CLIMATOLOGICAL TABLES [1]

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 1933

[For description of tables and charts, see REVIEW, January, p. 37]

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	79.6	+3.9	Madison	102	17	Prattville	41	22	2.30	−1.05	Primrose Farm	6.23	Newton	0.00
Arizona	77.8	+3.2	Gila Bend	116	[1] 6	Williams	32	25	1.55	+.40	Tonto Ranger Station.	6.13	5 stations	.00
Arkansas	78.6	+4.2	Hope	102	18	Dutton	41	21	5.10	+1.77	Grannis	14.92	Magnolia	.17
California	65.4	−2.1	Brawley	117	6	Tule Lake	19	21	.14	−.33	Crescent City (near)	4.51	96 stations	.00
Colorado	62.5	+4.7	Eads	104	18	2 stations	17	[1] 16	1.87	+.56	Northdale	5.25	Cheyenne Wells	.08
Florida	81.8	+2.3	Vernon	103	15	do	47	22	7.69	+.90	Davenport	19.25	Cottage Hill	.32
Georgia	78.5	+3.0	Millen	103	17	Blairsville	36	21	4.15	+.47	Dover	13.65	Newnan	.61
Idaho	55.5	−1.3	Grand View	100	5	Warren	11	26	.92	−.09	Wallace	4.44	2 stations	.00
Illinois	73.2	+6.1	Greenville	103	10	Mount Carroll	36	29	3.72	+.14	Roberts	9.25	McLeansboro	1.28
Indiana	72.4	+5.2	Edwardsport	105	7	Marengo	37	21	4.94	+1.57	Salamonia	10.47	Princeton	1.72
Iowa	69.4	+5.7	Keokuk No. 2	105	[1] 9	Webster City	29	27	4.16	+.37	Rock Rapids	7.89	Williamsburg	2.13
Kansas	74.3	+4.7	Lincoln	103	10	Burr Oak	34	27	2.25	−.52	Chapman	9.00	2 stations	T
Kentucky	74.3	+3.7	3 stations	98	10	Greensburg	40	21	5.03	+2.10	Salvisa	13.75	Middlesboro	1.73
Louisiana	81.7	+3.7	Monroe	101	19	2 stations	45	[1] 21	1.74	−2.18	New Orleans No. 2	4.28	Logansport	.12
Maryland-Delaware	70.2	+2.4	13 stations	94	[1] 7	do	37	30	3.21	−.02	Keedysville, Md	6.65	Princess Anne, Md	1.15
Michigan	64.2	+4.0	Owosso	103	8	Vanderbilt	25	12	3.56	+.33	Calumet	8.39	Ludington	.95
Minnesota	63.2	+4.1	Maple Plain	100	8	Leech Lake Dam	25	29	3.07	+.16	Pigeon River Bridge	10.51	Campbell	.45
Mississippi	80.6	+4.7	Magnolia	104	19	Duck Hill	44	21	1.90	−1.18	Columbus	4.70	Bay St. Louis	.10
Missouri	74.6	+5.4	2 stations	102	9	Grant City	36	27	4.38	+.32	Dexter	12.02	Bowling Green	.73
Montana	55.3	+.6	5 stations	97	[1] 4	Loweth	7	[1] 15	.85	−.54	Haugan	3.98	Cut Bank	.00
Nebraska	69.1	+5.3	O'Neill	104	5	Harrison	29	26	2.38	+.24	Fremont	7.33	Merriman	.35
Nevada	63.2	+2.4	Logandale	112	6	San Jacinto	14	28	.14	−.28	Arthur	.98	19 stations	.00
New England	61.4	+1.1	North Grosvenor Dale, Conn.	94	27	Falls Village, Conn.	25	13	6.43	+2.76	Provincetown, Mass	15.76	Jackman, Maine	1.28
New Jersey	68.0	+2.1	Indian Mills	93	27	Layton	38	13	6.07	+2.51	Little Falls	10.86	Pemberton	2.70
New Mexico	68.0	+3.5	Carlsbad	101	26	Therma (near)	26	20	1.29	−.32	Carlsbad Cavern	4.88	Ione	.00
New York	62.8	+1.6	Letchworth Park	92	8	Gabriels	25	12	4.02	+.64	Rifton	10.32	Rochester	.71
North Carolina	75.1	+4.1	3 stations	99	[1] 25	Cullowhee	33	22	2.96	−.98	Hatteras	13.63	Durham	.17
North Dakota	60.9	+4.5	2 stations	101	18	Willow City	22	26	.79	−.86	Hillsboro	2.71	2 stations	.20
Ohio	69.1	+3.5	Bowling Green	101	8	3 stations	38	28	4.65	+1.67	New Bremen	9.12	Lock No. 23	1.87
Oklahoma	78.4	+4.2	Alva	105	23	do	44	20	3.48	+.47	Pryor	9.23	Beaver	.01
Oregon	55.9	−1.6	Prairie City	95	3	Seneca	9	30	1.71	+.47	Headworks	14.96	Valley Falls	T
Pennsylvania	66.3	+2.2	Sharon	98	8	Corry	32	12	4.66	+1.20	Mauch Chunk	11.67	Ridgway	2.23
South Carolina	77.8	+3.3	Garnett	100	17	Walhalla	42	[1] 21	4.06	−.04	Charleston	13.04	Winthrop College	.83
South Dakota	66.7	+5.2	Kennebec	109	5	2 stations	23	26	1.21	−.48	Canton	4.36	Oelrichs	T
Tennessee	76.2	+4.8	Halls	99	16	Elkmont	38	21	3.55	+.52	Tiptonville	7.66	Tullahoma	.91
Texas	81.1	+3.7	2 stations	107	[1] 16	Booker	43	19	2.57	−.30	Harlingen	18.25	2 stations	.00
Utah	64.2	+3.7	St. George	104	4	2 stations	19	[1] 16	.55	−.48	Monticello	3.02	Deseret	.00
Virginia	73.0	+4.4	2 stations	98	[1] 25	Emory	37	22	1.81	−1.22	Mount Weather	8.49	Roanoke	.18
Washington	55.3	−2.9	Wahluke	94	4	2 stations	20	[1] 2	3.42	+1.59	Elkpark (near)	15.45	Wahluke	.22
West Virginia	70.3	+3.9	2 stations	98	[1] 8	Bayard	35	30	3.71	+.81	Davis	6.81	Union	.67
Wisconsin	64.4	+4.0	New London	101	8	Long Lake	23	29	3.30	−.33	River Falls	7.75	Kewaunee	.72
Wyoming	57.0	+2.5	Colony	100	4	Dome Lake	10	26	.89	−.27	Pine Bluffs	2.79	2 stations	T
Alaska (August)	52.8	−.9	View Cove	86	24	Allakaket	18	29	3.50	+.01	Cordova	19.58	Barrow	.03
Hawaii	73.6	−1.2	Molokai Ranch	92	23	Kanalohuluhulu	46	1	3.46	−2.28	Papaikou (Mauka)	18.06	10 stations	.00
Puerto Rico	78.4	−.2	San German	97	12	Guineo Reservoir	52	11	9.96	+1.92	Rio Blanco	18.55	Mona Island	1.30

[1] Other dates also.

