REVIEW for January, 1902, **30:** 13–16. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of 8 a. m. and 8 p. m. readings at stations taking two observations daily, and to the 8 a. m. or the 8 p. m. observation, respectively, at stations taking but a single observation.

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

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

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

CHART VII.—*Total snowfall.*—This is based on the reports from regular and cooperative observers and shows the depth in inches of the snowfall during the month. In general, the depth is shown by lines connecting places of equal snowfall, but in special cases figures also are given. This chart is published only when the snowfall is sufficiently extensive to justify its preparation. The inset of this chart, when included, shows the depth of snow on the ground at or near the end of the month.

CHARTS VIII, IX, etc.—*North Atlantic Weather maps of particular days.*

CONDENSED CLIMATOLOGICAL SUMMARY

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

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

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

Condensed climatological summary of temperature and precipitation by sections, January, 1933

(Compiled by Annie E. Small)

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	52.6	+6.3	Evergreen	81	20	Florence	18	1	3.17	−1.78	Clayton	6.14	Marion	1.67
Arizona	39.0	−3.8	Granite Reef Dam	83	8	Alpine	−17	24	1.98	+.82	Oracle	7.40	Tuba City	T
Arkansas	48.8	+7.5	Warren	81	19	Marshall	11	1	3.66	−.62	Blytheville	7.33	Mountain Home	1.65
California	39.8	−4.4	San Bernardino (near).	88	9	Bridgeport	−22	30	6.42	+1.85	Dinkey Meadow	23.01	Greenland Ranch	.10
Colorado	25.1	+1.3	Two Buttes	75	24	Alamosa	−30	1	.53	−.24	Cumbres	4.63	20 stations	.00
Florida	62.7	−3.6	2 stations	88	[1] 8	2 stations	25	1	2.31	−.48	Madison	6.79	Everglades	.07
Georgia	53.6	+6.5	do	83	[1] 20	Clayton	14	2	3.59	−.61	Meldrim	6.57	Augusta	1.86
Idaho	24.0	+.2	Orofino	58	2	Deadwood	−25	16	2.63	+.54	Roland	12.31	Grand View	.12
Illinois	38.6	+12.2	Duquoin	70	22	La Harpe	4	14	2.64	+.33	Mt. Carmel	6.27	2 stations	.52
Indiana	38.6	+10.2	Shoals	72	22	Laporte	5	1	3.17	+.04	Salem	7.16	Albion	.84
Iowa	32.5	+14.0	Thurman	62	8	Northwood	−10	[1] 14	.95	−.12	Clinton	2.43	Inwood (near)	.18
Kansas	39.3	+9.8	Garden City	72	21	Tribune	3	27	.25	−.36	Pittsburg	1.20	9 stations	.00
Kentucky	43.9	+8.1	Ashland	74	22	St. John	10	14	5.18	+.78	Mt. Sterling	7.50	Cold Spring	3.49
Louisiana	57.2	+5.7	2 stations	83	[1] 1	Robeline	20	1	3.41	−1.41	Port Eads	7.42	Bogalusa	.84
Maryland-Delaware	41.0	+8.1	do	70	[1] 19	Oakland, Md	4	1	3.18	−.05	Millsboro, Del	5.09	Keedysville, Md	1.96
Michigan	29.5	+9.5	Monroe	65	22	Bessemer	−26	13	1.29	−.59	Cassopolis	3.62	Bay City	.44
Minnesota	17.5	+9.1	New Ulm	59	7	2 stations	−39	12	1.03	+.29	Fosston	7.46	Pipestone	.02
Mississippi	53.5	+6.5	2 stations	80	[1] 19	do	18	[1] 1	3.10	−1.92	Fruitland Park	5.94	Columbus	1.42
Missouri	41.4	+10.9	Marble Hill	72	18	do	8	[1] 12	2.43	+.39	Marble Hill	7.87	Tarkio	.32
Montana	22.8	+3.2	Great Falls	63	9	Wisdom	−35	17	.90	+.02	Heron	6.25	Lustre (near)	.02
Nebraska	32.9	+11.4	McCook	73	3	Nenzel (near)	−9	17	.20	−.35	Seward	1.18	11 stations	.00
Nevada	27.7	−1.6	Clay City	75	15	3 stations	−18	[1] 15	1.76	+.57	Kimberly	5.44	Thorne	.30
New England	30.9	+8.2	Pittsfield, Mass	65	[1] 5	Van Buren, Me	−21	14	2.38	−1.01	Portland, Me	5.40	Burlington, Vt	.75
New Jersey	38.5	+8.8	Elizabeth	67	23	Culvers Lake	2	1	2.39	−1.27	Port Norris	4.45	Elizabeth	1.38
New Mexico	32.0	−1.7	4 stations	71	[1] 5	Dulce	−24	2	.46	−.10	Cloudcroft	3.04	7 stations	.00
New York	32.8	+9.6	2 stations	67	[1] 20	Lake Placid	−19	1	1.59	−1.32	Lyons Falls	3.21	Ithaca	.44
North Carolina	48.1	+6.6	New Bern	80	21	Mt. Mitchell	6	9	2.88	−.79	Mt. Mitchell	7.65	Charlotte	1.37
North Dakota	11.8	+5.6	New England	53	24	Mott	−30	16	.80	+.33	Hillsboro	1.79	Wishek	.11
Ohio	37.7	+9.8	Middleport	73	22	2 stations	6	1	1.93	−1.04	Chilo	6.93	Lima	.70
Oklahoma	46.8	+9.1	Poteau	78	19	Kenton	6	27	1.08	−.41	Hugo	5.95	5 stations	T
Oregon	30.8	−.9	2 stations	68	[1] 8	Sand Creek	−23	17	4.83	+1.02	Tillamook	22.52	Hay Creek	.21
Pennsylvania	37.0	+9.1	do	71	22	2 stations	−6	1	2.00	−1.25	Waynesburg	3.43	Lawrenceville	.54
South Carolina	51.4	+5.5	Calhoun Falls	80	21	Long Creek	16	[1] 2	2.64	−.92	Beaufort (near)	4.40	Darlington	1.07
South Dakota	25.9	+10.5	Spearfish	63	28	Pollock	−33	17	.25	−.34	Hardy Ranger Station.	2.18	2 stations	.00
Tennessee	46.2	+7.2	Savannah	76	11	Elkmont (2)	11	1	3.46	−1.27	Newbern	7.63	Charleston	1.64
Texas	53.8	+5.6	Rio Grande	89	17	Romero	11	27	1.80	−.02	Marshall	8.68	11 stations	.00
Utah	22.6	−2.3	St. George	61	15	Castle Dale	−26	29	1.60	+.32	Silver Lake	8.24	3 stations	.06
Virginia	43.6	+7.8	Diamond Springs	78	23	2 stations	11	[1] 1	3.38	+.15	Burkes Garden	5.48	Ivanhoe	1.92
Washington	32.0	+2.5	3 stations	64	[1] 6	Stockdills Ranch	−12	19	6.44	+1.24	Wynoochee Oxbow	30.48	Wahluke	.34
West Virginia	39.8	+7.6	Wardensville	79	19	Pickens	1	1	3.74	+.13	Charleston	6.41	Upper Tract	1.15
Wisconsin	25.1	+10.0	Viroqua	55	6	2 stations	−27	[1] 12	1.22	+.03	Blair	3.18	P. K. Reservoir	.35
Wyoming	22.0	+3.6	Sheridan	62	9	Eden	−27	31	.70	−.20	Bechler River	11.41	Dull Center (near)	.00
Alaska (December)	10.7	+1.3	Tree Point	52	4	Fort Yukon	−52	[1] 28	1.98	−.69	View Cove	14.43	2 stations	.00
Hawaii	69.4	+.7	Mahukona	90	5	Kanalohuluhulu	40	11	10.45	+1.30	Puhonua	45.60	Launiupoko	.00
Puerto Rico	72.9	−.1	San German	98	4	Guineo Reservoir	42	31	2.61	−.97	Rio Blanco	9.18	Yauco	.08

[1] Other dates also.

