CLIMATOLOGICAL DATA FOR DECEMBER 1948

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see REVIEW, January 1943, p. 15]

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 precipitations; 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.

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	51.2	+3.5	Eufaula	82	17	Valley Head	+12	26	4.53	−0.75	Elba	9.09	Peterman	2.33
Arizona	42.6	+.3	Mohawk	85	30	Fort Valley	−12	24	1.95	+.66	Workman Creek 1	7.74	Ehrenburg	.09
Arkansas	44.3	+1.5	2 stations	83	[1] 13	Batesville	+8	26	4.03	−.20	Paragould	8.18	Dumas	1.41
California	40.7	−4.9	do	85	9	Boca	−23	24	3.75	+.09	Gasquet R. S	18.70	Greenland Ranch	.00
Colorado	26.0	+.1	Eversoll Ranch	80	13	Kremmling	−39	25	1.12	+.24	Wolf Creek Pass 4 W	6.06	3 stations	T
Florida	65.8	+5.8	4 stations	89	[1] 10	Marianna Ind. School	+25	31	2.90	+.13	Vernon	8.64	2 stations	.01
Georgia	51.8	+4.0	Waycross	83	16	Blairsville Exp. Sta	+10	26	5.23	+.92	Blakely	9.13	Quitman	2.64
Idaho	19.7	−6.8	Deer Flat Dam	56	3	2 stations	−36	23	2.86	+.78	Roland (West Portal)	10.98	Chilly 4 SE (Barton F.).	.45
Illinois	34.0	+2.9	East St. Louis	78	15	Carlinville 4 E	−12	26	2.70	+.59	Cairo W B City	5.03	Quincy CAA	.55
Indiana	34.8	+2.6	Bloomington, Ind. U	73	15	2 stations	−8	26	3.50	+.78	Salem	5.34	W. Lafayette Purdue U.	2.47
Iowa	25.5	+.9	6 stations	64	4	Atlantic (AP)	−21	25	1.63	+.53	Oskaloosa	3.63	Mapleton 5 NW	.39
Kansas	34.4	+1.3	5 stations	75	[1] 3	Horton	−15	26	.42	−.49	Stillwell	1.53	4 stations	T
Kentucky	40.3	+2.5	Corbin	74	14	Farmers	−6	26	4.34	+.57	Mayfield 2 S	8.39	Anchorage	2.33
Louisiana	55.7	+3.2	Jennings	87	24	Plain Dealing	19	27	4.42	−.90	Weyanoke	10.81	Colfax	1.10
Maryland-Delaware.	38.2	+2.9	Great Falls, Md	71	13	Oakland, Md	−9	27	5.49	+2.35	Millington, Md	7.57	Cumberland, Md	3.85
Michigan	27.6	+2.0	Ann Arbor, U. of Mich	62	5	Kenton U. S. Forest	−22	26	1.98	−.06	Bloomingdale	3.60	Kenton U. S. Forest	.44
Minnesota	14.7	−1.1	Albert Lea	58	3	Bemidji Airport	−40	25	.92	+.16	Grand Marais Coast Guard.	2.49	Redwood Falls	T
Mississippi	51.7	+3.4	2 stations	83	15	Duck Hill	+17	31	4.41	−.86	Woodville	8.70	Port Gibson	1.82
Missouri	37.0	+2.8	Ozark Beach	81	14	Bethany	−26	26	2.17	0	Caruthersville	6.47	Lamar	.71
Montana	14.5	−8.8	Hardin	62	2	West Yellowstone	−39	23	.89	−.06	Haugan	5.33	Dunkirk	.06
Nebraska	25.7	−1.5	Valentine W B	70	3	Tecumseh	−21	26	.90	+.22	Pawnee City 6 SE	2.32	Curtis	.20
Nevada	27.9	−2.8	2 stations	74	[1] 3	Fish Creek Ranch	−28	24	1.01	+.03	Jarbidge	4.11	Thorne	T
New England	29.3	+2.9	4 stations	60	[1] 6	Lemington, 1 W, Vt	−26	25	3.73	+.40	Torrington 1, Conn	10.91	Middleton, Mass	.96
New Jersey	35.4	+1.8	2 stations	68	[1] 5	Runyon	−16	27	6.43	+2.90	Hammonton	8.32	Deepwater	4.37
New Mexico	37.8	+3.5	do	79	[1] 5	Selsor Ranch	−18	29	.70	−.01	Cloudcroft No. 2	5.75	21 stations	0
New York	29.2	+2.5	3 stations	60	[1] 7	Speculator	−23	25	4.17	+1.22	West Shoken	10.37	Stafford	1.01
North Carolina	46.1	+3.5	do	78	[1] 13	Celo	−5	26	4.89	+1.08	Hatteras WB City	8.91	Swannanoa	1.97
North Dakota	10.8	−2.5	Mott RR Station	59	2	Bottineau State Park	−35	10	.66	+.18	Rugby 1 N	2.09	2 stations	.06
Ohio	34.9	+3.2	3 stations	67	13	Millport 2 NW	−3	26	3.10	+.37	Chilo Dam 3, 4	4.90	Put-in-Bay Stone Lab	1.56
Oklahoma	42.7	+2.6	6 stations	85	[1] 13	Kenton	+5	24	1.02	−.69	Stilwell	5.17	11 stations	0
Oregon	28.4	−5.2	Modoc Orchard	68	12	Austin 3 S	−26	23	6.08	+2.12	Valsetz	29.88	Durkee	.63
Pennsylvania	32.6	+1.4	Huntingdon	69	14	Kane	−16	26	4.25	+1.18	George School	7.17	Warren	1.79
South Carolina	49.9	+3.1	Orangeburg, 2 Mi SE	83	17	Caesar's Head	+9	26	4.46	+.84	Caesar's Head	7.02	Charleston WB City	3.32
South Dakota	20.2	−1.9	2 stations	73	3	McLaughlin	−18	10	.29	−.22	2 stations	1.08	Sisseton	T
Tennessee	43.4	+2.6	4 stations	75	[1] 13	Bristol WB Airport	+5	26	6.01	+1.49	Dover 1 Mi NW	9.27	Memphis WB Airport	2.70
Texas	52.1	+3.2	McCook	95	24	Dalhart Exp. Station	+8	25	.69	−1.63	Palestine WB	4.70	37 stations	0
Utah	25.4	−2.4	Bluff	69	4	2 stations	−30	[1] 25	1.77	+.71	Alta	9.53	Fruita	.45
Virginia	40.5	+2.4	2 stations	79	6	Burkes Garden	−10	26	5.29	+2.22	Rockfish	8.76	Speedwell	2.54
Washington	27.2	−7.0	Moses Lake Devel. F	59	1	Chewelah 2 S	−27	24	6.02	+.58	Wind River	22.92	Quincy 4 S	.94
West Virginia	37.7	+3.1	2 stations	71	[1] 6	Union	−12	27	4.97	+1.71	Pickens No. 1	8.72	Wheeling, Ohio County, A. P.	2.96
Wisconsin	21.7	+1.1	do	60	4	Hatfield Power Co. Dam.	−25	26	1.41	+.12	Racine	3.64	Owen County Asylum	.34
Wyoming	18.7	−3.6	Midwest	69	3	Bondurant	−44	25	.99	+.28	Moose 3 NW	5.45	Powell	.06
Alaska (Nov.)	8.9	−5.2	Cape Decision	54	14	Allakaket	−58	[1] 25	3.16	+.41	Little Port Walter	34.11	2 stations	.12
Hawaii	68.9	−.9	Mahukona	90	5	Haleakala Ranger Sta.	+35	25	11.25	+3.43	Waiakamoi Gulch	64.73	3 stations	.00
Puerto Rico	74.2	−.1	Dos Bocas	96	1	Cidra	+49	31	4.40	+.07	St. Just (near Rio Piedras, P. R.).	18.00	Santa Isabel	.54