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

[Compiled by Annie E. Small]

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							62.8	+2.0										82	5.85	+2.7										6.2		
Eastport	76	67	85	29.82	29.90	−0.13	56.1	+0.3	73	6	62	41	11	50	24	53	52	89	5.04	+2.3	12	6,131	sw.	30	e.	17	7	5	18	7.0	0.0	0.0
Greenville, Maine	1,070	6		28.75	29.90		55.7		78	2	65	33	15	47	31				4.40		13	3,632	se.	20		12	9	8	13		.0	.0
Portland, Maine	103	82	117	29.79	29.91	−.14	61.0	+1.4	82	9	68	41	12	54	27	56	53	80	6.07	+3.0	17	5,400	w.	26	nw.	10	10	10	10	5.4	.0	.0
Concord	289	70	79	29.61	29.92	−.14	60.9	+1.6	88	27	71	33	12	51	33				4.54	+1.1	15		nw.									
Burlington	403	11	48	29.47	29.91	−.15	61.0	+.7	81	27	70	38	12	52	28				2.86	−.6	13	5,621	s.	30	se.	20	6	7	17	6.7	.0	.0
Northfield	876	12	60		29.94	−.12	57.4	+1.3	86	27	69	29	12	46	35			86	2.17	−.9	13	4,162	s.	25	sw.	27	3	12	15	7.1	.0	.0
Boston	125	106	165	29.78	29.92	−.15	65.8	+2.6	86	27	74	47	12	58	25	59	56	77	10.94	+7.8	15	5,904	w.	26	n.	17	7	11	12	6.0	.0	.0
Nantucket	12	14	90	29.89	29.90	−.18	66.0	+3.2	78	6	71	52	15	61	16	61	59	86	7.54	+5.1	9	9,439	sw.	54	ne.	17	11	7	12	5.9	.0	.0
Block Island	26	11	46	29.89	29.92	−.16	65.6	+2.2	79	9	70	54	15	61	15	62	60	87	8.54	+5.9	12	10,199	w.	50	n.	17	9	9	12	6.0	.0	.0
Providence	160	215	251	29.75	29.92	−.15	65.0	+1.8	81	6	73	45	12	57	25	60	57	78	6.20	+3.0	13	7,369	nw.	41	nw.	6	10	9	11	5.5	.0	.0
Hartford	159	122			29.94	−.13	65.6	+3.9	84	6	74	44	12	57	29				5.36	+1.9	10	4,757	s.				6	12	12		.0	.0
New Haven	106	74	153	29.82	29.93	−.14	66.6	+3.1	85	9	74	49	13	59	28	61	58	78	5.05	+1.5	10	6,099	s.	28	ne.	17	5	12	13	6.4	.0	.0
Middle Atlantic States							70.7	+3.7										78	3.64	+0.4										5.7		
Albany	97	107	115	29.83	29.93	−.14	64.8	+1.7	83	4	73	41	12	56	29	59	57	80	6.28	+3.2	15	4,356	s.	16	nw.	10	7	12	11	6.0	.0	.0
Binghamton	871	60	68	29.02	29.94	−.13	63.2	+1.9	86	8	73	38	13	54	35				4.73	+1.6	11	3,412	nw.	17	nw.	10	4	5	21	7.7	.0	.0
New York	314	414	454	29.60	29.93	−.15	68.8	+2.0	86	27	76	53	16	62	21	62	58	75	8.17	+4.8	15	9,231	nw.	44	nw.	9	7	10	13	6.2	.0	.0
Bellefonte	1,050	5	42	28.86	29.95		63.2		86	8	73	40	30	53	33	59	57	87	5.49		14		sw.				7	10	13	6.2	.0	.0
Harrisburg	374	94	104	29.55	29.94	−.14	68.6		88	25	76	50	30	61	27	61	58	76	3.59	+.5	10	4,747	w.	22	sw.	20	7	11	12	6.1	.0	.0
Philadelphia	114	123	367	29.83	29.95	−.13	71.2	+3.2	91	25	78	55	16	64	22	64	60	74	4.17	+1.0	11	8,487	w.	29	ne.	16	7	12	11	6.0	.0	.0
Reading	323	283	304	29.60	29.94		68.2	+1.9	89	25	76	51	30	61	23	62	59	76	2.84	−.4	13	6,775	nw.	27	nw.	10	11	8	11	5.4	.0	.0
Scranton	805	72	104	29.09	29.94	−.13	64.6	+1.7	86	8	73	41	13	56	31	58	55	77	5.33	+2.2	10	4,244	sw.	21	nw.	10	7	11	12	6.0	.0	.0
Atlantic City	52	37	172	29.88	29.93	−.14	71.6	+4.8	91	9	78	52	23	65	23	66	64	82	4.71	+2.1	8	11,005	w.	47	n.	16	7	14	9	5.7	.0	.0
Sandy Hook	22	10	57	29.91	29.93		69.4		86	7	75	57	23	64	19	64	61	82	5.17	+1.7	12	9,523	w.	38	ne.	17	8	12	10	5.5	.0	.0
Trenton	190	159	183	29.74	29.93		69.0	+2.1	89	27	77	52	23	61	26	63	60	78	4.86	+1.5	13	6,235	w.	26	sw.	28	5	14	11	5.9	.0	.0
Baltimore	123	100	215	29.82	29.94	−.14	73.0	+4.5	94	9	81	55	23	65	27	65	61	72	3.28	−.1	12	6,844	sw.	43	nw.	9	10	10	10	5.4	.0	.0
Washington	112	62	85	29.83	29.95	−.13	71.8	+3.7	94	9	80	52	23	63	30	65	62	78	2.62	−.6	13	4,031	nw.	21	nw.	21	12	10	8	5.2	.0	.0
Cape Henry	18	8	54	29.92	29.94		76.9	+5.1	92	4	83	61	23	71	22	70	68	78	2.29	−.6	7	8,743	sw.	65	ne.	16	12	11	7	4.7	.0	.0
Lynchburg	686	153	188	29.25	29.98	−.10	75.5	+6.5	98	26	89	46	22	62	40				.35	−3.0	7		nw.				18	9	3		.0	.0
Norfolk	91	170	205	29.86	29.96	−.10	77.2	+5.6	94	25	85	56	22	70	27	69	67	78	2.07	−1.2	6	8,050	s.	56	ne.	16	9	9	12	5.5	.0	.0
Richmond	144	11	52	29.82	29.97	−.10	74.4	+3.9	94	26	84	50	22	65	29	67	64	80	1.05	−2.2	7	5,089	sw.	24	ne.	16	8	14	8	5.1	.0	.0
Wytheville	2,304	49	55	27.66	29.96	−.11	70.4	+6.8	89	12	81	46	23	59	39	62	58	74	.30	−3.0	4	4,317	w.	21	nw.	21	12	14	4	4.3	.0	.0
South Atlantic States							78.8	+5.2										79	6.06	+1.8										4.0		
Asheville	2,253	89	104	27.71	30.00	−.07	71.8	+6.8	89	4	83	42	22	61	41	63	61	80	1.79	−1.2	8	4,448	nw.	21	nw.	20	7	19	4	4.7	.0	.0
Charlotte	779	244	267	29.16	29.98	−.09	76.7	+5.2	93	12	85	61	21	69	25	68	63	71	4.69	+1.7	5	7,429	sw.	32	ne.	13	16	8	6	4.1	.0	.0
Greensboro	886	6	56	29.05	29.99		74.6		95	25	86	44	22	63	39	67	64	83	.69		5	5,048	sw.	22	n.	16	14	10	6	4.6	.0	.0
Hatteras	11	5	50	29.92	29.93	−.13	79.2	+4.7	90	10	84	64	23	74	18	74	73	82	13.63	+9.0	6	9,084	sw.	76	nw.	16	18	7	5	3.4	.0	.0
