The destruction due to this typhoon must be considered under two divisions: That due to the typhoon center as it passed over southern Luzon, from San Bernardino Strait to the China Sea, and that due to the heavy rains over Isabela Province. The ruin from the latter was very extensive. On December 2 and 3, as the typhoon moved across the Archipelago toward the China Sea three lives were lost together with considerable damage to houses of light material and to crops. On December 3, however, there were heavy rains over the headwaters of the Cagayan River due to the front between the southeasterly winds of the typhoon and the northeast monsoon air. The result was a terrible flood along the Cagayan River valley; the damage was greatest in Isabela Province. The provincial governor reported that one family was carried on a raft from their town in Isabela Province to a point about three miles from the mouth of the river because there was no chance to rescue them along the course of the river. The rich tobacco land along the banks of the river has been almost useless because of the thick deposit of gravel and sand left by the waters. The people suffered greatly; towns and cities along the banks were washed away suddenly by the rapid onrush of the flood. On December 18, after the government officials had visited the region and made their reports, a report of 67 dead and 173 missing was made to the public. The rainfall reports received from Echague, Isabela Province, during the period of the flood, are as follows: for the 24-hour periods ending at 6 a. m. December 3, 1.23 inches; 6 a. m. December 4, 6.81 inches; and 6 a. m. December 5, 1.68 inches. These are the only data available at present concerning the intensity of the rainfall, which caused these destructive floods so far from the path of the center of the typhoon.

Depression, December 16 to 24.—From December 16, 2 p. m., until the 18th, there existed a low-pressure area over the Western Caroline Islands, having only a vague center which moved toward the Philippines. On the morning of the 19th, there seemed to be a depression about 300 miles east of Mindanao. From the data available at the time, it was apparently moving west-northwest toward Surigao Strait. Later on, however, it was located south of Mindanao, so that its course on December 19 and 20 was west-southwest. It continued west-southwest across southern Mindanao, crossed the Moro Gulf inclining westward, passed over the northern part of the Sulu Archipelago during the afternoon of December 21, moving west by north, and entered the China Sea through the Balabac Strait. Not until December 24 could one be sure that it had filled up. At no portion of its course did it appear to have any great intensity.

Depression, December 21 to 26.—A low-pressure area over the western Caroline Islands, December 21 to 23, finally manifested itself as a depression central about 180 miles west by north of Palau Island. From this position it moved northwest to the island of Samar and was located between Borongan and Calbayog at 6 a. m. December 24. It changed its course to the west and crossed the Visayan Islands during the forenoon and afternoon. The next day, it was in the China Sea and was becoming weaker; on December 26 it was reported to be filling up. At no time were there any strong winds at the surface; and the lowest barometer reading reported was 752.1 mm (29.610 inches) from Calbayog, Samar, on December 24 at 6 a. m. Even though the winds were not strong and the barometers were quite high, there was rainfall over a large area around the center of the depression.

CLIMATOLOGICAL TABLES

DESCRIPTION OF TABLES AND CHARTS

(J. P. Kohler)

Table 1 presents average and extreme values for 45 climatic districts, based on all available data ascertained by regular and cooperative Weather Bureau stations.

Table 2 gives the data ordinarily needed for climatological studies for about 180 Weather Bureau stations making simultaneous observations at 7:30 a. m. and 7:30 p. m. daily, seventy-fifth meridian time, and for about 20 others making only one observation. The altitudes of the instruments above ground are also given.

Beginning with January 1, 1932, all wind movements and velocities published herein are corrected to true values by applying to the anemometer readings corrections determined by actual tests in wind tunnels and elsewhere.

Table 3 gives, for about 37 stations of the Canadian Meteorological Service, the means of pressure and temperature, total precipitation, depth of snowfall, and the respective departures from normal values except in the case of snowfall. The sea-level pressures have been computed according to the method described by Prof. F. H. Bigelow in the REVIEW of January 1902, **30:** 13–16.

Table 4 lists the severe local storms reported in the United States during the month. It is compiled from reports furnished mostly by officials of the Weather Bureau.

CHART I.—*Temperature departures.*—This chart presents the departures of the monthly mean surface temperatures from the monthly normals. The shaded portions of the chart indicate areas of positive departures and unshaded portions indicate areas of negative departures. Generalized lines connect places having approximately equal departures of like sign. This chart of monthly surface temperature departures in the United States was first published in the MONTHLY WEATHER REVIEW for July 1909, but smaller charts appear in W. B. Bulletin U for 1873 to June 1909, inclusive.

CHART II.—*Tracks of centers of* ANTICYCLONES; and

CHART III.—*Tracks of centers of* CYCLONES. The roman numerals show the chronological order of the centers. The figures within the circles show the days of the month, the location indicated being that at 7:30 a. m., seventy-fifth meridian time. Within each circle is also an entry of the last three figures of the highest barometric reading (chart II) or (chart III) the lowest reading reported at or near the center at that time, in both cases as reduced to sea level and standard gravity. The intermediate 7:30 p. m. locations are indicated by dots. The inset map on chart II shows the departure of monthly mean pressure from normal and the inset on chart III shows the change in mean pressure from the preceding month.

The use of a new base map for charts II and III began with the January 1930 issue.

CHART IV.—*Percentage of clear sky between sunrise and sunset.*—The average cloudiness at each regular Weather Bureau station is determined by numerous personal observations between sunrise and sunset. The difference between the observed cloudiness and 100 is assumed to represent the percentage of clear sky, and the values thus obtained are the basis of this chart. The chart does not relate to the night hours.

CHART V.—*Total precipitation.*—The scales of shading with appropriate lines show the distribution of the monthly precipitation according to reports from both regular and cooperative observers. The inset on this chart shows the departure of the monthly totals from the corresponding normals, as indicated by the reports from the regular stations.

CHART VI.—*Isobars at sea level and isotherms at surface; prevailing winds.*—The pressures have been reduced to sea level and standard gravity by the method described by Prof. Frank H. Bigelow in the REVIEW for January 1902, **30:** 13–16. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of 7:30 a. m. and 7:30 p. m. readings at stations taking two observations daily, and to the 7:30 a. m. or the 7:30 p. m. observation at stations taking but a single observation.

The diurnal corrections so applied, except for stations established since 1901, will be found in the Annual Report of the Chief of the Weather Bureau, 1900–1901, volume 2, table 27, pages 140–164.

The sea-level temperatures are now omitted and average surface temperatures substituted. The isotherms cannot be drawn in such detail as might be desired, for data from only the regular Weather Bureau stations are used.

The prevailing wind directions are determined from hourly observations at almost all the stations. A few stations determine their prevailing directions from the daily or twice-daily observations only.

CHART VII.—*Wind roses for selected stations.*—The publication of this chart began in the REVIEW for January 1935 and gives wind roses for 28 selected stations. The roses are based on hourly percentages for the month.

CHART VIII.—*Total snowfall.*—This is based on the reports from regular and cooperative observers and shows the depth in inches of the snowfall during the month. In general the depth is shown by lines connecting places of equal snowfall, but in special cases figures also are given. This chart is published only when the snowfall is sufficiently extensive to justify its preparation. The inset on this chart, when included, shows the depth of snow on the ground at 7:30 p. m. of the Monday nearest the end of the month and is a copy of the snow chart appearing in the snow and ice bulletin for that week.

CHARTS IX, X, ETC.—*North Atlantic weather maps for particular days.*

CONDENSED CLIMATOLOGICAL SUMMARY

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

TABLE 1.—*Condensed climatological summary of temperature and precipitation by sections, January 1937*

Section	Temperature								Precipitation					
	Section average	Departure from the normal	Monthly extremes						Section average	Departure from the normal	Greatest monthly		Least monthly	
			Station	Highest	Date	Station	Lowest	Date			Station	Amount	Station	Amount
	° F.	° F.		° F.			° F.		In.	In.		In.		In.
Alabama	58.7	+12.3	Evergreen	86	18	Florence	22	4	8.54	+3.70	Cordova	15.35	Geneva	2.63
Arizona	32.9	−10.7	Granite Reef	82	7	Fort Valley	−31	22	1.73	+.47	Fort Valley	4.63	2 stations	.10
Arkansas	41.8	+.5	Portland	80	8	3 stations	9	[1] 22	12.61	+8.22	Big Lake Outlet	21.26	Fort Smith	4.41
California	34.4	−10.2	Yorba Linda	71	10	Boca	−45	20	3.92	−.89	Upper Mattole	14.66	El Centro	.03
Colorado	13.9	−10.0	Walsenburg	78	12	Sunbeam (near)	−47	[1] 9	.77	+.01	Pagosa Springs (near)	12.95	Haswell	T
Florida	69.3	+10.1	Daytona Beach	92	15	Quincy	39	28	1.78	−1.01	Jacksonville	4.52	Clermont	.00
Georgia	58.1	+11.0	Fargo	87	10	Dahlonega	26	4	6.85	+2.53	Clayton	13.89	Waycross	1.35
Idaho	8.8	−15.0	Bungalow	56	16	Tetonia	−48	21	1.83	−.37	Roland	4.88	Challis	.08
Illinois	28.3	+1.8	Cairo	67	14	Henry	−12	23	5.98	+3.64	Brookport	19.03	La Salle	2.01
Indiana	33.4	+4.3	Seymour	75	9	Albion	−13	[1] 23	9.91	+6.74	Evans Landing	21.39	Whiting	1.92
Iowa	12.8	−5.6	Keokuk	46	6	2 stations	−30	[1] 10	2.25	−1.15	Melrose	4.79	Lenox	.48
Kansas	21.3	−8.3	Johnson	63	16	Bun Oak	−20	23	1.40	+.73	Pittsburg	5.33	2 stations	T
Kentucky	43.6	+7.6	Pippapass	76	8	Lovelaceville	13	23	15.75	+11.18	Earlington	22.97	Pikeville	8.39
Louisiana	59.1	+7.3	3 stations	85	[1] 10	Ruston	25	23	8.72	+3.79	Melville	18.87	Port Eads	1.44
Maryland-Delaware	41.9	+7.9	Takoma, Md	77	9	2 stations	11	5	7.52	+4.22	Millsboro, Del	11.46	Keedysville, Md	4.63
Michigan	23.7	+2.7	St. Joseph	63	8	Bessemer	−27	26	2.32	+.48	Painesdale	6.21	St. Ignace	.60
Minnesota	−.8	−10.0	Winona	42	4	Pokegama Falls	−47	19	1.45	+.69	Pigeon River Bridge	3.51	Hastings	.44
Mississippi	55.7	+8.2	Forest	88	22	Tunica	21	23	11.43	+6.26	Hickory	21.48	Biloxi	1.79
Missouri	28.5	−2.3	Caruthersville	70	14	Louisiana	−15	23	6.38	+3.99	Parma	16.61	2 stations	2.16
Montana	−.4	−19.7	Simpson (near)	48	4	Seeley Lake	−53	7	.77	−.11	Hebgen Dam	3.44	Mildred	.05
Nebraska	9.9	−13.0	2 stations	49	4	Gordon	−27	7	.89	+.37	Tecumseh	2.27	Kowanda	T
Nevada	13.5	−15.8	Las Vegas	61	31	San Jacinto	−50	8	1.46	+.27	Marlette Lake	6.34	Thorne	.23
New England	30.8	+8.1	Fitchburg, Mass	68	25	Fort Kent, Maine	−26	28	4.36	+.85	Old Greenwich, Conn.	8.19	Burlington, Vt	1.63
New Jersey	40.3	+9.4	Hammonton	72	9	Dayton	9	28	6.30	+2.73	Indian Mills	8.31	Sandy Hook	4.61
New Mexico	26.5	−7.1	Hatch	77	28	Gavilan (near)	−37	22	.38	−.18	Bateman's ranch	2.26	8 stations	.00
New York	31.5	+8.2	Cairo	68	15	North Lake	−16	27	4.86	+1.89	High Market	8.51	Avon	1.68
North Carolina	51.8	+10.1	Sloan	85	14	Mount Mitchell	13	4	7.85	+4.04	Highlands	14.25	Willard	3.33
North Dakota	−8.3	−14.9	3 stations	38	[1] 3	3 stations	−44	[1] 7	.67	+.22	Fullerton	2.41	Dunn Center	.04
Ohio	35.9	+7.4	do	72	8	Holgate	−9	23	9.42	+6.31	Fernbank	14.88	Montpelier	4.58
Oklahoma	32.4	−5.4	Smithville	76	8	2 stations	−8	[1] 6	2.22	+.79	Grove	7.81	Boise City	.07

