UNITED STATES DEPARTMENT OF AGRICULTURE
WEATHER BUREAU

REPORT

OF THE

CHIEF OF THE WEATHER BUREAU

1931-32

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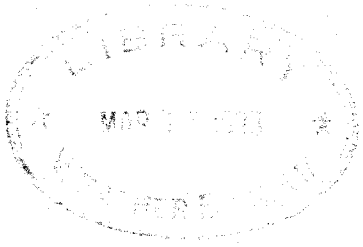

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Of the Annual Report of the Chief of the Weather Bureau, four thousand copies; one thousand copies for the Senate, two thousand copies for the House, and one thousand copies for the Bureau.

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU,
Washington, D. C., September 3, 1932.

SIR: I submit herewith a report of the work of the Weather Bureau during the fiscal year ended June 30, 1932.

Respectfully,

C. F. MARVIN,
Chief of Bureau.

Hon. ARTHUR M. HYDE,
Secretary of Agriculture.

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PART I.—ADMINISTRATIVE REPORT

In the interest of economy in printing, the annual report, Chief of Weather Bureau, for the fiscal year ended June 30, 1932, is submitted in abridged form.

The most important of the meteorological tables and statements concerning the weather during the calendar year 1931 are presented as usual in Parts II and III, according to congressional provision, that the continuity of these important facts in the form in which they have been published for many years may not be broken. Because the tables hitherto placed in Part IV consist of statistics moderately accessible in other publications, they are now omitted, except the evaporation data, which are transferred to Part II.

Inasmuch as the more important incidents connected with the activities of the bureau have been covered in the public press, it has been decided to omit in the present report discussion of these and such other topics as usually are reported in Part I.

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PART II.—GENERAL SUMMARY OF THE WEATHER CONDITIONS IN THE UNITED STATES DURING THE YEAR 1931, WITH CHARTS

REVIEW OF THE WEATHER CONDITIONS DURING 1931

As in 1930 warmth and deficiency of precipitation marked the situation in the country as a whole, but in 1931 it was the excess of temperature that was more notable. The winter and autumn months were particularly marked by mildness, and the summer was slightly hotter than normal in the greater part of the country. There were several States where the lowest temperature of the year was above the lowest marks of all other years for which ample records are available; thus, South Dakota in 1931 noted no temperature lower than −22° F., while in all the other 41 years of record there were readings at least as low as −29°.

The year is computed to have a higher average temperature than any other ever recorded in some parts of California and in very many northern districts; Minnesota and adjacent areas averaged about 6° above normal throughout the year, and the Plains and most of the Mississippi Valley nearly as much. Only small portions of three or four of the southernmost States averaged cooler than normal and those but slightly. At most central and north-central stations the year was found to average either the very warmest or the warmest save 1921.

A serious shortage of precipitation was noted in an area that included most of Montana and South Dakota and considerable portions of Nebraska and North Dakota. Likewise in Tennessee and the interior portions of the East Gulf States the rainfall of the year was decidedly less than normal. In most other regions the year's rainfall was either close to or but moderately less than normal, but the far Southwest and the Florida Peninsula received distinctly greater precipitation than normal.

JANUARY

The first month of the year was mainly warm and dry. The mild temperatures were noteworthy in northern districts between the Pacific coast and the vicinity of Lake Superior. The final 10 days were especially warm for the time of year in Northern States from the Great Lakes to the Pacific and in all parts of the Plains, numerous stations noting the highest temperatures ever recorded during January. The month averaged warmer than any other January of record in the Dakotas, Nebraska, Minnesota, and Wisconsin, and in Iowa the warmest since 1880; elsewhere it was nearly everywhere milder than normal, save in the middle Plateau region and parts of the Rio Grande Valley, Gulf and South Atlantic States, and northern New England.

The precipitation of the month came largely during the first decade, and the final fortnight was substantially free from important rainfall and snowfall. Most of the country received considerably less than the normal January amount, and the shortage was marked in the Ohio Valley and the heart of the country; also, to northward, in a belt from Michigan to the Rocky Mountains. However, most districts close to the southern edge of the country had greater rainfall than normal. The snowfall was small for January, especially in the Plains States, Minnesota, the Ohio Valley, and the southern Middle Atlantic States.

FEBRUARY

The decided tendencies to mild temperature and to dryness continued. The second week of the month brought a cold spell to many States, but the recovery was rapid, save in the south-central and southeastern sections. From central Montana to the upper Lakes the warmth was extraordinary, and the records indicate that the month was the mildest February ever noted in the Dakotas, Minnesota, and Wisconsin; North Dakota computing a monthly departure of 18°, scarcely exceeded in any State during any month whatsoever. Florida was the sole State where this February averaged cooler than normal, and there the month was but 1° cooler.

February, as a whole, brought more precipitation than January, yet in 41 of the 48 States the amounts averaged less than normal. From the central part of Mississippi northeastward to the Carolinas and almost throughout the Lake region, Ohio Valley, Middle Atlantic States, and southern New England there was a marked deficiency, also from central California northward almost to Puget Sound, while the middle and northern plateau, Montana, and the upper Mississippi Valley had somewhat less than normal. However, Arizona had decidedly large amounts, and eastward to Oklahoma, Arkansas, and western Louisiana there was more than normal. In much the greater part of the country the snowfall was less than normal.

MARCH

Various conditions were noted in different sections during March, yet the month was usually warmer than normal in the Northern States and the far West. Most of the central portion was visited by a severe snowstorm and cold wave during the last week. The first decade was cold in most sections, while the fortnight from the 11th to 24th was mostly milder than normal, save in the southeastern section. Southern California reported the month almost the warmest March ever known, while in some Gulf districts it was among the coldest Marches of record.

While the precipitation was somewhat more plentiful than during the winter months just gone, yet more than half of the States fell short of normal. California received far less than normal precipitation, as did the South Atlantic States north of Florida and the interior portions of Alabama and Mississippi. Near the North and Middle Atlantic and Gulf coasts and the Great Lakes, also usually in the Plains States and the far Northwest, the month's precipitation was more than normal. For most sections the last week was the wettest portion of the month.

In the middle and southern Plains and the central valleys the month brought at least two-thirds of the snowfall of the cold season of 1930–31, and there was more than the March normal snowfall in these areas, in the middle and southern Rocky Mountain region, and from Wisconsin to New England.

APRIL

The April weather did not include such remarkable features as had come in each of the months just preceding, but it was one more month of temperatures considerably higher than normal in southern California and of lower temperatures than expected in the south-central and southeastern portions of the country. Practically all of the northern third of the country averaged slightly warmer than normal. As a rule, the middle portion of the month was warmer than the first and last parts. At Los Angeles, Calif., the 22d was the last day of a period of 104 consecutive days, every one warmer than normal.

Precipitation was usually most plentiful during the earlier and later portions of the month. For the whole of April it was greater than normal in much of the Southwest, especially New Mexico, and it was decidedly heavy in most of the Florida Peninsula. There was usually more than normal in the middle and upper Ohio Valley, the lower lake region, New York, Virginia, and the Carolinas. Most of eastern and northern Texas and the lower Mississippi Valley had less rainfall than normal, and precipitation shortages were the rule from the eastern parts of Washington and Oregon to the upper Lake region.

MAY

Marked warmth in the far West was a feature of May, most of California finding it the warmest May ever recorded. New England and New York averaged slightly warmer than normal, but substantially all the rest of the country to eastward of the Rocky Mountains was cooler than normal, especially a wide area from Texas to the central valleys.

The rainfall of May was rather well distributed in point of time, but from the Plains States eastward a comparatively large part of it fell during the first 10 days or near the 20th. By far the greater part of the country had less than normal, the chief exception being found in the Atlantic States, the upper Ohio Valley and the vicinity of Lake Ontario. In the southern Middle Atlantic States the month was the first to bring precipitation more than slightly exceeding normal since late in 1929. The May rainfall was more than normal in most of the lower Rio Grande Valley also, and in a few scattered areas, mostly small. For the most part, the May rainfall was considerably less than normal in Tennessee and adjacent areas, in the southern half of the Plains, and from the upper Lake region westward to the north Pacific coast.

JUNE

June brought a return to the condition of temperature above normal over the greater part of the country which had prevailed during the first two months of 1931 and several of the second half of 1930. In the north-central section the month was particularly hot; indeed, it was there noted usually as the hottest June ever recorded, with the last five days intensely hot. Weather somewhat cooler than normal was noted at times before the 17th in parts of the eastern half, while the far Northwest had some cool weather late in the month. Some portions of the Pacific States, Arizona, the Gulf and south Atlantic coasts, and the Appalachian region fell slightly below the normal June average temperature.

The month's rainfall was irregularly distributed and, considering the country as a whole, it was decidedly less than normal. The shortage was marked over substantially all of the southeastern quarter of the country; also to northward almost to the northern limit of the Ohio River Basin and to westward over the southern half of the Plains. There was a less-marked shortage

in Nebraska, Wyoming, and to northward and in and near northern Utah; and the June scarcity here was notably disastrous because of the deficiency and the high temperatures during the few months next preceding in this area. Somewhat more rain than normal came in June to the Pacific Northwest, the region of the Mexican boundary from southeastern Arizona to southern Texas, the greater part of the extreme Northeast, and much of the Lake region.

JULY

Marked heat and somewhat deficient rainfall featured July, when the entire country is scanned. The excess of heat was nowhere so great as it had been in certain areas during June, yet in the far Southwest and much of the Atlantic, Appalachian, and Lake regions this July ranked among the very hottest ones. The temperature was comparatively steady, save that the second week usually was less hot than the rest of the month.

While the rainfall continued deficient, yet in amount and distribution the country had less unfavorable conditions than during June. There usually was more rain than normal in North Dakota, Montana, Wyoming, northern Utah, and northwestern Minnesota; likewise in large portions of the middle and lower Mississippi Valley and nearly everywhere near the Gulf coast; also in the Appalachian and lower Lake regions and to eastward of them, save that close to the Atlantic coast from about Chesapeake Bay to southwestern Maine there was practically always a shortage. Another coast strip where a deficiency was experienced stretched from southern South Carolina to southern Florida. Quite a marked shortage was noted in the southern half of the Plains, and in nearly all of South Dakota and the uppermost part of the Mississippi Valley.

AUGUST

In both warmth and rainfall the country came close to normal during August, when it is viewed as a whole; however, in California it was almost the hottest August of record, and otherwise in the western half of the country it was substantially hotter than normal, while from the northern half of the Plains to the north Atlantic coast the month averaged slightly warmer than normal. In the south-central and southeastern parts temperatures averaged lower than normal. For the eastern half of the country the warmest weather by far came during the first decade.

The rainfall was decidedly more than normal in the central valleys and to northwestward as far as northeastern Kansas and southwestern Iowa and in the Virginias, Maryland, Delaware, and New Jersey. Also there usually was somewhat more than normal in New England and the eastern half of the Gulf region, in much of Minnesota and the vicinity of Lake Michigan, and in a large area from southeastern California to southwestern Texas. Practically all parts of the Northwest failed to even approach the normal precipitation, while shortages were the rule in South Dakota, the western parts of Kansas and Oklahoma, and northern and central Texas. To eastward of the Mississippi River there were very large parts of Michigan and New York which failed to come even close to normal rainfall.

SEPTEMBER

September, 1931, marked the beginning of a remarkable period of above-normal temperatures for all of the country save the far West; the duration of this period was six months—till the end of February, 1932. Until about the 22d surprisingly high temperatures for the time of year prevailed to eastward of the Rocky Mountains, but the last days of the month were less abnormal. The Plains States and the upper Mississippi Valley averaged usually 7° to 9° warmer than normal for the month, and nearly always here and eastward to the eastern part of the Lake region and the interior of the Middle Atlantic States this was the hottest September of record, or nearly the hottest. Near the Gulf coast the month averaged but slightly hotter than normal and in a few parts of the far West a very little cooler; in fact, for parts of California it was the first month of 1931 to average cooler than normal.

Before the 20th certain limited areas had very liberal rains, but the latter part of the month brought the best distributed rains from the northern and middle Plains eastward to the Atlantic. The month saw a marked shortage of rainfall well nigh everywhere from Oklahoma and Texas eastward, except in the Florida Peninsula. Most of the western half of the country had less than normal, save western and northern New Mexico and districts adjacent and an area from the western parts of Wyoming and Montana westward to the north Pacific coast. There was heavy rainfall from northeastern Kansas to the northern part of Michigan, and liberal amounts were received to eastward of this area as far as northwestern New England, central Pennsylvania, and northern West Virginia.

OCTOBER

The weather features were much like those of September, just before. Temperatures were usually higher than normal, save in parts of the far West; yet there were brief periods of cooler weather over large sections about the 10th, the 18th, and during the final days. The entire month averaged a trifle cooler than normal in parts of the Pacific States, but otherwise warmer, and usually considerably so. The month was 6° to 8° warmer than normal in much of Texas and the southern Plains, where very few Octobers, if any, have been warmer, also near the northern border from Minnesota to New York.

There was better geographical distribution of the precipitation than the preceding month had shown, yet a decided shortage was experienced in the Atlantic area from New York to central Florida. Most of the upper Ohio Valley, Tennessee, the interior parts of the East Gulf States, and eastern and southern Texas had less than normal; likewise Nebraska, South Dakota, Montana, and western North Dakota. The Pacific States mainly had more than normal; also a strip from northwestern Texas to northern and western Michigan, and the northeastern part of New England. The final decade of the month was the most notable time for precipitation. The October snowfall was of slight account, save in a few mountainous districts, especially Wyoming and western Colorado.

NOVEMBER

In the eastern third of the country there was a little cool weather during the first and last weeks, but usually surprising warmth prevailed, so that from the Mississippi River to the Atlantic coast scores of stations reported the month as the warmest November of record. Between the Mississippi River and the Rocky Mountains warmth during the first half gave way to low temperatures during the second half, although from Missouri to Louisiana and eastern Texas the cold was not notable or long. In the far West only the early part of the month was mild, and the month averaged far colder than normal in most of the Plateau region.

The precipitation was very unevenly distributed over the country, and the first decade brought hardly any, save in the Pacific Northwest. The monthly totals were very small from Connecticut, New Jersey, and eastern Pennsylvania to Florida and southern Alabama, but just beyond the Appalachian Mountains they approached the normal amounts. From the vicinity of Lakes Superior and Michigan southwestward to Oklahoma, northern and eastern Texas, and northern Louisiana a marked excess was noted, several stations, especially in or near Missouri, reporting the month the wettest November of record. Still farther west the amounts were mostly above normal, though they were considerably short of normal around Puget Sound. The month's snowfall was of little moment in the eastern half, but in the western was generally heavy, especially in the Cascade and Sierra Nevada districts, the higher parts of the Plateau States, and northwestern New Mexico and adjoining districts.

DECEMBER

As a whole, the month much resembled the November just passed, the eastern half of the country having remarkably mild weather and most of the far West being cold. The first half of December was notably like the last fortnight of November, with the western half of the country almost constantly colder than normal; but during the second half the Rocky Mountain region and the western Plains, the more northern areas to westward, and the vicinity of the Pacific coast were usually warmer than normal. From the northern Plains, Missouri, Arkansas, and Mississippi eastward to the Atlantic, save in New England, the month averaged very mild, often the warmest December of record, though the central and southern districts inland from the coast seldom reached the marks made in December of 1889.

The month's precipitation was not so poorly distributed as November's had been, yet very heavy falls reached nearly all of the Southeast save the Atlantic coast. California had the wettest December of record, while Oregon, Washington, Idaho, Nevada, and most parts of the Missouri and upper Mississippi Valleys received more than normal. New Jersey and Delaware were the only States where the month's average precipitation failed by more than an inch to approach the normal. The month's snowfall was decidedly light almost throughout the eastern half, but mainly quite heavy in South Dakota and in those parts of the far West where snow occurs readily.

TORNADOES, 1931

As customary in these reports from 1916 onward, the tornadoes of the year are individually described. A tabular style of presentation is used, as for 1930, but the grouping by States is again followed and the chronological arrangement of the several tornadoes of each State. The information has been furnished chiefly by the section directors of the bureau, and descriptions of many of the tornadoes have already been printed in the monthly section reports or in the Monthly Weather Review, while almost all of them were listed in the Review's table, Severe

Local Storms. Owing to the receipt of additional information, some differences in details of certain tornadoes from the Review's table will be found in the table now printed; also a few additional tornadoes have been reported, while some storms formerly classed as tornadoes are now thought to have been nontornadic storms and these are omitted from the accompanying table, but are included in the small table following to the extent of losses of life and property they caused.

GENERAL SYNOPSIS

During 1931 there were reported 94 tornadoes in 27 States, none occurring in Alaska, Hawaii, Puerto Rico, or the Virgin Islands. This number of tornadoes is less than the counts for all other recent years.

During June 24 tornadoes occurred, many more than during any other month. No tornadoes in February came to notice. The counts for the other 10 months were: January, 3; March, 5; April, 4; May, 13; July, 7; August and September, 11 each; October and November, 4 each; December, 8. On June 19, 7 tornadoes occurred, and on September 21, 5.

The aggregate loss of life through the 1931 tornadoes was but 36, which is less than one-half the least total for any one previous year during this canvass. From the December tornadoes 14 deaths resulted; the other deaths due to tornadoes were, by months: January, 7; March, 4; May, 2; June, 3; August, 1; September, 5. From the tornadoes of the first week of the year, 7 deaths came; from those of the next 351 days, 20 deaths altogether; and from those of the final week of the year, 9 deaths.

The property losses that were reported aggregate $3,215,400. This is among the least amounts for single years of this series, but it is slightly greater than the aggregate of the tornado losses of 1923.

Arkansas reported a decidedly greater total of tornado losses than any other State, namely, $1,263,500. Very nearly all of this amount was due to the tornado about midnight of December 12–13; it has seldom happened that any one tornado caused so great losses unless it struck a large-sized town and resulted in many deaths.

SYNOPSIS BY STATES

The list of States in which 1931 tornadoes occurred with fatal consequences is as follows: Alabama, Arkansas, Iowa, Kansas, Louisiana, Minnesota, Mississippi, New Mexico, North Carolina, Oklahoma, Texas, Virginia, Wisconsin, or 13 States. Tornadoes occurred without loss of life in 14 other States, namely: Florida, Illinois, Indiana, Maine, Maryland, Missouri, Montana, Nebraska, New Jersey, New York, North Dakota, Ohio, South Carolina, South Dakota.

In four States not yet named there were very intense local storms, considered by some to have been tornadoes, yet not so classified when all the information was studied. These States, with the counties and dates, were Michigan, Ottawa, July 15; Nevada, Humboldt, July 24; Pennsylvania, Adams, August 28; and Washington, Yakima, May 1.

In certain of the 27 States reporting tornadoes there were other storms, of puzzling nature, but deemed not tornadoes when the information was scanned, namely: Florida, Dade, March 2, and Palm Beach, August 3; Kansas, Osage, September 22; Maryland, Frederick and Carroll, June 7; Montana, Yellowstone, June 2; Nebraska, Cherry, July 31; New Jersey, Cape May, July 1; North Dakota, McHenry, July 27; Texas, Harris, September 10.

Formations considered tornado clouds were noted in the air, apparently without ever touching the ground, over States and counties as follows: Indiana, Marion, July 1; New Jersey, probably Gloucester, September 4; New Mexico, Bernalillo, July 9; Ohio, Fairfield, May 25; South Carolina, Abbeville, August 18. The cloud over New Jersey was reported by persons in Delaware.

There thus remain 17 States in which no storm even considerably resembling a tornado was felt during 1931: Arizona, California, Colorado, Connecticut, Delaware, Georgia, Idaho, Kentucky, Massachusetts, New Hampshire, Oregon, Rhode Island, Tennessee, Utah, Vermont, West Virginia, Wyoming.

Summarized geographically, the list of States lacking tornadoes during 1931 included all seven situated wholly west of the Continental Divide; Wyoming and Colorado, traversed by that Divide; five inland States east of the Mississippi River (Michigan, Vermont, West Virginia, Kentucky, and Tennessee); and seven States of the Atlantic coast (New Hampshire, Massachusetts, Rhode Island, Connecticut, Pennsylvania, Delaware, and Georgia).

BOUNDARY-CROSSING TORNADOES

Two 1931 tornadoes crossed State boundaries and thus appear twice each in the table, where the count would appear to be 96 instead of the actual 94. Under the State names the length of path, deaths, and property losses are entered only for the portions within the respective

States; but for convenience there are entered here the total lengths, deaths, and losses. The Kansas-Missouri tornado of September 21 covered 57 miles, and caused two deaths and losses of $52,000. The Texas-Arkansas tornado of December 11 aggregated 3 miles, 2 deaths, and losses of $10,000.

SPEED OF ADVANCE

There were hardly any instances when the time of the passing of a tornado was so accurately reported from two or more places that the velocity of advance can be satisfactorily estimated. The speed of 22 miles an hour is indicated for Florida No. 1 tornado and 44 miles an hour for Iowa No. 19.

ITEMS OF TABLE

Where two county names appear the word "and" between them indicates that the tornado path began in the first named and was confined to those counties, unless it was one of the few tornadoes that crossed a State boundary, in which case merely the portion within the single State is indicated. The word "to" between names implies that three or more counties were in the path.

The direction of advance is entered merely to the nearest of eight chief compass points. If the tornado changed direction, the average direction is shown.

The length of path for a "not continuous" storm is not the length devastated but the entire distance from first havoc to last. The width of path, in case more than one width was reported, is the average as well as it can be computed.

When the deaths were none, but it is known that injuries resulted, a reference and footnote are employed. The number of injuries is frequently known only indefinitely, as "several" or "some" (for either of which "several" is used) or "a few." In case there is a definite number of 2 to 4, reference to "a few" is entered, while 5 to 9 are shown as "several."

Therefore "0" deaths without a reference indicates that not even injuries were reported.

Tornadoes of 1931, arranged by States

State, number, and date	Hour	County	Direction of advance	Length of path	Width of path	Deaths	Property losses	Remarks
ALABAMA				*Miles*	*Yards*	*Number*	*Dollars*	
1. Mar. 31	11 a. m.	Coffee	NE.	7	100	1	5,000	Distinct tornado in Florida this day.
2. Do	2.30 p. m.	Elmore	NE.	5	75	0	5,000	
3. May 4	5.30 p. m.	Wilcox	NE.	(1)	600	0	6,000	
4. Dec. 31	3 a. m.	Butler	NE.	5	75	[2] 0	2,000	Distinct tornado in Mississippi a few hours earlier.
5. Do	3.30 a. m.	Elmore	NE.	6	300	4	4,000	
6. Do	4.45 a. m.	Chambers	NE.	1	35	0	4,500	
ARKANSAS								
1. Apr. 25	5 p. m.	Scott	NE.	(1)	300	0	10,000	
2. Dec. 11	2.30 a. m.	Miller	NE.	[3] 2	200	[4] 6	[2] 2,000	Continuation of Texas No. 8.
3. Dec. 12-13	11.45 p. m. to 12.30 a. m.	Columbia and Ouachita	NE.	[5] 35	400	1	1,250,000	Distinct tornado in Louisiana this night.
4. Dec. 30	4 p. m.	Ashley and Drew	NE.	2	400	[4] 0	1,500	Distinct tornado in Mississippi a few hours later.
FLORIDA								
1. Mar. 31	9.30 to 10.40 a. m.	Polk	NE.	[5] 25	30	[2] 0	40,000	Distinct tornadoes in Alabama this day.
ILLINOIS								
1. Aug. 28	2 a. m.	Randolph	E.	[5] 3	25	0	50,000	Distinct tornadoes in Indiana and Iowa a few hours earlier.
INDIANA								
1. May 19	8 p. m.	Vigo				0	1,500	Tornadic character somewhat doubtful.
2. Aug. 27	11 p. m.	Carroll	E.	(1)	300	0	5,000	Distinct tornado in Illinois a few hours later.
3. Sept. 25	2.45 p. m.	Wayne	NE.		440	[6] 0	100,000	
IOWA								
1. Apr. 18	4.30 to 5 p. m.	Adair	NE.	6		0	6,000	
2. May 17	5 p. m.	Dickinson	E.	2		0	8,000	
3. Do	5.30 p. m.	Osceola	E.	3		[7] 0	5,500	
4. May 28	2.30 p. m.	Scott	NE.	2	160	0	2,000	
5. Do	3 p. m.	Des Moines	NE.	4		0	800	
6. June 4	1.30 p. m.	Page	NE.	7		0	900	
7. June 19	10 p. m.	Buena Vista and Palo Alto	NE.	[5] 20	70	0	17,300	Distinct tornado in South Dakota several hours earlier.
8. Do	do	Kossuth	NE.	2		0	500	
9. Do	10.30 p. m.	Hancock	E.	6		1	20,000	
10. Do	11.40 p. m.	Black Hawk	E.	2	270	0	8,000	
11. Do	11.45 p. m.	Tama	E.	8		0	1,200	
12. June 19-20	11 p. m. to 12.15 a. m.	Chickasaw and Howard	NE.	[5] 16	70	0	62,000	

[1] Not definitely known; believed to have been short.
[2] Several persons injured.
[3] Within this State.
[4] A few persons injured.
[5] Path not continuous.
[6] Injuries to 10 or more persons.
[7] One person injured.

Tornadoes of 1931, arranged by States—Continued

State, number, and date	Hour	County	Direction of advance	Length of path	Width of path	Deaths	Property losses	Remarks
IOWA—continued.				*Miles*	*Yards*	*Number*	*Dollars*	
13. Aug. 1	3 p. m.	Clarke	NE.	1	30	0	500	
14. Do.	6 p. m.	Adair	NE.	5		0	5,200	
15. Aug. 27	1 to 1.30 p. m.	Cerro Gordo	NE.	7	30	1	100,000	Distinct tornado in Illinois several hours later.
16. Do.	5 p. m.	Muscatine	NE.	6	70	0	12,000	
17. Sept. 19	7.30 p. m.	Worth	NE.	5		0	3,200	
18. Sept. 21	3.15 to 3.30 p. m.	Davis	E.	11	100	[6] 0	100,000	Separated into two; branches of about equal length.
19. Do.	3.30 to 4.40 p. m.	Van Buren to Louisa	NE.	50	70	2	125,000	Distinct tornadoes in Missouri and Wisconsin this day.
KANSAS								
1. May 4	4 p. m.	Gray	SE.	3	7	0	300	
2. June 6	4.30 p. m.	Marshall	NW.	(8)	300	0	5,000	Distinct tornado in Nebraska this day.
3. Do.	6 p. m.	Chase	SE.	10	300	0	3,000	
4. Do.	7.30 p. m.	Greenwood	SE.	(8) 4	17	0	100	
5. June 10	8 p. m.	Cloud	W.	4	(9)	0	1,000	
6. July 1	12.30 p. m.	Nemaha	SE.	1	1,500	0	4,000	
7. Aug. 3	7.00 p. m.	Osage	NW.	2	30	0	(10)	
8. Aug. 18	5.30 p. m.	Republic	N.	1	100	0	3,000	
9. Sept. 18	6.30 p. m.	Smith	NE.	4	(9)	0	2,000	
10. Sept. 21	4.10 to 4.30 p. m.	Labette to Crawford	NE.	[3] 35	880	[2] 2	[3] 50,000	Missouri No. 2 continuation.
11. Sept. 24	7.30 p. m.	Republic	NE.	8	880	[6] 0	5,000	
LOUISIANA								
1. Mar. 6	8 p. m.	Bossier	NE.	3	200	[4] 0	5,000	Tornadic character somewhat doubtful.
2. Oct. 15	1.50 p. m.	Caddo	NE.	[3] 3	(9)	0	300	
3. Nov. 20	3 a. m.	Franklin	NE.	12	(9)	0	500	Paths parallel, about 4 miles apart.
4. Do.	do.	do.	NE.	(1)	(9)	0	(10)	
5. Dec. 13	1.35 a. m.	Webster	NE.	3	300	2	8,700	Distinct tornado in Arkansas earlier this night.
MAINE								
1. Sept. 6	Afternoon.	Waldo		(1)		[2] 0	10,000	Tornadic character somewhat doubtful.
MARYLAND								
1. July 16	3.30 p. m.	Garrett	S.	(1)	200	0	300	
MINNESOTA								
1. May 27	4.20 p. m.	Clay to Polk	NE.	70	440	2	200,000	
2. Nov. 16	9.35 p. m.	Hennepin	NE.	4	500	0	12,000	
MISSISSIPPI								
1. May 19	Forenoon	Attala	NE.	(5)	(9)	[7] 0	2,000	Do.
2. June 12	11 p. m.	Lee		(5)	(5)	0	(10)	Do.
3. Dec. 30	6 p. m.	Simpson and Smith	NE.	20	300	5	50,000	Distinct tornadoes in Arkansas and Alabama within a few hours.
MISSOURI								
1. Sept. 1	5.15 p. m.	St. Louis	NE.	1	100	[2] 0	25,000	
2. Sept. 21	5 p. m.	Barton	NE.	[3] [4] 22	1,760	[3] 0	[3] 2,000	Continuation of Kansas No. 10.
3. Do.	7 p. m.	Boone	E.	1	200	[7] 0	20,000	Distinct tornadoes in Iowa this day.
MONTANA								
1. June 29	Afternoon	Cascade	NE.	1	(9)	0	1,000	
2. Do.	Night	Phillips		(1)	(9)	0	2,000	Tornado character somewhat doubtful.
NEBRASKA								
1. June 6	4 p. m.	Knox and Cedar	SE.	30	1,500	[7] 0	65,000	Distinct tornadoes in Kansas this day.
NEW ENGLAND (*See* Maine.)								
NEW JERSEY								
1. June 5	Evening	Burlington	NE.	(5)	(5)	0	3,500	
NEW MEXICO								
1. June 5	12.30 p. m.	Colfax	E.	8	300	0	1,000	
2. Do.	4.45 to 5.00 p. m.	Union	E.	25	500	0	9,000	
3. Do.	6 p. m.	do.	N.	12	500	1	18,000	Possibly reappearance of No. 2.
NEW YORK								
1. May 11	Afternoon	Otsego		(1)	(9)	0	500	Dipped barely enough to cause damage.
NORTH CAROLINA								
1. Jan. 5	4 p. m.	Caswell	NE.	10	250	[4] 0	10,000	Distinct tornado in Virginia this day.
2. Do.	4.35 p. m.	Warren	NE.	[6] 4	150	6	35,000	
3. Apr. 22	11 a. m.	Cumberland	NE.	(1)	200	[4] 0	5,000	Do.

[1] Not definitely known; believed to have been short.
[2] Several persons injured.
[3] Within this State.
[4] A few persons injured.
[5] Path not continuous.
[6] Injuries to 10 or more persons.
[7] One person injured.
[8] Less than a mile.
[9] Narrow.
[10] Negligible.

Tornadoes of 1931, arranged by States—Continued

State, number, and date	Hour	County	Direction of advance	Length of path	Width of path	Deaths	Property losses	Remarks
NORTH DAKOTA				*Miles*	*Yards*	*Number*	*Dollars*	
1. July 27	6.30 p. m.	Cavalier	NE.	12	5,280	0		
2. Aug. 3	Evening	Walsh				[7] 0	30,000	Tornadic character somewhat doubtful.
OHIO								
1. May 30	3 p. m.	Franklin	E.	4	40	0	10,000	
2. Aug. 11	10.30 p. m.	Lorain	SE.	(1)	25	[4] 0	50,000	
OKLAHOMA								
1. Mar. 19	5 p. m.	Custer	N.	1	50	3	60,000	
2. June 11	7 p. m.	Wagoner and Muskogee	E.	8	100	1	25,000	Distinct tornado in Texas a few hours earlier.
3. July 24	8 p. m.	Pottawatomie	NE.	(5)	50	0	([10])	
SOUTH CAROLINA								
1. Oct. 9	6 p. m.	York	SE.	1	1,300	0	4,000	
SOUTH DAKOTA								
1. June 2	5.30 p. m.	McCook		(1)	16	0	500	
2. June 19	4.30 p. m.	Hand and Beadle	E.	2	880	0	30,000	
TEXAS								
1. May 21	2.30 a. m.	Carson	NE.	2		[2] 0	40,000	
2. June 11	4 p. m.	McCulloch	SW.	4	150	[4] 0	3,000	Distinct tornado in Oklahoma this day.
3. July 21	3.45 p. m.	Hunt	E.	2	440	0	1,000	
4. Aug. 20	8.30 p. m.	Comal		(1)	(9)	0	500	Tornadic character somewhat doubtful.
5. Oct. 7	4 p. m.	Fisher	NE.	2	1,760	[4] 0	1,500	
6. Oct. 29	4.30 p. m.	Bexar	SE.	3	3,520	0	75,000	
7. Nov. 17	5 a. m.	Smith	E.	(8)	200	0	3,500	
8. Dec. 11	2 a. m.	Bowie	NE.	[3] 1	200	[3] 2	[3] 8,000	Arkansas No. 2 continuation.
VIRGINIA								
1. Jan. 5	5 p. m.	Mecklenburg		2	100	1	3,500	Distinct tornadoes in North Carolina this day.
2. Apr. 22	12.15 to 12.30 p. m.	Campbell		1	60	0	4,500	Distinct tornado in North Carolina this day.
3. May 30	3.05 p. m.	Albemarle		(1)	1,500	(7)	9,000	
WISCONSIN								
1. May 6	5 p. m.	Dane		(6)	50	0	100	
2. July 1	Afternoon	Rusk		(6)	(9)	0	8,000	
3. Do	5.30 p. m.	Lafayette	NE.	7	880	0	25,000	
4. Sept. 21	7.30 to 9 p. m.	Rock to Waukesha	NE.	[5] 50	200	1	300,000	Distinct tornadoes in Iowa this day. Separated into two; north branch short.

[1] Not definitely known; believed to have been short.
[2] Several persons injured.
[3] Within this State.
[4] A few persons injured.
[5] Path not continuous.
[6] Injuries to 10 or more persons.
[7] One person injured.
[8] Less than a mile.
[9] Narrow.
[10] Negligible.

HAIL, 1931

Information about damaging hail has once more been collected, but no charts to indicate occurrence during 1931 are included in this report. The regular and cooperative stations of the bureau have furnished the greater part of this information, which was assembled first by the section directors.

No damaging hail whatever was reported in California, Nevada, or Vermont, while the island Territories of Puerto Rico, Virgin Islands, and Hawaii similarly were free from destructive hail, and Alaska noted but two instances of heavy hail, one at Calder during April and the other at Bethel during June. In the continental United States there was apparently less havoc from hail than usual, the rarity being notable in Texas, Oklahoma, and nearly all of the States that border the Mississippi River.

In Iowa the canvass by assessors indicated an aggregate hail loss of $1,378,114. This is the least sum of any year among the nine for which such figures are available, but it is judged that there were one or two other years where the proportion of loss to the total value of exposed crops was no greater, for this value was unusually small in 1931. The sum of estimates for damaging hailstorms in Kansas was slightly more than $2,500,000 while in North Carolina it is thought the losses were approximately $225,000. In Montana the hail losses paid by insurance agencies are

reported to have been somewhat less than in any other very recent year, but the value of crops had been severely reduced by drought injury.

Among notable single hailstorms of 1931, mention may be made of two during May. The earlier occurred on the 4th, in southwestern Kansas, and the havoc of the hail was computed to be nearly $1,500,000, in a path 100 miles long. On the 10th, in Burlington County, N. J., the hail losses were $300,000. Kansas reported a destructive hailstorm near the center of the State on June 14, the damage in a 35-mile path being $600,000.

On July 22-23 west-central Illinois suffered hail damage of about $350,000, and a few hours later north-central Connecticut suffered losses of about $1,500,000.

In south-central and southeastern Montana a strip 250 miles long was visited by a severe hailstorm on August 7, six counties being greatly affected and the loss aggregating more than $400,000.

LOSSES FROM WINDSTORMS, 1931

For the sixteenth consecutive year statistics have been collected, chiefly through the field-service officials of the bureau, of the losses of property and life resulting from all classes of severe winds except those that were considered to have been tornadoes. The accompanying table shows the results; the amounts presented are merely estimates, and frequently it was not feasible to make even a rough estimate, so that a reference is substituted. In nearly all instances where such references appear they stand for comparatively small losses.

Losses from windstorms, other than tornadoes, by months and sections, 1931

[Figures, except in last column, indicate dollars]

Section	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year	Number of lives lost
Alabama					700	[1] 1,500	(2)	500	100	(2)		(2)	[1] 2,800	
Alaska				(2)					500		10,000	(2)	[1] 10,500	
Arizona							(2)	(2)					(2)	
Arkansas				2,000		10,000	45,500				18,500	5,000	81,000	
California	(2)											[1] 25,000	[1] 25,000	
Colorado			[1] 1,000		[1] 2,000		20,000	(2)		[1] 10,000		3,800	[1] 36,800	1
Florida		8,000	[1] 3,300					(2)				[1] 10,000	[1] 21,300	
Georgia					8,500	10,000	300						18,800	
Hawaii				(2)									(2)	
Idaho				(2)		(2)							(2)	
Illinois			[1] 6,000		[1] 5,000	[1] 18,000	[1] 21,300	[1] 10,000	[1] 14,600	18,500	(2)		[1] 93,400	3
Indiana			(2)		[1] 200	81,000	1,700	[1] 1,000	1,500				[1] 85,400	
Iowa				10,000	10,900	309,800	102,700	99,000	50,000	37,500	24,000		643,900	
Kansas					(2)	[1] 1,000	65,500	[1] 10,000	[1] 3,000	[1] 15,000			[1] 94,500	
Kentucky						[1] 65,000	[1] 2,000						[1] 67,000	
Louisiana				[1] 10,000			15,000						[1] 25,000	
Maryland-Delaware			(2)	(2)		[1] 2,500	[1] 4,000	(2)	(2)			(2)	[1] 6,500	2
Michigan						[1] 300	[1] 12,000		(2)		(2)		[1] 12,300	
Minnesota						[1] 103,000	(2)						[1] 103,000	
Mississippi						2,000	(2)						[1] 2,000	
Missouri						[1] 200	[1] 4,000				300		[1] 4,500	
Montana				[1] 400	[1] 50,000	4,500	23,800	10,000					[1] 88,700	
Nebraska					83,500	(2)	(2)	[1] 2,500			(2)		[1] 86,000	
Nevada				800			2,500						3,300	
New England			1,500,000				[1] 7,500	(2)		(2)		(2)	[1] 1,507,500	3
New Jersey			[1] 90,000				2,500	(2)					[1] 92,500	
New Mexico				(2)				(2)	(2)		1,000		[1] 1,000	
New York			[1] 50,000	(2)	(2)	[1] 20,000	[1] 18,000	[1] 50,000			(2)	(2)	[1] 138,000	1
North Carolina						5,000	2,000	5,000					12,000	
North Dakota				(2)			[1] 10,000						[1] 10,000	
Ohio				(2)		[1] 602,000	[1] 55,000	1,000	[1] 1,000				[1] 659,000	1
Oklahoma						25,000		25,000	3,400				53,400	1
Oregon				200,000									200,000	1
Pennsylvania	100,000		(2)	[1] 400	[1] 5,000	240,000	[1] 125,000	[1] 10,000	(2)				[1] 480,400	
Puerto Rico									250,000				250,000	2
South Carolina					300	2,500	800	1,500					5,100	
South Dakota			100		(2)	(2)	100						[1] 200	
Tennessee			(2)		(2)	[1] 1,000	[1] 5,000		(2)				[1] 6,000	2
Texas			(2)		(2)	[1] 15,700	[1] 3,800		[1] 30,000		(2)		[1] 49,500	
Utah			(2)	300,000			(2)		(2)				[1] 300,000	
Virginia			(2)	(2)	(2)		[1] 6,000	[1] 3,500					[1] 9,500	
Virgin Islands									500				500	
Washington			(2)	2,167,000	500								[1] 2,167,500	
West Virginia						(2)	(2)		(2)				(2)	
Wisconsin			900		5,000	[1] 10,000	50,800	[1] 14,000	217,000		16,500		[1] 314,200	
Wyoming								(2)		5,000			[1] 5,000	

[1] Losses not readily estimated, in addition to amount stated.

[2] Losses occurred; no estimate secured.

Deaths and fire losses caused by lightning, also havoc and loss of life caused by floods of streams, are omitted from the table, even though high winds were a feature of the electrical storm or the storm that caused the downpour. When hail or beating rain or both accompany the strong wind, or, in the colder months, sleet, glaze, or heavy snow, to aid in causing damage, an effort is made to estimate what share of the total loss was due to wind.

Moderate losses and decidedly few deaths appear in the 1931 table. Only three hurricanes of tropical origin affected portions of the United States or its island possessions, and their destruction was not serious. On July 14 and 15 the earliest hurricane moved inland from the Gulf of Mexico, slightly affecting Louisiana and Mississippi, particularly the coast sections. About September 7 another crossed the Florida Peninsula, bringing heavy rainfall. The third hurricane, on September 10, had slight effect on the Virgin Islands and more considerable upon the northern coast of Puerto Rico.

The first week in March witnessed great losses along the New England coast, chiefly between Cape Cod and Casco Bay. The closing week of the same month brought one of the most severe cold waves and blizzards ever known to the middle Rocky Mountain slope and part of the Plains; high winds were experienced, but the deaths and substantially all the losses are omitted from the table, being considered caused by cold and snow.

About April 22 sustained strong winds caused heavy losses in parts of the far Northwest, particularly in Washington, Oregon, and northern Utah. In Ohio, especially near Cleveland, heavy losses resulted from wind on June 26.

SUMMARY OF STATIONS IN OPERATION DURING THE YEAR 1931

Taking two observations daily:	
All elements	174
Temperature, rain, wind, and weather	40
Taking one observation daily:	
All elements	32
Temperature, rain, wind, and weather	28
Climatological and cotton	1
Meteorological and river	1
Meteorological and storm warning	4
Cotton	121
Cotton and cattle	11
Sugar and rice	5
Cotton and river	33
Cotton and rainfall	59
Cotton, sugar, and rice, and river	1
River	638
Rainfall	319
River, rice, and fruit	1
Sugar and rice and river	2
River and rice	1
Corn and wheat	160
Corn and wheat and river	12
Corn and wheat and rainfall	49
Corn and wheat, rainfall, and airway	1
Taking one observation daily—Continued:	
Corn and wheat and fruit	1
Corn and wheat, fruit and rainfall	1
Cranberry	11
Fruit	15
Fruit and river	1
Fruit and rainfall	1
Fruit and cotton	1
Cattle	37
Cattle and snowfall	11
Tobacco	5
Alfalfa and cattle	1
Snowfall	106
Snowfall and evaporation	3
Airway	407
Airway and snowfall	2
Vessel	178
Storm warning	130
Storm warning and airway	2
Total paid stations	2,606
Cooperative stations (about)	[1] 4,500
Grand total	7,106

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

SUNSHINE, 1931

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

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

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

Sunshine, 1931

Stations	January		February		March		April		May		June	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Albany, N. Y.	153	52	172	58	201	54	276	69	287	63	322	70
Alpena, Mich.	71	25	102	35	175	47	262	65	267	58	287	61
Amarillo, Tex.	245	78	201	66	285	77	264	67	345	80	408	94
Apalachicola, Fla.	185	57	188	60	267	72	290	75	346	82	376	89
Asheville, N. C.	196	63	158	52	181	49	203	52	238	55	318	73
Atlanta, Ga.	168	53	200	65	247	66	253	65	313	72	354	82
Atlantic City, N. J.	166	55	178	59	133	36	240	60	246	55	273	61
Augusta, Ga.	196	62	205	66	245	66	273	70	300	70	356	83
Austin, Tex.	143	44	165	53	277	75	201	52	272	64	284	67
Baker, Oreg.	110	39	179	61	163	44	257	63	367	80	315	67
Baltimore, Md.	181	60	175	58	184	50	242	61	244	55	311	70
Binghamton, N. Y.	81	27	100	34	94	25	184	46	193	43	215	47
Birmingham, Ala.	177	56	188	61	229	62	286	73	347	80	387	90
Bismarck, N. Dak.	169	61	152	53	168	45	312	76	304	65	304	64
Block Island, R. I.	175	59	168	56	204	55	281	70	245	55	269	60
Boise, Idaho	134	46	205	70	230	62	279	69	345	75	357	77
Boston, Mass.	208	71	170	57	193	52	275	68	284	63	268	59
Brownsville, Tex.	127	38	112	36	243	65	189	49	234	56	289	70
Buffalo, N. Y.	118	40	135	46	167	45	263	65	304	67	362	79
Burlington, Vt.	118	41	124	42	164	44	227	56	239	52	304	66
Canton, N. Y.	125	44	152	52	166	45	230	57	250	54	327	70
Cape Henry, Va.	189	61	184	61	168	45	247	63	260	59	287	65
Charles City, Iowa	159	54	180	61	192	52	286	71	263	58	331	72
Charleston, S. C.	190	60	195	63	244	66	285	73	307	71	353	82
Charlotte, N. C.	203	65	210	69	218	59	244	62	309	71	325	75
Chattanooga, Tenn.	142	45	145	47	161	43	237	60	297	68	359	83
Cheyenne, Wyo.	248	83	222	74	282	76	274	69	296	66	332	73
Chicago University, Ill.	137	47	160	54	135	37	259	64	271	60	315	69
Cincinnati, Ohio	132	43	141	47	132	36	286	72	291	65	327	73
Cleveland, Ohio	120	41	126	42	113	31	261	65	264	59	313	69
Columbia, Mo.	179	59	177	59	190	51	249	63	284	64	351	79
Columbus, Ohio	122	41	149	50	84	23	245	61	292	65	324	72
Concordia, Kans.	229	76	213	71	231	62	291	73	325	73	402	90
Dallas, Tex.	211	66	176	57	239	64	263	67	314	73	365	85
Dayton, Ohio	106	35	129	43	89	24	243	61	243	54	277	62
Del Rio, Tex.	128	39	138	44	272	73	158	41	249	59	275	66
Denver, Colo.	242	80	197	66	203	55	238	60	279	62	322	72
Des Moines, Iowa	207	70	209	71	190	51	244	61	296	66	356	78
Detroit, Mich.	100	34	122	41	113	30	260	65	267	59	276	61
Devils Lake, N. Dak.	134	49	187	65	201	54	311	76	314	67	315	66
Dodge City, Kans.	236	77	223	74	245	66	263	66	344	78	391	88
Dubuque, Iowa	128	43	145	49	139	38	262	65	247	55	322	71
Due West, S. C.	202	64	189	61	232	62	264	68	276	64	330	77
Eastport, Me.	142	50	116	40	149	40	227	56	246	53	228	49
Elkins, W. Va.	107	35	116	39	68	18	216	54	231	52	263	59
Ellendale, N. Dak.	188	67	187	65	210	57	316	78	311	67	348	74
El Paso, Tex.	214	67	182	59	320	86	282	73	382	89	374	88
Erie, Pa.	106	36	107	36	150	40	263	66	281	62	335	74
Escanaba, Mich.	86	30	124	43	118	32	231	57	229	49	285	60
Eureka, Calif.	173	58	196	66	199	54	300	75	276	62	370	71
Evansville, Ind.	157	51	161	53	138	37	241	61	247	56	369	83
Fairbanks, Alaska	69	42	102	43	282	77	293	64	322	55	488	76
Fort Smith, Ark.	187	60	155	51	180	48	240	61	280	64	369	85
Fort Wayne, Ind.	146	49	157	53	105	28	255	64	263	59	293	65
Fresno, Calif.	156	51	207	68	320	86	343	87	407	93	400	91

Sunshine, 1931—Continued

Stations	July		August		September		October		November		December		Annual	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Albany, N. Y.	333	72	290	67	224	60	206	60	119	41	139	50	2,721	60
Alpena, Mich.	369	78	281	64	231	61	188	56	96	34	69	25	2,399	51
Amarillo, Tex.	368	83	343	82	340	92	296	85	189	61	148	49	3,434	76
Apalachicola, Fla.	296	69	208	51	293	79	238	67	253	79	114	36	3,057	68
Asheville, N. C.	281	63	218	52	267	72	228	65	160	52	146	48	2,596	58
Atlanta, Ga.	296	67	298	72	309	83	276	79	205	66	135	44	3,053	68
Atlantic City, N. J.	277	61	215	51	274	73	249	72	181	60	143	49	2,575	58
Augusta, Ga.	311	71	247	60	306	83	292	83	240	76	163	53	3,135	70
Austin, Tex.	297	69	318	78	282	76	242	68	100	31	137	43	2,718	60
Baker, Oreg.	411	87	398	91	258	69	236	70	139	49	78	28	2,911	62
Baltimore, Md.	301	66	220	52	288	77	251	73	176	58	149	51	2,723	61
Binghamton, N. Y.	226	49	215	50	208	56	148	43	95	32	74	26	1,835	40
Birmingham, Ala.	300	68	300	72	331	89	288	82	211	68	107	35	3,152	70
Bismarck, N. Dak.	335	70	266	61	291	77	199	59	158	56	144	54	2,804	62
Block Island, R. I.	263	57	245	57	255	68	260	76	138	46	110	38	2,614	58
Boise, Idaho	432	92	378	87	288	77	235	69	160	55	94	34	3,137	68
Boston, Mass.	244	53	240	56	243	65	223	65	149	51	125	44	2,621	59
Brownsville, Tex.	300	71	316	78	263	71	250	70	180	55	110	34	2,614	58
Buffalo, N. Y.	322	69	281	65	249	66	207	60	130	45	100	36	2,637	57
Burlington, Vt.	291	62	258	60	221	59	176	52	74	26	71	25	2,267	49
Canton, N. Y.	279	59	289	66	248	66	198	58	113	39	88	32	2,464	54
Cape Henry, Va.	286	64	283	67	300	81	281	81	202	66	161	54	2,848	64
Charles City, Iowa	387	83	292	68	228	61	173	51	115	39	104	37	2,709	59
Charleston, S. C.	301	69	284	69	305	82	287	82	206	66	150	48	3,107	69
Charlotte, N. C.	291	66	228	55	303	82	282	81	206	66	160	53	2,979	67
Chattanooga, Tenn.	298	67	293	70	297	80	257	73	171	55	88	29	2,744	60
Cheyenne, Wyo.	345	75	272	64	264	71	248	72	218	73	200	70	3,200	72
Chicago University, Ill.	359	78	327	76	249	66	204	60	136	46	113	40	2,666	58
Cincinnati, Ohio	396	87	280	66	288	77	203	59	153	51	76	26	2,705	58
Cleveland, Ohio	342	74	259	60	250	67	184	54	96	32	74	26	2,402	52
Columbia, Mo.	358	79	311	74	274	74	191	55	145	48	136	46	2,847	63
Columbus, Ohio	321	71	191	45	263	70	187	54	122	41	84	29	2,383	52
Concordia, Kans.	375	82	315	74	272	73	209	60	139	46	170	59	3,170	70
Dallas, Tex.	334	76	348	84	320	86	259	74	122	39	139	45	3,089	68
Dayton, Ohio	334	73	256	60	272	73	201	58	133	44	90	31	2,372	52
Del Rio, Tex.	301	70	302	74	296	80	274	77	156	49	126	39	2,675	59
Denver, Colo.	345	76	312	73	270	72	244	71	225	75	234	81	3,112	70
Des Moines, Iowa	352	76	297	69	225	60	179	52	108	37	116	41	2,780	61
Detroit, Mich.	297	64	229	53	196	52	168	49	81	28	61	21	2,169	46
Devils Lake, N. Dak.	333	69	300	68	265	70	187	56	158	57	134	51	2,840	62
Dodge City, Kans.	366	81	336	80	318	85	280	81	181	60	182	62	3,365	75
Dubuque, Iowa	377	82	266	62	216	58	151	44	91	31	89	31	2,433	52
Due West, S. C.	314	72	262	63	301	81	280	80	202	65	112	36	2,964	66
Eastport, Me.	249	53	268	62	199	53	173	51	123	43	113	41	2,233	49
Elkins, W. Va.	320	71	206	49	209	56	178	51	141	47	75	26	2,130	46
Ellendale, N. Dak.	385	81	324	74	298	79	177	52	171	60	165	61	3,080	68
El Paso, Tex.	325	75	297	72	265	71	298	85	214	68	197	63	3,349	75
Erie, Pa.	312	68	267	62	216	58	179	52	99	34	66	23	2,382	51
Escanaba, Mich.	323	68	270	62	250	67	184	55	134	47	88	33	2,324	50
Eureka, Calif.	331	72	229	54	219	59	142	41	172	58	127	44	2,685	60
Evansville, Ind.	350	78	252	60	277	74	227	65	148	49	76	26	2,642	58
Fairbanks, Alaska	254	41	221	43	77	20	91	30	51	27	49	40	2,299	46
Fort Smith, Ark.	334	76	294	70	332	89	249	71	122	39	118	39	2,860	63
Fort Wayne, Ind.	330	72	251	59	236	63	179	52	78	26	82	29	2,376	52
Fresno, Calif.	434	97	365	87	354	95	316	91	227	74	128	43	3,657	80

Sunshine, 1931—Continued

Stations	January		February		March		April		May		June	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Galveston, Tex	176	54	162	52	245	66	215	56	279	66	342	81
Grand Haven, Mich	73	25	129	44	120	32	271	67	257	56	311	68
Grand Junction, Colo	193	64	157	52	256	69	294	74	349	79	349	78
Grand Rapids, Mich	63	21	122	41	94	25	265	66	258	57	326	71
Green Bay, Wis	91	32	130	44	120	32	245	60	242	52	262	56
Greensboro, N. C	174	56	170	56	162	43	192	49	239	55	346	79
Greenville, S. C	189	60	194	63	241	65	258	66	309	71	346	80
Harrisburg, Pa	154	51	159	53	132	36	234	59	279	62	313	70
Havre, Mont	169	62	203	71	237	64	310	75	331	70	325	67
Helena, Mont	100	36	185	64	154	42	251	61	275	59	312	66
Honolulu, Hawaii	242	71	229	71	238	64	251	66	241	59	292	73
Houston, Tex	138	42	141	45	222	60	174	45	257	61	314	74
Huron, S. Dak	210	73	189	64	230	62	328	81	327	71	342	74
Indianapolis, Ind	149	49	162	54	108	29	271	68	256	57	297	66
Ithaca, N. Y	107	36	81	27	112	30	203	51	235	52	297	65
Jacksonville, Fla	237	73	225	72	299	80	293	76	332	78	347	82
Juneau, Alaska	10	5	31	12	177	48	191	44	130	25	250	46
Kalispell, Mont	42	15	83	29	155	42	298	73	281	60	295	62
Kansas City, Mo	219	72	216	72	232	62	258	65	305	69	401	90
Keokuk, Iowa	206	69	183	61	200	54	237	59	284	64	353	79
Key West, Fla	171	51	214	67	263	71	261	68	318	77	270	66
Knoxville, Tenn	173	56	164	54	176	47	237	60	271	62	338	77
La Crosse, Wis	100	35	174	59	193	52	298	74	267	58	324	70
Lander, Wyo	194	66	194	66	238	64	286	71	291	64	342	75
Lansing, Mich	128	44	146	49	141	38	268	67	312	69	346	75
Lexington, Ky	128	42	122	40	107	29	231	58	212	48	280	63
Little Rock, Ark	180	58	181	59	226	61	244	62	304	70	366	84
Los Angeles, Calif	251	80	214	69	335	90	269	69	284	66	322	75
Louisville, Ky	124	41	113	37	120	32	202	51	247	56	316	71
Ludington, Mich	97	34	128	44	128	35	279	69	273	60	311	67
Lynchburg, Va	160	52	160	53	135	36	206	52	242	55	309	70
Macon, Ga	214	67	224	73	275	74	307	79	346	80	371	87
Madison, Wis	99	34	130	44	121	33	248	62	222	49	264	58
Marquette, Mich	38	14	83	29	80	22	175	43	179	38	264	55
Memphis, Tenn	187	60	191	62	199	53	249	63	283	65	350	81
Meridian, Miss	204	64	204	66	268	72	295	76	319	74	344	81
Miami, Fla	152	46	174	55	251	67	231	60	304	73	290	70
Miles City, Mont	199	70	189	65	208	56	311	76	318	69	339	72
Milwaukee, Wis	120	41	149	50	173	47	262	65	252	56	289	63
Minneapolis, Minn	134	47	176	60	188	51	328	81	278	60	335	72
Mobile, Ala	172	53	206	66	256	69	285	73	323	76	321	76
Modena, Utah	234	76	188	62	338	91	349	88	406	92	391	88
New Haven, Conn	206	69	192	64	157	42	277	69	251	56	288	64
New Orleans, La	141	44	188	60	211	57	242	62	302	71	329	78
New York, N. Y	191	64	178	60	189	51	272	68	249	56	302	67
Norfolk, Va	198	64	194	64	172	46	243	61	286	65	325	74
North Head, Wash	60	21	96	33	142	38	252	62	245	53	160	34
North Platte, Nebr	249	83	209	70	264	71	300	75	360	80	357	79
Oklahoma City, Okla	205	66	152	49	211	57	243	62	335	77	394	91
Omaha, Nebr	230	77	225	76	215	58	273	68	310	69	350	77
Oswego, N. Y	48	17	69	23	132	36	257	64	254	56	299	65
Parkersburg, W. Va	90	30	100	33	41	11	215	54	199	45	274	61
Pensacola, Fla	238	73	247	79	319	86	346	89	320	75	349	83
Peoria, Ill	165	55	158	53	158	43	270	68	273	61	343	76
Philadelphia, Pa	186	62	184	61	174	47	258	65	249	56	296	66

Sunshine, 1931—Continued

Stations	July		August		September		October		November		December		Annual	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Galveston, Tex	325	76	270	66	303	82	301	85	198	62	134	42	2,950	66
Grand Haven, Mich	352	76	314	73	240	64	178	52	92	32	73	26	2,410	51
Grand Junction, Colo	381	84	354	83	298	80	251	72	172	57	180	62	3,235	71
Grand Rapids, Mich	373	80	336	78	239	64	168	49	78	27	65	23	2,389	50
Green Bay, Wis	336	71	239	55	227	60	181	53	125	44	101	37	2,299	50
Greensboro, N. C	315	71	247	59	284	76	285	82	205	67	132	44	2,752	61
Greenville, S. C	325	74	279	67	301	81	272	78	198	64	144	47	3,057	68
Harrisburg, Pa	328	72	233	55	264	71	228	66	114	38	137	47	2,576	57
Havre, Mont	368	75	372	84	272	72	275	82	142	52	137	53	3,139	69
Helena, Mont	376	78	370	84	240	64	249	74	146	52	145	54	2,802	61
Honolulu, Hawaii	310	75	257	64	243	66	233	65	195	58	166	49	2,897	65
Houston, Tex	325	76	311	76	285	77	252	71	179	56	113	36	2,710	60
Huron, S. Dak	388	83	305	70	250	67	172	50	140	48	147	53	3,027	66
Indianapolis, Ind	377	83	297	70	271	73	189	55	133	45	129	44	2,639	58
Ithaca, N. Y	270	59	240	56	226	60	181	53	94	32	64	22	2,112	45
Jacksonville, Fla	320	74	286	70	303	82	256	72	244	76	145	46	3,287	73
Juneau, Alaska	165	30	78	16	101	26	61	19	55	23	54	27	1,303	27
Kalispell, Mont	382	79	344	78	171	45	229	68	80	28	42	16	2,402	50
Kansas City, Mo	371	82	325	77	299	80	213	62	137	45	150	51	3,125	69
Keokuk, Iowa	379	83	341	80	282	76	210	61	132	44	119	41	2,926	64
Key West, Fla	275	66	286	71	221	60	232	65	213	65	231	70	2,956	66
Knoxville, Tenn	305	69	262	63	302	81	236	68	186	60	88	29	2,739	60
La Crosse, Wis	385	82	310	71	225	60	162	48	109	38	82	29	2,630	56
Lander, Wyo	371	80	320	74	294	78	211	62	220	75	212	75	3,172	71
Lansing, Mich	394	85	335	78	246	66	190	56	86	29	98	35	2,690	58
Lexington, Ky	300	67	192	45	267	71	196	56	127	42	60	20	2,221	48
Little Rock, Ark	304	69	297	71	320	86	253	72	139	45	99	32	2,914	64
Los Angeles, Calif	371	84	318	77	299	80	272	77	228	73	190	62	3,353	75
Louisville, Ky	355	79	207	49	262	70	178	51	145	48	63	21	2,331	50
Ludington, Mich	390	83	338	78	261	70	184	54	111	38	113	41	2,613	56
Lynchburg, Va	300	67	247	59	272	73	222	64	152	50	115	38	2,521	56
Macon, Ga	337	77	312	75	336	91	305	87	260	83	153	49	3,441	77
Madison, Wis	348	75	296	69	236	63	177	52	112	38	83	30	2,335	51
Marquette, Mich	262	55	198	45	213	57	134	40	74	26	51	19	1,751	37
Memphis, Tenn	243	55	272	65	312	84	227	65	158	51	130	43	2,802	62
Meridian, Miss	220	51	257	62	276	74	251	71	174	55	102	32	2,913	65
Miami, Fla	291	69	291	72	213	58	219	61	196	60	230	70	2,842	63
Miles City, Mont	339	71	338	77	268	71	234	69	148	52	169	63	3,060	68
Milwaukee, Wis	369	79	293	68	226	60	192	56	111	38	83	30	2,519	54
Minneapolis, Minn	392	83	303	70	252	67	181	53	112	39	95	35	2,774	60
Mobile, Ala	233	54	254	62	268	72	234	66	206	65	91	29	2,849	63
Modena, Utah	362	80	317	75	340	91	270	78	234	77	190	64	3,618	80
New Haven, Conn	301	66	269	63	257	69	251	73	137	46	146	51	2,732	61
New Orleans, La	317	74	301	74	310	84	265	75	207	65	127	40	2,940	65
New York, N. Y	292	64	250	58	270	72	248	72	154	52	154	54	2,747	62
Norfolk, Va	328	73	305	73	334	90	286	82	216	71	199	67	3,085	69
North Head, Wash	229	48	216	49	167	44	120	35	92	32	29	11	1,808	38
North Platte, Nebr	361	79	312	73	267	71	222	65	198	66	200	70	3,299	74
Oklahoma City, Okla	368	83	325	78	332	89	252	72	146	47	139	46	3,102	68
Omaha, Nebr	378	82	327	77	264	70	221	64	140	47	133	46	3,006	68
Oswego, N. Y	280	60	261	61	232	62	177	52	93	32	58	21	2,160	46
Parkersburg, W. Va	289	64	190	45	235	63	173	50	121	40	76	26	2,004	44
Pensacola, Fla	315	73	346	84	320	87	259	73	213	67	109	34	3,380	75
Peoria, Ill	372	81	328	77	281	75	194	56	141	48	127	44	2,810	61
Philadelphia, Pa	284	62	221	52	254	68	255	74	162	54	129	44	2,652	59

Sunshine, 1931—Continued

Stations	January		February		March		April		May		June	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Phoenix, Ariz	276	87	236	77	360	97	340	87	422	98	334	78
Pittsburgh, Pa	161	54	122	41	137	37	253	63	283	63	314	69
Pocatello, Idaho	144	49	140	47	237	64	272	67	326	71	307	67
Port Arthur, Tex	148	46	147	47	229	61	238	61	302	71	339	80
Port Huron, Mich	101	34	114	39	116	31	240	60	295	65	292	64
Portland, Me	184	64	154	52	186	50	245	61	266	58	285	62
Portland, Oreg	86	30	97	33	125	34	252	62	320	69	262	56
Providence, R. I	175	59	152	51	197	53	267	67	267	59	289	63
Pueblo, Colo	230	75	192	64	242	65	252	64	306	69	356	80
Raleigh, N. C	194	62	194	63	206	56	251	64	267	61	298	68
Rapid City, S. Dak	245	85	195	66	247	67	292	72	335	73	355	77
Reading, Pa	167	56	178	59	162	44	226	57	257	58	283	63
Richmond, Va	175	57	191	63	177	48	259	65	251	57	374	84
Rochester, N. Y	108	37	119	40	124	33	233	58	270	59	324	71
Roseburg, Oreg	86	29	101	34	130	35	237	59	325	72	267	58
Roswell, N. Mex	210	66	182	59	286	77	262	67	344	80	346	81
Royal Center, Ind	139	47	146	49	124	34	246	61	287	64	300	66
Sacramento, Calif	141	47	157	52	288	78	322	81	387	87	394	88
St. Joseph, Mo	214	71	194	65	191	51	244	61	284	64	373	83
St. Louis, Mo	151	50	161	53	170	46	265	67	276	62	349	78
St. Paul, Minn	125	44	174	60	183	49	302	74	243	53	318	68
Salt Lake City, Utah	117	39	139	47	289	78	313	78	416	93	417	92
San Antonio, Tex	163	50	183	59	290	78	224	58	295	70	302	72
San Diego, Calif	235	74	208	67	294	79	256	66	254	59	288	67
Sandy Hook, N. J	176	58	171	57	163	44	254	64	236	53	290	64
San Francisco, Calif	168	55	159	53	288	78	304	77	307	70	335	76
San Jose, Calif	166	54	150	50	296	80	299	76	336	77	351	80
San Juan, P. R	269	78	198	61	264	71	210	56	236	59	205	52
Santa Fe, N. Mex	214	69	144	47	273	74	253	64	350	80	339	78
Sault Ste. Marie, Mich	107	38	118	41	180	49	267	66	254	55	315	67
Savannah, Ga	176	55	182	59	242	65	276	71	273	64	320	75
Scranton, Pa	125	42	146	49	174	47	239	60	242	54	268	59
Seattle, Wash	65	24	126	44	178	48	280	68	356	75	281	59
Sheridan, Wyo	183	64	198	68	209	56	283	70	328	71	357	77
Sioux City, Iowa	200	68	205	69	180	49	286	71	313	69	337	74
Spokane, Wash	49	18	141	49	195	53	296	72	406	86	326	68
Springfield, Ill	177	59	153	51	151	41	256	64	251	56	315	70
Springfield, Mo	198	64	190	63	203	55	258	65	294	67	394	90
Tacoma, Wash	42	15	108	37	116	31	244	60	301	64	215	45
Tampa, Fla	202	62	185	59	249	67	279	72	346	82	353	85
Terre Haute, Ind	153	50	157	52	151	41	249	63	249	56	325	73
Toledo, Ohio	128	43	132	44	92	25	260	65	272	60	280	62
Trenton, N. J	177	59	181	60	177	48	272	68	273	61	322	72
Vicksburg, Miss	144	45	199	64	209	56	204	52	275	64	360	84
Walla Walla, Wash	38	13	84	29	145	39	264	65	378	81	302	64
Washington, D. C	155	51	156	52	170	46	228	57	268	60	316	71
Wausau, Wis	102	35	154	53	192	52	316	78	280	61	259	56
Wichita, Kans	218	71	175	58	214	58	269	68	318	72	388	87
Williston, N. Dak	192	70	183	64	176	47	309	75	333	71	325	68
Wilmington, N. C	208	66	190	62	223	60	290	74	309	72	353	82
Winnemucca, Nev	207	69	193	65	240	65	311	78	401	89	360	80
Wytheville, Va	166	54	159	52	100	27	192	49	225	51	254	58
Yakima, Wash	71	26	165	57	217	59	322	79	400	86	349	73
Yankton, S. Dak	202	69	189	64	169	46	261	65	305	67	329	72
Yuma, Ariz	289	91	232	75	359	97	358	92	425	99	406	95

Sunshine, 1931—Continued

Stations	July		August		September		October		November		December		Annual	
	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percentage of possible
Phoenix, Ariz	400	91	328	79	312	84	291	83	221	70	228	73	3,748	84
Pittsburgh, Pa	346	76	214	50	222	59	191	55	146	49	107	37	2,496	54
Pocatello, Idaho	400	86	306	71	279	74	198	58	161	55	126	45	2,895	63
Port Arthur, Tex	313	73	274	67	300	81	253	72	154	48	94	30	2,791	61
Port Huron, Mich	278	60	264	61	213	57	184	54	104	36	85	30	2,289	49
Portland, Me	306	65	263	61	237	63	218	64	133	46	123	44	2,600	58
Portland, Oreg	393	83	355	81	176	47	151	45	111	39	54	20	2,381	50
Providence, R. I	293	63	255	59	242	65	242	71	152	51	142	50	2,671	59
Pueblo, Colo	356	79	309	73	254	68	270	78	202	67	220	74	3,188	71
Raleigh, N. C	239	54	210	50	293	79	257	74	213	69	157	52	2,779	63
Rapid City, S. Dak	363	77	333	77	282	75	238	70	175	61	169	61	3,229	72
Reading, Pa	297	65	214	50	234	63	211	61	132	44	119	41	2,480	55
Richmond, Va	346	77	254	60	302	81	273	79	192	63	159	54	2,954	66
Rochester, N. Y	290	62	250	58	235	63	193	56	97	33	72	26	2,314	50
Roseburg, Oreg	405	87	399	93	269	72	167	49	93	32	40	14	2,519	53
Roswell, N. Mex	362	83	314	76	282	76	272	77	222	71	190	61	3,271	73
Royal Center, Ind	342	75	312	73	271	72	195	57	136	46	97	34	2,597	56
Sacramento, Calif	430	95	400	95	360	96	303	87	228	76	101	34	3,510	76
St. Joseph, Mo	349	77	311	73	263	70	191	55	139	47	142	49	2,894	64
St. Louis, Mo	308	68	283	67	272	73	181	52	140	46	101	34	2,656	58
St. Paul, Minn	371	79	277	64	246	65	182	54	136	47	109	40	2,666	58
Salt Lake City, Utah	402	88	330	77	285	76	197	57	196	66	135	47	3,236	70
San Antonio, Tex	332	78	338	83	315	85	288	81	152	47	143	45	3,024	67
San Diego, Calif	272	62	252	61	274	74	242	69	204	65	174	56	2,953	67
Sandy Hook, N. J	279	61	196	46	231	62	244	71	134	45	111	38	2,482	55
San Francisco, Calif	370	82	297	71	300	81	242	70	222	73	102	34	3,096	68
San Jose, Calif	412	92	337	80	299	80	250	72	206	67	109	37	3,213	70
San Juan, P. R	256	63	290	73	236	64	257	71	236	70	271	79	2,929	66
Santa Fe, N. Mex	293	66	292	70	228	61	262	75	187	61	217	72	3,054	68
Sault Ste. Marie, Mich	363	76	262	60	220	58	166	49	91	32	84	31	2,427	52
Savannah, Ga	257	59	234	57	259	70	243	69	219	69	142	45	2,822	63
Scranton, Pa	288	63	240	56	225	60	207	60	177	60	121	42	2,453	54
Seattle, Wash	394	82	339	77	166	44	142	42	92	33	56	21	2,475	51
Sheridan, Wyo	362	77	329	76	275	73	226	67	130	45	168	61	3,047	67
Sioux City, Iowa	374	81	335	78	260	69	191	56	123	42	146	51	2,950	65
Spokane, Wash	442	91	409	93	267	71	252	75	148	53	69	26	3,000	63
Springfield, Ill	344	75	280	66	240	64	164	47	127	42	110	38	2,566	56
Springfield, Mo	367	82	296	71	316	85	196	56	155	51	152	51	3,018	67
Tacoma, Wash	350	73	316	72	124	33	103	31	77	27	40	15	2,036	42
Tampa, Fla	319	75	257	63	227	61	244	69	254	79	190	59	3,104	69
Terre Haute, Ind	363	80	302	71	265	71	199	57	134	45	133	45	2,680	59
Toledo, Ohio	340	74	259	60	223	60	175	51	128	43	90	32	2,380	52
Trenton, N. J	329	72	260	61	288	77	247	71	154	51	126	44	2,805	62
Vicksburg, Miss	270	62	293	71	314	85	257	72	176	56	87	28	2,787	62
Walla Walla, Wash	421	89	403	92	261	70	205	61	91	32	43	16	2,636	54
Washington, D. C	314	69	233	55	274	73	244	70	138	46	105	36	2,601	57
Wausau, Wis	371	79	290	67	241	64	154	45	88	31	83	30	2,531	54
Wichita, Kans	388	86	329	78	315	84	243	70	142	47	139	47	3,136	69
Williston, N. Dak	365	76	301	68	269	71	214	64	150	54	139	53	2,954	65
Wilmington, N. C	301	69	262	63	322	87	282	80	218	70	174	56	3,131	70
Winnemucca, Nev	408	89	360	84	284	76	247	72	168	56	127	44	3,306	72
Wytheville, Va	218	49	207	49	246	66	206	59	170	55	105	35	2,248	50
Yakima, Wash	445	93	421	96	278	74	250	74	162	58	89	34	3,169	67
Yankton, S. Dak	340	73	302	70	248	66	198	58	141	48	141	50	2,823	62
Yuma, Ariz	411	94	335	81	341	92	320	91	266	85	264	85	4,006	90

MONTHLY AND ANNUAL EVAPORATION, 1931

The monthly and annual amounts of evaporation during the year 1931 appear below. The number of these reports at the present time is small, records appearing from only about half of the States.

The evaporation measurements are all made from cylindrical pans, 4 feet in diameter, 10 inches deep, placed on framework laid on the ground, and exposed as far as possible to full sunshine. A description of equipment and methods of observation appeared in the Monthly Weather Review of December, 1916, pages 674 to 677.

Monthly and annual evaporation (in inches and hundredths) for 1931

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
ALASKA													
Fairbanks						4.90							
Matanuska					4.18	5.30	3.84	4.31	1.78				
ARIZONA													
Lees Ferry	1.35	2.36	6.54	9.21	12.26	13.87	15.01	11.00	9.45	6.50	3.89		
Mesa	3.27	3.51	5.86	7.14	10.05	10.02	11.95	9.52	7.77	5.52		2.52	
Roosevelt	2.17	2.52	5.93	8.28	10.47	11.30	12.78	8.75	7.62	5.23	2.46	1.31	78.82
University of Arizona	3.42	2.73	7.06	9.25	11.50	12.11	12.26	9.06	7.42	6.40	3.07	2.50	86.49
Willcox	5.12	4.10	7.15	6.79	8.13	8.84	8.83	6.95	5.69	5.28	3.83		
Yuma (citrus)	4.90	3.65	9.58	11.06	14.26	15.01	16.11	12.90	10.95	8.07	4.92	3.74	115.16
Yuma Valley								10.51	9.07	6.72	4.47	3.51	
CALIFORNIA													
Alvarado (near)	1.50	2.05	3.94	5.41	7.21	7.76	8.28	6.60	5.41	3.59	2.10	1.06	54.83
Chula Vista	2.93	3.64	5.75	6.01	7.35	8.27	8.23	7.34	6.67	5.37	3.48	2.73	67.79
Fall River Mills	1.21	1.41	3.44	5.84	9.23	10.06	14.47	12.66	7.67	3.90			
Lodi	0.80	1.45	3.79	7.30	10.71	10.64	13.94	11.20	7.68	4.18	2.00	0.88	73.97
Oakdale (near)	1.88	1.54	3.06	6.47	11.36	11.36	16.75	12.97	8.75	5.17	3.00	0.94	82.67
Tahoe (land pan)					4.09	4.91	7.26	7.07	4.45	2.55			
HAWAII													
Honeae (upper)	3.62	3.85	4.66	5.54	5.60	6.64	7.68	6.82	5.85	4.84	4.50	3.60	63.20
Pahala	6.04	7.43	6.12	5.41	4.75	7.15	5.61	6.59	6.00	4.78	4.06	4.55	69.09
IDAHO													
Arrowrock					7.09	8.48	11.48	9.70	6.22	2.50			
Milner Dam				5.29	8.10	9.38	10.00	8.68	6.50	3.25			
KANSAS													
Tribune				6.45	9.02	15.40	15.88	14.51	13.97				
MISSOURI													
Lakeside											2.90	1.37	
MONTANA													
Agricultural College				5.27	6.29	7.58	10.01	8.90	5.11	2.80			
Malta					8.83	9.90	10.58	8.26	5.52	3.70			
Valier					7.27	9.10	9.17	7.60	6.31				
NEBRASKA													
Lincoln				6.25	7.40	10.39	11.26	9.84	10.63	6.11			
NEVADA													
Lahontan				5.84		10.96							
Lamoille				4.72	7.27	8.15	11.46	9.13	5.73	3.97			
NEW MEXICO													
Agricultural College	2.59	2.99	7.15	7.73	10.84	11.92	10.25	8.49	7.48	6.88	3.56	2.84	82.72
Elephant Butte Dam	1.72	2.25	6.75	6.71	10.34	11.56	10.42	8.33	6.54	5.89	3.48	1.98	75.98
Santa Fe	1.23	2.46	3.73	5.50	8.63	10.73	8.99	7.43	5.53	4.51	2.17	1.82	62.75
NEW YORK													
Albany					4.08	5.23	6.37	4.57	3.71	2.31			
NORTH CAROLINA													
Chapel Hill	1.99	1.86	2.60	4.13	5.33	6.37	6.74	4.86	3.42	3.35	1.85	1.33	43.83
OHIO													
Ohio State University					4.38	5.14	6.42	3.92	3.50				
Wooster						5.21	6.81	5.53	3.90	2.04			
OREGON													
Corvallis				3.90		4.68	7.67	6.95	3.60				
Warmspring				5.92	10.13	10.77	14.78	12.69	7.54				
PUERTO RICO													
San Juan	5.05	4.51	6.41	5.70	5.85	5.93	6.30	6.42	5.29	5.00	4.20	4.65	65.37
TEXAS													
Austin	1.80	2.75	5.04	4.72	6.11	7.65	8.20	8.48	7.75	6.43	3.11	1.65	63.68
Dilley	2.58	2.74	6.16	5.49	6.67	8.32	8.64	8.39	8.25	6.68	4.19	2.22	70.33

Monthly and annual evaporation (in inches and hundredths) for 1931—Continued

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
UTAH													
Myton					8.81	9.05	16.02		6.29				
Piute Dam					10.13	12.22	12.68	10.56	8.65				
Salt Lake Airport				6.77	9.67	14.27	16.34	12.59	9.70	5.31			
Sevier Bridge Dam					6.20		9.52			5.31			
Utah Lake				6.71	8.90	11.62	13.12	9.19	8.50	4.01			
VIRGIN ISLANDS													
St. Croix	4.64	5.20	6.59	7.46	5.89	5.54	6.84	6.10	5.09	4.99	4.35	4.26	66.95
WASHINGTON													
Lake Kachess					4.52	4.20	7.05	5.61	2.18				
Walla Walla			2.03	4.51	7.35	7.08	11.61	10.72	5.81	2.81			
WEST VIRGINIA													
Clarksburg				3.63	4.86	5.87	6.84	5.02	4.87	2.43			

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PART III.—ANNUAL METEOROLOGICAL SUMMARIES FOR TWO HUNDRED AND FIVE STATIONS DURING 1931

EXPLANATION OF THE TABLES

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

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

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

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

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

(3) Correction for removal—a correction applied if any change has been made in the elevation of the barometer, to reduce the readings to the elevation adopted in 1900. (However, at a very few stations the elevation of 1900, or the original elevation of a station opened since 1900, has been replaced as the "station elevation" by an actual elevation since established.)

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

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

In the pressure columns of this part the values presented are those at the station elevations of the barometer cisterns, which are at various heights above the ground level, but usually less than 100 feet. On the other hand, daily weather maps and most other pressure data issued by the bureau indicate sea-level pressures.

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

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

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

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

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

The snow caught and retained in the gage is melted and measured as water. No correction is applied for snow that is lost out of the gage 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 gage is markedly at fault, an independent ground measurement is made and used as the official record. The loss of both rain and snow, caused by high winds, from gages located on the roofs of tall buildings in which some of the regular stations of the Weather Bureau are located is undoubtedly larger than is the case at the cooperative stations, where the gages are located in the open country and near the ground, but this loss does not appear to be sufficient to make the monthly sums derived from these two classes of stations wholly inconsistent with each other.

By the maximum precipitation in 24 hours is meant the greatest measurement for any 24 consecutive hours; it does not refer to the rate of rainfall for 24 hours, as deduced from short, heavy showers.

The number of days with precipitation amounting to 0.01 and 0.04 inch, respectively, relates to the rainfall from midnight to midnight, standard of time in local use. No record is made of deposits of dew.

The total snowfall column presents the depth as unmelted snow. The month in this instance runs from the last observation of the preceding month to the last of the month itself.

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

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

Wind.—The direction and velocity of the wind are recorded at nearly all the stations on what is known as the "triple register." On these instruments the direction of the wind is recorded every minute. The maximum velocities given are for 5-minute periods.

Until the end of 1927 the average and the maximum velocities both were published according to the uncorrected indications of the 4-cup Robinson anemometers, although for some years it had been known that these indicated velocities exceed the true velocities, notably when there are strong winds. The series of records from the 4-cup anemometers came to an end at the close of 1927, the 3-cup instruments replacing them. A table is printed below showing the reductions from the 3-cup readings of the series beginning January 1, 1928, and terminating at the close of December 31, 1931, to true velocities.

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

The number of days with dense fog includes all of those on which fog was dense enough to obscure objects 1,000 feet distant. Fog of less density is recorded as light.

Time.—8 a. m. and 8 p. m., in this part, indicate seventy-fifth meridian time, save in a few instances, where footnotes specify otherwise.

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

WIND VELOCITY CONVERSION TABLE

To convert 3-cup anemometer records into true velocities

[In miles an hour]

3-cup record	0	1	2	3	4	5	6	7	8	9
	True velocity									
0+		2	3	4	5	6	7	8	9	10
10+	11	12	13	14	15	16	17	17	18	19
20+	20	21	22	23	24	25	26	26	27	28
30+	29	30	31	32	33	34	34	35	36	37
40+	38	39	40	41	42	42	43	44	45	46
50+	47	48	49	49	50	51	52	53	54	55
60+	56	57	57	58	59	60	61	62	63	64
70+	65	65	66	67	68	69	70	71	72	73
80+	73	74	75	76	77	78	79	80	80	81
90+	82	83	84	85	86	87	88	88	89	90

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Annual meteorological summaries for the year ending December 31, 1931

ABILENE, TEX.

[ϕ=32° 23′ N.; λ=99° 40′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Dew point: 8 a. m.	Dew point: Noon, local time	Dew point: 8 p. m.	Relative humidity: 8 a. m.	Relative humidity: Noon, local time	Relative humidity: 8 p. m.	Vapor pressure: 8 a. m.	Vapor pressure: Noon, local time	Vapor pressure: 8 p. m.	Precipitation: Total	Precipitation: Maximum in 24 hours	Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	28.31	28.69	27.84	39.4	51.8	49.3	55.6	37.2	46.4	68	22	34	36	37	82	57	65	0.208	0.222	0.231	1.82	0.72	0	5.2	6.0	6.0	6.1
February	28.20	28.60	27.77	45.0	56.0	54.4	60.1	42.6	51.4	72	29	41	42	43	85	62	67	.261	.274	.286	2.54	1.58	0	4.5	5.9	6.2	5.6
March	28.20	28.59	27.74	40.3	56.3	55.5	62.8	37.0	49.9	80	19	32	34	34	74	45	46	.192	.205	.198	1.12	.32	0.4	4.8	5.0	4.5	5.0
April	28.22	28.61	27.64	51.0	67.2	65.8	72.3	48.9	60.6	90	32	43	43	43	75	46	47	.292	.294	.294	2.15	.84	0	6.4	6.8	6.6	6.8
May	28.16	28.54	27.69	59.1	74.8	75.6	80.0	56.9	68.4	93	41	51	48	48	76	42	40	.388	.362	.353	1.14	.81	0	5.7	4.5	5.0	5.0
June	28.15	28.32	27.88	72.2	88.6	87.7	93.8	70.4	82.1	99	58	62	62	58	72	42	38	.570	.559	.492	1.22	1.10	0	4.5	5.5	5.3	5.1
July	28.13	28.32	27.95	73.5	88.8	89.9	95.2	72.1	83.6	101	65	65	62	59	76	44	38	.625	.568	.510	2.21	.91	0	4.2	4.8	3.7	4.2
August	28.22	28.41	28.02	71.4	88.8	88.2	94.0	70.7	82.4	99	60	62	59	53	73	37	33	.567	.500	.419	.31	.25	0	3.1	5.2	3.8	4.5
September	28.17	28.47	27.91	72.4	90.0	88.2	94.9	72.0	83.4	100	63	59	59	55	66	36	33	.529	.510	.440	.09	.09	0	2.0	2.5	2.8	2.5
October	28.23	28.54	28.02	62.1	78.1	72.6	81.9	59.6	70.8	98	40	55	55	53	80	47	55	.460	.456	.427	10.21	3.85	0	3.7	4.2	3.5	3.9
November	28.22	28.52	27.87	53.1	62.9	58.9	66.9	48.8	57.8	79	33	47	47	47	80	59	67	.343	.341	.342	3.49	2.16	0	5.7	5.7	4.1	5.8
December	28.24	28.64	27.75	40.6	51.3	48.6	55.1	38.2	46.6	71	26	35	37	39	82	61	71	.210	.231	.248	1.96	.69	6.5	5.9	6.2	5.8	6.3
Year	28.20	28.69	27.64	56.7	71.2	69.6	76.0	54.5	65.3	101	19	49	49	47	77	48	50	.387	.377	.353	28.26	3.85	6.9	4.6	5.2	4.8	5.1

ALBANY, N. Y.

[ϕ=42° 39′ N.; λ=73° 45′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Dew point: 8 a. m.	Dew point: Noon, local time	Dew point: 8 p. m.	Relative humidity: 8 a. m.	Relative humidity: Noon, local time	Relative humidity: 8 p. m.	Vapor pressure: 8 a. m.	Vapor pressure: Noon, local time	Vapor pressure: 8 p. m.	Precipitation: Total	Precipitation: Maximum in 24 hours	Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
January	29.89	30.40	28.90	20.7	26.5	25.8	32.1	16.0	24.0	45	−2	14	16	17	75	62	68	0.089	0.093	0.098	2.26	0.82	14.7	6.0	5.4	4.1	5.5
February	29.94	30.45	29.60	21.7	28.7	28.2	34.3	17.4	25.8	46	−9	15	19	19	75	66	68	.093	.108	.110	2.07	1.45	6.1	6.2	5.2	4.9	5.2
March	29.82	30.32	29.09	32.6	40.8	38.8	44.4	30.8	37.6	57	18	26	26	26	75	56	60	.137	.139	.139	1.48	.65	4.7	6.7	5.6	6.2	6.3
April	29.90	30.43	29.15	43.9	53.6	51.2	58.8	39.6	49.2	80	31	32	30	33	63	44	51	.184	.177	.192	2.31	1.00	.5	3.8	4.7	4.2	4.4
May	29.82	30.17	29.45	55.7	64.7	62.7	70.4	50.4	60.4	93	33	47	46	48	73	55	63	.334	.334	.355	5.92	2.18	T.	4.9	5.2	5.5	4.8
June	29.85	30.17	29.36	64.4	73.4	71.9	78.2	59.0	68.6	95	52	56	55	57	74	55	62	.452	.443	.478	4.00	1.52	0	4.1	3.7	5.4	4.1
July	29.80	30.05	29.40	71.2	80.1	77.2	84.9	67.1	76.0	97	59	33	63	64	76	57	65	.585	.585	.603	5.76	1.68	0	4.3	3.7	4.6	4.1
August	29.92	30.26	29.56	66.0	76.0	72.4	80.2	61.9	71.0	96	54	60	59	62	81	59	70	.522	.518	.553	2.34	.79	0	5.0	5.5	4.8	5.0
September	29.89	30.39	29.50	61.4	71.6	68.0	76.5	57.6	67.0	98	42	55	55	59	81	58	74	.455	.461	.517	1.91	.43	0	4.3	3.5	4.7	4.5
October	29.92	30.38	29.19	49.0	60.3	55.9	64.5	45.4	55.0	82	34	43	44	46	80	57	71	.290	.302	.328	1.37	.74	0	3.5	5.0	3.2	4.6
November	30.06	30.50	29.49	43.5	49.7	48.6	54.1	40.2	47.2	72	24	37	38	38	78	66	68	.237	.249	.246	1.18	.61	1.6	6.4	6.4	5.4	6.4
December	29.98	30.57	29.44	30.6	35.5	33.5	40.4	25.8	33.1	55	10	23	25	24	73	65	68	.133	.143	.140	2.62	1.12	.5	5.9	5.5	4.5	5.6
Year	29.90	30.57	28.90	46.7	55.1	52.8	59.9	42.6	51.2	98	−9	39	40	41	75	58	66	.293	.296	.313	33.22	2.18	28.1	5.1	5.0	4.8	5.0

ALBUQUERQUE, N. MEX.

[ϕ=35° 05′ N.; λ=106° 38′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Dew point: 8 a. m.	Dew point: Noon, local time	Dew point: 8 p. m.	Relative humidity: 8 a. m.	Relative humidity: Noon, local time	Relative humidity: 8 p. m.	Vapor pressure: 8 a. m.	Vapor pressure: Noon, local time	Vapor pressure: 8 p. m.	Precipitation: Total	Precipitation: Maximum in 24 hours	Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
April	25.06	25.38	24.63	44.4	62.2	63.7	67.7	42.4	55.0	78	30	33	32	31	66	35	34	0.198	0.187	0.177	2.58	1.13	0	5.9	5.1	5.9	5.8
May	25.06	25.31	24.18	48.8	70.0	73.3	76.4	47.5	62.0	86	38	36	34	30	65	29	23	.224	.207	.171	.99	.67	0	2.2	2.8	3.3	3.1
June	25.05	25.21	24.80	60.1	83.4	86.1	88.7	57.9	73.3	95	48	42	39	39	52	23	21	.272	.256	.250	.53	.41	0	3.3	4.1	5.3	4.2
July	25.06	25.24	24.85	65.4	85.5	85.3	91.3	64.1	77.7	99	58	53	50	50	66	32	34	.415	.372	.373	.69	.32	0	3.7	3.1	6.4	4.1
August	25.14	25.33	24.96	62.2	81.9	82.6	88.0	60.9	74.4	95	54	53	51	48	72	36	32	.406	.384	.350	.23	.08	0	4.1	4.4	6.5	4.2
September	25.08	25.32	24.79	58.7	77.4	76.6	82.0	57.3	70.0	92	44	51	51	50	77	42	44	.384	.381	.372	2.18	.97	0	4.6	4.6	5.7	5.1
October	25.10	25.36	24.89	46.8	67.9	67.7	73.0	45.1	59.0	82	30	38	36	35	73	34	32	.240	.228	.215	.57	.43	0	2.9	2.4	3.1	3.1
November	25.04	25.34	24.55	33.2	49.8	48.6	54.7	29.7	42.2	74	5	25	26	28	72	41	49	.140	.143	.161	1.19	.81	4.6	4.3	4.4	3.5	4.5
December	25.08	25.37	24.70	25.3	40.7	38.4	44.8	22.6	33.7	55	13	18	21	20	72	43	47	.100	.112	.109	.07	.07	T.	4.2	4.0	3.5	3.9
Year	------	------	------	----	----	----	----	----	----	----	----	---	---	---	---	---	---	----	----	----	----	----	----	---	---	---	---

ALPENA, MICH.

[ϕ=45° 05′ N.; λ=83° 30′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Dew point: 8 a. m.	Dew point: Noon, local time	Dew point: 8 p. m.	Relative humidity: 8 a. m.	Relative humidity: Noon, local time	Relative humidity: 8 p. m.	Vapor pressure: 8 a. m.	Vapor pressure: Noon, local time	Vapor pressure: 8 p. m.	Precipitation: Total	Precipitation: Maximum in 24 hours	Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
January	29.30	29.78	28.71	21.2	25.3	23.8	29.6	16.4	23.0	41	3	18	19	19	86	73	78	0.100	0.107	0.102	1.29	0.37	15.4	8.3	7.9	7.2	8.1
February	29.39	29.71	28.96	23.9	29.7	27.9	32.6	19.5	26.0	44	1	20	22	22	84	71	78	.109	.119	.122	.88	.45	8.2	7.5	7.0	6.8	7.1
March	29.35	29.85	28.77	25.5	31.9	29.8	34.0	22.5	28.2	42	13	22	23	24	84	70	78	.116	.126	.126	2.13	.55	17.2	6.9	7.4	6.7	7.0
April	29.36	29.78	28.86	38.4	45.2	42.3	50.0	31.4	40.7	77	20	30	30	30	71	57	63	.168	.176	.173	1.77	.61	2.6	5.2	4.7	4.4	4.8
May	29.24	29.68	28.86	48.8	54.7	54.1	62.1	41.8	52.0	92	30	42	42	42	78	65	68	.274	.274	.278	2.74	.62	T.	5.1	5.6	6.0	5.3
June	29.34	29.60	28.84	60.3	65.5	63.4	70.1	53.2	61.6	99	38	52	54	53	78	68	71	.418	.431	.423	2.90	1.27	0	6.5	5.9	4.7	5.5
July	29.26	29.60	28.77	68.1	76.4	72.6	81.0	59.5	70.2	98	50	59	59	60	74	57	66	.513	.513	.525	1.78	1.02	0	4.2	4.7	4.0	4.5
August	29.38	29.64	28.92	63.7	72.1	68.5	75.4	57.3	66.4	90	40	57	55	56	78	56	66	.469	.449	.465	1.75	.72	0	4.6	4.7	4.1	4.8
September	29.33	29.69	28.80	60.5	69.3	63.3	73.7	53.9	63.8	98	41	55	56	56	83	64	78	.448	.467	.464	4.34	1.10	0	4.4	5.0	4.5	4.8
October	29.34	30.01	28.82	49.0	58.7	52.7	61.6	43.6	52.6	82	31	44	44	44	84	60	74	.306	.304	.303	2.96	.87	0	5.4	5.3	4.5	5.2
November	29.35	29.89	28.77	41.3	47.8	44.3	50.8	36.4	43.6	68	22	36	38	36	82	68	74	.225	.244	.229	3.33	1.09	0.3	7.2	6.5	6.5	6.7
December	29.40	29.94	28.65	30.1	34.2	32.2	37.3	25.2	31.2	52	6	25	26	26	80	73	76	.137	.148	.142	2.23	.95	11.6	7.8	7.3	6.5	7.7
Year	29.34	30.01	28.65	44.2	51.0	47.9	54.8	38.4	46.6	99	1	38	39	39	80	65	72	.274	.280	.279	28.10	1.27	55.3	6.1	6.0	5.5	6.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

ABILENE, TEX.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	7.0	S.	26	W.	0	8	2	4	5	20	4	12	4	3	8	8	15	9	8	0	0	0	5	0	0	0	9	0	0
February	7.7	S.	30	S.	0	10	1	4	8	22	4	4	3	0	11	4	13	8	7	0	0	0	3	4	0	0	1	2	0
March	10.4	S.	31	S.	0	12	3	3	5	19	1	6	13	0	11	10	10	8	7	5	3	0	0	0	0	0	10	2	0
April	8.9	S.	31	N.	0	9	4	4	8	24	5	2	2	2	4	12	14	9	6	0	0	0	0	0	0	1	1	3	0
May	9.2	S.	27	SW.	0	13	4	5	5	25	3	3	3	1	10	12	9	5	5	0	0	0	1	1	0	0	4	0	0
June	9.8	S.	34	SW.	1	1	2	1	11	41	2	0	1	1	9	12	9	3	3	0	0	0	0	0	0	26	0	10	0
July	7.7	S.	27	E.	0	1	1	4	10	35	9	0	2	0	14	13	4	6	5	0	0	0	0	0	0	27	0	3	0
August	8.5	S.	30	SW.	0	3	5	3	7	38	3	1	1	1	11	13	7	3	2	0	0	0	0	0	0	26	0	3	0
September	9.7	S.	29	S.	0	3	2	1	12	42	0	0	0	0	24	4	2	1	1	0	0	0	0	0	0	27	0	1	0
October	7.8	S.	26	S.	0	5	4	3	16	23	4	2	5	0	17	7	7	6	6	0	0	0	2	0	0	6	0	6	0
November	8.4	S.	30	S.	0	7	7	0	9	28	7	1	0	1	12	3	15	10	10	1	1	1	1	1	0	0	0	1	0
December	7.3	S.	30	NW.	0	10	2	5	2	17	10	9	7	0	10	4	17	7	7	4	3	0	2	1	0	9	5	0	0
Year	8.5	S.	34	SW.	1	82	37	37	98	334	52	40	41	9	141	102	122	75	67	10	7	4	12	5	0	117	26	35	0

ALBANY, N. Y.

[H_b=97 ft.; h_t=107 ft.; h_r=100 ft.; h_a=115 ft.]

January	6.1	S.	19	S.	0	15	4	3	0	17	0	10	13	0	7	16	8	7	7	16	7	0	4	1	15	0	31	0	0
February	6.5	S.	21	SW.	0	14	5	1	2	17	1	2	14	0	11	7	10	9	6	18	6	0	4	2	9	0	25	0	0
March	6.7	N.	26	NE.	0	16	7	2	4	8	2	10	13	0	8	10	13	10	6	11	7	0	4	0	9	0	20	0	0
April	7.6	S.	30	SE.	0	10	3	0	2	22	10	5	8	0	14	9	7	10	8	3	2	0	3	0	0	0	1	1	0
May	5.8	S.	23	SE.	0	8	2	5	0	33	3	3	8	0	13	8	10	13	12	1	0	0	1	0	0	1	0	5	0
June	6.3	S.	22	N.	0	17	8	1	1	19	0	2	11	1	17	4	9	12	10	0	0	0	1	0	0	3	0	5	0
July	5.6	S.	23	S.	0	5	3	3	3	30	2	4	12	0	17	9	5	15	12	0	0	0	2	0	0	4	0	9	0
August	5.2	S.	25	N.	0	17	2	5	1	26	2	6	3	0	10	13	8	10	6	0	0	0	0	1	0	3	0	5	0
September	6.1	S.	20	S.	0	10	1	1	1	28	5	7	6	1	16	5	9	9	7	0	0	0	0	0	0	8	4	0	0
October	5.0	S.	20	NW.	0	6	2	0	0	29	8	12	5	0	15	4	12	10	7	0	0	0	0	11	2	0	0	0	1
November	6.9	S.	22	SE.	0	6	0	1	0	32	5	9	7	0	8	5	17	8	6	2	1	0	6	1	1	0	7	0	0
December	6.9	S.	23	SW.	0	12	1	0	0	25	2	5	17	0	10	8	13	9	8	5	1	0	9	1	5	0	18	1	0
Year	6.2	S.	30	SE.	0	136	38	22	14	286	40	75	117	2	146	98	121	122	97	56	24	1	61	12	30	14	102	32	1

ALBUQUERQUE, N. MEX.

[H_b=4,972 ft.; h_t=51 ft.; h_r=45 ft.; h_a=66 ft.]

April	6.2	SW.	27	W.	0	9	8	6	7	7	10	8	4	1	7	11	12	8	8	0	0	1	0	0	0	0	1	2	0
May	5.7	SW.	23	SE.	0	13	13	4	2	1	11	4	14	0	19	7	5	5	5	0	0	0	0	0	0	0	0	5	0
June	4.8	SW.	20	E.	0	10	13	6	5	5	11	4	4	2	12	12	6	4	3	0	0	0	1	0	0	14	0	4	0
July	5.1	SW.	26	SE.	0	6	18	2	9	3	14	2	8	0	14	13	4	4	3	0	0	0	0	0	0	19	0	5	0
August	5.0	SW.	24	SE.	0	1	17	3	14	0	13	4	7	3	12	16	3	6	3	0	0	0	0	0	0	13	0	9	0
September	4.0	SW.	27	NW.	0	10	16	2	6	3	11	4	3	5	10	13	7	9	7	0	0	0	0	0	0	3	0	7	0
October	4.6	NE.	25	SE.	0	4	21	2	13	5	5	5	2	22	5	4	4	3	0	0	0	0	0	0	0	1	0	2	0
November	4.6	NE.	31	SE.	0	12	18	1	8	4	10	6	0	1	11	13	6	7	6	5	4	0	1	1	2	0	14	1	0
December	4.3	NE.	29	W.	0	17	29	1	1	3	7	1	2	1	15	9	7	1	1	4	0	0	0	0	1	0	31	0	0
Year																													

ALPENA, MICH.

[H_b=609 ft.; h_t=13 ft.; h_r=4 ft.; h_a=89 ft.]

January	9.4	NW.	29	SE.	0	6	2	4	1	12	10	9	17	1	1	9	21	16	9	21	15	0	2	0	17	0	31	0	0
February	9.4	NW.	29	E.	0	3	9	3	3	8	6	11	13	0	6	5	17	11	6	19	11	0	3	0	11	0	28	0	0
March	10.2	NW.	32	NE.	0	5	13	7	4	2	0	7	24	0	5	9	17	13	8	20	12	0	5	1	10	0	31	0	0
April	10.9	NW.	36	NW.	4	4	3	4	13	4	3	13	16	0	11	10	9	8	6	7	2	0	3	0	0	0	19	1	0
May	9.5	SE.	27	NW.	0	4	3	4	15	4	4	7	21	0	11	8	12	12	10	1	0	0	6	2	0	1	3	4	0
June	8.7	SE.	45	NW.	1	4	5	7	18	3	8	4	11	0	6	16	8	11	8	0	0	0	1	2	0	3	0	6	0
July	8.7	NW.	40	NW.	1	3	4	2	9	5	7	12	8	0	14	7	10	10	7	0	0	0	0	0	0	2	0	10	0
August	8.6	SE.	25	SE.	0	11	8	5	10	1	7	12	8	0	10	12	8	16	10	0	0	0	0	1	0	2	0	5	0
September	9.5	NW.	38	SE.	2	4	3	6	12	4	8	10	13	0	13	7	11	12	8	0	0	0	2	1	0	0	7	0	0
October	9.9	NW.	36	NW.	2	1	3	1	8	10	13	9	17	0	13	7	11	12	8	0	0	0	2	1	0	0	2	2	3
November	11.8	SW.	36	SW.	2	0	0	1	10	11	15	14	9	0	4	12	14	17	10	7	3	1	5	3	0	0	10	0	0
December	9.8	NW.	32	E.	0	7	8	3	3	6	12	13	10	0	4	8	19	10	7	11	7	0	1	2	7	0	27	0	0
Year	9.7	NW.	45	NW.	12	52	61	47	106	70	93	125	175	1	96	116	153	148	98	86	50	2	29	15	45	11	151	35	3

Annual meteorological summaries for the year ending December 31, 1931—Continued

AMARILLO, TEX.

[ϕ=35° 13′ N.; λ=101° 50′ W.]

Month	Pressure			Temperature								Moisture															
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	26.32	26.67	25.66	30.7	45.9	42.5	50.9	29.1	40.0	66	20	22	26	27	70	48	54	0.119	0.143	0.144	0.31	0.31	0.1	4.6	3.4	3.2	3.8
February	26.23	26.61	25.80	36.7	49.4	48.5	55.3	34.8	45.0	70	26	30	32	33	76	54	59	.167	.181	.189	1.83	1.28	4.7	5.6	4.7	5.2	5.0
March	26.26	26.65	25.76	32.4	48.0	47.6	54.1	29.9	42.0	80	7	23	28	28	70	51	52	.126	.152	.156	1.69	.62	15.0	4.7	4.9	3.9	4.7
April	26.29	26.68	25.73	43.8	59.7	58.7	65.6	42.1	53.8	81	32	36	37	38	74	48	52	.220	.230	.248	1.57	.79	0	7.0	6.3	5.1	6.2
May	26.26	26.61	25.85	51.7	67.6	68.5	73.4	49.3	61.4	93	37	43	45	44	75	47	46	.294	.313	.301	3.11	1.20	0	4.4	3.9	3.9	4.1
June	26.26	26.44	25.96	65.7	85.9	86.1	91.4	64.2	77.8	101	56	56	53	53	72	33	35	.456	.406	.414	.69	.30	0	1.3	2.5	4.5	2.8
July	26.27	26.50	26.11	68.4	86.8	85.3	92.3	66.5	79.4	101	57	57	56	56	69	37	40	.475	.463	.460	1.40	.90	0	3.5	2.6	3.9	2.9
August	26.35	26.56	26.11	65.7	82.9	82.1	87.6	64.6	76.1	97	57	56	56	56	72	43	44	.455	.465	.466	2.19	.64	0	5.5	4.1	3.6	4.5
September	26.28	26.59	25.97	64.8	84.6	82.4	89.6	64.1	76.8	97	54	52	53	53	63	35	38	.386	.411	.411	.51	.47	0	2.0	2.6	3.4	2.5
October	26.32	26.62	26.01	51.9	69.2	66.6	78.1	50.5	63.3	91	32	42	43	43	70	42	45	.274	.297	.288	.92	.75	0	2.9	2.8	2.1	2.5
November	26.27	26.61	25.88	39.1	52.1	48.8	57.7	36.3	47.0	84	16	32	34	35	77	56	64	.191	.208	.215	2.89	1.38	8.2	3.8	4.7	4.8	4.8
December	26.26	26.66	25.73	33.2	44.4	41.2	49.4	31.2	40.3	68	20	26	29	29	75	58	62	.141	.166	.159	1.24	.71	11.2	4.8	5.5	3.9	5.7
Year	26.28	26.68	25.66	48.7	64.7	63.2	70.3	46.9	58.6	101	7	40	41	41	72	46	49	.275	.286	.288	18.35	1.38	39.2	4.2	4.0	4.0	4.1

APALACHICOLA, FLA.

[ϕ=29° 45′ N.; λ=84° 58′ W.]

January	30.11	30.56	29.56	47.1	55.6	51.9	58.5	44.3	51.4	73	29	42	42	44	84	62	76	0.288	0.277	0.304	4.36	1.66	0	5.3	4.9	4.7	5.1
February	30.02	30.29	29.66	50.9	60.3	56.6	62.5	48.1	55.3	72	34	47	48	49	86	66	77	.336	.349	.361	5.75	2.04	0	5.1	4.8	4.6	4.7
March	29.95	30.24	29.48	52.5	61.4	57.7	64.2	49.1	56.6	74	38	46	46	48	79	59	71	.326	.332	.350	5.56	2.32	0	4.1	3.8	4.1	4.1
April	30.03	30.25	29.55	62.3	69.4	66.3	71.8	57.6	64.7	80	47	55	55	56	78	59	71	.447	.425	.462	1.17	1.04	0	4.0	3.4	3.6	3.5
May	29.94	30.15	29.69	70.1	77.3	72.5	79.4	64.1	71.8	88	55	63	62	62	78	62	71	.579	.579	.570	1.16	.92	0	3.2	2.5	3.0	2.7
June	29.98	30.14	29.70	78.7	85.1	79.8	86.6	71.7	79.2	96	62	71	68	70	77	58	73	.764	.704	.743	3.15	1.31	0	2.2	1.6	3.5	2.4
July	29.95	30.11	29.77	82.5	86.4	82.9	88.8	76.4	82.6	94	71	75	75	74	79	70	76	.879	.863	.851	5.72	1.86	0	3.3	3.2	5.1	4.9
August	30.02	30.18	29.80	78.6	84.9	80.6	86.8	73.8	80.3	93	68	73	72	72	82	66	75	.807	.788	.778	11.74	5.02	0	6.0	6.2	6.1	6.4
September	29.99	30.24	29.81	77.7	84.4	81.2	86.3	73.5	79.9	92	58	71	72	71	81	67	72	.783	.792	.777	2.41	1.51	0	2.3	3.2	2.4	3.0
October	30.03	30.25	29.75	68.7	78.8	73.9	80.2	65.9	73.0	90	48	63	64	65	82	61	73	.598	.609	.624	.15	.14	0	3.4	3.7	3.0	3.7
November	30.13	30.29	29.92	59.8	71.9	66.4	73.1	58.1	65.6	81	42	56	60	61	86	68	82	.469	.536	.547	.04	.04	0	2.2	2.3	1.0	2.7
December	30.07	30.29	29.62	62.6	69.4	66.8	71.7	60.4	66.0	82	46	60	63	62	91	80	86	.532	.587	.575	7.81	4.15	0	6.0	7.4	5.6	7.0
Year	30.02	30.56	29.49	66.0	73.7	69.7	75.8	61.9	68.9	96	29	60	60	61	82	65	75	.567	.570	.578	49.02	5.02	0	3.9	4.1	3.9	4.2

ASHEVILLE, N. C.

[ϕ=35° 36′ N.; λ=82° 32′ W.]

January	27.70	28.13	26.90	31.3	43.0	40.6	48.0	28.2	38.1	64	14	26	27	27	81	55	59	0.145	0.153	0.151	1.84	1.58	2.6	5.0	4.5	4.5	4.3
February	27.68	27.90	27.37	33.0	47.0	44.3	53.1	30.3	41.7	68	17	28	29	30	81	52	58	.157	.164	.171	1.24	.33	T.	5.6	5.4	5.6	5.2
March	27.56	27.90	27.07	35.0	44.7	41.9	49.8	32.4	41.1	65	21	28	28	29	73	54	63	.153	.159	.165	2.59	1.03	5.8	6.6	6.5	6.6	5.8
April	27.71	28.06	26.97	46.5	60.0	55.5	64.6	42.1	53.4	78	33	39	38	40	76	49	58	.248	.243	.254	4.71	1.91	4.3	5.4	6.2	5.7	5.3
May	27.65	27.97	27.35	56.6	68.4	63.3	73.0	50.5	61.8	88	36	49	49	48	76	53	61	.359	.369	.356	2.20	.79	0	5.7	6.3	5.2	5.0
June	27.74	27.90	27.34	65.4	80.4	73.4	84.3	59.2	71.8	95	45	59	58	59	79	46	63	.507	.489	.525	3.44	1.65	0	3.5	5.2	5.6	3.6
July	27.71	27.86	27.49	69.8	83.9	74.7	87.8	65.4	76.6	93	61	66	65	67	88	54	77	.635	.619	.654	2.09	.62	0	4.5	6.0	7.6	4.7
August	27.77	28.02	27.47	64.7	78.2	71.1	82.6	61.3	72.0	92	50	62	61	64	92	56	78	.570	.541	.595	4.01	.87	0	6.6	6.4	7.6	5.7
September	27.80	28.13	27.48	63.4	78.8	72.1	82.7	59.3	71.0	91	38	60	59	60	87	52	68	.523	.514	.542	1.12	1.00	0	3.7	4.0	3.7	3.7
October	27.81	28.17	27.37	48.1	68.4	61.0	72.3	45.3	58.8	84	30	44	42	45	84	42	58	.297	.296	.316	.49	.26	0	3.7	4.0	3.1	4.0
November	27.87	28.08	27.58	44.6	61.8	56.1	64.6	42.2	53.4	75	22	41	41	43	86	60	63	.272	.283	.296	.43	.17	0	5.1	5.4	4.4	5.1
December	27.80	28.14	27.35	41.9	52.2	47.5	56.9	37.8	47.4	73	23	38	39	40	86	64	77	.245	.258	.268	6.49	2.01	T.	5.7	6.4	6.1	5.8
Year	27.73	28.17	26.90	50.0	63.9	58.5	68.3	46.2	57.3	95	14	45	45	46	82	52	65	.343	.341	.358	30.65	2.01	12.7	5.1	5.5	5.5	4.8

ATLANTA, GA.

[ϕ=33° 45′ N.; λ=84° 23′ W.]

January	28.86	29.30	28.14	38.2	46.7	46.2	50.5	36.3	43.4	64	18	30	30	32	74	55	59	0.175	0.173	0.185	2.61	0.96	0.1	5.7	5.8	5.5	5.9
February	28.80	29.05	28.43	41.5	50.6	51.0	56.1	39.0	47.6	67	25	33	34	34	73	55	55	.196	.203	.205	2.40	.81	0	5.4	4.9	3.9	4.9
March	28.70	29.00	28.16	40.4	50.0	49.9	55.4	38.0	46.7	68	29	32	31	31	73	51	50	.194	.182	.176	3.46	1.30	T.	5.4	5.8	5.1	5.7
April	28.83	29.15	28.13	53.0	64.1	63.4	68.9	50.2	59.6	82	38	43	41	41	71	48	47	.291	.278	.270	1.83	.82	0	5.3	5.6	5.9	5.5
May	28.75	29.04	28.52	60.5	71.1	70.5	76.0	57.2	66.6	89	46	50	49	49	71	49	50	.377	.361	.362	2.77	.68	0	4.0	5.0	3.9	4.6
June	28.80	29.00	28.47	72.6	85.4	82.8	89.9	68.7	79.3	101	53	60	56	56	84	39	44	.522	.473	.477	.39	.14	0	3.2	4.6	5.0	4.0
July	28.78	28.95	28.55	75.0	85.2	82.0	90.2	71.8	81.0	96	68	69	68	68	81	58	64	.702	.655	.685	5.34	1.36	0	6.1	5.8	6.5	6.2
August	28.85	29.07	28.54	71.0	81.6	79.1	85.7	68.2	77.0	94	57	64	63	63	80	54	59	.612	.584	.581	2.44	1.81	0	4.3	5.6	4.7	5.0
September	28.86	29.21	28.60	70.8	82.6	80.0	87.0	68.0	77.5	97	50	62	60	60	75	49	52	.583	.542	.544	1.32	.64	0	3.3	4.2	2.6	3.4
October	28.90	29.25	28.50	58.6	71.4	68.9	75.0	56.9	66.0	86	40	48	47	47	70	44	48	.358	.355	.349	1.05	.58	0	3.6	3.9	1.2	3.3
November	28.97	29.16	28.70	63.8	64.6	62.2	67.6	52.1	59.8	77	35	45	46	45	75	56	58	.331	.352	.333	.57	.46	0	3.8	3.6	3.5	4.6
December	28.91	29.24	28.42	47.8	54.1	52.4	58.8	44.0	51.4	74	31	44	45	45	88	72	78	.319	.321	.326	12.07	3.11	0	6.4	7.1	5.4	6.9
Year	28.83	29.30	28.13	56.9	67.3	65.7	71.8	54.2	63.0	101	18	48	48	48	75	52	55	.388	.376	.374	36.25	3.11	.1	4.7	5.2	4.4	5.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

AMARILLO, TEX.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: Number of winds, 8 a. m. and 8 p. m.: Days with 33 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																		f								
January	7.1	SW.	22	SE.	0	9	5	2	5	8	10	11	12	0	16	11	4	1	1	2	1	0	1	3	0	0	20	0	0
February	7.7	SW.	24	SE.	0	7	8	1	8	12	9	7	4	0	14	4	10	8	6	2	2	1	6	4	0	0	6	2	0
March	9.8	NW.	27	SE.	0	9	7	2	7	2	8	8	19	0	13	8	10	7	7	5	5	0	1	0	2	0	14	0	0
April	9.1	S.	26	N.	0	10	7	2	15	15	4	3	4	0	8	10	12	10	10	0	0	0	6	2	0	0	1	3	0
May	8.5	SE.	27	W.	0	8	6	7	8	18	6	3	6	0	15	8	8	13	10	0	0	3	1	1	0	3	0	9	0
June	8.8	SE.	26	E.	0	0	3	4	21	25	3	2	2	0	21	8	1	4	4	0	0	1	0	0	0	19	0	5	0
July	7.8	S.	31	S.	0	3	2	9	11	24	6	6	0	1	20	9	2	9	4	0	0	0	0	0	0	22	0	8	0
August	7.0	S.	19	S.	0	6	2	8	8	22	10	6	0	0	13	12	6	8	7	0	0	0	0	0	0	13	0	5	0
September	9.0	S.	20	SE.	0	1	3	4	14	28	7	1	2	0	21	7	2	3	2	0	0	0	0	0	0	15	0	3	0
October	7.8	S.	22	SW.	0	8	4	2	9	20	9	4	6	0	23	3	5	4	3	0	0	0	6	2	0	3	0	3	0
November	7.2	S.	21	S.	0	8	1	0	11	14	8	10	5	0	12	9	9	10	7	4	4	0	7	6	1	0	11	3	0
December	8.0	SW.	35	W.	1	4	1	2	6	11	21	5	11	1	10	6	15	6	5	5	2	0	6	6	1	0	17	0	0
Year	8.2	S.	35	W.	1	73	49	43	126	199	101	66	71	2	186	95	84	83	66	18	14	5	37	24	4	75	69	41	0

APALACHICOLA, FLA.

[H_b=36 ft.; h_t=11 ft.; h_r=3 ft.; h_a=51 ft.]

January	7.4	NW.	25	NW.	0	11	10	7	2	3	4	8	17	0	12	7	12	8	7	0	0	0	2	2	0	0	1	1	0
February	7.9	N.	29	SE.	0	12	5	6	10	1	4	9	8	1	12	5	11	7	6	0	0	0	3	2	0	0	0	2	0
March	9.4	NW.	51	E.	1	7	4	2	7	6	2	18	15	1	14	13	4	9	7	0	0	0	1	1	0	0	0	4	0
April	8.2	NW.	26	NW.	0	8	11	3	10	7	3	9	9	0	19	5	6	5	4	0	0	0	1	1	0	0	0	1	0
May	6.9	SW.	35	E.	1	10	6	2	6	5	11	14	7	1	20	7	4	7	5	0	0	0	1	1	0	0	0	4	0
June	6.5	W.	36	E.	1	5	7	4	1	3	16	16	8	0	20	10	0	6	4	0	0	0	1	2	0	3	0	10	0
July	6.4	W.	32	SE.	0	4	11	2	10	2	9	17	7	0	11	13	7	13	11	0	0	0	0	0	0	12	0	14	0
August	5.5	W.	30	SE.	0	14	9	0	5	1	9	14	7	3	8	8	15	14	13	0	0	0	0	0	0	3	0	17	0
September	7.1	SE.	29	E.	0	9	16	4	10	1	3	8	6	3	21	3	6	10	10	0	0	0	0	0	0	5	0	11	0
October	7.7	E.	24	E.	0	12	23	3	7	1	3	4	9	0	16	8	7	2	1	0	0	0	2	0	0	1	0	0	0
November	7.1	E.	22	E.	0	15	13	7	13	2	1	1	8	0	19	9	2	1	1	0	0	0	9	6	0	0	0	0	0
December	8.5	SE.	28	SE.	0	11	15	9	14	6	4	1	2	0	4	8	19	7	7	0	0	0	2	1	0	0	0	2	0
Year	7.4	SE.	51	E.	3	118	130	49	95	38	69	119	103	9	176	90	93	88	76	0	0	0	22	16	0	24	1	66	0

ASHEVILLE, N. C.

[H_b=2,253 ft.; h_t=89 ft.; h_r=87 ft.; h_a=104 ft.]

January	7.6	NW.	27	SE.	0	14	0	1	5	7	1	1	29	4	14	10	7	5	4	4	2	0	1	0	1	0	23	0	0
February	7.0	NW.	28	NW.	0	19	0	1	8	11	3	0	14	0	10	9	9	9	6	4	0	0	2	1	0	0	18	0	0
March	10.3	NW.	30	NW.	0	8	0	1	13	4	1	2	32	1	9	10	12	8	7	6	3	0	1	1	1	0	15	0	0
April	7.9	NW.	28	N.	0	6	1	1	12	11	3	0	21	5	11	8	11	11	10	2	2	0	1	1	0	0	0	4	0
May	7.0	NW.	26	NW.	0	12	1	3	13	9	4	3	17	0	9	16	6	13	8	0	0	2	2	1	0	0	0	7	0
June	4.7	NW.	23	N.	0	10	2	3	6	7	2	2	19	8	8	20	3	15	12	0	0	0	16	8	0	6	0	20	0
July	4.0	NW.	26	SE.	0	15	0	3	4	3	1	1	18	3	3	23	5	19	16	0	0	0	18	9	0	4	0	13	0
August	4.1	NW.	19	NW.	0	15	2	4	12	4	1	3	11	5	15	13	2	3	3	0	0	0	16	8	0	3	0	4	0
September	5.1	NW.	20	NW.	0	9	2	5	14	10	4	2	15	4	18	8	5	5	4	0	0	0	3	1	0	2	0	6	0
October	5.0	NW.	22	NW.	0	11	2	4	10	10	4	2	15	4	12	6	12	4	3	0	0	0	3	2	0	0	4	0	0
November	6.2	SE.	20	S.	0	10	1	2	21	7	2	3	11	3	12	10	11	14	13	1	0	0	5	5	0	0	11	1	0
December	7.8	NW.	33	E.	1	6	0	0	14	14	0	2	23	3	10	10	11	14	13	1	0	0	5	5	0	0	11	1	0
Year	6.4	NW.	33	E.	1	135	11	28	132	101	28	23	227	45	132	148	85	115	94	17	7	2	72	38	2	21	73	61	0

ATLANTA, GA.

[H_b=1,173 ft.; h_t=100 ft.; h_r=182 ft.; h_a=198 ft.]

January	10.0	NW.	32	NW.	0	0	1	11	1	1	8	14	26	0	12	3	16	10	7	1	1	0	5	1	0	0	10	0	0
February	8.1	NW.	33	NW.	1	0	6	7	3	3	9	4	22	2	13	4	11	10	8	0	0	0	3	1	0	0	5	0	0
March	11.6	NW.	33	NW.	2	1	3	6	4	1	7	17	23	0	10	9	12	9	7	2	0	0	1	0	0	0	6	1	0
April	9.0	NW.	33	NW.	1	0	5	11	5	3	9	12	15	0	11	7	12	11	6	0	0	0	0	0	0	0	4	0	0
May	8.9	W.	25	W.	0	1	4	10	3	4	9	19	12	0	14	7	10	9	9	0	0	0	3	0	0	0	0	7	0
June	8.2	W.	33	W.	1	1	5	10	4	2	8	20	10	0	16	14	0	4	4	0	0	0	0	0	0	17	0	6	0
July	6.2	W.	26	SW.	0	0	1	9	7	4	9	24	8	0	5	16	10	11	9	0	0	0	0	0	0	18	0	11	0
August	6.7	W.	23	NW.	0	0	2	11	0	2	6	24	16	1	10	14	7	9	8	0	0	0	0	0	0	10	0	5	0
August	6.9	W.	23	NW.	0	1	4	20	13	4	3	7	8	0	17	11	2	3	3	0	0	0	1	0	0	13	0	4	0
September	6.8	E.	24	W.	0	1	3	19	11	5	1	13	8	1	17	9	5	3	3	0	0	0	1	0	0	0	0	1	0
October	7.3	E.	25	W.	0	0	1	16	11	3	3	5	18	3	14	5	11	3	3	0	0	0	6	2	0	0	0	0	0
November	7.3	E.	22	E.	0	0	0	21	4	5	3	10	17	2	7	5	19	19	17	0	0	0	11	8	0	0	2	3	0
December	9.0	E.	31	E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year	8.2	NW.	33	NW.	5	5	35	151	66	37	75	169	183	9	146	104	115	101	84	3	1	0	31	12	0	58	23	42	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

ATLANTIC CITY, N. J.

[ϕ=39° 22′ N.; λ=74° 25′ W.]

Month	Pressure			Temperature								Moisture																Cloudiness			
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation										
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight				
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*								
January	29.96	30.42	28.94	32.7	39.5	36.2	42.8	29.4	36.1	54	16	26	29	27	74	65	68	0.144	0.164	0.148	2.06	1.00	0	5.6	4.8	3.6	4.9				
February	29.98	30.38	29.50	31.8	40.1	37.6	43.9	29.1	36.5	55	16	25	28	28	75	64	69	.139	.159	.156	1.12	.48	T.	5.1	4.8	5.0	4.8				
March	29.83	30.30	29.12	37.3	42.6	40.6	45.0	34.9	40.0	57	27	31	31	32	77	66	73	.175	.179	.186	5.19	1.21	2.2	6.8	6.8	5.6	7.0				
April	29.97	30.46	29.10	47.5	51.2	49.2	55.2	43.4	49.3	67	37	39	38	39	74	64	71	.245	.244	.246	2.12	1.10	0	4.5	4.4	3.9	4.4				
May	29.89	30.23	29.59	57.5	60.2	57.2	63.6	52.4	58.0	83	41	51	50	51	80	72	82	.379	.370	.377	1.43	.48	0	4.7	4.8	5.7	5.4				
June	29.91	30.18	29.46	67.6	71.0	67.0	74.6	62.2	68.4	94	56	59	59	61	76	69	82	.505	.513	.537	2.54	1.29	0	5.0	4.6	4.9	4.8				
July	29.86	30.10	29.49	74.9	79.0	75.5	82.6	70.8	76.7	93	65	68	68	69	81	72	81	.695	.703	.710	1.67	1.47	0	5.8	4.5	4.9	5.1				
August	29.95	30.31	29.53	72.9	77.1	73.9	79.9	69.1	74.5	91	61	67	67	68	82	73	82	.669	.673	.687	7.21	2.11	0	6.0	6.0	5.2	5.7				
September	29.96	30.43	29.61	70.0	75.7	71.5	79.0	65.6	72.3	94	49	63	64	64	79	68	78	.593	.616	.617	2.55	1.85	0	3.1	3.6	2.8	3.3				
October	30.00	30.39	29.39	57.9	66.6	61.8	68.8	54.2	61.5	80	40	51	51	52	78	60	72	.403	.407	.417	2.11	.68	0	3.5	4.6	2.6	3.9				
November	30.15	30.54	29.69	50.5	56.9	53.4	59.1	46.7	52.9	72	29	44	45	46	81	68	78	.316	.329	.330	.61	.21	T.	4.2	4.8	3.4	4.9				
December	30.06	30.61	29.61	40.8	48.1	45.4	51.5	36.2	43.8	67	21	33	36	35	74	63	66	.204	.225	.222	2.57	1.64	0	5.2	5.8	5.0	5.8				
Year	29.96	30.61	28.94	53.4	59.0	55.8	62.2	49.5	55.8	94	16	46	47	48	78	67	75	.372	.382	.386	31.18	2.11	2.2	5.0	4.9	4.4	5.0				

AUGUSTA, GA.

[ϕ=33° 28′ N.; λ=81° 54′ W.]

January	29.92	30.39	29.19	37.6	52.6	49.7	56.9	36.1	46.5	71	23	35	41	37	89	66	64	0.210	0.271	0.229	2.23	1.11	T.	4.6	4.2	4.5	4.7				
February	29.86	30.15	29.50	39.9	56.1	55.1	61.7	37.9	49.8	71	30	38	47	45	93	71	70	.238	.326	.306	1.87	.80	0	4.1	5.0	3.2	4.5				
March	29.74	30.07	29.20	43.7	56.4	55.7	61.8	41.4	51.6	77	32	38	39	40	80	55	58	.236	.256	.261	2.14	1.06	0	5.0	4.9	3.8	5.0				
April	29.86	30.19	29.20	55.2	69.3	66.8	74.0	51.8	62.9	83	40	50	53	52	83	58	62	.370	.408	.395	2.92	.95	0	4.0	4.6	4.7	4.9				
May	29.76	30.07	29.43	64.0	76.6	73.4	81.2	59.4	70.3	91	48	59	59	59	83	58	63	.502	.512	.512	3.51	1.08	0	4.5	3.8	3.9	4.3				
June	29.80	30.03	29.43	73.9	88.3	84.3	93.0	68.8	80.9	105	57	66	64	64	78	46	52	.658	.612	.604	1.29	.37	0	3.4	3.0	4.8	4.0				
July	29.76	29.94	29.52	79.3	90.8	85.1	95.5	73.9	84.7	103	69	72	70	71	79	50	64	.790	.726	.752	3.34	1.49	0	3.5	5.3	6.6	4.9				
August	29.84	30.08	29.48	74.9	86.1	80.2	90.3	70.2	80.2	101	59	69	68	69	85	56	69	.718	.684	.707	4.54	1.72	0	4.2	5.9	5.8	5.5				
September	29.86	30.23	29.53	71.7	86.5	82.0	91.7	68.7	80.2	104	52	67	68	65	85	57	58	.674	.725	.630	.40	.34	0	3.1	2.5	2.1	3.2				
October	29.91	30.25	29.50	57.3	77.3	71.0	81.7	54.9	68.3	90	40	53	55	54	85	48	55	.420	.463	.439	.40	.37	0	1.8	2.8	1.7	2.8				
November	30.01	30.24	29.76	49.2	69.4	62.6	73.6	48.2	60.9	84	32	45	49	48	88	51	60	.329	.378	.366	.19	.15	0	2.0	3.1	2.8	3.7				
December	29.96	30.31	29.47	48.9	59.9	57.1	65.3	46.6	56.0	80	31	46	47	47	92	66	71	.338	.356	.347	5.35	.88	0	6.2	6.8	4.9	6.8				
Year	29.86	30.39	29.19	57.9	72.4	68.6	77.2	54.8	66.0	105	23	52	55	54	85	57	62	.457	.476	.462	28.18	1.72	T.	3.9	4.3	4.0	4.5				

AUSTIN, TEX.

[ϕ=30° 17′ N.; λ=97° 44′ W.]

January	29.52	29.95	29.09	45.1	56.3	55.0	59.7	43.1	51.4	75	28	42	43	44	88	65	70	0.278	0.293	0.307	4.30	2.50	0	5.4	6.6	6.2	6.3				
February	29.39	29.74	29.00	50.7	61.8	60.0	65.6	47.9	56.8	76	36	47	48	48	88	64	67	.335	.352	.348	5.63	2.53	0	6.1	5.2	5.4	5.6				
March	29.38	29.83	28.88	47.0	61.0	61.5	67.5	44.2	55.8	83	32	43	43	42	85	54	59	.290	.295	.283	3.35	1.80	0	4.5	3.2	3.0	3.6				
April	29.40	29.79	28.84	54.8	68.4	69.6	74.0	52.5	63.2	87	39	50	51	52	85	57	56	.384	.395	.406	5.03	3.31	0	7.2	6.5	5.9	6.4				
May	29.32	29.60	28.97	63.4	77.3	77.6	82.0	61.2	71.6	90	48	58	57	58	83	52	52	.501	.482	.488	.58	.33	0	6.3	5.0	4.1	5.1				
June	29.33	29.49	29.10	73.5	87.8	86.7	92.7	71.2	82.0	97	55	69	70	69	85	56	56	.708	.732	.688	2.63	1.07	0	5.7	5.1	4.5	5.0				
July	29.29	29.47	29.12	76.6	89.6	88.4	93.4	74.5	84.0	100	68	72	71	69	86	56	58	.777	.757	.719	2.74	1.95	0	4.5	4.9	4.1	4.6				
August	29.38	29.57	29.23	73.1	89.2	87.8	94.0	72.2	83.1	98	64	68	67	66	85	49	49	.697	.669	.640	1.85	1.61	0	4.0	3.2	3.0	3.6				
September	29.34	29.63	29.17	72.5	89.5	87.9	94.0	72.1	83.0	98	58	67	67	64	84	48	48	.686	.677	.604	.02	.02	0	3.3	4.0	1.8	3.7				
October	29.39	29.69	29.19	66.8	83.9	81.1	87.9	66.0	77.0	95	43	61	61	59	83	47	48	.577	.567	.525	.15	.14	0	4.4	4.3	1.8	3.9				
November	29.41	29.69	29.04	57.1	70.2	68.1	74.8	55.3	65.0	85	42	52	54	52	84	60	60	.415	.443	.417	1.09	.28	0	6.9	6.8	5.7	6.8				
December	29.43	29.80	28.96	47.9	57.8	56.5	62.5	44.0	53.2	76	30	44	45	45	88	66	68	.319	.322	.324	4.24	1.74	0	6.0	6.4	5.3	6.4				
Year	29.38	29.95	28.84	60.7	74.4	73.4	79.0	58.7	68.8	100	28	56	56	56	85	56	56	.497	.499	.479	31.61	3.31	0	5.4	5.1	4.2	5.1				

BAKER, OREG.

[ϕ=44° 46′ N.; λ=117° 50′ W.]

January	26.38	26.88	26.11	23.5	29.9	29.2	33.3	19.5	26.4	45	1	20	23	24	87	76	80	0.106	0.123	0.127	1.05	0.24	9.5	6.7	7.4	7.5	7.5				
February	26.50	26.83	26.21	25.7	36.5	36.4	39.6	22.2	30.9	46	13	22	27	28	84	67	70	.114	.146	.151	.51	.18	3.7	5.2	6.2	6.5	6.2				
March	26.53	26.95	26.08	31.7	44.3	43.9	47.5	29.2	38.4	60	19	27	32	33	84	62	66	.149	.183	.192	1.98	.62	4.5	5.5	6.4	7.3	6.7				
April	26.47	26.91	26.16	34.6	53.7	54.3	57.9	32.2	45.0	75	23	28	30	30	76	44	41	.153	.173	.164	.61	.31	.7	5.2	5.1	5.1	5.4				
May	26.47	26.78	26.16	42.5	66.1	66.9	70.0	39.6	54.8	87	28	32	34	34	68	32	32	.185	.203	.199	.26	.10	T.	4.5	4.9	4.7	4.7				
June	26.42	26.65	26.19	48.4	68.1	69.4	72.7	46.1	59.4	91	35	38	40	40	09	38	38	.236	.248	.255	.72	.40	0	5.2	6.3	6.1	6.0				
July	26.43	26.78	26.22	55.2	80.2	80.2	84.5	53.6	70.0	102	41	35	39	41	47	24	22	.203	.244	.257	.07	.07	0	2.3	2.4	2.2	2.4				
August	26.48	26.68	26.25	52.1	80.7	83.4	86.7	50.5	68.6	97	42	31	36	36	44	21	20	.171	.214	.218	.04	.03	0	1.6	2.4	2.4	2.1				
September	26.43	26.79	26.17	44.0	66.0	67.1	70.3	41.4	55.8	94	30	35	36	36	71	36	34	.204	.218	.220	.63	.38	0	3.2	4.8	4.7	4.4				
October	26.50	26.83	25.96	37.9	57.1	56.7	60.9	34.0	47.4	76	25	28	33	32	66	43	44	.164	.190	.185	.41	.13	.1	3.9	4.2	4.5	4.0				
November	26.46	26.82	25.96	26.4	37.5	35.5	40.4	21.7	31.0	65	−2	19	24	24	73	58	62	.111	.136	.133	1.53	.47	15.3	4.8	5.9	6.1	5.0				
December	26.42	26.89	25.78	21.5	28.2	25.4	31.2	15.6	23.4	41	−3	16	20	19	76	71	76	.091	.111	.105	2.03	.40	19.4	6.3	6.7	7.4	7.4				
Year	26.48	26.95	25.78	37.0	54.0	54.4	58.1	33.8	45.9	102	−3	28	31	31	70	48	49	.157	.182	.184	9.79	.62	53.2	4.5	5.2	5.5	5.2				

Annual meteorological summaries for the year ending December 31, 1931—Continued

ATLANTIC CITY, N. J.

[H_b=52 ft.; h_t=37 ft.; h_r=33 ft.; h_a=172 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	15.0	W.	44	E.	4	1	3	2	3	4	11	23	15	0	13	7	11	4	4	0	0	0	1	1	3	0	18	0	0
February	14.8	NW.	40	SE.	5	6	3	1	2	4	10	11	19	0	12	7	9	7	7	4	1	0	2	1	0	0	20	0	0
March	18.5	W.	54	E.	13	10	11	5	3	2	1	19	11	0	5	7	19	15	15	5	4	0	2	2	0	0	8	0	0
April	17.9	S.	62	NE.	10	0	9	1	8	14	10	8	10	0	13	7	10	9	6	0	0	0	1	1	0	0	0	2	0
May	14.8	S.	40	NE.	4	4	8	2	13	10	15	8	2	0	10	11	10	13	8	0	0	0	8	11	0	0	0	2	0
June	12.7	S.	34	S.	1	5	6	6	6	11	12	6	8	0	12	11	7	8	8	0	0	0	2	5	0	1	0	2	0
July	11.9	S.	37	SE.	1	1	4	7	5	14	17	10	4	0	7	20	4	5	3	0	0	0	3	4	0	4	0	5	0
August	13.7	S.	56	NE.	6	5	10	1	5	8	17	11	5	0	8	11	12	11	9	0	0	0	1	2	0	2	0	5	0
September	14.0	SW.	38	S.	2	5	5	5	3	8	17	7	10	0	17	8	5	5	3	0	0	0	0	2	0	2	0	4	0
October	12.8	W.	40	W.	1	4	2	1	3	11	15	16	9	0	16	8	7	8	7	0	0	0	0	0	0	0	0	3	0
November	12.6	W.	36	NW.	1	2	4	1	7	13	11	11	11	0	11	8	11	7	4	1	0	0	9	7	0	0	1	0	0
December	15.4	W.	49	W.	6	6	2	1	3	5	10	25	10	0	8	10	13	7	4	0	0	0	3	2	0	0	11	0	0
Year	14.5	W.	62	NE.	54	49	67	33	61	104	147	155	114	0	132	115	118	99	78	10	5	0	32	38	3	9	58	23	0

AUGUSTA, GA.

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

January	4.4	NW.	27	SW.	0	4	4	4	1	1	10	7	17	14	13	10	8	6	4	1	0	0	11	3	0	0	8	0	0
February	3.9	NW.	17	W.	0	5	3	6	4	9	0	6	14	9	12	7	9	9	8	0	0	0	13	2	0	0	7	1	0
March	6.4	NW.	27	W.	0	6	5	5	6	5	2	10	22	1	12	8	11	6	4	0	0	0	5	1	0	0	1	2	0
April	5.4	NW.	25	W.	0	3	9	6	12	3	5	9	11	2	12	8	10	9	7	0	0	0	1	0	0	0	0	4	0
May	4.8	NW.	20	N.	0	2	7	6	8	12	7	6	12	2	11	13	7	15	13	0	0	0	4	1	0	3	0	7	0
June	4.7	S.	30	N.	0	5	8	4	12	19	3	2	7	0	12	14	4	10	5	0	0	0	0	0	0	29	0	7	0
July	4.2	S.	25	NW.	0	4	6	2	13	12	7	5	10	3	8	21	2	13	10	0	0	0	0	0	0	22	0	15	0
August	3.7	S.	21	NW.	0	8	5	3	10	15	11	4	4	4	6	17	9	11	8	0	0	0	1	1	0	18	0	6	0
September	3.9	SE.	18	NW.	0	5	11	5	10	10	8	0	6	5	19	10	1	3	2	0	0	0	7	2	0	23	0	3	0
October	3.7	NW.	19	SW.	0	2	12	4	5	3	3	2	15	13	21	5	5	2	1	0	0	0	7	3	0	3	0	2	0
November	3.0	NW.	18	SE.	0	7	12	0	9	0	2	0	13	17	17	6	7	2	2	0	0	0	7	5	0	0	0	0	0
December	4.3	NW.	20	NW.	0	6	8	9	5	1	3	3	14	13	4	13	14	11	10	0	0	0	10	7	0	0	1	2	0
Year	4.4	NW.	30	N.	0	57	90	54	95	88	61	54	148	83	146	132	87	97	74	1	0	0	66	25	0	98	17	49	0

AUSTIN, TEX.

[H_b=605 ft.; h_t=136 ft.; h_r=129 ft.; h_a=148 ft.]

January	5.8	N.	28	NW.	0	12	13	8	6	7	0	4	10	2	8	5	18	11	9	0	0	0	9	4	0	0	2	0	0
February	7.4	SE.	28	N.	0	12	5	6	13	6	3	3	8	0	8	10	10	12	11	0	0	0	3	0	0	0	0	3	0
March	9.8	S.	36	NW.	2	13	5	3	13	11	0	2	15	0	18	7	6	8	7	0	0	0	2	0	0	0	1	5	0
April	7.5	SE.	29	W.	0	14	1	10	16	13	1	1	3	1	6	11	13	8	7	0	0	0	5	2	0	0	0	5	0
May	7.5	S.	26	NE.	0	14	6	5	17	7	2	2	9	0	8	15	8	5	4	0	0	0	0	1	0	1	0	3	0
June	6.7	SE.	35	S.	1	3	1	6	26	16	4	2	1	1	8	18	4	9	7	0	0	0	0	0	0	0	0	0	0
July	5.8	S.	39	NW.	1	4	4	4	17	24	5	3	0	1	14	8	9	9	8	0	0	0	1	0	0	25	0	11	0
August	6.5	S.	28	N.	0	2	4	6	24	21	0	2	3	0	15	16	0	4	2	0	0	0	3	0	0	30	0	5	0
September	5.9	SE.	28	SE.	0	1	3	4	31	17	0	1	1	2	13	17	0	1	0	0	0	0	4	1	0	27	0	1	0
October	6.0	SE.	25	NE.	0	7	7	6	29	8	1	0	4	0	13	16	2	3	2	0	0	0	3	2	0	17	0	0	0
November	7.5	SE.	28	N.	6	10	5	5	25	8	1	2	4	0	7	7	16	11	8	0	0	0	7	2	0	0	0	1	0
December	7.2	N.	28	NW.	0	15	7	2	6	8	3	2	18	1	8	8	15	14	10	0	0	0	13	3	0	0	1	1	0
Year	7.0	SE.	39	NW.	4	107	61	65	223	146	20	24	76	8	126	138	101	95	75	0	0	2	50	15	0	125	4	40	0

BAKER, OREG.

[H_b=3,471 ft.; h_t=48 ft.; h_r=44 ft.; h_a=53 ft.]

