CLIMATOLOGICAL TABLES

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, October, 1931

[For description of tables and charts, see REVIEW, January, p. 50]

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	68.3	+3.8	Decatur	97	5	Valley Head	30	31	1.73	−0.94	Robertsdale	7.59	Milltown	T.
Arizona	63.5	+0.8	Gila Bend	104	6	Fort Valley	13	31	0.64	−0.17	Henrys Camp	2.50	6 stations	0.00
Arkansas	67.1	+4.7	Dumas	98	10	2 stations	26	31	2.35	−0.82	Gravette	10.22	Wynne	0.65
California	59.4	−0.4	2 stations	102	[1] 5	Twin Lakes	5	26	1.26	+0.04	Camptonville	7.73	26 stations	0.00
Colorado	49.6	+3.0	Las Animas	98	21	Dillon	−7	30	1.00	−0.36	Pagosa Springs	2.98	2 stations	0.00
Florida	74.5	+1.5	Tarpon Springs	95	6	Vernon	35	31	2.41	−1.86	Fort Lauderdale	12.38	Fernandina	0.10
Georgia	67.6	+2.7	2 stations	95	[1] 6	Blairsville	24	20	1.04	−1.69	Moultrie	3.70	Glennville	T.
Idaho	47.8	+0.9	3 stations	89	1	Mud Lake	12	27	1.43	−0.04	Falls Ranger Station	3.68	Challis	0.00
Illinois	59.6	+4.3	2 stations	91	5	Mount Carroll	28	18	3.71	+0.96	Casey	8.37	New Burnside	1.47
Indiana	58.6	+4.0	Scottsburg	90	3	Delphi	25	18	3.72	+0.98	Greencastle	6.72	Vevay (near)	1.80
Iowa	56.8	+5.0	2 stations	92	10	2 stations	28	[1] 17	3.01	+0.58	Bedford	6.67	Allison	0.62
Kansas	61.7	+4.8	Ashland	99	6	2 stations	10	31	1.60	−0.52	Hanover	3.70	Jetmore	0.26
Kentucky	62.0	+3.8	Lovelaceville	93	5	Farmers	28	19	3.01	+0.24	Bardstown	5.77	Pikeville	1.32
Louisiana	72.4	+4.3	3 stations	98	[1] 9	St. Joseph	29	31	3.31	−0.01	Burrwood	13.44	Grand Coteau	0.88
Maryland-Delaware	59.3	+2.9	Stevensville, Md	91	8	Oakland, Md	22	[1] 19	1.78	−1.10	Easton, Md	4.08	Cumberland, Md	0.71
Michigan	53.4	+4.4	Morenci	92	6	2 stations	19	12	3.07	+0.36	Wellston	6.38	Caro	0.72
Minnesota	51.3	+5.6	Beardsley	90	2	Meadowlands	18	12	2.48	+0.63	Pigeon River Bridge	5.72	Milan	0.75
Mississippi	69.5	+4.2	Columbia	98	5	2 stations	31	19	1.82	−0.75	Bay St. Louis	4.82	Vicksburg	0.88
Missouri	61.7	+4.3	2 stations	95	5	Dean	27	31	3.45	+0.56	Dean	6.82	Arcadia	0.99
Montana	46.1	+1.6	do	88	[1] 2	Ingomar (near)	7	30	0.42	−0.63	Crow Agency	2.29	5 stations	0.00
Nebraska	55.6	+4.5	do	93	[1] 4	Gordon	1	31	1.19	−0.41	Falls City	4.60	2 stations	0.23
Nevada	54.3	+2.8	Logandale	96	[1] 4	Zorra Vista Ranch	14	12	0.39	−0.23	Sharp	1.49	Lovelock	0.00
New England	52.6	+3.1	3 stations	86	[1] 18	Hoosac Tunnel, Mass.	18	19	3.29	−0.24	Danforth, Me	7.94	Westfield, Mass	1.44
New Jersey	58.3	+3.4	Canoe Brook	92	8	Layton	24	13	2.76	−0.99	Bayonne	4.69	Culvers Lake	1.67
New Mexico	55.8	+2.3	Carlsbad	95	[1] 6	Elizabethtown	8	30	0.97	−0.25	Carrizozo	4.02	6 stations	0.00
New York	53.2	+3.3	4 stations	86	[1] 3	3 stations	22	[1] 10	2.44	−0.89	High Market	5.48	Dansville	0.73
North Carolina	61.9	+2.0	Southern Pines	96	7	Mount Mitchell	19	31	1.11	−2.23	Brevard	4.26	Willard	0.26
North Dakota	47.7	+4.2	Wahpeton	90	2	Washburn	10	29	1.39	+0.35	Sharon	3.94	Howard	T.
Ohio	57.3	+3.4	5 stations	89	[1] 4	3 stations	25	[1] 18	2.42	−0.29	Franklin	4.80	Cadiz	1.03
Oklahoma	67.3	+5.6	Hollis	103	6	2 stations	19	31	4.43	+1.24	Tahlequah	11.07	Buffalo	0.54
Oregon	49.1	+0.4	Pendleton	93	1	Seneca	−1	12	2.49	+0.48	Crossett	10.08	Kingman	0.06
Pennsylvania	55.7	+3.3	Holtwood	93	7	Ridgway	20	[1] 13	1.83	−1.43	Hamburg	4.30	Wellsboro	0.20
South Carolina	65.9	+2.3	Garnett	98	11	Santuck	28	19	0.80	−2.17	Caesars Head	3.06	2 stations	T.
South Dakota	52.3	+4.0	2 stations	89	[1] 2	Oelrichs	7	31	1.32	−0.06	Webster	3.08	Pollock	0.11
Tennessee	64.2	+4.8	Carthage	96	6	Erwin	22	18	1.88	−0.96	Spencer	3.30	Embreeville	0.68
Texas	72.8	+5.2	Fort Stockton	105	6	Spearman	21	31	2.26	−0.50	Abilene	10.21	4 stations	0.00
Utah	52.1	+2.9	St. George	91	[1] 9	Soldiers Summit	7	27	0.82	−0.50	Monticello	2.43	2 stations	T.
Virginia	60.3	+2.8	Kenbridge	93	6	Burkes Garden	18	19	1.10	−1.89	Christchurch	4.17	Wallaceton	0.09
Washington	49.1	−0.1	2 stations	90	1	Chewelah	16	21	3.64	+0.64	Wynoochee Oxhow	15.27	Sixprong (near)	0.05
West Virginia	57.0	+2.7	Wardensville	98	7	Marlinton	18	19	1.66	−1.47	Terra Alta	3.03	Union	0.58
Wisconsin	52.9	+4.9	2 stations	85	[1] 3	Solon Springs	17	12	3.03	+0.68	West Bend	5.05	Prairie du Chien	1.26
Wyoming	45.1	+2.0	Pinebluff	84	2	Pinedale	6	27	1.31	+0.03	Bechler River	4.55	Powell	0.18
Alaska (Sept.)	43.9	−0.4	Haines	75	7	Barrow	10	[1] 20	3.46	−0.49	Mt. Roberts (b)	22.09	Barrow	0.12
Hawaii	74.8	+1.0	2 stations	94	[1] 10	Kanalohuluhulu	46	31	6.69	+1.21	Kukaua	20.89	Kalae	0.00
Porto Rico	79.1	+0.5	Mayaguez	97	[1] 14	Guineo	53	17	8.43	+0.22	La Fe	20.39	Santa Rita	1.55

[1] Other dates also.

TABLE 1.—*Climatological data for Weather Bureau stations, October, 1931*

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, 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.