Raleigh	376	103	110	29.57	29.96	−.11	77.5	+6.4	94	12	87	54	22	68	28	68	65	74	.83	−2.8	6	6,051	sw.	29	n.	16	12	13	5	4.3	.0	.0
Wilmington	72	73	106	29.89	29.96	−.09	78.9	+5.8	93	12	87	60	22	71	23	73	71	84	8.27	+3.8	10	5,998	s.	42	nw.	15	14	12	4	3.9	.0	.0
Charleston	48	11	92	29.91	29.96	−.08	81.2	+4.6	95	20	88	65	22	74	20	76	74	82	13.04	+8.5	7	6,867	s.	51	se.	6	15	12	3	3.8	.0	.0
Columbia, S.C.	351	41	57	29.60	29.97	−.08	79.5	+5.0	96	11	89	58	22	70	28	71	68	76	2.19	−1.3	5	4,291	ne.	28	ne.	6	16	11	3	3.2	.0	.0
Augusta	182	62	77	29.76	29.95	−.10	79.8	+4.5	95	18	90	57	22	70	33	71	69	77	3.57	+.2	7	3,492	se.	23	ne.	6	14	13	3	3.8	.0	.0
Savannah	65	73	152	29.90	29.96	−.07	81.6	+5.4	97	17	91	64	22	72	25	74	71	80	8.81	+3.4	8	6,845	s.	47	se.	5	19	8	3	3.5	.0	.0
Jacksonville	43	209	245	29.90	29.95	−.05	82.1	+3.8	95	16	89	70	5	75	20	74	72	78	3.76	−3.6	7	7,985	e.	43	se.	5	12	15	3	4.4	.0	.0
Florida Peninsula							82.6	+1.9										78	6.00	−1.2										4.4		
Key West	22	10	64	29.88	29.90	−.04	82.8	+.6	90	6	88	71	1	78	15	76	74	77	3.10	−3.6	12	7,292	e.	42	e.	1	9	16	5	4.8	.0	.0
Miami	25	124	168	29.92	29.95	−.02	82.3	+2.2	92	15	87	71	27	78	15	76	74	76	5.03	−3.3	14	7,376	e.	42	sw.	4	7	20	3	5.2	.0	.0
Tampa	35	88	197	29.90	29.93	−.04	82.8	+2.9	94	22	90	72	29	75	20	75	73	80	9.86	+3.4	8	7,723	e.	46	n.	4	20	8	2	3.3	.0	.0
Titusville	44	5	25	29.90	29.96		82.4		98	17	91	68	29	73	26				5.62		8		se.								.0	.0
East Gulf States							80.4	+4.7										74	2.23	−2.0										3.6		
Atlanta	1,173	190	198	28.77	29.98	−.07	77.6	+5.2	93	18	87	57	21	68	29	68	64	72	1.25	−1.7	7	5,934	w.	25	e.	5	12	12	6	4.2	.0	.0
Macon	370	76	84	29.57	29.96	−.07	78.4	+3.6	96	17	89	51	22	68	37	70	67	76	2.79	−.4	8	4,202	nw.	28	se.	4	13	13	4	4.0	.0	.0
Thomasville	273	49	103	29.66	29.95	−.06	80.8	+4.0	97	17	91	58	22	70	34	73	71		2.80		6		e.									
Apalachicola	36	11	51	29.90	29.94		81.8		95	16	89	65	22	75	22	75			1.14	−7.0	9		ne.				12	16	2		.0	.0
Pensacola	56	149	185	29.89	29.96	−.03	82.0	+4.0	96	16	88	67	21	76	21	74	72	76	.51	−4.8	3	7,468	se.	30	sw.	8	22	6	2	2.7	.0	.0
Anniston	741	9	57				76.8	+5.5	92	30	88	46	22	65	40				1.62		9		nw.				13	13	4		.0	.0
Birmingham	700	11	48	29.22	29.98	−.05	79.7	+4.9	96	25	91	53	22	68	36	69	66	75	2.74	−.6	8	3,643	se.	25	nw.	17	16	9	5	3.6	.0	.0
Mobile	57	125	161	29.88	29.94	−.06	82.6	+4.5	97	20	91	59	22	74	31	74	71	75	1.40	−3.6	5	5,650	n.	26	ne.	5	16	11	3	3.6	.0	.0
Montgomery	218	92	105	29.73	29.97	−.05	81.2	+4.9	97	19	92	57	22	71	32	71	67	72	5.91	+2.9	11	4,040	n.	25	e.	12	19	7	4	3.7	.0	.0
Meridian	375	87	95	29.57	29.96	−.06	80.4	+5.9	97	15	92	50	22	69	40	71	67	73	2.00	−1.0	5	2,963	se.	22	ne.	5	17	11	2	3.4	.0	.0
Vicksburg	247	65	73	29.70	29.95	−.07	81.1	+4.8	95	18	90	60	21	72	28	72	69	75	1.52	−1.4	6	3,959	se.	29	se.	30	14	11	5	4.0	.0	.0
New Orleans	53	76	84	29.89	29.94	−.04	84.0	+4.8	97	17	91	70	5	77	24	75	72	74	3.08	−2.0	9	4,424	se.	36	n.	5	14	15	1	3.6	.0	.0
West Gulf States							81.5	+4.4										78	4.47	+0.8										4.3		
Shreveport	249	92	227	29.67	29.93	−.07	82.8	+5.9	98	17	92	63	21	73	26	75	73	82	1.07	−1.7	3	5,572	s.	27	se.	25	17	8	5	3.7	.0	.0
Bentonville	1,303	11	44	28.58	29.91	−.11	74.7	+5.8	92	18	85	50	20	65	33				8.62		9	3,630	sw.	20	s.	25	11	8	11		.0	.0
Fort Smith	457	79	94	29.44	29.92	−.09	79.7	+5.7	97	18	90	56	21	70	34	71	68	76	7.16	+4.2	9	4,596	e.	29	s.	24	13	12	5	4.3	.0	.0
Little Rock	357	94	102	29.57	29.94	−.09	79.2	+5.1	95	19	88	59	22	70	28	71	68	79	6.00	+2.8	11	4,672	s.	22	nw.	19	16	7	7	4.1	.0	.0
Austin	605	136	148	29.27	29.90		83.4	+5.1	98	20	93	70	15	74	25	73	69	72	3.08	−.3	5	5,038	se.	21	se.	12	11	13	6	4.9	.0	.0
Brownsville	57	88	96	29.75	29.81		81.8	+1.2	91	3	88	72	4	76	15	76	75	87	13.58	+8.1	13	7,262	e.	75	nw.	5	15	10	5	4.2	.0	.0
Corpus Christi	20	11	78	29.87	29.89	−.06	82.4	+2.7	94	3	88	73	4	77	16	77	76	84	4.71	+.2	17	7,738	se.	49	e.	5	6	18	6	5.6	.0	.0
Dallas	512	220	227	29.36	29.90		82.2		96	19	91	68	11	74	21	72	68	68	1.84	−.9	5	6,994	se.	29	s.	10	15	9	6	3.5	.0	.0
Fort Worth	670	106	114	29.21	29.91	−.08	82.8	+5.9	98	19	92	68	11	74	24				4.94	+2.4	8	6,175	se.	27	se.	27	15	11	4	3.3	.0	.0
Galveston	54	106	114	29.85	29.91	−.07	83.8	+3.7	93	17	88	72	24	80	17	77	74	78	3.65	−1.9	7	7,248	s.	31	se.	30	14	12	4	4.1	.0	.0
Houston	138	292	314	29.78	29.92		82.6	+3.6	95	18	90	72	24	75	20				4.47	+.4	6	7,462	se.	27	se.	24	11	14	5	4.7	.0	.0
Palestine	510	64	72	29.41	29.93	−.06	81.8	+4.8	95	18	91	68	11	73	23	72	70	76	1.59	−1.3	8	4,776	s.	23	se.	12	15	8	7	4.2	.0	.0