January	4.7	SE.	18	SE.	0	3	2	5	32	10	3	7	0	0	5	5	21	14	8	20	14	0	12	4	11	0	30	0	0
February	4.8	SE.	16	SE.	0	6	2	2	18	15	1	5	7	0	4	12	12	8	4	11	7	0	0	0	0	0	26	0	0
March	5.5	SE.	21	NW.	0	8	7	1	19	12	4	4	6	1	6	6	19	14	10	10	5	0	5	0	0	0	20	0	0
April	5.9	SE.	28	NW.	0	9	2	1	29	9	1	2	7	0	11	7	12	6	5	6	1	0	0	0	0	0	15	0	0
May	5.9	SE.	28	NW.	0	15	1	3	29	3	2	2	5	2	13	11	7	5	3	1	0	0	0	0	0	0	5	2	0
June	5.7	SE.	25	SW.	0	8	2	0	21	6	3	9	11	0	7	11	12	7	4	0	0	0	0	0	0	1	0	1	0
July	4.6	N.	17	S.	0	8	2	0	24	6	2	5	12	2	22	8	1	1	1	0	0	0	0	0	0	10	0	2	0
August	5.0	N.	24	NW.	0	10	1	1	30	4	1	2	17	0	22	8	1	3	0	0	0	0	0	0	0	12	0	2	0
September	4.7	SE.	17	SW.	0	6	1	1	30	4	1	1	13	0	12	12	6	4	3	0	0	0	0	0	0	1	1	1	0
October	4.9	SE.	23	SW.	0	8	0	2	29	7	3	5	7	0	14	10	7	6	4	2	1	0	3	2	0	0	8	0	0
October	5.2	SE.	23	SE.	0	6	3	2	29	11	5	4	7	0	8	9	13	14	7	15	12	0	5	2	11	0	24	0	0
November	5.2	SE.	22	W.	0	1	0	3	29	9	4	4	3	1	7	2	22	20	15	24	19	0	6	3	18	0	29	0	0
December	5.4	SE.	27	SW.	0	0	3	4	34	9	4	4	3	1	7	2	22	20	15	24	19	0	6	3	18	0	29	0	0
Year	5.1	SE.	28	NW.	0	80	24	24	323	98	30	50	95	6	131	101	133	102	64	89	59	0	31	11	40	24	158	8	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

BALTIMORE, MD.

[ϕ=39° 17′ N.; λ=76° 37′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.90	30.39	28.91	34.0	40.8	38.6	45.2	31.0	38.1	64	19	25	26	26	69	66	69	0.140	0.147	0.146	1.89	1.08	1.1	5.3	5.9	3.9	4.9
February	29.92	30.30	29.53	34.1	42.2	41.5	47.0	32.1	39.6	58	21	25	26	28	68	53	58	.136	.142	.153	1.41	.64	.7	5.5	5.3	4.5	5.2
March	29.79	30.25	29.03	38.6	44.3	42.8	47.9	35.9	41.9	60	27	30	30	31	72	59	64	.173	.172	.176	4.62	1.37	10.0	6.7	6.6	5.6	6.8
April	29.89	30.40	29.03	50.0	58.5	55.2	62.5	45.2	53.8	75	36	38	40	39	64	53	56	.236	.258	.241	2.77	1.32	T.	5.2	4.8	4.2	4.9
May	29.80	30.15	29.50	60.9	68.8	67.0	73.5	56.8	65.2	88	45	50	51	52	71	56	62	.381	.396	.405	5.80	2.31	0	6.1	5.6	6.1	6.1
June	29.84	30.12	29.29	70.9	78.6	76.1	83.2	65.8	74.5	100	56	58	58	60	66	52	59	.492	.493	.529	1.89	.44	0	5.1	5.1	5.0	5.1
July	29.79	30.02	29.43	77.8	86.5	81.2	89.5	72.6	81.0	101	67	67	65	67	71	50	64	.670	.624	.670	6.04	1.68	0	4.5	4.5	5.3	4.9
August	29.88	30.24	29.40	73.7	80.9	76.9	84.4	69.5	77.0	100	58	64	63	64	74	58	67	.612	.590	.612	7.98	3.00	0	6.2	6.5	6.0	5.9
September	29.89	30.36	29.52	71.1	80.8	77.0	85.1	66.9	76.0	99	50	60	61	63	70	52	62	.549	.556	.599	2.05	1.21	0	3.8	3.4	3.9	3.5
October	29.94	30.36	29.35	57.1	69.5	64.2	72.8	54.0	63.4	88	44	47	47	48	70	46	57	.345	.346	.364	1.79	.95	0	4.0	5.0	3.3	4.3
November	30.07	30.46	29.59	50.3	59.1	55.4	62.2	47.2	54.7	76	34	43	44	43	78	66	66	.299	.312	.306	1.13	.55	T.	4.4	5.0	3.6	5.5
December	30.00	30.56	29.55	42.0	49.4	46.2	53.1	38.3	45.7	70	26	32	33	33	68	56	61	.193	.206	.205	2.20	.92	.7	6.5	6.3	5.9	6.5
Year	29.89	30.56	28.91	55.0	63.3	60.2	67.2	51.3	59.2	101	19	45	45	46	70	54	61	.352	.353	.367	39.57	3.00	12.5	5.3	5.3	4.8	5.3

BELLEFONTE, PA.

[ϕ=40° 54′ N.; λ=77° 43′ W.]

January	28.87	29.35	27.97	23.2	32.3	28.5	37.2	18.8	28.0	51	1	20	22	22	85	65	76	0.109	0.120	0.122	1.01	0.46	4.6	7.3	6.4	5.8	6.8
February	28.90	29.21	28.61	25.2	34.7	31.1	39.2	20.8	30.0	54	−14	22	24	26	86	66	78	.121	.131	.138	1.59	.51	8.8	6.5	6.5	5.8	6.2
March	28.79	29.22	28.13	30.9	37.5	34.8	41.0	27.0	34.0	56	19	27	28	27	83	69	73	.144	.152	.146	1.61	.50	4.7	6.6	9.0	8.6	8.8
April	28.90	29.39	28.10	42.2	53.4	48.1	57.9	33.5	45.7	76	24	34	35	34	73	54	62	.201	.210	.200	3.85	1.28	3.9	5.4	6.4	4.9	6.0
May	28.82	29.19	28.51	54.6	65.5	60.4	69.9	45.5	57.7	89	23	46	48	48	75	56	66	.330	.348	.346	8.03	1.85	0	6.6	6.9	7.1	6.7
June	28.89	29.13	28.36	64.0	74.6	68.2	79.2	52.9	66.0	94	38	56	57	58	76	56	70	.458	.482	.491	1.78	.83	0	5.6	6.2	5.0	5.9
July	28.84	29.06	28.52	71.0	81.0	72.9	84.9	61.3	73.1	99	48	65	65	65	81	60	78	.622	.638	.627	4.53	2.08	0	5.2	6.6	5.6	6.0
August	28.94	29.25	28.57	65.5	76.5	68.4	79.8	56.9	68.4	92	45	60	61	61	83	60	79	.529	.546	.550	2.80	.93	0	6.2	6.7	6.9	7.0
September	28.93	29.39	28.56	62.3	76.2	68.1	79.8	54.0	66.9	94	33	58	58	58	95	54	72	.492	.504	.510	2.46	1.37	0	5.5	4.9	4.7	5.4
October	28.96	29.41	28.35	46.7	62.8	53.0	66.4	39.5	53.0	82	25	43	44	44	86	53	72	.292	.313	.303	1.04	.49	0	5.8	5.5	4.7	6.0
November	29.05	29.40	28.58	40.8	53.1	47.5	57.6	36.0	46.8	74	23	38	40	39	89	63	73	.242	.264	.252	.90	.38	3.0	7.2	7.6	6.3	7.4
December	28.98	29.49	28.55	32.0	40.3	35.6	44.4	26.7	35.6	59	11	28	29	29	84	64	72	.156	.165	.160	1.81	.57	.2	7.8	7.3	6.3	7.6
Year	28.91	29.49	27.97	46.5	57.3	51.4	61.4	39.4	50.4	99	−14	41	43	42	82	60	73	.306	.323	.320	31.41	2.08	25.2	6.5	6.7	6.1	6.6

BINGHAMTON, N. Y.

[ϕ=42° 06′ N.; λ=75° 55′ W.]

January	29.04	29.53	28.15	21.9	28.1	----	33.1	16.4	24.8	48	−1	18	21	----	83	72	----	0.102	0.114	----	2.19	0.56	15.7	8.6	7.7	----	7.7
February	29.09	29.50	28.80	21.9	29.0	----	34.6	16.6	25.6	48	−12	18	22	----	84	75	----	.108	.124	----	1.97	.61	9.2	8.1	7.3	----	7.2
March	28.97	29.47	28.23	30.4	38.2	----	41.0	23.4	34.7	57	19	26	29	----	84	70	----	.143	.158	----	1.46	.51	5.3	8.5	8.6	----	8.8
April	29.08	29.60	28.29	41.2	52.1	----	56.4	35.6	46.0	78	26	35	37	----	77	60	----	.205	.232	----	3.72	1.56	3.0	5.7	6.8	----	6.6
May	29.00	29.40	28.70	53.2	65.0	----	69.8	46.3	58.0	89	28	46	51	----	79	63	----	.333	.389	----	4.77	.88	T.	5.7	6.4	----	6.4
June	29.08	29.36	28.53	61.8	74.3	----	78.2	54.6	66.4	94	44	55	60	----	79	62	----	.440	.528	----	1.75	.80	0	6.0	6.2	----	6.1
July	29.01	29.25	28.70	69.9	79.8	----	84.2	63.9	74.0	98	53	64	67	----	82	66	----	.598	.663	----	5.71	1.45	0	5.9	7.2	----	6.8
August	29.12	29.45	28.78	64.5	77.0	----	80.3	59.5	69.9	92	50	60	62	----	85	60	----	.525	.558	----	2.86	1.16	0	5.3	7.4	----	7.3
September	29.10	29.57	28.72	60.7	74.7	----	79.1	55.8	67.4	96	38	56	56	----	84	53	----	.461	.467	----	2.11	.72	0	5.0	5.6	----	5.6
October	29.13	29.63	28.43	45.8	60.8	----	65.1	41.5	53.3	81	26	42	42	----	85	53	----	.275	.292	----	1.02	.45	0	5.6	6.1	----	6.0
November	29.22	29.58	28.71	44.0	53.1	----	56.5	39.9	48.2	74	19	38	41	----	80	65	----	.248	.281	----	1.23	.35	2.2	7.6	7.8	----	8.4
December	29.14	29.71	28.68	32.9	37.5	----	42.1	27.0	34.6	56	12	27	29	----	78	71	----	.160	.167	----	2.25	.72	3.2	7.9	8.1	----	7.7
Year	29.08	29.71	28.15	45.7	55.8	----	60.0	40.5	50.2	98	−12	40	43	----	82	64	----	.300	.331	----	31.02	1.56	38.6	6.6	7.1	----	7.0

BIRMINGHAM, ALA.

[ϕ=33° 32′ N.; λ=86° 50′ W.]

January	29.38	29.85	28.58	38.9	50.1	47.1	54.1	36.6	45.4	69	18	32	33	33	76	54	60	0.189	0.199	0.200	2.15	0.82	T.	5.2	5.4	4.7	5.3
February	29.30	29.56	28.85	42.0	54.0	52.7	59.5	39.9	49.7	69	24	36	36	37	90	55	57	.223	.228	.234	1.68	.48	0	5.8	4.6	3.5	4.7
March	29.21	29.50	28.59	41.8	55.0	51.1	58.9	39.1	49.0	71	28	35	34	35	77	48	57	.212	.208	.216	2.78	.71	.1	5.0	4.6	6.1	5.1
April	29.31	29.57	28.79	53.9	68.5	64.0	72.7	50.1	61.4	86	36	46	45	46	76	46	55	.328	.317	.324	4.39	1.53	0	4.5	4.6	4.5	4.8
May	29.22	29.47	28.98	61.2	75.1	70.4	78.6	56.6	67.6	90	47	54	55	54	78	51	58	.423	.440	.422	2.72	.93	0	4.2	4.9	3.8	4.5
June	29.27	29.42	28.98	72.9	89.5	82.9	93.9	67.8	80.8	106	52	62	60	61	69	38	49	.568	.539	.548	.47	.27	0	1.5	3.2	5.1	2.3
July	29.24	29.41	29.01	75.2	87.8	80.4	92.1	71.4	81.8	101	67	70	69	70	84	56	72	.730	.718	.728	3.96	.83	0	6.0	5.8	7.0	5.9
August	29.32	29.51	29.06	70.8	84.8	77.5	88.4	67.1	77.8	95	58	67	66	66	87	54	70	.663	.651	.652	4.69	1.42	0	4.7	5.9	4.9	5.3
September	29.30	29.65	29.11	71.7	88.7	81.8	93.0	69.1	81.0	102	50	64	63	62	79	43	53	.626	.588	.588	.14	.12	0	2.8	3.9	3.0	3.3
October	29.36	29.69	28.96	60.3	76.6	69.9	80.5	58.4	69.4	92	41	52	52	52	75	46	55	.413	.431	.416	2.05	1.80	0	2.4	3.6	2.6	3.0
November	29.43	29.61	29.14	54.3	69.3	63.4	72.4	52.2	62.3	80	36	47	47	47	78	49	58	.353	.354	.355	2.78	1.90	0	3.3	4.5	3.3	4.1
December	29.37	29.69	28.82	50.0	57.8	55.1	61.9	46.8	54.4	79	33	47	48	47	88	71	76	.345	.356	.347	3.33	2.04	0	5.8	7.0	5.6	7.2
Year	29.31	29.85	28.58	57.8	71.4	66.4	75.5	54.6	65.0	106	18	51	51	51	79	51	60	.423	.419	.419	36.14	2.04	.1	4.2	4.8	4.5	4.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

BALTIMORE, MD.

[H_b=123 ft.; h_t=100 ft.; h_r=90 ft.; h_a=215 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.8	SW.	36	W.	1	5	5	5	3	7	17	4	16	0	12	9	10	5	4	2	1	0	14	0	1	0	17	0	0
February	9.1	NW.	30	NW.	0	9	8	4	2	8	9	2	14	0	11	5	12	9	6	4	2	0	11	0	0	0	12	0	0
March	11.6	NW.	35	NE.	2	10	13	7	3	0	11	4	14	0	6	9	16	11	11	6	4	0	11	0	0	0	4	0	0
April	11.1	SW.	42	W.	4	3	9	3	4	17	10	5	9	0	11	9	10	7	6	1	1	0	2	0	0	0	0	0	0
May	9.4	SE.	36	SW.	1	1	13	2	18	10	11	3	4	0	9	9	13	12	10	6	2	0	2	0	0	0	0	0	0
June	8.9	SW.	30	SW.	0	6	8	1	11	7	13	6	14	0	12	11	7	9	6	0	0	0	0	0	0	0	0	0	0
July	7.1	SW.	50	NE.	1	7	7	1	10	7	20	3	6	0	10	14	7	14	10	0	0	0	0	0	0	0	0	0	0
August	7.7	SW.	30	SW.	0	9	13	2	1	11	15	3	8	0	8	11	12	19	19	0	0	0	5	1	0	16	0	0	0
September	8.5	SW.	42	SW.	2	8	7	3	1	8	22	2	10	0	17	7	6	7	6	0	0	0	5	1	0	10	0	10	0
October	7.5	SW.	32	SW.	0	8	6	1	1	5	27	4	16	0	13	10	8	4	4	0	0	0	4	0	0	11	0	4	0
November	7.4	SW.	32	NW.	0	4	13	1	5	12	17	3	5	0	11	10	9	6	3	1	0	0	8	1	0	6	0	2	0
December	9.0	SW.	43	SW.	3	7	11	2	6	5	19	3	9	0	7	11	13	7	7	1	1	0	13	3	0	0	10	0	0
Year	8.5	SW.	50	NE.	14	78	113	31	65	97	191	36	110	0	125	115	123	110	92	15	9	2	88	13	1	43	43	40	0

BELLEFONTE, PA.

[H_b=1,050 ft.; h_t=5 ft.; h_r=4 ft.; h_a=42 ft.]

January		SW.	36	W.	1	1	2	3	0	2	25	17	6	6	4	12	15	9	4	20	6	0	4	1	6	0	31	0	0
February		SW.			0	3	10	4	0	1	14	12	3	4	2	6	13	9	7	15	5	0	8	3	3	0	27	0	0
March		W.			0	6	14	7	4	1	5	17	6	2	0	7	24	13	9	17	8	0	8	1	2	0	28	0	0
April		SW.	40	SW.	3	3	9	3	4	7	14	11	5	4	11	4	15	11	7	7	5	0	6	0	0	0	14	0	0
May		SW.	34	S.	1	3	8	2	6	7	18	11	3	4	4	13	14	17	16	9	6	1	9	2	0	0	2	0	0
June		SW.			0	6	5	3	2	6	12	6	8	12	8	10	12	7	6	9	6	0	9	2	0	0	0	0	0
July		SW.			0	5	6	6	1	4	19	13	2	6	8	13	10	13	12	9	6	0	15	3	0	0	0	15	0
August		SW.			0	4	9	4	3	4	14	9	3	12	6	8	17	9	8	9	6	0	16	5	0	0	3	0	0
September		SW.	34	SE.	1	4	2	1	2	4	23	10	7	7	9	9	12	9	8	0	0	0	12	5	0	0	6	0	0
October		W.	36	W.	1	3	2	4	2	1	16	16	6	12	7	10	14	8	6	0	0	0	15	5	0	0	6	1	0
November		SW.			0	0	3	1	2	6	18	14	4	12	5	6	19	7	5	7	1	0	17	5	0	0	12	0	0
December		W.	48	SE.	2	1	1	6	1	1	17	20	7	5	3	10	18	11	7	11	2	0	10	2	2	0	23	0	0
Year		SW.			9	39	71	44	27	44	195	156	65	89	74	108	183	123	95	77	27	1	126	32	13	17	143	44	1

BINGHAMTON, N. Y.

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

January	5.5	NW.	22	NW.	0	2	5	6	1	1	0	6	10	0	4	7	20	15	8	20	13	0	0	0	13	0	31	0	0
February	5.5	NW.	20	SW.	0	0	5	2	4	0	2	6	9	0	7	5	16	11	10	17	7	0	2	0	7	0	25	0	0
March	6.1	NW.	21	SE.	0	0	10	1	3	0	2	5	10	0	1	4	26	13	8	17	9	0	1	0	3	0	24	0	0
April	6.5	NW.	26	SW.	0	1	7	5	3	1	2	6	6	0	9	5	16	14	11	3	1	0	2	1	0	0	8	0	0
May	4.8	NW.	19	W.	0	2	7	6	3	2	3	7	1	0	8	5	18	16	13	1	1	0	6	3	0	0	2	4	0
June	4.4	NW.	18	N.	0	2	4	7	0	2	1	5	8	1	7	11	12	8	5	0	0	0	9	3	0	0	3	2	0
July	4.0	W.	22	N.	0	0	6	13	0	1	1	6	4	0	4	12	15	15	14	0	0	0	18	1	0	0	4	12	0
August	3.7	NE.	18	W.	0	0	10	8	3	0	1	6	0	3	4	7	20	9	7	0	0	0	16	8	0	0	3	4	0
September	4.5	NW.	20	NE.	0	2	3	8	0	1	2	8	3	3	9	9	12	10	10	0	0	0	14	5	0	0	7	5	0
October	4.2	E.	21	NW.	0	1	5	11	1	0	1	3	7	2	10	3	18	10	6	0	0	0	18	12	0	0	4	1	0
November	5.7	SW.	24	SW.	0	2	4	8	2	1	5	4	4	0	3	4	23	13	9	6	2	1	15	1	1	0	5	0	0
December	5.7	NW.	25	NW.	0	2	4	2	0	2	5	7	9	0	5	3	23	15	10	10	7	0	10	1	4	0	22	0	0
Year	5.0	NW.	26	SW.	0	14	70	77	20	11	25	68	71	9	71	75	219	149	111	74	40	1	111	35	28	17	121	28	0

BIRMINGHAM, ALA.

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

January	5.9	NW.	28	SE.	0	10	6	2	10	1	11	8	14	0	13	4	14	9	8	2	0	0	1	0	0	0	10	0	0
February	6.2	N.	24	SE.	0	22	2	1	5	13	2	5	6	0	13	4	11	11	8	0	0	0	3	2	0	0	4	0	0
March	7.9	NW.	32	SE.	0	12	7	4	5	5	5	7	17	0	11	9	11	10	9	2	1	0	2	0	0	0	6	3	0
April	6.0	NW.	26	SE.	0	11	9	10	6	7	4	3	10	0	13	9	8	10	7	0	0	0	1	0	0	0	6	6	0
May	5.4	N.	23	S.	0	12	3	5	10	7	8	6	11	0	13	11	7	9	8	0	0	0	1	0	0	0	1	8	0
June	3.9	N.	21	SE.	0	10	3	5	10	7	10	5	8	2	17	10	3	4	4	0	0	0	0	0	0	0	0	0	0
July	4.2	SW.	27	S.	0	9	3	4	8	7	18	8	4	1	7	13	11	16	12	0	0	0	0	0	0	0	0	0	0
August	3.8	N.	25	SE.	0	11	7	5	4	7	13	5	8	2	10	11	10	13	11	0	0	0	0	0	0	0	0	0	0
September	4.5	SE.	19	SE.	0	7	5	11	11	13	4	2	3	8	1	16	13	2	3	3	0	0	2	0	0	0	2	0	0
October	5.0	SE.	17	SW.	0	6	12	13	15	2	2	3	8	1	16	13	5	8	5	5	0	0	2	0	0	0	0	0	0
November	5.7	SE.	29	SE.	0	13	2	7	20	12	1	4	1	0	4	8	19	14	12	0	0	0	5	2	0	0	0	1	0
December	6.9	S.	28	SE.	0	13	3	9	14	14	1	4	4	0	5	3	23	15	10	10	7	0	10	1	4	0	22	0	0
Year	5.4	N.	32	SE.	0	136	62	76	118	93	79	60	97	7	150	110	105	108	88	4	1	0	15	6	0	87	20	72	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

BISMARCK, N. DAK.

[ϕ=46° 47′ N.; λ=100° 38′ W.]

Month	Pressure			Temperature								Moisture																Cloudiness			
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation										
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall				8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*							
January	28.17	28.59	27.82	20.1	29.6	26.7	34.7	14.5	24.6	59	−9	16	21	21	84	68	77	0.095	0.114	0.116	0.05	0.02	0.6				2.3	4.0	4.1	4.1
February	28.24	28.62	27.78	24.1	34.7	33.2	39.5	21.2	30.4	59	0	21	24	24	86	64	68	.114	.128	.128	.74	.44	9.9				4.8	4.7	4.9	4.7
March	28.31	28.86	27.87	20.8	31.3	31.4	36.2	18.2	27.2	50	−7	18	21	23	86	65	69	.100	.117	.125	1.26	.97	4.4				6.0	6.1	7.4	6.1
April	28.22	28.76	27.63	35.1	53.9	54.4	69.0	32.1	45.6	83	17	27	27	27	74	39	38	.152	.148	.152	.42	.28	.8				3.3	4.1	4.1	3.7
May	28.14	28.51	27.73	44.8	61.5	63.4	67.9	40.8	54.4	93	23	36	35	33	71	41	35	.213	.206	.195	1.94	1.19	.1				4.0	3.8	5.7	4.3
June	28.09	28.51	27.69	60.8	76.2	78.1	81.8	57.6	69.6	104	43	52	53	51	74	47	43	.406	.420	.407	1.66	1.21	0				5.2	4.8	5.3	4.7
July	28.12	28.44	27.74	61.8	78.8	80.2	84.1	59.2	71.6	107	47	54	54	53	76	46	43	.422	.432	.417	3.39	1.28	0				3.2	3.9	4.0	3.5
August	28.23	28.57	27.72	58.4	73.9	75.0	79.1	55.9	67.5	99	45	53	54	54	82	52	51	.407	.431	.435	1.58	.86	0				4.5	4.4	5.5	4.6
September	28.09	28.56	27.66	52.4	71.1	70.5	76.7	49.8	63.2	105	37	46	48	47	80	47	48	.319	.340	.331	2.81	.84	0				3.9	2.9	3.5	2.6
October	28.18	28.75	27.53	40.2	55.3	51.7	59.5	37.8	48.6	82	29	35	40	38	83	58	62	.208	.251	.233	1.19	.69	.2				4.2	4.6	4.5	4.3
November	28.18	28.69	27.64	25.2	36.2	32.7	40.3	21.9	31.1	74	3	21	24	23	84	64	70	.116	.136	.130	.25	.17	4.2				4.7	5.0	4.4	4.6
December	28.18	28.65	27.73	17.3	25.5	23.8	29.9	12.9	21.4	44	−9	14	19	20	87	76	82	.090	.108	.111	.53	.39	7.4				4.4	5.2	5.0	4.9
Year	28.18	28.86	27.53	38.4	52.3	51.8	57.4	35.2	46.3	107	−9	33	35	34	81	56	57	.220	.236	.232	15.82	1.28	27.6				4.2	4.5	5.0	4.3

BLOCK ISLAND, R. I.

[ϕ=41° 10′ N.; λ=71° 36′ W.]

January	29.91	30.34	28.80	30.5	33.4	33.2	38.3	26.0	32.2	52	11	23	25	25	72	72	71	0.132	0.145	0.141	3.81	1.24	4.6				5.3	5.5	2.9	5.3
February	29.94	30.45	29.59	30.2	33.5	33.0	37.2	26.2	31.7	46	12	25	26	26	78	73	76	.140	.146	.146	2.10	.61	2.1				5.2	5.4	3.9	5.4
March	29.82	30.35	29.19	35.8	39.5	37.1	41.5	33.3	37.4	50	28	31	33	33	83	79	85	.176	.191	.188	4.08	1.18	8.5				6.9	6.0	5.3	6.4
April	29.97	30.45	29.21	44.6	49.4	45.5	52.0	40.3	46.2	63	34	39	41	40	82	76	83	.243	.266	.252	2.48	1.54	T.				4.4	3.7	4.7	4.5
May	29.91	30.23	29.49	53.5	58.0	53.0	60.5	48.3	54.4	81	38	49	51	49	86	79	87	.355	.376	.354	3.79	.84	0				5.4	5.2	5.9	5.2
June	29.90	30.24	29.54	61.7	66.5	61.8	69.2	57.8	63.5	83	53	58	59	58	87	79	88	.477	.509	.486	4.57	2.38	0				5.4	5.6	5.1	5.3
July	29.89	30.12	29.48	68.9	72.5	69.1	75.0	65.0	70.0	88	58	65	66	65	89	82	89	.628	.646	.630	2.11	.98	0				4.9	6.2	5.2	5.9
August	29.98	30.36	29.60	66.6	74.2	69.2	76.2	65.7	71.0	87	59	65	65	65	85	74	86	.621	.627	.618	4.72	1.85	0				5.5	4.8	6.9	5.9
September	29.96	30.47	29.55	64.9	69.1	65.7	71.1	61.0	66.0	84	50	58	59	59	81	72	80	.512	.525	.516	1.93	.96	0				5.4	3.9	3.9	4.1
October	29.98	30.44	29.31	56.6	61.4	57.7	63.2	52.8	58.0	76	43	49	49	50	78	66	78	.372	.373	.386	4.41	2.22	0				3.6	3.3	3.9	3.9
November	30.14	30.53	29.61	48.1	51.4	49.7	53.7	44.7	49.2	65	30	42	42	41	81	74	76	.283	.294	.279	.92	.40	.6				4.2	5.0	4.0	5.7
December	30.01	30.61	29.49	38.1	41.5	41.1	45.9	33.3	39.6	54	18	29	30	30	71	65	66	.175	.184	.190	3.59	1.12	T.				5.6	5.7	4.4	6.3
Year	29.95	30.61	28.80	50.2	54.2	51.3	57.0	46.2	51.6	88	11	44	46	45	81	74	80	.343	.357	.349	38.51	2.38	15.8				5.2	5.0	4.7	5.3

BOISE, IDAHO

[ϕ=43° 37′ N.; λ=116° 13′ W.]

January	27.37	27.67	26.89	26.9	33.5	32.9	36.9	23.4	30.2	48	11	24	26	27	89	72	79	0.129	0.136	0.146	0.88	0.27	5.6				6.7	7.2	7.0	7.1
February	27.25	27.58	26.98	29.9	40.2	42.2	44.6	27.9	36.2	54	23	26	28	28	86	56	56	.141	.138	.150	.84	.64	.1				4.9	5.9	6.0	5.8
March	27.27	27.72	26.91	36.8	48.5	50.8	52.9	33.8	43.4	65	23	28	29	27	70	47	42	.157	.161	.154	2.49	.65	1.3				5.8	7.0	7.0	6.5
April	27.18	27.64	26.88	41.1	53.0	50.4	62.7	38.4	50.6	76	29	30	28	27	67	34	30	.170	.158	.148	.78	.57	T.				5.9	5.8	6.6	6.0
May	27.15	27.48	26.73	48.6	69.6	73.3	75.4	47.5	61.4	92	32	34	32	31	58	27	22	.201	.188	.176	.01	.01	0				3.9	5.4	5.7	5.0
June	27.08	27.35	26.77	55.4	75.6	79.3	82.0	54.3	68.2	96	42	41	39	38	90	29	24	.263	.248	.231	.12	.09	0				5.3	5.2	5.0	5.0
July	27.08	27.48	26.77	62.1	86.3	91.5	93.7	61.1	77.4	108	47	41	41	41	47	21	18	.263	.268	.265	T.	T.	0				2.8	1.5	2.4	2.2
August	27.15	27.36	26.87	61.7	87.7	88.9	91.0	59.2	75.1	100	49	38	38	38	42	20	17	.222	.236	.233	.05	.04	0				3.2	2.3	2.9	2.6
September	27.11	27.52	26.84	52.1	70.3	72.9	75.8	49.2	62.5	101	40	38	37	36	60	31	29	.228	.220	.217	.60	.42	0				5.0	3.4	5.3	4.2
October	27.20	27.57	26.78	44.2	60.9	61.9	66.1	41.6	53.8	81	35	33	33	33	66	38	40	.191	.192	.204	.43	.24	T.				4.6	4.6	5.0	4.5
November	27.22	27.63	26.70	31.2	41.2	40.6	46.3	27.1	36.7	72	8	25	25	25	78	55	57	.138	.139	.140	1.38	.43	7.3				5.8	4.9	5.8	5.6
December	27.21	27.74	26.55	26.6	31.3	29.9	35.3	22.0	28.6	51	2	21	24	24	81	73	78	.113	.129	.130	1.83	.52	11.4				7.4	7.9	7.0	8.0
Year	27.19	27.74	26.55	43.0	58.3	60.4	65.6	40.5	52.0	108	2	32	32	32	67	42	41	.186	.184	.183	9.41	.65	25.7				5.1	5.1	5.4	5.2

BOSTON, MASS.

[ϕ=42° 21′ N.; λ=71° 04′ W.]

January	29.79	30.22	28.73	26.8	33.0	31.7	38.0	23.1	30.6	55	7	18	21	21	67	60	64	0.109	0.123	0.120	4.09	1.39	11.7				4.5	5.0	4.1	4.2
February	29.84	30.37	29.48	27.5	33.8	32.5	38.1	23.0	30.6	49	4	20	22	22	70	63	66	.113	.126	.121	4.21	1.75	14.0				6.5	5.9	4.4	5.6
March	29.74	30.30	29.11	36.5	42.2	39.7	44.8	33.8	39.3	57	27	28	30	31	72	62	71	.155	.166	.173	4.66	1.82	7.3				6.0	6.6	6.7	6.1
April	29.86	30.34	29.14	46.2	55.0	51.1	58.8	41.6	50.2	78	32	33	33	33	62	47	53	.196	.193	.196	3.12	1.60	T.				4.6	4.6	4.3	4.5
May	29.80	30.10	29.36	57.7	65.5	60.2	70.1	50.5	60.3	94	37	46	48	48	67	54	68	.320	.328	.354	4.61	1.36	0				4.8	5.3	6.5	5.5
June	29.81	30.14	29.44	65.7	72.1	67.8	75.4	58.9	67.2	97	48	54	54	56	68	56	68	.429	.425	.455	9.13	4.22	0				5.5	5.9	5.8	5.6
July	29.78	29.99	29.36	71.5	76.8	73.7	81.3	66.7	74.0	97	60	62	62	63	74	63	70	.568	.570	.586	2.43	1.00	0				5.8	6.2	6.9	6.0
August	29.88	30.27	29.48	68.7	75.8	72.0	79.6	64.7	72.2	97	58	60	60	62	75	61	72	.524	.534	.561	4.45	1.65	0				5.5	5.8	5.8	5.9
September	29.85	30.35	29.42	63.9	72.0	67.3	75.1	58.7	66.9	95	46	55	56	57	75	60	70	.459	.478	.483	1.67	.88	0				5.1	4.5	3.6	4.3
October	29.86	30.30	29.18	53.8	63.2	58.4	66.9	50.1	58.5	84	40	45	46	45	74	56	64	.322	.334	.321	2.18	.83	0				4.1	4.3	3.4	4.1
November	30.02	30.45	29.43	46.0	53.4	49.7	56.8	42.1	49.4	78	25	39	40	39	77	62	68	.256	.270	.261	.82	.48	T.				5.2	5.3	3.9	5.6
December	29.89	30.49	29.37	33.8	39.4	37.5	44.2	29.0	36.6	61	14	24	26	24	67	60	59	.145	.160	.142	2.90	.89	1.4				5.7	6.3	3.9	6.1
Year	29.84	30.49	28.73	49.8	56.8	53.5	60.8	45.2	53.0	97	4	40	41	42	71	59	66	.300	.309	.314	44.17	4.22	34.4				5.3	5.5	5.0	5.2

Annual meteorological summaries for the year ending December 31, 1931—Continued

BISMARCK, N. DAK.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.6	NW.	26	N.	0	10	2	4	5	8	4	4	21	6	18	4	9	4	0	8	3	0	8	1	11	0	30	0	0
February	6.9	NW.	24	N.	0	8	5	7	8	8	3	4	8	5	12	7	9	4	4	8	4	0	3	0	7	0	28	0	0
March	8.2	N.	28	N.	0	16	8	8	10	5	2	1	5	7	9	9	13	6	5	8	5	1	1	1	9	0	28	0	0
April	8.7	NW.	35	S.	2	11	6	10	5	4	1	3	13	7	15	13	2	4	2	4	2	0	1	0	1	0	13	0	0
May	9.8	N.	36	W.	1	15	5	5	9	8	2	5	10	3	15	9	7	8	6	2	1	0	3	0	0	1	7	2	0
June	8.3	E.	34	E.	1	10	1	21	9	6	2	8	3	0	12	12	6	9	6	0	0	0	0	0	0	7	0	4	0
July	8.0	NW.	32	SW.	0	13	5	10	9	3	3	4	14	1	18	8	5	11	9	0	0	0	0	0	0	2	0	4	0
August	7.7	S.	31	N.	0	9	2	15	9	14	1	1	9	2	13	12	6	8	6	0	0	0	1	0	0	3	0	6	3
September	7.9	E.	31	NW.	0	12	4	15	7	7	0	1	14	0	21	5	4	8	7	0	0	1	1	0	0	3	0	6	3
October	8.5	NW.	38	NW.	2	10	2	13	9	2	2	8	16	0	16	6	9	8	5	3	1	0	2	2	0	0	6	1	0
November	7.1	NW.	29	NW.	0	2	7	8	8	4	3	9	19	0	14	7	9	4	2	12	4	0	4	0	9	0	27	0	0
December	5.5	E.	21	SE.	0	3	10	13	10	6	1	5	8	3	13	8	10	5	3	8	5	0	11	3	17	0	31	0	0
Year	7.8	NW.	38	NW.	6	119	57	129	98	73	27	53	140	34	176	100	89	79	55	53	25	2	34	7	54	25	170	23	4

BLOCK ISLAND, R. I.

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

January	17.9	W.	50	W.	13	4	2	2	2	3	11	23	15	0	12	11	8	9	8	5	4	0	3	1	5	0	24	0	0
February	17.4	W.	48	W.	7	12	3	3	1	3	8	12	14	0	11	6	11	10	9	8	5	0	3	3	4	0	22	0	0
March	17.8	W.	48	N.	10	11	14	4	3	5	2	13	10	0	8	8	15	10	9	7	4	0	3	1	0	0	10	0	0
April	16.2	SW.	49	NE.	7	6	6	2	4	11	12	10	9	0	16	6	8	10	5	1	0	0	5	1	0	0	0	1	0
May	14.1	SW.	41	NE.	3	3	5	5	6	11	18	11	3	0	12	9	10	15	11	0	0	0	16	10	0	0	0	2	0
June	12.3	SW.	36	NE.	1	8	7	3	3	13	13	6	7	0	12	7	11	8	7	0	0	0	12	4	0	0	0	4	0
July	11.2	S.	36	SW.	1	1	4	10	8	12	15	10	2	0	8	15	8	14	8	0	0	0	19	14	0	0	0	5	0
August	11.9	SW.	36	NW.	3	5	9	1	6	15	10	12	4	0	9	10	12	11	8	0	0	0	16	4	0	0	0	5	0
September	14.4	SW.	39	W.	2	7	7	4	3	13	12	8	6	0	15	8	7	7	6	0	0	0	9	2	0	0	0	1	0
October	13.9	W.	46	NW.	6	7	2	1	3	11	12	18	6	2	18	8	5	8	7	0	0	0	8	2	0	0	0	4	1
November	15.5	SW.	38	NW.	6	7	3	2	2	9	15	11	10	1	11	7	12	7	5	1	1	0	11	6	0	0	3	0	0
December	19.3	W.	55	W.	13	5	6	0	2	3	12	22	12	0	9	9	13	10	7	4	2	0	7	5	1	0	16	0	0
Year	15.2	W.	55	W.	72	76	68	37	43	109	140	156	98	3	141	104	120	119	90	26	16	1	114	53	10	0	76	22	1

BOISE, IDAHO

[H_b=2,739 ft.; h_t=79 ft.; h_r=72 ft.; h_a=87 ft.]

January	2.9	SE.	18	SE.	0	9	4	1	16	4	2	1	16	9	6	5	20	9	6	14	5	0	6	4	8	0	30	0	0
February	3.9	SE.	20	NW.	0	6	2	0	12	5	1	2	19	9	8	9	11	8	5	11	2	0	5	2	0	0	24	0	0
March	5.6	SE.	21	SE.	0	7	1	3	24	3	1	3	19	1	8	6	17	12	11	6	2	2	0	0	0	0	13	2	0
April	5.2	SE.	26	NW.	0	8	1	2	16	9	0	3	20	1	7	8	15	4	4	2	1	0	0	0	0	0	5	0	0
May	5.7	NW.	24	NW.	0	9	1	6	6	8	1	3	26	2	10	13	8	1	0	0	0	0	0	0	3	1	1	1	0
June	4.6	NW.	22	NW.	0	10	2	3	13	4	2	4	19	3	10	12	8	4	1	0	0	0	0	0	5	0	1	0	0
July	4.1	NW.	22	N.	0	9	1	3	15	3	0	5	22	4	24	3	4	0	0	0	0	0	0	0	12	0	1	0	0
August	3.6	NW.	17	SE.	0	7	2	5	18	3	0	1	24	2	21	7	3	2	1	0	0	0	0	0	21	0	2	0	0
August	3.6	NW.	17	SE.	0	7	2	5	18	3	0	1	24	2	21	7	3	2	1	0	0	0	0	0	21	0	2	0	0
August	3.6	NW.	17	SE.	0	7	2	5	18	3	0	1	24	2	21	7	3	2	1	0	0	0	0	0	21	0	2	0	0
September	4.1	NW.	19	NW.	0	10	1	0	14	4	3	0	22	6	13	11	6	4	3	0	0	0	0	0	4	0	1	0	0
October	3.4	SE.	18	N.	0	8	0	3	18	5	2	1	25	0	14	6	11	7	3	2	0	0	1	0	0	0	0	0	0
November	4.2	SE.	22	SE.	0	2	0	3	31	2	1	3	12	6	11	7	12	8	5	8	5	0	6	2	7	0	21	0	0
December	4.6	SE.	25	SE.	0	7	2	7	27	2	1	2	7	7	5	3	23	17	10	16	11	0	15	6	12	0	26	0	0
Year	4.3	SE.	26	NW.	0	92	17	36	210	52	14	28	231	50	137	90	138	76	49	59	26	3	33	14	27	52	120	8	0

BOSTON, MASS.

[H_b=125 ft.; h_t=106 ft.; h_r=96 ft.; h_a=165 ft.]

January	7.8	NW.	22	NE.	0	3	1	1	1	2	7	26	21	0	14	12	5	8	8	9	5	0	3	1	7	0	25	0	0
February	8.5	NW.	24	NW.	0	6	3	2	3	3	7	9	23	0	10	6	12	9	8	13	7	0	2	0	5	0	23	0	0
March	9.0	NW.	32	NE.	0	8	12	6	7	4	4	6	15	0	8	11	12	12	8	12	8	0	1	0	0	0	11	1	0
March	9.0	NW.	32	NE.	0	8	12	6	7	4	4	6	15	0	8	11	12	12	8	12	8	0	1	0	0	0	11	1	0
March	9.0	NW.	32	NE.	0	8	12	6	7	4	4	6	15	0	8	11	12	12	8	12	8	0	1	0	0	0	11	1	0
April	8.3	NW.	27	NW.	0	5	3	3	3	7	10	9	20	0	5	15	10	9	7	2	2	1	4	0	0	0	2	0	0
May	7.0	SW.	24	NW.	0	4	5	7	4	9	16	10	7	0	9	12	10	10	8	0	0	0	3	0	0	0	3	0	0
June	6.8	NW.	21	N.	0	9	10	0	9	8	8	9	7	0	9	12	9	12	9	0	0	0	3	0	0	0	3	0	0
June	6.8	NW.	21	N.	0	9	10	0	9	8	8	9	7	0	9	12	9	12	9	0	0	0	3	0	0	0	3	0	0
June	6.8	NW.	21	N.	0	9	10	0	9	8	8	9	7	0	9	12	9	12	9	0	0	0	3	0	0	0	3	0	0
June	6.8	NW.	21	N.	0	9	10	0	9	8	8	9	7	0	9	12	9	12	9	0	0	0	3	0	0	0	3	0	0
July	6.4	SW.	23	NW.	0	2	2	6	11	7	13	11	10	0	7	12	12	12	10	0	0	0	5	0	0	0	2	0	0
August	5.8	NW.	18	NE.	0	4	7	4	3	2	7	15	6	1	16	7	7	7	6	2	0	0	4	2	5	0	0	0	0
August	5.8	NW.	18	NE.	0	4	7	4	3	2	7	15	6	1	16	7	7	7	6	2	0	0	4	2	5	0	0	0	0
August	5.8	NW.	18	NE.	0	4	7	4	3	2	7	15	6	1	16	7	7	7	6	2	0	0	4	2	5	0	0	0	0
September	7.1	NW.	27	NW.	0	3	2	4	1	7	14	14	17	0	15	9	7	7	8	2	0	0	3	2	3	0	0	0	0
October	6.8	NW.	27	NW.	0	4	2	2	1	4	12	13	9	0	9	9	12	8	4	2	0	0	4	2	3	0	18	0	0
November	7.1	SW.	24	NW.	0	4	2	2	1	1	3	10	12	31	0	10	5	16	10	9	3	2	0	4	2	3	0	18	0
December	8.2	NW.	28	NW.	0	2	2	1	1	3	10	12	31	0	10	5	16	10	9	3	2	0	4	2	3	0	18	0	0
Year	7.4	NW.	32	NE.	0	57	53	42	52	63	137	133	192	1	126	118	121	112	95	41	34	2	49	18	15	17	83	28	1

Annual meteorological summaries for the year ending December 31, 1931—Continued

BROWNSVILLE, TEX.

[ϕ=26° 00′ N.; λ=97° 26′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity		Vapor pressure			Precipitation			Cloudiness				
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	30.06	30.44	29.69	55.4	64.4	61.0	66.9	53.1	60.0	77	41	53	52	54	92	69	79	0.419	0.417	0.430	4.56	1.19	0	7.0	7.9	6.8	7.0
February	29.96	30.29	29.68	58.5	66.7	64.8	70.2	57.2	63.7	79	50	56	56	57	92	70	77	.458	.463	.477	.81	.45	0	6.0	7.9	6.2	7.2
March	29.95	30.47	29.46	57.5	69.1	65.7	72.1	55.3	63.7	82	40	51	49	51	81	52	63	.413	.379	.405	1.19	.98	0	4.9	5.0	5.0	4.6
April	29.95	30.37	29.51	62.6	71.9	68.6	75.1	60.2	67.6	92	49	59	58	60	88	64	74	.510	.509	.527	.57	.29	0	5.8	7.1	5.9	6.2
May	29.87	30.10	29.55	70.4	80.0	75.7	82.4	68.2	75.3	88	62	68	65	66	91	62	73	.677	.633	.650	.88	.38	0	6.1	6.2	5.3	5.4
June	29.88	30.02	29.65	76.4	86.0	81.6	88.1	74.1	81.1	92	68	74	70	72	91	60	72	.828	.736	.774	1.02	.58	0	3.7	5.7	4.7	4.5
July	29.83	29.97	29.68	78.3	88.9	84.4	91.2	76.5	83.8	95	73	75	72	73	89	58	70	.865	.776	.812	2.79	1.75	0	4.2	6.6	4.5	4.6
August	29.94	30.07	29.81	76.2	86.9	82.6	89.5	74.4	82.0	92	66	73	69	71	90	57	69	.821	.721	.761	2.23	1.17	0	3.1	5.1	3.6	3.7
September	29.88	30.13	29.76	76.4	87.0	82.4	89.4	74.7	82.0	92	70	74	70	73	92	58	73	.835	.745	.812	1.43	.31	0	2.5	5.7	3.2	4.3
October	29.93	30.14	29.71	73.1	85.7	78.6	87.6	70.9	79.2	94	60	69	66	69	87	53	72	.714	.648	.712	4.47	3.35	0	3.3	5.5	2.1	4.0
November	29.96	30.24	29.62	66.8	77.5	71.7	79.5	64.0	71.8	89	51	61	60	62	82	56	72	.551	.532	.561	.88	.41	0	4.5	5.9	4.0	5.4
December	29.98	30.34	29.52	57.3	66.3	62.5	68.7	55.0	61.8	82	40	54	54	55	88	67	78	.443	.451	.461	1.85	.98	0	7.0	6.8	6.9	6.9
Year	29.93	30.47	29.46	67.4	77.5	73.3	80.1	65.3	72.7	95	40	64	62	64	89	60	73	.628	.584	.615	22.66	3.35	0	4.8	6.3	4.8	5.3

BUFFALO, N. Y.

[ϕ=42° 53′ N.; λ=78° 53′ W.]

January	29.13	29.67	28.42	24.9	26.9	26.7	31.0	20.1	25.6	46	7	21	22	22	83	79	82	0.114	0.120	0.121	2.99	0.72	22.3	8.6	8.2	7.3	7.7
February	29.19	29.51	28.89	25.3	28.6	27.8	33.8	20.4	27.1	50	6	22	23	24	86	78	83	.121	.124	.127	1.50	.45	10.2	8.4	7.8	6.4	7.4
March	29.09	29.55	28.29	30.0	34.0	33.7	37.2	27.8	32.5	51	20	25	27	28	81	75	79	.135	.143	.152	3.30	1.03	19.0	8.5	8.3	7.6	8.2
April	29.16	29.67	28.44	42.6	47.1	46.9	53.3	37.0	45.2	79	28	33	33	34	70	62	65	.192	.191	.202	2.54	.81	2.4	4.9	5.6	4.8	5.3
May	29.08	29.46	28.77	52.7	56.6	56.9	63.7	47.5	55.6	83	34	43	42	44	72	62	66	.288	.279	.297	2.74	1.15	0	5.3	5.4	5.3	5.4
June	29.17	29.39	28.59	63.1	67.9	66.4	73.6	58.2	65.9	90	47	53	53	55	70	60	69	.411	.412	.450	2.46	.85	0	4.5	4.8	4.1	4.6
July	29.09	29.34	28.77	70.3	74.0	73.8	78.3	66.3	72.3	91	57	62	62	63	77	67	70	.574	.560	.585	3.24	1.58	0	5.6	5.5	5.1	5.5
August	29.19	29.51	28.90	67.0	73.3	71.6	76.8	63.7	70.2	86	55	59	58	59	77	61	67	.514	.504	.525	2.58	1.23	0	5.9	6.2	4.7	5.7
September	29.18	29.64	28.72	64.4	68.9	66.7	72.6	60.2	66.4	88	45	58	58	58	85	70	75	.500	.506	.505	4.10	1.40	0	5.0	5.8	4.3	5.2
October	29.20	29.79	28.57	52.5	58.8	56.4	62.4	48.9	55.6	77	36	45	45	46	76	63	69	.317	.320	.321	1.97	.40	0	5.7	4.6	4.7	5.4
November	29.26	29.71	28.79	46.4	50.1	48.6	53.5	42.3	47.9	69	28	40	40	41	81	68	76	.268	.262	.275	1.71	.51	.9	7.6	7.5	7.3	7.7
December	29.23	29.78	28.67	33.3	36.3	35.2	41.8	29.3	35.6	5	15	29	29	29	83	75	76	.165	.170	.165	2.08	.54	2.9	7.7	7.3	6.3	7.7
Year	29.16	29.79	28.29	47.7	51.9	50.9	56.5	43.5	50.0	91	6	41	41	42	78	68	73	.300	.299	.310	31.21	1.58	57.7	6.5	6.4	5.7	6.3

BURLINGTON, VT.

[ϕ=44° 29′ N.; λ=73° 12′ W.]

January	29.50	30.04	28.62	14.4	19.4		24.7	7.0	15.8	38	−18	10	12		80	70		0.074	0.080		2.49	1.15	31.3	7.9	7.1		6.9
February	29.57	30.12	29.20	15.5	23.0		28.1	9.1	18.6	41	−15	12	16		84	72		.082	.094		1.94	.98	21.4	7.6	7.2		7.0
March	29.48	30.01	28.80	28.6	36.7		39.4	25.7	32.6	53	9	25	26		84	66		.134	.141		1.82	.69	10.1	7.8	7.7		7.4
April	29.54	30.07	28.70	42.8	50.7		55.4	36.0	45.7	78	25	32	30		66	48		.184	.175		2.24	1.01	T.	5.8	5.7		5.8
May	29.47	29.80	29.04	53.9	62.0		66.4	46.4	56.4	85	31	44	46		71	58		.304	.321		2.20	.90	0	6.3	7.2		6.4
June	29.53	29.86	29.01	62.2	69.7		74.0	52.9	63.4	92	43	54	54		74	60		.418	.429		2.46	.70	0	5.7	5.8		5.5
July	29.46	29.69	29.08	69.6	77.0		81.1	63.2	72.2	96	54	63	66		79	64		.575	.590		6.91	2.05	0	7.3	6.2		6.8
August	29.59	29.90	29.21	64.7	72.5		76.0	57.3	66.6	93	48	57	57		78	60		.480	.482		1.84	.68	0	5.7	5.3		5.7
September	29.55	30.03	29.11	59.5	67.2		71.4	53.3	62.4	95	36	54	54		82	65		.432	.444		3.86	.86	0	6.5	6.4		6.3
October	29.56	30.04	28.81	48.4	56.2		60.1	43.0	51.6	79	29	41	44		77	64		.273	.293		2.52	.76	0	6.5	5.6		6.2
November	29.67	30.11	29.07	40.7	45.4		50.0	35.7	42.8	68	17	33	35		76	68		.204	.221		1.59	.71	1.0	7.9	8.7		8.2
December	29.60	30.18	29.07	24.5	28.2		34.5	18.3	26.4	52	1	18	21		76	73		.111	.119		2.17	.80	4.1	7.2	7.4		7.6
Year	29.54	30.18	28.62	43.7	50.7		55.1	37.3	46.2	96	−18	37	38		77	64		.273	.283		32.04	2.05	67.9	6.8	6.7		6.6

CAIRO, ILL.

[ϕ=37° 00′ N.; λ=89° 10′ W.]

January	29.75	30.26	29.09	33.3	42.0	41.8	46.8	31.3	39.0	73	9	28	29	30	79	61	66	0.157	0.169	0.176	1.77	0.65	7.3	5.5	5.5	5.9	5.7
February	29.70	30.08	29.27	37.9	47.1	46.8	51.9	35.6	43.8	70	23	32	33	34	80	59	64	.189	.195	.208	3.38	1.77	0	6.2	6.0	6.2	5.8
March	29.60	29.93	28.89	38.3	45.4	46.8	50.6	36.1	43.4	65	27	31	31	32	76	58	58	.180	.177	.189	4.20	2.01	.5	8.0	7.8	7.3	7.5
April	29.68	30.00	29.30	51.2	58.7	58.3	68.1	49.5	58.8	85	38	46	46	46	82	56	57	.318	.319	.323	4.00	1.39	0	5.8	6.2	5.8	5.9
May	29.56	29.96	29.22	57.8	68.3	68.4	73.2	54.8	64.0	91	43	52	53	54	82	61	62	.400	.418	.433	2.99	1.51	0	5.9	7.2	6.7	6.9
June	29.61	29.78	29.28	73.0	84.8	83.6	89.0	69.3	79.2	100	54	64	63	64	74	49	54	.617	.594	.624	3.13	1.49	0	5.2	5.2	6.2	5.7
July	29.56	29.73	29.33	74.7	85.0	84.6	89.8	72.0	80.9	100	66	68	67	68	80	57	59	.692	.677	.694	1.97	.96	0	4.4	5.5	4.6	5.2
August	29.66	29.88	29.42	69.7	81.0	78.9	84.4	68.1	76.2	92	59	66	65	67	88	60	68	.650	.639	.678	7.14	2.33	0	5.5	6.6	6.4	6.1
September	29.65	30.00	29.29	68.9	83.5	78.8	86.3	67.6	77.0	95	50	64	64	66	86	53	66	.622	.628	.660	1.19	1.03	0	3.3	5.0	3.7	4.2
October	29.70	30.06	29.32	57.1	71.0	66.7	74.3	55.6	65.0	86	42	52	52	51	83	53	60	.408	.416	.409	2.66	1.10	0	4.5	5.1	5.2	5.2
November	29.70	30.10	29.28	51.0	60.8	58.3	64.3	48.9	56.6	78	32	44	46	46	79	62	67	.317	.345	.343	5.35	2.08	0	6.5	6.1	6.6	6.3
December	29.73	30.19	29.05	44.9	50.0	50.1	54.2	41.5	47.8	73	27	41	40	42	86	71	74	.275	.267	.281	4.15	1.72	0	6.8	7.2	6.7	7.4
Year	29.66	30.26	28.89	54.8	65.2	64.0	69.4	52.5	61.0	100	9	49	49	50	81	58	63	.402	.404	.418	41.93	2.33	7.8	5.7	6.1	5.9	6.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

BROWNSVILLE, TEX.

[H_b=57 ft.; h_t=83 ft.; h_r=74 ft.; h_a=100 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles or over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.2	E.	27	NW.	0	10	8	17	7	6	0	6	8	0	4	12	15	14	14	0	0	0	4	1	0	0	0	0	0
February	8.7	SE.	26	SE.	0	6	11	10	14	7	1	5	12	0	3	12	13	7	4	0	0	0	10	8	0	0	0	0	0
March	11.2	SE.	33	SE.	1	7	4	11	21	4	0	5	10	0	12	14	5	2	2	0	0	0	5	1	0	0	0	0	0
April	10.1	SE.	31	SE.	0	3	8	16	21	2	0	0	8	2	6	12	12	9	5	0	0	0	5	3	0	1	0	1	0
May	9.4	SE.	32	NW.	0	7	5	14	29	2	0	2	3	0	8	14	9	11	5	0	0	0	3	1	0	0	0	3	0
June	9.6	SE.	27	NE.	0	2	1	17	32	3	0	3	2	0	9	18	3	5	4	0	0	0	1	0	0	6	0	0	0
July	7.6	SE.	28	SE.	0	1	3	20	27	3	0	3	4	1	11	17	3	9	7	0	0	0	1	1	0	23	0	5	0
August	8.3	SE.	25	SE.	0	3	6	18	27	2	0	2	4	0	15	13	3	7	6	0	0	0	0	0	0	16	0	4	0
September	7.2	E.	26	SE.	0	5	13	23	12	2	0	1	2	1	10	18	2	11	7	0	0	0	5	0	0	17	0	7	0
October	7.4	SE.	21	E.	0	6	7	15	16	2	2	4	5	2	15	12	4	9	6	0	0	0	4	0	0	9	0	1	0
November	9.6	SE.	33	N.	1	2	3	13	25	2	1	1	11	0	7	17	6	7	4	0	0	0	4	1	0	6	0	1	0
December	10.4	NW.	33	SE.	2	5	4	7	13	3	0	2	29	0	5	9	17	9	7	0	0	1	6	1	0	0	0	2	0
Year	9.0	SE.	33	SE.	4	5	62	185	244	38	4	34	98	6	105	168	92	100	71	0	0	1	48	17	0	72	0	24	0

BUFFALO, N. Y.

[H_b=767 ft.; h_t=243 ft.; h_r=238 ft.; h_a=280 ft.]

January	17.4	W.	52	W.	10	3	3	6	4	2	14	23	7	0	1	13	17	20	15	21	20	0	5	0	16	0	29	0	0
February	14.1	SW.	50	W.	5	2	4	8	1	2	16	12	11	0	3	9	16	12	7	19	11	0	8	0	12	0	28	0	0
March	12.1	W.	40	W.	5	3	8	9	9	1	5	13	13	1	2	6	23	16	9	19	13	0	1	0	7	0	26	0	0
April	14.0	W.	60	W.	6	2	6	8	7	6	9	15	7	0	10	9	11	13	8	7	5	0	4	1	0	0	8	0	0
May	12.4	SW.	48	W.	8	2	9	5	3	4	24	11	4	0	10	11	10	18	12	0	0	0	4	0	0	0	0	5	0
June	10.7	SW.	42	NW.	6	2	9	5	4	0	21	10	9	0	13	10	7	5	6	0	0	0	2	0	0	1	0	6	0
July	10.7	SW.	52	NW.	4	0	4	7	3	4	21	15	8	0	10	10	11	11	8	0	0	0	1	0	0	1	0	6	0
August	11.8	SW.	50	SW.	2	1	11	12	3	1	21	9	4	0	9	11	11	12	8	0	0	1	0	0	0	0	0	5	0
September	12.6	SW.	56	W.	9	5	1	3	7	5	25	4	10	0	11	9	10	9	6	0	0	0	1	0	0	0	0	6	0
October	14.1	W.	44	SW.	12	3	3	4	5	11	14	15	7	0	12	9	10	14	10	0	0	1	3	0	0	0	0	2	4
November	17.8	SW.	56	W.	11	0	1	5	6	7	19	15	7	0	2	7	21	14	10	4	2	0	3	2	0	0	5	1	0
December	17.4	W.	62	W.	15	3	5	7	7	0	11	19	9	1	3	6	22	15	14	9	7	0	6	2	3	0	18	0	0
Year	13.8	SW.	62	W.	93	2	64	79	59	43	200	161	90	2	86	110	169	162	116	79	58	2	38	5	38	2	114	31	4

BURLINGTON, VT.

[H_b=403 ft.; h_t=11 ft.; h_r=3 ft.; h_a=48 ft.]

January	8.8	S.	38	S.	1	8	5	0	4	8	2	0	4	0	4	12	15	16	8	20	15	0	0	0	22	0	31	0	0
February	8.1	S.	33	S.	1	4	4	6	1	7	1	0	5	0	6	7	15	14	11	20	13	0	0	0	19	0	28	0	3
March	6.8	N.	29	SE.	0	8	2	3	6	5	1	1	5	0	5	6	20	11	10	15	9	0	0	0	3	0	26	0	0
April	9.7	N.	42	SW.	2	6	1	0	2	10	4	2	5	0	10	8	12	12	11	5	0	1	2	0	0	0	10	1	0
May	8.3	S.	38	S.	3	5	1	0	3	15	2	1	4	0	9	5	17	16	13	0	0	0	5	2	0	0	1	4	0
June	6.4	N.	24	S.	0	7	1	2	3	7	1	4	6	0	9	10	11	13	9	0	0	0	2	0	0	0	4	4	0
July	6.9	S.	35	S.	1	4	1	0	2	16	4	1	3	0	3	13	15	16	14	0	0	0	4	0	0	2	0	9	0
August	5.6	S.	27	NW.	0	6	2	4	4	12	1	1	1	0	7	14	10	12	9	0	0	0	4	0	0	2	0	4	0
September	8.1	S.	36	SW.	1	4	2	0	3	7	7	0	7	0	6	10	14	14	12	0	0	0	1	0	0	1	0	5	0
October	8.7	S.	37	S.	1	3	1	1	3	11	6	0	5	1	9	7	15	12	10	6	0	0	3	1	0	0	3	2	1
November	12.2	S.	37	S.	5	2	0	1	2	15	0	4	6	0	2	7	21	12	8	8	2	0	5	0	1	0	10	1	2
December	10.0	S.	39	S.	2	7	1	2	1	12	0	2	6	0	5	4	22	13	9	14	8	0	4	2	12	0	26	0	0
Year	8.4	S.	42	SW.	17	64	21	19	34	125	29	16	56	1	75	103	187	161	124	82	47	1	33	6	57	6	135	32	8

CAIRO, ILL.

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

January	7.0	S.	29	NW.	0	6	6	5	8	14	10	4	9	0	11	6	14	7	5	4	3	0	3	1	2	0	16	0	0
February	8.1	N.	28	N.	0	15	9	4	4	14	3	1	6	0	10	5	13	7	7	0	0	0	3	1	0	0	8	0	0
March	9.6	N.	38	SW.	1	11	11	3	11	4	7	8	7	0	5	6	20	8	6	3	2	0	4	2	0	0	9	0	0
April	7.3	N.	27	NW.	0	8	8	7	7	12	5	2	10	1	10	6	14	11	8	0	0	0	2	0	0	0	5	0	0
May	7.8	S.	28	W.	0	13	6	3	4	12	13	4	6	1	3	11	17	11	8	0	0	0	2	1	0	0	2	0	0
June	6.4	S.	34	N.	1	4	9	6	10	10	11	4	6	0	7	13	10	8	5	0	0	0	1	0	0	13	0	12	0
July	5.1	S.	20	NE.	0	9	3	1	6	21	14	4	2	2	12	11	8	11	9	0	0	0	0	0	0	16	0	11	0
August	5.9	S.	20	N.	0	11	4	5	4	17	18	0	2	2	9	14	10	6	5	3	0	0	1	0	0	15	0	4	0
September	6.0	S.	30	SW.	0	5	13	3	4	31	9	4	3	1	10	10	11	8	7	0	0	0	2	1	0	0	4	0	0
October	6.2	S.	25	SW.	0	11	2	4	9	21	5	6	3	0	9	5	13	10	8	0	0	0	4	1	0	0	1	0	0
November	7.5	S.	25	SW.	0	7	4	4	10	26	3	1	3	1	4	9	18	11	8	0	0	0	5	4	0	0	3	2	0
December	7.1	NE.	25	S.	0	6	14	5	10	8	7	2	8	1	4	9	18	11	8	0	0	0	5	4	0	0	3	2	0
Year	6.9	S.	38	SW.	2	106	91	50	87	191	98	38	65	6	102	100	163	106	83	7	5	2	24	11	2	50	36	58	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

CANTON, N. Y.

[ϕ=44° 36′ N.; λ=75° 10′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.48	30.04	28.72	13.8	18.8	14.9	24.3	5.4	14.8	39	−27	11	14		90	80		0.083	0.089		2.18	0.95	26.5	7.1	6.2		6.4
February	29.53	30.02	29.19	15.7	22.5	20.3	29.1	6.7	17.9	39	−19	14	16		93	77		.088	.096		1.15	.33	10.5	7.3	6.0		6.2
March	29.44	29.97	28.69	28.6	35.8	32.3	39.2	24.4	31.8	57	4	25	27		85	69		.134	.146		.86	.24	4.8	8.4	7.4		7.4
April	29.48	30.02	28.67	43.0	51.8	45.7	55.8	34.1	45.0	82	24	32	32		67	49		.185	.183		2.42	1.10	1.7	4.9	6.1		5.5
May	29.41	29.77	29.01	54.8	61.6	56.5	65.4	46.0	55.7	85	27	45	46		72	60		.310	.320		3.53	.80	0	5.5	5.9		5.9
June	29.49	29.81	28.91	62.5	71.0	66.8	75.1	52.5	63.8	90	41	54	53		76	56		.433	.420		2.67	1.21	0	5.7	5.4		5.1
July	29.41	29.67	29.05	70.8	78.1	71.9	82.0	62.0	72.0	98	54	62	62		76	60		.575	.580		4.91	1.32	0	6.1	6.3		6.0
August	29.53	29.84	29.19	65.5	74.1	66.7	77.3	55.5	66.4	90	46	58	56		76	54		.481	.460		1.51	.48	0	4.3	5.0		5.1
September	29.49	29.95	29.13	59.9	68.9	62.2	73.1	52.7	62.9	90	37	54	54		83	62		.441	.448		5.69	1.12	0	4.2	5.9		5.3
October	29.51	30.07	28.78	48.3	57.8	50.4	61.0	41.7	51.4	79	28	42	44		81	63		.283	.308		2.55	.54	T.	5.4	5.8		5.6
November	29.60	30.05	29.06	40.1	46.7	43.2	50.5	34.2	42.4	71	18	35	36		84	69		.219	.230		2.12	.66	.4	7.6	8.2		7.8
December	29.56	30.18	29.02	23.4	28.1	26.0	33.8	15.7	24.8	50	−5	20	22		86	78		.118	.127		2.85	.75	9.9	7.5	7.3		7.3
Year	29.49	30.18	28.67	43.9	51.3	46.4	55.6	35.9	45.7	98	−27	38	38		81	65		.279	.284		32.44	1.32	53.8	6.2	6.3		6.1

CAPE HENRY, VA.

[ϕ=36° 56′ N.; λ=76° 09′ W.]

January	30.03	30.49	29.07	38.4	44.0	40.4	48.2	34.7	41.4	69	22	33	34	33	79	68	76	0.191	0.197	0.196	1.62	1.34	0.4	4.9	4.3	3.3	4.7
February	30.03	30.35	29.58	38.2	44.1	41.6	48.8	33.9	41.4	72	27	32	33	33	78	65	72	.185	.190	.193	2.32	.60	T.	4.6	4.5	2.9	5.0
March	29.87	30.33	29.25	41.9	44.8	42.6	47.8	37.8	42.8	61	29	35	34	30	78	68	78	.215	.203	.214	4.14	1.11	T.	5.5	6.4	5.8	6.6
April	30.01	30.47	29.16	52.6	58.0	52.2	61.1	46.0	53.6	82	37	44	44	45	74	63	78	.301	.300	.304	3.49	1.11	0	4.5	4.2	3.9	4.8
May	29.93	30.27	29.59	63.6	68.4	62.6	71.7	56.1	63.9	88	47	56	55	56	77	67	80	.452	.447	.451	3.75	.87	0	3.6	4.6	4.0	5.5
June	29.96	30.25	29.52	71.4	76.6	71.5	79.3	64.8	72.0	93	56	64	64	63	78	67	76	.603	.604	.592	3.43	1.12	0	4.4	3.8	4.4	4.5
July	29.91	30.14	29.67	78.2	83.7	77.3	86.4	71.8	79.1	98	65	72	72	72	81	68	83	.778	.790	.777	6.47	2.23	0	5.5	4.3	6.0	5.2
August	29.99	30.33	29.56	76.0	82.5	75.7	84.4	70.0	77.2	96	63	70	70	70	81	67	83	.731	.741	.740	6.14	1.83	0	4.9	4.9	5.8	5.3
September	30.02	30.45	29.64	74.4	81.3	74.1	84.0	68.7	76.4	95	53	66	66	66	75	61	77	.643	.654	.656	2.70	1.29	0	3.0	3.0	3.4	3.1
October	30.07	30.44	29.55	62.4	69.9	63.6	72.8	56.8	64.8	88	45	53	53	55	74	57	74	.425	.428	.451	.57	.33	0	3.9	3.6	1.9	3.8
November	30.20	30.53	29.82	54.5	62.6	56.9	64.7	50.6	57.6	80	36	48	50	50	80	64	79	.354	.376	.380	.21	.21	0	3.4	3.8	3.1	4.6
December	30.13	30.61	29.77	48.3	56.6	51.8	59.2	44.4	51.8	77	33	42	43	43	78	62	72	.281	.307	.297	2.05	.97	0	5.7	6.0	5.5	6.2
Year	30.01	30.61	29.07	58.3	64.3	59.2	67.4	53.0	60.2	98	22	51	52	52	78	65	77	.430	.436	.438	36.80	2.23	.4	4.5	4.4	4.2	4.9

CHARLES CITY, IOWA

[ϕ=43° 04′ N.; λ=92° 38′ W.]

January	28.94	29.41	28.63	20.4	30.0	27.9	34.4	16.6	25.5	51	−7	18	22	23	88	70	80	0.101	0.119	0.124	0.65	0.65	6.5	4.1	5.6	4.3	5.0
February	29.00	29.37	28.54	26.3	37.3	34.6	41.4	23.9	32.6	58	5	24	26	26	88	63	71	.120	.145	.147	0.61	.39	4.3	4.4	3.9	4.6	4.1
March	28.97	29.32	28.31	27.6	38.3	35.8	41.6	25.9	33.8	54	15	23	22	24	81	53	61	.123	.120	.127	1.43	.54	7.7	6.4	5.8	6.2	5.8
April	28.97	29.34	28.58	41.3	57.6	55.2	62.0	38.0	50.0	86	25	32	30	33	70	38	46	.189	.179	.203	1.88	.76	0	4.3	3.4	4.4	3.8
May	28.84	29.26	28.34	50.0	61.7	60.7	67.1	43.7	55.4	90	31	40	40	40	71	50	51	.247	.264	.263	2.73	1.39	0	5.4	5.2	4.4	4.7
June	28.87	29.16	28.61	67.9	81.5	80.0	85.9	63.1	74.5	102	42	61	61	62	79	53	57	.553	.559	.582	2.41	1.31	0	5.6	4.4	2.8	4.0
July	28.88	29.17	28.56	70.1	86.6	83.1	90.3	63.2	76.8	99	51	59	56	56	68	37	42	.508	.467	.472	1.15	.52	0	2.5	2.6	3.0	2.8
August	28.97	29.20	28.59	64.4	80.5	77.4	84.4	59.5	72.0	96	44	56	55	54	74	44	48	.459	.451	.436	3.55	2.50	0	4.0	4.9	4.0	4.3
September	28.89	29.26	28.50	61.9	75.9	70.9	79.8	58.3	69.0	98	40	56	56	57	82	53	65	.462	.458	.480	7.40	2.86	0	5.2	3.4	5.1	4.4
October	28.93	29.47	28.40	48.3	61.1	55.6	64.0	45.9	55.0	81	33	44	45	46	87	58	71	.305	.312	.328	1.07	.73	0	4.5	5.5	4.8	5.1
November	28.94	29.47	28.18	37.6	46.5	42.7	50.3	32.4	41.4	75	14	34	36	37	87	69	80	.215	.234	.235	8.11	3.81	T.	6.0	6.5	5.3	6.4
December	28.98	29.48	28.31	28.8	35.0	32.9	37.6	26.4	32.0	48	9	26	28	28	88	76	82	.144	.159	.158	2.22	.74	4.4	6.5	6.5	6.0	6.5
Year	28.93	29.48	28.18	45.4	57.7	54.7	61.6	41.4	51.5	102	−7	39	40	40	80	55	63	.286	.289	.296	33.21	3.81	22.9	4.9	4.8	4.6	4.7

CHARLESTON, S. C.

[ϕ=32° 47′ N.; λ=79° 56′ W.]

January	30.07	30.54	29.35	43.5	54.1	48.8	56.9	41.0	49.0	72	30	36	39	38	77	59	68	0.228	0.249	0.239	2.37	0.87	0	5.9	5.3	4.3	5.0
February	30.02	30.33	29.65	46.2	57.0	52.8	60.4	43.2	51.8	74	32	40	42	42	79	60	68	.260	.287	.281	1.67	.71	0	5.0	5.4	4.9	5.4
March	29.89	30.25	29.33	49.0	57.8	54.5	61.3	46.2	53.8	75	35	40	40	42	72	54	66	.264	.262	.284	2.88	1.42	0	5.4	4.1	4.7	4.6
April	30.02	30.33	29.28	60.7	68.6	63.1	71.3	55.9	63.6	84	43	52	52	54	75	57	73	.406	.398	.428	.92	.75	0	4.2	4.1	5.5	4.5
May	29.93	30.21	29.64	69.2	76.1	71.0	78.6	64.1	71.4	88	53	60	59	61	74	59	74	.538	.527	.559	1.12	.28	0	4.2	5.2	4.9	5.1
June	29.97	30.20	29.58	77.4	82.8	77.2	85.0	71.7	78.4	97	63	69	68	68	75	63	74	.715	.711	.699	2.46	1.60	0	4.5	4.8	4.9	4.8
July	29.93	30.11	29.68	81.4	87.0	82.0	89.9	75.9	82.9	101	70	74	79	75	80	77	79	.849	.982	.861	6.88	1.69	0	4.9	6.1	6.8	5.9
August	30.01	30.23	29.69	78.7	84.3	78.9	86.7	73.4	80.0	91	63	72	76	73	81	76	82	.799	.897	.816	4.93	1.18	0	4.1	5.8	5.7	5.5
September	30.02	30.37	29.73	76.1	83.3	78.4	85.3	72.1	78.7	98	56	70	71	70	83	67	77	.762	.786	.760	2.08	1.07	0	2.5	4.3	3.9	4.0
October	30.06	30.38	29.63	65.5	76.5	70.7	78.0	62.3	70.2	85	48	58	58	62	78	55	74	.511	.516	.571	.71	.32	0	3.9	3.5	2.8	3.4
November	30.17	30.37	29.92	56.7	69.2	62.5	71.3	54.7	63.0	79	42	50	52	54	78	57	77	.380	.420	.444	.53	.28	0	3.3	2.4	1.5	3.3
December	30.12	30.45	29.67	56.9	65.3	61.3	68.4	54.2	61.3	81	40	52	55	56	86	72	82	.419	.465	.463	2.25	1.15	0	6.5	5.8	4.9	6.2
Year	30.02	30.54	29.28	63.4	71.8	66.8	74.4	59.6	67.0	101	30	56	58	58	78	63	74	.511	.540	.534	28.89	1.69	0	4.5	4.7	4.6	4.8

Annual meteorological summaries for the year ending December 31, 1931—Continued

CANTON, N. Y.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.1	SW.	30	E.	6	1	4	3	0	2	11	3	3	0	9	6	16	13	10	22	13	0	3	0	20	0	31	0	0
February	8.6	SW.	25	SW.	0	3	2	6	0	2	11	3	2	0	2	9	12	17	9	20	17	0	3	0	17	0	28	0	0
March	7.2	E.	37	E.	1	2	4	7	1	4	8	9	1	0	2	12	17	11	7	14	7	0	0	0	6	0	26	0	0
April	9.4	W.	40	W.	3	1	2	5	1	3	11	3	4	0	10	10	10	9	9	8	3	0	1	0	0	0	16	0	1
May	8.3	SW.	36	SW.	1	6	3	5	2	2	13	4	2	0	3	10	18	13	6	0	0	1	6	0	0	0	2	5	2
June	6.2	SW.	24	SW.	0	0	3	6	1	1	11	5	3	0	10	11	9	12	9	0	0	0	4	0	1	0	8	1	1
July	6.3	SW.	26	SW.	0	2	2	2	2	2	15	5	1	0	4	18	9	13	12	0	0	0	8	0	0	2	0	7	0
August	5.7	SW.	35	W.	1	1	2	9	5	0	11	3	0	0	8	15	8	11	9	0	0	1	4	0	0	1	0	5	0
September	6.7	SW.	26	W.	0	2	2	5	0	1	10	7	3	0	10	13	7	15	13	0	0	0	7	1	0	0	0	10	1
October	7.0	SW.	30	SW.	0	2	1	4	0	3	13	6	2	0	11	6	14	11	10	1	0	0	8	1	0	0	3	2	2
November	9.4	SW.	33	W.	3	1	0	6	1	2	10	7	3	0	1	10	19	14	9	4	3	1	6	2	2	0	12	2	2
December	8.1	SW.	35	SW.	1	2	3	2	0	5	10	5	4	0	5	6	20	15	13	15	9	0	4	0	11	0	27	0	0
Year	7.6	SW.	40	W.	16	17	28	56	13	27	129	64	28	0	87	124	154	159	123	84	52	3	54	4	56	4	146	39	9

CAPE HENRY, VA.

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

January	10.9	SW.	38	NW.	3	14	3	1	6	8	14	8	8	0	14	6	11	6	4	2	1	0	2	3	1	0	12	0	0
February	10.9	N.	40	N.	4	13	9	1	6	5	11	3	8	0	11	7	10	8	7	1	0	0	4	1	0	0	9	1	0
March	14.9	NW.	44	N.	6	13	9	6	7	1	6	7	13	0	5	13	13	13	13	2	2	0	2	2	0	0	2	4	0
April	12.5	SE.	42	NE.	5	3	6	7	16	9	10	3	6	0	13	6	11	9	8	0	0	0	1	1	0	0	0	4	0
May	9.4	SW.	31	NW.	0	2	5	9	14	10	14	3	5	0	8	13	10	13	12	0	0	0	7	6	0	0	0	9	0
June	9.3	SW.	31	N.	0	4	5	2	9	12	14	4	10	0	12	12	6	9	7	0	0	0	2	2	0	0	3	5	0
July	8.1	SW.	64	N.A.	3	3	4	4	12	18	12	6	3	0	11	12	8	12	10	0	0	0	2	1	0	0	0	9	0
August	8.8	SW.	38	NE.	2	2	6	1	5	15	19	7	7	0	10	13	8	15	9	0	0	0	1	0	0	0	0	8	0
September	10.1	SW.	41	N.W.	3	11	7	1	3	11	19	6	2	0	18	10	2	4	4	0	0	0	0	0	0	0	0	0	0
October	10.0	SW.	45	N.	3	8	9	3	4	7	19	5	6	1	14	14	3	4	3	0	0	0	1	1	0	0	0	0	0
November	9.0	SW.	39	N.	4	4	7	5	11	11	14	3	5	0	12	10	8	2	1	0	0	0	10	7	0	0	0	0	0
December	12.5	SW.	48	N.	9	10	6	3	4	7	21	4	7	0	5	15	11	9	8	0	0	0	1	1	0	0	0	1	0
Year	10.5	SW.	64	NW.	42	87	76	43	97	114	173	59	80	1	135	131	101	104	86	5	3	0	33	25	1	25	23	45	0

CHARLES CITY, IOWA

[H_b=1,015 ft.; h_t=10 ft.; h_r=4 ft.; h_a=51 ft.]

January	5.7	NW.	17	SW.	0	5	2	1	15	7	6	8	18	0	12	8	11	1	1	7	1	0	1	0	10	0	30	0	0
February	5.2	SE.	18	SW.	0	5	6	5	11	6	8	5	8	2	14	7	7	4	4	5	2	0	4	1	4	0	27	0	0
March	6.7	SE.	24	NW.	0	14	13	5	15	1	0	1	12	1	12	4	15	4	4	4	2	0	1	0	3	0	26	0	0
April	6.2	NW.	28	SW.	0	2	3	2	15	7	4	5	21	1	16	9	5	8	5	0	0	0	0	0	0	0	10	4	0
May	5.9	NW.	22	S.	0	13	6	1	14	4	4	4	14	2	13	7	11	10	6	0	0	0	1	0	0	1	2	4	0
June	6.0	SE.	21	NW.	0	3	4	2	16	13	13	4	5	0	14	10	6	9	8	0	0	0	0	0	0	0	11	4	0
July	5.1	SE.	20	W.	0	8	7	2	11	9	10	3	10	2	19	9	3	7	6	0	0	0	0	0	0	0	17	5	0
August	4.9	SE.	20	NW.	0	7	4	3	19	5	10	7	6	1	14	10	7	6	4	0	0	0	0	0	0	0	7	6	0
September	6.1	SE.	19	S.	0	6	5	2	17	9	8	7	5	1	12	12	6	11	10	0	0	0	0	0	0	0	8	8	0
October	6.2	SE.	23	W.	0	2	1	1	22	6	7	7	13	3	15	5	11	8	6	0	0	0	3	2	0	0	9	5	0
November	6.6	SE.	27	S.W.	0	1	2	3	21	6	7	7	12	1	9	6	15	10	9	3	0	0	3	0	3	0	14	1	0
December	6.4	SE.	24	NE.	0	5	7	3	19	7	4	10	7	0	10	3	18	12	7	6	5	0	6	5	6	0	25	0	0
Year	5.9	SE.	28	S.W.	0	71	60	30	195	80	81	68	131	14	160	90	115	90	70	25	10	1	18	8	26	44	134	37	0

CHARLESTON, S. C.

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

January	8.0	W.	30	W.	0	14	4	3	1	5	14	12	9	0	14	7	10	9	6	0	0	0	9	2	0	0	2	0	0
February	8.6	SW.	31	N.	0	12	7	4	0	5	20	4	4	0	10	6	12	6	6	0	0	0	13	3	0	0	6	2	0
March	10.8	W.	37	SE.	0	4	6	3	4	10	15	0	0	0	15	6	10	7	6	0	0	0	1	5	0	0	0	3	0
April	9.7	SW.	33	SE.	0	3	4	3	4	8	12	8	7	0	13	7	10	7	4	0	0	0	2	1	0	0	0	2	0
May	9.2	S.	32	NW.	1	5	9	10	1	8	12	8	7	0	12	9	10	7	6	0	0	0	2	2	0	0	0	2	0
June	9.0	E.	32	E.	0	8	4	9	5	5	8	8	23	5	4	0	11	14	5	7	6	0	0	1	0	0	3	8	0
July	9.0	SW.	35	SW.	1	2	5	5	8	8	23	5	4	0	7	11	13	15	14	0	0	0	0	0	0	0	0	0	0
August	7.8	SW.	34	N.	1	3	6	1	6	14	15	13	4	0	7	11	13	15	14	0	0	0	0	0	0	0	17	14	0
September	7.7	SW.	28	SE.	0	5	2	1	6	7	19	11	6	0	9	14	8	13	10	0	0	0	2	0	0	0	7	13	0
October	8.8	E.	26	E.	0	11	14	12	7	3	3	3	7	0	15	10	5	5	3	0	0	0	3	1	0	0	5	6	0
November	8.6	NE.	27	NE.	0	12	19	7	3	5	6	3	7	0	18	8	5	4	3	0	0	0	9	0	0	0	0	0	0
December	7.4	N.	26	NE.	0	15	10	10	4	4	9	1	6	1	17	8	5	4	3	0	0	0	8	2	0	0	0	1	0
December	9.7	NE.	30	NE.	0	16	15	3	2	3	11	11	1	0	7	11	13	8	5	0	0	0	10	3	0	0	0	0	0
Year	8.8	SW.	37	SE.	6	108	101	68	44	93	157	87	71	1	148	111	106	92	72	0	0	2	64	14	0	32	2	57	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

CHARLOTTE, N. C.

[ϕ=35° 13′ N.; λ=80° 51′ W.]

Month	Pressure			Temperature								Moisture														Cloudiness			
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation								
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.24	29.73	28.43	35.4	47.3	45.4	51.5	33.2	42.4	67	20	30	30	30	78	54	58	0.168	0.175	0.173	2.37	0.85	2.0	4.5	5.3	4.3	5.1
February	29.22	29.50	28.79	38.7	50.8	50.1	56.4	36.1	46.2	67	24	33	34	32	72	48	51	.178	.186	.191	1.93	.50	T.	5.2	5.5	3.6	5.1
March	29.08	29.50	28.56	39.6	50.4	49.4	55.7	37.3	46.5	68	28	31	31	33	70	50	56	.175	.181	.197	4.41	1.21	4.7	5.0	5.4	4.7	5.4
April	29.21	29.58	28.47	52.1	63.3	62.1	68.4	48.6	58.5	82	37	43	43	43	73	51	54	.295	.292	.294	2.60	.37	0	5.6	5.7	5.7	5.8
May	29.14	29.47	28.81	61.7	73.4	69.3	77.6	56.9	67.2	90	42	52	52	54	72	51	61	.404	.413	.425	6.53	1.42	0	5.2	5.6	5.0	5.4
June	29.19	29.41	28.76	72.4	84.0	79.9	89.3	66.2	77.8	98	53	61	60	61	68	46	54	.548	.538	.547	.60*	1.64	0	3.9	4.4	5.2	4.5
July	29.15	29.33	28.92	77.0	88.4	80.7	93.3	71.7	82.5	101	67	70	69	70	79	54	71	.736	.716	.724	8.62	2.50	0	4.0	4.6	7.1	5.3
August	29.33	29.53	28.85	71.3	82.8	77.3	86.7	67.6	77.2	96	58	67	66	66	86	60	71	.664	.657	.656	8.13	2.57	0	5.8	5.5	6.6	5.9
September	29.25	29.66	28.90	70.2	83.7	78.6	87.5	66.6	77.0	95	46	63	62	62	79	53	58	.597	.566	.580	1.15	.82	0	3.5	3.6	2.5	3.1
October	29.30	29.65	28.82	56.5	72.6	66.9	76.6	53.5	65.0	90	39	49	48	48	76	43	52	.393	.359	.349	1.26	.54	0	3.2	3.1	2.4	3.2
November	29.39	29.66	29.07	50.4	65.4	61.1	68.9	48.7	58.8	81	34	45	51	49	82	62	66	.322	.401	.367	.42	.22	0	3.2	3.4	3.4	4.4
December	29.33	29.75	28.90	45.1	54.6	51.8	59.1	42.0	50.6	79	28	42	46	45	89	73	78	.283	.332	.314	11.24	4.49	0	5.6	6.0	5.4	6.7
Year	29.23	29.75	28.43	55.9	68.1	64.4	72.6	52.4	62.5	101	20	49	49	49	77	53	61	.384	.401	.401	49.26	4.49	6.7	4.6	4.8	4.7	5.0

* May 31–June 1.

CHATTANOOGA, TENN.

[ϕ=35° 04′ N.; λ=85° 18′ W.]

January	29.32	29.82	28.43	35.7	45.3	45.6	50.3	33.4	41.8	66	17	29	31	31	77	60	59	0.166	0.179	0.180	2.72	1.38	1.6	5.5	5.3	4.3	5.2
February	29.25	29.56	28.86	40.2	49.3	51.0	55.5	38.5	47.0	66	25	32	32	33	74	52	53	.191	.188	.201	4.78	1.92	0	4.9	5.0	4.4	5.1
March	29.15	29.47	28.58	41.1	49.1	49.3	54.7	37.8	46.2	67	29	32	30	31	69	50	52	.183	.176	.179	4.61	1.92	.2	5.5	5.9	5.1	5.8
April	29.25	29.58	28.54	53.2	64.7	63.8	69.5	49.3	59.4	86	36	42	40	42	66	44	47	.277	.266	.278	2.53	.92	0	5.8	5.8	5.8	5.7
May	29.15	29.45	28.89	61.0	72.0	70.7	76.7	56.7	66.7	90	41	50	50	50	69	48	50	.371	.369	.368	1.77	.52	0	4.5	5.5	4.3	5.0
June	29.20	29.43	28.86	71.9	85.4	83.2	90.8	68.5	78.6	101	55	59	56	58	64	38	44	.511	.473	.496	.29	.25	0	2.9	4.5	5.2	4.4
July	29.16	29.35	28.94	75.4	85.6	83.2	90.5	71.3	80.9	96	67	69	67	68	80	56	62	.703	.667	.695	4.08	1.03	0	5.3	6.1	6.0	6.0
August	29.24	29.49	28.96	70.6	82.4	79.0	86.5	67.3	76.9	95	56	64	62	63	80	52	60	.610	.578	.599	2.67	.85	0	4.9	5.8	5.1	5.5
September	29.25	29.65	29.01	70.7	84.8	81.8	89.0	67.3	78.2	97	50	62	60	61	74	44	50	.569	.544	.553	.51	.26	0	3.2	4.3	2.8	3.5
October	29.30	29.71	28.88	56.6	72.1	69.3	76.2	54.7	65.4	87	42	48	46	46	74	42	46	.355	.341	.341	1.73	1.60	0	3.7	3.6	2.1	3.6
November	29.38	29.61	29.08	50.9	62.7	61.5	67.6	48.0	57.8	78	34	44	45	45	80	55	58	.314	.327	.329	2.60	1.55	0	4.5	4.8	3.7	4.5
December	29.33	29.70	28.78	48.0	52.5	52.3	57.1	44.3	50.7	72	35	43	42	43	82	71	71	.300	.297	.297	11.36	3.23	0	7.2	7.0	6.3	6.9
Year	29.25	29.82	28.43	56.3	67.2	65.9	72.0	52.9	62.5	101	17	43	47	48	74	51	54	.379	.367	.376	39.65	3.23	1.8	4.8	5.3	4.6	5.1

CHEYENNE, WYO.

[ϕ=41° 08′ N.; λ=104° 48′ W.]

January	23.99	24.34	23.57	25.9	38.5	32.8	41.1	20.6	30.8	59	6	12	14	14	56	36	46	0.072	0.079	0.081	0.16	0.09	1.8	3.6	3.4	4.6	3.9
February	23.95	24.34	23.66	26.7	39.6	35.9	42.5	21.8	32.2	57	10	19	20	21	72	47	55	.102	.106	.110	.74	.50	7.1	4.5	6.0	7.1	6.2
March	23.96	24.33	23.45	25.2	36.1	34.6	40.0	19.6	29.8	56	−8	16	18	19	71	49	55	.094	.100	.106	1.16	.52	15.7	6.8	5.9	6.2	6.2
April	24.01	24.36	23.55	33.8	47.4	47.5	52.4	29.3	40.8	70	14	23	22	23	65	42	44	.126	.118	.125	1.72	.75	5.6	6.1	5.8	7.3	6.5
May	24.01	24.32	23.64	41.4	56.2	56.1	60.9	38.4	48.6	82	22	29	28	30	65	41	44	.164	.160	.171	1.57	1.11	.1	5.5	6.5	6.4	6.5
June	24.04	24.25	23.80	56.2	74.8	72.0	78.8	52.5	65.6	91	43	44	39	44	65	31	40	.294	.248	.292	1.60	1.03	0	3.8	4.5	7.0	5.1
July	24.09	24.28	23.86	59.9	78.9	77.5	83.9	56.1	70.0	95	40	44	41	42	59	29	32	.303	.273	.283	.75	.40	0	3.9	3.0	6.3	4.2
August	24.16	24.35	23.94	55.8	75.2	73.1	79.8	53.5	66.6	90	42	44	42	43	68	33	39	.300	.275	.287	2.70	1.10	0	3.9	4.1	6.2	4.8
September	24.04	24.40	23.69	51.6	70.5	68.6	75.1	48.4	61.8	87	35	37	35	37	69	30	35	.224	.206	.226	.75	.29	0	4.2	3.2	5.0	3.8
October	24.05	24.40	23.63	40.0	56.2	51.6	59.7	35.2	47.4	75	22	29	28	29	66	38	44	.164	.153	.161	1.07	.58	.5	3.9	4.3	4.8	4.4
November	23.95	24.38	23.55	27.6	41.0	34.0	44.2	21.3	32.8	71	−6	15	16	16	61	30	52	.089	.093	.092	.40	.23	5.4	3.1	4.2	4.2	3.9
December	23.92	24.20	23.40	26.2	41.9	32.7	44.5	20.7	32.6	67	3	12	16	15	54	37	47	.076	.093	.085	.17	.17	2.3	2.9	4.8	3.7	4.2
Year	24.02	24.40	23.40	39.2	54.7	51.4	58.6	34.6	46.6	95	−8	27	27	28	64	38	44	.167	.159	.168	12.79	1.11	38.5	4.4	4.6	5.7	5.0

CHICAGO UNIVERSITY, ILL.

[ϕ=41° 47′ N.; λ= 87° 35′ W.]

January	29.30	29.81	28.78	28.5	34.5	33.4	37.5	20.5	32.0	52	6	23	25	25	79	68	71	0.130	0.139	0.141	0.57	0.40	2.1	5.8	6.0	6.8	6.1
February	29.36	29.74	28.99	32.1	37.7	36.0	40.9	30.2	35.6	54	12	26	28	29	78	69	75	.141	.156	.162	.76	.50	.4	5.8	5.9	4.8	6.1
March	29.27	29.64	28.64	32.5	36.3	35.6	38.7	31.0	34.8	53	21	26	27	28	76	68	72	.144	.145	.149	3.33	1.14	19.8	7.8	7.7	7.2	7.6
April	29.33	29.66	28.86	44.2	54.5	49.6	57.7	40.8	49.2	80	32	36	36	36	69	52	61	.206	.223	.221	1.75	.88	T.	5.0	5.3	5.3	5.3
May	29.20	29.62	28.72	52.1	58.4	56.2	63.1	48.1	55.6	87	40	44	44	44	75	63	66	.300	.303	.302	5.08	2.17	0	4.5	4.9	5.9	5.3
June	29.26	29.46	28.85	66.0	75.3	73.4	79.4	64.1	71.8	98	48	58	61	61	74	64	66	.519	.567	.561	4.78	2.10	0	5.3	5.5	6.0	5.5
July	29.22	29.46	28.84	72.8	80.5	78.0	83.9	69.0	76.4	99	60	62	64	64	70	55	63	.571	.600	.601	2.68	1.50	0	3.5	4.0	2.7	3.5
August	29.27	29.61	28.97	68.3	79.0	75.6	80.6	65.7	73.2	93	55	60	59	61	74	53	62	.526	.616	.550	5.67	3.84	0	3.7	3.9	4.7	3.8
September	29.29	29.65	28.82	65.0	76.2	72.6	79.1	63.3	71.2	94	50	60	61	61	84	61	68	.528	.541	.550	5.14	1.67	0	3.7	5.1	3.9	4.9
October	29.32	29.87	28.78	53.7	63.2	59.5	65.5	52.0	58.8	83	40	48	48	48	80	60	67	.347	.355	.348	2.62	1.80	0	6.2	5.5	4.6	5.4
November	29.35	29.87	28.77	46.8	52.8	51.4	56.4	43.5	50.0	73	24	41	41	41	80	65	69	.278	.281	.283	4.63	2.21	.2	6.7	6.7	6.4	6.6
December	29.37	29.87	28.70	35.9	40.2	39.4	43.0	33.8	38.4	58	20	31	31	32	82	71	76	.183	.184	.189	2.28	.85	5.6	6.4	6.3	6.3	6.5
Year	29.29	29.87	28.64	49.8	57.4	55.1	60.5	47.3	53.9	99	6	43	44	44	77	63	68	.323	.334	.338	39.29	3.84	28.1	5.4	5.6	5.4	5.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

CHARLOTTE, N. C.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction of time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	4.5	SW.	23	SW.	0	5	7	2	4	13	17	6	6	2	12	6	13	7	6	2	2	0	9	2	0	0	13	1	0
February	4.8	NE.	16	NW.	0	10	15	3	4	9	9	2	4	0	12	4	12	8	6	1	0	0	7	1	0	0	5	0	0
March	6.5	N.	29	SW.	0	15	10	2	7	4	9	6	8	1	10	10	11	8	8	1	1	0	4	1	0	0	9	1	0
April	5.2	NE.	20	W.	0	8	10	5	6	11	10	3	6	1	11	3	16	14	13	0	0	0	7	1	0	0	4	0	0
May	3.7	SW.	19	NW.	0	8	9	3	8	14	10	2	5	3	10	10	11	13	12	0	0	2	2	1	0	1	0	10	0
June	3.4	S.	15	W.	0	12	6	5	8	8	13	0	4	4	11	13	6	6	5	0	0	0	0	0	0	17	0	8	0
July	2.7	SW.	23	SE.	0	4	10	1	12	9	14	3	4	5	7	19	5	14	10	0	0	0	0	0	0	26	0	20	0
August	3.0	S.	18	NW.	0	7	10	1	6	10	9	7	0	12	7	12	12	14	10	0	0	0	7	1	0	13	0	12	0
September	3.4	S.	14	W.	0	5	9	6	6	16	6	4	5	3	18	11	1	3	3	0	0	0	11	0	0	14	0	4	0
October	3.1	SW.	16	W.	0	7	12	4	4	8	7	8	3	9	18	8	5	4	4	0	0	0	5	0	0	0	0	2	0
November	3.5	S.	14	SW.	0	10	4	11	7	5	8	2	2	11	13	10	7	5	3	0	0	0	12	5	0	0	0	0	0
December	4.5	SW.	20	SW.	0	10	10	8	1	6	12	5	5	5	4	13	14	12	12	0	0	0	13	8	0	0	2	0	0
Year	4.0	SW.	29	SW.	0	101	112	51	73	113	124	48	52	56	133	119	113	108	92	4	3	2	77	20	0	71	29	62	0

CHATTANOOGA, TENN.

[H_b=762 ft.; h_i=190 ft.; h_r=167 ft.; h_a=215 ft.]

January	6.5	SW.	29	NE.	0	11	9	1	3	2	14	12	10	0	12	8	11	10	9	4	3	0	11	2	0	0	13	0	0
February	6.0	NE.	24	W.	0	10	7	0	8	1	8	5	16	1	12	4	12	9	7	0	0	0	7	1	0	0	5	0	0
March	9.0	NW.	38	SE.	1	4	10	0	7	6	8	8	19	0	9	11	11	12	8	3	1	0	2	1	0	0	4	1	0
April	8.0	SW.	27	NW.	0	6	9	0	8	2	16	9	10	0	10	9	11	9	9	0	0	0	1	0	0	0	0	6	0
May	7.8	SW.	27	SW.	0	8	3	1	9	2	18	8	12	1	11	14	6	8	8	0	0	0	3	1	0	0	0	5	0
June	5.6	SW.	29	NE.	0	6	11	3	4	0	17	5	12	1	13	13	4	4	2	0	0	0	0	0	0	19	0	7	0
July	5.8	SW.	36	NW.	1	6	10	0	9	1	26	9	1	0	5	17	9	10	10	0	0	0	3	0	0	19	0	14	0
August	5.6	SW.	25	NW.	0	3	5	1	9	4	18	8	14	0	7	20	4	11	8	0	0	1	3	0	0	11	0	7	0
September	5.5	SE.	24	SW.	0	4	15	1	9	4	8	6	6	7	16	12	2	5	2	0	0	0	0	0	0	17	0	4	0
October	4.9	SE.	20	SW.	0	4	11	1	8	4	8	5	8	13	16	12	3	3	2	0	0	0	6	0	0	0	0	1	0
November	5.1	SE.	29	SE.	0	4	9	2	10	4	11	6	8	6	13	8	9	9	8	0	0	0	12	5	0	0	0	0	0
December	6.6	NE.	28	NW.	0	8	14	2	14	0	14	3	6	1	6	9	16	16	15	0	0	0	14	6	0	0	0	2	0
Year	6.4	SW.	38	SE.	2	74	113	12	98	30	166	85	122	30	130	137	98	106	88	7	4	1	62	16	0	66	22	46	0

CHEYENNE, WYO.

[H_b=6,088 ft.; h_i=84 ft.; h_r=75 ft.; h_a=101 ft.]

January	12.5	W.	37	SW.	4	3	1	1	0	5	9	26	17	0	14	13	4	3	2	7	3	0	1	0	10	0	29	0	0
February	9.9	W.	33	W.	1	9	4	1	1	8	4	17	12	0	6	11	11	6	4	8	6	0	3	0	5	0	28	0	0
March	14.3	W.	46	W.	9	9	3	1	2	3	5	19	20	0	10	5	16	13	7	16	13	0	1	1	8	0	28	0	0
April	10.9	W.	50	NW.	3	7	1	5	5	9	4	22	7	0	7	8	15	10	6	8	7	0	4	2	3	0	17	0	0
May	11.1	W.	40	W.	4	9	4	3	2	6	4	19	15	0	6	10	15	9	5	6	1	2	4	2	0	0	11	4	0
June	8.7	W.	39	S.	3	6	3	2	4	9	5	19	11	1	10	14	6	10	9	0	0	2	3	0	0	1	0	12	0
July	9.3	W.	34	W.	1	8	5	5	3	8	7	17	9	0	12	13	6	8	8	0	0	1	0	0	0	9	0	10	0
August	7.3	W.	44	W.	2	4	4	5	3	8	5	17	14	0	10	14	7	11	6	0	0	3	0	0	0	1	0	10	0
September	9.8	W.	39	W.	3	3	2	3	5	10	4	28	5	0	17	7	6	5	3	0	0	0	0	0	0	0	0	3	0
October	11.0	W.	53	W.	5	7	2	2	4	8	6	22	11	0	14	10	7	5	4	4	2	1	3	1	0	0	12	1	0
November	11.0	W.	44	W.	4	10	1	0	1	4	12	23	9	0	16	5	9	5	4	10	5	0	1	1	7	0	23	0	0
December	10.6	W.	40	NW.	4	4	1	0	1	0	13	29	13	1	15	8	8	2	2	3	2	0	1	0	4	0	28	0	0
Year	10.5	W.	53	W.	43	79	31	28	33	78	78	258	143	2	137	118	110	87	60	62	39	9	21	7	37	11	176	40	0

CHICAGO UNIVERSITY, ILL.

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

January	9.6	SW.	29	NW.	0	5	3	1	3	2	26	10	12	0	10	6	15	5	2	9	4	0	3	1	8	0	21	0	0
February	9.3	NE.	25	SW.	0	5	14	1	3	3	15	4	11	0	7	10	11	7	3	7	2	0	6	2	2	0	10	0	0
March	10.5	NE.	31	NE.	0	4	22	6	6	1	5	3	15	0	4	7	20	12	8	17	9	0	1	0	1	0	15	0	0
April	8.8	NE.	28	NW.	0	5	16	4	7	5	9	3	11	0	9	12	9	7	7	1	0	0	0	0	0	0	1	1	0
May	8.9	NE.	27	SW.	0	1	17	7	7	8	9	7	6	0	12	7	12	9	6	0	0	0	5	2	0	0	3	0	0
June	7.9	S.	30	NW.	0	2	11	4	5	14	15	2	7	0	12	5	13	8	6	0	0	0	2	0	0	0	7	0	0
July	7.5	NE.	22	W.	0	4	14	6	7	5	13	8	5	0	17	11	3	10	6	0	0	0	1	0	0	0	8	0	0
August	8.1	NE.	27	NW.	0	6	14	2	6	4	14	10	5	1	14	12	5	9	5	0	0	0	1	0	0	0	4	0	0
September	8.5	SW.	20	SW.	0	2	7	3	8	11	20	5	4	0	12	10	8	13	9	0	0	0	5	1	0	0	7	0	0
October	9.4	SW.	29	NE.	0	3	3	1	9	13	17	8	8	0	12	8	11	11	9	0	0	0	4	2	1	0	3	0	0
November	10.2	SW.	32	SW.	0	0	3	3	3	5	18	7	13	11	6	9	15	11	9	3	1	0	4	2	1	0	3	2	0
December	9.8	SW.	30	SW.	0	4	4	5	10	7	17	8	7	0	8	7	16	12	9	5	3	0	7	3	0	0	11	1	0
Year	9.0	SW.	32	SW.	0	41	128	43	76	91	167	81	102	1	123	104	138	114	82	42	19	1	42	12	12	26	61	43	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

CINCINNATI, OHIO

[ϕ=39° 09′ N.; λ=84° 31′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean						Extremes		Dew point			Relative humidity		Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.41	29.95	28.56	30.3	37.1	37.1	42.1	28.5	35.3	64	11	26	28	28	84	69	0.145	0.154	0.159	0.97	0.60	0.6	6.2	6.8	5.8	6.6
February	29.41	29.72	29.02	33.7	42.1	41.1	46.2	31.4	38.8	63	19	30	31	31	85	64	.168	.175	.180	1.88	.77	1.3	7.7	5.2	6.2	6.4
March	29.28	29.64	28.61	33.6	41.0	39.2	44.7	31.4	38.0	58	24	30	30	31	86	67	.169	.168	.173	1.97	.76	8.1	8.0	8.3	8.5	8.5
April	29.38	29.77	28.71	47.6	59.2	56.9	63.4	43.5	53.4	82	32	40	39	40	74	51	.252	.258	.259	3.93	1.27	1.8	4.4	5.5	5.5	5.0
May	29.27	29.59	28.92	56.3	65.9	63.8	70.6	50.5	60.6	89	37	48	49	48	76	58	.354	.365	.341	4.47	1.07	0	5.5	7.1	5.4	6.1
June	29.35	29.53	28.84	69.4	80.9	76.2	84.7	63.1	73.9	99	46	62	62	61	77	54	.568	.581	.574	3.30	1.12	0	5.2	5.1	6.5	5.6
July	29.29	29.50	28.97	74.2	86.4	80.7	90.3	68.0	79.2	99	56	66	65	64	75	51	.638	.644	.606	5.22	2.71	0	3.1	3.2	4.1	3.5
August	29.38	29.68	29.04	68.8	79.5	75.3	83.5	65.2	74.4	96	56	64	64	64	86	60	.696	.603	.600	4.24	1.05	0	5.4	5.6	5.8	6.1
September	29.38	29.75	28.97	65.4	79.7	74.3	83.1	62.3	72.7	94	42	61	62	62	85	55	.661	.568	.570	4.71	2.22	0	3.6	3.3	3.9	3.8
October	29.43	29.84	28.94	51.9	67.3	61.1	70.2	48.7	59.4	84	34	47	48	48	85	52	.341	.357	.355	1.89	.88	0	4.6	5.2	4.0	5.0
November	29.50	29.93	29.07	48.3	57.5	54.6	61.2	46.2	53.7	76	26	42	43	44	80	61	.287	.298	.311	3.01	.83	2.0	6.6	6.2	5.4	6.3
December	29.46	29.97	28.94	39.3	46.5	44.2	50.0	35.0	42.5	70	22	36	37	37	88	69	.227	.234	.235	3.36	1.43	0	7.5	7.7	6.8	7.8
Year	29.38	29.97	28.56	51.6	61.9	58.7	65.8	47.8	55.8	99	11	46	46	46	82	59	66	.359	.367	.364	38.94	2.71	13.8	5.6	5.8	5.7	5.9

CLEVELAND, OHIO

[ϕ=41° 30′ N.; λ=81° 42′ W.]

January	29.18	29.74	28.41	29.6	34.2	32.6	37.8	25.4	31.6	56	13	22	23	24	74	64	71	0.124	0.127	0.133	1.47	0.66	3.8	7.4	6.5	7.3	6.9
February	29.23	29.50	28.92	30.3	34.2	33.7	38.9	27.0	33.0	58	13	25	29	26	79	72	72	.134	.138	.138	1.29	.58	.5	7.1	6.9	6.6	7.0
March	29.11	29.51	28.45	32.0	34.4	34.5	37.7	30.1	33.9	60	19	27	27	27	80	75	74	.145	.150	.149	1.51	.47	4.1	8.1	8.1	8.1	8.4
April	29.20	29.65	28.47	43.8	48.7	50.0	55.3	39.5	47.4	81	32	34	33	33	69	59	56	.200	.196	.198	3.46	1.13	1.5	4.5	4.8	4.4	4.7
May	29.11	29.46	28.78	54.4	60.2	59.6	65.4	49.6	57.5	86	36	43	45	45	68	60	62	.292	.308	.317	2.36	.51	0	5.6	6.0	5.4	6.0
June	29.19	29.39	28.64	65.7	69.2	71.3	75.9	61.2	68.6	93	50	56	56	57	71	66	64	.403	.471	.493	3.51	1.46	0	5.7	4.7	5.3	5.4
July	29.12	29.36	28.76	73.4	77.6	79.3	83.2	69.4	76.3	96	61	62	62	60	68	60	54	.569	.573	.538	2.17	1.17	0	5.0	4.8	4.7	4.7
August	29.21	29.56	28.91	69.2	74.6	74.7	78.6	66.0	72.3	94	56	59	60	58	72	62	58	.519	.537	.497	2.75	.85	0	5.7	6.0	5.5	5.9
September	29.21	29.69	28.79	66.3	71.8	71.4	76.3	63.2	69.8	90	51	57	58	59	74	64	66	.488	.506	.520	3.93	1.39	0	4.2	5.5	4.4	5.2
October	29.24	29.77	28.73	54.2	62.9	60.0	65.4	51.6	58.5	81	41	44	45	45	70	55	60	.308	.319	.321	1.76	.55	0	6.0	5.5	5.0	5.8
November	29.30	29.75	28.87	47.8	53.3	52.0	57.6	44.7	51.2	75	28	39	41	42	72	64	68	.255	.272	.282	2.48	.82	3.1	7.1	8.5	7.3	7.9
December	29.27	29.75	28.76	37.7	41.4	40.5	46.2	34.3	40.2	64	24	31	31	31	76	68	69	.183	.187	.183	2.05	.90	T.	8.3	8.6	7.5	8.5
Year	29.20	29.77	28.41	50.4	55.2	55.0	59.9	46.8	53.4	96	13	42	42	42	73	64	64	.306	.315	.314	29.34	1.46	13.0	6.2	6.3	6.0	6.4

COLUMBIA, MO.

[ϕ=38° 57′ N.; λ=92° 20′ W.]

January	29.26	29.74	28.91	30.0	39.5	.....	44.5	27.7	36.1	66	5	25	27	.....	81	62	.....	0.138	0.154	.....	0.28	0.17	0.4	4.8	5.6	.....	5.5
February	29.24	29.67	28.78	34.6	44.1	.....	49.2	32.7	41.0	67	17	30	32	.....	83	64	.....	.168	.190	.....	3.19	1.37	.8	5.0	5.5	.....	5.6
March	29.15	29.56	28.52	33.2	41.4	.....	45.2	31.5	38.4	61	19	28	29	.....	80	62	.....	.151	.161	.....	2.97	1.07	11.5	6.4	6.3	.....	6.8
April	29.23	29.55	28.63	47.5	61.4	.....	64.5	44.9	54.7	83	30	41	41	.....	78	51	.....	.265	.272	.....	1.42	.48	T.	5.6	5.0	.....	5.3
May	29.10	29.51	28.73	54.5	67.2	.....	70.6	50.3	60.4	89	33	47	48	.....	76	53	.....	.335	.353	.....	6.45	3.62	0	5.2	5.9	.....	5.5
June	29.14	29.32	28.88	71.7	85.1	.....	88.2	67.8	78.0	101	49	64	65	.....	77	51	.....	.606	.621	.....	1.30	1.02	0	4.3	4.6	.....	4.0
July	29.11	29.34	28.83	73.4	88.5	.....	91.9	70.2	81.0	102	57	64	63	.....	73	44	.....	.608	.588	.....	2.53	1.52	0	3.6	4.3	.....	3.5
August	29.21	29.47	28.92	67.2	81.7	.....	85.5	64.6	75.0	98	53	63	62	.....	87	53	.....	.591	.579	.....	8.86	3.75	0	4.7	5.1	.....	4.7
September	29.16	29.51	28.84	67.4	82.2	.....	85.3	65.1	75.2	96	44	62	64	.....	84	54	.....	.581	.609	.....	6.69	4.15	0	3.9	2.9	.....	3.5
October	29.22	29.57	28.82	54.6	66.6	.....	71.0	52.9	62.0	87	40	50	50	.....	84	59	.....	.378	.397	.....	3.15	1.45	0	5.0	4.9	.....	5.1
November	29.24	29.64	28.62	47.3	56.8	.....	61.3	44.2	52.8	80	26	42	42	.....	82	62	.....	.288	.298	.....	3.94	1.44	2.9	5.6	6.5	.....	6.1
December	29.24	29.78	28.55	38.3	46.4	.....	51.1	35.7	43.4	65	25	35	36	.....	87	68	.....	.208	.224	.....	2.52	1.41	1.6	6.2	5.9	.....	6.3
Year	29.19	29.78	28.52	51.6	63.4	.....	67.4	49.0	58.2	102	5	46	47	.....	81	57	.....	.360	.370	.....	43.30	4.15	17.2	5.0	5.2	.....	5.2

COLUMBIA, S. C.

[ϕ=34° 00′ N.; λ=81° 03′ W.]

January	29.73	30.22	28.96	38.8	50.9	48.9	55.6	36.9	46.2	70	24	32	34	32	78	54	56	0.189	0.201	0.190	2.41	1.12	T.	5.3	4.5	4.6	4.7
February	29.69	29.99	29.29	40.6	54.7	53.8	60.3	38.5	49.4	70	28	34	35	37	78	49	52	.209	.216	.223	1.25	.81	0	4.2	4.7	3.2	4.6
March	29.56	29.95	29.00	42.9	54.3	53.8	58.7	41.0	49.8	70	32	34	31	35	72	45	53	.208	.191	.218	2.96	.95	0.3	5.6	5.3	4.4	5.3
April	29.63	30.05	28.94	54.6	66.8	64.5	70.9	50.6	60.8	81	40	46	42	44	74	45	52	.325	.283	.302	2.82	1.06	0	4.5	4.6	4.5	4.9
May	29.60	29.91	29.29	68.2	74.6	71.6	78.7	59.1	68.9	90	46	54	52	54	74	48	58	.440	.409	.437	3.75	1.23	0	4.9	5.2	4.0	4.9
June	29.64	29.88	29.23	72.9	85.5	81.8	90.6	67.8	79.2	101	55	63	60	61	72	43	50	.589	.529	.545	1.85	1.05	0	3.9	3.0	4.8	3.9
July	29.59	29.78	29.35	77.3	88.6	82.8	93.1	72.4	82.8	101	67	71	68	70	80	53	67	.748	.697	.733	5.55	1.91	0	3.7	4.1	5.9	4.5
August	29.68	29.96	29.32	73.6	84.9	78.7	88.6	69.8	79.2	96	58	39	67	68	85	56	70	.706	.666	.680	2.20	1.27	0	4.5	4.8	6.0	5.2
September	29.70	30.09	29.35	70.6	84.8	80.6	89.4	67.7	78.6	99	52	64	61	62	80	45	55	.615	.547	.579	.56	.32	0	2.7	3.1	2.1	3.1
October	29.75	30.11	29.30	58.1	75.4	70.7	79.9	55.1	67.5	89	42	50	47	47	76	39	45	.390	.355	.350	.53	.39	0	1.9	2.2	2.0	2.4
November	29.85	30.09	29.57	50.9	67.8	64.0	71.9	49.2	60.6	83	33	43	43	44	75	44	52	.303	.310	.319	.52	.36	0	2.9	3.5	2.6	3.8
December	29.79	30.17	29.32	48.3	57.5	55.4	61.9	45.2	53.6	81	32	44	44	44	86	64	70	.313	.322	.319	6.46	1.42	0	5.4	6.1	4.6	6.3
Year	29.69	30.22	28.94	57.6	70.5	67.2	75.0	54.4	64.7	101	24	50	49	50	78	49	57	.426	.394	.408	30.86	1.91	.3	4.1	4.3	4.1	4.5

Annual meteorological summaries for the year ending December 31, 1931—Continued

CINCINNATI, OHIO

[H_b=627 ft.; h_t=11 ft.; h_r=3 ft.; h_a=51 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.8	SW.	26	SW.	0	2	3	1	2	12	23	9	10	9	8	6	17	6	4	6	1	0	5	2	5	0	18	0	0
February	5.7	SW.	19	SW.	0	5	12	1	4	6	11	2	14	9	10	4	14	10	9	4	1	0	11	2	2	0	17	0	0
March	7.6	NE.	27	SW.	0	9	11	6	3	2	13	10	8	9	2	4	25	13	10	12	6	0	4	0	0	0	18	1	0
April	6.4	SW.	26	NW.	0	8	11	1	5	8	11	8	8	0	12	8	10	10	9	2	2	0	3	0	0	0	2	4	0
May	6.0	SW.	22	SW.	0	5	9	3	3	11	19	5	7	0	9	9	13	12	10	0	0	2	1	0	0	0	0	8	0
June	4.2	SW.	26	NW.	0	5	8	9	8	4	17	4	5	0	8	12	10	13	9	0	0	1	2	0	0	0	0	14	0
July	4.3	SW.	30	SW.	0	6	12	4	2	8	20	7	3	0	18	10	3	11	10	0	0	0	0	0	0	17	0	15	0
August	4.5	SW.	24	NW.	0	6	10	1	1	11	20	1	5	1	8	11	12	15	10	0	0	0	7	2	0	7	0	10	0
September	4.9	SW.	17	SW.	0	5	11	4	3	13	14	4	4	2	16	8	6	8	8	0	0	0	7	0	0	8	0	10	0
October	5.2	SW.	19	SW.	0	2	9	1	2	15	21	4	4	4	12	10	9	9	8	0	0	0	9	3	0	0	0	3	0
November	6.3	SW.	26	SE.	0	2	6	2	7	16	14	5	8	0	7	9	14	16	13	2	1	0	8	2	0	0	4	1	0
December	6.5	SW.	24	W.	0	3	9	6	4	9	20	6	5	0	4	4	23	14	11	0	0	0	7	2	0	0	13	4	0
Year	5.7	SW.	30	SW.	0	59	111	39	50	115	203	65	81	7	114	95	156	137	111	26	11	3	64	13	7	41	72	70	0

CLEVELAND, OHIO

[H_b=762 ft.; h_t=267 ft.; h_r=264 ft.; h_a=337 ft.]

January	13.8	SW.	40	W.	9	1	1	2	3	18	21	12	4	0	5	11	15	15	9	16	12	0	1	1	9	0	27	0	0
February	11.4	N.	37	W.	2	10	6	1	4	9	5	11	10	0	6	6	16	6	5	11	4	0	5	0	4	0	23	0	0
March	11.9	W.	46	SE.	6	9	7	4	7	3	5	16	11	0	3	6	22	15	12	18	12	0	5	0	5	0	22	0	0
April	12.5	W.	49	W.	6	9	11	0	5	7	11	10	7	0	15	5	10	12	10	7	2	0	4	0	0	0	3	1	0
May	12.0	N.	36	NW.	3	13	5	0	9	13	9	6	7	0	8	10	13	16	15	0	0	0	2	1	0	0	0	3	0
June	8.8	N.	56	N.	2	11	4	5	7	12	4	7	10	0	9	13	8	8	8	0	0	0	1	0	0	0	3	7	0
July	8.7	N.	50	SW.	2	15	5	2	6	6	13	8	7	0	12	14	5	10	7	0	0	0	0	0	0	0	6	9	0
August	9.5	SW.	35	N.	1	10	10	4	4	10	11	7	5	1	9	7	15	14	10	0	0	0	0	0	0	0	2	6	0
September	11.6	S.	40	SE.	4	11	2	2	8	16	12	6	3	0	10	12	8	12	9	0	0	0	0	0	0	0	1	6	1
October	13.4	S.	50	W.	5	5	4	2	7	22	14	6	2	0	9	10	12	13	9	0	0	2	0	0	0	0	0	6	0
November	13.8	S.	46	W.	5	0	2	2	8	20	16	11	1	0	3	8	19	14	8	4	1	0	1	0	0	0	4	2	0
December	13.7	SW.	48	W.	6	2	2	4	11	10	17	11	5	0	2	5	24	9	8	3	0	0	8	0	0	0	13	0	0
Year	11.8	S.	56	N.	51	96	59	28	79	146	138	111	72	1	91	107	107	144	110	69	31	4	23	2	18	12	92	40	1

COLUMBIA, MO.

[H_b=784 ft.; h_t=6 ft.; h_r=3 ft.; h_a=84 ft.]

January	7.2	SW.	22	SW.	0	0	1	2	4	7	8	5	4	0	13	5	13	4	3	6	1	0	5	2	3	0	21	0	0
February	6.3	N.	21	NW.	0	7	4	1	6	4	2	1	3	0	11	5	12	11	7	1	1	0	6	0	1	0	12	3	0
March	8.8	NW.	29	NW.	0	7	4	5	3	0	1	4	7	0	7	5	19	11	9	9	5	0	6	0	1	0	17	0	0
April	6.5	W.	21	SW.	0	2	3	4	5	3	4	5	4	0	11	8	11	6	5	1	0	0	1	0	0	0	2	2	0
May	6.4	S.	22	W.	0	4	2	4	3	6	3	4	5	0	12	7	12	13	11	0	0	0	0	0	0	0	0	3	0
June	6.4	S.	23	NW.	0	0	1	4	6	9	4	4	1	0	15	9	6	7	3	0	0	0	1	0	0	0	0	0	0
July	5.6	S.	23	W.	0	0	5	1	6	11	3	2	2	1	17	11	3	8	4	0	0	0	2	0	0	0	13	0	0
August	5.2	S.	31	NW.	0	0	4	3	5	6	6	3	1	2	13	10	8	10	9	0	0	0	0	0	0	0	18	0	0
September	4.7	SW.	32	NW.	0	0	1	3	1	10	8	4	1	2	15	12	3	7	6	0	0	0	0	0	0	0	14	0	0
October	6.0	S.	20	W.	0	0	2	1	2	7	8	2	6	3	12	9	10	10	7	0	0	0	1	0	0	0	0	6	0
November	6.4	S.	31	SW.	0	0	2	6	1	3	9	5	1	3	9	6	15	12	10	1	1	0	3	0	0	0	4	2	0
December	7.3	S.	31	SW.	0	0	3	3	5	5	3	7	4	1	0	6	12	13	11	7	3	2	0	6	2	0	0	11	0
December	6.3	SW.	20	NW.	0	3	3	5	5	3	7	4	1	0	6	12	13	11	7	3	2	0	6	2	0	0	11	0	0
Year	6.4	S.	32	NW.	0	33	36	35	64	74	46	38	37	2	141	99	125	110	81	21	10	2	31	7	4	52	67	44	0

COLUMBIA, S. C.

[H_b=351 ft.; h_t=41 ft.; h_r=32 ft.; h_a=57 ft.]

January	5.8	W.	34	SW.	1	6	9	1	2	2	16	11	13	2	13	11	7	6	5	1	0	0	2	0	0	0	8	0	0
February	5.8	NE.	27	SW.	0	11	15	2	2	7	9	7	3	0	14	4	10	9	6	0	0	0	3	1	0	0	4	1	0
March	7.6	W.	28	SW.	0	8	11	3	2	5	9	21	3	0	11	8	12	8	7	1	1	0	1	0	0	0	1	1	0
April	6.6	E.	30	SW.	0	2	10	11	5	5	12	7	7	1	12	9	9	11	10	0	0	0	0	0	0	0	0	5	0
May	6.9	S.	19	W.	0	4	10	5	4	15	12	9	3	0	10	16	5	13	12	0	0	0	3	2	0	0	1	8	0
June	5.3	S.	28	SW.	0	7	8	8	4	16	9	5	3	0	17	10	3	5	5	0	0	0	0	0	0	0	0	7	0
July	4.9	SW.	46	NE.	1	2	7	8	9	11	11	3	0	0	9	21	1	11	9	0	0	0	0	0	0	0	25	15	0
August	4.9	SW.	23	SW.	0	6	7	4	10	9	18	1	1	2	20	7	3	3	3	0	0	0	0	0	0	0	0	0	0
September	4.8	SW.	20	SW.	0	4	13	10	12	14	3	1	2	2	22	7	2	2	2	0	0	0	1	0	0	0	0	1	0
October	5.4	S.	26	SW.	0	1	22	4	6	6	5	3	8	0	17	5	8	3	3	0	0	0	5	1	0	0	0	0	0
November	5.0	NE.	21	SW.	0	5	22	3	10	5	4	3	3	0	6	13	12	10	10	0	0	0	5	4	0	0	0	0	0
December	4.7	NE.	21	SW.	0	7	20	2	0	5	9	7	12	0	6	13	12	10	10	0	0	0	9	6	0	0	2	0	0
	5.5	NE.																											
Year	5.6	NE.	46	NE.	2	63	154	61	66	100	117	92	67	10	160	127	78	91	78	2	1	0	32	18	0	78	15	49	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

COLUMBUS, OHIO

[ϕ=39° 58′ N.; λ=83° 00′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.18	29.73	28.36	29.2	35.3	34.5	39.6	26.5	33.0	58	13	25	26	27	82	68	73	0.135	0.144	0.150	0.88	0.58	1.4	6.5	7.3	6.5	6.8
February	29.19	29.45	28.86	32.2	39.4	39.1	43.7	29.9	36.8	60	16	27	29	28	81	67	66	.161	.164	.158	1.64	.50	1.9	6.2	6.6	6.1	6.2
March	29.07	29.43	28.45	33.3	39.2	38.6	43.2	31.4	37.3	56	22	28	29	30	82	65	71	.157	.159	.166	1.34	.27	5.3	8.8	8.5	8.3	8.6
April	29.17	29.59	28.46	45.6	56.9	55.4	61.5	41.9	51.7	81	31	36	36	37	70	50	53	.221	.227	.229	4.38	1.46	T.	5.1	4.7	4.6	4.8
May	29.07	29.38	28.76	54.5	65.4	63.9	69.5	50.0	59.8	89	38	45	48	47	73	55	56	.317	.345	.334	2.96	.64	0	5.1	7.1	5.1	5.9
June	29.15	29.34	28.60	67.1	78.7	76.5	82.4	62.6	72.5	95	46	58	59	59	73	52	55	.501	.521	.516	2.30	.65	0	5.4	5.6	6.1	5.6
July	29.09	29.30	28.77	73.3	85.0	81.6	88.8	68.5	78.6	98	61	64	62	63	72	48	55	.599	.581	.592	4.66	2.76	0	3.9	4.5	4.9	4.6
August	29.17	29.50	28.83	68.4	77.7	75.1	80.8	64.9	72.8	92	55	62	63	62	80	62	66	.565	.585	.578	4.80	1.39	0	6.0	6.3	6.1	6.2
September	29.18	29.58	28.82	61.8	76.5	73.4	80.9	61.9	71.4	92	45	59	60	60	81	59	65	.522	.543	.547	3.34	.91	0	3.5	5.1	4.3	4.2
October	29.02	29.67	28.75	51.6	64.1	60.4	67.7	48.8	58.2	82	35	46	47	48	81	56	65	.327	.338	.352	2.41	.57	0	4.7	5.1	4.8	5.1
November	29.29	29.72	28.91	46.0	55.2	53.2	58.9	43.8	51.4	74	25	41	43	44	82	65	71	.267	.296	.307	3.64	1.09	3.1	6.6	6.3	6.0	6.5
December	29.25	29.74	28.84	37.9	43.5	42.6	47.9	34.3	41.1	66	21	34	35	35	84	72	74	.204	.220	.218	3.29	.75	T.	7.0	8.2	6.8	7.7
Year	29.17	29.74	28.36	50.3	59.7	57.9	63.7	47.0	55.4	98	13	44	45	45	78	60	64	.330	.344	.346	35.54	2.76	11.7	5.7	6.3	5.8	6.0

CONCORD, N. H.

[ϕ=43° 12′ N.; λ=71° 32′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
January	29.59	30.03	28.58	17.6	26.7	.....	32.0	11.8	21.9	50	−8	13	20	....	81	74	....	0.084	0.111	.....	1.73	0.56	20.3	5.1	4.8	.....	4.5
February	29.66	30.18	29.27	21.0	29.5	.....	34.3	15.9	25.1	47	−16	16	22	....	80	74	....	.099	.122	.....	1.29	.49	12.2	6.6	5.2	.....	5.0
March	29.57	30.11	28.90	31.9	41.0	.....	43.7	27.7	35.7	54	13	27	31	....	82	69	....	.146	.176	.....	3.10	1.38	10.0	5.9	5.5	.....	5.1
April	29.67	30.15	28.90	42.1	53.4	.....	57.8	34.7	46.2	79	26	34	40	....	73	63	....	.198	.258	.....	2.13	1.09	10.0	4.7	4.6	.....	4.0
May	29.62	29.91	29.15	53.9	64.3	.....	69.2	44.5	56.8	92	28	46	52	....	76	68	....	.330	.413	.....	2.97	.63	0	4.8	5.8	.....	5.0
June	29.63	29.95	29.26	64.3	72.3	.....	76.6	54.6	65.6	94	44	57	60	....	78	68	....	.472	.534	.....	5.35	2.10	0	5.0	5.4	.....	4.6
July	29.60	29.82	29.12	68.8	77.6	.....	81.6	61.5	71.6	95	51	63	66	....	83	70	....	.585	.653	.....	4.02	1.25	0	6.5	5.6	.....	6.1
August	29.72	30.06	29.35	63.8	74.1	.....	77.8	57.3	67.6	95	46	60	63	....	87	71	....	.517	.593	.....	4.03	1.83	0	5.2	5.5	.....	5.6
September	29.67	30.16	29.23	58.9	69.8	.....	73.7	52.0	62.8	94	33	55	59	....	88	71	....	.451	.527	.....	2.70	1.12	0	4.6	4.4	.....	5.0
October	29.69	30.07	28.99	46.1	60.1	.....	63.2	39.9	51.6	84	29	42	49	....	87	68	....	.283	.364	.....	3.45	1.29	0	4.2	4.0	.....	4.8
November	29.83	30.27	29.25	38.2	48.1	.....	52.1	33.1	42.6	73	10	35	41	....	88	78	....	.219	.276	.....	1.05	.59	.1	5.7	6.6	.....	5.8
December	29.70	30.30	29.15	25.8	32.8	.....	37.9	20.2	29.0	56	5	21	25	....	80	73	....	.120	.144	.....	4.70	2.26	2.2	6.0	5.5	.....	5.8
Year	29.66	30.30	28.58	44.4	54.1	.....	58.3	37.8	48.0	95	−16	39	44	....	82	71	....	.292	.348	.....	36.52	2.26	54.8	5.4	5.2	.....	5.1

CONCORDIA, KANS.

[ϕ=39° 35′ N.; λ=97° 41′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
January	28.63	29.08	28.27	26.4	41.4	39.0	47.3	21.5	35.9	69	4	22	28	25	83	56	58	0.120	0.143	0.134	0.10	0.09	0.2	3.5	5.2	1.9	3.5
February	28.59	28.95	28.12	31.4	44.5	44.1	50.2	29.3	39.8	66	17	27	31	31	83	61	61	.150	.177	.175	1.46	1.34	T.	4.5	5.8	4.4	5.2
March	28.58	29.09	28.08	29.6	42.4	42.1	46.6	27.5	37.0	62	14	26	29	30	85	60	64	.140	.158	.166	1.38	.44	7.6	5.1	6.5	6.4	6.0
April	28.60	28.98	28.00	44.6	59.3	58.7	63.8	42.6	53.2	86	27	39	41	42	81	54	58	.248	.263	.275	3.38	1.30	T.	4.8	6.4	5.1	5.5
May	28.50	28.94	28.03	53.1	66.6	65.8	70.4	49.5	60.0	91	33	45	47	49	76	51	56	.312	.340	.366	3.83	1.87	0	5.0	5.2	5.0	4.8
June	28.45	28.67	28.12	71.4	85.3	86.6	90.2	67.8	79.0	100	55	61	61	60	71	46	43	.544	.537	.518	.58	.40	0	3.8	3.7	3.4	3.5
July	28.47	28.74	28.18	73.1	87.8	86.7	92.9	69.3	81.1	109	54	61	60	59	68	42	43	.553	.531	.513	3.04	2.24	0	3.0	4.2	3.0	3.1
August	28.58	28.84	28.19	66.8	81.5	79.7	86.5	64.2	75.4	100	53	61	60	61	82	50	56	.555	.540	.553	5.18	1.44	0	3.9	3.5	4.0	3.8
September	28.47	28.90	28.08	63.1	83.8	81.6	88.6	66.6	77.6	107	45	56	58	56	67	42	46	.455	.456	.460	1.96	1.49	0	3.4	3.7	3.9	3.5
October	28.57	28.93	28.05	52.2	66.5	62.9	70.8	50.1	60.4	93	32	46	47	48	81	52	61	.330	.340	.359	2.50	1.19	T.	3.9	4.6	4.8	4.5
November	28.56	28.96	27.92	38.9	50.3	47.1	54.4	35.6	45.0	81	20	35	38	37	88	68	72	.216	.241	.233	2.61	1.01	4.9	4.0	5.2	5.1	5.2
December	28.56	29.05	27.87	32.4	41.9	39.5	46.8	31.0	38.9	58	21	30	34	34	92	74	82	.171	.196	.204	.91	.42	1.2	4.8	4.8	3.7	4.6
Year	28.55	29.09	27.87	49.0	62.6	61.2	67.4	46.5	56.9	109	4	42	44	44	80	55	58	.316	.327	.330	26.93	2.24	13.9	4.1	4.9	4.2	4.4

CORPUS CHRISTI, TEX.

[ϕ=27° 49′ N.; λ=97° 25′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
January	30.13	30.52	29.70	52.7	59.8	58.3	62.8	51.1	57.0	75	39	48	49	51	85	70	79	0.357	0.365	0.392	2.29	0.73	0	6.5	7.4	6.8	6.9
February	30.01	30.36	29.71	57.4	65.0	64.4	68.0	55.3	61.6	80	48	54	55	56	88	72	75	.422	.448	.458	1.74	1.05	0	7.1	6.8	5.8	6.4
March	30.00	30.49	29.54	56.2	66.4	64.7	69.6	52.9	61.2	79	36	49	50	50	79	58	63	.386	.389	.395	2.45	1.97	0	5.3	4.8	5.0	4.8
April	30.01	30.43	29.55	62.3	69.3	67.8	72.1	60.5	66.3	79	48	58	58	59	86	69	76	.496	.515	.523	1.20	.80	0	8.1	7.4	5.7	7.0
May	29.93	30.19	29.61	69.4	77.1	75.3	79.3	67.9	73.6	85	57	66	65	67	88	68	76	.637	.628	.661	2.72	1.03	0	7.2	5.7	6.4	6.2
June	29.95	30.07	29.77	76.8	84.3	81.2	86.4	75.6	81.0	93	66	74	72	73	90	68	78	.830	.800	.825	8.36	8.04	0	5.5	3.7	4.2	4.4
July	29.90	30.04	29.75	79.0	87.3	85.2	89.4	77.5	83.4	94	71	76	75	74	89	67	71	.883	.855	.855	11.92	7.11	0	6.0	5.0	4.1	5.2
August	30.00	30.15	29.87	76.8	87.4	84.0	88.9	76.0	82.4	94	70	73	72	73	89	61	70	.825	.790	.814	1.54	1.03	0	4.9	4.7	4.1	4.4
September	29.95	30.22	29.82	78.6	86.6	83.7	88.3	77.9	83.1	90	74	74	73	74	87	65	73	.853	.817	.840	.83	.55	0	4.6	3.8	2.7	3.9
October	29.99	30.26	29.75	74.4	83.1	79.8	84.5	73.6	79.0	90	63	68	68	70	83	62	72	.722	.717	.745	.34	.15	0	4.7	3.7	2.7	3.9
November	30.02	30.31	29.68	67.2	74.8	72.0	76.6	64.0	70.3	83	49	61	60	61	82	63	71	.558	.548	.568	1.70	1.20	0	5.8	6.0	5.0	5.7
December	30.04	30.41	29.56	55.2	62.4	60.0	65.4	52.5	59.0	79	40	52	53	52	89	74	78	.418	.436	.416	1.77	1.05	0	7.7	7.3	5.9	7.1
Year	30.00	30.52	29.54	67.2	75.3	73.0	77.6	65.4	71.5	94	36	63	62	63	86	66	74	.615	.609	.624	36.86	8.04	0	6.1	5.5	4.8	5.5

Annual meteorological summaries for the year ending December 31, 1931—Continued

COLUMBUS, OHIO

[H_b=822 ft.; h_t=216 ft.; h_r=209 ft.; h_a=230 ft.

Month	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity	Wind: Direction at time of maximum velocity	Wind: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	10.0	SW.	34	W.	1	3	3	2	9	12	11	13	9	0	5	10	16	8	5	13	4	0	5	1	6	0	25	0	0
February	8.5	NW.	28	NW.	0	5	7	4	4	12	5	3	16	0	6	8	14	13	7	9	7	0	6	0	1	0	17	0	0
March	10.5	NW.	37	SW.	2	7	10	9	6	2	6	11	11	0	0	5	26	16	11	15	9	0	2	0	3	0	19	2	0
April	10.0	NW.	51	W.	2	12	5	2	9	10	5	9	8	0	14	4	12	10	10	5	2	1	0	0	0	0	1	3	0
May	9.5	S.	32	W.	0	6	6	4	7	16	6	7	10	0	7	14	10	14	11	0	0	0	0	0	0	0	0	7	0
June	7.1	S.	43	W.	2	10	5	6	9	10	6	7	6	2	6	15	9	7	7	0	0	0	2	0	0	7	0	10	0
July	6.8	SW.	34	SE.	1	5	7	2	7	8	17	4	12	0	8	19	4	7	6	0	0	0	2	0	0	15	0	12	0
August	6.5	S.	32	S.	0	8	6	7	3	18	13	4	4	1	6	14	11	14	13	0	0	0	4	1	0	5	0	10	0
September	7.9	S.	34	SW.	2	3	6	2	6	20	11	2	7	3	14	9	7	12	9	0	0	0	1	0	0	6	0	8	0
October	8.4	S.	31	W.	0	4	3	2	14	16	12	4	6	1	12	9	10	13	11	0	0	0	7	0	0	0	0	8	0
November	9.9	S.	31	W.	0	2	4	4	11	17	8	10	4	0	6	10	14	17	13	2	2	1	6	2	0	0	5	2	0
December	9.7	SW.	37	W.	3	3	6	6	8	12	12	8	7	0	4	7	20	10	8	1	0	0	7	3	1	0	14	2	0
Year	8.7	SW.	51	W.	13	68	68	50	93	151	111	82	100	7	88	124	153	141	111	45	24	2	42	7	11	33	81	62	0

CONCORD, N. H.

[H_b=289 ft.; h_t=70 ft.; h_r=62 ft.; h_a=79 ft.]

January	5.2	NW.	21	NW.	0	7	4	1	1	4	2	4	8	0	14	8	9	7	7	8	7	0	0	0	14	0	31	0	0
February	5.7	NW.	22	NW.	0	8	3	0	2	4	1	1	9	0	12	6	10	8	5	11	5	0	0	0	11	0	28	0	0
March	5.7	N.	33	NE.	1	8	5	2	0	2	0	3	11	0	13	8	10	9	8	9	9	0	0	0	0	0	26	0	0
April	6.7	NW.	28	W.	0	6	5	1	4	9	2	3	9	0	14	10	6	9	8	3	2	1	1	0	0	0	10	1	0
May	5.0	SE.	27	E.	0	6	6	4	6	9	4	2	3	0	15	5	11	14	10	0	0	0	0	0	0	2	3	4	0
June	4.6	N.	20	NW.	0	8	9	0	3	2	0	3	5	0	15	6	9	14	11	0	0	0	1	0	0	3	0	5	0
July	4.2	SE.	17	NW.	0	3	3	0	2	5	3	1	5	0	7	12	12	14	13	0	0	0	3	1	0	3	0	7	0
August	3.2	N.	15	NW.	0	10	7	4	4	2	0	0	4	0	12	9	10	12	10	0	0	0	11	1	0	1	0	5	0
September	4.5	N.	21	NW.	0	7	6	2	2	8	1	3	4	0	11	11	8	9	8	0	0	0	12	2	0	5	0	2	0
October	4.6	NW.	21	NW.	0	8	5	3	2	3	2	1	7	0	15	4	12	9	7	0	0	0	12	4	0	0	5	3	0
November	4.8	NW.	19	NW.	0	6	3	4	5	0	2	4	6	0	11	6	13	8	5	2	1	0	11	3	1	0	13	0	0
December	5.8	NW.	25	W.	0	6	1	2	4	0	4	4	10	0	12	3	16	10	9	5	3	0	5	0	7	0	25	0	0
Year	5.0	NW.	33	NE.	1	83	57	32	35	27	21	29	81	0	151	88	126	123	101	38	27	1	56	11	33	14	141	27	0

CONCORDIA, KANS.