TABLE 1.—*Climatological data for Weather Bureau stations, January, 1933*

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 .01 or more	Wind: Total movement	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								⅒	In.	In.
New England							**34.2**	**+9.7**										**75**	**2.17**	**−1.3**										**5.9**		
Eastport	76	67	85	29.84	29.93	−0.07	29.4	+9.0	49	11	37	1	1	22	37	28	25	82	2.51	−1.4	13	10,722	nw.	38	sw.	11	5	8	18	7.3	11.4	3.8
Greenville, Me.	1,070	6	----	28.74	29.95	------	22.1	------	42	11	32	−9	14	12	32	----	----	----	2.14	------	11	6,052	se.	30	------	23	9	8	14	----	22.8	----
Portland, Me.	103	82	117	29.84	29.97	−.08	32.2	+9.8	55	17	39	7	1	25	28	28	23	73	5.40	+1.4	9	7,872	n.	34	nw.	20	15	6	10	4.8	19.8	3.9
Concord	289	70	79	29.65	29.98	−.07	30.8	+9.2	55	4	39	2	1	22	33	----	----	----	1.95	−1.0	9	5,065	nw.	24	w.	20	17	7	7	4.3	10.2	T
Burlington	403	11	48	29.53	29.99	−.06	29.1	+10.3	48	19	37	−2	1	22	32	----	----	----	.75	−1.0	5	7,322	s.	41	s.	10	4	9	18	7.1	5.4	1.4
Northfield	876	12	60	------	29.99	−.06	27.8	+12.6	52	19	38	−4	1	18	38	----	----	76	1.03	−1.3	8	7,126	s.	31	sw.	7	6	7	18	7.5	7.0	.3
Boston	125	106	165	29.84	29.98	−.07	37.8	+9.9	60	4	45	9	1	31	32	33	27	66	2.04	−1.6	8	7,784	nw.	28	nw.	20	10	10	11	5.3	1.3	.0
Nantucket	12	14	90	29.95	29.96	−.08	39.3	+8.0	56	23	45	20	1	33	23	36	33	82	2.73	−1.0	11	13,640	w.	56	ne.	26	7	6	18	6.3	.7	.0
Block Island	26	11	46	29.95	29.98	−.09	38.7	+7.7	54	11	44	14	1	33	26	36	33	81	1.93	−1.8	8	14,835	sw.	44	nw.	8	10	8	13	5.8	.9	T
Providence	160	215	251	29.81	29.99	−.07	37.4	+10.2	59	23	44	12	1	30	28	32	26	67	2.02	−1.7	9	10,065	nw.	47	nw.	20	13	7	11	5.0	.1	.0
Hartford	159	122	----	29.82	30.00	−.07	36.6	+11.1	57	19	44	10	1	29	28	----	----	----	1.73	−2.2	10	------	sw.	----	------	----	10	9	12	5.5	5.0	.0
New Haven	106	74	153	29.90	30.02	−.06	37.2	+9.0	59	23	44	11	1	30	29	33	29	74	1.73	−2.2	7	7,885	n.	33	n.	26	12	4	15	5.5	T	T
Middle Atlantic States							**41.6**	**+9.4**										**71**	**2.31**	**−.9**										**6.3**		
Albany	97	107	115	29.91	30.02	−.05	34.6	+11.5	56	17	42	5	1	27	24	30	25	69	1.49	−.9	7	6,529	s.	27	se.	19	6	12	13	6.2	3.7	T
Binghamton	871	60	68	29.07	30.02	−.06	34.2	+10.1	56	23	42	7	1	26	27	----	----	----	1.05	−1.4	12	5,262	nw.	24	sw.	7	5	5	21	7.6	5.0	T
New York	314	414	454	29.67	30.02	−.08	40.2	+9.3	62	23	47	14	1	33	31	35	28	63	1.53	−2.1	7	11,773	nw.	57	nw.	7	10	5	16	6.0	T	.0
Bellefonte	1,050	5	42	28.89	30.03	------	34.9	------	62	19	44	8	1	26	30	30	26	76	1.72	------	11	------	sw.	38	w.	7	7	7	17	6.6	2.1	.0
Harrisburg	374	94	104	29.63	30.04	−.06	38.9	+9.9	59	23	46	15	1	32	26	34	28	66	1.62	−1.5	9	5,810	nw.	32	w.	7	9	7	15	6.2	1.9	.0
Philadelphia	114	123	367	29.92	30.05	−.06	42.6	+10.0	63	23	49	17	1	36	25	36	29	62	2.66	−.6	9	10,765	sw.	46	n.	26	10	6	15	6.0	T	.0
Reading	323	283	304	29.69	30.05	------	40.8	+11.4	60	23	48	14	1	33	27	34	28	64	1.21	−2.4	9	5,559	nw.	38	nw.	7	8	9	14	6.0	.4	.0
Scranton	805	72	103	29.18	30.06	−.03	35.3	+8.7	55	19	42	9	1	28	24	32	28	76	1.12	−1.9	10	5,358	sw.	27	nw.	7	6	10	15	6.1	5.2	.0
Atlantic City	52	37	172	29.97	30.03	−.08	42.5	+10.0	64	23	49	19	1	36	23	38	34	75	3.37	−.1	8	13,271	nw.	65	ne.	26	9	5	17	6.4	T	.0
Sandy Hook	22	10	55	30.00	30.02	------	39.8	------	56	19	45	16	1	34	26	36	31	73	1.92	−2.0	9	12,026	nw.	46	ne.	26	10	6	15	5.7	T	.0
Trenton	190	159	183	29.83	30.04	------	39.6	+9.1	61	23	47	14	1	32	28	35	30	73	1.93	−1.4	9	8,024	nw.	37	nw.	29	9	6	16	6.0	T	.0
Baltimore	123	100	215	29.91	30.05	−.07	43.5	+9.7	65	19	51	20	1	36	25	37	32	70	3.37	−.1	6	8,183	sw.	43	ne.	26	11	5	15	5.9	.1	.0
Washington	112	62	85	29.94	30.06	−.07	42.6	+9.2	68	19	51	20	1	34	30	37	30	66	3.25	−.3	9	5,648	nw.	30	n.	26	10	7	14	6.0	T	.0
Cape Henry	18	8	54	30.03	30.05	------	48.5	+8.3	75	22	55	31	1	42	25	44	40	77	3.04	−.1	10	10,763	sw.	64	n.	26	6	10	15	6.6	T	.0
Lynchburg	681	153	188	29.31	30.07	−.06	45.4	+7.9	68	22	54	21	2	36	34	40	34	67	2.73	−.7	9	5,651	w.	31	nw.	28	11	8	12	5.6	3.1	.0
Norfolk	91	170	205	29.97	30.07	−.06	49.3	+8.7	73	22	57	27	1	42	27	43	39	74	2.99	−.1	9	10,268	sw.	43	nw.	26	6	9	16	6.9	1.4	.0
Richmond	144	11	52	29.92	30.08	−.06	45.6	+7.7	72	22	55	21	2	36	34	40	36	76	3.85	+.6	10	6,866	sw.	40	n.	26	7	9	15	6.5	1.7	.0
Wytheville	2,304	49	55	27.67	30.10	−.04	41.2	+8.2	63	22	50	17	1	33	35	36	32	75	2.09	−.1	10	5,730	w.	24	w.	22	8	8	15	6.5	.3	.0
South Atlantic States							**52.8**	**+7.2**										**78**	**2.49**	**−1.1**										**6.1**		
Asheville	2,253	89	104	27.72	30.12	−.03	45.8	+10.4	72	18	56	18	2	36	38	40	38	86	1.54	−1.6	6	6,341	nw.	28	nw.	1	8	13	10	5.6	.4	.0
Charlotte	779	244	267	29.26	30.11	−.04	49.2	+8.0	72	21	56	26	1	42	23	44	38	70	1.37	−2.6	8	8,974	w.	40	w.	27	7	8	16	6.2	.4	.0
Greensboro	886	5	56	29.13	30.10	------	45.6	------	72	21	56	15	2	36	33	40	36	79	2.65	------	6	6,404	sw.	29	nw.	25	6	9	16	6.6	T	.0
Hatteras	11	5	50	30.04	30.05	−.09	53.4	+6.3	69	22	59	38	1	48	21	49	46	81	1.95	−2.5	8	11,864	n.	49	nw.	26	6	10	15	6.3	.0	.0
Raleigh	376	103	146	29.72	30.09	−.04	50.0	+8.9	75	21	59	25	2	41	29	43	38	71	2.86	−.8	6	7,182	w.	35	nw.	26	7	10	14	6.3	10.0	.0
Wilmington	72	73	106	30.02	30.10	−.04	53.6	+7.1	74	21	62	31	16	45	30	47	44	79	2.22	−1.1	5	7,417	nw.	38	nw.	26	9	12	10	5.5	T	.0
