2	66.5	70.4	82	58	....	66	....	87	.....	.639	5.10	2.80	.....	4.5	4.4
September	30.02	30.35	29.68	.....	65.3	70.2	60.5	65.4	82	46	....	58	....	79	.....	.506	.76	.44	.....	2.7	3.4
October	30.09	30.40	29.47	.....	55.7	59.2	50.9	55.0	72	39	....	49	....	80	.....	.373	7.94	2.11	.....	4.0	5.4
November	29.97	30.45	29.02	.....	45.3	48.2	39.7	44.0	62	25	....	38	....	77	.....	.242	6.94	1.42	.....	4.2	5.0
December	29.99	30.50	29.44	.....	35.1	38.8	28.9	33.8	53	6	....	27	....	71	.....	.151	2.97	1.47	.....	2.9	4.9
Year	30.00	30.73	29.02	.....	49.9	54.4	44.8	49.6	85	5	....	43	....	79	.....	.327	51.68	3.41	.....	4.1	4.8

YANKTON, S. DAK.

[λ = 42° 54′ N.; φ = 97° 28′ W.; gravity corr., —0.01.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	28.71	29.27	28.24	20.0	.....	35.7	16.9	26.3	48	—1	16	....	82	....	.089	.....	.34	.26	4.3	.....	3.3
February	28.78	29.31	28.26	19.3	.....	36.4	16.5	26.4	50	—5	13	....	78	....	.083	.....	.74	.68	5.2	.....	4.0
March	28.72	29.19	28.19	27.4	.....	46.4	24.5	35.4	68	2	19	....	70	....	.112	.....	1.00	.49	5.7	.....	4.5
April	28.78	29.18	28.28	39.7	.....	61.9	37.0	49.4	86	18	30	....	67	....	.171	.....	1.13	.71	5.1	.....	4.2
May	28.65	28.99	28.15	52.1	.....	67.6	48.7	58.2	86	36	46	....	79	....	.319	.....	5.20	1.12	7.1	.....	7.0
June	28.66	28.92	28.37	65.0	.....	80.3	60.3	70.3	94	49	56	....	74	....	.459	.....	4.08	1.65	5.2	.....	4.7
July	28.71	28.93	28.26	67.1	.....	84.9	62.9	73.9	96	52	59	....	76	....	.508	.....	4.35	1.26	4.2	.....	3.7
August	28.68	28.86	28.42	64.0	.....	84.8	61.6	73.2	100	52	59	....	84	....	.501	.....	1.71	1.09	3.4	.....	3.5
September	28.69	29.28	28.25	55.2	.....	78.3	52.7	65.5	96	35	47	....	76	....	.340	.....	1.25	1.10	3.9	.....	4.3
October	28.73	29.20	28.26	40.1	.....	56.4	36.6	46.5	79	23	33	....	76	....	.199	.....	1.27	.84	6.7	.....	5.8
November	28.69	29.18	28.05	24.8	.....	42.6	20.9	31.8	68	—6	20	....	79	....	.114	.....	.25	.22	5.1	.....	5.5
December	28.80	29.59	28.26	17.0	.....	33.4	12.7	23.0	62	—13	12	....	77	....	.080	.....	.10	.08	4.1	.....	5.1
Year	28.72	29.59	28.05	41.0	.....	59.1	37.6	48.3	100	—13	34	....	76	....	.248	.....	21.42	1.65	5.0	.....	4.6

YUMA, ARIZ.

[λ = 32° 45′ N.; φ = 114° 36′ W.; gravity corr., —0.03.]

Month.	Monthly mean.	Maximum.	Minimum.	8 a. m.	8 p. m.	Maximum.	Minimum.	Monthly.	Maximum.	Minimum.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Total.	Maximum in 24 hours.	8 a. m.	8 p. m.	Daylight.
January	29.92	30.20	29.59	42.8	58.2	60.7	39.0	49.8	76	26	29	29	60	36	.163	.168	.42	.16	2.5	3.6	2.8
February	29.86	30.08	29.51	52.3	74.7	76.4	47.7	62.0	84	40	34	33	52	22	.200	.189	.00	.00	1.4	2.4	1.7
March	29.79	30.12	29.48	49.9	71.1	73.6	45.8	59.7	86	34	32	27	52	21	.187	.151	.39	.39	2.1	2.5	2.1
April	29.70	29.91	29.32	60.4	86.6	89.7	57.3	73.5	107	44	42	35	52	17	.272	.207	.01	.01	2.2	3.3	2.5
May	29.64	29.82	29.47	60.4	88.0	89.6	58.5	74.0	103	51	42	36	53	17	.272	.218	.00	.00	1.4	1.9	1.6
June	29.58	29.74	29.39	70.9	98.4	100.7	68.7	84.7	112	58	51	43	52	16	.395	.295	T.	T.	1.2	1.1	1.0
July	29.61	29.76	29.41	80.2	102.0	105.2	78.6	91.9	113	73	65	60	61	26	.622	.520	.00	.00	2.6	1.7	2.0
August	29.60	29.76	29.42	82.0	99.6	103.1	79.6	91.4	113	74	69	64	67	34	.723	.607	.19	.11	2.3	3.0	2.6
September	29.59	29.70	29.44	73.3	99.1	102.5	70.9	86.7	110	63	59	52	65	22	.531	.412	.00	.00	0.5	0.2	0.3
October	29.74	29.98	29.53	60.1	84.7	88.4	56.0	72.2	97	48	35	34	44	17	.221	.207	.00	.00	1.0	1.4	1.1
November	29.80	30.06	29.54	50.6	69.8	74.9	45.9	60.4	91	34	30	28	49	24	.175	.167	.21	.21	0.5	1.6	0.9
December	29.98	30.45	29.72	46.0	58.3	62.5	41.6	52.0	74	32	28	27	54	34	.163	.157	1.16	.63	3.4	4.4	3.6
Year	29.73	30.45	29.32	60.7	82.5	85.6	57.5	71.5	113	26	43	39	55	24	.327	.275	2.38	.63	1.7	2.3	1.8

ANNUAL METEOROLOGICAL SUMMARY FOR THE YEAR ENDING DECEMBER 31, 1898—Continued.

WOODS HOLE, MASS.

[H = 22 ft.; h_t = 51 ft.; h_r = 39 ft.; h_a = 57 ft.]

Month.	Wind. By self-registers. Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	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.	Hail.	Fog.	Maximum temp. Below 32°.	Above 90°.	Minimum temperature below 32°.	Electricity. Thunderstorms.	Auroras.
	Miles.		*Mi.*																								
January	17.1	W.	52	SW.	8	4	2	0	5	0	6	9	5	0	15	9	7	9	8	3	0	1	9	0	23	1	0
February	13.7	SE.	70	NW.	4	1	2	0	8	4	4	6	3	0	13	6	9	10	9	3	1	2	5	0	20	0	0
March	12.1	SE.	48	NW.	5	2	2	4	7	6	4	2	4	0	13	4	14	9	9	2	0	2	0	0	10	0	3
April	15.9	N.	48	S.	1	6	5	2	3	3	4	5	2	0	9	5	16	17	15	1	0	1	0	0	6	1	0
May	11.1	S.	38	SW.	0	1	6	4	5	8	4	2	1	0	12	7	12	13	13	0	0	2	0	0	0	0	0
June	13.6	SW.	40	S.	1	4	4	3	1	8	10	0	0	0	16	9	5	7	6	0	0	1	0	0	0	0	0
July	10.4	S.	40	NW.	1	0	3	2	8	10	6	0	2	0	13	10	8	7	7	0	0	5	0	0	0	4	0
August	12.5	SW.	40	N.	1	1	2	1	2	6	16	2	1	0	14	10	7	9	8	0	0	2	0	0	0	2	0
September	13.8	SW.	42	NW.	1	3	2	0	4	7	10	0	4	0	21	2	7	6	6	0	0	5	0	0	0	1	1
October	15.9	SW.	51	SE.	5	0	3	2	7	3	8	2	6	0	13	4	14	13	13	0	0	3	0	0	0	0	0
November	17.9	W.	78	N.	7	1	5	1	2	3	6	6	6	0	15	2	13	14	14	3	0	0	0	0	6	0	0
December	12.4	SW.	48	SW.	1	2	2	3	1	2	13	4	3	1	15	3	13	6	5	3	0	4	5	0	17	0	0
Year	13.9	SW.	78	N.	35	25	38	22	53	60	91	38	37	1	109	71	125	120	113	15	1	28	19	0	82	9	4

YANKTON, S. DAK.

[H = 1,234 ft.; h_t = 52 ft.; h_r = 45 ft.; h_a = 58 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.2	NW.	28	NW.	0	2	2	4	1	2	9	7	4	0	20	6	5	4	2	4	0	1	9	0	31	0	0
February	9.7	NW.	36	NW.	0	1	4	3	2	1	1	8	8	0	17	5	6	4	2	4	0	1	6	0	27	0	0
March	11.6	NW.	50	S.	3	2	1	2	2	3	8	3	10	0	13	11	7	7	5	4	1	0	3	0	22	1	1
April	11.7	N.	45	S.	2	4	3	4	1	3	3	6	6	0	15	8	7	8	6	0	0	0	0	0	7	1	0
May	8.5	E.	38	S.	0	3	3	7	1	2	3	3	8	1	5	9	17	15	11	0	1	0	0	0	0	7	0
June	9.0	S.	44	S.	1	2	5	2	5	2	3	7	4	0	14	7	9	12	9	0	1	1	0	4	0	7	0
July	8.1	S.	36	S.	0	4	1	4	3	10	2	4	3	0	15	12	4	7	6	0	0	0	0	6	0	6	0
August	7.1	E.	30	SW.	0	3	7	6	2	3	3	2	5	0	18	12	1	7	7	0	0	3	0	8	0	4	0
September	8.2	E.	43	S.	2	3	3	4	3	7	1	4	5	0	16	8	6	3	3	0	0	1	0	3	0	3	0
October	11.6	NW.	55	S.	2	5	2	2	1	4	1	9	7	0	8	14	9	7	3	4	0	0	0	0	7	1	0
November	10.3	NW.	46	NW.	1	2	1	1	1	3	4	10	8	0	8	15	7	2	1	2	0	0	7	0	26	0	0
December	8.4	W.	35	NW.	0	6	0	1	0	3	3	12	6	0	11	13	7	3	1	3	0	0	11	0	31	0	0
Year	9.3	NW.	55	S.	11	37	32	40	22	43	41	75	74	1	160	120	85	79	56	21	3	7	36	21	151	30	1

YUMA, ARIZ.

[H = 141 ft.; h_t = 16 ft.; h_r = 2 ft.; h_a = 50 ft.]

Month.	Average hourly velocity.	Prevailing direction. a	Maximum velocity.	Direction at time of maximum velocity.	Number of days with gales.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Calm.	Clear.	Partly cloudy.	Cloudy.	0.01 inch and over.	0.04 inch and over.	Snow.	Hail.	Fog.	Below 32°.	Above 90°.	Minimum temperature below 32°.	Thunderstorms.	Auroras.
January	7.7	N.	36	N.	0	21	8	6	2	3	1	8	9	4	22	4	5	5	4	0	0	0	0	0	4	0	0
February	6.7	N.	30	N.	0	13	11	8	3	5	1	8	6	1	22	5	1	0	0	0	0	0	0	0	0	0	0
March	9.0	W.	42	W.	1	6	6	4	4	7	5	15	14	1	22	7	2	2	2	0	0	0	0	0	0	1	0
April	7.5	W.	44	W.	2	3	10	4	5	10	10	11	7	0	19	10	1	1	0	0	0	0	0	13	0	0	0
May	7.3	W.	32	NW.	0	4	4	2	2	10	13	22	5	0	27	2	2	0	0	0	0	0	0	16	0	0	0
June	7.3	S.	34	N.	0	5	4	5	4	13	11	12	3	2	27	1	2	0	0	0	0	0	0	30	0	0	0
July	7.8	W.	38	SE.	0	1	4	1	7	11	16	19	2	1	23	7	1	0	0	0	0	0	0	31	0	0	0
August	6.9	SW.	44	N.	1	1	6	5	14	6	16	9	1	4	25	4	2	2	2	0	0	0	0	31	0	3	0
September	3.8	NE.	20	SE.	0	3	12	7	9	1	9	11	3	5	29	1	0	0	0	0	0	0	0	30	0	0	0
October	4.5	W.	36	N.	0	11	14	8	0	0	2	15	12	0	26	3	2	0	0	0	0	0	0	10	0	0	0
November	6.6	N.	36	W.	0	10	8	9	2	2	2	5	13	0	27	3	0	1	1	0	0	0	0	1	0	0	0
December	6.9	N.	36	N.	0	25	13	5	3	1	1	3	11	0	18	6	7	4	3	0	0	0	0	0	1	0	0
Year	6.8	W.	44	W.	4	112	100	64	55	69	87	138	86	18	287	53	25	15	12	0	0	0	0	162	5	4	0

a By eye observations when there is no self-register at station.

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PART IV.

MONTHLY AND ANNUAL MEAN TEMPERATURE AND ANNUAL EXTREMES OF TEMPERATURE, TOGETHER WITH THE DATES OF THE FIRST AND LAST KILLING FROST, 1898.

The monthly and annual averages given in the following tables are taken largely from the records of voluntary (unpaid) observers. The paid stations of the Weather Bureau are indicated by an asterisk (*). The records of voluntary observers are given as made; no attempt has been made to reduce them to a homogeneous system. About two-thirds of the voluntary observers have standard instruments, but very few have what may be called standard shelters. The hours of observation at the regular stations of the Weather Bureau have already been described; the observing hours at voluntary stations vary greatly. The letters "*a*," "*b*," etc., following the name of a station have the following significance:

a = mean temperature computed by the formula $\frac{1}{4}(7+2+9+9)$.
b = mean temperature computed by the formula $\frac{1}{2}(8+8)$.
c = mean temperature computed by the formula $\frac{1}{2}(7+7)$.
d = mean temperature computed by the formula $\frac{1}{2}(6+6)$.
e = mean temperature computed by the formula $\frac{1}{2}(7+2)$.
f = from various hours reduced to true mean by special table.
g = mean temperature computed by the formula $\frac{1}{4}$ (midnight, sunrise, noon, and sunset).

The absence of a letter indicates that the mean has been made as follows: $\frac{\text{Mean max.} + \text{mean min.}}{2}$

The small roman letters in the body of the tables indicate the number of days missing from the records, thus "*c*" indicates three days missing, etc.

The dates of last killing frost in spring and first in autumn are given at the right of the table. Many observers, however, do not report dates of frost, and still others do not distinguish between light and killing frost. The date of the last and the first occurrence of a minimum temperature of 32° has been used in all cases where no frost reports were made. Data for stations so entered have been distinguished from regular frost reports by a dagger (†).

Bracketed values have been supplied by interpolation.

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MONTHLY AND ANNUAL MEAN TEMPERATURE, ANNUAL EXTREMES OF TEMPERATURE, AND DATES OF LAST KILLING FROST IN SPRING AND FIRST KILLING FROST IN AUTUMN, 1898.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Alabama.																	
Alco	54.4	50.4	63.2	60.2	74.2	79.3	78.4	77.6	75.3	63.6	53.5	49.3	65.0	98	16	Mar. 5	Oct. 27
Ashville	47.7	43.4	58.2	56.7	73.0	80.2	79.0	77.8	71.6	59.6	48.4	41.9	61.5	100	13	Apr. 8	Oct. 23
Bermuda	[e]53.2	50.6	63.4	62.4	75.1	80.2	79.3	79.0	75.1	63.2	54.5	49.8	65.5	102	16	Mar. 5	Oct. 27
Birmingham	51.0	47.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Citronelle	55.6	53.6	61.3	63.0	76.4	80.8	80.0	78.8	76.8	64.6	55.2	49.2	66.3	95	20	Feb. 22†	Nov.21†
Clanton	48.7	46.0	59.2	58.2	72.9	79.9	79.4	77.1	74.1	60.3	50.1	43.2	62.5	98	16	Apr. 6†	Oct. 23†
Daphne	53.2	51.6	.....	.....	73.8	81.6	81.7	81.4	78.8	67.2	.....	.....	.....	98	.....	.....	.....
*Decatur	45.8	41.4	56.2	55.0	73.2	79.8	80.4	78.6	74.1	58.8	47.4	41.6	61.0	103	10	Apr. 6†	Oct. 18
Elba	52.5	.....	61.8	.....	74.1	79.2	79.0	77.8	75.0	61.6	52.0	[c]47.4	.....	97	16	Mar. 5†	Oct. 23†
*Eufaula	52.1	47.8	62.0	60.0	75.7	82.4	81.1	79.2	77.0	64.0	52.9	47.4	65.1	102	17	Mar. 5†	Oct. 27†
*Evergreen	51.1	.....	.....	[c]59.4	72.8	78.7	79.0	79.0	77.6	.....	.....	.....	.....	100	.....	.....	Oct. 27†
*Florence	47.8	43.8	57.3	57.2	72.1	79.5	80.3	79.2	76.0	59.6	48.3	40.6	61.8	99	12	Apr. 8	Oct. 27†
*Fort Deposit	52.6	48.2	62.8	62.0	75.0	81.8	79.5	76.6	77.2	64.4	.....	.....	.....	99	.....	Apr. 6†	Nov.22†
*Gadsden	[f]47.4	43.0	57.5	56.0	72.5	79.8	79.1	77.4	72.0	58.8	47.0	42.0	61.0	100	14	Apr. 7†	Oct. 23†
*Goodwater	49.6	44.0	58.4	58.6	76.8	81.0	80.8	78.8	76.5	61.2	49.6	44.6	63.3	101	14	Apr. 6†	Oct. 18
Greensboro	49.5	47.3	60.1	59.0	75.0	80.8	79.6	79.1	76.1	61.4	50.8	43.7	63.5	95	15	Apr. 5†	Oct. 26
Hamilton	46.6	42.5	57.4	.....	.....	[d]80.0	80.7	79.2	76.0	57.6	46.9	.....	.....	103	.....	Apr. 7†	Oct. 21†
Healing Springs	52.4	50.7	.....	59.2	72.3	78.8	78.6	78.7	75.2	62.0	50.6	.....	.....	95	15	Apr. 9†	Oct. 24†
Highland Home	53.6	[c]50.7	62.1	61.0	75.2	80.0	78.8	77.4	76.3	63.6	53.7	48.2	65.0	95	17	Apr. 6†	Nov.22†
Jasper	46.0	42.1	54.8	.....	69.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7†	Oct. 18†
*Livingston	52.4	48.2	60.6	60.6	77.2	83.1	81.5	80.8	76.8	62.2	50.4	.....	.....	99	.....	Mar. 7†	Oct. 27†
*Lock No. 4	45.6	41.6	57.0	55.4	72.0	79.8	[e]80.0	78.3	74.2	60.6	47.8	41.6	61.2	100	15	Apr. 8†	Oct. 27
Madison Station	44.0	42.1	56.2	54.2	70.4	78.2	78.2	76.6	73.0	57.8	44.2	38.6	59.5	101	8	Apr. 7†	Oct. 23
Maple Grove	50.5	.....	.....	.....	.....	79.0	79.2	78.0	73.8	58.6	46.6	40.4	.....	100	13	.....	Oct. 14†
*Marion	50.6	47.2	61.2	60.2	75.0	82.0	81.0	80.2	77.2	62.6	54.8	.....	.....	102	14	Apr. 7†	Nov.23†
*Mobile	54.9	52.6	62.6	62.5	74.8	80.2	81.0	80.0	78.0	65.4	55.6	49.4	66.4	97	20	Feb. 22†	Nov.23†
*Montgomery	52.7	49.2	62.0	61.0	76.1	81.7	80.6	78.8	76.8	63.6	53.1	48.0	65.3	100	18	Feb. 23	Oct. 23
Mount Willing	56.2	50.9	63.1	59.8	75.8	81.3	81.4	80.4	75.8	63.2	54.3	49.2	66.0	98	14	Apr. 14†	Oct. 31
Newbern	51.4	47.4	60.6	60.3	76.2	82.2	81.0	79.7	77.0	63.2	51.1	45.0	64.6	98	15	Apr. 8†	Oct. 27
Newburg	.....	.....	.....	57.6	71.4	80.8	80.6	78.6	.....	.....	.....	.....	.....	102	.....	Apr. 8†	.....
Newton	51.2	47.6	61.4	60.6	73.4	79.2	77.2	74.8	74.2	61.7	52.0	47.6	63.4	95	15	Apr. 8†	Oct. 23†
Oneonta	[g]44.4	42.5	[c]56.6	55.8	70.6	77.4	77.2	75.5	72.3	58.6	47.4	41.8	60.0	96	10	Apr. 8†	Oct. 23
*Opelika	50.4	49.3	59.0	58.6	75.2	82.0	80.1	78.3	75.3	62.4	50.7	45.0	63.9	101	11	Mar. 4	Oct. 27
Oxanna	46.0	43.2	57.0	53.8	69.4	76.8	76.1	74.8	72.9	.....	48.6	43.0	.....	95	12	Apr. 8	.....
*Pineapple	49.6	43.7	.....	.....	74.4	82.4	81.3	80.8	77.4	62.4	53.7	46.4	.....	102	15	.....	Oct. 22
Pushmataha	52.4	49.8	61.6	61.4	76.4	82.3	82.0	80.1	76.4	62.6	50.3	43.8	64.9	100	17	Apr. 3†	Oct. 28†
Riverton	44.8	41.1	55.4	54.5	71.2	79.8	80.6	80.0	76.3	[c]57.2	46.2	39.0	60.5	101	10	Apr. 8	Oct. 27†
Rockmills	50.3	48.2	.....	.....	.....	[i]78.0	79.2	77.4	74.6	61.8	50.8	45.6	.....	100	13	Apr. 7†	Nov. 23
Scottsboro	45.2	40.7	57.6	55.0	69.8	77.2	78.8	77.6	73.9	57.8	45.4	39.6	59.9	98	14	Apr. 7†	Oct. 23
*Selma	50.8	47.9	61.6	60.3	75.8	82.8	82.2	81.3	77.6	64.4	50.6	46.6	65.2	100	17	Apr. 6†	Oct. 22
Talladega	49.4	44.8	59.2	57.1	73.4	80.6	79.8	78.4	74.4	60.1	50.4	43.4	62.6	99	14	Apr. 9†	Oct. 23†
*Thomasville	[f]47.2	48.0	61.4	61.4	77.2	82.6	80.8	80.7	74.2	59.8	55.0	46.2	64.5	100	15	Feb. 23†	Oct. 22
*Tuscaloosa	49.8	45.9	60.0	57.7	75.8	82.0	81.4	80.4	76.8	60.7	49.4	42.7	63.6	99	17	Apr. 7†	Oct. 27
*Tuscumbia	46.6	47.5	56.8	56.1	72.8	80.2	80.7	80.0	76.6	58.9	.....	.....	.....	99	.....	Apr. 7†	Oct. 23
Union	52.4	47.8	.....	.....	.....	82.6	82.5	80.6	.....	.....	.....	.....	.....	101	.....	Feb. 28†	.....
*Union Springs	50.4	47.2	61.8	60.8	76.2	83.0	79.9	79.0	76.4	63.4	52.0	46.4	64.7	101	15	Mar. 5†	Oct. 27†
Uniontown	.....	49.6	62.0	62.0	77.0	82.4	81.4	81.3	78.4	63.9	52.1	47.6	.....	99	.....	Feb. 22†	Oct. 27†
Valleyhead	44.9	40.0	56.0	54.2	70.4	.....	80.6	77.2	72.6	57.5	46.0	40.0	.....	99	9	Apr. 7†	Oct. 14
*Wetumpka	50.4	46.4	62.0	59.4	75.2	82.0	81.3	80.0	76.6	62.4	51.2	44.8	64.3	101	16	Apr. 7†	Oct. 27
Alaska.																	
Circle City	−3.2	−11.2	19.6	[g]26.2	38.3	58.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coal Harbor	31.1	24.2	35.4	36.4	39.6	44.7	52.2	50.0	46.6	40.2	33.3	30.2	38.7	68	3	June 2†	Oct. 11†
Holy Cross Mission	2.6	0.0	29.5	32.3	37.3	55.9	53.8	53.5	42.5	27.4	.....	.....	.....	.....	.....	.....	.....
Juneau Wharf	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35.7	.....	.....	.....	.....	.....
Killisnoo	31.1	21.7	32.4	37.8	44.0	52.4	55.0	55.6	47.3	40.6	33.3	36.1	40.6	71	2	May 2†	Sept. 30
Kodiak	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.8	34.3	.....	.....	.....	.....	.....
Kotzebue	−7.4	−15.6	15.2	10.9	24.9	47.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Josephs Mission (*b*)	1.8	−4.8	2.4	21.6	29.2	[m]46.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Sitka	.....	.....	.....	.....	.....	[m]53.8	54.4	56.0	52.0	44.4	35.5	37.6	.....	.....	.....	.....	.....
Skagway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.9	33.8	.....	.....	.....	.....	.....
Tyoonok	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.8	22.1	.....	.....	.....	.....	.....
Arizona.																	
Arizona Canal Co.'s Dam	48.6	59.4	60.0	70.2	74.2	83.8	88.1	.....	.....	70.2	59.8	51.5	.....	.....	.....	Jan. 26†	Nov. 12†
Benson	45.8	56.3	55.2	67.4	74.5	84.1	84.4	81.4	76.0	.....	54.9	44.7	.....	.....	.....	.....	.....
Bisbee	40.4	51.0	50.2	63.4	65.5	75.7	74.9	73.8	70.7	64.8	52.0	42.0	60.4	99	14	Mar. 27†	Nov. 15†
Buckeye	48.3	59.8	58.1	70.4	71.6	81.4	90.2	88.8	82.2	67.2	55.2	50.2	68.6	110	18	Mar. 26†	Nov. 9†
Calabasas	41.9	51.9	51.6	64.5	.....	.....	.....	79.0	71.6	60.4	48.9	.....	.....	.....	.....	Mar. 28†	Oct. 17†
Camp Creek	43.7	.....	53.0	68.3	67.4	80.0	84.6	83.4	79.3	70.6	57.8	.....	.....	105	.....	Mar. 27†	.....
Casa Grande (*a*)	49.1	57.5	55.1	68.4	76.0	88.8	97.7	91.1	83.9	73.4	61.0	53.2	71.3	111	33	.....	.....
Cedar Springs	37.2	50.6	49.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mar. 30	.....
Champie Camp	.....	.....	.....	.....	73.6	85.8	91.8	88.6	83.4	72.8	58.3	49.2	.....	116	.....	.....	Nov. 21†
Congress	43.8	58.6	54.5	69.8	69.6	83.0	87.0	84.2	82.4	71.9	58.4	48.4	67.6	107	23	Mar. 14†	Nov. 25†
Dragoon Summit (*e*)	40.8	51.0	54.7	62.3	66.8	79.3	76.0	70.8	75.3	69.8	55.4	37.1	61.6	99	13	.....	.....

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Arizona—Continued.																	
Dudleyville	41.9	53.6	53.6	66.9	67.7	78.0	84.5	82.8	77.5	65.5	53.4	43.3	64.1	108	21	Mar. 15	Nov. 10†
Empire Ranch	37.6	48.2	.....	.....	.....	76.0	[h]78.2	.....	[i]71.0	[d]62.7	[h]50.6	.....	.....	.....	4	Mar. 31†	Oct. 19†
*Flagstaff	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Flagstaff	25.8	36.2	36.2	52.0	51.3	64.2	70.9	69.5	.....	.....	.....	.....	.....	99	—22	May 31†	Sept. 12†
Fort Apache	27.6	42.0	42.7	56.2	59.0	70.6	74.8	75.1	65.3	52.3	44.4	31.7	53.5	101	—15	Apr. 14†	Oct. 3†
Fort Defiance	19.4	33.2	35.0	48.8	52.2	63.6	69.4	69.8	59.7	47.0	33.8	19.1	45.9	95	—23	May 20†	Sept. 11†
Fort Grant	39.8	52.4	50.8	62.6	65.3	75.2	76.4	76.0	72.5	66.8	52.8	45.0	61.3	98	12	Mar. 14†	Nov. 12†
Fort Huachuca	39.4	51.2	49.5	60.8	65.2	75.1	75.0	73.7	72.0	65.4	52.3	41.4	60.1	99	10	May 3†	Nov. 10†
Fort Mohave	45.8	59.4	59.9	.....	77.2	.....	.....	.....	[j]88.6	71.0	58.7	47.8	.....	.....	22	Mar. 24†	Nov. 23†
Gilabend (*a*)	48.8	59.7	60.3	75.4	77.9	89.8	94.2	91.8	84.8	69.4	59.6	49.1	71.7	118	28	.....	.....
Holbrook	24.3	37.4	41.3	56.0	59.4	71.0	77.3	76.7	67.5	52.9	40.2	18.6	51.9	103	—21	May 11†	Oct. 11†
Hot Springs	.....	.....	.....	.....	.....	82.6	90.2	86.0	82.2	71.5	58.6	49.0	.....	110	.....	.....	Dec. 10†
Jerome	35.2	52.4	52.3	66.4	63.6	77.9	81.8	77.6	75.3	63.5	49.0	38.2	61.1	105	9	Mar. 22	Nov. 11†
Lochiel	38.3	49.0	48.5	59.9	.....	75.0	74.6	72.8	69.3	60.5	49.9	41.5	.....	98	8	.....	.....
Maricopa (*a*)	51.7	64.9	55.9	78.6	80.4	84.0	96.3	92.3	84.7	70.3	60.2	51.0	72.5	117	26	.....	.....
Mesa	46.6	57.2	55.0	70.6	72.4	84.6	90.0	89.3	82.2	70.2	55.7	47.0	68.4	113	24	Mar. 27†	Nov. 11†
Mount Huachuca	39.1	49.2	47.9	60.0	64.6	74.5	74.2	72.6	70.0	63.6	50.5	39.9	58.8	98	7	Mar. 31†	Nov. 12†
Music Mountain	36.7	49.4	49.1	65.4	67.4	81.1	88.4	86.2	79.5	63.8	50.2	38.6	63.0	115	9	Apr. 3†	Nov. 9†
Oracle	37.9	52.0	49.7	63.2	64.7	76.6	78.3	78.6	73.0	64.0	51.8	41.6	61.8	101	11	Mar. 29†	Nov. 12†
Oro Blanco	41.0	52.7	50.4	63.4	65.4	76.5	78.1	78.8	76.2	68.3	55.2	47.8	62.9	102	12	Mar. 30†	Nov. 13†
Pantano (*a*)	44.7	58.0	55.5	67.8	71.5	79.8	82.8	79.9	75.8	70.0	54.0	46.2	65.5	108	12	.....	.....
Parker	46.8	59.2	59.2	74.6	75.8	86.6	.....	[k]94.3	88.7	71.0	58.7	47.8	.....	.....	16	Mar. 29	Nov. 9†
Peoria	46.8	57.9	56.8	71.4	74.0	86.4	93.4	90.6	.....	.....	57.6	47.8	.....	.....	24	Mar. 28	Nov. 23†
*Phœnix	47.2	58.8	57.0	71.7	73.4	84.8	92.2	89.8	84.2	71.5	57.4	48.8	69.7	111	23	Mar. 23	Nov. 13
Phœnix	45.9	56.0	52.3	69.4	71.6	81.2	89.4	87.2	79.6	67.0	53.7	45.9	66.6	109	18	Mar. 18†	Nov. 13
Pima	.....	.....	.....	.....	.....	.....	.....	.....	76.0	63.6	50.6	41.4	.....	.....	.....	.....	Oct. 21†
Prescott	.....	.....	.....	.....	68.8	.....	77.4	.....	.....	58.1	45.4	34.4	.....	102	.....	.....	Oct. 20†
Rye	.....	.....	.....	.....	65.5	.....	.....	.....	75.4	52.6	.....	.....	.....	.....	.....	.....	.....
San Carlos	40.3	53.8	54.0	67.6	69.0	82.0	87.0	86.0	79.0	65.0	50.4	38.3	64.4	112	1	Mar. 30†	Nov. 9†
San Simon (*a*)	37.0	51.3	54.3	69.8	70.4	80.1	80.4	80.2	72.8	61.8	49.4	37.1	62.0	103	12	.....	.....
Signal	44.2	55.8	54.8	71.2	72.5	84.7	93.2	89.9	81.4	67.4	55.2	45.0	67.9	114	21	Mar. 27	Nov. 11†
Snowflake	23.0	36.6	41.4	54.8	[c]56.4	67.6	75.3	72.6	64.0	50.6	39.6	21.4	50.3	101	—20	June 11†	Sept. 10†
Strawberry	26.6	41.0	39.1	53.0	53.4	65.6	72.4	70.1	62.4	52.2	40.8	30.4	50.6	96	—15	May 17†	Oct. 5†
Texas Hill (*a*)	47.0	53.5	60.2	80.6	80.3	91.4	98.7	96.5	89.0	73.4	58.8	49.0	73.2	120	28	.....	.....
Tombstone	41.0	52.8	51.4	63.7	67.4	77.4	77.1	75.7	73.2	66.7	52.8	42.2	61.8	99	12	Mar. 28†	Nov. 12†
Tuba	23.2	34.0	40.7	.....	59.6	.....	.....	.....	.....	.....	45.4	23.7	.....	.....	.....	May 3†	Nov. 2†
Tucson	46.2	57.2	55.8	67.4	.....	[c]83.2	86.2	84.8	79.3	68.4	54.5	47.2	.....	108	17	Mar. 30†	Nov. 12†
Whipple Barracks	26.8	42.9	44.5	57.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 8†	.....
Whitehills	36.8	54.0	52.6	69.4	68.6	85.5	92.4	90.4	86.8	73.2	52.7	40.3	66.9	117	15	Mar. 28†	Nov. 21†
Willcox (*a*)	35.9	42.1	42.7	55.0	67.3	82.2	79.6	78.4	67.0	.....	.....	.....	.....	100	15	.....	.....
Williams	26.4	35.5	34.4	50.7	51.8	51.8	.....	.....	.....	[a]47.2	36.7	28.6	.....	.....	—16	May 21†	Oct. 16†
Winslow	.....	.....	.....	.....	.....	.....	.....	.....	.....	57.8	41.2	19.4	.....	.....	.....	.....	Nov. 1†
*Yuma	49.8	62.0	59.7	73.5	74.0	84.7	91.9	91.4	86.7	72.2	60.4	52.0	71.5	113	26	Jan. 25†	Dec. 11†
Arkansas.																	
Amity	46.8	46.8	55.4	59.4	71.6	78.0	79.0	78.4	74.5	60.6	48.4	40.6	61.6	94	13	Apr. 7	Oct. 22
Beebranch	[f]45.4	[f]44.8	[f]53.0	[c]62.2	[h]69.5	[d]77.6	[g]80.4	[d]78.2	.....	.....	[c]46.8	.....	.....	.....	.....	Apr. 7	Oct. 21
Blanchard Springs	49.2	49.2	59.0	60.0	73.6	79.0	80.2	79.6	75.2	61.4	49.2	42.0	63.1	99	12	Apr. 7	Oct. 26
*Brinkley	48.3	46.4	57.7	57.4	72.2	80.3	79.8	79.4	76.0	59.3	50.4	40.6	62.3	97	12	Apr. 7	Oct. 27
Camden	48.5	50.6	57.4	60.4	74.6	78.9	81.0	81.1	75.9	61.6	49.2	41.2	63.4	99	15	Apr. 7	Oct. 22
Canton (*a*)	41.2	40.5	51.2	56.3	70.0	79.0	80.6	78.9	74.8	56.7	44.7	36.5	59.2	98	0	Apr. 7	Oct. 23
Conway	46.2	46.6	55.8	60.4	74.3	81.4	83.4	82.2	78.1	62.1	49.1	40.1	63.3	108	10	Apr. 7	Oct. 22
Corning	.....	41.1	50.8	56.6	71.0	78.5	78.5	78.2	74.6	57.6	45.0	35.4	.....	98	.....	Apr. 6	Oct. 27
Dallas	45.0	46.6	54.2	60.1	71.8	78.0	79.9	78.2	.....	.....	46.1	38.3	.....	97	10	Apr. 7	Oct. 22
Elon	.....	50.2	60.0	60.1	73.3	79.2	79.6	80.4	76.6	62.0	50.1	42.8	.....	98	.....	Apr. 7	Oct. 22
Fayetteville	41.5	42.6	49.5	56.0	68.4	75.4	76.0	76.2	73.2	58.8	45.7	35.8	58.3	96	4	Apr. 7	Nov. 1
*Forrest	46.2	44.6	56.4	[f]57.2	72.8	79.8	80.1	79.9	76.8	60.7	.....	.....	.....	97	.....	Apr. 7	Oct. 27
*Fort Smith	44.4	46.3	53.0	59.8	72.0	78.8	81.4	80.4	76.2	60.8	48.0	39.4	61.7	99	14	Mar. 28	Oct. 22
Hardy	41.0	40.7	50.2	56.6	69.7	77.9	78.8	78.2	74.0	57.0	45.0	37.0	58.8	97	0	Apr. 7	Oct. 27
*Helena (*b*)	49.6	48.8	60.2	60.4	74.0	81.6	82.2	82.4	77.6	62.8	51.8	43.2	64.6	101	18	Mar. 6	Oct. 27
Hot Springs	47.4	48.8	56.6	60.8	73.1	79.6	81.4	81.2	76.8	62.2	.....	40.1	.....	100	10	Mar. 5	Oct. 27
Jonesboro	42.8	42.2	54.2	57.1	71.6	79.7	79.4	77.0	74.9	59.0	46.4	39.2	60.3	97	12	Apr. 7	Oct. 27
Keesees Ferry	42.8	42.0	50.2	56.4	70.5	77.2	78.0	77.6	73.2	57.8	45.2	37.8	59.1	96	— 4	Apr. 7	Oct. 23
Lacrosse	40.2	42.2	51.2	57.2	70.4	77.8	78.6	78.0	73.6	57.8	44.2	[e]36.4	59.0	98	10	Mar. 28	Oct. 27
*Little Rock	46.0	46.0	55.5	59.5	73.0	79.4	80.1	80.2	75.7	60.6	48.2	40.3	62.0	97	16	Mar. 24	Oct. 22
Lonoke	47.2	46.4	56.8	59.9	74.2	81.1	81.6	80.6	76.4	60.1	47.8	40.6	62.7	104	14	Apr. 7	Oct. 22
Luna Landing (*f*)	51.0	47.8	59.6	63.9	.....	78.9	82.4	81.0	77.5	61.6	50.1	[c]43.1	.....	100	17	Mar. 5	Nov. 1
Lutherville (*a*)	45.9	46.4	54.6	59.8	73.4	.....	81.1	79.6	75.2	60.2	49.3	40.8	.....	104	14	Apr. 6	Nov. 21
Magnolia	51.3	52.1	58.6	63.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Malvern	44.2	.....	56.9	[e]59.8	73.0	79.6	81.5	80.7	75.1	61.3	48.0	41.2	.....	116	.....	Mar. 3	Oct. 21
Marianna (*a*)	48.4	47.3	58.2	61.8	75.4	81.6	81.7	81.6	77.2	61.3	50.2	41.6	63.9	96	16	Mar. 6	Oct. 22
Marvell	48.2	47.2	58.6	59.9	74.4	80.9	80.8	80.7	77.2	61.5	49.8	41.4	63.4	99	14	Apr. 7	Oct. 25
Mena (*a*)	46.7	48.2	54.6	60.0	71.8	77.6	79.2	78.0	76.8	61.8	.....	.....	.....	96	.....	Mar. 25	Oct. 26
Monticello	49.2	47.8	58.9	61.2	.....	.....	80.6	82.7	76.4	61.6	.....	[b]45.4	.....	.....	18	Apr. 7	Oct. 22
Mossville	41.3	40.9	47.4	54.2	67.8	72.6	75.5	75.0	71.2	54.4	42.0	33.6	56.3	91	7	Mar. 30	Oct. 18
Mount Nebo	41.8	43.8	50.8	.....	69.6	75.0	75.6	76.2	71.4	58.1	45.4	37.0	.....	.....	.....	Mar. 28	Oct. 26
New Gascony	46.9	46.3	[e]57.7	59.6	[e]74.8	.....	80.4	80.4	75.8	.....	48.2	41.8	.....	98	15	Apr. 7	Oct. 22
*Newport[1]	41.9	42.5	[c]53.0	56.5	73.0	80.9	81.2	79.6	74.9	[d]54.7	45.2	36.2	60.0	99	4	Apr. 7	Oct. 27
Newport[2]	44.0	44.2	55.0	58.3	72.6	80.2	79.6	79.2	76.0	59.4	46.8	[e]39.2	61.2	99	8	Apr. 7	Oct. 22
Oregon	39.0	39.2	46.8	52.8	66.2	72.4	76.0	73.3	.....	.....	42.2	34.0	.....	.....	.....	.....	Oct. 22
Osceola	44.0	43.2	54.2	57.0	73.9	80.4	79.4	78.9	75.3	58.8	45.8	38.0	60.7	98	8	.....	Oct. 27
Ozark	45.6	46.8	53.9	59.7	73.1	79.0	81.5	80.8	75.9	61.4	48.9	40.0	62.2	100	14	.....	Oct. 22
Picayune	47.2	[c]48.0	54.8	59.8	71.9	77.6	80.6	80.3	75.5	63.6	49.5	40.4	62.5	100	6	Apr. 7	Oct. 19
*Pine Bluff	48.8	48.9	58.6	61.0	75.4	81.8	82.6	82.7	77.8	62.4	49.7	41.9	64.3	100	10	Apr. 7	Oct. 27
Pocahontas	41.6	42.2	51.8	56.7	.....	77.8	78.0	76.9	74.2	57.8	44.8	36.6	.....	93	5	Mar. 31	Oct. 27
Pond	.....	.....	.....	50.7	63.4	75.0	78.6	75.4	71.7	57.6	43.6	33.4	.....	104	.....	Apr. 7	Oct. 21
Powell	41.2	42.2	50.6	.....	.....	.....	.....	.....	75.1	57.2	44.1	36.2	.....	.....	2	Mar. 31	Oct. 26

Cotton-region observer.

[1] George B. Irby.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Arkansas—Continued.																	
*Prescott	.....	.....	59.1	61.2	75.2	80.9	81.8	82.0	76.8	64.0	50.8	42.6	.....	102	13	Mar. 5	Oct. 27
Rison	48.2	47.7	57.1	61.0	73.2	79.7	78.6	80.3	75.7	61.4	50.2	42.2	62.9	99	13	Apr. 6	Oct. 21
*Russellville	43.1	43.9	52.4	57.9	72.6	79.6	81.4	80.2	75.1	60.2	46.3	.....	.....	98	.....	Apr. 6	Oct. 27
Silversprings	40.2	41.4	49.6	56.4	68.8	75.6	77.2	76.0	72.3	57.1	44.6	35.7	57.9	94	1	Apr. 6	Oct. 22
Spielerville	44.0	46.2	54.2	59.6	72.3	78.6	80.9	79.8	75.6	60.3	47.0	38.2	61.4	101	8	Apr. 6	Oct. 31
Stamps	50.4	51.5	57.6	62.6	73.3	[c]80.8	.....	.....	.....	62.6	48.5	.....	.....	.....	.....	Apr. 7	Oct. 18
Stuttgart	46.4	46.2	56.7	59.4	74.4	80.8	80.6	79.9	75.8	60.2	47.8	40.0	62.4	100	12	Apr. 6	Oct. 27
*Texarkana	47.2	50.2	54.2	[k]59.8	75.3	80.8	82.9	82.0	77.6	64.2	51.8	41.8	64.0	102	10	Mar. 29	Oct. 22
*Warren	50.2	47.6	54.4	60.2	73.2	79.8	81.4	81.2	76.4	61.6	51.7	42.0	63.3	101	15	Apr. 7	Oct. 22
Washington	48.6	50.4	58.1	62.8	74.4	78.7	81.4	80.8	76.1	62.2	49.9	41.4	63.7	98	15	Mar. 4	Oct. 22
Wiggs (*a*)	47.3	49.0	61.1	62.0	73.6	79.0	80.6	80.4	76.6	62.0	50.7	42.4	63.7	98	12	Apr. 7	Oct. 22
Winslow	39.9	40.7	48.0	54.2	67.8	72.6	74.6	.....	70.2	55.1	41.7	32.8	.....	.....	5	Mar. 31	Oct. 26
Witts Springs	41.9	40.9	50.0	55.4	67.8	74.2	75.8	75.0	71.1	[c]55.0	44.6	37.0	57.4	93	5	Apr. 7	Oct. 25
California.																	
Agnew	43.4	52.7	51.0	55.6	55.7	62.1	65.0	64.4	62.1	60.2	51.1	48.2	56.0	94	25	.....	.....
Anada	.....	.....	.....	.....	.....	.....	.....	.....	61.0	52.8	45.8	38.8	.....	.....	.....	.....	.....
Arlington Heights	48.2	57.3	53.5	64.1	.....	70.7	75.5	79.6	75.4	68.1	59.0	52.4	.....	112	30	.....	.....
Athlone	41.2	48.8	48.7	63.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berkeley	44.8	51.8	50.8	56.4	55.2	63.0	61.6	61.7	61.2	60.6	53.7	48.2	55.8	94	33	.....	Dec. 14
Bishop	[d]32.6	43.6	40.4	58.1	59.8	69.1	.....	.....	65.6	56.6	45.8	39.4	.....	.....	6	.....	.....
Blue Lake City	.....	.....	.....	.....	61.7	71.4	77.0	76.3	68.3	60.4	49.4	42.6	.....	117	.....	.....	Nov. 8
Boca (*a*)	18.4	32.2	28.4	43.5	45.9	54.5	61.0	63.1	50.5	38.2	28.7	21.6	40.5	98	—12	.....	.....
Bodie	13.9	26.8	23.2	39.7	40.3	52.2	58.2	57.4	50.6	38.9	29.4	21.8	37.7	88	—16	.....	.....
Bowmans Dam (*a*)	31.6	38.3	33.9	.....	47.3	.....	.....	66.1	57.4	48.4	40.2	35.6	.....	.....	7	.....	Oct. 1
Caliente (*a*)	45.5	52.4	52.3	63.8	66.1	72.2	81.4	81.9	72.3	63.8	52.8	50.0	62.9	105	28	.....	.....
Calloway	.....	.....	.....	.....	.....	.....	.....	.....	.....	67.3	53.4	48.4	.....	.....	.....	.....	Nov. 8
Campbell	42.4	51.4	50.0	56.6	56.4	64.2	65.0	61.7	60.6	57.3	51.0	44.6	55.1	96	23	Mar. 28	Nov. 2
Cedarville	23.4	36.4	36.1	50.3	51.1	60.5	70.1	71.2	61.4	47.5	36.3	26.3	47.8	100	—5	Apr. 8	Oct. 3
Centerville (*a*)	48.5	56.2	55.2	60.1	59.4	67.7	67.8	68.3	65.2	63.6	58.9	50.7	60.1	104	32	Mar. 23	Nov. 10
Chico (*a*)	42.4	53.2	54.0	64.7	65.6	77.1	85.2	85.3	75.0	65.5	53.6	46.0	64.0	114	25	.....	.....
Chino (*a*)	46.5	56.2	52.4	65.8	63.5	71.3	78.0	80.1	72.7	66.4	.....	.....	.....	107	.....	Mar. 24	.....
Cisco	24.1	31.0	27.1	40.7	40.7	50.9	58.7	59.5	53.1	42.4	34.6	29.0	41.0	85	2	.....	.....
Claremont	45.6	54.1	51.4	63.2	60.5	.....	72.8	76.8	71.8	64.6	55.5	50.5	.....	.....	26	Mar. 27	.....
Corning (*a*)	38.0	44.7	45.8	61.4	63.5	78.3	77.8	80.0	69.2	60.0	51.2	41.6	59.3	112	23	Mar. 26	Dec. 10
Coronado	.....	64.4	57.8	61.8	62.4	66.8	69.2	73.6	70.9	64.2	61.7	59.0	.....	86	.....	.....	.....
Craftonville	44.7	54.1	53.4	69.4	63.0	75.7	81.2	84.0	75.3	70.2	58.6	51.6	65.1	112	28	Mar. 19	.....
Crescent City	43.6	48.4	45.6	48.8	51.0	56.4	54.8	57.2	55.6	53.1	48.6	46.4	50.8	81	28	May 6	Nov. 10
Delano (*a*)	43.0	54.7	51.2	67.2	67.5	82.3	88.2	87.4	76.3	63.3	51.4	44.2	64.7	114	25	.....	.....
Delta (*a*)	39.7	42.8	45.9	59.8	62.5	73.1	78.5	75.8	68.6	58.2	50.0	45.4	58.3	111	18	.....	.....
Descanso (*e*)	39.6	50.8	.....	.....	.....	62.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	May 28	Oct. 4
Drytown	41.1	49.6	49.8	59.1	58.6	70.2	77.0	75.3	67.8	61.0	50.6	43.6	58.6	114	21	.....	.....
Dunnigan (*a*)	42.4	47.7	50.0	62.6	64.3	71.1	79.1	78.9	71.7	64.6	56.6	46.5	61.3	114	23	.....	.....
Durham (*a*)	40.8	53.5	50.6	62.6	62.9	74.6	81.8	81.6	71.1	62.3	52.7	43.7	61.5	110	22	Mar. 27	Nov. 23
Edmanton (*a*)	28.9	38.4	37.5	50.7	48.6	58.9	66.0	66.8	59.0	49.2	40.6	33.8	48.2	97	6	May 23	Nov. 1
Elsinore	49.0	56.8	54.8	65.6	64.7	72.6	79.4	82.2	76.2	70.7	59.1	52.4	65.3	115	24	Mar. 27	Nov. 13
Escondido	43.8	52.2	50.8	61.1	61.4	68.4	73.6	74.6	70.2	60.4	52.2	49.1	59.8	110	20	.....	.....
*Eureka	44.0	50.0	45.6	48.8	50.4	56.3	54.6	55.9	56.0	53.9	48.3	46.2	50.8	75	30	Mar. 22	Nov. 25
Fallbrook (*a*)	46.8	53.9	52.4	61.6	60.5	66.8	70.8	73.9	[c]68.4	60.6	55.2	53.3	60.4	105	29	Mar. 24	.....
Folsom City (*a*)	42.6	53.2	52.8	63.8	64.7	75.7	80.4	77.5	70.4	62.8	52.8	45.2	61.8	110	28	Jan. 30	Dec. 10
Fort Romie	.....	.....	.....	.....	.....	65.4	64.1	65.7	63.8	61.9	51.6	47.3	.....	104	.....	.....	Nov. 7
Fort Ross	47.0	50.8	48.7	52.6	52.1	57.8	56.6	57.4	57.8	58.2	52.4	49.9	53.4	88	32	.....	.....
*Fresno	41.7	53.8	52.8	65.4	65.2	77.2	83.9	81.6	72.8	64.6	52.5	45.2	63.1	114	24	Mar. 22	Nov. 21
Georgetown	39.5	47.6	46.2	57.5	54.9	67.0	75.8	75.7	67.2	58.8	50.0	44.5	57.1	102	20	.....	.....
Goshen	40.5	51.6	51.7	69.0	69.4	82.0	94.2	85.2	81.4	65.6	51.8	46.4	65.7	112	18	Mar. 24	.....
Grand Island (*f*)	42.4	52.5	53.5	65.8	65.7	75.3	79.9	62.5	72.5	65.9	55.4	46.1	61.5	112	22	.....	.....
Greenville	27.6	40.9	38.9	50.4	51.0	58.5	64.0	66.0	58.3	49.8	39.4	32.5	48.1	104	—3	.....	Aug. 30
Healdsburg (*a*)	39.2	49.6	49.0	56.0	55.4	62.6	65.4	65.0	65.4	62.1	55.6	45.4	55.9	100	22	.....	.....
Hill Ranch	50.6	58.7	56.4	64.9	60.1	72.4	76.6	77.2	73.8	70.6	.....	.....	.....	116	.....	Mar. 27	.....
Hollister	42.8	52.7	50.6	59.9	56.1	65.0	64.2	65.8	64.4	61.7	52.4	45.6	56.8	105	20	Mar. 27	Nov. 8
Hueneme	.....	.....	.....	.....	.....	.....	.....	66.6	.....	60.4	59.3	56.7	.....	.....	.....	.....	.....
Hydesville	.....	50.1	46.2	.....	.....	58.8	59.2	58.2	.....	.....	.....	.....	.....	.....	.....	Mar. 27	.....
*Independence	.....	.....	*44.0	62.0	62.1	74.2	80.4	80.1	72.0	60.0	48.2	39.7	.....	105	.....	Mar. 27	Nov. 25
Indio (*a*)	48.2	58.8	58.1	75.9	75.8	87.9	93.5	93.1	86.8	74.7	59.2	51.0	71.9	116	24	.....	.....
Iowa Hill (*a*)	36.3	45.0	42.4	55.4	56.2	67.0	74.6	74.4	67.2	58.8	50.2	45.7	56.1	101	20	Mar. 26	Nov. 24
Jackson	40.0	49.6	50.1	60.7	56.7	69.4	79.0	77.2	69.2	63.0	50.3	43.0	59.0	106	10	Mar. 26	.....
Keene (*a*)	38.6	45.9	46.3	55.8	58.2	69.8	76.4	72.9	63.8	55.5	46.4	44.7	56.3	105	12	.....	.....
Kennedy Gold Mine	40.2	49.3	48.8	58.8	58.4	68.8	77.1	75.4	67.7	60.4	49.8	43.4	58.2	108	22	.....	.....
King City (*a*)	44.2	48.7	50.2	52.8	50.2	60.7	69.1	65.2	66.6	54.2	45.8	44.2	54.3	108	19	.....	.....
Kingsburg (*e*)	41.0	52.9	55.5	68.2	71.6	80.4	93.2	86.2	74.2	65.2	52.7	44.3	65.4	110	20	.....	Dec. 23
Kono Tayee	41.8	48.0	50.0	59.8	60.5	.....	76.8	76.2	68.0	59.0	51.6	44.2	.....	.....	27	Jan. 29	.....
Lagrange (*e*)	42.1	55.8	54.6	65.7	66.7	78.3	84.9	84.8	74.6	66.6	54.4	45.8	64.5	116	25	Mar. 26	Dec. 10
Laporte (*a*)	27.9	36.8	32.7	45.9	46.5	56.5	62.8	62.6	54.5	46.2	38.1	33.4	45.3	91	8	May 23	Oct. 1
Lemoore (*a*)	40.0	52.8	52.9	66.4	67.5	79.2	86.3	83.2	71.6	60.1	47.3	41.5	62.4	110	16	.....	Nov. 9
Lick Observatory	35.7	42.8	39.1	50.8	47.9	62.0	71.4	71.2	61.8	56.0	46.5	43.3	52.4	91	17	.....	Nov. 23
Limekiln	44.2	55.3	54.9	66.8	.....	76.8	83.5	82.0	74.4	67.0	54.4	46.2	.....	114	26	.....	.....
Lodi	41.5	52.6	52.0	61.4	61.8	71.0	75.8	74.4	69.0	62.6	53.1	43.2	59.9	108	21	Mar. 29	.....
*Los Angeles	51.5	57.8	55.3	62.8	60.0	67.1	70.4	73.9	71.0	64.6	60.6	56.8	62.6	99	31	Mar. 19	Dec. 10
Los Gatos	43.2	50.4	49.2	57.7	54.6	65.1	66.9	67.2	63.6	60.9	52.8	46.2	56.4	97	31	.....	.....
Lytton Springs	44.1	49.1	52.0	.....	59.6	68.0	70.8	70.1	*65.4	.....	.....	.....	.....	104	.....	Mar. 24	.....
Malakoff Mine	37.5	45.7	44.2	57.5	54.9	65.7	72.7	72.8	64.6	56.4	48.4	44.0	55.4	100	18	.....	Oct. 1
Mammoth Tank (*a*)	50.4	56.1	63.8	78.5	80.6	97.5	101.8	101.6	92.9	75.5	60.0	51.4	75.8	120	30	.....	.....
Manzana	.....	45.0	42.6	57.7	55.4	76.7	83.6	84.6	73.9	61.4	51.2	43.5	.....	112	.....	.....	.....
Merced (*a*)	41.4	53.4	51.8	62.0	61.0	75.7	82.7	80.9	74.1	65.3	53.0	44.8	62.2	112	26	Jan. 30	.....
Milton (near) (*a*)	44.2	53.5	52.2	62.2	62.8	73.3	77.9	76.2	71.6	64.5	53.4	44.3	61.3	110	27	Jan. 26	Dec. 10
*Modesto (*a*)	45.9	55.4	55.4	66.0	65.6	73.4	83.8	79.9	74.2	67.6	56.4	46.2	64.2	108	25	.....	.....
Mohave (*a*)	37.8	51.4	48.3	62.1	63.9	80.0	87.8	88.0	78.2	64.4	53.3	42.4	63.1	115	16	.....	.....

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
California—Continued.																	
Mokelumne Hill (c)	38.5	47.4	46.0	57.2	57.0	69.7	77.2	74.2	66.7	58.7	49.4	41.9	57.0	.....	26	Mar. 26	Nov. 23
Monterey (a)	48.8	53.0	53.4	55.5	54.5	62.1	59.9	62.7	63.3	58.1	53.6	51.6	56.4	92	29	.....	.....
Mount Tamalpais	40.8	46.4	46.6	56.0	50.5	61.9	70.0	.....	62.6	59.4	51.4	45.7	.....	.....	20	.....	Nov. 24
Napa	43.2	50.5	50.1	57.8	56.9	65.7	67.3	67.9	65.0	63.4	54.4	47.4	57.5	106	24	Mar. 28	Nov. 10
Needles	47.8	61.4	60.8	76.6	77.6	[e]89.4	95.8	93.9	85.9	70.4	57.0	49.5	72.2	114	26	.....	.....
Nevada City	36.5	45.4	43.2	54.1	52.9	63.3	70.0	69.5	61.4	54.8	45.6	41.4	53.2	98	15	.....	.....
Newhall (a)	41.6	51.3	49.3	62.6	60.8	72.6	76.2	79.6	71.4	62.4	53.7	49.4	61.0	112	19	.....	.....
North Ontario	46.2	53.6	51.0	59.6	57.4	67.4	73.2	76.7	73.4	66.0	58.0	50.6	61.1	102	26	Mar. 28	Dec. 11
North San Juan (a)	37.2	48.2	43.8	63.0	57.5	69.0	73.0	71.0	62.6	61.9	45.5	40.1	56.1	102	11	Mar. 28	Oct. 1
Oakland	44.2	51.4	51.3	56.9	56.6	63.7	62.0	61.6	60.7	60.0	53.2	46.9	55.7	93	31	Jan. 30	.....
Ogilby (a)	52.2	61.4	63.8	79.7	82.5	93.8	100.4	100.2	91.1	73.4	67.6	52.3	76.5	122	35	.....	.....
Oleta (a)	37.8	47.4	45.3	58.8	56.0	67.3	73.9	71.8	64.2	55.7	46.6	40.9	55.5	105	22	Mar. 28	Nov. 23
Orangevale	43.1	51.4	50.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orland (a)	43.8	50.2	56.4	69.7	70.4	81.6	89.9	84.6	75.7	66.0	53.5	45.0	65.6	118	26	Jan. 30	Nov. 26
Palermo	40.7	51.3	50.6	62.7	65.0	76.1	80.6	79.7	70.3	62.9	52.5	44.0	61.4	115	23	Mar. 27	.....
Paso Robles	42.6	51.0	49.2	55.9	59.2	67.2	65.9	66.6	65.8	61.5	50.0	44.8	56.6	112	20	Mar. 27	Nov. 10
Peachland (c)	44.0	51.7	51.7	59.1	57.4	65.4	66.6	66.0	63.0	60.7	51.0	46.2	57.1	95	26	Mar. 24	Nov. 8
Pine Crest	51.0	57.9	55.9	63.2	58.2	66.0	68.1	71.8	71.4	65.6	62.4	57.8	62.4	101	34	.....	.....
Placerville (a)	35.7	46.4	44.1	54.9	55.5	67.6	75.1	70.9	63.2	52.2	49.8	39.8	54.6	106	17	Apr. 3	Dec. 1
Point Lobos	46.2	50.4	49.3	52.1	52.1	57.2	55.1	56.4	56.8	57.8	53.0	48.8	52.9	84	35	.....	.....
*Point Reyes Light	46.2	49.5	48.4	49.8	49.2	54.4	52.4	53.9	54.6	56.8	51.5	50.0	51.7	85	35	Jan. 10	.....
Pomona (near)	48.0	55.9	53.1	64.0	61.7	69.8	74.1	78.4	73.6	65.7	57.4	52.5	62.8	108	26	Mar. 26	Nov. 22
Poway (c)	42.8	47.4	48.6	57.1	56.9	64.3	72.5	75.7	66.8	55.4	48.6	46.6	56.9	104	27	.....	.....
Quincy	28.0	40.0	39.5	51.7	53.6	62.2	65.2	66.6	57.6	49.8	40.5	32.6	48.9	98	4	.....	Sept. 11
*Redbluff	42.4	51.0	52.4	64.4	63.6	75.4	83.1	81.3	72.6	64.3	53.6	45.7	62.5	112	24	Mar. 18	Dec. 9
Redding	42.2	50.2	51.9	63.2	63.8	73.7	82.6	80.6	72.2	62.4	52.4	45.5	61.7	107	23	Mar. 27	.....
Redlands	45.0	54.4	54.8	64.5	63.9	72.2	77.6	81.1	76.8	69.0	58.2	52.4	64.2	112	27	.....	.....
Represa	40.2	50.0	49.9	60.6	61.9	72.0	77.8	76.1	69.4	62.6	52.5	44.4	59.8	104	22	Mar. 27	Dec. 24
Rio Vista	42.0	52.8	52.8	62.9	61.5	70.7	74.7	73.6	69.4	63.4	53.4	43.6	60.1	108	21	.....	.....
Rosewood	37.0	46.2	47.8	60.3	61.6	72.2	79.7	78.2	67.7	58.6	48.4	40.6	58.2	115	10	Mar. 20	Oct. 4
*Sacramento	42.0	51.8	51.8	61.4	59.9	69.6	74.2	73.8	68.8	63.4	53.4	44.2	59.5	110	26	Mar. 26	Nov. 23
Sacramento	41.9	52.4	52.8	62.6	62.5	72.8	74.6	73.5	66.8	60.4	51.6	43.6	59.6	107	26	Mar. 26	Nov. 23
Salinas (a)	45.4	55.2	53.4	58.0	55.7	63.2	63.3	64.0	61.0	61.7	51.8	46.4	56.6	90	27	.....	.....
Salton (a)	49.1	49.6	57.8	82.1	75.8	93.7	100.0	98.4	92.4	78.0	59.1	46.2	73.5	123	30	.....	.....
San Bernardino	46.7	56.2	52.5	63.9	61.8	70.8	76.0	78.6	72.6	64.4	56.2	50.6	62.5	108	24	Jan. 25	.....
*San Diego	50.8	55.2	54.5	59.1	58.8	63.8	66.7	70.6	68.5	62.3	59.4	56.6	60.5	91	36	None.	None
*San Francisco	46.7	52.6	51.2	54.4	52.6	59.0	56.2	57.0	59.0	61.2	55.4	49.7	54.6	89	36	Mar. 23	Dec. 31
San Jacinto	43.4	53.6	50.9	.....	.....	.....	78.6	80.4	74.3	64.8	54.4	48.6	.....	.....	21	Mar. 28	Nov. 21
San Leandro (a)	48.7	55.9	54.0	58.4	57.6	63.2	64.3	64.6	64.8	63.1	57.1	52.3	58.7	98	34	Mar. 26	Nov. 24
*San Luis Obispo	47.6	56.3	52.9	59.7	56.6	63.4	64.5	65.6	64.8	64.6	57.6	53.1	58.9	100	25	Mar. 18	Dec. 23
San Mateo (a)	45.9	52.6	54.7	61.3	61.5	70.2	67.8	71.8	64.6	62.8	54.3	47.6	59.6	95	30	.....	.....
San Miguel (a)	42.4	49.9	49.8	61.3	61.2	70.8	73.8	72.4	67.7	61.8	50.8	43.4	58.8	107	17	.....	.....
San Miguel Island	49.7	53.6	53.6	57.2	54.0	59.1	60.1	60.8	59.3	60.1	53.8	53.8	56.3	90	36	.....	.....
Santa Barbara	50.7	55.9	54.4	60.2	58.3	64.0	65.0	68.6	66.0	61.8	59.1	55.6	60.0	95	34	Mar. 18	.....
Santa Cruz	46.0	52.5	51.6	57.4	55.8	63.2	62.0	63.5	62.8	61.2	53.0	48.2	56.4	101	26	Mar. 26	Nov. 26
Santa Maria	48.6	56.5	53.8	59.8	[d]58.2	[e]66.0	65.8	66.4	63.6	65.6	57.0	54.8	59.7	98	27	Mar. 24	Nov. 26
Santa Monica (a)	54.0	57.6	57.4	65.0	61.9	61.6	71.5	72.0	69.3	63.6	60.4	55.8	62.5	96	30	.....	.....
Santa Paula	47.4	54.4	52.2	60.0	58.4	64.2	[d]65.9	68.9	66.0	60.0	56.6	52.2	58.8	97	24	.....	Dec. 30
Santa Rosa (a)	47.3	52.5	52.1	59.0	56.5	65.3	60.5	62.3	62.0	61.3	53.4	46.8	56.6	97	23	.....	.....
Shasta	.....	.....	.....	.....	.....	.....	.....	.....	73.6	63.7	51.6	46.3	.....	.....	.....	.....	.....
Sierra Madre	48.9	56.6	53.8	63.1	59.3	67.8	72.4	75.7	73.2	66.4	60.1	54.0	62.6	99	30	.....	.....
Sneddens Ranch (a)	24.6	33.1	29.0	45.3	44.2	55.9	63.5	58.0	50.5	.....	.....	.....	.....	96	.....	Apr. 28	Aug. 6
Stanford University	43.6	50.0	49.5	56.3	56.8	62.1	65.4	65.2	62.7	60.2	51.6	44.7	55.7	94	26	Jan. 26	Dec. 29
Stockton	40.5	51.8	51.2	61.3	60.5	69.4	69.4	71.4	67.8	61.4	51.6	42.0	58.2	105	23	.....	.....
Summerdale	31.6	39.3	35.4	50.0	46.7	61.2	69.6	70.0	61.3	51.0	42.8	37.8	49.7	95	7	May 23	Oct. 4
Susanville	24.6	36.4	36.6	45.4	52.5	61.3	68.1	70.0	59.8	48.4	37.3	29.0	47.4	97	0	.....	Sept. 29
Suttercreek (c)	35.8	44.3	43.8	.....	54.0	66.4	72.2	70.4	63.0	56.0	43.6	38.2	.....	102	16	.....	.....
Tehama (a)	41.2	51.1	52.1	65.2	67.4	78.5	87.0	82.8	67.1	64.7	54.6	46.6	63.2	111	25	.....	.....
Templeton	37.6	44.5	46.0	57.8	68.1	69.5	75.2	72.0	66.3	59.6	47.0	41.6	57.1	116	18	.....	.....
Thermalito	.....	.....	.....	.....	.....	.....	.....	.....	73.8	65.4	54.8	45.5	.....	.....	.....	.....	Nov. 23
Truckee (a)	16.4	32.6	33.0	45.2	46.2	59.0	71.4	73.2	60.4	43.2	33.0	21.5	44.6	98	—12	.....	.....
Tulare	43.9	56.1	54.9	66.8	67.0	78.1	83.4	82.2	72.6	63.3	52.1	45.2	63.8	112	18	Mar. 24	Nov. 8
Ukiah	40.0	48.6	47.7	56.4	56.2	65.7	70.6	70.4	63.4	58.2	49.4	42.0	55.7	103	12	Feb. 22	Nov. 8
Upper Lake	40.4	47.2	48.4	57.8	57.5	67.7	75.4	75.8	67.7	60.4	51.8	44.2	57.9	109	15	Mar. 28	.....
Upper Mattole (a)	44.4	52.1	50.6	57.4	58.0	60.6	63.8	64.5	59.2	58.4	50.3	46.1	55.4	97	26	Mar. 27	.....
Vacaville (a)	43.3	51.0	52.9	63.1	62.0	72.6	76.9	75.5	69.4	64.7	56.1	46.1	56.1	113	26	Mar. 26	Nov. 26
Ventura	47.6	51.8	50.9	56.9	54.3	60.8	61.7	63.8	60.7	57.0	55.2	53.0	56.1	100	25	.....	.....
Visalia (a)	45.0	51.1	50.6	62.5	63.3	73.4	81.4	82.6	72.8	62.2	49.2	43.1	61.4	114	21	.....	.....
Volcano Springs (a)	52.0	66.2	62.6	84.3	88.4	99.2	102.2	100.2	97.9	83.8	57.5	46.2	78.4	124	30	.....	.....
Walnutcreek	43.4	52.4	52.7	61.6	61.8	72.7	76.2	73.8	69.7	63.8	53.8	46.0	60.7	109	22	.....	.....
West Palmdale (a)	34.6	47.4	45.2	58.7	60.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mar. 27	.....
Wheatland	39.9	50.1	50.3	61.5	62.2	73.6	78.4	76.8	68.6	61.6	50.8	42.2	59.7	114	24	Mar. 27	Nov. 24
Williams (a)	43.1	52.2	53.6	66.1	64.9	76.5	83.8	82.0	72.4	65.5	55.4	45.6	63.4	113	26	.....	.....
Wilmington (a)	58.6	63.8	59.3	67.1	62.6	65.8	67.0	72.3	63.9	62.8	60.1	54.7	63.2	100	37	.....	.....
Wire Bridge (c)	40.4	50.4	49.8	63.0	62.8	73.1	79.9	78.8	69.3	60.7	50.7	43.7	60.2	108	22	Apr. 3	Nov. 8
Yreka	31.6	41.0	41.6	51.8	55.3	63.4	70.8	72.0	62.4	51.4	40.3	33.6	51.3	105	10	.....	.....
Yuba City	38.2	53.2	51.8	67.4	66.5	80.6	83.9	83.8	72.2	57.5	51.4	43.5	62.5	105	28	Mar. 27	.....
Colorado.																	
Altman	18.0	23.8	22.0	34.6	40.0	[e]51.0	52.1	58.4	50.7	35.4	22.3	13.8	35.2	89	—13	June 13†	Sept. 6
Antlers	20.0	31.1	34.8	59.7	54.9	68.0	74.4	73.2	62.2	[f]48.8	[f]31.2	19.4	47.4	99	—19	May 21	Sept. 12†
Boulder	30.7	38.8	35.7	49.2	51.9	66.6	72.2	73.0	62.1	49.0	36.6	29.3	49.6	95	— 9	May 6†	Oct. 4
Breckenridge	7.8	16.8	16.4	31.2	38.2	48.8	55.8	52.3	44.2	33.2	19.6	7.4	31.0	84	—29	(1)	(1)
Canyon	31.8	40.4	39.6	52.8	55.8	69.0	74.1	75.5	66.3	51.2	40.8	31.2	52.4	102	—14	May 5†	Oct. 2
Castlerock	.....	.....	[1]31.8	46.2	54.4	63.3	70.8	67.8	57.2	44.4	32.1	19.8	.....	98	—16	May 7†	Sept. 11†
Cedaredge	20.2	32.0	35.2	49.6	52.6	63.4	72.4	70.6	60.5	48.8	35.5	22.1	46.9	95	—19	June 6†	Sept. 10†

[1] Frost every month in the year.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Colorado—Continued.																	
Cheyenne Wells	28.9	34.8	35.7	49.2	55.4	67.8	72.8	73.8	62.2	47.0	33.4	26.1	48.9	97	—17	May 6†	Oct. 4
Colorado Springs	26.3	34.7	33.7	46.6	50.5	62.1	67.2	68.0	58.7	45.1	34.2	25.0	46.0	92	—17	Apr. 24	Oct. 20†
Cope	29.6	35.9	35.6	49.9	54.3	68.1	72.2	74.0	60.8	46.6	34.2	25.8	48.9	100	—17	May 5†	Sept.11†
Crook	23.8	32.0	33.6	49.5	54.8	70.4	74.5	75.5	61.0	[c]45.8	33.3	[j]24.2	48.2	108	—21	May 3†	Sept. 6†
Delta	18.0	31.2	37.8	53.7	58.2	70.5	77.4	74.0	61.6	47.8	35.6	20.6	48.9	107	—20	May 21	Sept.11†
*Denver	29.2	37.8	35.7	49.4	53.0	67.0	72.4	72.6	61.9	49.0	35.2	25.8	49.1	98	—20	May 21	Sept.11†
Durango	24.2	35.0	36.0	49.8	51.9	62.9	69.2	69.0	59.1	47.0	35.0	19.4	46.5	93	—16	.....	.....
Fairview	.....	.....	.....	.....	.....	.....	.....	.....	52.4	42.4	28.8	19.6	.....	.....	.....	.....	Sept. 8
Fort Collins	25.6	34.1	32.7	47.6	51.6	64.0	69.0	69.9	58.6	46.3	30.3	23.6	46.1	97	—22	May 7†	Sept. 11
Fort Morgan	24.9	33.8	34.0	50.1	55.4	69.7	73.6	73.2	61.0	45.6	28.2	21.2	47.6	109	—17	May 25†	Sept. 6
Garnett	12.1	25.8	28.0	43.5	48.3	58.7	63.2	61.4	50.8	38.6	23.0	3.0	38.0	90	—36	June 12†	Sept. 4†
Georgetown	25.3	31.1	27.4	42.2	43.9	57.0	62.6	62.4	53.8	42.6	30.5	22.1	41.8	85	—13	June 5†	Sept.11†
Gleneyre	26.7	35.4	33.9	45.6	50.0	61.3	65.2	66.2	57.6	44.2	33.6	25.6	45.4	88	—14	May 21†	Sept.10†
Grand Junction	19.8	28.7	40.4	56.8	60.0	72.6	79.6	77.6	64.5	51.1	38.8	23.6	51.1	100	—16	Apr. 5†	Oct. 17†
Greeley	23.2	34.6	34.0	.....	53.9	66.9	70.2	71.2	59.6	45.7	29.7	21.3	.....	99	—23	May 9†	Sept.11†
Grover	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gulch	18.4	28.8	.....	[1]48.1	50.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gunnison	8.8	23.3	.....	.....	.....	61.8	64.8	62.6	51.2	39.8	26.2	1.2	.....	96	—35	.....	Sept. 4†
Hamps	25.0	32.8	32.3	45.8	51.4	62.6	67.5	67.4	55.2	42.9	30.8	21.4	44.6	95	—19	May 6†	Sept. 6†
Hoehne	26.5	35.2	38.4	50.6	56.4	67.9	71.2	69.6	60.0	49.7	36.4	21.2	48.6	97	—18	Apr. 28	Oct. 17†
Holyoke (near)	32.0	36.0	33.6	49.6	55.7	69.8	73.4	.....	.....	.....	.....	24.6	.....	.....	.....	.....	.....
Husted	26.2	35.0	34.0	46.6	50.4	62.2	67.6	68.0	59.2	46.0	34.0	24.3	46.1	97	—19	May 6†	.....
Lake Moraine	.....	[1]26.3	[e]22.8	34.6	39.0	50.0	54.8	54.0	47.8	36.4	24.6	16.6	.....	77	.....	June 13†	Sept. 6†
Lamar	28.3	38.9	41.6	54.2	59.4	72.3	77.0	76.6	64.5	51.3	39.8	26.4	52.5	107	—12	May 6	Sept. 7†
Las Animas	27.5	40.0	39.6	54.6	59.6	70.9	75.0	71.9	62.7	49.6	37.5	25.6	51.2	101	—12	May 11†	Sept. 6†
Leadville (near)	11.3	22.4	18.2	32.0	39.4	53.1	58.8	57.0	51.5	36.7	24.5	14.8	35.0	78	—24	June 3†	Sept.11†
Leroy	27.1	35.1	33.3	48.2	52.8	67.6	71.9	74.0	61.3	47.1	34.5	26.8	48.3	104	—13	Apr. 28†	Oct. 4†
Longs Peak	20.0	26.8	23.6	36.3	38.4	50.4	[55.8]	56.6	50.0	[c]37.9	26.8	19.4	36.8	.....	—24	June 30†	Sept. 7†
Loveland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meeker	10.8	24.3	30.4	45.0	52.3	62.0	68.6	67.6	54.4	41.1	28.2	10.2	41.2	98	—31	June 6†	Sept. 9†
Millbrook	15.2	26.3	30.0	44.1	48.0	59.8	64.4	.....	.....	42.5	30.8	21.7	.....	.....	—27	June 1†	Sept.11†
Minneapolis	31.5	40.2	41.0	54.0	57.8	71.0	75.6	[j]75.0	64.8	51.8	38.0	24.0	52.1	102	— 9	May 5†	Sept.12†
Moraine	21.8	30.4	25.9	40.7	42.9	55.2	60.6	61.5	52.3	40.9	28.1	20.3	40.0	85	—23	June 6†	Sept. 7†
Pagoda	11.5	25.1	29.2	44.9	49.2	60.2	65.7	67.3	54.8	41.4	28.6	10.8	40.7	96	—31	May 21	Sept. 3†
Parachute	.....	.....	31.4	.....	.....	.....	77.5	77.3	64.8	48.8	37.2	20.1	.....	102	.....	.....	Sept.11†
Perry Park	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Pueblo	26.5	38.1	37.8	52.2	56.4	68.9	74.3	74.1	61.8	49.5	36.8	24.5	50.1	101	—16	Apr. 28	Oct. 4
Rangely	4.0	14.1	29.0	49.6	54.0	67.1	73.0	72.4	.....	.....	26.1	.....	.....	.....	.....	May 20†	.....
Rico	17.1	25.4	24.3	39.4	42.6	53.5	59.8	59.0	49.9	39.7	27.3	.....	.....	86	.....	July 3†	Sept. 4
Rockyford	27.4	38.4	40.0	53.5	57.5	69.5	74.2	74.4	61.1	49.3	37.4	24.2	50.6	100	—17	Apr. 28	Sept.13†
Saguache	13.9	28.5	30.2	45.8	49.3	58.7	65.8	62.2	53.8	43.4	28.0	10.5	40.8	89	—26	June 1†	Sept.10†
Salida	22.9	33.8	33.5	46.4	49.6	62.1	66.4	66.9	56.9	46.8	34.6	20.8	45.1	96	—21	June 4†	Sept.12†
San Luis	11.2	27.2	32.5	45.4	46.4	54.7	60.4	61.0	[1]52.0	[j]38.4	28.8	11.4	42.7	88	—30	June 5†	Sept. 5†
Santa Clara	23.4	30.6	30.8	43.4	48.2	59.2	62.3	60.2	51.4	40.8	29.6	23.0	41.9	90	—15	May 11†	Sept.10†
Seguro	.....	.....	.....	38.4	42.7	.....	56.9	56.2	48.1	38.6	29.4	17.6	.....	.....	.....	May 9	Sept.11†
Smoky Hill Mine	26.3	33.8	30.6	42.3	43.4	55.7	61.5	63.4	54.8	42.0	32.2	24.5	42.6	91	—21	June 5	Sept. 7†
Stamford (*a*)	17.9	30.1	23.2	33.9	37.2	47.4	51.9	50.8	44.6	33.0	23.4	14.7	34.0	80	—29	June 12†	Sept.10†
Steamboat Springs	8.2	20.0	24.2	40.8	.....	.....	60.5	.....	46.6	41.0	25.4	13.9	.....	.....	.....	.....	.....
Trinidad	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
T. S. Ranch	18.8	31.3	38.3	53.0	54.0	67.0	74.4	72.8	64.2	50.4	37.0	21.9	48.6	95	— 9	Apr. 28	Oct. 16†
Wagon Wheel	5.0	13.5	19.7	36.7	39.5	49.0	53.7	52.8	43.9	33.2	16.6	2.8	30.5	81	—34	(1)	(1)
Walden	11.1	20.6	22.1	39.1	43.2	54.2	60.8	62.4	51.9	36.2	[18.6]	.....	.....	.....	.....	June 10	Sept. 3†
Wray	28.9	33.9	36.2	50.8	56.3	69.6	74.4	74.1	60.6	46.1	32.4	25.0	49.0	101	—19	May 6	Sept. 7
Connecticut.																	
Canton	25.0	27.2	41.0	42.8	55.0	66.2	70.1	69.4	63.5	51.0	36.9	26.1	47.8	96	—15	Apr. 23	Oct. 17
Colchester	27.8	30.5	41.4	44.4	55.8	66.1	70.7	71.2	64.8	53.2	40.2	30.1	49.7	98	— 3	Apr. 23	Oct. 17
Hartford	26.1	29.4	42.6	45.2	55.8	68.3	.....	72.2	65.5	53.4	39.2	28.9	.....	.....	— 4	Apr. 7†	Oct. 18
Hawleyville	.....	.....	.....	47.2	56.0	67.6	72.4	71.1	64.7	52.8	.....	.....	.....	97	.....	Apr. 7†	Oct. 17
Middletown	28.3	30.2	43.6	46.0	57.1	69.0	74.1	74.2	.....	.....	42.2	31.9	.....	103	—12	Apr. 28†	.....
*New Haven	29.4	31.2	42.4	45.4	55.8	66.9	72.0	72.4	66.6	54.0	41.0	31.0	50.7	97	0	Apr. 7†	Oct. 28
New London	28.4	29.0	37.8	41.5	53.0	63.1	67.6	71.2	65.6	53.0	39.6	30.2	48.3	92	2	Apr. 27	Oct. 17
North Grosvenor Dale	23.1	27.7	41.5	44.4	53.1	.....	.....	.....	.....	.....	42.0	30.9	.....	.....	—16	Apr. 26	.....
Norwalk	29.0	29.0	.....	43.8	55.8	67.5	71.4	71.0	65.0	53.0	38.8	28.6	.....	98	—13	May 10	Oct. 17
Pomfret	.....	28.4	40.2	43.7	56.4	67.2	70.8	[d]71.3	[d]60.2	53.8	39.2	29.2	.....	90	.....	Apr. 28†	Oct. 17
Southington	26.7	28.5	41.6	44.8	55.8	67.0	71.6	71.0	64.2	52.8	38.8	28.6	49.3	96	—12	May 10	Oct. 17
Storrs	25.2	27.6	40.2	42.2	54.0	65.2	69.8	70.0	63.9	51.9	37.6	27.3	47.9	96	— 7	May 10	Oct. 17
Voluntown	28.5	30.3	42.0	44.4	55.6	[e]65.4	70.0	71.0	64.2	[e]53.0	40.6	30.1	49.6	95	—14	May 10	Sept. 21
Waterbury	28.6	29.8	42.2	44.6	55.7	67.8	72.8	71.6	66.0	53.4	38.6	27.5	49.9	100	— 6	May 10	Oct. 17
West Cornwall	24.4	26.6	39.2	41.6	54.5	65.8	69.6	68.6	62.5	50.4	36.2	27.2	47.2	92	— 7	Apr. 28	Oct. 17
Windsor	24.8	27.0	41.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winsted	.....	25.8	37.8	40.8	54.4	66.6	70.3	68.9	61.9	50.4	36.8	25.8	.....	95	.....	Apr. 6	Oct. 10
Delaware.																	
Dover	35.9	34.8	48.1	50.0	61.6	71.0	76.8	76.0	69.8	57.6	43.4	35.7	55.1	99	6	Apr. 28†	Nov. 5†
Milford	39.5	38.9	50.0	52.4	62.4	73.2	80.0	79.3	72.2	61.2	46.2	39.4	57.9	99	10	Apr. 7†	Nov.12†
Millsboro	37.4	36.5	47.6	49.3	61.6	70.8	76.9	77.3	70.2	59.4	44.8	37.0	55.7	98	6	Apr. 28	Oct. 28†
Newark	33.1	33.2	46.2	48.2	60.7	70.8	76.6	74.8	68.4	56.4	41.6	33.4	53.6	98	0	Apr. 9†	Oct. 28
Seaford	37.8	36.6	49.2	50.6	62.4	71.5	77.2	76.2	70.8	59.4	45.0	37.7	56.2	98	11	Apr. 4	Oct. 28
District of Columbia.																	
Distributing reservoir (*e*)	36.7	34.2	49.3	51.6	65.6	76.0	79.0	77.2	71.0	58.6	44.4	37.9	56.8	98	6	Apr. 6†	Oct. 29†
Receiving reservoir (*e*)	36.6	33.7	48.6	50.6	65.5	75.0	77.9	77.3	71.0	58.3	44.1	35.6	56.2	97	4	Apr. 6†	Oct. 28†
*Washington	36.6	35.0	48.8	50.9	64.4	73.5	78.8	76.9	71.0	57.8	44.0	35.6	56.1	101	2	Apr. 6	Oct. 24
West Washington	35.6	34.4	49.0	51.0	64.8	73.8	78.6	77.0	71.0	57.4	43.6	34.4	55.9	102	3	Apr. 9†	Oct. 17

[1] Frost every month in the year.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Florida.																	
Archer	59.1	55.9	66.6	68.8	77.2	78.6	81.0	81.2	80.4	70.6	64.4	55.8	70.0	100	17	Feb. 23	Dec. 6
Bartow	61.4	59.4	70.2	70.7	78.1	82.8	82.0	80.3	80.9	74.0	70.8	.....	.....	100	18	Feb. 23	Dec. 12†
Bocaraton	67.3	65.9	71.8	72.2	75.4	79.8	81.6	[k]81.3	.....	77.8	73.8	68.4	.....	.....	33	Jan. 4	None
Brooksville	61.0	57.4	67.1	69.2	77.8	81.0	79.2	79.4	79.8	70.8	66.2	57.6	70.5	97	23	Feb. 23	Dec. 6
Carrabelle	56.4	53.4	65.3	65.3	74.9	82.0	82.0	81.0	80.1	[l]72.5	.....	.....	.....	95	.....	Feb. 7†	.....
Clermont	.....	61.4	70.8	70.8	78.8	.....	83.8	82.2	81.0	72.1	67.3	59.2	.....	.....	.....	Jan. 3	Dec. 6
Crawfordsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	68.0	58.2	52.3	.....	.....	.....	.....	Nov. 23
De Funiak Springs	55.6	51.4	63.6	61.3	74.3	79.6	78.6	78.2	76.4	65.0	55.1	49.8	65.7	99	18	Mar. 5	Nov. 20
Earnestville	62.5	59.6	70.1	70.8	79.1	82.6	82.6	81.6	81.4	72.1	67.0	58.6	72.3	100	24	Feb. 2	Dec. 6
Estero (*a*)	62.0	60.5	68.6	70.5	75.8	81.0	79.8	79.6	79.5	75.4	71.3	63.5	72.3	93	16	Jan. 3	None
Eustis	62.6	59.0	69.8	69.8	78.2	82.0	83.0	81.8	81.1	72.6	67.0	59.3	72.2	101	25	Jan. 3	Dec. 12†
Federal Point	58.1	55.8	66.0	66.4	74.6	79.5	80.8	80.6	78.5	70.2	63.7	55.1	69.1	97	24	Feb. 23	Dec. 6†
Fort Meade	59.0	59.0	67.5	[c]70.0	.....	.....	80.7	80.9	80.6	73.3	69.3	59.9	.....	.....	26	Feb. 28	Dec. 5†
Gainesville	55.1	55.4	66.4	66.6	76.8	82.6	83.4	81.8	79.8	70.2	63.2	53.4	69.6	100	20	Feb. 2	Dec. 6†
Glenwood	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grasmere	60.2	57.9	68.4	69.2	77.5	83.2	83.6	82.0	81.2	72.3	67.0	57.4	71.7	101	19	Mar. 1	Dec. 6
Haywood	56.0	52.5	66.1	66.0	78.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Homeland	.....	.....	.....	68.4	78.2	83.4	83.8	83.6	82.3	74.6	70.8	61.1	.....	99	.....	.....	Dec. 5†
Huntington	60.0	58.6	67.7	68.0	76.4	81.2	82.0	80.8	79.8	70.6	65.1	55.7	70.5	100	25	Feb. 3	Dec. 6†
*Jacksonville	59.2	55.6	66.7	66.7	76.5	81.4	82.0	82.1	79.8	70.0	62.6	54.8	69.8	98	24	Feb. 23	Dec. 6
Jasper	56.4	52.7	65.0	64.4	.....	.....	.....	.....	.....	.....	.....	52.8	.....	.....	28	Feb. 23	.....
*Jupiter	64.8	64.0	69.8	71.8	75.8	79.4	81.0	80.8	81.3	76.8	72.9	66.2	73.7	91	31	Jan. 4	None
*Key West	70.0	68.6	73.3	75.4	78.2	82.5	83.2	82.5	82.0	77.2	75.6	70.5	76.6	91	46	None.	None
Kissimmee	64.4	60.5	68.6	71.2	77.6	82.2	83.2	81.1	81.0	75.0	68.6	60.8	72.8	98	22	Jan. 4	Dec. 11
Lake Butler	58.8	56.4	70.3	.....	76.6	81.8	82.8	80.9	81.2	.....	.....	55.4	.....	100	22	.....	.....
Lake City	60.5	55.2	67.0	66.4	76.9	81.4	81.4	81.0	79.9	69.6	62.6	54.6	69.7	101	23	Feb. 23	Dec. 6
Lakemont	63.9	63.0	71.3	72.4	79.4	83.2	[e]82.5	.....	82.4	75.8	72.2	63.0	.....	102	.....	Jan. 4	Dec. 12†
Lemon City	65.7	66.2	72.1	72.2	76.0	81.0	82.0	81.6	81.8	76.7	75.6	67.4	74.9	92	35	None.	None
Macclenny	58.6	54.6	66.6	66.1	75.6	.....	[i]82.8	81.8	80.0	69.2	62.0	54.0	.....	.....	22	Feb. 7	Dec. 5
Manatee	61.0	59.5	66.7	69.0	76.0	80.7	80.4	80.0	79.8	73.1	67.4	59.6	71.1	100	20	Feb. 1†	Dec. 12†
Merritts Island	63.7	61.4	69.9	70.2	76.7	81.2	81.8	81.0	81.3	75.0	69.2	61.3	72.7	96	28	Jan. 4	None
Myers	65.4	63.3	64.2	69.7	75.6	80.4	81.0	80.6	80.8	74.9	71.1	63.8	72.6	94	28	Jan. 3†	None
New Smyrna	60.3	57.8	66.4	67.6	72.2	77.4	78.9	79.0	79.6	73.2	67.8	57.8	69.8	94	22	Feb. 2	Dec. 6
Oakhill (*a*)	.....	.....	.....	.....	.....	.....	.....	81.0	81.6	.....	71.3	61.9	.....	.....	.....	.....	.....
Ocala	61.2	57.8	68.2	67.6	76.9	81.4	82.2	81.0	80.1	71.4	65.6	57.5	70.9	101	19	Feb. 23	Dec. 6
Orange City	60.8	57.4	67.9	69.0	77.7	83.6	83.2	81.6	80.6	72.9	68.0	58.2	71.7	99	19	Jan. 3	Dec. 6
Orange Park	57.2	55.0	64.8	66.6	76.6	81.4	83.2	81.4	78.0	.....	.....	53.8	.....	100	.....	Jan. 3	Dec. 27
Orlando	59.8	59.0	67.6	69.8	77.1	81.7	82.8	81.6	80.5	73.0	68.0	59.0	71.7	98	23	Feb. 23	Dec. 6
*Pensacola	56.4	53.2	63.7	64.0	74.8	81.0	80.9	80.0	79.0	67.4	57.7	51.6	67.5	97	20	Feb. 22	Nov. 23
Plant City	62.8	59.1	69.4	69.0	76.2	81.2	81.3	81.4	81.0	73.0	68.6	60.2	71.9	99	20	Feb. 23	Dec. 6†
St. Andrews	53.1	53.1	65.8	65.6	75.6	82.0	82.2	80.4	.....	.....	.....	.....	.....	98	.....	.....	.....
St. Francis	60.1	57.1	66.3	65.6	72.5	77.6	80.0	79.8	79.1	70.8	65.9	57.6	69.4	97	18	Feb. 23	Dec. 6†
St. Francis Barracks	58.4	54.5	65.6	65.2	73.8	78.8	79.8	79.4	79.1	71.4	64.4	53.2	68.6	95	25	Feb. 1	None
Sebastian	64.2	64.0	70.4	70.6	74.6	77.6	79.0	79.4	80.4	74.6	70.6	61.3	72.2	93	24	Jan. 3	None
Switzerland (*a*)	55.7	52.5	[c]65.4	64.9	74.8	.....	.....	.....	[d]77.3	[e]68.9	61.9	53.2	.....	.....	.....	Jan. 3	Dec. 27
Tallahassee	57.2	53.9	66.0	65.0	76.1	80.8	80.4	79.4	79.9	67.1	58.2	51.1	67.9	96	22	Feb. 22	Nov. 27†
*Tampa	62.2	59.3	69.0	68.9	76.6	80.8	81.0	80.8	80.5	72.6	67.9	60.0	71.6	95	27	Feb. 2	None
Tarpon Springs	59.2	58.1	69.4	68.8	75.4	80.0	80.5	80.8	80.5	72.4	69.4	59.1	71.0	94	22	Jan. 3	None
Wausau	55.1	50.6	64.6	63.8	76.8	82.6	81.6	79.5	.....	.....	54.5	50.8	.....	99	17	Jan. 4	Nov. 30
Georgia.																	
Adairsville	44.0	40.3	56.4	54.8	71.6	78.2	.....	78.0	72.5	59.0	46.4	40.5	.....	.....	10	Apr. 7	Oct. 25
*Alapaha	52.8	47.8	62.2	.....	76.4	81.6	80.6	79.8	77.8	65.7	.....	.....	.....	100	.....	Mar. 6	Oct. 27
*Albany	52.0	55.2	65.3	63.2	78.0	83.9	82.8	80.2	77.4	64.2	53.7	48.6	67.0	103	19	Feb. 23	Oct. 27
Allentown	52.4	47.8	63.5	60.4	77.2	83.5	82.0	80.4	78.6	65.4	53.5	48.1	66.1	101	16	Apr. 8	Oct. 23
*Americus	52.4	48.2	63.5	61.4	77.6	83.7	82.8	80.4	77.0	63.0	52.6	[e]47.2	65.8	102	16	Mar. 5	Oct. 27
*Athens	46.0	41.0	57.0	56.1	73.6	80.4	78.9	77.4	73.2	60.2	48.2	43.8	61.3	99	16	Apr. 7†	Nov. 23
*Atlanta	46.9	43.2	57.5	56.5	72.8	79.2	78.0	77.2	73.8	60.2	48.6	43.6	61.5	96	13	Feb. 23	Oct. 20
*Augusta	51.2	46.1	61.8	58.9	74.8	80.6	80.6	79.4	76.4	64.0	52.0	47.8	64.5	99	18	Apr. 7	Oct. 27
Bainbridge	.....	.....	.....	.....	74.5	81.8	81.0	79.4	80.0	67.8	.....	.....	.....	101	.....	.....	.....
Bellville	54.7	49.7	65.4	60.7	75.7	80.9	80.6	79.3	77.2	65.9	50.0	.....	.....	.....	.....	Feb. 26	Oct. 26
Blakely	54.4	50.6	64.0	63.2	76.4	81.6	80.4	79.2	77.6	66.4	55.4	50.0	66.6	97	19	Apr. 23	Oct. 22
Brag	54.3	48.1	65.4	62.0	75.2	81.8	79.4	79.8	.....	.....	.....	.....	.....	103	.....	Apr. 8†	.....
*Camak	.....	.....	.....	.....	75.8	81.1	80.7	78.4	74.9	62.6	.....	.....	.....	100	.....	Apr. 28	Oct. 27
Cartersville	.....	40.0	58.6	.....	.....	.....	.....	78.6	72.8	59.2	47.8	43.0	.....	.....	.....	Apr. 7	Oct. 22
Cedartown	47.6	[c]41.8	56.8	[d]54.7	70.6	[e]77.4	.....	.....	71.6	[e]56.6	[d]46.0	[e]41.4	.....	.....	12	Apr. 8	Oct. 23
Clayton	43.0	37.9	53.4	53.0	68.5	74.6	75.8	75.4	69.5	57.2	46.2	40.0	57.9	96	10	Apr. 21	Oct. 19
*Columbus	51.0	47.3	62.0	59.3	74.8	82.1	81.4	79.1	77.0	67.2	54.8	51.8	65.6	101	20	Feb. 26	Nov. 2†
Covington	44.7	41.6	58.8	55.3	73.0	80.2	77.7	75.9	71.2	55.6	45.2	40.8	59.8	102	12	Apr. 7	Nov. 27
Crescent	55.8	51.0	64.0	63.6	73.4	78.8	78.5	79.1	76.6	66.5	.....	.....	.....	102	20	Apr. 28	Oct. 27
Dahlonega	44.0	40.6	54.6	53.6	68.0	74.2	75.2	73.7	69.6	57.9	46.4	41.8	58.3	95	7	Apr. 8	Oct. 19
Diamond	.....	36.9	53.0	50.7	66.6	73.2	74.5	72.8	68.8	56.4	44.4	38.3	.....	98	.....	Apr. 8	Oct. 19
*Eastman	.....	.....	.....	.....	74.8	.....	81.7	81.1	78.0	66.6	.....	.....	.....	.....	.....	.....	.....
*Elberton	47.2	43.2	60.0	57.4	74.4	80.4	79.3	78.1	73.9	62.4	49.8	44.6	62.6	100	15	Apr. 7	Oct. 27
Fitzgerald	.....	.....	62.6	62.6	76.8	.....	.....	79.6	76.0	64.2	55.0	49.8	.....	.....	.....	Mar. 5	Oct. 26
Fleming	53.2	49.0	63.4	.....	.....	.....	80.4	80.2	77.8	66.4	56.4	50.2	.....	.....	16	Apr. 8	Oct. 27
*Fort Gaines	52.7	48.4	63.1	61.8	76.0	82.0	81.5	79.2	74.8	63.9	54.2	.....	.....	98	.....	Apr. 8	Oct. 23
Franklin	50.1	46.4	59.1	57.4	72.7	79.0	78.4	77.4	74.5	.....	50.4	46.6	.....	.....	.....	Mar. 6†	.....
*Gainesville	44.9	39.5	54.8	53.4	69.3	76.8	77.0	75.5	71.1	58.6	46.4	42.1	.....	.....	.....	Apr. 8	Oct. 27
Gillsville	46.2	43.1	57.1	56.3	72.4	79.5	78.4	77.4	74.7	60.6	49.0	.....	.....	.....	.....	Apr. 8	Oct. 23
Greenbush	44.8	39.6	55.0	55.3	69.2	76.2	76.9	76.8	71.7	58.2	45.4	[d]40.2	.....	.....	.....	Apr. 8	Oct. 15
Griffin	.....	.....	.....	.....	74.9	79.1	79.8	78.7	76.2	61.6	50.5	44.2	.....	.....	.....	.....	Oct. 23
*Harrison	.....	.....	.....	.....	.....	.....	.....	80.2	76.3	64.2	52.6	47.4	.....	.....	.....	.....	Nov. 24
Hawkinsville	51.2	44.8	59.7	.....	.....	.....	.....	.....	.....	62.8	.....	44.6	.....	.....	.....	.....	Oct. 24
Hephzibah (*f*)	52.3	49.7	.....	62.2	.....	84.2	81.0	80.2	79.2	67.1	53.9	49.3	.....	.....	.....	Apr. 28	Oct. 23
Jesup	54.4	50.2	63.4	61.6	76.0	.....	[g]81.8	80.0	78.2	66.2	57.4	50.8	.....	.....	.....	Apr. 8	Nov. 27
Lagrange	50.2	46.6	60.9	59.0	74.6	81.3	80.0	76.5	74.8	63.5	50.0	46.0	.....	.....	.....	Apr. 8	Oct. 27
Lawrenceville	47.0	[d]43.0	[d]57.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Georgia—Continued.																	
Leverett			58.8	56.6	74.6	81.0	[e]80.8									Apr. 7	
Louisville	52.4	48.4	63.5	60.2	75.6	81.8	81.1	[f]79.4	76.6	[f]64.0	53.2	48.0	65.4	101	17	Feb. 26	Oct. 23†
Lumpkin	52.5	49.7	61.6	61.5	76.9	81.2	79.6	77.7	76.6	63.1						Feb. 21	
*Macon					75.4	81.6	81.2	79.6	76.2	63.2							
Marietta	46.2	41.4	56.4	55.1	68.7	76.8	76.2	75.8	71.2	59.0	46.9	42.7	59.7	94	12	Apr. 8†	Oct. 28
Marshallville	52.4	48.7	63.6	61.0	76.0	81.8	80.3	79.0	77.5	64.2	53.5	48.1	65.5	98	18	Apr. 8	Oct. 23
Mauzy					76.0	80.9	80.0	79.2	78.0	65.7	56.0	51.2		99			Oct. 27
*Millen			62.8	59.6	76.2	82.0	82.6	81.2	77.5	65.4	*53.2	48.2		104		Apr. 3	Oct. 27
Morgan	51.3	48.3	61.4	60.2	73.6	[c]79.0	78.8	78.6	77.0	62.6	54.4	47.1	64.4	98	13	Apr. 8	Oct. 21
Mount Vernon	54.8	47.4	62.4			84.4	82.0	81.1	77.5			50.6		100	22		
*Newnan	46.8		58.2	55.4	75.0	80.0	78.5	76.0	72.6	57.2	45.4			100		Apr. 8	Oct. 27
Piscola	55.8	53.0	65.1	65.6	[b]76.4						58.6	51.5			20	Mar. 5	Nov. 27
Point Peter	44.7	39.2	56.2	53.5	72.8	80.2	79.4	78.4	73.2	[c]61.4	45.2	41.7	60.5	102	13	Apr. 7	Oct. 26
Poulan	53.5	49.1	62.6	66.8	75.0	81.4	79.6	79.4	77.4	65.1	54.6	49.3	66.2	102	15	Apr. 8	Oct. 27
*Quitman	54.8	52.1	63.8	62.8	76.4	81.8	81.5	79.6	78.0	65.6	57.1	50.2	67.0	99	19	Apr. 8	Oct. 27
Ramsey	46.9	42.2	57.4	54.8	70.8	77.4	78.2	77.0	72.0	60.3	49.2	42.9	60.8	99	10	Apr. 8	Oct. 23
*Rome	45.7	41.0	56.6	55.2	71.2	78.5	79.2	78.5	73.0	59.2	46.9	41.8	60.6	99	15	Apr. 8	Oct. 27
*Savannah	55.5	51.2	64.0	63.6	76.0	80.4	81.2	80.3	78.0	67.8	57.2	51.4	67.2	101	23	Apr. 28	Nov. 27
Talbotton	50.8	46.9	60.5	58.8	74.3	80.2	77.9	74.5	72.5	61.8	51.4	46.2	63.0	98	19	Apr. 8	Oct. 27
Tallapoosa	46.4	41.7	57.5	54.6	71.8	77.9	77.4	76.1	71.8	57.5	46.8	41.2	60.1	95	8	Apr. 8	Oct. 22
*Thomasville	55.1	52.5	64.4	63.6	77.0	82.4	81.7	79.7	79.6	66.8	56.8	50.0	67.5	98	20	Feb. 25	Nov. 23†
*Toccoa	44.6	41.4	56.4	57.4	71.3	77.8	78.0	77.4	73.2	59.0	46.9	42.0	60.4	97	14	Apr. 6	Oct. 31†
*Union Point					71.0	77.9	78.8	77.8	73.1	60.8				97		Apr. 28	Oct. 27
*Washington					74.8	81.4	79.9	78.7	74.6	61.8				99			
*Waycross	53.8	50.0	63.0	62.2	75.9	81.4	81.6	81.0	78.5	67.8				100		Apr. 8	
*Waynesboro					73.8	79.6	78.4	77.2	73.9	62.5				98			Oct. 28
*Westpoint					74.8	81.8	81.2	78.8	75.1	60.4				99			Oct. 27
Idaho.																	
Albany Falls		[a]34.7	33.5	46.9	51.8	59.6	65.4	65.1	54.7	40.9				99			
American Falls	13.9	30.8	32.4	48.8	52.2	65.0	70.6	72.2	60.2	43.8	34.6	17.0	45.1	102	—25	May 5	Sept. 10
Atlanta									53.0	39.4	29.8	20.1					
Blackfoot	12.2	30.2	32.2	49.0	53.8	64.4	70.0	69.6	55.6	[d]41.2	27.5	15.0	43.4	97	—30	June 5	Sept. 29
Boise Barracks	22.2	38.4	38.2	53.0	56.7	66.3	73.0	75.2	60.4	46.6	35.6	25.3	49.2	111	— 6	May 20	Sept. 28†
*Boise City												25.6					
Burnside	15.0	26.0	24.8	43.2	47.5	58.6	66.0	68.4	56.2	37.0	25.0	16.2	40.3	91	—22	June 2	Sept. 28
Challis	18.6	33.2	36.2	50.6	56.3												
Chesterfield			28.4	43.8													
Chester																	
Cœur d'Alene	27.4	35.1		47.4	57.6	62.1	65.8	73.8								Apr. 30	
Corral (*a*)	9.1	23.3	24.1	43.4	49.8	59.0	65.8	68.6	54.2								
Downey	14.1	30.4	29.0	47.0	49.0	58.9	66.4	70.2	55.6	38.2	28.0	13.3	41.7	100	—30	June 30	Sept. 28
Fort Sherman	26.2	35.0	34.4	47.4	53.6	61.2	68.0	69.9	56.9	45.0	34.6	25.9	46.5	103	3	May 12	Sept. 19†
Gimlet	15.2	26.2	26.4		49.7	57.8	64.8	69.0			23.7	18.2		94	—16	June 29	
Gray	15.4	24.1	22.8	39.4	45.2	55.0	61.5	61.1	50.6					94		June 6	Sept. 2
Idaho City	[f]19.1	[d]31.3	[c]32.2	[f]46.3	[g]61.5		[d]65.0	68.6		50.0		[j]20.2			—17	June 26	Sept. 27
*Idaho Falls	8.4	24.3	29.2	47.2	50.8	61.0	68.1	69.6	56.6	40.9	26.7	12.4	41.3	95	—33	June 4†	Sept. 29
Kootenai	24.6	34.0	34.8	51.5	58.4	62.0				50.4	29.6	[c]23.7			1	June 2	
Lake	2.8	11.2	15.6	33.0	41.8	51.3	57.0	58.4	54.0		15.8	8.2		86	—28	June 30	Aug. 29
Lakeview	28.8	36.6	34.4	46.6	52.6	60.0	65.0	68.4	57.2	44.1	35.6	28.4	46.5	90	8	Apr. 19	Oct. 3
Lewiston	33.6	43.8	[i]39.6	54.6	58.8	66.3	77.6	77.5	68.0		43.4	30.0		106	5	Mar. 31	Nov. 2
Lost River	[c]7.2	22.5	28.4	[d]44.6	[d]49.8	59.8	65.5		54.6	[c]39.4	25.4	14.5		95	—26	May 31	Sept. 6
Marysville	9.6	24.4	22.8	39.6	48.6	59.6	64.3	66.4	53.1	37.4				93		May 25	Sept. 29
Minidoka	16.9	29.4	27.2				70.8	70.4	59.6	43.1	33.1	18.9		103	—28	May 14	Sept. 4
Moscow	23.4	35.6	30.9	45.6	50.4	57.9	64.4	69.6	58.6	44.4	31.9	25.6	44.9	100	— 4	May 30	Sept. 27
Murray	23.7	33.2	32.6	44.8	50.2	57.8	63.6	66.0	52.2	40.8	32.0	21.8	43.2	97	— 8	May 27	Oct. 2
Nampa	20.2	37.6	37.8	53.2	56.6	66.1	73.8									May 31	
New Plymouth	21.8	36.8	40.0	56.8	60.2	68.4										May 19	
Oakley	21.8	35.4	35.0	50.3	52.2	65.4	74.4	75.4	61.8	47.9	34.6	24.2	48.2	103	— 7	June 2	Sept. 2
Ola	18.4	33.2	35.2	52.3	54.7		68.4	71.4	58.4	46.0	33.2	20.5		100	—19	May 31	Sept. 23
Paris	9.2	20.1	21.8	41.4		58.0	63.8	66.2	56.2	42.7	29.6	12.8		94	—33	June 25	Sept. 29
Payette	22.4	38.2	42.8	61.3	61.9	70.9	75.8	77.9	65.3	52.2	36.2	24.7		110	—11	May 30	Sept. 27
Pollock	31.4	43.1	39.3	53.6	56.6	62.3	70.4	72.6	60.5	47.4	38.2	29.8	52.5	110	5	May 4	Sept. 28
Rexburg	8.0	22.7	[d]26.7	48.2	50.7												
Roseberry	8.6	30.4															
Saint Maries	28.2	37.6	36.1	49.5	54.0	61.4	66.4	68.8	58.0	46.0	35.8	30.2	47.7	102	— 2	May 8	Sept. 6
Salubria	16.6	31.1	37.4	53.1	[d]56.0	64.6	71.6	73.8	59.9	46.0	35.5			107		June 28	Sept. 22
Soldier	7.0	23.4	23.6	44.2	48.9	58.0	64.2	66.4	53.9	43.0	27.4	12.1	39.3	100	—33	June 29	Sept. 1
Swan Valley	11.7	25.9	27.6	43.4	50.5	58.1	62.8	65.7	51.2	38.8	26.2	10.5	39.4	94	—35	June 29	Sept. 4
Warren	21.1	31.8	26.5	41.2	45.4	55.0	60.6	64.0	54.6	39.5		22.1		94	—22	July 20	Sept. 3
Weston			33.0	50.4	52.2	59.4	67.3	[h]70.6	58.4	[m]43.4	34.0	15.7		96		May 20	Sept. 11
Illinois.																	
Albion	37.2	35.4	48.8	52.5	66.7	76.6	77.8	76.4	72.4	55.2	42.0	31.2	56.0	98	— 3	Apr. 7	Oct. 23
Alexander	31.6	33.6	44.6	50.9	63.6	75.6	77.0	76.2	72.0	53.2	39.4	28.3	53.8	102	— 5	Apr. 7	Oct. 14
Ashton	25.0	24.5	38.6	47.2	60.1	71.3	75.4	71.8	65.7	48.5	33.7	21.8	48.6	96	—11	Apr. 11	Oct. 12
Astoria									68.4	51.1	35.2	26.6					Oct. 14
Atwood (*c*)	29.2	28.0	40.6	45.4	58.4	71.0	73.0	74.1	71.9	49.8	33.3	24.7	50.0	102	— 6	Apr. 21	Oct. 23
Aurora[1]	26.6	26.0	41.3	47.0	59.3	70.9	75.0	71.7	68.0	50.2	34.4	23.2	49.5	99	—10	Apr. 27	Oct. 15
Aurora[2]	25.8	25.0	40.6	46.9	59.0	70.6	74.6	72.1	66.5	49.8	34.6	23.2	49.1	98	—10	Apr. 27	Oct. 15
Bloomington	29.6	30.2	43.6	50.4	62.5	74.6	76.8	75.6	71.3	54.6	38.2	26.4	52.8	98	— 8	Apr. 21	Oct. 23
Bushnell	30.1	31.1	44.0						70.5	[b]52.1	38.0	26.1			— 5		Oct. 14
*Cairo	41.6	40.4	51.2	55.6	69.3	78.0	78.4	78.0	74.2	57.6	45.2	36.3	58.8	94	7	Apr. 6	Oct. 27
Cambridge	27.4	26.4	40.4	48.4	60.7	71.6	74.2	71.5	66.8	49.8	34.9	23.7	49.6	93	— 6	Apr. 7	Oct. 14
Carlinville	33.4	35.5	45.9	52.0	64.4	75.2	77.2	76.4	72.4	54.2	40.2	29.4	54.7	98	— 7	Apr. 7	Oct. 23

[1] C. A. Love. [2] Dr. M. M. Robbins.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Illinois—Continued.																	
Carrollton	32.2	32.8	44.1	50.6	61.2	73.4	[75.7]	[75.5]	70.0	51.8	38.6	26.4	[52.7]	.....	—4	Apr. 7	Oct. 23
Charleston	32.8	32.7	44.9	50.3	63.4	75.0	77.4	75.7	71.0	53.4	39.6	28.8	53.8	95	—10	Apr. 6	Oct. 15
*Chemung	22.4	21.9	37.2	44.4	57.0	68.8	70.8	68.9	63.6	47.8	32.6	19.0	46.2	92	—15	Apr. 29	Oct. 12
*Chicago	28.6	27.6	40.4	44.4	56.2	68.8	73.4	71.4	67.6	50.6	37.0	24.3	49.2	94	—8	Apr. 7	Oct. 23
Cisne	36.4	36.5	48.4	53.3	.....	.....	76.2	75.5	71.8	54.6	41.8	31.4	.....	95	—3	.....	.....
Coatsburg	29.6	30.6	42.2	50.0	62.8	74.6	75.8	74.0	68.6	51.6	37.0	25.0	51.8	98	—5	Apr. 7	Oct. 14
Cobden	39.6	38.2	49.4	53.7	67.2	76.2	76.8	76.2	72.8	55.5	43.0	33.2	56.8	95	—9	Apr. 7	Oct. 23
Cordova	23.4	.....	.....	.....	59.8	74.0	76.4	.....	65.9	50.4	36.8	22.6	.....	.....	—10	.....	.....
Danville	32.0	31.4	44.9	50.2	62.0	73.6	[d]75.0	75.0	70.0	56.1	40.6	28.4	53.3	98	—6	Apr. 27	Oct. 27
*Decatur	32.0	32.4	44.4	50.1	62.7	74.0	76.6	75.0	71.1	53.6	38.9	28.2	53.2	99	—4	Apr. 7	Oct. 15
*Dixon	24.8	24.4	38.9	47.6	59.5	70.9	74.6	71.6	67.2	49.2	34.0	22.0	48.7	98	—9	Apr. 21	Oct. 14
Dwight	27.8	27.9	41.5	48.2	60.1	72.6	74.8	72.6	67.6	50.8	34.7	23.8	50.2	99	—8	Apr. 27	Oct. 14
East Peoria	28.7	32.8	43.2	48.8	61.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 27	.....
Effingham	34.6	34.8	46.6	51.9	64.5	75.3	77.2	75.6	71.7	54.6	40.4	30.4	54.8	97	—7	Apr. 7	Oct. 15
Elgin	25.5	24.9	39.3	56.4	58.1	69.6	72.8	70.2	66.0	49.4	34.5	21.6	48.2	94	—10	Apr. 29	Oct. 15
Equality[1]	36.5	[38.1]	50.7	53.8	69.2	79.0	79.5	80.2	75.1	57.0	43.1	35.0	[58.1]	98	3	Apr. 6	Oct. 23
Flora	.....	.....	.....	.....	.....	.....	.....	.....	72.0	54.4	41.4	31.2	.....	.....	.....	.....	Oct. 23
Fort Sheridan	25.8	25.0	38.9	43.2	55.2	67.2	72.6	70.2	67.6	48.8	36.6	23.4	47.9	95	—8	Apr. 8	Oct. 14
*Galva	26.5	26.4	39.8	48.0	60.0	71.2	74.3	71.6	67.1	49.3	34.8	23.0	49.3	97	—11	Apr. 7	Oct. 14
Glenwood (a)	28.7	28.0	40.8	.....	[g]59.3	[h]68.8	[h]73.4	[d]71.8	[e]68.8	[g]50.5	[f]35.8	25.8	.....	98	—5	Apr. 8	Oct. 14
Golconda	40.8	39.0	51.2	53.8	68.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Grayville	41.1	39.7	51.7	55.1	68.8	78.8	79.8	78.2	74.2	57.2	43.2	[c]33.0	58.4	98	3	Apr. 7	Oct. 23
Greenville	32.6	33.0	44.3	51.9	65.8	77.0	77.3	75.8	71.8	52.8	39.3	29.4	54.2	96	—6	Apr. 7	Oct. 23
Griggsville	31.8	33.7	44.1	51.4	63.4	74.0	75.6	75.7	71.0	53.0	39.4	27.6	53.4	96	—2	Apr. 7	Oct. 23
Halfway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Halliday (c)	[d]39.0	[c]39.0	49.0	56.2	66.7	77.0	75.7	79.3	73.4	56.2	43.0	32.4	57.2	95	—4	Apr. 6	Oct. 23
Havana	32.6	33.9	45.0	52.0	63.4	75.5	77.8	75.0	70.8	54.2	41.0	30.0	54.3	96	—1	Apr. 7	Oct. 23
Henry	.....	.....	.....	.....	.....	74.0	75.8	73.0	68.4	51.2	36.8	25.4	.....	100	.....	Apr. 27	Oct. 14
*Hillsboro	33.6	34.8	46.0	51.8	64.2	75.1	76.2	75.6	72.1	54.2	40.1	28.9	54.4	98	—7	Apr. 7	Oct. 23
Joliet	29.1	28.9	43.1	47.9	59.2	71.2	74.4	71.8	67.4	50.6	36.0	24.6	50.4	97	—8	Apr. 21	Oct. 15
*Kankakee	.....	31.4	44.3	48.0	.....	.....	76.1	74.2	68.0	51.2	35.4	28.1	.....	.....	.....	Apr. 21	Oct. 15
Kishwaukee	23.1	23.4	37.1	44.6	54.8	67.0	71.2	68.8	63.7	45.9	[33.5]	[20.5]	46.1	95	.....	Apr. 27	Oct. 14
Knoxville	27.2	28.2	41.0	48.0	60.2	71.4	73.8	71.4	67.5	49.1	35.0	23.0	50.6	96	—10	Apr. 25	Oct. 14
Lagrange	26.7	26.5	40.9	45.5	57.4	69.8	73.4	70.3	66.0	49.5	36.4	24.0	48.9	95	—10	Apr. 27	Oct. 15
Laharpe	27.4	[a]28.3	[g]45.6	50.7	63.0	74.0	75.4	73.6	69.4	51.8	38.2	25.9	51.9	96	—10	Apr. 14	Oct. 14
Lanark	22.8	22.7	37.8	46.0	58.8	69.8	73.2	69.8	63.6	46.4	32.7	19.4	46.9	100	—10	May 12	Oct. 12
Lexington	29.1	29.8	43.1	48.6	[c]62.6	72.1	74.1	73.0	68.4	50.8	37.0	24.9	51.1	98	—6	Apr. 27	Oct. 15
*McLeansboro	37.9	37.2	49.3	52.6	67.7	76.8	77.8	76.2	73.4	55.8	42.9	32.0	56.6	97	—3	Apr. 7	Oct. 23
Martinsville	34.0	[c]33.6	46.2	50.8	64.0	74.4	[c]77.2	74.8	71.3	55.1	[c]39.8	30.1	54.3	100	—5	Apr. 8	Oct. 15
*Martinton	29.6	28.6	42.8	47.4	60.1	72.3	75.4	72.8	68.9	51.8	36.6	25.2	51.0	101	—5	Apr. 21	Oct. 15
Mascoutah	35.1	36.0	46.5	51.8	65.4	75.6	76.6	75.2	72.0	54.2	41.1	29.6	54.9	97	—10	Apr. 7	Oct. 23
Mattoon	31.7	34.1	45.0	51.0	64.2	75.3	76.6	74.0	69.2	51.6	[c]40.2	29.2	53.5	100	—3	Apr. 7	Oct. 23
Minonk	27.1	28.0	41.4	47.6	59.4	71.6	73.8	72.2	67.7	50.4	36.0	24.0	49.9	97	—9	Apr. 21	Oct. 14
Monmouth	27.0	27.0	41.0	49.2	60.8	72.2	74.2	72.0	67.8	49.6	35.6	24.7	50.1	98	—10	Apr. 11	Oct. 14
Morrisonville	32.6	33.2	44.2	50.2	61.8	73.3	74.4	73.3	69.0	52.2	38.8	28.2	52.6	95	—4	Apr. 7	Oct. 14
Mount Pulaski	32.5	32.8	44.9	51.6	63.3	75.6	78.2	75.6	70.9	53.6	39.2	27.4	53.8	101	—4	Apr. 7	Oct. 23
*Mount Vernon	35.8	35.1	48.0	50.2	*64.2	74.2	75.2	74.6	70.0	53.6	40.4	30.4	54.3	98	—7	Apr. 8	Oct. 23
*New Burnside	40.4	38.6	51.1	53.7	67.8	77.8	77.9	77.9	74.2	56.9	43.8	34.2	57.9	100	0	Apr. 7	Oct. 14
Olney	36.1	36.4	47.4	51.7	65.8	76.4	77.8	76.2	71.8	55.2	41.8	32.1	55.7	98	—4	Apr. 7	Oct. 23
Oswego	24.8	24.9	38.8	44.8	57.8	69.7	72.5	70.5	65.0	48.8	34.6	23.1	47.9	96	—9	Apr. 29	Oct. 14
*Ottawa	27.0	27.7	41.0	48.4	60.9	72.3	75.1	72.3	67.4	50.2	35.6	23.6	50.1	100	—8	Apr. 21	Oct. 14
Palestine	36.1	35.0	47.6	49.6	63.9	74.9	77.0	74.5	69.4	52.6	37.6	29.6	54.0	97	—8	Apr. 8	Oct. 14
Pana	.....	.....	.....	.....	63.7	75.0	77.2	75.4	71.0	52.8	38.6	29.0	.....	97	.....	.....	Oct. 23
*Paris	34.5	[c]33.0	42.8	50.0	62.9	74.2	77.2	75.4	70.8	53.2	*36.9	27.4	53.2	98	—1	Apr. 8	Oct. 15
*Peoria	30.6	31.3	43.2	50.0	61.9	74.6	77.4	73.5	69.9	52.8	38.3	28.3	52.6	98	—2	Apr. 7	Oct. 26
Philo	31.8	31.2	43.4	48.8	61.2	72.6	75.0	73.4	69.2	52.1	37.3	27.5	52.0	96	—5	Apr. 21	Oct. 14
Plumhill	37.0	35.6	47.4	.....	64.4	74.6	75.8	75.6	72.9	55.4	42.8	32.8	.....	99	—8	Apr. 7	Oct. 23
*Rantoul	30.2	29.9	43.4	48.9	60.9	73.0	75.8	73.6	69.6	51.8	36.8	27.0	51.7	99	—8	Apr. 21	Oct. 15
Raum	.....	.....	.....	.....	.....	.....	.....	78.1	73.6	54.8	45.0	34.6	.....	.....	.....	.....	Oct. 22
Reynolds	25.9	25.6	39.4	48.6	60.0	71.4	74.4	72.0	67.0	49.6	35.2	23.0	49.3	96	—9	Apr. 24	Oct. 14
Riley	24.1	23.1	38.0	46.0	58.3	69.8	73.7	70.2	66.0	49.0	33.6	20.4	47.7	93	—13	May 6	Oct. 15
Robinson	34.8	33.8	47.0	51.2	64.6	74.8	77.4	76.0	[d]71.6	[55.0]	40.7	31.2	[54.8]	97	—4	Apr. 7	.....
*Rockford	22.2	.....	39.6	46.2	57.8	69.4	74.3	71.0	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Roundgrove	24.6	24.8	39.5	48.8	61.0	72.0	75.8	72.6	67.0	49.6	34.0	*20.6	49.2	99	—11	Apr. 27	Oct. 14
St. Charles	26.3	25.8	39.1	45.5	57.4	69.0	73.0	69.9	64.4	49.0	33.4	21.6	47.9	95	—5	Apr. 21	Oct. 15
St. John	.....	.....	.....	.....	68.7	77.8	78.0	*77.0	74.0	56.5	.....	31.8	.....	96	.....	Apr. 6	Oct. 22
Scales Mound	22.0	22.2	36.4	45.4	57.6	69.6	71.8	69.4	63.1	47.2	32.4	16.8	46.2	97	—16	May 12	Oct. 12
*Springfield	32.2	32.4	43.9	50.6	62.6	74.3	76.2	74.6	70.0	52.4	38.2	27.6	52.9	96	0	Apr. 7	Oct. 23
*Streator	29.6	29.8	44.5	50.6	60.8	73.3	76.4	73.4	70.0	.....	.....	.....	.....	97	.....	Apr. 27	Oct. 23
*Sycamore	24.2	23.6	38.2	47.1	59.8	70.0	72.2	69.2	64.6	48.5	33.2	21.2	47.6	95	—9	Apr. 7	Oct. 14
Tilden[2]	37.8	37.2	47.3	53.1	66.6	76.4	76.4	76.0	73.5	55.4	42.6	31.4	56.1	96	—10	Apr. 7	Oct. 23
Tiskilwa	26.2	26.5	40.0	47.5	59.8	71.8	74.8	71.9	66.8	49.6	34.8	23.0	49.4	96	—12	May 5	Oct. 14
*Tuscola	31.8	31.4	43.0	49.0	61.4	73.2	75.6	73.9	69.8	52.0	37.2	27.0	52.1	97	—5	Apr. 12	Oct. 14
Walnut	27.6	26.6	40.8	49.2	61.2	72.0	76.1	72.8	68.2	51.7	35.8	24.6	50.6	97	—11	Apr. 26	Oct. 14
Wheaton (c)	24.6	24.3	37.0	43.0	57.0	69.0	72.2	68.8	62.8	46.8	32.6	21.5	46.6	.....	—4	Apr. 6	Oct. 15
Winchester (c)	31.4	32.5	42.7	49.3	61.5	73.2	74.2	73.3	70.3	52.6	37.9	27.6	52.2	96	0	Apr. 7	Oct. 14
Winnebago	24.0	23.2	37.5	46.1	57.8	69.5	72.6	69.6	65.7	48.9	33.7	20.5	47.4	93	—10	Apr. 21	Oct. 12
Zion	24.9	24.6	38.2	47.2	58.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	May 6	.....
Indiana.																	
Anderson	32.8	30.8	45.6	49.0	62.2	72.0	75.5	73.0	69.2	54.2	38.6	28.2	52.6	95	—5	Apr. 8	Oct. 27
Angola	28.7	28.2	40.4	45.7	59.0	69.3	73.8	.....	65.4	51.6	35.0	25.3	.....	.....	—5	Apr. 8	Oct. 15
*Auburn	29.6	28.1	43.3	45.2	.....	70.7	*74.3	71.9	66.2	.....	*35.6	26.4	.....	99	—6	Apr. 12	.....
Bedford	.....	.....	.....	.....	.....	.....	74.8	.....	69.4	54.2	39.6	.....	.....	101	.....	Apr. 6	Oct. 26
*Bloomington	33.9	33.1	46.6	.....	64.9	75.9	77.8	75.0	.....	.....	45.0	30.8	.....	97	—5	.....	.....