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

January	6.2	NW.	25	NW.	0	5	4	3	0	13	12	10	12	3	15	12	4	2	1	2	1	0	7	1	3	0	27	0	0
February	6.4	S.	20	SE.	0	10	7	4	8	13	4	4	5	1	8	13	7	3	3	1	0	0	10	1	0	0	20	0	0
March	8.6	NW.	38	NW.	1	11	8	6	11	1	1	4	17	3	10	7	14	10	9	10	7	0	6	1	4	0	21	0	0
April	7.8	S.	25	N.	0	9	5	4	7	15	7	6	7	0	10	9	11	11	10	2	0	0	2	0	0	0	6	5	0
May	8.0	S.	30	NW.	0	10	3	5	1	16	8	5	14	0	13	9	9	9	7	0	0	1	2	1	0	1	0	3	0
June	7.6	S.	32	S.	0	1	2	2	3	36	7	6	3	0	19	6	5	2	2	0	0	1	0	0	0	15	0	3	0
July	6.5	S.	20	S.	0	2	12	11	5	18	6	4	3	1	19	9	3	4	4	0	0	0	1	0	0	20	0	7	0
August	6.2	S.	20	SW.	0	6	0	10	15	16	3	5	4	3	16	10	5	12	9	0	0	2	3	1	0	10	0	9	0
September	6.3	S.	31	NW.	0	1	6	4	9	27	5	1	5	2	18	8	4	7	4	0	0	0	2	0	0	16	0	7	0
October	7.8	S.	32	NW.	0	7	3	7	6	17	6	7	8	1	13	14	4	8	8	2	0	0	6	1	0	2	1	6	0
November	6.2	SW.	26	SW.	0	4	6	4	4	13	8	10	6	5	13	5	12	11	8	3	2	0	9	2	0	0	11	3	0
December	5.9	SW.	27	S.	0	6	1	3	6	11	15	10	8	2	13	9	9	7	3	4	2	0	7	1	1	0	17	0	0
Year	7.0	S.	38	NW.	1	72	57	63	75	196	82	72	92	21	167	111	87	86	68	24	12	4	55	9	8	64	103	43	0

CORPUS CHRISTI, TEX.

[H_b=20 ft.; h_t=11 ft.; h_r=63 ft.; h_a=78 ft.]

January	8.9	E.	30	NW.	0	5	14	14	10	9	1	4	5	0	4	10	17	10	6	0	0	0	7	3	0	0	0	0	0
February	9.4	SE.	34	NW.	1	14	3	3	14	10	5	2	4	1	6	8	14	5	5	0	0	0	7	5	0	0	0	1	0
March	12.3	SE.	32	NW.	0	6	7	2	26	3	3	2	13	0	11	11	9	6	3	0	0	0	4	1	0	0	0	3	0
April	11.7	SE.	31	S.	0	9	3	14	24	5	0	1	4	0	3	11	16	9	6	0	0	1	1	1	0	0	0	5	0
May	11.0	SE.	37	NW.	2	9	6	13	23	4	4	1	2	0	6	13	12	10	8	0	0	0	2	2	1	0	0	8	0
June	11.5	SE.	36	NE.	1	1	1	1	9	40	7	0	1	0	10	16	4	4	3	0	0	0	0	0	0	0	2	2	0
July	8.4	SE.	33	SE.	1	2	0	10	33	11	3	0	3	0	10	14	7	10	7	0	0	0	0	0	0	12	0	4	0
August	9.3	SE.	25	E.	0	2	1	7	31	15	3	0	3	0	13	13	5	8	3	0	0	0	0	0	0	0	0	0	0
September	9.0	SE.	24	SE.	0	4	2	20	23	8	0	1	2	0	17	9	4	9	4	0	0	0	1	0	0	3	0	3	0
October	9.5	SE.	27	NE.	0	9	5	13	24	5	2	1	3	0	17	12	2	5	3	0	0	0	2	0	0	2	0	3	0
November	10.0	SE.	34	NW.	1	10	3	9	26	5	0	0	5	0	6	14	10	9	4	0	0	1	2	2	0	0	0	1	0
December	10.0	NW.	32	S.	0	14	5	4	9	8	3	4	15	0	4	9	18	9	7	0	0	0	9	6	0	0	0	1	0
Year	10.1	SE.	37	NW.	6	85	50	118	286	90	24	17	60	1	107	140	118	94	59	0	0	4	34	19	0	28	0	38	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

DALLAS, TEX.

[ϕ=32° 46′ N.; λ=96° 47′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean			Extremes					Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.60	30.08	29.13	41.9	51.8		56.6	39.7	48.2	69	22	36	38		81	62		0.230	0.247		1.29	0.52	0	4.8	4.9		3.4
February	29.49	29.87	28.98	47.1	54.8		59.8	44.4	52.1	70	33	43	44		86	70		.267	.301		2.36	.72	0	5.0	5.8		4.2
March	29.46	29.89	29.06	44.0	53.5		60.0	41.5	50.8	75	27	37	37		76	57		.230	.237		3.29	1.20	0.5	4.8	6.1		4.1
April	29.50	29.89	28.85	54.0	65.9		70.6	51.5	61.0	84	37	47	48		79	55		.340	.352		1.50	.79	0	6.5	5.7		4.7
May	29.43	29.75	29.00	59.4	72.0		76.5	58.2	67.4	90	44	54	55		84	58		.437	.458		3.01	1.12	0	4.6	5.7		4.0
June	29.42	29.57	29.17	72.9	86.2		90.7	71.8	81.2	97	62	66	66		80	52		.648	.649		.94	.48	0	3.4	4.0		3.2
July	29.38	29.56	29.16	78.4	89.2		93.8	75.5	84.6	100	68	69	67		78	50		.711	.674		1.61	.88	0	3.8	4.5		3.9
August	29.48	29.69	29.26	72.5	86.6		91.4	71.7	81.6	98	66	63	62		79	46		.637	.571		1.23	.96	0	3.5	3.7		3.1
September	29.44	29.74	29.21	72.8	87.3		92.1	71.8	82.0	100	58	65	63		77	46		.627	.589		2.76	2.76	0	2.6	2.2		1.7
October	29.49	29.82	29.29	63.8	75.2		81.2	62.2	71.7	92	42	58	57		82	52		.516	.511		2.26	1.77	0	3.8	3.9		3.3
November	29.52	29.83	29.13	55.3	65.6		69.3	53.7	61.5	81	38	50	52		85	63		.391	.409		2.39	.85	0	6.1	6.5		5.9
December	29.50	29.94	29.08	45.7	52.6		58.1	43.5	50.8	73	32	40	41		82	67		.257	.271		2.81	.89	0	6.4	6.1		6.2
Year	29.48	30.08	28.85	58.8	70.1		75.0	57.1	66.1	100	22	53	52		81	56		.442	.439		25.44	2.76	.5	4.6	4.9		4.0

DAVENPORT, IOWA

[ϕ=41° 30′ N.; λ=90° 38′ W.]

January	29.38	29.86	28.99	26.9	33.4	33.7	38.5	24.3	31.4	55	5	23	24	26	84	68	72	0.127	0.136	0.143	0.58	0.53	4.3	5.2	5.9	4.1	5.4
February	29.43	29.83	28.98	31.0	39.9	38.7	44.6	28.9	36.8	59	11	27	27	29	83	60	67	.147	.150	.161	.14	.13	T.	4.8	5.8	4.5	5.3
March	29.35	29.67	28.74	30.5	39.0	39.2	43.2	29.2	36.2	58	20	25	25	26	80	59	61	.136	.138	.144	2.87	1.45	10.6	7.1	7.2	7.0	7.1
April	29.40	29.72	29.00	44.8	57.7	57.2	62.3	42.3	52.3	86	30	36	34	35	71	46	48	.221	.212	.216	2.71	1.03	T.	5.1	5.3	5.5	5.2
May	29.26	29.69	28.71	52.8	63.8	62.9	68.3	48.4	58.4	88	35	42	44	44	69	51	55	.285	.304	.308	3.21	1.24	0	5.3	6.0	5.0	5.7
June	29.29	29.56	28.95	70.4	81.7	82.4	86.2	66.8	76.5	104	46	60	60	62	71	51	52	.544	.543	.576	2.21	1.58	0	4.7	5.6	4.1	4.8
July	29.27	29.53	28.93	73.1	86.4	86.9	91.1	69.4	80.2	102	59	62	59	61	68	41	43	.560	.526	.548	2.05	.87	0	2.9	4.4	4.3	3.9
August	29.38	29.65	29.06	66.7	81.1	79.2	85.3	63.8	74.6	97	54	58	56	57	74	44	48	.501	.471	.485	3.16	1.64	0	3.7	6.1	6.0	5.3
September	29.33	29.68	28.93	65.4	78.3	75.9	82.0	62.9	72.4	95	46	60	59	60	82	54	60	.531	.519	.548	3.78	1.05	0	5.6	5.4	4.1	5.1
October	29.37	29.87	28.86	53.5	62.4	60.2	66.7	51.2	59.0	83	39	47	48	48	80	61	66	.345	.349	.359	3.01	1.06	0	5.7	5.5	5.0	5.8
November	29.40	29.90	28.75	44.1	51.6	49.7	56.4	41.2	48.8	76	20	39	41	40	83	68	69	.261	.277	.267	4.99	1.41	.5	6.1	7.4	5.8	7.0
December	29.42	29.94	28.74	34.0	39.0	38.3	42.6	31.6	37.1	57	19	30	31	32	84	72	76	.171	.175	.182	2.68	.74	6.7	6.2	6.6	6.1	6.9
Year	29.36	29.94	28.71	49.4	59.5	58.7	63.9	46.7	55.3	104	5	42	42	43	77	56	60	.319	.317	.328	31.39	1.64	22.1	5.2	5.9	5.1	5.6

DAYTON, OHIO

[ϕ=39° 46′ N.; λ=84° 10′ W.]

January	29.10	29.64	28.32	29.9	36.0	34.8	39.9	27.8	33.8	59	10	25	27	28	80	69	75	0.137	0.150	0.157	0.97	0.64	2.0	7.0	7.4	6.2	7.2
February	29.12	29.40	28.76	33.2	40.6	39.9	44.2	31.1	37.6	60	18	29	30	30	83	65	69	.161	.167	.173	1.77	.68	.4	6.5	5.5	5.6	6.2
March	28.99	29.37	28.35	33.7	39.5	38.5	42.7	31.5	37.1	57	24	29	29	30	82	67	73	.162	.162	.171	2.51	1.03	4.5	8.1	8.0	8.8	8.2
April	29.09	29.47	28.41	46.7	57.8	55.7	62.2	42.7	52.4	82	32	38	36	37	71	49	54	.233	.227	.232	4.43	1.24	T.	4.1	4.9	5.4	5.1
May	28.99	29.31	28.63	53.3	65.3	63.9	69.4	49.8	59.6	87	37	46	48	48	72	56	58	.327	.347	.342	2.11	.45	0	4.8	6.9	5.8	6.1
June	29.06	29.24	28.54	69.1	80.0	77.2	83.9	64.1	74.0	98	46	59	59	59	71	50	55	.521	.521	.526	2.90	1.40	0	4.9	4.2	6.5	5.5
July	29.01	29.22	28.68	73.4	85.5	82.0	89.5	68.3	78.9	96	57	64	63	62	74	48	52	.618	.587	.569	6.74	3.24	0	2.8	3.3	4.6	4.4
August	29.10	29.41	28.76	67.9	78.5	76.7	82.4	64.8	73.6	94	55	62	61	62	82	58	62	.563	.560	.565	2.27	.72	0	5.6	5.1	5.3	5.5
September	29.10	29.48	28.68	65.1	78.0	74.0	81.9	62.0	72.0	93	44	59	59	61	82	53	66	.527	.517	.565	2.36	1.09	0	3.5	4.0	3.5	4.1
October	29.14	29.56	28.64	52.2	64.9	60.5	68.0	49.5	58.8	82	36	46	46	48	82	55	66	.330	.340	.358	4.66	1.71	0	4.1	5.3	4.7	5.4
November	29.20	29.63	28.79	47.1	55.7	53.5	59.0	45.0	52.0	74	25	42	43	44	82	63	71	.284	.300	.311	3.41	.88	5.3	6.0	6.3	4.3	6.5
December	29.17	29.67	28.70	38.6	44.4	42.8	47.9	34.8	41.4	67	22	35	35	36	87	70	76	.216	.217	.222	4.29	1.31	T.	6.9	7.7	7.5	7.6
Year	29.09	29.67	28.32	50.8	60.5	58.3	64.2	47.6	55.9	98	10	44	45	45	79	59	65	.340	.341	.349	38.42	3.24	12.2	5.4	5.7	5.7	6.0

DEL RIO, TEX.

[ϕ=29° 20′ N.; λ=100° 53′ W.]

January	29.11	29.49	28.68	45.2	55.3	55.3	59.4	43.4	51.4	71	31	42	42	44	90	67	68	0.282	0.288	0.297	4.12	1.21	0	5.3	6.6	4.8	5.9
February	28.99	29.39	28.68	49.6	61.8	62.1	66.4	47.9	57.2	77	41	47	48	46	91	63	69	.331	.343	.326	1.04	.61	0	4.5	4.9	4.9	5.4
March	28.99	29.46	28.45	47.7	63.0	64.6	69.6	44.9	57.2	87	30	39	38	46	74	43	52	.260	.269	.320	.66	.59	0	3.6	2.9	3.1	3.4
April	28.98	29.43	28.49	55.6	67.5	70.7	73.9	53.7	63.8	89	39	50	53	50	82	62	53	.384	.421	.390	2.68	.90	0	7.5	6.7	5.2	6.1
May	28.90	29.23	28.50	64.2	76.7	78.4	82.2	62.3	72.2	91	51	58	58	58	82	57	53	.490	.505	.502	6.10	2.86	0	6.4	4.9	4.8	5.2
June	28.91	29.06	28.63	72.4	84.4	86.9	90.6	71.0	80.8	96	58	68	68	66	88	59	51	.639	.688	.632	3.98	1.61	0	6.8	4.9	4.8	5.2
July	28.88	29.05	28.73	74.5	87.7	88.4	92.0	73.4	82.7	96	67	70	69	68	88	55	52	.745	.720	.682	1.84	1.01	0	5.1	5.2	5.3	4.5
August	28.97	29.15	28.79	72.1	87.4	88.2	92.5	71.4	82.0	98	66	68	64	65	86	48	47	.675	.611	.615	2.56	2.53	0	4.9	3.9	3.4	4.0
September	28.92	29.20	28.70	73.2	88.2	89.9	93.4	73.1	83.2	98	66	67	65	61	81	46	38	.668	.619	.535	T.	T.	0	4.1	3.6	1.7	3.3
October	28.97	29.29	28.75	67.5	83.2	83.2	87.6	66.9	77.2	96	52	60	59	56	79	45	40	.554	.521	.464	.01	.01	0	4.1	3.5	2.2	3.4
November	28.99	29.29	28.65	57.4	69.8	68.8	73.7	55.1	64.4	84	38	51	50	49	81	54	52	.400	.391	.363	.64	.25	0	5.7	6.2	5.0	5.7
December	29.05	29.43	28.68	45.1	56.2	55.4	60.6	42.4	51.5	76	31	42	44	44	88	67	68	.276	.308	.303	1.54	1.00	0	4.7	6.3	5.0	5.8
Year	28.97	29.49	28.45	60.4	73.4	74.3	78.5	58.8	68.6	98	30	55	55	54	84	56	53	.481	.472	.452	25.17	2.86	0	5.2	5.0	4.0	4.8

Annual meteorological summaries for the year ending December 31, 1931—Continued

DALLAS, TEX.

[H_b=512 ft.; h_t=220 ft.; h_r=194 ft.; h_a=227 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Snow: Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	9.3	W.	35	SW.	1	2	5	1	7	2	4	4	5	1	19	7	5	8	6	0	0	0	8	1	0	0	6	0	0
February	10.4	SE.	43	SW.	2	2	3	3	7	3	1	1	6	2	14	5	9	12	9	0	0	0	7	2	0	0	0	2	0
March	14.7	W.	39	NW.	6	5	3	2	5	3	1	8	4	0	15	7	9	8	7	2	1	1	2	0	0	0	5	3	0
April	11.2	SE.	40	NW.	1	3	4	2	11	3	1	3	3	0	10	11	9	7	5	0	0	0	1	0	0	0	0	4	0
May	11.2	SE.	31	W.	0	4	1	2	9	4	0	5	6	0	13	11	7	7	7	0	0	1	0	0	0	1	0	5	0
June	10.0	SE.	44	NE.	2	1	3	3	11	11	1	0	0	0	14	13	3	5	4	0	0	0	0	0	0	0	0	10	0
July	8.7	S.	59	N.	2	3	3	5	5	7	7	0	0	1	13	13	5	4	4	0	0	0	0	0	0	0	27	0	0
August	10.4	S.	32	N.	0	3	4	5	9	9	0	1	0	0	17	14	0	4	3	0	0	0	0	0	0	0	19	0	0
September	9.6	SE.	27	SE.	0	1	1	7	13	7	0	0	0	1	24	5	1	2	1	0	0	0	0	0	0	0	24	0	0
October	9.6	SE.	31	NE.	0	2	1	8	12	3	0	2	3	0	19	6	6	8	7	0	0	0	0	0	0	0	3	0	0
November	11.0	SE.	48	SW.	2	4	1	4	13	4	1	1	1	1	9	5	16	12	8	0	0	0	3	0	0	0	0	0	0
December	10.8	SE.	44	W.	1	3	5	1	6	4	4	6	2	0	10	5	16	14	8	0	0	2	4	4	0	0	0	5	0
Year	10.6	SE.	59	N.	17	33	34	43	108	60	20	31	30	6	177	102	86	91	69	2	1	4	25	7	0	92	11	49	0

DAVENPORT, IOWA

[H_b=606 ft.; h_t=118 ft.; h_r=111 ft.; h_a=143 ft.]

January	9.3	SW.	31	NW.	0	0	4	2	3	9	13	18	13	0	12	8	11	3	1	8	3	0	10	0	6	0	26	0	0
February	7.7	SW.	28	NE.	0	7	10	3	3	7	10	4	10	2	10	9	9	3	1	5	0	0	11	2	1	0	20	0	0
March	10.1	NW.	36	NE.	1	8	15	10	6	0	1	3	18	1	8	5	18	11	9	8	6	0	5	6	1	0	20	0	0
April	8.2	W.	34	SW.	1	1	11	4	3	6	6	13	14	2	13	4	13	9	8	3	0	1	3	0	0	0	3	2	0
May	8.4	NW.	30	SW.	0	8	9	6	5	7	5	10	12	0	11	7	13	12	10	0	0	0	1	0	0	0	0	3	0
June	8.0	SW.	34	SW.	2	1	6	5	7	12	20	6	2	1	12	10	8	6	6	0	0	0	0	0	0	0	11	0	5
July	6.8	SW.	28	SW.	0	2	13	3	2	7	19	10	3	3	14	14	3	6	6	0	0	0	0	0	0	0	17	0	6
August	6.4	NE.	48	SW.	1	2	11	12	2	7	10	9	4	5	10	11	10	8	5	0	0	1	0	0	0	0	7	0	7
September	7.9	S.	27	S.	0	4	9	5	3	17	11	7	3	1	12	7	11	10	9	0	0	0	4	1	0	0	9	0	7
October	8.8	S.	34	W.	2	2	8	4	7	10	9	6	15	1	10	7	14	15	9	0	0	0	5	2	0	0	0	4	0
November	10.4	SW.	37	SW.	2	2	5	6	6	14	10	8	9	0	6	7	17	12	7	3	2	0	6	0	2	0	8	2	0
December	9.4	SW.	38	NE.	2	2	6	10	10	3	15	7	8	1	6	7	18	12	10	7	7	0	15	3	0	0	17	0	0
Year	8.4	SW.	48	SW.	11	39	107	70	57	99	129	101	111	17	124	96	145	107	81	34	18	2	60	8	10	44	92	36	0

DAYTON, OHIO

[H_b=899 ft.; h_t=137 ft.; h_r=132 ft.; h_a=173 ft.]

January	8.1	SW.	30	W.	0	7	2	3	1	8	22	13	6	0	6	6	19	5	4	9	3	0	4	1	6	0	21	0	0
February	6.7	SW.	25	W.	0	16	6	2	5	4	13	2	8	0	6	9	13	14	6	6	3	0	9	0	2	0	16	0	0
March	8.5	NW.	33	SW.	1	10	14	7	3	3	5	9	11	0	2	5	24	16	11	15	8	0	4	0	3	0	19	0	0
April	7.7	NE.	27	NW.	0	6	18	2	1	7	10	6	10	0	13	8	9	10	10	3	2	2	3	0	0	0	0	2	0
May	7.7	SW.	26	SW.	0	7	6	5	3	7	21	5	7	1	7	15	9	15	11	0	0	0	1	0	0	0	0	5	0
June	5.6	SW.	35	SW.	1	4	12	6	8	9	9	6	6	0	5	21	4	11	10	0	0	0	1	0	0	0	8	0	11	1
July	5.6	SW.	28	SW.	0	13	14	0	1	8	21	4	0	1	11	18	2	9	6	0	0	0	0	0	0	0	16	0	13
August	5.6	SW.	24	SW.	0	7	12	3	5	9	17	4	3	2	8	16	7	11	8	0	0	0	2	1	0	0	8	0	7
September	6.4	SW.	23	SW.	0	7	7	2	2	3	28	2	6	3	12	13	5	8	8	0	0	0	3	0	0	0	7	0	5
October	6.6	SW.	28	SW.	0	3	6	2	5	8	23	5	7	3	11	10	10	10	8	0	0	0	5	0	0	0	0	5	0
November	7.9	SW.	30	S.	0	2	4	4	2	12	21	4	10	1	6	15	9	16	14	2	2	0	9	0	0	0	4	1	0
December	7.4	SW.	26	W.	0	5	7	4	5	9	18	5	7	2	4	9	18	11	9	1	0	0	8	2	0	0	14	2	0
Year	7.0	SW.	35	SW.	2	87	108	40	41	87	208	65	81	13	91	145	129	136	105	36	18	2	48	4	11	39	74	51	1

DEL RIO, TEX.

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

January	5.9	SE.	44	NW.	1	6	1	17	15	4	1	2	13	3	8	11	12	11	8	0	0	0	2	4	0	0	1	0	0
February	6.8	SE.	29	SE.	0	9	4	9	17	5	1	3	8	0	8	13	7	8	5	0	0	0	5	6	0	0	0	2	0
March	8.9	SE.	37	N.	2	11	6	7	17	9	0	3	8	1	16	12	3	3	2	0	0	0	3	0	0	0	2	0	0
April	7.6	SE.	33	N.	1	8	2	16	21	7	1	1	4	0	3	19	8	10	8	0	0	2	3	1	0	0	0	7	0
May	7.6	SE.	46	W.	1	8	4	9	29	5	2	1	3	1	9	14	8	10	8	0	0	1	1	1	0	1	0	7	0
June	7.8	SE.	32	NW.	0	2	0	15	37	4	0	1	1	0	9	16	5	7	6	0	0	0	0	0	0	0	20	0	3
July	8.2	SE.	34	E.	1	0	2	12	39	7	0	0	1	1	11	16	4	5	3	0	0	0	0	0	0	0	26	0	4
August	7.4	SE.	35	E.	1	1	2	14	35	10	0	0	0	0	13	17	1	4	2	0	0	0	0	0	0	0	25	0	4
September	7.9	SE.	24	SE.	0	0	1	14	41	4	0	0	0	0	17	13	0	0	0	0	0	0	0	0	0	0	28	0	0
October	8.9	SE.	22	SE.	0	3	3	14	34	3	1	0	3	1	18	10	3	1	0	0	0	0	0	0	0	0	13	0	2
November	7.5	SE.	29	NW.	0	8	2	10	33	1	0	0	5	1	12	5	13	7	5	0	0	0	1	0	0	0	0	2	0
December	8.4	SE.	28	NW.	0	8	6	6	13	3	0	2	19	3	9	9	13	8	4	0	0	0	15	7	0	0	1	0	0
Year	7.6	SE.	46	W.	7	66	33	143	331	62	6	13	65	11	133	155	77	74	51	0	0	3	30	19	0	113	4	31	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

DENVER, COLO.

[ϕ=39° 45′ N.; λ=105° 00′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	24.74	25.11	24.26	27.1	41.7	40.5	46.6	24.9	35.8	64	14	14	15	19	57	35	42	0.081	0.085	0.100	0.02	0.02	0.1	1.7	3.8	4.7	3.6
February	24.69	25.11	24.38	30.8	43.7	43.3	47.9	29.7	38.8	64	23	22	20	23	70	43	48	.116	.106	.122	1.11	.62	18.0	4.0	5.7	7.2	5.4
March	24.71	25.08	24.12	29.8	41.4	42.7	47.4	25.8	36.6	68	−2	20	18	19	68	43	43	.109	.102	.107	1.00	.29	19.0	7.0	6.2	5.9	6.2
April	24.73	25.15	24.27	39.1	53.7	54.4	58.4	36.6	47.5	75	23	26	24	24	63	40	38	.146	.135	.136	2.23	1.19	12.5	6.0	5.9	5.9	5.8
May	24.74	25.07	24.31	45.4	61.9	60.7	66.5	43.4	55.0	86	30	34	31	32	67	37	43	.201	.176	.190	3.45	1.34	7.2	4.5	5.6	6.3	5.5
June	24.74	24.96	24.49	60.6	79.7	78.0	83.8	58.8	71.3	96	50	45	39	42	59	27	32	.307	.252	.281	.62	.21	0	3.5	5.0	6.7	5.0
July	24.77	25.04	24.55	64.9	82.9	82.9	88.6	63.3	76.0	100	49	45	42	44	51	27	29	.310	.277	.301	.90	.41	0	3.2	3.6	5.6	4.0
August	24.85	25.08	24.60	61.3	79.4	78.9	84.3	60.2	72.2	95	50	47	43	45	61	30	34	.328	.285	.306	2.36	1.61	0	3.0	3.6	5.7	4.0
September	24.73	25.13	24.32	56.8	76.5	76.0	81.1	55.3	68.2	94	39	39	35	36	54	25	26	.245	.206	.220	.22	.08	0	2.9	3.3	4.7	3.8
October	24.77	25.12	24.32	44.6	62.4	59.7	66.5	41.6	54.0	84	23	30	27	29	58	28	35	.168	.148	.166	.63	.37	T.	4.0	3.9	4.8	4.2
November	24.69	25.14	24.24	30.2	44.4	42.4	48.7	26.6	37.6	78	0	16	18	18	58	41	45	.093	.100	.099	.59	.42	15.6	3.4	3.8	3.3	3.5
December	24.66	25.03	24.11	27.8	41.7	38.7	46.4	25.2	35.8	64	8	13	15	17	52	33	40	.078	.085	.095	.03	.02	.8	1.1	4.2	3.5	3.4
Year	24.74	25.15	24.11	43.2	59.1	58.2	63.8	41.0	52.4	100	−2	29	27	29	60	34	38	.182	.164	.177	13.16	1.61	73.2	3.7	4.6	5.4	4.5

DES MOINES, IOWA

[ϕ=41° 35′ N.; λ=93° 37′ W.]

January	29.14	29.64	28.82	24.8	34.4	34.1	39.7	20.9	30.3	56	0	21	24	25	85	66	70	0.117	0.135	0.139	0.57	0.52	8.6	4.1	6.1	3.7	5.4
February	29.17	29.56	28.66	29.5	42.3	40.7	46.8	26.9	36.8	58	10	25	25	26	84	52	56	.138	.142	.145	.09	.09	T.	5.3	4.6	4.2	5.0
March	29.13	29.53	28.51	29.5	40.0	40.2	44.3	27.7	36.0	59	17	24	24	24	79	55	53	.131	.133	.132	1.52	.56	6.9	7.1	7.0	6.8	7.0
April	29.15	29.53	28.67	43.5	58.1	59.0	63.1	41.4	52.2	87	27	37	36	36	78	48	47	.231	.221	.230	1.55	.67	.4	6.3	5.7	6.2	5.8
May	29.01	29.43	28.57	51.7	64.4	66.0	70.7	47.6	59.2	90	28	43	42	44	72	47	48	.288	.282	.306	2.68	1.65	0	5.4	6.2	5.5	5.6
June	29.02	29.29	28.78	60.9	82.7	82.8	86.2	66.7	76.4	99	48	62	63	65	78	53	57	.575	.590	.635	6.14	2.60	0	4.9	4.9	3.9	4.6
July	29.02	29.29	28.77	71.2	85.9	84.7	89.5	67.6	78.6	107	56	61	62	63	72	46	51	.551	.573	.589	3.60	1.81	0	3.9	4.7	3.9	4.1
August	29.13	29.38	28.70	64.6	80.5	79.2	83.7	61.6	72.6	92	50	58	59	59	81	50	52	.506	.521	.522	3.60	1.96	0	4.5	5.6	4.5	5.2
September	29.04	29.44	28.68	64.8	78.5	75.9	82.6	62.1	72.4	98	43	58	59	60	80	53	60	.496	.509	.530	4.44	2.68	0	5.6	4.8	4.0	4.9
October	29.10	29.56	28.60	51.9	64.5	60.7	67.3	49.8	58.6	84	37	47	47	50	84	56	68	.338	.345	.377	3.54	1.82	0	5.1	5.3	5.1	5.6
November	29.12	29.60	28.38	40.8	50.0	47.2	54.4	35.6	45.0	78	18	37	39	39	88	67	74	.246	.258	.258	7.10	2.29	2.2	6.4	7.4	6.5	7.5
December	29.15	29.63	28.45	32.6	38.4	36.8	42.1	29.5	35.8	55	14	30	31	32	89	76	82	.167	.177	.181	3.72	1.49	5.7	5.5	7.2	6.7	7.0
Year	29.10	29.64	28.38	47.9	60.0	58.9	64.2	44.8	54.5	107	0	42	43	44	81	56	60	.315	.324	.337	38.61	2.69	23.8	5.3	5.8	5.1	5.6

DETROIT, MICH.

[ϕ=42° 20′ N.; λ=83° 03′ W.]

January	29.22	29.74	28.62	26.8	31.1	29.6	34.2	22.6	28.4	49	10	24	26	26	88	81	86	0.130	0.143	0.141	1.68	0.49	14.3	6.3	6.3	6.7	6.5
February	29.27	29.55	28.96	29.7	35.0	33.4	39.1	26.6	32.8	56	12	26	26	27	88	71	77	.138	.143	.148	1.40	.75	3.5	6.6	6.2	6.6	6.0
March	29.17	29.59	28.49	30.8	36.0	34.4	39.2	28.9	34.0	55	19	27	29	28	84	76	79	.145	.161	.156	2.67	.90	14.3	7.5	7.8	7.8	7.2
April	29.25	29.66	28.65	42.4	53.0	50.3	58.7	38.5	45.6	80	29	34	35	34	72	54	56	.202	.213	.204	1.87	.68	2.1	4.3	4.9	5.1	4.0
May	29.15	29.52	28.80	53.0	63.8	59.5	68.6	48.2	58.4	90	39	44	46	46	73	54	64	.302	.324	.327	2.32	.63	0	5.1	5.7	5.6	4.2
June	29.23	29.44	28.73	65.1	73.7	72.0	79.0	60.2	69.6	98	46	56	57	57	72	58	61	.459	.493	.494	2.27	1.06	0	5.4	5.7	6.3	4.5
July	29.16	29.41	28.78	72.7	83.3	79.5	87.0	68.3	77.6	100	60	61	62	64	68	49	60	.555	.576	.607	1.81	.66	0	5.3	5.3	5.4	4.2
August	29.26	29.57	28.97	67.8	78.0	74.7	81.7	64.8	73.2	97	52	59	56	57	74	49	55	.507	.465	.480	.84	.28	0	6.2	6.1	4.6	5.1
September	29.24	29.66	28.80	65.0	73.7	70.9	78.0	61.6	69.8	95	48	58	57	59	80	59	67	.508	.491	.517	2.97	.84	0	4.8	6.3	3.9	5.1
October	29.27	29.86	28.78	51.8	61.1	58.4	65.7	49.3	57.5	82	36	46	46	46	80	59	66	.321	.329	.332	2.43	.78	0	5.9	5.7	4.6	5.4
November	29.32	29.79	28.86	44.4	50.8	49.1	54.1	41.6	47.8	70	26	39	40	40	82	69	72	.256	.268	.269	3.56	1.32	.7	6.7	7.8	6.7	7.3
December	29.31	29.81	28.76	34.7	38.5	38.2	42.8	31.6	37.2	62	19	31	33	32	84	80	78	.176	.193	.185	2.66	.83	1.3	6.4	7.8	6.9	7.7
Year	29.24	29.86	28.49	48.7	56.5	54.2	60.7	45.2	52.9	100	10	42	43	43	78	63	68	.308	.317	.322	26.48	1.32	36.2	5.9	6.3	5.8	5.6

DEVILS LAKE, N. DAK.

[ϕ=48° 07′ N.; λ=98° 52′ W.]

January	28.36	28.81	27.99	14.7	20.7	18.4	25.7	7.6	16.6	43	−14	14	18	17	95	89	94	0.084	0.103	0.098	0.19	0.06	2.9	6.1	7.8	4.8	7.2
February	28.46	28.85	27.94	20.5	29.4	28.2	33.7	17.4	25.6	51	−13	18	21	24	90	72	83	.104	.120	.132	.13	.12	1.4	5.2	4.8	4.9	5.3
March	28.55	29.12	28.11	17.1	28.0	27.1	33.3	14.5	23.9	47	−8	15	19	20	88	68	74	.091	.106	.113	1.10	.74	3.3	6.3	6.9	6.9	6.6
April	28.42	28.96	27.90	33.2	50.0	49.2	55.2	29.5	42.4	82	11	25	26	26	71	44	45	.135	.144	.149	.65	.40	1.4	3.9	4.9	6.1	4.8
May	28.34	28.73	27.93	43.9	58.6	58.4	64.5	38.2	51.4	86	24	34	34	33	71	45	44	.204	.202	.192	1.42	.58	.6	4.3	5.6	5.4	5.3
June	28.30	28.72	27.86	60.3	74.7	74.3	79.1	54.4	66.8	98	36	51	49	50	74	45	48	.399	.379	.401	2.54	.83	0	4.6	5.2	5.3	5.8
July	28.32	28.75	27.93	60.8	76.2	76.3	81.7	56.9	69.3	105	46	54	54	54	79	51	59	.424	.434	.431	3.01	.96	0	4.6	4.7	3.8	4.8
August	28.43	28.77	27.94	57.1	74.3	72.8	78.3	54.0	66.2	100	40	52	51	52	84	47	51	.395	.386	.393	3.89	2.73	0	5.8	5.8	5.3	5.8
September	28.30	28.72	27.82	50.0	68.3	65.2	72.6	48.2	60.4	99	36	46	48	49	86	51	59	.315	.341	.359	2.72	.98	0	3.7	4.5	2.5	4.3
October	28.37	28.94	27.68	39.0	53.7	49.3	56.9	37.1	47.0	82	29	35	37	38	87	58	68	.208	.220	.233	2.29	1.13	.1	4.1	5.5	5.2	5.8
November	28.37	28.88	27.78	24.8	35.2	31.2	38.3	21.5	29.9	68	2	22	25	25	89	69	78	.120	.142	.141	.48	.38	5.1	5.0	6.1	5.8	6.3
December	28.39	28.89	27.93	17.1	23.0	21.6	27.5	12.6	20.0	38	−10	16	19	19	95	83	89	.096	.109	.108	.09	.06	1.2	5.5	6.4	5.6	6.8
Year	28.39	29.12	27.68	36.5	49.3	47.7	53.9	32.7	43.3	105	−14	32	33	34	84	60	65	.215	.224	.229	18.51	2.73	15.9	4.9	5.7	5.2	5.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

DENVER, COLO.

[H_b=5,292 ft.; h_t=106 ft.; h_r=98 ft.; h_a=113 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp. 32° or below	90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Aurora
	Mi.		Mi.																										
January	6.0	S.	18	W.	0	4	3	3	5	30	6	5	5	1	17	10	4	1	0	2	1	0	0	0	3	0	25	0	0
February	5.8	S.	24	W.	0	6	6	1	9	12	4	7	11	0	5	16	7	7	5	10	7	0	1	1	1	0	22	0	0
March	7.4	S.	38	NW.	2	10	4	6	5	18	4	7	8	0	5	15	11	14	7	13	11	0	0	0	6	0	18	0	0
April	6.9	S.	35	NE.	1	9	8	5	5	15	5	7	5	1	7	11	12	11	6	7	7	1	0	0	2	0	11	1	0
May	6.9	S.	35	N.	1	9	12	1	6	19	8	3	4	0	6	16	9	15	12	7	6	3	3	1	0	0	5	8	0
June	6.2	S.	25	N.	0	6	3	5	8	21	7	4	5	1	10	15	5	10	3	0	0	0	0	0	0	0	9	0	12
July	6.1	S.	26	NW.	0	8	4	3	6	18	8	7	6	2	12	17	2	6	4	0	0	0	0	0	0	15	0	10	0
August	5.7	S.	23	W.	0	12	1	2	3	21	7	8	7	1	14	11	6	7	5	0	0	2	0	0	0	7	0	8	0
September	5.9	S.	24	S.	0	8	3	5	7	21	3	6	6	1	15	12	3	4	3	0	0	0	0	0	0	5	0	4	0
October	6.1	S.	33	W.	1	8	9	5	2	20	1	3	13	1	15	8	8	6	5	1	0	0	0	0	0	0	3	1	0
November	6.1	S.	29	SW.	0	9	6	5	1	22	5	6	2	4	18	6	6	8	5	8	7	0	1	0	7	0	18	0	0
December	5.6	S.	22	N.	0	7	2	1	3	23	13	6	4	3	17	12	2	2	0	3	2	0	0	0	2	0	24	0	0
Year	6.2	S.	38	NW.	5	96	61	42	60	240	71	69	76	15	141	149	75	91	55	51	41	6	5	2	21	36	126	44	0

DES MOINES, IOWA

[H_b= 861 ft.; h_t=5 ft.; h_r=3 ft.; h_a=99 ft.]

January	8.6	NW.	28	S.	0	3	2	4	5	11	12	12	13	0	9	10	12	3	2	7	3	0	5	1	10	0	29	0	0
February	7.7	S.	27	E.	0	7	1	10	5	13	2	2	14	2	11	9	8	1	1	1	0	0	8	3	1	0	22	0	0
March	10.0	NW.	33	N.	1	10	3	12	8	3	2	0	22	2	4	12	15	8	7	9	5	0	1	0	0	0	26	0	0
April	8.7	NW.	35	S.	1	5	2	8	8	15	4	4	14	0	12	4	14	9	7	3	2	1	0	0	0	0	5	4	0
May	9.2	NW.	34	S.	1	12	2	4	12	7	3	3	18	1	10	9	12	8	8	0	0	0	0	0	0	0	1	2	0
June	8.3	S.	36	NW.	2	5	1	3	20	22	2	0	6	1	13	9	6	10	6	0	0	0	1	0	0	12	0	9	0
July	7.1	S.	32	W.	0	13	4	3	17	14	4	1	6	0	15	9	7	8	7	0	0	1	2	0	0	15	0	8	0
August	6.5	S.	29	W.	0	6	4	10	12	14	4	2	9	1	11	11	9	13	8	0	0	0	7	0	0	4	0	8	0
September	8.5	S.	30	SW.	0	7	4	6	9	21	6	2	3	2	12	9	9	11	8	0	0	0	11	2	0	12	0	9	0
October	9.1	S.	32	NW.	0	6	0	8	15	10	4	5	13	1	11	7	13	13	10	0	0	1	12	0	0	0	0	6	0
November	8.5	S.	33	NW.	1	2	1	10	13	12	6	6	10	0	5	5	20	13	10	4	2	0	10	3	2	0	11	5	0
December	8.8	SE.	28	N.	0	8	3	9	10	10	7	9	5	1	8	2	21	14	8	7	6	0	11	4	2	0	21	0	0
Year	8.4	S.	36	NW.	6	84	27	87	134	152	56	46	133	11	123	96	146	111	82	31	18	3	68	13	15	43	115	51	0

DETROIT, MICH.

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

January	10.4	SW.	28	SW.	0	4	1	6	3	4	20	16	7	1	8	7	16	13	9	17	13	0	3	3	9	0	30	0	0
February	9.1	N.	25	SW.	0	9	12	4	1	0	12	10	8	0	10	4	14	8	6	8	4	0	0	0	3	0	20	0	0
March	8.9	NW.	36	SW.	2	9	9	11	4	1	8	6	14	0	6	6	19	13	9	13	9	0	0	0	3	0	25	0	0
April	8.4	NE.	33	SW.	1	5	11	7	9	2	7	10	9	0	17	5	8	7	7	3	1	0	0	0	0	0	4	0	0
May	8.1	SW.	28	SW.	0	5	7	3	13	7	13	6	8	0	14	10	7	13	11	0	0	1	1	0	0	1	0	8	0
June	7.2	SW.	35	SW.	2	5	5	11	8	10	8	6	7	0	11	14	5	9	6	0	0	0	0	0	0	4	0	8	0
July	7.2	SW.	26	SW.	0	8	8	3	5	2	19	8	9	0	9	21	1	6	6	0	0	0	0	0	0	11	0	6	0
August	8.1	SW.	33	SW.	1	14	7	6	7	1	12	8	7	0	7	17	7	8	8	0	0	0	0	0	0	6	0	5	0
September	8.4	SW.	29	SW.	0	4	5	4	4	4	26	6	6	1	11	11	8	11	9	0	0	0	0	0	0	5	0	4	0
October	8.7	SW.	27	SW.	0	4	2	5	8	6	22	10	5	0	9	13	9	13	11	0	0	0	0	0	0	0	0	5	0
November	10.0	SW.	33	SW.	1	0	3	9	5	3	24	13	3	0	5	8	17	12	8	2	2	0	4	0	0	0	6	1	0
December	10.1	SW.	32	SW.	0	3	5	4	8	5	19	8	10	0	4	6	21	10	8	5	2	0	6	2	1	0	17	0	0
Year	8.7	SW.	36	SW.	7	70	75	73	75	45	190	107	93	2	111	122	132	123	98	48	31	1	14	5	16	27	102	37	0

DEVILS LAKE, N. DAK.

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

January	8.0	NW.	29	N.	0	5	2	4	6	9	9	8	17	2	4	7	20	5	3	16	5	0	10	5	22	0	31	0	0
February	8.0	S.	22	NW.	0	9	8	4	8	9	7	4	7	0	10	8	10	3	2	11	3	0	4	2	15	0	28	0	1
March	9.6	NE.	37	NE.	2	14	15	3	12	7	4	1	4	2	7	9	15	10	4	11	7	0	1	0	12	0	30	0	0
April	10.1	N.	28	NW.	0	10	6	2	14	5	8	5	10	0	13	9	8	5	3	6	3	0	0	0	1	0	15	1	1
May	10.4	N.	42	NE.	1	14	8	4	10	9	5	5	6	1	13	7	11	11	5	3	2	0	0	0	0	0	9	4	1
June	8.4	NE.	31	NW.	0	7	9	9	11	6	7	5	3	3	8	12	10	12	9	0	0	1	0	0	0	0	7	0	7
July	7.7	NW.	24	N.	0	10	6	8	9	4	6	9	9	1	13	10	8	7	6	0	0	0	0	0	0	5	0	2	1
August	8.0	NW.	30	NW.	0	3	4	9	14	9	9	2	14	1	9	11	11	8	6	0	0	0	0	0	0	1	0	4	3
September	7.7	SE.	28	NE.	0	2	5	9	13	8	3	13	7	0	15	9	6	7	5	0	0	0	0	0	0	0	0	1	2
October	9.2	SW.	30	NW.	0	8	3	9	10	7	13	8	10	0	9	8	14	5	5	3	1	0	5	2	2	0	4	1	4
November	8.3	NW.	28	NW.	0	9	3	6	8	4	11	6	13	0	7	11	12	6	3	12	6	0	3	2	12	0	25	0	2
December	7.9	S.	21	NW.	0	3	5	4	10	13	10	10	7	0	4	12	15	4	1	8	3	0	8	6	22	0	31	0	2
Year	8.6	NW.	42	NE.	3	94	74	62	125	90	92	76	107	10	112	113	140	83	52	70	30	1	31	17	84	16	173	22	21

Annual meteorological summaries for the year ending December 31, 1931—Continued

DODGE CITY, KANS.

[ϕ=37° 45′ N.; λ=100° 00′ W.]

Month	Pressure			Temperature								Moisture													
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	27.49	27.81	26.97	27.0	45.1	40.2	50.5	24.5	37.5	71	10	22	25	26	81	50	58	0.118	0.137	0.137	0.10	0.07	0.4	3.1	3.4	3.5	3.4
February	27.42	27.75	26.98	33.1	48.7	46.5	54.2	31.0	42.6	67	24	30	30	31	86	52	56	.164	.173	.173	.56	.35	1.3	4.4	4.8	3.1	4.4
March	27.43	27.88	26.90	29.2	44.3	42.6	49.5	26.3	37.9	73	6	24	28	29	83	58	63	.134	.158	.161	2.83	1.19	12.1	4.2	5.8	5.9	5.4
April	27.46	27.84	26.93	42.2	58.0	57.5	62.8	40.4	51.6	83	28	38	38	41	84	52	58	.233	.242	.267	2.10	.86	T.	4.5	5.2	4.8	5.1
May	27.39	27.80	26.92	50.8	65.6	66.4	71.2	47.8	59.5	92	31	43	44	46	76	48	51	.295	.308	.338	2.14	1.63	T.	3.1	3.8	3.6	3.4
June	27.36	27.58	27.04	67.8	85.9	85.6	89.9	65.0	77.4	97	53	57	56	56	70	37	38	.476	.445	.451	1.46	.98	0	3.0	1.7	3.0	2.1
July	27.38	27.63	27.16	69.6	87.6	87.5	92.4	66.8	79.6	104	51	59	56	55	72	37	38	.512	.463	.455	2.00	.67	0	2.9	2.9	3.2	2.6
August	27.46	27.72	27.10	66.1	83.5	83.0	88.3	64.1	76.2	104	56	57	56	56	75	42	43	.478	.461	.464	1.52	.78	0	4.1	3.0	2.5	3.0
September	27.38	27.71	27.04	66.5	86.0	84.5	90.5	65.2	77.8	103	46	52	51	50	62	31	34	.400	.377	.376	.69	.53	0	2.2	1.5	2.5	2.0
October	27.45	27.76	27.04	50.8	68.9	66.4	73.7	48.2	61.0	93	19	42	42	40	73	42	43	.286	.288	.265	.56	.44	0	2.8	2.7	2.6	2.7
November	27.42	27.79	26.92	37.0	49.8	46.6	54.8	33.9	44.4	82	17	31	34	34	80	62	67	.183	.206	.206	1.32	.52	2.9	5.0	5.0	4.0	4.7
December	27.41	27.85	26.72	31.1	44.8	40.9	48.8	28.7	38.8	67	17	27	30	30	82	59	66	.144	.165	.169	.47	.21	.6	4.5	4.9	4.5	4.5
Year	27.42	27.88	26.72	47.6	64.0	62.3	68.9	45.2	57.0	104	6	40	41	41	77	48	51	.285	.285	.288	15.76	1.63	17.3	3.6	3.7	3.6	3.6

DUBUQUE, IOWA

[ϕ=42° 30′ N.; λ=90° 40′ W.]

January	29.26	29.74	28.91	24.5	31.4	31.5	35.2	21.9	28.6	49	−2	22	24	26	88	72	80	0.120	0.132	0.143	0.79	0.70	7.9	5.7	5.7	5.3	6.0
February	29.33	29.73	28.88	29.1	37.6	37.0	41.6	27.0	34.3	51	8	26	26	29	88	64	73	.144	.147	.163	.25	.24	1.4	4.5	5.1	5.5	5.7
March	29.28	29.60	28.62	29.0	37.7	37.4	41.0	27.8	34.4	54	20	25	24	27	83	60	65	.134	.133	.145	2.20	1.58	18.1	6.6	6.9	7.7	6.8
April	29.30	29.67	28.91	42.7	56.6	56.5	61.3	40.8	51.0	84	27	34	33	34	73	43	44	.200	.195	.202	1.43	.58	T.	4.7	5.0	5.0	5.0
May	29.16	29.61	28.60	50.7	62.3	62.1	66.4	47.1	56.8	87	34	43	43	44	76	52	54	.290	.296	.299	2.00	.60	0	5.5	6.4	5.5	6.0
June	29.20	29.47	28.85	68.0	80.8	80.5	85.1	65.1	75.1	103	45	60	61	63	78	53	57	.546	.550	.587	2.31	.67	0	5.4	5.6	4.2	5.2
July	29.18	29.49	28.81	70.6	84.8	85.2	89.2	67.0	78.1	100	53	60	58	59	72	42	44	.541	.494	.525	2.57	1.34	0	2.0	4.1	3.8	3.3
August	29.28	29.54	28.92	64.6	80.2	79.1	83.8	62.4	73.1	94	51	57	55	54	76	43	45	.473	.455	.448	2.02	1.24	0	5.3	5.8	5.8	5.9
September	29.22	29.57	28.83	63.3	75.7	73.3	79.2	60.9	70.0	96	44	58	57	58	85	55	61	.506	.486	.499	6.67	2.36	0	5.1	5.1	4.4	4.9
October	29.26	29.80	28.73	51.9	60.9	58.0	64.2	49.5	56.8	81	35	46	48	47	83	61	68	.328	.331	.342	2.92	1.12	0	6.0	5.4	5.6	6.0
November	29.29	29.83	28.64	41.4	49.3	47.2	53.8	37.9	45.8	73	17	37	38	38	85	67	72	.242	.252	.253	4.86	1.31	T.	6.0	6.6	6.4	6.8
December	29.32	29.81	28.63	32.5	37.0	36.4	40.5	29.9	35.2	54	15	29	30	30	85	75	76	.163	.169	.167	1.51	.62	5.7	6.6	7.0	6.0	7.1
Year	29.26	29.83	28.60	47.4	57.0	57.0	61.8	44.8	53.3	103	−2	41	41	42	81	57	62	.308	.303	.314	29.53	2.36	33.1	5.3	5.7	5.4	5.7

DUE WEST, S. C.

[ϕ=34° 21′ N.; λ=82° 22′ W.]

January	29.34	29.83	28.59	34.9	48.4	-----	52.7	32.9	42.8	68	19	31	32	---	84	55	---	0.179	0.184	-----	2.25	0.92	1.1	4.6	5.2	----	4.6
February	29.31	29.58	28.93	38.4	52.3	-----	57.3	35.4	46.4	66	24	33	35	---	82	54	---	.198	.216	-----	1.98	.62	0	4.9	5.3	----	4.6
March	29.19	29.55	28.65	40.3	52.3	-----	57.3	37.0	47.2	68	27	33	33	---	76	51	---	.196	.199	-----	3.01	1.08	.8	5.3	6.5	----	5.7
April	29.30	29.67	28.58	53.0	65.3	-----	70.2	48.1	59.2	79	37	45	45	---	76	53	---	.314	.316	-----	1.51	.48	0	5.4	5.6	----	5.5
May	29.23	29.57	28.89	62.0	73.3	-----	77.8	56.3	67.0	89	43	54	54	---	76	53	---	.428	.426	-----	3.17	.63	0	4.6	5.6	----	4.9
June	29.28	29.50	28.89	73.0	85.8	-----	91.1	66.5	78.8	103	54	62	61	---	69	45	---	.565	.561	-----	2.39	1.19	0	4.5	4.3	----	4.8
July	29.24	29.42	29.00	76.7	88.6	-----	92.5	71.3	81.9	99	68	72	71	---	80	56	---	.789	.755	-----	3.94	1.03	0	4.6	6.3	----	5.7
August	29.31	29.60	28.97	71.9	83.2	-----	87.1	67.6	77.4	97	57	68	67	---	87	59	---	.089	.603	-----	3.88	1.19	0	5.0	7.0	----	6.0
September	29.34	29.73	29.00	71.0	83.5	-----	88.6	66.4	77.5	99	48	64	63	---	79	52	---	.613	.593	-----	.84	.40	0	3.5	4.9	----	3.7
October	29.39	29.76	28.94	56.6	74.1	-----	77.6	52.7	65.2	88	38	48	47	---	75	40	---	.359	.349	-----	1.45	.54	0	3.7	3.6	----	3.6
November	29.48	29.74	29.18	49.7	66.2	-----	69.6	47.6	58.6	80	35	43	45	---	80	50	---	.304	.326	-----	.54	.24	0	4.3	4.2	----	4.6
December	29.41	29.79	28.92	45.7	55.2	-----	59.9	43.1	51.5	79	30	42	45	---	88	71	---	.291	.327	-----	11.68	4.25	0	6.2	7.1	----	7.0
Year	29.32	29.83	28.58	56.1	69.0	-----	73.5	52.1	62.8	103	19	50	50	---	80	53	---	.410	.410	-----	36.64	4.25	1.9	4.7	5.5	----	5.1

DULUTH, MINN.

[ϕ=46° 47′ N.; λ=92° 06′ W.]

January	28.73	29.20	28.34	17.0	23.3	21.4	27.1	12.5	19.8	39	−11	14	17	18	87	76	84	0.086	0.097	0.098	0.29	0.12	4.3	6.9	6.3	6.0	6.3
February	28.84	29.20	28.32	21.5	30.7	27.2	34.6	17.7	26.2	56	−5	18	21	21	83	65	76	.101	.115	.114	.69	.53	9.2	5.8	5.0	3.9	4.9
March	28.89	29.29	28.47	22.8	32.1	29.4	34.3	20.7	27.5	45	10	20	23	23	87	70	75	.106	.124	.120	1.87	.64	13.5	6.0	6.2	6.8	6.0
April	28.81	29.17	28.42	36.3	49.2	43.4	52.8	31.3	42.0	76	19	28	31	29	71	52	58	.153	.179	.164	1.04	.60	2.7	4.7	3.8	5.0	4.0
May	28.71	29.14	28.33	45.3	56.0	52.0	60.3	40.5	50.4	88	30	38	40	37	76	60	61	.236	.252	.228	4.51	1.86	T.	5.0	5.4	5.9	5.4
June	28.76	29.11	28.42	55.2	66.2	62.6	70.0	50.0	60.0	94	41	50	54	53	84	69	74	.375	.438	.429	4.57	2.03	0	4.8	4.6	6.1	5.8
July	28.71	29.01	28.37	63.4	74.8	70.6	79.2	57.8	68.5	94	48	56	58	56	78	57	61	.460	.486	.460	2.73	1.70	0	3.3	5.6	4.2	4.6
August	28.80	29.03	28.34	59.0	70.3	65.9	73.0	54.8	63.9	92	39	53	56	56	81	62	70	.409	.456	.451	4.32	2.94	0	5.5	5.7	4.0	5.3
September	28.70	28.99	28.32	55.4	66.9	61.1	70.5	52.4	61.4	92	37	51	53	52	85	64	74	.379	.419	.394	3.63	1.33	0	4.5	4.7	4.2	5.0
October	28.71	29.30	27.84	45.3	56.9	51.3	59.6	42.2	50.9	79	33	40	42	41	83	60	71	.259	.271	.274	2.90	.65	0	6.1	5.3	5.2	5.7
November	28.70	29.27	27.97	38.0	39.9	36.3	43.8	28.5	36.2	65	7	29	29	29	84	67	76	.167	.170	.171	3.89	1.04	4.0	6.8	7.0	5.6	7.4
December	28.79	29.24	28.23	24.4	30.0	27.5	32.6	20.7	26.6	48	−6	21	24	23	85	76	81	.117	.132	.127	.32	.24	3.0	6.4	6.4	6.2	6.8
Year	28.76	29.30	27.84	39.9	49.6	45.7	53.2	35.8	44.4	94	−11	35	37	36	82	65	72	.237	.262	.252	30.76	2.94	36.7	5.5	5.5	5.3	5.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

DODGE CITY, KANS.

[H_b=2,509 ft.; h_t=88 ft.; h_r=81 ft.; h_a=100 ft.]

Month	Wind: By self-register: Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Wind: Number of winds, 5 a. m. and 8 p. m.: Days with 33 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	6.8	NW.	22	NW.	0	7	3	4	6	7	3	10	22	0	18	8	5	3	1	3	3	0	3	2	1	0	30	0	0
February	8.1	S.	26	SE.	0	11	11	2	10	8	3	6	5	0	12	10	6	4	3	2	1	0	4	1	0	0	18	0	0
March	9.8	NW.	37	NW.	0	12	9	1	9	5	1	5	19	1	12	7	12	10	8	5	5	0	3	0	5	0	19	0	0
April	11.9	S.	38	N.	4	10	5	3	14	14	4	5	5	0	12	7	11	12	9	1	0	0	3	3	0	0	6	5	0
May	12.1	S.	42	NW.	2	7	12	4	6	12	5	4	12	0	18	8	5	7	5	1	1	0	2	1	0	0	2	1	0
June	12.8	S.	34	SW.	1	4	2	1	5	36	7	0	5	0	22	7	1	3	2	0	0	2	1	0	0	17	0	6	0
July	10.9	S.	34	SW.	1	4	5	4	14	23	8	3	11	0	22	7	2	10	8	0	0	0	0	0	0	22	0	10	0
August	10.1	S.	32	E.	0	3	8	4	24	13	3	1	5	1	21	6	4	9	4	0	0	0	1	2	0	14	0	6	0
September	14.3	S.	34	SW.	1	3	5	2	7	26	13	0	4	0	23	5	2	5	2	0	0	0	1	1	0	18	0	2	0
October	12.3	S.	47	N.	4	6	9	3	9	18	5	4	7	1	23	5	3	4	2	0	0	0	4	1	0	3	2	1	0
November	11.2	NW.	37	NW.	2	4	9	2	9	13	7	2	14	0	15	5	10	8	6	1	2	0	10	1	2	0	10	1	0
December	10.6	NW.	44	N.	2	6	3	2	7	11	12	2	19	0	16	5	10	6	3	1	1	0	6	1	1	0	22	0	0
Year	10.9	S.	47	N.	17	77	81	32	120	186	71	42	118	3	214	80	71	81	53	26	16	3	38	12	9	76	108	33	0

DUBUQUE, IOWA

[H_b=700 ft.; h_t=81 ft.; h_r=76 ft.; h_a=96 ft.]

January	5.2	NW.	21	NW.	0	3	2	1	7	15	9	1	22	2	12	4	15	4	2	9	4	0	2	1	8	0	28	0	0
February	4.8	S.	18	NW.	0	6	9	1	4	15	3	1	13	4	10	6	12	3	1	6	2	0	6	4	3	0	24	0	0
March	6.7	N.	25	NE.	0	10	16	2	11	2	1	1	19	0	7	7	17	9	6	8	5	0	0	0	1	0	22	0	0
April	5.2	NW.	23	NW.	0	6	5	2	8	10	8	1	17	3	12	5	13	8	6	2	0	0	0	0	0	0	4	6	0
May	5.2	S.	20	S.	0	12	6	0	7	12	8	1	12	4	10	6	15	9	7	6	0	0	2	0	0	0	0	2	0
June	5.1	S.	21	N.	0	4	4	3	16	16	12	0	5	0	12	6	12	9	7	0	0	1	0	0	0	10	0	7	0
July	4.6	S.	17	NW.	0	8	5	3	9	12	12	2	8	3	13	9	4	9	7	0	0	0	2	2	0	13	0	8	0
August	4.3	SW.	25	NW.	0	7	8	1	11	13	9	1	8	4	9	7	15	5	5	0	0	0	0	0	0	7	0	3	0
September	4.8	S.	16	NW.	0	4	4	1	10	22	5	0	10	4	12	8	10	13	11	0	0	0	3	2	0	7	0	8	0
October	5.2	S.	19	N.	0	6	3	1	4	21	12	4	11	0	12	3	16	11	7	0	0	0	8	3	0	0	0	5	0
November	5.5	S.	22	NW.	0	1	5	3	8	15	10	1	11	6	5	9	16	11	8	2	0	0	7	5	2	0	7	2	0
December	5.2	SE.	19	NE.	0	4	5	5	15	9	13	1	10	0	7	4	20	11	6	6	4	0	6	5	1	0	19	0	0
Year	5.2	S.	25	NW.	0	71	72	23	110	162	102	14	146	30	126	74	165	102	73	33	15	1	36	22	15	37	104	41	0

DUE WEST, S. C.

[H_b=711 ft.; h_t=10 ft.; h_r=4 ft.; h_a=55 ft.]

January	8.0	W.	33	SW.	1	2	6	2	1	0	7	11	2	0	14	8	9	7	6	2	2	0	6	2	0	0	14	0	0
February	7.2	SW.	25	W.	0	4	8	4	0	1	8	1	2	0	13	6	9	8	8	0	0	0	5	1	0	0	9	1	0
March	10.0	W.	36	W.	3	2	5	4	3	1	6	6	2	2	9	10	12	8	6	3	1	0	4	2	0	0	7	2	0
April	8.7	SW.	39	W.	1	4	8	3	1	3	6	5	0	0	12	2	16	12	9	0	0	0	3	3	0	0	0	5	0
May	7.4	SW.	31	W.	0	3	5	4	0	4	9	4	2	0	12	11	8	13	12	0	0	0	4	1	0	0	0	11	0
June	6.3	S.	32	N.	0	0	6	4	2	5	10	3	0	0	12	11	7	9	5	0	0	0	1	0	0	17	0	14	0
July	5.4	SW.	32	NW.	0	1	7	3	2	1	10	3	1	3	5	18	8	12	9	0	0	0	2	1	0	25	0	19	0
August	5.3	SW.	27	W.	0	2	6	4	1	1	11	2	3	1	4	16	11	14	10	0	0	0	3	3	0	12	0	11	0
September	6.2	SW.	25	NW.	0	2	8	2	4	5	8	1	0	0	15	11	4	6	4	0	0	0	2	0	0	18	0	7	0
October	5.2	W.	30	NE.	0	1	12	1	1	5	4	4	3	0	17	9	5	3	3	0	0	1	0	0	0	0	0	4	0
November	6.0	SW.	23	NE.	0	1	9	5	2	2	6	4	1	0	15	5	10	6	3	0	0	0	3	3	0	0	0	0	0
December	7.6	NE.	27	E.	0	1	9	6	2	2	8	3	0	0	4	9	18	16	15	0	0	0	13	7	0	0	3	4	0
Year	7.0	SW.	39	W.	5	23	89	42	19	30	93	47	16	6	132	116	117	114	90	5	3	1	46	23	0	72	33	78	0

DULUTH, MINN.

[H_b=1,133 ft.; h_t=5 ft.; h_r=3 ft.; h_a=47 ft.]

January	10.7	NW.	38	NW.	5	4	3	4	1	5	10	14	21	0	11	4	16	6	3	14	6	0	1	1	23	0	31	0	0
February	10.9	NE.	36	NW.	1	2	15	8	1	0	10	8	12	0	13	6	9	3	2	10	3	0	1	1	12	0	28	0	0
March	11.6	NE.	32	NE.	0	13	22	11	0	1	2	3	10	0	10	6	15	10	7	19	9	0	3	2	8	0	31	0	0
April	11.1	NE.	38	W.	4	8	19	4	0	0	5	7	14	3	15	10	5	7	4	5	4	0	0	0	0	0	18	1	0
May	10.5	NE.	36	NE.	5	4	18	8	2	1	8	7	14	0	12	6	13	11	9	3	0	0	5	5	0	0	3	2	1
June	9.6	NE.	41	W.	2	5	23	9	0	2	6	5	9	1	10	8	12	12	12	0	0	0	9	13	0	5	0	10	6
July	9.9	NW.	26	W.	1	4	14	6	1	2	5	15	15	0	13	13	5	10	6	0	0	0	4	4	0	3	0	3	0
August	9.6	NE.	32	W.	0	3	21	4	2	1	11	13	7	0	16	10	11	9	8	0	0	0	3	3	0	1	0	3	1
September	9.4	NE.	34	NW.	1	3	17	2	2	3	9	16	7	1	12	10	8	13	10	0	0	0	6	6	0	2	0	8	1
October	11.1	SW.	38	NW.	4	3	9	1	1	1	21	11	15	0	11	7	13	14	11	0	0	0	3	0	0	0	3	3	1
November	11.3	W.	39	SW.	4	1	14	1	3	2	16	19	4	0	4	6	20	16	13	3	4	0	7	6	6	0	19	1	0
December	11.4	W.	38	NE.	3	4	7	7	7	4	12	15	6	0	9	3	19	5	2	9	4	0	6	5	11	0	31	0	0
Year	10.6	NE.	41	W.	30	54	182	65	20	22	115	133	134	5	130	89	146	115	87	59	30	0	47	46	60	11	161	33	4

Annual meteorological summaries for the year ending December 31, 1931—Continued

EASTPORT, ME.

[ϕ=44° 54′ N.; λ=66° 59′ W.]

Month	Pressure			Temperature								Moisture															
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.77	30.25	28.63	19.7	23.7	23.2	29.6	14.0	21.8	42	−6	14	15	16	76	67	72	0.090	0.095	0.096	2.90	1.38	12.2	6.2	6.2	5.5	6.2
February	29.85	30.44	29.35	22.2	26.3	26.7	30.5	17.9	24.2	42	−1	16	18	21	76	68	76	.100	.105	.117	2.25	1.09	11.7	7.4	7.3	6.9	7.4
March	29.82	30.40	29.19	32.3	35.7	34.8	38.0	29.6	33.8	56	24	28	26	29	81	70	79	.148	.143	.160	2.80	1.23	15.1	7.4	7.5	8.1	7.7
April	29.87	30.29	29.17	40.9	45.0	42.1	48.9	34.8	41.8	63	28	32	31	32	70	62	69	.184	.180	.184	2.31	.97	1.0	5.9	7.2	5.9	6.9
May	29.86	30.22	29.39	47.7	52.0	48.5	56.5	40.9	48.7	83	32	40	41	42	78	70	79	.259	.270	.274	2.57	.99	T.	6.0	7.5	5.3	7.0
June	29.85	30.13	29.50	56.7	60.9	56.2	65.2	48.9	57.6	86	45	51	51	51	82	73	84	.378	.379	.384	3.56	.81	0	6.7	7.9	7.2	7.5
July	29.84	30.14	29.40	60.1	64.1	60.4	69.1	52.8	61.0	83	45	56	57	57	87	80	85	.452	.474	.465	4.82	2.21	0	3.0	5.3	6.4	7.6
August	29.93	30.29	29.62	60.9	67.9	62.2	70.1	54.3	62.2	82	50	56	58	57	85	73	84	.454	.495	.470	4.11	1.18	0	5.1	7.2	6.3	7.4
September	29.87	30.34	29.29	55.1	59.5	55.7	62.3	49.7	56.0	73	41	50	50	51	82	72	85	.365	.368	.385	3.61	.79	0	6.4	6.6	5.6	6.7
October	29.86	30.30	29.04	49.0	53.5	50.2	56.3	43.9	50.1	73	34	43	43	45	80	70	83	.288	.288	.305	4.72	2.45	0	6.2	6.9	5.2	6.7
November	30.02	30.53	29.39	41.4	45.6	43.1	48.5	37.1	42.8	67	20	35	35	37	78	67	78	.219	.222	.231	.94	.29	T.	6.4	7.4	6.4	7.5
December	29.86	30.44	29.20	26.2	30.3	28.8	35.4	19.6	27.5	49	5	21	22	23	78	68	77	.123	.125	.135	2.37	.70	2.9	7.1	7.8	7.8	8.5
Year	29.87	30.53	28.63	42.7	47.0	44.3	50.9	37.0	43.9	86	−6	37	37	38	79	70	80	.255	.262	.267	36.96	2.45	42.9	6.2	7.1	6.4	7.3

ELKINS, W. VA.

[ϕ=38° 53′ N.; λ=79° 49′ W.]

January	27.98	28.44	27.09	25.8	34.4	32.0	40.6	20.5	30.6	59	−7	22	26	26	85	70	78	0.128	0.144	0.142	1.36	0.62	9.0	8.4	7.7	7.0	8.0
February	28.00	28.23	27.70	29.0	37.8	35.0	43.2	25.1	34.2	61	15	25	27	29	85	67	78	.138	.154	.165	3.19	.80	3.7	6.8	7.0	6.5	7.2
March	27.87	28.18	27.32	30.3	35.5	34.4	40.2	27.6	33.9	52	19	27	27	30	85	73	82	.145	.150	.166	2.93	.65	16.1	9.4	9.2	8.4	9.4
April	28.00	28.41	27.19	40.9	53.6	50.9	60.2	34.8	47.5	77	25	35	34	34	81	54	58	.210	.199	.209	2.92	.80	2.6	5.2	5.8	5.2	5.7
May	27.94	28.27	27.67	52.6	65.0	60.7	70.5	45.5	58.0	86	29	46	46	48	80	55	66	.324	.326	.342	7.90	1.52	0	6.4	7.1	7.2	7.1
June	28.03	28.23	27.53	59.7	73.6	69.5	79.1	53.6	66.4	92	39	56	56	58	87	57	69	.454	.462	.496	3.09	.75	0	6.3	4.5	5.4	5.5
July	28.00	28.19	27.68	67.6	79.8	73.9	84.7	61.3	73.0	93	50	63	63	66	86	59	76	.584	.593	.633	5.27	1.37	0	4.5	4.8	5.3	5.0
August	28.08	28.38	27.75	61.8	74.6	68.0	78.7	57.7	68.2	90	44	60	60	61	93	62	79	.519	.526	.541	6.33	2.31	0	6.2	6.2	6.5	6.9
September	28.09	28.46	27.74	58.6	73.3	66.0	78.0	54.6	66.3	90	39	57	59	60	95	62	83	.478	.509	.541	3.82	1.35	0	4.8	5.0	4.1	6.0
October	28.10	28.42	27.61	45.5	62.1	53.3	66.1	41.5	53.8	82	26	43	44	47	92	54	80	.289	.303	.337	1.50	.34	0	5.0	5.9	4.9	6.3
November	28.16	28.47	27.76	43.5	56.0	50.4	60.9	38.8	49.8	73	19	40	41	42	88	60	72	.259	.269	.278	1.87	.48	T.	5.7	5.7	5.8	6.7
December	28.09	28.51	27.71	37.1	44.3	41.4	49.8	31.3	40.6	67	13	34	34	34	88	71	77	.212	.221	.215	3.81	.93	.3	7.5	7.8	7.0	8.5
Year	28.03	28.51	27.09	46.0	57.5	53.0	62.7	41.0	51.9	93	−7	42	43	45	87	62	75	.312	.321	.339	43.99	2.31	31.7	6.4	6.4	6.1	6.9

ELLENDALE, N. DAK.

[ϕ=45° 59′ N.; λ=98° 34′ W.]

January	28.39	28.88	28.03	18.2	29.0	.....	34.0	13.7	23.8	53	−12	15	22	...	86	72	...	0.089	0.119	.....	0.05	0.04	0.1	3.8	6.2	.....	6.3
February	28.48	28.86	28.05	22.7	31.8	.....	37.0	19.0	28.0	56	−6	20	25	...	90	75	...	.115	.137	.....	.74	.33	6.4	3.9	6.5	.....	6.3
March	28.54	29.04	28.00	19.7	31.1	.....	35.6	17.4	26.5	54	2	17	21	...	88	66	...	.098	.119	.....	1.27	.87	4.3	6.2	6.7	.....	6.9
April	28.46	28.91	27.88	34.6	53.3	.....	58.4	31.1	44.8	81	15	28	29	...	76	42	...	.156	.164	.....	1.15	.90	1.7	4.2	4.9	.....	5.0
May	28.36	28.74	28.00	44.8	60.5	.....	65.4	39.0	52.2	93	22	37	37	...	74	46	...	.226	.238	.....	1.71	.71	T.	4.9	5.5	.....	5.4
June	28.24	28.71	27.97	62.5	76.3	.....	81.0	56.6	68.8	102	40	55	57	...	78	54	...	.451	.486	.....	3.72	1.98	0	6.4	4.7	.....	5.6
July	28.35	28.63	27.97	63.3	81.6	.....	87.0	57.9	72.4	108	46	58	54	...	78	42	...	.451	.427	.....	2.03	.55	0	4.6	4.2	.....	4.3
August	28.45	28.74	28.00	58.9	75.7	.....	81.3	54.7	68.0	101	40	54	54	...	85	49	...	.431	.422	.....	2.15	1.00	0	6.2	6.4	.....	5.2
September	28.32	28.75	27.93	52.9	74.9	.....	79.6	48.8	64.2	103	33	47	48	...	83	42	...	.337	.344	.....	.89	.58	0	4.6	3.3	.....	3.4
October	28.38	28.97	27.78	40.3	57.3	.....	60.9	36.8	48.8	84	28	37	40	...	87	57	...	.222	.251	.....	1.66	1.12	1.0	5.7	5.8	.....	5.5
November	28.41	28.91	27.86	25.6	37.5	.....	41.3	20.4	30.8	72	−2	22	26	...	87	67	...	.124	.149	.....	.73	.29	6.5	6.2	5.7	.....	5.9
December	28.43	28.94	27.97	19.0	24.3	.....	28.9	12.4	20.6	45	−8	17	21	...	91	85	...	.102	.118	.....	1.20	.91	11.4	4.9	6.5	.....	5.9
Year	28.40	29.04	27.78	38.5	52.8	.....	57.5	34.0	45.7	108	−12	34	36	...	84	58	...	.234	.248	.....	17.30	1.98	31.4	5.1	5.5	.....	5.5

EL PASO, TEX.

[ϕ=31° 47′ N.; λ=106° 30′ W.]

January	26.26	26.51	25.86	35.4	48.9	50.4	55.2	32.9	44.0	66	23	25	25	26	66	41	40	0.141	0.142	0.146	0.83	0.69	0	3.8	3.7	2.6	3.6
February	26.15	26.47	25.91	42.6	54.9	55.0	59.2	40.7	50.0	66	33	36	35	33	77	49	45	.213	.209	.192	.89	.20	0	3.3	5.0	3.6	4.5
March	26.17	26.54	25.72	43.9	61.0	64.2	67.4	41.7	54.6	82	28	28	19	18	48	22	19	.132	.106	.100	.38	.26	0	2.0	2.5	1.4	2.2
April	26.16	26.52	25.79	52.0	67.8	69.8	74.3	50.8	62.6	87	39	35	33	32	56	31	30	.213	.197	.196	2.24	.76	0	3.2	3.2	3.6	3.6
May	26.13	26.38	25.17	60.8	78.6	82.2	85.2	59.4	72.3	96	51	38	34	31	45	22	18	.237	.206	.186	.06	.06	0	2.0	1.1	2.0	2.2
June	26.14	26.29	25.95	70.9	89.1	90.5	94.7	69.0	81.8	102	58	44	41	41	41	20	22	.311	.271	.299	1.34	.93	0	1.4	1.4	2.0	2.1
July	26.13	26.31	25.97	73.9	87.9	89.3	94.3	72.2	83.2	102	65	66	64	53	56	34	32	.456	.432	.417	.73	.24	0	3.3	2.4	2.7	3.0
August	26.22	26.41	26.04	70.0	84.7	85.5	90.9	68.1	79.5	100	60	55	55	54	62	38	36	.449	.444	.427	2.14	1.05	0	4.2	2.6	3.8	3.9
September	26.16	26.35	25.95	69.5	84.6	85.0	90.2	68.3	79.2	96	60	56	55	54	64	37	37	.456	.437	.433	1.10	.55	0	4.0	2.6	3.7	3.8
October	26.20	26.43	25.97	59.0	77.7	77.1	82.4	57.5	70.0	91	44	39	39	40	48	29	27	.249	.248	.250	.14	.10	0	1.7	1.7	1.8	2.1
November	26.17	26.44	25.44	44.4	60.4	59.9	66.0	42.0	54.0	81	32	30	31	31	58	35	36	.174	.182	.182	.64	.49	2.0	2.8	3.3	3.0	3.6
December	26.22	26.43	25.86	35.8	48.0	48.5	54.3	33.4	43.8	65	23	25	25	29	66	43	49	.136	.138	.163	.30	.08	3.8	3.1	4.3	3.0	3.8
Year	26.18	26.54	25.72	54.8	70.3	71.4	76.2	53.0	64.6	102	23	39	37	37	57	33	33	.264	.251	.248	10.79	1.05	5.8	2.9	2.8	2.7	3.2

Annual meteorological summaries for the year ending December 31, 1931—Continued

EASTPORT, ME.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	11.2	NW.	52	E.	2	5	3	2	1	3	9	18	21	0	11	4	16	14	8	18	13	0	17	1	14	0	31	0	0
February	11.8	NW.	31	NE.	0	10	7	2	3	1	5	7	21	0	6	4	18	11	6	19	10	0	10	0	16	0	28	0	0
March	12.3	NE.	56	E.	5	13	21	11	1	2	8	2	3	1	8	0	23	13	8	17	9	0	14	3	2	0	28	0	0
April	10.5	S.	43	E.	3	8	4	5	2	12	9	9	11	0	8	5	17	11	10	4	2	1	12	1	0	0	5	1	1
May	9.0	S.	33	NE.	1	4	7	5	1	19	12	2	9	3	5	11	15	13	7	1	0	0	17	11	0	0	0	2	0
June	9.3	NW.	40	E.	1	8	10	7	2	8	6	6	12	1	2	11	17	15	11	0	0	0	14	6	0	0	0	2	0
July	6.8	S.	24	S.	0	1	3	6	0	34	15	3	5	1	2	10	19	14	9	0	0	0	22	18	0	0	0	5	0
August	5.8	S.	26	E.	0	2	6	6	2	14	9	12	11	0	4	9	18	16	10	0	0	0	14	8	0	0	0	3	0
September	8.3	NW.	28	NW.	0	7	5	1	3	9	12	7	14	2	8	4	18	15	10	0	0	1	14	6	0	0	0	7	3
October	9.7	NW.	40	SE.	2	6	1	5	3	10	15	6	16	0	8	5	18	12	8	0	0	0	14	6	0	0	0	1	2
November	9.4	SW.	29	NW.	0	2	3	2	3	4	21	12	13	0	5	5	20	8	5	4	0	0	13	2	1	0	7	1	0
December	11.9	NW.	31	NW.	0	5	2	4	2	2	10	12	25	0	2	4	25	18	10	22	11	0	15	1	9	0	25	0	0
Year	9.7	NW.	56	E.	14	71	72	50	23	118	131	96	161	8	69	72	224	160	102	85	45	2	176	53	42	0	124	22	6

ELKINS, W. VA.

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

January	5.9	W.	33	E.	1	6	1	1	4	2	13	19	12	4	2	6	23	16	6	14	8	0	2	0	6	0	26	0	0
February	4.0	NW.	22	NW.	0	9	3	1	2	8	5	12	14	2	6	5	17	13	9	9	8	0	4	4	1	0	24	0	1
March	5.7	W.	26	SE.	0	9	4	0	7	4	5	16	15	2	0	4	27	19	14	19	13	0	5	1	5	0	28	1	0
April	5.6	NW.	28	W.	0	8	1	1	5	11	2	10	13	9	12	5	13	11	10	7	4	0	2	3	0	0	13	0	0
May	4.7	W.	25	NW.	0	10	3	0	6	12	8	8	12	3	4	9	18	19	18	0	0	1	7	4	0	0	2	0	0
June	3.4	NW.	31	NW.	0	5	0	1	4	6	3	8	29	4	10	10	10	13	12	0	0	0	11	4	0	0	2	0	0
July	3.2	NW.	28	NW.	0	5	6	1	5	7	6	11	15	6	9	14	8	13	13	0	0	0	10	3	0	0	0	0	0
August	3.0	W.	22	NW.	0	9	4	3	3	7	8	5	14	9	3	13	15	15	14	0	0	0	13	9	0	0	2	0	0
September	3.4	W.	28	SW.	0	9	2	1	8	13	3	5	11	8	7	14	9	14	11	0	0	0	15	14	0	0	0	6	0
October	3.6	W.	29	NW.	0	13	1	2	2	6	3	13	15	7	6	14	11	13	11	0	0	0	15	13	0	0	3	4	0
November	4.7	W.	22	S.	0	3	2	1	2	12	6	18	14	2	6	10	14	11	8	1	0	0	8	8	0	0	7	0	0
December	5.5	W.	27	W.	0	6	3	0	7	7	7	16	13	3	3	4	24	16	14	3	2	0	8	6	0	0	18	1	0
Year	4.4	W.	33	E.	1	92	30	12	55	95	69	141	177	59	68	108	189	173	140	53	35	1	100	69	12	7	121	51	1

ELLENDALE, N. DAK.

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

January	11.4	NW.	35	NW.	1	3	2	1	0	3	9	1	12	0	6	13	12	2	1	10	1	0	3	0	12	0	31	0	0
February	11.4	NW.	38	E.	2	5	4	1	3	4	3	1	7	0	7	7	14	7	5	8	5	0	6	3	7	0	28	0	2
March	13.4	NE.	41	NE.	4	6	7	0	3	6	1	2	6	0	7	7	17	6	4	10	5	0	3	1	10	0	30	0	0
April	13.7	NW.	48	NW.	4	4	3	1	3	5	3	5	6	8	9	15	6	6	4	4	3	0	1	0	1	0	16	1	0
May	14.9	N.	46	N.	7	7	2	1	1	7	2	2	9	0	14	4	13	8	6	3	0	1	0	0	2	0	10	5	2
June	11.4	NE.	48	NW.	7	3	5	3	4	9	3	0	3	0	7	15	8	10	6	0	0	0	1	0	0	0	7	0	0
July	11.6	NW.	40	N.	3	5	3	2	4	6	2	2	7	0	13	14	4	9	7	0	0	0	1	0	0	0	10	0	0
August	11.3	NW.	37	NW.	2	5	4	1	4	6	3	1	7	1	11	12	8	9	4	0	0	0	5	0	0	0	6	0	0
September	11.3	NW.	34	S.	2	3	4	2	5	5	4	2	5	0	17	9	4	6	4	0	0	0	7	2	0	0	8	0	0
October	13.0	NW.	43	NW.	4	5	2	0	2	6	4	5	7	0	12	5	14	9	6	3	1	0	3	0	0	0	6	1	0
November	11.4	NW.	41	NW.	3	3	3	1	2	5	5	4	7	0	9	8	13	8	6	9	7	0	3	3	8	0	29	0	1
December	10.2	NW.	25	E.	0	3	3	0	4	3	6	2	10	0	8	10	13	9	4	10	7	0	9	3	18	0	31	0	2
Year	12.1	NW.	48	NW.	39	52	42	13	35	64	45	27	86	1	120	119	126	89	57	57	29	2	41	12	56	33	181	35	19

EL PASO, TEX.

[H_b=3,778 ft.; h_t=152 ft.; h_c=145 ft.; h_a=175 ft.]

January	6.5	NW.	49	W.	1	1	13	11	2	0	1	16	18	0	17	7	7	4	4	0	0	0	2	2	0	0	16	0	0
February	9.2	E.	35	W.	3	3	8	15	1	1	2	16	10	0	12	12	4	8	7	0	0	0	1	0	0	0	0	2	0
March	9.7	W.	44	W.	5	0	10	12	2	1	2	20	15	0	22	8	1	3	2	0	0	0	0	0	0	0	2	1	0
April	10.6	E.	40	W.	3	0	9	19	5	1	2	16	8	0	16	11	3	9	6	0	0	2	0	0	0	0	0	7	0
May	8.4	E.	32	NW.	0	0	11	19	3	0	2	16	11	0	22	9	0	2	1	0	0	0	0	0	0	0	3	0	0
June	7.7	E.	44	SW.	1	2	2	19	5	4	3	14	11	0	21	9	0	6	5	0	0	0	0	0	0	0	0	5	0
July	6.8	E.	34	NE.	2	1	8	34	10	2	1	3	3	0	19	11	1	7	5	0	0	0	0	0	0	0	26	0	0
August	7.6	E.	41	NE.	2	3	12	21	6	2	1	8	8	1	13	15	3	8	7	0	0	0	0	0	0	0	27	0	0
September	6.3	E.	31	SW.	0	0	1	26	7	6	1	6	12	1	14	15	1	7	4	0	0	0	0	0	0	0	20	0	0
October	7.4	E.	30	W.	0	2	7	21	2	0	2	15	12	1	22	7	2	2	2	0	0	0	0	0	0	0	17	0	0
November	8.9	W.	42	W.	3	0	8	15	1	1	2	13	17	3	17	6	7	5	2	3	1	0	0	1	0	0	3	0	0
December	7.9	NW.	37	W.	2	0	15	8	2	1	2	14	18	2	16	9	6	6	4	3	3	0	0	0	0	0	13	0	0
Year	8.1	E.	49	W.	22	12	104	220	46	19	21	157	143	8	211	119	35	67	49	6	4	2	4	3	0	96	31	45	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

ERIE, PA.

[ϕ=42° 07′ N.; λ=80° 05′ W.]

Month	Pressure			Temperature								Moisture															
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.22	29.77	28.48	27.2	31.3	29.5	34.2	23.4	28.8	52	14	22	24	24	81	75	76	0.122	0.131	0.128	1.68	0.72	10.8	7.5	6.1	6.4	6.4
February	29.27	29.57	28.99	28.9	32.1	31.0	36.8	24.0	30.4	52	12	24	26	25	82	76	79	.132	.139	.137	.87	.34	1.6	7.8	6.8	5.8	7.1
March	29.17	29.61	28.45	32.2	35.9	33.8	37.9	29.9	33.9	54	21	28	29	28	82	76	77	.149	.162	.150	2.00	.74	11.8	8.6	6.8	7.5	7.7
April	29.25	29.73	28.53	43.7	48.5	47.5	54.5	38.8	46.6	81	30	33	37	38	68	67	71	.194	.227	.238	3.31	.94	4.1	4.7	4.1	3.7	4.3
May	29.15	29.54	28.84	55.4	59.8	58.6	65.5	49.0	57.2	86	33	45	48	47	68	68	69	.309	.349	.342	2.83	.98	0	5.0	4.8	4.3	4.9
June	29.24	29.46	28.67	66.2	71.0	69.6	76.0	59.6	67.8	92	46	58	62	60	76	74	73	.497	.569	.545	1.76	1.41	0	4.6	3.6	3.8	4.0
July	29.17	29.41	28.82	73.3	78.5	76.5	82.5	67.4	75.0	92	56	68	72	68	82	80	76	.679	.786	.693	5.75	1.67	0	4.5	4.2	3.4	4.2
August	29.27	29.60	28.99	68.6	76.0	72.9	79.2	64.1	71.6	92	53	62	68	65	80	76	77	.563	.683	.626	1.78	.44	0	5.3	5.1	2.9	4.7
September	29.25	29.70	28.81	66.3	73.7	69.4	77.0	61.3	69.2	92	46	58	62	60	76	68	72	.505	.566	.527	2.27	.66	0	4.0	4.5	4.4	4.6
October	29.29	29.83	28.74	53.0	61.3	56.7	64.6	49.5	57.0	84	38	45	56	48	74	68	73	.311	.375	.344	3.53	1.00	T.	6.1	4.1	4.6	5.0
November	29.34	29.77	28.92	48.1	52.1	50.5	56.2	44.0	50.1	74	25	40	43	43	75	72	75	.267	.297	.296	2.79	1.31	1.1	6.8	6.9	7.4	7.1
December	29.32	29.84	28.77	36.0	40.0	38.5	44.2	32.6	38.4	60	23	30	32	31	79	74	75	.176	.190	.182	2.80	.97	.2	6.9	5.0	6.8	7.2
Year	29.25	29.84	28.45	49.9	55.0	52.9	59.0	45.3	52.2	92	12	43	46	45	77	73	74	.325	.373	.351	31.37	1.67	29.0	6.0	5.4	5.1	5.6

ESCANABA, MICH.

[ϕ=45° 48′ N.; λ=87° 05′ W.]

January	29.30	29.77	28.80	20.8	25.8	24.3	29.1	15.6	22.4	36	−3	18	19	19	86	72	78	0.098	0.102	0.105	0.83	0.20	13.3	8.5	8.2	7.6	7.4
February	29.40	29.71	28.95	23.3	29.7	27.4	33.1	19.6	26.4	45	6	20	22	22	86	70	80	.107	.118	.122	.86	.60	8.6	7.0	6.5	5.8	6.1
March	29.40	29.83	28.86	25.1	31.4	29.5	33.7	22.3	28.0	43	7	21	24	22	85	72	73	.114	.127	.118	1.25	.77	8.9	8.4	8.6	6.6	7.5
April	29.37	29.80	28.92	36.4	44.0	41.0	47.6	31.8	39.7	60	22	27	28	28	69	54	62	.152	.189	.159	.51	.28	T.	5.2	6.1	5.5	5.3
May	29.24	29.70	28.88	46.6	51.1	51.3	56.1	41.8	49.0	87	26	39	40	40	76	68	67	.243	.258	.250	3.06	.97	T.	5.4	6.2	5.3	5.6
June	29.31	29.61	28.95	59.6	65.7	64.9	70.2	54.9	62.6	95	41	54	54	54	81	67	70	.427	.436	.438	2.63	1.28	0	5.6	5.6	4.2	5.1
July	29.25	29.61	28.78	66.4	74.1	72.2	78.5	60.7	69.6	95	50	58	59	58	74	62	68	.490	.521	.499	3.42	1.41	0	4.5	4.2	4.4	4.3
August	29.38	29.64	28.89	61.0	69.4	67.7	73.4	56.0	64.7	93	41	54	56	56	79	63	67	.432	.460	.457	1.25	.54	0	3.8	4.8	5.5	4.7
September	29.30	29.65	28.79	59.3	67.1	64.5	70.8	56.0	63.4	87	42	55	57	56	84	72	77	.439	.481	.470	6.88	2.97	0	5.3	4.7	4.8	4.6
October	29.31	29.99	28.68	48.8	56.1	53.6	58.9	45.5	52.2	73	33	44	46	45	84	70	74	.303	.321	.314	3.09	.84	0	6.5	6.4	5.1	6.0
November	29.32	29.92	28.75	39.6	44.4	41.8	47.5	35.2	41.4	60	16	34	34	34	82	67	75	.212	.212	.211	3.02	.81	T.	6.1	6.0	5.6	6.1
December	29.40	29.89	28.60	28.6	33.2	32.4	36.1	25.5	30.8	50	9	24	26	26	82	73	76	.134	.142	.142	1.16	.73	5.1	7.7	7.9	7.0	7.5
Year	29.33	29.99	28.60	43.0	49.3	47.6	52.9	38.7	45.8	95	−3	37	39	38	81	68	72	.263	.281	.274	27.96	2.97	35.9	6.2	6.3	5.6	5.8

EUREKA, CALIF.

[ϕ=40° 48′ N.; λ=124° 11′ W.]

January	30.04	30.34	29.59	46.8	54.0	54.0	57.0	42.5	49.8	64	34	43	46	47	87	77	78	0.279	0.320	0.323	4.09	1.05	0	4.4	7.5	7.0	6.7
February	30.00	30.35	29.60	46.8	53.8	53.5	56.1	43.5	49.8	62	37	44	47	47	91	79	79	.290	.330	.322	2.39	1.12	0	6.4	6.1	5.9	6.1
March	30.12	30.38	29.70	47.8	54.9	54.6	57.1	45.1	51.1	66	36	44	46	47	86	73	76	.288	.312	.323	3.35	1.09	0	5.4	5.7	6.8	6.2
April	29.98	30.36	29.45	47.5	56.1	55.9	59.1	45.2	52.2	73	39	44	44	46	88	66	71	.290	.293	.314	1.61	.72	0	4.1	4.4	4.6	4.7
May	29.99	30.35	29.72	50.7	56.7	56.9	59.4	49.6	54.5	67	44	48	49	50	92	76	76	.339	.348	.355	.49	.29	0	6.2	5.8	5.5	6.0
June	30.00	30.13	29.80	53.8	59.8	59.6	62.2	52.4	57.3	68	48	51	52	52	90	77	77	.374	.392	.391	1.33	.74	0	6.0	4.7	5.5	5.2
July	29.90	30.13	29.68	53.2	58.5	59.0	61.2	51.9	56.6	76	48	51	52	52	92	79	77	.372	.386	.386	.01	.01	0	6.5	4.5	2.8	4.3
August	29.99	30.14	29.76	52.4	56.7	57.5	59.4	51.2	55.3	64	48	50	51	51	94	81	80	.365	.372	.379	.01	.01	0	8.4	4.7	4.2	5.7
September	29.94	30.16	29.69	52.0	58.9	58.6	60.6	50.6	55.6	68	46	49	51	52	92	75	78	.355	.373	.386	.54	.24	0	5.9	4.7	4.3	4.9
October	30.00	30.29	29.56	50.6	56.2	55.7	58.9	48.3	53.6	68	42	48	50	50	92	80	81	.338	.360	.357	2.28	1.06	0	5.6	6.3	4.8	6.6
November	30.04	30.40	29.67	43.4	51.5	50.5	54.0	39.9	47.0	67	30	41	43	45	90	74	82	.259	.284	.302	5.75	1.74	0	2.5	4.3	4.0	4.6
December	29.98	30.32	29.49	45.6	51.9	50.2	54.0	40.6	47.3	68	33	39	40	40	80	69	73	.241	.250	.258	9.06	2.16	0	7.4	7.4	7.8	7.3
Year	30.00	30.40	29.45	49.2	55.7	55.5	58.2	46.7	52.5	76	30	46	48	48	90	76	77	.316	.335	.341	30.91	2.16	0	5.7	5.5	5.3	5.7

EVANSVILLE, IND.

[ϕ=37° 58′ N.; λ=87° 33′ W.]

January	29.66	30.20	28.96	32.5	40.0	40.0	44.8	30.5	37.6	66	15	27	30	30	80	67	67	0.154	0.172	0.172	0.62	0.26	0.8	5.0	5.9	5.1	5.7
February	29.63	29.99	29.20	36.1	44.5	44.9	49.6	34.2	41.9	66	19	30	32	33	78	62	64	.174	.188	.193	2.33	.87	T.	5.5	5.8	5.2	5.6
March	29.51	29.87	28.80	36.4	43.7	43.7	48.2	34.2	41.2	63	28	31	33	34	81	68	68	.177	.195	.199	3.55	1.92	1.2	6.9	8.3	7.2	7.5
April	29.60	29.95	29.08	50.1	61.4	61.5	66.2	47.5	56.8	83	36	44	45	45	80	57	56	.297	.312	.309	3.10	1.10	0	4.6	6.0	5.0	5.2
May	29.48	29.87	29.11	57.2	66.9	67.0	72.2	53.4	62.8	90	38	50	52	51	78	60	59	.373	.395	.394	2.37	1.14	0	5.2	6.6	6.5	5.9
June	29.54	29.70	29.16	72.0	84.0	81.8	88.4	67.4	77.9	101	49	63	64	64	74	51	56	.601	.608	.609	3.55	1.59	0	3.5	5.0	5.2	4.3
July	29.48	29.66	29.22	76.0	87.4	86.1	92.2	72.0	82.1	99	64	66	64	64	72	48	50	.669	.617	.610	.73	.28	0	3.4	4.2	4.6	4.0
August	29.58	29.85	29.32	70.2	81.1	79.4	85.5	67.4	76.4	97	58	65	65	65	83	60	62	.624	.634	.627	6.27	3.90	0	5.3	5.9	6.2	5.4
September	29.56	29.94	29.21	68.6	82.2	78.9	86.1	66.4	76.2	96	50	63	64	64	82	56	61	.586	.632	.618	4.45	3.50	0	3.1	3.4	4.4	3.8
October	29.63	29.99	29.19	56.3	69.2	65.2	72.8	54.0	63.4	85	40	50	50	50	81	53	62	.382	.396	.391	1.83	.94	0	4.4	5.1	4.4	4.9
November	29.68	30.06	29.23	50.4	59.3	56.9	63.0	48.1	55.6	78	32	44	46	47	81	65	71	.815	.343	.346	4.65	1.21	0	6.3	5.2	5.2	5.4
December	29.66	30.15	29.07	43.3	47.8	47.4	51.9	39.7	45.8	73	28	39	39	40	86	74	76	.255	.258	.262	4.87	2.20	0	6.9	7.3	6.5	7.2
Year	29.59	30.20	28.80	54.1	64.0	62.7	68.4	51.2	59.8	101	15	48	49	49	80	60	63	.383	.396	.394	38.32	3.90	2.0	5.0	5.7	5.5	5.4

Annual meteorological summaries for the year ending December 31, 1931—Continued

ERIE, PA.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	13.2	SW.	33	SW.	3	2	2	0	3	15	20	11	9	0	8	7	16	16	8	19	13	0	0	0	13	0	29	0	0
February	10.4	NW.	32	SW.	0	8	4	0	4	6	11	9	14	0	6	6	16	7	6	11	4	0	5	2	6	0	27	0	0
March	10.8	NW.	41	SE.	2	14	3	2	5	1	8	14	15	0	4	6	21	13	10	18	9	0	0	0	6	0	24	0	0
April	12.0	W.	40	SW.	4	11	4	2	3	5	12	17	6	0	16	6	8	11	9	5	2	0	3	1	0	0	2	0	0
May	11.6	W.	38	S.	4	11	1	1	8	7	13	15	6	0	13	8	10	16	14	0	0	0	1	0	0	0	0	6	0
June	8.4	NW.	34	NW.	1	8	4	2	3	8	9	11	15	0	15	10	5	8	4	0	0	0	1	0	0	0	2	0	0
July	8.7	SW.	36	NW.	3	7	3	1	3	8	17	20	3	0	15	8	8	14	12	0	0	1	0	0	0	5	0	8	0
August	9.6	SW.	34	SW.	1	10	7	3	2	3	27	4	4	2	10	15	6	12	10	0	0	0	0	0	0	3	0	2	0
September	11.1	S.	41	SW.	2	8	0	1	6	19	8	8	10	0	12	10	8	11	8	0	0	0	0	0	0	2	0	4	0
October	11.9	S.	30	S.	0	4	2	2	8	18	12	5	10	1	13	8	10	12	8	1	0	0	1	0	0	0	0	4	1
November	14.4	S.	42	SW.	7	2	2	2	3	21	15	6	8	1	3	13	14	15	10	6	1	0	1	1	0	0	2	2	0
December	14.2	SW.	37	W.	8	7	6	0	4	12	18	7	8	0	6	6	19	11	10	7	1	0	4	0	2	0	14	0	0
Year	11.4	SW.	42	SW.	35	92	38	16	52	123	170	127	108	4	121	103	141	146	109	67	30	1	16	4	27	12	98	32	1

ESCANABA, MICH.

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

January	8.3	NW.	25	N.	0	9	9	1	3	5	14	6	15	0	4	8	19	10	6	19	10	0	4	0	20	0	31	0	1
February	8.5	N.	30	N.	0	16	8	4	1	3	11	5	8	0	8	6	14	4	3	18	4	0	1	1	12	0	28	0	0
March	10.5	N.	36	N.	2	26	11	4	1	6	0	0	13	1	3	10	18	5	3	18	5	0	0	0	11	0	29	0	0
April	9.3	S.	30	NW.	0	16	5	4	3	12	5	3	12	0	11	9	10	7	3	6	3	0	0	0	0	0	16	0	1
May	8.9	S.	30	N.	0	17	5	4	3	18	8	2	4	1	11	7	13	9	7	1	0	0	3	2	0	0	3	3	0
June	8.3	S.	26	N.	0	11	4	6	7	24	5	1	1	1	9	13	8	7	7	0	0	0	3	0	2	0	9	1	
July	7.7	S.	37	N.	1	13	7	1	4	18	4	3	12	0	12	13	6	11	6	0	0	0	0	0	3	0	8	0	
August	7.9	S.	26	N.	0	17	6	4	2	12	8	8	5	0	12	10	9	10	7	0	0	0	1	0	1	0	3	0	
September	8.3	S.	34	NE.	1	6	1	2	5	18	14	4	10	0	13	10	7	12	11	0	0	0	6	1	0	0	8	3	
October	9.3	S.	37	NW.	1	9	4	1	4	19	11	6	8	0	10	7	14	13	8	0	0	0	3	2	0	0	5	5	
November	9.3	S.	34	SW.	1	1	2	4	2	15	14	11	10	1	8	8	14	12	9	6	0	0	7	4	2	0	10	0	0
December	8.9	SW.	33	N.	1	11	10	0	1	9	15	10	6	0	5	5	21	7	4	13	5	0	4	2	9	0	23	0	1
Year	8.8	S.	37	NW.	7	152	72	35	36	159	109	59	104	4	106	106	153	107	74	81	27	0	31	19	54	6	140	36	12

EUREKA, CALIF.

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

January	5.6	SE.	30	SE.	0	10	2	7	20	8	5	3	2	5	6	8	17	15	13	0	0	0	2	5	0	0	0	1	0
February	5.0	N.	35	N.	1	17	0	3	13	6	3	2	4	8	6	11	11	10	9	0	0	0	2	3	0	0	0	0	0
March	6.8	SE.	31	N.	0	11	5	4	12	7	8	5	5	5	8	8	15	14	9	0	0	0	4	5	0	0	0	0	0
April	5.8	N.	31	NE.	0	14	7	3	12	2	5	5	7	5	13	10	7	7	6	0	0	0	6	5	0	0	0	0	0
May	6.5	N.	32	N.	0	15	4	0	3	4	9	7	16	4	11	5	15	6	3	0	0	0	5	2	0	0	0	1	0
June	6.3	N.	27	NW.	0	15	4	2	7	4	9	1	15	3	12	8	10	6	5	0	0	0	4	2	0	0	0	0	0
July	6.0	NW.	27	N.	0	17	2	1	3	3	11	3	20	2	13	13	5	1	0	0	0	0	9	2	0	0	0	0	0
August	4.7	NW.	17	NW.	0	18	2	1	3	3	12	4	15	4	6	15	10	1	0	0	0	0	11	1	0	0	0	0	0
September	4.6	NW.	32	N.	0	13	3	2	4	6	8	4	16	4	12	8	10	5	4	0	0	0	8	7	0	0	0	0	0
October	4.5	NW.	34	SW.	1	9	3	3	9	4	12	6	9	7	6	8	17	7	5	0	0	0	14	9	0	0	0	0	0
November	4.8	SE.	28	N.	0	15	4	4	13	4	5	2	8	5	14	4	12	15	10	0	0	0	10	7	0	0	1	0	0
December	7.5	SE.	42	S.	1	5	2	4	21	17	7	1	3	2	4	8	19	20	15	0	0	4	1	4	0	0	0	3	0
Year	5.7	N.	42	S.	3	159	38	34	120	68	94	43	120	54	111	106	148	107	79	0	0	4	76	52	0	0	1	5	0

EVANSVILLE, IND.

[H_b=431 ft.; h_t=76 ft.; h_r=74 ft.; h_a=116 ft.]

January	8.0	SW.	24	W.	0	10	2	1	6	12	11	10	10	0	10	9	12	7	4	6	2	0	3	3	3	0	18	0	0
February	7.3	N.	23	SW.	0	20	5	5	2	12	3	3	5	1	10	5	13	10	7	1	0	0	6	4	1	0	11	0	0
March	9.8	N.	35	W.	2	14	8	7	5	3	3	6	14	2	3	9	19	10	8	6	3	0	1	0	1	0	11	1	0
April	7.5	S.	26	SW.	0	13	6	2	3	12	7	7	9	1	10	8	12	10	7	0	0	0	2	2	0	0	0	2	0
May	8.5	S.	36	S.	1	10	7	4	4	15	9	7	6	0	9	10	12	13	7	0	0	1	5	2	0	0	1	5	0
June	6.2	S.	39	SW.	2	6	7	3	7	18	12	2	5	0	11	18	1	10	7	0	0	0	0	0	0	14	0	11	0
July	6.0	SW.	22	W.	0	4	11	5	1	14	16	9	2	0	17	9	5	4	4	0	0	0	0	0	0	22	0	5	0
August	6.3	SW.	37	S.	1	10	4	4	6	12	12	7	5	2	9	11	11	11	10	0	0	1	0	0	0	6	0	9	0
September	6.6	S.	28	SW.	0	8	8	7	5	18	9	2	2	1	16	9	5	5	5	0	0	0	3	0	0	12	0	6	0
October	7.0	S.	40	SW.	1	6	4	4	8	18	7	10	3	2	13	7	11	9	7	0	0	0	0	0	0	0	0	2	0
November	8.4	S.	28	SW.	0	7	5	3	3	25	7	5	5	0	10	8	12	12	11	0	0	0	2	0	0	0	1	1	0
December	7.2	E.	29	SW.	0	5	6	14	7	7	9	4	7	3	4	9	18	16	13	0	0	0	5	4	0	0	3	2	0
Year	7.4	S.	40	SW.	7	113	73	59	57	166	105	72	73	12	122	112	131	117	90	13	5	2	27	15	5	55	44	44	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

FORT SMITH, ARK.

[ϕ=35° 22′ N.; λ=94° 24′ W.]

Month	Pressure			Temperature								Moisture													
		Extremes		Mean					Extremes			Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.66	30.14	29.22	35.6	46.6	47.6	52.6	33.6	43.1	70	16	32	36	34	84	68	60	0.181	0.219	0.199	0.48	0.26	0.4	5.4	5.5	4.4	5.2
February	29.56	29.97	29.11	42.9	51.6	53.4	57.3	40.9	49.1	70	28	38	43	40	84	75	65	.239	.284	.259	5.97	3.62	0	5.6	5.1	6.1	5.6
March	29.51	29.93	29.18	40.3	50.5	51.0	56.1	38.2	47.2	69	25	34	36	34	77	61	56	.196	.220	.205	2.78	.96	T.	6.0	6.3	6.4	6.2
April	29.58	29.92	28.95	51.3	64.5	63.4	69.3	48.8	59.0	82	35	45	48	46	80	57	59	.310	.342	.332	2.97	.92	0	5.1	4.8	5.5	4.9
May	29.47	29.82	29.16	58.4	71.5	71.3	75.5	55.5	65.5	90	41	52	54	53	78	57	54	.396	.439	.417	4.35	1.23	0	4.7	5.1	5.3	5.1
June	29.48	29.65	29.27	72.2	85.6	86.7	90.3	69.1	79.7	100	54	65	68	66	79	55	51	.632	.684	.639	1.57	.88	0	4.0	4.2	2.6	3.9
July	29.44	29.68	29.21	75.3	88.9	88.1	93.8	72.8	83.3	102	64	68	70	68	80	54	55	.704	.729	.699	3.10	1.62	0	5.3	4.5	4.5	5.0
August	29.55	29.75	29.34	70.0	82.7	82.2	87.4	68.5	78.0	98	59	66	69	67	86	64	62	.639	.712	.674	8.71	4.42	0	5.4	5.7	4.7	5.3
September	29.51	29.86	29.30	70.0	86.3	84.6	90.2	68.8	79.5	97	50	64	69	67	83	58	56	.626	.731	.677	.77	.59	0	2.0	3.2	1.7	2.5
October	29.57	29.92	29.33	59.7	74.0	72.2	79.0	57.8	68.4	93	36	54	60	56	83	63	57	.449	.546	.473	6.32	3.54	0	4.0	4.6	3.1	4.1
November	29.59	29.92	29.08	52.7	62.1	60.7	66.3	50.3	58.3	81	35	47	51	50	82	69	70	.342	.402	.386	3.12	1.18	0	6.2	6.0	6.2	6.3
December	29.58	30.04	28.97	42.9	51.6	51.0	56.7	39.9	48.3	70	28	38	42	40	84	73	68	.239	.282	.258	1.46	.44	0	5.9	6.4	5.4	6.2
Year	29.54	30.14	28.95	55.9	68.0	67.7	72.9	53.7	63.3	102	16	50	54	52	82	63	59	.413	.466	.435	41.60	4.42	.4	5.0	5.1	4.7	5.0

FORT WAYNE, IND.

[ϕ=41° 05′ N.; λ=85° 10′ W.]

January	29.10	29.64	28.48	28.0	34.1	32.0	37.5	25.2	31.4	54	10	23	26	26	81	70	78	0.126	0.140	0.145	0.67	0.32	2.3	6.9	6.2	6.3	6.3
February	29.14	29.41	28.81	29.8	37.8	36.8	41.2	28.1	34.6	59	16	26	28	29	84	68	74	.140	.164	.163	1.36	.48	2.2	5.5	6.3	4.9	6.2
March	29.03	29.40	28.34	31.0	36.5	35.8	38.9	29.0	34.0	55	19	27	29	29	84	74	77	.146	.159	.159	1.96	.90	11.5	8.6	8.4	8.1	8.4
April	29.12	29.47	28.53	43.2	55.3	54.0	59.8	40.1	50.0	79	32	36	35	36	75	50	54	.218	.214	.220	2.67	.73	2.1	4.9	4.5	5.1	4.6
May	29.01	29.36	28.60	53.4	64.2	61.4	67.8	46.4	57.1	88	36	46	46	45	76	54	59	.321	.326	.318	2.00	.63	0	5.6	5.4	5.5	5.2
June	29.09	29.24	28.60	66.7	77.7	76.2	81.9	62.3	72.1	95	45	59	59	60	77	55	60	.521	.529	.549	3.04	1.07	0	5.6	5.4	4.9	5.2
July	29.03	29.25	28.65	72.3	84.4	81.7	88.1	67.0	77.6	99	55	62	60	62	72	45	53	.580	.547	.576	2.56	.79	0	3.6	4.5	3.7	3.8
August	29.12	29.44	28.80	66.7	78.8	76.2	82.5	63.5	73.0	94	53	60	58	60	80	52	59	.531	.502	.525	3.97	.96	0	5.2	5.3	4.7	5.1
September	29.11	29.50	28.70	63.9	75.9	72.8	79.6	61.4	70.5	95	46	58	58	59	82	56	64	.503	.500	.521	2.08	1.30	0	4.5	5.0	3.5	4.3
October	29.14	29.63	28.63	51.4	63.4	59.1	66.4	48.6	57.5	84	34	46	47	48	83	57	67	.329	.344	.347	2.42	.76	0	4.8	5.7	4.5	5.5
November	29.19	29.67	28.72	44.9	52.8	49.9	55.9	42.4	49.2	71	24	40	42	42	85	68	74	.270	.291	.289	2.64	1.14	2.3	7.4	6.7	4.6	7.2
December	29.18	29.66	28.69	35.1	40.6	39.2	43.7	32.6	38.2	63	19	33	34	34	90	78	81	.194	.204	.204	2.88	.73	T.	6.9	7.5	6.6	7.5
Year	29.10	29.67	28.34	48.9	58.5	56.3	61.9	45.6	53.8	99	10	43	44	44	81	61	67	.323	.326	.335	28.25	1.30	20.4	5.8	5.9	5.2	5.8

FORT WORTH, TEX.

[ϕ=32° 43′ N.; λ=97° 15′ W.]

January	29.43	29.93	28.96	43.2	52.7	52.9	58.6	41.2	49.9	70	26	39	40	42	84	64	68	0.245	0.261	0.278	1.79	0.61	0	5.0	5.2	5.0	5.5
February	29.31	29.72	28.80	48.3	56.0	56.2	61.5	45.6	53.6	72	34	43	44	44	82	66	66	.289	.295	.297	2.84	.74	0	5.6	5.6	5.6	6.0
March	29.29	29.71	28.86	45.1	54.0	56.6	61.7	42.0	51.8	77	28	37	38	39	73	58	56	.231	.247	.253	4.20	1.41	T.	5.5	6.4	5.2	5.6
April	29.33	29.72	28.68	54.5	66.4	67.2	71.8	51.5	61.6	88	38	47	47	48	77	53	53	.338	.344	.354	1.97	1.07	0	6.5	6.6	6.3	6.4
May	29.25	29.58	28.85	60.7	73.2	74.6	78.3	58.7	68.5	91	45	54	54	54	80	53	50	.426	.438	.428	2.42	.77	0	6.4	6.3	5.2	5.8
June	29.24	29.40	29.00	73.8	86.8	88.0	91.5	71.4	81.4	98	57	65	65	64	76	49	46	.634	.628	.602	2.43	1.04	0	4.2	5.7	4.4	4.6
July	29.20	29.37	29.00	76.6	90.0	89.7	95.1	74.6	84.8	102	67	68	67	66	76	48	48	.698	.658	.655	.44	.21	0	3.6	4.9	4.6	4.6
August	29.29	29.50	29.06	72.6	86.0	89.7	93.4	71.8	82.6	99	62	64	62	60	76	45	39	.616	.572	.531	3.38	1.83	0	3.9	4.3	4.9	4.4
September	29.25	29.38	29.03	73.3	89.0	89.1	93.5	72.4	83.0	101	69	64	62	61	73	41	39	.609	.562	.544	1.25	1.24	0	2.3	3.2	3.0	3.0
October	29.31	29.64	29.10	64.4	77.4	75.8	82.4	63.0	72.7	95	42	58	58	56	82	53	53	.517	.513	.479	3.39	1.08	0	4.0	4.2	2.9	4.0
November	29.33	29.66	28.93	55.5	66.0	64.4	70.4	53.5	62.0	81	39	50	51	52	81	61	65	.381	.407	.404	2.78	1.25	0	6.1	6.3	4.9	6.0
December	29.34	29.80	28.80	45.8	53.3	53.1	59.2	42.9	51.0	72	32	39	40	42	79	62	68	.249	.262	.283	2.73	.81	0	7.0	6.6	5.8	6.5
Year	29.30	29.93	28.68	59.5	71.1	71.4	76.4	57.4	66.9	102	26	52	52	52	78	54	54	.436	.432	.426	29.62	1.83	T.	5.0	5.4	4.8	5.2

FRESNO, CALIF.

[ϕ=36° 43′ N.; λ=119° 49′ W.]

January	29.78	29.99	29.54	42.3	52.2	55.4	57.4	40.3	48.8	66	31	40	44	44	90	76	68	0.246	0.294	0.295	2.61	.84	0	2.9	6.7	5.2	6.2
February	29.65	29.93	29.24	46.8	58.5	61.3	63.5	44.9	54.2	69	35	43	46	45	88	65	58	.282	.318	.309	.67	.29	0	3.5	6.2	4.9	5.5
March	29.74	30.01	29.40	48.0	64.9	69.0	71.2	46.0	58.6	81	40	42	43	40	81	47	38	.272	.289	.261	.48	.40	0	1.2	3.7	4.5	3.7
April	29.57	29.82	29.00	53.6	73.6	77.8	80.2	52.1	66.2	96	44	43	40	36	69	33	25	.279	.264	.221	.86	.80	0	2.6	3.6	3.0	3.4
May	29.53	29.74	29.32	60.1	81.4	86.8	88.7	58.5	73.6	100	52	48	46	41	67	31	23	.343	.319	.265	1.22	1.00	0	1.5	3.0	3.0	2.8
June	29.54	29.70	29.34	60.9	80.7	86.4	87.9	59.8	73.8	103	54	49	46	43	68	32	25	.354	.317	.282	1.12	1.10	0	2.7	2.4	2.4	2.8
July	29.40	29.62	29.22	72.3	95.9	103.3	104.6	70.6	87.6	113	60	45	44	39	39	18	12	.302	.291	.243	T.	T.	0	1.3	.7	.9	.8
August	29.52	29.68	29.27	70.3	92.2	98.2	99.9	68.8	84.4	110	63	44	43	40	40	19	15	.291	.285	.259	T.	T.	0	3.0	1.9	2.5	2.2
September	29.52	29.72	29.27	59.3	79.8	85.1	86.8	57.5	72.2	101	50	45	43	40	62	29	22	.309	.289	.257	.05	.05	0	1.3	1.2	.9	1.1
October	29.63	29.87	29.32	54.2	73.4	76.4	79.2	51.8	66.5	93	42	42	42	40	66	34	29	.273	.272	.252	T.	T.	0	1.6	1.9	2.8	2.1
November	29.69	30.03	29.32	44.9	59.1	60.0	63.4	42.2	52.8	86	28	35	36	36	71	47	47	.210	.218	.221	1.76	1.07	T.	2.7	3.5	2.9	3.3
December	29.73	30.07	29.33	41.9	49.5	51.6	54.4	39.0	46.7	65	30	39	40	40	89	73	68	.241	.252	.255	3.36	.75	0	5.2	8.0	6.5	7.1
Year	29.61	30.07	29.00	54.6	71.8	75.9	78.1	52.6	65.4	113	28	43	43	40	69	42	36	.264	.283	.280	12.13	1.10	T.	2.5	3.6	3.3	3.4

Annual meteorological summaries for the year ending December 31, 1931—Continued

FORT SMITH, ARK.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.7	E.	32	W.	0	2	5	24	1	1	11	9	9	0	12	8	11	5	5	1	1	0	2	0	1	0	10	0	0
February	6.5	E.	20	E.	0	5	2	26	2	5	4	3	8	1	11	4	13	9	7	0	0	0	4	1	0	0	3	0	0
March	9.9	E.	34	W.	1	8	0	18	1	2	11	5	17	0	8	9	14	9	8	2	0	0	0	0	0	0	8	3	0
April	6.7	E.	29	N.	0	11	8	25	1	3	5	1	6	0	13	6	11	10	9	0	0	0	0	0	0	0	0	4	0
May	7.1	E.	36	W.	1	6	5	16	7	6	5	8	9	0	12	10	9	11	8	0	0	1	3	1	0	1	0	6	0
June	5.7	E.	32	N.	0	2	8	23	10	13	1	2	1	0	14	14	2	7	5	0	0	0	0	0	0	17	0	8	0
July	5.2	E.	26	SE.	0	1	5	24	4	9	6	7	5	1	10	14	7	9	7	0	0	0	1	0	0	27	0	12	0
August	5.2	E.	25	N.	0	7	5	28	8	8	2	3	1	0	10	13	8	11	10	0	0	0	3	1	0	9	0	9	0
September	5.6	E.	30	SE.	0	2	3	36	6	10	0	0	3	0	24	5	1	4	3	0	0	0	0	0	0	20	0	5	0
October	6.0	E.	34	NW.	1	2	3	33	5	5	3	2	9	0	15	12	4	8	6	0	0	0	3	1	0	5	0	6	0
November	6.9	E.	24	SW.	0	2	2	25	9	9	5	2	6	0	9	4	17	11	10	0	0	0	2	1	0	0	0	3	0
December	6.1	E.	24	SW.	0	2	6	29	2	3	11	4	5	0	9	6	16	13	9	0	0	0	1	0	0	0	4	1	0
Year	6.5	E.	36	W.	3	50	52	307	56	74	64	46	79	2	147	105	113	107	87	3	1	1	19	5	1	79	25	57	0

FORT WAYNE, IND.

[H_b=857 ft.; h_t=100 ft.; h_r=93 ft.; h_a=119 ft.]

January	9.1	SW.	34	NW.	1	2	1	4	3	12	21	6	13	0	8	10	13	5	1	12	3	0	4	1	8	0	25	0	0
February	8.1	NW.	25	NW.	0	7	5	5	4	7	8	6	14	0	6	9	13	12	6	10	7	0	5	3	2	0	22	0	0
March	9.4	NW.	31	NW.	0	6	11	7	3	2	5	10	17	1	3	4	24	12	7	17	7	0	2	1	5	0	24	0	0
April	8.5	NW.	34	NW.	1	8	6	6	4	8	12	5	11	0	16	6	8	12	10	4	2	0	0	0	0	0	5	0	0
May	8.5	SW.	25	NW.	0	6	3	4	12	8	15	5	9	0	12	7	12	13	9	0	0	1	1	0	0	0	0	1	0
June	7.0	SW.	33	SW.	1	3	10	8	10	9	6	4	8	15	7	9	9	0	0	0	0	0	0	0	0	7	0	9	0
July	6.3	SW.	31	E.	0	8	6	6	1	3	20	9	9	0	15	12	4	6	5	0	0	0	0	0	0	14	0	7	0
August	5.8	SW.	28	SE.	0	4	7	6	6	7	17	3	4	8	11	13	7	16	13	0	0	0	0	0	0	5	0	11	0
September	7.4	SW.	26	W.	0	7	3	7	3	12	21	4	3	0	16	7	7	8	7	0	0	0	1	0	0	7	0	4	0
October	7.9	SW.	28	NW.	0	2	4	2	8	14	20	8	4	0	13	4	14	12	9	0	0	0	7	1	0	0	0	5	0
November	9.3	S.	32	SE.	0	3	1	6	10	11	19	8	2	0	7	7	16	11	10	2	1	0	4	2	1	0	6	0	0
December	8.9	SW.	30	SW.	0	2	7	9	7	3	23	5	6	0	7	3	21	14	12	5	0	0	9	7	1	0	16	0	0
Year	8.0	SW.	34	NW.	3	58	64	70	71	97	190	75	96	9	122	97	146	130	101	50	20	1	33	15	17	33	98	37	0

FORT WORTH, TEX.

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

January	6.0	SW.	22	NW.	0	6	6	3	8	7	12	5	15	0	12	7	12	8	6	0	0	0	0	1	0	0	3	0	0
February	6.8	SE.	30	SE.	0	5	7	5	12	6	3	4	13	1	8	7	13	13	12	0	0	0	1	1	0	0	0	1	0
March	9.4	NW.	28	NW.	0	8	4	5	9	6	6	4	20	0	10	9	12	9	7	1	0	0	0	1	0	0	3	4	0
April	7.5	SE.	34	E.	1	5	6	8	10	9	6	2	11	3	6	8	16	7	6	0	0	0	2	0	0	0	0	5	0
May	7.6	NW.	28	SE.	0	7	4	4	14	8	2	5	17	1	8	9	14	7	6	0	0	0	1	0	0	1	0	6	0
June	8.4	SE.	29	E.	0	5	5	21	16	10	2	0	1	13	13	4	8	6	0	0	0	0	0	0	0	20	0	8	0
July	7.1	SW.	38	NE.	1	4	7	8	9	14	15	0	2	3	13	12	6	4	4	0	0	0	0	0	0	28	0	13	0
August	8.0	S.	23	SW.	0	3	10	10	17	11	7	2	1	1	9	20	2	4	4	0	0	0	0	0	0	24	0	4	0
September	7.8	S.	27	SE.	0	1	6	9	20	15	7	0	1	1	23	5	2	2	1	0	0	0	0	0	0	24	0	3	0
October	6.7	SE.	22	NW.	0	3	2	9	11	15	9	3	2	10	1	18	6	7	8	8	0	0	0	0	0	8	0	6	0
November	8.0	SE.	28	W.	0	7	6	4	20	10	5	2	6	0	9	6	15	11	8	0	0	0	0	0	0	0	0	1	0
December	6.9	SW.	26	NW.	0	7	8	0	8	7	10	11	11	0	7	8	16	8	7	0	0	0	0	1	0	0	0	2	0
Year	7.5	SE.	38	NE.	2	55	78	72	163	118	86	39	107	12	136	110	119	89	75	1	0	0	4	4	0	105	6	53	0

FRESNO, CALIF.

[H_b=327 ft.; h_t=89 ft.; h_r=82 ft.; h_a=98 ft.]

January	3.8	E.	21	SE.	0	2	4	10	5	6	1	2	16	7	8	9	14	9	8	0	0	0	15	12	0	0	1	0	0
February	4.4	NW.	33	NW.	1	3	2	9	7	0	3	4	22	6	9	7	12	7	3	0	0	0	9	3	0	0	0	0	0
March	5.9	NW.	23	NW.	0	2	2	4	2	1	1	1	42	7	18	10	3	3	2	0	0	0	1	0	0	0	0	0	0
April	6.9	NW.	28	NW.	0	0	3	3	5	4	1	4	37	3	15	10	5	2	2	0	0	0	0	0	0	3	0	1	0
May	6.7	NW.	27	NW.	0	1	1	1	2	2	3	4	45	6	20	7	4	2	2	0	0	1	0	0	0	14	0	1	0
June	6.7	NW.	27	NW.	0	1	0	1	2	1	1	5	48	1	19	8	3	3	1	0	0	0	1	0	0	13	0	1	0
July	8.3	NW.	23	NW.	0	1	0	0	0	1	7	52	1	28	3	0	0	0	0	0	0	0	0	0	0	31	0	0	0
August	7.0	NW.	20	NW.	0	1	0	0	1	2	2	0	1	19	2	23	5	3	0	0	0	0	0	0	0	30	0	0	0
September	6.4	NW.	28	NW.	0	3	2	1	2	2	1	0	4	4	2	24	6	0	1	0	0	0	0	0	0	12	0	1	0
October	6.2	NW.	24	NW.	0	1	0	3	7	2	4	1	6	36	6	23	7	1	0	0	0	0	0	0	0	1	0	0	0
November	4.7	NW.	26	NW.	0	0	0	7	2	4	1	3	20	10	17	7	6	5	3	1	0	0	0	1	0	0	3	0	0
December	4.2	NW.	24	NW.	0	1	3	14	3	3	1	3	20	10	17	7	6	5	3	1	0	0	0	1	0	0	4	1	0
Year	4.4	SE.	22	NW.	0	1	0	12	10	2	1	4	17	6	5	10	16	15	12	0	0	1	12	9	0	0	4	1	0
Year	5.7	NW.	33	NW.	1	16	17	74	52	26	13	44	431	57	209	89	67	47	34	1	0	2	38	25	0	104	8	5	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

GALVESTON, TEX.

[ϕ=29° 18′ N.; λ=94° 50′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean					Extremes			Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	30.13	30.54	29.58	51.1	55.7	54.0	58.8	49.3	54.0	71	37	46	46	48	83	71	80	0.322	0.322	0.338	5.58	2.54	0	6.4	6.5	5.6	6.4
February	30.02	30.29	29.68	55.9	61.0	59.0	63.6	53.9	58.8	73	45	51	53	54	86	76	83	.389	.410	.419	4.23	1.19	0	6.1	5.2	5.3	5.6
March	30.00	30.43	29.57	53.4	59.3	57.7	62.1	49.9	56.0	72	35	48	48	48	82	67	73	.353	.357	.362	2.01	.69	0	4.3	4.3	3.9	4.3
April	30.02	30.35	29.62	61.3	66.1	65.2	69.0	59.8	64.4	80	44	56	57	58	84	72	78	.471	.475	.492	2.26	1.72	0	6.0	6.6	5.6	6.3
May	29.94	30.20	29.67	69.0	74.0	72.6	76.5	67.1	71.8	83	56	63	63	64	83	71	76	.590	.592	.611	3.14	1.94	0	5.2	5.1	4.8	5.3
June	29.96	30.11	29.82	78.0	82.2	80.5	84.2	76.8	80.5	89	71	72	72	72	82	71	75	.792	.779	.784	1.74	1.74	0	3.7	3.7	3.1	3.6
July	29.90	30.07	29.73	81.4	86.2	84.5	88.7	79.8	84.2	96	73	74	74	74	80	67	72	.852	.834	.848	1.02	.46	0	4.1	3.7	4.1	3.9
August	30.00	30.16	29.86	79.2	83.7	82.8	86.7	77.7	82.2	91	70	72	71	71	80	67	70	.793	.775	.775	4.23	2.39	0	4.1	5.3	4.1	4.6
September	29.96	30.21	29.78	79.9	84.4	82.4	86.5	78.3	82.4	94	70	73	72	72	80	66	71	.818	.782	.795	.94	.29	0	2.9	3.4	2.5	3.2
October	30.00	30.25	29.74	74.1	79.3	77.3	81.0	72.2	76.6	85	57	67	66	66	79	66	71	.688	.675	.675	3.40	1.59	0	2.8	3.4	1.9	3.3
November	30.04	30.30	29.70	67.0	71.3	69.2	74.0	64.4	69.2	82	51	61	61	62	83	72	79	.565	.558	.571	3.74	1.02	0	4.7	5.1	4.0	5.0
December	30.02	30.37	29.52	55.3	58.9	57.9	62.2	52.5	57.4	75	41	52	53	52	91	82	83	.420	.430	.416	7.81	1.72	0	6.9	6.8	5.3	6.7
Year	30.00	30.54	29.52	67.1	71.8	70.3	74.4	65.1	69.8	96	35	61	61	62	83	71	76	.588	.582	.590	40.10	2.54	0	4.8	4.9	4.2	4.8

GRAND HAVEN, MICH.

[ϕ=43° 04′ N.; λ=86° 14′ W.]

January	29.30	29.78	28.84	28.2	30.9	30.7	34.1	24.4	29.2	45	10	25	27	27	87	84	85	0.136	0.147	0.146	2.39	1.09	19.8	7.4	8.0	7.1	8.3
February	29.38	29.67	29.00	29.7	34.7	32.6	37.6	25.7	31.6	47	10	27	28	28	89	75	81	.149	.153	.151	.86	.45	5.6	6.2	6.2	5.3	7.0
March	29.30	29.73	28.89	29.1	35.4	33.1	37.5	26.7	32.1	55	16	26	26	28	88	69	80	.141	.141	.151	2.53	1.02	13.7	8.0	8.2	7.2	8.3
April	29.35	29.72	28.86	40.0	48.1	46.6	52.5	35.9	44.2	72	24	31	32	33	72	54	61	.180	.181	.191	1.08	.96	.1	5.2	6.0	4.5	5.7
May	29.23	29.65	28.80	49.1	55.1	54.5	60.1	43.1	51.6	79	31	42	42	42	78	65	66	.275	.277	.276	2.88	.96	0	5.2	6.0	6.4	6.0
June	29.30	29.50	28.89	64.6	70.2	70.7	75.7	58.6	67.2	89	40	56	56	58	76	63	66	.479	.476	.500	1.75	.64	0	7.0	6.7	5.3	6.4
July	29.25	29.49	28.86	70.9	76.5	75.9	80.7	64.2	72.4	92	51	62	62	60	73	63	69	.565	.573	.528	2.63	1.33	0	3.9	4.1	3.8	4.3
August	29.35	29.64	28.97	65.8	74.5	72.0	78.3	59.9	69.1	89	45	57	58	57	74	58	60	.482	.497	.475	.71	.34	0	4.1	3.8	5.3	4.6
September	29.31	29.69	28.84	62.7	69.8	67.7	73.2	57.9	65.6	85	41	58	60	59	86	72	75	.505	.527	.513	3.42	.90	0	4.9	4.9	4.2	4.9
October	29.34	29.94	28.78	51.7	58.7	55.2	61.5	47.1	54.3	76	33	47	48	48	85	68	76	.337	.347	.343	2.86	.61	0	5.9	6.5	4.3	6.1
November	29.36	29.90	28.76	46.1	48.4	47.6	52.8	40.2	46.5	67	26	40	40	40	80	74	76	.268	.266	.266	3.85	1.04	T.	7.6	7.9	6.1	7.6
December	29.40	29.88	28.72	33.9	37.2	35.9	40.6	30.0	35.3	51	12	30	31	32	86	78	84	.175	.179	.181	2.89	.89	6.3	7.9	8.4	6.7	8.4
Year	29.32	29.94	28.69	47.6	53.3	51.9	57.1	42.8	49.9	92	10	42	42	43	81	69	72	.308	.314	.310	27.85	1.33	45.5	6.1	6.4	5.5	6.5

GRAND JUNCTION, COLO.

[ϕ=39° 04′ N.; λ=108° 34′ W.]

January	25.52	25.84	24.99	17.9	34.7	34.1	40.1	15.1	27.6	57	3	14	16	17	83	45	49	0.078	0.088	0.091	0.10	0.09	1.2	3.5	4.5	4.5	4.7
February	25.36	25.73	25.11	32.5	44.0	44.4	48.6	29.8	39.2	57	23	26	27	28	77	51	54	.141	.145	.152	.81	.30	.4	5.8	7.3	6.4	7.0
March	25.39	25.79	24.75	31.2	47.5	49.7	53.0	27.5	40.2	67	16	20	18	18	64	31	29	.111	.102	.099	.63	.29	2.5	3.5	4.6	5.2	4.8
April	25.34	25.77	24.89	42.2	61.0	63.2	66.9	40.4	53.6	78	27	28	27	24	59	31	25	.161	.154	.133	1.34	.92	T.	3.8	5.0	5.4	5.0
May	25.36	25.65	25.03	49.4	67.4	70.0	73.9	47.4	60.6	87	34	31	26	25	51	24	22	.177	.150	.140	.44	.30	0	2.5	3.9	4.7	3.8
June	25.33	25.53	25.12	64.7	84.0	84.3	89.4	62.0	75.7	97	53	37	34	32	39	19	20	.238	.211	.206	.26	.12	0	3.6	4.2	4.9	4.3
July	25.34	25.55	25.15	67.3	88.9	91.7	96.3	65.5	80.9	104	55	43	39	38	44	21	19	.297	.259	.247	.74	.48	0	2.3	2.3	4.4	2.8
August	25.43	25.63	25.19	64.2	84.4	87.2	91.0	63.4	77.2	98	54	43	41	41	49	24	22	.294	.271	.268	.40	.36	0	2.6	2.8	3.8	3.1
September	25.35	25.66	24.97	58.1	76.6	76.7	81.8	56.1	69.0	93	44	44	41	42	61	30	32	.290	.270	.273	1.87	.87	0	1.9	3.6	2.9	2.7
October	25.42	25.70	25.09	47.0	62.5	61.6	68.4	44.3	56.4	82	29	34	33	35	63	36	39	.209	.199	.215	1.07	.85	0	3.1	3.9	3.9	3.6
November	25.38	25.76	24.98	30.0	43.2	40.0	47.0	26.1	36.6	69	3	23	24	27	76	53	64	.127	.135	.149	1.31	.47	7.8	3.9	4.5	4.6	4.6
December	25.46	25.81	24.81	15.0	26.8	25.0	31.1	10.5	20.8	42	−9	13	17	18	92	64	74	.082	.095	.099	.42	.25	3.8	3.5	4.7	4.7	4.7
Year	25.39	25.84	24.75	43.3	60.1	60.7	65.6	40.7	53.2	104	−9	30	29	29	63	36	37	.184	.173	.173	9.39	.92	15.7	3.3	4.3	4.6	4.3

GRAND RAPIDS, MICH.

[ϕ=42° 58′ N.; λ=85° 40′ W.]

January	29.23	29.72	28.74	26.9	31.4	30.5	34.3	23.1	28.7	46	7	23	25	25	84	76	78	0.126	0.137	0.133	1.80	0.63	19.6	7.5	8.4	7.5	8.2
February	29.30	29.62	28.95	29.2	36.0	33.4	38.7	25.8	32.2	50	8	25	26	26	81	68	73	.133	.144	.141	.79	.41	7.2	6.3	6.4	7.0	6.5
March	29.22	29.65	28.58	29.9	36.7	35.1	39.1	28.2	33.6	55	22	26	27	26	83	67	70	.137	.145	.140	1.94	.75	11.5	8.1	8.3	8.4	8.6
April	29.27	29.63	28.77	41.1	54.4	52.4	59.2	38.0	48.6	79	27	31	31	31	67	42	45	.178	.180	.179	1.75	1.32	T.	5.3	5.8	5.3	5.7
May	29.15	29.56	28.76	51.2	61.7	59.4	66.0	45.9	56.0	91	31	42	42	43	73	53	58	.283	.286	.291	3.23	.83	0	5.1	6.6	7.3	6.2
June	29.23	29.42	28.80	65.8	76.7	76.1	81.6	60.9	71.2	99	43	56	56	59	73	52	57	.479	.483	.526	2.49	1.06	0	6.0	7.1	6.4	6.5
July	29.18	29.41	28.77	70.8	82.6	80.9	86.5	65.1	75.8	101	54	60	57	56	69	44	44	.526	.487	.470	2.58	1.01	0	4.2	5.6	3.9	4.8
August	29.27	29.57	28.91	65.1	79.7	76.5	83.3	61.5	72.4	98	48	56	52	54	72	40	47	.458	.409	.439	.72	.24	0	4.5	5.2	5.7	5.3
September	29.24	29.63	28.79	61.7	74.9	71.2	78.9	59.2	69.0	94	44	57	54	55	84	52	64	.482	.443	.492	4.09	1.06	0	5.5	5.6	5.3	5.2
October	29.26	29.86	28.73	50.5	61.4	56.6	63.9	47.7	55.8	82	35	46	45	46	83	57	68	.319	.311	.321	3.18	1.00	0	6.2	6.5	4.9	6.0
November	29.29	29.81	28.72	45.4	50.4	47.6	54.6	40.5	47.6	73	27	39	40	39	79	67	72	.256	.263	.254	3.27	.87	T.	7.2	8.1	6.6	7.6
December	29.32	29.83	28.65	33.4	38.2	36.2	41.1	30.5	35.8	55	17	29	31	30	84	74	78	.170	.179	.171	2.64	.88	7.0	6.7	8.4	7.0	8.2
Year	29.25	29.86	28.58	47.6	57.0	54.7	60.6	43.9	52.2	101	7	41	40	41	78	58	63	.296	.289	.296	28.48	1.32	45.3	6.0	6.8	6.2	6.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

GALVESTON, TEX.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp. 32° or below	Maximum temp. 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.9	E.	32	NW.	0	9	5	16	14	7	2	6	3	0	6	11	14	6	6	0	0	0	2	0	0	0	0	2	0
February	9.6	SE.	27	N.	0	8	4	6	19	7	4	2	6	0	11	4	13	7	6	0	0	0	2	0	0	0	0	3	0
March	11.9	SE.	34	NW.	1	4	3	5	16	12	1	3	18	0	17	3	11	8	7	0	0	0	3	0	0	0	0	2	0
April	9.8	SE.	29	N.	0	5	4	8	19	15	1	4	3	1	5	11	14	6	4	0	0	0	3	0	0	0	0	3	0
May	9.0	SE.	26	SE.	0	9	2	4	21	14	3	4	5	0	6	17	8	5	5	0	0	0	1	0	0	0	0	4	0
June	9.6	SE.	30	W.	0	1	1	5	24	25	2	0	1	1	13	14	3	1	1	0	0	0	0	0	0	0	0	1	0
July	8.9	S.	24	SE.	0	1	2	5	18	24	4	4	3	1	15	11	5	8	6	0	0	0	0	0	0	0	0	5	0
August	8.1	S.	21	SW.	0	3	4	4	18	24	4	4	1	0	10	13	8	14	10	0	0	0	0	0	0	1	0	11	0
September	8.6	SE.	21	E.	0	1	6	6	27	14	3	2	1	0	20	7	3	8	6	0	0	0	0	0	0	2	0	6	0
October	9.3	SE.	25	SE.	0	8	8	7	28	8	1	0	2	0	17	11	3	7	6	0	0	0	0	0	0	0	0	3	0
November	10.0	SE.	30	NW.	0	7	5	3	33	6	1	0	5	0	11	10	9	13	11	0	0	0	2	0	0	0	0	2	0
December	10.4	SE.	26	NW.	0	12	9	5	16	3	0	5	11	1	7	7	17	14	10	0	0	0	6	2	0	0	0	2	0
Year	9.5	SE.	34	NW.	1	68	53	74	253	159	26	34	59	4	138	119	108	97	78	0	0	0	19	2	0	8	0	44	0

GRAND HAVEN, MICH.

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

January	10.6	SW.	31	W.	0	7	4	6	9	5	12	13	6	0	3	5	23	13	10	17	11	0	2	1	11	0	27	0	0
February	9.5	SW.	31	N.	0	11	9	4	3	6	9	7	6	1	5	6	17	10	6	11	8	0	3	0	4	0	25	0	0
March	9.5	N.	33	N.	2	17	12	9	4	2	2	4	12	0	4	3	24	11	8	13	8	0	0	0	4	0	30	0	0
April	9.7	SW.	33	NW.	1	13	4	4	7	9	6	7	9	1	11	6	13	8	2	3	1	0	1	3	0	0	10	2	0
May	9.2	W.	26	SW.	0	10	3	2	9	6	10	12	9	1	12	2	17	11	7	0	0	0	1	0	0	0	2	1	0
June	8.7	SE.	28	NE.	0	5	2	7	13	9	12	7	5	0	7	9	14	10	8	0	0	0	2	1	0	0	7	1	0
July	8.1	SW.	30	NW.	0	5	7	7	6	11	11	8	7	0	15	9	7	7	4	0	0	0	2	0	0	2	5	0	0
August	8.7	SW.	32	NW.	0	8	13	5	6	9	7	7	7	0	15	7	9	8	7	0	0	0	2	0	0	0	5	0	0
September	9.9	S.	37	SW.	1	8	3	5	7	12	12	5	7	1	14	7	9	12	10	0	0	0	2	0	0	0	8	1	0
October	10.2	SW.	30	NW.	0	8	4	6	10	10	11	7	6	0	11	4	16	14	11	0	0	0	3	0	0	0	4	0	0
November	13.6	S.	38	SW.	2	3	2	7	7	14	9	12	6	0	5	4	21	12	9	6	1	0	3	0	1	0	6	0	0
December	10.8	SW.	40	W.	2	7	8	11	10	2	13	8	8	0	3	4	24	9	7	8	4	0	4	0	1	0	20	0	0
Year	9.9	SW.	40	W.	8	102	71	73	91	95	114	97	83	4	105	66	194	125	89	58	33	0	23	5	21	2	120	32	2

GRAND JUNCTION, COLO.