Port Arthur	34	58	66	29.88	29.92		83.9		97	17	91	71	23	77	21	76	74	80	2.83	−2.0	10	4,978	s.	29	ne.	4	13	16	1	3.9	.0	.0
San Antonio	693	242	301	29.18	29.88	−.08	82.8	+3.8	97	19	92	72	30	74	23	73	70	74	3.18	+.1	7	7,446	s.	28	s.	12	7	16	7	5.5	.0	.0

TABLE 1.—*Climatological data for Weather Bureau stations, September 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 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							73.8	+5.0										75	3.85	+0.9										4.9		
Chattanooga	762	190	215	29.19	29.99	−0.07	77.0	+4.8	92	13	87	53	22	67	32	68	65	74	1.20	−1.9	6	4,387	sw.	23	se.	14	13	13	4	4.0	0.0	0.0
Knoxville	995	79	97	28.95	29.98	−.08	76.2	+5.6	92	25	87	52	22	65	35	67	64	76	3.50	+.8	6	3,550	ne.	21	nw.	28	16	10	4	3.6	.0	.0
Memphis	399	78	86	29.53	29.95	−.08	79.8	+6.2	92	18	88	60	21	72	22	72	69	76	2.94	+.1	9	4,599	sw.	22	n.	28	14	11	5	4.2	.0	.0
Nashville	546	168	191	29.41	29.99	−.07	77.0	+5.2	93	25	88	53	22	66	35	68	65	74	3.66	+.2	9	4,665	sw.	29	s.	13	11	13	6	4.7	.0	.0
Lexington	989	193	230	------	------	------	72.7	+4.2	91	8	83	47	21	63	28	------	------	------	5.47	------	10	------	e.	------	------	------	12	10	8	------	.0	.0
Louisville	525	188	234	29.40	29.98	−.08	75.6	+5.1	94	10	85	56	22	66	29	66	62	73	4.66	+1.9	10	5,747	s.	35	n.	10	13	6	11	4.9	.0	.0
Evansville	431	76	116	29.49	29.95	−.11	77.3	+6.6	95	10	86	54	21	68	26	68	64	74	2.52	−.8	9	5,196	s.	27	sw.	26	14	5	11	4.4	.0	.0
Indianapolis	822	194	230	29.07	29.94	−.12	73.2	+6.3	95	8	82	50	21	64	27	64	59	70	5.27	+1.9	12	6,591	s.	30	nw.	20	13	4	13	5.2	.0	.0
Terre Haute	575	96	129	29.32	29.93	------	74.5	------	96	9	84	52	21	64	28	65	61	71	5.16	+1.5	12	5,621	sw.	25	w.	20	14	5	11	4.8	.0	.0
Cincinnati	627	11	51	29.29	29.96	−.11	73.0	+5.9	96	11	84	50	21	62	31	64	61	76	4.72	+2.1	12	4,281	sw.	23	nw.	19	13	5	12	5.1	.0	.0
Columbus	822	216	230	29.10	29.96	−.11	70.4	+3.9	93	9	79	49	28	61	31	62	59	74	4.45	+1.9	10	6,681	s.	31	w.	20	11	6	13	5.0	.0	.0
Elkins	1,947	59	67	28.00	30.00	−.08	67.0	+4.0	86	25	78	44	30	56	36	61	59	87	5.62	+2.5	14	3,494	w.	21	sw.	20	5	14	11	6.0	.0	.0
Parkersburg	637	77	82	29.35	30.00	−.08	71.8	+4.5	92	9	82	47	22	61	36	64	61	79	2.20	−.6	9	3,698	se.	16	nw.	21	10	7	13	5.4	.0	.0
Pittsburgh	842	353	410	29.07	29.96	−.12	69.0	+2.6	91	8	78	50	30	60	29	62	58	76	4.20	+1.6	13	6,241	sw.	28	sw.	20	6	12	12	6.2	.0	.0
Lower Lake Region							66.0	+3.0										74	2.84	−0.1										6.0		
Buffalo	767	243	280	29.10	29.92	−.14	61.5	+2.1	85	2	71	47	11	58	24	58	55	74	.98	−1.9	10	9,666	sw.	45	sw.	26	6	12	12	6.1	.0	.0
Canton	448	10	61	29.42	29.90	------	61.2	+1.9	83	2	72	34	12	51	32	------	------	------	2.70	−.6	11	4,703	sw.	25	w.	20	6	13	11	6.0	.0	.0
Ithaca	836	74	100	29.04	29.94	------	63.2	+1.6	87	8	73	37	12	53	36	58	55	79	2.77	−.3	12	5,612	nw.	24	s.	30	3	9	18	7.3	.0	.0
Oswego	335	71	85	29.55	29.91	−.15	63.2	+2.0	84	8	70	42	12	56	27	58	55	77	1.45	−1.3	9	6,013	s.	21	sw.	20	3	11	16	7.0	.0	.0
Rochester	523	86	102	29.37	29.93	−.13	64.6	+2.2	88	8	73	44	12	56	31	58	54	71	.71	−1.7	8	5,210	w.	25	w.	20	5	10	15	6.6	.0	.0
Syracuse	596	65	79	29.30	29.94	−.13	64.4	+2.8	87	8	73	43	12	56	28	------	------	------	1.70	−1.0	10	4,697	s.	19	nw.	10	2	13	15	7.1	.0	.0
Erie	714	130	166	29.17	29.93	−.13	67.0	+3.4	90	8	75	49	28	59	27	61	57	75	3.82	+.4	11	8,905	s.	31	sw.	26	14	7	9	4.8	.0	.0
Cleveland	762	267	337	29.13	29.94	−.12	68.2	+4.3	90	6	75	51	28	61	24	60	56	68	2.73	−.6	10	9,446	s.	43	w.	20	11	8	11	5.3	.0	.0
Sandusky	629	5	67	29.28	29.95	−.11	69.0	+3.7	98	8	78	47	28	60	33	------	------	------	4.38	+1.4	10	6,151	sw.	23	w.	20	6	15	9	6.0	.0	.0
Toledo	628	79	87	29.27	29.94	−.12	68.6	+4.2	95	8	77	51	22	60	26	61	58	74	3.51	+.7	11	6,438	sw.	25	w.	17	13	9	8	4.7	.0	.0
Fort Wayne	857	69	84	29.02	29.94	------	69.0	+3.5	95	9	78	48	28	60	27	62	59	77	7.44	+4.4	15	5,962	sw.	25	w.	17	10	9	11	5.5	.0	.0
Detroit	730	218	258	29.16	29.94	−.12	68.5	+5.0	97	8	77	50	12	60	29	60	56	71	1.94	−1.0	13	7,059	sw.	30	sw.	17	10	11	9	5.0	.0	.0
Upper Lake Region							64.2	+4.7										75	3.41	+.01										5.5		
Alpena	609	13	89	29.25	29.91	−.12	61.4	+3.8	86	8	70	39	12	53	32	57	54	82	3.77	+.8	16	7,868	nw.	27	sw.	30	10	12	8	4.7	.0	.0
Escanaba	612	54	60	29.24	29.89	−.12	61.1	+4.0	82	19	70	39	29	52	27	55	51	76	2.74	−.6	8	7,180	s.	35	nw.	6	5	17	8	5.9	.0	.0
Grand Rapids	707	70	244	29.16	29.92	−.13	68.0	+5.3	93	8	78	47	29	59	26	60	55	71	3.59	+.1	13	8,266	sw.	43	sw.	25	12	6	12	5.2	.0	.0
Lansing	878	6	88	28.99	29.92	------	65.6	+4.2	94	8	76	43	29	55	30	60	57	80	5.37	+2.5	12	6,235	w.	29	w.	17	9	10	11	5.3	.0	.0