[1] Observations in January, made at Iron, 15 miles northeast of Equality.
[2] Observations during January and February made at Jordans Grove, 4 miles southwest of Tilden.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Indiana—Continued.																	
Bluffton	30.2	29.3	44.3	48.4	61.3	71.8	75.0	72.9	69.2	53.8	37.5	27.8	51.8	98	— 7	Apr. 8	Oct. 28
Boonville	40.0	39.4	51.2	53.4	68.3	78.4	79.1	78.4	74.6	.....	45.2	.....	.....	100	.....	Apr. 7	Oct. 27
Bright	35.0	33.0	45.6	.....	[f]64.6	74.7	77.6	76.3	70.6	56.2	39.0	28.0	.....	102	— 3	Apr. 8	Oct. 15
Butlerville	35.0	34.0	48.1	50.0	64.4	73.6	77.0	74.7	70.7	55.5	40.6	29.8	54.4	99	— 9	Apr. 8	Oct. 15
*Cambridge City	32.2	31.5	45.4	47.4	31.3	70.4	74.8	72.5	68.0	53.3	37.4	27.2	51.8	97	—26	Apr. 3	Oct. 15
Columbia City (*a*)	29.0	28.3	41.7	46.1	59.2	71.0	75.1	71.5	65.9	51.1	35.2	26.9	50.1	95	— 3	Apr. 8	Oct. 27
*Columbus	33.5	34.0	46.7	49.0	62.3	71.8	75.7	75.2	69.2	55.3	40.6	29.4	53.6	97	—16	Apr. 14	Oct. 15
Connersville	31.5	31.3	46.0	48.6	62.2	72.9	76.4	73.8	70.0	54.2	38.0	27.7	52.7	98	—13	Apr. 14	Oct. 26
Crawfordsville	36.4	.....	48.1	.....	64.5	.....	.....	76.0	72.0	.....	.....	28.3	.....	.....	.....	Apr. 7	.....
Delphi	30.6	29.5	43.0	48.0	61.6	72.2	75.4	72.8	68.6	52.2	35.6	26.5	51.3	98	— 6	Apr. 21	Oct. 15
Edwardsville (*a*)	38.9	37.7	50.9	52.7	67.2	76.5	79.3	77.9	73.6	57.1	43.9	33.2	57.4	94	2	Apr. 6	Oct. 27
*Evansville	39.6	38.8	50.4	53.8	67.8	78.2	78.6	77.8	73.9	57.0	44.4	34.2	57.9	96	6	Apr. 7	Oct. 27
Farmland (*a*)	32.7	32.2	45.4	48.1	60.7	71.0	74.4	72.1	.....	53.4	38.1	28.7	.....	94	— 4	Apr. 7	Oct. 26
Fort Wayne	31.1	29.4	44.0	47.6	60.6	70.9	75.2	.....	67.9	52.2	36.4	26.8	.....	.....	— 8	Apr. 21	Oct. 27
Franklin	34.4	33.6	46.5	51.0	64.3	73.7	.....	.....	.....	53.2	39.9	29.3	.....	.....	—12	Apr. 6	Oct. 27
Greencastle	32.8	31.7	44.9	49.6	62.6	71.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Greensburg	.....	.....	44.8	51.5	60.5	75.0	76.2	75.0	72.4	53.2	39.7	27.6	.....	96	.....	Apr. 21	Oct. 15
Hammond	28.1	29.1	41.3	44.8	57.5	68.0	71.2	71.4	66.6	49.3	33.9	23.3	48.7	96	— 6	Apr. 6	Oct. 14
Hector	30.8	.....	42.4	47.3	60.4	.....	76.8	73.4	67.4	56.0	36.4	26.6	.....	98	.....	May 15	Oct. 28
Huntington	30.7	29.1	42.7	48.2	60.6	71.2	76.3	73.4	68.2	52.5	35.8	28.0	51.4	96	— 5	Apr. 21	Oct. 26
*Indianapolis	33.8	32.2	46.4	50.3	63.5	73.6	76.9	74.6	70.2	53.4	39.6	29.3	53.6	95	— 4	Apr. 27	Oct. 27
Jasper	38.9	36.6	50.0	52.0	66.8	75.9	79.2	76.3	.....	.....	.....	.....	.....	97	.....	Apr. 8	.....
Jeffersonville	39.3	37.5	50.1	52.2	67.0	76.2	78.5	77.3	72.6	57.4	43.3	33.4	57.1	97	6	Apr. 6	Oct. 27
Knightstown	31.7	31.8	45.3	49.7	63.4	72.4	77.2	74.0	69.2	53.6	37.4	28.0	52.8	99	—17	Apr. 6	Oct. 27
Kokomo	33.0	31.2	45.8	50.8	64.6	73.1	75.4	72.8	68.6	53.1	38.6	29.2	53.0	96	— 3	Apr. 6	Oct. 15
*Lafayette	32.1	30.8	44.0	48.1	61.5	71.9	75.4	72.6	68.6	52.5	37.2	27.8	51.9	95	— 7	Apr. 6	Oct. 15
Laporte	26.8	26.5	40.6	46.2	59.5	72.0	78.1	72.8	66.9	.....	35.2	[e]24.4	.....	97	— 3	Apr. 8	Oct. 27
*Logansport	29.4	30.5	42.2	48.5	62.3	73.1	76.3	73.2	67.6	50.2	36.5	27.0	51.4	96	— 4	Apr. 7	Oct. 26
Madison	37.1	35.4	48.2	51.4	66.4	76.2	78.3	76.8	72.2	56.1	41.4	32.0	56.0	96	— 1	Apr. 8	Oct. 15
Marengo	37.9	36.8	49.2	51.4	66.1	76.8	77.8	75.7	71.5	56.4	42.0	31.2	56.1	98	—11	Apr. 7	Oct. 27
*Marion	32.2	30.8	43.1	48.4	61.6	71.6	76.2	73.1	69.4	54.0	37.2	27.3	52.1	99	— 6	Apr. 27	Oct. 27
Markle	.....	.....	.....	50.0	61.2	72.0	75.4	73.1	68.0	52.5	37.2	28.2	.....	.....	.....	Apr. 7	Oct. 20
Mauzy	31.8	31.3	45.7	48.4	62.4	72.0	75.6	73.4	70.0	[e]52.8	38.6	27.7	52.5	97	—12	Apr. 21	Oct. 27
Michigan City (*h*)	28.5	27.6	41.0	43.0	55.5	68.5	.....	71.0	64.5	52.5	37.9	.....	.....	.....	— 2	.....	.....
Mount Vernon	38.5	37.2	48.7	53.0	68.3	.....	81.8	79.5	73.8	55.1	41.7	32.4	.....	98	— 2	Apr. 7	Oct. 23
Northfield	31.4	30.4	43.9	48.0	61.4	70.6	74.3	72.1	67.6	52.4	37.4	29.8	51.6	95	— 9	Apr. 21	Oct. 15
Paoli	.....	.....	49.0	51.4	66.2	75.1	78.0	75.4	70.6	54.7	40.6	30.8	.....	98	.....	Apr. 6	Oct. 27
Princeton (*a*)	38.7	39.0	49.3	52.8	65.1	76.2	76.7	74.7	71.2	55.0	42.2	34.1	56.2	99	— 3	Apr. 7	Oct. 25
Richmond	32.0	31.8	46.1	48.9	62.1	71.7	75.1	73.0	68.6	54.2	38.2	27.2	52.4	96	—24	Apr. 21	Oct. 27
Rockport	41.8	40.8	51.8	54.4	68.8	76.5	78.6	76.8	73.6	.....	.....	.....	.....	98	.....	Apr. 6	.....
Rockville	33.2	32.9	45.4	50.2	62.6	72.0	75.4	73.2	69.4	52.8	38.5	28.6	52.8	95	— 7	Apr. 8	Oct. 15
Salem	36.2	33.8	48.4	49.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 19	.....
Scottsburg	37.2	37.0	49.4	51.2	66.7	77.4	78.9	.....	72.1	57.2	41.4	31.9	.....	.....	— 6	Apr. 6	Oct. 27
Seymour	35.4	33.5	47.1	50.8	63.8	74.2	77.5	.....	.....	55.2	39.5	29.8	.....	.....	— 4	Apr. 7	Nov. 6
Shelbyville	[e]32.2	36.1	[e]46.0	50.8	.....	73.8	.....	74.4	70.3	56.1	37.9	28.8	.....	.....	— 8	Apr. 6	Nov. 14
*South Bend	29.1	28.6	43.0	46.9	59.8	71.1	75.3	72.1	67.7	53.1	37.0	26.6	50.9	101	— 9	Apr. 11	Nov. 27
*Terre Haute	33.9	33.9	45.8	52.0	64.9	75.2	78.4	75.7	71.4	55.2	40.0	30.4	54.7	97	— 1	Apr. 7	Oct. 23
Topeka	28.9	27.7	42.1	46.5	59.4	69.2	73.4	.....	61.2	48.0	32.0	24.1	.....	94	— 7	Apr. 12	Oct. 28
Valparaiso	27.0	26.6	41.1	45.9	59.1	72.3	73.2	72.1	66.2	50.5	34.4	21.5	49.1	98	— 8	Apr. 8	Oct. 14
Vevay	38.8	36.4	50.1	53.6	67.6	76.8	80.6	78.6	75.6	57.8	41.5	33.4	57.6	98	0	Apr. 8	Oct. 27
*Vincennes	35.6	32.9	46.2	50.4	63.8	.....	79.6	76.8	73.4	57.2	41.6	32.3	.....	101	1	Apr. 11	Oct. 27
Warsaw	28.5	27.6	.....	.....	57.9	70.4	74.0	71.2	66.8	.....	.....	.....	.....	95	.....	Apr. 21	.....
*Washington	38.2	38.3	.....	.....	66.2	75.4	78.4	76.9	73.0	[d]55.7	42.8	32.8	.....	100	0	Apr. 7	Oct. 23
Winamac	31.9	32.3	43.8	49.1	62.4	72.8	75.9	71.7	68.7	52.6	36.8	27.0	52.1	102	0	Apr. 21	Oct. 14
Worthington	35.7	35.3	47.6	51.4	65.2	74.6	76.8	75.4	71.3	54.8	39.8	29.5	54.8	98	—13	Apr. 7	Oct. 15
Indian Territory.																	
Healdton	44.9	48.8	52.8	61.0	69.7	78.2	83.7	81.0	77.7	62.4	49.6	37.2	62.2	106	1	Apr. 6	Oct. 21
Kemp	48.4	50.8	55.0	.....	74.0	79.7	83.8	[j]83.0	76.6	63.8	50.4	[e]39.2	.....	108	4	.....	Oct. 20
Lehigh	43.8	47.6	52.8	60.2	70.9	77.9	81.4	79.7	75.7	62.1	47.2	36.9	61.4	104	7	Apr. 6	Oct. 21
Purcell	.....	.....	52.1	61.2	69.0	76.9	[e]79.5	[e]78.8	74.1	61.6	.....	.....	.....	102	.....	Apr. 6	Oct. 20
Tahlequah	41.8	46.4	51.6	56.0	66.9	.....	.....	.....	[f]79.4	59.8	47.7	38.0	.....	.....	5	Apr. 8	Oct. 18
Wagoner	41.7	40.7	49.0	57.6	70.4	79.4	81.2	80.0	75.0	56.6	44.2	.....	.....	102	.....	Apr. 7	Oct. 20
Iowa.																	
Afton	26.1	26.6	39.6	50.1	61.4	73.6	75.4	75.3	66.8	47.8	33.3	19.4	49.6	101	—11	Apr. 11	Oct. 6
Albia	29.2	.....	.....	.....	.....	73.6	74.0	72.9	67.7	50.8	[e]37.2	21.0	.....	104	.....	.....	Oct. 13
Algona (*a*)	21.1	20.4	34.2	47.2	59.4	72.0	74.3	71.2	64.1	45.3	29.0	14.5	46.1	93	—23	Apr. 7	Oct. 6
Alta	21.6	21.0	34.1	47.2	58.5	70.5	72.8	71.2	64.1	45.2	29.8	15.6	45.9	96	—18	Apr. 20	Oct. 6
Amana	23.0	23.4	38.2	48.2	60.4	72.6	74.3	72.0	65.6	48.0	33.0	19.0	48.1	96	—15	Apr. 15	Oct. 14
Ames (*a*)	22.8	22.6	38.3	49.2	59.5	71.0	73.4	72.3	65.1	47.0	[h]36.6	18.4	48.0	100	—15	Apr. 24	Oct. 6
Atlantic	23.2	25.2	36.4	46.7	58.0	70.4	71.8	73.6	64.6	46.5	31.0	17.9	47.1	98	—12	May 12	Oct. 6
Audubon	22.8	23.9	36.7	47.8	58.5	71.0	72.8	71.6	64.2	46.4	30.6	18.0	47.0	98	—15	Apr. 26	Oct. 6
Bedford	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.9	34.8	20.4	.....	.....	.....	.....	Oct. 14
Belknap	26.4	26.2	41.0	50.2	61.4	72.9	75.2	74.0	68.4	49.6	35.4	.....	.....	96	.....	Apr. 8	Oct. 14
Belleplaine	20.5	21.8	34.2	.....	.....	.....	71.8	.....	64.3	46.4	32.4	18.7	.....	.....	.....	May 7	Oct. 6
Bonaparte	26.2	26.5	40.2	49.4	61.0	72.4	74.7	73.4	68.2	50.3	35.5	23.5	50.1	97	—11	Apr. 7	Oct. 14
Britt	19.2	19.8	33.8	45.4	58.4	69.9	71.2	68.8	62.3	45.3	28.6	14.0	44.7	97	—18	May 6	Sept. 30
Burlington	28.3	29.6	42.2	51.4	63.0	.....	.....	.....	.....	51.8	35.8	26.1	.....	.....	— 7	Apr. 7	Oct. 14
*Carroll	22.4	21.2	35.7	48.8	58.0	70.6	73.3	72.1	64.6	47.0	30.6	15.8	46.7	99	—19	Apr. 29	Oct. 6
Cedarfalls	22.3	22.6	37.5	48.4	61.0	71.9	74.4	71.6	65.2	48.4	31.4	17.4	47.7	97	—16	Apr. 23	Oct. 14
*Cedar Rapids	22.4	22.8	38.8	48.8	60.8	73.2	75.4	73.3	67.3	48.9	33.5	19.0	48.7	100	—12	Apr. 7	Oct. 14
*Centerville	.....	.....	.....	49.8	61.2	73.3	75.0	76.2	68.2	49.8	.....	.....	.....	97	.....	Apr. 7	Oct. 14
Chariton	27.2	27.3	40.7	50.0	61.1	71.8	73.0	73.6	67.6	49.8	34.8	21.6	49.9	96	— 9	Apr. 7	Oct. 6
*Charles City	21.5	20.6	35.8	45.4	57.8	69.4	71.9	68.8	64.2	46.6	30.2	14.4	45.6	96	—21	Apr. 29	Oct. 6
*Clarinda	28.2	29.9	40.9	51.8	62.2	75.0	80.2	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	Oct. 6
Clear Lake	.....	.....	.....	46.4	58.2	68.6	71.6	69.9	63.0	46.0	29.2	14.4	.....	94	.....	Apr. 26	Oct. 6

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Iowa—Continued.																	
*Clinton	25.0	25.4	39.6	48.4	60.6	72.2	75.0	71.8	66.4	49.8	33.4	21.8	49.1	99	—8	Apr. 21	Oct. 14
College Springs	27.0	28.1	39.5	50.8	62.8	74.2	74.3	76.0	[e]70.9	49.6	35.5	21.1	50.8	99	—10	Apr. 20	Oct. 17
Corning	27.4	28.4	39.6	50.4	60.8	72.6	73.7	74.8	67.0	47.8	36.2	24.0	50.2	99	—10	Apr. 15	Oct. 14
Council Bluffs	27.0	[e]29.8	39.6	51.6	60.6	75.2	76.3	77.4	68.0	49.5	34.0	21.4	50.9	103	—9	Apr. 7	Oct. 18
Cresco	19.8	19.8	34.4	44.8	57.9	67.6	71.2	69.4	63.6	44.6	28.7	12.2	44.5	96	—20	Apr. 15	Oct. 6
*Davenport	26.3	26.6	40.6	49.4	61.2	72.8	75.8	73.0	68.1	50.0	34.6	23.2	50.1	97	—6	Apr. 6	Oct. 23
Decorah	20.0	20.7	36.7	45.7	59.2	68.8	72.0	68.7	64.0	46.0	29.8	14.2	45.5	95	—20	Apr. 24	Sept. 11
Delaware (c)	19.7	20.4	35.2	44.6	58.6	69.7	72.0	68.6	62.2	45.4	29.4	14.6	45.0	96	—14	.....	.....
Denison	25.2	.....	36.5	47.2	56.8	68.7	.....	.....	.....	42.5	30.6	17.4	.....	.....	.....	May 5	Oct. 6
*Des Moines	25.6	26.2	39.8	50.0	60.7	72.2	74.2	73.8	67.4	49.2	34.1	20.6	49.5	99	—10	Apr. 7	Oct. 14
De Soto	25.2	25.5	38.0	49.2	61.0	72.6	74.4	74.7	.....	.....	.....	[h]21.2	.....	.....	—11	Apr. 26	.....
Dows	19.0	20.4	35.2	47.2	58.0	69.0	71.2	70.0	63.3	46.7	28.7	14.2	45.2	96	—21	May 12	Oct. 6
*Dubuque	24.1	24.1	37.6	47.6	59.8	71.1	74.1	71.2	65.8	48.8	33.8	19.2	48.1	95	—10	Apr. 11	Oct. 15
Eldon	.....	.....	.....	50.0	62.2	73.9	76.3	75.0	69.0	51.2	32.2	.....	.....	99	.....	Apr. 15	Oct. 14
Eldora	23.0	22.4	35.0	45.0	59.0	71.2	74.9	71.8	68.8	49.0	.....	.....	.....	102	29	May 6	Oct. 6
Elkader	22.6	22.8	37.3	46.1	60.5	71.2	72.6	70.8	65.2	47.4	32.2	17.2	47.2	97	—15	Apr. 26	Sept. 11
Estherville	21.7	20.2	34.0	44.8	56.6	68.8	[e]71.0	68.7	59.6	43.8	29.0	9.7	44.0	98	—25	May 6	Sept. 30
*Fairfield	26.4	26.5	39.8	48.6	60.2	71.8	74.0	73.2	67.6	49.8	35.4	23.4	49.7	97	—13	Apr. 11	Oct. 14
Fayette	20.7	21.4	35.8	44.7	57.2	68.2	71.4	68.8	63.4	[f]44.8	30.2	14.8	45.1	93	—18	May 12	Sept. 11
Forest City	20.0	19.4	34.4	45.4	57.8	73.4	71.0	69.2	63.9	46.0	29.2	12.6	45.2	95	—29	Apr. 26	Sept. 30
Galva	22.0	22.6	36.0	48.4	59.0	[e]72.1	[d]74.3	.....	[f]65.7	46.9	31.2	17.2	.....	.....	—18	Apr. 26	Oct. 6
Glenwood	26.4	30.2	41.0	51.0	60.4	72.3	73.6	75.4	68.1	49.9	35.2	22.4	50.5	102	—10	Apr. 26	Oct. 6
Grand Meadow (a)	21.4	21.1	35.0	44.6	58.2	67.6	70.1	68.1	63.5	45.6	30.4	15.7	45.1	95	—16	Apr. 7	Oct. 6
Greene	21.0	21.0	36.8	[e]46.7	[e]59.6	[e]71.1	73.7	71.8	65.8	47.0	31.4	15.3	46.8	100	—19	May 6	Oct. 6
Greenfield	26.3	26.3	38.7	48.8	61.0	72.6	73.6	74.8	66.6	48.8	32.8	19.2	49.1	97	—14	Apr. 26	Oct. 6
Grinnell	24.5	24.3	38.6	48.4	60.4	71.7	.....	.....	65.7	47.6	32.9	18.8	.....	.....	—12	Apr. 26	Oct. 14
Grundy Center	20.7	21.2	36.2	46.8	58.4	69.6	70.2	70.6	63.1	46.0	30.6	15.6	45.8	97	—17	May 6	Oct. 6
Guthrie Center	24.2	25.3	37.2	49.1	59.8	71.3	73.2	73.0	66.2	47.5	32.9	[h]13.4	47.8	100	—14	May 12	Oct. 6
Hampton	20.3	20.3	35.2	47.1	59.1	69.4	72.6	70.0	63.8	45.6	30.1	15.0	45.7	95	—18	Apr. 26	Oct. 6
Hedrick (a)	[e]24.6	[f]27.9	[e]40.3	52.2	[f]60.7	[f]74.7	[f]77.7	[h]75.1	[e]65.8	[f]48.2	33.4	[d]16.7	49.8	98	—12	Apr. 6	Oct. 14
Hopeville	25.4	26.1	39.0	49.0	60.2	71.6	74.6	74.2	67.4	49.8	33.5	19.6	49.2	96	—10	Apr. 10	Oct. 14
Humboldt	21.2	21.4	35.3	47.6	59.8	71.2	72.8	70.6	62.8	46.8	31.2	16.6	46.4	96	—22	May 6	Oct. 6
Independence	19.8	20.8	36.8	46.0	58.3	69.2	73.4	69.8	64.2	46.4	31.0	15.8	46.0	95	—16	May 6	Oct. 6
Indianola	.....	25.6	39.4	50.2	[e]60.2	72.2	73.8	73.2	67.9	49.2	36.9	20.6	.....	98	—12	Apr. 26	Oct. 6
*Iowa City	24.7	25.0	39.1	48.4	60.7	72.5	75.1	72.4	66.6	49.1	34.4	20.8	49.1	99	—12	Apr. 14	Oct. 14
Iowa Falls	.....	20.5	35.8	46.5	59.0	70.2	72.0	70.5	63.1	45.6	29.3	14.7	.....	96	.....	Apr. 29	Oct. 6
*Keokuk	30.0	30.8	43.0	51.8	64.0	75.6	77.1	75.7	70.6	52.0	38.4	26.0	53.0	97	—4	Apr. 6	Oct. 14
Keosauqua	27.9	[e]27.8	41.4	.....	63.3	74.4	76.0	75.0	68.4	51.2	36.4	24.6	.....	97	—5	.....	Oct. 14
Knoxville	26.5	26.6	40.5	50.0	61.6	73.1	74.7	74.0	67.6	49.8	36.6	21.3	50.2	97	—10	Apr. 26	Oct. 14
Lamoni	[e]26.3	27.3	40.2	49.4	61.3	72.8	[e]73.8	.....	66.4	47.4	33.7	[f]18.6	.....	.....	—8	Apr. 26	Oct. 14
Lansing	23.4	23.3	37.6	47.0	61.3	71.0	72.6	70.0	65.2	48.2	34.0	17.6	47.6	95	—15	Apr. 21	Oct. 6
Larrabee	20.6	21.6	34.4	46.5	56.4	69.8	70.8	70.8	63.4	44.8	29.5	15.6	45.4	98	—22	May 6	Sept. 30
Lemars	22.2	22.8	36.3	48.6	58.0	70.0	72.5	71.8	64.2	46.4	30.4	17.8	46.8	98	—15	May 12	Oct. 6
Lenox	26.8	27.9	39.0	49.6	60.2	71.8	73.7	74.2	66.6	48.9	33.4	19.3	49.3	96	—15	Apr. 20	Oct. 14
Logan	25.4	26.4	37.0	47.8	60.2	73.4	74.3	72.9	65.2	47.5	35.1	19.4	48.7	100	—14	Apr. 26	Oct. 13
*Maquoketa	23.0	23.6	38.6	48.0	59.3	70.2	72.6	69.6	64.1	53.0	35.7	21.6	48.3	96	—10	Apr. 21	Oct. 13
*Marshalltown	23.1	24.8	38.6	47.6	59.5	70.3	73.6	72.5	65.2	48.1	32.4	.....	.....	99	.....	Apr. 24	Oct. 6
Mason City	19.2	20.4	34.0	45.7	57.8	68.2	72.4	68.6	62.4	44.7	30.6	13.6	44.8	95	—25	May 6	Oct. 6
Monticello	23.6	23.4	38.5	[d]46.7	59.8	72.6	75.4	[h]71.0	66.5	[e]49.0	33.0	18.4	48.2	98	—13	May 13	Oct. 12
Moorar	27.1	28.7	40.6	48.8	61.4	72.2	74.8	73.2	68.6	49.8	35.0	24.6	50.4	100	—6	Apr. 11	Oct. 14
Mountayr	26.0	27.3	39.7	49.7	62.0	72.8	73.8	75.0	67.0	50.0	34.8	19.6	49.8	97	—10	Apr. 13	Oct. 17
Mount Pleasant	28.2	28.4	42.2	51.2	62.7	75.0	76.1	74.8	69.6	51.8	37.4	26.5	52.0	93	—7	Apr. 6	Oct. 14
Mount Vernon (a)[1]	24.0	24.1	38.6	48.8	60.9	72.7	75.5	.....	.....	48.7	32.7	18.8	.....	.....	.....	Apr. 7	Oct. 22
Mount Vernon[2]	23.2	23.2	37.6	47.4	59.4	71.8	74.2	71.2	65.4	47.6	32.0	18.6	47.6	98	—12	Apr. 9	Oct. 14
Neola	.....	.....	37.9	.....	.....	.....	75.4	73.5	65.8	.....	.....	18.8	.....	.....	.....	.....	.....
New Hampton	25.3	24.4	38.8	50.7	60.1	69.1	71.7	70.4	[h]68.0	47.4	30.8	14.4	47.6	95	—29	Apr. 9	Oct. 14
Newton	23.4	24.5	39.0	49.4	60.7	73.2	74.6	73.4	66.6	48.2	32.5	18.8	48.7	97	—14	Apr. 7	Oct. 14
Northwood	20.0	19.8	34.6	44.4	57.2	68.3	70.8	68.9	62.2	44.8	28.8	[d]16.0	44.6	94	—20	Apr. 26	Sept. 30
Odebolt	22.6	23.1	36.0	48.6	59.7	71.8	74.3	74.1	65.0	47.5	31.2	17.4	47.6	101	—17	May 6	Oct. 6
*Ogden	22.6	22.8	37.3	48.6	59.2	71.1	73.0	72.0	65.6	48.0	32.3	16.8	47.4	99	—17	Apr. 26	Oct. 6
Olin	.....	.....	[e]37.2	46.0	58.9	70.0	73.0	70.1	64.2	47.2	31.0	19.2	.....	97	.....	Apr. 21	Oct. 15
Osage (c)	19.3	19.0	32.4	43.8	57.0	68.5	71.0	66.5	59.8	44.1	26.5	11.8	43.3	.....	.....	May 6	Oct. 6
*Osceola	25.6	25.8	38.8	48.8	60.0	71.8	73.4	74.5	66.2	47.5	33.6	20.0	48.8	97	—10	Apr. 20	Oct. 22
Oskaloosa	24.6	25.4	39.2	48.4	60.1	71.3	74.0	72.9	66.9	48.8	33.8	20.8	48.9	99	—14	Apr. 15	Oct. 14
Ottumwa	26.0	25.2	39.3	49.6	61.0	73.6	74.2	72.9	67.6	49.8	35.0	21.4	49.6	99	—7	Apr. 8	Oct. 18
Ovid	25.1	26.0	39.0	48.8	60.5	72.0	73.7	73.5	67.0	49.4	34.8	21.6	49.3	98	—11	May 6	Oct. 14
Pella	.....	.....	.....	.....	60.0	69.3	70.8	70.6	64.2	46.0	30.4	16.6	.....	96	.....	.....	Oct. 14
Pioneer	.....	.....	.....	.....	.....	[e]70.3	74.4	71.4	.....	[g]44.5	[d]31.0	.....	.....	.....	.....	.....	Oct. 6
Plover	[j]20.4	20.8	35.8	48.5	59.2	71.2	74.2	70.4	64.4	45.6	29.6	17.0	46.4	97	—21	Apr. 14	Oct. 1
Primghar	21.4	21.8	35.6	47.7	59.0	72.8	73.1	73.2	.....	45.6	28.0	17.3	.....	.....	—20	Apr. 25	Oct. 5
Redoak	26.5	28.4	40.0	49.8	61.1	73.8	74.8	73.9	66.6	49.7	.....	.....	.....	99	.....	Apr. 26	Oct. 6
Ridgeway	.....	.....	37.4	46.4	59.4	70.0	73.1	70.3	65.5	47.8	32.7	18.0	.....	95	—19	May 6	Oct. 6
Rock Rapids	22.4	.....	34.2	46.3	55.0	.....	69.7	.....	.....	42.8	.....	12.8	.....	.....	.....	May 12	Oct. 1
Rockwell City	19.1	20.6	34.2	46.0	58.9	70.8	72.7	70.2	63.8	46.6	30.0	16.6	45.8	97	—20	May 6	Oct. 6
Ruthven	22.1	20.8	34.4	47.4	57.2	68.8	74.2	69.4	64.0	45.0	29.8	14.0	45.6	98	—25	May 6	Oct. 4
Sac City	22.2	21.9	34.8	46.6	58.6	70.3	70.6	72.4	62.3	46.4	30.4	16.2	46.1	96	—19	Apr. 26	Oct. 6
St. Charles	.....	.....	.....	.....	.....	.....	.....	.....	67.5	49.2	35.2	.....	.....	.....	.....	.....	Oct. 14
*Sibley	20.8	21.2	[e]33.3	46.0	56.5	68.1	70.5	67.6	62.9	[e]45.8	28.0	[e]14.0	44.6	98	—21	Apr. 26	Sept. 30
Sidney	27.0	28.6	39.0	50.6	60.6	72.2	74.6	76.0	67.4	48.6	34.4	21.7	.....	.....	.....	Apr. 9	Oct. 17
Sigourney	25.0	25.9	39.8	.....	.....	73.6	75.8	73.3	68.0	48.4	34.0	20.2	.....	.....	.....	.....	Oct. 14
*Sioux City	24.0	23.8	35.9	49.6	59.5	71.0	73.4	72.5	65.2	46.3	32.1	20.4	47.8	101	—14	Apr. 26	Oct. 6
Spencer	20.2	20.2	33.4	45.4	57.4	69.9	71.6	69.6	61.8	[d]46.5	28.1	13.4	44.8	95	—23	May 6	Sept. 30
Spirit Lake	21.6	20.3	34.5	46.5	57.3	68.5	73.6	[j]70.3	64.6	44.3	29.0	15.4	45.5	99	—24	May 12	Oct. 5
Stuart	23.2	24.8	37.7	47.8	59.2	73.2	74.4	74.0	66.4	49.0	29.6	17.8	48.1	97	—13	May 6	Oct. 17
Tara	20.4	23.4	.....	47.8	58.8	.....	71.0	70.2	63.6	44.1	30.2	.....	.....	97	—20	Apr. 29	Oct. 5
Thurman	25.4	28.0	39.6	50.5	61.0	73.5	73.8	74.7	67.1	49.3	34.2	20.8	49.9	99	—11	Apr. 15	Oct. 6

[1] A. Collins. [2] Rev. J. M. Hubbard.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Iowa—Continued.																	
Toledo	21.8	22.8	36.9	47.7	60.0	72.1	72.9	70.9	64.2	46.4	32.0	17.4	47.1	96	—14	May 6	Oct. 14
Villisca	25.8	27.2	38.4	49.4	60.1	71.8	72.6	73.6	65.4	47.6	31.4	18.0	48.4	97	—14	Apr. 26	Oct. 6
Vinton (*a*)	22.6	22.9	37.8	47.1	60.0	70.9	73.6	[c]70.9	[c]64.7	42.7	[c]31.8	18.6	47.0	96	—11	Apr. 7	Oct. 14
Wapello	.....	.....	.....	.....	.....	.....	75.1	72.5	67.0	52.9	38.2	.....	.....	98	.....	.....	Oct. 14
Washington	24.2	24.6	38.4	48.2	58.7	71.4	73.9	73.4	66.4	47.7	32.8	20.3	48.3	97	—12	Apr. 11	Oct. 14
*Waterloo	21.2	21.7	37.2	47.0	59.4	70.7	73.7	71.0	65.2	47.2	31.9	16.8	46.9	97	—15	Apr. 24	Oct. 6
Waverly	21.6	22.3	37.6	47.2	59.7	70.6	72.6	70.4	65.0	47.8	32.2	16.5	47.0	96	—16	Apr. 14	Oct. 11
Webster City	21.6	22.3	36.4	47.8	59.9	71.6	74.4	71.7	64.4	47.2	30.8	16.6	47.1	97	—17	Apr. 26	Oct. 6
Westbend	20.2	19.7	33.4	45.2	58.2	69.2	71.4	69.0	61.6	43.8	.....	13.8	.....	96	—22	Apr. 13	Oct. 6
Westbranch	23.6	23.1	38.0	48.1	57.4	[e]71.5	73.7	72.0	66.1	47.2	33.5	.....	.....	98	.....	May 6	Oct. 4
Whatcheer	.....	.....	.....	.....	.....	.....	.....	.....	.....	49.4	37.2	19.8	.....	.....	.....	.....	Oct. 14
Whitten (*a*)	20.2	21.0	34.8	46.4	55.8	71.7	74.0	70.4	62.2	44.9	29.6	[c]15.5	45.5	96	—17	May 12	Oct. 14
Wilton Junction	24.0	25.6	38.8	48.2	60.0	72.5	74.6	71.9	65.4	[f]49.6	33.6	21.7	48.8	98	—12	Apr. 10	Oct. 12
Winterset	25.4	25.5	37.8	49.8	60.1	71.3	72.4	72.2	64.7	48.9	34.7	20.6	48.6	96	—10	Apr. 26	Oct. 6
Kansas.																	
Abilene	31.0	35.8	43.0	53.6	64.3	76.2	78.9	79.8	71.6	53.2	36.9	26.2	54.2	103	— 6	Apr. 14	Oct. 19
Altoona (*c*)	33.7	36.2	42.9	.....	65.6	75.0	77.0	77.3	69.3	53.1	37.9	25.7	.....	98	— 6	Apr. 6	Oct. 19
Assaria (*e*)	32.6	36.4	42.4	54.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atchison	31.2	32.9	42.2	55.4	62.7	74.2	75.8	77.2	70.4	52.0	38.2	25.0	53.1	96	— 3	Apr. 2	Oct. 17
Augusta	.....	.....	45.0	54.4	66.1	76.0	78.4	77.4	72.4	57.0	41.5	30.4	.....	100	— 1	Apr. 14	Oct. 19
*Baker	.....	.....	.....	50.4	61.6	74.2	76.6	77.2	66.8	.....	.....	.....	.....	.....	.....	.....	.....
Beloit	28.8	34.0	43.0	52.1	62.6	74.6	79.0	80.4	68.2	53.3	38.8	25.0	53.3	106	— 3	Apr. 19	Oct. 20
Burlington	34.0	37.1	46.0	54.0	65.7	75.9	77.6	76.5	71.5	55.4	40.2	28.9	55.2	99	— 9	Apr. 7	Oct. 14
Campbell	28.8	32.7	41.0	52.4	62.4	76.0	78.4	78.5	.....	.....	37.3	24.5	.....	105	— 4	Apr. 26	Oct. 17
Chanute	37.9	[d]40.0	[d]45.2	[d]53.2	[f]66.6	[d]76.8	79.6	[d]76.5	[d]72.6	[e]54.4	[e]43.2	[e]30.4	56.4	98	— 6	Apr. 5	Oct. 19
Colby	28.9	34.8	37.3	52.0	56.9	70.2	74.2	75.8	62.8	47.4	34.8	26.2	50.1	104	—21	Apr. 28	Oct. 5
Columbus	37.2	39.8	46.0	54.4	66.8	76.9	77.4	76.2	71.5	55.4	41.7	30.0	56.1	95	— 5	Apr. 7	Oct. 20
*Concordia	30.8	34.4	41.7	52.9	62.2	75.0	77.2	79.4	70.0	52.8	37.0	25.7	53.3	106	— 5	Apr. 6	Oct. 19
Coolidge	28.5	37.4	40.1	54.0	58.2	.....	.....	.....	63.9	49.8	36.2	26.4	.....	103	—10	May 6	Oct. 6
Cunningham	30.4	38.0	42.8	54.6	64.8	75.8	79.0	[e]78.2	71.3	55.3	39.5	28.7	54.9	107	— 1	Apr. 14	Oct. 20
Delphos	.....	.....	44.4	53.6	62.4	75.3	79.5	80.2	71.2	53.7	37.2	27.1	.....	107	.....	Apr. 26	Oct. 19
*Dodge	29.1	38.2	42.6	54.6	61.8	73.5	76.8	77.8	68.2	53.6	38.8	27.3	53.5	102	— 5	Apr. 2	Oct. 17
Dresden	29.4	36.0	.....	52.6	58.2	.....	73.7	[e]76.3	64.0	.....	.....	.....	.....	108	2	Apr. 26	Sept. 7
Ellinwood	30.6	37.0	42.3	54.0	62.1	73.6	77.4	77.6	66.2	53.5	38.3	27.4	53.3	102	— 3	Apr. 26	Oct. 18
Emporia	33.6	37.6	43.8	54.6	63.2	74.6	76.8	75.4	70.3	54.4	40.4	30.2	54.6	95	2	Apr. 6	Oct. 18
Englewood	.....	39.9	44.2	58.0	64.8	75.8	78.0	78.6	70.0	56.2	40.4	28.2	.....	104	.....	Apr. 5	Oct. 17
Eskridge	31.0	34.6	43.2	51.5	62.8	74.8	77.0	77.0	71.3	51.2	38.0	[f]24.4	53.1	97	— 3	Apr. 5	Oct. 17
Eureka Ranch	27.7	35.0	40.0	53.0	60.0	73.0	77.8	79.6	66.8	50.2	36.0	26.8	52.2	108	—10	Apr. 26	Oct. 6
Fall River	36.6	[d]40.8	46.2	55.4	66.4	75.6	78.0	77.8	73.2	[e]61.4	.....	.....	.....	99	— 2	Apr. 6	Oct. 26
Fanning	29.0	32.0	42.0	.....	.....	.....	.....	.....	.....	[e]48.0	38.0	25.8	.....	101	— 8	Apr. 25	Oct. 13
Fort Riley	30.6	37.0	44.7	54.6	63.4	75.0	73.9	79.1	72.1	54.6	39.2	27.4	54.3	101	— 1	Apr. 6	Oct. 19
*Fort Scott	[d]36.4	.....	.....	53.2	67.6	75.8	78.4	77.4	72.8	55.0	41.8	[d]28.0	.....	.....	.....	Apr. 7	Oct. 19
Frankfort	30.0	33.9	42.7	52.8	62.2	75.2	76.4	78.0	70.0	52.9	37.6	24.8	53.0	104	—10	Apr. 28	Oct. 18
Garden City	29.4	36.3	42.4	55.2	61.1	72.6	76.8	76.7	65.4	51.6	39.0	26.8	52.8	103	—10	May 6	Sept. 7
Gibson	29.6	36.0	39.4	52.3	59.3	72.4	76.6	78.6	66.2	49.1	36.2	27.9	52.0	105	—10	May 7	Oct. 5
Gove (*a*)	30.8	37.1	38.7	[c]46.7	58.6	73.4	79.9	82.3	69.5	52.4	36.3	28.6	52.9	103	— 6	Apr. 25	Oct. 19
Grainfield (*f*)	35.6	37.3	40.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grenola	35.1	39.2	45.4	54.3	66.3	76.0	77.1	75.6	71.2	53.6	39.8	31.6	55.4	97	— 6	Apr. 7	Oct. 19
Halstead	30.0	33.8	.....	52.4	63.4	74.7	77.4	74.5	68.1	.....	.....	.....	.....	.....	.....	.....	.....
*Hays	.....	.....	.....	51.3	59.2	72.6	77.1	78.0	67.2	52.2	37.2	28.7	.....	108	.....	Apr. 26	Oct. 17
Horton	30.2	32.8	42.4	52.2	62.4	74.7	76.3	77.7	69.4	51.7	37.7	24.8	52.7	99	— 2	Apr. 7	Oct. 20
Hoxie	28.2	34.6	38.6	50.9	[f]58.4	.....	.....	.....	63.2	46.9	35.9	25.6	.....	.....	.....	Apr. 26	Oct. 5
Hutchinson	35.0	40.8	44.6	55.2	64.4	74.8	.....	.....	.....	.....	42.1	.....	.....	.....	.....	Apr. 6	Oct. 18
Independence	37.3	40.0	46.6	56.2	68.6	78.8	80.2	78.6	73.6	57.0	43.6	31.4	57.7	102	— 4	Apr. 14	Oct. 20
Lawrence	32.0	35.4	.....	54.0	65.0	75.8	78.0	77.0	70.4	53.6	39.5	27.4	.....	98	— 2	Apr. 6	Oct. 19
Lebanon	.....	.....	.....	53.0	.....	.....	.....	.....	67.9	49.7	34.8	25.8	.....	.....	.....	.....	Oct. 17
Lebo	32.2	36.6	42.8	53.2	64.6	75.6	77.3	76.6	71.4	54.3	39.3	27.8	54.3	97	— 5	Apr. 6	Oct. 19
Linn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Mackaville	29.2	36.7	41.3	53.0	60.2	72.2	75.4	76.1	68.8	.....	.....	.....	.....	.....	.....	Apr. 26	.....
*McPherson	31.2	35.0	43.8	53.8	63.2	74.9	78.4	79.9	72.4	56.4	40.6	28.6	54.8	104	— 2	Apr. 26	Oct. 19
Manhattan[1]	31.4	35.8	43.6	54.2	63.8	76.0	77.9	79.4	72.1	53.1	38.0	26.3	54.3	104	— 4	Apr. 14	Oct. 14
*Manhattan[2]	31.8	35.7	42.8	53.6	63.7	75.4	76.4	77.9	[c]70.2	48.8	34.2	26.8	53.1	102	— 7	Apr. 14	Oct. 13
Marion	33.0	38.2	46.6	55.4	67.0	78.8	80.6	81.5	71.9	56.8	41.0	29.0	56.6	103	— 3	Apr. 26	Oct. 19
Meade	.....	.....	46.2	58.0	65.2	75.6	79.6	82.8	69.8	54.8	.....	.....	.....	.....	.....	Apr. 5	Oct. 16
Medicine Lodge	34.6	40.0	44.0	56.7	67.0	77.4	79.7	79.0	70.6	55.6	40.9	30.0	56.3	106	— 1	Apr. 4	Oct. 19
Minneapolis	30.0	34.2	42.6	52.4	62.8	76.6	80.2	81.2	70.2	53.2	37.1	25.6	53.8	108	— 4	Apr. 14	Oct. 19
Moran	34.4	37.4	43.9	52.2	64.1	74.8	76.7	75.4	71.8	55.0	40.8	28.1	54.5	96	— 5	Apr. 7	Oct. 19
Morland	30.4	35.8	37.8	52.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mounthope (*a*)	33.3	38.0	44.2	54.7	64.9	76.1	78.9	78.0	70.4	55.0	40.5	29.7	55.3	102	2	Apr. 6	Oct. 20
Ness City	33.2	38.0	43.0	55.6	62.2	76.0	80.2	80.3	69.7	[d]53.2	.....	27.5	.....	104	— 2	May 6	Oct. 18
Newton	33.4	37.9	44.6	54.4	64.7	75.2	77.6	77.4	71.7	55.2	39.8	29.6	55.1	103	0	Apr. 6	Oct. 19
Norton	29.5	35.8	37.8	[f]50.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	May 6	Sept. 9
Norwich	[e]35.6	[e]39.8	45.3	55.2	[f]63.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 6	Sept. 20
Olathe	32.2	35.4	47.2	52.4	64.2	75.8	76.9	76.3	71.0	54.4	38.9	25.7	54.2	96	— 7	Apr. 5	Oct. 17
Osage City	32.6	36.4	43.8	52.8	64.4	75.6	77.6	77.2	70.8	54.1	40.0	28.4	54.5	100	— 1	Apr. 6	Oct. 22
Oswego	40.0	41.8	48.8	56.8	68.9	78.7	77.6	78.2	.....	56.8	46.2	33.2	.....	98	— 2	Apr. 6	Oct. 20
Ottawa	32.6	36.4	44.2	52.5	63.5	74.4	75.3	74.8	69.5	52.6	38.2	27.3	53.4	97	—10	Apr. 6	Oct. 22
Phillipsburg	30.6	33.2	39.6	49.8	59.3	72.7	77.8	77.3	67.5	49.8	32.7	28.6	51.6	106	— 8	May 6	Sept. 9
Pratt	34.1	40.6	40.5	.....	.....	78.9	.....	80.0	68.3	.....	.....	.....	.....	.....	.....	Apr. 14	.....
Rome (*a*)	36.3	39.3	45.6	55.0	64.9	74.8	77.0	76.6	71.5	57.1	42.8	30.6	56.0	101	— 2	Apr. 6	Oct. 20
Russell	.....	36.6	42.4	54.2	62.4	76.4	78.6	79.6	68.9	52.6	37.8	27.8	.....	108	.....	Apr. 26	Oct. 19
Salina	29.8	34.8	42.6	53.4	63.2	76.8	79.9	81.2	71.4	53.8	37.8	26.8	54.3	106	— 4	Apr. 14	Oct. 19
*Sedan	36.6	40.1	48.0	54.8	67.0	77.8	78.8	77.2	73.2	57.1	43.0	31.8	57.1	97	— 5	Apr. 6	Oct. 21
Seneca	30.0	34.0	42.3	51.9	62.2	74.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 6	.....
*Topeka	31.7	35.9	43.8	53.0	63.4	75.6	76.7	77.6	71.3	53.6	39.4	27.5	54.1	100	1	Apr. 6	Oct. 22
*Toronto	34.6	38.5	45.2	53.0	65.2	75.6	77.2	77.2	72.2	55.4	41.4	30.5	55.5	102	— 8	Apr. 6	Oct. 20

[1] E. R. Nichols.

[2] Corn and wheat region.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Kansas—Continued.																	
Viroqua	31.9	40.4	44.2	56.2	62.6	73.2	77.6	77.4	66.0	53.8	41.0	26.6	54.2	105	— 7	Apr. 6	Oct. 18
Wallace (a)	.....	33.4	36.2	.....	58.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	May 6	Sept. 7
Wamego (a)	29.7	34.6	42.0	52.6	62.6	76.3	78.0	80.1	69.3	51.6	36.5	25.6	53.2	100	— 2	Apr. 6	Oct. 19
Wellington	38.8	43.0	47.0	57.0	66.8	.....	.....	.....	.....	.....	43.4	33.0	.....	.....	.....	Apr. 6	.....
*Wichita	34.3	39.0	44.4	54.6	65.0	75.6	77.4	77.3	72.0	56.4	41.0	30.6	55.6	100	2	Apr. 6	Oct. 20
Winfield	.....	.....	.....	.....	.....	.....	.....	.....	74.1	58.8	43.8	28.0	.....	.....	.....	.....	Oct. 20
Winona (e)	37.6	41.2	46.2	53.6	59.0	74.6	77.4	81.7	74.4	57.8	48.8	.....	.....	.....	.....	May 6	Sept. 10
Yates Center	33.6	37.2	44.4	53.5	65.7	76.4	77.2	76.2	71.2	54.4	40.4	29.2	55.0	99	1	Apr. 6	Oct. 22
Kentucky.																	
Alpha (e)	42.3	.....	.....	51.2	68.7	.....	78.3	77.6	71.8	56.2	45.6	36.3	.....	.....	.....	Apr. 7	Oct. 26
Ashland	38.4	36.0	50.6	50.8	68.4	74.8	78.8	77.2	71.8	57.2	.....	35.5	.....	100	.....	Apr. 28	Oct. 18
*Bardstown	38.8	36.5	49.2	50.8	67.2	75.7	78.6	77.4	74.6	57.5	42.6	35.2	57.0	99	— 2	Apr. 7	Oct. 15
Blandville	40.4	38.2	50.3	53.9	68.2	77.3	77.6	76.6	73.0	56.2	43.6	34.1	57.4	94	— 1	Apr. 7	Oct. 23
*Bowling Green	41.3	38.6	51.6	53.4	70.4	78.5	79.2	78.2	74.3	57.5	44.4	34.7	58.5	99	— 1	Apr. 6	Oct. 26
Caddo	35.6	34.8	47.6	49.4	65.0	75.8	78.0	76.4	72.4	57.0	41.1	31.3	55.4	99	— 7	May 7	Oct. 27
Canton (a)	43.6	42.0	53.3	56.1	.....	77.2	77.3	76.3	73.7	57.6	45.3	36.2	.....	97	0	Apr. 7	Oct. 27
Carlisle	.....	35.9	.....	.....	.....	.....	77.3	77.0	[d]74.0	.....	41.9	.....	.....	.....	.....	.....	.....
Carrollton	38.5	36.7	49.8	53.4	68.8	78.4	.....	79.0	75.0	58.1	41.8	32.3	.....	.....	—21	Apr. 6	Oct. 26
*Earlington	40.6	38.4	50.4	52.5	68.2	77.6	79.0	78.1	73.4	57.8	44.0	35.2	57.9	99	— 8	Apr. 7	Oct. 23
Edmonton	42.0	38.1	52.0	51.7	67.2	74.2	76.2	74.9	71.0	57.0	44.4	35.4	57.0	92	— 8	Apr. 7	Oct. 27
Ensor	40.7	38.2	51.1	54.4	68.8	77.4	78.0	76.1	73.1	56.6	43.5	33.1	57.6	99	— 7	Apr. 6	Oct. 27
*Eubank	40.8	37.6	50.4	49.6	65.8	73.0	75.4	74.7	70.8	56.2	41.6	34.2	55.8	95	—12	Apr. 21	Oct. 15
Fords Ferry	40.4	38.9	52.6	53.3	67.9	77.1	77.7	.....	74.4	.....	45.0	34.2	.....	.....	— 5	Apr. 7	.....
Frankfort	41.0	[f]37.5	49.8	51.3	.....	.....	[e]77.0	[d]74.6	.....	[e]56.8	[f]46.6	.....	.....	.....	.....	Apr. 13	Oct. 27
Georgetown	38.4	35.8	49.1	50.6	65.4	75.2	78.0	77.0	71.5	56.8	43.8	33.8	56.3	96	— 8	Apr. 7	Oct. 26
*Greensburg	39.9	37.0	50.3	51.0	68.2	75.7	78.2	77.7	73.2	56.8	42.2	33.4	57.0	101	— 8	Apr. 8	Oct. 15
*Henderson	41.4	40.6	51.5	55.7	69.6	79.0	79.7	78.6	74.8	58.0	44.4	34.6	59.0	99	6	Apr. 6	Oct. 14
*Hopkinsville	44.6	40.2	52.0	54.6	69.4	78.6	78.8	78.6	75.3	58.6	45.0	36.2	59.3	97	— 8	Apr. 7	Oct. 23
Irvington	39.4	37.6	51.1	52.2	67.3	75.4	77.7	75.8	72.6	56.3	42.0	32.0	56.6	96	— 8	Apr. 8	Oct. 15
Leitchfield	38.3	35.9	50.2	50.9	67.0	75.0	76.9	76.1	72.8	55.7	42.4	32.8	56.2	95	—10	Apr. 8	Oct. 23
*Lexington	38.0	36.1	49.0	50.7	65.4	74.4	76.2	75.8	72.0	56.0	43.0	33.2	55.8	96	— 1	Apr. 7†	Oct. 27
Loretto	39.6	37.1	50.8	51.6	66.5	74.5	77.1	76.1	72.9	56.3	[e]46.2	32.6	56.8	97	—10	Apr. 7	Oct. 14
*Louisville	39.9	38.2	51.2	53.5	67.8	77.4	79.6	78.2	73.8	58.2	44.7	34.7	58.1	97	4	Mar. 6	Oct. 27
Lyndon	.....	.....	.....	52.0	.....	.....	.....	.....	.....	56.0	41.0	[j]31.2	.....	.....	.....	.....	.....
Marrowbone	39.8	36.2	51.0	.....	66.9	.....	.....	.....	.....	56.0	40.4	.....	.....	.....	.....	Apr. 7	Oct. 15
*Maysville	.....	35.8	50.7	51.3	65.7	75.2	78.2	77.2	73.7	58.3	43.0	33.6	.....	102	.....	Apr. 28	Oct. 27
Middlesboro	39.8	35.5	53.2	50.2	66.3	74.2	76.3	76.2	72.0	57.0	42.8	35.1	56.6	99	— 5	Apr. 21	Oct. 19
Mount Hermon	41.8	38.2	52.4	52.0	68.2	75.3	77.1	76.4	72.8	57.1	44.2	34.4	57.5	95	— 2	Apr. 8	Oct. 15
*Mount Sterling	38.4	37.9	49.0	50.1	65.2	74.8	77.7	76.0	72.0	56.7	42.2	33.0	56.1	97	0	Apr. 8	Oct. 27
*Owensboro	40.0	39.8	52.0	52.1	68.6	77.0	77.3	75.5	73.0	56.7	43.2	34.3	57.4	97	— 1	Apr. 6	Oct. 23
Owenton	36.6	35.5	48.4	51.0	65.0	[f]74.8	.....	75.6	72.8	55.8	42.6	32.0	.....	.....	— 1	May 6	Oct. 26
Paducah	42.9	41.3	51.8	56.5	71.4	80.8	81.1	80.5	76.4	59.2	45.6	36.8	60.4	100	5	Apr. 6	Oct. 27
Princeton	41.6	[d]40.4	50.3	53.8	68.6	78.2	78.6	77.8	74.3	57.4	42.7	33.8	58.1	99	— 5	Apr. 6	Oct. 22
*Richmond	40.1	37.6	50.9	50.9	66.1	75.3	77.5	77.4	72.2	57.3	42.8	34.2	56.9	98	— 1	Apr. 8	Oct. 15
Russellville	43.5	41.1	55.3	55.8	71.9	78.8	79.8	79.8	76.2	.....	.....	.....	.....	103	.....	Apr. 7	.....
*St. John	38.6	36.2	48.9	51.0	66.3	73.7	75.8	75.0	72.0	56.1	42.8	33.2	55.8	95	— 9	Apr. 8	Oct. 15
Scott	36.6	34.8	48.5	50.6	64.2	73.9	77.8	75.5	73.0	56.6	40.6	30.6	55.2	96	— 3	Apr. 7	Oct. 27
Shelby City	38.2	36.8	49.6	51.4	67.3	74.7	77.6	77.0	73.1	57.8	42.8	33.2	56.6	102	— 8	Apr. 5	Oct. 27
*Shelbyville	38.2	36.8	49.9	51.6	67.5	77.0	79.2	78.2	73.4	57.4	42.8	32.6	57.0	101	— 3	Apr. 6	Oct. 15
Southfork (b)	40.7	33.0	47.7	50.0	61.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vanceburg	36.8	32.9	46.8	48.0	63.0	72.2	74.4	74.9	70.9	54.6	38.4	.....	.....	96	.....	Apr. 12	Oct. 27
*Williamsburg	42.4	37.6	54.2	51.9	70.2	77.2	77.6	77.3	73.6	57.0	39.6	36.4	57.9	102	1	Apr. 8	Oct. 22
Woodburn (a)	.....	39.3	52.0	54.1	68.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	Oct. 15
Louisiana.																	
Abbeville	57.4	57.6	63.4	63.5	74.0	78.7	80.9	80.9	78.4	66.9	56.0	49.6	67.3	95	24	Mar. 5	Oct. 27
*Alexandria	53.2	52.8	60.7	62.0	73.8	78.2	80.8	81.4	77.6	65.2	52.4	47.6	65.5	101	19	Mar. 5	Oct. 21
*Amite	56.0	54.5	63.5	62.0	75.6	81.2	81.5	81.2	79.0	64.4	54.1	49.5	66.9	98	19	Feb. 28	Oct. 22
Bastrop	53.4	52.4	61.0	62.1	75.1	81.0	81.2	81.7	78.0	64.2	51.6	45.2	65.6	99	15	Apr. 8	Oct. 27
*Baton Rouge	56.5	55.1	63.9	63.7	75.6	80.0	81.3	81.4	79.1	66.0	54.9	49.3	67.2	97	22	Feb. 22	Oct. 27
Calhoun	.....	50.6	[e]60.4	60.8	74.4	79.6	80.4	80.0	75.9	61.7	50.0	43.4	.....	97	.....	Apr. 6	Oct. 27
*Cheneyville	54.6	53.9	59.6	62.7	74.9	80.7	81.3	81.5	77.9	65.6	52.6	44.6	65.8	99	12	Mar. 5	Oct. 27
Clinton	55.2	54.8	63.3	62.6	74.5	79.3	79.6	79.8	78.4	63.7	54.2	48.2	66.1	94	19	Mar. 4	Oct. 22
Como	.....	.....	64.4	61.9	74.3	80.2	80.4	80.6	76.2	.....	.....	.....	.....	96	.....	Mar. 5	Oct. 22
*Covington	.....	.....	.....	67.4	74.5	80.5	81.2	81.2	78.6	64.8	.....	.....	.....	98	.....	Mar. 5	Oct. 26
*Donaldsonville	56.4	56.1	64.8	64.9	75.9	80.3	82.0	82.0	79.0	68.1	55.6	49.8	67.9	96	24	Feb. 22	Nov. 22
Elm Hall	.....	56.2	.....	65.3	73.1	78.6	.....	.....	74.6	.....	.....	.....	.....	.....	.....	.....	.....
Emilie	55.8	54.2	62.8	63.0	73.6	78.2	79.8	78.7	77.2	64.4	54.6	47.8	65.8	97	22	Feb. 22	Dec. 4
Farmerville	50.6	49.7	59.0	61.0	74.0	80.0	79.7	79.9	76.0	61.7	50.1	40.3	63.5	96	13	Apr. 6	Oct. 25
*Franklin	56.6	55.8	64.8	63.6	76.5	82.5	[e]85.0	.....	82.4	.....	[e]54.8	49.6	.....	.....	22	Feb. 22	Dec. 5
Grand Coteau	56.8	57.2	64.0	65.1	74.8	79.4	81.8	81.4	78.6	65.8	54.3	49.2	67.4	98	24	Jan. 3	Oct. 27
Hammond	56.2	55.0	63.0	.....	.....	.....	.....	81.5	78.9	66.3	56.5	50.6	.....	.....	19	Mar. 4	Oct. 27
Houma	59.6	57.0	67.0	64.9	77.0	[e]81.0	.....	.....	79.7	67.3	.....	.....	.....	.....	.....	Mar. 5	.....
Jeanerette	57.0	57.4	64.8	64.8	75.0	79.8	81.7	81.5	78.6	65.8	54.6	48.7	67.5	102	18	Feb. 22	Oct. 27
Jennings	57.2	55.8	61.2	64.1	73.0	77.6	79.2	.....	78.9	66.8	55.3	50.0	.....	99	22	Mar. 4	Oct. 27
*Lafayette	[e]58.2	60.9	64.0	63.0	75.0	79.6	81.8	81.2	78.4	66.9	53.8	48.4	67.6	99	21	Feb. 6	Oct. 22
*Lake Charles	56.6	56.4	62.4	64.6	73.8	80.4	82.4	82.6	79.0	67.4	54.4	48.9	67.4	100	24	Mar. 5	Dec. 5
Lake Providence	.....	.....	.....	.....	.....	.....	.....	82.2	79.0	65.5	.....	.....	.....	.....	.....	.....	Dec. 4
Lawrence	60.8	56.6	67.0	65.6	79.4	.....	80.8	82.0	81.0	68.5	59.4	50.7	.....	.....	25	Jan. 3	Dec. 4
Liberty Hill	52.9	52.6	60.2	61.9	75.0	81.2	81.8	81.7	77.7	63.2	50.8	45.5	65.4	103	17	Apr. 7	Oct. 27
*Mansfield	50.3	50.6	58.6	60.1	73.4	79.3	80.2	80.5	76.6	63.4	50.2	45.1	64.0	98	12	Apr. 8	Oct. 22
*Melville	55.5	54.9	62.8	63.7	75.8	.....	83.1	81.2	78.3	65.5	54.0	48.7	.....	.....	19	Mar. 5	Oct. 22
*Minden	51.0	50.1	58.0	60.5	74.6	80.3	81.5	81.6	78.0	63.6	.....	.....	.....	101	.....	Mar. 5	Oct. 18
*Monroe	52.2	51.5	61.2	62.1	75.3	80.0	81.2	81.8	77.8	64.4	51.6	45.2	65.4	98	18	Mar. 4	Oct. 27
Montgomery	51.2	50.8	59.6	62.0	74.6	81.3	82.2	82.6	77.2	62.8	48.4	.....	.....	100	.....	Mar. 5	Oct. 25

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Louisiana—Continued.																	
New Iberia	55.2	55.6	61.4	62.4	75.2	79.8	81.6	.....	78.0	.....	54.8	48.5	.....	.....	24	Feb. 22	Dec. 5
*New Orleans	58.6	56.6	65.0	65.1	75.4	81.1	81.4	81.2	79.5	67.6	57.4	50.8	68.3	97	30	Jan. 3	Dec. 10
Oakridge	52.0	.....	.....	.....	.....	80.9	81.4	81.8	77.8	61.8	49.2	44.6	.....	100	.....	Feb. 22	Oct. 26
*Opelousas	57.9	[d]55.9	63.3	62.3	74.5	79.0	80.5	81.2	78.2	65.8	53.2	47.6	66.6	97	19	Mar. 5	Oct. 27
Oxford	.....	.....	59.2	60.3	[f]72.0	[h]79.5	[i]79.9	[e]80.8	.....	60.8	50.4	42.9	.....	.....	.....	Apr. 7	Oct. 20
Paincourtville	58.4	56.6	65.5	65.0	[d]75.8	80.1	82.2	81.4	78.8	65.2	55.6	50.2	67.9	100	21	Feb. 22	Oct. 27
Plain Dealing	50.6	50.4	59.0	59.8	73.8	79.2	80.7	80.9	75.4	62.9	49.4	42.8	63.7	99	14	Apr. 6	Oct. 23
Plaquemine	57.8	56.0	.....	65.8	75.1	81.6	81.4	81.3	79.0	68.8	55.0	49.2	.....	100	22	Feb. 22	Dec. 3
*Port Eads	60.4	56.7	64.8	65.0	74.7	81.5	81.6	80.4	79.6	70.2	63.5	55.2	69.5	93	31	Jan. 2	Dec. 5
*Rayne	56.6	56.4	62.6	64.0	74.1	80.1	[e]81.5	82.0	79.3	67.4	54.4	49.0	67.3	100	20	Mar. 4	Oct. 28
*Robeline	52.4	51.2	58.9	60.2	71.5	78.2	78.3	78.8	75.4	63.0	50.3	43.7	63.5	99	12	Apr. 30	Oct. 26
Ruston	52.2	52.0	58.8	61.2	73.5	77.6	78.2	[e]77.4	.....	.....	51.7	44.2	.....	.....	14	Mar. 6	.....
*Schreiver	56.6	56.0	65.6	63.4	75.0	80.4	81.4	.....	79.6	67.0	56.4	50.6	.....	.....	21	Feb. 23	Oct. 27
Shellbeach	59.2	57.0	63.8	65.5	76.8	81.4	82.7	82.0	78.8	67.0	57.7	50.4	68.5	96	28	Jan. 2	Dec. 4
*Shreveport	52.5	53.0	60.0	63.0	74.8	79.9	81.7	81.4	77.0	64.6	52.0	44.7	65.4	98	18	Mar. 4	Nov. 22
Southern University	56.0	55.2	62.4	62.0	72.6	78.6	78.4	78.5	76.9	67.2	56.2	49.7	66.1	94	23	Feb. 22	Oct. 28
Sugar Exp. Station	56.2	54.4	64.8	63.6	73.6	81.4	81.6	80.6	78.7	66.1	56.0	49.0	67.2	96	25	Feb. 5	Dec. 5
*Sugartown	54.8	55.4	61.4	63.1	75.2	79.5	81.3	80.7	.....	65.8	53.9	48.2	.....	.....	24	Feb. 22	Dec. 4
Venice	58.2	56.4	63.4	63.8	73.8	80.1	80.6	79.8	79.2	68.0	60.4	52.0	68.0	91	.....	Jan. 3	.....
Wallace	57.6	55.4	64.8	63.9	75.2	80.5	81.1	80.9	79.0	66.9	57.6	50.7	67.8	98	25	Feb. 4	Dec. 5
Whitehall	[c]57.4	[e]59.4	64.7	63.9	[c]74.0	.....	.....	80.4	.....	[d]65.1	.....	.....	.....	.....	.....	Mar. 5	Oct. 27
Maine.																	
Bar Harbor	19.6	28.0	37.0	40.7	52.4	60.3	66.4	67.2	60.8	48.4	39.4	25.6	45.5	96	—13	May 10	Oct. 7
Belfast (*f*)	17.5	26.6	35.2	41.5	54.3	60.2	66.8	67.9	59.3	49.1	37.3	23.5	44.9	89	—17	May 10	Oct. 7
Calais	15.6	26.2	34.8	39.1	53.0	61.0	66.6	67.0	58.0	48.2	37.5	24.0	44.2	94	—27	May 10†	Sept.25†
Cornish (*a*)	18.9	26.3	36.8	40.8	55.2	64.6	70.3	68.9	60.4	48.8	35.8	23.6	45.9	93	—12	Apr. 20	Oct. 7
Cumberland Mills	20.6	27.4	37.4	42.6	53.2	64.0	70.7	71.7	62.4	51.2	39.0	25.2	47.1	100	—20	May 10†	Oct. 7†
*Eastport	18.6	28.0	34.8	37.9	47.8	54.3	60.2	61.2	55.9	47.8	39.0	26.3	42.6	87	— 9	May 10†	Oct. 10
Fairfield	14.6	24.3	34.9	41.6	57.1	63.2	69.8	67.8	60.2	50.0	37.3	21.4	45.2	94	—31	May 10	Oct. 7
Farmington	.....	22.0	33.3	40.6	53.6	62.8	68.9	68.0	59.6	48.6	35.8	19.7	.....	96	.....	May 10	Sept. 13
Flagstaff	9.6	.....	.....	.....	54.5	59.7	64.4	63.6	67.6	45.9	33.3	18.0	.....	91	.....	July 12†	Sept. 11†
Gardiner	16.2	25.6	37.2	42.2	55.8	64.5	71.6	71.0	62.7	50.5	38.8	22.6	46.6	101	—30	May 10	Oct. 10
Kineo	9.6	18.2	31.0	37.5	.....	.....	69.6	67.0	58.6	.....	.....	.....	.....	.....	.....	.....	.....
Lewiston	17.5	25.8	36.9	42.2	55.5	64.4	71.0	71.1	62.8	50.8	38.2	22.2	46.5	98	—24	May 10	Oct. 10
Mayfield	.....	.....	.....	36.8	52.9	61.2	67.4	65.5	56.6	45.4	32.6	18.1	.....	94	.....	Apr. 29†	Sept.25†
North Bridgton	17.0	22.8	36.6	41.6	55.2	64.2	70.2	69.6	62.4	50.2	37.9	23.6	45.9	96	—21	May 10	Oct. 7
Orono	13.4	24.6	33.4	39.8	53.8	61.1	68.6	67.5	58.3	46.8	35.8	20.7	43.6	99	—30	May 10	Sept. 13
Petit Manan (*a*)	21.4	28.6	33.3	36.4	49.7	54.6	61.0	59.7	55.1	46.0	36.7	.....	.....	78	.....	Apr. 19†	Nov. 3†
*Portland	21.4	27.6	37.4	41.2	52.6	61.3	67.8	69.8	61.2	50.0	38.6	26.6	43.6	97	— 6	Apr. 28	Oct. 10
Winslow	14.0	24.2	35.1	41.6	55.1	63.1	69.8	67.0	60.3	49.9	37.2	21.9	44.9	96	—30	May 10†	Sept.25†
Maryland.																	
Annapolis	38.4	36.4	50.3	52.8	67.2	76.8	78.6	80.3	71.2	58.6	43.8	.....	.....	98	.....	Apr. 7†	Nov. 2†
Bachmans Valley	32.0	31.2	45.4	[c]46.2	61.0	70.2	76.8	73.6	67.0	53.6	40.4	31.4	52.4	103	2	May 9	Oct. 17
*Baltimore	37.0	35.2	48.6	51.2	63.9	73.8	78.7	77.4	71.4	58.0	44.6	36.2	56.3	104	10	Apr. 6	Oct. 24
Boettcherville	33.8	31.2	46.0	46.8	63.4	71.2	76.8	74.4	67.4	55.2	40.9	31.9	53.2	109	0	May 9†	Oct. 28
Boonsboro	.....	.....	.....	.....	.....	.....	78.2	75.2	71.0	57.0	42.6	.....	.....	.....	.....	.....	.....
Charlotte Hall	38.3	35.6	49.0	51.2	64.8	73.0	78.1	76.4	71.5	58.3	45.1	34.2	56.3	102	2	Apr. 6	Oct. 17†
Chase	.....	.....	.....	.....	.....	.....	79.4	74.9	68.9	57.0	41.3	33.0	.....	.....	.....	.....	Oct. 16
Cherryfields (*a*)	37.6	34.4	47.6	50.2	62.6	72.4	77.5	77.4	72.2	60.6	45.9	37.0	56.3	.....	.....	.....	Nov. 25
Chestertown	.....	33.8	47.8	49.2	62.6	71.0	77.6	76.0	69.6	58.5	43.2	35.6	.....	97	.....	Apr. 28†	Oct. 28
Chewsville	.....	.....	.....	.....	.....	.....	77.0	74.6	67.8	54.6	42.1	32.1	.....	.....	.....	.....	Oct. 26
Clear Spring[1]	.....	.....	.....	.....	.....	.....	78.5	.....	60.0	56.8	.....	.....	.....	.....	.....	.....	Oct. 28
Clear Spring[2]	.....	.....	.....	.....	.....	.....	77.6	74.4	68.7	53.0	*38.6	31.3	.....	.....	.....	.....	Oct. 28
Coleman	.....	.....	.....	.....	.....	.....	78.6	76.1	70.7	58.5	43.7	35.9	.....	.....	.....	.....	Nov. 1†
Collegepark	37.8	*36.2	49.4	51.6	64.7	73.8	79.2	77.0	71.6	58.4	45.0	36.0	56.7	105	4	Apr. 9	Oct. 28
Cumberland	39.3	37.0	51.6	52.6	68.0	73.1	80.4	76.8	70.0	58.6	46.0	36.6	57.4	103	9	Apr. 6†	Nov.24†
Darlington	34.4	33.0	47.4	49.3	61.2	71.1	76.4	74.3	67.7	55.8	42.1	33.1	53.8	98	1	Apr. 28†	Oct. 26
Deerpark	30.4	26.8	42.3	40.8	57.8	63.9	69.0	67.0	60.6	50.2	37.5	26.7	47.8	94	—20	May 18	Sept. 29
Denton	.....	35.4	48.0	49.2	*61.7	*76.0	*78.6	.....	73.1	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Easton	36.0	34.3	47.2	49.2	62.4	72.3	78.4	77.6	71.5	59.0	43.2	35.2	55.5	101	10	Apr. 28†	Oct. 28†
Ellicott City	35.2	32.6	46.5	50.1	61.1	71.1	77.1	74.3	68.8	55.9	41.9	33.6	54.0	101	1	May 9†	Oct. 24
Fallston	33.9	33.0	46.4	48.8	60.5	69.8	75.5	73.3	67.6	56.0	42.0	33.8	53.4	95	3	Apr. 8	Oct. 28†
Flintstone	33.2	31.4	44.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frederick	35.5	34.0	48.4	49.6	63.8	73.1	79.4	76.4	69.8	57.0	42.9	34.0	55.3	104	3	Apr. 9†	Oct. 28†
Frostburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.5	37.6	31.7	.....	.....	.....	.....	Oct. 18
Grantsville	30.8	27.9	42.3	42.0	59.4	65.5	69.8	69.0	62.6	50.0	36.8	26.8	48.6	94	5	May 9	Oct. 13
Greatfalls	35.4	32.8	47.4	49.9	64.4	72.2	77.2	76.2	69.6	57.3	42.8	34.0	54.9	100	3	Apr. 9†	Oct. 16
Greenspring Furnace	33.8	31.0	47.0	48.7	64.4	72.8	78.7	70.0	68.0	55.4	41.8	32.2	53.6	104	— 1	Apr. 6	Oct. 28
Hagerstown	[f]35.4	33.4	50.1	50.0	63.0	.....	.....	.....	68.0	58.0	42.8	32.6	.....	.....	3	Apr. 10†	Oct. 28†
Hancock	.....	.....	.....	.....	.....	*72.4	77.8	[d]75.8	68.0	55.6	41.9	31.9	.....	103	.....	.....	Oct. 28
Jewell	37.0	35.0	49.0	50.8	62.5	71.1	76.7	75.8	70.0	57.8	43.7	*35.0	55.4	99	5	Apr. 6	Oct. 28
Johns Hopkins Hospital	35.7	33.0	46.4	50.0	63.0	72.6	78.4	76.4	70.7	57.5	43.2	33.8	55.1	104	7	Apr. 29†	Oct. 28†
Kensington	.....	.....	.....	.....	63.6	72.8	78.4	76.4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laurel	35.8	33.2	46.9	50.0	63.2	72.0	78.1	77.3	74.4	59.8	45.7	36.8	56.1	104	2	Apr. 4	Oct. 28
McDonogh	.....	33.6	[d]48.4	[h]52.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Mardela Springs	36.9	37.3	49.4	49.7	62.0	[h]69.6	75.6	.....	.....	*55.4	45.3	37.5	.....	.....	9	Apr. 7	Oct. 16
Mount St. Marys College	33.2	30.8	45.8	48.9	62.6	71.6	77.6	73.7	69.2	55.4	41.6	32.6	53.6	102	2	Apr. 7†	Oct. 28
Newmarket	33.2	[j]34.1	47.0	51.1	64.2	73.6	*79.7	75.6	70.2	56.6	42.5	33.2	55.1	105	2	May 9	Oct. 24
Ocean City	.....	.....	.....	49.2	56.8	.....	.....	.....	.....	.....	.....	*38.1	.....	.....	.....	Apr. 7†	.....
Pocomoke City	43.0	40.4	52.8	53.5	65.4	73.4	79.4	80.1	73.3	64.2	50.6	44.6	60.1	101	12	Apr. 4	Nov.12†
Port Deposit	34.0	33.4	45.9	49.0	59.6	71.0	77.8	.....	71.0	58.0	42.9	34.0	.....	.....	2	Apr. 29†	Oct. 28†
Princess Anne	37.8	37.5	49.7	50.2	62.0	70.5	76.4	76.5	69.6	58.0	44.9	37.6	55.9	95	11	Apr. 12	Oct. 17
Queenstown	.....	.....	.....	.....	.....	.....	77.6	77.2	70.6	58.6	43.6	35.3	.....	99	.....	.....	Nov. 20

[1] W. E. Loose, jr. [2] W. W. Frantz.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Maryland—Continued.																	
Rockhall[1]	.....	.....	.....	.....	.....	.....	78.6	74.4	72.1	60.2	45.0	[f]35.9	.....	100	.....	.....	Oct. 23
Rockhall[2]	.....	.....	.....	.....	.....	.....	77.5	76.8	70.2	58.8	44.0	36.1	.....	99	.....	.....	Oct. 28
Sandy Point	.....	.....	.....	.....	.....	.....	77.6	79.0	73.2	64.4	.....	.....	.....	97	.....	.....	Nov. 26
Sharpsburg	33.4	31.2	46.6	47.4	61.9	71.0	77.2	74.4	69.6	56.2	42.6	31.9	53.6	102	— 5	Apr. 9	Oct. 17
Smithsburg[3]	33.7	31.5	.....	48.0	62.0	71.0	77.4	72.0	68.2	55.6	.....	32.5	.....	103	1	May 9	Oct. 24
Smithsburg[4]	.....	.....	.....	.....	.....	.....	78.1	74.4	69.9	56.4	41.8	32.4	.....	103	.....	.....	Oct. 28
Solomons	38.3	36.4	48.4	51.8	64.0	74.0	79.0	79.7	74.4	61.7	47.3	37.9	57.8	99	11	Apr. 28	Nov. 24†
Sudlersville	.....	.....	.....	.....	.....	.....	.....	.....	.....	[f]56.5	45.2	[d]38.5	.....	.....	.....	.....	Oct. 28
Sunnyside	31.0	26.2	43.8	40.6	57.8	64.4	69.0	66.5	60.9	48.0	35.7	26.5	47.6	93	—17	May 9	Sept. 12
Taneytown	34.0	31.6	48.1	51.0	65.7	72.8	77.9	74.8	69.6	56.0	40.1	31.1	54.4	103	2	Apr. 7	Oct. 28
Van Bibber	34.0	32.6	45.6	49.8	62.1	72.2	77.2	75.4	68.6	55.6	41.6	32.9	54.0	97	4	Apr. 7†	Oct. 27†
Western Port	33.8	30.2	44.8	48.0	63.8	73.2	77.0	73.4	67.2	53.7	40.4	30.4	53.0	107	— 1	May 8†	Oct. 23†
Westminster	34.2	34.2	48.9	50.3	66.6	71.2	.....	.....	.....	56.0	41.7	.....	.....	.....	.....	Apr. 27†	Oct. 27
Woodstock	34.9	32.1	47.0	49.6	63.5	72.8	78.1	75.3	68.4	54.8	42.0	34.2	54.4	102	2	Apr. 22†	Nov. 2
Massachusetts.																	
Adams	22.8	27.7	39.2	43.7	56.1	66.0	70.5	68.1	57.4	51.8	36.9	28.5	47.4	98	—11	Apr. 20†	Sept. 11†
Amherst	23.4	27.6	40.3	43.2	56.1	66.2	71.5	70.1	63.2	51.8	38.4	27.2	48.3	95	—15	May 10	Oct. 7
Bedford	23.4	[f]33.7	39.6	39.2	55.4	64.2	70.1	69.9	63.6	52.0	38.6	.....	.....	95	.....	May 10†	Oct. 17†
Bluehill (summit)	25.5	29.8	40.7	40.9	54.0	63.9	69.7	70.3	64.4	51.8	39.6	28.4	48.2	97	— 5	Apr. 28	Oct. 17
*Boston	28.7	32.8	42.8	43.8	55.8	65.8	71.8	73.1	66.2	54.2	42.0	32.0	50.8	99	0	Apr. 27	Oct. 17
Cambridge	26.7	29.9	41.8	43.9	56.2	66.6	72.3	72.4	65.6	53.6	40.7	29.5	50.0	99	— 8	May 10	Oct. 18†
Chestnuthill	26.8	30.2	41.6	43.4	56.4	67.0	72.2	72.6	66.2	53.6	40.4	29.4	50.0	98	— 9	May 10	Nov. 3
Clinton	25.1	27.9	40.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Concord	23.4	27.4	40.0	41.5	55.0	64.9	70.3	70.6	63.8	51.4	38.6	26.8	47.8	97	—19	May 10	Oct. 7
Dudley (*a*)	24.9	28.4	40.6	41.9	55.9	66.6	71.0	66.4	64.4	[c]52.0	[e]38.9	[e]27.5	48.2	99	— 5	Apr. 28†	Oct. 16†
East Templeton (*a*)	22.4	26.6	38.0	40.2	54.0	65.3	70.3	66.8	61.8	49.0	35.2	25.2	46.2	94	— 8	Apr. 7†	Oct. 17†
Fall River	28.4	32.7	42.2	43.6	56.0	66.1	71.2	72.0	66.4	54.5	42.6	32.2	50.7	94	0	Apr. 27	Nov. 12
Fitchburg (*a*)[5]	23.5	27.5	39.2	41.2	55.0	65.8	71.4	69.6	62.3	50.4	37.2	27.1	47.5	93	— 6	Apr. 7†	Oct. 10†
Fitchburg[6]	23.0	28.0	40.6	41.8	55.1	65.9	71.6	70.6	64.4	51.0	38.4	26.9	48.1	96	—11	Apr. 28	Oct. 10
Framingham	25.9	29.3	42.3	44.2	57.3	66.8	72.8	72.4	65.6	52.8	40.0	29.0	49.9	100	—14	May 10	Oct. 18
Groton	22.2	26.6	39.0	41.2	54.7	64.7	69.7	69.8	62.6	50.2	37.2	25.2	46.9	95	—14	May 10	Oct. 7
Hyannis (*a*)	29.9	31.8	39.6	42.2	54.0	62.0	70.0	70.7	64.2	54.0	42.3	32.6	49.4	88	2	Apr. 7	Oct. 28
Lawrence	24.8	28.2	40.5	43.2	56.8	66.3	72.2	72.0	65.0	52.8	39.6	27.4	49.1	97	—19	Apr. 27	Oct. 18
Leeds	23.0	25.6	38.7	42.8	55.9	66.7	71.2	68.9	62.1	50.2	36.8	25.5	47.3	97	—19	May 10	Oct. 10
Leicester Hill	22.5	27.4	39.6	42.0	55.3	66.4	70.8	69.6	64.8	50.0	36.6	29.0	47.4	95	— 8	Apr. 29†	Oct. 17†
Lowell[7]	24.0	28.0	40.8	42.6	56.4	66.7	72.9	72.0	65.0	52.6	39.4	27.0	49.0	96	—16	May 10	Oct. 18
Lowell[7]	24.1	27.7	40.0	42.6	55.4	65.3	71.4	71.2	64.3	51.8	39.2	26.8	48.3	97	—16	May 10†	Oct. 10†
Ludlow Center	19.2	22.8	35.6	39.0	52.0	62.0	68.7	68.0	60.2	49.0	34.3	22.6	44.4	95	—19	May 10†	Sept. 21
Lynn	26.2	30.7	40.5	43.4	55.3	65.0	.....	73.4	63.1	52.7	40.0	28.8	.....	.....	— 3	Apr. 26†	.....
Mansfield (*a*)	25.9	28.2	39.0	43.2	54.2	63.7	70.1	69.6	62.5	51.4	37.4	27.7	47.7	99	—20	Apr. 7†	Sept. 21
Middleboro	27.3	30.0	40.0	42.2	53.6	61.8	70.0	71.2	63.6	52.3	39.8	29.5	48.4	96	— 9	May 10	Oct. 10
Monson	25.2	29.5	41.7	43.4	56.3	66.7	70.8	70.8	64.1	52.3	38.7	27.0	48.9	96	—16	May 10	Oct. 17
*Nantucket	32.8	34.0	40.6	42.4	51.4	59.6	67.3	70.6	65.2	55.3	44.8	35.7	50.0	85	10	Apr. 7	Nov. 12
New Bedford[8]	30.3	33.0	41.0	42.8	54.2	63.6	69.9	70.8	64.8	53.2	41.2	31.8	49.7	93	0	Apr. 27	Oct. 28
New Bedford[9]	29.3	31.4	40.3	43.4	54.2	63.9	69.2	71.2	64.8	53.6	41.2	31.7	49.5	94	— 1	Apr. 27†	Oct. 28†
New Salem	22.0	26.6	39.0	40.8	55.2	64.2	70.0	69.0	62.9	50.2	36.8	25.3	46.8	92	— 8	Apr. 28	Oct. 10
Pittsfield	22.2	25.0	37.5	41.2	55.6	65.8	70.7	68.8	61.7	50.6	36.0	25.0	46.7	95	—10	Apr. 19	Oct. 18
Plymouth (*a*)	.....	.....	.....	.....	.....	.....	.....	71.5	67.3	[d]55.6	[e]41.2	31.6	.....	.....	.....	.....	.....
Provincetown	30.6	32.9	40.8	42.8	53.7	62.8	70.6	71.5	65.0	.....	.....	.....	.....	89	.....	Apr. 28	.....
Somerset (*a*)	29.9	32.2	42.1	45.7	58.4	68.5	75.2	75.1	67.6	55.8	42.0	31.8	52.0	100	— 6	May 10†	Oct. 17†
Springfield Armory	25.8	28.4	40.0	42.2	54.4	65.8	70.2	69.2	63.0	51.8	39.6	28.1	48.2	97	—10	May 10†	Oct. 18†
Taunton[10]	26.2	29.2	40.2	42.5	54.8	64.2	70.2	70.8	63.4	51.7	38.7	28.0	48.3	97	—10	May 10	Oct. 17
Taunton[11]	26.8	29.8	40.0	42.8	54.8	64.6	70.2	71.0	63.7	52.0	38.8	28.4	48.6	97	—15	May 10†	Oct. 17†
Turners Falls	21.4	25.5	38.5	43.4	55.6	66.6	71.4	70.2	62.8	51.8	37.5	25.9	47.6	95	—21	Apr. 19†	Oct. 10†
*Vineyard Haven	33.6	35.6	43.0	45.2	55.2	64.1	71.3	73.2	67.4	56.5	45.0	36.2	52.2	91	6	Feb. 14	Nov. 12
Westboro	25.1	29.6	41.8	42.3	56.0	67.2	72.8	72.3	65.4	53.0	40.1	29.1	49.6	96	—15	May 10	Sept. 21
Weston	25.8	29.1	40.5	42.3	55.6	65.0	70.5	70.0	63.1	51.8	39.2	27.8	48.4	95	—12	May 10†	Oct. 17†
Williamstown	21.6	24.8	37.7	41.5	55.0	65.1	69.0	66.6	60.1	50.8	35.8	26.6	46.2	90	—14	May 10	Oct. 10
*Woods Hole	30.4	32.5	39.9	42.2	52.6	61.0	68.2	70.4	65.4	55.0	44.0	33.8	49.6	85	5	Apr. 7†	Nov. 25†
Worcester[12]	25.6	.....	.....	.....	.....	.....	69.7	73.5	66.4	51.6	40.8	26.6	.....	90	.....	.....	Oct. 18†
Worcester[13]	25.8	30.0	42.1	42.8	.....	.....	.....	.....	.....	.....	[e]41.0	27.7	.....	.....	— 6	Apr. 27	.....
Michigan.																	
Adrian	27.0	25.3	39.8	45.3	59.0	68.5	73.6	71.2	65.2	51.1	34.4	24.4	48.7	96	— 7	Apr. 28†	Oct. 15†
Agricultural College	24.9	23.8	37.0	43.6	56.5	67.6	70.0	69.0	63.3	49.6	33.1	24.8	46.9	96	—10	May 7†	Sept. 11†
Allegan	27.1	26.2	38.4	43.4	.....	69.2	72.6	69.6	64.9	50.8	36.6	28.8	.....	96	1	.....	Sept. 10
Alma	24.0	23.1	36.2	43.6	57.6	68.7	71.0	68.7	63.6	49.8	33.8	23.7	47.0	97	—10	May 12†	Sept. 11
*Alpena	22.7	21.7	32.5	40.0	52.0	62.1	66.8	64.2	61.4	47.0	36.4	23.6	44.2	94	— 8	May 6	Sept. 11
*Ann Arbor	26.7	24.5	39.0	45.2	58.6	69.2	74.0	72.8	65.4	50.8	34.6	*25.3	48.8	100	— 6	Apr. 8†	Oct. 28
Arbela	25.6	24.6	36.2	42.6	56.6	68.4	71.8	69.8	64.6	50.4	34.6	25.4	47.6	97	—11	May 7†	Oct. 6
*Badaxe	.....	.....	.....	42.0	55.4	66.5	71.0	68.3	64.6	.....	.....	.....	.....	96	.....	.....	.....
Baldwin	21.8	21.8	33.7	42.9	55.0	66.2	69.8	66.0	61.2	48.8	34.6	22.1	45.3	96	—22	July 11†	Sept. 10
Ball Mountain	24.4	22.5	37.1	42.2	55.8	67.2	71.4	70.5	64.8	50.6	33.8	23.7	47.0	98	— 9	May 6	Sept. 11
Baraga	.....	.....	.....	.....	50.0	57.5	67.4	63.0	58.2	49.2	.....	.....	.....	95	.....	May 25†	Sept. 10
*Battlecreek	27.2	25.3	38.9	45.4	59.2	70.4	74.8	71.9	65.8	51.2	35.0	25.8	49.2	100	— 6	Apr. 27	Oct. 15
Bay City	25.0	25.8	35.4	41.2	56.2	66.5	70.2	68.2	64.1	48.8	34.2	24.1	46.6	94	—12	Apr. 28†	Oct. 15†
Benton Harbor	29.2	28.0	40.2	43.4	56.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 11†	.....
Berlin	23.4	22.1	36.3	42.2	55.6	66.7	69.7	69.4	63.9	49.6	33.8	23.2	46.3	98	—13	May 6	Oct. 16
Berrien Springs	28.4	.....	40.0	44.0	56.8	68.8	76.2	71.6	68.0	53.2	35.8	26.0	.....	98	— 3	Apr. 25†	Oct. 26†
Big Point Sable (*g*)	26.6	.....	.....	39.7	49.2	59.8	.....	65.9	64.2	51.5	39.2	.....	.....	.....	.....	.....	.....
Big Rapids	22.8	21.4	34.8	42.1	55.2	66.4	67.3	66.8	61.0	48.1	33.4	21.8	45.1	93	—10	July 11†	Sept. 11
Birmingham	25.6	24.7	37.7	45.0	59.2	71.1	74.0	71.9	64.6	50.8	35.4	25.7	48.8	99	—10	May 5†	.....
Boisblanc (*g*)	.....	.....	.....	.....	.....	.....	.....	65.0	.....	49.0	39.7	.....	.....	.....	.....	.....	.....

[1] C. N. Satterfield.
[2] Q. L. Leary.
[3] J. L. Miller.
[4] D. W. Crowther.
[5] Dr. J. Fisher.
[6] Dr. A. P. Mason.
[7] Prop. locks and canals.
[8] T. R. Rodman.
[9] A. S. Negus.
[10] Mrs. H. B. Sprague.
[11] E. L. Redfern.
[12] Worcester Academy.
[13] G. W. Swann.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Michigan—Continued.																	
Boon	20.1	19.8	32.0	[c]41.1	53.0	64.0	66.0	63.9	59.6	46.2	32.0	18.8	43.0	94	—15	June 22	Sept. 11
Calumet	20.2	18.3	29.7	39.3	49.3	57.4	65.3	61.5	58.2	42.6	32.2	19.2	41.1	90	—19	May 5†	Oct. 9†
Camden	27.6	26.6	.....	44.8	58.8	69.8	73.5	70.8	65.7	51.9	35.0	[d]24.4	.....	99	— 9	Apr. 25†	Oct. 15
Carsonville	[d]28.4	24.4	35.0	41.2	54.2	65.6	70.4	68.8	65.0	52.1	35.2	25.2	47.1	98	— 2	May 17†	Sept.11
Charlevoix	22.6	20.4	32.2	40.2	51.4	62.4	69.8	65.4	63.4	48.8	37.8	26.9	45.1	93	— 5	May 12†	Oct. 26†
Cheboygan	19.5	20.0	32.5	40.3	52.3	61.2	68.7	65.1	62.3	46.7	35.8	22.1	43.9	95	—14	June 15	Sept. 10
Clinton	27.0	26.0	39.4	45.3	59.1	69.9	74.1	72.3	66.0	51.8	35.8	25.7	49.4	101	—12	May 6†	Oct. 27
Coldwater	27.6	26.3	40.2	45.2	58.3	68.4	72.4	70.8	65.2	51.4	34.8	25.5	48.8	96	— 7	Apr. 27†	Oct. 14
Crisp (*g*)	21.8	.....	31.2	38.4	48.2	57.9	64.9	.....	60.2	.....	.....	.....	.....	.....	.....	May 14†	.....
*Detroit	28.2	26.4	40.3	45.4	58.8	69.6	73.1	72.0	67.4	53.0	37.4	26.9	49.9	97	— 4	May 6	Oct. 27
East Tawas	22.6	22.4	32.3	41.4	54.3	65.0	68.6	66.8	62.6	49.6	34.7	23.6	45.4	94	—10	Apr. 27†	Oct. 15†
Eloise	28.2	25.6	39.6	44.9	58.2	68.8	73.1	71.5	65.8	52.4	36.8	25.8	49.2	98	— 5	May 5†	Oct. 26
*Escanaba	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.3	19.2	.....	.....	.....	.....	.....
Escanaba	20.8	20.0	29.8	39.4	50.1	61.7	67.6	65.2	61.4	46.8	.....	.....	.....	87	—10	Apr. 20†	Oct. 15†
Ewen	21.6	14.8	.....	.....	.....	60.8	69.1	65.4	57.5	43.2	31.2	15.8	.....	94	—23	July 21†	Sept.12†
Fairview	25.2	24.4	37.6	42.8	57.8	67.0	71.9	69.5	64.6	51.0	35.8	24.3	47.7	94	— 9	Apr. 9†	Sept.10†
Fitchburg	24.2	23.7	37.4	43.1	56.4	67.7	70.9	69.4	63.6	50.4	34.2	24.4	47.1	99	—10	July 11†	Sept. 11
*Flint	24.8	22.8	36.7	42.6	56.4	67.2	70.7	69.6	63.8	50.5	33.8	24.8	47.0	96	—14	May 7†	Sept.11†
Frankfort	30.3	.....	34.5	.....	.....	.....	.....	65.5	63.5	49.8	38.4	26.2	.....	.....	.....	.....	Oct. 30†
Gladwin	21.8	21.4	33.9	42.6	56.2	66.3	68.7	67.1	61.5	48.0	34.0	22.6	45.3	95	—14	May 7†	Sept. 11
*Grand Haven	29.2	26.2	37.6	43.8	54.6	65.7	70.2	67.6	64.2	51.0	37.8	28.0	48.0	90	— 1	May 6†	Oct. 27
Grand Rapids	27.6	24.8	35.7	44.3	58.4	69.6	73.8	70.8	65.7	49.3	34.7	25.1	48.3	102	— 4	May 7†	Oct. 26
Grape	[c]28.7	27.2	40.2	46.0	59.6	69.8	74.1	72.5	66.7	52.6	36.6	25.9	50.0	98	— 5	May 6	Oct. 26
Grayling	19.7	19.0	31.4	40.0	54.4	66.0	69.2	64.3	59.4	47.6	33.0	20.1	43.7	98	— 2	May 17†	Sept. 11
Hammonds Bay (*g*)	.....	.....	.....	37.6	50.6	60.2	67.6	66.1	.....	.....	40.1	.....	.....	92	.....	Apr. 28†	.....
Hanover	26.6	25.5	38.2	44.1	57.0	67.8	73.1	70.2	64.5	50.4	34.2	24.0	48.0	98	—8	May 6†	Oct. 15
Harrison	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.0	33.2	21.5	.....	.....	.....	.....	Oct. 5
Harrisville	22.2	21.5	32.6	39.4	51.6	62.7	68.6	66.5	62.7	49.0	35.7	22.6	44.6	97	—15	Apr. 26†	Oct. 15*
Hart	26.5	25.0	35.7	42.2	54.2	67.2	71.8	67.4	63.2	50.3	36.4	25.8	47.1	95	— 1	May 6†	Oct. 9†
Hastings	26.8	23.6	37.2	44.2	57.7	69.2	72.1	70.2	63.7	49.2	32.8	23.5	47.5	98	— 5	May 7†	Sept. 11
Hayes	25.0	21.6	36.3	41.7	54.4	63.9	67.5	65.6	63.4	49.6	36.3	26.2	46.0	94	—13	May 6†	Nov. 11
Hillsdale	26.8	25.2	39.0	44.4	57.7	68.8	71.8	69.8	64.9	50.3	34.0	24.6	48.1	94	— 7	Apr. 27†	Sept. 11
Holland (*g*)	.....	.....	.....	44.6	55.6	67.0	71.2	71.0	66.7	53.6	.....	29.0	.....	86	.....	Apr. 8†	.....
Howell	29.8	25.8	41.5	44.3	57.1	70.4	73.8	.....	.....	50.8	35.4	25.4	.....	.....	—10	May 5†	Oct. 5†
Humboldt	13.2	13.8	25.4	35.8	47.6	59.0	63.4	58.4	55.9	39.6	27.6	11.6	37.6	92	—35	June 14	Aug. 9
Ionia	.....	.....	36.6	44.0	58.2	68.0	.1.1	[c]69.8	63.1	50.6	33.8	23.6	.....	99	.....	May 13†	Sept. 11
Iron River	14.9	[c]15.4	[c]26.0	37.4	47.6	60.4	62.9	59.2	[c]56.0	.....	.....	12.2	.....	.....	.....	(2)	Oct. 10
Ishpeming	.....	.....	.....	.....	.....	.....	.....	61.3	58.6	42.0	30.4	16.3	.....	.....	.....	.....	Sept. 10
Ivan	22.8	22.0	33.6	41.4	54.2	66.6	70.2	65.6	61.1	45.9	34.4	22.3	45.0	96	—12	May 6	Oct. 6
Jackson	27.6	26.0	39.6	45.4	59.4	70.6	73.0	71.0	65.3	51.3	35.1	25.8	49.2	99	— 6	May 6†	Oct. 15†
Jeddo	24.6	23.0	36.4	41.9	54.6	65.8	69.6	68.8	64.4	49.2	34.8	23.4	46.4	97	— 9	May 5†	Nov. 17
Kalamazoo	28.4	25.1	39.0	45.6	59.4	[c]70.0	74.4	71.8	66.3	51.2	34.5	25.5	49.3	98	— 8	Apr. 7	Oct. 27
Lake City	21.5	20.2	32.1	40.5	55.1	65.2	68.9	65.4	61.3	47.8	33.4	20.0	44.3	94	—13	May 29†	Oct. 6†
*Lansing	27.0	24.4	38.0	43.8	57.1	68.3	71.9	69.5	64.6	49.8	34.8	25.3	47.9	96	— 6	Apr. 8	Oct. 15
Lansing[1]	26.0	23.9	37.1	43.7	57.1	68.5	71.7	69.8	63.6	49.7	34.3	25.1	47.5	96	— 6	Apr. 8	Oct. 15
Lapeer	25.3	22.4	35.3	42.3	56.4	67.2	70.2	69.0	63.0	49.4	33.4	23.8	46.5	96	—16	May 14	Sept. 10
Lathrop	16.7	18.3	28.0	37.2	48.8	60.0	64.4	60.6	56.9	44.0	30.8	15.3	40.1	95	—17	June 15†	Sept. 10
Ludington	26.8	24.6	35.0	41.4	52.9	63.4	69.0	65.4	61.1	50.2	33.7	24.5	45.7	86	2	May 6†	Sept. 12
Luzerne	19.0	18.2	31.9	39.7	53.6	64.8	67.2	64.0	59.2	44.8	32.0	18.2	42.7	94	—24	Apr. 27	Oct. 6
Mackinaw City	19.6	18.8	32.0	38.6	48.7	58.4	66.2	62.9	60.9	45.6	35.1	23.2	42.5	92	—14	May 31†	Oct. 6†
Madison	27.4	26.0	40.0	46.0	60.0	70.5	74.4	72.3	66.6	52.6	35.9	25.1	49.7	97	— 7	Apr. 6†	Oct. 15
Mancelona	22.4	20.4	32.6	40.2	52.4	65.6	68.0	64.0	60.3	45.0	34.8	19.8	43.9	93	—11	May 29	Sept. 10
Manistee	26.6	24.2	34.9	40.1	51.6	62.7	67.7	67.2	64.5	50.6	34.0	24.3	45.7	92	1	May 17†	Oct. 6†
Manistique	21.3	[c]20.1	.....	[b]36.6	.....	58.1	63.1	62.48	58.3	45.0	33.9	18.0	.....	84	—10	.....	Sept. 9
*Marquette	22.0	20.7	32.1	38.4	49.8	57.6	65.0	63.0	61.7	45.6	34.8	20.6	42.6	94	— 8	Apr. 20†	Oct. 29†
Middle Island (*g*)	27.3	25.0	35.2	38.1	50.8	60.4	68.5	66.2	62.1	49.2	37.2	25.9	45.5	92	— 1	Apr. 19†	Oct. 27†
Midland	23.6	20.8	34.2	43.0	55.2	68.0	69.5	69.0	63.6	.....	.....	25.1	.....	98	—12	May 13†	.....
Mottville	26.8	26.4	41.0	45.7	59.0	69.4	73.1	70.4	65.8	51.7	35.2	24.1	49.0	101	—11	Apr. 21	Oct. 28
Mount Clemens	25.4	24.6	37.2	44.5	57.8	68.1	72.2	70.5	65.3	51.5	35.2	25.0	48.1	100	— 8	May 6†	Oct. 16
Mount Pleasant	22.0	19.6	32.4	42.2	55.5	67.2	.....	69.4	62.9	50.6	36.3	22.4	.....	94	—13	May 29†	Oct. 26†
Muskallongee Lake (*g*)	.....	.....	.....	36.8	46.6	55.5	63.2	60.8	60.6	45.3	34.2	.....	.....	93	.....	Apr. 27†	Oct. 26†
Muskegon	27.0	23.9	35.2	43.5	55.3	65.6	71.4	68.4	63.8	50.6	36.4	26.2	47.3	92	— 4	Apr. 12†	Sept. 20
Newberry	15.8	15.8	27.6	36.2	49.5	58.0	63.0	59.4	56.9	42.0	33.1	16.4	39.5	91	—11	(3)	(3)
North Manitou Island (*g*)	27.0	24.8	34.1	39.5	49.6	62.4	70.8	68.2	67.0	51.5	37.4	.....	.....	89	.....	May 4†	Oct. 26†
North Marshall	25.6	22.5	36.5	43.3	56.9	67.0	73.0	70.6	.....	.....	33.7	23.6	.....	97	—16	May 18†	Nov. 27
Northport	26.2	22.9	35.7	41.6	53.5	[b]62.7	68.0	65.0	63.2	.....	38.5	26.4	.....	94	— 7	Apr. 7	.....
Old Mission	25.8	23.8	35.9	42.4	54.0	64.0	70.8	66.6	64.6	50.9	38.2	25.6	46.9	95	— 2	Apr. 18†	Oct. 26
Olivet	27.0	25.8	38.8	44.2	57.9	69.0	71.8	69.9	62.6	48.9	34.3	24.8	47.9	95	— 7	Apr. 8†	Oct. 14
Omer	20.2	.....	32.2	40.0	54.4	[c]63.4	68.2	65.5	60.2	47.3	32.9	21.6	.....	94	—19	May 26†	Sept. 10
Ottawa Point (*g*)	.....	.....	.....	39.7	52.2	63.6	69.9	68.3	63.9	50.4	37.1	.....	.....	94	.....	Apr. 8†	Oct. 26
*Ovid	25.4	22.4	37.0	43.4	57.7	68.2	72.2	70.4	64.4	51.2	34.2	24.8	47.7	99	— 9	May 6†	Oct. 29
Owosso	25.4	23.6	38.2	43.9	58.5	70.1	73.8	71.6	65.7	51.2	34.5	[c]25.6	48.5	101	— 9	May 14†	Sept.11†
Pentwater (*g*)	28.5	.....	.....	43.8	55.1	64.4	70.9	69.4	67.6	54.0	41.0	.....	.....	90	.....	Apr. 8†	Nov.17†
Petoskey	22.5	21.2	33.4	38.8	50.9	[c]60.2	65.9	63.5	62.0	.....	35.8	24.3	.....	93	—12	May 6†	.....
Plymouth	26.0	24.1	37.7	44.0	56.0	67.3	72.4	70.9	63.0	50.8	34.2	25.6	47.7	98	—10	May 11†	Oct. 26
Pointe Aux Barques (*g*)	.....	.....	.....	40.4	54.7	65.0	70.3	69.8	65.9	49.1	38.4	.....	.....	.....	.....	.....	.....
Point Betsey (*g*)	.....	.....	.....	.....	51.6	60.9	69.0	66.6	63.9	51.5	.....	.....	.....	81	.....	.....	.....
Port Austin	[c]24.4	23.4	34.6	40.6	54.5	64.8	68.3	66.0	63.9	49.2	36.8	25.7	46.0	93	—12	Apr. 27	Oct. 27
*Port Huron	27.2	25.6	38.3	42.0	55.1	67.0	70.8	70.2	66.1	52.1	37.5	26.6	48.2	98	— 6	May 6	Oct. 16
Powers	.....	.....	.....	40.0	51.9	63.8	67.6	62.2	59.1	44.8	31.0	14.8	.....	95	.....	May 30†	Sept. 10
Reed City	17.6	20.3	33.2	40.8	54.8	65.4	67.5	66.8	60.9	[d]47.8	32.4	19.0	43.9	96	—14	May 29	Sept.11†
Rockland	18.2	17.2	29.8	41.0	51.6	59.9	67.2	62.2	59.6	[d]44.4	29.4	15.6	41.3	93	—15	May 5†	Oct. 13†
Rogers	[c]22.2	21.1	32.0	38.6	51.3	60.0	68.0	62.8	[f]62.3	[b]47.7	.....	23.4	.....	96	—13	May 14†	Oct. 2†
Romeo	24.7	25.1	38.2	44.0	56.6	68.3	.....	.....	[d]61.5	50.0	33.4	24.7	.....	.....	— 9	Apr. 27	Oct. 16
Saginaw	25.0	22.4	40.2	43.0	57.9	69.3	73.1	70.8	65.1	50.9	35.6	25.8	48.3	98	—11	May 6†	Oct. 14
St. Ignace	19.5	17.6	31.2	41.1	50.0	59.6	66.1	64.1	61.0	45.8	36.0	23.2	42.9	96	—16	May 6†	Oct. 14†

[1] H. B. Baker. [2] Minimum temperature below 32° every month. [3] Temperature of 32° every month.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Michigan—Continued.																	
St. Johns	26.9	24.2	[c]37.8	[d]43.5	[e]58.8	69.4	73.3	71.4	65.4	51.7	35†6	26.4	48.7	97	— 8	May 16†	Oct. 15
St. Joseph	.....	.....	.....	.....	55.6	69.4	73.5	69.4	67.1	52.5	39.7	.....	.....	97	.....	.....	Oct. 28
Sandbeach	24.0	20.8	33.3	39.0	52.0	63.4	69.4	67.4	63.4	50.9	36.2	26.1	45.5	95	—11	Apr. 27†	Oct. 27†
*Sault Ste. Marie	15.9	17.8	29.0	39.2	49.8	57.4	63.9	61.6	58.2	44.0	34.6	19.2	40.9	89	—20	May 6	Oct. 8
Sidnaw	17.2	17.0	28.9	37.4	.....	60.7	66.5	60.7	57.8	.....	.....	16.4	.....	96	—23	June 21†	Aug.27†
Somerset	26.0	24.6	38.7	44.6	57.1	[e]67.8	72.2	71.2	64.8	50.4	34.0	24.5	48.0	96	— 7	May 5†	Oct. 26
South Haven	.....	.....	.....	43.6	54.7	68.1	71.2	69.1	65.6	50.0	36.2	[c]26.9	.....	92	.....	Apr. 8	Oct. 25†
Stanton	[c]25.8	21.8	36.0	.....	.....	68.5	[e]72.2	69.0	62.4	49.1	34.4	23.6	.....	98	— 8	.....	Oct. 15†
Sturgeon Point (*g*)	.....	.....	.....	37.1	52.6	62.1	68.4	66.5	63.6	50.8	38.9	.....	.....	93	.....	Apr. 8†	Oct. 26†
Thomaston	21.6	16.6	28.2	.....	53.9	61.2	70.0	65.6	58.2	[c]43.6	30.6	16.2	.....	95	—24	July 11†	Sept.13†
Thornville	26.2	24.4	38.4	45.2	58.6	69.8	72.0	70.1	65.6	52.0	36.0	25.7	48.7	97	—10	Apr. 5	Oct. 15
Thunder Bay Island (*g*)	25.6	.....	32.4	37.7	49.4	60.4	.....	67.0	62.7	49.9	38.1	.....	.....	.....	.....	.....	.....
Traverse City	24.4	23.0	33.9	40.0	51.5	62.7	68.0	65.0	62.1	48.0	35.7	22.8	44.8	95	— 3	May 29	Oct. 26†
Two Heart River (*g*)	.....	.....	.....	37.6	46.9	56.3	63.3	61.6	60.2	45.2	34.0	.....	.....	94	.....	May 30†	Oct. 26†
Valley Center	22.9	21.1	34.6	42.0	55.2	64.8	66.1	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Vandalia	28.4	26.4	40.8	48.0	58.8	69.4	74.2	70.7	66.4	51.8	36.2	25.6	49.7	98	— 9	Apr. 8	Oct. 26
Vassar	24.4	23.9	36.0	42.3	56.4	67.1	70.6	68.8	63.3	50.0	34.6	25.1	46.9	97	—18	May 7	Sept.11†
Vermilion Point (*g*)	16.7	16.6	27.3	33.8	43.0	51.4	58.7	55.2	54.7	40.6	30.2	17.0	37.1	86	—12	May 30†	Oct. 14†
Wasepi	26.9	26.3	39.1	44.8	58.1	68.7	72.2	70.0	64.6	50.6	34.4	25.0	48.4	95	—18	Apr. 27†	Oct. 27
Waverly	26.7	24.2	36.5	42.8	56.3	67.2	70.6	68.2	62.8	[h]46.0	33.6	24.0	46.6	95	— 5	Apr. 4	Sept. 11
West Harrisville	21.2	20.2	32.4	40.4	53.2	62.4	[e]66.6	65.4	61.1	47.8	34.8	20.7	43.9	91	—16	May 14†	Oct. 6
Wetmore	17.4	18.6	28.7	36.6	48.2	56.5	64.0	61.0	58.5	43.6	32.0	16.2	40.1	91	—24	([1])	Aug 17
White Cloud	20.1	20.1	.....	42.8	56.1	68.1	74.3	68.6	62.2	48.6	34.8	23.0	.....	97	—10	May 29	Sept. 23
Williamstown	.....	.....	.....	.....	.....	68.4	71.8	69.4	63.5	51.2	34.6	23.1	.....	98	.....	.....	Oct. 15†
Ypsilanti	27.6	25.6	37.6	44.6	57.4	67.8	71.7	71.0	64.3	50.2	36.2	25.7	48.3	96	— 7	Apr. 27†	Oct. 15†
Minnesota.																	
Ada	13.6	12.7	25.9	45.2	55.2	[b]65.4	.....	.....	57.9	40.2	22.0	7.9	.....	.....	—34	May 16†	Sept. 8
Albert Lea	19.6	18.6	32.9	45.0	57.2	66.8	70.2	67.8	62.2	43.6	29.1	.....	.....	94	.....	Apr. 26†	Sept. 11
*Alexandria	18.3	13.8	29.2	44.2	55.4	66.1	70.4	67.4	61.0	43.1	25.6	10.6	42.1	96	—25	Apr. 27†	Oct. 6
Beardsley	19.2	16.5	29.4	44.2	54.6	66.0	68.2	66.2	60.2	41.6	26.6	15.0	42.3	100	—22	May 30†	Sept. 8
Bermidji	.....	.....	.....	.....	.....	.....	.....	.....	59.4	.....	.....	13.4	.....	.....	.....	.....	.....
Bingham Lake	20.8	17.8	31.3	44.0	58.4	68.4	72.2	69.0	.....	.....	.....	.....	.....	96	.....	Apr. 26	.....
Bird Island	21.1	18.2	32.4	44.7	56.4	66.9	72.0	68.6	61.9	44.4	27.8	14.8	44.1	96	—18	Apr. 26†	Sept. 9
Blooming Prairie	19.8	19.4	33.1	43.4	56.4	67.5	70.0	68.2	62.4	44.8	27.2	11.7	43.7	97	—25	May 5	Sept. 7
Caledonia	20.0	20.1	34.9	44.5	57.6	67.8	72.0	68.6	63.0	45.0	29.6	13.1	44.7	95	—22	Apr. 21†	Oct. 5
Camden	22.2	18.6	31.4	45.8	56.2	68.2	70.7	67.5	61.2	.....	.....	.....	.....	95	.....	Apr. 29†	Sept. 11
*Campbell	.....	.....	.....	41.1	53.5	64.0	67.4	65.8	59.4	.....	.....	.....	.....	98	.....	May 30†	Sept. 8†
Collegeville	22.1	19.0	32.8	45.7	56.3	67.2	72.2	68.2	63.0	44.8	29.6	17.2	44.8	92	—22	Apr. 26†	Sept. 9
*Crookston	14.3	12.2	24.8	43.2	54.6	62.0	67.2	64.4	57.6	39.2	23.6	9.3	39.4	90	—28	May 11	Sept. 9
*Detroit City	9.8	10.8	24.0	40.0	51.6	62.4	66.6	64.0	57.0	39.8	[c]19.7	6.2	37.7	93	—44	May 16†	Sept. 8
*Duluth	19.0	17.2	30.6	40.3	50.7	57.0	65.9	64.4	59.2	43.8	29.0	13.5	40.9	90	—24	Apr. 19†	Oct. 6
Faribault	22.2	19.4	33.4	44.5	56.9	67.2	71.6	68.2	66.6	45.2	.....	.....	.....	96	.....	May 11†	Sept. 11
Farmington	19.9	18.6	33.0	44.0	56.2	65.4	68.8	66.0	59.4	44.4	27.5	11.8	42.9	98	—26	May 11†	Sept. 9
*Fergus Falls	17.8	15.6	28.0	44.0	55.4	65.5	69.6	66.7	59.6	41.4	24.9	10.4	41.6	94	—28	May 11	Sept. 8
Glencoe	21.5	18.4	28.6	42.8	.....	65.8	68.2	64.7	.....	.....	.....	.....	.....	93	—23	.....	.....
Glenwood	18.6	15.5	30.2	44.6	56.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Grand Meadow	18.2	16.6	32.4	44.9	57.6	68.2	72.2	69.9	62.0	43.6	26.4	9.9	43.5	97	—22	May 5†	Sept. 11
*Granite Falls	.....	.....	.....	43.3	55.1	66.0	70.3	67.4	61.0	.....	.....	.....	.....	95	.....	May 12†	Sept. 9†
Koochicking	8.8	7.8	23.4	37.5	49.2	59.7	65.2	62.0	55.5	39.6	21.0	5.7	36.3	91	—39	May 20†	Sept. 10
Lake City	20.4	20.8	35.5	45.0	58.0	69.6	73.3	69.5	63.9	46.8	30.8	12.3	45.5	99	—25	May 6†	Sept. 11
Lake Jennie	20.0	15.8	32.0	46.0	59.0	68.3	72.6	68.9	62.7	44.0	27.7	13.6	44.2	93	—23	Apr. 24†	Oct. 6
Lakeside	20.4	16.4	31.8	45.0	57.1	67.4	70.8	68.4	61.0	42.8	26.1	13.8	43.4	92	—18	Apr. 25†	Sept. 8
Lake Winnibigoshish	11.3	9.8	24.6	39.2	52.0	62.4	66.6	63.0	56.7	39.6	21.9	5.4	37.7	91	—45	May 17†	Sept.10†
Lambert	8.2	11.8	23.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leech Lake	13.1	10.8	26.2	41.0	52.3	64.0	68.1	64.6	58.3	39.8	24.0	5.2	39.0	95	—51	May 16†	Sept. 10
Long Prairie	16.6	14.0	28.3	43.0	54.6	66.4	69.2	67.8	59.3	41.1	24.2	10.8	41.3	92	—34	May 11†	Sept. 9
Lutsen	16.9	16.2	[c]26.4	36.3	47.6	53.6	60.0	61.1	54.8	[g]41.3	28.3	15.3	38.2	81	—25	May 16†	Sept.10†
Luverne	22.4	19.8	28.9	45.8	55.0	68.4	71.2	69.4	64.2	44.6	28.0	14.6	44.4	96	—16	Apr. 26†	Sept. 30
Lynd	20.3	16.4	29.6	44.1	55.4	66.2	69.6	67.6	[c]62.8	43.0	28.8	17.7	43.5	100	—19	Apr. 29†	Sept.11†
Maplewood (*a*)	23.4	26.8	34.6	.....	58.8	69.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milaca	18.8	13.8	29.8	42.0	54.9	64.8	69.0	64.4	60.5	42.2	27.8	10.4	41.5	96	—32	May 11†	Sept.11†
Milan	19.5	15.2	30.0	45.2	56.6	66.5	70.6	68.2	61.1	42.7	26.2	13.9	43.0	99	—24	May 13†	Sept. 9
*Minneapolis	23.0	20.5	34.6	45.4	58.1	68.6	73.2	69.8	64.1	45.8	29.7	14.1	45.6	97	—20	May 6	Sept. 10
Minneapolis [2]	21.5	19.2	33.6	44.2	57.2	68.2	71.5	68.3	62.1	45.0	28.7	10.4	44.2	95	—25	May 6	Sept. 10
Minneapolis [3] (*a*)	20.5	19.2	31.9	43.4	56.4	67.0	71.0	67.1	60.0	42.6	26.2	12.1	43.1	95	—25	May 6	Sept. 10
Minnesota City (*a*)	21.5	21.9	36.0	47.4	.....	.....	.....	.....	.....	.....	31.7	15.0	.....	97	—20	.....	.....
Montevideo	21.5	18.2	31.0	46.8	56.8	67.7	70.3	67.9	62.8	43.6	26.9	14.6	44.0	98	—21	Apr. 26†	Sept.11†
*Moorhead	16.0	14.2	26.6	42.8	53.5	63.4	67.8	65.6	58.8	40.0	23.6	10.2	40.2	96	—24	May 11	Oct. 6
Morris	20.0	16.4	29.4	44.8	56.5	67.2	70.9	67.8	60.0	42.6	26.6	14.0	43.0	97	—24	May 11†	Sept. 9
Mount Iron	10.5	14.7	21.2	33.0	47.0	60.8	65.0	60.9	55.1	37.2	20.9	10.4	36.4	92	—33	May 30†	Sept. 9
Newfolden	6.0	7.8	20.6	40.2	52.5	61.2	67.2	63.7	54.6	38.8	20.4	4.8	36.5	92	—35	May 29†	Sept 8
New London	19.3	15.0	30.6	43.2	58.1	69.0	72.4	68.8	.....	.....	27.0	12.0	.....	.....	—24	May 11†	.....
New Richland (*a*)	[f]18.1	19.4	31.5	43.9	[e]56.1	[d]67.8	72.1	68.5	60.3	42.6	26.4	10.9	43.1	94	—28	Apr. 18†	Oct. 6†
*New Ulm	22.3	19.6	33.1	45.1	57.7	68.4	71.8	68.2	61.2	44.2	26.8	13.1	44.3	96	—18	Apr. 25	Sept. 8
*Park Rapids	14.0	11.6	26.3	39.4	51.6	63.1	66.4	62.3	55.9	39.0	22.6	8.4	38.4	92	—44	May 11	Sept. 10
Pine River	14.0	13.8	27.8	40.2	54.6	63.8	67.2	64.6	58.5	41.2	25.2	7.8	39.9	91	—42	May 4†	Sept.10†
Pleasant Mounds	22.5	19.8	34.0	46.0	57.5	66.6	70.5	68.6	62.4	45.0	30.0	15.8	44.9	93	—18	May 13†	Sept. 11
Pokegama Falls	9.5	8.9	25.4	39.6	50.6	61.7	65.5	61.8	55.8	39.1	23.0	4.4	37.1	90	—57	May 17†	Sept. 9†
Rolling Green	21.2	18.8	31.8	44.2	58.5	67.4	70.6	68.2	62.2	43.7	27.5	14.0	44.0	93	—18	Apr. 19†	Oct. 5
Roseau	4.9	8.0	[c]19.0	39.0	46.8	.....	.....	[e]61.6	[e]52.2	.....	.....	4.9	.....	.....	—36	.....	.....
St. Charles	19.0	19.6	35.8	44.6	57.0	68.0	72.0	69.0	62.6	45.4	29.8	13.6	44.7	97	—22	May 12†	Sept.11†
St. Cloud	17.6	15.8	29.5	43.8	56.8	66.4	70.3	66.9	63.2	42.4	27.8	11.4	42.7	96	—28	Apr. 19†	Sept.10†
St. Olaf	17.2	15.6	27.6	43.7	55.4	65.7	69.0	67.6	60.5	41.2	24.4	10.8	41.6	95	—24	May 11†	Oct. 6†
*St. Paul	22.6	20.8	34.5	45.6	58.1	68.2	72.8	69.6	63.4	45.8	29.6	13.3	45.4	95	—19	Apr. 18	Oct. 6
St. Peter	23.8	16.8	36.6	.....	.....	.....	.....	.....	62.4	46.5	30.4	15.7	.....	.....	—16	.....	Sept. 11
Sandy Lake Dam	13.3	13.0	27.4	40.3	51.1	61.8	66.3	62.6	57.4	39.6	24.8	7.8	38.8	90	—45	May 16†	Sept. 10

[1] Minimum temperature fell below 32° every month. [2] William Cheney. [3] J. H. Aschenberger.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Minnesota—Continued.																	
Sauk Center	17.1	13.7	27.0	44.0	55.2	72.6	71.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shakopee	22.8	21.5	34.0	47.0	59.4	70.2	74.1	70.8	64.7	46.8	30.0	14.0	46.3	96	—18	Apr. 16†	Sept. 11
Slayton	.....	.....	.....	.....	.....	.....	68.6	68.6	62.0	44.4	29.2	17.6	.....	.....	.....	.....	Sept. 7†
Tower	8.8	5.6	21.4	30.6	.....	.....	.....	.....	54.8	38.8	23.5	6.7	.....	97	.....	May 15†	Sept. 9†
Two Harbors	20.2	20.0	30.3	39.3	49.4	55.0	64.4	62.8	56.6	42.8	29.9	14.9	40.5	92	—29	May 15†	Sept. 7†
Wabasha	20.8	21.3	35.0	45.5	58.8	69.1	72.6	69.1	63.3	45.9	29.8	12.5	45.3	102	—22	.....	Oct. 6
Willmar	20.4	16.0	.....	[c]47.3	56.3	66.7	70.3	67.7	59.8	42.6	25.7	12.8	.....	94	—19	Apr. 26†	Sept. 9†
Willow River	.....	.....	31.0	43.3	.....	63.6	68.0	.....	58.8	42.4	27.2	8.6	.....	.....	—43	.....	Sept. 11
*Winnebago City	.....	.....	.....	40.5	57.6	68.1	72.2	68.4	62.6	42.4	.....	.....	.....	97	.....	Apr. 26†	.....
*Worthington	20.4	19.1	31.4	45.2	55.6	68.0	69.8	68.3	62.5	44.0	27.0	14.6	.....	94	—24	Apr. 19	Sept. 30
Zumbrota (*a*)	21.2	20.9	35.0	44.7	57.8	69.1	72.5	69.6	63.8	45.4	29.2	13.5	45.2	98	—26	May 15†	Sept. 9
Mississippi.																	
Aberdeen	.....	.....	.....	.....	74.0	81.3	80.2	80.2	75.7	59.9	48.3	40.9	.....	102	.....	Apr. —	Oct. 27
Agricultural College	48.4	45.4	58.0	58.6	72.2	77.5	80.4	79.8	74.4	.....	51.4	43.2	.....	95	12	Apr. 6	.....
Austin	48.5	46.4	58.5	59.0	73.2	80.1	80.2	79.0	75.2	60.4	49.8	41.0	62.6	97	9	Apr. 7	Oct. 27
*Batesville	47.0	46.2	57.3	56.6	71.8	79.2	79.2	78.2	74.8	59.5	47.3	37.4	61.2	95	10	Apr. 7	Oct. 27
Bay St. Louis	53.8	53.0	64.0	63.2	74.5	81.0	81.4	80.0	78.8	66.4	55.6	48.8	66.7	99	19	Feb. 22	Nov. 23
Biloxi	54.2	53.0	64.0	62.7	75.3	80.4	81.0	79.2	77.6	64.1	57.0	49.6	66.5	97	23	Mar. 4	Oct. 22
Booneville	45.9	43.8	56.6	57.4	72.7	80.3	80.1	79.6	76.3	59.0	48.1	38.7	61.5	97	10	Apr. 6	Oct. 26
Briers	54.3	51.8	60.0	61.0	73.8	78.4	79.2	79.7	76.1	63.1	51.0	.....	.....	93	.....	Mar. 5	Nov. 22
Brookhaven	53.3	51.9	62.1	62.4	75.2	81.2	82.0	81.8	77.4	63.9	52.4	46.2	65.8	101	15	Apr. 7	Oct. 22
Canton	53.1	51.4	61.4	62.4	73.6	79.6	79.4	80.4	77.0	61.7	51.0	44.0	64.6	99	15	Apr. 7	Oct. 27
*Columbus	49.2	.....	56.3	59.7	75.8	83.4	82.8	82.3	80.1	.....	.....	.....	.....	105	.....	Apr. 7	Oct. 27
*Corinth	46.4	.....	56.8	56.4	72.3	79.7	79.9	79.4	75.5	59.2	.....	.....	.....	97	.....	Apr. 7	.....
Crystal Springs	52.6	51.5	60.1	60.9	74.6	81.3	78.8	79.6	75.8	61.5	51.4	45.8	64.5	96	18	Apr. 7	Oct. 18
Edwards	52.8	52.0	60.7	61.1	76.4	81.9	81.5	82.3	78.2	62.8	51.1	45.2	65.5	98	19	Apr. 6	Oct. 27
Fayette	.....	.....	.....	61.8	74.2	79.5	80.4	80.7	77.6	.....	52.4	46.8	.....	97	.....	Mar. 5	.....
Greenville[1]	48.6	47.6	57.8	59.8	73.8	79.6	79.7	79.2	75.0	61.0	48.2	41.8	62.7	93	18	Mar. 5	Oct. 22
*Greenville[2]	50.3	48.7	59.7	61.2	75.0	80.6	80.6	80.8	77.2	62.6	49.4	44.0	64.2	97	16	Mar. 5	Oct. 22
Greenwood	49.2	47.8	[i]62.7	60.1	74.0	79.3	80.6	80.2	77.1	62.1	50.0	44.4	64.0	95	16	Apr. 6	Oct. 26
Hattiesburg	53.8	52.2	63.2	63.4	77.2	82.5	81.7	82.1	78.2	63.6	52.5	46.3	66.4	98	19	Feb. 23	Oct. 27
*Hazlehurst	.....	.....	.....	.....	74.8	80.5	80.0	81.4	77.6	63.3	.....	.....	.....	98	.....	.....	Oct. 27
*Hernando	.....	.....	.....	.....	73.0	80.2	80.8	79.8	75.8	60.6	49.6	.....	.....	98	.....	.....	Oct. 31
*Holly Springs	45.2	42.1	54.8	56.5	73.2	80.1	79.4	79.4	75.8	59.3	[c]47.0	[c]36.4	60.8	96	11	Apr. 7	Oct. 22
*Jackson	51.1	48.7	58.8	59.5	74.4	81.2	80.0	80.8	76.4	62.7	[c]48.0	42.9	63.7	99	18	Apr. 7	Oct. 27
Kosciusko	49.8	48.0	59.0	60.6	72.8	.....	.....	.....	75.4	59.2	48.7	40.8	.....	.....	12	Apr. 7	Oct. 22
*Lake	48.9	44.8	60.8	57.2	73.6	79.4	78.2	78.8	74.6	59.8	48.6	42.4	62.3	97	13	Apr. 9	Oct. 27
Leakesville	56.8	53.9	63.8	61.8	75.5	80.8	81.3	81.2	79.2	63.8	53.0	.....	.....	100	.....	Mar. 4	Oct. 26
Logtown	56.3	55.4	65.6	64.2	75.6	81.5	80.6	79.8	78.0	65.8	55.8	49.4	67.3	95	23	Feb. 22	Nov. 23
Louisville	50.0	47.5	59.4	58.0	71.8	78.9	78.9	78.8	73.2	60.0	47.8	41.2	62.1	97	10	Apr. 7	Oct. 23
*Macon	51.4	47.8	58.8	58.6	75.0	82.7	82.6	81.0	77.3	61.4	50.0	43.5	64.2	101	14	Apr. 6	Oct. 27
Magnolia	54.2	53.0	61.8	60.9	73.0	78.8	78.9	78.9	76.4	62.4	52.7	46.3	64.8	94	17	Apr. 7	Oct. 27
*Meridian	53.5	49.9	61.0	59.8	74.6	80.7	81.0	80.4	76.5	63.2	52.6	44.8	64.8	99	15	Apr. 8	Oct. 27
Mosspoint	.....	55.6	64.8	61.0	76.6	81.9	82.4	81.4	.....	65.1	56.0	.....	.....	.....	.....	.....	Nov. 22
*Natchez	54.7	54.0	62.0	63.4	75.0	80.5	81.2	81.8	79.0	65.5	53.4	47.1	66.5	98	19	Mar. 5	Oct. 27
*Okolona	45.6	44.1	57.8	57.6	74.4	81.9	81.7	.....	.....	60.2	48.2	41.2	.....	101	9	Apr. 7	Oct. 27
Palo Alto	51.2	46.8	60.0	57.5	74.8	80.8	81.0	80.6	77.3	61.1	46.8	43.1	63.6	97	11	Apr. 7	Oct. 27
Pontotoc	49.0	45.0	57.2	57.5	72.7	78.8	79.0	79.1	76.2	60.5	49.6	41.2	62.2	95	10	Apr. 8	Oct. 23
*Port Gibson	52.4	51.7	61.0	60.6	73.6	80.4	80.6	81.4	77.1	63.3	52.0	46.2	65.0	98	17	Apr. 7	Oct. 23
Ripley	47.0	43.5	.....	56.7	71.0	.....	.....	.....	.....	.....	.....	[c]35.6	.....	.....	.....	Apr. 8	.....
Rosedale	[e]48.2	47.4	58.0	59.8	74.7	77.8	81.0	81.0	76.0	59.7	47.8	.....	.....	98	.....	Apr. 6	Oct. 26
Stonington (*a*)	54.0	52.1	59.0	61.5	74.5	76.7	78.1	78.6	75.9	61.6	51.2	45.3	64.0	92	20	Apr. 7	Oct. 22
University	[h]48.8	[f]47.0	[h]53.6	[c]57.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 6	.....
*Vicksburg	52.9	52.8	61.1	62.0	74.4	79.5	79.6	80.8	77.1	63.6	52.2	45.5	65.1	95	21	Feb. 22	Oct. 27
Walnutgrove	[c]46.5	[d]49.8	62.5	62.9	.....	.....	.....	.....	78.8	[f]62.6	52.0	[c]45.7	.....	.....	15	Feb. 4	Oct. 27
Watervalley (*a*)	48.0	46.2	57.6	57.2	71.3	77.5	77.1	77.4	74.1	58.6	48.0	40.0	61.1	99	10	Apr. 7	Oct. 27
*Waynesboro	.....	49.0	61.6	60.7	75.1	81.0	83.9	81.6	76.5	64.0	53.8	46.6	.....	99	20	Apr. 8	Oct. 28
Windham	.....	.....	.....	61.4	75.3	82.6	81.0	80.2	77.6	63.0	.....	.....	.....	100	.....	Apr. 9	Oct. 18
Woodville	54.4	54.2	62.0	[f]60.4	.....	.....	79.8	79.8	77.0	65.0	53.1	47.4	.....	.....	21	Mar. 5	Oct. 27
*Yazoo City	51.2	49.1	60.8	60.6	76.0	82.8	81.4	86.2	77.6	62.6	50.0	42.7	65.1	101	10	Apr. 7	Oct. 27
Missouri.																	
Appleton City	.....	.....	.....	.....	.....	76.4	78.8	77.4	72.9	56.2	41.6	30.6	.....	99	.....	.....	Oct. 19
Arthur (*c*)	33.8	36.2	43.8	52.0	65.0	74.8	76.8	75.2	69.0	50.3	37.7	26.6	53.4	.....	—17	Apr. 6†	Oct. 19†
Avalon	.....	30.4	[g]37.4	51.6	[e]63.5	74.4	75.0	75.0	68.8	[d]52.8	38.8	25.6	.....	95	.....	Apr. 10†	Oct. 22
Bethany	28.2	29.6	41.4	50.8	62.7	74.7	75.2	75.4	67.9	50.4	34.8	23.0	51.2	95	—12	Apr. 7†	Oct. 14
Birchtree	36.0	36.0	45.6	52.6	66.0	74.0	74.6	73.8	70.6	52.1	40.4	29.6	54.3	93	—14	Apr. 7†	Oct. 18†
*Brunswick	30.8	.....	43.0	51.1	64.0	74.8	75.8	74.6	70.1	52.2	38.2	24.8	.....	94	—3	Apr. 8	Oct. 26
Carrollton	32.8	34.8	44.5	52.8	64.7	76.0	76.4	76.2	70.6	53.8	40.0	28.2	54.2	95	0	Apr. 7	Oct. 31
*Columbia	34.2	35.7	45.4	52.2	64.7	75.6	76.3	77.0	72.2	53.5	40.2	28.2	54.6	99	—12	Apr. 7	Oct. 23
Conception	30.0	31.1	41.5	50.7	61.6	73.3	74.8	75.6	67.5	51.8	[c]39.0	24.8	51.8	95	8	Apr. 5†	Oct. 17†
Cowgill (*c*)	31.3	32.2	41.0	51.3	62.8	74.8	77.4	77.3	70.4	49.2	36.1	24.4	52.4	99	— 8	Apr. 6†	Oct. 25
Darksville	30.7	[d]34.2	41.3	45.9	63.4	74.4	75.6	74.4	69.5	52.6	37.6	25.2	52.1	96	— 3	Apr. 8†	Oct. 22
East Lynne (*c*)	33.8	35.4	42.7	49.4	61.3	72.0	72.6	72.1	67.6	51.2	37.4	26.8	51.9	.....	— 7	Apr. 7	Oct. 14
Edgehill (*c*)	36.4	36.0	45.0	51.6	66.6	74.8	74.0	74.3	70.5	53.5	39.8	29.6	54.3	92	—10	Apr. 7†	Oct. 14
Eightmile (*a*)	33.7	36.2	44.0	51.7	62.4	72.0	73.6	73.2	68.6	52.4	38.1	26.3	52.7	92	— 6	Apr. 7	Oct. 20
Eldon	36.6	37.0	45.4	52.2	67.0	.....	79.8	.....	[e]72.2	55.2	41.2	29.6	.....	.....	—20	Apr. 13†	Oct. 22
Elmira	29.2	32.0	[c]41.4	50.8	61.4	73.6	[e]75.4	75.2	69.9	53.0	35.3	24.7	51.8	97	—13	Apr. 15†	Oct. 14
Fayette	34.9	36.6	46.3	54.4	67.3	78.7	79.8	.....	71.8	53.0	38.6	26.4	.....	.....	—10	Apr. 7	Oct. 26
Gallatin (*a*)	30.0	31.9	42.2	52.6	62.6	74.7	76.6	76.5	70.3	52.2	37.8	24.6	52.7	99	— 5	Apr. 6†	Oct. 26
Glasgow	32.8	34.2	44.1	52.7	64.7	75.8	76.2	76.7	71.9	53.0	39.3	27.3	54.1	98	— 4	Apr. 7†	Oct. 14†
Gordonville (*c*)	36.8	35.8	46.0	51.4	64.0	73.1	74.5	72.3	69.0	52.2	40.2	30.0	53.8	.....	— 2	Apr. 7	Oct. 20
Halfway	37.1	37.4	47.0	52.7	66.6	74.8	76.0	75.3	71.2	54.7	42.1	31.8	55.6	95	—14	Apr. 15	Oct. 14
*Hannibal	32.2	34.0	44.2	51.7	63.9	75.3	76.2	75.8	71.1	53.1	39.5	27.7	53.7	96	— 1	Apr. 7	Oct. 23
*Harrisonville	32.2	34.2	43.2	51.3	63.9	75.2	76.7	75.6	71.2	53.5	38.6	26.0	53.5	97	—16	Apr. 8†	Oct. 17