New England							54.8	+3.7										76	3.26	0.0										4.8		
Eastport	76	67	85	29.86	29.94	−0.06	50.1	+2.6	73	8	56	34	13	44	27	47	44	82	4.72	+1.2	12	7,212	nw.	40	se.	16	8	5	18	6.7	0.0	0.0
Greenville, Me.	1,070	6	----	28.79	29.96	------	47.5	------	79	4	57	27	10	38	33	----	----	----	3.87	------	14	5,162	se.	28	------	26	10	7	14	----	T.	0.0
Portland, Me.	103	82	117	29.85	29.98	−.06	53.8	+3.9	79	8	62	33	19	46	26	47	42	72	4.35	+1.2	9	5,662	w.	32	nw.	26	15	7	9	4.3	0.0	0.0
Concord	289	70	79	29.69	30.01	−.04	51.6	+1.9	84	4	63	29	11	40	40	----	----	----	3.45	+0.6	9	3,386	nw.	21	nw.	27	15	4	12	4.8	0.0	0.0
Burlington	403	11	48	29.56	30.00	−.04	51.6	+2.4	79	4	60	29	10	43	32	----	----	----	2.52	−0.4	12	6,472	s.	37	s.	11	9	7	15	6.2	0.0	0.0
Northfield	876	12	60	------	30.02	−.02	48.6	+3.1	80	4	60	23	10	37	41	----	----	82	2.28	−0.6	14	4,339	s.	25	s.	11	9	9	13	5.9	0.0	0.0
Boston	125	106	165	29.86	30.00	−.05	58.5	+4.9	84	5	67	40	19	50	26	51	45	69	2.18	−1.0	7	5,055	nw.	27	nw.	27	15	9	7	4.1	0.0	0.0
Nantucket	12	14	90	29.99	30.00	−.05	57.7	+3.5	76	6	64	42	19	52	19	53	50	80	5.57	+2.2	9	10,023	sw.	36	sw.	17	12	8	11	5.1	0.0	0.0
Block Island	26	11	46	29.98	30.01	−.04	58.0	+3.1	76	6	63	43	18	53	18	53	50	78	4.41	+0.8	8	10,342	w.	46	nw.	26	18	8	5	3.9	0.0	0.0
Providence	160	215	251	29.83	30.00	−.05	57.4	+5.2	82	8	67	35	19	48	27	51	46	72	2.40	−0.7	9	7,205	nw.	42	nw.	25	17	9	5	3.5	0.0	0.0
Hartford	159	122	----	29.84	30.01	−.05	57.5	+6.3	83	3	68	37	13	48	34	----	----	----	1.75	−1.8	9	------	sw.	----	------	----	14	10	7	4.2	0.0	0.0
New Haven	106	74	153	29.92	30.03	−.03	58.1	+4.3	83	8	68	38	19	49	29	51	47	73	2.23	−1.4	8	4,987	sw.	27	nw.	26	15	11	5	3.8	0.0	0.0
Middle Atlantic States							60.0	+3.4										73	1.61	−1.4										4.5		
Albany	97	107	115	29.92	30.03	−.03	55.0	+2.9	82	5	64	34	10	45	31	48	44	75	1.37	−1.4	10	3,742	s.	20	nw.	26	15	4	12	4.6	0.0	0.0
Binghamton	871	10	84	29.13	30.07	+.01	53.3	+3.3	81	5	65	28	13	42	39	----	----	----	1.02	−2.0	10	3,154	e.	21	nw.	26	10	3	18	6.0	0.0	0.0
New York	314	414	454	29.70	30.04	−.02	60.4	+4.1	85	6	68	41	19	52	25	53	48	70	2.87	−0.7	11	9,474	nw.	50	nw.	26	11	12	8	5.1	0.0	0.0
Bellefonte	1,050	5	36	28.96	30.08	------	53.0	------	82	4	66	25	20	40	45	47	43	79	1.04	------	8	------	w.	36	w.	16	7	10	14	6.0	0.0	0.0
Harrisburg	374	94	104	29.67	30.07	−.01	58.9	+4.1	84	6	69	37	13	49	32	51	45	68	2.13	−0.8	8	3,576	w.	26	nw.	25	13	10	8	4.5	0.0	0.0
Philadelphia	114	123	367	29.95	30.08	+.01	62.6	+4.8	85	6	71	45	19	54	24	54	48	66	2.61	−0.2	8	7,802	sw.	34	n.	12	12	10	9	4.6	0.0	0.0
Reading	325	81	103	29.72	30.07	------	58.8	+4.1	85	4	69	37	13	49	29	52	49	76	2.06	−1.1	7	2,983	sw.	22	w.	25	13	10	8	4.7	0.0	0.0
Scranton	805	72	103	29.22	30.08	+.01	54.9	+3.0	83	4	66	30	13	44	37	48	45	77	1.45	−1.6	10	3,565	n.	33	nw.	25	10	11	10	5.0	0.0	0.0
Atlantic City	52	37	172	30.00	30.06	−.01	61.5	+4.6	80	6	69	40	19	54	26	55	52	75	2.11	−1.1	8	9,542	w.	40	w.	25	16	8	7	3.9	0.0	0.0
Cape May	17	13	49	------	------	------	61.6	+2.0	82	3	69	40	19	54	25	57	53	78	1.94	−1.4	7	------	nw.	----	------	----	12	11	8	----	0.0	0.0
Sandy Hook	22	10	55	30.02	30.04	------	60.6	------	82	6	67	44	19	54	22	54	51	76	2.41	−1.4	11	8,823	w.	38	n.	25	13	11	7	4.2	0.0	0.0
Trenton	190	159	183	29.86	30.06	------	59.6	+4.0	86	6	70	37	19	49	28	52	47	72	2.22	−0.6	10	5,770	w.	31	nw.	26	13	10	8	4.4	0.0	0.0
Baltimore	123	100	215	29.94	30.07	−.01	63.4	+5.2	88	8	73	44	18	54	30	54	48	64	1.79	−1.1	4	5,605	sw.	32	sw.	25	13	10	8	4.3	0.0	0.0
Washington	112	62	85	29.96	30.08	.00	61.2	+3.8	88	6	72	37	19	50	38	53	48	72	1.28	−1.6	7	3,017	sw.	24	nw.	17	16	10	5	4.1	0.0	0.0
Cape Henry	18	8	54	30.07	30.09	------	64.8	+2.7	88	7	73	45	20	57	25	58	54	74	0.57	−2.4	4	7,436	sw.	45	n.	26	14	14	3	3.8	0.0	0.0
Lynchburg	681	153	188	29.37	30.12	+.03	61.0	+2.5	87	7	74	34	19	48	44	52	47	71	0.67	−2.5	6	2,992	nw.	20	w.	25	18	7	6	4.0	0.0	0.0
Norfolk	91	170	205	30.01	30.11	+.04	65.2	+2.7	88	6	74	47	20	57	24	57	52	70	0.74	−2.3	3	7,097	s.	29	nw.	17	17	10	4	3.7	0.0	0.0
Richmond	144	11	52	29.96	30.11	+.03	62.3	+2.7	88	7	75	36	19	50	36	55	52	80	1.15	−1.7	7	3,980	sw.	26	sw.	28	15	11	5	3.5	0.0	0.0
Wytheville	2,304	49	55	27.76	30.14	+.05	55.6	+2.0	81	5	68	26	19	43	43	48	43	73	0.62	−2.2	4	3,502	w.	22	sw.	25	14	7	10	4.3	0.0	0.0
South Atlantic States							67.1	+2.8										71	0.78	−2.5										3.4		
Asheville	2,253	89	104	27.81	30.16	+.07	58.8	+3.5	84	5	72	30	19	45	44	49	44	71	0.49	−2.3	5	3,729	nw.	22	nw.	25	18	8	5	4.0	0.0	0.0
Charlotte	779	55	62	29.30	30.13	+.05	65.0	+3.3	90	6	77	39	19	54	34	54	48	64	1.26	−1.7	4	2,292	sw.	16	w.	15	18	8	5	3.2	0.0	0.0
Greensboro	886	5	56	29.18	30.14	------	60.4	------	89	6	75	28	18	46	46	51	48	76	0.45	------	5	4,039	sw.	25	nw.	15	18	7	6	3.5	0.0	0.0