Ludington	637	60	66	29.21	29.91	------	64.2	+4.9	85	7	72	43	27	56	28	58	------	------	.95	−2.3	9	------	sw.	------	------	------	9	10	11	------	.0	.0
Marquette	734	77	111	29.08	29.87	−.13	61.6	+4.1	86	5	70	41	29	53	32	54	50	71	4.03	+.8	9	7,591	w.	33	sw.	29	5	13	12	6.5	.0	.0
Sault Ste. Marie	614	11	52	29.22	29.91	−.11	59.7	+4.2	86	2	68	38	29	51	32	53	50	78	3.59	−.6	11	5,484	nw.	23	nw.	17	12	8	10	5.3	.0	.0
Chicago	673	7	131	29.20	29.92	−.12	69.8	+4.6	96	8	78	48	29	62	25	62	58	73	3.78	+.6	10	7,244	s.	30	w.	17	14	3	13	5.2	.0	.0
Green Bay	617	109	141	29.23	29.88	−.14	65.8	+5.4	96	8	76	41	27	56	30	58	53	70	2.01	−1.5	10	7,970	s.	35	nw.	20	5	11	14	6.2	.0	.0
Milwaukee	681	97	221	29.18	29.91	−.12	68.5	+6.0	95	8	76	47	27	61	25	60	55	68	2.57	−.7	9	9,662	w.	32	nw.	17	11	7	12	5.0	.0	.0
Duluth	1,133	5	47	28.64	29.84	−.14	60.1	+5.0	80	3	69	37	29	51	41	54	50	78	5.14	+1.8	13	8,937	ne.	37	w.	20	7	13	10	5.8	.0	.0
North Dakota							61.6	+4.4										58	0.75	−0.8										4.3		
Moorhead	940	50	58	28.81	29.81	−.15	63.2	+5.0	87	1	75	32	26	51	39	54	47	63	1.11	−1.1	7	6,775	s.	30	nw.	19	10	13	7	5.0	.0	.0
Bismarck	1,674	8	57	28.05	29.80	−.14	62.9	+4.8	97	18	77	30	26	49	45	51	42	55	.37	−.9	6	6,986	w.	35	nw.	18	16	8	6	4.1	.0	.0
Devils Lake	1,478	11	44	28.25	29.81	−.13	60.6	+4.7	93	18	74	31	28	47	42	49	41	59	.60	−1.0	5	7,634	w.	41	nw.	19	12	9	9	4.8	.0	.0
Grand Forks	833	12	67	------	------	------	61.6	------	86	1	75	32	26	49	37	52	------	------	1.80	------	9	------	nw.	40	se.	18	7	12	11	------	.0	.0
Williston	1,878	41	48	27.84	29.80	−.13	59.8	+3.2	96	4	73	32	26	47	44	49	40	57	.93	−.2	2	7,281	w.	38	nw.	18	17	8	5	3.4	.0	.0
Upper Mississippi Valley							71.2	+5.9										71	3.99	+0.4										4.4		
Minneapolis	918	102	208	28.88	29.85	------	67.4	+5.8	94	8	77	45	27	58	32	57	50	60	3.44	+.3	7	8,377	se.	35	se.	1	12	9	9	4.7	.0	.0
La Crosse	714	11	48	29.11	29.87	−.14	66.2	+4.0	96	8	77	36	27	55	37	59	55	75	4.63	+.6	14	3,636	s.	15	s.	25	12	8	10	5.1	.0	.0
Madison	974	70	78	28.87	29.89	−.14	67.2	+4.8	92	8	76	43	27	58	26	59	54	71	3.58	−.1	13	6,371	sw.	24	n.	4	10	9	11	5.0	.0	.0
Charles City	1,015	10	51	28.83	29.89	−.11	66.4	+5.3	95	8	78	35	27	55	37	58	54	73	3.92	+.2	11	5,195	se.	21	w.	19	14	9	7	4.1	.0	.0
Davenport	606	118	143	29.25	29.91	−.12	72.1	+6.5	98	9	83	45	27	62	32	62	57	69	3.04	−.5	8	7,043	sw.	35	sw.	25	14	8	8	4.7	.0	.0
Des Moines	861	5	99	28.99	29.88	−.14	70.5	+4.9	98	9	82	39	27	59	37	62	58	71	2.40	−1.3	7	6,807	s.	32	s.	25	13	11	6	4.0	.0	.0
Dubuque	700	81	96	29.16	29.89	−.14	68.4	+4.4	95	8	79	42	27	58	34	60	55	71	3.28	−.7	13	4,776	s.	35	ne.	4	12	8	10	5.0	.0	.0
Keokuk	614	64	78	29.25	29.92	−.11	73.6	+6.1	97	9	85	46	27	62	36	64	59	68	2.25	−1.6	8	5,092	sw.	21	sw.	25	14	8	8	4.1	.0	.0
Cairo	358	87	93	29.56	29.94	−.11	77.1	+5.6	93	9	85	54	21	69	26	70	68	82	7.81	+4.9	10	4,505	s.	31	sw.	27	14	7	9	4.5	.0	.0
Peoria	609	11	45	29.27	29.93	−.11	72.6	+8.3	100	9	85	43	21	60	39	63	59	74	5.92	+1.9	9	4,103	sw.	20	ne.	4	15	10	5	3.8	.0	.0
Springfield, Ill	636	5	191	29.25	29.91	−.14	75.3	+7.7	98	10	86	53	21	64	30	65	60	69	5.05	+1.4	9	7,355	s.	27	nw.	20	16	5	9	4.0	.0	.0
St. Louis	568	265	303	29.32	29.92	−.12	77.4	+7.3	99	10	87	56	27	68	26	67	62	69	2.60	−.9	9	7,567	s.	31	sw.	25	16	5	9	4.1	.0	.0
Missouri Valley							72.2	+5.7										67	3.70	+0.3										3.7		
Columbia, Mo	784	6	84	29.10	29.91	−.12	74.4	+6.2	96	8	86	49	27	63	37	------	------	------	3.92	−.4	10	5,078	sw.	24	sw.	25	15	10	5	3.5	.0	.0
Kansas City	963	10	86	28.89	29.89	−.13	75.7	+6.8	95	11	85	47	27	66	26	66	61	67	2.69	−1.9	6	5,158	s.	24	nw.	19	15	10	5	3.8	.0	.0
St. Joseph	967	11	49	28.87	29.88	------	73.4	------	96	11	85	43	27	62	36	64	60	72	3.44	−.4	12	5,399	sw.	23	nw.	19	15	11	4	3.3	.0	.0
Springfield, Mo	1,324	98	104	28.56	29.93	−.10	74.4	+5.5	91	18	83	54	27	66	27	67	65	77	7.02	+3.5	11	5,879	s.	22	w.	28	15	7	8	4.2	.0	.0
Iola	984	11	50	28.87	29.88	−.13	75.4	+5.6	93	17	86	47	27	65	33	------	------	------	4.06	−.9	7	------	s.	------	------	------	14	8	8	------	.0	.0
Topeka	987	65	87	------	------	------	74.4	+5.7	97	9	86	44	27	63	33	------	------	------	2.30	−1.5	6	6,303	s.	31	s.	25	17	8	5	3.4	.0	.0
Lincoln	1,189	11	81	28.62	29.86	−.13	71.5	+5.1	98	10	83	37	27	60	34	62	58	70	4.81	+1.8	7	7,387	s.	38	w.	25	16	8	6	3.5	.0	.0
Omaha	1,105	115	122	28.72	29.87	−.13	71.6	+4.8	97	8	82	38	27	61	32	62	57	67	4.72	+1.5	9	5,646	s.	31	n.	1	18	6	6	3.5	.0	.0
Valentine	2,598	47	54	27.20	29.87	−.09	67.2	+4.7	99	5	82	37	30	53	48	55	47	59	.37	−.9	4	6,462	w.	31	sw.	5	16	7	7	3.7	.0	.0