[1] Robert Somerville. [2] Cotton Region Observer.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Missouri—Continued.																	
Houston	39.3	40.2	48.4	53.2	66.8	75.4	76.2	74.8	71.4	54.0	43.2	33.4	56.4	95	0	Apr. 7†	Oct. 14
Humansville	37.8	38.6	46.4	53.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Ironton	38.0	36.6	46.3	52.4	66.2	75.0	74.8	74.8	72.0	54.4	40.9	31.0	55.2	96	—15	Apr. 7	Oct. 14
*Jefferson City	36.6	37.4	45.6	53.7	67.2	76.9	77.8	77.6	72.6	55.6	41.4	29.4	56.0	103	—11	Apr. 7†	Oct. 21†
*Kansas City	32.4	35.4	45.0	53.3	64.6	76.0	77.3	77.2	71.4	53.4	40.3	27.4	54.5	96	— 2	Apr. 7	Oct. 22
*Kidder	28.2	30.8	41.7	50.8	61.8	73.5	74.3	74.2	68.6	51.2	36.8	23.0	51.2	96	— 8	Apr. 7†	Oct. 22
*Lamar	37.8	39.4	46.8	54.6	67.9	77.2	78.1	77.6	73.8	57.2	43.7	32.0	57.2	98	— 9	Apr. 7†	Oct. 18
Lebanon	38.0	38.2	46.7	53.4	66.8	74.6	75.5	75.8	72.2	54.6	43.2	32.2	55.9	93	1	Apr. 7	Oct. 19†
*Lexington	32.0	35.1	44.5	53.8	65.0	76.0	77.0	76.7	71.5	53.9	40.8	27.5	54.5	97	— 3	Apr. 7	Oct. 26
Liberty	31.3	34.8	43.4	51.9	64.0	75.2	75.6	75.3	69.4	52.5	38.6	25.4	53.1	96	— 5	Apr. 7	Oct. 13
Louisiana	33.2	35.8	44.9	52.1	64.2	75.0	76.6	76.1	72.0	54.2	40.8	28.0	54.4	100	—11	Apr. 7†	Oct. 30
McCune (*a*)	33.2	34.4	43.4	50.7	63.1	74.8	76.2	75.8	71.5	53.3	39.5	27.9	53.6	97	— 5	Apr. 6†	Oct. 14
Malden	.....	43.6	[f]56.0	[f]58.9	73.2	79.6	[d]79.5	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 10†	.....
Marblehill	38.8	37.9	47.5	52.6	66.2	74.8	75.4	75.0	72.8	[a]53.2	40.5	32.6	55.6	97	— 7	Apr. 7†	Oct. 19†
Marshall	32.1	33.6	43.6	51.4	63.4	75.0	75.3	75.5	71.0	53.2	38.2	26.1	53.2	96	—11	Apr. 7†	Oct. 23†
*Maryville	26.2	27.6	37.8	49.9	61.0	74.0	74.5	75.5	67.8	48.6	33.0	20.3	49.7	101	— 8	Apr. 10†	Oct. 17
*Mexico	33.5	34.6	44.8	52.4	64.7	75.8	77.2	77.2	71.8	53.0	39.8	27.8	54.4	103	— 9	Apr. 7†	Oct. 23†
Mineralspring	38.3	39.0	46.0	53.2	65.8	73.2	74.2	72.4	69.2	54.6	42.1	32.8	55.1	92	— 3	Apr. 7†	Oct. 21
Montreal	37.3	37.2	46.1	51.6	66.2	74.4	74.8	75.0	71.1	54.4	40.8	30.8	55.0	95	—14	Apr. 7	Oct. 23
Mount Vernon	40.1	41.0	47.7	54.6	69.2	77.0	78.9	78.2	73.4	56.6	43.6	35.1	58.0	99	—10	Apr. 15	Oct. 26
Neosho	39.4	41.2	47.8	54.6	67.1	75.8	76.6	75.1	71.6	56.4	44.6	33.7	57.0	94	—12	Apr. 7	Oct. 22
Nevada	36.3	37.6	45.8	53.9	66.2	74.6	75.6	75.0	71.3	54.4	39.8	28.7	54.9	98	— 2	Apr. 7†	Oct. 19
Newhaven	38.1	38.9	48.2	55.1	66.8	76.3	77.0	77.2	73.4	55.0	41.9	30.2	56.5	97	—10	Mar. 28	Oct. 23
New Madrid	.....	43.4	52.0	56.6	70.7	79.3	78.8	80.0	76.9	59.4	.....	39.9	.....	99	.....	Apr. 6†	Oct. 18
New Palestine	37.6	40.3	49.2	57.7	68.2	75.6	76.8	76.6	72.3	55.5	41.6	34.6	57.2	95	— 6	Apr. 6†	Oct. 23
Oakfield	36.2	37.4	46.8	54.2	67.6	77.5	77.0	77.0	73.4	55.2	42.8	32.5	56.5	97	— 5	Apr. 7	Oct. 23
Olden	37.6	38.5	47.4	54.4	66.3	73.8	74.8	74.6	71.3	53.9	42.1	33.6	55.7	95	2	Apr. 6	Oct. 26
Oregon [1]	29.8	32.6	41.8	52.8	62.1	74.5	75.4	77.4	69.1	51.0	37.4	23.8	52.3	99	— 4	Apr. 6	Oct. 17†
Oregon [2]	31.0	33.8	43.4	53.5	63.2	76.1	77.2	78.5	70.0	53.2	39.7	25.6	53.8	100	— 4	Apr. 14	Oct. 22
Palmyra (*e*)	31.8	32.2	44.8	52.8	63.3	79.6	78.4	77.4	71.9	52.4	39.8	26.3	54.2	98	— 4	Apr. 7	Oct. 14
Phillipsburg (*a*)	36.6	36.3	44.8	51.5	65.8	74.5	75.2	74.4	69.3	52.2	38.8	29.8	54.1	97	1	Apr. 7	Oct. 19
Pickering (*c*)	29.1	30.5	40.1	49.1	60.8	71.0	70.8	72.3	65.2	48.6	32.5	19.2	49.1	.....	—16	Apr. 11†	Oct. 26
Platte River	27.3	29.2	39.7	52.6	62.5	74.4	74.8	75.6	68.4	52.4	.....	.....	.....	96	.....	Apr. 15	Oct. 14
Poplarbluff	42.4	[c]39.8	51.4	56.6	.....	.....	.....	78.5	74.0	56.8	[c]45.9	[c]36.4	.....	.....	— 1	Apr. 7†	Oct. 23
Potosi	30.4	31.3	40.6	46.0	61.0	70.6	69.6	67.4	63.4	50.7	39.0	29.6	50.0	94	—15	Apr. 28†	Oct. 14
Princeton	28.9	28.4	41.9	50.6	63.6	76.8	76.8	77.6	70.4	51.4	38.2	23.1	52.1	104	— 6	Apr. 7†	Oct. 23
Rhineland	36.6	37.2	46.6	52.1	65.7	75.2	75.4	76.0	72.8	54.8	41.6	30.8	55.4	98	—17	Apr. 7	Oct. 14
Richmond	30.2	33.0	42.7	51.4	63.0	74.2	76.0	76.8	71.4	52.9	38.9	24.9	53.0	95	— 4	Apr. 7	Oct. 14
St. Charles	35.2	35.6	46.6	52.9	66.2	76.1	76.8	77.3	[b]73.8	55.0	41.6	30.0	55.6	96	— 6	Apr. 7	Oct. 23
St. Louis	37.3	38.4	47.2	54.4	67.1	77.8	78.2	78.4	74.2	56.0	43.1	32.6	57.1	96	3	Apr. 6†	Oct. 27
Sarcoxie (*c*)	34.5	33.8	42.5	50.6	66.0	75.2	76.4	74.2	68.8	50.9	36.5	25.6	52.9	99	0	Apr. 14	Oct. 18
Sedalia	33.0	33.3	42.6	51.8	63.8	76.1	75.4	76.8	69.4	[c]50.8	38.4	.....	.....	97	—10	Apr. 6†	Oct. 14
Seymour	37.8	37.2	45.2	52.6	65.8	73.3	74.4	73.6	69.6	53.8	40.6	32.5	54.7	91	— 1	Apr. 7†	Oct. 19
Sikeston	40.1	37.8	50.8	.....	.....	[f]76.2	78.0	77.0	74.2	55.4	43.0	33.8	.....	.....	.....	Apr. 7	Oct. 27
*Springfield	37.7	38.2	45.6	52.8	66.1	74.0	75.0	75.1	70.8	54.0	41.8	32.2	55.3	91	2	Apr. 7	Oct. 17
Steffenville	33.4	33.2	42.4	52.2	63.6	74.2	75.3	75.0	70.6	52.4	38.2	26.5	53.1	97	— 4	Apr. 8†	Oct. 31
Stellada	33.3	34.9	44.0	53.0	65.6	76.2	76.2	74.8	69.8	53.9	38.0	27.6	53.9	96	—15	Apr. 7	Oct. 26
Sublett	28.4	27.6	39.6	49.9	62.4	73.8	75.2	74.2	68.8	50.2	36.3	22.2	50.7	96	— 8	Apr. 11	Oct. 14
Trenton	30.0	30.8	42.0	50.2	63.1	74.6	74.7	75.2	.....	.....	.....	.....	.....	.....	.....	Apr. 8	.....
*Unionville	27.2	28.0	38.5	50.2	66.9	77.4	78.8	76.2	71.8	52.6	40.6	.....	.....	99	.....	Apr. 26	Oct. —
Vichy	36.4	36.9	45.2	53.0	66.8	76.4	75.2	77.2	72.0	[b]48.5	41.4	30.8	55.0	98	— 9	Apr. 7†	Oct. 23
*Warrenton	33.1	33.4	44.2	51.0	65.2	75.7	75.9	76.6	72.3	52.7	[c]39.1	27.0	53.8	99	— 8	Apr. 6	Oct. 23
Willow Springs	36.4	36.0	45.4	51.8	66.6	75.2	75.7	73.9	65.6	51.3	39.6	31.3	54.1	100	—18	Apr. 8†	Oct. 26
Zeitonia	39.3	39.0	49.4	54.4	68.1	76.4	76.8	77.1	73.1	56.6	42.3	32.4	57.1	97	— 4	Apr. 7†	Oct. 19
Montana.																	
Adel	.....	.....	[c]18.8	44.5	45.4	52.4	57.5	58.7	50.1	37.0	27.8	22.3	.....	90	.....	(3)	(3)
Augusta	26.6	[c]34.8	20.1	44.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Big Timber	24.6	35.0	29.4	49.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Billings	24.6	32.7	27.2	50.4	51.7	62.9	71.7	71.0	58.4	.....	.....	[b]23.4	.....	96	.....	May 6	Sept. 5
Boulder	.....	30.5	22.2	[b]43.0	46.5	57.0	61.6	[e]66.4	.....	.....	[c]27.2	[c]17.6	.....	91	.....	June 2	.....
Bozeman	19.2	31.3	26.1	45.4	49.9	59.6	64.2	68.2	54.0	.....	.....	.....	.....	92	.....	May 8	Sept. 6
Butte	18.8	30.2	22.2	41.6	.....	[c]57.2	63.4	66.2	53.3	.....	.....	.....	.....	90	.....	.....	Sept. 6
Canyon Ferry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.2	17.0	.....	.....	.....	.....	.....
Castle	19.8	28.2	21.4	39.3	43.8	52.6	58.0	60.0	48.8	34.6	25.8	22.6	37.9	87	—23	July 2	Sept. 7
Chinook	22.3	21.0	18.8	40.4	52.2	60.0	68.1	69.7	54.1	.....	.....	.....	.....	97	.....	May 4	Sept. 6
Choteau	.....	.....	20.5	43.3	49.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbia Falls	24.4	31.3	28.2	43.6	51.0	57.9	65.0	66.1	.....	.....	.....	.....	.....	95	.....	June 21	.....
Corvallis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.9	.....	.....	.....	.....	.....
Crow Agency	.....	.....	.....	50.4	53.8	64.6	69.4	70.3	58.7	43.2	30.8	20.6	.....	97	.....	May 8	Sept. 10
Darby	.....	.....	.....	.....	.....	.....	.....	.....	[c]67.7	43.4	.....	22.4	.....	.....	.....	.....	Sept. 24
Dearborn Canyon	23.2	32.4	20.9	41.0	46.8	56.2	63.2	65.8	56.1	40.4	29.0	23.6	41.6	92	—28	May 20	Sept. 5
Deer Lodge	18.0	31.4	25.2	.....	.....	.....	.....	.....	.....	.....	.....	17.8	.....	.....	.....	.....	.....
Dell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.6	.....	.....	.....	.....	.....
Dupuyer	28.4	29.2	19.8	39.4	48.6	56.6	64.4	65.6	54.2	36.8	27.2	.....	.....	.....	.....	June 1	Sept. 5
Ekalaka	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.4	19.8	.....	.....	.....	.....	.....
Florence	.....	.....	.....	.....	.....	.....	.....	.....	56.0	41.8	31.2	21.3	.....	.....	.....	.....	Sept. 6
Fort Benton	29.6	31.8	24.0	45.8	51.7	60.1	67.2	71.9	58.9	.....	30.3	24.6	.....	98	—18	May 21	.....
Fort Keogh	19.7	25.6	23.4	46.2	59.6	65.8	72.7	74.1	59.8	40.7	27.6	17.6	44.4	104	—15	May 4	Oct. 6
Fort Logan	19.0	30.0	22.8	40.0	48.4	55.6	63.0	64.9	53.0	38.0	26.6	12.8	39.5	94	—32	June 1	Sept. 6
Fort Missoula	18.8	33.3	31.6	48.7	56.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glasgow	15.8	16.0	17.3	42.8	[m]56.1	61.2	69.0	70.8	55.4	37.4	23.2	11.4	39.7	101	—27	June 2	Sept. 5
Glendive	22.1	25.0	22.2	45.0	.....	66.2	73.0	74.0	61.3	41.8	27.2	18.2	.....	105	—15	May 1	Oct. 2
Glenwood	20.9	31.0	24.0	43.3	48.3	57.3	63.8	65.0	52.6	38.6	28.0	18.0	40.9	92	—22	May 22	Sept. 6
Greatfalls	30.7	35.8	27.6	48.7	53.6	60.8	67.1	69.3	56.6	41.1	31.4	27.4	45.8	97	—15	May 4	Sept. 6
*Havre	21.6	22.8	18.8	42.3	52.0	61.1	67.8	70.1	57.7	36.8	28.3	21.9	41.8	98	—22	May 4	Sept. 11

[1] William Kaucher. [2] S. M. Ruley. [3] Frost every month in the year.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Montana—Continued.																	
*Helena	23.2	34.2	23.4	45.4	49.4	58.5	65.4	69.0	56.7	40.8	29.1	20.7	43.0	93	—16	May 4	Sept. 6
Hogan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kalispell	20.1	30.7	30.8	46.4	56.4	64.2	70.0	70.5	55.7	39.8	30.5	22.0	44.8	96	—16	Apr. 11	Sept. 6
Kipp	23.8	25.6	18.0	39.0	47.3	55.5	60.5	62.0	53.4	35.6	25.7	23.2	39.1	93	—37	June 26	Sept. 6
Lewistown	24.4	30.1	24.2	43.9	49.2	57.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	June 1	.....
Livingston	24.5	34.5	27.3	46.6	48.8	58.1	65.5	68.8	57.1	41.8	32.4	23.8	44.1	94	—15	May 6	Sept. 5
Manhattan	15.6	31.2	25.9	44.6	50.2	[5]57.9	64.7	64.1	51.4	36.2	24.0	15.0	40.1	93	—24	May 20	Sept. 6
Martinsdale	23.6	31.4	23.6	42.9	47.2	56.2	63.8	66.4	53.7	39.4	28.6	22.7	41.6	94	—18	June 1	Sept. 6
Marysville	20.4	30.8	21.2	41.1	45.0	54.5	61.3	64.4	52.4	35.8	26.6	21.0	39.6	89	—13	May 31	Sept. 5
*Miles City	22.0	27.2	24.0	47.4	55.5	65.6	72.4	73.8	59.6	41.8	28.4	21.1	44.9	103	—13	May 4	Sept. 10
Missoula	.....	.....	.....	.....	.....	.....	.....	.....	57.0	43.0	31.8	21.4	.....	.....	.....	May 7	Oct. 1
Parrot	21.8	34.7	26.5	46.8	50.7	60.0	66.2	67.8	53.9	.....	.....	.....	.....	95	.....	May 21	Sept. 5
Plains	.....	.....	.....	.....	.....	.....	.....	.....	57.1	42.2	.....	24.5	.....	.....	.....	.....	Sept. 6
Poplar	18.6	17.2	15.8	42.8	55.2	64.0	70.2	70.7	57.2	37.0	23.0	11.8	40.3	103	—22	May 1	Sept. 8
Radersburg	23.4	33.6	28.4	46.2	47.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	June 5	Sept. 6
Red Lodge	.....	28.0	20.0	41.4	44.8	55.2	.....	.....	.....	.....	26.6	20.7	.....	.....	.....	June 6	.....
St. Ignatius Mission	26.2	35.6	32.4	46.4	52.2	59.6	.....	[6]66.3	54.2	42.6	31.3	23.8	.....	.....	—10	May 30	Sept. 6
St. Pauls	24.5	30.6	21.0	41.9	50.5	58.8	65.2	69.0	57.8	40.0	29.0	25.5	42.8	93	—17	June 3	Sept. 6
Shelby	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	[1]24.5	24.3	.....	.....	.....	.....	.....
Troy	24.6	[3]33.2	33.8	47.7	53.4	59.6	65.2	67.6	56.7	43.9	.....	23.4	.....	100	— 3	May 25	Sept. 6
Utica	23.2	29.8	23.2	42.6	48.2	56.4	62.9	67.3	56.2	36.4	29.4	27.0	41.9	95	—19	May 20	Sept. 29
Virginia City	18.8	30.2	23.4	43.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wibaux (*a*)	21.9	23.8	23.3	39.6	52.8	62.7	65.2	[6]67.3	.....	.....	23.0	12.7	.....	98	—20	May 14	.....
Yale	24.2	30.1	23.8	42.1	46.2	56.9	61.8	66.8	53.8	37.1	.....	.....	.....	95	—18	May 22	Sept. 6
Nebraska.																	
Agee (*a*)	26.0	26.9	32.2	47.7	57.0	69.5	73.5	72.1	63.4	44.9	29.7	21.8	47.1	99	—10	Apr. 6	Oct. 5
Albion	26.5	28.1	36.3	49.8	59.8	69.7	71.9	71.0	62.1	47.0	30.4	23.4	48.0	97	—17	May 6	Oct. 5
Alma (*a*)	31.5	35.7	37.7	50.1	57.8	72.2	74.9	76.6	[6]61.8	47.0	32.4	27.8	50.5	100	—10	Apr. 26	Sept. 7
Ansley	26.4	30.5	36.1	48.7	57.0	69.2	72.8	73.4	62.0	44.8	30.0	24.8	48.0	103	—17	May 7	Sept. 5
Arapaho (*a*)	26.1	32.5	36.1	49.4	58.0	71.0	76.4	75.4	61.0	.....	34.7	25.9	.....	100	—11	Apr. 28	.....
Arborville (*a*)	29.9	30.7	34.6	46.0	57.8	71.3	74.6	76.4	64.2	45.0	34.3	22.7	49.0	103	—12	May 6	Oct. 6
*Ashland[1]	27.8	29.6	39.8	50.9	60.3	73.8	76.4	76.4	67.4	50.3	34.0	22.0	50.7	103	—10	Apr. 26	Oct. 2
Ashland[2] (*a*)	29.8	31.1	39.1	52.3	63.2	77.2	78.2	78.4	67.2	46.9	34.8	21.0	51.6	107	— 7	Apr. 6	Oct. 17
Ashton	27.2	29.8	36.0	49.1	57.8	70.3	74.8	.....	.....	.....	.....	.....	.....	106	—20	Apr. 26	Oct. 5
Auburn (*a*)	28.9	29.0	40.6	52.7	61.5	73.9	75.0	77.6	68.6	51.3	35.0	22.8	51.4	104	—10	Apr. 26	Oct. 22
Beatrice	26.9	29.4	38.3	49.2	60.1	[4]74.0	.....	[5]78.8	68.2	49.0	32.5	21.6	.....	.....	— 7	May 6	Oct. 18
Beaver City	30.7	36.2	39.7	52.0	58.5	71.4	75.2	77.4	66.2	[6]49.3	35.1	28.5	51.7	105	—14	May 7	Oct. 5
Blair	25.6	26.1	36.7	48.8	58.4	71.2	73.9	73.4	66.8	48.4	33.7	21.6	48.7	104	— 8	Apr. 11	Oct. 6
Callaway	25.5	31.0	34.8	43.9	54.8	69.1	76.2	75.4	56.0	45.8	28.8	24.7	47.2	100	—14	May 8	Sept. 7
Camp Clark	.....	.....	33.4	50.2	54.7	69.0	72.0	75.8	61.6	45.1	29.6	22.6	.....	109	.....	May 7	Sept. 6
Chester	.....	31.8	39.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clatonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.7	35.4	19.6	.....	.....	.....	.....	.....
Columbus	28.7	29.4	37.0	49.2	58.6	70.9	72.0	72.4	65.5	47.9	32.7	24.4	49.1	96	—15	Apr. 26	Oct. 6
Creighton	24.2	24.5	34.4	46.5	57.0	70.4	73.8	71.2	62.6	45.2	29.4	20.8	46.7	99	—15	May 7	Oct. 5
Crete	29.1	32.9	39.5	49.0	60.0	73.0	75.0	76.0	68.1	50.8	34.4	23.4	50.9	102	— 8	Apr. 26	Sept. 7
Curtis	30.4	37.8	40.2	53.8	60.0	70.2	74.7	75.3	64.6	48.7	35.4	29.6	51.7	102	— 7	May 9	Oct. 5
Dannebrog (*a*)	34.0	33.7	.....	.....	62.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
David City	27.3	28.2	35.8	48.8	57.3	70.8	74.4	74.2	65.0	46.0	32.0	21.8	48.5	97	—12	Apr. 25	Oct. 5
Dawson	30.2	33.2	42.2	51.8	61.6	75.8	75.0	78.2	69.5	52.7	38.0	24.8	52.8	103	— 8	Apr. 26	Oct. 17
Dunning (*a*)	29.7	34.0	34.2	47.0	58.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 10	.....
Edgar (*a*)	28.9	31.2	36.2	46.8	56.3	67.4	79.4	71.7	64.2	48.8	33.0	[1]27.9	49.3	104	—10	May 5	Oct. 20
Ericson (*a*)	24.7	26.0	32.5	41.1	59.2	75.4	79.6	77.2	64.8	44.8	30.3	18.8	47.9	100	—18	Apr. 8†	Oct. 6†
Fairbury	29.4	32.9	39.8	51.9	60.8	73.2	75.2	77.1	67.4	49.8	33.3	24.0	51.2	106	— 8	Apr. 25	Oct. 6
Fairmont	28.9	28.2	37.9	48.0	58.0	70.9	74.2	74.6	65.8	46.8	31.8	24.7	49.2	102	—10	Apr. 26	Oct. 6
Fort Robinson	23.4	30.5	28.8	46.0	53.0	64.8	71.8	72.8	62.0	43.9	29.6	22.6	45.8	101	—20	May 6	Sept. 6
Franklin	30.2	34.6	40.4	50.2	[4]61.2	.....	76.9	.....	67.3	[6]49.6	.....	.....	.....	.....	.....	Apr. 26	Oct. 5
Fremont	27.4	28.4	37.6	49.9	58.8	72.1	74.6	72.8	64.7	47.8	31.2	21.0	48.9	99	—14	Apr. 26	Oct. 6
Geneva	29.8	31.4	37.2	50.8	60.3	72.9	74.6	74.7	64.5	47.9	32.9	23.6	50.0	104	— 8	Apr. 13	Oct. 4
Genoa	27.8	28.9	37.0	49.5	58.6	71.0	75.3	75.4	65.6	47.9	32.2	23.7	49.4	100	—15	Apr. 26	Oct. 17
Gothenburg	26.9	32.6	37.2	48.8	54.5	71.6	75.3	[6]72.8	60.7	45.4	30.9	25.0	48.5	106	—13	May 6	Sept. 6
Grand Island	29.2	31.4	37.0	48.2	55.7	70.3	73.8	73.0	64.1	46.4	33.2	25.4	49.0	102	—12	Apr. 26	Oct. 6
Greeley (*a*)	25.5	27.6	33.0	49.8	.....	.....	.....	.....	64.5	.....	.....	.....	.....	.....	.....	Apr. 8	.....
Hartington	23.6	22.6	33.7	48.6	57.2	69.2	73.4	71.2	64.3	45.2	30.8	21.4	46.6	99	—13	Apr. 26	Oct. 5
Harvard	29.4	31.3	37.2	49.4	58.2	70.6	74.4	74.3	64.4	48.2	32.6	25.6	49.6	98	—11	Apr. 26	Oct. 6
Hastings (*a*)	29.5	31.5	37.7	49.8	58.3	70.9	75.0	75.5	64.8	47.9	32.6	24.7	49.8	98	— 8	Apr. 6	Oct. 18
Hay Springs	22.6	30.3	29.6	45.6	52.8	66.5	70.9	72.6	60.4	[6]46.4	29.2	21.4	45.7	102	—22	May 7	Sept. 30
Hebron	28.8	32.4	39.3	50.5	60.0	73.0	76.5	72.2	67.4	50.3	35.0	23.8	50.8	104	—11	Apr. 26	Oct. 5
Holdrege (*a*)	30.8	35.6	34.5	46.4	61.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	May 5	Oct. 22
Hooper (*a*)	[1]24.4	26.6	35.9	48.6	58.8	72.0	73.9	73.2	63.9	[6]46.4	29.8	19.0	47.7	103	—15	Apr. 6	Oct. 6
Imperial	28.4	34.6	36.2	51.9	58.1	70.8	75.7	80.0	65.4	48.6	33.6	26.6	50.8	105	—15	May 7	Sept. 7
Indianola (near) (*a*)	.....	34.9	36.8	50.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kennedy	25.2	31.7	33.2	45.8	54.6	67.4	72.5	72.9	60.4	44.8	30.4	23.3	46.6	104	—18	May 9	Sept. 7
Kimball	25.2	34.4	31.2	46.4	53.0	67.3	71.7	71.0	60.5	45.6	29.5	23.1	46.6	102	—16	May 6	Sept. 5
Kirkwood (*a*)	25.8	28.6	31.6	47.3	55.9	68.9	72.4	72.6	63.8	44.0	28.5	21.2	46.7	100	—14	Apr. 6	Oct. 5
Lexington	28.2	31.8	37.1	50.4	56.2	68.8	71.6	72.2	61.5	47.0	32.3	26.7	48.6	98	—13	May 6	Sept. 6
*Lincoln	29.3	31.8	39.2	50.7	60.4	73.5	74.7	76.3	68.2	49.8	34.3	23.2	51.0	101	— 8	Apr. 26	Oct. 17
Lincoln[3]	29.2	30.4	39.2	51.4	60.2	73.2	74.9	75.0	67.8	50.8	35.0	24.0	50.9	100	— 6	Apr. 9	Oct. 6
Lincoln[4]	.....	31.9	40.2	49.6	60.5	72.5	75.9	77.4	69.0	48.8	35.6	24.9	.....	102	.....	Apr. 14	Oct. 6
Lodgepole	25.2	33.7	32.4	48.4	54.2	68.1	71.2	72.9	58.8	[6]45.5	30.7	23.2	47.0	104	—22	May 8	Sept. 5
Loup (*a*)	28.8	31.4	36.1	47.8	56.4	69.1	73.9	72.8	61.7	46.0	30.4	21.8	48.0	102	—18	Apr. 26	Sept. 7
Lynch (*a*)	26.0	25.7	32.1	47.7	57.2	69.0	72.5	72.0	61.3	44.5	29.2	20.0	46.4	104	—15	Apr. 20	Sept. 30
Madison	26.9	27.2	35.6	48.2	56.8	70.8	72.9	73.4	64.2	46.8	31.8	21.4	48.0	98	—13	Apr. 26	Oct. 6
Madrid (*e*)	26.6	34.6	34.1	50.2	54.6	69.4	76.4	[1]77.2	60.6	46.8	31.6	24.4	48.9	105	—15	Apr. 28	Sept. 7
Minden	28.5	32.4	37.5	49.2	57.5	70.6	74.6	75.0	64.2	47.7	32.5	25.8	49.6	102	—12	May 6	Oct. 5
Nebraska City	24.6	28.9	38.5	49.8	60.0	73.9	73.9	77.1	69.2	50.7	[6]37.9	.....	.....	104	.....	May 29	Oct. 17

[1]Dr. A. S. Mansfelde. [2]O. C. Steele. [3]C. J. Ernst. [4]H. F. Bethune.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Nebraska—Continued.																	
Nemaha (a)	26.7	30.4	39.2	50.8	62.0	67.4	77.4	78.7	68.0	48.2	31.8	20.8	50.1	104	—10	Apr. 7	Oct. 17
Nesbit	25.6	30.7	33.8	46.8	53.9	67.8	71.6	71.4	59.6	45.1	29.8	23.8	46.7	100	—17	May 7	Sept. 7
Norfolk	25.2	25.4	36.6	48.2	57.5	70.2	[m]72.8	71.6	64.1	47.2	30.4	20.2	47.5	98	—18	Apr. 26	Oct. 5
North Loup	26.4	30.2	36.5	48.8	58.0	68.7	74.5	74.3	64.6	48.0	32.5	24.2	48.9	99	—17	May 7	Oct. 5
*North Platte	26.8	33.6	35.6	49.0	55.7	68.4	72.4	73.8	62.3	47.0	31.4	25.6	48.5	101	—12	Apr. 6	Oct. 5
Oakdale	24.8	26.0	34.7	47.8	57.2	70.5	74.4	72.8	63.8	45.1	29.2	20.6	47.2	100	—13	Apr. 26†	Oct. 5†
Odell	29.6	30.8	39.3	50.8	61.7	73.8	76.8	77.8	67.6	49.8	34.6	23.1	51.3	99	— 8	Apr. 5†	Oct. 17†
*Omaha	28.3	29.9	39.2	51.2	61.2	73.9	75.3	76.4	68.3	50.0	35.1	22.0	50.9	100	—10	Apr. 6†	Oct. 6
O'Neill	24.5	26.1	32.7	46.2	54.6	66.9	69.9	70.3	63.4	.....	[j]26.0	22.0	.....	100	—17	Apr. 25†	.....
Palmyra	.....	.....	.....	.....	.....	.....	73.0	[f]75.7	[e]64.9	[n]43.8	[h]31.5	[i]21.3	.....	.....	.....	.....	.....
Ravenna	29.2	32.2	37.2	48.6	56.8	70.0	74.2	75.0	64.7	48.0	32.5	25.8	49.5	105	—15	Apr. 24	Oct. 6
Redcloud (a)	29.7	35.2	40.4	54.1	64.0	72.4	78.3	78.2	66.6	49.4	29.0	20.9	51.5	104	— 9	Apr. 6	Oct. 6
Republican (a)	28.5	33.1	44.5	51.2	62.7	74.6	79.7	77.2	63.5	44.3	29.5	19.5	50.7	102	—10	May 7	Oct. 12
Rulo (a)	32.2	33.2	41.4	53.1	63.2	.....	78.6	78.6	70.8	.....	.....	.....	.....	104	.....	Apr. 10	Oct. 7
Salem (a)	28.8	32.2	40.5	50.8	59.8	74.5	75.9	78.0	68.6	50.8	36.6	22.5	51.6	98	— 6	Apr. 11	Oct. 17
Santee Agency	27.2	26.6	35.7	49.7	58.8	71.9	76.0	74.0	69.4	46.0	30.8	23.0	49.1	105	—14	Apr. 26	Oct. 5
Seneca (a)	26.6	32.6	33.4	45.5	55.2	69.2	70.8	70.1	59.4	45.5	33.0	23.6	47.1	100	—14	May 7	Sept. 30
Seward (a)	29.7	29.8	37.8	48.6	58.0	73.2	75.4	76.6	66.6	47.9	32.9	22.5	49.9	98	— 8	Apr. 6	Oct. 18
Springview	26.5	28.7	31.8	50.0	53.7	73.1	74.9	72.0	62.9	47.2	32.6	21.0	47.9	103	—28	Apr. 14	Oct. 5
State Farm	28.8	31.1	.....	.....	.....	.....	.....	[e]75.2	68.2	51.8	35.4	24.2	.....	.....	.....	.....	Oct. 6†
Strang (a)	30.8	32.2	38.7	52.5	62.8	74.4	77.2	76.4	66.9	49.1	35.2	25.3	51.8	97	— 9	May 5	Oct. 6
Superior (c)	28.2	31.0	39.0	52.2	62.5	75.6	76.4	81.0	67.5	49.0	34.7	24.5	51.8	102	—10	Apr. 6	Oct. 18
Tablerock	.....	.....	40.8	.....	.....	77.2	78.6	79.8	70.8	.....	.....	.....	.....	102	.....	.....	Oct. 14
Tecumseh	31.0	29.5	40.5	52.2	64.2	75.3	77.8	78.2	69.6	53.0	37.8	26.4	53.0	105	—10	Apr. 26	Oct. 14
Tekamah	26.4	27.2	37.1	50.0	59.6	72.8	73.9	73.1	65.8	48.9	32.5	20.5	49.0	102	—14	Apr. 26	Oct. 6
Thedford (a)	24.6	28.3	32.0	44.2	[g]52.0	60.6	70.4	70.7	60.2	46.1	31.8	22.3	45.3	98	—20	May 6	Oct. 5
Turlington	22.2	24.2	34.0	46.8	56.2	70.6	76.8	78.2	68.8	50.2	34.3	21.5	48.6	104	— 9	Apr. 26	Oct. 6
*Valentine	25.4	31.1	32.5	46.4	54.2	67.8	73.4	72.0	62.2	46.0	29.8	23.2	47.0	.....	.....	.....	.....
Wakefield	22.6	23.4	36.2	48.6	58.4	70.3	72.8	72.5	63.8	47.4	31.3	20.8	47.3	100	—15	Apr. 29	Oct. 6
Wauneta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Weeping Water (a)	23.5	27.0	35.6	46.8	57.1	71.1	71.0	73.4	63.5	46.8	30.4	18.9	47.1	99	—15	Apr. 26	Oct. 6
Westpoint	26.0	27.4	37.0	50.1	59.6	73.0	75.2	74.0	66.2	48.9	33.6	21.2	49.4	99	—17	Apr. 26	Oct. 6
Wilber (a)	33.5	35.4	42.6	53.2	63.8	76.4	74.6	76.2	65.9	51.8	36.2	25.3	52.9	97	— 2	Apr. 6	Oct. 18
Wilsonville (a)	30.1	34.6	38.0	49.6	60.3	74.6	78.1	76.5	64.0	48.0	34.6	25.5	51.2	100	—19	Apr. 6	Oct. 5
Wisner	.....	.....	.....	.....	.....	.....	.....	.....	.....	[e]49.6	.....	.....	.....	.....	.....	.....	.....
Wymore (a)	30.0	32.6	40.3	52.3	62.4	72.0	74.3	75.2	68.8	49.5	34.2	22.8	51.2	101	— 8	Apr. 5	Oct. 18
York	29.2	30.6	37.0	49.8	58.8	72.0	76.6	77.2	65.5	47.2	32.7	23.8	50.0	104	—10	Apr. 6	Oct. 6
Nevada.																	
Austin	22.8	35.0	30.4	49.4	48.5	64.6	70.9	70.8	60.5	45.2	35.0	26.6	46.6	93	—26	June 3	Oct. 1
Battle Mountain (a)	16.6	36.2	33.9	52.1	54.0	64.1	74.5	78.4	61.7	41.0	30.6	24.3	47.3	104	—15	Apr. 3†	Oct. 1
Beowawe (a)	16.8	36.8	34.1	53.0	54.0	64.2	77.2	77.6	64.2	44.7	33.5	23.2	48.3	101	—22	May 4	Oct. 2
Blaine	17.5	32.0	30.5	47.6	49.6	57.2	64.0	63.4	55.3	41.4	31.8	20.6	42.6	93	—19	June 4	Sept. 3
Candelaria	30.0	43.6	37.8	55.1	54.4	68.0	75.8	76.0	67.5	55.0	43.2	.....	.....	99	2	May 17	Oct. 8
Carlin (a)	11.9	34.3	35.6	44.6	48.2	59.4	71.5	69.6	54.0	39.2	26.3	16.5	42.6	102	—20	June 5	Sept. 12
*Carson City	24.3	40.6	36.6	51.2	51.8	61.6	69.5	70.8	62.4	49.0	38.8	30.8	49.0	100	— 5	Apr. 21	Oct. 1
Carson City[1]	23.6	40.3	36.4	50.6	51.7	60.6	68.0	68.9	61.0	48.4	38.8	30.4	48.2	99	— 6	May 20	Sept. 2
Elko	15.2	33.5	39.9	53.0	57.3	63.7	69.6	73.2	52.2	39.1	27.0	22.0	45.5	102	—20	Apr. 28†	.....
Elko (near)	12.9	31.4	30.8	46.2	47.4	.....	68.4	65.6	50.5	37.7	30.7	19.0	.....	103	—28	May 30	Aug. 6
Ely	16.9	32.3	29.9	47.6	49.0	61.4	70.1	69.5	58.0	44.0	33.8	23.8	44.7	98	—15	June 4	Sept. 28
Empire Ranch	17.3	33.2	30.5	52.2	52.7	72.6	79.9	79.6	57.7	45.6	36.2	.....	.....	105	—20	June 5	Sept. 25
Fenelon	12.5	30.0	27.0	45.9	44.1	59.2	69.9	69.3	55.2	36.0	27.2	17.8	41.2	108	—21	June 3	Sept. 29
Golconda	18.6	38.4	35.5	48.4	51.0	62.5	76.7	74.2	55.3	40.9	35.4	24.3	46.8	98	—10	Apr. 10	Sept. 29
Halleck	8.5	29.0	28.9	47.2	51.9	64.6	72.6	69.8	55.1	36.3	26.5	13.0	42.0	107	—25	May 4	Sept. 29
Hawthorne (a)	26.3	42.6	39.3	56.3	56.4	68.0	76.6	76.6	66.7	52.6	41.2	31.8	52.9	101	— 4	Apr. 7	Oct. 24
Humboldt (a)	24.3	38.7	37.7	54.2	53.8	65.0	75.6	73.1	62.2	48.6	37.4	27.7	49.9	99	—10	Apr. 4	Oct. 16
Keysers Springs (a)	.....	31.3	37.6	46.3	56.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lewers Ranch	25.8	40.2	35.7	51.4	51.3	60.8	68.0	70.4	62.0	49.2	40.0	30.8	48.8	100	— 2	June 3	Sept. 29
Los Vegas	33.2	45.6	45.8	61.5	62.3	71.6	78.5	78.3	67.8	54.6	43.0	[h]35.8	56.5	103	11	Mar. 24	Oct. 2
Lovelocks (a)	20.5	.....	37.7	.....	55.2	65.5	76.3	76.0	63.5	49.9	36.7	25.1	.....	101	— 9	.....	Oct. 3
McGill	15.6	37.6	30.5	48.4	52.0	60.9	69.2	67.1	56.2	43.6	.....	[f]22.4	.....	104	—20	June 5	Sept. 2
Martins	22.5	40.6	37.5	51.6	52.9	61.4	66.7	67.3	60.6	48.6	38.6	29.6	48.2	94	— 9	June 3	Sept. 2
Midas	22.8	36.6	31.2	50.4	48.1	62.2	72.6	.....	.....	.....	.....	.....	.....	.....	.....	May 22	.....
Mill City (a)	20.9	37.4	34.4	54.4	55.6	70.8	.....	[j]74.3	67.1	50.3	37.8	28.8	.....	100	—12	Apr. 11	Oct. 4
Monitor Mill	19.2	30.6	28.4	46.6	48.0	60.3	68.7	69.3	57.8	43.6	31.9	22.0	43.9	98	—18	June 30	Sept. 2
Osceola	23.9	36.2	34.6	54.7	54.6	69.0	75.7	78.4	.....	.....	.....	.....	.....	96	.....	May 16	.....
Palisade (a)	25.2	38.6	37.3	52.6	58.2	68.0	70.6	75.9	64.4	36.0	31.4	23.0	48.4	98	—10	Apr. 3	Oct. 2
Palmetto	23.1	37.4	31.8	49.6	49.6	62.0	68.8	70.4	61.0	47.0	36.1	27.6	47.0	99	—11	Apr. 7	Oct. 1
Panaca	.....	38.4	39.3	56.8	58.7	69.9	76.4	74.2	[k]64.5	50.0	.....	29.4	.....	109	—16	May 5	Oct. 2
Reno (a)	23.4	41.0	.....	52.0	57.9	71.6	77.0	73.4	62.6	51.1	38.8	31.9	.....	104	— 4	.....	.....
Reno State University	22.2	39.0	36.3	50.8	51.7	[e]61.7	70.2	69.4	61.0	47.3	40.2	29.1	48.2	99	— 6	Apr. 11	Sept. 2
St. Clair	21.0	37.6	37.2	54.1	55.2	66.0	72.9	73.8	62.6	47.6	36.6	25.8	49.2	100	0	Apr. 8	Oct. 1
St. Thomas	34.3	48.8	48.8	63.6	.....	.....	88.6	89.2	.....	.....	.....	.....	.....	114	.....	Apr. 8	.....
San Antonio	22.2	39.2	34.8	[d]52.2	53.6	.....	[k]75.6	77.0	.....	.....	.....	.....	.....	.....	.....	May 30	.....
Silver Peak	25.0	39.8	41.6	.....	[k]61.0	73.8	80.7	79.8	69.8	54.6	41.0	30.1	.....	107	— 4	.....	Oct. 2
Sodaville	25.2	43.3	38.2	56.5	57.2	70.7	79.0	80.0	67.7	53.3	42.4	31.2	53.7	105	— 3	Apr. 11	Oct. 2
Spring Valley	.....	.....	.....	.....	54.0	.....	75.6	75.4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tecoma (a)	13.4	30.0	34.6	47.6	47.7	57.6	75.3	74.6	57.2	38.8	29.0	14.5	43.4	111	—10	.....	Oct. 2
Toano (a)	13.3	29.6	31.6	49.5	50.4	65.0	74.0	70.9	59.2	41.7	29.2	17.7	44.3	98	—16	.....	Oct. 1
Tuscarora	.....	29.2	27.0	41.7	.....	50.5	.....	.....	57.2	39.1	28.2	19.8	.....	92	.....	.....	Sept. 28
Tybo	[e]20.2	35.2	36.4	54.8	51.4	66.6	.....	.....	62.8	47.6	32.6	23.4	.....	103	— 5	June 5	Sept. 30
Verdi (a)	28.4	43.4	33.5	44.8	51.6	64.8	70.6	73.0	61.5	50.0	41.1	38.7	50.1	108	— 4	June 2	Oct. 1
Wadsworth (a)	19.3	35.9	33.6	53.2	58.4	69.0	78.4	80.0	64.1	43.5	34.5	23.8	49.5	106	— 6	Apr. 3	Oct. 5
Wells	13.5	29.4	29.1	47.9	49.9	60.6	70.3	69.6	55.0	38.8	26.8	18.4	42.4	99	—28	June 4	Sept. 23
*Winnemucca	18.0	37.4	34.4	51.2	52.2	64.2	72.2	72.7	61.0	45.4	35.2	27.3	47.6	100	—16	June 3	Sept. 29†

[1] Prof. C. W. Friend.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
New Hampshire.																	
Alstead (*f*)	17.8	24.5	36.7	40.6	56.4	67.6	73.4	69.3	62.0	49.2	34.9	22.7	46.3	90	—14	Apr. 27	Sept. 13
Berlin Mills	13.4	21.5	32.8	39.7	51.2	61.0	68.4	66.8	57.3	47.3	31.8	20.3	42.6	94	—35	July 12	Sept. 13
Bethlehem	15.2	24.6	35.4	38.7	54.4	63.0	68.4	66.8	58.9	47.4	32.0	21.2	43.8	90	—19	May 8	Sept. 21
Brookline (*a*)	23.2	27.6	38.2	41.2	58.6	66.5	72.5	71.4	65.9	51.3	37.4	24.6	48.2	98	—24	May 10†	Sept. 21†
Claremont	17.8	24.4	37.1	41.2	55.4	[d]67.0	71.8	[e]69.0	61.2	49.8	35.4	.....	.....	.....	.....	May 9	Oct. 7
Concord	19.6	24.8	37.4	41.6	55.4	65.6	71.0	69.4	61.3	50.2	37.0	23.3	46.4	96	—32	May 10	Oct. 10
Durham	21.4	26.8	38.0	41.4	55.1	64.2	70.8	69.8	62.8	51.2	39.4	25.4	47.2	98	—18	May 10	Oct. 7
Grafton	16.8	22.8	35.2	39.0	[c]51.4	.....	.....	.....	.....	.....	33.4	19.6	.....	.....	.....	.....	.....
Hanover	15.5	24.2	36.2	41.3	55.2	66.0	70.4	68.6	61.2	49.1	33.8	21.9	45.3	96	—23	May 9	Oct. 7
Keene	19.4	25.0	37.6	41.2	55.6	65.2	70.4	68.8	62.1	50.4	36.2	23.8	46.3	96	—28	May 10	Sept. 21
Lancaster	12.8	22.7	31.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Littleton	18.1	26.2	37.4	41.0	54.7	63.4	69.1	65.8	59.5	47.6	31.4	19.5	44.5	91	—18	May 15†	Sept. 21†
Nashua	22.0	25.9	39.1	42.0	55.4	66.2	71.3	71.2	64.2	51.4	38.1	25.2	47.8	100	—20	May 10	Oct. 7
Newton	22.0	27.4	38.3	41.1	53.9	63.7	69.2	69.6	62.2	50.2	38.0	26.0	46.8	97	—14	May 10	Sept. 13
North Conway	16.0	24.2	36.1	42.0	54.6	64.4	69.7	68.7	61.5	48.6	35.6	23.1	45.4	98	—27	May 10	Oct. 7
Peterboro	18.4	24.0	36.8	39.6	53.3	63.9	69.4	68.4	61.2	48.6	35.2	22.8	45.1	92	—22	May 15	Sept. 13
Plymouth	15.6	22.4	34.0	41.2	54.7	64.9	71.5	69.2	60.6	47.9	33.9	21.2	44.8	98	—38	May 10	Oct. 7
Sanbornton	17.2	23.1	36.0	39.9	53.4	63.1	68.8	67.3	60.4	49.2	34.8	22.6	44.6	93	—19	May 10	Sept. 21
Stratford	15.9	22.8	35.0	40.2	54.0	62.8	68.0	67.2	60.0	47.9	33.4	21.2	44.0	93	—27	July 12	Sept. 13
West Milan	12.5	19.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.																	
Asbury Park	34.2	33.8	43.6	48.2	56.4	69.0	74.0	75.2	70.0	58.4	43.1	34.8	53.4	102	0	Apr. 9	Oct. 28
*Atlantic City	36.0	34.6	44.0	46.9	55.5	66.6	73.2	74.2	68.0	58.0	44.1	36.4	53.1	94	7	Apr. 26	Nov. 12
Barnegat	.....	.....	45.2	48.1	54.2	.....	.....	75.8	70.8	59.8	45.5	36.4	.....	.....	.....	Apr. 8	Oct. 23
Bayonne	33.0	33.4	45.0	48.8	58.8	71.2	76.2	76.6	71.4	58.5	43.4	33.3	54.1	103	5	Apr. 9	Oct. 17
Belvidere	30.2	30.0	44.8	46.0	58.3	70.4	75.2	73.4	67.5	54.0	40.0	29.1	51.6	101	— 4	May 9	Oct. 17
Bergen Point	36.6	35.6	46.0	48.4	58.4	70.6	75.4	75.2	70.0	57.4	43.8	33.7	54.3	100	5	Apr. 7	Oct. 28
Beverly	33.5	34.5	47.2	49.6	61.0	72.8	77.9	76.4	70.2	57.4	42.9	33.8	54.8	104	— 1	Apr. 22†	Oct. 17†
Billingsport (*a*)	33.3	33.2	45.8	48.9	60.4	71.8	77.4	75.4	69.2	57.2	42.8	32.7	54.0	97	7	Apr. 7	.....
Boonton	29.8	31.2	43.8	47.0	58.3	70.8	74.6	73.6	67.7	54.9	40.1	30.4	51.8	101	1	Apr. 9	Oct. 23
Bridgeton	37.4	36.2	48.8	51.0	62.9	73.8	78.8	78.1	71.6	59.8	44.3	36.1	56.6	102	11	Apr. 9	Oct. 23
Camden	33.4	33.8	47.2	49.4	60.2	71.0	76.1	74.4	68.7	57.0	42.7	33.8	54.0	96	4	Apr. 7	Oct. 17
*Cape May	37.6	35.3	44.4	48.2	56.2	67.6	73.0	74.3	67.8	58.7	46.2	37.6	53.9	88	14	Mar. 8	Dec. 1
Cape May C. H.	37.2	35.2	45.3	48.8	57.8	68.3	74.6	75.8	69.8	61.0	45.6	37.5	54.7	95	10	Apr. 9	Oct. 24
Charlotteburg	29.2	29.2	42.6	44.7	56.4	66.0	70.6	69.8	63.8	52.2	39.8	30.1	49.5	99	— 6	May 10	Sept. 21
Chester	29.1	29.8	42.8	45.0	56.3	68.2	73.0	.....	65.8	53.0	39.2	30.1	.....	.....	— 5	Apr. 8	Oct. 17
Clayton	34.2	34.8	[f]46.2	48.7	60.2	71.0	76.8	75.9	69.7	57.0	42.4	34.3	54.3	102	4	Apr. 8	Oct. 17
College Farm	33.0	32.8	45.3	48.6	59.4	70.9	76.0	74.9	68.9	56.8	42.7	32.6	53.5	103	— 5	Apr. 9	Oct. 17
Deckertown	28.7	29.6	44.5	46.1	58.6	68.6	73.2	71.6	65.2	53.4	40.4	29.5	50.8	99	— 4	May 9	Oct. 17
Dover	29.2	29.5	43.0	45.2	57.4	69.5	74.0	72.3	66.3	53.0	39.6	29.6	50.7	102	— 4	Apr. 9	Oct. 17
Egg Harbor City	34.0	33.5	45.0	47.6	58.2	69.4	76.0	75.4	68.6	[e]56.5	42.0	34.2	53.4	101	1	Apr. 9	Oct. 28
Elizabeth	32.8	31.8	44.7	48.4	59.0	71.6	76.2	75.5	69.6	56.6	43.0	32.6	53.5	105	— 2	Apr. 9	Oct. 28
Englewood	29.8	29.8	42.6	45.0	57.6	69.1	74.7	73.8	67.1	55.2	41.1	30.0	51.3	102	—11	May 10	Oct. 17
Flemington	.....	.....	46.4	48.4	59.8	71.2	76.4	74.4	68.5	55.8	41.4	31.4	.....	104	— 2	Apr. 9	Oct. 17
Franklin Furnace	28.6	30.0	43.2	45.6	57.2	67.5	72.7	72.0	64.6	.....	.....	.....	.....	96	.....	May 9	.....
Freehold	33.1	33.4	45.3	47.6	58.2	68.8	74.4	73.6	67.2	55.9	42.2	33.8	52.8	96	2	Apr. 8	Oct. 17
Friesburg	34.6	34.5	47.6	49.4	60.8	70.8	77.2	76.4	69.8	58.2	43.2	[f]34.8	54.8	102	4	Apr. 9	Oct. 28
Gillette	31.0	30.2	43.4	46.6	57.4	69.0	73.4	73.3	66.2	53.8	.....	31.2	.....	100	— 5	Apr. 8	Oct. 28
Hanover	31.7	30.6	44.6	47.8	58.5	69.0	72.8	72.4	65.8	54.2	40.2	31.7	51.6	96	— 6	Apr. 9	Oct. 17
Hightstown	33.2	33.6	46.9	49.2	60.3	71.6	76.8	75.2	69.4	57.4	43.2	33.2	54.2	101	0	Apr. 9	Oct. 28
Imlaystown	34.2	33.6	47.2	48.6	61.4	72.4	78.1	76.4	70.4	58.4	43.6	34.5	54.9	104	3	Apr. 8	Oct. 28
Lambertville	32.4	32.9	45.8	48.6	60.2	73.4	78.0	77.0	68.7	57.0	42.2	32.8	54.1	102	0	May 10	Oct. 27
Moorestown	33.8	35.0	47.4	49.0	60.2	71.2	76.8	75.6	70.0	57.6	43.6	34.5	54.6	100	1	Apr. 9	Oct. 17
Newark	32.8	32.7	45.5	48.5	58.2	71.2	76.2	75.7	70.0	56.2	43.2	32.4	53.6	102	4	Apr. 7	Oct. 28
New Brunswick	33.4	33.9	47.1	49.4	61.0	73.2	77.8	76.4	70.8	58.3	43.0	32.7	54.8	105	— 1	Apr. 9	Oct. 17
Newton	28.8	29.4	44.4	45.3	57.4	69.4	73.6	71.6	65.4	52.8	39.7	[h]28.3	50.5	99	— 1	May 9	Oct. 28
Ocean City	36.6	34.4	44.5	47.8	56.2	67.4	73.6	74.7	68.2	58.4	43.7	36.2	63.5	94	8	Apr. 8	Oct. 28
Oceanic	34.2	33.6	43.8	46.8	[h]57.6	69.4	73.8	74.2	68.4	56.4	[h]41.6	32.8	52.7	99	1	May 9	Oct. 23
Paterson	33.2	34.1	46.4	49.4	59.6	71.5	75.5	75.2	70.8	57.6	43.7	33.7	54.2	102	4	Apr. 9	Oct. 28
Perth Amboy	32.3	32.1	43.7	.....	.....	.....	.....	75.4	68.6	56.7	42.3	33.1	.....	.....	0	.....	Oct. 28
Plainfield	30.9	31.2	43.8	46.6	57.6	69.8	74.8	73.9	67.7	54.7	40.4	30.8	51.8	101	— 3	May 9	Oct. 17
Port Norris	36.2	36.2	47.4	[i]49.4	.....	.....	.....	.....	.....	.....	.....	[i]36.2	.....	.....	.....	Apr. 9	.....
Rivervale	30.2	29.0	42.8	44.7	57.0	68.8	74.4	73.2	65.4	54.0	39.8	30.0	50.8	105	—15	May 10	Oct. 17
Roseland	29.4	30.7	43.1	45.9	56.8	68.4	73.4	73.0	66.7	53.6	40.3	30.4	51.0	98	— 3	May 9	Oct. 17
Salem	.....	.....	.....	50.2	62.3	72.0	78.0	[e]77.2	[h]66.6	59.1	44.2	35.8	.....	103	.....	Apr. 9	Oct. 28
Sergeantsville	31.2	31.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerville	31.6	33.0	45.8	48.4	60.2	71.2	76.6	75.6	69.2	56.6	42.2	32.4	53.6	107	— 4	Apr. 9	Oct. 17
South Orange	31.6	31.4	44.3	47.1	57.7	70.2	74.4	73.8	67.6	55.2	41.2	31.6	52.2	100	1	Apr. 8	Oct. 17
Toms River	33.2	33.6	45.0	47.2	57.5	68.4	74.0	75.4	68.0	56.6	42.2	33.6	52.9	102	— 6	Apr. 22	Oct. 17
Trenton	36.5	36.0	47.8	50.4	60.4	73.1	78.5	77.8	71.4	60.2	45.8	35.3	56.1	100	2	Apr. 7	Oct. 17
Tuckerton	.....	.....	.....	.....	58.3	69.6	75.4	75.6	69.4	57.0	.....	.....	.....	98	.....	.....	Oct. 28
Vineland	35.4	35.1	47.5	48.8	60.8	71.3	76.8	75.8	70.2	58.3	43.8	35.2	55.0	104	5	Apr. 9	Oct. 28
Woodbine	35.4	35.6	46.6	48.2	57.6	[e]68.1	74.0	76.1	[e]71.4	58.0	43.6	37.0	54.3	97	3	Apr. 9	Oct. 17
New Mexico.																	
Albert	36.2	44.0	48.4	57.2	65.5	74.5	76.4	76.0	69.1	56.2	40.8	28.4	56.1	106	4	Apr. 12†	Oct. 17
Albuquerque	30.8	41.3	45.8	57.1	63.4	[j]78.8	78.0	75.6	67.2	55.7	43.0	29.1	55.5	104	0	Apr. 1	Oct. 17
Alma	31.6	44.1	45.0	58.4	59.3	69.3	73.5	72.7	66.6	55.4	43.0	31.5	54.2	100	— 5	May 4†	Oct. 16
Aztec	[f]18.2	34.6	36.4	51.4	55.1	68.2	74.0	74.0	63.6	50.7	37.0	17.1	48.4	99	—16	May 21	Sept. 11
Bernalillo	32.5	43.9	45.9	58.7	63.2	72.4	78.4	76.9	67.6	55.8	43.4	29.5	55.7	99	3	May 20	Oct. 20
Bluewater	27.0	33.8	35.9	51.0	55.0	66.2	70.8	66.0	59.3	47.1	34.3	24.5	47.6	100	— 8	June 5†	Sept. 4†
Buckmans	14.0	23.4	27.8	41.8	46.2	56.6	61.4	59.2	50.4	39.2	25.8	14.2	38.3	92	—20	June 9†	Sept. 3†
Clayton	36.6	43.4	[j]41.8	54.0	58.5	69.4	72.6	75.0	67.0	55.1	40.6	30.4	53.7	100	— 1	May 9†	Oct. 16†
Deming (*a*)	36.0	50.6	51.5	60.2	63.5	75.3	78.2	79.0	71.1	61.4	50.4	37.0	59.5	105	10	.....	.....
East Lasvegas	31.2	38.8	40.8	50.4	57.0	65.2	68.3	66.4	58.8	49.8	37.0	28.1	49.3	92	— 6	May 25	Oct. 17

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
New Mexico—Continued.																	
Eddy	40.8	48.2	53.8	61.4	70.5	74.2	77.8	77.4	68.8	59.8	47.6	37.0	59.8	101	10	Apr. 5	Oct. 17
Engle	35.7	44.8	47.2	58.5	63.2	73.6	76.2	74.8	65.1	53.2	39.1	28.6	55.0	101	4	Apr. 4†	Oct. 17†
Espanola	23.3	36.2	40.8	52.9	57.6	68.5	73.0	72.2	63.3	51.0	38.2	22.8	50.0	100	—15	May 21	Sept. 10
Folsom	30.2	35.9	37.8	49.6	55.4	65.3	69.6	69.4	58.6	48.0	35.2	24.2	48.3	92	— 8	May 10†	Sept. 13
Fort Bayard	32.6	44.6	44.0	55.0	58.5	68.0	71.4	71.6	66.5	58.0	44.2	35.5	54.2	96	— 1	Apr. 5†	Oct. 4†
Fort Union	36.2	40.2	37.2	45.8	52.2	64.4	67.2	64.6	58.7	49.4	[5]39.2	27.4	48.5	99	— 2	Apr. 24†	Oct. 4†
Fort Wingate	26.4	37.8	36.0	51.9	55.1	67.3	72.2	71.6	65.0	53.3	41.2	27.0	50.4	100	—10	Apr. 21†	Sept. 11†
Galisteo	28.5	37.5	42.8	53.6	59.4	67.6	73.5	71.4	63.4	54.6	38.2	28.7	51.6	98	1	Apr. 8†	Oct. 19†
Gallinas Springs	31.8	41.5	43.1	56.0	63.1	72.2	75.2	74.0	64.8	57.0	40.4	29.4	54.0	101	0	Apr. 7†	Oct. 17
Gila	37.3	47.4	49.2	62.4	63.9	74.8	78.6	78.6	71.0	58.6	47.0	36.1	58.7	103	0	Mar. 24	Oct. 17
Hillsboro	37.5	50.2	49.8	60.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laluz	39.3	48.7	51.2	62.0	67.7	75.6	75.0	74.2	70.2	62.1	46.2	32.8	58.8	96	14	Mar. 24	Oct. 17
Las Vegas Hotsprings	.....	.....	.....	.....	.....	64.4	67.8	67.7	60.6	50.5	38.2	27.7	.....	98	.....	.....	Oct. 11†
Lordsburg (*a*)	37.2	50.2	52.3	64.6	68.8	79.1	80.4	79.8	72.2	59.9	46.9	32.8	60.4	100	6	.....	.....
Los Lunas	27.5	39.2	44.8	57.1	60.8	.....	.....	.....	.....	50.4	38.4	26.4	.....	.....	—10	May 4†	.....
Lower Penasco	37.0	44.5	48.0	55.2	62.9	70.8	72.4	70.6	63.9	57.4	44.0	34.6	55.1	99	3	Mar. 24	Oct. 17
Mesilla Park	37.3	46.6	49.1	60.4	62.7	72.3	75.8	75.4	68.3	56.7	46.0	35.5	57.2	102	7	May 4†	Oct. 17†
Monero	19.2	28.6	34.0	42.9	48.4	60.1	64.9	64.4	54.4	42.6	29.7	16.6	42.2	96	—20	June 5†	Sept. 4
Puerto de Luna	[5]33.8	44.2	47.4	58.7	66.4	74.4	76.6	[5]75.4	[5]68.6	[5]58.8	44.0	33.6	46.8	102	4	Apr. 6†	Oct. 26†
Raton	28.6	37.4	40.6	51.0	52.8	65.7	68.0	68.4	58.6	47.7	38.0	25.6	48.5	98	—8	May 11†	Sept. 11
Rincon	38.9	49.8	51.9	61.8	66.0	75.0	77.6	75.9	70.2	59.0	48.0	34.9	59.1	102	10	Apr. 13†	Oct. 16
Roswell	36.0	45.1	50.8	59.7	67.6	72.1	76.3	75.0	67.8	58.6	44.8	33.0	57.2	100	2	Mar. 24	Oct. 20
San Marcial	.....	.....	52.6	.....	.....	73.8	75.8	.....	.....	56.1	45.1	32.6	.....	.....	.....	Mar. 12	Oct. 17
*Santa Fe	24.6	36.6	37.6	49.4	54.5	64.2	68.2	67.8	61.1	49.4	37.0	24.0	47.9	91	—6	Apr. 5	Oct. 17
Shattucks Ranch	37.5	43.8	46.1	.....	.....	.....	.....	.....	.....	55.8	44.8	33.2	.....	.....	—2	.....	Oct. 14
Socorro	32.0	42.9	46.8	.....	.....	.....	.....	.....	.....	56.0	41.8	29.2	.....	.....	4	.....	Oct. 19
Whiteoaks	30.0	40.4	42.8	53.4	59.0	66.7	69.4	68.9	61.2	52.2	41.8	28.5	51.2	95	—3	Apr. 5	Oct. 17
Winsors Ranch	23.3	28.2	31.3	43.0	46.0	54.2	60.4	57.8	50.4	41.2	30.2	21.6	40.6	86	—14	June 16†	Sept. 4†
New York.																	
Addison	27.7	28.3	41.6	42.8	57.8	66.8	71.8	69.9	63.4	52.2	38.7	28.0	49.1	95	— 9	Apr. 9	Oct. 28
*Albany	24.5	28.0	42.2	45.5	58.2	69.9	75.2	73.1	66.6	53.2	38.6	29.0	50.3	100	—12	Apr. 9†	Oct. 18
Alden	27.2	27.3	41.1	41.8	56.4	64.8	72.0	69.1	64.5	56.6	35.9	.....	.....	93	.....	May 6	Sept. 11
Alfred	[4]23.2	24.8	39.8	39.4	55.7	64.8	70.2	71.8	63.7	50.7	38.0	27.2	47.4	90	—15	May 18	Sept. 12
Angelica	26.4	26.4	40.4	40.2	56.8	65.6	70.4	67.6	61.9	49.8	37.2	27.3	47.5	91	—17	May 9	Oct. 28
Appleton	27.4	27.0	39.4	42.5	55.4	66.6	71.3	70.6	64.4	51.6	38.8	28.4	48.6	94	0	May 6†	Oct. 28
Arcade	24.8	25.8	39.1	39.5	55.2	64.6	70.2	67.6	62.3	49.2	35.9	24.4	46.6	89	—14	July 11	Oct. 27
Auburn	27.2	28.4	43.0	44.4	57.8	68.6	74.2	71.1	66.6	55.2	40.0	28.7	50.4	95	— 6	Apr. 28	Oct. 17
Avon	27.1	28.5	41.4	42.3	58.0	67.4	73.5	.....	64.8	51.9	36.9	26.0	.....	.....	— 6	May 6	Oct. 29
Baldwinsville	24.4	26.5	41.8	44.0	57.4	.....	73.6	70.6	64.2	[5]51.8	38.6	27.6	.....	.....	— 8	Apr. 11	Oct. 29
Bedford	29.6	30.1	43.0	45.6	56.0	67.1	71.2	70.8	64.5	53.0	40.1	30.4	50.1	99	—10	May 10	Oct. 17
Big Sandy (*g*)	20.6	.....	43.1	41.8	55.2	66.0	72.8	71.3	63.9	51.5	37.7	.....	.....	92	.....	.....	.....
*Binghamton	26.3	27.5	41.0	41.8	56.4	66.8	72.4	70.4	63.6	50.8	38.4	27.8	48.6	95	— 3	Apr. 13	Oct. 17
Binghamton	26.0	27.6	40.8	42.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolivar	[4]25.6	25.2	39.8	40.1	55.6	63.8	.....	66.3	59.8	50.2	36.6	26.8	.....	.....	—16	June 16	Sept. 11
Bouckville	20.6	23.1	37.7	39.8	54.3	64.8	70.4	67.6	61.5	49.6	34.6	23.2	45.6	90	—18	Apr. 3	Oct. 10
Brentwood	30.7	30.6	41.9	46.2	57.3	68.1	72.9	73.7	67.6	54.2	40.2	32.2	51.3	102	—13	May 10	Oct. 28
Brooklyn	32.6	33.2	44.9	49.0	57.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Buffalo	28.3	27.3	41.2	43.4	56.6	67.2	73.0	71.1	66.6	54.0	39.6	29.4	49.8	90	— 3	May 6	Oct. 17
Canajoharie	23.8	26.4	40.0	44.6	58.6	69.3	74.8	71.0	66.0	52.4	37.4	27.6	49.3	92	—16	Apr. 4	Oct. 16
Canton	13.8	23.4	36.8	40.8	56.7	66.4	71.0	68.0	61.0	48.4	34.0	22.9	45.2	95	—37	May 9	Sept. 21
Carmel	26.2	28.4	42.7	46.2	58.0	69.5	74.0	73.1	67.4	54.9	40.0	29.0	50.8	97	—11	Apr. 8	Oct. 17
Carvers Falls	.....	.....	.....	42.2	55.1	65.1	71.2	69.0	62.2	50.2	34.9	24.9	.....	96	.....	May 9†	Sept. 21
Catskill	25.6	27.6	42.0	45.0	57.0	68.4	73.6	71.8	65.8	53.1	.....	29.6	.....	95	— 9	Apr. 6	Nov. 13
Cedarhill	23.8	26.6	42.4	44.6	57.6	69.0	74.2	72.0	66.3	53.6	39.0	28.9	49.8	98	—13	Apr. 6	Oct. 18
Charlotte (*g*)	28.8	27.9	40.4	37.5	51.6	61.9	70.2	71.3	64.7	50.3	35.4	.....	.....	92	.....	.....	.....
Cooperstown	21.8	24.7	37.4	40.1	55.4	65.9	70.4	68.8	61.0	49.2	35.5	25.2	46.3	92	—15	Apr. 27	Oct. 10
Cortland	25.4	26.8	40.4	41.4	55.4	65.2	69.4	68.0	63.7	52.4	38.2	26.6	47.7	94	— 9	May 9	Oct. 17
Dryden	25.0	25.4	39.8	40.8	55.7	65.5	71.4	68.8	[6]62.5	49.6	.....	26.6	.....	95	— 7	May 9†	Oct. 17
Elizabethtown	15.6	24.0	35.5	40.0	[5]55.2	62.6	68.4	66.5	60.1	.....	.....	.....	.....	96	.....	May 9	.....
Elmira	28.6	28.2	43.7	44.8	59.0	69.3	75.2	73.0	66.0	53.3	39.6	30.2	50.9	99	— 5	Apr. 5	Oct. 28
Fleming	26.4	28.7	41.9	43.1	56.4	68.4	74.6	71.4	66.8	53.0	39.2	28.4	49.9	95	— 4	Apr. 5	Oct. 18
Fort Niagara	28.3	27.1	40.2	43.2	55.8	67.0	72.4	.....	.....	53.4	39.6	29.4	.....	.....	— 2	Apr. 5	Oct. 28
Franklinville	24.8	24.6	40.2	39.2	55.5	64.2	69.2	67.6	62.0	50.0	36.5	24.9	46.6	90	—26	Apr. 28	Oct. 17
Garrattsville	24.2	26.1	37.7	40.4	53.7	64.7	68.8	67.7	.....	48.0	.....	.....	.....	.....	.....	May 11	.....
Glens Falls	18.1	23.4	36.2	.....	.....	.....	72.8	70.1	63.0	52.2	37.2	.....	.....	.....	.....	.....	Oct 18
Gloversville (*a*)	19.8	23.8	36.2	41.8	55.6	65.9	71.4	68.9	62.4	49.2	34.7	23.9	46.1	94	—22	Apr. 27	Oct. 7
Greenwich	19.2	24.4	38.1	43.0	[4]56.1	66.6	72.5	69.8	63.0	51.6	35.6	25.2	47.1	96	—22	May 9	Oct. 18
Hemlock Lake	.....	.....	.....	.....	55.8	67.8	72.7	70.6	65.6	52.6	39.2	28.7	.....	91	.....	May 8	Oct. 13
Honeymead Brook	25.4	26.9	41.5	43.1	56.2	66.9	71.7	70.2	63.4	51.7	36.8	27.8	48.5	96	—11	May 9	Oct. 17
Humphrey	26.4	26.2	40.8	41.6	56.2	65.0	70.8	67.2	62.6	50.1	37.0	25.3	47.4	89	— 4	Apr. 28	Sept. 11
Ithaca	26.1	28.0	41.2	41.7	56.3	67.5	73.7	70.9	64.6	52.2	39.0	27.8	49.1	96	— 4	May 9	Oct. 17
Jamestown	28.5	27.6	41.3	42.2	57.5	67.0	71.6	[5]68.4	63.4	51.2	[4]38.6	27.2	48.7	91	— 5	May 9	Oct. 24
Keene Valley	14.8	21.9	35.1	37.1	51.2	60.7	.....	65.8	60.1	47.8	33.2	22.5	.....	.....	—19	Apr. 5	Sept. 21
Lake George	18.2	24.6	37.9	43.7	55.8	66.0	71.2	69.2	62.4	.....	.....	26.8	.....	94	—22	May 9	Oct. 10
Lake Placid	17.6	23.7	35.0	37.2	51.4	61.7	67.2	.....	.....	.....	32.2	20.6	.....	.....	—20	July 11	.....
Liberty	.....	25.4	37.2	38.8	53.0	64.4	69.3	67.1	61.4	[4]48.8	35.1	25.1	.....	90	.....	Apr. 6	Oct. 17
Littlefalls	20.0	22.4	36.4	41.6	54.7	66.1	72.0	69.8	62.7	48.6	37.1	.....	.....	93	.....	Apr. 20	Oct. 27
Lockport	28.5	29.0	41.5	43.6	57.4	67.4	72.6	70.0	63.6	51.3	37.0	28.0	49.2	92	— 1	Apr. 9†	Oct. 27
Lowville	18.3	22.8	37.6	40.0	53.8	64.4	69.8	67.4	60.8	49.1	34.0	23.0	45.1	92	—29	Apr. 28	Oct. 17
Lyons	28.4	29.2	43.3	44.0	58.0	68.2	73.8	71.2	65.7	52.8	39.8	29.6	50.3	94	— 2	Apr. 8†	Oct. 16
Madison Barracks	19.6	26.4	38.5	42.2	.....	.....	72.4	70.4	64.0	51.8	38.8	28.0	.....	.....	—28	.....	Oct. 19
Middletown	26.0	26.6	43.0	44.6	56.2	68.2	72.9	70.8	64.5	52.0	38.3	29.0	49.3	96	—10	Apr. 3†	Oct. 17
Mohonk Lake (*a*)	25.2	27.2	39.5	42.2	54.9	67.8	72.2	71.2	.....	.....	.....	28.1	.....	.....	— 5	Apr. 8	Oct. 18
New Lisbon	21.4	23.2	36.8	38.6	52.4	63.0	68.6	66.5	59.6	48.6	34.6	23.7	44.8	93	—20	May 9	Oct. 17
*New York	32.2	33.0	43.7	46.8	56.6	68.9	74.1	74.3	68.9	57.6	44.6	34.4	52.9	99	. 5	Apr. 7†	Oct. 28
North Hammond	18.0	23.7	40.6	43.4	56.5	66.4	72.9	70.2	64.6	49.4	36.5	25.6	47.3	96	—22	Apr. 19	Oct. 10
North Lake	18.0	20.2	33.2	36.6	51.2	61.4	67.2	63.7	58.4	47.2	33.0	.....	.....	87	.....	May 18	Sept. 21

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
New York—Continued.																	
Number Four	17.4	23.0	35.2	37.5	52.0	62.0	67.6	64.4	58.3	47.2	31.8	21.8	43.2	87	—25	May 9	Sept. 21
Nunda	26.7	27.6	.....	41.7	56.9	67.7	74.0	70.3	65.0	51.5	36.9	27.4	.....	96	— 8	May 9	Oct. 13
Ogdensburg	16.2	22.0	39.1	43.9	57.2	66.4	71.7	68.7	60.6	[1]49.8	36.2	23.8	46.3	90	—21	Apr. 9	Oct. 10
Oneonta (*a*)	26.7	27.6	40.8	42.2	56.0	66.6	68.9	69.0	60.2	48.5	35.5	27.1	47.4	99	—15	May 9	Oct. 10
*Oswego	24.8	26.6	41.4	41.3	54.6	65.4	71.6	70.4	64.6	52.0	39.6	28.0	48.4	93	— 8	Apr. 6	Oct. 29
Oxford	23.8	25.8	38.6	40.6	56.6	67.2	72.8	69.5	62.4	50.0	35.9	25.8	47.4	99	—15	May 9	Oct. 17
Palermo	21.8	24.5	39.8	41.3	55.7	65.2	73.0	69.6	62.2	50.6	37.2	26.2	47.3	98	—22	May 6	Oct. 17
Penn Yan	27.3	28.1	42.2	44.0	58.7	69.4	75.4	71.4	66.8	53.0	39.5	28.3	50.3	98	— 3	Apr. 28	Oct. 28
Perry City	23.5	25.8	38.6	40.4	55.5	65.8	72.4	68.8	62.2	49.3	35.8	25.5	47.0	.....	.....	June 16	Sept. 21
Plattsburg Barracks	15.0	22.0	35.0	41.8	55.0	65.8	71.3	69.2	61.4	[1]52.8	34.5	23.5	45.6	96	—22	Apr. 19†	.....
Port Jervis	26.6	27.6	42.9	45.2	59.2	69.9	73.6	72.0	65.5	53.2	39.1	27.4	50.2	100	— 7	May 9	Oct. 17
Poughkeepsie	25.0	27.0	41.8	44.4	57.0	68.8	73.4	71.4	65.0	53.2	38.2	28.7	49.5	102	—18	May 9	Oct. 17
Primrose	30.6	30.4	42.4	45.6	56.4	68.4	73.4	72.4	65.9	54.0	40.0	30.6	50.8	103	— 5	Apr. 9	Oct. 17
Ridgeway	27.0	27.2	40.9	42.8	56.6	66.6	72.7	70.5	65.2	52.0	37.9	27.8	48.9	94	— 1	May 6	Oct. 28
*Rochester	27.6	27.4	42.7	43.5	57.8	68.0	74.0	71.6	66.0	52.8	38.9	28.0	49.9	95	— 2	Apr. 6	Oct. 28
Rome	19.8	22.6	38.2	42.4	56.4	67.2	71.2	68.4	60.4	48.6	.....	.....	.....	96	.....	Apr. 26	Oct. 16
Romulus	27.0	28.0	42.3	43.5	57.2	68.8	74.4	71.0	66.1	52.9	39.6	29.3	50.0	96	— 4	May 6	Oct. 17
St. Johnsville	22.6	24.8	39.0	43.9	57.0	67.8	72.6	69.7	63.4	51.3	36.7	25.8	47.9	95	—17	May 9	Oct. 28
Saranac Lake	14.5	22.6	37.4	38.6	53.8	63.4	68.1	66.2	59.1	45.7	30.8	19.3	43.3	91	—32	May 8	Sept. 6
Saratoga Springs	.....	24.9	38.2	43.7	57.2	68.0	73.2	70.4	62.9	51.2	35.6	25.0	.....	96	.....	Apr. 28	Oct. 10
Setauket	32.7	32.1	42.6	46.0	56.2	67.1	72.6	72.9	67.3	56.5	43.0	33.8	51.9	98	6	Apr. 9	Nov. 8
South Canisteo	26.8	27.4	40.2	40.5	55.4	63.0	70.2	67.0	61.6	49.4	36.4	25.9	47.0	92	— 8	June 16	Sept. 21
South Kortright	22.7	25.6	38.6	38.3	53.2	64.4	69.8	67.4	59.8	48.6	34.8	25.2	45.7	95	—14	May 30†	Oct. 7
Straits Corners	[c]24.4	26.2	38.9	42.2	56.8	66.5	71.4	69.4	61.7	49.7	[d]35.3	25.4	47.3	98	— 8	July 12	Sept. 21
Ticonderoga	18.6	[d]26.9	39.8	45.2	[c]57.2	[d]66.4	72.0	71.0	64.1	51.9	35.9	26.8	48.0	96	—19	Apr. 6	Nov. 12
Victor	25.3	26.6	.....	42.6	58.7	68.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wappingers Falls	26.2	27.7	43.2	46.0	58.4	70.8	74.6	72.7	66.6	54.2	40.0	30.8	50.9	100	—15	May 9	Oct. 17
Watertown	20.3	26.5	41.4	43.7	58.6	68.4	73.2	69.8	63.8	51.0	36.3	25.5	48.2	97	—26	July 11	Oct. 17
Watkins	27.3	28.6	42.0	41.9	57.0	[d]67.4	71.8	.....	.....	.....	.....	.....	.....	.....	.....	May 9	.....
Waverly	27.3	27.6	41.8	42.7	57.9	68.2	74.4	71.4	63.0	51.6	38.2	27.4	49.3	98	—13	May 9	Oct. 17
Wedgwood	25.6	27.1	40.4	41.6	56.0	67.6	73.8	70.2	65.3	50.6	36.8	25.6	48.4	97	— 9	May 22	Oct. 10
West Berne	.....	.....	.....	.....	.....	.....	.....	.....	63.2	50.8	38.2	23.6	.....	.....	.....	May 5	Oct. 10
Westfield	32.0	29.6	41.8	42.8	57.6	68.0	72.4	70.0	65.6	53.5	40.0	29.9	50.3	92	0	May 6	Oct. 18
Westpoint	23.3	24.9	[c]43.6	45.8	56.9	69.4	74.2	72.4	68.8	54.8	40.1	27.3	50.1	103	— 9	Apr. 9	Nov. 8
Willetspoint	32.2	31.6	42.8	46.2	56.8	69.2	73.8	74.4	69.1	56.2	42.0	33.1	52.3	102	6	Apr. 7	Nov. 11
North Carolina.																	
Abshers	41.2	37.6	51.2	51.6	66.2	72.5	76.1	75.9	71.6	58.8	43.6	39.4	57.1	99	4	Apr. 28†	Oct. 16
*Asheville	40.6	36.8	51.7	49.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 28†	Oct. 19
Beaufort	50.2	46.3	56.8	57.1	68.6	75.1	79.7	79.6	77.0	[c]66.8	53.2	47.0	63.1	92	15	Mar. 1†	Nov.25†
Biltmore	40.9	37.0	52.2	50.6	66.4	72.2	73.8	73.6	68.6	55.8	44.3	38.8	56.2	94	7	Apr. 28	Oct. 16
*Chapelhill	42.6	36.0	.....	[c]56.6	70.0	76.2	79.8	78.7	73.5	61.4	47.0	41.8	.....	99	11	Apr. 7†	Nov. 1
*Charlotte	45.0	41.5	55.1	55.7	71.9	77.4	78.4	77.2	73.2	60.5	47.6	43.0	60.5	97	12	Apr. 8	Nov. 25
Edenton	45.9	42.2	55.6	55.9	68.4	75.0	80.3	80.5	73.8	63.4	49.6	43.0	61.1	95	16	Apr. 6†	Nov. 26
Experimental Farm	45.2	41.0	[c]55.0	55.3	70.3	76.6	[c]79.6	78.6	73.2	[c]61.8	48.0	43.4	60.7	97	13	Apr. 7†	Nov. 25
*Fayetteville	47.4	42.4	57.1	56.6	70.8	76.7	78.6	78.2	74.2	63.0	50.4	44.2	61.7	99	11	Apr. 8	Oct. 24
Flatrock	38.9	33.4	51.0	49.1	64.2	70.6	72.1	71.7	66.0	54.2	42.2	37.8	54.3	93	2	Apr. 30	Oct. 15
*Goldsboro	.....	.....	.....	.....	71.5	78.3	82.2	80.6	74.1	61.4	.....	.....	.....	104	.....	.....	Nov. 20
*Greensboro	42.1	37.8	53.8	54.0	69.2	74.5	77.2	77.2	72.0	59.5	45.0	40.0	58.5	96	12	Apr. 8	Oct. 28†
*Hatteras	48.6	44.6	55.8	57.0	66.0	72.2	78.6	79.2	76.2	67.7	54.7	47.6	62.4	87	22	Feb. 17	Nov. 27
Henderson	42.8	39.0	53.8	52.9	68.3	75.0	[c]78.3	78.0	75.0	61.4	46.3	41.6	59.4	98	11	Apr. 7†	Oct. 28
Hendersonville	.....	.....	.....	.....	.....	71.1	72.4	72.7	67.8	54.6	43.8	39.0	.....	92	.....	.....	Oct. 15
Highlands	36.8	32.4	47.9	45.4	60.9	66.6	67.2	66.3	62.8	49.8	38.0	34.0	50.7	85	— 2	May 9	Oct. 15
Horse Cove	40.8	36.1	51.9	49.5	66.4	73.7	72.4	71.8	67.6	54.0	43.6	38.6	55.5	93	3	Apr. 28	Oct. 15
Lenoir	39.9	36.2	52.3	52.9	67.7	73.5	74.5	74.5	69.8	57.4	44.6	38.8	56.8	92	7	Apr. 28	Oct. 16
Linville	35.6	29.4	44.0	43.2	57.8	64.8	67.0	66.0	60.9	49.6	37.9	31.8	49.0	83	— 5	May 10†	Oct. 16
Littleton	41.8	37.8	51.2	53.1	66.8	74.2	78.8	78.4	72.0	59.6	45.4	40.5	58.3	98	10	Apr. 8†	Oct. 28
Louisburg	44.5	39.4	55.4	55.0	67.6	75.9	79.8	79.2	72.7	61.2	47.3	41.9	60.0	99	9	Apr. 9	Oct. 16
*Lumberton	48.4	41.8	56.5	[1]53.2	72.6	78.8	81.0	80.3	75.4	62.8	49.5	44.4	62.1	99	16	Apr. 28	Oct. 28
Lynn	46.0	41.2	55.0	54.0	[1]68.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 28†	.....
Marion	42.6	38.9	52.8	52.8	67.2	73.6	74.6	73.6	66.5	57.5	44.8	39.8	57.1	97	8	Apr. 28†	Oct. 23
Mocksville	[1]47.6	41.6	54.6	[1]53.0	[1]68.8	[1]77.6	78.8	78.0	72.5	60.0	47.4	42.6	60.2	99	8	Apr. 5†	Oct. 28
Moncure	46.0	41.6	56.0	55.4	69.2	75.6	79.4	78.6	72.9	61.3	47.8	44.2	60.7	97	11	Apr. 9	Nov. 2†
Monroe	44.0	41.6	56.8	53.8	69.6	77.0	78.4	77.6	72.8	60.6	47.5	43.0	60.2	101	6	Apr. 8	Oct. 16
Morganton	39.7	39.8	52.0	53.9	67.6	74.2	77.7	77.2	73.2	59.4	[47.0]	42.5	[58.7]	96	7	Apr. 27	Oct. 16
Mountairy	39.6	36.2	50.6	51.8	66.4	72.0	75.4	75.0	69.2	56.6	43.0	.....	.....	96	6	Apr. 13	Oct. 17†
Mount Pleasant	44.4	39.8	55.8	53.8	69.8	76.7	78.7	77.6	73.4	61.0	47.3	42.1	60.0	97	8	Apr. 8	Oct. 16
*Newbern	.....	.....	.....	58.2	71.6	78.0	81.6	81.2	76.6	64.6	53.0	47.4	.....	100	.....	Apr. 8	Oct. 22
Oakridge	41.6	37.5	51.4	53.8	68.4	74.4	77.0	76.7	71.2	58.4	45.9	41.2	58.1	97	10	Apr. 8	Oct. 16
Patterson (*a*)	.....	.....	.....	.....	.....	.....	.....	72.5	67.9	54.4	41.0	35.6	.....	.....	.....	.....	Oct. 24
Pittsboro	43.5	38.2	53.7	53.0	68.8	74.2	78.4	77.8	72.9	60.8	47.8	41.8	59.2	96	5	Apr. 8†	Oct. 16
*Raleigh	45.2	40.8	55.2	55.8	70.0	76.0	79.5	78.8	73.4	61.6	48.9	43.6	60.7	97	14	Mar. 5	Nov. 7
Rockingham	46.7	42.0	58.6	56.1	73.3	79.4	80.7	79.4	74.4	61.6	48.8	[44.6]	62.1	102	10	Apr. 8	Nov. 1
Roxboro	40.3	36.3	50.8	51.4	66.4	[1]72.2	76.1	[c]75.4	[c]70.0	57.4	.....	.....	.....	96	.....	Apr. 15	Oct. 28
Salem	41.0	37.8	53.5	53.6	69.6	75.6	78.1	77.8	72.2	59.2	45.4	39.0	58.6	100	7	Apr. 8	Oct. 24†
Salisbury	44.4	41.0	54.3	55.6	70.8	78.0	79.0	78.6	73.4	60.6	47.8	41.8	60.4	100	10	Apr. 8	Oct. 24
Saxon	42.0	36.6	51.8	52.4	67.0	72.8	76.4	78.1	72.5	58.8	45.0	41.2	57.9	98	4	Apr. 14	Oct. 15
Selma	44.8	41.6	56.2	55.1	70.8	78.6	80.6	79.6	73.8	61.7	48.4	42.8	61.2	101	10	Apr. 9	Nov. 2
Settle	41.0	36.0	55.1	52.8	67.8	74.8	77.2	76.4	70.1	57.6	43.2	38.0	57.5	102	6	May 7†	Oct. 23
Sloan	49.8	44.8	57.4	57.2	71.6	77.8	79.4	78.8	75.5	63.9	53.0	46.5	63.0	98	14	Apr. 8	Nov. 21
Soapstone Mount	42.0	37.8	54.4	52.4	68.1	74.0	77.0	76.6	70.7	[59.8]	[c]42.6	39.2	57.9	100	5	Apr. 16	Oct. 16
Southern Pines (2)	49.1	44.3	59.0	58.8	73.9	76.4	80.2	79.2	75.4	63.3	50.2	46.5	63.0	101	14	Apr. 6	Nov. 25
Southern Pines (3)	48.0	43.6	58.6	57.6	73.1	76.6	79.8	79.8	75.4	63.6	50.8	46.1	62.8	98	11	Apr. 6	Nov. 25
Southport	49.6	45.4	58.4	58.6	70.6	76.5	79.2	80.3	76.4	66.4	55.6	48.6	63.8	93	14	Apr. 8	Nov. 24
Springhope	42.5	38.0	53.2	51.7	67.2	74.3	78.0	.....	70.8	.....	46.6	.....	.....	.....	.....	Apr. 8	Nov. 1
Tarboro	44.1	40.6	55.8	[c]55.8	70.0	77.0	81.4	80.6	75.2	[1]63.2	49.0	[c]45.2	61.5	103	9	Apr. 9	Oct. 27

[1]Maximum readings during April were not reliable. [2]S. S. Thomas. [3]N. Robinson.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
North Carolina—Cont'd.																	
Waynesville	39.8	36.2	52.1	47.8	63.5	70.4	70.8	70.3	65.4	52.4	42.2	36.5	54.0	91	2	Apr. 8†	Oct. 14
*Weldon	44.9	39.4	55.2	55.2	69.3	76.6	80.8	80.4	74.5	[c]60.8	45.5	40.2	60.2	100	12	Apr. 8†	Oct. 17
*Wilmington	50.4	45.6	59.4	58.5	71.6	77.0	79.0	79.0	70.7	64.5	53.8	48.4	63.6	96	18	Apr. 8	Nov. 25
North Dakota.																	
Amenia	14.5	14.2	25.8	43.8	53.7	[c]63.8	[c]68.4	66.0	58.0	[c]40.0	[b]20.2	10.2	39.9	94	—26	May 11	Sept. 8
Aneta	14.1	.....	.....	43.2	59.2	66.2	72.4	[c]63.6	55.8	.....	.....	.....	.....	96	.....	June 14	.....
Ashley	15.8	14.4	24.2	42.4	51.4	64.0	71.0	[d]67.3	[c]58.5	36.9	21.1	11.3	39.9	100	—27	May 4	Sept. 2
Berlin	17.2	15.5	24.7	43.0	.....	63.2	67.4	65.1	56.6	38.9	23.2	12.0	.....	97	—30	.....	Sept. 9†
*Bismarck	17.8	15.9	23.6	43.7	53.0	64.4	69.8	68.8	58.0	39.4	24.0	16.9	41.3	99	—18	May 4	Sept. 9
Bottineau	.....	5.3	12.4	38.7	51.8	59.1	64.1	62.6	53.6	35.4	18.6	6.0	.....	95	.....	May 29	Sept. 8
Buxton	12.6	10.6	23.2	41.3	52.4	[c]61.6	65.6	63.3	56.4	38.3	22.5	9.2	38.1	89	—23	May 16	Sept. 8
Churchs Ferry	11.9	10.4	21.0	42.7	52.9	62.2	67.6	65.2	56.3	38.0	21.4	10.4	38.3	97	—27	June 14	Sept. 8
Coal Harbor	.....	13.5	20.6	42.0	53.0	63.3	68.8	67.2	57.3	37.2	22.2	14.4	.....	99	.....	May 29	Sept. 9
*Devils Lake	14.2	11.8	24.9	41.4	52.8	61.7	67.9	64.8	56.6	37.2	21.8	8.3	38.6	96	—23	May 12	Sept. 8
Dickinson	17.0	19.5	19.6	42.0	[d]52.6	62.6	67.8	69.8	56.8	37.8	24.0	16.6	40.5	104	—17	May 29	Sept. 9
Dunseith	7.8	9.6	.....	.....	.....	.....	67.4	65.8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ellendale	19.5	19.8	27.6	43.0	52.0	64.8	66.9	66.8	57.6	42.2	25.8	15.0	41.8	98	—25	May 16	Sept. 9
Fargo	14.0	10.2	23.6	[c]41.5	53.0	61.5	68.0	65.2	57.8	38.7	23.0	8.0	38.7	97	—30	May 16	Sept. 8
Forman	15.8	14.1	26.0	[b]42.2	52.3	65.5	70.0	66.4	58.5	[b]41.0	24.4	12.8	40.8	98	—30	May 30	Sept. 7
Fort Berthold	21.1	14.0	26.7	44.0	55.2	65.0	69.6	68.4	60.2	41.1	23.7	12.2	41.8	104	—26	May 30	Sept. 5
Fort Yates	20.4	18.1	25.4	45.2	53.4	62.6	65.4	.....	.....	.....	.....	.....	.....	.....	.....	May 12	Sept. 4
Fullerton	15.1	15.8	24.8	42.4	53.6	65.0	68.7	66.2	56.4	38.1	22.2	12.4	40.1	101	—29	May 16	Aug. 12
Gallatin	10.4	11.6	23.0	41.1	52.3	61.6	66.9	63.4	52.9	35.8	22.2	9.3	37.5	96	—34	May 29	Aug. 12
Glenullin	17.6	17.6	[f]19.1	38.2	48.6	62.4	68.8	66.2	54.5	[d]36.9	.....	.....	.....	97	.....	May 28	Sept. 8
Goetz	16.4	11.0	17.4	40.9	51.6	62.7	66.4	65.9	56.2	35.6	25.4	16.5	38.8	97	—30	June 14	Aug. 12
Grafton	8.8	8.8	20.8	41.4	[c]54.4	[d]61.0	.....	.....	56.4	37.8	20.4	8.4	.....	.....	—32	May 29	Sept. 10
Hamilton	7.8	9.5	21.0	40.2	51.8	57.8	65.3	62.5	54.4	36.4	18.5	7.4	36.0	93	—33	May 29	Sept. 8
Jamestown	16.1	15.8	24.6	43.4	52.2	63.8	69.0	64.9	55.6	.....	.....	.....	.....	98	.....	May 18	Sept. 8
Kelso	13.0	10.1	25.0	[d]43.8	53.7	63.4	68.0	66.2	57.8	.....	.....	12.6	.....	92	—22	May 16	Sept. 8
*Langdon	.....	.....	.....	39.0	50.6	58.6	63.8	61.7	52.4	.....	.....	.....	.....	92	.....	June 14	Aug. 12
*Larimore	11.2	8.7	21.4	40.9	50.7	59.9	64.8	63.4	55.6	38.0	22.1	11.0	37.3	92	—26	May 29	Sept. 8
*Lisbon	.....	.....	.....	43.0	52.6	64.7	68.3	66.1	58.8	.....	.....	.....	.....	.....	.....	.....	.....
McKinney	11.2	8.8	15.2	38.8	52.4	61.0	64.6	63.6	54.4	34.6	18.8	8.8	36.0	98	—32	June 15	Aug. 12
Mayville	17.4	15.6	26.0	46.0	54.0	.....	.....	.....	60.0	40.9	.....	.....	.....	.....	.....	May 11	Sept. 8
Medora	15.6	20.6	20.6	45.6	56.4	66.0	73.4	70.2	58.2	41.9	26.4	18.0	42.7	106	—24	May 3	Sept. 3
Melville	15.8	15.0	23.8	42.0	52.8	64.4	69.6	.....	57.4	40.9	27.8	12.6	.....	.....	—23	June 14	Sept. 8
Milton	7.4	6.6	17.7	40.4	51.8	57.9	64.8	.....	.....	[b]34.3	16.8	5.1	.....	.....	—31	June 14	Sept. 8
Minnewaukon	12.4	11.2	19.2	41.2	51.8	61.2	67.0	63.9	55.8	37.6	22.0	10.7	37.8	95	—26	June 30	Sept. 8
Minot	17.4	13.2	19.4	44.5	54.4	65.2	69.0	68.4	60.4	38.4	[c]24.8	16.4	41.0	99	—25	May 13	Sept. 9
Minto	10.6	10.2	22.4	42.8	53.3	[d]63.1	66.8	64.0	56.1	38.0	22.0	10.9	38.4	96	—26	May 29	Sept. 9
Napoleon	15.8	15.2	23.0	42.2	52.3	63.9	69.0	66.8	57.1	38.5	23.1	13.4	40.0	96	—24	May 12	Sept. 9
New England City	19.2	18.5	17.2	38.1	49.8	61.3	69.0	69.4	57.5	38.8	22.4	12.8	39.5	101	—21	May 6	Sept. 6
Oakdale	22.0	18.8	21.0	41.6	52.8	61.6	67.0	67.2	55.8	.....	.....	22.4	.....	93	—19	May 29	Sept. 9
*Pembina	.....	.....	.....	.....	54.0	61.0	66.4	63.8	56.4	.....	.....	.....	.....	96	.....	May 29	Sept. 9
Portal	12.5	9.2	14.0	37.6	50.7	59.8	65.8	64.0	53.9	35.2	.....	13.8	.....	100	—25	June 14	Sept. 8
Power	15.5	11.0	25.6	42.4	52.3	62.0	66.8	63.6	58.4	39.9	24.3	12.4	39.5	95	—35	May 16	Sept. 8
St. John	13.2	11.2	18.6	39.8	51.6	60.1	65.8	.....	.....	.....	.....	.....	.....	.....	.....	May 28	.....
Sheyenne	12.8	11.8	20.6	40.6	52.4	.....	.....	65.4	56.9	38.9	22.4	13.2	.....	.....	—28	June 14	Sept. 8
Steele	16.2	15.8	22.6	42.2	53.0	.....	67.8	66.0	57.3	[b]36.0	22.5	14.1	.....	.....	—25	May 11	Sept. 9
Towner	11.8	12.0	16.2	41.2	51.8	61.6	65.6	65.8	56.7	37.4	23.0	10.9	37.8	98	—32	June 14	Sept. 8
University	12.4	11.4	23.8	43.0	52.6	[c]59.9	65.8	63.7	56.8	39.8	25.4	[c]13.8	39.0	87	—27	May 16	Sept. 8
Valley City	.....	.....	24.1	43.0	53.0	63.2	68.4	65.4	57.6	38.6	24.1	11.7	.....	.....	—25	May 12	Sept. 9
Wahpeton	19.8	18.2	30.6	47.5	56.4	67.3	70.7	67.5	60.2	42.2	26.8	14.0	43.4	98	—27	May 12	Sept. 8
Washburn	15.6	15.6	20.5	42.2	52.4	63.4	68.2	67.0	56.4	40.4	29.4	.....	.....	102	.....	June 14	Aug. 12
White Earth	19.6	15.6	17.4	38.6	49.9	[i]62.1	66.5	62.6	.....	.....	.....	.....	.....	.....	.....	May 17	Aug. 4
Wildrice (*b*)	13.6	11.0	24.4	42.5	54.6	63.4	67.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Williston	19.0	14.0	15.8	41.7	53.6	61.7	67.2	67.5	56.4	37.7	21.1	14.2	39.2	97	—26	May 6†	Sept. 9†
Willow City	[d]10.4	12.1	18.7	42.4	52.8	61.4	65.4	64.6	[c]54.4	36.2	23.0	[c]10.2	37.6	94	—32	June 14	Sept. 8
Woodbridge	6.8	8.1	15.9	39.8	50.5	59.7	65.0	61.4	53.0	37.0	19.3	7.2	35.3	93	—38	June 14	Aug. 12
Ohio.																	
Akron	32.0	28.2	43.8	46.0	59.1	69.8	75.0	72.1	67.0	52.8	38.8	28.2	51.1	97	— 6	Apr. 8	Sept. 26
Annapolis	31.0	27.0	44.8	45.8	60.9	71.2	75.2	73.5	68.9	53.6	37.0	27.3	51.4	101	—14	Apr. 12	Sept. 16
Ashland	28.8	26.4	41.6	45.9	57.6	69.7	72.8	70.8	.....	.....	37.0	27.6	.....	.....	— 6	May 19	.....
Ashtabula	31.1	28.0	42.4	43.8	57.4	67.8	73.5	71.4	66.6	53.5	40.0	29.6	50.4	92	— 3	Apr. 8	Sept. 28
Bangorville	30.7	27.0	43.3	46.9	59.9	70.7	75.4	72.4	67.5	52.8	38.8	25.6	50.9	98	—11	Apr. 20	Sept. 27
*Bellefontaine	32.2	.....	.....	46.7	60.8	71.8	76.1	72.9	69.1	53.6	36.9	25.4	.....	95	.....	Apr. 8	Sept. 28
Benton Ridge	31.4	28.8	43.6	46.7	60.1	71.2	75.8	72.3	67.8	53.6	37.0	27.8	51.3	101	— 6	May 9	Sept. 27
Bethany	36.0	34.0	50.6	52.4	.....	77.2	79.8	76.2	72.5	56.4	40.5	30.5	.....	104	— 3	Apr. 7	Sept. 27
Bigprairie	31.6	28.2	43.0	47.1	59.4	71.2	74.9	72.4	66.8	53.2	39.2	28.8	51.3	98	— 8	Apr. 12	Sept. 16
Bissells	30.5	26.4	42.8	46.6	59.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 11	.....
Bladensburg	30.9	.....	.....	.....	60.6	69.7	73.4	.....	.....	.....	.....	.....	.....	.....	.....	May 12	.....
Bloomingburg	34.1	31.4	46.6	48.4	62.4	72.0	76.7	74.0	70.2	55.1	40.0	29.3	53.4	99	— 9	Apr. 8	Sept. 15
Bowling Green	30.0	28.3	42.8	45.9	59.4	70.0	74.2	72.0	67.0	52.9	36.6	26.8	50.5	98	— 6	Apr. 28	Sept. 27
*Bucyrus	31.1	28.4	41.8	44.4	60.0	70.7	77.2	71.4	67.8	.....	36.3	28.8	.....	102	—11	Apr. 27	.....
Cambridge	32.0	28.6	43.8	46.0	58.5	69.2	74.2	71.6	65.5	52.6	37.5	28.2	50.6	97	—14	May 10	Sept. 16
Camp Dennison	35.4	34.3	48.0	49.8	64.4	75.0	79.7	76.6	71.9	56.8	40.8	30.3	55.2	102	—11	Apr. 12	Sept. 27
*Canal Dover	32.0	28.6	43.9	45.2	59.8	70.4	75.4	73.0	66.9	52.8	38.6	28.8	51.3	98	— 8	May 9	Sept. 28
*Canton	32.9	28.5	45.2	46.5	60.1	70.8	75.1	72.2	67.2	53.6	39.4	29.8	51.8	95	— 5	Apr. 8	Sept. 16
Cardington	28.8	28.2	43.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carrollton	32.8	29.4	44.5	46.6	60.0	75.1	75.6	72.2	67.4	53.2	39.4	28.2	52.0	98	— 8	May 9	Sept. 16
Celina	31.4	31.0	44.3	47.0	61.0	71.4	75.0	72.7	68.2	53.2	38.2	26.5	51.7	99	— 7	Apr. 12	Sept. 27
Cherryfork	35.3	32.7	.....	49.6	64.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 8	.....
*Chillicothe	36.0	.....	.....	47.9	62.7	73.4	78.4	74.9	69.2	.....	.....	.....	.....	.....	.....	.....	.....
*Cincinnati	37.2	34.9	49.2	50.5	65.1	75.5	78.6	76.8	72.3	56.5	42.3	32.2	55.9	98	1	Apr. 8	Oct. 27
*Circleville	35.2	32.6	47.2	49.2	62.0	73.4	78.4	75.0	69.6	56.7	40.6	31.6	54.3	99	— 6	Apr. 12	Sept. 28

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Ohio—Continued.																	
Clarksville	34.1	33.0	47.2	49.2	63.0	73.4	77.4	74.8	70.6	56.6	41.3	30.5	54.3	99	— 5	Apr. 8	Sept. 27
*Cleveland	31.6	28.3	43.0	44.1	57.8	68.8	73.4	71.7	67.0	53.6	39.2	28.9	50.6	95	— 4	Apr. 5	Oct. 28
Cleveland [1]	32.3	29.6	43.2	45.2	58.6	69.1	73.7	72.0	66.8	53.5	40.0	29.8	51.2	92	— 5	Apr. 12	Oct. 28
Cleveland [2]	30.6	27.8	42.2	44.6	58.8	69.4	74.4	72.6	67.6	52.9	39.3	28.0	50.7	96	— 5	Apr. 12	Oct. 28
Clifton	32.5	30.4	45.7	.....	61.6	.....	78.0	74.2	70.0	55.2	38.4	.....	.....	.....	.....	.....	Oct. 27
Coalton	35.8	33.4	47.9	47.6	63.0	72.7	77.4	75.2	71.0	55.9	39.8	30.0	54.1	99	—15	May 9	Oct. 28
Colebrook	31.0	28.2	43.0	44.1	.....	.....	.....	.....	.....	.....	38.4	26.6	.....	.....	.....	Apr. 27	.....
*Columbus	33.2	31.5	46.3	48.6	62.7	73.8	77.7	75.0	69.8	55.0	39.6	30.0	53.6	100	— 5	Apr. 7	Oct. 27
*Dayton	34.0	33.0	47.1	49.4	64.0	73.7	74.2	75.2	70.6	56.4	40.9	29.6	54.0	99	—15	Apr. 27	Sept. 28
*Defiance	29.9	28.7	42.4	45.6	60.2	69.5	74.2	71.9	67.1	52.0	36.0	26.4	50.3	97	— 7	Apr. 9	Sept. 15
Delaware	32.6	30.6	44.8	47.8	61.5	73.8	78.5	75.8	69.4	54.3	38.0	28.2	52.9	97	— 5	Apr. 12	Sept. 27
Demos	31.7	29.0	43.9	45.2	60.8	70.7	74.4	72.9	66.8	53.2	38.2	27.8	51.2	95	— 8	Apr. 8	Sept. 24
Dupont	29.5	28.8	43.0	46.3	60.8	72.4	.....	.....	.....	.....	.....	26.9	.....	.....	.....	Apr. 8	.....
Elyria	30.4	28.2	42.4	45.7	59.4	70.2	75.0	73.3	67.8	52.5	38.9	28.0	51.0	98	— 7	Apr. 12	Sept. 27
Fairport Harbor (*g*)	31.3	29.5	41.3	45.1	58.8	69.1	74.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fayetteville	34.2	32.0	47.0	48.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 14	.....
*Findlay	31.4	28.9	43.6	47.0	60.8	71.8	77.3	72.4	68.9	53.6	36.8	27.6	51.7	100	— 7	May 5	Sept. 26
Frankfort	34.6	33.3	47.2	48.6	62.4	75.2	75.6	73.6	68.4	55.4	40.0	30.9	53.8	97	—11	Apr. 28	Sept. 27
Garrettsville	29.8	26.8	42.8	44.2	57.8	67.4	72.4	70.1	64.6	51.8	37.8	27.5	49.4	95	—13	May 9	Sept. 16
Granville	31.1	29.0	43.8	46.5	60.5	71.6	76.2	74.8	67.5	53.8	37.6	28.4	51.7	99	—12	Apr. 8	Sept. 16
Gratiot	32.4	28.7	44.2	47.2	61.8	71.4	75.8	73.1	67.9	54.4	40.0	28.8	52.1	97	—13	Apr. 12	Sept. 16
Greenfield	35.9	35.7	*48.4	49.0	64.4	*79.7	78.8	75.8	70.0	[d]55.8	41.2	[c]32.6	55.4	101	— 1	Apr. 8	Sept. 27
Greenhill	30.6	28.0	43.2	44.5	57.8	68.0	73.0	70.6	65.3	52.0	37.3	27.1	49.8	94	—12	May 9	Sept. 16
*Greenville	31.4	30.1	43.7	46.9	60.4	70.1	74.2	71.8	67.4	53.4	38.4	27.6	51.3	91	— 6	Apr. 8	Sept. 27
Hackney	34.5	30.5	49.0	50.6	66.0	.....	73.3	76.4	69.4	.....	.....	.....	.....	.....	.....	Apr. 9	Sept. 13
Hanging Rock	38.4	34.6	49.0	47.2	64.0	73.4	78.0	77.3	71.8	58.4	42.0	35.2	55.8	100	— 7	Apr. 13	Sept. 27
Hedges	30.2	29.2	43.5	46.8	60.0	70.0	73.5	70.8	66.4	52.4	35.8	26.5	50.4	101	—10	Apr. 27	Sept. 15
Hillhouse	29.2	26.8	41.0	41.7	56.2	67.6	72.4	69.9	64.9	51.5	37.6	26.8	48.8	96	— 9	May 9	Sept. 16
Hillsboro	35.0	33.3	47.9	48.8	64.0	74.0	78.2	76.6	71.0	56.8	41.4	31.1	54.8	104	—15	Apr. 28	Sept. 28
Hiram	28.6	25.7	42.9	45.2	58.2	69.0	74.0	71.5	66.1	52.0	37.6	26.8	49.8	94	—10	Apr. 8	Sept. 27
Hudson	29.6	27.5	43.5	44.8	59.6	71.5	74.9	70.6	65.7	52.0	37.8	27.2	50.4	99	—11	May 9	Sept. 16
Jacksonboro	33.8	32.1	46.3	50.2	63.9	76.7	78.6	75.0	72.0	55.0	39.9	29.0	54.4	99	— 4	May 7	Sept. 27
*Kenton	31.8	30.3	45.4	48.4	60.6	71.4	76.5	74.0	69.4	55.0	38.4	28.8	52.5	97	— 1	Apr. 21	Sept. 28
Killbuck	31.6	28.0	44.6	47.0	59.7	70.3	75.0	71.9	66.6	52.4	[d]37.5	28.4	51.1	97	— 9	Apr. 6	Sept. 27
Lancaster	33.6	31.2	.....	48.4	61.2	71.2	77.4	74.1	68.2	55.0	39.8	29.2	.....	96	—10	Apr. 8	Sept. 28
Leipsic	29.6	28.5	42.2	45.0	59.2	70.7	74.0	71.2	68.2	52.5	37.8	27.0	50.5	100	— 9	Apr. 21	Sept. 27
Levering	28.8	26.8	42.0	45.9	59.6	69.8	74.2	71.3	64.8	50.0	36.7	26.8	49.7	98	—18	May 9	Sept. 16
Logan	35.2	32.8	47.9	48.5	63.2	76.6	81.2	76.3	70.4	56.4	40.9	32.2	55.1	101	—14	Apr. 28	Sept. 16
Lordstown	29.6	26.6	42.9	44.8	58.6	68.6	73.1	71.4	65.5	50.7	38.4	27.0	49.8	94	—10	Apr. 28	Sept. 16
McArthur	33.7	30.6	45.5	46.8	61.6	70.4	76.2	74.6	68.2	54.6	38.8	30.1	52.6	98	—18	Apr. 28	Sept. 16
McConnelsville	34.4	30.2	46.7	47.2	61.9	72.0	76.8	75.2	68.8	56.2	40.8	33.2	53.6	97	— 9	May 9	Sept. 16
Marietta	38.0	33.8	49.2	50.2	63.8	72.3	77.2	74.6	69.4	56.1	42.4	33.4	55.0	94	0	Apr. 10	Sept. 28
Marion	31.1	30.0	44.3	48.1	60.8	71.4	76.3	73.1	69.1	54.6	37.8	28.6	52.1	98	— 9	Apr. 12	Sept. 27
Medina	30.8	27.5	43.4	45.3	59.0	69.1	75.2	72.5	67.4	52.9	38.5	28.1	50.8	98	— 8	May 9	Sept. 15
Milfordton	28.6	26.6	42.0	44.6	58.4	69.8	74.8	71.3	66.4	50.4	[d]35.7	25.6	49.5	96	—14	Apr. 22	Sept. 27
Milligan	33.6	30.7	45.4	47.4	61.5	72.3	76.6	75.7	67.8	54.8	39.0	29.2	52.8	103	—20	May 9	Sept. 12
Millport	30.6	26.2	43.4	45.2	58.6	70.2	73.8	70.8	66.6	52.8	37.2	28.4	50.2	93	—17	Apr. 28	Sept. 16
Montpelier	28.4	26.4	41.7	46.0	58.9	69.2	73.5	71.2	65.4	51.2	35.6	25.7	49.4	98	— 7	Apr. 27	Sept. 27
Napoleon	*29.7	.....	44.4	46.2	60.2	70.2	74.2	70.5	64.8	51.3	35.8	27.8	.....	99	.....	May 16	Sept. 27
New Alexandria	32.2	29.8	45.4	47.0	59.6	70.2	75.2	71.6	66.8	53.8	40.0	30.4	51.8	98	— 6	Apr. 8	Sept. 27
New Berlin	30.1	27.4	43.8	45.8	59.2	70.0	75.0	72.2	66.8	52.1	38.1	26.6	50.6	97	—10	Apr. 30	Sept. 16
New Bremen	33.3	30.5	44.2	47.9	62.1	71.9	75.7	74.0	.....	.....	.....	.....	.....	.....	.....	Apr. 23	.....
New Holland	32.9	32.2	45.8	48.6	63.3	73.8	78.0	75.0	69.8	55.0	39.6	30.0	53.6	102	— 7	Apr. 12	Sept. 27
New Paris	31.5	30.5	45.4	48.2	61.0	71.6	75.4	73.2	69.8	54.0	38.9	27.2	52.2	94	—18	Apr. 7	Sept. 26
New Waterford	33.0	28.1	45.4	47.2	60.8	69.7	73.6	72.1	66.0	53.0	38.7	29.0	51.4	95	— 7	May 9	Sept. 16
North Lewisburg	30.0	29.2	43.8	47.2	61.2	72.8	76.2	72.4	69.0	53.2	38.0	28.1	51.8	99	— 8	Apr. 28	Sept. 27
North Royalton	30.1	27.6	43.4	44.8	58.7	70.0	75.4	73.1	68.0	53.3	38.8	27.7	50.9	97	— 9	Apr. 8	Sept. 27
*Norwalk	31.8	28.8	43.0	45.4	59.3	70.5	74.6	72.1	67.2	53.9	38.2	28.2	51.1	100	— 7	Apr. 28	Sept. 28
Oberlin	31.6	28.7	43.8	47.8	.....	[d]70.8	74.5	72.9	68.0	53.7	38.2	28.6	.....	97	— 7	Apr. 6	Sept. 28
Ohio State University	32.8	30.3	*47.6	48.5	61.4	72.4	76.8	74.0	68.4	55.2	39.4	29.7	53.0	99	—11	Apr. 13	Sept. 27
Orangeville	30.2	26.8	42.0	43.4	57.8	68.2	73.2	70.6	63.8	50.7	36.0	26.2	49.1	96	— 8	May 9	Sept. 16
Ottawa	33.2	31.0	45.4	49.0	61.4	71.8	75.8	72.6	68.2	54.2	39.1	29.2	52.9	97	— 5	Apr. 8	Sept. 27
Pataskala	31.9	29.3	45.0	47.8	62.2	72.9	77.1	73.6	68.0	53.6	38.2	28.4	52.3	102	—13	Apr. 8	Sept. 16
Philo	32.8	30.4	45.1	48.9	62.2	73.3	77.2	74.3	68.8	53.2	39.2	28.4	52.8	100	— 6	Apr. 8	Sept. 28
Plattsburg	32.1	30.3	45.0	47.7	61.0	71.3	76.2	72.9	69.0	54.5	38.4	28.2	52.2	95	— 8	Apr. 8	Sept. 27
*Pomeroy	36.4	32.8	48.6	50.0	64.9	73.7	*78.2	76.2	72.5	56.2	40.8	32.6	55.2	99	— 4	Apr. 8	Sept. 16
Portsmouth	38.9	36.2	51.0	52.3	66.4	75.8	78.4	76.4	70.3	56.6	42.4	34.6	56.6	101	0	Apr. 8	Sept. 28
Richwood	30.8	29.8	45.1	48.7	61.8	73.4	77.4	76.6	72.2	56.2	39.8	28.2	53.3	100	— 8	Apr. 10	Sept. 26
Ridgeville Corners	29.2	27.8	42.6	46.2	59.1	[d]69.6	73.8	.....	66.2	52.2	36.0	26.4	.....	.....	— 8	Apr. 28	Sept. 27
Ripley	37.0	34.2	48.9	49.6	64.2	74.5	77.2	75.0	70.2	55.9	40.6	31.0	54.9	96	— 8	Apr. 8	Sept. 27
Rittman	30.0	26.4	42.3	44.0	55.8	67.4	73.4	70.0	63.7	51.1	35.8	26.3	48.8	95	—10	May 9	Sept. 16
Rockyridge	30.1	28.1	42.7	46.1	61.4	71.1	74.5	73.0	69.4	54.3	37.8	27.4	51.3	97	— 6	Apr. 12	Sept. 15
Rosewood	30.4	29.8	44.0	46.1	60.4	70.3	75.6	71.8	67.9	53.8	37.6	27.4	51.3	97	— 6	Apr. 8	Sept. 27
*Sandusky	31.9	29.8	44.0	46.1	60.2	70.9	74.8	73.3	68.2	54.1	39.0	28.8	51.8	97	— 3	Apr. 11	Oct. 28
Seaman	.....	.....	.....	.....	.....	75.4	79.4	77.3	69.6	54.9	40.7	30.2	.....	104	.....	Apr. 12	Oct. 27
Shenandoah	29.9	26.7	42.2	44.8	59.1	69.7	74.4	71.6	66.2	51.8	35.8	26.3	49.9	98	—10	Apr. 12	Oct. 15[f]
*Sidney	31.5	29.4	42.8	47.0	62.0	72.1	78.7	74.3	69.8	53.8	37.1	27.2	52.1	100	— 5	Apr. 8	Sept. 27
Sinking Spring	35.8	33.5	48.1	46.8	62.8	72.8	77.0	74.2	69.6	56.0	40.0	30.4	53.9	97	—16	Apr. 12	Sept. 27
*Somerset	33.8	32.6	47.8	51.2	.....	.....	80.6	76.6	71.5	.....	.....	31.5	.....	.....	.....	.....	Sept. 27
Spring Valley	32.6	31.0	44.6	48.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 12	.....
Sylvania	27.4	26.5	40.4	45.5	58.8	68.8	73.7	70.4	63.2	50.4	34.3	23.8	48.6	99	— 7	Apr. 27	Sept. 14
Thurman	37.2	34.5	49.4	49.9	63.2	72.0	77.0	75.4	70.6	57.7	41.2	34.1	55.2	98	— 7	Apr. 17	Sept. 26
Tiffin	32.0	29.5	44.0	46.6	60.4	71.3	75.4	72.6	67.6	53.2	38.1	28.0	51.6	96	— 4	Apr. 8	Sept. 26
*Toledo	30.6	28.6	43.5	46.6	60.0	70.6	74.0	73.0	67.6	52.9	37.8	27.4	51.0	95	— 5	Apr. 5	Oct. 27
Upper Sandusky	32.8	29.6	44.6	47.6	60.4	71.4	76.1	73.7	69.2	55.0	39.5	28.4	52.4	101	— 7	Apr. 5	Oct. 28
Urbana	31.6	30.0	44.0	47.2	61.4	70.8	74.3	71.2	68.0	52.8	37.8	27.5	51.4	93	— 6	Apr. 12	Oct. 27
Vanceburg	36.7	34.3	49.1	50.4	63.2	73.3	76.7	75.4	70.0	56.0	40.6	33.0	54.9	95	— 6	Apr. 28	Oct. 27

[1] G. A. Hyde. [2] F. L. Odenbach.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Ohio—Continued.																	
Vanwert	30.2	28.6	43.2	46.9	59.5	71.8	.....	73.6	69.0	55.9	36.6	27.6	.....	.....	— 7	Apr. 27	Oct. 15[f]
Vermilion	30.9	28.2	41.9	44.4	58.8	69.0	72.9	71.3	66.7	52.7	38.2	28.7	50.3	94	— 6	Apr. 8	Sept. 27
Vickery	31.4	29.0	43.1	46.3	60.2	70.1	74.6	73.1	68.0	54.3	37.4	27.8	51.3	98	— 5	Apr. 28	Sept. 28
Warren	.....	28.8	43.6	44.7	59.5	70.0	77.1	72.2	65.5	53.2	38.4	28.4	.....	94	.....	May 9	Sept. 26
Warsaw	32.2	28.7	43.8	47.4	61.0	73.1	77.0	73.7	68.0	52.9	38.4	28.3	52.0	105	—13	May 9	Sept. 17
Wauseon	29.0	28.2	42.7	46.8	60.2	70.3	74.7	72.3	67.2	53.1	36.5	26.2	50.6	101	— 8	May 6	Sept. 15
Waverly	36.0	33.4	48.4	49.6	65.8	75.5	78.8	77.0	71.4	56.6	41.0	31.9	55.4	102	— 6	May 12	Sept. 28
Waynesville	32.6	30.4	44.2	47.0	61.8	73.0	76.7	74.3	69.0	53.2	37.4	27.2	52.2	101	— 6	May 12	Sept. 27
Wellington	31.0	28.6	43.3	.....	60.2	[e]71.7	75.8	73.6	67.2	53.0	38.2	28.3	.....	98	— 7	.....	Sept. 28
Westerville	33.4	31.2	45.8	47.9	61.0	71.2	75.6	72.6	67.5	54.4	39.6	30.1	52.5	96	— 9	Apr. 12	Sept. 27
Wooster	31.6	27.4	43.3	45.3	58.2	68.7	74.5	71.1	66.2	52.6	38.4	27.9	50.4	96	— 9	May 9	Sept. 16
Youngstown	30.8	29.4	44.3	47.5	61.0	70.6	75.4	73.9	66.4	53.0	38.0	28.2	51.5	98	— 6	Apr. 28	Sept. 16
Oklahoma.																	
Anadarko	42.6	47.0	52.6	60.6	71.2	80.2	81.9	80.6	75.1	62.0	[c]47.9	37.2	61.6	106	8	Apr. 6	Oct. 19
Arapaho	38.0	42.8	46.3	57.3	68.9	77.6	79.4	78.8	71.8	59.9	43.9	32.9	58.1	102	3	Apr. 13	Oct. 18
Burnett	41.4	45.2	49.4	59.1	69.0	76.6	78.6	76.8	72.7	58.1	47.5	34.8	59.1	98	5	Apr. 6	Oct. 20
Clifton	39.0	44.3	48.4	57.6	65.8	73.8	79.9	78.0	74.2	60.2	45.5	34.6	58.4	101	3	Apr. 14	Oct. 19
Fort Reno	40.4	45.4	49.4	[i]54.9	.....	75.4	78.0	79.1	73.1	59.6	.....	.....	.....	101	.....	May 2	Oct. 18
Fort Sill	40.8	49.1	53.6	59.0	68.8	77.4	79.8	78.6	73.2	60.1	45.0	35.4	60.1	104	6	Apr. 6	Oct. 17
Guthrie	36.8	.....	.....	.....	[d]72.5	80.8	81.6	80.6	74.3	60.8	47.6	35.9	.....	99	7	.....	Oct. 20
Hopeton[1]	35.8	40.0	46.4	62.5	67.6	77.6	79.2	78.2	72.2	58.1	42.0	31.0	57.6	102	1	Apr. 6	Oct. 20
Jefferson	38.7	43.8	47.7	59.0	68.6	78.8	.....	.....	[e]72.6	61.4	46.0	33.4	.....	.....	3	Apr. 7	Oct. 18
Kingfisher	40.8	45.0	49.8	59.3	68.7	78.8	80.8	79.3	74.4	58.8	46.6	35.0	59.8	102	5	Apr. 6	Oct. 20
Mangum	40.6	44.5	48.4	59.0	69.8	76.8	80.5	79.4	73.0	60.8	46.1	34.6	59.5	105	1	Apr. 7	Oct. 20
Newkirk	[c]36.9	41.4	46.2	57.0	68.2	79.1	80.4	79.2	74.3	57.7	43.9	.....	.....	102	.....	Apr. 6	Oct. 20
Norman	42.0	43.8	49.3	59.4	70.0	78.3	79.5	.....	.....	.....	44.0	31.7	.....	.....	0	Apr. 6	Oct. 16
*Oklahoma	40.4	44.1	49.4	57.8	68.2	76.8	78.3	78.2	74.1	60.1	46.0	35.1	59.0	97	8	Apr. 6	Oct. 20
Pawhuska	39.2	42.4	48.6	56.6	68.0	76.6	78.4	77.2	73.4	58.2	43.4	35.0	58.1	96	5	Apr. 7	Oct. 22
Prudence	37.0	40.4	44.2	[c]55.2	64.4	73.7	77.8	76.5	70.4	.....	42.0	34.2	.....	103	— 2	Apr. 6	.....
Putnam	[b]36.8	[c]44.2	45.0	56.3	.....	.....	76.5	77.1	70.7	[f]57.0	.....	[i]32.6	.....	.....	.....	Apr. 7	.....
Sac and Fox Agency	.....	45.3	49.6	57.8	68.0	76.8	79.0	78.1	74.8	62.8	43.0	36.4	.....	100	4	Apr. 7	Oct. 20
Stillwater	38.0	43.6	49.6	58.4	68.5	77.0	79.0	77.8	74.6	60.2	46.0	36.0	59.1	99	7	Apr. 6	Oct. 20
Waukomis	38.8	43.5	49.2	58.2	68.9	79.4	80.6	79.2	74.4	60.5	46.1	35.2	59.5	110	5	Apr. 7	Oct. 28
Winnview	38.2	[i]42.2	[k]46.1	[j]55.8	[f]68.8	77.0	[d]80.3	.....	.....	60.6	.....	34.4	.....	102	4	Apr. 7	Oct. 20
Woodward	.....	.....	.....	.....	.....	.....	.....	.....	.....	56.0	41.6	.....	.....	.....	.....	.....	Oct. 18
Oregon.																	
Albany	41.0	47.0	45.0	52.6	56.6	62.1	67.6	67.5	60.8	52.6	45.0	40.0	53.2	97	18	Apr. 3	Nov. 12
Arlington	34.0	44.4	42.8	54.2	59.9	67.3	74.4	77.8	65.1	51.4	41.5	30.9	53.6	109	1	Apr. 19	Oct. 5
Ashland	35.3	44.6	42.4	52.2	55.0	62.0	68.8	71.4	62.0	50.5	42.4	38.7	52.1	104	13	Apr. 3	Oct. 4
Aurora (*a*)	38.5	45.0	42.5	52.7	56.7	63.8	69.0	72.2	61.4	50.6	42.9	37.0	52.7	99	17	(†)	(†)
Aurora (near)	38.4	45.5	42.7	51.0	54.8	61.6	64.5	66.4	60.4	50.4	43.2	37.7	51.4	99	17	Apr. 18	Nov. 12
*Baker City	20.0	35.2	33.6	47.6	50.6	59.7	66.9	70.6	58.5	44.6	31.9	22.0	45.1	101	— 4	May 20	Sept. 28
Bandon	44.3	49.2	44.4	49.0	54.1	58.6	57.6	59.4	57.6	53.4	48.6	47.2	52.0	74	28	Apr. 2	Nov. 25
Bay City	40.3	46.1	42.6	48.2	54.1	59.6	59.1	61.3	58.4	51.8	45.8	42.2	50.8	93	24	June 29	Nov. 11
Beulah	16.6	33.1	23.6	49.6	52.4	61.8	67.6	68.4	57.6	44.8	32.7	20.4	44.9	105	—19	June 3	Sept. 23
Brownsville (*a*)	42.0	47.6	47.4	53.1	58.8	65.7	.....	69.6	62.6	52.4	43.1	38.8	.....	.....	.....	.....	.....
Burns	17.5	30.2	31.7	45.4	48.5	57.8	65.4	66.5	54.6	41.1	30.4	17.3	42.2	102	—21	June 3	Sept. 22
Burns (near)	27.0	38.7	35.2	49.1	.....	59.5	67.2	69.6	[e]59.6	46.9	37.4	.....	.....	101	.....	June 4	Sept. 29
Cascade Locks	37.8	43.2	44.1	52.6	57.8	63.3	67.4	69.5	62.5	51.9	42.2	34.2	52.2	96	15	Apr. 2	Nov. 15
Comstock (*a*)	41.5	47.3	42.6	50.2	53.3	61.2	64.2	65.2	60.0	51.6	45.8	37.7	51.7	99	16	(†)	(†)
Corvallis	39.4	45.7	44.0	51.7	54.9	61.0	64.6	66.7	61.5	50.6	43.4	37.6	51.8	99	18	Mar. 31	Nov. 12
Dayville	30.0	43.8	38.7	52.2	54.6	62.7	68.4	70.4	60.6	49.8	38.8	30.8	50.1	105	— 5	May 31	Sept. 30
Eugene	38.8	[f]45.8	42.2	[f]50.2	53.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 3	.....
Fairview	41.7	46.8	44.8	48.0	50.4	57.6	60.0	65.3	61.0	55.4	48.4	42.4	51.8	95	21	Mar. 16	Nov. 11
Falls City	37.6	43.9	43.2	50.0	54.0	59.9	64.0	65.2	60.8	49.6	43.2	36.4	50.6	96	17	Apr. 18	Nov. 8
Fife	24.6	[e]31.2	[f]30.8	44.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forestgrove	36.4	43.0	42.6	51.0	55.1	.....	.....	.....	.....	50.4	[f]42.7	34.6	.....	.....	14	Apr. 17	Oct. 19
Fort Klamath	19.0	31.0	31.8	46.6	48.8	57.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	June 30	.....
Gardiner	43.8	[e]47.2	45.6	49.8	[h]55.2	59.4	60.5	62.1	59.8	53.5	47.8	43.6	52.4	91	28	Apr. 3	Dec. 8
Glenora	36.8	41.0	42.0	48.7	52.4	59.2	65.8	66.4	60.2	49.6	43.2	37.5	50.2	100	18	Apr. 14	Oct. 7
Government Camp	28.2	34.4	31.2	46.0	43.8	51.0	55.9	59.8	53.2	42.8	33.4	30.2	42.0	95	2	(2)	(2)
Grants Pass	36.3	45.0	44.6	53.9	56.0	63.5	69.8	72.0	62.4	51.8	43.8	37.1	53.0	106	15	May 7	Oct. 15
Happy Valley	20.3	35.4	31.8	46.2	47.4	56.2	64.2	66.0	55.0	42.3	32.9	23.9	43.5	102	—13	(2)	(3)
Heppner	31.8	[e]43.0	39.2	48.8	52.4	60.8	67.8	70.8	59.5	48.0	38.4	27.5	49.0	110	— 6	May 31	Oct. 2
Hood River (near)	35.2	42.0	41.8	50.4	55.8	62.2	68.2	69.0	60.6	49.0	39.4	30.8	50.4	96	7	Apr. 19	Oct. 16
Jacksonville (*a*)	33.4	43.2	43.0	52.4	56.0	63.0	69.7	72.2	62.4	49.0	41.6	36.6	52.0	100	15	Apr. 30	Oct. 24
Joseph	18.2	31.4	28.7	43.0	47.2	56.4	63.0	67.0	54.4	40.2	28.6	19.4	41.4	94	— 8	June 3	Sept. 28
Junction City (*a*)	42.7	47.9	44.4	54.6	56.3	63.6	68.3	68.6	62.3	52.5	46.9	39.3	53.0	102	20	(†)	(†)
Kerby	.....	.....	.....	.....	.....	.....	.....	.....	.....	51.6	43.6	37.2	.....	.....	.....	.....	Nov. 1
Klamath Falls	26.8	36.1	[c]37.2	.....	.....	62.2	70.5	71.1	60.4	46.4	35.6	28.9	.....	100	0	June 1	Sept. 23
Lafayette (*a*)	39.5	43.9	44.8	52.5	57.4	63.6	67.8	67.8	60.3	50.1	43.2	38.5	52.5	102	12	(†)	(†)
Lagrande	26.8	37.8	35.8	49.9	52.8	[f]62.6	[d]69.4	[f]74.3	59.9	48.8	35.5	26.3	48.3	103	— 6	May 31	Oct. 1
Lakeview	23.4	34.9	33.7	47.8	50.0	59.6	68.7	68.5	58.4	45.4	34.6	26.1	45.9	99	—10	June 2	Sept. 22
Langlois	46.1	50.1	47.8	51.4	56.0	61.2	62.0	65.0	61.4	61.1	51.6	48.7	55.2	92	27	Apr. 18	Nov. 8
Lone Rock	.....	39.3	36.4	47.5	49.8	58.4	63.8	68.9	57.3	47.2	.....	.....	.....	106	.....	Apr. 28	Sept. 28
Lorella	18.9	33.1	31.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McMinnville	37.8	45.6	43.0	51.6	55.4	61.8	65.8	67.6	61.4	51.2	42.6	37.5	51.8	101	12	Apr. 18	Nov. 8
Merlin (*a*)	31.6	42.6	40.5	51.2	58.2	64.1	71.7	73.6	63.8	47.3	39.8	31.4	51.3	108	11	(†)	(†)
Monmouth[4] (*a*)	41.6	44.8	44.7	53.0	59.1	64.6	68.1	70.9	62.1	49.4	45.1	37.7	53.4	103	20	(†)	(†)
Monmouth[5]	.....	.....	43.0	50.5	53.8	.....	.....	.....	61.8	50.6	44.4	39.0	.....	.....	.....	Apr. 3[f]	Nov. 8[f]
Monroe	39.0	46.1	42.6	50.7	54.8	61.8	65.8	67.4	63.0	51.0	44.1	37.8	52.0	98	19	Apr. 16	Nov. 9
Moro	[e]31.4	40.3	39.5	48.9	[h]52.5	60.8	[e]70.1	.....	59.2	47.2	.....	.....	.....	.....	.....	May 31	Oct. 1
Mount Angel	39.2	46.0	44.1	52.4	56.4	63.2	66.8	68.8	62.7	51.0	43.8	37.0	52.6	100	18	May 22	Oct. 19

