CLIMATOLOGICAL DATA FOR NOVEMBER 1948

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see REVIEW, January 1948, 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 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.

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	56.8	+2.3	Eufaula	87	6	Valley Head	24	12	15.30	+11.81	Fort Deposit	24.58	Columbia	6.05
Arizona	46.5	−3.5	Mohawk	89	16	Alpine	−3	28	.02	−.95	Greer	.61	111 stations	.00
Arkansas	50.9	−.4	Portland	85	5	Lead Hill	13	23	5.78	+1.90	Hampton	12.72	Camp Chaffee	1.02
California	49.9	−2.1	3 stations	92	[1] 6	Boca	−1	27	1.08	−.96	Elk Valley	12.14	209 stations	.00
Colorado	30.1	−4.1	Las Animas	83	15	2 stations	−25	28	.77	−.02	La Veta Pass	4.63	5 stations	T
Florida	71.2	+6.0	Sarasota	93	22	do	32	11	2.56	+.35	Milton Exp. Station	13.67	Lake Trafford	T
Georgia	59.2	+4.5	Camilla	90	4	Blairsville Exp. Sta	24	[1] 11	9.57	+6.78	Flat Top	20.94	Brunswick	1.26
Idaho	32.3	−2.9	Riggins R. S	70	14	Island Park Dam	−23	27	2.41	+.31	Roland (West Portal)	9.57	Grand View	.16
Illinois	45.1	+3.0	Mt. Carmel	79	[1] 4	Freeport	14	29	3.44	+.80	Harrisburg	8.40	Bentley	1.07
Indiana	46.3	+3.9	W. Baden Springs Col.	81	4	2 stations	18	24	5.20	+2.16	Leavenworth Dam #44	11.81	South Bend, W.B.Apt.	2.27
Iowa	39.0	+1.4	Grinnell	76	15	Onawa	−4	22	2.66	+.93	Council Bluffs, 5 NE	5.69	Mt. Ayr	1.07
Kansas	42.5	−.7	Coffeyville	82	4	Healy	6	28	2.14	+.87	Winfield	4.89	Tribune	.59
Kentucky	49.7	+3.2	Pikesville	87	5	Beaver Dam	18	24	7.71	+4.25	Mammoth Cave Park	11.41	Greenup Dam #30	4.18
Louisiana	59.4	+.5	De Ridder	90	1	2 stations	24	[1] 12	12.08	+7.91	Winnsboro	23.37	Lake Arthur	3.48
Maryland-Delaware	50.6	+5.3	4 stations	82	6	Oakland (Md.)	20	26	5.68	+3.05	Cambridge (Md.)	9.38	Savage River Dam (Md.).	3.00
Michigan	41.2	+4.9	2 stations	70	1	2 stations	10	29	3.76	+1.23	Munising	6.91	Dowagiac, 2 E	1.05
Minnesota	31.6	+2.1	do	72	1	Warroad	−4	28	1.66	+.48	Comfrey	3.40	Ortonville Sewage Plant.	.26
Mississippi	56.6	+1.4	Leakesville	89	5	Port Gibson	24	30	13.80	+9.89	Wiggins	20.01	Magnolia	8.13
Missouri	46.3	+1.9	Caruthersville	87	4	Monett	10	29	3.50	+.79	Cape Girardeau	8.18	Albany	.70
Montana	31.7	−.2	Billings	70	14	West Yellowstone	−21	26	1.04	.00	Heron, 2 SW	7.28	Cut Bank, CAA Apt.	.04
Nebraska	36.5	−.8	2 stations	79	15	2 stations	0	22	1.74	+.79	Falls City	4.27	Arthur	.16
