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 1938*

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	48.1	+1.7	2 stations	81	[1] 23	Tuscumbia	11	28	3.39	−1.45	Bishop	7.14	Maxwell Field	1.75
Arizona	44.5	+2.7	do	83	[1] 3	Springerville	−4	26	.66	−.67	Bright Angel	3.40	Yuma Citrus	.00
Arkansas	42.5	+1.1	El Dorado	81	21	Devil Knob	4	[1] 16	6.48	+2.04	Grannis	11.58	Calico Rock	2.87
California	46.2	+1.6	Yorba Linda	90	9	Twin Lakes	−10	20	3.72	−1.06	Scales	13.64	Brawley	.00
Colorado	26.9	+3.0	Holly	73	18	Fraser	−30	7	.82	+.06	Pagosa Springs (near).	6.77	2 stations	T
Florida	58.6	−.6	Lake Placid	88	7	Garniers (near)	15	27	2.04	−.73	Jacksonville	5.21	Lake Placid	.10
Georgia	47.4	+.3	Stillmore	82	23	2 stations	8	28	2.01	−2.26	Lafayette	4.03	Glenville	.61
Idaho	27.7	+3.8	2 stations	62	[1] 12	Obsidian	−19	25	1.80	−.39	Roland	7.47	Arco	.10
Illinois	28.5	+.8	Harrisburg	62	24	Freeport	−7	31	2.57	+.18	Fairview	5.02	Hillsboro	1.05
Indiana	29.6	+.5	Shoals	66	24	Goshen	−11	28	1.72	−1.42	Laporte	5.17	Shelbyville	.43
Iowa	21.0	+2.5	Thurman	59	22	Marshalltown	−25	10	1.14	+.04	Burlington	3.79	2 stations	.15
Kansas	34.6	+4.9	Liberal	75	15	Burr Oak	−12	31	.45	−.22	Oswego	2.73	11 stations	.00
Kentucky	35.9	−.1	Pikeville	72	24	Greenville	−4	27	3.56	−.99	Cumberland	6.25	Grant	1.57
Louisiana	52.7	+.9	Donaldsonville	84	22	4 stations	20	[1] 11	4.98	+.05	Jonesville	7.58	Shreveport	2.25
Maryland-Delaware	33.6	−.1	Cumberland, Md	67	30	Oakland, Md	−2	29	2.32	−.98	Snow Hill, Md	3.90	Keedysville, Md	.91
Michigan	19.5	−1.5	Monroe	55	24	Iron Mountain	−32	28	2.54	+.67	Munising	6.73	Port Huron	.43
Minnesota	8.7	−.5	2 stations	47	23	Warroad	−41	31	.60	−.16	Duluth	1.55	Alexandria	.07
Mississippi	48.2	+.7	Port Gibson	85	22	Forest	15	27	4.85	−.31	Holly Springs	10.97	Forest	2.39
Missouri	33.1	+2.3	Garber	75	16	Tarkio	−9	31	2.93	+.53	Mountain Grove	5.55	Tarkio	.39
Montana	24.6	+5.2	2 stations	61	27	Summit	−47	30	.60	−.27	Haugan	3.87	Bridger	T
Nebraska	28.1	+5.1	Broken Bow	72	15	Nenzel (near)	−22	31	.35	−.17	Hartington	1.10	4 stations	T
Nevada	35.2	+5.8	Las Vegas	80	22	Elko	−5	24	.74	−.44	Marlette Lake	3.30	Mina	00
New England	21.4	−1.3	4 stations	59	[1] 7	First Conn. Lake, N. H.	−34	[1] 18	4.16	+.63	Danbury, Conn	7.68	Presque Isle, Maine	1.38
New Jersey	31.0	+.1	Canoe Brook	68	25	Layton	−19	19	3.64	+.07	Paterson	5.73	Camden	2.58
New Mexico	34.1	+.5	Tularosa	89	6	Eagle Nest	−28	7	.57	+.01	Chama	2.90	4 stations	.00
New York	22.4	−.9	Albany	61	25	Indian Lake	−31	19	2.91	−.06	Bedford Hills	5.57	Avon	.96
North Carolina	41.1	−.6	2 stations	76	[1] 23	Mount Mitchell	−10	[1] 28	2.89	−.90	Siler City	5.15	Red Springs	1.46
North Dakota	9.5	+3.4	Carrington	50	15	Hannah	−40	31	.48	−.01	Carson	1.47	Mayville	.01
Ohio	30.0	+1.5	3 stations	72	24	Xenia	−5	28	1.62	−1.50	Chilo	2.99	Put-in-Bay	.48
Oklahoma	42.2	+3.9	Seminole	82	17	2 stations	0	31	1.44	+.01	Idabel	11.49	2 stations	.00
Oregon	34.7	+3.0	Brookings	71	9	2 stations	−8	[1] 7	3.39	−.47	Valsetz	16.96	Mitchell	.41
Pennsylvania	28.9	+.4	Claysville	66	[1] 24	Gouldsboro	−20	19	2.51	−.75	Mt. Pocono	5.95	Vandergrift	.87
South Carolina	45.5	−.4	3 stations	79	22	2 stations	5	28	1.50	−2.08	Landrum	3.53	Wedgefield	.55
South Dakota	19.5	+2.9	Ardmore	65	4	Pollock	−30	31	.52	−.03	Dummont	3.12	Orman	.06
Tennessee	39.6	+.4	Newport	74	24	Rugby	−4	28	5.38	+.46	Ashwood	8.73	Dresden	2.74
Texas	50.2	+2.0	Laredo	92	18	Spearman	4	31	2.81	+1.12	Naples	10.98	3 stations	.00
Utah	30.8	+5.7	St. George	66	28	Loa	−11	21	.91	−.29	Silver Lake	4.05	Myton	.00
Virginia	36.3	−.3	2 stations	69	[1] 1	Mountain Lake	−3	27	2.73	−.60	Pennington Gap	4.65	Riverton	.87
Washington	34.0	+3.4	Signal Peak	63	10	Stockdill Ranch	−6	29	3.53	−1.62	Wynoochee Oxbow	14.64	Rock Island (near)	.29
West Virginia	33.5	+.7	London	77	24	Flat Top	−2	27	2.22	−1.48	Pickens	4.41	Wardensville	.66
Wisconsin	15.0	.0	3 stations	48	23	Solon Springs	−40	31	2.03	+.79	Milwaukee	4.60	Holcombe	.70
Wyoming	22.2	+2.3	Fort Laramie	63	15	Buffalo Ranch	−37	30	.79	.00	Bechler River	5.29	Evanston	.04
Alaska (December)	6.5	+1.9	Wrangell	56	[1] 5	2 stations	−54	[1] 29	2.11	−.34	Little Port Walter	21.02	Anchorage	T
Hawaii	70.3	+1.5	Kohala	89	13	Kula Sanitarium	45	9	10.09	+1.59	Piihonua	40.01	Napoopoo	.72
Puerto Rico	72.8	−.1	Juncos	92	13	Lares	51	26	2.00	−1.68	La Mina (El Yunque)	12.39	5 stations	.00

[1] Other dates also.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1938*

[Compiled by Annie E. Small, by official authority U. S. Weather Bureau]