[1] Mean for January, February, and March, made from observed maximum and minimum temperature; balance of year from self-registering instruments.
[2] Temperature fell to 32° every month in year except August.
[3] Temperature fell to 32° every month in year.
[4] Southern Pacific Railroad.
[5] P. M. Powell.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Oregon—Continued.																	
Newberg	38.5	45.0	42.7	51.7	54.2	61.5	66.1	62.2	61.6	50.8	[b]43.8	37.4	51.3	103	14	May 22	Oct. 19
Newbridge	21.8	35.4	36.4	51.0	[e]55.8	64.1	69.4	71.2	[g]52.9	.....	.....	.....	.....	103	.....	June 2	Sept. 27
Newport	43.4	47.2	45.4	48.3	52.5	57.2	56.1	58.2	56.6	53.9	47.5	45.0	50.9	91	27	Apr. 3	Dec. 5
Pendleton	34.0	45.6	41.9	52.4	57.5	[d]68.3	71.5	75.0	62.2	50.9	40.8	28.8	52.4	119	— 5	May 8	Oct. 2
*Portland	39.0	45.7	43.8	51.6	56.6	62.5	66.4	68.2	62.8	53.0	43.9	37.5	52.6	97	21	Apr. 2	Nov. 6
Prineville	34.9	43.8	39.8	50.1	57.2	61.2	63.5	69.5	[i]60.6	54.4	42.3	27.0	50.4	119	— 5	(1)	(1)
Riddles (*a*)	38.5	45.5	42.6	52.2	51.4	60.8	67.0	69.0	61.5	51.4	43.6	36.0	51.6	103	18	.....	.....
Riverside	19.8	35.8	36.2	49.4	[f]52.4	62.0	69.7	73.1	[g]61.8	44.6	.....	23.2	.....	106	—19	(2)	(2)
*Roseburg	39.4	46.8	43.6	51.9	54.6	61.7	66.4	68.4	61.7	52.6	45.2	38.2	52.5	101	20	Apr. 18	Nov. 11
Salem	39.6	45.2	43.2	51.6	56.2	62.6	65.4	68.2	61.4	51.5	44.6	37.8	52.3	98	16	Apr. 19	Nov. 12
Sheridan (*a*)	40.8	47.5	43.9	53.4	55.5	61.7	65.7	67.0	64.1	50.0	44.4	37.9	52.7	98	17	.....	.....
Silver Lake	23.4	34.4	30.8	43.8	47.4	56.2	62.7	65.4	54.6	41.2	33.6	24.0	43.1	101	—10	(1)	(1)
Silverton (*a*)	40.5	44.5	42.8	54.8	59.9	69.6	70.4	70.6	63.1	51.5	45.2	39.2	54.3	104	16	.....	.....
Siskiyou (*a*)	32.7	40.3	43.3	57.0	61.4	66.5	74.3	71.6	67.6	59.5	44.7	36.2	54.6	100	18	.....	.....
Sparta	19.7	31.8	29.8	46.3	49.4	58.4	[f]68.4	72.2	58.4	43.5	31.0	23.0	44.3	100	— 3	May 26	Sept. 27
Springfield (*a*)	38.7	45.6	42.1	51.0	55.6	62.6	66.7	67.7	60.8	49.5	44.0	36.6	51.7	97	18	.....	.....
Stafford	37.6	44.6	42.3	50.6	55.4	61.2	[e]66.4	68.8	62.8	51.6	41.2	36.6	51.6	102	19	Apr. 3	Nov. 25
Stokes	.....	.....	.....	54.5	62.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 19	.....
*The Dalles	36.2	44.0	45.6	54.0	59.6	65.9	71.9	74.3	63.6	51.5	42.0	32.6	53.4	103	7	Apr. 4	Oct. 7
Toledo	.....	45.4	45.8	.....	.....	61.4	63.0	64.0	62.1	56.8	50.4	44.0	.....	95	.....	.....	Nov. 7†
Vale	17.6	34.8	36.8	50.7	55.2	64.0	69.8	71.9	58.8	44.8	32.0	22.6	46.5	105	—17	June 3	Sept. 7
Vernonia	35.9	42.4	41.8	49.8	53.2	58.8	63.7	67.5	61.6	[i]46.8	.....	.....	.....	105	13	May 19	Oct. 6
Westfork (*a*)	38.2	43.3	41.6	50.5	54.8	62.5	69.7	70.4	61.1	49.9	45.2	35.6	51.9	108	19	.....	.....
Weston	31.2	44.2	38.9	52.6	57.0	62.6	75.5	73.1	60.6	48.8	37.6	25.4	50.6	110	— 5	May 29	Oct. 5
Williams	36.0	44.0	42.9	51.2	54.4	61.8	66.6	67.9	59.2	50.0	[d]43.4	.....	.....	100	14	May 7	Oct. 4
Pennsylvania.																	
Altoona	30.1	27.9	43.8	45.0	61.0	68.6	74.7	71.6	65.1	52.0	38.9	28.4	50.6	97	— 1	Apr. 10†	Oct. 1†
Aqueduct	35.4	33.2	46.4	50.3	63.2	76.0	79.8	75.8	69.2	56.9	43.0	32.4	55.1	106	— 2	Apr. 4	Oct. 17
Athens	.....	.....	42.2	43.0	57.8	68.0	73.9	71.5	64.2	52.4	38.6	28.0	.....	101	.....	May 9†	Oct. 28
Carlisle	32.0	31.2	45.5	48.0	61.6	72.0	78.2	74.2	68.4	[d]53.5	40.8	29.8	52.9	104	1	Apr. 9†	Oct. 24
Cassandra	30.3	28.4	43.4	42.8	59.2	66.8	72.0	69.0	62.3	50.4	38.2	28.6	49.3	93	0	Apr. 28†	Oct. 17
Centerhall	29.1	26.7	42.8	45.0	58.4	67.8	72.5	70.8	64.2	52.7	39.2	28.4	49.8	94	— 4	Apr. 11†	Oct. 27
Chambersburg	31.8	29.2	.....	46.7	62.1	71.0	77.0	73.0	66.2	54.2	39.4	29.7	.....	105	2	Apr. 28†	Oct. 17†
Coatesville	33.2	32.8	46.5	49.0	61.4	71.7	77.3	75.6	69.2	55.9	42.3	32.8	54.0	101	— 1	Apr. 9†	Oct. 27
*Confluence	31.4	27.6	44.6	41.8	60.4	69.2	73.4	71.8	65.8	52.7	.....	.....	.....	98	—10	May 9†	Oct. 23
Coopersburg	34.4	35.0	47.8	47.8	59.5	72.8	77.2	74.3	69.0	57.2	43.8	33.6	54.4	100	2	Apr. 9†	Oct. 28†
Derry Station	32.6	29.8	46.6	45.8	62.6	71.9	77.2	73.2	67.4	56.4	40.3	29.6	52.8	104	— 7	May 9	Oct. 16
Drifton	[b]32.2	[d]27.6	[e]42.0	.....	.....	.....	.....	[f]67.8	61.8	.....	.....	.....	.....	.....	— 4	.....	.....
Dushore	26.4	26.8	39.9	41.0	56.6	65.2	70.5	65.8	.....	.....	36.1	26.4	.....	95	—16	May 9†	Sept. 21
Dyberry	24.0	25.5	39.5	41.8	55.0	65.7	70.8	68.3	61.6	50.1	36.1	24.8	46.9	95	—12	May 9†	Sept. 21
East Mauch Chunk	30.0	29.6	44.2	45.9	59.8	70.3	75.6	72.8	66.0	53.5	40.2	29.3	51.4	104	—10	May 9†	Oct. 17
Easton	31.6	31.3	45.2	48.2	60.2	70.8	76.2	73.4	67.0	54.6	40.8	31.3	52.6	98	2	May 9†	Oct. 17†
Emporium	29.2	27.0	43.2	44.2	60.1	67.2	72.6	70.2	63.8	52.8	39.1	28.4	49.8	94	—11	May 9	Oct. 28
*Erie	30.9	28.8	42.8	43.0	57.0	67.8	73.3	71.7	67.0	54.2	40.4	29.6	50.5	89	— 1	Apr. 8†	Oct. 28
Everett	[e]32.4	28.6	44.2	44.8	60.8	68.3	74.0	71.5	64.6	51.6	37.6	29.4	50.6	100	— 1	Apr. 28†	Oct. 17
Forks of Neshaminy (*a*)	34.6	34.6	45.4	50.3	61.5	75.2	77.8	76.8	70.6	57.8	44.0	[e]33.4	55.2	.....	.....	Apr. 5†	Nov. 13†
Franklin	31.0	27.0	43.4	44.8	58.6	68.0	72.6	71.6	65.8	52.8	38.7	27.8	50.2	95	— 6	Apr. 12†	Oct. 27†
Grampian	27.6	25.0	41.4	43.2	59.6	67.8	72.9	70.2	64.6	50.2	36.8	25.5	48.7	94	— 8	Apr. 6†	Sept. 11
Greensboro	.....	31.6	48.2	47.6	62.6	71.6	76.8	74.2	67.2	55.9	41.4	31.0	.....	102	— 9	Apr. 28	Oct. 16
Greenville	32.6	29.4	44.2	47.5	62.0	72.6	74.1	71.0	63.3	.....	.....	.....	.....	94	— 6	May 9†	Sept. 28
Hamburg	33.5	31.6	46.2	48.1	62.1	72.8	78.8	74.6	69.4	55.9	42.0	31.6	53.9	107	0	May 9†	Oct. 17†
*Harrisburg	32.8	31.8	46.8	48.6	61.8	72.0	77.4	74.2	68.4	55.6	42.4	31.8	53.6	101	6	Apr. 7	Oct. 28
Hawley	27.3	27.2	39.8	44.8	58.9	70.4	74.0	71.6	65.6	53.4	37.0	27.8	49.8	100	— 8	May. 9†	Oct. 17†
Hollidaysburg	31.8	29.2	45.8	45.8	62.2	70.2	75.8	72.8	63.7	53.6	40.1	[e]30.6	51.8	102	— 4	May. 9	Oct. 28
Huntingdon	31.6	29.6	45.6	46.8	61.8	70.0	75.2	73.4	66.3	54.4	42.0	31.2	52.3	104	— 5	May. 9	Oct. 28
Indiana	33.4	29.0	.....	49.4	.....	.....	.....	.....	67.5	.....	.....	.....	.....	.....	— 4	.....	.....
*Johnstown	33.0	29.4	45.2	45.8	62.8	70.8	75.4	73.8	67.0	54.3	40.8	31.2	52.4	100	— 4	Apr. 28	Oct. 28
Kennett Square	34.2	33.4	47.4	48.4	60.9	70.4	76.5	74.8	68.8	56.4	42.6	33.6	54.0	99	0	Apr. 28†	Oct. 28
Lawrenceville	27.6	27.2	[e]41.4	[e]42.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lebanon	32.0	31.4	45.8	47.5	61.0	70.8	77.7	73.8	68.1	54.7	41.4	30.8	52.9	104	— 1	Apr. 6†	Oct. 17†
Leroy	26.1	26.4	39.8	42.2	57.0	66.4	72.2	70.0	64.0	51.2	37.6	26.7	48.3	95	—10	Apr. 28†	Oct. 17
Lewisburg	29.8	28.8	44.3	46.9	60.8	69.5	75.2	72.8	66.5	53.6	40.4	29.0	51.5	100	— 7	Apr. 8	Oct. 28
Lock Haven	31.4	29.6	46.6	48.2	63.2	71.0	76.6	74.6	67.7	55.5	41.2	29.7	52.9	102	— 2	Apr. 28†	Oct. 28
Lycippus	33.2	30.0	46.2	44.8	61.2	70.1	75.4	72.7	67.6	55.0	40.2	29.9	52.2	97	— 4	Apr. 28†	Oct. 27†
*Philadelphia	35.4	35.6	48.0	49.5	61.2	72.4	78.2	76.8	71.4	58.6	44.6	35.9	55.6	100	8	Apr. 7	Nov. 8
Philadelphia[3]	35.6	36.0	47.8	50.0	61.3	73.0	78.1	76.6	71.2	58.6	44.7	36.0	55.7	101	7	Apr. 7	Oct. 17
*Pittsburg	35.3	32.3	47.8	48.5	63.2	73.8	77.2	74.9	70.2	56.0	42.7	32.9	54.6	99	0	Apr. 8	Oct. 17
Pottstown	33.4	33.2	46.5	49.0	61.6	73.1	78.6	75.8	69.8	56.4	.....	.....	.....	103	2	Apr. 9†	Oct. 17
Quakertown	30.6	30.3	44.2	45.8	59.4	71.0	76.6	74.0	67.6	54.8	41.3	31.4	52.2	105	— 6	May 9	Oct. 17
Reading (*b*)	32.4	30.2	45.6	47.6	61.0	72.9	78.2	74.4	67.2	54.6	41.2	30.8	53.0	.....	.....	.....	.....
Reedsville	30.8	27.8	42.5	46.1	60.6	[e]70.6	73.4	71.0	.....	.....	40.4	.....	.....	100	— 4	.....	.....
Renovo	30.4	29.0	43.8	46.2	61.6	68.8	73.9	72.6	65.1	53.6	40.9	29.0	51.2	97	— 4	Apr. 28†	Oct. 28†
Saegerstown	28.0	26.0	40.8	42.0	56.0	66.4	70.8	69.0	64.5	53.0	38.8	28.6	48.7	96	—10	May 18†	Sept. 10†
St. Marys	.....	23.8	40.2	41.6	56.8	65.6	71.0	.....	.....	.....	.....	.....	.....	91	— 9	Apr. 28†	.....
Salem Corners	25.6	27.2	40.0	41.3	56.3	67.8	71.8	69.3	.....	50.6	36.7	26.4	.....	.....	.....	Apr. 9†	Oct. 17
Scranton	28.6	29.1	43.0	45.0	58.1	69.9	75.0	71.6	65.6	53.7	38.8	28.9	50.6	98	— 2	Apr. 8†	Oct. 17
*Selinsgrove	31.5	29.0	44.4	46.8	60.2	69.9	75.8	73.3	66.8	55.0	40.9	30.8	52.0	100	— 3	May 9	Oct. 17
Shinglehouse	26.6	27.8	41.5	39.2	56.4	64.8	68.9	66.4	61.0	.....	36.1	26.3	.....	94	—12	May 10	Sept. 13†
Smethport	26.9	25.6	41.0	41.2	56.6	64.6	70.2	68.1	61.8	50.3	36.6	25.8	47.4	94	—10	May 18	Oct. 20†
Somerset	30.9	25.7	43.6	42.4	58.1	64.6	70.8	70.8	62.0	49.5	36.1	25.4	48.3	96	— 8	May 18	Oct. 15
South Bethlehem	31.8	31.0	49.0	49.2	61.7	75.9	[b]76.8	75.2	68.2	60.4	45.0	27.8	54.3	102	1	Apr. 8†	Nov. 24
South Eaton	28.4	28.8	42.7	44.1	58.6	63.3	73.9	70.5	64.1	53.3	39.2	29.6	50.1	96	— 4	Apr. 22†	Oct. 17†
State College	29.2	27.5	43.4	44.8	60.2	67.8	73.2	70.8	64.8	51.8	38.2	28.0	50.0	95	0	Apr. 9†	Oct. 17†
Swarthmore	33.1	33.3	46.6	49.8	62.0	[e]73.1	78.5	75.8	68.0	56.4	41.5	32.8	54.2	99	4	Apr. 6†	Nov. 11†
Swiftwater	26.4	26.0	40.2	42.6	.....	.....	.....	[e]66.9	.....	.....	.....	.....	.....	92	— 4	.....	.....
*Towanda	28.0	28.6	42.4	43.8	58.0	67.6	73.2	71.0	63.8	52.3	37.9	28.8	49.6	97	—10	Apr. 22†	Oct. 28

[1] Temperature fell to 32° every month in the year. [2] Temperature fell to 32° every month in the year except August. [3] J. Comly.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Pennsylvania—Cont'd.																	
Uniontown	34.9	32.3	48.0	47.0	62.3	72.0	75.4	73.2	67.2	53.9	41.6	32.8	53.4	98	0	Apr. 8†	Oct. 16†
*Warren	28.3	28.0	42.7	43.6	58.8	66.7	71.7	68.6	63.4	51.6	.....	28.8	.....	93	—10	May 9†	Oct. 17†
Wellsboro	28.0	28.2	41.8	42.6	56.8	65.6	72.8	70.6	63.8	51.3	39.0	28.2	49.0	96	—10	May 13	Sept. 20
West Chester	32.8	33.2	46.0	48.0	60.2	71.2	77.0	74.8	69.1	56.2	42.3	33.6	53.7	99	4	Apr. 7†	Oct. 28†
Westtown	32.0	32.3	[c]44.0	.....	59.6	69.6	.....	.....	.....	54.8	41.4	.....	.....	.....	4	.....	Oct. 17
White Haven	26.8	26.5	41.1	43.3	56.7	67.4	72.6	70.0	63.0	51.6	37.8	27.8	48.7	98	12	Apr. 27	Oct. 17†
*Wilkesbarre	30.1	30.9	44.6	45.0	59.6	70.2	75.6	71.6	64.9	53.6	39.8	29.6	51.3	100	0	May 9†	Oct. 17
*Williamsport	31.3	29.0	44.2	45.3	61.0	69.4	75.0	72.7	66.2	53.8	40.8	29.1	51.5	97	— 2	Apr. 9†	Oct. 18
York	32.6	31.1	46.4	47.0	61.4	71.4	77.4	74.2	67.8	54.8	41.0	31.0	53.0	104	1	Apr. 12	Oct. 24
Rhode Island.																	
*Block Island	32.2	33.3	39.8	43.0	51.4	60.6	67.6	69.6	64.9	55.2	43.6	34.6	49.6	84	5	Apr. 7	Nov. 25
Bristol	29.4	32.0	40.7	44.0	54.5	64.0	70.9	71.4	65.6	54.8	42.4	32.5	50.2	89	2	Apr. 9	Nov. 22
Kingston	28.0	30.0	40.1	42.6	53.7	64.1	70.0	71.0	64.4	52.7	40.2	29.4	48.8	95	— 4	Apr. 3	Oct. 17
*Narragansett	29.8	30.8	40.4	43.2	53.9	64.0	70.1	71.0	64.7	54.0	40.6	31.8	49.5	90	— 1	May 10†	Oct. 17
Pawtucket	32.2	33.7	44.6	46.6	58.6	69.1	74.3	74.0	67.8	55.2	41.2	31.4	52.4	99	— 4	Apr. 6†	Nov. 12†
Providence[1]	30.0	32.9	44.2	45.4	58.8	69.8	75.4	75.2	68.0	55.1	41.8	32.5	52.4	102	0	Apr. 7	Nov. 12
Providence[2]	27.8	30.8	41.6	43.5	55.7	66.2	72.1	72.9	66.4	53.6	40.9	30.6	50.2	99	— 2	Apr. 7†	Oct. 18†
South Carolina.																	
*Allendale	.....	.....	58.8	58.3	74.0	79.4	79.4	78.7	75.4	61.4	53.8	42.3	.....	101	.....	Mar. 6	Oct. 27
*Batesburg	49.4	45.3	58.2	57.6	74.9	81.8	81.8	80.6	75.6	63.4	50.2	45.7	63.7	103	11	Mar. 2	Oct. 27
*Blackville	51.4	46.7	61.2	59.1	75.1	81.4	81.2	79.9	76.3	65.0	52.6	47.4	64.8	102	14	Mar. 5	Nov. 25
Central	44.8	.....	.....	56.2	73.6	80.6	79.4	77.6	71.8	60.6	47.3	42.8	.....	100	.....	Apr. 7	Oct. 19
*Charleston	54.9	50.1	61.6	63.0	74.8	80.0	81.4	81.0	78.3	67.8	56.9	51.2	66.8	98	26	Feb. 23	Nov. 27
Cheraw	47.6	42.2	58.3	56.2	73.2	79.5	80.5	80.1	75.4	62.6	49.6	43.5	62.4	103	10	Feb. 8	Nov. 1
Clemson College	45.8	41.0	56.4	55.2	71.8	79.4	79.0	78.0	72.6	60.6	44.3	41.2	60.4	99	10	Mar. 1	Oct. 15
*Columbia	49.9	45.0	60.0	58.0	74.9	80.4	80.4	80.0	76.1	63.6	51.0	46.8	63.8	101	14	Apr. 7	Nov. 25
*Florence	46.2	44.2	59.2	.....	73.8	80.2	81.8	80.6	76.0	64.4	.....	46.1	.....	100	13	Feb. 28†	Oct. 28
Georgetown	52.7	47.6	62.9	61.8	74.6	79.9	81.4	80.0	78.6	60.2	55.8	50.2	65.5	99	19	Feb. 23†	Nov. 27†
Gillisonville	53.6	49.0	63.8	60.8	75.6	81.5	[c]80.7	80.0	76.9	[c]66.5	54.7	49.4	66.0	106	12	Apr. 8	Nov. 25
*Greenville	44.2	40.2	54.2	52.6	68.6	76.2	76.7	75.6	72.1	60.0	46.1	40.6	58.9	94	9	Apr. 8	Nov. 25
*Greenwood	47.4	43.0	56.8	56.6	75.2	81.4	80.8	79.8	74.2	60.1	.....	39.8	.....	103	15	Mar. 5	Oct. 27
Holland	44.8	40.5	55.8	53.4	69.2	77.7	77.6	76.3	72.2	58.8	46.8	43.0	59.7	99	9	Apr. 8	Nov. 1
*Kingstree	50.4	42.6	60.1	58.0	75.5	80.8	82.0	80.4	76.2	64.3	53.2	48.8	64.4	101	14	Apr. 7	Oct. 27
Little Mountain	48.6	44.1	58.0	56.9	74.2	79.9	79.3	78.2	74.2	61.6	49.0	44.6	62.4	103	11	Apr. 7	Oct. 27
Longshore	47.6	42.2	57.0	55.8	73.2	78.9	[c]78.1	.....	.....	[b]60.2	48.6	45.2	.....	.....	11	Apr. 28	Oct. 23
Marion	.....	.....	60.2	[c]58.8	74.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Feb. 28†	Nov. 1
Pinopolis (*a*)	51.5	46.7	59.8	58.6	71.5	76.7	78.9	77.3	75.2	64.1	53.8	48.3	63.5	94	20	Mar. 1	Nov. 25
Port Royal	53.6	50.9	62.6	63.3	76.3	81.8	82.0	81.1	77.8	67.4	56.8	49.9	67.0	99	23	Feb. 22	Nov. 27
*St. George	51.8	46.0	61.9	59.3	74.8	79.9	80.7	80.0	76.6	64.7	53.5	48.4	64.8	98	17	Apr. 7	Nov. 27
*St. Matthews	51.4	44.8	59.2	59.0	74.8	79.7	80.4	79.8	75.8	63.9	52.4	47.9	64.1	100	11	Apr. 7	Nov. 25
Santuck	46.0	41.4	58.1	54.8	70.3	75.8	78.8	77.4	73.4	60.8	47.2	43.0	60.4	100	10	Apr. 8	Oct. 27
Shaws Fork	51.8	44.9	62.2	60.6	76.7	80.8	[d]79.0	78.1	73.6	63.4	50.6	43.8	63.8	103	11	Apr. 7	Oct. 19
Society Hill	48.9	43.5	59.1	58.4	73.6	79.3	80.4	80.0	74.6	63.0	50.2	45.4	63.0	98	16	Mar. 1	Nov. 24
*Spartanburg	44.0	39.8	54.4	.....	.....	79.0	79.7	77.9	73.0	59.9	45.8	43.0	.....	99	14	Apr. 7	Oct. 28
Statesburg	50.5	45.6	60.5	59.5	75.0	80.5	80.5	79.0	76.1	64.4	52.8	48.0	64.4	101	17	Apr. 28	Nov. 25
Summerville	.....	.....	.....	.....	.....	.....	.....	.....	75.3	64.4	54.3	49.7	.....	.....	.....	.....	Nov. 25
Trenton	51.2	47.5	61.6	59.8	75.4	81.0	80.2	79.0	76.1	65.0	52.7	[c]47.8	64.8	98	19	Mar. 5	Oct. 27
Trial	54.0	45.6	58.6	56.0	70.7	76.3	77.7	76.6	74.6	62.6	53.0	47.2	62.7	96	12	Apr. 28	Oct. 27
Walhalla	43.6	40.8	54.5	54.5	68.8	76.1	76.2	75.6	71.1	58.0	46.4	42.0	59.0	97	9	Apr. 8	Oct. 23
Winnsboro	45.0	42.6	57.1	56.3	73.4	78.7	78.7	78.0	73.4	.....	49.1	43.8	.....	100	11	Apr. 7	Nov. 25
Wolling	.....	.....	.....	.....	.....	.....	.....	78.3	73.6	61.8	48.6	.....	.....	.....	.....	.....	Nov. 25
Yemassee	52.6	48.0	62.4	60.4	75.4	81.0	82.0	81.2	77.7	65.6	53.9	48.4	65.7	102	18	Apr. 7	Nov. 27
Yorkville	47.4	44.5	57.6	58.0	75.2	79.9	79.7	78.3	74.1	62.6	49.7	45.2	62.7	102	14	Apr. 8	Oct. 23
South Dakota.																	
*Aberdeen	19.2	19.0	27.4	44.3	54.6	67.3	71.4	70.3	60.2	40.2	24.8	14.7	42.8	101	—23	May 22	Sept. 9
Alexandria	23.8	22.4	33.4	47.0	57.9	68.3	71.6	72.2	.....	.....	.....	19.0	.....	.....	—20	Apr. 25	Sept. 30
Armour	25.8	24.0	34.2	48.6	[d]55.5	.....	[c]2.6	71.2	[c]63.4	.....	.....	20.6	.....	.....	—16	Apr. 26	.....
Ashcroft	20.1	28.4	23.4	43.2	52.3	63.4	70.1	71.0	59.0	41.2	27.4	23.1	43.6	101	—24	May 5	Sept. 9
Bowdle	18.7	18.3	25.4	42.3	52.4	[e]65.4	71.6	[e]69.6	57.6	[d]38.0	20.2	.....	.....	105	.....	May 11	Sept. 8
Brookings	21.2	19.9	32.6	45.6	54.5	66.3	70.4	69.6	60.5	41.6	26.2	14.9	43.6	101	—22	May 12	Sept. 10
Canton	22.4	22.4	34.8	48.2	57.8	69.6	71.2	70.2	63.2	44.8	.....	.....	.....	98	.....	May 26	Oct. 6
Castlewood	19.4	.....	[d]30.2	[e]42.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chamberlain	26.7	28.0	33.6	49.0	58.1	71.4	74.2	73.7	65.8	48.8	29.9	22.0	48.4	103	—14	Apr. 9	Oct. 9
Chandler	.....	.....	.....	.....	.....	.....	.....	.....	64.9	45.7	30.4	22.2	.....	.....	.....	.....	Oct. 5
Desmet	18.8	20.2	28.2	44.0	54.8	66.9	69.6	69.0	60.2	39.7	24.1	15.1	42.6	101	—20	May 14	Sept. 10
Doland	19.0	20.6	29.4	44.8	54.6	68.0	[c]72.3	.....	.....	[g]40.6	26.9	15.3	.....	.....	—29	May 30	Sept. 7
Elkpoint	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.2	30.7	20.2	.....	.....	.....	.....	.....
Eureka	20.0	15.6	25.4	.....	.....	.....	.....	.....	.....	.....	25.4	.....	.....	.....	.....	.....	.....
Flandreau	22.0	20.5	32.8	46.4	56.6	66.2	70.8	70.1	63.2	44.6	28.1	12.8	44.5	103	—20	Apr. 27	Sept. 30
Forestburg	22.6	21.7	30.9	45.8	54.8	67.6	71.2	70.3	61.8	40.2	24.5	15.2	43.9	104	—27	May 7	Sept. 30
Forest City	22.1	23.2	27.8	46.6	57.1	70.4	75.5	73.5	.....	.....	25.2	17.4	.....	.....	—18	May 3	Sept. 8
Fort Meade	26.1	30.9	27.7	44.0	52.3	64.8	72.3	71.6	59.8	48.8	31.4	23.6	46.1	101	—12	May 3	Sept. 10
Gannvalley	23.6	24.4	30.4	46.5	56.0	68.4	71.9	72.2	62.7	[h]44.4	.....	20.0	.....	101	—20	Apr. 19	Sept. 29
Gary	22.6	16.0	29.5	43.8	56.9	68.2	70.7	67.5	61.4	42.1	.....	15.3	.....	.....	—16	May 3	Oct. 4
Goudyville	20.4	21.9	27.1	44.4	52.8	66.3	70.6	69.2	59.3	40.6	23.8	15.9	42.7	102	—22	May 30	Sept. 9
Greenwood	26.4	26.0	34.0	47.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 20	.....
Harney	24.2	[e]31.3	26.5	42.6	50.4	[d]62.0	67.7	[d]68.5	55.7	[c]41.8	[d]29.2	[g]24.1	43.7	99	—16	June 3	Sept. 5
Highmore	23.8	22.4	30.3	45.0	55.0	[d]72.4	75.2	74.4	.....	.....	.....	.....	.....	.....	.....	May 3	Sept. 8
Hotch City	24.6	28.4	31.2	46.0	55.6	68.2	73.3	72.8	63.0	44.3	30.0	[d]20.2	46.5	107	—16	May 12	Sept. 30
Hot Springs	24.0	32.4	29.7	45.7	52.7	66.8	71.2	71.2	57.7	44.4	32.6	22.7	45.9	100	—16	Apr. 20	Sept. 9
Howard	22.4	21.0	31.6	45.6	54.8	67.0	72.0	71.9	63.0	41.6	26.5	16.2	44.5	104	—23	Apr. 20	Oct. 5
*Huron	23.3	22.4	30.3	45.4	55.3	67.4	71.0	71.2	62.2	42.4	26.8	17.6	44.6	102	—20	Apr. 25	Sept. 10

[1] City engineer.

[2] Ladd Observatory

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
South Dakota—Cont'd.																	
Interior	21.1	31.6	31.2	47.7	56.4	70.3	78.0	76.4	63.6	44.4	27.6	20.1	47.4	110	—15	Apr. 25	Sept. 10
Ipswich	[f]19.9	19.6	26.9	44.8	54.0	65.6	71.2	68.5	57.8	39.2	23.1	.....	.....	100	.....	Apr. 24	Sept. 9
Kimball	25.0	25.6	32.2	46.6	55.7	68.2	71.8	71.8	64.0	44.0	28.6	20.6	46.2	100	—15	Apr. 26	Oct. 13
Leslie	18.2	24.0	27.2	45.0	55.2	72.0	78.7	72.7	62.8	45.5	27.6	20.8	45.8	113	—21	May 25	Sept. 7
Mellette	20.8	20.7	29.3	46.8	57.0	69.2	74.1	71.2	62.0	41.2	.....	.....	.....	103	.....	Apr. 24	Sept. 7
Menno	25.2	24.4	34.7	48.2	57.4	69.8	73.7	72.2	64.9	44.6	29.2	19.2	47.0	103	—18	Apr. 26	Sept. 30
*Millbank	20.3	17.4	29.8	44.3	55.0	65.7	69.2	68.0	62.0	41.7	25.4	.....	.....	99	.....	May 2	Oct. 5
Mitchell	24.0	25.6	33.0	45.8	54.8	67.8	70.4	70.3	63.0	44.0	28.6	20.0	45.6	103	—18	Apr. 25	Oct. 3
Montrose	.....	.....	32.1	46.8	56.2	[f]66.0	70.0	70.4	63.0	42.6	26.8	16.4	.....	100	.....	Apr. 26	Sept. 30
Nowlin	23.0	29.5	29.5	46.0	56.0	68.6	74.8	73.0	62.7	45.7	25.9	20.6	46.3	107	—19	May 6	Sept. 9
Oelrichs	22.6	32.0	28.9	47.8	55.2	69.2	73.8	.....	.....	.....	28.7	21.0	.....	.....	—19	May 5	.....
Parker	20.7	20.2	31.9	45.4	55.2	.....	.....	.....	61.0	45.0	29.2	17.2	.....	.....	—20	Apr. 29	Sept. 30
Parkston	25.8	23.6	32.6	46.4	[f]55.0	65.7	69.8	68.2	.....	.....	.....	.....	.....	.....	.....	Apr. 19	.....
*Pierre	26.0	28.2	30.3	48.0	56.4	70.4	76.0	74.4	64.6	46.0	29.3	22.2	47.6	105	—11	Apr. 25	Oct. 8
Plankinton	23.2	22.6	32.2	46.6	56.8	69.0	72.3	72.2	61.7	41.4	26.2	19.2	45.3	102	—19	May 11	Sept. 29
*Rapid City	25.4	32.2	28.5	45.6	53.1	65.6	72.5	72.8	61.2	42.8	31.3	26.7	46.5	102	—14	May 3	Oct. 5
Redfield	22.8	22.4	31.0	44.0	54.0	67.0	70.9	70.0	61.1	41.2	26.0	17.0	44.0	101	—21	Apr. 25	Sept. 10
Rochford	19.8	28.6	24.2	39.0	46.4	58.3	62.6	64.1	52.6	38.2	26.2	21.8	40.2	93	—26	May 12	Sept. 6
Rosebud	25.8	30.8	32.0	47.0	57.8	69.3	73.5	71.6	61.0	.....	.....	.....	.....	.....	.....	Apr. 30	Oct. 2
Shiloh	27.0	29.4	31.4	46.0	53.2	67.0	.....	70.6	59.0	.....	27.2	.....	.....	.....	.....	May 3	Sept. 10
Sioux Falls	21.6	20.6	32.2	46.2	57.2	69.0	71.8	70.4	62.4	44.2	26.6	15.1	44.8	101	—22	May 6	Sept. 30
Spearfish	27.8	31.8	27.0	45.0	50.4	63.2	70.0	71.2	59.4	42.6	29.4	27.2	45.4	97	—11	May 3	Sept. 11
Tyndall	26.4	24.7	34.6	47.2	55.6	68.4	73.3	72.0	62.5	44.2	28.2	21.2	46.5	100	—15	Apr. 4	Sept. 29
Watertown	19.0	18.2	28.6	43.8	54.0	64.6	67.6	66.3	59.8	40.6	25.2	12.9	41.7	94	—25	Apr. 26	Oct. 4
Waubay	.....	.....	.....	.....	.....	.....	.....	.....	64.0	.....	23.8	12.8	.....	.....	.....	.....	Sept. 6
Wentworth	21.4	20.8	31.2	45.7	55.1	66.9	71.4	70.6	62.3	41.8	27.2	15.8	44.2	103	—18	Apr. 26	Oct. 5
Wessington Springs	21.2	*19.4	.....	.....	.....	65.6	68.6	68.0	60.8	39.8	26.6	17.6	.....	100	—18	.....	Oct. 5
Whiteswan	.....	.....	.....	.....	57.9	.....	74.4	73.5	65.2	.....	31.2	23.9	.....	.....	.....	.....	.....
*Yankton	26.3	26.4	35.4	49.4	58.2	70.3	73.9	73.2	65.5	46.5	31.8	23.0	48.3	100	—13	Apr. 25	Oct. 5
Tennessee.																	
Andersonville	41.4	37.2	53.8	51.5	67.4	75.4	78.4	75.4	70.8	55.5	42.2	35.2	57.0	98	4	Apr. 8	Oct. 15
*Arlington	.....	.....	.....	.....	72.0	79.6	79.8	79.2	75.8	59.3	.....	.....	.....	97	.....	.....	Oct. 27
Ashwood	45.8	42.5	55.5	55.0	69.8	77.2	78.6	77.2	74.5	58.5	46.4	39.7	60.1	99	10	Apr. 6	Oct. 15
Benton (near)	45.3	39.2	57.0	53.4	69.6	76.8	78.8	77.6	73.4	59.3	43.6	39.0	59.4	101	8	Apr. 8	Oct. 15
*Bolivar	45.6	42.0	55.4	55.8	70.5	77.7	78.2	77.2	73.7	56.6	47.1	[b]38.2	59.8	99	6	Apr. 7	Oct. 23
Bristol	38.3	33.4	51.4	48.4	64.6	72.6	74.4	73.3	68.6	54.6	41.6	33.2	54.5	96	— 6	Apr. 28	Oct. 19
*Brownsville	.....	.....	.....	.....	72.4	80.5	80.6	80.3	76.6	61.0	.....	.....	.....	103	.....	.....	Oct. 27
Byrdstown	42.3	38.3	53.3	52.0	68.2	74.6	76.4	75.3	72.5	57.4	45.1	36.6	57.7	95	— 2	Apr. 8	Oct. 23
*Carthage	45.6	40.8	55.2	54.4	70.7	78.1	78.8	78.6	76.0	.....	47.0	38.8	.....	98	5	Apr. 8	Oct. 24
*Chattanooga	45.8	41.2	56.6	55.4	71.8	78.1	79.2	78.2	73.6	59.0	46.7	41.1	60.6	97	12	Apr. 6	Oct. 27
*Clarksville	43.9	40.6	53.4	54.3	70.0	77.1	77.4	77.0	74.6	57.9	46.1	37.0	59.1	94	4	Apr. 8	Oct. 27
*Covington	45.7	44.4	56.0	58.2	73.8	81.4	80.6	81.6	75.0	60.3	.....	.....	.....	98	.....	Apr. 7	Oct. 27
Decatur	44.2	39.1	55.6	[e]53.6	69.2	77.0	78.6	77.6	72.4	57.4	45.2	38.8	59.1	99	8	Apr. 8	Oct. 15
Dover	44.2	41.9	54.6	55.0	70.0	77.9	78.2	78.4	75.2	58.0	45.9	37.9	59.8	100	7	Apr. 7	Oct. 27
*Dyersburg	43.6	42.5	53.8	57.0	70.8	80.2	80.0	78.5	75.2	59.6	.....	.....	.....	100	.....	Apr. 7	Oct. 27
Elizabethton	40.0	34.6	54.2	48.9	66.9	76.0	77.4	76.5	71.5	57.8	43.5	34.5	56.8	104	0	Apr. 28	Oct. 15
Elk Valley	43.0	37.6	53.5	51.0	67.0	74.1	75.9	75.0	71.8	.....	.....	.....	.....	96	.....	Apr. 8	Oct. 19
Erasmus	40.8	.....	51.8	48.5	63.8	70.8	73.5	72.1	68.8	53.8	41.8	35.1	.....	95	.....	May 9	Oct. 15
Fairmount (*e*)	41.4	[e]36.4	52.2	50.6	[e]66.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 7	.....
Florence	45.2	40.9	54.4	[e]53.4	70.2	78.0	78.2	76.8	73.9	58.2	46.0	38.8	59.5	95	8	Apr. 8	Oct. 23
Franklin	45.0	40.5	54.2	54.0	70.2	77.2	77.8	76.4	73.4	57.0	45.8	38.2	59.1	95	9	Apr. 8	Oct. 27
Grace (*a*)	44.0	41.8	54.6	53.7	69.5	76.1	79.0	76.9	73.0	56.7	47.7	35.5	59.0	100	6	Apr. 8	Oct. 23
*Greeneville	41.6	37.0	53.6	50.0	66.2	73.6	75.2	73.8	69.6	56.7	43.4	36.0	56.4	96	1	Apr. 8	Oct. 15
Harriman	42.8	38.6	55.2	53.5	69.0	76.4	78.4	77.2	71.8	57.8	43.8	38.0	58.5	95	8	Apr. 8	Oct. 27
Hohenwald	44.8	41.2	55.2	54.7	70.8	77.8	78.2	77.5	74.3	56.6	45.6	37.5	59.5	98	2	Apr. 7	Oct. 15
Jackson	46.6	43.1	55.7	56.8	71.2	78.6	78.4	77.3	74.4	58.4	[e]47.6	39.4	60.6	94	10	Apr. 7	Oct. 27
*Johnsonville	45.5	42.3	55.2	54.9	70.6	77.7	78.8	78.0	75.0	58.4	45.8	37.0	59.9	98	— 3	Apr. 7	Oct. 23
Jonesboro (*a*)	40.2	35.2	52.1	48.1	65.1	73.0	73.8	73.4	68.3	54.1	42.5	34.0	55.0	93	— 2	Apr. 6	Oct. 15
*Knoxville	43.3	39.2	55.2	53.0	69.5	77.1	78.4	77.5	72.7	57.8	44.0	37.9	58.8	99	10	Apr. 8	Oct. 27
Lafayette (*e*)	.....	.....	.....	.....	69.8	76.2	76.9	77.1	73.4	57.7	44.2	35.9	.....	96	.....	Apr. 7	Oct. 15
Lewisburg (*e*)	.....	.....	.....	.....	70.8	78.2	78.6	77.1	.....	.....	47.0	.....	.....	.....	.....	Apr. 6	.....
Liberty	45.4	40.4	54.8	52.9	69.9	77.2	78.2	77.2	74.2	58.8	.....	38.2	.....	97	8	Apr. 7	Oct. 23
Lynnville	45.7	41.1	55.0	54.6	70.4	77.6	78.2	76.3	73.8	57.8	46.6	39.8	59.7	95	10	Apr. 8	Oct. 23
McKenzie	44.2	42.0	54.8	56.0	71.0	77.9	78.5	77.8	75.2	59.4	46.4	38.4	60.1	94	5	Apr. 7	Oct. 23
McMinnville	44.4	40.0	54.6	52.6	68.6	75.8	77.6	76.6	72.5	59.0	47.0	38.4	58.9	99	4	Apr. 8	Oct. 14
Madison	.....	40.8	56.0	.....	71.3	78.2	.....	78.3	74.0	58.4	44.8	36.4	.....	.....	.....	Apr. 8	Oct. 15
Maryville (*e*)	.....	.....	.....	.....	70.0	77.5	79.4	77.0	71.6	58.1	45.5	39.0	.....	100	.....	Apr. 8	Oct. 15
*Memphis	46.7	45.6	56.8	58.7	73.1	79.6	79.2	79.8	76.2	60.8	49.0	41.0	62.2	95	14	Apr. 7	Oct. 22
*Milan	.....	.....	.....	.....	72.2	80.1	80.4	79.4	76.2	59.4	.....	.....	.....	98	.....	Apr. 21	Oct. 27
*Nashville	45.1	40.9	54.8	54.4	71.2	78.7	79.0	78.2	75.2	58.6	46.2	38.6	60.1	96	9	Apr. 6	Oct. 27
Nashville (near)	.....	.....	.....	.....	.....	.....	78.5	77.8	75.6	.....	.....	.....	.....	.....	.....	.....	.....
Newmarket (*e*)	42.6	38.4	55.7	52.8	69.2	77.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	Apr. 8	.....
Newport	43.8	38.1	55.1	52.1	67.8	75.8	77.8	76.0	71.4	57.8	43.2	36.8	58.0	100	8	Apr. 8	Oct. 19
Nunnelly	44.8	41.8	55.0	54.3	69.6	75.8	77.1	76.2	73.6	57.0	46.2	37.4	59.1	95	1	Apr. 8	Oct. 14
Oakhill	43.5	38.9	54.4	52.4	68.0	75.5	76.4	75.6	72.6	56.9	44.9	37.8	58.1	96	— 1	Apr. 8	Oct. 22
Palmetto	46.8	41.9	55.4	53.9	70.4	78.1	79.6	78.4	74.4	58.9	47.0	38.9	60.3	101	10	Apr. 8	Oct. 15
Peryear (*e*)	.....	41.8	.....	56.2	70.6	78.0	78.3	77.3	74.2	57.8	46.2	38.6	.....	96	.....	Apr. 7	Oct. 27
Pope	46.2	42.4	55.8	54.6	70.5	77.4	78.4	78.2	75.0	58.0	46.2	37.2	60.0	98	0	Apr. 8	Oct. 23
*Rogersville	40.9	36.8	53.0	50.5	65.7	73.0	74.7	73.8	70.3	57.0	43.2	35.0	56.2	92	2	Apr. 8	Oct. 15
Rugby	40.3	35.2	51.6	48.9	65.4	72.3	75.4	74.0	69.6	53.2	41.4	35.2	55.2	95	— 6	Apr. 28	Oct. 15
St. Joseph	45.3	41.6	54.6	54.3	69.8	.....	.....	.....	.....	57.3	45.1	38.9	.....	.....	7	Apr. 8	Oct. 14
Savannah	46.8	42.8	56.4	56.0	71.6	79.4	80.2	79.8	75.7	58.5	47.8	39.2	51.2	101	8	Apr. 7	Oct. 23
Sewanee	42.3	37.8	52.8	50.1	66.6	72.0	74.8	73.2	69.3	55.8	44.0	37.6	56.4	93	4	Apr. 8	Oct. 23
Silverlake	37.7	32.5	48.9	45.6	60.9	67.8	70.8	69.2	65.2	52.8	41.5	31.2	52.0	90	—10	Apr. 28	Oct. 16
Springdale	41.8	37.6	54.0	50.9	67.6	74.8	77.5	77.6	71.4	58.7	44.0	35.8	57.6	99	8	Apr. 8	Oct. 16
Springfield	.....	.....	.....	.....	.....	78.1	79.2	77.9	74.6	56.8	45.2	36.9	.....	97	.....	.....	Oct. 23
Sylvia	44.6	40.1	53.9	54.2	68.6	76.4	77.0	76.6	74.0	56.8	45.0	[e]37.4	58.7	98	5	Apr. 7	Oct. 22

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Tennessee—Continued.																	
Tellico Plains	45.4	40.4	57.2	53.4	69.7	76.6	78.3	77.8	73.0	59.4	45.9	39.2	59.7	99	8	Apr. 8	Oct 15
Tracy City	41.8	37.1	52.8	50.0	66.2	72.3	74.5	72.8	68.7	54.1	42.8	36.2	55.8	93	1	Apr. 8	Oct. 15
Trenton	44.2	41.6	53.6	55.4	70.0	76.8	76.8	76.2	73.8	58.7	[f]45.2	38.0	59.2	94	6	Apr. 7	Oct. 27
Tullahoma	44.2	39.8	53.9	52.4	67.6	74.8	77.0	75.3	72.4	57.2	45.8	38.2	58.2	97	5	Apr. 8	Oct. 15
Union City	43.4	40.8	53.3	55.1	69.9	78.8	78.2	77.6	74.8	58.4	45.9	35.6	59.3	96	— 2	Apr. 7	Oct. 18
Waynesboro	46.3	41.2	55.1	54.5	69.4	76.2	.....	.....	73.2	56.6	45.4	37.8	.....	.....	4	Apr. 8	Oct. 23
Wildersville	46.0	43.3	55.7	55.8	70.4	77.2	78.0	76.8	74.2	58.5	46.6	38.2	60.0	93	8	Apr. 7	Oct. 23
Yukon	45.6	41.4	55.4	55.0	71.0	77.8	78.0	77.6	73.4	58.6	46.8	39.9	60.0	97	8	Apr. 7	Oct. 23
Texas.																	
*Abilene	46.8	51.1	56.4	64.4	73.2	77.8	81.3	81.1	75.4	65.6	51.3	38.7	63.6	102	1	Mar. 24	Oct. 26
Albany (*a*)	48.0	49.8	56.5	65.2	73.6	78.2	81.2	80.0	.....	63.3	51.4	39.2	.....	.....	12	Mar. 24	Oct. 18†
*Amarillo	35.0	41.9	46.0	56.0	63.6	70.7	74.2	74.0	67.0	56.4	42.0	27.6	54.5	95	— 1	May 6†	Oct. 17
Anna	.....	.....	.....	.....	.....	.....	.....	.....	.....	[c]60.7	50.5	40.6	.....	.....	.....	.....	Oct. 22
Austin[1]	51.8	55.8	59.7	66.0	76.1	82.6	84.0	83.0	77.6	66.5	53.6	42.9	66.6	102	15	Jan. 31	Dec. 4
Austin[2] (*e*)	48.6	53.3	57.0	63.9	71.8	77.4	80.2	80.8	76.6	64.8	52.9	40.7	64.0	99	12	Mar. 23†	Oct. 27†
*Ballinger	45.2	50.4	57.2	65.4	72.4	75.9	79.4	80.0	71.8	62.4	49.9	38.2	62.4	101	9	Mar. 24	Oct. 26
*Beaumont	.....	.....	.....	.....	.....	.....	80.5	83.6	78.1	64.0	.....	.....	.....	100	.....	.....	Dec. 4†
*Beeville	57.4	60.7	63.2	69.8	77.1	82.6	85.3	85.6	82.2	71.8	58.6	49.4	70.3	106	20	Jan. 20†	Oct. 27†
Blanco	53.8	57.5	59.3	63.3	68.6	79.2	83.4	86.4	.....	.....	[f]47.9	48.8	.....	.....	20	Mar. 23†	Nov. 16†
Boerne (*a*)	51.9	55.2	60.3	64.8	73.8	78.7	80.4	82.0	76.1	65.9	53.0	43.9	65.5	99	15	Jan. 16	Nov. 22
Brazoria	56.6	59.0	62.1	66.9	74.0	80.2	81.0	81.3	78.8	67.2	57.6	49.4	67.8	96	22	Jan. 3	Oct. 26
Bremond	.....	54.6	58.0	65.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Brenham	53.7	56.0	60.8	66.6	75.4	80.8	81.8	82.9	80.0	68.7	55.6	47.4	67.5	101	17	Feb. 4†	Nov. 23
Brighton	.....	.....	65.0	.....	.....	77.2	79.6	80.5	77.9	70.8	61.9	53.2	.....	100	.....	.....	Dec. 4†
Brownwood	48.4	52.2	54.5	62.5	72.7	84.0	.....	83.8	.....	.....	49.0	40.4	.....	105	8	Mar. 24†	Oct. 25
Burnet (*a*)	49.2	52.0	56.9	63.0	71.4	77.2	79.6	80.4	75.9	64.7	50.8	40.7	63.5	102	11	Jan. 26	Oct. 26
Camp Eagle Pass	55.2	61.9	66.0	73.2	81.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mar. 4†	.....
Childress	42.3	47.6	50.9	59.8	69.6	78.6	81.2	79.0	.....	63.4	.....	.....	.....	.....	.....	Apr. 14†	Oct. 20
Coleman	48.0	51.6	58.8	64.4	73.0	77.0	80.0	[c]81.0	75.2	66.0	51.2	41.9	64.0	99	6	Mar. 25	Nov. 10†
College Station	52.6	55.2	60.8	65.4	73.6	79.7	81.4	81.6	78.4	68.2	53.2	.....	.....	98	18	Feb. 22	Nov. 23†
*Columbia	56.3	57.2	62.9	65.6	74.2	79.4	80.4	80.7	78.8	66.8	55.2	48.8	67.2	95	23	Mar. 4	Oct. 27†
Conroe	53.9	56.0	60.8	65.6	74.4	81.2	81.7	82.6	78.8	66.9	54.7	47.5	67.0	102	21	Mar. 4†	Oct. 26
*Corpus Christi	59.5	61.5	64.2	69.8	75.6	80.1	81.6	82.5	80.4	72.2	60.2	50.8	69.9	94	28	None.	Dec. 10
*Corsicana	49.1	52.3	57.8	63.4	75.2	81.4	84.0	84.2	78.4	65.5	55.2	41.9	65.7	104	12	Mar. 24	Nov. 10
*Cuero	51.2	54.4	60.2	65.2	74.5	81.8	83.6	84.8	79.8	67.4	54.6	40.1	66.5	100	22	Mar. 5†	Oct. 27†
*Dallas	46.8	49.8	54.2	60.8	73.0	78.6	81.2	81.5	76.9	64.0	50.0	40.0	63.1	101	10	Mar. 25	Nov. 22
Danevang	55.4	57.5	61.8	65.9	75.6	82.0	83.2	82.8	79.8	68.2	57.6	49.0	68.2	104	21	Jan. 3	Oct. 26
*Dublin	46.4	50.4	56.1	62.0	71.6	78.2	81.2	80.4	75.0	62.7	.....	39.1	.....	103	6	Mar. 28†	Oct. 26†
Duval	55.6	58.8	62.5	69.8	77.5	83.7	86.0	86.8	83.0	[c]68.2	57.4	46.9	69.7	109	16	Mar. 23	Nov. 22
*El Paso	42.0	51.8	54.6	65.0	70.9	76.9	79.8	78.5	73.2	63.6	52.2	39.4	62.3	102	15	Mar. 24	Nov. 10
Emory	48.8	48.8	54.2	60.1	71.3	77.0	79.4	79.6	76.4	60.1	49.9	.....	.....	101	12	Mar. 24	Oct. 26
Estelle	46.4	[3]48.9	55.8	61.2	72.8	78.2	82.0	81.9	77.4	64.7	52.1	40.2	63.5	104	8	Apr. 17	Oct. 22
Forestburg	47.1	.....	53.6	63.4	71.5	78.8	.....	81.6	76.7	63.5	49.5	.....	.....	.....	.....	Apr. 5†	Oct. 20†
Fort Brown	.....	63.6	66.6	.....	.....	.....	.....	.....	.....	.....	.....	55.2	.....	.....	.....	.....	Dec. 5†
Fort Clark	52.2	57.8	62.1	69.7	79.7	79.2	84.7	86.7	81.1	76.0	[g]66.2	.....	.....	102	.....	Jan. 27†	.....
Fort McIntosh	60.2	63.6	68.2	71.6	81.9	85.0	87.7	87.8	84.2	75.0	61.3	50.0	73.0	107	22	Mar. 3†	Nov. 21†
Fort Ringgold	60.0	64.0	68.6	72.5	81.1	82.4	84.5	86.6	81.4	.....	65.7	53.9	.....	110	20	Mar. 5†	Dec. 4†
*Fort Worth	.....	.....	.....	.....	.....	.....	.....	.....	77.2	64.8	51.0	40.9	.....	.....	.....	.....	.....
Fort Worth[4]	[b]47.2	[g]51.6	[b]58.6	[d]62.6	75.0	80.8	83.8	83.0	.....	.....	.....	.....	.....	105	11	Mar. 28†	Oct. 22
Fredericksburg (*a*)	[d]50.8	[f]53.7	59.0	64.5	73.2	[e]78.3	[d]80.6	[e]82.1	[c]76.4	[e]64.8	[d]51.7	[d]41.8	64.7	100	14	Mar. 23†	Oct. 21
Fruitland	46.8	50.8	54.9	62.0	71.0	76.1	82.8	81.4	77.8	65.6	51.0	39.3	63.3	110	5	Mar. 24	Oct. 21
Gainesville	45.0	51.1	[d]54.6	62.0	72.0	78.0	81.2	[d]80.2	76.5	[d]63.0	.....	40.3	.....	101	4	Mar. 23	Oct. 18
*Galveston	57.4	58.8	62.6	67.5	74.9	81.0	82.4	83.2	80.3	71.4	58.2	50.4	69.0	91	28	None.	Dec. 10
Georgetown (*a*)	50.4	[c]53.0	.....	.....	.....	.....	.....	.....	.....	.....	[i]52.2	[e]41.8	.....	.....	15	.....	.....
Grapevine	48.1	52.0	57.4	62.2	73.2	78.0	82.2	82.4	78.0	65.1	[h]51.6	[e]39.4	64.1	105	5	Mar. 24	Oct. 21
Hale Center	41.6	45.6	51.0	60.3	68.6	74.3	76.8	77.3	71.8	61.0	47.8	36.0	59.3	99	9	Apr. 6†	Oct. 21†
Hallettsville	55.7	58.2	64.0	68.4	76.6	82.5	84.6	84.0	81.0	68.8	56.8	48.0	69.0	103	20	Mar. 5	Nov. 22
Haskell	48.7	50.6	53.9	.....	73.1	78.8	[e]82.0	80.4	.....	.....	.....	.....	.....	.....	.....	Mar. 23	.....
*Hearne	.....	.....	.....	.....	76.6	83.8	84.4	85.1	81.0	68.6	.....	.....	.....	100	.....	.....	.....
*Henrietta	.....	.....	.....	[j]64.0	73.0	81.0	84.0	82.0	77.4	63.9	48.6	.....	.....	108	.....	.....	Oct. 21†
*Houston	55.3	57.2	62.2	66.1	74.9	80.0	81.2	81.8	79.2	68.4	56.1	49.4	67.6	94	26	Jan. 4†	Nov. 22
Hulen	.....	.....	.....	.....	[g]75.3	.....	.....	.....	[d]80.0	68.7	[g]57.4	49.9	.....	103	22	.....	Dec. 4
*Huntsville	51.8	53.6	60.2	64.8	75.3	81.2	81.6	82.2	78.2	66.9	52.4	45.4	66.1	99	18	Mar. 5†	Nov. 21†
Jacksonville	52.0	53.8	60.5	63.2	73.9	78.8	80.6	81.2	77.3	65.3	53.1	45.0	65.4	101	14	Mar. 5	Oct. 21
Jasper	54.5	57.0	62.3	62.4	75.2	80.3	81.7	81.9	79.2	69.0	56.6	50.2	67.5	100	20	Mar. 5	Oct. 22
*Kerrville	47.2	51.6	57.2	63.2	72.6	76.8	78.5	80.3	75.2	.....	50.6	41.8	.....	100	13	Mar. 31†	Nov. 1†
*Lampasas	50.0	52.9	60.4	65.0	74.4	79.7	81.5	82.0	77.9	67.2	47.8	39.3	64.8	104	10	Mar. 23	Oct. 21
Llano (*e*)	51.0	55.1	60.0	66.9	75.6	80.0	83.8	81.4	78.9	69.6	53.8	43.8	66.7	103	15	Mar. 23	Nov. 22
*Longview	49.4	52.4	59.6	63.4	75.3	81.9	84.0	83.0	77.8	64.3	50.7	42.8	65.4	104	13	Mar. 25†	Oct. 26†
*Luling	55.0	57.0	62.0	67.5	76.4	82.6	84.0	84.6	80.0	69.7	56.2	46.4	68.4	102	18	Mar. 5	Oct. 27
Mann	.....	54.6	59.6	64.9	74.4	[e]80.3	81.8	[j]82.2	79.2	67.2	53.4	[e]42.8	.....	106	.....	Mar. 21	Oct. 26†
Marathon	.....	.....	55.0	.....	68.8	71.6	.....	74.4	.....	.....	.....	.....	.....	.....	.....	Mar. 31†	.....
Marshall	54.6	53.4	59.6	62.0	73.3	79.5	81.0	81.6	77.4	65.4	53.6	.....	.....	95	.....	Mar. 4	Oct. 25
Menardville	49.5	52.8	57.8	63.0	.....	78.2	79.3	78.5	72.4	.....	49.6	39.0	.....	105	7	Mar. 24†	Nov. 10†
Midland	46.6	.....	.....	[i]63.4	.....	.....	.....	75.4	.....	.....	.....	.....	.....	.....	.....	Apr. 10†	.....
Missouri City	56.4	59.4	64.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Feb. 22	.....
Mount Blanco	42.5	44.7	50.6	60.3	69.8	75.8	78.0	76.6	69.6	61.4	46.7	35.0	59.2	102	1	Apr. 6†	Oct. 18†
New Braunfels	54.1	57.0	61.8	67.2	76.2	81.5	83.6	82.8	77.0	67.2	54.8	46.6	67.5	106	20	Mar. 5†	Dec. 5
*Palestine	52.2	54.6	59.2	64.2	73.8	78.6	80.8	81.6	77.8	66.1	53.2	45.0	65.6	101	14	Mar. 24†	Oct. 27
*Paris	48.0	49.9	56.8	60.0	.....	79.3	81.6	81.9	77.3	[f]63.6	48.7	41.0	.....	103	10	Mar. 28†	Nov. 10†
Point Isabel (*a*)	66.0	66.6	67.5	73.2	79.2	84.0	84.1	84.4	82.0	76.3	65.8	56.7	73.8	92	36	None.	None.
Rhineland	45.4	49.1	53.6	64.4	72.6	79.8	83.8	82.6	76.4	65.2	48.0	38.0	63.2	106	0	Apr. 5†	Oct. 20†
Roby	43.2	.....	.....	.....	.....	.....	[f]80.3	79.1	73.0	63.0	50.3	.....	.....	.....	.....	Jan. 31	Oct. 20
Rockport (*a*)	.....	61.6	64.4	69.8	73.6	80.2	81.7	83.8	82.8	74.9	61.3	53.0	.....	91	.....	.....	Dec. 10†
Runge	59.3	60.0	63.9	69.5	76.5	82.1	84.2	86.2	82.2	72.8	57.7	51.0	70.4	101	21	None.	Nov. 22†
*San Antonio	56.0	58.9	62.4	69.0	76.4	80.4	83.0	84.0	79.6	71.0	56.9	47.4	68.8	103	20	Jan. 16†	Nov. 22

[1] W. R. Neville. [2] L. Q. C. Smith. [3] Record doubtful. [4] F. P. Bath.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Texas—Continued.																	
San Antonio[1]	56.8	59.9	64.2	70.3	77.6	82.3	84.8	85.8	81.4	72.0	57.6	47.6	70.0	105	21	Jan. 16	Nov. 22
Sanderson									74.5	64.2	51.7						Oct. 19†
*San Marcos	53.4	54.8	60.2	65.2	74.6	80.4	82.2	82.4	77.6	65.9	52.5	41.5		103	18	Jan. 20	Oct. 27†
*Sherman							82.8				[c]50.4	42.6					Nov. 15†
Sulphur Springs	51.1	53.4	58.6	64.8	76.2											Mar. 27	
Temple[2]	50.0	53.3	58.7	65.3	74.4	78.8	82.3	82.8	77.6	66.4	53.2	41.6	65.4	101	13	Mar. 23	Nov. 21
*Temple[3]							82.7	82.8	77.3	65.3	52.6	43.6		109			Oct. 22
Tulia	37.2	42.2					76.8					30.4			—2	May 6	Nov. 20†
*Tyler	49.6	50.4	58.0	62.6	74.6	79.7		[f]83.1	77.7	64.6	54.6	43.7		101	12	Mar. 24†	Nov. 22†
Valentine			56.0	64.6	68.0	75.4	77.3	76.5	72.8					107		Apr. 6†	
*Waco	50.4	53.4	59.3	[d]62.8	76.5	83.8	85.8	86.0	78.9	66.6	53.8	47.2	67.0	106	14	Mar. 24	Nov. 23
Waxahachie	45.0	50.5	55.9	62.6	73.6	78.5	82.2	83.0	78.0	65.4	52.1	41.0	64.1	105	9	Mar. 23	Oct. 20
*Weatherford	47.2	51.0	56.9	62.6	72.7	79.0	81.7	81.6	76.6	65.5	50.6	39.7	63.8	103	9	Mar. 24	†Oct. 22
Utah.																	
Blue Creek (*a*)	14.0	29.9	32.8	50.4	52.8	66.2	76.5	76.0	59.6	45.3	32.2	19.4	46.3	100	—3		
Cisco	13.4	16.4	40.2	56.6	60.4	73.8	82.8	81.2	66.8	50.9	39.6	25.5	50.6	106	—26	May 8	Nov. 5
Corinne	15.2	29.4	34.2	52.8	54.2	66.4	76.2	77.5	63.4	49.8	34.8	20.8	47.9	101	—16	May 20	Sept. 29
Croydon			[j]30.0	47.7						[e]48.4	38.5						
Ferron	23.6	31.0	34.2	50.8	54.1	68.4	77.9	77.4	69.0	56.8	48.1	[j]41.0	52.7	104	—12	May 5	Oct. 2
Fillmore	16.0	32.0	34.2	52.4	51.8	66.4	74.5	74.2	64.4	46.7	35.6	25.6	47.8	107	—23	July 2	Sept. 3
Fort Duchesne	—2.3	8.2	26.6	49.6	54.0	64.8	72.2	71.4	59.7	43.9	28.8	10.4	40.6	99	—34		
Frisco	24.0	36.4	34.0	53.2	51.3	67.4	76.2	74.4	64.2	[e]47.0	37.2	28.6	49.5	102	—5	June 3	Oct. 1
Giles	[h]19.2	21.9	41.1	56.8	60.0		81.8	79.4	65.4	50.0	37.8	18.4			—11	May 15	Sept. 11
Heber	11.6	25.4	29.8	47.2	50.8	61.4	67.8	68.0		42.4	30.8	18.0			—27	June 6	Sept. 3
Kelton (*a*)	12.9	29.7	33.4	50.5	53.6	71.1	81.4	78.3	66.1	43.4	27.5	14.9	46.9				
Levan	17.2	30.7	33.2	50.5	52.0	63.4	70.8	71.4	60.1	44.6	33.0	21.2	45.7	95	—20	Apr. 12	Sept. 12
Loa	12.8	25.2	27.2	43.2	45.8		65.7	65.1	52.3	37.5	27.6						Sept. 2
Logan	14.0	29.5	31.2	51.5	51.8	63.8	72.3	74.9	[c]62.5	45.5	33.0	16.5	45.5	96	—19	Apr. 5	Oct. 1
Minersville	17.0	32.0	34.6	53.6	54.2	67.4	74.7	75.2	63.6	48.0	34.6	25.2	48.3	100	—16	June 4	Oct. 19
Moab	22.4	28.6	44.8	59.5	61.6	72.0	77.8	77.8	66.3	53.2	42.1	26.0	52.7	102	—14		
Mount Pleasant	21.8	33.4	35.1	53.2	55.0	69.2	76.8	75.2	64.7	47.0	35.0	24.2	49.2	109	—12	June 3	Oct. 1
Ogden (*a*)	24.2	32.5	37.9	55.5	55.4	71.5	78.6	80.4	63.6	40.2	37.8	25.0	50.2	100	—12	May 20	
Pahreah	21.3	33.4	36.8	56.8	54.6	69.8	77.6	76.8	65.5	51.6	42.5	27.4	51.2	106	—9	Mar. 31	Oct. 6
Parowan	19.8	32.4	34.3	52.6	52.8	64.9	71.5	71.9	62.3	48.0	34.9	23.8	47.4	96	—17	June 4	Oct. 1
Pinto	18.3	31.0	30.8	48.4	49.6	60.6	69.1	69.2	56.2	43.4	32.6	24.8	44.5	100	—23	June 4	Sept. 2
Promontory (*a*)	12.6	29.9	29.6	42.7	43.6	60.2	73.8	78.3	63.3	42.0	34.4	26.0	44.7	105	—23	June 4	Oct. 2
Provo	19.8	35.7	37.2	54.0	55.3	66.4	73.6	73.5	66.5	50.6	39.2	26.4	49.8	105	—17		
Richfield	21.6	29.6	38.2	48.1		59.0			55.0	41.8	38.8	30.6			—24		
St. George	30.2	44.3	44.8	63.0	63.3	76.2	84.5	82.3	72.0	56.4	42.8	31.6	57.6	115			
*Salt Lake City	20.6	35.6	36.3	54.0	53.9	67.1	75.9	76.8	65.6	48.2	37.3	25.2	49.7	97	—3	May 4†	Oct. 1†
Scipio	14.6	29.5	32.8	49.2	52.2	64.1	71.4	71.5	60.6		34.4	20.1		98	—33		
Snowville	13.7	26.4	32.4	49.0			70.8	71.6	58.2	42.2	34.2	17.6			—18	Apr. 20	Sept. 29
Soldier Summit	[i]17.7	24.0	24.4	42.6	45.7	57.5	62.7	67.5	52.1			17.2			—16	July 18	Sept. 2
Terrace (*a*)	13.8	23.0	28.6	45.5	47.7	61.8	73.1	72.0	56.0	37.8	32.5	10.3	44.3	96	—10		
Thistle	17.8	29.4	32.1	47.6	50.0	62.8	70.6									May 21	
Tooele	20.6	33.8	35.0	52.7	52.6	66.2	72.8	75.4	64.6	47.4	36.5	34.2	48.5	94	—1	June 3	Oct. 1
Tropic			[e]29.6	46.2	50.6	63.0	69.2	67.3	57.9	46.7	34.8	26.7		106			Oct. 1
Vernal	4.8	15.0	31.4	51.0	54.8		[c]72.8		58.7	44.0	31.4	16.0			—21	May 21	Sept. 12
Woodruff						55.3	62.8	64.3	51.0		27.0			94		July 2	Sept. 3
Vermont.																	
Bennington	21.8	25.9	39.8	43.6	56.9	66.1	72.5	70.0	64.3	52.8	36.6	27.1	48.1	95	—21	May 9	Oct. 10
Brattleboro	20.4	25.1	37.9	43.2	56.6	67.6		70.6	63.2	50.5	39.2	25.7		98	—24	May 9	Sept. 21
Burlington	18.0	25.9	38.3	43.6	57.6	67.2	71.5	70.4	64.5	52.2	38.4	27.6	47.9	89	—17	Apr. 7	Oct. 29
Chelsea	15.6	23.5	33.3	38.1	52.1	62.8	67.8	65.4	58.0	46.0	31.2	21.2	42.9	90	—19	May 9	Sept. 21
Cornwall	18.7	24.6	38.1	44.3	55.4	64.7	71.6	69.5	63.0	49.9	34.4	24.6	46.6	98	—19	Apr. 28	Sept. 21
Enosburg Falls	13.6	19.6	36.0	40.0	55.8	[c]54.5		[d]65.2	62.0	51.6	35.8	22.9		93	—30	May 9	Oct. 7
Hartland	13.9	22.2	34.2	40.5	53.6	63.1	67.8	66.2	59.4	47.9	33.5	21.8	43.7	93	—30	May 10	Oct. 7
Jacksonville	17.9	21.6	33.1	36.8	50.4	63.9	67.0	64.5	56.5	45.4	32.5	18.6	42.4	88	—29	May 10	Sept. 11
*Northfield	13.1	21.6	34.1	38.8	51.8	62.4	68.0	66.0	59.0	46.6	32.4	21.0	42.9	94	—21	June 16	Sept. 11
Norwich	13.8	24.0	35.4	40.6	53.0	63.6	69.4	67.2	60.2	48.3	32.8	21.4	44.1	95	—24	May 10†	Sept. 13†
St. Johnsbury	12.4	22.8	33.8	40.2	54.3	64.0	69.2	66.8	59.0	48.2	32.4	21.0	43.7	92	—26	May 9	Sept. 21
Vernon (*f*)	19.8	24.9	37.9	43.7	57.0	68.1	73.4	71.5	63.4	50.5	37.0	24.7	47.7	96	—23	Apr. 9	Oct. 28
Wells	18.0	22.6	35.6	39.9	55.2	65.2	70.4	68.1	60.9	49.2	34.6	24.2	45.4	92	—18	Apr. 22	Sept. 21
Woodstock	16.4	23.8	35.0	40.8	52.2	62.2	67.6	66.0	57.8	45.6	31.8	21.4	43.4	95	—30	May 10	Sept. 11
Virginia.																	
Alexandria	36.2	34.4	48.2	51.3	65.4	75.4	80.2	78.1	72.2	58.4	44.5	36.2	56.7	105	6	Mar. 26	Oct. 28
Ashland	42.1	38.2	52.4	53.4	65.8	73.4	78.0	76.6	71.1	58.7	45.8	39.1	57.9	99	—2	Apr. 7	Oct. 24
Ballsville				[c]54.2	67.3	76.4											
Barboursville	39.6	37.8	51.1	51.8	66.0	72.6	76.8									May 9	
Bedford City	39.3	37.6	51.8	53.5	68.4	75.0	78.9	77.2	72.0	58.8	44.3	38.4	57.9	103	7	Apr. 5	Oct. 23
Bigstone Gap	40.4	35.8	54.4	50.6	65.3	72.6	75.4	74.8	70.8	57.0	42.6	33.4	56.1	97	—5	Apr. 28	Oct. 19
Birdsnest (*a*)	42.0	39.3	52.1	53.8	65.2	74.7	79.7	80.6	74.4	63.4		42.7		98	16	Apr. 2	Oct. 17
Blacksburg	34.9	32.9	46.8	46.8	62.2	67.9	71.8	70.7	64.9	51.9	41.0	33.3	52.1	91	0	May 9	Oct. 16
Buckingham	37.6	34.3	48.4	50.8	66.0	72.8	76.6	76.8	69.8	56.4	42.8	36.2	55.7			May 8	Oct. 15
Burkes Garden							69.8	68.2	62.8	51.1	38.8	31.0				Apr. 28	Oct. 16
Callaville	41.4	37.3	51.8	53.0	65.7	72.8	77.2	77.5	71.2	59.2	45.7	40.8	57.8	95	7	Apr. 7	Oct. 24
*Cape Henry	44.7	40.1	50.4	53.8	64.6	72.6	78.6	79.6	74.4	64.4	50.4	42.6	59.7	102	18	Apr. 7†	Nov. 26†
Charlottesville				52.4	66.0	73.0	75.8	75.4	70.1	58.0	45.2	39.0		95		Apr. 7	Nov. 28
Clifton Forge	35.6	34.4	48.2	49.8	65.4	71.5	76.5	74.4	67.0	54.2	39.8	32.6	54.1	99	8	Apr. 2	Nov. 28
Colemans Falls									72.6		45.8	40.9					Nov. 28
Dale Enterprise	34.6	32.2	46.2	45.8	62.0	69.6	73.2	71.0	65.4	53.8	40.1	32.6	52.2	100	—1	Apr. 6	Nov. 28
Doswell	38.0	35.2	49.4	51.6	67.2	76.0	78.7	79.0	69.2		45.4	32.8		104	—5	Apr. 28	Nov. 16
Farmville	39.4	[f]39.4	51.3	53.4	68.6	73.6	78.8	78.9	73.0	60.2		39.5		103	10	Apr. 3	Oct. 15

[1] G. A. Duerler, jr. [2] W. G. Jones. [3] Cotton region observer.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Virginia—Continued.																	
Fredericksburg	36.9	35.8	49.8	52.3	66.2	75.7	79.2	78.7	72.5	59.0	45.0	36.8	57.3	103	— 4	May 9	Oct. 28
Grahams Forge	36.2	32.8	47.8	48.0	63.2	.....	.....	71.0	64.8	54.2	38.2	[c]31.7	.....	.....	1	Apr. 28	Oct. 16
Hampton	43.7	41.0	52.0	54.7	66.1	74.0	79.4	82.1	74.3	64.0	49.8	43.4	60.4	95	15	Apr. 7	Nov. 24
Hot Springs	36.5	35.2	50.0	.....	.....	.....	70.2	70.3	64.2	52.3	.....	.....	.....	.....	.....	May 9	Oct. 15
Leesburg	.....	.....	47.2	.....	.....	.....	.....	.....	.....	.....	41.7	30.9	.....	.....	.....	.....	.....
Lexington	38.0	34.8	48.8	49.2	64.6	70.4	[d]74.4	74.4	69.0	57.2	42.8	34.9	54.9	95	4	Apr. 8	Oct. 28
*Lynchburg	39.2	37.5	50.8	52.9	67.4	73.9	77.4	77.2	71.2	58.8	45.0	38.8	57.5	99	8	Apr. 6	Oct. 28
Manassas	36.8	34.2	48.9	51.4	64.9	73.7	78.4	76.8	70.8	58.0	43.4	35.6	56.1	101	0	May 9	Oct. 24
Marion	[d]37.8	34.8	51.2	[c]47.5	62.6	[g]71.4	[c]74.3	[b]74.4	67.1	[c]54.9	[b]42.2	[c]31.8	54.2	97	— 3	Apr. 27	Oct. 19
Miller School	.....	.....	.....	52.4	66.7	73.2	76.7	75.8	70.6	58.2	[c]47.0	37.2	.....	100	.....	Apr. 9	Oct. 28
Monterey	33.8	29.0	.....	.....	.....	.....	.....	67.4	63.2	.....	.....	.....	.....	.....	.....	.....	.....
*Norfolk	44.4	40.8	52.6	54.2	66.2	74.0	78.8	79.6	73.8	63.2	49.9	43.2	60.1	96	15	Apr. 2	Nov. 25
Petersburg	42.0	39.0	53.2	53.6	67.7	74.0	78.8	78.6	71.6	60.8	48.4	41.0	59.1	99	9	Apr. 6	Oct. 16
Quantico	.....	.....	49.5	.....	.....	.....	.....	75.0	73.8	58.6	43.0	31.8	.....	.....	.....	.....	Oct. 25
*Richmond	41.4	38.4	52.0	53.8	67.2	74.8	78.9	78.8	73.1	60.6	47.0	40.6	58.9	99	11	Apr. 6	Nov. 15
Richmond (near)	40.7	37.4	51.6	54.4	67.0	73.8	79.4	79.6	73.2	59.6	45.1	39.5	58.4	105	6	Apr. 8	Oct. 28
Rockymount	42.6	38.4	52.5	53.6	67.6	74.0	77.0	76.6	72.2	57.9	44.3	38.8	58.0	98	8	Apr. 2	Oct. 24
Salem	41.7	39.2	52.2	52.6	67.0	73.5	78.2	76.2	72.2	60.2	46.4	41.2	58.4	94	9	Apr. 6	Oct. 28
Spottsville	42.2	38.7	53.4	52.8	67.4	75.0	79.4	77.2	70.0	60.2	46.6	40.2	58.6	99	9	Apr. 2	Oct. 16
Stanardsville	36.8	34.2	47.2	50.2	63.5	71.3	75.2	73.4	68.0	56.8	44.6	37.1	54.9	100	5	Apr. 8	Oct. 28
Staunton	38.6	35.4	49.2	50.0	65.0	71.5	75.5	75.5	69.2	57.1	44.1	37.3	55.7	103	5	Apr. 6	Oct. 24
Stephens City	36.0	33.9	48.4	[c]50.0	65.4	72.8	77.4	[c]75.1	68.6	56.4	42.8	34.6	55.1	103	4	Apr. 9	Oct. 24
Sunbeam	43.8	39.8	54.3	53.5	66.6	74.0	78.6	79.1	73.2	62.6	48.6	42.2	59.7	96	11	Apr. 3	Nov. 16
Tobaccoville	.....	.....	.....	54.2	67.3	76.4	.....	.....	72.5	58.8	45.5	40.4	.....	.....	.....	Apr. 8	Oct. 24
Warrenton	38.2	36.4	49.2	52.5	66.2	76.0	79.3	74.2	70.6	59.0	44.8	36.6	56.9	101	11	Apr. 7	Oct. 27
Warsaw	38.4	35.8	49.6	50.8	65.0	73.9	79.2	78.3	70.8	59.8	45.1	37.2	57.0	102	3	Apr. 28	Oct. 28
Westbrook Farm	40.6	36.6	47.0	50.6	66.3	74.5	.....	79.1	72.3	59.2	45.2	39.1	.....	.....	2	Apr. 7	Oct. 28
Westpoint	.....	31.0	.....	51.4	63.8	71.9	76.2	78.4	73.0	60.1	43.8	37.6	.....	96	.....	Apr. 7	Oct. 28
Woodstock	35.8	34.5	49.7	50.2	66.8	71.6	.....	74.5	67.4	56.7	43.1	34.0	.....	.....	4	Apr. 9	Oct. 16
Wytheville	37.1	34.3	48.2	48.9	64.4	70.4	73.6	72.6	68.0	55.1	42.4	33.8	54.1	96	0	Apr. 28	Oct. 16
Washington.																	
Aberdeen	38.8	43.4	41.4	49.4	[d]53.8	60.8	[c]60.0	63.9	60.8	51.0	43.4	[d]37.8	50.4	96	24	Apr. 18	Nov. 11
Blaine	32.6	38.6	36.1	44.5	51.8	56.7	59.0	60.5	54.6	45.6	37.0	32.0	45.8	91	7	June 5	Sept. 30
Bridgeport	18.0	.....	.....	55.0	.....	.....	73.9	78.0	.....	.....	40.0	25.6	.....	.....	.....	.....	.....
Brinnon	.....	.....	.....	.....	56.2	60.4	64.0	66.0	59.0	50.0	42.1	38.2	.....	87	.....	.....	Nov. 10
Centerville	31.8	40.0	40.5	47.8	53.3	60.9	67.2	70.6	58.2	48.1	36.2	26.0	48.4	108	— 8	June 3	Sept. 5
Chehalis	36.4	43.0	44.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clearwater	39.4	43.4	43.0	48.0	53.0	58.8	61.5	63.6	58.8	51.6	43.4	36.3	50.1	97	22	May 1	Nov. 20
Colfax	27.3	39.0	36.6	[d]49.4	52.5	.....	65.0	68.8	57.1	46.6	35.7	26.2	.....	103	— 6	May 24	Oct. 3
Coupeville	38.8	44.0	42.8	50.3	56.8	60.3	63.2	64.2	59.2	51.2	43.2	38.8	51.1	94	23	Apr. 18	Nov. 13
Dayton	31.1	43.6	39.8	52.4	55.6	63.0	.....	.....	61.0	49.8	38.0	26.2	.....	.....	— 7	Apr. 4	Oct. 3
Ellensburg	20.4	35.4	39.4	47.7	55.4	62.2	68.2	70.4	59.8	47.4	36.2	23.8	47.2	96	— 5	May 7	Sept. 29
Ellensburg (near)	20.0	34.6	38.3	48.8	56.9	64.6	71.0	72.3	59.8	45.8	34.5	22.4	47.4	110	— 4	May 31	Oct. 4
*Fort Canby	41.1	44.8	44.2	48.0	53.5	57.2	58.1	60.6	58.0	53.2	46.6	43.4	50.7	87	30	Mar. 24	Dec. 5
Fort Simcoe	27.6	40.4	41.8	53.8	58.0	63.8	69.8	74.4	62.6	49.7	36.2	26.6	50.4	105	— 2	Apr. 9	Oct. 5
Fort Spokane	21.2	34.2	37.1	49.7	53.7	62.4	69.8	72.9	60.0	46.1	33.4	18.6	46.6	109	— 9	May 2	Sept. 28
Grand Mound	37.6	43.2	41.8	49.2	54.4	60.5	64.0	67.0	59.8	49.8	43.0	36.8	50.6	99	14	May 1	Oct. 8
Hunters	19.3	30.6	30.5	42.8	50.1	54.5	59.8	64.8	51.8	40.3	28.8	21.2	41.2	94	— 5	June 28	Sept. 23
Kennewick	31.4	44.1	44.2	51.8	63.4	69.8	76.4	79.2	66.2	53.2	43.2	30.4	54.7	115	— 8	Apr. 19	Sept. 24
Lacenter	37.4	44.6	41.3	50.4	55.1	61.6	65.4	67.2	61.3	50.0	41.8	36.7	51.1	99	15	Apr. 18	Nov. 7
Lakeside	22.0	35.2	39.8	53.2	60.9	64.4	73.7	75.6	62.0	48.9	35.7	23.5	49.6	103	7	Mar. 30	Oct. 1
Lapush	37.5	41.2	38.0	44.5	49.8	55.7	54.4	55.7	53.8	46.8	[c]43.3	41.6	46.9	84	25	Apr. 3	Nov. 20
Lind	25.8	38.2	37.4	52.4	59.4	.....	.....	79.3	64.0	49.0	34.7	22.9	.....	.....	—11	May 20	Sept. 28
Loomis	22.6	35.1	38.6	52.4	58.9	65.4	70.4	79.2	[j]63.8	48.0	33.4	20.8	49.0	103	— 3	Apr. 8	Oct. 3
Madrone	38.8	44.9	42.4	49.2	54.8	59.8	62.2	64.6	59.0	50.6	43.7	39.0	50.8	90	22	Apr. 14	Nov. 20
Mayfield	39.6	43.6	42.2	[c]49.6	.....	.....	.....	.....	[d]60.2	50.9	42.4	37.0	.....	.....	.....	Apr. 18	Oct. 7
Moxee Valley	27.1	40.2	41.0	50.8	58.2	65.0	72.0	74.6	60.8	47.5	37.6	26.2	50.1	105	— 4	May 31	Oct. 1
*Neah	.....	.....	.....	.....	.....	.....	59.3	58.0	55.1	50.0	43.7	41.8	.....	.....	.....	.....	Dec. 30
New Whatcom	38.2	45.4	42.6	48.0	53.6	58.1	60.4	61.8	57.6	50.5	43.8	40.0	50.0	84	18	Apr. 15	Dec. 6
Northbend	[d]38.2	42.6	42.6	.....	.....	60.8	64.0	65.2	58.3	.....	.....	39.7	.....	.....	.....	.....	.....
Olga	38.3	43.8	41.5	47.4	53.0	56.9	57.8	59.2	56.1	47.9	42.2	39.4	48.6	80	24	Mar. 26	Nov. 19
Olympia	39.2	44.0	42.6	49.2	55.0	60.3	64.2	65.3	59.8	50.5	45.0	39.6	51.2	99	18	Apr. 24	Nov. 25
Orcas Island	38.9	44.8	43.0	49.0	56.0	61.0	62.8	63.2	59.0	50.9	43.8	39.6	51.0	89	20	Mar. 26	Nov. 24
Pine Hill	34.3	40.9	42.4	50.2	55.7	62.8	69.1	71.4	61.9	49.8	39.1	30.3	50.7	103	6	Apr. 19	Oct. 7
Pomeroy	[i]30.0	[i]41.4	38.6	53.7	58.2	66.9	75.0	79.6	66.4	50.4	38.2	29.0	52.3	108	1	Mar. 31	Oct. 4
*Port Angeles	38.6	42.1	40.5	45.2	51.0	55.0	56.2	58.4	55.0	.....	.....	.....	.....	.....	.....	Apr. 19	.....
*Port Crescent	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.2	42.9	39.4	.....	.....	.....	.....	.....
Port Townsend	40.6	45.0	43.8	48.2	54.5	57.9	60.4	62.0	58.4	52.6	46.1	40.9	50.9	86	28	Mar. 26	Dec. 6
Pullman	24.8	37.2	32.6	48.0	52.0	60.2	65.6	71.5	60.3	46.0	33.4	25.4	46.4	102	0	Apr. 19	Oct. 4
*Pysht	38.6	42.3	41.0	47.8	53.6	57.6	60.0	61.2	[f]55.0	[e]48.0	[e]41.8	.....	.....	.....	.....	Apr. 4	Nov. 24
Rosalia	24.8	37.0	35.0	47.3	52.4	58.8	64.6	68.9	58.0	45.2	33.0	24.2	45.8	101	— 9	June 28	Oct. 4
*Seattle	39.9	45.6	43.4	50.0	57.1	61.4	64.6	66.3	60.8	52.2	45.0	40.4	52.2	92	27	Mar. 26	Nov. 25
Sedro	38.6	45.1	43.6	52.2	58.5	61.5	63.6	65.2	60.5	52.2	42.5	35.9	51.6	94	18	Apr. 4	Nov. 8
Shoalwater Bay (*g*)	41.2	45.2	44.4	49.4	55.0	58.4	60.1	61.6	59.5	52.7	46.2	.....	.....	.....	.....	.....	.....
Silvania	36.8	42.6	40.6	[c]46.6	55.0	.....	59.4	62.4	57.3	48.1	41.0	35.8	.....	91	17	Apr. 4	Oct. 8
Snohomish	39.0	45.0	43.2	51.6	60.0	65.2	69.8	66.1	59.9	50.3	43.4	38.4	52.7	92	19	Mar. 21	Oct. 8
Southbend	40.6	44.6	43.3	48.6	54.6	58.9	61.6	61.8	61.2	51.8	44.6	41.3	51.1	95	23	Apr. 4	Nov. 8
*Spokane	26.0	38.2	37.0	50.0	55.1	63.0	69.4	73.2	60.4	46.8	35.0	24.5	48.2	104	— 2	Apr. 28	Nov. 7
Stampede	.....	.....	39.6	43.1	50.0	56.6	.....	66.0	55.8	[e]42.8	33.0	29.2	.....	.....	.....	Apr. 21	Oct. 16
Sunnyside	27.9	41.4	42.5	52.3	59.2	66.6	72.4	75.0	62.8	49.6	38.2	27.2	51.3	108	— 6	May 7	Oct. 4
*Tacoma	38.4	44.8	42.0	49.2	55.4	60.3	63.8	65.6	59.6	50.6	43.4	38.5	51.0	92	22	Mar. 22	Nov. 12
*Tatoosh Island	38.7	39.8	39.3	42.6	46.1	50.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mar. 22	.....
Tunnel	25.2	.....	.....	.....	.....	.....	.....	[e]71.2	57.0	45.2	33.8	26.7	.....	.....	.....	.....	Oct. 7
Union City	38.8	43.0	43.0	49.7	55.4	59.8	63.2	65.1	59.2	49.8	43.0	37.7	50.6	93	22	Apr. 18	Oct. 6
Vancouver	38.1	44.9	43.4	51.2	55.0	61.2	65.1	66.8	60.0	51.1	44.2	36.6	51.5	97	13	Apr. 4	Nov. 14

[i] Record doubtful.

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual. Mean.	Annual. Extremes. Max.	Annual. Extremes. Min.	Killing frost. Last in spring.	Killing frost. First in autumn.
Washington—Continued.																	
Vashon	38.8	44.3	42.9	48.6	55.0	59.2	62.8	65.0	59.8	50.0	43.8	39.7	50.8	90	26	Apr. 3	Nov. 12
*Walla Walla	32.2	45.4	42.0	53.8	58.4	66.0	74.0	78.4	65.4	52.6	40.8	28.8	53.2	113	— 2	Mar. 25	Nov. 7
Waterville	16.9	32.0	32.3	46.8	52.8	57.8	66.0	72.2	[d]59.5	42.7	28.7	19.6	43.9	100	— 6	Apr. 19	Sept. 30
West Virginia.																	
Beverly	36.5	30.4	46.4	44.4	59.5	67.0	71.8	69.6	67.7	53.3	39.6	29.8	51.3	98	—12	May 9	Oct. 16
Bluefield	38.6	34.4	50.0	.....	.....	.....	72.8	72.6	70.0	.....	41.0	33.1	.....	98	— 4	.....	Oct. 26
Buckhannon	36.7	32.5	47.8	48.9	62.2	.....	74.6	73.2	66.3	50.8	40.4	31.4	.....	97	—12	Apr. 28	Oct. 16
Burlington	34.7	32.3	46.4	47.2	63.0	70.2	75.2	73.2	64.7	52.6	39.6	31.6	[e]52.6	102	1	May 9	Oct. 13
Dayton	37.6	31.6	48.7	48.8	61.2	70.4	75.2	72.9	67.3	54.6	40.4	32.8	53.5	99	—12	May 8	Oct. 16
Eastbank	40.2	36.5	52.1	52.6	67.6	73.0	75.4	76.9	67.6	61.0	44.0	35.1	56.8	98	— 2	Apr. 9	Oct. 26
Elkhorn	40.9	35.2	51.4	48.6	64.3	69.9	73.1	72.5	67.4	55.7	43.4	35.2	54.8	94	— 6	Apr. 28	Oct. 27
*Glenville	36.2	32.0	48.2	47.8	62.6	70.0	72.9	73.0	68.5	54.4	41.0	31.7	53.2	94	—10	Apr. 28	Oct. 24
Grafton	34.8	32.2	47.8	46.2	62.0	69.7	73.7	72.6	67.0	55.6	42.8	33.8	53.2	96	— 4	Apr. 30	Oct. 16
Green Sulphur	39.0	32.4	49.2	48.0	60.7	69.8	74.7	74.3	68.4	56.7	41.9	32.7	54.0	95	— 2	May 9	Oct. 19
Hinton	38.8	33.8	49.3	49.8	65.2	72.0	76.4	74.4	69.4	56.8	42.2	33.2	55.1	97	— 4	Apr. 13	Oct. 28
Huntington	37.9	34.3	49.8	51.0	62.4	74.4	77.6	76.0	70.2	56.1	41.6	33.5	55.4	99	0	May 8	Oct. 23
Kingwood	33.6	29.8	46.7	44.7	60.4	67.8	72.4	71.2	65.2	53.9	39.8	30.4	51.3	91	— 4	May 9	Oct. 15
Marlinton	33.8	30.0	45.6	43.9	60.0	66.9	71.2	69.8	64.3	52.2	.....	.....	.....	91	— 9	May 9	Oct. 15
Martinsburg	35.5	32.3	47.2	48.3	62.3	71.6	76.8	74.2	67.9	54.4	41.9	32.6	53.8	103	—11	Apr. 9	Oct. 24
Morgantown	37.6	33.4	47.8	46.8	62.6	71.4	75.2	75.1	71.2	56.5	42.2	.....	.....	98	— 5	May 9	Oct. 15
New Cumberland	.....	.....	46.4	49.2	62.4	72.7	77.6	74.2	69.0	56.2	41.8	33.2	.....	97	.....	Apr. 28	Oct. 26
New Martinsville	37.6	33.2	49.1	49.1	63.8	75.2	77.8	75.2	70.2	57.3	42.7	34.0	55.4	101	— 4	May 9	Oct. 24
Nuttallburg	.....	34.2	45.7	45.2	62.4	67.2	72.3	71.9	68.7	.....	39.9	34.2	.....	98	.....	May 9	.....
Oldfields	35.2	31.2	47.2	46.9	63.6	69.2	74.1	73.6	66.4	54.0	39.8	31.5	52.7	100	0	May 9	Oct. 16
*Parkersburg	36.8	33.6	48.6	49.4	64.2	73.0	77.5	75.8	70.6	56.6	42.2	32.8	55.1	100	— 2	Apr. 5	Oct. 28
Philippi	.....	.....	.....	49.1	63.2	72.6	[d]75.8	73.6	65.6	55.6	41.1	33.5	.....	100	.....	May 10	Oct. 16
*Point Pleasant	37.4	35.0	50.5	51.4	66.0	74.7	78.8	77.0	73.3	57.0	42.8	34.1	56.5	100	— 5	Apr. 8	Oct. 27
Powellton	37.8	33.9	50.5	49.8	64.4	70.6	74.4	73.2	68.8	56.2	41.8	33.0	54.5	93	— 5	Apr. 28	Oct. 20
Romney	35.5	32.8	48.1	48.8	64.0	71.4	75.8	74.2	65.0	55.7	41.1	33.2	53.8	102	6	Apr. 28	Oct. 24
Upper Tract	38.2	34.0	49.0	46.4	64.3	70.2	74.9	74.2	67.4	55.2	42.4	33.0	54.1	102	0	May 8	Oct. 13
Weston (*b*)	37.0	31.4	48.1	47.6	64.2	72.3	77.0	73.8	67.8	55.0	41.3	33.2	54.1	102	— 9	Apr. 28	Oct. 24
Wheeling	36.2	33.6	49.5	52.0	65.8	76.2	74.6	78.2	70.9	57.6	43.7	33.4	56.0	103	2	Apr. 8	Oct. 28
White Sulphur Springs	.....	.....	51.2	47.2	.....	.....	.....	.....	66.3	55.6	[h]43.2	.....	.....	.....	.....	Apr. 7	Oct. 17
Wisconsin.																	
Amherst	20.3	18.8	32.6	44.0	56.2	67.5	70.0	66.4	61.2	44.8	32.2	14.7	44.0	93	—18	May 6	Sept. 10
Barron	.....	17.0	27.6	37.8	49.6	60.9	66.2	61.0	55.3	41.0	.....	.....	.....	94	—30	May 17	Sept. 9
Bayfield	22.1	19.0	30.8	39.9	51.3	60.0	70.6	65.8	62.0	45.6	30.2	16.6	42.8	96	—20	Apr. 24	Oct. 6
Beloit	23.8	24.0	38.0	45.8	58.4	67.0	73.0	69.8	65.6	48.8	33.8	19.8	47.3	92	— 8	Apr. 8	Oct. 15
Brodhead	21.5	22.6	37.3	45.8	56.8	69.2	72.1	69.4	65.1	48.8	34.2	18.5	46.8	95	—11	Apr. 25	Oct. 15
Butternut	18.9	18.9	31.4	42.8	54.3	.....	.....	.....	.....	.....	.....	13.4	.....	.....	.....	.....	.....
Chat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chilton	23.4	22.4	35.9	44.0	56.9	67.0	.....	68.0	64.6	46.6	34.8	17.2	.....	.....	—13	Apr. 30	Oct. 13
Citypoint	21.2	19.6	33.2	46.1	60.8	68.0	73.0	68.6	63.8	45.6	31.2	14.4	45.5	97	—20	Apr. 21	Sept. 10
Delavan	21.4	22.4	36.8	44.2	56.4	69.0	71.2	69.7	63.8	48.7	32.4	16.9	46.1	93	—13	Apr. 26	Oct. 13
Dodgeville	21.4	21.6	35.4	45.0	57.1	68.4	71.2	68.8	63.6	45.4	31.2	15.6	45.4	.....	—16	Apr. 21	Oct. 14
Easton	19.6	19.8	33.6	43.0	57.0	68.4	71.3	67.0	63.1	45.4	32.9	13.8	44.6	94	—20	Apr. 29	Sept. 11
Eau Claire	20.6	20.2	33.1	43.6	57.2	69.0	73.2	70.4	63.8	45.8	30.2	11.5	44.9	97	—33	Apr. 26	Sept. 11
Florence	17.6	17.8	29.8	39.3	51.8	62.9	66.2	62.4	57.6	42.2	30.5	15.6	41.1	92	—21	May 16	Sept. 10
Fond du Lac	21.8	.....	[f]36.0	44.2	56.2	67.4	71.6	68.0	64.2	47.8	33.8	15.9	.....	96	—12	Apr. 26	Sept. 15
Grantsburg	19.1	17.2	33.2	42.6	53.8	67.1	70.2	66.3	62.1	44.0	30.2	12.3	43.2	95	—36	May 5	Sept. 9
Gratiot	22.8	21.7	37.4	44.0	56.9	68.1	.....	66.6	60.8	.....	31.3	15.4	.....	.....	—15	Apr. 29	Sept. 11
*Greenbay	21.4	21.2	35.2	43.4	55.4	65.3	70.6	67.4	63.7	47.2	34.6	17.4	45.2	94	—11	Apr. 8†	Oct. 15
Hartford	.....	.....	.....	.....	.....	.....	67.6	.....	61.4	48.6	33.4	8.3	.....	.....	.....	.....	.....
Hartland	22.6	22.4	36.6	44.0	56.8	67.7	72.7	69.2	64.8	48.6	.....	.....	.....	.....	.....	Apr. 22	Oct. 15
Harvey	22.6	23.3	37.6	45.3	57.0	69.2	72.6	69.2	63.6	47.4	32.6	17.8	46.5	93	—11	Apr. 9	Oct. 5
Hayward	19.4	18.6	33.2	43.8	55.3	65.6	70.8	66.2	61.3	45.6	30.2	12.9	43.6	97	—35	May 13	Sept. 9
Heafford Junction	.....	.....	31.9	41.4	54.2	65.8	69.3	63.9	58.4	42.4	29.2	13.5	.....	96	.....	Apr. 21†	Sept. 20
Hillsboro	21.4	20.5	33.5	.....	56.8	68.0	70.2	67.2	61.5	46.6	32.0	15.7	.....	94	—18	May 12†	Sept. 11
Kenosha (*g*)	21.5	23.3	34.6	39.3	55.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knapp	.....	20.1	33.9	43.4	55.8	66.5	69.8	66.1	59.5	43.6	28.4	11.6	.....	95	.....	Apr. 26	Sept. 9
Koepenick (*a*)	17.1	19.0	31.8	39.3	57.1	65.7	68.4	63.9	59.5	49.4	37.2	14.5	43.6	92	—18	Apr. 18†	Oct. 13
*La Crosse	22.0	21.6	36.7	46.7	59.2	70.2	73.0	69.9	64.3	47.2	32.2	15.8	46.6	95	—19	Apr. 7†	Oct. 6
Lancaster	22.2	21.2	35.6	45.2	58.4	69.8	73.3	70.4	64.3	45.8	30.3	15.4	46.0	96	—15	Apr. 21	Oct. 13
Lincoln	21.6	23.0	.....	.....	[f]53.2	64.0	70.2	67.3	64.0	48.4	35.0	20.4	.....	96	— 8	.....	Oct. 15
Madison	22.0	20.3	36.0	45.3	57.5	69.1	73.1	69.1	64.4	47.5	33.3	17.6	46.3	96	—12	Apr. 7	Oct. 24
Manitowoc	24.6	23.4	34.2	42.0	52.8	62.3	66.6	66.5	61.4	47.5	34.8	19.2	44.6	96	— 7	Apr. 8	Oct. 15
Meadow Valley	19.0	18.2	33.3	43.0	56.2	67.3	70.4	66.0	61.8	44.6	31.3	12.6	43.6	95	—24	Apr. 27	Sept. 11
Medford	17.6	17.6	30.4	40.2	53.7	66.7	70.6	66.3	60.8	43.0	28.4	11.8	42.3	101	—28	May 7	Sept. 9
*Milwaukee	26.0	25.0	37.6	44.0	55.0	66.0	71.2	70.0	65.4	49.3	36.3	21.4	47.3	94	— 7	Apr. 8†	Sept. 15
Neillsville	18.2	18.8	32.6	43.4	55.6	66.7	70.0	65.4	61.2	44.9	30.6	11.7	43.3	94	—22	Apr. 29	Sept. 11
New Holstein	16.6	19.7	33.0	45.0	53.6	.....	68.9	65.9	62.4	46.3	.....	10.2	.....	96	.....	Apr. 12	Oct. 6
New London	20.2	20.1	33.6	43.1	55.7	66.4	70.1	66.6	62.5	46.0	32.6	15.6	44.4	96	—16	Apr. 21	Oct. 7
North Crandon	18.2	.....	.....	.....	.....	.....	.....	.....	59.6	42.4	31.2	15.0	.....	.....	.....	.....	.....
Oconto	22.2	23.0	34.0	43.5	*55.6	65.0	66.4	66.2	62.9	47.3	34.6	18.8	45.0	96	—12	Apr. 28	Sept. 10
Osceola	20.1	18.5	32.4	42.2	54.8	65.6	69.8	65.2	60.8	43.9	26.4	7.9	42.3	98	—40	Apr. 29	Sept. 9
Oshkosh	25.2	.....	36.4	.....	.....	.....	.....	.....	.....	47.0	33.8	17.1	.....	.....	.....	Apr. 27	Sept. 9
Pepin	17.7	18.6	32.7	43.6	56.6	68.4	72.0	69.0	62.2	45.4	28.1	11.6	43.8	96	—26	Apr. 26	Sept. 9
Pine River	21.2	20.6	34.6	43.8	57.0	67.2	.....	66.9	63.4	46.0	33.2	*16.8	.....	.....	—19	May 6†	Oct. 6†
Portage	19.6	19.0	33.4	43.4	56.8	68.2	70.8	66.2	60.4	43.8	31.8	16.2	43.6	95	—15	May 7	Sept. 11
Port Washington	24.4	24.6	35.2	43.1	53.6	65.0	69.0	69.3	62.8	48.6	35.6	21.2	46.0	91	—11	May 6	Oct. 14
*Prairie du Chien	25.3	25.0	40.6	48.2	61.1	72.4	74.8	71.6	65.8	49.0	[e]36.2	23.4	49.4	98	—13	Apr. 17	Oct. 14
Prentice (*a*)	.....	.....	.....	.....	[f]53.5	61.4	66.4	61.7	60.2	39.4	26.1	10.8	.....	96	.....	.....	Sept. 9†
Racine	26.6	26.0	37.8	44.2	55.4	66.8	71.3	70.4	65.4	[j]45.6	36.5	23.0	47.4	97	— 9	Apr. 7	Oct. 15†
Sharon	21.6	20.8	34.2	.....	.....	65.9	.....	.....	64.4	[f]48.3	31.6	17.2	.....	.....	—13	May 16†	Oct. 14†
Shawano	22.4	20.8	33.2	42.8	55.2	65.3	69.4	65.5	61.4	44.6	32.5	16.3	44.1	94	—17	Apr. 29	Sept. 11
Sheboygan (*g*)	.....	.....	.....	42.6	55.2	65.2	70.5	70.3	.....	.....	36.0	.....	.....	94	.....	Apr. 6†	.....

MONTHLY AND ANNUAL MEAN TEMPERATURE, ETC., 1898—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.			Killing frost.	
													Mean.	Extremes.		Last in spring.	First in autumn.
Wisconsin—Continued.														*Max.*	*Min.*		
Spooner	19.6	18.6	34.2	42.6	54.0	63.9	71.4	67.5	63.2	44.8	29.5	9.6	43.2	99	—32	Apr. 29	Sept. 9
Stevens Point	19.8	19.8	33.4	43.5	56.6	[e]67.0	71.2	66.6	61.5	44.1	31.0	13.8	44.0	95	—22	Apr. 27	Sept. 9
Sturgeon Bay Canal (*g*)	23.2	21.9	32.6	38.9	49.9	59.9	64.5	65.8	.....	47.8	34.4	.....	.....	90	.....	Apr. 19†	.....
Two Rivers (*g*)	.....	.....	.....	41.9	53.1	62.4	68.4	69.0	.....	49.7	36.7	.....	.....	93	.....	Apr. 8†	.....
Valley Junction	20.4	19.2	34.2	43.7	56.6	66.8	69.0	65.4	61.3	45.1	31.2	13.6	43.9	94	—22	Apr. 27	Sept. 11
Viroqua	22.4	21.4	35.6	44.6	57.8	67.0	72.0	68.0	62.9	46.0	31.4	15.8	45.4	95	—20	Apr. 7	Oct. 15
*Watertown	21.2	22.1	35.6	44.0	56.3	67.9	71.4	68.4	63.2	47.0	32.4	16.0	45.4	92	—12	Apr. 28	Oct. 15
Waukesha	24.2	23.2	36.4	44.6	56.4	67.5	73.0	69.2	64.8	48.5	34.2	18.6	46.7	94	—10	Apr. 7	Oct. 15
Waupaca	20.5	20.3	33.8	43.9	57.7	67.8	72.0	.....	[d]65.4	[e]43.5	32.2	15.8	.....	.....	—19	May 6†	Oct. 6†
Wausau	18.2	17.8	30.9	40.6	54.6	65.9	70.2	65.4	60.0	44.0	31.8	14.0	42.8	93	—19	Apr. 29	Sept. 11
Wausaukee	.....	.....	.....	.....	.....	67.4	71.7	64.6	60.8	46.0	34.1	17.3	.....	96	.....	.....	.....
Westbend	24.4	25.8	37.5	43.7	54.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westfield	21.1	21.1	34.7	43.6	57.4	68.8	72.0	68.6	63.0	47.0	32.1	16.1	45.5	94	—18	Apr. 22	Oct. 7
Westpark	.....	.....	.....	.....	.....	.....	71.2	.....	65.0	.....	35.0	.....	.....	.....	.....	.....	.....
Whitehall	.....	.....	35.0	44.2	56.8	69.1	72.1	66.6	62.2	46.0	31.4	11.6	.....	94	.....	May 7†	Oct. 7
Whitemound	22.0	22.1	36.0	45.3	58.5	.....	71.0	68.4	65.7	.....	.....	.....	.....	96	.....	.....	Sept. 11†
Wyoming.																	
Atlantic City	11.8	21.9	18.8	37.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Basin	.....	.....	.....	.....	.....	.....	73.4	.....	.....	[b]41.3	27.8	11.8	.....	.....	.....	.....	.....
Bighorn Ranch	19.4	29.3	21.6	39.7	42.4	53.4	59.3	63.6	51.8	35.0	25.4	23.3	38.7	87	—23	July 2	Sept. 4
Bigpiney	.....	.....	.....	.....	45.2	54.2	59.2	64.4	46.9	33.9	[d]20.3	5.8	.....	84	.....	June 4	Sept. 3
Bittercreek	.....	.....	.....	.....	.....	.....	72.5	71.4	56.6	.....	.....	.....	.....	.....	.....	.....	Aug. 5
Carbon	18.5	27.8	28.6	45.4	47.7	62.0	71.8	72.0	57.0	41.3	27.6	17.9	43.1	104	—26	June 5	Sept. 5
*Cheyenne	24.9	32.8	29.0	42.8	47.4	61.2	66.3	67.9	57.0	42.3	28.6	23.6	43.6	93	—17	May 7	Sept. 6
Embar	.....	30.0	26.2	47.2	49.2	.....	69.0	69.7	58.4	.....	.....	.....	.....	.....	.....	.....	Sept. 3
Evanston	.....	.....	.....	.....	44.6	55.6	63.2	64.8	53.6	37.9	26.8	11.9	.....	90	.....	June 4	Sept. 10
Fort Laramie	24.0	32.4	32.0	48.4	53.1	66.8	72.4	73.2	59.3	43.0	30.2	22.4	46.4	102	—24	May 6	Sept. 6
Fort Washakie	14.4	29.6	26.5	45.2	47.8	59.2	66.0	66.4	55.3	40.0	29.4	18.2	41.5	91	—23	May 21	Sept. 7
Fort Yellowstone	14.7	25.2	20.8	40.5	45.0	[d]55.2	62.1	63.0	51.9	36.0	25.0	17.2	38.0	89	—22	June 3	Sept. 6
Greenriver	11.6	31.6	.....	.....	.....	63.7	67.7	68.1	.....	38.9	.....	.....	.....	100	.....	June 3	Aug. 6
Hecla	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.0	.....	.....	.....	.....	.....
Labarge	.....	.....	.....	.....	.....	.....	.....	.....	48.0	36.2	.....	.....	.....	.....	.....	.....	.....
*Lander	10.6	27.9	27.1	45.3	48.2	59.8	66.1	65.6	55.4	39.4	30.0	15.5	40.9	92	—25	Apr. 22	Sept. 7
Laramie	17.0	25.6	26.4	40.4	44.1	56.4	64.9	63.1	52.0	39.0	23.8	14.1	38.9	88	—23	May 9	Sept. 5
Lovell	14.5	29.4	[e]24.1	47.2	52.2	63.3	68.0	67.9	55.0	.....	[d]25.4	[e]10.1	.....	100	—23	May 6	Sept. 6
Lusk	20.6	29.2	26.4	43.6	50.4	64.0	70.4	70.9	56.2	39.2	25.4	21.4	43.1	100	—20	May 6	Sept. 5
Otto	.....	29.0	25.6	46.5	51.0	.....	67.8	67.2	55.8	.....	.....	.....	.....	.....	.....	May 21	Sept. 6
Rawlins	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.8	14.0	.....	.....	.....	.....	.....
Rock Springs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.7	16.0	.....	.....	.....	.....	.....
Sheridan	21.0	27.5	21.6	39.8	45.6	59.4	67.3	69.2	56.9	40.8	31.0	19.8	41.7	98	—22	May 31†	Sept. 5
Sundance	18.6	27.2	23.8	40.9	49.3	61.8	68.8	68.5	.....	.....	.....	.....	.....	98	.....	May 6†	Sept. 5†
Thayne	.....	.....	.....	.....	.....	.....	.....	.....	.....	[f]38.6	26.4	11.8	.....	.....	.....	.....	.....
Wamsutter	10.5	22.8	30.2	.....	.....	.....	66.6	67.8	58.3	44.9	33.4	11.8	.....	.....	—26	.....	.....
Wheatland	31.1	36.4	33.4	49.3	52.2	65.0	72.8	73.2	61.6	47.1	35.2	27.6	48.7	100	—15	May 6	Sept. 11

PART V.

MONTHLY AND ANNUAL PRECIPITATION, 1898—ALL STATIONS.

The precipitation values given in the following tables have been taken largely from the records of voluntary (unpaid) observers. The paid stations of the Weather Bureau are indicated by an asterisk (*). Probably two-thirds of the voluntary observers have standard rain gages, the remainder having gages similar in pattern to the standard, or, in a few cases, improvised gages of their own construction.

The bracketed values have been obtained by a comparison of the data for adjacent stations, and are to be considered only as an approximation to the true amount.

When two or more observers reside in the same city, the reports of all are given. The discrepancies between the amounts recorded by the separate observers 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 another observer may defer it to 9 p.m., thus causing a difference in the amounts recorded on the last day of the month.

The small roman letters in the body of the table indicate the number of days missing from the records for the months in which they appear; thus "c" indicates three days missing, "d" four days, etc.

The elevation of each station above sea level, where known, is given in the second column of the table. The altitudes have been compiled from a variety of sources, but the greatest number has been taken from railroad surveys; the altitudes refer, therefore, to the height of the track at the local station rather than the point at which rainfall or temperature observations are made. It has not been possible to obtain the latter, except in a very few cases.

The monthly and seasonal amounts of snowfall for the winter of 1898–99 are given for selected stations in the United States at the end of Part V.

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MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898.

[Compiled from the reports of observers of all classes.]

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Alabama.	*Feet.*													
Alco	.....	1.89	6.82	2.07	2.69	0.59	5.31	7.89	17.48	7.02	0.98	8.26	5.98	66.98
Ashville	685	5.48	0.80	3.04	5.27	0.48	2.97	6.81	3.50	3.79	7.53	4.25	2.12	46.14
Bermuda	.....	2.44	4.29	3.16	4.34	0.33	3.37	7.89	14.21	6.09	2.06	9.33	5.25	62.76
Birmingham	608	5.18	1.15	3.70	4.71	0.11	4.35	5.77	8.57	1.05	4.55	5.28	2.17	46.59
*Bridgeport	660	6.90	0.96	3.23	5.20	1.13	2.33	5.53	2.04	7.83	3.03	3.52	1.99	43.69
Citronelle	352	2.86	4.75	0.34	5.11	0.00	4.16	5.31	8.89	8.29	0.54	8.22	5.33	53.80
Clanton	590	0.82	0.39	2.15	2.98	0.10	2.05	4.04	3.24	0.66	.....	.....	.....	.....
Daphne	.....	2.33	4.83	.....	.....	0.15	4.43	4.69	14.52	14.86	9.48	.....	.....	.....
*Decatur	573	6.46	1.13	3.92	3.65	1.29	1.65	5.24	3.17	3.55	4.72	3.37	2.04	40.19
*Demopolis	.....	2.77	1.64	2.35	3.70	0.10	6.72	8.72	7.25	2.56	3.83	5.38	2.66	47.68
Elba	204	3.32	3.56	2.10	.....	2.07	5.84	5.78	10.90	2.11	4.31	9.68	8.25	.....
*Eufaula[1]	200	1.26	2.01	2.23	5.60	0.49	2.08	11.27	11.99	1.63	4.46	7.52	6.01	56.55
*Eufaula[2]	.....	1.31	2.28	2.22	5.56	.....	.....	.....	.....	.....	.....	8.40	5.67	.....
*Evergreen	.....	1.68	.....	.....	[a]1.38	0.25	7.99	4.31	13.52	6.11	0.75	9.00	5.70	.....
*Florence[3]	563	6.99	1.89	3.93	3.12	2.07	2.30	6.01	4.03	1.82	2.81	3.50	2.45	40.92
Florence[3]	563	7.29	1.67	4.38	3.16	2.22	2.01	5.52	4.34	2.05	2.33	3.62	2.09	40.68
*Fort Deposit	520	1.88	3.25	2.90	4.87	0.60	5.80	4.82	10.22	1.17	2.85	8.36	.....	.....
*Gadsden	621	4.88	0.71	2.99	6.79	0.04	1.16	5.49	3.97	3.19	13.43	3.87	2.04	48.56
*Goodwater	826	1.45	0.75	2.29	4.41	0.16	4.92	8.18	9.02	1.37	3.76	5.32	2.20	43.83
Greensboro	220	2.37	1.77	1.99	3.81	1.88	5.97	4.55	5.06	2.63	2.96	5.82	2.76	41.57
Hamilton	.....	8.04	1.49	3.94	5.22	1.24	2.26	4.02	2.95	3.97	4.09	3.52	1.51	42.25
Healing Springs	.....	2.75	4.15	.....	3.35	1.02	5.53	6.71	11.30	8.10	2.08	9.78	5.20	.....
Highland Home	.....	2.06	2.89	2.61	4.34	1.77	5.09	5.40	9.81	2.40	2.90	7.02	5.23	51.52
Jasper	310	7.65	0.95	4.25	5.67	0.27	.....	7.19	.....	2.49	3.49	4.78	2.87	.....
*Livingston	160	2.50	2.18	2.56	3.60	0.07	5.74	7.22	3.82	2.99	2.61	5.99	.....	.....
*Lock No. 4	510	4.67	0.69	4.11	4.18	1.49	5.27	5.60	4.35	2.44	6.82	4.84	2.01	46.47
Madison Station	573	6.14	1.43	3.42	4.35	1.39	0.93	6.64	4.75	1.88	5.09	2.93	2.38	41.33
Maplegrove	.....	4.37	.....	.....	.....	.....	4.52	6.34	4.77	4.76	8.85	3.66	1.73	.....
*Marion	263	2.95	1.33	3.20	5.50	0.50	4.00	4.84	12.20	1.90	1.90	3.16	3.90	45.38
*Mobile	57	2.15	5.58	1.90	2.61	0.81	4.86	5.60	12.35	16.40	3.30	7.44	3.11	66.11
*Montgomery	221	1.52	2.33	2.05	4.31	0.50	1.41	5.26	7.92	1.13	2.54	7.09	3.69	39.75
Mount Willing	.....	2.20	2.80	2.50	4.22	0.97	4.20	5.13	7.57	1.46	2.89	8.77	4.70	47.41
Newbern	.....	2.42	2.01	2.45	4.19	0.22	4.09	8.36	5.79	2.84	1.76	6.02	2.96	43.11
Newburg	.....	7.36	0.98	5.41	5.40	1.65	1.26	6.83	4.05	.....	.....	.....	.....	.....
Newton	.....	2.73	2.68	1.73	1.60	0.26	3.46	5.15	14.15	1.89	3.82	7.17	6.65	51.29
Oneonto	.....	4.67	0.84	3.31	6.09	0.20	3.59	6.61	5.25	1.31	6.72	4.03	2.62	45.24
*Opelika	817	4.89	1.85	3.15	4.11	0.11	1.26	6.39	9.30	3.43	9.27	7.26	7.66	58.68
Oxanna	650	3.00	0.80	3.79	4.17	1.12	2.88	5.19	8.15	1.85	.....	4.32	1.75	.....
*Pineapple	.....	3.65	4.75	2.40	4.85	0.43	4.45	4.36	5.87	2.50	2.19	6.55	3.85	45.85
Pushmataha	.....	3.55	3.24	2.51	4.01	0.40	3.50	6.06	8.20	4.64	3.88	6.93	4.58	51.60
Riverton	.....	8.28	2.64	4.36	4.44	3.05	1.06	5.77	1.02	2.74	5.53	3.42	4.06	46.37
Rock Mills	.....	3.18	1.05	4.34	6.49	.....	1.76	4.96	13.89	0.71	8.31	6.49	4.30	.....
Scottsboro	652	4.61	1.06	3.75	3.87	0.32	4.68	4.25	3.53	4.19	3.65	4.42	4.43	42.76
Selma	147	2.04	2.19	2.08	4.06	0.38	3.59	5.56	6.42	1.28	3.79	5.72	3.13	40.24
*Sturdevant	497	2.67	1.14	2.51	3.75	0.79	2.71	4.62	8.80	0.46	.....	.....	3.35	.....
Talladega	650	3.62	0.77	3.93	5.03	0.30	5.10	8.33	7.65	0.63	7.30	5.95	1.60	50.21
*Tallassee	.....	2.12	1.91	3.70	5.25	0.25	3.71	7.23	[a]7.40	[d]1.35	.....	7.12	3.93	.....
*Thomasville	.....	3.13	3.35	2.10	3.82	0.35	5.81	6.36	1.89	2.88	0.40	2.41	3.39	35.89
*Tuscaloosa	230	6.65	1.46	4.91	3.73	0.19	4.43	4.51	4.77	2.14	2.84	4.39	3.43	43.45
*Tuscumbia	488	6.47	2.02	4.15	2.83	2.44	2.54	3.95	7.90	3.75	2.53	.....	.....	.....
Union	.....	5.46	1.39	4.02	3.13	0.18	4.26	5.88	8.29	3.51	2.77	4.70	4.40	48.49
*Union Springs	216	2.30	2.65	3.31	5.12	0.18	2.87	4.40	9.27	1.55	3.56	8.59	6.27	51.07
Uniontown	273	2.50	1.32	3.34	5.79	1.10	3.33	8.99	6.28	3.19	2.56	5.73	3.72	47.85
Valleyhead	1,031	6.08	1.32	3.67	4.90	1.55	2.43	6.93	6.94	6.80	6.59	1.61	.....	.....
*Warrior	450	6.97	0.94	4.74	8.57	0.60	2.69	5.25	6.92	1.29	5.83	5.81	1.70	51.31
*Wetumpka	205	2.12	2.15	3.03	6.05	0.62	2.00	7.74	8.52	1.93	3.84	6.71	3.87	48.58
*Wilsonville	452	3.72	0.81	2.62	4.83	0.00	3.68	6.29	5.04	1.83	4.21	5.32	1.65	40.00
Alaska.														
Circle City	.....	0.20	0.40	1.60	0.75	0.75	0.29	.....	.....	.....	.....	.....	.....	.....
Coal Harbor	.....	12.75	0.71	8.85	13.25	2.03	7.08	3.67	2.25	1.02	0.67	0.44	2.26	54.97
Holy Cross Mission	.....	2.02	1.07	3.16	1.25	0.20	2.89	3.34	2.96	2.41	0.23	.....	.....	.....
Juneau Wharf	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.10	.....
Killisnoo	.....	4.40	3.80	2.45	6.80	2.90	1.05	4.30	1.30	6.35	5.90	6.50	6.95	52.70
Kodiak	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.35	5.72	.....
Sitka	.....	.....	.....	.....	.....	.....	[a]1.39	3.97	3.92	5.98	8.22	13.47	10.99	.....
Skagway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.56	7.85	.....
Tyoonok	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.84	1.41	.....
Arizona.														
Arizona Canal Co.'s dam	1,372	2.13	0.00	0.10	0.08	T.	T.	0.29	.....	.....	0.00	0.86	2.29	.....
Benson	3,578	.....	0.00	0.00	0.00	T.	1.57	2.67	3.91	2.07	.....	T.	0.85	.....
Bisbee	5,500	2.57	0.26	1.94	0.47	0.00	1.91	8.86	3.84	2.11	0.00	1.01	2.90	25.87
Buckeye	.....	1.70	0.00	0.10	0.00	0.00	0.10	0.90	1.70	0.00	0.00	0.30	1.80	6.60
Calabasas	3,440	1.81	0.00	1.21	0.60	.....	.....	.....	8.51	0.04	0.00	0.60	.....	.....