[1] Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR DECEMBER 1948

District and station	Elevation of instruments: Barometer above sea level[1]	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Averages: Mean maximum	Averages: Mean minimum	Averages: Mean	Averages: Departure from normal	Extremes: Highest	Extremes: Date	Extremes: Lowest	Extremes: Date	Greatest daily range	Total heating degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Days with 0.01 inch or more	Days with thunderstorms	Total snowfall (unmelted)	Snow, sleet, and ice on ground at end of month	Wind: Average hourly speed	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Character of day (sunrise to sunset), number of days: Clear	Partly cloudy	Cloudy	Average cloudiness, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Ft.	Ft.	Mb.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.		°F.		°F.	%	In.	In.	In.			In.	In.	m. p. h.					0-3	4-7	8-10	0-10	%
NEW ENGLAND									30.5	+4.0								79	3.55	−.2														6.7	
Caribou [2]	628	5	33	991.5	1,015.6	----	27	12	19.9	+6.7	42	6	−5	25	40	1,395	16	88	2.92	+.4	.77	12	0	16.1	8.0	----	nw.	--	------	--	4	8	19	7.5	---
Eastport	75	67	82	1,012.5	1,015.6	+.7	36	25	30.8	+4.5	52	6	4	25	27	1,060	23	72	3.68	−.1	1.24	9	1	1.9	.0	12.4	w.	48	e.	31	10	9	12	6.0	56
Portland, Me. [2]	103	6	43	1,012.2	1,016.3	−.6	39	21	29.8	+4.8	53	8	−2	27	34	1,090	22	81	3.83	−.1	1.36	9	1	4.0	.0	8.9	nw.	40	e.	31	11	9	11	5.3	58
Concord [2]	289	5	45	1,005.8	1,016.9	+.3	39	19	29.0	+5.0	54	7	−6	27	40	1,119	21	79	2.11	−1.0	.87	9	0	2.5	.0	7.0	nw.	37	e.	31	9	9	13	5.9	37
Mt. Washington	6,274	5	37	797.7	1,017.8	----	18	6	11.8	+3.2	41	5	−19	26	22	1,649	8	86	5.52	−1.6	1.42	17	0	23.1	5.0	41.0	nw.	--	------	--	4	6	21	7.6	29
Burlington [2]	403	6	51	1,001.4	1,016.6	−1.0	36	21	28.6	+4.2	54	5	−8	32	30	1,126	22	80	2.53	+.6	1.40	11	0	3.9	.0	9.7	s.	29	s.	29	1	10	20	8.6	20
Boston [2]	124	33	62	1,012.3	1,017.0	+.1	43	30	36.3	+3.8	58	7	7	26	26	892	26	68	1.25	−2.2	.59	9	0	5.5	.0	11.9	nw.	38	e.	31	10	6	15	6.3	58
Nantucket [2]	12	4	34	1,016.3	1,016.6	.0	44	32	37.8	+2.0	56	8	10	27	26	839	33	79	2.46	−1.3	1.19	12	1	3.1	.0	14.4	nw.	42	e.	19	7	5	19	6.9	35
Block Island	26	11	46	1,015.6	1,016.6	−.3	44	34	39.2	+3.2	57	6	11	26	23	801	34	82	2.59	−1.2	1.02	12	0	2.2	.0	18.7	nw.	46	ne.	19	8	9	14	6.4	45
Providence [2]	159	65	60	1,010.8	1,016.9	−.7	44	29	36.6	+5.0	60	7	7	27	33	884	26	74	2.30	−1.1	.93	14	0	13.4	.0	8.4	nw.	37	se.	31	10	6	15	6.2	53
Hartford [2]	159	5	44	1,011.5	1,017.6	−.7	42	23	32.2	+2.4	58	30	−2	27	35	1,019	26	80	5.50	+1.5	2.30	14	0	13.2	T	8.0	n.	36	se.	31	6	7	18	6.7	43
New Haven [2]	107	5	39	1,013.2	1,017.3	−1.0	42	26	34.0	+3.1	56	13	−3	27	35	965	26	76	7.88	+4.2	4.25	12	0	19.3	T	7.0	w.	25	e.	31	6	8	17	6.6	44
MIDDLE ATLANTIC									38.0	+2.8								76	5.27	+2.0														6.9	
Albany [2]	97	6	40	1,013.5	1,017.3	−1.0	37	21	29.2	+3.7	51	6	−6	27	32	1,111	23	81	6.05	+3.4	4.02	12	0	3.1	1.0	8.7	w.	34	nw.	6	5	5	21	7.4	35
Binghamton [4]	871	57	79	985.1	1,017.6	−.7	38	23	30.6	+2.4	57	5	0	27	31	1,068	22	80	4.36	+2.0	1.23	15	0	16.7	7.0	5.7	w.	26	se.	5	2	7	22	8.1	43
New York [4]	314	415	454	1,006.4	1,018.3	−.3	45	32	38.8	+3.8	59	13	10	26	29	816	26	64	6.52	+2.9	2.43	11	0	23.5	1.5	15.5	nw.	42	s.	30	8	8	15	6.5	56
Allentown [2]	385	4	58	1,004.4	1,019.0	----	41	22	31.5	−1.2	61	4	−1	27	31	1,037	25	81	5.06	+1.8	2.15	10	0	10.9	T	----	nw.	--	------	--	5	9	17	6.9	---
Harrisburg [2]	374	30	49	1,004.7	1,019.0	−1.0	42	27	34.2	+1.5	63	13	5	27	30	951	26	74	3.53	+.5	1.62	10	0	9.9	T	7.4	nw.	34	nw.	31	4	7	20	7.6	53
Philadelphia [4]	114	174	150	1,014.2	1,018.6	−1.0	45	33	39.2	+2.9	61	4	13	26	23	800	30	78	5.63	+2.2	2.15	12	0	7.5	.0	8.1	n.	23	nw.	31	6	13	12	6.4	55
Reading	323	47	306	1,006.4	1,019.0	−.6	44	29	36.1	+1.9	64	4	8	27	27	899	----	--	5.90	+2.3	2.14	12	0	9.6	T	10.3	nw.	35	w.	6	4	14	13	6.7	53
Scranton	805	72	104	988.2	1,018.3	−.7	39	25	32.2	+1.5	56	5	3	27	26	1,012	----	--	4.72	+1.7	1.95	9	0	11.9	3.0	6.2	n.	24	n.	25	2	16	13	6.9	33
Atlantic City	52	37	172	1,016.6	1,018.6	−1.0	47	34	40.8	+4.4	64	13	14	26	24	749	32	74	6.07	+2.1	1.79	10	0	.6	.0	16.7	n.	46	n.	19	5	11	15	7.0	57
Newark [2]	30	5	46	1,016.9	1,018.0	----	44	28	35.8	+2.4	59	13	3	27	28	907	26	74	5.84	+2.1	2.57	12	0	20.7	1.5	----	nw.	--	------	--	6	7	18	7.0	---
Trenton	190	89	107	1,011.2	1,018.3	−.7	44	30	37.0	+2.6	59	13	10	27	24	866	----	--	6.08	+2.7	2.67	13	0	12.2	.0	8.8	nw.	27	nw.	31	8	7	16	6.7	41
Baltimore [4]	123	100	215	1,014.2	1,019.0	−.6	47	34	40.8	+3.6	68	13	15	26	23	751	29	70	5.47	+2.1	1.42	7	0	6.8	.0	10.6	n.	39	nw.	31	5	12	14	6.6	43
Washington [4]	112	56	100	1,014.9	1,019.0	−1.0	48	33	40.6	+4.0	70	13	14	26	31	758	31	74	4.93	+1.6	1.30	9	0	4.5	.0	7.5	n.	26	nw.	31	5	7	19	7.4	45