Hatteras	11	5	50	30.08	30.10	+.04	67.2	+1.3	84	5	74	50	21	60	23	64	63	89	0.64	−4.3	4	6,905	ne.	30	ne.	12	18	9	4	3.1	0.0	0.0
Raleigh	376	103	146	29.72	30.12	+.05	64.6	+2.6	88	6	76	41	19	54	32	55	49	64	0.80	−2.1	3	4,805	sw.	25	nw.	15	19	7	5	3.2	0.0	0.0
Wilmington	31	81	91	30.05	30.13	+.07	67.0	+1.7	85	5	78	44	19	56	33	59	55	75	0.50	−2.8	2	3,494	n.	24	sw.	29	21	7	3	2.7	0.0	0.0
Charleston	48	11	92	30.06	30.11	+.05	70.2	+2.4	85	25	78	48	31	62	26	63	60	76	0.71	−2.6	4	6,397	ne.	27	ne.	18	18	8	5	3.4	0.0	0.0
Columbia, S. C.	351	41	57	29.75	30.13	+.06	67.5	+3.2	89	6	80	42	19	55	38	56	49	60	0.53	−2.0	2	3,714	ne.	26	sw.	28	22	7	2	2.4	0.0	0.0
Due West	711	10	55	29.39	30.17	------	65.2	------	88	6	78	38	31	53	38	----	----	----	1.45	------	3	4,626	w.	30	ne.	9	17	9	5	3.6	0.0	0.0
Greenville, S. C.	1,039	139	146	29.03	30.13	------	65.8	+5.6	87	6	76	39	31	56	30	54	46	58	1.06	−2.1	6	4,404	ne.	28	w.	25	18	10	3	3.0	0.0	0.0
Augusta	182	62	77	29.91	30.10	+.03	68.3	+3.0	90	12	82	40	20	55	42	58	53	70	0.40	−2.1	2	2,721	nw.	19	sw.	28	21	5	5	2.8	0.0	0.0
Savannah	65	150	194	30.03	30.10	+.05	70.6	+2.7	87	25	80	46	31	61	29	62	59	77	0.34	−2.6	4	6,840	e.	26	w.	29	16	8	7	4.1	0.0	0.0
Jacksonville	43	209	245	30.03	30.08	+.06	72.9	+1.8	84	9	80	48	31	66	24	65	62	75	1.86	−2.6	6	7,578	ne.	27	n.	13	8	16	7	5.2	0.0	0.0
Florida Peninsula							77.7	+0.9										79	4.74	−1.1										5.7		
Key West	22	10	64	29.95	29.97	+.03	79.1	0.0	87	6	84	66	31	74	15	74	72	82	8.02	+2.0	17	6,752	ne.	27	s.	17	12	9	10	4.9	0.0	0.0
Miami	25	124	168	29.98	30.00	+.03	78.2	+1.2	88	16	83	61	31	74	17	72	69	76	5.66	−2.8	14	7,415	ne.	38	ne.	19	6	11	14	6.5	0.0	0.0
Tampa	35	79	197	30.00	30.04	+.06	75.8	+1.5	90	7	84	56	31	68	21	68	65	78	0.54	−2.6	7	7,650	e.	33	e.	19	9	14	8	5.2	0.0	0.0
Titusville	44	5	----	30.00	30.05	------	75.9	------	90	3	83	54	31	69	24	----	----	----	2.98	------	14	------	ne.	----	------	----	5	17	9	6.1	0.0	0.0
East Gulf States							69.9	+3.5										71	1.99	−0.9										3.6		
Atlanta	1,173	190	198	28.90	30.13	+.06	66.0	+3.0	86	12	75	40	31	57	26	55	47	59	1.05	−1.5	3	5,444	e.	25	w.	29	17	9	5	3.3	0.0	0.0
Macon	370	78	87	29.73	30.12	+.06	66.5	+2.0	88	6	79	41	20	54	38	56	51	67	1.42	−0.9	3	3,379	ne.	19	sw.	28	19	5	7	3.2	0.0	0.0
Thomasville	273	49	103	29.79	30.09	+.05	71.3	+3.1	89	6	82	43	31	61	30	62	57	71	0.89	−2.1	2	4,435	ne.	17	ne.	2	15	10	6	4.2	0.0	0.0
Apalachicola	36	11	51	30.03	30.07	------	73.0	------	90	15	80	48	31	66	23	66	64	77	0.15	−3.0	2	5,734	e.	24	e.	1	16	8	7	3.7	0.0	0.0
Pensacola	56	149	185	30.02	30.08	+.05	72.4	+2.5	88	10	78	44	31	66	18	65	62	74	5.83	+1.6	4	8,050	e.	47	sw.	7	16	11	4	3.4	0.0	0.0
Anniston	741	9	57	------	------	------	65.6	+3.2	89	6	79	37	30	52	43	----	----	----	0.46	−2.2	2	2,599	se.	18	w.	29	16	9	6	----	0.0	0.0
Birmingham	700	11	48	29.36	30.12	+.05	69.4	+4.6	92	5	80	41	30	58	28	58	52	65	2.05	−0.4	3	3,683	se.	17	sw.	28	16	13	2	3.0	0.0	0.0
Mobile	57	125	161	30.02	30.08	+.04	72.6	+3.3	89	10	81	45	31	64	26	65	62	77	3.58	0.0	7	5,290	e.	22	se.	4	16	11	4	3.7	0.0	0.0
Montgomery	223	100	112	29.87	30.12	+.06	70.0	+3.4	89	12	80	44	31	60	34	59	53	65	0.88	−1.6	3	3,652	e.	20	e.	1	18	8	5	3.2	0.0	0.0
Corinth	469	6	----	------	------	------	68.2	------	93	6	82	36	19	54	44	----	----	----	1.28	------	2	------	se.	----	------	----	11	19	1	----	0.0	0.0
Meridian	375	87	95	29.70	30.09	+.03	68.8	+4.5	89	10	80	40	31	58	35	60	57	75	1.37	−1.0	4	2,491	se.	17	w.	29	16	8	7	4.0	0.0	0.0
Vicksburg	247	65	73	29.82	30.10	+.04	71.4	+4.7	92	10	81	40	31	62	30	62	57	71	0.88	−1.9	7	4,000	se.	20	w.	29	15	10	6	3.6	0.0	0.0
New Orleans	53	76	84	30.01	30.06	+.03	75.2	+4.2	88	11	81	52	31	69	19	67	64	78	5.36	+2.1	9	3,914	e.	17	e.	1	17	6	8	4.2	0.0	0.0
West Gulf States							73.8	+5.9										72	2.47	−0.6										3.7		
Shreveport	249	204	220	29.80	30.06	+.01	72.3	+5.7	94	9	82	41	31	62	30	62	57	67	2.66	0.0	4	5,638	s.	29	n.	28	22	7	2	2.8	0.0	0.0
Bentonville	1,303	11	44	28.69	30.04	−.01	64.3	+6.3	90	4	75	32	31	54	32	----	----	----	8.36	------	9	2,388	s.	16	nw.	29	21	5	5	----	0.0	0.0
Fort Smith	457	79	94	29.57	30.04	−.01	68.4	+5.6	93	10	79	36	31	58	28	60	55	70	6.32	+3.3	8	4,488	e.	34	nw.	29	15	12	4	4.1	0.0	0.0
Little Rock	357	136	153	29.70	30.08	+.02	68.2	+4.6	91	10	78	40	31	58	30	59	54	70	1.76	−1.0	6	4,489	s.	31	w.	29	12	12	7	4.6	0.0	0.0
Austin	605	136	148	29.39	30.02	------	77.0	+8.7	95	7	88	43	31	66	30	65	60	66	0.15	−3.0	3	4,495	se.	25	ne.	15	13	16	2	3.9	0.0	0.0
Brownsville	57	83	100	29.93	29.99	------	79.2	+4.3	94	6	88	60	31	71	22	71	69	80	4.47	+1.2	9	5,482	se.	21	e.	9	15	12	4	4.0	0.0	0.0
Corpus Christi	20	11	78	29.99	30.01	+.01	79.0	+5.8	90	28	84	63	30	74	19	72	69	77	0.34	−2.1	5	7,083	se.	27	ne.	1	17	12	2	3.9	0.0	0.0
Dallas	512	220	227	29.49	30.04	------	71.7	------	92	9	81	42	31	62	27	----	----	----	2.26	−0.4	8	7,150	se.	31	ne.	15	19	6	6	3.3	0.0	0.0