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 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.
New England							25.2	+0.7										76	3.74	+0.3										5.8		
Eastport	76	67	85	29.96	30.04	+0.04	22.8	+2.4	50	25	30	−6	18	16	31	21	16	73	2.07	−1.8	8	12.6	nw.	45	s.	25	11	6	14	5.7	6.4	2.5
Greenville, Maine	1,070	6	40																													
Portland, Maine	103	82	117	29.92	30.05	.00	23.8	+1.4	49	25	32	−1	19	16	26	22	17	75	4.13	+.2	9	8.8	n.	41	s.	25	14	7	10	4.8	16.2	.4
Concord	289	54	72	29.71	30.05	.00	21.0	−.6	55	25	32	−18	19	10	44				3.94	+.9	11	4.6	n.	19	s.	25	11	10	10	5.2	20.4	.8
Burlington	403	11	48	29.57	30.04	.01	17.2	−1.6	55	25	26	−16	19	9	31	15	11	81	1.99	+.2	14	9.0	s.	36	s.	30	7	4	20	7.0	8.5	.8
Northfield	876	12	60	29.05	30.05	.00	14.8	−.4	55	25	26	−25	18	3	42	12	10	87	2.73	+.4	12	6.3	s.	32	sw.	25	7	10	14	6.4	17.4	3.0
Boston [1]	29	33	62	30.01	30.04	−.01	28.0	+.1	57	7	35	3	19	21	29	25	21	76	4.91	+1.3	11	10.7	w.	48	s.	25	8	12	11	6.0	29.6	.2
Nantucket	12	14	90	30.02	30.03	−.01	33.0	+1.7	54	7	38	19	29	28	20	30	27	82	4.39	+.6	12	13.2	nw.	41	se.	25	11	4	16	6.3	11.3	T
Block Island	26	11	46	30.02	30.04	−.03	32.2	+1.2	56	7	38	14	19	27	22	30	25	74	2.73	−1.0	12	16.2	nw.	40	ne.	1	11	9	11	5.3	5.3	.0
Providence	159	215	251	29.87	30.05	−.01	28.4	+1.2	57	7	36	2	19	21	26	25	20	73	4.37	+.7	12	10.8	nw.	46	s.	25	15	4	12	5.1	19.7	T
Hartford	159	66	100	29.88	30.06	−.01	26.6	+1.1	58	25	34	−5	19	19	29				5.62	+1.7	11	7.7	n.	34	s.	25	11	9	11	5.7	23.6	.7
New Haven	106	74	153	29.94	30.06	−.02	29.0	+.8	55	25	36	−1	19	22	24	26	19	66	4.23	+.2	13	9.1	n.	35	se.	25	10	6	15	6.1	15.3	.3
Middle Atlantic States							33.5	+1.4										72	2.68	−0.6										6.9		
Albany	97	97	112	29.96	30.07	.00	22.6	−.5	61	25	31	−16	19	14	27	20	15	72	3.49	+1.1	15	6.8	n.	31	s.	25	6	6	19	7.2	17.2	T
Binghamton	871	57	79	29.07	30.03	−.05	25.5	+1.4	58	25	33	−14	19	18	37	24	21	86	2.13	−.3	16	6.7	ne.	22	sw.	25	0	5	26	8.9	4.6	.8
New York	314	415	454	29.71	30.06	−.04	32.0	+1.1	56	30	39	5	18	25	25	29	23	70	3.37	−.3	15	14.3	nw.	59	s.	25	7	10	14	6.6	6.1	.0
Harrisburg	374	94	104	29.64	30.06	−.04	31.0	+2.0	58	25	38	7	19	24	31	28	21	67	2.07	−1.0	11	7.9	w.	32	sw.	26	4	8	19	7.2	2.5	.0
Philadelphia	114	174	367	29.95	30.08	−.03	33.6	+1.0	58	25	40	11	19	27	26	31	25	71	2.32	−1.0	11	12.3	nw.	49	s.	25	7	8	16	6.7	2.3	.0
Reading	323	283	306	29.70	30.07		32.2	+2.8	63	25	39	5	19	25	32	29	23	69	2.19	−1.4	13	10.6	nw	45	sw.	25	3	12	16	7.1	5.3	T
Scranton	805	72	104	29.14	30.04	−.05	27.9	+1.3	60	25	35	−2	19	21	34	25	19	69	2.41	−.6	13	6.5	sw.	34	se.	24	1	11	19	7.5	8.4	1.5
Atlantic City	52	37	172	30.01	30.07	−.04	35.8	+3.3	53	25	42	17	19	30	21	32	27	74	3.26	−.2	14	14.6	w.	51	se.	25	4	12	15	7.0	T	.0
Sandy Hook	22	10	57	30.03	30.05		32.6	+1.3	55	30	38	12	19	27	24	30	26	77	3.32	−.6	15	14.3	nw.	55	s.	25	7	7	17	6.7	2.9	.0
Trenton	190	88	106	29.85	30.06		32.2	+1.7	60	25	39	7	19	25	26	29	23	70	2.83	−.5	15	8.9	nw.	34	se.	25	2	15	14	7.2	2.5	.0
Baltimore	123	100	215	29.94	30.07	−.05	36.2	+2.4	61	30	43	17	19	30	28	31	25	66	2.23	−1.3	10	10.0	sw.	41	s.	24	6	11	14	6.5	1.4	.0
Washington	112	62	85	29.94	30.07	−.06	35.7	+2.3	63	25	43	18	28	29	29	31	25	67	2.64	−.9	11	6.9	nw.	26	sw.	30	5	12	14	6.7	1.5	.0
Cape Henry	18	8	54	30.06	30.08		40.0	−.2	68	1	47	20	29	34	29	36	32	74	2.50	−.6	12	11.6	n.	40	n.	31	7	8	16	6.7	T	.0
Lynchburg	686	144	184	29.32	30.09	−.04	38.1	+.6	67	17	47	13	28	29	37	33	27	69	2.99	−.4	12	7.2	nw.	40	nw.	13	9	7	15	6.1	1.2	.0
Norfolk	91	80	135	30.00	30.10	−.03	41.2	+.6	69	1	48	20	27	34	32	36	32	74	2.80	−.3	14	9.5	n.	44	s.	25	8	5	18	6.8	.7	.0
Richmond	144	11	52	29.93	30.10	−.04	38.2	+.3	65	17	47	17	27	30	33	34	29	76	2.96	−.2	14	8.1	sw.	32	sw.	25	8	10	13	6.4	.5	.0
Wytheville	2,304	49	55	27.60	30.06	−.08	34.8	+1.8	59	24	43	8	27	26	40	31	27	78	2.07	−1.0	15	8.4	w.	34	w.	25	10	7	14	6.2	4.1	.0
South Atlantic States							46.7	+0.6										75	2.16	−1.3										6.1		
Asheville	2,253	89	104	27.68	30.11	−.04	38.2	+2.8	64	24	48	10	27	29	44	33	29	76	2.59	−.5	12	9.1	nw.	27	nw.	13	8	9	14	6.1	1.5	.0
Charlotte	779	63	86	29.23	30.09	−.06	42.4	+1.2	70	22	50	15	28	34	30	38	32	70	1.94	−2.1	11	7.7	sw.	33	sw.	25	10	4	17	6.5	T	.0
Greensboro [1]	886	6	56	29.12	30.10		38.3		64	17	47	11	28	29	35	34	29	80	2.82		12	7.9	sw.	34	sw.	25	9	5	17	6.3	1.8	.0
Hatteras	11	5	50	30.07	30.08	−.06	45.6	−1.5	66	1	52	27	29	40	26	43	40	85	3.00	−1.4	11	14.1	n.	41	w.	26	9	9	13	5.9	.0	.0
Raleigh	376	103	140	29.67	30.08	−.05	42.0	+.9	70	1	50	16	28	34	30	37	32	74	2.46	−1.2	11	8.4	sw.	27	sw.	25	7	10	14	6.3	1.1	.0