Sioux City	1,135	94	164	28.66	29.84	−.14	69.8	+6.4	96	8	81	41	27	59	36	60	54	64	5.83	+2.8	8	8,378	s.	32	nw.	30	15	7	8	4.4	.0	.0
Huron	1,306	59	74	28.47	29.84	−.12	67.4	+6.1	105	5	80	37	27	55	41	56	49	61	1.56	.0	5	7,091	se.	34	nw.	30	15	9	6	3.9	.0	.0

TABLE 1.—*Climatological data for Weather Bureau Stations, September 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 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							59.3	+1.9										55	0.96	−0.2										3.6		
Billings	3,140	5					59.4		97	4	78	28	26	41	60				.14		2		nw.				17	6	7		0.0	0.0
Havre	2,505	11	67	27.22	29.82	−.12	57.2	+.8	89	17	70	30	26	44	46	47	38	57	.45	−.8	7	7,408	sw.	40	w.	29	13	14	3	3.6	.0	.0
Helena	4,124	89	113	25.70	29.85	−.12	55.0	−1.6	87	5	67	28	25	43	39	45	37	56	.66	−.6	9	6,119	sw.	30	sw.	23	12	10	8	4.5	T	.0
Kalispell	2,973	48	56	26.84	29.88	−.08	52.2	−1.3	82	4	64	27	26	40	40	45	39	67	1.04	−.2	9	4,701	nw.	25	ne.	5	9	6	15	5.8	T	.0
Miles City	2,371	48	55	27.34	29.85	−.10	63.2	+2.0	95	4	76	34	26	50	42			48	.90	−.1	3	4,857	s.	36	nw.	18	20	6	4	3.1	.0	.0
Rapid City	3,259	50	58	26.52	29.87	−.09	64.7	+4.3	97	5	78	30	26	51	43	53	43	51	.11	−1.1	4	6,039	w.	35	nw.	22	18	7	5	3.2	.0	.0
Cheyenne	6,088	84	101	24.02	29.86	−.10	60.8	+3.8	89	5	73	37	25	48	40	48	40	54	2.06	+.9	9	7,563	w.	38	w.	15	12	13	5	4.4	.0	.0
Lander	5,372	60	68	24.60	29.85	−.11	59.4	+3.7	90	4	76	27	26	43	48	46	33	45	.15	−.8	4	4,733	sw.	47	sw.	15	21	8	1	2.1	.0	.0
Sheridan	3,790	10	47	26.00	29.86		58.4		96	4	76	26	26	41	59	47	38	58	.51	−.8	5	3,679	nw.	27	sw.	5	20	7	3	2.8	T	.0
Yellowstone Park	6,241	11	48	23.86	29.88	−.09	51.6	−1.8	80	4	65	26	30	38	41	40	30	50	1.73	+.5	7	6,713	sw.	40	sw.	22	17	8	5	3.4	3.5	.0
North Platte	2,821	11	51	26.98	29.86	−.11	69.2	+7.1	96	6	83	42	30	56	43	58	52	66	2.01	+.7	4	5,268	s.	25	nw.	15	16	9	5	3.3	.0	.0
Middle slope							73.2	+5.1										61	1.80	−0.2										3.1		
Denver	5,292	106	113	24.71	29.84	−0.12	67.7	+4.8	96	5	81	43	26	55	39	52	40	45	1.17	+.2	5	5,589	s.	27	n.	25	19	7	4	3.2	0.0	0.0
Pueblo	4,685	80	86	25.26	29.84	−.12	69.8	+5.2	100	6	86	40	27	54	48	53	43	48	.41	−.3	4	4,821	n.	24	nw.	21	21	6	3	2.6	.0	.0
Concordia	1,392	50	58	28.44	29.88	−.11	73.0	+4.7	97	10	85	42	27	61	35	63	58	68	3.47	+.9	5	6,208	s.	25	sw.	25	22	4	4	2.9	.0	.0
Dodge City	2,509	10	86	27.33	29.87	−.11	74.2	+4.8	97	24	87	48	27	62	38	61	55	60	1.01	−.9	4	9,142	s.	35	s.	24	22	6	2	1.9	.0	.0
Wichita	1,358	85	93	28.47	29.86	−.14	76.0	+5.4	96	23	86	48	27	66	33	66	62	70	1.39	−1.7	6	7,695	s.	32	sw.	25	18	5	7	3.8	.0	.0
Oklahoma City	1,214	10	47	28.63	29.88	−.11	78.6	+5.8	95	17	89	55	27	68	30	69	66	73	3.37	+.3	7	6,956	s.	24	se.	25	14	9	7	4.3	.0	.0
Southern slope							79.4	+5.8										63	1.07	−1.4										3.2		
Abilene	1,738	10	52	28.11	29.86	−.10	83.2	+7.9	98	7	94	68	5	72	28	69	64	62	.40	−2.3	3	6,802	s.	22	s.	26	16	11	3	3.2	.0	.0
Amarillo	3,676	10	49	26.23	29.87	−.09	75.7	+6.4	97	23	88	55	27	64	33	62	56	59	.88	−1.4	2	7,082	s.	21	s.	25	19	9	2	2.8	.0	.0
Big Spring	2,537	5	62	27.32	29.87		79.2		96	23	90	64	19	68	31	68	64	69	.70		4		s.				21	6	3	3.2	.0	.0
Del Rio	944	64	71	28.86	29.82	−.12	83.5	+4.3	96	4	92	70	24	75	22	72	67	65	1.35	−1.6	6	7,031	se.	26	se.	24	12	14	4	4.7	.0	.0
Roswell	3,566	75	85	26.32	29.85	−.07	75.0	+4.7	94	28	88	58	29	62	34	63	57	62	1.67	−.4	7	5,109	s.	24	ne.	30	23	5	2	2.0	.0	.0
Southern plateau							75.4	+4.6										51	0.81	0.0										2.2		
El Paso	3,778	152	175	26.12	29.79	−.09	79.8	+5.9	96	3	91	63	9	69	29	63	55	50	.99	−.3	2	5,486	e.	41	s.	9	23	5	2	2.1	.0	.0
Albuquerque	4,972	51	66	25.04	29.79		70.8		92	3	85	50	26	56	37	57	48	54	1.12		8	5,282	se.	27	se.	30	20	8	2	2.5	.0	.0
Santa Fe	7,013	38	53	23.31	29.82	−.11	65.5	+4.6	87	6	78	45	26	53	32	51	41	49	1.24	−.2	5	4,236	se.	18	se.	8	19	5	6	3.0	.0	.0
Flagstaff	6,907	10	59	23.39	29.80	−.09	61.9	+6.4	84	4	77	38	28	47	44	50		60	1.12		5	5,544	n.	23	sw.	24	10	12	8		.0	.0
Phoenix	1,108	10	107	28.61	29.72	−.09	86.8	+4.1	110	5	100	63	27	74	38	67	56	43	1.62	+.9	4	4,135	e.	21	sw.	8	23	3	4	2.4	.0	.0
Yuma	141	9	54	29.56	29.70	−.08	87.5	+3.8	111	5	102	61	25	73	44	70	61	50	.20	−.2	1	3,768	sw.	21	s.	20	27	1	2	1.2	.0	.0
Independence	3,957	5	26	25.88	29.84	−.02	70.7	+2.7	94	1	89	46	19	53	43	49			.00	−.1	0		se.				29	1	0		.0	.0
Middle Plateau							65.4	+3.5										35	0.35	−0.3										1.7		
Reno	4,532	74	81	25.40	29.82	−.13	63.6	+3.9	91	1	81	37	21	46	44	46	30	35	.00	−.3	0	5,497	sw.	32	w.	20	28	1	1	.6	.0	.0
Tonopah	6,090	12	20				66.4		84	1	78	41	26	55	31	46	27	25	.00		0		se.									