[1] Cotton region observer. [2] River observer. [3] Richard Smith.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Arizona—Continued.	*Feet.*													
Camp Creek	2,700	2.81	.....	0.27	0.05	0.51	0.51	1.25	2.95	0.10	0.00	1.10	.....	.....
Casa Grande	1,396	.....	0.00	.....	0.10	0.00	0.60	0.30	1.25	1.00	0.00	0.05	1.42	.....
Cedar Springs	4,700	2.89	0.06	1.27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Champie Camp	1,900	.....	.....	.....	.....	0.05	0.50	0.90	3.20	0.00	0.00	1.30	2.10	.....
Congress	3,688	1.94	T.	0.41	0.18	0.07	0.29	0.74	2.92	T.	0.00	0.59	1.35	8.49
Dragoon	4,614	3.22	0.00	0.84	1.44	0.00	0.32	3.90	2.55	0.00	0.00	0.00	1.40	13.67
Dragoon Summit	.....	0.81	0.00	0.00	0.75	0.00	0.52	2.70	2.38	1.51	0.00	0.49	2.28	11.44
Dudleyville	2,360	2.80	0.10	0.72	1.12	0.05	0.40	3.98	2.23	0.22	0.00	0.45	2.89	14.96
Empire Ranch	4,890	2.94	0.00	0.38	0.66	.....	0.19	4.33	8.36	[1]0.36	0.00	0.72	0.74	.....
*Flagstaff	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Flagstaff	6,885	5.40	0.45	2.87	2.50	4.90	0.21	3.70	2.69	T.	T.	0.26	1.37	24.29
Fort Apache	5,200	2.76	1.50	1.08	0.50	2.70	2.60	4.33	3.59	0.12	0.00	0.57	0.80	20.55
Fort Defiance	6,950	2.00	0.25	1.04	0.31	0.28	0.74	1.97	2.53	0.16	0.00	1.10	1.40	11.78
Fort Grant	4,916	2.23	T.	0.53	1.60	0.00	0.37	2.65	4.41	0.67	0.00	0.50	1.30	14.26
Fort Huachuca	5,100	2.48	0.39	1.26	0.59	0.12	0.46	7.84	6.22	0.68	0.00	1.20	0.58	21.82
Fort Mohave	604	0.00	0.00	0.00	.....	0.00	.....	.....	([1])	0.00	0.00	T.	0.50	.....
Gilabend	737	1.65	0.00	0.49	0.00	0.00	0.70	0.25	0.60	0.00	0.00	T.	1.10	4.79
Holbrook	5,050	1.00	0.11	0.90	0.76	0.26	0.53	1.33	1.96	0.08	0.00	0.13	1.15	8.21
Hot Springs	2,300	.....	.....	.....	.....	.....	0.68	0.15	4.31	T.	0.00	0.75	2.75	.....
Jerome	5,400	1.82	0.15	T.	0.45	1.10	0.70	2.00	3.80	0.00	0.00	0.70	2.60	13.32
Lochiel	5,100	.....	0.14	1.75	0.46	.....	0.74	5.12	4.56	0.68	0.00	0.75	1.56	.....
Maricopa	1,173	0.93	0.00	0.14	T.	0.00	T.	1.30	1.01	0.00	0.00	0.40	2.12	5.90
Mesa	.....	2.05	T.	0.44	0.10	T.	0.12	0.95	1.10	T.	0.00	0.70	2.39	7.85
Mount Huachuca	5,000	5.05	0.17	3.11	0.45	0.00	1.33	7.03	3.94	0.45	0.00	1.42	3.43	26.38
Music Mountain	3,500	0.63	0.63	0.17	0.91	0.82	0.13	0.28	3.01	0.00	0.00	0.07	0.16	6.81
Natural Bridge	.....	3.60	0.60	0.81	0.44	0.98	0.76	4.32	3.50	0.70	0.00	0.85	3.00	19.56
Oracle	4,500	3.72	0.00	1.38	1.38	0.40	0.70	3.72	4.97	0.25	0.00	1.25	3.12	20.89
Oro	3,600	1.45	0.00	0.98	1.52	0.06	2.60	2.38	2.15	1.79	0.00	1.08	2.13	16.14
Oro Blanco	4,200	4.01	0.00	1.07	0.60	0.02	1.52	4.72	5.86	0.58	0.00	0.87	1.75	21.00
Pantano	3,536	1.55	0.13	0.27	0.45	0.00	0.22	3.28	4.41	0.42	0.00	0.11	1.32	12.16
Parker	375	0.49	0.01	0.54	0.05	0.15	0.22	.....	0.26	0.00	0.00	0.40	1.37	.....
Payson	5,500	4.65	1.00	3.89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peoria	.....	2.00	T.	0.06	0.02	T.	0.06	0.19	2.23	.....	.....	0.66	2.75	.....
*Phœnix	1,076	1.63	T.	0.03	0.18	0.01	0.08	0.24	1.03	0.04	0.00	1.01	1.70	5.95
Phœnix[2]	.....	1.52	0.00	0.00	0.00	0.00	0.00	0.20	1.00	0.00	0.00	0.61	1.98	5.31
Pima	.....	.....	.....	.....	.....	.....	.....	.....	1.93	0.30	0.00	0.64	1.66	.....
Pinal Ranch	4,400	5.70	0.21	1.39	0.65	0.14	1.33	2.49	3.53	0.00	0.00	1.27	3.13	19.84
Prescott	5,389	1.97	0.17	0.22	0.23	0.92	0.88	2.04	3.53	0.00	0.00	0.68	1.25	11.89
St. Helena Ranch	4,870	3.83	0.19	0.35	0.68	0.00	.....	.....	.....	.....	.....	.....	.....	.....
San Carlos	2,456	1.88	0.00	0.00	0.60	0.00	0.20	2.65	1.41	0.00	0.00	0.25	0.80	7.79
San Simon	3,609	.....	0.00	.....	.....	0.00	T.	.....	0.24	1.01	0.00	0.28	0.53	.....
Showlow	6,500	.....	0.22	0.31	0.35	0.00	1.69	2.86	4.40	.....	.....	.....	.....	.....
Signal	1,652	1.37	T.	0.27	0.27	0.70	1.13	T.	3.94	0.00	0.00	0.12	1.38	9.18
Snowflake	5,644	1.47	0.20	0.32	0.51	0.22	1.04	0.96	3.25	0.10	0.00	0.24	1.08	9.39
Strawberry	5,875	5.10	0.59	1.04	0.89	1.41	1.14	2.10	3.82	0.08	T.	0.75	2.90	19.82
Sulphur Spring Valley	.....	1.27	0.06	0.40	0.56	T.	0.03	4.43	2.97	0.84	0.00	0.55	1.31	12.42
Texas Hill	353	0.00	0.00	0.35	0.03	0.00	0.12	0.06	1.47	0.00	0.00	0.06	1.10	3.19
Tombstone	.....	0.99	T.	0.69	0.83	0.00	0.38	4.24	3.68	0.85	0.00	0.55	1.29	13.50
Tuba	.....	0.78	0.12	T.	.....	0.75	.....	.....	.....	.....	.....	0.06	0.58	.....
Tucson	2,430	1.10	0.00	0.63	1.05	0.00	0.20	3.22	3.94	0.10	0.00	0.85	1.63	12.72
Walnutgrove	.....	2.00	0.18	0.07	T.	0.02	0.11	1.03	2.33	0.00	0.00	0.06	1.70	7.50
Whitehills	3,200	0.87	0.60	0.35	0.00	0.95	T.	0.40	1.77	0.00	0.00	0.02	0.50	5.46
Willcox	3,578	1.25	0.00	0.28	0.27	0.00	0.03	3.13	1.55	0.20	0.00	0.08	1.37	8.16
Williams	6,700	3.00	0.30	0.90	0.40	2.03	.....	.....	.....	.....	.....	0.60	2.10	.....
Winslow	4,824	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.00	T.	0.85	.....
Yarnell	4,700	.....	.....	.....	.....	.....	.....	.....	.....	0.15	0.00	0.70	1.60	.....
*Yuma	141	0.42	0.00	0.39	0.01	0.00	T.	0.00	0.19	0.00	0.00	0.21	1.16	2.38
Arkansas.														
Amity	.....	7.14	1.49	1.96	2.72	4.96	6.08	4.67	3.91	3.26	5.40	4.40	1.30	47.29
*Arkansas City	142	8.65	2.75	2.95	2.35	4.37	5.75	4.75	3.58	4.97	5.41	3.65	3.60	52.78
Beebranch	.....	6.50	.....	6.75	5.30	3.65	2.47	4.16	4.40	7.99	4.15	2.20	.....	.....
Blanchard Springs	.....	8.80	3.12	3.88	1.89	2.97	7.05	2.39	3.72	4.71	3.98	6.19	2.32	51.02
*Brinkley	208	10.92	1.95	4.68	1.81	5.60	4.88	7.35	2.45	7.00	8.75	3.35	1.50	59.74
*Camden[3]	143	10.85	2.25	2.57	1.80	3.69	4.23	3.70	2.55	5.34	3.12	4.70	3.21	39.01
Camden[4]	143	10.55	2.33	2.45	.....	3.75	4.08	3.69	2.78	5.55	3.23	4.77	2.08	.....
Conway	319	6.96	1.35	4.70	3.83	9.80	5.52	3.02	1.86	8.67	6.45	2.36	1.52	56.05
Corning	293	.....	4.76	9.65	3.52	7.21	3.33	6.44	4.67	11.08	3.73	2.21	2.00	.....
Dallas	1,100	4.45	2.13	7.51	3.19	14.28	4.05	6.98	6.36	4.87	.....	2.89	1.53	.....
*Dardanelle	330	4.81	1.23	7.18	2.96	8.51	5.81	2.40	3.08	6.32	5.57	1.98	1.70	51.55
Elon	.....	8.43	1.98	2.42	3.02	1.22	7.71	7.68	4.78	5.61	7.16	6.46	1.88	58.35
Fayetteville	1,340	4.62	0.73	15.07	3.93	10.42	5.69	7.11	4.48	4.53	5.34	2.57	1.57	66.06
*Forrest	283	9.10	2.35	4.73	1.35	2.80	3.50	2.76	3.61	0.39	7.02	.....	.....	.....
*Fort Smith	427	2.97	0.81	10.53	2.73	7.48	5.64	2.31	6.10	5.00	4.04	1.55	1.96	51.12
*Fulton	264	8.99	1.54	1.20	1.10	4.04	7.82	1.87	8.89	2.56	1.64	3.94	2.10	45.69
Hardy	643	5.19	2.33	9.85	3.66	8.40	3.85	4.71	3.09	9.41	3.88	2.65	1.96	58.48
*Helena[3]	193	14.22	2.04	3.66	3.99	5.88	3.11	1.68	3.50	4.49	4.69	3.95	4.27	55.48
*Helena[5]	193	12.81	1.79	2.83	3.83	4.85	2.48	1.99	3.74	4.93	4.67	3.15	3.39	50.46
Hot Springs[6]	427	6.97	1.02	1.58	2.52	8.63	5.23	4.11	3.45	5.05	5.84	.....	1.65	.....
Hot Springs[7]	427	7.87	1.06	1.94	2.56	7.38	4.69	4.12	3.31	5.00	.....	2.88	1.81	.....
Jonesboro	311	9.25	3.10	5.70	2.89	4.65	5.29	3.65	8.42	9.61	7.43	1.59	2.63	64.21
Keesees Ferry	750	3.57	1.36	15.08	2.66	8.14	5.30	6.00	6.03	6.72	3.07	2.69	2.05	62.67
Lacrosse	.....	4.63	1.48	10.74	3.75	8.32	4.76	[5]3.09	5.14	7.40	3.96	1.50	.....	.....
*Little Rock	298	8.16	1.23	2.64	2.76	7.52	3.03	2.60	2.07	10.23	5.04	2.89	1.43	49.54
Lonoke	.....	12.00	1.38	3.30	1.61	4.87	4.12	3.87	2.75	8.18	7.56	3.93	2.00	55.57

[1] Raingage upset by wind during a heavy wind and rainstorm on the 28th, lasting about forty-five minutes, during which time 8 inches of rain fell, as determined from measurements in a tub exposed on the open mesa.
[2] Agricultural experiment station.
[3] River observer. [4] A. L. Morgan. [5] Cotton region observer. [6] Post surgeon. [7] Hot Springs Water Company.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Arkansas—Continued.	*Feet.*													
Luna Landing	.....	8.13	3.14	1.90	3.65	.....	.....	.....	7.80	8.20	6.25	5.47	.....	.....
Lutherville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Magnolia	330	8.37	1.58	2.54	2.12	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Malvern	273	9.37	2.06	2.90	2.88	4.19	3.23	4.10	2.49	6.55	5.15	4.11	1.50	48.53
Marvell	.....	12.18	1.87	3.55	2.75	4.36	2.90	6.67	2.76	6.28	8.80	3.18	2.94	58.24
Mena	.....	2.87	1.78	6.51	2.03	13.89	5.48	5.33	6.12	7.41	4.91	.....	.....	.....
Monticello	277	9.34	2.64	3.21	2.37	.....	.....	4.15	6.32	6.32	5.39	.....	0.64	.....
Moore	.....	9.48	3.33	5.46	7.85	9.80	4.72	4.43	5.12	.....	.....	.....	.....	.....
Mossville	.....	6.02	1.21	17.17	6.12	11.33	9.96	3.70	4.99	10.50	7.71	2.60	3.68	84.99
Mount Nebo	1,750	4.52	1.70	8.09	.....	8.91	5.49	6.00	4.29	7.71	7.29	2.19	1.73	.....
New Gascony	.....	12.67	2.27	3.06	2.10	3.27	2.49	2.14	2.14	7.41	4.70	3.20	1.61	47.06
*Newport[1]	230	8.96	2.64	4.94	2.95	6.04	2.35	2.36	5.54	11.64	5.88	2.23	2.79	58.32
*Newport[2]	230	8.68	2.53	4.32	2.84	5.29	2.06	2.23	4.97	12.53	5.93	2.52	0.80	54.70
Newport[3]	230	9.00	2.99	4.93	2.56	5.32	2.59	2.56	6.74	14.19	6.03	2.22	[4]2.56	61.69
Oregon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Osceola	.....	12.38	3.47	3.31	2.91	3.68	4.01	4.52	5.18	5.34	3.18	3.61	3.31	54.90
Ozark	398	4.50	1.25	10.15	3.58	6.91	11.15	2.87	7.76	5.48	4.15	2.18	1.75	61.73
Picayune	.....	6.70	2.43	2.73	2.32	5.20	9.59	1.06	3.20	.....	3.16	3.57	1.11	.....
*Pinebluff	223	14.50	2.37	2.82	1.66	3.12	2.57	1.76	3.41	9.01	4.97	3.96	2.24	52.33
Pocahontas	.....	6.07	5.28	11.83	3.50	.....	2.64	6.42	5.02	11.34	4.17	2.30	1.93	.....
Pond	.....	.....	.....	.....	2.61	11.68	5.22	13.97	2.89	5.97	4.19	2.55	1.73	.....
Powell	.....	3.75	1.25	16.25	.....	.....	.....	.....	.....	5.74	2.82	2.20	1.72	.....
*Prescott	323	10.20	2.11	2.07	2.70	3.41	5.80	1.80	3.14	3.40	5.79	3.74	1.44	45.60
Rison	225	11.30	2.40	2.38	3.97	4.18	4.60	3.37	3.51	11.75	4.33	3.77	1.11	56.67
*Russellville	352	4.65	2.43	8.21	4.59	8.16	3.36	5.41	4.20	7.08	7.13	2.65	.....	.....
Silversprings	1,385	5.29	0.47	15.02	3.21	9.49	5.38	11.60	4.97	5.45	3.47	2.19	1.16	67.70
Spielerville	495	3.80	1.83	9.24	3.37	11.05	4.15	3.36	4.30	6.86	4.63	2.29	2.19	57.07
Stamps	281	8.82	1.63	1.38	2.63	2.78	7.36	.....	2.66	.....	3.63	3.97	.....	.....
Stuttgart	211	13.10	2.18	3.95	2.30	4.93	1.85	3.37	3.41	7.45	7.80	3.25	1.81	55.40
*Texarkana	298	7.00	2.11	1.46	1.63	3.11	10.19	0.60	5.49	5.17	3.07	3.13	1.21	44.17
*Warren	205	10.97	3.98	3.09	3.49	4.95	3.71	1.61	3.82	7.81	9.46	4.22	1.97	59.08
Washington	354	8.75	1.95	1.43	2.11	3.64	5.68	2.81	3.43	4.66	4.62	4.35	1.74	45.17
Wiggs	.....	8.29	1.30	2.24	2.71	6.49	6.51	7.00	5.40	4.94	5.45	3.79	1.33	55.45
Winslow	1,734	3.66	0.89	17.56	5.47	9.81	7.93	3.46	.....	4.38	8.88	3.11	3.38	.....
Witts Springs	1,550	2.11	1.24	9.71	4.07	10.61	7.31	5.34	4.94	7.57	4.32	2.81	1.97	62.00
California.														
Agnew	30	1.47	1.69	0.51	0.00	0.71	0.00	0.00	0.00	1.38	0.81	1.41	0.86	7.84
Arlington Heights	1,000	1.74	0.12	0.80	0.18	.....	0.00	0.00	0.00	0.00	0.00	0.01	1.38	.....
Athlone	210	0.79	0.92	1.07	0.08	.....	.....	.....	.....	.....	.....	.....	.....	.....
Azusa	594	.....	3.98	.....	0.45	3.17	.....	T.	T.	0.00	T.	0.10	.....	.....
Ballast Point light-house	.....	1.92	0.16	1.07	0.16	0.22	0.00	0.00	0.00	0.05	0.03	0.32	0.85	4.78
Bear Valley	4,600	3.00	10.44	2.35	1.65	3.93	2.00	0.00	T.	0.73	3.07	6.26	3.44	36.87
Berkeley	320	1.54	3.28	0.31	0.19	1.87	0.24	0.00	0.04	0.93	1.88	0.97	1.22	12.47
Bishop	4,450	0.05	0.13	T.	0.21	0.27	T.	T.	0.06	0.41	0.00	0.21	0.11	1.45
Blue Lake City	.....	.....	.....	.....	.....	2.22	0.22	0.00	0.00	0.61	0.35	1.73	2.32	.....
Boca	5,531	1.55	2.90	2.50	1.30	0.85	1.00	0.00	0.00	0.01	1.28	1.29	1.58	14.26
Bodie	8,248	0.90	0.77	0.94	0.28	1.08	0.01	0.20	0.60	1.93	T.	1.00	0.14	7.85
Bowmans Dam	5,500	3.01	12.23	2.63	2.10	3.95	2.12	0.00	0.00	0.55	2.64	7.51	3.22	39.96
Caliente	1,290	1.67	0.70	1.45	0.76	1.40	0.00	0.00	0.00	0.10	0.00	0.45	0.68	7.21
Calloway	394	.....	.....	.....	.....	.....	.....	.....	.....	1.30	0.06	0.21	0.07	.....
Campbell	194	1.43	2.40	0.84	0.19	0.38	0.16	0.00	0.00	1.21	0.66	0.44	0.63	8.34
Cape Mendocino light-house	.....	4.55	8.10	2.10	4.40	4.20	2.30	0.00	0.00	2.20	2.35	4.10	3.00	37.30
Cedarville	4,675	0.75	0.94	0.51	0.33	1.51	0.84	T.	0.05	0.11	0.78	1.91	1.17	8.90
Centerville	503	1.71	2.20	0.88	0.39	1.28	0.24	0.00	0.00	1.46	1.33	0.68	1.65	11.82
Chico	193	0.85	5.30	0.19	0.47	1.63	0.00	0.00	0.00	0.40	0.40	1.26	1.81	12.31
Chino	1,000	2.31	0.58	1.51	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.09	0.44	5.63
Cisco	5,939	3.80	6.60	1.30	.....	3.40	1.10	0.00	T.	0.83	2.10	4.80	1.10	.....
Claremont	1,200	2.29	0.97	1.20	0.73	1.85	0.00	T.	0.00	T.	0.13	0.09	0.75	8.01
Corning	277	0.20	3.20	.....	T.	1.28	0.00	0.00	0.00	0.38	0.75	0.72	1.05	.....
Craftonville	1,759	2.17	0.93	1.08	0.23	1.87	0.00	0.00	0.00	0.00	0.00	0.20	0.38	6.86
Crescent City	50	3.43	13.00	2.04	4.23	3.83	2.31	0.33	0.36	2.29	5.39	9.98	6.07	53.26
Crescent City light-house	.....	3.40	12.89	2.47	3.87	3.99	2.40	0.29	0.34	2.55	5.28	10.04	6.02	53.54
Daunt	.....	1.25	1.27	2.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delano	319	0.78	0.62	0.38	0.00	0.25	0.00	0.00	0.00	2.78	T.	T.	0.30	5.11
Delta	1,138	0.75	13.55	0.00	1.35	5.85	1.40	0.00	0.00	0.00	1.95	3.35	2.00	30.20
Descanso	3,400	5.28	0.89	4.11	0.90	2.35	0.00	0.15	0.83	0.00	0.00	0.35	.....	.....
Drytown	790	1.40	4.64	0.95	0.84	1.97	0.36	T.	T.	0.28	0.83	1.99	2.57	15.83
Dunnigan	65	2.03	3.24	0.25	0.14	1.67	0.09	0.00	0.00	1.95	0.60	0.35	1.28	11.60
Durham	180	0.70	5.54	0.23	0.29	1.58	0.05	0.00	0.00	0.35	1.11	0.72	1.52	12.09
East Brother light-house	.....	0.95	2.55	0.25	0.10	0.95	0.10	0.00	0.00	0.85	0.60	0.70	1.05	8.10
Edmanton	4,750	1.73	12.74	1.41	1.25	4.94	2.11	0.00	T.	0.26	2.27	4.10	1.94	32.75
Elsinore	1,271	2.29	0.15	0.82	0.23	1.32	0.01	0.00	0.00	0.00	0.00	0.04	1.38	6.24
Escondido	650	2.48	0.68	1.53	0.48	1.19	0.00	0.00	0.00	0.01	0.00	0.11	1.48	7.96
*Eureka	64	3.23	8.00	1.80	2.78	2.62	1.21	T.	0.06	1.48	2.13	4.43	3.17	30.91
Fallbrook	700	2.65	0.71	1.48	0.46	2.23	0.07	T.	T.	T.	0.00	0.02	1.04	8.66
Folsom City	182	0.90	3.90	0.22	0.54	1.35	0.30	0.00	T.	0.24	0.85	1.54	2.47	12.31
Fordyce Dam	6,500	2.75	7.78	2.19	2.38	3.83	2.13	T.	0.31	0.92	2.95	5.78	3.70	34.72
Fort Bragg	.....	1.46	7.50	0.79	1.09	4.03	0.25	0.00	0.00	1.77	1.51	3.09	2.14	23.63
Fort Romie	.....	.....	.....	.....	.....	.....	0.04	0.00	0.00	0.04	T.	0.19	0.51	.....
Fort Ross	100	2.01	12.94	0.40	0.57	7.61	0.53	0.00	0.00	2.98	1.82	2.74	1.62	33.42
Fort Tejon	7,650	1.39	1.55	1.36	.....	.....	.....	.....	.....	0.60	.....	0.70	0.73	.....
*Fresno	293	0.42	1.15	0.71	0.00	0.79	0.00	0.00	0.00	1.12	0.03	0.34	0.43	4.99
Georgetown	2,750	2.13	8.83	1.80	0.92	2.78	1.23	0.00	T.	0.53	2.22	4.34	3.35	28.13
Glendora	.....	2.22	1.48	1.12	1.03	2.48	0.00	0.00	0.00	0.05	0.02	0.06	0.34	8.80
Goshen	286	0.31	0.93	0.44	0.00	0.55	0.00	0.00	0.00	3.55	0.00	0.15	0.03	5.96
Grand Island	65	0.27	2.51	T.	0.16	1.20	0.00	0.00	0.00	0.48	0.49	0.50	0.99	6.60

[1] River observer. [2] Cotton region observer. [3] G. H. Irby.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
California—Continued.	*Feet.*													
Grass Valley	2,090	1.82	8.64	0.66	0.97	2.76	1.27	T.	T.	0.61	2.08	4.31	2.73	25.85
Greenville	3,600	0.82	7.97	0.55	0.82	3.07	2.39	0.00	T.	0.30	1.47	2.15	1.54	21.08
Healdsburg	100	1.61	8.71	0.43	0.33	4.07	0.41	0.00	0.00	0.76	0.78	1.06	1.14	19.30
Hill Ranch	1,750	0.63	1.45	0.81	0.02	0.90	T.	0.00	0.00	0.14	0.06	.....	.....	.....
Hollister	284	0.82	1.04	0.61	0.78	0.80	0.00	0.00	0.00	0.26	0.11	0.36	1.32	6.10
Hueneme (near)	.....	.....	.....	.....	.....	.....	.....	.....	0.00	0.72	0.10	T.	T.	.....
Humboldt light-house	.....	3.83	8.25	1.52	2.83	2.47	1.13	0.08	0.00	1.80	2.16	4.82	3.51	32.40
Hydesville	400	.....	7.55	1.62	.....	.....	1.12	0.00	0.11	0.99	1.90	5.30	2.27	.....
*Independence	3,880	.....	.....	0.00	0.16	0.23	T.	T.	0.11	0.20	0.00	0.10	0.20	.....
Indio	−20	0.10	0.00	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	1.00	1.70
Iowa Hill	2,825	2.04	8.10	1.68	0.99	2.83	1.49	T.	0.00	0.44	1.87	4.03	2.84	26.31
Jackson	1,975	1.52	4.91	1.18	1.11	1.64	0.43	T.	0.00	0.40	1.04	2.11	2.70	17.04
Jolon	960	0.85	2.10	0.60	0.07	0.52	T.	0.00	0.00	0.30	0.16	0.24	0.40	5.24
Keene	2,705	.....	0.75	2.04	0.35	1.12	0.00	0.00	0.00	0.03	0.00	0.40	0.62	.....
Kennedy Gold Mine	1,500	1.71	6.05	0.88	1.18	2.34	0.30	0.00	0.00	0.42	1.13	2.99	3.19	20.19
Kernville	2,600	0.47	0.85	0.35	0.00	0.40	0.00	0.00	0.00	0.05	0.05	0.17	0.42	2.76
King City	333	0.54	1.30	0.54	0.05	0.24	0.00	0.00	0.00	0.00	0.00	0.22	0.27	3.16
Kingsburg	301	0.60	0.94	0.62	0.00	0.55	0.00	0.00	0.00	1.50	0.00	0.20	0.29	4.70
Kono Tayee	1,325	0.71	4.19	0.11	0.64	1.67	.....	0.00	0.00	0.51	0.46	1.15	1.27	.....
Lagrange	250	0.99	1.92	1.87	0.35	1.41	0.00	0.00	0.00	0.70	0.55	0.86	1.40	10.05
Laporte	5,000	2.53	13.04	1.02	1.49	4.64	2.73	T.	0.04	0.94	3.31	6.67	3.36	40.37
Las Fuentes Ranch	120	0.75	1.03	0.47	.....	1.22	.....	.....	0.00	4.09	T.	T.	0.23	.....
Lemoore	227	0.28	0.43	0.42	0.00	0.00	0.00	0.00	0.00	1.23	0.42	0.22	0.15	3.15
Lick Observatory	4,209	2.30	4.16	2.04	0.84	2.41	0.38	0.00	0.00	0.29	1.33	1.23	2.13	17.11
Lime Point light-house	.....	1.49	2.50	0.33	0.07	1.85	0.14	0.00	0.06	1.01	0.79	0.76	2.11	11.11
Lodi	35	1.05	1.71	0.98	0.40	1.38	0.06	0.00	0.00	0.60	0.45	0.66	1.93	9.22
Los Alamos	.....	1.50	0.64	0.80	.....	.....	.....	.....	.....	1.38	0.15	0.00	0.85	.....
Los Angeles	293	1.26	0.51	0.98	0.03	1.75	T.	0.07	T.	0.02	0.09	T.	0.12	4.83
Los Gatos	600	1.57	6.38	0.82	0.34	1.25	0.23	0.00	0.00	1.77	0.94	0.46	0.96	14.72
Lytton Springs	.....	1.77	7.30	0.37	.....	2.50	0.61	0.00	0.00	0.63	.....	.....	.....	.....
Malakoff Mine	3,000	2.28	13.03	0.79	1.18	4.47	1.70	T.	T.	0.58	2.87	5.66	4.10	36.66
Mammoth Tank	257	T.	0.00	.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	T.	T.	.....
Manzana	2,850	.....	0.02	0.47	0.00	0.25	0.00	0.00	0.00	T.	0.00	T.	0.50	.....
Mare Island light-house	.....	1.58	2.58	0.42	0.54	1.35	0.58	0.00	0.00	0.83	1.22	0.46	1.19	10.75
Merced	64	0.86	1.18	1.34	0.07	0.98	0.00	0.00	0.00	0.53	0.11	0.20	0.42	5.69
Mills College	200	1.42	3.10	0.24	0.32	1.45	0.46	0.00	0.03	1.10	1.49	1.04	1.64	12.29
Milo	.....	.....	.....	.....	0.12	2.05	0.00	0.00	0.00	1.69	T.	0.68	1.17	.....
Milton	381	1.22	4.03	0.92	0.57	1.41	0.09	0.00	0.00	0.58	1.05	1.20	3.35	14.42
Modesto	90	0.49	0.71	0.35	0.00	0.57	0.00	0.00	0.00	0.31	0.50	0.38	0.88	4.19
Mojave	2,751	0.60	T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.89
Mokelumne Hill	1,550	1.62	4.45	1.18	0.47	2.13	0.22	T.	0.00	0.44	0.98	1.93	2.50	15.92
Monterey	15	0.89	1.08	1.27	0.24	0.84	0.06	0.00	0.00	0.79	0.20	0.79	0.98	7.24
Mountainview	.....	.....	.....	.....	.....	0.27	0.09	0.00	.....	2.08	0.87	0.35	1.02	.....
Mount Tamalpais	2,300	.....	6.69	0.73	0.60	4.84	1.05	0.00	.....	0.80	1.48	1.35	1.42	.....
Mount Frazier	7,650	0.95	.....	.....	.....	.....	T.	0.00	0.00	1.20	0.00	0.05	0.88	.....
Mutah Flat	4,850	.....	1.00	0.80	0.00	1.02	0.00	0.00	.....	2.00	.....	0.00	0.40	.....
Napa	20	1.22	3.76	0.14	0.34	1.64	0.37	0.00	0.00	0.59	0.88	0.65	0.97	10.56
Needles	491	0.35	0.00	0.13	0.00	0.11	0.06	0.02	0.69	0.00	0.00	0.00	0.73	2.09
Nevada City	2,580	1.92	9.91	0.87	0.95	2.73	1.27	0.00	T.	0.37	1.96	3.49	2.27	25.74
Newhall	1,268	0.45	.....	0.00	0.10	0.93	0.00	0.00	0.00	0.14	0.00	0.00	0.22	.....
Niles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nordhoff	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Ontario	1,800	2.30	1.11	1.55	0.50	2.75	0.00	0.06	0.00	T.	0.28	0.12	0.55	9.22
North San Juan	2,130	3.11	8.72	0.54	1.00	4.16	0.74	0.00	T.	0.88	3.49	4.56	1.88	29.08
Oakland	14	1.30	2.85	0.25	0.19	1.50	0.39	0.00	T.	1.16	1.48	0.60	1.48	11.20
Ogilby	354	0.00	0.00	.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	T.	.....
Oleta	1,510	1.64	5.80	1.36	0.68	1.96	0.35	T.	0.00	0.30	0.80	2.34	2.24	17.47
Orangevale	300	0.88	3.98	0.58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orland	254	0.36	3.64	T.	0.00	1.05	0.00	0.00	0.00	0.40	0.32	0.34	1.22	7.93
Palermo	185	1.24	4.83	.....	0.59	1.75	0.12	0.00	0.00	0.34	0.94	1.16	1.55	.....
Paso Robles	880	0.82	1.55	0.83	0.00	0.68	0.00	0.00	0.00	0.10	0.13	0.30	0.27	4.68
Peachland	220	2.15	8.28	0.16	0.37	3.87	0.41	T.	T.	0.89	0.85	1.25	1.38	19.61
Piedras Blancas light-house	.....	1.58	2.06	0.46	0.30	1.33	0.10	0.00	0.00	0.50	0.57	0.45	0.46	7.81
Pigeon Point light-house	.....	0.83	0.97	0.19	0.12	0.55	0.05	0.00	0.00	0.85	0.55	0.83	0.41	5.35
Pilot Creek	4,000	.....	9.44	3.06	1.22	2.99	1.61	T.	T.	0.68	3.27	4.70	3.89	.....
Pine Crest	850	0.77	1.76	0.64	0.00	1.09	0.00	0.00	0.00	2.96	0.32	0.00	0.39	7.93
Placerville	1,820	1.78	6.18	1.28	0.58	2.70	0.86	T.	T.	0.11	1.00	2.30	2.80	19.39
Point Ano Nuevo light-house	.....	1.46	0.96	0.32	0.00	0.54	0.00	0.00	0.00	0.92	0.83	0.44	0.38	6.05
Point Arena light-house	.....	1.47	7.14	0.67	0.80	3.58	0.61	0.00	0.00	0.87	1.73	1.67	3.24	21.78
Point Bonita light-house	.....	2.20	3.44	0.56	0.18	2.09	0.73	0.00	0.28	1.11	1.24	1.25	1.68	14.76
Point Conception light-house	.....	1.35	1.06	0.38	0.00	1.05	0.00	0.00	0.00	0.98	0.40	0.00	0.82	6.04
Point Fermin light-house	.....	3.60	0.25	0.50	0.05	0.94	0.00	0.00	0.00	0.15	0.37	0.00	0.35	6.21
Point George light-house	.....	.....	5.43	.....	1.17	0.55	0.73	0.02	0.01	0.94	2.43	5.53	2.79	.....
Point Hueneme light-house	.....	0.41	0.54	0.86	0.03	1.22	1.25	0.14	0.00	0.60	0.25	0.00	0.36	5.66
Point Lobos	250	1.78	2.64	0.17	0.12	1.17	0.25	0.00	0.02	1.00	0.72	0.63	1.61	10.11
Point Loma light-house	.....	0.87	0.00	0.65	0.12	0.23	0.00	0.00	0.00	0.00	0.00	0.50	0.52	2.89
Point Montara light-house	.....	2.50	3.81	0.31	0.31	1.98	0.18	0.00	0.00	2.72	1.88	1.06	1.92	16.67
Point Pinos light-house	.....	0.68	2.18	1.45	0.35	1.35	0.00	0.00	0.00	1.63	0.67	0.30	1.36	9.97
*Point Reyes light	.....	1.60	4.48	0.47	0.29	2.82	0.42	0.00	T.	0.80	1.27	1.00	0.85	14.00
Point Sur light-house	.....	1.56	1.89	1.11	0.25	1.09	0.09	0.00	0.00	2.04	0.72	0.33	1.27	10.35
Pomona (near)	875	2.13	0.81	1.22	0.06	2.22	0.00	0.00	0.00	0.00	0.09	0.08	0.51	7.12
Poway	460	2.78	0.22	1.75	0.33	1.55	0.00	0.00	T.	0.05	0.00	0.29	1.87	8.84
Quincy	3,350	1.21	10.08	0.20	1.01	3.97	1.84	0.13	T.	0.08	1.73	2.47	1.56	24.28
*Redbluff	307	0.59	5.45	0.01	0.63	2.28	0.14	0.00	T.	0.45	0.46	1.21	1.09	12.91
Redding	557	0.54	3.77	0.00	0.76	3.64	0.15	0.00	T.	0.13	1.56	2.23	1.78	14.56
Redlands	1,335	2.56	0.60	0.84	0.32	1.67	T.	0.00	T.	0.01	0.01	0.25	0.40	6.66
Reprecs	305	0.79	4.31	0.30	0.45	1.53	0.35	0.00	0.00	0.24	0.88	1.87	2.62	13.34
Riovista	11	1.26	1.89	0.29	0.28	1.55	0.06	0.00	0.00	0.17	0.70	0.45	1.47	8.12
Roe Island light-house	.....	1.25	1.53	1.15	0.30	0.95	0.31	0.00	0.00	0.70	0.92	0.20	0.89	8.20
Rosewood	865	0.91	3.30	0.16	0.40	2.79	0.26	0.00	0.01	0.26	0.53	1.59	1.78	12.49

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
California—Continued.														
	Feet.													
*Sacramento	35	0.08	3.19	0.04	0.28	1.50	0.14	0.00	0.00	0.36	0.64	0.61	2.30	10.04
Sacramento [1]	35	0.88	3.46	0.07	0.35	1.59	0.16	0.00	0.00	0.36	0.68	0.73	1.98	10.26
Salinas	44	0.73	1.58	0.91	0.22	1.08	0.30	0.00	0.00	0.14	0.27	0.31	1.40	6.94
Salton	—263	0.45	0.00	0.35	0.00	0.00	T.	0.00	T.	0.00	0.00	0.00	0.59	1.39
San Bernardino	1,054	2.10	0.60	0.97	0.48	1.08	0.00	0.00	0.00	0.00	0.03	0.05	0.44	5.75
*San Diego	93	1.71	0.06	0.91	0.22	0.66	0.02	0.00	0.00	0.07	0.00	0.15	0.87	4.67
*San Francisco	183	1.12	2.13	0.24	0.19	1.44	0.19	0.00	T.	1.06	0.86	0.46	1.62	9.31
San Jacinto	1,500	2.25	0.49	0.81	.....	.....	.....	0.22	0.54	0.00	0.00	0.18	1.38	.....
San Leandro	84	1.33	2.66	0.39	0.38	1.44	0.36	0.00	0.00	1.13	1.43	0.96	1.58	11.66
San Luis light-house	.....	1.36	2.15	0.84	0.05	1.18	0.00	0.00	0.00	0.12	0.45	0.03	0.83	7.01
*San Luis Obispo	23	1.37	2.20	0.91	0.06	1.04	0.04	0.00	0.00	0.20	0.39	0.08	0.64	6.93
San Mateo	22	1.46	3.04	0.64	0.25	0.94	0.19	0.00	0.00	1.57	0.81	0.55	1.35	10.80
San Miguel	616	0.25	1.17	0.93	0.00	0.51	0.00	0.00	0.00	0.02	0.03	0.19	0.36	3.46
San Miguel Island	500	1.84	0.91	0.39	0.02	0.71	0.70	0.14	0.04	2.70	0.23	0.20	1.16	9.04
Santa Barbara	100	0.63	1.39	0.28	T.	1.25	0.00	T.	0.00	3.17	0.14	0.00	0.36	7.22
Santa Barbara light-house	.....	0.78	0.78	0.25	0.00	1.92	0.00	0.00	0.00	3.10	0.16	0.00	0.38	7.33
Santa Clara	83	1.28	2.12	0.60	0.16	0.65	0.08	0.00	0.00	1.34	0.68	0.36	0.86	8.13
Santa Cruz	18	2.17	2.67	1.39	0.52	1.35	0.06	0.00	0.00	2.21	0.40	0.86	2.24	13.87
Santa Cruz light-house	.....	1.71	2.79	1.16	0.29	1.42	1.00	0.00	0.00	2.50	1.04	0.93	1.97	14.31
Santa Maria	220	1.44	1.06	0.65	0.02	1.14	0.00	0.00	0.00	0.96	0.30	0.05	0.64	6.26
Santa Monica	92	1.79	0.31	1.15	0.18	0.78	0.00	0.00	0.00	0.05	0.30	0.00	0.15	4.71
Santa Paula	286	0.92	0.70	1.55	0.00	1.10	0.00	0.00	0.00	0.86	0.08	T.	0.26	5.47
Santa Rosa	181	1.81	5.32	0.66	0.38	3.32	0.17	0.00	0.00	0.62	1.07	1.16	1.20	15.71
Saticoy	145	1.20	0.92	0.44	0.10	0.97	0.00	T.	0.00	0.75	0.10	0.00	0.16	4.64
Shasta	1,148	0.34	8.39	T.	0.56	6.22	0.12	0.00	T.	T.	0.67	2.89	2.15	21.34
Sierra Madre	1,206	1.63	0.41	1.23	0.90	2.42	0.00	0.00	0.00	T.	T.	T.	1.63	8.22
Sneddens Ranch	4,900	0.85	0.41	0.65	0.00	0.54	0.35	0.00	0.00	1.75	.....	0.00	0.30	.....
Sonoma	30	.....	.....	.....	.....	1.68	0.27	0.00	0.00	0.36	0.89	0.91	0.99	.....
S. E. Farallone light-house	.....	1.90	3.07	.....	0.12	1.45	0.00	0.00	0.00	1.33	1.14	.....	0.92	.....
Stanford University	70	1.08	1.84	0.32	0.20	0.48	.....	0.00	0.00	1.56	0.57	0.27	0.60	.....
Stockton	33	0.61	1.32	0.84	T.	1.11	0.03	0.00	0.00	0.35	0.88	0.56	1.50	7.20
Summerdale	5,270	2.60	7.25	3.36	0.53	3.18	0.00	0.00	0.00	1.93	1.20	1.64	2.64	24.33
Susanville	4,195	0.45	2.38	0.35	0.24	0.54	1.02	0.00	0.08	0.10	0.80	1.74	0.65	8.35
Sutter Creek	1,355	0.92	5.28	0.75	.....	1.85	0.00	0.00	0.00	0.28	0.73	1.73	2.26	.....
Tehama	220	0.55	3.20	0.00	0.25	0.98	0.11	0.00	T.	0.53	0.53	0.63	1.76	8.54
Tejon Ranch	1,450	.....	.....	.....	.....	.....	.....	.....	.....	0.28	0.00	0.57	0.87	.....
Templeton	773	0.90	1.83	1.05	0.00	0.77	0.00	0.00	0.00	0.15	0.15	0.20	0.50	5.55
Thermalito	236	.....	.....	.....	.....	.....	.....	.....	.....	0.33	0.56	1.05	1.67	.....
Trinidad light-house	.....	3.24	7.34	2.34	2.05	2.56	1.11	0.00	0.00	2.33	3.79	7.99	4.90	37.65
Truckee	5,819	1.05	3.65	2.05	0.25	0.30	0.00	0.00	0.00	0.40	0.06	2.95	1.50	12.21
Tulare [2]	274	0.55	0.82	0.94	0.00	0.56	0.00	T.	0.00	3.92	0.06	0.19	0.23	7.27
Tulare [3]	.....	0.63	0.97	0.72	T.	0.59	0.00	0.00	0.00	3.75	0.01	0.16	0.19	7.02
Turlock	160	0.56	0.68	0.72	0.08	0.94	0.00	0.00	0.00	0.66	0.51	0.16	1.20	5.51
Ukiah	620	1.23	7.08	0.68	0.80	1.63	0.65	0.00	T.	0.82	1.24	2.02	2.41	18.56
Upperlake	1,350	0.93	4.57	0.36	0.43	1.90	0.58	0.00	T.	0.60	1.01	1.66	1.34	13.38
Upper Mattole	244	3.84	22.25	1.55	2.88	6.93	3.32	0.00	0.00	2.66	1.56	4.86	5.08	54.93
Vacaville	175	1.59	3.01	0.19	0.52	1.94	0.00	0.00	0.00	0.49	1.06	0.44	1.30	10.54
Ventura	50	1.54	0.74	0.68	0.00	1.40	0.00	T.	0.00	1.10	0.12	T.	0.16	5.74
Visalia	348	0.45	0.96	0.74	0.08	0.73	0.00	T.	0.00	3.56	T.	0.22	0.07	6.81
Walnutcreek	75	1.29	3.16	0.29	0.02	1.12	0.33	0.00	0.00	0.89	1.09	0.80	1.52	10.51
West Palmdale	3,399	2.34	0.07	0.90	0.00	0.21	.....	0.00	T.	0.00	T.	0.00	0.87	.....
Westpoint	.....	1.38	4.71	3.22	0.82	2.18	0.00	T.	0.00	0.87	1.64	2.95	2.56	20.33
Wheatland	84	0.85	4.25	0.02	0.24	1.03	1.17	0.00	0.00	0.27	0.84	1.35	1.78	10.80
Williams	89	0.35	2.32	T.	0.20	0.90	0.00	0.00	0.00	0.48	0.48	0.20	0.94	5.87
Wilmington	10	.....	T.	.....	T.	0.95	0.00	0.00	0.00	T.	T.	0.00	0.50	.....
Wire Bridge	565	1.17	6.58	0.40	0.48	2.09	0.88	0.00	0.00	0.60	1.90	3.47	2.63	20.20
Yerba Buena light-house	.....	0.70	1.94	0.62	0.00	1.24	0.00	0.00	0.00	1.20	0.14	0.70	1.45	7.99
Yreka	2,635	0.83	1.44	0.42	0.48	2.08	0.10	0.02	0.05	0.14	0.51	2.74	1.04	9.85
Yuba City	70	0.66	4.36	T.	0.35	1.47	0.00	0.00	T.	0.41	0.50	0.92	1.42	10.09
Colorado.														
Altman	.....	.....	0.31	1.60	1.78	.....	.....	4.75	2.20	1.17	0.96	0.96	.....	.....
Antlers	5,350	0.43	0.10	1.01	1.05	1.77	0.82	0.88	1.12	0.23	0.77	0.79	0.19	9.16
Arkins	.....	0.24	0.25	0.87	1.42	3.43	1.86	1.20	1.61	0.51	0.75	1.62	0.50	14.26
Boulder	5,400	0.43	0.55	0.67	1.54	3.76	1.51	0.97	1.52	1.12	0.90	1.76	1.30	16.03
Boxelder	.....	0.70	0.22	0.58	1.32	5.62	1.66	1.36	1.71	1.36	0.47	1.17	0.17	16.34
Breckenridge	9,524	0.29	0.59	1.16	1.53	0.46	1.14	2.19	1.59	0.38	1.53	4.09	1.34	16.29
Canyon	5,363	0.56	0.39	0.71	0.91	2.89	1.07	1.83	0.80	0.27	0.82	0.15	1.05	11.45
Castlerock	6,220	.....	.....	0.40	1.76	6.48	1.82	4.20	1.49	1.35	1.17	1.00	0.99	.....
Cedaredge	6,175	0.57	0.50	1.06	1.10	2.79	0.33	1.27	0.62	0.37	0.20	0.43	0.24	9.48
Cheyenne Wells	.....	0.25	0.00	0.61	1.10	5.84	3.95	2.09	1.33	1.92	0.48	0.45	0.48	18.50
Collbran	.....	0.37	0.27	1.60	0.72	2.21	0.37	T.	1.96	0.40	0.47	0.56	0.55	9.98
Colorado Springs	6,098	0.18	0.21	0.28	1.54	3.32	3.61	2.98	0.56	0.27	0.24	0.18	0.43	13.80
Cope	.....	0.04	0.01	0.45	1.97	9.77	5.68	3.64	1.75	3.28	1.26	0.24	0.39	28.48
Crook	3,695	0.42	0.07	0.35	1.03	4.88	0.87	2.62	0.14	2.97	0.22	0.35	.....	.....
Delta	4,980	0.28	0.10	0.21	0.58	0.83	0.40	0.95	0.51	0.55	0.05	0.18	0.08	4.72
*Denver	5,290	0.20	0.68	0.28	1.20	4.88	0.94	0.67	0.96	0.28	1.05	0.85	0.99	12.98
Dumont	8,000	0.10	0.90	0.65	2.45	3.20	2.60	1.67	2.60	0.48	0.40	1.89	0.82	17.76
Durango	6,534	2.21	0.45	1.17	1.67	1.33	0.62	3.46	0.89	0.30	0.07	0.88	3.22	16.27
Fairview	6,150	.....	.....	.....	.....	.....	.....	.....	.....	0.61	0.62	0.85	0.56	.....
Fleming	4,243	0.70	0.20	1.07	0.87	4.47	1.27	1.91	.....	.....	.....	.....	.....	.....
Fort Collins	4,994	0.14	0.08	0.50	1.08	3.65	1.37	0.50	0.98	0.50	0.82	1.24	0.17	11.03
Fort Morgan	4,000	0.00	0.01	0.02	0.81	4.33	1.30	2.49	0.33	0.43	0.71	0.40	0.11	10.94
Fox	.....	T.	0.25	0.77	3.18	4.95	3.87	2.50	1.10	2.97	0.95	0.05	0.25	20.84
Garnett	7,700	0.01	0.05	0.35	0.09	0.51	0.65	1.48	0.32	T.	0.15	0.50	0.49	4.60
Glenwyrie	6,500	0.28	0.18	0.48	1.16	4.04	1.65	2.68	1.44	0.40	0.40	0.28	0.70	13.69
Grand Junction	4,594	0.55	T.	1.05	0.92	1.40	0.05	T.	0.57	0.10	0.25	0.25	0.31	5.45
Greeley	4,637	0.20	0.33	0.23	.....	5.83	1.69	3.50	0.83	0.13	0.78	0.60	0.37	.....
Gulch	8,200	0.90	0.53	.....	.....	0.74	.....	.....	.....	.....	.....	.....	.....	.....

[1] S. H. Gerriah. [2] John Twohy. [3] Experiment station.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Colorado—Continued.														
	Feet.													
Gunnison	7,648	0.28	0.31	.....	.....	.....	.....	1.93	0.68	0.06	0.13	1.06	0.30	.....
Hamps	5,500	0.04	0.02	0.20	0.96	3.80	1.03	1.84	1.61	1.17	0.90	0.28	0.72	12.57
Hoehne	5,706	0.52	1.01	0.34	1.25	2.41	1.66	1.36	1.59	1.02	0.82	0.74	1.35	14.07
Holly	3,394	0.35	T.	0.10	0.84	4.61	3.00	3.12	1.36	1.61	0.44	0.40	1.36	17.19
Holyoke	5,745	0.12	0.05	T.	1.61	4.75	1.92	3.08	1.27	3.00	0.35	0.50	0.22	16.87
Holyoke (near)	3,745	0.10	0.12	0.22	2.03	7.69	1.13	2.31	2.07	.....	.....	.....	0.18	.....
Hugo	5,052	T.	0.00	0.45	1.24	4.75	1.10	2.90	.....	1.50	0.50	T.	0.35	.....
Husted	6,596	0.28	0.15	0.31	1.77	5.34	2.71	2.81	1.37	0.49	0.63	0.49	0.50	16.85
Lake Moraine	10,268	1.00	0.37	1.58	1.76	3.78	3.68	4.76	2.87	0.63	1.08	0.82	1.31	23.14
Lamar	3,592	0.92	0.00	1.06	1.38	3.47	3.67	1.52	0.91	1.60	1.55	0.46	1.80	17.84
Laporte	5,069	0.45	0.10	0.45	0.24	5.00	1.27	0.67	1.72	0.55	0.88	1.90	0.40	13.63
Las Animas	3,892	0.40	0.00	0.40	1.17	2.52	2.45	2.90	2.40	1.70	1.30	T.	0.39	15.63
Leadville (near)	10,185	0.40	0.62	0.61	1.88	1.25	0.36	1.31	1.49	0.20	0.93	2.26	0.96	12.27
Leroy	4,380	0.38	0.26	0.67	1.04	4.60	1.31	2.83	1.13	1.27	0.54	0.65	0.27	14.95
Longs Peak	8,600	0.24	0.83	0.75	1.73	2.07	2.06	2.94	1.53	0.81	0.60	1.60	0.60	15.76
Loveland	6,182	.....	.....	.....	.....	.....	1.59	1.48	1.32	0.34	0.48	1.10	0.47	.....
Mancos	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.40	1.07	.....
Meeker	6,182	0.67	0.34	0.73	0.79	2.15	0.40	1.85	2.14	0.03	2.15	1.57	0.52	13.34
Millbrook	7,600	0.95	0.90	1.61	1.08	2.29	1.09	4.64	.....	0.54	0.78	0.60	1.33	.....
Minneapolis	3,935	0.60	0.05	0.40	1.92	4.65	3.41	2.06	1.35	0.95	1.03	0.38	1.53	18.33
Moraine	7,900	0.50	1.05	1.32	1.44	3.05	1.93	2.19	1.67	0.40	0.99	1.77	0.55	16.86
Pagoda	6,500	1.75	0.80	1.65	0.02	2.80	1.57	1.48	1.68	0.05	2.85	2.05	1.32	18.92
Paonia	.....	0.48	0.41	0.26	1.12	2.68	0.53	0.73	0.44	0.03	.....	.....	.....	.....
Parachute	5,105	0.26	0.00	0.85	.....	.....	.....	0.42	1.09	0.23	0.98	0.70	0.70	.....
Perry Park	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.36	0.87	.....	0.69	.....
*Pueblo	4,734	0.69	0.06	0.47	1.11	3.59	1.34	0.57	0.54	0.51	0.30	0.43	1.24	10.85
Rangely	.....	0.60	0.42	0.52	0.02	1.05	T.	0.38	1.28	.....	.....	.....	.....	.....
Redcliff	8,500	1.13	0.63	0.87	1.07	0.73	0.09	4.00	2.80	0.70	1.94	2.78	.....	.....
Rico	8,737	3.10	1.35	3.80	2.62	3.82	1.60	3.10	4.13	0.88	0.15	0.85	.....	.....
Rockyford	.....	0.40	0.00	0.16	1.06	2.71	3.16	3.52	0.92	1.55	1.36	0.37	0.83	16.04
Ruby	4,177	3.50	2.54	9.25	1.83	9.14	0.12	0.08	0.26	0.30	1.48	4.14	3.58	36.22
Saguache	7,740	0.28	0.10	0.10	0.73	0.90	0.82	2.73	1.05	0.00	0.13	0.82	0.40	8.06
Salida	7,050	0.50	1.00	0.47	0.15	2.30	1.82	2.96	0.86	0.10	0.10	0.48	0.60	11.34
San Luis	.....	1.20	0.05	0.60	2.02	1.32	1.45	3.88	1.06	0.51	0.58	1.17	0.36	14.20
Santa Clara	8,500	2.97	1.80	1.65	2.60	4.15	3.23	4.56	2.37	2.09	1.94	0.82	4.18	32.36
Seguro	.....	.....	.....	.....	2.35	2.25	1.72	4.28	3.14	0.75	1.22	2.40	1.58	.....
Seibert	4,705	T.	T.	0.40	1.50	5.16	3.01	3.54	1.03	2.65	0.85	0.24	0.27	18.65
Smokyhill Mine	7,800	0.90	0.90	0.80	3.36	3.95	3.51	2.93	2.78	1.30	1.35	2.17	1.18	25.14
Springfield	4,400	0.90	0.09	0.55	2.10	7.43	2.02	2.37	2.12	0.97	1.00	0.50	0.70	20.75
Stamford	9,500	0.91	1.83	1.40	3.99	2.52	2.61	4.71	3.03	1.45	2.28	0.99	1.59	27.31
Steamboat Springs	.....	0.36	0.47	0.83	0.63	.....	.....	0.00	.....	0.40	1.10	1.80	1.47	.....
Strickler Tunnel	.....	0.28	0.59	1.48	1.23	3.15	2.84	4.41	2.48	0.55	1.06	1.38	0.84	20.29
Trinidad	5,967	.....	.....	.....	.....	.....	.....	2.37	1.02	1.64	1.30	0.10	1.60	.....
T. S. Ranch	5,200	0.51	0.07	1.30	0.65	2.20	0.15	0.49	1.29	0.12	0.58	0.40	0.61	8.37
Vilas	.....	0.03	0.02	0.10	2.65	4.52	1.81	1.43	.....	0.57	0.68	0.01	0.97	.....
Wagon Wheel	.....	1.02	0.65	1.20	1.95	1.50	1.00	2.00	1.35	0.20	0.40	0.64	0.35	12.26
Walden	.....	0.20	0.17	1.14	2.37	2.08	1.03	0.51	0.53	0.04	0.47	.....	0.34	.....
Wallet	.....	0.00	T.	0.20	1.75	7.65	3.26	0.55	1.30	2.30	.....	0.40	0.73	.....
Wray	3,512	0.06	0.07	0.83	1.73	5.47	2.95	1.88	2.56	2.33	0.25	0.26	0.29	18.71
Yuma	4,128	0.30	0.20	0.31	1.55	5.80	2.70	1.86	3.62	1.00	0.50	1.45	1.10	20.39
Connecticut.														
Canton	900	4.97	4.12	2.25	3.72	6.74	2.71	4.97	7.02	2.31	5.44	7.22	3.78	55.25
Colchester	370	4.83	4.80	2.86	5.41	6.16	0.79	5.05	8.65	2.61	6.39	6.32	2.63	56.50
Falls Village	.....	4.58	3.06	2.44	4.35	6.35	2.99	2.23	8.22	3.73	3.74	6.30	2.42	50.41
Greenfield Hill	.....	5.20	.....	2.96	4.29	9.44	0.55	5.91	7.03	2.06	9.74	6.67	3.01	.....
Hartford[1]	38	5.25	5.89	2.54	4.06	5.66	1.59	.....	6.88	2.86	6.32	8.26	4.03	.....
Hartford[2]	38	5.23	5.19	2.31	4.36	5.62	1.81	4.49	7.48	2.93	6.75	9.32	2.04	57.53
Hawleyville	357	.....	.....	2.33	3.90	6.92	0.57	2.84	8.47	2.36	5.04	6.73	2.02	.....
Lake Konomoc	.....	4.79	6.07	2.66	5.72	9.14	1.70	.....	7.92	3.00	10.67	7.54	2.68	.....
Middletown	70	4.22	5.98	2.90	5.41	8.01	0.39	5.24	7.92	.....	.....	9.50	2.21	.....
*New Haven	107	4.96	4.55	2.54	4.43	8.03	0.21	5.03	6.65	2.30	7.22	5.69	2.11	53.72
New London	47	4.45	4.01	3.66	4.49	8.13	1.09	4.72	7.69	3.33	8.47	7.43	1.85	59.31
North Grosvenor Dale	365	7.43	3.17	2.41	4.34	3.02	2.31	.....	5.20	.....	6.10	6.36	2.99	.....
Norwalk	17	4.52	3.39	.....	3.74	8.53	0.79	7.27	7.15	1.40	8.29	6.04	3.26	.....
Pomfret	380	.....	3.67	2.62	6.46	3.74	2.40	8.24	5.60	2.12	6.02	6.50	2.21	.....
Southington	140	3.95	4.90	2.38	3.23	5.56	0.53	3.33	8.50	2.63	6.09	7.68	1.60	50.38
South Manchester	.....	4.03	4.91	3.64	4.05	5.53	1.48	5.78	6.68	2.83	6.91	7.43	4.25	57.52
Storrs	640	4.70	4.03	3.09	4.44	3.81	2.48	6.24	5.87	2.22	6.18	6.11	1.96	51.13
Voluntown	260	4.66	5.12	3.08	5.93	6.45	3.44	5.73	7.28	2.65	9.33	5.14	2.03	60.84
Wallingford	73	.....	.....	.....	.....	.....	.....	4.96	7.93	2.18	7.62	9.48	2.16	.....
Waterbury	300	5.09	3.49	2.47	3.67	6.86	0.94	3.37	9.48	2.52	5.82	7.57	3.86	55.14
West Cornwall	.....	3.52	3.68	2.37	4.31	6.70	2.87	1.79	6.77	4.25	3.35	6.46	2.17	48.24
West Simsbury	.....	4.47	6.00	2.14	3.69	6.18	2.23	4.59	7.38	2.07	4.99	6.48	3.42	53.64
Windsor	47	5.46	6.05	2.63	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware.														
Dover	34	3.83	2.35	2.19	4.27	5.37	2.07	2.92	4.11	4.05	4.06	4.53	2.98	42.78
Milford	16	2.85	1.68	3.11	2.65	4.45	2.40	3.56	4.77	2.13	4.13	4.22	3.19	39.14
Millsboro	25	2.65	1.24	2.45	4.42	3.83	3.64	6.99	5.25	3.73	4.55	4.81	3.11	46.67
Newark	136	3.57	2.94	2.48	2.76	5.72	3.99	4.44	7.02	2.57	3.95	5.57	4.17	49.18
Seaford	.....	3.37	1.81	3.13	3.91	4.63	3.12	2.54	4.19	4.28	4.20	3.77	3.97	42.92
District of Columbia.														
Distributing reservoir	120	3.31	1.37	1.99	2.05	3.35	0.05	2.31	8.97	0.93	3.63	2.48	2.76	33.20
Receiving reservoir	.....	3.70	1.45	2.30	2.04	3.38	T.	2.49	10.61	0.99	4.08	2.86	2.86	36.76
*Washington	112	3.54	1.64	2.52	2.36	3.60	1.33	2.86	8.76	0.89	3.54	3.12	3.56	37.72
West Washington	.....	3.87	1.80	2.92	2.65	3.87	1.62	2.74	9.13	0.97	3.80	3.16	3.86	40.39

[1] W. E. Boardman. [2] Rev. S. Hart.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Florida.														
	Feet.													
Archer	92	1.42	3.31	0.54	2.38	1.66	2.88	18.18	9.49	3.27	5.39	3.18	3.72	55.42
Bartow	117	0.48	0.87	0.66	0.36	2.58	4.27	9.32	8.89	7.88	5.44	2.43	3.04	46.22
Boca Raton	6	0.34	1.82	2.71	1.80	2.46	0.28	5.84	11.84	.....	15.18	0.61	2.89	.....
Brooksville	328	0.61	1.97	0.15	0.34	0.68	4.74	12.48	13.44	7.30	5.07	1.90	2.96	51.64
Carrabelle	12	1.90	4.30	1.10	1.20	1.10	T.	3.10	10.90	4.70	.....	.....	.....	.....
Clermont	.....	0.30	0.81	0.99	0.49	1.29	2.53	7.44	13.48	2.01	5.27	1.30	3.75	39.66
Crawfordsville	.....	.....	.....	.....	.....	.....	.....	.....	20.56	3.95	9.73	4.84	5.54	.....
De Funiak Springs	193	2.00	5.47	2.03	1.65	0.31	3.67	9.83	22.98	6.70	3.20	7.53	4.52	69.89
Earnestville	.....	0.48	1.18	0.47	0.65	1.75	9.07	6.85	20.16	3.38	6.05	1.20	4.64	55.88
Eustis	180	1.08	1.43	0.64	0.47	1.92	5.94	10.16	10.95	7.18	4.54	1.77	2.38	48.46
Federal Point	10	0.83	1.09	1.30	7.45	1.17	3.04	13.01	10.59	2.31	4.82	2.21	3.15	50.97
Fort Meade	125	0.42	0.57	1.60	0.57	0.73	8.64	7.82	9.68	8.30	3.87	2.09	1.97	46.26
*Gainesville	178	1.07	3.49	0.83	2.85	2.06	3.28	12.71	8.21	3.47	6.27	2.93	3.31	50.48
Grasmere	175	0.96	1.13	0.41	0.51	1.39	2.62	5.35	12.20	3.61	8.33	1.82	3.73	42.06
Haywood	.....	1.16	3.50	2.44	3.52	2.58	3.11	6.42	11.12	4.23	3.13	5.10	9.40	55.71
Huntington	50	0.91	1.34	0.94	1.33	6.16	2.25	5.44	10.79	2.93	6.25	2.43	2.53	43.30
*Jacksonville	43	0.43	2.10	2.04	2.45	1.81	2.13	12.03	5.44	3.46	6.74	2.34	4.74	45.71
Jasper	165	0.51	1.35	2.51	1.85	.....	.....	.....	.....	.....	.....	.....	5.52	.....
*Jupiter	28	0.36	0.95	3.26	1.90	1.15	0.12	6.80	6.62	3.38	10.89	1.11	2.56	39.10
*Key West	22	0.34	0.22	0.70	0.61	3.26	2.44	2.28	5.73	5.33	16.99	2.24	3.25	43.39
Kissimmee	60	0.23	1.12	0.00	0.12	0.35	5.75	7.90	11.41	4.52	5.17	0.88	3.02	40.47
Lake Butler	.....	0.95	4.78	1.48	1.52	1.55	3.90	14.04	19.70	2.00	5.50	.....	4.93	.....
Lake City	210	0.54	4.04	1.60	1.94	1.47	2.42	11.96	9.05	4.04	8.03	2.54	5.52	53.15
Lakemont	.....	0.16	0.14	1.82	0.58	0.69	0.84	12.32	8.73	6.49	3.01	1.84	2.04	38.66
Lemon City	15	0.00	2.45	2.60	0.60	1.65	0.70	5.92	9.35	4.07	14.65	0.40	1.50	43.89
Macclenny	140	0.46	3.12	1.49	1.74	1.86	5.57	15.79	7.43	3.65	3.51	1.87	5.23	51.72
Manatee	16	0.15	0.81	0.37	0.25	2.08	5.35	13.93	18.48	10.37	3.98	0.87	1.89	58.53
Merritts Island	20	0.30	1.22	0.68	0.51	0.73	0.64	6.12	8.69	3.97	5.69	1.43	3.46	33.44
Myers	.....	0.05	0.02	0.46	0.37	3.53	2.83	8.16	11.62	10.73	4.99	1.29	3.12	47.17
New Smyrna	20	0.77	1.52	1.70	1.19	1.17	2.55	3.94	11.19	1.19	8.39	1.59	3.67	38.87
Ocala	150	1.44	1.38	1.24	2.54	2.38	3.50	12.66	11.89	4.31	7.67	1.63	4.19	54.83
Orange City	50	0.98	1.96	0.61	0.65	0.41	5.18	4.61	10.95	4.05	7.98	1.56	2.54	41.48
Orlando	98	0.64	1.26	0.54	0.15	1.19	1.13	7.31	10.93	3.43	5.55	1.09	3.68	36.90
*Pensacola	56	1.75	5.97	3.01	1.68	0.04	2.88	4.84	18.58	17.93	4.74	6.73	4.05	72.20
Plant City	121	0.58	0.47	0.52	0.32	0.72	3.08	8.95	15.06	5.97	6.43	1.97	3.24	47.31
St. Andrews	.....	.....	5.52	1.82	0.76	1.50	2.81	6.07	31.26	5.03	3.81	6.64	11.80	.....
St. Augustine	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Francis	20	0.71	1.07	1.19	1.70	1.60	3.57	5.23	9.93	2.25	8.35	2.10	2.74	40.44
St. Francis Barracks	.....	0.55	0.68	0.90	4.20	3.55	1.10	9.00	6.10	3.16	3.85	1.60	3.82	38.51
Sebastian	36	0.02	1.09	1.50	1.45	1.11	1.05	2.91	5.34	7.67	7.13	1.55	6.58	37.40
Stephensville	.....	.....	.....	1.90	0.72	0.40	3.11	21.90	16.46	7.59	4.05	2.70	2.50	.....
Switzerland	.....	0.48	2.01	1.88	1.87	1.67	2.81	9.99	11.32	3.50	5.04	2.30	4.00	46.87
Tallahassee	183	1.13	3.06	2.16	0.87	1.55	4.49	10.00	15.43	2.63	10.03	3.52	5.75	60.62
*Tampa	36	0.42	1.52	0.08	0.16	0.37	5.96	8.29	17.83	6.57	4.50	1.96	2.87	50.53
Tarpon Springs	20	0.18	1.50	0.26	0.30	0.41	5.82	12.77	16.05	13.12	4.57	1.07	5.15	61.20
Wausau	250	1.15	5.15	2.59	2.88	0.80	5.00	4.23	20.68	.....	.....	*6.21	8.70	.....
Georgia.														
Adairsville	772	4.95	0.73	3.54	5.87	0.73	5.89	†7.27	5.23	9.98	7.14	3.21	1.87	56.41
*Alapaha	.....	0.98	0.90	2.35	.....	0.69	3.18	13.21	8.73	1.47	8.01	.....	.....	.....
*Albany	232	1.58	2.06	1.85	3.91	0.68	5.92	7.12	11.60	0.72	4.72	6.37	5.33	51.86
Allentown	.....	1.48	1.02	1.13	7.22	0.93	2.29	6.66	7.35	4.99	8.24	6.44	2.99	50.74
*Americus	362	1.25	1.64	1.42	6.72	2.54	3.18	4.31	10.25	2.19	5.92	7.19	4.80	51.41
*Athens	694	2.93	0.66	3.55	5.58	2.48	1.53	5.43	5.73	6.36	7.40	3.85	3.81	49.31
*Atlanta	1,131	2.99	0.62	4.09	5.15	1.35	0.89	10.22	6.66	6.33	5.06	3.36	3.54	50.56
*Augusta	134	1.72	0.53	3.14	4.96	0.52	3.92	6.70	9.25	2.92	2.84	5.10	2.39	43.99
*Bainbridge	119	.....	.....	.....	.....	1.84	3.16	6.76	8.91	3.03	2.31	.....	.....	.....
Bellville	300	0.33	0.76	1.30	3.66	0.50	4.75	6.93	10.48	3.15	3.76	4.52	5.14	45.28
Blakely	.....	1.84	2.13	2.30	3.09	3.31	2.89	8.53	9.36	2.40	4.95	7.90	5.64	54.34
Brag	.....	0.23	0.80	1.15	5.19	1.83	3.14	14.64	23.02	.....	.....	.....	.....	.....
*Camak	.....	.....	.....	.....	.....	0.47	4.02	7.01	4.41	5.30	3.63	.....	.....	.....
*Canton	894	3.87	1.04	5.82	5.22	1.52	1.47	6.70	7.34	6.89	7.14	4.12	1.41	52.54
Cartersville	760	.....	0.64	3.49	4.54	.....	.....	.....	7.30	9.34	5.80	3.83	0.60	.....
Cedartown	850	3.34	0.52	4.17	4.17	1.18	2.72	.....	.....	7.31	6.98	2.96	1.24	.....
Clayton	2,100	5.95	1.50	8.52	5.82	2.03	2.59	14.39	11.40	11.34	14.52	5.41	4.39	87.86
*Columbus	262	2.54	1.10	1.71	3.87	0.84	2.24	6.80	11.98	0.55	4.44	5.75	6.40	48.22
Covington	800	3.86	1.06	3.59	5.93	1.98	1.46	10.20	10.69	5.33	9.55	4.04	4.85	62.54
Crescent	10	0.35	0.50	1.65	2.58	0.78	3.41	12.58	9.64	4.36	6.36	2.81	4.42	49.44
Dahlonega	2,230	5.54	1.38	4.60	5.53	1.00	3.87	10.62	10.69	12.08	8.32	4.45	3.69	71.77
Diamond	2,020	.....	0.78	6.28	6.27	1.22	3.04	6.98	11.74	6.93	11.77	4.52	2.35	.....
*Dublin	361	.....	.....	.....	.....	0.67	1.43	4.66	7.61	2.43	4.75	4.58	3.55	.....
*Eastman	710	2.90	1.14	4.50	5.35	3.66	2.37	7.72	12.15	5.63	7.10	4.76	2.82	60.10
*Elberton	515	.....	.....	2.13	2.68	1.03	.....	.....	9.58	4.27	8.36	6.22	4.78	.....
Fitzgerald	26	0.40	0.38	1.15	3.34	1.10	6.94	11.11	28.60	5.18	5.01	5.37	3.40	71.98
Fleming	166	1.56	2.47	2.23	3.34	0.80	4.09	8.27	12.67	1.50	3.91	7.77	6.98	55.59
*Fort Gaines	1,000	3.42	1.03	3.92	5.66	0.20	2.57	11.76	13.29	2.53	.....	4.92	4.12	.....
Franklin	1,254	3.24	0.79	4.41	5.29	1.03	1.23	12.12	9.58	6.71	7.30	3.58	3.37	58.65
*Gainesville	1,052	1.26	0.36	3.54	4.20	1.03	2.64	6.75	7.78	10.13	8.18	3.17	3.54	52.58
Gillsville	.....	7.13	0.90	5.39	5.29	0.59	5.75	9.91	2.45	10.82	10.05	4.02	2.78	65.08
Greenbush	975	.....	.....	.....	.....	1.10	2.99	7.41	8.80	2.65	6.78	5.70	4.40	.....
*Griffin	.....	.....	.....	.....	.....	.....	.....	.....	16.41	0.81	4.76	4.84	2.06	.....
Harrison	390	1.30	1.20	0.91	.....	.....	.....	.....	.....	.....	9.55	7.60	1.85	.....
Hawkinsville	402	2.90	0.40	1.90	3.40	0.70	1.40	10.40	11.80	0.45	2.90	4.48	2.58	43.31
Hephzibah	100	0.25	0.38	1.35	2.41	1.83	5.68	8.15	18.13	3.37	7.86	6.43	3.69	59.53
Jesup	778	2.74	0.87	3.59	4.90	0.22	3.73	4.76	12.71	1.63	6.35	4.31	4.53	50.34
Lagrange	.....	2.44	0.90	2.49	5.38	.....	.....	.....	5.42	5.15	.....	.....	.....	.....
Lawrenceville	540	.....	.....	4.18	4.38	0.57	3.65	14.45	.....	.....	.....	.....	.....	.....
Leverett	.....	1.63	0.63	1.33	6.64	0.43	1.77	5.85	8.42	5.93	5.89	5.15	1.87	45.54
Louisville	650	1.40	2.40	1.93	3.66	1.47	3.75	10.59	12.44	0.42	6.17	.....	.....	.....
Lumpkin														

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Georgia—Continued.	*Feet.*													
*Macon	334					0.45	2.63	6.15	8.76	4.17	6.60			
Marietta	1,133	3.33	0.68	4.70	3.92	0.63	1.94	13.19	6.21	8.59	6.54	3.25	1.78	54.76
Marshallville	491	1.35	1.19	2.00	9.12	1.19	3.76	6.84	9.27	1.34	7.83	6.79	4.19	54.87
Mauzy						0.98	6.64	13.86	13.16	2.60	5.02	5.26	6.14	
*Millen	158			1.15	5.48	0.85	3.73	11.76	8.89	9.14	7.11	*3.21	3.06	
Morgan	337	2.98	2.70	1.71	3.97	2.58	5.97	5.82	14.75		3.59	7.24	6.52	
Mount Vernon		0.80	1.50	1.85			6.80	10.00	13.50	2.10			5.00	
*Newnan		1.88		4.74	5.22	0.83	2.93	7.37	14.59	2.81	8.15	4.50	4.15	
Piscola		1.05	2.05	2.60	2.45	0.25	1.50	4.15	5.25	T.	3.65	3.05	5.80	31.80
Point Peter		3.10	0.70	4.25	5.38	0.17	1.82	11.51	8.74	2.59	8.79	4.58	3.62	55.25
Poulan		1.31	1.73	2.08	3.15	0.29	2.39	8.36	13.82	2.59	5.26	6.43	4.15	51.56
*Quitman	80	1.14	1.82	2.25	3.03	1.18	3.46	9.37	9.04	3.55	6.06	3.35	4.72	48.97
Ramsey	1,363	5.19	0.68	5.38	4.56	0.16	3.95	6.79	5.15	8.44	6.91	3.82	1.46	52.49
Resaca	657	6.02	1.00	4.27	5.11							3.38	2.09	
*Reynolds		1.26	1.23	2.00	6.27							6.01	3.32	
*Rome	576	5.05	0.86	3.58	6.62	0.98	3.00	7.54	5.10	7.49	7.15	3.31	1.80	52.48
*Savannah	71	0.36	0.56	1.93	2.46	1.01	4.58	8.53	22.79	5.06	4.46	6.28	2.16	60.18
Talbotton	750	2.42	1.08	2.93	4.93	1.45	1.59	11.58	11.06	1.12	7.63	5.87	4.23	55.89
Tallapoosa		3.42	0.76	3.88	6.32	0.45	4.32	9.42	10.82	4.91	8.32	4.34	1.91	58.87
*Thomasville	1,150	1.73	1.61	2.85	4.22	2.18	3.57	10.38	9.78	3.99	7.89	4.80	5.05	58.05
*Toccoa	1,200	4.68	0.60	5.58	5.08	1.18	0.89	9.39	9.13	11.98	7.62	3.26	2.79	62.27
*Union Point	620					0.29	1.82	7.26	7.24	6.42	4.55			
*Washington		2.95	0.34	3.97	4.84	0.89	2.51	7.11	7.07	4.22	4.82	7.03	2.88	48.63
*Waycross	131	0.35	0.61	1.58	2.17	1.00	2.50	10.81	9.55	5.01	7.26			
*Waynesboro						2.71	3.92	11.29	13.60	6.13	4.23			
*Westpoint	620					0.30	6.00	4.88	9.83	2.98	5.55			
*Whitesburg	1,050	3.72	0.80	3.40										
Idaho.														
Albany Falls	4,343			1.55	1.31	3.52	1.72	0.87	0.07	1.23				
Atlanta	7,000									0.56	1.47	4.92	1.48	
Blackfoot	4,503	0.65	0.65	T.	0.11	2.83	0.55	1.10	0.15	0.00	0.50	0.20	0.05	6.79
Boise Barracks	2,736	1.40	1.61	0.75	0.81		0.10	0.00	0.25	0.01	0.57	2.11	0.98	
*Boise													0.71	
Burnside	6,023	0.64	0.36	0.05	0.10	2.92	1.79	1.53	1.44	T.	0.50	1.28	0.30	10.91
Challis	5,250	0.90	1.32	0.29	0.73	0.72								
Corral	5,700	1.80	1.00	0.70	0.56	2.33	0.52	1.49	0.76	T.				
Downey	4,860	1.10	0.10	0.86	1.07	3.64	1.28	0.63	T.	0.33	0.40	0.65	1.80	11.86
Fort Sherman	2,196	1.46	4.23	2.08	1.25	2.65	0.48	1.12	2.00	1.68	1.05	4.52	2.06	24.58
Gimlet	5,580	0.86	1.74	0.60	0.61	5.26	1.47	1.52	0.62			1.66	0.69	
Gray		1.10	0.80	2.00	0.20	2.20	1.75	0.80	0.04	0.30				
Idaho City	4,000	1.05	2.40	1.67	0.15			0.70	T.				1.56	
*Idaho Falls	4,742	1.76	0.34	1.33	0.19	1.74	1.33	0.93	0.34	0.03	0.49	1.34	0.76	10.58
Kootenai	1,756	1.80	3.09	1.10	0.63	2.97	1.91				0.90	3.35		
Lake	6,700	2.00	1.30	2.00	0.35	1.07	1.21	0.35	0.60	0.00		0.80	1.50	
Lakeview	2,300	1.75	3.58	2.11	1.38	3.25	0.99	0.76	1.24	1.31	1.50	2.48	2.03	22.38
Lewiston	647	0.93	1.19	1.03	0.65	2.06	0.87	0.41	0.31	0.35		1.28	0.45	
Lost River		0.38	0.02	0.20	0.08	2.06	1.26	1.82	0.80	0.25	0.45	0.33	0.08	7.73
Marysville		3.40	1.90	1.90	0.47	0.29	0.15	1.80	0.05	0.09	0.61			
Minidoka	4,287	1.20	0.50	0.60	0.10	1.10				0.00	0.00	0.90		
Moscow	3,571	2.20	2.04	1.80	1.02	2.09	1.31	0.79	1.29	1.30	0.83	3.26	1.71	19.64
Murray	2,750	3.23	6.99	3.23	2.13	3.82	2.02	1.23	0.95	2.53	3.61	4.75	3.57	38.06
Nampa	2,400	1.25	0.40	0.28	0.30	1.10	0.29	T.						
New Plymouth		0.85			0.26	1.99	0.63							
Oakley	4,191	0.70	0.30	0.30	0.20	1.10	0.58	0.85	0.25	0.00	0.30	1.40	0.20	6.18
Ola		1.99	1.57	0.55	0.94	2.31		0.27	1.18	0.24	1.74	3.71	1.56	
Paris	5,946	0.74	0.34	1.49	0.76	3.37	0.82	0.25	0.78	0.20	0.85	1.32	0.81	11.73
Payette	2,159	1.52	0.68	T.	0.51	2.07	0.54	0.20	0.30	0.80	1.22	2.98	0.36	11.18
Pollock	2,050	0.22	1.15	0.78	0.81	3.02	1.08	0.13	0.46	0.51	1.43	0.72	0.28	10.59
Rexburg	4,918	1.94		0.10	0.02	1.39								
St. Maries		2.99	3.95	2.49	1.45	2.64	0.83	0.81	0.49	1.16	2.07	3.97	1.89	24.74
Salubria	2,750	1.82	2.12	0.25	0.64	2.31	0.36	0.27	0.58	0.18	1.78	3.25		
Soldier	5,200	1.11	0.51	0.28	0.33	2.01	0.88	1.09	0.26	0.04	0.54	2.26	0.35	9.66
Swan Valley	5,434	0.66	0.62	1.61	0.43	3.81	0.82	1.84	0.26	0.16	0.72	1.89	0.77	13.59
Warren	5,350	2.01	2.23	2.37	0.81	1.39	1.15	0.53	0.54	1.25	0.97		1.44	
Weston				2.02	1.34	4.74	1.07	0.72	[b]0.14	0.27		1.68	0.40	
Yellow Jacket	6,500		1.63	0.64	0.43	1.53	2.10	0.27	0.47	0.59	1.38		0.90	
Illinois.														
Albion	520	6.00	1.91	12.39	5.27	6.68	3.35	5.51	3.42	3.57	3.25	2.27	1.47	55.09
Alexander	670	4.21	2.81	5.25	3.15	5.83	5.14	2.28	3.17	5.19	3.80	2.56	1.19	44.58
Ashton	830	2.69	2.14	4.78	2.48	3.45	3.00	1.60	8.61	3.61	2.85	1.97	1.17	38.35
Astoria										6.68	2.22	2.47	0.97	
Atwood[1]	665	5.72	2.78	10.89	3.77	6.04	6.44	2.99	3.16	5.70	5.50	4.24	2.30	59.53
Atwood[2]	665			8.03	2.95	5.59	3.58	3.47		4.86	3.49			
Aurora[3]	676	4.26	3.21	5.09	1.30	4.43	5.39	1.07	4.22	4.25	4.66	2.60	1.66	42.14
Aurora[4]	676	5.17	3.19	5.65	1.49	4.98	5.86	1.13	4.63	4.29	5.30	2.92	1.99	46.60
*Beardstown				9.60	2.51	8.06	2.18							
Bloomington	853	4.00	1.77	5.65	2.66	9.42	4.02	4.40	1.85	6.49	4.31	2.28	1.92	48.77
Bushnell	662	3.58	1.64	5.90						6.23	2.67	2.37	0.55	
*Cairo	359	6.26	1.18	9.20	2.13	5.36	1.73	5.67	3.56	6.11	4.64	1.55	1.27	48.66
Cambridge	824	3.34	1.77	6.15	2.89	9.30	9.68	1.17	6.57	2.72	4.06	1.91	0.60	50.36
Carlinville	673	4.98	1.96	7.49	4.30	7.58	3.66	3.68	2.68	5.39	4.60	2.63	2.16	51.11
Carlyle	470	3.98	1.76	11.93	3.91	9.55	6.48	6.23	4.66	2.87	4.21	2.44	1.80	59.82
Carrollton	660	5.10	2.00	6.36	5.16	7.33	2.94	[4.02]	[3.43]	4.24	3.57	1.84	1.82	[47.81]
Charleston	720	4.44	1.38	8.90	3.59	4.79	2.79	1.93	3.14	4.46	4.14	1.86	1.80	43.02
*Chemung	824	2.89	2.73	4.25	2.20	3.71	5.97	2.54	5.66	2.72	3.41	2.09	0.89	39.06
*Chester		3.93	1.98	8.90	3.48	8.49	3.79	6.34	4.23	3.33	4.97	1.23	2.23	52.90
*Chicago	824	3.54	2.59	4.60	0.76	2.23	5.30	1.94	3.03	3.16	3.26	2.25	1.11	33.77

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MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Illinois—Continued.	*Feet.*													
Ciane	616	5.06	1.20	11.99	5.01	6.69	5.05	5.05	4.91	4.35	3.30	2.39	1.64	56.64
Coatsburg	763	3.71	2.26	7.09	4.83	6.63	5.43	3.09	2.11	8.89	2.80	2.89	1.53	51.26
Cobden	656	4.20	1.37	14.16	4.28	5.76	7.83	7.35	4.81	5.21	6.42	1.60	1.69	64.68
Cordova	599	3.62	.....	.....	.....	5.28	3.96	1.15	7.07	3.38	4.25	.....	0.50	.....
Danville	613	3.66	1.79	7.93	2.47	3.98	6.37	2.24	3.89	4.00	5.06	3.08	1.86	46.33
*Decatur	685	5.18	2.71	9.85	3.36	5.74	2.39	1.07	2.16	5.47	5.34	2.96	1.68	47.91
*Dixon	725	3.27	2.26	4.74	3.29	4.00	2.49	1.55	6.39	3.01	2.56	1.19	0.78	35.53
Dwight	657	3.80	2.07	6.64	2.95	6.12	3.79	0.29	3.35	4.86	4.42	2.50	1.26	42.05
East Peoria	470	4.61	2.16	6.90	2.80	7.39	3.71	.....	.....	.....	.....	.....	.....	.....
Effingham	690	4.57	1.65	12.77	4.87	3.94	6.98	3.17	3.87	5.26	4.13	2.30	1.84	55.35
Elgin	800	[3.85]	2.44	5.08	1.40	4.24	8.23	0.75	6.43	4.40	4.76	2.22	1.25	[45.05]
Equality[1]	380	4.62	[1.35]	9.29	4.50	6.07	2.48	3.60	1.14	4.32	3.45	1.10	1.83	[43.75]
Fort Sheridan	693	2.59	2.91	3.13	1.35	2.43	2.56	1.65	2.86	2.48	3.10	1.44	0.91	27.41
Friendgrove	580	6.35	1.86	11.38	5.46	6.15	4.28	6.28	3.38	3.54	3.68	2.58	1.83	56.77
*Galva	843	3.38	1.43	5.43	2.77	8.74	9.86	0.96	7.13	3.84	2.73	2.19	0.61	49.07
Glenwood	631	3.16	2.11	5.05	1.51	3.66	3.89	3.97	4.85	3.43	4.30	2.48	1.79	40.20
Golconda	500	7.03	1.25	8.93	4.03	5.17	.....	.....	.....	.....	.....	.....	.....	.....
*Grafton	422	5.90	1.30	8.01	3.18	9.03	3.49	5.08	2.03	4.53	4.35	2.31	1.34	50.55
Grayville	393	7.11	1.79	11.37	5.70	6.38	4.09	2.94	2.07	2.83	3.34	2.12	1.60	51.34
Greenville	635	3.97	4.23	9.73	3.58	6.51	4.28	4.37	2.61	3.80	5.58	2.26	1.47	52.39
Griggsville	650	4.46	2.19	5.78	4.95	8.30	4.94	3.56	4.49	6.83	3.01	3.66	0.97	53.14
Halliday	.....	4.03	1.41	7.96	3.69	9.44	4.17	7.12	5.29	2.87	4.42	1.20	1.52	53.12
Havana	675	4.64	2.08	4.84	2.90	7.63	4.58	2.49	2.78	6.92	2.55	2.24	1.45	45.10
Henry	700	.....	.....	.....	.....	6.41	3.61	1.10	7.10	6.91	3.11	2.46	1.32	.....
*Hillsboro	676	5.51	3.07	7.78	3.80	7.45	3.39	5.33	2.69	5.56	5.13	2.32	2.00	54.03
Joliet	541	4.05	2.28	6.12	1.42	3.82	7.89	1.59	4.69	3.20	4.53	2.61	2.15	44.35
*Kankakee	642	.....	.....	7.69	1.31	5.66	1.72	1.69	4.20	5.80	4.18	2.33	1.17	.....
Kishwaukee	810	2.00	2.12	4.96	3.38	4.62	5.55	2.06	8.23	3.49	2.74	1.23	0.84	41.22
Knoxville	775	5.30	1.86	5.90	3.85	7.98	5.02	0.97	10.18	5.69	2.48	2.67	0.83	52.73
Lagrange	657	4.30	2.60	5.87	1.14	3.50	6.92	2.77	4.59	3.97	4.21	2.69	1.56	44.12
Laharpe	700	2.94	1.40	5.12	3.91	8.56	2.59	2.35	10.40	6.42	3.15	1.65	0.42	48.91
Lanark	883	1.85	1.52	2.66	2.76	3.87	2.12	2.00	7.23	3.66	3.45	1.07	0.34	32.53
Lexington	800	4.62	2.11	5.17	2.13	6.09	2.21	1.32	2.44	5.23	4.06	2.09	1.18	38.65
Loami	.....	5.25	2.31	5.97	3.58	6.00	6.14	2.09	2.50	6.75	4.08	2.49	1.14	48.30
*McLeaneboro	462	4.98	1.29	11.11	5.33	6.05	4.99	3.57	5.15	2.75	3.77	1.26	1.69	51.99
Martinsville	575	3.86	1.26	9.64	2.48	2.79	4.20	1.15	3.44	4.90	4.35	2.29	0.85	41.21
*Martinton	632	3.44	1.90	4.38	1.98	5.66	2.65	1.11	4.03	5.77	4.36	2.81	1.80	39.89
Mascoutah	571	4.03	2.89	11.33	4.21	6.84	5.62	4.84	5.57	3.80	4.42	2.43	1.48	57.46
Mattoon	744	3.34	1.58	7.15	4.01	4.96	2.30	1.66	2.79	4.49	4.33	2.02	1.88	40.51
Minonk	745	4.21	1.78	5.00	2.87	6.84	2.92	0.58	4.76	5.47	3.86	2.13	1.04	41.46
Monmouth	784	3.20	1.38	3.65	2.73	6.60	4.67	1.50	9.23	7.15	2.34	1.53	0.47	44.45
Morrisonville	638	5.02	2.74	6.72	2.92	9.14	2.74	2.74	3.38	4.60	5.11	3.09	2.02	50.22
*Mount Carmel	424	6.53	1.79	11.35	4.42	5.82	8.16	3.57	3.28	3.64	3.53	2.54	2.21	56.84
*Mount Pulaski	685	4.78	2.20	9.90	2.47	5.04	3.71	0.56	2.77	5.14	4.79	2.26	1.50	45.12
*Mount Vernon	511	5.86	1.60	11.94	3.54	5.86	5.28	6.43	3.18	4.54	4.41	2.14	2.12	56.90
*New Burnside	700	4.67	1.07	8.51	3.76	7.28	2.77	5.82	3.28	4.33	4.35	0.99	2.24	49.07
Olney	487	5.22	1.93	10.97	5.00	4.38	1.10	4.76	3.58	4.41	3.06	2.14	1.89	48.44
Oswego	650	3.86	2.59	4.11	1.48	5.50	4.51	2.23	3.75	3.81	4.32	2.81	1.52	40.46
*Ottawa	500	5.24	2.38	5.21	3.12	6.72	5.80	1.20	4.31	5.90	4.73	2.88	1.42	49.01
Palestine	500	5.33	1.56	11.45	3.82	3.15	4.06	2.80	4.29	7.42	4.61	3.15	2.33	53.97
Pana	.....	.....	.....	.....	.....	6.49	2.31	2.34	3.17	3.90	4.85	2.48	1.33	.....
*Paris	600	4.29	1.69	8.34	2.41	3.05	3.84	1.67	3.31	4.71	3.73	2.30	1.37	40.71
*Peoria[2]	519	4.39	2.82	6.05	3.17	6.56	4.07	0.58	3.55	6.11	3.05	2.25	0.76	43.36
*Peoria[3]	519	4.08	2.59	5.74	3.02	5.54	3.37	0.47	3.26	6.05	3.00	2.03	0.93	40.08
Philo	771	3.62	1.28	8.71	2.84	4.93	3.78	1.98	2.29	5.23	5.55	3.20	2.23	45.64
Plumhill	500	4.79	2.06	13.05	3.90	5.12	5.32	6.02	3.98	3.93	5.34	2.29	1.79	57.59
*Rantoul	768	3.46	1.76	7.20	2.04	5.94	4.99	1.87	3.87	3.86	4.58	3.28	1.98	44.83
Ranm	500	.....	.....	.....	.....	.....	.....	.....	1.56	7.68	3.90	2.31	1.84	.....
Reynolds	800	2.70	1.30	5.52	2.89	5.44	3.21	1.15	7.78	2.76	3.82	1.34	0.50	38.41
Riley	956	3.89	3.03	4.76	1.90	2.74	7.74	2.27	4.35	2.16	3.41	1.64	0.76	38.65
Robinson	500	5.30	1.73	14.01	4.84	4.12	4.28	1.78	3.97	10.09	[4.50]	2.52	1.74	[58.88]
*Rockford	763	2.97	2.52	4.21	2.16	4.36	2.79	2.32	5.46	.....	.....	.....	.....	.....
Roundgrove	715	3.01	1.82	4.42	5.11	4.19	2.98	1.68	5.61	2.68	3.38	1.20	0.54	36.62
St. Charles	700	3.73	2.89	5.29	1.03	4.07	4.55	1.74	5.73	3.87	5.74	1.98	1.97	42.59
St. John	450	4.07	1.32	9.98	3.53	6.06	3.15	7.52	2.86	3.60	3.06	1.17	2.87	49.19
Scales Mound	900	2.17	1.76	2.84	2.78	4.07	3.19	3.75	7.72	2.62	3.33	1.37	0.41	36.01
*Springfield	644	5.81	2.70	9.65	3.76	5.12	4.76	2.34	4.40	6.82	6.15	2.94	1.83	56.28
*Streator	626	3.43	1.62	6.93	3.00	6.00	3.24	0.62	2.96	4.20	2.99	2.47	0.77	38.23
*Sycamore	855	3.28	3.57	5.42	1.65	3.20	3.47	1.22	6.47	3.71	4.81	1.76	0.80	39.36
Tilden[4]	500	3.83	1.94	9.95	3.40	5.93	5.09	6.91	4.85	4.81	6.36	1.88	1.97	56.92
Tiskilwa	798	3.76	2.43	6.17	3.50	7.30	2.85	1.17	6.97	4.58	2.63	2.93	1.09	45.38
*Tuscola	664	4.49	1.63	8.86	3.74	5.71	3.93	3.78	2.61	4.82	4.44	2.60	2.78	49.39
Walnut	717	3.96	2.08	5.22	2.78	5.22	3.98	1.20	5.51	4.47	2.63	1.70	0.96	39.71
Wheaton	769	3.67	2.20	6.04	1.31	4.20	6.03	1.90	5.69	4.65	5.13	2.34	1.86	45.02
Winchester	.....	5.75	2.90	5.55	3.87	8.50	5.21	3.30	5.13	5.62	3.75	3.00	1.79	54.37
Winnebago	900	2.95	3.07	3.95	3.39	3.52	3.65	2.74	7.13	2.47	3.80	1.81	0.71	39.19
Zion	938	3.95	2.80	3.83	3.07	3.22	.....	.....	.....	.....	.....	.....	.....	.....
Indiana.														
Anderson	892	4.11	1.56	6.59	2.49	4.66	1.61	3.46	4.86	2.56	4.47	3.32	2.04	41.73
Angola	1,052	3.73	2.59	5.92	0.85	3.61	2.18	3.91	4.10	4.36	7.90	4.66	2.17	45.98
*Auburn	874	3.28	1.73	5.88	1.63	.....	1.21	4.67	2.50	3.41	3.89	[4]3.08	1.77	.....
Bedford	681	.....	.....	.....	0.50	.....	.....	.....	2.75	0.86	.....	.....	.....	.....
*Bloomington	744	6.42	2.15	10.30	1.88	3.94	3.03	2.69	4.43	.....	.....	3.13	2.90	.....
Bluffton	835	3.21	2.32	6.01	2.86	6.65	2.01	3.57	1.73	2.88	2.88	3.16	2.12	39.40
Boonville	442	7.91	0.94	8.45	3.08	4.88	2.70	3.27	4.48	2.95	5.16	1.36	.....	.....

[1] Observations in January made at Iron, 15 miles northeast of Equality. [2] River observer. [3] Corn and wheat region observer.
[4] Observations for January and February made at Jordans Grove, 4 miles southwest of Tilden.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Indiana—Continued.	*Feet.*													
Bright	.....	7.38	1.56	7.93	.....	5.20	1.20	2.85	4.82	4.55	4.83	3.85	3.00	.....
Butlerville	767	9.28	1.86	9.56	2.02	4.64	2.14	2.22	4.96	4.59	4.67	3.28	3.55	52.77
*Cambridge City	941	5.95	1.46	11.04	1.67	2.87	3.37	2.07	4.55	3.91	4.97	3.22	3.01	48.09
Columbia City	841	3.89	2.11	5.54	1.64	5.44	2.49	3.27	1.91	3.17	5.50	3.62	2.02	40.60
*Columbus	632	6.20	1.50	6.94	1.50	3.54	4.27	2.04	4.26	6.69	5.11	3.48	2.51	48.04
Connersville	844	5.47	1.25	10.93	1.41	3.03	3.23	4.11	2.59	3.63	4.04	3.39	3.31	46.39
Crawfordsville	774	3.40	.....	11.20	.....	10.57	7.02	.....	3.26	3.10	.....	2.77	1.90	.....
Delphi	668	3.26	1.39	6.18	2.07	6.51	5.32	2.93	4.13	2.39	4.51	3.64	1.96	44.29
Edwardsville	901	8.84	2.10	11.08	3.00	4.77	5.77	1.70	2.59	4.31	3.73	2.57	3.71	54.17
*Evansville	383	6.97	1.52	8.73	4.15	4.61	1.71	2.90	3.85	3.26	4.50	1.05	1.53	44.78
*Farmland	1,101	5.16	3.24	7.26	3.68	7.16	2.73	4.07	2.60	.....	4.83	2.98	2.47	.....
Fort Wayne	775	3.92	2.22	4.57	2.08	5.21	2.48	4.40	.....	5.26	4.32	3.56	2.33	.....
Franklin	740	5.45	1.59	8.83	0.84	2.09	3.53	.....	.....	.....	4.10	2.48	2.22	.....
Greencastle	860	7.98	2.70	10.62	2.15	3.21	4.18	.....	.....	.....	.....	.....	.....	.....
Greensburg	954	.....	.....	10.84	1.15	2.98	1.85	1.85	0.94	8.28	7.75	3.79	2.95	.....
Hammond	598	2.41	0.91	.....	.....	4.07	2.27	1.37	2.21	1.53	3.95	1.74	1.38	.....
Hector	.....	5.07	2.88	5.21	2.66	5.29	.....	4.33	3.53	3.64	4.46	2.33	1.90	.....
Huntington	741	4.18	2.13	5.67	2.85	5.66	3.73	3.80	1.97	3.97	3.49	3.48	2.11	43.04
*Indianapolis	766	4.93	1.47	9.90	1.73	2.59	1.77	5.52	2.63	4.23	4.86	2.39	2.08	44.10
Jasper	450	9.25	2.15	9.70	3.10	5.25	3.00	2.00	6.85	.....	.....	.....	.....	.....
Jeffersonville	455	9.04	1.65	10.10	2.97	4.92	5.51	3.30	4.62	3.66	3.14	2.56	2.69	54.16
Knightstown	.....	4.94	2.29	10.87	1.72	3.03	3.94	4.25	3.73	4.41	4.93	2.60	3.57	50.28
Knox	717	2.70	.....	.....	1.30	2.60	.....	.....	5.00	.....	.....	.....	.....	.....
Kokomo	840	4.99	1.60	7.46	2.97	8.36	4.45	2.65	2.42	2.28	4.69	3.12	1.83	46.82
*Lafayette	661	3.57	1.27	7.20	2.13	6.56	4.16	1.87	4.86	3.03	4.53	3.37	1.83	44.38
Laporte	810	3.53	2.41	4.78	1.12	2.69	3.64	2.01	3.10	2.56	6.95	2.65	2.29	37.73
*Logansport	620	1.43	0.85	3.63	2.39	4.91	2.50	1.94	2.37	1.97	5.37	3.29	1.86	32.51
Madison	460	9.30	1.65	9.09	1.42	4.04	5.57	1.87	3.79	4.34	3.81	2.90	3.01	50.79
Marengo	363	8.91	2.37	9.22	3.18	5.62	5.59	1.24	3.60	5.95	4.21	2.83	3.00	55.72
*Marion	814	3.89	1.75	6.17	2.59	8.45	4.29	2.10	2.12	2.47	3.50	3.53	2.43	43.29
Markle	525	3.50	1.51	2.94	2.20	6.40	3.10	3.10	1.50	2.70	3.35	2.80	2.50	35.60
Mauzy	.....	5.70	1.80	10.37	1.33	3.25	4.67	2.66	2.63	4.27	4.16	3.29	3.36	47.79
*Mount Vernon	980	5.84	1.76	8.91	4.16	4.64	2.20	3.16	2.90	.....	5.23	0.88	1.21	.....
Northfield	.....	4.30	2.10	9.91	2.34	4.76	3.37	4.62	4.53	3.07	3.85	2.89	1.80	47.54
Paoli	611	.....	.....	7.92	2.09	4.66	4.87	1.91	3.56	5.94	5.30	2.35	2.62	.....
Peru	657	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.20	3.77	1.58	.....
Princeton	481	1.36	2.34	14.65	2.90	4.60	7.80	2.25	4.30	5.82	3.15	1.95	2.30	53.42
Richmond	972	4.83	1.36	11.36	1.78	3.12	2.60	4.61	3.32	3.17	3.86	2.89	2.42	45.32
Rockport	414	7.30	1.72	9.49	4.04	4.65	2.97	3.33	1.65	3.91	.....	.....	.....	.....
Rockville	722	4.18	1.74	8.95	2.59	3.54	6.18	2.12	3.61	6.12	4.37	3.32	1.32	48.04
Salem	714	6.95	2.20	7.72	0.83	3.57	1.50	0.85	.....	.....	.....	.....	.....	.....
Scottsburg	570	8.23	1.59	6.47	1.96	4.90	2.60	1.57	4.45	5.57	4.35	2.01	3.10	46.80
Seymour	610	8.47	1.60	7.82	1.72	3.87	5.30	3.95	.....	.....	5.97	2.71	3.27	.....
Shelbyville	762	5.97	2.08	9.50	1.53	2.50	2.67	3.82	2.94	6.04	4.57	2.72	2.22	46.56
*South Bend	726	3.52	2.66	4.47	1.01	2.97	3.41	1.94	4.11	1.81	6.56	3.61	2.25	38.32
Syracuse	864	3.48	2.60	6.33	1.16	4.79	2.98	4.48	3.02	2.75	5.30	4.21	2.20	43.30
*Terre Haute	498	4.48	1.53	11.03	2.72	2.23	6.47	1.40	2.66	6.75	4.02	2.18	1.42	46.89
Topeka	.....	2.45	1.98	6.38	1.11	3.31	1.88	2.87	4.93	4.06	4.59	3.12	0.28	36.96
Valparaiso	737	1.92	1.26	5.33	1.01	3.60	3.55	3.00	4.00	2.51	7.00	0.60	0.60	34.38
Vevay	525	11.60	2.15	10.43	0.97	4.60	5.55	5.55	2.40	4.40	4.65	3.35	2.85	58.50
*Vincennes	431	6.13	3.03	10.59	3.85	4.21	2.55	2.87	3.84	3.79	3.24	4.00	1.27	49.37
Warsaw	826	1.90	1.73	.....	1.43	4.95	3.51	2.46	3.26	3.65	.....	.....	.....	.....
*Washington	484	6.13	2.06	10.17	2.46	4.48	3.34	2.07	2.81	7.98	2.24	2.16	1.90	47.80
Winamac	716	3.45	1.79	5.00	1.82	5.19	3.48	3.44	4.84	3.53	6.17	4.13	0.82	43.66
Worthington	540	5.24	1.64	11.07	1.98	2.58	2.73	3.85	3.70	7.87	3.48	2.38	2.60	49.12
Indian Territory.														
Healdton	.....	2.29	1.58	5.90	1.80	4.85	4.79	1.82	2.68	1.16	1.89	1.85	4.03	34.64
Kemp	.....	2.90	1.30	3.80	.....	2.90	8.55	5.90	3.20	T.	2.30	2.20	2.40	.....
Lehigh	936	3.64	1.17	6.72	3.00	4.60	3.07	3.51	3.39	1.17	1.69	1.23	4.06	37.25
Purcell	.....	.....	.....	6.49	1.20	9.89	6.42	5.86	3.76	0.99	1.71	.....	.....	.....
South McAlester	698	3.96	0.67	8.15	2.55	10.23	8.15	1.32	3.36	3.11	2.83	0.84	2.16	47.33
Tahlequah	.....	5.86	0.43	12.25	1.71	11.46	.....	3.68	.....	12.13	1.84	2.36	1.38	.....
Tulsa	700	4.62	2.85	5.71	1.65	8.40	5.64	7.95	3.63	4.42	4.00	1.53	3.81	74.21
Wagoner	575	4.62	1.19	9.91	3.64	12.16	5.26	3.56	1.71	5.99	5.38	2.22	1.88	57.52
*Webbers Falls	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.00	3.10	1.69	1.25	.....
Iowa.														
Adair	1,415	0.90	0.65	0.61	1.35	6.74	8.72	2.66	0.58	2.79	.....	.....	.....	.....
Afton	1,212	1.75	1.51	2.07	2.38	4.25	5.76	2.67	0.59	3.29	2.03	2.24	0.69	29.23
Albia	959	2.93	0.83	2.06	.....	.....	5.16	4.66	3.29	3.07	4.90	1.90	0.35	.....
Algona	1,213	0.25	1.65	1.45	2.42	6.09	4.63	1.40	5.79	1.19	3.61	1.23	0.37	30.08
Alta	1,513	0.25	0.93	1.44	3.02	4.86	3.41	2.32	5.49	1.03	3.24	1.37	0.35	27.71
Amana	.....	2.99	1.11	2.26	3.24	4.14	2.54	2.66	2.61	4.14	3.56	1.08	0.44	30.77
Ames	926	0.46	.....	0.78	1.52	3.88	7.10	1.10	3.30	3.07	5.03	.....	.....	.....
Ames (near)	.....	0.80	1.42	1.13	0.92	2.80	5.00	0.32	3.52	2.90	4.06	2.23	0.30	25.40
Atlantic	1,164	1.48	1.10	2.02	2.42	4.61	8.74	2.60	0.63	2.72	2.11	1.04	0.58	30.05
Audubon	1,301	1.10	1.10	1.53	0.83	4.99	2.74	4.34	1.55	2.26	2.84	1.01	1.10	25.39
Bedford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.87	1.19	0.72	.....
Belknap	877	5.00	1.77	2.65	2.95	5.78	6.25	3.30	3.75	5.00	4.30	1.80	.....	.....
Belle Plaine	822	3.32	1.30	2.05	3.89	5.48	3.80	2.30	7.85	5.87	3.96	2.15	0.28	42.25
Bonaparte	.....	3.33	1.00	5.08	3.71	6.11	9.01	3.15	10.55	7.30	4.09	1.21	0.93	55.47
Britt	1,236	0.25	1.57	0.93	2.79	4.43	3.96	1.27	4.35	1.88	4.04	0.76	0.41	26.64
Burlington	435	1.86	1.25	6.13	2.79	5.36	.....	.....	.....	.....	.....	.....	.....	.....
*Carroll	1,265	1.20	1.10	2.01	1.73	4.72	2.99	2.61	2.58	4.77	3.23	1.21	0.50	28.65
Cedarfalls	854	1.90	0.70	1.34	2.15	7.15	5.33	2.05	4.42	2.22	4.38	1.90	0.20	33.74
*Cedar Rapids	733	1.02	3.65	1.71	2.47	3.41	3.60	1.90	4.38	3.11	2.92	0.76	0.65	29.58
*Centerville	1,013	.....	.....	.....	2.33	4.44	4.61	3.63	5.12	3.00	3.57	.....	.....	.....
Chariton	1,042	3.49	0.84	1.60	2.20	5.17	4.77	6.94	1.41	4.26	5.29	1.67	0.83	38.47
*Charles City	1,005	1.20	2.79	1.73	1.72	4.38	2.63	2.98	1.38	1.13	4.30	1.51	0.03	25.78

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Iowa—Continued.	*Feet.*													
*Clarinda	1,009	1.42	2.13	1.73	3.70	5.15	2.99	4.49	1.16	5.74	2.61	1.47	0.90	33.49
Clear Lake	1,238	.....	.....	.....	2.46	6.51	3.74	5.14	2.98	1.85	4.59	1.30	0.20	.....
*Clinton	593	3.60	2.37	4.73	3.53	4.47	8.08	1.89	7.87	2.80	4.97	1.42	0.42	46.15
College Springs	.....	1.01	1.11	1.35	2.56	4.87	3.94	8.28	1.91	4.82	2.68	0.66	0.86	34.05
Corning	1,017	1.50	1.25	0.80	1.68	4.11	5.35	2.31	1.75	3.34	3.09	1.15	0.60	26.93
Council Bluffs	990	0.18	0.42	1.17	2.85	2.44	3.14	3.68	1.57	3.81	2.07	0.97	0.70	23.00
Cresco	1,300	0.55	1.02	1.70	2.80	2.84	2.53	2.91	1.35	1.03	4.90	1.90	0.38	23.91
*Davenport	613	3.68	1.86	4.85	3.01	6.73	3.53	1.85	4.96	3.14	3.39	1.37	0.59	38.95
Decorah	875	0.82	1.29	2.58	2.81	3.67	2.88	3.04	1.98	1.73	.....	2.05	0.31	.....
Delaware	1,083	1.42	1.04	2.12	2.37	2.69	5.62	1.45	2.50	3.47	3.77	1.71	0.52	28.68
Denison	1,180	0.60	0.10	1.35	3.25	4.13	2.79	.....	.....	.....	.....	0.88	0.14	.....
*Des Moines	869	1.59	0.82	1.35	2.64	4.22	6.85	1.86	1.09	1.91	3.56	1.87	0.57	28.33
Desoto	801	1.81	1.44	1.59	1.86	5.39	9.35	2.46	2.71	.....	.....	.....	[b]0.32	.....
Dows	1,142	0.85	1.65	1.57	1.88	7.22	4.91	1.75	3.16	2.69	3.95	1.59	0.47	31.69
*Dubuque	698	2.19	2.01	2.78	4.06	4.47	4.36	2.83	4.37	3.07	3.86	1.15	0.33	35.48
Eldon	534	.....	.....	.....	2.83	5.49	4.76	2.18	5.36	5.07	3.97	0.87	0.81	.....
Eldora	1,070	2.30	2.10	1.75	2.40	4.11	6.61	2.40	4.75	2.52	5.25	2.10	1.70	37.99
Elkader	600	0.88	1.09	2.67	2.64	3.23	3.36	3.55	1.34	2.50	4.86	1.84	0.37	28.33
Estherville	1,208	0.15	0.65	0.48	1.38	2.22	3.48	5.39	4.30	0.41	1.28	0.90	0.25	20.89
*Fairfield	780	3.52	0.85	2.82	3.22	6.21	5.54	2.84	3.53	3.61	4.13	1.66	0.75	38.68
Fayette	.....	1.63	2.63	2.42	3.85	3.29	3.53	4.36	2.81	1.86	3.88	2.29	0.25	32.80
*Forest City	1,226	0.30	1.65	1.33	2.50	4.06	7.20	2.14	5.50	0.68	4.54	1.28	0.20	31.38
Fort Madison	522	3.78	2.05	6.21	4.25	7.82	3.00	2.63	5.12	8.45	4.27	1.95	1.47	51.00
Fredericksburg	1,075	0.78	1.42	2.37	2.05	2.70	3.30	3.46	1.71	1.57	4.22	1.96	.....	.....
*Galland	1,290	0.18	0.44	0.82	1.90	5.49	3.34	[d]1.15	.....	1.48	.....	1.73	0.26	.....
Galva	975	1.40	1.35	1.18	2.97	4.87	4.66	5.85	1.45	2.80	1.63	0.78	0.30	29.24
Glenwood	1,180	0.90	1.95	2.35	2.73	4.76	2.91	4.02	1.57	1.99	4.69	2.36	0.39	30.62
Grand Meadow	924	0.47	1.19	1.09	1.52	5.70	3.25	3.67	1.47	1.56	4.34	1.99	0.33	27.18
Greene	.....	1.53	1.72	1.70	1.97	5.82	12.48	2.63	1.02	2.48	3.51	1.35	0.49	36.70
Greenfield	1,023	3.19	0.75	1.17	4.31	4.36	4.67	.....	.....	2.05	4.17	1.79	0.01	.....
Grinnell	976	1.80	0.77	1.20	1.94	5.59	7.02	1.32	4.75	3.31	5.29	1.07	0.40	34.46
Grundy Center	1,077	1.06	0.97	1.31	0.78	4.96	4.29	3.07	1.28	2.39	3.12	1.10	0.25	24.58
Guthrie Center	1,000	1.03	1.56	2.37	2.29	4.25	4.95	1.46	5.38	3.11	4.02	2.52	0.46	33.40
*Hampton	.....	1.10	1.70	1.34	2.20	4.76	3.73	4.00	2.60	2.63	5.24	2.50	0.55	32.35
Hawkeye	.....	3.30	0.60	1.31	3.21	4.29	4.11	2.32	3.78	2.09	4.17	0.83	0.05	30.06
Hedrick	.....	2.32	1.16	1.48	2.22	5.90	6.07	2.92	2.49	4.63	3.15	1.25	0.65	34.24
Hopeville	1,095	0.23	1.29	1.74	1.58	5.28	5.67	1.22	5.99	1.80	2.62	0.93	0.02	28.37
Humboldt	921	1.76	1.34	1.71	1.85	4.14	4.65	1.66	2.60	2.14	4.51	1.53	0.42	28.31
Independence	969	3.38	0.54	0.79	4.71	4.17	5.35	2.86	3.53	1.99	3.74	3.61	1.01	35.68
Indianola	685	4.62	1.15	3.02	2.89	4.80	3.26	2.27	2.85	2.54	4.38	1.10	0.53	33.41
Iowa City	1,107	1.05	2.17	1.14	1.84	3.40	4.15	1.73	3.62	2.69	3.49	2.22	0.40	27.90
Iowa Falls	613	3.13	1.16	5.98	4.80	6.70	4.77	3.06	6.92	8.07	3.99	1.52	1.38	51.48
*Keokuk	664	3.37	1.46	5.00	.....	5.56	5.18	3.07	9.06	7.22	4.16	1.41	1.09	.....
Keosauqua	910	3.55	1.04	1.22	2.18	5.23	3.70	4.32	1.77	2.14	4.01	2.28	0.38	31.82
Knoxville	.....	2.88	0.92	2.37	1.95	6.15	4.62	[e]2.53	.....	5.62	4.21	1.54	1.38	.....
Lamoni	632	0.85	1.70	2.37	3.03	2.38	3.00	3.12	2.37	2.64	5.20	1.93	0.27	28.86
Lansing	1,465	0.55	0.40	1.30	0.27	5.38	4.23	3.20	1.39	0.98	1.27	0.49	0.05	19.51
Larchwood	.....	0.17	0.94	1.09	1.82	3.54	5.90	5.06	4.07	0.96	2.92	1.05	0.24	27.76
Larrabee	576	.....	.....	5.16	3.28	3.78	2.53	0.90	3.86	2.67	3.49	1.19	0.29	.....
*Leclaire	1,224	0.25	0.45	1.26	1.96	3.71	4.72	3.34	2.31	0.70	1.89	0.80	0.20	21.59
Lemars	1,250	1.07	1.54	1.21	2.89	4.97	3.01	3.11	1.86	4.87	3.60	1.36	0.84	30.33
Lenox	928	1.30	0.80	1.59	2.82	4.91	3.25	1.50	2.54	1.72	2.93	0.90	0.70	24.96
Logan	.....	.....	.....	1.25	2.35	4.97	3.10	2.88	4.97	1.11	3.00	1.67	.....	.....
Maple Valley	688	2.01	1.52	2.93	3.20	3.64	2.20	2.45	4.34	2.99	3.74	0.94	0.25	30.21
*Maquoketa	947	1.02	0.62	0.33	1.87	4.26	6.48	2.67	3.31	2.48	3.94	1.84	.....	.....
*Marshall	1,130	T.	0.95	0.75	1.85	5.30	3.03	3.02	2.65	1.90	3.20	.....	T.	.....
Mason City	830	1.85	0.97	1.30	2.48	5.54	7.29	1.84	1.94	1.93	3.16	.....	.....	.....
Millman	925	2.59	0.97	2.43	2.40	3.46	.....	1.71	5.08	3.59	3.25	1.42	0.53	.....
Monticello	654	3.12	1.12	5.33	4.82	6.87	5.04	2.35	7.82	7.04	3.88	0.84	0.70	48.93
Moore	1,236	2.80	1.41	2.15	2.45	7.29	4.55	3.69	2.36	5.36	3.46	2.23	1.01	38.76
Mountayr	729	3.65	0.77	5.60	4.02	5.50	5.87	2.49	6.36	4.42	4.12	1.50	0.37	44.67
Mount Pleasant	847	.....	.....	2.23	2.68	4.43	2.63	3.20	.....	.....	3.50	1.43	.....	.....
Mount Vernon[1]	847	2.57	1.46	1.99	3.02	4.50	2.87	3.18	3.44	3.30	2.91	1.48	0.30	31.02
Mount Vernon[2]	1,111	.....	.....	0.50	.....	.....	.....	1.90	2.35	1.50	.....	.....	.....	.....
Neola	1,154	0.53	1.60	1.61	2.04	3.41	3.39	3.05	1.33	1.41	4.06	2.08	0.12	24.63
New Hampton	952	2.22	0.85	1.16	2.23	4.04	4.66	1.43	4.13	2.82	4.17	2.19	0.58	30.48
Newton	626	.....	.....	1.84	2.97	2.44	2.40	3.51	1.66	1.57	3.76	0.61	0.31	.....
*North McGregor	1,222	0.20	1.95	1.03	2.49	3.95	3.00	1.80	2.81	0.88	4.70	1.30	T.	24.11
Northwood	1,365	0.44	0.95	2.50	2.15	4.79	4.93	5.05	5.72	2.09	2.57	2.16	0.36	33.71
Odebolt	1,211	0.92	1.01	2.08	1.46	4.73	5.88	1.69	2.87	3.91	3.91	1.27	0.33	30.06
*Ogden	.....	.....	.....	2.88	2.32	4.70	1.90	1.51	6.37	3.35	4.47	1.24	0.16	.....
Olin	1,184	0.37	1.75	2.01	3.02	3.67	3.15	2.85	2.61	1.20	4.20	2.47	0.32	27.62
Osage	1,132	3.30	1.18	1.26	1.44	5.30	4.95	4.77	1.48	3.09	3.68	1.50	0.90	32.85
*Osceola	843	2.01	0.67	0.87	2.04	3.10	2.40	3.44	1.85	2.21	3.64	1.50	0.55	24.28
Oskaloosa	649	4.14	0.65	1.90	2.65	7.80	4.45	3.52	5.84	2.98	3.84	1.33	1.00	40.10
Ottumwa	992	5.32	1.25	2.56	2.84	4.23	5.42	6.29	6.99	4.45	4.33	1.77	0.98	46.43
Ovid	.....	.....	.....	.....	.....	4.00	2.42	2.89	1.30	1.89	4.25	1.27	0.40	.....
Pella	.....	.....	.....	.....	.....	.....	5.55	0.55	7.81	.....	3.87	1.60	.....	.....
Pioneer	1,426	.....	0.60	0.92	1.75	4.85	4.22	3.30	6.39	1.06	2.88	0.99	0.22	.....
Plover	.....	.....	0.91	1.68	2.92	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portsmouth	1,300	0.19	0.32	1.20	2.19	4.49	5.10	4.52	2.10	0.55	2.40	1.00	0.10	24.18
Primghar	1,032	1.49	1.49	1.71	2.69	3.79	4.66	3.37	0.97	3.83	2.20	.....	.....	.....
Redoak	.....	1.01	3.69	3.12	3.09	3.30	3.15	3.64	1.99	1.51	5.75	2.32	0.40	32.97
Ridgeway	1,358	0.45	.....	0.99	1.45	6.05	.....	1.95	.....	.....	2.08	.....	.....	.....
Rock Rapids	1,219	0.46	0.54	1.18	2.23	5.29	3.22	2.12	3.81	2.16	4.54	1.25	0.15	26.95
Rockwell City	.....	0.10	0.85	1.50	3.01	4.70	5.41	3.74	6.16	1.50	3.45	0.95	0.40	31.77
Ruthven	1,278	0.41	1.12	1.82	2.40	4.63	3.83	1.55	4.20	2.00	4.15	1.03	0.40	27.54
Sac City														

[1] Prof. A. Collin.

[2] J. W. Hubbard.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Iowa—Continued.	*Feet.*													
*Sibley	1,512	0.20	0.57	0.50	1.44	5.42	4.99	2.69	3.06	0.67	1.38	0.56	0.15	21.63
Sidney	700	1.92	2.38	2.65	4.49	3.94	6.40	9.90	1.45	5.40	1.95	1.59	1.35	43.42
Sigourney	768	2.86	1.06	1.85	.....	2.64	3.53	3.86	3.09	2.83	4.67	1.53	0.59	.....
*Sioux City	1,165	0.27	0.37	0.90	1.37	4.69	6.61	2.78	3.10	0.95	1.36	0.45	0.06	22.91
Spencer	1,319	0.04	0.67	0.74	3.12	5.00	9.17	4.09	3.75	0.94	2.41	1.24	0.32	31.49
Spirit Lake	1,458	0.30	0.60	0.87	2.34	3.28	5.31	3.46	5.52	0.50	2.28	0.86	0.32	25.64
Stuart	1,216	0.90	0.40	2.12	1.75	4.91	6.20	4.15	0.60	2.23	1.48	.....	0.15	.....
Tara	1,159	0.17	1.30	.....	1.70	5.10	3.50	0.90	2.50	2.45	2.00	2.00	.....	.....
Thurman	.....	1.36	1.72	1.74	3.79	5.01	7.62	12.88	1.17	3.95	2.66	1.14	1.07	44.11
Toledo	856	1.57	0.82	1.30	2.27	3.58	4.37	1.36	5.56	4.64	4.08	1.99	0.50	32.04
Villisca	1,050	1.21	1.92	1.80	3.05	4.52	3.92	2.25	1.44	4.15	2.90	1.65	0.70	29.51
Vinton	810	2.27	1.65	1.41	2.53	3.02	2.76	0.85	1.67	2.48	3.90	1.64	0.28	24.45
Wapello	578	.....	.....	.....	.....	.....	.....	1.29	7.48	1.76	3.13	1.28	0.53	.....
Washington	169	3.17	1.10	2.67	2.83	4.59	2.79	1.67	4.45	2.46	3.73	1.05	0.38	30.89
Washta	.....	0.10	0.85	0.53	1.61	4.29	4.67	3.04	0.74	1.40	2.88	1.05	0.46	21.62
*Waterloo	856	1.45	1.19	1.89	2.09	4.22	4.31	1.66	3.47	2.07	4.79	1.97	0.33	29.44
Waverly	948	1.00	1.30	1.91	2.03	5.18	5.03	2.28	2.69	1.76	3.96	2.17	0.38	29.69
Webster City	.....	1.12	1.04	2.95	1.21	4.00	5.28	1.35	1.55	2.65	3.90	1.69	0.04	26.78
Westbend	1,197	0.25	1.40	0.97	2.49	4.85	6.21	2.93	6.63	1.13	2.74	1.55	0.40	31.55
West Branch	718	2.29	1.47	2.72	3.08	3.30	4.37	1.14	3.94	2.12	3.72	1.17	.....	.....
West Union	1,105	.....	.....	.....	.....	.....	.....	.....	.....	1.97	7.20	1.52	0.30	.....
Whatcheer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.05	0.33	0.10	.....
Whitten	1,045	0.82	0.40	.....	1.73	4.40	5.82	1.38	3.33	2.33	5.88	2.42	0.20	.....
Wilton Junction	683	3.07	1.31	3.58	3.38	4.51	3.47	2.98	6.19	2.72	3.36	1.76	0.70	37.03
Winterset	1,129	2.24	1.17	1.51	2.88	4.62	11.13	7.70	1.57	2.45	3.22	3.28	0.71	42.57
Kansas.														
Abilene	1,157	1.66	0.90	1.03	3.81	6.20	4.48	2.53	2.79	4.30	1.88	1.75	2.13	33.46
Achilles	.....	0.05	0.00	0.16	1.88	4.23	3.00	4.82	2.64	5.64	0.70	0.45	0.29	23.86
Altoona	.....	3.72	2.56	4.33	3.51	5.75	6.98	2.00	2.24	7.21	2.63	1.02	2.99	44.94
Anthony	1,329	1.87	1.55	0.64	1.28	10.33	5.22	2.13	4.50	0.91	1.05	0.61	2.65	32.74
Assaria	1,236	1.40	0.90	0.37	3.95	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atchison	797	3.40	1.91	3.86	3.24	10.32	7.22	3.09	3.38	7.43	2.60	1.25	2.05	49.75
Augusta	1,331	1.85	2.50	1.15	3.34	9.20	4.48	4.27	3.61	0.97	2.07	0.95	1.60	35.99
*Baker	1,182	.....	.....	.....	3.81	5.64	4.80	3.07	1.60	7.02	.....	.....	.....	.....
Beloit	1,383	0.82	1.45	0.78	1.91	3.85	5.46	2.32	1.31	5.40	0.99	1.20	1.36	26.85
Burlington	1,050	3.01	2.37	3.24	4.01	6.67	8.33	2.86	3.98	5.98	2.19	1.76	2.27	46.77
Campbell	.....	1.40	1.26	1.68	8.11	4.36	3.12	1.37	2.71	2.41	1.78	1.00	1.34	30.54
Chanute	940	.....	1.36	4.63	3.48	6.69	5.85	1.08	2.93	7.56	2.84	1.28	3.28	.....
Colby	3,090	0.04	0.02	0.24	1.11	4.51	2.85	1.35	0.64	3.00	0.55	0.35	0.42	15.08
Columbus	898	4.63	0.84	5.73	2.88	6.05	7.15	6.20	3.81	6.50	3.18	2.07	3.28	52.32
*Concordia	1,322	1.15	0.32	1.00	1.95	2.67	3.65	2.87	1.03	3.40	0.87	1.09	0.33	20.33
Coolidge	3,341	0.40	0.00	T.	0.70	6.13	2.86	2.16	3.20	1.75	0.95	T.	0.75	18.90
Cunningham	1,680	1.08	0.84	0.54	4.52	6.85	6.55	3.45	2.27	2.11	1.40	0.48	2.00	32.09
Delphos	1,239	.....	.....	1.92	1.63	2.62	3.33	0.98	1.47	3.51	0.27	0.73	1.14	.....
*Dodge	2,513	1.74	0.70	0.24	0.97	10.31	4.57	3.14	2.26	3.16	1.87	0.96	1.54	31.46
Dresden	2,844	0.05	0.00	.....	2.05	5.01	4.92	3.65	0.95	5.63	.....	.....	.....	.....
Ellinwood	1,782	1.40	0.77	0.33	2.58	4.41	4.00	1.26	3.15	3.94	0.67	1.13	1.55	25.19
Emporia	1,173	2.05	2.00	2.00	5.40	7.24	4.00	3.71	2.36	3.50	3.15	0.30	2.60	38.31
Englewood	1,955	1.00	0.36	0.66	1.39	4.83	5.57	6.07	1.34	1.23	1.11	0.91	2.80	27.27
Eskridge	.....	1.46	2.12	3.88	4.59	7.45	6.10	1.87	3.43	1.96	2.86	0.40	2.14	38.26
Eureka	1,075	1.51	2.16	2.32	5.17	8.74	5.30	4.74	1.54	3.25	2.71	1.85	1.94	41.23
Eureka Ranch	2,320	1.28	0.25	0.36	1.22	5.25	2.25	0.82	0.78	6.53	0.42	1.02	0.55	20.73
Fall River	925	3.66	2.35	2.98	2.79	6.04	6.62	2.24	1.53	4.42	2.49	0.31	1.52	36.95
Fanning	919	2.22	1.81	3.93	3.09	8.50	5.49	0.80	2.25	9.30	2.23	1.12	1.34	42.22
Fort Riley	1,070	0.83	1.50	1.46	4.85	6.88	4.40	3.08	1.03	3.47	2.30	0.34	1.40	31.54
*Fort Scott	856	4.18	0.52	5.26	4.67	7.41	9.96	2.43	0.80	4.97	2.53	2.11	3.39	48.23
Frankfort	1,146	1.65	1.80	3.56	4.95	5.17	2.83	1.25	2.41	4.10	1.52	0.70	0.60	30.54
Garden City	.....	1.55	0.00	0.50	0.97	6.49	6.39	2.59	2.04	4.24	0.43	1.55	2.00	28.75
Garfield	.....	0.57	0.48	0.48	4.72	6.27	3.33	1.50	2.12	.....	.....	.....	.....	.....
Gibson	2,475	0.70	0.05	0.16	0.98	5.50	2.22	0.38	1.17	5.53	0.47	1.00	0.45	18.61
Gove	2,750	0.40	T.	0.27	1.66	6.65	5.41	1.27	0.91	4.54	1.80	0.80	0.82	24.53
Grainfield	.....	0.45	0.00	0.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grenola	1,116	3.34	2.32	2.08	2.26	6.22	5.70	6.21	3.01	3.77	2.93	1.50	1.89	41.23
Halstead	1,388	1.40	1.55	1.30	5.23	5.48	7.59	2.40	5.05	1.21	1.55	0.86	2.28	35.90
*Hays	1,936	1.25	0.25	.....	2.38	10.42	1.97	2.36	1.40	7.21	0.75	1.10	2.10	.....
Horton	1,188	1.85	1.90	2.76	3.14	6.74	4.24	2.62	2.07	5.53	3.00	1.20	1.65	36.70
Hoxie	6,235	0.08	0.00	0.10	1.99	5.49	3.93	1.02	0.00	4.16	0.05	0.35	0.57	17.74
Hutchinson	1,529	1.47	0.50	1.81	6.40	3.88	5.93	3.20	5.49	3.46	1.91	1.12	2.59	37.76
Independence	810	4.56	2.64	3.81	2.67	5.28	4.60	5.43	2.31	5.43	2.40	1.21	2.62	42.96
Lakin	2,991	0.40	T.	0.30	.....	.....	.....	.....	2.83	3.00	0.60	0.40	1.70	.....
Lawrence	829	4.01	1.93	3.90	5.41	7.42	3.59	1.35	3.46	5.78	4.17	1.47	1.56	44.05
Lebanon	1,816	.....	.....	.....	1.10	3.40	2.54	1.10	1.00	3.60	0.60	0.60	0.70	.....
Lebo	1,168	3.01	2.46	4.62	4.79	7.54	8.15	4.81	5.01	6.29	3.72	2.25	3.62	56.27
*Macksville	.....	0.70	0.00	T.	3.84	4.30	3.61	2.10	2.63	3.88	.....	.....	.....	.....
*McPherson	1,430	1.77	1.06	1.48	6.16	6.34	5.90	2.53	2.56	3.75	2.33	1.13	2.37	37.38
Manhattan [1]	960	0.91	1.37	1.34	4.49	8.54	4.99	2.48	1.78	2.92	1.93	1.43	1.33	33.51
*Manhattan [2]	960	1.03	1.35	1.40	4.74	8.04	4.38	2.47	1.52	2.75	2.05	1.30	1.55	32.58
Marion	1,305	1.50	1.80	1.40	7.10	6.75	4.10	2.43	2.25	3.45	1.60	0.30	1.80	34.48
Meade	2,502	2.00	0.60	0.90	0.80	4.51	3.14	4.73	0.46	1.57	1.62	0.80	2.60	23.23
Medicine Lodge	.....	0.78	1.15	1.03	2.43	6.44	7.97	1.65	2.54	2.45	1.74	1.07	2.00	31.25
Minneapolis	1,200	1.26	1.05	1.14	1.97	3.03	1.92	1.52	0.71	3.60	1.28	1.00	1.40	19.88
Moran	.....	3.76	2.04	4.73	3.84	8.48	9.06	2.23	4.04	5.68	3.24	1.76	2.57	51.43
Morland	.....	0.41	0.01	0.03	2.52	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mounthope	.....	1.90	1.45	0.48	4.63	7.04	4.77	2.73	2.96	1.40	1.36	0.90	2.03	31.65
Ness City	.....	0.56	0.12	0.30	1.38	7.97	2.93	2.18	1.86	5.19	0.95	0.98	1.34	25.76
Newton	1,400	1.79	1.87	1.26	4.52	5.49	5.75	2.16	4.18	0.91	1.77	1.12	2.20	33.02
Norton	2,284	0.19	0.01	0.16	3.62	5.60	4.19	4.98	1.87	.....	.....	.....	.....	.....
Norwich	1,496	1.73	1.55	0.57	6.27	6.04	4.84	3.63	5.68	2.01	1.32	0.71	2.55	36.90

[1] E. R. Nichols.