Charleston	48	11	92	30.06	30.11	−.04	55.8	+5.9	75	21	64	35	14	48	24	50	46	79	3.85	+.8	10	8,033	sw.	32	nw.	27	10	7	14	5.9	.0	.0
Columbia, S. C.	351	41	57	29.73	30.12	−.03	52.6	+6.6	76	21	62	26	2	43	32	47	43	78	2.01	−1.4	7	5,613	sw.	32	sw.	25	7	13	11	5.8	.0	.0
Greenville, S. C.	1,039	139	146	28.99	30.10	------	49.7	+9.4	72	20	57	26	2	42	24	44	39	74	2.86	−2.0	7	6,977	sw.	35	w.	25	8	12	11	5.9	.0	.0
Augusta	182	62	77	29.92	30.11	−.05	53.8	+6.8	77	21	64	27	2	44	33	47	43	77	1.86	−2.1	8	4,543	nw.	28	nw.	25	7	8	16	6.5	.0	.0
Savannah	65	73	152	30.05	30.12	−.03	57.4	+6.0	77	21	66	34	2	48	28	51	48	82	4.74	+2.0	8	7,945	n.	40	w.	27	11	5	15	5.8	.0	.0
Jacksonville	43	209	245	30.07	30.12	−.03	59.4	+4.0	78	11	67	37	14	52	23	54	50	79	2.18	−.6	8	7,978	ne.	38	w.	25	6	10	15	6.6	.0	.0
Florida Peninsula							**68.8**	**+3.3**										**82**	**.44**	**−2.0**										**5.4**		
Key West	22	10	64	30.05	30.07	−.03	72.0	+2.5	82	13	77	55	30	67	22	66	64	82	.28	−1.7	4	7,145	e.	30	nw.	27	15	11	5	3.9	.0	.0
Miami	25	124	168	30.06	30.10	−.03	70.1	+3.6	82	25	76	44	29	64	25	64	61	78	.57	−2.0	6	7,195	se.	30	nw.	27	6	15	10	6.1	.0	.0
Tampa	35	88	197	30.06	30.10	−.02	64.3	+3.9	80	7	73	40	15	56	27	59	57	85	.46	−2.2	5	8,094	e.	34	w.	27	6	15	10	5.8	.0	.0
Titusville	44	5	----	30.04	30.09	------	64.5	------	82	7	73	40	29	56	29	----	----	----	1.97	------	8	------	nw.	----	------	----	9	14	8	5.6	.0	.0
East Gulf States							**54.8**	**+6.7**										**78**	**3.44**	**−1.3**										**6.7**		
Atlanta	1,173	190	198	28.87	30.13	−.02	50.2	+7.6	73	21	58	25	1	43	21	45	40	73	2.43	−2.5	8	7,441	nw.	37	w.	25	7	10	14	6.1	.0	.0
Macon	370	76	84	29.73	30.14	−.02	53.4	+6.6	76	21	63	26	2	44	31	47	43	75	3.02	−1.2	10	4,876	nw.	25	nw.	25	8	7	16	6.5	.0	.0
Thomasville	273	49	103	29.83	30.13	−.03	57.8	+6.8	79	8	67	31	1	49	28	51	48	80	4.46	+.4	10	5,975	ne.	26	nw.	27	7	10	14	6.3	.0	.0
Apalachicola	36	11	51	30.08	30.12	------	57.6	------	72	25	63	35	1	52	21	54	52	87	5.88	+2.2	9	6,053	e.	24	n.	12	8	5	18	6.9	.0	.0
Pensacola	56	149	185	30.06	30.12	−.02	57.6	+5.1	72	5	63	27	1	52	22	55	53	89	3.21	−.8	10	8,495	se.	33	w.	27	7	4	20	7.1	.0	.0
Anniston	741	9	57	------	------	------	51.5	+9.3	76	21	61	25	1	42	34	----	----	----	3.36	------	8	------	sw.	----	------	----	4	13	14	----	.0	.0
Birmingham	700	11	48	29.35	30.13	−.03	51.8	+6.7	70	18	60	21	1	44	29	46	42	74	3.09	−2.4	8	5,601	s.	22	nw.	27	8	8	15	6.3	.0	.0
Mobile	57	125	161	30.06	30.12	−.03	56.9	+5.4	72	22	64	28	1	50	22	52	49	82	4.10	−.8	11	6,338	s.	31	nw.	27	6	6	19	7.2	.0	.0
Montgomery	223	100	112	29.89	30.14	−.02	55.2	+7.0	76	20	63	28	1	47	28	49	44	73	3.23	−2.0	10	5,162	s.	24	nw.	27	6	7	18	7.0	.0	.0
Corinth	469	6	----	------	------	------	49.9	------	75	19	60	19	1	40	37	----	----	----	3.18	------	10	------	s.	----	------	----	5	19	7	----	.0	.0
Meridian	375	87	95	29.72	30.12	−.04	53.6	+6.6	76	18	63	24	1	44	30	48	44	76	2.16	−3.2	8	4,308	s.	24	nw.	27	8	6	17	6.6	.0	.0
Vicksburg	247	65	73	29.84	30.11	−.04	55.2	+7.0	77	20	63	27	1	47	23	49	45	74	2.63	−2.7	8	6,034	s.	25	w.	26	8	4	19	6.7	.0	.0
New Orleans	53	76	84	30.06	30.12	−.01	60.0	+5.8	79	20	67	32	1	53	20	54	51	79	3.59	−.8	14	4,766	se.	19	e.	30	5	8	18	7.1	.0	.0
West Gulf States							**56.2**	**+8.2**										**74**	**2.66**	**−.1**										**6.4**		
Shreveport	249	92	227	29.80	30.08	−.06	55.6	+8.6	76	23	63	31	1	48	26	50	46	75	2.85	−1.1	11	8,496	s.	37	nw.	26	11	6	14	5.8	.0	.0
Bentonville	1,303	11	44	28.61	29.99	−.15	45.8	+11.7	67	24	56	16	12	36	33	----	----	----	3.80	------	9	5,866	s.	32	sw.	18	9	6	16	----	.0	.0
Fort Smith	457	79	94	29.53	30.02	−.12	48.4	+8.9	71	18	58	23	1	39	28	43	38	71	2.08	−.5	12	6,318	e.	32	sw.	26	10	7	14	6.0	T	.0
Little Rock	357	136	153	29.70	30.06	−.09	50.2	+8.8	72	21	58	22	1	42	29	44	37	65	3.30	−1.4	12	6,309	s.	29	w.	26	8	5	18	6.7	T	.0
Austin	605	136	148	29.40	30.04	------	58.1	+8.6	80	23	68	22	1	49	36	51	46	70	5.10	+3.0	14	5,878	s.	27	nw.	21	8	3	20	6.7	.0	.0
Brownsville	57	83	100	29.95	30.01	------	65.8	+6.0	78	24	72	38	1	60	25	61	59	85	.22	−1.3	8	7,944	se.	32	s.	18	2	14	15	7.1	.0	.0
Corpus Christi	20	11	78	30.03	30.04	−.06	62.4	+6.4	78	24	68	41	1	57	23	59	57	88	.70	−.9	9	7,248	se.	30	s.	18	5	4	22	7.8	.0	.0
Dallas	512	220	227	29.50	30.05	------	53.8	------	73	24	62	28	12	45	26	----	----	----	2.67	+.3	10	9,029	se.	47	sw.	26	12	8	11	4.9	.0	.0
Fort Worth	670	106	114	29.31	30.03	−.09	54.6	+9.2	75	24	65	29	13	44	32	47	40	65	1.96	−.1	9	6,890	s.	26	w.	26	9	6	16	6.3	.0	.0
Galveston	54	106	114	30.01	30.07	−.06	60.3	+6.5	72	22	64	39	1	56	14	57	54	85	3.32	−.1	14	7,591	se.	24	nw.	26	7	4	20	6.8	.0	.0
Houston	138	292	314	29.92	30.08	------	61.0	+8.3	79	23	68	35	1	54	24	----	----	----	3.88	+.2	12	9,334	s.	30	s.	18	9	1	21	6.9	.0	.0
Palestine	510	64	72	29.53	30.07	−.05	55.7	+7.5	75	23	64	25	1	47	27	49	43	69	3.26	−.2	1	6,166	s.	25	nw.	26	10	6	15	6.3	.0	.0
Port Arthur	34	58	66	30.04	30.08	------	59.6	------	76	23	66	31	1	53	22	----	----	----	2.11	−1.6	11	5,480	s.	24	s.	24	5	14	12	6.1	.0	.0
San Antonio	693	242	301	29.30	30.02	−.08	60.0	+7.7	79	23	68	30	1	52	29	53	47	69	.66	−.8	12	8,198	se.	38	ne.	11	9	5	17	6.5	.0	.0
Taylor	571	38	51	29.47	30.08	−.03	56.4	+8.9	78	23	66	24	1	47	32	----	----	----	5.13	+3.2	11	6,209	s.	24	s.	20	8	6	17	6.1	.0	.0