Fort Worth	670	106	114	29.31	30.02	−.01	72.7	+6.0	95	7	82	42	31	63	28	62	57	68	3.39	+0.6	8	4,990	se.	22	nw.	29	18	6	7	4.0	0.0	0.0
Galveston	54	106	114	30.00	30.06	+.03	76.6	+3.9	85	5	81	57	31	72	21	70	66	75	3.40	−1.0	7	6,926	se.	25	se.	23	17	11	3	3.3	0.0	0.0
Houston	138	292	314	29.90	30.04	------	75.6	+5.3	93	7	84	50	31	67	24	----	----	----	1.09	−2.6	4	7,791	se.	29	se.	15	13	17	1	3.8	0.0	0.0
Palestine	510	64	72	29.53	30.06	+.03	73.0	+5.8	93	9	83	44	31	63	30	63	58	69	2.81	−0.5	4	4,270	s.	18	nw.	23	16	12	3	3.3	0.0	0.0
Port Arthur	34	58	66	30.00	30.04	------	75.6	------	90	8	83	47	31	68	24	68	66	80	5.14	+1.8	7	4,391	e.	21	n.	15	13	16	2	3.8	0.0	0.0
San Antonio	693	242	301	29.29	29.99	−.02	78.0	+7.5	96	7	88	51	31	68	25	67	62	66	0.75	−1.5	5	7,185	e.	32	se.	11	12	18	1	3.8	0.0	0.0
Taylor	571	38	51	29.47	30.06	+.04	75.6	+7.3	95	7	87	41	31	64	31	----	----	----	0.28	−2.8	2	4,719	s.	21	n.	15	17	13	1	3.1	0.0	0.0

TABLE 1.—*Climatological data for Weather Bureau stations, October, 1931*—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, 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							61.0	+3.3										72	2.59	−0.1										5.0		
Chattanooga	762	190	215	29.30	30.12	+0.03	65.4	+3.5	87	6	76	42	19	55	35	54	47	60	1.73	−1.3	3	3,671	se.	20	sw.	29	16	12	3	3.5	0.0	0.0
Knoxville	995	102	111	29.08	30.14	+.05	63.2	+3.3	89	6	75	37	18	52	39	53	48	67	1.42	−1.2	2	2,991	ne.	18	sw.	29	15	10	6	4.0	0.0	0.0
Memphis	399	76	97	29.67	30.09	+.02	69.0	+5.7	90	11	79	38	31	59	30	59	53	66	0.79	−1.9	4	4,412	se.	23	sw.	27	14	12	5	4.1	0.0	0.0
Nashville	546	168	191	29.54	30.13	+.05	65.2	+4.2	89	5	77	39	19	54	37	56	50	66	1.86	−0.6	7	4,928	s.	28	nw.	27	15	9	7	4.2	T.	T.
Lexington	989	193	230	29.07	30.14	+.06	60.8	+3.4	84	3	69	37	18	52	27	----	----	----	4.44	+1.8	12	8,137	sw.	29	sw.	27	17	3	11	4.0	0.0	0.0
Louisville	525	188	234	29.53	30.12	+.04	61.6	+2.3	86	3	71	39	19	52	31	53	48	70	2.36	−0.3	10	5,928	s.	32	sw.	27	11	9	11	5.2	0.0	0.0
Evansville	431	76	116	29.63	30.10	+.02	63.4	+4.0	85	4	73	40	18	54	31	55	50	71	1.83	−1.0	9	5,202	s.	40	sw.	27	13	7	11	4.9	0.0	0.0
Indianapolis	822	194	230	29.20	30.09	+.02	59.4	+3.7	84	5	68	39	18	51	26	52	46	69	3.75	+1.0	12	6,770	s.	38	nw.	7	8	11	12	5.9	0.0	0.0
Royal Center	736	11	55	29.26	30.07	----	57.2	----	85	5	67	31	18	47	29	----	----	----	3.05	+0.1	13	5,754	sw.	25	s.	27	8	8	15	5.8	0.0	0.0
Terre Haute	575	96	129	29.46	30.08	----	60.2	----	84	3	69	38	18	51	30	52	48	72	6.48	+3.8	12	5,651	s.	28	sw.	7	10	8	13	5.5	0.0	0.0
Cincinnati	627	11	51	29.43	30.11	+.03	59.4	+3.7	84	4	70	34	19	49	36	52	48	75	1.89	−0.6	9	3,868	sw.	19	sw.	27	12	10	9	5.0	0.0	0.0
Columbus	822	216	230	29.22	30.10	+.02	58.2	+3.0	82	4	68	35	18	49	29	51	47	73	2.41	0.0	13	6,272	s.	31	w.	16	12	9	10	5.1	0.0	0.0
Dayton	899	137	173	29.14	30.10	----	58.8	+3.8	82	5	68	36	18	50	30	52	47	74	4.66	+2.1	10	4,933	sw.	28	sw.	27	11	10	10	5.4	0.0	0.0
Elkins	1,947	59	67	28.10	30.17	+.07	53.8	+1.5	82	7	66	26	19	42	41	47	45	86	1.50	−1.4	13	2,684	w.	29	nw.	16	6	14	11	6.3	0.0	0.0
Parkersburg	637	77	82	29.48	30.14	+.06	58.4	+2.3	86	7	69	31	19	48	36	51	48	79	2.04	−0.4	9	2,917	se.	29	nw.	16	10	7	14	5.9	0.0	0.0
Pittsburgh	842	353	410	29.20	30.11	+.03	57.4	+1.7	84	7	66	37	18	48	29	50	46	74	1.21	−1.3	11	5,443	sw.	35	w.	25	9	8	14	5.7	0.0	0.0
Lower Lake Region							56.2	+4.2										72	2.18	−0.7										5.5		
Buffalo	767	247	280	29.20	30.03	−.02	55.6	+3.7	77	4	62	36	17	49	29	50	45	73	1.97	−1.3	14	10,471	w.	44	sw.	11	12	9	10	5.4	0.0	0.0
Canton	448	10	61	29.51	29.99	----	51.4	+4.2	79	4	61	28	9	42	35	----	----	----	2.55	−0.5	11	5,241	sw.	30	sw.	11	11	6	14	5.6	T.	0.0
Ithaca	836	74	100	29.14	30.05	----	54.5	+3.4	83	3	65	29	13	44	39	47	42	70	0.99	−2.0	9	5,468	nw.	27	nw.	11	10	6	15	5.7	0.0	0.0
Oswego	335	71	85	----	30.02	−.03	55.0	+3.8	81	4	63	33	10	47	30	----	----	74	2.95	−0.3	13	6,053	s.	27	nw.	11	11	5	15	5.9	0.0	0.0
Rochester	523	86	102	29.47	30.05	.00	56.0	+4.5	82	4	65	35	13	47	34	48	43	70	1.59	−1.1	11	5,244	sw.	23	sw.	5	10	9	12	5.6	0.0	0.0
Syracuse	596	65	79	29.40	30.04	−.02	56.5	+5.5	84	4	65	35	18	48	30	----	----	----	1.76	−1.1	14	4,032	s.	23	nw.	25	13	5	13	5.5	0.0	0.0
Erie	714	130	166	29.29	30.06	+.01	57.0	+3.6	84	4	65	38	17	50	28	50	46	74	3.53	−0.2	12	8,848	s.	30	s.	29	13	8	10	5.0	T.	0.0
Cleveland	762	267	337	29.24	30.06	.00	58.5	+4.9	81	4	65	41	30	52	24	51	45	65	1.76	−1.0	13	9,949	s.	50	w.	16	9	10	12	5.8	0.0	0.0
Sandusky	629	5	67	29.39	30.08	+.02	57.7	+3.4	85	4	66	35	18	49	29	----	----	----	2.37	−0.1	11	5,416	sw.	27	nw.	16	8	9	14	5.8	0.0	0.0
Toledo	628	208	243	29.39	30.07	+.02	57.4	+4.0	83	5	66	36	18	49	28	50	46	73	1.79	−0.6	12	8,370	sw.	36	nw.	16	15	4	12	5.0	0.0	0.0