[2] Corn and wheat region observer.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Kansas—Continued.	*Feet.*													
Oberlin	2,539	0.00	0.00	0.40	2.18	5.03	3.43	5.30	1.35	5.61	1.70	1.00	0.40	26.40
Olathe	1,054	4.75	1.90	5.81	3.52	11.88	4.81	5.93	5.27	4.19	3.85	1.68	2.30	55.89
Osage City	1,093	2.35	1.88	2.77	4.36	0.92	3.19	2.02	6.30	6.19	2.91	1.61	1.63	45.13
Osborne	1,563	0.16	0.77	0.87	1.29	3.21	.....	1.02	1.17	4.50	0.44	1.20	1.12	.....
Oswego	899	4.95	1.11	6.72	3.50	6.85	6.53	6.80	3.60	.....	3.14	1.94	2.20	.....
Ottawa	926	3.76	1.65	3.90	3.93	11.86	5.62	3.46	4.93	4.07	3.98	1.75	1.97	50.88
Paoli	.....	3.36	1.75	2.22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Phillipsburg	1,939	1.20	0.15	0.20	3.26	3.39	3.57	3.44	1.57	5.20	1.06	1.30	0.53	24.87
Pleasantdale	.....	1.41	1.15	0.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt	1,905	0.65	T.	0.30	7.20	11.20	4.30	5.10	4.80	2.34	.....	.....	.....	.....
Rome	1,180	2.02	2.58	1.65	3.06	9.17	2.78	2.52	4.88	1.08	2.68	1.09	2.55	36.06
Russell	1,765	1.61	0.59	0.40	2.03	5.57	2.34	1.37	1.39	4.50	0.70	1.25	1.21	22.96
Salina	1,163	1.71	0.33	0.87	3.48	5.45	2.92	2.61	0.97	3.08	1.67	0.83	1.67	25.59
Scott City	.....	.....	0.00	0.74	.....	.....	.....	.....	.....	3.62	.....	0.80	.....	.....
*Sedan	.....	4.97	2.06	2.81	1.40	5.62	5.49	5.83	3.23	5.66	2.25	0.84	2.49	42.65
Seneca	834	1.86	1.26	1.82	3.06	3.46	3.43	.....	.....	.....	.....	.....	.....	.....
Sharon	.....	0.20	.....	0.15	.....	5.25	.....	.....	.....	.....	.....	.....	.....	.....
*Topeka	998	2.18	1.78	4.21	5.27	6.10	2.65	2.63	3.81	4.98	3.00	1.13	1.48	39.22
*Toronto	1,040	3.15	2.30	2.96	2.96	5.29	4.71	2.27	1.77	5.94	2.36	1.89	1.69	37.29
Ulysses	.....	0.60	0.12	.....	0.25	6.27	5.73	2.87	2.65	1.10	0.59	0.80	1.60	.....
Utica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Viroqua	772	0.80	0.10	0.40	1.28	3.61	3.46	2.82	2.68	1.28	0.26	0.84	2.60	20.13
Wallace	3,286	0.30	0.00	0.19	0.75	5.17	1.43	3.47	1.20	1.33	0.62	T.	0.70	15.16
Wamego	1,002	1.55	1.58	1.63	5.06	7.18	6.22	3.15	2.28	4.01	2.22	1.56	1.45	38.59
Wellington	1,187	2.31	2.21	0.80	3.75	7.69	.....	4.32	.....	.....	.....	1.28	2.25	.....
*Wichita	1,354	1.97	3.04	0.95	5.16	8.32	5.24	5.30	2.78	1.55	2.02	1.13	2.00	39.46
Winfield	1,117	.....	.....	.....	.....	.....	.....	4.52	3.69	0.96	2.50	1.25	1.20	.....
Winona	3,303	0.10	0.00	0.45	0.80	10.00	T.	1.00	2.00	1.50	0.00	0.10	.....	.....
Yates Center	1,068	1.74	2.42	3.59	3.46	5.56	5.46	3.78	2.06	5.33	2.61	1.89	2.63	40.53
Kentucky.														
Alpha	.....	10.60	1.92	6.01	5.11	3.66	3.69	7.83	9.86	6.36	5.31	4.32	2.74	67.41
Ashland	530	7.55	1.52	3.94	.....	4.57	3.10	.....	3.67	.....	2.10	.....	.....	.....
*Bardstown	637	9.46	0.62	8.23	3.21	4.11	5.91	5.85	2.02	4.78	3.71	2.17	2.74	52.81
Blandville	445	8.37	1.27	10.16	4.13	5.41	7.79	7.88	3.99	9.20	3.15	2.01	2.25	65.61
*Bowling Green	500	11.99	0.82	7.44	4.08	4.75	3.87	2.19	3.80	3.32	4.95	3.22	2.96	53.39
*Burnside	773	7.30	1.58	4.68	3.41	2.95	3.10	5.27	6.93	4.42	5.47	3.39	2.69	51.19
Caddo	.....	8.98	3.49	9.28	2.93	5.02	2.15	3.38	3.29	2.90	4.92	4.00	4.57	54.91
Canton	300	7.46	0.71	7.21	4.83	.....	5.23	7.14	2.82	4.44	4.09	2.63	2.96	.....
Carlisle	.....	8.75	1.53	.....	.....	.....	.....	6.05	3.77	1.50	.....	1.78	.....	.....
Carrollton	472	8.88	1.25	9.20	1.08	5.20	2.90	1.68	2.82	4.61	2.77	2.75	1.99	45.13
*Catlettsburg	544	8.05	2.48	6.93	2.19	4.83	4.52	4.84	6.93	2.10	4.14	2.65	2.83	52.49
*Earlington	370	9.79	1.35	10.01	4.80	6.46	3.35	4.17	2.19	4.56	3.59	2.83	2.40	55.50
Edmonton	600	10.53	1.49	5.96	3.21	2.50	5.45	3.15	2.04	3.62	5.25	2.87	2.87	48.94
Ensor	.....	7.55	1.60	9.36	3.88	5.71	2.84	2.98	4.34	3.67	3.50	2.71	2.65	50.79
*Eubank	1,117	8.56	2.41	5.76	3.73	4.93	5.65	4.16	3.40	7.69	6.35	3.93	2.55	59.12
*Falmouth	530	10.20	2.03	6.54	2.53	4.50	2.76	5.76	3.74	2.44	4.96	3.02	3.09	51.57
Fords Ferry	.....	7.17	1.07	7.62	4.94	6.35	2.98	5.46	.....	4.36	.....	1.57	1.89	.....
Frankfort	560	8.82	.....	8.62	2.69	3.98	6.62	3.86	3.94	3.04	3.63	.....	.....	.....
*Greensburg	581	9.30	1.26	6.85	3.21	4.06	1.75	4.94	1.81	4.90	6.65	2.77	3.85	51.35
*Henderson	382	8.19	1.23	9.28	5.55	4.91	2.08	2.81	1.98	4.99	5.97	1.51	.....	.....
*Hopkinsville	524	11.73	1.19	8.75	4.19	4.76	4.91	4.00	1.73	4.24	3.03	3.70	3.51	55.74
Irvington	.....	8.24	1.27	10.30	2.86	4.66	3.11	0.44	6.19	3.50	3.45	2.36	1.31	47.69
Leitchfield	635	10.73	1.09	9.27	4.25	5.83	4.34	4.35	1.59	6.12	5.14	3.08	2.94	58.73
*Lexington	989	9.56	2.20	8.18	3.29	6.13	7.94	5.72	2.99	3.55	5.27	2.89	2.80	60.52
Loretto	686	9.92	1.79	8.83	3.88	4.49	5.01	5.20	3.18	3.82	3.50	2.26	2.55	54.43
*Louisville	525	9.04	1.73	9.94	2.80	4.22	5.00	2.15	5.14	2.97	2.85	2.55	2.61	51.00
Lyndon	581	.....	.....	10.33	.....	.....	5.00	.....	.....	.....	2.65	2.60	1.82	.....
Marrowbone	.....	7.87	1.44	5.47	.....	2.86	.....	.....	.....	.....	2.74	2.77	.....	.....
*Maysville	524	.....	2.05	5.16	1.99	3.27	3.72	6.40	5.47	2.98	3.49	3.00	3.27	.....
Middlesboro	1,128	7.17	1.08	3.35	3.38	4.61	2.96	6.97	5.55	4.82	5.19	4.16	3.62	52.86
Mount Hermon	500	9.61	1.27	5.52	4.11	3.99	4.75	3.69	3.23	4.53	4.56	3.80	2.29	51.35
*Mount Sterling	930	8.58	2.88	8.17	2.69	4.24	4.56	4.05	2.95	2.77	6.15	3.69	3.84	54.57
*Owensboro	479	7.48	1.44	10.21	4.17	6.25	2.21	1.94	3.46	3.63	3.81	2.20	2.49	49.29
Owenton	700	11.70	2.25	9.51	2.25	4.06	3.35	3.88	4.97	4.42	3.46	3.13	2.84	55.82
*Paducah[1]	341	9.30	0.83	9.92	3.66	5.68	4.15	4.00	2.68	5.35	6.88	1.17	2.05	55.67
Paducah[2]	341	9.06	0.95	9.49	3.85	5.37	4.81	3.83	2.72	7.83	3.43	1.91	1.76	55.01
Princeton	455	7.02	1.24	6.75	5.15	6.02	3.73	4.91	4.60	6.81	1.70	1.66	.....	.....
*Richmond	926	8.37	1.83	7.10	3.18	4.72	3.35	7.28	4.64	5.15	5.92	2.92	3.86	58.32
Russellville	534	8.91	1.48	9.07	3.23	3.68	4.09	2.47	3.45	3.55	.....	.....	.....	.....
*St. John	749	9.72	1.26	9.36	4.20	4.75	5.05	2.31	3.22	5.35	3.50	2.57	2.76	54.05
Sandyhook	.....	7.50	3.30	4.31	.....	.....	.....	7.96	.....	.....	.....	.....	.....	.....
Scott	.....	8.75	2.00	7.02	1.43	3.69	3.50	2.02	5.03	3.11	3.40	2.90	2.85	45.70
Shelby City	1,087	9.55	2.29	9.24	3.62	3.80	1.91	6.36	3.77	5.93	5.39	2.74	3.74	58.34
*Shelbyville	695	8.80	1.37	9.68	2.58	4.69	5.80	2.32	3.19	5.20	2.86	3.37	2.87	52.73
South Fork	981	6.80	1.02	4.67	.....	4.94	.....	.....	.....	.....	.....	.....	.....	.....
Vanceburg	.....	6.65	2.10	5.34	2.50	3.32	4.80	12.10	3.50	3.80	3.10	2.50	.....	.....
*Williamsburg	939	8.97	1.71	2.75	3.70	5.07	1.55	7.76	7.55	3.40	4.59	2.40	2.53	51.98
Woodburn	500	.....	1.10	7.19	3.60	3.67	3.90	2.18	1.10	4.25	4.08	3.32	.....	.....
Louisiana.														
Abbeville	.....	8.10	6.60	2.90	3.85	1.00	11.00	4.84	9.70	8.47	5.90	9.05	2.72	73.53
*Alexandria	77	6.62	4.24	5.73	2.03	1.31	6.86	3.67	5.01	6.77	5.35	7.63	2.96	58.18
*Amite	130	6.94	8.89	2.23	3.43	1.48	6.52	7.64	9.92	8.82	4.79	10.89	4.11	75.66
Bastrop	130	7.67	1.74	3.47	5.67	1.02	9.64	7.22	3.67	6.53	6.52	6.41	2.06	62.22
*Baton Rouge	35	6.06	7.48	2.69	3.11	0.04	8.42	10.76	5.62	9.32	4.89	6.39	4.13	68.91
Calhoun	180	.....	2.95	4.03	4.62	1.37	8.61	3.81	2.26	4.62	5.28	7.18	1.91	.....
*Choneyville	67	7.26	4.40	4.35	1.92	0.78	6.16	6.44	3.66	10.10	2.64	5.08	1.93	54.72

[1] River observer. [2] William Bornemann.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Louisiana—Continued.	*Feet.*													
Clinton		10.32	4.66	3.63	3.81	0.47	7.49	11.99	7.71	7.08	7.07	5.79	3.25	73.27
Como					2.64	1.56	5.31	7.41	1.39	11.63				
*Covington					2.39	0.94	7.21	7.13	13.76	14.65	3.49			
*Donaldsonville	33	5.83	6.20	0.55	3.40	0.43	9.89	5.80	5.95	14.20	3.45	12.93	5.65	74.28
Elm Hall			6.22		2.72	0.40	9.80	3.90		15.65				
Emilie		3.54	5.75	1.41	3.90	T.	3.07	8.14	8.60	16.42	2.87	7.22	3.66	64.58
Farmerville	177	9.00	3.20	2.91	3.15	1.51	9.05	9.04	3.67	4.55	7.16	6.96	1.76	61.96
*Franklin	10	5.73	8.13	1.23	1.23	0.09	9.85	6.38	11.60	17.46	8.40	7.73	5.05	82.88
Grand Coteau	93	7.11	8.07	2.46	2.80	1.58	12.04	7.39	5.23	8.14	3.53	6.36	2.72	67.43
Hammond	44	5.67	7.15	0.63					10.78	11.65	2.69	9.97	2.88	
Houma		4.78	7.30	1.70	2.32	1.65	[c]7.63			18.70	4.55			
Jeanerette	20	7.47	6.01	3.25	1.63	0.67	12.35	4.84	11.97	15.06	2.02	8.31	4.61	78.19
Jennings	39	8.01	7.66	2.87	4.23	T.	5.84	5.18	5.86	13.85	3.88	4.83	1.87	64.08
*Lafayette	22	[a]2.47	4.84	1.63	3.67	1.56	13.01	5.28	10.99	12.20	4.88	8.00	3.13	71.66
*Lake Charles	22	6.83	5.87	3.97	3.49	0.17	3.85	5.05	6.81	5.29	3.58	6.71	2.11	53.73
Lake Providence	107							7.63	4.22	8.59	3.27	4.76	2.54	
Lawrence		1.50	8.29	2.08	1.83	0.15	4.93	7.82	10.27	15.29	3.64	6.48	1.63	63.91
Liberty Hill		8.40	2.82	3.81	4.40	2.79	4.46	3.21	3.70	4.39	5.03	5.97	1.71	50.69
*Mansfield	321	5.03	3.95	3.03	2.90	4.38	9.87	4.30	2.72	5.40	3.40	6.37	2.80	54.15
*Melville	45	8.25	4.55	3.40	4.70	0.50	3.84	7.74	2.93	9.40	6.67	6.29	3.05	61.32
*Minden	194	7.79	3.20	3.56	2.40	2.15	6.81	3.94	3.67	3.20	4.31			
*Monroe	82	6.93	3.29	4.11	2.99	1.10	7.30	6.90	3.96	4.67	6.69	5.65	2.16	55.75
Montgomery		6.31	3.31	4.53	1.37	3.68	5.46	5.52	3.49	3.85	3.64	5.75	1.56	48.47
New Iberia	15	8.70	5.70	1.62	3.00	0.95	13.10	3.75		9.90	4.00	9.25	3.65	
*New Orleans	8	1.71	6.20	0.80	2.80	0.02	3.79	4.57	6.24	13.90	1.77	5.17	2.03	49.00
Oak Ridge		12.25			5.34		13.05	6.39	4.62	7.61	6.92	9.27	4.57	
*Opelousas	83	6.17	6.75	2.90	3.60	0.36	6.16	3.66	5.58	6.32	3.28	6.30	2.39	53.47
Oxford	258			3.36	4.29	0.60	[b]4.64	4.30	1.59		2.59	6.63	1.69	
Paincourtville		4.91	6.51	2.97	1.70	2.34	7.23	3.62	8.00	17.59	3.26	7.97	4.60	70.70
Plain Dealing	268	8.10	2.73	3.47	1.70	2.27	14.56	2.94	3.45	3.45	5.77	5.78	3.08	57.30
Plaquemine	25	6.75	4.98		2.40	0.00	8.23	4.58	6.33	10.74	5.97	7.25	3.18	
*Port Eads	2	0.80	5.56	2.80	1.12	0.62	1.07	7.37	13.39	18.44	14.37	4.59	7.33	77.46
*Rayne	44	8.71	7.78	2.30	3.93	2.55	11.90	3.99	[5]4.17	14.90	3.85	9.50	3.14	76.72
*Robeline	147	4.98	3.27	4.38	3.21	3.69	4.93	4.44	3.55	3.05	3.40	6.05	2.65	47.60
Ruston	312	8.18	3.17	3.48	3.58	2.02	13.26	3.94	2.31			5.29	2.09	
*Schriever		4.38	6.82	2.10	2.32	0.50	9.54	6.46	8.02	11.57	6.16	6.58	4.31	68.82
Shellbeach		5.55	8.78	2.32	2.63	T	6.73	6.05	2.63	11.00	6.88	7.24	2.38	62.19
*Shreveport	130	5.79	2.41	2.24	2.28	1.24	7.25	1.48	2.91	5.42	3.44	4.28	3.07	41.81
Southern University	13	2.82	12.50	0.75	2.75	T.	4.72	10.05	5.80	15.00	2.45	6.55	4.85	67.74
Sugar Experiment Station	18	3.51	8.86	2.29	3.45	T.	4.47	6.19	7.58	19.55	1.90	7.09	4.15	69.04
Sugartown		7.03	5.11	3.75	3.90	2.48	6.65	5.90	7.98		6.29	5.20	2.95	
Venice		0.85	7.02	1.62	0.80	0.52	5.24	8.46	14.39	14.47	9.21	7.09	4.55	74.22
Wallace	15	4.60	6.66	0.86	3.40	T.	4.14	9.68	10.17	16.81	2.01	8.04	4.66	71.03
White Hall	3	4.60	4.50	0.71	2.86	1.29			8.50		1.69			
White Sulphur Springs		9.17	5.12	5.99	3.44	3.45	9.40	5.97	4.79	13.75	3.09	7.94	3.02	75.13
Maine.														
Bar Harbor	20	6.45	9.15	2.95	4.85	2.45	3.27	1.70	1.92	3.55	9.25	8.35	3.60	58.49
Belfast	178	5.81	11.35	2.48	4.67	1.28	4.69	1.38	2.31	3.17	8.35	5.59	2.96	54.04
Calais		5.42	8.25	2.29	4.56	1.69	4.48	1.14	2.98	3.19	7.72	6.82	2.41	51.95
Cornish	778	5.23	3.85	1.45	4.63	3.54	3.28	1.46	3.13	3.69	5.20	4.48	3.12	43.06
Cumberland Mills		5.34	6.52	1.15	3.81	2.80	4.57	1.24	2.79	4.49	5.01	5.09	3.19	46.00
*Eastport	53	5.41	6.37	2.65	3.80	2.14	3.09	0.66	2.15	2.93	6.85	6.12	2.99	45.16
Fairfield	90	5.07	6.48	1.45	2.31	1.55	3.32	1.13	3.71	2.37	4.33	3.71	1.42	36.85
Farmington	450		6.85	0.55	2.71	1.79	4.34	2.80	3.27	2.82	4.63	4.40	1.44	
Flagstaff	1,400	4.80	6.90		1.76	1.20	2.45	1.05	3.60	3.21	2.65	3.25	1.05	
Gardiner	103	5.54	5.45	1.76	3.44	1.60	3.56	0.98	3.73	2.90	6.23	4.57	2.74	42.50
Kineo	1,060	4.24	6.90	0.82	2.22			0.90	3.30	4.50				
Lewiston	185	5.93	7.07	1.40	3.48	2.03	4.85	2.35	2.21	3.04	4.34	4.44	2.85	43.99
Mayfield					2.26	1.88	2.94	1.52	4.43	3.57	5.79	6.02	1.14	
North Bridgton	450	5.76	7.26	1.11	3.53	2.39	4.19	5.42	2.46	3.09	4.33	6.10	3.19	48.83
Orono	129	6.32	8.05	2.23	4.95	1.02	5.28	2.44	3.14	2.29	6.19	6.84	1.27	50.02
Petit Manan														
*Portland	99	6.61	7.61	1.21	4.33	2.62	3.98	1.78	3.88	3.48	5.90	5.51	2.85	49.76
Winslow		4.67	4.91	1.05	2.44	1.51	3.42	1.95	3.09	2.77	5.38	3.86	1.59	36.64
Maryland.														
Annapolis	20	2.37	1.40	1.44	1.11	3.28	0.88	3.17	2.81	1.35	8.13	4.69		
Bachmans Valley	860	3.74	1.91	4.75	4.87	12.29	0.86	4.62	4.98	1.83	6.10	5.52	6.02	57.49
*Baltimore	123	2.99	1.32	2.58	1.84	3.86	1.06	3.51	6.09	1.56	3.97	4.34	3.34	36.46
Bel Air						1.36	0.93	4.25	10.81					
Boettcherville	700	3.77	0.70	6.46	2.55	3.87	1.90	2.15	5.15	1.61	6.63	1.42	1.85	38.06
Boonsboro								2.49	5.84	1.46	6.77	3.35		
Charlotte Hall	167	3.30	1.10	4.33	3.42	4.98	1.76	4.27	4.00	1.69	2.96	2.40	2.73	36.94
Chase								3.70	5.19	2.00	4.02	4.96	3.84	
Cherryfields	20	1.62	1.45	4.47	3.48	4.49	2.95	7.64	6.56	2.31	3.29	2.29	2.83	48.38
Chestertown	80		1.97	2.69	2.77	5.78	1.17	3.05	7.62	3.11	3.74	5.10	5.98	
Chewsville								1.81	6.23	0.72	5.85	3.11	3.80	
Clear Spring[1]								3.15	5.31	0.79	4.82			
Clear Spring[2]								2.42	6.53	0.87	4.93	2.02	4.70	
Coleman								5.15	6.34	2.27	5.36	4.49	5.28	
Collegepark	170	3.87	1.36	2.23	2.24	3.38	0.35	2.11	6.08	0.56	3.33	4.18	4.41	34.10
Cumberland	650	4.57	1.15	5.58	2.45	4.21	1.66	1.50	6.17	1.33	6.92	2.34	3.45	41.33
Darlington	300	3.54	1.78	2.69	2.73	4.55	1.62	6.27	10.39	3.23	4.59	5.62	4.03	50.99
Deerpark	2,457	7.69	3.21	5.69	4.25	5.76	3.36	3.76	7.01	1.87	4.47	2.06	3.99	53.12
Denton			2.03	4.68	3.64		*1.83	5.75		2.42				
Easton	35	2.83	1.60	3.37	2.75	3.84	1.47	2.26	4.98	1.32	3.96	4.14	3.96	36.99

[1] W. E. Loose, jr.

[2] W. W. Frantz.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Maryland—Continued.	*Feet.*													
Ellicott City	.....	3.29	1.37	3.17	2.90	3.77	1.60	3.73	6.15	1.33	5.98	5.00	5.32	43.61
Fallston	450	3.40	1.59	3.14	2.52	4.60	1.82	3.33	9.35	2.51	5.09	5.44	4.07	46.86
Flintstone	.....	3.99	1.72	4.94	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frederick	250	4.05	1.49	3.40	1.53	5.10	0.74	1.64	6.34	1.37	5.82	3.99	3.46	38.93
Frostburg	.....	.....	.....	.....	.....	.....	1.76	4.24	7.05	1.96	8.28	2.62	2.75	.....
Glen Burnie	.....	.....	.....	.....	.....	2.44	1.82	4.15	4.00	.....	.....	.....	.....	.....
Grantsville	2,400	6.53	2.06	6.98	3.42	3.94	3.07	7.77	8.93	1.51	5.34	3.24	2.73	55.52
Greatfalls	150	2.92	1.12	2.94	2.10	3.55	0.53	2.48	5.57	1.33	4.29	2.90	2.86	32.59
Greenspring Furnace	500	3.44	1.25	3.95	1.34	4.98	0.76	3.42	6.27	1.15	5.99	2.59	3.93	39.07
Hagerstown	550	3.99	1.10	3.89	0.57	2.30	.....	.....	.....	1.18	4.88	2.73	2.93	.....
Hancock	.....	.....	.....	.....	.....	.....	2.77	3.48	4.99	1.05	6.56	2.53	1.89	.....
Jewell	165	2.47	1.55	3.79	3.51	4.23	2.57	3.57	4.17	2.98	3.93	3.57	4.35	40.69
Johns Hopkins Hospital	.....	3.13	1.64	3.03	2.32	4.16	1.16	2.61	6.34	1.64	4.52	4.66	3.95	39.16
Kensington	.....	.....	.....	.....	.....	3.34	0.78	2.42	6.89	.....	.....	.....	.....	.....
Laurel	150	3.30	0.92	2.54	2.07	4.70	0.65	1.72	7.20	0.98	3.65	2.97	4.39	35.09
Mardela Springs	25	2.76	2.03	3.82	3.08	3.75	3.23	3.91	.....	.....	3.35	3.87	[a]2.69	.....
Mount St. Marys College	720	3.78	1.41	3.68	1.43	4.64	1.95	3.17	8.92	1.17	5.98	3.75	3.04	42.92
Newmarket	550	3.14	1.97	3.29	2.59	5.20	0.63	2.41	5.80	1.28	4.98	4.70	3.39	39.38
Oakland	2,371	.....	.....	.....	.....	.....	2.64	3.75	7.66	.....	.....	.....	.....	.....
Ocean City	.....	.....	.....	.....	5.07	2.41	.....	.....	.....	.....	.....	.....	[b]1.01	.....
Pocomoke City	37	1.24	1.50	4.06	4.28	3.16	2.38	4.74	5.50	.....	4.39	4.28	2.77	.....
Port Deposit	.....	3.45	2.10	3.55	2.77	4.82	1.81	3.60	.....	2.30	3.87	.....	2.20	.....
Princess Anne	20	2.09	1.40	4.05	3.40	3.37	3.87	2.12	8.39	3.37	4.01	4.20	2.45	42.72
Queenstown	.....	.....	.....	.....	.....	.....	.....	1.88	3.45	1.66	3.10	3.79	4.62	.....
Rock Hall [1]	.....	.....	.....	.....	.....	.....	.....	4.04	6.97	1.68	4.49	7.08	2.56	.....
Rock Hall [2]	.....	.....	.....	.....	.....	.....	.....	3.43	7.69	2.32	3.70	4.52	3.36	.....
Sandy Point	.....	.....	.....	.....	.....	.....	.....	4.74	3.53	2.37	5.28	4.47	2.76	.....
Sandy Spring	.....	.....	.....	.....	.....	.....	.....	5.14	6.18	1.55	.....	.....	.....	.....
Sharpsburg	450	3.40	1.24	3.37	1.48	6.05	1.23	4.21	4.78	0.97	6.67	3.22	3.32	39.94
Smithsburg [3]	750	3.52	1.49	.....	0.63	4.63	0.58	1.56	7.82	0.51	5.08	.....	4.75	.....
Smithsburg [4]	750	.....	.....	.....	.....	.....	.....	2.29	7.50	0.68	6.79	3.85	6.26	.....
Solomons	20	2.54	1.86	4.24	3.68	4.61	1.72	4.69	7.88	2.88	2.87	3.25	3.29	43.51
Spencerville	.....	.....	.....	.....	.....	1.00	0.55	2.31	4.92	1.28	3.69	3.68	.....	.....
Sunnyside	2,440	8.95	2.65	8.34	5.65	6.74	2.33	5.56	7.66	2.92	6.39	4.27	4.31	65.77
Taneytown	493	4.29	1.86	3.73	1.89	5.55	1.22	6.30	8.42	1.98	4.67	3.90	3.36	47.17
Van Bibber	20	2.90	2.20	3.43	3.12	5.89	1.30	3.37	8.16	2.62	5.07	5.49	4.15	47.70
Western Port	1,000	4.73	0.76	4.93	3.32	3.97	2.18	4.54	7.60	1.76	5.23	1.93	1.95	42.90
Westminster	700	4.06	1.62	4.06	2.86	4.67	.....	.....	.....	.....	4.11	4.21	.....	.....
Woodstock	392	2.28	1.31	2.48	1.87	4.46	1.80	3.15	6.03	1.55	4.21	3.79	3.87	36.80
Wye Island	.....	.....	.....	.....	.....	0.17	0.76	2.89	5.79	.....	.....	.....	.....	.....
Massachusetts.														
Adams	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amherst	267	5.85	4.83	1.18	3.79	5.35	3.23	2.65	6.42	3.48	5.80	5.75	2.23	50.56
Ashland	184	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Attleboro	129	3.21	6.18	2.47	6.75	4.31	2.18	8.25	7.01	2.79	7.57	5.77	2.07	58.56
Bedford	129	5.32	4.25	1.96	5.45	2.94	2.91	4.96	9.15	2.64	7.06	5.64	.....	.....
Bluehill (summit)	640	4.24	5.28	2.72	5.99	4.12	2.70	7.41	6.56	3.02	7.16	7.19	2.30	58.69
*Boston	125	3.50	4.81	1.82	6.39	4.33	1.60	4.42	6.38	1.93	7.17	5.32	2.19	49.86
Cambridge	74	4.07	5.35	2.03	5.26	3.73	1.66	4.25	7.29	1.72	6.71	6.63	2.53	51.23
Chestnut Hill	124	5.60	5.58	2.20	6.17	4.45	2.36	5.57	6.06	1.77	7.38	7.42	2.83	57.39
Clinton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cohasset	.....	3.26	9.17	3.48	8.47	4.62	1.54	6.98	8.95	2.12	8.56	6.62	1.14	64.91
Concord	139	4.50	4.57	1.87	4.48	2.81	2.36	5.80	8.94	2.34	6.43	5.02	2.77	51.89
Dudley	.....	2.62	3.55	2.37	6.03	2.65	4.15	5.87	5.77	.....	4.80	5.72	.....	.....
East Templeton	.....	4.31	1.96	1.04	3.33	2.77	3.74	2.18	6.91	3.18	5.99	6.43	2.16	44.00
Fall River	200	4.67	6.12	3.07	5.15	4.96	0.88	5.55	7.43	1.25	11.05	8.04	2.30	60.47
Fiskdale	.....	3.49	3.30	3.35	2.89	2.98	2.70	6.97	7.28	3.42	6.32	5.44	2.99	51.63
Fitchburg [5]	550	5.18	4.14	1.60	5.37	4.11	3.58	2.84	7.80	2.77	7.96	7.27	2.85	55.47
Fitchburg [6]	550	5.52	4.01	1.37	4.39	3.36	3.06	3.23	7.67	2.54	6.99	6.76	2.97	51.87
Framingham	160	6.54	4.27	2.40	4.73	3.05	2.24	3.98	7.42	2.09	7.01	7.24	3.30	54.27
Groton	333	5.67	4.66	1.83	5.35	3.54	3.10	3.05	8.94	3.41	8.13	6.20	2.57	56.45
Hyannis	31	4.81	4.27	3.74	5.78	6.41	1.22	3.85	4.46	0.84	6.62	8.41	2.59	53.00
Jefferson	.....	6.74	3.33	2.59	4.10	3.32	3.38	3.00	11.89	3.15	7.28	7.50	4.13	60.41
Lawrence	51	4.71	4.92	1.41	4.93	3.52	2.68	2.74	7.56	2.67	7.08	4.63	2.58	49.43
Leeds	390	6.41	4.45	2.44	4.36	7.04	4.77	3.37	6.87	3.22	7.49	6.54	3.84	60.80
Leicester Hill	960	5.75	4.36	.....	2.06	2.31	2.63	2.12	9.34	3.93	6.95	7.23	4.63	.....
Leominster	.....	5.63	3.90	1.26	4.42	3.74	2.69	3.03	9.30	4.83	7.25	5.90	3.02	54.97
Longplain	.....	5.09	7.08	3.75	5.59	6.04	1.13	6.54	7.06	1.84	9.66	9.40	2.24	65.42
Lowell	100	4.52	7.05	1.65	5.20	3.04	3.65	2.93	8.23	1.97	6.85	6.45	2.74	54.28
Ludlow	239	6.12	3.95	2.22	4.21	4.65	3.00	4.67	8.30	3.20	7.04	5.95	3.25	56.56
Lynn	.....	5.87	3.91	2.01	6.15	4.22	1.53	.....	8.25	2.41	7.19	3.09	2.86	.....
Mansfield	169	4.55	5.73	3.35	6.96	4.70	1.76	9.36	8.25	3.98	7.95	7.60	3.16	67.35
Middleboro	53	4.78	4.96	2.90	5.41	4.63	1.74	7.78	5.29	2.12	8.70	7.12	2.48	58.00
Monson	420	5.26	3.93	2.85	3.94	3.66	3.33	6.14	10.00	3.30	5.97	7.25	3.06	58.69
Mount Nonotuck	.....	6.84	5.30	2.00	4.14	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Nantucket	14	2.76	1.87	2.56	2.97	3.53	0.63	2.93	2.20	0.83	3.69	5.15	2.22	31.34
New Bedford [7]	88	5.78	5.28	3.50	5.29	6.82	0.94	6.04	7.68	1.28	9.83	7.98	2.18	62.60
New Bedford [8]	88	5.50	5.88	3.52	5.36	6.40	1.40	5.74	7.32	2.24	10.14	8.28	2.41	64.19
New Salem	1,100	5.66	4.23	1.30	4.57	5.66	3.93	1.95	5.84	5.01	7.76	6.73	2.38	55.02
Pittsfield	1,038	5.80	3.74	2.35	3.59	5.33	7.36	2.87	9.26	2.41	8.04	4.92	2.19	57.86
Plymouth	.....	4.10	5.24	2.27	5.82	4.29	1.70	.....	4.91	1.36	6.25	8.52	2.76	.....
Princeton	956	5.54	2.90	2.27	4.21	3.53	3.02	2.68	9.96	3.05	7.60	6.01	4.47	55.24
Provincetown	.....	3.60	4.53	2.12	.....	3.12	0.81	6.26	5.84	0.93	.....	.....	.....	.....
Salem	.....	5.02	5.50	1.98	6.26	4.32	.....	.....	.....	2.32	7.60	5.93	2.81	.....
Somerset	.....	3.38	6.11	3.35	5.68	4.77	1.04	5.78	5.60	2.73	9.29	7.62	1.99	57.34
South Clinton	.....	7.38	4.04	2.34	4.81	3.37	.....	3.57	10.72	3.22	6.76	7.50	3.75	.....

[1] C. N. Satterfield.
[2] I. W. Leary.
[3] J. L. Miller.
[4] Dr. D. W. Crowther.
[5] Dr. Jabez Fisher.
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[8] A. S. Negus.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Massachusetts—Continued.	*Feet.*													
Springfield Armory	120	4.42	4.45	1.00	3.46	5.50	3.26	4.54	6.52	2.73	5.66	6.93	3.05	51.52
Sterling	436	6.96	2.94	1.88	4.59	3.29	3.11	2.78	9.88	3.18	7.20	6.24	3.60	55.65
Taunton [1]	40	4.34	6.43	2.80	6.17	4.39	1.75	9.52	5.07	2.66	11.51	8.16	2.48	65.28
Taunton [2]	40	6.14	6.07	3.06	7.00	4.79	1.55	9.89	5.07	3.04	10.48	7.51	2.63	67.23
Turners Falls	187	5.79	1.86	1.30	3.25	4.26	2.73	2.46	5.68	3.73	7.02	4.43	1.52	44.03
*Vineyard Haven	20	4.83	4.51	4.27	6.69	6.19	0.81	4.74	4.77	1.02	7.24	11.01	2.95	59.03
Webster	440	4.71	4.08	2.70	3.78	3.35	3.07	6.02	6.79	3.27	6.30	7.21	1.75	53.03
Westboro	298	4.20	5.19	2.32	4.34	3.04	3.15	4.00	9.02	2.61	6.27	5.95	2.24	52.33
Weston	165	5.19	4.74	1.99	5.41	3.50	1.78	5.33	7.15	2.47	7.15	6.06	3.10	53.87
Williamstown	602	5.25	2.15	2.47	3.60	4.10	3.01	1.48	8.51	3.22	6.99	3.25	2.42	46.45
Winchendon	984	4.88	3.47	1.20	4.50	4.53	4.44	2.04	5.89	4.16	6.90	5.99	2.64	50.64
*Woods Hole	22	3.94	4.14	3.12	5.83	4.66	1.10	5.18	5.10	0.76	7.94	6.94	2.97	51.68
Worcester [3]	514	3.77	4.78	.....	.....	.....	.....	3.20	9.69	2.59	5.59	.....	2.02	.....
Worcester [4]	514	4.28	.....	2.37	4.19	.....	.....	.....	.....	3.05	5.95	8.36	3.04	.....
Michigan.														
Adrian	810	3.14	1.28	4.78	1.57	3.34	5.24	3.98	1.80	4.47	5.45	2.34	1.85	39.24
Agricultural College	820	3.07	1.82	3.59	2.12	2.15	4.91	1.34	2.73	3.00	3.55	2.72	1.42	32.42
Allegan	698	2.40	3.55	4.24	.....	.....	3.12	0.72	0.91	3.66	3.81	3.85	3.00	.....
Alma	750	3.80	1.93	4.00	1.79	2.58	2.84	0.98	4.33	4.83	3.91	3.22	2.03	36.24
*Alpena	609	3.43	2.41	2.51	1.47	2.78	5.76	0.82	4.24	2.91	5.43	1.09	1.22	34.07
*Ann Arbor	930	4.00	2.16	2.95	1.57	2.31	2.82	1.45	1.16	4.03	5.48	3.13	1.94	33.00
Arbela	728	2.55	2.34	3.34	1.17	3.06	5.16	1.57	3.07	1.56	4.68	2.09	2.47	33.56
*Badaxe	758	.....	.....	.....	2.21	2.20	3.28	0.87	3.65	1.68	.....	.....	.....	.....
Baldwin	833	3.03	3.06	3.92	2.96	1.47	1.27	3.12	2.74	1.84	5.58	3.02	2.08	34.09
Ball Mountain	932	2.43	1.80	2.39	1.42	2.36	1.99	1.46	1.47	3.38	4.64	2.01	1.39	26.74
Baraga	623	.....	.....	.....	.....	6.23	5.17	3.42	2.89	2.10	3.99	.....	.....	.....
*Battlecreek	822	4.04	3.25	4.21	0.99	2.18	4.12	0.91	1.47	2.50	3.30	3.16	2.25	32.38
Bay City	593	2.57	1.50	3.52	1.92	2.34	4.53	1.38	2.96	1.97	4.56	2.59	1.46	31.30
Benton Harbor	596	2.34	2.76	4.31	2.40	3.08	.....	.....	.....	.....	.....	.....	.....	.....
Berlin	686	3.31	2.35	2.79	1.52	1.95	2.89	0.88	1.43	3.16	3.69	3.13	2.34	29.44
Berrien Springs	672	.....	.....	4.98	1.38	3.50	2.22	1.85	2.48	3.02	6.00	3.57	3.55	.....
Big Rapids	1,000	4.02	2.95	3.78	2.20	1.24	1.98	3.29	5.08	2.62	4.80	3.01	1.20	36.17
Birmingham	660	3.14	2.28	3.30	1.59	2.33	2.16	1.86	1.19	3.07	4.63	3.70	2.45	31.70
Boon	1,404	3.50	2.52	4.94	2.75	2.16	2.61	1.43	5.85	2.68	6.20	3.39	2.58	40.61
Calumet	1,246	1.56	2.30	1.32	0.81	3.11	6.43	2.60	3.62	2.87	4.70	2.57	3.07	34.96
Camden	.....	3.26	2.77	.....	1.03	3.55	3.63	3.04	3.02	3.82	4.68	2.91	1.30	.....
Carsonville	804	2.28	3.20	2.39	1.21	1.60	3.04	1.32	1.12	2.03	3.71	2.18	1.89	25.97
Charlevoix	.....	2.32	3.02	2.67	1.48	3.28	7.26	1.03	4.12	2.43	4.58	2.57	2.90	37.66
Cheboygan	611	2.79	2.01	2.26	2.04	3.50	4.36	2.59	2.45	1.80	4.44	2.80	1.52	32.56
Clinton	830	3.33	1.68	3.40	1.64	2.69	3.46	1.77	1.64	4.28	5.74	3.45	2.19	35.27
Coldwater	982	3.51	2.59	5.51	1.17	2.51	3.44	2.60	4.96	4.61	5.53	4.46	2.00	42.89
Crisps	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Detroit	724	3.32	3.27	3.11	1.51	1.65	5.15	2.03	1.84	3.30	3.49	2.92	2.75	34.34
East Tawas	590	0.93	.....	2.52	1.64	1.67	3.66	0.62	2.83	1.48	3.87	1.28	1.15	.....
Eloise	640	3.80	2.33	3.35	1.41	2.15	3.23	2.06	1.44	2.77	5.05	3.15	2.90	33.64
*Escanaba	612	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.39	0.43	.....
Escanaba [5]	612	0.52	1.82	2.80	2.51	3.67	3.82	2.09	4.65	2.06	4.35	.....	.....	.....
Ewen	1,147	1.66	1.42	0.42	.....	.....	.....	1.64	1.56	1.78	2.74	1.10	.....	.....
Fairview	.....	2.82	1.89	3.19	1.73	1.70	1.98	2.41	1.75	2.86	4.68	2.31	1.51	28.82
Fitchburg	981	3.27	3.48	4.47	2.08	2.99	3.57	0.15	2.27	2.86	4.15	4.05	1.74	35.08
*Flint	730	2.65	1.96	3.37	1.70	2.29	2.56	1.60	3.28	1.84	2.76	2.19	1.28	27.48
Frankfort	589	.....	.....	.....	.....	.....	.....	.....	.....	1.65	3.57	2.71	.....	.....
Gladwin	784	2.25	1.89	3.75	1.30	1.70	.....	1.80	5.92	2.00	4.65	2.20	2.50	.....
*Grand Haven	620	3.85	3.12	3.55	1.71	2.21	2.45	0.88	4.04	4.06	5.19	2.81	2.15	36.02
Grand Rapids	620	4.04	5.77	2.91	1.33	1.37	2.04	0.54	1.87	4.13	3.84	3.26	3.51	34.61
Grape	625	2.90	1.74	4.58	1.50	2.47	1.80	3.26	1.48	3.40	2.99	2.97	3.34	32.43
Grayling	1,141	3.49	1.60	1.67	2.50	2.43	3.10	0.35	5.60	2.00	5.00	2.05	2.85	33.24
Hanover	1,130	2.65	2.84	3.57	1.48	5.61	2.84	2.48	2.99	4.29	6.77	2.79	1.66	39.97
Harrison	1,159	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.50	2.03	1.17	.....
Harrisville	616	3.45	2.17	2.95	2.06	1.93	6.59	0.48	3.18	3.66	6.27	1.33	1.77	35.84
Hart	698	4.89	2.09	3.26	2.46	1.70	0.80	1.65	2.58	1.91	4.45	2.41	2.45	30.65
Hastings	770	3.62	3.57	3.21	1.54	2.13	2.66	0.40	2.62	4.58	4.37	3.30	2.59	34.59
Hayes	620	1.84	1.82	2.36	1.44	2.00	3.27	1.01	3.57	1.26	5.20	1.09	0.32	25.18
Highland Station	.....	3.35	.....	.....	1.83	2.25	2.83	1.65	1.57	2.89	5.29	1.96	2.30	.....
Hillsdale	1,102	3.93	2.41	4.97	1.25	2.41	2.90	2.91	2.88	4.30	5.90	4.03	1.89	39.78
Howell	924	2.84	2.61	6.68	2.69	2.39	1.52	0.27	.....	2.10	3.50	2.14	1.77	.....
Humboldt	1,536	0.73	2.15	0.81	0.62	3.33	4.89	0.76	0.77	2.79	1.86	1.61	1.08	21.42
Ionia	642	.....	.....	2.46	1.36	.....	3.45	0.40	3.19	2.75	3.41	1.79	1.01	.....
Iron River	1,504	0.47	1.66	2.27	2.34	3.07	5.42	2.98	2.19	2.10	.....	.....	0.46	.....
Ishpeming	1,511	.....	.....	.....	.....	.....	.....	.....	1.25	3.00	2.93	1.53	1.46	.....
Ivan	.....	5.00	2.61	3.08	1.90	3.27	3.80	0.39	4.90	2.09	5.84	1.99	3.02	38.49
Jackson	927	2.73	1.90	3.62	1.24	2.81	2.87	1.54	2.16	2.55	5.23	3.36	1.63	31.64
Jeddo	667	2.83	2.84	3.07	1.10	2.16	3.63	1.40	2.45	1.90	4.09	3.33	2.79	31.59
Kalamazoo	955	3.09	2.50	2.32	1.29	1.56	3.55	0.53	1.97	2.57	3.66	3.45	2.44	28.93
Lake City	1,248	4.16	0.70	2.01	2.20	2.00	6.15	0.50	5.35	2.50	5.00	.....	1.65	.....
*Lansing	881	3.77	2.16	3.73	2.04	2.16	4.56	1.46	2.99	2.53	3.66	2.60	1.27	32.92
Lansing [6]	881	3.04	1.93	3.22	1.81	1.98	4.48	1.36	3.32	2.50	3.45	2.70	1.77	31.56
Lapeer	827	2.04	2.31	2.33	0.97	2.29	3.36	0.94	1.35	1.66	3.10	1.02	0.35	21.72
Lathrop	1,142	0.50	2.90	2.85	1.70	5.37	6.02	2.91	1.96	2.69	4.38	0.75	0.60	32.63
Ludington	586	2.95	0.93	2.79	2.59	2.95	1.18	0.67	2.61	2.38	2.24	2.10	1.27	24.66
Luzerne	.....	3.82	2.29	2.81	1.69	2.41	5.68	1.00	4.55	2.24	5.90	1.87	3.13	36.39
Mackinaw City	592	1.40	2.30	3.51	1.40	4.40	5.42	0.92	4.58	2.54	3.83	1.48	1.08	32.86
Madison	760	3.90	1.90	4.20	1.43	2.85	3.19	2.35	2.15	2.88	3.36	3.10	2.20	34.01
Mancelona	1,121	3.07	1.87	2.94	1.49	4.15	5.26	1.95	5.08	1.55	5.13	2.14	3.50	37.23
Manistee	600	5.30	2.05	3.38	3.50	2.50	2.93	0.98	2.90	1.20	3.82	2.32	1.26	32.14
Manistique	613	1.09	1.78	.....	1.88	3.90	4.82	0.86	3.30	1.82	5.00	1.48	1.07	.....
*Marquette	733	1.43	3.08	2.32	1.72	3.16	3.86	2.57	1.16	1.47	3.40	1.79	1.52	27.46

[1] Mrs. H. B. Sprague. [2] E. L. Redfern. [3] Worcester Academy. [4] G. W. Swan. [5] Fire department. [6] Dr. H. B. Baker.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Michigan—Continued.	*Feet.*													
Middle Island														
Midland	604	2.80				1.50	2.90	1.21	3.00	1.20	3.85			
Mottville	920	3.53	2.34	3.75	0.96	3.06	2.53	3.11	5.16	4.38	7.38	3.53	2.09	41.82
Mount Clemens	615	2.99	1.72	3.24	1.50	1.20	3.86	2.21	0.75	6.10	3.60	3.91	2.42	33.50
Mount Pleasant	826	3.71	2.33	1.94	1.83	2.37	4.04	1.39	4.49	1.99	5.58	2.73	0.67	33.07
Muskegon	587	2.60	1.66	1.35	1.28	2.67	1.98	1.25	2.20	2.55	5.05	2.40	1.14	26.13
Newberry	773	1.25	1.25	2.50	1.13	3.35	3.63	2.11	2.42	2.33	2.05	2.37	0.72	25.11
North Marshall	990	4.11		3.83	1.17	2.74	4.76	0.73	1.39				2.24	
Northport		2.35	2.18	2.00	3.58	2.50	3.85	0.55	2.95	2.99		2.35	3.30	
Old Mission	848	3.41	2.09	3.10	2.59	3.12	3.71	0.75	4.67	3.21	5.27		2.35	
Olivet	934	3.07	3.80	6.16	1.52	1.71	4.00	1.67	2.64	2.88	4.31	2.81	2.52	37.09
Omer	616	3.23		2.26	2.07	1.50	1.65	1.05	4.22	2.84	5.12	1.95	1.15	
*Ovid	760	2.77	2.29	3.31	1.52	1.89	3.76	2.02	2.09	2.94	3.00	1.59	1.74	29.01
Owosso	731	3.91	2.31	3.80	1.62	2.44	3.87	1.80	2.50	2.82	3.23	2.52	1.35	32.17
Parkville		3.55	2.88	5.30	1.41	3.69	3.14	1.73	4.59	3.50	3.79	3.61	2.44	39.63
Pentwater														
Petoskey	660	3.22	2.98	2.75	1.44	3.77	6.12	1.76	3.08	2.84	4.63	2.74	2.17	37.50
Plymouth	731	3.10	1.66	3.17	1.59	1.26	2.16	2.09	1.47	2.39	4.40	3.22	1.38	27.89
Pointe aux Barques														
Point Betsey														
Port Austin	618	2.83	1.52	2.56	2.00	2.14	7.53		4.48	1.60	4.57		0.25	
*Port Huron	639	2.97	2.99	3.64	1.24	1.61	3.40	1.44	2.87	2.34	4.28	3.19	3.17	33.14
Powers					1.45			2.15					0.35	
Reed City	1,033	2.85	1.61	1.88	2.65	1.52			1.37	3.94	4.60	1.84	1.00	
Rockland		1.65	2.39	1.84	0.19	2.18	0.29			2.11	3.30		2.40	
Rogers		4.88	2.14	2.12	1.25	3.76	4.59	0.45	3.15		[b]3.63		2.19	
Romeo	830	1.90		3.29	1.30	1.60	4.48			2.24	4.27	3.59	3.05	
Saginaw	1,377	4.50	3.49	3.35	1.65	2.41	4.59	2.21	4.72	2.61	3.94	2.82	2.11	38.40
St. Ignace	593	1.72	1.85	2.62	0.96	3.22	4.36	4.55	3.30	1.94	2.82	1.95	0.50	29.79
St. John	779	2.95	1.65	2.92	1.50	2.07	3.17	1.54	0.96	2.07	3.49	2.51	0.90	25.73
St. Joseph	593					1.39	2.69	1.74	2.42	1.62	6.75	2.12	2.75	
Sand Beach	635	1.30	1.40	1.85	2.27	1.82	4.19	0.20	3.89	1.05	3.98	3.08	0.67	25.70
*Sault Ste. Marie	642	1.20	1.77	2.98	0.68	3.28	3.07	1.52	4.18	3.42	2.53	2.02	1.26	27.91
Sidnaw	1,377	1.05	2.40	0.80	0.50				2.25	1.93	1.04		0.68	
Somerset		3.29	2.85	4.20	1.07	2.11	1.12	2.74	2.11	3.08	5.62	3.32	2.47	33.98
South Haven	585					1.79	2.25	0.58	1.70	5.04	5.31	2.49	2.47	
Stanton	880								3.77	4.53	4.28	2.58		
Thomaston	1,347	2.15	2.52	1.57		2.18	2.56	1.28	0.80	1.46	2.66	2.84		
Thornville	975	2.99	2.68	2.94	1.45	2.49	3.30	1.24	2.27	1.41	4.02	2.88	1.56	29.23
Traverse City	588	5.26	2.55	2.06	2.99	2.86	3.42	0.94	4.87	1.46	6.53	1.29	3.20	37.43
Valley Center	803	1.89	2.35	2.84	1.10	1.57	1.85	0.60						
Vandalia	884	3.93	4.06	4.21	1.63	3.08	3.64	1.75	3.76	3.66	4.57	3.94	2.68	40.91
Vassar	651	2.42	2.74	2.79	1.23	2.15	3.42	2.30	2.93	1.29	3.64	1.89	1.23	28.03
Vermilion Point														
Wasepi	842	3.30	2.45	4.51	0.91	2.94	3.19	2.36	4.96	3.53	3.94	3.37	2.18	37.64
Waverly	595	3.54	2.72	3.86	1.34	2.30	3.00	1.14	1.39	4.86	4.17	2.77	2.25	33.34
West Harrisville	779	4.13	2.13	2.18	1.67	2.12	7.29	0.29	4.12	3.02	6.39	1.01	1.22	35.57
Wetmore		1.70	2.50	2.79	1.23	2.28	5.23	2.32	2.74	1.75	4.28	2.12	1.67	30.61
White Cloud	873	3.18	3.12	3.89	2.25	1.50	1.42	1.24	2.72	2.66	4.91	1.24	1.52	29.65
Williamston							2.84	1.74	2.59	3.25	3.66	3.92		
Ypsilanti	736	3.27	2.75	3.45	2.07	3.10	3.67	1.46	1.05	4.01	5.45	3.58	2.24	36.10
Minnesota.														
Ada	906	0.09	0.29	0.57	1.48	2.67	*4.48	3.44	2.78	1.15	2.40	0.41	0.17	19.93
Albert Lea	1,243	0.35	1.97	2.00	3.36	3.55	4.60	1.96	4.06	0.40	3.93	1.21	0.12	27.51
Alexandria	1,391	0.10	0.91	1.59	0.81	3.21	4.51	4.01	2.03	1.94	3.25	0.41	0.09	22.86
Beardsley		0.10	0.75	1.23	2.43	2.81	3.24	9.40	0.79	0.99	4.38	0.30	0.13	26.55
Bemidji										1.96	2.04	0.91	0.52	
Bingham Lake		0.03	1.17		6.29	4.25	2.45		5.30					
Bird Island	1,099	T.	0.92	1.12	1.05	3.89	2.12	1.17	4.82	1.15	4.22	0.64	T.	21.10
Blooming Prairie	1,286	0.25	1.70	1.02	2.20	3.65	3.60	1.20	3.05	0.40	4.05	1.45	0.05	22.62
Caledonia	1,179	0.61	2.22	2.27	4.58	3.26	3.92	2.14	2.39	1.94	5.60	2.02	0.15	31.10
Camden	1,170	0.03	0.78	0.68	1.42	4.57	3.71	2.74	3.20	1.28				
Campbell	984				0.24	2.11	1.07	4.99	2.64	1.20				
Collegeville	1,281	T.	0.67	0.54	0.72	1.51	3.14	2.08	3.68	2.00	3.77	1.32	0.10	19.53
Crookston	863	0.17	0.52	1.15	0.74	3.09	5.83	3.31	2.47	2.22	1.14	0.35	0.05	21.04
Deephaven	936	0.05	1.07	2.19	1.32	4.77	3.01	2.40	3.12	0.88	5.30	1.38	0.12	25.61
Detroit City	1,364	0.10	1.30	0.55	1.46	2.47	2.52	5.92	2.62	2.75	1.61	0.40	0.44	22.14
*Duluth	684	0.38	0.89	0.75	0.41	3.30	3.52	1.33	3.39	1.21	3.39	0.94	0.19	19.20
Faribault	1,003	0.10	1.90	1.21	1.66	2.85	5.00	1.21	3.82	0.60	4.50			
Farmington	902	0.25	1.69	1.45	1.98	2.35	3.63	1.02	2.32	0.91	5.35	1.10	T.	22.05
Fergus Falls	1,210	0.13	0.84	0.75	1.02	1.81	3.40	6.58	1.85	1.45	1.93	0.51	0.21	20.48
Glencoe	1,006		1.10		1.30		1.87	1.23	2.61	0.96	5.29	0.35	0.04	
Glenwood	1,402	0.02	1.15	0.92	1.68	4.00								
Grand Meadow	944	0.25	1.74	1.95	3.49	2.77	4.78	2.07	2.32	0.98	5.92	1.52	0.11	27.90
Granite Falls	944						1.39	2.53	5.23	1.10				
Koochiching	1,111	0.33	0.46	0.77	0.75	2.38	7.73	5.78	1.60	4.56	2.43	0.98	0.20	27.97
Lake City	720	0.04	1.85	1.19	1.34	1.68	2.24	2.48	3.34	0.74	4.17	1.12	0.04	20.23
Lake Jennie		T.	1.15	1.36	3.75	5.51	3.12	1.76	5.92	0.92	5.89	0.87	0.06	30.31
Lakeside	793	0.05	1.03	2.77	1.96	5.53	3.43	0.17	5.71	1.14	5.06	0.54	T.	27.39
Lake Winnibigoshish	1,320	0.09	0.55	1.19	1.00	2.96	5.62	3.88	2.80	3.83	2.10	0.79	0.20	25.01
Lambert		0.10	1.00	1.40										
Leech Lake	1,290	0.24	0.67	1.45	1.30	3.06	4.54	5.37	4.65	2.26	2.17	0.95	0.44	27.10
Long Prairie	1,299	0.02	1.05	0.94	1.50	2.76	2.59	4.78	3.37	2.34	4.71	0.54	0.13	24.73
Lutsen	1,202	0.19	0.64	1.73	0.10	4.07	6.23	4.35	3.52	2.96	4.94	1.40	0.67	30.80
Luverne	1,040	0.25	0.40	1.15	1.78	4.27	4.82	1.79	4.08	1.23	2.55	0.69	0.02	23.03
Lynd	1,330	T.	0.48	0.44	1.35	4.24	3.30	2.69	2.74	1.37	2.73	0.40	0.08	19.82
Mapleplain	1,023	0.05	1.78	2.97	1.47	6.02	2.96	3.18	3.24	1.28	6.18	1.48	0.14	30.75
Maplewood														

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Minnesota—Continued.	*Feet.*													
Milaca	1,072	0.00	0.40	0.20	.....	2.91	1.97	2.63	2.38	1.04	5.36	0.90	0.00	.....
Milan	995	T.	1.45	1.02	1.48	2.36	3.12	4.19	2.61	1.73	3.54	0.62	0.16	22.28
*Minneapolis	930	0.05	1.47	1.67	1.46	5.17	2.69	2.91	2.60	0.83	5.51	1.49	0.07	25.92
Minneapolis [1]	930	0.08	1.79	1.65	1.49	5.53	4.82	0.51	3.01	0.81	6.22	1.56	0.07	27.54
Minneapolis [2]	930	0.05	1.43	1.68	1.77	4.48	2.85	3.24	2.78	0.87	5.78	1.46	0.08	26.47
Minnesota City	740	0.67	0.91	1.64	2.98	2.10	2.72	2.39	2.55	0.88	4.64	1.96	0.21	23.65
Montevideo	900	T.	1.00	1.21	1.31	3.43	2.50	2.88	6.17	1.72	4.60	0.59	T.	25.41
*Moorhead	935	0.15	0.54	1.32	2.38	3.10	2.34	2.48	2.72	1.56	1.74	0.68	0.32	19.33
Morris	1,170	0.01	0.70	0.81	2.53	2.09	3.01	5.88	0.86	1.79	3.50	0.30	0.02	21.50
Mount Iron	1,510	1.05	0.60	0.40	.....	2.40	8.28	5.88	3.40	2.78	3.85	1.00	0.40	.....
Newfolden	.....	0.25	.....	1.40	0.89	1.74	5.27	7.15	1.11	2.10	2.18	0.77	0.34	.....
New London	1,215	0.00	0.70	0.30	2.50	1.71	2.48	4.97	3.02	.....	.....	0.52	T.	.....
New Richland	1,180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Ulm	837	0.08	1.58	1.16	0.46	3.08	3.74	0.54	5.83	0.41	5.11	1.05	T.	23.04
*Park Rapids	1,426	0.12	0.70	1.51	0.96	3.47	4.17	5.67	2.85	1.60	1.65	0.53	0.37	23.60
Pine River	1,251	0.04	0.99	0.95	1.16	4.53	11.39	5.09	3.75	2.34	3.09	0.82	0.47	34.62
Pipestone	1,721	.....	.....	.....	.....	.....	3.31	1.42	2.91	1.55	1.53	0.15	T.	.....
Pleasant Mounds	.....	0.07	1.46	1.45	1.64	2.29	4.51	1.53	4.33	0.67	2.77	1.24	0.11	22.07
Pokegama Falls	1,290	0.27	0.57	1.14	0.62	3.19	5.57	5.40	4.01	2.10	2.58	1.46	0.64	27.55
*Red Wing	680	0.32	.....	3.22	1.38	3.08	2.07	3.01	3.80	0.48	5.25	2.76	0.00	.....
*Reeds	.....	.....	.....	1.31	1.68	1.88	1.99	3.00	3.20	0.70	4.83	1.90	0.15	.....
Rolling Green	1,240	0.30	0.40	0.70	1.90	2.60	2.60	1.60	2.60	0.90	1.40	1.20	0.60	16.80
Roseau	.....	0.22	0.72	[1] 1.03	0.94	0.89	.....	.....	1.32	[1] 1.39	.....	.....	0.32	.....
St. Charles	1,131	0.87	1.20	1.60	2.85	1.80	3.40	1.65	1.97	1.02	5.78	1.81	0.35	24.30
St. Cloud	1,020	T.	1.78	1.75	0.32	2.96	3.73	1.83	3.34	2.28	4.17	1.85	0.00	24.01
St. Olaf	1,485	0.04	0.66	0.77	1.29	1.70	1.94	2.22	2.38	1.87	2.26	0.53	0.27	15.93
*St. Paul	837	0.04	1.69	1.96	1.22	3.40	2.71	1.94	3.93	0.90	5.81	1.59	0.15	25.34
St. Peter	802	0.10	0.30	0.70	1.49	3.41	5.05	0.50	5.91	1.39	4.15	1.22	0.12	24.34
Sandy Lake Dam	1,234	0.12	0.64	0.69	0.91	2.67	4.72	2.80	3.12	2.23	2.61	1.17	0.38	22.06
Sauk Center	1,244	.....	.....	1.20	1.44	2.66	2.65	3.52	.....	.....	.....	.....	.....	.....
Shakopee	753	T.	1.52	1.17	1.02	4.16	2.68	1.25	3.08	1.17	5.84	1.11	0.05	23.05
Slayton	1,608	.....	.....	.....	.....	.....	.....	0.60	3.73	1.49	2.28	.....	T.	.....
Tower	1,397	0.80	1.10	1.45	0.80	5.70	7.50	6.00	1.50	2.95	3.01	1.70	0.60	33.11
Two Harbors	692	0.48	0.79	1.41	0.77	3.54	6.45	1.37	3.73	2.28	5.12	0.90	0.25	27.09
Wabasha	711	0.26	1.36	1.35	1.92	1.79	3.08	1.24	2.40	0.72	4.81	1.58	0.60	21.11
Willmar	1,131	T.	0.75	.....	1.10	3.85	2.70	2.47	4.36	0.66	5.95	0.40	T.	.....
Willow River	.....	.....	.....	0.81	0.66	.....	4.70	5.30	.....	1.99	5.78	2.70	0.30	.....
Winnebago City	1,104	.....	.....	.....	1.94	4.00	6.42	1.57	5.10	0.63	3.37	4.00	T.	.....
Worthington	1,612	0.15	0.30	0.83	1.72	5.70	3.66	1.05	4.11	1.31	1.77	0.31	0.09	21.00
Zumbrota	979	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mississippi.														
*Aberdeen	210	.....	.....	.....	.....	1.40	3.20	3.73	4.08	3.65	2.49	2.30	2.30	.....
Agricultural College	424	7.87	1.73	4.95	4.58	4.17	2.46	4.32	6.66	6.95	.....	5.00	2.20	.....
Austin	200	13.58	2.00	4.03	3.48	5.22	2.38	3.66	2.99	5.73	4.42	3.42	3.75	54.66
*Batesville	350	6.32	1.77	3.64	5.02	5.29	3.88	3.49	4.11	3.79	5.73	2.54	2.10	47.68
Bay St. Louis	24	3.72	8.00	2.56	3.59	1.29	4.44	4.85	12.49	12.88	3.53	7.26	4.51	69.12
Biloxi	24	4.18	5.03	1.69	3.50	1.23	4.89	7.00	12.53	21.76	2.12	7.19	5.78	76.90
Booneville	504	7.51	1.97	4.50	2.67	4.18	1.19	3.39	2.33	2.95	3.83	3.44	3.11	41.07
Briers	.....	8.58	3.47	4.34	2.76	0.14	7.08	5.24	3.98	6.19	3.33	9.10	.....	.....
*Brookhaven	500	9.05	5.62	3.37	3.56	1.45	4.26	6.30	9.43	6.75	3.57	8.57	2.52	64.45
Canton	228	6.88	2.03	5.00	1.91	2.90	5.56	6.07	8.61	6.50	3.59	4.41	3.46	56.92
*Columbus [3]	250	7.75	1.91	6.35	3.90	1.59	3.27	5.98	2.46	5.48	2.97	5.35	2.10	49.12
*Columbus [4]	250	.....	.....	.....	3.95	0.99	3.12	4.33	2.34	4.72	2.64	.....	.....	.....
*Corinth	450	8.44	.....	6.02	3.40	3.45	2.42	6.94	2.08	1.74	3.46	.....	.....	.....
Crystal Springs	468	8.76	4.53	5.86	2.03	2.53	6.02	6.26	4.31	6.16	4.06	6.21	2.95	59.68
Edwards	222	8.18	3.20	5.01	3.29	1.18	9.06	4.53	6.92	7.42	6.14	5.91	2.83	64.53
Fayette	284	9.17	2.75	5.12	2.75	1.50	10.75	2.50	7.12	9.26	.....	7.64	3.88	.....
French Camps	.....	7.57	1.46	4.16	4.33	3.43	3.38	9.42	6.00	4.10	3.28	2.65	3.45	53.23
Greenville [5]	126	8.38	3.05	3.13	4.18	3.28	2.40	1.69	7.95	5.75	6.03	4.68	1.66	52.18
*Greenville [4]	126	8.19	2.89	2.94	3.83	3.15	2.54	1.57	7.51	6.12	5.85	4.60	1.51	50.70
Greenwood	132	11.39	1.64	3.78	4.78	2.53	6.61	8.14	1.83	6.95	3.01	3.26	1.93	55.85
Hattiesburg	154	1.82	2.65	1.18	2.10	1.35	4.80	6.14	2.30	2.45	0.90	4.70	2.95	33.34
*Hazlehurst	.....	.....	.....	.....	.....	1.38	8.74	5.65	1.89	4.80	5.03	.....	.....	.....
*Hernando	390	.....	.....	.....	.....	4.07	2.63	2.13	3.35	4.39	5.68	2.27	.....	.....
*Holly Springs	600	11.22	2.13	5.37	2.13	4.03	3.11	6.54	3.74	3.59	6.94	2.95	2.07	53.82
*Jackson	288	7.33	2.73	6.87	2.88	3.45	5.72	9.40	7.07	5.55	[6] 2.16	[6] 6.71	2.07	61.94
Kosciusko	437	.....	1.63	5.17	2.48	2.10	.....	.....	.....	2.71	3.58	4.30	3.57	.....
*Lake	446	7.79	2.40	5.38	3.36	1.84	6.09	11.17	7.87	5.70	2.60	6.30	3.05	63.55
Leakesville	.....	2.11	3.82	1.08	.....	0.16	6.38	8.36	8.66	8.54	1.20	7.27	.....	.....
Logtown	.....	2.85	7.06	0.62	2.20	0.77	2.69	7.45	11.38	17.65	4.42	7.98	3.66	68.73
Louisville	.....	8.61	1.08	4.56	2.94	1.88	3.35	8.66	6.00	6.09	1.88	4.77	1.88	51.70
*Macon	185	5.69	1.63	3.96	3.26	0.60	3.20	2.53	6.07	6.35	2.17	3.27	2.01	40.74
Magnolia	415	8.32	7.21	3.30	3.81	2.89	10.08	7.01	8.46	8.36	4.64	6.20	4.56	74.84
*Meridian	345	4.29	3.71	3.59	3.25	0.32	3.48	2.83	8.59	5.07	3.18	6.29	2.50	47.01
Moss Point	.....	2.80	3.55	0.15	1.35	0.00	3.90	6.70	16.95	.....	.....	7.50	.....	.....
*Natchez	215	8.50	4.50	5.25	3.15	0.25	8.30	5.30	5.75	4.35	2.70	7.25	.....	.....
*Okolona	310	8.64	0.99	2.75	3.96	4.36	2.97	3.07	3.57	2.18	1.79	2.43	1.37	38.08
Palo Alto	300	5.33	2.59	3.34	2.45	5.19	5.47	3.78	6.02	4.80	5.66	3.04	2.07	50.74
Pontotoc	.....	7.67	1.09	3.74	3.64	3.11	1.62	7.62	4.63	3.62	3.41	4.48	3.18	47.81
*Port Gibson	.....	8.96	2.38	6.39	2.86	1.12	8.46	5.12	2.87	8.22	3.62	5.77	2.49	58.26
Ripley	.....	9.03	1.97	.....	3.38	4.29	.....	.....	.....	.....	.....	.....	*3.42	.....
Rosedale	146	8.46	1.69	4.52	1.58	1.11	1.18	.....	.....	.....	.....	.....	.....	.....
Thornton	.....	6.16	2.50	2.56	4.42	3.08	6.51	8.46	6.20	6.00	0.60	3.92	2.12	52.53
*Tupelo	280	8.12	0.91	3.66	3.19	3.16	2.04	4.39	3.51	3.19	2.59	3.65	2.21	40.62
*Vicksburg	222	7.78	2.81	3.99	2.83	1.33	6.17	5.90	2.85	6.93	4.26	5.49	3.33	55.67
Walnut Grove	.....	5.38	2.09	6.04	2.42	0.70	5.07	12.91	.....	3.20	3.05	6.32	3.42	.....
Water Valley	300	10.12	1.72	3.62	5.22	4.15	5.91	5.40	1.98	4.00	3.33	2.30	2.53	50.28

[1] W. M. Cheney. [2] J. H. Ashenberger. [3] River observer. [4] Cotton region observer. [5] Robert Somerville.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Mississippi—Continued.	*Feet.*													
*Waynesboro	191	4.00	4.00	3.05	3.72	0.86	6.85	5.89	5.55	7.19	2.31	9.60	5.71	58.73
Windham	171	.....	.....	.....	5.14	0.88	8.14	8.34	8.42	5.75	2.64	.....	.....	.....
Woodville	560	9.03	5.49	5.71	2.23	0.95	6.58	8.62	7.62	6.18	5.05	7.01	3.22	67.69
*Yazoo City	121	7.92	2.12	3.97	3.60	1.84	6.64	7.74	5.57	7.92	2.95	4.18	2.08	56.53
Missouri.														
Akron	.....	.....	.....	.....	2.60	6.31	5.21	2.85	2.37	6.93	3.57	2.11	.....	.....
Appleton City	824	4.57	.....	.....	.....	.....	9.79	8.44	1.71	6.31	4.70	4.31	1.49	.....
*Arlington	689	.....	.....	7.77	4.42	6.30	4.33	.....	.....	.....	.....	.....	.....	.....
Arthur	767	5.53	0.60	5.74	5.13	4.62	11.08	3.66	1.03	7.04	2.83	2.65	2.77	53.28
Avalon	.....	3.07	1.31	5.56	2.89	7.83	7.26	3.92	2.46	7.52	7.36	2.63	1.68	53.49
*Bagnell	577	.....	.....	6.06	4.56	6.25	5.60	.....	.....	.....	.....	.....	.....	.....
Bethany	916	6.00	1.23	3.55	3.94	8.62	6.07	4.88	3.00	6.08	6.09	1.50	1.33	52.29
Birchtree	998	3.39	1.97	14.67	3.69	6.50	3.95	5.46	4.75	5.18	3.05	2.23	1.59	56.43
Bolckow	929	2.86	.....	1.63	2.63	7.47	6.50	4.93	0.40	7.60	3.40	.....	.....	.....
*Boonville	566	4.52	2.10	3.34	3.41	7.16	7.67	3.65	1.23	7.76	3.66	2.09	1.89	.....
*Brunswick	652	4.05	1.96	5.89	3.10	11.88	9.88	3.06	5.15	5.30	6.62	2.55	0.85	60.29
Carrollton	755	3.41	1.53	5.53	3.00	8.92	4.68	4.13	3.42	6.41	5.53	3.09	1.52	51.17
*Columbia	783	3.37	1.84	4.41	2.76	8.39	9.02	4.60	0.47	5.43	2.61	2.29	1.52	46.71
Conception	982	3.47	1.24	1.67	2.69	7.11	6.59	10.27	1.52	5.18	2.22	0.85	1.58	44.39
Cowgill	960	5.00	0.55	6.27	4.54	8.14	7.79	5.53	5.00	7.96	4.92	1.96	2.03	59.69
Darksville	826	4.82	2.10	6.50	3.43	10.60	8.30	5.60	1.90	5.35	2.89	1.65	1.10	54.24
Downing	861	4.13	1.73	5.25	4.27	5.85	2.42	4.09	2.66	7.09	4.96	1.27	0.50	44.22
East Lynne	855	4.62	2.33	5.42	3.33	7.54	6.26	5.51	3.75	5.36	3.45	2.53	2.47	52.57
Edgehill	890	3.69	1.28	12.72	3.01	8.00	4.71	15.06	6.33	4.91	3.63	3.35	1.15	67.84
Eightmile	910	4.76	2.04	4.84	2.90	7.43	5.83	5.68	3.78	5.02	3.38	2.59	1.98	50.23
Eldon	918	3.72	2.04	7.62	3.43	6.91	4.08	3.91	2.44	6.75	5.21	3.18	1.16	50.40
Elmira	881	4.80	1.14	5.23	3.19	7.91	6.66	3.73	3.56	4.99	5.05	2.43	1.70	50.39
Fairport	920	3.94	1.30	2.97	4.20	8.36	10.71	6.50	4.24	10.50	4.26	1.25	1.74	59.97
Farmersville	.....	4.05	1.10	5.32	2.89	10.15	8.64	4.44	4.53	6.57	3.75	1.90	1.95	55.29
Fayette	765	4.41	1.95	3.77	2.84	8.19	8.86	3.87	1.44	5.74	3.05	2.22	1.37	47.71
Fulton	820	4.14	1.86	7.11	3.49	7.46	7.21	6.75	1.20	6.35	4.23	2.70	2.73	55.32
Gallatin	900	5.13	1.39	5.25	3.63	10.14	10.10	5.69	5.39	8.10	5.78	1.02	2.50	64.12
Glasgow	749	4.66	1.94	7.59	2.83	9.46	5.28	3.83	1.60	5.53	3.46	1.94	1.42	49.54
Gordonville	369	5.53	1.78	12.70	4.55	6.51	5.79	3.57	3.79	7.43	6.52	2.39	2.20	62.76
Gorin	700	4.37	1.48	5.26	3.85	7.44	3.74	6.15	4.71	6.21	4.81	1.59	1.89	51.50
Halfway	.....	2.80	0.47	5.99	3.62	6.81	6.16	7.59	3.47	9.10	3.61	3.79	1.35	54.76
*Hannibal	534	3.64	1.60	6.41	3.48	6.90	4.83	4.20	1.05	8.86	2.94	2.58	1.12	47.61
*Harrisonville	912	3.87	2.42	4.54	2.76	7.76	7.49	6.27	4.10	5.49	3.32	2.27	2.01	52.30
*Hermann	516	3.49	1.36	6.11	3.22	8.19	5.85	6.66	0.84	4.82	3.98	2.31	1.52	48.35
Houston	.....	1.98	1.86	10.71	3.11	5.16	3.10	3.94	5.07	5.87	4.45	2.90	0.64	48.79
Houstonia	800	4.59	2.17	4.04	3.38	9.41	5.84	5.43	1.97	8.07	7.16	2.70	1.88	56.64
Humansville	914	3.93	1.71	5.12	5.14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irena	1,167	3.24	1.57	2.41	2.78	5.25	5.25	4.14	1.83	6.36	3.45	1.64	1.13	39.05
*Ironton	295	4.29	2.20	11.60	3.45	7.55	6.18	9.14	3.50	4.01	4.65	2.27	1.36	60.80
*Jefferson City	628	4.61	1.70	6.37	3.94	8.35	5.63	3.97	1.67	6.79	3.89	3.33	1.63	51.88
*Kansas City	963	4.12	1.14	4.50	3.77	7.69	6.05	4.93	5.01	4.48	4.40	2.72	1.44	50.25
*Kidder	1,017	4.73	1.50	5.10	3.89	11.17	10.58	4.91	5.26	7.30	5.04	1.78	2.64	63.90
*Lamar	964	3.76	1.06	5.81	5.42	6.20	7.55	4.42	2.53	6.56	4.57	1.92	2.09	51.89
Lamonte	863	3.96	2.50	4.60	4.55	11.28	4.93	4.75	0.70	8.86	4.21	2.17	1.99	54.50
Lebanon	1,265	3.33	1.03	7.53	4.53	6.56	7.81	5.64	1.95	9.25	4.28	2.15	3.55	57.61
*Lexington	813	4.28	1.80	4.01	3.53	8.80	4.56	5.40	5.51	6.90	6.44	2.89	1.65	55.77
Liberty	850	5.92	0.80	6.18	4.16	6.98	4.70	5.40	4.82	5.09	4.82	2.13	1.31	53.21
Louisiana	490	3.85	1.82	4.91	4.38	7.83	7.15	4.66	1.34	4.66	2.41	3.19	1.58	47.78
McCune	550	4.74	1.98	5.35	4.77	9.82	6.50	6.43	2.34	7.95	3.17	3.34	1.38	57.77
Malden	290	.....	2.23	8.31	.....	3.83	5.77	1.15	.....	.....	.....	.....	.....	.....
Mansfield	.....	3.70	2.30	13.75	.....	5.80	4.30	.....	.....	.....	.....	.....	.....	.....
Marblehill	420	4.64	2.01	12.68	2.74	6.87	4.87	5.28	3.49	6.45	6.74	1.79	2.53	60.09
Marshall	779	4.02	1.85	6.45	3.10	9.17	5.34	2.63	1.49	6.36	5.43	2.18	2.17	50.19
*Maryville	1,160	2.98	2.15	1.76	2.51	5.98	4.89	7.78	1.87	6.61	3.13	1.41	1.26	42.23
*Mexico	797	3.70	1.83	4.99	4.32	6.79	6.52	4.04	0.72	7.86	2.84	2.51	1.82	47.94
Miami	.....	.....	.....	.....	.....	.....	.....	3.82	2.57	6.58	6.18	1.11	1.91	.....
Mineralspring	1,475	3.16	0.71	10.72	3.72	12.43	5.40	12.07	6.74	6.91	5.82	2.54	2.37	72.59
Montreal	.....	3.87	0.81	5.81	4.05	5.95	6.56	4.69	0.69	7.21	4.35	2.57	1.52	48.08
Mount Vernon	1,480	4.45	0.33	8.04	2.17	10.70	5.12	6.24	5.86	8.41	3.95	2.58	1.90	59.75
Neosho	1,023	3.44	0.47	7.46	2.97	10.43	4.73	9.17	3.38	7.43	3.45	2.67	1.78	57.38
Nevada	860	4.78	0.21	6.39	3.97	5.80	6.63	3.01	0.41	5.76	2.94	1.81	2.16	43.87
Newhaven	508	3.26	1.25	7.04	4.06	8.05	4.32	6.64	1.64	3.60	3.16	2.08	1.56	46.66
New Madrid	295	.....	1.35	9.82	3.15	7.39	6.23	7.00	6.82	7.12	7.24	3.67	2.61	.....
New Palestine	759	3.08	3.53	3.96	4.26	7.79	7.57	2.49	1.65	7.00	3.73	1.91	2.36	49.33
Oakfield	843	3.95	1.44	8.34	4.27	7.98	6.20	6.77	1.63	4.33	3.51	2.35	0.79	51.56
Oakmound	.....	3.49	2.92	14.12	2.72	7.34	3.04	.....	.....	.....	.....	.....	.....	.....
Olden	1,246	3.48	3.21	15.24	2.57	6.96	4.11	3.06	3.96	6.22	3.24	2.37	1.40	55.82
Oregon[1]	1,113	3.62	2.34	2.75	4.60	8.15	4.61	4.45	1.82	10.01	3.54	1.79	2.06	49.74
Oregon[2]	1,119	3.28	2.09	2.90	4.48	8.21	4.10	4.62	1.96	9.33	3.54	1.76	1.94	48.21
Osceola	727	2.25	1.00	4.45	3.65	5.40	9.35	6.45	1.55	10.72	.....	.....	.....	.....
Oto	.....	4.60	0.30	10.30	3.41	9.40	.....	8.05	7.20	6.60	.....	1.30	.....	.....
Palmyra	650	4.30	2.07	6.48	4.20	8.57	3.85	4.25	0.90	7.27	3.82	3.25	2.00	50.96
Phillipsburg	1,421	2.84	1.16	7.88	3.27	8.16	7.94	6.13	1.32	7.50	5.41	2.02	1.29	54.92
Pickering	1,019	2.72	1.82	2.70	2.52	7.39	3.74	10.28	3.12	6.73	3.77	1.40	1.61	47.80
Platte River	800	3.58	1.24	4.08	3.92	8.15	6.81	3.63	4.46	6.34	5.58	.....	.....	.....
Poplarbluff	344	7.31	3.13	12.81	3.39	.....	.....	.....	3.67	10.20	8.43	1.98	1.65	.....
Potosi	900	3.96	1.25	11.61	3.72	7.43	8.22	7.70	4.26	6.46	3.93	2.65	1.05	62.24
Princeton	1,026	5.35	1.24	3.44	5.33	8.35	4.28	3.49	3.61	8.33	4.68	1.57	1.90	51.57
Rhineland	516	3.62	1.91	5.96	3.62	8.15	4.85	6.95	1.86	5.21	3.66	2.03	1.67	49.29
Richmond	824	4.73	1.45	4.53	2.70	8.78	6.41	4.31	4.87	5.25	4.87	2.65	1.80	52.35
Rolla	1,092	3.05	1.70	8.94	4.08	5.78	3.02	6.34	2.54	7.50	3.51	2.35	1.10	49.91
St. Charles	614	3.65	1.66	8.79	4.70	9.38	8.59	6.99	1.91	4.64	3.55	2.13	1.16	57.15
*St. Joseph	825	.....	2.05	3.34	2.83	7.59	8.61	3.08	5.26	6.34	2.70	1.10	1.47	.....

[1] William Kaucher.

[2] T. M. Ruley.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Missouri—Continued.														
	Feet.													
*St. Louis	567	4.53	1.71	7.73	3.85	8.55	3.85	7.44	0.87	3.23	4.34	2.07	1.03	49.20
Sarcoxie	1,200	3.37	0.38	6.49	3.01	7.98	5.14	4.90	3.67	7.54	3.98	2.86	1.81	51.13
Sedalia	889	2.88	3.00	4.32	3.28	9.41	9.14	5.25	1.23	7.27	[c]3.39	1.95	1.34	52.46
Seymour	1,710	3.17	2.45	11.27	3.32	8.86	3.39	5.73	5.96	6.45	4.12	2.72	1.50	58.94
Shelbina	776	3.00	2.00	7.20	3.40	10.40	5.10	7.10	0.50	7.30	3.60	2.80	1.20	53.60
Sikeston	328	6.46	1.34	11.88	3.26	8.04	3.45	5.87	2.70	9.07	8.73	2.53	1.97	65.30
*Springfield	1,356	3.06	1.68	9.05	3.68	8.06	5.88	7.29	5.63	6.78	4.30	2.36	1.44	59.21
Steffenville	576	4.59	1.17	8.43	3.56	7.43	3.29	6.96	1.91	5.73	3.43	1.99	1.80	50.29
Stellada	.....	3.89	2.59	4.82	3.93	8.19	7.24	3.90	0.80	7.90	3.10	1.32	0.86	48.04
Sublett	1,000	2.66	1.60	11.30	6.65	19.22	3.15	3.96	4.27	14.67	6.25	3.65	2.70	80.08
Trenton	812	3.30	0.90	.....	3.93	6.70	6.84	4.70	2.63	5.10	.....	.....	.....	.....
*Unionville	1,072	4.64	0.71	4.44	3.68	4.96	6.02	1.97	5.32	7.17	3.47	0.40	.....	.....
Vichy	987	3.08	1.57	7.21	4.00	6.77	7.95	6.94	0.99	5.94	3.39	3.31	0.66	51.81
Virgil City	.....	4.33	0.66	5.13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Warrenton	816	3.91	1.85	6.65	5.03	8.05	5.45	7.65	1.09	5.12	3.74	2.97	1.78	53.29
Wheatland	920	4.08	0.75	4.84	6.01	4.74	8.10	6.22	1.96	8.90	3.58	1.62	2.05	52.80
Willow Springs	1,254	3.43	2.59	15.48	2.95	6.16	5.36	7.71	[b]5.04	5.13	3.03	3.04	1.64	61.56
Zeitonia	842	3.06	1.94	11.01	0.87	6.89	4.30	4.67	4.86	5.74	3.22	1.06	1.32	48.94
Montana.														
Adel	4,780	.....	.....	[c]3.57	0.83	4.94	3.71	2.84	0.25	0.70	1.89	0.70	1.05	.....
Augusta	3,500	0.36	0.07	2.28	1.45	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bigtimber	4,072	0.35	T.	1.71	0.90	.....	.....	.....	.....	.....	.....	.....	.....	.....
Billings	3,100	0.22	0.30	2.20	0.02	5.73	4.59	1.41	1.07	0.55	.....	.....	0.10	.....
Boulder	4,994	.....	.....	.....	.....	3.75	1.83	0.54	0.38	.....	.....	0.09	0.05	.....
Bozeman	4,700	0.60	0.49	1.62	1.07	4.60	3.18	0.84	0.47	0.93	.....	.....	.....	.....
Butte	5,728	0.57	0.55	1.56	0.51	.....	3.06	0.54	0.45	0.91	.....	.....	.....	.....
Castle	5,800	0.31	0.11	0.90	0.47	5.41	4.75	1.93	0.41	1.82	2.50	1.65	0.36	20.62
Chinook	2,401	0.25	0.63	1.45	1.18	1.01	2.65	1.79	0.47	0.68	.....	.....	.....	.....
Choteau	.....	.....	0.50	3.60	1.06	3.75	.....	.....	.....	.....	.....	.....	.....	.....
Columbia Falls	2,800	1.51	1.97	3.29	1.52	1.75	1.08	1.82	1.38	.....	.....	.....	.....	.....
Corvallis	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.34	0.40	0.18	0.02	.....
Crow Agency	.....	.....	.....	.....	0.54	3.60	2.58	1.69	0.51	1.01	2.36	0.42	0.24	.....
Darby	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.13	0.06	0.04	T.	.....
Dearborn Canyon	4,590	0.70	0.35	4.60	3.10	7.73	4.56	1.76	1.05	0.63	1.10	0.80	0.80	27.18
Deerlodge	4,763	0.10	0.52	1.81	0.60	2.83	.....	.....	.....	.....	.....	.....	.....	.....
Dupuyer	.....	0.40	0.60	3.90	0.80	1.25	0.25	.....	.....	.....	.....	.....	.....	.....
Ekalaka	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.23	0.47	.....
Florence	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.77	1.07	1.96	0.41	.....
Fort Benton	2,663	0.10	T.	1.40	0.96	3.25	4.87	0.80	0.30	1.32	.....	0.43	0.40	.....
Fort Keogh	2,350	0.21	0.17	1.10	0.56	2.42	1.64	0.90	0.47	1.09	1.45	1.25	0.40	11.66
Fort Logan	6,000	0.09	0.00	1.68	0.66	4.48	3.23	1.76	0.49	0.40	1.23	2.04	0.56	16.62
Fort Missoula	.....	0.51	1.21	0.66	1.57	4.80	.....	.....	.....	.....	.....	.....	.....	.....
Glasgow	2,087	0.20	0.65	3.50	1.43	.....	2.37	1.58	0.11	2.02	2.00	0.57	0.07	.....
Glendive	1,900	0.20	0.30	2.10	2.00	2.00	5.70	0.40	0.22	1.70	2.82	0.80	0.40	18.64
Glenwood	4,000	0.94	0.19	1.86	0.53	4.06	3.17	1.34	0.73	0.86	1.76	0.96	0.80	17.20
Greatfalls	3,350	0.28	0.20	1.14	1.24	3.22	2.93	2.30	1.29	1.72	1.01	0.57	0.37	16.27
*Havre	2,494	0.17	0.14	1.06	1.50	1.06	1.81	2.57	0.10	1.06	2.16	0.24	0.24	12.11
*Helena	4,108	0.20	0.52	2.39	0.56	4.88	3.52	1.71	0.71	0.87	1.10	0.66	0.28	17.40
Kalispell	2,946	0.60	0.32	3.12	0.51	1.41	1.13	1.15	1.10	0.55	1.24	1.04	0.33	12.50
Kipp	4,472	0.27	0.59	4.48	1.90	3.82	1.59	1.03	1.30	0.37	1.63	0.62	0.66	18.26
Lewiston	4,292	0.55	0.80	3.16	1.15	4.41	5.11	.....	.....	.....	.....	.....	.....	.....
Livingston	4,650	T.	0.23	1.20	1.04	4.03	4.28	1.23	1.26	0.61	1.32	0.78	0.10	16.08
Manhattan	4,292	0.25	0.11	0.42	0.26	3.00	3.05	0.63	0.46	0.40	1.52	0.45	0.11	10.66
Martinsdale	4,800	0.40	0.18	1.30	0.65	4.43	4.63	1.76	0.24	1.26	0.72	1.00	0.07	16.64
Maryesville	5,360	0.46	0.47	2.13	0.97	5.77	4.22	2.86	0.97	0.97	1.08	1.04	1.89	22.83
*Miles City	4,327	0.17	0.35	1.54	0.77	2.61	1.99	1.01	0.12	0.89	1.77	0.92	0.31	12.45
Missoula	3,212	.....	.....	.....	.....	.....	.....	0.76	0.29	1.40	0.87	1.05	0.33	.....
Parrot	4,425	1.00	0.04	0.73	0.25	4.19	4.25	0.73	0.42	1.65	0.62	0.80	.....	.....
Plains	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	0.60	1.16	0.10	.....
Poplar	2,200	T.	0.60	2.91	1.72	0.85	2.78	1.34	0.09	2.45	1.22	0.59	0.60	15.15
Radersburg	.....	0.25	0.00	0.58	0.10	2.10	0.95	0.40	0.50	.....	2.00	0.24	0.10	.....
Red Lodge	5,548	.....	1.52	2.62	2.52	12.63	4.17	.....	.....	.....	.....	0.30	0.97	.....
St. Ignatius Mission	.....	0.81	0.86	1.88	1.48	3.32	1.13	.....	.....	0.58	0.94	0.84	0.23	.....
St. Paula	4,150	0.60	0.01	0.30	0.02	0.14	2.70	1.92	0.81	1.14	1.61	0.30	0.33	9.88
Shelby	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.68	0.40	0.30	.....
Troy	2,250	0.70	.....	1.75	1.40	2.13	1.56	1.00	1.06	1.56	1.74	.....	1.35	.....
Utica	4,200	0.70	0.27	1.91	1.12	5.87	5.80	3.16	0.67	0.47	1.25	1.14	0.59	22.95
Virginia City	5,880	0.74	0.33	2.08	0.74	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wibaux	2,350	T.	T.	1.50	1.52	0.90	0.79	0.60	0.25	.....	.....	0.34	0.30	.....
Yale	.....	0.30	0.37	1.55	0.42	2.89	3.61	3.32	0.56	0.27	1.57	0.93	0.40	16.19
Nebraska.														
Agee	.....	0.65	0.63	0.41	1.99	5.46	2.51	3.05	2.72	1.47	2.06	0.53	0.35	21.83
Albion	1,747	0.60	0.67	0.20	1.37	4.03	4.62	1.11	1.47	1.28	0.51	0.61	0.20	16.67
Alliance	3,968	1.14	T.	0.30	0.53	4.81	1.10	4.76	0.20	T.	T.	0.60	0.00	13.44
Alma	1,939	0.19	0.20	0.17	3.25	6.36	4.49	2.09	2.34	5.69	0.25	0.85	0.04	25.92
Ansley	2,307	0.35	0.45	0.10	2.69	3.87	3.49	1.42	2.12	1.64	1.08	0.45	0.20	17.86
Arapahoe	2,173	0.30	T.	T.	4.51	2.89	3.23	1.85	3.17	6.03	0.50	0.60	0.08	23.16
Arborville	.....	0.55	0.31	0.63	2.88	3.92	6.44	0.46	1.99	2.97	1.86	0.40	0.33	22.74
*Ashland[1]	1,100	0.31	0.83	1.51	3.46	5.16	2.21	1.18	2.95	2.90	1.53	0.44	0.16	22.64
Ashland[2]	1,100	0.54	0.75	1.10	4.09	5.95	1.96	1.66	2.77	2.91	1.55	0.51	0.42	24.21
Ashton	2,061	0.28	0.40	0.19	2.42	2.29	4.45	0.88	1.76	2.61	0.57	0.49	0.09	16.43
Auburn	1,051	1.45	2.11	1.77	2.92	6.04	4.94	3.70	1.55	4.37	2.14	0.85	1.72	33.56
Aurora	1,792	0.30	0.70	0.74	1.67	3.73	8.45	0.69	1.84	3.02	1.53	0.38	0.32	23.37
Bartley	.....	.....	.....	.....	.....	.....	.....	1.88	3.40	4.15	0.63	0.84	0.14	.....
Bassett	2,323	.....	.....	.....	.....	.....	.....	4.12	1.49	0.27	0.02	0.25	0.25	.....
Beatrice	1,235	1.70	1.92	1.88	3.53	3.64	1.64	2.38	2.33	3.41	1.16	0.98	0.74	25.31

[1] Dr. A. S. Mansfelde. [2] O. C. Steele.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Nebraska—Continued.	*Feet.*													
Beaver City	2,147	0.18	0.02	0.16	2.27	3.69	3.73	1.60	2.23	5.51	0.32	0.58	0.06	20.35
Bellevue	.....	.....	.....	.....	.....	3.26	4.49	3.25	2.20	3.78	2.23	0.83	0.30	.....
Benedict	1,703	0.92	0.55	0.95	3.01	3.99	4.91	0.30	0.96	2.21	1.64	0.90	0.49	20.83
Benkelman	2,968	0.20	T.	0.40	3.47	5.31	3.26	2.85	0.90	3.20	1.13	T.	T.	20.72
Blair	1,240	0.61	0.65	1.29	2.48	6.70	3.58	1.38	2.22	2.08	2.93	0.48	0.20	24.60
Bluehill	1,967	0.30	0.27	0.08	4.91	5.05	3.75	0.87	2.14	3.58	1.67	0.25	0.39	23.26
Bradshaw	.....	.....	.....	.....	2.74	3.03	5.72	0.20	1.77	2.80	1.55	0.25	0.25	.....
Brokenbow	2,477	0.70	0.10	0.00	2.54	4.71	2.49	2.03	3.55	1.38	3.90	0.22	T.	21.62
Burchard	1,377	1.25	0.95	2.25	2.35	6.90	3.95	1.95	1.55	4.70	1.77	0.60	0.43	28.65
Burwell	2,180	1.00	0.30	0.05	1.68	3.14	2.68	2.33	4.68	0.86	0.56	0.30	0.65	18.23
Callaway	2,555	0.45	0.15	0.60	2.35	4.45	2.98	2.60	6.85	1.50	T.	0.65	T.	22.58
Camp Clarke	3,700	1.20	T.	0.75	1.07	4.22	1.68	2.13	1.01	0.30	0.07	0.85	0.35	13.63
Central City	1,708	0.50	0.30	0.22	2.20	5.25	5.15	0.40	2.30	2.07	0.70	0.31	0.25	19.65
Chester	.....	.....	0.95	0.57	.....	.....	.....	.....	.....	2.65	1.05	0.24	1.67	.....
Cody	3,105	0.60	0.02	0.80	1.60	4.95	0.60	2.90	0.80	0.50	T.	T.	0.10	12.87
*Columbus	1,442	0.40	0.48	0.82	2.45	5.02	5.09	0.82	3.86	2.41	1.52	0.48	0.11	24.36
Cornlea	.....	0.46	0.66	0.77	1.54	6.18	5.07	.....	.....	.....	.....	.....	.....	.....
Creighton	1,600	0.21	1.50	1.13	1.82	6.74	5.11	2.96	3.40	1.11	1.97	0.27	0.35	26.57
Crete	1,368	0.29	1.23	0.40	4.25	3.30	3.92	1.84	2.76	2.25	1.44	0.50	0.60	22.78
Culbertson	2,576	0.40	0.00	0.24	2.10	3.84	3.48	1.44	1.34	3.90	2.52	0.37	0.07	19.70
Curtis	2,553	0.60	0.20	0.25	2.32	5.34	3.27	2.56	1.67	3.70	0.33	0.63	0.16	21.03
Dannebrog	.....	0.40	0.71	.....	.....	3.72	.....	.....	.....	.....	.....	.....	.....	.....
David City	1,619	0.75	0.50	0.75	2.75	6.80	5.30	0.70	2.80	2.20	1.65	0.80	0.40	25.40
Dawson	945	1.29	2.16	2.02	3.19	6.92	4.99	2.30	0.93	7.59	2.29	1.05	1.27	36.00
Divide	.....	0.60	0.45	0.22	2.04	2.38	3.81	1.06	2.70	.....	.....	.....	.....	.....
Dunning	2,621	1.30	0.25	0.26	0.83	2.22	1.07	.....	.....	.....	.....	.....	.....	.....
Eden	.....	1.70	2.85	1.69	3.24	6.13	5.90	3.24	2.16	5.77	1.70	0.60	1.70	36.68
Edgar	1,722	0.50	0.36	.....	2.00	2.98	4.65	0.79	2.91	3.15	0.90	0.43	0.58	.....
Elba	.....	0.80	0.55	0.31	1.20	.....	6.05	1.10	.....	2.40	1.05	0.30	0.05	.....
Ericson	2,029	0.70	0.40	0.20	1.38	3.92	2.48	1.91	2.68	0.91	0.35	0.53	0.20	15.66
Ewing	1,888	0.70	0.20	1.18	1.41	3.81	2.42	3.30	5.93	0.72	1.08	0.70	0.05	21.50
*Fairbury	1,316	1.02	1.09	1.30	5.66	5.14	3.07	0.80	1.46	3.72	1.89	0.92	0.90	26.97
Fairfield	1,782	.....	0.21	0.36	5.40	4.29	3.59	0.60	3.12	4.50	2.00	0.85	0.30	.....
*Fairmont	1,652	0.65	0.60	0.30	4.07	4.67	8.75	T.	4.20	3.30	2.15	0.55	0.60	29.84
Fort Robinson	3,764	1.70	0.20	1.30	0.50	4.07	2.09	2.19	0.05	0.76	0.33	0.46	0.51	14.16
Franklin	1,820	0.30	0.30	0.05	4.46	[d]4.39	3.59	1.14	0.30	4.12	[g]2.10	.....	.....	.....
Fremont	1,203	0.50	0.67	1.75	2.50	6.85	6.72	2.56	2.06	1.95	2.05	0.90	0.70	29.21
Geneva	1,633	0.86	0.87	0.25	3.91	5.35	11.62	0.35	4.97	3.35	2.14	0.82	0.75	35.24
Genoa	1,584	0.58	0.94	0.82	2.78	4.58	3.91	1.36	3.98	2.02	1.13	0.55	0.15	22.80
Gering	.....	.....	.....	0.30	1.80	4.90	1.38	1.65	0.60	[e]0.28	0.57	1.10	.....	.....
Gordon	3,547	0.20	0.10	0.10	0.60	5.55	1.06	2.26	0.60	1.40	0.00	0.00	0.10	.....
Gothenburg	2,557	1.20	0.40	0.50	1.09	3.60	4.02	1.48	2.52	3.01	1.03	0.90	0.11	19.86
Grand Island[1]	1,860	0.20	0.65	1.18	3.73	.....	.....	1.60	3.50	3.33	0.67	0.40	0.52	.....
Grand Island[2]	1,860	0.35	0.73	0.77	2.81	4.28	4.73	1.39	3.47	3.72	1.32	0.75	0.44	24.76
Greeley	2,021	0.55	0.50	0.20	1.15	3.64	6.12	0.90	1.65	1.80	T.	0.30	T.	16.81
Haigler	3,256	0.00	T.	0.70	3.08	3.38	4.18	1.20	1.75	3.20	0.80	T.	T.	18.29
*Hartington	1,309	1.10	0.83	1.23	1.49	6.63	6.03	3.84	3.04	1.10	2.30	0.83	0.25	28.67
Harvard	1,812	0.30	1.00	0.40	4.38	3.05	6.02	0.77	5.11	4.37	1.62	0.67	0.38	28.07
Hastings	1,932	0.30	0.33	0.25	4.26	3.75	3.00	0.55	6.55	3.65	1.82	0.39	0.24	25.09
Hayes Center	.....	0.45	0.25	0.40	3.65	3.23	3.85	1.85	1.24	3.65	.....	0.60	T.	.....
Hay Springs	3,821	0.40	0.55	0.88	1.11	6.91	0.43	2.74	0.31	1.31	0.25	0.48	0.62	15.99
Hebron	1,458	1.16	0.71	0.88	3.91	4.63	6.11	0.71	1.76	2.47	1.12	1.00	0.94	25.40
Hickman	1,252	0.87	1.73	1.85	5.12	5.33	2.51	1.25	2.15	2.50	1.70	0.50	0.68	26.19
Holdrege	2,324	0.80	0.25	0.03	3.35	4.96	3.85	1.85	1.83	5.05	0.73	0.10	T.	22.80
Hooper	.....	[f]0.38	0.87	1.51	2.01	5.57	6.31	0.64	2.70	2.07	1.61	0.68	0.23	24.58
Imperial	3,278	0.50	0.22	0.56	1.82	7.29	3.55	3.37	0.88	4.02	0.30	0.86	0.92	24.29
Indianola (near)	2,372	0.60	0.00	0.25	3.18	5.22	.....	.....	.....	.....	.....	.....	.....	.....
Johnstown	2,610	0.35	T.	0.33	0.85	6.05	2.05	4.19	1.71	0.39	T.	0.15	0.12	16.19
Kearney	2,146	0.17	0.25	0.04	3.60	4.11	4.18	1.76	2.53	3.40	0.65	0.45	0.10	21.24
Kennedy	.....	1.52	T.	0.64	1.38	8.63	1.91	3.70	2.31	0.71	0.30	0.70	0.40	22.20
Kimball	4,697	0.65	0.15	0.75	1.32	6.49	2.61	2.26	0.45	0.60	0.65	1.60	0.55	18.08
Kirkwood	.....	0.60	0.74	0.72	1.52	6.26	3.30	4.31	1.87	0.49	0.19	0.35	0.24	20.59
Lexington	2,385	0.30	0.30	0.10	2.23	2.62	4.36	1.29	2.51	2.92	0.73	0.80	0.35	18.51
*Lincoln	1,181	0.83	0.99	1.40	3.88	4.33	3.99	3.93	3.45	2.32	1.55	0.95	0.48	28.10
Lincoln[3]	1,181	0.47	0.62	1.59	4.45	4.26	4.86	2.38	3.04	2.45	1.47	0.59	.....	.....
Lincoln[4]	1,181	.....	0.92	1.55	3.51	3.81	4.28	2.62	2.53	2.21	0.72	0.84	0.53	.....
Lodgepole	3,820	0.40	0.10	0.10	0.10	3.55	T.	1.60	0.00	2.25	0.10	0.70	0.50	9.40
Loup	2,067	0.50	0.08	0.03	2.48	2.30	3.91	1.93	2.74	3.23	0.42	0.40	T.	18.02
Lynch	.....	0.36	0.60	0.52	1.61	6.05	1.91	4.85	2.03	0.67	0.79	0.08	0.07	19.54
Lyons	1,285	0.42	0.60	1.24	1.66	4.99	6.23	0.46	4.45	1.68	2.10	0.91	0.92	25.66
McCook	2,506	0.20	T.	0.20	2.55	3.95	3.70	1.68	0.96	3.95	0.44	0.70	0.15	18.48
McCool	1,575	0.40	0.50	0.70	3.62	4.24	5.23	0.25	3.85	2.79	1.83	0.50	0.55	24.46
Madison	1,585	0.60	0.70	0.86	1.79	4.33	6.06	0.90	1.61	1.44	1.24	0.60	0.16	20.29
Madrid	3,294	0.75	0.20	0.30	0.64	4.08	1.78	0.63	1.50	2.75	T.	0.80	0.20	13.63
Marquette	1,830	0.47	0.50	0.50	2.12	3.85	6.46	0.62	1.74	2.44	1.10	0.90	0.32	21.02
Merriman	.....	0.40	T.	0.20	1.20	6.60	0.40	0.80	2.00	0.00	T.	0.55	0.10	12.45
Minden[5]	2,169	0.31	0.44	0.32	4.02	5.34	4.44	1.50	4.23	4.39	1.04	0.87	0.30	27.20
Minden[6]	2,169	0.25	0.50	0.23	3.96	4.91	4.11	1.47	3.95	4.37	1.04	0.89	.....	.....
Monroe	.....	0.31	0.30	0.47	2.48	5.39	4.89	1.25	2.85	1.68	1.01	0.42	0.13	20.68
Nebraska City[7]	941	1.67	1.05	1.50	3.45	3.39	2.31	.....	0.82	3.55	.....	.....	.....	.....
Nebraska City[8]	941	1.30	0.71	1.15	2.31	2.67	2.77	2.65	0.84	3.57	0.97	0.51	.....	.....
Nemaha	902	1.95	3.30	1.61	3.35	5.40	5.18	4.56	0.53	5.08	2.12	1.02	1.15	35.25
Nesbit	.....	1.55	0.15	0.30	1.73	6.16	4.23	2.25	3.26	1.78	0.14	0.64	0.13	22.32
Norfolk	1,532	0.69	0.70	0.72	1.49	3.53	6.04	1.60	2.01	1.46	0.86	0.31	0.42	19.83
Norman	2,100	0.95	.....	0.63	5.17	3.72	4.12	2.35	3.87	4.54	.....	.....	.....	.....
North Loup	1,961	0.55	0.40	0.20	1.00	3.65	4.43	0.99	1.97	1.78	0.53	0.70	0.30	16.50

[1] Thomas Connor.
[2] E. Corbin.
[3] C. J. Ernst.
[4] H. F. Bethune.
[5] Jacob Hull.
[6] H. Hageman.
[7] R. R. Douglas.
[8] E. Morton.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Nebraska—Continued.	*Feet.*													
*North Platte	2,841	0.77	0.19	0.64	1.42	4.12	2.54	1.29	1.40	2.56	0.07	0.51	0.03	15.54
*Oakdale	1,722	0.55	0.78	0.69	1.88	5.75	4.82	2.15	2.92	0.93	1.15	0.53	0.44	22.59
Odell	1,278	1.50	2.32	2.11	4.68	4.98	4.03	1.08	1.50	3.26	1.20	0.42	0.70	27.78
*Omaha	1,103	0.62	0.67	1.15	2.74	4.33	5.16	4.20	1.98	2.94	2.54	1.20	0.31	27.84
*O'Neill	1,985	0.38	0.42	0.75	1.39	5.62	2.82	3.87	2.33	1.29	.....	[1]0.20	0.05	.....
Ord	2,062	0.60	0.34	0.22	2.09	3.43	2.31	0.91	2.04	2.75	0.56	0.27	0.43	15.95
Osceola	1,644	0.05	0.35	1.00	1.96	3.68	5.06	0.40	2.86	1.91	1.71	0.55	0.02	19.55
Ough	.....	0.20	T.	0.45	3.80	5.50	3.24	1.28	1.92	3.80	0.40	0.30	T.	20.89
Palmer	1,796	0.40	0.50	0.85	1.98	3.38	8.12	0.97	3.65	3.18	0.66	0.35	T.	24.04
Palmyra	1,153	.....	.....	.....	.....	.....	.....	2.00	1.57	2.88	1.34	0.70	0.70	.....
*Plattsmouth	979	0.85	0.22	1.30	3.09	4.40	4.17	11.53	.....	2.40	.....	1.28	0.50	.....
Ravenna[1]	1,997	0.33	0.68	0.23	2.23	3.15	3.25	2.19	1.72	3.10	0.56	0.69	0.37	18.50
Ravenna[2]	1,997	.....	.....	.....	.....	.....	.....	1.59	.....	3.50	1.59	0.61	.....	.....
Redcloud[3]	1,687	0.52	0.10	0.27	3.19	3.50	3.05	1.13	0.13	4.22	1.13	0.75	0.53	18.52
Redcloud[4]	1,687	0.45	0.15	0.25	3.10	3.25	1.30	1.63	0.28	4.75	0.84	0.93	0.73	17.66
Republican	1,939	0.10	0.25	0.08	4.68	5.03	4.00	1.80	1.39	5.40	.....	0.85	0.05	.....
Rulo	842	2.75	1.50	2.10	3.20	6.89	5.14	3.22	0.40	8.93	2.20	1.10	1.04	38.47
St. Libory	1,887	0.38	0.80	0.65	2.09	4.36	5.36	1.49	1.47	3.30	0.77	0.50	0.40	21.57
St. Paul	1,796	0.56	0.56	0.54	2.27	3.45	7.16	1.38	3.80	2.96	0.45	0.52	0.12	23.77
Salem	909	0.85	2.25	0.80	3.10	5.57	5.65	2.13	1.37	7.55	2.40	1.00	1.79	34.46
Santee Agency	.....	0.66	0.99	0.60	1.10	4.56	2.41	6.16	2.47	0.82	3.83	0.32	0.27	24.19
Sargent	.....	0.59	0.43	0.22	2.33	3.21	2.68	1.83	3.50	.....	.....	.....	.....	.....
Schuyler	1,357	0.40	0.15	0.73	0.95	6.78	7.01	0.27	3.72	2.51	1.86	0.50	0.20	25.08
Seneca	2,971	0.52	0.00	0.10	0.50	8.25	0.20	5.00	2.55	1.70	0.00	0.15	0.15	19.12
Seward	1,435	0.50	0.20	0.60	4.70	5.14	4.97	0.92	3.42	2.21	2.09	0.50	0.72	25.97
Spragg	.....	.....	.....	.....	.....	.....	.....	.....	3.30	.....	0.51	0.20	0.30	.....
Springview	.....	0.15	0.12	0.32	0.70	5.85	2.90	2.14	1.91	0.52	.....	0.30	1.00	.....
Stanton	1,472	0.45	0.45	0.75	1.43	3.90	6.08	1.32	1.31	1.64	1.62	0.71	0.44	20.10
State Farm	.....	.....	.....	0.73	2.83	5.29	4.91	6.60	2.82	2.81	1.37	0.36	.....	.....
Stockham	.....	0.80	0.60	0.50	2.90	3.00	4.30	0.80	4.90	7.10	0.90	0.27	.....	.....
Strang	1,638	0.90	0.40	0.60	4.33	5.81	9.37	0.80	5.25	2.51	1.49	0.70	0.92	33.08
Stratton	2,804	0.17	0.00	0.24	3.23	4.53	2.86	2.52	0.71	4.48	0.85	0.29	0.18	20.06
Superior	1,574	1.00	0.80	0.55	2.70	4.96	3.79	1.15	0.87	4.00	0.80	0.80	0.60	22.02
Syracuse	1,059	1.75	0.92	1.72	4.44	4.96	3.22	2.83	2.06	2.90	1.65	0.85	1.04	28.34
Tablerock	.....	.....	2.11	2.05	2.70	6.29	5.35	2.35	1.65	7.11	2.71	0.96	1.66	.....
*Tecumseh	1,113	1.15	0.87	1.55	3.18	4.00	2.49	1.45	1.55	4.48	1.48	0.90	1.15	24.25
*Tekamah	1,060	0.75	0.12	2.10	1.86	5.15	4.72	1.99	4.60	2.62	2.60	1.07	0.60	28.18
Thedford	2,842	1.20	0.60	0.35	1.90	8.90	6.10	5.50	3.30	1.10	0.20	0.40	0.15	29.70
Turlington	1,214	1.82	1.23	1.32	3.98	3.49	2.79	3.09	1.77	3.72	1.04	0.56	1.06	25.87
*Valentine	2,613	0.44	0.28	0.57	1.33	5.98	2.11	2.28	3.62	0.64	0.09	0.54	0.37	18.25
Valparaiso	1,317	0.70	0.25	0.85	3.07	7.15	5.04	T.	1.54	2.55	1.67	0.45	1.67	24.94
Wakefield	1,387	0.36	0.58	1.22	1.25	5.02	6.78	2.08	1.67	1.19	1.71	0.74	0.20	22.80
Wallace	3,116	1.05	0.10	0.30	0.55	4.80	2.26	.....	.....	.....	.....	0.30	0.02	.....
Wauneta	.....	.....	.....	.....	.....	.....	3.25	2.81	1.14	4.49	0.20	0.25	0.05	.....
Weeping Water	1,080	1.21	1.07	1.36	3.61	3.41	3.67	2.92	1.91	2.66	2.72	1.23	1.04	26.81
Westpoint	1,313	0.32	0.70	1.07	1.79	4.08	6.24	0.80	3.88	1.30	0.80	0.74	0.04	21.76
Whitman	3,588	0.25	0.15	0.20	0.74	2.81	1.70	2.00	0.05	T.	0.10	0.20	0.10	8.30
Wilber	1,325	0.47	1.04	1.10	5.80	5.30	5.27	1.55	4.01	3.02	1.71	0.74	0.87	30.88
Willard	.....	1.60	T.	0.07	2.13	3.60	3.05	1.60	3.46	1.98	0.25	0.43	0.01	18.18
Wilsonville	2,298	0.15	0.15	T.	2.35	4.82	4.05	1.92	2.61	4.25	0.35	0.35	0.00	21.00
Wisner	.....	0.74	0.20	1.81	1.52	3.95	6.91	1.02	1.70	1.19	2.31	.....	.....	.....
Wymore	.....	1.15	1.45	1.95	4.37	5.27	2.51	1.73	4.07	3.49	0.65	1.40	0.98	27.07
York	1,642	0.50	0.70	0.75	4.73	4.63	4.76	0.28	1.39	2.16	1.20	0.30	0.80	22.20
Nevada.														
Austin	6,594	1.60	0.27	1.43	1.16	4.18	0.05	0.40	0.56	0.30	0.24	1.88	1.14	13.21
Battle Mountain	4,511	0.47	0.06	0.55	0.26	2.93	0.00	0.00	0.00	0.50	0.10	0.32	0.27	5.46
Beowawe	4,695	0.56	T.	0.53	0.60	1.50	T.	T.	T.	0.15	0.28	0.60	0.42	4.64
Blaine	5,350	1.53	0.20	0.97	2.18	2.81	T.	0.21	0.11	0.36	0.73	2.17	1.15	12.42
Bunkerville	.....	1.08	0.02	T.	0.30	1.35	.....	.....	0.30	0.00	0.00	T.	T.	.....
Candelaria	5,783	0.12	0.06	0.17	0.62	1.25	T.	T.	0.98	0.70	0.02	0.07	0.28	4.27
Carlin	4,897	T.	0.00	0.47	0.75	0.50	0.00	0.00	0.50	0.50	0.00	1.05	0.40	4.17
*Carson City	4,720	0.52	0.80	0.99	0.43	0.39	T.	0.05	0.18	0.12	0.72	1.56	0.13	5.89
Carson City[5]	4,720	0.58	0.95	1.00	0.53	0.32	T.	0.07	0.25	0.15	0.67	1.39	0.13	6.04
Clover Valley	6,000	.....	.....	.....	.....	.....	0.67	0.12	0.46	0.17	0.44	5.95	0.99	.....
Cranes Ranch	5,350	0.56	0.34	0.58	0.66	3.06	0.16	.....	0.29	0.11	0.35	1.61	0.67	.....
Darroughs Ranch	4,500	.....	.....	.....	.....	.....	.....	.....	1.81	0.67	.....	0.67	0.56	.....
Elko	5,063	0.80	0.10	0.20	0.48	1.60	0.15	0.00	0.25	0.45	0.20	1.25	0.60	6.08
Elko (near)	.....	0.78	0.04	0.55	1.40	2.76	.....	T.	0.50	0.12	0.90	2.06	0.99	.....
Ely	6,000	1.40	0.20	2.01	1.15	3.50	0.15	0.50	2.85	0.15	0.20	1.90	1.05	15.06
Empire Ranch	6,995	1.09	0.12	0.83	0.79	1.36	0.02	0.01	0.13	0.00	T.	0.88	.....	.....
Fenelon	6,128	0.69	0.20	1.41	1.73	1.75	0.45	T.	0.16	0.27	0.32	2.00	0.90	9.88
Golconda	4,392	0.27	0.00	0.27	0.00	0.79	0.00	0.00	0.00	0.06	0.00	0.36	0.19	1.94
Halleck	5,229	0.74	T.	0.35	0.30	1.15	T.	0.20	0.04	0.15	0.27	0.70	0.32	4.22
Hawthorne[6]	4,569	0.47	0.00	0.39	T.	1.07	0.00	0.20	T.	0.00	0.01	0.09	0.06	2.29
Hawthorne[7]	4,569	0.30	0.06	0.38	T.	0.95	0.00	0.20	T.	0.64	0.01	0.09	0.26	2.89
Hot Springs	4,072	T.	T.	T.	T.	T.	0.00	0.00	0.00	0.00	T.	T.	T.	T.
Humboldt	4,236	0.93	0.00	0.23	0.00	1.28	T.	0.00	0.00	0.10	0.20	0.85	0.40	3.99
Keysers Springs	5,400	0.45	0.10	0.21	0.25	1.80	.....	.....	.....	.....	.....	.....	.....	.....
Lewers Ranch	5,200	0.86	1.75	1.57	1.18	1.07	0.23	0.01	0.27	0.18	1.41	3.39	2.40	14.32
Los Vegas	2,074	0.53	0.08	T.	0.00	0.20	0.20	0.05	0.40	0.00	0.00	T.	0.20	1.64
Lovelocks	3,977	0.37	T.	0.15	.....	1.55	T.	0.00	0.00	0.40	T.	T.	1.09	2.56
McGill	5,200	0.23	0.37	0.64	0.70	1.82	0.00	0.37	1.11	0.08	T.	.....	0.04	.....
Martins	.....	0.81	0.54	0.56	0.44	0.79	0.00	0.00	0.54	0.00	0.28	0.97	0.50	5.43
Midas	.....	1.32	0.30	1.14	1.38	3.19	0.10	0.28	.....	.....	.....	.....	.....	.....
Mill City	4,225	0.30	0.00	0.27	0.00	1.70	0.00	0.00	0.00	0.30	0.00	0.41	0.58	3.56
Monitor Mill	6,400	0.54	0.43	1.30	0.49	2.48	0.11	0.14	1.11	T.	0.22	0.35	0.47	7.64

[1] Erastus Smith.
[2] C. S. Bukey.
[3] D. Turnkey.
[4] W. K. Hays.
[5] C. W. Friend.
[6] Southern Pacific Railroad Company.
[7] C. P. Mengel.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Nevada—Continued.														
	Feet.													
Osceola	6,500	1.08	0.06	1.37	0.80	1.70	.....	0.38	1.13	T.	.....	.....	.....	.....
Palisade	4,821	0.28	0.30	0.46	0.75	0.50	0.00	0.00	0.50	0.30	0.00	1.44	0.41	4.94
Palmetto	6,500	0.40	T.	0.80	1.85	4.05	0.20	0.49	0.95	0.28	0.33	0.10	0.30	9.75
Panaca	.....	.....	0.25	1.05	1.25	1.76	0.05	0.96	2.33	[b]T.	T.	.....	T.	.....
Reno	4,484	.....	.....	.....	.....	.....	T.	T.	0.10	0.11	T.	0.09	T.	.....
Reno State University	.....	0.99	1.47	0.65	0.41	0.95	0.00	0.00	0.16	0.31	0.24	0.63	.....	.....
Ruby Valley	6,000	0.41	0.27	0.88	0.76	2.65	0.24	0.26	1.23	0.11	0.36	3.54	.....	.....
St. Clair	4,000	0.49	0.05	0.25	0.08	2.73	0.00	0.00	0.00	0.35	0.08	0.29	0.21	4.53
St. Thomas	1,600	1.00	T.	T.	0.06	.....	.....	0.00	0.00	.....	.....	.....	.....	.....
San Antonio	4,500	0.11	T.	T.	[d]0.85	0.83	.....	.....	3.15	0.36	.....	.....	.....	.....
Silverpeak	4,382	0.24	T.	0.73	.....	[b]2.00	T.	T.	0.40	T.	T.	T.	0.03	.....
Sodaville	4,665	0.23	0.20	0.21	0.58	2.16	0.00	0.12	0.14	0.74	0.01	0.17	0.16	4.72
Spring Valley	.....	.....	.....	.....	.....	0.21	.....	T	0.07	.....	.....	.....	.....	.....
Tecoma	4,812	0.31	0.18	0.22	2.50	1.00	2.00	0.00	0.00	T.	0.00	0.76	0.55	7.52
Toano	5,975	1.39	0.47	0.72	1.50	4.04	2.38	0.20	0.30	T.	0.20	1.25	0.64	13.09
Tuscarora	6,400	.....	0.73	0.84	0.19	.....	0.57	0.22	0.07	0.21	0.39	3.10	0.20	.....
Tybo	6,500	0.78	0.15	0.47	0.90	4.15	T.	0.00	0.75	0.05	T.	0.20	0.24	7.69
Verdi	4,895	0.50	0.91	0.24	0.10	0.91	0.35	0.00	0.10	0.19	0.05	0.20	0.36	3.91
Wadsworth	4,077	0.83	0.05	0.60	0.30	1.37	0.00	0.00	0.07	0.18	0.22	0.58	0.09	4.29
Wells	5,628	1.15	0.72	1.02	0.78	1.41	0.26	0.18	0.48	0.20	0.28	1.89	0.62	8.99
*Winnemucca	4,340	0.64	0.43	0.75	0.32	1.59	0.12	0.02	0.09	0.25	0.56	1.26	1.05	7.08
New Hampshire.														
Alstead	1,150	5.19	4.76	0.84	3.58	4.30	3.05	2.16	7.40	5.34	4.89	7.31	2.96	51.78
Berlin Mills	1,100	2.62	8.16	0.84	2.90	1.42	5.30	4.28	4.25	5.38	3.24	3.72	1.86	43.97
Bethlehem	1,470	2.85	5.36	1.44	3.09	2.83	5.10	2.55	7.13	5.12	4.32	4.07	2.23	46.09
Brookline	.....	3.82	3.57	1.51	5.70	3.55	4.49	2.77	5.09	2.30	7.40	6.65	3.55	50.40
Claremont	600	5.25	4.20	1.95	3.81	3.37	1.66	0.81	4.13	2.42	4.86	4.64	.....	.....
Concord	354	4.94	4.26	0.84	4.24	2.92	3.10	1.31	4.74	5.89	5.56	5.96	2.26	46.02
Durham	88	3.59	3.03	1.79	5.37	3.79	2.14	1.76	5.92	3.57	7.62	5.17	2.47	46.22
Grafton	863	4.34	3.97	0.79	3.24	2.67	.....	.....	.....	.....	.....	4.21	1.93	.....
Hanover	603	4.89	3.99	1.17	2.82	2.71	4.30	1.20	3.94	4.53	3.56	3.71	1.40	38.22
Keene	500	4.68	3.22	0.97	3.58	4.58	3.41	1.25	4.87	3.27	6.67	5.05	2.45	44.00
Lancaster	1,100	3.69	3.56	1.97	.....	.....	3.89	2.05	4.58	4.48	2.85	2.81	.....	.....
Littleton	817	4.42	3.02	1.39	0.90	1.46	5.36	1.98	7.30	4.57	3.15	2.94	1.75	38.24
Nashua	125	5.84	4.57	1.47	4.74	2.92	3.25	5.04	6.56	1.81	6.57	5.32	3.05	51.14
Newton	.....	6.12	3.61	1.15	5.97	4.22	3.46	1.68	6.36	2.37	7.63	5.53	2.84	50.94
North Conway	575	6.00	6.33	0.30	2.45	2.55	3.60	.....	0.70	3.35	5.64	3.72	3.05	.....
Peterboro	724	6.82	4.09	0.57	3.93	4.59	3.69	1.61	6.05	2.99	7.09	6.22	3.82	51.47
Plymouth	500	5.38	3.56	1.26	2.83	2.90	2.92	2.31	5.29	4.47	3.98	3.64	1.72	40.26
Sanbornton	830	4.74	3.04	0.79	3.25	3.40	4.08	2.97	3.91	4.35	5.19	4.30	2.97	42.99
Stratford	950	3.12	2.28	1.50	2.13	2.10	3.97	2.46	5.53	6.27	3.40	2.29	1.37	36.42
Warner	498	5.28	4.76	1.11	4.94	4.12	3.99	1.93	7.99	7.08	7.30	6.19	2.39	57.08
New Jersey.														
Asbury Park	22	3.97	4.43	4.12	3.27	6.68	1.73	11.72	6.41	1.49	5.75	8.52	3.13	61.22
*Atlantic City	53	3.39	1.86	2.56	2.67	5.17	2.49	2.23	3.99	1.81	4.60	5.51	2.40	38.68
Barnegat	36	3.47	.....	3.54	3.64	5.63	.....	.....	2.70	1.52	5.25	5.94	3.54	.....
Bayonne	50	4.30	4.59	3.18	3.79	6.35	1.88	4.28	3.57	1.56	5.82	6.75	2.88	48.95
Belvidere	289	4.33	3.07	2.94	3.64	7.81	2.29	4.69	8.40	1.61	5.62	5.70	3.25	53.35
Bergen Point	.....	4.92	5.30	3.77	4.28	6.75	1.86	5.25	3.94	2.18	7.35	8.18	3.52	57.30
Beverly	30	4.75	3.08	3.54	3.84	5.70	1.66	2.95	5.32	1.86	5.33	7.73	3.41	49.67
Billingsport	39	3.50	3.43	3.78	3.06	8.03	3.54	3.89	4.81	2.33	5.54	7.55	2.99	52.45
Boonton	413	4.89	4.08	3.08	3.31	7.70	2.13	4.09	4.99	2.00	6.66	6.53	3.66	53.12
Bridgeton	30	3.98	3.81	3.46	3.85	8.12	3.24	5.34	4.16	2.14	6.72	6.02	4.85	55.69
Camden	31	4.17	3.45	3.36	3.29	5.89	1.56	4.78	9.28	1.35	4.48	7.26	3.47	52.34
*Cape May	11	3.06	1.55	3.00	4.81	3.92	2.02	4.13	4.77	3.25	3.94	4.33	2.53	41.31
Cape May C. H	19	3.71	1.80	3.02	4.21	6.70	2.30	3.59	4.22	2.12	3.99	4.99	2.67	43.32
Charlotteburg	719	4.79	3.99	3.48	4.10	7.63	2.12	4.50	5.91	1.78	7.37	5.84	4.27	55.78
Chester	860	4.74	2.54	2.56	3.08	6.26	2.08	4.21	.....	2.17	5.84	6.29	2.58	.....
Clayton	123	2.79	3.37	2.56	2.88	5.80	1.74	2.95	4.11	2.24	6.72	6.27	4.21	45.64
College Farm	100	4.13	3.49	3.22	4.37	7.86	1.13	3.91	6.44	1.46	5.80	7.34	3.16	52.31
Deckertown	442	4.43	3.42	3.17	3.61	7.06	2.52	2.79	7.53	2.26	4.41	5.26	2.38	49.84
Dover	575	4.96	3.11	3.06	3.21	6.77	1.29	3.71	5.17	2.69	5.58	6.29	2.67	43.51
Egg Harbor City	63	3.37	2.54	3.96	3.20	5.57	2.58	5.82	4.97	1.69	7.35	6.65	4.41	52.11
Elizabeth	33	4.70	3.55	4.19	4.66	7.42	1.96	4.17	3.80	3.14	7.29	7.46	3.63	55.97
Englewood	45	5.90	4.59	3.10	3.78	8.87	1.35	5.66	5.88	0.89	8.42	6.95	4.07	59.46
Flemington	187	.....	.....	3.01	3.64	8.58	1.85	6.27	5.61	2.36	4.30	7.05	3.29	.....
Franklin Furnace	580	3.71	3.50	2.62	2.17	7.19	2.89	5.61	6.16	1.43	.....	.....	.....	.....
Freehold	187	3.32	5.08	3.93	3.83	7.97	1.29	7.07	6.82	1.43	6.79	7.75	3.77	69.05
Friesburg	143	3.50	3.27	2.79	3.02	6.01	1.80	3.58	6.40	3.87	4.93	5.92	3.65	48.74
Gillette	400	4.42	3.48	3.20	3.84	7.43	1.65	6.15	4.30	1.03	5.16	.....	3.63	.....
Hammonton	80	3.33	2.74	3.41	3.42	5.16	1.77	4.80	4.66	2.35	5.85	6.06	3.45	47.00
Hanover	213	3.84	3.51	3.50	4.29	7.10	3.39	3.94	5.08	1.34	5.60	6.38	3.64	51.61
Hightstown	85	4.71	3.12	3.72	4.26	6.52	1.60	4.87	6.02	2.73	4.89	7.55	4.23	54.52
Imlaystown	106	4.20	2.98	4.88	3.17	7.16	1.38	5.51	6.88	2.18	4.65	6.91	3.38	53.28
Junction[1]	508	4.61	3.31	3.73	3.50	9.13	2.76	4.88	4.65	.....	.....	.....	.....	.....
Lambertville	81	4.44	3.05	3.45	3.56	[7.61]	0.96	3.06	5.44	1.50	5.16	7.29	3.07	48.59
Lebanon	298	.....	.....	.....	.....	.....	.....	.....	.....	2.21	5.37	6.94	4.20	.....
Moorestown	71	4.76	3.46	3.40	3.69	6.60	1.86	4.01	5.04	1.66	5.42	9.07	4.00	52.97
Newark	140	4.99	4.33	3.65	4.70	6.86	2.12	3.85	4.06	1.63	7.18	7.43	3.52	54.32
New Brunswick	61	4.47	3.72	3.22	4.54	8.23	1.21	5.42	6.52	1.53	5.83	7.69	3.57	55.98
Newton	678	4.62	3.24	3.04	3.22	9.11	2.13	4.39	7.31	0.65	4.33	5.33	[b]1.26	48.63
Ocean City	12	3.35	2.13	3.26	4.54	5.68	2.95	5.28	4.51	2.09	6.32	5.40	3.32	48.83
Oceanic	16	5.04	5.44	3.79	3.16	9.07	1.87	6.70	6.66	1.26	6.83	7.43	3.38	60.63
Paterson	110	4.81	5.45	3.47	3.79	7.44	2.34	3.70	4.57	1.48	6.23	6.74	4.01	54.03
Perth Amboy	61	4.39	4.01	3.73	.....	.....	.....	.....	6.65	1.53	5.54	8.26	3.32	.....