Cape Henry	18	8	54	1,017.6	1,018.3	−.3	53	41	46.8	+3.1	69	29	20	27	26	561	40	78	4.36	+.9	1.68	10	1	T	.0	13.7	n.	49	nw.	25	9	7	15	6.4	50
Lynchburg [2]	686	5	58	993.9	1,019.0	−1.3	50	32	40.9	+3.6	70	14	10	27	30	745	31	76	6.74	+3.5	3.03	12	0	4.1	.0	8.2	s.	26	nw.	31	9	6	16	6.4	46
Norfolk [4]	91	80	125	1,015.6	1,019.0	−1.3	54	40	47.2	+4.1	70	13	19	26	25	551	36	78	4.09	+.8	1.39	13	1	1.2	.0	9.6	n.	34	n.	26	7	7	17	6.5	45
Richmond [4]	144	11	52	1,013.2	1,018.6	−1.7	52	35	43.6	+3.8	70	13	15	26	33	662	33	79	4.29	+1.0	1.44	9	0	.9	.0	7.4	s.	28	s.	29	8	7	16	6.3	50
SOUTH ATLANTIC									50.1	+4.1								78	4.51	+1.1														6.5	
Asheville	2,253	77	92	944.1	1,020.3	−1.4	51	33	42.1	+4.3	72	15	10	26	35	710	34	80	3.92	+.7	1.27	14	0	T	.0	8.5	nw.	26	nw.	31	7	5	19	6.7	51
Charlotte [4]	779	63	86	991.5	1,019.6	−1.1	55	40	47.3	+4.3	73	14	16	26	26	551	38	74	4.58	+.7	1.72	12	1	T	.0	7.0	sw.	21	nw.	31	7	5	19	6.6	51
Greensboro [2]	886	6	56	987.1	1,019.6	−1.1	53	33	42.8	+3.6	72	14	12	27	31	686	34	74	4.01	+.2	1.31	12	0	T	.0	7.6	sw.	26	n.	25	8	5	18	6.5	47
Hatteras	11	5	47	1,018.0	1,018.3	−1.3	57	46	52.0	+1.9	70	7	23	26	22	404	47	82	8.91	+4.7	2.93	15	1	T	.0	13.2	n.	37	n.	25	6	6	19	7.1	53
Raleigh [4]	376	5	71	1,003.1	1,019.3	−1.4	56	38	46.6	+3.6	74	13	14	26	30	568	37	78	4.13	+.6	1.06	12	0	T	.0	7.0	n.	22	nw.	31	2	13	16	7.0	34
Wilmington	72	73	107	1,018.0	1,019.3	−1.4	61	44	52.4	+3.3	76	16	21	26	26	397	45	82	4.95	+2.2	1.44	14	1	T	.0	9.0	n.	29	s.	3	8	10	13	6.0	50
Charleston [4]	48	11	92	1,017.6	1,019.3	−1.4	63	48	55.7	+4.0	77	12	25	26	28	297	46	79	3.32	+.6	1.21	11	1	.0	.0	9.3	n.	29	n.	26	8	5	18	6.5	51
Columbia, S. C. [4]	347	70	91	1,011.5	1,019.6	−1.4	60	42	51.2	+4.0	76	15	20	27	29	437	42	79	3.70	+.7	1.34	12	0	.0	.0	7.7	ne.	23	sw.	16	10	3	18	6.3	37
Greenville, S. C. [3]	1,040	18	36	981.7	1,019.6	−.4	54	38	46.2	+4.0	74	14	17	27	29	583	38	75	4.24	−.6	1.65	13	2	.0	.0	8.2	ne.	34	n.	25	9	4	18	6.6	42
Augusta [4]	182	62	77	1,004.1	1,019.6	−1.1	61	43	52.0	+3.9	78	16	24	26	30	415	41	72	4.88	+1.6	1.31	14	0	.0	.0	5.4	nw.	19	s.	29	10	3	18	6.3	48
Savannah [2]	65	19	51	1,018.0	1,020.0	−.7	67	47	50.7	+6.1	81	13	27	26	28	281	49	80	3.67	+.7	1.46	9	2	.0	.0	9.7	ne.	30	w.	30	8	7	16	6.4	44
Jacksonville [4]	43	86	110	1,018.3	1,019.3	−1.4	71	54	62.7	+6.4	81	12	37	31	33	138	56	86	3.78	+.8	.97	13	2	.0	.0	8.2	sw.	25	nw.	30	5	13	13	6.4	50
FLORIDA PENINSULA									72.5	+5.7								82	1.77	−.1														4.6	
Key West [4]	21	10	64	1,017.6	1,018.0	−.6	80	72	76.0	+5.7	85	9	63	31	13	0	70	83	3.05	+1.4	1.59	7	2	.0	.0	9.1	e.	31	nw.	30	13	11	7	4.6	60
Miami [4]	25	242	249	1,017.6	1,018.0	−1.3	78	68	73.5	+4.4	84	20	45	31	24	15	65	80	.62	−1.4	.15	7	2	.0	.0	12.8	se.	35	ne.	26	17	10	4	4.0	64
Tampa [2]	35	5	36	1,018.6	1,019.0	−1.0	77	59	68.0	+6.9	85	13	44	31	27	44	61	82	1.63	−.4	.85	7	1	.0	.0	7.3	ne.	27	sw.	19	10	15	6	5.3	62
EAST GULF									54.7	+4.4								80	4.43	−.5														6.8	
Atlanta [2]	1,173	33	72	984.4	1,019.6	−1.1	56	40	47.8	+3.6	74	14	22	26	31	532	40	76	4.11	−.7	1.20	13	2	.0	.0	9.4	nw.	35	nw.	19	5	5	21	7.4	34
Macon [4]	370	79	87	1,002.7	1,019.6	−1.1	60	42	51.5	+4.0	78	16	27	27	33	424	44	76	4.90	+.9	2.09	11	0	.0	.0	6.1	n.	22	nw.	30	5	5	21	7.3	39
Thomasville	273	48	----	1,010.5	1,020.7	−.3	67	48	57.8	+5.3	79	15	30	31	33	249	----	--	5.10	+.8	2.26	10	8	.0	.0	----	------	--	------	--	5	9	17	------	---
Apalachicola	35	11	51	1,018.3	1,019.6	−.7	67	53	60.1	+4.4	74	17	32	31	31	178	55	86	2.43	−2.7	.71	12	1	.0	.0	7.8	ne.	27	n.	25	8	9	14	5.9	52
Pensacola [4]	56	54	79	1,015.2	1,019.6	−1.1	66	51	58.8	+4.8	76	15	30	31	32	221	52	80	3.88	−.8	1.70	11	1	.0	.0	7.3	n.	23	n.	25	6	8	17	6.9	48
Anniston	618	6	32	997.6	1,020.3	----	58	38	48.1	+2.9	71	13	20	26	36	523	42	82	4.87	−.2	1.00	13	0	T	.0	----	------	--	------	--	3	14	14	------	---
Birmingham [2]	700	5	63	997.0	1,020.0	−1.3	58	39	48.8	+4.7	72	15	20	26	31	503	42	76	4.28	−.9	1.21	11	1	T	.0	8.6	se.	31	se.	29	5	8	18	6.9	35
Mobile [4]	57	86	161	1,011.9	1,020.0	−.7	66	50	58.0	+5.8	76	7	30	31	31	242	51	82	5.42	+.4	1.53	10	4	.0	.0	10.6	n.	34	n.	25	5	8	18	6.5	42
Montgomery [4]	218	92	105	1,019.6	1,019.6	−1.7	62	46	54.0	+4.6	77	15	27	26	31	356	46	79	3.18	−1.7	1.29	9	0	.0	.0	7.1	e.	21	n.	25	6	10	15	6.5	47
Meridian [4]	375	67	92	1,008.5	1,020.0	−1.0	64	41	52.4	+4.7	80	15	24	31	39	407	45	80	4.39	−.8	1.12	11	4	.0	.0	7.9	s.	--	------	--	7	3	21	7.0	---
Vicksburg [4]	247	82	102	1,009.5	1,019.0	−2.0	62	44	53.0	+3.0	76	15	27	26	31	386	43	78	4.70	−.6	2.63	8	6	.0	.0	9.2	s.	25	se.	29	6	6	19	7.1	31
New Orleans C. O.	53	76	84	1,017.3	1,019.3	−1.4	63	53	60.6	+5.0	80	15	35	26	30	192	54	84	5.18	+.4	1.41	14	4	.0	.0	6.3	se.	18	n.	25	8	5	18	6.4	40
New Orleans A. P. [3]	30	6	52	1,017.3	1,019.3	----	69	50	59.8	------	81	15	35	31	31	211	52	82	5.13	----	----	10	4	.0	.0	----	s.	--	------	--	6	9	16	6.4	.