Wilmington	72	73	107	30.03	30.11	−.03	46.9	+.4	71	22	56	21	28	38	28	42	38	76	2.26	−1.0	7	9.2	n.	35	sw.	24	10	8	13	5.9	.0	.0
Charleston	48	11	92	30.06	30.11	−.04	50.3	+.4	75	22	57	23	28	43	22	45	40	75	1.12	−1.9	8	9.3	n.	28	w.	25	7	8	16	6.7	.0	.0
Columbia, S. C.	347	70	91	29.72	30.11	−.04	46.6	+.6	75	22	55	20	28	38	32	41	34	68	1.17	−2.2	7	8.7	sw.	35	sw.	25	10	6	15	5.9	T	.0
Greenville, S. C.	1,039	139																														
Augusta	182	62	77	29.90	30.09	−.07	47.6	+.6	76	22	57	21	28	39	33	42	36	70	1.20	−2.7	10	6.4	nw.	30	sw.	25	9	7	15	6.1	T	.0
Savannah	65	73	152	30.04	30.11	−.04	52.2	+.8	77	22	61	24	28	44	25	46	41	74	.68	−2.1	11	10.6	nw.	35	nw.	25	11	5	15	5.9	.0	.0
Jacksonville	43	86	110	30.08	30.13	−.02	55.6	+.2	78	1	64	27	28	47	28	49	45	76	5.21	+2.4	10	7.8	w.	30	sw.	25	11	6	14	5.3	.0	.0
Florida Peninsula							64.2	−0.1										78	1.28	−1.2										4.5		
Key West	21	10	64	30.07	30.09	−.01	69.4	−.1	82	24	75	51	28	64	23	63	61	81	.30	−1.7	3	9.6	n.	33	nw.	25	12	15	4	4.4	.0	.0
Miami	25	124	168	30.08	30.11	−.02	67.3	+.8	80	11	74	44	28	61	25	61	57	75	2.42	−.1	5	9.4	se.	24	n.	28	12	13	6	4.5	.0	.0
Tampa	35	8	197	30.08	30.12	.00	61.0	+.6	80	24	70	36	27	52	28	54	51	77	1.20	−1.5	10	10.5	n.	32	nw.	25	13	11	7	4.5	.0	.0
Titusville	43	5	36	30.06	30.10		59.0	−1.8	82	23	70	27	28	48	33	53	51		1.19	−1.3	5		nw.				9	9	13		.0	.0
East Gulf States							49.5	+0.9										74	3.05	−1.7										6.9		
Atlanta [1]	976	5	53	29.05	30.10	−.05	43.0	+.4	72	22	52	16	28	35	33	38	34	75	1.86	−3.1	11	9.6	nw.	32	sw.	25	7	8	16	6.3	.3	.0
Macon	370	79	87	29.71	30.11	−.05	47.7	+.9	75	22	57	21	28	39	31	44	40	80	1.68	−2.5	9	7.3	nw.	24	sw.	24	8	8	15	6.1	.0	.0
Thomasville	273	49	58	29.83	30.13	−.03	53.2	+2.2	78	22	62	24	27	44	31	47	44		2.24	−1.9	11		sw.								.0	.0
Apalachicola	35	11		30.08	30.12		54.3	+.6	73	24	61	30	27	48	20	50	47	80	3.37	−.3	8	8.3	nw.	26	nw.	25	10	9	12	5.8	T	.0
Pensacola	56	149	185	30.06	30.13	−.01	52.2	−.3	70	18	59	28	27	46	29	48	44	76	2.10	−1.9	11	12.3	n.	43	nw.	24	9	9	13	5.6	.0	.0
Anniston	741	9					44.5	+2.3	71	24	53	16	28	36	32				3.26	−1.9	12		nw.				12	8	11		T	.0
Birmingham	700	11	48	29.35	30.13	−.03	46.0	+.9	77	22	55	19	27	37	32	40	35	72	3.69	−1.8	10	8.2	nw.	36	se.	24	10	10	11	5.6	T	.0
Mobile	57	86	161	30.07	30.13	−.02	51.8	+.3	74	24	60	28	27	44	29	47	42	75	2.87	−2.0	10	10.1	nw.	31	w.	24	7	8	16	6.4	.0	.0
Montgomery	218	92	105	29.87	30.13	−.03	48.6	+.4	76	24	57	24	27	40	32	43	37	70	2.39	−2.8	12	7.9	n.	27	w.	25	9	7	15	6.2	.0	.0
Meridian	375	67	92	29.71	30.12	−.04	48.2	+1.2	77	22	58	21	27	39	33	42	38	74	4.42	−.9	10	7.2	sw.	29	sw.	23	11	8	12	5.5	.0	.0
Vicksburg	247	82	102	29.85	30.12	−.03	49.4	+1.2	79	21	58	26	27	41	33	43	38	68	3.47	−1.9	9	9.5	n.	32	w.	24	5	12	14	6.4	.0	.0
New Orleans	53	76	84	30.07	30.13	.00	55.0	+.8	80	21	63	32	26	47	26	49	45	75	5.27	+.9	11	7.7	se.	27	sw.	24	8	10	13	5.8	.0	.0
West Gulf States							51.0	+2.7										70	3.86	+1.1										5.6		
Shreveport	249	92	227	29.84	30.12	−.02	50.8	+3.8	79	21	59	25	31	42	35	45	40	69	2.25	−1.7	9	12.2	ne.	47	nw.	24	11	8	12	5.6	T	.0
Bentonville	1,303	12	38	28.74	30.14	.00	38.2	+4.1	70	16	48	7	31	28	46				3.11	+.4	8	8.0	sw.	24	sw.	29	11	11	9		.5	.0
Fort Smith	463	57	82	29.63	30.13	−.01	42.5	+3.0	74	16	52	14	31	33	43	37	29	63	3.51	+1.0	6	8.6	e.	30	nw.	24	14	8	9	4.7	T	.0
Little Rock	357	94	102	29.73	30.12	−.03	43.0	+1.6	69	16	52	18	31	35	37	38	32	67	9.80	+5.1	8	9.1	nw.	30	sw.	16	11	5	15	5.8	T	.0
Austin	605	68	90	29.46	30.10		52.2	+2.7	82	18	61	24	31	43	38	47	42	72	3.93	+1.9	7	8.2	n.	30	n.	25	13	6	12	5.2	.0	.0
Brownsville	57	88	96	30.00	30.06		61.6	+1.8	82	17	68	34	26	55	30	57	53	79	.92	−.6	8	11.5	s.	32	s.	30	12	5	14	5.7	.0	.0
Corpus Christi	20	11	78	30.07	30.09	−.01	59.2	+3.2	77	18	65	33	31	53	32	55	51	79	1.39	−.2	6	11.4	n.	38	n.	30	12	4	15	5.9	.0	.0
Dallas	512	220	227	29.55	30.11		48.8		75	16	56	19	31	41	38	43	36	65	6.34	+4.0	8	12.3	n.	42	w.	24	11	9	11	5.4	T	.0
Fort Worth	679	92	110	29.39	30.11	−.01	49.2	+3.8	78	16	58	18	31	41	42				2.74	+.7	9	9.7	n.	39	n.	24	15	6	10	4.6	.0	.0
Galveston	54	106	114	30.05	30.11	−.02	55.4	+1.6	68	17	60	35	31	50	28	52	48	79	3.63	+.2	12	11.7	n.	38	nw.	25	11	5	15	5.7	.0	.0
Houston	138	292	314	29.97	30.12		55.0	+2.3	78	18	62	28	31	48	33				3.34	−.4	11	12.8	se.	35	nw.	25	9	7	15	6.0	.0	.0
Palestine	510	64	72	29.58	30.12	.00	50.6	+2.4	78	18	58	22	31	43	36	44	37	65	4.26	+.8	9	8.2	n.	27	nw.	24	8	9	14	6.3	T	.0
Port Arthur	34	98	106	30.08	30.12		54.2		73	20	61	33	31	47	29				5.50	+1.8	10	14.1	n.	41	s.	23	9	7	15	6.1	.0	.0
San Antonio	693	242	301	29.37	30.10	.00	54.5	+2.2	85	18	63	27	31	46	34	48	42	66	3.35	+1.9	7	12.0	n.	34	nw.	24	11	10	10	5.6	.0	.0