Nevada	37.4	−1.8	Las Vegas	81	[1] 3	do	−5	[1] 8	.32	−.38	Jarbidge	3.08	23 stations	.00
New England	44.0	+5.8	Billerica, Mass	79	6	Fabyan, N. H	10	30	5.85	+2.25	Woodstock, N. H	8.54	Knightville Dam, Mass.	3.65
New Jersey	49.8	+5.9	Little Falls Water	83	7	Layton	17	30	4.66	+1.40	Atlantic City	8.87	Lakehurst	1.22
New Mexico	38.9	−3.4	Hagerman	85	3	Eagle Nest	−15	9	.21	−.42	Grenville	2.33	51 stations	.00
New York	44.9	+6.4	Middleburg	79	7	2 stations	11	[1] 30	4.42	+1.34	Slide Mountain	9.90	Sonyea	1.59
North Carolina	55.6	+5.5	2 stations	85	[1] 5	Celo	20	[1] 15	9.02	+6.22	Quebec	21.68	Wadesboro	3.24
North Dakota	29.4	+2.8	Oakes Water Works	68	1	Belcourt Indian Res	−19	28	1.12	+.51	Portal	2.22	Cogswell	.10
Ohio	46.7	+5.2	2 stations	85	5	Batavia, 4 N	18	24	4.31	+1.62	Mt. Healthy	7.85	New Lexington, 1 N	2.14
Oklahoma	48.2	−1.5	Ft. Gibson Dam	91	5	Kenton	12	28	1.76	−.29	Helena	6.81	Randlett	.03
Oregon	38.4	−1.8	Brookings	70	8	Danner	−1	8	4.52	+.78	Valsetz	18.94	Owyhee Dam	.60
Pennsylvania	46.1	+4.7	Uniontown	85	5	Everett	13	30	4.58	+1.66	Meadow Run Ponds	7.64	Beaver Falls	2.42
South Carolina	58.5	+4.6	Ridgeland, 2 SE	87	5	2 stations	27	30	9.00	+6.51	Caesar's Head	17.85	Charleston, WB City	3.50
South Dakota	33.3	+.2	Tyndall	76	15	Hardy R. S	−9	19	1.03	+.38	Deadwood	4.70	Miller	.09
Tennessee	51.1	+2.5	2 stations	84	[1] 5	Murfreesboro	20	24	10.21	+6.52	Pt. Park, Lookout Mt.	16.98	Butler	4.26
Texas	54.1	−3.0	3 stations	96	[1] 4	2 stations	10	[1] 29	1.37	−.75	Bon Wier	11.94	27 stations	.00
Utah	32.9	−4.3	Piute Dam	80	[1] 2	Woodruff	−12	[1] 27	.68	−.25	Silver Lake (Brighton)	5.81	7 stations	.00
Virginia	50.9	+4.1	3 stations	83	[1] 6	Sugar Grove	18	11	6.03	+3.51	Saluda	8.75	Spring Creek	2.73
Washington	38.2	−2.1	Walla Walla, WB City	68	14	Laurier	8	27	6.21	+1.09	Forks	26.83	Ephrata	.62
West Virginia	46.9	+3.6	Madison	89	6	Summersville	17	13	4.31	+1.52	Cranberry Glades	6.57	Smithburg	2.53
Wisconsin	37.6	+4.2	4 stations	73	1	2 stations	4	29	3.17	+1.26	Washington Island	6.73	La Cross, WB Apt	1.73
Wyoming	28.0	−.1	Shawnee	75	2	Bondurant	−28	27	1.05	+.31	Moose	3.56	Lovell	.09
Alaska (Oct.)	28.7	−1.7	Petersburg	67	1	Wiseman	−23	25	4.40	+.73	Whittier	51.81	Unalakleet	.09
Hawaii	71.5	−.4	Lahaina	91	[1] 1	Haleakala R. S	39	[1] 2	8.94	+2.10	Piihonua	38.60	Hirai Camp	.87
Puerto Rico	77.3	+.9	Ponce	98	[1] 18	Utuado	54	30	8.30	+1.30	San Lorenzo (Espino)	24.96	Lajas	2.32

[1] Other dates also.

