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 1940*

[For description of tables, see page 32, and of lithograph charts, page 38 of this REVIEW]

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	34.2	−12.2	2 stations	75	[1] 12	St. Bernard	−16	28	4.34	−0.50	Mitchell Dam	8.88	2 stations	1.74
Arizona	44.2	+2.4	do	89	30	Alpine	−15	7	.76	−.54	Junipine	4.26	7 stations	.00
Arkansas	28.0	−13.2	Magnolia	74	11	White Rock	−14	19	1.56	−2.86	St. Francis	4.62	Warren	.64
California	47.0	+2.3	Indio	87	28	Boca	−12	14	8.41	+3.58	Ben Lomond	32.41	2 stations	T
Colorado	19.7	−4.2	Cheyenne Wells	64	30	Fraser	−47	19	1.42	+.64	Wolf Creek Pass	6.86	Redvale	T
Florida	49.7	−9.3	2 stations	87	[1] 13	Mason	8	27	2.58	−.17	Mountain Lake	6.11	Key West	.62
Georgia	35.0	−11.9	Waycross	74	11	La Fayette (near)	−17	27	4.44	+.17	Newnan	7.50	Stillmore	2.15
Idaho	26.2	+2.2	Gooding	57	1	Island Park Dam	−29	19	2.47	+.29	Silver City	6.20	Mackay	.57
Illinois	15.0	−12.6	Cairo	51	14	Freeport	−24	18	1.47	−.91	Golconda	3.04	Pana	.73
Indiana	16.2	−12.8	North Vernon	59	14	Marengo	−21	6	1.67	−1.46	La Porte	3.06	Marengo	.80
Iowa	8.4	−10.1	Thurman	45	31	4 stations	−26	18	.83	−.26	Cedar Rapids	1.72	2 stations	T
Kansas	15.2	−14.6	Elkhart	56	30	Dresden	−24	18	.82	+.15	La Cygne	1.86	Trousdale	.23
Kentucky	21.1	−14.7	Williamsburg	61	14	Shelbyville	−20	19	1.67	−2.82	Mayfield	3.44	Carrollton	.58
Louisiana	39.3	−12.3	Bogalusa	78	12	2 stations	−8	27	2.96	−1.94	Morgan City	6.64	Plain Dealing	1.23
Maryland-Delaware	22.3	−11.5	3 stations	59	14	Oakland, Md	−12	19	2.23	−1.07	Cambridge, Md	4.15	Elkton, Md	.51
Michigan	16.8	−4.1	4 stations	45	[1] 14	Watersmeet	−31	4	2.27	+.38	Chatham	6.71	Flint	.44
Minnesota	4.8	−4.4	Hallock	43	30	3 stations	−40	16	.26	−.49	Isle	.84	Worthington	T
Mississippi	32.8	−14.5	Leakesville	78	12	do	−14	27	3.09	−2.07	Leakesville	5.51	Stoneville	1.08
Missouri	15.5	−15.2	Caruthersville	55	13	St. Joseph (Airport)	−28	26	1.35	−1.04	Caruthersville	2.79	Madison	.52
Montana	14.3	−5.2	Choteau	66	29	2 stations	−40	[1] 5	.66	−.28	Hebgen Dam	3.18	2 stations	T
Nebraska	11.5	−11.4	Fort Robinson	54	29	Gordon	−32	18	.72	+.19	McCool Junction	2.00	Merriman	.10
Nevada	33.7	+4.2	Overton	93	14	Wells	−16	15	2.31	+1.11	Lewers Ranch	14.50	Indian Springs	.07
New England	16.3	−6.3	Brockton, Mass	54	15	2 stations	−26	[1] 7	2.05	−1.43	Collinsville, Conn	3.99	East Barnet, Vt	.54
New Jersey	22.4	−8.5	Belvidere	62	15	Runyon	−13	20	1.94	−1.71	Little Falls	3.47	Pemberton	.98
New Mexico	31.3	−2.2	Lovington	77	15	Eagle Nest	−35	23	.59	+.01	Irvin's Ranch	3.05	3 stations	.00
New York	15.3	−7.8	Jamestown	55	14	Stillwater Reservoir	−39	23	1.70	−1.25	Jamestown	5.14	Whitehall	.30
North Carolina	29.7	−11.8	3 stations	66	[1] 14	Cullowhee	−18	26	3.07	−.71	Manteo	4.82	Elizabethtown	1.34
North Dakota	3.4	−2.8	do	48	29	Dunn Center	−39	4	.10	−.37	Towner	.55	3 stations	.00
Ohio	16.8	−11.6	McConnelsville	62	14	2 stations	−17	19	1.46	−1.63	Jefferson	3.05	Put-in-Bay	.56
Oklahoma	25.3	−12.8	Idabel	74	3	do	−14	7	.79	−.65	Bear Mountain Tower.	2.32	Purcell	.20
Oregon	34.1	+2.3	Port Oxford	78	26	Chemult	−12	13	2.93	−.89	Valsitz	11.13	Hart Mountain	.59
Pennsylvania	19.3	−9.1	8 stations	56	[1] 14	3 stations	−16	[1] 7	1.41	−1.82	Westford	4.74	Wilkes-Barre (airport).	.44
South Carolina	34.4	−11.5	2 stations	67	14	Longcreek (near)	−13	26	3.52	−.06	Edgefield	5.84	Landrum	2.19
South Dakota	7.5	−9.1	Rapid City	58	29	McIntosh	−35	18	.19	−.36	Harvey's Ranch	.79	7 stations	T
Tennessee	24.7	−14.3	Waynesboro	66	14	Coldwater	−22	26	2.02	−2.87	Elkmont	4.20	Embreeville	.79
Texas	38.1	−10.1	Mission	90	13	2 stations	−8	[1] 7	.83	−.86	Matagorda	3.21	Van Horn	.07
Utah	27.5	+2.3	2 stations	70	[1] 30	Woodruff	−40	19	2.24	+1.01	Mt. Baldy Ranger Sta.	8.40	Callao	.03
Virginia	25.0	−11.5	do	64	[1] 14	Mineral	−20	27	2.46	−.85	New Canton	5.04	Mount Weather	1.08
Washington	33.6	+3.5	do	74	[1] 28	Stockdill Ranch	−5	11	2.92	−2.24	Wynoochee Oxbow	15.03	Republic	.60
West Virginia	20.5	−12.1	Winfield Locks	62	14	Benson	−24	19	1.44	−2.21	Pickens No. 2	2.77	London Locks	.70
Wisconsin	9.7	−5.3	Racine	39	14	Mellen	−34	16	.89	−.35	El Dorado	2.29	Holcombe	.14
Wyoming	15.6	−4.3	Shoshoni	60	3	Bedford	−45	19	1.19	+.40	Moose	5.69	Dull Center	.04
Alaska (December)	12.0	+7.2	Treepoint	56	10	Stuyahok	−46	2	3.42	+.97	Latouche	40.68	Tanana	T
Hawaii	69.2	+.8	Mahukona	93	19	Kanalohuluhulu	32	25	5.28	−3.36	Kukui	26.00	Puu Ulaula	.00
Puerto Rico	73.2	+.6	Ponce	92	10	Cayey	51	7	3.86	+.04	Barceloneta	13.33	Ensenada	.12

[1] Other dates also.