TABLE 1.—*Climatological data for Weather Bureau stations, January, 1933*—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 .01 or more	Wind: Total movement	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							42.8	+9.1										74	2.99	−.8										6.4		
Chattanooga	762	190	215	29.31	30.13	−.03	48.5	+7.3	69	23	56	25	1	41	29	43	38	69	2.80	−2.5	9	5,859	sw.	35	sw.	25	5	12	14	6.5	T	.0
Knoxville	995	79	97	29.03	30.11	−.04	46.8	+8.0	68	20	55	25	1	39	31	42	38	75	2.82	−1.8	10	4,971	sw.	26	w.	27	7	7	17	6.9	T	.0
Memphis	399	78	86	29.65	30.08	−.08	50.3	+9.4	73	20	57	24	1	44	22	45	40	71	2.33	−2.5	11	6,319	sw.	31	sw.	24	9	8	14	6.0	T	.0
Nashville	546	168	191	29.52	30.12	−.04	47.0	+8.4	70	22	56	21	1	38	32	43	39	79	3.51	−1.2	11	7,307	s.	34	nw.	27	9	9	13	6.3	.0	.0
Lexington	989	193	230	29.01	30.10	−.03	42.5	+9.6	67	22	50	17	12	34	30	----	----	----	6.52	+2.3	13	10,485	sw.	41	sw.	22	15	4	12	5.2	T	.0
Louisville	525	188	234	29.48	30.08	−.06	43.1	+8.7	69	22	51	20	12	35	31	40	36	76	4.63	+.6	10	8,362	s.	36	s.	22	7	10	14	6.5	T	.0
Evansville	431	76	116	29.58	30.06	−.08	43.8	+10.3	65	22	52	21	1	36	27	39	35	73	3.15	−.6	11	7,823	s.	33	sw.	19	10	7	14	5.8	T	.0
Indianapolis	822	194	230	29.12	30.02	−.10	39.2	+10.8	63	22	47	16	1	32	31	35	30	73	2.02	−.9	9	8,825	s.	35	sw.	22	7	11	13	6.4	.1	.0
Terre Haute	575	96	129	29.39	30.02	------	40.5	------	63	22	48	15	1	32	30	36	32	76	2.29	−.4	9	8,101	s.	35	sw.	22	11	7	13	5.9	T	.0
Cincinnati	627	11	51	29.37	30.06	−.06	40.6	+10.3	69	22	49	17	12	33	32	37	33	76	3.18	−.3	12	6,457	s.	32	sw.	22	9	7	15	6.5	T	.0
Columbus	822	216	230	29.16	30.05	−.06	38.6	+10.0	67	22	46	16	1	31	29	35	31	75	1.36	−1.7	7	9,476	s.	41	sw.	22	8	7	16	6.6	.2	.0
Dayton	899	137	173	29.07	30.05	------	39.0	+9.5	67	22	46	18	12	32	30	36	31	76	2.16	−1.1	10	7,646	sw.	41	sw.	22	8	9	14	6.2	T	.0
Elkins	1,947	59	67	28.00	30.12	.00	38.6	+8.2	69	22	48	11	1	29	35	33	28	75	2.79	−1.0	15	4,874	w.	29	w.	7	7	8	16	6.7	2.2	.0
Parkersburg	637	77	82	29.42	30.09	−.03	41.6	+9.1	71	22	50	18	1	33	27	36	32	73	2.96	−.6	13	5,110	se.	24	sw.	7	7	7	17	6.8	T	.0
Pittsburgh	842	353	410	29.13	30.06	−.05	39.0	+8.3	68	22	46	13	1	32	27	35	30	71	2.39	−.7	10	8,570	sw.	40	w.	7	5	10	16	7.1	.3	.0
Lower Lake Region							35.2	+10.8										73	1.24	−1.3										7.3		
Buffalo	767	243	280	29.13	29.98	−.09	34.6	+10.0	60	22	41	9	1	28	23	31	27	77	1.61	−1.7	9	14,411	sw.	61	w.	19	4	10	17	7.2	.7	.1
Canton	448	10	61	29.46	29.96	------	28.8	+12.5	51	19	38	−7	1	20	34	----	----	----	1.51	−1.0	11	8,658	sw.	38	w.	19	4	11	16	7.0	5.8	3.0
Ithaca	836	74	100	29.07	30.00	------	35.2	+10.9	63	19	43	9	1	27	29	30	24	67	.44	−1.8	7	9,142	se.	32	w.	7	3	8	20	7.7	1.3	.0
Oswego	335	71	85	29.61	29.99	−.08	33.9	+10.0	58	19	41	5	1	27	30	30	25	72	.89	−2.0	6	9,381	s.	32	w.	20	2	6	23	8.1	4.0	.0
Rochester	523	86	102	29.41	30.00	−.07	35.6	+11.0	61	19	42	9	1	29	30	31	24	65	1.38	−1.5	11	8,083	sw.	39	w.	19	3	12	16	7.2	1.0	.0
Syracuse	596	65	79	29.36	30.01	−.06	36.0	+13.0	63	19	43	9	1	29	33	----	----	----	1.00	−2.0	7	6,798	s.	28	sw.	23	3	6	22	8.1	1.4	.0
Erie	714	130	166	29.22	30.00	−.08	36.8	+10.0	66	22	44	12	1	30	26	33	28	74	1.13	−1.6	8	12,081	s.	47	s.	7	5	8	18	6.9	.4	.0
Cleveland	762	267	337	29.16	30.00	−.09	38.0	+11.5	68	22	45	15	1	31	32	33	28	69	1.40	−1.1	9	11,637	s.	51	sw.	19	5	9	17	7.5	3.2	.0
Sandusky	629	5	67	29.32	30.02	−.07	36.8	+10.5	66	22	44	13	1	29	28	----	----	----	1.34	−.9	7	8,303	sw.	35	sw.	19	4	9	18	7.2	1.0	.0
Toledo	628	79	87	29.30	30.00	−.09	35.8	+10.0	65	22	43	13	1	29	25	32	28	75	1.13	−1.0	8	8,136	sw.	41	w.	19	8	10	13	6.4	2.1	T
Fort Wayne	857	69	84	29.05	30.00	------	36.2	+9.3	62	22	44	16	12	29	29	33	29	77	1.83	−.5	7	8,122	s.	35	w.	19	7	6	18	7.1	.7	.0
Detroit	730	218	258	29.18	29.99	−.09	34.7	+10.3	58	22	41	11	1	28	26	31	28	78	1.18	−.9	7	8,745	sw.	47	sw.	19	5	6	20	7.2	.4	.0
Upper Lake Region							28.4	+9.6										82	1.49	−.4										7.6		
Alpena	609	13	89	29.23	29.91	−.13	28.0	+8.9	50	19	36	2	30	20	30	26	23	85	1.17	−.7	12	8,598	nw.	34	nw.	7	5	11	15	6.9	5.7	T
Escanaba	612	54	60	29.22	29.90	−.15	23.3	+7.9	40	6	31	−3	12	16	31	22	19	83	2.06	+.6	8	7,508	n.	31	sw.	1	5	7	19	7.2	5.5	.5
Grand Haven	632	54	89	29.23	29.93	−.14	32.9	+8.6	54	22	39	11	29	26	26	31	29	85	1.51	−.9	10	9,848	s.	41	w.	7	4	4	23	8.2	4.9	.0
Grand Rapids	707	70	244	29.14	29.93	−.13	34.0	+9.5	56	22	41	12	12	27	30	31	27	77	.87	−1.5	11	10,424	sw.	50	sw.	19	2	7	22	8.2	.8	.0
Houghton	668	64	99	29.13	29.88	−.17	20.8	+6.1	43	6	29	−7	12	13	37	----	----	----	1.38	−1.1	14	6,666	w.	35	w.	19	1	8	22	8.3	13.4	15.7
Lansing	878	6	88	28.99	29.96	------	32.0	+9.6	55	22	40	7	1	24	30	30	28	88	1.43	−.4	10	8,514	sw.	34	sw.	19	3	10	18	7.4	.8	.0
Ludington	637	60	66	29.20	29.91	------	31.7	+8.6	48	22	38	11	12	26	29	30	27	83	1.19	−.9	13	9,385	s.	40	sw.	1	6	7	18	6.9	4.9	.0
Marquette	734	77	111	29.06	29.88	−.16	24.0	+7.7	43	21	31	−3	12	17	33	22	19	84	2.11	−.2	19	7,766	w.	34	s.	14	3	4	24	8.3	15.5	5.6
Port Huron	638	79	120	29.25	29.96	−.10	33.0	+10.7	59	22	40	7	1	27	23	30	27	81	1.11	−.7	8	9,745	sw.	41	sw.	19	3	9	19	7.5	.3	.0
Sault Sainte Marie	614	11	52	29.19	29.91	−.12	22.6	+9.3	43	6	30	−12	29	15	31	21	19	87	2.23	+.3	17	6,623	e.	31	w.	19	3	4	24	8.4	16.8	3.9
Chicago	673	7	131	29.22	29.96	−.14	36.7	+13.0	57	18	43	16	12	30	28	33	28	72	2.32	+.4	7	9,143	sw.	35	w.	19	8	6	17	6.7	.9	.0
Green Bay	617	109	141	29.21	29.89	−.17	27.6	+11.9	51	6	35	0	12	20	27	25	21	76	1.43	−.1	7	8,919	s.	38	s.	1	3	5	23	7.9	2.8	.0
Milwaukee	681	97	221	29.17	29.92	−.16	33.7	+13.1	52	6	41	8	12	27	27	30	26	76	1.30	−.5	5	10,289	w.	43	w.	19	3	12	16	7.3	1.5	T
Duluth	1,133	5	47	28.60	29.86	−.23	17.6	+9.7	42	15	27	−15	12	9	36	16	14	90	.74	−.2	13	9,157	w.	32	nw.	11	4	6	21	7.6	11.4	5.3
North Dakota							12.6	+7.6										86	.77	+.3										6.3		
Moorhead	940	50	58	28.81	29.88	−.26	11.9	+8.1	41	10	22	−10	20	2	45	12	10	92	1.37	+.7	14	6,924	s.	30	n.	10	8	8	15	6.7	20.8	12.2
Bismarck	1,674	8	57	28.00	29.86	−.27	14.2	+6.4	52	9	25	−20	17	4	44	13	10	82	.83	+.4	8	5,852	nw.	34	nw.	6	9	8	14	6.1	12.5	7.8
Devils Lake	1,478	11	44	28.22	29.87	−.25	9.5	+7.7	39	10	19	−13	31	0	44	8	6	91	.88	+.4	10	7,429	w.	32	se.	28	9	3	19	6.7	9.8	6.4
Ellendale	1,457	10	56	28.23	29.85	------	15.2	------	46	9	26	−23	17	4	41	----	----	----	.26	−.2	6	9,453	nw.	42	nw.	10	8	10	13	6.1	4.7	1.4
Grand Forks	833	12	67	------	------	------	9.4	------	40	10	20	−14	13	−1	43	7	----	----	1.06	------	10	------	se.	47	nw.	11	7	14	10	----	11.6	13.8
Williston	1,878	41	48	27.78	29.84	−.27	14.8	+8.4	49	9	26	−15	31	4	43	13	9	79	.49	.0	8	5,415	sw.	38	w.	9	9	8	14	5.9	5.1	4.1
Upper Mississippi Valley							34.6	+13.2										76	1.75	+.2										6.3		
Minneapolis	918	102	208	28.84	29.86	------	23.1	+10.4	46	6	32	−5	14	14	40	----	----	----	.89	.0	14	8,218	w.	33	w.	19	3	8	20	7.4	4.1	1.0
St. Paul	837	114	149	28.93	29.86	−.25	23.0	+10.4	44	6	32	−9	14	15	43	----	----	----	1.28	+.4	14	6,793	s.	30	w.	19	3	12	16	7.0	6.7	2.2
La Crosse	714	11	48	29.09	29.89	−.22	28.6	+12.5	52	6	38	−6	14	20	36	26	23	82	1.44	+.4	8	4,581	s.	18	s.	1	4	13	14	7.1	3.7	.0
Madison	974	70	78	28.83	29.92	−.18	30.8	+14.1	52	16	39	4	12	23	28	28	24	80	.72	−.7	6	7,574	s.	27	w.	19	2	13	16	7.2	2.0	T
Wausau	1,247	4	62	28.52	29.90	------	23.6	------	47	6	32	−5	12	16	30	----	----	----	3.02	+1.8	16	5,446	w.	27	w.	10	5	3	23	7.5	12.8	4.1
Charles City	1,015	10	51	28.79	29.90	−.24	28.9	+15.2	51	6	38	−4	14	20	38	26	23	83	1.03	.0	6	6,020	se.	25	w.	19	13	3	15	5.8	.7	.0
Davenport	606	118	143	29.27	29.95	−.17	36.4	+14.6	55	16	45	11	14	28	27	32	27	74	1.87	+.4	8	9,278	sw.	41	w.	19	7	11	13	6.1	1.1	.0
Des Moines	861	5	99	28.99	29.92	−.22	34.2	+14.1	55	15	44	10	14	25	31	30	26	75	1.06	.0	8	7,692	s.	31	w.	19	10	6	15	6.0	2.3	T
Dubuque	700	81	96	29.15	29.92	−.20	33.0	+13.9	54	16	42	7	14	24	27	30	25	76	.58	−.7	4	5,762	s.	23	nw.	7	6	9	16	6.6	1.1	T
Keokuk	614	64	78	29.29	29.98	−.16	39.4	+14.5	61	21	48	14	14	30	29	34	28	67	1.87	+.3	9	7,077	sw.	29	w.	19	10	10	11	5.7	.6	.0
Cairo	358	87	93	29.67	30.06	−.10	45.8	+10.9	65	18	54	20	1	38	24	41	37	74	3.78	.0	11	7,396	s.	28	sw.	22	8	9	14	6.3	T	.0
Peoria	609	11	45	29.31	29.99	−.13	37.6	+14.5	59	16	46	16	1	29	28	33	29	78	1.69	−.1	11	6,525	s.	27	w.	22	10	10	11	5.7	.6	.0
Springfield, Ill	636	5	191	29.30	29.99	−.14	39.6	+13.1	62	21	48	15	1	31	26	35	32	77	2.85	+.8	8	9,681	s.	34	nw.	27	6	17	8	6.2	T	.0
Hannibal	534	74	109	29.40	29.99	−.14	40.8	+13.7	64	21	50	18	11	32	31	----	----	----	1.96	+.2	8	7,699	sw.	30	sw.	10	9	13	9	5.5	.2	.0
St. Louis	568	265	303	29.39	30.00	−.14	43.6	+12.8	65	21	52	20	1	35	28	38	32	69	2.18	−.2	9	10,573	sw.	44	sw.	10	11	10	10	5.1	T	.0