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CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 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	Highest: Date	Extremes: Lowest	Lowest: Date	Greatest daily range	Total heating degree days	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	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	Prevailing direction	Maximum velocity: Miles per hour	Maximum velocity: Direction	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									44.0	+7.1								83	5.71	+2.2														7.1	
Caribou [2]	628	5	33	993.2	1,016.9	-----	43	30	36.4	+9.2	63	10	20	2	27	857	32	86	4.14	+1.5	.95	17	0	12.7	1.0	----	se.	--	-----	--	2	6	22	8.2	--
Eastport	75	67	82	1,014.6	1,017.3	+.7	48	38	42.7	+6.0	59	11	29	29	20	671	36	80	6.35	+3.0	1.80	13	0	T	.0	10.7	s.	38	e.	20	5	5	20	7.4	33
Portland, Me. [2]	103	6	43	1,013.5	1,017.6	−.4	51	34	42.4	+5.1	63	7	21	3	31	676	36	84	6.48	+3.0	2.25	15	0	T	.0	8.7	sw.	36	w.	14	4	7	19	7.6	34
Concord [2]	289	5	45	1,007.1	1,018.0	−.3	52	33	42.5	+7.1	75	6	14	30	35	680	36	84	5.56	+2.5	1.77	15	0	T	.0	6.2	nw.	28	nw.	14	5	9	16	6.9	35
Mt. Washington	6,274	5	37	803.6	1,020.2	-----	31	21	26.4	+6.8	50	10	9	14	27	1,163	22	90	9.85	+3.4	2.56	22	0	17.9	5.0	37.4	w.	--	-----	--	3	10	17	7.5	32
Burlington [2]	403	6	51	1,001.4	1,016.6	−1.0	52	37	44.4	+8.1	75	6	24	29	33	619	37	81	5.17	+2.5	1.64	15	0	T	.0	9.6	s.	34	s.	10	5	6	19	7.3	41
Boston [2]	124	33	62	1,013.6	1,018.2	+.2	56	43	49.6	+7.6	73	6	28	30	26	461	40	74	5.16	+1.8	2.12	15	1	1.1	.0	10.9	nw.	35	nw.	13	6	7	17	6.7	45
Nantucket [2]	12	4	34	1,018.0	1,018.6	+1.0	55	42	48.8	+4.4	67	5	31	30	23	483	45	88	4.72	+1.5	.99	16	0	.0	.0	12.5	nw.	38	nw.	14	4	9	17	7.1	42
Block Island	26	11	46	1,017.3	1,018.0	.0	55	46	50.6	+6.0	67	6	32	30	17	430	46	84	4.33	+.7	.85	15	0	.0	.0	15.3	nw.	45	nw.	13	6	8	16	6.3	51
Providence [2]	159	65	60	1,012.2	1,018.3	.0	57	42	49.8	+9.4	72	6	28	30	26	458	41	80	5.00	+1.9	1.49	14	1	T	.0	7.9	s.	30	nw.	13	8	7	15	6.5	46
Hartford	159	5	44	1,012.5	1,018.3	−.3	56	37	46.8	+7.3	72	6	22	30	30	547	40	85	6.84	+3.3	2.40	14	1	1.7	1.0	7.4	s.	35	nw.	13	4	10	16	6.8	40
New Haven [2]	107	5	39	1,014.2	1,018.3	−.7	56	40	48.0	+8.1	69	6	24	30	33	513	41	80	4.96	+1.9	2.56	13	1	1.6	T	7.1	w.	22	s.	6	5	10	15	6.4	43
MIDDLE ATLANTIC									51.2	+6.7								80	4.77	+2.2														6.4	
Albany [2]	97	6	40	1,013.5	1,016.9	−1.7	54	36	45.0	+8.7	72	6	22	30	30	597	38	84	4.35	+1.9	1.68	15	1	.7	.0	8.7	se.	39	w.	13	3	9	18	7.2	46