TABLE 2.—*Climatological data for Weather Bureau Stations, January 1940*

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.
New England							19.5	−5.0										72	2.11	−1.3										4.9		
Eastport	76	67	85	29.78	29.87	−0.13	17.8	−2.6	40	15	24	−6	17	12	37	16	10	71	0.56	−3.4	4	12.2	w.	40	e.	15	13	4	14	5.4	2.6	2.5
Greenville, Maine	1,069	4	41																													
Portland, Maine	103	82	117	29.80	29.93	−.12	19.0	−3.4	44	15	26	−1	17	12	29	16	9	65	3.69	−.3	8	9.1	w.	31	se.	15	20	4	7	3.5	5.7	1.4
Concord	288	54	72	29.62	29.94	−.11	18.0	−3.6	41	15	26	−5	10	10	33	12	9	83	2.33	−.7	10	6.3	nw.	22	w.	16	12	10	9	4.7	9.1	3.5
Burlington	403	11	48	29.51	29.99	−.06	11.6	−7.2	37	15	20	−14	23	4	31	9	6	80	.77	−1.0	7	8.4	s.	43	se.	14	9	3	19	6.7	9.9	4.8
Northfield	876	12	60	28.97	29.97	−.08	8.8	−6.4	37	15	20	−21	18	−2	38	6	5	87	.56	−1.8	10	6.8	sw.	27	s.	14	9	9	13	5.9	6.6	9.5
Boston [1]	29	33	62	29.91	29.94	−.11	23.0	−4.9	52	15	30	8	20	16	22	19	12	64	1.68	−1.9	10	12.9	w.	36	se.	15	15	5	11	4.9	4.6	.1
Nantucket	12	14	90	29.93	29.94	−.10	25.8	−5.5	50	15	31	13	20	21	17	23	17	71	2.37	−1.4	13	15.0	w.	43	se.	15	11	10	10	5.2	13.4	1.0
Block Island	26	11	46	29.93	29.96	−.11	25.2	−5.8	50	15	30	12	20	21	17	23	16	67	2.01	−1.8	6	20.4	w.	43	w.	16	17	8	6	4.0	2.2	T
Providence	159	215	251	29.90	29.97	−.09	22.8	−4.4	52	15	30	7	20	16	22	18	11	66	2.50	−1.2	7	12.8	nw.	42	se.	15	17	4	10	4.1	4.2	.0
Hartford	159	66	100	29.97	29.99	−.08	19.4	−6.1	49	15	28	−5	10	10	31	16	10	70	3.69	−.2	9	8.8	nw.	25	nw.	6	13	8	10	5.0	7.7	.0
New Haven	106	74	153	29.99	30.00	−.08	22.9	−5.3	51	15	30	5	20	16	20	19	12	64	3.07	−.9	8	9.9	n.	30	e.	14	14	7	10	4.4	5.1	.0
Middle Atlantic States							24.3	−7.9										67	1.63	−1.6										5.3		
Albany [1]	292	26	40	29.67	30.00	−.07	15.0	−8.1	40	15	22	−9	10	7	30	13	8	73	1.13	−1.3	11	9.3	nw.	31	nw.	6	8	10	13	6.0	11.5	.3
Binghamton	871	57	79		30.08	.00	17.8	−6.3	45	14	24	−3	10	11				74	.97	−1.5	14	7.8	w.	25	sw.	21	5	8	18		11.6	1.1
New York	314	413	454	29.66	30.01	−.09	25.2	−5.7	53	15	32	9	20	18	22	21	12	58	1.96	−1.7	8	16.9	nw.	47	se.	14	9	12	10	5.1	3.9	.0
Harrisburg [1]	351	30	49	29.68	30.08	−.02	21.8	−7.2	52	14	29	2	20	15	28	19	12	67	1.21	−1.9	6	9.6	w.	27	w.	5	9	6	16	6.5	5.0	T
Philadelphia	114	174	367	29.92	30.06	−.05	25.3	−7.3	56	14	32	5	20	19	23	21	12	57	.96	−2.2	7	12.7	nw.	45	s.	14	11	10	10	5.1	2.9	.0
Reading	323	283	306	29.70	30.08	−.01	23.4	−6.0	53	14	30	2	20	16	21	19	10	56	.66	−2.9	6	12.5	nw.	45	se.	14	11	8	12	5.4	7.6	.0
Scranton	805	72	104	29.13	30.03	−.06	20.2	−6.4	45	15	26	1	20	14	23	17	9	60	.47	−2.6	6	7.8	sw.	31	se.	14	6	13	12	6.6	2.8	.0
Atlantic City	52	37	172	30.00	30.05	−.06	25.0	−7.5	52	14	32	4	20	18	22	21	15	66	1.78	−1.7	7	15.4	w.	52	ne.	24	14	7	10	4.7	13.8	3.8
Sandy Hook	22	10	57	30.00	30.02		24.3	−7.0	51	14	30	8	20	19	17	21	16	72	1.73	−2.2	9	17.3	w.	44	s.	14	11	11	9	5.2	2.3	T
Trenton	190	89	107	29.83	30.05		23.6	−6.9	55	14	30	3	20	17	21	20	13	64	1.52	−1.8	8	9.7	w.	26	nw.	5	10	11	10	5.6	4.4	.0
Baltimore [2]	123	100	215	30.08	30.09	−.03	26.0	−7.8	53	14	32	8	20	20	24	20	14	71	1.81	−1.7	7	11.7	sw.	38	s.	14	15	6	10	4.9	9.6	2.5
Washington	112	62	85	29.97	30.10	−.03	24.9	−8.5	55	14	32	7	29	18	24	21	14	60	2.12	−1.4	7	7.7	nw.	27	nw.	25	14	7	10	4.9	15.3	4.0
Cape Henry	18	8	54	30.05	30.07		31.1	−9.1	63	14	37	16	27	26	28	28	23	72	1.54	−1.6	8	14.3	n.	52	n.	24	9	11	11	5.3	9.0	T
Lynchburg	686	144	184	29.34	30.12	−.01	28.2	−9.3	51	17	36	5	29	20	27	23	15	63	2.86	−.6	9	7.3	nw.	26	nw.	19	15	6	10	4.6	18.5	5.0
Norfolk	91	80	125	29.99	30.09	−.04	31.0	−9.6	63	14	37	11	27	25	25	27	22	72	2.35	−.8	8	9.9	n.	43	ne.	23	12	7	12	5.2	12.7	.5
Richmond [2]	144	11	52	29.91	30.10	−.04	27.3	−10.6	60	14	36	2	26	18	29	20	15	75	3.09	−.1	8	7.7	nw.	30	ne.	24	13	6	12	4.5	22.4	6.5
Wytheville	2,304	49	55	27.60	30.11	−.03	22.2	−10.8	50	12	29	0	27	15	32	19	15	79	1.61	−1.5	7	8.5	w.	25	w.	17	11	7	13	5.8	14.2	4.0
South Atlantic States							35.1	−9.7										72	3.30	−0.3										4.8		
Asheville	2,253	89	104	27.69	30.18	+.03	26.4	−9.0	54	14	35	1	20	18	34	22	17	73	2.13	−1.0	11	9.7	nw.	28	nw.	19	14	2	15	5.5	7.7	T
Charlotte [2]	779	63	86	29.26	30.11	−.04	31.4	−9.8	57	18	40	6	27	23	27	25	19	72	4.00	.0	9	6.4	n.	20	ne.	23	15	4	12	4.6	7.8	3.2
Greensboro [1]	886	6	56	29.14	30.12		27.0		53	17	37	−7	29	17	41	22	17	73	2.36		8	7.4	w.	28	n.	23	16	4	11	4.6	14.5	5.0
Hatteras	11	5	50	30.05	30.06	−.08	37.2	−9.9	64	14	44	19	27	31	28	33	29	80	4.67	+.2	12	15.2	nw.	59	nw.	24	16	4	11	4.6	1.1	.0
Raleigh [2]	376	103	146	29.71	30.11	−.02	31.6	−9.5	63	14	39	8	27	24	26	26	21	72	2.58	−1.1	9	9.0	nw.	29	ne.	23	14	5	12	4.9	5.7	.7
Wilmington	72	73	107	30.03	30.11	−.03	36.9	−9.6	66	14	46	14	28	28	26	31	26	71	3.16	−.1	11	8.6	nw.	30	nw.	8	16	4	11	4.5	1.3	.0
Charleston	48	11	92	30.06	30.12	−.03	40.0	−9.9	66	14	48	19	27	32	22	35	29	70	3.31	+.3	10	9.5	nw.	29	nw.	24	13	6	12	5.1	T	.0
Columbia, S. C.	347	70	91	29.88	30.13	−.02	35.3	−10.7	65	14	44	10	27	26	26	29	24	72	2.49	−.9	8	7.4	ne.	27	ne.	23	16	4	11	4.5	1.5	T