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR DECEMBER 1948.—Continued

District and station	Elevation of instruments: Barometer above sea level [1]	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Averages: Mean maximum	Temperature of the air: Averages: Mean minimum	Temperature of the air: Averages: Mean	Temperature of the air: Averages: Departure from normal	Temperature of the air: Extremes: Highest	Temperature of the air: Extremes: Date	Temperature of the air: Extremes: Lowest	Temperature of the air: Extremes: Date	Temperature of the air: Extremes: Greatest daily range	Total heating degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Precipitation: Days with thunderstorms	Precipitation: Total snowfall (unmelted)	Precipitation: Snow, sleet, and ice on ground at end of month	Wind: Average hourly speed	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Character of day (sunrise to sunset), number of days: Clear	Character of day (sunrise to sunset), number of days: Partly cloudy	Character of day (sunrise to sunset), number of days: Cloudy	Average cloudiness, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Ft.	Ft.	Mb.	Mb.	Mb.	°F	°F	°F	°F	°F		°F		°F		°F	%	In.	In.	In.			In.	In.	m. p.h.					0-3	4-7	8-10	0-10	%
WEST GULF									55.9	+4.2								72	1.69	−1.2															6.4	
Shreveport [2]	181	5	64	1,009.8	1,019.0	−1.7	63	42	52.2	+2.9	82	13	27	31	33	425	44	77	2.75	−1.5	1.24	6	2	.0	.0	10.1	se.	30	nw.	5	7	7	17	6.8	53
Fort Smith [2]	463	6	30	1,001.0	1,017.6	−2.4	54	34	43.8	+1.7	80	13	20	10	37	653	32	69	3.74	+1.0	2.90	5	3	.0	.0	9.1	ne.	34	w.	5	8	7	16	6.6	54
Little Rock [2]	265	26	58	1,005.8	1,019.0	−1.7	55	37	45.8	+1.6	78	13	21	26	32	603	37	74	2.70	−1.4	1.04	8	2	T	.0	9.2	ne.	27	nw.	16	8	6	17	6.7	41
Austin [2]	621	5	41	996.6	1,018.3	−2.7	67	44	55.4	+4.4	84	12	29	30	41	320	44	70	1.67	−1.0	1.43	5	2	.0	.0	9.6	s.	30	n.	25	7	9	15	6.5	61
Brownsville [2]	20	5	54	1,014.6	1,016.6	−1.7	78	58	67.8	+6.6	85	5	40	30	35	70	59	80	.02	−1.8	.01	2	0	.0	.0	10.7	se.	33	s.	28	5	9	17	6.7	54
CorpusChristi [2]	44	6	33	1,017.3	1,018.0	−1.6	74	53	63.6	+7.1	86	21	37	31	36	129	54	76	.06	−1.4	.02	4	1	.0	.0	11.3	ne.	34	s.	28	7	9	15	6.4	58
Dallas [2]	488	34	45	999.3	1,018.3	−2.0	61	41	51.0	+3.3	81	13	22	10	36	447	38	64	3.04	+.7	2.50	5	1	.0	.0	11.8	s.	34	sw.	5	10	6	15	6.1	55
Fort Worth [2]	706	40	56	993.6	1,018.3	−1.7	62	41	51.4	+4.9	82	13	24	30	38	435	35	60	.44	−1.4	.29	5	0	T	.0	----	----	--	----	--	9	9	13	6.1	--
Galveston [4]	54	122	129	1,016.9	1,019.0	−1.3	66	55	60.8	+4.4	73	24	38	26	26	157	53	83	.93	−2.8	.36	8	1	.0	.0	11.8	s.	27	se.	28	7	9	15	6.5	41
Houston [4]	138	157	190	1,013.5	1,018.6	−1.7	68	51	59.7	+5.3	82	24	35	30	32	214	50	77	1.38	−2.8	.90	8	1	.0	.0	10.0	s.	27	n.	29	7	6	18	6.6	36
Laredo [2]	418	10	38	1,020.3	1,015.9	-----	75	51	63.3	+7.0	88	15	35	31	41	148	46	62	.01	−1.3	.01	1	0	.0	.0	----	----	--	----	--	7	15	9	5.7	--
Palestine	510	64	72	1,000.7	1,019.0	−1.3	63	44	53.6	+3.7	80	12	30	30	33	376	42	67	4.70	+1.0	2.75	4	2	.0	.0	8.5	s.	24	s.	4	7	9	15	6.4	50
Port Arthur [4]	34	59	134	1,016.9	1,018.0	−2.0	67	50	58.6	+3.9	78	22	34	31	30	233	50	84	1.98	−3.2	.86	11	7	.0	.0	12.5	s.	30	nw.	5	7	8	16	6.4	43
San Antonio [2]	794	6	51	993.6	1,018.3	−1.3	68	43	55.8	+2.1	82	21	28	30	40	307	42	65	.23	−1.4	.13	4	0	.0	.0	8.2	n.	28	ne.	25	6	8	17	6.7	50
OHIO VALLEY AND TENNESSEE									38.9	+3.4								77	3.88	+.3															7.2	
Chattanooga [2]	762	6	66	994.9	1,020.3	−1.0	53	36	44.4	+3.5	71	14	19	26	32	636	37	76	5.17	.0	1.21	12	3	T	.0	7.9	s.	32	s.	29	4	8	19	7.3	31
Knoxville [2]	995	27	71	984.1	1,020.3	−.7	51	34	42.4	+3.4	70	14	14	26	27	701	35	76	5.81	+1.3	2.40	14	0	T	.0	8.3	ne.	30	w.	6	4	8	19	7.2	35
Memphis [1]	399	5	49	1,008.8	1,019.3	−1.7	55	37	45.9	+3.5	73	15	20	26	30	598	37	70	2.84	−1.7	.91	11	3	T	.0	9.1	s.	22	n.	25	7	5	19	6.7	39
Nashville [2]	546	5	72	997.3	1,019.6	−1.7	52	35	43.8	+2.8	70	15	15	26	31	657	36	76	5.58	+1.4	2.15	12	6	T	.0	9.0	s.	28	s.	28	5	12	14	6.6	36
Lexington [2]	989	4	58	983.1	1,020.7	.0	46	30	38.0	+2.2	66	14	−1	26	27	837	32	79	4.73	+1.0	2.62	11	0	4.5	.0	----	s.	--	----	--	6	6	19	7.1	--
Louisville [2]	525	5	54	1,002.0	1,019.6	−1.4	48	32	40.1	+3.8	68	15	6	26	31	775	32	74	3.05	−.7	1.66	9	1	4.0	.0	8.5	s.	30	s.	12	5	6	20	7.4	43
Evansville [2]	431	6	40	1,003.4	1,019.6	−1.4	48	32	40.0	+5.2	68	15	10	26	29	777	33	77	3.61	+.1	1.81	8	0	.7	.0	9.2	sw.	28	s.	5	5	9	17	7.1	35
Indianapolis [2]	823	5	54	998.2	1,019.0	−1.0	43	26	34.3	+3.4	69	15	8	26	34	947	28	78	3.18	-----	1.59	10	0	5.6	.0	10.7	nw.	36	sw.	5	6	4	21	7.1	37
Terre Haute [2]	575	4	36	997.6	1,019.0	−1.0	44	27	35.4	+2.9	70	15	8	26	32	919	30	78	3.16	+.2	1.45	9	0	3.2	.0	10.5	n.	36	s.	5	6	5	20	7.1	52
Cincinnati [4]	627	135	148	996.3	1,020.0	−.7	47	33	39.8	+3.4	66	15	12	26	25	783	30	76	3.79	+.8	3.11	7	0	2.1	.0	5.1	nw.	17	nw.	10	5	4	22	7.5	37
Columbus [4]	822	90	110	988.8	1,019.0	−1.0	44	30	36.5	+4.1	65	15	8	26	25	885	28	77	2.24	−.5	1.13	11	1	3.5	.0	8.5	s.	31	sw.	6	6	4	21	7.2	42
Dayton [2]	1,003	6	55	981.7	1,019.3	−.3	41	27	34.0	+2.7	63	15	7	26	28	964	28	78	2.38	−.4	.99	11	1	6.9	.0	12.2	s.	34	w.	5	5	5	21	7.3	37
Elkins [2]	1,947	5	45	948.5	1,019.6	−1.4	45	25	35.2	+3.5	63	13	2	27	43	925	28	84	5.71	+2.2	2.04	15	1	5.7	1.8	7.0	w.	33	nw.	13	5	7	19	7.5	38
Parkersburg	637	77	84	-----	-----	-----	46	30	38.2	+3.0	66	13	10	27	30	833	28	76	3.74	+.7	2.69	10	1	3.2	.0	6.0	nw.	18	se.	5	6	8	17	7.0	33
Pittsburgh [2]	842	39	54	987.1	1,019.3	−.3	42	28	35.2	+3.2	62	13	8	26	24	924	27	75	3.25	+.4	1.11	12	1	6.5	1.5	10.2	s.	39	w.	31	4	7	20	7.4	30