TABLE 1.—*Condensed climatological summary of temperature and precipitation by sections, January 1937*—Continued

Section	Temperature: Section average	Temperature: Departure from the normal	Monthly extremes: Station	Highest	Date	Station	Lowest	Date	Precipitation: Section average	Departure from the normal	Greatest monthly: Station	Amount	Least monthly: Station	Amount
	° F.	° F.		° F.			° F.		In.	In.		In.		In.
Oregon	17.7	−13.9	Spray	56	15	Austin	−52	8	3.64	−0.23	Valsetz	15.50	Lake	0.26
Pennsylvania	36.7	+8.2	Uniontown	71	8	Corry	5	24	6.36	+3.08	Lycippus	10.54	Lawrenceville	2.63
South Carolina	55.4	+9.6	Kingstree	85	25	Caesars Head	23	4	6.84	+3.24	Caesars Head	14.39	Effingham	3.43
South Dakota	1.0	−15.6	Hot Springs	47	12	Pollock	−36	22	.83	+.28	Aberdeen	2.23	Oelrichs	.04
Tennessee	48.0	+8.8	Dickson	80	14	Newbern	12	23	14.74	+9.83	McKenzie	23.90	Erwin	5.98
Texas	45.8	−2.4	Riogrande	92	17	Dalhart	−4	[1] 8	2.14	+.45	Lufkin	11.67	3 stations	.00
Utah	10.3	−14.7	2 stations	47	[1] 29	Lewiston	−44	21	1.69	+.48	Silver Lake	5.62	Manila	.08
Virginia	45.5	+8.9	Diamond Spring	79	18	Mountain Lake	13	4	8.01	+4.67	Pennington Gap	12.34	Woodstock	4.30
Washington	17.3	−13.2	Mottinger	50	4	Deer Park (near)	−42	20	2.79	−2.44	Berne	12.01	Oroville	.37
West Virginia	43.2	+10.4	2 stations	78	[1] 8	2 stations	11	[1] 5	8.50	+4.77	Huntington	12.07	McNeill	4.04
Wisconsin	12.2	−2.8	3 stations	44	[1] 13	Hatfield	−41	10	2.25	+1.03	Shawano	3.94	Weyerhauser	.71
Wyoming	4.9	−14.9	2 stations	50	[1] 15	West Yellowstone	−56	21	.62	−.17	Bechler River	6.68	2 stations	T
Alaska (December)	3.4	−2.6	Wrangell	57	1	Fort Yukon	−65	[1] 22	3.13	+.36	Baranof	27.73	Barrow	.00
Hawaii	68.3	−.4	Mana Pump	89	27	Kanalohuluhulu	38	7	15.65	+4.98	Piihonua	59.00	Kekaha	.64
Puerto Rico	71.5	−.9	Juncos	90	[1] 2	Guineo Reservoir	42	[1] 6	10.22	+6.76	La Mina (El Yunque).	39.75	Central San Francisco.	.97

[1] Other dates also.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1937*

[Compiled by Morton J. Serlin, by official authority, U. S. Weather Bureau]