Winnemucca	4,344	18	56	25.55	29.88	−.05	59.4	+.2	92	2	80	31	23	39	54	43	28	37	.34	−.1	2	5,452	sw.	29	sw.	14	27	1	2	1.3	.0	.0
Modena	5,473	10	46	24.57	29.80	−.12	65.2	+5.2	89	5	83	37	19	47	48	48	32	35	.05	−.7	1	8,392	sw.	36	sw.	17	26	3	1	1.5	.0	.0
Salt Lake City	4,360	86	210	25.54	29.82	−.13	67.8	+3.4	94	5	81	44	26	55	39	51	36	35	.34	−.6	1	5,868	nw.	24	se.	9	24	4	2	2.0	.0	.0
Grand Junction	4,602	60	68	25.32	29.84	−.11	71.2	+5.0	95	5	84	49	30	58	38	54	41	42	1.04	+.1	8	4,999	se.	23	se.	21	18	9	3	3.2	.0	.0
Northern Plateau							59.1	−1.3										49	0.70	0.0										4.0		
Baker	3,471	48	53	26.38	29.93	−.06	54.2	−1.8	88	33	69	27	30	39	47	45	35	54	.75	.0	8	4,665	se.	22	sw.	20	1 1	13	6	4.3	.7	.0
Boise	2,739	79	87	27.08	29.90	−.07	61.2	−.7	91	3	76	33	30	47	40	48	34	40	.12	−.4	2	3,785	nw.	18	nw.	14	20	4	6	3.0	.0	.0
Pocatello	4,477	60	68	25.41	29.86	−.10	61.6	+1.4	89	5	76	32	26	47	42	45	29	35	.16	−.6	3	6,489	se.	31	sw.	21	23	2	5	2.4	.0	.0
Spokane	1,929	101	110	27.85	29.88	−.10	56.8	−2.4	83	3	68	30	25	45	35	48	39	58	1.25	+.4	8	4,891	sw.	26	w.	22	10	9	11	5.4	.0	.0
Walla Walla	991	57	65	28.84	29.90	−.10	62.0	−1.8	88	4	73	39	30	51	33	52	42	53	1.27	+.3	10	4,261	s.	23	w.	22	11	12	7	4.5	.0	.0
Yakima	1,076	58	67	28.75	29.90		58.6	−2.5	86	2	70	32	25	47	34	49	40	56	.62	+.1	5	4,190	nw.	26	sw.	22	13	13	4	4.4	.0	.0
North Pacific Coast Region							56.9	−1.6										75	3.60	+1.4										6.6		
North Head	211	11	56	29.72	29.94	−.09	54.6	−1.9	62	4	58	44	23	51	15	53	51	89	6.58	+3.6	21	11,800	s.	68	s.	21	4	4	22	7.9	.0	.0
Seattle	125	90	321	29.78	29.91	−.10	57.6	−.5	80	9	64	39	25	51	30	52	48	75	3.02	+1.2	16	7,363	s.	41	sw.	22	2	13	15	7.0	.0	.0
Tatoosh Island	86	10	54	29.80	29.90	−.11	53.2	+.2	59	18	56	45	21	50	10	52	50	90	7.81	+3.1	21	9,583	s.	62	s.	28	3	3	24	8.4	.0	.0
Medford	1,329	29	58	28.52	29.91		60.2		90	1	76	35	30	44	48	50	41	58	.31	−.2	5	4,307	nw.	27	w.	17	12	11	7	3.9	.0	.0
Portland, Oreg.	153	68	106	29.78	29.94	−.09	59.6	−2.1	82	3	67	40	25	52	28	54	49	72	2.97	+1.0	16	4,777	nw.	23	w.	20	3	11	16	7.0	.0	.0
Roseburg	510	75	99	29.41	29.96	−.06	59.4	−3.5	84	3	71	39	30	48	38	52	46	68	.79	−.5	13	3,616	n.	24	sw.	20	9	10	11	5.7	.0	.0
Middle Pacific Coast Region							64.3	−0.5										66	0.24	−0.4										3.0		
Eureka	62	73	89	29.92	29.99	−.02	55.4	−.5	70	5	61	46	23	50	21	53	52	89	.70	−.3	8	4,813	n.	25	nw.	29	9	6	15	6.0	.0	.0
Red Bluff	330	5	58	29.49	29.84	−.09	72.3	−.8	98	1	87	50	21	58	39	56	42	41	.08	−.7	3	4,631	nw.	25	se.	17	25	3	2	1.7	.0	.0
Sacramento	69	106	117	29.78	29.85	−.04	68.3	−1.0	93	30	82	49	12	54	36	56	47	55	.03	−.4	2	5,554	s.	25	sw.	17	28	1	1	.5	.0	.0
San Francisco	155	208	243	29.73	29.90	−.04	61.2	+.3	82	30	68	50	13	54	28	55	52	79	.14	−.3	2	4,904	sw.	22	w.	23	15	8	7	3.8	.0	.0
South Pacific Coast Region							66.6	−3.2										68	0.00	−0.2										3.4		
Fresno	327	97	105	29.49	29.84	−.03	72.4	−1.0	97	1	88	53	5	57	41	57	46	46	.00	−.2	0	4,579	nw.	18	sw.	17	28	2	0	.5	.0	.0
Los Angeles	338	159	191	29.51	29.87	−.01	64.6	−4.4	81	19	73	51	16	56	24	58	54	77	.00	−.2	0	3,651	sw.	13	sw.	9	11	17	2	3.8	.0	.0
San Diego	87	62	70	29.77	29.86	−.03	62.8	−4.3	70	5	67	53	18	59	15	58	56	81	.02	−.1	1	4,789	nw.	19	nw.	18	7	12	11	6.0	.0	.0
West Indies																																
San Juan, P.R.	82	9	54	29.83	29.91		80.1	−.4	90	13	85	72	16	75	13				7.28	+1.4	21	7,111	e.	34	ne.	3	1	22	7	6.4	.0	.0
Panama Canal																																
Balboa Heights	118	6	97		[1] 29.84	+.02	79.3	−.5	87	4	85	71	20	74	15			[1] 88	5.18	−2.8	17	4,821	s.	26	s.	28	0	6	24	8.5	.0	.0
Cristobal	36	6	97		[1] 29.82	.00	81.5	+1.1	91	12	88	72	4	76	18	75	74	[1] 82	9.11	−3.1	22	4,598	se.	27	se.	4	2	12	16	7.4	.0	.0
Alaska																																
Fairbanks	454	68	87	[2] 29.22	[2] 29.74		41.8		68	7	51	26	20	32	33	38	31	68	.46	−1.0	8	3,478	n.	27	nw.	7	2	7	21	8.0	1.6	.0
Juneau	80	11	50	[2] 29.65	[2] 29.74		49.4		64	15	55	37	5	44	25	46	41	76	4.56		17	4,451	s.	23	se.	7	3	2	25	8.4	.0	.0
Hawaiian Islands																																