Fort Wayne	856	110	119	29.14	30.07	----	57.5	+3.8	84	5	66	34	18	49	27	51	47	75	2.42	−0.2	12	5,851	sw.	28	nw.	16	13	4	14	5.5	0.0	0.0
Detroit	730	218	258	29.27	30.07	+.02	57.5	+5.0	82	5	66	36	18	49	27	50	46	73	2.43	0.0	13	6,500	sw.	27	sw.	7	9	13	9	5.4	0.0	0.0
Upper Lake Region							54.0	+5.4										78	2.95	+0.2										5.8		
Alpena	609	13	92	29.34	30.00	−.03	52.6	+5.5	82	3	62	31	18	44	29	48	44	79	2.96	+0.2	12	7,366	nw.	36	nw.	11	13	7	11	5.2	0.0	0.0
Escanaba	612	54	60	29.31	29.98	−.03	52.2	+6.2	73	14	59	33	12	46	29	48	45	79	3.09	+0.5	13	6,949	s.	37	nw.	11	10	7	14	6.0	0.0	0.0
Grand Haven	632	54	80	29.34	30.02	−.01	54.3	+3.6	76	3	62	33	18	47	31	50	47	81	2.86	−0.2	14	7,619	sw.	30	nw.	16	11	4	16	6.1	0.0	0.0
Grand Rapids	707	70	244	29.26	30.04	.00	55.8	+4.6	82	3	64	35	18	48	30	49	46	76	3.18	+0.4	13	7,858	sw.	40	sw.	28	9	7	15	6.0	0.0	0.0
Houghton	668	64	99	29.21	29.94	−.06	53.2	+7.5	82	2	61	35	12	46	32	----	----	----	3.02	0.0	16	6,156	w.	34	nw.	11	8	8	15	6.1	0.0	0.0
Lansing	878	6	88	29.09	30.04	----	53.4	+3.1	81	4	63	30	18	44	32	49	47	86	1.80	−0.7	13	5,297	sw.	27	nw.	16	8	11	12	5.8	T.	0.0
Ludington	637	60	66	29.31	30.00	----	53.6	+3.9	73	3	60	35	12	48	30	50	47	81	5.64	+2.7	18	7,302	s.	33	sw.	28	13	9	9	4.9	0.0	0.0
Marquette	734	77	111	29.15	29.95	−.06	53.9	+7.2	82	2	61	36	17	47	30	47	43	74	3.15	+0.4	13	8,124	s.	36	w.	24	7	6	18	6.8	T.	0.0
Port Huron	638	70	120	29.34	30.03	−.01	55.4	+4.9	80	4	64	33	18	47	29	49	46	77	1.35	−1.1	10	6,989	s.	29	nw.	17	11	9	11	5.5	0.0	0.0
Sault Sainte Marie	614	11	52	29.29	29.99	−.02	50.9	+6.3	76	3	58	31	18	43	29	46	44	83	2.82	−0.9	15	5,601	se.	33	nw.	25	9	6	16	6.5	0.0	0.0
Chicago	673	7	131	29.32	30.04	.00	58.8	+4.8	83	3	66	40	18	52	24	52	48	74	2.62	+0.1	11	6,965	sw.	29	ne.	11	12	8	11	5.4	0.0	0.0
Green Bay	617	109	141	29.32	29.98	−.04	53.8	+5.3	79	3	61	36	18	46	25	48	44	77	3.76	+1.2	10	7,032	s.	27	sw.	27	8	7	16	6.2	0.0	0.0
Milwaukee	681	125	221	29.28	30.01	−.02	56.7	+5.6	82	3	64	39	29	50	25	50	46	73	2.10	−0.2	10	9,018	w.	33	w.	7	10	9	12	5.5	0.0	0.0
Duluth	1,133	5	47	28.71	29.93	−.07	50.9	+6.8	79	2	60	33	12	42	27	45	41	77	2.90	+0.6	14	8,235	sw.	38	nw.	10	11	7	13	5.7	0.0	0.0
North Dakota							48.4	+4.6										72	1.53	+0.3										5.0		
Moorhead	940	50	58	28.92	29.95	−.05	50.5	+6.0	86	2	61	31	12	40	42	44	39	74	2.34	+0.6	8	6,173	s.	30	nw.	27	11	6	14	5.7	T.	0.0
Bismarck	1,674	8	57	28.18	29.98	−.01	48.6	+3.7	82	1	60	29	11	38	38	41	37	73	1.19	+0.2	8	6,330	nw.	38	nw.	27	16	6	9	4.3	0.2	0.0
Devils Lake	1,478	11	44	28.37	29.96	−.03	47.0	+4.6	82	2	57	29	12	37	34	41	37	78	2.29	+1.0	5	6,821	sw.	30	nw.	27	9	8	14	5.8	0.1	0.0
Ellendale	1,457	10	56	28.38	29.96	----	48.8	----	84	2	61	28	11	37	46	----	----	----	1.66	+0.5	9	9,635	nw.	43	nw.	27	12	5	14	5.5	1.0	0.0
Grand Forks	833	12	67	----	----	----	48.7	----	84	1	60	27	11	38	44	42	----	----	3.65	----	9	----	nw.	39	nw.	10	9	8	14	----	0.0	0.0
Williston	1,878	41	48	28.00	29.99	+.01	47.6	+4.2	78	1	60	23	22	36	41	39	33	65	0.15	−0.7	2	5,377	w.	32	nw.	27	16	9	6	3.8	0.0	0.0
Upper Mississippi Valley							58.4	+5.3										75	2.93	+0.5										5.5		
Minneapolis	918	102	208	28.96	29.94	----	54.4	+5.5	81	2	63	38	30	46	30	----	----	----	1.87	−0.2	13	7,718	se.	34	se.	26	13	4	14	5.5	0.0	0.0
St. Paul	837	114	149	29.05	29.96	−.05	54.2	+5.6	80	2	63	37	25	46	29	----	----	----	2.31	+0.1	13	5,492	sw.	28	w.	27	13	5	13	5.3	0.0	0.0
La Crosse	714	11	48	29.21	29.99	−.03	55.2	+4.9	81	3	64	33	17	47	33	50	47	83	4.18	+1.9	12	3,240	s.	18	sw.	27	14	1	16	5.7	0.0	0.0
Madison	974	70	78	28.96	30.00	−.03	54.9	+4.6	80	3	62	38	29	48	27	49	45	76	3.11	+0.7	12	5,761	s.	24	sw.	27	12	5	14	5.4	T.	0.0
Wausau	1,247	4	62	28.64	29.98	----	51.9	----	78	3	60	31	12	43	35	----	----	----	2.51	−0.3	12	4,269	s.	24	sw.	27	10	4	17	6.4	0.0	0.0
Charles City	1,015	10	51	28.93	30.02	.00	55.0	+6.4	81	2	64	33	17	46	30	49	45	79	1.07	−1.3	8	4,625	se.	23	w.	27	15	5	11	5.1	0.0	0.0
Davenport	606	143	118	29.37	30.03	−.01	59.0	+5.3	83	3	67	39	31	51	23	52	48	73	3.01	+0.6	15	6,553	s.	34	w.	27	10	7	14	5.8	0.0	0.0
Des Moines	861	5	99	29.10	30.01	−.02	58.6	+5.2	84	10	67	37	29	50	26	52	48	76	3.54	+1.0	13	6,798	s.	32	nw.	7	11	7	13	5.6	0.0	0.0
Dubuque	700	81	96	29.26	30.02	−.02	56.8	+4.9	81	3	64	35	18	50	26	51	47	76	2.92	+0.4	11	3,899	s.	19	n.	16	12	3	16	6.0	0.0	0.0
Keokuk	614	64	78	29.38	30.05	.00	60.4	+5.0	87	5	69	40	31	52	28	53	49	73	4.05	+1.8	13	4,807	sw.	29	w.	5	12	8	11	5.1	0.0	0.0
Cairo	358	87	93	29.70	30.08	+.01	65.0	+4.6	86	7	74	42	31	56	29	56	52	72	2.66	−0.1	8	4,636	s.	25	sw.	27	10	10	11	5.2	0.0	0.0
Peoria	609	11	45	29.40	30.06	+.01	59.2	+7.2	88	5	68	34	18	50	30	52	49	78	3.15	+0.9	13	3,633	s.	21	w.	28	12	7	12	5.2	0.0	0.0
Springfield, Ill	636	5	191	29.37	30.05	.00	60.7	+4.9	88	5	70	38	18	52	28	53	49	73	3.51	+1.0	10	8,124	s.	29	se.	7	11	5	15	5.8	0.0	0.0