Binghamton [4]	871	57	79	985.8	1,018.0	−.6	55	38	46.3	+7.6	74	6	27	30	33	562	38	82	3.44	+1.0	1.40	17	1	.7	.0	6.0	w.	26	w.	20	2	7	21	7.6	47
New York [4]	314	415	454	1,007.1	1,018.6	−.4	59	46	52.4	+8.2	72	20	34	30	20	380	42	72	3.33	+.4	.80	13	0	T	.0	13.9	nw.	42	w.	13	8	12	10	5.9	58
Allentown [2]	385	4	58	1,004.4	1,018.6	-----	57	37	47.2	+5.2	78	6	26	30	35	530	40	82	4.41	+1.6	1.11	17	0	T	.0	----	w.	--	-----	--	6	12	12	6.4	--
Harrisburg [2]	374	30	49	1,004.4	1,018.3	−1.7	57	40	48.2	+5.4	77	6	30	30	31	504	39	77	4.57	+2.3	1.11	15	0	2.2	.0	6.9	w.	30	w.	13	8	7	15	6.5	47
Philadelphia [4]	114	174	150	1,013.9	1,018.3	−1.7	59	46	52.6	+6.9	78	6	35	30	28	376	44	82	4.42	+1.7	1.37	16	0	.0	.0	7.5	s.	24	ne.	29	8	9	13	5.9	56
Reading	323	47	306	1,006.4	1,018.6	−1.4	59	42	50.4	+6.5	77	6	31	26	32	439	----	--	4.27	+1.5	1.10	14	1	T	.0	11.2	nw.	40	s.	6	7	9	14	6.3	41
Scranton	805	72	104	988.2	1,018.0	−1.3	56	40	47.7	+7.2	75	6	29	26	31	520	----	--	4.59	+1.8	2.02	11	0	T	.0	6.1	n.	21	nw.	13	3	11	16	7.0	35
Atlantic City	52	37	172	1,016.3	1,018.3	−1.3	58	47	52.6	+7.0	66	10	34	30	17	375	46	82	8.87	+6.0	3.02	14	0	.0	.0	16.3	w.	47	ne.	29	7	8	15	6.3	62
Newark [2]	30	5	46	1,016.9	1,018.3	-----	59	42	50.8	+6.8	80	6	28	30	28	433	42	78	2.96	−.5	.74	13	0	T	.0	----	w.	--	-----	--	7	9	14	6.3	--
Trenton	190	89	107	1,011.5	1,018.6	−.7	59	44	51.2	+6.8	77	6	32	30	32	417	----	--	3.11	+.4	.85	13	0	.0	.0	8.4	s.	28	s.	6	10	6	14	6.0	46
Baltimore [4]	123	100	215	1,013.9	1,018.3	−1.7	60	46	53.0	+6.7	76	6	37	30	26	363	43	77	5.40	+2.8	2.08	16	2	.0	.0	10.1	s.	38	s.	6	8	8	14	6.1	47
Washington [4]	112	56	100	1,014.2	1,018.3	−2.0	61	44	52.2	+7.0	78	6	33	30	29	389	44	79	5.78	+3.4	1.70	18	6	.0	.0	6.7	s.	29	nw.	13	8	6	16	6.6	51
Cape Henry	18	8	54	1,016.9	1,017.6	−2.4	64	52	57.6	+5.5	81	6	41	26	27	239	52	84	5.85	+3.5	1.53	18	2	.0	.0	12.4	s.	45	e.	28	8	10	12	5.6	62
Lynchburg [2]	686	5	58	992.9	1,018.0	−3.0	60	42	50.8	+5.6	74	6	30	30	30	428	42	80	4.86	+2.5	1.36	17	1	T	.0	8.0	s.	29	s.	6	8	7	15	6.3	42
Norfolk [4]	91	80	125	1,014.9	1,018.3	−2.4	65	52	58.2	+6.8	81	6	42	30	25	227	50	82	5.51	+3.4	1.33	17	2	.0	.0	9.6	ne.	40	se.	28	6	9	15	6.6	47
Richmond [4]	144	11	52	1,012.5	1,017.6	−3.1	64	45	54.5	+6.2	80	5	34	14	30	326	46	86	5.43	+3.2	1.58	19	0	.0	.0	7.2	s.	27	sw.	20	8	12	10	6.1	51
SOUTH ATLANTIC									58.9	+6.1								80	6.63	+4.2														6.4	
Asheville	2,253	77	92	942.8	1,017.6	−4.4	60	41	50.8	+5.7	71	4	30	30	33	423	42	82	7.15	+4.9	2.51	17	2	.0	.0	9.7	se.	29	se.	5	7	8	15	6.3	47
Charlotte [4]	779	63	86	989.9	1,018.0	−3.0	64	47	55.9	+5.3	78	5	36	30	32	280	47	77	8.41	+5.8	3.05	15	3	.0	.0	6.7	ne.	24	s.	6	7	4	19	6.5	43