Honolulu	38	86	100	[2] 30.02	[2] 30.06		76.5	−1.7	83	25	81	69	12	72	12	68	64	67	.44	−.8	11	7,918	e.	24	e.	6	6	18	6	5.1	.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 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 of the air: Departure from normal	Temperature of the air: Mean maximum	Temperature of the air: Mean minimum	Temperature of the air: Highest	Temperature of the air: Lowest	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Total snowfall
	Feet	*In.*	*In.*	*In.*	*°F.*	*°F.*	*°F.*	*°F.*	*°F.*	*°F.*	*In.*	*In.*	*In.*
Cape Race, Newfoundland	99												
Sydney, Cape Breton Island	48	29.82	29.87	−0.14	58.1	+1.6	66.5	49.8	79	38	4.98	+1.70	0.0
Halifax, Nova Scotia	88	29.62	29.72	−.32	58.4	+.8	65.0	51.8	80	42	5.59	+1.88	.0
Yarmouth, Nova Scotia	65	29.77	29.84	−.21	57.8	+1.7	64.8	50.9	75	41	4.92	+1.31	.0
Charlottetown, Prince Edward Island	38	29.77	29.81	−.20	58.3	+1.0	64.2	52.4	77	43	3.70	+.30	.0
Chatham, New Brunswick	28	29.72	29.75	−.25	57.1	+1.7	68.0	46.2	84	32	3.37	+.66	.0
Father Point, Quebec	20												
Quebec, Quebec	296	29.57	29.89	−.12	57.0	+1.9	64.1	49.8	78	38	2.25	−1.42	.0
Doucet, Quebec	1,236				51.0		62.9	39.2	82	19	2.94		T
Montreal, Quebec	187												
Ottawa, Ontario	236	29.63	29.89	−.15	62.2	+4.8	72.7	51.6	89	36	1.67	−1.02	.0
Kingston, Ontario	285	29.60	29.91	−.13	63.0	+3.0	70.3	55.8	85	40	3.03	+.23	.0
Toronto, Ontario	379	29.52	29.92	−.14	62.8	+3.8	71.8	53.7	90	39	1.35	−1.90	.0
Cochrane, Ontario	930												
White River, Ontario	1,244	28.55	29.86	−.12	50.7	+.4	63.4	38.1	78	20	3.79	+1.02	.0
London, Ontario	808				63.6		74.9	52.3	96	35	2.48		.0
Southampton, Ontario	656	29.21	29.92	−.13	62.0	+4.5	71.4	52.6	87	36	3.61	+.67	.0
Parry Sound, Ontario	688	29.22	29.90	−.13	60.7	+4.7	69.2	52.2	86	35	3.89	+.22	.0
Port Arthur, Ontario	644	29.14	29.85	−.13	58.3	+6.1	67.2	49.4	84	36	4.27	+.79	.0
Winnipeg, Manitoba	760	28.96	29.78	−.16	56.6	+4.1	66.0	47.1	79	32	2.69	+.66	.0
Minnedosa, Manitoba	1,690	27.99	29.78	−.16	53.0	+2.5	63.6	42.5	77	28	2.18	+.82	.0
Le Pas, Manitoba	860				50.6		59.5	41.7	76	28	1.69		.0
Qu'Appelle, Saskatchewan	2,115	27.52	29.74	−.18	52.3	+1.2	63.6	41.0	83	26	1.73	+.40	.0
Moose Jaw, Saskatchewan	1,759												
Swift Current, Saskatchewan	2,392	27.24	29.73	−.19	54.0	+.9	65.6	42.5	83	29	1.85	+.63	.0
Medicine Hat, Alberta	2,365	27.28	29.74	−.18	55.3	+.3	66.8	43.8	87	29	.65	−.53	.0
Calgary, Alberta	3,540	26.11	29.76	−.16	49.0	−.8	60.8	37.3	74	17	.20	−1.16	T
Banff, Alberta	4,521												
Prince Albert, Saskatchewan	1,450	28.22	29.78	−.12	52.3	+3.9	61.3	43.2	80	27	1.90	+.62	.0
Battleford, Saskatchewan	1,592												
Edmonton, Alberta	2,150												
Kamloops, British Columbia	1,262	28.55	29.82	−.15	56.1	−1.3	65.2	47.1	82	33	.86	+.01	.0
Victoria, British Columbia	230	29.64	29.89	−.12	54.3	−.5	60.2	48.3	68	40	2.86	+.70	.0
Barkerville, British Columbia	4,180												
Estevan Point, British Columbia	20				52.6		55.8	49.3	60	36	12.45		.0
Prince Rupert, British Columbia	170				50.8		57.2	44.4	66	36	9.31		.0
Hamilton, Bermuda	151	29.91	30.07	.00	79.1	+1.7	84.2	74.1	88	69	4.61	−1.90	.0

LATE REPORTS FOR AUGUST 1933

Cape Race, Newfoundland	99				55.3		62.6	47.9	75	38	9.11		0.0
Winnipeg, Manitoba	760	29.14	29.95	+0.01	66.7	+3.3	79.2	54.3	93	38	3.63	+0.6	.0
Qu'Appelle, Saskatchewan	2,115	27.71	29.92	−.01	64.2	+2.7	78.4	49.9	96	34	2.96	+1.32	.0
Swift Current, Saskatchewan	2,392	27.42	29.89	−.04	66.2	+2.2	81.1	51.4	97	38	4.63	+2.72	.0
Banff, Alberta	4,521	25.50	30.02	+.11	56.3	.0	71.9	40.7	87	30	2.99	+.46	T
Battleford, Saskatchewan	1,592	28.24	29.95	+.04	65.5	+2.9	81.4	49.5	93	30	1.94	−.42	.0
Kamloops, British Columbia	1,262	28.66	29.92	+.01	70.8	+2.2	85.0	56.7	98	46	.28	−.81	.0
Estevan Point, British Columbia	20				57.7		62.6	52.8	73	48	1.26		.0
Prince Rupert, British Columbia	170				59.4		67.6	51.2	82	45	4.52		.0
Hamilton, Bermuda	151	29.93	30.09	−.01	79.8	+.2	85.2	74.3	88	70	6.64	+.56	.0