TABLE 1.—*Climatological data for Weather Bureau stations, January, 1933*—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 .01 or more	Wind: Total movement	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.
Missouri Valley							36.2	+13.3										66	.77	−.2										4.7		
Columbia, Mo	784	6	84	29.15	30.00	−.13	42.1	+12.9	65	21	52	18	12	32	32				1.87	.0	8	7,396	sw.	31	sw.	10	12	12	7	4.7	T	.0
Kansas City	963	10	86	28.91	29.97	−.18	42.4	+14.2	67	21	52	19	11	33	30	36	29	62	1.20	.0	7	7,381	s.	31	nw.	11	14	14	3	3.7	2.5	.0
St. Joseph	967	11	49	28.88	29.94		40.1		68	21	50	16	11	30	34	33	27	64	.37	−.7	4	7,159	sw.	31	nw.	10	15	11	5	3.9	1.0	.0
Springfield, Mo	1,324	98	104	28.58	30.00	−.14	44.3	+10.8	66	18	53	19	12	36	26	38	31	65	2.68	+.3	6	8,601	s.	31	nw.	26	14	7	10	4.4	T	.0
Iola	984	11	50	28.91	29.97	−.17	43.0	+13.2	64	21	55	12	12	31	33				1.36	.0	5		s.				15	8	8		.0	.0
Topeka	987	92	107				41.4	+13.8	67	21	52	17	11	30	33				.17	−.8	3	7,378	sw.	28	n.	11	18	11	2	3.1	1.0	.0
Lincoln	1,189	11	81	28.62	29.92	−.23	36.6	+13.8	60	6	48	8	17	26	35	31	24	66	.37	−.3	5	7,423	s.	30	nw.	11	13	9	9	4.7	.2	.0
Omaha	1,105	115	122	28.71	29.92	−.23	36.2	+14.3	59	6	46	10	17	26	37	31	24	63	.94	+.2	6	6,294	nw.	29	nw.	10	14	4	13	5.2	1.9	T
Valentine	2,598	47	54	27.12	29.90	−.22	31.3	+12.4	59	9	45	−2	16	18	39	25	18	64	.09	−.4	4	7,405	w.	38	nw.	6	9	13	9	5.3	1.0	T
Sioux City	1,135	94	164	28.64	29.89	−.26	31.4	+13.6	56	6	41	2	17	22	38	28	23	71	.40	−.3	6	8,656	nw.	41	nw.	19	9	11	11	5.6	.6	.0
Huron	1,306	59	74	28.44	29.88	−.28	25.5	+14.2	52	21	36	−9	17	14	35	22	18	79	.18	−.4	4	7,613	se.	38	w.	10	11	13	7	5.2	.6	.2
Pierre	1,572	70	75	28.15	29.86	−.27	28.2	+12.2	55	14	40	−10	17	17	33	23	16	64	.03	−.4	2	6,141	nw.	40	nw.	6	10	14	7	5.2	.4	.0
Yankton	1,233	49	57	28.54	29.89	−.27	31.6	+14.3	56	20	43	1	17	20	39				.38	−.2	1	6,519	w.	31	w.	6	8	12	11	5.8	2.0	2.0
Northern Slope							25.4	+6.1										68	.61	−.2										5.9		
Billings	3,140	5					23.6		56	9	38	−26	17	9	46				1.14		5		nw.				8	4	19		12.7	6.0
Havre	2,505	11	67	27.10	29.81	−.29	21.6	+8.7	53	9	32	−21	17	11	43	17	14	77	.35	−.4	4	7,937	sw.	41	sw.	9	4	14	13	6.4	4.6	1.1
Helena	4,124	89	113	25.58	29.87	−.28	26.2	+6.0	51	9	34	−8	17	18	36	22	16	65	.55	−.3	6	6,932	sw.	38	sw.	11	2	8	21	7.7	9.1	T
Kalispell	2,973	48	56	26.74	29.87	−.25	26.4	+6.0	49	9	33	−1	17	20	25	25	23	86	1.10	−.5	17	4,551	nw.	25	sw.	9	1	9	21	8.2	12.9	3.0
Miles City	2,371	48	55	27.27	29.90	−.22	20.4	+5.9	57	9	31	−23	17	10	42	18	14	79	1.35	+.7	5	4,124	s.	29	w.	6	13	7	11	5.0	15.5	7.2
Rapid City	3,259	50	58	26.38	29.88	−.22	30.6	+8.6	61	9	43	−10	17	18	41	25	17	60	.06	−.4	3	6,078	w.	34	nw.	6	7	16	8	5.3	1.1	.0
Cheyenne	6,088	84	101	23.81	29.90	−.15	29.3	+3.8	52	9	39	6	11	19	30	22	9	42	.24	−.2	1	12,619	w.	65	w.	18	13	15	3	4.4	4.0	T
Lander	5,372	60	68	24.44	29.94	−.18	22.0	+3.7	55	9	36	−13	17	8	37	19	14	72	.42	−.1	4	4,535	s.	49	sw.	6	21	10	0	2.6	5.3	2.1
Sheridan	3,790	10	47	25.88	29.88		23.4		62	9	37	−18	17	10	39	20	13	65	.67	−.2	7	4,581	nw.	35	nw.	6	10	13	8	5.4	8.6	3.3
Yellowstone Park	6,241	11	48	23.68	29.98	−.16	19.2	+1.6	36	9	25	−7	16	13	30	17	13	75	1.19	−.4	18	8,610	sw.	35	sw.	2	0	4	27	9.2	23.3	9.5
North Platte	2,821	11	51	26.92	29.92	−.20	33.2	+10.3	60	9	47	10	30	20	40	25	17	62	.16	−.2	1	5,506	w.	25	nw.	6	11	11	9	4.9	1.3	1.3
Middle Slope							40.1	+9.6										51	.10	−.5										3.7		
Denver	5,292	106	113	24.55	29.88	−.17	36.0	+6.2	65	9	47	14	27	25	35	27	12	40	.01	−.4	1	6,008	s.	32	w.	18	16	13	2	3.7	.2	.0
Pueblo	4,685	80	86	25.15	29.89	−.16	37.0	+7.1	65	9	51	8	30	23	52	27	11	37	.00	−.3	0	6,561	w.	40	w.	18	18	11	2	3.5	.0	.0
Concordia	1,392	50	58	28.45	29.95	−.19	38.6	+12.2	62	21	50	15	11	27	35	31	24	63	.19	−.4	4	6,238	sw.	25	sw.	10	15	12	4	3.7	T	.0
Dodge City	2,509	10	86	27.31	29.96	−.15	38.8	+9.8	64	21	54	14	27	24	41	29	17	48	T.	−.4	0	8,674	sw.	38	sw.	21	23	4	4	2.5	.0	.0
Wichita	1,358	85	93	28.50	29.96	−.17	42.5	+11.2	65	21	53	21	12	32	31	35	26	58	.10	−.7	2	8,586	sw.	35	sw.	21	14	10	7	4.2	.0	.0
Oklahoma City	1,214	10	47	28.68	29.98	−.13	47.5	+11.1	71	21	59	19	12	36	36	39	31	59	.33	−.9	4	7,405	s.	30	sw.	21	11	13	7	4.7	.0	.0
Southern Slope							48.4	+5.7										58	.23	−.4										4.6		
Abilene	1,738	10	52	28.20	30.02	−.07	52.0	+7.8	80	18	64	26	12	40	34	43	34	58	.34	−.6	2	7,386	s.	34	w.	24	13	4	14	5.3	.0	.0