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

January	3.8	SE.	15	SE.	0	1	0	0	30	10	1	3	17	0	12	12	7	2	1	5	2	0	2	1	3	0	31	0	0
February	3.9	SE.	17	NW.	0	8	4	0	15	6	6	9	8	0	4	8	16	11	6	9	4	0	5	0	0	0	24	1	0
March	4.8	NW.	26	W.	0	14	5	6	5	2	4	3	22	1	11	11	9	6	5	6	3	0	0	0	0	0	22	0	0
April	6.1	SE.	33	S.	1	9	4	5	14	8	2	6	11	1	10	11	9	5	4	2	0	2	0	0	0	0	3	1	0
May	5.8	N.	38	NW.	1	20	5	5	13	2	4	4	7	2	15	10	6	5	2	0	0	1	0	0	0	0	3	0	0
June	6.5	SE.	28	S.	0	11	0	10	26	7	1	4	7	0	13	12	5	5	2	0	0	0	0	0	0	13	0	8	0
July	5.4	SE.	37	S.	2	12	3	9	16	4	5	4	7	2	21	7	3	4	3	0	0	0	1	0	0	28	0	6	0
August	4.9	SE.	31	SW.	0	15	1	5	20	5	2	2	10	2	17	12	2	3	3	0	0	0	0	0	0	21	0	2	0
September	5.9	SE.	33	S.	1	13	1	7	18	8	4	4	4	1	20	8	2	9	7	0	0	0	1	0	0	6	6	5	0
October	4.6	SE.	30	W.	0	14	5	5	15	6	3	2	9	0	17	8	6	6	2	0	0	0	1	0	0	4	0	2	0
November	4.0	NW.	29	S.	0	13	3	8	10	3	4	1	17	1	14	6	10	11	7	8	5	0	0	0	7	0	17	0	0
December	3.6	NW.	22	S.	0	14	1	1	15	2	1	4	24	0	12	10	9	6	3	11	5	0	2	1	18	0	31	0	0
Year	4.9	SE.	38	NW.	5	144	32	61	194	63	37	46	143	10	166	115	84	73	45	41	19	7	10	2	28	68	132	28	0

GRAND RAPIDS, MICH.

[H_b=707 ft.; h_t=70 ft.; h_r=70 ft.; h_a=244 ft.]

January	10.6	SW.	33	SW.	2	8	2	4	6	11	16	11	4	0	1	8	22	13	9	17	11	0	17	2	11	0	31	0	0
February	10.3	SW.	33	SW.	1	11	9	5	4	6	11	3	7	0	1	6	15	10	7	16	6	0	20	0	5	0	23	0	0
March	10.6	N.	39	N.	3	15	11	14	6	3	2	5	6	0	2	5	24	10	9	17	9	0	14	0	3	0	29	0	0
April	9.9	SW.	37	SW.	2	7	9	3	8	5	10	10	8	0	8	10	12	4	3	5	1	0	12	1	0	0	8	3	0
May	9.5	SW.	38	SW.	2	11	6	3	7	10	11	10	4	0	11	5	15	14	11	0	0	2	15	0	0	1	1	5	0
June	8.9	SE.	38	N.	2	6	6	7	10	9	13	3	6	0	6	11	13	8	8	0	0	0	4	0	0	7	0	6	1
July	8.8	SW.	33	SW.	1	10	7	4	4	4	14	16	3	0	14	9	8	5	4	0	0	0	5	1	0	11	0	7	0
August	9.3	SW.	36	W.	3	6	9	11	3	5	11	13	4	0	9	10	12	6	4	0	0	0	1	0	0	7	0	5	1
September	10.0	SW.	44	SW.	6	10	2	4	6	13	15	4	6	0	9	12	9	10	10	0	0	1	15	1	0	7	0	7	0
October	10.6	SW.	40	SW.	2	11	1	6	6	14	13	8	3	0	9	7	15	13	13	0	0	2	22	0	0	0	0	5	0
November	13.0	S.	44	SW.	7	2	2	4	7	15	14	13	3	0	3	8	19	10	8	6	0	1	23	1	0	0	5	0	0
December	10.8	SW.	47	SW.	3	9	4	8	11	4	15	7	4	0	4	4	23	9	7	8	4	0	26	2	1	0	21	0	0
Year	10.2	SW.	47	SW.	34	106	68	73	78	99	146	103	58	0	83	95	187	112	93	69	31	6	174	8	20	33	118	38	2

Annual meteorological summaries for the year ending December 31, 1931—Continued

GREEN BAY, WIS.

[ϕ = 44° 31′ N.; λ = 88° 00′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.30	29.79	28.85	22.3	27.4	27.4	30.9	17.5	24.2	39	−5	19	21	22	86	74	80	0.106	0.114	0.122	0.64	0.39	7.9	7.4	7.9	7.0	8.2
February	29.38	29.74	28.95	25.7	31.4	31.1	35.8	22.1	29.0	47	−2	22	24	24	86	73	76	.121	.131	.136	.64	.28	7.1	6.9	7.2	5.5	6.8
March	29.37	29.76	28.75	26.8	33.8	33.0	37.1	24.9	31.0	52	13	23	25	26	84	71	74	.121	.134	.136	1.71	1.16	14.9	7.7	8.1	7.4	8.2
April	29.36	29.78	28.93	39.2	50.0	48.2	55.8	35.1	45.4	78	26	31	32	33	72	51	57	.180	.185	.192	.63	.43	T.	6.1	6.6	6.5	6.1
May	29.23	29.66	28.77	48.2	59.3	57.8	64.2	44.5	54.4	84	30	40	40	42	76	54	58	.259	.266	.271	1.08	.35	0	6.3	7.6	6.4	7.0
June	29.29	29.58	28.92	63.6	73.6	72.8	78.5	60.0	69.2	100	44	57	60	59	79	63	64	.483	.532	.531	3.17	.61	0	7.6	7.3	6.5	6.7
July	29.25	29.54	28.80	68.9	80.8	78.9	85.2	64.8	75.0	100	54	60	58	59	72	48	52	.520	.495	.509	3.31	1.27	0	4.5	5.0	5.3	5.1
August	29.37	29.62	28.95	62.0	74.0	72.6	77.7	58.6	68.2	97	43	55	54	54	79	52	55	.448	.433	.439	2.34	1.35	0	5.9	6.8	6.3	6.2
September	29.29	29.65	28.83	60.9	72.0	69.5	76.2	58.3	67.2	97	45	56	56	56	83	59	65	.456	.461	.471	5.84	2.02	0	5.6	5.8	5.9	5.8
October	29.32	29.96	28.74	49.0	58.4	55.0	61.2	46.5	53.8	79	36	44	45	45	83	63	71	.297	.313	.318	3.76	1.41	0	6.5	6.7	4.7	6.2
November	29.34	29.95	28.77	40.7	46.3	43.8	50.2	36.2	43.2	67	17	35	36	36	81	68	74	.223	.232	.231	3.61	1.31	.3	6.0	7.2	6.5	7.1
December	29.40	29.91	28.64	29.6	34.4	33.3	37.1	26.9	32.0	50	6	26	26	26	84	71	74	.142	.145	.146	1.10	.50	2.8	7.4	7.8	7.2	7.7
Year	29.32	29.96	28.64	44.7	53.4	52.0	57.5	41.3	49.4	100	−5	39	40	40	80	62	67	.280	.287	.292	27.83	2.02	33.0	6.5	7.0	6.3	6.8

GREENSBORO, N. C.

[ϕ = 36° 5′ N.; λ = 79° 57′ W.]

January	29.11	29.59	28.28	29.0	45.4	37.7	48.9	25.7	37.3	66	3	25	29	29	86	54	72	0.141	0.164	0.167	1.51	0.53	5.0	4.9	5.1	3.5	5.1
February	29.10	29.40	28.68	33.3	48.7	42.2	53.8	29.2	41.5	83	20	29	30	32	83	49	67	.163	.178	.186	1.77	.41	0	4.5	5.5	3.8	5.1
March	28.97	29.39	28.42	36.2	47.4	43.2	52.9	32.4	42.6	68	21	30	31	33	79	55	68	.170	.179	.193	3.53	1.20	3.0	6.3	6.2	4.5	6.4
April	29.10	29.49	28.35	49.5	61.1	56.7	65.9	43.1	54.5	81	32	42	42	44	76	54	64	.278	.282	.292	4.28	1.01	T.	6.4	5.7	5.5	6.0
May	29.02	29.37	28.72	59.6	71.3	64.9	75.5	52.4	64.0	88	38	53	52	54	79	54	69	.408	.408	.427	5.97	1.99	0	5.5	5.5	4.8	5.7
June	29.08	29.30	28.63	69.8	82.6	75.4	86.6	61.9	74.0	98	46	62	60	62	76	48	64	.562	.535	.564	2.27	1.01	0	4.8	4.9	5.4	5.2
July	29.03	29.20	28.81	75.4	86.7	78.7	90.5	69.0	79.8	98	63	70	69	70	84	56	76	.732	.708	.733	5.22	1.71	0	5.2	5.7	6.6	5.7
August	29.12	29.43	28.76	69.6	80.0	72.0	83.3	64.2	73.8	92	51	67	66	68	91	65	88	.666	.659	.666	10.29	3.01	0	6.0	6.8	6.0	6.2
September	29.14	29.55	28.75	67.5	82.4	72.1	85.3	61.5	73.4	97	42	63	62	65	86	51	78	.562	.567	.637	.51	.43	0	3.2	3.6	2.4	4.1
October	29.18	29.54	28.72	52.2	70.8	58.8	75.1	45.6	60.4	89	28	47	48	48	85	42	68	.342	.331	.350	.45	.28	0	3.6	3.5	2.3	3.5
November	29.28	29.58	28.93	43.7	63.8	53.5	67.3	41.1	54.2	78	24	40	44	43	88	52	70	.272	.318	.302	.37	.17	0	3.8	4.2	3.7	4.6
December	29.21	29.66	28.86	40.3	52.6	46.5	56.7	36.7	46.7	77	21	37	40	41	88	66	81	.240	.278	.274	5.35	1.32	0	6.1	5.8	5.0	6.2
Year	29.11	29.66	28.28	52.2	66.1	58.5	70.2	46.8	58.5	98	3	47	48	49	83	54	72	.380	.384	.402	41.52	3.01	8.0	5.0	5.2	4.5	5.3

GREENVILLE, S. C.

[ϕ = 34° 50′ N.; λ = 82° 24′ W.]

January	28.07	29.43	28.19	37.7	48.1	45.8	52.9	35.3	44.1	67	24	31	35	33	76	64	64	0.178	0.208	0.192	2.55	1.30	3.5	4.4	4.5	4.3	4.7
February	28.94	29.22	28.55	40.5	50.5	49.4	56.0	37.6	46.8	66	26	32	33	34	71	53	56	.184	.199	.200	3.80	1.38	T.	4.6	4.9	3.1	4.7
March	28.82	29.20	28.35	40.4	50.2	48.8	56.0	37.5	46.8	67	29	32	34	34	72	57	59	.187	.201	.202	4.63	1.46	T.	5.1	5.2	4.2	5.0
April	28.95	29.35	28.24	53.1	63.3	62.0	69.0	49.9	59.4	78	38	43	43	42	70	52	51	.288	.294	.276	3.63	1.53	0	5.4	4.9	5.1	5.3
May	28.88	29.21	28.57	61.3	71.0	68.3	75.7	56.7	66.2	88	46	51	51	51	70	53	58	.388	.386	.396	5.73	1.55	0	4.5	4.9	4.2	4.6
June	28.93	29.15	28.55	72.0	83.8	80.5	89.4	67.8	78.6	101	56	60	59	60	68	44	52	.542	.517	.544	.78	.37	0	3.5	3.4	4.9	4.3
July	28.90	29.09	28.67	76.2	87.2	80.8	91.6	71.4	81.5	99	65	69	67	68	79	53	68	.708	.669	.698	4.38	1.34	0	4.1	4.2	6.7	5.0
August	28.97	29.26	28.04	71.3	81.8	77.0	86.0	67.5	76.8	96	57	65	64	66	82	56	70	.630	.609	.650	4.46	2.37	0	4.9	5.3	5.6	5.4
September	29.00	29.38	28.67	70.6	81.7	78.4	86.4	67.8	77.1	97	51	62	61	61	75	51	57	.580	.554	.560	2.62	2.01	0	3.1	3.9	2.3	3.1
October	29.03	29.40	28.59	58.0	71.9	66.6	76.0	55.6	65.8	87	39	46	47	46	66	44	50	.325	.349	.334	1.06	.31	0	2.6	2.9	2.3	2.0
November	29.12	29.36	28.83	52.6	63.8	60.8	67.4	50.5	59.0	80	36	44	47	44	74	58	59	.313	.345	.317	1.02	.36	0	4.1	3.9	3.5	4.5
December	29.06	29.44	28.63	46.2	54.4	51.6	59.0	43.3	51.2	78	28	42	45	45	88	77	80	.289	.337	.315	12.56	4.44	0	6.1	6.1	5.4	6.3
Year	28.96	29.44	28.19	56.7	67.3	64.2	72.1	53.4	62.8	101	24	48	49	49	74	55	60	.384	.388	.390	47.22	4.44	3.5	4.4	4.5	4.3	4.7

HANNIBAL, MO.

[ϕ = 39° 41′ N.; λ = 91° 20′ W.]

January	29.52	30.01	29.14	28.9	38.3	----	43.4	26.8	35.1	65	6	24	26	----	80	63	----	0.132	0.148	----	0.24	0.20	0.6	4.1	6.2	----	5.4
February	29.52	29.96	29.06	33.0	42.2	----	47.3	31.3	39.3	66	16	28	30	----	81	65	----	.155	.171	----	2.17	.63	1.4	4.4	5.7	----	5.3
March	29.42	29.80	28.78	32.1	40.6	----	44.2	31.0	37.6	61	23	27	28	----	80	60	----	.146	.152	----	2.36	.83	10.8	6.0	6.5	----	6.8
April	29.50	29.84	29.00	47.1	59.6	----	64.1	44.6	54.4	81	33	40	42	----	77	55	----	.261	.284	----	2.18	.86	0	4.6	5.3	----	5.3
May	29.35	29.80	28.95	56.1	65.0	----	69.5	50.7	60.1	88	35	47	48	----	76	57	----	.335	.350	----	5.26	2.41	0	5.0	6.0	----	5.7
June	29.40	29.56	29.10	71.5	83.0	----	87.2	67.9	77.6	102	49	63	63	----	76	52	----	.592	.582	----	5.72	2.97	0	4.8	4.2	----	4.1
July	29.36	29.62	29.09	73.9	86.7	----	90.9	70.0	80.4	101	58	64	62	----	72	47	----	.607	.580	----	2.63	.91	0	3.6	4.0	----	3.9
August	29.47	29.74	29.15	67.3	81.4	----	85.2	64.8	75.0	100	53	61	60	----	81	50	----	.556	.544	----	2.71	2.15	0	4.1	5.2	----	4.5
September	29.42	29.77	29.00	67.1	81.5	----	85.1	65.3	75.2	95	46	62	61	----	84	52	----	.572	.564	----	3.72	1.66	0	5.0	4.7	----	4.1
October	29.48	29.87	29.06	54.5	66.0	----	69.8	53.1	61.4	88	37	49	48	----	84	56	----	.371	.360	----	3.16	.75	0	5.1	5.3	----	5.5
November	29.51	29.96	28.84	47.2	56.4	----	60.4	44.7	52.6	80	26	42	42	----	81	62	----	.284	.298	----	4.29	2.45	3.0	5.6	6.7	----	6.1
December	29.52	30.05	28.84	36.8	44.1	----	48.4	34.8	41.6	62	23	33	35	----	84	71	----	.190	.211	----	2.49	.66	4.0	5.2	6.3	----	6.1
Year	29.46	30.05	28.78	51.2	62.1	----	66.3	48.8	57.5	102	6	45	45	----	80	57	----	.350	.354	----	36.93	2.97	19.8	4.8	5.5	----	5.2

Annual meteorological summaries for the year ending December 31, 1931—Continued

GREEN BAY, WIS.

[H_b=617 ft.; h_t=109 ft.; h_r=101 ft.; h_a=141 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	9.0	SW.	27	SW.	0	8	4	3	4	15	17	4	7	0	3	6	22	7	6	17	7	0	2	1	15	0	31	0	0
February	9.3	N.	25	NW.	0	14	5	2	2	12	9	4	8	0	5	10	13	4	4	10	4	0	13	3	8	0	26	0	0
March	10.6	N.	48	NE.	3	11	17	5	5	5	3	2	13	1	4	5	22	9	5	12	7	0	2	0	6	0	27	0	0
April	10.3	S.	41	SW.	1	8	8	1	9	15	5	3	11	0	9	6	15	6	4	5	0	0	1	0	0	0	14	0	0
May	9.3	S.	30	NE.	0	6	12	6	9	12	6	6	5	0	5	9	17	10	6	0	0	0	3	0	0	0	1	1	0
June	8.7	S.	27	NW.	0	3	8	4	11	16	9	4	5	0	6	7	17	11	10	0	0	0	0	0	0	5	0	5	0
July	8.3	SW.	35	W.	2	8	8	0	6	15	10	12	3	0	10	13	8	10	7	0	0	0	0	0	0	11	0	5	0
August	8.7	N.	28	W.	0	9	13	3	6	8	8	5	7	3	8	10	13	11	7	0	0	0	0	0	0	2	0	6	0
September	9.0	S.	30	NE.	0	3	4	3	10	16	7	8	9	0	9	11	10	14	12	0	0	0	0	0	0	5	0	8	0
October	9.5	S.	27	SW.	0	2	1	4	8	16	13	6	10	2	8	7	16	10	10	0	0	0	6	0	0	0	0	5	0
November	10.6	S.	42	S.	3	2	3	4	7	12	15	11	6	0	6	8	16	10	8	5	1	0	9	3	2	0	9	0	5
December	9.7	SW.	34	NE.	1	5	13	1	7	9	14	9	4	0	6	4	21	8	4	7	4	0	11	3	5	0	23	0	0
Year	9.4	S.	48	NE.	10	79	96	36	84	151	116	74	88	6	79	96	190	110	83	56	23	0	47	10	36	23	131	30	5

GREENSBORO, N. C.

[H_b=886 ft.; h_t=6 ft.; h_r=3 ft.; h_a=56 ft.]

January	6.4	SW.	25	SW.	0	2	5	1	2	2	20	18	9	3	13	5	13	6	5	2	2	0	7	2	1	0	25	0	0
February	6.5	SW.	27	SW.	0	10	11	1	3	5	14	9	7	5	9	11	8	7	7	0	0	0	5	2	0	0	20	1	0
March	9.1	N.	27	W.	0	10	16	1	3	0	10	9	13	0	5	12	14	12	10	5	1	0	7	3	0	0	18	1	0
April	8.2	SW.	28	W.	0	6	12	1	8	4	12	6	10	1	8	8	14	14	12	1	0	0	6	3	0	0	2	3	0
May	7.0	SW.	35	SW.	1	4	10	3	3	11	17	6	7	1	8	13	10	12	11	0	0	0	7	4	0	0	0	8	0
June	6.1	SW.	41	NW.	1	11	8	6	3	9	13	4	5	1	8	16	6	9	5	0	0	0	4	0	0	12	0	9	0
July	4.9	SW.	38	NW.	3	3	9	4	4	9	15	11	6	1	6	18	7	12	11	0	0	0	12	3	0	20	0	17	0
August	5.2	SW.	30	W.	0	9	8	3	5	5	16	5	4	7	5	15	11	16	16	0	0	0	7	3	0	6	0	14	0
September	5.9	SW.	24	SW.	0	9	8	2	1	11	15	6	2	6	15	8	7	3	3	0	0	0	2	0	0	9	0	4	0
October	5.4	SW.	25	NW.	0	10	9	1	0	6	15	7	6	8	18	7	6	5	4	0	0	0	1	0	0	0	3	2	0
November	5.5	SW.	19	N.	0	8	9	4	5	8	16	3	4	3	14	7	9	6	3	0	0	0	13	6	0	0	8	0	0
December	6.7	SW.	30	NW.	0	6	14	3	1	4	16	7	9	2	7	8	16	13	13	0	0	0	14	6	0	0	10	0	0
Year	6.4	SW.	41	NW.	5	88	119	30	38	74	179	82	82	38	116	128	121	115	100	8	3	0	85	32	1	47	86	59	0

GREENVILLE, S. C.

[H_b=1,039 ft.; h_t=139 ft.; h_r=131 ft.; h_a=146 ft.]

January	6.6	SW.	34	SW.	1	8	10	2	1	8	15	11	7	0	14	6	11	7	8	2	2	0	6	2	0	0	10	0	0
February	7.4	NE.	29	N.	0	13	12	3	2	9	9	5	2	1	13	5	10	8	8	1	1	0	3	1	0	0	4	0	0
March	9.5	NE.	36	NE.	2	15	13	3	0	8	8	7	8	0	12	10	9	10	7	4	2	0	5	0	0	0	7	0	0
April	8.4	NE.	36	W.	1	10	16	5	4	7	7	11	0	0	11	6	13	10	9	0	0	0	2	0	0	0	0	4	0
May	7.5	S.	36	W.	1	8	13	3	5	11	8	9	4	1	13	10	8	14	14	0	0	1	3	0	0	0	0	9	0
June	5.7	NE.	32	SW.	0	8	17	2	5	8	6	8	5	1	12	14	4	5	3	0	0	0	2	0	0	17	0	8	0
July	5.3	NE.	34	W.	1	10	13	5	2	7	8	12	3	2	8	19	4	15	12	0	0	0	2	0	0	23	0	20	0
August	5.4	NE.	38	SW.	1	9	18	5	1	6	13	8	1	1	6	19	6	12	12	0	0	0	3	0	0	9	0	11	0
September	6.0	N.	26	W.	0	11	9	6	5	4	7	7	6	2	16	8	3	7	6	0	0	0	2	0	0	12	0	5	0
October	5.9	NE.	28	W.	0	13	14	2	2	6	12	7	6	0	15	10	3	6	6	0	0	0	2	0	0	0	0	2	0
November	6.1	NE.	23	NE.	0	7	14	4	3	12	8	4	6	2	12	9	9	7	7	0	0	0	8	5	0	0	0	0	0
December	7.0	NE.	30	NE.	0	7	27	2	2	8	8	4	4	0	5	10	16	15	14	0	0	0	9	4	0	0	2	2	0
Year	6.8	NE.	38	SW.	7	119	176	45	32	94	109	93	52	10	143	126	96	116	103	7	5	1	48	12	0	61	23	61	0

HANNIBAL, MO.

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

January	8.0	SW.	25	SW.	0	1	1	1	4	0	14	3	7	0	9	13	9	4	2	5	1	0	4	2	3	0	28	0	0
February	6.3	SW.	23	SW.	0	9	1	2	1	1	6	1	6	1	12	3	13	7	6	1	1	0	1	1	0	0	14	1	0
March	8.7	NW.	28	NE.	0	2	7	4	2	1	4	1	10	0	7	7	17	12	12	8	7	0	0	2	0	0	19	0	0
April	7.0	NW	24	SW.	0	4	1	3	2	0	6	5	7	2	13	4	13	9	6	0	0	1	2	2	0	0	0	3	0
May	7.2	SW.	26	SW.	0	3	3	3	1	1	9	4	7	0	8	11	12	14	12	0	0	0	1	1	0	0	0	3	0
June	6.4	SW.	26	NW.	0	0	3	2	1	3	16	3	2	0	13	11	6	8	6	0	0	1	0	0	0	12	0	8	0
July	6.0	SW.	22	SE.	0	3	3	1	2	2	16	0	4	0	16	10	5	10	7	0	0	0	0	0	0	18	0	7	0
August	5.3	SW.	24	W.	0	1	3	2	3	1	9	3	3	6	14	9	8	7	7	0	0	0	1	1	0	3	0	9	0
September	7.2	SW.	27	S.	0	4	3	2	1	0	14	2	2	2	14	10	6	10	8	0	0	0	2	1	0	14	0	8	0
October	7.7	SW.	23	W.	0	1	3	2	1	3	10	6	8	1	12	5	14	10	10	0	0	0	2	1	0	0	0	2	0
November	8.5	SW.	31	SW.	0	2	1	3	2	3	14	2	4	0	8	6	16	12	12	2	2	0	1	0	0	0	5	1	0
December	7.0	SW.	26	NE.	0	1	2	3	5	1	11	3	5	0	10	6	15	12	9	4	3	0	5	3	0	0	12	1	0
Year	7.1	SW.	31	SW.	0	30	31	28	25	16	129	32	62	12	136	95	134	115	97	20	14	2	19	12	5	47	73	43	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

HARRISBURG, PA.

[ϕ=40° 16′ N.; λ=76° 52′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.64	30.15	29.66	29.8	34.9	33.9	39.5	28.7	33.1	56	14	20	21	22	67	56	61	0.116	0.118	0.123	1.82	1.13	1.5	5.9	6.0	5.5	5.5
February	29.66	30.02	29.32	30.2	37.2	37.4	42.0	27.9	35.0	55	15	21	22	24	68	56	58	.116	.123	.131	1.44	.73	2.8	6.1	5.6	5.3	5.2
March	29.54	29.99	28.80	35.4	40.6	39.9	44.0	33.4	38.7	57	25	26	26	28	68	58	63	.144	.144	.154	3.72	1.27	2.9	7.7	7.6	7.5	7.3
April	29.04	30.14	28.80	45.8	55.0	54.2	60.4	41.4	50.9	76	35	35	36	37	67	50	55	.211	.219	.225	2.01	.97	T.	5.7	5.2	4.9	5.0
May	29.55	29.92	29.25	57.2	66.2	65.7	72.0	52.6	62.3	91	37	48	46	49	72	52	57	.351	.329	.361	3.75	1.53	6	5.3	5.5	5.6	5.3
June	29.60	29.87	29.06	66.3	75.5	75.0	81.0	61.7	71.0	98	52	55	54	57	67	51	56	.438	.440	.479	3.28	2.07	0	5.5	4.8	5.2	4.8
July	29.54	29.77	29.18	73.2	82.4	79.8	87.0	68.8	77.9	100	60	65	64	66	76	56	64	.625	.607	.637	3.89	1.03	0	4.5	5.5	5.8	4.8
August	29.62	29.96	29.14	69.0	78.4	75.4	82.2	65.5	73.8	96	58	62	60	63	78	55	67	.562	.527	.585	3.18	1.11	0	6.2	6.4	6.5	5.9
September	29.62	30.11	29.25	60.4	77.1	73.9	81.6	62.6	72.1	97	48	58	58	61	75	53	64	.504	.505	.549	3.35	1.26	0	5.2	3.8	3.6	4.2
October	29.67	30.09	29.06	51.9	64.7	61.1	68.9	48.9	58.9	84	37	45	44	46	77	48	59	.313	.309	.334	2.13	1.08	0	4.1	4.9	4.1	4.5
November	29.79	30.16	29.30	46.5	54.1	52.4	58.9	43.6	51.2	74	30	41	41	41	82	64	67	.270	.280	.274	.73	.36	2.2	6.0	5.9	5.7	6.8
December	29.72	30.27	29.27	37.0	42.4	41.0	47.0	33.4	40.2	62	22	28	28	28	70	58	62	.163	.164	.166	1.70	.55	.8	6.4	5.9	5.4	6.3
Year	29.63	30.27	28.66	50.7	59.0	57.5	63.7	47.2	55.4	100	14	42	42	44	72	55	61	.318	.314	.335	31.60	2.07	10.2	5.7	5.6	5.4	5.5

HARTFORD, CONN.

[ϕ=41° 46′ N.; λ=72° 40′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
January	29.79	30.23	28.76			29.3	35.2	20.6	27.9	53	5			20			65			0.111	3.46	1.13	12.9			3.4	4.3
February	29.83	30.35	29.48			30.6	37.1	20.9	29.0	49	2			20			65			.113	1.65	.69	6.1			4.3	5.0
March	29.72	30.22	29.03			39.6	45.1	32.1	38.6	59	23			28			64			.155	4.26	1.19	6.0			5.8	6.7
April	29.83	30.32	29.12			50.4	59.1	40.0	49.6	77	32			33			54			.196	2.81	1.05	T.			4.5	4.9
May	29.76	30.09	29.36			60.4	70.2	49.8	60.0	92	36			48			67			.351	5.50	2.07	0			6.1	5.7
June	29.77	30.09	29.36			69.8	78.2	58.7	68.4	94	52			57			65			.470	4.75	1.74	0			5.3	5.1
July	29.73	29.98	29.33			75.5	83.6	66.5	75.0	96	58			64			70			.615	2.51	1.40	0			5.4	6.1
August	29.85	30.21	29.46			72.2	80.3	63.2	71.8	95	53			62			73			.509	4.45	2.75	0			5.8	6.0
Septrember	29.83	30.33	29.44			68.7	77.4	58.2	67.8	93	42			58			70			.506	1.05	.44	0			4.9	4.4
October	29.84	30.28	29.15			58.0	67.5	47.5	57.5	83	37			45			64			.318	1.75	.66	0			4.2	4.2
November	30.00	30.40	29.46			48.4	55.5	39.9	47.7	76	21			39			73			.260	.95	.43	1.1			4.6	6.0
December	29.88	30.47	29.38			36.3	43.4	28.0	35.7	64	14			24			62			.142	3.00	.84	1.6			4.0	6.2
Year	29.82	30.47	28.76			53.3	61.0	43.8	52.4	96	2			42			66			.317	36.14	2.75	27.7			4.9	5.4

HATTERAS, N. C.

[ϕ=35° 15′ N.; λ=75° 40′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
January	30.05	30.52	29.21	42.8	50.2	45.6	53.2	38.8	46.0	64	30	37	39	40	80	66	81	0.228	0.251	0.257	2.86	1.60	0	3.5	4.3	3.8	4.6
February	30.04	30.31	29.64	44.6	51.1	46.5	53.8	40.0	46.9	71	31	38	39	39	78	65	77	.241	.250	.249	2.34	.87	T.	4.0	4.6	4.1	4.2
March	29.88	30.29	29.16	46.1	51.5	46.8	53.3	41.9	47.6	64	34	40	40	40	78	66	79	.251	.255	.256	5.48	1.88	T.	5.5	5.4	5.0	5.6
April	30.03	30.42	29.25	57.7	63.0	57.0	64.8	51.2	58.0	73	39	50	51	51	76	66	81	.366	.385	.384	2.71	1.00	0	4.7	4.6	4.1	4.9
May	29.96	30.26	29.60	67.6	72.3	64.4	73.8	60.4	67.1	79	54	61	61	60	79	68	85	.540	.542	.521	4.35	3.57	0	4.1	3.8	4.3	3.8
June	29.99	30.20	29.54	74.6	78.6	70.8	79.6	65.8	72.7	86	57	66	67	66	76	68	86	.652	.667	.650	3.82	2.63	0	4.3	2.3	4.7	3.0
July	29.94	30.15	29.74	80.0	83.6	77.0	84.6	72.5	78.6	89	68	74	74	73	81	74	87	.826	.847	.813	4.82	1.89	0	6.5	4.2	6.3	4.9
August	30.02	30.31	29.73	78.9	83.6	76.8	84.6	71.5	78.0	89	65	73	74	72	81	72	85	.806	.831	.786	6.14	1.91	0	5.7	4.2	5.0	4.6
Septemoer	30.04	30.46	29.69	78.0	82.6	75.3	83.2	71.3	77.2	90	63	70	72	70	77	70	84	.742	.784	.733	1.70	.95	0	3.0	2.9	2.9	3.4
October	30.08	30.46	29.63	67.2	73.4	66.0	74.0	60.3	67.2	84	50	64	68	63	86	82	89	.599	.692	.580	.64	.46	0	2.8	2.8	2.8	3.1
November	30.20	30.51	29.95	59.3	66.4	59.5	67.5	55.4	61.4	78	45	56	60	56	90	82	90	.461	.539	.488	1.17	1.17	0	3.2	3.3	3.2	4.0
December	30.14	30.56	29.84	53.9	59.3	56.2	62.4	50.0	56.2	73	36	49	52	51	84	77	83	.369	.406	.395	5.52	2.94	0	5.6	5.5	5.0	5.5
Year	30.03	30.56	29.16	62.6	68.0	61.8	69.6	56.6	63.1	90	50	56	58	57	81	71	84	.507	.537	.508	41.55	3.57	T.	4.4	4.0	4.3	4.3

HAVRE, MONT.

[ϕ=48° 34′ N.; λ=109° 40′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
January	27.34	27.65	26.95	25.1	34.4	30.9	38.6	18.6	28.6	57	−4	19	25	23	78	68	73	0.105	0.133	0.127	0.57	0.44	5.0	3.1	5.4	4.8	5.0
February	27.34	27.77	26.99	28.9	41.3	38.6	46.0	25.1	35.6	57	14	22	25	24	76	53	55	.115	.134	.128	.02	.02	T.	3.5	4.8	4.4	4.4
March	27.41	28.04	26.93	24.8	37.3	37.5	42.6	20.5	31.6	62	−4	20	23	23	84	63	57	.113	.141	.120	.32	.30	9.4	5.6	6.6	6.0	6.5
April	27.38	28.04	26.89	34.3	54.7	56.5	60.2	32.3	46.2	81	16	26	23	22	70	32	30	.135	.126	.119	.08	.50	.1	4.2	5.4	4.8	4.9
May	27.34	27.74	26.86	44.5	66.2	66.7	71.3	41.5	56.4	95	31	32	29	30	62	27	29	.181	.158	.167	.21	.10	T.	4.5	6.1	5.5	5.9
June	27.27	27.70	26.81	56.5	74.4	76.7	80.7	54.2	67.4	100	42	44	42	40	65	34	30	.296	.275	.257	1.33	.44	0	5.6	5.7	6.2	5.7
July	27.33	27.68	27.01	57.5	77.3	80.3	83.3	55.6	69.4	103	43	46	45	43	68	37	31	.314	.301	.256	3.25	1.02	0	3.4	3.3	4.1	3.6
August	27.38	27.71	27.02	55.3	77.6	81.0	83.5	53.9	68.7	99	45	45	45	42	72	34	28	.309	.310	.279	.22	.21	0	4.9	3.0	2.9	3.4
September	27.28	27.70	26.94	47.2	67.5	67.6	72.4	45.0	58.7	98	28	35	38	38	72	37	38	.228	.232	.227	.47	.14	0	5.0	4.4	4.9	4.9
October	27.36	27.89	26.73	35.3	57.9	55.2	63.5	31.5	47.5	83	17	25	27	25	65	32	32	.133	.147	.135	.02	.01	T.	2.1	2.9	2.5	2.8
November	27.35	27.88	26.81	23.1	33.7	29.8	38.0	14.7	26.4	73	−20	16	20	18	77	63	66	.094	.110	.100	.57	.18	9.5	5.8	6.0	6.0	5.9
December	27.25	27.57	26.65	20.3	28.5	24.1	32.6	14.3	23.4	52	−17	16	20	20	84	72	83	.095	.113	.110	.34	.23	7.1	5.2	5.0	5.3	5.4
Year	27.34	28.04	26.65	37.7	54.2	53.8	59.4	33.9	46.7	103	−20	29	30	29	73	46	46	.176	.182	.169	8.50	1.02	31.1	4.4	4.9	4.8	4.9

Annual meteorological summaries for the year ending December 31, 1931—Continued

HARRISBURG, PA.

[H_b=374 ft.; h_t=94 ft.; h_r=42 ft.; h_a=104 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 25 miles or over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.4	W.	26	W.	0	4	5	2	3	4	9	21	12	2	10	12	9	5	4	9	2	0	2	0	6	0	23	0	0
February	6.2	NW.	25	NW.	0	3	12	4	2	3	7	8	17	0	14	2	12	10	7	5	5	0	2	0	3	0	20	0	0
March	7.8	W.	24	W.	0	11	14	7	2	1	1	14	12	0	5	7	19	13	12	12	5	0	0	0	0	0	12	0	0
April	7.5	NW.	32	W.	0	10	9	4	4	7	3	9	14	0	11	8	11	8	7	1	0	0	2	0	0	0	0	0	0
May	5.9	W.	27	S.	0	3	10	4	10	4	11	13	7	0	7	16	8	15	11	0	0	0	0	0	0	2	0	4	0
June	5.4	NE.	29	W.	0	7	15	3	4	7	6	6	12	0	11	11	8	8	3	0	0	1	0	0	0	3	0	5	0
July	4.7	W.	24	NW.	0	0	8	5	8	3	7	20	11	0	9	15	7	14	9	0	0	0	2	0	0	8	0	10	0
August	4.5	W.	33	SW.	1	5	14	4	6	9	4	11	9	0	7	13	11	13	11	0	0	0	2	1	0	5	0	6	0
September	5.3	W.	35	W.	1	6	7	2	4	4	9	16	12	0	16	6	8	7	7	0	0	0	2	0	0	8	0	6	0
October	4.8	W.	26	NW.	0	12	4	2	3	5	3	22	8	3	13	10	8	8	7	0	0	1	3	0	0	0	0	4	0
November	5.2	W.	27	NW.	0	5	9	2	7	9	4	15	7	2	3	14	13	6	2	2	1	0	9	6	0	0	3	0	0
December	6.3	W.	38	W.	1	2	9	8	2	1	8	18	14	0	8	8	15	9	7	2	1	0	7	2	1	0	17	0	0
Year	5.8	W.	38	W.	3	66	116	47	55	57	72	173	135	7	114	122	129	116	89	31	14	2	31	9	10	26	75	34	0

HARTFORD, CONN.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 25 miles or over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January		NW.				4	4	1	0	3	6	2	11	0	12	13	6	7	7	10	6	0	4	0	8	0	31	0	0
February		NW.				7	1	2	1	0	6	1	10	0	12	5	11	11	8	10	8	0	9	0	8	0	26	0	0
March		NW.				6	4	6	1	4	1	1	8	0	6	8	17	11	10	10	3	0	5	0	0	0	14	0	0
April		S.				5	2	0	0	9	6	3	5	0	13	8	9	11	8	3	0	0	8	0	0	0	1	0	0
May		S.				1	2	3	0	10	9	1	5	0	9	7	15	13	9	6	0	0	12	0	0	2	0	4	0
June		S.				2	5	1	0	10	6	1	5	0	13	8	9	12	10	0	0	0	4	0	0	2	0	6	0
July		SW.				2	1	1	1	9	12	2	3	0	6	16	9	10	7	0	0	0	2	0	0	3	0	4	0
August		SW.				6	4	3	0	8	7	0	3	0	8	7	16	9	9	0	0	0	12	0	0	3	0	7	0
September		SW.				1	4	0	1	13	5	2	4	0	13	9	8	10	7	0	0	0	11	1	0	4	0	4	0
October		SW.				5	1	1	0	10	6	3	5	0	14	10	7	9	7	0	0	0	13	4	0	0	3	3	1
November		SW.				3	4	1	1	5	7	3	6	0	9	7	14	7	5	3	1	0	16	2	1	0	7	0	0
December		NW.				4	4	1	2	3	4	0	13	0	11	4	16	9	7	5	1	1	11	1	1	0	19	1	0
Year		S.				46	36	20	7	84	75	19	78	0	126	102	137	119	94	41	19	3	113	8	18	14	98	29	1

HATTERAS, N. C.

[H_b=11 ft.; h_t=5 ft.; h_r=4 ft.; h_a=50 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 25 miles or over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January	12.1	W.	48	N.	5	16	9	0	2	1	11	13	10	0	15	6	10	9	8	0	0	0	3	3	0	0	6	0	0
February	12.8	NE.	37	N.	3	13	19	3	2	2	9	3	5	0	11	11	6	8	5	1	0	0	0	1	0	0	2	1	0
March	15.6	NW.	52	NW.	8	13	9	3	4	2	4	11	16	0	9	10	12	12	10	1	0	0	2	1	0	0	2	0	0
April	12.1	SW.	42	NW.	3	4	15	5	2	8	16	6	4	0	15	6	9	9	8	0	0	0	2	1	0	0	2	2	0
May	10.4	SW.	30	NW.	0	2	10	3	8	14	18	2	5	0	18	7	6	12	9	0	0	0	0	1	0	0	4	0	0
June	10.3	SW.	44	W.	1	8	10	3	2	8	21	5	3	0	19	8	3	4	3	0	0	0	0	0	0	0	2	0	0
July	8.9	SW.	46	NW.	1	3	4	4	12	8	27	4	0	0	11	14	6	11	9	0	0	0	0	0	0	0	8	0	0
August	8.7	SW.	32	NW.	0	0	4	5	3	9	25	8	8	0	12	13	6	13	12	0	0	0	0	0	0	0	5	0	0
September	10.1	SW.	35	NW.	1	5	14	5	2	6	18	7	3	0	17	8	5	6	5	0	0	0	0	0	0	1	3	0	0
October	9.3	NE.	30	NE.	0	11	15	4	5	3	11	6	7	0	18	9	4	4	2	0	0	0	0	0	0	0	1	0	0
November	8.6	NE.	30	N.	0	11	18	1	4	6	7	5	7	1	15	10	5	2	1	0	0	0	3	5	0	0	0	0	0
December	12.2	NE.	35	NW.	3	14	13	1	4	2	10	10	8	0	12	6	13	8	8	0	0	0	1	1	0	0	0	2	0
Year	10.9	SW.	52	NW.	25	100	140	37	50	69	177	80	76	1	172	108	85	98	80	2	0	0	11	13	0	1	8	30	0

HAVRE, MONT.

[H_b=2,505 ft.; h_t=11 ft.; h_r=3 ft.; h_a=67 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 25 miles or over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January	9.8	SW.	32	SW.	0	1	6	2	0	0	23	22	8	0	9	13	9	3	3	4	3	0	1	1	10	0	25	0	0
February	8.0	SW.	30	SW.	0	2	3	9	1	0	24	10	6	1	13	10	5	1	0	4	0	0	1	0	0	0	25	0	0
March	8.4	SW.	27	W.	0	1	14	10	1	0	17	9	8	2	2	18	11	10	5	10	7	0	0	0	0	0	24	0	0
April	9.2	SW.	36	NW.	3	6	7	11	0	2	13	12	9	0	12	10	8	3	3	7	2	0	0	0	0	0	13	0	0
May	8.4	NW.	35	SW.	2	5	9	4	1	5	11	15	12	0	9	11	11	4	2	3	1	1	0	0	0	2	3	2	0
June	8.8	SW.	50	SW.	4	2	10	9	2	1	17	12	6	1	6	18	8	9	7	0	0	0	0	0	0	6	0	8	0
July	7.0	NW.	32	N.	0	2	4	14	0	1	5	16	16	4	18	7	6	8	8	0	0	0	0	0	0	0	11	0	0
August	6.3	NW.	22	NW.	0	1	2	2	0	1	8	13	12	3	17	11	3	2	1	0	0	0	0	0	0	10	0	6	0
September	7.6	SW.	31	SW.	0	4	6	6	2	2	11	13	12	5	10	15	5	7	4	0	0	0	1	0	0	3	2	2	0
October	8.1	SW.	34	NW.	1	3	7	5	0	0	21	7	13	6	20	7	4	2	0	1	0	0	0	0	0	0	20	0	3
November	8.8	SW.	36	W.	2	2	2	7	0	0	15	13	9	5	10	7	13	7	6	12	7	0	2	1	12	0	28	0	0
December	8.5	SW.	28	SW.	0	2	6	5	0	0	23	17	7	2	9	11	11	5	4	7	5	0	4	2	15	0	29	0	0
Year	8.2	SW.	50	SW.	12	31	90	90	13	12	188	159	118	29	135	136	94	61	43	48	25	1	9	4	44	32	160	21	3

Annual meteorological summaries for the year ending December 31, 1931—Continued

HELENA, MONT.

[ϕ=46° 34′ N.; λ=112° 04′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	25.82	26.13	25.45	28.0	34.4	35.0	39.5	24.1	31.8	56	12	19	23	22	68	62	58	0.103	0.122	0.117	0.04	0.02	0.5	6.5	8.0	6.7	7.4
February	25.79	26.15	25.46	27.3	36.0	37.2	42.3	24.3	33.3	59	12	18	20	20	65	51	48	.094	.106	.106	.18	.14	2.3	5.9	6.1	6.2	5.9
March	25.82	26.16	25.42	29.8	39.8	40.1	45.8	25.7	35.8	65	−5	18	19	18	60	42	42	.104	.107	.104	.32	.17	2.0	6.8	7.9	7.2	7.8
April	25.82	26.39	25.37	34.2	51.7	52.1	56.6	32.1	44.4	71	14	21	20	21	58	30	32	.114	.108	.115	.25	.16	.5	4.6	6.4	6.7	6.1
May	25.80	26.13	25.41	43.8	60.5	62.3	66.7	41.3	54.0	84	30	32	32	30	64	38	35	.180	.187	.172	1.09	.57	.8	5.9	6.8	7.4	6.7
June	25.76	26.07	25.39	53.0	71.2	72.2	76.4	50.9	63.6	94	41	40	40	39	62	34	34	.249	.252	.246	1.67	.60	0	5.8	6.3	7.9	6.8
July	25.81	26.09	25.44	58.3	76.7	79.4	83.6	55.5	69.6	102	38	40	40	40	53	32	30	.250	.258	.255	1.29	.50	T.	3.4	4.1	4.4	4.1
August	25.86	26.10	25.60	56.0	76.7	80.8	84.4	55.0	69.7	95	44	41	43	43	60	38	35	.263	.348	.372	.06	.04	0	3.5	4.6	3.9	4.5
September	25.77	26.12	25.43	47.8	61.9	63.7	67.6	45.7	56.6	90	32	37	38	38	68	44	44	.224	.235	.238	1.18	.43	T.	5.2	6.3	6.2	6.1
October	25.83	26.21	25.24	38.6	52.0	52.8	59.0	35.7	47.4	73	27	27	31	30	62	45	43	.144	.172	.169	.09	.09	T.	4.1	3.9	4.1	4.1
November	25.78	26.10	25.24	24.9	33.4	31.3	38.2	20.6	29.4	70	−6	16	21	19	70	60	61	.100	.125	.111	.84	.35	16.1	6.4	6.2	5.3	6.2
December	25.71	26.12	25.17	22.3	29.0	28.2	33.4	18.4	25.9	54	1	15	18	18	71	62	64	.089	.103	.102	.16	.07	2.5	6.8	6.0	6.8	6.5
Year	25.80	26.39	25.17	38.7	51.9	52.9	57.8	35.8	46.8	102	−6	27	29	29	63	45	44	.160	.177	.176	7.17	.60	24.7	5.3	6.0	6.1	6.0

HONOLULU, HAWAII

[ϕ=21° 19′ N.; λ=157° 52′ W.]

	*			†		†						†		†	†		†	†		†				†		†	
January	30.03	30.22	29.84	71.2	75.3	71.5	76.8	67.8	72.3	80	62	63	64	64	76	68	77	0.582	0.597	0.596	0.45	0.12	0	4.1	4.4	3.9	3.9
February	30.09	30.19	29.95	71.2	74.5	71.5	76.0	68.4	72.2	78	65	62	63	62	72	66	72	.549	.567	.557	.50	.14	0	4.6	5.1	3.5	4.3
March	30.02	30.11	29.90	71.7	75.2	71.7	77.4	67.5	72.4	80	63	62	61	62	72	63	73	.557	.546	.563	.94	.42	0	4.8	4.2	3.2	4.2
April	30.00	30.16	29.77	72.4	75.3	71.9	76.7	68.0	72.4	80	65	61	62	62	69	63	71	.544	.555	.556	.69	.24	0	4.2	4.6	4.7	4.8
May	30.00	30.09	29.88	75.0	78.1	74.0	79.5	70.1	74.8	82	67	65	65	65	72	65	75	.621	.622	.624	3.12	2.14	0	4.4	5.2	3.9	4.3
June	30.02	30.11	29.89	77.1	80.3	76.9	81.9	73.2	77.6	84	69	67	67	67	72	65	72	.670	.671	.665	.18	.09	0	4.5	4.3	4.2	3.8
July	29.97	30.05	29.86	77.5	80.9	76.7	82.4	73.3	77.8	84	70	67	67	67	70	63	72	.554	.656	.655	.52	.10	0	3.8	3.4	4.3	3.5
August	29.97	30.03	29.86	78.1	81.3	77.6	82.6	74.5	78.6	84	72	69	69	69	73	67	76	.701	.716	.709	1.83	1.20	0	5.1	5.1	6.1	5.5
September	29.95	30.12	29.82	77.5	80.7	77.1	81.9	73.7	77.8	84	71	70	70	69	76	69	77	.723	.725	.711	2.69	1.65	0	5.3	5.4	5.9	5.6
October	29.95	30.05	29.80	77.2	80.0	76.7	81.8	73.3	77.6	85	68	69	70	69	75	71	77	.706	.722	.701	2.33	1.30	0	5.0	5.7	6.1	5.7
November	29.95	30.08	29.81	74.5	78.2	74.4	79.2	70.8	75.0	81	63	66	67	66	75	68	75	.643	.653	.638	1.02	.52	0	5.1	6.0	4.2	5.7
December	29.97	30.20	29.66	69.9	74.0	70.7	75.5	66.5	71.0	79	60	62	63	62	75	68	74	.547	.572	.556	2.08	1.35	0	6.6	5.9	4.7	5.9
Year	29.99	30.22	29.66	74.4	77.8	74.2	79.3	70.6	75.0	85	60	65	66	65	73	66	74	.625	.634	.628	16.35	2.14	0	4.8	4.9	4.6	4.7

* No diurnal correction applied.
† Observations at 8 a. m. and 8 p. m., time of meridian of 157° 30′ W.

HOUGHTON, MICH.

[ϕ=47° 7′ N.; λ=88° 34′ W.]

January	29.22	29.69	28.76	20.9	24.0	.....	28.3	14.6	21.4	38	−2	19	19	...	89	81	...	0.103	0.105	.....	1.16	0.29	11.9	9.7	8.8	.....	9.2
February	29.33	29.63	28.90	22.1	28.0	.....	32.6	16.8	24.7	43	−5	19	21	...	88	75	...	.108	.117	.....	2.23	.87	22.0	8.1	7.0	.....	7.2
March	29.38	29.84	28.92	25.0	30.4	.....	32.8	22.1	27.4	50	2	22	22	...	89	69	...	.120	.116	.....	1.61	.81	14.1	8.9	7.6	.....	7.9
April	29.29	29.72	28.89	36.0	45.6	.....	50.0	30.5	40.2	79	18	28	27	...	72	52	...	.155	.148	.....	1.15	.47	5.3	5.4	6.5	.....	6.1
May	29.17	29.63	28.82	46.5	55.0	.....	58.9	39.5	49.2	87	28	39	38	...	76	58	...	.244	.238	.....	2.80	.80	T.	5.6	5.9	.....	6.1
June	29.23	29.59	28.90	58.2	68.2	.....	72.7	52.4	62.6	102	40	52	53	...	80	61	...	.398	.419	.....	1.81	.45	0	5.1	5.2	.....	5.9
July	29.16	29.56	28.80	65.9	74.0	.....	78.0	59.5	68.8	95	50	56	55	...	72	53	...	.465	.449	.....	1.52	.80	0	4.1	4.4	.....	5.2
August	29.30	29.57	28.79	61.9	70.3	.....	73.5	55.5	64.5	92	42	54	52	...	79	54	...	.414	.393	.....	1.98	.53	T.	5.5	6.0	.....	5.6
September	29.20	29.50	28.85	59.1	68.3	.....	71.2	55.4	63.3	90	46	54	52	...	84	60	...	.424	.404	.....	3.66	1.48	0	5.1	5.4	.....	5.9
October	29.21	29.55	28.49	48.7	56.5	.....	60.8	45.5	53.2	82	35	43	42	...	81	62	...	.283	.272	.....	3.02	.95	0	6.3	5.8	.....	6.1
November	29.20	29.81	28.54	39.5	42.2	.....	46.8	34.6	40.7	69	22	34	33	...	82	72	...	.206	.196	.....	2.83	.57	2.9	8.0	7.6	.....	8.0
December	29.31	29.74	28.62	28.5	31.1	.....	34.5	25.2	29.8	45	9	23	25	...	80	76	...	.130	.134	.....	.77	.28	4.8	8.6	8.9	.....	8.0
Year	29.25	29.85	28.49	42.6	49.5	.....	53.3	37.6	45.5	102	−5	37	37	...	81	64	...	.254	.249	.....	24.54	1.48	61.0	6.7	6.6	.....	6.7

HOUSTON, TEX.

[ϕ=29° 47′ N.; λ=95° 24′ W.]

January	30.03	30.42	29.48	48.4	57.2	.....	60.7	46.8	53.8	72	33	42	42	...	80	61	...	0.285	0.290	.....	3.42	1.80	0	5.5	6.2	.....	6.3
February	29.91	30.20	29.54	53.7	62.5	.....	65.6	51.1	58.4	74	40	49	48	...	85	62	...	.360	.353	.....	4.76	1.42	0	6.0	5.4	.....	5.9
March	29.89	30.32	29.45	50.2	60.5	.....	64.9	47.1	56.0	78	33	44	43	...	81	56	...	.316	.302	.....	2.45	.84	0	4.4	4.3	.....	4.5
April	29.91	30.25	29.46	57.9	69.0	.....	72.8	56.6	64.7	84	42	53	52	...	85	58	...	.426	.417	.....	4.54	2.80	0	6.0	6.7	.....	6.3
May	29.84	30.07	29.55	65.6	75.9	.....	80.2	64.0	72.1	85	52	60	58	...	83	56	...	.530	.498	.....	.37	.25	0	4.7	5.5	.....	5.1
June	29.85	29.99	29.71	75.1	86.5	.....	90.4	72.8	81.6	97	64	71	66	...	88	52	...	.772	.657	.....	.61	.40	0	3.8	5.5	.....	4.1
July	29.79	29.96	29.62	76.8	88.5	.....	92.4	75.9	84.2	97	72	73	70	...	87	56	...	.803	.737	.....	3.39	1.42	0	2.4	5.7	.....	4.3
August	29.90	30.06	29.76	74.9	86.1	.....	90.3	73.8	82.0	97	64	71	67	...	87	54	...	.761	.679	.....	3.62	1.90	0	2.6	5.4	.....	4.2
September	29.85	30.12	29.66	73.5	86.2	.....	90.5	72.7	81.6	97	59	70	66	...	89	53	...	.749	.669	.....	2.27	1.26	0	1.2	4.3	.....	3.2
October	29.90	30.15	29.63	67.8	81.6	.....	84.5	66.8	75.6	93	50	62	61	...	86	51	...	.616	.573	.....	1.09	.58	0	1.2	4.5	.....	3.8
November	29.93	30.20	29.66	62.5	72.0	.....	75.2	60.0	67.6	83	47	58	56	...	86	59	...	.507	.466	.....	5.25	1.54	0	4.8	5.8	.....	5.6
December	29.92	30.27	29.41	52.4	59.1	.....	62.8	49.2	56.0	80	39	50	51	...	91	76	...	.385	.403	.....	6.01	1.26	0	7.0	7.0	.....	6.9
Year	29.89	30.42	29.41	63.2	73.8	.....	77.5	61.4	69.5	97	33	59	57	...	86	58	...	.542	.504	.....	37.78	2.80	0	4.1	5.5	.....	5.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

HELENA, MONT.

[H_b=4,124 ft.; h_t=89 ft.; h_r=82 ft.; h_a=113 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																									
January	6.0	SW.	34	SW.	1	3	0	1	0	7	41	6	4	0	3	8	20	3	0	13	2	0	5	0	4	0	26	0	0
February	6.9	SW.	28	SW.	0	4	0	1	0	11	29	6	4	1	6	10	12	2	2	6	1	0	1	0	1	0	28	0	1
March	7.9	SW.	30	W.	0	3	5	2	2	4	26	13	7	0	9	13	18	8	2	14	4	0	0	0	3	0	20	0	0
April	8.7	SW.	34	SW.	1	7	2	0	0	10	25	8	8	0	8	10	12	4	2	7	1	0	0	0	1	0	11	0	0
May	7.7	SW.	34	SW.	1	5	4	2	1	7	22	13	7	1	4	12	15	10	7	6	3	0	0	0	0	0	3	4	0
June	7.2	SW	32	SW.	0	4	2	4	0	10	28	7	3	2	5	9	16	13	8	0	0	0	0	0	0	0	0	11	0
July	7.2	SW.	30	N.	0	9	5	2	1	12	17	9	7	0	15	11	5	5	4	1	0	0	0	0	0	0	5	0	0
August	7.1	SW.	37	SW.	2	4	5	4	1	12	23	11	2	0	12	13	6	3	1	0	0	0	0	0	0	10	0	5	0
September	7.5	SW.	29	SE.	0	5	1	3	1	10	21	7	12	0	6	10	14	11	8	2	1	0	0	0	0	0	8	0	0
October	6.9	SW.	28	SW.	0	2	0	1	1	9	34	8	5	2	16	8	7	2	1	3	0	0	0	0	0	2	1	5	2
November	5.8	SW.	26	SW.	0	7	1	0	2	11	21	9	9	0	6	13	11	9	6	20	8	0	3	2	10	0	22	0	5
December	6.4	SW.	35	SW.	1	1	3	0	0	7	39	4	7	1	5	13	13	5	2	13	4	0	5	2	12	0	29	0	0
Year	7.0	SW.	37	SW.	6	54	28	20	9	110	326	101	75	7	86	130	149	76	43	85	24	4	14	4	31	25	147	30	13

HONOLULU, HAWAII*

[H_b=38 ft.; h_t=86 ft.; h_r=68 ft.; h_a=100 ft.]

January	7.2	E.	24	NE.	0	4	19	31	2	1	3	2	0	0	16	12	3	11	4	0	0	0	0	0	0	0	0	0	0
February	11.0	E.	29	E.	0	0	7	48	1	0	0	0	0	0	10	16	2	13	6	0	0	0	0	0	0	0	0	0	0
March	6.7	E.	28	NE.	0	8	16	27	2	5	3	1	0	0	13	14	4	9	4	0	0	0	0	0	0	0	0	0	0
April	9.7	E.	25	E.	0	4	16	25	1	1	3	7	3	0	10	16	4	15	3	0	0	0	0	0	0	0	0	0	0
May	7.7	NE.	25	E.	0	0	29	19	2	3	3	4	2	0	12	15	4	6	5	0	0	0	0	0	0	0	0	1	0
June	8.7	E.	24	E.	0	1	11	40	2	2	3	1	0	0	16	13	1	8	1	0	0	0	0	0	0	0	0	0	0
July	8.7	E.	24	NE.	0	0	24	35	1	1	0	1	0	0	18	11	2	15	6	0	0	0	0	0	0	0	0	0	0
August	9.1	E.	24	NE.	0	0	13	45	2	1	1	0	0	0	9	15	7	14	4	0	0	0	0	0	0	0	0	0	0
September	9.2	E.	25	E.	0	1	8	47	4	0	0	0	0	0	5	22	3	16	10	0	0	0	0	0	0	0	0	0	0
October	6.8	E.	24	NE.	0	4	16	36	0	0	1	1	4	1	7	14	10	11	4	0	0	0	0	0	0	0	0	3	0
November	8.0	E.	24	E.	0	7	16	33	0	0	0	0	4	0	6	17	7	12	6	0	0	0	0	0	0	0	0	0	0
December	8.1	E.	43	E.	2	10	18	27	0	0	0	1	5	1	7	14	10	14	9	0	0	0	0	0	0	0	0	0	0
Year	8.4	E.	43	E.	2	39	193	412	17	14	17	18	18	2	129	179	57	144	62	0	0	0	0	0	0	0	0	4	0

*At Honolulu; for observation hours see note on preceding page.

HOUGHTON, MICH.

[H_b=668 ft.; h_t=64 ft.; h_r=57 ft.; h_a=99 ft.]

January	7.5	E.	37	W.	1	2	2	15	0	0	2	6	3	1	1	3	27	14	8	20	14	0	2	0	23	0	31	0	0
February	7.8	E.	30	W.	0	2	4	10	0	1	2	7	2	0	4	9	15	10	6	13	10	0	3	1	9	0	27	0	0
March	8.3	N.	33	N.	1	6	5	8	0	0	4	1	5	2	5	5	21	9	7	14	9	0	3	0	17	0	28	0	1
April	8.7	E.	38	NW.	1	3	1	9	1	0	3	10	3	0	10	8	12	8	6	9	6	0	1	1	1	0	20	0	0
May	8.6	W.	33	NW.	1	3	0	11	1	0	3	9	4	0	8	9	14	13	8	1	0	0	0	1	0	0	3	2	0
June	8.1	E.	40	W.	1	2	0	18	0	0	1	8	0	1	9	9	12	15	11	0	0	0	0	0	0	0	3	7	0
July	9.0	W.	30	E.	0	0	1	10	0	2	0	14	4	0	11	12	8	10	6	0	0	0	0	0	0	0	3	8	1
August	8.5	W.	41	N.	2	3	0	12	0	0	4	11	0	1	9	11	11	7	6	1	0	0	0	0	2	0	2	5	3
September	8.0	W.	35	NW.	2	2	1	13	1	0	6	7	0	0	8	12	10	14	10	0	0	0	0	0	6	2	5	0	3
October	8.3	W.	34	NW.	1	5	2	9	0	2	3	7	2	1	8	8	15	16	14	0	0	0	1	1	0	0	2	2	3
November	9.7	E.	45	W.	2	0	2	8	1	1	6	6	6	0	5	4	21	17	11	7	5	0	3	0	3	0	9	1	0
December	8.4	W.	36	W.	1	3	4	7	2	0	1	7	5	2	1	7	23	7	4	13	4	0	1	0	0	0	24	0	1
Year	8.4	E.	45	W.	13	31	22	130	6	6	35	93	34	8	79	97	189	140	97	78	48	0	14	11	62	13	142	27	9

HOUSTON, TEX.

[H_b=138 ft.; h_t=292 ft.; h_r=266 ft.; h_a=314 ft.]

January	10.4	SE.	33	NW.	2	2	3	5	5	3	2	2	2	0	2	5	17	8	6	0	0	0	0	0	0	0	0	0	0
February	11.2	SE.	44	E.	1	3	2	1	2	5	4	2	2	1	10	3	13	10	6	0	0	0	0	0	6	0	0	2	0
March	13.4	NW.	37	SE.	4	4	1	3	1	4	3	0	1	0	13	9	9	9	6	0	0	0	0	0	9	0	0	2	0
April	11.2	SE.	35	N.	2	5	3	5	5	8	1	1	2	0	7	11	12	8	3	0	0	0	1	0	0	0	0	4	2
May	10.0	SE.	30	N.	0	8	4	3	5	9	0	2	0	0	13	8	10	5	4	0	0	0	0	0	0	0	0	0	0
June	9.8	SE.	33	SE.	1	1	3	1	8	11	4	1	1	0	12	16	2	4	3	0	0	0	1	0	0	0	0	4	0
July	8.8	S.	36	W.	1	2	5	2	4	7	2	1	1	1	14	14	3	10	10	0	0	0	0	0	0	0	0	0	0
August	8.8	S.	31	SE.	0	1	9	2	0	11	5	1	1	1	12	16	3	6	4	0	0	0	2	0	0	0	0	0	0
September	9.1	SE.	35	E.	1	2	5	7	4	4	2	3	2	1	18	10	2	5	4	0	0	0	5	0	0	0	0	0	0
October	10.5	SE.	29	SE.	0	6	8	7	5	4	0	1	0	0	13	17	1	4	3	0	0	0	10	5	0	0	5	0	0
November	12.4	SE.	31	SE.	0	4	3	2	14	4	0	2	1	0	9	11	10	12	10	0	0	0	6	1	0	0	0	3	0
December	11.8	S.	30	S.	0	4	7	1	2	8	2	2	5	0	5	11	15	16	13	0	0	0	9	4	0	0	0	3	0
Year	10.6	SE.	44	E.	12	54	56	38	65	77	28	17	26	4	135	133	97	97	75	0	0	1	72	15	0	85	0	43	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

HURON, S. DAK.

[ϕ=44° 21′ N.; λ=98° 14′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum 1n 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	28.62	29.07	28.28	20.8	34.5	31.4	40.4	15.2	27.8	63	−10	16	22	20	79	61	63	0.090	0.125	0.112	0.12	0.06	1.4	3.6	3.5	3.2	3.9
February	28.67	29.07	28.23	24.5	38.0	36.9	44.0	21.3	32.6	64	4	20	24	23	81	56	58	.108	.128	.126	.19	.07	1.3	3.4	4.1	3.9	4.2
March	28.70	29.20	28.05	24.2	37.1	37.1	42.8	21.0	31.9	60	7	19	21	22	79	52	55	.105	.118	.122	.54	.24	5.0	5.9	5.7	5.7	5.6
April	28.64	29.07	28.11	38.2	56.5	57.3	62.6	34.9	48.8	89	22	28	26	27	68	37	36	.157	.152	.149	1.06	.69	.9	3.0	4.3	3.9	3.5
May	28.54	28.94	28.11	47.0	63.0	63.9	68.5	41.8	55.2	96	24	37	37	36	69	41	40	.237	.240	.226	1.85	.85	0	4.4	4.4	3.7	4.0
June	28.48	28.86	28.14	66.5	82.3	82.0	87.6	61.6	74.6	108	44	56	57	57	72	45	46	.470	.487	.483	1.51	.53	0	4.6	3.3	4.3	4.0
July	28.51	28.81	28.15	67.3	84.9	87.3	91.5	63.0	77.2	106	49	54	52	53	65	35	32	.432	.402	.408	1.38	.85	0	3.5	2.8	2.2	2.9
August	28.62	28.92	28.20	62.8	79.9	81.7	86.1	59.4	72.8	102	45	54	53	50	73	40	35	.424	.413	.382	.60	.39	0	4.0	4.3	3.7	4.0
September	28.50	28.97	28.04	57.4	75.5	75.7	81.9	55.3	68.6	103	37	48	48	48	73	43	41	.346	.353	.343	1.52	.92	0	3.2	4.7	3.5	3.7
October	28.59	29.14	27.89	44.3	59.3	56.3	63.4	41.6	52.5	84	31	40	39	39	84	52	56	.251	.252	.252	1.19	.61	T.	4.6	4.9	4.3	4.9
November	28.60	29.11	28.01	28.5	40.4	37.0	45.2	23.7	34.4	79	−1	24	26	26	82	60	66	.135	.147	.149	.56	.18	3.4	4.7	5.0	4.5	5.0
December	28.61	29.09	28.15	20.7	27.3	24.9	31.7	15.9	23.8	45	−7	18	21	22	90	76	87	.109	.120	.123	2.15	1.54	11.4	5.0	5.3	4.6	4.9
Year	28.59	29.20	27.89	41.8	56.6	56.0	62.1	37.9	50.6	108	−10	34	36	35	76	50	51	.239	.244	.240	12.67	1.54	23.4	4.2	4.4	4.0	4.2

INDIANAPOLIS, IND.

[ϕ=39° 46′ N.; λ=86° 10′ W.]

January	29.18	29.70	28.48	29.4	36.3	35.0	39.7	27.0	33.4	61	9	25	25	27	83	64	71	0.139	0.140	0.150	0.54	0.22	1.5	5.7	6.2	5.4	6.2
February	29.18	29.52	28.79	33.1	41.2	40.9	44.8	31.1	38.0	60	14	28	28	30	81	60	65	.159	.156	.169	1.76	.71	T.	5.9	5.4	5.6	5.8
March	29.06	29.42	28.38	32.9	38.2	38.7	42.2	30.8	36.5	58	21	28	27	28	80	63	66	.152	.144	.155	2.32	.95	6.8	7.7	7.9	8.1	7.9
April	29.16	29.50	28.60	45.7	57.9	57.4	61.8	43.6	52.7	80	30	36	35	37	71	46	48	.227	.218	.228	3.58	.76	T.	4.4	5.8	5.5	5.5
May	29.05	29.40	28.65	53.7	64.7	63.6	68.8	49.9	59.4	87	37	45	44	44	73	50	52	.311	.306	.303	2.51	1.08	0	6.2	6.5	5.6	6.1
June	29.12	29.30	28.65	69.4	80.5	79.3	84.6	65.5	75.0	98	47	59	58	60	70	47	53	.520	.503	.532	2.20	.80	0	5.9	5.2	5.8	5.7
July	29.07	29.28	28.76	73.6	85.4	83.5	89.4	70.0	79.7	98	60	62	59	60	68	43	48	.578	.523	.545	2.95	.96	0	3.2	3.5	3.9	3.6
August	29.16	29.45	28.87	68.4	79.9	77.5	83.6	65.7	74.6	95	56	61	58	60	78	50	56	.547	.507	.525	4.70	1.90	0	4.5	4.9	5.5	5.0
September	29.16	29.51	28.77	65.4	78.2	74.8	81.8	63.7	72.8	92	47	59	59	61	79	53	64	.513	.522	.558	3.66	1.21	0	3.7	3.7	3.8	3.9
October	29.20	29.61	28.70	52.8	64.8	61.7	68.1	50.6	59.4	84	39	46	46	47	78	53	61	.325	.333	.348	3.75	1.06	0	5.2	5.6	4.6	5.9
November	29.24	29.68	28.76	43.8	55.6	53.2	58.8	44.6	51.7	75	26	41	41	43	80	60	69	.274	.281	.300	3.38	1.32	2.9	6.0	6.3	5.5	6.4
December	29.22	29.70	28.71	37.9	43.7	42.5	47.3	35.1	41.2	66	23	34	34	35	83	68	75	.202	.204	.213	4.41	2.12	T.	7.2	6.4	6.6	6.8
Year	29.15	29.70	28.38	50.8	60.5	59.0	64.2	48.1	56.2	98	9	44	43	44	77	55	61	.329	.320	.336	35.76	2.12	11.2	5.5	5.6	5.5	5.7

IOLA, KANS.

[ϕ=37° 55′ N.; λ=95° 25′ W.]

January	29.05	29.51	29.09	30.7	42.1	40.1	47.3	28.2	37.8	69	8	28	30	...	87	64	...	0.153	0.172	.....	1.06	0.58	0.2	5.0	4.7	...	5.2
February	29.01	29.41	28.54	35.4	47.8	45.1	52.6	32.8	42.7	69	16	31	35	...	85	63	...	.180	.208	.....	1.52	.64	0	5.7	5.0	...	5.9
March	28.95	29.40	28.51	33.8	45.2	44.9	49.9	31.7	40.8	68	19	29	30	...	82	60	...	.160	.172	.....	2.56	.84	6.5	5.3	6.4	...	6.3
April	29.01	29.36	28.42	45.7	59.9	58.9	65.3	43.5	54.4	81	28	42	44	...	86	59	...	.276	.300	.....	3.04	.85	0	4.6	5.4	...	5.4
May	28.90	29.30	28.50	53.4	67.7	66.2	72.2	50.4	61.3	93	37	49	51	...	85	56	...	.360	.394	.....	3.67	1.88	0	4.7	5.3	...	5.5
June	28.91	29.09	28.64	69.1	84.0	83.5	88.7	66.9	77.8	99	52	63	65	...	82	54	...	.562	.621	.....	3.10	1.95	0	2.6	3.4	...	3.2
July	28.89	29.11	28.58	71.5	88.1	86.6	93.2	69.1	81.2	101	55	65	64	...	80	47	...	.623	.608	.....	1.16	.44	0	3.7	3.0	...	4.0
August	28.99	29.20	28.65	66.5	83.2	80.7	88.4	64.8	76.6	101	50	62	62	...	87	50	...	.574	.565	.....	3.98	3.61	0	4.4	4.7	...	5.2
September	28.93	29.27	28.63	68.3	86.4	81.7	91.4	66.5	79.0	101	46	63	64	...	83	48	...	.554	.606	.....	1.50	1.24	0	3.7	2.8	...	3.4
October	29.00	29.36	28.64	55.9	68.9	65.3	73.9	53.5	63.7	91	33	51	52	...	83	57	...	.395	.410	.....	2.05	.73	0	5.0	5.2	...	5.4
November	28.99	29.35	28.40	45.8	56.7	53.5	61.0	41.9	51.4	80	25	42	43	...	86	64	...	.299	.304	.....	8.13	2.92	2.1	6.5	5.8	...	6.6
December	29.00	29.50	28.30	37.3	47.1	43.9	51.3	33.5	42.4	64	21	34	35	...	88	64	...	.202	.211	.....	.68	.48	T.	5.9	4.6	...	5.4
Year	28.97	29.51	28.30	51.1	64.8	62.5	69.6	48.6	59.1	101	8	47	48	...	84	57	...	.366	.381	.....	32.46	3.61	8.8	4.7	4.7	...	5.1

ITHACA, N. Y.

[ϕ=42° 27′ N.; λ=76° 29′ W.]

January	29.05	29.57	28.21	23.9	29.5	26.1	34.2	19.7	27.0	50	6	18	20	20	76	67	75	0.102	0.110	0.110	1.64	0.57	21.0	8.9	8.7	6.8	7.3
February	29.11	29.51	28.82	24.0	30.5	28.2	35.3	19.1	27.2	47	−1	20	23	21	82	72	77	.116	.124	.122	1.34	.22	14.2	8.2	8.6	6.5	7.7
March	29.00	29.49	28.23	31.8	39.2	34.8	41.6	28.9	35.2	57	21	27	27	27	81	63	72	.143	.146	.145	2.16	.86	15.4	9.2	8.4	7.3	8.1
April	29.09	29.64	28.32	43.1	52.7	47.4	56.3	35.8	46.0	78	26	33	32	34	68	49	62	.191	.185	.197	2.48	.66	4.2	6.7	6.6	5.5	6.1
May	28.99	29.39	28.70	55.9	65.6	59.4	69.9	46.8	58.4	92	36	46	44	46	72	51	65	.324	.308	.329	4.48	.98	.8	5.7	6.6	6.1	5.8
June	29.09	29.37	28.50	64.7	75.0	67.8	77.9	53.7	65.8	98	42	55	53	54	71	49	64	.437	.416	.435	1.75	.77	0	5.6	5.5	5.7	5.6
July	29.03	29.27	28.71	72.5	82.0	74.3	85.4	63.8	74.6	102	54	63	62	63	74	52	68	.592	.558	.579	2.73	1.02	0	5.9	6.8	6.5	6.3
August	29.13	29.46	28.80	67.4	78.0	70.3	81.9	59.4	70.6	98	45	59	57	58	75	50	67	.506	.472	.495	1.30	.57	0	6.1	6.6	6.3	6.0
September	29.11	29.57	28.71	63.9	75.9	67.7	79.7	55.9	67.8	100	39	56	56	55	77	53	66	.469	.470	.453	2.99	1.33	0	5.0	6.1	4.6	5.1
October	29.14	29.64	28.45	49.7	61.8	54.6	65.4	43.6	54.5	83	29	42	43	42	75	53	65	.275	.292	.286	.99	.32	0	6.7	5.7	4.4	5.7
November	29.23	29.64	28.69	45.0	53.1	47.8	56.7	40.7	48.7	74	14	39	38	38	78	60	70	.253	.249	.245	1.07	.22	2.6	7.6	7.7	7.7	7.8
December	29.16	29.74	28.66	32.4	37.3	35.4	42.7	27.7	35.2	55	14	27	27	27	79	68	72	.154	.161	.155	3.06	.99	2.1	8.6	8.0	6.5	8.3
Year	29.09	29.74	28.21	47.9	56.7	51.2	60.6	41.3	50.9	102	−1	40	40	40	76	57	69	.297	.290	.296	25.99	1.33	60.4	7.0	7.1	6.1	6.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

HURON, S. DAK.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	7.6	W.	28	NW.	0	5	2	2	9	11	5	18	10	0	15	11	5	4	2	10	4	0	2	2	9	0	30	0	0
February	7.6	S.	25	SE.	0	12	4	5	11	9	1	9	5	0	14	5	9	5	3	9	3	0	5	2	4	0	28	0	0
March	9.2	N.	30	N.	0	19	5	2	11	12	1	1	11	0	9	12	10	9	3	10	5	0	0	0	3	0	29	0	0
April	9.3	S.	35	NW.	1	9	2	1	8	15	3	7	15	0	15	12	3	3	3	6	3	0	0	0	0	0	13	1	0
May	10.0	N.	31	S.	0	14	4	4	6	13	0	6	15	0	16	8	7	7	6	0	0	0	0	0	0	2	2	5	1
June	8.7	S.	27	NW.	0	8	9	6	13	18	2	1	3	0	15	12	3	10	6	0	0	1	0	0	0	14	0	11	0
July	9.1	S.	28	NW.	0	5	6	5	12	18	2	4	10	0	21	8	2	7	4	0	0	1	0	0	0	18	0	3	0
August	8.7	S.	28	W.	0	7	9	7	15	10	1	4	9	0	17	7	7	4	4	0	0	1	1	0	0	13	0	8	0
September	8.9	S.	33	SW.	1	3	4	2	15	16	2	11	6	1	14	13	3	10	5	0	0	0	2	2	9	9	0	5	0
October	9.4	S.	40	NW.	1	5	1	3	15	12	1	9	16	0	14	5	12	9	7	3	0	0	4	1	9	0	2	2	0
November	7.7	SE.	31	NW.	0	3	3	2	22	6	2	9	13	0	12	8	10	7	5	8	5	0	4	3	9	0	23	0	0
December	7.0	SE.	22	SE.	0	6	5	5	12	11	3	10	7	1	15	4	12	8	3	10	6	0	14	3	14	0	31	0	0
Year	8.6	S.	40	NW.	3	96	54	44	149	151	25	89	120	2	177	105	83	85	51	56	26	3	32	13	39	56	163	35	1

INDIANAPOLIS, IND.

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

January	9.6	SW.	33	W.	1	2	3	1	7	8	18	10	13	0	8	9	14	6	3	9	1	0	12	5	7	0	21	0	0
February	8.7	SW.	26	SW.	0	6	8	6	5	1	15	2	13	0	10	5	13	9	6	7	0	0	13	1	2	0	12	0	0
March	11.5	NW.	39	NW.	0	5	11	8	9	0	8	4	17	0	4	5	22	13	8	14	6	0	5	0	2	0	16	0	0
April	9.0	NW.	31	NW.	0	8	7	6	8	8	8	7	8	0	9	10	11	13	10	3	1	0	2	0	0	0	2	6	0
May	10.3	SW.	27	SW.	0	7	2	6	4	12	16	8	8	0	8	9	14	12	9	0	0	0	3	0	0	0	4	0	0
June	7.8	S.	34	W.	1	2	5	4	7	13	11	12	6	0	9	10	11	9	8	0	0	0	0	0	0	0	9	13	0
July	7.4	SW.	35	SE.	1	4	10	5	1	8	23	9	2	0	17	11	3	9	5	0	0	0	0	0	0	13	0	9	0
August	7.7	SW.	28	NW.	0	8	7	4	9	9	13	8	2	0	11	14	6	12	10	0	0	0	3	0	0	9	0	10	0
September	8.4	SW.	30	NW.	0	7	7	3	8	14	14	5	2	0	17	7	6	9	8	0	0	0	2	0	0	8	0	6	0
October	9.1	S.	38	NW.	1	1	4	6	3	20	15	6	7	0	8	11	12	12	11	0	0	0	3	0	0	9	0	6	0
November	10.4	S.	31	SW.	0	2	2	4	4	23	10	7	8	0	9	7	14	14	11	2	2	0	5	0	0	0	5	1	0
December	9.8	SW.	30	W.	0	4	5	9	8	12	11	8	5	0	6	8	17	12	10	3	0	0	18	1	0	0	13	3	0
Year	9.1	SW.	38	NW.	4	56	71	62	73	128	163	86	91	0	116	106	143	130	99	38	10	0	66	7	11	39	69	58	0

IOLA, KANS.

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

January	5.1	S.	18	NW.	0	4	2	1	1	7	4	3	6	3	13	8	10	6	5	1	1	0	1	1	2	0	20	0	0
February	5.8	N.	22	NE.	0	6	5	2	4	7	1	1	2	0	9	5	14	6	6	0	0	0	0	0	0	0	13	2	0
March	7.4	N.	24	NW.	0	13	1	3	5	0	1	3	5	0	9	7	15	8	7	6	5	0	1	1	2	0	17	0	0
April	5.2	S.	25	N.	0	5	2	3	3	9	1	0	6	1	12	7	11	11	6	0	0	0	0	1	0	0	3	1	0
May	5.7	S.	19	NW.	0	6	3	1	1	10	2	4	2	2	12	7	12	9	9	0	0	0	0	0	1	0	5	0	0
June	5.1	S.	17	SW.	0	2	2	1	5	16	1	2	1	0	21	5	4	5	4	0	0	1	0	0	0	12	0	5	0
July	4.6	S.	21	NW.	0	2	5	3	4	13	1	0	2	1	14	13	4	9	5	0	0	0	0	0	0	23	0	8	0
August	4.2	S.	19	N.	0	1	6	5	5	9	1	0	1	3	11	13	7	9	7	0	0	0	0	1	0	9	0	5	0
September	5.5	S.	18	NW.	0	1	1	1	8	14	1	0	2	2	18	7	5	5	4	0	0	0	0	1	0	20	0	5	0
October	5.1	S.	20	S.	0	1	4	2	5	10	1	3	3	2	13	6	12	11	9	0	0	1	3	1	0	3	0	4	0
November	5.5	S.	20	SW.	0	2	2	5	6	10	0	3	1	2	9	4	17	15	13	1	1	0	0	1	0	0	4	1	0
December	4.4	S.	16	S.	0	5	3	3	4	4	4	2	2	4	12	6	13	5	2	2	0	0	2	3	0	0	13	0	0
Year	5.3	S.	25	N.	0	48	36	30	51	109	18	20	33	20	153	88	124	99	77	10	7	3	7	10	4	68	70	36	0

ITHACA, N. Y.

[H_b=836 ft.; h_t=77 ft.; h_r=76 ft.; h_a=100 ft.]

January	8.7	NW.	30	NW.	0	6	0	11	9	7	9	5	15	0	3	12	16	15	11	20	15	0	1	0	11	0	27	0	0
February	8.7	NW.	27	NW.	0	8	0	5	13	8	1	4	17	0	4	6	18	16	10	17	13	0	3	2	5	0	23	0	0
March	8.5	NW.	34	SE.	2	9	6	5	9	2	2	6	23	0	2	2	20	11	8	17	9	0	3	1	4	0	25	0	0
April	9.8	NW.	34	S.	2	4	2	3	14	3	6	5	23	0	10	6	14	12	11	3	2	0	5	0	0	0	8	0	0
May	8.1	NW.	30	SE.	0	6	1	9	15	12	3	1	15	0	10	8	13	15	14	1	1	1	10	1	0	0	2	6	0
June	6.8	NW.	29	SW.	0	9	1	10	7	6	3	2	22	0	9	14	7	10	7	0	0	0	2	0	0	3	0	5	0
July	5.8	NW.	29	SE.	0	6	2	9	7	13	4	3	18	0	6	15	10	13	7	0	0	0	5	0	0	9	0	8	0
August	5.6	NW.	18	S.	0	8	3	14	9	7	4	1	11	0	8	13	10	9	4	0	0	0	4	0	0	4	0	4	0
September	7.3	NW.	26	SW.	0	7	4	12	11	8	3	2	13	0	10	12	8	10	8	0	0	0	2	0	0	6	0	8	0
October	7.3	NW.	27	NW.	0	6	3	9	12	12	2	5	13	0	10	6	15	9	7	0	0	0	2	0	0	2	0	3	0
November	9.0	S.	32	S.	0	4	1	7	12	13	7	6	10	0	2	8	20	13	8	5	2	0	8	0	1	0	5	0	0
December	9.8	NW.	33	NW.	1	8	2	2	9	15	3	6	17	0	3	4	24	17	10	11	8	0	5	1	3	0	21	0	0
Year	8.0	NW.	34	S.	5	81	30	96	127	106	47	46	197	0	77	113	175	150	105	74	50	1	50	5	24	21	113	33	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

JACKSONVILLE, FLA.

[ϕ=30° 20′ N.; λ=81° 39′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	30.09	30.55	29.50	47.7	58.6	54.0	62.2	44.9	53.6	74	29	39	42	42	74	58	67	0.257	0.288	0.283	3.36	1.03	0	5.5	5.1	4.5	5.1
February	30.01	30.31	29.66	51.3	61.2	57.0	64.2	48.6	56.4	74	34	42	44	45	72	55	67	.282	.300	.315	1.49	.64	0	5.5	5.7	4.6	5.4
March	29.92	30.23	29.40	51.1	61.8	59.6	66.3	49.3	57.8	78	38	43	40	44	76	48	59	.295	.268	.305	4.69	2.24	0	4.4	4.7	3.3	4.1
April	30.02	30.25	29.44	60.9	70.1	65.7	73.5	58.2	65.8	85	46	54	50	53	78	51	66	.430	.381	.422	3.41	1.40	0	4.3	5.3	4.8	5.0
May	29.93	30.14	29.65	69.3	77.8	73.2	81.1	65.4	73.2	89	57	62	59	61	78	55	67	.565	.519	.544	5.93	2.01	0	3.5	5.1	4.8	4.8
June	29.97	30.15	29.63	76.1	85.0	78.7	87.8	71.4	79.6	98	61	68	65	67	76	53	68	.693	.634	.667	2.97	1.62	0	3.6	4.2	4.7	4.4
July	29.95	30.08	29.75	79.7	88.3	82.4	92.0	75.6	83.8	98	70	73	70	72	80	56	72	.805	.736	.796	2.20	1.11	0	4.5	5.4	6.4	5.3
August	30.02	30.17	29.77	76.8	85.9	79.1	88.2	73.3	80.8	94	66	71	68	70	83	57	76	.764	.698	.749	4.86	2.00	0	5.3	6.1	6.4	6.0
September	29.99	30.27	29.78	75.8	84.8	78.8	86.6	73.4	80.0	95	60	70	68	70	84	58	76	.756	.689	.752	.07	.06	0	2.8	4.8	3.4	4.4
October	30.03	30.28	29.71	67.7	77.0	73.0	79.7	66.1	72.9	84	48	61	60	62	80	59	71	.563	.547	.580	1.96	.88	0	5.3	5.5	2.4	5.2
November	30.13	30.26	29.91	59.8	72.8	66.5	74.4	58.3	66.4	81	39	54	56	59	83	57	78	.448	.463	.519	.97	.60	0	2.7	4.3	1.8	3.5
December	30.09	30.32	29.68	62.8	71.6	67.2	74.3	60.8	67.6	81	46	58	59	60	87	66	80	.509	.515	.532	2.67	1.05	0	5.6	6.5	4.8	6.8
Year	30.01	30.55	29.40	64.9	74.6	69.6	77.5	62.1	69.8	98	29	58	57	59	79	56	71	.531	.503	.539	34.38	2.24	0	4.4	5.2	4.3	5.0

JUNEAU, ALASKA

[ϕ=58° 18′ N.; λ=134° 24′ W.]

January	29.53	30.17	28.88	36.7	38.7	38.7	41.5	33.6	37.6	52	25	34	34	34	89	85	83	0.195	0.202	0.196	9.14	1.90	2.6	9.7	9.7	9.6	9.7
February	29.60	30.20	29.01	35.5	37.6	37.4	39.6	32.7	36.2	45	28	32	32	33	86	81	84	.179	.183	.190	8.26	1.49	12.1	8.0	9.3	9.2	9.2
March	29.87	30.42	29.08	30.9	34.7	35.4	37.5	28.0	32.8	52	9	22	23	23	72	63	62	.135	.156	.135	3.36	.85	4.2	7.0	6.8	6.9	6.6
April	29.75	30.66	28.99	39.8	46.6	46.9	49.3	37.0	43.2	67	31	34	34	34	82	64	66	.199	.197	.200	7.44	1.04	5.0	7.0	7.2	6.8	6.8
May	29.88	30.51	29.30	43.4	47.9	48.8	50.7	41.3	46.0	68	37	40	38	37	88	72	68	.248	.234	.226	8.55	1.06	T.	8.9	9.0	8.9	8.9
June	29.84	30.23	29.40	48.5	58.9	60.9	62.5	46.9	54.7	77	39	45	45	44	89	63	58	.304	.301	.291	6.10	2.35	0	6.5	6.7	6.8	6.8
July	29.96	30.34	29.44	50.7	58.0	59.7	61.0	49.2	55.1	78	46	48	50	49	92	82	72	.341	.356	.350	5.71	1.06	0	7.4	7.8	7.5	7.7
August	29.96	30.14	29.57	52.5	57.4	57.9	60.2	51.0	55.6	74	46	51	52	52	95	82	81	.372	.382	.381	11.31	1.64	0	9.0	8.8	8.9	8.7
September	29.77	30.51	28.91	47.2	53.7	54.1	56.6	44.9	50.8	69	36	45	45	45	93	75	74	.304	.304	.301	9.37	1.37	0	7.4	7.6	7.3	7.6
October	29.66	30.40	28.81	41.9	45.4	45.5	47.4	39.5	43.4	55	30	37	38	38	84	76	75	.226	.233	.230	15.91	2.87	.4	8.1	8.0	8.1	8.2
November	29.86	30.50	29.11	33.0	35.3	34.8	36.9	30.4	33.6	47	16	28	28	28	82	77	78	.163	.167	.169	7.76	1.59	5.6	6.7	7.8	7.5	7.6
December	29.51	30.05	28.58	32.9	34.1	33.8	36.0	29.5	32.8	43	23	27	28	27	79	78	76	.149	.152	.147	5.65	.97	20.5	7.4	7.8	8.2	7.8
Year	29.77	30.66	28.58	41.1	45.7	46.2	48.3	38.7	43.5	78	9	37	37	37	86	75	73	.235	.237	.235	97.56	2.87	50.4	7.8	8.0	8.0	8.0

* No diurnal correction applied.

KALISPELL, MONT.

[ϕ=48° 10′ N.; λ=114° 25′ W.]

January	27.02	27.29	26.60	25.9	30.4	30.8	33.5	22.0	27.8	52	8	23	25	27	88	81	84	0.123	0.135	0.143	0.55	0.20	4.6	8.7	9.0	9.2	8.5
February	26.99	27.38	26.67	24.1	30.7	32.2	34.4	21.4	27.9	49	7	21	24	24	87	76	72	.112	.126	.127	.27	.12	1.9	5.7	9.0	7.5	7.8
March	26.98	27.34	26.55	29.8	39.3	40.6	43.9	27.5	35.7	59	5	26	28	28	87	65	63	.146	.156	.156	.93	.35	4.7	6.9	7.8	8.0	7.4
April	26.98	27.55	26.53	34.1	51.6	53.6	56.4	32.6	44.5	76	21	27	25	24	76	36	34	.147	.136	.132	.25	.11	1.6	5.2	5.7	6.2	5.2
May	26.93	27.26	26.52	43.1	62.3	64.4	67.5	41.7	54.6	84	30	34	34	33	73	38	33	.203	.200	.193	.52	.25	0	5.8	6.8	6.2	6.3
June	26.88	27.20	26.42	50.2	68.5	70.5	73.5	48.5	61.0	86	38	41	40	38	70	37	33	.261	.246	.239	1.46	.91	0	5.7	6.3	6.3	6.4
July	26.92	27.20	26.70	53.5	75.8	79.8	82.2	52.2	67.2	97	42	42	39	38	67	31	26	.273	.249	.233	.70	.45	0	3.5	4.4	4.2	4.0
August	26.95	27.20	26.66	52.0	76.9	81.0	83.6	50.5	67.0	93	40	38	38	35	59	27	21	.227	.231	.207	.01	.01	0	2.6	3.1	4.1	3.7
September	26.90	27.26	26.58	45.4	61.6	63.1	65.8	43.7	54.8	90	29	39	41	41	79	50	49	.241	.253	.261	2.89	1.09	0	5.9	6.9	6.6	6.6
October	26.99	27.38	26.36	34.5	51.6	51.0	56.0	32.5	44.2	74	24	29	34	35	81	51	57	.162	.193	.208	.44	.20	T.	3.5	4.2	4.4	4.2
November	26.96	27.32	26.37	24.2	31.3	30.5	35.1	19.3	27.2	62	−9	22	24	24	90	76	80	.129	.136	.140	2.57	.98	31.3	6.6	7.9	7.8	7.8
December	26.88	27.38	26.31	22.9	28.1	27.6	31.1	20.1	25.6	46	4	22	24	24	94	86	87	.120	.131	.130	1.72	.52	16.4	7.7	8.9	9.3	8.8
Year	26.95	27.55	26.31	36.6	50.7	52.1	55.2	34.3	44.8	97	−9	30	31	31	79	54	53	.179	.183	.181	12.31	1.09	63.5	5.6	6.7	6.7	6.4

KANSAS CITY, MO.

[ϕ=39° 05′ N.; λ=94° 37′ W.]

January	29.06	29.55	28.76	32.6	40.3	40.6	46.3	30.2	38.2	64	7	26	28	29	78	61	63	0.148	0.155	0.161	0.56	0.54	0.2	3.7	4.7	3.8	4.3
February	29.04	29.44	28.56	36.3	45.3	44.7	50.2	34.2	42.2	66	17	30	31	32	76	69	63	.170	.179	.185	1.24	.58	T.	2.8	4.7	5.1	4.7
March	28.98	29.43	28.53	33.2	41.8	42.6	46.5	32.0	39.2	66	23	27	27	29	78	59	62	.148	.150	.163	2.35	.94	14.1	5.8	6.2	6.0	5.8
April	29.04	29.38	28.44	48.0	59.1	59.7	64.4	46.2	55.2	83	32	40	40	41	75	53	54	.259	.256	.264	2.62	1.07	T.	4.2	5.0	6.0	5.1
May	28.90	29.32	28.52	56.2	66.1	66.3	71.1	53.0	62.0	94	38	48	47	48	74	54	55	.347	.348	.351	5.99	2.77	0	4.3	5.3	4.3	4.5
June	28.91	29.11	28.66	72.8	84.4	85.4	88.9	70.5	79.7	101	57	61	62	63	88	49	49	.551	.574	.581	1.50	1.05	0	3.4	4.6	1.8	3.0
July	28.90	29.14	28.61	75.0	87.0	86.8	91.5	71.9	81.7	102	62	62	62	62	87	46	47	.578	.578	.576	3.24	.91	0	3.2	4.6	2.2	3.3
August	29.02	29.27	28.68	69.6	81.2	80.2	85.1	66.9	76.0	97	56	62	60	61	77	51	55	.567	.539	.562	3.45	1.45	0	5.3	4.0	3.8	4.4
September	28.95	29.30	28.60	70.0	83.3	79.7	87.6	67.4	77.5	102	49	60	60	60	72	48	54	.534	.526	.533	5.12	2.35	0	4.4	2.8	2.9	3.3
October	29.02	29.49	28.62	56.2	66.6	65.0	71.1	53.9	62.5	89	38	49	50	50	78	59	61	.366	.391	.389	3.02	.79	T.	5.1	5.8	3.9	5.1
November	29.02	29.42	28.41	47.1	54.3	53.4	58.0	43.2	50.6	79	28	42	42	42	81	67	68	.283	.294	.288	9.52	3.13	2.0	6.1	6.4	6.3	6.4
December	29.02	29.54	28.39	38.9	45.7	44.4	49.5	35.5	42.5	66	24	34	36	37	83	69	75	.202	.215	.224	2.54	1.73	2.4	5.2	5.7	5.2	5.8
Year	28.99	29.55	28.39	53.0	62.9	62.4	67.5	50.4	59.0	102	7	45	45	46	76	56	59	.346	.350	.356	41.15	3.13	18.7	4.5	5.0	4.3	4.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

JACKSONVILLE, FLA.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp. 32° or below	Maximum temp. 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	9.8	W.	37	W.	1	13	5	9	5	3	7	10	10	9	12	8	11	9	8	0	0	0	1	1	0	0	1	1	0
February	9.4	N.	33	NW.	2	13	5	7	9	7	3	5	7	0	10	6	12	7	5	0	0	0	0	0	0	0	0	0	0
March	12.0	W.	60	SE.	3	6	5	5	8	2	6	17	13	0	16	8	7	7	6	0	0	0	0	0	0	0	0	2	0
April	10.5	N.	38	NW.	1	12	10	8	8	8	2	6	6	0	11	9	10	6	5	0	0	0	0	0	0	0	0	1	0
May	9.3	S.	29	NW.	0	4	8	6	9	13	6	10	5	1	13	8	10	11	9	0	0	0	2	2	0	0	0	13	0
June	9.0	S.	32	SW.	0	1	5	12	12	13	10	3	3	1	12	15	3	7	5	0	0	0	0	0	0	12	0	11	0
July	8.6	SW.	34	SW.	1	3	1	8	8	17	12	12	1	0	8	18	5	13	10	0	0	0	1	0	0	23	0	20	0
August	8.8	S.	33	S.	1	5	6	9	6	14	13	4	3	2	7	14	10	13	10	0	0	0	3	1	0	9	0	9	0
September	9.3	NE.	27	NE.	0	10	16	17	5	3	3	4	2	0	12	15	3	2	1	0	0	0	1	0	0	7	0	5	0
October	10.2	NE.	27	N.	0	23	17	6	2	3	1	5	5	0	8	16	7	6	5	0	0	0	0	0	0	0	0	1	0
November	9.5	N.	27	E.	0	17	15	15	4	1	1	0	6	1	15	11	4	8	4	0	0	0	0	0	0	0	0	0	0
December	9.5	S.	28	SW.	0	11	7	9	10	16	4	0	5	0	5	11	15	9	5	0	0	0	0	9	7	0	0	2	0
Year	9.7	S.	60	SE.	9	118	100	111	86	100	68	76	66	5	129	139	97	98	73	0	0	0	26	16	0	51	1	65	0

JUNEAU, ALASKA

[H_b=80 ft.; h_t=96 ft.; h_r=88 ft.; h_a=116 ft.]

January	8.2	SE.	31	E.	0	1	1	20	23	8	1	4	3	1	0	0	31	28	25	14	6	0	5	1	0	0	7	0	0
February	7.4	SE.	31	SE.	0	1	2	8	24	8	0	8	3	2	0	2	26	25	22	21	10	0	1	0	0	0	12	0	0
March	6.9	S.	38	E.	1	0	7	13	6	23	2	8	2	1	7	7	17	18	14	8	6	0	1	1	9	0	19	0	1
April	6.2	S.	27	SE.	0	0	2	5	11	26	2	9	4	1	7	4	19	19	19	5	4	0	0	0	0	0	3	0	0
May	6.2	S.	26	SE.	0	1	5	8	9	28	1	9	0	1	1	4	26	25	22	1	0	0	2	0	0	0	0	0	0
June	4.3	S.	15	SE.	0	4	2	1	1	24	2	14	6	6	6	9	15	14	11	0	0	0	0	0	0	0	0	0	0
July	4.5	S.	23	SE.	0	2	1	1	5	27	2	6	6	12	5	5	21	22	19	0	0	0	0	0	0	0	0	1	0
August	4.8	S.	26	S.	0	0	0	0	6	36	3	3	4	10	3	1	27	23	20	0	0	0	3	1	0	0	0	0	0
September	4.4	S.	28	E.	0	2	1	1	5	22	5	11	8	5	4	8	18	21	19	0	0	0	6	2	0	0	0	3	0
October	7.8	SE.	28	SE.	0	1	4	5	20	12	6	12	2	0	3	6	22	24	24	4	2	0	1	0	0	6	3	0	1
November	5.7	S.	27	E.	0	2	4	5	10	21	0	14	3	1	6	1	23	20	17	6	5	0	3	1	7	0	16	0	2
December	6.2	S.	26	SE.	0	0	3	14	14	12	2	12	2	3	4	8	19	17	15	17	11	0	0	0	4	0	22	0	1
Year	6.0	S.	38	E.	1	14	32	81	134	247	26	110	43	43	46	55	264	256	227	76	44	2	20	6	20	0	82	1	8

KALISPELL, MONT.

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

January	3.0	NW.	17	W.	0	6	3	0	5	3	2	14	26	3	2	5	24	10	3	18	8	0	7	4	15	0	31	0	0
February	3.6	NW.	15	NW.	0	1	4	2	9	5	4	6	24	1	1	9	18	5	2	13	4	0	2	0	11	0	25	0	0
March	4.8	NW.	27	W.	0	5	3	4	13	6	9	9	12	1	4	6	21	15	7	10	5	0	1	1	3	0	19	0	0
April	6.2	NW.	32	NE.	0	2	7	3	6	3	9	9	21	0	6	16	8	6	2	4	1	0	0	0	0	0	11	0	0
May	6.2	NW.	31	SW.	0	1	4	2	16	2	6	5	26	0	5	12	14	6	5	0	0	1	0	0	0	0	4	4	0
June	5.8	NW.	39	SW.	1	5	1	4	10	3	4	14	17	2	3	17	10	11	5	0	0	2	0	0	0	0	0	3	0
July	5.6	NW.	35	SW.	1	1	11	3	10	1	0	13	21	2	16	7	8	7	4	0	0	0	1	0	0	9	0	6	0
August	5.3	NW.	23	W.	0	3	2	1	10	1	1	15	28	1	14	12	5	1	0	0	0	0	0	0	0	5	0	3	0
September	4.7	NW.	29	SW.	0	2	2	3	9	2	9	13	17	3	4	9	17	9	7	0	0	0	1	0	0	1	1	2	0
October	4.2	NW.	28	SW.	0	2	3	2	6	12	7	5	23	2	15	7	9	5	3	3	0	0	1	0	0	0	17	0	1
November	4.1	NW.	26	SW.	0	3	2	2	3	8	3	19	16	4	2	8	20	14	10	17	11	0	1	1	11	0	24	0	0
December	3.1	NW.	17	SE.	0	3	1	1	6	3	6	23	18	1	1	5	25	14	10	21	12	0	6	4	16	0	30	0	0
Year	4.7	NW.	39	SW.	2	34	13	27	103	49	60	145	249	20	73	113	179	103	58	86	41	3	20	10	56	15	162	18	1

KANSAS CITY, MO.

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

January	9.2	S.	26	NW.	0	3	1	6	2	20	4	11	15	0	14	10	7	4	2	6	1	0	4	1	2	0	14	0	0
February	8.2	S.	24	N.	0	10	2	11	1	12	6	4	10	0	12	8	8	5	3	1	0	0	3	3	0	0	10	2	0
March	11.5	NW.	40	W.	2	7	7	13	0	3	3	7	22	0	10	7	14	11	10	11	7	0	0	0	1	0	18	0	0
April	8.1	S.	32	N.	0	7	4	6	7	16	5	5	10	0	13	6	11	11	10	1	0	0	0	0	0	0	0	5	0
May	8.9	S.	29	SW.	0	5	3	5	5	15	5	12	12	0	15	6	10	13	11	0	0	1	1	0	0	0	1	5	0
June	6.9	S.	35	SW.	2	0	3	3	12	33	5	1	3	0	19	9	2	4	3	0	0	0	0	0	0	14	0	7	0
July	6.6	SE.	39	SW.	3	6	2	9	20	12	7	2	4	0	18	10	3	9	9	0	0	0	0	0	0	20	0	11	0
August	6.4	SE.	27	N.	0	9	6	8	19	2	11	1	6	0	13	12	6	9	8	0	0	0	3	0	0	7	0	9	0
September	7.3	SE.	31	SW.	0	4	2	11	26	9	2	4	2	0	16	9	5	10	8	0	0	0	0	0	0	16	0	9	0
October	8.4	S.	34	SW.	1	5	2	8	15	11	7	7	7	0	12	9	10	9	8	1	0	1	4	2	0	0	5	5	0
November	7.5	S.	39	SW.	1	7	2	10	13	12	10	2	4	0	10	3	17	14	11	3	1	0	2	1	0	0	5	4	0
December	7.5	SW.	28	SW.	0	4	5	6	14	3	20	5	5	0	8	12	11	11	9	5	3	0	7	3	0	0	9	1	0
Year	8.0	S.	40	W.	9	67	39	96	134	148	85	61	100	0	160	101	104	110	92	28	12	2	24	10	3	58	56	58	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

KEOKUK, IOWA

[ϕ=40° 22′ N.; λ=91° 26′ W.]

Month	Pressure			Temperature								Moisture													
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.41	29.91	29.06	28.0	37.1	36.3	42.4	25.4	33.9	64	6	23	25	26	79	61	66	0.126	0.139	0.144	0.54	0.52	1.2	4.2	4.9	3.3	4.8
February	29.43	29.85	28.99	32.7	41.9	40.9	47.0	30.5	38.8	63	14	27	28	29	80	58	63	.151	.155	.163	1.08	.43	.1	4.9	5.0	4.1	5.0
March	29.35	29.69	28.75	31.0	39.6	40.6	43.5	29.9	36.7	58	21	26	27	27	80	60	61	.139	.146	.150	2.18	.62	15.9	6.0	6.3	7.5	6.5
April	29.41	29.75	28.92	46.6	57.7	56.8	62.6	43.8	53.2	81	31	38	38	40	72	52	57	.240	.240	.256	3.27	1.61	T.	4.9	5.6	5.4	5.4
May	29.26	29.68	28.81	54.3	64.3	63.9	69.3	49.5	59.4	88	32	44	46	47	70	54	57	.305	.331	.341	4.27	1.64	0	5.0	6.0	4.6	5.4
June	29.30	29.50	28.99	71.7	81.8	81.5	86.0	67.0	76.5	102	48	63	63	65	74	54	60	.581	.585	.641	6.56	2.22	0	4.6	5.0	3.6	4.2
July	29.27	29.53	28.98	74.7	86.5	84.9	90.9	70.1	80.5	104	59	64	63	64	70	47	50	.602	.587	.591	1.71	.92	0	3.5	4.2	4.1	3.7
August	29.38	29.64	29.04	69.0	80.8	78.7	84.7	64.5	74.6	100	54	60	59	60	75	50	56	.545	.518	.538	2.40	1.29	0	3.7	5.5	4.7	4.8
September	29.33	29.68	28.98	67.6	80.4	76.0	83.6	64.5	74.0	95	46	61	61	62	81	53	63	.565	.562	.575	6.73	2.76	0	4.7	4.4	3.6	4.3
October	29.38	29.81	28.92	54.5	64.9	61.6	68.6	52.2	60.4	87	40	48	48	50	79	58	67	.351	.365	.378	4.05	.91	0	5.7	5.0	5.0	5.1
November	29.41	29.88	28.75	46.3	54.2	51.7	59.2	42.8	51.0	78	23	41	40	40	81	62	67	.277	.279	.270	3.85	1.55	1.0	5.8	6.2	6.4	6.2
December	29.42	29.95	28.75	35.7	41.4	40.3	45.8	33.3	39.6	60	20	32	33	34	85	72	78	.185	.192	.204	2.01	.63	3.5	6.3	6.8	6.6	6.6
Year	29.36	29.95	28.75	51.0	60.9	59.4	65.3	47.8	56.6	104	6	44	44	45	77	57	62	.339	.342	.354	38.65	2.76	21.7	4.9	5.4	4.9	5.2

KEY WEST, FLA.

[ϕ=24° 33′ N.; λ=81° 48′ W.]

January	30.07	30.37	29.72	63.1	68.7	64.9	70.5	60.4	65.4	81	48	59	62	60	87	80	84	0.516	0.573	0.525	3.98	1.52	0	7.0	5.3	6.1	6.4
February	30.00	30.23	29.74	65.0	70.7	66.2	72.8	62.2	67.5	81	56	59	62	59	81	74	78	.503	.559	.509	3.59	2.21	0	5.1	3.8	5.2	4.8
March	29.97	30.24	29.66	66.2	70.9	66.4	73.1	61.9	67.5	82	53	60	61	59	80	72	77	.524	.552	.513	4.44	1.71	0	5.0	3.7	5.4	4.7
April	29.98	30.26	29.68	72.8	76.4	72.1	78.7	68.5	73.6	84	59	65	66	65	76	73	78	.627	.663	.622	3.73	2.31	0	4.9	4.8	4.4	5.2
May	29.93	30.14	29.78	78.4	81.7	77.8	83.9	73.3	78.6	87	69	70	70	69	75	68	74	.730	.736	.712	2.41	1.67	0	3.3	3.5	4.6	4.2
June	29.97	30.10	29.80	81.4	84.8	81.0	86.9	76.5	81.7	91	71	73	73	72	75	68	76	.806	.806	.800	1.96	1.00	0	4.5	4.8	4.6	4.8
July	29.95	30.06	29.83	83.6	86.9	82.4	88.6	78.5	83.6	92	74	75	76	74	76	70	77	.871	.900	.850	3.23	1.98	0	6.0	6.8	6.0	6.1
August	30.01	30.10	29.90	84.1	87.5	83.5	89.6	78.0	83.8	92	71	76	78	77	78	75	80	.910	.968	.919	5.56	1.45	0	5.3	5.4	4.1	5.5
September	29.93	30.11	29.78	81.8	84.6	81.7	87.2	76.9	82.0	90	70	76	78	75	82	80	80	.894	.946	.863	9.10	2.38	0	5.4	5.4	5.5	6.0
October	29.95	30.12	29.79	78.3	82.3	77.9	83.8	74.4	79.1	87	66	72	73	72	82	74	82	.794	.822	.782	8.02	2.96	0	5.3	4.3	4.2	4.9
November	30.02	30.15	29.88	72.6	77.4	73.8	78.6	71.0	74.8	82	67	67	67	67	82	71	79	.661	.660	.659	.68	.43	0	4.1	3.7	3.0	3.9
December	30.05	30.16	29.78	74.8	79.3	75.8	80.7	72.6	76.6	83	65	69	69	69	83	72	80	.713	.719	.713	4.04	1.96	0	3.9	4.8	3.6	4.5
Year	29.98	30.37	29.66	75.2	79.3	75.3	81.2	71.2	76.2	92	48	68	70	68	80	73	79	.712	.742	.706	51.04	2.96	0	5.0	4.7	4.7	5.1

KNOXVILLE, TENN.

[ϕ=35° 56′ N.; λ=83° 58′ W.]

January	29.05	29.56	28.18	33.8	44.0	43.6	48.8	31.2	40.0	64	12	29	33	32	82	65	65	0.165	0.192	0.186	1.79	0.75	7.6	4.4	4.7	4.7	4.8
February	29.00	29.29	28.62	37.3	47.9	48.4	54.3	35.1	44.7	66	21	32	34	34	81	61	60	.185	.206	.206	2.93	.93	T.	5.9	5.6	5.1	5.7
March	28.89	29.19	28.28	38.9	47.5	46.7	52.9	36.2	44.6	67	27	32	34	32	74	62	59	.183	.206	.189	2.73	1.11	.4	5.3	6.5	7.3	6.5
April	29.00	29.35	28.26	51.6	63.4	61.3	69.1	47.6	58.4	84	38	43	42	42	73	50	54	.287	.277	.285	4.81	1.97	T.	5.1	4.7	5.4	5.4
May	28.92	29.21	28.64	60.2	71.0	69.0	76.7	55.3	66.0	91	41	51	51	50	73	52	54	.384	.390	.379	3.71	1.15	0	6.6	5.9	5.3	5.8
June	28.98	29.19	28.58	70.9	84.4	80.4	89.6	64.9	77.2	101	50	59	58	59	67	42	50	.519	.505	.520	1.50	.65	0	4.4	3.9	4.9	4.6
July	28.94	29.11	28.70	75.1	86.6	81.4	91.6	70.4	81.0	98	66	68	68	68	80	56	65	.600	.698	.682	7.94	2.74	0	4.3	4.0	6.0	4.7
August	29.02	29.27	28.73	69.9	80.8	77.1	86.1	66.0	76.0	96	56	65	64	64	86	58	66	.633	.601	.612	3.40	1.79	0	5.3	5.8	5.6	5.8
September	29.03	29.41	28.76	68.9	83.4	78.6	88.4	65.2	76.8	98	47	63	62	62	82	50	57	.597	.582	.564	1.95	.93	0	3.4	3.2	2.7	3.2
October	29.08	29.48	28.65	54.3	70.6	65.7	75.0	51.5	63.2	89	37	48	46	48	78	45	56	.348	.340	.361	1.42	1.28	0	4.1	3.7	3.6	4.0
November	29.15	29.39	28.82	48.1	62.2	59.4	66.2	45.1	55.6	77	32	43	45	45	84	55	62	.295	.316	.320	1.93	1.09	0	4.1	4.2	3.6	4.2
December	29.10	29.50	28.59	45.3	51.2	50.9	56.2	42.2	49.2	74	30	43	45	43	91	82	76	.294	.322	.298	7.92	2.44	T.	8.2	7.4	5.9	7.5
Year	29.02	29.56	28.18	54.5	66.1	63.5	71.2	50.9	61.1	101	12	48	49	48	79	56	60	.382	.386	.384	42.03	2.74	8.0	5.1	5.0	5.0	5.2

LA CROSSE, WIS.

[ϕ=43° 49′ N.; λ=91° 15′ W.]

January	29.22	29.72	28.89	22.7	29.6	28.8	33.7	19.1	26.4	48	−5	20	22	23	90	73	78	0.113	0.121	0.126	0.70	0.61	8.4	6.7	7.5	4.9	6.9
February	29.29	29.69	28.80	26.9	36.4	34.9	40.8	24.2	32.5	59	−1	24	26	26	88	66	71	.131	.143	.146	.71	.39	7.5	6.4	5.2	4.6	5.1
March	29.27	29.63	28.64	27.4	36.6	35.7	40.2	26.2	33.2	54	13	24	24	24	84	59	64	.125	.126	.133	1.79	1.03	14.8	7.2	7.5	6.5	7.2
April	29.25	29.66	28.89	41.4	57.1	55.9	61.8	38.7	50.2	84	26	33	30	32	73	38	42	.196	.175	.190	1.62	.89	.3	5.5	5.0	4.3	4.9
May	29.12	29.56	28.57	49.6	62.4	61.7	67.0	45.0	56.0	88	31	42	42	42	77	50	52	.284	.280	.275	2.15	.75	0	6.0	6.5	5.2	5.8
June	29.16	29.48	28.88	66.8	79.4	78.2	84.2	63.3	73.8	101	42	61	62	64	82	58	62	.552	.585	.614	4.49	2.16	0	5.6	5.9	5.3	5.7
July	29.14	29.43	28.77	68.0	85.2	81.8	89.3	68.9	76.6	101	52	61	61	59	79	45	48	.549	.545	.521	1.84	.74	0	3.4	3.5	3.3	3.6
August	29.25	29.51	28.78	61.8	79.3	76.5	83.1	58.8	71.0	97	40	56	58	57	83	49	52	.466	.496	.476	2.29	.66	0	4.4	5.3	5.1	4.8
September	29.18	29.52	28.78	61.1	75.2	71.1	78.9	58.1	68.5	99	41	57	59	59	87	59	67	.476	.513	.515	3.75	1.50	0	5.3	4.5	4.6	4.9
October	29.21	29.80	28.63	49.6	60.7	56.1	63.7	46.6	55.2	81	33	46	48	49	88	65	77	.319	.348	.356	4.18	2.76	0	5.6	5.5	4.8	5.7
November	29.23	29.82	28.50	38.5	47.3	44.9	52.1	34.4	43.2	69	16	36	37	37	90	69	75	.223	.239	.241	4.78	1.51	.3	6.2	7.1	6.2	6.9
December	29.29	29.65	28.58	29.3	35.4	34.2	38.3	27.0	32.6	53	6	26	28	28	89	75	78	.147	.159	.157	2.20	.65	6.4	7.1	7.4	6.4	7.3
Year	29.22	29.82	28.50	45.3	57.0	55.0	61.1	42.1	51.6	101	−5	40	41	42	84	59	64	.208	.211	.212	30.50	2.76	37.7	5.9	5.9	5.1	5.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

KEOKUK, IOWA

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

Month	Wind					Number of winds, 8 a. m. and 8 p. m.									Number of days														
	By self-register																	Precipitation		Snow			Fog		Maximum temp.			Electricity	
	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 33 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch and over	0.04 inch and over	T. or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature 32° or below	Thunderstorm	Aurora
	Mi.		*Mi.*																									
January	7.0	SW.	22	SW.	0	5	1	0	6	9	20	12	9	0	11	15	7	3	2	5	2	0	7	3	4	0	24	0	0
February	5.6	SW.	18	SW.	0	6	11	1	4	5	14	3	11	1	13	4	11	6	3	3	1	0	8	1	0	0	12	1	0
March	7.6	NW.	27	NW.	0	8	11	12	6	2	2	3	16	2	8	7	16	9	8	8	6	0	3	0	1	0	19	0	0
April	6.0	N.	22	SW.	0	10	5	7	3	8	9	6	10	2	12	5	13	11	8	2	0	0	1	0	0	0	1	4	0
May	5.9	SW.	19	W.	0	12	8	4	6	6	11	5	10	0	11	9	11	12	9	0	0	1	0	0	0	0	1	4	0
June	5.4	SW.	24	NW.	0	5	3	2	8	11	20	5	5	1	13	8	9	10	9	0	0	0	0	0	0	0	11	0	0
July	4.8	SW.	17	NW.	0	8	4	3	6	13	19	5	4	0	17	8	6	8	7	0	0	0	0	0	0	0	15	0	0
August	4.7	SW.	22	W.	0	5	12	4	10	8	12	3	6	2	12	9	10	9	6	0	0	1	1	0	0	0	7	0	0
September	5.7	S.	30	SW.	0	3	4	5	4	19	9	11	4	1	15	9	6	12	9	0	0	0	1	0	0	0	11	0	0
October	6.5	SW.	29	W.	0	3	3	2	5	17	11	8	12	1	12	8	11	13	11	0	0	1	1	0	0	0	0	4	0
November	7.0	S.	27	S.	0	7	3	6	5	16	10	5	8	0	11	3	16	13	9	2	2	0	2	2	0	0	5	1	0
December	6.4	SW.	21	E.	0	5	2	9	10	7	15	6	6	2	9	3	19	12	10	4	3	1	8	7	0	0	15	0	0
Year	6.0	SW.	30	SW.	0	77	67	55	73	121	152	72	101	12	144	86	135	118	91	24	14	4	32	13	5	44	77	36	0

KEY WEST, FLA.

[H_b=22 ft.; h_t=10 ft.; h_r=3 ft.; h_a=64 ft.]

January	9.8	NE.	36	W.	2	11	23	8	7	4	0	0	4	0	8	10	13	8	6	0	0	0	3	0	0	0	0	2	0
February	10.1	N.	28	NW.	0	9	15	12	8	8	0	4	5	0	9	14	5	6	6	0	0	0	2	0	0	0	0	0	0
March	11.0	N.	49	W.	3	18	9	10	7	3	2	1	10	2	11	14	6	9	8	0	0	0	0	0	0	0	0	7	0
April	9.7	E.	48	W.	1	13	8	22	6	3	0	0	6	2	8	14	8	8	8	0	0	0	0	0	0	0	0	3	0
May	8.1	E.	25	W.	1	11	7	21	8	2	0	1	12	0	12	15	4	4	4	0	0	0	0	0	0	0	0	7	0
June	8.0	E.	31	SE.	0	4	4	32	9	3	1	2	4	1	12	12	6	7	7	0	0	0	0	0	0	0	2	0	7
July	8.1	SE.	25	SE.	0	2	2	29	20	6	0	1	1	1	6	15	10	13	10	0	0	0	0	0	0	0	8	0	12
August	6.6	E.	29	SE.	0	2	5	23	23	3	0	2	2	2	9	13	9	14	13	0	0	0	0	0	0	0	12	0	18
September	8.1	E.	29	W.	0	3	6	38	4	1	4	2	1	1	7	12	11	15	14	0	0	0	0	0	0	0	1	0	14
October	9.1	NE.	27	S.	0	3	26	26	1	2	0	1	3	0	12	9	10	17	15	0	0	0	0	0	0	0	0	0	7
November	10.8	NE.	23	NE.	0	7	35	18	0	0	0	0	0	0	17	8	5	6	4	0	0	0	0	0	0	0	0	0	0
December	9.4	E.	20	S.	0	2	5	31	22	2	0	0	0	0	12	14	5	10	7	0	0	0	0	0	0	0	0	3	0
Year	9.1	E.	49	W.	6	85	150	270	115	32	7	14	48	9	123	150	92	117	102	0	0	0	5	0	0	23	0	80	0

KNOXVILLE, TENN.

[H_b=995 ft.; h_t=102 ft.; h_r=96 ft.; h_a=111 ft.]

January	5.5	SW.	29	SW.	0	8	14	1	2	3	22	6	4	2	14	6	11	10	7	3	3	0	12	0	0	0	16	1	0
February	4.8	N.	20	SW.	0	14	13	2	2	0	10	2	5	8	9	4	15	12	10	2	0	0	1	1	0	0	11	0	0
March	7.5	SW.	30	SW.	0	15	12	3	1	2	17	7	5	0	6	9	16	10	6	5	2	0	7	1	0	0	10	2	0
April	6.1	SW.	26	SW.	0	6	13	7	0	5	15	6	7	1	10	10	10	11	11	1	0	1	5	1	0	0	0	7	0
May	5.8	SW.	31	S.	0	10	7	3	0	7	22	2	9	2	7	15	9	12	9	0	0	0	7	0	0	0	2	0	0
June	4.7	N.	27	SW.	0	11	18	8	0	2	13	5	3	0	9	19	2	6	5	0	0	0	4	1	0	16	0	6	0
July	4.4	SW.	29	SW.	0	7	10	7	3	12	17	3	3	0	11	14	6	12	12	0	0	0	15	0	0	20	0	18	0
August	4.2	SW.	20	N.	0	10	12	5	0	7	15	6	5	2	4	18	9	13	8	0	0	0	21	3	0	10	0	10	0
September	4.4	SW.	30	SE.	0	14	9	6	2	5	11	3	1	9	20	8	2	4	4	0	0	0	13	0	0	19	0	7	0
October	4.0	NE.	18	SW.	0	13	17	3	2	5	6	7	4	5	15	10	6	2	2	0	0	0	12	1	0	6	0	0	0
November	4.1	SW.	28	S.	0	8	12	7	5	5	12	5	2	4	14	8	8	8	7	0	0	0	15	3	0	0	1	0	0
December	5.4	NE.	21	SW.	0	9	21	3	1	4	15	6	3	0	4	9	18	17	15	1	0	0	25	6	0	0	3	3	0
Year	5.1	SW.	31	S.	0	125	158	55	18	57	175	58	51	33	123	130	112	117	96	12	5	1	137	17	0	67	41	63	0

LA CROSSE, WIS.

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

January	4.7	S.	15	S.	0	6	2	0	4	18	5	13	14	0	7	6	18	6	2	10	5	0	6	1	14	0	29	0	0
February	4.1	S.	13	NW.	0	9	3	2	9	14	6	6	7	0	11	7	10	4	3	6	4	0	11	2	5	0	27	0	0
March	4.8	NW.	18	NW.	0	14	7	3	10	2	4	3	19	0	7	3	21	9	7	10	5	0	8	0	4	0	24	0	1
April	4.6	NW.	25	SW.	0	7	5	2	6	14	5	7	14	0	13	6	11	9	5	2	2	0	1	0	0	0	8	2	0
May	4.0	NW.	16	SW.	0	6	1	2	9	9	10	7	18	0	9	8	14	10	8	0	0	0	8	2	0	0	1	5	0
June	3.6	S.	15	NW.	0	7	3	3	20	17	3	3	4	0	8	12	10	10	9	0	0	0	4	1	0	9	0	6	1
July	3.3	S.	15	NW.	0	9	5	2	4	19	10	4	9	0	16	12	3	6	5	0	0	0	5	4	0	13	0	6	0
August	3.2	S.	25	E.	0	6	8	2	4	19	7	9	7	0	15	5	11	9	7	0	0	1	5	1	0	5	0	9	0
September	3.9	S.	16	S.	0	8	0	1	13	23	2	4	9	0	13	8	9	14	11	0	0	0	13	2	0	7	0	7	0
October	4.4	S.	18	SW.	0	6	2	2	11	14	11	5	10	1	14	1	16	12	10	0	0	2	16	4	0	0	0	5	0
November	5.0	S.	31	SW.	0	2	1	2	12	19	6	15	3	0	5	10	15	13	8	5	3	1	13	4	2	0	12	1	0
December	4.5	S.	19	SW.	0	7	3	2	12	17	6	6	9	0	6	4	21	12	9	9	8	0	16	4	5	0	22	0	0
Year	4.2	S.	31	SW.	0	87	40	23	114	185	75	82	123	1	124	82	159	114	84	42	27	4	106	25	30	34	123	41	2

Annual meteorological summaries for the year ending December 31, 1931—Continued

LANDER, WYO.

[ϕ=42° 50′ N.; λ=108° 45′ W.]

Month	Pressure			Temperature								Moisture													
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	24.67	25.09	24.27	14.6	33.0	28.1	38.4	11.2	24.8	60	0	10	17	19	79	50	68	0.064	0.091	0.102	T.	T.	T.	2.0	4.0	3.0	3.7
February	24.61	25.03	24.27	20.0	36.9	33.6	42.4	16.2	29.3	52	3	15	20	24	81	51	60	.086	.107	.123	0.77	0.40	8.4	1.8	4.9	3.5	3.8
March	24.64	24.99	24.14	23.7	39.8	40.5	46.2	20.0	33.1	67	−7	15	19	21	70	45	50	.089	.104	.113	.85	.67	8.5	3.7	4.3	5.5	4.5
April	24.65	25.10	24.18	34.5	50.3	51.7	55.9	31.4	43.6	72	19	22	26	24	63	43	40	.117	.137	.128	1.82	1.04	15.3	5.0	5.7	4.9	5.2
May	24.65	24.98	24.30	42.1	59.1	59.5	64.6	39.1	51.8	83	28	32	32	30	69	40	38	.184	.180	.167	2.20	1.08	.2	4.5	5.3	5.7	4.9
June	24.63	24.88	24.39	54.0	75.4	76.1	81.4	51.4	66.4	92	41	42	42	40	65	34	31	.270	.278	.292	.44	.39	0	2.8	4.2	5.4	4.0
July	24.68	24.92	24.39	58.0	81.4	83.2	88.5	54.9	71.7	100	40	43	43	42	60	28	26	.292	.289	.276	2.10	1.48	0	2.1	2.6	3.7	2.8
August	24.77	24.98	24.50	55.6	77.5	76.9	83.1	52.5	67.8	92	40	44	45	44	65	34	34	.288	.306	.301	.59	.27	0	2.6	3.2	4.5	3.5
September	24.63	24.99	24.25	47.9	69.0	69.4	74.8	44.8	59.8	90	32	35	37	37	65	34	35	.207	.220	.225	1.73	.79	2.1	1.9	2.7	3.1	2.5
October	24.70	25.02	24.17	38.0	54.5	51.7	61.1	33.9	47.5	76	25	31	31	34	78	44	54	.175	.175	.198	1.62	.71	2.6	3.4	3.7	5.4	4.1
November	24.61	25.00	24.12	20.2	35.1	31.1	39.7	14.7	27.2	70	−13	14	19	17	78	56	62	.092	.108	.103	.77	.38	7.2	2.2	3.9	3.3	3.5
December	24.59	24.96	24.06	6.0	20.2	16.0	24.5	1.8	13.2	50	−18	3	14	13	87	78	83	.054	.085	.080	T.	T.	.1	1.4	2.2	2.5	2.4
Year	24.65	25.10	24.06	34.6	52.7	51.5	58.4	31.0	44.7	100	−18	26	29	29	72	45	48	.160	.173	.176	12.89	1.48	44.4	2.8	3.9	4.2	3.7

LANSING, MICH.

[ϕ=42° 44′ N.; λ=84° 28′ W.]

January	29.03	29.55	28.52	24.0	31.0	27.4	33.0	20.0	26.5	44	4	23	26	26	96	80	92	0.127	0.140	0.139	1.34	0.50	15.2	6.7	6.5	6.7	6.6
February	29.10	29.40	28.77	26.7	34.8	31.2	37.3	23.5	30.4	49	9	25	27	28	93	73	88	.136	.148	.157	.99	.48	7.9	6.7	6.5	6.6	6.3
March	29.02	29.46	28.35	28.4	35.9	33.1	38.1	25.7	31.9	57	14	26	28	29	92	74	85	.143	.154	.160	2.10	.76	14.4	8.2	8.5	8.2	8.1
April	29.08	29.44	28.56	40.9	55.4	50.4	59.0	35.2	47.1	80	24	34	33	35	75	46	58	.200	.200	.218	1.87	1.50	T.	4.8	5.0	5.1	4.9
May	28.97	29.37	28.60	51.5	63.2	58.0	66.2	44.2	55.2	87	30	45	47	47	80	59	70	.309	.337	.340	3.71	.89	0	5.6	5.7	5.1	5.4
June	29.06	29.25	28.59	64.1	74.5	71.7	77.9	58.2	68.0	95	41	58	59	63	82	61	74	.512	.533	.591	3.73	.98	0	6.0	6.3	5.6	5.6
July	29.00	29.24	28.59	69.1	82.0	77.5	85.2	62.3	73.8	96	52	62	60	61	78	49	59	.570	.542	.557	.92	.59	0	3.9	4.6	3.6	4.3
August	29.10	29.40	28.73	68.9	78.7	72.6	81.0	58.5	69.8	94	41	58	56	58	83	47	62	.504	.470	.506	1.70	.68	0	5.0	4.5	4.5	4.8
September	29.07	29.46	28.60	60.9	74.0	68.3	76.7	56.3	66.5	93	38	58	59	60	91	61	76	.502	.516	.533	3.33	.84	0	5.8	6.3	3.5	5.4
October	29.09	29.68	28.56	48.2	61.2	54.2	63.1	43.8	53.4	81	30	46	48	48	91	62	81	.322	.344	.354	1.80	.43	T.	5.8	5.2	4.4	5.8
November	29.12	29.60	28.60	43.0	51.0	45.3	53.3	37.8	45.6	71	22	40	42	40	89	73	84	.264	.290	.270	3.35	.97	T.	6.7	7.5	5.8	7.7
December	29.13	29.63	28.54	31.4	37.8	34.3	39.6	27.6	33.6	57	12	30	32	32	95	79	90	.171	.177	.184	2.79	1.25	5.5	6.9	7.4	6.0	7.5
Year	29.06	29.68	28.35	46.0	56.6	52.0	59.2	41.1	50.2	96	4	42	43	44	87	64	77	.313	.321	.334	28.63	1.50	43.0	6.0	6.2	5.4	6.0

LEWISTON, IDAHO

[ϕ=46° 25′ N.; λ=117° 02′ W.]

January	29.35	29.65	28.87	34.4	41.9	.....	44.6	32.4	38.5	57	18	30	30	...	82	63	...	0.164	0.169	.....	1.00	0.40	0.1	6.9	7.1	.....	7.1
February	29.33	29.66	28.98	33.5	42.8	.....	47.2	31.8	39.5	56	23	28	30	...	80	61	...	.155	.166	.....	.88	.30	T.	7.0	7.4	.....	7.3
March	29.32	29.72	28.82	38.0	50.8	.....	55.1	36.3	45.7	66	25	32	33	...	79	52	...	.183	.194	.....	4.07	2.34	.1	6.6	6.4	.....	7.0
April	29.26	29.82	28.86	42.3	59.8	.....	65.1	41.0	53.0	84	31	34	35	...	73	41	...	.198	.208	.....	.58	.17	0	5.5	5.4	.....	5.4
May	29.20	29.56	28.75	50.6	72.8	.....	78.2	49.6	63.9	97	38	40	39	...	68	31	...	.254	.243	.....	.36	.19	0	5.1	5.4	.....	5.4
June	29.12	29.40	28.72	57.1	77.0	.....	82.2	54.9	68.6	100	48	44	44	...	61	32	...	.290	.291	.....	1.48	.68	0	6.0	6.6	.....	6.3
July	29.11	29.48	28.75	61.8	87.9	.....	94.6	61.0	77.8	114	49	41	40	...	48	19	...	.263	.248	.....	.02	.02	0	2.3	2.2	.....	2.5
August	29.16	29.40	28.82	58.9	85.6	.....	92.3	57.7	75.0	102	51	39	41	...	48	22	...	.243	.264	.....	.02	.02	0	2.4	2.1	.....	2.5
September	29.13	29.51	28.85	52.7	72.6	.....	78.2	50.8	64.5	98	39	43	43	...	70	36	...	.230	.254	.....	.73	.41	0	4.1	3.9	.....	4.0
October	29.26	29.64	28.59	42.1	59.9	.....	66.0	39.6	52.8	87	32	35	38	...	78	47	...	.209	.235	.....	1.17	.48	0	3.9	4.3	.....	4.4
November	29.29	29.75	28.70	34.7	41.6	.....	44.5	31.3	37.9	67	15	29	28	...	80	59	...	.172	.167	.....	1.19	.35	1.2	7.4	7.7	.....	8.0
December	29.22	29.77	28.62	30.5	36.5	.....	39.2	28.3	33.8	56	13	26	27	...	80	67	...	.137	.148	.....	1.92	.53	5.0	7.4	7.6	.....	7.4
Year	29.23	29.82	28.59	44.7	60.8	.....	65.6	42.9	54.2	114	13	35	36	...	71	44	...	.212	.218	.....	13.37	2.34	6.4	5.4	5.6	.....	5.6

LEXINGTON, KY.

[ϕ=38° 02′ N.; λ=84° 33′ W.]

January	29.05	29.56	28.17	32.4	38.3	37.8	41.9	29.4	35.6	60	12	28	29	...	83	70	...	0.156	0.165	.....	0.77	0.30	T.	5.9	6.3	.....	5.8
February	29.03	29.33	28.66	35.0	41.4	41.5	46.7	31.9	39.3	62	18	30	32	...	83	70	...	.172	.186	.....	1.40	1.03	1.5	6.0	6.5	.....	6.2
March	28.91	29.24	28.24	34.5	40.3	39.1	44.7	31.0	37.8	62	21	32	32	...	88	73	...	.181	.184	.....	2.19	1.16	3.9	7.2	7.0	.....	6.8
April	29.01	29.39	28.32	49.7	58.8	56.6	63.2	44.8	54.0	81	30	42	44	...	75	59	...	.274	.290	.....	4.38	1.61	.2	4.0	4.2	.....	4.1
May	28.92	29.21	28.59	56.4	64.8	64.9	70.2	52.2	61.2	88	39	49	50	...	77	62	...	.360	.372	.....	1.13	.31	0	5.2	5.1	.....	5.2
June	29.00	29.17	28.54	70.2	79.9	77.1	84.6	65.0	74.8	96	49	59	57	...	69	47	...	.517	.495	.....	1.83	.81	0	4.1	3.7	.....	3.8
July	28.94	29.12	28.64	75.0	83.7	81.1	88.8	70.0	79.4	96	63	66	65	...	71	55	...	.641	.625	.....	8.50	3.57	0	2.1	2.9	.....	3.4
August	29.03	29.30	28.70	69.6	78.5	74.8	82.3	66.2	74.2	92	58	64	63	...	82	60	...	.605	.582	.....	2.40	1.09	0	4.9	5.2	.....	5.5
September	29.03	28.38	28.70	67.8	78.5	75.8	82.5	64.4	73.4	93	47	61	62	...	79	58	...	.543	.563	.....	2.15	.70	0	2.8	3.1	.....	2.9
October	29.07	29.42	28.59	54.6	65.2	61.7	69.2	52.3	60.8	84	37	48	50	...	80	60	...	.350	.379	.....	4.44	2.34	0	4.9	4.1	.....	4.3
November	29.14	29.48	28.76	49.1	57.5	56.7	62.3	47.2	54.8	76	28	44	45	...	81	66	...	.301	.327	.....	2.50	.83	T.	6.3	5.2	.....	5.9
December	29.09	29.56	28.57	42.1	47.1	45.3	51.2	37.5	44.4	66	25	39	41	...	90	79	...	.258	.275	.....	5.84	2.45	0	7.5	7.6	.....	8.0
Year	29.02	29.56	28.17	53.0	61.2	59.4	65.6	49.3	57.5	96	12	47	48	...	80	63	...	.363	.371	.....	40.51	3.57	5.6	5.1	5.1	.....	5.2

Annual meteorological summaries for the year ending December 31, 1931—Continued

LANDER, WYO.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Fog: Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	2.9	SW.	20	SW.	0	5	7	9	3	8	15	8	1	6	14	13	4	0	0	1	0	0	0	0	10	0	31	0	0
February	2.7	SW.	20	NW.	0	1	3	9	1	9	20	7	1	5	15	11	2	4	4	6	4	0	0	0	1	0	28	0	0
March	5.2	SW.	39	SW.	3	5	8	6	6	5	14	11	7	0	13	13	5	5	5	9	5	0	0	0	5	0	30	0	0
April	5.7	SW.	36	SW.	2	2	5	6	5	6	12	14	8	2	11	10	9	10	7	9	8	1	0	0	2	0	16	1	0
May	5.7	SW.	36	SW.	3	1	7	5	6	7	15	14	7	0	11	13	7	11	8	4	2	0	0	0	0	0	6	2	0
June	4.9	SW.	37	SW.	1	7	4	6	4	8	17	8	5	1	15	11	4	3	2	0	0	0	0	0	0	0	6	3	0
July	4.6	SW.	31	SW.	0	7	5	5	1	7	17	11	8	1	20	9	2	8	5	0	0	0	0	0	0	15	0	8	0
August	3.9	SW.	35	NW.	1	4	6	5	2	7	21	10	6	1	16	12	3	5	3	0	0	0	0	0	0	5	0	6	0
September	5.0	SW.	35	SW.	2	2	6	1	2	8	23	13	5	0	20	7	3	5	3	2	2	0	0	0	0	1	0	2	0
October	3.9	SW.	33	SW.	1	6	3	5	8	10	16	11	3	0	15	9	7	6	6	4	2	0	0	0	0	0	11	0	0
November	3.6	SW.	30	S.	0	1	7	6	6	6	19	10	5	0	17	8	5	4	4	6	4	0	1	1	11	0	25	0	0
December	2.4	SW.	31	SW.	0	7	5	6	3	5	14	6	7	9	22	8	1	0	0	2	0	0	1	1	22	0	31	0	0
Year	4.2	SW.	39	SW.	13	48	60	69	47	86	203	123	63	25	189	124	52	61	47	43	27	2	2	2	51	27	178	22	0

LANSING, MICH.

[H_b=878 ft.; h_t=6 ft.; h_r=3 ft.; h_a=88 ft.]

January	8.2	SW.	25	NW.	0	4	2	3	7	8	25	4	8	1	8	6	17	16	10	18	14	0	3	0	11	0	31	0	0
February	7.8	SW.	24	NW.	0	5	7	2	5	4	12	3	18	0	9	5	14	10	6	12	7	0	5	1	4	0	27	0	0
March	8.0	NW.	25	NW.	0	14	11	5	4	1	5	3	19	0	3	7	21	15	9	16	12	1	0	0	4	0	30	1	0
April	8.2	NW.	32	NW.	0	10	4	3	4	12	7	8	11	1	15	2	13	8	6	5	1	0	1	1	0	0	14	1	0
May	7.7	S.	21	NW.	0	5	6	3	7	13	16	4	8	0	10	9	12	14	12	0	0	0	1	1	0	0	1	4	0
June	6.2	S.	32	NW.	0	8	5	1	11	14	18	4	6	0	4	19	7	12	8	0	0	0	1	1	0	0	4	0	1
July	6.8	SW.	18	W.	0	8	1	4	1	9	13	7	18	1	14	11	6	7	5	0	0	0	2	0	0	0	8	0	4
August	6.2	SW.	27	SW.	0	15	12	2	4	6	11	7	5	0	9	16	6	7	6	0	0	0	1	0	0	0	3	0	4
September	6.8	SW.	28	SW.	0	7	1	3	5	10	18	5	11	0	9	12	9	14	13	0	0	0	3	2	0	4	0	11	0
October	7.1	SW.	27	NW.	0	5	1	3	7	14	17	9	6	0	8	11	12	13	11	1	0	0	0	1	0	0	1	4	0
November	9.7	SW.	32	S.	0	1	2	4	5	15	18	9	6	0	5	3	22	13	9	6	1	0	2	0	0	0	8	0	0
December	8.4	SW.	31	SW.	0	6	5	6	10	3	18	5	9	0	5	6	20	11	8	8	3	1	6	2	3	0	24	1	0
Year	7.5	SW.	32	NW.	0	86	57	39	70	109	173	68	125	3	90	107	159	140	103	66	38	4	32	8	22	19	136	39	1

LEWISTON, IDAHO

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

January	3.6	E.	17	SE.	0	2	5	14	2	0	0	1	2	5	7	6	18	9	7	4	1	0	3	2	0	0	15	0	0
February	2.4	E.	17	NE.	0	1	2	8	1	2	4	1	4	5	3	9	16	9	6	1	0	1	3	1	0	0	14	0	0
March	3.5	E.	26	NW.	0	3	4	9	2	1	2	3	2	5	5	8	18	16	13	2	2	0	0	0	0	0	9	0	0
April	3.7	E.	32	N.	0	0	5	8	3	2	4	0	4	4	10	11	9	6	6	0	0	0	0	0	0	0	2	2	0
May	4.0	E.	35	NW.	1	1	5	11	3	0	2	0	1	8	9	14	8	4	3	0	0	0	0	0	0	4	0	3	0
June	3.3	E.	21	NW.	0	0	4	14	2	0	1	3	1	5	6	12	12	9	7	0	0	0	0	0	0	6	0	3	0
July	3.3	E.	21	NW.	0	0	3	8	3	2	1	3	0	11	22	7	2	1	0	0	0	0	0	0	0	21	0	2	0
August	3.1	W.	22	NW.	0	2	2	6	3	2	0	1	0	15	20	8	3	1	0	0	0	0	0	0	0	18	0	1	0
September	2.8	E.	27	W.	0	0	2	9	5	1	2	2	1	8	15	5	10	7	3	0	0	0	0	0	0	4	0	0	0
October	2.1	W.	19	NW.	0	1	2	4	4	2	2	0	5	11	14	10	7	8	6	0	0	0	0	0	0	0	0	0	0
November	3.1	E.	18	SW.	0	0	5	12	1	2	2	0	4	4	2	8	20	14	9	5	3	0	3	3	6	0	12	0	0
December	3.2	E.	17	NE.	0	2	6	11	3	0	4	1	1	3	5	5	21	13	10	12	7	0	0	0	3	0	22	0	0
Year	3.2	E.	35	NW.	1	12	45	114	32	14	24	15	25	84	118	103	144	97	70	24	13	1	9	6	9	53	74	12	0

LEXINGTON, KY.