Hannibal	534	74	109	29.48	30.06	+.01	61.4	+5.4	88	5	70	37	18	53	27	----	----	----	3.16	+0.8	10	5,737	sw.	23	w.	28	12	5	14	5.5	0.0	0.0
St. Louis	568	265	303	29.46	30.06	.00	62.9	+4.6	87	4	71	42	29	55	26	54	49	68	2.90	+0.2	10	8,299	s.	31	sw.	23	13	6	12	4.8	0.0	0.0
Missouri Valley							58.3	+4.6										69	1.87	−0.2										4.9		
Columbia, Mo	784	6	84	29.22	30.05	.00	62.0	+5.4	87	6	71	40	18	53	29	----	----	----	3.15	+0.5	10	4,798	s.	20	w.	29	12	9	10	5.1	0.0	0.0
Kansas City	963	161	181	29.02	30.05	+.01	62.5	+4.8	89	10	71	38	30	54	27	54	50	69	3.02	+0.1	9	6,286	s.	34	sw.	27	12	9	10	5.1	T.	0.0
St. Joseph	967	11	49	28.99	30.03	----	60.8	----	90	10	70	37	17	52	28	53	49	74	1.92	−0.8	9	5,553	nw.	37	w.	26	13	10	8	4.6	T.	0.0
Springfield, Mo	1,324	98	104	28.66	30.06	+.01	62.6	+4.4	85	10	71	36	31	54	24	54	50	70	2.53	−0.5	10	6,718	s.	30	w.	29	14	7	10	4.6	0.0	0.0
Iola	984	11	50	29.00	30.04	.00	63.7	+5.9	91	10	74	33	31	54	30	----	----	----	2.05	−0.9	11	3,788	s.	20	s.	26	13	6	12	5.4	0.0	0.0
Topeka	987	92	107	----	----	----	61.4	+4.4	90	10	70	39	31	52	29	----	----	----	2.55	+0.1	8	6,447	sw.	31	w.	26	13	8	10	4.7	0.0	0.0
Lincoln	1,189	11	81	28.74	30.01	−.02	59.0	+4.8	91	10	69	35	31	49	39	51	47	70	1.56	−0.3	6	7,169	s.	33	nw.	29	13	7	11	5.1	0.0	0.0
Omaha	1,105	115	122	28.83	30.01	−.02	59.2	+4.9	89	10	68	36	30	50	33	51	46	69	2.61	+0.4	7	5,187	s.	27	nw.	27	12	12	7	4.5	0.0	0.0
Valentine	2,598	47	54	27.31	30.03	+.02	52.6	+3.3	84	19	65	23	31	40	43	44	37	64	0.55	−0.6	6	6,326	n.	33	w.	26	13	8	10	5.0	0.1	0.0
Sioux City	1,135	94	164	28.78	29.99	−.03	55.8	+4.9	85	10	65	34	17	47	32	49	44	71	1.14	−0.6	6	8,813	nw.	42	s.	26	12	8	11	5.2	T.	0.0
Huron	1,306	59	74	28.59	30.00	−.01	52.5	+4.8	84	2	63	31	31	42	37	45	39	70	1.19	−0.1	9	6,980	s.	40	nw.	27	14	5	12	4.9	T.	0.0
Pierre	1,572	70	75	28.31	29.98	−.03	53.6	+3.8	88	5	65	23	31	42	39	45	37	63	0.41	−0.4	5	6,164	nw.	39	nw.	27	15	7	9	4.6	T.	0.0
Yankton	1,233	49	57	28.68	30.00	−.01	55.2	+4.1	83	2	65	32	31	46	34	----	----	----	1.62	+0.2	8	5,224	nw.	32	w.	27	12	8	11	5.3	T.	0.0

TABLE 1.—*Climatological data for Weather Bureau stations, September, 1931*—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 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.
Northern Slope							48.0	+2.8										59	0.72	−0.3										4.1		
Billings	3,140	5					44.8		80	1	58	21	30	31	49				1.12		5		nw.				18	7	6		0.0	0.0
Havre	2,505	11	44	27.36	30.01	+0.03	47.5	+3.0	83	1	64	17	30	32	47	36	25	49	0.02	−0.6	2	6,033	sw.	34	nw.	26	20	7	4	2.8	T.	0.0
Helena	4,110	87	112	25.83	30.05	+.02	47.4	+2.5	73	2	59	27	11	36	37	38	28	52	0.09	−0.8	2	5,104	sw.	28	sw.	26	16	8	7	4.1	T.	0.0
Kalispell	2,973	48	56	26.99	30.07	+.06	44.2	+0.7	74	1	56	24	8	32	38	38	32	69	0.44	−0.6	5	3,106	nw.	28	sw.	23	15	7	9	4.2	T.	0.0
Miles City	2,371	48	55	27.50	30.07	+.07	49.4	+2.9	80	1	64	22	31	35	44	40	32	57	0.23	−0.6	3	3,857	s.	29	nw.	23	14	13	4	3.6	0.0	0.0
Rapid City	3,259	50	58	26.63	30.05	+.04	51.8	+3.3	84	1	64	16	31	40	44	41	32	54	0.79	−0.2	6	5,921	w.	35	nw.	29	17	6	8	4.0	0.7	0.0
Cheyenne	6,088	84	101	24.05	30.03	+.02	47.4	+2.6	75	1	60	22	30	35	37	38	29	55	1.07	+0.1	5	8,148	w.	53	w.	26	14	10	7	4.4	0.5	0.0
Lander	5,372	60	68	24.70	30.07	+.03	47.5	+4.0	76	1	61	25	27	34	39	39	33	66	1.62	+0.3	6	2,909	sw.	33	sw.	26	15	9	7	4.1	2.6	0.0
Sheridan	3,790	10	47	26.13	30.06		46.8		79	3	62	22	31	32	44	38	32	67	1.78	+0.7	5	2,659	nw.	25	nw.	26	15	12	4	4.0	T.	0.0
Yellowstone Park	6,241	11	48	23.94	30.11	+.09	42.0	+0.5	68	2	54	22	11	30	38	33	25	59	0.78	−0.6	6	4,151	sw.	31	sw.	23	10	10	11	5.3	1.4	0.0
North Platte	2,821	11	51	27.09	30.02	.00	55.0	+5.3	84	5	69	17	31	41	39	44	37	61	0.34	−0.7	7	4,868	s.	34	nw.	26	13	11	7	4.6	0.6	0.0
Middle Slope							60.6	+4.7										58	1.14	−0.6										3.9		
Denver	5,292	106	113	24.77	30.02	+.01	54.0	+2.8	84	9	66	23	30	42	42	41	29	46	0.63	−0.4	6	4,529	s.	33	w.	26	15	8	8	4.2	T.	0.0
Pueblo	4,685	80	86	25.34	30.01	+.02	56.1	+4.1	85	9	72	20	31	40	48	42	30	45	0.13	−0.5	3	3,881	nw.	34	w.	26	19	9	3	3.3	0.0	0.0
Concordia	1,392	50	58	28.57	30.04	+.01	60.4	+4.5	93	10	71	32	31	50	40	52	47	71	2.50	+0.5	8	5,790	s.	32	nw.	10	13	14	4	4.5	T.	0.0
Dodge City	2,509	88	100	27.45	30.04	+.02	61.0	+4.9	93	6	74	19	31	48	37	49	41	58	0.56	−0.7	4	9,180	s.	47	n.	10	23	5	3	2.7	0.0	0.0
Wichita	1,358	139	158	28.60	30.02	−.01	64.2	+5.6	94	6	74	30	31	55	31	54	48	63	1.19	−1.4	6	8,329	s.	48	s.	26	12	13	6	4.6	0.0	0.0
Oklahoma City	1,214	10	47	28.76	30.03	.00	68.0	+6.5	96	4	78	32	31	58	31	58	52	66	1.83	−1.0	9	5,897	s.	24	s.	26	15	8	8	4.1	0.0	0.0
Southern Slope							68.7	+5.5										58	2.88	+1.1										3.2		
Abilene	1,738	10	52	28.23	30.02	+.01	70.8	+5.4	98	7	82	40	31	60	30	60	54	67	10.21	+7.7	6	5,837	s.	26	s.	26	17	7	7	3.9	0.0	0.0