Greenville, S. C.	1,040	70	78	28.97	30.11		31.8	−8.5	57	18	41	8	27	23	29	27	21	69	2.85	−2.0	7	6.2	ne.	25	sw.	14	15	5	11	4.5	7.9	T
Augusta [2]	182	62	77	29.65	30.12	−.04	36.3	−10.7	67	14	46	12	27	27	29	29	21	64	4.66	+.7	9	6.0	nw.	22	w.	14	11	9	11	4.8	.8	.0
Savannah	65	73	152	30.07	30.13	−.02	41.8	−9.6	67	14	52	18	27	32	28	34	28	74	3.31	+.5	9	10.7	nw.	34	w.	24	12	10	9	4.7	T	.0
Jacksonville	43	86	110	30.09	30.13	−.02	45.5	−9.9	72	12	56	17	27	35	33	39	33	70	2.94	+.1	9	8.6	nw.	30	sw.	23	12	8	11	5.0	.0	.0
Florida Peninsula							59.6	−5.9										77	2.22	−0.2										5.0		
Key West [2]	21	10	64	30.08	30.09	−.01	65.4	−4.1	81	13	71	43	28	59	24	59	57	81	.62	−1.3	4	9.9	n.	32	nw.	19	9	9	13	5.6	.0	.0
Miami	25	124	168	30.07	30.10	−.03	61.3	−5.2	81	5	70	31	28	53	26	55	51	75	2.85	+.3	6	9.7	nw.	40	sw.	23	13	9	9	4.8	.0	.0
Tampa [2]	35	88	197	30.12	30.13	+.01	52.0	−8.4	77	13	61	26	28	43	29	46	42	76	3.20	+.5	9	11.3	n.	37	nw.	23	12	13	6	4.7	T	.0
East Gulf States							37.1	−12.3										72	3.92	−1.0										4.8		
Atlanta [1]	976	5	72	29.08	30.16	+.01	29.6	−13.0	59	14	38	4	26	21	33	25	19	68	5.62		8	11.6	nw.	31	nw.	19	16	4	11	4.7	8.3	1.5
Macon [2]	370	79	87		30.14	−.02	35.2	−11.6	66	14	45	10	27	26	31			68	4.93	+.8	6	8.0	nw.	21	nw.	24	10	10	11		3.2	
Thomasville	273	49	58	29.86	30.17		41.4		69	12	52	14	27	31	30	37	31		3.66		8		nnw.				15	12	4	3.5	.0	.0
Apalachicola	35	11	51	30.12	30.15		43.6	−10.1	68	12	52	18	27	35	29	39	34	73	1.86	−1.7	6	9.2	n.	34	nw.	23	10	6	15	5.8	.0	.0
Pensacola	56	149	185	30.12	30.18	+.04	40.8	−11.7	70	12	50	14	27	32	28	37	32	74	2.75	−1.2	9	8.2	n.	30	w.	14	16	9	6	4.0	T	.0
Anniston	741	9																														
Birmingham [2]	630	5	55	29.51	30.21	+.05	30.6	−14.5	65	14	40	1	26	22	32	24	20	77	5.39	−.1	12	6.9	nw.	32	se.	13	12	10	9	5.0	10.0	1.5
Mobile	57	86	161	30.16	30.20	+.05	39.6	−11.9	74	12	49	14	27	30	36	34	30	76	2.65	−2.2	9	11.2	nw.	34	nw.	19	12	11	8	4.8	T	.0
Montgomery [2]	218	92	105	29.92	30.18	+.02	36.2	−12.0	66	14	46	10	27	27	32	29	24	72	3.93	−1.3	8	7.7	nw.	27	w.	14	13	8	10	4.9	1.2	.0
Meridian [2]	375	67	92	29.87	30.21	+.05	33.6	−13.4	69	12	44	2	27	24	35	28		79	3.61	−1.7	12	6.2	n.	27	w.	14	14	3	14	5.4	5.7	T
Vicksburg	247	82	102	29.95	30.22	+.07	34.8	−13.4	68	13	43	6	19	26	31	30	23	66	3.51	−1.9	8	8.7	n.	34	w.	13	13	6	12	5.3	8.0	T
New Orleans [2]	53	76	84	30.17	30.20	+.07	43.0	−11.2	75	11	51	20	19	35	38	37	32	73	5.56	+1.2	9	7.2	ne.	24	w.	7	13	7	11	5.1	.0	.0
West Gulf States							37.1	−10.1										70	1.11	−1.6										5.4		
Shreveport [2]	249	92	227	30.03	30.24	+.10	35.8	−11.2	72	11	45	3	19	27	35	31	26	73	2.24	−1.7	6	11.2	nw.	46	w.	13	16	6	9	4.3	3.0	.0
Bentonville	1,303	12	51	28.84	30.33	+.19	21.2	−12.9	52	16	30	−8	19	12	30				.78	−1.9	8	7.0	nw.	24	w.	13	12	4	15		6.2	.0
Fort Smith	463	57	82	29.78	30.29	+.15	26.4	−13.1	55	16	34	−2	19	18	30	23	16	65	1.07	−1.5	8	8.5	e.	34	w.	13	11	8	12	5.4	9.4	.0
Little Rock [2]	357	94	102	29.96	30.25	+.10	29.0	−12.4	59	11	36	0	19	22	27	24	19	74	1.40	−3.3	7	8.5	nw.	34	w.	14	12	6	13	5.5	5.8	T
Austin [2]	605	68	90	29.55	30.23		40.6	−8.9	75	11	51	13	19	30	37	34	29	69	.63	−1.4	4	7.8	w.	32	nw.	13	10	9	12	5.4	2.0	.0
Brownsville [2]	57	88	96	30.15	30.17		54.2	−5.6	80	12	63	25	23	45	49	48	43	74	.29	−1.2	5	11.6	nw.	38	n.	18	4	8	19	7.5	.0	.0
Corpus Christi [2]	20	11	78	30.15	30.20	+.10	48.4	−7.6	79	13	57	19	19	40	36	42	38	75	.76	−.8	4	10.5	n.	34	n.	18	7	6	18	6.8	1.7	.0
Dallas [2]	512	220	227	29.71	30.26		34.4		71	11	44	6	19	24	35	29	22	68	.80	−1.6	4	12.3	n.	56	w.	13	17	5	9	4.0	4.0	.0
Fort Worth [1]	679	92	110	29.48	30.26	+.14	34.9	−10.5	74	13	45	6	19	24	42	29	22	65	.59	−1.5	3	11.3	nw.	45	w.	13	16	9	6	3.9	4.0	.0
Galveston [2]	54	106	114	30.20	30.21	+.08	44.4	−9.4	66	12	51	15	19	38	34	40	35	74	1.59	−1.8	7	10.8	n.	32	n.	18	7	13	11	5.7	.9	.0
Houston	138	157	190	30.15	30.23		43.1	−9.6	74	13	53	10	19	34	37	37	31	71	1.53	−1.2	5	10.7	n.	34	nw.	13	10	11	10	5.5	3.0	.0
Palestine	510	64	72	29.69	30.25	+.17	36.4	−11.8	73	11	46	5	19	27	41	31	24	64	1.50	−1.9	4	7.6	n.	30	sw.	13	13	9	9	4.8	4.5	.0
Port Arthur	34	59	134	30.18	30.22		41.6		70	11	50	13	19	33	32				1.66	−2.0	7	12.7	n.	38	nw.	13	9	9	13	6.0	1.8	.0
San Antonio [2]	693	111	301	29.59	30.22	+.12	43.8	−8.5	77	11	54	15	19	34	37	38	32	68	.64	−.8	5	10.4	n.	38	n.	13	10	8	13	5.9	3.2	.0
Ohio Valley and Tennessee							20.8	−12.6										80	1.71	−2.1										6.3		
Chattanooga [2]	762	71	214	29.42	30.20	+0.04	28.6	−12.6	54	17	37	0	19	21	26	23	18	71	2.84	−2.4	12	8.4	w.	30	w.	14	13	5	13	5.1	11.6	1.7
Knoxville [2]	995	66	84	29.09	30.18	+.03	26.7	−12.1	58	18	34	−3	28	19	31	22	17	73	2.31	−2.4	11	5.9	w.	23	w.	14	13	5	13	5.0	13.6	2.5
Memphis [2]	399	78	86	29.91	30.24	+.08	27.2	−13.7	60	13	35	−3	19	20	26	23	20	82	1.83	−3.0	7	8.5	n.	36	w.	14	15	4	12	5.0	4.6	.0
Nashville [2]	546	168	188	29.54	30.20	+.04	24.8	−13.8	57	14	33	−5	19	16	33	21	16	73	1.13	−3.6	9	9.0	w.	36	s.	14	9	12	10	5.5	6.1	T