Greensboro [2]	886	6	56	986.1	1,018.3	−3.0	63	42	52.4	+5.7	76	5	30	26	35	379	44	78	7.72	+5.3	2.04	17	3	.0	.0	7.5	ne.	26	ne.	28	7	10	13	6.4	37
Hatteras	11	5	47	1,017.3	1,017.6	−2.4	69	58	63.5	+7.2	77	10	46	26	23	89	59	86	7.31	+3.8	1.62	17	1	.0	.0	13.0	ne.	30	sw.	27	7	9	14	6.3	49
Raleigh [4]	376	5	71	1,002.0	1,018.3	2.7	66	47	56.8	+5.8	82	5	33	30	32	264	48	80	8.89	+6.6	3.48	17	2	.0	.0	6.7	e.	24	sw.	20	5	9	16	6.7	37
Wilmington	72	73	107	1,016.6	1,018.0	−3.0	70	55	62.6	+6.6	82	10	43	15	26	126	55	85	6.36	+4.4	1.70	17	4	.0	.0	9.1	ne.	30	s.	19	8	7	15	6.2	49
Charleston [4]	48	11	92	1,015.6	1,017.3	−3.4	71	57	64.4	+6.3	81	10	45	30	23	86	56	83	3.50	+1.4	1.05	13	2	.0	.0	9.6	n.	24	sw.	3	7	5	18	6.3	55
Columbia, S. C. [4]	347	70	91	1,009.1	1,017.3	−4.0	69	51	59.7	+5.6	83	5	39	15	33	185	51	81	6.17	+4.2	1.73	14	3	.0	.0	7.7	ne.	27	s.	19	6	6	18	6.5	38
Greenville, S. C. [2]	1,040	18	36	979.7	1,016.9	−3.8	63	46	54.6	+5.0	79	5	32	30	34	321	46	78	12.18	+9.0	3.61	19	2	.0	.0	8.5	ne.	42	ne.	28	9	3	18	6.4	52
Augusta [4]	182	62	77	1,001.7	1,016.9	−3.8	70	51	60.2	+5.7	83	5	37	15	37	173	51	75	6.75	+4.4	1.46	15	4	.0	.0	5.5	nw.	25	w.	19	7	6	17	6.7	47
Savannah [2]	65	19	51	1,015.6	1,017.3	−3.4	75	55	56.8	+7.8	83	10	41	11	32	88	57	79	4.45	+2.4	2.23	10	6	.0	.0	9.5	s.	27	s.	19	6	8	16	6.4	37
Jacksonville [4]	43	86	110	1,015.9	1,017.3	−3.0	78	61	69.2	+7.0	85	5	45	30	28	38	61	81	.63	−1.4	.21	9	3	.0	.0	8.3	s.	26	sw.	28	8	13	9	5.5	56
FLORIDA PENINSULA									77.1	+5.8								80	.85	−1.6														4.7	
Key West [4]	21	10	64	1,015.2	1,015.6	−1.7	84	76	79.8	+5.5	87	27	69	30	13	0	72	80	.51	−1.7	.17	6	0	.0	.0	9.6	e.	26	nw.	29	14	13	3	4.2	68
Miami [4]	25	242	249	1,015.6	1,016.3	−1.7	81	74	77.8	+5.3	87	29	61	30	21	0	69	80	.48	−2.8	.35	5	0	.0	.0	13.3	se.	36	se.	18	8	22	0	4.0	69
Tampa [2]	35	5	36	1,015.9	1,016.6	−2.7	82	65	73.6	+6.7	88	12	48	30	27	7	66	81	1.57	−.2	.87	4	3	.0	.0	7.7	s.	28	s.	19	6	15	9	6.0	57
EAST GULF									59.0	+2.9								81	13.00	+9.7														6.4	
Atlanta [2]	1,173	33	72	981.7	1,016.6	−4.7	64	46	55.0	+3.5	82	5	33	30	26	310	47	78	15.72	+12.6	3.56	17	4	.0	.0	9.2	nw.	30	s.	19	7	5	18	6.5	42
Macon [4]	370	79	87	1,000.0	1,016.6	−4.4	69	48	58.5	+4.3	82	5	34	15	38	226	50	74	10.26	+7.7	3.54	14	5	.0	.0	6.3	n.	27	sw.	19	7	5	18	6.9	40
Thomasville	273	48	----	994.6	1,016.9	−3.1	65	43	54.0	+1.8	84	5	28	11	40	334	48	82	15.06	+11.8	3.21	18	5	.0	.0	----	-----	--	-----	--	--	--	--	----	--