LOWER LAKES									32.1	+3.6								78	2.55	−.2															7.6	
Buffalo [2]	768	34	96	988.2	1,017.3	−.3	38	26	32.4	+3.6	57	5	6	25	19	1,010	26	78	2.05	−1.3	.53	14	0	7.0	2.0	14.6	w.	45	sw.	5	0	7	24	8.4	22
Canton	448	10	61	999.7	1,016.3	−1.0	36	20	28.1	+6.3	57	6	−13	26	34	1,145	22	81	3.02	+.3	1.38	13	0	17.3	8.0	8.4	sw.	30	w.	7	3	5	23	7.9	30
Oswego	335	71	85	-----	-----	-----	38	27	32.2	+4.1	53	5	4	26	23	1,017	----	--	3.24	−.3	.86	18	0	20.1	2.0	11.1	s.	33	n.	25	1	7	23	8.4	17
Rochester [2]	523	4	69	997.6	1,017.3	−1.0	34	25	31.2	+2.6	57	5	7	25	26	1,053	24	80	1.63	−1.1	.40	14	0	12.3	2.0	10.8	sw.	30	w.	23	2	7	22	7.8	26
Syracuse [2]	596	5	57	994.9	1,017.6	−.4	39	24	31.2	+3.8	57	5	1	25	32	1,047	24	78	3.28	+.2	.91	17	0	23.1	8.0	10.8	sw.	33	s.	5	2	5	24	8.2	38
Erie [4]	714	57	81	991.2	1,018.0	−.3	40	30	35.2	+3.3	57	5	14	25	20	925	26	76	2.13	−.7	.58	15	0	7.8	T	9.7	s.	24	nw.	31	1	6	24	8.4	15
Cleveland [2]	762	27	54	989.5	1,018.6	.0	40	27	33.8	+4.7	58	4	15	27	27	970	27	77	2.71	+.3	.81	10	0	5.8	.4	12.1	s.	35	sw.	6	3	5	23	8.0	25
Sandusky	629	5	67	994.9	1,019.3	+.3	40	28	34.2	+3.0	59	4	10	26	23	953	----	--	1.72	−.6	.77	9	0	3.1	.0	10.7	sw.	34	sw.	6	4	10	17	7.1	36
Toledo [2]	628	5	47	994.6	1,018.6	−.7	39	24	31.8	+2.7	58	4	4	26	30	1,031	26	78	2.35	.0	.95	9	0	2.8	.0	12.2	sw.	42	w.	6	6	8	17	6.6	37
Fort Wayne [2]	857	5	34	986.5	1,018.6	−.7	39	23	31.0	+2.4	55	3	6	26	29	1,056	26	80	3.55	+1.0	1.53	13	1	1.9	T	10.0	s.	43	s.	5	7	7	17	6.6	48
Detroit [2]	730	5	77	990.9	1,018.6	.0	37	26	31.7	+2.8	56	4	6	26	20	1,032	24	72	2.35	.0	1.04	9	0	3.6	T	12.0	nw.	30	sw.	6	5	12	14	6.5	41
UPPER LAKES									25.9	+2.5								78	1.71	−.3															6.1	
Alpena	609	5	89	992.9	1,015.9	−1.0	34	22	28.1	+3.3	50	4	−1	26	25	1,142	23	78	1.47	−.6	.67	10	0	12.7	5.7	11.8	w.	35	se.	5	6	8	17	7.0	38
Escanaba	612	51	72	992.6	1,015.9	−1.4	32	18	24.6	+2.2	47	5	1	26	24	1,247	20	78	.56	−1.2	.36	10	0	2.3	1.0	11.5	sw.	40	n.	29	13	8	10	5.0	57
Grand Rapids [4]	707	70	244	990.9	1,017.6	−.7	36	25	30.9	+2.4	59	4	9	26	24	1,058	24	80	2.23	−.3	1.08	11	0	5.3	.7	12.4	sw.	56	sw.	5	5	9	17	6.7	40
Lansing [4]	878	5	90	984.8	1,017.6	−.4	35	22	28.7	+1.8	57	4	2	26	26	1,121	23	78	2.23	+.2	.91	14	0	5.7	2.7	11.1	nw.	36	sw.	6	5	14	12	6.5	45
Marquette	734	44	73	986.8	1,014.6	−2.3	31	18	24.2	+1.6	49	4	0	26	23	1,260	19	77	.72	−1.9	.30	10	0	6.1	2.5	9.6	w.	30	sw.	26	4	12	15	6.7	32
Sault Sainte Marie [2]	614	10	52	991.9	1,015.2	−1.7	30	16	23.0	+4.2	50	4	−10	25	26	1,301	19	82	1.71	−.5	.50	19	0	25.0	10.0	11.8	sw.	37	sw.	26	4	7	20	7.3	37
Chicago [2]	673	5	38	992.6	1,018.0	−1.0	37	23	30.4	+3.5	57	5	6	26	26	1,074	24	77	3.04	+1.0	1.31	10	0	6.8	T	11.0	w.	40	sw.	5	8	11	12	6.0	57
Green Bay	617	5	32	993.6	1,016.9	−1.1	31	17	23.9	+1.6	55	4	−2	31	25	1,271	17	72	1.43	−.3	.52	9	0	7.9	4.0	9.5	sw.	31	s.	5	13	7	11	5.1	63
Milwaukee [2]	681	33	66	991.9	1,018.3	.0	35	21	28.0	+3.3	55	5	6	25	26	1,147	22	75	2.50	+.8	1.02	10	0	2.8	T	14.9	sw.	56	sw.	5	9	12	10	5.6	55
Duluth [4]	1,133	5	47	972.2	1,015.2	−2.8	25	9	16.8	+.9	44	4	−16	10	30	1,495	11	83	1.19	.0	.51	9	0	6.7	2.9	12.7	w.	36	w.	6	15	3	13	5.3	53
NORTH DAKOTA									10.0	−1.9								85	.63	.0															6.2	
Fargo [2]	940	5	47	980.0	1,016.3	−3.3	21	2	11.8	+.3	43	2	−22	25	32	1,655	9	88	.37	−.4	.11	8	0	3.8	4.0	12.6	s.	34	n.	21	11	4	16	6.1	54
Bismarck [2]	1,677	5	41	953.3	1,017.3	−2.7	23	−1	11.1	−1.7	57	2	−20	23	39	1,667	8	84	.36	−.2	.19	9	0	5.9	3.2	10.3	e.	36	nw.	20	9	9	13	5.9	57
Devils Lake	1,478	11	44	959.7	1,016.6	−2.4	16	−1	7.6	−1.9	41	2	−22	9	31	1,777	5	83	.79	+.2	.19	11	0	14.2	11.5	9.6	sw.	28	ne.	20	8	7	16	6.4	44
Williston	1,878	42	50	945.5	1,015.6	−3.4	19	0	9.6	−4.2	55	2	−21	9	40	1,719	6	85	1.01	+.4	.32	12	0	15.0	7.0	6.3	w.	27	w.	20	7	10	14	6.5	57
UPPER MISSISSIPPI									29.1	+2.7								78	2.10	+.4															6.0	
Minneapolis-St. Paul [2]	919	43	74	981.4	1,016.6	−1.7	28	12	20.0	+.4	56	3	−11	10	34	1,396	14	78	.67	−.3	.49	8	0	2.3	2.0	10.5	w.	33	w.	5	9	6	16	6.2	43
La Crosse [2]	672	5	29	990.2	1,017.3	−1.7	30	12	21.0	+.6	50	3	−15	30	35	1,364	17	80	1.36	.0	.67	7	0	8.8	6.0	9.3	s.	35	w.	5	11	8	12	5.7	57
Madison [2]	974	27	39	980.7	1,017.6	−1.7	33	17	24.8	+2.4	54	5	−5	26	26	1,249	19	76	1.75	+.1	.55	9	1	4.3	2.5	11.9	w.	50	sw.	5	9	8	14	5.8	53
Charles City	1,015	10	51	979.7	1,018.3	−1.3	31	15	23.0	+2.6	56	3	−7	30	28	1,298	----	--	2.34	+1.0	1.35	7	0	10.4	6.2	7.0	w.	27	w.	5	12	5	14	5.4	53
Moline [2]	606	6	50	994.9	1,018.3	−1.7	37	21	29.0	+3.3	57	4	2	10	29	1,114	22	75	2.21	+.7	1.48	8	1	6.2	3.0	9.6	w.	47	sw.	5	10	7	14	5.7	52
Des Moines [4]	860	5	99	985.8	1,018.3	−1.3	36	20	28.3	+2.3	62	4	−3	10	34	1,138	22	82	1.89	+.7	.52	10	2	8.9	1.0	9.8	nw.	34	w.	5	10	5	16	6.2	48
Dubuque	699	60	79	991.5	-----	-----	35	19	27.0	+2.3	56	5	−2	26	30	1,178	21	77	1.86	+.4	.57	6	1	4.3	1.6	5.9	nw.	21	s.	5	13	5	13	5.5	61
Burlington [2]	702	4	36	991.9	1,018.3	−1.7	38	21	29.3	+2.0	58	4	−2	26	29	1,104	24	84	1.53	−.1	.49	9	1	6.0	1.0	10.5	s.	52	sw.	5	9	7	15	6.2	51
Cairo	357	5	99	1,006.1	1,019.3	−1.4	50	36	43.2	+5.4	68	12	18	26	25	674	----	--	5.03	+1.6	1.42	9	1	T	.0	10.4	s.	29	s.	5	4	13	14	7.0	51
Peoria [2]	609	7	26	995.6	1,019.0	−1.0	40	23	31.4	+3.3	62	13	2	10	27	1,040	25	76	2.61	+.8	1.16	9	1	2.0	T	11.9	s.	48	sw.	5	6	12	13	6.3	52
Springfield, Ill. [4]	636	5	191	994.9	1,018.6	−1.4	42	25	33.8	+4.1	72	15	2	26	32	970	28	79	1.90	−.3	.71	10	0	2.4	.0	12.5	s.	62	sw.	5	6	7	18	6.5	62
St. Louis [4]	568	33	59	997.6	1,018.6	−1.7	47	31	38.8	+3.9	75	15	9	26	35	815	30	73	2.01	−.2	.52	9	1	5.1	.0	12.8	s.	45	s.	5	8	13	10	5.8	50

