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, September, 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	79.7	+4.2	Wetumpka	106	7	2 stations	42	[1] 28	1.23	−2.15	Samson	4.00	2 stations	T.
Arizona	74.7	+0.9	Gila Bend	115	[1] 11	do	23	[1] 20	1.64	+0.38	Henry's Camp	7.04	Granite Reef Dam	0.00
Arkansas	78.4	+4.2	3 stations	102	[1] 15	do	34	[1] 27	1.00	−2.36	Whitecliffs	4.32	Magnolia	0.00
California	65.7	−1.6	Brawley	114	7	Twin Lakes	17	[1] 9	0.18	−0.36	Cuyamaca	2.09	59 stations	0.00
Colorado	61.8	+4.0	Lamar	105	6	Telluride	9	25	1.46	+0.02	2 stations	4.73	Eads	0.00
Florida	80.3	+0.9	Bonifay	102	19	Vernon	47	29	5.32	−1.46	Miami	19.70	Raiford	0.01
Georgia	78.6	+3.2	Millen	107	18	Clayton	35	30	1.31	−2.43	Quitman	4.98	Hazelhurst	0.27
Idaho	57.7	+0.7	2 stations	104	3	Obsidian	18	22	0.98	−0.07	Coolin	2.85	Mountainhome	0.09
Illinois	73.1	+5.8	Sparta	103	17	Mount Carroll	36	28	4.77	+1.03	Paris	9.54	Cairo	1.19
Indiana	71.8	+4.8	Edwardsport	102	10	Delphi	34	29	4.75	+1.51	Terre Haute	9.64	Fort Wayne	2.08
Iowa	71.0	+6.7	Washta	105	7	4 stations	35	[1] 24	6.69	+3.02	Fort Dodge	12.68	Akron	2.68
Kansas	77.5	+8.2	2 stations	111	5	Atwood	31	26	2.50	−0.36	Emmett	9.35	Ness City	0.11
Kentucky	75.1	+4.7	Hopkinsville	103	18	2 stations	36	29	2.74	−0.09	Uniontown	5.94	Burnside	1.22
Louisiana	80.6	+2.7	Dodson	105	[1] 4	Robeline	39	29	1.88	−2.13	Donaldsonville	5.08	Logansport	0.00
Maryland-Delaware	72.2	+4.4	College Park, Md	100	22	Grantsville, Md	30	29	2.54	−0.68	Oakland, Md	5.32	Aberdeen, Md	0.83
Michigan	65.8	+5.7	East Tawas	101	11	3 stations	29	28	5.06	+1.73	Mackinac Island	10.75	South Haven	1.94
Minnesota	64.9	+6.7	Beardsley	111	11	2 stations	26	[1] 24	2.55	−0.48	Grand Meadow	7.34	Wheaton	0.62
Mississippi	79.7	+3.9	Columbus	103	24	do	41	29	0.78	−2.25	Laurel	3.84	5 stations	0.00
Missouri	75.0	+6.0	2 stations	104	[1] 5	3 stations	36	[1] 29	4.16	+0.32	King City	10.80	Dean	0.46
Montana	57.2	+1.9	3 stations	101	6	Upper Yaak River	16	23	1.66	+0.40	Babb (near)	3.83	Melstone	0.09
Nebraska	71.0	+7.1	Imperial	110	5	2 stations	30	[1] 22	2.28	+0.13	Falls City	8.50	Sutherland	0.20
Nevada	61.8	−0.8	Clay City	112	3	Zorra Vista Ranch	13	24	0.53	+0.14	Lamoille	1.72	3 stations	0.00
New England	62.7	+2.5	4 stations	97	11	Garfield, Vt	27	30	3.26	−0.31	West Burke, Vt	8.73	Westfield, Mass	0.69
New Jersey	70.5	+5.0	2 stations	100	[1] 11	3 stations	34	29	1.98	−1.54	Sussex	3.15	Runyon	0.86
New Mexico	67.1	+2.9	Nara Visa (near)	103	14	Selsor Ranch	21	25	2.50	+0.93	Winsors Ranch	8.36	2 stations	0.00
New York	65.2	+4.1	2 stations	101	[1] 10	Indian Lake	27	29	3.86	+0.45	High Market	8.26	Cutchogue	1.09
North Carolina	74.1	+3.2	Fayetteville	106	18	Banner Elk	27	29	1.71	−2.27	Tarboro	6.69	Monroe	0.00
North Dakota	61.4	+5.0	3 stations	107	[1] 6	3 stations	27	[1] 17	2.14	+0.49	Park River	4.63	Power	0.35
Ohio	70.3	+4.7	Portsmouth	99	21	2 stations	33	29	4.01	+1.03	Hillsboro	7.61	Dam No. 28, Ohio River.	1.56
Oklahoma	80.9	+7.0	Jefferson	110	5	do	40	[1] 27	1.17	−2.12	Bartlesville	6.78	2 stations	0.00
Oregon	56.8	0.0	Echo	104	3	Blitzen	13	[1] 9	0.99	−0.21	Astoria	5.36	4 stations	T.
Pennsylvania	69.1	+5.0	2 stations	104	[1] 12	2 stations	29	[1] 29	3.15	−0.31	Saltsburg	6.65	Marcus Hook	0.74
South Carolina	77.5	+3.0	do	107	18	Clemson College	40	28	0.98	−3.14	Beaufort (near)	3.27	Newberry	T.
South Dakota	68.1	+7.2	Gannvalley	112	9	2 stations	29	[1] 23	1.42	−0.37	Sioux Falls	4.28	Dumont	0.04
Tennessee	76.4	+5.1	2 stations	103	[1] 18	Crossville	32	29	1.51	−1.56	Tiftonville	3.99	Selmer	0.02
Texas	81.4	+4.0	3 stations	107	[1] 5	2 stations	43	[1] 22	0.68	−2.19	Jefferson	5.69	20 stations	0.00
Utah	62.1	+1.5	St. George	101	[1] 6	Widtsoe	14	19	0.53	−0.52	Monticello	2.14	Leeds	0.00
Virginia	72.8	+4.4	2 stations	101	22	Burkes Garden	30	29	2.46	−0.63	Christchurch	6.17	Martinsville	0.65
Washington	57.9	−0.1	do	102	[1] 2	Stockdill Ranch	21	23	2.85	+1.04	Big Four	16.32	3 stations	0.04
West Virginia	70.0	+4.0	do	102	[1] 12	Bayard	29	29	3.91	+0.87	Rowlesburg	6.70	Dam No. 25, Ohio River.	1.45
Wisconsin	66.0	+6.2	do	103	10	4 stations	29	[1] 24	5.81	+2.11	Manitowoc	11.83	Iron River	2.22
Wyoming	57.3	+2.9	Worland	102	7	Dome Lake	8	23	1.06	−0.21	2 stations	2.70	Lusk	0.10
Alaska (August)	52.9	−0.3	Skagway	85	10	Eagle	22	27	3.74	−0.09	Mount Roberts (a)	20.34	Barrow	0.43
Hawaii	75.1	+0.5	Kaanapali	96	6	Kanalohuluhulu	49	12	10.14	+4.20	Hiloa-Manawaiopuna Divide.	52.00	Mahukona	0.00
Porto Rico	79.3	+0.4	Mayaguez	95	7	Juncos	60	11	12.76	+4.72	Maricao	27.75	Ensenada	5.51

[1] Other dates also.