[1] Observations taken at airport.

TABLE 2.—*Climatological data for Weather Bureau Stations, January 1938*—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.
Ohio Valley and Tennessee							34.7	+1.1										74	2.73	−1.1										6.7		
Chattanooga	762	71	214	29.27	30.10	−0.06	42.8	+1.6	69	24	51	17	28	35	29	38	32	70	4.11	−1.2	12	8.4	w.	35	se.	24	8	8	15	6.4	0.1	0.0
Knoxville	995	66	84	29.01	30.09	−.06	40.3	+1.5	70	24	49	14	27	32	33	36	31	74	4.30	−.4	14	6.0	w.	27	w.	24	9	10	12	6.1	2.8	.0
Memphis	399	78	86	29.67	30.11	−.05	41.8	+.9	69	23	49	19	26	34	37	37	30	65	5.61	+.8	7	9.0	nw.	27	w.	25	12	8	11	5.3	.0	.0
Nashville	546	168	188	29.52	30.12	−.04	38.9	+.3	65	16	47	15	27	30	34	35	30	73	5.81	+1.0	10	9.5	w.	33	s.	24	9	5	17	6.6	.1	.0
Lexington	989	6					33.6	+.7	60	24	42	3	28	25	29				3.77	−.4	12		w.				11	3	17		2.8	.0
Louisville	525	188	234	29.50	30.10	−.04	34.3	−.1	60	24	42	7	25	27	29	31	26	72	2.47	−1.5	10	11.3	s.	37	se.	24	10	8	13	6.1	.6	.0
Evansville	431	76	116	29.60	30.09	−.05	34.8	+1.3	59	24	42	9	27	27	32	31	26	73	3.54	−.2	11	10.1	nw.	43	sw.	24	11	4	16	6.2	6.7	.0
Indianapolis	822	194	230	29.14	30.05	−.07	29.4	+1.0	54	24	36	5	28	22	30	27	21	72	1.00	−2.0	11	11.3	w.	43	sw.	24	6	6	19	7.4	2.2	.0
Terre Haute	575	63	149	29.40	30.04		30.6		56	24	38	5	28	23	34	28	24	78	1.42	−1.3	12	10.2	nw.	40	sw.	24	7	6	18	6.8	4.1	.0
Cincinnati	627	11	51	29.36	30.06	−.06	32.4	+2.1	60	24	40	5	28	25	29	29	24	75	1.68	−1.8	8	9.0	sw.	30	s.	24	7	5	19	6.7	3.6	.1
Columbus	822	90	210	29.14	30.05	−.06	31.2	+2.6	63	24	38	7	28	24	31	28	23	74	1.11	−2.0	9	11.2	s.	50	s.	24	4	14	13	6.6	2.9	T
Dayton	899	60	163	29.04	30.03		31.2	+1.7	60	24	38	3	28	24	29				1.18	−2.0	9	10.2	sw.	36	sw.	24	4	10	17	6.9	3.2	T
Elkins	1,947	65	83	27.95	30.09	−.03	31.2	+.8	61	30	40	5	29	22	46	28	24	78	2.25	−1.5	17	7.0	w.	30	se.	24	4	9	18	7.4	10.1	.3
Parkersburg	637	77	84	29.35	30.06	−.06	33.8	+1.3	69	24	42	8	26	26	35	30	26	77	1.77	−1.8	13	7.0	sw.	29	sw.	24	5	10	16	7.0	2.7	.1
Pittsburgh [1]	1,273	39	54	28.63	30.03	−.08	29.6	−1.1	60	24	37	5	26	23	34	26	23	78	1.98	−1.1	18	11.1	sw.	36	se.	24	2	7	22	7.8	6.7	.7
Lower Lake Region							24.9	+0.4										79	1.44	−1.1										8.3		
Buffalo	768	243	280	29.14	30.00	−.07	24.4	−.2	51	24	31	0	19	18	31	22	19	81	1.99	−1.3	20	16.8	w.	50	sw.	25	2	6	23	8.4	18.5	2.0
Canton	448	10	61	29.52	30.02		14.8	−1.5	52	25	24	−23	18	5	37	14	13	92	1.73	−.8	15	9.3	w.	29	s.	24	5	11	15	7.0	12.5	2.0
Ithaca	836	77	100	29.08	30.01		25.2	+.9	54	30	33	−9	18	18	33	23	19	76	1.72	−.5	16	9.5	se.	47	se.	24	1	4	26	8.8	9.3	1.0
Oswego	335	71	85	29.63	30.02	−.05	23.5	−.4	52	30	30	−8	19	16	26	21	16	73	2.67	−.2	21	10.8	se.	34	se.	24	2	2	27	9.1	25.9	1.0
Rochester	523	86	102	29.43	30.02	−.05	24.8	+.2	53	30	32	−5	19	18	29	22	17	70	1.37	−1.5	16	9.3	sw.	28	sw.	25	2	7	22	8.5	12.7	1.0
Syracuse	596	65	79	29.35	30.02	−.05	25.0	+.9	54	25	32	−10	19	18	33				2.01	−1.0	18	6.9	e.	25	s.	30	2	7	22	8.4	15.0	1.4
Erie	714	130	166	29.21	30.01	−.07	26.8	.0	50	24	33	5	18	20	28	25	21	77	1.46	−1.3	17	14.1	sw.	52	se.	24	3	4	24	8.4	10.2	.3
Cleveland	762	267	318	29.16	30.00	−.09	29.0	+2.5	60	24	36	6	28	22	28	26	22	78	1.07	−1.4	17	15.9	s.	47	s.	30	2	7	22	8.1	8.9	.2
Sandusky	629	5	67	29.30	30.01	−.08	28.2	+1.9	60	24	35	6	9	22	26				.91	−1.4	12	10.3	sw.	32	sw.	30	2	9	20	8.1	5.9	.1
Toledo	628	79	87	29.31	30.02	−.07	26.8	+1.0	58	24	33	5	28	20	25	24	20	77	.55	−1.6	12	10.7	w.	31	w.	25	0	11	20	8.2	4.3	T
Fort Wayne	857	69	84	29.07	30.02		26.4	+.2	56	24	33	5	28	20	29	24	22	84	.88	−1.4	13	10.6	w.	44	sw.	24	2	11	18	7.5	5.3	.0
Detroit [1]	626	5	78	29.29	30.00	−.08	24.3	−.1	52	24	30	0	28	18	22	22	18	78	.87	−1.2	12	11.1	sw.	34	sw.	25	0	6	25	8.6	4.4	T
Upper Lake Region							18.3	0.0										83	2.75	+0.9										7.9		
Alpena	609	13	89	29.27	29.97	−.07	18.4	−.7	41	30	26	−8	28	11	27	17	14	83	2.42	+.5	17	11.5	nw.	32	s.	24	5	4	22	7.9	19.5	8.8
Escanaba	612	41	49	29.30	30.00	−.05	15.0	−.4	37	22	22	−14	31	8	29	14	9	77	1.80	+.3	13	9.0	nw.	34	nw.	30	5	5	21	7.6	24.5	17.5
Grand Rapids	707	70	244	29.19	29.99	−.07	23.8	−.7	49	24	29	3	28	18	29	22	19	81	2.39	.0	19	11.8	nw.	49	sw.	24	1	4	26	8.8	10.2	.7
Lansing	878	5	90	29.01	29.98		22.4	.0	48	24	29	−10	28	16	29	21	19	89	1.31	−.5	15	9.5	sw.	37	s.	24	1	8	22	8.4	9.9	.1
Ludington	637	5	54	29.25	29.97		22.9	−.2	42	24	28	−1	10	18	23	21	18		5.42	+3.3	16		nw.				1	2	28		30.9	13.2
Marquette	734	49	64	29.15	29.99	−.05	16.1	−.2	43	23	22	−12	31	10	28	15	13	86	3.93	+1.6	17	8.5	nw.	37	nw.	25	2	4	25	8.5	40.5	31.0
Sault Sainte Marie	614	11	52	29.27	30.00	−.03	12.0	−1.3	37	23	19	−14	27	5	29	12	10	90	2.71	+.8	20	7.8	e.	30	ne.	25	4	8	19	7.7	29.7	24.9
Chicago	673	7	131	29.26	30.02	−.08	25.4	+1.7	52	24	31	0	8	19	38	24	20	78	2.02	+.1	10	10.9	w.	32	sw.	30	4	4	23	8.0	6.3	.0
Green Bay	617	109	141	29.30	30.01	−.05	15.4	−.3	39	23	23	−14	31	8	30	15	12	81	2.06	+.5	13	10.7	w.	34	nw.	24	6	5	20	7.7	17.2	14.3
Milwaukee	681	97	221	29.23	29.99	−.09	21.8	+1.2	41	21	28	−6	31	16	36	21	17	80	4.60	+2.8	12	12.5	nw.	35	nw.	24	2	4	25	8.4	7.8	.4
Duluth	1,133	5	47	28.74	30.03	−.06	8.6	+.7	40	23	16	−24	31	1	26	7	4	82	1.55	+.6	12	14.3	nw.	54	nw.	24	9	5	17	6.4	19.5	11.6