Apalachicola	35	11	51	1,015.2	1,016.6	−3.7	73	59	66.1	+4.8	80	27	42	30	24	63	6	08	41.24	−1.8	.37	9	3	.0	.0	8.8	se.	40	se.	2	8	9	13	6.0	59
Pensacola [4]	56	54	79	1,011.9	1,016.3	−4.4	71	56	63.4	+3.2	80	5	37	30	25	112	56	80	10.19	+6.5	3.42	14	9	.0	.0	8.3	n.	22	n.	16	6	7	17	6.8	50
Anniston	618	6	32	994.6	1,016.9	−3.1	65	43	54.0	+1.8	84	5	28	11	40	334	48	82	15.06	+11.8	3.21	18	5	.0	.0	----	-----	--	-----	--	--	--	--	----	--
Birmingham [2]	700	5	63	993.6	1,016.3	−5.4	65	44	54.4	+3.0	80	5	31	11	37	321	47	78	15.25	+11.9	4.87	17	3	.0	.0	8.5	se.	34	se.	16	8	5	17	6.4	39
Mobile [4]	57	86	161	1,008.1	1,016.3	−4.0	70	54	61.6	+3.0	79	1	36	30	29	144	54	82	12.09	+8.4	1.75	16	9	.0	.0	9.2	n.	34	se.	5	6	11	13	6.4	44
Montgomery [4]	218	92	105	1,008.8	1,016.3	−5.0	67	50	58.8	+3.0	84	5	38	11	29	207	50	79	20.10	+16.9	6.82	16	7	.0	.0	7.5	e.	25	s.	5	8	4	18	6.6	46
Meridian [4]	375	67	92	1,004.7	1,015.9	−5.4	68	45	56.6	+2.4	83	4	30	11	38	261	50	83	13.93	+10.6	2.93	14	8	.0	.0	9.7	s.	--	-----	--	7	7	16	----	--
Vicksburg [4]	247	82	102	1,005.8	1,015.2	−6.1	66	49	57.6	+1.0	82	4	34	29	33	240	48	83	16.28	+12.6	5.32	12	7	.0	.0	8.5	se.	28	w.	1	9	5	16	6.5	43
New Orleans C. O.	53	76	84	1,013.5	1,015.6	−5.1	72	56	64.4	+2.8	83	5	44	30	25	96	56	82	10.12	+7.0	2.44	14	7	.0	.0	7.0	e.	19	w.	16	9	8	13	6.0	50
New Orleans A. P. [2]	30	6	52	1,013.5	1,015.2	-----	72	54	62.8	-----	84	5	40	11	31	133	56	83	13.72	------	2.75	13	11	.0	.0	----	s.	--	-----	--	6	11	13	6.0	--

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 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	%
WEST GULF									58.9	−.1								71	2.77	.0														5.0	
Shreveport [2]	181	5	64	1,005.8	1,015.2	−5.8	67	45	55.7	−.5	86	4	30	30	35	301	47	80	7.03	+3.4	1.83	15	7	.0	.0	9.3	se.	34	sw.	4	11	4	15	5.8	52
Fort Smith [2]	463	6	30	996.6	1,013.2	−7.1	63	38	50.4	−.6	82	4	19	23	38	444	38	70	1.04	−1.8	.33	7	1	T	.0	8.7	w.	33	w.	19	12	6	12	5.3	54
Little Rock [2]	265	26	58	1,001.4	1,014.6	−6.1	62	43	52.5	+.4	76	16	30	30	35	387	44	77	7.99	+3.8	2.37	13	5	T	.0	8.3	sw.	30	se.	1	10	8	12	5.5	52
Austin [2]	621	5	41	993.9	1,015.6	−4.4	71	46	58.2	−.3	88	4	26	30	38	234	45	68	1.34	−1.0	.85	10	0	.0	.0	9.3	nw.	35	nw.	28	15	7	8	4.2	68
Brownsville [2]	20	5	54	1,011.9	1,013.9	−4.4	78	57	67.3	+.1	92	26	37	29	34	85	57	76	.32	−2.0	.17	5	1	.0	.0	10.0	nw.	34	nw.	28	6	11	13	6.2	52
Corpus Christi [2]	44	6	33	1,014.6	1,015.2	−4.1	76	52	64.4	+1.6	94	4	35	30	32	119	54	74	.64	−1.4	.49	5	0	.0	.0	10.4	nw.	37	nw.	28	11	11	8	4.9	57
Dallas [2]	488	34	45	995.9	1,014.9	−5.4	67	44	55.2	−1.2	89	4	26	29	36	318	38	60	.90	−1.6	.58	6	0	T	.0	12.0	s.	38	nw.	19	18	3	9	4.1	69