TABLE 1.—*Climatological data for Weather Bureau stations, September, 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							**64.2**	**+3.4**										**80**	**2.76**	**−0.4**										**5.0**		
Eastport	76	67	85	29.87	29.96	−0.08	56.0	+0.2	73	11	62	41	19	50	20	53	50	84	3.61	+0.8	15	5,979	nw.	28	nw.	25	8	4	18	6.7	0.0	0.0
Greenville, Me.	1,070	6	----	28.81	29.96	------	56.0	------	88	11	65	32	30	47	36	52	----	86	3.93	------	16	4,057	se.	20	------	25	7	10	13	----	0.0	0.0
Portland, Me.	103	82	117	29.85	29.97	−.08	63.2	+3.6	95	11	71	45	30	55	31	56	53	76	2.95	−0.2	10	5,521	nw.	26	nw.	24	15	8	7	4.3	0.0	0.0
Concord	289	70	79	29.67	29.97	−.09	62.8	+3.5	94	11	74	33	30	52	37	----	----	----	2.70	−0.8	9	3,215	n.	21	nw.	8	11	11	8	5.0	0.0	0.0
Burlington	403	11	48	29.53	29.96	−.10	62.4	+2.1	95	11	71	36	29	53	31	----	----	----	3.86	+0.4	14	5,827	s.	36	sw.	17	6	10	14	6.3	0.0	0.0
Northfield	876	12	60	------	30.00	−.06	59.5	+3.4	92	11	70	29	29	49	40	----	----	86	3.81	+0.7	14	4,115	s.	23	sw.	6	5	13	12	6.7	0.0	0.0
Boston	125	106	165	29.85	29.98	−.09	66.9	+3.7	95	11	75	46	29	59	33	60	56	73	1.67	−1.5	8	5,145	nw.	27	nw.	24	16	7	7	4.3	0.0	0.0
Nantucket	12	14	90	29.97	29.98	−.10	65.6	+2.8	88	11	72	52	25	60	20	61	58	82	2.84	+0.4	8	10,427	sw.	36	ne.	28	14	7	9	5.1	0.0	0.0
Block Island	26	11	46	29.96	29.99	−.09	66.0	+2.6	84	11	71	50	29	61	15	62	59	80	1.93	−0.7	7	10,332	sw.	39	w.	24	15	8	7	4.1	0.0	0.0
Providence	160	216	251	29.82	29.99	−.08	67.3	+4.1	94	11	77	44	30	58	31	61	58	77	1.37	−1.8	6	7,067	nw.	38	nw.	24	17	5	8	4.0	0.0	0.0
Hartford	159	122	----	29.83	30.00	−.07	67.8	+6.1	95	10	77	42	30	58	30	----	----	----	1.05	−2.4	10	------	sw.	----	------	----	13	9	8	4.4	0.0	0.0
New Haven	106	74	153	29.89	30.00	−.07	69.2	+5.7	95	11	78	45	29	60	29	63	59	76	4.60	+1.1	9	5,466	s.	24	s.	20	14	8	8	4.5	0.0	0.0
Middle Atlantic States							**72.2**	**+5.1**										**75**	**2.02**	**−1.2**										**4.0**		
Albany	97	107	115	29.89	29.99	−.08	67.0	+3.9	98	11	76	42	29	58	32	60	57	77	1.91	−1.2	9	4,370	s.	20	s.	17	16	5	9	4.5	0.0	0.0
Binghamton	871	10	84	29.10	30.02	−.05	67.4	+6.1	96	12	79	38	29	56	39	----	----	----	2.11	−1.0	10	3,269	nw.	20	ne.	15	9	9	12	5.6	0.0	0.0
New York	314	414	454	29.67	30.00	−.08	71.2	+4.4	95	11	79	48	29	64	23	63	59	72	1.15	−2.2	6	9,159	n.	46	nw.	24	14	9	7	4.3	0.0	0.0
Bellefonte	1,050	5	36	28.93	30.03	------	66.9	------	94	12	80	33	29	54	39	61	58	78	2.46	------	9	------	sw.	34	se.	26	9	9	12	5.4	0.0	0.0
Harrisburg	374	94	104	29.62	30.01	−.07	72.1	+6.3	97	11	82	48	29	63	30	63	59	70	3.35	+0.3	7	3,803	w.	35	w.	2	16	6	8	4.2	0.0	0.0
Philadelphia	114	123	367	29.90	30.03	−.05	74.1	+6.1	97	11	82	50	29	66	23	65	61	68	1.60	−1.5	4	8,266	sw.	36	nw.	24	13	10	7	4.0	0.0	0.0
Reading	325	81	98	29.68	30.02	------	72.0	+5.7	99	12	82	46	29	62	33	64	60	72	2.79	−0.4	4	2,889	sw.	31	sw.	2	15	8	7	4.2	0.0	0.0
Scranton	805	72	103	29.18	30.03	−.04	68.4	+5.5	97	12	79	41	29	57	35	62	59	79	2.09	−1.1	9	3,772	sw.	26	nw.	24	13	10	7	4.4	0.0	0.0
Atlantic City	52	37	172	29.96	30.01	−.06	72.3	+5.5	94	11	79	49	29	66	24	66	63	79	2.55	−0.1	5	10,053	sw.	38	s.	20	17	8	5	3.3	0.0	0.0
Cape May	17	13	49	------	------	------	72.4	+3.4	93	11	80	48	29	65	25	67	65	81	3.13	+0.1	6	------	nw.	----	------	----	14	11	5	----	0.0	0.0
Sandy Hook	22	10	55	29.97	29.99	------	71.9	------	94	11	78	53	29	65	21	65	62	77	0.97	−2.5	7	9,048	sw.	37	nw.	24	15	8	7	4.4	0.0	0.0
Trenton	190	159	183	29.81	30.01	------	71.4	+4.5	95	11	81	46	29	62	28	64	61	74	1.06	−2.3	4	5,823	sw.	28	nw.	24	16	7	7	4.0	0.0	0.0
Baltimore	123	100	215	29.89	30.02	−.06	76.0	+7.5	99	22	85	50	29	67	25	66	62	66	2.05	−1.3	7	6,093	sw.	42	sw.	23	17	7	6	3.5	0.0	0.0
Washington	112	62	85	29.91	30.03	−.05	74.1	+6.0	97	22	84	49	29	64	28	66	63	75	2.79	−0.4	9	2,190	sw.	33	nw.	23	13	9	8	3.6	0.0	0.0
Cape Henry	18	8	54	30.02	30.04	------	76.4	+4.6	95	22	84	53	30	69	22	69	66	76	2.70	−0.2	4	7,273	sw.	44	nw.	23	18	10	2	3.1	0.0	0.0
Lynchburg	681	153	188	29.32	30.06	−.02	73.8	+4.8	96	22	85	46	30	63	31	65	62	73	0.73	−2.6	5	3,225	w.	34	n.	23	17	8	5	3.7	0.0	0.0
Norfolk	91	170	205	29.96	30.06	.00	76.4	+4.8	96	23	85	57	30	68	28	68	64	74	1.45	−1.8	6	7,262	sw.	42	nw.	23	17	9	4	3.5	0.0	0.0
Richmond	144	11	52	29.91	30.06	−.01	74.4	+3.9	97	22	85	46	30	64	30	68	66	82	1.92	−1.3	4	4,111	sw.	31	n.	23	17	7	6	3.4	0.0	0.0
Wytheville	2,304	49	55	27.76	30.08	+.01	67.6	+4.0	89	21	80	38	30	56	31	61	59	80	2.06	−1.2	8	2,721	w.	18	w.	26	17	11	2	3.8	0.0	0.0
South Atlantic States							**77.4**	**+4.1**										**75**	**1.22**	**−3.0**										**3.6**		
Asheville	2,253	89	104	27.80	30.09	+.02	71.0	+6.0	91	21	83	38	29	59	35	63	60	78	1.12	−1.9	3	3,637	nw.	20	nw.	27	15	13	2	3.7	0.0	0.0
Charlotte	779	55	62	29.25	30.07	.00	77.0	+5.5	98	18	88	46	30	67	27	67	63	68	1.15	−1.8	3	2,438	s.	14	w.	2	18	11	1	3.1	0.0	0.0
Greensboro	886	6	56	29.14	30.08	------	73.4	------	97	23	85	42	30	62	33	66	64	82	0.51	------	3	4,246	sw.	24	sw.	26	15	8	7	4.1	0.0	0.0
Hatteras	11	5	50	30.04	30.05	−.01	77.2	+2.5	90	18	83	63	28	71	21	72	70	80	1.70	−2.9	6	7,287	sw.	35	nw.	28	17	8	5	3.4	0.0	0.0
Raleigh	376	103	146	29.68	30.06	−.01	76.2	+5.1	97	23	86	48	30	66	26	67	63	70	2.37	−1.2	3	4,535	sw.	23	n.	23	17	10	3	3.6	0.0	0.0
Wilmington	78	81	91	30.01	30.09	+.04	76.8	+3.7	98	18	86	52	30	68	24	70	67	79	0.12	−4.4	1	3,732	sw.	18	sw.	26	22	6	2	2.9	0.0	0.0
Charleston	48	11	92	30.02	30.06	+.02	78.7	+2.1	98	18	85	56	28	72	23	73	70	80	2.08	−2.4	5	6,311	e.	26	e.	19	15	10	5	4.0	0.0	0.0