North Dakota							9.4	+4.4										86	0.50	0.0										6.6		
Moorhead, Minn	940	50	58	29.03	30.11	−.03	6.3	+2.5	37	23	15	−21	31	−2	30	6	5	90	.48	−.2	8	9.1	s.	28	n.	24	6	8	17	7.0	5.8	4.5
Bismarck	1,674	8	57	28.21	30.09	−.04	12.5	+4.7	41	23	22	−23	30	2	38	12	8	82	.40	.0	10	7.7	nw.	30	nw.	24	9	7	15	6.0	6.7	4.2
Devils Lake	1,478	11	44	28.43	30.10	−.02	4.6	+2.8	34	23	13	−31	31	−4	31	5	2	87	.27	−.2	9	8.3	nw.	25	n.	24	7	6	18	6.9	2.5	4.8
Grand Forks	833	12	67																													
Williston	1,878	42	50	28.00	30.08	−.03	14.1	+7.7	39	21	24	−23	30	5	44	13	10	86	.83	+.3	9	7.4	w.	25	nw.	11	8	8	15	6.4	10.8	9.3
Upper Mississippi Valley							23.8	+2.0										77	2.22	+0.6										6.4		
Minneapolis-St. Paul, Minn	919	105	208	29.01	30.04	−.07	13.5	+.8	47	23	20	−14	27	7	32	12	9	79	.87	.0	11	11.0	nw.	35	nw.	24	8	8	15	6.1	9.3	3.5
La Crosse	714	11	48	29.25	30.06	−.05	18.0	+1.9	47	22	25	−9	31	11	29	16	11	75	1.13	.0	9	6.4	nw.	21	nw.	24	6	9	16	6.7	9.2	3.0
Madison	974	70	78	28.92	30.03	−.07	17.8	+1.1	41	22	24	−10	31	11	35	17	14	82	2.81	+1.4	16	9.0	nw.	31	nw.	24	2	12	17	7.5	11.8	7.0
Charles City	1,015	10	51	28.93	30.08	−.06	15.8	+2.1	41	22	24	−13	10	8	32	15	12	84	1.13	+.1	12	7.1	nw.	25	nw.	24	9	10	12	5.8	8.9	3.0
Davenport	606	66	161	29.37	30.06	−.06	23.6	+1.8	44	23	31	−3	31	16	45	22	19	81	2.70	+1.3	10	10.5	nw.	33	nw.	24	10	6	15	6.3	5.3	T
Des Moines	861	5	99	29.12	30.07	−.07	22.6	+2.5	50	22	31	−6	31	14	39	21	16	75	.83	−.2	10	10.5	nw.	37	nw.	24	8	8	15	6.2	9.0	.3
Dubuque	699	60	79	29.26	30.05	−.07	20.0	+.9	46	22	27	−7	31	13	32	19	15	77	2.05	+.8	13	6.9	nw.	24	nw.	25	7	8	16	6.5	6.2	1.5
Keokuk	614	64	78	29.38	30.07	−.07	27.6	+2.7	54	16	36	−2	31	19	46	24	18	70	3.73	+2.2	10	8.6	nw.	30	nw.	30	10	4	17	6.3	2.1	.0
Cairo	358	87	93	29.69	30.09	−.07	37.3	+2.4	62	16	46	12	31	29	36	33	28	72	4.27	+.5	7	10.0	s.	32	sw.	24	11	3	17	6.1	1.1	.0
Peoria	609	11	45	29.36	30.05	−.07	26.2	+3.1	53	24	34	−1	31	18	45	24	21	84	4.32	+2.5	10	7.9	w.	24	w.	25	9	4	18	6.4	6.3	.0
Springfield, Ill	636	5	191	29.34	30.05	−.08	29.2	+2.7	55	24	37	2	31	21	42	27	23	78	1.53	−.6	8	12.5	nw.	32	nw.	25	9	4	18	6.6	1.7	.0
St. Louis	568	179	303	29.44	30.06	−.08	33.4	+2.3	62	16	42	5	31	25	45	30	24	70	1.31	−1.0	8	13.4	w.	35	sw.	30	9	7	15	6.0	1.1	.0
Missouri Valley							27.0	+3.6										72	1.36	+0.3										5.8		
Columbia, Mo	784	6	66	29.20	30.06	−.07	32.4	+3.2	62	16	41	1	31	23	48				3.34	+1.4	7	9.2	w.	30	nw.	24	10	4	17	6.1	.3	.0
Kansas City [1]	750	32	45	29.25	30.08	−.07	32.0	+3.8	60	28	41	2	31	24	37	28	22	68	1.89	+.7	5	11.3	sw.	39	nw.	25	10	7	14	5.8	.2	T
St. Joseph	967	11	49	29.01	30.08		29.8		60	28	38	−1	31	21	40	26	20	68	1.22	−.1	4	10.1	nw.	34	nw.	25	12	7	12	5.2	T	.0
Springfield, Mo	1,324	98	104	28.63	30.07	−.07	35.8	+2.3	68	16	45	3	31	27	49	31	26	72	3.14	+.8	6	11.3	nw.	32	w.	25	8	13	10	5.6	T	.0
Topeka	987	65	87	29.00	30.09		32.1	+4.5	66	28	42	1	31	23	46	28	22	67	1.14	+.2	4	10.3	nw.	35	nw.	24	10	12	9	5.3	.1	.0
Lincoln	1,189	11	81	28.77	30.08	−.07	27.2	+4.4	59	22	37	−5	31	17	38	24	16	64	.87	+.2	6	11.3	nw.	43	nw.	24	10	9	12	5.4	6.9	4.2
Omaha [1]	982	31	44	28.99	30.09	−.06	24.5	+2.6	55	22	34	−8	31	15	33	22	17	74	.68	.0	5	12.2	nw.	45	nw.	24	11	7	13	6.1	8.7	2.0
Valentine	2,598	47	54	27.29	30.11	−.01	25.4	+6.5	62	15	36	−13	30	15	43	22	18	75	.43	.0	11	9.7	w.	41	nw.	11	6	8	17	6.7	4.2	.8
Sioux City	1,138	64	106	28.82	30.09	−.06	20.3	+2.5	52	22	29	−11	30	12	41	19	14	76	.49	−.2	7	11.0	nw.	45	nw.	24	8	10	13	6.3	7.4	1.8
Huron	1,307	59	74	28.65	30.12	−.04	13.7	+2.4	41	22	23	−19	27	5	36	13	9	82	.43	−.1	8	9.2	nw.	33	nw.	24	9	7	15	6.0	8.1	1.8
Northern Slope							25.5	+5.8										71	0.58	−0.2										6.6		
Havre	2,507	11	67	27.36	30.08	−.02	24.3	+11.4	58	14	36	−27	30	12	41	21	16	69	.38	−.4	6	9.8	w.	30	w.	22	8	8	15	6.3	7.5	2.5
Helena	4,124	85	111	25.83	30.16	+.01	26.6	+6.4	49	14	34	−21	30	19	30	23	16	62	.54	−.3	6	8.6	sw.	35	sw.	12	6	4	21	7.3	11.1	3.8
Missoula	3,263	80	91				25.5	+3.2	47	10	32	−4	30	20	24				.59	−.4	16	5.8	se.	39	e.	28	4	1	26	8.2	7.8	3.5
Kalispell	2,973	48	56	27.02	30.19	+.07	25.2	+4.8	43	10	31	−11	30	19	21	24	21	84	.71	−.9	14	4.6	w.	29	n.	28	3	7	21	7.8	8.6	3.4
Miles City	2,371	48	55	27.49	30.06	−.06	23.8	+9.3	47	27	34	−23	30	14	34	22	18	76	.31	−.4	5	6.3	s.	31	nw.	11	4	9	18	7.3	2.4	2.5
Rapid City	3,259	50	58	26.59	30.06	−.04	29.0	+7.0	60	15	39	−13	30	19	36	25	21	77	.35	−.1	7	8.8	n.	32	nw.	11	9	11	11	5.7	4.2	1.9
Cheyenne [1]	6,144	5	39	23.89	30.08	+.03	27.4	+1.9	54	15	38	−9	30	17	44	23	17	64	.37	.0	3	16.0	nw.	45	nw.	18	7	13	11	5.7	4.3	T
Lander	5,352	60	68	24.63	30.17	+.05	22.1	+3.8	52	22	35	−12	30	9	47	18	10	61	.63	+.1	6	4.9	sw.	27	w.	22	9	13	9	5.3	9.0	2.5
Sheridan	3,790	10	47	26.09	30.12		24.8		48	22	36	−22	30	14	45	22	17	72	1.03	+.2	9	5.7	nw.	27	nw.	10	7	9	15	6.3	8.3	3.0
Yellowstone Park	6,241	12	46	23.88	30.26	+.12	20.5	+2.8	42	15	30	−19	30	12	43	18	13	70	1.41	+.6	17	8.0	s.	28	sw.	31	7	2	22	7.2	20.7	5.5
North Platte	2,821	11	51	27.07	30.09	−.03	30.2	+7.3	62	15	42	−7	30	19	37	25	20	72	.07	−.3	3	8.7	w.	30	n.	24	8	13	10	5.7	1.1	T