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station, reduced to mean of 24 hours	Sea level, reduced to mean of 24 hours	Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Mean wet thermometer	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Departure from normal	Days with 0.01 inch, or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month
	Ft.	Ft.	Ft.	In.	In.	In.	°F.	°F.	°F.		°F.	°F.		°F.	°F.	°F.	°F.	%	In.	In.		Miles								0–10	In.	In.
New England							32.6	+9.3										78	4.03	+0.6										7.0		
Eastport	76	67	85	30.14	30.23	+0.23	28.4	+8.0	49	3	36	1	27	20	30	27	24	82	3.05	−.9	13	11.2	nw.	30	e.	3	7	8	16	6.6	9.2	0.1
Greenville, Maine	1,070	6	40	28.98	30.22	------	19.8	------	48	9	31	−10	27	8	38	18	16	90	3.64	------	13	7.4	nw.	26	------	9	7	11	13	5.6	11.0	9.0
Portland, Maine	103	82	117	30.12	30.25	+.20	31.6	+9.2	55	9	39	10	27	24	27	28	22	70	4.64	+.7	16	8.0	n.	19	ne.	2	12	1	18	5.9	5.6	T
Concord	289	60	79	------	------	------	29.6	+8.0	62	15	39	6	28	20	28	------	------	------	3.44	+.4	14	------	nw.	------	------	------	7	8	16	------	12.8	------
Burlington	403	11	48	29.76	30.23	+.18	27.6	+8.8	57	9	36	0	27	20	27	25	21	77	1.63	−.1	13	12.1	s.	37	s.	21	4	6	21	7.5	4.4	2.2
Northfield	876	12	60	29.25	30.24	+.19	26.3	+11.1	62	9	36	−1	28	17	31	24	19	76	2.37	.0	14	9.2	s.	30	s.	14	6	5	20	7.2	5.6	1.5
Boston [1]	29	31	50	30.22	30.25	+.20	37.4	+9.5	64	9	45	15	28	30	28	33	28	71	3.93	+.3	15	10.4	w.	39	s.	3	6	5	20	7.3	2.0	.0
Nantucket	12	14	90	30.24	30.24	+.20	40.0	+8.7	56	3	45	25	28	35	24	37	34	84	4.09	+.3	16	16.2	sw.	39	s.	31	4	4	23	8.3	1.5	.0
Block Island	26	11	46	30.22	30.25	+.18	39.5	+8.5	54	3	45	24	28	34	24	37	35	85	4.51	+.7	17	17.4	sw.	39	se.	17	4	5	22	7.8	3.1	.0
Providence	160	215	251	30.08	30.26	+.20	37.6	+10.4	65	9	45	14	28	30	29	34	30	75	4.61	+.9	14	10.9	nw.	32	nw.	16	8	4	19	7.1	3.5	.0
Hartford	159	70	104	30.09	30.27	+.20	35.8	+10.3	64	9	43	13	28	29	23	------	------	------	5.81	+1.9	14	8.0	n.	23	nw.	16	8	6	17	6.8	4.2	.0
New Haven	106	74	153	30.15	30.28	+.20	37.6	+9.4	64	9	44	17	28	31	29	34	28	73	6.68	+2.7	15	9.3	n.	27	sw.	18	6	6	19	7.4	4.3	.0
Middle Atlantic States							41.7	+9.6										80	6.09	+2.8										8.3		
Albany	97	97	112	30.16	30.27	+.20	33.0	+9.9	55	15	40	11	28	26	24	29	24	74	2.61	+.2	18	7.9	s.	27	s.	14	7	5	19	7.4	5.4	.5
Binghamton	871	57	79	29.27	30.24	+.16	33.3	+9.2	63	8	41	6	24	26	33	------	------	------	4.13	+1.7	16	6.7	nw.	24	se.	2	3	8	20	8.1	6.9	.0
New York	314	415	454	29.91	30.26	+.16	40.4	+9.5	65	15	47	24	27	34	24	36	31	72	6.01	+2.4	15	14.0	n.	41	sw.	15	5	6	20	7.6	3.9	.0
Harrisburg	374	94	104	29.84	30.26	+.16	37.7	+8.7	67	15	44	22	28	32	27	34	30	78	5.34	+2.2	18	7.0	ne.	28	sw.	15	2	6	23	8.7	3.7	.0
Philadelphia	114	174	367	30.14	30.27	+.16	41.4	+8.8	67	9	48	25	17	35	26	39	35	80	5.71	+2.4	16	13.1	sw.	36	s.	15	2	5	24	8.4	.4	.0
Reading	323	283	306	29.90	30.27	------	38.8	+9.4	68	15	45	23	28	33	29	35	31	77	5.05	+1.5	16	10.6	nw.	38	sw.	15	2	8	21	8.1	1.7	.0
Scranton	805	72	104	29.37	30.26	+.17	35.4	+8.8	66	15	42	17	24	28	31	32	27	74	4.18	+1.2	19	6.4	sw.	26	nw.	15	2	12	17	7.5	4.0	.0
Atlantic City	52	37	172	30.20	30.26	+.15	43.4	+10.9	61	9	49	28	27	38	23	41	38	81	6.88	+3.4	18	17.2	n.	42	ne.	20	0	4	27	9.3	.0	.0
Sandy Hook	22	10	57	30.23	30.25	------	40.4	+9.1	63	15	45	28	27	35	22	38	35	82	4.61	+.6	15	15.1	ne.	41	sw.	15	5	5	21	7.7	1.5	.0
Trenton	190	88	106	30.06	30.27	------	39.7	+9.2	67	9	46	23	28	33	26	38	35	85	5.43	+2.1	15	9.7	n.	31	s.	15	3	8	20	7.7	1.7	.0
Baltimore	123	100	215	30.13	30.26	+.14	43.5	+9.7	75	9	50	28	27	37	27	40	35	75	6.74	+3.2	17	10.4	ne.	30	sw.	18	3	2	26	8.5	.0	.0
Washington	112	62	85	30.13	30.26	+.13	43.8	+10.4	76	9	50	29	27	37	23	40	36	76	7.83	+4.3	18	7.4	ne.	21	nw.	18	2	5	24	8.5	T	.0
Cape Henry	18	8	54	30.22	30.24	------	51.9	+11.7	78	18	58	34	5	45	29	49	47	87	5.88	+2.7	20	13.6	ne.	54	n.	29	1	1	29	8.9	T	.0
Lynchburg	686	148	184	29.51	30.27	+.14	45.3	+7.8	74	10	53	25	5	38	35	42	39	82	8.49	+5.1	19	7.5	sw.	24	sw.	14	1	6	24	8.6	.0	.0
Norfolk	91	80	125	30.15	30.26	+.13	51.8	+11.2	77	18	59	37	5	45	30	48	46	85	8.46	+5.4	21	11.4	ne.	42	n.	29	1	0	30	9.4	.0	.0
Richmond	144	11	52	30.11	30.26	+.12	46.4	+8.5	72	10	53	28	5	40	32	44	41	85	10.08	+6.9	22	9.4	ne.	26	sw.	18	2	2	27	9.0	.0	.0
Wytheville	2,304	49	55	------	30.20	+.06	42.9	+9.9	71	22	51	22	5	35	34	------	------	84	6.05	+3.0	19	6.5	e.	27	w.	3	2	6	23	------	.0	.0
South Atlantic States							56.0	+11.3										88	5.56	+1.6										8.4		
Asheville	2,253	89	104	27.82	30.20	+.05	49.6	+14.2	74	10	56	26	4	43	28	46	43	83	6.87	+3.8	17	10.4	se.	25	se.	17	0	11	20	8.3	.0	.0
Charlotte	779	63	86	29.38	30.24	+.09	49.4	+8.2	74	22	56	31	28	43	29	47	45	86	7.74	+3.7	20	8.4	ne.	25	sw.	22	0	3	28	9.2	.0	.0
Greensboro [1]	886	6	56	29.27	30.24	------	46.0	------	70	10	52	28	4	40	27	44	42	90	8.24	------	23	9.7	ne.	26	ne.	28	1	4	26	9.3	.0	.0
Hatteras	11	5	50	------	30.22	+.08	59.4	+12.3	74	14	65	46	6	54	21	------	------	90	5.77	+1.4	19	15.6	sw.	66	n.	29	5	7	19	------	.0	.0
Raleigh	376	103	146	29.82	30.23	+.10	50.8	+9.7	77	23	58	34	28	44	34	49	48	92	7.14	+3.5	23	9.6	ne.	32	n.	28	1	4	26	8.8	.0	.0
Wilmington	72	73	107	30.15	30.23	+.09	59.6	+13.1	80	23	68	39	28	52	26	55	53	88	4.26	+1.0	17	9.6	ne.	27	s.	15	0	9	22	8.2	.0	.0
Charleston	48	11	92	30.15	30.20	+.05	61.7	+11.8	82	23	68	43	29	56	20	58	57	90	3.91	+.9	14	10.3	sw.	29	ne.	27	1	7	23	8.5	.0	.0
Columbia, S. C.	347	70	91	29.84	30.23	+.08	56.0	+10.0	78	22	63	35	28	49	25	52	49	84	4.10	+.7	21	9.0	ne.	25	sw.	15	0	8	23	8.5	.0	.0
Greenville, S. C.	1,039	139	146	------	------	------	49.8	+9.5	72	23	56	32	28	43	28	------	------	------	8.12	------	21	------	ne.	------	------	------	2	5	24	------	.0	.0
Augusta	182	62	77	30.00	30.19	+.03	57.9	+10.9	79	22	65	36	28	51	24	54	52	86	4.22	+.3	22	6.3	ne.	21	sw.	18	1	6	24	8.6	.0	.0
Savannah	65	73	152	30.12	30.19	+.04	64.0	+12.6	82	25	71	43	29	57	22	59	57	90	1.84	−.9	12	10.4	s.	25	sw.	18	2	9	20	7.9	.0	.0
Jacksonville	43	86	110	30.13	30.18	+.03	67.5	+12.1	83	20	74	44	29	60	21	62	61	90	4.52	+1.7	10	7.8	s.	22	ne.	27	5	13	13	6.7	.0	.0