Columbia, S. C.	351	41	57	29.70	30.07	+.02	78.6	+4.1	99	18	89	52	29	68	27	68	63	68	0.56	−2.9	3	3,917	s.	20	sw.	26	20	7	3	3.1	0.0	0.0
Due West	711	10	55	29.34	30.10	------	77.5	------	99	18	89	48	28	66	28	----	----	----	0.84	------	6	4,445	sw.	25	nw.	2	15	11	4	3.7	0.0	0.0
Greenville, S. C.	1,039	139	146	29.00	30.07	------	77.1	+6.5	97	18	86	51	30	68	24	66	62	66	2.62	−1.1	7	4,291	n.	26	w.	2	19	8	3	3.1	0.0	0.0
Augusta	182	62	77	29.86	30.05	.00	80.2	+4.9	104	18	92	52	28	69	33	70	66	71	0.40	−3.0	3	2,774	se.	18	nw.	3	19	10	1	3.2	0.0	0.0
Savannah	65	150	194	29.98	30.05	+.02	79.2	+3.0	100	18	88	56	29	71	27	72	70	81	1.25	−4.2	6	6,291	e.	28	w.	26	16	9	5	4.1	0.0	0.0
Jacksonville	43	209	245	29.99	30.04	+.04	80.0	+1.7	95	19	87	60	28	73	21	73	70	80	0.07	−7.3	2	6,675	ne.	27	ne.	30	12	15	3	4.4	0.0	0.0
Florida Peninsula							**81.1**	**+0.4**										**82**	**12.47**	**+5.3**										**6.3**		
Key West	22	10	64	29.93	29.95	+0.1	82.0	−0.2	90	9	87	70	6	77	15	77	75	81	9.10	+2.4	15	5,848	e.	29	w.	28	7	12	11	6.0	0.0	0.0
Miami	25	124	168	29.96	29.99	+.01	81.2	+1.1	90	11	86	70	6	76	16	75	73	80	19.70	+11.4	20	6,423	e.	30	s.	7	1	14	15	7.3	0.0	0.0
Tampa	35	79	197	29.97	30.00	+.03	80.3	+0.4	93	2	88	62	28	72	21	74	72	84	8.61	+2.2	21	6,848	e.	35	ne.	10	4	14	12	6.2	0.0	0.0
Titusville	44	5	----	29.97	30.02	------	81.4	------	95	3	89	62	29	74	21	----	----	----	3.01	------	12	------	ne.	----	------	----	4	20	6	5.6	0.0	0.0
East Gulf States							**79.8**	**+4.1**										**72**	**1.30**	**−2.9**										**3.4**		
Atlanta	1,173	190	198	28.86	30.07	+.02	77.5	+5.1	97	18	87	50	28	68	26	66	61	64	1.32	−1.7	3	4,886	e.	24	w.	26	17	11	2	3.4	0.0	0.0
Macon	370	78	87	29.67	30.06	+.03	78.4	+3.6	99	18	89	51	28	68	31	69	66	72	2.50	−0.7	5	2,968	e.	18	nw.	27	18	8	4	3.3	0.0	0.0
Thomasville	273	49	103	29.75	30.04	+.03	79.4	+2.6	100	19	90	53	28	69	28	71	68	76	2.08	−2.8	7	3,939	ne.	24	s.	2	17	8	5	3.9	0.0	0.0
Apalachicola	36	11	51	29.99	30.03	------	79.9	------	92	19	86	58	28	74	20	74	71	77	2.41	−5.7	10	5,102	se.	29	e.	14	21	3	6	3.0	0.0	0.0
Pensacola	56	149	185	29.97	30.03	+.04	79.4	+1.4	92	7	85	57	28	74	17	73	70	78	1.43	−3.9	4	7,086	s.	30	nw.	3	14	14	2	3.7	0.0	0.0
Anniston	741	9	57	------	------	------	78.6	+7.3	101	19	91	48	28	66	31	----	----	----	0.79	−2.9	2	2,349	s.	13	nw.	27	14	14	2	----	0.0	0.0
Birmingham	700	11	48	29.30	30.06	+.03	81.0	+6.2	102	19	93	50	28	69	30	68	63	66	0.14	−3.2	4	3,241	se.	19	se.	23	16	13	1	3.3	0.0	0.0
Mobile	57	125	161	29.97	30.03	+.03	80.4	+2.3	96	8	89	54	29	72	27	72	70	80	1.92	−3.1	8	5,083	n.	25	n.	3	14	12	4	3.8	0.0	0.0
Montgomery	223	100	112	29.80	30.05	+.03	81.0	+4.7	100	7	92	54	29	70	27	69	64	64	0.63	−2.4	5	3,384	e.	24	e.	14	19	8	3	3.3	0.0	0.0
Corinth	469	6	----	------	------	------	80.0	------	100	17	94	45	29	67	38	----	----	----	0.14	------	1	------	se.	----	------	----	14	16	0	----	0.0	0.0
Meridian	375	87	95	29.65	30.03	+.01	79.2	+4.7	97	24	90	47	29	68	32	70	66	70	0.23	−2.7	4	2,586	se.	14	sw.	2	18	10	2	3.3	0.0	0.0
Vicksburg	247	65	73	29.77	30.05	+.03	80.3	+4.0	96	9	91	52	29	70	29	70	66	69	0.08	−2.8	3	3,469	se.	17	se.	5	18	12	0	3.0	0.0	0.0
New Orleans	53	76	84	29.96	30.01	+.03	82.3	+3.1	96	8	90	62	28	75	22	74	72	78	2.06	−3.0	8	3,706	se.	20	e.	5	12	14	4	4.0	0.0	0.0
West Gulf States							**81.5**	**+4.5**										**70**	**1.15**	**−2.5**										**3.1**		
Shreveport	249	204	220	29.74	30.00	.00	82.1	+5.2	99	5	93	58	27	71	29	70	65	65	0.74	−2.1	5	5,337	s.	36	sw.	3	22	7	1	2.7	0.0	0.0
Bentonville	1,303	11	44	28.66	29.99	−.03	76.1	+7.2	95	18	88	43	27	64	33	----	----	----	0.53	------	5	2,353	s.	17	s.	21	26	4	0	----	0.0	0.0
Fort Smith	457	79	94	29.51	29.98	−.03	79.5	+5.5	97	17	90	50	27	69	31	69	66	69	0.77	−2.2	4	4,027	e.	30	se.	12	24	5	1	2.5	0.0	0.0
Little Rock	357	136	153	29.64	30.01	−.02	79.9	+5.8	96	25	90	54	30	70	29	70	65	68	0.64	−2.5	6	4,597	s.	24	s.	4	19	9	2	2.8	0.0	0.0
Austin	605	136	148	29.34	29.97	------	83.0	+4.7	98	5	94	58	30	72	29	70	66	65	0.02	−3.4	1	4,277	se.	28	se.	12	13	17	0	3.7	0.0	0.0
Brownsville	57	83	100	29.88	29.95	------	82.0	+1.4	92	3	89	70	29	75	19	75	73	83	1.43	−4.1	11	5,159	e.	26	se.	1	10	18	2	4.3	0.0	0.0
Corpus Christi	20	11	78	29.95	29.97	+.02	83.1	+3.4	90	20	88	74	30	78	14	76	74	80	0.83	−3.7	9	6,507	se.	24	se.	12	17	9	4	3.9	0.0	0.0
Dallas	512	220	227	29.44	29.98	------	82.0	------	100	5	92	58	30	72	25	----	----	----	2.76	0.0	2	6,930	se.	27	se.	20	24	5	1	1.7	0.0	0.0
Fort Worth	670	106	114	29.25	29.96	−.03	83.0	+6.1	101	4	94	59	30	72	26	69	62	56	1.25	−1.2	2	5,635	s.	27	se.	20	23	5	2	3.0	0.0	0.0
Galveston	54	106	114	29.96	30.02	+.04	82.4	+2.3	94	9	86	70	29	78	16	75	72	76	0.94	−4.6	8	6,162	se.	21	e.	27	20	7	3	3.2	0.0	0.0
Houston	138	292	314	29.85	30.00	------	81.6	+2.6	97	3	90	59	29	73	26	----	----	----	2.27	−1.8	5	6,528	se.	35	e.	10	18	10	2	3.2	0.0	0.0
Palestine	510	64	72	29.48	30.00	+.01	81.3	+4.3	97	25	92	55	30	70	29	70	65	67	0.01	−2.9	1	4,038	s.	20	s.	12	19	10	1	2.8	0.0	0.0
Port Arthur	34	58	66	29.96	30.00	------	82.0	------	97	9	90	64	29	74	23	74	71	76	2.03	−2.8	10	4,470	s.	41	e.	5	16	12	2	3.2	0.0	0.0
San Antonio	693	242	361	29.24	29.94	−.02	83.2	+4.2	98	4	94	65	30	73	26	72	67	68	0.01	−3.0	1	7,075	e.	42	e.	12	15	15	0	3.3	0.0	0.0
Taylor	571	38	51	29.42	30.02	+.05	82.6	+5.7	100	5	94	58	30	71	32	----	----	----	2.40	−0.9	3	4,727	s.	29	s.	12	18	11	1	3.3	0.0	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.