[H_b=969 ft.; h_t=193 ft.; h_r= 187 ft.; h_a=230 ft.]

January	11.6	SW.	33	W.	1	3	0	4	0	3	10	4	7	0	10	6	15	6	6	5	0	0	17	0	7	0	20	0	0
February	10.3	N.	30	W.	0	7	2	2	3	5	6	2	1	0	8	4	16	9	9	4	1	0	18	1	2	0	17	0	0
March	12.1	W.	36	W.	5	4	2	6	4	0	8	6	4	0	5	8	18	11	11	8	3	0	20	0	2	0	20	1	0
April	10.8	SW.	30	NW.	0	3	3	6	1	4	6	4	3	0	16	6	8	9	9	2	1	0	1	0	0	0	2	4	0
May	11.3	SW.	35	SW.	2	1	3	5	0	5	7	5	5	0	13	6	12	9	8	2	1	0	1	0	0	0	0	6	0
June	9.1	SW.	39	NW.	2	1	2	4	2	5	7	3	4	1	12	16	2	9	7	0	0	0	6	0	0	0	9	11	0
July	8.5	S.	40	W.	3	1	2	5	1	7	6	2	1	1	15	13	3	11	10	0	0	0	0	0	0	0	18	13	0
August	8.7	SW.	29	NW.	0	2	3	3	3	3	9	5	3	0	8	15	8	11	8	0	0	0	2	0	0	0	3	7	0
September	10.2	S.	31	NW.	0	2	1	4	4	7	6	4	2	0	20	6	4	8	6	0	0	0	0	0	0	0	0	4	0
October	10.9	SW.	29	SW.	0	1	2	1	3	9	9	4	2	0	17	3	11	12	10	0	0	0	3	1	0	0	0	3	0
November	11.7	SW.	38	S.	2	2	0	3	4	6	10	2	3	0	9	8	13	12	10	1	0	0	10	2	0	0	0	2	0
December	11.7	SW.	35	SW.	1	2	1	0	2	4	6	6	4	0	4	4	23	19	15	0	0	0	15	6	0	0	9	2	0
Year	10.6	SW.	40	W.	16	29	21	49	28	58	87	51	40	2	137	95	133	126	109	20	5	1	86	10	11	39	70	51	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

LINCOLN, NEBR.

[ϕ=40° 49′ N.; λ=96° 45′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	28.80	29.27	28.48	25.9	38.7	36.8	44.6	23.4	34.0	66	2	21	25	25	82	58	61	0.115	0.137	0.133	0.19	0.18	1.9	4.5	4.7	3.3	4.4
February	28.79	29.13	28.28	30.5	43.5	42.8	48.8	27.4	38.1	62	11	25	27	28	80	53	55	.138	.149	.158	1.09	.80	.4	5.3	5.5	4.8	5.3
March	28.77	29.26	28.28	30.0	40.7	40.4	44.8	27.9	36.4	60	14	26	26	27	83	58	60	.139	.145	.148	1.39	.40	8.5	6.9	6.8	6.1	6.8
April	28.78	29.16	28.17	43.5	60.3	59.2	64.5	41.6	53.0	88	26	37	36	36	78	45	47	.227	.219	.223	1.76	.70	T.	4.6	6.2	5.8	5.9
May	28.66	29.07	28.24	51.5	65.5	65.9	69.5	47.9	58.7	91	34	43	46	47	74	51	53	.299	.327	.337	6.41	2.34	0	5.2	5.7	5.0	5.4
June	28.63	28.89	28.32	70.7	84.9	84.1	89.4	67.4	78.4	101	51	62	63	64	74	49	53	.558	.577	.597	4.42	1.91	0	4.8	5.2	3.4	4.6
July	28.65	28.92	28.37	71.5	86.2	85.3	90.8	68.1	79.4	105	54	60	61	60	69	45	47	.533	.551	.541	2.04	.96	0	3.0	5.2	3.7	4.4
August	28.76	29.03	28.39	65.8	82.7	81.2	86.6	63.6	75.1	93	51	60	61	60	81	49	51	.529	.544	.541	3.79	1.69	0	4.8	5.5	4.7	5.0
September	28.65	29.07	28.26	66.1	81.7	78.6	85.5	63.7	74.6	102	44	57	58	58	74	47	53	.469	.490	.499	3.79	1.48	0	3.4	3.8	3.7	4.1
October	28.74	29.14	28.19	51.7	65.3	62.1	68.7	49.2	59.0	91	35	45	47	48	79	54	62	.318	.343	.360	1.56	.79	0	4.9	5.2	4.6	5.1
November	28.75	29.19	28.04	39.0	49.4	46.4	52.9	34.6	43.8	80	20	34	37	36	83	66	71	.207	.235	.229	5.60	1.88	4.2	5.6	6.8	5.8	6.3
December	28.75	29.23	28.17	32.8	39.7	38.9	43.6	30.4	37.0	57	18	30	32	33	88	74	80	.166	.182	.192	2.26	1.58	6.6	5.6	6.2	5.1	6.0
Year	28.73	29.27	28.04	48.2	61.6	60.1	65.8	45.4	55.6	105	2	42	43	44	79	54	58	.308	.325	.330	34.30	2.34	21.6	4.9	5.6	4.7	5.3

LITTLE ROCK, ARK.

[ϕ=34° 45′ N.; λ=92° 16′ W.]

January	29.78	30.28	29.22	38.1	47.2	47.5	52.1	36.1	44.1	74	20	30	32	31	73	57	55	0.176	0.186	0.185	1.00	0.58	T.	4.9	5.5	4.3	5.3
February	29.69	30.07	29.22	43.8	53.0	53.1	57.9	41.4	49.6	69	29	37	37	37	76	57	57	.230	.236	.229	4.03	1.79	0	5.9	4.7	5.0	5.1
March	27.61	30.00	29.21	41.9	51.2	52.3	56.5	39.9	48.2	70	31	33	33	33	70	51	51	.194	.194	.197	4.47	1.53	T.	5.8	6.0	5.1	5.9
April	29.69	30.01	29.11	53.0	65.5	66.5	70.4	50.8	60.6	85	35	46	44	44	76	49	48	.319	.313	.311	6.43	3.23	0	5.5	5.8	6.1	5.5
May	29.59	29.97	29.28	59.8	71.4	70.8	75.2	56.8	66.0	88	46	52	51	51	76	51	53	.400	.392	.400	2.07	.62	0	5.1	5.7	5.4	5.5
June	29.62	29.76	29.42	73.1	86.8	85.4	90.4	69.8	80.1	102	57	65	63	64	76	46	50	.633	.599	.603	2.76	.99	0	4.1	5.2	3.6	4.5
July	29.57	29.76	29.35	75.4	87.5	83.6	90.8	72.6	81.7	101	68	70	70	70	84	57	65	.735	.732	.727	3.74	1.30	0	6.0	6.4	6.5	6.3
August	29.68	29.87	29.47	70.8	82.9	81.8	86.6	69.0	77.8	94	62	66	65	66	86	57	60	.654	.634	.648	1.29	.49	0	5.2	7.0	5.8	6.0
September	29.64	30.00	29.39	71.4	86.2	83.9	89.8	70.0	79.9	96	54	66	63	65	82	47	54	.654	.607	.640	.64	.30	0	1.6	3.5	2.1	2.8
October	29.70	30.08	29.42	60.1	74.3	71.8	78.0	58.4	68.2	91	40	55	55	54	83	54	56	.455	.477	.456	1.76	.94	0	3.9	5.2	3.0	4.6
November	29.75	30.06	29.23	53.3	61.5	60.6	66.2	51.3	58.8	79	38	48	47	48	82	63	66	.359	.350	.361	8.30	2.98	0	6.1	6.8	4.9	6.5
December	29.72	30.19	29.14	45.8	52.1	52.1	56.5	43.2	49.8	72	32	42	42	43	87	70	74	.286	.281	.297	9.14	3.40	0	5.9	7.1	6.9	7.4
Year	29.67	30.28	29.11	57.2	68.3	67.4	72.5	54.9	63.7	102	20	51	51	50	79	55	57	.425	.417	.421	45.63	3.40	T.	5.0	5.7	4.9	5.4

LOS ANGELES, CALIF.

[ϕ=34° 03′ N.; λ=118° 15′ W.]

January	29.71	29.97	29.45	53.5	66.1	63.2	69.2	51.2	60.2	85	46	36	36	41	55	38	49	0.219	0.222	0.268	3.90	1.64	0	2.3	3.3	4.1	3.7
February	29.60	29.88	29.23	54.8	65.6	63.2	68.4	53.0	60.7	75	49	44	40	44	67	43	53	.264	.264	.301	3.25	2.14	0	4.3	4.4	4.6	4.7
March	29.67	29.93	29.38	58.1	73.3	70.2	76.0	55.9	66.0	93	49	38	35	41	51	30	40	.237	.222	.274	T.	T.	0	1.9	2.5	2.7	2.6
April	29.57	29.75	29.34	58.6	72.3	69.1	74.8	57.1	66.0	89	52	50	48	51	74	48	54	.362	.351	.375	3.02	1.78	0	5.9	4.5	3.1	4.9
May	29.58	29.68	29.48	66.9	72.6	69.6	75.4	59.6	67.5	87	55	56	56	57	84	57	65	.449	.450	.464	.82	.51	0	8.4	2.9	2.1	4.5
June	29.56	29.70	29.36	63.2	76.7	74.4	78.9	62.1	70.5	96	57	56	55	55	78	49	53	.451	.436	.438	.02	.02	0	5.4	3.2	1.8	3.6
July	29.46	29.61	29.28	69.5	83.6	80.1	86.1	68.4	77.2	94	64	64	64	64	84	52	59	.605	.597	.605	0	0	0	5.4	1.1	1.0	2.4
August	29.57	29.70	29.40	68.4	82.0	78.9	84.9	67.3	76.1	97	64	63	62	62	84	53	58	.579	.559	.562	.02	.01	0	5.0	2.8	2.2	3.1
September	29.52	29.68	29.36	64.1	78.1	74.4	80.8	62.2	71.5	93	56	54	55	55	71	48	52	.424	.444	.437	.24	.23	0	3.5	2.2	1.1	2.2
October	29.62	29.75	29.32	61.7	75.6	69.9	77.9	59.6	68.8	94	52	49	48	52	67	43	56	.357	.348	.392	.06	.03	0	2.9	3.3	2.8	3.3
November	29.65	29.86	29.21	52.4	64.8	60.8	67.4	50.0	58.7	87	40	40	38	43	65	39	54	.270	.248	.300	1.95	.98	0	3.0	3.6	3.3	3.5
December	29.71	29.99	29.34	50.0	59.8	57.5	62.6	47.3	55.0	74	40	36	36	40	62	48	57	.218	.227	.259	5.95	2.09	0	4.0	5.2	4.5	4.8
Year	29.60	29.99	29.21	59.6	72.5	69.3	75.2	57.8	66.5	97	40	49	48	50	70	46	54	.372	.364	.390	18.93	2.14	0	4.3	3.2	2.8	3.6

LOUISVILLE, KY.

[ϕ=38° 15′ N.; λ=85° 45′ W.]

January	29.54	30.08	28.68	32.9	40.0	40.5	44.3	30.8	37.6	64	15	28	30	32	82	68	73	0.157	0.173	0.191	0.96	0.65	0.2	5.5	6.3	5.0	5.8
February	29.52	29.88	29.10	35.6	44.2	44.8	49.0	33.7	41.4	63	20	31	32	33	82	62	64	.175	.185	.194	2.88	.89	1.9	6.4	6.5	5.7	6.4
March	29.40	29.74	28.70	36.1	43.6	42.4	46.9	33.3	40.1	65	27	31	30	31	80	60	64	.174	.169	.174	2.83	1.03	2.4	6.8	6.9	7.0	7.4
April	29.50	29.85	28.86	50.0	60.7	60.1	65.5	46.6	56.0	82	33	43	46	46	78	61	62	.263	.331	.330	3.85	1.10	T.	5.0	5.6	4.5	5.3
May	29.38	29.73	29.03	57.1	66.7	66.9	71.5	53.2	62.4	89	40	49	52	51	76	62	58	.305	.401	.390	1.94	.60	0	5.2	6.4	4.7	5.9
June	29.45	29.62	29.01	70.3	82.1	79.2	86.2	65.7	76.0	99	50	62	62	63	75	52	61	.573	.581	.604	3.14	.84	0	5.0	5.7	5.4	5.4
July	29.39	29.59	29.10	74.4	87.2	84.3	91.0	71.5	81.2	97	62	66	65	65	76	50	55	.651	.632	.634	1.73	.43	0	2.9	4.9	3.1	4.2
August	29.48	29.75	29.19	69.7	80.7	78.4	84.3	67.5	75.9	96	59	64	63	64	84	57	63	.631	.591	.611	2.91	1.31	0	6.1	6.5	5.8	6.5
September	29.48	29.87	29.11	67.7	80.7	78.4	84.5	65.8	75.2	94	49	62	62	62	81	55	59	.563	.566	.580	3.56	1.50	0	3.4	3.9	2.4	3.9
October	29.53	29.90	29.05	54.7	67.8	64.3	71.1	52.2	61.6	86	39	48	51	48	80	57	60	.354	.391	.365	2.36	.82	0	5.1	5.1	3.0	5.2
November	29.60	30.03	29.18	50.9	60.2	57.4	62.7	48.1	55.4	77	30	44	48	46	78	66	68	.310	.328	.338	3.38	.75	0	6.4	6.9	5.5	6.2
December	29.57	30.07	28.98	42.8	47.9	47.1	51.6	38.6	45.1	69	28	39	39	39	86	73	76	.253	.262	.268	2.99	1.02	0	7.6	7.7	5.6	7.9
Year	29.49	30.08	28.68	53.5	63.5	62.0	67.4	50.6	59.0	99	15	47	48	48	80	60	64	.375	.388	.390	33.53	1.50	3.6	5.4	6.1	4.9	5.8

Annual meteorological summaries for the year ending December 31, 1931—Continued

LINCOLN, NEBR.

[H_b=1,189 ft.; h_t=11 ft.; h_r=4 ft.; h_a=81 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 83 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	7.9	S.	29	NW.	0	6	1	2	4	19	5	11	14	0	13	13	5	3	2	7	3	0	4	0	4	0	27	0	0
February	7.3	S.	21	N.	0	14	5	6	3	18	1	2	5	2	10	9	9	3	3	3	2	0	5	3	1	0	22	0	0
March	10.3	N.	38	W.	2	20	4	7	6	6	3	5	10	1	5	11	15	10	9	11	5	0	3	0	2	0	24	0	0
April	8.9	S.	36	NW.	1	8	4	6	6	20	4	3	8	1	8	11	11	9	8	3	1	0	1	0	0	0	6	3	0
May	9.5	N.	43	SW.	1	15	6	2	6	14	1	6	12	0	11	10	10	11	10	0	0	1	1	0	0	1	0	5	0
June	9.1	S.	34	N.	1	4	6	2	14	31	1	2	0	0	12	12	6	8	6	0	0	1	0	0	0	14	0	9	0
July	7.8	S.	32	NW.	0	4	8	10	10	24	1	2	3	0	14	9	8	6	6	0	0	0	1	0	0	19	0	6	0
August	7.1	S.	29	S.	0	5	3	8	11	23	2	2	5	3	10	13	8	9	9	0	0	0	2	0	0	12	0	7	0
September	9.6	S.	33	NW.	1	8	5	8	9	22	1	3	3	1	15	11	4	10	6	0	0	0	3	0	0	13	0	12	0
October	9.6	S.	33	NW.	1	12	2	4	10	18	1	7	8	0	13	7	11	6	4	0	0	1	5	0	0	1	0	2	0
November	8.1	S.	26	NW.	0	10	3	8	4	20	2	5	8	0	8	7	15	10	9	8	1	0	4	1	3	0	13	2	0
December	8.1	S.	24	N.	0	6	1	9	7	21	4	7	6	1	10	5	16	7	6	6	2	0	4	0	3	0	18	0	0
Year	8.6	S.	43	SW.	7	112	48	72	90	236	26	55	82	9	129	118	118	92	78	38	15	3	33	4	13	60	110	46	0

LITTLE ROCK, ARK.

[H_b=357 ft.; h_t=136 ft.; h_r=129 ft.; h_a=153 ft.]

January	6.8	NW.	32	W.	0	12	3	9	6	9	7	5	11	0	10	9	12	5	4	1	1	0	3	0	1	0	10	0	0
February	7.4	N.	31	N.	0	20	2	9	8	8	4	2	3	0	14	1	13	9	9	0	0	0	9	2	0	0	4	0	0
March	10.3	N.	38	W.	1	10	5	7	3	6	7	7	17	0	7	13	11	9	8	2	0	1	5	0	0	0	3	3	0
April	7.2	N.	48	NW.	1	15	1	8	7	7	10	0	10	2	11	4	15	10	9	0	0	0	3	3	0	0	0	5	0
May	8.5	SW.	26	SW.	0	12	6	7	2	9	12	5	9	0	9	13	9	11	9	0	0	0	1	0	0	0	0	5	0
June	6.3	SW.	30	NW.	0	3	3	5	5	16	18	5	5	0	17	5	8	8	7	0	0	0	2	0	0	17	0	11	0
July	6.0	SW.	34	NE.	1	4	5	13	8	11	13	3	4	1	6	9	16	17	13	0	0	1	6	1	0	18	0	17	0
August	6.4	SW.	24	SW.	0	6	3	8	3	17	13	2	9	1	9	7	15	10	7	0	0	0	5	1	0	9	0	12	0
September	6.4	S.	24	S.	0	4	4	14	3	20	9	0	4	2	19	9	2	6	4	0	0	0	2	0	0	22	0	4	0
October	6.0	S.	31	W.	0	6	5	11	7	16	3	1	9	4	12	12	7	6	5	0	0	0	5	2	0	1	0	4	0
November	7.4	S.	28	W.	0	7	9	6	8	18	9	0	3	0	7	8	15	10	8	0	0	0	12	1	0	0	0	4	0
December	7.0	SW.	24	S.	0	12	12	5	3	10	10	3	7	0	7	4	20	18	14	0	0	0	17	6	0	0	1	4	0
Year	7.1	S.	48	NW.	3	111	58	102	63	147	115	33	91	10	128	94	143	119	97	3	1	5	70	13	1	67	18	69	0

LOS ANGELES, CALIF.

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

January	4.6	NE.	18	NW.	0	13	11	3	4	5	9	14	3	0	18	5	8	8	7	0	0	0	1	0	0	0	0	3	0
February	5.5	NE.	24	N.	0	5	19	5	4	2	17	1	3	0	12	8	8	7	4	0	0	1	0	0	0	0	0	2	0
March	5.0	NE.	22	NW.	0	4	18	6	2	4	17	9	2	0	19	9	3	0	0	0	0	0	3	1	0	0	1	0	0
April	4.3	SW.	17	NE.	0	5	7	11	6	4	17	8	2	0	13	8	9	5	5	0	0	0	0	0	0	0	0	1	0
May	4.0	SW.	12	W.	0	1	4	11	8	4	28	5	1	0	10	17	4	2	2	0	0	0	7	1	0	0	0	0	0
June	4.1	SW.	17	NW.	0	1	5	15	4	2	23	6	4	0	13	14	3	1	0	0	0	0	0	0	0	4	0	2	0
July	4.0	SW.	16	W.	0	1	1	7	12	3	31	6	0	1	25	5	1	0	0	0	0	0	2	1	0	6	0	0	0
August	3.9	SW.	14	W.	0	2	2	4	4	4	28	13	3	2	20	8	3	2	0	0	0	0	1	1	0	7	0	2	0
September	4.1	W.	13	W.	0	4	12	7	2	3	22	10	0	0	22	5	3	2	1	0	0	0	2	0	0	3	0	0	0
October	3.9	W.	20	NE.	0	10	7	6	4	1	14	16	1	3	18	5	8	3	0	0	0	0	4	1	0	4	0	1	0
November	4.5	NE.	19	NW.	0	6	13	7	2	4	15	8	5	0	16	7	7	3	3	0	0	0	4	1	0	0	0	0	0
December	4.7	NE.	24	E.	0	4	17	5	6	2	12	8	4	4	12	10	9	8	7	0	0	0	3	1	0	0	0	0	0
Year	4.4	SW.	24	N.	0	56	116	87	58	38	233	104	28	10	198	101	66	41	29	0	0	1	27	7	0	25	0	11	0

LOUISVILLE, KY.

[H_b=525 ft.; h_t=188 ft.; h_r=183 ft.; h_a=234 ft.]

January	8.8	SW.	26	SW.	0	6	3	2	6	16	13	6	10	0	10	5	16	7	3	6	1	0	1	1	4	0	17	0	0
February	8.2	N.	24	N.	0	12	8	6	3	11	6	1	9	0	7	7	14	7	7	3	1	0	2	1	0	0	11	0	0
March	10.6	N.	35	SW.	1	12	7	9	3	1	7	12	10	1	5	7	19	9	7	8	2	0	0	3	0	0	13	1	0
April	8.8	N.	33	W.	1	15	5	2	8	12	7	3	8	0	10	9	11	11	11	1	1	0	3	2	0	0	0	4	0
May	9.4	S.	36	NW.	1	11	4	1	6	12	12	6	10	0	8	9	14	9	9	0	0	1	1	1	0	0	0	5	0
June	6.7	S.	63	NW.	3	10	4	5	11	10	12	2	0	0	6	16	8	10	9	0	0	2	0	0	0	11	0	10	0
July	6.8	SW.	43	NW.	1	16	5	5	4	13	12	2	5	0	16	11	4	10	9	0	0	0	1	0	0	19	0	9	0
August	7.3	S.	40	NW.	2	11	9	5	6	13	13	1	4	0	4	11	16	13	11	0	0	0	1	0	0	6	0	9	0
September	7.6	S.	33	N.	1	13	9	1	8	14	9	2	4	0	14	11	5	6	5	0	0	0	1	0	0	13	0	5	0
October	8.0	S.	32	SW.	0	5	6	4	10	20	8	4	5	0	11	9	11	10	8	0	0	0	6	3	0	0	0	4	0
November	9.2	S.	39	SW.	1	7	3	1	15	20	5	3	6	0	8	6	16	11	10	0	0	0	2	0	0	0	1	2	0
December	8.2	S.	32	W.	0	9	6	8	6	11	10	6	6	0	5	4	22	13	13	0	0	0	9	4	0	0	8	1	0
Year	8.3	S.	63	NW.	11	127	89	49	86	153	114	48	83	1	104	105	156	116	102	18	5	3	26	12	4	49	50	50	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

LUDINGTON, MICH.

[ϕ=43° 57′ N.; λ=86° 27′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Extremes: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.27	29.75	28.80	28.1	30.7	30.2	33.9	24.5	29.2	44	10	25	26	26	85	82	83	0.133	0.141	0.139	1.72	0.49	18.6	7.2	7.4	8.0	7.3
February	29.36	29.68	28.97	29.8	32.9	31.8	36.2	26.0	31.1	43	10	27	28	28	87	81	84	.148	.152	.153	.67	.28	4.2	6.7	6.3	5.5	6.4
March	29.31	29.71	28.71	28.9	33.8	32.1	36.1	26.9	31.5	48	18	25	28	27	85	78	80	.124	.150	.143	3.01	1.12	15.9	7.3	7.8	5.6	7.4
April	29.33	29.70	28.90	39.9	44.2	44.0	49.6	35.6	42.6	68	24	32	35	35	75	71	72	.187	.207	.208	1.15	.45	T.	4.7	4.4	3.4	4.3
May	29.22	29.65	28.79	47.0	51.7	52.6	57.3	42.6	50.0	74	32	42	44	43	80	75	73	.272	.292	.287	2.61	.96	0	5.0	4.8	5.2	5.1
June	29.28	29.51	28.87	62.6	66.3	68.2	72.5	58.0	65.2	87	41	56	57	58	80	73	72	.472	.484	.515	3.52	1.91	0	4.5	4.4	3.4	4.5
July	29.24	29.50	28.81	69.2	73.8	74.3	78.4	63.4	70.9	89	50	63	63	63	82	70	68	.586	.578	.575	.41	.13	0	3.2	2.2	2.8	2.8
August	29.34	29.61	28.93	64.2	71.8	69.2	75.0	59.6	67.3	88	43	57	57	56	78	62	65	.477	.489	.469	2.06	1.47	0	3.4	2.5	4.0	3.3
September	29.29	29.66	28.80	62.3	67.9	66.7	71.7	58.7	65.2	83	46	58	59	59	85	74	75	.490	.513	.502	6.87	4.22	0	4.4	3.7	3.3	3.9
October	29.31	29.97	28.76	51.1	56.8	54.4	59.6	47.5	53.6	73	35	46	47	48	84	72	79	.324	.340	.340	5.64	1.76	0	4.8	5.5	4.4	4.9
November	29.32	29.87	28.72	44.9	46.9	46.3	50.8	40.3	45.6	65	26	40	40	40	82	77	78	.260	.260	.257	3.20	.87	T.	7.3	6.1	5.7	6.7
December	29.38	29.87	28.65	33.2	36.1	35.3	39.5	30.1	34.8	48	14	28	30	30	82	76	80	.162	.167	.169	2.22	.57	5.9	7.3	6.8	6.3	6.8
Year	29.30	29.97	28.65	46.8	51.1	50.4	55.0	42.8	48.9	89	10	42	43	43	82	74	76	.304	.314	.313	33.08	4.22	43.7	5.5	5.2	4.8	5.3

LYNCHBURG, VA.

[ϕ=37° 25′ N.; λ=79° 09′ W.]

January	29.31	29.78	28.43	34.8	43.8	42.2	49.6	31.4	40.5	67	15	25	29	30	66	57	62	0.139	0.170	0.175	1.48	0.98	1.4	5.0	3.9	2.8	4.8
February	29.31	29.62	28.83	35.2	45.9	44.7	52.9	31.1	42.0	62	22	26	30	34	68	54	66	.145	.170	.197	1.81	.84	0	4.2	4.6	3.1	4.7
March	29.18	29.61	28.51	38.0	44.0	43.4	49.2	35.2	42.2	61	30	28	29	32	67	57	64	.158	.168	.179	3.75	1.25	4.3	7.2	6.6	5.3	6.7
April	29.28	29.74	28.46	49.6	60.0	59.6	65.9	44.1	55.0	84	33	39	47	45	68	52	60	.248	.266	.308	3.11	1.10	0	4.7	4.6	3.8	5.0
May	29.21	29.57	28.86	60.3	70.5	67.4	75.9	54.2	65.0	92	41	52	52	56	75	55	70	.401	.405	.465	5.93	1.62	0	4.2	4.9	4.5	5.3
June	29.26	29.56	28.69	70.1	80.1	76.5	85.5	63.5	74.5	98	52	61	62	64	73	56	68	.546	.570	.610	2.43	1.10	0	3.8	3.7	3.6	4.1
July	29.22	29.45	28.95	75.6	85.6	80.4	90.7	69.8	80.2	99	63	68	68	70	78	57	71	.689	.681	.728	5.37	1.99	0	3.9	3.3	4.7	4.5
August	29.31	29.69	28.86	69.9	80.1	74.9	84.1	65.0	74.6	96	55	64	64	66	82	60	75	.609	.597	.649	5.16	1.96	0	4.5	4.7	5.0	5.0
September	29.32	29.80	28.95	67.7	80.5	75.2	84.7	63.0	73.8	96	46	61	60	63	79	51	68	.550	.539	.598	.73	.49	0	2.1	3.1	2.1	3.7
October	29.37	29.73	28.90	52.7	68.3	62.5	73.7	48.2	61.0	87	34	46	45	49	78	45	64	.322	.319	.372	.67	.35	0	3.5	2.7	2.5	4.0
November	29.48	29.86	29.05	46.9	61.3	57.4	65.8	44.0	54.9	82	26	40	44	46	78	56	67	.269	.317	.333	.45	.18	0	4.4	3.4	3.8	4.7
December	29.42	29.90	29.04	42.4	51.0	49.0	56.4	38.2	47.3	73	21	36	39	41	76	64	75	.224	.259	.275	2.74	1.12	0	5.2	5.0	5.0	6.0
Year	29.31	29.90	28.43	53.6	64.2	61.1	69.5	49.0	59.2	99	15	46	47	50	74	55	68	.358	.371	.407	33.63	1.99	5.7	4.4	4.2	3.8	4.9

MACON, GA.

[ϕ=32° 50′ N.; λ=83° 38′ W.]

January	29.74	30.23	29.04	37.5	52.2	49.8	56.2	35.4	45.8	70	21	32	32	33	81	48	55	0.190	0.188	0.200	2.89	1.47	T.	5.5	5.4	4.7	5.7
February	29.67	29.97	29.25	40.0	56.3	54.4	62.1	37.5	49.3	72	25	35	36	36	81	50	52	.217	.226	.228	2.23	.91	0	5.2	4.2	2.8	4.5
March	29.56	29.88	28.98	43.4	56.3	55.3	61.6	40.0	50.8	74	29	35	32	32	72	44	44	.212	.202	.194	2.39	1.02	0	5.0	4.9	4.1	5.1
April	29.67	29.98	29.99	55.3	69.1	66.8	74.1	50.6	62.4	84	40	47	43	46	73	43	52	.330	.299	.330	2.02	1.03	0	4.8	5.9	5.2	5.4
May	29.58	29.87	29.26	63.9	75.8	73.6	80.6	57.7	69.2	92	46	55	52	52	74	47	51	.443	.400	.407	4.96	2.46	0	4.5	4.9	3.7	4.4
June	29.61	29.83	29.28	75.0	88.9	85.0	93.5	68.8	81.2	104	53	63	58	60	66	36	44	.585	.496	.532	.79	.29	0	3.7	4.4	5.6	4.4
July	29.59	29.75	29.33	78.8	89.5	84.5	93.2	73.2	83.2	102	68	71	68	70	78	51	63	.762	.609	.728	6.49	1.77	0	5.3	5.7	6.8	5.9
August	29.67	29.88	29.37	73.6	85.3	79.2	88.9	69.0	79.0	100	59	68	66	67	83	54	69	.693	.648	.675	7.31	2.45	0	5.1	5.5	5.4	5.6
September	29.67	30.03	29.36	71.4	85.1	80.2	89.3	67.6	78.4	99	51	66	65	66	83	52	62	.655	.627	.647	2.50	1.92	0	2.9	3.2	2.2	3.3
October	29.73	30.06	29.34	57.2	75.4	69.0	79.0	54.0	66.5	88	41	51	49	51	80	42	55	.392	.378	.408	1.42	.79	0	3.2	3.4	1.8	3.2
November	29.82	30.05	29.55	49.2	68.7	62.7	72.6	47.4	60.0	80	32	44	46	46	84	47	58	.317	.337	.344	.21	.13	0	2.6	3.6	3.7	3.9
December	29.76	30.08	29.25	50.0	59.0	56.5	64.4	46.2	55.3	79	32	46	46	46	86	67	72	.334	.343	.341	6.09	1.58	0	6.5	7.7	6.4	7.5
Year	29.67	30.23	28.98	58.0	71.8	68.1	76.3	54.0	65.1	104	21	51	49	50	78	48	56	.428	.404	.419	39.30	2.46	T.	4.6	4.9	4.4	4.9

MADISON, WIS.

[ϕ=43° 05′ N.; λ=89° 23′ W.]

January	28.93	29.41	28.57	23.5	28.6	28.7	32.3	19.9	26.1	45	−3	21	22	24	90	77	80	0.116	0.124	0.127	0.78	0.60	11.8	5.5	6.5	6.0	6.6
February	29.01	29.38	28.57	27.3	33.3	33.3	37.9	25.0	31.4	48	5	25	25	26	90	72	75	.136	.138	.145	.40	.29	2.9	4.6	6.2	4.9	5.6
March	28.96	29.30	28.33	27.7	34.2	33.9	37.5	25.9	31.7	53	15	24	23	25	85	65	69	.128	.127	.134	2.35	1.09	21.0	7.3	7.0	7.1	7.1
April	28.98	29.35	28.61	41.3	53.6	52.5	58.2	37.9	48.0	78	29	32	30	32	69	42	48	.187	.181	.191	1.97	.88	T.	4.9	5.1	4.7	4.7
May	28.86	29.28	28.32	49.8	59.4	59.0	64.0	45.8	54.9	84	34	42	42	42	78	55	56	.280	.278	.281	1.74	.68	0	5.6	6.6	5.9	6.1
June	28.92	29.15	28.56	66.5	76.5	76.0	80.4	62.5	71.4	99	46	59	60	62	77	60	62	.515	.553	.567	3.05	1.58	0	5.6	5.2	5.0	5.2
July	28.90	29.16	28.48	69.9	81.7	81.0	85.7	65.9	75.8	97	56	60	57	57	71	44	46	.523	.483	.486	2.10	1.26	0	3.0	3.4	3.5	3.2
August	29.00	29.25	28.55	64.3	76.7	73.8	80.5	61.2	70.8	92	49	56	55	56	75	49	52	.465	.454	.465	5.19	3.13	9	4.8	5.4	5.0	5.2
September	28.94	29.26	28.51	62.4	73.6	70.7	76.9	59.8	68.4	95	46	58	57	57	84	57	64	.492	.478	.486	7.17	1.95	9	5.0	5.9	4.8	5.2
October	28.96	29.54	28.39	50.6	58.5	56.0	61.8	48.0	54.9	80	38	45	46	46	82	64	70	.312	.319	.322	3.11	1.04	T.	5.9	4.7	4.0	5.4
November	28.98	29.52	28.37	41.2	47.4	45.2	51.8	37.7	44.8	70	19	36	37	37	83	68	74	.232	.236	.243	5.49	1.60	T.	6.6	6.5	6.2	6.7
December	29.01	29.46	28.29	30.7	34.8	34.0	38.1	27.8	33.0	61	9	27	28	28	86	76	80	.158	.157	.159	1.64	.60	4.8	6.7	7.2	6.1	7.1
Year	28.96	29.54	28.29	46.2	54.9	53.8	58.8	43.1	50.9	99	−3	40	40	41	81	61	65	.295	.294	.300	34.98	3.13	41.5	5.5	5.8	5.2	5.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

LUDINGTON, MICH.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi*																										
January	10.0	W.	35	SW.	1	12	2	6	7	6	12	13	4	0	5	6	20	14	9	17	12	0	0	0	10	0	26	0	0
February	8.7	N.	27	SW.	0	13	6	5	5	10	8	6	3	0	8	7	13	9	4	13	8	0	4	3	4	0	24	1	0
March	8.5	N.	31	NW.	0	31	7	13	3	2	3	2	1	0	4	7	20	13	10	18	12	0	0	0	6	0	29	0	0
April	9.3	N.	30	SW.	0	15	4	9	3	16	3	4	6	0	14	8	8	8	5	3	1	0	3	3	0	0	11	2	0
May	8.6	N.	26	S.	0	24	0	6	6	15	4	2	5	0	14	4	13	11	7	0	0	0	3	0	0	0	1	4	0
June	7.6	S.	30	N.	0	9	3	8	11	16	5	5	3	0	13	11	6	12	8	0	0	2	4	2	0	0	0	9	1
July	7.9	S.	27	S.	0	11	2	7	5	19	8	9	1	0	20	7	4	6	4	0	0	0	1	1	0	0	0	5	0
August	8.4	N.	31	W.	0	16	4	13	4	13	4	6	2	0	18	7	6	9	5	0	0	0	1	0	0	0	0	9	1
September	9.3	S.	34	SW.	1	12	5	5	9	23	2	3	1	0	13	13	4	12	10	0	0	0	1	0	0	0	0	12	1
October	9.8	S.	33	SW.	1	8	3	6	12	14	6	7	4	0	13	9	9	15	10	0	0	1	2	1	0	0	0	6	1
November	13.2	S.	41	SW.	2	4	2	9	7	10	9	14	5	0	6	9	15	12	10	5	0	1	2	1	2	0	4	0	0
December	10.4	E.	37	SW.	2	6	5	14	13	11	9	12	2	0	4	12	15	13	7	10	8	1	3	0	3	0	20	1	0
Year	9.3	S.	41	SW.	7	161	43	103	85	145	73	83	37	0	132	100	133	137	89	66	41	5	24	11	25	0	115	49	4

LYNCHBURG, VA.

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

January	6.7	W.	29	NW.	0	9	4	3	3	1	5	19	18	0	18	2	11	5	5	1	1	0	4	0	0	0	15	0	0
February	6.8	W.	27	N.	0	10	5	8	3	7	7	9	7	0	10	9	9	9	7	0	0	0	10	0	0	0	16	0	0
March	7.6	NW.	30	N.	0	13	12	11	2	1	0	7	16	0	7	5	19	11	8	4	1	0	2	1	0	0	6	2	0
April	7.1	NW.	35	NW.	1	9	5	6	5	6	10	8	10	1	14	7	9	10	5	0	0	0	4	0	0	0	0	2	0
May	5.7	W.	40	NW.	1	6	5	9	5	8	9	13	7	0	11	10	10	13	11	0	0	0	1	0	0	0	2	0	0
June	4.9	N.	33	NW.	1	12	3	13	4	4	4	8	12	0	14	12	4	7	6	0	0	1	0	0	0	0	2	0	0
July	4.0	W.	26	N.	0	7	4	9	6	4	8	17	7	0	13	15	3	17	12	0	0	0	1	0	0	0	17	0	0
August	4.2	W.	26	NW.	0	14	6	2	8	0	8	14	8	2	10	16	5	17	11	0	0	0	6	1	0	0	10	0	0
September	4.5	W.	34	N.	1	7	7	4	0	4	9	18	9	2	17	8	5	5	4	0	0	0	10	0	0	0	8	0	0
October	4.0	NW.	29	W.	0	5	6	1	0	1	4	11	31	3	18	7	6	6	5	0	0	0	9	0	0	0	0	0	0
November	3.7	W.	22	N.	0	5	2	5	2	8	15	16	7	0	15	7	8	6	4	0	0	0	18	1	0	0	1	0	0
December	6.4	W.	42	NW.	3	7	6	3	1	4	9	22	9	1	9	8	14	10	10	0	0	0	8	0	0	0	7	0	0
Year	5.4	W.	42	NW.	7	104	65	74	39	48	88	162	141	9	156	106	103	110	91	5	2	1	72	3	0	46	45	43	0

MACON, GA.

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

January	5.1	NW.	24	SW.	0	7	3	7	0	3	5	13	18	6	12	6	13	8	6	1	0	0	1	2	0	0	10	0	0
February	5.0	NW.	20	NW.	0	11	0	3	2	9	9	4	13	5	13	6	9	9	8	0	0	0	2	2	0	0	7	0	0
March	7.0	NW.	28	SE.	0	6	4	3	4	5	3	11	25	1	10	9	12	9	5	0	0	0	0	0	0	0	3	2	0
April	5.8	NW.	21	SW.	0	7	4	8	2	10	4	7	14	4	12	5	13	7	5	0	0	0	1	0	0	0	0	3	0
May	5.1	S.	19	S.	0	6	7	6	0	14	8	5	14	2	14	9	8	9	9	0	0	0	2	0	0	0	3	0	0
June	4.8	S.	20	SW.	0	8	4	7	5	12	9	4	11	3	11	14	5	5	4	0	0	0	0	0	0	0	7	0	0
July	4.9	SW.	23	NW.	0	1	1	7	4	11	14	13	10	1	6	15	10	11	9	0	0	0	0	0	0	25	0	16	0
August	4.3	SW.	25	W.	0	6	6	5	2	13	13	7	9	1	11	7	13	12	11	0	0	0	1	1	0	15	0	11	0
September	4.1	E.	18	NW.	0	6	4	18	9	8	6	2	6	1	18	8	4	5	4	0	0	0	1	1	0	15	0	4	0
October	4.5	NE.	19	SW.	0	13	11	7	1	6	2	3	14	5	19	5	7	3	3	0	0	0	5	1	0	0	0	0	0
November	4.4	N.	17	S.	0	12	9	11	3	2	1	13	6	1	15	7	8	3	2	0	0	0	2	2	0	0	1	0	0
December	5.1	N.	18	NW.	0	13	12	4	2	9	4	4	10	4	6	2	23	15	11	0	0	0	14	8	0	0	0	1	0
Year	5.0	NW.	28	SE.	0	93	65	86	34	103	79	74	157	39	147	93	125	96	77	1	0	1	35	17	0	83	21	54	0

MADISON, WIS.

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

January	7.5	W.	23	S.	0	7	1	2	5	12	9	14	12	0	7	6	18	6	4	14	5	0	3	3	14	0	29	0	0
February	7.1	NW.	30	N.	0	10	6	3	3	8	8	7	10	1	10	5	12	6	3	7	5	0	4	3	5	0	27	0	2
March	9.3	NW.	42	N.	4	12	11	4	11	2	0	3	19	0	7	5	18	10	8	12	8	0	2	0	5	0	26	0	0
April	7.5	NW.	30	SW.	0	4	7	3	6	14	6	5	15	0	13	6	11	7	6	3	0	0	1	0	0	0	8	2	0
May	7.1	S.	33	NE.	0	8	7	3	5	12	6	12	8	1	11	5	15	12	8	0	0	0	4	1	0	0	0	2	2
June	6.5	S.	40	NE.	1	3	4	4	10	16	14	3	6	0	11	8	11	10	8	0	0	0	3	0	0	0	8	7	1
July	6.3	SW.	22	W.	0	3	9	3	4	15	12	7	9	0	19	8	4	8	7	0	0	1	0	0	0	12	0	8	3
August	6.3	SW.	31	E.	0	6	8	4	8	8	15	7	6	0	12	8	11	8	6	0	0	0	0	0	0	5	0	7	3
September	6.9	S.	26	SW.	0	5	1	5	8	20	8	3	10	0	12	9	9	12	9	0	0	0	3	1	0	5	0	8	2
October	7.7	S.	24	SW.	0	4	0	3	7	18	11	9	10	0	12	5	14	12	9	1	0	0	13	9	0	0	0	4	4
November	8.9	W.	30	SW.	0	2	3	3	7	15	10	15	5	0	7	3	14	9	8	4	0	0	11	4	2	0	8	4	1
December	8.3	SW.	31	NE.	0	4	6	7	10	7	11	7	9	1	6	3	20	9	7	10	3	0	11	6	1	0	22	1	0
Year	7.4	S.	42	N.	5	68	63	44	84	147	110	92	119	3	127	81	157	109	83	51	21	1	55	18	27	30	120	43	18

Annual meteorological summaries for the year ending December 31, 1931—Continued

MARQUETTE, MICH.

[ϕ=46° 34′ N.; λ=87° 24′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.15	29.61	28.67	22.0	24.9	23.9	29.8	17.5	23.6	42	2	18	19	19	84	76	80	0.101	0.102	0.105	1.70	0.36	17.0	9.5	9.0	7.5	9.0
February	29.25	29.52	28.80	24.9	29.4	27.8	34.1	21.0	27.6	50	5	21	22	22	83	71	78	.113	.118	.119	1.51	.52	15.1	8.1	7.0	5.8	7.3
March	29.28	29.73	28.79	27.3	30.6	29.5	33.8	24.8	29.3	49	13	23	24	24	82	74	78	.120	.125	.127	2.61	.96	26.0	9.2	8.7	7.1	8.5
April	29.22	29.66	28.79	37.6	43.4	41.9	49.5	32.6	41.0	80	22	27	30	30	64	62	65	.147	.169	.172	2.08	.79	10.9	6.0	6.6	5.9	6.5
May	29.10	29.54	28.69	47.7	52.7	50.7	59.0	41.0	50.0	88	30	37	42	41	71	69	72	.229	.275	.260	1.65	.40	T.	5.8	7.1	7.3	6.9
June	29.16	29.53	28.85	60.8	67.2	65.0	72.2	52.9	62.6	101	44	52	53	53	74	62	67	.403	.419	.413	4.12	1.25	0	6.3	6.3	6.6	6.4
July	29.10	29.50	28.67	68.2	73.3	69.9	78.8	60.7	69.8	100	51	56	59	58	67	63	68	.466	.510	.501	4.65	1.15	0	3.9	5.5	5.5	5.4
August	29.23	29.49	28.72	63.0	68.6	66.4	73.1	57.7	65.4	99	46	54	56	55	72	67	68	.419	.464	.444	1.03	.88	0	6.0	6.4	5.8	6.2
September	29.14	29.43	28.76	60.6	68.4	63.8	72.3	56.7	64.5	98	46	53	56	55	76	66	75	.408	.456	.444	5.66	1.88	0	5.3	6.0	5.2	6.0
October	29.15	29.82	28.49	49.9	57.3	53.4	61.2	46.6	53.9	82	36	42	45	44	76	65	71	.279	.306	.295	3.15	.81	T.	6.8	6.9	4.8	6.8
November	29.14	29.74	28.49	40.6	44.3	41.5	48.9	35.5	42.2	69	20	33	34	34	76	68	75	.203	.208	.209	3.34	.72	1.5	8.0	7.6	6.4	7.7
December	29.24	29.73	28.50	30.4	32.6	32.1	36.4	27.0	31.7	53	10	25	25	26	79	71	76	.136	.135	.140	1.09	.55	3.3	8.2	8.7	8.3	8.5
Year	29.18	29.82	28.49	44.4	49.4	47.2	54.1	39.5	46.8	101	2	37	39	38	75	68	73	.252	.274	.269	32.59	1.88	73.8	6.9	7.2	6.4	7.1

MEDFORD, OREG.

[ϕ=42° 23′ N.; λ=122° 52′ W.]

January	28.68	29.02	28.19	33.6	41.2	45.7	48.2	30.4	39.3	61	22	32	35	37	93	81	73	0.179	0.206	0.219	1.39	0.44	0	5.0	7.1	8.1	8.6
February	28.63	28.97	28.24	33.9	47.2	54.2	56.4	31.2	43.8	66	24	32	38	36	94	71	52	.184	.230	.211	1.06	.41	T.	6.2	5.5	7.0	6.8
March	28.72	29.08	28.24	39.0	53.7	57.5	59.8	36.3	48.0	71	22	36	38	36	89	57	49	.217	.235	.225	1.16	.31	0	6.3	6.6	6.8	6.8
April	28.59	29.03	28.19	42.3	62.4	66.8	69.5	39.9	54.7	87	29	37	36	35	83	39	33	.226	.217	.210	1.23	.73	0	5.5	5.6	5.3	5.9
May	28.58	29.07	28.15	48.1	73.8	78.1	80.8	46.5	63.6	98	35	43	44	41	82	35	29	.279	.292	.262	.28	.10	0	5.3	3.8	4.4	4.6
June	28.57	28.75	28.36	52.0	71.0	73.8	76.8	50.6	63.7	93	42	45	43	44	78	40	41	.305	.289	.303	3.49	1.96	0	5.7	4.6	5.4	5.4
July	28.51	28.85	28.26	56.7	84.5	91.7	92.9	55.7	74.3	105	48	46	46	43	68	27	20	.311	.314	.279	0	0	0	.8	.3	.6	.9
August	28.57	28.79	28.35	54.3	82.6	90.2	91.8	52.4	72.1	103	44	42	43	38	63	26	17	.265	.282	.236	T.	T.	0	.5	1.4	1.4	1.2
September	28.55	28.88	28.31	49.2	70.6	76.8	79.0	46.8	62.9	101	36	43	43	40	79	40	30	.280	.285	.256	1.23	.99	0	3.1	3.0	3.6	3.2
October	28.62	28.98	28.10	42.4	61.9	65.8	69.2	39.2	54.2	89	31	38	41	39	85	48	42	.232	.256	.243	1.74	1.21	0	3.4	4.2	4.3	4.7
November	28.67	28.99	28.26	33.9	44.8	47.4	50.6	31.0	40.8	73	19	33	35	36	96	69	66	.191	.210	.217	3.12	.72	.8	5.1	5.7	4.9	5.9
December	28.53	28.96	28.00	34.3	41.3	42.3	45.9	30.5	38.2	64	16	31	34	35	89	76	77	.176	.196	.206	4.21	2.18	1.6	7.5	7.8	8.2	8.3
Year	28.60	29.08	28.00	43.3	61.2	65.9	68.4	40.9	54.6	105	16	38	40	38	83	51	44	.237	.251	.239	18.86	2.18	2.4	4.5	4.6	5.0	5.2

MEMPHIS, TENN.

[ϕ=35° 09′ N.; λ=90° 03′ W.]

January	29.72	30.25	29.06	38.1	45.3	46.6	50.3	26.8	43.6	69	15	31	32	32	75	62	60	0.180	0.191	0.193	0.98	0.36	T.	4.6	5.4	5.8	5.5
February	29.64	30.01	29.21	43.2	51.4	51.6	56.3	40.3	48.3	68	28	36	37	37	78	61	62	.226	.236	.227	4.85	1.62	0	5.6	4.1	4.6	4.8
March	29.55	29.89	29.04	41.8	49.1	50.6	54.3	39.9	47.1	67	33	34	34	34	73	59	56	.198	.206	.206	3.23	.88	T.	6.5	6.5	5.0	6.4
April	29.64	29.94	29.15	53.8	64.9	65.8	70.7	51.9	61.3	87	39	44	43	44	72	48	49	.306	.297	.307	1.29	.60	0	4.6	4.5	5.4	4.4
May	29.53	29.90	29.25	60.3	70.2	71.0	75.3	57.6	66.4	91	45	51	50	50	73	51	50	.390	.380	.381	2.30	.82	0	4.7	5.2	5.4	5.0
June	29.58	29.75	29.27	74.1	85.5	85.0	90.3	71.0	80.6	101	56	63	61	62	68	45	48	.589	.558	.585	1.09	.62	0	3.3	3.6	4.7	3.7
July	29.53	29.71	29.30	75.9	84.1	82.7	88.7	72.4	80.6	100	67	70	69	70	85	64	66	.739	.731	.730	4.37	1.28	0	6.1	6.7	6.5	5.9
August	29.63	29.81	29.43	71.6	81.0	80.2	85.1	69.7	77.4	92	60	66	66	67	83	62	65	.653	.656	.667	2.25	.83	0	5.4	5.3	5.1	5.0
September	29.61	29.95	29.35	72.5	84.6	82.8	88.9	70.7	79.8	96	52	65	64	64	77	51	55	.688	.615	.630	.57	.53	0	3.0	2.6	2.2	3.0
October	29.67	30.02	29.34	60.8	74.7	71.2	78.8	59.2	69.0	90	38	52	53	54	76	49	56	.426	.438	.446	.79	.62	0	3.8	4.4	3.4	4.1
November	29.72	30.02	29.27	53.6	62.6	61.2	66.5	51.1	58.8	80	37	46	48	48	77	62	66	.337	.359	.357	6.31	2.31	T.	5.2	5.8	4.8	5.3
December	29.68	30.12	29.07	48.1	54.1	53.9	58.5	44.6	51.6	74	31	43	47	48	84	78	82	.303	.341	.351	10.19	3.65	0	6.1	7.0	6.2	6.4
Year	29.62	30.25	29.04	57.8	67.3	66.9	72.0	55.4	63.7	101	15	50	50	51	77	58	59	.415	.417	.423	38.22	3.65	T.	4.9	5.1	5.0	5.0

MERIDIAN, MISS.

[ϕ=32° 21′ N.; λ=88° 40′ W.]

January	29.76	30.26	29.02	38.2	50.9	49.2	56.5	35.9	46.2	74	20	33	33	36	82	53	62	0.199	0.198	0.218	2.66	1.18	0	4.3	5.5	5.6	5.2
February	29.67	29.95	29.29	42.3	56.6	55.1	61.9	40.1	51.0	73	24	38	38	40	86	52	58	.245	.249	.260	2.47	.98	0	4.8	4.5	4.1	4.5
March	29.59	29.87	29.12	43.9	55.5	54.6	60.4	41.5	51.0	72	31	37	34	35	78	47	51	.230	.207	.220	3.73	1.36	T.	4.1	4.6	4.4	4.5
April	29.68	29.90	29.25	54.4	68.7	66.2	73.3	50.3	61.8	87	38	48	45	46	79	45	50	.344	.315	.319	3.86	2.52	0	3.8	5.0	4.3	4.7
May	29.58	29.86	29.34	62.6	75.2	74.0	79.5	57.7	68.6	91	47	55	52	53	78	47	50	.447	.403	.416	2.67	2.12	0	3.9	4.2	4.2	4.3
June	29.63	29.78	29.37	73.3	87.4	83.6	91.6	66.7	79.2	101	53	64	60	62	72	41	51	.602	.546	.552	3.47	1.98	0	3.2	4.3	4.8	4.0
July	29.58	29.79	29.42	76.1	86.1	81.0	89.7	71.5	80.6	97	66	71	69	70	84	58	71	.751	.711	.731	8.14	1.95	0	6.0	6.7	6.7	6.5
August	29.68	29.84	29.44	71.6	84.0	79.7	87.5	68.2	77.8	93	60	67	66	68	86	55	66	.672	.642	.694	8.79	4.29	0	4.0	5.5	5.4	4.9
September	29.65	29.96	29.45	71.9	86.4	82.0	90.2	68.3	79.2	97	47	66	63	65	83	47	58	.670	.607	.643	.28	.12	0	3.6	3.9	2.4	3.3
October	29.70	29.99	29.35	59.9	76.8	70.8	79.7	57.9	68.8	89	40	56	56	58	86	49	65	.466	.465	.514	1.37	.82	0	3.2	4.1	2.0	4.0
November	29.76	29.97	29.46	53.0	69.0	63.1	72.7	50.4	61.6	81	32	49	50	51	88	54	66	.381	.391	.397	2.67	1.03	0	3.6	5.6	3.3	5.3
December	29.71	30.06	29.17	51.0	59.6	57.4	63.8	48.0	55.9	81	35	48	48	49	88	69	76	.356	.365	.378	9.16	2.63	0	7.0	6.6	5.2	7.0
Year	29.66	30.26	29.02	58.2	71.4	68.1	75.6	54.7	65.1	101	20	53	51	53	82	51	60	.447	.425	.443	49.22	4.29	T.	4.5	5.0	4.2	4.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

MARQUETTE, MICH.

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

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.6	W.	29	SW.	0	3	3	2	8	6	7	14	19	0	1	3	27	18	11	23	18	0	0	0	18	0	31	0	0
February	8.8	NW.	34	NW.	2	6	4	4	5	4	4	16	13	0	4	9	15	12	11	17	12	0	0	2	12	0	28	0	0
March	9.4	NW.	29	NW.	0	4	9	0	2	8	1	4	34	0	2	5	24	15	8	17	13	0	0	0	14	0	28	0	0
April	10.0	NW.	43	SW.	1	2	1	2	4	9	5	11	24	1	8	6	16	9	6	9	6	0	0	1	1	0	15	0	0
May	9.5	NW.	34	SW.	1	3	2	5	6	13	1	7	24	1	8	5	18	14	10	2	0	0	0	4	0	0	3	0	0
June	7.2	S.	33	SW.	1	4	4	5	9	16	7	2	13	0	5	13	12	11	7	0	0	0	0	4	0	0	4	0	0
July	8.3	W.	37	SW.	1	1	3	9	5	4	11	17	12	0	9	13	9	11	9	0	0	0	0	1	0	0	5	0	10
August	8.3	W.	27	W.	0	2	3	3	5	9	10	15	13	0	9	5	17	6	3	0	0	0	0	0	0	0	2	0	2
September	8.6	W.	30	SW.	0	4	1	7	8	9	6	18	6	1	10	8	12	15	10	0	0	1	0	1	0	5	0	3	0
October	10.9	S.	36	W.	3	3	1	2	4	20	7	15	10	0	7	6	18	13	9	1	0	1	0	1	0	0	0	1	0
November	10.5	W.	39	SW.	5	1	0	2	6	14	14	15	8	0	6	3	21	16	11	6	6	0	0	0	1	0	9	2	0
December	9.1	W.	35	SW.	2	2	4	5	3	12	8	20	8	0	1	6	24	10	5	11	7	0	0	0	8	0	22	0	1
Year	9.1	W.	43	SW.	16	35	35	49	65	124	81	154	184	3	70	82	213	150	100	86	62	3	0	14	54	16	136	28	1

MEDFORD, OREG.

[H_b=1,329 ft.; h_t=29 ft.; h_r=26 ft.; h_a=58 ft.]

January	4.4	*	S.	39	SE.	2	9	2	3	5	13	6	4	10	10	1	8	22	14	9	0	0	0	20	17	0	0	18	1	0
February	3.1		S.	26	W.	0	8	1	4	7	13	5	6	7	5	5	11	12	9	6	2	1	0	8	4	0	0	20	0	0
March	4.6	NW.	30	N.	0	8	4	2	5	8	8	9	15	3	7	8	16	16	9	0	0	0	0	5	1	0	0	6	0	0
April	5.5	NW.	36	NE.	1	9	7	1	7	7	1	11	15	2	6	16	8	6	5	0	0	0	0	1	1	0	0	5	4	0
May	5.6	NW.	28	NW.	0	5	3	1	5	6	5	14	18	5	13	11	7	4	3	0	0	0	0	2	0	0	6	0	3	0
June	5.8	NW.	24	NW.	0	8	2	2	2	7	7	11	21	0	12	7	11	9	8	0	0	0	0	0	0	0	2	0	1	0
July	5.5	NW.	24	NW.	0	3	0	1	1	9	4	19	20	5	27	4	0	0	0	0	0	0	0	0	0	24	0	0	0	0
August	5.3	NW.	24	NW.	0	3	2	0	3	8	4	17	19	6	27	2	2	0	0	0	0	0	0	0	0	17	0	0	0	0
September	4.4	NW.	28	NW.	0	5	4	1	5	6	0	14	21	4	17	8	5	6	3	0	0	0	0	4	1	0	0	5	0	1
October	3.9	S.	30	SE.	0	5	2	2	4	13	9	7	13	7	13	10	8	8	4	0	0	0	0	4	1	0	0	2	0	0
November	2.7	NW.	29	NW.	0	8	1	2	5	10	9	6	11	8	10	6	14	11	10	2	2	0	0	17	6	0	0	15	1	0
December	5.3	N.	44	SE.	4	15	4	1	14	8	5	3	5	7	2	7	22	17	10	7	3	0	13	11	0	0	19	0	0
Year	4.7	NW.	44	SE.	7	86	32	20	63	108	63	121	175	62	140	98	127	100	67	11	6	0	70	41	0	54	85	11	0

* By eye observations at this station.

MEMPHIS, TENN.

[H_b=399 ft.; h_t=78 ft.; h_r=70 ft.; h_a=86 ft.]

January	7.4	NW.	35	NW.	1	3	8	5	9	9	10	5	13	0	12	6	13	6	4	1	0	0	3	2	1	0	8	0	0
February	7.7	N.	28	N.	0	13	5	10	8	6	4	2	8	0	14	3	11	8	7	0	0	0	1	0	0	0	4	1	0
March	9.5	W.	37	SW.	1	7	5	12	8	2	7	13	8	0	8	6	17	11	10	2	2	0	1	0	0	0	3	0	0
April	7.1	S.	26	S.	0	13	9	5	10	8	3	3	7	2	12	10	8	9	6	0	0	0	1	0	0	0	0	7	0
May	7.9	SW.	28	SW.	0	11	6	3	8	9	12	7	5	1	12	8	11	11	9	0	0	0	0	0	0	0	2	0	2
June	6.0	SW.	40	SW.	1	7	4	4	10	11	13	7	4	0	16	11	3	7	6	0	0	0	0	0	0	17	0	8	0
July	5.8	SW.	34	N.	1	3	3	6	17	11	15	4	3	0	6	14	11	15	14	0	0	0	0	0	0	10	0	14	0
August	6.3	SW.	29	W.	0	10	3	9	7	16	11	0	6	0	11	10	10	10	8	0	0	0	1	1	0	6	0	7	0
September	6.1	S.	25	SW.	0	5	8	7	9	22	5	0	3	1	21	7	2	2	2	0	0	0	0	4	3	0	0	2	0
October	5.9	SE.	23	SW.	0	6	4	9	15	8	5	7	6	2	14	12	5	4	3	0	0	0	0	4	3	0	0	2	0
November	6.1	S.	20	W.	0	7	5	9	7	18	10	0	4	0	12	6	12	9	9	1	0	0	0	1	1	0	0	2	0
December	6.2	E.	26	SW.	0	6	12	15	4	6	13	3	3	0	9	6	16	17	14	0	0	0	4	2	0	0	1	4	0
Year	6.8	SW.	40	SW.	4	91	72	94	112	126	108	51	70	6	147	99	119	109	92	4	2	0	16	9	1	54	13	51	0

MERIDIAN, MISS.

[H_b=375 ft.; h_t=87 ft.; h_r=64 ft.; h_a=95 ft.]

January	4.2	NE.	27	SW.	0	3	14	4	6	3	11	10	6	5	12	7	12	5	4	0	0	0	18	2	0	0	9	0	0
February	5.0	N.	23	SW.	0	10	9	0	11	7	2	4	7	6	14	3	11	8	7	0	0	0	13	3	0	0	4	0	0
March	6.9	W.	28	SE.	0	7	11	3	5	4	5	12	11	4	17	4	10	10	8	1	0	0	8	0	0	0	2	4	0
April	5.1	NE.	21	S.	0	7	10	5	5	10	4	3	11	5	12	11	7	6	5	0	0	0	6	0	0	0	0	5	0
May	4.9	SW.	23	W.	0	5	10	2	4	7	14	9	8	3	13	13	5	9	7	0	0	0	3	1	0	1	0	4	0
June	3.8	SW.	25	W.	0	7	4	3	6	8	10	16	1	5	14	13	3	4	4	0	0	0	5	0	0	21	0	9	0
July	4.4	SW.	28	NW.	0	4	6	6	8	0	19	5	5	3	5	12	14	16	12	0	0	0	3	2	0	18	0	18	0
August	3.9	SW.	18	NW.	0	9	7	5	3	4	16	6	8	4	11	13	7	10	8	0	0	0	8	2	0	12	0	10	0
September	3.3	SE.	14	SW.	0	6	8	4	13	7	10	3	1	8	18	10	2	4	3	0	0	0	6	1	0	21	0	4	0
October	3.3	SE.	17	W.	0	2	12	7	11	5	3	2	4	16	16	8	7	4	4	0	0	0	10	4	0	0	0	2	0
November	3.5	SE.	23	W.	0	7	7	6	16	7	3	2	0	12	11	6	13	7	7	0	0	0	14	6	0	0	1	3	0
December	5.2	NE.	22	E.	0	4	15	4	12	9	4	5	4	5	7	5	19	17	11	0	0	0	15	4	0	0	0	4	0
Year	4.5	SW.	28	SE.	0	71	113	49	100	77	101	77	66	76	150	105	110	100	80	1	0	1	111	25	0	73	16	63	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

MIAMI, FLA.

[ϕ=25° 48′ N.; λ=80° 12′ W.]

Month	Pressure	Temperature								Moisture															
		Extremes		Mean					Extremes			Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	30.08	30.37	29.70	60.9	68.5	65.3	70.6	57.1	63.8	76	37	55	56	56	81	66	73	0.449	0.471	0.470	7.07	1.89	0	8.1	7.2	7.2	7.8
February	30.01	30.25	29.71	61.8	70.2	67.1	72.0	59.0	65.5	78	47	54	56	56	78	61	70	.436	.454	.467	2.12	.73	0	6.7	7.6	5.6	7.0
March	29.97	30.25	29.58	61.5	70.0	66.6	72.4	58.0	65.2	82	45	55	55	56	70	59	69	.446	.454	.462	6.10	3.27	0	4.7	5.3	6.1	6.4
April	30.00	30.24	29.62	70.7	74.7	71.9	76.8	65.8	71.3	82	48	63	63	62	76	68	72	.553	.594	.570	4.59	1.05	0	6.1	6.9	6.6	7.1
May	29.94	30.15	29.74	76.4	80.8	76.9	82.5	71.6	77.0	87	59	66	66	66	72	62	71	.656	.653	.652	4.34	1.20	0	4.4	5.1	5.6	5.5
June	29.99	30.12	29.75	80.5	83.2	80.3	85.5	75.5	80.5	90	69	71	70	71	72	66	73	.752	.746	.757	.07	.02	0	5.5	6.7	5.4	6.4
July	29.98	30.12	29.81	83.2	86.1	82.3	88.1	77.5	82.8	91	73	74	74	74	74	67	76	.837	.834	.833	2.63	.81	0	6.6	6.7	7.2	6.8
August	30.03	30.12	29.92	83.3	86.6	82.7	88.6	77.4	83.0	91	73	74	74	74	74	66	75	.838	.838	.834	5.02	2.31	0	5.3	6.5	6.9	6.5
September	29.96	30.14	29.80	80.4	83.9	80.7	86.2	76.2	81.2	90	70	74	74	73	80	72	79	.825	.826	.824	19.70	10.31	0	6.6	7.6	6.4	7.3
October	29.98	30.14	29.76	77.0	81.1	78.0	82.7	73.7	78.2	88	61	69	69	69	77	68	75	.715	.722	.720	5.66	1.20	0	6.0	6.6	4.6	6.5
November	30.04	30.18	29.87	72.4	76.7	74.0	77.5	69.3	73.4	80	53	64	64	64	75	66	73	.592	.604	.610	2.08	1.14	0	6.1	6.2	5.2	6.0
December	30.08	30.20	29.79	73.3	78.2	75.1	78.9	71.8	75.4	82	60	67	67	67	80	70	76	.659	.672	.664	1.49	1.60	0	5.8	6.2	3.9	5.6
Year	30.00	30.37	29.58	73.4	78.3	75.1	80.2	69.4	74.8	91	37	66	66	66	76	66	74	.649	.655	.655	60.87	10.31	0	6.0	6.6	5.9	6.5

MILES CITY, MONT.

[ϕ=46° 25′ N.; λ=105° 49′ W.]

January	27.49	27.83	27.11	22.9	36.4	35.1	42.8	19.3	31.0	66	−2	17	22	23	78	56	61	0.097	0.118	0.124	0.05	0.05	0.7	3.7	3.7	2.8	4.1
February	27.49	27.94	27.12	27.7	40.9	41.6	47.0	25.6	36.3	58	11	24	26	26	84	55	54	.126	.136	.137	.47	.32	1.1	4.2	4.2	4.7	4.8
March	27.54	28.14	26.99	26.7	39.0	40.7	45.2	22.8	34.0	65	0	22	22	24	81	53	54	.123	.125	.129	.34	.11	1.4	6.1	6.3	6.0	6.2
April	27.50	28.06	26.93	36.1	55.0	50.5	62.8	34.0	48.4	82	16	23	23	22	59	30	25	.125	.127	.120	.45	.32	T.	4.4	4.3	4.0	4.2
May	27.44	27.79	26.96	47.4	65.2	60.5	71.9	43.9	57.9	95	30	32	29	28	56	28	28	.183	.166	.155	.59	.34	T.	4.0	4.3	5.1	4.5
June	27.36	27.79	26.94	62.8	79.1	81.8	84.9	60.1	72.5	107	45	49	44	44	63	33	32	.357	.308	.315	1.35	.71	0	3.8	3.8	5.2	4.3
July	27.41	27.70	26.95	64.3	83.9	85.4	88.8	61.7	75.2	107	48	49	43	43	60	34	34	.359	.350	.358	.77	.41	0	3.5	3.4	4.8	3.8
August	27.43	27.88	27.11	61.9	81.7	83.5	86.0	60.4	73.5	98	47	50	46	45	67	32	29	.371	.321	.309	.17	.15	0	3.8	3.1	3.9	3.3
September	27.38	27.85	26.98	53.2	68.0	73.3	77.1	51.6	64.4	98	32	41	40	40	66	36	34	.259	.256	.257	.67	.53	0	4.2	2.9	4.5	3.5
October	27.50	27.94	26.95	37.8	58.0	56.6	63.6	35.3	49.4	80	22	30	32	34	73	39	41	.166	.182	.193	.23	.14	0	3.0	3.4	3.8	3.6
November	27.47	27.92	26.93	24.3	37.9	35.4	42.7	20.9	31.8	76	−2	19	22	22	80	56	63	.107	.118	.119	.54	.28	7.7	3.9	5.8	5.4	5.7
December	27.42	27.75	26.89	16.2	27.1	25.7	32.7	11.5	22.1	45	−12	14	20	22	89	71	84	.082	.107	.118	.55	.42	6.5	4.3	4.2	2.4	4.5
Year	27.46	28.14	26.89	40.1	56.2	57.3	62.2	37.3	49.7	107	−12	31	31	32	71	44	45	.196	.193	.194	6.18	.71	17.4	4.1	4.1	4.6	4.4

MILWAUKEE, WIS.

[ϕ=43° 02′ N.; λ=87° 54′ W.]

January	29.25	29.76	28.82	27.2	31.6	30.9	35.6	23.7	29.6	47	1	23	24	24	81	72	76	0.126	0.133	0.134	1.04	0.75	10.1	5.5	6.8	7.2	6.6
February	29.33	29.70	28.91	30.2	35.6	34.1	40.0	26.9	33.4	51	7	25	27	27	80	71	74	.138	.150	.154	.45	.22	3.8	4.2	6.5	4.9	5.8
March	29.27	29.66	28.64	30.9	35.5	34.6	39.0	28.4	33.7	49	20	25	26	28	78	69	76	.137	.143	.152	4.76	1.75	36.3	7.5	6.8	6.7	6.7
April	29.30	29.65	28.89	42.0	49.3	46.9	55.1	38.2	46.6	78	30	32	35	32	69	58	59	.191	.207	.188	.90	.55	T.	5.4	5.7	4.9	5.1
May	29.18	29.60	28.67	50.1	54.4	54.1	60.6	45.4	53.0	85	36	42	42	42	75	66	67	.277	.279	.284	1.70	1.10	T.	5.4	5.9	5.8	5.6
June	29.24	29.46	28.85	65.0	70.0	70.8	78.4	59.7	69.0	100	46	57	58	58	75	67	66	.455	.495	.511	3.58	1.11	0	6.2	5.8	5.4	5.7
July	29.20	29.43	28.77	72.3	78.9	76.9	83.6	67.4	75.5	99	58	60	61	62	66	57	63	.526	.552	.566	2.25	.77	0	3.6	3.3	3.9	3.3
August	29.30	29.56	28.84	67.4	76.0	72.3	79.2	64.3	71.8	94	52	58	59	59	73	57	66	.497	.517	.520	1.96	.62	0	4.2	4.2	5.8	4.8
September	29.25	29.60	28.80	64.2	73.9	70.7	78.1	61.1	69.6	97	48	58	59	59	81	62	68	.502	.512	.510	3.15	1.14	0	4.7	5.4	4.5	4.7
October	29.26	29.87	28.72	52.4	60.0	57.1	63.5	49.9	56.7	82	39	46	46	46	78	63	67	.317	.331	.322	2.10	.85	0	5.6	5.8	4.8	5.5
November	29.30	29.86	28.71	44.4	49.2	47.4	53.7	40.5	47.1	72	22	38	38	39	78	67	73	.250	.252	.259	4.65	1.39	T.	6.2	6.2	5.6	6.4
December	29.34	29.82	28.63	33.8	38.0	36.3	41.6	30.8	36.2	53	11	29	30	30	81	72	76	.184	.169	.167	1.85	.52	5.3	6.7	6.6	6.1	7.1
Year	29.27	29.87	28.63	48.3	54.4	52.7	59.0	44.7	51.8	100	1	41	42	42	76	65	69	.301	.312	.314	28.39	1.75	55.5	5.4	5.8	5.5	5.6

MINNEAPOLIS, MINN.

[ϕ=44° 59′ N.; λ=93° 18′ W.]

January	28.98	29.45	28.62	.....	28.2	28.9	33.1	18.6	25.8	52	−5	...	20	21	...	70	70	.....	0.108	0.112	0.13	0.09	0.9	.....	6.6	5.9	6.5
February	29.06	29.38	28.59	.....	34.7	34.7	39.9	24.9	32.0	57	0	...	22	23	...	59	61	.....	.122	.126	.70	.50	7.0	.....	5.9	4.9	5.4
March	29.08	29.45	28.55	.....	34.7	35.1	38.1	24.6	31.4	51	12	...	21	22	...	58	58	.....	.117	.118	1.49	1.05	.4	.....	7.5	6.8	7.2
April	29.00	29.41	28.56	.....	55.7	56.2	60.4	39.7	50.0	83	23	...	28	30	...	36	40	.....	.164	.178	1.20	.45	T.	.....	5.4	5.4	5.3
May	28.89	29.32	28.43	.....	60.4	61.9	66.3	45.9	56.1	91	30	...	39	37	...	49	44	.....	.247	.230	1.35	.60	T.	.....	6.9	5.6	6.4
June	28.90	29.21	28.63	.....	79.2	79.0	83.8	63.6	73.7	102	47	...	60	60	...	56	54	.....	.560	.529	4.78	1.14	9	.....	6.0	5.3	5.2
July	28.92	29.18	28.62	.....	82.8	82.4	87.0	66.7	76.8	104	57	...	54	53	...	38	38	.....	.430	.414	1.12	.54	0	.....	6.1	3.7	4.6
August	29.02	29.27	28.68	.....	75.7	76.6	80.3	60.8	70.6	99	46	...	54	54	...	50	47	.....	.445	.432	2.97	1.28	0	.....	7.9	6.2	6.5
September	28.92	29.27	28.48	.....	74.7	72.0	78.4	58.9	68.6	104	43	...	52	53	...	47	54	.....	.397	.414	2.42	.72	9	.....	4.6	3.9	4.7
October	28.96	29.53	28.33	.....	58.5	57.2	62.6	46.2	54.4	81	38	...	44	43	...	60	62	.....	.297	.292	1.87	.57	0	.....	5.6	5.5	5.5
November	28.96	29.54	28.17	.....	43.3	42.4	47.8	32.8	40.3	68	12	...	33	34	...	67	72	.....	.197	.209	3.29	.98	.7	.....	7.3	4.9	6.6
December	29.03	29.55	28.45	.....	32.7	32.0	35.5	24.5	30.0	48	−1	...	25	26	...	72	76	.....	.135	.141	.71	.32	3.5	.....	6.5	5.9	6.7
Year	28.98	29.55	28.17	.....	55.0	54.9	59.4	42.2	50.8	104	−5	...	38	38	...	55	56	.....	.268	.266	22.03	1.28	12.5	.....	6.4	5.3	6.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

MIAMI, FLA.

[H_b=25 ft.; h_t=124 ft.; h_r=117 ft.; h_a=168 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi		*Mi.*																									
January	10.2	N.	32	W.	0	13	9	9	10	5	1	4	10	1	1	9	21	10	10	0	0	0	1	0	0	0	0	4	0
February	10.0	SE.	34	S.	1	8	7	12	10	3	2	1	13	0	3	10	15	9	7	0	0	0	0	0	0	0	0	0	0
March	9.9	NW.	34	SW.	1	11	3	9	6	8	4	6	15	0	10	11	10	8	6	0	0	0	0	0	0	0	0	4	0
April	9.8	E.	30	W.	0	7	18	17	7	3	3	2	2	0	5	9	16	15	13	0	0	0	0	0	0	0	0	4	0
May	8.4	NE.	26	NW.	0	6	19	10	9	2	6	2	6	1	3	12	11	14	9	0	0	0	0	0	0	0	0	12	0
June	8.1	E.	19	S.	0	3	21	13	10	3	3	4	3	0	4	14	12	5	0	0	0	0	0	0	0	1	0	6	0
July	7.5	SE.	31	SE.	0	2	4	20	19	7	4	2	4	0	3	15	13	10	9	0	0	0	0	0	0	5	0	8	0
August	7.2	E.	26	N.	0	9	7	13	19	6	1	1	5	1	2	16	13	10	9	0	0	0	0	0	0	4	0	13	0
September	8.9	E.	30	S.	0	8	14	20	5	3	5	3	2	0	1	14	15	20	17	0	0	0	0	0	0	1	0	9	0
October	10.0	NE.	38	NE.	1	6	29	16	3	1	2	5	0	0	6	11	14	14	13	0	0	0	0	0	2	1	0	1	0
November	13.4	NE.	31	NE.	0	9	34	14	1	0	0	0	2	0	4	16	10	11	9	0	0	0	0	1	0	0	0	0	0
December	9.1	E.	41	SW.	1	6	5	29	19	2	0	1	0	0	7	18	6	9	6	0	0	0	0	1	0	0	0	1	0
Year	9.4	E.	41	SW.	4	88	170	182	118	44	31	31	63	3	54	155	156	135	108	0	0	1	4	1	0	11	0	62	0

MILES CITY, MONT.

[H_b=2,371 ft.; h_t=48 ft.; h_r=41 ft.; h_a=55 ft.]

January	4.6	S.	27	NW.	0	4	2	0	1	32	10	6	5	2	17	8	6	1	1	5	1	0	0	0	6	0	28	0	0
February	4.3	S.	21	NW.	0	6	7	3	3	17	4	7	4	5	14	5	9	4	2	6	2	0	1	0	0	0	26	0	0
March	6.6	S.	30	NW.	0	10	8	5	6	15	3	3	10	2	7	11	13	9	2	9	7	0	0	0	5	0	26	1	0
April	6.5	S.	33	NW.	1	6	9	5	2	16	2	6	11	3	15	9	6	3	3	2	0	1	0	0	0	0	12	0	0
May	6.5	S.	32	NW.	0	10	7	2	5	13	6	5	9	5	12	13	6	5	3	2	1	0	0	0	0	2	3	1	0
June	5.9	NE.	34	NW.	1	4	10	6	9	9	2	7	9	7	11	16	3	6	6	0	0	0	0	2	2	0	7	0	8
July	5.8	NE.	32	NW.	0	9	12	6	7	7	2	5	10	4	16	11	4	6	4	0	0	0	0	0	0	15	0	2	0
August	5.6	S.	31	NW.	0	10	6	6	12	7	3	3	6	9	19	7	5	3	1	0	0	0	0	0	0	14	0	5	0
September	5.3	S.	25	W.	0	9	7	4	1	7	3	6	11	12	18	9	3	3	3	0	0	0	0	0	3	1	0	0	0
October	5.2	S.	29	NW.	0	9	6	3	4	14	6	4	9	7	14	13	4	3	3	0	0	0	0	0	0	10	0	3	0
November	5.1	S.	34	NW.	1	4	8	2	6	16	0	3	11	4	11	8	11	7	3	7	6	0	0	0	9	0	25	0	0
December	3.4	S.	21	NW.	0	1	4	4	3	29	6	2	3	10	13	11	7	4	3	7	4	0	1	0	13	0	31	0	0
Year	5.4	S.	34	NW.	3	82	86	46	56	182	53	57	98	70	167	121	77	54	34	38	21	1	4	2	33	41	162	17	3

MILWAUKEE, WIS.

[H_b=681 ft.; h_t=125 ft.; h_r=117 ft.; h_a=221 ft.]

January	11.9	W.	31	NW.	0	9	2	4	0	3	16	21	7	0	9	3	19	7	4	15	6	0	10	1	6	0	28	0	0
February	11.4	N.	31	SW.	0	17	2	4	0	4	9	13	7	0	9	6	13	5	2	8	3	0	8	0	3	0	21	0	0
March	12.4	N.	38	NE.	3	20	11	7	8	1	2	3	10	0	5	11	15	13	10	17	10	0	10	0	2	0	25	0	0
April	11.5	N.	37	SW.	1	12	7	4	5	8	5	11	7	1	11	10	9	7	5	3	0	0	8	0	0	0	4	1	0
May	11.0	N.	36	W.	2	17	3	4	10	8	5	10	5	0	11	8	12	9	6	1	0	0	9	2	0	0	2	0	0
June	10.2	SE.	27	N.	0	11	3	3	9	13	11	7	3	0	8	13	9	11	9	0	0	0	6	0	0	7	0	5	0
July	10.6	W.	39	NW.	1	9	4	5	7	8	10	13	6	0	19	9	3	7	5	0	0	0	3	0	0	8	0	6	0
August	10.7	W.	48	NE.	2	14	7	4	5	10	5	14	3	0	10	13	8	8	8	0	0	0	3	0	0	3	0	5	0
September	11.4	SW.	39	W.	3	7	2	6	5	7	14	13	6	0	13	10	7	10	8	0	0	0	8	1	0	8	0	5	1
October	12.1	W.	33	W.	1	8	1	3	5	10	13	14	8	0	10	9	12	10	6	0	0	0	17	1	0	0	0	5	0
November	13.1	W.	43	S.	4	5	1	2	4	9	13	18	8	0	6	11	13	9	9	4	0	0	11	4	2	0	7	1	0
December	12.8	W.	33	E.	1	9	2	9	3	8	9	16	6	0	6	6	19	8	6	9	4	0	9	4	0	0	17	0	0
Year	11.6	W.	48	NE.	18	138	45	55	61	89	112	153	76	1	117	109	139	104	78	57	23	0	102	13	13	26	102	30	1

MINNEAPOLIS, MINN.

[H_b=918 ft.; h_t=162 ft., h_r=92 ft.; h_a=208 ft.]

January	9.8	NW.	28	NW.	0	3	2	0	3	6	4	4	10	0	5	11	15	4	1	11	4	0	9	1	15	0	30	0	0
February	9.1	NW.	26	NW.	0	2	4	3	4	4	0	2	9	0	12	4	12	4	3	8	4	0	9	1	4	0	24	0	0
March	10.3	N.	32	N.	0	7	3	3	3	2	0	2	6	0	6	6	19	7	5	8	4	0	12	0	5	0	25	0	0
April	11.0	NW.	37	NW.	1	5	0	1	5	4	1	5	9	0	12	7	11	6	5	3	0	0	1	0	0	0	8	4	0
May	11.0	N.	39	NW.	2	6	5	0	2	7	1	3	7	0	8	5	18	8	6	2	0	0	0	0	0	1	2	4	0
June	9.7	S.	44	NW.	3	4	4	0	6	9	3	0	4	0	7	13	12	12	9	0	0	1	4	0	0	9	0	8	0
July	9.5	S.	29	N.	0	8	3	1	1	4	7	4	3	0	11	12	8	8	4	0	0	0	0	0	11	0	4	0	0
August	9.0	S.	36	W.	1	3	6	2	5	4	3	2	6	0	6	11	14	8	6	0	0	0	4	1	0	2	0	7	1
September	9.6	S.	26	SE.	0	2	3	0	11	4	3	3	4	0	12	10	8	12	9	0	0	0	6	2	0	6	0	9	1
October	10.4	SE.	34	SE.	2	1	2	1	7	6	3	5	6	0	13	4	14	13	10	2	0	0	10	1	0	0	0	3	1
November	9.6	W.	34	W.	1	1	1	3	6	5	5	3	6	0	7	8	15	15	9	10	4	0	14	0	2	0	11	2	0
December	9.6	SE.	31	E.	0	2	4	2	6	5	3	5	4	0	7	6	18	8	5	5	7	0	12	1	7	0	25	0	0
Year	9.9	S.	44	NW.	10	44	37	16	63	60	33	38	74	0	106	95	164	105	72	50	23	1	81	7	33	29	125	41	3

Annual meteorological summaries for the year ending December 31, 1931—Continued

MOBILE, ALA.

[ϕ=30° 41′ N.; λ=88° 02′ W.]

Month	Pressure			Temperature								Moisture																Cloudiness			
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation										
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight				
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*								
January	30.10	30.69	29.48	44.1	54.5	53.1	59.2	42.1	50.6	74	27	40	43	42	85	66	68	0.255	0.288	0.283	5.43	3.17	0	6.5	4.8	4.2	5.2				
February	30.00	30.27	29.59	48.7	59.4	57.6	64.4	46.6	55.4	74	33	44	47	45	86	65	66	.307	.337	.317	2.71	.86	0	5.0	4.4	3.4	4.2				
March	29.93	30.20	29.46	49.5	59.2	56.7	63.2	46.7	55.0	74	37	43	47	45	80	66	68	.298	.342	.319	6.35	2.52	0	5.8	4.8	4.3	4.8				
April	30.01	30.24	29.62	58.8	69.4	65.9	72.7	55.9	64.3	85	45	54	58	56	86	69	74	.436	.498	.474	3.21	2.13	0	4.9	5.0	4.2	4.4				
May	29.91	30.18	29.70	66.4	76.4	73.3	80.3	62.9	71.6	91	52	61	63	62	83	64	70	.543	.585	.568	3.63	1.69	0	4.2	5.6	4.4	4.8				
June	29.96	30.11	29.72	74.8	86.0	81.6	89.8	71.0	80.4	98	60	68	68	68	80	57	64	.699	.710	.698	.65	.30	0	4.1	4.1	5.8	4.7				
July	29.92	30.10	29.74	78.1	86.3	81.0	90.3	74.2	82.2	96	70	74	74	73	88	69	78	.841	.847	.821	17.99	7.97	0	6.1	6.5	7.3	6.4				
August	30.01	30.18	29.79	74.7	84.3	79.7	87.5	71.7	79.6	94	64	70	69	70	86	62	73	.742	.723	.729	5.84	1.57	0	5.7	6.5	6.4	6.4				
September	29.97	30.24	29.77	74.0	86.0	80.7	89.2	71.6	80.4	96	54	70	69	71	87	57	72	.746	.717	.755	1.92	.70	0	3.6	4.4	2.9	3.8				
October	30.02	30.26	29.70	65.7	77.9	73.7	80.7	64.5	72.6	89	45	60	61	63	83	58	71	.549	.565	.606	3.58	2.46	0	3.8	4.1	3.0	3.7				
November	30.10	30.30	29.87	57.8	71.6	67.4	74.1	55.7	64.9	79	39	54	58	59	88	64	76	.451	.507	.523	.80	.44	0	3.6	4.3	3.0	4.2				
December	30.03	30.31	29.51	57.6	64.0	62.6	68.6	54.0	61.3	78	43	55	56	56	91	76	80	.455	.468	.472	9.18	2.54	0	7.2	7.8	5.8	7.4				
Year	30.00	30.60	29.46	62.5	72.9	69.4	76.7	59.7	68.2	98	27	58	59	59	85	64	72	.527	.549	.547	61.29	7.97	0	5.0	5.2	4.6	5.0				

MODENA, UTAH

[ϕ=37° 48′ N.; λ=113° 54′ W.]

January	24.70	24.99	24.25	15.0	34.1	30.2	37.3	10.5	23.9	47	−2	12	23	22	90	64	72	0.079	0.122	0.117	0.57	0.24	6.8	3.4	4.2	4.5	4.6				
February	24.58	24.88	24.30	28.8	38.7	39.8	42.6	27.2	34.9	54	19	27	28	29	92	67	68	.145	.156	.160	.88	.34	3.0	5.6	7.2	5.7	7.0				
March	24.64	25.01	24.20	26.9	49.9	51.1	54.5	23.3	38.9	72	10	17	18	17	66	29	26	.095	.101	.095	.59	.57	4.8	2.1	4.9	5.4	4.4				
April	24.57	24.88	24.12	35.1	59.4	60.8	63.8	32.9	48.4	75	21	22	22	20	60	27	23	.124	.123	.116	.54	.23	T.	3.4	5.2	5.3	4.8				
May	24.60	24.81	24.35	40.0	68.1	70.2	72.6	38.8	55.7	85	31	27	25	24	60	21	20	.149	.138	.131	.72	.47	0	3.3	3.7	4.4	3.7				
June	24.59	24.76	24.39	50.4	77.5	78.7	81.6	48.5	65.0	90	41	30	31	29	48	20	18	.175	.181	.166	.18	.17	0	3.3	3.1	4.4	3.7				
July	24.62	24.84	24.47	60.8	89.3	88.6	93.2	59.4	76.3	101	42	37	38	35	43	18	18	.237	.239	.221	.52	.50	0	2.5	3.3	5.5	3.6				
August	24.70	24.86	24.54	58.2	82.8	82.9	87.0	56.5	71.8	97	48	46	42	42	65	28	27	.313	.277	.273	.46	.22	0	2.6	4.3	4.4	4.1				
September	24.60	24.90	24.31	46.2	73.4	74.1	77.6	43.9	60.8	85	30	31	30	28	56	21	19	.181	.176	.159	.39	.39	0	.9	2.1	2.0	1.8				
October	24.65	24.90	24.28	38.4	62.0	59.9	65.4	35.8	50.6	76	23	30	29	30	73	32	37	.175	.170	.173	.87	.49	0	2.1	4.0	3.3	4.0				
November	24.59	24.88	24.19	22.5	41.0	35.8	43.7	17.7	30.7	73	−11	16	22	21	76	53	65	.094	.122	.117	2.17	1.29	14.8	2.6	4.6	4.3	4.5				
December	24.62	24.97	24.13	12.4	28.6	22.1	32.2	5.7	19.0	44	−17	10	20	18	91	70	82	.077	.109	.101	.77	.31	11.9	4.3	5.2	5.0	5.6				
Year	24.62	25.01	24.12	36.2	58.7	57.8	62.6	33.4	48.0	101	−17	25	27	26	68	38	40	.154	.160	.152	8.66	1.29	41.3	3.0	4.3	4.5	4.3				

MONTGOMERY, ALA.

[ϕ=32° 23′ N.; λ=86° 18′ W.]

January	29.92	30.40	29.21	40.3	51.4	51.3	56.7	38.6	47.6	72	23	34	36	34	77	59	54	0.203	0.226	0.208	2.48	1.43	T.	4.6	5.2	5.2	5.4				
February	29.83	30.10	29.39	44.5	56.3	56.8	62.4	42.7	52.6	74	28	38	40	38	76	56	51	.238	.259	.242	3.35	1.41	0	5.8	4.5	3.0	4.4				
March	29.74	30.05	29.14	44.8	56.3	56.0	62.1	42.7	52.4	73	34	37	38	36	76	52	48	.235	.237	.216	2.88	.86	0	4.2	4.9	4.3	4.8				
April	29.83	30.09	29.27	55.9	68.6	67.5	73.8	53.0	63.4	85	42	48	47	47	76	49	50	.352	.344	.341	3.68	1.65	0	4.5	5.3	4.5	5.0				
May	29.73	29.99	29.50	63.8	75.3	73.5	79.9	60.2	70.0	90	50	55	54	54	74	50	54	.446	.435	.437	2.55	.88	0	4.1	5.0	4.6	4.6				
June	29.77	29.94	29.49	74.4	87.9	85.4	92.9	70.6	81.8	100	58	63	60	60	88	40	44	.594	.547	.537	1.61	.69	0	3.9	4.2	5.7	4.4				
July	29.74	29.93	29.53	76.6	87.4	83.6	92.0	73.8	82.9	98	70	71	69	70	84	55	66	.768	.715	.738	3.18	1.24	0	6.2	6.4	7.4	6.6				
August	29.82	30.00	29.54	72.7	85.0	80.9	88.9	70.4	79.6	96	63	68	65	67	84	52	66	.686	.635	.667	4.07	1.62	0	4.9	5.5	6.8	5.5				
September	29.80	30.14	29.61	72.9	86.9	83.4	91.5	70.4	81.0	100	54	65	63	63	78	45	51	.646	.589	.595	.63	.39	0	2.7	4.2	2.8	3.3				
October	29.87	30.18	29.51	61.0	76.3	73.1	80.3	59.7	70.0	89	44	54	53	53	78	46	51	.441	.430	.428	.88	.86	0	3.4	3.4	2.2	3.2				
November	29.95	30.16	29.69	53.4	69.8	66.4	73.6	51.7	62.6	80	38	48	47	46	81	47	52	.360	.357	.354	1.89	1.70	0	3.0	4.2	3.6	3.8				
December	29.89	30.20	29.36	52.7	66.2	59.1	65.0	50.0	57.5	81	39	49	50	49	87	72	73	.369	.393	.381	7.24	1.64	0	7.8	7.4	5.9	7.2				
Year	29.82	30.40	29.14	59.4	71.8	69.7	76.6	57.0	66.8	100	23	52	52	51	78	52	55	.446	.431	.429	34.44	1.70	T.	4.6	5.0	4.7	4.8				

MOORHEAD, MINN.

[ϕ=46° 52′ N.; λ=96° 44′ W.]

January	28.96	29.44	28.57	15.6	23.7	21.9	28.4	10.8	19.6	52	−15	14	18	19	91	76	87	0.083	0.093	0.104	0.07	0.03	0.9	4.5	7.5	7.2	7.4				
February	29.05	29.48	28.53	21.4	30.2	29.4	35.4	17.0	26.2	53	−12	19	22	23	91	71	76	.110	.122	.127	.30	.16	2.6	5.2	6.6	5.3	6.0				
March	29.11	29.62	28.67	21.4	32.5	31.8	36.9	18.5	27.7	48	2	18	19	21	86	58	63	.100	.105	.115	.81	.43	4.6	7.2	7.2	6.5	7.3				
April	29.00	29.48	28.50	34.9	53.6	51.9	57.9	31.2	44.6	82	16	25	26	27	68	38	43	.141	.147	.155	.46	.21	T.	4.8	5.9	5.9	5.4				
May	28.89	29.33	28.47	46.1	66.3	59.6	65.5	41.0	53.2	94	24	36	37	36	88	46	46	.217	.233	.219	1.96	.53	1.2	6.0	5.8	6.5	5.9				
June	28.85	29.27	28.52	62.9	75.3	76.1	80.1	57.8	69.0	102	37	54	56	57	74	54	54	.443	.477	.507	2.79	1.05	0	5.0	6.2	5.8	5.7				
July	28.87	29.19	28.48	64.3	79.4	79.5	84.6	60.4	72.5	105	50	56	54	56	76	45	48	.462	.440	.471	5.19	1.71	0	5.2	4.7	4.3	4.9				
August	28.96	29.27	28.53	59.5	74.6	74.2	79.1	56.2	67.6	102	36	53	54	53	81	50	50	.418	.432	.419	1.85	1.61	0	6.3	5.9	5.6	6.3				
September	28.86	29.30	28.36	54.7	73.2	70.6	77.4	52.4	64.9	101	31	48	49	50	81	46	51	.351	.354	.368	1.64	.75	0	4.8	3.6	3.9	4.0				
October	28.92	29.55	28.17	42.7	56.3	53.5	61.2	39.8	50.5	86	31	38	39	39	84	57	63	.234	.244	.261	2.34	.64	T.	5.8	5.9	5.5	5.7				
November	28.94	29.46	28.32	27.5	37.3	35.0	41.9	24.0	33.0	69	1	25	27	28	89	69	76	.136	.155	.158	1.57	.84	11.1	6.5	6.2	6.4	6.4				
December	29.00	29.54	28.50	19.4	23.4	22.7	28.5	14.0	21.2	40	−12	18	20	20	93	86	89	.105	.112	.115	.21	.17	3.0	5.0	7.6	7.0	7.3				
Year	28.95	29.62	28.17	39.2	51.6	50.5	56.4	35.3	45.8	105	−15	34	35	36	82	58	62	.233	.243	.251	19.18	1.71	24.4	5.5	6.1	5.8	6.0				

Annual meteorological summaries for the year ending December 31, 1931—Continued

MOBILE, ALA.

[H_b=57 ft.; h_b=125 ft.; h_r=119 ft.; h_a=161 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 36 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	7.4	N.	34	SW.	1	12	10	5	3	1	10	11	10	9	9	12	10	8	6	0	0	0	4	2	0	0	2	1	0
February	8.5	N.	29	N.	0	17	3	5	6	8	8	4	5	0	13	9	6	9	8	0	0	0	7	3	0	0	0	3	0
March	10.3	NW.	48	SE.	2	12	3	5	5	4	9	11	13	0	12	9	10	10	8	0	0	0	1	1	0	0	0	4	0
April	8.7	S.	30	NW.	0	15	5	3	3	16	8	5	5	0	14	7	9	6	4	0	0	0	1	0	0	0	0	1	0
May	8.2	SW.	33	NW.	1	10	1	5	4	7	13	6	15	1	10	12	9	9	9	0	0	0	0	0	0	0	0	6	0
June	6.7	SW.	25	W.	0	12	2	0	3	7	14	11	10	1	10	14	6	5	5	0	0	0	0	0	0	0	17	0	13
July	7.2	SW.	32	E.	0	6	6	8	6	7	14	9	6	0	5	15	11	16	13	0	0	0	0	0	0	0	19	0	16
August	6.5	N.	38	NW.	1	16	4	3	0	5	14	10	10	0	4	16	11	9	9	0	0	0	1	0	0	0	11	0	10
September	7.1	N.	25	N.	0	14	8	8	4	5	13	2	6	0	14	12	4	8	6	0	0	0	3	1	0	0	18	0	8
October	7.1	E.	22	SE.	0	17	11	11	6	3	8	1	5	0	16	11	4	7	5	0	0	0	2	0	0	0	0	2	0
November	7.2	N.	26	NW.	0	18	2	13	14	8	2	0	2	1	15	5	10	4	4	0	0	0	13	4	0	0	0	0	0
December	8.9	S.	30	W.	0	14	9	7	6	15	6	1	4	0	4	8	19	15	12	0	0	0	20	11	0	0	0	3	0
Year	7.8	N.	48	SE.	5	163	64	73	60	86	119	71	91	3	126	130	109	106	89	0	0	0	52	22	0	67	2	67	0

MODENA, UTAH

[H_b=5,473 ft.; h_t=10 ft.; h_r=2 ft.; h_a=43 ft.]

January	5.6	W.	22	NW.	0	6	12	7	4	2	3	26	2	0	14	9	8	5	5	8	5	0	8	0	7	0	31	0	0
February	6.0	E.	24	E.	0	4	9	18	7	0	6	11	1	0	4	9	15	8	5	12	7	0	11	5	1	0	26	0	0
March	9.1	W.	34	NW.	2	8	11	4	2	2	15	16	3	1	13	11	7	3	1	4	2	0	1	0	0	0	29	0	0
April	10.7	W.	51	SW.	6	1	5	5	4	6	13	22	2	2	9	13	8	4	4	1	0	1	0	0	0	0	12	2	0
May	9.9	W.	37	N.	3	2	6	7	2	1	18	22	4	0	16	11	4	5	2	0	0	0	1	0	0	0	3	2	0
June	12.1	SW.	47	SW.	4	2	0	0	0	8	25	21	4	0	14	12	4	3	2	0	0	0	0	0	1	0	3	3	0
July	9.1	W.	36	SW.	4	1	4	7	2	0	17	27	4	0	16	12	3	3	1	0	0	0	0	0	24	0	13	0	0
August	8.4	SW.	45	SW.	1	5	1	3	0	1	30	19	2	1	16	11	4	8	4	0	0	0	0	0	13	0	13	0	0
September	10.8	SW.	41	SW.	7	1	2	3	2	8	21	23	0	0	24	4	2	1	1	0	0	0	0	0	0	0	2	2	0
October	7.8	W.	35	NW.	2	3	4	6	1	2	23	22	1	0	14	10	7	5	5	0	0	1	0	0	0	0	8	2	0
November	7.1	W.	27	SW.	0	6	10	5	5	3	8	20	2	1	14	3	13	9	7	9	7	1	1	0	8	0	28	1	0
December	7.7	W.	32	NW.	0	7	7	3	0	1	13	29	2	0	10	7	14	12	5	14	12	0	1	0	12	0	30	0	0
Year	8.7	W.	51	SW.	29	46	71	68	29	34	192	258	27	5	164	112	89	66	42	48	33	4	22	5	28	38	169	38	0

MONTGOMERY, ALA.

[H_b=223 ft.; h_t=100 ft.; h_r=71 ft.; h_a=109 ft.]

January	5.0	NW.	22	NW.	0	9	9	7	6	4	4	12	7	4	10	9	12	8	7	1	0	0	2	1	0	0	6	0	0
February	5.4	N.	24	N.	0	11	10	3	12	5	2	8	4	1	14	5	9	8	8	0	0	0	0	0	0	0	2	3	0
March	7.0	NW.	27	W.	0	9	8	2	7	6	4	9	17	0	11	12	8	11	8	0	0	0	0	0	0	0	0	2	0
April	6.0	S.	20	N.	0	7	6	11	3	12	7	5	9	0	13	6	11	10	7	0	0	0	0	0	0	0	0	5	0
May	5.6	W.	27	SE.	0	5	5	8	6	6	14	8	9	1	12	12	7	9	7	0	0	1	0	0	0	1	0	8	0
June	5.0	SW.	27	N.	0	10	6	1	4	7	12	14	5	1	10	15	5	6	6	0	0	0	0	0	23	0	11	0	0
July	5.0	W.	23	NW.	0	3	4	3	8	12	7	19	6	0	4	14	13	8	7	0	0	0	1	0	22	0	16	0	0
August	4.7	SW.	30	N.	0	7	7	6	0	7	14	11	10	0	11	11	9	10	8	0	0	0	3	0	15	0	11	0	0
September	4.7	E.	24	E.	0	9	5	10	9	9	10	5	2	1	19	8	3	5	2	0	0	0	2	0	0	0	8	0	0
October	4.9	E.	20	E.	0	4	14	18	8	5	2	4	4	3	18	8	5	3	1	0	0	0	7	0	0	0	1	0	0
November	4.5	E.	17	S.	0	11	12	12	12	7	1	1	1	3	15	8	7	4	4	0	0	0	6	3	0	0	0	0	0
December	6.0	E.	27	SW.	0	9	11	13	12	8	2	1	5	1	5	7	19	17	16	0	0	0	7	1	0	0	0	6	0
Year	5.3	E.	30	N.	0	94	97	94	87	88	79	97	79	15	142	115	108	99	81	1	0	1	28	5	0	83	8	72	0

MOORHEAD, MINN.

[H_b=940 ft.; h_t=50 ft.; h_r=43 ft.; h_a=58 ft.]

January	7.5	S.	23	NW.	0	16	1	0	2	20	8	7	8	0	5	7	19	4	0	18	2	0	7	3	19	0	31	0	1
February	7.4	N.	22	NW.	0	15	2	2	5	14	5	4	9	0	8	8	12	3	2	10	3	0	8	4	8	0	28	0	2
March	9.0	N.	24	N.	0	24	5	1	9	9	0	6	8	0	4	8	19	7	2	11	4	0	2	1	7	0	29	0	0
April	9.6	N.	28	NW.	0	15	4	0	9	12	3	9	8	0	10	11	9	5	3	4	0	0	1	0	1	0	17	1	0
May	9.2	N.	33	NW.	1	21	4	3	4	12	2	5	11	0	11	7	13	9	7	3	2	1	0	0	1	2	7	5	0
June	7.1	S.	24	E.	0	12	6	6	9	17	2	5	3	0	7	14	9	12	9	0	0	0	1	1	0	6	0	11	0
July	7.1	S.	25	S.	0	14	6	4	5	14	4	5	10	0	10	14	7	14	11	0	0	0	1	0	0	8	0	10	0
August	7.2	S.	33	NW.	1	9	3	5	10	17	3	5	8	2	7	11	13	6	2	0	0	0	1	1	0	3	0	3	0
September	7.2	S.	30	SW.	0	6	2	8	9	13	7	4	10	1	14	11	5	11	6	0	0	1	1	0	0	5	1	1	1
October	6.3	S.	30	NW.	0	10	2	1	12	16	7	1	13	0	11	6	14	8	7	2	0	0	3	0	0	3	0	3	1
November	7.7	S.	28	NW.	0	7	1	3	7	14	8	10	11	0	7	8	15	7	6	11	7	0	6	4	7	0	21	0	1
December	7.0	S.	20	S.	0	6	5	1	6	22	12	5	5	0	5	8	18	4	1	7	4	0	15	4	18	0	31	0	0
Year	7.9	S.	33	NW.	2	155	41	36	87	180	61	66	104	3	99	113	153	90	56	66	23	3	45	16	61	24	168	32	6

Annual meteorological summaries for the year ending December 31, 1931—Continued

NANTUCKET, MASS.

[ϕ=41° 17′ N.; λ=70° 06′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean					Extremes			Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Maximum	Minimum	Monthly	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.90	30.33	28.82	30.9	35.4	32.4	39.0	26.0	33.0	53	14	26	26	26	82	69	76	0.149	0.150	0.147	3.23	1.21	5.9	6.2	6.2	2.6	5.9
February	29.93	30.41	29.54	31.4	35.8	33.3	38.8	27.7	33.2	49	10	27	28	28	84	74	79	.155	.160	.156	3.30	1.06	5.7	5.8	4.6	5.0	5.5
March	29.82	30.37	29.11	37.0	39.9	37.3	41.7	33.8	37.8	52	30	33	33	33	86	77	85	.189	.190	.191	6.30	2.26	12.3	6.4	6.2	6.6	7.1
April	29.98	30.44	29.31	46.2	50.2	44.8	53.1	41.0	47.0	65	36	38	38	40	76	66	82	.237	.233	.248	3.69	1.57	0	4.3	3.4	3.5	4.6
May	29.94	30.23	29.54	55.1	59.5	51.9	61.7	47.5	54.6	81	39	49	50	48	80	72	88	.352	.369	.348	4.24	1.41	0	3.7	4.5	5.2	5.2
June	29.91	30.23	29.65	62.4	65.5	59.4	67.7	56.2	62.0	83	51	56	56	55	81	74	83	.454	.459	.440	6.55	2.88	0	5.7	5.3	4.4	5.4
July	29.92	30.12	29.61	69.0	73.3	66.6	75.4	63.5	69.4	89	54	65	65	64	88	78	93	.622	.612	.610	5.88	2.98	0	4.0	5.2	3.9	5.5
August	30.00	30.39	29.63	70.1	74.6	67.5	77.0	64.3	70.6	85	60	65	64	64	85	72	89	.626	.607	.603	3.49	1.21	0	4.6	5.0	4.9	5.5
September	29.97	30.47	29.51	65.1	69.2	63.5	71.6	59.6	65.6	88	52	59	58	58	81	70	83	.512	.512	.497	2.84	1.71	0	4.8	4.5	3.9	5.1
October	29.99	30.40	29.33	56.9	61.9	56.5	63.7	51.7	57.7	70	42	50	49	50	78	65	81	.376	.373	.380	5.57	4.10	0	3.6	4.4	3.5	5.1
November	30.16	30.57	29.65	48.7	52.8	48.8	54.8	43.8	49.3	66	34	42	42	41	79	69	78	.286	.288	.278	1.68	.59	0	4.1	4.5	4.6	6.1
December	30.02	30.60	29.49	37.7	41.7	40.6	45.5	33.3	39.4	55	19	30	31	32	73	66	72	.180	.188	.200	4.05	1.76	T.	5.8	6.7	5.1	7.4
Year	29.96	30.60	28.82	50.9	55.0	50.2	57.6	45.7	51.6	89	10	45	45	45	81	71	82	.345	.345	.341	50.82	4.10	23.9	4.9	5.0	4.4	5.7

NASHVILLE, TENN.

[ϕ=36° 10′ N.; λ=86° 47′ W.]

January	29.57	30.09	28.74	35.0	44.8	44.5	49.3	32.3	40.8	69	14	30	30	31	80	56	60	0.166	0.170	0.177	1.31	0.53	0.7	4.6	4.7	4.5	4.9
February	29.51	29.82	29.12	38.3	48.0	48.7	52.9	35.7	44.3	67	22	33	34	36	81	60	62	.195	.208	.219	5.05	1.56	T.	4.8	6.4	5.1	5.8
March	29.40	29.77	28.77	39.2	47.5	47.4	52.1	36.4	44.2	67	27	33	32	33	79	56	58	.194	.184	.189	3.49	1.01	1.2	5.7	5.8	6.2	6.1
April	29.50	29.81	28.89	52.2	63.9	63.2	68.5	48.4	58.4	84	38	43	42	43	73	48	51	.291	.280	.291	2.44	1.62	0	3.6	5.5	4.9	4.9
May	29.40	29.73	29.07	59.2	69.1	63.2	74.3	55.3	64.8	91	42	51	52	52	75	56	55	.396	.397	.394	1.92	.49	0	4.5	5.8	5.2	5.5
June	29.46	29.65	29.12	71.0	85.6	82.0	89.4	66.0	77.7	100	51	62	60	61	74	44	51	.573	.549	.560	2.31	.92	0	3.8	4.1	4.4	4.2
July	29.49	29.60	29.15	75.9	86.5	84.0	91.1	72.2	81.6	97	64	69	68	68	79	55	61	.708	.682	.694	2.47	1.60	0	4.3	5.8	5.6	5.8
August	29.49	29.76	29.24	76.4	81.2	79.2	85.6	67.3	76.4	96	57	66	65	65	85	59	63	.639	.627	.624	3.94	1.49	0	4.3	6.6	5.8	5.7
September	29.49	29.84	29.19	68.9	84.6	81.4	88.4	66.1	77.2	98	46	63	64	64	83	50	56	.597	.600	.606	1.54	.77	0	2.9	4.4	3.5	3.6
October	29.54	29.92	29.14	56.1	72.6	69.8	76.7	53.6	65.2	89	39	49	52	50	80	50	52	.374	.415	.399	1.86	1.17	T.	3.0	4.6	2.6	4.2
November	29.61	29.87	29.20	51.0	63.4	60.5	67.5	48.2	57.8	79	32	45	47	47	80	59	64	.315	.351	.346	3.75	1.37	0	4.5	4.8	4.2	4.9
December	29.57	29.99	29.00	46.7	51.7	52.3	56.8	43.5	50.2	69	30	43	44	45	88	78	76	.301	.316	.320	6.33	1.82	0	7.4	7.4	6.5	7.6
Year	29.50	30.09	28.74	55.3	66.6	65.2	71.0	52.1	61.6	100	14	49	49	50	80	56	59	.395	.398	.402	36.41	1.82	L.9	4.4	5.5	4.8	5.2

NEW HAVEN, CONN.

[ϕ=41° 18′ N.; λ=72° 56′ W.]

January	29.86	30.29	28.81	26.4	33.1	31.1	36.6	22.8	29.7	48	7	20	21	21	75	60	66	0.111	0.119	0.121	3.17	1.11	2.5	4.9	4.1	2.9	4.1
February	29.89	30.38	29.57	27.4	34.6	32.6	38.4	23.5	31.0	50	9	21	23	23	75	64	66	.119	.129	.124	2.04	.90	5.0	5.1	5.0	3.6	4.5
March	29.77	30.27	29.09	35.5	42.3	40.1	45.0	33.0	39.0	56	26	29	31	31	76	65	70	.157	.174	.175	5.27	2.05	6.3	7.0	6.7	5.5	6.3
April	29.90	30.38	29.14	46.0	54.1	50.4	57.6	40.8	49.2	71	32	38	45	41	74	71	72	.232	.302	.263	3.98	1.53	0	4.3	4.4	5.0	4.5
May	29.83	30.15	29.45	56.6	63.9	59.3	68.4	50.3	59.4	93	38	49	54	51	77	73	77	.353	.442	.393	5.90	1.66	0	6.5	5.4	6.5	5.8
June	29.83	30.14	29.43	66.2	73.4	69.5	77.2	60.1	68.7	96	53	57	59	59	74	64	71	.475	.507	.503	5.33	2.13	0	5.4	5.6	6.0	5.5
July	29.81	30.06	29.40	72.5	77.6	74.7	81.9	67.4	74.6	95	61	65	65	66	78	67	76	.619	.633	.646	3.99	1.85	0	6.2	5.7	6.5	5.5
August	29.90	30.27	29.54	69.7	77.7	73.1	81.0	64.7	72.8	96	55	62	62	64	77	60	75	.562	.560	.606	3.31	2.20	0	5.7	5.7	6.2	5.8
September	29.89	30.39	29.53	65.5	74.1	69.7	77.9	60.5	69.2	95	45	58	57	60	78	57	73	.508	.492	.548	4.60	2.07	0	4.8	4.3	4.8	4.5
October	29.92	30.34	29.26	52.9	64.1	59.0	67.5	48.7	58.1	83	38	46	47	48	78	56	69	.329	.342	.355	2.23	.92	0	4.3	4.0	3.6	3.8
November	30.07	30.46	29.57	45.2	52.3	49.4	55.6	41.2	48.4	73	23	38	40	40	79	66	73	.251	.264	.272	.85	.27	1.8	5.8	5.5	4.9	5.9
December	29.96	30.54	29.48	34.5	40.7	39.3	45.5	29.8	37.6	58	17	26	27	28	70	59	63	.152	.160	.166	3.54	1.11	T.	5.9	6.2	3.9	6.6
Year	29.89	30.54	28.81	49.9	57.3	54.0	61.1	45.2	53.1	96	7	42	44	44	76	64	71	.322	.344	.348	44.21	2.20	16.6	5.5	5.2	4.9	5.2

NEW ORLEANS, LA.

[ϕ=29° 57′ N.; λ=90° 04′ W.]

January	30.11	30.59	29.52	47.7	56.0	54.9	59.2	45.8	52.5	72	30	41	42	42	78	61	64	0.263	0.278	0.280	4.65	3.07	0	5.5	5.5	4.9	5.7
February	30.00	30.25	29.62	53.0	63.4	61.6	67.1	50.9	59.0	78	37	48	47	49	82	56	66	.341	.335	.365	3.79	1.45	0	4.4	4.1	4.1	4.2
March	29.95	30.23	29.50	51.8	60.8	59.8	65.2	49.8	57.5	77	40	46	44	47	82	57	64	.325	.315	.337	4.83	1.53	0	5.4	4.7	4.4	5.1
April	30.02	30.28	29.74	60.3	70.9	68.2	74.3	57.7	66.0	85	43	55	53	54	83	58	62	.446	.423	.430	3.89	1.67	0	4.6	5.0	5.2	5.0
May	29.92	30.21	29.72	68.7	77.3	75.3	81.5	65.2	73.4	90	58	63	60	66	82	58	73	.579	.543	.639	2.48	1.29	0	3.4	5.4	4.4	4.3
June	29.96	30.13	29.77	76.9	86.0	83.2	89.4	73.2	81.3	95	68	69	66	69	78	52	62	.723	.653	.707	2.56	1.58	0	4.1	5.3	5.1	4.7
July	29.91	30.10	29.68	80.3	88.6	85.0	91.5	77.0	84.2	98	70	74	73	74	83	60	69	.852	.805	.853	7.77	5.49	0	4.9	5.8	6.1	5.6
August	30.01	30.20	29.84	77.2	85.5	81.2	88.0	74.5	81.2	94	69	71	70	70	82	62	71	.766	.751	.748	5.28	2.44	0	5.4	5.9	6.6	5.2
September	29.96	30.23	29.79	77.1	87.2	82.6	89.6	75.0	82.3	96	62	72	73	72	84	64	71	.804	.823	.797	2.09	.68	0	2.3	4.8	2.9	4.0
October	30.01	30.25	29.74	69.9	79.2	74.6	81.2	69.2	75.2	88	52	64	64	64	84	60	72	.634	.612	.629	5.36	2.80	0	4.8	4.5	3.8	4.2
November	30.08	30.32	29.81	62.9	73.6	68.8	76.2	61.0	68.6	82	50	58	57	61	87	59	77	.520	.504	.557	2.87	1.03	0	4.4	4.8	4.4	4.7
December	30.02	30.34	29.56	59.0	66.8	63.5	70.1	56.0	63.0	84	46	56	56	56	89	71	79	.461	.482	.479	8.63	2.47	0	6.2	7.1	6.3	6.9
Year	30.00	30.59	29.50	65.4	74.6	71.6	77.8	62.9	70.4	98	30	60	59	60	83	60	69	.560	.542	.568	53.67	5.49	0	4.6	5.2	4.8	5.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

NANTUCKET, MASS.

[H_b=12 ft.; h_t=14 ft.; h_r=4 ft.; h_a=90 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	14.1	W.	42	NE.	5	3	3	3	1	3	10	23	16	0	9	7	15	10	10	6	5	0	9	3	4	0	28	0	0
February	13.8	NW.	37	NE.	2	11	4	4	1	7	6	9	14	0	13	5	10	10	8	9	5	0	7	4	2	0	25	1	0
March	17.8	NE.	59	NE.	8	10	17	8	1	9	6	11	9	0	7	8	16	13	9	9	4	0	2	1	0	0	9	1	0
April	16.4	SW.	49	NE.	8	8	8	2	4	7	22	6	3	0	15	7	8	11	7	0	0	0	5	3	0	0	0	2	0
May	13.9	SW.	36	NE.	2	6	4	4	8	10	23	5	2	0	8	14	9	15	12	0	0	0	14	14	0	0	0	4	0
June	13.0	N.	36	NE.	2	15	8	2	6	7	13	5	4	0	11	9	10	10	9	0	0	0	10	9	0	0	0	3	0
July	12.2	SW.	30	SW.	0	2	7	2	9	13	19	7	3	0	9	10	12	10	6	0	0	0	17	16	0	0	0	3	0
August	11.8	SW.	48	NE.	1	5	12	1	6	10	18	4	6	0	9	10	12	9	8	0	0	0	15	10	0	0	0	4	0
September	14.5	SW.	36	NE.	1	9	7	5	1	10	17	5	6	0	14	7	9	8	7	0	0	0	12	4	0	0	0	4	0
October	13.5	SW.	36	SW.	2	4	5	1	5	11	12	11	13	0	12	8	11	9	7	0	0	0	8	3	0	0	0	3	1
November	13.0	SW.	36	SW.	1	4	4	2	4	5	18	10	13	0	9	8	13	10	6	0	0	0	10	6	0	0	0	0	0
December	15.0	NW.	40	SW.	6	9	2	0	4	3	9	19	16	0	6	4	21	12	8	3	0	0	6	5	1	0	15	2	0
Year	14.1	SW.	59	NE.	37	86	81	34	50	86	173	115	105	0	122	97	146	127	97	27	14	0	115	78	7	0	77	27	1

NASHVILLE, TENN.

[H_b=546 ft.; h_t=168 ft.; h_r=161 ft.; h_a=191 ft.]

January	7.3	NW.	33	NW.	1	5	3	6	4	10	9	14	11	0	14	5	12	9	7	4	1	0	3	0	0	0	13	0	0
February	7.4	NW.	26	NW.	0	10	6	6	1	11	4	6	12	0	11	2	15	10	9	2	0	0	1	1	0	0	10	1	0
March	10.3	NW.	32	W.	0	6	7	8	5	4	3	14	15	0	8	8	15	12	9	5	2	0	0	0	0	0	8	1	0
April	8.2	NW.	28	NW.	0	7	7	2	5	13	7	4	15	0	13	7	10	9	4	0	0	0	1	0	0	0	0	5	0
May	8.5	NW.	36	NW.	2	8	7	4	2	14	8	8	11	0	8	14	9	11	9	0	0	0	1	2	0	0	2	3	0
June	6.2	NW.	48	N.	2	7	12	6	5	4	8	10	8	0	12	14	4	7	6	0	0	0	0	0	0	0	17	0	0
July	5.5	W.	27	E.	0	6	4	1	3	6	8	16	17	1	6	16	9	10	6	0	0	0	0	0	0	0	21	0	0
August	6.0	W.	26	NW.	0	5	5	8	1	1	8	20	13	1	9	12	10	11	8	0	0	0	0	0	0	0	6	0	0
September	6.3	NE.	28	NW.	0	5	13	4	3	10	12	5	8	0	13	13	4	6	4	0	0	0	0	0	0	0	18	0	0
October	6.6	S.	28	NW.	0	3	11	7	4	13	6	11	6	1	15	9	7	7	6	1	0	0	2	3	0	0	0	0	0
November	7.5	S.	46	SE.	1	4	6	4	11	19	4	6	6	0	14	5	11	10	7	0	0	0	2	0	0	0	1	0	0
December	8.0	S.	36	W.	1	7	9	11	7	11	6	7	4	0	5	5	21	14	12	0	0	0	7	3	0	0	5	1	0
Year	7.3	NW.	48	N.	7	73	90	67	51	116	83	121	126	3	128	110	127	116	87	12	3	1	16	9	0	64	37	50	0

NEW HAVEN, CONN.

[H_b=106 ft.; h_t=74 ft.; h_r=68 ft.; h_a=153 ft.]

January	7.7	NW.	28	NW.	0	12	5	1	0	3	16	9	15	1	16	10	5	7	7	8	3	0	6	0	6	0	30	0	0
February	9.4	NW.	28	NE.	0	20	5	0	2	4	5	1	19	0	14	6	8	9	9	9	5	0	8	0	6	0	25	0	0
March	10.0	N.	31	N.	0	21	4	12	0	5	3	1	16	0	7	11	13	12	10	8	3	0	7	0	6	0	12	0	0
April	10.2	S.	34	NE.	1	8	11	0	7	10	8	3	13	0	13	9	8	12	8	0	0	0	2	0	0	0	0	1	0
May	7.6	S.	28	SW.	0	0	2	8	10	12	10	4	7	0	9	11	11	16	12	0	0	0	10	1	0	0	2	8	0
June	8.0	N.	24	NW.	0	15	5	2	6	11	6	3	12	0	10	10	10	11	9	0	0	0	4	1	0	0	2	4	0
July	6.5	S.	31	NW.	0	6	8	6	11	14	7	3	9	0	10	13	8	13	8	0	0	1	13	1	0	0	4	9	0
August	6.7	N.	22	SW.	0	16	9	1	3	12	11	3	7	0	9	12	10	10	7	0	0	0	5	1	0	0	3	9	0
September	7.6	S.	24	S.	0	11	4	3	4	9	14	5	9	1	14	8	8	9	8	0	0	0	11	1	0	0	3	5	0
October	6.7	SW.	27	NW.	0	13	2	0	2	6	14	11	13	1	15	11	5	8	7	0	0	0	20	4	0	0	0	2	0
November	6.8	N.	26	SW.	0	13	5	1	3	6	14	8	8	2	9	9	12	8	5	2	1	0	18	9	0	0	5	0	0
December	8.0	NW.	30	NW.	0	14	3	0	3	1	18	9	13	1	10	9	12	10	8	5	1	0	11	4	1	0	18	1	0
Year	7.9	N.	34	NE.	1	158	61	34	51	93	126	60	141	6	136	119	110	125	98	32	13	1	113	22	13	14	90	37	0

NEW ORLEANS, LA.

[H_b=53 ft.; h_t=76 ft.; h_r=71 ft.; h_a=84 ft.]

January	5.4	NE.	24	SW.	0	7	21	6	6	3	3	11	5	0	10	7	14	6	4	0	0	0	5	4	0	0	1	0	0
February	6.1	NE.	18	N.	0	5	13	10	10	1	6	6	5	0	13	7	8	7	6	0	0	0	1	1	0	0	0	2	0
March	6.6	W.	22	E.	0	3	5	6	7	7	9	14	11	0	13	7	11	10	8	0	0	0	1	1	0	0	0	4	0
April	5.7	SE.	18	NE.	0	4	11	8	11	6	10	4	4	2	13	6	11	6	6	0	0	0	1	1	0	0	0	3	0
May	4.9	SW.	17	NW.	0	3	9	4	10	10	9	6	10	1	11	15	15	9	6	0	0	0	1	1	0	0	1	8	0
June	4.4	SE.	30	SE.	0	2	9	6	13	7	5	13	4	1	9	17	4	10	7	0	0	0	0	0	0	0	14	15	0
July	5.3	SW.	28	SE.	0	0	7	7	15	6	17	8	2	0	6	20	5	12	8	0	0	0	0	0	0	0	25	13	0
August	4.6	SE.	17	NE.	0	1	11	9	13	6	6	7	7	2	6	19	6	13	10	0	0	0	1	1	0	0	10	12	0
September	5.1	SE.	20	E.	0	3	15	9	15	4	0	5	1	1	17	6	8	9	7	0	0	0	4	1	0	0	0	3	0
October	5.3	E.	17	E.	0	9	6	13	17	15	4	11	2	0	14	6	10	8	8	0	0	0	14	3	0	0	0	5	0
November	5.3	SE.	24	NW.	0	9	8	8	18	16	5	2	2	0	6	8	17	16	15	0	0	0	15	10	0	0	0	2	0
December	6.1	NE.	22	E.	0	5	18	7	14	4	5	6	3	0	6	8	17	16	15	0	0	0	15	10	0	0	0	2	0
Year	5.4	SE.	30	SE.	0	47	140	107	145	66	73	87	58	7	130	132	103	114	91	0	0	0	44	23	0	69	1	67	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

NEW YORK, N. Y.

[ϕ=40° 43′ N.; λ=74° 00′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.65	30.08	28.62	30.2	34.7	34.0	40.5	25.9	33.2	55	11	21	23	22	68	60	60	0.122	0.127	0.124	2.43	0.92	0.7	5.7	6.2	3.5	5.3
February	29.67	30.13	29.27	30.0	36.6	35.1	42.1	26.1	34.1	55	12	21	22	23	68	57	61	.118	.124	.126	2.44	1.00	3.8	5.7	5.2	4.8	5.5
March	29.55	30.02	28.82	36.9	42.9	40.4	46.7	34.3	40.5	60	29	28	28	30	69	57	68	.154	.157	.172	4.74	1.83	1.0	7.1	7.9	6.8	7.6
April	29.68	30.18	28.87	46.7	54.2	51.4	58.3	42.6	50.4	89	34	34	35	37	64	52	61	.205	.213	.225	3.30	1.40	T.	5.2	5.6	4.4	5.7
May	29.60	29.94	29.29	57.4	64.6	60.8	68.3	52.5	60.4	89	40	48	47	49	71	58	70	.345	.341	.364	3.93	.93	0	6.4	5.7	6.0	5.9
June	29.62	29.89	29.15	66.0	73.0	70.9	77.0	61.7	69.4	93	54	55	55	57	70	56	65	.446	.442	.472	4.00	1.29	0	6.0	5.5	4.7	5.9
July	29.58	29.82	29.20	73.2	80.1	76.0	83.2	69.8	76.5	94	63	65	65	65	77	62	71	.626	.632	.626	4.55	1.56	0	5.8	5.9	5.4	6.5
August	29.68	30.03	29.29	71.0	78.0	74.3	81.1	67.6	74.4	93	61	62	62	63	75	60	71	.569	.556	.591	3.26	1.58	0	6.5	5.5	6.2	6.4
September	29.67	30.16	29.33	67.0	74.3	71.6	78.6	63.7	71.2	95	48	59	58	60	77	60	67	.523	.512	.530	1.15	.45	0	3.8	3.6	4.0	4.3
October	29.70	30.11	29.05	55.2	64.8	61.1	68.3	52.5	60.4	85	41	48	47	47	77	56	63	.355	.352	.350	2.87	1.07	0	4.9	4.5	2.5	5.1
November	29.85	30.24	29.33	48.3	54.3	51.9	57.8	45.2	51.5	72	30	41	42	41	77	67	69	.276	.296	.280	.61	.24	1.2	5.9	6.0	4.7	6.4
December	29.74	30.30	29.29	38.0	42.9	41.5	47.8	33.3	40.6	66	19	29	31	30	70	63	63	.171	.187	.179	2.22	.72	T.	6.4	5.4	6.0	6.5
Year	29.67	30.30	28.62	51.7	58.4	55.7	62.5	47.9	55.2	95	11	43	43	44	72	59	66	.326	.328	.337	35.50	1.83	6.7	5.8	5.6	4.9	5.9

NORFOLK, VA.

[ϕ=36° 51′ N.; λ=76° 17′ W.]

January	29.97	30.44	29.01	37.4	45.0	42.8	50.5	34.4	42.4	67	20	30	30	30	72	56	62	0.170	0.170	0.179	1.57	1.29	2.5	5.1	4.1	3.2	4.7
February	29.97	30.29	29.51	37.8	45.7	44.1	52.1	35.5	43.8	69	24	30	30	31	74	55	61	.174	.172	.179	1.70	.67	T.	4.8	5.0	3.7	5.1
March	29.82	30.27	29.21	40.5	46.6	44.1	50.9	37.5	44.2	63	28	34	31	34	77	57	68	.202	.181	.199	2.74	.91	T.	6.2	7.4	6.4	6.9
April	29.95	30.40	29.07	52.2	61.3	55.0	65.7	46.3	56.0	82	36	42	40	43	70	48	66	.283	.257	.281	3.24	1.22	0	4.4	4.0	4.1	4.9
May	29.87	30.21	29.51	62.5	70.4	65.6	74.8	57.1	66.0	88	46	54	53	54	76	57	69	.434	.416	.432	4.62	1.40	0	4.9	5.5	5.4	5.4
June	29.90	30.17	29.46	69.9	78.7	73.9	82.8	64.8	73.8	92	58	62	59	62	76	54	68	.557	.524	.563	5.13	3.07	0	5.1	4.0	5.2	4.5
July	29.85	30.06	29.60	76.8	85.6	79.3	89.2	72.1	80.6	96	68	70	69	70	80	59	70	.738	.718	.748	4.56	1.98	0	5.9	5.6	6.7	5.4
August	29.93	30.28	29.53	73.6	82.1	77.0	85.9	69.6	77.8	97	61	68	67	69	82	62	76	.685	.667	.708	4.25	1.39	0	5.5	5.6	6.0	5.7
September	29.96	30.40	29.58	71.7	80.9	75.3	84.8	68.0	76.4	96	57	64	63	65	77	55	71	.603	.587	.632	1.45	.77	0	3.4	3.4	3.4	3.5
October	30.01	30.40	29.50	59.6	70.2	65.2	73.7	56.6	65.2	88	47	52	50	52	78	49	65	.397	.374	.419	.74	.53	0	3.6	4.0	2.8	3.7
November	30.14	30.49	29.75	52.6	63.8	58.0	67.0	51.1	59.0	78	39	46	46	48	81	55	73	.336	.335	.364	.29	.27	0	3.5	3.9	3.2	4.1
December	30.07	30.55	29.70	47.4	55.5	52.3	59.7	44.1	51.9	76	30	41	41	41	78	61	66	.274	.291	.281	1.71	.84	0	5.8	5.8	5.7	6.0
Year	29.95	30.55	29.01	56.8	65.5	61.0	69.8	53.1	61.4	97	20	49	48	50	77	56	68	.404	.391	.415	32.00	3.07	2.5	4.8	4.9	4.6	5.0

NORTHFIELD, VT.

[ϕ=44° 10′ N.; λ=72° 41′ W.]

January	28.98	29.44	28.05	10.6	20.7	15.6	26.3	1.8	14.0	44	−24	8	12	11	88	69	81	0.069	0.080	0.078	1.91	0.80	23.2	7.1	6.7	6.4	6.2
February	29.04	29.57	28.70	13.0	24.1	20.0	30.0	5.4	17.7	43	−22	10	16	15	89	70	81	.077	.095	.094	.64	.25	5.5	6.8	6.7	6.2	6.2
March	28.97	29.47	28.33	26.0	36.3	31.5	39.8	20.8	30.3	53	−1	23	28	27	86	70	82	.121	.150	.144	1.90	.78	19.6	7.3	6.9	6.7	6.7
April	29.03	29.53	28.23	39.8	50.2	44.1	54.3	30.2	42.2	79	20	34	40	37	80	70	77	.199	.256	.227	2.27	.81	1.3	5.5	5.5	5.8	5.4
May	28.99	29.31	28.57	52.4	62.2	55.3	65.9	41.4	53.6	87	26	47	53	50	83	75	82	.336	.425	.365	3.46	1.86	0	6.2	7.0	6.3	6.4
June	29.04	29.35	28.57	60.8	69.7	63.1	73.3	47.9	60.6	90	38	56	60	58	84	73	84	.453	.537	.489	4.00	1.73	0	5.7	5.9	5.4	5.3
July	28.98	29.20	28.62	67.8	77.3	69.1	80.5	57.4	69.0	94	49	62	61	63	82	59	81	.549	.549	.577	5.09	2.31	0	6.3	5.8	6.5	6.0
August							74.9	50.4	62.6	91	40				85	60	88				2.01	.54	0				
September							70.4	48.6	59.5	92	29				86	62	85				3.81	.81	0				6.7
October	29.06	29.47	28.34	44.8	56.3	46.8	60.0	36.9	48.4	80	23	40	40	41	83	58	81	.257	.266	.270	2.28	.46	0	5.9	6.0	4.8	5.9
November	29.18	29.60	28.61	37.3	44.3	41.7	49.9	31.3	40.6	71	10	32	32	34	83	64	75	.194	.196	.207	1.20	.58	.2	8.0	7.7	7.0	7.9
December	29.08	29.58	28.59	21.2	28.1	24.7	34.5	13.5	24.0	52	−5	17	19	19	84	68	79	.104	.112	.112	2.01	.62	7.0	7.5	7.1	6.2	7.2
Year							55.0	32.1	43.5	94	−24				84	66	81				30.58	2.31	56.8				

NORTH HEAD, WASH.

[ϕ=46° 18′ N.; λ=124° 04′ W.]

January	29.77	30.25	29.19	45.9	48.7	48.8	51.7	43.4	47.6	67	38	42	43	43	87	82	82	0.271	0.282	0.281	7.95	1.29	0	6.9	7.7	8.2	8.1
February	29.82	30.28	29.36	44.3	48.0	48.6	50.8	42.2	46.5	59	37	38	40	39	80	76	72	.232	.250	.242	4.95	1.47	0	6.5	7.7	7.4	6.9
March	29.88	30.32	29.34	46.1	49.1	49.1	51.6	43.0	47.3	62	36	41	43	43	85	82	82	.266	.283	.288	9.11	2.05	T.	7.3	7.7	7.2	6.8
April	29.85	30.27	29.49	48.0	53.7	53.4	56.4	45.9	51.2	72	39	41	42	43	79	69	71	.260	.278	.281	3.21	1.03	0	6.1	5.4	4.4	4.8
May	29.88	30.37	29.48	50.9	55.3	55.0	57.5	49.2	53.4	85	45	47	48	48	87	79	78	.322	.338	.334	1.32	.45	0	6.4	5.8	5.1	5.2
June	29.80	30.04	29.52	53.0	57.9	57.3	59.5	52.0	55.8	66	48	51	54	53	93	87	86	.372	.419	.408	6.02	2.00	0	8.2	6.4	7.1	7.3
July	29.83	30.20	29.52	55.7	60.2	59.4	62.4	53.8	58.1	85	47	52	54	54	89	82	81	.389	.421	.409	.09	.06	0	6.4	4.1	4.6	5.6
August	29.90	30.05	29.64	54.5	58.3	58.6	61.0	52.4	56.7	77	47	53	55	55	95	88	87	.399	.427	.429	.22	.19	0	5.8	5.5	4.4	6.1
September	29.80	30.05	29.43	55.3	59.2	58.8	60.7	53.4	57.0	70	49	52	54	54	91	85	85	.397	.427	.422	5.15	2.89	0	6.0	6.3	5.9	6.2
October	29.82	30.12	29.06	51.0	54.3	54.0	57.3	48.3	52.8	76	43	48	50	50	90	85	88	.339	.356	.361	5.09	1.30	0	4.1	5.7	4.7	6.9
November	29.82	30.18	29.19	44.0	47.8	48.5	50.0	40.4	45.2	66	33	39	39	39	84	75	78	.252	.250	.248	7.04	1.51	0	5.9	6.3	6.5	6.9
December	29.61	30.18	28.96	41.9	43.6	43.0	46.0	38.5	42.2	50	34	38	39	39	87	85	86	.232	.242	.241	11.91	1.98	T.	8.2	8.3	8.6	8.9
Year	29.82	30.37	28.96	49.2	53.0	52.7	55.4	46.9	51.2	85	33	45	47	47	87	81	81	.311	.331	.328	62.66	2.89	T.	6.5	6.4	6.2	6.6

Annual meteorological summaries for the year ending December 31, 1931—Continued

NEW YORK, N. Y.

[H_b=314 ft.; h_f=414 ft.; h_r=407 ft.; h_a=454 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: Number of winds, 8 a. m. and 8 p. m.: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	15.8	NW.	51	NW.	10	8	0	4	0	3	8	12	27	0	9	14	8	6	3	6	3	0	8	1	2	0	22	0	0
February	16.1	NW.	45	NW.	10	15	8	4	0	3	4	7	15	0	9	9	10	10	3	10	6	0	7	0	2	0	23	0	0
March	15.6	NW.	51	NW.	10	13	9	12	2	4	2	2	18	0	4	8	19	11	9	10	3	0	11	0	0	0	11	1	0
April	16.1	N.	54	NW.	8	11	6	3	5	9	9	4	13	0	10	8	12	10	7	1	0	0	8	1	0	0	0	1	0
May	12.3	S.	42	W.	6	7	5	4	14	12	6	8	6	0	8	12	11	13	12	0	0	1	17	4	0	0	0	4	0
June	12.2	N.	42	NW.	4	21	2	4	10	6	8	3	6	0	9	10	11	11	9	0	0	0	9	0	0	2	0	5	0
July	9.9	SW.	48	NW.	1	7	5	5	8	9	8	11	9	0	4	16	11	14	12	0	0	1	15	0	0	3	0	8	0
August	9.2	NE.	40	NW.	2	8	17	3	3	9	4	12	6	0	7	9	15	13	10	0	0	1	14	0	0	4	0	9	0
September	12.7	N.	46	NW.	5	12	5	5	5	9	9	8	7	0	14	9	7	6	4	0	0	0	10	1	0	2	0	5	0
October	12.7	NW.	50	NW.	7	9	4	1	2	8	11	12	15	0	11	12	8	11	5	0	0	2	14	3	0	0	0	6	0
November	12.8	NW.	45	NW.	5	4	4	4	5	6	14	10	13	0	8	9	13	5	4	2	1	0	14	3	0	0	2	0	0
December	16.0	NW.	58	NW.	10	10	3	4	2	4	8	10	21	0	7	9	15	9	7	3	0	1	10	4	0	0	16	1	0
Year	13.4	NW.	58	NW.	78	125	68	53	56	82	91	99	156	0	100	125	140	119	89	32	13	6	137	17	4	11	74	40	0

NORFOLK, VA.

[H_b=91 ft.; h_f=170 ft.; h_r=178 ft.; h_a=205 ft.]

January	11.1	NW.	36	NW.	2	13	7	4	3	13	6	10	6	0	15	3	13	5	4	2	1	0	3	1	1	0	11	0	0
February	10.7	N.	36	SW.	1	14	9	5	7	9	7	1	4	0	10	7	11	8	7	1	0	0	11	1	0	0	6	1	0
March	13.5	N.	35	N.	4	14	10	7	4	6	1	9	11	0	5	8	18	13	9	3	3	0	1	0	0	0	3	2	0
April	12.9	S.	52	W.	5	3	6	9	13	11	7	8	3	0	13	6	11	8	8	0	0	1	0	0	0	0	0	4	0
May	10.7	S.	34	NW.	1	3	3	14	7	15	9	5	6	0	9	13	9	15	13	0	0	1	6	1	0	0	0	8	0
June	9.5	S.	43	W.	3	7	6	7	7	16	7	6	4	0	13	10	7	8	7	0	0	1	4	0	0	4	0	6	0
July	8.8	S.	38	NE.	2	4	2	6	10	17	9	11	3	0	10	11	10	11	8	0	0	0	0	0	0	14	0	10	0
August	8.8	SW.	68	NW.	2	3	6	5	3	15	15	8	7	0	11	10	10	14	9	0	0	1	2	0	0	8	0	8	0
September	10.1	SW.	42	NW.	2	10	9	4	4	17	9	7	0	0	17	9	4	6	4	0	0	1	0	0	0	7	0	4	0
October	9.5	S.	29	NW.	0	9	8	2	3	14	9	13	4	0	17	10	4	3	2	0	0	0	4	2	0	0	0	0	0
November	9.2	S.	24	NW.	0	6	10	3	8	16	9	5	3	0	15	7	8	3	2	0	0	0	16	8	0	0	0	0	0
December	11.5	W.	36	NW.	2	9	7	6	2	13	8	12	5	0	7	12	12	9	7	0	0	0	5	1	0	0	2	1	0
Year	10.5	S.	68	NW.	24	95	83	72	71	162	96	95	56	0	142	106	117	103	80	6	4	5	52	14	1	33	22	44	0

NORTHFIELD, VT.

[H_b=876 ft., h_f=12 ft.; h_r=3 ft.; h_a=60 ft.]