Amarillo	3,676	10	49	26.19	29.97	−.09	43.8	+8.5	66	3	57	21	12	31	39	32	18	42	.02	−.5	2	7,734	sw.	40	sw.	21	19	9	3	3.2	.0	.0
Big Spring	2,537	5	62	27.38	30.03		48.4		73	21	61	24	13	36	39	40	33	66	.19		3		s.				14	9	8	4.6	.0	.0
Del Rio	944	64	71	29.00	30.00	−.06	56.7	+4.4	83	21	67	27	1	46	32	50	44	69	.40	−.2	9	5,659	se.	27	nw.	24	8	5	18	6.3	.0	.0
Roswell	3,566	75	85	26.34	30.01	−.03	41.2	+2.0	65	15	56	15	1	27	41	33	22	53	.15	−.4	2	5,351	nw.	39	nw.	26	20	6	5	3.4	.0	.0
Southern Plateau							37.8	−2.9										59	1.15	+.5										3.6		
El Paso	3,778	152	175	26.19	30.04	+.03	43.7	−1.3	65	10	56	24	1	32	33	36	26	52	.19	−.3	3	6,792	nw.	38	nw.	21	15	11	5	3.5	T	.0
Albuquerque	4,972	51	66	25.04	30.07		32.4		54	10	45	10	1	20	38	26	17	57	.08		3	4,126	ne.	35	nw.	26	15	7	9	4.2	.6	.0
Santa Fe	7,013	38	53	23.17	30.08	+.04	27.2	−1.6	48	9	37	9	1	17	26	22	15	60	.73	+.1	6	4,777	ne.	21	nw.	21	15	11	5	3.8	7.8	1.0
Flagstaff	6,907	10	59	23.26	30.02	−.03	23.0	−3.7	53	9	36	−7	29	10	47	20		81	2.06		11	6,845	sw.	32	ne.	11	15	6	10		24.0	13.5
Phoenix	1,108	10	107	28.84	30.02	−.01	48.6	−2.6	75	9	62	29	2	36	37	40	29	54	2.31	+1.5	6	3,936	e.	32	sw.	17	15	8	8	4.0	1.0	.0
Yuma	141	9	54	29.88	30.04	−.01	51.1	−3.3	76	9	63	34	29	40	35	43	30	48	1.16	+.7	5	4,814	n.	31	nw.	11	23	4	4	2.3	.0	.0
Independence	3,957	6	27	25.95	30.07	.00	33.3	−4.9	64	6	46	−1	18	20	39	25			1.38	+.5	5		nw.				19	1	11		20.0	6.0
Middle Plateau							25.5	−2.7										74	1.47	+.4										5.4		
Reno	4,532	74	81	25.39	30.03	−.10	30.3	−2.2	62	9	42	9	30	19	41	27	20	64	2.22	+.7	12	4,804	w.	29	sw.	9	12	6	13	5.1	28.5	6.9
Tonopah	6,090	12	20				26.4		55	9	33	9	18	20	21	23	19	76	1.00		8		se.									
Winnemucca	4,344	18	56	25.56	30.05	−.11	26.1	−2.5	55	9	38	3	25	14	40	24	20	79	1.14	+.1	12	6,173	sw.	27	sw.	24	10	7	14	5.8	15.4	6.4
Modena	5,473	10	46	24.55	30.05	−.05	21.8	−4.9	52	9	34	−7	31	9	41	19	16	80	1.38	+.5	11	6,947	sw.	38	s.	15	15	4	12	5.0	20.6	9.6
Salt Lake City	4,360	163	203	25.57	30.03	−.12	29.0	−.2	47	9	36	14	29	22	29	26	20	68	2.07	+.8	11	5,257	s.	30	se.	17	8	6	17	6.6	22.9	12.0
Grand Junction	4,602	60	68	25.38	30.08	+.02	20.2	−3.8	44	15	32	−6	2	8	44	18	14	80	.54	−.1	9	3,514	nw.	28	sw.	15	14	9	8	4.6	4.5	2.3
Northern Plateau							31.8	+3.3										72	1.32	−.3										7.7		
Baker	3,471	48	53	26.34	30.01	−.15	22.7	−2.2	47	5	32	−7	18	14	32	22	18	77	1.91	+.5	16	5,253	se.	22	w.	5	3	9	19	7.5	17.1	7.9
Boise	2,739	79	87	27.12	30.04	−.15	31.8	+2.0	48	6	38	14	26	25	22	28	24	72	1.08	−.6	13	5,096	se.	25	se.	29	3	5	23	8.3	15.1	8.0
Lewiston	757	40	48	29.10	29.93	−.23	37.2	+4.7	57	4	44	18	17	31	22				1.35	−.2	9	3,978	e.	27	sw.	5	2	7	22	8.1	3.3	1.0
Pocatello	4,477	60	68	25.38	30.02	−.18	26.9	+2.2	45	9	33	4	21	20	29	24	20	76	1.85	+.5	16	9,115	se.	38	sw.	10	2	13	16	7.5	20.0	10.3
Spokane	1,929	101	110	27.79	29.88	−.24	31.8	+4.3	48	8	37	11	18	27	19	29	26	77	1.16	−1.0	14	6,468	s.	26	sw.	5	0	9	22	8.1	15.7	7.3
Walla Walla	991	57	65	28.82	29.91	−.24	39.1	+6.4	61	8	45	13	17	33	23	34	27	62	1.28	−.7	13	6,007	s.	30	w.	5	1	12	18	7.8	1.5	.0
Yakima	1,076	58	67	28.72	29.89		33.0	+5.6	59	8	42	9	19	25	26	30	24	71	.62	−.7	8	3,959	nw.	32	nw.	5	5	9	17	6.8	8.0	1.7
North Pacific Coast Region							40.0	−.4										84	7.65	+1.3										8.6		
North Head	211	11	56	29.65	29.88	−.17	40.2	−1.9	49	8	44	29	17	37	13	39	37	89	13.14	+4.4	27	13,466	s.	65	s.	24	1	7	23	8.5	10.2	.0
Port Angeles	29	8	53		29.85		38.8		51	7	44	27	16	34	14				4.35	−.2	17	5,208	s.	28	sw.	9	1	8	22		1.3	.0
Seattle	125	215	250	29.72	29.86	−.19	39.6	+.1	53	8	43	28	17	36	12	37	34	82	5.20	+.3	21	8,468	s.	38	sw.	9	1	4	26	8.8	1.1	.0
Tacoma	194	172	201	29.67	29.88	−.16	39.6	+.8	55	8	44	25	18	35	15				5.84	−.3	23	7,841	s.	37	sw.	9	0	7	24	8.7	7.3	.0
Tatoosh Island	86	9	53	29.70	29.80	−.24	40.8	−.4	49	8	43	32	18	38	8	38	36	84	13.20	+1.4	25	13,146	s.	54	s.	8	0	7	24	8.6	1.4	.0
Medford	1,329	29	58	28.59	30.04		34.8		50	13	42	15	22	28	27	33	31	84	3.36	+.6	16	3,875	n.	35	se.	24	3	6	22	8.0	11.3	.0
Portland, Oreg	153	68	106	29.78	29.94	−.14	39.8	+.4	58	8	44	23	18	36	13	38	35	83	7.94	+1.3	26	6,142	s.	25	s.	1	1	4	26	8.8	8.7	.0
Roseburg	510	75	99	29.45	30.01	−.09	39.8	−1.4	58	6	46	25	17	34	18	38	35	82	8.16	+2.8	22	3,848	s.	21	s.	24	1	7	23	8.6	8.3	.0