Amarillo	3,676	10	49	26.32	30.02	+.02	63.3	+5.6	91	5	76	32	31	50	36	50	42	57	0.92	−0.7	4	5,767	s.	22	sw.	26	23	3	5	2.5	0.0	0.0
Del Rio	944	64	71	28.97	29.94	−.04	77.2	+7.2	96	7	88	52	31	67	29	65	58	59	0.01	−1.8	1	5,608	se.	22	se.	11	18	10	3	3.4	0.0	0.0
Roswell	3,566	75	85	26.41	29.99	+.03	63.3	+3.8	90	6	78	31	30	49	41	50	39	50	0.37	−1.0	3	4,294	s.	27	nw.	20	19	9	3	2.9	0.0	0.0
Southern Plateau							62.9	+2.9										50	0.45	−0.2										3.2		
El Paso	3,778	152	175	26.20	29.93	+.01	70.0	+6.5	91	10	82	44	31	58	39	52	39	37	0.14	−0.7	2	5,497	e.	30	w.	20	22	7	2	2.1	0.0	0.0
Albuquerque	4,972	51	66	25.10	29.95		59.0		82	10	73	30	30	45	39	47	37	53	0.57		4	3,456	ne.	25	se.	11	22	5	4	3.1	0.0	0.0
Santa Fe	7,013	38	53	23.33	29.99	+.03	52.8	+2.4	73	10	64	27	30	42	30	42	34	56	1.10	−0.1	6	4,117	se.	21	n.	28	17	10	4	3.4	T.	0.0
Flagstaff	6,907	10	59	23.40	29.96	+.04	48.6	+3.9	70	3	65	21	31	32	46	38		63	1.43		5	4,938	nw.	26	sw.	18	18	11	2		0.0	0.0
Phoenix	1,108	10	107	28.75	28.89	+.01	72.8	+2.2	97	8	88	49	28	58	43	56	42	40	0.22	−0.2	1	2,661	e.	19	s.	9	23	6	2	1.9	0.0	0.0
Yuma	141	9	54	29.75	29.90	+.03	73.5	+0.2	97	4	88	49	20	59	40	58	48	48	0.09	−0.2	2	2,796	n.	21	nw.	18	26	4	1	1.1	0.0	0.0
Independence	3,957	6	27	25.97	29.99	+.04	59.5	+2.0	82	3	75	35	27	44	40	45			0.69	+0.4	2		s.				17	10	4		0.0	0.0
Middle Plateau							54.0	+3.8										48	0.60	−0.2										3.8		
Reno	4,532	74	81	25.48	29.97	−.02	54.8	+5.1	82	1	70	28	27	39	42	42	29	44	0.19	−0.2	1	3,708	sw.	42	sw.	25	18	11	2	2.9	0.0	0.0
Tonopah	6,090	12	20				54.6		78	3	64	30	26	45	28	42	30	45	0.48		3		se.									
Winnemucca	4,344	18	56	25.64	30.02	−.03	51.8	+3.5	82	2	70	24	27	34	51	39	26	44	0.29	−0.3	3	4,832	ne.	36	sw.	22	20	7	4	3.1	T.	0.0
Modena	5,473	10	43	24.65	29.98	+.02	50.6	+2.6	76	16	65	23	27	36	44	40	30	55	0.87	+0.1	5	5,793	w.	35	nw.	26	14	10	7	4.0	0.0	0.0
Salt Lake City	4,360	163	203	25.65	30.00	−.01	56.6	+4.1	78	9	66	31	27	47	29	45	35	47	0.57	−0.9	5	4,899	se.	39	nw.	26	8	15	8	5.3	0.0	0.0
Grand Junction	4,602	60	68	25.42	30.00	+.01	56.4	+3.6	82	9	68	29	28	44	35	45	35	51	1.07	+0.1	6	3,422	se.	30	w.	26	17	8	6	3.6	0.0	0.0
Northern Plateau							51.6	+1.6										58	0.88	−0.2										4.6		
Baker	3,471	48	53	26.50	30.09	+.01	47.4	+0.8	76	1	61	25	21	34	42	39	30	55	0.41	−0.5	6	3,849	se.	23	se.	22	14	10	7	4.0	0.1	0.0
Boise	2,739	79	87	27.20	30.07	+.01	53.8	+2.7	81	2	66	35	21	42	36	44	34	53	0.43	−0.8	7	2,566	se.	18	n.	5	14	6	11	4.5	T.	0.0
Lewiston	757	40	48	29.26	30.08	+.01	52.8	+1.3	87	1	66	32	9	40	41				1.17	−0.1	8	1,574	w.	19	nw.	2	14	10	7	4.4	0.0	0.0
Pocatello	4,477	60	68	25.52	30.04	.00	51.2	+2.8	76	1	63	32	30	40	39	41	33	58	1.51	+0.4	8	4,516	se.	33	sw.	26	12	7	12	5.5	T.	0.0
Pasco	416	5	33				52.1		87	1	67	25	21	37	46			61	0.65		4	4,655	nw.				15	5	11		0.0	0.0
Spokane	1,929	101	110	28.01	30.07	+.01	49.4	+1.1	80	1	61	30	21	38	37	42	35	63	0.82	−0.4	7	2,982	s.	24	sw.	23	13	11	7	4.3	0.0	0.0
Walla Walla	991	57	65	28.98	30.05	−.02	54.0	+0.5	86	1	64	37	21	44	33	47	38	58	1.51	0.0	6	2,606	se.	20	se.	22	13	7	11	5.0	0.0	0.0
Yakima	1,076	58	67	28.90	30.06		52.4	+2.2	82	1	64	31	24	40	37	44	35	57	0.33	−0.3	7	2,950	nw.	24	sw.	22	16	8	7	4.2	0.0	0.0
North Pacific Coast Region							53.2	+1.0										78	3.63	0.0										6.3		
North Head	211	11	56	29.82	30.05	.00	52.8	−0.1	76	14	57	43	21	48	24	51	49	89	5.69	−0.7	14	9,268	n.	66	s.	21	6	7	18	6.9	0.0	0.0
Port Angeles	29	8	53		30.05		49.9		65	1	57	37	8	43	22				1.16	−1.2	11	3,454	s.	24	w.	26	8	8	15		0.0	0.0
Seattle	125	215	250	29.91	30.04	−.01	52.5	+1.1	69	15	58	40	21	46	25	49	47	81	3.09	+0.2	14	4,749	s.	30	s.	23	9	8	14	6.0	0.0	0.0
Tacoma	194	172	201	29.84	30.05	+.01	51.4	+0.9	71	16	58	37	8	44	28				3.93	+0.6	14	4,129	s.	26	n.	7	6	7	18	7.2	0.0	0.0
Tatoosh Island	86	9	53	29.92	30.01	.00	51.8	+1.9	64	15	55	43	10	48	14	50	48	89	5.76	−2.4	14	9,524	e.	47	s.	26	6	5	20	7.3	0.0	0.0
Medford	1,329	29	58	28.62	30.03		54.2		89	1	69	31	7	39	47	46	39	63	1.74	+0.4	8	2,906	s.	30	se.	21	13	10	8	4.7	0.0	0.0
Portland, Oreg.	153	68	106	29.89	30.05	−.01	55.8	+1.6	79	15	64	39	21	48	28	51	47	76	4.32	+1.2	12	3,498	nw.	17	e.	29	7	10	14	6.1	0.0	0.0
Roseburg	510	75	99	29.51	30.06	−.02	54.7	+0.8	85	1	66	37	4	44	38	49	44	71	3.34	+0.7	10	2,257	n.	23	sw.	22	9	11	11	5.6	0.0	0.0
Middle Pacific Coast Region							59.7	−0.6										63	0.76	−0.5										4.2		
Eureka	62	73	89	30.00	30.07	+.01	53.6	0.0	68	29	59	42	26	48	20	51	49	86	2.28	0.0	7	3,348	nw.	34	sw.	22	6	8	17	6.6	0.0	0.0
Red Bluff	330	5	58	29.62	29.97	−.06	63.4	−0.9	98	1	77	40	26	50	41	52	41	49	0.57	−0.8	3	3,712	nw.	29	se.	22	19	6	6	3.4	0.0	0.0
Redding	722	20	34				64.9		96	1	76	40	26	54	30			42	3.13		3	5,099	nw.				15	7	9		0.0	0.0
Sacramento	69	106	117	29.91	29.98	−.01	62.0	−0.9	95	1	74	39	26	49	38	54	48	64	0.18	−0.7	2	4,515	s.	23	nw.	18	27	1	3	1.8	0.0	0.0