See footnotes at end of table.

TABLE 2.—*Climatological data for Weather Bureau Stations, January 1940*—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—Cont.																																
Lexington	989	6					20.0	−12.9	52	14	28	−12	19	12	31				2.31	−1.9	14		nw.								17.8	1.5
Louisville [3]	525	106	120	29.57	30.18	+.04	20.4	−14.0	54	14	28	−13	19	13	25	17	14	81	1.56	−2.4	13	9.2	sw.	45	sw.	14	11	8	12	5.5	8.2	T
Evansville	431	76	116	29.72	30.21	+.07	19.5	−14.0	51	14	27	−10	19	12	25	18	14	78	2.36	−1.4	14	9.0	w.	35	sw.	14	8	8	15	6.4	13.6	T
Indianapolis [2]	823	98	129	29.24	30.15	+.03	16.8	−11.6	47	14	24	−11	19	10	22	13	11	87	1.38	−1.6	13	8.5	w.	30	sw.	14	9	7	15	6.2	5.3	1.1
Terre Haute	575	63	149	29.52	30.17		16.8		46	14	25	−12	19	9	25	16	13	83	1.87	−.8	12	9.4	sw.	37	sw.	14	11	4	16	6.2	9.0	.1
Cincinnati [1]	627	11	51	29.60	30.17	+.05	19.0	−11.3	52	14	26	−12	19	12	25	17	14	83	1.27	−2.2	12	8.8	sw.	32	sw.	14	10	5	16	6.2	7.6	1.1
Columbus [3]	822	90	110	29.19	30.13	+.02	17.8	−10.8	50	14	25	−11	19	10	26	14	10	81	1.44	−1.6	12	10.5	sw.	43	sw.	14	7	5	19	7.3	8.5	1.8
Dayton	900	186	213	29.13	30.14		17.4	−12.1	51	14	24	−11	19	10	26	16	13	81	1.71	−1.5	14	10.7	sw.	46	sw.	14	9	5	17	6.4	7.5	1.7
Elkins [3]	1,947	65	83	27.90	30.12	.00	18.8	−11.6	51	14	26	−7	19	12	34	16	12	81	1.44	−2.3	16	6.8	w.	27	se.	14	2	4	25	8.5	24.6	4.0
Parkersburg	637	77	84	29.42	30.14	+.02	20.2	−12.3	54	14	27	−6	19	14	28	18	15	80	1.25	−2.3	14	6.7	sw.	25	nw.	5	7	4	20	7.3	9.2	1.8
Pittsburgh [1]	1,273	39	54	28.67	30.09	−.02	17.4	−13.3	50	14	24	−9	19	11	26	16	12	81	.88	−2.2	15	12.2	sw.	34	sw.	15	2	7	22	8.1	8.9	1.0
Lower Lake Region							17.1	−7.4										84	1.68	−0.9										7.9		
Buffalo [3]	168	243	280	29.23	30.03	−.04	18.1	−6.5	47	14	23	−3	19	13	18	16	13	86	2.47	−.8	25	1.9	w.	54	sw.	21	2	7	22	8.0	27.6	7.3
Canton	448	10	61	29.49	30.01		8.4	−7.9	41	14	18	−22	23	−1	37	7	6	92	.91	−1.6	11	8.5	w.	31	se.	14	10	3	18	6.1	8.3	5.4
Ithaca	836	77	100	29.08	30.02		18.4	−5.9	42	15	24	0	19	12	26	16	13	82	.72	−1.5	13	10.0	nw.	49	se.	14	3	5	23	8.1	5.4	.5
Oswego	335	71	85	29.63	30.01	−.06	17.2	−6.7	41	13	23	−1	7	11	22	16	11	76	3.83	+.9	20	11.6	nw.	33	se.	14	5	3	23	8.1	48.7	12.8
Rochester [3]	523	86	102	29.40	30.03	−.04	18.4	−6.2	45	14	23	−1	19	14	20	15	13	86	1.26	−1.6	20	10.8	w.	29	sw.	21	2	7	22	8.2	9.3	5.2
Syracuse [3]	596	65	79	29.56	30.03	−.04	17.2	−6.9	46	14	23	0	17	11	22	13	11	87	1.72	−1.3	22	7.5	sw.	21	sw.	21	3	6	22	7.9	32.2	7.5
Erie	714	57	81	29.25	30.05	−.03	19.0	−7.8	45	14	24	−8	19	14	20	18	15	83	2.15	−.6	20	10.3	s.	35	se.	14	2	7	22	8.4	18.9	5.8
Cleveland [3]	762	267	318	29.18	30.09	.00	19.6	−6.9	52	14	25	−9	19	14	20	15	12	83	1.35	−1.2	21	15.8	sw.	49	sw.	14	0	7	24	8.5	17.1	2.1
Sandusky	629	5	67	29.37	30.08	−.01	18.0	−8.3	49	14	25	−11	19	11	25				1.36	−.9	20	10.8	sw.	32	sw.	14	2	7	22	8.1	9.7	1.0
Toledo [2]	628	79	87	29.38	30.10	−.01	17.4	−8.4	48	14	23	−13	19	12	20	14	11	81	1.26	−.9	16	11.4	w.	31	se.	14	3	7	21	7.9	7.2	.7
Fort Wayne	857	69	84	29.17	30.11		14.6	−11.6	46	14	21	−14	19	8	25	13	10	87	1.66	−.7	15	10.5	w.	41	sw.	14	6	7	18	7.2	10.6	1.2
Detroit [1]	626	5	78	29.36	30.06	−.02	19.0	−5.4	43	14	24	−9	19	14	19	18	16	86	1.41	−.7	15	11.3	w.	34	w.	15	1	5	25	8.6	5.9	1.2
Upper Lake Region							15.5	−2.6										82	1.57	−0.3										7.6		
Alpena	609	13	89	29.32	30.01	−.03	18.3	−.8	37	14	24	−5	17	12	27	17	13	79	1.83	−.1	16	11.0	nw.	38	se.	14	3	8	20	7.7	11.5	2.0
Escanaba	612	51	72																													
Grand Rapids [3]	707	70	244	29.26	30.04	−.02	20.0	−4.5	42	14	25	−4	19	15	23	16	15	90	1.69	−.7	21	10.5	w.	37	s.	14	1	3	27	9.1	16.1	5.3
Lansing	878	5	90	29.06	30.04		18.0	−4.4	42	14	24	−11	19	12	25	17	15	89	1.35	−.5	10	9.2	w.	30	s.	14	0	7	24	8.6	10.6	4.5
Ludington	637	60	66																													
Marquette	734	44	69	29.19	30.03	−.01	17.6	+1.3	32	30	23	−10	18	12	29	16	13	83	2.48	+.2	17	7.9	nw.	31	nw.	14	0	4	27	9.2	25.5	14.5
Sault Sainte Marie [1]	724	5	33	29.17	30.01	−.02	12.2	−1.1	35	14	20	−23	17	4	38	11	9	90	2.67	+.7	18	7.7	se.	35	nw.	15	4	5	22	7.9	28.3	13.8
Chicago	673	7	131	29.35	30.12	+.02	16.2	−7.5	40	14	22	−14	18	10	27	15	11	77	1.25	−.6	10	10.6	w.	27	w.	14	10	6	15	6.3	8.6	1.1
Green Bay	617	109	141	29.36	30.07	+.01	13.8	−1.9	33	11	21	−18	18	7	32	13	7	71	.99	−.6	8	10.2	w.	35	nw.	14	9	5	17	7.1	13.8	13.1
Milwaukee [3]	681	97	221	29.31	30.11	+.03	15.7	−4.9	37	14	22	−15	18	9	27	12	8	81	1.57	−.2	8	12.2	w.	34	nw.	14	9	8	14	6.2	9.5	.9
Duluth	1,133	5	47	28.82	30.12	+.03	8.1	+.2	31	31	16	−22	16	0	31	6	3	82	.27	−.7	9	13.2	nw.	43	nw.	20	9	10	12	5.9	3.6	1.5
North Dakota							2.7	−1.9										87	0.09	−0.4										5.6		
Moorhead, Minn	940	50	58	29.20	30.26	+.12	4.0	+.2	41	30	13	−22	18	−5	36	2	0	89	.13	−.5	6	8.0	nw.	21	nw.	15	12	8	11	5.3	2.6	.7
Bismarck [3]	1,677	8	57	28.41	30.32	+.19	2.2	−5.6	44	30	14	−26	2	−9	39	1	−1	89	.02	−.4	2	9.8	nw.	34	nw.	18	8	6	17	6.6	.1	T
Devils Lake	1,478	11	44	28.56	30.24	+.12	1.6	−.2	40	30	11	−26	17	−8	30	1	0	94	.15	−.3	6	9.0	nw.	25	nw.	18	6	14	11	6.2	2.1	.6