[1] Observer moved 11 miles east to Lebanon.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New Jersey—Continued.														
	Feet.													
Plainfield	100	4.90	3.88	3.66	4.82	8.54	2.27	5.42	4.91	2.87	5.77	6.93	3.43	57.40
Port Norris	8	.....	2.35	2.76	1.34	.....	.....	.....	.....	.....	.....	.....	[d]1.88	.....
Rancocas	68	4.56	2.94	3.25	3.31	5.56	2.08	4.38	5.25	2.03	5.60	8.50	3.80	51.26
Rivervale	70	4.69	3.32	2.59	4.94	8.21	1.24	4.78	5.07	2.29	4.59	7.68	3.79	53.19
Roseland	369	4.84	4.36	3.65	4.01	7.47	3.36	4.44	6.40	1.30	6.72	6.99	3.79	57.33
Salem	16	.....	.....	.....	3.75	4.31	1.84	5.24	[e]6.72	[b]3.69	5.60	6.44	4.44	.....
Somerville	76	4.35	3.16	3.23	4.41	7.61	2.14	6.57	5.69	2.13	4.96	7.52	3.52	55.29
South Orange	187	4.32	3.86	3.95	4.61	6.40	2.43	5.26	3.51	1.11	6.39	7.39	3.39	52.62
Staffordville	29	3.48	3.90	4.25	3.60	7.40	1.78	9.47	3.36	2.93	4.98	6.64	3.75	55.54
Toms River	33	4.02	4.88	3.88	3.93	7.82	2.56	8.75	8.58	3.21	6.10	7.15	4.10	64.98
Trenton	60	4.50	3.10	3.06	3.57	6.83	1.62	3.19	7.08	1.35	5.33	6.72	3.86	50.21
Tuckerton	.....	.....	.....	.....	.....	5.73	1.83	3.59	2.80	2.05	6.14	.....	.....	.....
Vineland	118	3.65	2.21	3.11	2.67	6.29	2.59	5.42	3.77	2.11	5.83	5.19	3.37	46.21
Woodbine	43	3.26	2.55	3.90	2.75	6.00	2.34	6.16	5.56	2.46	5.14	5.95	3.37	49.44
New Mexico.														
Albert	4,700	0.22	0.00	0.07	1.04	1.30	2.35	4.52	1.58	0.58	0.07	0.60	2.18	14.51
Albuquerque	5,008	0.58	0.54	0.34	0.33	0.12	1.00	1.25	0.60	0.28	0.15	0.50	0.70	6.39
Alma	5,500	2.24	0.27	0.83	1.40	0.04	0.85	4.00	3.54	1.53	0.00	1.05	1.51	17.26
Aztec	5,590	0.67	0.14	0.73	1.31	0.90	1.19	2.47	0.89	T.	0.00	0.42	1.44	10.16
Bernalillo	5,260	0.52	0.48	0.37	0.57	0.02	0.41	0.90	1.38	T.	0.12	0.30	0.75	5.82
Bluewater	6,200	0.20	0.10	0.00	0.75	0.20	0.90	3.72	1.00	0.00	0.00	0.80	0.40	8.07
Buckmans	8,500	1.28	0.42	0.60	1.34	0.49	1.98	4.12	1.11	0.12	0.64	1.19	1.22	14.51
Clayton	5,178	0.40	0.05	T.	1.27	2.07	3.15	2.44	2.30	0.90	0.07	0.55	0.85	14.05
Deming	4,315	.....	T.	1.42	0.30	0.00	T.	1.66	1.73	0.21	0.00	0.10	0.60	.....
East Lasvegas	6,450	0.51	0.21	0.49	1.41	1.04	2.74	4.63	2.97	1.29	0.33	0.57	0.80	16.99
Eddy	3,122	0.15	0.20	0.55	0.70	1.25	5.51	4.35	1.61	0.60	0.00	0.30	1.70	16.92
Engle	4,750	T.	0.00	0.12	0.93	T.	1.78	3.65	4.40	0.70	0.00	1.50	1.30	14.38
Espanola	5,590	0.45	0.00	0.22	1.04	T.	0.56	2.22	1.32	0.22	0.60	0.55	0.60	7.78
Folsom	6,000	1.20	0.14	0.12	1.56	2.03	2.67	3.48	0.96	1.08	1.45	0.54	2.62	17.85
Fort Bayard	6,040	1.25	0.00	0.96	0.57	0.00	2.37	6.56	2.45	1.05	0.00	0.30	0.70	16.21
Fort Union	6,750	0.39	0.60	0.02	2.17	0.49	3.20	5.74	3.75	1.35	0.35	[e]0.63	1.50	20.19
Fort Wingate	6,649	0.66	0.30	0.46	0.20	0.18	1.78	3.83	2.23	0.21	0.00	2.60	1.44	13.89
Galisteo	6,074	0.75	0.50	0.00	0.05	0.00	1.36	3.41	2.23	0.30	0.00	0.20	0.50	9.30
Gallinas Spring	5,272	0.29	0.12	0.22	1.70	0.38	1.82	4.00	0.80	0.70	T.	0.97	1.13	12.13
Gila	4,040	1.83	0.08	1.58	1.04	0.22	1.39	3.18	2.48	1.16	T.	0.74	1.52	15.22
Hillsboro	5,100	0.67	0.13	0.59	0.48	1.34	0.08	3.31	2.23	0.34	0.00	0.57	0.80	10.54
Laluz	4,750	0.63	0.17	0.54	0.67	T.	3.13	6.30	4.77	1.53	T.	0.52	0.97	19.23
Las Vegas Hot Springs	6,767	.....	.....	.....	.....	.....	3.10	5.90	1.81	1.29	0.15	0.68	1.38	.....
Lordsburg	4,245	0.50	0.00	0.75	0.16	0.00	0.33	2.33	0.17	0.16	0.00	0.60	0.66	5.66
Los Lunas	4,900	1.30	0.85	0.30	0.75	0.15	.....	.....	.....	.....	0.00	1.00	0.87	.....
Lower Penasco	5,250	0.60	0.25	0.10	1.65	0.70	1.80	7.40	4.00	1.15	T.	0.30	2.40	20.35
Mesilla Park	3,500	0.38	0.02	0.26	0.69	T.	1.83	2.18	2.43	1.74	T.	0.43	1.25	11.21
Mescalero	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monero	7,356	0.74	0.13	0.61	1.93	1.16	1.42	4.49	0.85	0.30	0.11	0.55	0.76	13.05
Puerto de Luna	5,350	[k]0.10	0.00	0.30	0.78	T	2.04	5.41	[0.99]	1.56	0.10	0.75	1.95	13.98
Raton	6,400	0.20	T	0.00	0.49	1.57	3.00	4.00	3.00	0.11	1.00	0.40	0.20	13.97
Rincon	4,030	0.62	0.00	0.15	0.55	0.15	1.55	3.62	2.63	0.90	0.23	T	0.73	11.13
Roswell	3,570	0.26	0.86	T	0.34	1.03	6.05	6.53	2.99	0.69	T	0.50	1.37	20.62
San Marcial	4,554	.....	.....	0.03	0.65	T	1.42	1.62	.....	0.65	0.03	0.58	1.13	.....
*Santa Fe	6,998	0.97	0.30	0.88	1.37	0.22	1.53	2.31	4.00	0.18	0.54	0.27	0.40	12.97
Shattucks Ranch	6,000	0.88	0.73	1.14	0.91	1.39	.....	4.00	.....	.....	0.23	0.78	2.27	.....
Socorro	4,690	0.78	0.44	0.92	.....	.....	.....	.....	.....	.....	0.04	0.69	0.55	.....
Whiteoaks	6,470	2.21	0.41	1.32	1.04	0.00	5.21	5.60	3.54	1.24	0.75	0.25	0.90	22.47
Winsors Ranch	8,000	2.43	0.90	0.71	1.30	0.82	2.35	5.10	3.27	1.41	1.10	1.55	2.25	23.19
New York.														
Adams	585	3.63	1.23	1.15	2.28	2.84	2.15	.....	4.23	2.92	6.43	3.14	4.04	.....
Addison	1,000	3.91	1.80	2.30	2.51	4.12	3.67	2.16	2.92	1.31	5.99	2.13	2.15	34.97
Akron	765	4.65	2.36	1.75	1.76	2.46	2.25	3.15	.....	3.51	3.75	3.17	2.31	.....
*Albany	85	2.96	3.57	1.08	2.63	4.07	5.58	1.07	6.67	1.61	4.29	4.22	1.02	38.77
Alden	864	3.80	1.84	2.26	2.05	2.46	2.34	0.80	2.88	3.62	3.69	3.70	.....	.....
Alfred	1,795	.....	1.46	3.82	2.50	3.27	3.80	2.55	6.21	1.13	5.12	2.99	2.80	.....
Angelica	1,340	3.16	1.41	3.39	2.72	3.51	5.28	1.79	8.87	1.93	4.76	3.00	2.58	42.40
Appleton	301	3.23	1.77	1.22	1.41	1.81	3.35	1.05	2.10	3.78	4.34	2.74	2.26	29.06
Arcade	1,707	4.29	1.66	2.97	2.90	4.62	6.17	2.98	6.20	4.77	5.31	3.79	3.15	48.81
Atlanta	.....	3.35	2.09	1.98	2.89	2.92	4.29	3.83	5.76	1.96	5.02	3.35	2.91	40.35
Auburn	650	3.89	2.71	2.31	2.94	5.24	3.72	1.32	6.61	5.30	4.52	3.65	2.50	44.71
Avon	585	1.98	1.51	1.93	1.46	2.27	3.73	2.09	.....	3.12	4.76	2.72	1.33	.....
Baldwinsville	390	4.50	1.51	1.52	2.23	3.84	.....	1.59	5.98	3.35	4.85	3.31	3.13	.....
Bedford	290	4.46	3.69	2.36	3.63	9.12	1.48	4.88	7.91	1.55	6.16	6.16	2.91	54.26
*Binghamton	875	2.86	2.51	2.31	2.79	4.02	2.16	2.05	6.48	2.70	5.79	3.15	1.45	38.27
Binghamton	875	3.93	2.71	2.99	3.37	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolivar	1,800	3.91	1.76	5.36	2.90	3.46	5.12	.....	6.28	1.27	4.97	3.40	2.04	.....
Bouckville	.....	5.30	3.60	2.39	4.39	4.43	2.57	2.63	6.39	3.74	6.49	3.32	3.25	48.50
Boyds Corners	.....	4.68	5.21	2.64	3.84	7.37	1.50	4.78	7.66	2.17	4.84	6.81	3.17	54.67
Brentwood	80	6.10	4.30	5.25	5.90	11.50	0.79	7.40	5.50	2.20	8.20	8.90	3.25	69.20
Brooklyn	107	5.10	.....	3.23	4.36	7.44	.....	.....	.....	.....	.....	.....	.....	.....
*Buffalo	690	4.51	2.97	1.97	1.37	1.66	2.14	1.20	2.65	3.04	4.49	3.98	3.52	33.50
Canajoharie	306	3.14	2.22	1.01	2.98	3.54	2.55	2.69	6.16	1.74	5.51	3.99	1.42	36.95
Canton	304	6.76	3.13	1.47	1.47	2.69	3.93	1.96	6.00	6.63	4.35	2.01	2.52	42.92
Carmel	450	4.97	4.64	2.43	3.78	7.13	1.23	3.80	12.87	2.38	4.69	6.51	3.31	57.74
Carvers Falls	.....	.....	.....	.....	2.67	2.98	3.57	1.73	5.95	2.77	4.00	3.39	1.59	.....
Catskill	450	4.46	4.74	1.16	3.08	4.39	3.30	3.42	6.50	3.77	6.32	.....	2.24	.....
Cedarhill	.....	3.35	3.28	1.17	2.83	4.90	4.16	1.42	6.51	1.29	5.26	4.01	0.91	39.69
Charlotte	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chenango Forks	1,188	.....	.....	1.00	3.45	3.56	2.75	2.18	8.35	2.40	5.00	3.70	.....	.....
Cherry Creek	.....	6.19	3.56	2.78	3.10	5.03	5.51	2.86	4.46	2.17	6.41	5.27	4.03	51.37
Cooperstown	1,250	4.90	2.93	2.14	4.00	4.70	3.80	3.02	9.75	4.20	5.36	4.64	2.44	51.88
Cortland	1,220	4.74	2.39	2.07	3.43	4.96	2.80	3.11	9.44	3.46	6.27	3.10	2.61	48.41

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New York—Continued.	*Feet.*													
Dekalb Junction	441	4.76	1.85	1.46	1.22	3.62	3.18	2.80	4.24	6.06	4.32	2.08	2.13	37.72
Dryden	1,081	.....	.....	.....	3.58	3.59	2.50	5.58	5.47	2.95	5.21	.....	3.02	.....
Eagle Mills	.....	2.84	2.15	1.35	2.40	.....	.....	.....	.....	.....	.....	3.30	.....	.....
Easton	1,302	4.02	2.98	2.38	2.85	.....	.....	.....	.....	.....	8.94	4.04	1.24	.....
Elizabethtown	.....	4.40	5.10	1.35	.....	.....	.....	2.91	3.25	1.65	.....	.....	.....	.....
Elmira	863	2.45	1.45	2.53	2.84	4.29	3.43	2.24	4.70	1.78	4.49	2.24	2.25	34.69
Fayetteville	538	2.76	.....	.....	.....	.....	2.14	1.50	7.42	4.61	2.92	3.25	2.15	.....
Fleming	1,000	1.33	1.11	1.42	2.29	3.18	2.48	1.97	4.15	3.55	3.64	2.21	1.80	29.13
Fort Niagara	263	2.49	1.42	0.87	1.47	2.24	3.15	2.10	.....	.....	3.82	2.33	1.47	.....
Franklinville	1,588	4.78	1.98	3.50	3.32	3.48	4.79	3.24	7.99	2.51	5.46	4.02	2.64	47.71
Fulton	318	3.71	1.03	1.86	1.04	3.15	.....	.....	.....	4.02	4.21	3.06	1.33	.....
Garrattsville	.....	5.34	1.75	0.61	2.26	4.70	.....	3.20	10.14	.....	5.39	.....	.....	.....
Glens Falls	340	5.03	3.83	0.79	.....	.....	.....	1.64	7.02	3.42	5.28	3.59	.....	.....
Gloversville	850	6.90	3.33	3.04	4.19	6.45	5.14	4.73	6.90	3.16	5.52	4.64	2.62	56.62
Greenwich	.....	5.22	2.83	1.57	3.07	3.48	2.80	1.52	6.81	5.11	4.75	3.53	1.83	42.58
Haskinville	.....	2.29	1.41	1.98	2.71	3.33	3.95	4.77	4.31	1.77	5.81	2.97	1.37	37.17
Hemlock Lake	.....	.....	.....	.....	.....	.....	3.52	2.57	4.86	2.43	3.56	2.56	2.24	.....
Honeymead Brook	450	4.92	2.32	2.56	3.63	7.14	2.73	2.78	7.35	5.61	3.98	4.71	2.14	49.87
Humphrey	1,950	4.57	2.47	3.87	3.22	3.62	6.87	2.59	9.21	3.22	6.04	3.15	2.82	51.65
Ithaca	810	2.21	1.59	1.63	3.58	4.55	3.01	4.17	4.42	3.15	5.87	3.15	2.22	39.55
Jamestown	1,328	5.55	4.54	3.64	3.39	4.61	5.01	2.18	7.21	2.15	4.90	4.70	4.84	52.72
Keene Valley	.....	7.20	2.80	2.30	2.85	2.20	2.50	4.04	4.25	3.56	3.86	2.53	1.75	39.84
Kings Station	1,324	5.25	5.53	1.74	3.41	5.12	3.24	2.55	9.64	3.22	4.82	4.60	5.67	54.79
Lake George	.....	5.36	7.41	1.17	2.96	5.02	3.35	4.64	7.37	3.16	.....	3.54	1.59	.....
Lake Placid	.....	3.23	2.50	2.04	2.93	3.60	4.82	5.24	.....	.....	.....	2.85	2.70	.....
Liberty	1,293	.....	.....	.....	3.21	7.98	3.47	8.90	8.05	2.85	4.42	3.64	.....	.....
Little Falls	384	4.42	2.25	2.79	2.96	3.97	4.52	3.02	5.24	3.53	4.28	3.10	2.57	42.65
Lockport	650	3.50	3.65	1.37	1.80	2.32	2.88	1.65	4.09	4.36	4.38	1.21	1.70	32.91
Lowville	900	4.32	2.10	1.63	2.24	2.78	2.57	1.60	3.61	2.92	5.07	3.41	4.54	36.79
Lyndonville	323	2.28	0.70	1.43	1.33	2.10	2.32	1.35	2.54	3.36	3.16	2.63	1.83	25.03
Lyons	407	4.62	1.63	2.37	1.99	3.57	2.86	2.96	5.58	3.09	4.38	3.00	1.94	37.99
Madison Barracks	266	2.64	2.08	0.65	1.17	.....	2.50	0.60	2.65	1.35	2.75	.....	2.40	.....
Middletown	700	.....	5.09	3.59	3.86	4.86	3.84	6.45	9.63	1.74	4.82	4.99	3.82	.....
Milford	.....	.....	.....	.....	.....	3.05	3.09	4.83	.....	3.23	5.51	.....	.....	.....
Mohonk Lake	1,245	5.07	5.00	2.93	2.66	4.28	2.07	.....	8.19	.....	.....	.....	.....	.....
Mount Morris	525	2.85	1.40	.....	1.80	2.63	2.40	0.40	4.56	1.55	3.00	1.74	1.60	.....
Napoli	.....	4.99	2.71	3.32	2.46	5.17	6.02	5.06	6.99	.....	.....	.....	.....	.....
Newark Valley	966	4.04	2.04	2.26	3.72	5.48	3.27	3.62	8.18	2.33	6.69	3.11	2.37	47.11
New Lisbon	1,234	4.37	2.13	1.68	2.77	3.92	3.04	6.50	7.38	4.95	7.19	3.64	1.48	49.05
*New York	314	3.95	4.06	2.92	3.23	5.55	1.28	4.76	3.12	1.28	6.14	5.90	2.93	45.12
Niagara Falls	574	3.63	2.49	1.46	1.64	2.77	2.55	1.14	4.21	6.41	4.06	3.00	3.03	36.39
North Hammond	300	2.57	2.75	2.08	1.44	3.08	2.03	0.68	5.06	4.41	4.42	1.53	1.37	31.42
North Lake	.....	7.13	2.82	2.79	3.47	4.87	4.56	4.00	5.31	5.35	5.77	4.42	6.19	56.68
Number Four	1,571	5.55	3.12	2.14	3.27	3.71	2.77	2.19	6.56	5.17	6.78	3.49	7.44	52.19
Nunda	1,336	3.85	1.55	.....	3.85	5.45	6.78	1.89	7.29	2.05	4.00	3.63	2.33	.....
Ogdensburg	258	2.82	1.86	1.59	0.83	2.44	2.82	4.20	4.06	3.06	3.13	0.94	1.05	28.80
Oneonta	1,100	3.62	3.66	3.01	3.42	5.00	5.13	2.39	13.05	4.19	7.36	5.06	1.75	57.64
*Oswego	335	5.16	2.61	2.08	2.32	4.14	1.12	3.23	3.27	4.40	5.53	3.33	3.25	40.44
Oxford	550	4.76	3.11	2.75	4.90	3.90	3.58	3.41	9.82	4.99	7.08	4.58	3.35	56.23
Palermo	460	2.91	2.50	1.26	1.75	4.10	1.20	1.60	2.93	4.08	5.14	3.25	2.25	32.97
Penn Yan	756	2.57	1.40	1.61	2.23	2.66	3.35	2.08	4.16	1.38	5.53	2.63	2.15	31.75
Perry City	1,038	2.47	1.68	1.85	3.64	3.36	3.47	1.82	4.68	2.12	6.26	3.90	2.35	37.60
Phœnix	.....	4.50	1.60	1.83	3.09	4.14	2.51	2.69	5.26	4.20	4.54	3.80	3.20	41.36
Pine City	.....	3.47	1.22	2.65	2.99	3.46	3.59	2.64	6.05	1.35	4.73	1.43	2.90	36.48
Plattsburg Barracks	125	.....	.....	1.29	1.95	1.70	2.62	2.09	5.82	3.37	3.70	3.08	2.07	.....
Port Jervis	470	4.21	4.33	2.95	3.23	7.15	4.15	4.51	7.08	2.14	5.04	5.48	2.27	52.54
Poughkeepsie	180	5.27	3.22	2.43	2.96	4.74	1.53	3.20	8.85	2.21	3.18	4.78	2.14	44.51
Primrose	.....	3.83	2.45	2.92	4.09	7.91	1.23	5.40	5.82	1.01	7.40	5.47	2.63	50.21
Ridgeway	.....	3.69	1.66	1.30	1.65	1.96	3.02	1.35	4.88	3.80	3.46	3.20	2.34	32.31
*Rochester	523	5.24	3.08	2.34	1.72	2.94	0.89	2.03	5.05	3.36	4.30	3.54	3.01	37.50
Rome	445	5.44	2.38	3.45	4.19	3.82	3.76	4.18	10.98	3.95	3.80	.....	3.47	.....
Romulus	719	4.05	1.81	1.90	3.60	4.31	3.42	2.42	4.97	2.03	8.19	4.48	2.01	43.19
Rose	386	5.90	2.43	2.22	2.32	3.63	1.26	2.07	7.58	3.33	4.90	3.56	1.49	40.69
St. Johnsville	319	5.19	2.48	2.27	3.82	3.88	4.14	5.83	6.11	3.80	5.42	4.29	2.56	49.79
Saranac Lake	1,606	3.39	2.48	1.25	2.56	3.23	4.06	3.16	4.79	4.05	3.50	2.76	1.93	37.16
Saratoga Springs	.....	.....	5.10	1.78	2.72	4.49	3.08	2.30	6.39	3.05	5.28	4.20	1.91	.....
Scottsville	563	.....	.....	.....	1.88	3.46	1.07	1.05	4.16	4.00	3.08	.....	.....	.....
Setauket	.....	4.00	4.82	3.40	4.90	8.30	0.62	7.81	6.56	1.85	7.08	6.28	2.38	58.00
Sherwood	719	2.67	1.53	1.71	2.57	3.15	3.70	2.50	6.18	3.45	6.57	3.48	1.87	39.38
Skaneateles	.....	3.69	2.10	2.58	3.63	5.28	3.50	1.91	6.17	5.53	5.20	3.95	3.12	46.66
South Canisteo	1,480	3.90	2.09	4.53	3.35	3.87	2.90	1.75	4.45	2.28	4.80	3.33	2.62	39.87
Southeast Reservoir	.....	4.60	4.18	2.89	3.50	7.89	1.39	3.52	13.94	2.23	4.63	6.34	3.17	58.28
South Kortright	1,700	2.84	2.38	1.82	2.54	4.06	3.70	2.56	8.21	2.98	5.23	3.88	1.87	42.07
Straits Corners	.....	3.14	1.98	2.71	4.02	4.35	3.66	2.40	7.15	2.57	5.63	3.07	1.84	42.52
Ticonderoga	277	6.66	4.88	0.82	1.98	2.02	3.08	2.49	4.40	2.54	3.04	2.07	1.43	35.41
Victor	.....	3.15	3.04	.....	3.38	4.08	2.41	.....	.....	.....	.....	.....	.....	.....
Wappingers Falls	.....	5.17	4.51	3.62	5.16	7.65	2.47	3.68	7.75	2.48	3.42	5.74	2.45	54.10
Warwick	502	2.74	2.81	2.26	3.32	7.56	2.59	5.30	6.86	1.11	4.30	5.21	2.46	46.52
Watertown	486	5.65	3.08	1.79	2.07	3.41	1.66	1.54	4.52	3.68	4.31	3.02	5.65	40.38
Watkins	451	.....	2.02	1.59	2.05	2.72	2.14	*2.87	.....	.....	.....	.....	.....	.....
Waverly	825	2.65	1.70	2.43	3.55	3.86	2.28	2.97	5.82	1.87	5.85	2.55	2.75	38.28
Wedgwood	1,350	2.73	1.88	2.62	2.91	3.40	2.72	3.48	4.73	1.86	5.95	2.73	1.98	36.99
West Berne	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.18	4.88	5.19	3.10	.....
Westfield	758	2.56	2.60	2.78	2.74	4.19	6.17	2.68	2.46	2.46	4.31	2.85	3.29	39.09
Westpoint	167	4.80	3.60	2.48	3.72	7.51	1.85	3.80	9.08	1.37	4.82	6.20	2.41	51.73
Willets Point	405	5.13	4.02	4.14	4.42	8.11	1.13	7.85	4.94	1.40	5.91	6.18	3.87	57.10
North Carolina.														
Ashers	.....	3.02	0.80	4.14	2.68	2.95	2.25	8.43	10.01	8.32	8.13	3.19	4.40	58.32
*Asheville	2,250	3.60	0.37	2.95	3.42	3.04	6.00	6.07	.....	6.05	5.99	1.87	2.51	.....
Beaufort	12	2.28	1.20	3.23	3.92	1.71	5.57	5.57	10.54	0.90	13.71	4.14	4.47	57.24

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
North Carolina—Continued.														
	Feet.													
Biltmore	2,150	3.28	0.57	3.03	3.52	2.49	4.34	6.68	6.90	6.09	5.49	1.91	2.59	46.89
Bryson City	2,000	6.40	1.17	7.28	5.40	2.27	2.60	6.26	8.60	9.15	6.46	3.66	2.55	61.80
Chapelhill	500	1.85	1.03	5.30	3.11	3.15	2.66	6.38	14.48	4.74	4.39	2.98	2.07	52.14
*Charlotte	808	2.08	0.81	5.83	2.71	2.08	3.79	4.82	8.74	4.04	3.63	2.42	2.12	43.07
Edenton	30	2.79	1.38	3.66	5.23	10.03	4.53	6.38	6.81	3.36	6.13	3.84	3.40	57.54
Experimental Farm	439	1.92	0.54	4.61	3.21	5.83	3.39	5.59	5.32	3.67	3.28	2.65	1.34	41.35
*Fairbluff	67	1.40	0.93	3.28	6.17	1.91	2.27	6.67	16.23	1.64	3.47	5.44	2.78	52.19
*Fayetteville	170	2.19	1.02	2.93	4.75	1.59	5.53	5.97	7.46	2.43	2.70	4.95	2.86	44.38
*Flatrock	2,214	5.35	0.67	5.17	3.90	3.77	3.66	13.73	11.35	9.67	12.03	3.98	5.11	78.39
*Goldsboro	120	.....	.....	.....	.....	3.36	2.53	1.97	9.32	2.07	4.42	.....	.....	.....
*Greensboro	843	1.96	0.76	4.42	2.68	6.35	2.94	2.71	3.30	2.30	5.34	2.45	2.67	37.88
Greenville	75	1.86	0.59	2.42	.....	.....	1.15	.....	.....	.....	.....	.....	.....	.....
*Hatteras	11	2.21	1.75	2.45	4.39	1.79	3.27	4.36	6.48	1.59	12.45	4.08	3.38	48.20
Henderson	490	2.14	0.87	4.40	3.58	7.64	4.11	5.68	7.74	1.72	2.66	3.40	2.39	46.33
Hendersonville	.....	.....	.....	.....	.....	.....	5.71	11.21	8.61	7.81	11.64	3.08	3.95	.....
Highlands	3,817	6.09	1.42	11.30	5.83	3.54	1.68	15.97	16.14	11.21	17.90	8.47	5.69	105.24
Horse Cove	2,800	5.78	1.50	8.39	5.39	1.62	2.01	17.14	16.93	11.16	18.42	6.32	5.31	99.97
*Kittyhawk	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lenoir	1,186	3.21	0.76	4.65	2.33	5.02	3.20	9.39	5.26	8.00	7.67	3.32	4.52	57.33
Linville	3,800	4.38	0.90	3.71	3.03	2.65	4.58	9.29	8.48	9.59	18.49	2.54	3.41	71.05
Littleton	380	1.94	0.62	3.93	2.82	5.49	2.93	5.10	4.21	2.50	4.66	3.24	2.71	40.15
Louisburg	375	2.29	0.77	5.06	2.84	6.09	1.63	6.62	8.08	4.31	2.74	2.96	2.00	45.39
*Lumberton	120	1.92	1.12	2.76	6.60	2.02	2.29	7.38	7.98	4.36	2.26	4.97	2.71	46.37
Lynn	1,500	3.67	0.92	4.43	3.52	1.52	.....	.....	.....	.....	.....	.....	.....	.....
Mana	.....	2.18	0.54	2.59	2.78	5.08	1.80	6.87	5.40	5.16	5.14	2.72	2.02	42.28
Marion	1,425	4.52	0.73	4.06	2.81	3.68	3.88	10.07	10.84	9.62	8.07	3.27	5.54	67.09
Mocksville	651	2.52	0.49	4.61	3.49	3.25	3.43	7.66	7.07	3.93	5.73	2.86	3.11	48.15
Moncure	.....	1.75	1.00	4.98	2.90	3.81	1.35	3.81	6.94	4.09	2.68	2.53	1.33	37.17
*Monroe	586	2.34	0.84	4.07	3.16	1.28	3.46	5.10	11.65	4.72	4.72	3.22	1.11	45.67
Morganton	1,135	3.25	0.67	2.97	2.32	3.45	3.51	6.68	7.30	6.41	8.47	[3.00]	4.05	52.68
Mountairy	1,148	3.47	0.40	2.60	2.65	3.89	3.49	7.19	7.17	8.09	5.52	1.94	3.24	49.65
Mount Pleasant	650	2.34	1.18	5.77	3.17	3.97	2.55	9.44	8.01	1.89	3.35	2.37	2.13	46.17
*Murphy	1,614	5.85	0.87	5.46	6.12	1.58	3.75	6.31	9.73	7.37	5.73	3.45	1.09	57.31
*Newbern	12	.....	.....	.....	4.16	4.33	4.91	9.19	6.05	3.87	7.65	3.56	1.48	.....
*Oakridge	1,013	2.42	0.60	3.20	2.88	4.68	2.15	5.82	5.32	5.08	5.57	2.53	3.09	43.34
Pantego	.....	1.95	1.93	2.89	4.45	2.95	5.64	7.50	8.46	3.87	10.15	2.86	2.57	55.22
Patterson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.54	3.13	4.00	.....
Pittsboro	480	1.77	0.62	5.03	3.07	3.30	2.72	6.25	9.25	4.19	3.57	2.54	1.75	44.06
*Raleigh	375	1.81	0.42	4.16	3.05	7.46	3.28	6.48	5.13	3.95	3.00	2.70	1.88	43.35
Rockingham	210	2.44	1.12	3.26	4.07	3.04	4.26	9.47	7.69	2.33	2.41	4.21	1.55	45.85
Roxboro	600	2.15	1.05	3.55	2.51	7.91	5.68	5.49	4.53	2.38	3.69	.....	.....	.....
Salem	1,000	2.20	0.79	3.83	3.52	3.69	2.39	5.89	5.16	4.28	5.69	2.63	3.94	44.01
Salisbury	760	1.86	0.93	5.57	2.82	2.46	2.08	3.96	7.07	0.94	2.60	3.36	1.92	35.57
Saxon	900	2.35	0.45	3.06	3.00	4.62	4.35	5.44	4.64	5.92	5.61	2.31	2.53	44.28
Selma	225	1.68	0.50	3.20	4.50	2.40	3.77	9.15	7.79	3.20	4.90	3.36	4.10	48.55
Settle	.....	2.60	0.55	2.40	2.67	3.25	1.42	5.87	6.45	2.70	4.24	2.10	2.72	36.97
Skyuka	3,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sloan	50	2.40	1.22	4.48	4.82	2.12	7.32	4.77	7.52	1.42	6.23	4.11	3.31	49.72
Soapstone Mount	.....	2.15	0.95	5.42	3.24	2.28	2.51	6.13	8.17	3.83	4.57	3.12	1.81	44.18
Southern Pines[2]	400	1.89	1.37	3.77	4.39	3.12	3.52	8.46	7.44	2.88	5.62	4.15	1.82	48.43
Southern Pines[2]	400	1.98	1.30	3.48	3.61	2.51	2.43	12.46	7.39	2.30	6.10	3.61	1.50	48.67
Southport	34	1.54	2.42	1.94	4.23	0.76	3.24	13.76	7.67	1.70	11.82	5.32	2.60	57.00
Springhope	.....	1.75	0.50	3.71	3.30	4.25	0.70	5.07	[1]4.45	2.50	[3.20]	2.10	3.20	[34.73]
Tarboro	50	2.05	0.90	3.24	3.39	4.43	3.40	8.12	9.54	1.84	4.59	3.40	[b]2.69	47.59
Washwoods	.....	1.88	1.54	3.18	4.50	5.33	.....	4.65	4.90	3.94	6.47	3.03	2.29	.....
Waynesville	2,756	4.36	0.50	5.48	3.95	1.96	3.11	5.02	7.35	3.66	5.45	2.42	2.26	45.52
Weldon	81	2.40	0.79	4.37	3.65	6.14	5.18	5.46	5.08	2.42	3.34	3.18	2.62	44.63
*Wilmington	52	1.40	3.27	1.52	2.40	2.51	4.59	7.03	5.93	1.28	7.56	2.67	2.40	42.56
North Dakota.														
Amenia	954	0.02	0.35	0.44	1.60	3.20	2.51	4.46	2.89	0.77	1.36	[b]0.40	0.19	18.19
Aneta	.....	0.06	.....	.....	0.80	1.53	2.65	1.10	1.60	1.90	.....	.....	.....	.....
Ashley	.....	T.	0.25	0.48	1.54	2.44	0.68	1.35	0.44	*0.58	0.94	0.40	0.30	9.40
Berlin[4]	.....	0.45	0.34	0.49	1.41	.....	1.83	4.32	2.60	0.59	1.34	0.35	0.32	.....
*Bismarck	1,681	0.20	0.48	1.00	1.12	2.65	1.21	1.64	1.35	0.76	2.66	0.16	0.44	13.67
Bottineau	1,638	.....	0.70	0.75	0.55	0.05	3.11	2.34	2.11	1.45	3.80	0.70	0.50	.....
Buxton	930	T.	0.29	0.30	1.15	3.25	4.48	2.75	2.85	1.21	1.09	0.12	T.	17.49
Churchs Ferry	1,453	0.24	0.64	0.55	1.26	2.21	4.20	2.75	3.09	3.40	4.71	0.20	0.14	23.39
Coalharbor	.....	.....	0.46	0.91	1.12	0.99	2.49	1.21	1.90	1.94	2.63	0.08	0.15	.....
Devils Lake	1,467	0.20	1.05	0.43	0.19	1.39	3.50	2.84	1.84	1.52	2.63	0.30	0.20	16.00
Dickinson	2,453	T.	0.20	0.38	1.02	2.00	1.30	1.63	0.77	0.79	2.73	0.30	0.80	11.92
Dunseith	.....	T.	0.40	[a]0.40	.....	.....	.....	1.46	1.50	.....	.....	.....	.....	.....
Ellendale	1,449	T.	0.17	0.73	1.23	2.40	0.94	1.72	1.49	0.15	1.10	T.	0.10	10.03
Fargo	903	0.06	0.10	0.34	0.88	4.15	2.25	2.59	2.84	1.23	1.62	0.08	0.22	16.36
Forman	1,415	0.00	0.17	1.28	1.19	3.31	1.02	3.96	2.37	1.59	[b]1.53	0.45	0.87	17.74
Fort Berthold	.....	0.04	0.40	0.60	0.33	2.04	2.24	3.26	0.04	2.24	2.27	0.94	0.29	14.69
Fort Yates	1,670	0.20	0.45	2.16	2.90	4.05	3.32	2.31	1.50	0.67	1.76	0.06	0.15	19.53
Fullerton	.....	0.02	0.40	0.67	1.35	2.24	1.56	2.68	2.45	0.64	1.74	0.18	0.45	14.38
Gallatin	.....	0.16	0.50	0.65	0.84	2.50	2.80	2.59	1.41	0.42	1.23	0.35	0.41	13.86
Glenullin	2,070	T.	0.20	0.20	0.93	1.42	1.12	2.27	.....	.....	.....	.....	.....	.....
Goetz	.....	T.	0.62	0.77	1.31	0.05	4.22	2.53	0.37	0.63	2.88	0.20	0.11	13.69
Grafton	827	0.05	0.60	0.20	1.10	1.05	4.45	.....	.....	1.89	3.16	0.38	0.25	.....
Hamilton	824	0.39	0.63	1.25	1.71	1.26	6.16	1.96	2.02	3.12	2.89	1.19	0.47	23.05
Jamestown	1,395	0.02	0.05	0.62	1.11	4.02	1.94	3.91	1.60	0.74	.....	.....	.....	.....
Kelso	.....	0.00	0.00	.....	1.36	4.56	5.86	2.19	2.18	1.05	.....	.....	.....	.....
*Langdon	1,610	.....	.....	.....	1.00	1.15	5.36	2.34	2.44	1.42	.....	.....	.....	.....
*Larimore	1,134	T.	0.70	0.30	0.53	2.96	3.62	2.39	1.73	1.58	1.19	0.45	0.05	15.50
*Lisbon	1,091	.....	.....	.....	0.52	3.88	0.93	4.10	4.56	1.00	.....	.....	.....	.....

[1] Record unreliable. [2] S. S. Thomas. [3] A. Rhodes. [4] Name changed from Grand Rapids to Berlin.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
North Dakota—Continued.	*Feet.*													
McKinney		0.05	0.45	2.00	0.87	0.01	3.13	2.29	2.10	0.68	3.35	0.37	0.05	15.35
Mayville	978	0.05	0.13	0.54	2.25	2.84				0.90	0.43			
Medora	2,225	0.00		1.50	2.20	3.40	2.80	0.95	T.	0.82	1.81	0.01	0.25	
Melville		T.	0.25	0.49	0.86	2.33	3.38	2.25		0.67	1.56	0.25	T.	
Milton	1,586	0.30	0.40	0.50	0.88		3.70	2.42	1.70	2.75	6.20	0.90	0.30	
Minnewaukon	1,461	T.	0.24	0.32	1.00	1.08	4.39	2.50	1.90	1.13	3.87	0.13	0.06	16.62
Minot	1,557	0.06	0.60	0.60	1.55	0.05	3.00	0.25	0.05	0.50	1.90	0.20	0.05	8.81
Minto	820	0.10	0.62	0.58	1.08	1.94	4.97	3.25	2.42	2.02	3.54	0.57		
Napoleon		0.65	0.65	0.75	2.67	3.77	2.07	3.55	1.84	0.42	2.58	0.48	0.40	19.83
New England City		0.20	0.90	1.14	3.10	1.59	1.20	2.55	0.50	0.75		0.25	0.20	
Oakdale		0.06	1.00	1.50	1.96	2.16	4.49	2.25	1.35	1.50			0.12	
*Pembina						0.95	5.51	1.36	2.15	2.57				
Portal		0.00	0.40	1.30	0.82	0.82	3.40	1.33	0.74	1.26	2.20			
Power			0.20	0.35	2.81	2.31	2.36	3.39	2.52	0.72	1.10	0.40	0.02	
St. John	1,945	0.10	0.60	1.40	0.63	0.24	3.61	3.28						
Sheyenne	1,480	0.05	0.80	0.66	0.90	2.45			3.80	0.35	3.86	0.08	0.11	
Steele	1,857	0.28	0.30	0.30	1.46	2.08		4.45	1.43	0.30	0.67	T.	T.	
Towner	1,475				0.15	0.85	6.35	3.46	1.65	1.05	3.06			
University	830	0.10	0.86	0.57	4.16	2.32	6.08	3.76	1.35	2.26	1.23	T.	0.50	23.19
Valley City	1,218	0.20	0.30	1.05	1.50	3.94	3.29	2.35	1.56	0.91	1.55	0.68	0.30	17.63
Wahpeton	962	T.	0.65	1.42	1.45	2.09	1.79	6.30	4.05	1.54	2.04	0.66	0.45	22.44
Washburn	1,700	0.10	0.50	0.50	1.85	1.55	2.78	3.38	1.45	1.46	4.01	0.07	0.06	17.71
White Earth	2,087	0.10	0.22	0.45	1.55	0.26	4.00	1.00	0.00					
Whites Ranch			0.33	1.93	0.70	2.73	1.27							
Wildrice	911	0.22	0.68	1.56	2.31	4.24	1.70	3.31						
*Williston	1,875	0.01	0.74	1.25	1.08	1.21	4.56	1.93	0.23	0.99	2.08	0.30	0.06	14.44
Willow City	1,471		0.30	0.40	0.00	0.25	3.68	0.43	0.20	1.50	1.20	0.30	T.	
Woodbridge		0.00	0.06	0.16	0.93	0.15	4.08	2.22	1.52	1.14	2.85	0.22	0.26	13.68
Ohio.														
Akron		4.51	2.76	5.38	2.77	3.96	1.76	3.33	5.65	3.56	4.70	3.89	2.71	44.98
Annapolis		3.26	1.46	5.45	2.32	4.16	2.55	1.80	3.71	3.00	2.87	3.08	1.02	34.68
Ashland		4.89	3.03	5.33	2.57	3.64	2.16	2.51	4.74		4.19	3.76	2.49	
Ashtabula		4.41	2.17	2.37	2.50	2.79	3.84	2.40	3.20	2.44	5.59	4.15	4.64	40.50
Atwater		4.37	2.14	5.37	2.55	4.25	2.60	6.90	5.20	2.26	3.45	2.87	2.49	44.45
Bangorville		5.08	3.09	7.90	3.01	4.94	3.50	3.46	5.02	3.97	3.62	4.62	2.95	51.16
Basil		4.79	3.06	8.82	3.71	4.18		2.81				2.07		
*Bellefontaine		3.26			2.96	4.08	2.53	3.71	4.19	3.03	4.11			
Bement		4.11	3.03	5.72	3.25	3.42	4.84	4.89	3.89	7.31	6.67	4.05	1.87	53.05
Benton Ridge		5.46	2.73	4.48	2.29	4.36	1.39	2.34	4.73	2.75	2.89	2.83	3.51	39.76
Bethany		5.84	1.71	7.69	1.56	3.25	2.44	1.86	5.37	3.81	3.18	3.46	2.57	42.74
Bigprairie		5.04	3.12	5.72	2.30	4.23	2.83	5.64	3.50	2.31	4.57	4.25	3.40	46.91
Binola		3.64	2.73	4.07	2.23	3.03	4.55	4.29	4.38	2.56	4.79	2.90	2.82	41.99
Bissells		4.10	2.84	4.55	2.21	2.47								
Bladensburg		5.11				5.52	2.68	4.91						
Bloomingburg	988	6.05	1.85	6.02	2.40	5.24	1.18	2.16	5.92	2.80	2.52	2.74	3.20	42.08
Bowling Green	703	3.75	2.04	4.94	1.91	5.04	2.78	3.17	2.63	2.84	3.32	2.70	1.57	36.69
*Bucyrus	1,001	3.80	2.00	5.50	2.66	4.66	2.46	3.15	4.50	1.55			1.25	
Cambridge	803	5.59	2.77	4.83	2.99	4.64	2.91	4.75	5.17	1.72	3.98	2.18	2.73	44.26
Camp Dennison	570	7.95	1.94	7.01	1.42	3.26	2.09	1.68	4.59	2.91	3.23	2.93	2.94	41.95
*Canal Dover	884	4.65	3.22	8.43	2.40	5.62	3.39	4.57	3.79	1.57	4.24	3.00	3.18	48.06
*Canton	1,070	4.64	2.43	5.80	2.63	4.84	5.03	3.39	6.07	2.07	3.75	3.90	2.80	47.35
Cardington	1,011	3.84	2.42	9.11										
Carrollton	1,142	5.09	2.43	6.88	2.13	4.43	3.91	4.44	6.89	2.22	3.98	2.93	3.85	49.18
Cedarville	1,035	9.45	2.96	11.09	2.01	6.25	2.29	4.51	4.08	2.82	2.98	2.38	2.55	53.37
Celina	910	5.19	1.87	4.80	2.85	5.05	1.79	3.87	2.35	2.22	4.17	2.86	1.85	38.87
Cherryfork		11.69	2.64		1.89	3.72								
Chillicothe	635	3.40			2.09	4.12	1.66	4.28	4.36	2.06				
*Cincinnati	628	7.76	2.21	6.70	1.15	3.03	1.58	3.26	2.61	2.62	2.90	2.69	2.46	38.97
Circleville	720	6.26	2.06	6.40	2.26	6.33	1.08	5.82	4.45	1.68	2.75	2.75	3.40	45.24
Clarksville	1,020	6.98	2.17	7.72	1.56	2.99	2.30	3.74	9.06	2.56	3.22	3.15	3.27	48.72
*Cleveland	762	3.51	2.62	4.06	1.62	2.07	2.74	2.19	1.79	2.53	4.61	2.67	2.13	32.54
Cleveland [1]	627	3.41	3.07	4.77	1.80	2.75	3.75	3.38	2.14	3.99	5.36	3.78	2.77	40.97
Cleveland [2]	754	2.76	2.29	4.07	1.80	2.27	3.90	3.24	2.42	2.93	4.32	2.41	2.17	34.58
Clifton	1,035	5.68	2.10	8.53		4.05		1.97	4.35	3.23	3.07	4.82		
Coalton	718	7.09	2.56	4.94	1.76	4.95	2.85	4.63	5.76	2.39	2.76	3.09	2.98	45.76
Colebrook		2.98	2.16	3.89	1.74							3.69	1.69	
*Columbus	824	5.29	1.67	7.03	2.05	6.04	1.63	2.33	7.16	1.77	2.95	2.30	1.09	41.31
*Dayton [3]	790	5.95	2.12	8.00	1.89	3.49	3.24	4.31	2.92	4.13	4.05	4.30	3.05	47.45
*Dayton [4]	790	5.02	1.66	8.23	1.84	3.02	2.95	3.92	3.69	3.09	3.58	4.48	1.87	43.35
*Defiance	712	3.87	2.21	4.39	2.19	4.89	3.31	5.44	2.01	4.92	3.30	3.20	2.40	42.13
Delaware	927	4.96	2.44	8.14	3.01	5.05	2.45	2.14	2.84	1.70	3.72	4.30	1.82	42.57
Demos		3.79	1.29	5.40	2.37	3.13	3.56	7.77	3.81	2.33		2.01	1.55	
Dupont	724	2.20	1.40	4.50	1.90	5.23	1.91						2.80	
Elyria	755	6.63	2.36	4.51	2.41	2.68	5.48	3.51	5.64	4.55	7.87	3.22	2.39	51.25
Fayetteville		7.87	2.81	7.16	2.00									
*Findlay	782	4.26	2.37	4.67	2.08	4.36	1.97	3.20	5.03	3.90	4.04	3.13	2.51	41.52
Frankfort	750	5.55	2.18	7.12	2.66	3.58	1.65	4.95	4.58	2.36	2.35	2.25	2.85	42.08
Garrettsville	1,019	4.82	2.55	4.92	2.66	3.11	2.96	4.55	5.42	2.00	4.83	4.60	3.19	45.61
Granville	960	5.99	2.62	8.09	4.13	6.39	3.09	1.83	4.73	1.51	3.46	3.00	3.58	48.42
Gratiot		5.15	3.66	6.16	3.71	4.12	3.43	2.70	6.66	1.65	3.65	2.55	2.78	46.22
Greenfield		6.30		6.12	1.75	3.00	2.10	3.85	2.60	2.00	2.85		2.95	
Greenhill		4.26	1.95	5.81	1.71	3.89	5.13	4.18	5.06	2.35	3.53	3.38	3.04	44.29
*Greenville	1,060	4.52	1.69	8.59	2.32	3.63	2.75	3.88	3.36	2.78	4.65	3.05	2.94	44.16
Hackney		7.42	1.93	4.87	2.69	3.03		3.01	4.03	1.94	2.10	2.56	2.79	
Hanging Rock	550	8.32	1.75	5.00	1.97	3.32	4.61	3.46	6.48	2.29	3.94	2.70	2.07	46.00
Hedges		5.68	2.29	4.53	1.58	4.00	1.49	2.35	1.80	1.80	1.76	2.87	2.50	32.65
Hillhouse		3.71	2.78	4.67	1.72	2.72	3.44	3.15	5.74	2.78	5.18	4.32	3.72	43.93
Hillsboro	1,129	8.15	2.03	5.50	1.80	3.09	2.24	6.00	2.64	2.97	3.32	2.94	3.32	44.00
Hiram	1,260	4.41	2.40	5.14	2.69	3.00	3.90	3.20	6.03	2.53	5.07	4.66	2.68	45.71

[1] G. A. Hyde. [2] F. Odenbach. [3] Miss E. L. Boyer. [4] River observer.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Ohio—Continued.	*Feet.*													
Hudson	1,053	5.49	4.11	4.34	2.31	3.43	2.69	3.80	5.51	2.20	4.46	4.78	.....	.....
Jacksonboro	975	6.70	1.25	8.28	0.85	3.10	1.50	1.25	4.45	3.75	4.25	3.95	2.85	42.18
*Kenton	1,015	4.54	3.16	5.72	4.19	3.77	2.19	3.72	3.66	2.12	4.01	3.40	3.04	43.62
Killbuck	.....	2.63	2.14	6.69	3.06	4.70	2.35	6.56	3.89	3.26	3.41	[d]3.23	2.30	44.22
Lancaster	898	5.80	2.92	.....	4.54	6.10	3.65	2.68	7.49	1.99	3.41	3.09	3.76	.....
Leipsic	740	4.34	2.18	3.98	1.95	5.14	1.75	9.65	2.72	4.21	2.33	2.52	2.58	43.35
Levering	.....	5.29	2.74	8.74	3.85	5.15	3.40	3.04	5.06	2.96	4.18	5.52	2.63	52.56
Logan	740	7.20	3.11	5.64	2.98	4.21	1.63	5.42	4.51	2.27	2.72	2.58	2.68	44.95
Lordstown	1,000	4.15	1.88	4.47	2.01	4.45	5.15	4.70	4.95	1.91	3.86	3.38	2.36	43.27
McArthur	780	7.81	2.72	4.55	1.76	4.53	2.69	3.46	4.19	2.69	3.35	2.91	2.73	43.39
McConnelsville	710	6.87	3.70	6.54	3.33	4.40	4.14	2.78	5.35	2.39	3.53	2.88	2.81	48.72
*Mansfield	1,154	5.47	4.09	7.31	3.20	6.65	2.91	1.72	4.23	3.48	4.93	6.00	4.30	54.29
Marietta	650	5.74	2.39	6.03	2.30	2.77	5.04	5.20	5.31	3.69	4.24	3.15	2.21	48.07
Marion	980	4.04	3.31	6.70	2.99	3.82	3.15	2.21	4.20	1.24	4.22	3.16	1.65	40.69
Medina	1,086	4.27	2.44	4.47	2.42	3.05	1.71	3.85	5.96	2.97	4.33	3.01	3.76	42.24
Milfordton	.....	5.21	2.56	8.26	3.53	5.28	2.96	3.00	3.84	1.58	3.98	[d]3.90	2.52	46.62
Milligan	.....	5.78	2.81	5.41	3.62	4.97	2.44	4.22	4.33	1.67	3.65	2.13	2.28	43.31
Millport	.....	4.47	2.42	6.33	2.13	3.86	7.05	5.29	7.55	1.35	4.33	3.12	3.20	51.10
Montpelier	880	3.72	1.95	5.79	1.18	4.31	2.74	5.46	1.38	3.46	3.22	3.16	2.55	38.92
Napoleon	680	3.84	2.24	4.91	1.86	4.80	1.33	4.09	3.09	3.96	2.71	2.65	3.06	38.54
Neapolis	.....	3.16	1.28	4.55	1.50	4.10	2.98	3.78	2.24	4.27	3.34	2.69	3.19	37.08
New Alexandria	1,050	5.28	2.67	6.25	2.90	5.77	5.19	4.41	7.21	2.55	3.35	2.40	2.10	50.08
New Berlin	1,073	3.82	2.16	5.39	1.90	4.86	3.07	4.84	6.78	2.45	4.61	3.57	2.28	45.73
New Bremen	1,030	3.28	0.85	3.22	0.89	2.72	0.83	3.33	2.29	0.83	.....	.....	.....	.....
New Holland	876	6.36	2.05	6.55	2.00	4.30	0.96	5.20	4.66	2.70	2.56	2.18	4.02	43.54
New Moscow	.....	4.79	T.	7.05	.....	.....	2.71	6.88	3.73	.....	.....	.....	.....	.....
New Paris	1,020	5.72	1.21	10.20	1.84	3.30	2.62	3.00	3.20	3.19	4.13	3.27	2.91	44.59
New Waterford	.....	6.43	3.30	6.10	1.83	4.18	5.57	3.70	6.50	1.95	3.82	4.34	3.48	51.20
North Lewisburg	1,095	5.71	2.72	9.85	2.85	5.80	3.50	2.95	2.70	4.55	4.15	5.00	2.45	52.23
North Royalton	.....	4.33	2.26	3.96	2.02	2.95	3.62	3.39	4.27	2.82	4.66	3.44	2.63	40.35
*Norwalk	719	4.14	2.85	3.51	2.14	2.83	2.65	4.77	4.19	3.13	5.02	2.95	1.69	39.87
Oberlin	855	3.60	2.25	3.56	2.41	3.40	4.03	4.71	4.22	3.27	5.48	2.93	2.89	42.75
Ohio State University	760	5.34	1.79	7.86	2.30	5.83	2.01	3.08	5.36	1.36	3.54	2.72	3.07	44.26
Orangeville	945	4.06	2.25	4.49	1.68	3.09	2.55	2.53	5.01	3.10	3.85	3.15	2.20	37.96
Ottawa	713	4.23	2.34	3.96	2.26	5.26	2.44	3.85	3.75	3.33	3.71	2.66	2.48	40.27
Pataskala	.....	6.28	2.62	7.97	3.98	5.20	2.36	3.03	4.66	1.18	3.87	3.27	3.44	47.86
Perry	706	2.76	2.62	5.15	2.21	2.39	2.20	2.83	6.61	3.77	3.39	4.30	2.40	40.63
Philo	.....	6.84	2.62	5.77	3.80	5.26	3.24	5.60	5.87	1.61	3.55	3.05	2.45	49.66
Plattsburg	.....	5.30	1.93	8.82	2.17	4.85	4.67	1.37	4.52	2.46	3.52	4.40	2.97	46.98
Point Marblehead	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Pomeroy	590	.....	1.05	4.16	1.18	2.79	1.95	4.41	4.78	1.14	4.05	2.93	1.32	.....
*Portsmouth [1]	527	10.03	1.69	5.14	2.05	3.53	3.13	5.27	6.92	1.97	3.59	2.54	2.76	48.62
Portsmouth [2]	527	9.23	1.65	5.14	2.05	3.50	3.13	5.27	6.92	1.97	3.59	2.51	3.12	48.08
Richwood	948	4.57	2.48	7.72	2.94	5.99	2.55	2.17	3.53	1.41	2.90	3.63	2.49	42.38
Ridgeville Corners	.....	3.48	1.52	4.93	1.66	4.54	2.33	3.44	1.64	3.39	2.89	2.96	2.14	34.92
Ripley	.....	9.44	2.63	6.56	1.82	3.43	3.37	8.70	4.42	2.95	2.45	3.42	3.09	52.28
Rittman	.....	4.16	2.49	5.78	3.06	4.25	3.83	2.64	3.26	2.88	4.64	4.49	1.78	43.24
Rockyridge	958	4.14	2.45	4.79	2.14	3.66	4.00	2.85	6.17	3.85	3.37	3.25	2.73	43.40
Rosewood	.....	4.49	1.77	9.13	2.42	3.61	2.36	1.72	3.78	3.46	4.17	2.83	2.62	42.36
*Sandusky	629	2.93	2.29	5.53	1.95	2.73	5.11	5.69	5.25	2.09	4.88	2.37	2.35	43.17
Seaman	.....	.....	.....	.....	.....	.....	2.65	5.27	3.93	1.89	3.31	3.13	2.66	.....
Shenandoah	.....	3.66	2.56	4.21	2.20	3.73	3.84	2.42	5.50	3.62	4.09	3.38	2.59	41.80
*Sidney	985	4.39	1.85	7.89	2.99	4.78	3.01	1.90	3.63	2.82	4.80	3.76	2.63	44.45
Sinking Spring	.....	7.07	2.07	5.15	1.51	4.23	2.53	7.00	2.43	3.93	3.45	3.16	3.65	46.18
*Somerset	1,010	5.38	2.81	5.95	3.84	3.97	3.63	3.44	5.38	1.16	3.43	2.34	2.58	43.91
Springboro	.....	5.10	1.35	8.70	1.50	3.61	1.65	3.05	5.33	2.65	3.27	3.80	2.30	42.31
Springvalley	758	6.02	1.98	8.06	1.76	.....	.....	.....	.....	.....	.....	.....	.....	.....
Strongsville	.....	4.55	3.07	4.62	2.37	3.43	5.60	4.25	5.64	2.72	5.59	3.36	6.04	51.24
Sylvania	651	4.61	2.13	5.02	1.46	2.16	2.18	7.24	1.40	2.29	3.42	3.63	2.61	38.15
Thurman	.....	7.58	1.53	4.45	1.15	2.84	3.09	4.92	4.81	1.65	2.11	2.20	2.69	39.02
Tiffin	759	4.75	2.46	4.92	1.84	4.36	1.76	2.06	7.42	4.89	4.30	2.97	3.30	45.03
*Toledo	674	2.96	1.65	3.23	1.51	3.02	1.79	3.30	1.82	1.81	2.81	2.21	1.99	28.10
Upper Sandusky	880	4.14	2.24	4.71	2.27	4.66	1.32	4.11	3.78	3.64	4.03	3.50	3.14	41.54
Urbana	1,081	3.97	2.01	8.25	2.38	3.46	3.08	2.52	2.96	3.83	3.60	3.18	2.42	41.66
Vanceburg	.....	8.40	2.65	5.15	2.93	2.53	4.83	10.65	4.35	2.40	3.00	2.40	3.47	52.76
Vanwert	784	4.15	2.04	3.96	2.60	6.09	2.09	.....	3.61	4.04	2.76	2.84	2.25	.....
Vermilion	603	4.37	2.20	4.09	2.15	2.08	5.60	3.21	4.27	3.66	5.02	2.90	2.53	42.08
Vickery	603	2.57	1.82	3.80	2.04	3.95	2.44	6.75	3.60	2.99	5.28	2.72	2.43	40.39
Walnut	.....	5.27	2.39	6.04	2.77	5.09	1.15	4.00	4.98	1.84	2.85	2.55	2.85	41.78
Warren	900	.....	2.81	5.06	1.94	3.20	3.78	3.37	5.43	1.77	4.22	3.58	4.37	.....
Waraaw	.....	4.45	2.35	8.47	2.91	5.60	2.76	5.77	3.99	1.60	5.12	3.40	2.35	48.77
Wauseon	800	4.28	2.75	8.08	2.03	3.76	3.57	4.91	2.24	3.22	3.42	3.39	3.28	44.93
Waverly	604	7.61	2.17	4.50	1.83	3.73	2.30	5.48	3.96	2.44	2.66	3.50	3.41	43.64
Waynesville	.....	6.24	1.72	8.32	1.56	4.18	1.62	1.30	6.24	2.75	3.39	3.31	3.16	43.79
Wellington	856	3.62	2.92	3.74	.....	2.42	2.38	8.30	4.50	2.29	3.83	3.09	2.82	.....
Westerville	875	5.54	2.02	8.95	2.77	6.18	2.09	4.52	4.63	1.56	4.04	3.45	2.34	48.09
Willoughby	649	3.47	3.42	3.33	2.09	2.57	2.23	2.30	3.68	2.48	4.39	3.60	3.11	36.67
Wooster	920	4.10	2.27	6.44	2.56	4.60	2.70	6.79	5.53	2.15	4.28	4.14	2.29	47.85
Youngstown	863	3.38	1.67	4.62	2.07	3.44	3.62	6.04	4.39	1.95	4.30	3.06	.....	.....
*Zanesville	732	5.51	2.37	5.52	3.41	4.81	4.02	2.28	4.44	1.80	3.43	2.24	2.05	42.48
Oklahoma.														
Anadarko	.....	1.20	4.10	4.61	0.79	10.13	3.76	2.48	1.40	0.92	0.48	1.25	2.30	33.42
Arapaho	.....	0.94	2.62	1.79	1.39	6.43	5.60	9.82	1.22	1.97	0.79	0.98	2.09	35.64
Beaver	.....	.....	.....	1.11	1.02	2.73	1.80	3.67	0.00	.....	.....	.....	[1]2.90	.....
Burnett	1,200	3.58	1.33	6.19	2.39	12.45	2.49	5.22	2.96	1.74	1.50	0.82	2.53	43.20
Clifton	.....	4.17	2.57	4.36	1.26	10.64	2.96	2.74	2.82	0.78	2.79	0.90	2.76	38.75
Edmond	1,191	3.21	4.18	2.28	0.72	.....	.....	.....	.....	1.85	1.53	.....	2.60	.....
Fort Reno	1,400	3.66	6.34	1.53	1.14	9.55	4.39	3.13	2.20	2.57	2.27	.....	.....	.....

[1] River observer.

[2] Dr. D. B. Cotton.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept	Oct.	Nov.	Dec.	Annual.
Oklahoma—Continued.														
	Feet.													
Fort Sill	1,200	1.69	2.20	3.24	5.86	6.53	4.00	2.20	4.50	2.07	1.66	1.21	2.40	37.56
Guthrie	940	3.49	.....	.....	.....	6.55	1.66	4.73	2.81	2.92	2.95	0.70	3.01	.....
Hennessey	.....	2.68	3.45	1.64	0.60	6.76	5.36	6.43	3.25	2.23	0.90	0.95	3.48	37.73
Hopeton	.....	1.65	0.85	0.13	1.26	7.21	4.90	3.03	4.01	1.03	1.22	0.61	2.36	28.26
Jefferson	1,062	2.32	2.55	1.43	1.61	7.53	7.42	3.27	6.40	[c]1.27	1.25	0.65	2.84	38.54
Kingfisher	.....	2.59	4.03	2.79	0.44	8.46	3.18	6.60	4.25	2.14	1.83	0.90	2.52	39.73
Mangum	1,800	1.36	3.38	1.32	1.12	5.17	7.79	2.62	3.41	1.45	0.60	0.55	2.14	30.91
Newkirk	.....	3.90	3.08	3.49	1.28	6.53	5.95	2.71	8.97	1.51	1.62	0.96	.....	.....
Norman	1,170	3.74	2.46	5.35	1.87	11.74	3.97	4.16	.....	1.22	1.27	0.50	2.38	.....
*Oklahoma	1,218	4.38	2.37	2.34	0.95	9.96	1.95	4.06	2.82	1.72	2.08	0.91	2.54	35.88
Pawhuska	.....	4.89	2.25	4.75	1.36	8.07	8.58	6.95	5.30	4.63	1.44	0.82	5.20	54.24
Prudence	.....	2.10	3.25	2.67	1.32	5.53	3.34	4.63	3.29	1.66	0.91	[e]0.69	2.85	32.24
Putnam	.....	[b]0.80	[c]1.33	0.83	1.08	.....	.....	5.29	3.85	1.04	[f]0.67	.....	[l]2.00	.....
Sac and Fox Agency	.....	.....	1.73	4.04	1.23	10.18	2.33	1.65	3.37	1.65	3.55	0.50	4.20	.....
Stillwater	.....	3.53	3.00	2.75	0.58	8.56	4.72	6.35	2.86	2.72	4.19	0.68	2.68	42.62
Waukomis	1,258	2.46	3.25	1.32	0.80	5.61	3.40	5.53	1.32	1.13	0.95	0.95	2.53	29.25
Winnview	.....	2.01	[k]3.55	1.56	1.08	13.38	2.88	6.90	.....	1.13	1.63	0.88	3.05	.....
Oregon.														
Albany [1]	214	4.07	7.05	2.08	2.57	1.95	1.75	0.40	0.28	3.24	1.31	7.88	3.64	36.22
*Albany [2]	214	.....	4.65	1.82	2.49	1.36	2.23	0.42	0.21	3.05	1.68	7.56	3.45	.....
Arlington	855	0.87	0.57	0.15	0.10	0.56	0.61	0.04	0.07	0.16	0.07	1.12	1.01	5.33
Ashland	1,940	1.38	1.28	0.68	0.42	1.55	1.28	0.22	1.94	0.39	1.41	3.86	1.16	15.57
*Astoria	50	7.51	14.61	4.21	4.02	3.30	2.66	0.75	0.30	5.18	4.06	10.93	11.19	68.72
Aurora	140	3.97	5.85	1.04	2.51	1.48	1.79	0.00	1.68	3.54	1.64	5.41	3.57	32.48
Aurora (near)	.....	3.81	6.26	1.71	2.32	1.97	1.60	0.94	T.	5.05	2.06	6.62	3.87	36.21
*Baker City	3,470	0.82	0.58	0.27	0.27	2.17	0.74	0.33	0.31	0.47	0.55	1.33	0.71	8.55
Bandon	55	5.78	8.27	4.59	3.54	2.83	2.32	0.11	0.67	2.14	3.35	12.25	4.32	50.17
Bay City	225	14.26	29.39	8.61	8.85	6.18	6.89	1.55	0.87	7.37	8.51	16.42	12.00	120.90
Beulah	4,400	0.48	0.36	0.08	0.08	1.39	0.35	0.12	T.	0.20	0.88	1.39	0.30	5.63
Brownsville	.....	2.47	3.72	1.51	2.03	2.30	0.97	.....	0.40	2.37	1.12	7.17	2.95	.....
Burns	.....	1.45	.....	T.	T.	1.52	0.32	0.00	T.	T.	T.	1.40	0.20	.....
Burns (near)	.....	0.79	0.11	.....	0.10	2.37	.....	.....	.....	.....	.....	.....	2.00	.....
Cascade Locks	125	10.63	14.48	5.56	3.13	2.67	1.83	1.65	1.28	6.78	3.36	16.75	8.16	76.28
Comstock	468	3.36	3.93	2.40	1.93	3.14	1.58	0.43	0.43	1.73	2.10	12.67	4.91	38.61
Coquille River	.....	.....	.....	.....	0.31	0.36	0.30	T.	0.95	2.02	3.57	9.98	4.97	.....
Corvallis	319	3.82	5.48	2.34	2.44	2.26	1.33	0.23	0.12	3.15	1.59	8.63	3.62	35.01
Dayville	.....	1.25	0.52	0.58	0.38	2.28	0.79	0.05	0.14	0.16	1.16	1.01	1.09	9.41
Ella	.....	.....	.....	.....	.....	.....	.....	T.	T.	0.50	0.60	1.20	0.30	.....
*Eugene	435	2.43	3.45	1.90	1.99	3.06	1.66	.....	.....	.....	.....	.....	4.26	.....
Fairview	120	7.87	8.09	6.14	2.60	3.51	1.48	0.52	0.91	1.54	3.33	14.13	6.35	56.47
Falls City	.....	6.53	12.65	3.84	3.89	2.00	2.45	0.34	0.45	5.06	3.99	12.26	7.11	60.57
Fife	3,375	0.90	[e]0.40	[f]0.30	0.50	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forestgrove	229	3.85	7.81	2.03	2.55	2.48	.....	.....	.....	.....	1.59	6.85	5.81	.....
Fort Klamath	4,275	2.01	2.31	1.61	0.36	2.11	0.36	.....	.....	.....	.....	.....	.....	.....
Gardiner	72	7.03	13.25	5.83	3.02	4.98	3.06	0.26	0.92	3.80	3.37	15.00	6.08	66.60
Glenora	.....	11.71	23.86	6.81	5.98	5.59	3.99	1.80	0.57	8.94	5.40	19.09	14.23	107.97
Government Camp	3,580	11.46	12.94	6.19	4.49	3.69	3.01	1.82	0.80	6.89	4.71	19.83	12.10	87.93
Grants Pass	964	1.78	3.70	0.98	0.41	1.90	0.85	0.00	0.05	0.57	1.40	3.87	2.26	17.77
Happy Valley	4,200	1.17	0.62	0.35	0.48	2.45	0.76	0.04	0.46	0.50	0.88	1.89	0.59	10.19
Heppner	1,950	1.26	0.75	1.05	0.82	1.11	1.52	0.09	0.21	0.36	0.40	2.38	1.47	11.42
Hood River (near)	920	3.72	5.83	2.10	0.95	0.86	1.31	0.80	0.09	2.74	1.15	7.35	4.17	31.07
Irvington	75	5.60	5.66	1.51	2.09	1.12	0.94	0.81	0.07	2.88	1.62	7.07	3.10	30.47
Jacksonville	1,640	1.54	2.35	0.92	0.59	1.77	2.30	0.03	0.18	0.45	1.25	4.82	1.64	17.84
Joseph	4,400	1.80	0.80	2.40	1.14	2.76	2.24	0.67	0.78	0.58	1.49	1.68	0.80	17.14
Junction City	355	2.54	3.49	2.13	2.59	2.08	1.13	0.38	0.13	1.49	1.88	8.46	1.98	28.28
Kerby	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.66	7.96	4.04	.....
Klamath Falls	.....	0.66	0.91	0.35	.....	.....	T.	0.00	T.	1.82	0.67	2.06	1.53	.....
Lafayette	.....	1.92	4.67	1.02	1.74	1.61	2.00	0.67	0.00	3.80	1.71	7.26	2.91	29.31
Lagrande	.....	2.22	0.77	1.16	1.56	1.72	0.61	1.29	0.64	0.92	0.96	3.25	1.31	16.41
Lakeview	5,060	1.40	1.08	0.10	0.05	1.74	0.24	0.08	.....	T.	0.95	1.25	1.50	.....
Langlois	500	7.09	22.12	4.02	4.82	6.23	3.60	0.23	0.52	3.93	4.35	16.56	8.32	81.79
Lonerock	.....	.....	0.78	0.58	0.40	1.59	1.92	0.15	0.17	0.19	0.49	.....	.....	.....
Lorella	2,000	0.42	0.20	0.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McMinnville	180	4.17	6.65	2.06	2.33	1.61	1.62	0.70	0.79	4.63	2.41	7.75	4.21	38.93
Merlin	.....	2.03	2.97	0.60	0.48	1.00	1.50	0.00	0.02	0.41	1.07	3.46	1.97	15.51
Monmouth [3]	.....	1.95	2.06	1.51	2.62	1.52	2.77	0.52	0.26	2.43	1.65	10.10	3.65	31.04
Monmouth [4]	.....	.....	.....	2.10	1.93	1.19	.....	.....	.....	3.35	0.79	5.44	2.52	.....
Monroe	.....	2.94	5.46	2.61	2.82	1.61	1.27	0.29	0.62	2.54	1.71	11.13	3.67	36.67
Moro	.....	0.50	0.36	0.42	0.23	0.65	0.77	[l]0.04	.....	0.38	0.26	.....	.....	.....
Mount Angel	140	4.86	6.56	2.79	3.18	2.65	1.98	0.42	0.15	3.73	2.33	9.18	4.40	42.23
Nehalem	.....	11.52	21.00	6.62	5.77	3.56	4.16	1.26	0.67	7.82	6.74	15.13	16.51	100.76
Newberg	400	3.99	7.57	1.68	2.61	2.35	1.51	0.94	0.29	5.18	2.14	6.63	3.11	37.99
Newbridge	1,900	0.62	0.63	0.41	0.82	1.34	0.73	0.30	0.15	0.36	.....	.....	0.49	.....
Newport	68	7.80	13.01	3.81	3.37	4.02	3.42	0.84	0.55	3.98	5.81	11.29	5.83	63.73
Pendleton	1,070	1.43	1.33	0.66	0.94	1.55	0.94	0.21	0.06	0.55	0.59	2.08	0.89	11.23
Placer	.....	.....	.....	.....	0.97	3.67	1.48	0.01	0.16	1.15	2.14	5.48	2.64	.....
*Portland	153	3.91	6.51	2.17	2.12	1.78	1.88	0.79	0.15	2.69	1.58	6.03	4.29	33.90
P. Ranch	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prineville	3,000	0.36	0.71	0.99	.....	1.61	0.30	0.11	0.03	[l]0.03	0.05	2.60	0.70	.....
Riddles	732	2.29	2.59	1.33	0.49	2.09	0.57	0.00	0.35	0.70	1.47	6.11	3.06	21.05
Riverside	.....	0.66	0.25	T.	0.14	1.17	0.31	0.11	0.06	0.21	0.29	.....	0.28	.....
*Roseburg	523	3.90	1.91	2.15	1.07	1.86	1.04	0.03	0.89	1.63	1.53	6.21	3.71	25.93
*Salem	120	3.43	5.64	2.15	2.44	1.75	1.61	0.40	0.06	1.13	4.45	6.82	4.31	34.19
Sheridan	.....	3.82	5.06	1.80	1.73	1.04	0.77	0.40	1.08	0.90	0.73	7.75	4.41	29.49
Silverlake	4,300	0.27	0.30	0.15	0.22	1.87	0.76	0.20	0.05	0.20	0.56	2.03	0.38	6.99
Silverton	.....	2.58	6.43	2.92	3.13	2.35	2.05	0.45	0.05	3.03	2.39	7.15	4.79	36.42
Siskiyou	4,135	2.90	1.70	0.02	.....	1.75	0.00	0.00	0.00	0.20	0.00	1.40	3.00	.....

[1] C. G. Burkhart. [2] River observer. [3] Southern Pacific Railroad Company. [4] P. M. Powell.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Oregon—Continued.	Feet.													
Sparta	4,125	4.20	2.15	1.60	1.75	1.37	0.32	0.51	0.75	1.20	0.85	6.01	2.80	23.51
Springfield	472	3.07	3.12	2.16	2.01	2.91	1.39	0.30	0.21	1.82	1.21	6.26	2.87	27.33
Stafford	.....	3.89	7.42	2.03	3.01	2.09	2.37	1.12	0.01	5.80	2.41	7.75	3.56	41.46
*The Dalles	116	0.82	0.98	0.30	0.11	0.03	0.90	0.17	0.02	0.85	0.13	2.13	1.14	7.58
Tillamook Rock	146	4.12	6.91	2.67	3.73	2.16	1.66	0.71	0.18	.....	3.66	5.97	5.37	.....
Toledo	30	10.02	10.60	4.51	.....	.....	9.75	0.70	0.30	5.50	2.40	11.15	4.85	.....
*Umatilla	340	0.31	0.63	0.44	0.18	0.54	0.56	T.	0.07	0.11	0.18	1.21	0.37	4.60
Vale	4,400	1.11	0.37	0.12	0.06	1.28	0.71	0.45	0.21	0.15	0.77	1.11	0.45	6.79
Vernonia	1,238	4.32	8.91	3.28	3.09	2.50	2.39	0.67	0.05	4.94	3.17	6.43	5.31	45.06
West Fork	1,045	4.87	4.18	2.61	1.33	1.63	0.75	0.00	0.00	1.16	0.63	5.36	2.21	24.73
Weston	1,800	2.51	0.78	1.91	2.73	1.61	0.51	0.13	0.40	0.75	0.95	5.24	1.71	19.23
Williams	.....	1.72	3.16	0.47	0.77	2.05	1.61	0.00	0.03	0.80	1.14	4.40	1.85	18.00
Pennsylvania.														
Altoona	1,181	4.05	1.23	5.81	2.22	6.55	1.99	1.91	3.75	0.76	7.44	2.14	2.67	40.52
Aqueduct	367	2.79	1.78	3.18	2.59	6.34	2.29	3.09	7.51	1.11	6.58	2.75	2.12	42.13
Athens	768	.....	.....	2.06	3.47	3.06	2.44	2.49	5.86	1.64	4.94	2.39	1.61	.....
Beaver Dam	603	4.47	2.01	7.06	1.89	3.11	6.67	2.20	5.62	1.45	3.33	2.57	2.08	42.46
Bethlehem	237	4.35	3.17	2.79	3.37	6.05	1.05	4.47	5.23	0.90	4.44	5.23	3.50	44.55
*Brookville	1,173	5.22	1.69	7.42	2.35	4.16	2.95	2.02	5.92	1.46	4.47	3.09	2.04	42.79
Browers Lock	.....	4.39	4.05	2.93	3.60	5.87	3.10	3.10	6.13	1.82	4.92	6.64	3.93	50.48
*Cameron	964	4.39	1.17	6.71	2.72	3.94	6.36	3.72	6.49	1.23	6.23	2.83	1.94	47.73
Carlisle	480	4.23	2.09	4.76	2.52	6.64	1.24	3.68	9.62	1.22	6.07	4.39	2.92	49.38
Cassandra	2,100	3.79	1.85	5.22	1.83	6.35	3.11	3.73	6.49	1.61	7.12	2.51	2.61	46.22
*Cedarrun	760	6.25	1.60	3.50	3.42	1.35	6.00	1.95	1.22	2.25	4.40	2.05	3.75	37.74
Centerhall	1,100	3.89	1.16	5.16	2.60	4.87	2.89	2.86	7.37	1.26	6.70	2.60	3.90	45.26
Chambersburg	1,000	2.61	1.38	4.33	1.36	4.73	0.64	3.57	7.66	1.19	5.67	3.15	3.23	39.52
Coatesville	380	4.54	3.48	2.95	3.70	4.89	1.46	3.21	7.03	2.73	4.76	6.59	4.45	49.79
*Confluence	1,324	6.79	2.40	6.79	2.83	4.35	3.14	4.59	8.26	2.20	5.22	3.41	3.19	53.17
Coopersburg	520	4.41	3.82	2.55	3.98	7.05	1.04	2.70	5.03	0.91	6.05	7.22	3.78	48.54
Davis Island Dam	.....	4.31	1.91	5.39	1.84	3.93	4.88	1.35	4.99	1.00	4.39	2.45	2.03	38.47
Derry Station	1,172	5.69	1.98	5.82	2.15	4.34	4.58	2.51	6.29	1.43	4.84	3.21	2.83	45.67
Doylestown	347	4.13	3.62	3.08	4.16	5.94	1.18	3.11	7.26	1.95	5.14	6.28	3.74	49.59
*Driftwood	816	3.26	1.95	7.58	2.45	4.05	2.90	3.29	4.83	0.85	6.51	2.43	3.06	43.16
*Duncannon	356	3.62	1.73	3.70	2.74	6.90	1.87	4.91	9.93	2.25	7.29	3.90	3.55	52.39
Dushore	1,590	2.57	1.91	3.42	3.47	3.63	3.30	2.80	6.08	1.89	4.86	3.53	2.37	39.83
Dyberry	1,100	4.99	3.12	3.90	3.21	4.55	2.33	4.70	5.95	2.93	4.62	5.10	2.66	48.06
*East Bloomsburg	.....	3.16	1.20	3.75	2.93	6.11	2.14	1.61	2.77	0.13	3.04	1.21	0.42	28.47
East Mauch Chunk	553	4.98	1.87	3.48	4.50	5.67	1.36	3.58	7.35	1.44	6.31	4.76	3.75	49.05
Easton	325	4.71	3.70	3.07	3.25	8.03	1.90	4.89	5.06	1.18	5.64	6.22	3.12	50.77
*Elwood Junction	.....	4.77	2.25	6.67	2.08	4.51	6.96	3.70	5.51	1.07	4.33	2.57	2.56	46.98
Emporium	1,050	4.54	1.47	5.80	2.59	4.21	3.90	4.13	5.87	1.89	6.24	3.37	2.66	46.67
*Erie	1,400	3.41	2.02	3.24	1.83	2.79	2.87	1.63	4.19	2.62	3.05	3.58	2.84	34.07
Everett	1,060	3.35	1.17	4.62	2.03	3.20	2.03	2.60	9.11	0.89	8.23	2.07	2.84	42.14
*Farrandsville	583	3.56	1.38	5.29	2.93	3.55	3.05	5.55	5.08	0.79	6.11	2.74	2.70	42.73
Forks of Neshaminy	304	3.88	3.99	3.10	3.55	7.54	0.82	4.42	6.65	1.90	4.61	6.48	3.40	50.34
Franklin	955	4.51	1.48	4.29	1.53	4.08	3.41	2.18	5.87	2.10	4.42	3.89	1.31	39.07
Frederick	.....	3.76	3.34	2.72	3.49	6.21	0.63	2.87	7.08	2.62	4.34	6.17	3.99	47.22
*Freeport	770	5.68	2.30	6.72	1.82	3.39	3.98	3.25	6.31	1.62	5.06	3.43	2.76	46.32
Girardville	.....	5.43	1.77	4.26	4.21	6.33	2.38	4.84	11.32	1.14	6.18	5.00	3.02	55.88
Grampian	1,450	3.81	2.06	8.40	2.30	3.30	5.03	3.41	4.12	1.54	5.21	3.55	3.56	46.29
*Greensboro	768	4.95	2.06	6.05	4.06	3.67	4.42	3.95	6.71	1.50	5.79	2.66	2.81	48.63
Greenville	1,105	6.84	3.27	5.53	2.04	3.59	3.60	3.08	5.42	1.76	3.80	.....	.....	.....
Hamburg	380	6.06	1.74	4.01	5.19	7.85	1.47	5.26	7.26	1.14	6.72	4.69	3.02	54.41
*Harrisburg	361	3.23	1.60	3.04	1.95	6.13	1.98	5.07	8.44	2.08	5.26	3.15	3.16	45.09
Hawley	899	4.25	1.71	3.74	3.26	4.95	3.50	5.48	4.72	3.17	4.79	4.95	3.62	48.14
Hews Island Dam	.....	.....	.....	.....	1.19	4.45	4.23	1.71	4.67	1.02	3.90	2.17	2.17	.....
Hollidaysburg	947	4.64	1.21	5.38	1.99	6.30	1.52	2.36	*4.31	[6]0.73	4.79	1.44	2.94	37.61
Huntingdon[1]	650	4.68	1.47	5.00	2.04	6.16	2.29	2.97	5.18	0.95	8.46	2.23	2.26	43.69
Huntingdon[2]	650	4.60	1.12	4.79	1.73	4.60	2.07	2.03	4.68	0.67	6.54	2.02	2.41	37.26
Indiana	1,350	2.68	1.44	.....	4.13	4.81	.....	.....	.....	1.70	.....	.....	.....	.....
Irwin	884	3.96	1.47	4.96	1.49	4.63	4.37	4.41	5.47	1.41	3.93	2.65	3.14	41.89
*Johnstown	1,184	7.57	2.78	6.49	2.04	7.28	4.10	3.89	8.37	2.04	5.89	3.15	3.35	56.95
*Karthaus	.....	2.00	1.18	6.14	1.62	1.92	0.77	0.22	.....	0.21	1.80	1.86	1.91	.....
*Keating	1,870	3.26	1.32	5.24	3.29	3.30	4.20	3.95	4.25	0.96	6.71	2.24	2.98	41.70
Kennett Square	275	4.31	3.43	3.21	3.72	4.60	3.07	3.86	6.94	3.95	5.23	6.54	4.24	53.10
Lansdale	368	3.86	3.03	2.94	3.89	5.82	0.74	2.86	10.01	1.81	4.84	5.38	3.62	48.80
Lawrenceville	1,006	2.10	1.26	2.59	2.99	3.62	3.23	4.38	4.79	1.98	4.88	2.04	.....	.....
Lebanon	438	4.27	1.59	3.20	3.18	7.90	1.30	3.58	10.43	0.99	5.38	5.54	3.41	50.77
Leroy	1,400	3.30	2.05	3.39	4.61	3.65	2.75	3.06	6.95	0.81	5.37	2.62	1.58	40.14
Lewisburg	450	3.62	2.27	4.23	2.83	6.04	2.79	4.21	9.68	0.93	5.76	2.33	2.44	47.13
Lockhaven[3]	560	3.99	2.23	5.79	3.17	4.43	3.87	3.51	5.11	0.38	5.28	2.39	3.98	44.13
*Lockhaven[2]	560	4.11	1.51	5.02	2.24	4.10	3.45	3.76	4.90	0.36	5.19	2.24	2.14	39.02
*Lock No. 4	.....	5.02	1.71	5.64	2.05	3.72	3.02	2.37	7.70	2.99	3.78	2.41	1.98	42.39
Lycippus	1,420	5.33	1.80	6.22	2.25	3.82	2.99	3.83	9.13	2.03	5.04	2.89	3.31	48.64
*Mifflin	490	3.01	1.50	1.70	2.50	5.60	2.35	3.45	6.90	0.90	5.60	3.10	3.40	40.01
*Oil City	1,045	5.32	2.53	5.74	2.13	4.64	4.56	4.45	6.73	2.11	5.18	4.33	2.90	50.62
Otteville	.....	4.32	3.20	2.83	4.46	6.27	0.75	2.15	5.70	2.09	5.25	7.25	3.49	47.76
*Parker	889	5.50	2.52	7.17	1.99	3.92	5.89	2.13	6.36	1.23	5.05	3.18	1.99	46.93
*Philadelphia	117	4.10	2.80	3.05	2.93	4.84	1.75	3.63	9.06	1.82	4.85	7.19	3.21	49.28
Philadelphia[4]	117	4.45	3.20	3.42	3.02	5.84	1.96	3.80	8.43	1.98	5.18	7.00	3.98	52.26
*Pittsburg	842	3.40	1.60	5.45	1.60	3.99	3.98	2.56	4.01	1.06	3.85	2.34	1.92	35.76
Point Pleasant	.....	4.15	3.24	2.46	3.11	10.15	0.79	6.29	6.07	1.28	4.87	6.47	3.42	52.49
Pottstown	150	5.95	3.55	3.07	3.86	5.95	1.66	2.13	6.84	1.85	5.57	.....	.....	.....
Quakertown	536	4.20	3.71	3.19	3.66	6.26	0.89	3.45	5.38	2.70	5.20	7.34	4.47	50.45
Reading	280	4.03	2.15	2.12	3.73	5.45	0.56	1.80	7.89	1.08	3.75	5.64	3.36	41.56
Reedsville	.....	1.32	.....	2.45	.....	.....	.....	1.13	9.98	.....	.....	2.11	.....	.....

[1] Prof. W. J. Swigart. [2] River observer. [3] J. A. Robb. [4] John Comley.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Pennsylvania—Continued.														
	Feet.													
*Renovo [1]	672	3.22	1.41	5.49	3.04	3.12	4.76	4.39	5.95	0.48	6.02	3.18	2.73	43.79
Renovo [2]	672	3.80	1.71	5.53	3.25	3.18	4.36	4.43	5.21	0.59	5.68	2.53	2.97	43.24
*Ridgway	.....	5.04	1.37	6.87	1.89	3.78	3.01	1.87	7.13	1.16	5.31	2.59	2.17	42.19
Saegerstown	1,200	4.87	3.02	4.30	2.08	4.00	5.12	3.62	8.25	3.31	4.20	4.78	3.09	50.64
*St. Marys	1,740	.....	1.24	6.90	2.11	3.52	3.19	3.42	.....	.....	5.50	2.90	2.01	.....
Salem Corners	.....	4.14	3.34	3.86	3.29	5.55	3.79	3.30	6.05	.....	4.11	5.07	3.33	.....
Scranton	746	3.59	2.41	3.50	2.47	4.47	2.20	2.69	3.72	2.47	3.07	3.34	2.27	36.20
Seisholtzville	.....	4.33	3.01	2.40	4.04	6.23	1.30	2.84	5.24	1.83	5.90	7.03	3.28	47.43
*Selinsgrove	455	4.08	2.06	3.87	2.98	5.28	1.61	5.63	6.86	0.91	6.22	2.90	2.72	45.12
Shawmont	69	3.97	2.73	2.55	2.56	4.97	2.56	5.00	6.18	1.66	4.44	5.93	3.36	45.91
Shinglehouse	1,475	3.27	1.24	3.39	1.98	5.07	4.04	2.06	8.13	1.94	2.98	4.00	2.35	40.45
*Sinnamahoning	794	2.14	1.11	6.06	2.14	3.78	3.03	5.46	3.82	0.32	6.34	3.33	2.55	40.08
Smethport	1,500	3.42	1.35	5.57	2.35	4.59	4.50	2.30	6.08	2.40	4.95	4.00	2.10	43.61
Smiths Corners	.....	4.09	3.27	2.87	3.68	7.80	0.60	4.24	7.05	2.03	5.52	6.17	3.60	50.92
Somerset	2,250	6.87	3.11	5.38	4.51	3.91	2.44	4.72	9.31	1.87	5.37	2.91	4.79	55.19
South Bethlehem	339	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Eaton	660	3.93	1.43	3.16	2.73	3.67	1.63	1.64	6.30	1.90	4.49	3.27	2.02	36.17
State College	1,191	4.40	1.14	5.63	2.29	4.28	3.53	2.95	4.70	0.93	6.51	2.28	3.07	41.71
*Sunbury	450	1.73	0.30	3.00	2.10	4.13	1.68	0.52	3.43	0.65	2.97	.....	1.15	.....
Swarthmore	190	4.08	2.97	3.27	2.71	4.66	1.74	4.95	4.63	1.95	5.35	4.60	3.33	44.24
Swiftwater	1,600	4.35	3.35	3.73	5.34	.....	.....	3.30	5.70	.....	.....	.....	.....	.....
*Towanda	754	2.52	1.48	2.59	3.29	3.56	3.04	3.15	6.84	1.98	5.86	2.91	1.97	39.19
*Trout Run	.....	.....	3.56	5.32	3.88	5.22	4.98	1.38	8.02	1.59	6.14	2.77	3.81	.....
Uniontown	681	5.62	1.73	5.26	4.19	3.46	3.27	6.06	6.13	1.54	5.83	3.99	3.64	50.72
*Warren	1,137	2.75	1.69	3.82	3.02	4.23	5.95	2.90	7.73	2.63	5.13	4.30	3.17	47.32
Wellsboro	1,327	1.72	1.33	4.78	4.43	4.70	2.70	2.04	5.13	2.24	8.62	2.83	2.68	43.20
Westchester	455	4.21	3.74	3.13	3.07	6.94	3.55	5.43	4.76	1.74	5.15	6.82	4.46	53.00
*West Newton	782	5.60	1.98	5.77	1.91	4.12	2.67	3.21	6.04	2.84	4.43	2.87	2.10	43.54
Westtown	350	3.91	3.25	2.88	.....	6.31	2.94	.....	.....	.....	4.75	6.06	.....	.....
Whitehaven	1,150	3.07	1.56	3.62	3.63	6.72	2.70	3.35	6.15	1.01	5.70	4.18	2.51	44.20
*Wilkesbarre	575	2.90	0.96	2.76	2.46	6.04	3.29	2.33	5.16	3.44	2.36	3.90	1.95	37.55
*Williamsport	530	3.76	1.56	3.44	2.81	4.95	2.73	1.15	4.75	0.81	5.92	1.97	2.86	36.71
York	385	3.67	1.15	3.00	2.71	6.86	1.08	3.47	6.44	1.82	4.31	4.75	3.58	42.84
Rhode Island.														
*Block Island	27	5.42	5.20	3.89	5.66	6.54	0.92	7.87	7.69	0.96	7.18	7.55	3.22	62.10
Bristol	53	5.13	6.60	3.37	4.94	4.71	1.29	5.39	6.29	1.58	9.47	7.31	1.89	57.97
Kingston	250	6.83	8.13	3.71	5.56	8.95	0.77	7.11	6.85	2.11	12.05	7.44	2.71	72.22
Lonsdale	67	4.54	5.27	2.83	5.70	4.35	1.24	9.55	6.77	2.49	7.76	6.58	2.45	59.53
*Narragansett	22	4.93	7.42	3.75	5.13	8.96	0.10	3.49	3.72	1.99	9.16	6.84	2.61	58.10
Pawtucket	79	3.89	6.53	2.73	5.64	3.93	1.11	9.29	6.63	2.41	7.76	7.04	2.19	59.15
Providence [3]	74	6.01	6.45	2.95	6.08	4.07	1.16	10.26	6.00	2.26	8.43	7.29	2.54	63.50
Providence [4]	74	5.92	6.10	2.91	6.46	4.07	1.25	10.80	6.27	2.43	8.68	6.91	2.33	64.13
South Carolina.														
*Allendale	186	.....	.....	1.36	5.33	1.07	4.47	9.40	17.90	9.02	3.85	5.80	[5]3.08	.....
*Anderson	764	3.83	0.95	4.16	4.03	1.03	3.98	9.01	9.34	5.50	4.83	3.27	3.16	53.09
*Batesburg	656	2.20	0.62	3.32	4.90	2.20	2.04	7.00	5.98	1.12	2.20	5.20	1.96	38.74
*Blackville	293	1.37	0.52	2.63	6.77	1.13	3.82	8.43	7.17	4.68	3.25	5.05	3.33	48.15
*Camden	222	1.83	1.01	3.45	4.88	0.85	4.91	11.62	13.55	3.31	3.41	4.70	1.54	56.06
Central	.....	4.06	.....	.....	3.72	0.55	1.58	6.96	12.03	6.80	5.43	3.52	4.13	.....
*Charleston	52	0.19	0.51	1.71	2.48	0.64	4.68	12.99	11.34	1.49	3.44	4.63	2.32	46.42
*Cheraw [5]	144	1.77	1.22	2.36	4.78	1.81	6.89	7.43	6.80	1.93	1.85	3.92	1.02	41.78
*Cheraw [1]	87	2.00	1.48	3.16	5.08	2.16	7.59	7.83	7.07	2.94	2.51	4.61	1.77	48.20
Clemson College	850	3.45	0.97	3.20	3.63	0.85	1.71	10.31	7.91	5.52	5.94	3.01	3.68	50.18
*Columbia	336	1.78	0.60	3.29	4.90	1.15	3.12	12.17	9.85	3.04	2.39	5.78	1.46	49.53
*Conway	40	0.95	1.82	2.89	4.27	1.86	5.05	6.00	9.54	3.96	2.73	4.43	3.51	47.01
Darlington	175	1.47	1.00	2.64	5.68	0.97	8.30	5.37	8.12	4.36	1.87	5.62	1.42	46.82
*Edisto	127	1.13	0.81	2.96	7.61	1.50	4.00	5.25	7.52	2.24	2.94	5.71	2.31	43.98
*Effingham	106	1.05	0.84	2.03	4.81	1.19	3.40	4.72	12.12	4.21	2.21	5.13	3.72	45.43
*Florence	156	1.08	0.69	1.44	.....	1.57	5.20	8.39	7.20	5.21	1.94	.....	2.15	.....
*Gaffney	.....	2.68	0.73	3.76	4.40	0.74	4.42	7.08	4.28	6.03	3.78	2.90	3.17	43.97
Georgetown	12	2.50	2.00	2.75	4.95	1.90	5.00	8.50	6.20	.....	.....	5.30	4.15	.....
Gillisonville	.....	0.25	0.74	1.61	6.07	1.45	2.47	7.34	24.42	2.70	7.81	6.41	6.52	67.79
*Greenville	1,000	3.54	0.80	3.42	4.51	1.50	2.18	11.20	10.10	6.31	5.26	3.35	3.29	55.46
*Greenwood	671	2.59	0.57	3.77	4.12	1.65	4.15	4.92	7.18	4.44	5.59	3.85	2.22	45.05
Holland	.....	3.60	1.03	4.75	6.23	0.65	1.67	7.56	7.70	5.95	6.53	3.52	3.58	52.77
*Kingstree [5]	77	0.90	1.04	2.63	4.97	2.51	2.40	5.49	11.18	3.81	1.90	5.93	2.39	45.15
*Kingstree [1]	77	0.90	1.04	2.63	5.06	2.51	2.44	5.49	11.18	3.81	1.97	5.87	2.43	45.33
Little Mountain	.....	1.80	0.64	4.80	5.75	1.51	3.80	6.46	5.15	3.31	2.16	4.91	1.28	41.57
Longshore	530	2.57	0.83	4.92	4.83	0.50	3.69	9.92	6.51	2.57	2.33	4.51	1.95	45.13
Marion	.....	.....	.....	2.00	4.39	1.80	.....	.....	.....	.....	.....	.....	.....	.....
*Mount Carmel	.....	2.54	0.43	4.22	5.05	0.98	2.77	8.93	8.30	10.64	6.13	3.78	3.41	57.18
*Pinopolis	.....	0.57	0.67	2.85	5.43	3.70	10.68	6.13	14.85	3.45	4.52	5.18	4.15	62.18
Port Royal	6	0.23	0.52	2.66	3.75	1.11	2.54	9.30	24.68	2.63	6.00	5.74	2.23	61.39
*St. Georges	100	0.44	0.34	1.95	6.10	0.80	5.46	6.97	7.59	3.00	3.28	6.37	3.55	45.85
*St. Matthews	.....	1.05	0.88	2.69	5.57	1.63	4.38	7.46	7.66	3.20	2.11	5.17	2.02	43.82
*St. Stephens	74	0.64	0.75	2.66	5.00	2.68	6.54	7.89	14.66	3.47	2.00	5.60	4.15	56.04
Santuck	512	2.48	0.96	4.83	4.72	0.85	2.16	8.54	6.39	2.60	3.54	3.23	1.74	42.04
Shaws Fork	500	2.24	0.66	4.76	5.90	1.20	6.53	5.57	9.63	3.01	4.88	5.52	2.39	52.29
Smiths Mills	62	1.00	1.45	3.15	5.61	5.07	5.52	7.16	9.74	5.76	3.04	6.00	3.45	58.95
Societyhill	192	1.78	1.19	4.20	5.99	2.48	4.57	9.27	7.73	3.17	1.58	5.21	1.28	48.45
Spartanburg	875	2.78	0.70	2.72	3.64	.....	3.83	6.90	6.82	5.44	4.90	2.59	3.73	.....
Statesburg	500	1.48	1.12	2.71	5.65	1.12	2.65	6.73	8.36	2.58	3.61	5.44	1.47	42.92
Summerville	.....	.....	.....	.....	.....	.....	.....	7.17	11.27	3.85	7.66	6.27	3.70	.....
Trenton	620	2.10	0.52	5.38	5.64	0.59	2.29	11.37	6.32	5.58	4.18	5.23	[5]2.28	51.48
Trial	.....	0.93	0.62	3.13	5.42	6.31	7.16	9.60	15.20	2.99	4.90	6.09	4.97	67.32
Walhalla	1,061	4.03	0.60	5.07	4.54	1.28	1.85	9.00	7.69	5.38	5.45	3.20	5.45	53.54

[1] River observer. [2] F. C. Ryster. [3] City engineer. [4] Ladd Observatory. [5] Cotton-region observer.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
South Carolina—Continued.														
	Feet.													
Winnsboro	545	2.29	0.59	4.96	4.26	1.00	6.40	6.83	7.96	1.33	.....	4.57	1.26	.....
Wolling	.....	.....	.....	.....	.....	.....	.....	.....	5.91	2.27	2.11	4.26	.....	.....
*Yemassee	23	0.19	0.90	1.54	7.29	1.33	3.03	6.80	10.35	7.93	1.98	5.93	4.81	52.08
Yorkville	680	2.82	1.07	5.06	3.85	1.32	3.54	6.18	9.03	4.64	5.94	2.58	2.09	48.12
South Dakota.														
*Aberdeen	1,300	0.00	0.10	1.33	1.32	3.41	0.94	3.65	1.61	0.80	2.50	0.25	0.20	16.11
Alexandria	1,352	0.16	0.22	0.30	1.75	4.94	3.89	2.74	2.44	.....	.....	.....	T.	.....
Armour	1,514	0.21	0.53	0.84	1.87	4.19	.....	4.57	1.48	0.30	.....	.....	0.20	.....
Ashcroft	3,192	0.40	0.45	2.78	0.97	2.83	3.00	1.31	0.57	1.38	1.08	0.20	0.27	15.24
Bowdle	1,995	0.00	0.10	1.40	1.69	3.12	1.28	2.20	0.28	0.22	0.93	0.30	.....	.....
Brookings	1,636	0.00	0.55	0.40	0.88	5.15	1.94	1.56	2.78	1.31	.....	0.59	0.00	.....
Canton	1,248	0.27	0.50	0.89	1.38	5.03	5.68	3.84	1.99	0.63	1.08	0.60	0.10	21.99
Castlewood	1,685	T.	.....	0.52	1.25	.....	.....	.....	.....	.....	.....	.....	.....	.....
Centerville	1,225	0.23	0.39	1.06	1.11	6.65	4.44	3.36	1.66	0.71	1.77	0.32	0.14	21.84
Chamberlain	1,363	0.08	0.05	0.90	1.24	6.36	0.97	4.64	1.95	0.61	0.02	0.12	0.01	16.95
Chandler	.....	.....	.....	.....	.....	.....	.....	3.84	3.00	0.31	1.06	0.25	0.13	.....
Clark	1,779	T.	0.10	1.65	0.49	.....	.....	2.56	2.12	1.34	0.71	0.10	0.05	.....
Desmet	1,726	T.	0.70	0.87	2.55	3.81	1.97	2.08	0.62	1.91	3.12	0.82	0.10	18.55
Doland	1,355	T.	0.20	1.18	2.17	2.41	1.12	2.72	0.19	1.52	[5]1.48	0.16	0.14	13.29
Edgemont	.....	0.75	0.20	0.64	1.45	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elkpoint	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.07	0.49	T.	.....
Eureka	1,884	0.00	0.32	0.80	.....	.....	.....	.....	.....	.....	.....	0.11	.....	.....
Farmingdale	3,000	0.16	0.13	0.12	1.46	2.12	0.86	3.45	0.28	1.34	0.24	0.10	0.05	10.3[1]
Flandreau	1,565	T.	0.50	1.15	1.73	8.22	2.40	1.45	1.66	1.15	4.20	0.52	T.	22.8[1]/[8]
Forestburg	1,231	0.60	0.30	0.43	1.70	4.62	1.81	5.49	0.53	1.15	0.56	0.13	T.	17.3[1]/[2]
Forest City	.....	0.20	0.10	0.40	0.10	2.30	0.85	0.65	0.55	.....	0.00	0.10	0.20	.....
Fort Meade	3,624	1.20	0.15	0.83	1.20	9.60	2.70	1.20	1.50	1.80	1.54	0.33	1.10	23.15
Gannvalley	.....	T.	0.10	0.30	1.75	5.02	2.25	5.05	2.10	0.50	0.20	.....	T.	.....
Gary	1,484	0.00	0.66	0.95	0.30	3.85	3.33	3.39	6.14	1.42	3.79	0.40	0.00	.....
Goudyville	.....	T.	0.20	0.61	1.34	3.20	3.86	1.22	2.09	0.59	0.34	0.01	0.01	13.47
Greenwood	.....	0.64	0.55	0.82	1.23	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harney	5,000	0.44	0.14	0.97	1.04	4.14	1.96	2.92	0.77	1.35	0.38	0.35	[6]0.05	14.51
Highmore	1,905	T.	0.01	1.40	1.51	4.17	1.67	2.33	0.62	.....	.....	.....	.....	.....
Hitchcock	1,339	.....	.....	.....	.....	3.65	1.57	2.67	0.00	1.15	.....	.....	.....	.....
Hotch City	.....	T.	0.03	0.20	1.06	7.04	0.90	4.98	0.47	0.18	0.06	0.19	0.09	15.20
Hot Springs	3,447	0.25	0.43	0.50	0.73	3.73	0.33	1.11	T.	1.10	0.12	0.20	0.10	8.60
Howard	1,564	0.00	0.25	1.25	2.11	3.61	2.49	2.45	1.30	1.10	2.89	0.15	0.10	17.70
*Huron	1,306	0.01	0.22	0.84	2.89	2.90	1.81	3.83	0.46	1.31	1.01	0.23	0.11	15.62
Interior	.....	0.50	0.00	0.10	0.50	3.90	T.	4.00	T.	0.70	0.15	0.20	0.05	10.10
Ipswich	1,531	T.	0.22	0.58	1.97	2.01	1.66	0.86	0.88	0.42	2.45	0.05	0.05	11.15
Kimball	1,788	0.20	0.48	0.87	2.58	3.96	2.26	4.89	1.37	0.70	0.50	0.33	0.25	18.39
Leslie	.....	T.	T.	0.26	1.75	3.84	1.92	1.69	1.84	0.00	T.	0.40	T.	11.70
Mellette	1,300	0.00	0.04	0.45	1.65	3.51	5.19	1.24	0.73	1.15	1.35	.....	.....	.....
Menno	1,340	0.16	0.39	0.92	1.32	8.00	3.43	3.86	1.11	0.15	2.16	0.33	0.15	21.98
*Millbank	1,154	0.00	0.52	0.90	1.03	3.36	3.52	2.73	2.58	0.95	2.96	0.40	T.	18.95
Mitchell	1,306	0.20	0.23	0.34	1.30	4.82	2.58	4.02	1.21	0.61	1.34	0.26	0.06	16.97
Montrose	1,474	.....	.....	0.68	3.35	8.09	2.42	2.46	1.24	1.07	3.41	0.41	T.	.....
Nowlin	.....	0.10	.....	0.45	2.67	4.14	0.13	0.19	0.11	0.04	T.	0.30	T.	.....
Oelrichs	3,339	1.50	0.25	0.90	0.36	5.50	1.00	2.20	.....	.....	.....	0.43	0.55	.....
Parker	1,348	0.11	0.25	0.98	1.69	7.80	5.09	3.13	.....	[4]0.34	2.85	0.20	0.10	.....
Parkeston	1,393	0.40	0.40	0.50	1.80	4.57	2.85	4.63	0.92	.....	.....	.....	.....	.....
*Pierre	1,460	0.01	0.13	0.60	0.90	3.55	0.77	3.05	0.78	0.26	0.15	0.70	0.28	10.65
Plankinton	1,528	0.15	0.33	0.55	1.33	2.90	2.13	4.36	1.98	0.56	0.98	0.20	0.15	15.62
*Rapid City	3,251	0.56	0.24	0.51	1.66	3.26	0.50	1.50	0.72	1.27	0.51	0.06	0.19	10.98
*Redfield	1,295	T.	0.10	0.50	0.95	4.54	1.18	2.75	0.79	1.43	0.79	0.28	T.	13.31
Rochford	5,299	0.80	0.90	2.20	1.17	5.03	1.57	3.76	1.36	1.72	0.66	1.03	0.62	20.82
Rosebud	2,600	1.20	0.15	1.20	1.41	3.98	0.60	2.77	0.98	0.35	.....	.....	.....	.....
Shiloh	.....	T.	0.02	0.50	0.93	2.23	1.35	0.33	0.51	0.11	.....	T.	T.	.....
Silver City	5,000	1.15	0.97	1.56	1.22	4.03	1.68	3.16	0.08	1.54	.....	.....	.....	.....
Sioux Falls	1,405	0.20	0.17	0.88	1.97	9.42	5.27	3.08	1.67	0.81	2.64	0.68	0.10	26.89
Spearfish	3,647	0.30	0.45	1.07	1.14	3.62	1.35	1.90	0.05	0.60	0.83	0.18	0.40	11.89
Tyndall	1,418	0.40	0.75	0.40	0.42	4.87	2.30	4.31	1.91	0.40	3.78	0.30	0.05	19.89
Watertown	1,765	0.00	0.35	1.10	1.74	3.25	1.65	4.54	1.93	1.53	1.32	0.15	T.	17.56
Waubay	1,813	.....	.....	.....	.....	.....	.....	.....	.....	0.12	1.71	0.35	T.	.....
Wentworth	.....	0.00	0.38	0.88	1.54	5.39	1.91	2.10	0.87	1.36	1.53	0.26	0.05	16.27
Wessington Springs	1,335	0.30	0.52	.....	.....	.....	0.94	6.92	1.18	1.42	0.52	T.	T.	.....
Whiteswan	.....	.....	.....	.....	.....	3.35	1.68	5.39	1.74	0.26	0.64	0.32	0.17	.....
Wolsey	1,348	0.00	0.45	0.60	2.17	4.49	2.68	3.58	.....	1.29	1.16	0.16	0.16	.....
*Yankton	1,234	0.34	0.74	1.00	1.13	5.20	4.08	4.35	1.71	1.25	1.27	0.25	0.10	21.42
Tennessee.														
Andersonville	1,167	7.93	1.08	4.12	3.05	2.50	1.41	5.07	5.51	7.08	6.62	2.78	2.35	49.50
*Arlington	293	.....	.....	.....	.....	4.95	2.69	4.01	3.58	3.97	3.86	.....	.....	.....
Ashwood	725	9.25	1.15	4.01	5.32	2.66	2.90	5.65	8.67	3.83	2.84	3.52	2.50	47.30
Benton (near)	880	4.98	0.70	4.63	4.60	0.67	4.14	7.69	2.71	5.44	5.67	2.16	2.76	46.15
*Bluff City	.....	4.12	0.81	4.40	3.27	3.12	4.60	6.25	4.56	3.04	4.80	2.32	1.39	42.68
*Bolivar	430	12.01	1.69	4.86	2.70	4.44	1.63	4.03	2.18	3.90	5.26	2.94	2.78	48.42
Bristol	1,757	4.02	0.97	4.64	2.88	3.93	3.49	5.70	4.17	5.59	5.04	2.32	1.44	44.19
*Brownsville	333	.....	.....	.....	.....	4.69	2.39	7.66	2.00	4.10	5.08	.....	.....	.....
Byrdstown	1,026	8.48	1.76	4.59	4.78	2.49	3.40	5.24	5.10	3.75	5.65	3.50	2.49	51.14
*Carthage	450	9.84	1.38	4.78	4.73	2.05	4.94	5.70	8.32	1.75	5.65	3.28	2.51	55.63
Center Point	.....	.....	1.00	3.81	.....	3.40	2.45	4.92	2.22	3.82	1.80	2.45	3.68	.....
*Charleston	.....	5.89	0.86	4.07	4.68	.....	.....	.....	.....	.....	.....	2.91	2.37	.....
Chattanooga	762	5.38	0.68	2.68	4.83	0.61	4.05	6.48	0.83	6.50	4.80	2.31	2.04	40.47
Clarksville	481	10.41	0.69	8.31	3.86	4.67	4.49	6.00	2.60	4.02	6.21	4.48	3.96	59.73
*Clinton	800	8.00	0.86	4.01	3.27	1.77	2.15	5.64	6.63	6.91	4.63	3.19	1.98	49.04
*Covington	340	11.72	2.35	3.57	3.96	5.48	2.14	3.09	4.75	3.86	0.98	.....	.....	.....
Decatur	850	8.62	0.97	4.67	6.46	0.62	4.35	6.98	4.27	7.01	5.38	3.15	2.86	55.34

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Tennessee—Continued.	*Feet.*													
Dover	.....	11.16	1.26	7.56	3.84	3.94	4.02	7.38	2.54	4.11	2.67	2.88	4.00	55.36
*Dyersburg	350	13.93	1.88	3.49	4.91	4.42	3.34	3.46	3.44	4.35	4.02	.....	.....	.....
Elizabethton	1,575	5.13	1.04	5.09	4.35	3.89	5.66	4.44	3.98	4.27	3.16	2.22	1.23	44.46
Elk Valley	1,195	7.67	1.41	2.85	2.59	4.05	1.58	6.10	3.81	4.86	6.48	2.86	2.78	47.04
Erasmus	1,850	8.48	1.56	5.20	5.76	2.10	4.89	4.72	3.84	3.48	5.50	4.13	2.48	52.14
Fairmount	1,950	7.52	0.96	2.99	6.71	2.02	.....	.....	.....	.....	.....	.....	.....	.....
Florence	560	8.82	0.80	4.92	4.59	2.25	1.91	8.66	4.53	3.76	3.66	3.27	2.56	49.73
Franklin	655	7.74	0.63	4.88	3.95	2.54	3.58	6.19	4.65	3.88	3.73	3.63	2.84	48.24
Grace	920	9.20	1.95	5.41	6.50	[1]3.00	4.10	9.10	4.00	4.02	5.80	3.40	1.25	57.73
*Greeneville	1,581	6.12	0.66	5.57	3.04	2.70	2.63	2.80	5.51	3.56	3.68	2.57	1.33	40.17
Harriman	841	8.89	0.87	3.87	4.74	1.14	3.47	6.59	4.11	6.00	4.95	4.53	2.53	51.69
Hohenwald	983	10.35	1.29	5.29	5.00	4.04	2.90	6.08	3.16	2.36	4.06	4.31	3.10	51.94
Jackson	450	11.10	2.40	4.65	3.33	4.99	3.19	3.88	3.00	4.45	3.03	3.17	3.35	50.54
*Johnsonville	364	[11.80]	0.98	4.90	2.63	6.45	6.12	2.29	1.92	2.35	2.33	4.67	3.27	[49.71]
Jonesboro	1,740	5.60	0.99	4.63	3.11	4.68	3.26	6.32	5.84	4.05	4.91	2.73	2.03	48.15
*Kingston	.....	8.60	0.60	3.31	4.88	0.70	2.65	6.01	5.06	8.31	4.62	4.03	2.34	51.11
*Knoxville	762	7.68	0.56	3.97	3.34	1.60	3.47	2.97	4.86	7.44	3.13	2.10	1.67	42.79
Lafayette	.....	11.11	1.25	7.99	4.59	2.38	4.42	5.16	6.10	4.05	7.32	5.08	1.75	61.20
Lewisburg	743	.....	.....	.....	4.75	0.92	1.92	7.09	4.35	3.93	.....	3.03	.....	.....
Liberty	672	9.07	1.21	5.24	5.74	2.41	5.10	6.74	4.00	1.78	4.56	[3.50]	1.00	[50.35]
Lynnville	770	9.91	1.48	4.13	5.43	1.20	3.17	8.25	3.83	3.93	3.69	3.06	3.00	51.08
McKenzie	522	14.47	1.24	7.49	4.34	5.00	6.45	4.71	5.65	4.50	4.32	3.58	4.20	65.95
McMinnville	1,000	10.65	0.47	4.70	5.66	4.05	5.45	6.60	4.90	3.85	3.88	[3.25]	1.25	[54.71]
Madison	468	.....	1.89	6.34	3.65	2.08	4.10	6.42	4.08	5.90	4.35	3.62	2.60	.....
Maryville	900	8.10	0.82	5.31	4.41	1.87	3.10	4.53	4.74	6.39	3.30	2.97	1.87	47.41
*Memphis	409	10.72	1.82	4.73	2.30	4.39	2.76	4.28	2.69	5.57	3.14	3.22	2.96	48.58
*Milan	430	.....	.....	.....	.....	3.90	6.40	8.30	1.85	3.64	7.07	.....	.....	.....
*Nashville	585	9.46	0.63	5.36	3.16	1.80	4.97	4.50	6.56	4.87	3.21	3.09	2.41	50.02
Nashville[1]	585	.....	.....	.....	.....	.....	.....	4.61	3.21	4.82	.....	.....	.....	.....
Newmarket	1,057	8.06	0.83	4.77	2.74	2.21	3.95	.....	.....	.....	.....	.....	.....	.....
Newport	1,280	6.22	0.94	4.63	3.09	2.92	2.81	5.43	6.12	3.32	2.93	2.69	1.28	42.38
Nunnelly	620	9.22	0.71	5.90	3.44	3.06	3.54	6.14	4.37	2.70	2.94	3.86	2.41	48.29
Oakhill	357	9.55	1.87	4.64	5.58	2.31	5.62	7.08	4.07	3.65	8.80	4.08	1.38	58.63
Palmetto	770	9.03	0.97	4.10	5.68	1.28	2.54	7.11	3.44	4.61	3.51	2.67	2.86	47.80
Peryear	.....	12.75	1.50	6.96	3.40	4.00	7.02	5.77	3.22	4.32	3.20	3.35	3.25	58.74
Pope	.....	11.02	0.84	3.70	3.25	3.82	4.77	5.84	3.51	2.53	3.10	3.57	2.86	48.81
*Rogersville	1,212	6.44	1.18	4.56	2.82	6.81	5.26	5.70	5.81	1.76	4.83	2.56	1.85	49.58
Rugby	1,410	10.87	2.57	3.54	4.38	2.93	2.49	5.73	2.52	3.67	6.71	2.32	3.59	51.32
St. Joseph	690	10.85	.....	6.11	4.95	2.94	.....	.....	.....	.....	4.01	3.31	1.52	.....
Savannah	450	8.07	1.35	4.27	2.60	3.50	2.53	5.46	1.65	3.31	2.63	4.01	2.94	42.32
Sewanee	2,000	7.12	1.76	3.65	6.67	1.75	3.81	10.56	3.65	6.00	6.23	4.67	2.30	58.17
Silverlake	2,600	5.11	0.99	4.03	2.70	4.21	2.51	4.72	4.77	4.40	5.07	1.73	1.97	42.21
Springdale	1,058	8.78	0.84	4.28	2.54	4.16	2.42	5.44	5.03	3.39	5.06	3.24	2.88	48.06
Springfield	545	.....	.....	.....	.....	.....	3.75	6.35	2.20	3.35	3.65	4.13	3.25	.....
Sylvia	877	12.33	1.04	7.01	3.31	3.73	4.81	7.15	3.73	3.14	1.50	5.83	3.05	56.63
*Tazewell	.....	7.10	0.97	3.88	3.02	3.39	3.39	4.52	4.03	2.92	4.90	3.49	2.14	43.75
Tellico Plains	900	5.41	0.73	4.44	4.77	1.75	4.26	5.88	3.72	4.44	5.41	3.28	1.74	45.83
Tracy City	1,900	7.36	1.33	3.65	7.22	1.42	3.39	8.10	4.09	4.77	4.85	3.62	2.94	52.74
Trenton	345	14.86	1.99	6.74	4.59	3.92	3.73	4.67	2.07	5.04	6.50	3.20	3.80	61.11
Tullahoma	1,075	7.04	1.23	3.65	5.60	1.65	2.60	7.60	2.40	3.30	3.90	2.55	2.50	44.02
Union City	360	12.07	1.60	6.75	4.70	4.23	3.10	6.15	3.00	5.00	3.65	2.60	2.45	55.30
Waynesboro	1,050	8.13	1.61	3.92	3.69	3.60	3.18	.....	.....	2.94	4.26	4.28	2.85	.....
Wildersville	.....	12.55	1.48	5.60	4.25	4.42	3.56	5.15	2.34	3.27	2.71	3.66	2.92	51.91
Yukon	.....	6.48	1.29	5.32	4.57	2.39	6.11	8.08	2.51	3.37	4.39	3.00	2.95	50.46
Texas.														
*Abilene	1,748	0.75	1.08	1.41	1.78	2.60	4.55	1.46	1.94	3.44	T.	0.98	2.14	22.13
Albany	1,429	1.05	1.00	2.71	1.46	2.03	5.30	5.52	2.27	.....	0.02	0.95	2.25	.....
Alvin	.....	.....	.....	.....	.....	.....	4.56	2.30	3.37	3.85	1.61	4.07	2.91	.....
*Amarillo	3,691	0.86	0.82	0.35	0.98	3.52	4.81	3.88	4.03	0.48	0.41	0.34	2.06	22.54
Anna	.....	.....	.....	.....	.....	.....	5.00	0.25	4.86	1.20	1.33	1.68	3.35	.....
Anson	.....	.....	1.05	3.88	1.75	2.45	4.90	.....	1.30	3.00	0.00	0.57	1.51	.....
*Arthur City	590	1.84	0.56	3.48	0.66	4.57	8.96	4.99	3.65	4.04	3.07	1.49	2.22	.....
Austin	650	1.51	1.70	2.60	3.80	2.50	5.04	3.20	3.91	0.50	1.10	0.71	1.55	28.12
*Ballinger	1,680	0.70	0.26	0.16	2.57	2.78	10.85	1.09	0.74	4.97	0.00	0.30	2.37	26.79
*Beaumont	32	.....	.....	.....	.....	.....	.....	4.77	4.12	3.10	T.	4.50	2.00	.....
*Beeville	200	0.10	2.80	2.20	2.85	3.70	2.05	0.90	2.50	0.94	0.90	2.20	1.78	22.92
Blanco	.....	1.13	0.85	1.50	5.85	1.50	6.14	2.90	2.40	2.50	0.60	[1]1.60	1.90	28.87
Boerne	1,333	1.25	1.24	1.92	3.88	2.71	6.71	1.66	1.70	2.10	3.32	2.16	2.77	31.42
Brazoria	25	2.37	3.38	4.51	3.93	3.03	5.10	2.09	7.77	4.43	2.69	4.84	2.48	46.62
Bremond	467	.....	2.35	1.40	2.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Brenham	350	3.07	6.65	4.06	2.89	2.96	4.05	3.34	3.74	1.64	2.63	3.47	4.08	43.18
Brighton	12	.....	1.21	1.19	.....	2.41	2.44	1.05	1.44	3.00	0.31	3.50	0.94	.....
Brownwood	1,628	1.55	0.50	0.15	2.55	7.50	8.05	1.37	3.55	0.70	0.45	0.45	2.60	29.42
Burnet	1,395	1.47	0.71	1.42	6.83	1.70	4.53	1.22	1.13	1.08	T.	3.82	2.20	26.11
Camp Eagle Pass	800	0.06	0.39	2.98	1.30	0.95	.....	.....	.....	.....	.....	.....	.....	.....
Childress	1,880	0.30	2.58	0.97	0.38	1.89	6.01	3.83	2.42	.....	T.	.....	.....	.....
Coleman	1,710	0.94	0.55	0.53	2.56	7.59	9.08	0.64	1.54	1.80	T.	0.49	2.00	27.72
College Station	360	3.83	5.43	4.51	4.69	3.38	5.15	2.60	0.21	0.92	2.48	2.18	6.44	41.82
Colmesneil	303	8.22	3.11	.....	.....	2.42	5.81	5.06	.....	.....	.....	.....	.....	.....
Colorado	2,077	.....	.....	.....	.....	.....	.....	0.97	4.06	4.08	0.00	0.46	2.34	.....
*Columbia	30	3.06	2.69	4.10	3.81	1.13	5.44	0.17	6.49	2.68	1.34	4.47	2.74	38.12
Conroe	.....	5.12	4.53	4.74	4.66	2.57	4.40	4.80	4.51	1.93	2.16	5.18	2.83	47.43
*Corpus Christi	20	0.69	1.00	2.74	2.41	1.83	2.44	0.43	T.	2.33	0.51	3.61	1.33	19.22
*Corsicana	445	1.74	2.56	3.01	1.71	3.30	9.25	2.78	1.86	1.53	1.85	2.21	3.60	35.41
Cuero	177	1.05	2.65	2.47	3.23	3.78	2.89	3.94	1.21	2.78	1.06	2.43	1.80	29.29
*Dallas	466	2.39	2.05	2.46	2.61	4.92	9.18	2.74	1.66	0.90	0.95	2.52	2.60	34.98
Danevang	145	3.21	4.13	2.74	6.26	1.34	6.06	3.35	4.19	2.92	1.40	2.32	2.88	40.80

[1] J. H. Eakin.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Texas—Continued.	*Feet.*													
*Dublin		1.52	0.50	1.52	2.90	2.30	6.63	1.09	5.87	1.12	0.30	1.31	1.61	26.67
Duval	650	1.79	1.88	2.33	5.53	1.97	3.13	1.30	0.76	T.	4.18	1.34	1.53	25.74
*El Paso	3,830	0.25	0.04	0.43	0.81	0.01	0.46	1.46	1.00	0.50	T.	0.16	1.04	6.16
Emory	550	3.60	3.17	2.70	1.29	4.83	7.05	1.61	3.23	1.60	3.44	2.62	2.80	37.94
Estelle	614	2.44	1.70	1.57	3.03	4.93	6.73	1.81	4.27	1.25	1.62	2.18	3.64	34.57
*Forestburg		3.55		4.36	1.00	6.50	6.65	1.76	4.37	0.88	1.40	1.00	2.34	
Fort Brown	43		2.43	1.40									0.18	
Fort Clark	1,050	0.00	0.53	1.10	0.54	0.00	7.45	0.53	7.29	1.14	0.56	0.00		
Fort McIntosh	460	0.00	1.56	0.55	1.15	1.85	2.83	0.15	1.56	1.25	1.45	0.92	0.54	13.81
Fort Ringgold	230	0.00	0.73	1.72	0.43	0.55	2.34	0.68	0.59	1.33		1.01	T.	
Fort Stockton	3,050	T.	0.00	0.00	0.20	0.22	2.62			0.58	T.	T.	0.92	
*Fort Worth	670									0.29	1.59	1.42	2.70	
Fort Worth		2.84	1.08	0.95	2.55	4.85	4.97	1.35	3.90					
Fredericksburg	1,742	1.03	0.54	2.05	3.68	1.22	5.85	1.68	1.93	1.61	T.	2.24	1.75	23.58
Fruitland	1,132	2.01	1.14	4.33	1.02	2.55	8.99	1.61	2.94	0.91	0.71	3.72	2.21	32.14
Gainesville	738	3.60	1.17	4.36	2.40	5.90	5.19	2.51	5.81	1.87	1.15		3.33	
*Galveston	54	4.48	4.03	4.10	3.04	1.58	1.94	3.62	3.66	6.78	0.84	5.65	2.26	42.00
Georgetown	750	1.52	2.39								4.03	1.78	1.90	
Golindo	450	1.70	1.55	2.80	3.50	1.50	6.55	1.05	1.90	2.20	1.45	2.75	2.55	29.50
Grapevine	615	2.44	1.19	2.08	1.91	4.44	7.05	1.61	1.57	1.25	2.40	2.96	2.37	31.27
Hale Center	3,000	0.30	0.20	T.	0.95	2.54	4.91	2.33	3.07	1.31	0.10	0.75	1.22	17.68
Hallettsville	225	1.57	3.03	1.39	4.46	1.61	3.97	1.81	1.83	1.22	2.67	1.92	2.13	27.61
Haskell	4,013	0.97	1.53	2.82		2.02	3.68	2.83	1.43					
*Hearne	305					2.50	2.45	2.00	1.60	0.25	3.40			
*Henrietta	915					3.17	2.58	1.38	4.80	1.59	[1]1.44	0.31		
Hewitt	664	1.85	0.75	2.75	2.45	1.55	6.29	3.15	1.40	1.10	0.45	2.85	2.85	27.44
Honeygrove	676				1.61	4.52	5.85	1.34	2.45	1.48	2.34	2.85	2.42	
*Houston	53	4.53	3.49	2.87	5.92	1.50	6.46	4.89	5.59	2.42	0.92	5.28	2.94	46.81
Hulen					3.41	1.70	4.89	4.02	3.78	5.90	1.73	[c]1.87	2.86	
*Huntsville	400	4.43	5.15	3.53	5.00	5.65	6.82	3.26	4.19	0.98	6.60	4.14	3.47	53.22
Jacksonville	525	5.87	3.41	2.42	1.11	2.15	6.96	1.55	2.03	3.43	3.65	4.32	4.08	40.98
Jasper		5.80	4.40	4.30	3.10	3.45	6.47	2.73	7.51	1.44	2.15	5.97	2.21	49.53
Junction	1,075						7.20	5.91	3.86	1.20	0.90	1.00	1.44	
Kent		0.20	0.00	0.39	1.27	0.62	3.98	2.44	2.51	1.85	0.52	0.11	1.51	15.40
*Kerrville	1,750	1.05	0.35	2.32	3.98	1.17	9.03	2.35	1.13	1.50	0.15	1.36	1.75	26.14
*Lampasas	1,026	1.46	0.78	1.27	3.34	0.83	6.62	2.32	1.75	0.95	0.30	2.43	1.98	24.03
Langtry	1,400						5.96	3.37			0.00			
Llano		1.10	0.50	1.02	4.40	1.40	5.44	1.45	0.40	0.50	0.60	3.07	1.30	21.18
*Longview	336	9.42	2.86	3.30	1.24	1.69	5.21	1.17	3.01	3.77	1.94	3.60	2.55	39.76
*Luling	418	0.59	4.87	1.79	1.76	1.85	3.83	2.43	0.68	2.15	0.47	2.49	1.68	24.59
Mann	450	1.25	2.03	2.25	1.68	4.10	5.35	5.00	6.02	1.15	2.25	3.40	3.05	37.53
Marathon	4,000		0.00	0.20		0.00	2.89		0.38					
Marshall	300	7.88	3.19	4.10	1.28	2.82	9.00	0.70	2.32	3.75	1.90	4.28		
Menardville	1,960	0.41	0.35	0.15	2.63		8.26	1.99	2.24	1.63	0.00	0.00	2.13	
Midland	2,779	0.00			[i]1.20				2.60					
Missouri City		4.29	3.33	2.71										
Mount Blanco		0.08	0.06	T.	0.09	1.12	0.25	2.18	2.13	0.05	0.03	0.02	1.74	7.75
New Braunfels	720	0.90	1.16	1.31	2.40	4.60	7.60	3.02	3.18	1.83	0.29	1.24	1.53	29.06
*Palestine	511	5.76	4.68	2.24	1.43	3.24	5.50	2.29	3.22	1.92	2.42	4.18	5.22	42.05
Panter	1,000	3.10	1.43	1.25	3.90	2.88	6.29	1.94	2.70	0.80	T.	1.53	2.62	28.44
*Paris	592	1.85	0.68	2.24	0.68	3.77	1.73	1.23	3.30	0.85	1.12	0.75	0.94	19.14
Point Isabel	12	T.	0.15	0.10	0.75	1.10	0.08	0.35	T.	4.39	0.08	1.55	T.	8.85
Rhineland		0.78	2.68	2.68	1.55	2.08	2.13	4.77	3.24	1.50	0.66	0.73	1.54	24.34
Roby		0.49	1.42		1.84	5.28	5.21	1.32	1.99	4.91	0.06	0.31		
Rockport														
Rocksprings	2,400	0.50	0.20	2.00	1.73	0.75	5.87	0.45	1.58	1.95	2.45		2.08	
Runge		0.49	3.30	2.28	3.48	2.98	3.39	0.66	2.96	1.85	0.63	1.61	1.21	24.84
*San Antonio	600	0.46	1.16	1.47	1.46	1.06	7.06	2.24	3.35	1.32	0.03	1.34	1.54	22.49
San Antonio[1]	600	0.50	1.22	1.64	1.65	1.18	7.33	1.90	3.41	1.41	0.03	1.35	1.68	22.70
Sanderson	2,780								0.52	0.00	0.60	0.00		
*San Marcos	600	1.39	0.54	1.54	2.32	6.40	6.35	1.09	2.10	2.30	1.11	1.74	1.32	28.70
Sherman	760							0.90				2.40	2.50	
Sugarland						2.02	5.47	1.32	2.73					
Sulphur Springs	530	2.56	2.35	2.21	1.08	6.48								
Temple[2]	630	2.36	2.58	1.75	3.93	1.05	5.92	0.73	2.50	1.81	1.30	2.62	2.20	28.75
*Temple[3]	630					1.01	4.37	0.38	1.19	0.70	1.02	1.59		
Tulia		0.50	0.18			3.36	5.55	4.67					1.70	
*Tyler	531	4.82	3.08	3.50	0.87	1.65	2.69	4.01	1.19	1.76	1.90	3.13	3.30	31.90
Valentine	4,248	0.00	0.00	0.10		0.00		0.45	1.77	0.00				
Victoria	421	1.20	3.40	1.35	3.17	1.56	2.98	4.33	2.32	1.63	0.84	1.27	1.70	25.75
*Waco	424	2.05	1.51	3.15	[d]1.76	1.02	3.54	1.35	1.07	0.46	1.28	3.00	2.30	22.49
Waxahachie	556	1.70	2.80	2.80	2.50	4.90	8.60	1.25	2.70	1.90	1.00	2.50	3.42	36.07
*Weatherford	864	2.62	2.15	0.82	3.22	6.48	6.65	0.99	1.19	1.37	0.35	1.21	2.83	29.09
Wichita Falls	958	1.43	2.00	4.65	1.92	2.73	4.85	1.96	2.43	0.29	0.48	0.65	2.77	26.16
Utah.														
Alpine	4,900	0.91	0.45	1.05	1.24	4.59	1.43	0.19	0.94	0.05	0.92	1.18	0.63	13.58
Blue Creek			T.	0.80	T.	3.06	1.29	0.10		T.	0.61	2.03	0.70	
Brigham	4,315	2.46	0.76	1.83	0.87	4.52	1.35	0.03	0.60	0.21	1.24	1.92	1.00	16.79
Cisco	4,380	0.95	T.	0.02	0.20	1.86	0.22	T.	0.44	0.00	0.00	T.	0.10	3.79
Corinne	4,232	1.90	0.15	0.85	0.47	2.15	0.56	T.	0.13	0.26	0.35	1.03	0.65	8.50
Croyden	5,251			[j]0.85	0.30						1.58	2.20		
Ferron		0.45	0.40	0.30	0.85	1.91	0.43	0.64	0.07	0.00	0.00	0.20	[j]0.10	5.35
Fillmore	5,700	0.15	1.20	3.07	0.59	4.44	0.92	0.99	0.60	T.	0.80	1.27	0.76	14.59
Fort Duchesne	5,000	0.60	0.10	0.75	0.17	0.61	0.45	0.66	0.66	0.08	0.05	0.13	0.10	4.36
Frisco	6,250	0.42	0.10	0.12	0.41	2.59	0.11	0.97	1.46	0.00	0.31	0.15	0.24	6.88
Giles	4,000	0.90	0.20	T.	0.46	0.83		0.36	0.59	T.	0.00	0.14	0.25	
Heber	5,440	1.40	0.50	3.30	1.25	7.04	0.83	0.25	0.64	0.08	1.44	1.00	1.10	19.43

[1] G. A. Duerler. [2] W. G. Jones. [3] Cotton-region observer.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Utah—Continued.														
	Feet.													
Huntsville	5,100	1.33	0.67	1.08	0.99	3.28	0.80	0.48	0.94	0.26	1.72	3.44	1.10	16.99
Kelton	4,223	0.10	0.00	0.00	1.25	2.35	0.00	0.00	0.00	T.	0.00	0.75	0.20	4.65
Levan	5,010	0.80	0.25	1.45	1.06	5.57	0.90	1.62	0.73	0.00	0.99	0.94	1.36	15.67
Loa	7,000	0.33	0.00	0.17	0.45	1.50	.....	0.60	1.12	0.09	0.00	.....	.....	.....
Logan	4,507	0.88	0.52	1.34	1.58	5.02	0.85	0.15	0.11	0.18	1.34	0.73	0.48	13.18
Millville	4,848	1.17	0.53	1.63	0.80	1.71	0.55	0.10	0.11	0.26	1.62	1.46	0.66	10.60
Minersville	5,070	1.49	0.57	2.08	0.25	2.35	0.46	0.51	0.94	0.11	0.08	0.66	0.29	9.79
Moab	4,000	0.77	0.13	0.44	0.25	1.58	0.16	0.17	0.35	0.00	T.	0.25	0.22	4.32
Mount Pleasant	5,900	0.70	0.70	1.50	1.15	3.59	0.52	0.30	0.56	0.00	0.29	0.60	0.50	10.41
Ogden	4,307	1.47	0.19	1.82	0.37	5.23	0.81	0.00	0.30	0.30	1.47	1.12	0.60	13.68
Pahreah	4,000	2.65	0.20	T.	0.60	1.10	1.20	0.01	1.50	0.00	0.00	T.	0.10	7.36
Parowan	5,970	1.99	1.20	1.66	0.64	3.35	0.24	1.19	1.46	0.25	0.30	0.72	0.82	13.82
Pinto	5,970	1.28	0.68	1.33	0.39	2.30	0.25	0.07	0.60	0.00	0.00	0.11	0.11	7.12
Promontory	.....	0.60	0.05	0.60	0.02	.....	1.50	T.	T.	.....	0.00	.....	0.10	.....
Provo	4,525	0.82	0.64	0.87	0.72	5.47	1.55	0.35	0.31	0.00	1.34	1.08	0.80	13.95
Richfield	5,308	0.70	0.30	0.40	0.15	1.20	1.00	0.40	0.35	0.00	0.00	0.00	T.	4.50
St. George	2,880	1.15	0.56	0.44	0.60	0.93	0.39	0.05	0.74	0.00	0.00	T.	0.12	4.98
*Salt Lake City	4,360	0.58	0.38	1.71	1.30	4.19	1.45	0.18	1.35	0.15	1.57	1.95	1.28	16.09
Scipio	5,260	1.89	1.62	3.41	0.35	2.83	1.10	0.19	0.44	0.00	.....	1.36	1.10	.....
Snowville	4,360	0.80	0.30	0.76	0.76	.....	.....	0.06	0.06	0.14	0.51	1.16	0.60	.....
Soldier Summit	7,477	1.25	0.68	2.92	1.56	3.12	0.13	T.	0.10	0.02	.....	1.15	1.15	.....
Terrace	4,544	.....	0.30	0.32	1.00	3.27	2.25	T.	T.	T.	0.12	1.46	0.65	.....
Thistle	5,050	1.65	0.30	0.75	0.00	2.30	0.00	.....	.....	.....	.....	.....	.....	.....
Tooele	4,900	0.75	0.34	2.38	1.21	6.35	1.58	0.14	0.38	0.13	2.40	1.79	0.80	18.25
Tropic	7,000	.....	0.40	T.	0.88	1.21	0.81	0.58	0.52	T.	0.00	T.	T.	.....
Vernal	5,050	0.63	0.47	0.60	0.50	2.03	.....	*0.34	.....	1.04	0.30	0.39	0.17	.....
Woodruff	6,500	.....	.....	.....	.....	.....	0.93	0.17	0.44	0.05	.....	0.97	.....	.....
Vermont.														
Bennington	720	4.35	3.22	1.78	2.69	4.11	4.60	1.25	8.62	4.85	7.11	4.39	1.95	48.92
Brattleboro	335	5.99	4.94	1.05	4.13	5.19	4.47	1.76	4.84	2.54	10.84	6.20	2.56	54.51
Burlington	220	2.60	2.98	1.04	2.33	2.14	2.93	1.51	4.58	5.01	4.01	1.90	0.75	31.78
Chelsea	1,350	4.66	4.78	0.97	2.65	3.34	2.24	2.28	4.71	3.98	3.84	2.82	1.26	37.53
Cornwall	350	4.00	2.49	1.23	1.89	3.49	3.23	1.45	2.39	3.76	2.84	1.30	1.05	29.12
Enosburg Falls	601	4.56	4.40	1.20	1.58	2.70	3.45	2.29	5.53	4.89	3.62	1.90	4.23	40.35
Hartland	665	5.94	4.22	0.82	3.42	3.99	4.18	1.89	5.02	4.62	4.48	4.67	1.75	45.00
Jacksonville	1,000	8.06	3.87	1.71	4.16	6.44	3.02	1.75	5.06	3.14	8.57	5.72	5.24	56.74
*Northfield	871	3.30	3.72	0.64	2.74	2.10	2.28	1.66	5.22	2.66	2.87	1.97	1.36	30.52
Norwich	400	4.40	4.41	1.07	3.03	3.25	3.85	1.11	4.01	3.98	3.82	3.87	1.54	37.84
St. Johnsbury	711	3.68	2.64	0.97	2.45	2.46	3.55	6.60	5.81	5.42	3.18	2.63	1.46	40.85
Vernon	310	6.66	4.68	1.19	3.70	4.52	6.95	2.33	4.91	2.19	8.18	2.94	2.20	50.45
Wells	750	4.80	5.25	1.04	2.58	2.82	3.57	2.46	7.70	5.16	4.58	3.56	1.79	45.31
Woodstock	700	6.30	3.49	0.91	3.51	2.92	2.37	2.93	3.82	3.94	3.74	3.94	1.65	39.52
Virginia.														
Alexandria	35	3.46	1.31	2.81	2.65	3.05	0.45	3.22	6.55	0.84	3.75	2.87	3.86	34.82
Ashland	220	1.61	0.78	4.18	5.09	6.05	3.94	4.42	4.82	2.86	4.33	1.93	3.33	43.34
Ballsville	.....	.....	.....	.....	4.57	5.48	2.08	.....	.....	.....	.....	.....	.....	.....
Barboursville	.....	2.80	0.72	4.68	3.19	7.66	3.97	4.69	.....	.....	.....	.....	.....	.....
Bedford City	900	2.48	1.02	4.03	3.21	7.81	2.53	4.26	3.67	4.08	8.06	2.05	4.16	47.96
Bigstone Gap	1,966	6.40	1.85	4.64	2.56	5.18	4.86	10.23	9.72	1.88	4.09	3.68	3.05	58.14
Birdsnest	40	1.90	1.15	4.20	7.75	4.20	2.70	2.85	3.30	2.90	6.10	.....	1.60	.....
Blacksburg	2,100	2.96	0.71	3.99	1.96	5.83	3.13	3.70	3.49	3.42	5.21	1.89	2.68	38.97
Bonair	130	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buckingham	550	2.00	0.40	2.23	3.20	3.53	1.75	5.00	3.90	2.08	6.60	2.17	3.56	36.42
Burkes Garden	258	4.87	0.98	4.97	2.73	5.48	5.39	5.31	6.79	4.71	6.32	3.05	2.60	53.20
Callaville	570	1.68	0.70	3.68	4.19	6.24	2.01	4.00	2.77	2.62	4.38	3.35	1.93	37.55
*Cape Henry	17	1.67	1.51	3.38	6.90	5.17	2.83	6.10	3.45	3.20	6.38	3.48	1.54	45.61
Charlottesville	.....	.....	.....	.....	3.16	7.37	4.69	7.89	10.61	3.94	9.09	2.07	5.70	.....
Christiansburg	2,160	2.78	0.39	3.08	1.93	5.86	2.52	4.21	3.13	4.17	5.11	2.28	2.54	38.00
*Clarksville	.....	1.55	.....	2.10	2.90	5.46	4.18	4.27	3.42	4.10	3.38	1.80	1.65	.....
Cliftonforge	1,047	2.66	0.51	3.24	2.58	4.13	1.28	3.69	2.78	3.65	7.92	.....	2.33	.....
Colemans Falls	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.26	8.76	2.91	4.09	.....
Columbia	.....	.....	.....	.....	.....	.....	.....	.....	1.83	2.00	7.20	.....	6.10	.....
Dale Enterprise	1,350	2.37	0.61	3.90	2.91	4.94	4.83	6.24	9.54	2.23	7.39	1.82	3.60	50.38
*Danville	413	.....	.....	2.35	2.43	3.87	4.00	2.35	4.97	.....	.....	.....	.....	.....
Doswell	134	1.60	0.79	4.35	5.23	3.82	2.26	5.23	.....	2.80	.....	3.47	1.16	.....
Dwale	.....	1.90	1.63	3.81	1.90	6.44	.....	13.74	9.16	1.63	5.83	2.68	2.95	.....
Farmville	316	0.65	.....	3.09	4.23	5.49	2.80	6.63	3.67	3.01	4.81	2.25	3.35	.....
Fredericksburg	47	3.17	1.19	4.55	4.28	7.47	2.02	3.10	4.44	1.19	5.39	2.07	4.01	42.88
Grahams Forge	2,387	2.79	0.60	3.86	1.92	4.94	.....	.....	3.53	4.82	6.26	1.55	1.53	.....
Guinea	.....	.....	0.90	2.91	2.17	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hampton	3	1.71	1.49	2.97	8.15	4.66	2.40	4.15	4.31	3.68	3.32	3.20	1.35	41.39
Hot Springs	2,195	1.99	0.79	4.10	.....	.....	.....	5.10	8.00	3.90	11.80	.....	2.73	.....
Leesburg	321	3.69	0.60	2.43	1.89	.....	.....	.....	.....	.....	3.11	1.83	3.78	.....
Lexington	1,055	2.58	0.77	3.47	2.59	5.81	4.72	4.44	6.24	3.61	7.83	2.10	2.90	47.06
*Lynchburg	525	2.16	0.74	3.25	2.94	9.08	2.98	7.17	2.82	4.50	7.33	2.61	4.35	49.93
Maidens	.....	.....	1.15	3.27	5.41	4.56	4.01	5.56	.....	.....	.....	.....	.....	.....
Manassas	317	2.79	1.22	2.93	1.56	3.89	1.10	3.06	5.92	1.20	5.48	1.86	2.91	33.92
Marion	2,124	4.26	0.95	4.57	2.08	5.63	4.10	6.03	7.15	3.50	5.43	2.30	2.40	48.40
Miller School	1,000	.....	.....	.....	3.08	5.06	3.63	10.27	8.27	3.71	10.15	2.08	3.60	.....
Monterey	3,008	4.24	1.22	.....	.....	.....	.....	.....	7.50	1.75	.....	.....	.....	.....
*Norfolk	57	1.44	1.48	3.51	6.69	5.12	3.76	8.89	8.48	3.34	5.63	2.90	1.90	53.14
Petersburg	11	1.21	0.78	3.95	4.90	5.35	2.57	4.74	2.83	2.31	3.33	2.43	2.04	36.44
*Radford	1,773	1.20	0.73	2.95	1.69	4.95	3.59	.....	.....	.....	.....	.....	.....	.....
*Richmond	144	1.05	1.05	3.78	4.83	5.25	2.98	4.15	6.31	2.33	4.59	2.22	3.08	41.65
Richmond (near)	96	1.72	0.81	3.43	4.71	6.95	2.34	3.50	4.74	3.22	4.89	2.93	3.25	42.49
Rockymount	33	2.70	0.60	2.97	2.58	4.25	3.34	7.75	7.48	5.77	8.81	2.44	4.13	52.82
*Salem	1,200	2.95	0.58	3.35	1.99	6.74	2.82	5.06	4.14	3.66	8.63	1.50	2.58	44.00