[1] Observations taken at airport.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1937*—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station, reduced to mean of 24 hours	Pressure: Sea level, reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Mean wet thermometer	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Days with 0.01 inch, or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month
	Ft.	Ft.	Ft.	In.	In.	In.	° F.	° F.	° F.		° F.	° F.		° F.	° F.	° F.	° F.	%	In.	In.		Miles								0-10	In.	In.
Florida Peninsula							74.0	+9.5										82	1.05	-1.1										4.4		
Key West	22	10	64	30.06	30.08	-.02	77.0	+7.5	84	28	81	70	23	73	13	70	68	81	.84	-1.1	12	11.6	e.	20	e.	20	15	14	2	3.7	0.0	0.0
Miami	25	124	168	30.10	30.13	.00	75.4	+8.9	82	27	78	68	31	73	11	69	67	78	1.30	-1.2	10	11.8	e.	24	e.	9	9	18	4	4.8	.0	.0
Tampa	35	88	197	30.10	30.14	+.02	72.4	+12.0	85	5	80	56	29	64	26	66	64	87	1.72	-1.0	6	10.7	se.	23	s.	22	5	21	5	5.8	.0	.0
Titusville	43	5	36	30.10	30.15	------	71.3	----	85	25	80	54	31	62	26	----	----	----	.35	------	9	------	se.	----	----	----	11	16	4	----	.0	.0
East Gulf States							59.9	+11.3										87	7.19	+2.5										8.6		
Atlanta [1]	976	5	53	29.13	30.17	+.02	53.0	+10.4	76	24	60	32	4	46	21	50	48	89	8.88	+3.9	18	9.0	e.	25	sw.	22	0	3	28	9.2	.0	.0
Macon	370	79	87	29.78	30.18	+.02	58.8	+12.0	79	23	66	37	28	52	24	55	52	85	4.21	.0	18	7.2	s.	21	ne.	28	1	6	24	8.5	.0	.0
Thomasville	273	49	58	29.85	30.16	.00	64.7	+13.7	80	9	72	40	29	57	25	60	58	89	4.47	+.4	11	------	s.	----	----	----	0	8	23	----	.0	.0
Apalachicola	35	11	----	30.10	30.14	------	64.6	+10.9	76	22	69	45	29	60	16	62	61	92	1.31	-2.3	11	9.5	se.	25	e.	28	0	9	22	8.1	.0	.0
Pensacola	56	149	185	30.06	30.12	-.02	63.2	+10.7	76	31	68	46	29	59	17	62	.60	91	2.17	-1.8	15	13.8	se.	29	se.	31	2	19	10	6.9	.0	.0
Anniston	741	9	----	------	------	------	57.2	+15.0	78	22	65	29	4	50	26	----	----	----	9.30	+4.2	25	------	s.	----	----	----	2	8	21	----	.0	.0
Birmingham	700	11	48	29.36	30.13	-.03	56.4	+11.3	78	22	63	31	4	49	27	53	50	86	13.37	+7.8	20	9.2	se.	25	s.	14	0	4	27	9.0	.0	.0
Mobile	57	86	105	30.04	30.10	-.05	63.0	+11.5	78	31	69	45	4	57	20	60	58	88	4.03	-.8	12	10.8	s.	25	sw.	2	0	4	27	8.8	.0	.0
Montgomery	218	92	105	29.90	30.15	-.01	60.4	+12.2	81	22	67	39	4	53	22	57	54	85	4.66	-.5	16	8.3	e.	21	sw.	18	0	6	25	8.7	.0	.0
Meridian	375	67	92	29.70	30.11	-.05	57.6	+10.6	80	22	66	34	4	50	31	54	52	84	18.77	+13.4	20	8.0	s.	22	sw.	17	0	3	28	9.1	.0	.0
Vicksburg	247	65	73	29.83	30.10	-.05	54.7	+6.5	79	22	63	30	23	46	41	51	48	83	11.19	+5.8	21	8.4	n.	22	s.	20	0	6	25	9.0	.0	.0
New Orleans	53	76	84	30.02	30.08	-.05	65.5	+11.3	83	18	72	48	4	59	25	62	60	87	3.93	-.4	19	8.2	se.	19	se.	7	0	5	26	8.7	.0	.0
West Gulf States							48.4	-0.2										86	4.49	+1.7										8.1		
Shreveport	249	92	227	29.80	30.08	-.06	50.2	+3.2	77	7	58	29	23	43	32	47	45	85	8.39	+4.5	21	10.8	ne.	34	nw.	14	2	5	24	8.7	.0	.0
Bentonville	1,303	12	38	28.71	30.11	-.03	33.1	-1.0	59	20	42	10	22	24	29	----	----	----	7.05	+4.4	14	7.5	e.	24	w.	8	3	8	20	----	8.9	T
Fort Smith	457	79	94	29.59	30.09	-.05	37.7	-1.8	62	20	45	19	23	31	27	35	32	81	4.41	+1.9	13	8.7	e.	25	w.	2	3	4	24	8.2	1.0	.0
Little Rock	357	94	102	29.72	30.11	-.04	41.8	+.4	71	7	49	20	23	35	38	40	37	86	18.04	+13.3	19	8.4	e.	24	nw.	8	3	1	27	8.8	T	.0
Austin	605	136	148	29.40	30.04	------	47.6	-1.9	78	7	55	25	9	40	44	45	43	86	2.43	+.4	22	7.6	n.	27	s.	7	1	7	23	8.7	.0	.0
Brownsville	57	88	96	29.89	29.95	------	61.4	+1.6	79	7	67	37	23	56	36	59	58	90	2.09	+.6	17	12.0	nw.	34	se.	21	0	8	23	8.7	.0	.0
Corpus Christi	20	11	78	29.97	29.99	-.11	57.2	+1.2	80	20	64	33	10	51	37	54	52	88	.42	-1.1	12	11.2	n.	35	s.	21	0	0	31	9.4	.0	.0
Dallas	512	220	227	29.50	30.06	------	41.8	------	68	30	50	19	9	34	36	39	36	85	1.50	-.9	17	10.8	nw.	31	w.	14	2	6	23	8.5	2.0	.0
Fort Worth	679	92	110	29.33	30.07	-.05	41.0	-4.4	75	30	49	18	9	33	37	----	----	----	1.71	-.3	13	9.3	n.	29	n.	22	2	5	24	8.3	4.2	.0
Galveston	54	106	114	29.97	30.03	-.10	57.2	+3.4	72	21	62	37	22	52	33	56	55	93	3.34	-.1	16	11.6	n.	26	s.	17	2	7	22	8.2	.0	.0
Houston	138	292	314	29.89	30.04	------	53.4	+.7	76	6	61	30	22	46	40	----	----	----	3.25	-.4	26	12.8	n.	32	se.	7	0	6	25	8.9	.0	.0
Palestine	510	64	72	29.52	30.07	-.05	46.9	-1.3	73	7	55	24	23	39	45	45	43	88	4.88	+1.4	20	7.8	n.	25	s.	13	2	3	26	9.1	.0	.0
Port Arthur	34	58	66	29.99	30.03	------	57.2	------	73	14	64	39	23	51	33	----	----	----	4.43	+.7	18	11.4	n.	31	se.	18	0	8	23	8.5	.0	.0
San Antonio	693	242	301	29.28	30.01	-.09	50.4	-1.9	81	7	59	26	23	42	48	47	44	82	.96	-.5	22	10.0	n.	33	se.	7	0	4	27	9.0	.0	.0
Ohio Valley and Tennessee							41.3	+8.2										82	12.06	+8.3										8.4		
Chattanooga	762	71	214	29.34	30.16	.00	53.3	+12.1	77	22	60	30	4	47	26	49	46	79	11.00	+5.7	20	9.2	se.	25	se.	2	1	7	23	8.4	0.0	0.0
Knoxville	995	66	84	29.09	30.16	+.01	51.4	+12.6	76	22	59	27	4	44	29	48	45	83	11.63	+7.0	18	6.7	ne.	22	se.	2	1	9	21	8.3	.0	.0
Memphis	399	78	86	29.68	30.11	-.05	44.4	+3.5	75	14	51	19	23	38	29	42	40	86	17.56	+12.8	20	8.5	n.	34	nw.	14	1	3	27	8.9	.0	.0
Nashville	546	168	188	29.57	30.16	.00	47.0	+8.4	73	21	55	27	16	39	33	44	42	84	14.75	+10.0	21	10.8	s.	32	nw.	14	2	4	25	9.0	.0	.0
Lexington	989	6	230	------	------	------	41.7	+8.8	71	8	50	21	4	34	34	----	----	----	15.10	+11.9	20	------	ne.	----	----	----	3	6	22	----	.2	.0
Louisville	525	188	234	29.59	30.19	+.05	40.2	+5.8	67	20	48	18	23	33	31	38	34	81	19.17	+15.2	19	11.2	n.	30	s.	14	3	3	25	8.6	T	.0
Evansville	431	76	116	29.68	30.16	+.02	38.1	+4.6	64	8	45	13	23	31	28	36	33	81	14.78	+11.0	18	10.4	n.	32	sw.	14	3	2	26	8.6	7.0	.0
Indianapolis	822	194	230	29.25	30.16	+.04	33.2	+4.8	60	14	41	4	23	25	32	31	28	81	8.05	+5.1	16	11.8	s.	33	w.	2	4	4	23	8.3	4.0	.0
Terre Haute	575	63	149	29.51	30.15	------	33.0	------	60	8	41	1	23	25	31	31	28	83	8.99	+6.3	15	10.4	sw.	30	sw.	4	5	5	21	7.5	4.2	.0
Cincinnati	627	11	51	29.49	30.20	+.08	38.6	+8.3	67	8	47	17	23	30	31	36	33	84	13.68	+10.2	16	8.7	sw.	24	w.	21	2	4	25	8.6	6.0	.0
Columbus	822	90	210	29.28	30.18	+.07	37.8	+9.2	66	8	46	17	23	30	28	35	31	79	10.71	+7.6	15	10.6	s.	37	s.	14	3	6	22	8.2	4.2	.0
Dayton	900	58	153	29.15	30.17	------	37.2	+7.7	64	8	45	13	23	29	30	----	----	----	12.41	+9.2	15	9.7	sw.	29	sw.	8	3	4	24	8.4	4.4	.0
Elkins	1,947	59	78	28.12	30.24	+.12	43.4	+13.0	72	8	53	18	27	34	33	39	36	84	6.92	+3.1	19	7.1	se.	35	sw.	22	2	10	19	8.0	.0	.0
Parkersburg	637	77	84	29.55	30.22	+.10	41.9	+9.4	71	8	51	24	27	33	35	38	35	81	8.99	+5.4	20	7.1	se.	28	nw.	21	2	6	23	8.4	2.0	.0
Pittsburgh [1]	1,273	39	54	28.79	30.18	+.07	37.7	+7.0	66	8	46	18	27	30	36	35	31	80	7.15	+4.1	18	11.9	nw.	35	n.	21	1	8	22	8.3	2.9	.0
Lower Lake Region							32.2	+7.8										79	4.70	+2.1										7.8		
Buffalo	768	243	280	29.32	30.18	+.11	32.4	+7.8	57	9	40	14	24	25	30	30	27	81	4.42	+1.1	19	19.2	sw.	57	sw.	3	1	10	20	8.2	9.7	.0
Canton	448	10	61	29.70	30.20	------	27.3	+11.0	55	9	36	-1	27	18	26	25	22	84	3.95	+1.4	17	11.4	w.	34	w.	5	2	11	18	8.0	4.3	.0
Ithaca	836	77	100	29.29	30.23	------	32.2	+7.9	63	8	40	10	23	25	29	29	26	77	3.66	+1.5	15	11.1	se.	34	se.	20	3	5	23	8.2	7.4	.0
Oswego	335	71	85	29.83	30.22	+.15	32.2	+8.3	62	9	39	9	27	25	30	29	24	74	3.44	+.5	18	11.8	s.	27	s.	13	2	6	23	8.4	6.8	.0
Rochester	523	86	102	29.62	30.21	+.14	33.2	+8.6	65	9	40	16	24	26	35	30	24	71	3.13	+.2	20	10.4	sw.	28	w.	31	2	12	17	7.6	7.4	.0
Syracuse	596	65	79	29.56	30.22	+.15	33.8	+9.7	64	9	42	9	27	26	36	----	----	----	3.68	+.6	18	8.8	w.	26	s.	14	3	6	22	7.9	10.9	.0
Erie	714	130	166	29.39	30.18	+.10	34.8	+8.0	64	8	42	17	24	27	34	31	27	76	6.05	+3.3	18	15.3	w.	53	se.	2	2	11	18	7.9	7.1	.0
Cleveland	762	267	318	29.33	30.17	+.08	35.8	+9.3	66	8	44	18	24	27	37	32	29	80	6.58	+4.1	17	16.5	se.	43	se.	2	3	5	23	8.2	5.3	.0
Sandusky	629	5	67	29.47	30.18	+.09	34.2	+7.9	63	8	42	15	26	26	39	----	----	----	6.58	+4.3	17	10.8	sw.	28	sw.	3	3	9	19	7.7	5.1	.0
Toledo	628	79	87	29.48	30.18	+.09	31.2	+5.4	60	8	39	7	23	24	36	29	26	82	5.36	+3.2	16	10.8	w.	31	w.	2	7	5	19	7.0	4.8	T
Fort Wayne	857	69	84	29.22	30.17	------	30.0	+3.8	57	8	38	7	23	22	33	28	26	87	5.96	+3.6	15	10.2	w.	30	s.	4	9	4	18	6.9	7.5	.0
Detroit [1]	626	5	78	29.46	30.17	+.09	29.7	+5.3	58	8	38	3	23	22	31	28	24	81	3.64	+1.6	17	11.8	sw.	34	sw.	3	7	5	19	7.2	4.4	.0
Upper Lake Region							20.3	+1.9										81	2.44	+0.6										6.7		
Alpena	609	13	89	29.43	30.12	+.08	24.0	+4.9	46	14	32	-2	27	16	28	22	17	76	1.55	-.3	10	13.3	w.	41	se.	20	7	6	18	6.5	6.4	.7
Escanaba	612	54	60	29.40	30.10	+.05	14.6	-.8	37	14	26	-13	27	3	39	14	11	83	2.70	+1.2	11	9.9	sw.	25	s.	4	10	4	17	6.1	23.5	12.3
Grand Rapids	707	70	244	29.34	30.14	+.08	28.6	+4.1	55	8	36	13	23	21	25	25	22	79	2.15	-.2	14	13.4	w.	43	sw.	3	6	3	22	7.6	6.3	.2
Lansing	878	5	90	29.17	30.14	------	27.4	+5.0	55	8	35	3	23	19	31	25	23	89	2.05	+.2	13	10.9	sw.	27	sw.	4	6	6	19	7.3	3.7	T
Ludington	637	5	54	29.39	30.11	------	25.6	+2.5	44	8	33	3	27	18	28	23	----	----	2.51	+.4	16	------	w.	----	----	----	4	6	21	----	8.9	.8
Marquette	734	77	111	29.23	30.07	+.03	16.0	-.3	36	14	25	-4	19	7	32	15	12	85	2.41	+.1	15	11.0	w.	42	sw.	11	7	5	19	7.2	23.9	14.0
Sault Sainte Marie	614	11	52	29.39	30.12	+.09	18.3	+5.0	38	14	27	-6	10	9	37	16	13	83	3.61	+1.7	24	10.0	se.	32	nw.	31	2	7	22	8.2	30.1	22.3
Chicago	673	7	131	29.40	30.15	+.05	26.9	+3.2	57	8	34	5	23	19	37	24	20	77	2.29	+.4	9	11.7	w.	34	sw.	2	9	5	17	6.4	2.4	.0
Green Bay	617	109	141	29.40	30.10	+.04	15.2	-.5	38	14	25	-14	23	5	34	14	10	77	2.43	+.9	8	11.8	sw.	32	sw.	4	10	5	16	6.4	12.8	6.4
Milwaukee	681	97	221	29.35	30.12	+.04	23.1	+2.5	44	13	31	-1	23	15	28	21	16	75	3.12	+1.3	9	14.7	w.	38	e.	20	10	3	18	6.2	.7	.1
Duluth	1,133	5	47	28.79	30.09	.00	3.3	-4.6	28	27	14	-24	26	-7	34	2	-1	82	1.99	+1.0	12	14.2	nw.	46	nw.	4	13	5	13	5.5	21.4	12.2
North Dakota							-8.1	-12.6										81	0.83	+0.2										5.7		
Moorhead, Minn.	940	50	58	29.08	30.18	+.04	-6.1	-9.9	33	4	3	-33	22	-15	51	-6	-8	91	1.55	+.9	14	9.0	n.	27	nw.	4	3	11	17	7.5	27.3	14.0
Bismarck	1,674	8	57	28.25	30.19	+.06	-6.0	-13.8	34	3	3	-37	22	-15	52	-7	-12	74	.70	+.2	10	7.7	nw.	30	n.	4	10	10	11	5.5	13.8	8.4
Devils Lake	1,478	11	44	28.48	30.19	+.07	-9.9	-11.7	31	4	0	-33	22	-19	55	-11	-14	82	.47	.0	12	8.5	nw.	30	n.	4	8	12	11	5.7	6.3	4.8
Grand Forks	833	12	67	------	------	------	-9.7	------	26	4	0	-36	22	-20	47	-10	----	----	.94	------	12	------	nw.	39	nw.	4	5	11	15	----	13.5	13.1
Williston	1,878	2	50	28.06	30.19	+.08	-8.6	-15.0	35	3	1	-38	7	-18	54	-9	-13	77	.50	.0	10	6.6	sw.	30	nw.	3	17	6	8	4.0	5.3	8.5