[1] Observations taken at airport.

TABLE 2.—*Climatological data for Weather Bureau stations, January 1938*—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.
Middle Slope							35.4	+5.0										57	0.43	−0.2										4.4		
Denver	5,292	106	113	24.70	30.07	+0.02	34.9	+5.1	67	15	46	−3	30	24	48	27	15	48	0.77	+0.4	6	8.0	s.	30	ne.	11	9	15	7	5.0	10.4	0.0
Pueblo	4,685	80	86	25.29	30.08	+.03	33.8	+3.9	67	15	47	4	7	20	51	28	19	59	.62	+.3	4	7.4	nw.	40	w.	16	16	9	6	4.3	7.3	.0
Concordia	1,392	50	58	28.57	30.10	−.04	31.4	+5.0	67	28	42	−2	31	21	45	26	19	65	.16	−.4	3	9.7	n.	33	n.	24	13	13	5	4.5	.2	T
Dodge City	2,509	10	86	27.41	30.08	−.03	35.8	+6.8	67	15	48	1	31	23	36	28	16	51	.01	−.4	1	11.8	nw.	38	nw.	13	16	7	8	4.1	.1	.0
Wichita	1,358	85	93	28.62	30.09	−.04	35.6	+4.3	66	16	46	3	31	25	38	30	21	58	.12	−.7	3	10.4	nw.	30	nw.	24	17	7	7	3.8	T	.0
Oklahoma City	1,214	10	47	28.78	30.10	−.01	41.0	+4.6	73	16	51	9	31	31	35	35	27	61	.92	−.3	3	10.6	s.	30	nw.	24	14	9	8	4.7	T	.0
Southern Slope							45.9	+3.1										58	1.05	+0.4										5.0		
Abilene	1,738	10	52	28.26	30.11	+.02	48.4	+4.2	84	16	58	17	31	38	33	40	32	61	1.49	+.5	6	9.6	s.	29	s.	28	10	7	14	5.6	.0	.0
Amarillo	3,676	10	49	26.29	30.08	+.02	40.8	+5.5	75	15	53	11	31	29	43	32	20	48	.18	−.3	2	9.8	sw.	30	w.	29	10	14	7	5.0	.7	.0
Del Rio	960	63	71	29.07	30.08	+.02	53.1	+.8	85	18	62	28	31	44	37	47	41	69	1.38	+.8	5	8.4	se.	35	nw.	24	9	9	13	5.6	.0	.0
Roswell	3,566	75	85	26.42	30.10	+.06	41.2	+2.0	75	19	55	19	26	28	51	34	24	56	1.15	+.6	4	7.6	s.	35	nw.	23	16	9	6	4.0	6.3	.0
Southern Plateau							43.8	+3.7										52	0.56	−0.4										3.5		
El Paso	3,778	82	101	26.25	30.08	+.07	47.2	+2.2	71	19	58	25	25	36	33	38	27	50	1.22	+.8	5	7.6	nw.	27	w.	29	16	9	6	3.5	.0	.0
Albuquerque [1]	4,972	5	39	25.09	30.11	------	36.0	+1.9	60	18	50	12	25	22	39	29	21	61	.12	−.3	2	7.8	n.	44	nw.	23	17	5	9	4.1	T	.0
Santa Fe	7,013	38	53	23.23	30.10	+.06	31.7	+2.9	56	22	42	7	24	22	33	26	16	55	.03	−.6	1	6.3	n.	24	w.	29	14	6	11	4.8	.4	.0
Flagstaff	6,907	10	59	23.35	30.01	−.04	34.2	+7.5	59	13	46	13	8	22	40	30	----	65	1.39	−1.4	5	9.0	sw.	28	nw.	9	12	10	9	----	5.5	T
Phoenix	1,107	39	51	28.88	30.05	+.02	55.0	+3.8	77	13	69	31	25	41	39	45	32	47	.52	−.3	4	5.2	e.	23	w.	15	20	6	5	2.9	.0	.0
Yuma	141	9	54	29.92	30.07	+.02	58.4	+4.0	77	27	71	35	30	46	35	46	30	37	.07	−.4	2	6.6	n.	27	nw.	20	24	1	6	2.2	.0	.0
Independence	3,957	5	26	------	------	------	------	------	----	----	----	----	----	----	----	----	----	----	------	------	----	------	------	----	------	----	----	----	----	----	----	----
Middle Plateau							32.8	+5.0										73	0.94	−0.1										5.9		
Reno	4,527	61	76	25.56	30.18	+.05	36.4	+4.8	61	14	46	18	24	27	31	32	26	68	.66	−.9	7	5.5	sw.	32	s.	31	7	11	13	5.8	1.7	T
Tonopah	6,090	12	20	------	------	------	------	------	----	----	----	----	----	----	----	----	----	----	------	------	----	------	------	----	------	----	----	----	----	----	----	----
Winnemucca	4,344	18	56	25.73	30.22	+.06	32.7	+4.1	54	22	41	13	24	24	27	30	27	84	1.16	+.1	6	7.8	ne.	30	nw.	22	6	7	18	6.9	6.1	.0
Modena	5,473	10	43	24.68	30.15	+.05	29.6	+2.9	56	14	41	0	21	19	36	26	22	74	1.38	+.5	7	8.0	w.	31	sw.	15	11	6	14	5.5	10.4	T
Salt Lake City [1]	4,227	32	46	25.83	30.18	+.03	35.7	------	59	14	45	16	25	27	34	31	26	71	.55	------	6	8.0	se.	38	nw.	22	8	8	15	6.0	2.4	.0
Grand Junction	4,602	60	68	25.47	30.14	+.08	32.4	+8.4	49	14	41	15	25	23	25	28	23	70	.58	.0	6	5.0	se.	27	s.	16	9	13	9	5.3	4.0	.0
Northern Plateau							33.6	+5.8										77	1.12	−0.6										8.0		
Baker	3,471	36	54	26.55	30.22	+.06	32.9	+8.0	51	10	40	16	6	26	26	30	27	79	.53	−.9	9	5.6	s.	23	n.	12	3	5	23	8.0	5.3	T
Boise	2,739	79	87	27.31	30.24	+.05	35.9	+6.1	51	31	43	22	5	29	21	33	29	74	1.51	−.2	11	5.3	se.	27	nw.	12	6	5	20	7.1	.6	.0
Pocatello	4,477	60	68	25.55	30.18	−.02	31.4	+6.7	53	15	38	13	27	25	29	28	24	72	1.08	−.3	8	9.5	se.	32	sw.	10	5	13	13	6.8	3.4	T
Spokane	1,929	101	110	28.09	30.20	+.08	31.5	+4.0	47	14	36	9	30	27	16	30	27	81	1.44	−.7	15	6.2	s.	22	s.	22	4	4	23	8.4	6.2	3.6
Walla Walla	991	57	65	29.11	30.21	+.06	36.4	+3.7	61	14	41	17	30	32	21	34	31	80	1.41	−.6	13	5.3	s.	31	w.	10	1	3	27	9.1	7.1	5.4
Yakima	1,076	58	67	29.02	30.20	------	33.6	+6.2	56	15	39	19	31	28	22	32	28	78	.74	−.6	9	3.9	nw.	19	nw.	22	3	5	23	8.4	2.8	2.0
North Pacific Coast Region							42.5	+2.3										83	4.65	−2.0										8.2		
North Head	211	11	56	29.87	30.10	+.05	45.4	+3.3	61	25	50	34	31	41	17	43	41	84	5.28	−3.5	21	13.5	e.	61	s.	20	3	12	16	7.5	.0	.0
Seattle	125	90	321	29.96	30.10	+.05	42.5	+3.0	53	25	47	30	7	38	17	39	40	80	3.81	−1.1	12	8.1	se.	40	sw.	22	3	8	20	7.8	1.3	.2
Tatoosh Island	86	10	54	29.96	30.06	+.08	44.0	+2.8	50	11	47	31	30	41	10	42	39	81	6.62	−5.2	21	19.4	e.	52	e.	29	2	7	22	8.2	.5	T
Medford [1]	1,329	29	58	28.73	30.18	------	38.4	+.5	57	25	44	25	24	33	29	37	36	90	2.83	.0	16	------	w.	----	------	----	1	4	26	8.7	T	.0
Portland, Oreg.	153	68	106	29.98	30.14	+.06	41.4	+2.0	56	14	46	26	6	36	23	39	36	79	5.06	−1.5	18	6.0	se.	19	ne.	30	1	9	21	8.1	.9	T
Roseburg	510	45	76	29.59	30.15	+.05	43.4	+2.2	60	21	49	30	25	38	27	42	39	83	4.32	−1.0	18	3.9	s.	18	sw.	17	1	4	26	8.7	.0	.0
Middle Pacific Coast Region							49.0	+2.0										78	4.81	−0.7										6.3		
Eureka	62	73	89	30.07	30.14	+.04	49.9	+3.0	65	11	56	36	24	44	22	47	44	81	6.28	−.8	18	6.9	se.	27	se.	30	8	7	16	6.4	.0	.0
Redding [1]	722	20	34	------	------	------	49.2	+3.9	74	10	58	28	6	41	33	44	38	70	6.81	.0	14	7.0	nw.	30	se.	31	6	9	16	6.7	.0	.0
Sacramento	66	92	115	30.08	30.16	+.04	45.3	−.5	60	26	51	32	24	40	24	43	41	84	3.50	−.2	13	6.5	se.	31	se.	31	8	5	18	6.9	.0	.0
San Francisco	155	112	132	29.95	30.12	+.01	51.4	+1.5	66	26	57	40	7	46	20	48	44	77	2.65	−1.9	12	7.0	n.	26	se.	16	10	11	10	5.2	.0	.0
South Pacific Coast Region							55.4	+3.7										65	1.55	−0.7										5.3		
Fresno	327	97	105	29.81	30.17	+.07	46.6	+.4	65	26	54	32	12	40	28	45	42	84	2.14	+.4	9	5.2	nw.	22	e.	31	4	6	21	7.5	.0	.0
Los Angeles	338	159	191	29.71	30.08	.00	61.2	+6.6	82	26	70	44	30	52	28	50	39	50	1.63	−1.5	7	5.8	ne.	21	nw.	20	17	6	8	4.0	.0	.0
San Diego	87	62	70	29.97	30.06	−.01	58.4	+4.1	79	12	68	42	30	49	29	50	43	61	.89	−1.2	6	5.5	nw.	27	w.	19	18	3	10	4.4	.0	.0
West Indies																																
San Juan, P. R.	82	9	54	29.94	30.04	------	75.1	+.1	80	19	79	68	11	72	11	----	----	----	2.08	−2.1	17	14.8	e.	35	ne.	30	0	25	6	6.2	.0	.0
Panama Canal																																
Balboa Heights	118	6	92	------	[2] 29.84	+.01	79.6	−.3	90	22	88	69	28	72	19	----	----	[3] 78	2.20	+1.2	7	7.4	nw.	24	n.	26	7	24	0	4.6	.0	.0
Cristobal	36	6	97	------	[2] 29.87	+.01	80.8	−.7	86	20	85	74	25	77	11	74	72	[3] 77	2.27	−1.2	20	13.2	n.	28	ne.	28	6	20	5	5.4	.0	.0
Alaska																																
Fairbanks	454	11	87	------	[3] 29.97	------	-18.1	−6.0	22	7	−9	−43	1	-27	39	----	----	80	.54	−.3	7	3.6	n.	27	w.	9	13	5	13	----	15.4	19.0
Juneau	80	96	116	[3] 29.71	[3] 29.80	------	31.9	+4.5	46	4	35	13	31	28	17	29	24	74	10.30	+3.3	25	9.4	s.	32	se.	2	5	1	25	8.4	35.0	5.5
Nome	22	5	32	[3] 29.94	[3] 29.95	------	−.8	−4.5	25	28	7	−26	4	−9	29	0	−7	67	.54	−.6	5	7.9	ne.	36	ne.	15	18	5	8	4.1	6.5	5.6
Hawaiian Islands																																
Honolulu	38	86	100	29.96	30.00	------	72.8	+1.9	81	31	78	63	10	68	15	66	63	73	2.15	−1.6	13	9.1	e.	30	e.	25	11	12	8	5.1	.0	.0