January	5.1	N.	23	NW.	0	17	8	0	0	16	15	2	4	0	6	14	11	10	6	17	10	0	0	0	22	0	30	0	0
February	5.7	N.	25	S.	0	20	3	0	1	22	4	1	5	0	6	11	11	9	6	17	8	0	0	0	16	0	28	0	0
March	4.7	N.	22	N.	0	18	6	1	1	20	8	0	8	0	4	13	14	11	9	14	11	0	0	0	3	0	30	0	0
April	7.3	S.	28	SW.	0	10	9	2	6	17	8	0	8	0	10	11	9	10	8	7	4	0	0	0	0	0	18	0	0
May	5.7	S.	27	S.	0	10	10	0	3	25	10	1	3	0	8	9	14	16	12	0	0	0	2	1	0	0	5	3	0
June	5.2	S.	19	N.	0	24	9	0	1	12	10	0	4	0	9	13	8	11	9	0	0	0	1	1	0	2	0	3	0
July	5.1	S.	25	SW.	0	13	5	1	3	22	17	0	1	0	2	24	5	14	11	0	0	0	2	1	0	2	0	6	0
August	4.3	S.	18	SW.	0										3	19	9	12	8	0	0				0		0		
September	5.7	S.	23	SW.	0										5	13	12	14	10	0	0				0				
October	5.8	S.	25	S.	0	10	2	0	0	38	8	1	3	0	9	9	13	14	12	0	0	0	6	3	0	0	10	2	0
November	7.2	S.	26	SW.	0	8	5	1	4	22	16	0	4	0	0	13	17	11	7	6	1	0	1	0	2	0	16	1	0
December	6.8	N.	26	N.	0	20	5	0	2	16	10	1	8	0	5	9	17	16	10	14	11	0	3	0	11	0	27	0	0
Year	5.7	S.	28	SW.	0										67	158	140	148	108	75	45				54				

NORTH HEAD, WASH.

[H_b=211 ft.; h_f=11 ft.; h_r=3 ft.; h_a=56 ft.]

January	17.0	SE.	62	S.	14	4	0	5	29	13	5	4	2	0	5	3	23	21	20	0	0	0	2	1	0	0	0	0	0
February	14.5	SE.	58	SW.	11	12	0	6	19	6	3	7	3	0	4	8	16	15	11	0	0	1	2	0	0	0	0	0	0
March	17.3	S.	60	S.	16	14	2	1	9	14	13	6	2	1	5	11	15	25	18	1	0	1	5	3	0	0	0	0	0
April	12.8	S.	50	S.	11	12	7	2	7	12	8	8	4	0	13	9	8	14	11	0	0	0	1	0	0	0	0	0	0
May	14.3	N.	39	NW.	6	43	2	1	1	6	3	1	4	1	8	16	7	9	6	0	0	0	3	1	0	0	0	0	0
June	12.5	N.	55	S.	3	18	2	1	6	10	13	7	3	0	3	10	17	19	17	0	0	0	9	3	0	0	0	0	0
July	13.4	N.	34	N.	3	42	5	0	1	2	5	2	5	0	9	10	12	3	1	0	0	0	10	4	0	0	0	0	0
August	12.2	N.	34	N.	2	43	3	1	0	7	2	3	2	1	4	17	10	4	2	0	0	0	21	13	0	0	0	0	0
September	12.8	N.	54	S.	7	25	1	1	2	17	6	4	3	1	7	10	13	16	12	0	0	0	9	5	0	0	0	1	0
October	12.5	N.	66	S.	9	18	2	4	4	19	6	3	6	0	6	7	18	14	11	0	0	1	12	9	0	0	0	2	0
November	12.8	N.	56	S.	11	14	5	6	9	14	6	4	2	0	10	0	20	17	16	0	0	0	3	2	0	0	0	0	0
December	19.3	SE.	72	S.	18	5	0	13	20	15	6	3	0	0	1	3	27	28	27	1	0	0	2	1	0	0	0	1	0
Year	14.3	N.	72	S.	111	250	29	41	107	135	76	52	36	4	75	104	186	183	152	2	0	3	79	42	0	0	0	4	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

NORTH PLATTE, NEBR.

[ϕ=41° 08′ N.; λ=100° 45′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	27.11	27.42	26.70	23.0	41.0	36.3	45.7	20.9	33.3	63	2	19	22	24	83	46	60	0.101	0.116	0.126	0.03	0.01	0.3	2.4	2.5	2.5	3.4
February	27.07	27.44	26.66	28.7	44.6	43.5	50.0	27.2	38.6	65	20	24	27	27	83	53	54	.130	.149	.146	.76	.50	1.0	3.8	5.8	6.2	4.8
March	27.09	27.55	26.52	26.0	40.5	39.4	46.1	23.2	34.6	69	0	23	25	26	86	56	61	.123	.136	.143	1.81	.64	13.2	6.2	6.3	6.6	6.4
April	27.10	27.47	26.50	38.3	57.6	57.0	62.4	37.0	49.7	84	23	32	31	31	77	42	44	.180	.182	.182	1.25	.46	6.5	5.6	6.3	5.5	5.5
May	27.03	27.35	26.54	47.3	68.0	67.3	71.7	44.5	58.1	95	28	39	38	39	74	35	38	.251	.242	.250	.47	.28	0	4.8	4.6	5.0	4.7
June	26.99	27.26	26.65	64.5	85.0	84.3	88.6	62.4	75.5	101	48	58	59	59	81	45	45	.492	.510	.509	2.65	2.00	0	4.0	3.1	5.5	4.3
July	27.03	27.28	26.74	66.7	86.4	87.4	91.0	64.2	77.6	103	48	56	54	53	70	36	33	.456	.433	.436	.97	.58	0	4.4	4.2	2.9	3.6
August	27.12	27.41	26.81	61.6	83.7	82.2	87.0	60.5	73.8	98	44	55	55	54	79	39	40	.441	.445	.431	.58	.25	0	4.3	3.4	4.2	4.1
September	27.00	27.46	26.59	57.7	80.9	78.2	85.1	56.9	71.0	105	36	47	47	47	70	36	37	.332	.337	.333	.41	.21	0	4.3	4.0	4.1	4.3
October	27.09	27.51	26.51	44.1	64.8	59.2	68.6	41.4	55.0	84	17	37	37	37	77	37	46	.234	.229	.237	.34	.20	.6	4.7	4.3	3.8	4.6
November	27.05	27.53	26.53	28.1	45.9	40.4	50.4	24.4	37.4	80	9	20	23	22	73	49	54	.108	.126	.119	.59	.37	6.2	5.6	5.2	3.6	5.1
December	27.04	27.49	26.49	20.9	34.6	31.2	38.9	18.3	28.6	56	2	18	24	24	89	66	76	.104	.130	.132	.15	.11	.9	3.9	4.3	3.6	5.1
Year	27.06	27.55	26.49	42.2	61.1	58.9	65.5	40.1	52.8	105	0	36	37	37	78	45	49	.246	.253	.252	10.01	2.00	28.7	4.5	4.5	4.5	4.7

OKLAHOMA CITY, OKLA.

[ϕ=35° 26′ N.; λ=97° 33′ W.]

January	28.83	29.30	28.30	34.6	47.3	45.8	53.1	32.9	43.0	73	15	30	32	31	83	56	58	0.169	0.186	0.181	0.70	0.47	0.2	3.4	5.1	3.8	5.3
February	28.74	29.16	28.29	41.5	51.8	51.8	57.1	39.5	48.3	72	27	36	38	39	82	64	65	.222	.241	.250	1.48	.61	0	5.1	6.1	5.3	6.3
March	28.72	29.18	28.28	37.3	49.6	49.4	55.2	34.8	45.0	76	16	30	30	30	76	52	52	.171	.171	.175	3.06	1.24	2.2	4.2	6.1	4.7	5.3
April	28.78	29.14	28.15	49.2	62.6	60.7	67.5	46.8	57.2	80	33	43	44	42	78	54	55	.287	.301	.284	4.45	1.60	0	5.5	5.3	6.1	6.0
May	28.68	29.08	28.23	57.3	70.7	70.2	75.3	55.5	65.4	92	42	49	50	50	76	50	50	.368	.381	.375	1.18	.37	0	5.4	4.8	4.2	4.9
June	28.67	28.87	28.36	71.5	87.0	86.2	91.8	69.5	80.6	100	54	63	62	61	74	45	43	.580	.569	.539	1.34	.55	0	4.3	3.9	2.9	4.2
July	28.64	28.86	28.42	73.9	90.4	88.4	94.8	72.1	83.4	104	61	65	64	62	74	44	44	.625	.600	.579	.55	.33	0	3.9	3.2	2.9	3.5
August	28.74	28.96	28.47	70.7	86.6	84.3	91.7	68.7	80.2	100	57	61	63	61	73	47	49	.544	.580	.551	2.17	1.04	0	5.2	5.1	4.6	5.1
September	28.69	29.04	28.44	71.9	89.0	86.6	93.5	70.9	82.2	103	54	61	62	59	70	42	41	.563	.586	.517	.43	.43	0	2.5	3.2	2.3	3.0
October	28.73	29.11	28.49	59.9	73.4	70.5	77.9	58.0	68.0	96	32	52	54	53	76	53	56	.416	.447	.428	1.83	.94	0	4.4	4.4	3.5	4.1
November	28.75	29.12	28.29	47.9	59.2	55.8	63.0	44.0	53.8	82	30	42	44	45	82	62	70	.289	.316	.318	9.53	4.29	T.	6.0	6.0	6.0	6.3
December	28.76	29.22	28.16	39.9	48.3	46.7	53.4	37.7	45.6	67	25	34	37	38	82	67	72	.204	.228	.236	1.06	.68	T.	5.7	6.3	5.8	6.5
Year	28.73	29.30	28.15	54.6	68.0	66.4	72.9	52.6	62.7	104	15	47	48	48	77	53	55	.370	.384	.369	27.90	4.29	2.4	4.6	5.0	4.3	5.0

OMAHA, NEBR.

[ϕ=41° 16′ N.; λ=95° 56′ W.]

January	28.88	29.36	28.56	26.7	37.1	37.9	43.3	24.2	33.8	63	1	20	24	24	76	60	58	0.111	0.133	0.131	0.38	0.35	4.3	2.0	3.3	1.9	3.8
February	28.89	29.24	28.40	31.6	41.6	42.3	47.4	29.8	38.6	59	15	24	26	26	73	53	53	.132	.142	.144	.03	.03	.4	3.4	3.8	3.1	3.6
March	28.86	29.31	28.32	30.6	39.8	40.3	44.0	28.7	36.4	56	20	24	24	25	73	55	55	.127	.132	.136	1.15	.48	8.9	5.5	6.2	6.4	6.0
April	28.88	29.25	28.31	44.1	59.3	59.1	64.2	42.3	53.2	88	27	35	34	33	71	44	44	.210	.206	.199	1.22	.32	T.	4.3	4.6	5.0	4.6
May	28.76	29.16	28.33	51.4	64.5	66.4	70.2	49.5	59.8	92	33	42	42	42	72	47	46	.283	.281	.289	3.28	1.51	0	4.3	4.5	4.6	4.4
June	28.73	28.97	28.42	71.0	83.5	84.2	88.9	69.2	79.0	102	51	60	62	63	70	49	52	.530	.555	.588	4.96	2.68	0	4.5	3.7	3.0	3.3
July	28.74	29.03	28.46	73.0	85.0	85.6	90.5	70.2	80.4	105	57	59	60	60	62	45	45	.509	.532	.531	2.10	1.50	0	2.6	3.6	2.7	2.9
August	28.86	29.12	28.50	66.9	80.8	79.5	85.7	65.0	76.4	92	53	58	59	59	74	49	52	.502	.516	.521	4.43	2.12	0	4.0	4.1	3.7	3.6
September	28.75	29.18	28.37	65.4	79.9	77.3	83.9	63.5	73.7	102	46	56	56	58	73	47	54	.460	.459	.494	3.74	1.43	0	3.8	3.4	3.4	3.6
October	28.83	29.25	28.29	51.8	63.8	62.0	67.8	50.5	59.2	89	36	45	45	47	78	53	59	.310	.319	.344	2.61	1.56	0	4.3	5.2	4.1	4.5
November	28.84	29.25	28.11	39.8	48.8	46.8	52.8	36.4	44.6	80	17	34	35	36	79	62	70	.204	.218	.227	5.07	2.26	4.7	5.5	6.0	5.1	5.8
December	28.85	29.32	28.25	33.1	38.8	38.8	43.0	30.9	37.0	57	19	29	30	32	85	71	76	.164	.170	.182	3.38	2.07	3.8	5.4	5.5	5.2	5.7
Year	28.82	29.36	28.11	48.8	60.2	60.0	65.1	46.7	55.9	105	1	40	41	42	74	53	55	.295	.305	.316	32.28	2.68	22.1	4.1	4.5	4.0	4.3

OSWEGO, N. Y.

[ϕ=43° 29′ N.; λ=76° 35′ W.]

January	29.61	30.18	28.83	22.3	25.5	25.4	30.8	17.4	24.1	45	2	17	19	20	81	77	78	0.099	0.108	0.109	3.54	0.91	41.9	9.1	8.7	8.1	8.8
February	29.67	30.10	29.33	23.4	27.0	27.7	33.8	18.1	25.8	42	−7	20	21	22	85	78	77	.110	.118	.117	1.67	.63	15.9	8.2	8.4	6.8	8.3
March	29.56	30.06	28.75	32.7	36.4	35.6	38.9	30.1	34.5	54	24	27	27	28	78	69	74	.144	.147	.154	1.76	.49	11.9	9.0	8.3	7.1	8.3
April	29.63	30.12	28.85	43.4	49.1	45.1	53.2	37.1	45.2	80	31	32	33	32	66	56	64	.187	.192	.196	2.47	.81	T.	6.1	5.8	5.8	5.9
May	29.54	29.92	29.18	54.2	57.7	56.2	63.8	46.6	55.2	86	32	45	44	45	73	65	69	.311	.306	.313	7.47	1.99	T.	5.7	6.3	6.2	6.2
June	29.61	29.91	29.02	62.9	66.7	65.3	71.8	55.2	63.5	93	47	54	54	54	74	66	68	.426	.419	.428	2.16	1.20	0	5.2	4.2	6.4	5.4
July	29.54	29.84	29.20	72.2	77.0	73.7	80.5	65.6	73.0	93	59	64	62	63	75	62	70	.596	.579	.587	2.49	.81	0	6.1	5.5	6.4	6.3
August	29.65	29.96	29.30	68.5	72.8	71.4	76.7	62.4	69.6	93	52	59	59	59	73	63	65	.513	.506	.502	1.26	.69	0	5.5	5.5	6.3	5.9
September	29.62	30.09	29.23	64.9	71.0	66.9	74.8	58.9	66.8	93	47	56	56	57	74	62	72	.468	.481	.488	2.73	.85	0	4.9	6.0	4.9	5.6
October	29.65	30.23	28.90	51.8	59.3	55.6	62.9	47.2	55.0	81	33	44	45	46	77	62	71	.304	.316	.322	2.95	.76	0	0.2	5.6	5.3	5.9
November	29.74	30.19	29.23	44.9	50.7	48.0	55.2	41.1	48.2	73	20	38	38	39	76	64	71	.241	.251	.254	1.92	.63	1.0	8.2	8.5	8.0	8.2
December	29.71	30.30	29.16	31.1	34.5	33.7	40.3	26.0	33.2	55	11	25	26	26	78	70	74	.143	.145	.152	2.65	.84	3.0	8.9	8.7	8.1	8.7
Year	29.63	30.30	28.75	47.7	52.3	50.4	56.9	42.1	49.5	93	−7	40	40	41	76	66	71	.295	.298	.301	33.07	1.99	71.7	6.9	6.8	6.6	7.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

NORTH PLATTE, NEBR.

[H_b=2,821 ft.; h_t=11 ft.; h_r=3 ft.; h_a=51 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	5.3	W.	23	NW.	0	6	0	1	4	3	7	26	15	0	18	9	4	3	0	4	3	0	2	0	5	0	30	0	0
February	5.4	W.	18	S.	0	6	11	7	6	8	4	9	4	1	10	12	6	3	3	3	1	0	6	0	1	0	26	0	0
March	7.4	N.	34	NW.	1	21	3	5	9	7	1	5	9	2	7	12	12	8	5	10	7	0	5	2	6	0	25	0	0
April	6.9	S.	27	NW.	0	9	6	3	12	15	3	13	4	0	9	10	11	7	6	6	4	1	2	0	1	0	12	2	0
May	8.0	NW.	31	NW.	0	13	6	2	6	10	3	8	11	3	13	11	7	6	3	0	0	0	1	0	0	2	2	4	2
June	6.7	S.	29	NW.	0	3	8	4	8	19	7	8	2	1	14	10	6	9	8	0	0	1	0	0	0	15	6	9	0
July	6.0	SE.	29	NE.	0	6	6	8	15	15	2	8	2	5	15	13	3	8	4	0	0	0	0	0	0	16	0	7	0
August	5.7	SE.	21	NE.	0	8	4	5	20	10	6	4	5	0	16	7	8	9	5	0	0	0	5	0	0	13	0	8	0
September	6.2	S.	23	S.	0	3	6	5	11	15	4	8	5	3	14	11	5	6	4	0	0	0	2	1	0	10	0	9	0
October	6.5	S.	34	NW.	1	6	2	5	15	6	3	13	9	3	13	11	7	7	3	2	1	1	3	3	0	0	3	3	0
November	5.5	W.	20	NW.	0	12	4	0	7	5	5	15	9	3	11	8	11	4	4	7	4	0	8	3	6	0	21	0	0
December	5.1	W.	27	N.	0	5	3	5	3	10	9	25	2	0	12	7	12	2	2	5	2	0	13	7	6	0	30	0	0
Year	6.2	W.	34	NW.	2	98	59	50	116	118	54	137	77	21	152	121	92	72	47	37	22	3	47	16	25	56	149	42	2

OKLAHOMA CITY, OKLA.

[H_b=1,214 ft.; h_t=10 ft.; h_r=3 ft.; h_a=47 ft.]

January	7.4	S.	23	S.	0	11	1	1	6	21	5	6	9	2	11	12	8	6	4	1	1	0	3	0	0	0	13	0	0
February	8.1	S.	22	SE.	0	14	1	4	10	16	3	2	4	2	8	8	12	12	9	0	0	1	7	0	0	0	4	0	0
March	10.8	N.	28	NW.	0	18	5	3	6	9	2	1	18	0	14	7	10	9	7	5	3	0	3	0	0	0	10	4	0
April	8.2	S.	30	N.	0	8	2	8	10	19	1	1	9	2	10	7	13	10	7	0	0	1	4	0	0	0	0	3	0
May	9.2	S.	25	N.	0	13	4	1	7	21	2	0	13	1	13	5	13	7	7	0	0	0	2	0	0	3	0	3	0
June	8.8	S.	25	N.	0	5	3	3	7	34	6	1	1	0	14	12	4	5	4	0	0	1	1	0	0	20	0	6	0
July	7.6	S.	23	NW.	0	7	3	5	12	30	1	1	1	2	18	9	4	3	3	0	0	1	1	0	0	25	0	3	0
August	7.3	S.	24	SE.	0	3	6	6	8	33	2	1	3	0	10	13	8	7	5	0	0	1	0	1	0	19	0	4	0
September	8.8	S.	24	NW.	0	2	1	1	10	43	1	0	2	0	21	9	9	2	1	0	0	0	1	1	0	22	0	3	0
October	7.9	S.	24	S.	0	9	1	6	10	24	2	1	7	2	15	8	8	9	6	0	0	0	4	3	0	5	0	6	0
November	7.9	S.	24	W.	0	9	1	3	11	23	1	2	8	2	8	7	15	10	10	1	0	0	8	3	0	0	4	5	0
December	7.4	S.	22	NW.	0	13	3	3	9	19	3	2	7	3	7	9	15	9	5	3	2	0	10	2	0	0	7	0	0
Year	8.3	S.	30	N.	0	112	31	44	106	292	29	18	82	16	149	106	110	89	68	10	6	4	44	16	0	94	38	37	0

OMAHA, NEBR.

[H_b=1,105 ft.; h_t=115 ft.; h_r=107 ft.; h_a=122 ft.]

January	6.7	NW.	24	NW.	0	6	1	1	5	11	11	4	20	3	18	7	6	4	2	7	4	0	1	1	5	0	25	0	0
February	6.4	NW.	21	NW.	0	9	4	7	7	9	3	3	13	1	17	5	6	1	0	4	1	0	1	1	1	0	16	0	0
March	9.1	NW.	32	NW.	0	12	3	6	9	6	0	1	24	1	11	6	14	10	7	8	5	0	3	0	1	0	21	0	0
April	7.0	S.	29	N.	0	13	6	4	8	10	3	4	10	2	14	6	10	11	8	1	1	1	2	1	0	0	7	3	0
May	8.0	NW.	29	NW.	0	14	4	0	3	15	3	2	17	4	16	7	8	10	7	0	0	0	1	0	0	2	0	6	0
June	6.3	S.	38	NW.	1	6	5	2	12	28	2	0	3	2	18	6	6	8	6	0	0	1	0	0	0	13	0	7	0
July	5.6	S.	22	NW.	0	7	5	4	12	20	2	1	8	3	20	7	4	6	5	0	0	0	0	0	0	17	0	8	0
August	5.3	S.	32	NW.	0	5	3	8	12	15	5	1	9	4	17	9	5	9	7	0	0	1	1	0	0	8	0	8	0
September	6.3	S.	21	N.	0	7	6	6	6	27	0	2	5	1	17	8	5	10	8	0	0	0	3	2	0	13	0	8	0
October	7.0	S.	27	NW.	0	3	4	1	9	18	4	3	16	4	12	12	7	7	5	0	0	0	3	7	2	0	0	4	0
November	6.0	S.	23	N.	0	11	0	8	6	15	5	3	10	2	10	7	13	10	8	6	1	0	7	2	2	0	10	3	0
December	6.1	SW.	21	NE.	0	2	6	6	6	15	8	5	10	4	12	3	16	9	6	7	4	0	9	3	3	0	18	0	0
Year	6.6	S.	38	NW.	1	95	47	53	95	189	46	29	145	31	182	83	100	95	69	33	16	7	35	12	13	53	97	47	0

OSWEGO, N. Y.

[H_b=335 ft.; h_t=71 ft.; h_r=69 ft.; h_a=85 ft.]

January	9.8	S.	31	N.	0	7	1	0	4	24	11	5	10	0	1	3	27	17	14	23	17	0	0	0	14	0	28	1	0
February	9.3	S.	26	N.	0	10	2	3	9	12	6	9	5	0	3	2	23	16	9	18	14	0	0	0	8	0	27	0	0
March	8.9	N.	27	W.	0	13	4	3	13	3	4	14	8	0	0	0	10	21	15	9	14	12	0	1	0	2	0	22	1	0
April	10.0	W.	31	W.	0	7	3	1	9	8	6	20	6	0	0	0	8	13	14	12	4	2	0	2	0	0	4	0	0
May	7.7	W.	24	NW.	0	8	3	1	14	12	8	13	3	0	7	7	10	14	13	11	1	0	0	1	3	0	0	1	5	0
June	6.2	W.	18	SW.	0	11	2	2	4	13	6	18	4	0	9	10	11	10	5	0	0	0	2	1	0	2	0	5	1
July	5.9	S.	21	N.	0	7	2	1	2	20	9	17	4	0	4	14	13	11	9	0	0	0	2	0	0	4	0	6	0
August	6.6	N.	21	N.	0	14	4	6	4	16	7	11	1	0	8	11	12	8	4	0	0	0	1	0	0	1	0	3	0
September	7.2	S.	22	NW.	0	6	3	5	8	18	7	8	5	0	9	9	12	15	10	0	0	0	2	1	0	2	0	5	0
October	8.1	S.	27	NW.	0	5	1	2	12	22	5	4	11	0	11	5	15	13	11	0	0	2	4	1	0	0	4	3	2
November	10.4	S.	26	W.	0	1	2	2	12	20	7	6	9	1	6	8	22	14	10	4	2	2	5	0	0	0	4	1	0
December	10.8	S.	33	W.	1	6	3	2	13	18	3	6	11	0	2	3	26	15	13	11	8	0	7	0	5	0	22	0	0
Year	8.4	S.	33	W.	1	95	30	27	104	186	79	131	77	1	63	93	209	161	117	75	55	4	25	6	28	5	108	30	3

Annual meteorological summaries for the year ending December 31, 1931—Continued

PALESTINE, TEX.

[ϕ=31° 45′ N.; λ=95° 40′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.63	30.11	29.07	43.7	54.0	53.4	58.4	41.9	50.2	72	24	39	40	40	84	61	62	0.256	0.262	0.261	2.65	1.34	0	5.4	5.0	4.5	5.0
February	29.52	29.88	29.07	48.7	54.3	57.4	62.8	46.0	54.4	72	38	45	44	44	86	63	65	.306	.306	.302	4.69	1.64	0	5.1	5.4	5.4	5.5
March	29.49	29.93	29.04	46.1	56.0	56.4	61.8	41.6	51.7	81	28	39	40	39	80	57	56	.225	.264	.254	3.39	1.03	T.	4.5	5.5	4.8	4.9
April	29.54	29.90	28.97	54.4	67.4	66.8	72.1	52.0	62.0	84	37	49	49	51	82	54	59	.361	.365	.386	3.10	1.57	0	4.8	5.6	5.2	5.3
May	29.46	29.75	29.11	61.4	73.4	73.6	78.3	58.7	68.5	86	44	57	56	57	86	56	57	.473	.458	.473	2.16	1.12	0	5.6	4.5	3.6	4.6
June	29.46	29.62	29.26	72.9	86.3	85.9	90.9	70.6	80.8	96	61	68	65	65	85	50	52	.688	.626	.631	.97	.69	0	5.6	4.0	3.9	4.3
July	29.42	29.60	29.24	75.6	88.0	85.4	92.9	73.2	83.0	102	67	71	70	70	86	56	63	.759	.731	.741	5.39	4.40	0	4.0	3.8	5.2	4.4
August	29.52	29.71	29.35	71.7	85.8	84.0	90.4	70.0	80.2	94	61	68	65	65	88	52	56	.691	.634	.637	3.13	2.44	0	3.7	3.5	2.9	3.5
September	29.48	29.79	29.31	71.7	87.4	85.5	92.2	70.4	81.3	97	55	67	64	63	86	46	49	.691	.607	.601	.01	.01	0	2.8	2.8	2.9	2.8
October	29.53	29.84	29.32	64.1	79.1	76.1	83.1	62.8	73.0	93	44	59	59	58	84	51	54	.541	.530	.504	2.81	1.63	0	4.2	3.8	1.9	3.3
November	29.56	29.86	29.17	55.2	67.6	64.7	71.8	54.8	63.3	82	42	54	55	55	92	66	74	.436	.457	.463	3.29	1.82	0	6.2	6.1	5.0	5.9
December	29.55	29.97	29.04	48.0	54.9	54.2	60.2	43.8	52.0	79	32	45	45	44	90	72	72	.318	.321	.307	7.54	1.32	0	7.5	7.1	5.8	6.7
Year	29.51	30.11	28.97	59.5	71.2	70.3	76.2	57.2	66.7	102	24	55	54	54	86	57	60	.479	.463	.463	39.13	4.40	T.	5.0	4.8	4.3	4.7

PARKERSBURG, W. VA.

[ϕ=39° 16′ N.; λ=81° 36′ W.]

January	29.44	30.00	28.48	30.8	38.4	37.5	44.0	27.9	36.0	65	14	25	27	28	79	64	68	0.138	0.152	0.154	0.91	0.49	T.	7.4	7.3	6.5	7.4
February	29.44	29.71	29.13	31.8	41.3	39.6	46.4	29.2	37.8	64	14	27	29	30	82	63	68	.151	.164	.170	2.97	.86	3.0	6.6	6.8	5.5	6.9
March	29.31	29.64	28.69	34.2	40.5	40.2	44.9	32.7	38.8	59	24	29	30	30	81	68	68	.159	.171	.170	2.60	1.21	5.6	9.3	9.1	8.2	9.1
April	29.41	29.85	28.61	45.8	58.3	56.2	63.9	42.3	53.1	83	33	37	36	37	71	47	53	.222	.217	.234	4.39	1.34	1.0	4.9	5.4	5.5	5.1
May	29.31	29.61	29.02	56.7	67.9	64.9	72.1	52.1	62.1	92	38	46	49	50	68	55	62	.320	.363	.384	4.82	.94	0	5.3	6.2	6.1	6.3
June	29.38	29.60	28.85	66.2	79.4	75.9	83.8	61.2	72.5	97	46	58	59	61	75	53	62	.493	.533	.554	4.18	1.34	0	4.3	5.2	5.1	5.8
July	29.32	29.57	29.00	73.2	85.6	81.1	90.5	68.7	79.6	96	57	64	64	66	74	49	61	.613	.600	.638	2.62	1.21	0	3.7	4.2	5.9	5.1
August	29.42	29.75	29.10	67.9	79.2	74.0	83.0	64.5	73.8	97	53	63	65	65	84	64	76	.581	.635	.638	4.70	.82	0	5.8	6.2	5.8	6.7
September	29.43	29.86	29.04	65.3	78.6	73.9	82.5	62.2	72.4	95	44	59	59	62	80	54	67	.513	.528	.580	3.27	1.94	0	4.3	4.4	2.9	5.0
October	29.48	29.90	29.00	49.9	65.2	59.5	69.3	47.6	58.4	86	31	45	51	51	85	63	74	.317	.393	.389	2.04	.96	0	4.7	5.3	4.2	5.9
November	29.55	29.97	29.14	47.0	57.6	54.5	62.1	44.4	53.2	78	24	41	43	44	79	61	68	.272	.298	.305	1.97	.86	T.	6.0	6.3	5.5	6.7
December	29.51	30.01	29.07	38.8	46.3	45.1	50.7	35.5	43.1	66	21	33	36	36	80	70	70	.204	.233	.227	3.54	1.06	0	6.9	8.4	8.1	8.1
Year	29.42	30.01	28.48	50.6	61.5	58.5	66.1	47.4	56.7	99	14	44	46	47	78	59	66	.332	.357	.370	38.01	1.94	9.6	5.8	6.2	5.8	6.5

PENSACOLA, FLA.

[ϕ=30° 25′ N.; λ=87° 13′ W.]

January	30.11	30.59	29.53	46.2	53.8	52.9	57.5	44.4	51.0	72	27	40	41	42	80	64	69	0.260	0.270	0.286	3.81	2.10	0	5.8	5.6	5.1	5.7
February	30.01	30.28	29.65	50.1	57.8	57.3	61.4	48.4	54.9	68	34	45	46	48	84	68	74	.317	.333	.350	2.75	1.34	0	5.5	4.4	3.7	4.4
March	29.94	30.22	29.47	51.0	58.2	56.5	61.1	48.8	55.0	70	37	45	46	49	81	67	77	.318	.335	.358	4.80	1.70	0	5.0	4.9	4.7	4.7
April	30.02	30.23	29.61	60.3	67.1	65.1	69.4	58.3	63.8	80	44	52	52	54	76	62	71	.414	.416	.443	1.80	1.75	0	4.1	4.9	5.1	4.8
May	29.92	30.17	29.67	68.2	74.4	72.1	76.6	65.3	71.0	85	54	60	59	61	76	61	70	.534	.520	.557	1.83	1.58	0	4.5	4.6	5.0	4.3
June	29.96	30.11	29.71	76.7	82.5	79.5	84.9	73.2	79.0	93	64	67	66	68	74	61	70	.688	.679	.702	1.53	.57	0	4.9	4.5	5.7	4.8
July	29.92	30.10	29.75	79.6	83.4	81.4	85.7	75.5	80.6	90	70	74	74	73	83	74	77	.838	.839	.821	11.11	4.97	0	6.5	6.4	6.6	6.1
August	30.00	30.19	29.80	76.0	82.1	79.9	84.5	73.3	78.9	90	65	70	70	70	81	68	72	.734	.737	.734	8.66	4.41	0	5.1	5.8	6.7	5.8
September	29.97	30.23	29.80	75.8	83.1	80.6	85.2	73.7	79.4	92	57	70	70	71	81	65	74	.743	.742	.778	1.43	1.12	0	2.5	3.5	4.8	3.7
October	30.02	30.26	29.74	67.6	75.7	73.9	78.2	66.5	72.4	88	44	60	62	63	79	64	69	.557	.581	.600	5.83	3.04	0	3.7	3.5	2.1	3.4
November	30.11	30.30	29.90	61.1	69.6	68.0	71.8	59.4	65.6	80	42	54	57	59	80	67	74	.464	.498	.527	.55	.37	0	2.7	4.3	3.3	3.8
December	30.04	30.30	29.55	60.9	65.2	64.2	69.4	56.7	63.0	76	44	58	58	58	89	78	80	.505	.500	.504	8.98	3.16	0	7.0	7.0	5.6	6.5
Year	30.00	30.59	29.47	64.5	71.1	69.3	73.8	62.0	67.9	93	27	58	58	60	80	67	73	.531	.538	.556	53.08	4.97	0	4.8	5.0	4.9	4.8

PEORIA, ILL.

[ϕ=40° 43′ N.; λ=89° 36′ W.]

January	29.41	29.90	28.94	26.6	35.9	33.8	40.5	24.6	32.6	61	6	24	27	27	88	64	76	0.130	0.150	0.151	0.48	0.43	1.2	4.5	5.4	4.8	5.0
February	29.44	29.85	29.02	30.5	40.5	38.7	44.6	28.8	36.7	60	13	27	30	31	87	69	74	.150	.172	.177	.83	.42	T.	4.0	5.8	4.5	5.1
March	29.34	29.65	28.66	30.5	39.6	39.2	43.9	29.5	36.7	57	18	27	29	31	84	68	72	.144	.162	.171	2.50	.94	10.3	6.1	6.8	6.6	6.3
April	29.41	29.71	28.96	44.4	59.7	56.6	63.4	41.7	52.6	84	27	38	40	40	79	51	58	.238	.260	.255	2.23	.75	T.	3.8	4.4	5.0	4.0
May	29.27	29.70	28.78	52.9	64.6	62.5	68.5	47.9	58.2	87	36	46	46	48	77	56	62	.318	.335	.353	5.14	2.54	0	4.4	5.5	5.3	5.0
June	29.32	29.55	28.95	70.0	81.5	80.3	86.5	64.9	75.7	103	44	62	62	64	77	55	58	.582	.582	.609	2.29	1.51	0	3.9	4.7	3.6	3.8
July	29.28	29.53	28.97	72.3	87.1	83.7	90.7	67.6	79.2	102	56	66	67	66	80	53	57	.637	.673	.653	5.91	3.94	0	2.9	2.5	3.5	3.1
August	29.39	29.68	29.08	66.4	82.3	77.4	85.4	62.5	74.0	98	50	61	62	62	83	52	60	.553	.571	.562	2.49	1.18	0	2.6	4.7	3.7	3.6
September	29.35	29.72	28.97	64.7	80.1	74.5	83.9	62.2	73.0	96	41	61	62	62	88	56	67	.551	.588	.581	4.92	2.31	0	3.3	2.8	3.0	3.3
October	29.40	29.86	28.89	52.4	66.2	59.6	68.5	50.0	59.2	88	34	48	48	50	85	56	70	.354	.353	.376	3.15	.91	0	5.3	5.2	4.8	5.2
November	29.43	29.92	28.86	44.6	54.8	50.6	58.9	41.5	50.2	78	23	41	41	41	87	63	70	.277	.292	.276	5.55	2.59	.7	5.4	6.2	5.7	6.0
December	29.44	29.96	28.83	34.7	41.2	39.7	44.8	32.3	38.6	57	21	32	33	34	89	73	82	.186	.194	.207	2.26	.58	4.9	6.2	6.6	6.2	6.4
Year	29.37	29.96	28.66	49.2	61.0	58.0	65.0	46.1	55.6	103	6	44	46	46	84	60	67	.343	.361	.364	37.75	3.94	17.1	4.4	5.0	4.7	4.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

PALESTINE, TEX.

[H_b=510 ft.; h_t=64 ft.; h_r=57 ft.; h_a=72 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32°: or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.0	S.	20	SW.	0	11	9	7	5	10	6	6	8	0	15	6	10	7	6	0	0	0	3	2	0	0	4	1	0
February	6.9	S.	21	NW.	0	12	6	9	6	12	2	3	6	0	10	5	13	10	8	0	0	0	2	4	0	0	0	2	0
March	8.6	NW.	26	NW.	0	9	6	6	6	11	3	4	17	0	14	4	13	12	8	1	0	2	0	0	0	0	4	3	0
April	6.8	S.	23	S.	0	12	7	7	7	20	3	2	1	1	10	9	11	11	8	0	0	0	2	2	0	0	0	4	0
May	6.3	S.	20	NW.	0	17	2	4	5	21	0	4	9	0	13	11	7	8	5	0	0	0	1	2	0	0	0	6	0
June	6.3	S.	25	NW.	0	1	1	5	7	36	8	2	0	0	12	13	5	5	4	0	0	0	0	0	0	21	0	5	0
July	5.5	S.	26	NE.	0	5	6	6	4	22	17	11	1	0	12	13	6	9	8	0	0	0	0	0	0	25	0	8	0
August	5.7	S.	28	NE.	0	3	8	9	7	27	7	1	0	0	17	11	3	8	6	0	0	0	0	0	0	18	0	5	0
September	5.6	S.	20	S.	0	1	5	11	6	29	8	0	0	0	19	10	1	1	0	0	0	0	0	1	0	24	0	2	0
October	5.7	S.	18	NW.	0	7	8	12	13	15	3	0	4	0	16	12	3	4	4	0	0	0	1	1	0	4	0	4	0
November	6.9	S.	22	SE.	0	8	7	8	16	13	3	4	1	0	11	3	16	13	11	0	0	0	1	1	0	0	0	4	0
December	6.7	NE.	22	NE.	0	6	16	4	3	12	7	10	4	0	8	7	16	17	12	0	0	0	1	0	0	0	1	4	0
Year	6.4	S.	28	NE.	0	92	81	88	85	228	67	37	51	1	157	104	104	105	80	1	0	2	11	13	0	92	9	48	0

PARKERSBURG, W. VA.

[H_b=637 ft.; h_t=77 ft.; h_r=70 ft.; h_a=84 ft.]

January	5.6	SW.	26	NW.	0	3	1	4	17	3	19	3	12	0	6	6	19	8	6	8	2	0	5	0	3	0	21	0	0
February	4.4	NW.	17	NW.	0	8	1	2	11	8	8	5	13	0	8	3	17	11	8	6	3	0	13	0	0	0	17	0	0
March	5.6	NW.	24	SW.	0	7	9	1	8	4	13	8	12	0	0	2	29	19	13	13	10	0	4	0	2	0	14	1	0
April	5.3	NW.	30	NW.	0	8	5	0	11	4	12	5	15	0	14	4	12	11	7	3	1	0	5	0	0	0	0	2	0
May	4.6	NW.	24	NW.	0	7	2	0	15	4	13	2	18	1	9	7	15	17	15	0	0	0	2	3	0	0	2	0	0
June	3.5	NW.	30	N.	0	2	5	0	16	4	5	11	17	0	8	12	10	11	7	0	0	0	4	5	2	0	7	0	0
July	3.9	SE.	23	W.	0	7	3	1	17	4	12	8	10	0	13	8	10	8	7	0	0	0	4	1	0	17	0	10	0
August	3.7	SE.	20	NW.	0	8	6	0	17	8	14	5	4	0	7	8	16	15	14	0	0	0	5	1	0	7	0	8	0
September	4.1	SE.	32	NW.	0	10	3	2	17	7	12	3	6	0	12	10	8	11	5	0	0	0	5	3	0	8	0	5	0
October	3.9	SE.	29	NW.	0	5	2	1	16	15	12	5	5	1	10	7	14	9	6	0	0	0	10	3	0	0	1	1	0
November	4.5	SE.	24	NW.	0	2	7	1	23	8	7	5	7	0	7	7	16	15	10	1	0	0	11	1	0	0	6	0	0
December	5.1	SE.	27	NW.	0	2	7	1	16	8	13	5	10	0	4	4	23	15	11	0	0	0	4	0	0	0	12	3	0
Year	4.5	SE.	32	NW.	0	69	51	13	184	77	140	65	129	2	98	78	189	150	109	31	16	2	74	11	5	41	71	51	0

PENSACOLA, FLA.

[H_b=56 ft.; h_t=149 ft.; h_r=131 ft.; h_a=185 ft.]

January	10.8	E.	40	W.	2	15	9	9	6	3	2	9	8	1	8	11	12	6	6	0	0	0	3	0	0	0	2	2	0
February	11.4	N.	29	SE.	0	13	9	8	8	3	4	8	3	0	12	7	9	8	8	0	0	0	2	2	0	0	0	1	0
March	14.0	W.	48	SE.	8	12	1	10	6	2	1	17	13	0	12	10	9	10	8	0	0	2	2	0	0	0	0	6	0
April	10.9	S.	35	NW.	1	11	8	7	4	11	6	11	2	0	13	10	7	2	2	0	0	0	2	2	0	0	0	1	0
May	10.3	SW.	29	E.	0	13	3	4	5	7	13	8	7	2	11	17	3	7	3	0	0	0	1	1	0	0	0	9	0
June	9.4	SW.	36	E.	1	12	2	4	5	2	10	16	8	1	9	16	5	3	3	0	0	0	0	0	0	5	0	11	0
July	9.9	W.	38	S.	3	6	5	6	8	7	8	13	7	2	4	16	11	14	14	0	0	0	0	0	0	1	0	18	0
August	9.0	SW.	42	S.	1	17	5	4	1	6	12	10	6	1	3	22	6	10	7	0	0	0	0	0	0	1	0	8	0
September	9.8	S.	30	NW.	0	12	9	10	5	11	5	3	5	0	14	14	2	4	4	0	0	0	0	0	0	3	0	5	0
October	10.8	E.	47	SW.	1	14	9	16	9	8	2	1	3	0	16	11	4	4	4	0	0	0	0	0	0	0	0	2	0
November	11.0	E.	29	S.	0	7	11	18	12	9	0	1	2	0	16	7	7	4	3	0	0	0	6	4	0	0	0	0	0
December	12.5	E.	46	W.	2	10	11	13	9	9	3	4	3	0	6	10	15	14	10	0	0	1	6	2	0	0	0	5	0
Year	10.8	E.	48	SE.	19	142	82	109	78	78	66	101	67	7	124	151	90	86	72	0	0	3	22	11	0	10	2	66	0

PEORIA, ILL.

[H_b=609 ft.; h_t=11 ft.; h_r=4 ft.; h_a=45 ft.]

January	6.3	S.	21	W.	0	4	2	0	5	22	8	10	11	0	12	8	11	5	1	6	4	0	15	2	3	0	28	0	0
February	5.4	S.	17	E.	0	9	7	3	3	17	2	5	9	1	11	5	12	10	3	4	0	0	14	3	2	0	17	0	0
March	7.4	NW.	26	NE.	0	10	14	6	9	1	1	4	16	1	8	7	16	10	9	9	6	0	3	0	0	0	23	0	0
April	5.5	NW.	19	W.	0	13	4	3	8	8	1	10	13	0	15	7	8	10	7	3	0	0	3	0	0	0	5	2	0
May	5.1	S.	18	W.	0	13	7	3	4	13	6	9	6	1	13	6	12	12	11	0	0	0	0	0	0	0	0	3	0
June	4.3	SW.	19	NE.	0	8	7	2	9	12	12	6	6	3	14	11	5	10	7	0	0	0	0	0	0	13	0	8	0
July	3.7	SW.	15	N.	0	3	10	3	4	16	14	7	3	2	19	10	2	6	4	0	0	1	1	0	0	15	0	7	0
August	3.4	NE.	16	NW.	0	5	12	1	12	9	10	4	8	1	17	9	5	7	6	0	0	0	0	0	0	9	0	7	0
September	4.4	S.	19	W.	0	5	5	1	8	23	11	1	5	1	18	7	5	11	6	0	0	0	4	0	0	12	0	9	0
October	4.9	S.	21	W.	0	5	4	3	6	17	10	7	7	3	12	7	12	13	10	0	0	1	7	2	0	0	0	6	0
November	6.3	S.	22	SW.	0	1	4	6	3	19	8	5	13	1	11	4	15	13	9	3	2	0	9	1	0	0	7	3	0
December	6.0	SW.	21	NE.	0	5	6	8	11	5	16	3	6	2	10	4	17	12	10	5	4	0	15	3	0	0	14	0	0
Year	5.2	S.	26	NE.	0	76	82	39	82	162	99	71	103	16	160	85	120	119	83	30	16	2	71	11	5	49	94	45	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

PHILADELPHIA, PA.

[ϕ=39° 57′ N.; λ=75° 09′ W.]

Month	Pressure			Temperature								Moisture													
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.90	30.37	28.88	33.4	38.0	37.5	42.3	30.1	36.2	56	16	21	22	23	60	51	55	0.122	0.124	0.126	2.17	0.89	0.1	5.6	5.1	3.8	5.2
February	29.93	30.33	29.49	32.6	39.8	39.5	44.4	30.4	37.4	55	18	22	23	24	64	50	55	.124	.128	.133	1.92	1.19	1.1	6.2	4.4	5.0	5.3
March	29.79	30.27	29.04	38.7	45.0	42.9	48.5	36.1	42.3	61	29	28	29	30	63	54	60	.154	.164	.166	3.97	1.40	.8	7.5	7.7	5.3	7.5
April	29.91	30.42	29.03	48.5	58.3	55.1	62.0	44.3	53.2	76	37	35	35	36	61	44	50	.214	.214	.213	2.05	.80	0	4.4	5.3	3.7	5.0
May	29.83	30.18	29.52	59.4	68.5	65.3	73.0	55.4	64.2	91	43	49	48	51	70	52	62	.363	.355	.385	4.44	1.28	0	6.2	6.0	5.7	6.3
June	29.86	30.14	29.33	68.9	77.2	75.2	81.3	64.5	72.9	98	57	57	56	58	67	50	57	.469	.451	.490	3.75	1.43	0	5.7	5.3	5.4	5.2
July	29.81	30.04	29.40	75.7	84.7	80.9	87.7	71.9	79.8	98	67	66	66	65	74	54	62	.658	.643	.638	7.99	2.99	0	5.4	5.8	5.0	5.6
August	29.90	30.26	29.44	72.2	80.4	77.1	83.5	69.1	76.3	98	60	64	62	64	75	56	66	.594	.559	.608	6.00	1.84	0	6.3	6.5	6.5	6.2
September	29.90	30.41	29.55	69.0	78.4	74.8	82.3	65.9	74.1	97	50	60	59	61	73	54	64	.538	.527	.566	1.60	.97	0	4.0	4.4	3.0	4.0
October	29.95	30.35	29.30	56.5	67.4	63.0	71.0	54.2	62.6	85	45	48	47	48	74	49	59	.355	.348	.365	2.61	1.01	0	3.7	5.1	3.1	4.6
November	30.09	30.49	29.58	49.8	56.9	54.5	60.5	47.4	54.0	74	34	42	43	43	76	62	67	.290	.302	.298	1.00	.40	1.2	4.8	6.3	4.4	5.8
December	30.01	30.57	29.54	40.8	45.9	45.6	51.1	37.3	44.2	65	23	30	31	31	66	58	58	.181	.193	.191	1.78	.72	T.	6.3	6.7	6.1	6.3
Year	29.91	30.57	28.88	53.8	61.7	59.3	65.6	50.6	58.1	98	16	44	43	44	69	53	60	.338	.334	.348	39.28	2.99	3.2	5.5	5.7	4.8	5.6

PHOENIX, ARIZ.

[ϕ=33° 28′ N.; λ=112° 00′ W.]

January	28.88	29.11	28.52	41.1	63.0	63.7	67.9	37.9	52.9	80	29	27	28	28	57	28	27	0.148	0.157	0.157	0.02	0.02	0	1.0	3.0	3.9	3.5
February	28.78	29.02	28.40	49.9	64.0	64.8	67.8	47.9	57.8	80	38	44	43	41	81	49	45	.288	.283	.263	3.71	1.12	0	5.0	4.6	5.8	5.1
March	28.80	29.17	28.36	50.8	72.4	74.8	77.5	48.0	62.8	91	34	29	27	27	45	19	17	.167	.152	.148	.07	.07	0	1.0	2.1	3.6	2.3
April	28.70	28.97	28.38	60.5	81.6	82.7	86.0	58.7	72.4	90	52	39	38	38	47	24	24	.245	.242	.242	.40	.21	0	3.1	3.5	4.1	3.5
May	28.66	28.79	28.46	66.2	91.1	93.3	96.2	64.8	80.5	107	58	39	36	34	39	15	14	.248	.219	.205	T.	T.	0	.6	.4	1.2	1.0
June	28.64	28.79	28.47	74.4	96.6	98.1	101.3	72.6	87.0	110	62	43	41	41	34	17	16	.301	.281	.276	.02	.02	0	3.3	2.4	3.0	2.9
July	28.58	28.81	28.38	83.9	102.6	105.2	107.5	82.8	95.2	114	77	62	60	56	49	25	21	.562	.518	.451	.02	.01	0	3.7	1.0	2.6	1.7
August	28.72	28.89	28.49	78.9	95.5	97.1	101.0	77.6	89.3	110	72	64	61	60	63	35	32	.608	.551	.532	1.70	1.16	0	4.4	2.4	5.0	3.5
September	28.64	28.85	28.39	74.4	94.6	94.9	98.9	72.9	85.9	107	58	58	54	52	56	27	25	.487	.432	.402	.23	.18	0	3.3	1.9	2.5	2.3
October	28.75	28.92	28.38	59.8	83.0	82.4	88.1	57.6	72.8	97	49	43	41	42	56	24	25	.293	.272	.273	.22	.22	0	1.7	2.4	1.8	1.9
November	28.80	29.00	28.34	48.6	64.8	63.1	68.5	45.9	57.2	94	27	39	37	39	72	41	44	.251	.238	.250	3.18	1.43	0	3.6	3.6	3.2	3.6
December	28.87	29.16	28.55	40.3	57.7	57.3	61.9	37.5	49.7	70	28	32	32	33	74	39	42	.183	.185	.195	.75	.74	0	1.8	4.4	3.3	3.6
Year	28.73	29.17	28.34	60.7	80.6	81.4	85.2	58.7	72.0	114	27	43	42	42	56	29	28	.315	.294	.283	10.32	1.43	0	2.7	2.6	3.3	2.9

PIERRE, S. DAK.

[ϕ=44° 22′ N.; λ=100° 21′ W.]

January	28.35	28.76	27.92	24.9	35.1	33.3	41.4	19.9	30.6	66	−2	18	22	22	73	56	62	0.100	0.118	0.124	0.24	0.21	2.7	2.1	4.2	2.6	3.3
February	28.37	28.79	27.96	27.6	39.4	39.4	46.6	25.0	35.8	65	10	23	26	25	81	58	58	.123	.139	.136	.13	.04	.6	3.7	5.1	4.5	4.8
March	28.41	28.91	27.81	24.3	35.7	37.4	43.1	22.0	32.6	64	3	20	23	24	80	58	58	.109	.127	.133	2.22	1.32	18.9	6.1	6.4	6.0	6.2
April	28.35	28.82	27.70	39.2	58.2	59.2	63.6	36.2	49.9	85	24	28	28	29	64	35	32	.153	.154	.145	.40	.28	.5	3.1	4.2	3.9	4.0
May	28.26	28.65	27.83	48.4	63.8	66.0	70.5	44.0	57.2	97	25	38	38	37	68	44	38	.239	.236	.232	2.11	1.30	T.	4.8	5.0	5.5	4.8
June	28.18	28.59	27.81	67.7	83.9	84.5	89.5	64.3	76.9	110	50	56	55	54	67	40	38	.454	.448	.431	1.45	.60	0	4.8	3.9	4.2	4.0
July	28.21	28.51	27.78	68.7	86.1	90.1	93.6	65.7	79.6	112	52	53	52	49	60	32	26	.415	.300	.361	.71	.22	0	4.3	3.4	3.8	3.5
August	28.32	28.69	27.81	64.5	81.9	83.6	87.8	62.6	75.2	104	46	53	50	50	68	36	34	.420	.379	.370	.44	.33	0	4.7	4.9	4.3	4.9
September	28.20	28.73	27.75	58.9	77.6	77.9	83.7	56.7	70.2	108	38	46	47	43	66	39	35	.326	.338	.297	1.43	1.27	0	4.7	3.7	3.5	4.0
October	28.31	28.88	27.59	45.1	59.5	58.1	65.2	42.1	53.6	88	23	38	38	37	76	48	49	.234	.242	.228	.41	.15	T.	5.9	4.5	4.2	4.6
November	28.31	28.84	27.75	27.3	40.2	39.2	46.7	24.1	35.4	81	8	20	23	24	74	53	58	.110	.128	.129	.54	.32	7.6	4.1	5.3	4.1	4.9
December	28.32	28.74	27.83	20.7	27.9	25.9	32.7	16.8	24.8	50	−5	16	20	21	81	71	80	.100	.115	.117	.88	.70	7.9	4.6	5.8	3.2	5.0
Year	28.30	28.91	27.59	43.1	57.4	57.9	63.7	40.0	51.8	112	−5	34	35	34	72	48	47	.232	.234	.225	10.96	1.32	38.2	4.4	4.7	4.2	4.5

PITTSBURGH, PA.

[ϕ=40° 28′ N.; λ=80° 00′ W.]

January	29.14	29.67	28.22	29.7	34.8	34.7	39.9	26.5	33.2	59	13	23	24	24	76	63	66	0.128	0.132	0.136	1.16	0.43	2.9	7.7	6.3	7.0	6.5
February	29.15	29.42	28.85	30.4	36.6	36.9	41.6	27.6	34.6	62	15	26	28	28	82	72	71	.142	.158	.160	1.93	.44	4.1	7.4	7.4	6.0	6.9
March	29.04	29.38	28.41	32.6	38.1	37.4	41.8	30.9	36.4	59	20	28	28	29	84	69	72	.156	.159	.161	2.48	.54	3.9	8.5	8.7	8.0	8.5
April	29.12	29.60	28.34	45.2	54.7	54.6	60.6	40.6	50.6	80	32	37	40	42	75	61	64	.228	.255	.278	3.61	1.34	2.7	5.1	5.9	5.3	5.5
May	29.04	29.39	28.73	56.2	66.1	64.4	71.0	50.5	60.8	88	36	47	47	49	73	54	60	.334	.339	.358	5.46	1.70	0	5.7	6.3	6.3	6.1
June	29.12	29.32	28.54	65.2	75.6	74.0	80.7	59.3	70.0	93	47	59	60	63	80	61	70	.501	.535	.581	5.72	1.79	0	5.4	4.9	5.1	5.2
July	29.06	29.30	28.76	72.4	82.7	79.0	86.8	67.3	77.0	97	57	64	63	64	76	54	63	.609	.596	.611	5.36	1.83	0	4.4	5.5	6.3	5.5
August	29.15	29.46	28.75	67.4	77.4	74.7	81.5	64.4	73.0	94	55	61	60	61	80	56	64	.542	.523	.543	3.50	1.87	0	6.8	7.0	6.7	6.9
September	29.16	29.58	28.75	65.0	76.3	72.7	79.3	61.3	70.3	93	42	59	59	60	81	57	65	.511	.525	.534	3.81	1.60	0	4.3	5.3	3.8	4.9
October	29.20	29.67	28.68	51.1	65.0	59.3	66.5	48.2	57.4	84	37	46	45	47	84	55	64	.330	.326	.334	1.21	.34	0	6.0	5.8	3.8	5.7
November	29.27	29.70	28.82	47.4	54.5	52.6	58.7	44.5	51.6	75	26	42	40	41	81	60	66	.262	.266	.277	1.80	.60	2.5	6.8	6.9	6.9	6.5
December	29.22	29.71	28.74	38.5	43.1	42.6	48.0	35.0	41.5	62	21	33	34	33	81	70	69	.203	.208	.204	2.94	.55	T.	8.3	8.4	7.6	8.0
Year	29.14	29.71	28.22	50.1	58.6	56.9	63.0	46.3	54.7	97	13	44	44	45	79	61	66	.330	.335	.348	38.98	1.87	16.1	6.4	6.5	6.0	6.4

Annual meteorological summaries for the year ending December 31, 1931—Continued

PHILADELPHIA, PA.

[H_b=114 ft.; h_t=123 ft.; h_r=114 ft.; h_a=367 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	12.0	NW.	40	NW.	3	7	5	1	1	4	14	9	21	0	11	8	12	4	3	3	1	0	4	0	2	0	18	0	0
February	13.2	NW.	34	NW.	3	12	7	3	0	5	7	1	21	0	10	7	11	8	4	5	2	0	2	0	1	0	16	0	0
March	14.3	NW.	37	NW.	4	16	10	8	4	0	2	6	16	0	3	9	19	12	10	9	4	0	3	0	0	0	5	0	0
April	14.8	SW.	46	NE.	6	11	8	3	6	12	7	6	7	0	11	8	11	8	6	0	0	0	0	0	0	0	0	1	0
May	11.3	SW.	35	SW.	1	5	7	4	5	16	14	6	5	0	7	12	12	12	11	0	0	0	5	1	0	1	0	3	0
June	11.2	N.	34	S.	1	17	5	1	6	5	13	4	9	0	9	13	8	10	9	0	0	0	0	0	0	3	0	5	0
July	9.4	SW.	53	N.	2	9	8	4	8	9	13	5	6	0	9	13	9	11	8	0	0	0	0	0	0	6	10	0	0
August	10.0	SW.	36	N.	2	9	10	4	4	7	15	5	8	0	9	9	13	16	12	0	0	0	3	0	0	6	0	6	0
September	11.5	SW.	36	NW.	1	10	4	6	3	8	16	4	9	0	13	10	7	4	4	0	0	0	3	0	0	7	0	2	0
October	10.5	SW.	34	N.	1	9	4	2	0	7	18	10	12	0	12	10	9	8	5	0	0	0	5	2	0	0	0	3	0
November	10.5	SW.	34	NW.	1	3	5	3	3	9	20	6	11	0	8	11	11	7	3	1	1	0	12	7	0	0	0	0	0
December	12.0	NW.	44	W.	4	8	3	5	2	7	13	10	14	0	7	9	15	7	6	1	0	0	6	1	0	0	8	0	0
Year	11.7	SW.	53	N.	29	116	76	44	42	89	152	72	139	0	109	119	137	107	81	19	8	0	43	11	3	27	47	26	0

PHOENIX, ARIZ.

[H_b=1,108 ft.; h_t=10 ft.; h_r=81 ft.; h_a=107 ft.]

January	3.9	E.	15	NE.	0	5	3	15	14	6	6	8	3	0	19	4	8	2	0	0	0	0	1	0	0	0	8	0	0
February	4.3	E.	23	NW.	0	0	5	22	5	6	4	7	7	0	8	12	8	8	8	0	0	0	1	0	0	0	0	5	0
March	5.0	E.	24	SW.	0	6	4	16	3	2	11	14	6	0	22	6	3	1	1	0	0	0	0	0	0	1	0	6	0
April	5.2	E.	25	NW.	0	5	1	21	3	4	4	12	9	1	14	13	3	2	2	0	0	0	0	0	0	0	0	3	0
May	5.2	W.	20	S.	0	7	2	10	5	4	6	15	11	2	29	2	0	0	0	0	0	0	0	0	0	28	0	0	0
June	5.2	E.	22	E.	0	4	4	19	3	3	3	15	9	0	20	6	4	1	0	0	0	0	0	0	0	29	0	4	0
July	5.5	W.	34	E.	1	3	3	18	1	4	9	15	8	1	28	3	0	2	0	0	0	0	0	0	0	31	0	10	0
August	4.5	E.	42	S.	2	4	2	19	5	7	5	11	6	3	16	10	5	7	4	0	0	0	0	0	0	30	0	9	0
September	4.1	E.	24	SW.	0	5	4	15	5	1	3	11	13	5	23	6	1	1	1	0	0	0	0	0	0	30	0	1	0
October	3.6	E.	19	S.	0	5	4	15	2	7	6	10	4	5	20	4	6	8	6	0	0	0	2	0	0	5	2	1	0
November	3.8	E.	19	SW.	0	3	6	17	2	7	6	10	4	5	17	8	6	3	2	0	0	0	0	0	0	0	7	0	0
December	3.8	E.	18	W.	0	4	6	16	10	1	3	12	5	5	17	8	6	3	2	0	0	0	0	0	0	0	0	0	0
Year	4.5	E.	42	S.	3	51	41	205	61	48	63	143	92	26	237	80	48	38	26	0	0	1	4	0	0	174	17	34	0

PIERRE, S. DAK.

[H_b=1,572 ft.; h_t=70 ft.; h_r=63 ft.; h_a=75 ft.]

January	6.1	NW.	26	NW.	0	3	3	5	9	3	6	10	23	0	16	13	2	3	2	6	3	0	2	0	9	0	27	0	0
February	6.7	NW.	24	NW.	0	5	5	14	5	2	2	3	18	2	9	11	8	4	1	5	2	0	4	1	1	0	25	0	0
March	8.7	NW.	37	NW.	1	16	3	14	9	2	0	1	14	3	6	13	12	10	7	10	7	1	1	0	5	0	25	1	0
April	8.2	NW.	38	NW.	2	9	7	6	8	3	8	4	12	3	14	9	7	4	3	3	2	0	1	0	1	0	12	0	0
May	9.6	NW.	32	S.	0	11	2	13	9	3	1	4	17	2	11	13	7	6	4	0	0	0	4	0	0	4	3	2	0
June	9.0	SE.	34	NE.	1	5	10	18	12	5	3	3	3	1	12	16	2	7	5	0	0	0	1	0	0	14	0	8	0
July	9.6	SE.	46	NE.	4	4	6	7	16	9	1	5	9	5	16	14	1	8	5	0	0	0	0	0	0	21	0	10	0
August	8.8	E.	36	NW.	1	5	11	21	5	1	2	3	14	0	9	14	8	5	4	0	0	0	1	0	0	14	0	5	0
September	7.9	E.	31	NW.	0	6	3	15	12	1	6	1	15	1	16	8	6	5	3	0	0	0	1	0	0	10	0	1	2
October	8.3	NW.	39	NW.	3	5	2	17	6	2	2	8	19	1	15	7	9	6	4	3	0	0	1	0	1	8	0	1	0
November	6.8	NW.	34	NW.	1	6	3	16	7	0	3	6	19	0	12	9	9	6	4	6	5	0	1	1	0	0	22	0	0
December	5.1	E.	24	NE.	0	4	6	12	9	1	10	10	8	2	12	10	9	4	3	8	4	0	5	4	14	0	31	0	0
Year	7.9	NW.	46	NE.	13	79	61	158	107	32	44	58	171	20	148	137	80	66	46	42	23	3	16	7	38	63	146	28	2

PITTSBURGH, PA.

[H_b=842 ft.; h_t=353 ft.; h_r=345 ft.; h_a=410 ft.]

January	10.3	W.	42	NW.	3	1	3	3	1	11	20	15	8	0	5	11	15	13	7	13	9	0	5	0	7	0	24	0	0
February	7.9	SW.	27	NW.	0	8	2	5	2	3	14	13	9	0	6	7	15	11	8	9	6	0	11	2	2	0	21	0	0
March	9.6	W.	39	E.	0	12	1	13	6	0	2	19	9	0	1	7	23	16	11	21	8	0	5	0	4	0	18	1	0
April	9.5	W.	40	W.	2	8	3	6	7	6	12	9	9	0	12	5	13	9	7	7	3	0	6	0	0	0	1	1	0
May	8.6	SW.	33	NW.	1	8	4	8	7	7	11	9	8	0	6	13	12	19	14	0	0	0	5	0	0	3	0	9	0
June	6.6	N.	45	W.	2	14	1	7	2	9	9	4	14	0	7	16	7	10	10	0	0	0	3	0	0	3	0	9	0
July	6.5	N.	45	N.	2	15	3	2	5	6	14	9	7	1	8	13	10	12	11	0	0	0	8	0	0	10	0	11	0
August	6.5	SW.	26	N.	0	7	5	7	7	8	16	11	1	0	5	11	15	11	8	0	0	0	11	0	0	4	0	8	0
September	8.0	SW.	31	SW.	0	14	0	3	1	11	15	12	4	0	11	9	10	11	9	0	0	0	7	2	0	4	0	7	0
October	7.3	SW.	33	W.	1	1	1	3	3	10	18	7	14	6	0	5	11	14	13	11	3	2	0	12	3	0	0	4	2
November	9.0	W.	36	W.	1	2	5	3	2	13	19	14	4	0	9	8	14	11	8	0	0	0	0	12	5	0	0	0	2
December	9.9	W.	36	W.	4	3	3	7	6	7	13	16	7	0	3	6	22	13	8	3	0	0	11	0	0	0	11	1	0
Year	8.3	W.	45	N.	16	93	31	67	56	99	152	145	86	1	78	117	170	149	112	55	28	1	96	12	12	21	79	51	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

POCATELLO, IDAHO

[ϕ=42° 52′ N.; λ=112° 29′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	25.62	25.90	25.20	19.6	26.8	26.9	31.8	13.7	22.8	45	3	15	19	21	83	69	78	0.085	0.098	0.111	0.52	0.25	7.0	5.0	6.1	6.1	6.4
February	25.51	25.81	25.23	24.0	30.6	33.3	37.4	20.5	29.0	47	9	20	23	25	85	71	71	.108	.119	.134	.42	.16	3.6	5.1	5.7	5.2	5.6
March	25.54	25.92	25.08	30.6	39.5	42.2	46.5	26.5	36.5	65	12	22	24	24	72	55	49	.125	.134	.131	.81	.38	5.6	5.0	5.6	6.0	5.8
April	25.47	25.88	25.13	38.2	52.9	55.5	59.2	35.7	47.4	74	21	25	25	24	62	38	34	.138	.139	.136	.88	.51	5.2	4.5	5.6	5.5	5.0
May	25.47	25.70	25.13	45.6	63.9	66.0	69.5	43.7	56.6	86	28	32	30	28	60	30	28	.179	.172	.155	.36	.18	T.	3.2	4.6	5.2	4.4
June	25.43	25.63	25.20	55.8	77.5	78.1	82.5	54.7	68.6	93	45	39	38	36	55	25	24	.244	.232	.216	.09	.06	0	4.4	4.3	5.1	4.8
July	25.46	25.78	25.20	61.9	85.4	88.6	91.3	60.2	75.8	105	46	36	36	33	42	20	18	.230	.226	.202	.62	.52	0	2.2	2.4	3.0	2.9
August	25.54	25.71	25.35	60.3	81.9	83.0	86.3	58.4	72.4	97	45	42	41	36	53	26	23	.276	.274	.231	.54	.32	0	3.3	3.9	4.6	4.5
September	25.45	25.83	25.12	50.4	68.5	70.4	74.4	48.2	61.3	92	36	34	37	34	58	35	30	.203	.227	.199	1.11	.35	T.	3.1	3.9	3.9	4.1
October	25.52	25.86	25.11	41.9	57.6	56.9	62.8	39.6	51.2	76	32	32	35	34	70	45	46	.185	.202	.199	1.51	.69	T.	4.7	5.0	5.0	5.5
November	25.49	25.83	24.96	27.5	37.9	35.3	42.0	23.5	32.8	71	−1	21	23	23	78	60	66	.120	.128	.128	.85	.30	10.6	4.3	5.7	4.6	5.4
December	25.48	25.89	24.85	21.1	26.9	26.2	31.5	15.9	23.7	48	−13	16	20	21	80	76	79	.096	.111	.112	1.09	.28	13.3	5.9	6.8	7.2	6.8
Year	25.50	25.92	24.85	39.7	54.1	55.2	59.6	36.7	48.2	105	−13	28	29	28	66	46	46	.166	.172	.163	8.80	.69	45.3	4.2	5.0	5.1	5.1

PORT ARTHUR, TEX.

[ϕ=29° 52′ N.; λ=93° 55′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	30.13	30.57	29.54	47.7	56.4	----	60.3	46.5	53.4	72	34	44	43	----	87	62	----	0.297	0.292	----	6.34	2.16	0	6.3	5.5	----	6.4
February	30.02	30.31	29.65	53.2	62.2	----	65.4	51.4	58.4	76	39	51	51	----	92	68	----	.379	.383	----	4.96	1.27	0	5.5	5.0	----	5.9
March	29.99	30.38	29.58	50.9	60.3	----	64.0	47.9	56.0	74	34	45	44	----	82	58	----	.324	.319	----	2.33	1.13	0	4.6	4.1	----	4.5
April	30.03	30.34	29.63	59.7	70.0	----	72.9	57.8	65.4	83	40	55	54	----	85	59	----	.450	.443	----	1.59	1.37	0	5.1	5.0	----	5.4
May	29.95	30.21	29.67	67.3	76.7	----	79.7	64.6	72.2	88	53	62	60	----	83	58	----	.561	.535	----	1.20	.54	0	4.2	3.8	----	4.2
June	29.97	30.11	29.82	77.7	86.0	82.3	88.5	74.5	81.5	94	64	72	68	70	82	56	68	.779	.703	0.751	.88	.55	0	2.8	2.8	2.4	3.0
July	29.90	30.08	29.72	80.2	89.3	85.2	91.8	76.8	84.3	96	71	74	72	73	81	58	60	.834	.791	.823	3.10	1.14	0	2.9	4.4	4.0	4.7
August	30.00	30.15	29.85	76.7	85.6	82.5	89.3	74.4	81.8	97	64	71	70	71	84	60	70	.773	.731	.776	3.06	.65	0	3.3	5.1	4.0	4.8
September	29.96	30.22	29.77	76.5	86.5	82.5	89.8	74.2	82.0	97	64	71	69	71	82	57	70	.763	.722	.777	2.03	.90	0	2.6	3.2	1.8	3.2
October	30.00	30.23	29.72	69.3	80.6	76.2	83.2	68.0	75.6	90	47	66	64	66	89	59	72	.663	.629	.667	5.14	2.82	0	3.8	3.2	2.5	3.8
November	30.05	30.30	29.70	62.9	71.9	67.5	75.0	60.6	67.8	83	48	60	60	61	89	68	81	.530	.539	.555	3.13	1.06	0	5.0	5.1	3.7	6.0
December	30.01	30.36	29.48	53.6	59.8	----	62.6	50.1	56.4	77	38	50	52	----	90	78	----	.384	.422	----	9.02	3.32	0	6.2	6.6	----	7.1
Year	30.00	30.57	29.48	64.6	73.8	----	76.9	62.2	69.6	97	34	60	59	----	86	62	----	.561	.542	----	42.78	3.32	0	4.4	4.5	----	4.9

PORT HURON, MICH.

[ϕ=43° 00′ N.; λ=82° 26′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.29	29.83	28.67	23.9	29.2	27.4	32.1	19.2	25.6	45	0	21	23	23	88	76	81	0.114	0.125	0.122	1.99	0.58	15.3	7.2	7.6	7.0	7.2
February	29.35	29.66	29.02	26.5	32.2	30.7	36.2	23.0	29.6	48	8	23	24	25	84	71	77	.123	.130	.133	1.34	.48	9.1	7.4	6.7	6.6	6.9
March	29.26	29.68	28.57	29.1	33.9	31.2	35.8	27.2	31.5	52	18	26	27	27	96	74	83	.139	.145	.146	2.57	1.08	17.2	7.8	7.9	7.5	8.1
April	29.33	29.75	28.72	40.3	49.6	45.0	53.6	35.4	44.5	79	27	32	34	34	73	57	66	.189	.200	.203	2.23	.91	.9	5.7	5.3	4.5	5.2
May	29.22	29.62	28.87	52.2	60.2	55.8	64.3	45.6	55.0	86	34	43	43	43	72	56	65	.289	.290	.291	1.87	.64	0	5.6	5.0	5.0	5.2
June	29.31	29.59	28.77	63.0	71.0	67.2	74.0	56.1	65.0	96	40	54	56	56	72	61	70	.428	.472	.482	2.27	.99	0	5.5	5.3	6.0	5.8
July	29.23	29.49	28.83	71.1	79.6	74.7	82.8	65.0	73.9	97	54	62	61	62	72	54	66	.558	.554	.565	3.58	1.25	0	4.1	4.5	4.7	4.7
August	29.34	29.64	29.03	66.9	75.8	71.9	78.9	62.0	70.8	94	40	58	58	58	74	56	64	.499	.502	.499	1.40	.61	0	6.1	4.9	3.6	5.2
September	29.30	29.74	28.86	62.8	72.3	68.6	75.8	58.9	67.4	98	45	57	58	59	82	63	72	.488	.491	.510	2.92	1.42	0	4.5	6.1	4.2	5.3
October	29.34	29.97	28.86	50.0	60.5	55.7	63.6	47.3	55.4	80	33	45	45	46	82	58	71	.311	.314	.331	1.35	.30	0	4.9	5.9	5.1	5.5
November	29.38	29.87	28.90	43.0	50.7	47.1	53.4	39.3	46.4	69	24	38	40	39	83	67	74	.244	.262	.255	2.25	.77	.4	6.5	7.6	6.6	7.0
December	29.38	29.90	28.80	32.5	37.3	36.1	40.9	29.5	35.2	59	14	29	30	31	85	76	80	.163	.175	.177	1.82	.53	3.0	6.8	7.7	6.8	7.3
Year	29.31	29.97	28.57	46.8	54.4	51.0	57.6	42.4	50.0	98	0	41	42	42	79	64	72	.295	.305	.310	25.64	1.42	45.9	6.0	6.2	5.6	6.1

PORTLAND, ME.

[ϕ=43° 39′ N.; λ=70° 15′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.80	30.26	28.76	20.4	27.4	26.8	32.8	17.6	25.2	47	1	12	14	15	68	56	59	0.080	0.087	0.091	3.22	1.16	16.0	4.4	3.3	4.3	4.1
February	29.87	30.39	29.42	22.3	28.5	24.3	33.2	19.0	26.1	47	3	15	17	18	71	62	64	.093	.102	.102	3.15	1.19	20.9	5.9	5.7	6.1	5.5
March	29.80	30.34	29.22	33.6	39.0	36.8	41.7	31.6	36.6	53	24	27	26	27	74	61	68	.147	.141	.147	6.78	2.66	9.1	5.7	6.3	5.3	5.8
April	29.87	30.32	29.10	43.5	50.0	46.0	53.5	37.8	45.6	65	30	30	30	32	62	49	59	.176	.171	.152	3.23	1.06	4.4	4.6	4.7	3.6	4.5
May	29.79	30.08	29.25	53.0	58.6	54.8	62.6	46.9	54.8	91	33	43	42	44	71	60	68	.288	.289	.294	2.84	1.51	0	4.8	4.8	5.1	5.0
June	29.82	30.14	29.51	63.9	68.3	63.8	72.1	56.4	64.2	94	50	52	52	52	68	60	68	.404	.392	.397	5.49	1.71	0	4.3	5.4	4.9	4.7
July	29.79	30.02	29.34	67.7	72.6	68.2	76.9	62.4	69.6	95	58	61	60	60	80	66	76	.538	.519	.525	2.72	.96	0	3.7	5.1	3.4	4.7
August	29.90	30.26	29.57	65.7	71.6	67.9	75.4	60.5	68.0	98	54	57	57	58	74	63	73	.470	.479	.492	3.41	2.14	0	4.4	4.8	5.2	5.0
September	29.85	30.34	29.37	59.4	67.0	62.8	71.2	55.3	63.2	95	45	52	52	53	79	61	73	.409	.412	.421	2.95	.76	0	4.8	4.5	4.4	4.8
October	29.85	30.25	29.14	49.8	57.3	54.0	61.5	46.0	53.8	79	33	42	43	43	76	61	68	.294	.288	.288	4.38	2.12	0	3.9	4.2	3.9	4.3
November	30.01	30.48	29.44	40.9	47.3	44.6	51.5	37.8	44.6	74	22	36	38	36	75	61	70	.205	.209	.214	1.94	.58	.2	4.4	5.5	4.3	5.9
December	29.88	30.51	29.30	28.4	33.8	32.1	39.1	24.6	31.8	51	13	19	20	21	66	56	64	.112	.117	.126	3.53	1.02	2.9	3.7	5.1	4.3	5.8
Year	29.85	30.51	28.76	45.7	51.8	48.8	56.0	41.3	48.6	98	1	37	37	38	72	60	68	.267	.267	.272	43.82	2.66	53.5	4.5	5.0	4.6	5.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

POCATELLO, IDAHO

[H_b=4,477 ft.; h_t=60 ft.; h_r=52 ft.; h_a=68 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: Number of days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.4	SE.	29	S.	0	3	0	6	20	7	8	5	15	9	7	7	17	7	4	12	7	0	10	4	15	0	31	0	0
February	6.1	SE.	28	SW.	0	8	1	5	12	7	9	6	7	1	8	10	10	7	4	10	7	0	8	4	3	0	28	0	0
March	8.2	SE.	34	SW.	2	5	1	1	13	14	18	3	7	0	5	16	10	9	6	7	5	1	1	0	2	0	22	0	0
April	8.0	SE.	28	SW.	0	2	1	4	16	12	19	4	2	0	12	12	6	8	6	5	3	1	9	0	0	0	9	0	0
May	6.8	SE.	37	SW.	1	2	2	6	17	10	12	3	9	1	12	15	4	5	4	2	0	0	9	0	0	0	1	4	0
June	6.7	SE.	41	SW.	2	6	1	7	17	7	10	6	6	0	8	19	3	2	1	0	0	0	9	0	0	2	0	2	0
July	6.6	SE.	30	SW.	0	1	2	5	22	3	8	13	8	0	21	5	5	4	2	0	0	1	0	0	0	20	0	7	0
August	6.1	SE.	41	SW.	1	4	1	3	25	4	10	5	8	2	13	10	8	3	3	0	0	0	0	0	0	10	0	6	0
September	7.4	SE.	36	S.	2	4	0	5	17	8	17	7	2	0	12	12	6	7	5	2	0	1	1	0	0	1	0	1	0
October	6.1	SE.	33	SW.	1	3	0	4	20	5	11	6	11	2	12	7	12	8	4	1	1	0	4	1	0	0	1	1	0
November	8.3	SE.	31	SW.	0	7	0	3	27	6	11	3	3	0	7	13	10	7	5	10	5	0	4	0	10	0	22	1	0
December	7.3	SE.	36	S.	2	6	3	5	20	7	11	6	3	1	5	9	17	14	6	18	12	0	3	3	17	0	28	0	0
Year	7.0	SE.	41	SW.	11	51	12	54	226	90	144	67	79	7	122	135	108	81	50	67	40	4	31	12	47	33	140	22	0

PORT ARTHUR, TEX.

[H_b=34 ft.; h_t=58 ft.; h_r=51 ft.; h_a=66 ft.]

January	6.5	E.	24	NW.	0	10	1	11	3	1	2	1	2	0	9	7	15	7	7	0	0	0	0	0	0	0	0	1	0
February	7.0	N.	28	E.	0	8	1	4	5	3	1	3	3	0	10	4	14	7	7	0	0	0	4	3	0	0	0	4	0
March	9.1	S.	29	NW.	0	3	3	3	5	6	2	3	6	0	14	8	9	7	7	0	0	0	2	0	0	0	0	2	0
April	7.1	S.	27	N.	0	7	2	6	3	5	3	2	1	1	10	9	11	6	4	0	0	0	1	1	0	0	0	2	0
May	6.6	S.	23	N.	0	11	1	5	1	6	4	0	3	0	17	6	8	6	3	0	0	0	1	0	0	0	0	6	0
June	6.4	S.	20	E.	0	2	5	5	7	27	10	2	1	1	20	8	2	3	3	0	0	0	0	0	0	10	0	3	0
July	6.3	S.	25	E.	0	2	6	5	11	13	15	4	5	1	10	14	7	14	8	0	0	0	0	0	0	26	0	14	0
August	5.9	S.	28	N.	0	8	9	7	6	25	5	1	1	0	14	7	10	14	10	0	0	0	0	0	0	14	0	16	0
September	6.2	S.	41	E.	1	3	12	10	9	20	2	3	1	0	16	12	2	10	9	0	0	0	2	1	0	21	0	8	0
October	5.9	E.	21	N.	0	8	11	15	13	10	1	0	3	1	13	16	2	7	5	0	0	0	2	1	0	0	0	2	0
November	6.1	E.	25	S.	0	7	7	17	20	3	3	0	3	0	6	13	11	14	9	0	0	0	2	4	0	0	0	1	0
December	8.0	S.	26	NE.	0	5	8	2	4	4	2	2	4	0	5	9	17	14	12	0	0	0	1	6	0	0	0	3	0
Year	6.8	S.	41	E.	1	74	66	90	87	123	50	21	33	4	144	113	108	109	84	0	0	0	13	15	0	71	0	62	0

PORT HURON, MICH.

[H_b=38 ft.; h_t=70 ft.; h_r=63 ft.; h_a=120 ft.]

January	10.1	SW.	32	NW.	0	4	3	4	3	15	12	11	10	0	5	9	17	14	10	20	14	0	16	0	14	0	31	0	0
February	9.3	NW.	26	NW.	0	10	4	3	3	7	8	4	16	1	6	8	14	10	7	17	9	0	9	0	7	0	27	0	0
March	9.7	N.	30	NW.	0	16	13	6	4	3	3	5	12	0	3	5	23	12	9	19	8	0	2	0	5	0	27	0	0
April	10.0	N.	37	NW.	1	14	8	2	4	11	5	4	12	0	11	7	12	8	8	5	1	0	3	0	0	0	11	0	0
May	10.1	S.	27	W.	0	15	6	0	5	20	4	6	6	0	10	12	9	14	8	0	0	1	10	1	0	0	0	5	0
June	8.0	S.	45	W.	1	14	5	4	3	13	6	7	10	0	12	11	8	11	10	0	0	1	7	1	0	4	0	10	1
July	7.7	S.	38	W.	2	10	10	3	3	13	6	7	10	0	12	11	8	11	10	0	0	0	7	1	0	6	0	10	0
August	8.5	N.	30	W.	0	16	14	3	4	6	4	10	4	1	7	17	7	12	8	0	0	0	14	0	0	3	0	6	0
September	9.0	S.	26	NW.	0	3	7	3	5	18	12	2	10	0	9	11	10	12	9	0	0	0	18	1	0	5	0	7	0
October	9.4	S.	29	NW.	0	2	1	3	8	22	7	8	11	0	11	9	11	10	9	0	0	0	11	0	0	0	6	1	2
November	11.1	S.	30	NW.	0	3	0	5	6	18	10	13	5	0	2	12	16	11	8	4	2	0	11	0	0	0	0	0	0
December	10.2	W.	36	NW.	1	5	4	5	8	7	15	10	8	0	4	9	18	13	8	8	5	0	11	1	2	0	22	1	0
Year	9.4	S.	45	W.	5	112	75	41	61	156	91	86	106	2	87	122	156	137	104	73	39	2	118	5	28	18	124	40	3

PORTLAND, ME.

[H_b=103 ft.; h_t=82 ft.; h_r=75 ft.; h_a=117 ft.]

January	7.7	W.	25	NE.	0	16	3	0	1	1	7	20	12	2	17	6	8	10	8	12	9	0	0	0	15	0	30	0	0
February	8.2	N.	26	S.	0	22	5	1	0	1	7	3	15	2	11	5	12	10	8	11	8	0	1	2	12	0	27	0	4
March	8.6	N.	32	E.	0	17	12	6	2	1	6	3	11	4	12	4	15	11	9	10	9	0	2	0	0	0	19	2	4
April	9.0	NW.	38	S.	1	14	5	3	1	3	15	4	11	4	15	6	9	11	6	3	2	0	1	1	0	0	2	3	5
May	7.8	S.	26	E.	0	5	5	10	3	12	15	6	5	1	13	9	8	14	12	0	0	0	8	0	0	0	2	0	5
June	7.8	N.	27	NE.	0	17	5	4	5	5	12	6	5	1	14	10	7	16	11	0	0	0	9	12	0	0	2	0	5
July	6.7	S.	24	SW.	0	4	5	6	5	11	18	10	2	1	13	9	8	15	8	0	0	0	7	5	0	1	0	0	5
August	6.7	N.	22	NW.	0	15	3	8	2	6	6	11	7	4	16	5	10	15	8	0	0	0	2	1	0	2	0	7	8
September	7.7	NW.	26	NW.	0	8	5	2	0	10	11	8	10	6	15	8	7	10	9	0	0	0	2	0	0	0	0	4	5
October	7.6	W.	32	NW.	0	14	2	1	2	3	11	11	10	8	15	7	9	9	7	0	0	0	2	0	0	0	0	0	5
November	7.4	SW.	26	NW.	0	9	3	0	0	4	20	10	10	4	12	5	13	9	6	4	1	0	7	0	0	0	5	0	2
December	7.9	NW.	30	NW.	0	16	4	9	0	4	12	8	17	1	11	6	14	13	10	8	4	0	3	3	4	0	24	2	2
Year	7.7	N.	38	S.	1	157	57	41	21	61	140	100	115	38	165	78	122	140	104	48	33	3	58	50	31	8	107	41	40

Annual meteorological summaries for the year ending December 31, 1931—Continued

PORTLAND, OREG.

[ϕ=45° 32′ N.; λ=122° 41′ W.]

Month	Pressure			Temperature							Moisture																
		Extremes		Mean					Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.90	30.32	29.33	42.1	46.6	46.8	49.8	39.6	44.7	64	30	37	38	39	83	74	75	0.225	0.236	0.244	4.30	1.10	0	7.6	7.4	8.5	8.3
February	29.92	30.37	29.53	41.0	47.3	49.0	51.2	38.8	45.0	58	32	35	35	36	79	65	62	.203	.208	.214	2.40	.70	0	7.8	7.5	7.4	7.8
March	29.97	30.38	29.44	44.4	51.4	53.5	56.9	41.8	48.8	65	33	39	40	40	84	68	64	.248	.258	.260	8.12	2.50	T.	7.0	8.6	7.9	8.5
April	29.90	30.37	29.52	47.4	59.3	63.3	65.2	45.9	55.6	86	37	37	37	38	72	48	43	.232	.233	.236	2.40	1.18	0	4.8	6.1	5.9	6.0
May	29.89	30.43	29.46	53.1	66.9	71.8	73.5	51.9	62.7	93	40	46	45	45	78	48	41	.311	.299	.303	1.09	.51	0	5.7	5.4	5.1	5.7
June	29.84	30.06	29.62	55.3	67.0	69.8	72.6	54.6	63.6	91	47	50	49	50	84	54	53	.365	.350	.367	3.13	1.03	0	7.3	6.7	6.4	6.8
July	29.83	30.22	29.53	58.9	73.7	81.1	82.1	58.1	70.1	101	53	52	52	52	77	48	38	.384	.388	.392	T.	T.	0	3.8	2.4	1.9	3.0
August	29.89	30.08	29.60	58.3	73.7	79.6	81.1	57.3	69.2	96	52	52	51	51	81	48	39	.394	.387	.380	.04	.04	0	4.1	2.4	2.2	3.0
September	29.84	30.13	29.53	55.4	66.3	69.0	71.5	54.0	62.8	89	45	52	50	49	88	57	52	.388	.367	.362	2.10	.90	0	7.0	6.1	5.2	6.5
October	29.89	30.17	29.20	49.9	59.8	61.4	64.0	47.6	55.8	79	39	47	46	47	89	62	62	.323	.312	.325	4.32	1.19	0	5.5	5.9	6.0	6.1
November	29.92	30.28	29.29	40.8	47.0	46.4	49.6	38.3	44.0	67	25	36	37	37	83	69	70	.219	.229	.230	6.38	1.92	0	5.7	6.6	6.5	6.9
December	29.76	30.28	29.16	38.0	41.8	41.1	44.4	35.9	40.2	59	25	34	35	35	84	76	79	.196	.207	.206	8.40	1.33	1.0	8.8	8.8	8.2	8.8
Year	29.88	30.43	29.16	48.7	58.4	61.1	63.4	47.0	55.2	101	25	43	43	43	82	60	60	.291	.290	.293	42.68	2.50	1.0	6.3	6.2	5.9	6.4

PROVIDENCE, R. I.

[ϕ=41° 50′ N.; λ=71° 25′ W.]

January	29.76	30.19	28.72	26.6	32.8	30.7	37.2	22.3	29.8	51	9	17	18	21	65	53	65	0.103	0.106	0.119	3.42	0.99	12.0	5.1	4.4	3.0	4.2
February	29.80	30.30	29.45	27.3	34.1	31.9	38.2	22.6	30.4	49	4	20	23	23	72	65	70	.116	.131	.128	1.98	.68	4.6	5.5	5.3	4.5	5.3
March	29.70	30.23	29.10	36.2	42.3	38.4	45.1	32.4	38.8	53	26	29	30	31	75	63	76	.160	.166	.176	4.14	1.54	10.2	5.8	6.2	5.5	5.7
April	29.82	30.29	29.16	47.2	55.8	49.7	58.7	40.7	49.7	71	33	35	35	36	64	49	62	.208	.212	.220	2.68	1.79	T.	4.0	3.7	4.1	4.3
May	29.77	30.05	29.36	58.8	66.8	59.3	69.4	50.5	60.0	93	35	47	47	49	67	54	72	.338	.343	.362	4.07	1.15	0	4.5	4.4	5.2	5.1
June	29.77	30.09	29.42	66.6	73.1	67.5	76.4	58.2	67.3	93	51	57	56	58	73	60	72	.469	.466	.482	4.95	3.04	0	4.4	4.9	4.9	4.8
July	29.75	29.96	29.35	72.1	78.2	73.4	81.6	65.8	73.7	94	59	66	66	65	81	70	77	.636	.657	.633	3.03	1.55	0	6.3	5.9	4.7	5.4
August	29.85	30.21	29.45	70.0	77.1	71.4	80.5	63.9	72.2	95	56	63	63	64	79	64	80	.589	.589	.611	4.99	1.83	0	5.8	4.4	5.1	5.3
September	29.82	30.31	29.40	64.7	73.3	67.0	76.7	57.9	67.3	94	44	57	58	58	78	61	76	.489	.504	.516	1.37	.82	0	4.3	3.6	4.5	4.0
October	29.83	30.27	29.17	53.8	64.0	57.2	66.6	48.2	57.4	82	35	46	48	46	76	58	70	.330	.359	.338	2.40	.97	0	4.0	3.3	3.3	3.5
November	30.00	30.41	29.46	45.3	52.2	48.4	55.8	40.3	48.0	72	22	38	39	39	76	64	71	.250	.262	.257	.83	.27	.3	5.2	5.1	4.2	5.3
December	29.87	30.45	29.35	34.5	40.0	38.4	44.8	29.2	37.0	57	14	24	24	26	63	55	60	.142	.146	.155	3.20	.94	.3	5.0	5.6	3.9	5.4
Year	29.81	30.45	28.72	50.3	57.5	52.8	60.9	44.3	52.6	95	4	42	42	43	72	60	71	.319	.328	.333	37.06	3.04	27.4	5.0	4.7	4.4	4.9

PUEBLO, COLO.

[ϕ=38° 18′ N.; λ=104° 36′ W.]

January	25.32	25.72	24.73	22.3	44.6	39.2	49.1	15.7	32.4	64	4	12	14	20	64	31	47	0.074	0.083	0.106	0.12	0.12	1.6	2.2	3.7	2.7	3.6
February	25.26	25.67	24.92	28.6	46.9	46.7	52.0	25.7	38.8	63	16	22	22	24	74	41	44	.114	.118	.130	1.11	.70	9.2	4.1	4.1	4.4	4.7
March	25.28	25.68	24.68	28.9	44.5	46.4	51.2	25.1	38.2	72	10	21	20	20	72	41	38	.115	.110	.111	.41	.15	2.4	5.4	5.0	4.2	4.9
April	25.20	25.69	24.78	38.9	59.1	59.8	64.8	36.6	50.7	81	23	27	24	24	64	31	31	.151	.134	.138	1.02	.45	1.8	5.3	5.7	5.9	5.6
May	25.29	25.62	24.90	46.2	65.9	66.5	71.3	44.5	57.9	90	32	36	32	33	71	34	35	.219	.187	.194	2.58	.76	T.	3.9	4.4	6.1	4.9
June	25.28	25.55	24.95	60.6	84.7	83.8	90.2	59.1	74.6	98	49	45	40	42	59	23	26	.303	.256	.277	.60	.29	0	3.1	3.4	5.3	4.0
July	25.31	25.52	25.08	63.5	87.3	86.6	92.5	61.9	77.2	103	47	48	44	44	58	24	26	.340	.301	.298	.86	.57	0	2.2	2.7	5.4	3.8
August	25.39	25.63	25.15	61.2	83.6	82.3	88.6	59.5	74.0	98	51	49	45	44	65	28	30	.352	.307	.303	.83	.31	0	3.2	3.0	5.0	3.9
September	25.28	25.70	24.93	59.0	80.4	79.4	85.2	56.8	71.0	96	43	42	39	41	55	25	28	.278	.248	.263	.72	.64	0	3.5	3.0	4.4	4.1
October	25.34	25.71	24.91	43.0	66.6	64.8	71.9	40.3	56.1	85	20	30	29	31	60	27	30	.171	.168	.177	.13	.11	0	3.5	2.8	3.5	3.3
November	25.27	25.68	24.81	28.9	46.2	43.6	52.0	22.6	37.3	78	2	17	20	19	61	42	43	.093	.108	.104	.42	.23	5.4	3.4	4.3	2.5	4.1
December	25.25	25.64	24.63	23.7	42.9	38.7	47.9	18.5	33.2	60	3	14	18	20	66	36	48	.083	.095	.108	.02	.02	.2	2.0	3.9	2.5	3.5
Year	25.30	25.72	24.63	42.1	62.7	61.5	68.1	38.9	53.4	103	2	30	29	30	64	32	36	.191	.176	.184	8.82	.76	20.6	3.5	3.8	4.3	4.2

RALEIGH, N. C.

[ϕ=35° 45′ N.; λ=78° 37′ W.]

January	29.67	30.14	28.79	36.8	47.5	45.4	52.1	34.6	43.4	72	20	29	34	30	72	62	58	0.163	0.200	0.177	2.08	0.90	4.0	4.1	4.8	3.9	4.8
February	29.66	29.94	29.20	38.0	51.2	49.2	56.6	35.4	46.0	70	23	30	34	32	72	54	55	.174	.211	.194	1.80	.50	0	4.2	5.0	2.9	4.9
March	29.52	29.95	28.93	40.1	49.1	48.6	54.8	37.6	46.2	68	28	32	35	34	73	57	59	.185	.201	.203	3.15	1.69	.8	6.2	7.2	3.5	6.1
April	29.64	30.04	28.86	51.8	62.8	61.4	68.1	46.7	57.4	83	37	42	44	43	71	54	55	.282	.299	.290	3.44	1.18	0	6.1	6.1	5.2	6.0
May	29.56	29.90	29.23	61.9	73.1	69.1	77.3	56.4	66.8	88	41	54	54	54	76	53	62	.426	.433	.430	6.16	2.60	0	5.2	6.0	4.9	5.4
June	29.61	29.84	29.18	71.6	82.6	79.1	87.8	65.6	76.4	96	53	62	60	62	71	47	56	.562	.528	.569	2.53	1.69	0	4.8	4.5	5.4	4.9
July	29.56	29.76	29.32	77.5	87.4	81.4	91.0	71.8	81.4	98	68	70	70	71	80	56	72	.748	.723	.760	12.36	4.83	0	5.2	5.9	7.2	5.8
August	29.65	29.98	29.23	72.1	81.3	76.1	84.9	67.5	76.2	95	57	68	67	68	86	64	78	.689	.678	.700	9.54	3.16	0	5.9	6.4	6.9	6.4
September	29.68	30.09	29.28	71.0	82.9	76.7	86.3	66.2	76.2	97	48	63	62	63	76	50	63	.591	.578	.593	2.37	1.88	0	3.9	2.7	2.1	3.6
October	29.72	30.09	29.25	58.0	71.6	66.1	75.5	53.7	64.6	88	41	50	49	48	74	46	53	.377	.389	.386	.80	.68	0	2.6	3.4	2.6	3.2
November	29.83	30.14	29.50	50.5	65.0	60.2	68.5	48.2	58.4	80	34	42	45	42	76	51	55	.294	.322	.295	.06	.04	0	2.5	3.7	3.0	4.1
December	29.77	30.25	29.40	45.6	55.7	52.5	60.0	42.3	51.2	79	29	40	43	40	81	69	66	.270	.307	.275	6.12	2.67	0	6.1	6.0	4.8	5.1
Year	29.66	30.25	28.79	56.2	67.5	63.8	71.9	52.2	62.0	98	20	48	50	49	76	55	61	.396	.404	.404	50.41	4.83	4.5	4.6	5.1	4.4	5.1

Annual meteorological summaries for the year ending December 31, 1931—Continued

PORTLAND, OREG.

[H_b=153 ft.; h_t= 68 ft.; h_r=63 ft.; h_a=106 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	5.2	SE.	30	S.	0	2	6	12	25	5	8	0	4	0	1	6	24	16	13	0	0	0	6	4	0	2	2	0	0
February	6.3	E.	24	SW.	0	3	2	12	9	4	8	3	15	0	2	8	18	12	11	0	0	1	10	5	0	0	1	0	0
March	5.9	SW.	26	W.	0	2	6	5	9	8	15	4	10	3	3	1	27	20	16	1	1	2	5	3	0	0	0	0	0
April	6.0	NW.	32	NE.	0	5	6	3	6	7	6	7	19	1	7	10	13	10	9	0	0	1	2	0	0	0	0	0	0
May	5.1	NW.	18	W.	0	4	1	2	4	3	7	7	34	0	9	10	12	8	5	0	0	1	0	0	0	0	2	0	0
June	4.6	NW.	20	W.	0	5	1	0	9	7	13	7	17	1	7	6	17	16	12	0	0	0	0	0	0	0	2	0	3
July	5.7	NW.	18	NW.	0	14	2	0	5	3	2	2	34	0	20	7	4	0	0	0	0	0	0	0	0	0	5	0	0
August	5.2	NW.	16	NW.	0	4	1	6	0	1	6	1	42	1	20	9	2	1	1	0	0	0	0	0	0	0	4	0	1
September	4.5	NW.	18	NE.	0	4	2	2	8	7	4	5	27	1	7	7	16	10	5	0	0	0	5	1	0	0	0	0	1
October	4.7	NW.	17	E.	0	6	1	4	10	11	5	3	20	2	7	10	14	12	10	0	0	1	10	1	0	0	0	0	2
November	5.7	SE.	24	SW.	0	2	3	10	8	8	12	4	13	0	8	1	21	14	14	0	0	0	4	2	0	0	0	0	0
December	5.1	SE.	20	S.	0	2	3	14	16	11	2	6	6	2	2	2	27	24	22	4	2	0	9	1	1	0	7	0	0
Year	5.2	NW.	32	NE.	0	53	34	70	109	75	88	49	241	11	93	77	195	143	118	5	3	6	51	17	1	13	17	7	0

PROVIDENCE, R. I.

[H_b=160 ft.; h_t=215 ft.; h_r=211 ft.; h_a=251 ft.]

January	11.2	NW.	40	NW.	4	1	2	2	3	2	7	8	37	0	16	9	6	8	7	9	5	0	6	1	7	0	29	0	0
February	11.8	NW.	38	NW.	2	4	6	2	2	2	6	5	28	1	11	4	13	8	8	11	7	0	7	0	3	0	24	0	0
March	12.4	NW.	34	N.	1	9	12	2	8	4	1	0	26	0	10	8	13	12	9	11	6	0	6	0	0	0	13	1	0
April	11.9	NW.	48	NW.	4	3	6	1	4	9	10	3	24	0	15	7	8	10	9	11	1	0	9	0	0	0	0	1	0
May	9.5	NW.	40	NW.	2	5	5	2	14	7	14	5	10	0	12	11	8	14	9	0	0	0	14	0	0	0	3	0	0
June	9.5	NW.	28	NW.	0	14	6	1	3	10	9	4	13	0	16	3	11	12	8	0	0	0	7	0	0	0	3	0	1
July	8.5	NW.	25	NW.	0	1	5	4	9	13	12	3	15	0	8	13	10	13	10	0	0	0	16	0	0	0	3	0	0
August	8.0	NW.	34	NW.	1	8	9	3	3	6	12	3	18	0	11	7	13	13	8	0	0	0	12	0	0	0	3	0	0
September	9.8	NW.	38	NW.	1	2	5	4	2	10	13	5	19	0	17	5	8	6	6	0	0	0	9	0	0	0	3	0	0
October	9.7	NW.	42	NW.	3	3	3	2	2	12	9	5	26	0	17	9	5	9	6	0	0	0	8	0	0	0	0	2	1
November	9.2	NW.	34	NW.	3	8	1	2	0	13	13	3	20	0	11	8	11	11	5	1	1	0	9	2	0	0	6	0	0
December	11.8	NW.	46	NW.	6	3	2	0	1	5	7	7	37	0	11	7	13	11	9	3	3	0	10	1	1	0	18	0	0
Year	10.3	NW.	48	NW.	27	61	62	25	51	93	113	51	273	1	155	91	119	127	90	36	23	0	113	4	11	15	90	24	1

PUEBLO, COLO.

[H_b=4,685 ft.; h_t=80 ft.; h_r=72 ft.; h_a=86 ft.]

January	4.6	NW.	25	W.	0	10	1	5	17	5	2	5	16	1	17	11	3	1	1	2	1	0	0	0	2	0	30	0	0
February	4.8	NW.	23	W.	0	11	6	12	10	1	0	3	13	0	12	8	8	6	5	6	5	0	1	1	0	0	24	1	0
March	5.3	NW.	38	W.	3	8	9	7	8	4	5	12	9	0	13	12	6	8	4	5	4	0	2	1	0	0	23	6	0
April	6.1	NW.	32	W.	0	7	6	7	13	3	3	7	13	1	9	12	9	6	5	6	2	1	0	0	0	0	10	1	0
May	6.3	NW.	30	W.	0	7	7	8	7	5	4	8	16	0	12	13	6	10	10	2	2	0	1	0	0	1	1	1	0
June	6.0	NW.	26	SW.	0	11	7	5	8	5	3	5	15	1	11	18	1	4	3	0	0	0	0	0	0	18	0	9	0
July	5.6	E.	32	NW.	0	10	4	17	4	2	3	7	13	2	19	10	2	8	4	0	0	0	0	0	0	20	0	7	0
August	5.2	E.	26	NW.	0	10	3	14	12	2	2	3	15	1	17	12	2	8	4	0	0	0	0	0	0	14	0	8	0
September	6.2	NW.	28	NW.	0	11	1	11	6	1	7	5	15	3	13	14	3	3	2	0	0	0	0	0	0	12	0	5	0
October	5.2	NW.	34	W.	1	8	5	18	6	0	2	7	15	1	19	9	3	3	1	0	0	0	0	0	0	0	2	2	0
November	4.8	NW.	29	NW.	0	11	9	11	6	2	5	4	11	1	16	7	7	6	3	6	5	0	0	3	1	5	0	22	0
December	5.2	NW.	33	W.	1	12	4	1	5	6	0	14	20	0	16	13	2	1	0	2	1	0	0	0	0	0	28	0	0
Year	5.5	NW.	38	W.	5	116	62	116	102	36	36	80	171	11	174	139	52	64	42	29	20	1	7	4	8	65	140	34	0

RALEIGH, N. C.

[H_b=376 ft.; h_t=103 ft.; h_r=94 ft.; h_a=146 ft.]

January	7.1	SW.	30	NW.	0	4	1	4	3	3	16	17	13	1	15	5	11	6	5	2	2	0	5	4	0	0	11	0	0
February	7.5	SW.	28	SW.	0	8	7	7	3	3	13	4	11	0	10	11	7	7	6	0	0	0	3	1	0	0	8	0	0
March	9.3	NW.	27	W.	0	13	10	5	1	6	5	11	11	0	9	7	15	8	7	3	1	0	0	0	0	0	4	1	0
April	8.2	SW.	31	W.	0	6	10	3	6	9	12	7	7	0	10	7	13	13	10	0	0	0	4	3	0	0	0	2	0
May	7.0	SW.	32	SE.	0	1	8	6	5	12	16	6	8	0	9	12	10	9	9	0	0	1	6	0	0	0	0	7	0
June	6.5	SW.	33	NW.	1	7	5	6	6	4	17	6	7	3	6	21	3	5	5	0	0	0	0	0	0	12	0	7	0
July	5.3	SW.	28	NW.	1	3	5	4	8	5	25	7	4	1	6	18	7	16	8	0	0	0	1	1	0	20	0	15	0
August	5.4	SW.	39	NW.	1	10	5	5	7	3	15	9	5	3	6	16	9	16	12	0	0	0	3	1	0	8	0	10	0
September	6.2	SW.	23	N.	0	8	6	2	3	10	17	5	5	4	17	10	3	3	3	0	0	0	0	0	0	13	0	3	0
October	6.5	SW.	25	NW.	0	7	7	4	2	12	10	7	10	3	19	7	5	3	2	0	0	0	0	0	0	0	0	1	0
November	6.2	SW.	19	NW.	0	12	7	2	6	10	10	6	6	1	15	10	5	2	1	0	0	0	6	6	0	0	0	0	0
December	7.3	SW.	28	NW.	0	9	12	4	1	3	14	12	7	0	8	9	14	12	12	0	0	0	7	4	0	0	3	1	0
Year	6.9	SW.	39	NW.	2	88	83	52	50	80	170	97	94	16	130	133	102	94	80	5	3	1	35	20	0	53	26	47	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

RAPID CITY, S. DAK.

[ϕ=44° 04′ N.; λ=103° 12′ W.]

Month	Pressure			Temperature								Moisture															
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	26.61	26.91	26.20	29.1	42.7	35.0	45.8	22.6	34.2	70	−3	17	21	19	62	43	53	0.095	0.111	0.103	0.15	0.08	2.0	2.3	3.6	3.1	3.8
February	26.60	27.01	26.25	29.4	44.1	39.6	47.6	25.0	36.3	63	11	22	26	25	75	52	57	.119	.139	.133	.13	.10	.6	4.3	5.6	5.2	5.6
March	26.64	27.07	26.11	26.4	36.9	35.0	41.7	21.0	31.4	62	−5	20	23	23	76	60	65	.111	.127	.128	1.15	.29	7.9	5.7	6.1	6.5	6.1
April	26.64	27.08	26.06	38.3	55.1	55.0	59.4	35.1	47.2	80	21	25	27	28	60	37	39	.136	.150	.154	.36	.22	.1	3.6	6.0	5.3	4.8
May	26.58	26.93	26.12	47.6	62.5	63.0	68.0	41.7	54.8	94	27	34	35	36	62	40	40	.202	.208	.217	1.06	.42	T.	3.9	4.8	5.2	4.8
June	26.53	26.88	26.22	64.7	80.0	81.2	85.1	59.9	72.5	105	50	50	48	49	61	37	36	.362	.349	.356	1.97	1.29	0	3.9	4.0	4.5	4.2
July	26.58	26.82	26.10	65.4	82.8	84.2	88.4	61.7	75.0	105	46	50	47	47	59	32	32	.363	.336	.337	1.42	.89	0	4.4	2.8	4.6	3.6
August	26.67	26.99	26.16	61.3	79.0	80.6	84.3	57.9	71.1	101	45	48	47	46	65	37	33	.349	.334	.325	1.00	.39	0	3.5	4.8	4.3	4.1
September	26.54	26.99	26.11	57.3	76.6	74.9	81.1	54.2	67.6	101	39	40	40	38	55	31	30	.249	.254	.235	.22	.18	0	4.4	4.0	3.3	3.8
October	26.63	27.07	26.03	44.8	59.6	55.1	63.7	39.9	51.8	84	16	31	30	32	62	38	46	.176	.171	.186	.79	.42	.7	4.0	3.9	4.3	4.0
November	26.57	27.04	26.06	30.2	43.7	37.8	47.9	24.6	36.2	77	6	19	22	22	66	47	56	.106	.120	.117	.44	.21	4.9	4.7	5.0	4.6	4.9
December	26.54	26.90	26.08	27.1	37.9	31.2	42.0	21.2	31.6	59	7	17	22	22	69	55	71	.096	.115	.119	.62	.36	6.0	3.2	5.0	4.6	4.8
Year	26.59	27.08	26.03	43.5	58.4	56.0	62.9	38.7	50.8	105	−5	31	32	32	64	42	46	.197	.201	.201	9.31	1.29	22.2	4.0	4.6	4.6	4.5

READING, PA.

[ϕ=40° 20′ N.; λ=75° 58′ W.]

January	29.67	30.15	28.67	29.0	35.4	34.4	39.8	26.5	33.2	56	13	22	22	24	73	58	64	0.119	0.122	0.132	2.16	1.05	0.3	5.7	6.2	4.4	5.3
February	29.70	30.09	29.33	29.9	37.3	37.1	43.2	27.6	35.4	55	15	23	23	26	74	57	64	.124	.127	.144	1.90	.71	1.6	6.2	5.3	5.0	5.0
March	29.57	30.05	28.80	35.6	41.7	40.3	45.5	33.2	39.4	58	27	28	28	30	73	60	66	.152	.156	.164	4.35	1.43	3.2	7.9	8.2	7.2	7.1
April	29.67	30.18	28.82	46.4	56.3	54.0	60.8	41.5	51.2	76	35	35	34	36	65	47	52	.206	.209	.215	1.91	.83	0	5.9	5.8	5.3	5.2
May	29.59	29.96	29.28	58.1	67.0	65.1	72.7	52.4	62.5	91	35	47	48	50	68	54	60	.341	.345	.372	3.66	1.78	0	5.8	6.5	6.4	5.7
June	29.63	29.92	29.31	67.7	76.6	74.2	81.2	60.9	71.0	98	51	56	55	57	66	50	57	.448	.449	.472	4.66	2.50	0	5.1	5.0	5.2	5.0
July	29.58	29.83	29.19	74.5	82.9	78.5	87.5	68.4	78.0	99	61	65	65	66	74	56	66	.629	.624	.638	4.55	2.08	0	4.4	6.3	5.1	5.1
August	29.68	30.05	29.16	70.5	78.8	75.0	82.8	65.5	74.2	96	58	63	61	63	77	57	67	.579	.555	.584	4.72	1.87	0	6.7	7.1	6.9	6.6
September	29.68	30.17	29.31	67.1	76.9	72.6	81.9	62.1	72.0	99	46	51	60	61	76	58	68	.519	.543	.557	2.79	2.17	0	4.4	4.6	3.9	4.2
October	29.72	30.15	29.08	52.6	63.9	60.6	66.9	48.8	58.8	85	37	47	49	50	82	60	70	.340	.368	.385	2.06	1.30	0	3.8	6.1	3.3	4.7
November	29.85	30.25	29.35	47.5	53.8	52.6	58.0	44.5	51.2	73	29	43	45	44	86	72	75	.300	.316	.314	.36	.15	1.5	6.5	6.7	5.7	6.4
December	29.78	30.34	29.34	37.3	42.2	40.9	46.5	33.7	40.1	64	21	32	32	32	79	68	70	.186	.192	.190	1.27	.40	.5	7.1	7.0	5.4	6.5
Year	29.68	30.34	28.67	51.4	59.4	57.1	64.1	47.1	55.6	99	13	43	44	45	74	58	65	.329	.334	.347	34.59	2.50	7.1	5.8	6.2	5.3	5.6

RED BLUFF, CALIF.

[ϕ=40° 10′ N.; λ=122° 15′ W.]

January	29.78	29.98	29.40	41.4	51.2	54.2	56.3	38.2	47.2	75	31	38	38	39	86	66	61	0.229	0.239	0.245	6.20	1.94	0	4.5	5.5	6.0	6.0
February	29.66	29.95	29.21	45.7	58.0	60.4	62.3	43.1	52.7	75	37	40	40	40	82	56	54	.254	.258	.262	1.61	.68	0	5.0	6.7	6.0	6.2
March	29.75	30.04	29.43	48.7	64.2	68.1	70.4	45.7	58.0	82	36	38	38	37	70	41	36	.242	.245	.235	.38	.17	0	3.9	5.6	5.2	5.1
April	29.58	29.92	29.08	53.3	71.5	75.9	78.2	50.9	64.6	98	41	37	37	36	60	32	26	.233	.231	.222	.24	.16	0	3.8	3.9	5.0	4.5
May	29.55	29.88	29.19	62.0	81.2	86.6	88.4	60.4	74.4	101	54	44	44	42	56	30	24	.306	.307	.288	1.00	.95	0	2.7	3.0	2.6	3.1
June	29.53	29.72	29.34	62.7	81.0	86.7	88.5	61.5	75.0	101	55	47	46	44	60	32	26	.339	.320	.301	.99	.66	0	3.6	2.3	4.1	3.9
July	29.40	29.62	29.19	71.3	96.0	103.4	104.2	69.7	87.0	114	59	45	44	40	41	18	13	.310	.241	.257	0	0	0	.5	.5	.4	.5
August	29.52	29.69	29.27	67.1	91.1	98.1	99.4	65.4	82.4	107	60	41	43	40	41	20	14	.267	.281	.252	T.	T.	0	1.5	1.0	1.3	1.5
September	29.52	29.77	29.26	59.9	79.9	84.1	86.5	57.6	72.0	105	46	40	41	38	51	27	22	.261	.268	.246	.09	.09	0	1.9	1.4	2.8	2.3
October	29.62	29.94	29.33	53.2	71.1	73.6	77.1	49.8	63.4	98	40	41	42	41	65	38	34	.257	.274	.264	.57	.45	0	3.1	3.0	3.5	3.4
November	29.70	30.02	29.28	43.8	56.9	58.6	62.3	41.0	51.6	82	29	34	33	33	71	44	41	.207	.199	.196	1.93	.76	0	3.6	3.7	3.8	3.7
December	29.68	30.11	29.13	39.8	47.1	47.5	50.6	36.7	43.6	62	27	37	37	38	88	70	73	.221	.224	.235	7.95	2.35	9.7	6.8	7.3	6.8	7.2
Year	29.61	30.11	29.08	54.1	70.8	74.8	77.0	51.7	64.3	114	27	40	40	39	64	40	35	.260	.261	.250	20.96	2.35	9.7	3.4	3.7	4.0	4.0

RENO, NEV.

[ϕ=39° 32′ N.; λ=119° 49′ W.]

January	25.55	25.79	25.23	27.7	39.9	41.7	45.6	24.0	34.8	61	15	22	26	26	79	60	56	0.119	0.141	0.139	0.68	0.36	3.8	3.9	4.7	5.5	5.0
February	25.44	25.76	25.14	31.0	46.2	47.6	50.9	28.1	39.5	59	20	26	28	28	79	49	47	.138	.153	.153	.47	.41	T.	4.6	5.5	5.6	5.1
March	25.53	25.92	25.23	33.7	53.2	54.8	58.2	30.3	44.2	72	16	24	26	25	67	36	33	.130	.146	.137	.08	.05	0	3.1	4.9	5.0	4.0
April	25.43	25.71	24.93	39.0	59.2	61.4	65.7	36.4	51.0	82	25	27	26	27	63	31	30	.150	.146	.151	1.35	1.09	12.7	3.6	4.7	4.3	3.9
May	25.46	25.71	25.21	47.3	71.6	71.9	76.8	45.2	61.0	88	34	35	30	33	63	23	26	.208	.174	.194	.72	.69	0	2.1	3.3	4.4	3.0
June	25.43	25.55	25.21	50.3	75.2	73.9	79.3	48.5	63.9	91	35	37	33	35	62	23	27	.224	.193	.209	.40	.22	0	2.9	3.7	4.2	3.4
July	25.44	25.70	25.28	61.2	90.7	90.5	95.2	59.6	77.4	106	50	38	34	36	42	14	15	.231	.204	.214	T.	T.	0	1.3	1.4	1.9	1.4
August	25.51	25.67	25.36	59.7	86.7	86.1	91.0	57.5	74.2	98	50	38	35	36	45	18	19	.234	.210	.217	.95	.95	0	2.6	3.1	3.7	3.6
September	25.44	25.72	25.23	48.1	70.6	71.5	75.7	44.7	60.2	95	32	33	32	31	58	26	25	.193	.178	.178	.63	.37	T.	2.2	2.5	3.2	2.4
October	25.48	25.79	25.19	42.2	65.3	65.8	70.5	39.2	54.8	82	28	29	31	30	59	29	28	.158	.174	.165	.19	.19	0	1.6	2.6	4.2	2.9
November	25.47	25.80	24.98	30.5	48.0	45.3	51.0	26.2	38.6	77	10	23	26	24	72	48	47	.122	.139	.131	.43	.30	3.4	3.3	4.1	4.3	4.1
December	25.41	25.81	24.91	26.4	36.6	35.1	41.1	20.9	31.0	62	2	20	26	25	76	66	67	.109	.144	.136	2.19	.83	7.2	5.6	5.7	5.7	6.0
Year	25.47	25.92	24.91	41.4	61.8	62.1	66.8	38.4	52.6	106	2	29	29	30	64	35	35	.168	.167	.169	8.09	1.09	27.1	3.1	3.8	4.3	3.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

RAPID CITY, S. DAK.

[H_b=3,259 ft.; h_t=50 ft.; h_r=43 ft.; h_a=58 ft.]

Month	Wind: By self-register: Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 35 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	6.5	W.	32	N.	0	9	0	1	3	3	1	22	18	5	14	12	5	4	2	8	4	0	0	0	5	0	25	0	0
February	5.8	N.	22	N.	0	12	5	1	5	2	1	13	11	6	10	7	11	3	1	7	2	0	6	3	1	0	26	0	0
March	8.2	N.	38	NW.	4	12	3	3	10	7	2	7	15	3	5	11	12	11	8	13	8	0	5	1	7	0	25	0	0
April	7.0	W.	38	NW.	2	9	5	2	7	5	5	14	11	2	11	11	8	3	3	5	1	0	2	0	0	0	12	0	0
May	9.2	N.	37	N.	3	14	7	1	7	2	1	11	15	4	11	14	6	8	6	1	0	0	0	0	0	10	0	0	0
June	6.9	W.	30	NW.	0	11	7	1	10	6	5	12	8	0	13	13	4	9	5	0	0	1	0	0	0	2	4	3	0
July	7.1	N.	40	NW.	1	9	12	6	6	6	1	11	10	1	15	14	2	11	7	0	0	1	2	1	0	0	9	0	0
August	6.5	N.	32	NW.	0	10	8	4	9	7	1	13	10	0	13	14	4	11	7	0	0	1	3	0	0	15	0	11	0
September	6.5	W.	30	SW.	0	10	4	5	11	3	0	15	11	1	14	11	5	4	1	0	0	1	2	1	0	11	0	9	0
October	8.0	W.	35	NW.	3	12	4	0	6	6	5	13	14	2	17	6	8	6	5	2	1	0	1	0	0	8	0	4	0
November	6.5	W.	30	NW.	0	12	3	2	2	8	1	18	12	2	12	8	10	4	4	8	3	0	1	1	5	0	20	0	0
December	4.9	W.	23	W.	0	4	5	1	7	0	1	23	18	3	11	11	9	4	4	8	4	0	5	3	8	0	27	0	0
Year	6.9	W.	40	NW.	13	124	63	27	83	55	24	172	153	29	149	132	84	78	53	52	23	4	27	9	26	46	141	36	0

READING, PA.

[H_b=325 ft.; h_t=81 ft.; h_r=74 ft.; h_a=103 ft.]

January	5.8	NW.	28	E.	0	7	1	4	5	2	1	14	27	1	11	12	8	4	4	5	1	0	6	0	5	0	23	0	0
February	6.1	N.	23	NW.	0	13	3	9	2	4	1	10	14	0	13	4	11	9	5	6	3	0	2	0	3	0	20	0	0
March	7.4	W.	38	E.	1	10	9	8	5	0	2	17	11	0	7	9	15	11	9	9	4	0	3	0	0	0	10	0	0
April	7.2	SE.	47	E.	1	4	6	3	12	3	11	10	11	0	11	10	9	10	8	0	0	0	3	0	0	0	0	1	0
May	5.4	SE.	20	SE.	0	6	3	1	23	2	15	3	10	0	8	14	9	14	12	0	0	0	4	0	0	0	2	0	0
June	4.9	N.	16	N.	0	7	10	5	9	1	7	5	14	2	11	11	8	9	7	0	0	1	1	0	0	5	0	7	0
July	4.3	NW.	19	NW.	0	5	5	0	18	4	9	8	13	0	9	13	9	13	11	0	0	0	2	0	0	10	0	14	0
August	3.9	SW.	31	NE.	0	8	6	6	16	6	8	2	9	1	8	6	17	12	10	0	0	0	1	0	0	5	0	6	0
September	4.0	SW.	31	SW.	0	11	5	2	7	7	16	2	9	1	15	8	7	4	4	0	0	0	2	1	0	7	0	4	0
October	4.0	SW.	22	W.	0	8	4	2	11	4	11	12	10	0	13	10	8	7	5	0	0	1	9	3	0	0	0	4	0
November	4.8	W.	22	NW.	0	1	1	8	13	3	15	14	5	0	7	10	13	4	3	2	1	0	14	4	0	0	3	0	0
December	5.4	W.	25	W.	0	3	5	7	5	0	6	23	12	1	8	8	15	7	5	2	1	0	8	4	1	0	16	0	0
Year	5.3	NW.	47	E.	2	82	58	55	126	36	102	120	145	6	121	115	129	104	83	24	10	2	52	12	9	29	72	42	0

RED BLUFF, CALIF.

[H_b=330 ft.; h_t=5 ft.; h_r=3 ft.; h_a=58 ft.]

January	4.6	NW.	26	SE.	0	17	2	3	8	6	0	5	19	2	10	6	15	12	9	0	0	0	4	4	0	0	1	0	0
February	4.9	NW.	24	N.	0	19	2	3	2	7	0	4	18	1	9	3	16	7	7	0	0	0	0	0	0	0	0	1	0
March	6.2	NW.	24	SE.	0	12	0	0	11	11	1	4	23	0	9	14	8	7	2	0	0	0	0	0	0	0	0	0	0
April	6.0	NW.	29	N.	0	9	1	1	9	12	0	2	26	0	14	9	7	3	2	0	0	0	0	0	0	0	2	0	0
May	6.6	NW.	24	NW.	0	8	3	4	16	9	1	2	19	0	21	4	6	3	2	0	0	0	0	0	0	0	11	0	1
June	6.0	S.	24	SE.	0	8	1	5	20	13	2	5	6	0	15	11	4	3	3	0	0	0	1	1	0	12	0	3	0
July	4.9	S.	22	NW.	0	9	0	0	6	18	15	2	4	13	1	30	1	0	0	0	0	0	0	0	0	30	0	0	0
August	4.3	S.	16	N.	0	1	0	2	19	19	1	3	16	1	26	3	2	0	0	0	0	0	0	0	0	30	0	0	0
September	5.6	S.	24	N.	0	8	1	2	11	13	1	4	18	2	22	7	1	1	1	0	0	0	0	0	0	9	0	1	0
October	5.0	NW.	29	SE.	0	15	1	2	12	8	3	2	18	1	19	6	6	3	2	0	0	0	0	0	0	1	0	0	0
November	6.1	NW.	29	S.	0	13	1	1	9	8	1	1	26	0	16	6	8	7	6	0	0	0	0	0	0	3	0	0	0
December	6.3	NW.	36	SE.	1	12	0	3	13	8	1	6	18	1	7	5	19	14	11	2	2	0	0	0	0	6	1	0	0
Year	5.5	NW.	36	SE.	1	131	12	31	143	129	13	42	220	9	198	75	92	60	45	2	2	0	5	5	0	95	10	7	0

RENO, NEV.

[H_b=4,532 ft.; h_t=74 ft.; h_r=67 ft.; h_a=81 ft.]

January	2.9	W.	26	W.	0	2	9	7	5	9	9	9	2	10	12	8	11	4	4	5	4	0	3	2	1	0	28	0	0
February	3.5	W.	27	W.	0	1	5	4	11	6	5	17	2	5	10	11	7	4	1	3	1	0	0	0	0	0	23	0	0
March	5.5	W.	35	SE.	1	2	5	7	4	6	11	18	7	2	15	12	4	3	1	0	0	0	0	0	0	0	17	0	0
April	5.5	W.	32	W.	0	4	4	4	2	4	17	17	6	2	13	9	6	5	4	4	0	0	0	0	0	0	4	1	0
May	5.7	W.	33	W.	1	2	4	1	7	3	22	12	6	5	22	6	3	3	2	0	0	0	0	0	0	0	6	4	0
June	6.9	W.	27	W.	0	1	0	1	4	1	21	21	2	6	17	8	5	5	3	0	0	0	0	0	0	1	0	3	0
July	6.2	W.	30	W.	0	0	1	4	2	4	26	21	1	3	26	5	0	1	0	0	0	0	0	0	0	27	0	3	0
August	5.6	W.	27	SW.	0	1	2	2	3	1	32	17	2	2	20	7	4	1	1	0	0	0	0	0	0	21	0	2	0
September	5.5	SW.	40	W.	1	2	8	5	3	2	28	7	3	2	20	8	2	3	3	1	0	0	0	0	0	2	1	2	0
October	5.0	SW.	42	SW.	1	4	2	6	3	8	20	13	1	5	18	11	2	1	1	0	0	0	0	0	0	2	0	2	0
November	5.0	SW.	30	SW.	0	5	3	2	6	4	22	7	8	3	14	8	8	6	3	7	5	0	0	0	0	22	0	0	0
December	4.4	SE.	32	SE.	0	3	1	6	8	9	18	9	5	3	8	7	16	12	6	11	9	0	1	0	7	0	28	0	0
Year	5.1	W.	42	SW.	4	27	44	40	58	57	234	168	45	48	197	100	68	47	29	31	22	1	4	2	10	51	120	15	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

RICHMOND, VA.

[ϕ=37° 32′ N.; λ=77° 27′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.91	30.39	28.86	32.9	44.0	41.5	50.1	29.3	39.7	65	10	27	30	30	78	58	65	0.152	0.171	0.179	1.88	1.36	1.5	5.3	4.7	1.9	4.3
February	29.92	30.25	29.44	33.7	46.6	44.1	51.9	31.1	41.5	63	20	29	32	32	82	60	63	.163	.190	.184	2.60	.91	T.	4.5	5.2	4.6	4.8
March	29.78	30.24	29.10	37.5	46.3	44.2	50.2	34.4	42.3	63	27	34	37	34	86	72	69	.198	.226	.202	2.94	.90	T.	7.0	7.6	5.5	6.8
April	29.89	30.36	29.05	49.2	62.0	57.2	65.8	42.9	54.4	84	35	43	51	47	81	71	70	.290	.404	.338	3.97	1.01	0	5.6	5.0	5.0	5.1
May	29.80	30.16	29.48	59.8	71.7	66.7	76.2	54.8	65.5	88	41	55	57	56	84	61	72	.438	.479	.466	5.64	1.13	0	5.3	5.4	5.7	5.5
June	29.84	30.13	29.32	69.8	80.4	76.3	84.1	63.4	73.8	95	51	62	61	63	78	54	64	.575	.557	.566	2.98	1.11	0	4.1	4.2	3.7	4.1
July	29.80	30.01	29.51	75.9	86.8	80.0	90.2	70.5	80.4	100	66	70	69	71	82	57	76	.736	.719	.760	4.47	1.20	0	3.9	4.8	6.7	5.1
August	29.88	30.23	29.46	71.3	81.1	75.4	84.2	67.2	75.7	95	58	68	68	69	89	68	82	.687	.703	.716	11.42	5.71	0	6.6	5.6	5.6	6.1
September	29.91	30.35	29.50	68.6	82.0	74.6	85.0	63.9	74.4	97	46	64	68	67	86	62	79	.614	.689	.689	1.92	1.07	0	2.6	3.2	2.3	3.4
October	29.96	30.33	29.45	54.2	70.7	63.3	74.7	49.9	62.3	88	36	50	52	54	88	54	72	.384	.415	.431	1.15	.43	0	3.3	3.6	2.5	3.5
November	30.08	30.46	29.63	47.1	63.4	56.7	66.9	44.9	55.9	79	30	43	45	46	86	64	69	.295	.329	.331	.24	.17	0	4.0	4.1	3.5	4.5
December	30.01	30.54	29.62	41.0	52.5	49.2	57.9	37.7	47.8	76	25	37	38	39	85	60	68	.233	.255	.257	2.52	1.20	1.0	5.4	6.0	4.2	6.0
Year	29.90	30.54	28.86	53.4	65.6	60.8	69.8	49.2	59.5	100	10	48	51	51	84	61	71	.397	.428	.428	41.73	5.71	2.5	4.8	4.9	4.3	4.9

ROCHESTER, N. Y.

[ϕ=43° 08′ N.; λ=77° 42′ W.]

January	29.41	29.95	28.69	24.6	27.4	26.9	31.7	20.6	26.2	49	9	19	21	20	77	76	74	0.104	0.117	0.111	2.91	0.99	28.7	8.4	8.7	7.5	7.8
February	29.47	29.85	29.17	25.8	29.8	29.2	35.5	20.8	28.2	44	4	20	22	23	78	72	76	.116	.132	.123	1.40	.27	6.8	8.3	8.5	6.8	7.4
March	29.37	29.86	28.53	32.5	37.0	34.8	40.9	30.0	35.0	56	21	26	26	27	76	66	72	.139	.140	.144	3.61	1.24	21.4	8.7	9.1	6.6	7.7
April	29.44	29.97	28.67	43.9	51.6	47.1	56.4	37.6	47.0	85	28	31	30	31	62	47	57	.178	.174	.180	2.10	.79	T.	4.6	6.6	4.8	5.3
May	29.35	29.73	29.02	54.8	62.9	59.2	68.4	49.1	58.8	89	32	44	45	44	68	55	61	.298	.310	.306	5.32	1.65	T.	6.0	7.3	5.0	5.8
June	29.44	29.70	28.86	64.5	71.9	69.3	76.9	57.7	67.3	93	48	53	54	54	67	56	61	.413	.438	.438	2.35	1.17	0	4.5	5.8	3.3	4.4
July	29.36	29.61	29.03	71.9	78.7	75.6	83.3	66.4	74.8	99	58	62	62	61	72	58	62	.572	.568	.541	2.63	1.02	0	6.3	7.0	4.9	5.5
August	29.48	29.79	29.14	68.2	75.5	72.2	79.1	62.6	70.8	95	51	59	58	58	73	57	62	.505	.499	.485	1.84	.77	0	5.9	7.4	4.7	5.8
September	29.45	29.91	29.02	63.9	73.9	67.9	77.7	58.5	68.1	95	42	56	56	56	76	56	67	.464	.472	.464	2.85	.70	0	5.2	6.3	4.3	5.3
October	29.47	30.05	28.77	51.5	61.2	55.4	64.8	47.3	56.0	82	35	43	42	44	73	53	67	.289	.290	.303	1.59	1.16	0	5.6	6.1	5.4	5.6
November	29.55	29.99	29.07	46.2	52.2	49.2	56.0	42.2	49.1	74	27	38	39	40	73	62	72	.244	.256	.266	1.91	.87	.9	6.7	8.6	8.1	7.8
December	29.52	30.09	28.96	32.6	35.7	35.2	41.7	28.7	35.2	56	12	26	27	28	76	71	75	.145	.154	.165	2.74	.85	5.0	7.9	9.0	6.8	8.0
Year	29.44	30.09	28.53	48.4	54.8	51.8	59.3	43.5	51.4	99	4	40	40	40	73	61	67	.289	.296	.294	31.25	1.65	62.8	6.5	7.5	5.7	6.4

ROSEBURG, OREG.

[ϕ=43° 13′ N.; λ=123° 20′ W.]

January	29.53	29.91	28.95	40.7	46.7	49.7	52.2	37.3	44.8	66	31	38	39	40	90	75	72	0.227	0.239	0.253	3.38	1.13	0	8.4	7.4	8.0	8.0
February	29.52	29.92	29.13	39.4	46.8	51.2	53.0	36.0	44.5	64	28	37	39	39	92	74	64	.220	.237	.237	1.80	.59	0	7.9	6.6	5.5	7.4
March	29.61	30.01	29.10	42.3	52.3	56.3	57.7	39.9	48.8	71	28	39	40	40	90	65	57	.247	.257	.256	3.58	.82	0	7.4	6.9	6.3	7.3
April	29.49	29.93	29.10	43.9	59.0	64.8	66.6	41.9	54.2	83	33	39	39	36	85	50	38	.243	.246	.221	1.37	.50	0	6.4	4.2	4.8	5.1
May	29.50	30.02	29.09	48.7	68.0	72.5	75.3	47.2	61.2	94	37	44	46	43	86	47	38	.296	.316	.286	.56	.36	0	4.6	3.1	3.9	3.7
June	29.46	29.65	29.23	52.0	67.3	71.0	74.2	50.1	62.2	92	42	48	46	47	86	49	47	.335	.319	.337	5.02	1.60	0	4.8	4.6	4.8	4.9
July	29.42	29.76	29.17	55.7	75.4	82.8	84.4	54.7	69.6	102	48	50	52	49	82	44	33	.360	.382	.350	0	0	0	2.5	1.6	.4	1.5
August	29.49	29.67	29.23	54.1	74.8	81.6	83.8	52.2	68.0	98	46	48	49	45	79	42	30	.330	.349	.308	T.	T.	0	1.4	1.3	.5	1.2
September	29.44	29.74	29.22	50.6	68.7	73.0	75.0	48.8	61.9	91	38	46	48	46	86	48	41	.321	.333	.322	.57	.25	0	4.3	3.6	3.0	3.7
October	29.51	29.85	28.91	46.9	60.7	63.3	65.6	43.8	54.7	85	37	44	45	44	89	58	53	.289	.299	.299	3.34	1.66	0	6.3	4.5	4.8	5.6
November	29.55	29.86	29.06	39.7	46.0	47.0	49.7	36.7	43.2	70	22	37	39	39	91	77	75	.232	.247	.249	4.51	1.03	0	7.7	6.6	5.8	7.1
December	29.38	29.86	28.88	39.7	43.7	44.6	48.9	35.7	42.3	62	27	36	38	38	87	80	78	.212	.229	.231	6.60	1.71	1.5	8.2	8.5	8.6	8.8
Year	29.49	30.02	28.88	46.1	59.1	63.2	65.5	43.7	54.6	102	22	42	43	42	87	59	52	.276	.288	.279	30.73	1.71	1.5	5.8	4.9	4.7	5.4

ROSWELL, N. MEX.

[ϕ=33° 24′ N.; λ=104° 27′ W.]

January	26.45	26.79	25.94	30.1	44.2	47.0	52.1	27.9	40.0	65	18	25	26	28	88	52	50	0.139	0.143	0.159	0.42	0.22	0.2	4.6	4.7	4.8	4.8
February	26.35	26.71	26.05	37.5	51.4	52.5	56.5	34.4	45.4	70	27	32	33	33	80	54	50	.181	.189	.188	1.19	.81	2.1	5.9	5.9	5.8	5.8
March	26.36	26.75	25.87	35.1	55.8	60.2	63.5	31.5	47.5	85	16	25	24	24	66	32	28	.132	.126	.127	.38	.22	1.6	3.1	3.4	4.0	3.6
April	26.37	26.79	25.86	46.4	63.3	65.9	69.4	44.0	56.7	86	29	37	35	35	70	40	39	.226	.214	.222	4.54	2.68	0	6.7	4.9	5.8	5.6
May	26.34	26.71	25.96	53.6	72.2	75.0	78.5	51.5	65.0	93	43	44	40	40	71	36	32	.294	.261	.255	.70	.41	0	3.7	3.0	3.3	3.3
June	26.34	26.54	26.06	64.9	86.4	88.3	91.8	63.1	77.4	101	55	52	48	45	65	30	26	.403	.359	.319	.93	.74	0	2.8	1.9	3.7	2.9
July	26.35	26.55	26.17	67.5	86.5	87.5	91.7	66.2	79.0	99	59	59	57	53	74	39	35	.500	.473	.420	.98	.27	0	2.8	1.5	3.9	2.6
August	26.43	26.65	26.21	64.6	82.9	83.7	87.0	63.4	75.5	98	55	58	56	55	81	43	41	.489	.462	.446	2.71	1.59	0	4.4	3.4	4.2	4.0
September	26.38	26.62	26.08	63.9	84.4	84.9	89.5	62.8	76.2	95	50	53	53	52	68	35	34	.408	.409	.401	.02	.02	0	3.6	2.1	4.0	3.5
October	26.41	26.71	26.16	51.0	71.4	72.2	77.8	48.8	63.3	90	31	40	40	38	67	35	32	.250	.229	.238	.37	.35	0	3.0	2.9	2.2	2.9
November	26.37	26.69	25.99	37.8	56.2	55.6	63.0	34.4	48.7	80	24	28	31	31	69	42	46	.158	.182	.183	.38	.12	.7	3.5	4.5	4.2	4.2
December	26.40	26.75	25.93	29.8	43.0	41.6	48.6	26.4	37.5	67	4	24	27	27	79	56	59	.131	.149	.148	1.80	1.10	10.2	5.3	5.3	3.3	4.7
Year	26.38	26.79	25.86	48.5	66.4	67.9	72.5	46.2	59.4	101	4	40	39	38	73	41	39	.277	.266	.259	14.42	2.68	20.8	4.1	3.6	4.2	4.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

RICHMOND, VA.

[H_b=144 ft.; h_t=11 ft.; h_r=3 ft.; h_a=52 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: Number of winds, 8 a. m. and 8 p. m.: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temp. 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	6.4	SW.	27	SW.	0	4	10	7	2	1	19	9	8	2	15	9	7	4	4	1	1	0	12	2	1	0	19	0	0
February	6.3	NE.	29	W.	0	5	12	8	4	4	12	3	5	3	12	7	9	8	7	1	0	0	4	0	0	0	17	0	0
March	8.6	NW.	29	W.	0	14	15	6	9	2	1	4	11	0	4	11	16	10	9	3	1	0	5	0	0	0	9	0	0
April	8.3	S.	36	SW.	2	1	11	7	10	9	8	6	8	0	13	4	13	10	9	0	0	0	2	0	0	0	3	0	0
May	6.4	SW.	39	W.	1	4	7	7	9	6	18	5	6	0	10	8	13	15	14	0	0	1	3	1	0	0	0	7	0
June	5.7	SW.	28	SW.	0	7	10	6	12	0	13	6	5	1	13	11	6	8	8	0	0	0	0	0	0	0	7	0	0
July	5.0	SW.	28	E.	0	1	8	7	11	7	16	7	2	3	8	17	6	15	12	0	0	1	0	0	0	17	0	12	0
August	5.2	SW.	25	NW.	0	3	8	8	3	5	18	9	6	2	6	11	14	15	12	0	0	0	6	2	0	8	0	9	0
September	5.7	SW.	31	N.	0	3	13	2	3	4	25	9	0	1	17	7	6	4	3	0	0	0	4	0	0	7	0	4	0
October	5.3	SW.	26	SW.	0	4	9	0	4	8	21	5	10	1	15	11	5	7	4	0	0	0	19	2	0	0	0	2	0
November	5.5	SW.	20	SW.	0	4	3	4	8	9	17	8	7	0	15	6	9	3	2	0	0	0	19	5	0	0	1	0	0
December	6.5	SW.	27	NW.	0	4	12	7	3	5	14	11	5	1	7	12	12	9	5	1	1	0	10	3	0	0	10	0	0
Year	6.2	SW.	39	W.	3	54	116	69	78	60	182	82	73	14	135	114	116	108	89	6	3	2	84	15	1	39	56	44	0

ROCHESTER, N. Y.

[H_b=523 ft.; h_t=86 ft.; h_r=77 ft.; h_a=102 ft.]

January	8.8	W.	28	SW.	0	1	2	2	5	7	19	21	5	0	1	10	20	21	14	23	21	0	2	0	13	0	26	0	0
February	8.0	SW.	28	W.	0	1	7	3	3	2	17	13	10	0	3	10	15	15	7	20	15	0	5	0	6	0	24	0	0
March	7.6	W.	24	W.	0	8	8	7	4	4	2	20	9	0	5	6	20	13	9	18	10	0	1	0	5	0	19	0	0
April	8.4	W.	36	W.	2	0	13	4	2	8	5	19	9	0	12	7	11	12	8	9	4	0	0	0	0	0	5	0	0
May	7.3	SW.	27	W.	0	4	8	3	6	6	12	13	10	0	9	9	13	15	11	1	1	2	5	1	0	0	1	5	0
June	6.3	SW.	22	SW.	0	12	8	1	0	3	15	11	10	0	12	12	6	8	5	0	0	0	1	0	0	3	0	6	0
July	5.8	SW.	28	W.	0	10	5	1	1	2	21	11	11	0	8	16	7	11	7	0	0	0	1	0	0	3	0	4	0
August	5.9	NE.	26	W.	0	4	19	7	2	3	17	6	4	0	8	11	12	7	4	0	0	0	0	0	0	2	0	4	0
September	6.8	SW.	29	W.	0	4	2	3	6	3	22	13	7	0	8	13	9	12	9	0	0	0	3	0	0	5	0	2	0
October	7.0	SW.	23	SW.	0	3	0	4	4	4	22	18	7	0	10	9	12	11	6	0	0	0	2	0	0	0	0	2	1
November	7.9	SW.	27	SW.	0	0	2	3	6	10	20	15	4	0	2	9	19	14	10	6	3	0	3	0	0	6	1	1	0
December	8.6	W.	36	W.	1	2	5	3	5	7	11	17	12	0	4	6	21	15	11	11	7	0	6	0	5	0	20	0	0
Year	7.4	W.	36	W.	3	49	79	41	44	59	183	177	98	0	82	118	165	154	101	88	61	2	29	2	29	13	101	24	2

ROSEBURG, OREG.