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR DECEMBER 1948.—Continued

District and station	Elevation of instruments: Barometer above sea level[1]	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air, Averages: Mean maximum	Averages: Mean minimum	Averages: Mean	Averages: Departure from normal	Extremes: Highest	Extremes: Date	Extremes: Lowest	Extremes: Date	Greatest daily range	Total heating degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Days with 0.01 inch or more	Days with thunderstorms	Total snowfall (unmelted)	Snow, sleet, and ice on ground at end of month	Wind: Average hourly speed	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Character of day (sunrise to sunset), number of days: Clear	Partly cloudy	Cloudy	Average cloudiness, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Ft.	Ft.	Mb.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.		°F.		°F.	%	In.	In.	In.			In.	In.	m. p. h.					0-3	4-7	8-10	0-10	%
MISSOURI VALLEY																																			
									28.9	+1.0								79	1.09	.0														6.1	
Columbia, Mo.[4]	784	6	66	988.8	1,018.0	−2.0	46	27	36.6	+2.6	75	13	−7	26	38	880	28	77	1.46	−.4	.55	5	0	7.2	.0	7.8	s.	34	s.	5	7	7	17	6.8	48
Kansas City [2]	963	33	76	989.8	1,018.0	−2.3	45	27	35.8	+3.3	73	13	−1	26	34	907	25	66	1.20	.0	.53	7	1	6.9	T	10.2	nw.	43	sw.	5	8	6	17	6.5	46
St. Joseph [2]	967	5	51	987.5	1,017.6	−2.4	43	22	32.3	+2.7	66	4	−13	25	40	1,014	24	77	1.15	−.1	.58	8	1	8.8	T	8.0	nw.	39	w.	5	10	8	13	5.7	51
Springfield, Mo.[2]	1,324	5	50	971.6	1,018.3	−1.7	47	29	38.1	+2.6	77	13	11	26	39	836	28	70	2.01	−.3	1.18	6	2	T	.0	13.7	s.	45	sw.	5	7	9	15	6.6	45
Topeka [4]	987	65	87	981.0	1,017.6	−2.4	45	26	35.2	+3.2	67	13	4	26	32	923	25	76	1.05	+.1	.75	8	1	5.5	.0	9.0	s.	34	w.	5	7	11	13	6.1	45
Lincoln [4]	1,189	6	81	973.2	1,017.6	−2.4	37	19	27.8	+.2	61	4	−8	25	41	1,152	22	86	1.22	+.4	.47	7	0	15.0	2.2	8.6	s.	37	nw.	5	9	5	17	6.5	46
Norfolk, Nebr.[2]	1,551	5	38	959.7	1,017.6	----	31	11	20.6	−3.9	48	3	−15	30	44	1,378	18	86	1.19	+.4	.30	7	0	14.5	11.0	----	nw.	--	----	--	13	4	14	5.7	---
Omaha [2]	1,105	5	68	980.7	1,017.6	−2.7	37	18	27.6	+1.2	63	4	−7	25	35	1,161	22	80	1.03	+.1	.35	7	0	12.4	4.0	10.9	s.	40	n.	28	10	6	15	6.1	42
Valentine	2,598	46	54	921.8	1,017.3	−2.7	35	12	23.7	−.9	70	3	0	29	40	1,282	16	75	.57	.0	.41	3	0	10.3	5.8	8.8	w.	30	n.	28	10	11	10	5.7	59
Sioux City [2]	1,138	5	40	976.0	1,017.6	−2.4	32	11	21.2	−.4	54	4	−10	30	38	1,359	18	88	.90	.0	.34	11	0	8.8	5.0	10.1	e.	38	nw.	5	12	3	16	5.9	55
Huron [2]	1,301	5	41	967.8	1,016.6	−3.7	30	8	19.1	+.4	53	3	−6	9	32	1,425	14	88	.17	−.4	.14	3	0	2.5	T	11.5	nw.	41	se.	10	10	6	15	6.0	49
NORTHERN SLOPE																																			
									17.3	−5.7								76	.72	+.1														6.5	
Billings [2]	3,570	16	39	886.9	1,015.2	−5.5	29	11	20.4	−5.8	55	2	−4	23	30	1,385	11	66	.71	----	.49	8	0	14.0	1.0	11.4	sw.	47	nw.	20	7	8	16	6.4	40
Butte	5,533	44	58	823.9	1,020.7	----	23	−4	9.4	−11.0	39	2	−28	23	44	1,725	7	86	.94	+.5	.64	11	0	15.1	6.0	----	s.	--	----	--	5	2	24	7.8	---
Glasgow	2,086	34	53	938.7	1,017.3	----	21	−1	9.9	−5.7	58	2	−29	18	43	1,704	5	81	1.00	+.5	.26	9	0	11.7	3.0	----	nw.	--	----	--	8	10	13	6.0	---
Great Falls [2]	3,657	16	75	883.2	1,014.2	----	27	10	18.4	−9.6	48	2	−14	14	35	1,445	11	70	.53	−.1	.33	7	0	5.8	T	16.4	sw.	63	sw.	19	6	11	14	6.3	57
Havre	2,507	11	67	923.1	1,016.9	−2.7	21	0	10.4	−10.0	51	2	−21	17	49	1,690	6	80	.52	−.1	.28	8	0	7.3	T	8.0	w.	34	sw.	1	8	5	18	6.4	44
Helena [2]	4,124	5	43	869.6	1,019.3	−1.4	23	3	12.8	−9.9	46	2	−17	24	42	1,619	7	78	.80	+.3	.43	12	0	13.2	5.0	6.8	w.	39	w.	20	4	7	20	7.1	51
Missoula [2]	3,263	4	32	899.8	1,019.3	−2.7	24	4	13.7	−7.7	42	2	−21	26	33	1,592	12	90	1.04	+.1	.26	15	0	15.2	9.0	4.6	se.	29	nw.	20	4	6	21	7.6	33
Kalispell	2,973	48	56	908.9	1,016.3	−3.7	26	13	19.4	−5.5	42	2	−4	24	26	1,416	15	80	1.02	−.4	.30	15	0	14.9	3.0	4.7	nw.	28	w.	20	0	8	23	8.5	15
Miles City [2]	2,371	5	28	929.2	1,017.6	−2.4	24	4	14.0	----	54	2	−20	18	39	1,584	9	81	.31	----	.14	6	0	7.7	4.0	----	w.	--	----	--	9	11	11	5.6	---
Rapid City [2]	3,259	5	56	899.4	1,016.3	−4.0	34	12	23.1	−2.0	68	3	0	15	37	1,300	14	74	.48	.0	.31	6	0	5.9	1.0	13.8	nw.	51	nw.	19	9	8	14	5.9	61
Cheyenne [2]	6,094	22	40	805.6	1,015.2	−3.8	37	16	26.4	−2.1	59	3	0	24	35	1,199	13	60	1.03	+.5	.42	6	0	12.4	4.0	14.4	nw.	61	nw.	20	10	10	11	5.6	58
Lander [2]	5,352	6	30	823.9	1,016.9	−5.1	28	8	18.3	−2.1	52	2	−17	26	35	1,446	10	68	.59	−.1	.34	4	0	8.8	3.0	4.3	sw.	28	sw.	3	10	12	9	5.2	59
Sheridan [2]	3,790	5	38	874.0	1,016.6	−4.7	32	9	20.6	−2.2	63	2	−5	17	39	1,376	11	72	.32	−.3	.13	7	0	5.4	1.0	7.6	nw.	45	nw.	20	8	9	14	6.1	48
North Platte [2]	2,821	11	51	914.7	1,016.9	−3.4	37	14	26.0	−.7	62	3	0	31	43	1,210	18	78	.80	+.3	.38	3	0	10.0	6.0	9.5	w.	44	nw.	28	7	8	16	6.7	48
MIDDLE SLOPE																																			
									36.1	+2.1								65	.46	−.5														5.7	