[1] Observations taken at airport.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1937*—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station reduced to mean of 24 hours	Pressure: Sea level, reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Mean wet weather	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Days with 0.01 inch, or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month
	Ft.	Ft.	Ft.	In.	In.	In.	° F.	° F.	°F.		°F.	° F.		° F.	° F.	° F.	° F.	%	In.	In.		Miles								0-10	In.	In.
Upper Mississippi Valley							19.4	−2.3										81	4.17	+2.5										6.0		
Minneapolis	919	105	208	29.06	30.10	------	5.4	−7.3	35	4	16	−18	22	−5	44	5	2	85	1.24	+.4	11	11.4	w.	32	w.	4	12	6	13	5.1	12.2	9.2
La Crosse	714	11	48	29.32	30.14	+.03	10.0	−6.1	40	4	22	−23	23	−2	39	9	5	79	2.48	+1.4	11	5.6	s.	18	w.	4	13	5	13	5.3	23.1	12.4
Madison	974	70	78	29.02	30.14	+.04	16.3	−.4	39	13	25	−7	22	7	34	15	12	85	3.31	+1.9	9	9.4	w.	25	sw.	4	9	8	14	6.1	6.6	2.5
Charles City	1,015	10	51	29.00	30.15	+.01	6.9	−6.8	38	4	18	−24	23	−5	41	6	3	84	2.41	+1.4	9	7.8	se.	22	w.	2	17	3	11	4.6	19.0	13.0
Davenport	606	66	161	29.47	30.17	+.05	20.4	−1.4	42	13	29	0	23	12	32	19	15	78	3.52	+2.1	9	11.2	nw.	33	sw.	2	10	4	17	6.2	2.6	1.5
Des Moines	861	5	99	29.20	30.17	+.03	14.6	−5.5	41	4	24	−6	9	5	37	13	9	80	1.85	+.8	10	10.9	nw.	33	w.	2	12	10	9	4.8	4.0	.8
Dubuque	699	60	79	29.36	30.16	+.04	16.6	−2.5	39	4	26	−6	9	7	35	15	11	76	3.44	+2.1	8	7.1	nw.	20	nw.	4	12	5	14	5.8	3.2	3.1
Keokuk	614	64	78	29.48	30.17	+.03	21.9	−3.0	46	6	30	−1	23	14	31	20	14	70	3.36	+1.8	10	8.1	nw.	30	sw.	2	10	1	20	6.5	3.3	T
Cairo	358	87	93	29.75	30.14	−.02	39.2	+4.3	67	14	46	13	23	32	31	37	35	87	15.45	+11.7	16	11.0	n.	30	n.	21	5	1	25	8.4	T	.0
Peoria	609	11	45	29.48	30.17	+.05	23.8	+.7	47	2	32	−8	23	15	30	22	20	85	2.86	+1.1	9	8.4	w.	27	sw.	2	10	5	16	5.9	4.7	.0
Springfield, Ill	636	5	191	29.46	30.16	+.03	27.3	+.8	58	8	35	0	23	20	40	25	22	82	4.95	+2.8	13	12.3	se.	34	sw.	2	11	4	16	6.3	4.7	.0
St. Louis	568	179	303	29.52	30.15	+.01	30.7	−.4	62	8	39	4	23	23	44	28	25	80	5.21	+2.9	13	11.9	nw.	35	s.	8	8	7	16	6.7	2.1	.0
Missouri Valley							15.8	−8.2										81	2.48	+1.4										5.5		
Columbia, Mo	784	6	64	29.28	30.15	+.02	25.8	−3.4	51	20	34	−6	23	18	29	----	----	----	4.03	+2.1	11	9.0	se.	27	sw.	2	10	3	18	6.2	5.0	.0
Kansas City [1]	750	32	45	29.31	30.15	.00	23.0	−5.2	56	6	32	1	9	14	44	20	16	77	3.37	+2.2	9	10.3	n.	39	w.	2	9	16	16	6.3	3.6	1.5
St. Joseph	967	11	49	29.06	30.15	------	20.6	------	50	1	30	−2	9	12	44	17	13	76	2.59	+1.3	8	10.0	nw.	35	w.	2	11	9	11	5.3	.5	.2
Springfield, Mo	1,324	98	104	28.66	30.11	−.03	30.2	−3.3	60	8	38	7	22	22	48	28	26	84	6.94	+4.6	15	10.6	se.	29	w.	8	7	8	16	6.8	8.1	T
Topeka	987	65	87	29.04	30.14	------	22.2	−5.4	54	6	31	0	8	14	46	19	15	77	1.82	+.9	7	10.0	nw.	27	w.	2	9	11	11	5.6	T	T
Lincoln	1,189	11	81	28.81	30.15	.00	13.2	−9.6	44	4	23	−12	9	3	36	12	8	79	1.37	+.7	9	11.1	s.	34	nw.	2	15	5	11	4.5	10.0	3.6
Omaha [1]	982	31	44	29.05	30.16	+.01	11.0	−10.9	42	4	22	−18	9	0	35	10	6	82	1.15	+.4	8	12.3	nw.	41	nw.	2	14	8	9	4.8	14.1	4.7
Valentine	2,598	47	54	27.28	30.18	+.06	5.8	−13.1	39	13	17	−17	7	−6	46	4	1	83	.41	−.1	9	9.4	w.	24	nw.	20	11	7	13	5.7	8.2	5.6
Sioux City	1,138	64	106	28.86	30.16	+.01	6.4	−11.4	40	4	16	−16	22	−3	36	6	3	84	1.64	+.9	6	11.6	nw.	38	nw.	2	13	7	11	5.5	17.9	10.5
Huron	1,307	59	74	28.68	30.18	+.02	.0	−11.3	36	4	9	−22	9	−9	45	−1	−3	89	1.51	+1.0	10	10.3	nw.	28	w.	4	14	9	8	4.6	19.9	8.7
Northern Slope							3.0	−16.6										77	0.72	0.0										5.9		
Havre	2,505	11	67	27.38	30.22	+.12	−2.8	−15.7	35	12	8	−36	30	−13	41	−4	−6	85	.99	+.3	16	10.4	w.	39	sw.	3	9	6	16	6.5	12.9	12.6
Helena	4,124	85	111	25.75	30.24	+.09	−2.4	−22.6	33	4	6	−30	7	−11	40	−3	−7	78	.84	.0	12	6.0	nw.	34	sw.	3	8	3	20	7.0	15.0	9.0
Missoula	3,263	80	91	------	------	------	4.6	−17.7	33	4	12	−26	7	−3	26	----	----	----	.75	−.3	17	8.5	se.	47	e.	4	5	4	22	7.7	12.6	6.0
Kalispell	2,973	48	56	26.96	30.24	+.12	1.0	−19.4	28	26	9	−27	20	−7	24	2	0	93	2.12	+.6	21	5.8	w.	26	ne.	26	4	5	22	7.8	34.2	14.9
Miles City	2,371	48	55	27.49	30.23	+.11	−1.8	−16.3	37	3	8	−31	7	−12	43	−3	−11	63	.38	−.3	9	6.7	s.	30	nw.	24	9	14	8	5.5	5.4	5.3
Rapid City	3,259	50	58	26.54	30.20	+.10	6.0	−16.0	45	12	17	−17	7	−5	47	5	3	85	.35	−.1	8	7.0	n.	28	n.	24	12	9	10	5.1	6.4	2.1
Cheyenne [1]	6,144	5	39	23.71	30.01	−.04	12.7	−12.8	48	12	25	−26	8	1	40	9	1	61	.47	.0	7	12.4	nw.	49	w.	3	12	13	6	4.6	5.6	.5
Lander	5,372	60	68	24.46	30.14	+.02	1.0	−17.3	36	4	14	−31	9	−12	42	0	−5	81	.39	−.2	6	3.8	sw.	19	w.	4	16	12	3	3.8	5.1	5.5
Sheridan	3,790	10	47	26.00	30.15	------	2.7	------	39	3	14	−20	7	−9	36	1	−4	72	.19	−.7	9	5.2	nw.	24	nw.	2	8	13	10	5.6	2.1	1.9
Yellowstone Park	6,241	12	46	23.67	30.16	+.02	2.2	−15.5	27	12	12	−30	6	−8	36	0	−6	69	.83	+.1	15	8.0	s.	34	sw.	15	6	5	20	6.9	15.4	6.5
North Platte	2,821	11	51	27.04	30.15	+.03	10.2	−12.7	43	13	22	−14	7	−1	43	8	5	84	.62	+.2	11	7.7	w.	23	nw.	2	14	8	9	4.5	7.7	1.7
Middle Slope							22.3	−8.2										74	0.96	+0.4										5.0		
Denver	5,292	106	113	24.53	30.00	−0.05	18.2	−11.6	49	26	29	−12	7	8	35	14	5	60	.29	−0.1	6	6.7	s.	28	nw.	17	16	12	3	3.5	6.0	T
Pueblo	4,685	80	86	25.13	29.97	+.08	23.0	−6.9	55	26	37	−10	8	9	47	17	7	58	.18	−.1	4	7.9	e.	36	nw.	31	21	8	2	2.7	2.2	0.0
Concordia	1,392	50	58	28.59	30.14	.00	16.6	−9.8	46	1	25	−7	9	8	37	15	12	86	1.76	+1.2	6	9.0	n.	30	nw.	2	10	11	10	5.2	3.2	1.5
Dodge City	2,509	10	86	27.38	30.10	−.01	21.4	−7.6	50	1	32	−4	7	11	37	18	14	79	.76	+.4	4	11.1	n.	31	nw.	2	15	7	9	4.9	2.9	T
Wichita	1,358	85	93	28.62	30.12	−.01	24.3	−7.0	54	6	32	0	8	16	46	22	18	80	1.54	+.8	7	11.6	n.	26	sw.	13	7	7	17	6.7	.3	T
Oklahoma City	1,214	10	47	28.76	30.09	−.02	30.4	−6.0	60	6	38	7	8	22	44	28	25	83	1.21	.0	13	10.8	n.	26	n.	21	6	5	20	7.3	3.0	.0
Southern Slope							39.7	−3.0										63	0.38	−0.3										6.1		
Abilene	1,738	10	52	28.20	30.05	−.04	40.2	−4.0	71	6	51	13	8	30	36	35	29	72	.90	−.1	7	9.1	n.	28	s.	13	5	6	20	7.2	.3	.0
Amarillo	3,676	10	49	26.18	30.02	−.04	30.8	−4.5	64	5	43	0	8	19	41	24	14	58	.29	−.2	2	9.7	s.	28	w.	17	14	6	11	4.6	3.1	.0
Del Rio	960	63	71	28.97	29.97	−.09	51.2	−1.1	79	7	61	24	23	41	46	47	42	75	.21	−.4	10	8.9	se.	24	se.	7	3	5	23	8.1	.0	.0
Roswell	3,566	75	85	26.29	29.97	−.07	36.7	−2.5	66	6	50	10	24	23	46	29	15	47	.11	−.4	1	7.6	s.	35	sw.	19	13	9	9	4.5	.1	.0
Southern Plateau							33.1	−6.7										60	1.02	+0.1										3.6		
El Paso	3,778	82	101	26.13	29.97	−.04	42.4	−2.6	65	29	54	20	26	30	36	34	21	45	.12	−.3	1	7.9	w.	35	sw.	7	17	11	3	3.1	.0	.0
Albuquerque [1]	4,972	5	39	24.96	30.01	------	26.4	−7.7	52	19	40	−1	8	12	41	21	13	61	.21	−.2	1	8.0	n.	35	sw.	1	14	11	6	3.9	4.0	.0
Santa Fe	7,013	38	53	23.08	29.98	−.06	23.7	−5.1	46	11	35	0	23	13	36	19	11	59	.53	−.1	8	5.7	n.	21	se.	7	15	7	9	4.7	5.4	.0
Flagstaff	6,907	10	59	23.16	29.98	−.07	12.6	−14.1	43	4	28	−30	22	−3	58	12	----	86	3.19	------	14	8.0	sw.	29	sw.	19	10	11	10	----	42.8	24.0
Phoenix	1,107	39	51	28.85	30.03	.00	43.2	−8.0	66	11	54	21	22	32	36	36	28	59	.83	.0	6	5.2	e.	27	sw.	19	16	8	7	3.9	1.0	.0
Yuma	141	9	54	29.92	30.07	+.02	44.9	−9.5	67	29	56	22	24	34	32	38	26	47	.14	−.3	3	6.7	n.	29	w.	19	22	5	4	2.5	T	.0
Independence	3,957	5	26	25.99	30.09	+.02	38.4	+.2	60	9	51	16	30	26	31	31	22	----	2.10	+1.3	6	------	n.	----	------	---	20	5	6	----	17.3	11.0
Middle Plateau							12.2	−15.8										82	1.27	+.3										5.5		
Reno	4,527	61	76	25.39	30.11	−.02	15.8	−15.8	46	4	26	−16	8	5	38	15	10	74	1.90	+.4	10	5.5	w.	27	w.	14	7	12	12	5.8	26.6	17.6
Tonopah	6,090	12	20	------	------	------	11.6	------	31	4	18	−15	21	5	26	10	8	90	.63	------	10	------	se.	----	------	---	----	----	----	----	----	----
Winnemucca	4,344	18	56	25.56	30.15	−.01	9.7	−18.9	37	17	23	−36	21	−3	42	9	7	84	1.42	+.4	13	7.6	ne.	24	sw.	17	8	6	17	6.4	25.7	16.8
Modena	5,473	10	43	24.48	30.08	−.02	7.6	−19.1	35	30	20	−32	9	−5	41	7	5	86	1.14	+.3	12	9.8	w.	32	s.	5	15	8	8	4.2	23.5	8.2
Salt Lake City [1]	4,227	32	46	25.65	30.10	−.05	13.2	−16.0	36	28	23	−20	21	3	37	12	10	82	1.76	------	16	8.4	se.	28	sw.	15	4	10	17	7.0	32.3	16.2
Grand Junction	4,602	60	68	25.30	30.01	−.05	15.0	−9.0	42	6	26	−14	22	4	36	13	9	77	.78	+.2	7	4.8	n.	34	s.	6	15	9	7	4.3	8.4	.4
Northern Plateau							12.8	−15.1										78	1.53	−0.1										6.9		
Baker	3,471	48	53	26.40	30.15	−.01	9.4	−15.5	38	15	20	−22	6	−1	33	10	7	82	1.32	−.1	17	6.4	se.	19	sw.	15	7	4	20	7.2	26.3	9.7
Boise	2,739	79	87	27.18	30.18	−.01	15.4	−14.4	37	27	24	−15	20	7	30	15	10	77	1.60	−.1	17	5.1	se.	21	se.	27	4	10	17	7.0	25.5	8.0
Pocatello	4,477	60	68	25.38	30.12	−.08	11.0	−13.7	34	28	19	−23	9	3	30	10	6	80	1.70	+.3	17	9.5	se.	30	sw.	16	5	7	19	7.3	19.2	12.2
Spokane	1,929	101	110	28.01	30.17	+.05	9.9	−17.6	38	4	18	−19	20	2	28	10	7	82	1.94	−.2	19	5.8	ne.	26	ne.	5	8	8	15	6.2	36.0	19.0
Walla Walla	991	57	65	29.04	30.17	+.02	15.8	−16.9	49	4	23	−8	31	9	28	15	10	75	1.75	−.2	17	5.2	s.	23	se.	25	7	4	20	7.5	30.0	15.8
Yakima	1,076	58	67	20.96	30.17	------	15.0	−12.4	42	4	23	−7	30	7	29	14	8	71	.85	−.4	13	4.5	nw.	27	ne.	5	7	12	12	6.3	10.0	6.7