[1] Observations taken at airport. [2] Observations taken hourly. [3] Pressure not reduced to a mean of 24 hours.

TABLE 3.—*Data furnished by the Canadian Meteorological Service, January 1938*

Stations	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.*
Cape Race, Newfoundland	99												
Sydney, Cape Breton Island	48	29.93	29.99	+0.05	24.2	+2.5	31.5	16.8	50	4	2.78	−2.31	6.2
Halifax, Nova Scotia	88	29.77	30.05	+.07	24.3	+1.3	30.7	17.9	50	−5	4.50	−1.04	3.1
Yarmouth, Nova Scotia	65	29.93	30.04	+.04	27.0	+.2	33.5	20.6	49	6	4.69	−.19	13.6
Charlottetown, Prince Edward Island	38	29.95	30.04	+.08	18.2	+1.0	25.1	11.4	48	−4	2.45	−1.69	11.8
Chatham, New Brunswick	28	29.87	29.99	+.01	13.4	+.7	24.5	2.3	46	−18	2.33	−1.10	9.3
Father Point, Quebec	20	29.97	29.99	+.01	12.6	+3.6	21.1	4.0	49	−11	2.59	+.09	21.3
Quebec, Quebec	296	29.69	30.03	−.01	11.8	+2.1	18.4	5.1	49	−17	3.63	−.20	25.9
Doucet, Quebec	1,236	28.56	30.00	−.04	−.6	+1.8	11.1	−12.2	38	−48	3.97	+1.29	36.7
Montreal, Quebec	187												
Ottawa, Ontario	236	29.76	30.02	−.04	9.6	−1.8	19.2	.3	44	−25	1.92	−1.04	11.3
Kingston, Ontario	285	29.68	30.02	−.05	18.0	−.2	25.8	10.3	46	−11	1.88	−.95	8.2
Toronto, Ontario	379	29.58	30.02	−.06	22.3	−.4	28.7	15.9	47	−4	1.63	−1.09	9.7
Cochrane, Ontario	930	28.90	29.99	−.09	−1.3	−1.5	7.2	−9.8	36	−33	4.84	+3.34	48.4
White River, Ontario	1,244	28.60	30.02	.00	−3.9	−3.8	10.8	−18.6	37	−52	3.07	+1.43	30.7
London, Ontario	808	29.08	29.99	−.11	19.4	−3.0	27.0	11.7	45	−4	2.56	−1.38	18.5
Southampton, Ontario	656	29.24	29.98	−.06	18.8	−2.5	25.1	12.4	45	−11	3.72	−.06	28.3
Parry Sound, Ontario	688	29.26	30.00	−.04	13.2	−1.5	21.9	4.6	43	−20	4.17	+.15	30.3
Port Arthur, Ontario	644	29.30	30.06	−.01	4.4	−2.2	13.6	−4.8	34	−28	1.90	+1.12	19.0
Winnipeg, Manitoba	760	29.22	30.12	−.05	−.6	+2.0	8.9	−10.0	30	−41	1.36	+.49	13.6
Minnedosa, Manitoba	1,690	29.16	30.10	−.02	1.1	+3.5	10.0	−7.8	29	−36	.66	−.15	6.6
Le Pas, Manitoba	860	29.06	30.10	−.05	−5.2	+2.1	3.0	−13.4	34	−38	.28	−.26	2.8
Qu'Appelle, Saskatchewan	2,115	27.66	30.06	−.08	5.2	+4.4	14.3	−4.0	34	−35	1.58	+.87	15.8
Moose Jaw, Saskatchewan	1,759	27.97	30.05	−.08	11.0	+7.0	20.3	1.7	40	−30	1.00	+.36	9.5
Swift Current, Saskatchewan	2,392	27.38	30.08	−.05	16.0	+9.1	23.4	8.5	40	−27	.92	+.24	9.2
Medicine Hat, Alberta	2,365	27.45	30.04	−.08	22.8	+10.2	31.4	14.2	48	−24	.88	+.27	8.8
Calgary, Alberta	3,540	26.26	30.08	+.02	22.6	+11.3	31.7	13.4	46	−21	.15	−.34	1.5
Banff, Alberta	4,521	25.28	30.06	−.02	16.8	+3.4	25.8	7.7	43	−33	1.02	−.38	10.2
Prince Albert, Saskatchewan	1,450	28.46	30.10	−.02	.8	+4.9	10.4	−8.7	36	−46	1.04	+.29	10.4
Battleford, Saskatchewan	1,592	28.24	30.08	−.04	5.6	+9.4	15.2	−4.1	38	−36	.61	+.08	5.7
Edmonton, Alberta	2,150	27.62	30.02	−.04	14.9	+8.7	24.2	5.6	44	−32	.70	−.15	7.0
Kamloops, British Columbia	1,262												
Victoria, British Columbia	230	29.85	30.11	+.06	40.8	+2.2	44.1	37.5	51	28	2.51	−1.86	1.5
Barkerville, British Columbia	4,180												
Estevan Point, British Columbia	20												
Prince Rupert, British Columbia	170												
St. George's, Bermuda	158		30.07	−.06	63.8	+1.1	68.2	59.5	76	50	6.96	+2.34	.0
LATE REPORTS FOR DECEMBER 1937													
Cape Race, Newfoundland	99				32.2	+2.0	37.6	26.8	49	11	9.79	+4.73	15.5
Banff, Alberta	4,521	25.24	30.00	−0.08	15.4	−1.3	24.9	6.0	38	−29	3.11	+1.91	31.1