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Virginia—Continued.	*Feet.*													
*Speers Ferry		6.69	2.19	5.08	3.95	4.50	4.71	9.20	8.59	3.42	4.38	3.52	2.29	58.52
Spottsville	15	1.64	1.26	4.44	6.37	4.32	3.80	7.80	9.90	2.70	4.40	4.77	1.89	53.29
Stanardsville	1,150	2.49	0.65	4.52	3.24	5.72	2.51	5.22	6.06	3.11	12.01	2.46	4.20	52.19
Staunton	1,380	2.89	0.55	3.10	2.95	4.82	2.16	4.41	5.16	2.22	7.13	1.74	3.00	40.13
Stephens City		4.12	1.22	4.39	2.13	5.62	1.49	2.27	10.40	6.84	6.93	1.21	3.53	44.15
Sunbeam	60	1.71	1.11	3.91	4.50	4.51	2.99	6.10	3.48	3.19	4.91	3.62		
Tobaccoville										4.62	6.05	2.08	4.19	
Warrenton	560	2.04	0.53	2.97	5.00	5.13	1.44	2.54	6.42	2.58	6.69	2.52	5.26	43.12
Waraaw	200	1.47	1.33	5.10	4.18	3.94	1.64	5.80	5.04	2.57	2.52	2.49	2.92	39.00
Westpoint			1.50	4.15	5.43	5.01	2.85	4.52	3.13	3.05	3.78		2.30	
*Woodstock	820	3.30	0.60	3.79	2.75	4.85	1.12	3.56	7.31	0.95	6.23	2.08	2.61	39.15
Wytheville	2,370	3.30	0.65	4.15	2.19	4.41	2.17	5.63	5.61	6.40	5.38	1.81	2.48	44.18
Washington.														
Aberdeen	10	5.85	14.42	4.41	4.93	3.35	3.35	0.97	0.55	5.93	4.81	10.94	10.92	70.43
Anacortes	75	1.92	2.88	2.57	1.04	1.33				2.22	1.80	5.74	2.77	
Ashford	1,775	5.14	11.06	3.20	3.79	3.26	4.61	1.35	0.56	6.61	4.17	10.43	9.86	64.04
Blaine	85	4.36	5.54	2.07	2.17	1.50	2.65	0.90	0.78	2.71	2.70	7.86	2.76	36.00
Bridgeport		T.			T.			0.00	0.25			T.	0.34	
Brinnon	80					2.57	2.85	0.48	0.05	4.67	5.33	5.79	6.31	
Cedar Lake								1.73	0.54	7.65	5.90	15.18	12.48	
Centerville	1,509	0.71	1.08	0.21	0.29	0.38	0.85	0.14	0.09	1.07	0.22	2.00	1.29	8.33
Chehalis		1.92	2.87	0.43										
Clearwater	200	15.62	25.05	7.42	8.44	5.06	8.56	1.97	0.67	9.14	11.01	15.32	18.05	126.31
Colfax	2,300	2.51	2.75	2.20	0.68	2.37	0.70	0.39	0.94	1.04	1.36	2.15	0.88	17.97
Coupeville	2	0.97	2.82	1.67	1.61	1.65	2.89	0.61	0.23	1.46	1.90	2.31	2.38	20.50
Dayton	1,450	3.40	1.69	2.02	0.86	1.80	0.98			1.20	0.98	4.18	0.85	
Ellensburg	1,577	0.36	0.47	0.12	0.03	0.12	0.73	0.05	0.29	0.22	0.22	0.56	0.54	3.71
Ellensburg (near)		0.45	0.50	0.30	0.03	0.27	0.86	0.10	0.31	0.25	0.25	0.65	0.60	4.57
*Fort Canby		6.17	12.49	2.94	3.80	2.56	3.35	0.67	0.62	4.83	4.70	8.87	8.84	59.84
Fort Simcoe		0.40	1.54	T.	0.02	0.18	0.35	0.00	0.26	0.48	T.	1.49	1.50	6.22
Fort Spokane	1,400	1.89	1.80	0.85	0.25	2.30	0.80	2.00	1.43	1.00	0.25	1.97	1.00	15.54
Grandmound	162	3.43	8.24	3.20	2.63	1.79	3.04	0.47	0.72	4.47	2.46	6.80	5.30	42.55
Hunters		0.94	2.33	0.98	1.12	3.62	1.45	1.17	1.12	0.86	0.70	1.14	1.46	16.89
Kennewick	330	0.73	0.52	0.14	0.21	0.37	0.34	0.00	0.15	0.05	0.10	0.74	0.23	3.58
Lacenter	250	5.25	9.13	2.82	2.76	3.02	2.19	0.96	0.51	4.50	3.26	8.45	6.14	48.99
Lakeside	985	0.30	1.59	0.08	T.	0.91	1.54	T.	1.03	0.22	0.03	0.92	1.35	7.97
Lapush	15	9.85	16.46	3.48	6.65	3.29	6.82	1.30	0.79	6.76	5.98	8.28	5.40	75.06
Lind	1,363	0.85	0.81	0.16	0.28	1.37		0.13	0.69	0.26	0.34	1.37	4.71	
Loomis	1,200	0.45	1.00	0.38	0.16	4.75	1.94	0.76	0.49		0.18	0.34	0.11	
Madrone	75	2.21	7.26	1.19	2.14	1.13	1.85	0.39	0.22	3.15	4.58	4.86	5.33	34.31
Mayfield	300	5.64	9.03	4.52	3.60					[d]6.22	3.03	10.81	6.70	
Moxee Valley	1,000	0.75	0.51	0.15	0.10	0.49	0.29	0.02	0.13	0.21	0.21	0.53	0.52	3.91
Neah								1.06	0.15	4.87	8.51	15.60	12.66	
New Whatcom	60	1.69	2.40	2.21	1.87	1.68	2.95	0.91	1.03	2.35	3.60	4.08	3.64	28.41
Northbend	550	6.80	10.92	5.47			4.89	0.80	0.42	6.85			5.80	
Olga	50	1.33	3.93	3.22	1.22	0.96	2.15	0.46	0.30	2.55	3.31	4.31	3.42	27.16
Olympia	15	3.96	9.47	1.98	2.10	1.96	2.68	0.28	0.50	4.61	2.51	6.84	5.33	42.22
Orcas Island		1.41	2.47	2.42	0.80	0.82	2.24	0.16	0.46	1.84	2.68	3.65	2.71	21.66
Pine Hill	600	1.89	2.69	0.78	0.33	0.26	1.03	0.25	0.01	1.95	0.54	4.34	2.16	16.23
Pomeroy	1,500	2.57	1.39	1.69	0.62	2.16	0.40	0.05	0.23	0.30	0.57	3.43	0.91	14.32
*Port Angeles	29	2.39	3.62	1.38	0.80	1.22	1.24	0.17	0.17	1.78				
*Port Crescent											4.80	5.10	4.41	
Port Townsend	80	1.09	2.64	1.15	1.36	1.85	2.91	0.72	0.18	1.22	1.65	1.57	1.84	18.18
Pullman	2,550	3.30	3.24	1.72	1.02	1.94	1.54	0.51	1.03	1.15	0.69	1.85	1.06	19.05
*Pysht	6	5.10	11.97	2.76	3.51	2.00	2.65	0.55	0.51	[f]4.21	[e]5.89	[e]9.58		
Rosalia	2,300	1.60	1.96	1.50	0.68	2.53	0.40	0.48	1.10	0.84	0.95	2.52	0.80	15.36
*Seattle	119	1.99	5.98	1.39	1.51	0.66	2.13	0.22	0.15	2.92	4.69	3.52	4.12	29.28
Sedro	38	3.96	6.13	5.28	3.35	1.79	4.71	1.08	0.87	3.28	3.80	8.88	4.76	47.89
Shoalwater Bay														
Silvana	35	2.41	7.14	3.64	1.86	1.58		0.05	0.16	1.94	4.41	6.52	3.91	
Snohomish	50	2.96	7.70	4.59	2.46	2.13	1.96	T.	0.18	3.26	6.95	4.63	3.06	39.88
Southbend	6	7.40	16.57	4.74	4.94	3.33	3.75	0.92	0.45	7.26	5.65	11.79	9.10	75.90
*Spokane	1,930	1.45	1.93	0.92	0.76	1.63	1.21	0.43	1.00	0.47	0.35	1.99	0.94	13.08
Stampede	2,800			3.62	2.49	1.48	3.72		1.02	4.92	[e]3.19	10.74	4.30	
Sunnyside	764	0.40	0.14	0.05	0.05	0.73	0.49	0.00	0.07	0.52	0.11	0.41	0.06	3.03
Snoqualmie Falls											4.42	7.33	5.78	
*Tacoma	137	3.01	8.68	0.97	2.26	1.12	2.41	0.26	0.38	4.24	1.60	5.92	4.73	35.58
*Tatoosh Island		10.86	17.51	3.49	6.70	2.37	5.78							
Tunnel	3,350	7.34								2.20	4.90	8.40	9.20	
Union City	10	5.30	16.30	2.37	3.40	1.36	3.40	0.48	0.31	6.29	6.47	10.95	9.24	65.87
Vancouver	50					2.42	2.01	0.85	0.18	2.89	1.84	5.48	4.49	
Vashon	110	3.21	8.35	1.39	1.63	0.93	2.21	0.37	0.38	3.37	2.23	6.25	4.21	34.53
*Walla Walla	1,018	1.88	1.33	1.52	1.83	2.26	0.84	0.22	0.22	0.56	1.09	3.74	0.85	16.34
Waterville	2,500	0.10	1.42	0.10	0.06	0.68	1.50	0.06	0.91	0.83	T.	1.55	1.00	8.21
West Virginia.														
Beckley	2,300	3.79			2.00	3.70	2.06	2.14	5.74	0.81	[e]1.93	1.36	1.48	
Beverly	2,250	7.90	2.87	7.08	3.44	6.15	2.76	8.33	10.06	2.30	6.29	4.74	4.13	66.05
Bluefield	2,563	2.96	0.98	3.53				6.42	6.15	3.15	6.36	3.02	2.25	
*Buckhannon	1,500	6.74	2.68	8.00	4.45	5.13	3.97	4.16	8.96	3.79	8.02	3.79	3.45	61.14
Burlington	800	3.87	1.45	5.09	3.73	4.78	0.66	1.92	8.21	1.52	5.05	1.95	2.55	40.78
*Charleston	2,300	6.11	1.93	7.06	2.72	4.34	3.58	4.36	7.42	3.52	4.19	3.64	2.56	51.93
Dayton	925	5.55	1.92	7.50	2.93	4.07	1.77	4.47	9.33	2.89	4.89	2.59	2.37	50.28
Eastbank	2,563	6.01	1.75	7.22	3.36	4.85	4.40	4.60	8.23	1.89	2.69	1.00	2.15	48.25
Elkhorn		3.22	1.16	4.03	3.76	5.07	5.87	7.33	5.67	4.22	4.25	2.84	2.60	50.02
*Elkins	1,940													
*Fairmont	877	4.99	2.10	6.10	4.40	4.71	3.36	3.10	7.40	2.47	5.81	2.66	2.70	49.80
*Glenville	738	6.61	2.82	7.58	3.02	4.01	3.80	4.41	7.73	3.89	4.91	3.03	3.81	55.62

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
West Virginia—Continued.	*Feet.*													
Grafton	985	5.58	2.45	7.14	4.05	4.73	4.48	4.36	6.85	1.87	4.92	3.34	2.48	52.25
Green Sulphur	1,600	2.24	0.86	2.58	1.85	3.60	2.13	1.62	4.40	0.80	3.04	1.21	2.63	26.96
*Harpers Ferry	350	4.15	1.49	4.36	1.87	6.51	1.08	2.12	5.64	1.47	8.50	3.60	3.69	44.48
*Hinton	1,885	3.31	0.91	4.15	2.30	4.44	2.80	5.34	8.45	2.90	4.58	2.32	1.94	43.44
Huntington	1,428	6.52	2.38	6.34	1.40	3.63	4.36	4.41	6.27	4.75	3.34	2.60	2.46	48.46
Jaeger														
Kingwood	1,900	5.99	2.56	7.71	4.28	5.55	4.93	2.74	8.79	3.11	6.16	3.39	2.78	57.99
Marlinton	1,372	5.61	1.47	5.23	4.32	5.27	7.50	6.76	9.15	3.33	4.54	3.85	3.71	60.74
Martinsburg	435	3.15	1.29	3.35	1.87	4.51	1.42	3.20	7.00	1.31	5.09	2.91	3.50	38.60
Morgantown	901	5.78	1.68	6.20	4.86	4.78	5.17	4.01	7.91	2.79	5.56	2.67		
New Cumberland							4.00	6.40	5.10	1.47	3.73	2.89	1.03	
New Martinsville		5.70	1.88	3.67	3.53	4.54	2.34	6.33	7.56	2.04	5.27	3.22	2.79	48.87
Nuttallburg	510			4.25		4.36	3.10	6.80	4.85	2.50		2.10		
Oldfields	800	3.91	1.05	4.14	2.37	5.63	1.81	3.25	8.07	1.10	5.31	2.30	2.74	41.68
*Parkersburg	638	5.73	2.24	5.43	2.17	2.76	4.98	4.38	4.66	2.09	3.90	2.50	2.36	43.20
Philippi[1]	1,192								11.41	2.84		3.32		
*Philippi[2]	1,192				4.31	5.84	3.50	3.91	11.57	2.79	5.19	3.80	2.49	
*Point Pleasant	553	8.04	1.93	5.81	1.48	3.51	2.87	2.79	6.40	2.07	3.15	2.67	2.57	43.29
Powellton	904	4.45	2.07	5.21	2.68	3.85	2.76	7.58	9.55	1.77	3.59	3.41	2.99	49.91
Romney	850	3.42	1.09	4.13	2.53	4.51	0.97	2.66	6.68	1.36	5.69	2.07	2.69	37.80
*Rowlesburg	1,192	6.62	2.12	6.72	4.77	4.73	2.57	1.53	5.70	1.59	2.48	2.52	2.98	44.33
Uppertract	1,230	3.26	0.64	3.36	3.16	4.20	2.09	4.23	8.83	1.15	5.82	2.16	1.99	40.89
*Weston	824	7.55	3.15	10.05	3.11	3.42	3.44	3.81	6.77	3.84	5.63	3.50	3.13	57.40
*Wheeling[3]	824	4.97	2.50	5.15	3.72	3.63	2.98	5.81	7.82	3.24	3.37	2.66	3.08	48.93
Wheeling[3]	645	5.00	2.50	5.70	3.62	3.69	2.89	5.72	5.86	3.46	3.97	2.45	2.68	47.54
White Sulphur Springs	553			4.03	3.07	4.56				1.86	5.70	[b]2.71		
Wisconsin.														
Amherst	1,200	1.00	1.17	2.60	2.75	2.40	2.40	2.61	4.20	3.23	3.85	1.70	0.81	28.72
Antigo	1,489			[a]0.63	1.61	2.84								
Barron	1,111		1.83	1.80	1.02	4.40	2.27	1.90	2.51	0.98	4.64	1.00	T.	
Bayfield	600	0.80	1.80	0.30	0.40	2.50	1.90	0.55	2.20	1.60	3.40	1.40	1.75	18.60
Beloit	750	2.51	1.29	4.50	2.65	3.45	9.70	4.79	5.13	2.31	2.44	1.60	0.23	40.60
Brodhead		1.96	2.04	3.70	2.59	2.29	7.30	4.22	2.62	2.44	3.90	1.17	0.37	34.60
Butternut	1,400	0.77	1.93	1.46	0.83	1.27							0.25	
Chat						6.50	1.66	1.13						
Chilton	900	0.63	0.91	1.98	2.31	3.70	2.02		3.78	1.85	2.12	0.38	0.30	
Citypoint	973	0.55	1.35	1.66	4.47	1.58	3.38	3.80	2.50	2.05	4.74	2.20	0.10	28.38
Delavan	920	1.59	1.17	3.63	1.96	2.77	6.21	2.59	4.58	2.80	4.55	1.11	0.80	33.76
Dodgeville	1,116	1.64	1.62	2.58	3.10	5.30	5.91	2.70	4.98	2.31	4.52	1.88	0.39	36.93
Easton	1,073	0.75	0.65	2.83	3.25	1.88	3.00	4.39	1.16	1.56	3.37	1.74	0.46	25.04
Eau Claire	600	0.32	2.26	2.85	2.22	1.96	1.50	1.27	0.23	0.77	5.13	1.79	0.27	20.57
Florence	1,264	0.30	1.38	1.40	1.56	3.34	3.77	3.71	5.72	2.48	2.56	1.12	0.15	27.49
Fond du Lac	800	1.08	0.98	2.38	2.40	3.12	1.81	3.23	2.52	1.78	4.06	1.29	0.51	25.16
Grand River Locks		1.45	0.62	3.00	2.78	3.49	5.19	3.78	4.51	1.64	3.59	1.12	0.39	31.56
Grantsburg	1,100	0.39	0.88	2.12	1.64	4.85	6.00	1.59	2.67	1.96	5.30	1.80	T.	29.14
Gratiot	1,016	2.00	1.60	2.85	2.20	3.08	9.22		5.70	0.85		1.65	T.	
*Green Bay	616	1.20	1.09	2.96	2.57	3.13	3.60	3.16	2.65	3.07	4.04	0.87	0.74	29.08
Hartford	1,017	2.68	2.52	2.88	0.54	3.66	4.40	2.31	2.07	[c]1.19	4.99	1.77	0.70	29.71
Hartland		2.45	1.84	3.17	2.34	1.92	1.98	2.83	2.91	1.65	4.04			
Harvey	897	1.94	1.34	2.38	2.44	3.06	4.01	3.97	3.94	3.18	4.76	1.24	0.45	32.71
Hayward	1,197	0.47	0.98	2.65	0.56	5.07	7.18	1.49	2.60	1.23	5.19	1.70	0.06	29.18
Heafford Junction				2.31	1.93	1.91	5.28	2.76	1.44	2.75	3.12	2.28	0.10	
Hillsboro		0.95	2.03	1.35	1.53	1.43	2.14	3.35	4.50	2.08	4.52	1.10	0.45	25.43
Knapp	926		1.04	0.87	1.23	2.67	4.86	2.11	3.55	0.69	4.45	1.04	T.	
Koepenick	1,683	0.80	2.20	1.70	1.70	3.80	5.20	2.60	2.10	3.70	4.00	2.30	0.30	30.40
*La Crosse	714	0.74	1.16	1.99	3.07	1.10	2.13	1.75	3.25	1.84	4.53	1.84	0.29	23.49
Lancaster	1,070	1.30	1.56	2.40	2.77	3.30	4.18	4.00	2.51	2.48	3.61	1.61	0.44	31.06
Lincoln	817	0.65	1.40			3.28	3.78	3.08	2.94	3.35	4.02	0.70	0.70	
Madison	955	3.59	2.42	2.67	2.46	4.71	4.40	2.83	2.56	2.43	3.08	0.55	0.21	31.91
Manitowoc	616	1.18	1.20	2.29	2.24	2.86	2.15	2.63	2.46	2.81	4.61	0.65	0.62	25.70
Meadow Valley	974	0.40	0.63	2.40	3.19	1.32	6.07	4.31	2.74	2.24	4.89	1.32	0.23	29.74
Medford	1,420	0.20	1.70	2.20	1.05	1.18	6.85	2.25	2.30	1.95	5.50	2.45	T.	28.23
Menasha	764	1.03	0.70	1.89	2.50	2.63	3.35	3.13	3.42	2.74	2.72	0.77	0.59	25.47
*Milwaukee	673	3.52	3.36	3.45	1.77	1.65	2.44	3.28	4.86	1.98	4.38	1.16	0.58	32.43
Neillsville	600	0.85	1.85	2.73	4.51	1.58	3.15	2.84	3.33	1.35	4.79	1.30	0.43	28.71
New Holstein	925	2.45	1.80	1.35	1.25	2.34		1.85	2.70	2.10	3.95		0.10	
New London	762	0.81	0.75	2.78	2.98	3.14	2.78	4.73	3.29	2.67	3.50	1.06	0.46	28.95
North Crandon	1,100	0.50	1.40	1.75	1.56	1.40	1.55	2.65	0.45	0.96	1.34	1.25	0.28	15.09
Oconto	590	1.10	0.95	2.68	2.82	4.37	2.79	2.81	3.39	2.35	4.12	1.95	0.40	29.73
Osceola	806	0.03	1.13	4.43	1.63	6.60	4.92	1.32	4.24	0.87	5.67	1.69	0.07	32.60
Oshkosh	744	0.82		0.95	4.30						3.50	1.75	0.46	
Pepin	691	0.21	1.48	1.46	1.38	1.38	2.38	2.15	1.98	0.51	4.67	1.45	0.18	19.23
Pine River		0.80	1.00	2.53	2.80	1.95	3.46	3.12	4.08	1.57	3.12	1.11	0.58	26.12
Portage	809	1.59	0.74	2.26	2.14	2.70	2.72	2.18	4.53	1.79	3.27	0.93	0.15	25.00
Port Washington	717	4.00	3.76	3.33	2.59	2.68	2.41	2.25	2.74	2.07	4.05	1.37	1.20	32.45
*Prairie du Chien	690	0.89	1.44	2.28	2.55	2.03	2.26	3.25	1.83	1.86	3.90	1.52	0.40	24.21
Prentice						4.32	4.97	2.20	1.66	1.79	4.27	2.43	0.11	
Racine	633	3.51	2.37	3.15	1.54	1.81	2.44	3.24	3.20	2.90	[d]3.13	1.29	0.53	29.11
Sharon	1,028	2.48	2.26	2.96	2.24	2.41	8.37	2.66		2.72	2.94	0.92	0.46	
Shawano	800	0.48	0.99	2.23	2.04	2.46	2.68	3.00	3.80	2.94	3.03	1.23	0.38	25.26
Sheboygan														
Spooner	1,104	0.70	1.85	1.60	0.49	3.39	7.81	0.69	1.97	0.96	3.01	1.20	0.00	23.67
Stevens Point	1,113	0.55	1.19	0.76	1.94	2.30	5.16	1.45	3.23	1.89	4.52	1.15	0.50	24.64
Sturgeon Bay Canal														
Two Rivers														
Valley Junction	792	0.69	1.83	2.45	4.43	1.95	3.88	3.27	2.66	2.98	4.74	1.69	0.14	30.71
Viroqua	1,412	1.15	2.19	3.45	4.15	2.04	2.22	3.19	5.13	2.40	5.02	1.81	0.97	33.72

[1] W. D. Holmes. [2] River observer. [3] Dr. C. Schnepf.

MONTHLY AND ANNUAL PRECIPITATION (IN INCHES AND HUNDREDTHS) FOR 1898—Continued.

Stations.	Elevation.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Wisconsin—Continued.	*Feet.*													
Watertown		1.56	3.14	4.00	2.50	4.32	4.63	3.08	2.64	1.75	4.20	1.33	0.77	33.92
Waukesha	970	2.34	1.60	3.24	2.05	1.92	1.54	2.81	4.08	1.55	4.10	0.98	0.50	26.71
Waupaca	857	0.74	0.75	2.84	2.61	2.88	3.24	3.10	.....	2.04	4.39	1.11	0.59	.....
Wausau	1,212	0.84	2.09	3.74	1.61	2.55	2.07	4.04	3.94	2.19	5.64	2.13	0.39	31.23
Wauseukee	745	.....	.....	.....	.....	.....	2.84	3.78	4.20	2.85	3.25	1.10	0.30	.....
Westbend	910	1.60	1.62	3.07	2.55	2.71	.....	.....	.....	.....	.....	.....	.....	.....
Westfield	925	1.20	1.20	2.25	2.71	1.60	3.11	5.89	3.18	1.25	2.52	1.01	0.41	26.33
Westpark	.....	.....	.....	.....	.....	.....	.....	2.60	.....	1.46	.....	1.22	.....	.....
Whitehall	675	.....	.....	1.40	3.10	2.00	2.90	3.40	3.10	2.40	5.80	1.55	0.30	.....
Whitemound	.....	1.10	1.90	2.36	3.07	3.85	.....	3.10	6.02	1.02	.....	.....	.....	.....
Wyoming.														
Atlantic City	7,850	0.75	0.05	1.55	1.65	.....	.....	.....	.....	0.43	.....	.....	.....	.....
Basin	3,500	.....	.....	.....	.....	2.28	0.80	0.10	0.14	0.06	1.13	0.20	0.10	.....
Bighorn Ranch	.....	0.05	0.18	1.28	0.45	5.03	2.32	1.57	1.81	0.06	1.59	0.47	0.20	15.01
Big Piney	6,250	.....	.....	.....	.....	1.46	0.55	0.97	0.23	0.25	0.10	0.60	0.00	.....
Bittercreek	6,702	.....	.....	.....	.....	.....	.....	0.01	0.04	0.00	.....	.....	.....	.....
Carbon	6,821	0.35	0.02	0.47	2.03	2.45	1.41	0.18	0.62	0.00	0.67	0.48	0.23	8.91
Cheyenne	6,084	0.48	0.06	0.39	0.68	3.72	2.33	1.83	0.90	0.47	0.25	1.58	0.36	13.05
Cody	.....	.....	.....	.....	.....	.....	.....	0.44	1.74	0.48	.....	.....	.....	.....
Embar	5,900	.....	0.10	1.20	.....	.....	.....	.....	1.61	.....	.....	.....	.....	.....
Evanston	6,959	.....	.....	.....	.....	2.83	1.29	0.22	0.97	0.50	1.94	2.10	0.50	.....
Fort Laramie	4,270	1.41	0.26	0.25	0.75	4.60	1.27	1.61	1.13	0.44	0.44	0.55	0.25	12.96
Fort Washakie	5,462	0.23	0.00	1.42	0.87	5.77	2.87	0.35	0.46	0.30	1.75	0.03	0.29	14.34
Fort Yellowstone	6,370	0.31	1.21	1.40	0.95	1.95	2.67	1.15	2.05	0.90	2.25	1.55	0.67	17.06
Greenriver	6,077	1.55	0.00	0.63	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Labarge	6,600	.....	.....	.....	.....	.....	.....	.....	.....	0.00	0.20	.....	.....	.....
Lander	5,372	0.33	T.	2.73	1.08	6.02	3.02	0.67	0.62	0.36	2.22	0.25	0.69	17.99
Laramie	7,188	0.05	0.01	0.40	1.26	1.88	0.90	0.65	1.16	T.	0.48	0.61	0.23	7.63
Lovell	4,200	0.06	0.12	0.65	0.15	4.33	1.20	0.86	0.99	0.05	0.74	0.17	0.03	9.85
Lusk	5,007	0.70	0.46	0.92	1.02	4.17	2.09	0.67	0.51	0.72	0.54	0.57	0.78	13.15
Otto	4,011	.....	T.	0.05	0.25	5.05	.....	1.48	T.	T.	.....	.....	.....	.....
Rawlins	6,744	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.60	0.80	.....
Sheridan	3,750	0.50	1.65	1.40	1.11	4.44	1.11	0.44	0.62	0.30	1.15	0.43	1.35	14.50
Sundance	4,700	1.20	0.85	1.20	1.12	4.03	1.86	1.71	0.27	.....	.....	.....	.....	.....
Wamsutter	6,706	0.60	0.00	0.30	1.25	.....	.....	T.	0.70	T.	0.60	.....	0.20	.....
Wheatland	4,700	0.80	T.	0.85	0.32	4.33	1.65	2.34	0.48	0.02	0.19	0.76	0.70	12.44

MONTHLY AND SEASONAL SNOWFALL.

[Inches and tenths.]

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Alabama.										
Ashville						5.0	T.			5.0
Bermuda					2.0	8.9				10.9
Decatur				1.0	T.	2.0	T.			3.0
Florence				1.2	0.5	3.5	2.2			7.4
Greensboro				1.0	1.0	4.5	T.			6.5
Hamilton				1.0	T.	5.5	0.5			7.0
Jasper				T.		5.5	0.3			5.8
Livingston				(†)	(†)	8.5				
Montgomery				T.	3.5	3.0	T.			6.5
Oneonto		T.		T.	T.	4.0	T.			4.0
Valleyhead		T.		(†)		3.0	1.0			
Arizona.										
Benson					(†)	0.5				
Buckeye										0.0
Calabasas				(†)	(†)	3.0	(†)	(†)		
Casagrande										0.0
Congress				(†)		T.		T.		
Flagstaff				(†)	13.3	25.8	6.9	5.1	0.4	
Fort Apache				6.8	9.7	10.5				27.0
Fort Defiance			13.0	14.0	8.0	22.0	2.5	T.	T.	59.5
Fort Grant					(†)	1.0				
Fort Mohave				T.						T.
Gilabend										0.0
Holbrook			T.	11.0	4.0	1.5	T.		1.0	17.5
Jerome			T.	26.0	14.0	9.0				49.0
Maricopa										0.0
Mount Huachuca			T.		1.2	3.0				4.2
Music Mountain				2.2		0.5				2.7
Natural Bridge				30.0	15.0	4.0		T.		49.0
Parker						T.				T.
Phœnix				T.						T.
Prescott				14.5	9.5	5.0	3.0			32.0
San Carlos				8.0						8.0
San Simon				2.0		3.0				5.0
Signal										0.0
Snowflake			0.2	14.5	6.0	1.7				22.4
Strawberry			0.5	29.0	18.0	11.0	1.5			60.0
Texas Hill										0.0
Tucson						1.2				1.2
Whitehills				6.0						6.0
Willcox				5.0			(†)			
Williams			6.0	21.0	14.0	21.0	5.5	1.0		68.5
Arkansas.										
Amity				0.3	1.2	2.5				4.0
Beebranch				(†)	(†)	3.0		(†)		
Blanchard Springs				3.5		3.5				7.0
Brinkley				T.	2.0	8.0				10.0
Camden				4.5	T.	3.0				7.5
Conway			T.	4.5	5.0	3.5	T.			13.0
Corning			T.	3.0	6.0	5.1	0.5			14.6
Dallas			T.	4.3	2.0	1.2	T.	T.		7.5
Dardanelle				4.0	0.5	0.0				4.5
Fayetteville		T.	T.	8.5	3.2	1.5	1.5			14.7
Fort Smith			0.2	2.8	0.7	1.9	0.1			5.7
Hardy				3.2	2.8	4.2	0.2			10.4
Helena				4.5	1.5	2.0				8.0
Hot Springs				1.0	0.8	T.	T.			1.8
Jonesboro				1.0	7.0	5.5				13.5
Keesees Ferry		T.	T.	4.1	3.8	5.2	3.2	T.		16.3
Little Rock				4.0	4.6	1.2				9.8
Malvern				T.	0.2	(†)				
New Gascony			T.	1.0	1.0	2.5	T.			4.5
Newport				0.5	7.0	7.0				14.5
Texarkana				1.1	0.5	3.5				5.1

†No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
California.										
Bishop	------	------	------	0.8	15.0	------	------	2.0	------	17.8
Boca	------	8.0	7.0	7.0	68.0	(†)	40.0	8.5	4.5	------
Bodie	------	T.	7.5	2.5	29.0	2.0	9.0	5.0	6.5	61.5
Bowmans Dam	------	12.0	13.5	12.0	83.0	27.0	103.0	10.0	14.0	274.5
Cedarville	T.	2.5	4.0	13.0	17.5	11.0	14.5	16.0	4.0	82.5
Chico	------	------	------	------	------	------	------	------	------	0.0
Crescent City	------	------	------	------	------	4.0	------	------	------	4.0
Delta	------	------	------	------	41.0	------	------	------	------	41.0
Edmanton	------	9.0	11.0	6.0	81.0	21.0	56.0	13.0	5.0	202.0
Elsinore	------	------	------	------	------	------	------	------	------	0.0
Escondido	------	------	------	------	------	------	------	------	------	0.0
Georgetown	------	------	T.	T.	1.5	5.0	8.0	T.	------	14.5
Keene	------	------	------	------	------	4.0	------	------	------	4.0
Laporte	2.5	16.4	15.5	13.5	114.1	26.9	118.8	25.3	12.7	345.7
Lemoore	------	------	------	------	------	------	------	------	------	0.0
Lodi	------	------	------	------	------	------	------	------	------	0.0
Los Angeles	------	------	------	------	------	------	------	------	------	0.0
Mohave	------	------	------	------	------	------	------	------	------	0.0
Needles	------	------	------	------	------	------	------	------	------	0.0
Newhall	------	------	------	------	------	------	------	------	------	0.0
Peachland	------	------	------	------	------	------	------	------	------	0.0
Redbluff	------	------	------	------	------	------	------	------	------	0.0
Rosewood	------	------	------	3.0	21.0	T.	------	------	------	24.0
Sacramento	------	------	------	------	------	T.	------	------	------	T.
San Francisco	------	------	------	------	------	T.	------	------	------	T.
Summerdale	------	2.0	4.0	1.0	41.0	14.0	45.0	6.0	------	113.0
Susanville	------	4.0	7.0	2.0	33.0	2.0	6.0	5.0	10.0	69.0
Truckee	4.0	------	20.0	15.0	78.0	27.0	54.0	11.0	------	209.0
Yreka	------	------	(†)	1.5	(†)	------	------	------	------	------
Colorado.										
Altman	10.0	11.5	15.0	(†)	(†)	(†)	(†)	(†)	(†)	------
Antlers	------	------	5.5	2.0	17.4	26.8	(†)	T.	------	------
Boulder	1.0	5.0	23.5	18.0	13.0	15.2	31.0	8.0	------	114.7
Breckenridge	3.8	15.2	59.2	25.9	80.2	76.8	120.4	20.2	5.4	407.1
Castlerock	4.0	9.0	10.5	15.0	9.5	11.0	8.0	8.0	0.2	75.2
Cedaredge	------	T.	2.0	2.8	7.2	9.3	4.5	1.5	0.8	28.1
Cheyenne Wells	5.6	1.9	2.2	2.7	4.2	3.5	2.9	T.	------	23.0
Colorado Springs	2.1	0.4	2.3	8.0	4.6	3.0	12.8	0.1	T.	33.3
Cope	8.0	6.4	(†)	6.0	8.0	3.5	4.8	5.5	------	------
Crook	------	T.	3.5	(†)	(†)	5.8	15.0	2.0	------	------
Delta	------	------	1.8	(†)	9.5	2.3	3.0	T.	------	------
Denver	------	2.8	9.0	15.5	8.5	9.1	20.4	6.7	T.	72.0
Fort Collins	------	1.0	11.5	3.5	11.2	14.0	19.8	4.8	------	65.8
Fort Morgan	------	------	5.0	1.5	8.0	4.0	6.8	1.5	------	26.8
Grand Junction	------	------	------	4.8	6.1	6.7	3.0	0.7	0.3	21.6
Gunnison	------	T.	13.2	4.8	8.5	(†)	(†)	(†)	T.	------
Hoehne	(†)	4.0	8.0	17.5	4.0	1.5	(†)	T.	------	------
Hugo	7.0	3.0	T.	5.0	10.0	4.5	8.5	8.0	------	46.0
Lake Moraine	6.0	18.0	15.1	18.5	19.2	10.8	18.8	11.2	5.0	122.6
Lamar	T.	7.0	3.2	6.0	4.0	16.0	5.0	T.	------	41.2
Las Animas	T.	------	T.	5.0	6.0	10.0	2.0	------	------	23.0
Leadville (near)	0.5	14.0	34.8	14.2	61.2	60.8	67.0	9.0	2.2	263.7
Meeker	------	0.5	16.0	5.9	13.2	21.5	21.8	11.8	1.8	92.5
Millbrook	3.0	5.0	7.5	20.5	(†)	(†)	(†)	(†)	(†)	------
Minneapolis	2.0	5.0	2.0	11.5	4.0	2.8	2.0	------	------	29.3
Pagoda	------	20.0	20.5	16.0	25.0	52.0	31.0	13.0	2.5	180.0
Parachute	------	(†)	(†)	8.0	15.0	24.0	(†)	T.	0.8	------
Pueblo	------	T.	2.6	13.5	5.3	4.9	7.2	0.3	------	33.8
Rangely	(†)	(†)	(†)	(†)	2.5	9.8	19.0	3.2	------	------
Rockyford	T.	T.	0.2	8.0	13.0	6.5	4.0	0.5	------	32.2
Saguache	------	T.	11.0	6.0	3.5	10.0	T.	T.	T.	30.5
Salida	1.0	0.5	3.5	9.5	0.5	2.0	5.5	6.0	T.	28.5
San Luis	2.7	0.4	11.7	5.3	1.9	3.7	6.9	0.6	T.	33.2
Walden	0.1	2.5	(†)	(†)	19.2	27.0	18.8	11.5	2.0	------
Wray	------	1.0	1.0	4.0	8.0	1.5	5.0	4.0	------	24.5
Connecticut.										
Hartford	------	------	29.5	4.0	4.8	32.3	9.0	1.0	------	80.6
Middletown	------	------	39.0	1.2	7.8	32.5	10.2	2.0	------	92.7

† No report from station.

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Connecticut—Continued.										
New Haven	.....	T.	23.0	3.0	8.2	22.1	10.1	T.	.....	66.4
New London	.....	.....	31.2	1.0	8.4	35.2	4.3	T.	.....	80.1
Southington	.....	.....	18.5	2.0	6.0	19.2	10.5	2.0	.....	58.2
Delaware.										
Millsboro	.....	.....	(†)	1.0	(†)	(†)	(†)	.....	.....	.....
District of Columbia.										
Washington	.....	.....	4.8	1.6	8.3	35.2	4.5	T.	.....	54.4
Florida.										
Archer	.....	.....	.....	.....	.....	1.5	.....	.....	.....	1.5
Bartow	.....	.....	.....	.....	.....	0.5	.....	.....	.....	0.5
Brooksville	.....	.....	.....	.....	.....	0.2	.....	.....	.....	0.2
Carrabelle	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
Crawfordville	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
De Funiak Springs	.....	.....	.....	.....	.....	1.5	.....	.....	.....	1.5
Earnestville	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Eustis	.....	.....	.....	.....	.....	0.1	.....	.....	.....	0.1
Gainesville	.....	.....	.....	.....	.....	1.0	.....	.....	.....	1.0
Grasmere	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Haywood	.....	.....	.....	.....	.....	3.5	.....	.....	.....	3.5
Homeland	.....	.....	.....	.....	.....	0.8	.....	.....	.....	0.8
Jasper	.....	.....	.....	.....	.....	2.0	.....	.....	.....	2.0
Jacksonville	.....	.....	.....	.....	.....	1.9	.....	.....	.....	1.9
Lake Butler	.....	.....	.....	.....	.....	0.2	.....	.....	.....	0.2
Lake City	.....	.....	.....	.....	.....	3.0	.....	.....	.....	3.0
Macclenny	.....	.....	.....	.....	.....	1.0	.....	.....	.....	1.0
Myers	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
New Smyrna	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Oakhill	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
Orange City	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Orange Park	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
Orlando	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
Pensacola	.....	.....	.....	.....	.....	2.1	.....	.....	.....	2.1
St. Andrews	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Stephensville	.....	.....	.....	.....	.....	(†)	.....	.....	.....	.....
Switzerland	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Tallahassee	.....	.....	.....	.....	.....	1.0	.....	.....	.....	1 0
Tampa	.....	.....	.....	.....	.....	0.1	.....	.....	.....	0.1
Tarpon Springs	.....	.....	.....	.....	.....	0.1	.....	.....	.....	0.1
Wausau	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Georgia.										
Adairsville	.....	T.	.....	T.	1.5	1.8	0.2	.....	.....	3.5
Americus	.....	.....	.....	.....	T.	4.1	.....	.....	.....	4.1
Atlanta	.....	.....	.....	0.4	2.4	6.5	0.5	T.	.....	9.8
Augusta	.....	.....	.....	.....	T.	6.7	T.	.....	.....	6.7
Clayton	.....	.....	T.	0.5	3.0	3.5	1.0	T.	.....	8.0
Covington	.....	.....	.....	1.0	1.5	.....	T.	.....	.....	2.5
Dahlonega	.....	T.	T.	T.	2.0	4.0	2.5	T.	.....	8.5
Hephzibah	.....	.....	T.	.....	2.0	6.0	T.	.....	.....	8.0
Poulan	.....	.....	.....	.....	.....	3.5	.....	.....	.....	3.5
Idaho.										
American Falls	.....	.....	(†)	.....	(†)	(†)	1.9	.....	.....	.....
Blackfoot	.....	T.	2.0	0.5	1.0	3.0	0.5	(†)	0.8	.....
Boise	.....	.....	0.1	5.5	10.7	13.2	2.9	2.7	T.	35.1
Burnside	.....	1.0	12.5	3.0	16.0	4.5	6.5	5.0	3.5	52.0
Downey	T.	.....	6.5	18.0	(†)	2.1	6.0	0.1	1.0	.....
Fort Sherman	.....	.....	7.5	12.2	22.6	14.3	(†)	T.	.....	.....
Gimlet	(†)	(†)	12.0	6.9	40.0	9.0	18.8	7.3	2.5	.....
Gray	.....	(†)	(†)	(†)	30.0	1.7	16.0	7.0	0.6	.....
Idaho City	(†)	(†)	(†)	9.8	(†)	(†)	(†)	7.0	T.	.....
Idaho Falls	.....	3.0	13.7	8.1	7.1	5.5	6.0	1.7	3.0	48.1
Kootenai	(†)	(†)	16.0	(†)	(†)	20.0	12.0	.....	.....	.....
Lake	.....	(†)	8.0	15.0	65.0	47.0	22.0	12.0	18.7	.....
Lakeview	.....	.....	(†)	7.5	25.5	16.5	11.0	T.	.....	.....

† No report from station.

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	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Idaho—Continued.										
Marysville	.....	4.5	(†)	(†)	20.2	7.2	6.9	.....	(†)	.....
Minidoka	.....	.....	8.0	(†)	3.0	11.5	18.0	(†)	(†)	.....
Moscow	.....	.....	22.8	9.1	22.0	23.5	12.0	T.	T.	89.4
Murray	.....	T.	38.0	29.0	54.0	47.0	43.0	8.0	1.0	220.0
Oakley	.....	.....	5.0	2.0	8.0	1.0	8.0	1.0	T.	25.0
Ola	.....	.....	18.8	12.8	27.6	16.2	14.1	1.5	.....	91.0
Paris	.....	.....	13.5	13.2	11.2	11.2	20.8	4.5	(†)	.....
Payette	.....	.....	6.0	2.5	10.5	10.0	1.8	T.	.....	30.8
Salubria	.....	.....	24.1	(†)	(†)	(†)	(†)	0.2	.....	.....
Soldier	.....	1.5	17.1	3.5	21.0	14.5	16.5	2.0	1.0	77.1
St. Maries	.....	.....	9.5	14.0	31.2	26.8	8.5	0.5	.....	90.5
Illinois.										
Albion	.....	.....	1.0	3.0	2.5	11.0	(†)	T.	.....	.....
Alexander	.....	T.	1.0	3.5	5.5	3.5	6.5	5.0	.....	25.0
Ashton	.....	2.0	11.1	7.9	2.7	4.0	7.6	T.	.....	35.6
Aurora	.....	1.0	(†)	7.0	2.0	(†)	(†)	.....	.....	.....
Bloomington	.....	0.8	1.0	4.0	2.0	2.0	15.0	T.	.....	24.8
Bushnell	.....	(†)	(†)	2.5	2.0	(†)	12.5	2.3	.....	.....
Cairo	.....	.....	T.	3.0	7.8	6.1	1.2	T.	.....	18.1
Cambridge	.....	6.0	10.0	2.5	2.2	6.0	7.5	0.2	.....	34.4
Carlinville	.....	0.5	2.0	5.6	7.8	4.5	9.3	3.0	.....	32.7
Charleston	.....	0.2	0.9	4.9	4.8	3.2	6.1	0.5	.....	20.6
Chicago	.....	T.	1.8	2.7	2.6	3.5	7.4	T.	.....	18.0
Cisne	.....	.....	0.5	2.5	2.5	14.0	(†)	T.	.....	.....
Cobden	.....	.....	(†)	3.2	8.8	5.0	4.5	4.0	.....	.....
Greenville	.....	.....	0.6	2.1	(†)	2.0	10.5	5.2	.....	.....
Havana	.....	T.	2.0	2.5	4.0	3.0	20.5	2.0	.....	34.0
Joliet	.....	1.0	9.6	8.4	2.1	1.8	11.2	T.	.....	34.1
Mascoutah	.....	.....	1.0	3.2	5.2	8.8	(†)	4.5	.....	.....
Ottawa	.....	T.	5.5	3.0	2.5	1.5	16.0	T.	.....	28.5
Palestine	.....	T.	0.8	3.8	3.8	10.5	4.0	0.2	.....	23.1
Rantoul	.....	T.	4.2	2.6	4.2	2.9	14.0	T.	.....	27.9
Riley	.....	1.0	5.3	2.5	2.7	3.8	5.0	T.	.....	20.3
Springfield	.....	T.	0.6	1.1	3.6	2.4	5.8	3.8	.....	17.3
Winnebago	.....	3.0	11.0	3.0	4.0	6.0	8.0	T.	.....	35.0
Indiana.										
Angola	.....	T.	9.0	6.1	8.7	8.1	32.0	.....	.....	63.9
Bluffton	.....	T.	3.5	7.6	4.5	0.8	13.2	T.	.....	29.6
Butlerville	.....	.....	1.5	9.4	6.4	13.0	2.5	T.	.....	32.8
Cambridge City	.....	T.	1.1	13.7	1.7	2.9	2.6	T.	.....	22.0
Evansville	.....	T.	1.0	2.2	5.2	9.4	1.5	.....	.....	19.3
Indianapolis	.....	T.	2.4	7.4	2.7	4.2	6.5	T.	.....	23.2
Kokomo	.....	T.	1.8	4.2	5.0	1.5	14.2	0.1	.....	26.8
Lafayette	.....	.....	1.6	2.5	6.2	1.0	10.7	T.	.....	22.0
Laporte	.....	T.	12.1	(†)	5.7	1.0	19.7	0.2	.....	.....
Marengo	.....	T.	1.4	8.7	9.3	13.4	(†)	0.2	.....	.....
Princeton	.....	.....	2.0	7.0	(†)	14.0	8.0	0.5	.....	.....
Rockville	.....	T.	T.	3.0	5.0	2.4	12.0	.....	.....	22.4
Scottsburg	.....	T.	T.	8.0	6.5	13.0	T.	T.	.....	27.5
South Bend	.....	0.5	14.5	10.5	5.5	4.0	28.0	T.	.....	63.0
Terre Haute	.....	T.	1.0	2.9	3.8	3.9	11.0	T.	.....	22.6
Valparaiso	.....	.....	1.0	1.0	(†)	(†)	(†)	.....	.....	.....
Worthington	.....	T.	1.3	5.9	3.1	8.7	0.7	0.3	.....	20.0
Indian Territory.										
Healdton	.....	.....	4.0	9.0	2.0	T.	T.	.....	.....	15.0
Kemp	.....	.....	2.0	4.0	3.0	0.5	.....	.....	.....	9.5
Lehigh	.....	.....	(†)	4.5	2.0	T.	.....	.....	.....	.....
Tahlequah	.....	.....	.....	5.0	2.0	T.	0.5	.....	.....	7.5
Iowa.										
Algona	.....	3.0	9.5	3.8	0.3	9.2	16.0	2.0	.....	43.8
Alta	.....	6.3	10.8	3.7	1.0	6.7	17.3	3.0	.....	48.8
Ames	.....	(†)	10.0	(†)	0.1	2.5	2.5	(†)	.....	.....

† No report from station.

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Iowa—Continued.										
Atlantic	.....	T.	10.5	2.0	T.	4.0	7.0	3.0	.....	26.5
Belleplaine	.....	6.0	12.5	1.8	5.5	6.6	1.8	1.5	.....	35.7
Britt	.....	0.5	6.5	4.1	0.3	11.5	10.6	0.9	.....	34.4
Cedarfalls	.....	4.0	(†)	2.0	1.0	15.0	2.5	0.5	.....	.....
Cedar Rapids	.....	(†)	(†)	2.6	4.0	2.8	0.8	T.	.....	.....
Chariton	.....	4.3	(†)	2.1	1.8	2.8	6.2	3.2	.....	.....
Clarinda	.....	10.5	11.5	4.5	2.0	5.8	10.5	5.5	.....	50.3
Corning	.....	5.0	10.0	2.0	T.	4.5	11.0	2.5	.....	35.0
Cresco	.....	T.	4.9	1.7	2.5	9.8	10.0	0.5	.....	29.4
Davenport	.....	2.9	6.5	0.7	0.8	5.3	5.7	0.3	.....	22.2
Delaware	.....	1.5	5.2	1.8	2.5	10.5	3.5	.....	.....	25.0
Des Moines	.....	1.7	12.3	2.2	1.7	5.8	2.8	3.0	.....	29.5
Dubuque	.....	3.6	2.9	1.3	3.3	6.1	6.1	T.	.....	23.3
Humboldt	.....	T.	6.6	0.2	T.	3.4	8.7	(†)	.....	.....
Independence	.....	4.0	7.2	2.8	3.1	8.8	3.8	T.	.....	29.7
Iowa City	.....	4.0	7.5	0.3	3.0	6.0	1.5	1.0	.....	23.3
Iowa Falls	.....	T.	19.5	4.0	T.	8.0	6.0	2.0	.....	39.5
Keokuk	.....	3.0	2.5	0.9	1.0	2.2	11.3	3.0	.....	23.9
Keosauqua	.....	2.0	4.0	1.0	1.5	2.0	14.1	6.0	.....	30.6
Logan	.....	10.0	9.0	7.0	1.0	7.0	13.0	.....	.....	47.0
Rock Rapids	.....	1.0	(†)	(†)	(†)	3.5	(†)	(†)	.....	.....
Sioux City	.....	3.0	8.0	1.3	0.2	6.2	4.7	1.1	.....	24.5
Spirit Lake	.....	4.0	6.8	3.2	T.	11.6	(†)	T.	.....	.....
Stuart	.....	3.0	(†)	1.5	0.5	4.0	6.6	0.8	.....	.....
Kansas.										
Abilene	.....	4.0	17.0	2.5	3.0	6.5	10.5	1.0	.....	44.5
Achilles	6.0	3.0	4.5	2.8	5.2	4.6	7.8	2.0	.....	35.9
Augusta	.....	T.	0.5	3.5	T.	1.5	3.5	.....	.....	9.0
Beloit	.....	T.	8.0	3.0	(†)	(†)	10.0	(†)	.....	.....
Burlington	.....	3.0	T.	10.5	3.5	3.6	(†)	0.5	.....	.....
Campbell	.....	3.5	9.0	3.0	0.5	11.8	19.0	1.5	.....	48.3
Colby	.....	0.5	2.7	3.5	3.3	2.9	5.4	1.5	.....	19.8
Columbus	.....	0.2	1.0	15.0	2.5	2.1	11.1	.....	.....	31.9
Concordia	.....	T.	10.9	0.2	0.3	9.0	13.6	1.5	.....	35.5
Coolidge	.....	3.0	T.	T.	2.0	7.0	3.0	.....	.....	15.0
Cunningham	.....	2.0	4.8	4.0	1.0	2.0	7.0	T.	.....	20.8
Dodge City	.....	1.2	7.5	5.0	1.1	2.5	4.4	0.5	.....	22.2
Dresden	.....	(†)	(†)	(†)	(†)	6.0	6.3	4.0	.....	.....
Ellinwood	.....	1.5	11.2	3.5	2.0	2.8	10.2	T.	.....	31.2
Emporia	.....	T.	3.0	11.0	T.	6.0	3.0	T.	.....	23.0
Englewood	.....	T.	0.8	8.0	1.0	1.0	3.5	T.	.....	14.3
Eureka Ranch	.....	0.5	7.0	T.	2.5	(†)	3.0	.....	.....	.....
Fallriver	.....	T.	T.	(†)	2.5	4.0	5.2	T.	.....	.....
Fort Scott	.....	T.	(†)	12.0	7.0	3.0	3.0	.....	.....	.....
Frankfort	.....	6.0	7.0	3.0	0.2	15.5	16.0	2.0	.....	49.7
Garden City	.....	1.0	7.0	7.0	2.0	10.3	4.5	2 0	.....	33.8
Gibson	.....	1.0	10.0	2.0	2.0	1.0	4.0	T	.....	20.0
Gove	.....	3.0	8.0	5.0	3.5	5.0	3.5	0.5	.....	28.5
Grenola	.....	T.	1.0	3.0	2.0	T.	6.0	.....	.....	12.0
Halstead	.....	(†)	(†)	4.0	3.0	(†)	1.0	.....	.....	.....
Horton	.....	6.0	(†)	5.0	1.0	4.0	21.5	2.0	.....	.....
Hutchinson	.....	1.0	5.7	5.0	6.5	3.3	10.0	1.0	.....	32.5
Lakin	(†)	.....	4.0	5.0	(†)	(†)	(†)	(†)	.....	.....
McPherson	.....	(†)	(†)	5.0	6.5	5.5	5.0	.....	.....	.....
Manhattan	.....	2.0	9.0	3.5	1.3	5.7	12.4	1.4	.....	35.3
Marion	.....	1.0	(†)	4.0	4.0	2.0	11.0	0.5	.....	.....
Medicine Lodge	.....	T.	2.5	5.0	0.2	1.0	5.0	T.	.....	13.7
Minneapolis	.....	1.0	9.0	3.0	2.0	3.3	10.7	0.7	.....	29.7
Ness City	.....	1.0	9.0	2.0	(†)	3.0	3.0	.....	.....	.....
Oberlin	1.0	3.0	9.0	3.0	9.0	4.0	6.0	1.5	.....	36.5
Osage City	.....	3.0	(†)	7.0	4.1	5.0	6.0	1.0	.....	.....
Phillipsburg	.....	1.0	13.0	5.0	2.0	3.5	4.0	.....	.....	28.5
Rome	.....	.....	2.0	6.0	T.	T.	10.0	.....	.....	18.0
Russell	.....	T.	8.0	5.0	3.0	2.0	6.2	0.5	.....	24.5
Topeka	.....	2.0	5.2	6.8	3.2	6.3	14.1	2.0	.....	39.6
Viroqua	T.	1.0	6.0	21.0	9.0	6.0	5.0	T.	.....	48.0
Wallace	1.0	T.	T.	7.0	2.0	3.0	2.8	(†)	.....	.....
Wichita	.....	0.5	5.1	5.7	2.5	0.7	9.7	.....	.....	24.2

† No report from station.

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Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Kentucky.										
Ashland	.....	.....	(†)	(†)	3.5	8.5	(†)	T.	.....	.....
Bowling Green	.....	.....	0.0	7.2	8.5	(†)	5.0	.....	.....	.....
Caddo	.....	T.	4.0	11.0	18.0	14.8	1.5	(†)	.....	.....
Canton	.....	.....	T.	9.0	17.0	17.0	1.5	.....	.....	44.5
Earlington	.....	T.	T.	7.0	9.0	10.0	2.5	0.5	.....	29.0
Edmonton	.....	T.	0.1	6.0	8.7	16.5	5.1	1.0	.....	37.4
Ensor	.....	.....	2.0	(†)	3.0	12.0	(†)	.....	.....	.....
Eubank	.....	T.	0.2	9.1	7.0	6.0	6.5	.....	.....	28.8
Irvington	.....	.....	0.5	4.2	8.2	11.0	T.	0.5	.....	24.4
Lexington	.....	0.2	1.7	7.3	5.8	9.2	2.0	1.3	.....	27.5
Louisville	.....	T.	1.4	5.8	9.2	7.9	0.6	0.4	.....	25.3
Middlesboro	.....	T.	0.2	4.4	6.4	9.1	1.6	0.2	.....	21.9
Paducah	.....	.....	T.	2.2	5.0	8.0	2.0	T.	.....	17.2
Vanceburg	.....	.....	T.	(†)	3.0	(†)	4.0	.....	.....	.....
Williamsburg	.....	T.	T.	0.1	10.0	4.6	T.	.....	.....	14.7
Louisiana.										
Abbeville	.....	.....	.....	.....	.....	3.0	.....	.....	.....	3.0
Alexandria	.....	.....	.....	1.0	T.	7.0	.....	.....	.....	8.0
Amite	.....	.....	.....	.....	T.	6.0	.....	.....	.....	6.0
Bastrop	.....	.....	.....	5.0	T.	7.2	.....	.....	.....	12.2
Calhoun	.....	.....	.....	4.0	.....	8.2	.....	.....	.....	12.2
Cheneyville	.....	.....	.....	0.1	.....	(†)	.....	.....	.....	.....
Donaldsonville	.....	.....	.....	.....	.....	3.0	.....	.....	.....	3.0
Farmerville	.....	.....	T.	4.0	T.	12.0	.....	.....	.....	16.0
Franklin	.....	.....	.....	.....	.....	2.0	.....	.....	.....	2.0
Houma	.....	.....	(†)	(†)	.....	5.0	.....	.....	.....	.....
Jennings	.....	.....	.....	.....	.....	2.0	.....	.....	.....	2.0
Lake Charles	.....	.....	.....	.....	.....	1.0	.....	.....	.....	1.0
Libertyhill	.....	.....	T.	4.5	T.	9.5	.....	.....	.....	14.0
Minden	.....	.....	(†)	(†)	.....	6.0	.....	.....	.....	.....
Oxford	.....	.....	.....	2.0	T.	6.5	.....	.....	.....	8.5
Venice	.....	.....	(†)	(†)	.....	0.8	.....	.....	.....	.....
White Sulphur Springs	.....	.....	.....	4.0	4.0	7.0	.....	.....	.....	15.0
Maine.										
Bar Harbor	.....	.....	7.0	16.5	13.5	29.0	26.5	0.5	.....	93.0
Belfast	.....	.....	12.0	17.0	9.0	17.0	26.0	3.0	.....	84.0
Eastport	.....	.....	10.8	19.4	16.5	24.3	23.7	0.6	.....	95.3
Farmington	.....	.....	20.5	9.9	16.0	22.2	43.5	5.5	.....	117.6
Gardiner	.....	.....	14.0	13.2	13.0	19.5	28.0	3.8	.....	91.5
Kineo	.....	(†)	(†)	(†)	(†)	35.0	(†)	(†)	.....	.....
Mayfield	.....	T.	30.0	11.0	19.0	32.5	28.0	6.0	.....	126.5
Orono	.....	.....	6.0	7.0	10.0	13.5	28.0	0.5	.....	65.0
Portland	.....	.....	22.6	12.6	11.2	27.5	38.3	3.1	.....	115.3
Maryland.										
Baltimore	.....	.....	9.7	0.6	5.3	33.9	1.6	T.	.....	51.1
Cumberland	.....	.....	8.0	5.8	9.0	28.0	0.8	T.	.....	51.6
Deerpark	.....	.....	4.0	34.0	(†)	20.0	9.0	T.	.....	.....
Easton	.....	.....	0.8	1.2	4.0	50.3	10.0	.....	.....	66.3
Frederick	.....	.....	5.0	4.5	6.5	34.2	1.2	.....	.....	51.4
Hagerstown	.....	.....	6.8	11.5	2.5	34.0	2.0	.....	.....	56.8
Mardela Springs	.....	.....	2.0	2.0	(†)	(†)	(†)	.....	.....	.....
Sunnyside	.....	2.0	8.9	26.0	12.2	26.5	15.0	4.0	.....	94.6
Massachusetts.										
Amherst	.....	.....	11.5	8.5	5.5	30.6	22.0	0.5	.....	78.6
Boston	.....	.....	17.8	7.7	6.1	30.2	9.3	T.	.....	71.1
Dudley	.....	.....	24.0	(†)	(†)	(†)	(†)	(†)	.....	.....
Fitchburg	.....	.....	17.5	11.0	8.0	31.0	27.0	2.5	.....	97.0
Hyannis	.....	.....	7.0	0.4	5.2	37.0	6.8	.....	.....	56.4
Nantucket	.....	.....	1.5	1.7	7.7	30.1	3.7	T.	.....	44.7
Pittsfield	.....	.....	9.0	8.5	(†)	26.5	32.0	(†)	.....	.....
Taunton	.....	.....	30.0	2.0	(†)	32.0	(†)	.....	.....	.....
Vineyard Haven	.....	.....	12.0	0.8	3.3	22.4	5.7	T.	.....	44.2
Williamstown	.....	.....	(†)	12.6	(†)	19.5	(†)	(†)	.....	.....
Woods Hole	.....	.....	17.1	1.0	3.8	19.4	4.0	T.	.....	45.3

† No report from station.

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Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Michigan.										
Adrian	.....	T.	3.2	6.2	2.2	0.8	20.5	T.	.....	32.9
Allegan	.....	.....	33.0	25.0	19.0	16.0	29.5	1.5	.....	124.0
Alpena	.....	5.7	4.0	10.9	5.5	5.3	15.3	T.	.....	46.7
Ann Arbor	.....	T.	6.2	8.8	3.2	2.5	17.5	T.	.....	38.2
Arbela	.....	.....	9.0	7.0	2.0	3.0	32.0	T.	.....	53.0
Ball Mountain	.....	.....	4.5	5.3	5.1	1.1	21.9	2.0	.....	39.9
Battlecreek	.....	T.	11.0	9.0	8.5	6.4	23.0	0.2	.....	58.1
Berrien Springs	.....	0.5	24.2	21.5	20.0	11.0	50.2	1.0	.....	128.4
Calumet	.....	1.2	15.3	36.0	30.5	15.0	13.0	0.2	T.	111.2
Camden	.....	T.	2.8	(†)	4.5	(†)	(†)	.....	.....	.....
Charlevoix	.....	.....	6.0	29.0	20.0	15.5	21.0	T.	.....	91.5
Cheboygan	.....	3.0	3.0	11.5	9.2	7.0	7.0	T.	.....	40.7
Detroit	.....	T.	8.9	16.0	4.2	6.5	24.1	0.5	.....	60.2
Escanaba	.....	T.	2.3	4.5	12.7	7.4	14.8	T.	.....	41.7
Ewen	.....	1.0	11.0	(†)	17.0	7.5	(†)	.....	.....	.....
Gladwin	.....	3.0	13.0	15.0	8.0	10.0	26.0	.....	.....	75.0
Grand Haven	.....	0.2	15.2	8.4	12.5	4.7	13.2	T.	.....	54.2
Harrisville	.....	4.0	7.5	17.7	8.2	12.6	36.0	0.1	.....	86.1
Hart	.....	.....	8.0	18.5	8.5	5.5	8.7	.....	.....	49.2
Iron River	.....	(†)	(†)	3.0	7.7	(†)	(†)	(†)	.....	.....
Ivan	.....	4.2	4.2	32.5	13.5	6.5	28.0	1.0	.....	89.9
Lansing	.....	T.	18.0	8.2	6.0	6.0	26.5	.....	.....	64.7
Lathrop	.....	3.0	2.0	6.0	19.0	10.0	27.5	T.	.....	67.5
Luzerne	.....	7.0	8.0	13.5	3.3	15.0	25.0	T.	.....	71.8
Manistee	.....	T.	13.5	12.0	6.5	(†)	23.0	(†)	.....	.....
Manistique	.....	3.0	2.0	11.1	10.0	9.0	16.0	T.	.....	51.1
Marquette	.....	3.7	8.5	19.0	19.4	5.8	29.0	0.3	.....	85.7
Newberry	.....	3.0	7.0	8.0	17.0	(†)	14.0	(†)	.....	.....
Port Austin	.....	.....	(†)	2.0	2.0	(†)	34.0	.....	.....	.....
Port Huron	.....	T.	2.0	15.6	7.1	0.6	20.3	T.	.....	45.6
Sault Ste. Marie	.....	2.8	5.8	14.4	15.3	10.0	11.4	0.6	1.0	61.3
Thomaston	.....	1.0	28.0	(†)	18.0	4.0	28.0	(†)	.....	.....
Minnesota.										
Ada	.....	T.	5.0	3.0	5.0	1.0	11.5	0.2	.....	25.7
Albert Lea	.....	T.	9.0	1.3	1.6	11.8	9.8	T.	.....	33.5
Alexandria	.....	T.	3.3	0.9	11.6	3.9	5.2	(†)	.....	.....
Beardsley	.....	.....	3.0	1.2	(†)	3.7	4.0	1.1	.....	.....
Bird Island	.....	T.	6.4	T.	0.3	7.2	9.8	T.	T.	23.7
Caledonia	.....	1.0	5.0	0.5	3.5	16.0	16.2	T.	.....	42.2
Camden	.....	(†)	(†)	(†)	(†)	7.0	9.5	.....	T.	.....
Collegeville	.....	T.	8.2	0.9	3.0	6.0	10.2	0.6	.....	28.9
Crookston	.....	T.	5.0	0.5	6.0	0.5	6.0	4.0	.....	22.0
Duluth	.....	0.6	11.0	2.5	7.5	7.2	10.1	T.	.....	38.9
Fergus Falls	.....	T.	3.6	2.1	6.0	3.0	7.1	3.3	.....	25.1
Lake City	.....	.....	8.0	1.0	2.5	7.0	14.0	T.	.....	32.5
Lake Winnibigoshish	.....	0.5	7.8	4.2	5.6	4.0	8.0	1.5	.....	31.6
Long Prairie	.....	T.	7.0	1.8	6.0	3.4	5.4	0.1	.....	23.7
Luverne	.....	4.2	3.8	0.2	5.4	6.8	21.5	2.5	.....	44.4
Minneapolis	.....	T.	14.1	0.7	8.0	15.0	23.6	T.	.....	61.4
Minnesota City	.....	.....	10.0	2.0	8.0	11.0	9.5	.....	.....	40.5
Montevideo	.....	2.0	5.2	T.	2.0	(†)	10.1	.....	.....	.....
Moorhead	.....	T.	6.4	2.9	4.4	6.1	13.0	1.0	.....	33.8
Mount Iron	.....	0.1	10.0	4.5	2.4	5.0	11.0	0.2	T.	33.2
New Ulm	.....	T.	4.5	T.	2.0	15.2	23.8	T.	.....	45.5
Park Rapids	.....	1.2	5.3	3.7	6.3	2.8	9.1	3.7	T.	32.1
Pleasant Mounds	.....	2.0	9.5	1.2	1.2	14.0	18.8	T.	T.	46.7
Pokegama Falls	.....	T.	17.8	8.2	7.7	6.4	5.9	0.9	.....	46.9
Roseau	.....	(†)	(†)	5.3	(†)	3.4	(†)	(†)	.....	.....
St. Paul	.....	.....	14.3	1.5	8.0	9.2	26.3	0.1	.....	59.4
St. Peter	.....	T.	7.5	1.2	1.8	15.7	19.5	T.	.....	45.7
Sandy Lake Dam	.....	0.4	12.0	4.6	5.5	6.3	9.1	(†)	.....	.....
Mississippi.										
Agricultural College	.....	.....	.....	T.	.....	4.0	.....	.....	.....	4.0
Batesville	.....	.....	.....	4.0	1.0	2.0	.....	.....	.....	7.0
Biloxi	.....	.....	.....	.....	.....	0.4	.....	.....	.....	0.4
Brookhaven	.....	.....	.....	.....	0.2	(†)	.....	.....	.....	.....

† No report from station.

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Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
***Mississippi*—Continued.**										
Canton	.....	.....	.....	T.	.....	5.7	.....	.....	.....	5.7
French Camp	.....	.....	.....	2.5	T.	8.9	.....	.....	.....	11.4
Greenville	.....	.....	.....	2.5	T.	1.4	.....	.....	.....	3.9
Greenwood	.....	.....	.....	3.0	(†)	6.0	.....	.....	.....	.....
Hattiesburg	.....	.....	.....	.....	T.	(†)	.....	.....	.....	.....
Holly Springs	.....	.....	.....	5.0	4.0	1.0	.....	.....	.....	10.0
Leakesville	.....	.....	.....	(†)	T.	5.3	.....	.....	.....	.....
Meridian	.....	.....	.....	.....	0.4	5.8	.....	.....	.....	6.2
Port Gibson	.....	.....	.....	3.8	.....	4.5	.....	.....	.....	8.3
Watervalley	.....	.....	.....	3.0	1.1	3.5	T.	T.	.....	7.6
Waynesboro	.....	.....	.....	.....	4.0	6.0	.....	.....	.....	10.0
Missouri.										
Birchtree	.....	.....	T.	4.0	4.0	6.0	0.5	T.	.....	14.5
Brunswick	.....	1.5	3.5	4.5	2.0	6.5	7.5	6.0	.....	31.5
Columbia	.....	T.	0.9	5.4	4.0	6.9	7.0	3.7	.....	27.9
Conception	.....	9.0	8.5	10.5	5.0	8.5	14.0	6.0	.....	61.5
Cowgill	.....	T.	2.0	4.0	1.5	2.0	11.0	7.0	.....	27.5
Edgehill	.....	2.0	7.0	3.0	2.8	7.6	2.2	4.0	.....	28.6
Eldon	.....	T.	4.5	5.3	9.5	8.0	14.0	3.0	.....	44.3
Fayette	.....	2.5	2.0	5.5	4.0	5.8	5.0	4.0	.....	28.8
Gallatin	.....	8.0	5.2	10.5	1.5	4.0	19.3	6.0	.....	54.5
Gordonville	.....	.....	0.5	3.2	8.2	11.0	7.0	.....	.....	29.9
Halfway	.....	T.	T.	4.0	3.5	2.0	1.0	.....	.....	10.5
Hannibal	.....	0.6	1.2	3.5	3.1	4.6	10.0	2.4	.....	25.4
Harrisonville	.....	4.5	3.0	6.8	3.2	3.2	7.2	3.6	.....	31.5
Houston	.....	T.	T.	2.0	3.0	5.0	2.0	1.0	.....	13.0
Ironton	.....	T.	5.5	2.0	4.2	11.0	2.0	6.0	.....	28.7
Jefferson City	.....	T.	0.2	4.2	5.0	6.0	10.3	3.0	.....	28.7
Kansas City	.....	5.8	7.4	9.8	0.9	4.6	4.9	5.2	.....	38.6
Lamar	.....	T.	T.	4.9	3.2	2.0	14.0	T.	.....	24.1
Lebanon	.....	T.	2.5	0.5	2.5	3.5	5.5	2.0	.....	16.5
McCune	.....	T.	3.0	8.2	6.2	3.5	12.0	8.0	.....	40.9
Marblehill	.....	.....	0.2	2.0	6.4	6.8	3.5	2.0	.....	20.9
Mineralspring	.....	T.	T.	5.5	4.5	4.0	3.0	T.	.....	17.0
Neosho	.....	T.	T.	8.5	7.0	3.5	3.4	T.	.....	22.4
Newhaven	.....	T.	T.	4.0	2.7	7.5	14.5	7.0	.....	35.7
Oakfield	.....	0.1	0.1	4.0	5.5	7.1	16.2	8.0	.....	41.0
Pickering	.....	4.5	6.5	3.0	2.0	5.0	9.5	5.5	.....	36.0
Princeton	.....	(†)	7.0	7.0	1.0	4.0	17.0	11.0	.....	.....
St. Louis	.....	T.	0.5	3.5	2.9	6.4	10.3	4.5	.....	28.1
Springfield	.....	1.5	0.8	4.3	2.1	2.4	4.8	0.5	.....	16.4
Sublett	.....	T.	4.0	6.0	2.0	4.1	15.2	6.5	.....	37.8
Montana.										
Bigtimber	(†)	(†)	(†)	(†)	25.2	3.5	8.0	(†)	(†)	.....
Billings	.....	(†)	(†)	1.0	9.6	T.	3.0	T.	8.0	.....
Butte	T.	(†)	(†)	(†)	23.5	14.0	12.2	15.7	.....	.....
Castle	4.0	T.	(†)	3.6	(†)	(†)	(†)	(†)	.....	.....
Chinook	.....	(†)	(†)	(†)	(†)	(†)	4.2	.....	24.0	.....
Columbia Falls	(†)	(†)	(†)	(†)	21.1	19.0	(†)	(†)	(†)	.....
Dearborn Canyon	.....	11.0	8.0	8.0	24.0	8.0	16.0	13.0	(†)	.....
Deerlodge	(†)	(†)	(†)	(†)	(†)	23.0	9.0	(†)	(†)	.....
Fort Benton	.....	(†)	1.0	4.0	6.0	(†)	(†)	(†)	9.0	.....
Fort Keogh	.....	3.0	12.5	4.0	6.0	8.0	25.2	T.	.....	58.7
Glendive	.....	8.0	7.0	4.0	7.0	8.0	17.0	12.0	7.0	70.0
Greatfalls	.....	2.0	9.0	10.5	22.5	4.8	7.4	1.2	4.8	62.2
Havre	.....	15.7	2.4	2.4	7.7	10.3	7.8	2.3	33.4	82.0
Helena	.....	1.1	5.0	3.3	26.4	10.7	20.9	5.1	1.0	73.5
Kalispell	.....	(†)	8.5	3.3	31.0	13.0	2.5	0.5	5.2	.....
Kipp	T.	13.0	5.4	6.6	16.2	4.9	18.4	11.2	8.5	84.2
Lewistown	(†)	(†)	(†)	(†)	1.0	(†)	18.0	6.0	(†)	.....
Livingston	.....	5.0	15.0	1.0	20.2	14.1	11.9	T.	(†)	.....
Manhattan	.....	0.8	4.5	1.0	4.0	9.0	3.5	4.0	T.	26.8
Miles City	.....	4.1	7.3	1.9	5.2	3.6	18.4	6.7	4.6	51.8
Missoula	.....	T.	3.5	3.0	4.0	15.3	10.8	0.5	T.	37.1
Parrot	.....	1.5	8.0	(†)	12.0	2.0	6.2	1.0	2.5	.....
St. Ignatius	.....	.....	6.9	2.6	14.0	14.5	7.8	T.	T.	45.8

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Montana—Continued.										
Troy	.....	(†)	(†)	6.0	28.5	12.0	8.0	(†)	T.	.....
Wibaux	(†)	(†)	1.0	3.0	(†)	5.0	3.2	(†)	(†)	.....
Yale	.....	8.2	7.0	4.0	17.0	3.0	19.0	T.	T.	58.2
Nebraska.										
Agee	.....	7.0	5.1	3.0	3.0	(†)	(†)	T.	.....	.....
Albion	.....	3.0	6.0	2.0	(†)	11.0	5.0	.....	.....	.....
Alliance	.....	T.	6.0	0.0	3.5	5.5	7.0	.....	.....	22.0
Ansley	T.	.....	4.5	2.0	0.5	8.5	5.6	.....	.....	21.1
Arapahoe	.....	.....	6.0	0.8	2.0	6.0	3.0	.....	.....	17.8
Arborville	.....	T.	4.0	3.0	T.	6.0	1.0	T.	.....	14.0
Ashton	T.	T.	6.0	2.0	1.0	3.5	4.0	T.	.....	16.5
Auburn	.....	7.5	8.0	6.5	2.2	8.8	17.5	2.5	.....	53.0
Beatrice	.....	2.0	6.0	(†)	T.	8.5	12.2	0.8	.....	.....
Beaver City	.....	1.0	5.5	T.	1.0	3.5	2.5	.....	.....	13.5
Callaway	.....	.....	5.0	T.	T.	5.5	T.	.....	.....	10.5
Chester	.....	T.	2.4	T.	0.0	11.2	0.4	T.	.....	14.0
Creighton	.....	.....	(†)	2.0	1.0	(†)	3.0	.....	.....	.....
Culbertson	.....	(†)	3.0	0.2	4.4	10.8	7.2	0.5	.....	.....
David City	.....	4.0	9.0	3.5	1.0	7.5	4.5	(†)	.....	.....
Ericson	.....	.....	5.3	2.0	T.	6.0	8.0	T.	.....	21.3
Fort Robinson	.....	3.3	3.2	5.1	2.8	5.6	17.8	T.	.....	37.8
Franklin	.....	.....	.....	.....	.....	7.5	8.0	.....	.....	.....
Fremont	.....	6.5	9.0	4.0	1.5	7.5	6.5	1.5	.....	36.5
Geneva	.....	3.0	7.5	5.0	1.0	14.5	6.0	1.0	.....	38.0
Genoa	.....	1.7	6.4	1.6	0.5	7.9	2.5	0.4	.....	21.0
Gering	.....	T.	8.5	(†)	(†)	10.2	19.2	0.1	.....	.....
Hartington	.....	17.5	7.5	2.5	5.5	14.0	13.2	0.5	.....	60.7
Hay Springs	.....	1.5	4.2	5.8	3.5	4.2	30.8	T.	.....	50.0
Kearney	.....	.....	4.5	1.0	.....	6.0	6.0	.....	.....	17.5
Kennedy	.....	2.5	7.0	4.0	5.0	7.5	19.0	.....	.....	45.0
Kimball	1.0	3.0	12.5	5.5	6.5	5.0	6.3	6.5	.....	46.3
Kirkwood	.....	1.0	4.5	2.5	4.0	4.5	8.8	2.0	.....	27.3
Lincoln	.....	5.2	7.7	2.5	1.2	6.8	6.2	1.8	.....	31.4
Lodgepole	.....	1.0	7.0	5.0	15.0	7.0	8.0	1.0	.....	44.0
Madrid	.....	T.	8.0	2.0	6.0	6.0	10.0	.....	.....	32.0
Norfolk	---	4.5	6.0	5.5	1.0	9.5	1.1	0.8	.....	28.4
North Loup	.....	T.	(†)	3.0	1.0	5.0	1.5	.....	.....	.....
North Platte	.....	T.	6.5	0.6	1.8	5.8	7.8	.....	.....	22.5
Omaha	.....	5.2	11.9	2.0	0.6	7.1	5.4	1.3	.....	33.5
St. Libory	.....	T.	5.0	4.0	0.5	6.0	3.8	.....	.....	19.3
Valentine	.....	T.	(†)	3.7	(†)	(†)	(†)	(†)	.....	.....
Westpoint	.....	(†)	4.0	0.5	T.	6.3	2.0	T.	.....	.....
Nevada.										
Austin	.....	T.	14.0	5.5	(†)	(†)	(†)	(†)	(†)	.....
Battle Mountain	.....	1.0	3.2	0.2	.....	T.	1.0	2.0	.....	7.4
Beowawe	.....	3.0	0.5	2.0	6.0	4.5	6.5	3.0	.....	25.5
Candelaria	.....	0.2	0.7	2.8	13.0	0.5	1.5	(†)	.....	.....
Carlin	.....	.....	3.0	0.2	5.0	4.0	(†)	1.5	.....	.....
Carson City	.....	1.9	1.8	0.1	23.7	3.5	3.0	0.6	T.	34.6
Darrough Ranch	.....	(†)	5.0	2.0	4.0	(†)	(†)	(†)	(†)	.....
Elko	.....	T.	6.0	11.0	7.0	6.7	10.5	1.0	0.2	42.4
Ely	.....	2.0	7.0	3.0	20.5	8.0	8.0	5.0	14.0	67.5
Empire Ranch	.....	.....	7.0	(†)	13.0	9.0	11.0	2.0	6.0	.....
Fenelon	.....	1.0	9.5	9.0	18.0	11.0	15.0	8.0	9.0	80.5
Golconda	.....	.....	1.5	1.0	2.5	4.0	(†)	5.0	4.0	.....
Hawthorne	.....	T.	T.	T.	5.0	T.	1.0	3.0	T.	9.0
Hot Springs	.....	.....	.....	T.	2.0	T.	(†)	.....	.....	.....
Los Vegas	.....	.....	.....	2.0	.....	0.0	.....	.....	.....	2.0
Lovelocks	.....	.....	.....	(†)	6.0	0.5	.....	T.	.....	.....
McGill	.....	T.	(†)	0.0	(†)	2.0	(†)	(†)	(†)	.....
Monitor Mill	.....	.....	3.1	1.5	18.0	7.2	1.8	4.8	5.8	42.2
Palisade	.....	.....	4.0	4.5	7.0	7.0	5.5	3.5	1.0	32.5
Palmetto	.....	.....	1.0	3.0	12.0	T.	3.0	3.0	.....	22.0
Reno	T.	.....	T.	T.	11.5	3.5	5.0	T.	1.5	21.5
Sodaville	.....	.....	.....	T.	7.0	T.	1.5	2.0	.....	10.5
Tecoma	.....	.....	8.0	6.0	4.0	2.0	2.5	T.	0.5	23.0

† No report from station.

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Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Nevada—Continued.										
Tuscarora	T.	0.5	26.9	2.0	(†)	(†)	(†)	T.	(†)	.....
Tybo	.....	.....	2.0	4.0	26.0	(†)	(†)	6.0	.....	.....
Winnemucca	.....	T.	7.0	6.4	11.0	2.0	16.0	2.5	T.	44.9
New Hampshire.										
Berlin Mills	.....	.....	21.0	7.5	10.5	31.0	49.0	3.5	.....	122.5
Bethlehem	.....	1.5	28.5	16.5	15.5	34.0	46.0	4.5	.....	146.5
Brookline	.....	.....	21.2	11.0	10.0	31.2	27.7	10.0	.....	111.1
Grafton	.....	(†)	17.0	9.0	15.0	25.0	42.0	5.0	.....	.....
New Jersey.										
Asbury Park	.....	.....	17.0	1.0	5.0	27.4	4.8	T.	.....	55.2
Atlantic City	.....	.....	16.7	0.4	4.4	27.9	1.8	T.	.....	51.2
Belvidere	.....	.....	19.0	7.0	5.0	30.1	4.0	T.	.....	65.1
Bridgeton	.....	.....	8.0	0.2	6.0	32.0	3.5	.....	.....	49.7
Cape May	.....	.....	6.5	T.	3.4	47.5	4.2	T.	.....	61.6
Deckertown	.....	.....	13.0	1.5	8.5	31.5	9.5	T.	.....	64.0
Dover	.....	.....	17.0	1.5	11.0	25.0	12.0	.....	.....	66.5
New Brunswick	.....	.....	16.0	0.5	6.1	28.8	5.0	T.	.....	56.4
New Mexico.										
Albert	.....	.....	6.0	6.0	0.5	2.5	0.5	.....	.....	15.5
Albuquerque	.....	.....	5.0	7.0	3.5	3.5	4.0	0.4	.....	23.4
Aztec	.....	.....	4.2	14.4	5.7	6.5	6.5	0.7	0.5	38.5
Bernalillo	.....	.....	1.0	7.5	3.0	T.	2.0	.....	.....	13.5
Bluewater	.....	.....	6.0	4.0	9.0	3.0	1.0	T.	T.	23.0
Buckmans	T.	T.	16.0	15.0	5.4	(†)	(†)	(†)	(†)	.....
Clayton	0.2	0.8	5.5	8.5	4.0	(†)	(†)	.....	4.0	.....
Deming	.....	.....	0.5	6.0	(†)	T.	.....	.....	(†)	.....
East Lasvegas	.....	1.0	6.0	8.0	T.	8.0	8.2	0.8	.....	32.0
Eddy	.....	.....	.....	6.0	.....	1.0	2.0	(†)	.....	.....
Engle	.....	.....	4.0	15.0	0.0	1.1	.....	.....	.....	20.1
Fort Bayard	.....	.....	1.0	7.0	3.0	2.0	(†)	.....	.....	.....
Fort Union	.....	T.	6.0	11.0	T.	5.0	9.0	1.0	T.	32.0
Fort Wingate	.....	.....	(†)	8.0	2.8	6.8	0.8	T.	(†)	.....
Gallinas Spring	.....	T.	8.0	4.0	T.	5.0	5.0	.....	.....	22.0
Gila	.....	.....	.....	8.0	1.0	2.5	.....	.....	.....	11.5
Hillsboro	.....	.....	1.5	8.0	.....	T.	(†)	.....	(†)	.....
Los Lunas	.....	.....	8.0	5.0	2.0	T.	.....	.....	.....	15.0
Raton	1.2	1.5	4.0	2.0	T.	2.0	4.0	0.5	.....	15.2
Rincon	.....	.....	.....	5.0	.....	2.0	.....	.....	.....	7.0
Roswell	.....	.....	1.5	9.5	.....	1.5	T.	.....	.....	12.5
Santa Fe	.....	T.	2.6	5.3	2.4	7.4	1.0	0.3	.....	19.0
Socorro	.....	.....	4.0	4.0	0.2	.....	.....	.....	.....	8.2
White Oaks	.....	.....	1.5	9.0	9.0	5.0	8.0	0.5	.....	33.0
New York.										
Addison	.....	T.	2.5	9.5	13.8	16.0	10.5	T.	.....	52.3
Albany	.....	.....	10.3	7.3	9.4	27.5	20.8	T.	.....	75.3
Alfred	.....	T.	1.2	27.0	12.0	10.5	8.0	0.5	.....	59.2
Appleton	.....	T.	2.4	18.5	3.5	13.0	8.1	1.1	.....	46.6
Baldwinsville	.....	.....	4.0	22.0	6.0	11.0	14.0	3.0	.....	60.0
Bedford	.....	.....	25.2	3.8	8.6	37.3	10.6	.....	.....	85.5
Binghamton	.....	T.	3.1	5.8	10.5	19.4	13.1	0.2	.....	52.1
Bouckville	.....	.....	7.0	22.0	15.0	17.0	14.0	5.0	.....	80.0
Buffalo	.....	T.	6.1	30.1	13.3	5.7	11.2	3.4	.....	69.8
Canton	.....	T.	4.5	15.2	5.2	5.0	13.5	1.5	.....	44.9
Carmel	.....	.....	18.0	7.5	4.2	33.5	16.0	T.	.....	79.2
Cooperstown	.....	.....	7.0	14.5	10.0	17.5	36.0	2.0	.....	87.0
Fleming	.....	.....	4.0	18.0	(†)	8.0	(†)	T.	.....	.....
Franklinville	.....	1.5	2.6	20.2	9.2	6.9	11.3	2.8	.....	54.5
Glens Falls	.....	.....	6.0	(†)	14.0	21.5	21.5	T.	.....	.....
Gloversville	.....	T.	7.6	14.3	17.7	22.8	38.5	5.0	T.	105.9
Ithaca	.....	.....	4.1	13.8	12.5	18.2	14.7	2.2	.....	65.5
Keene Valley	.....	.....	13.5	9.1	11.5	11.2	24.2	0.2	.....	69.7
Lowville	.....	.....	4.0	50.0	17.0	15.0	31.0	3.0	.....	120.0
Lyons	.....	.....	4.5	15.5	5.0	9.0	11.0	T.	.....	45.0

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
New York—Continued.										
Middletown	.....	.....	15.0	10.0	2.5	33.5	22.0	T.	.....	83.0
New York	.....	.....	14.0	1.1	6.1	27.5	9.6	T.	.....	58.3
North Hammond	.....	T.	3.0	16.6	5.0	7.5	14.8	0.5	.....	47.4
North Lake	.....	1.5	7.5	52.5	22.0	22.0	55.8	7.0	.....	168.3
Oswego	.....	0.6	4.4	26.8	18.5	22.3	13.5	0.9	.....	87.0
Rochester	.....	T.	10.6	27.0	16.6	16.3	21.2	4.3	.....	96.0
Saranac Lake	.....	0.5	12.0	29.0	16.5	17.5	43.0	3.0	.....	121.5
Setauket	.....	.....	16.0	1.0	3.5	24.5	7.5	T.	.....	52.5
Westfield	.....	.....	4.0	10.7	(†)	4.0	12.5	3.9	.....	.....
North Carolina.										
Abshers	.....	.....	2.0	.....	1.0	5.0	T.	T.	.....	8.0
Asheville	.....	T.	T.	T.	2.3	4.2	1.5	T.	.....	8.0
Charlotte	.....	.....	.....	.....	5.5	6.5	T.	T.	.....	12.0
Edenton	.....	.....	.....	.....	6.5	13.0	.....	T.	.....	19.5
Flatrock	.....	.....	.....	T.	2.0	3.0	T.	T.	.....	5.0
Greenville	.....	(†)	(†)	(†)	(†)	20.8	.....	(†)	.....	.....
Hatteras	.....	.....	.....	.....	T.	4.5	T.	.....	.....	4.5
Hendersonville	.....	.....	.....	.....	1.5	3.5	T.	T.	.....	5.0
Littleton	.....	.....	T.	.....	7.0	18.0	T.	3.5	.....	28.5
Lumberton	.....	.....	.....	.....	7.0	10.0	.....	T.	.....	17.0
Mana	.....	.....	T.	T.	5.8	6.5	2.0	4.0	.....	18.3
Morganton	.....	.....	(†)	.....	3.0	(†)	.....	.....	.....	.....
Newbern	.....	.....	T.	.....	(†)	(†)	.....	.....	.....	.....
Oakridge	.....	.....	T.	.....	6.6	11.5	1.0	1.5	.....	20.6
Raleigh	.....	.....	0.3	.....	7.7	17.7	.....	3.5	.....	29.2
Roxboro	.....	.....	(†)	(†)	12.0	15.5	T.	2.5	.....	.....
Sloan	.....	.....	T.	.....	3.0	13.6	T.	T.	.....	16.6
Southern Pines	.....	.....	.....	.....	5.0	15.0	.....	T.	.....	20.0
Tarboro	.....	.....	.....	.....	6.8	7.0	.....	3.0	.....	16.8
Weldon	.....	.....	T.	.....	7.0	18.0	T.	T.	.....	25.0
Wilmington	.....	.....	.....	.....	0.2	5.0	T.	.....	.....	5.2
North Dakota.										
Amenia	.....	2.0	4.0	1.9	1.8	0.4	4.0	(†)	.....	.....
Ashley	.....	4.0	4.0	3.0	T.	1.0	12.0	0.5	T.	24.5
Bismarck	.....	8.0	1.2	3.6	0.8	1.8	8.6	11.6	0.2	35.8
Bottineau	.....	1.0	7.0	5.0	7.5	2.7	11.5	3.0	T.	37.7
Buxton	.....	(†)	1.2	T.	0.5	0.5	8.8	(†)	.....	.....
Churchs Ferry	.....	T.	2.0	1.4	(†)	1.7	15.0	16.0	.....	.....
Coal Harbor	.....	5.4	0.8	1.5	T.	0.2	8.0	12.0	T.	27.9
Dickinson	.....	13.9	3.0	8.0	1.2	2.0	8.2	1.2	8.0	45.5
Ellendale	.....	2.0	T.	1.0	T.	2.0	28.0	T.	.....	33.0
Fort Berthold	.....	6.5	9.4	2.9	2.0	4.5	7.0	8.0	0.5	40.8
Fort Yates	.....	(†)	T.	1.5	T.	0.5	7.0	2.1	.....	.....
Gallatin	.....	7.4	3.5	4.1	2.1	2.4	10.4	6.0	0.6	36.5
Goetz	.....	1.3	2.0	1.1	3.5	0.5	7.2	(†)	.....	.....
Grafton	.....	(†)	(†)	1.5	2.4	2.5	14.8	8.0	T.	.....
Jamestown	.....	(†)	(†)	(†)	1.1	T.	6.0	1.0	.....	.....
Larimore	.....	5.6	4.0	0.5	T.	T.	9.0	(†)	.....	.....
Medora	.....	(†)	0.1	2.5	1.0	5.2	5.5	5.8	0.8	.....
Milton	.....	3.5	9.0	3.0	5.0	4.0	9.0	18.0	.....	51.5
Minot	.....	4.0	2.0	(†)	3.0	1.5	8.0	(†)	0.3	.....
Oakdale	.....	(†)	(†)	1.2	1.9	3.0	5.5	7.9	1.4	.....
Portal	.....	4.0	(†)	(†)	(†)	(†)	(†)	4.0	1.0	.....
Power	.....	3.0	4.0	0.2	(†)	2.5	16.5	2.0	.....	.....
Sheyenne	.....	9.8	0.8	1.1	1.1	3.1	(†)	18.2	T.	.....
Steele	.....	(†)	T.	T.	T.	T.	7.0	3.2	.....	.....
Williston	.....	7.6	2.6	0.6	5.8	1.0	7.9	4.2	5.4	35.1
Willow City	.....	2.0	3.0	T.	(†)	(†)	(†)	(†)	.....	.....
Woodbridge	.....	(†)	2.2	2.6	1.6	0.8	1.1	7.0	T.	.....
Ohio.										
Akron	.....	0.5	4.2	8.8	6.7	2.2	7.5	0.7	.....	30.6
Annapolis	.....	.....	2.0	3.0	6.0	(†)	11.0	T.	.....	.....
Ashtabula	.....	.....	3.0	2.0	10.0	10.0	14.5	0.5	.....	58.0
Cambridge	.....	.....	3.0	2.0	5.0	4.0	10.0	.....	.....	24.0
Celina	.....	T.	4.0	8.0	2.0	2.5	13.0	T.	.....	29.5

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Ohio—Continued.										
Cincinnati	.....	T.	1.4	7.1	5.6	8.4	2.4	T.	.....	24.9
Cleveland	.....	T.	3.1	9.7	5.9	2.4	16.4	1.3	.....	38.8
Coalton	.....	.....	1.0	11.0	14.0	19.0	5.0	.....	.....	50.0
Columbus	.....	.....	0.8	4.5	4.6	5.0	3.7	T.	.....	18.6
Dayton	.....	.....	2.2	10.5	4.1	6.0	4.0	.....	.....	26.8
Defiance	.....	T.	4.1	8.6	2.5	2.0	15.0	T.	.....	32.2
Garrettsville	.....	0.3	5.5	16.0	8.3	4.5	13.5	0.5	.....	48.6
Gratiot	.....	T.	2.0	6.1	9.3	11.3	9.7	0.2	.....	38.6
Jacksonboro	.....	T.	3.0	10.0	9.9	12.0	4.0	.....	.....	38.0
Logan	.....	T.	1.0	(†)	7.5	9.0	5.0	.....	.....	.....
McConnelsville	.....	T.	2.5	4.5	9.5	13.0	9.5	T.	.....	39.0
Marietta	.....	.....	0.5	8.0	11.0	11.5	4.5	.....	.....	35.5
Marion	.....	.....	1.1	9.8	5.5	2.6	10.5	T.	.....	29.5
Medina	.....	T.	2.0	16.0	9.0	2.0	12.0	T.	.....	41.0
Napoleon	.....	.....	4.5	7.5	2.0	T.	15.8	.....	.....	29.8
New Holland	.....	.....	2.0	8.8	10.2	9.5	8.8	T.	.....	39.3
Pomeroy	.....	T.	0.5	2.0	15.0	15.3	5.2	T.	.....	38.0
Portsmouth	.....	.....	1.0	3.0	13.0	15.0	T.	T.	.....	32.0
Ripley	.....	T.	2.6	6.8	19.4	13.1	1.9	T.	.....	43.8
Rockyridge	.....	.....	2.0	7.0	4.0	T.	17.2	0.2	.....	30.4
Sandusky	.....	T.	2.6	3.2	4.2	1.5	10.6	0.1	.....	22.2
Shenandoah	.....	.....	4.1	8.4	7.4	2.4	9.7	1.0	.....	33.0
Sidney	.....	.....	3.0	8.1	4.2	7.7	5.1	T.	.....	28.1
Sinking Spring	.....	T.	1.5	8.8	14.5	16.0	4.5	T.	.....	45.3
Toledo	.....	.....	3.5	6.3	4.2	0.5	17.0	0.2	.....	31.7
Vanwert	.....	.....	4.0	8.0	3.5	0.5	16.0	.....	.....	32.0
Wauseon	.....	T.	5.6	11.2	5.0	2.1	24.3	0.3	.....	48.5
Oklahoma.										
Anadarko	.....	.....	.....	.....	T.	(†)	(†)	.....	.....	.....
Arapaho	.....	.....	0.5	2.5	1.7	T.	2.0	.....	.....	6.7
Fort Sill	.....	.....	.....	(†)	0.8	.....	(†)	.....	.....	.....
Guthrie	.....	.....	T.	1.1	3.0	T.	T.	.....	.....	4.1
Jefferson	.....	.....	1.0	5.0	0.0	T.	5.0	.....	.....	11.0
Kingfisher	.....	.....	T.	3.0	1.2	T.	3.0	.....	.....	7.2
Mangum	.....	.....	T.	5.0	2.0	0.1	(†)	.....	.....	.....
Newkirk	.....	.....	0.2	(†)	(†)	T.	6.5	.....	.....	.....
Oklahoma	.....	.....	0.2	0.8	3.2	1.6	0.1	.....	.....	5.9
Prudence	.....	.....	(†)	3.0	2.8	.....	8.8	.....	.....	.....
Stillwater	.....	T.	0.3	1.2	2.5	0.5	1.9	.....	.....	6.4
Oregon.										
Albany	.....	.....	T.	1.5	T.	4.0	T.	.....	.....	5.5
Arlington	.....	.....	T.	6.0	75.8	3.5	T.	.....	.....	85.3
Ashland	.....	.....	0.3	1.9	2.9	0.7	2.5	.....	0.9	9.2
Astoria	.....	.....	.....	0.5	0.5	8.2	.....	.....	.....	9.2
Aurora	.....	.....	.....	2.0	2.0	11.0	.....	.....	.....	15.0
Baker City	.....	0.2	10.0	6.8	11.4	23.3	5.7	2.0	.....	59.4
Bandon	.....	.....	.....	.....	.....	3.5	T.	.....	.....	3.5
Bay City	.....	.....	.....	(†)	.....	8.0	0.5	.....	.....	.....
Beulah	.....	T.	6.5	2.8	21.0	7.0	T.	T.	.....	37.3
Brownsville	.....	.....	.....	0.5	.....	3.2	(†)	.....	.....	.....
Burns	.....	.....	14.0	2.0	19.0	3.0	6.0	1.0	.....	45.0
Comstock	.....	.....	.....	3.0	2.0	6.0	(†)	.....	.....	.....
Dayville	.....	.....	0.5	0.2	9.2	5.6	6.5	0.5	T.	22.5
Eugene	.....	(†)	(†)	1.0	.....	(†)	3.0	.....	.....	.....
Fairview	.....	.....	.....	13.3	1.0	8.0	6.0	.....	.....	28.3
Glenora	.....	.....	2.0	12.5	8.0	9.5	3.0	0.2	.....	35.2
Government Camp	12.0	.....	94.0	58.0	72.0	110.0	109.0	85.0	46.0	586.0
Grants Pass	.....	.....	.....	8.0	1.0	2.8	.....	.....	.....	11.8
Happy Valley	.....	.....	9.5	2.5	6.5	5.3	13.0	8.4	1.5	46.7
Heppner	.....	.....	3.9	10.4	11.0	8.5	5.5	T.	.....	39.3
Hood River (near)	.....	.....	5.0	6.0	46.0	18.5	4.0	.....	.....	79.5
Joseph	.....	.....	16.4	8.0	7.5	21.0	18.0	18.9	4.5	94.3
Klamath Falls	.....	0.5	5.0	7.0	20.0	9.0	12.0	2.5	T.	56.0
Lakeview	0.2	6.0	4.0	12.0	(†)	8.0	13.3	11.8	1.5	.....
Newbridge	.....	(†)	(†)	3.0	3.0	19.5	.....	.....	.....	.....
Newport	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0

† No report form station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Oregon—Continued.										
Pendleton	.....	.....	2.0	3.0	11.3	10.8	4.0	.....	.....	31.1
Portland	.....	.....	0.3	5.7	11.6	5.8	0.4	.....	.....	23.8
Prineville	.....	.....	(†)	.....	(†)	T.	(†)	T.	.....	.....
Riverside	.....	(†)	(†)	6.0	17.5	5.0	(†)	.....	.....	.....
Roseburg	.....	.....	.....	10.0	T.	3.5	5.6	.....	.....	19.1
Silver Lake	.....	1.3	16.0	T.	T.	T.	5.1	8.5	T.	30.9
Siskiyou	.....	.....	12.0	30.0	51.0	30.0	7.0	4.0	.....	134.0
The Dalles	.....	.....	T.	3.2	24.2	6.5	1.0	.....	.....	34.9
Toledo	.....	.....	.....	T.	.....	6.0	.....	.....	.....	6.0
Vale	.....	.....	.....	3.5	11.5	7.0	.....	.....	.....	22.0
Pennsylvania.										
Carlisle	.....	.....	7.7	5.5	12.0	30.5	(†)	.....	.....	.....
Centerhall	.....	.....	4.0	17.0	9.5	27.5	4.5	1.0	.....	63.5
Confluence	.....	.....	8.0	11.0	14.0	12.0	5.0	.....	.....	50.0
Derry Station	.....	.....	7.0	10.5	16.5	17.8	7.5	T.	.....	59.3
Dyberry	.....	T.	11.0	11.0	11.5	22.0	24.3	(†)	.....	.....
East Mauch Chunk	.....	.....	5.0	5.0	8.8	24.2	9.2	T.	.....	52.2
Emporium	.....	T.	4.4	8.5	19.4	18.3	12.5	T.	.....	63.1
Erie	.....	T.	3.1	18.8	5.8	4.7	12.1	3.7	.....	48.2
Franklin	.....	.....	0.4	(†)	8.2	(†)	13.0	T.	.....	.....
Grampian	.....	T.	6.0	20.0	15.0	17.0	12.0	3.0	.....	73.0
Harrisburg	.....	.....	7.2	5.4	8.7	22.8	1.5	T.	.....	45.6
Huntingdon	.....	.....	4.0	7.0	11.5	18.5	6.5	0.5	.....	48.0
Irwin	.....	.....	(†)	(†)	33.1	11.7	4.0	T.	.....	.....
Johnstown	.....	T.	7.0	8.5	15.8	13.5	3.9	2.0	.....	50.7
Keating	.....	.....	3.0	4.9	11.0	11.7	(†)	T.	.....	.....
Lawrenceville	.....	.....	2.5	(†)	(†)	10.5	7.5	T.	.....	.....
Leroy	.....	0.1	3.8	9.1	10.0	22.5	8.5	0.7	.....	54.7
Lewisburg	.....	.....	3.9	7.2	11.2	26.5	6.8	.....	.....	55.6
Lockhaven	.....	.....	1.8	12.5	9.5	19.0	6.0	T.	.....	48.8
Parker	.....	T.	4.0	8.0	9.2	8.0	10.6	0.5	.....	40.3
Philadelphia	.....	.....	13.4	0.3	5.8	31.5	4.4	T.	.....	55.4
Pittsburg	.....	T.	2.8	6.8	19.2	14.5	5.2	0.2	.....	48.7
Saegerstown	.....	T.	5.1	14.9	11.6	5.4	16.8	2.8	.....	56.6
South Eaton	.....	.....	5.0	5.0	5.0	22.0	14.0	T.	.....	51.0
Warren	.....	0.5	5.7	20.9	12.8	14.7	13.8	3.1	.....	71.5
Wellsboro	.....	T.	2.0	16.0	9.0	21.2	9.5	T.	.....	57.7
Wilkesbarre	.....	.....	9.5	6.0	11.0	30.0	7.0	.....	.....	63.5
Rhode Island.										
Block Island	.....	.....	7.5	1.8	2.7	22.2	6.6	2.5	.....	43.3
Bristol	.....	.....	21.0	3.5	4.5	28.0	5.0	0.5	.....	62.5
Kingston	.....	.....	20.0	1.8	2.2	24.5	7.2	0.5	.....	56.2
Narragansett	.....	.....	18.0	1.0	3.0	22.0	5.5	.....	.....	49.5
Providence	.....	.....	20.0	6.0	4.5	35.2	7.5	T.	.....	73.2
South Carolina.										
Blackville	.....	.....	.....	.....	T.	4.1	T.	.....	.....	4.1
Charleston	.....	.....	.....	.....	.....	3.9	T.	.....	.....	3.9
Cheraw	.....	.....	.....	.....	7.2	12.0	(†)	.....	.....	.....
Clemson College	.....	.....	.....	T.	0.5	4.5	T.	.....	.....	5.0
Columbia	.....	.....	.....	.....	4.9	11.8	T.	.....	.....	16.7
Florence	.....	.....	.....	.....	.....	8.0	.....	.....	.....	8.0
Greenville	.....	.....	T.	.....	2.0	4.2	1.0	.....	.....	7.2
Holland	.....	.....	0.5	.....	3.0	8.0	2.0	.....	.....	13.5
St. Matthews	.....	.....	.....	.....	2.5	7.0	T.	.....	.....	9.5
Statesburg	.....	.....	.....	T.	4.0	14.7	.....	.....	.....	18.7
Trenton	.....	.....	.....	.....	3.0	9.0	T.	.....	.....	12.0
South Dakota.										
Aberdeen	.....	3.0	2.5	2.0	1.0	0.4	18.5	.....	.....	27.4
Alexandria	(†)	(†)	(†)	T.	3.0	T.	12.0	3.0	.....	.....
Ashcroft	.....	6.0	(†)	2.5	5.5	3.5	15.5	7.5	1.0	.....
Bowdle	.....	5.0	3.0	(†)	T.	2.5	15.5	(†)	.....	.....
Brookings	.....	(†)	4.1	0.0	(†)	2.1	4.0	8.0	.....	.....
Canton	.....	(†)	3.5	1.0	0.2	3.7	11.1	4.5	.....	.....
Desmet	.....	21.0	7.0	1.0	4.0	4.0	5.0	6.0	.....	48.0

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
South Dakota—Continued.										
Doland	.....	12.0	1.5	2.0	2.0	4.0	4.0	1.9	.....	27.4
Forestburg	.....	5.6	1.3	T.	T.	3.2	6.2	6.5	.....	22.8
Fort Meade	.....	9.4	3.2	11.0	9.1	3.6	14.2	1.5	.....	52.0
Forest City	.....	.....	1.0	2.0	2.0	3.0	30.0	3.0	.....	41.0
Gannvalley	.....	2.0	(†)	T.	T.	2.0	17.0	5.0	.....	.....
Harney	4.0	4.5	2.0	0.5[b]	3.8	T.	16.0	(†)	(†)	.....
Highmore	(†)	(†)	(†)	(†)	4.5	1.5	15.0	(†)	0.5	.....
Hotch City	.....	0.5	4.0	1.2	T.	2.8	10.9	1.5	.....	20.9
Huron	.....	7.4	2.0	0.9	0.3	3.0	9.9	2.8	.....	26.3
Leslie	(†)	(†)	4.0	T.	0.5	2.5	(†)	T.	.....	.....
Mellette	.....	6.0	(†)	(†)	(†)	T.	16.0	0.5	.....	.....
Menno	.....	5.0	3.2	1.5	2.5	4.0	8.6	2.0	.....	26.8
Millbank	.....	(†)	4.0	T.	1.3	2.7	6.7	.....	.....	.....
Oelrichs	(†)	(†)	4.3	5.5	7.5	10.5	28.0	2.0	.....	.....
Pierre	.....	.....	1.7	2.7	3.0	5.8	18.3	4.3	.....	35.8
Plankinton	.....	5.5	1.0	1.5	1.2	1.5	8.5	5.5	.....	24.7
Rapid City	.....	4.7	0.6	1.9	2.8	2.0	9.4	0.3	.....	21.7
Rochford	12.0	2.8	9.0	5.7	26.5	8.5	17.5	8.5	.....	90.5
Rosebud	.....	(†)	(†)	(†)	11.0	6.0	19.0	2.0	(†)	.....
Silver City	13.0	(†)	(†)	(†)	16.5	5.2	23.5	1.0	.....	.....
Sioux Falls	(†)	(†)	4.5	1.0	1.5	6.5	11.7	4.0	.....	.....
Spearfish	.....	11.5	3.5	11.5	11.5	3.7	20.6	10.0	.....	72.3
Watertown	.....	3.0	1.5	T.	(†)	T.	3.0	.....	.....	.....
Whiteswan	.....	4.0	3.2	1.7	2.1	3.4	6.8	0.8	.....	22.0
Yankton	.....	12.3	2.5	1.2	1.1	4.7	11.1	1.6	.....	34.5
Tennessee.										
Andersonville	.....	T.	T.	6.0	4.0	11.0	1.5	T.	.....	22.5
Ashwood	.....	.....	.....	2.5	4.2	7.0	3.0	.....	.....	16.7
Bristol	.....	T.	T.	(†)	3.0	3.0	2.0	T.	.....	.....
Carthage	.....	T.	.....	(†)	3.0	(†)	1.5	.....	.....	.....
Chattanooga	.....	T.	.....	0.2	0.2	2.1	1.3	T.	.....	3.8
Florence	.....	T.	.....	2.0	7.0	5.0	3.5	T.	.....	17.5
Greeneville	.....	T.	T.	0.9	7.7	4.0	1.4	T.	.....	14.0
Jackson	.....	.....	.....	(†)	5.0	(†)	.....	.....	.....	.....
Knoxville	.....	.....	T.	1.6	6.7	6.9	0.1	.....	.....	15.3
McKenzie	.....	.....	T.	0.8	(†)	(†)	(†)	.....	.....	.....
Memphis	.....	.....	.....	4.4	3.2	4.2	0.5	.....	.....	12.3
Nashville	.....	T.	T.	3.5	7.2	5.0	3.6	.....	.....	19.3
Newport	.....	T.	T.	(†)	5.5	6.0	2.5	T.	.....	.....
Nunnelly	.....	T.	T.	0.5	7.3	3.0	3.5	.....	.....	14.3
Oakhill	.....	T.	0.5	2.4	13.0	14.4	2.4	T.	.....	32.7
Palmetto	.....	T.	.....	4.0	5.0	9.0	3.0	.....	.....	21.0
Peryear	.....	.....	.....	T.	8.0	8.0	(†)	.....	.....	.....
Pope	.....	.....	T.	4.2	5.1	4.5	4.1	.....	.....	17.9
Tellico Plains	.....	.....	.....	(†)	1.0	8.5	0.5	T.	.....	.....
Trenton	.....	.....	.....	6.5	9.5	10.0	0.7	T.	.....	26.7
Texas.										
Abilene	.....	.....	.....	8.0	0.1	0.1	.....	.....	.....	8.2
Albany	.....	.....	.....	10.0	(†)	2.0	.....	.....	.....	.....
Alvin	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Amarillo	.....	T.	2.5	13.9	2.3	0.7	1.7	.....	.....	21.1
Anna	.....	.....	1.0	1.5	0.5	0.5	.....	.....	.....	3.5
Anson	.....	.....	.....	8.0	2.0	T.	T.	.....	.....	10.0
Ballinger	.....	.....	.....	4.3	0.5	.....	.....	.....	.....	4.8
Beeville	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Blanco	.....	.....	(†)	5.0	.....	.....	.....	.....	.....	.....
Brownwood	.....	.....	.....	3.0	T.	.....	.....	.....	.....	3.0
Burnet	.....	.....	.....	3.0	1.0	.....	.....	.....	.....	4.0
Coleman	.....	.....	.....	4.0	2.0	T.	T.	.....	.....	6.0
Colorado	.....	.....	.....	8.0	1.0	.....	.....	.....	.....	9.0
Columbia	.....	.....	.....	.....	.....	T.	.....	.....	.....	T.
Corsicana	.....	.....	.....	3.0	T.	3.0	.....	.....	.....	6.0
Dallas	.....	.....	.....	4.0	T.	1.0	.....	.....	.....	5.0
Dublin	.....	.....	.....	4.5	.....	T.	.....	.....	.....	4.5
Duval	.....	.....	.....	3.0	T.	(†)	.....	.....	.....	.....
El Paso	.....	.....	.....	3.3	.....	T.	.....	.....	.....	3.3
Emory	.....	.....	.....	4.0	T.	1.8	.....	.....	.....	5.8

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Texas—Continued.										
Estelle	.....	.....	.....	6.0	0.7	2.0	T.	.....	.....	8.7
Fort Stockton	.....	.....	.....	1.0	(†)	(†)	.....	.....	.....	.....
Fort Worth	.....	.....	.....	5.5	0.1	0.9	.....	.....	.....	6.5
Fredericksburg	.....	.....	.....	4.9	.....	T.	.....	.....	.....	4.9
Fruitland	.....	.....	2.2	4.2	1.0	T.	.....	.....	.....	7.4
Gainesville	.....	.....	(†)	5.0	1.9	0.4	.....	.....	.....	.....
Galveston	.....	.....	.....	T.	.....	0.1	.....	.....	.....	0.1
Hale Center	.....	.....	T.	6.5	1.5	T.	1.5	1.5	.....	11.0
Hallettsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.0
Jacksonville	.....	.....	.....	4.0	T.	1.5	.....	.....	.....	5.5
Kent	.....	.....	T.	8.0	.....	0.5	T.	.....	.....	8.5
Mount Blanco	.....	T.	T.	7.0	3.0	.....	.....	.....	.....	10.0
Palestine	.....	.....	.....	6.2	.....	1.6	.....	.....	.....	7.8
Rhineland	.....	.....	.....	4.5	1.5	T.	.....	.....	.....	6.0
Roby	.....	.....	.....	(†)	2.5	(†)	.....	.....	.....	.....
Tulia	.....	.....	(†)	10.5	5.5	1.0	3.0	(†)	.....	.....
Weatherford	.....	.....	.....	2.8	T.	0.8	.....	.....	.....	3.6
Utah.										
Blue Creek	.....	T.	7.0	5.5	11.5	14.0	3.0	(†)	T.	.....
Cisco	.....	.....	(†)	(†)	9.0	8.5	2.0	T.	2.0	.....
Corinne	.....	.....	6.5	6.5	22.5	8.0	4.0	1.2	5.0	53.7
Fort Duchesne	.....	.....	1.3	1.0	2.0	4.0	1.0	6.0	.....	15.3
Frisco	.....	T.	(†)	3.0	1.0	6.0	8.8	6.0	.....	.....
Giles	.....	.....	3.0	4.5	4.5	.....	.....	.....	.....	12.0
Heber	.....	T.	9.5	11.0	24.5	58.5	(†)	2.0	.....	.....
Kelton	.....	.....	7.5	2.0	(†)	5.0	T.	.....	2.0	.....
Levan	.....	T.	6.5	13.6	14.3	21.0	19.5	.....	T.	74.9
Loa	.....	.....	(†)	(†)	4.0	4.8	0.8	6.5	T.	.....
Minersville	.....	.....	5.5	2.8	5.5	3.5	4.0	4.0	.....	25.3
Moab	.....	.....	0.5	0.8	4.8	0.5	1.3	.....	1.5	7.9
Mount Pleasant	.....	.....	5.0	5.0	14.0	36.0	18.0	4.0	.....	82.0
Ogden	.....	.....	4.0	6.0	12.5	19.8	9.0	3.0	.....	54.3
Pahreah	.....	.....	T.	1.0	7.0	8.0	.....	.....	.....	16.0
Pinto	.....	.....	4.0	1.1	(†)	0.5	6.5	T.	.....	.....
Richfield	.....	.....	(†)	(†)	3.0	5.5	1.5	7.0	.....	.....
St. George	.....	.....	T.	2.0	(†)	T.	.....	.....	.....	.....
Salt Lake City	.....	T.	8.9	11.3	4.3	29.0	11.2	1.8	6.0	72.5
Soldier Summit	0.2	(†)	11.5	11.5	17.0	38.0	14.0	2.0	6.0	.....
Terrace	.....	.....	9.5	6.5	7.5	8.0	0.5	(†)	(†)	.....
Vermont.										
Brattleboro	.....	.....	16.0	11.5	13.2	35.0	49.4	.....	.....	125.1
Burlington	.....	.....	9.5	5.0	7.0	12.0	31.0	1.5	.....	66.0
Enosburg Falls	.....	T.	9.0	40.0	14.0	18.0	49.0	7.5	.....	137.5
Hartland	.....	.....	19.5	8.7	14.0	24.7	44.0	4.2	.....	115.1
Northfield	.....	T.	13.3	9.3	11.6	25.0	28.9	2.0	.....	90.1
Virginia.										
Bigstone Gap	.....	T.	0.5	4.5	7.5	9.5	1.0	T.	.....	23.0
Birdsnest	.....	.....	(†)	0.5	8.0	13.0	3.0	.....	.....	.....
Blacksburg	.....	T.	2.0	1.5	12.0	12.0	4.0	4.5	.....	36.0
Callaville	.....	.....	.....	.....	6.5	17.5	1.0	0.5	.....	25.5
Cape Henry	.....	.....	0.5	0.5	3.4	18.5	1.0	T.	.....	23.9
Cliftonforge	.....	.....	(†)	T.	T.	19.0	2.0	1.0	.....	.....
Dale Enterprise	.....	.....	1.0	5.0	4.0	46.5	4.0	T.	.....	60.5
Farmville	.....	.....	(†)	0.7	6.0	22.5	4.0	T.	.....	.....
Fredericksburg	.....	.....	1.0	1.0	7.0	35.0	6.0	.....	.....	50.0
Hot Springs	.....	.....	(†)	4.5	5.0	13.0	8.0	.....	.....	.....
Lynchburg	.....	.....	3.0	T.	7.5	12.0	1.0	T.	.....	23.5
Manassas	.....	.....	1.2	1.2	4.0	34.5	(†)	.....	.....	.....
Marion	.....	.....	1.0	4.0	8.0	5.0	1.0	2.0	.....	21.0
Norfolk	.....	.....	0.1	T.	4.6	14.4	0.1	T.	.....	19.2
Richmond	.....	.....	0.8	T.	8.0	20.2	5.0	T.	.....	34.0
Stephens City	.....	.....	1.0	3.0	7.0	39.0	2.0	T.	.....	52.0
Sunbeam	.....	.....	T.	(†)	4.0	15.0	1.0	4.0	.....	.....
Wytheville	.....	T.	2.2	1.0	9.0	10.0	1.0	6.0	.....	29.2

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Washington.										
Aberdeen	.....	.....	.....	1.4	5.8	5.5	0.2	.....	.....	12.9
Blaine	.....	.....	4.0	2.0	6.0	7.0	6.0	T.	.....	25.0
Bridgeport	.....	(†)	T.	3.4	(†)	(†)	.....	(†)	.....	.....
Centerville	.....	.....	2.0	7.0	13.5	11.5	2.0	.....	.....	36.0
Clearwater	.....	.....	.....	6.2	4.8	19.4	.....	.....	.....	30.4
Ellensburg	.....	.....	(†)	5.4	(†)	16.8	1.3	.....	.....	.....
Fort Canby	.....	.....	.....	T.	0.2	1.5	T.	.....	.....	1.7
Fort Simcoe	.....	.....	5.6	15.0	35.0	8.0	T.	T.	T.	63.6
Grandmound	.....	.....	.....	4.6	22.0	3.2	0.1	.....	.....	29.9
Hunters	T.	0.1	14.1	11.5	(†)	(†)	(†)	(†)	.....	.....
Lacenter	.....	.....	.....	8.0	12.2	8.0	0.2	.....	.....	28.4
Lakeside	.....	.....	4.0	13.5	26.5	8.0	.....	.....	.....	52.0
Lind	.....	.....	7.7	7.2	13.3	14.5	1.6	T.	.....	44.3
Loomis	.....	.....	3.0	2.0	(†)	5.0	T.	.....	.....	.....
Madrone	.....	.....	T.	22.5	22.0	12.0	(†)	(†)	.....	.....
Mayfield	.....	.....	0.5	(†)	11.0	(†)	3.0	.....	.....	.....
New Whatcom	.....	.....	0.8	5.0	13.0	6.2	3.0	.....	.....	28.0
Northbend	.....	(†)	(†)	10.0	8.0	12.0	1.5	.....	.....	.....
Port Crescent	.....	.....	.....	5.1	34.0	10.0	1.9	0.5	.....	51.5
Port Townsend	.....	.....	T.	3.7	15.0	5.6	T.	.....	.....	24.3
Pomeroy	.....	.....	11.0	3.5	7.2	28.2	2.7	T.	T.	52.6
Rosalia	.....	.....	12.3	5.4	17.3	10.7	4.8	0.3	.....	50.8
Seattle	.....	.....	.....	12.0	17.0	6.1	1.9	.....	.....	37.0
Spokane	.....	.....	7.2	8.3	23.2	8.6	9.1	T.	.....	56.4
Stampede	.....	.....	53.8	43.0	64.0	(†)	75.5	21.0	.....	.....
Tacoma	.....	.....	.....	7.5	14.5	7.5	T.	.....	.....	29.5
Tunnel	4.0	(†)	84.0	61.0	81.0	226.0	(†)	(†)	60.0	.....
Walla Walla	.....	.....	3.5	3.4	7.9	20.1	T.	.....	.....	34.9
West Virginia.										
Beverly	.....	1.0	15.0	25.0	11.0	30.0	11.0	5.0	.....	98.0
Bluefield	.....	T.	3.0	3.2	9.3	12.1	3.8	3.0	.....	34.4
Buckhannon	.....	.....	0.7	17.5	9.5	27.5	12.0	0.1	.....	67.3
Burlington	.....	.....	4.0	4.0	9.0	30.0	3.0	(†)	.....	.....
Eastbank	.....	T.	1.0	4.0	3.0	21.0	2.0	T.	.....	31.0
Glenville	.....	T.	2.0	8.0	8.7	20.2	12.2	T.	.....	51.1
Grafton	.....	T.	6.9	10.5	10.0	13.5	5.0	T.	.....	45.9
Green Sulphur	.....	.....	2.0	4.0	6.0	14.5	4.0	.....	.....	30.5
Huntington	.....	.....	(†)	6.5	4.0	21.5	4.0	.....	.....	.....
Marlinton	.....	.....	3.5	11.7	4.0	27.5	3.0	T.	.....	49.7
Martinsburg	.....	.....	5.0	7.0	4.0	29.0	2.0	T.	.....	47.0
Parkersburg	.....	.....	1.8	6.1	11.2	13.9	4.2	T.	.....	37.2
Point Pleasant	.....	.....	T.	4.0	10.0	8.0	1.0	T.	.....	23.0
Wisconsin.										
Amherst	.....	4.0	6.0	5.0	13.0	11.0	22.0	1.0	.....	62.0
Bayfield	.....	.....	12.0	17.5	15.5	12.0	14.0	.....	.....	71.0
Brodhead	.....	4.0	7.0	1.0	T.	4.5	7.5	.....	.....	24.0
Butternut	.....	(†)	(†)	2.5	15.0	13.6	20.1	.....	.....	.....
Florence	.....	0.5	3.5	1.5	13.5	3.5	13.5	T.	.....	36.0
Grantsburg	.....	.....	18.0	T.	7.8	15.2	23.0	.....	.....	64.0
Green Bay	.....	4.2	3.2	6.9	8.1	8.7	17.2	T.	.....	48.3
Hayward	.....	T.	14.0	0.6	11.6	6.4	20.9	1.0	.....	54.5
Lincoln	.....	3.0	1.0	7.0	11.0	(†)	(†)	.....	.....	.....
Madison	.....	1.5	2.0	0.9	4.0	5.0	13.5	T.	.....	26.9
Medford	.....	1.0	8.5	T.	8.0	8.0	13.0	T.	.....	38.5
Milwaukee	.....	1.3	5.4	1.7	5.1	3.8	18.6	0.2	.....	36.1
Neillsville	.....	.....	2.0	(†)	8.5	8.0	(†)	T.	.....	.....
Osceola	.....	T.	17.0	0.7	9.1	13.0	27.5	1.0	.....	68.3
Pepin	.....	.....	9.0	2.0	8.0	10.0	14.0	T.	.....	43.0
Pine River	.....	3.9	4.7	5.6	9.0	11.5	13.7	T.	.....	48.4
Portage	.....	4.0	2.0	2.0	6.0	6.0	17.0	.....	.....	37.0
Port Washington	.....	0.1	2.0	1.0	3.0	1.0	17.0	.....	.....	24.1
Prairie du Chien	.....	2.0	5.0	0.5	5.5	12.5	11.5	T.	.....	37.0
Sharon	.....	3.0	T.	1.0	1.0	9.0	6.0	.....	.....	20.0
Shawano	.....	4.0	2.0	4.0	15.0	11.0	17.0	T.	.....	53.0
Valley Junction	.....	2.0	6.2	1.5	9.8	12.5	18.5	T.	.....	50.5
Watertown	.....	3.0	5.0	4.0	7.8	4.5	20.0	T.	.....	44.3

† No report from station.

MONTHLY AND SEASONAL SNOWFALL, 1898-99—Continued.

Stations.	1898.				1899.					Annual.
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	
Wisconsin—Continued.										
Waupaca	.....	4.0	4.2	4.8	14.5	13.0	16.8	.....	.....	57.3
Wausau	.....	0.5	6.5	4.0	14.5	11.5	14.5	0.5	.....	52.0
Westfield	.....	6.0	3.0	2.1	6.4	10.0	9.5	.....	.....	37.0
Wyoming.										
Big Horn Ranch	T.	19.0	7.0	3.0	7.8	6.5	15.2	4.5	18.5	81.5
Big Piney	.....	1.0	6.0	.....	4.5	4.0	10.5	0.5	5.0	31.5
Carbon	.....	(†)	8.6	4.9	(†)	30.1	(†)	6.0	3.9	.....
Cheyenne	.....	2.0	15.8	3.6	12.3	16.3	18.9	5.9	0.6	75.4
Evanston	3.0	12.5	21.0	5.0	14.8	21.0	29.0	15.0	13.0	134.3
Fort Laramie	.....	1.0	4.5	5.0	14.5	11.9	19.3	T.	.....	56.2
Fort Washakie	.....	17.5	0.3	2.9	5.1	3.5	8.3	2.2	3.7	43.5
Fort Yellowstone	.....	9.0	14.5	6.7	42.1	34.0	25.0	14.5	6.0	151.8
Lander	.....	15.4	2.5	6.9	8.8	5.7	16.5	4.8	3.0	63.6
Laramie	.....	5.2	6.1	2.3	9.5	11.3	10.0	17.5	0.4	62.3
Lovell	.....	3.4	0.4	0.3	27.0	(†)	4.0	1.0	0.8	.....
Lusk	3.1	(†)	5.3	7.8	13.0	13.5	22.5	(†)	.....	.....
Sheridan	.....	10.2	3.0	13.5	20.2	15.2	20.5	1.2	1.0	84.8
Sundance	(†)	(†)	(†)	(†)	(†)	9.0	22.0	(†)	(†)	.....
Wamsutter	.....	6.0	(†)	2.0	1.0	9.0	11.0	.....	0.5	.....
Wheatland	0.2	0.5	7.0	7.0	6.0	15.5	23.0	1.0	T.	60.2
Canadian stations.										
St. Johns	.....	.....	1.0	3.5	24.5	24.0	2.0	0.7	0.5	56.2
Sydney	.....	.....	0.0	25.0	28.0	16.0	11.5	0.5	1.0	82.0
Halifax	.....	.....	3.7	17.4	11.4	22.8	17.3	3.7	0.2	76.5
Grand Manan	.....	.....	13.9	19.7	17.4	19.5	13.3	T.	.....	83.8
Yarmouth	.....	.....	7.0	22.1	13.3	25.8	21.3	1.2	.....	90.7
Charlottetown	.....	.....	4.5	13.7	28.1	22.6	25.0	1.6	5.2	100.7
Chatham	.....	.....	17.6	11.8	24.8	27.1	36.9	2.7	1.5	122.4
Father Point	.....	1.4	15.1	13.4	7.3	17.1	49.5	3.6	.....	107.4
Quebec	.....	T.	11.6	17.1	18.3	24.9	44.6	4.8	.....	121.3
Montreal	.....	.....	15.7	20.9	25.1	9.1	43.7	1.9	.....	116.4
Kingston	.....	T.	4.1	9.5	7.5	5.8	18.4	0.4	.....	45.7
Rockliffe	.....	0.5	1.2	22.4	17.7	7.2	28.0	(†)	.....	.....
Toronto	.....	T.	14.1	18.4	4.7	5.5	14.8	1.8	.....	59.3
White River	.....	3.2	9.9	20.9	14.9	17.2	15.8	2.6	0.4	84.9
Port Stanley	.....	.....	9.0	22.8	8.3	5.4	18.4	0.8	.....	64.7
Saugeen	.....	0.2	14.0	44.0	29.4	18.6	29.6	2.1	.....	137.9
Parry Sound	.....	0.6	12.7	52.9	57.5	23.0	26.2	0.2	.....	173.1
Port Arthur	.....	.....	1.2	2.8	5.0	5.7	3.4	T.	.....	18.1
Winnipeg	.....	0.8	19.0	6.1	17.7	8.4	3.6	4.5	T.	60.1
Minnedosa	.....	1.9	9.0	1.4	5.7	3.5	4.7	3.5	0.8	30.5
Qu' Appelle	.....	21.8	14.2	2.3	13.1	2.1	15.7	2.6	20.3	92.1
Medicine Hat	.....	5.0	12.0	6.7	11.2	11.3	11.7	8.0	8.0	73.9
Swift Current	.....	0.9	4.6	1.3	5.9	3.0	13.1	1.7	8.0	38.5
Calgary	.....	(†)	3.0	4.0	8.5	3.0	11.3	3.0	2.8	.....
Prince Albert	.....	2.5	9.0	2.9	19.6	0.4	18.4	5.9	9.5	68.2
Edmonton	.....	8.0	4.4	1.0	10.1	1.4	3.3	14.0	1.7	43.9
Kamloops	.....	.....	9.5	(†)	8.0	(†)	(†)	0.0	.....	.....
Battleford	.....	T.	6.7	2.0	3.5	0.2	8.3	4.0	13.1	37.8
Banff	0.7	4.2	9.4	1.1	18.8	2.8	18.3	9.6	21.4	86.3
Esquimalt	.....	.....	0.0	5.0	12.6	(†)	2.4	.....	.....	.....
Ottawa	.....	T.	10.7	27.2	14.1	5.8	45.9	T.	.....	103.7

† No report from station.