[1] Observations taken at airport.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1937*—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station reduced to mean of 24 hours	Pressure: Sea level, reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Temperature: Departure from normal	Temperature: Maximum	Temperature: Date	Temperature: Mean maximum	Temperature: Minimum	Temperature: Date	Temperature: Mean minimum	Temperature: Greatest daily range	Mean wet weather	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Days with 0.01 inch, or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month
	Ft.	Ft.	Ft.	In.	In.	In.	° F.	° F.	°F.		°F.	° F.		° F.	° F.	° F.	° F.	%	In.	In.		Miles								0-10	In.	In.
North Pacific Coast Region							31.8	−7.9										76	3.83	−2.9										6.9		
North Head	211	11	56	29.83	30.06	+.01	34.4	−7.7	46	4	39	20	6	30	17	32	28	78	4.19	−4.6	20	12.9	e.	45	nw.	4	6	8	17	6.6	8.3	1.9
Seattle	125	90	321	29.93	30.07	+.02	31.7	−7.8	43	4	36	16	20	27	16	29	23	68	2.59	−2.4	15	9.3	se.	41	sw.	3	10	4	17	6.4	10.9	1.9
Tatoosh Island	86	10	54	29.94	30.04	+.06	35.4	−5.8	46	3	38	26	6	32	12	33	28	73	2.83	−9.0	18	16.9	e.	51	e.	31	7	5	19	6.9	7.8	.2
Medford [1]	1,329	29	58	28.65	30.12	------	26.9	------	45	31	36	1	8	18	29	26	23	83	2.10	−.7	14	------	n.	------	------	------	7	5	19	7.0	9.5	.3
Portland, Oreg.	153	68	106	29.93	30.10	+.02	29.9	−9.5	44	17	34	14	7	25	16	28	22	70	6.02	−.6	16	7.8	e.	24	s.	16	11	3	17	6.5	18.0	4.2
Roseburg	510	45	76	29.53	30.10	.00	32.6	−8.6	49	24	40	7	8	25	25	31	28	81	5.25	−.1	16	4.5	sw.	18	n.	6	4	6	21	7.9	7.7	.0
Middle Pacific Coast Region							36.7	−10.3										71	37.9	−1.8										5.4		
Eureka	62	73	89	30.03	30.10	.00	40.4	−6.5	51	17	47	25	8	34	19	38	34	75	4.27	−2.8	19	8.4	se.	38	n.	18	7	10	14	5.9	T	.0
Redding [1]	722	20	34	------	------	------	34.1	−11.2	51	24	40	17	20	28	24	31	24	68	2.72	−4.1	13	7.7	nw.	32	n.	6	9	8	14	6.1	19.9	T
Sacramento	66	92	115	30.02	30.10	−.02	28.7	−17.1	54	4	46	22	9	32	24	36	30	70	2.92	−.8	15	8.7	nw.	26	nw.	20	13	7	11	4.7	T	.0
San Francisco	155	112	132	29.91	30.08	−.03	43.6	−6.3	55	4	49	30	21	39	14	40	35	71	5.26	+.7	16	7.3	se.	23	n.	20	14	7	10	4.7	.0	.0
South Pacific Coast Region							45.9	−5.8										62	1.83	−0.5										4.2		
Fresno	327	97	105	29.74	30.11	+.01	40.7	−5.5	56	15	48	19	21	33	22	37	31	66	1.97	+.2	10	6.3	nw.	21	nw.	16	14	8	9	4.8	Y	.0
Los Angeles	338	159	191	29.69	30.06	−.02	47.8	−6.8	61	31	55	32	9	40	22	41	31	56	1.99	−1.1	8	6.7	ne.	21	nw.	16	19	5	7	3.3	.0	.0
San Diego	87	62	70	29.97	30.07	.00	49.2	−5.1	61	2	57	30	22	42	22	44	37	63	1.52	−.5	14	6.6	e.	26	s.	12	14	9	8	4.5	.0	.0
West Indies																																
San Juan, P. R.	82	9	54	29.94	30.04	------	73.8	−1.2	79	18	78	66	31	70	12	----	----	----	15.47	+11.3	28	18.2	e.	38	e.	10	5	21	5	5.2	.0	.0
Panama Canal																																
Balboa Heights	118	6	97	------	[3] 29.80	−.04	79.8	−.1	89	6	87	68	31	72	20	----	----	[3] 81	5.07	+4.1	17	6.1	nw.	23	se.	21	3	22	6	5.9	.0	----
Cristobal	36	6	97	------	[3] 29.82	−.04	81.0	−.5	87	9	85	73	22	77	11	75	73	[3] 80	4.20	+.7	21	10.6	n.	24	ne.	10	5	16	10	6.1	.0	----
Alaska																																
Fairbanks	454	11	87	[2] 29.69	[2] 30.25	------	11.4	------	41	1	22	−26	25	0	55	13	9	76	6.71	------	23	7.4	sw.	34	sw.	6	4	2	25	8.3	65.6	54.3
Juneau	80	96	116	[2] 30.13	[2] 30.22	------	27.8	------	41	2	32	13	14	24	22	25	19	70	5.57	------	17	7.5	s.	35	ne.	31	7	3	21	7.2	21.6	5.9
Hawaiian Islands																																
Honolulu	38	86	100	[2] 29.90	[2] 29.94	------	71.0	+.1	79	3	76	62	28	66	16	65	62	75	6.96	+3.2	18	9.1	e.	35	sw.	30	8	14	9	5.4	.0	.0