[H_b=510 ft.; h_t=75 ft.; h_r=60 ft.; h_a=99 ft.]

January	3.4	S.	27	SW.	0	7	1	6	7	24	4	2	11	0	2	6	23	13	9	0	0	1	22	10	0	0	4	1	0
February	3.0	NW.	19	S.	0	9	5	0	5	10	6	6	14	1	2	11	15	14	8	0	0	1	20	8	0	0	5	0	0
March	3.7	S.	21	SW.	0	12	3	3	5	16	8	4	10	1	4	7	20	18	15	0	0	0	10	3	0	0	5	0	0
April	4.0	N.	27	NE.	0	19	4	2	4	12	7	3	4	5	8	15	7	10	6	0	0	1	6	3	0	0	0	0	0
May	3.8	N.	19	SW.	0	31	3	5	0	2	0	0	10	11	16	11	4	5	4	0	0	0	2	0	0	0	4	1	0
June	3.6	N.	22	SW.	0	21	4	4	5	4	2	6	7	7	13	8	9	9	9	0	0	0	3	0	0	0	1	1	0
July	4.4	N.	22	N.	0	39	6	0	0	0	0	3	5	9	25	6	0	0	0	0	0	0	0	0	0	0	0	0	0
August	3.8	N.	18	N.	0	28	6	0	1	0	0	2	8	17	25	6	0	0	0	0	0	0	0	0	0	0	5	0	0
September	3.4	N.	20	N.	0	25	5	0	2	8	5	3	7	5	14	11	5	7	4	0	0	0	4	1	0	0	2	0	0
October	3.0	N.	23	SW.	0	19	6	3	2	9	3	5	8	7	9	11	11	10	7	0	0	0	15	2	0	0	0	0	0
November	3.1	S.	18	S.	0	10	5	4	6	7	10	3	12	3	4	10	16	13	12	0	0	1	16	6	0	0	10	0	0
December	3.4	S.	20	SW.	0	8	1	3	7	16	12	3	11	1	1	5	25	22	17	4	3	1	15	7	0	0	9	0	0
Year	3.6	N.	27	NE.	0	228	49	30	44	108	57	40	107	67	123	107	135	121	91	4	3	5	113	40	0	20	33	4	0

ROSWELL, N. MEX.

[H_b=3,566 ft.; h_t=75 ft.; h_r=69 ft.; h_a=85 ft.]

January	5.0	S.	35	W.	1	17	4	3	2	23	3	3	7	0	13	9	9	3	3	2	2	0	6	3	1	0	24	0	0
February	6.5	S.	30	N.	0	8	8	2	3	13	4	7	10	1	8	9	11	8	5	2	2	0	1	1	0	0	10	1	0
March	7.6	S.	42	NW.	1	12	6	4	8	9	7	8	7	1	17	10	4	4	2	2	2	0	0	0	0	0	17	0	0
April	7.9	S.	32	SE.	0	5	12	4	11	16	1	7	4	0	9	13	8	10	8	0	0	0	1	0	0	0	1	6	0
May	7.3	S.	44	NW.	1	8	5	6	13	10	6	4	8	2	16	13	2	3	3	0	0	0	2	0	0	2	0	6	0
June	7.3	SE.	29	NE.	0	6	3	4	17	16	2	5	5	2	18	11	1	7	3	0	0	0	1	0	0	0	21	0	7
July	6.5	SE.	25	SE.	0	4	4	5	20	15	5	0	5	4	21	9	1	5	5	0	0	0	0	0	0	0	22	0	13
August	5.5	S.	27	NE.	0	6	8	2	15	14	2	2	8	5	15	11	5	11	6	0	0	0	0	0	0	0	11	0	11
September	6.1	S.	26	S.	0	4	3	4	17	11	9	4	4	4	15	14	1	1	0	0	0	0	0	0	0	0	16	0	4
October	5.8	S.	27	NW.	0	11	7	3	9	15	5	6	6	0	19	9	3	3	1	0	0	0	0	0	0	1	1	3	0
November	6.0	S.	30	NW.	0	16	4	3	6	12	5	3	10	1	13	12	5	5	4	1	1	0	2	1	0	0	12	2	0
December	5.2	N.	35	NW.	1	14	4	3	2	11	10	6	11	1	13	8	10	6	5	5	5	0	3	0	2	0	24	0	0
Year	6.4	S.	44	NW.	4	111	68	43	123	165	59	55	85	21	177	128	60	69	45	15	14	4	12	5	3	73	89	53	0

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Annual meteorological summaries for the year ending December 31, 1931—Continued

ROYAL CENTER, IND.

[ϕ=40° 53′ N.; λ=86° 29′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.24	29.76	28.64	27.0	34.5	----	37.8	23.8	30.8	56	4	24	27	----	87	73	----	0.131	0.148	----	0.77	0.32	2.7	6.1	5.9	----	5.5
February	29.28	29.63	28.90	29.7	39.5	----	42.9	27.5	35.2	57	14	27	30	----	89	69	----	.148	.168	----	1.11	.45	.5	6.1	6.2	----	6.0
March	29.16	29.54	28.50	30.4	37.0	----	40.5	28.0	34.2	57	18	27	28	----	88	70	----	.149	.151	----	2.26	.74	9.2	8.7	8.2	----	8.4
April	29.25	29.57	28.75	43.0	56.9	----	60.8	38.5	49.6	79	26	36	36	----	77	48	----	.220	.228	----	2.55	.61	T.	5.4	5.8	----	5.7
May	29.13	29.52	28.71	53.3	63.4	----	67.2	44.5	55.8	87	30	46	46	----	78	54	----	.327	.318	----	3.81	1.56	0	5.4	5.7	----	5.3
June	29.20	29.34	28.74	67.5	78.1	----	82.6	61.8	72.2	96	41	61	61	----	80	58	----	.558	.563	----	8.97	2.36	0	6.3	6.7	----	6.1
July	29.17	29.38	28.82	72.0	84.0	----	87.6	65.3	76.4	98	51	64	63	----	76	51	----	.609	.601	----	2.62	1.35	0	3.8	3.9	----	4.0
August	29.26	29.55	28.98	66.2	79.5	----	82.6	60.7	71.6	93	51	61	61	----	84	54	----	.552	.555	----	3.94	1.45	0	4.3	5.1	----	4.5
September	29.24	29.61	28.80	63.5	76.8	----	79.8	58.6	69.2	93	38	60	60	----	88	58	----	.531	.537	----	4.16	2.23	0	4.6	4.8	----	4.7
October	29.26	29.77	28.76	50.9	63.9	----	67.0	47.4	57.2	85	31	47	48	----	86	58	----	.338	.354	----	3.05	1.13	0	5.4	5.8	----	5.8
November	29.31	29.78	28.81	44.8	54.0	----	57.2	40.3	48.8	73	20	40	42	----	86	66	----	.274	.300	----	2.94	1.02	1.7	6.9	7.1	----	6.7
December	29.30	29.83	28.77	34.2	40.9	----	44.1	31.5	37.8	62	18	32	34	----	90	76	----	.186	.201	----	2.16	.49	.2	6.3	7.6	----	7.1
Year	29.23	29.83	28.50	48.5	59.0	----	62.5	44.0	53.2	98	4	44	45	----	84	61	----	.335	.344	----	38.34	2.36	14.3	5.8	6.1	----	5.9

SACRAMENTO, CALIF.

[ϕ=38° 35′ N.; λ=121° 30′ W.]

January	30.06	30.27	29.75	42.8	48.0	53.6	54.9	40.0	47.4	62	31	41	44	47	92	85	80	0.257	0.285	0.324	2.50	1.15	0	3.0	4.7	5.3	5.5
February	29.93	30.21	29.48	47.3	54.6	60.7	61.4	45.3	53.4	68	39	45	49	50	91	82	70	.296	.347	.369	1.35	.70	0	3.9	4.4	4.2	4.8
March	30.04	30.32	29.68	48.6	61.3	67.5	68.8	46.6	57.7	79	38	45	51	47	87	70	51	.300	.374	.336	1.14	.79	0	2.8	3.1	3.4	2.8
April	29.85	30.11	29.30	51.5	63.7	70.2	77.2	49.8	63.5	96	39	45	51	47	81	52	41	.305	.376	.333	.05	.03	0	2.3	2.4	3.3	2.6
May	29.82	30.07	29.59	56.7	73.1	81.6	84.3	55.0	69.6	98	50	49	51	47	77	47	35	.346	.392	.346	.67	.61	0	1.1	1.8	1.9	1.6
June	29.82	29.99	29.64	57.0	75.1	81.1	83.3	58.2	69.8	100	50	51	54	54	81	50	43	.373	.420	.425	.29	.24	0	1.4	1.5	1.5	1.6
July	29.69	29.91	29.51	62.6	85.9	96.1	97.8	61.2	79.5	109	52	51	57	50	68	40	24	.374	.472	.374	T.	T.	0	.9	.6	.4	.6
August	29.80	29.97	29.59	58.3	80.1	91.1	92.6	56.6	74.6	108	50	50	55	48	75	45	25	.359	.442	.340	T.	T.	0	1.3	1.0	.8	1.1
September	29.81	30.03	29.54	54.7	73.4	80.1	81.7	53.4	67.6	98	47	48	51	48	78	47	34	.335	.375	.338	T.	T.	0	.1	.6	.9	.7
October	29.91	30.19	29.54	51.5	66.3	72.9	74.5	49.4	62.0	95	39	47	50	49	84	58	45	.321	.361	.346	.18	.12	0	1.2	1.9	1.7	1.8
November	29.97	30.31	29.54	43.6	54.2	59.3	60.4	40.8	50.6	83	28	38	41	41	80	64	55	.236	.264	.270	1.30	.98	0	3.0	2.7	2.6	2.7
December	29.98	30.38	29.51	41.6	46.7	49.6	51.2	39.1	45.2	59	30	38	42	43	88	83	79	.237	.265	.277	6.84	3.00	0	4.5	6.2	5.6	6.6
Year	29.89	30.38	29.30	51.4	65.9	72.4	74.0	49.4	61.7	109	28	46	50	48	82	60	48	.312	.364	.340	14.32	3.00	0	2.1	2.6	2.6	2.7

ST. JOSEPH, MO.

[ϕ=39° 49′ N.; λ=94° 51′ W.]

January	29.04	29.54	28.77	28.6	39.3	38.6	45.4	26.2	35.8	65	4	24	26	28	81	60	65	0.129	0.147	0.155	0.53	0.52	9.3	2.6	3.6	2.6	3.2
February	29.03	29.41	28.56	33.0	44.0	43.2	49.1	31.1	40.1	64	15	27	28	29	78	55	50	.150	.162	.168	.81	.43	T.	2.7	4.0	3.5	4.0
March	28.98	29.43	28.54	31.3	41.7	41.1	45.9	30.0	38.0	65	20	26	26	27	79	56	60	.139	.144	.151	2.44	1.11	12.5	5.1	5.1	5.9	5.5
April	29.02	29.38	28.42	45.7	59.1	59.5	64.4	44.0	54.2	85	29	39	39	40	77	52	53	.246	.250	.257	3.56	1.81	T.	3.7	4.5	4.7	4.7
May	28.89	29.32	28.51	53.0	66.3	66.2	71.2	50.4	60.8	91	36	46	47	48	79	53	55	.330	.342	.352	4.13	3.02	0	3.7	4.7	4.0	4.3
June	28.90	29.12	28.63	71.1	86.0	85.6	89.3	68.1	78.7	100	53	62	65	65	75	53	52	.575	.623	.620	2.42	.93	0	2.4	3.7	3.0	2.6
July	28.89	29.15	28.59	72.7	87.7	86.3	91.9	69.4	80.6	103	57	63	65	64	72	48	51	.581	.624	.617	4.05	1.42	0	2.4	2.9	2.8	2.9
August	29.00	29.25	28.66	66.8	81.7	79.6	85.8	64.5	75.2	95	50	62	62	63	85	54	58	.569	.563	.585	5.27	1.73	0	3.7	3.3	2.9	3.6
September	28.92	29.28	28.54	68.1	81.6	78.1	86.6	65.9	76.2	101	45	60	61	62	76	53	61	.527	.558	.575	7.58	3.19	0	3.4	2.6	3.2	3.2
October	28.98	29.36	28.56	53.4	66.2	63.0	69.9	51.7	60.8	90	37	48	50	50	83	58	66	.359	.356	.390	1.92	.85	T.	4.0	4.3	3.8	4.6
November	29.00	29.41	28.35	44.4	53.0	50.2	57.6	40.3	49.0	80	23	40	41	42	86	68	75	.272	.290	.282	8.35	3.10	.5	5.5	5.7	5.5	5.9
December	29.00	29.50	28.44	35.5	43.1	41.3	47.6	32.4	40.0	61	19	32	34	35	88	71	78	.189	.201	.209	3.88	2.27	3.9	5.5	5.4	4.5	5.5
Year	28.97	29.54	28.35	50.3	62.4	61.1	67.1	47.8	57.4	103	4	44	45	46	80	57	61	.339	.358	.363	44.74	3.19	17.2	3.7	4.2	3.8	4.2

ST. LOUIS, MO.

[ϕ=38° 38′ N.; λ=90° 12′ W.]

January	29.49	29.99	29.00	32.6	40.6	40.3	45.5	30.0	37.8	70	9	26	28	29	75	61	64	0.144	0.157	0.162	0.40	0.26	1.5	4.2	5.1	5.2	5.1
February	29.48	29.88	29.03	36.4	44.7	45.1	49.5	33.9	41.7	67	18	30	32	32	77	61	61	.170	.182	.185	1.77	.71	T.	5.4	5.7	5.5	5.1
March	29.37	29.72	28.57	35.2	43.4	43.1	47.4	33.7	40.6	68	26	29	30	30	77	60	61	.159	.168	.171	2.39	.69	2.7	6.3	6.4	6.5	6.2
April	29.45	29.77	28.96	50.3	62.5	61.0	66.8	47.8	57.3	84	35	41	42	42	71	49	53	.268	.282	.274	3.23	1.66	T.	4.8	4.8	4.6	4.2
May	29.38	29.76	28.96	56.2	67.7	66.6	71.9	53.6	62.8	91	40	47	51	50	72	58	58	.334	.404	.388	3.61	.90	0	5.2	4.6	4.8	5.2
June	29.37	29.59	29.04	73.4	85.8	84.4	89.4	69.8	79.6	102	54	62	66	64	67	53	52	.569	.643	.601	1.98	1.13	0	3.2	3.6	3.9	3.5
July	29.34	29.58	29.03	75.4	87.3	87.2	92.0	72.5	82.2	104	66	63	64	63	68	48	46	.602	.614	.566	4.06	1.41	0	2.8	3.2	3.1	3.3
August	29.43	29.72	29.11	70.4	83.0	80.0	86.4	68.1	77.2	100	58	63	63	63	78	52	55	.590	.592	.591	3.46	1.46	0	3.2	4.4	3.7	3.9
September	29.40	29.76	29.07	69.3	82.5	79.9	86.1	67.7	76.9	96	51	62	64	62	78	55	57	.577	.613	.589	5.55	4.19	0	3.2	3.4	2.8	3.2
October	29.46	29.81	29.02	56.7	66.5	65.0	71.0	54.8	62.9	87	42	49	50	50	76	57	61	.367	.385	.387	2.90	1.50	0	4.5	5.5	4.3	4.8
November	29.49	29.91	28.93	49.7	58.8	56.2	62.7	47.0	54.8	82	30	44	44	43	80	61	64	.367	.313	.361	4.65	1.33	.3	5.4	5.3	5.1	5.6
December	29.48	30.02	28.76	41.0	47.6	46.9	51.5	38.8	45.2	66	30	36	36	37	80	66	69	.218	.226	.226	3.28	.87	0	5.9	5.8	5.1	6.7
Year	29.42	30.02	28.57	53.9	64.2	63.0	68.4	51.5	59.9	104	9	46	48	47	75	57	59	.359	.382	.372	37.39	4.19	4.5	4.5	4.7	4.6	4.7

Annual meteorological summaries for the year ending December 31, 1931—Continued

ROYAL CENTER, IND.

[H_b=736 ft.; h_t=11 ft.; h_r=3 ft.; h_a=55 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: Number of winds, 8 a. m. and 8 p. m.: Days with 33 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more (melted)	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	9.2	SW.	31	W.	0	0	0	3	2	4	12	5	5	6	7	9	15	8	4	8	6	0	3	0	8	0	27	0	0
February	8.3	NW.	26	NW.	0	3	2	2	4	2	6	2	7	0	6	10	12	10	6	7	2	0	8	0	3	0	21	0	0
March	11.4	NW.	43	E.	1	2	4	7	2	1	2	6	7	0	2	5	24	11	7	15	7	0	2	0	5	0	27	0	0
April	8.8	NW.	33	W.	1	4	2	5	4	5	0	4	6	0	10	9	11	12	9	3	0	1	2	0	5	0	9	3	0
May	9.2	S.	26	SE.	0	4	3	0	7	7	4	4	2	0	12	5	14	11	7	0	0	0	2	1	0	0	1	2	0
June	7.0	S.	30	E.	0	3	2	3	5	8	4	2	2	1	8	6	16	10	9	0	0	0	1	1	0	0	7	0	12
July	5.9	SW.	35	N.	1	4	3	2	2	9	7	4	0	0	17	10	4	9	5	0	0	0	2	0	0	11	0	16	0
August	5.8	SW.	32	NW.	0	5	1	3	5	4	6	4	2	1	12	13	6	10	9	0	0	0	3	0	0	6	0	12	0
September	6.8	S.	24	NW.	0	2	3	3	4	6	5	2	1	4	13	10	7	10	9	0	0	0	6	3	0	6	0	7	0
October	7.7	SW.	25	S.	0	0	3	0	2	13	5	5	1	2	8	8	15	13	8	0	0	0	4	2	0	0	1	5	0
November	9.4	S.	32	SW.	0	1	1	1	4	9	8	6	0	0	6	9	15	12	9	2	2	0	5	0	0	0	8	2	0
December	9.6	SW.	35	E.	1	1	2	4	3	5	9	5	2	0	7	6	18	11	11	2	1	0	9	3	1	0	18	0	0
Year	8.3	SW.	43	E.	4	29	26	33	44	73	68	49	35	8	108	100	157	127	93	37	18	1	47	10	16	30	112	53	0

SACRAMENTO, CALIF.

[H_b=69 ft.; h_t=106 ft.; h_r=100 ft.; h_a=117 ft.]

January	5.4	SE.	22	SE.	0	6	5	3	20	7	1	2	14	4	10	8	13	8	5	0	0	0	13	8	0	0	1	0	0
February	5.6	NW.	24	NW.	0	11	2	2	11	7	1	2	15	5	11	7	10	7	4	0	0	0	8	3	0	0	0	0	0
March	6.7	S.	24	NW.	0	8	2	1	14	11	7	3	14	2	20	8	3	6	3	0	0	0	1	1	0	0	0	0	0
April	6.7	NW.	22	SW.	0	6	2	3	10	15	7	0	14	3	19	10	1	2	0	0	0	0	0	0	0	2	0	0	0
May	8.6	S.	31	NW.	0	2	0	0	14	22	6	0	16	2	25	4	2	3	2	0	0	0	0	0	0	9	0	1	0
June	8.3	S.	26	SW.	0	0	0	0	16	30	6	0	7	1	25	3	2	3	3	0	0	0	0	0	0	7	0	2	0
July	7.7	S.	18	SW.	0	0	0	0	7	38	6	0	9	2	30	1	0	0	0	0	0	0	0	0	0	27	0	0	0
August	7.3	S.	17	SW.	0	0	0	0	10	45	3	0	3	1	27	4	0	0	0	0	0	0	0	0	0	16	0	0	0
September	7.4	S.	26	NW.	0	2	2	1	11	20	8	2	11	3	28	2	0	0	0	0	0	0	0	0	0	5	0	0	0
October	6.1	S.	23	NW.	0	3	3	1	17	18	8	3	6	3	27	1	3	2	2	0	0	0	0	0	0	1	0	0	0
November	6.5	SE.	24	N.	0	9	1	1	13	10	3	1	15	7	20	5	5	8	4	0	0	0	1	0	0	0	3	0	0
December	7.3	SE.	31	SE.	0	10	6	4	20	11	4	1	3	3	7	8	16	16	13	0	0	0	5	3	0	0	3	0	0
Year	7.0	S.	31	SE.	0	57	23	16	163	234	60	14	127	36	249	61	55	55	36	0	0	0	28	15	0	67	7	3	0

ST. JOSEPH, MO.

[H_b=967 ft.; h_t=11 ft.; h_r=3 ft.; h_a=49 ft.]

January	7.2	NW.	30	NW.	0	3	2	4	5	10	13	6	19	0	21	6	4	3	2	6	1	0	8	1	4	0	23	0	0
February	6.5	NE.	19	SW.	0	9	9	5	9	10	6	0	8	0	15	6	7	4	3	3	1	0	9	1	0	0	13	1	0
March	9.6	NW.	38	NW.	2	4	12	5	13	1	1	0	26	0	13	4	14	10	8	10	5	0	6	0	1	0	19	0	0
April	7.2	SW.	25	NW.	0	2	6	7	12	8	6	3	16	0	15	6	9	9	9	2	0	0	4	0	0	0	3	4	0
May	7.2	NW.	23	NW.	0	5	8	2	10	9	8	2	18	0	16	6	9	10	6	0	0	0	1	0	0	1	0	5	0
June	6.9	SW.	38	NW.	1	0	1	4	13	15	21	1	5	0	19	8	3	6	4	0	0	1	0	0	0	14	0	9	0
July	6.9	SW.	40	W.	1	3	9	5	14	9	13	3	5	1	17	11	3	8	7	0	0	0	0	0	0	20	0	10	0
August	5.9	SW.	24	SW.	0	2	6	8	19	9	8	3	7	0	17	8	6	8	8	0	0	0	3	0	0	9	0	11	0
September	5.3	SE.	34	NW.	1	1	7	4	23	16	4	1	3	1	19	6	5	9	7	0	0	0	4	0	0	15	0	12	0
October	7.2	SE.	37	W.	1	4	3	6	17	10	6	3	13	0	13	10	8	9	7	2	0	1	7	1	0	1	0	7	0
November	7.5	NW.	30	NW.	0	2	8	6	17	7	9	4	7	0	10	5	15	15	12	4	2	0	8	0	0	5	0	8	0
December	7.3	SE.	23	NW.	0	1	8	5	18	8	9	4	9	0	13	5	13	11	6	7	6	0	13	0	0	0	16	1	0
Year	7.1	SW.	40	W.	6	36	79	61	170	112	104	30	136	2	188	81	96	102	80	34	15	2	63	3	5	60	79	66	0

ST. LOUIS, MO.

[H_b=568 ft.; h_t=265 ft.; h_r=258 ft.; h_a=303 ft.]

January	11.1	SW.	27	SW.	0	2	2	3	2	13	15	10	15	0	11	11	9	4	2	7	2	0	5	4	1	0	17	0	0
February	9.6	N.	29	SW.	0	14	6	4	3	14	7	4	4	0	7	6	11	10	6	1	0	0	4	2	0	0	7	1	0
March	11.7	NW.	40	NW.	2	12	7	11	2	7	2	5	16	0	7	10	14	9	6	6	2	0	1	1	0	0	12	0	0
April	9.6	NW.	28	NW.	0	10	4	3	3	11	9	10	10	0	13	11	6	12	8	1	0	0	0	0	0	0	6	4	0
May	11.1	SW.	36	SW.	2	7	4	6	1	11	13	8	12	0	13	7	11	12	9	0	0	0	0	0	0	1	0	1	0
June	9.8	S.	39	N.	1	1	2	4	5	12	15	14	5	2	16	13	1	6	4	0	0	0	0	0	0	13	0	10	0
July	8.8	S.	40	SW.	2	7	2	7	5	17	14	10	0	0	19	9	3	8	7	0	0	0	0	0	0	18	0	11	0
August	7.5	S.	33	NW.	1	9	3	7	6	15	8	8	6	0	16	9	6	11	10	0	0	0	2	1	0	9	0	12	0
September	10.4	SW.	36	SW.	2	5	2	7	5	11	25	2	3	0	20	7	3	8	7	0	0	0	2	1	0	15	0	5	0
October	11.2	S.	31	SW.	0	5	3	5	4	12	20	4	4	0	11	7	12	13	11	1	1	0	8	2	0	0	2	2	0
November	11.8	SW.	44	SW.	4	6	5	5	4	12	20	4	4	0	11	7	12	13	11	1	1	0	8	2	0	0	6	0	0
December	9.8	S.	28	SW.	0	7	2	8	8	14	7	10	5	1	7	7	17	10	8	0	0	0	6	2	0	0	6	0	0
Year	10.2	SW.	44	SW.	14	85	42	70	45	156	147	95	87	3	157	103	105	113	85	16	5	0	33	13	1	56	44	52	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

ST. PAUL, MINN.

[ϕ=44° 58′ N.; λ=93° 03′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.06	29.59	28.71	21.2	27.2		32.6	18.0	25.3	49	−4	18	20		84	72		0.098	0.108		0.13	0.10	1.1	5.0	6.3		6.5
February	29.15	29.49	28.67	25.7	34.0		39.7	23.2	31.4	57	0	22	22		83	60		.118	.122		.72	.47	7.7	4.4	5.0		4.8
March	29.17	29.53	28.65	26.8	34.5		38.5	24.7	31.6	49	12	22	21		80	59		.117	.116		1.56	1.14	2.4	6.9	7.1		6.9
April	29.12	29.50	28.66	40.9	54.8		60.4	38.7	49.6	82	28	29	27		62	35		.164	.152		1.47	.53	.2	5.2	4.3		4.6
May	28.99	29.42	28.52	48.3	60.6		67.0	45.5	56.2	90	32	39	39		71	48		.242	.247		1.08	.49	0	5.7	5.7		5.5
June	29.00	29.31	28.74	66.1	78.6		83.9	63.0	73.4	101	47	59	59		78	53		.510	.523		4.07	1.12	0	6.1	5.4		5.6
July	29.00	29.28	28.70	68.6	82.8		87.9	64.5	76.2	102	52	58	55		68	39		.489	.442		1.54	.64	0	3.8	4.3		3.8
August	29.12	29.36	28.77	62.3	75.6		80.6	60.4	70.5	97	43	54	56		76	53		.437	.473		3.45	1.30	0	5.3	6.0		5.5
September	29.01	29.37	28.60	60.2	74.2		78.2	58.3	68.2	101	42	53	53		79	50		.415	.414		2.56	.82	0	4.6	4.3		4.6
October	29.05	29.65	28.42	47.5	58.2		62.8	45.5	54.2	80	37	43	45		84	63		.281	.308		2.31	.87	0	4.8	5.0		5.3
November	29.06	29.65	28.26	36.4	42.9		44.3	32.6	40.3	68	11	33	34		87	72		.196	.208		2.94	.70	1.7	6.0	6.6		6.5
December	29.13	29.65	28.52	27.1	32.4		35.8	23.9	29.8	47	0	23	25		85	74		.131	.139		.77	.31	4.8	6.3	6.1		6.6
Year	29.07	29.65	28.26	44.3	54.6		59.6	41.5	50.6	102	−4	38	38		78	56		.266	.271		22.60	1.30	17.9	5.3	5.5		5.5

SALT LAKE CITY, UTAH

[ϕ=40° 46′ N.; λ=111° 54′ W.]

January	25.78	26.07	25.32	21.8	28.3	27.1	31.4	16.8	24.1	41	9	18	20	22	84	70	80	0.096	0.106	0.116	0.72	0.30	9.7	4.6	6.0	6.1	5.7
February	25.64	25.96	25.39	31.4	36.1	36.3	39.3	28.6	34.0	53	22	27	28	28	82	72	72	.144	.149	.152	.61	.28	2.0	6.1	7.1	6.9	7.0
March	25.68	26.09	25.21	36.2	46.0	46.2	50.4	32.4	41.4	70	19	24	24	24	61	43	43	.133	.130	.131	1.14	.60	8.7	4.4	5.3	5.6	5.3
April	25.60	25.96	25.14	44.4	58.1	59.1	62.3	41.1	51.7	76	28	28	26	28	54	31	34	.155	.141	.152	1.84	.75	.1	4.1	4.7	5.7	4.8
May	25.61	25.85	25.31	51.4	64.8	68.6	70.5	49.0	59.8	89	36	32	30	28	50	30	24	.183	.168	.154	.58	.29	.2	2.5	3.4	3.5	3.3
June	25.54	25.72	25.32	63.6	80.7	83.0	85.6	61.6	73.6	96	51	39	36	37	42	22	21	.241	.218	.225	.33	.30	0	3.5	4.1	5.0	4.2
July	25.58	25.91	25.35	71.0	89.0	91.5	93.1	68.5	80.8	105	55	40	40	38	34	20	17	.262	.259	.237	.61	.47	0	2.7	1.4	1.8	1.7
August	25.67	25.84	25.49	67.8	83.9	86.3	88.6	64.7	76.6	98	55	45	44	42	45	27	23	.307	.302	.275	1.07	.86	0	3.3	1.8	2.8	2.7
September	25.58	25.96	25.25	57.8	72.3	73.7	76.6	54.5	65.6	91	42	37	37	36	48	32	28	.221	.227	.214	.56	.35	0	2.1	3.1	2.6	2.8
October	25.65	25.94	25.28	50.3	62.7	61.8	66.2	46.2	56.6	78	31	34	34	35	56	37	38	.200	.202	.207	.57	.29	0	4.4	5.4	6.1	5.3
November	25.63	26.02	25.18	33.1	41.4	39.2	44.3	28.2	36.2	74	9	21	22	24	61	49	56	.114	.122	.134	1.95	.55	14.6	4.0	3.8	4.6	4.2
December	25.66	26.07	25.08	25.0	31.8	30.5	35.1	20.7	27.9	53	5	18	21	22	73	63	70	.099	.114	.118	1.42	.40	19.5	4.4	5.6	6.1	5.7
Year	25.64	26.09	25.08	46.2	57.9	58.6	62.0	42.8	52.4	105	5	30	30	30	58	41	42	.180	.178	.176	11.40	.86	54.8	3.8	4.3	4.7	4.4

SAN ANTONIO, TEX.

[ϕ=29° 27′ N.; λ=98° 28′ W.]

January	29.41	29.85	29.01	47.3	55.7	56.4	60.0	45.1	52.6	70	30	41	42	44	79	63	66	0.270	0.281	0.300	5.86	2.18	0	5.2	6.6	6.5	6.1
February	29.29	29.65	28.96	51.0	61.1	62.5	65.8	49.0	57.4	75	40	46	50	48	84	68	62	.324	.372	.353	2.68	1.08	0	5.3	5.5	5.2	5.3
March	29.28	29.75	28.80	49.7	62.2	65.1	69.3	46.6	58.0	84	32	41	40	40	74	47	43	.282	.273	.271	2.06	.78	0	2.9	3.6	3.4	3.3
April	29.30	29.73	28.77	56.0	67.2	70.9	73.9	54.5	64.2	88	42	50	51	50	83	58	51	.385	.394	.385	2.28	.68	0	6.4	6.5	5.8	5.7
May	29.22	29.48	28.89	64.3	76.1	78.6	82.0	63.0	72.5	90	52	58	57	57	82	54	50	.501	.487	.484	1.36	.57	0	6.4	5.5	5.2	4.9
June	29.23	29.37	28.98	72.6	84.6	87.8	91.2	71.3	81.2	96	63	68	67	64	86	57	48	.690	.674	.612	3.10	1.35	0	6.4	4.9	4.2	4.7
July	29.20	29.36	29.06	74.5	86.7	87.5	91.4	73.8	82.6	96	73	71	69	69	88	58	56	.754	.720	.707	3.09	1.40	0	5.3	4.5	4.1	4.4
August	29.29	29.46	29.14	72.3	86.4	88.5	92.3	71.8	82.0	96	68	68	68	67	87	54	50	.689	.678	.669	.30	.22	0	4.1	4.6	3.8	3.9
September	29.24	29.54	29.06	73.1	87.9	89.9	93.9	72.6	83.2	98	65	70	68	65	90	51	46	.740	.678	.629	.01	.01	0	4.9	3.4	2.2	3.3
October	29.29	29.60	29.03	68.5	82.5	82.8	88.2	67.8	78.0	96	51	64	62	60	85	51	47	.619	.582	.534	.75	.46	0	6.0	3.5	1.6	3.8
November	29.30	29.59	28.97	59.9	70.0	69.7	75.2	57.9	66.6	84	42	54	54	55	83	60	62	.451	.448	.456	.72	.33	0	6.6	6.7	5.9	6.2
December	29.32	29.71	28.86	49.4	57.5	58.8	63.4	46.9	55.2	79	34	45	46	45	86	68	64	.326	.328	.327	2.79	1.39	0	6.1	6.0	5.5	6.2
Year	29.28	29.85	28.77	61.6	73.2	74.9	78.9	60.0	69.5	98	30	56	56	55	84	57	54	.503	.493	.477	25.00	2.18	0	5.6	5.1	4.4	4.8

SAN DIEGO, CALIF.

[ϕ=32° 43′ N.; λ=117° 10′ W.]

January	29.97	30.22	29.71	51.4	64.3	62.2	66.4	49.0	57.7	81	44	41	47	49	71	56	64	0.270	0.334	0.347	3.72	1.70	0	3.1	4.4	4.8	4.5
February	29.87	30.12	29.47	54.3	64.4	62.9	66.5	51.9	59.2	77	44	48	52	52	80	66	69	.341	.394	.394	4.11	1.49	0	4.9	5.6	4.9	5.4
March	29.93	30.17	29.67	54.8	68.4	66.5	70.8	53.0	61.9	90	45	44	49	50	69	53	59	.296	.353	.371	.06	.06	0	2.4	2.7	3.2	3.7
April	29.84	30.00	29.62	58.9	67.9	66.3	70.0	57.5	63.8	79	53	52	56	56	80	67	71	.398	.450	.453	1.38	1.08	0	6.7	4.3	4.8	5.2
May	29.84	29.94	29.75	62.5	69.4	67.6	71.1	61.4	66.2	77	58	58	61	60	86	75	78	.486	.539	.524	.24	.22	0	9.3	2.6	4.2	5.2
June	29.85	29.94	29.65	63.9	71.5	70.8	74.4	63.0	68.7	96	59	59	61	61	84	70	72	.498	.538	.539	.01	.01	0	7.6	2.8	4.2	4.2
July	29.72	29.84	29.60	69.7	76.1	75.2	78.4	68.7	73.6	85	62	66	66	66	87	72	73	.636	.643	.635	T.	T.	0	7.9	2.9	3.1	4.4
August	29.83	29.95	29.68	70.2	76.9	75.0	78.5	69.1	73.8	88	65	66	66	67	88	71	76	.645	.651	.654	.08	.05	0	8.4	3.2	3.7	4.5
September	29.77	29.90	29.62	65.4	73.4	72.1	75.6	63.8	69.7	86	59	59	61	62	80	68	72	.510	.550	.565	T.	T.	0	5.3	2.4	2.7	3.3
October	29.87	30.00	29.64	61.7	71.1	68.1	73.5	59.6	66.6	93	54	54	56	57	78	61	70	.427	.457	.478	.05	.05	0	5.4	3.5	3.3	3.9
November	29.91	30.10	29.51	52.2	62.9	60.5	65.0	49.5	57.2	81	38	45	50	49	77	64	68	.319	.374	.367	1.95	.78	0	4.1	4.2	4.0	4.4
December	29.97	30.22	29.63	48.5	59.4	57.3	61.3	46.3	53.8	69	39	41	46	48	76	65	72	.261	.315	.336	3.56	1.99	0	4.2	5.5	5.6	5.4
Year	29.86	30.22	29.47	59.5	68.8	67.0	71.0	57.7	64.4	96	38	53	56	56	80	66	70	.424	.466	.472	15.16	1.99	0	5.8	3.7	4.1	4.5

Annual meteorological summaries for the year ending December 31, 1931—Continued

ST. PAUL, MINN.

[H_b=837 ft.; h_t=114 ft.; h_r=107 ft.; h_a=149 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	9.4	NW.	29	NW.	0	0	0	1	5	4	3	6	12	0	7	8	16	3	1	8	3	0	5	1	15	0	30	0	0
February	8.7	NW.	28	W.	0	3	0	3	3	5	5	3	6	0	12	5	11	4	3	7	4	0	7	0	3	0	25	0	0
March	10.2	NW.	31	NW.	0	4	4	1	6	4	0	2	10	0	7	8	16	10	4	8	6	0	5	0	3	0	26	0	0
April	9.6	N.	44	W.	4	4	4	0	6	5	2	3	6	0	16	5	9	7	4	3	1	1	2	0	0	0	10	5	0
May	8.6	NE.	32	NW.	0	2	9	1	3	2	8	1	5	0	12	7	12	9	6	0	0	0	0	0	0	0	1	5	0
June	7.6	SW.	43	NW.	2	4	4	2	5	5	9	1	0	0	8	16	6	12	10	0	0	1	2	0	0	0	0	6	0
July	7.7	SW.	30	NW.	0	0	4	1	8	2	10	2	4	0	14	10	7	8	4	0	0	0	0	0	0	12	0	3	0
August	7.0	SW.	26	NW.	0	6	3	4	6	3	4	1	4	0	9	9	13	11	7	0	0	0	1	0	0	2	0	6	0
September	6.9	SW.	35	SW.	1	3	3	1	4	6	5	2	5	1	13	8	9	13	9	0	0	0	3	2	0	5	0	6	0
October	7.4	SW.	28	W.	0	7	0	0	6	6	3	4	4	1	13	5	13	13	9	0	0	0	6	2	0	0	0	3	1
November	7.8	SW.	30	W.	0	1	1	1	7	4	7	1	8	0	6	9	15	16	9	7	5	0	5	0	2	0	13	1	0
December	7.5	S.	26	NW.	0	4	3	1	8	10	2	0	3	0	9	5	17	8	6	8	7	0	10	3	6	0	24	0	0
Year	8.2	SW.	44	W.	7	38	35	16	67	56	58	26	67	2	126	95	144	114	72	41	26	2	46	8	29	28	129	35	1

SALT LAKE CITY, UTAH

[H_b=4,360 ft.; h_t=163 ft.; h_r=156 ft.; h_a=203 ft.]

January	3.4	NW.	21	NW.	0	1	2	5	9	5	2	7	31	0	9	10	12	8	5	14	8	0	10	12	17	0	31	0	0
February	4.4	NW.	24	SE.	0	4	2	3	2	4	3	9	29	0	6	7	15	8	4	12	7	0	9	7	2	0	25	0	0
March	6.5	NW.	30	NW.	0	8	4	6	8	11	3	4	18	0	11	10	10	7	6	9	3	0	1	0	0	0	15	0	0
April	8.1	NW.	55	E.	3	7	4	7	12	8	1	2	19	0	14	7	9	8	6	2	1	0	1	0	0	0	3	4	0
May	7.2	NW.	30	NW.	0	9	3	8	11	8	2	4	16	1	15	13	3	4	4	2	1	0	0	0	0	0	0	2	0
June	7.6	S.	37	NE.	2	6	4	10	13	14	1	1	11	0	11	12	7	3	1	0	0	0	0	0	0	0	0	4	0
July	6.8	NW.	32	S.	0	8	3	5	5	11	3	2	24	1	25	4	2	3	2	0	0	0	0	0	0	22	0	5	0
August	6.2	S.	42	W.	3	8	2	7	9	9	3	5	17	2	21	8	2	5	4	0	0	0	0	0	0	14	0	7	0
September	7.5	SE.	34	NW.	1	6	4	7	13	7	2	4	17	0	21	6	3	6	3	0	0	0	0	0	0	2	0	2	0
October	6.6	SE.	39	NW.	1	5	3	8	8	11	0	9	16	2	8	15	8	5	2	0	0	0	0	0	0	1	0	3	0
November	6.0	S.	33	S.	1	4	9	4	9	15	0	8	11	0	15	5	10	10	9	8	8	0	0	0	0	0	0	1	0
December	5.3	S.	28	SE.	0	3	0	10	10	12	8	6	12	1	11	6	14	12	9	14	11	0	0	0	14	0	26	1	0
Year	6.3	NW.	55	E.	11	69	40	80	109	115	28	61	221	7	167	103	95	79	55	61	39	0	21	19	41	47	121	29	0

SAN ANTONIO, TEX.

[H_b=693 ft.; h_t=242 ft.; h_r=235 ft.; h_a=301 ft.]

January	10.0	NE.	40	W.	1	12	11	16	4	1	7	4	7	0	10	7	14	9	9	0	0	0	12	5	0	0	1	1	0
February	10.8	N.	36	NE.	1	13	4	11	7	8	6	2	5	0	16	10	8	9	7	0	0	0	9	3	0	0	0	2	0
March	13.4	NW.	44	NW.	9	6	7	6	9	9	2	8	15	0	19	9	3	8	6	0	0	0	4	1	0	0	1	5	0
April	10.4	E.	38	N.	2	14	6	13	9	11	2	0	3	2	5	17	8	13	10	0	0	0	1	0	0	0	0	4	0
May	10.9	N.	34	N.	1	14	10	10	7	3	3	5	8	0	8	19	4	11	8	0	0	0	1	3	0	0	1	5	0
June	10.0	E.	40	NE.	2	1	8	15	18	14	0	1	1	2	8	18	4	7	7	0	0	0	0	1	0	0	0	6	0
July	8.7	S.	31	SE.	0	7	7	13	6	20	4	1	1	3	15	11	5	9	7	0	0	0	0	1	0	0	0	6	0
August	9.5	SE.	31	S.	2	6	8	16	16	10	2	1	1	2	14	16	1	3	2	0	0	0	0	2	0	0	0	2	0
September	9.8	E.	42	E.	2	1	10	23	12	9	1	1	1	1	15	15	0	1	0	0	0	0	0	2	1	0	0	2	0
October	9.7	E.	32	SE.	0	7	12	26	7	5	0	1	2	2	12	18	1	5	4	0	0	0	0	4	1	0	0	2	0
November	12.1	E.	34	E.	3	11	9	20	12	1	0	2	5	0	6	11	13	13	7	0	0	0	0	8	2	0	0	0	0
December	10.0	N.	31	NW.	0	19	5	4	8	5	2	8	11	0	7	11	13	13	7	0	0	0	0	17	6	0	0	0	1
Year	10.4	E.	44	NW.	21	111	97	173	118	100	29	33	57	12	129	162	74	95	72	0	0	2	71	23	0	116	2	35	0

SAN DIEGO, CALIF.

[H_b=87 ft.; h_t=62 ft.; h_r=55 ft.; h_a=70 ft.]

January	4.1	NW.	25	W.	0	5	8	10	2	3	4	6	22	2	13	11	7	7	6	0	0	0	1	1	0	0	0	2	0
February	5.3	E.	27	S.	0	1	10	13	4	2	6	8	11	0	8	10	10	9	7	0	0	0	0	0	0	0	0	1	0
March	5.1	NW.	20	W.	0	5	8	9	3	5	3	10	19	0	19	6	6	2	1	0	0	0	2	1	0	0	0	1	0
April	5.8	SW.	22	S.	0	2	2	11	5	4	10	16	7	3	9	11	10	5	3	0	0	0	0	0	0	0	0	0	0
May	5.6	W.	16	S.	0	0	0	3	2	2	4	10	21	14	0	9	16	6	3	1	0	0	0	3	1	0	0	1	0
June	5.4	SW.	16	W.	0	0	2	1	1	1	6	17	18	9	2	11	17	3	0	0	0	0	0	2	1	0	0	1	0
July	5.0	SW.	16	S.	0	0	2	0	3	7	6	15	19	7	3	15	9	6	1	0	0	0	0	1	1	0	0	1	0
August	5.3	W.	16	W.	0	0	2	0	2	1	4	10	19	20	4	16	9	6	4	1	0	0	0	1	1	0	0	1	0
September	5.8	NW.	20	W.	0	0	6	3	5	2	3	11	16	19	5	19	8	3	0	0	0	0	0	0	0	0	0	0	0
October	4.7	NW.	24	N.	0	5	4	6	8	4	1	4	13	13	3	15	13	3	1	0	0	0	0	7	1	0	0	0	0
November	5.0	E.	24	SE.	0	4	6	8	4	1	4	5	13	18	2	13	8	9	7	5	0	0	0	6	1	0	0	2	0
December	4.6	NW.	30	S.	0	1	4	9	6	1	7	4	24	6	10	10	11	9	6	0	0	0	0	0	0	0	0	0	0
Year	5.1	W.	30	S.	0	43	50	75	41	44	92	163	192	30	157	128	80	48	31	0	0	0	24	7	0	3	0	9	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SANDUSKY, OHIO

[ϕ=41° 25′ N.; λ=82° 40′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.35	29.90	28.62	27.3	34.7	----	37.5	23.8	30.6	55	7	24	26	---	84	69	---	0.129	0.141	----	1.73	0.76	4.3	6.6	5.8	----	6.5
February	29.39	29.65	29.09	30.3	36.0	----	39.2	27.6	33.4	53	16	26	27	---	81	70	---	.139	.146	----	1.71	.51	1.4	6.8	6.9	----	6.8
March	29.27	29.70	28.60	32.5	37.0	----	39.6	30.5	35.0	57	21	28	29	---	82	72	---	.153	.160	----	2.16	.68	6.9	8.7	8.1	----	8.4
April	29.36	29.79	28.67	44.9	52.6	----	57.3	40.1	48.7	82	33	36	37	---	73	58	---	.222	.230	----	4.14	1.47	.3	4.6	4.4	----	4.7
May	29.28	29.62	28.90	56.1	65.4	----	68.2	48.6	58.4	90	36	47	48	---	72	54	---	.334	.342	----	2.10	.45	0	5.8	5.9	----	5.8
June	29.34	29.54	28.79	68.4	75.6	----	79.2	60.4	69.8	96	45	59	59	---	73	59	---	.518	.527	----	3.59	1.75	0	5.7	5.9	----	6.0
July	29.27	29.51	28.86	75.2	83.6	----	88.1	67.8	78.0	99	58	65	63	---	71	52	---	.627	.598	----	1.03	.35	0	5.0	5.5	----	4.9
August	29.36	29.69	29.03	70.7	78.5	----	82.5	65.3	73.9	98	48	62	61	---	75	58	---	.566	.550	----	6.39	2.48	0	5.7	5.5	----	5.8
September	29.35	29.77	28.91	66.8	75.4	----	79.4	61.8	70.6	95	45	59	61	---	78	62	---	.525	.552	----	3.63	1.41	0	3.9	5.7	----	5.3
October	29.39	29.92	28.88	52.0	64.0	----	66.4	49.0	57.7	85	35	46	48	---	82	59	---	.330	.358	----	2.37	.80	0	5.8	5.3	----	5.8
November	29.45	29.92	29.01	45.2	53.4	----	56.8	42.2	49.5	74	24	39	42	---	80	67	---	.258	.287	----	2.08	.55	4.0	6.1	7.4	----	7.3
December	29.41	29.93	28.90	36.2	42.0	----	44.7	33.1	38.9	64	19	32	33	---	83	72	---	.186	.202	----	2.37	.92	.2	7.9	8.0	----	7.9
Year	29.35	29.93	28.60	50.5	58.2	----	61.6	45.8	53.7	99	7	44	44	---	78	63	---	.332	.341	----	33.30	2.48	17.1	6.0	6.2	----	6.3

SANDY HOOK, N. J.

[ϕ=40° 28′ N.; λ=74° 01′ W.]

January	29.96	30.40	28.92	30.5	34.7	33.3	38.6	27.2	32.9	52	14	24	24	25	76	64	69	0.135	0.132	0.136	2.27	0.86	0.6	5.0	4.6	2.7	4.5
February	29.99	30.46	29.59	30.8	35.3	34.8	40.5	28.0	34.2	52	16	25	26	27	78	68	73	.137	.142	.149	1.85	.77	3.7	5.1	4.8	4.9	4.1
March	29.86	30.32	29.11	36.9	41.5	39.8	44.1	35.0	39.6	64	30	30	30	32	76	65	73	.169	.170	.179	3.94	1.78	.1	6.2	7.2	6.5	6.3
April	29.98	30.47	29.14	46.9	53.1	49.6	56.5	42.8	49.6	70	37	38	38	39	72	59	69	.233	.233	.243	2.38	.82	0	3.9	4.7	3.7	4.7
May	29.90	30.25	29.58	56.4	63.0	57.8	65.5	51.5	58.5	89	43	50	50	51	80	66	81	.373	.375	.389	4.03	1.21	0	5.8	5.2	6.1	5.5
June	29.92	30.21	29.45	66.3	72.8	68.8	75.6	62.0	68.8	90	54	59	59	61	78	64	78	.505	.509	.546	3.66	1.10	0	5.5	4.0	4.8	4.1
July	29.88	30.13	29.49	74.1	80.4	75.4	82.7	70.4	76.6	94	64	68	67	69	82	66	82	.686	.670	.716	2.44	.69	0	4.7	4.2	5.3	5.3
August	29.98	30.35	29.56	71.5	77.9	73.6	80.4	68.2	74.3	96	61	66	65	67	82	66	81	.628	.630	.673	5.26	1.88	0	6.4	5.9	6.4	6.5
September	29.97	30.49	29.63	68.7	74.8	71.9	78.5	65.3	71.9	94	53	61	61	63	78	64	76	.561	.561	.596	.97	.42	0	3.8	2.9	3.5	4.4
October	30.02	30.44	29.36	56.8	64.8	60.4	67.4	53.9	60.6	82	44	50	50	51	79	60	73	.383	.384	.393	2.41	.93	0	3.4	3.8	2.5	4.2
November	30.17	30.56	29.62	48.6	54.2	51.1	56.9	45.9	51.4	71	33	43	44	44	83	71	78	.297	.309	.306	.77	.28	T.	5.5	4.9	4.7	6.3
December	30.07	30.64	29.60	38.5	42.9	41.8	46.7	35.2	41.0	59	22	32	33	33	78	68	72	.190	.198	.200	1.62	.47	T.	6.1	5.1	5.7	6.3
Year	29.97	30.64	28.92	52.2	58.0	54.9	61.1	48.8	55.0	96	14	46	46	47	78	65	75	.359	.359	.377	31.60	1.88	4.4	5.1	4.8	4.7	5.2

SAN FRANCISCO, CALIF.

[ϕ=37° 48′ N.; λ=122° 26′ W.]

January	29.94	30.15	29.58	49.2	53.8	55.4	57.7	46.9	52.3	68	43	45	44	45	86	70	68	0.299	0.288	0.297	5.50	1.59	0	3.9	6.1	6.2	5.7
February	29.84	30.10	29.39	52.9	58.1	59.1	62.2	51.2	56.7	69	48	46	45	47	79	63	65	.314	.303	.322	1.10	.41	0	6.0	5.9	6.0	5.8
March	29.96	30.20	29.62	53.0	62.6	61.9	66.5	51.5	59.0	76	48	46	43	45	78	52	56	.313	.291	.304	1.68	.96	0	2.8	5.7	5.2	4.9
April	29.80	30.04	29.27	52.5	64.2	61.4	67.3	50.7	59.0	84	48	45	44	45	84	52	57	.331	.300	.306	.31	.22	0	4.3	4.8	4.1	4.6
May	29.78	30.01	29.59	56.2	66.4	64.3	69.5	54.2	61.8	90	50	50	47	49	81	56	64	.358	.335	.357	1.10	1.08	0	5.9	5.3	3.9	4.8
June	29.80	29.94	29.64	57.0	65.6	64.0	68.0	56.0	62.0	84	52	52	51	52	82	61	66	.384	.378	.388	.32	.19	0	4.9	4.5	4.3	4.5
July	29.68	29.85	29.51	56.1	66.8	64.6	70.0	54.6	62.3	99	51	51	52	52	85	60	64	.379	.384	.382	T.	T.	0	5.4	1.5	2.0	2.8
August	29.78	29.95	29.60	54.6	64.8	62.6	67.6	53.2	60.4	89	51	51	51	51	89	64	68	.375	.378	.379	0	0	0	6.9	4.2	3.1	4.5
September	29.76	29.94	29.60	57.5	67.7	65.0	70.2	55.3	62.8	86	52	52	49	51	82	56	63	.389	.358	.375	T.	T.	0	4.3	2.5	2.5	3.6
October	29.85	30.09	29.50	55.0	63.8	60.9	66.5	53.0	59.8	83	49	50	49	50	83	61	69	.356	.355	.360	.68	.45	0	6.1	4.5	3.5	5.2
November	29.88	30.21	29.50	50.2	56.7	56.2	61.1	47.8	54.4	80	39	43	40	42	78	57	61	.288	.296	.276	2.93	2.05	0	3.9	3.6	3.2	3.8
December	29.87	30.20	29.46	46.9	50.5	51.4	54.0	44.8	49.4	60	39	43	42	42	86	73	72	.276	.267	.273	9.24	2.69	T.	7.5	6.9	6.1	7.4
Year	29.83	30.21	29.27	53.4	61.8	60.6	65.0	51.6	58.3	99	39	48	46	48	83	60	64	.338	.325	.335	22.86	2.69	T.	5.2	4.6	4.2	4.8

SAN JOSE, CALIF.

[ϕ=37° 20′ N.; λ=121° 54′ W.]

January	29.98	30.17	29.64	----	55.8	56.3	59.7	40.0	49.8	73	31	---	43	44	---	63	64	----	0.280	0.291	3.58	1.16	0	----	5.9	5.6	5.3
February	29.87	30.13	29.43	----	59.5	60.4	63.3	45.8	54.6	71	37	---	45	47	---	62	64	----	.310	.328	1.20	.62	0	----	5.5	5.2	6.3
March	29.98	30.23	29.65	----	64.5	65.6	68.9	44.3	56.6	78	37	---	43	45	---	49	50	----	.293	.310	.54	.17	0	----	4.7	4.2	4.2
April	29.82	30.07	29.30	----	69.2	69.6	73.5	46.0	59.8	92	38	---	44	45	---	44	44	----	.299	.305	.40	.38	0	----	4.2	3.3	4.0
May	29.79	30.04	29.61	----	73.5	73.8	77.9	53.9	65.9	95	45	---	48	51	---	47	49	----	.356	.390	1.08	1.08	0	----	2.9	2.3	3.5
June	29.83	29.98	29.65	----	73.6	72.3	77.0	54.3	65.6	94	47	---	52	52	---	48	50	----	.386	.387	.07	.05	0	----	2.4	2.4	3.1
July	29.70	29.88	29.53	----	80.7	80.3	85.0	56.4	70.7	106	50	---	54	54	---	43	43	----	.426	.425	0	0	0	----	.9	.8	1.3
August	29.80	29.98	29.63	----	77.1	76.8	81.7	54.4	68.0	99	47	---	54	55	---	46	48	----	.412	.433	T.	T.	0	----	1.9	1.7	2.9
September	29.78	29.97	29.52	----	72.6	72.9	77.6	51.5	64.6	91	45	---	48	50	---	45	47	----	.346	.365	T.	T.	0	----	1.5	1.5	2.6
October	29.88	30.11	29.54	----	67.8	65.9	71.9	47.8	59.8	92	39	---	48	49	---	50	57	----	.336	.350	.10	.08	0	----	3.2	2.7	3.8
November	29.92	30.23	29.50	----	57.7	57.0	61.7	40.4	51.0	82	28	---	39	40	---	53	54	----	.256	.256	1.79	1.06	0	----	3.1	3.2	3.7
December	29.92	30.26	29.52	----	52.5	51.6	55.2	39.7	47.4	64	29	---	41	42	---	66	70	----	.260	.269	5.57	1.11	0	----	7.1	6.6	6.9
Year	29.86	30.26	29.30	----	67.0	66.9	71.1	47.9	59.5	106	28	---	47	48	---	51	53	----	.330	.342	14.21	1.16	0	----	3.5	3.4	4.0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SANDUSKY, OHIO

[H_b=629 ft.; h_t=5 ft.; h_r=3 ft.; h_a=67 ft.]

Month	Wind: By self-register: Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 33 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	8.7	SW.	27	SW.	0	2	0	3	2	5	13	5	1	0	7	10	14	12	9	13	9	0	1	1	7	0	29	0	0
February	7.3	SW.	27	W.	0	2	3	3	1	3	6	3	7	0	7	4	17	9	7	10	4	0	6	0	2	0	20	0	0
March	8.2	E.	25	NE.	0	3	2	7	3	3	4	5	4	0	2	6	23	13	9	13	10	0	0	0	2	0	21	1	0
April	8.4	E.	34	W.	1	3	3	5	1	7	2	4	5	0	15	4	11	10	9	4	3	1	0	0	0	0	6	1	0
May	7.3	SW.	22	SW.	0	1	5	1	2	10	7	2	3	0	7	11	13	15	9	0	0	3	0	0	0	0	0	4	0
June	5.7	E.	32	NW.	0	4	2	2	3	8	8	3	0	0	6	15	9	11	9	0	0	1	0	0	4	0	9	0	0
July	5.7	SW.	19	S.	0	0	3	0	1	6	13	7	1	0	9	16	6	9	7	0	0	0	0	0	0	13	0	7	0
August	5.9	SW.	20	SW.	0	1	7	3	0	3	13	3	1	0	6	14	11	18	11	0	0	0	0	0	8	0	10	0	0
September	6.6	SW.	28	SW.	0	3	1	3	0	4	15	1	2	1	11	8	11	9	7	0	0	0	1	1	0	6	0	2	1
October	7.3	SW.	27	NW.	0	2	1	0	2	13	11	1	1	0	8	9	14	11	10	0	0	1	1	0	0	0	4	0	0
November	8.8	SW.	27	W.	0	0	0	2	3	9	11	3	2	0	3	11	16	13	8	2	1	0	3	0	0	0	4	1	0
December	8.5	SW.	27	NW.	0	1	2	3	5	4	12	1	3	0	4	5	22	9	8	5	1	0	2	1	1	0	15	0	0
Year	7.4	SW.	34	W.	1	22	29	32	23	75	115	38	30	1	85	113	167	137	103	47	28	6	14	3	12	31	89	39	1

SANDY HOOK, N. J.

[H_b=22 ft.; h_t=10 ft.; h_r=3 ft.; h_a=55 ft.]

January	13.9	NW.	44	NW.	8	6	3	2	1	4	10	17	19	0	18	6	7	5	4	4	1	0	8	1	2	0	23	0	0
February	15.0	NW.	40	NW.	5	11	8	4	1	2	10	2	18	0	13	7	8	9	8	8	5	0	5	1	5	0	19	0	0
March	16.5	NW.	50	E.	9	11	8	5	2	6	2	19	0	7	7	17	11	9	8	3	0	0	5	1	0	0	8	0	0
April	15.3	W.	50	NE.	10	7	10	1	3	13	7	11	8	0	12	8	10	10	8	0	0	0	7	0	0	0	0	1	0
May	11.2	S.	34	SW.	1	4	4	6	9	11	16	6	5	1	8	12	11	13	12	0	0	1	16	8	0	0	0	2	0
June	10.4	SW.	35	NW.	1	4	7	2	1	15	10	6	15	0	15	9	6	9	8	0	0	0	10	0	0	2	0	4	0
July	9.3	SW.	36	W.	2	1	1	1	5	13	11	15	8	0	5	10	16	13	13	0	0	0	13	0	0	3	0	6	0
August	10.4	SW.	38	NE.	2	2	13	6	2	5	15	11	8	0	5	10	16	13	13	0	0	0	13	0	0	3	0	6	0
September	12.6	SW.	37	NW.	3	5	8	3	6	2	22	8	7	0	15	8	7	7	3	0	0	0	6	0	0	2	0	3	0
October	11.9	W.	38	N.	5	7	5	3	1	5	20	13	8	0	13	11	7	11	6	0	0	0	11	2	0	0	0	6	0
November	11.7	SW.	37	N.	2	4	4	6	2	7	17	13	7	0	8	6	16	7	5	1	1	0	17	3	0	0	0	3	0
December	14.7	W.	49	NW.	8	6	4	5	0	4	13	15	15	0	7	8	16	7	7	3	0	0	8	4	1	0	13	1	0
Year	12.7	W.	50	NE.	56	66	78	54	35	83	157	119	137	1	127	108	130	116	93	24	10	1	119	23	8	11	63	31	0

SAN FRANCISCO, CALIF.

[H_b=155 ft.; h_t=208 ft.; h_r=202 ft.; h_a=243 ft.]

January	4.7	SE.	18	SE.	0	14	3	2	14	3	3	9	13	1	9	8	14	11	9	0	0	0	3	2	0	0	0	0	0
February	5.0	W.	26	W.	0	14	4	2	3	8	3	13	9	0	8	10	10	12	5	0	0	0	1	0	0	0	0	0	0
March	5.9	W.	25	NW.	0	6	3	0	5	9	5	28	4	2	9	15	7	7	5	0	0	0	2	0	0	0	0	0	0
April	5.9	W.	25	W.	0	3	1	5	2	2	9	35	1	2	12	9	9	3	2	0	0	0	2	1	0	0	0	1	0
May	7.2	SW.	29	N.	0	3	1	1	4	2	14	33	2	2	11	14	6	2	1	0	0	0	1	0	0	0	0	0	0
June	8.0	SW.	28	NW.	0	0	0	0	1	3	32	20	3	3	18	12	1	0	0	0	0	0	0	0	0	0	0	0	0
July	7.4	SW.	25	NW.	0	0	0	0	0	0	40	21	0	1	12	16	3	0	0	0	0	0	0	0	0	0	0	0	0
August	6.7	SW.	22	W.	0	0	0	1	0	1	12	33	0	1	12	17	1	0	0	0	0	0	0	0	0	0	0	0	0
September	6.8	W.	24	W.	0	2	1	0	1	4	12	29	0	1	12	13	9	3	3	0	0	0	3	0	0	0	0	0	0
October	5.5	SW.	22	W.	0	5	2	1	0	5	25	8	1	1	16	6	8	10	9	0	0	0	5	2	0	0	0	0	0
November	6.1	W.	34	N.	1	5	5	2	4	5	5	10	9	1	4	9	18	20	15	1	0	0	4	2	0	0	0	0	0
December	5.6	SE.	29	S.	0	10	4	2	15	5	6	10	9	1	4	9	18	20	15	1	0	0	4	2	0	0	0	0	0
Year	6.2	SW.	34	N.	1	62	24	15	50	53	169	288	52	17	130	141	94	71	51	1	0	0	21	7	0	2	0	1	0

SAN JOSE, CALIF.

[H_b=141 ft.; h_t=12 ft.; h_r=3 ft.; h_a=110 ft.]

January	4.7	SE.	23	SE.	0	4	1	3	3	1	3	5	11	0	12	6	13	11	7	0	0	0	3	3	0	0	1	0	0
February	4.1	NW.	22	NW.	0	2	0	0	0	1	1	5	18	1	7	9	12	9	6	0	0	0	2	2	0	0	0	0	0
March	5.3	NW.	23	NW.	1	3	0	0	0	0	4	2	22	0	11	16	4	4	4	0	0	0	6	5	0	0	0	0	0
April	5.5	NW.	25	SW.	1	1	0	0	0	0	3	0	26	0	13	9	8	2	1	0	0	0	2	0	0	0	1	0	0
May	6.1	NW.	28	SW.	0	2	0	0	1	0	3	0	25	0	16	12	3	1	1	0	0	0	1	0	0	0	4	0	0
June	6.1	NW.	24	SW.	0	6	0	0	0	0	2	0	22	0	18	9	3	3	1	0	0	0	1	0	0	0	2	0	0
July	5.1	NW.	18	NW.	0	1	0	0	0	0	0	0	30	0	27	3	1	0	0	0	0	0	1	0	0	0	0	0	0
August	4.9	NW.	20	SE.	0	1	0	0	0	0	0	1	29	0	21	8	2	0	0	0	0	0	2	0	0	0	8	0	0
September	5.3	NW.	22	SW.	0	0	0	0	0	1	0	1	29	0	19	8	3	0	0	0	0	0	2	0	0	0	1	0	0
October	4.7	NW.	22	SE.	0	2	0	0	0	0	1	0	29	0	18	7	6	2	1	0	0	0	6	2	0	0	1	0	0
November	4.8	NW.	23	SE.	0	6	0	0	0	2	0	0	24	0	18	7	6	7	6	0	0	0	8	4	0	0	4	0	0
December	5.9	SE.	29	SE.	0	5	0	0	0	0	3	0	17	0	16	6	8	7	6	0	0	0	6	2	0	0	4	0	0
Year	5.2	NW.	33	SW.	1	33	1	3	12	5	23	23	264	1	185	98	82	56	41	0	0	0	38	18	0	23	9	2	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SAN JUAN, P. R.

[ϕ=18° 29′ N.; λ=66° 07′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.97	30.02	29.81	74.4	80.2		81.4	70.6	76.0	88	68	69	70		84	71		0.708	0.731		1.67	0.44	0	3.9	3.2		4.2
February	29.86	30.02	29.72	74.0	78.3		80.5	70.3	75.4	87	66	68	69		83	73		.691	.709		5.84	2.26	0	5.1	6.0		5.9
March	29.88	30.02	29.74	76.9	81.5		84.3	72.2	78.2	91	69	71	72		82	74		.754	.791		2.54	1.90	0	4.5	4.6		5.2
April	29.87	30.02	29.74	78.7	80.9		82.7	73.2	78.0	89	70	73	74		84	80		.820	.840		8.29	2.15	0	5.9	5.6		5.5
May	29.84	29.94	29.75	81.9	83.8		86.9	75.9	81.4	92	73	75	76		81	78		.878	.896		7.46	2.00	0	5.6	5.5		6.2
June	29.90	30.00	29.74	82.4	83.5		85.9	76.3	81.1	92	73	75	76		79	78		.877	.890		9.45	1.85	0	6.1	6.3		6.4
July	29.88	30.00	29.77	82.9	83.4		86.0	77.0	81.5	90	74	75	76		78	78		.874	.889		9.56	2.92	0	4.8	5.8		6.1
August	29.92	30.01	29.77	83.2	84.2		85.5	77.2	81.4	91	74	76	76		80	77		.902	.902		5.54	.93	0	4.9	4.0		5.3
September	29.84	29.98	29.17	81.1	83.6		85.3	75.8	80.6	91	72	75	76		83	79		.878	.907		10.60	3.60	0	5.3	6.0		6.4
October	29.85	29.94	29.75	80.9	83.5		85.5	75.4	80.4	92	73	74	76		82	78		.852	.886		6.40	2.49	0	4.8	4.7		5.5
November	29.79	29.91	29.66	78.3	81.9		83.4	73.8	78.6	89	68	73	74		84	79		.803	.850		15.64	8.06	0	5.5	6.0		6.2
December	29.92	30.05	29.84	77.1	79.8		81.0	72.5	76.8	83	68	71	72		81	78		.752	.790		4.57	1.45	0	4.9	4.0		4.9
Year	29.87	30.05	29.17	79.3	82.0		84.0	74.2	79.1	92	66	73	74		82	77		.816	.840		87.56	8.06	0	5.1	5.1		5.7

SANTA FE, N. MEX.

[ϕ=35° 41′ N.; λ=105° 57′ W.]

January	23.25	23.60	22.79	20.5	36.7	33.1	42.0	17.8	29.9	56	7	10	13	14	61	37	45	0.066	0.078	0.062	0.25	0.16	2.5	2.3	4.4	3.9	3.8
February	23.18	23.51	22.93	29.6	39.1	38.2	43.7	27.6	35.6	59	22	25	25	26	81	58	62	.132	.135	.140	.73	.16	4.5	5.7	7.0	6.1	6.3
March	23.19	23.53	22.74	27.5	41.7	44.8	47.9	24.6	36.2	67	6	17	18	17	68	40	36	.095	.098	.096	1.18	.34	12.2	4.1	4.1	4.7	4.3
April	23.23	23.49	22.86	38.8	54.0	54.4	59.1	36.5	47.8	70	27	28	27	25	65	38	37	.154	.149	.141	1.98	.86	.1	7.0	4.9	5.5	5.6
May	23.25	23.47	23.03	44.7	62.2	64.3	65.0	42.0	55.0	78	29	31	28	24	59	30	24	.174	.162	.155	.46	.30	T.	2.4	3.3	4.2	3.3
June	23.32	23.48	23.05	57.3	76.3	76.7	80.5	54.4	67.4	89	41	38	36	32	51	25	23	.239	.219	.195	.85	.41	0	2.4	2.7	3.6	4.0
July	23.35	23.48	23.19	60.5	77.5	75.0	82.1	58.3	70.2	90	48	46	47	45	61	36	40	.316	.326	.314	1.00	.22	0	2.5	4.5	6.8	4.8
August	23.41	23.56	23.24	55.9	75.2	71.7	79.4	54.6	67.0	87	48	47	46	45	73	38	43	.328	.322	.308	2.10	.45	0	3.3	3.8	6.5	4.5
September	23.34	23.55	23.08	54.2	70.2	67.5	74.4	52.5	63.4	85	38	46	46	46	76	44	52	.322	.315	.326	4.59	1.44	0	4.9	4.8	6.7	5.3
October	23.33	23.60	23.09	44.4	59.4	56.1	63.6	42.1	52.8	73	27	33	34	34	66	41	46	.197	.207	.203	1.10	.64	T.	3.9	3.4	3.4	3.4
November	23.21	23.52	22.79	30.9	42.7	38.6	46.9	27.3	37.1	67	2	22	23	24	69	49	59	.121	.126	.133	1.16	.56	11.3	4.2	4.9	4.0	4.4
December	23.21	23.46	22.85	22.2	34.3	29.2	38.4	17.0	27.7	54	0	14	18	18	68	52	61	.082	.101	.098	.50	.36	6.1	4.0	4.5	4.3	4.4
Year	23.27	23.60	22.74	40.5	55.8	54.1	60.5	37.9	49.2	90	0	30	30	29	66	41	44	.186	.186	.181	15.90	1.44	36.7	3.9	4.4	5.1	4.5

SAULT STE. MARIE, MICH.

[ϕ=46° 30′ N.; λ=84° 21′ W.]

January	29.28	29.72	28.79	15.7	20.5	20.5	26.0	10.9	18.4	38	−15	13	16	16	89	80	82	0.082	0.093	0.093	0.82	0.40	9.4	8.5	7.1	7.8	7.1
February	29.37	29.71	28.94	16.8	25.0	24.2	30.2	11.4	20.8	40	−20	15	19	21	91	76	86	.093	.104	.116	1.31	.39	15.7	6.9	6.9	7.6	6.5
March	29.36	29.84	28.78	22.5	31.0	29.1	33.4	20.6	27.0	48	6	19	22	22	88	66	72	.103	.116	.114	1.15	.48	11.1	6.9	6.8	7.2	5.7
April	29.33	29.78	28.81	34.7	44.2	39.1	47.3	29.7	38.5	66	18	27	30	31	73	59	73	.151	.170	.175	1.04	.68	2.7	5.9	5.0	5.7	4.3
May	29.22	29.66	28.80	46.4	57.4	51.9	61.0	40.4	50.7	87	29	39	41	40	76	57	68	.241	.270	.262	3.49	1.07	.1	5.8	5.6	5.7	5.2
June	29.31	29.58	28.87	58.3	68.6	63.6	71.6	51.6	61.6	90	37	52	54	51	80	61	66	.396	.428	.395	3.45	1.04	0	6.1	5.3	4.7	5.0
July	29.22	29.58	28.73	65.6	74.0	69.5	77.4	58.1	67.8	97	47	55	58	58	78	60	68	.501	.502	.496	2.33	.76	0	5.1	3.9	4.4	4.2
August	29.35	29.60	28.85	59.9	71.3	65.7	74.2	54.6	64.4	94	40	53	54	54	80	57	66	.416	.432	.419	1.80	.87	0	5.1	5.3	4.4	5.0
September	29.29	29.63	28.83	56.6	66.6	61.4	69.1	52.7	60.9	92	41	53	54	55	88	66	79	.411	.431	.441	6.72	1.52	0	5.5	5.3	4.1	5.1
October	29.29	29.98	28.75	47.0	56.1	50.8	58.4	43.4	50.9	76	31	44	43	44	88	64	79	.293	.295	.301	2.82	.97	0	6.9	6.4	5.9	6.5
November	29.29	29.85	28.68	39.2	43.5	41.2	46.8	34.6	40.7	66	20	35	36	35	96	75	79	.215	.221	.217	4.71	1.05	5.3	8.6	8.0	7.3	7.7
December	29.37	29.91	28.64	27.3	30.8	29.6	34.2	22.0	28.1	44	2	23	24	24	82	74	78	.128	.132	.131	1.86	.59	8.5	7.6	7.7	7.4	7.6
Year	29.31	29.96	28.64	40.8	49.1	45.6	52.5	35.8	44.2	97	−20	36	38	38	83	66	75	.252	.266	.263	31.50	1.52	52.8	6.6	6.1	6.0	5.8

SAVANNAH, GA.

[ϕ=32° 05′ N.; λ=81° 05′ W.]

January	30.05	30.51	29.35	44.5	55.9	50.9	60.0	41.7	50.8	72	28	36	41	37	74	60	61	0.227	0.279	0.230	2.11	0.63	0	6.4	5.0	5.5	5.3
February	29.98	30.29	29.60	47.6	59.8	54.2	64.4	45.0	54.7	75	33	40	42	42	75	54	66	.256	.281	.282	1.82	.63	0	4.0	5.4	4.9	5.1
March	29.87	30.20	29.33	48.5	59.4	55.8	63.5	46.2	54.8	74	36	40	42	42	74	54	62	.269	.279	.282	2.62	1.04	0	4.3	3.8	5.1	4.1
April	29.99	30.27	29.30	59.4	70.7	64.1	74.4	55.1	64.8	86	42	52	51	52	77	52	68	.405	.396	.407	.72	.66	0	4.6	4.7	4.6	4.6
May	29.90	30.15	29.61	68.3	78.3	71.8	81.3	62.8	72.0	91	52	60	60	60	77	56	69	.542	.535	.540	1.88	.73	0	3.9	5.5	4.3	5.0
June	29.94	30.15	29.57	76.2	86.8	78.3	89.5	69.8	79.6	98	60	68	67	68	77	53	71	.702	.672	.690	2.68	1.01	0	4.6	3.6	4.9	3.9
July	29.90	30.07	29.66	80.0	88.8	82.3	92.8	74.2	83.5	101	70	74	73	73	81	61	73	.824	.805	.801	3.81	.84	0	4.0	6.5	6.8	5.9
August	29.98	30.18	29.70	76.2	86.4	79.1	89.8	72.5	81.2	97	62	71	71	71	84	60	77	.759	.758	.768	3.23	1.52	0	5.2	6.0	6.0	5.7
September	29.98	30.32	29.73	74.1	85.1	78.0	87.9	70.6	79.2	100	56	69	70	70	86	61	77	.733	.795	.741	1.25	.46	0	3.0	4.2	4.3	4.1
October	30.03	30.32	29.67	63.6	77.1	70.8	79.9	61.3	70.6	87	46	58	58	60	83	53	71	.506	.501	.544	.84	.29	0	3.5	4.2	2.6	4.1
November	30.13	30.31	29.90	56.3	71.0	64.1	74.1	54.7	64.4	81	40	50	54	53	81	57	70	.391	.443	.432	.04	.03	0	1.9	3.5	2.6	3.6
December	30.08	30.38	29.60	56.9	66.7	62.3	71.0	54.6	62.8	82	40	52	56	55	85	71	77	.417	.481	.463	1.50	.49	0	5.5	6.9	6.2	6.7
Year	29.99	30.51	29.30	62.6	73.8	67.6	77.4	59.0	68.2	101	28	56	57	57	80	58	70	.503	.512	.515	22.00	1.52	0	4.2	4.9	4.8	4.8

Annual meteorological summaries for the year ending December 31, 1931—Continued

SAN JUAN, P. R.

[H_b=82 ft.; h_t=9 ft.; h_r=4 ft.; h_a=54 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 36 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		Mi.																										
January	9.4	E.	32	N.	0	1	2	7	8	7	5	1	0	0	12	19	0	12	9	0	0	0	0	0	0	0	0	0	0
February	10.6	E.	42	N.	1	3	2	5	7	2	0	1	0	0	8	10	10	13	11	0	0	0	0	0	0	0	0	0	0
March	8.7	E.	27	E.	0	2	0	9	6	13	1	0	0	0	6	21	4	9	4	0	0	0	0	0	0	0	1	0	0
April	10.8	E.	30	NE.	0	0	2	14	7	4	2	1	0	0	1	20	9	17	15	0	0	0	0	0	0	0	0	0	0
May	8.5	E.	28	E.	0	1	0	12	9	9	0	0	0	0	4	19	8	18	16	0	0	0	0	0	0	0	1	0	0
June	9.0	E.	27	N.	0	0	0	12	8	9	0	0	0	0	4	15	11	16	14	0	0	0	0	0	0	0	2	0	0
July	9.4	E.	41	NE.	1	0	1	15	8	6	1	0	0	0	2	22	7	20	14	0	0	0	0	0	0	0	2	0	0
August	12.3	E.	32	E.	0	0	0	22	3	5	0	0	1	0	8	17	6	23	18	0	0	0	0	0	0	0	2	0	0
September	9.2	E.	90	NW.	1	0	1	8	11	6	3	0	0	1	1	17	12	22	20	0	0	0	0	0	0	0	1	0	0
October	8.3	E.	40	E.	2	0	0	4	13	14	0	0	0	0	7	15	9	23	16	0	0	0	0	0	0	0	0	0	0
November	8.9	S.	35	E.	2	2	4	2	10	7	5	0	0	0	1	23	6	24	21	0	0	0	0	0	0	0	0	0	0
December	14.3	E.	39	E.	3	0	1	18	6	6	0	0	0	0	6	23	2	25	15	0	0	0	0	0	0	0	0	0	0
Year	10.0	E.	90	NW.	10	9	14	128	96	93	19	2	2	2	60	224	81	222	173	0	0	0	0	0	0	0	16	0	0

SANTA FE, N. MEX.

[H_b=7,013 ft.; h_t=38 ft.; h_r=31 ft.; h_a=53 ft.]

January	4.8	NE.	19	SW.	0	10	26	8	5	6	3	2	2	0	14	14	3	4	3	7	4	0	0	0	1	0	31	0	0
February	4.7	N.	17	N.	0	15	5	8	5	13	6	1	2	1	5	10	13	11	9	16	11	0	4	0	1	0	25	0	0
March	6.1	N.	29	NE.	0	7	11	6	7	3	9	4	13	2	15	8	8	9	7	11	9	0	4	0	2	0	26	2	0
April	5.8	E.	25	NW.	0	5	5	12	11	6	12	3	6	0	9	9	12	11	9	4	2	0	1	0	0	0	4	1	0
May	6.0	SW.	29	SW.	0	10	0	14	9	6	9	9	5	0	19	9	3	6	4	2	1	0	1	0	0	0	1	3	0
June	5.2	SW.	21	S.	0	2	5	17	12	4	13	4	1	2	11	14	5	4	3	0	0	0	0	0	0	0	0	8	0
July	4.9	SE.	20	N.	0	4	11	18	10	7	7	2	2	1	8	19	4	15	8	0	0	3	0	0	0	0	1	0	22	0
August	4.2	E.	22	S.	0	6	11	14	12	7	7	1	2	4	7	17	6	16	12	0	0	0	0	2	1	0	0	0	17	0
September	4.5	E.	21	NE.	0	4	11	14	12	5	7	2	6	2	17	10	4	6	5	1	0	0	0	0	0	0	2	3	0
October	5.5	SE.	21	N.	0	5	10	11	16	5	5	2	3	2	14	7	9	10	8	9	6	0	3	0	6	0	15	0	0
November	5.9	N.	32	SE.	0	11	9	10	18	2	3	3	2	2	15	7	8	4	3	7	4	0	0	0	8	0	31	0	0
December	5.2	N.	25	N.	0	15	23	8	7	2	1	1	4	1	15	7	9	4	3	7	4	0	0	0	8	0	31	0	0
Year	5.2	E.	32	SE.	0	94	127	140	124	66	82	34	45	18	147	136	82	109	83	57	37	6	10	1	18	1	135	73	0

SAULT STE MARIE, MICH.

[H_b=614 ft.; h_t=11 ft.; h_r=3 ft.; h_a=52 ft.]

January	6.9	E.	33	NW.	1	5	10	10	12	3	5	7	10	0	6	6	19	13	6	28	13	0	4	1	26	0	31	0	0
February	5.9	SE.	32	NW.	0	4	5	9	11	1	4	10	11	1	7	6	15	12	9	19	11	0	9	3	14	0	28	0	0
March	7.3	NW.	29	N.	0	8	8	9	10	6	1	5	7	21	1	14	7	9	8	4	7	3	8	0	2	1	15	0	31	1	0
April	8.3	NW.	31	NW.	0	2	4	3	16	1	5	7	21	1	14	7	9	8	4	7	3	0	2	1	0	0	21	1	0
May	7.0	NW.	24	NW.	0	4	4	8	12	2	6	12	13	1	8	15	8	13	12	1	1	1	4	1	0	0	2	2	0
June	6.0	SE.	24	NW.	0	1	2	8	21	2	4	10	10	2	11	11	8	12	9	0	0	1	7	2	0	1	0	6	1
July	6.0	NW.	26	S.	0	2	2	6	8	3	8	16	16	1	15	12	4	7	6	0	0	0	0	1	0	1	0	5	0
August	6.1	NW.	23	SW.	0	2	2	9	10	2	9	8	10	1	12	11	8	11	9	0	0	0	5	4	0	1	0	5	2
September	5.9	NW.	23	SW.	0	6	7	3	19	6	7	5	15	0	10	14	6	16	13	0	0	0	0	10	2	0	2	6	1
October	6.0	SE.	22	NW.	0	3	2	3	9	3	7	6	10	0	9	6	16	15	12	0	0	2	2	12	2	0	2	3	3
November	7.5	SE.	33	NW.	1	6	3	9	20	1	7	6	10	0	3	8	19	20	15	8	6	2	8	0	2	0	12	1	0
December	9.6	SE.	42	NW.	1	3	0	5	21	3	13	4	11	0	3	8	19	14	10	16	9	0	8	1	10	0	27	0	0
December	7.5	SE.	32	NW.	0	8	7	6	17	3	7	7	6	1	5	7	19	14	10	16	9	0	8	1	10	0	27	0	0
Year	7.0	SE.	42	NW.	3	52	55	86	173	28	76	101	151	8	110	109	146	153	114	95	53	6	72	18	67	5	154	30	7

SAVANNAH, GA.

[H_b=65 ft.; h_t=150 ft.; h_r=143 ft.; h_a=194 ft.]

January	10.8	W.	39	W.	2	6	6	6	2	12	3	20	7	0	13	6	12	8	6	0	0	0	2	3	0	0	4	0	0
February	9.8	S.	35	NW.	1	7	2	5	4	17	4	11	6	0	11	7	10	6	5	0	0	0	3	1	0	0	0	0	0
March	12.8	W.	40	W.	4	4	3	5	3	13	7	21	6	0	17	5	9	7	7	0	0	0	3	0	0	0	3	0	0
April	11.2	W.	38	W.	1	4	8	8	5	11	6	11	6	0	13	7	10	5	2	0	0	0	1	0	0	0	1	0	0
May	9.7	S.	28	S.	0	5	4	9	7	15	9	8	5	0	12	8	13	8	6	0	0	0	2	2	0	0	2	0	0
June	9.2	S.	42	N.	1	3	3	8	5	22	8	9	2	0	8	5	7	8	6	0	0	0	2	1	0	0	2	0	0
July	8.3	S.	35	S.	1	3	5	4	2	17	13	20	0	0	8	13	10	8	7	0	0	0	1	1	0	0	1	0	0
August	8.4	W.	37	W.	0	9	10	12	5	10	3	4	7	0	16	8	7	4	2	0	0	0	0	1	0	0	0	0	0
September	8.7	E.	28	W.	0	10	14	13	4	7	1	8	5	0	16	8	7	7	2	0	0	0	0	7	2	0	0	0	0
October	9.2	E.	26	W.	0	10	12	11	7	9	2	3	6	0	16	7	7	7	2	0	0	0	0	9	7	0	0	0	1
November	8.8	NE.	26	SE.	0	10	12	8	4	11	5	8	8	0	7	8	16	11	7	0	0	0	0	0	0	0	0	0	0
December	9.8	NE.	26	NE.	0	6	12	8	4	11	5	8	8	0	7	8	16	11	7	0	0	0	0	9	7	0	0	0	1
Year	9.7	W.	42	N.	11	73	81	96	53	160	71	136	60	0	155	90	120	86	63	0	0	0	46	24	0	60	4	48	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SCRANTON, PA.

[ϕ=41° 24′ N.; λ=75° 42′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.13	29.60	28.19	24.3	30.0	29.2	35.2	20.4	27.8	50	7	20	21	21	84	67	68	0.113	0.115	0.114	1.37	0.63	4.5	6.3	6.5	4.4	6.3
February	29.16	29.66	28.86	25.6	32.3	31.0	37.6	21.1	29.4	52	2	20	23	22	81	67	68	.115	.125	.122	1.45	.60	11.8	7.7	6.6	5.1	6.3
March	29.09	29.51	28.32	33.3	39.4	37.3	42.8	30.6	36.7	69	22	28	27	28	79	63	68	.150	.148	.151	2.26	.62	3.2	7.9	8.1	7.3	7.5
April	29.15	29.67	28.34	42.9	53.1	51.3	57.9	37.1	47.5	77	28	34	33	34	72	50	54	.202	.194	.203	2.30	.72	T.	5.5	5.9	4.4	5.4
May	29.08	29.44	28.76	55.9	66.3	63.6	71.0	47.7	59.6	91	30	47	46	46	73	53	57	.336	.324	.331	4.03	.98	0	6.2	5.8	5.9	5.5
June	29.14	29.41	28.63	63.8	75.4	71.9	79.3	56.8	68.0	95	47	56	55	56	78	52	60	.464	.443	.467	3.04	1.57	0	5.4	5.2	5.6	5.1
July	29.09	29.31	28.74	71.5	80.9	77.3	84.9	63.0	75.0	97	54	64	64	64	79	58	65	.607	.595	.604	8.74	3.82	0	4.8	6.8	5.8	6.0
August	29.19	29.52	28.85	66.4	77.7	72.5	81.3	61.0	71.2	95	51	60	60	61	82	56	68	.532	.522	.544	1.90	.59	0	5.6	6.5	5.7	5.8
September	29.18	29.65	28.80	61.9	75.1	70.3	79.4	57.3	68.4	97	41	58	62	59	88	64	70	.502	.582	.530	2.09	.97	0	4.5	5.3	3.9	4.4
October	29.22	29.68	28.56	47.7	61.8	56.8	65.9	43.9	54.9	83	30	44	45	46	86	58	68	.296	.327	.326	1.45	.60	T.	5.9	5.6	4.4	5.0
November	29.33	29.71	28.85	44.9	53.2	49.6	57.0	41.1	49.0	72	24	40	41	40	83	65	69	.265	.275	.258	.62	.24	2.0	6.2	6.5	6.2	5.9
December	29.26	29.80	28.80	34.0	38.9	37.0	43.5	28.5	36.0	59	15	29	30	29	80	70	72	.166	.176	.168	1.35	.52	.9	7.1	7.0	6.3	6.6
Year	29.16	29.80	28.19	47.7	57.0	54.0	61.4	42.5	52.0	97	2	42	42	42	80	60	66	.312	.319	.318	30.54	3.82	22.4	6.1	6.3	5.4	5.8

SEATTLE, WASH.

[ϕ=47° 38′ N.; λ=122° 20′ W.]

January	29.88	30.35	29.31	44.2	45.9	47.7	50.2	41.2	45.7	67	31	39	40	41	84	82	78	0.244	0.254	0.261	6.34	1.48	0	7.5	8.1	7.6	7.9
February	29.92	30.34	29.46	41.5	46.4	48.1	50.3	38.6	44.4	62	35	35	36	36	79	68	66	.208	.211	.215	3.25	1.46	0	6.8	6.9	6.0	6.5
March	29.96	30.38	29.42	44.0	49.2	50.3	53.0	41.2	47.1	67	32	38	39	39	81	70	68	.235	.242	.243	4.37	.83	T.	6.8	7.5	7.1	7.3
April	29.93	30.32	29.54	47.1	55.4	58.2	60.4	44.7	52.6	78	37	36	36	36	70	53	47	.222	.223	.218	2.25	.75	0	5.5	5.8	4.9	5.3
May	29.93	30.41	29.56	51.3	60.7	65.0	67.5	49.5	58.5	85	41	44	42	40	78	53	44	.292	.275	.256	1.02	.39	0	5.6	5.1	4.0	5.0
June	29.86	30.11	29.58	53.5	61.1	65.2	67.1	52.2	59.6	86	46	49	48	48	84	63	56	.346	.338	.335	3.35	1.00	0	7.8	6.4	5.8	6.6
July	29.88	30.26	29.60	57.0	66.5	72.5	74.4	56.0	65.2	90	52	51	52	52	82	62	49	.380	.392	.385	.11	.10	0	3.4	2.7	2.4	3.1
August	29.94	30.10	29.67	56.2	65.0	72.4	73.6	54.8	64.2	91	51	52	51	50	87	62	47	.391	.375	.361	.11	.09	0	5.4	2.9	2.5	3.5
September	29.80	30.14	29.51	55.1	60.8	63.6	66.2	53.3	59.2	78	47	51	50	50	88	71	63	.381	.371	.365	2.97	1.62	0	8.2	6.1	6.2	7.0
October	29.91	30.27	29.16	49.0	54.6	56.2	58.5	46.5	52.5	69	40	46	46	47	91	75	72	.318	.313	.325	3.09	.92	0	5.8	5.6	5.6	6.0
November	29.91	30.30	29.22	42.1	45.1	45.3	47.9	38.6	43.2	59	29	37	37	37	83	73	72	.229	.224	.223	2.66	.60	0	6.4	6.5	5.9	6.5
December	29.73	30.27	29.11	40.7	43.4	43.6	46.0	37.7	41.8	55	30	36	35	36	82	74	75	.211	.210	.213	6.54	1.33	T.	7.4	7.8	8.4	8.2
Year	29.89	30.41	29.11	48.5	54.5	57.3	59.5	46.2	52.8	91	29	43	43	43	82	67	61	.288	.286	.283	36.06	1.62	T.	6.4	6.0	5.5	6.1

SHERIDAN, WYO.

[ϕ=44° 48′ N.; λ=106° 57′ W.]

January	26.10	26.40	25.76	20.2	39.9	34.5	43.4	15.0	29.2	71	2	15	19	18	81	45	52	0.087	0.102	0.099	0.33	0.22	6.0	5.4	4.7	5.8	5.0
February	26.08	26.50	25.73	21.4	42.1	40.7	46.1	18.4	32.2	58	6	18	22	21	85	48	45	.098	.116	.111	.59	.36	4.9	4.9	4.6	4.5	4.8
March	26.13	26.55	25.62	24.1	39.4	39.0	44.4	20.1	32.2	67	−3	19	21	23	81	50	55	.111	.117	.126	1.88	.91	5.9	6.3	6.7	7.3	6.5
April	26.12	26.64	25.65	31.4	54.2	54.7	58.5	28.9	43.7	78	14	25	24	24	78	35	34	.139	.130	.130	2.15	.69	8.8	5.6	5.9	6.4	5.8
May	26.10	26.44	25.69	41.3	63.0	63.5	68.2	37.5	52.8	90	24	35	33	33	79	37	35	.209	.195	.194	2.38	1.08	.6	4.8	5.5	6.8	6.5
June	26.03	26.39	25.72	56.3	77.8	78.9	82.7	51.6	67.2	101	42	47	45	48	73	35	37	.328	.302	.337	.91	.38	0	4.5	5.1	6.3	5.1
July	26.09	26.35	25.73	57.5	84.5	81.9	89.0	54.1	71.6	103	40	47	42	45	71	27	31	.331	.280	.319	1.43	.81	0	3.1	3.2	5.5	3.8
August	26.16	26.44	25.79	54.0	82.5	79.8	86.1	52.3	69.2	97	39	47	43	46	79	27	33	.331	.287	.320	.14	.12	0	4.1	4.1	5.2	4.2
September	26.04	26.41	25.70	46.8	72.4	69.4	76.5	44.1	60.3	97	34	40	36	39	78	32	38	.247	.220	.245	2.08	.89	0	4.0	3.9	4.9	4.3
October	26.13	26.50	25.64	35.2	57.3	53.1	61.8	31.8	46.8	79	22	31	32	34	84	42	49	.173	.182	.195	1.78	.82	T.	3.5	3.6	4.1	4.0
November	26.06	26.46	25.46	23.7	39.7	34.6	44.2	18.7	31.4	74	−3	18	21	21	77	50	59	.102	.116	.120	.67	.36	5.1	5.0	5.4	6.0	5.3
December	26.01	26.35	25.46	13.6	30.0	26.1	35.8	10.8	23.3	48	−3	10	20	19	84	64	70	.069	.107	.101	.19	.16	3.5	3.1	4.3	4.0	4.1
Year	26.09	26.64	25.46	35.5	56.9	54.7	61.4	31.9	46.7	103	−3	29	30	31	79	41	45	.185	.180	.191	14.53	1.08	34.8	4.5	4.7	5.6	4.9

SHREVEPORT, LA.

[ϕ=32° 30′ N.; λ=93° 40′ W.]

January	29.90	30.40	29.29	42.5	52.5	52.8	57.1	41.1	49.1	71	24	40	44	42	89	74	69	0.252	0.298	0.281	3.58	2.03	0	5.1	5.6	4.9	5.3
February	29.79	30.15	29.34	47.7	58.3	57.9	62.2	45.4	53.8	72	34	44	49	47	89	73	69	.301	.358	.332	3.32	.77	0	4.8	4.6	5.9	5.1
March	29.74	30.14	29.36	44.9	57.5	56.8	62.0	42.4	52.2	79	32	41	48	46	87	73	68	.270	.354	.317	3.34	1.30	0	4.9	4.9	6.2	5.4
April	29.80	30.12	29.23	55.3	68.6	68.5	73.4	53.1	63.2	86	36	51	56	53	85	66	59	.386	.465	.414	5.30	2.90	0	5.6	5.7	5.9	5.5
May	29.71	30.03	29.38	61.9	74.4	74.1	78.9	59.1	69.0	90	45	58	60	58	87	63	58	.485	.532	.489	1.17	.59	0	4.8	5.1	4.4	4.9
June	29.73	29.88	29.55	73.6	87.4	86.6	92.4	70.8	81.6	100	61	67	66	65	80	50	51	.677	.662	.636	1.28	.88	0	2.9	2.9	4.1	3.4
July	29.66	29.87	29.45	76.9	89.5	86.8	93.8	74.5	84.2	101	70	71	72	70	83	57	59	.765	.781	.732	1.66	.70	0	4.3	4.1	5.8	4.9
August	29.78	29.97	29.61	72.4	85.3	83.4	90.0	70.6	80.3	96	64	68	67	66	86	56	57	.690	.678	.645	3.96	1.73	0	4.0	4.2	3.7	4.2
September	29.74	30.06	29.54	72.4	87.8	85.8	93.1	71.1	82.1	99	58	66	64	64	81	47	49	.658	.622	.616	.74	.59	0	1.9	3.1	2.7	2.7
October	29.80	30.12	29.54	63.3	77.7	76.2	82.5	62.1	72.3	94	41	58	57	56	83	52	52	.508	.481	2.66	2.17	0	3.0	3.9	1.6	2.6	
November	29.84	30.12	29.40	55.8	65.4	65.3	70.6	53.5	62.0	84	41	52	53	52	87	67	65	.404	.419	.407	5.01	2.28	0	5.8	6.6	4.6	5.9
December	29.81	30.24	29.25	49.0	54.6	55.1	60.2	45.9	53.0	77	36	45	46	45	88	76	72	.324	.335	.328	10.43	2.82	9	7.5	7.7	5.2	6.8
Year	29.78	30.40	29.23	59.6	71.6	70.8	76.4	57.5	66.9	101	24	55	57	55	85	63	61	.477	.501	.473	42.41	2.90	0	4.6	4.9	4.6	4.8

Annual meteorological summaries for the year ending December 31, 1931—Continued

SCRANTON, PA.

[H_b=805 ft.; h_t=72 ft.; h_r=64 ft.; h_a=104 ft.]

Month	Wind: By self-register: Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 33 miles and over	Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp. 32° or below	90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	6.1	SW.	25	NW.	0	13	7	0	1	0	20	8	13	0	4	15	12	10	5	18	9	0	15	0	11	0	30	0	0
February	6.1	N.	22	NW.	0	14	9	3	1	0	13	1	15	0	7	9	12	10	8	16	8	0	5	1	5	0	25	0	0
March	6.9	NE.	30	E.	0	9	18	5	5	1	8	5	11	0	3	8	20	11	7	15	6	0	1	0	1	6	18	0	0
April	7.2	SW.	28	NE.	0	16	11	0	4	4	17	2	6	0	11	6	13	12	11	4	2	0	7	0	0	0	7	0	0
May	5.4	SW.	26	SW.	0	15	12	2	2	7	19	2	3	0	9	12	10	16	15	0	0	1	7	2	0	1	1	4	0
June	5.6	N.	33	NW.	1	21	8	0	1	3	19	2	6	0	11	11	8	9	8	0	0	1	6	0	0	2	0	4	0
July	4.5	SW.	21	NW.	0	11	10	0	3	5	17	5	11	0	5	19	7	13	12	0	0	0	9	0	0	6	0	4	0
August	4.5	SW.	18	SW.	0	9	20	2	0	6	22	1	2	0	7	14	10	12	8	0	0	0	12	1	0	5	0	5	0
September	5.2	SW.	26	NW.	0	18	9	0	0	5	21	3	4	0	13	10	7	9	5	0	0	0	12	0	0	7	0	6	0
October	4.8	N.	33	NW.	1	22	5	3	1	8	11	3	9	0	10	11	10	10	7	1	0	1	20	1	0	0	2	0	1
November	5.7	SW.	26	NW.	0	11	3	1	3	5	25	2	10	0	6	16	8	9	4	4	1	0	13	1	0	0	6	0	0
December	6.2	SW.	38	NW.	2	13	5	0	0	7	19	2	16	0	6	12	13	12	6	9	3	0	12	2	2	0	21	0	0
Year	5.7	SW.	38	NW.	4	172	117	16	21	51	211	30	106	0	92	143	130	133	90	67	29	3	119	8	19	20	105	27	1

SEATTLE, WASH.

[H_b=125 ft.; h_t=215 ft.; h_r=209 ft.; h_a=250 ft.]

January	7.0	S.	37	SW.	1	3	6	5	15	23	4	2	2	2	3	6	22	22	15	0	0	0	10	5	0	0	1	0	0
February	8.0	SE.	33	SW.	1	10	3	3	14	17	2	4	1	2	5	12	11	13	10	0	0	1	10	4	0	0	0	0	0
March	9.4	S.	43	SW.	2	7	3	7	13	19	10	2	0	1	3	11	17	21	18	3	2	1	8	0	0	0	1	0	0
April	8.4	S.	30	SW.	0	13	7	1	14	13	8	1	2	1	11	10	9	10	8	0	0	0	2	0	0	0	0	0	0
May	6.8	NE.	34	SW.	1	16	9	3	8	6	3	8	7	2	12	12	7	8	5	0	0	0	0	0	0	0	0	0	0
June	7.2	S.	28	W.	0	4	2	5	8	17	13	4	6	1	4	14	12	16	10	0	0	0	1	0	0	0	0	0	0
July	6.2	NE.	28	SW.	0	19	11	2	4	5	4	6	7	4	19	7	5	3	1	0	0	0	2	1	0	1	0	0	0
August	5.6	NE.	21	S.	0	13	7	2	8	6	4	7	8	7	17	11	3	4	2	0	0	0	16	1	0	1	0	2	0
September	6.8	S.	31	SW.	0	10	5	2	8	18	8	3	4	2	5	6	19	11	7	0	0	0	5	0	0	0	0	1	0
October	6.4	S.	30	S.	0	11	10	4	14	12	4	4	3	0	9	8	14	14	12	0	0	0	17	8	0	0	0	0	0
November	8.1	S.	33	S.	1	7	15	2	13	17	3	1	1	1	8	5	17	15	12	0	0	1	9	2	0	0	4	1	0
December	8.1	SE.	37	S.	2	5	4	3	23	20	5	0	0	2	1	8	22	26	23	5	4	0	11	1	0	0	3	0	0
Year	7.3	S.	43	SW.	8	118	82	39	142	173	68	42	41	25	97	110	158	163	123	8	6	4	91	22	0	2	9	6	0

SHERIDAN, WYO.

[H_b=3,790 ft.; h_t=10 ft.; h_r=3 ft.; h_a=47 ft.]

January	3.0	NW.	28	NW.	0	1	2	0	10	13	10	4	19	3	10	13	8	6	3	7	6	0	4	0	5	0	31	0	0
February	3.2	NW.	23	NW.	0	3	2	4	6	11	5	3	14	8	10	10	8	5	3	8	4	0	2	1	0	0	27	0	0
March	4.8	NW.	32	NW.	0	2	8	3	5	8	9	2	20	5	7	8	16	11	8	10	8	1	0	0	0	0	26	0	0
April	5.0	NW.	30	NW.	0	2	2	2	13	8	4	3	16	10	6	14	10	7	6	7	3	0	0	0	0	0	19	0	0
May	4.9	NW.	32	NW.	0	2	3	3	9	3	9	2	22	9	6	17	8	9	9	5	2	3	0	0	0	1	8	1	0
June	3.3	NW.	22	NW.	0	3	6	1	15	3	8	2	14	8	7	17	6	10	5	0	0	0	0	0	0	8	0	8	1
July	3.6	NW.	30	NW.	0	1	6	2	12	7	5	2	24	3	16	12	3	8	6	0	0	0	0	0	0	16	0	7	0
August	3.1	NW.	24	NW.	0	2	2	6	9	11	10	4	12	6	11	18	2	4	1	0	0	0	0	0	0	13	0	6	0
September	3.7	NW.	24	S.	0	2	3	2	10	13	6	6	16	2	14	10	6	9	4	1	0	0	0	0	0	4	0	1	1
October	3.6	NW.	25	NW.	0	1	3	1	11	13	4	2	20	7	15	12	4	5	4	1	0	0	1	0	0	0	17	0	3
November	3.4	NW.	28	SW.	0	2	4	1	16	10	6	2	16	3	11	11	8	9	5	11	7	0	2	0	7	0	25	0	0
December	2.3	S.	22	NW.	0	0	1	1	21	12	13	2	10	2	13	13	5	3	1	6	3	0	13	0	10	0	31	0	0
Year	3.7	NW.	32	NW.	0	21	42	26	137	112	89	34	203	66	126	155	84	86	55	55	33	4	22	1	28	42	184	23	5

SHREVEPORT, LA.

[H_b=249 ft.; h_t=204 ft.; h_r=197 ft.; h_a=220 ft.]

January	5.3	S.	22	W.	0	4	6	7	10	9	8	9	9	0	8	13	10	8	5	0	0	0	5	2	0	0	4	1	0
February	5.2	SE.	16	NW.	0	5	6	8	16	4	3	4	10	0	12	6	10	12	10	0	0	0	3	1	0	0	0	2	0
March	7.0	SE.	24	W.	0	6	3	8	13	5	4	10	13	0	9	12	10	10	8	0	0	0	3	2	0	0	0	5	0
April	5.4	SE.	17	S.	0	6	7	13	13	7	4	3	7	0	9	9	12	10	10	0	0	0	4	0	0	0	0	7	0
May	5.2	S.	16	W.	0	6	4	4	13	9	6	12	8	0	4	14	7	8	5	0	0	0	1	0	0	0	1	3	0
June	4.6	S.	23	SW.	0	2	1	9	15	21	8	1	2	1	19	7	4	5	5	0	0	0	2	0	0	0	0	0	0
July	6.5	S.	36	N.	1	1	8	6	13	15	15	0	4	0	13	15	3	6	5	0	0	0	4	0	0	0	25	0	0
August	7.6	S.	35	N.	1	3	9	9	12	15	7	21	5	0	22	7	1	5	2	0	0	0	5	0	0	0	23	0	0
September	7.4	S.	36	SW.	1	6	4	5	12	18	11	2	2	1	22	7	2	4	2	0	0	0	14	3	0	0	14	0	0
October	7.6	S.	29	N.	0	5	7	10	17	12	1	4	6	0	10	8	12	11	9	0	0	0	12	5	0	0	24	0	0
November	9.3	S.	32	S.	0	6	3	6	23	15	2	2	3	0	7	10	14	16	14	0	0	2	14	2	0	0	6	0	0
December	8.8	S.	33	W.	1	6	8	10	8	13	7	3	7	0	7	10	14	16	14	0	0	2	14	2	0	0	0	7	0
Year	6.7	S.	36	SW.	4	56	66	95	165	143	76	52	75	2	152	119	94	103	82	0	0	4	71	15	0	93	6	51	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SIOUX CITY, IOWA

[ϕ=42° 30′ N.; λ=96° 24′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	28.84	29.32	28.50	23.5	34.8	35.2	40.6	21.7	31.2	63	−3	20	24	23	84	64	62	0.108	0.127	0.127	0.40	0.28	4.2	3.8	4.6	2.5	4.4
February	28.86	29.21	28.38	28.6	40.0	41.3	45.9	26.9	36.4	59	12	23	26	25	78	57	52	.123	.142	.135	.01	.01	T.	3.7	4.9	3.4	4.2
March	28.84	29.31	28.21	28.1	39.0	39.7	44.0	26.3	35.2	57	16	22	23	23	76	53	53	.119	.123	.127	.67	.29	3.0	6.5	7.3	6.0	6.8
April	28.83	29.21	28.29	42.1	58.7	58.7	63.5	40.2	51.8	89	26	32	32	30	68	41	38	.186	.192	.165	1.34	.50	T.	4.7	5.1	5.4	5.3
May	28.70	29.12	28.21	50.0	64.6	65.2	69.9	46.8	58.4	91	30	40	40	41	70	43	46	.263	.263	.274	2.71	1.31	T.	5.3	5.7	5.9	5.5
June	28.67	29.00	28.33	69.5	82.2	83.5	87.7	66.8	77.2	102	46	60	61	62	74	51	50	.541	.543	.565	2.90	1.00	0	5.9	5.4	4.1	5.1
July	28.69	28.97	28.42	70.6	84.1	85.3	89.3	67.4	78.4	99	53	59	57	57	66	42	41	.504	.479	.482	1.74	.66	0	4.0	4.3	3.7	4.0
August	28.80	29.09	28.42	66.2	81.1	80.8	85.8	63.9	74.8	95	52	57	56	56	74	44	46	.490	.470	.478	3.90	1.20	0	5.2	4.9	4.8	4.9
September	28.69	29.13	28.28	63.5	77.7	76.3	82.2	61.5	71.8	101	42	52	54	54	69	48	49	.403	.436	.420	3.34	1.54	0	5.0	4.7	4.8	4.8
October	28.78	29.24	28.17	48.6	61.2	59.4	64.9	46.8	55.8	85	34	43	44	45	82	56	60	.285	.307	.309	1.14	.67	T.	5.4	5.3	4.4	5.2
November	28.78	29.26	28.04	35.7	44.6	42.9	49.3	32.0	40.6	78	8	31	32	34	84	66	73	.186	.192	.204	4.00	.95	3.0	6.0	6.6	5.8	6.3
December	28.80	29.27	28.23	29.2	34.8	33.9	38.4	26.2	32.3	53	10	26	27	28	86	74	80	.144	.153	.159	1.83	1.10	1.4	6.2	6.4	5.6	6.0
Year	28.77	29.32	28.04	46.3	58.6	58.5	63.5	43.9	53.7	102	−3	39	40	40	76	53	54	.279	.286	.287	24.01	1.54	11.6	5.1	5.4	4.7	5.2

SPOKANE, WASH.

[ϕ=47° 40′ N.; λ=117° 25′ W.]

January	28.07	28.36	27.62	32.2	35.7	36.1	38.6	30.1	34.4	58	21	30	31	31	90	83	82	0.164	0.175	0.175	1.50	0.46	5.8	8.9	9.1	8.1	9.2
February	28.04	28.40	27.73	30.7	37.4	39.4	41.2	28.1	34.6	54	18	27	29	29	85	70	67	.146	.157	.160	.76	.25	2.6	6.3	6.8	7.0	6.9
March	28.04	28.43	27.56	35.8	46.2	47.0	49.4	33.9	41.6	58	21	31	31	31	84	57	56	.183	.181	.180	1.52	.58	.5	6.1	6.9	7.6	7.3
April	28.01	28.58	27.62	40.1	55.3	58.5	60.4	38.2	49.3	81	27	31	30	28	71	40	35	.177	.170	.160	.53	.29	T.	5.3	5.8	6.1	6.1
May	27.95	28.28	27.63	48.3	67.9	70.8	73.3	46.8	60.0	93	36	38	35	34	68	32	29	.231	.209	.197	.26	.13	0	4.6	5.9	5.7	5.4
June	27.91	28.17	27.56	54.0	69.4	72.5	75.0	52.8	63.9	95	43	43	40	39	68	37	34	.284	.256	.247	.87	.27	0	5.3	6.6	6.4	5.9
July	27.91	28.24	27.64	59.0	81.6	85.9	87.4	58.3	72.8	106	44	42	38	35	54	22	17	.266	.233	.204	T.	T.	0	2.1	2.4	2.3	2.1
August	27.96	28.19	27.69	57.1	80.7	85.3	86.6	55.8	71.2	97	47	38	36	32	50	21	16	.231	.217	.183	.01	.01	0	2.4	2.2	2.6	2.3
September	27.91	28.29	27.70	51.0	67.1	68.6	71.9	49.4	60.6	91	40	42	42	39	72	41	38	.269	.267	.248	1.05	.58	0	4.9	5.9	5.7	5.3
October	28.01	28.43	27.34	40.4	55.4	58.1	60.7	38.0	49.4	80	30	35	36	34	81	52	44	.205	.219	.203	.82	.27	0	3.8	4.7	3.5	4.3
November	28.01	28.41	27.43	29.8	37.2	37.2	40.5	26.1	33.3	66	4	26	27	28	86	67	68	.149	.152	.156	2.41	.56	13.9	6.0	7.2	5.3	6.6
December	27.92	28.46	27.34	27.1	31.6	32.3	34.7	23.7	29.2	49	5	26	27	28	93	83	83	.142	.148	.153	3.88	.80	18.4	7.9	8.7	7.6	8.1
Year	27.98	28.58	27.34	42.1	55.5	57.6	60.0	40.1	50.0	106	4	34	34	32	75	50	47	.204	.199	.189	13.61	.80	41.2	5.3	6.0	5.7	5.8

SPRINGFIELD, ILL.

[ϕ=39° 48′ N.; λ=89° 39′ W.]

January	29.40	29.88	28.92	29.1	38.2	36.2	41.9	26.9	34.4	64	9	25	28	28	82	68	70	0.136	0.158	0.154	0.27	0.18	0.4	4.7	6.3	5.6	6.5
February	29.41	29.81	28.99	33.2	42.4	41.2	46.4	30.8	38.6	64	15	29	31	32	84	65	70	.160	.177	.184	1.57	.46	.1	4.5	6.2	4.6	5.7
March	29.30	29.64	28.56	32.3	40.5	40.4	44.6	31.0	37.8	59	24	28	29	31	83	64	70	153	.162	.178	2.79	.77	15.1	6.3	7.3	7.7	7.2
April	29.38	29.71	28.94	47.5	61.8	58.9	66.5	44.3	54.9	83	31	41	39	42	78	47	58	.264	.247	.275	1.88	.68	T.	4.6	4.9	5.6	5.3
May	29.24	29.62	28.82	54.7	67.1	65.2	70.8	50.3	60.6	91	35	49	48	50	82	55	62	.367	.360	.386	4.87	1.95	0	4.7	5.7	6.2	5.6
June	29.30	29.47	28.93	71.7	83.3	82.0	87.8	66.9	77.4	102	48	62	60	62	72	49	53	.573	.543	.576	3.94	1.74	0	4.9	5.5	5.2	5.2
July	29.26	29.49	28.96	74.4	88.6	85.5	92.0	70.4	81.2	102	60	63	61	62	69	42	47	.596	.558	.568	2.78	2.67	0	3.4	3.4	3.9	3.8
August	29.36	29.65	29.09	68.4	82.7	78.8	85.9	65.2	75.6	100	55	62	60	62	81	49	58	.572	.547	.572	3.58	1.97	0	3.7	5.8	4.8	5.4
September	29.33	29.68	28.96	66.5	83.3	77.1	85.9	63.8	74.8	97	48	61	60	61	82	47	59	.549	.552	.563	3.15	1.14	0	4.2	3.9	4.1	4.7
October	29.37	29.80	28.90	54.3	67.3	62.2	69.7	51.7	60.7	88	38	48	48	49	82	52	64	.359	.354	.374	3.51	1.38	0	5.4	5.8	4.6	5.8
November	29.41	29.85	28.85	47.5	57.2	53.2	59.9	44.0	52.0	78	26	43	43	42	84	62	69	.294	.306	.295	5.07	1.94	2.8	6.2	6.4	5.5	6.3
December	29.41	29.94	28.80	37.5	44.1	42.5	46.9	35.2	41.0	61	27	34	36	37	88	73	80	.204	.216	.225	2.80	.68	1.0	6.4	6.2	5.6	6.8
Year	29.35	29.94	28.56	51.4	63.0	60.3	66.4	48.4	57.4	102	9	45	45	46	81	56	63	.352	.348	.362	36.21	2.67	19.4	4.9	5.6	5.3	5.7

SPRINGFIELD, MO.

[ϕ=37° 12′ N.; λ=93° 18′ W.]

January	28.70	29.17	28.35	32.5	41.0	40.2	45.7	30.5	38.1	64	5	27	28	30	79	62	67	0.150	0.163	0.167	0.63	0.20	1.2	3.9	5.0	3.1	3.6
February	28.65	29.00	28.19	37.4	46.2	46.8	51.5	35.0	43.2	63	18	31	31	33	78	58	60	.181	.186	.195	3.06	.86	0	5.9	4.7	4.8	3.8
March	28.57	28.98	27.98	34.7	43.2	43.6	48.6	33.0	40.8	62	23	28	28	29	77	59	60	.154	.160	.165	2.54	.85	6.8	5.8	5.2	5.2	4.5
April	28.67	28.97	28.08	48.2	58.9	57.7	62.8	45.5	54.2	79	32	40	40	40	76	53	57	.260	.260	.262	3.80	1.70	T.	4.6	4.6	4.5	3.4
May	28.56	28.94	28.20	54.3	64.8	64.5	68.5	51.1	59.8	90	38	46	46	47	76	55	58	.332	.333	.341	3.65	1.71	0	4.8	5.2	3.6	2.3
June	28.61	28.77	28.35	70.7	81.9	82.0	85.8	67.0	76.4	97	52	62	59	61	73	48	52	.562	.520	.537	.84	.30	0	2.5	3.7	2.3	1.2
July	28.58	28.76	28.31	72.8	84.1	84.8	88.6	70.0	79.3	98	61	65	62	63	77	49	50	.624	.570	.590	4.08	1.67	0	3.4	3.6	2.8	2.5
August	28.66	28.87	28.43	67.3	77.1	76.5	81.2	64.8	73.0	91	53	62	62	63	85	61	65	.574	.568	.588	10.68	5.36	0	4.4	4.7	3.4	3.5
September	28.62	28.96	28.39	67.8	80.7	78.3	84.7	65.7	75.2	94	47	62	62	62	82	54	57	.569	.567	.557	.22	.20	0	2.0	2.5	2.0	1.8
October	28.66	29.02	28.36	56.1	66.7	64.3	70.7	54.4	62.6	85	36	49	50	50	78	58	63	.371	.391	.395	2.53	1.13	0	4.4	3.9	3.6	4.6
November	28.66	28.99	28.10	49.4	57.7	55.7	61.8	46.8	54.3	79	26	43	42	44	80	59	67	.306	.297	.308	4.08	1.30	.6	5.5	4.8	4.8	4.9
December	28.64	29.14	27.99	39.8	47.7	46.6	52.2	37.3	44.8	69	26	34	36	36	81	65	69	.208	.221	.228	1.65	.82	0	4.4	4.6	5.9	5.1
Year	28.63	29.17	27.98	52.6	62.5	61.8	66.8	50.1	58.5	98	5	40	46	46	78	57	60	.357	.353	.363	38.46	5.36	8.6	4.3	4.4	3.8	3.5

Annual meteorological summaries for the year ending December 31, 1931—Continued

SIOUX CITY, IOWA

[H_b=1,135 ft.; h_t=94 ft.; h_r=86 ft.; h_a=164 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction of time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	10.0	NW.	31	NW.	0	4	1	4	10	14	5	3	21	0	15	7	9	5	2	7	5	0	0	5	8	0	27	0	0
February	9.4	NW.	31	SE.	0	9	9	5	11	8	2	1	16	1	14	6	8	1	1	5	0	0	0	6	9	2	0	26	0	0
March	11.9	NW.	38	NW.	3	11	6	4	14	6	1	2	15	0	6	10	15	7	5	7	4	0	0	3	0	1	0	23	0	0
April	11.1	NW.	41	NW.	3	6	2	3	10	10	4	2	22	1	10	9	11	5	4	3	0	0	0	3	1	0	0	9	3	0
May	11.8	NW.	44	S.	3	9	5	2	7	14	2	3	20	0	11	8	12	10	8	1	0	1	0	0	0	0	3	2	5	0
June	11.0	S.	44	NW.	5	7	10	4	14	24	1	1	4	1	11	9	10	11	10	0	0	0	0	0	0	0	12	0	7	0
July	10.2	S.	36	N.	1	1	10	12	7	21	2	3	6	0	16	9	6	5	4	0	0	0	0	0	0	0	16	0	5	0
August	9.4	S.	34	NW.	1	2	2	6	12	20	4	1	9	0	14	7	10	7	5	0	0	0	0	0	0	0	9	0	5	0
September	11.3	S.	35	S.	2	9	3	3	13	16	3	1	6	2	12	7	11	7	7	0	0	0	0	2	0	0	10	0	8	1
October	11.8	NW.	42	S.	6	4	3	5	14	17	1	1	17	0	12	8	11	6	5	1	0	0	0	3	1	0	0	0	4	0
November	9.6	NW.	34	S.	1	3	3	3	13	14	2	2	15	1	6	10	14	14	11	6	5	0	1	3	5	0	14	3	0
December	10.0	S.	30	S.	0	3	2	1	9	14	2	5	13	1	9	7	15	8	3	2	4	0	0	14	10	5	0	22	1	0
Year	10.6	S.	44	S.	25	56	72	62	134	172	29	31	167	7	136	97	132	86	65	36	18	1	38	15	21	50	123	43	1

SPOKANE, WASH.

[H_b=1,929 ft.; h_t=101 ft.; h_r=94 ft.; h_a=110 ft.]

January	3.8	S.	18	S.	0	8	10	8	0	14	10	6	6	0	0	3	28	13	11	16	9	0	10	5	2	0	23	0	0
February	4.4	S.	21	S.	0	9	8	4	2	15	8	5	5	0	4	10	14	8	3	7	3	0	11	1	1	0	24	0	0
March	6.4	S.	21	SW.	0	2	6	11	1	18	19	2	3	0	7	5	19	14	7	4	2	0	3	2	1	0	12	0	0
April	6.1	SW.	30	NE.	0	1	8	12	2	18	10	5	3	1	9	7	14	8	4	1	1	0	2	1	0	0	3	0	0
May	5.3	SW.	23	SW.	0	0	2	14	0	14	15	6	5	1	10	15	6	8	2	0	0	0	0	0	0	1	0	2	0
June	5.8	S.	22	SW.	0	1	1	7	0	26	14	2	3	0	5	13	12	9	8	0	0	0	1	1	0	3	0	2	0
July	4.8	S.	21	SW.	0	7	10	7	2	11	13	6	5	1	22	7	2	0	0	0	0	0	0	0	0	11	0	1	0
August	4.3	S.	19	S.	0	2	4	5	4	13	16	2	6	10	23	5	3	1	0	0	0	0	1	0	0	13	0	1	0
September	4.8	S.	24	NW.	0	8	4	6	3	23	10	3	1	4	7	13	10	6	5	0	0	0	1	0	0	1	0	0	0
October	4.0	S.	24	SW.	0	6	11	7	1	16	8	4	6	3	13	11	7	7	5	0	0	0	6	5	0	0	4	0	0
November	4.8	S.	24	SW.	0	4	12	6	1	20	12	1	1	3	7	5	18	13	12	11	7	0	10	2	8	0	16	0	0
December	3.7	S.	22	SW.	0	3	10	8	2	16	6	5	5	7	3	7	21	22	17	25	16	1	21	7	11	0	27	0	0
Year	4.8	S.	30	NE.	0	49	97	95	18	204	141	47	49	30	110	101	154	109	74	64	38	2	65	24	23	29	109	6	0

SPRINGFIELD, ILL.

[H_b=636 ft.; h_t=5 ft.; h_r=3 ft.; h_a=191 ft.]

January	11.4	S.	31	W.	0	6	0	0	6	16	15	9	10	0	7	10	14	3	2	8	1	0	5	3	4	0	22	0	0
February	9.7	S.	26	NE.	0	13	5	3	6	12	4	5	8	0	9	8	11	10	6	3	1	0	6	1	1	0	14	1	0
March	12.4	NW.	46	NE.	4	13	10	7	9	1	2	6	14	0	5	9	17	10	9	8	5	0	2	2	2	0	20	0	0
April	10.0	NW.	29	NW.	0	6	8	6	4	9	5	5	17	0	8	14	8	10	7	1	0	0	0	0	0	0	1	0	0
May	10.4	SW.	34	S.	1	13	1	5	6	14	6	10	7	0	11	10	10	12	12	0	0	1	0	0	0	1	0	4	0
June	9.9	S.	36	NW.	3	2	3	2	10	14	14	13	2	0	10	10	10	11	9	0	0	0	0	0	0	12	0	8	0
July	8.8	SW.	38	N.	1	4	6	4	6	11	22	5	4	0	13	15	3	3	3	0	0	0	0	0	0	16	0	7	0
August	8.0	N.	27	SW.	0	14	5	8	7	9	10	4	5	0	8	14	9	6	5	0	0	0	1	2	0	17	0	8	0
September	10.2	S.	30	S.	0	8	2	7	5	31	3	0	4	0	11	13	6	9	9	0	0	0	1	0	0	0	0	3	0
October	10.9	S.	29	SE.	0	8	4	2	6	25	5	10	2	0	11	5	15	10	6	0	0	0	1	2	1	0	5	1	0
November	11.9	S.	39	S.	1	8	2	7	4	29	3	4	3	0	9	5	16	11	10	2	2	1	2	1	0	0	10	0	0
December	11.1	S.	33	S.	1	3	2	9	11	14	7	9	5	0	6	9	16	12	12	4	3	0	10	6	0	0	10	0	0
Year	10.4	S.	46	NE.	11	100	48	60	80	185	96	80	81	0	108	122	135	107	90	26	12	3	29	13	7	55	72	44	0

SPRINGFIELD, MO.

[H_b=1,324 ft.; h_t=98 ft.; h_r=66 ft.; h_a=104 ft.]

January	8.9	S.	25	NW.	0	3	2	2	13	13	6	12	11	0	19	3	9	8	5	4	2	0	5	1	2	0	16	0	0
February	8.8	SE.	24	SE.	0	12	5	4	12	11	2	2	8	0	15	7	6	10	7	0	0	0	6	0	0	0	8	1	0
March	10.8	NW.	31	W.	0	9	8	3	10	3	2	8	20	1	17	5	9	11	9	7	5	0	6	1	1	0	14	0	0
April	8.1	S.	30	NW.	0	6	3	2	12	13	4	5	14	1	19	5	6	9	8	1	0	0	6	1	0	1	1	2	0
May	9.2	S.	30	W.	0	6	7	3	9	12	7	5	13	0	18	8	5	13	11	0	0	0	6	0	0	1	0	4	0
June	8.2	S.	26	SE.	0	7	3	2	18	23	8	2	3	0	27	3	0	5	5	0	0	0	2	0	0	0	6	0	0
July	7.0	S.	31	NE.	0	2	4	8	14	18	4	8	4	0	20	16	1	10	7	0	0	1	2	0	0	0	9	0	0
August	6.9	S.	30	NW.	0	4	4	6	11	22	5	1	3	0	22	7	1	7	6	0	0	0	3	0	0	0	5	0	0
September	8.5	S.	26	S.	0	11	2	6	21	25	11	1	3	0	14	7	9	10	6	0	0	0	2	0	0	0	5	0	0
October	9.0	S.	30	W.	0	2	4	4	26	10	2	5	4	0	12	8	10	14	10	1	1	0	7	0	0	0	3	4	0
November	9.8	S.	30	S.	0	4	4	5	11	23	4	2	4	0	13	6	12	8	4	0	0	0	10	4	0	0	8	1	0
December	8.3	SE.	24	SE.	0	2	2	6	18	11	7	9	6	1	13	6	12	8	4	0	0	0	0	0	0	0	0	0	0
Year	8.6	S.	31	W.	0	52	46	51	175	184	52	69	97	4	212	79	74	116	89	13	8	1	51	9	3	38	51	47	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

SYRACUSE, N. Y.

[ϕ=43° 03′ N.; λ=76° 09′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.33	29.84	28.51	23.2	26.8	----	32.1	19.5	25.8	46	5	17	20	----	76	73	----	0.099	0.110	----	2.70	0.95	18.5	8.5	7.8	----	7.5
February	29.38	29.80	29.06	25.2	28.8	----	34.6	19.9	27.2	45	−5	20	22	----	79	76	----	.113	.124	----	1.27	.33	7.7	7.9	7.6	----	7.6
March	29.28	29.79	28.50	32.9	36.7	----	41.3	31.2	36.2	57	24	28	28	----	79	67	----	.149	.153	----	1.98	.91	4.3	7.9	7.5	----	7.5
April	29.38	29.93	28.59	44.6	52.8	----	56.5	38.4	47.4	82	29	34	34	----	67	51	----	.196	.199	----	3.07	.67	1.0	5.8	5.8	----	5.5
May	29.28	29.67	28.97	57.4	63.6	----	68.5	49.9	59.2	90	34	48	48	----	72	62	----	.342	.351	----	4.42	.88	T.	5.3	5.6	----	5.8
June	29.36	29.65	28.77	66.7	73.0	----	76.8	56.8	66.8	96	46	54	55	----	66	57	----	.432	.452	----	1.15	.58	0	4.0	4.6	----	4.2
July	29.29	29.57	28.97	74.2	81.0	----	84.2	66.5	75.4	100	60	63	63	----	70	56	----	.590	.584	----	3.81	1.11	0	5.5	5.8	----	5.9
August	29.40	29.70	29.04	69.6	77.5	----	80.1	62.0	71.0	94	51	62	64	----	79	66	----	.574	.615	----	1.91	1.09	0	5.1	5.7	----	6.9
September	29.37	29.83	28.97	65.7	74.4	----	78.4	58.8	68.6	97	42	57	57	----	75	57	----	.487	.495	----	2.76	.73	0	4.8	5.7	----	6.3
October	29.40	29.94	28.67	52.5	61.1	----	65.3	47.7	56.5	84	35	44	44	----	72	56	----	.297	.301	----	1.76	.68	0	5.3	5.5	----	5.5
November	29.49	29.93	28.99	46.6	53.0	----	56.5	40.8	48.6	75	17	39	40	----	74	63	----	.252	.262	----	2.38	.71	4.8	8.1	7.7	----	8.0
December	29.44	30.03	28.93	32.3	35.9	----	41.1	27.3	34.2	56	14	25	27	----	73	72	----	.141	.155	----	2.60	.75	5.2	8.3	7.0	----	7.2
Year	29.37	30.03	28.50	49.2	55.6	----	59.6	43.2	51.4	100	−5	41	42	----	74	63	----	.306	.317	----	29.81	1.11	41.5	6.4	6.3	----	6.5

TACOMA, WASH.

[ϕ=47° 16′ N.; λ=122° 23′ W.]

January	29.82	30.27	29.24	----	46.0	47.2	49.5	39.6	44.6	64	30	----	43	43	----	88	86	----	0.277	0.281	6.13	1.27	0	----	8.7	8.6	8.5
February	29.85	30.29	29.40	----	46.6	48.0	50.2	36.8	43.5	60	31	----	40	40	----	78	76	----	.250	.253	3.38	1.93	0	----	7.0	6.2	6.8
March	29.88	30.32	29.34	----	50.1	50.7	53.4	39.9	46.6	67	29	----	43	44	----	78	78	----	.286	.291	5.39	1.34	T.	----	7.9	8.1	7.5
April	29.84	30.24	29.48	----	56.5	58.4	60.4	43.8	52.1	77	34	----	40	38	----	57	52	----	.251	.240	2.96	1.14	0	----	5.3	5.1	5.3
May	29.86	30.33	29.47	----	63.1	65.4	67.5	48.6	58.0	84	42	----	45	43	----	54	48	----	.298	.285	1.04	.61	0	----	5.1	4.1	5.3
June	29.81	30.04	29.51	----	63.5	65.9	68.1	51.9	60.0	85	47	----	50	49	----	62	57	----	.362	.350	3.84	1.01	0	----	5.9	6.5	6.5
July	29.83	30.21	29.57	----	68.3	72.8	74.2	55.4	64.8	88	48	----	52	51	----	58	48	----	.394	.382	T.	T.	0	----	2.9	2.5	3.6
August	29.88	30.05	29.60	----	68.7	72.0	74.0	53.8	63.9	94	49	----	55	55	----	63	56	----	.436	.438	.21	.19	0	----	2.6	2.3	3.8
September	29.80	30.07	29.47	----	62.5	64.4	66.5	52.3	59.4	81	43	----	55	54	----	76	70	----	.429	.419	2.67	1.29	0	----	7.2	6.8	7.5
October	29.84	30.17	29.11	----	55.2	56.6	58.4	44.5	51.4	71	37	----	49	49	----	80	78	----	.348	.354	3.93	1.15	0	----	6.7	6.1	7.2
November	29.84	30.22	29.17	----	45.6	45.2	47.7	37.1	42.4	61	23	----	39	39	----	78	79	----	.244	.242	2.74	.55	T.	----	6.5	6.3	7.3
December	29.65	30.21	29.02	----	43.6	43.6	46.3	36.5	41.4	56	27	----	38	37	----	80	79	----	.228	.226	6.88	1.84	T.	----	7.9	8.6	8.5
Year	29.83	30.33	29.02	----	55.8	57.5	59.7	45.0	52.3	94	23	----	46	45	----	71	67	----	.317	.313	39.17	1.93	T.	----	6.1	5.9	6.5

TAMPA, FLA.

[ϕ=27° 57′ N.; λ=82° 27′ W.]

January	30.10	30.50	29.62	51.7	63.3	58.4	66.6	49.1	57.8	75	32	47	50	50	84	64	74	0.337	0.379	0.372	3.42	1.27	0	6.2	6.3	5.3	6.0
February	30.01	30.27	29.70	54.2	66.2	61.5	69.6	52.4	61.0	77	39	49	51	51	83	59	68	.359	.393	.375	1.65	.54	0	5.5	5.2	5.1	5.4
March	29.96	30.27	29.46	55.7	65.8	61.0	68.7	52.8	60.8	81	44	50	49	50	81	56	68	.371	.360	.376	7.07	2.73	0	5.0	4.7	4.8	4.8
April	30.01	30.27	29.58	64.4	74.9	69.6	77.5	60.6	69.0	86	52	59	61	60	82	62	72	.505	.544	.523	7.23	4.25	0	5.3	6.5	4.9	6.0
May	29.94	30.16	29.74	72.4	81.5	75.6	84.5	67.0	75.8	89	60	65	65	64	79	58	68	.632	.629	.603	3.24	1.30	0	3.9	4.8	4.9	4.7
June	29.98	30.12	29.73	77.2	84.7	80.7	90.7	71.9	81.3	95	65	70	68	68	79	55	68	.740	.703	.702	1.47	.56	0	4.9	5.9	6.3	5.7
July	29.96	30.12	29.79	80.4	88.8	81.4	92.3	75.7	84.0	96	71	75	75	74	84	64	80	.867	.864	.855	7.23	2.11	0	4.3	6.2	7.3	6.1
August	30.03	30.17	29.86	78.4	86.9	80.7	90.2	74.2	82.2	94	69	73	73	72	85	64	77	.821	.809	.801	6.35	2.66	0	5.6	7.3	7.2	6.6
September	29.97	30.18	29.78	76.3	85.9	78.3	88.2	72.4	80.3	93	62	72	70	72	87	60	81	.799	.744	.776	8.61	3.96	0	3.4	6.4	6.6	6.2
October	30.00	30.21	29.76	70.2	81.7	75.6	83.8	67.7	75.8	90	56	65	64	65	84	55	71	.631	.602	.632	.54	.22	0	4.2	5.8	4.1	5.2
November	30.09	30.23	29.91	61.8	77.0	70.7	79.5	60.0	69.8	86	48	57	57	59	86	52	67	.483	.486	.510	.04	.04	0	2.2	4.8	2.3	3.6
December	30.07	30.25	29.70	66.1	77.7	72.0	80.2	64.5	72.4	86	53	64	64	65	94	65	80	.609	.612	.626	1.20	.84	0	5.0	6.5	4.6	6.5
Year	30.01	30.50	29.46	67.4	78.0	72.1	81.0	64.0	72.5	96	32	62	62	62	84	60	73	.596	.593	.596	48.05	4.25	0	4.6	5.9	5.3	5.6

TATOOSH ISLAND, WASH.

[ϕ=48° 23′ N.; λ=124° 44′ W.]

January	29.84	30.38	29.24	46.2	46.9	46.4	49.8	44.2	47.0	57	39	44	44	43	92	91	89	0.290	0.291	0.282	17.39	3.34	0	7.5	8.3	8.5	9.1
February	29.90	30.38	29.27	44.3	46.9	46.4	48.5	42.8	45.6	55	38	40	42	41	84	82	81	.244	.262	.255	7.41	1.97	0	8.0	7.0	7.1	7.5
March	29.96	30.43	29.38	45.0	47.7	47.1	49.6	42.9	46.2	55	34	41	42	42	86	82	82	.260	.271	.267	9.73	1.70	T.	7.1	7.8	7.2	7.6
April	29.94	30.32	29.55	47.6	52.0	52.2	55.3	44.9	50.1	75	40	44	40	40	87	82	80	.286	.320	.314	6.33	1.56	0	6.5	6.8	5.5	6.5
May	29.99	30.49	29.63	49.0	53.6	53.3	56.3	48.2	52.2	65	45	46	48	47	91	82	81	.313	.335	.326	1.46	.52	0	6.7	5.0	5.2	7.1
June	29.90	30.15	29.64	51.6	55.8	55.6	58.4	50.5	54.4	69	47	49	51	51	91	85	85	.347	.375	.374	6.99	1.47	0	7.6	6.5	6.1	7.0
July	29.95	30.35	29.60	54.0	57.4	58.0	61.4	51.7	56.6	76	47	52	54	54	93	90	87	.386	.424	.416	.30	.18	0	6.7	4.6	3.4	6.4
August	30.01	30.18	29.77	53.0	56.6	56.6	58.8	51.0	54.9	67	47	52	54	53	97	90	90	.387	.411	.408	.83	.68	0	4.5	3.5	4.0	6.7
September	29.88	30.21	29.48	53.4	56.4	56.4	59.2	51.6	55.4	72	48	51	53	52	92	88	86	.376	.398	.393	7.97	2.25	0	7.2	7.4	6.4	7.8
October	29.92	30.34	29.05	50.5	52.8	52.3	55.2	48.3	51.8	64	43	48	48	48	91	86	86	.333	.340	.338	5.76	2.42	0	5.8	6.9	6.7	7.3
November	29.92	30.34	29.18	44.0	45.7	45.0	48.1	41.5	44.8	59	35	41	41	40	89	85	85	.258	.262	.255	11.28	2.82	.6	5.1	6.0	6.3	7.0
December	29.68	30.32	28.97	42.3	43.9	42.8	45.5	40.3	42.9	51	35	39	40	40	90	87	88	.243	.253	.244	14.02	2.94	0	7.2	8.6	8.6	8.6
Year	29.91	30.49	28.97	48.4	51.3	51.0	53.8	46.5	50.2	76	34	46	47	46	90	86	85	.310	.328	.323	89.47	3.34	.6	6.7	6.5	6.2	7.4

Annual meteorological summaries for the year ending December 31, 1931—Continued

SYRACUSE, N. Y.

[H_b=596 ft.; h_t=65 ft.; h_r=57 ft.; h_a=79 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		Mi.																										
January	6.6	W.	22	NW.	0	22	0	13	2	9	12	14	10	0	5	8	18	16	13	23	15	0	2	1	13	0	27	0	0
February	6.7	W.	22	SW.	0	22	2	11	2	8	7	15	9	0	4	5	19	18	9	18	15	0	1	0	7	0	23	0	0
March	6.4	W.	24	E.	0	3	2	13	6	4	2	23	9	0	4	9	18	15	10	16	12	0	0	0	1	0	17	0	0
April	7.6	S.	27	SW.	0	2	2	9	3	10	7	15	12	0	4	9	18	15	10	16	12	0	0	0	0	0	17	0	0
May	5.9	S.	20	S.	0	3	2	13	5	12	8	15	6	0	11	7	13	15	12	1	0	0	0	0	0	1	5	0	0
June	5.6	NW.	23	W.	0	2	1	12	3	10	4	14	14	0	14	10	6	9	6	0	0	0	0	1	3	0	4	0	0
July	4.9	S.	21	SW.	0	5	1	8	3	18	11	8	8	0	6	15	10	14	8	0	0	0	2	0	5	0	5	0	0
August	4.5	S.	19	NW.	0	3	1	8	5	16	7	10	9	0	4	12	15	6	5	0	0	0	0	0	1	0	2	0	0
September	5.4	S.	20	W.	0	3	0	8	4	17	7	16	5	0	8	11	11	12	10	0	0	0	4	1	0	0	7	0	0
October	5.4	S.	23	NW.	0	4	0	7	3	23	11	11	3	0	13	5	13	14	11	0	0	0	3	2	0	0	2	0	0
November	6.5	S.	19	NW.	0	1	1	7	5	25	8	10	3	0	2	9	19	15	13	5	4	0	3	0	0	0	1	0	0
December	6.6	W.	26	NW.	0	7	1	9	3	11	6	16	9	0	2	14	15	14	10	13	6	0	1	0	6	0	19	0	0
Year	6.0	S.	27	SW.	0	39	13	119	44	163	88	167	97	0	85	111	169	163	118	81	55	0	17	4	27	17	96	18	0

TACOMA, WASH.

[H_b=194 ft.; h_t=172 ft.; h_r=165 ft.; h_a=201 ft.]

January	5.9	S.	34	S.	3	5	2	2	5	11	5	0	1	0	2	4	25	18	16	0	0	1	24	7	0	0	1	1	0
February	7.2	S.	36	SW.	2	9	0	0	0	7	2	2	2	1	4	9	15	13	11	0	0	0	15	4	0	0	3	0	0
March	7.7	S.	33	SW.	2	7	1	3	0	10	4	4	2	0	3	8	20	21	19	1	0	0	19	4	0	0	3	0	0
April	8.4	S.	43	N.	1	11	1	0	3	2	8	4	1	0	9	12	9	10	9	0	0	0	5	0	0	0	3	0	0
May	7.6	N.	38	SW.	2	15	1	0	2	6	5	7	2	0	7	19	5	6	5	0	0	0	0	0	0	0	0	0	0
June	6.8	N.	23	W.	0	10	0	0	1	4	4	10	1	0	4	16	10	15	12	0	0	0	2	0	0	0	0	0	0
July	6.5	N.	30	SW.	0	22	0	0	1	0	1	5	2	0	16	11	4	0	0	0	0	0	3	0	0	0	0	0	0
August	6.5	N.	45	SW.	1	20	0	0	0	0	2	9	0	0	13	16	2	3	1	0	0	0	7	2	0	0	1	0	0
September	6.4	S.	33	SW.	1	11	0	0	1	4	7	7	0	0	2	10	18	10	7	0	0	0	6	2	0	0	0	2	0
October	5.5	S.	26	N.	0	10	4	1	0	7	2	0	5	2	6	7	18	14	11	0	0	0	18	6	0	0	0	1	0
November	8.0	S.	36	SW.	1	9	2	1	1	11	4	0	1	1	5	7	18	14	13	1	0	0	12	2	0	0	8	0	0
December	6.3	S.	37	S.	1	4	2	3	2	11	4	2	3	0	0	8	23	22	4	0	0	0	9	4	0	0	5	0	0
Year	6.9	S.	45	SW.	14	133	13	10	15	67	53	50	20	4	71	127	167	147	126	6	0	1	111	27	0	1	20	8	0

TAMPA, FLA.