Lemmon, S. Dak	2,602	4	38																													
Grand Forks	832	11	71				2.8	−.7	40	30	13	−25	17	−8	32	2	−3		.12	−.4	5		nw.								1.3	1.2
Williston	1,878	42	50	28.19	30.31	+.20	3.1	−3.3	40	29	13	−26	18	−7	34	2	−2	76	.04	−.5	3	6.7	w.	26	n.	14	16	7	8	4.3	.3	1.9
Upper Mississippi Valley							12.0	−9.2										83	1.05	−0.5										5.6		
Mpls.—St. Paul, Minn. [1]	838	32	61	29.22	30.20	+.09	6.5	−6.2	35	31	14	−22	18	−1	30	5	2	82	.37	−.5	10	9.8	nw.	32	nw.	14	10	8	13	5.6	5.0	3.8
Springfield, Minn	1,025	4	42	29.06	30.24		6.0		37	31	15	−23	19	−3	36	6	1		0.06		2	7.5	wnw							3.8		T
La Crosse [3]	714	11	48	29.40	30.18	+.07	10.8	−5.3	33	11	18	−19	18	4	25	7	5	87	.61	−.5	6	5.6	w.	21	nw.	14	8	8	15	6.3	8.3	2.7
Madison	974	70	78	29.14	30.13	+.03	11.0	−5.7	33	11	18	−20	18	4	26	9	6	82	1.25	−.1	7	8.6	w.	30	nw.	14	8	8	15	6.2	12.7	8.5
Charles City	1,015	10	51	29.05	30.22	+.08	8.5	−5.2	34	31	16	−21	18	1	29	7	5	87	.53	−.5	4	6.7	nw.	19	nw.	14	15	4	12	4.7	7.2	2.5
Davenport	606	66	161	29.49	30.20	+.08	12.3	−9.5	35	11	20	−17	18	5	25	11	7	79	1.55	+.1	6	10.5	w.	30	nw.	14	12	6	13	5.3	13.7	7.0
Des Moines	861	5	99	29.13	30.23	+.09	10.4	−9.7	39	31	18	−18	18	3	32	8	5	87	.80	−.3	5	10.6	nw.	30	nw.	14	14	6	11	4.6	9.2	2.3
Dubuque	699	60	79	29.37	30.17	−.05	11.8	−7.3	34	31	19	−18	18	4	34	10	8	84	1.56	+.3	7	6.9	nw.	24	nw.	14	11	7	13	5.7	17.2	7.7
Keokuk	614	64	78	29.52	30.22	+.08	12.2	−12.7	39	31	20	−13	19	4	31	10	7	79	.91	−.6	10	8.0	w.	30	nw.	14	9	11	11	5.5	12.1	5.9
Cairo	358	87	93	29.83	30.23	+.07	22.0	−12.9	51	14	30	−6	19	14	28	19	15	75	2.64	−1.1	13	8.4	nw.	37	sw.	14	9	9	13	5.9	7.8	.3
Peoria [3]	609	11	45	29.42	30.18	+.06	13.3	−9.8	37	31	21	−13	19	6	27	11	9	88	.84	−.9	9	6.9	w.	24	w.	14	13	9	9	4.8	4.3	1.0
Springfield, Ill. [3]	636	5	191	29.49	30.20	+.07	14.5	−12.0	37	11	22	−12	19	8	28	11	9	89	1.21	−.9	10	11.2	w.	28	w.	14	9	4	18	6.6	8.2	1.3
St. Louis [4]	568	179	303	29.58	30.22	+.08	17.2	−13.9	43	11	25	−12	19	10	23	15	10	74	1.33	−1.0	12	11.6	nw.	32	w.	14	11	6	14	5.9	10.6	.1
Missouri Valley							10.8	−12.8										81	0.92	−0.1										5.3		
Columbia, Mo. [3]	784	6	66	29.36	30.26	+.13	14.0	−15.2	40	16	22	−15	19	5	30	10	6	75	1.62	−.3	12	7.4	w.	21	w.	14	6	13	12	5.8	12.4	1.8
Kansas City [1]	750	38	76	29.42	30.28	+.13	12.8	−15.4	37	11	22	−12	18	4	33	11	6	73	1.26	+.1	9	9.6	nw.	33	nw.	14	11	7	13	5.5	12.8	1.5
St. Joseph [3]	967	11	49	29.35	30.29		11.5	−14.0	38	31	20	−15	18	3	27	8	5	87	1.63	+.4	7	8.4	nw.	26	nw.	14	13	7	11	4.9	20.1	7.0
Springfield, Mo. [3]	1,324	5	78	28.73	30.25	+.11	16.0	−17.5	48	31	25	−12	5	7	35	14	11	80	.89	−1.4	10	9.2	w.	27	w.	14	9	7	15	6.5	11.7	.0
Topeka	987	65	87	29.17	30.29		13.8	−13.8	39	11	22	−11	18	6	30	12	7	73	1.32	+.4	9	8.8	nw.	25	nw.	18	11	10	10	5.1	14.7	6.5
Lincoln [3]	1,189	11	81	28.94	30.30	+.15	9.0	−13.8	41	31	18	−19	18	0	29	5	2	83	1.14	+.5	6	8.0	nw.	26	nw.	14	13	10	8	4.9	14.6	4.0
Omaha [1]	982	31	44	29.17	30.30	+.15	8.2	−13.7	40	31	18	−19	18	−1	34	7	3	80	.56	−.1	5	9.8	nw.	36	nw.	11	13	8	10	5.1	10.8	2.9
Valentine	2,598	47	54	27.39	30.28	+.16	10.2	−8.7	41	10	20	−19	18	.0	40	10	7	85	.49	.0	9	8.7	w.	27	nw.	11	8	16	12	5.9	4.9	2.0
Sioux City	1,138	64	106	28.98	30.28	+.13	8.0	−9.8	40	31	17	−20	18	−10	28	7	4	83	.25	−.5	3	10.4	nw.	32	nw.	24	13	8	10	4.6	5.9	.3
Huron [1]	1,289	27	41	28.82	30.30	+.14	4.8	−6.5	40	30	15	−24	18	−6	43	3	1	87	.04	−.5	3	12.4	nw.	42	nw.	11	11	14	6	4.8	2.2	T
Northern Slope							15.0	−4.6										80	0.64	−0.1										6.6		
Billings	3,570	17	31	26.40	30.29		14.3		45	27	24	−21	25	5	38	14	10	78	.68		13	11.2	sw.	38	nw.	10	8	4	19	6.8	12.5	T
Havre	2,507	11	67	27.52	30.33	+.23	7.0	−5.9	47	29	16	−31	25	−2	39	6	3	81	.27	−.5	6	8.8	w.	27	w.	27	5	7	19	7.2	5.6	T
Helena	4,124	85	111	25.88	20.29	+.14	15.4	−4.8	47	27	22	−17	19	8	38	14	9	74	.55	−.3	10	4.9	sw.	25	sw.	14	6	3	22	7.5	9.7	1.7
Missoula	3,263	80	91				21.0	−1.3	41	16	27	−6	21	15	30	18	16	88	1.01	.0	15	5.6	w.	36	e.	17	4	2	25	8.5	11.2	6.5
Kalispell	2,973	48	56	27.05	30.25	+.13	20.4	.0	41	16	27	−7	24	14	28	20	17	84	.58	−1.0	14	4.4	nw.	21	ne.	17	5	2	24	7.8	9.0	2.6
Miles City [3]	2,371	48	55	27.38	30.32	+.20	8.2	−6.3	49	29	19	−30	25	−2	41	6	3	81	.18	−.5	7	5.9	s.	24	nw.	10	5	9	17	7.0	2.4	.8
Rapid City [3]	3,259	50	58	26.75	30.27	+.17	16.2	−5.8	58	29	26	−14	17	6	42	12	9	82	.19	−.3	9	7.4	n.	25	nw.	11	14	7	10	4.9	2.2	T
Cheyenne [1]	6,144	5	39	23.91	30.19	+.14	18.8	−6.7	48	29	29	−19	18	8	43	16	11	72	1.54	+1.1	14	10.6	nw.	40	nw.	16	10	4	17	6.2	18.5	.6
Lander	5,352	60	68	24.66	30.25	+.13	14.2	−4.1	49	16	26	−23	19	2	41	12	8	81	.51	.0	6	3.4	sw.	20	ne.	17	7	14	10	5.6	5.4	1.5
Sheridan	3,790	10	47	26.17	30.28		14.4		53	29	27	−30	25	2	44	12	8	76	.86	.0	10	3.7	s.	26	nw.	10	6	10	15	6.5	12.8	1.6
Yellowstone Park	7,235	12	46	23.88	30.30	+.16	15.8	−1.9	43	28	24	−23	18	7	34	14	10	77	.97	+.2	17	6.6	s.	24	ne.	17	5	4	22	7.3	13.3	9.0
North Platte [3]	2,821	11	51	27.21	30.29	+.17	13.4	−9.5	48	30	23	−18	18	3	32	10	8	89	.31	−.1	4	7.2	nw.	25	nw.	11	18	4	9	4.0	5.6	T