TABLE 1.—*Climatological data for Weather Bureau stations, January, 1933*—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station, reduced to mean of 24 hours	Pressure: Sea level, reduced to mean of 24 hours	Pressure: Departure from normal	Temperature of the air: Mean max. + mean min. ÷ 2	Temperature: Departure from normal	Temperature: Maximum	Temperature: Date	Temperature: Mean maximum	Temperature: Minimum	Temperature: Date	Temperature: Mean minimum	Temperature: Greatest daily range	Mean wet thermometer	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Days with .01, or more	Wind: Total movement	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 Pacific Coast Region							43.9	−3.5										80	4.76	+.1										6.3		
Eureka	62	73	89	30.00	30.07	−.03	43.6	−3.3	64	13	50	28	17	37	25	42	40	87	7.04	−.1	18	5,516	se.	27	n.	10	7	8	16	6.2	T	.0
Red Bluff	330	5	58	29.68	30.05	−.07	42.7	−3.1	73	13	51	29	16	35	38	39	34	75	4.09	−.7	13	5,805	nw.	35	se.	24	7	9	15	6.4	4.1	.0
Sacramento	69	106	117	29.99	30.07	−.05	42.0	−3.8	61	13	48	30	17	36	25	40	37	81	2.85	−.9	12	6,364	se.	34	se.	18	8	7	16	6.5	T	.0
San Francisco	155	208	243	29.88	30.05	−.06	47.0	−2.9	65	13	52	36	10	42	22	44	40	79	5.68	+1.1	14	5,499	se.	28	s.	24	10	6	15	5.8	.0	.0
San Jose	141	12	110	29.92	30.08	----	44.0	−4.3	66	13	52	27	17	36	35	----	----	----	4.12	+1.1	12	4,839	se.	24	se.	22	6	9	16	6.5	.0	.0
South Pacific Coast Region							50.1	−1.6										68	4.99	+2.7										5.1		
Fresno	327	89	98	29.74	30.10	.00	43.0	−3.2	63	14	50	32	12	36	26	40	36	79	2.18	+.4	11	4,319	nw.	23	nw.	27	4	8	19	7.4	.0	.0
Los Angeles	338	159	191	29.68	30.04	−.04	54.4	−.2	81	9	63	40	24	46	29	45	35	57	8.46	+5.4	12	4,762	ne.	25	se.	19	18	5	8	3.6	.0	.0
San Diego	87	62	70	29.95	30.04	−.03	52.8	−1.5	71	14	61	39	20	45	25	46	40	67	4.32	+2.3	12	4,752	e.	32	se.	16	15	6	10	4.3	.0	.0
West Indies																																
San Juan, P. R.	82	9	54	29.92	30.01	----	75.3	+.3	85	29	80	66	18	70	17	----	----	----	2.30	−1.8	18	8,622	e.	29	e.	2	9	22	0	4.6	.0	.0
Panama Canal																																
Balboa Heights	118	6	97	----	[1] 29.83	−.01	79.2	−.7	90	7	87	67	29	71	21	----	----	[1] 79	1.63	+.8	4	5,356	nw.	21	nw.	25	10	18	3	5.0	.0	.0
Cristobal	36	6	97	----	[1] 29.85	−.01	80.6	−.9	87	28	84	72	28	77	15	73	72	[1] 78	2.10	−1.4	18	9,503	n.	28	n.	3	6	17	8	5.6	.0	.0
Alaska																																
Fairbanks	455	11	44	[2] 29.30	[2] 29.89	----	23.5	----	17	16	−14	−60	28	−33	35	−22	−26	81	1.13	----	12	1,531	n.	17	sw.	21	14	5	12	5.0	18.3	23.2
Juneau	80	11	50	[2] 29.48	[2] 29.57	----	24.0	----	45	12	28	7	3	20	17	22	16	72	6.01	----	26	6,440	s.	27	ne.	1	2	4	25	8.8	40.5	9.5
Hawaiian Islands																																
Honolulu	38	86	100	[2] 29.99	[2] 30.03	----	72.4	----	80	5	77	65	22	68	13	65	62	72	2.63	−1.2	18	8,964	e.	29	e.	24	8	13	10	5.6	.0	.0