Ohio Valley and Tennessee							73.9	+5.2										72	3.34	+0.4										4.6		
Chattanooga	762	190	215	29.25	30.04	−0.02	78.2	+6.0	97	18	89	50	30	67	30	67	61	62	0.51	−2.6	5	3,932	se.	24	sw.	2	16	12	2	3.5	0.0	0.0
Knoxville	995	102	111	29.03	30.07	+.01	76.8	+6.2	98	18	88	47	29	65	30	66	62	69	1.95	−0.7	4	3,163	sw.	30	se.	19	20	8	2	3.2	0.0	0.0
Memphis	399	76	97	29.61	30.03	.00	79.8	+6.2	96	10	89	52	27	71	27	69	65	66	0.57	−2.2	2	4,387	s.	25	sw.	25	21	7	2	3.0	0.0	0.0
Nashville	546	168	191	29.49	30.06	.00	77.2	+5.4	98	18	88	46	29	66	34	67	63	69	1.54	−1.9	6	4,514	ne.	28	nw.	25	13	13	4	3.6	0.0	0.0
Lexington	989	193	230	29.03	30.08	+.01	73.4	+4.9	93	21	82	47	29	64	32				2.15	−0.9	8	7,356	s.	31	nw.	25	20	6	4	2.9	0.0	0.0
Louisville	525	188	234	29.48	30.06	.00	75.2	+4.7	94	21	84	49	28	66	31	66	62	70	3.56	+0.8	6	5,476	s.	33	n.	27	14	11	5	3.9	0.0	0.0
Evansville	431	76	116	29.58	30.04	−.02	76.2	+5.5	96	17	86	50	30	66	30	67	63	71	4.45	+1.1	5	4,776	s.	28	sw.	25	16	9	5	3.8	0.0	0.0
Indianapolis	822	194	230	29.16	30.03	−.03	72.8	+5.9	92	11	82	47	28	64	28	64	60	72	3.66	+0.3	9	6,073	sw.	30	nw.	3	17	7	6	3.9	0.0	0.0
Royal Center	736	11	55	29.24	30.03		69.2		93	11	80	38	28	59	32				4.16	+1.3	10	4,892	s.	24	nw.	26	13	10	7	4.7	0.0	0.0
Terre Haute	575	96	129	29.42	30.02		73.2		93	17	83	46	28	64	27	65	62	76	9.64	+6.0	8	5,130	s.	26	sw.	1	14	10	6	4.1	0.0	0.0
Cincinnati	627	11	51	29.38	30.06	−.01	72.7	+5.6	94	10	83	42	29	62	32	64	61	76	4.71	+2.1	8	3,556	sw.	17	sw.	25	16	8	6	3.8	0.0	0.0
Columbus	822	216	230	29.18	30.04	−.03	71.4	+4.9	92	10	81	45	28	62	27	63	60	73	3.34	+0.8	12	5,709	s.	34	sw.	23	14	9	7	4.2	0.0	0.0
Dayton	899	137	173	29.10	30.04		72.0	+5.4	93	11	82	44	28	62	29	64	60	74	2.36	−0.6	8	4,593	sw.	28	sw.	23	12	13	5	4.1	0.0	0.0
Elkins	1,947	59	67	28.09	30.11	+.03	66.3	+3.3	90	12	78	39	30	55	35	60	59	89	3.82	+0.7	14	2,435	w.	28	sw.	2	7	14	9	6.0	0.0	0.0
Parkersburg	637	77	82	29.43	30.08	.00	72.4	+5.1	95	12	82	44	30	62	33	64	60	74	3.27	+0.5	11	2,925	se.	32	nw.	25	12	10	8	5.0	0.0	0.0
Pittsburgh	842	353	410	29.16	30.04	−.04	70.3	+3.9	93	12	79	42	29	61	27	63	59	73	3.81	+1.2	11	5,768	sw.	31	sw.	23	11	9	10	4.9	0.0	0.0
Lower Lake Region							68.4	+5.5										73	3.25	+0.3										5.1		
Buffalo	767	247	280	29.18	29.99	−.07	66.4	+4.0	83	13	73	45	25	60	22	61	58	78	4.10	+1.2	9	9,087	sw.	56	w.	1	11	9	10	5.2	0.0	0.0
Canton	448	10	61	29.49	29.96		62.9	+3.6	90	13	73	37	25	53	32				5.69	+2.3	15	4,821	sw.	26	w.	22	10	13	7	5.3	0.0	0.0
Ithaca	836	74	100	29.11	30.00		67.8	+6.2	100	12	80	39	25	56	40	60	56	71	2.99	−0.1	10	5,287	nw.	26	sw.	2	10	12	8	5.1	0.0	0.0
Oswego	335	71	85	29.62	29.98	−.08	66.8	+5.6	93	13	75	47	30	59	32	60	57	73	2.73	0.0	15	5,174	s.	22	nw.	24	9	9	12	5.6	0.0	0.0
Rochester	523	86	102	29.45	30.01	−.05	68.1	+5.7	95	12	78	42	25	58	32	60	56	71	2.85	+0.4	12	4,881	sw.	29	w.	22	8	13	9	5.3	0.0	0.0
Syracuse	596	65	79	29.37	30.01	−.06	68.6	+7.0	97	11	78	42	25	59	35				2.76	0.0	12	3,909	s.	20	w.	24	8	11	11	6.3	0.0	0.0
Erie	714	130	166	29.25	30.01	−.05	69.2	+5.6	92	13	77	46	29	61	27	62	59	74	2.27	−1.1	11	8,016	s.	41	sw.	1	12	10	8	4.6	0.0	0.0
Cleveland	762	267	337	29.21	30.02	−.04	69.8	+5.9	90	21	76	51	29	63	20	62	58	70	3.93	+0.6	12	8,363	s.	40	se.	25	10	12	8	5.2	0.0	0.0
Sandusky	629	5	67	29.35	30.03	−.03	70.6	+5.3	95	11	79	45	29	62	26				3.63	+0.7	9	4,787	sw.	28	sw.	1	11	8	11	5.3	0.0	0.0
Toledo	628	208	243	29.35	30.03	−.03	70.2	+5.8	95	11	78	44	28	62	25	62	58	71	3.23	+0.4	11	7,861	sw.	31	s.	14	15	7	8	4.4	0.0	0.0
Fort Wayne	856	100	119	29.11	30.02		70.5	+5.0	95	11	80	46	28	61	30	62	59	73	2.08	−1.0	8	5,316	sw.	26	w.	26	16	7	7	4.3	0.0	0.0
Detroit	730	218	258	29.24	30.02	−.04	69.8	+6.3	95	11	78	48	28	62	25	62	59	73	2.97	+0.1	11	6,017	sw.	29	sw.	1	11	11	8	5.1	0.0	0.0
Upper Lake Region							65.6	+6.1										78	4.69	+1.4										5.1		
Alpena	609	13	92	29.33	29.99	−.04	63.8	+6.2	98	11	74	41	28	54	32	58	56	81	4.34	+1.4	16	6,840	nw.	38	se.	25	10	12	8	4.8	0.0	0.0
Escanaba	612	54	60	29.30	29.95	−.06	63.4	+6.3	87	9	71	42	27	56	27	58	56	81	6.88	+3.6	12	6,002	s.	34	ne.	26	13	10	7	4.6	0.0	0.0
Grand Haven	632	54	89	29.31	29.98	−.06	65.6	+4.7	85	11	73	41	28	58	26	61	59	80	3.42	−0.2	12	7,094	s.	37	sw.	1	14	7	9	4.9	0.0	0.0
Grand Rapids	707	70	244	29.24	30.00	−.05	69.0	+6.3	94	10	79	44	28	59	30	61	57	74	4.09	+0.6	10	7,227	sw.	44	sw.	22	9	12	9	5.2	0.0	0.0
Houghton	668	64	99	29.20	29.92	−.08	63.3	+6.4	98	11	71	46	28	55	32				3.66	+0.1	14	5,763	w.	35	nw.	13	8	12	10	5.9	0.0	0.0
Lansing	878	6	88	29.07	30.00		66.5	+5.1	93	11	77	38	28	56	32	61	59	83	3.33	+0.4	14	4,920	sw.	23	sw.	5	9	12	9	5.4	0.0	0.0