Denver [4]	5,292	106	113	832.0	1,014.6	−4.0	43	21	32.4	+.1	69	3	5	25	39	1,011	13	52	.40	−.3	.33	5	0	4.3	T	7.5	s.	30	w.	20	8	15	8	5.2	66
Pueblo [2]	4,690	5	36	849.3	1,015.6	−3.4	49	16	32.3	+2.2	68	13	−4	25	56	1,015	13	52	.25	−.2	.21	2	0	4.0	T	9.0	nw.	43	sw.	4	8	16	7	5.3	54
Concordia	1,392	50	58	966.1	1,017.6	−2.7	41	23	31.9	+1.2	59	4	5	10	35	1,030	24	73	.46	−.2	.19	7	0	6.4	T	8.6	sw.	32	nw.	5	13	6	12	5.4	60
Dodge City [2]	2,509	5	58	923.8	1,017.3	−3.4	43	24	33.2	+.6	68	13	16	30	34	988	24	76	.19	−.4	.13	3	0	.9	.0	14.5	sw.	46	nw.	5	10	7	14	5.9	58
Wichita [2]	1,358	52	64	965.8	1,016.9	−2.7	46	27	36.8	+2.2	70	14	16	30	33	871	26	68	.25	−.8	.23	2	0	1.0	.0	14.5	s.	43	nw.	5	9	10	12	6.1	61
Oklahoma City [4]	1,214	10	47	973.2	1,017.6	−2.4	54	34	43.8	+4.5	77	13	20	30	42	660	30	67	.30	−1.2	.12	7	0	T	.0	10.5	s.	26	s.	27	11	7	13	5.5	53
Tulsa [2]	674	10	60	992.9	1,017.6	----	54	32	42.5	+3.7	80	13	16	30	41	699	32	68	1.35	−.6	.57	7	1	T	.0	12.2	s.	47	nw.	28	7	10	14	6.3	57
SOUTHERN SLOPE																																			
									47.8	+4.0								55	.31	−.7														6.0	
Abilene [2]	1,755	4	59	955.3	1,017.3	−2.7	62	38	50.3	+5.2	82	13	19	30	40	462	32	56	.78	−.6	.46	4	1	T	.0	15.0	s.	42	nw.	5	6	6	19	6.9	53
Amarillo [2]	3,604	5	42	887.8	1,015.6	−3.7	54	27	40.6	+5.1	73	13	17	29	40	756	25	59	.09	−.7	.07	3	0	.2	.0	15.1	sw.	54	w.	4	8	6	17	6.4	58
Del Rio	960	63	71	983.4	1,017.3	−2.0	68	46	57.2	+5.0	82	12	31	30	42	252	40	58	.15	−.5	.09	5	0	.0	.0	7.6	se.	22	nw.	7	6	14	11	6.1	46
Roswell	3,614	6	29	891.3	1,016.3	−3.0	60	28	44.0	+2.8	77	22	10	1	56	651	21	46	.15	−.5	.12	3	0	1.8	.0	8.1	s.	47	w.	4	10	8	13	5.5	57
Wichita Falls	1,030	4	49	980.0	1,017.3	----	59	35	47.1	+2.1	84	13	21	30	40	561	30	58	.37	−1.2	.30	2	1	T	.0	----	----	--	----	--	10	14	7	5.3	---
SOUTHERN PLATEAU																																			
									45.3	+1.0								50	1.02	+.1														5.8	
El Paso [2]	3,916	35	85	887.2	1,016.3	−2.3	59	37	47.8	+4.1	68	12	22	6	42	533	27	48	.86	+.3	.58	4	0	T	.0	9.7	sw.	47	w.	4	13	3	15	5.9	59
Albuquerque [2]	5,314	5	45	837.5	1,015.6	−4.0	49	27	38.2	+3.7	63	11	18	5	37	836	20	50	.11	−.4	.05	4	0	.2	.0	9.2	se.	43	sw.	4	8	11	12	6.0	66
Flagstaff	6,907	34	48	789.0	1,019.3	+1.3	44	17	30.7	+1.1	55	9	−2	24	43	1,063	18	58	3.38	+1.4	1.58	10	0	22.2	12.0	----	w.	--	----	--	10	8	13	5.7	---
Pheonix [4]	1,107	39	87	977.3	1,017.3	.0	64	40	52.0	.0	76	12	29	5	41	407	30	51	.58	−.4	.27	6	0	.0	.0	5.6	e.	23	w.	4	9	9	13	5.9	66
Tucson [2]	2,555	5	39	927.5	1,016.9	−.4	64	38	51.2	+.5	76	13	23	5	43	428	30	50	.93	−.1	.28	7	0	.0	.0	7.9	se.	38	e.	30	10	3	18	6.6	57
Yuma	142	9	54	1,009.8	1,017.3	−.3	64	40	51.9	−3.3	73	12	32	24	36	406	31	45	.26	−.3	.17	3	0	.0	.0	5.5	n.	28	w.	4	15	5	11	4.8	72
MIDDLE PLATEAU																																			
									25.2	−3.6								75	1.19	+.2														7.2	
Ely [2]	6,262	8	41	806.3	1,019.6	----	33	4	18.9	−5.6	53	2	−17	24	47	1,430	14	76	.92	.0	.29	10	0	18.9	6.0	11.8	s.	35	s.	3	4	9	18	6.7	57
Reno [2]	4,527	20	52	861.2	1,019.0	−2.3	41	13	27.0	−4.9	60	2	0	15	44	1,175	20	74	.72	−.3	.29	8	0	8.6	2.0	6.8	s.	52	sw.	2	3	10	18	7.2	44
Winnemucca	4,339	5	56	866.9	1,018.6	−3.8	37	16	26.4	−3.6	56	2	−7	24	37	1,197	20	75	.96	−.1	.28	9	0	16.5	2.0	9.6	sw.	34	sw.	12	4	7	20	7.7	44
Salt Lake City [2]	4,357	32	58	866.2	1,019.0	−3.0	34	16	25.2	−5.0	51	13	−4	25	28	1,232	20	79	2.63	+1.2	.75	16	1	34.3	11.0	9.3	se.	34	s.	3	2	9	20	7.5	46
Grand Junction [2]	4,602	5	26	851.7	1,020.0	−.7	38	18	28.4	+.9	57	14	5	25	32	1,134	19	70	.70	+.1	.40	8	0	9.6	2.8	6.5	e.	35	sw.	14	3	12	16	7.1	49
NORTHERN PLATEAU																																			
									23.9	−6.5								84	2.32	+.4														7.7	
Baker [4]	3,471	36	54	894.3	1,019.6	−2.8	29	11	20.0	−7.3	41	11	−11	23	29	1,394	14	84	1.80	+.1	.56	12	0	27.4	10.0	5.6	se.	33	s.	1	3	12	16	7.1	37
Meacham	4,056	7	28	873.0	1,017.3	----	28	16	22.4	----	37	7	0	24	21	1,318	20	88	5.41	----	.87	23	0	68.8	42.0	----	se.	--	----	--	2	5	24	8.4	---
Boise [2]	2,739	5	49	920.4	1,019.3	−4.1	33	18	25.5	−4.8	48	2	0	23	20	1,226	21	81	2.11	+.5	.73	16	0	13.8	T	10.6	se.	36	se.	7	6	8	17	6.9	46
Lewiston	1,436	4	23	964.4	1,018.0	----	35	22	28.5	----	46	12	5	27	23	1,135	23	78	1.46	----	.44	9	0	10.9	.0	----	e.	--	----	--	5	4	22	7.6	---
Pocatello [2]	4,478	5	31	861.5	1,020.3	−2.4	31	14	22.2	−3.1	50	2	−10	25	34	1,329	16	76	1.12	.0	.38	17	0	13.0	2.0	13.1	sw.	41	sw.	20	3	5	23	7.8	34
Ellensburg [2]	1,735	5	58	952.9	1,018.0	----	28	10	19.0	−9.6	40	19	−16	27	27	1,425	18	94	1.83	+.3	.59	16	0	30.5	12.0	----	nw.	--	----	--	4	8	19	7.6	---
Spokane [2]	1,929	6	51	945.5	1,016.9	−3.4	28	15	21.5	−9.0	42	1	−3	24	24	1,345	20	89	3.13	+.9	.76	19	0	33.2	14.0	7.5	sw.	36	sw.	19	5	1	25	8.2	26
Walla Walla	991	57	65	980.7	1,018.0	−2.7	37	26	31.8	−3.7	54	1	8	25	23	1,028	----	--	2.69	+.6	.90	12	0	10.4	.0	5.9	s.	22	s.	1	2	6	23	7.9	32
Yakima [2]	1,076	4	54	977.3	1,017.3	−2.7	35	13	24.0	−8.2	51	1	−2	27	35	1,272	20	83	1.34	+.4	.82	10	0	15.0	4.2	----	w.	27	w.	19	5	4	22	7.5	---