See footnotes at end of table.

TABLE 2.—*Climatological data for Weather Bureau Stations, January 1940*—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							19.3	−11.2										78	0.77	+0.2										5.5		
Denver [2]	5,292	106	113	24.70	30.19	+0.04	24.3	−5.5	57	28	34	−7	18	15	44	17	12	69	0.78	+0.4	9	7.8	s.	30	n.	17	9	11	11	6.0	11.2	T
Pueblo [2]	4,670	79	86	25.20	30.22	+.17	21.8	−8.1	61	29	34	−14	19	9	49	16	12	76	.72	+.4	10	5.1	e.	29	nw.	16	8	13	10	5.5	8.9	.0
Concordia	1,392	50	58	28.74	30.30	+.16	12.0	−14.4	43	11	21	−13	18	3	32	11	8	86	.53	−.1	7	7.5	nw.	25	nw.	11	12	6	13	5.3	7.2	1.0
Dodge City	2,509	10	86	27.52	30.27	+.16	16.6	−12.4	46	30	25	−7	18	8	32	15	11	80	.50	+.1	8	11.0	nw.	27	n.	11	11	7	13	5.5	6.7	T
Wichita [2]	1,358	85	93	28.72	30.28	+.15	16.2	−15.1	41	31	24	−7	18	8	27	14	11	83	1.40	+.6	6	8.7	nw.	24	n.	18	10	12	9	5.2	11.8	1.0
Oklahoma City [2]	1,214	10	47	28.82	30.26	+.15	24.9	−11.5	57	28	33	2	19	17	37	21	17	75	.70	−.5	4	9.5	n.	26	n.	18	13	4	14	5.5	6.4	.0
Chadron, Nebr.	3,439	4	58	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Southern Slope							36.6	−6.2										70	0.31	−0.3										5.1		
Abilene [2]	1,738	10	56	28.33	30.22	+.13	36.4	−7.8	74	13	48	8	19	25	44	29	22	69	.29	−.7	3	9.3	n.	34	w.	13	11	7	13	5.2	2.5	.0
Amarillo [2]	3,676	10	49	26.40	30.19	+.13	29.3	−6.0	66	30	39	1	7	19	46	22	20	85	.52	.0	7	8.1	w.	24	nw.	13	13	8	10	5.1	4.3	.0
Del Rio	960	63	71	29.16	30.17	+.11	44.5	−7.8	77	13	54	19	19	35	36	38	30	61	.33	−.2	3	7.8	se.	37	n.	13	8	10	13	5.8	2.8	.0
Roswell	3,566	75	85	26.43	30.14	+.10	36.2	−3.0	69	31	50	6	19	22	49	30	23	65	.11	−.4	5	7.1	s.	40	nw.	13	16	6	9	4.4	.5	.0
Southern Plateau							44.3	+2.4										57	0.48	−0.1										5.0		
El Paso [2]	3,778	82	101	26.10	30.09	+.08	42.6	−2.4	69	31	54	13	19	32	30	34	25	59	.54	+.1	2	7.6	w.	27	ne.	18	14	12	5	4.2	3.6	.0
Albuquerque [1]	5,314	5	34	24.75	30.08	----	35.2	+1.1	59	31	46	9	19	24	34	30	24	66	.52	+.1	2	7.9	ne.	41	nw.	13	11	5	15	5.4	T	.0
Santa Fe	7,013	38	53	23.20	30.09	+.05	29.7	+.9	54	30	39	3	19	20	34	25	19	66	.77	+.1	6	6.0	n.	20	n.	27	11	7	13	5.5	7.7	.0
Flagstaff	6,907	10	59	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Phoenix [2]	1,107	39	51	28.85	30.03	.00	55.6	+4.4	82	29	69	29	14	42	37	44	31	47	.04	−.8	2	4.9	e.	24	w.	5	8	10	13	5.9	.0	.0
Yuma	141	9	54	29.90	30.04	−.01	59.2	+4.8	81	30	71	40	19	48	30	49	37	47	.04	−.4	1	5.6	n.	23	n.	15	15	13	3	4.0	.0	.0
Independence	3,957	5	26	26.01	30.09	+.02	43.6	+5.4	66	26	56	23	13	32	34	----	----	----	.99	+.1	7	----	----	26	n.	12	----	----	----	----	----	----
Middle Plateau							31.9	+3.9										80	2.27	+1.2										6.7		
Reno [2]	4,527	61	76	25.61	30.11	−.02	34.6	+3.0	59	27	43	11	13	26	27	31	28	79	3.72	+2.2	14	4.6	sw.	28	w.	2	7	6	18	6.4	5.8	.0
Tonopah	6,090	12	20	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Winnemucca	4,344	18	56	25.65	30.12	−.04	33.3	+4.7	58	31	42	7	16	25	31	31	28	81	1.69	+.7	13	7.4	ne.	26	sw.	2	6	10	15	6.7	2.5	.0
Modena	5,473	10	46	24.64	30.08	−.02	31.1	+4.4	53	28	41	5	14	21	31	28	25	78	.61	−.2	10	7.9	sw	29	nw.	12	9	7	15	6.3	3.2	.0
Salt Lake City [1]	4,227	32	46	25.79	30.16	+.01	32.0	+2.8	51	26	38	11	19	26	19	29	27	84	3.90	+2.6	15	5.3	nw.	31	ne.	18	5	4	22	7.7	16.1	.0
Grand Junction	4,602	60	68	25.45	30.12	+.06	28.6	+4.6	49	31	36	3	19	21	26	26	22	76	1.43	+.8	14	4.4	se.	15	nw.	18	7	7	17	6.5	7.7	.0
Northern Plateau							30.3	+2.9										83	1.76	+0.1										8.1		
Baker	3,471	36	54	26.60	30.17	+.01	30.0	+5.1	48	30	37	12	11	23	23	27	25	88	1.79	+.4	16	5.3	se.	17	n.	18	4	9	18	7.3	13.1	T
Boise [2]	2,739	79	87	27.14	30.18	−.01	33.0	+3.2	52	27	40	16	18	26	22	31	28	82	1.84	----	13	8.6	se.	31	se.	18	5	11	15	7.0	3.5	.0
Pocatello [1]	4,478	5	31	25.53	30.20	.00	24.8	----	49	1	32	−2	19	18	27	24	22	90	2.52	+1.2	15	8.7	sw.	36	ne.	17	2	3	26	8.6	19.2	T
Spokane [2]	1,929	101	110	28.03	30.17	+.05	30.0	+2.5	51	31	35	13	11	25	19	28	23	75	1.09	−1.1	10	6.8	ne.	23	ne.	23	4	4	23	8.0	6.2	.9
Walla Walla	991	57	65	29.06	30.17	+.02	32.8	+.1	53	3	37	18	25	28	22	31	28	84	2.20	+.2	16	4.1	s.	15	s.	15	3	0	28	9.0	17.8	1.0
Yakima	1,076	58	67	28.99	30.18	----	31.1	+3.7	48	29	37	15	25	26	24	29	24	78	1.12	−.2	12	4.3	ne.	24	ne.	17	2	6	23	8.5	6.8	1.9
North Pacific Coast Region							43.9	+3.9										78	3.64	−3.0										8.1		
North Head	211	8	56	29.74	29.97	−.08	45.7	+3.6	64	30	50	31	24	41	15	43	39	79	4.32	−4.5	16	17.4	e.	65	s.	26	3	6	22	8.2	.0	.0
Seattle [2]	125	90	321	30.00	30.03	−.02	45.4	+5.9	65	28	51	31	24	40	18	40	35	73	3.10	−1.8	15	8.3	se.	39	s.	26	1	6	24	8.6	.8	.0
Tacoma	194	172	201	29.80	30.01	−.03	43.9	+5.0	62	28	49	30	24	38	18	----	----	----	2.16	−4.0	16	7.1	n.	34	s.	26	1	5	25	8.5	.6	.0
Tatoosh Island	86	9	55	29.85	29.95	−.03	45.9	+4.7	61	28	49	33	24	43	11	43	38	75	8.46	−3.4	18	26.6	e.	61	e.	24	5	3	23	8.1	.3	.0
Medford [1]	1,329	29	58	28.60	30.04	----	42.0	+4.1	65	28	51	20	15	33	31	40	37	83	1.85	−.9	12	----	nw.	----	----	----	3	7	21	6.8	.0	.0
Portland, Oreg. [2]	154	68	106	30.00	30.04	−.04	42.2	+2.8	60	30	47	27	24	37	22	38	33	73	2.36	−4.2	13	7.6	e.	24	e.	24	2	6	23	8.4	T	.0
Roseburg	510	45	76	29.46	30.02	−.08	42.4	+1.2	63	1	49	24	16	36	26	41	38	86	3.26	−2.0	16	3.5	nw.	17	sw.	9	3	5	23	8.4	.0	.0
Middle Pacific Coast Region							50.2	+3.2										78	9.62	+4.1										7.8		
Eureka	60	72	88	29.92	29.99	−.11	51.8	+4.9	73	27	58	32	13	45	23	48	44	74	4.37	−2.7	16	7.7	se.	30	sw.	26	5	3	23	7.8	.0	.0
Redding [1]	722	20	34	29.26	30.04	----	47.5	+2.2	73	29	54	28	18	41	32	44	39	75	16.16	+9.3	15	6.7	nw.	27	se.	8	5	3	23	8.0	.0	.0
Sacramento [2]	66	92	115	30.03	30.06	−.06	48.8	+3.0	66	26	54	31	17	44	22	47	45	85	7.98	+4.3	18	6.9	se.	28	se.	25	5	5	21	7.6	.0	.0
San Francisco	155	112	132	29.86	30.03	−.08	52.6	+2.7	67	29	57	38	18	48	15	50	46	80	9.98	+5.4	18	7.8	n.	27	se.	7	7	4	20	----	.0	.0
South Pacific Coast Region							55.7	+4.0										77	3.99	+1.7										7.3		
Fresno [1]	327	97	105	29.78	30.09	−.01	48.8	+2.6	70	26	55	29	15	42	25	47	45	87	5.89	+4.2	15	5.2	se.	25	nw.	12	3	5	23	8.2	.0	.0
Los Angeles	338	159	191	29.69	30.06	−.02	59.8	+5.2	85	28	67	47	14	52	30	52	46	66	4.33	+1.2	12	5.3	ne.	22	ne.	23	10	4	17	6.2	.0	.0
San Diego [2]	87	62	70	30.03	30.06	−.01	58.6	+4.3	73	29	65	45	17	52	23	54	51	79	1.75	−.3	10	5.9	nw.	19	se.	8	5	4	22	7.5	.0	.0
West Indies																																
San Juan, P. R.	82	9	54	29.93	30.02	----	76.0	+1.0	87	27	81	68	15	71	16	----	----	----	3.49	−.7	11	8.7	e.	30	ne.	11	15	13	3	4.3	.0	.0
Panama Canal																																
Balboa Heights	118	6	92	----	[3]29.86	+.03	79.9	.0	90	9	88	68	27	72	19	----	----	[3]75	3.14	+2.1	7	8.1	nw.	24	n.	29	4	23	4	4.9	.0	.0
Cristobal	36	6	97	----	[3]29.89	+.02	80.9	−.6	87	7	85	73	4	77	12	74	72	[3]77	2.67	−.7	16	13.0	n.	30	n.	28	5	17	9	5.8	.0	.0
Alaska																																
Fairbanks	454	11	87	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Juneau	80	96	116	[4]29.82	[4]29.91	----	32.8	+5.4	48	29	37	14	15	29	17	30	24	72	4.01	----	17	6.7	w.	26	se.	2	1	4	26	9.1	14.0	T
Nome	22	5	57	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Hawaiian Islands																																
Honolulu	38	86	100	29.82	29.86	----	71.2	+.3	79	7	77	61	25	66	15	66	63	77	3.25	−.5	16	8.8	sw.	26	sw.	23	12	12	7	4.8	.0	.0
Late report for December 1939																																
Springfield, Minn.	1,025	4	42	----	----	----	29.4	----	68	6	40	−2	30	19	36	24	18	----	.13	----	3	5.2	w.	----	----	----	----	----	----	----	----	.3