Ludington	637	60	66	29.29	29.98		65.2	+5.9	83	10	72	46	28	59	26	60	58	80	6.87	+3.6	12	6,664	s.	34	sw.	1	13	13	4	3.9	0.0	0.0
Marquette	734	77	111	29.14	29.94	−.06	64.5	+7.0	98	11	72	46	24	57	27	57	54	76	5.66	+2.4	15	6,211	w.	30	sw.	29	10	8	12	6.0	0.0	0.0
Port Huron	638	70	120	29.30	29.99	−.07	67.4	+5.8	98	11	76	45	28	59	28	61	58	77	2.92	+0.1	12	6,507	s.	26	nw.	14	9	11	10	5.3	0.0	0.0
Sault Ste. Marie	614	11	52	29.29	29.98	−.04	60.9	+5.4	92	10	69	41	25	53	31	56	54	83	6.72	+2.5	16	4,320	se.	22	nw.	17	10	14	6	5.1	0.0	0.0
Chicago	673	7	131	29.29	30.01	−.03	71.2	+6.0	94	10	79	50	29	63	27	63	60	76	5.14	+2.0	13	6,107	sw.	26	sw.	5	12	10	8	4.9	0.0	0.0
Green Bay	617	109	141	29.29	29.95	−.07	67.2	+6.8	97	10	76	45	27	58	29	60	56	74	5.84	+2.3	14	6,494	s.	30	ne.	14	9	11	10	5.8	0.0	0.0
Milwaukee	681	125	221	29.25	29.98	−.05	69.6	+7.1	97	10	78	48	27	61	31	62	58	74	3.15	−0.1	10	8,224	sw.	39	w.	13	13	10	7	4.7	0.0	0.0
Duluth	1,133	5	47	28.70	29.91	−.07	61.4	+6.3	92	8	70	37	24	52	30	54	51	79	3.63	+0.3	13	6,802	ne.	34	nw.	23	12	10	8	5.0	0.0	0.0
North Dakota							62.3	+5.1										66	1.86	+0.2										3.5		
Moorhead	940	50	58	28.86	29.86	−.10	64.9	+6.7	101	7	77	31	24	52	40	55	49	66	1.64	−0.6	11	5,210	s.	30	sw.	11	14	11	5	4.0	0.0	0.0
Bismarck	1,674	8	57	28.09	29.85	−.09	63.2	+5.1	105	7	77	37	26	50	46	53	46	64	2.81	+1.6	8	5,692	e.	31	nw.	29	21	5	4	2.6	0.0	0.0
Devils Lake	1,478	11	44	28.30	29.86	−.08	60.4	+4.5	99	7	73	36	24	48	38	52	47	73	2.72	+1.1	7	5,575	se.	28	ne.	8	15	9	6	4.3	0.0	0.0
Ellendale	1,457	10	56	28.32	29.86		64.2		103	10	80	33	24	49	49				0.89	−1.1	6	8,120	nw.	34	sw.	29	17	9	4	3.4	0.0	0.0
Grand Forks	883	12	67				62.0		100	7	76	35	24	48	40	53			2.44		9		se.	31	sw.	11	14	12	4		0.0	0.0
Williston	1,878	41	48	27.90	29.85	−.08	60.8	+4.2	99	6	74	36	23	48	42	50	43	60	1.23	+0.1	8	5,101	w.	31	se.	18	19	7	4	3.0	0.0	0.0
Upper Mississippi Valley							72.0	+6.9										73	4.48	+0.9										4.4		
Minneapolis	918	102	208	28.92	29.89		68.6	+7.2	104	10	78	43	24	59	31				2.42	−0.7	12	6,877	s.	26	se.	24	12	10	8	4.7	0.0	0.0
St. Paul	837	114	149	29.01	29.90	−.09	68.2	+6.9	101	10	78	42	24	58	32				2.56	−0.5	13	4,969	sw.	35	sw.	20	13	8	9	4.6	0.0	0.0
La Crosse	714	11	48	29.18	29.94	−.07	68.5	+6.3	99	10	79	41	27	58	33	61	58	77	3.75	−0.2	14	2,781	s.	16	s.	21	13	8	9	4.9	0.0	0.0
Madison	974	70	78	28.94	29.96	−.07	68.4	+6.0	95	10	77	46	27	60	29	61	57	74	7.17	+3.4	12	4,967	s.	26	sw.	20	12	9	9	4.7	0.0	0.0
Wausau	1,247	4	62	28.64	29.96		65.4		99	10	76	37	27	55	33				3.70	0.0	14	3,635	s.	18	w.	5	17	5	8	4.4	0.0	0.0
Charles City	1,015	10	51	28.89	29.95	−.05	69.0	+8.0	98	10	80	40	24	58	35	60	57	73	7.40	+3.7	11	4,360	se.	19	s.	11	12	12	6	4.4	0.0	0.0
Davenport	606	71	79	29.33	29.98	−.05	72.4	+6.8	95	9	82	46	27	63	29	64	60	71	3.78	+0.2	10	5,707	s.	27	s.	13	12	7	11	5.1	0.0	0.0
Des Moines	861	5	99	29.04	29.93	−.09	72.4	+6.8	98	7	83	43	27	62	33	63	59	70	4.44	+0.8	11	6,102	s.	30	sw.	16	12	9	9	4.9	0.0	0.0
Dubuque	700	81	96	29.22	29.96	−.07	70.0	+6.0	96	16	79	44	27	61	32	62	58	73	6.67	+2.7	13	3,442	s.	16	nw.	25	12	8	10	4.9	0.0	0.0
Keokuk	614	64	78	29.33	29.99	−.04	74.0	+6.5	95	7	84	46	27	64	28	65	62	72	6.73	+2.9	12	4,139	s.	30	sw.	14	15	9	6	4.3	0.0	0.0
Cairo	358	87	93	29.65	30.02	−.03	77.0	+5.5	95	18	86	50	30	68	31	68	65	76	1.19	−1.7	5	4,295	s.	30	sw.	25	14	10	6	4.2	0.0	0.0
Peoria	609	11	45	29.35	30.02	−.02	73.0	+8.7	96	11	84	41	28	62	31	64	62	77	4.92	+0.9	11	3,155	s.	19	w.	14	18	7	5	3.3	0.0	0.0
Springfield, Ill.	636	5	191	29.33	30.00	−.05	74.8	+7.2	97	16	86	48	28	64	32	65	61	71	3.15	−0.5	9	7,368	s.	30	s.	1	11	13	6	4.7	0.0	0.0
Hannibal	534	74	109	29.42	29.99	−.04	75.2	+7.5	95	15	85	46	28	65	31				3.72	−0.2	10	5,151	sw.	27	s.	22	14	10	6	4.1	0.0	0.0
St. Louis	568	265	303	29.40	30.00	−.04	76.9	+6.8	96	15	86	51	27	68	27	67	62	68	5.66	+2.2	8	7,470	sw.	36	sw.	21	20	7	3	3.2	0.0	0.0
Missouri Valley							73.6	+7.5										61	3.37	+0.2										3.7		
Columbia, Mo.	784	6	84	29.16	29.98	−.05	75.2	+7.0	96	15	85	44	27	65	28				6.69	+2.3	7	4,317	s.	32	nw.	21	15	12	3	3.5	0.0	0.0
Kansas City	963	161	181	28.95	29.95	−.07	77.5	+8.6	102	5	88	49	27	67	30	65	60	63	5.12	+0.6	10	5,243	se.	31	sw.	25	16	9	5	3.3	0.0	0.0
St. Joseph	967	11	49	28.92	29.93		76.2		101	5	87	45	27	66	31	65	61	68	7.88	+4.0	9	5,188	se.	34	nw.	24	19	6	5	3.2	0.0	0.0
Springfield, Mo.	1,324	98	104	28.62	30.00	−.03	75.2	+6.3	94	6	85	47	27	66	25	66	62	70	0.92	−2.6	7	6,088	s.	26	s.	21	22	7	1	1.8	0.0	0.0
Iola	984	11	50	28.93	29.95	−.06	79.0	+9.2	101	5	91	46	27	66	34				1.50	−3.4	5	3,944	s.	18	nw.	25	18	7	5	3.4	0.0	0.0
Topeka	987	92	107				77.2	+8.5	102	5	88	48	26	66	32				4.59	+0.8	8	6,580	sw.	28	sw.	20	16	7	7	3.3	0.0	0.0