[1] Observations taken bihourly.

[2] Pressure not reduced to mean of 24 hours.

TABLE 2.—*Data furnished by the Canadian Meteorological Service, January, 1933*

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: Departure from normal	Temperature: Mean maximum	Temperature: Mean minimum	Temperature: Highest	Temperature: Lowest	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Total snowfall
	Feet	In.	In.	In.	°F.	°F.	°F.	°F.	°F.	°F.	In.	In.	In.
Cape Race, N. F	99	----	----	----	----	----	----	19.7	----	4	4.97	----	0.5
Sydney, C. B. I	48	29.92	29.97	+0.04	28.2	+7.7	36.0	20.4	50	10	6.75	+1.65	17.5
Halifax, N. S	88	29.79	29.90	−.07	30.2	+8.4	38.3	22.2	52	9	5.12	−.65	8.1
Yarmouth, N. S	65	29.79	29.86	−.14	32.4	+6.1	39.3	25.6	49	12	4.28	−.88	12.2
Charlottetown, P. E. I	38	29.80	29.84	−.08	25.4	+8.4	32.6	18.1	45	2	3.77	−.19	26.7
Chatham, N. B	28	29.78	29.82	−.15	19.6	+9.8	29.2	10.0	46	−9	2.37	−1.22	19.8
Father Point, Que	20	29.87	29.90	−.08	18.3	+10.3	27.0	9.6	42	−6	4.02	+1.17	40.2
Quebec, Que	296	29.61	29.95	−.07	20.4	+11.3	28.0	12.8	42	−11	3.04	−.97	22.6
Doucet, Que	1,236	----	----	----	7.0	----	20.5	−6.4	36	−44	4.27	----	39.6
Montreal, Que	187	----	----	----	----	----	----	----	----	----	----	----	----
Ottawa, Ont	236	29.67	29.95	−.08	25.4	+15.8	33.9	17.0	46	−10	1.67	−1.32	4.6
Kingston, Ont	285	29.65	29.97	−.08	31.4	+14.3	38.1	24.8	50	−3	.94	−2.51	.4
Toronto, Ont	379	29.54	29.97	−.08	33.6	+12.2	40.0	27.2	55	5	1.62	−1.30	2.1
Cochrane, Ont	930	----	----	----	6.2	----	16.7	−4.3	34	−29	2.03	----	20.1
White River, Ont	1,244	28.51	29.89	−.12	6.0	+6.4	19.2	−7.2	35	−44	1.57	−.12	15.7
London, Ont	808	----	----	----	32.1	----	38.9	25.3	56	7	1.36	----	1.8
Southampton, Ont	656	29.19	29.92	−.11	30.0	+9.6	37.0	23.0	54	9	1.90	−2.15	9.0
Parry Sound, Ont	688	29.21	29.93	−.08	25.5	+11.7	33.0	18.0	44	−7	1.61	−2.47	5.5
Port Arthur, Ont	644	29.15	29.89	−.18	13.2	+10.1	22.1	4.4	38	−2.6	1.10	+.28	11.0
Winnipeg, Man	760	28.99	29.88	−.23	2.3	+10.1	12.0	−7.3	33	−31	1.04	+.16	10.4
Minnedosa, Man	1,690	27.94	29.85	−.25	1.7	+8.9	11.1	−7.7	39	−30	.86	+.06	8.6
Le Pas, Man	860	----	----	----	−7.6	----	1.4	−16.5	36	−38	.83	----	8.3
Qu'Appelle, Sask	2,115	27.42	29.78	−.30	3.9	+7.7	13.6	−5.7	38	−31	.80	+.30	T
Moose Jaw, Sask	1,759	----	----	----	8.5	----	20.2	−3.2	45	−26	.36	----	3.6
Swift Current, Sask	2,392	27.12	29.75	−.34	13.8	+10.7	26.5	1.1	46	−16	.59	−.05	5.0
Medicine Hat, Alb	2,365	27.14	29.68	−.39	18.9	+13.4	30.0	7.8	51	12	.54	−.03	5.4
Calgary, Alb	3,540	25.90	29.69	−.34	16.5	+8.1	28.1	4.9	52	−15	.42	−.11	4.2
Banff, Alb	4,521	----	----	----	----	----	----	----	----	----	----	----	----
Prince Albert, Sask	1,450	28.21	29.87	−.22	−4.0	+4.4	7.0	−14.9	38	−38	.96	−.01	9.6
Battleford, Sask	1,592	27.99	29.83	−.25	−1.9	+4.0	8.0	−11.7	39	−38	.40	.00	4.0
Edmonton, Alb	2,150	----	----	----	----	----	----	----	----	----	----	----	----
Kamloops, B. C	1,262	----	----	----	----	----	----	----	----	----	----	----	----
Victoria, B. C	230	----	----	----	----	----	----	----	----	----	----	----	----
Barkerville, B. C	4,180	----	----	----	----	----	----	----	----	----	----	----	----
Estevan Point, B. C	20	----	----	----	----	----	----	----	----	----	----	----	----
Prince Rupert, B. C	170	----	----	----	----	----	----	----	----	----	----	----	----
Hamilton, Ber	151	29.87	30.03	−.10	66.4	+4.4	71.3	61.5	77	48	5.88	+9.4	.0
LATE REPORTS FOR DECEMBER, 1932													
Moose Jaw, Sask	1,759	----	----	----	11.8	----	21.3	2.2	45	−28	.50	----	5.0