San Francisco	155	208	243	29.85	30.02	+.01	59.8	−0.7	83	1	66	49	26	53	26	53	50	76	0.68	−0.4	3	4,100	sw.	22	w.	10	9	13	9	5.2	0.0	0.0
San Jose	141	12	110	29.88	30.03		59.8	−0.5	92	1	72	39	27	48	42				0.10	−0.6	2	3,507	nw.	22	se.	22	18	7	6	3.8	0.0	0.0
South Pacific Coast Region							67.0	+2.6										61	0.04	−0.6										3.1		
Fresno	327	89	98	29.63	29.98	+.02	65.5	+1.5	93	2	79	42	27	52	37	53	41	47	T.	−0.6	0	3,513	nw.	26	nw.	25	23	7	1	2.1	0.0	0.0
Los Angeles	338	159	191	29.62	29.98	+.03	68.8	+3.5	94	28	78	52	10	60	29	57	50	61	0.06	−0.6	3	2,935	w.	20	ne.	1	18	5	8	3.3	0.0	0.0
San Diego	87	62	70	29.87	29.96	−.01	66.6	+2.9	93	1	74	54	27	60	29	60	56	74	0.05	−0.5	1	3,517	nw.	24	n.	1	15	13	3	3.9	0.0	0.0
West Indies																																
San Juan, P. R.	82	9	54	29.85	29.93		80.4	+0.6	92	21	86	73	28	75	18				6.40	+0.5	23	6,147	e.	40	e.	10	7	18	6	5.5	0.0	0.0
Panama Canal																																
Balboa Heights	118	6	97		[1] 29.80	−.02	80.4	+1.2	91	11	86	72	25	74	17			[1] 87	9.26	−0.9	20	3,879	nw.	24	s.	18	0	8	23	8.1	0.0	0.0
Cristobal	36	6	97		[1] 29.81	−.02	82.0	+2.2	91	16	88	74	25	76	16	76	75	[1] 83	20.42	+5.0	26	4,352	se.	25	n.	12	0	7	24	8.3	0.0	0.0
Alaska																																
Fairbanks	455	11	44		[2] 29.60		23.1		44	17	31	−10	26	15	27			81	0.82		10	1,922	ne.	15	sw.	15	6	4	21		4.6	2.2
Juneau	80	11	50	[2] 29.66	[2] 29.75		43.4		55	4	47	30	27	40	17	41	37	79	15.91		24	5,806	se.	28	se.	31	3	6	22	8.2	0.4	0.0
Hawaiian Islands																																
Honolulu	38	86	100	[2] 29.95	[2] 29.99		77.6	+0.8	85	11	82	68	29	73	15	71	69	76	2.33	+0.8	11	5,067	e.	24	ne.	21	7	14	10	5.7	0.0	0.0

[1] Observations taken bihourly.

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

TABLE 2.—*Data furnished by the Canadian Meteorological Service, October, 1931*

Stations	Altitude above mean sea level, Jan. 1, 1919	Pressure			Temperature of the air						Precipitation		
		Station reduced to mean of 24 hours	Sea level reduced to mean of 24 hours	Departure from normal	Mean max.+mean min.÷2	Departure from normal	Mean maximum	Mean minimum	Highest	Lowest	Total	Departure from normal	Total snowfall
	Feet	*Inches*	*Inches*	*Inches*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	*Inches*	*Inches*	*Inches*
Cape Race, N. F.	99												
Sydney, C. B. I.	48	29.90	29.95	−.01	49.8	+3.3	58.0	41.7	72	32	2.44	−2.25	0.0
Halifax, N. S.	88	29.83	29.94	−.02	50.3	+3.1	58.2	42.3	69	31	3.80	−1.75	T.
Yarmouth, N. S.	65	29.83	29.90	−.12	51.1	+3.5	58.6	43.6	71	34	4.55	+0.43	0.0
Charlottetown, P. E. I.	38	29.82	29.86	−.10	49.4	+2.9	55.5	43.3	69	34	2.19	−2.71	0.0
Chatham, N. B.	28	29.81	29.84	−.12	47.5	+4.5	56.6	38.5	76	27	5.00	+1.14	0.0
Father Point, Que.	20												
Quebec, Que.	296	29.62	29.94	−.06	47.4	+5.0	54.4	40.4	75	31	4.49	+1.34	0.0
Doucet, Que.	1,236				42.9		52.7	33.2	77	17	4.17		3.1
Montreal, Que.	187	29.74	29.95	−.06	51.3	+6.5	58.1	44.6	76	35	3.91	+0.78	0.0
Ottawa, Ont.	236	29.71	29.97	−.04	52.2	+8.4	62.6	41.8	82	30	1.75	−0.80	T.
Kingston, Ont.	285	29.70	30.01	−.02	53.1	+6.1	60.1	46.1	73	32	2.51	−0.22	0.0
Toronto, Ont.	379	29.62	30.03	−.01	53.1	+6.5	61.1	45.2	77	34	1.99	−0.37	0.0
Cochrane, Ont.	930				46.2		54.4	37.9	78	27	3.75		T.
White River, Ont.	1,244	28.60	29.92	−.06	44.3	+7.2	54.4	34.3	76	18	3.49	+1.14	0.0
London, Ont.	808				52.7		62.9	42.6	80	30	2.06		T.
Southampton, Ont.	656	29.30	30.02	.00	52.6	+6.5	61.3	44.0	78	32	3.50	+0.33	T.
Parry Sound, Ont.	688	29.30	30.00	−.01	50.6	+6.7	57.8	43.4	75	30	3.77	−0.15	0.0
Port Arthur, Ont.	644	29.22	29.93	−.05	49.8	+9.9	57.1	42.5	73	31	7.80	+5.24	0.0
Winnipeg, Man.	760												
Minnedosa, Man.	1,690	28.12	29.95	−.02	43.9	+6.1	55.3	32.6	78	24	0.63	−0.57	T.
Le Pas, Man.	860				43.2		53.1	33.3	68	26	1.91		0.7
Qu Appelle, Sask.	2,115	27.66	29.92	−.05	43.6	+4.2	54.7	32.6	74	20	0.48	−0.62	T.
Moose Jaw, Sask.	1,759				45.4		58.3	32.4	77	18	0.39		0.0
Swift Current, Sask.	2,392	27.37	29.90	−.07	45.0	+2.9	59.5	30.5	78	8	0.16	−0.72	0.0
Medicine Hat, Alb.	2,365												
Calgary, Alb.	3,540												
Banff, Alb.	4,521	25.36	29.95	.00	40.8	+1.5	51.9	29.6	67	18	0.57	−0.45	3.1
Prince Albert, Sask.	1,450	28.36	29.95	−.02	43.8	+6.7	55.3	32.3	70	23	0.15	−0.68	T.
Battleford, Sask.	1,592	28.18	29.93	−.04	42.4	+2.8	55.6	29.2	73	16	0.49	+0.04	0.0
Edmonton, Alb.	2,150												
Kamloops, B. C.	1,262	28.72	30.02	+.06	47.0	0.0	56.1	38.0	78	30	0.52	−0.09	0.0
Victoria, B. C.	230	29.78	30.04	+.03	51.4	+2.2	56.4	46.4	68	43	1.77	−0.60	0.0
Barkerville, B. C.	4,180												
Estevan Point, B. C.	20				48.8		54.1	43.5	59	37	11.21		0.0
Prince Rupert, B. C.	170												
Hamilton, Ber.	151	29.96	30.12	+.10	74.7	+1.7	80.4	69.0	90	62	4.21	−2.50	0.0

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