Lincoln	1,189	11	81	28.65	29.89	−.10	74.6	+8.2	102	6	86	44	26	64	35	63	57	63	3.79	+0.8	10	6,929	s.	33	nw.	24	15	11	4	4.1	0.0	0.0
Omaha	1,105	115	122	28.75	29.91	−.09	73.7	+6.9	102	6	84	46	27	64	33	62	57	64	3.74	+0.5	10	4,561	s.	21	n.	17	17	8	5	3.6	0.0	0.0
Valentine	2,598	47	54	27.22	29.89	−.07	68.2	+5.7	106	9	82	36	26	54	45	55	47	57	0.98	−0.4	7	5,281	w.	31	nw.	25	9	13	8	4.8	0.0	0.0
Sioux City	1,135	94	164	28.69	29.88	−.10	71.8	+8.4	101	7	82	42	27	62	36	60	53	59	3.34	+0.3	7	8,172	s.	35	s.	11	12	7	11	4.8	0.0	0.0
Huron	1,306	59	74	28.50	29.88	−.08	68.6	+7.3	103	9	82	37	23	55	48	56	48	57	1.52	0.0	10	6,424	s.	33	sw.	11	14	13	3	3.7	0.0	0.0
Pierre	1,572	70	75	28.20	29.84	−.11	70.2	+6.4	108	9	84	38	23	57	45	55	45	51	1.43	+0.3	5	5,718	e.	31	nw.	29	16	8	6	4.0	0.0	0.0
Yankton	1,233	49	57	28.54	29.87	−.11	71.9	+7.9	103	7	83	44	26	61	43				2.32	−0.4	8	4,597	s.	24	s.	11	12	8	10	4.6	0.0	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							60.8	+3.4										53	1.17	0.0										4.5		
Billings	3,140	5					59.6		100	4	76	33	25	49	48				1.68		6		nw.				9	14	7		0.0	0.0
Havre	2,505	11	44	27.28	29.89	−0.05	58.7	+2.3	98	5	72	28	23	45	46	47	38	55	0.47	−0.8	7	5,452	sw.	31	sw.	11	10	15	5	4.9	0.0	0.0
Helena	4,110	87	112	25.77	29.92	−.05	56.6	0.0	90	4	68	32	23	46	37	46	38	56	1.18	−0.1	11	5,426	sw.	29	se.	5	6	10	14	6.1	T.	0.0
Kalispell	2,973	48	56	26.90	29.93	−.03	54.8	+1.3	90	3	66	29	23	44	38	47	40	64	2.89	+1.6	9	3,408	nw.	29	sw.	6	4	9	17	6.6	0.0	0.0
Miles City	2,371	48	55	27.38	29.89	−.06	64.4	+3.2	98	6	77	32	23	52	41	51	41	50	0.67	−0.4	3	3,851	s.	25	w.	11	18	9	3	3.5	0.0	0.0
Rapid City	3,259	50	58	26.54	29.88	−.08	67.6	+7.2	101	7	81	39	26	54	39	51	39	42	0.22	−1.0	4	4,673	w.	30	sw.	18	14	11	5	3.8	0.0	0.0
Cheyenne	6,088	84	101	24.04	29.89	−.07	61.8	+4.8	87	10	75	35	22	48	37	47	37	47	0.75	−0.4	5	7,053	w.	39	w.	25	17	7	6	3.8	0.0	0.0
Lander	5,372	60	68	24.63	29.89	−.07	59.8	+4.1	90	4	75	32	22	45	40	47	36	50	1.73	+0.8	5	3,620	sw.	35	sw.	10	20	7	3	2.5	2.1	0.0
Sheridan	3,790	10	47	26.04	29.89		60.3		97	4	76	34	27	44	47	48	40	58	2.08	+0.8	9	2,666	nw.	24	s.	5	14	10	6	4.3	0.0	0.0
Yellowstone Park	6,241	11	48	23.90	29.94	−.03	52.6	−0.8	83	4	66	25	23	39	39	41	32	55	1.30	0.0	8	4,928	sw.	31	sw.	12	12	8	10	5.1	0.8	0.0
North Platte	2,821	11	51	27.00	29.87	−.10	71.0	+8.9	105	5	85	36	26	57	47	56	47	53	0.41	−0.9	6	4,430	s.	23	s.	8	14	11	5	4.3	0.0	0.0
Middle Slope							76.0	+7.9										49	1.43	−0.6										3.3		
Denver	5,292	106	113	24.73	29.88	−.08	68.2	+5.3	94	9	81	39	23	55	34	51	38	40	0.22	−0.8	4	4,276	s.	24	s.	6	15	12	3	3.8	0.0	0.0
Pueblo	4,685	80	86	25.28	29.86	−.10	71.0	+6.4	96	9	85	43	27	57	40	53	41	41	0.72	0.0	3	4,434	nw.	28	nw.	12	13	14	3	4.1	0.0	0.0
Concordia	1,392	50	58	28.47	29.91	−.08	77.6	+9.3	107	5	89	45	26	67	34	63	56	56	1.96	−0.6	7	5,952	s.	31	nw.	24	18	8	4	3.5	0.0	0.0
Dodge City	2,509	88	100	27.38	29.91	−.07	77.8	+8.4	103	5	90	46	22	65	35	61	51	48	0.69	−1.2	5	10,266	s.	34	sw.	19	23	5	2	2.0	0.0	0.0
Wichita	1,358	139	158	28.52	29.91	−.09	79.4	+8.8	103	5	91	50	26	68	31	64	56	53	4.58	+1.5	4	9,269	s.	37	sw.	14	18	6	6	3.6	0.0	0.0
Oklahoma City	1,214	10	47	28.69	29.93	−.06	82.2	+9.4	103	5	94	54	26	17	29	67	60	56	0.43	−2.6	2	6,343	s.	24	nw.	1	21	9	0	3.0	0.0	0.0
Southern Slope							79.9	+6.4										52	0.14	−2.4												
Abilene	1,738	10	52	28.17	29.92	−.04	83.4	+8.1	100	5	95	63	30	72	27	66	57	49	0.09	−2.6	1	6,955	s.	29	s.	20	24	4	2	2.5	0.0	0.0
Amarillo	3,676	10	49	26.28	29.92	−.04	76.8	+7.5	97	5	90	54	22	64	32	60	52	50	0.51	−1.8	3	6,458	s.	20	se.	20	21	7	2	2.5	0.0	0.0
Del Rio	944	64	71	28.92	29.88	−.06	83.2	+4.0	98	25	93	66	30	73	26	70	64	60	T.	−3.0	0	6,388	se.	24	se.	12	17	13	0	3.3	0.0	0.0
Roswell	3,566	75	85	26.36	29.89	−.03	76.2	+5.9	95	4	90	50	22	63	41	61	53	51	0.02	−2.1	1	4,395	s.	26	s.	22	15	14	1	3.5	0.0	0.0
Southern Plateau							72.9	+2.2										54	1.36	+0.6										3.6		
El Paso	3,778	152	175	26.16	29.84	−.04	79.2	+5.3	96	9	90	60	21	68	30	63	55	50	1.10	−0.2	7	4,506	e.	31	sw.	13	14	15	1	3.8	0.0	0.0
Albuquerque	4,972	51	66	25.08	29.86		70.0		92	4	83	44	22	57	38	57	50	60	2.18		9	2,860	sw.	27	nw.	23	10	13	7	5.1	0.0	0.0
Santa Fe	7,013	38	53	23.34	29.89	−.04	63.4	+2.5	85	4	74	38	21	52	31	52	46	64	4.59	+3.1	16	3,261	e.	21	ne.	5	7	17	6	5.3	0.0	0.0
Flagstaff	6,907	10	59	23.41	29.85	−.04	58.4	+2.9	80	6	72	28	21	45	41	49		65	2.08		7	4,960	sw.	35	sw.	19	14	9	7		0.0	0.0
Phoenix	1,108	10	107	28.64	29.76	−.05	85.9	+3.2	107	7	99	58	21	73	38	66	55	41	0.23	−0.5	3	2,952	e.	24	sw.	19	21	6	3	2.3	0.0	0.0
Yuma	141	9	54	29.62	29.76	−.02	83.6	−0.1	108	6	99	58	11	69	41	67	57	49	0.74	+0.4	4	2,596	w.	21	n.	20	26	3	1	1.5	0.0	0.0