[H_b=35 ft.; h_t=88 ft.; h_r=81 ft.; h_a=197 ft.]

January	11.1	NE.	34	NW.	1	17	12	9	4	8	1	1	10	0	10	9	12	9	6	0	0	0	2	1	0	0	1	1	0
February	10.1	NW.	46	S.	1	12	6	9	6	5	1	4	13	0	11	5	12	7	6	0	0	0	4	1	0	0	0	0	0
March	10.7	NW.	36	E.	3	4	4	5	7	2	3	11	26	0	14	7	10	8	7	0	0	0	4	3	0	0	0	0	0
April	10.8	E.	35	NE.	2	9	12	14	3	2	4	5	11	0	7	13	10	7	7	0	0	0	1	0	0	0	0	4	0
May	8.5	E.	30	N.	0	9	5	12	8	4	2	6	16	0	12	11	8	9	6	0	0	0	1	1	0	0	0	7	0
June	8.4	E.	32	SE.	0	5	4	15	8	8	3	6	11	0	6	20	4	7	7	0	0	0	0	0	0	0	18	13	0
July	7.7	SE.	32	SW.	0	1	1	19	7	9	6	10	9	0	3	20	8	15	10	0	0	0	0	0	0	0	29	19	0
August	7.6	E.	38	NE.	4	6	5	18	9	7	3	6	8	0	0	20	11	14	11	0	0	0	0	0	0	0	20	23	0
September	9.5	E.	35	NE.	1	7	21	16	5	2	2	7	6	0	4	14	12	21	15	0	0	0	3	0	0	0	14	14	0
October	10.3	E.	33	E.	1	7	24	21	0	3	1	0	6	0	9	14	8	7	4	0	0	0	1	1	0	0	0	1	0
November	12.1	NE.	28	E.	0	15	21	20	3	0	0	1	0	0	12	17	1	1	1	0	0	0	11	2	0	0	0	0	0
December	8.8	S.	42	NW.	1	2	8	14	10	12	4	3	9	0	5	11	15	4	3	0	0	0	11	9	0	0	0	1	0
Year	9.6	E.	46	S.	14	94	123	172	70	62	30	53	126	0	93	161	111	109	83	0	0	0	38	18	0	81	1	91	0

TATOOSH ISLAND, WASH.

[H_b=86 ft.; h_t=9 ft.; h_r=4 ft.; h_a=53 ft.]

January	18.5	E.	67	S.	19	1	1	31	5	16	5	1	1	1	0	5	26	26	24	0	0	0	0	4	0	0	0	2	0
February	17.4	E.	49	S.	16	0	1	26	4	8	5	4	7	1	5	3	20	18	16	0	0	0	0	0	0	0	0	0	0
March	16.4	E.	51	E.	14	0	0	17	4	13	13	4	7	0	4	6	21	24	23	2	2	0	0	0	0	0	0	1	0
April	14.7	S.	45	S.	12	0	0	4	15	4	18	12	5	2	0	5	10	15	15	13	0	0	1	0	0	0	0	0	0
May	9.9	W.	43	E.	4	0	0	6	6	0	11	10	24	4	1	5	8	18	9	7	0	0	0	0	4	0	0	0	0
June	9.5	SW.	35	E.	2	0	1	10	1	17	19	7	4	1	5	6	18	17	16	0	0	0	1	7	0	0	0	0	0
July	9.2	SW.	36	S.	1	2	1	10	0	9	27	11	2	0	6	11	14	4	2	0	0	0	9	8	0	0	0	0	0
August	9.2	S.	40	S.	1	3	1	4	2	27	18	6	1	0	4	11	16	7	3	0	0	0	8	20	0	0	0	0	0
September	10.5	S.	42	S.	3	2	3	7	3	28	12	4	1	0	3	3	24	19	19	0	0	0	0	7	0	0	0	1	0
October	12.8	E.	47	S.	11	0	5	16	4	15	9	9	2	2	6	5	20	14	14	0	0	0	2	3	0	0	0	3	0
November	14.5	E.	55	S.	10	2	2	28	1	7	11	3	4	2	5	7	18	16	16	1	1	0	0	0	0	0	0	0	0
December	17.5	E.	58	SW.	16	0	1	25	9	17	4	3	1	2	3	2	26	25	23	0	0	0	0	0	0	0	0	2	0
Year	13.3	E.	67	S.	109	10	30	195	37	186	145	81	36	10	52	77	236	194	176	3	3	1	20	55	0	0	0	9	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

TAYLOR, TEX.

[ϕ=30° 35′ N.; λ=97° 20′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Moisture: Cloudiness: 8 a. m.	Moisture: Cloudiness: Noon, local time	Moisture: Cloudiness: 8 p. m.	Moisture: Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	29.57	30.01	29.11	43.9	54.9	----	58.8	41.6	50.2	73	26	40	42	----	87	65	----	0.264	0.283	----	3.40	1.91	0	5.6	5.7	----	5.9
February	29.46	29.80	29.05	49.6	60.4	----	64.6	46.6	55.6	74	35	46	48	----	87	65	----	.323	.344	----	3.87	1.33	0	5.7	5.2	----	5.2
March	29.45	29.88	28.96	46.0	60.1	----	66.8	42.4	54.6	83	30	40	41	----	81	51	----	.270	.273	----	2.48	.85	T.	4.5	3.1	----	3.8
April	29.48	29.86	28.99	54.5	68.9	----	73.7	51.1	62.4	85	37	49	49	----	82	51	----	.371	.366	----	2.91	2.07	0	6.0	6.0	----	5.8
May	29.40	29.65	29.04	63.4	77.0	----	82.0	60.0	71.0	90	45	57	55	----	81	49	----	.488	.444	----	.97	.54	0	5.4	3.8	----	4.0
June	29.40	29.53	29.14	73.5	88.3	----	92.9	70.3	81.6	98	55	68	66	----	84	48	----	.702	.637	----	2.74	2.05	0	4.8	3.7	----	3.7
July	29.36	29.52	29.18	76.1	90.1	----	93.8	73.3	83.6	99	69	72	68	----	86	50	----	.777	.700	----	2.07	.62	0	4.4	3.5	----	3.8
August	29.46	29.65	29.27	73.2	89.8	----	94.4	71.3	82.8	99	63	68	64	----	84	44	----	.698	.612	----	.03	.03	0	3.4	2.2	----	2.7
September	29.42	29.69	29.23	72.0	90.5	----	94.5	70.6	82.6	100	58	67	63	----	85	40	----	.680	.581	----	2.40	2.35	0	2.7	3.3	----	3.3
October	29.47	29.75	29.26	65.8	83.5	----	87.1	64.2	75.6	95	41	60	57	----	82	42	----	.560	.506	----	.28	.22	0	4.9	2.9	----	3.1
November	29.49	29.77	29.12	56.6	70.5	----	74.5	54.3	64.4	84	40	52	52	----	85	56	----	.414	.416	----	.64	.16	0	5.8	5.7	----	6.0
December	29.49	29.87	29.04	47.3	56.8	----	61.2	43.3	52.2	78	31	44	44	----	88	65	----	.316	.308	----	4.30	1.60	0	6.3	6.2	----	5.8
Year	29.45	30.01	28.90	60.2	74.2	----	78.7	57.4	68.0	100	26	55	54	----	84	52	----	.489	.456	----	26.09	2.35	T.	5.0	4.3	----	4.4

TERRE HAUTE, IND.

[ϕ=39° 29′ N.; λ=87° 24′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Moisture: Cloudiness: 8 a. m.	Moisture: Cloudiness: Noon, local time	Moisture: Cloudiness: 8 p. m.	Moisture: Cloudiness: Daylight
January	29.47	29.99	28.80	30.2	37.1	35.7	41.5	27.6	34.6	61	9	26	28	26	83	70	74	0.145	0.162	0.161	0.95	0.66	1.9	5.4	5.8	3.9	6.0
February	29.47	29.84	29.05	33.2	42.0	41.7	46.5	31.3	38.9	63	14	29	30	32	84	64	70	.166	.174	.187	2.06	.81	.1	4.7	6.1	5.0	5.7
March	29.35	29.69	28.56	32.9	39.7	40.3	44.8	31.5	38.2	59	22	28	30	31	81	68	70	.154	.165	.175	2.51	1.08	6.2	6.8	7.7	7.2	7.5
April	29.44	29.76	28.96	47.0	59.9	58.7	64.8	44.6	54.7	83	30	39	39	42	76	48	56	.252	.253	.280	2.68	.67	0	3.8	6.2	4.9	5.5
May	29.32	29.71	28.96	54.9	65.7	64.5	70.4	50.1	60.2	89	38	47	49	49	77	58	61	.341	.366	.367	3.24	.99	0	6.0	6.8	5.9	6.2
June	29.38	29.50	28.95	70.4	80.8	79.9	86.2	65.3	75.8	101	44	61	63	64	73	56	60	.561	.600	.612	3.74	1.69	0	4.8	5.8	6.1	5.4
July	29.33	29.54	29.03	73.7	86.4	84.3	90.9	69.9	80.4	101	60	64	62	64	72	46	52	.607	.582	.599	3.33	2.59	0	3.4	3.5	4.0	3.5
August	29.42	29.71	29.13	68.4	81.1	77.9	84.8	65.2	75.0	96	56	62	62	62	82	54	61	.580	.576	.579	3.69	1.44	0	4.6	5.7	5.1	5.2
September	29.42	29.80	29.03	65.6	79.0	75.4	82.6	63.7	73.2	93	46	60	62	64	82	57	69	.539	.570	.614	9.64	5.60	0	3.7	3.9	3.7	4.1
October	29.46	29.88	29.08	59.6	65.7	61.3	69.4	50.9	60.2	84	38	47	48	48	81	55	64	.346	.359	.361	6.48	2.00	0	4.8	6.3	3.8	5.5
November	29.51	29.93	29.06	47.4	56.0	53.4	60.1	44.9	52.5	77	27	42	44	43	83	66	71	.294	.312	.309	4.27	1.62	5.5	6.1	6.2	5.9	6.2
December	29.50	30.01	28.91	38.2	44.2	43.2	48.1	35.7	41.9	67	26	35	36	37	86	73	79	.209	.218	.230	4.28	1.61	T.	6.4	7.3	5.1	6.6
Year	29.42	30.01	28.56	51.3	61.5	59.7	65.8	48.4	57.1	101	9	45	46	47	80	60	66	.350	.361	.373	46.92	5.60	13.7	5.0	5.9	5.0	5.6

THOMASVILLE, GA.

[ϕ=30° 48′ N.; λ=83° 58′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Moisture: Cloudiness: 8 a. m.	Moisture: Cloudiness: Noon, local time	Moisture: Cloudiness: 8 p. m.	Moisture: Cloudiness: Daylight
January	29.85	30.30	29.26	44.0	56.1	51.7	60.4	41.3	50.8	73	25	38	37	39	79	52	63	0.241	0.236	0.248	3.12	1.20	T.	5.2	5.1	5.2	5.5
February	29.76	30.03	29.41	45.4	59.7	56.3	65.3	43.8	54.6	75	30	41	40	42	84	52	61	.268	.270	.283	2.68	.85	0	5.6	5.4	3.5	5.4
March	29.68	29.96	29.15	47.8	60.8	58.6	66.5	45.5	56.0	80	34	40	40	39	77	48	50	.270	.262	.251	3.73	1.29	0	4.3	4.4	4.2	4.9
April	29.77	30.01	29.24	57.9	71.1	67.4	75.4	54.1	64.8	86	43	51	47	50	78	46	55	.385	.353	.376	1.31	.49	0	4.6	5.6	5.4	5.5
May	29.68	29.93	29.39	66.8	79.6	74.2	83.5	61.4	72.4	92	53	60	59	57	80	45	58	.527	.464	.492	4.05	2.91	0	4.7	4.6	4.4	4.8
June	29.72	29.90	29.43	75.1	88.3	83.4	93.0	69.3	81.2	103	58	66	62	62	75	42	50	.660	.566	.574	2.09	1.74	0	2.9	4.1	4.7	4.1
July	29.70	29.86	29.47	78.0	89.1	86.3	93.0	73.0	83.0	100	69	73	72	72	85	57	58	.804	.774	.799	6.55	2.26	0	4.7	6.2	7.0	6.3
August	29.77	29.93	29.53	75.0	84.2	78.3	88.0	70.3	79.2	97	63	70	68	70	84	60	76	.731	.694	.735	6.89	2.30	0	5.7	6.9	7.2	7.1
September	29.75	30.03	29.57	73.0	85.2	80.8	89.6	69.1	79.4	100	53	69	66	67	86	53	66	.716	.654	.684	2.06	1.04	0	2.8	4.2	4.0	3.9
October	29.79	30.07	29.50	63.8	78.6	71.4	81.9	60.7	71.3	89	43	58	55	57	82	47	61	.508	.468	.485	.89	.89	0	3.6	4.3	2.5	4.2
November	29.89	30.05	29.66	54.4	73.4	66.0	76.9	52.9	64.9	83	37	49	49	50	83	45	58	.376	.378	.391	.01	.01	0	2.0	3.3	2.3	3.5
December	29.83	30.08	29.40	58.0	68.5	64.0	72.0	55.3	63.6	81	42	54	56	55	89	65	75	.449	.466	.464	7.81	4.57	0	6.0	6.8	6.1	7.2
Year	29.77	30.39	29.15	61.6	74.6	69.4	78.8	58.1	68.4	103	25	56	54	55	82	51	63	.495	.466	.482	41.18	4.57	T.	4.3	5.1	4.7	5.2

TOLEDO, OHIO

[ϕ=41° 40′ N.; λ=83° 34′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Moisture: Cloudiness: 8 a. m.	Moisture: Cloudiness: Noon, local time	Moisture: Cloudiness: 8 p. m.	Moisture: Cloudiness: Daylight
January	29.35	29.91	28.69	27.6	33.8	30.8	36.9	24.2	30.6	53	10	22	24	23	78	65	72	0.120	0.130	0.128	1.73	0.91	3.7	5.4	5.8	5.7	5.9
February	29.39	29.67	29.10	30.5	36.5	34.9	40.2	27.7	34.0	59	14	24	25	26	77	64	69	.133	.136	.141	1.46	.61	.8	6.6	5.7	5.1	5.7
March	29.20	29.71	28.59	31.7	36.4	35.1	39.6	29.6	34.6	55	19	26	26	26	77	67	69	.140	.144	.142	2.27	.68	9.4	8.3	8.0	7.8	7.9
April	29.36	29.77	28.73	43.2	53.8	52.1	58.1	39.9	49.0	79	30	33	33	33	68	50	51	.197	.201	.198	2.99	.86	.3	4.3	3.9	4.8	3.9
May	29.25	29.63	28.86	53.9	64.4	60.6	68.2	48.7	58.4	88	37	40	45	46	68	53	60	.291	.316	.325	1.17	.32	0	4.5	5.6	4.9	4.7
June	29.33	29.54	28.81	66.4	75.0	73.3	79.2	61.6	70.4	98	47	57	56	59	72	54	62	.479	.471	.515	4.85	1.34	0	4.9	5.0	5.2	4.6
July	29.27	29.50	28.87	72.6	83.6	81.1	87.2	68.4	77.8	99	61	61	59	61	68	45	52	.556	.528	.558	1.24	.76	0	4.1	3.7	3.5	3.5
August	29.36	29.68	29.03	67.8	78.7	76.0	81.8	64.6	73.2	97	50	60	57	58	76	51	55	.521	.483	.500	2.82	1.60	0	4.8	4.9	3.8	4.5
September	29.35	29.77	28.90	64.9	74.9	72.5	78.5	61.8	70.2	95	44	58	58	58	79	57	69	.497	.496	.510	3.23	1.14	0	3.8	5.2	3.3	4.4
October	29.39	29.94	28.88	51.3	63.4	59.0	65.9	48.8	57.4	83	36	45	46	47	80	57	66	.316	.338	.340	1.79	.69	0	5.2	4.8	5.0	5.0
November	29.44	29.92	28.97	45.0	52.5	49.9	55.4	42.4	48.9	71	26	39	41	41	80	65	72	.254	.275	.277	3.38	1.70	1.5	5.8	7.4	5.4	6.3
December	29.43	29.93	28.89	35.8	41.2	39.3	44.0	32.3	38.2	64	18	31	32	32	82	70	73	.182	.190	.185	3.22	1.43	T.	6.4	7.0	6.2	6.9
Year	29.35	29.94	28.59	49.2	57.8	55.4	61.2	45.8	53.6	99	10	41	42	42	75	58	64	.307	.309	.318	30.15	1.70	15.7	5.3	5.6	5.1	5.3

Annual meteorological summaries for the year ending December 31, 1931—Continued

TAYLOR, TEX.

[H_b=571 ft.; h_t=38 ft.; h_r=36 ft.; h_a=51 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		Mi.																										
January	5.7	N.	25	SW.	0	6	5	3	1	5	2	3	6	0	9	9	13	10	9	0	0	0	3	0	0	0	3	1	0
February	7.3	S.	24	SE.	0	6	1	0	3	6	3	2	7	0	9	10	9	10	10	0	0	0	1	0	0	0	0	5	0
March	9.4	NW.	29	SW.	0	6	0	2	2	8	0	3	10	0	17	9	5	9	6	1	1	0	0	0	0	0	4	3	0
April	7.7	S.	26	S.	0	5	3	2	4	1	3	2	9	0	6	14	10	8	8	0	0	0	2	1	0	0	0	5	0
May	7.8	S.	33	N.	0	8	1	0	1	1	1	3	6	0	11	16	4	6	6	0	0	0	0	0	0	0	1	4	0
June	7.3	S.	25	NW.	0	9	4	1	3	1	2	2	8	0	18	11	1	6	5	0	0	0	0	0	0	25	0	8	0
July	6.1	S.	34	E.	1	3	2	4	2	14	4	1	9	1	19	8	4	7	5	0	0	0	0	0	0	26	0	8	0
August	7.2	S.	23	S.	0	5	1	1	4	14	3	0	2	1	19	10	2	1	0	0	0	0	1	0	0	28	0	4	0
September	6.6	S.	29	S.	0	1	1	3	1	12	2	0	1	2	18	11	1	3	1	0	0	1	2	0	0	27	0	4	0
October	6.3	S.	21	N.	0	4	1	1	2	11	1	1	5	0	17	13	1	2	2	0	0	0	1	0	0	15	0	0	0
November	7.9	SE.	26	SE.	0	6	3	1	10	4	1	2	12	1	16	4	16	9	6	0	0	0	1	1	0	0	0	0	0
December	6.9	N.	25	S.	0	11	2	1	0	9	2	0	5	1	7	15	9	11	10	0	0	0	3	2	0	0	1	3	0
Year	7.2	S.	34	E.	1	61	24	20	50	114	24	16	50	6	160	130	75	82	68	1	1	1	14	4	0	122	8	45	0

TERRE HAUTE, IND.

[H_b=575 ft.; h_t=96 ft.; h_r=86 ft.; h_a=129 ft.]

January	7.7	S.	27	W.	0	5	1	2	6	15	11	8	14	0	9	5	17	4	4	7	2	0	9	2	5	0	20	0	0
February	7.0	NW.	23	N.	0	11	8	3	4	11	3	2	14	0	9	5	14	11	8	5	1	0	14	4	1	0	14	0	0
March	9.0	NW.	29	SW.	0	11	10	6	4	2	5	5	10	6	4	6	20	12	7	11	5	0	6	1	1	0	16	0	0
April	7.4	N.	25	N.	0	10	6	5	4	12	6	2	15	0	9	10	11	14	9	0	0	1	7	0	0	0	2	4	0
May	8.3	S.	30	SW.	0	7	5	4	4	13	11	6	12	0	8	8	15	8	8	0	0	2	3	0	0	0	0	3	0
June	6.4	S.	42	N.	4	5	6	3	8	14	13	4	7	0	12	6	12	10	8	0	0	0	0	0	0	10	0	11	0
July	5.9	SW.	24	N.	0	8	8	1	8	16	15	3	4	1	18	8	5	6	5	0	0	0	0	0	0	16	0	8	0
August	6.4	N.	31	SW.	0	13	7	6	5	11	9	6	5	0	9	14	8	10	9	0	0	0	0	0	0	8	0	13	0
September	7.1	S.	26	SW.	0	7	7	3	9	15	5	8	4	0	14	10	6	8	7	0	0	0	11	0	0	8	0	8	0
October	7.6	S.	28	SW.	0	3	3	4	9	20	11	7	5	0	10	8	13	12	9	0	0	0	13	0	0	9	0	6	0
November	8.6	S.	29	SE.	0	4	3	3	6	22	5	6	11	0	9	6	15	13	10	2	2	0	15	1	0	0	4	1	0
December	7.6	S.	26	SW.	0	8	2	1	3	17	8	6	7	0	8	6	17	11	9	1	0	0	22	6	0	0	11	2	0
Year	7.4	S.	42	N.	4	92	66	51	70	170	100	63	117	1	120	92	153	119	93	26	10	3	100	14	7	42	67	56	0

THOMASVILLE, GA.

[H_b=273 ft.; h_t=49 ft.; h_r=41 ft.; h_a=103 ft.]

January	6.6	NW.	33	SW.	1	6	8	11	2	4	6	11	14	0	10	9	12	10	6	1	0	0	3	2	0	0	5	0	0
February	6.7	NW.	24	NW.	0	7	4	5	11	11	5	3	10	0	9	9	10	7	6	0	0	0	2	0	0	0	1	0	0
March	8.4	NW.	43	SE.	1	7	4	3	6	8	8	13	13	0	10	11	10	10	9	0	0	0	0	0	0	0	0	4	0
April	7.4	NW.	27	SW.	0	2	9	10	8	9	5	6	11	0	9	10	11	7	5	0	0	0	2	1	0	0	0	3	0
May	6.0	SW.	24	S.	0	4	5	5	8	10	12	3	13	2	8	18	5	8	7	0	0	0	2	0	0	3	0	6	0
June	5.7	SW.	30	NE.	0	3	3	5	12	13	12	7	5	0	12	16	2	4	3	0	0	0	0	0	0	24	0	6	0
July	5.4	SW.	30	SW.	0	1	4	7	10	8	16	9	7	0	2	18	11	15	11	0	0	0	0	0	0	26	0	21	0
August	4.8	SW.	22	NW.	0	4	5	6	7	10	14	5	11	0	2	13	16	14	13	0	0	0	0	0	0	14	0	18	0
September	5.5	NE.	24	S.	0	4	12	18	10	4	5	2	3	2	17	8	5	7	7	0	0	0	0	0	0	18	0	5	0
October	6.0	NE.	17	NE.	0	8	24	9	5	2	4	3	6	1	15	10	6	2	2	0	0	0	1	1	0	0	0	1	0
November	5.7	NE.	17	SE.	0	7	16	13	10	5	2	2	4	1	17	5	8	1	0	0	0	0	7	6	0	0	0	0	0
December	6.9	S.	27	NW.	0	5	11	12	10	12	3	2	7	0	3	11	17	10	6	0	0	0	10	7	0	0	0	3	0
Year	6.3	NE.	43	SE.	2	58	105	104	99	96	92	66	104	6	114	138	113	95	75	1	0	0	33	17	0	85	6	67	0

TOLEDO, OHIO

[H_b=628 ft.; h_t=208 ft.; h_r=201 ft.; h_a=243 ft.]

January	12.5	SW.	35	SW.	3	7	1	4	2	6	26	7	9	0	11	5	15	11	11	16	10	0	3	1	9	0	28	0	0
February	10.4	SW.	30	W.	0	8	2	9	1	5	11	7	13	0	11	5	12	10	6	10	5	0	4	0	2	0	22	0	0
March	10.9	N.	43	NE.	2	13	5	15	0	3	5	10	11	0	5	3	23	11	9	12	7	0	2	0	3	0	24	0	0
April	11.2	W.	43	W.	3	11	2	15	1	5	10	8	8	0	18	4	8	10	8	5	3	0	2	0	0	0	4	1	0
May	11.5	SW.	31	SW.	0	7	4	7	2	15	11	5	11	0	11	12	8	15	9	0	0	1	0	0	0	4	0	6	0
June	9.3	E.	35	W.	2	4	1	17	5	5	16	6	6	0	9	14	7	11	10	0	0	0	0	0	0	11	0	9	0
July	9.4	SW.	38	SW.	1	15	2	8	2	7	14	10	4	0	16	13	2	6	5	0	0	0	0	0	0	0	0	9	0
August	9.8	SW.	37	W.	1	13	4	10	3	4	14	12	1	1	15	9	7	12	9	0	0	0	0	0	0	8	0	4	0
September	10.9	SW.	31	S.	0	9	3	4	2	7	22	8	5	0	15	7	8	11	8	0	0	0	2	1	0	5	0	5	0
October	11.2	SW.	36	NW.	2	6	1	4	1	15	19	8	8	0	15	4	12	12	12	0	0	0	5	0	0	0	2	2	0
November	13.0	SW.	36	W.	6	3	1	4	2	16	17	14	3	0	7	11	12	11	9	2	1	0	4	1	0	0	6	2	0
December	12.3	SW.	38	SW.	3	6	1	8	5	5	19	9	9	0	7	6	18	8	8	4	1	0	12	0	1	0	16	0	0
Year	11.1	SW.	43	W.	23	102	27	105	26	93	184	104	88	1	140	93	132	128	104	49	27	2	34	3	15	28	100	39	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

TOPEKA, KANS.

[ϕ=39° 03′ N.; λ=95° 41′ W.]

Month	Pressure			Temperature								Moisture															Cloudiness			
		Extremes		Mean			Extremes					Dew point			Relative humidity			Vapor pressure			Precipitation									
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight			
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*							
January				29.4			46.8	27.5	37.2	66	6										0.55	0.44	0.7				3.6			
February				33.3			50.4	31.9	41.2	66	16										1.34	.68	T.				4.5			
March				32.3			47.6	31.1	39.4	70	20										1.94	.72	10.4				5.7			
April				46.0			65.2	43.8	54.5	86	29										2.49	.85	0				4.6			
May				54.6			71.1	50.8	61.0	95	38										2.03	.76	0				4.5			
June				71.4			88.6	67.8	78.2	98	55										2.85	1.74	0				3.0			
July				73.6			91.8	69.6	80.7	103	60										3.41	1.52	0				3.2			
August				67.6			85.0	64.7	74.8	96	54										6.48	2.02	0				4.9			
September				68.4			88.1	66.3	77.2	102	48										4.59	3.64	0				3.3			
October				54.1			70.5	52.4	61.4	90	39										2.55	.79	0				4.7			
November				43.2			58.2	40.0	49.1	80	25										7.07	2.82	1.8				6.1			
December				35.6			48.9	33.1	41.0	63	22										1.48	.42	1.3				5.5			
Year				50.8			67.7	48.2	58.0	103	6										36.78	3.64	14.2				4.5			

TRENTON, N. J.

[ϕ=40° 13′ N.; λ=74° 46′ W.]

January	29.81	30.29	28.76	29.5	36.6	34.4	40.7	25.8	33.2	60	14	22	24	23	72	60	60	0.124	0.134	0.126	2.15	0.89	T.	6.1	5.1	3.6	5.1			
February	29.83	30.27	29.39	29.4	37.6	36.4	42.6	26.1	34.4	55	13	22	24	24	73	58	62	.122	.130	.133	2.08	1.03	1.1	5.7	4.8	5.1	5.2			
March	29.69	30.17	28.94	36.1	42.7	39.6	46.5	32.9	39.7	59	26	28	30	30	71	61	68	.153	.169	.166	3.24	1.57	.2	7.1	7.9	5.4	7.4			
April	29.82	30.32	29.37	46.8	56.5	52.2	60.6	40.9	50.8	76	33	38	40	39	72	57	62	.233	.260	.240	2.07	.60	0	4.5	5.2	3.8	5.0			
May	29.74	30.10	29.43	58.5	66.8	62.9	72.1	51.4	61.8	92	38	51	54	53	78	66	72	.390	.428	.413	4.00	1.09	0	6.1	5.9	6.1	6.0			
June	29.76	30.05	29.29	66.8	76.3	72.0	80.2	60.6	70.4	96	54	59	58	60	76	56	67	.500	.496	.517	4.28	1.28	0	6.1	5.1	5.4	5.5			
July	29.72	30.00	29.35	74.2	82.8	77.6	86.5	68.5	77.5	96	63	66	66	66	77	58	68	.647	.643	.639	5.47	2.78	0	5.2	6.0	5.3	5.7			
August	29.82	30.19	29.38	70.4	78.8	74.4	82.4	65.7	74.0	96	58	64	62	64	81	60	71	.603	.564	.597	6.39	2.72	0	6.6	6.1	6.7	6.5			
September	29.81	30.32	29.44	67.6	77.3	71.4	80.8	61.9	71.4	95	46	60	60	61	77	56	71	.538	.543	.560	1.96	.66	0	3.7	3.9	4.3	4.0			
October	29.86	30.26	29.20	53.3	67.2	60.4	69.8	49.4	59.6	86	37	47	46	48	80	49	65	.342	.338	.359	2.22	.71	0	3.7	4.5	2.5	4.4			
November	30.00	30.39	29.50	47.0	55.8	51.4	58.9	43.3	51.1	75	28	41	43	42	81	64	72	.278	.290	.290	.94	.36	1.6	5.6	6.1	4.3	5.7			
December	29.91	30.45	29.45	37.0	44.1	42.1	48.5	32.5	40.5	67	20	29	30	30	73	59	63	.171	.182	.183	2.36	.87	T.	6.6	6.1	5.7	6.5			
Year	29.81	30.45	28.76	51.4	60.2	56.2	64.1	46.6	55.4	96	13	44	45	45	76	59	67	.342	.349	.352	36.26	2.78	2.9	5.6	5.6	4.8	5.6			

VALENTINE, NEBR.

[ϕ=42° 50′ N.; λ=100° 32′ W.]

January	27.31	27.62	26.92	23.2	38.0	32.7	42.1	18.8	30.4	63	−7	18	23	22	80	54	65	0.100	0.122	0.121	0.33	0.25	4.2	3.9	4.0	3.4	3.6			
February	27.31	27.67	26.91	27.3	40.8	39.9	47.4	24.8	36.1	62	12	24	24	26	85	59	59	.128	.131	.143	.37	.29	.1	4.2	4.7	5.4	5.1			
March	27.33	27.80	26.78	23.4	36.4	35.3	42.4	21.3	31.8	68	−1	20	24	25	87	64	67	.113	.136	.135	1.84	.51	13.8	5.9	7.1	6.9	7.2			
April	27.32	27.71	26.78	36.1	57.9	56.8	62.1	33.9	48.0	88	21	29	26	26	76	34	35	.161	.144	.140	.67	.36	1.9	4.4	5.4	5.2	4.8			
May	27.25	27.56	26.79	46.2	63.8	64.0	69.4	41.1	55.2	95	25	38	36	36	73	39	40	.240	.219	.221	1.01	.67	T.	4.4	5.2	5.8	5.1			
June	27.20	27.54	26.86	66.1	83.3	83.6	88.7	62.2	75.4	104	45	56	54	55	72	40	40	.455	.426	.442	1.31	.85	0	5.1	4.2	5.4	4.8			
July	27.25	27.50	26.86	66.1	83.7	86.3	90.0	62.6	76.3	106	48	55	52	52	69	37	39	.438	.403	.401	4.02	1.79	0	4.0	3.5	3.0	3.6			
August	27.34	27.63	26.98	62.4	80.1	80.4	85.9	59.6	72.8	98	43	54	52	53	74	41	40	.424	.409	.417	2.58	2.23	0	4.5	5.0	5.3	4.9			
September	27.22	27.68	26.80	56.3	76.3	75.4	82.0	54.3	68.2	106	36	47	47	47	74	39	40	.337	.328	.329	.93	.52	0	4.7	4.7	3.3	4.8			
October	27.31	27.79	26.66	44.2	60.5	56.6	65.2	40.1	52.6	84	23	38	37	37	78	44	50	.234	.228	.231	.55	.21	.1	5.0	5.0	4.5	5.0			
November	27.28	27.77	26.75	25.9	44.6	38.0	49.0	21.8	35.4	81	0	19	22	22	77	48	58	.105	.117	.121	.40	.25	5.1	4.9	5.0	5.8	5.3			
December	27.26	27.68	26.80	20.3	32.5	29.3	37.5	16.1	26.8	59	−6	17	23	23	87	68	77	.099	.124	.124	.61	.40	5.9	4.9	6.1	5.5	6.5			
Year	27.28	27.80	26.66	41.5	58.2	56.5	63.5	38.0	50.8	106	−7	35	35	35	78	46	50	.236	.232	.236	14.62	2.23	31.1	4.7	5.0	5.0	5.0			

VICKSBURG, MISS.

[ϕ=32° 22′ N.; λ=90° 53′ W.]

January	29.91	30.40	29.22	41.4	51.3	51.6	56.3	40.4	48.4	72	23	35	37	36	78	62	57	0.214	0.233	0.220	3.04	1.74	0	6.1	6.6	5.5	6.0			
February	29.80	30.11	29.40	46.0	58.3	57.8	63.2	44.5	53.8	73	31	39	41	39	78	54	53	.253	.271	.257	2.48	1.03	0	4.6	3.8	5.1	4.4			
March	29.74	30.06	29.32	44.7	56.1	56.3	61.7	43.4	52.6	77	34	37	37	38	76	52	53	.232	.237	.240	4.45	1.19	0	4.8	4.7	5.4	4.9			
April	29.82	30.08	29.38	55.5	68.5	67.6	73.8	53.4	63.6	86	40	49	51	50	80	55	58	.382	.388	.373	.67	.26	0	4.8	4.4	4.9	4.6			
May	29.72	30.03	29.47	62.3	74.3	73.7	78.5	59.4	69.0	92	51	56	59	59	81	61	61	.463	.506	.512	3.29	2.14	0	4.0	4.6	3.2	3.9			
June	29.76	29.91	29.56	73.1	86.2	83.6	90.3	69.4	79.8	97	60	65	67	67	76	54	60	.630	.667	.670	3.30	1.82	0	3.7	3.1	4.0	3.0			
July	29.70	29.92	29.51	75.0	86.1	83.3	90.3	72.8	81.6	96	68	70	74	73	86	67	72	.746	.828	.808	4.08	1.91	0	5.4	5.6	6.2	5.8			
August	29.81	29.98	29.65	71.6	83.6	80.6	87.0	69.4	78.3	93	61	67	67	68	86	59	68	.672	.682	.700	2.99	.97	0	4.7	4.9	4.6	4.4			
September	29.77	30.08	29.58	72.0	86.7	83.3	90.6	70.0	80.3	96	52	66	66	66	81	50	57	.650	.654	.667	.08	.05	0	3.1	3.1	1.8	3.0			
October	29.82	30.11	29.54	62.7	77.5	73.5	81.2	61.5	71.4	92	40	57	58	58	83	52	59	.497	.501	.506	.88	.55	0	3.5	3.9	2.1	3.6			
November	29.88	30.10	29.50	54.8	68.0	65.1	72.9	52.9	62.9	82	39	50	52	51	84	60	64	.385	.408	.394	4.21	2.01	0	4.0	4.7	4.2	5.0			
December	29.83	30.19	29.34	51.4	59.4	58.2	63.6	48.7	56.2	79	36	47	48	48	85	70	71	.347	.371	.358	8.76	3.09	0	6.9	7.6	6.5	7.2			
Year	29.80	30.40	29.22	59.2	71.3	69.6	75.8	57.2	66.5	97	23	53	55	54	81	58	61	.454	.479	.475	38.23	3.09	0	4.6	4.8	4.5	4.6			

Annual meteorological summaries for the year ending December 31, 1931—Continued

TOPEKA, KANS.

[H_b=987 ft.; h_t=92 ft.; h_r=83 ft.; h_a=107 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction of maximum velocity	Wind: Number of winds, 8 a. m. and 8 p. m.: Days with 24 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	Precipitation: 0.04 inch and over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		*Mi.*																										
January	8.0	SW.	28	NW.	0	0	2	3	1	4	6	3	12	0	16	9	6	3	3	4	1	0	7	4	2	0	22	0	0
February	7.6	SE.	25	SW.	0	4	2	2	3	2	4	2	5	1	11	9	8	5	5	1	0	0	6	3	0	0	14	2	0
March	10.3	NW.	33	NW.	1	1	2	2	3	4	1	0	2	12	0	16	8	13	9	8	7	4	0	0	0	2	0	18	0	0
April	8.0	SW.	31	NE.	0	4	1	2	3	5	5	3	6	1	12	9	9	8	8	1	0	0	1	0	0	0	3	3	0
May	8.5	NW.	23	NW.	0	2	0	1	4	2	5	3	13	1	16	4	11	9	8	0	0	0	1	0	0	1	0	4	0	0
June	8.6	SW.	30	NE.	0	2	0	2	3	6	14	1	2	0	18	6	6	4	4	0	0	1	0	0	0	1	0	5	0	0
July	7.2	S.	34	NW.	1	2	1	2	5	6	11	1	3	0	17	9	5	9	8	0	0	0	0	0	0	19	0	10	0	0
August	6.4	SE.	35	NW.	1	3	3	4	4	8	3	3	1	2	11	13	7	10	10	0	0	1	3	0	0	6	0	10	0	0
September	9.1	SW.	28	SW.	0	0	2	4	4	5	10	1	4	0	16	7	7	8	8	0	0	0	4	2	0	17	0	9	0	0
October	8.7	SW.	31	W.	0	3	1	2	1	6	6	7	5	0	13	8	10	8	7	0	0	0	10	2	0	1	0	3	0	0
November	7.7	SW.	29	SW.	0	1	3	4	2	5	7	4	4	0	10	2	18	13	11	2	1	0	14	2	0	0	7	6	0	0
December	7.0	SW.	31	NE.	0	3	3	1	4	7	4	4	5	0	11	5	15	7	5	4	2	0	7	4	0	0	13	1	0	0
Year	8.1	SW.	35	NW.	3	31	20	31	40	57	75	34	72	5	161	89	115	93	85	19	8	2	53	17	4	58	77	53	0	

TRENTON, N. J.

[H_b=190 ft.; h_t=159 ft.; h_r=105 ft.; h_a=183 ft.]

January	9.3	NW.	35	NW.	1	7	2	5	0	2	18	8	19	1	11	11	9	4	4	5	0	0	6	1	2	0	22	0	0
February	10.0	N.	32	NW.	0	16	7	2	1	6	8	2	14	0	12	5	11	7	5	3	3	0	4	1	3	0	24	0	0
March	12.1	NW.	38	E.	2	14	10	10	2	2	1	9	13	1	4	8	19	12	9	9	1	0	5	0	0	0	17	0	0
April	11.6	SW.	48	NE.	4	11	7	4	5	13	7	3	8	0	13	6	11	10	8	0	0	0	3	0	0	0	0	1	0	0
May	8.2	SW.	30	W.	0	5	6	5	6	17	16	3	4	0	8	13	10	13	11	0	0	0	12	0	0	2	0	3	0	0
June	8.0	N.	41	NW.	1	12	5	2	3	5	12	3	14	1	8	13	9	14	11	0	0	0	6	0	0	3	0	6	0	0
July	6.6	SW.	31	NW.	0	5	3	13	5	7	15	6	8	0	10	10	11	9	7	0	0	1	8	0	0	8	0	7	0	0
August	7.3	SW.	31	NW.	0	6	12	5	3	8	12	7	9	0	7	9	15	14	11	0	0	0	12	2	0	5	0	5	0	0
September	8.1	SW.	28	NW.	0	8	7	4	5	7	12	9	8	0	16	7	7	4	4	0	0	0	3	0	0	5	0	2	0	0
October	7.8	W.	31	NW.	0	8	3	3	2	10	11	11	14	0	13	10	8	10	7	0	0	1	11	5	0	0	0	3	0	0
November	8.1	SW.	29	NW.	0	5	5	4	3	10	17	7	9	0	9	10	11	9	4	2	1	0	15	9	0	4	0	4	0	0
December	9.4	NW.	41	NW.	3	4	7	2	3	6	12	10	17	1	8	7	16	7	6	3	0	0	8	1	0	0	17	0	0	
Year	8.9	NW.	48	NE.	11	101	74	59	38	96	141	80	137	4	119	109	137	113	87	27	5	2	93	19	5	23	84	27	0	

VALENTINE, NEBR.

[H_b=2,598 ft.; h_t=47 ft.; h_r=36 ft.; h_a=54 ft.]

January	6.7	W.	24	NW.	0	6	0	2	1	1	7	33	10	2	17	10	4	3	3	5	3	0	0	0	6	0	30	0	0
February	6.7	W.	34	SW.	1	9	4	5	4	2	5	16	8	3	9	9	10	5	3	4	1	0	5	2	2	0	27	0	0
March	8.3	N.	39	NW.	1	15	6	4	7	2	7	8	10	0	4	10	17	9	7	16	7	0	3	0	8	0	25	0	0
April	8.4	W.	32	NW.	0	8	9	6	2	7	4	18	6	0	9	14	7	7	5	6	4	0	2	2	0	0	14	1	0
May	9.7	N.	32	N.	0	14	4	4	5	7	5	11	11	1	13	9	9	6	5	1	0	0	1	0	0	4	5	4	1
June	9.2	SW.	32	SW.	0	6	9	5	6	11	12	6	3	2	9	14	7	6	4	0	0	0	0	0	0	16	0	11	0
July	9.2	S.	33	W.	1	7	6	5	6	12	10	4	2	2	18	9	4	8	5	0	0	0	0	0	0	14	0	10	0
August	8.0	N.	32	SW.	0	13	3	9	4	11	7	6	7	2	11	13	7	7	6	0	0	0	1	0	0	13	0	11	1
September	7.3	W.	31	NW.	0	9	0	3	11	10	6	12	5	4	9	13	8	7	5	0	0	0	4	0	0	9	0	8	0
October	8.5	N.	33	W.	1	12	3	3	5	12	7	11	9	0	13	8	10	6	3	2	1	0	2	1	0	0	3	0	1
November	7.2	W.	27	NW.	0	11	3	2	3	5	8	19	11	1	11	8	11	4	4	7	4	0	1	0	7	0	25	0	0
December	6.1	W.	20	E.	0	8	4	3	1	4	7	32	3	0	11	8	12	4	3	9	4	0	5	1	10	0	30	0	0
Year	7.9	W.	39	NW.	4	121	51	50	55	84	83	182	87	17	134	125	106	72	53	50	24	0	24	6	33	56	159	45	3	

VICKSBURG, MISS.

[H_b=247 ft.; h_t=65 ft.; h_r=58 ft.; h_a=73 ft.]

January	5.7	NW.	26	NW.	0	11	5	8	6	10	10	4	8	0	10	5	16	6	5	0	0	0	3	2	0	0	3	0	0
February	6.3	N.	21	SE.	0	10	5	10	10	8	4	1	8	0	9	6	8	9	7	0	0	0	3	1	0	0	2	0	0
March	8.0	NW.	26	W.	0	7	3	6	12	7	2	5	20	0	14	7	10	11	9	0	0	0	1	1	0	0	0	5	0
April	6.2	E.	22	S.	0	10	6	11	8	11	3	5	6	0	12	9	9	6	4	0	0	0	1	1	0	0	0	2	0
May	5.5	NW.	21	W.	0	7	5	3	10	9	11	7	10	0	14	11	6	7	4	0	0	0	1	1	0	0	0	4	0
June	47	S.	29	SW.	0	6	1	4	11	12	13	6	7	1	8	11	12	13	12	0	0	0	1	1	0	0	0	0	0
July	5.5	SE.	31	NE.	0	7	4	7	13	13	11	7	0	0	8	12	12	7	6	0	0	0	3	0	0	0	0	0	0
August	4.9	SW.	29	NW.	0	10	6	9	8	13	12	3	1	0	18	12	12	9	3	1	0	0	1	0	0	0	0	0	0
September	4.8	SE.	17	SE.	0	8	8	8	14	8	8	5	3	1	18	12	12	9	3	0	0	0	1	0	0	0	0	0	0
October	5.4	SE.	20	W.	0	12	8	14	16	4	2	3	3	0	15	10	6	7	3	0	0	0	2	0	0	0	0	0	0
November	5.9	SE.	28	W.	0	7	9	10	22	7	1	1	2	1	12	8	10	8	7	0	0	0	5	4	0	0	0	3	0
December	6.5	NE.	32	E.	0	7	12	6	15	9	3	4	5	1	5	10	16	13	12	0	0	0	5	5	0	0	0	3	0
Year	5.8	SE.	32	E.	0	101	72	96	145	111	89	51	71	3	152	113	100	97	74	0	0	1	39	15	0	71	5	53	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

WALLA WALLA, WASH.

[ϕ=46° 02′ N.; λ=118° 20′ W.]

Month	Pressure			Temperature								Moisture																Cloudiness			
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation										
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight				
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*								
January	29.07	29.41	28.56	36.5	39.5	40.0	43.6	33.2	38.4	63	20	31	32	34	84	77	81	0.177	0.181	0.197	1.51	0.56	0.7	7.5	8.4	8.4	9.1				
February	29.05	29.38	28.68	35.5	41.2	42.9	45.0	33.1	39.0	61	25	30	31	32	82	70	69	.166	.173	.184	.90	.25	T.	5.4	7.6	7.5	7.7				
March	29.04	29.42	28.50	41.9	50.5	52.1	54.6	38.7	46.6	64	25	33	34	35	71	54	55	.195	.202	.215	3.70	.99	3.0	6.2	7.1	7.4	7.2				
April	28.97	29.49	28.65	46.3	58.9	62.3	64.3	43.5	53.9	83	35	34	35	34	63	42	37	.199	.208	.203	.66	.49	0	4.4	5.0	4.4	4.8				
May	28.92	29.37	28.51	54.1	71.1	75.5	77.2	52.2	64.7	95	42	39	38	36	58	31	25	.244	.231	.249	.37	.26	0	4.9	4.9	5.0	4.3				
June	28.87	29.14	28.51	58.3	71.9	76.0	78.3	56.2	67.2	99	48	44	42	41	61	38	33	.266	.279	.274	2.01	1.22	0	5.6	6.4	5.1	5.3				
July	28.84	29.20	28.58	63.9	83.7	90.0	91.5	62.3	76.9	105	49	42	39	37	46	22	17	.268	.242	.225	.11	.10	0	1.8	1.7	1.4	1.8				
August	28.90	29.12	28.63	63.6	81.3	87.9	89.2	61.7	75.4	99	54	40	40	36	44	24	17	.254	.244	.216	T.	T.	0	2.0	1.5	1.2	1.5				
September	28.87	29.23	28.61	56.2	70.8	73.7	76.3	54.0	65.2	95	38	42	42	41	60	37	33	.272	.280	.263	.98	.79	0	3.6	4.0	4.2	4.3				
October	29.08	29.33	28.27	48.2	58.7	61.2	63.8	44.3	54.0	86	37	38	39	38	70	51	46	.235	.242	.236	1.51	.61	0	3.4	5.1	5.1	5.0				
November	29.02	29.49	28.39	36.5	41.4	41.5	44.9	32.7	38.8	70	12	30	30	31	79	65	68	.176	.172	.181	2.38	.71	4.3	6.7	6.7	7.2	7.6				
December	28.92	29.50	28.36	31.2	35.2	33.7	39.9	26.3	33.1	62	10	26	27	28	82	76	82	.143	.150	.155	2.84	.74	9.6	7.5	7.6	7.4	8.6				
Year	28.95	29.50	28.27	47.7	58.7	61.4	64.0	44.8	54.4	105	10	36	36	35	67	49	47	.219	.217	.216	16.97	1.22	17.6	4.9	5.4	5.4	5.6				

WASHINGTON, D. C.

[ϕ=38° 54′ N.; λ=77° 03′ W.]

January	29.92	30.42	28.94	32.5	39.4	38.1	44.9	29.1	37.0	64	16	24	24	24	69	52	55	0.130	0.133	0.134	1.56	0.86	T.	6.2	5.6	2.9	5.5				
February	29.94	30.31	29.53	33.0	42.0	41.6	47.4	31.4	39.4	60	21	24	24	25	69	50	54	.131	.134	.142	1.36	.71	T.	5.2	5.3	4.5	5.3				
March	29.81	30.27	29.08	37.3	43.8	42.8	47.5	35.1	41.3	60	26	28	27	28	69	53	56	.159	.150	.153	3.50	1.21	T.	5.5	6.4	6.2	6.6				
April	29.91	30.43	29.04	48.9	58.6	56.5	64.5	44.0	54.2	82	35	37	36	35	66	46	48	.235	.225	.214	2.87	.97	T.	5.3	4.7	4.1	5.0				
May	29.82	30.17	29.50	59.9	69.3	68.0	75.1	55.1	65.1	92	40	50	50	51	71	53	58	.375	.377	.397	4.84	2.52	0	5.5	5.5	6.4	5.3				
June	29.86	30.14	29.28	69.2	77.7	75.0	82.8	63.8	73.3	99	52	59	58	60	71	53	61	.507	.497	.526	2.12	.74	0	4.6	4.6	4.6	4.3				
July	29.81	30.02	29.44	75.2	84.9	79.4	88.9	70.4	79.6	97	64	68	65	68	78	54	71	.685	.634	.703	4.23	1.26	0	4.5	4.2	5.9	4.8				
August	29.90	30.25	29.38	71.1	80.2	75.8	84.3	66.9	75.6	98	56	64	63	66	80	58	72	.612	.584	.644	5.92	1.40	0	5.7	6.6	6.3	5.9				
September	29.91	30.38	29.53	69.1	79.3	74.3	84.1	64.1	74.1	97	49	62	61	64	78	55	72	.573	.558	.628	2.79	1.68	0	3.1	3.0	3.1	3.6				
October	29.96	30.38	29.41	53.5	68.0	61.8	72.3	50.1	61.2	88	37	48	46	49	81	46	64	.348	.332	.375	1.28	.56	0	3.5	3.8	3.6	4.1				
November	30.09	30.49	29.60	47.9	58.4	55.5	62.9	45.2	54.0	77	30	43	42	42	84	58	63	.297	.297	.292	1.01	.41	T.	5.4	4.9	3.5	6.0				
December	30.02	30.58	29.55	40.4	48.5	45.4	52.4	36.1	44.2	70	24	32	32	33	73	55	62	.193	.199	.204	2.03	1.05	1.0	5.8	6.1	5.1	5.6				
Year	29.91	30.58	28.94	53.2	62.5	59.5	67.3	49.3	58.2	99	16	45	44	45	74	53	61	.354	.343	.368	33.51	2.52	1.0	5.0	5.1	4.7	5.2				

WAUSAU, WIS.

[ϕ=44° 57′ N.; λ=89° 35′ W.]

January	28.61	29.05	28.23	19.7	26.3	----	28.9	15.7	22.3	39	−6	----	----	----	----	----	----	----	----	----	0.84	0.50	13.3	8.1	7.1	----	7.1				
February	28.70	28.99	28.27	22.4	31.4	----	35.5	18.5	27.0	53	−10	----	----	----	----	----	----	----	----	----	1.30	.65	12.9	5.6	5.0	----	5.6				
March	28.70	29.06	28.18	24.2	35.0	----	37.4	23.4	30.4	52	6	----	----	----	----	----	----	----	----	----	1.33	.56	10.8	6.8	6.0	----	5.7				
April	28.69	29.09	28.30	36.9	53.6	----	57.5	33.9	45.7	78	23	----	----	----	----	----	----	----	----	----	.66	.47	.2	4.3	4.6	----	3.5				
May	28.57	28.99	28.11	46.9	61.4	----	65.6	42.4	54.0	84	28	----	----	----	----	----	----	----	----	----	.61	.23	0	5.7	6.3	----	5.3				
June	28.64	28.91	28.33	63.2	74.4	----	79.6	58.0	68.8	100	39	----	----	----	----	----	----	----	----	----	6.34	1.21	0	6.9	5.9	----	5.8				
July	28.62	28.90	28.20	66.8	80.7	----	84.7	60.5	72.6	98	46	----	----	----	----	----	----	----	----	----	2.11	1.06	0	3.1	4.8	----	3.6				
August	28.73	28.97	28.29	59.4	75.0	----	78.6	54.9	66.8	97	39	----	----	----	----	----	----	----	----	----	2.67	1.48	0	4.4	5.7	----	4.4				
September	28.64	28.91	28.23	57.3	72.5	----	76.1	54.6	65.4	99	37	----	----	----	----	----	----	----	----	----	3.70	1.19	0	5.7	5.0	----	4.4				
October	28.64	29.27	28.00	47.0	57.5	----	60.5	43.3	51.9	78	31	----	----	----	----	----	----	----	----	----	2.51	.84	0	5.6	5.8	----	6.4				
November	28.64	29.20	28.04	36.6	45.7	----	47.5	32.4	40.0	68	14	33	38	----	86	81	----	.200	.244	----	4.22	1.01	T.	6.9	6.6	----	8.0				
December	28.71	29.14	28.00	25.7	31.6	----	33.5	22.5	28.0	45	−1	22	28	----	85	85	----	.123	.152	----	1.28	.57	3.7	5.6	7.3	----	7.4				
Year	28.66	29.27	28.00	42.2	53.5	----	57.1	38.3	47.7	100	−10	----	----	----	----	----	----	----	----	----	27.57	1.48	40.9	5.7	5.8	----	5.6				

WICHITA, KANS.

[ϕ=37° 41′ N.; λ=97° 20′ W.]

January	28.66	29.12	28.23	31.6	43.0	43.2	48.3	29.7	39.0	68	8	27	29	30	81	58	62	0.148	0.162	0.170	0.29	0.11	0.1	2.9	3.4	3.2	4.1				
February	28.59	28.97	28.13	37.1	47.1	47.9	52.4	34.8	43.6	64	18	32	34	34	81	62	61	.184	.204	.205	.64	.15	0	4.9	5.2	4.7	5.6				
March	28.56	29.05	28.10	34.1	46.6	46.1	50.4	31.8	41.1	70	14	28	29	31	78	56	60	.155	.165	.177	2.52	.87	5.0	5.1	5.8	6.6	5.9				
April	28.62	28.99	28.02	46.3	58.5	60.1	63.8	44.6	54.2	80	29	40	41	42	80	56	54	.264	.270	.278	2.49	.66	T.	4.2	5.9	5.3	5.4				
May	28.52	28.96	28.07	54.7	65.9	67.8	71.1	52.1	61.6	91	38	46	47	47	74	53	50	.332	.352	.343	2.37	1.15	0	5.0	5.3	3.7	4.9				
June	28.50	28.72	28.20	69.7	83.6	85.3	88.1	67.6	77.8	96	55	61	61	61	75	48	46	.546	.537	.545	5.50	2.02	0	3.0	3.3	2.9	3.5				
July	28.49	28.74	28.25	72.6	87.8	87.9	92.4	70.7	81.6	101	60	62	61	60	72	43	42	.578	.544	.543	.97	.45	0	2.6	3.9	2.4	3.6				
August	28.59	28.84	28.22	69.0	82.7	83.1	87.1	67.2	77.2	99	56	60	57	58	74	45	45	.534	.491	.495	1.91	.74	0	5.6	4.8	3.6	4.7				
September	28.52	28.87	28.23	70.0	85.5	85.5	90.6	68.1	79.4	103	50	59	55	54	69	38	36	.510	.450	.426	4.58	4.49	0	3.6	3.7	2.8	3.6				
October	28.60	28.95	28.22	56.5	69.0	68.4	73.8	54.6	64.2	94	30	48	48	49	74	49	52	.354	.362	.372	1.19	.48	0	4.8	4.5	3.5	4.6				
November	28.58	28.98	27.99	44.7	53.5	52.4	57.7	41.2	49.4	79	27	39	40	40	81	65	66	.253	.265	.257	6.21	3.34	3.0	5.4	5.8	5.9	6.2				
December	28.59	29.08	27.93	37.5	45.5	45.2	49.4	34.8	42.1	63	23	31	33	35	78	64	68	.180	.196	.208	.69	.29	T.	4.5	6.6	5.6	6.2				
Year	28.57	29.12	27.93	52.0	64.1	64.4	69.8	49.8	59.3	103	8	44	45	45	76	53	54	.336	.333	.335	29.36	4.49	3.1	4.2	4.8	4.1	4.9				

Annual meteorological summaries for the year ending December 31, 1931—Continued

WALLA WALLA, WASH.

[H_b=991 ft.; h_t=57 ft.; h_r=50 ft.; h_a=65 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: 1" or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.		Mi.																										
January	4.0	S.	24	SE.	0	1	7	3	3	29	14	8	6	9	2	3	26	15	9	4	2	1	17	6	3	0	16	0	0
February	4.0	S.	21	S.	0	3	4	1	6	21	7	9	5	3	3	3	16	10	5	3	0	0	11	5	1	0	13	0	0
March	4.6	S.	22	W.	0	3	3	1	1	21	8	10	3	1	5	9	17	15	12	3	2	1	1	0	1	0	8	0	0
April	5.1	SW.	24	NE.	0	5	9	8	12	4	12	10	11	5	2	12	10	8	6	4	0	0	0	0	0	0	0	0	0
May	4.1	SW.	24	W.	0	3	6	6	6	4	8	11	14	3	2	13	14	4	4	0	0	0	0	0	0	4	0	2	0
June	3.9	W.	14	W.	0	4	3	1	2	2	29	4	12	5	0	11	8	11	12	8	0	0	0	0	0	3	0	3	0
July	3.7	W.	14	W.	0	3	2	2	3	17	2	21	3	0	23	6	0	2	1	0	0	0	0	0	0	21	0	2	0
August	3.7	W.	15	W.	0	4	2	1	5	15	15	5	18	2	0	26	4	1	0	0	0	0	0	0	0	15	0	1	0
September	3.8	S.	21	W.	0	0	3	3	3	12	18	9	12	3	0	12	13	5	4	0	0	0	0	0	0	3	0	1	0
October	3.5	SE.	20	SE.	0	1	1	3	5	15	16	11	11	2	0	13	7	11	6	6	0	0	0	3	3	0	0	0	0
November	3.9	S.	23	SE.	0	4	1	1	1	16	16	8	12	2	0	3	11	16	10	8	4	3	1	6	3	5	0	11	0
December	3.3	W.	26	SE.	0	4	4	2	8	10	14	5	12	4	1	2	5	24	13	12	8	3	0	19	8	7	0	23	0	0
Year	4.0	S.	26	SE.	0	35	44	35	107	206	94	150	53	0	125	101	139	98	74	22	10	3	57	25	17	46	71	9	0

WASHINGTON, D. C.

[H_b=112 ft.; h_t=62 ft.; h_r=42 ft.; h_a=85 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: 1" or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January	8.5	NW.	30	NW.	0	7	4	5	9	4	8	6	16	12	11	9	11	5	4	5	1	0	7	0	1	0	22	0	0
February	6.9	NW.	25	NW.	0	9	4	4	4	7	9	2	16	0	12	4	12	8	6	2	0	0	9	0	0	0	16	0	0
March	8.3	NW.	30	NW.	0	10	6	3	4	2	3	3	20	2	5	12	14	14	11	6	2	0	2	0	0	0	8	1	0
April	7.1	NW.	32	NW.	0	6	6	4	7	11	5	4	15	2	13	7	10	8	6	1	1	0	1	0	0	0	1	0	0
May	5.3	S.	24	NW.	0	8	6	2	8	13	11	1	10	3	7	13	11	12	10	6	0	0	0	0	0	5	0	0	0
June	4.8	NW.	27	N.	0	8	5	2	4	10	5	10	1	14	4	12	12	6	10	6	0	0	3	0	0	14	0	16	0
July	3.8	SW.	32	E.	0	5	2	4	3	10	15	2	13	2	8	10	13	8	16	13	0	0	4	3	0	9	0	8	0
August	4.4	SW.	30	SW.	0	6	9	6	3	9	13	2	8	2	9	9	9	13	18	13	0	0	0	4	3	0	10	4	0
September	4.4	SW.	33	NW.	1	8	2	3	2	11	12	4	10	8	18	6	6	9	6	0	0	0	0	0	0	0	0	2	0
October	4.1	SW.	24	NW.	0	6	3	0	7	7	17	10	9	12	16	10	5	7	5	0	0	0	0	0	0	15	3	1	0
November	4.4	S.	24	NW.	0	2	3	2	3	17	9	7	10	2	7	11	12	5	4	1	0	0	15	3	0	0	11	0	0
December	5.7	NW.	34	NW.	1	8	2	3	2	4	11	9	11	14	1	6	9	16	9	5	2	1	0	10	0	0	0	11	0	0
Year	5.3	NW.	34	NW.	2	78	50	52	47	107	119	53	164	60	126	115	124	121	89	17	5	0	61	6	1	39	88	45	0

WAUSAU, WIS.

[H_b=1,247 ft.; h_t=4 ft.; h_r=4 ft.; h_a=62 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: 1" or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January	5.2	W.	17	NW.	0	7	9	2	4	7	0	4	7	0	5	12	16	7	4	12	7	0	1	2	20	0	31	0	0
February	5.0	N.	18	W.	0	7	5	2	2	1	5	2	1	5	0	8	9	11	5	3	9	5	0	0	1	8	0	28	0	0
March	6.5	N.	24	N.	0	14	4	4	2	2	1	2	5	0	18	6	6	4	4	2	1	0	0	0	0	0	16	0	0
April	6.1	N.	24	W.	0	13	9	5	2	2	1	2	5	0	14	2	14	8	5	0	0	0	0	0	0	0	2	2	0
May	5.9	N.	21	SW.	0	9	2	5	4	6	0	3	1	1	9	11	10	14	13	0	0	0	1	0	3	0	6	0	10
June	5.1	S.	25	SE.	0	8	3	3	3	9	4	0	2	1	1	9	10	5	10	8	0	0	0	0	0	0	11	0	7
July	4.8	N.	24	NW.	0	8	1	3	2	8	2	1	8	0	2	8	7	10	7	0	0	0	0	0	0	3	0	2	0
August	4.9	N.	24	W.	0	10	0	4	3	5	1	4	2	3	14	10	7	10	7	0	0	0	0	0	0	5	0	4	0
September	5.0	S.	18	W.	0	10	0	2	2	10	1	1	3	0	17	5	8	14	10	0	0	0	1	2	0	5	0	5	0
October	5.7	S.	24	SW.	0	5	1	1	1	6	8	1	2	6	1	10	4	17	12	12	0	0	0	2	0	0	2	5	0
November	6.3	W.	24	SW.	0	7	0	3	6	1	4	4	8	8	5	4	21	9	8	7	0	0	1	0	5	0	14	0	0
December	5.8	W.	24	W.	0	3	1	5	6	4	2	6	3	1	7	3	21	8	6	10	4	0	2	1	12	0	28	0	0
Year	5.5	N.	25	SE.	0	95	16	35	51	62	14	31	51	10	135	82	148	110	87	52	25	1	5	11	52	25	149	31	0

WICHITA, KANS.

[H_b=1,358 ft.; h_t=139 ft.; h_r=132 ft.; h_a=158 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 35 miles and over	Wind: 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	Precipitation: 0.04 inch and over	Snow: 1" or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	Minimum temperature 32° or below	Electricity: Thunderstorm	Electricity: Aurora
January	9.2	S.	34	S.	1	16	4	1	3	24	3	5	6	0	16	8	7	4	3	1	1	0	5	5	2	0	20	0	0
February	10.0	S.	30	S.	0	9	15	2	7	19	3	1	0	8	1	11	5	15	8	7	9	6	0	0	0	2	0	16	0	0
March	11.5	N.	38	SW.	2	25	9	3	3	12	1	1	3	0	10	10	10	11	8	1	0	0	1	1	0	0	3	4	0
April	10.5	S.	38	SW.	3	9	6	3	8	32	3	1	4	0	12	11	8	8	5	0	0	0	1	0	0	0	1	5	0
May	11.3	S.	34	SW.	1	17	11	1	3	23	2	1	4	0	17	8	5	7	7	0	0	0	1	0	0	0	12	7	0
June	12.1	S.	33	S.	2	2	7	6	7	39	1	0	1	0	12	12	7	9	9	0	0	0	3	0	0	0	10	10	0
July	10.6	S.	36	N.	2	2	7	4	7	11	28	2	2	0	1	12	18	8	6	4	3	0	0	0	2	1	0	19	0	7
August	9.4	S.	37	SW.	3	5	5	3	2	6	42	0	0	1	1	12	18	6	6	5	0	0	5	1	0	1	1	4	0
September	12.9	S.	48	S.	3	3	7	9	3	5	28	2	0	3	0	9	6	15	13	11	1	1	0	8	2	0	0	6	0	0
October	11.2	S.	48	S.	3	9	6	5	12	20	4	1	3	0	9	6	15	7	6	4	2	0	8	2	0	0	10	6	0
November	10.1	S.	44	S.	2	11	6	3	3	28	3	4	3	1	10	6	15	7	6	4	2	0	8	2	0	0	6	6	0
December	9.0	S.	32	S.	0	11	6	3	3	28	3	4	3	1	10	6	15	7	6	4	2	0	8	2	0	0	10	6	0
Year	10.6	S.	48	S.	21	120	82	37	66	338	26	17	39	5	149	107	109	91	75	17	10	3	38	14	4	65	84	50	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

WILLISTON, N. DAK.

[ϕ=48° 09′ N.; λ=103° 35′ W.]

Month	Pressure: Monthly mean	Pressure: Extremes: Maximum	Pressure: Extremes: Minimum	Temperature: Mean: 8 a. m.	Temperature: Mean: Noon, local time	Temperature: Mean: 8 p. m.	Temperature: Mean: Maximum	Temperature: Mean: Minimum	Temperature: Mean: Monthly	Temperature: Extremes: Maximum	Temperature: Extremes: Minimum	Moisture: Dew point: 8 a. m.	Moisture: Dew point: Noon, local time	Moisture: Dew point: 8 p. m.	Moisture: Relative humidity: 8 a. m.	Moisture: Relative humidity: Noon, local time	Moisture: Relative humidity: 8 p. m.	Moisture: Vapor pressure: 8 a. m.	Moisture: Vapor pressure: Noon, local time	Moisture: Vapor pressure: 8 p. m.	Moisture: Precipitation: Total	Moisture: Precipitation: Maximum in 24 hours	Moisture: Precipitation: Total snowfall	Cloudiness: 8 a. m.	Cloudiness: Noon, local time	Cloudiness: 8 p. m.	Cloudiness: Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	27.97	28.41	27.63	19.9	29.0	27.3	34.2	14.9	24.6	54	−13	16	21	21	84	71	77	0.093	0.114	0.117	0.06	0.02	0.5	2.0	3.4	3.4	3.0
February	28.03	28.44	27.61	23.4	36.5	34.5	41.0	21.1	31.0	53	−2	20	25	25	86	62	66	.109	.132	.135	.19	.10	2.3	3.4	3.5	3.3	3.7
March	28.12	28.76	27.58	19.5	30.6	31.2	36.0	15.4	25.7	60	−7	16	21	22	86	68	68	.097	.122	.123	1.06	.40	10.9	6.4	4.9	5.8	5.5
April	28.02	28.63	27.42	34.8	54.1	56.1	59.6	32.4	46.0	82	18	24	24	24	64	33	30	.131	.134	.133	T.	T.	T.	2.8	2.5	4.3	3.1
May	27.95	28.30	27.48	44.9	63.1	65.5	69.1	41.2	55.2	93	25	31	30	31	61	33	31	.180	.171	.177	.47	.16	.5	2.6	3.9	3.6	3.5
June	27.89	28.29	27.44	60.7	75.9	79.0	81.9	56.7	69.3	108	44	48	47	44	66	39	34	.356	.339	.320	1.24	.47	0	5.2	4.8	3.8	4.5
July	27.93	28.24	27.55	62.0	79.0	80.3	83.7	58.4	71.0	105	46	50	48	48	67	38	38	.367	.343	.340	1.83	.71	0	2.9	3.6	3.5	3.4
August	28.02	28.41	27.51	58.7	76.4	77.4	81.1	56.8	69.0	96	41	51	51	51	77	44	42	.387	.377	.382	1.10	.72	0	4.3	3.4	4.3	3.9
September	27.90	28.36	27.54	49.9	68.6	68.7	73.7	47.9	60.8	99	36	42	43	43	77	44	43	.275	.286	.285	1.23	1.01	0	2.9	2.7	3.3	3.0
October	28.00	28.47	27.44	37.6	55.2	52.4	59.5	35.6	47.6	78	23	31	34	35	78	47	53	.177	.202	.204	.15	.10	0	3.3	3.2	4.2	3.8
November	27.98	28.46	27.49	21.8	35.6	32.1	39.8	18.2	29.0	68	−2	17	21	20	80	58	62	.097	.116	.107	.05	.02	.7	4.5	4.7	4.7	5.1
December	27.95	28.38	27.50	18.2	27.3	26.2	32.5	14.3	23.4	47	−8	14	20	20	84	73	75	.086	.112	.108	.40	.22	4.3	3.7	5.2	2.8	4.6
Year	27.98	28.76	27.42	37.6	52.6	52.6	57.7	34.4	46.0	108	−13	30	32	32	76	51	52	.196	.204	.203	7.78	1.01	19.2	3.7	3.8	3.9	3.9

WILMINGTON, N. C.

[ϕ=34° 14′ N.; λ=77° 57′ W.]

January	30.04	30.50	29.23	40.6	53.0	46.9	56.5	37.6	47.0	72	24	34	34	36	76	52	66	0.203	0.214	0.218	2.07	1.02	T.	4.3	4.7	3.4	4.6
February	30.00	30.29	29.62	42.5	55.0	50.1	60.1	38.7	49.4	73	26	37	39	38	80	56	66	.232	.253	.246	1.72	.64	0	4.4	5.5	3.4	4.5
March	29.86	30.27	29.31	44.9	54.9	51.5	59.3	40.9	50.1	73	31	37	36	37	74	52	60	.231	.227	.237	3.06	1.89	.1	4.4	4.7	3.4	5.0
April	30.00	30.35	29.20	56.6	67.6	60.4	70.6	50.7	60.6	84	41	49	46	50	76	50	69	.360	.336	.371	1.13	.61	0	3.6	4.6	4.6	4.5
May	29.91	30.22	29.58	66.6	75.4	68.6	77.3	59.9	68.7	86	48	59	57	59	77	55	73	.509	.478	.511	3.62	1.20	0	4.1	4.4	4.3	4.6
June	29.95	30.17	29.53	73.9	82.4	75.1	84.5	67.2	75.8	93	56	66	63	65	76	52	72	.644	.584	.634	1.82	1.19	0	3.5	3.5	3.5	3.5
July	29.90	30.09	29.68	78.9	87.7	80.1	89.8	73.0	81.8	96	69	73	72	73	82	60	81	.807	.779	.823	6.33	1.85	0	4.7	5.4	4.5	4.9
August	29.98	30.25	29.66	75.4	84.6	76.7	86.5	70.6	78.5	94	61	71	69	71	88	60	84	.773	.709	.771	5.53	2.96	0	4.9	5.0	4.6	4.9
September	30.01	30.40	29.80	72.6	83.6	76.2	85.8	67.9	76.8	98	52	67	65	68	82	54	76	.669	.626	.693	.12	.12	0	2.2	2.9	2.2	2.9
October	30.05	30.40	29.58	60.6	75.4	66.7	77.6	56.5	67.0	85	44	54	51	56	78	44	71	.436	.401	.482	.50	.36	0	2.1	2.8	1.8	2.7
November	30.16	30.44	29.88	53.6	68.4	61.4	71.8	51.0	61.4	82	37	47	48	51	80	51	71	.349	.375	.405	.15	.12	0	3.3	3.9	2.0	3.7
December	30.10	30.53	29.66	51.9	61.9	57.3	65.7	47.2	56.4	80	31	46	48	50	81	62	76	.343	.370	.386	2.64	.64	0	4.9	5.0	4.7	5.5
Year	30.00	30.53	29.20	59.8	70.8	64.2	73.8	55.2	64.5	98	24	53	52	54	79	54	72	.463	.446	.431	28.69	2.96	.1	3.9	4.4	3.5	4.3

WINNEMUCCA, NEV.

[ϕ=40° 58′ N.; λ=117° 43′ W.]

January	25.73	25.97	25.38	22.0	40.2	39.0	45.3	17.4	31.4	61	5	18	23	24	85	51	55	0.099	0.122	0.128	0.09	0.05	0.8	4.2	3.9	5.1	4.4
February	25.62	25.99	25.38	28.4	45.4	45.3	49.4	25.1	37.2	58	15	24	26	26	84	46	48	.130	.142	.143	.51	.28	T.	4.7	4.4	4.7	4.6
March	25.70	26.11	25.38	30.6	50.6	52.5	56.0	25.7	40.3	71	8	21	24	20	67	30	29	.113	.130	.113	.25	.10	T.	3.8	5.6	5.0	4.9
April	25.60	25.94	25.12	34.8	60.3	62.4	66.1	32.0	49.0	77	21	21	22	18	56	24	20	.115	.117	.102	.32	.22	T.	2.8	4.3	5.4	4.2
May	25.61	25.91	25.29	42.3	71.6	72.7	76.9	40.7	58.8	90	29	26	26	25	54	18	18	.148	.139	.135	.14	.13	0	2.1	2.0	3.3	2.1
June	25.56	25.76	25.31	52.8	77.4	78.5	82.8	51.1	67.0	93	39	34	33	32	52	22	20	.201	.188	.183	.69	.69	0	3.9	3.6	4.6	3.5
July	25.58	25.92	25.36	60.5	91.1	92.2	96.3	58.2	77.2	108	42	32	33	34	36	13	13	.195	.197	.200	.12	.12	0	2.0	1.2	1.8	1.6
August	25.65	25.82	25.46	56.8	87.3	87.9	92.3	54.2	73.2	99	44	31	34	33	39	16	15	.187	.202	.194	.16	.15	0	2.5	2.3	2.9	2.3
September	25.59	25.93	25.37	44.5	71.9	71.2	76.3	41.2	58.8	97	28	30	32	31	58	25	25	.170	.183	.176	.33	.13	0	2.1	3.0	3.1	2.9
October	25.64	25.96	25.28	37.5	65.7	63.5	69.8	33.9	51.8	82	24	24	28	28	59	26	29	.128	.155	.158	.29	.28	T.	2.0	3.0	3.6	3.1
November	25.64	26.02	25.15	24.5	42.0	39.4	47.0	18.1	32.6	75	0	18	22	22	77	50	54	.099	.121	.118	.80	.34	4.8	3.9	4.4	4.3	4.5
December	25.60	26.02	25.04	20.7	32.4	30.2	37.4	16.4	26.9	52	−7	17	22	22	87	64	71	.100	.120	.121	1.17	.34	5.9	5.4	5.9	5.0	5.8
Year	25.62	26.11	25.04	38.0	61.3	61.2	66.3	34.5	50.4	108	−7	25	27	26	63	33	33	.140	.151	.148	4.87	.69	11.5	3.3	3.6	4.1	3.7

WYTHEVILLE, VA.

[ϕ=36° 56′ N.; λ=81° 05′ W.]

January	27.63	28.06	26.82	30.1	38.5	35.7	42.8	27.6	35.2	56	9	24	27	25	77	64	66	0.133	0.155	0.140	1.03	0.76	2.1	5.7	5.1	3.9	4.7
February	27.63	27.85	27.25	32.1	43.3	40.2	49.0	28.7	38.8	58	15	26	28	29	76	55	63	.144	.157	.162	1.48	.36	1.9	5.1	5.8	4.7	5.4
March	27.50	27.87	26.98	32.5	38.8	36.6	43.9	29.5	36.7	55	20	26	29	28	76	68	72	.141	.162	.153	3.16	1.57	8.7	8.8	7.6	6.9	7.7
April	27.65	28.03	26.87	44.8	56.0	53.4	61.7	39.8	50.8	77	31	37	38	39	75	56	60	.232	.244	.245	3.85	1.01	9.3	5.9	5.8	4.9	5.6
May	27.60	27.93	27.32	55.7	65.1	60.8	69.6	48.8	59.2	87	41	48	48	49	76	56	67	.346	.346	.360	4.85	1.66	0	5.7	5.9	5.5	5.7
June	27.69	27.88	27.24	64.6	76.7	70.9	81.2	56.1	68.6	92	41	57	54	58	76	47	65	.475	.439	.497	2.05	.88	0	4.8	4.6	5.8	5.0
July	27.67	27.82	27.44	70.1	79.9	73.8	84.9	63.3	74.1	94	51	65	65	66	88	62	77	.627	.622	.638	5.68	1.04	0	4.5	5.6	6.7	5.7
August	27.73	28.01	27.42	64.8	75.3	68.8	79.1	58.5	68.8	87	48	61	60	62	88	62	80	.545	.534	.563	3.83	1.14	0	5.7	5.9	6.2	6.0
September	27.76	28.10	27.42	62.5	76.0	68.3	79.6	55.6	67.6	89	38	58	58	59	85	56	74	.497	.504	.521	2.06	.96	0	3.9	4.3	3.1	3.8
October	27.76	28.10	27.32	48.4	65.2	56.3	68.5	42.8	55.6	81	26	43	43	44	81	47	65	.290	.299	.307	.62	.51	0	3.8	4.9	3.5	4.2
November	27.82	28.05	27.50	43.7	58.3	51.8	61.4	39.6	50.5	74	19	38	41	40	82	57	67	.249	.283	.271	.59	.38	0	5.6	5.1	3.3	4.9
December	27.75	28.12	27.39	39.4	46.8	43.4	51.3	35.0	43.2	69	18	35	37	36	85	71	77	.226	.245	.234	4.18	1.22	0	7.5	7.1	5.8	7.0
Year	27.68	28.12	26.82	49.1	60.0	55.0	64.4	43.8	54.1	94	9	43	44	45	80	58	69	.325	.332	.341	33.29	1.66	22.0	5.6	5.6	5.0	5.5

Annual meteorological summaries for the year ending December 31, 1931—Continued

WILLISTON, N. DAK.

[H_b=1,878 ft.; h_t=41 ft.; h_r=33 ft.; h_a=48 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	5.8	W.	31	W.	5	2	2	1	6	6	14	23	7	1	19	8	4	3	0	0	0	0	3	2	14	0	29	0	2
February	5.7	SE.	31	W.	0	4	4	6	9	8	9	9	5	2	13	10	5	3	2	5	3	0	2	0	3	0	28	0	1
March	6.8	SE.	31	NE.	0	12	8	4	14	8	1	3	9	3	9	10	12	6	5	9	6	0	2	1	11	0	30	0	1
April	8.0	W.	36	NW.	1	8	7	2	5	6	6	14	7	5	15	13	2	0	0	2	0	0	0	0	0	0	12	0	0
May	8.1	N.	39	W.	3	16	6	2	7	9	5	7	5	5	17	8	6	4	3	1	1	0	0	0	0	2	8	1	0
June	7.6	SE.	37	W.	1	3	10	11	12	3	6	8	6	1	14	10	6	7	7	0	0	1	0	0	0	5	0	5	0
July	7.4	NW.	30	W.	0	10	8	3	14	5	2	10	10	0	19	8	4	11	6	0	0	0	0	0	0	11	0	5	0
August	6.7	SE.	39	NW.	2	10	5	5	14	11	2	7	8	0	15	10	6	4	4	0	0	1	0	0	0	10	0	4	1
September	7.1	W.	31	SE.	0	7	8	4	10	6	7	11	7	0	19	7	4	8	5	0	0	0	0	0	0	3	0	1	0
October	7.2	W.	32	NW.	0	10	3	3	8	7	8	13	9	1	16	9	6	2	2	0	0	0	3	3	0	0	12	1	1
November	6.4	SW.	30	W.	0	8	8	4	4	7	12	7	10	0	14	5	11	3	0	8	3	0	0	0	11	0	26	0	1
December	5.4	SW.	25	SE.	0	3	3	6	7	16	16	9	2	0	13	8	10	2	2	4	2	0	0	0	12	0	31	0	0
Year	6.8	W.	39	W.	7	93	72	51	110	92	88	121	85	18	183	106	76	53	36	35	17	2	10	6	51	31	176	17	7

WILMINGTON, N. C.

[H_b=72 ft.; h_t=73 ft.; h_r=64 ft.; h_a=106 ft.]

January	5.3	W.	24	W.	0	12	7	3	1	5	13	14	7	0	14	9	8	8	5	1	0	0	11	3	0	0	10	0	0
February	5.8	N.	24	N.	0	17	6	4	4	7	11	1	5	1	9	13	6	7	5	0	0	0	10	3	0	0	2	2	0
March	7.3	W.	25	W.	0	12	10	4	3	5	8	17	3	0	13	9	9	11	7	2	1	0	5	0	0	0	2	3	0
April	7.1	SW.	24	SW.	0	6	7	12	2	6	11	13	3	0	12	12	6	8	5	0	0	0	9	3	0	0	0	1	0
May	6.4	SW.	20	W.	0	7	6	5	5	7	17	12	3	0	12	11	8	11	10	0	0	0	10	3	0	0	0	11	0
June	5.9	SW.	19	S.	0	7	4	5	6	10	13	13	2	0	19	8	3	8	5	0	0	0	10	0	0	0	0	8	0
July	5.3	SW.	21	NE.	0	5	7	4	3	6	20	14	3	0	8	19	4	14	10	0	0	0	4	0	0	15	0	16	0
August	4.8	SW.	19	W.	0	8	3	4	2	6	23	14	2	0	12	12	7	16	11	0	0	0	13	5	0	11	0	11	0
September	5.2	SW.	18	SW.	0	13	10	3	6	10	7	9	2	0	22	6	2	1	1	0	0	0	14	6	0	6	0	2	0
October	4.7	N.	24	SW.	0	16	14	6	0	6	9	9	1	1	21	7	3	2	2	0	0	0	17	4	0	0	0	1	0
November	4.8	N.	18	SW.	0	11	16	6	6	4	9	5	3	0	16	7	7	3	2	0	0	0	14	6	0	0	0	0	0
December	7.6	SW.	28	NW.	0	10	14	3	2	6	13	6	8	0	12	6	13	13	8	0	0	0	14	3	0	0	1	1	0
Year	5.8	SW.	28	NW.	0	124	104	59	40	78	154	127	42	2	170	119	76	102	71	3	1	0	131	36	0	37	15	56	0

WINNEMUCCA, NEV.

[H_b=4,344 ft.; h_t=18 ft.; h_r=6 ft.; h_a=56 ft.]

January	5.9	NE.	23	SW.	0	10	29	2	1	2	12	5	1	0	15	8	8	4	0	8	3	0	2	1	0	0	31	0	0
February	6.6	NE.	24	NW.	0	4	25	3	0	5	11	6	2	0	11	10	7	6	3	6	4	0	0	0	0	0	26	0	0
March	7.0	SW.	27	NW.	0	4	19	1	1	1	24	8	4	0	12	9	10	5	4	4	1	1	0	0	0	0	24	0	0
April	7.2	NE.	30	NW.	0	6	24	1	0	1	17	5	6	0	13	11	6	5	2	2	2	0	0	0	0	0	15	1	0
May	6.5	NE.	28	NW.	0	6	19	1	0	5	13	5	12	1	22	9	0	3	1	0	0	0	0	0	0	1	4	2	0
June	6.6	SW.	27	NW.	0	2	11	2	0	8	20	11	5	1	16	10	4	2	1	0	0	0	1	0	0	3	0	3	0
July	5.8	SW.	31	S.	0	3	9	3	1	9	22	8	7	0	23	8	0	1	1	0	0	0	0	0	0	25	0	2	0
August	6.0	SW.	26	SE.	0	2	15	1	2	6	21	9	6	0	22	7	2	2	1	0	0	0	0	0	0	23	0	0	0
September	5.6	SW.	26	W.	0	1	17	2	1	4	22	9	4	0	19	8	3	6	3	0	0	0	0	0	0	2	3	3	0
October	6.5	NE.	36	SW.	1	7	22	1	0	2	16	9	5	0	20	7	4	3	2	1	1	0	0	0	0	0	14	0	0
November	6.5	NE.	24	NW.	0	8	23	2	0	3	20	1	3	0	15	6	9	7	5	13	5	0	1	0	5	0	29	0	0
December	6.8	NE.	27	S.	0	5	26	5	1	6	14	4	1	0	10	6	15	12	9	14	9	0	2	0	7	0	29	0	0
Year	6.4	NE.	36	SW.	1	58	230	24	7	52	212	80	56	2	198	99	68	56	32	48	25	2	5	1	12	54	175	14	0

WYTHEVILLE, VA.

[H_b=2,304 ft.; h_t=49 ft.; h_r=40 ft.; h_a=55 ft.]

January	7.5	W.	26	W.	0	1	4	5	1	0	3	34	14	0	13	9	9	8	4	5	5	0	1	0	4	0	23	0	0
February	5.3	W.	19	W.	0	3	2	6	0	0	4	25	15	1	9	8	11	9	9	4	3	0	1	0	1	0	20	0	0
March	6.9	NW.	26	W.	0	3	2	14	1	1	1	18	21	1	3	10	18	12	10	11	6	0	1	0	2	0	22	0	0
April	5.8	W.	25	W.	0	1	3	10	2	2	8	17	14	3	10	8	12	14	7	6	6	0	1	1	0	0	5	2	0
May	5.0	W.	22	NW.	0	0	4	9	3	3	6	23	9	5	9	11	11	18	14	0	0	1	4	1	0	0	0	10	0
June	3.9	W.	24	NE.	0	3	1	6	1	2	7	26	12	2	10	13	7	7	6	0	0	0	2	2	0	4	0	10	0
July	3.9	W.	17	NE.	0	2	3	4	3	2	14	26	7	1	6	18	7	21	20	0	0	1	3	2	0	3	0	21	0
August	3.9	W.	21	W.	0	6	3	8	1	1	5	30	5	3	5	15	11	17	11	0	0	0	4	4	0	0	0	8	0
September	3.8	W.	18	W.	0	9	3	4	0	3	6	21	11	3	17	11	2	8	6	0	0	0	3	2	0	0	0	3	0
October	4.7	W.	19	SW.	0	3	5	5	2	1	0	29	16	1	14	7	10	4	3	0	0	0	2	1	0	0	4	0	0
November	5.8	W.	23	NW.	0	2	1	7	3	0	3	27	15	2	13	8	9	5	3	0	0	0	4	4	0	0	6	0	0
December	7.0	W.	23	E.	0	2	6	6	0	0	5	30	10	2	7	4	20	12	11	0	0	0	1	0	0	0	13	0	0
Year	5.3	W.	26	W.	0	35	37	84	17	15	63	306	149	24	116	122	127	135	104	26	20	2	27	17	7	7	93	54	0

Annual meteorological summaries for the year ending December 31, 1931—Continued

[ϕ=46° 36′ N.; λ=120° 30′ W.]

YAKIMA, WASH.

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*				
January	28.99	29.32	28.50	30.0	35.1	35.8	38.5	27.5	33.0	59	17	28	30	31	91	82	82	0.152	0.168	0.174	1.24	0.52	9.0	7.9	8.2	8.4	8.3
February	28.96	29.34	28.59	32.3	42.8	44.6	47.0	29.5	38.2	60	24	26	27	28	77	56	52	.139	.148	.149	.15	.08	0.5	5.0	6.6	6.1	6.4
March	28.95	29.36	28.42	37.7	51.5	52.1	54.9	34.6	44.8	66	23	24	28	29	68	41	43	.157	.156	.166	1.11	.73	T.	4.9	7.5	7.2	6.9
April	28.90	29.40	28.54	44.2	60.9	62.7	65.5	40.8	53.2	85	31	29	26	27	56	27	28	.162	.147	.151	.02	.01	0	4.5	5.4	5.2	5.7
May	28.85	29.29	28.46	53.2	73.1	74.4	77.7	50.9	64.3	95	39	36	32	32	54	24	22	.218	.188	.186	T.	T.	0	4.9	4.7	3.4	4.2
June	28.79	29.06	28.46	56.1	72.8	75.0	78.0	54.5	66.2	100	44	43	39	39	63	33	31	.282	.251	.253	.91	.42	0	5.0	6.0	4.7	5.3
July	28.79	29.15	28.52	62.2	84.0	86.0	91.0	60.8	75.9	103	52	42	39	39	49	22	18	.270	.241	.241	T.	T.	0	1.5	1.4	1.6	1.5
August	28.84	29.07	28.61	61.1	82.6	86.3	88.8	58.9	73.8	99	50	42	38	40	51	21	20	.270	.232	.246	T.	T.	0	1.3	.8	1.4	1.2
September	28.80	29.14	28.55	52.8	71.0	71.7	75.6	49.6	62.6	95	38	42	41	41	69	34	35	.276	.263	.264	.23	.19	0	3.6	4.1	4.9	4.1
October	28.90	29.28	28.18	43.6	61.4	60.8	64.5	40.4	52.4	82	31	35	34	35	72	39	42	.206	.203	.212	.33	.13	0	3.3	4.0	4.6	4.2
November	28.93	29.40	28.31	31.4	42.1	41.3	45.5	27.3	36.4	65	7	25	26	26	76	53	55	.137	.144	.147	.48	.27	2.1	5.4	6.0	5.4	6.2
December	28.84	29.44	28.27	22.0	28.4	28.3	31.4	18.3	24.6	45	−2	19	23	25	88	80	85	.108	.127	.133	3.75	.65	29.9	7.2	6.8	7.1	7.6
Year	28.88	29.44	28.18	43.9	58.8	60.2	63.2	41.1	52.1	103	−2	33	32	33	68	43	43	.198	.189	.194	8.22	.73	41.5	4.5	5.1	5.0	5.1

YANKTON, S. DAK.

[ϕ=42° 54′ N.; λ=97° 28′ W.]

January	28.72	29.20	28.39	24.2	38.1	.....	42.8	21.6	31.9	66	−2	20	24	...	85	59	...	0.111	0.133	.....	0.05	0.05	0.5	3.6	3.9	.....	4.0
February	28.76	29.13	28.37	27.9	41.1	.....	46.5	25.2	35.8	62	12	24	29	...	86	62	...	.131	.162	.....	.11	.09	T.	3.1	3.9	.....	4.2
March	28.77	29.27	28.13	26.8	39.6	.....	44.3	24.6	34.4	59	12	24	26	...	87	58	...	.127	.141	.....	1.14	.65	7.0	6.7	6.6	.....	6.8
April	28.74	29.12	28.18	42.3	59.8	.....	63.8	39.0	51.4	86	26	34	30	...	74	45	...	.203	.229	.....	1.77	1.06	.1	3.9	4.9	.....	4.6
May	28.63	29.01	28.21	59.5	65.6	.....	70.3	45.9	58.1	91	29	42	42	...	73	45	...	.284	.282	.....	1.48	.96	0	3.3	4.9	.....	4.3
June	28.57	28.94	28.23	70.6	84.7	.....	89.0	67.0	78.0	105	47	61	62	...	73	50	...	.541	.557	.....	1.63	.84	0	4.5	3.2	.....	4.3
July	28.60	28.88	28.27	71.2	85.6	.....	91.1	66.6	78.8	103	54	60	60	...	67	45	...	.526	.552	.....	.75	.46	0	3.9	3.2	.....	3.7
August	28.70	29.01	28.36	66.6	82.5	.....	87.5	63.4	75.4	99	48	56	55	...	71	42	...	.473	.451	.....	.44	.12	0	5.7	4.4	.....	4.6
September	28.54	29.05	28.15	63.2	78.5	.....	82.8	61.0	71.9	103	44	51	53	...	68	44	...	.389	.409	.....	2.32	1.17	0	4.3	4.6	.....	4.6
October	28.68	29.17	28.01	48.6	61.7	.....	64.9	45.5	55.2	83	32	43	44	...	83	56	...	.290	.308	.....	1.62	.47	T.	5.1	4.6	.....	5.3
November	28.61	29.19	28.01	33.3	44.4	.....	49.0	29.2	39.1	80	6	29	30	...	86	63	...	.169	.176	.....	2.23	.81	5.6	5.9	5.6	.....	6.1
December	28.71	29.13	28.21	27.3	33.2	.....	36.4	23.7	30.0	53	8	27	26	...	90	76	...	.138	.148	.....	1.67	.84	7.5	5.7	5.5	.....	5.5
Year	28.67	29.27	28.01	46.1	59.6	.....	64.0	42.7	53.3	105	−2	39	41	...	79	54	...	.282	.296	.....	15.21	1.17	20.7	4.6	4.6	.....	4.8

YUMA, ARIZ.

[ϕ=32° 45′ N.; λ=114° 36′ W.]

January	29.92	30.19	29.61	46.4	66.5	64.7	69.1	42.0	55.6	81	33	26	27	28	48	24	26	0.150	0.155	0.162	0.04	0.03	0	1.2	1.7	2.5	1.9
February	29.80	30.08	29.43	51.6	67.2	68.5	70.6	48.2	59.4	79	38	45	42	40	80	44	40	.307	.285	.267	1.13	.48	0	2.8	2.9	3.3	3.3
March	29.83	30.22	29.45	53.7	78.4	80.2	82.5	50.3	66.4	97	36	34	26	26	48	14	14	.197	.141	.148	0	0	0	4	1.8	2.0	1.5
April	29.70	29.97	29.40	61.5	84.8	86.2	89.0	58.2	73.6	101	53	42	37	36	54	20	20	.284	.228	.226	.75	.75	0	2.6	2.2	3.5	2.6
May	29.65	29.80	29.49	65.8	93.3	95.8	97.9	63.6	80.8	109	55	51	40	38	59	18	14	.376	.260	.234	0	0	0	0	.1	.5	.2
June	29.63	29.79	29.43	71.7	95.9	98.3	101.0	70.0	85.5	112	61	55	48	46	58	21	19	.442	.351	.332	T.	T.	0	1.5	1.5	1.7	1.6
July	29.55	29.76	29.38	83.8	103.4	105.4	108.5	81.4	95.0	116	73	69	66	64	63	31	27	.723	.638	.598	.21	.20	0	1.9	.8	1.0	1.1
August	29.68	29.88	29.45	80.3	98.0	98.4	102.6	77.6	90.1	113	68	69	66	64	71	38	36	.724	.653	.613	2.22	.93	0	3.2	2.9	2.9	2.9
September	29.62	29.86	29.40	71.1	94.4	94.9	98.6	68.6	83.6	108	58	59	54	55	68	29	29	.532	.457	.466	.74	.35	0	1.3	.9	1.7	1.5
October	29.75	29.92	29.44	61.8	84.9	82.1	88.3	58.7	73.5	97	49	48	46	47	64	28	32	.353	.326	.342	.09	.07	0	.8	1.1	.9	1.1
November	29.83	30.11	29.40	50.3	69.9	65.0	71.4	46.1	58.8	93	31	38	37	38	64	32	38	.242	.240	.250	.14	.12	0	2.2	1.7	2.4	2.2
December	29.91	30.23	29.54	45.8	63.0	58.9	64.2	42.3	53.2	70	36	31	33	32	59	34	39	.182	.193	.191	.59	.58	0	2.1	2.3	3.6	2.7
Year	29.74	30.23	29.38	62.0	83.4	83.2	87.0	58.9	73.0	116	31	47	44	43	61	28	28	.376	.327	.319	5.91	.93	0	1.7	1.7	2.1	1.9

DUTCH HARBOR, ALASKA

[ϕ=53° 55′ N.; λ=166° 30′ W.]

January	28.92	29.68	28.02	31.8	.....	†	33.2	35.7	28.1	31.9	38	18	.....	.....	.....	.....	.....	.....	.....	.....	8.07	1.53	49.5	† 8.8	.....	† 7.6	8.4
February	29.35	30.22	28.43	26.8	.....		28.3	31.4	22.1	26.8	38	11	.....	.....	.....	.....	.....	.....	.....	.....	8.56	2.70	72.7	7.9	.....	8.0	8.3
March	29.74	30.32	28.89	31.3	.....		33.4	36.1	28.3	32.2	48	15	.....	.....	.....	.....	.....	.....	.....	.....	3.46	2.26	6.4	8.7	.....	8.4	8.8
April	29.81	30.56	28.73	33.5	.....		37.1	40.8	30.2	35.5	49	19	.....	.....	.....	.....	.....	.....	.....	.....	1.29	.36	11.0	9.0	.....	8.3	.....
May	29.86	30.64	29.04	37.8	.....		42.7	46.9	35.1	41.0	56	32	.....	.....	.....	.....	.....	.....	.....	.....	3.88	1.46	T.	8.5	.....	8.3	8.6
June	29.79	30.28	29.01	42.2	.....		47.8	50.6	40.2	45.4	55	34	.....	.....	.....	.....	.....	.....	.....	.....	4.00	1.38	0	9.0	.....	8.6	.....
July	30.01	30.32	29.62	46.3	.....		53.3	56.8	44.1	50.4	66	40	.....	.....	.....	.....	.....	.....	.....	.....	.88	.35	0	8.5	.....	7.9	.....
August	29.96	30.43	29.80	52.8	.....		57.9	64.0	49.2	56.6	73	43	.....	.....	.....	.....	.....	.....	.....	.....	2.21	1.10	0	6.4	.....	6.2	.....
September	29.89	30.45	29.89	46.5	.....		51.1	56.3	43.4	49.8	74	35	.....	.....	.....	.....	.....	.....	.....	.....	3.66	1.80	0	7.6	.....	7.5	8.0
October	29.60	30.22	28.43	40.2	.....		43.8	49.7	36.5	43.1	60	27	.....	.....	.....	.....	.....	.....	.....	.....	4.04	1.24	0	6.1	.....	7.1	7.0
November	29.56	30.53	28.60	37.6	.....		40.0	45.0	32.8	38.9	54	22	.....	.....	.....	.....	.....	.....	.....	.....	6.60	2.07	3.0	6.9	.....	7.9	7.9
December	29.68	30.42	28.93	34.6	.....		34.7	42.2	27.9	35.0	53	17	.....	.....	.....	.....	.....	.....	.....	.....	3.24	.71	9.0	5.9	.....	7.1	6.7
Year	29.68	30.64	28.02	38.4	.....		41.9	46.3	34.8	40.6	74	11	.....	.....	.....	.....	.....	.....	.....	.....	51.92	2.70	‡	7.8	.....	7.7	.....

* No diurnal correction applied.
† Hours at Dutch Harbor, 1 a. m. and 1 p. m., one hundred and sixty-fifth meridian time.
‡ 151.6 inches, snowfall of year, Dutch Harbor.

Annual meteorological summaries for the year ending December 31, 1931—Continued

YAKIMA, WASH.

[H_b=1,076 ft.; h_t=58 ft.; h_r=52 ft.; h_a=67 ft.]

Month	Wind: By self-register: Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 33 miles and over	Wind: Number of winds, 8 a. m. and 8 p. m.: North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Number of days: Clear	Partly cloudy	Cloudy	Precipitation: 0.01 inch and over	0.04 inch and over	Snow: T. or more	0.01 inch or more melted	Hail	Fog: Light	Dense	Maximum temp.: 32° or below	90° or above	32° Minimum temperature or below	Electricity: Thunderstorm	Aurora
	Mi.		*Mi.*																										
January	2.1	W.	19	SW.	0	6	4	9	8	4	5	15	10	10	2	5	24	12	8	15	9	6	13	2	6	0	24	0	0
February	3.5	N.	28	S.	0	6	4	1	10	8	3	8	12	4	7	8	13	3	2	2	1	0	0	0	0	0	21	0	0
March	4.5	NW.	25	NW.	0	9	7	0	12	10	5	4	13	2	5	8	18	4	1	0	0	0	1	0	0	0	10	0	0
April	5.7	NW.	33	NE.	1	8	7	4	7	9	8	11	14	1	8	13	9	2	0	0	0	1	0	0	0	0	1	0	0
May	6.4	NW.	27	NW.	0	2	3	0	4	7	8	6	38	0	14	13	4	0	0	0	0	0	0	0	0	5	0	2	0
June	5.3	NW.	22	NW.	0	6	1	1	6	5	1	13	27	0	13	6	11	6	5	0	0	0	0	0	0	3	0	4	0
July	5.8	NW.	20	NW.	0	4	3	0	0	4	9	6	36	0	23	7	1	0	0	0	0	0	0	0	0	19	0	0	0
August	5.9	NW.	21	SW.	0	9	2	2	2	4	3	8	32	0	29	2	0	0	0	0	0	0	0	0	0	13	0	0	0
September	4.4	NW.	23	W.	0	7	7	2	4	2	3	12	23	0	15	8	7	4	2	0	0	0	1	0	0	3	0	0	0
October	4.0	NW.	24	SW.	0	5	6	3	9	6	7	10	15	1	16	8	7	7	4	0	0	0	2	0	0	0	1	0	0
November	3.8	NW.	26	SW.	0	11	4	3	14	4	4	8	12	0	9	5	16	5	2	6	3	0	5	1	4	0	20	0	0
December	2.0	SE.	15	S.	0	6	1	0	17	7	6	8	10	7	4	9	18	17	15	17	13	0	21	8	14	0	30	0	0
Year	4.4	NW.	33	NE.	1	79	49	16	93	55	62	109	242	25	145	92	128	63	42	41	26	2	43	11	24	43	107	6	0

YANKTON, S. DAK.

[H_b=1,233 ft.; h_t=49 ft.; h_r=42 ft.; h_a=57 ft.]

January	6.6	W.	22	NW.	0	0	1	1	2	3	6	10	6	2	15	10	6	1	1	5	1	0	0	0	6	0	28	0	0
February	6.2	NW.	22	SW.	0	0	3	2	4	1	2	7	9	0	15	4	9	2	1	4	0	0	0	0	2	0	26	0	0
March	8.1	NW.	29	NW.	0	4	4	2	5	2	1	3	10	0	6	9	16	6	4	7	4	0	0	0	3	0	26	0	0
April	7.0	NW.	32	NW.	0	1	1	3	2	3	2	7	8	3	12	11	7	7	5	3	1	0	0	0	0	0	11	3	0
May	7.9	NW.	30	S.	0	4	3	3	1	5	2	2	11	0	14	10	7	7	5	0	0	0	0	0	0	4	4	1	0
June	6.9	S.	29	SE.	0	2	3	4	5	8	6	0	2	0	14	9	7	11	9	0	0	0	1	0	0	15	0	7	0
July	6.5	S.	29	SW.	0	2	4	4	2	3	3	6	1	6	15	11	5	4	3	0	0	0	0	0	0	18	0	5	0
August	6.1	S.	25	E.	0	2	1	5	3	8	4	2	4	2	13	10	8	6	5	0	0	0	0	0	0	11	0	7	0
September	6.4	S.	24	S.	0	2	3	1	4	4	5	2	5	4	12	8	10	8	6	0	0	0	0	0	0	10	0	7	0
October	7.0	NW.	32	W.	0	1	1	1	3	3	0	4	6	12	12	8	11	8	7	1	0	0	2	0	0	0	1	2	0
November	5.9	NW.	26	S.	0	3	0	6	2	3	4	5	5	2	9	9	12	10	9	3	2	0	5	1	8	0	14	1	0
December	5.7	W.	19	E.	0	1	3	5	1	2	3	8	6	2	13	3	15	6	3	5	4	0	4	1	8	0	26	0	0
Year	6.7	NW.	32	W.	0	22	27	37	34	45	38	50	73	33	150	102	113	76	58	28	12	1	11	2	27	58	136	33	0

YUMA, ARIZ.

[H_b=141 ft.; h_t=9 ft.; h_r=2 ft.; h_a=54 ft.]

January	5.1	N.	23	N.	0	23	14	6	1	3	4	3	7	1	23	6	2	2	0	0	0	0	0	0	0	0	0	0	0
February	3.9	NE.	27	NW.	0	10	10	7	6	3	9	8	3	0	15	10	3	6	5	0	0	0	1	0	0	0	1	0	0
March	5.7	N.	26	NW.	0	18	13	3	3	6	2	10	7	0	25	4	2	0	0	0	0	0	0	0	0	5	0	0	0
April	4.2	SW.	25	S.	0	13	4	3	3	8	9	12	8	0	21	4	5	2	2	0	0	0	0	0	0	15	0	0	0
May	4.3	W.	22	NW.	0	6	4	4	4	9	14	10	7	4	30	1	0	0	0	0	0	0	0	0	0	28	0	0	0
June	4.7	W.	17	S.	0	3	0	2	8	11	11	18	2	5	23	7	0	0	0	0	0	0	0	0	0	28	0	0	0
July	4.9	SW.	35	E.	1	2	1	2	9	12	21	11	2	2	28	3	0	3	2	0	0	0	0	0	0	31	0	5	0
August	4.0	S.	28	W.	0	4	7	6	7	8	15	12	1	2	19	8	4	8	6	0	0	0	1	0	0	29	0	11	0
September	3.6	W.	21	N.	0	6	3	5	3	7	12	13	7	4	26	3	1	4	4	0	0	0	1	0	0	29	0	2	0
October	3.8	N.	21	NW.	0	14	8	7	5	3	10	12	1	2	26	4	1	2	1	0	0	0	0	0	0	14	0	1	0
November	4.5	N.	22	N.	0	13	11	6	4	7	3	7	8	1	22	5	3	4	1	0	0	0	0	0	0	6	0	0	0
December	4.8	N.	25	NE.	0	25	15	4	6	2	3	3	3	1	20	9	2	2	1	0	0	0	0	0	0	0	0	0	0
Year	4.5	N.	35	E.	1	137	90	55	59	79	113	119	56	22	278	64	23	33	22	0	0	1	2	1	0	185	1	20	0

DUTCH HARBOR, ALASKA †

[H_b=13 ft.; h_t=4 ft.; h_r=3 ft.; h_a=— ft.]

		*																											
January		SE.				0	0	0	32	0	0	1	25	4	1	10	20	23	19	22	14	6	0	0	2	0	27	0	0
February		NW.				1	0	0	24	0	0	0	28	3	1	9	18	24		21	21	0	0	0	16	0	28	0	0
March		NW.				0	0	0	21	0	0	1	34	6	1	5	25	16	9	17	12	0	0	0	7	0	24	0	0
April		SE.				0	0	0	28	0	0	2	23	7	0	7	23	10	5	15	8	0	0	0	2	0	19	0	0
May		SE.				0	0	0	37	0	0	0	25	2	1	5	25	14	10	1	0	0	0	0	0	0	2	0	0
June		SE.				5	5	0	31	0	0	0	17	2	0	5	25	17	12	0	0	0	0	0	0	0	0	0	0
July		NE.				4	22	5	1	6	17	2	6	0				9	6	0	0	0	4	3	0	0	0	0	0
August		NE.				2	17	8	12	9	10	2	6	1	4	10	17	9	9	0	0	0	3	0	0	0	0	0	0
September		SW.				1	3	3	7	8	16	6	12	4	1	8	21	8	7	0	0	0	0	0	0	0	0	0	0
October		SW.				4	2	1	5	8	17	7	12	6	6	8	17	16	16	0	0	0	0	0	0	0	14	0	0
November		SW.				0	1	1	10	7	25	6	9	1	4	7	19	14	13	6	1	0	0	0	3	0	23	0	0
December		SW.				2	0	1	9	7	26	5	12	0	3	15	13	11	10	8	3	1	0	0					
Year		SE.				19	50	16	217	44	111	32	207	36				171		90	57	1	10	3	30	0	145	0	0

* By eye observations at this station.
† At Dutch Harbor, for hours of observation see note on preceding page.

Annual meteorological summaries for the year ending December 31, 1931—Continued

EAGLE, ALASKA

[ϕ=64° 46′ N.; λ=141° 12′ W.]

Month	Pressure			Temperature								Moisture														
		Extremes		Mean			Extremes			Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In.	*In.*	*In.*	°	°	°	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	†		†	
January	28.63	29.24	28.12	1.6	----	4.0	10.9	−7.9	1.5	36	−57	----	----	----	----	----	----	----	----	----	0.40	0.14	10.4	5.1	----	7.7	7.1
February	28.65	29.20	28.25	3.6	----	12.6	17.3	−4.1	6.6	36	−33	----	----	----	----	----	----	----	----	----	.27	.12	5.8	5.0	----	5.1	5.7
March	29.13	29.82	28.56	−4.0	----	15.2	18.6	−11.4	3.6	42	−44	----	----	----	----	----	----	----	----	----	.01	.01	.2	4.1	----	4.4	4.5
April	28.94	29.70	28.08	17.9	----	32.5	35.7	14.5	25.1	58	−14	----	----	----	----	----	----	----	----	----	.16	.0	3.0	5.7	----	7.2	7.4
May	28.91	29.51	28.42	29.6	----	50.2	53.1	27.7	40.4	6	2	----	----	----	----	----	----	----	----	----	.79	.34	.5	5.5	----	7.2	6.8
June	28.86	29.28	28.56	43.4	----	66.5	70.2	41.5	55.8	79	25	----	----	----	----	----	----	----	----	----	1.72	.82	0	4.9	----	7.7	7.1
July	28.90	29.26	28.48	47.1	----	67.1	70.7	44.6	57.6	79	35	----	----	----	----	----	----	----	----	----	1.33	.63	0	6.6	----	8.7	8.1
August	28.96	29.20	28.45	41.9	----	62.1	65.6	39.2	52.4	76	22	----	----	----	----	----	----	----	----	----	2.52	.73	T.	6.9	----	7.4	7.1
September	28.86	29.22	28.44	36.1	----	50.1	53.2	33.7	43.4	65	20	----	----	----	----	----	----	----	----	----	1.41	.42	.2	7.1	----	9.5	9.0
October	28.64	29.26	27.95	24.0	----	32.1	35.8	19.6	27.7	49	−8	----	----	----	----	----	----	----	----	----	.82	.56	6.7	7.9	----	9.1	9.4
November	28.90	29.61	27.99	10.4	----	13.4	18.0	3.6	10.8	37	−33	----	----	----	----	----	----	----	----	----	.45	.22	12.2	5.6	----	7.3	6.9
December	28.78	29.32	28.10	−2.8	----	−1.1	4.6	−10.8	−3.1	22	−44	----	----	----	----	----	----	----	----	----	.21	.08	6.0	6.9	----	8.3	7.6
Year	28.85	29.82	27.95	20.7	----	33.8	37.8	15.8	26.8	79	−57	----	----	----	----	----	----	----	----	----	10.09	.82	45.0	5.9	----	7.5	7.2

FAIRBANKS, ALASKA

[ϕ=64° 51′ N.; λ=147° 39′ W.]

January	28.97	29.56	28.46	−2.2	0.7	2.0	9.6	−11.1	−0.8	36	−30	−7	−4	−3	77	77	76	0.032	0.038	0.040	0.28	0.13	3.9	4.1	6.4	6.7	6.5
February	29.03	29.72	28.46	2.4	9.8	12.8	16.0	−5.5	5.2	40	−28	−3	3	4	75	72	68	.038	.049	.053	.42	.31	6.2	5.4	7.1	7.2	7.1
March	29.52	30.10	28.95	2.0	17.3	20.9	22.5	−6.4	8.6	46	−28	−4	2	4	72	48	44	.038	.050	.053	.15	.11	2.2	3.3	3.6	4.1	3.8
April	29.37	30.14	28.52	19.4	32.1	34.0	36.4	15.8	26.1	57	−8	12	15	15	72	46	44	.061	.067	.057	.11	.09	T.	5.5	6.8	6.7	6.5
May	29.36	30.00	28.77	34.3	47.1	47.8	49.9	31.7	40.8	67	17	27	26	25	76	46	44	.153	.147	.140	.60	.21	2.0	6.1	6.7	7.8	6.8
June	29.31	29.72	29.01	46.9	64.6	65.6	68.9	44.3	56.6	82	32	43	40	39	87	43	40	.282	.248	.240	1.73	1.15	1.2	6.1	5.7	5.7	6.0
July	29.37	29.69	28.99	51.0	65.0	65.9	68.4	48.5	58.4	80	40	48	46	45	89	53	50	.332	.317	.308	1.43	.37	0	7.4	8.6	6.7	7.4
August	29.41	29.67	28.76	48.1	59.7	61.5	63.7	42.2	53.0	70	28	45	45	45	95	60	57	.303	.304	.304	2.80	.93	0	6.2	6.6	6.6	6.6
September	29.32	29.69	28.84	39.7	47.2	48.6	50.3	36.5	43.4	63	26	37	39	38	91	74	69	.237	.243	.240	1.48	.42	T.	8.3	8.5	8.6	8.6
October	29.08	29.67	28.45	20.9	27.0	29.1	31.1	14.9	22.0	44	−10	18	22	22	89	79	73	.111	.119	.119	.82	.24	5.5	6.2	7.2	6.9	7.3
November	29.28	30.01	28.60	9.8	11.7	12.8	17.7	0.2	9.0	42	−29	7	8	9	89	86	86	.073	.072	.076	.38	.15	6.7	6.5	6.6	7.3	6.9
December	29.19	29.82	28.47	−5.9	−6.7	−6.1	1.6	−15.1	−6.8	32	−39	−9	−10	−9	83	83	84	.037	.037	.037	1.73	.74	24.6	6.1	6.3	6.7	6.3
Year	29.27	30.14	28.45	22.0	31.3	32.9	36.3	16.3	26.3	82	−39	18	19	20	83	64	61	.142	.143	.141	12.00	1.15	52.3	5.9	6.3	6.8	6.6

KODIAK, ALASKA

[ϕ=57° 48′ N.; λ=152° 22′ W.]

January	29.09	29.62	28.61	35.3	----	36.4	39.9	31.3	35.6	47	19	----	----	----	----	----	----	----	----	----	8.04	1.10	0.2	7.2	----	7.9	7.0
February	29.21	29.78	28.43	31.8	----	34.4	38.1	27.6	32.8	50	9	----	----	----	----	----	----	----	----	----	4.08	.80	7.2	5.5	----	6.3	6.4
March	29.69	30.35	28.98	31.7	----	37.5	40.6	27.7	34.2	49	12	----	----	----	----	----	----	----	----	----	2.75	1.16	4.5	5.7	----	5.2	5.9
April	29.78	30.31	28.74	34.5	----	43.7	46.8	32.4	39.6	58	25	----	----	----	----	----	----	----	----	----	.59	.27	1.8	5.4	----	5.5	5.5
May	29.78	30.65	29.09	39.5	----	47.0	51.0	37.5	44.2	66	31	----	----	----	----	----	----	----	----	----	5.14	1.28	T.	6.9	----	6.7	6.9
June	29.80	30.17	29.06	44.6	----	52.2	55.7	43.3	49.5	69	37	----	----	----	----	----	----	----	----	----	7.70	1.97	0	6.1	----	6.2	6.3
July	29.90	30.20	29.37	48.8	----	55.3	58.9	47.2	53.0	68	40	----	----	----	----	----	----	----	----	----	3.40	.96	0	7.8	----	6.5	6.5
August	29.91	30.22	29.05	53.2	----	61.4	65.1	50.8	58.0	76	46	----	----	----	----	----	----	----	----	----	3.48	1.88	0	6.3	----	6.4	6.2
September	29.76	30.20	29.15	47.0	----	54.8	57.7	44.0	50.8	66	33	----	----	----	----	----	----	----	----	----	2.10	.70	0	7.5	----	5.0	5.2
October	29.41	29.95	28.58	40.2	----	46.0	48.4	37.2	42.8	59	25	----	----	----	----	----	----	----	----	----	3.69	1.52	T.	8.0	----	6.1	5.2
November	29.66	30.36	28.99	36.2	----	39.5	41.7	33.0	37.4	46	25	----	----	----	----	----	----	----	----	----	5.37	1.06	.1	7.8	----	6.8	6.6
December	29.50	30.22	28.85	30.1	----	32.0	35.0	26.4	30.7	43	17	----	----	----	----	----	----	----	----	----	2.49	.65	31.4	7.5	----	6.3	6.6
Year	29.62	30.81	28.43	39.4	----	45.0	48.2	36.5	42.4	76	9	----	----	----	----	----	----	----	----	----	48.33	1.97	45.2	6.8	----	6.1	6.2

NOME, ALASKA

[ϕ=64° 30′ N.; λ=165° 24′ W.]

January	29.40	29.87	28.96	9.3	----	10.7	15.9	0.7	8.3	39	−25	0	----	1	67	----	64	0.051	----	0.051	0.14	0.10	1.3	4.3	----	6.1	5.9
February	----	----	----	----	----	----	13.5	−1.7	5.9	30	−26	----	----	----	----	----	----	----	----	----	.73	.16	8.0	----	----	----	----
March	29.99	30.41	29.24	9.9	----	18.4	20.7	2.7	11.7	31	−18	1	----	7	65	----	62	.050	----	.067	.16	.11	1.8	3.2	----	4.6	4.5
April	29.81	30.44	29.14	16.4	----	24.9	27.6	11.0	19.3	40	−13	9	----	17	71	----	71	.073	----	.100	1.18	.32	8.8	5.7	----	6.0	5.7
May	29.84	30.38	29.24	29.7	----	37.7	39.0	26.7	32.8	51	20	23	----	28	76	----	68	.124	----	.153	.59	.40	.1	5.9	----	6.1	5.7
June	29.85	30.26	29.55	38.4	----	44.9	49.0	34.8	41.9	67	20	35	----	39	86	----	80	.204	----	.242	.64	.31	T.	5.7	----	5.8	6.2
July	29.86	30.28	29.48	44.0	----	49.3	50.3	41.5	45.9	69	32	41	----	44	90	----	85	.257	----	.294	2.20	.60	0	8.6	----	7.8	7.6
August	29.85	30.13	29.23	46.0	----	54.0	54.8	42.4	48.6	66	33	44	----	48	91	----	83	.287	----	.344	4.69	.96	0	6.8	----	8.0	6.7
September	29.78	30.34	29.12	36.8	----	43.5	44.5	33.1	38.8	55	20	34	----	39	88	----	84	.198	----	.241	3.38	.64	.5	6.6	----	8.0	6.4
October	29.52	29.91	28.88	24.6	----	29.5	31.0	19.2	25.1	43	1	20	----	24	82	----	78	.115	----	.132	2.19	.80	18.1	6.6	----	8.0	7.2
November	29.59	30.53	28.83	16.9	----	18.4	22.8	10.6	16.7	34	−9	13	----	15	85	----	85	.085	----	.091	2.37	.52	22.8	6.6	----	7.2	7.4
December	29.51	30.17	28.44	8.6	----	9.4	14.8	1.9	8.4	32	−28	5	----	6	83	----	85	.063	----	.064	3.84	1.21	31.0	7.0	----	7.3	7.0
Year	----	----	----	----	----	----	32.0	18.6	25.3	69	−28	----	----	----	----	----	----	----	----	----	22.11	1.21	92.4	----	----	----	----

* No diurnal correction applied.

† Hours at Eagle, 3 a. m. and 3 p. m., one hundred thirty-fifth meridian time, January to April; afterward 2.30 a. m. and 2.30 p. m.; at Fairbanks and Kodiak, 2 a. m. and 2 p. m., one hundred fiftieth meridian time; at Nome, 1 a. m. and 1 p. m., one hundred sixty-fifth meridian time.

Annual meteorological summaries for the year ending December 31, 1931—Continued

EAGLE, ALASKA †

[H_b=821 ft.; h_t=4 ft.; h_r=3 ft.; h_a=38 ft.]

Month	Wind: By self-register: Average hourly velocity	Wind: By self-register: Prevailing direction	Wind: By self-register: Maximum velocity	Wind: By self-register: Direction at time of maximum velocity	Wind: By self-register: Days with 33 miles and over	Wind: 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 or over	Precipitation: 0.04 inch or over	Snow: T. or more	Snow: 0.01 inch or more melted	Hail	Fog: Light	Fog: Dense	Maximum temp.: 32° or below	Maximum temp.: 90° or above	32°: Minimum temperature 0° or below	Electricity: Thunderstorm	Electricity: Aurora
	Mi.	•	*Mi.*																										
January		SE.				3	1	18	18	3	1	3	2	13	5	6	20	7	3	11	7	0	0	0	29	0	31	0	8
February		SE.				1	5	12	15	5	2	3	4	6	8	8	12	7	4	7	7	0	0	0	24	0	28	0	5
March		NW.				4	6	9	11	4	4	3	14	7	11	10	10	1	0	1	1	0	0	0	25	0	31	0	9
April		NW.				4	4	8	9	10	0	3	19	3	4	7	19	7	1	8	7	0	0	0	12	0	26	0	0
May		NW.				3	9	8	5	4	2	4	25	2	5	10	16	10	5	2	2	0	0	0	3	0	20	0	0
June		NW.				6	7	6	6	1	3	7	22	2	2	12	16	15	10	0	0	0	0	0	0	0	3	0	0
July		NW.				5	3	2	11	4	0	4	27	6	2	6	23	13	6	0	0	0	0	0	0	0	0	0	0
August		NW.				10	6	14	9	0	0	5	16	2	6	6	19	12	9	1	0	0	0	0	0	0	11	0	2
September		NW.				10	6	5	12	9	0	3	21	3	1	3	26	16	12	3	2	0	1	0	0	0	16	0	4
October		NW.				5	1	11	17	2	0	4	18	4	1	0	30	9	5	9	8	0	0	0	10	0	31	0	3
November		SE.				2	1	10	26	3	0	1	10	7	6	7	17	8	4	10	8	0	0	0	25	0	30	0	9
December		E.				2	2	29	7	1	0	2	7	12	2	9	20	8	2	11	8	0	0	0	31	0	31	0	3
Year		NW.				55	51	132	149	37	12	42	185	67	53	84	228	113	61	63	50	0	1	0	159	0	258	0	43

FAIRBANKS, ALASKA †

[H_b=455 ft.; h_t=11 ft.; h_r=3 ft.; h_a=44 ft.]

January	1.6	N.	13	NW.	0	20	9	7	1	6	2	5	5	7	7	7	17	4	3	7	4	0	9	1	28	0	31	0	14
February	1.8	N.	19	SW.	0	7	3	8	1	9	7	4	12	6	7	4	17	6	2	8	6	0	2	0	26	0	28	0	13
March	2.9	N.	20	NE.	0	12	13	5	5	10	4	3	9	1	19	2	10	2	2	5	2	0	0	0	22	0	31	0	24
April	4.2	N.	24	NE.	0	16	14	8	0	4	2	2	13	1	9	4	17	2	1	4	1	0	0	0	11	0	25	0	8
May	5.8	NE.	21	E.	0	5	17	4	4	5	6	11	9	1	5	10	16	13	7	7	3	0	0	0	0	0	16	1	4
June	4.2	SW.	20	NW.	0	9	0	5	5	8	7	9	11	6	3	9	8	9	6	1	1	0	0	0	0	0	1	2	0
July	3.8	W.	20	SW.	0	8	8	3	1	4	12	13	8	6	3	9	19	17	9	0	0	0	0	0	0	0	0	2	0
August	3.5	SW.	17	NW.	0	6	3	5	1	10	18	6	4	7	8	6	17	12	12	5	0	0	0	0	4	0	4	0	12
September	3.5	W.	15	SW.	0	4	10	2	6	6	10	10	3	9	1	4	25	16	12	5	0	0	0	0	2	0	9	0	22
October	2.6	E.	15	SW.	0	9	10	8	5	4	4	4	6	12	6	4	21	10	8	17	7	0	0	0	5	0	14	0	21
November	1.7	N.	14	W.	0	12	8	8	2	5	1	8	8	8	6	7	17	10	6	15	10	0	9	1	24	0	30	0	22
December	1.4	NW.	13	W.	0	13	8	2	4	3	3	5	14	10	11	3	17	11	8	14	11	0	13	0	31	0	31	0	21
Year	2.1	N.	24	NE.	0	123	103	65	35	74	76	80	102	72	85	79	201	112	76	83	45	0	40	2	156	0	236	5	161

KODIAK, ALASKA †

[H_b=15 ft.; h_t=5 ft.; h_r=4 ft.; h_a=12 ft.]

		•																											
January		SW.				6	8	7	7	1	9	0	9	15	4	12	15	26	22	3	1	0	0	1	0	0	15	0	0
February		NW.				7	4	4	6	4	7	1	10	13	7	7	14	19	15	9	8	0	0	0	3	0	24	0	2
March		NW.				12	4	1	4	1	3	3	20	14	11	6	14	14	11	8	3	0	0	0	0	0	25	0	2
April		NW.				5	2	1	1	5	1	1	8	36	9	11	10	8	6	9	3	0	0	0	0	0	17	0	0
May		N.				12	6	4	5	6	1	0	1	27	7	9	15	18	16	1	0	0	0	2	0	0	1	0	0
June		N.				10	4	4	7	1	1	0	1	32	8	10	12	13	12	0	0	0	1	1	0	0	0	0	0
July	5.3	SE.	22	SW.	0	4	2	7	11	3	1	0	1	33	8	8	15	17	13	0	0	0	0	0	0	0	0	0	0
August	5.1	E.	24	SE.	0	2	4	4	6	3	2	6	6	29	8	10	13	9	7	0	0	0	0	0	0	0	0	0	0
September	7.3	SE.	38	S.	2	2	0	2	7	2	4	6	3	34	11	12	7	13	10	0	0	0	0	0	0	0	7	0	0
October		SE.				1	4	0	9	7	10	4	6	21	13	10	8	17	16	2	0	0	0	0	1	0	12	0	0
November		SE.				1	2	1	14	3	6	6	3	24	6	9	15	20	17	4	1	0	0	0	11	0	24	0	0
December		NW.				0	1	1	2	0	5	8	10	35	8	9	14	13	9	11	7	0	0	0					
Year		SE.				62	41	36	79	36	50	35	78	313	100	113	152	187	154	47	23	0	3	3	14	0	125	0	4

NOME, ALASKA †

[H_b=22 ft.; h_t=4 ft.; h_r=5 ft.; h_a=34 ft.]

January	10.4	NE.	47	NE.	5	17	19	2	2	2	0	4	16	0	8	11	12	4	1	13	4	0	2	1	29	0	31	0	5
February		NE.													8	9	11	14	9							0			
March	9.8	NE.	36	NE.	3	13	28	4	1	1	2	9	4	0	14	6	8	5	1	9	5	0	4	0	31	0	31	0	16
April	9.7	NE.	35	NW.	1	1	16	9	8	8	7	6	5	0	10	5	15	14	9	17	14	0	1	0	18	0	29	0	5
May	10.0	NE.	31	SE.	0	6	21	3	5	3	8	8	8	0	10	8	13	9	3	15	9	0	4	1	2	0	28	0	0
June	8.1	W.	25	W.	0	2	6	3	7	3	14	18	7	0	10	5	15	10	6	2	1	0	7	10	6	0	8	0	0
July	9.0	S.	31	S.	0	7	2	1	6	18	19	6	3	0	6	5	20	17	11	0	0	0	7	1	0	0	1	0	0
August	7.2	SE.	30	SW.	0	4	7	7	11	11	10	7	5	0	6	6	11	14	19	15	0	0	7	3	0	0	0	0	2
September	9.5	N.	35	SE.	2	7	11	4	1	6	8	12	11	0	6	10	14	17	12	3	2	0	2	0	0	0	12	0	7
October	10.0	NE.	42	N.	4	13	22	9	3	2	3	2	8	0	3	7	21	14	9	12	8	0	2	1	18	0	27	0	16
November	12.3	NE.	51	SE.	3	10	27	10	3	1	1	2	6	0	4	7	19	17	13	21	17	0	0	0	26	0	30	0	15
December	14.2	NE.	54	NE.	11	5	21	15	2	6	0	4	9	0	6	6	19	20	15	23	20	0	5	3	29	0	31	0	9
Year		NE.													91	93	181	160	104							0			

* By eye observations at this station.
† For hours of observation see note on preceding page.

Annual meteorological summaries for the year ending December 31, 1931—Continued

TANANA, ALASKA

[ϕ=65° 10′ N.; λ=152° 06′ W.]

Month	Pressure			Temperature								Moisture																
		Extremes		Mean						Extremes		Dew point			Relative humidity			Vapor pressure			Precipitation			Cloudiness			
	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
	In. *	*In.*	*In.*	° †	°	° †	°	°	°	°	°	°	°	°	%	%	%	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	†		†	
January	29.28	29.92	28.78	−0.3		1.1	6.0	−7.7	−0.8	23	−27										0.47	0.27	4.4	3.7		5.2	4.4
February	29.29	29.91	28.72	5.3		14.6	23.3	−0.1	11.6	43	−33										.41	.20	5.5	4.8		4.6	4.3
March	29.83	30.39	29.28	3.1		13.8	16.4	−3.5	6.4	31	−20										.14	.10	1.5	2.9		3.0	3.0
April	29.66	30.30	28.84	16.1		29.9	33.2	11.5	22.4	59	−14										.36	.15	.5	3.9		5.4	4.8
May	29.62	30.20	29.08	32.9		44.9	49.4	29.6	39.5	68	14										.64	.18	T.	6.5		6.2	6.1
June	29.55	29.94	29.24	45.0		64.3	68.1	42.6	55.4	81	31										.93	.22	.2	5.6		5.6	5.4
July	29.61	29.91	29.29	47.1		62.8	67.9	44.8	56.4	80	34										1.75	.55	0	6.9		7.7	7.0
August	29.66	29.93	28.99	44.1		60.2	63.6	40.0	51.8	69	25										3.39	.60	0	6.0		6.2	6.0
September	29.61	29.95	29.05	36.3		46.9	50.4	32.9	41.6	62	15										2.78	.55	0	7.1		7.0	6.8
October	29.37	29.92	28.83	18.6		26.2	28.8	13.2	21.0	45	−4										1.47	.35	14.5	5.5		6.8	6.1
November	29.57	30.34	28.90	7.4		9.4	14.6	−1.1	6.8	36	−38										2.80	1.00	31.1	6.6		7.2	7.0
December	29.48	30.06	28.87	−9.0		−6.8	−0.4	−18.6	−9.5	31	−48										1.67	.59	19.7	5.7		6.7	6.3
Year	29.54	30.39	28.72	20.6		30.6	35.1	15.3	25.2	81	−48										16.81	1.00	77.4	5.4		6.0	5.6

* No diurnal correction applied.
† Observations at 1.30 a. m. and 1 p. m., one hundred and fiftieth meridian time.

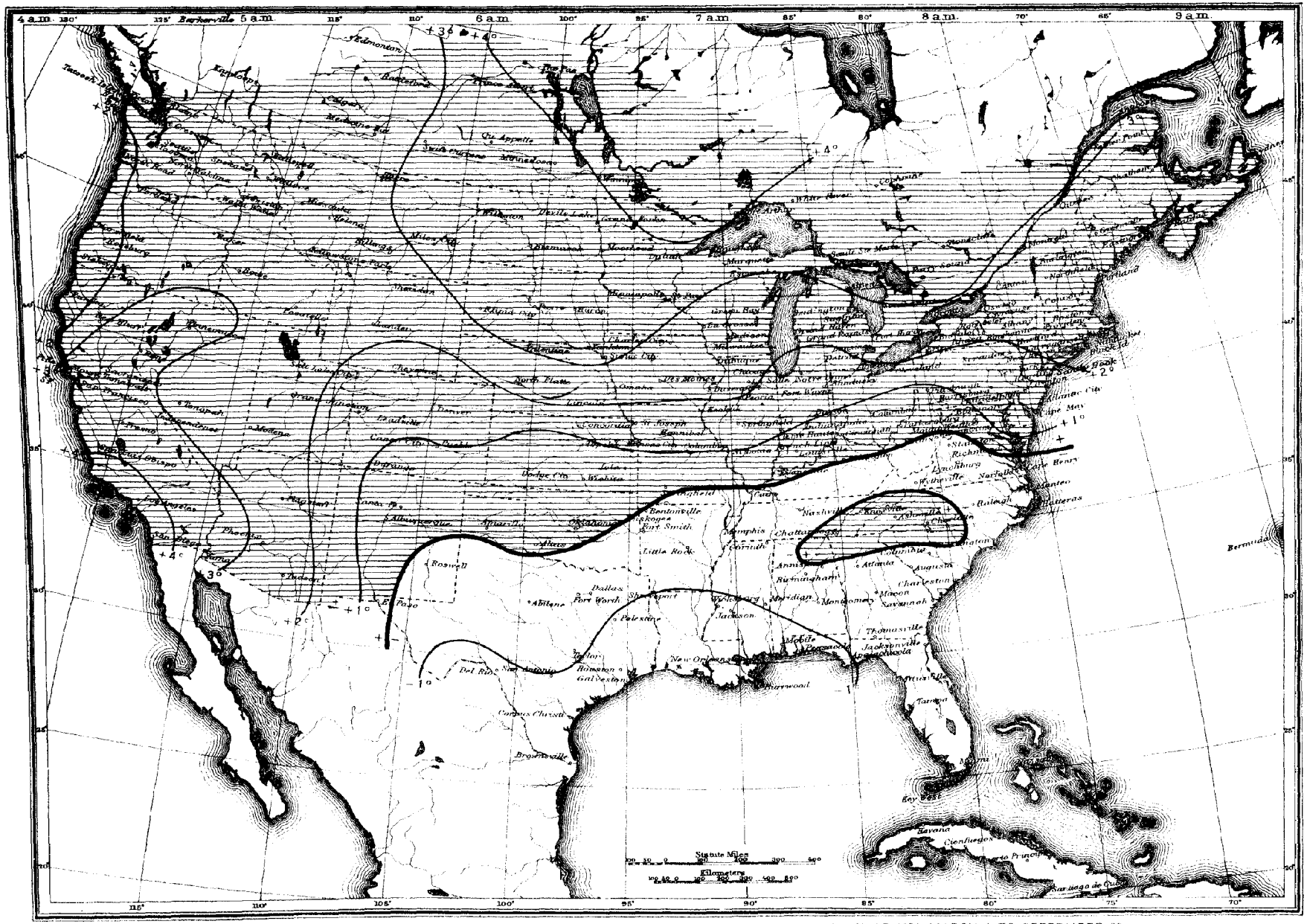
Annual meteorological summaries for the year ending December 31, 1931—Continued

TANANA, ALASKA †

[H_b=228 ft.; h_1=4 ft.; h_f=3 ft.; h_s=— ft.]

Month	Wind													Number of days															
	By self-register					Number of winds, 8 a. m. and 8 p. m.											Precipitation		Snow			Fog		Maximum temp.		32°	Electricity	
	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 33 miles and over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T. or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
	Mi.	*	*Mi.*																										
January		SE.				0	7	2	35	1	2	1	4	10	12	15	4	5	2	6	5	0	1	0	31	0	31	0	16
February		NE.				5	13	12	6	1	2	4	3	10	13	9	6	6	5	14	6	0	1	1	22	0	28	0	2
March		SE.				0	14	1	28	0	0	1	5	13	20	5	6	2	2	3	2	0	0	0	31	0	31	0	18
April		SE.				3	5	0	24	3	1	1	8	15	13	9	8	5	4	5	2	0	0	0	17	0	26	0	5
May		SE.				4	1	0	33	3	4	3	9	5	8	10	13	12	6	7	2	1	0	0	0	0	22	0	0
June		SW.				4	1	1	13	6	19	1	14	1	6	18	6	13	8	2	1	0	0	0	0	0	2	2	0
July		SW.				5	0	0	13	7	19	0	16	2	4	10	17	14	10	0	0	0	0	0	0	0	0	0	0
August		SW.				3	1	1	13	3	16	2	5	18	10	0	12	15	13	0	0	0	0	2	0	0	12	1	6
September		SE.				0	1	0	13	2	12	0	6	26	4	12	14	15	14	0	0	1	0	0	0	0	14	0	8
October		SE.				2	6	1	18	4	2	2	6	21	8	11	12	13	13	13	10	0	0	0	20	0	31	0	10
November		SE.				0	8	1	24	0	6	0	4	17	0	6	18	15	11	18	15	0	0	0	28	0	30	0	8
December		SE.				0	6	1	27	0	1	1	5	21	8	7	16	13	9	14	13	0	0	0	31	0	31	0	9
Year		SE.				26	63	20	247	30	84	16	85	159	112	121	132	128	98	82	56	3	2	3	180	0	258	3	82

* By eye observations at this station.
† For hours of observation see note on preceding page.



DEPARTURE FROM NORMAL TEMPERATURE, IN DEGREES FAHRENHEIT, FOR THE CROP SEASON OF 1931, MARCH 1 TO SEPTEMBER 30

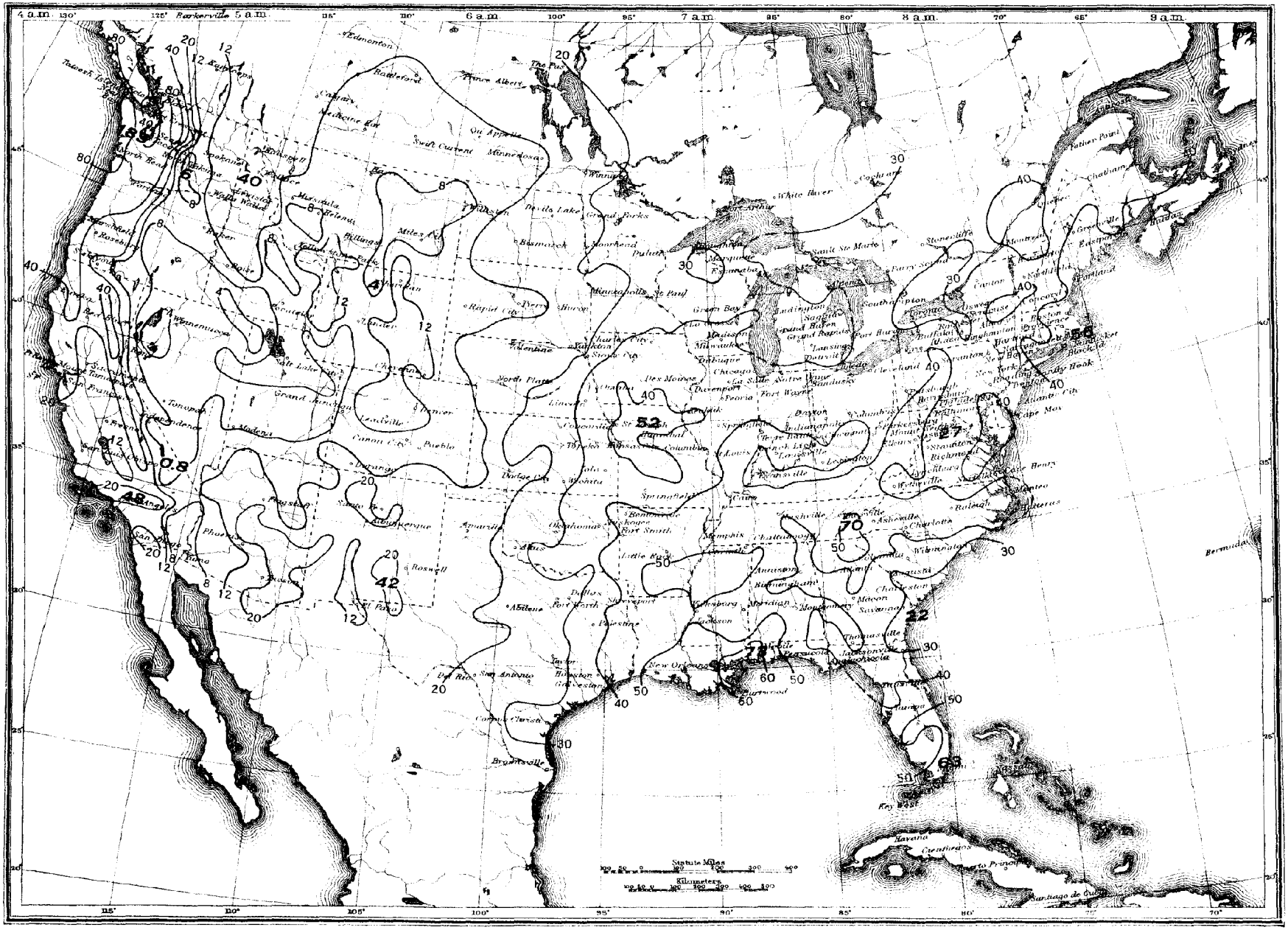
Shaded portions show excess (+) and unshaded portions deficiency (−) of temperature. Figures show mean daily excess (+) or deficiency (−) of temperature over areas bounded by light lines.

TOTAL PRECIPITATION, INCHES, FOR THE CROP SEASON OF 1931, MARCH 1 TO SEPTEMBER 30

CHART 3

DEPARTURE FROM NORMAL PRECIPITATION FOR THE CROP SEASON OF 1931, MARCH 1 TO SEPTEMBER 30

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



TOTAL PRECIPITATION, INCHES, FOR THE YEAR 1931