[1] Data are airport records. [2] Barometric and hygrometric data from airport, other data from city office records. [3] Observations taken bi-hourly.
[4] Pressure not reduced to a mean of 24 hours. [5] Barometric data from city office record.

NOTE.—Except as indicated by notes, 1 and 2, data in Table 2 are city office records.

TABLE 3.—*Data furnished by the Canadian Meteorological Service, January 1940*

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	29.47	29.58	−0.28	26.5	+1.5	31.4	21.6	37	3	2.09	−2.55	16.3
North Sydney, Cape Breton Island	8	29.68	29.74	−.20	21.9	+.2	28.1	15.7	36	3	1.50	−3.59	14.9
Halifax, Nova Scotia	88	29.56	29.84	−.14	20.0	−3.0	25.1	15.0	35	7	1.32	−4.22	5.7
Yarmouth, Nova Scotia	65	29.74	29.85	−.15	23.0	−3.8	28.6	17.5	41	6	4.67	−.21	40.0
Charlottetown, Prince Edward Island	38	29.72	29.81	−.15	16.4	−.8	23.2	9.6	35	−6	1.94	−2.20	18.8
Chatham, New Brunswick	28	29.69	29.80	−.18	10.6	−2.1	21.2	.1	33	−21	1.09	−2.34	10.9
Father Point, Quebec	20	29.83	29.85	−.13	13.3	+4.3	19.1	7.5	30	−10	3.28	+.78	32.8
Quebec, Quebec	296	29.57	29.91	−.13	9.8	+.1	15.0	4.7	29	−15	2.70	−1.13	27.0
Senneterre, Quebec [3]	1,038												
St. Hubert Airport, Quebec [2]	102	29.86	29.98	−.07	8.6	−6.2	15.3	1.9	36	−15	1.52	−2.26	15.2
Ottawa, Ontario	236	29.60	29.99	−.07	6.0	−5.4	13.9	−2.0	38	−18	.93	−2.03	9.3
Kingston, Ontario	285	29.70	30.02	−.05	11.0	−7.2	18.1	4.0	41	−17	2.07	−.76	20.7
Toronto, Ontario	379	29.59	30.03	−.05	18.5	−4.2	24.3	12.7	44	−6	1.96	−.76	11.7
Porquis Junction, Ontario	1,009	[1] 28.82	[1] 29.98		1.5		11.8	−8.8	33	−27	1.50		15.0
White River, Ontario	1,244	28.61	30.04	+.02	2.0	+2.1	14.3	−10.4	29	−50	2.10	+.46	21.0
London, Ontario	808	29.12	30.04		15.0	−7.4	22.0	8.1	40	−12	2.80	−1.14	17.3
Southampton, Ontario	656	29.28	30.02	−.02	15.2	−6.1	22.5	7.8	38	−10	5.20	+1.42	48.9
Parry Sound, Ontario	688	29.28	30.02	−.02	9.0	−5.7	18.7	−.6	37	−24	.75	−3.27	4.1
Port Arthur, Ontario	644	29.34	30.07	.00	8.4	+1.8	17.2	−.3	31	−28	.53	−.25	5.3
Winnipeg, Manitoba	760	29.31	30.24	+.07	2.4	+5.0	11.1	−6.4	37	−29	.54	−.33	4.8
Minnedosa, Manitoba	1,690	28.32	30.26	+.14	1.8	+4.2	11.8	−8.3	38	−33	.17	−.64	1.7
Le Pas, Manitoba	860	29.22	30.27	+.12	−2.4	+4.9	8.0	−12.9	39	−39	.85	+.31	5.0
Qu'Appelle, Saskatchewan	2,115	27.86	30.30	+.16	.8	.0	10.0	−8.3	36	−28	.48	−.23	4.8
Regina, Saskatchewan	1,900	[1] 28.16	[1] 30.32		−3.0	−2.3	7.6	−13.6	35	−36	.17	−.34	1.7
Swift Current, Saskatchewan	2,392	27.31	30.32	+.19	3.1	−3.8	11.0	−4.8	48	−25	.33	−.35	3.3
Medicine Hat, Alberta	2,365	27.66	30.32	+.20	2.9	−9.7	12.4	−6.6	46	−35	.66	+.05	6.6
Calgary, Alberta	3,540	26.40	30.31	+.25	10.6	−.7	21.1	.2	57	−25	.24	−.25	2.4
Banff, Alberta	4,521												
Prince Albert, Saskatchewan	1,450	28.65	30.32	+.20	−.9	+3.2	9.0	−10.8	39	−47	.29	−.46	2.9
Battleford, Saskatchewan	1,592	28.42	30.29	+.17	−3.4	+.4	6.2	−13.0	39	−33	.16	−.37	1.6
Edmonton, Alberta	2,150	27.78	30.29		2.7	−3.5	11.2	−5.8	48	−33	.94	+.09	9.4
Kamloops, British Columbia	1,262	28.78	30.18	+.05	28.0	+6.2	33.5	22.5	50	2	.62	−.38	3.7
Victoria, British Columbia	230	29.76	30.01	−.04	42.8	+4.2	46.5	39.1	55	33	2.08	−2.29	T
Barkerville, British Columbia	4,180												
Estevan Point, British Columbia	20	29.92	29.94		44.6	+4.4	49.6	39.6	59	29	12.79	+.37	.0
Prince Rupert, British Columbia	170	29.71	29.90	+.03	41.4	+6.2	46.1	36.7	62	29	5.65	−4.07	.4
St. Georges, Bermuda	158		29.95	−.18	60.0	−2.8	64.6	55.4	70	45	4.70	+0.18	.0
LATE REPORTS FOR 1939													
NOVEMBER 1939													
Quebec, Quebec	296	29.76	30.10	+0.10	30.4	+0.7	35.3	25.5	44	14	1.02	−2.41	0.5
DECEMBER 1939													
Quebec, Quebec	296	29.43	29.75	−.26	19.7	+4.1	24.0	15.4	42	−9	2.82	−.57	15.5
Calgary, Alberta	3,540	26.20	29.96	−.09	30.0	+9.5	40.6	19.4	67	−9	.13	−.44	.7
Banff, Alberta	4,521				25.0	+8.3	31.8	18.2	47	−15	.95	−.25	4.6
Prince Rupert, British Columbia	170	29.44	29.63	−.20	42.2	+5.8	47.0	37.5	52	34	11.71	−.01	.0
St. Georges, Bermuda	158		29.98	−.14	64.3	−.4	68.9	59.6	74	51	3.45	−1.60	.0