Independence	3,957	6	27	25.91	29.89	+.03	67.4	−0.6	92	2	83	42	21	52	40	49			0.12	0.0	1		s.				26	3	1		0.0	0.0
Middle Plateau							62.9	+1.0										41	0.76	+0.1										2.5		
Reno	4,532	74	81	25.44	29.89	−.06	60.2	+0.5	95	3	76	32	23	45	42	46	32	42	0.63	+0.4	3	3,945	sw.	40	w.	28	20	8	2	2.4	T.	0.0
Tonopah	6,090	12	20				61.0		83	2	72	35	23	50	32	46	32	39	0.96		2		se.								0.0	0.0
Winnemucca	4,344	18	56	25.59	29.94	+.01	58.8	−0.4	97	3	76	28	24	41	50	44	30	41	0.33	−0.1	6	4,038	sw.	26	w.	18	19	8	3	2.9	0.0	0.0
Modena	5,473	10	43	24.60	29.86	−.06	60.8	+0.8	85	2	78	30	25	44	45	45	29	38	0.39	−0.4	1	7,779	sw.	41	sw.	8	24	4	2	1.8	0.0	0.0
Salt Lake City	4,360	163	203	25.58	29.88	−.07	65.6	+1.2	91	7	77	42	24	54	30	50	36	38	0.56	−0.4	6	5,429	se.	34	nw.	15	21	6	3	2.8	0.0	0.0
Grand Junction	4,602	60	68	25.35	29.88	−.07	69.0	+2.8	93	6	82	44	25	56	36	53	42	47	1.87	+1.0	9	4,274	se.	33	s.	6	20	8	2	2.7	0.0	0.0
Northern Plateau							61.8	+1.1										48	0.76	0.0										4.4		
Baker	3,471	48	53	26.43	29.98	−.01	55.8	−0.2	94	3	70	30	23	41	39	45	36	52	0.63	−0.1	4	3,498	se.	23	sw.	6	12	12	6	4.4	0.0	0.0
Boise	2,739	79	87	27.11	29.94	−.03	62.5	+0.6	101	3	76	40	26	49	37	49	37	44	0.60	+0.1	4	2,984	nw.	19	nw.	8	13	11	6	4.2	0.0	0.0
Lewiston	757	40	48	29.13	29.93	−.05	64.5	+1.7	98	3	78	38	23	51	41				0.73	−0.2	7	1,987	e.	27	w.	6	15	5	10	4.5	0.0	0.0
Pocatello	4,477	60	68	25.45	29.90	−.06	61.3	+1.1	92	4	74	36	22	48	38	47	34	44	1.11	+0.3	7	5,322	se.	36	s.	4	12	12	6	4.1	T.	0.0
Pasco	416	5	33				64.2		98	3	80	35	7	49	47			45	0.04		2	5,394	sw.				11	13	6		0.0	0.0
Spokane	1,929	101	110	27.91	29.94	−.04	60.6	+1.4	91	3	72	40	23	49	36	50	40	55	1.05	+0.2	6	3,467	s.	24	nw.	20	7	13	10	5.3	0.0	0.0
Walla Walla	991	57	65	28.87	29.94	−.06	65.2	+1.4	95	3	76	38	23	54	35	52	42	46	0.98	0.0	5	2,708	s.	21	w.	18	12	13	5	4.3	0.0	0.0
Yakima	1,076	58	67	28.80	29.94		62.6	+1.5	95	3	76	38	24	50	39	51	42	52	0.23	−0.3	4	3,132	nw.	23	w.	20	15	8	7	4.1	0.0	0.0
North Pacific Coast Region							59.3	+1.0										74	3.02	+0.9										6.0		
North Head	211	11	56	29.80	30.02	−.01	57.0	+0.5	70	22	61	49	26	53	17	55	53	88	5.15	+2.2	16	9,227	n.	54	s.	29	7	10	13	6.2	0.0	0.0
Port Angeles	29	8	53		30.02		55.5		71	23	62	41	24	49	29				1.50	0.0	13	2,839	s.	26	w.	20	5	11	14		0.0	0.0
Seattle	125	215	250	29.86	29.99	−.02	59.2	+1.1	78	3	65	47	26	53	20	54	50	75	2.97	+1.2	11	4,895	s.	31	sw.	6	5	6	19	7.0	0.0	0.0
Tacoma	194	172	201	29.80	30.00	−.02	59.4	+2.1	81	3	66	43	22	52	28				2.67	+0.6	10	4,625	s.	33	sw.	6	2	10	18	7.5	0.0	0.0
Tatoosh Island	86	9	53	29.88	29.98	−.03	55.4	+2.4	72	23	59	48	8	52	24	53	52	89	7.97	+3.3	19	7,583	s.	42	s.	4	3	3	24	7.8	0.0	0.0
Medford	1,329	29	58	28.55	29.94		62.9		101	2	79	36	24	47	49	51	41	55	1.23	+0.7	6	3,170	nw.	28	nw.	6	17	8	5	3.2	0.0	0.0
Portland, Oreg.	153	68	106	29.84	30.00	−.03	62.8	+1.1	89	4	72	45	24	54	28	56	51	70	2.10	+0.1	10	3,241	nw.	18	ne.	22	7	7	16	6.5	0.0	0.0
Roseburg	510	75	99	29.44	29.99	−.03	61.9	−1.0	91	2	75	38	24	49	42	53	46	64	0.57	−0.7	7	2,476	n.	20	n.	22	14	11	5	3.7	0.0	0.0
Middle Pacific Coast Region							64.5	−0.3										57	0.13	−0.5										2.8		
Eureka	62	73	89	29.94	30.01	.00	55.6	−0.3	68	23	61	46	22	51	20	53	51	85	0.54	−0.5	5	3,279	nw.	32	n.	22	12	8	10	4.9	0.0	0.0
Red Bluff	330	5	58	29.52	29.87	−.06	72.0	−1.1	105	1	86	46	28	58	42	55	39	37	0.09	−0.7	1	4,015	s.	24	n.	22	22	7	1	2.3	0.0	0.0
Redding	722	20	34				68.6		103	1	78	49	28	60	34			32	T.		0	5,406	nw.				20	9	1		0.0	0.0
Sacramento	69	106	117	29.81	29.88	−.01	67.6	−1.7	98	13	82	47	9	53	42	56	48	56	T.	−0.4	0	5,338	s.	26	nw.	22	28	2	0	0.7	0.0	0.0
San Francisco	155	208	243	29.76	29.93	−.01	62.8	+1.9	86	30	70	52	1	55	30	56	51	73	T.	−0.4	0	4,882	w.	24	w.	17	12	17	1	3.6	0.0	0.0
San Jose	141	12	110	29.78	29.93		64.6	−0.1	91	21	78	45	24	52	39				T.	−0.4	0	3,826	nw.	22	sw.	14	19	8	3	2.6	0.0	0.0
South Pacific Coast Region							71.1	+1.3										60	0.10	−0.1										2.2		
Fresno	327	89	98	29.52	29.87	.00	72.2	−1.2	101	2	87	50	24	58	37	56	43	42	0.05	−0.2	1	4,457	nw.	24	nw.	7	24	6	0	1.1	0.0	0.0
Los Angeles	338	159	191	29.52	29.88	.00	71.5	+2.5	93	5	81	56	13	62	32	60	54	62	0.24	+0.1	2	2,932	w.	13	w.	25	23	5	3	2.2	0.0	0.0
San Diego	87	62	70	29.77	29.86	−.03	69.7	+2.6	86	21	76	59	11	64	24	64	61	76	T.	−0.1	0	3,959	nw.	20	w.	5	19	8	3	3.3	0.0	0.0
West Indies																																
San Juan, P. I.	82	9	54	29.84	29.93		80.6	+0.1	91	11	85	72	3	76	17				10.60	+4.7	22	6,648	e.	90	nw.	10	1	17	12	6.4	0.0	0.0
Panama Canal																																
Balboa Heights	118	6	97		[1]29.83		79.6	−0.2	90	25	85	72	13	74	17			[1]87	11.09	+3.0	21	3,265	nw.	24	nw.	27	0	11	19	7.9	0.0	0.0