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR DECEMBER 1948.—Continued

District and station	Elevation of instruments: Barometer above sea level [1]	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Averages: Mean maximum	Temperature of the air: Averages: Mean minimum	Temperature of the air: Averages: Mean	Temperature of the air: Averages: Departure from normal	Temperature of the air: Extremes: Highest	Temperature of the air: Extremes: Date	Temperature of the air: Extremes: Lowest	Temperature of the air: Extremes: Date	Temperature of the air: Extremes: Greatest daily range	Total heating degree days	Mean temperature of the dw point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Precipitation: Days with thunderstorms	Precipitation: Total snowfall (unmelted)	Precipitation: Snow, sleet, and ice on ground at end of month	Wind: Average hourly speed	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Character of day (sunrise to sunset), number of days: Clear	Character of day (sunrise to sunset), number of days: Partly cloudy	Character of day (sunrise to sunset), number of days: Cloudy	Average cloudiness, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Ft.	Ft.	Mb.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F		°F.		°F		°F.	%	In.	In.	In.			In.	In.	M. p. h.					0–3	0–7	8–10	0–10	%
NORTH PACIFIC COAST									36.3	−3.6								84	7.97	+1.1														7.9	
Kelso [2]	750	38	76	-----	-----	-----	42	31	36.6	-----	50	9	18	27	22	884	33	87	10.75	-----	1.85	23	0	T	.0	----	s.	--	-----	--	1	4	26	8.6	---
North Head	211	5	55	1,006.4	1,014.2	−2.4	44	36	40.1	−4.0	50	1	30	18	12	772	35	83	12.46	+3.0	2.05	25	1	T	.0	16.4	e.	52	s.	1	3	10	18	7.4	33
Seattle [4]	125	90	321	1,010.2	1,014.6	−2.7	43	34	39.0	−3.6	49	10	21	24	21	808	33	83	4.58	−1.0	.80	19	0	2.6	.0	11.2	s.	39	s.	1	2	8	21	7.8	25
Tacoma	194	172	201	1,007.5	1,014.6	−2.7	42	33	37.8	−2.8	49	1	19	24	18	847	----	--	7.03	+.3	1.51	20	1	4.3	.0	9.5	s.	34	s.	19	4	8	19	7.5	26
Tatoosh Island	86	5	61	1,009.5	1,012.9	−2.3	43	36	39.4	−4.5	50	1	33	21	13	795	35	83	13.10	−.3	3.12	24	0	.6	.0	18.0	e.	54	s.	19	4	3	24	8.0	23
Burns	4,162	35	47	871.0	1,018.3	-----	30	10	20.2	−6.1	48	2	−8	24	28	1,388	17	83	2.58	+1.2	.69	16	0	19.4	7.0	----	n.	--	-----	--	4	7	20	7.2	---
Eugene [2]	433	4	35	1,003.4	1,017.6	-----	42	30	36.2	-----	53	7	17	24	21	894	34	91	8.67	-----	1.86	22	0	1.0	.0	----	s.	--	-----	--	2	5	24	8.0	---
Medford [2]	1,329	29	58	970.2	1,019.3	−.7	43	28	35.4	−2.7	56	11	12	23	27	920	30	83	3.69	+.8	1.17	14	0	1.2	.0	----	n.	--	-----	--	3	5	23	7.9	---
Portland, Oreg. [4]	154	68	106	1,010.8	1,016.6	−2.4	43	35	39.4	−1.8	54	7	25	27	14	795	32	79	10.04	+3.3	1.61	22	0	.3	.0	7.4	s.	26	sw.	10	3	6	22	7.9	21
Roseburg	510	45	76	999.0	1,018.0	−1.6	44	33	38.6	−3.2	57	11	22	24	24	818	----	--	6.83	+1.5	1.53	16	0	T	.0	3.8	s.	18	sw.	11	2	3	26	8.8	11
MIDDLE PACIFIC COAST									44.2	−3.7								80	5.39	+1.0														7.4	
Eureka	60	72	88	1,018.0	1,020.3	+.3	50	38	44.0	−4.2	56	28	28	23	22	647	39	80	7.35	+1.1	1.74	20	0	.0	.0	6.7	se	30	sw.	5	6	8	17	7.1	41
Red Bluff [2]	353	5	26	1,006.4	1,019.6	-----	49	35	42.0	−4.1	65	1	23	24	27	711	34	76	4.58	+.2	1.46	13	0	4.9	.0	7.3	nw.	42	se.	5	4	5	22	7.5	41
Sacramento [4]	66	92	115	1,017.6	1,020.0	.0	49	37	43.2	−3.0	65	1	27	24	28	679	38	85	4.88	+1.8	1.56	15	0	.0	.0	6.4	se.	23	se.	5	3	4	24	8.1	22
San Francisco [4]	155	112	132	1,013.9	1,019.6	+.3	52	43	47.8	−3.5	63	1	37	24	15	534	41	81	4.75	+.8	1.62	14	0	.0	.0	7.2	n.	27	e.	25	6	9	16	6.7	37
SOUTH PACIFIC COAST									50.5	−1.9								74	1.94	.0														6.1	
Fresno [2]	327	5	34	1,008.5	1,020.7	+.4	52	36	44.4	−.7	69	2	28	24	35	637	38	81	1.23	−.2	.56	13	0	.0	.0	3.9	se.	22	nw.	3	2	6	23	8.1	32
Los Angeles	338	236	263	-----	-----	-----	63	43	53.4	−3.2	83	9	35	24	33	367	----	--	2.20	−.4	1.10	6	1	.0	.0	7.5	e.	35	se.	26	12	9	10	5.1	75
San Diego [2]	87	20	55	1,014.9	1,018.3	+.7	63	45	53.6	−1.9	76	2	37	24	31	353	43	68	2.38	+.5	.79	7	0	.0	.0	5.6	ne.	24	s.	17	13	6	12	5.2	61
ALASKA																																				
Anchorage [2]	132	6	44	1,000.0	1,005.1	-----	13	−1	5.8	−7.5	30	17	−18	7	30	1,836	5	84	.50	−.4	.12	10	0	11.1	9.0	4.7	n.	24	n.	1	7	2	22	7.4	---
Annette Island	113	5	53	1,002.0	1,006.1	-----	34	24	28.8	−7.3	42	18	6	14	17	1,124	26	86	7.91	−2.0	2.08	19	0	26.6	7.0	----	n.	--	-----	--	1	7	23	8.3	---
Barrow	29	5	27	1,013.2	1,013.9	-----	−14	−27	−20.6	−8.7	18	13	−46	2	32	2,655	−20	82	.18	−.1	.12	5	0	2.2	12.0	7.6	e.	34	e.	25	16	6	9	3.9	---
Bethel [2]	28	5	31	1,004.2	1,005.8	-----	13	−4	4.6	−2.4	36	16	−44	31	48	1,871	4	88	1.59	+.8	.73	13	0	15.3	12.0	11.5	s.	--	-----	--	8	2	21	7.1	---
Cordova [2]	45	5	32	998.6	1,000.7	-----	----	----	-----	-----	38	22	−19	7	39	1,583	14	95	3.32	−4.6	.66	17	0	49.1	26.0	----	e.	27	se.	22	9	3	19	6.6	---
Fairbanks [2]	455	5	63	992.9	1,011.5	-----	−8	−23	−15.6	−8.5	19	18	−37	6	43	2,497	----	--	1.09	+.5	.32	11	0	21.1	17.0	2.5	nw.	17	w.	22	9	3	19	6.5	---
Galena	139	4	66	1,002.6	1,007.8	-----	−4	−19	−11.8	−1.4	22	12	−46	1	33	2,381	----	72	.98	+.1	.27	13	0	12.3	25.0	----	n.	35	se.	24	7	4	20	7.1	---
Gambell	32	5	32	1,004.4	1,005.4	-----	17	6	11.7	+3.0	33	12	−20	28	30	1,652	10	94	.66	.0	----	12	---	6.5	9.0	20.0	ne.	50	se.	12	2	2	28	9.0	---
Juneau [2]	80	6	30	1,005.1	1,006.1	-----	25	14	19.1	−9.0	38	18	−16	8	24	1,423	15	78	2.95	−1.2	.85	16	0	35.9	14.0	9.1	n.	43	se.	22	6	0	25	7.9	---
Kotzebue [2]	20	5	31	1,007.5	1,008.1	-----	−1	−14	−7.4	−3.4	21	14	−35	31	30	2,244	−10	84	.54	+.2	----	16	---	5.4	13.0	14.0	ne.	54	se.	24	9	6	16	6.0	---
McGrath [2]	341	5	31	995.6	1,009.1	-----	−4	−22	−12.8	−5.6	32	17	−49	2	37	2,412	−8	78	1.56	+.2	42	15	0	28.1	40.0	----	n.	20	s.	21	10	2	19	6.5	---
Nome [2]	22	10	75	1,004.4	1,005.1	-----	13	−7	2.8	−4.7	31	17	−41	1	39	1,928	4	96	1.44	+.3	.53	18	0	13.9	39.0	----	e.	49	e.	17	5	2	24	7.7	---
Northway [2]	1,718	5	32	945.5	1,013.5	-----	−17	−35	−25.8	−10.4	11	22	−59	7	38	2,814	----	--	.55	+.2	.19	9	0	9.3	22.0	----	nw.	--	-----	--	8	4	19	6.9	---
HAWAII																																				
Honolulu [4]	38	86	98	1,016.9	1,018.3	-----	76	69	72.4	.0	78	5	65	23	10	0	61	68	3.11	−.8	.64	26	0	.0	.0	13.4	ne.	37	e.	2	4	14	13	6.6	64

[1] Height of barometer cistern above mean sea level on January 1, 1900, or when station was first established since January 1, 1900. When station is moved to new location or airport, the pressure is reduced to the original elevation for homogeneity. These elevations do not represent the present station elevation in most cases.

[2] Data are from airport records. Pressures adjusted to original elevations according to note 1.

[3] Barometric, hygrometric, wind, character of day, and average cloudiness data from airport records; remainder from city office records.

[4] Barometric and hygrometric data from airport records; remainder from city office records.

[5] Barometric, temperature, degree day, and hygrometric data from airport; remainder from city office records.

NOTE.—Unless otherwise indicated, data in table are city office records.