[1] Observations taken at airport.
[2] Pressure not reduced to a 24-hour mean.
[3] Observations taken bihourly.

TABLE 3.—*Data furnished by the Canadian Meteorological Service, January 1937*

Station	Altitude above mean sea level Jan. 1, 1919	Pressure: Station reduced to mean of 24 hours	Pressure: Sea level reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Temperature: Departure from normal	Temperature: Mean maximum	Temperature: Mean minimum	Temperature: Highest	Temperature: Lowest	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Total snowfall
	Feet	In.	In.	In.	°F.	°F.	°F.	°F.	°F.	°F.	In.	In.	In.
Cape Race, Newfoundland	99	------	------	------	30.0	------	37.2	22.8	45.5	5.0	4.40	------	0.4
Sydney, Cape Breton Island	48	------	------	------	------	------	------	------	------	------	------	------	------
Halifax, Nova Scotia	88	------	------	------	------	------	------	------	------	------	------	------	------
Yarmouth, Nova Scotia	65	------	------	------	------	------	------	------	------	------	------	------	------
Charlottetown, Prince Edward Island	38	------	------	------	------	------	------	------	------	------	------	------	------
Chatham, New Brunswick	28	------	------	------	------	------	------	------	------	------	------	------	------
Father Point, Quebec	20	30.11	30.14	+0.16	15.1	+7.1	23.8	6.4	37.9	−8.0	2.82	−0.03	25.6
Quebec, Quebec	296	29.81	30.16	+.14	17.9	+8.8	26.2	9.7	47.0	−12.8	3.81	−.20	24.1
Doucet, Quebec	1,236	------	------	------	------	------	------	------	------	------	------	------	------
Montreal, Quebec	187	------	------	------	------	------	------	------	------	------	------	------	------
Ottawa, Ontario	236	29.92	30.21	+.18	22.1	+12.5	30.8	13.5	48.0	−8.0	3.03	+.04	6.9
Kingston, Ontario	285	29.87	30.20	+.15	29.0	+11.9	36.0	22.1	50.0	1.7	5.14	+1.69	6.5
Toronto, Ontario	379	29.75	30.18	+.13	31.2	+9.8	37.4	24.9	52.6	10.8	5.18	+2.26	2.5
Cochrane, Ontario	930	------	------	------	2.2	------	14.2	−9.8	32.2	−33.2	3.47	------	34.7
White River, Ontario	1,244	28.67	30.07	+.06	−2.3	−1.9	12.6	−17.3	32.8	−44.0	5.07	+3.38	50.7
London, Ontario	808	------	------	------	27.6	------	35.0	20.1	55.0	−2.6	6.27	------	4.8
Southampton, Ontario	656	29.39	30.13	+.10	26.6	+6.2	33.3	19.8	55.2	5.8	2.73	−1.32	7.6
Parry Sound, Ontario	688	29.41	30.14	+.13	24.0	+10.2	31.8	16.1	48.0	−6.0	4.16	+.08	25.9
Port Arthur, Ontario	644	29.36	30.13	+.06	1.1	+2.0	12.0	−9.8	28.5	−28.0	6.66	+5.84	66.6
Winnipeg, Manitoba	760	29.30	30.21	+.10	−12.9	−6.1	−3.7	−22.2	14.8	−37.2	1.02	+.14	10.2
Minnedosa, Manitoba	1,690	28.22	30.19	+.09	−12.5	−5.3	−3.4	−21.6	15.1	−37.3	.17	−.63	1.7
Le Pas, Manitoba	860	------	------	------	−21.0	------	−12.3	−29.8	7.0	−42.0	.80	------	8.0
Qu'Appelle, Saskatchewan	2,115	27.71	30.16	+.08	−13.3	−9.5	−3.4	−23.3	32.0	−39.0	1.18	+.68	11.8
Moose Jaw, Saskatchewan	1,759	------	------	------	−12.2	------	−2.1	−22.4	34.5	−39.0	.72	------	7.2
Swift Current, Saskatchewan	2,392	27.42	30.17	+.08	−9.6	−12.7	−.1	−19.1	34.0	−32.7	1.20	+.56	12.0

TABLE 3.—*Data furnished by the Canadian Meteorological Service, January 1937*—Continued

Station	Altitude above mean sea level Jan. 1, 1919	Pressure: Station reduced to mean of 24 hours	Pressure: Sea level reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max.+ mean min. ÷ 2	Temperature of the air: Departure from normal	Temperature of the air: Mean maximum	Temperature of the air: Mean minimum	Temperature of the air: Highest	Temperature of the air: Lowest	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Total snowfall
	Feet	*In.*	*In.*	*In.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	*In.*	*In.*	*In.*
Medicine Hat, Alberta	2,365	27.52	30.18	+.11	−5.7	−11.2	4.7	−16.1	36.6	−40.9	.58	+.01	5.8
Calgary, Alberta	3,540												
Banff, Alberta	4,521												
Prince Albert, Saskatchewan	1,450	28.55	30.28	+.19	−17.4	−9.0	−5.0	−29.8	20.0	−49.0	.69	−.28	6.9
Battleford, Saskatchewan	1,592	28.35	30.26	+.18	−19.9	−14.0	−6.9	−33.0	37.0	−51.5	.61	+.21	6.1
Edmonton, Alberta	2,150	27.72	30.18	+.15	−3.7	−5.5	4.7	−12.1	38.0	−38.0	.93	+.25	9.3
Kamloops, British Columbia	1,262	28.88	30.26	+.30	5.8	−17.2	12.0	−.3	25.5	−21.0	3.68	+2.86	36.8
Victoria, British Columbia	230	29.82	30.08	+.11	31.2	−7.3	34.7	27.6	44.8	19.0	2.32	−3.07	12.1
Barkerville, British Columbia	4,180												
Estevan Point, British Columbia	20				34.4		39.9	28.8	45.0	21.0	3.46		4.8
Prince Rupert, British Columbia	170				30.6		36.9	24.4	46.0	15.0	4.72		4.4
St. Georges, Bermuda	158		30.31	+.18	68.9	+6.2	74.0	63.8	79.5	59.5	1.08	−3.54	.0
LATE REPORTS FOR DECEMBER 1936													
Sydney, Cape Breton Island	48	30.08	30.13	+0.24	30.3	+2.1	37.6	23.0	56.0	10.0	7.94	+3.31	1.2
Halifax, Nova Scotia	88	29.93	30.04	+.08	30.9	+3.3	38.2	23.6	55.0	9.0	9.63	+4.51	T
Yarmouth, Nova Scotia	65	30.09	30.16	+.18	33.3	+2.6	41.5	25.0	52.0	10.0	7.39	+2.62	4.5
Charlottetown, Prince Edward Island	38	30.10	30.14	+.20	26.8	+2.5	34.4	19.3	50.0	8.0	6.25	+2.59	11.8
Chatham, New Brunswick	28	30.07	30.11	+.17	20.7	+3.7	30.6	10.9	51.0	−10.0	4.57	+1.35	4.6
Montreal, Quebec	187	30.01	30.23	+.20	22.8	+4.5	30.8	14.8	49.5	−1.3	3.17	−.48	15.9
Kingston, Ontario	285	29.88	30.21	+.17	27.4	+3.7	35.5	19.3	47.5	−6.0	3.58	+.34	10.7
Toronto, Ontario	379	29.76	30.19	+.14	31.5	+4.5	37.7	25.2	52.8	5.4	3.37	+4.8	7.7
White River, Ontario	1,244	28.67	30.04	+.07	13.4	+3.7	25.7	1.0	48.0	−31.0	2.71	+1.00	19.9
London, Ontario	808				29.0		36.3	21.8	52.4	−6.0	3.30		5.6
Southampton, Ontario	656	29.41	30.15	+.13	29.0	+2.3	35.6	22.4	56.2	−3.2	2.09	−1.89	9.4
Parry Sound, Ontario	688	29.42	30.15	+.14	24.9	+3.7	32.1	17.7	49.0	16.0	4.76	+.28	12.5
Port Arthur, Ontario	644	29.36	30.10	+.11	14.9	+1.7	24.6	5.2	42.0	−25.0	3.48	+2.61	21.8
Minnedosa, Manitoba	1,690	28.10	30.02	.00	8.1	+2.4	17.2	−.9	43.8	−31.5	1.07	+.45	10.7
Le Pas, Manitoba	860				−1.1		7.3	−9.6	30.0	−30.0	3.15		31.5
Moose Jaw, Saskatchewan	1,759				11.3		20.4	2.3	48.5	−33.2	.65		6.5
Swift Current, Saskatchewan	2,392	27.32	29.97	−.02	12.1	−3.9	20.8	3.4	49.2	34.0	.70	−.08	7.0
Prince Albert, Saskatchewan	1,450	28.39	30.06	+.05	2.1	−.7	11.8	−7.6	35.0	−39.0	1.41	+.67	14.1
Battleford, Saskatchewan	1,592	28.20	30.05	+.06	1.6	−3.8	12.3	−9.0	42.5	−46.0	1.52	+1.20	15.2
Edmonton, Alberta	2,150	27.57	29.98	+.05	9.2	−3.9	15.9	2.5	40.0	−25.0	.76	+.06	7.6
Kamloops, British Columbia	1,262	28.65	29.97	+.03	29.3	+.4	33.6	24.9	55.0	6.5	.63	−.15	6.0
Victoria, British Columbia	230	29.70	29.96	−.01	42.6	+1.4	46.1	39.1	53.2	28.8	8.35	+.37	.0
Prince Rupert, British Columbia	170				34.7		38.8	30.6	49.0	21.0	11.68		13.0