Cristobal	36	6	97		[1]29.83		81.6	+1.2	91	3	87	75	13	76	16	76	75	[1]83	8.24	−4.1	21	3,886	se.	24	nw.	28	1	9	20	7.8	0.0	0.0
Alaska																																
Fairbanks	455	11	44		[2]29.84		43.4		63	2	50	26	26	36	27			80	1.48		16	2,525	w.	14	sw.	22	1	4	25		T.	0.0
Juneau	80	11	50	[2]29.77	[2]29.77		50.8		69	7	57	36	16	45	23	48	45	84	9.37		21	3,183	s.	28	e.	30	4	8	18	7.6	0.0	0.0
Hawaiian Islands																																
Honolulu	38	86	100	[1]29.95	[2]29.99		77.8	−0.4	84	21	82	71	7	74	12	72	69	77	2.69	+1.4	16	6,508	e.	25	e.	25	5	22	3	5.6	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, September, 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				55.3		63.2	47.5	75	34	4.23		0.0
Sydney, C. B. I	48	29.85	29.90	−0.11	57.8	+1.3	65.7	50.0	80	38	4.06	+0.78	0.0
Halifax, N. S	88	29.81	29.91	−.13	58.6	+1.0	66.6	50.6	82	41	6.95	+3.24	0.0
Yarmouth, N. S	65	29.83	29.90	−.15	57.7	+1.6	64.2	51.2	76	40	4.78	+1.17	0.0
Charlottetown, P. E. I	38	29.80	29.84	−.17	56.9	−0.4	62.7	51.1	76	42	3.76	+0.36	0.0
Chatham, N. B	28	29.80	29.83	−.17	55.4	0.0	64.2	46.7	85	33	3.86	+1.15	0.0
Father Point, Que	20	29.88	29.90	−.08	50.0	−0.4	57.4	42.7	70	31	4.83	+1.70	0.0
Quebec, Que	296	29.63	29.95	−.06	56.2	+1.1	63.4	49.0	83	35	6.51	+2.84	0.0
Doucet, Que	1,236				51.6		63.3	40.0	87	20	4.52		0.0
Montreal, Que	187	29.73	29.93	−.11	61.7	+3.3	69.2	54.2	90	42	7.44	+4.14	0.0
Ottawa, Ont	236	29.70	29.96	−.08	64.3	+6.9	75.7	53.0	102	39	5.70	+3.01	0.0
Kingston, Ont	285	29.67	29.98	−.06	64.4	+4.4	72.1	56.7	88	40	4.94	+2.14	0.0
Toronto, Ont	379	29.58	29.97	−.09	65.9	+6.9	75.4	56.4	96	42	2.18	−1.07	0.0
Cochrane, Ont	930				55.9		64.6	47.3	91	32	2.95		0.0
White River, Ont	1,244	28.62	29.92	−.06	55.5	+5.2	67.4	43.7	91	26	3.59	+0.82	0.0
London, Ont	808				65.8		77.1	54.5	95	32	3.57		0.0
Southampton, Ont	656	29.29	30.00	−.05	63.3	+5.8	73.3	53.4	92	36	4.20	+1.26	0.0
Parry Sound, Ont	688	28.28	29.96	−.07	61.7	+5.7	70.5	52.9	89	37	5.15	+1.48	0.0
Port Arthur, Ont	644	29.21	29.92	−.06	58.5	+6.3	66.8	50.2	78	41	5.46	+1.98	0.0
Winnipeg, Man	760	29.02	29.84	−.10	59.9	+7.4	70.3	49.6	96	33	3.23	+1.20	0.0
Minnedosa, Man	1,690	28.06	29.85	−.09	55.0	+4.5	65.9	44.1	93	29	1.54	+0.18	0.0
Le Pas, Man	860				51.6		60.5	42.8	83	32	5.09		0.0
Qu'Appelle, Sask	2,115	27.61	29.83	−.09	54.1	+3.0	65.3	42.9	90	31	1.25	−0.08	0.0
Moose Jaw, Sask	1,759				56.4		69.5	43.3	95	30	1.81		0.0
Swift Current, Sask	2,392	27.31	29.80	−.12	55.5	+2.4	69.7	41.2	96	32	2.35	+1.13	0.0
Medicine Hat, Alb	2,365	27.40	29.87	−.05	55.7	+0.7	67.6	43.8	92	30	1.76	+0.58	0.0
Calgary, Alb	3,428	26.21	29.86	−.06	50.8	+1.0	62.2	39.5	82	29	1.71	+0.35	0.0
Banff, Alb	4,521	25.32	29.89	−.04	47.2	+1.4	58.0	36.4	73	24	2.17	+0.50	0.0
Prince Albert, Sask	1,450	28.31	29.88	−.02	52.7	+4.3	62.6	42.9	84	30	2.66	+1.38	0.0
Battleford, Sask	1,592	28.11	29.83	−.07	52.7	+0.9	64.2	41.1	89	29	3.37	+2.12	0.0
Edmonton, Alb	2,150	27.55	29.83	−.07	50.2	+0.9	61.0	39.4	73	27	0.56	−0.77	0.0
Kamloops, B. C	1,262	28.62	29.90	−.07	57.0	−0.4	65.0	49.1	82	36	0.80	−0.45	0.0
Victoria, B. C	230	29.73	29.98	−.03	56.0	+1.2	61.5	50.5	69	46	2.28	+0.12	0.0
Barkerville, B. C	4,180												
Estevan Point, B. C	20				53.9		59.6	48.3	68	42	12.21		0.0
Prince Rupert, B. C	170				53.4		59.1	47.8	64	42	8.10		0.0
Hamilton, Ber	151	29.96	30.12	+.05	80.8	+3.4	88.0	73.6	93	70	2.46	−4.05	0.0

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Sydney, C. B. I	48	29.96	30.01	+0.06	65.1	+1.8	74.0	56.2	85	46	6.52	+2.90	0.0
Halifax, N. S	88	29.89	29.99	+.03	66.8	+3.2	76.7	56.9	86	49	4.60	+0.25	0.0
Yarmouth, N. S	65	29.88	29.95	−.02	63.5	+3.3	71.8	55.2	79	48	3.60	−0.02	0.0
Charlottetown, P. E. I	38	29.88	29.92	−.02	66.4	+2.1	73.5	59.4	81	51	2.79	−0.95	0.0
Chatham, N. B	28	29.87	29.90	−.03	63.7	+0.5	74.0	53.4	86	44	3.38	−0.66	0.0
Father Point, Que	20	29.93	29.95	+.04	57.1	+1.5	65.0	49.2	76	44	1.92	−1.13	0.0
Doucet, Que	1,236				55.5		70.1	40.9	85	28	2.29		0.0
Kingston, Ont	285	29.71	30.01	+.03	69.1	+2.1	77.0	61.2	88	52	1.19	−1.19	0.0
Southampton, Ont	656	29.31	30.02	+.03	66.4	+2.6	76.0	56.8	89	44	1.96	−0.29	0.0
Medicine Hat, Alb	2,365	27.50	29.94	+.02	67.0	+1.3	82.3	51.8	97	36	0.22	−1.45	0.0
Calgary, Alb	3,428	26.34	29.96	+.04	61.3	+1.9	75.8	46.8	90	38	0.46	−1.68	0.0
Banff, Alb	4,521	25.45	29.98	+.07	57.0	+0.7	73.1	40.8	88	33	1.61	−0.92	0.0
Edmonton, Alb	2,150	27.70	29.96	+.04	60.1	+1.3	71.3	48.9	82	38	4.20	+2.07	0.0
Kamloops, B. C	1,262	28.69	29.95	+.04	68.8	+0.2	81.7	55.9	96	48	0.70	−0.39	0.0
Estevan Point, B. C	20				56.5		62.7	50.3	73	45	3.07		0.0
Prince Rupert, B. C	170				57.7		63.4	52.1	70	48	5.70		0.0
Hamilton, Ber	151	30.02	30.18	+.08	82.4	+2.8	89.8	75.1	95	69	3.76	−2.32	0.0