TABLE 4.—*Severe local storms, January 1938*

[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
Rhode Island, entire State	1-2					Snow, sleet, and rain.	On the 1st snow and sleet turned to rain in the afternoon which lasted until about 8:45 a. m. of the 2d. At this time ½ inch of glaze had formed on streets and roadways. Numerous accidents reported in Providence.
Boise and Nampa, Idaho	12	2:45-3:25 p. m.	[1] 10		$5,000	Straight-line wind	Number of sheds and outbuildings demolished; path 25 miles long.
Hartford, Conn	13					Snow	Considerable inconvenience to traffic of all types.
Albuquerque, N. Mex	15	A. m				Glaze	Light mist falling on frozen surfaces caused a light glaze on sidewalks and streets. Several persons injured by falling. Glaze unusual in Albuquerque.
Dallas, Tex., and vicinity	20	1 p. m		1		Rain, hail, and electrical.	Boy killed by lightning. Ground covered with hail in sections of Oak Cliff and Trinity Heights.
Rockford, Amboy, Kewanee, and La Salle, Ind., and vicinities.	23-24			3	600,000	Heavy rain and flood.	A considerable portion of the southeastern section was inundated to a depth of several feet, requiring 600 families to move, closing the industrial section. Because of rapidly rising water, many families had to be rescued from their homes. Minor loss to crops and livestock.
Dodge City, Kans	23-24			1		2 duststorms	Poor visibility caused 2 motor accidents. In the one on the 24th, 1 person was killed and 3 injured. On the 24th, the Santa Fe trains, on the branch line which runs through the heart of the dust bowl to Boise City, Okla., were unable to get through dust and sand drifts several feet deep and about one-quarter of a mile long over the tracks.
Kilby, Ala.[2]	24	p. m		0		Tornado	Trees broken or unrooted; number of porches damaged; roof of a residence blown off. 2 or more main electric power lines damaged, throwing the entire village in darkness.
Evansville, Ind., and vicinity	24				1,000	Wind	Damage principally to windows and roofs.
Indianapolis, Ind	24					do	Power and telegraph wires and poles and trees damaged; windows broken; building unroofed.

[1] Miles instead of yards.

[2] From press reports.

TABLE 4.—*Severe local storms, January 1938*—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Grand Marais, Minn., and vicinity.	24-25				15,000	Blizzard	At Grand Marais, buildings were unroofed, windows broken, signs, awnings, poles and wires down, cabins toppled over, and trees uprooted. Heavy snows caused much drifting, delaying traffic in the northern and eastern portions of the State.
New York, N. Y.	24-25					Wind	On the 24th a maximum wind velocity of 51 miles an hour with an extreme velocity of 61 miles was recorded. On the 25th the maximum wind velocity was 59 miles an hour with an extreme velocity of 67 miles. Several persons blown off their feet; property damaged.
Wisconsin, eastern portion	24-25					Rain, wind, and snow.	Heavy rain in the extreme southeastern portion caused moderate floods in small streams. At the same time blizzard conditions were experienced in the northeastern portion from Sheboygan northward. Many highways blocked, some until the 26th.
Duluth, Minn.	24-26					Wind and snow	Property damaged; travel difficult, because of drifting snow. Trains and busses late, especially those from the south and east where heavier snowfall blocked the highways.
Marquette, Mich., and vicinity.	24-27	6 a. m. of 24th - 3:20 p. m. of the 27th.				Blizzard	During this "old-time" blizzard, wind blew continuously. By 8 p. m. of the 24th, streets and highways were impassable. No trains in the city from the 25th to 27th. Full service resumed on the 28th, but with considerable delay. On the 25th and 26th there were no mail deliveries and delivery of food only in emergency cases was made by men on snowshoes. Drifts about the city 10 feet deep. In the vicinity of Negaunee there was a 17-foot drift on the main street. Electric service interrupted for a short period by falling trees. The Weather Bureau official at Marquette states that in his 28 years' experience in this section he had never seen such a combination of wet snow and high wind.
Evansville, Ind.	24-28					Rain and snow	Dangerous condition in the streets and on highways; traffic interrupted.
Michigan, entire State	25			2		Blizzard	All roads blocked in Baraga, Marquette, Schoolcraft, Dickinson, and Delta Counties. Traffic at standstill throughout the western Upper Peninsula. Children kept all night in 2 rural schools near Ironwood. Schools closed quite generally in northern Lower Michigan and the Upper Peninsula. The Ann Arbor railroad car-ferry, No. 3, broke its moorings and drifted over to the south shore. Several fishing boats rescued by coast guards. 130 marooned motorists rescued. 60 river shacks blown into Lake Erie, near Monroe. More than 20 small buildings demolished in the St. Clair River and Lake region.
Norfolk, Va.	25				2,800	Wind	Small damage to power and telephone lines. Several plate-glass windows blown in; number of trees uprooted. Several ships off the coast damaged and in distress.
Missoula, Mont.,[1] and vicinity.	28	P. m.				do	High wind and snow caused limited visibility.
Cherokee and Crawford Counties, Kans.	29	11 p. m.			50,000	Wind and hail	In Cherokee County, hail caused chief damage; much plate glass broken; roofs damaged; loss $20,000. In Crawford County wind caused property damage to the extent of $30,000.
Iantha, Liberal, Irwin, and Oakton, Mo.,[1] and vicinities.	29	11:20 p. m.				Wind	Much damage to rural property.
Milwaukee, Wis.	29-30					Rain and glaze	Heavy glaze on exposed objects.
Dubuque, Iowa, and vicinity	30-31					Glaze	3 persons injured when a Cedar Rapids-Dubuque bus overturned. Several other accidents reported. Highways dangerously icy in spots.

[1] From press reports.

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