[1] Pressure not reduced to a mean of 24 hours.
[2] Observations taken at St. Hubert, airport of Montreal.
[3] Station at Doucet, Quebec, closed; Senneterre, substituted.

TABLE 4.—*Severe local storms, January 1940*

[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
New York, western portion	1-2					Snow	Motor traffic delayed.
Oklahoma City, Okla., and vicinity.	5-6					do	Highways blocked; farm families marooned and intercity traffic paralized in many sections. Storm beginning 10 p. m., of the 5th spread throughout Oklahoma.
Georgia, northern portion	7					Ice	Ice formed at most places from Dalton, Rome, Cedartown and Tallapoosa across the State to Elberton, Lincolnton, Augusta, and Louisville. Much damage to wire systems and interruption to traffic. Travel so difficult and hazardous that schools were closed from a few days to a week.
South Carolina, central and southern portions.	7			3		do	Considerable damage to trees and shrubbery; several persons injured.
Atlantic City, N. J., and vicinity. [1]	8	12:15-10:15 a. m.				Snow	Six persons injured; motoring hazardous.
New York, N. Y. [1]	8			3		do	Storm flurries which fell in the city were produced by the tails of 2 storms. Early morning flights from LaGuardia Field delayed by poor flying conditions. Streets and sidewalks slippery and traffic conditions hazardous.

[1] From press reports.

TABLE 4.—*Severe local storms, January 1940*—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Iowa [1]	13			4		Snow	All highways in the State dangerous; motorists told to drive only when necessary; cars stalled in deep drifts; visibility poor.
Kansas City, Mo.[1]	13					Glaze	Traffic delayed because of slippery roads and streets.
Wisconsin	13–14				$9,000	Snow and wind	This moderately severe storm that swept over all sections of the State, except the northwest, was preceded by some glaze and sleet with damage to wires and poles. More than 10 inches of snow fell in the section from Lafayette County northeastward to Green Bay. High winds caused much drifting.
Monroe County, Ala., central portion.	14	3 a. m.	880	3	5,000	Tornado	Twelve persons injured; property damaged.
Mount Meigs, Ala.	14	5 a. m.	100	4	15,000	do	Ten persons injured; property damaged.
Buffalo, N. Y., southwest of	14					Gales and light snow.	Property damaged; motor traffic difficult.
Syracuse, N. Y., south of	14					Sleet and snow	Motor traffic delayed.
Montpelier-Burlington, Vt.[1]	14					Blizzard	This reported to be the worst storm in 13 years. Between 200 to 300 motorists stalled on either side of Bolton Flats on the Montpelier-Burlington road. The road was closed by motor-vehicle inspectors after midnight. Some motorists turned back on either side of the storm center to Burlington and Montpelier or Waterbury, while scores of others abandoned their cars and sought refuge in nearby farmhouses.
Bakersfield, Vt.[1]	15				1,000	do	Mill blown over; roof of barn blown off and carried about 50 feet landing on another barn which was blown down. Motorists marooned, unable to drive because of poor visibility; much wire trouble as trees fell.
Texas, Panhandle section [1]	18					do	Snow with temperature at 4° in Amarillo, Plainview, and Borger.
Watertown, N. Y., and southward.	19–22					Snow	In some places snow piled up in deep drifts. Country roads completely blocked and main roads kept open with difficulty. Isolated sections snowbound for a week or more.
New York, western portion	21					Wind and snow	High winds drifted roads badly, some being completely blocked to automobile traffic.
Louisiana	22					Snow, sleet, and freezing rain.	Seven to 8 inches of snow recorded in the west-central portion with greater amounts eastward, St. Joseph having 11.3 inches. Considerable sleet and freezing rain in all sections, except in the extreme southeast.
Georgia	23					Snow	This storm, severe for this section, left a cover of 4 inches or more southward to La Grange and beyond Griffin, Greensboro, and Washington. From Atlanta and Tallapoosa northward most stations reported 10 inches or more. Schools closed in many places.
South Carolina	23					do	Heaviest snow in 4 years. Traffic considerably hampered by frozen snow on many streets and highways.
Nashville, Chattanooga, and Knoxville, Tenn., and vicinities.	23				100,000	Snow and ice	Heaviest snowfall recorded in 11 years with below freezing temperature turning snow and slush into crusty ice on streets and sidewalks. In Nashville the ground was frozen to a depth of 18 inches. Roads in many sections impassable; traffic hazardous; schools closed. Several persons died from exposure and accidents; others received less serious injury; many young animals perished.
Virginia	23–24			12	500,000	Heavy snow	Cost of removing snow; $300,000; $200,000 damage to pavements; 4 persons frozen to death and 8 persons died because of fires caused by overheated homes.
Washington, D. C., and vicinity.	23–24					Snow	Traffic almost at standstill; schools closed; persons hours late for office; 60 snow plows used to scrape the city's main traffic arteries. Snowfall of 9.5 inches recorded.
Atlantic City, N. J.	24					do	Schools closed for the day; civic and charitable affairs scheduled for evening postponed. Busses delayed, motoring difficult; 2 barge watchmen rescued by coast guards. Nine inches of snow recorded.

[1] From press reports.

DESCRIPTION OF CHARTS

By R. J. MARTIN

Beginning this month the description of charts has been moved to a point immediately preceding the charts. A new chart, No. XIII, giving mean tropopause data for the month, appears in the REVIEW beginning with this issue. The descriptions of the Aerological Charts (VIII through XIII) were furnished by B. Francis Dashiell of the Aerological Division.

Chart I. *Temperature departures and wind roses for selected stations.*—Based on data contained in table 2, 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. Charts of monthly surface temperature departures in the United States were first published in the MONTHLY WEATHER REVIEW for July 1909, and continued thereafter, but smaller charts appear in W. B. *Bulletin U* for 1873 to June 1909, inclusive. An innovation has been made in this chart, beginning January 1939. The selected wind rose data formerly published as chart VII have been transferred to this chart. The wind roses are based on hourly percentages by months for 28 selected Weather Bureau stations.

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., 75th meridian time. Within each circle is also an entry of the last three figures of the highest barometric reading (chart II) or the lowest reading (chart III) 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. Charts IV, V, and VI are based on data found in table 2.

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.