TABLE 4.—*Severe local storms, January 1937*

[Compiled by Mary O. Souder from reports submitted by Weather Bureau officials. The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Sioux City, Iowa	1–2					Blizzard	From 10 p. m. of the 1st, to noon of the 2d, 8.5 inches of snow fell on a blanket 5.5 inches thick. Snowdrifts blocked highways. Only bus service open was that to Omaha on the Iowa side of the Missouri River.
Hoxie, Kans	2					do	
East Aurora to Westfield, N. Y.	2					Wind and snow	Telephone and power poles down; highway traffic delayed.
Livingston, Mont	3					Wind	Large radio tower at the Livingston Airport crashed, causing an unestimated amount of damage, putting the radio beam, used to guide pilots of airplanes throughout this section, out of commission.
Buffalo, N. Y.[1]	3					Wind and snow	Maximum velocity of 57 miles an hour recorded in the afternoon; 1 person injured.
Havre, Mont	3–4					Blizzard	Storm began 11 p. m. of the 3d and continued until late in the night of the 4th. At times during the second day in the afternoon blowing snow was so thick and fine that it greatly reduced visibility. Rural roads impassable, a number of teachers being unable to return to their schools.
Augusta, Mont., vicinity of	4	P. m.				do	
Charles City, Iowa	6					Glaze	All surfaces ice-coated; pavements and walks very slippery.
Rapid City, S. Dak	6–7					Wind and snow	Highways and railroad transportation interrupted by blinding snow, strong winds, and intense cold.
Springfield, Mo., and vicinity	6–9				$5,000	Sleet and glaze	Storm began evening of the 6th and with dense fog made traffic hazardous. The morning of the 7th, found streets, highways, and walks covered with ice ½ to ¾ inch thick. Damage to power lines and trees began when the ice-coating increased. Communication lines, within a radius of 100 miles of Springfield, down. Estimate given for local damage only.
Springfield, Ill., and vicinity	7					Glaze	2.41 inches of rain fell and froze causing all exposed objects to be ice-coated. Much damage to trees and wires.
Iowa	7	P. m.				Sleet and snow	Sleet turned to heavy snow in western Iowa in the early evening. At 9:30 p. m., 7 inches of new snow had fallen. Planes were grounded between Chicago, Ill., and Cheyenne, Wyo. Sleet totaled more than an inch at Des Moines and continued intermittently until midnight with the temperature at 3°. 5 persons injured.
Providence, R. I	7			1		Rain and sleet	Numerous accidents in Providence and throughout Rhode Island because of icy sidewalks and highways.
El Paso, Tex	7			3	10,000	Wind	Damage to signs, roofs and plate-glass windows. 2 persons killed by falling masonry and another electrocuted; 2 persons injured.
Keokuk, Iowa	7–8					Sleet and glaze	Sleet covered the ground to the depth of about 1.5 inches. Glaze formed on all exposed objects from 7 p. m., of the 7th and continued until the rain ended on the 8th. Many trees badly damaged.

[1] From press reports.

TABLE 4.—*Severe local storms, January 1937*—Continued

[Compiled by Mary O. Souder from reports submitted by Weather Bureau officials. The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Topeka, Kans	7-8					Sleet	An unprecedented fall of sleet, 2.6 inches, some remaining on the ground until the close of the month. Pavements and sidewalks slippery.
Wichita, Kans	7-8					do	Thunder, lightning, and zero weather accompanied the sleet which fell to the depth of 2.5 inches. Several accidents reported.
Columbia, Mo., and vicinity	7-8					Glaze	This storm reported as the worst glaze storm ever known in this section. Homes without electric service for from 4 days to more than 2 weeks. Property damage not estimated. $40,000 loss to public utilities alone. Many old trees and much shrubbery ruined. For the second day, Hannibal, Bowling Green, Louisiana, and other northeastern Missouri cities were isolated from outside communication except for delayed-schedule train service. Other cities in central Missouri likewise isloated or had greatly impaired telephone and telegraph facilities. On the 9th, for the first time in 21 years, the Weather Bureau office at Columbia, Mo., was without connection with other weather stations throughout the country, the observer being unable to print the map for lack of information.
Texas, northeastern portion	7-12				$3,000,000	do	Icicles formed on the fire escape of the building occupied by the Dallas Weather Bureau office, about noon, Jan. 7, thawed 12:25 p. m., Jan. 12, which is the longest period for icicles to have remained on objects suspended in the air, in this vicinity since the regular Weather Bureau station was established. Ice on wires 1 to 2 inches thick near Athens and Tyler, Tex.
Arkansas, northwestern portion	8-9					Rain and sleet	This reported to be probably the worst ice storm in the history of this section of the State. Timber and shrubbery severely damaged. Power and communication lines broken.
Grand Rapids, Mich	13	12:40-3:15 p. m.				Glaze	Streets and walks hazardous.
Cleveland, Ohio, and vicinity	13-14	P. m.			10,000	Gale	Several buildings wrecked; chimney blown down.
Cleveland, Ohio	14				25,000	Heavy rain	Streams overflowed; sewers inadequate in some sections; several manufacturing plants flooded.
Block Island, R. I	17					Wind	Winds increased during afternoon and evening causing the New York boats to anchor in the bay until conditions were such that they could proceed to New York. Block Island was without boat service.
Milwaukee, Wis	20					Glaze	Bus traffic to Chicago, Green Bay, and the Northwest was completely stopped.
Grand Rapids, Mich	20-21					Sleet and glaze	Streets and walks extremely slippery. Thin film of snow in the evening of the 21st increased the hazard. Several minor injuries and accidents reported.
Harrisburg, Pa	20-21					Glaze	Streets and walks dangerously slippery.
Rapid City, S. Dak., vicinity of	20-21					Wind and snow	Snow drifted causing obstruction to transportation.
Oklahoma City, Okla	21	A. m.				Sleet	The severe intensity of the sleet made driving dangerous.
Springfield, Mo., and vicinity	21-22					do	2 inches of sleet covered the ground at 2 p. m., and changed to light, dry snow at 7:40 p. m., and by 3:30 p. m., on the 22d, approximately 2½ inches of sleet covered with 7½ inches of snow was on the ground. Traffic was greatly delayed.
Memphis, Tenn., and vicinity	22-23				100,000	Glaze	Traffic hazardous; damage to streets and bridges.
Arkansas	22-24					Rain and sleet	Freezing rain in connection with sleet was exceptionally heavy in the northern portion, the ground being coated with ice to the depth of 4 inches. Timber, shade trees and shrubbery severely damaged. Telegraph, telephone, and power lines down leaving some sections without lights and communication service from 2 to 3 days.
Cleveland, Ohio	24					Heavy rain	Streams overflowed; streets flooded in some sections; sewers being inadequate.
Norfolk, Va	29				800	Wind	High winds caused unusually high tide, flooding the low-lying sections, tying up traffic for several hours. Damage to plate-glass windows, signs and awnings.
Wichita, Kans	30			4		Mist and fog	Thin ice-coating formed on all objects; pavements dangerously slippery; several persons injured.
Rhode Island	31	P. m.		4		Rain and wind	Many persons injured in highway accidents because of low visibility.
Oregon [1]	Jan. 31-Feb. 1			5		Snow and rain	Main arteries of travel blocked by record storm. Travel by stage and private automobile impossible, except in limited sections where snow plows worked or where rain had fallen. All air line trips during day and night canceled. Telephone and telegraph lines down generally in the area south of Salem to Grants Pass and on the southwest Oregon coast. In Portland a marquee of a downtown hotel collapsed under weight of snow. Portland physicians marooned in own homes and residences of patients.

[1] From press reports.

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