Fort Worth [2]	706	40	56	990.5	1,014.9	−5.1	67	44	55.6	+1.1	88	4	27	29	35	301	37	58	.50	−2.1	.28	5	0	.0	.0	----	----	--	----	--	18	5	7	3.8	--
Galveston [4]	54	122	129	1,013.5	1,015.2	−5.1	70	57	63.4	+.1	80	1	41	29	24	112	56	80	2.47	−.9	1.47	11	1	.0	.0	12.7	e.	36	nw.	28	9	6	15	6.0	48
Houston [4]	138	157	190	1,010.2	1,015.2	−5.1	71	53	61.9	+.9	85	1	37	29	28	152	51	78	6.14	+2.3	3.05	11	3	.0	.0	10.5	nw.	34	nw.	28	8	6	16	6.2	46
Laredo [2]	418	10	38	1,000.3	1,015.2	----	75	51	63.0	−.8	96	4	31	29	33	137	45	60	1.03	−.1	.76	4	1	.0	.0	----	w.	--	----	--	18	5	7	4.0	--
Palestine	510	64	72	997.3	1,015.6	−5.1	68	47	57.2	.0	86	4	31	29	31	261	42	62	3.77	+.3	1.60	13	3	.0	.0	8.2	s.	25	w.	18	13	7	10	4.9	57
Port Arthur [4]	34	59	134	1,013.5	1,014.9	−5.1	70	54	62.0	+.9	85	1	37	10	27	139	53	86	4.59	+1.5	1.74	13	4	.0	.0	13.7	n.	37	s.	18	10	8	12	5.8	50
San Antonio [2]	794	6	51	990.9	1,015.6	−4.0	71	44	57.7	−2.6	90	4	25	29	37	241	42	66	1.00	−.9	.57	9	0	.0	.0	8.5	n.	38	nw.	28	18	5	7	3.9	69
OHIO VALLEY AND TENNESSEE									48.6	+4.4								77	6.39	+3.9														6.4	
Chattanooga [2]	762	6	66	991.5	1,016.6	−5.1	62	42	52.1	+4.2	80	5	28	25	38	391	44	78	13.59	+10.2	4.56	16	3	.0	.0	7.5	s.	32	s.	5	5	10	15	6.6	41
Knoxville [2]	995	27	71	981.4	1,016.9	−4.4	62	42	52.0	+5.5	84	5	30	11	33	395	43	76	10.36	+7.3	4.06	14	0	.0	.0	7.4	ne.	34	w.	6	8	7	15	6.1	47
Memphis [5]	399	5	49	1,004.7	1,014.9	−6.1	63	42	52.6	+2.5	81	4	28	30	35	379	44	77	9.16	+4.9	2.80	14	5	T	.0	8.3	sw.	32	sw.	5	8	7	15	5.9	51
Nashville [2]	546	5	72	993.6	1,015.6	−6.1	60	42	50.8	+1.8	73	5	24	24	34	425	43	78	7.85	+4.4	2.48	13	4	T	.0	8.5	s.	29	nw.	9	9	8	13	5.8	48
Lexington [2]	989	4	58	980.0	1,016.9	−3.1	57	39	48.0	+3.2	75	5	24	24	29	512	40	77	6.19	+2.8	2.17	17	0	T	.0	----	s.	--	----	--	7	9	14	6.1	--
Louisville [2]	525	5	54	998.0	1,015.2	−5.5	58	40	49.0	+4.0	75	4	25	24	34	480	40	73	8.13	+4.5	3.58	14	1	T	.0	8.1	s.	29	e.	5	8	6	16	6.7	48
Evansville [2]	431	6	40	999.0	1,014.6	−6.4	58	37	47.6	+3.2	76	4	23	24	37	526	40	78	6.14	+2.4	1.50	11	2	.4	.0	9.1	sw.	33	sw.	19	9	6	15	6.2	47
Indianapolis [2]	823	5	54	984.1	1,014.6	−5.4	54	36	44.6	+3.9	71	4	23	24	31	610	38	78	4.93	----	1.92	12	1	.5	.0	11.1	sw.	40	w.	16	7	6	17	6.9	36
Terre Haute [2]	575	4	36	992.9	1,013.9	−6.1	55	36	45.4	+3.0	74	4	21	24	32	590	38	77	4.15	+8.4	1.36	12	2	.6	.0	10.9	s.	34	sw.	19	7	6	17	6.7	47
Cincinnati [4]	627	135	148	992.6	1,015.6	−5.1	58	42	49.8	+5.2	73	4	30	14	30	456	39	75	6.02	+3.2	2.93	15	2	T	.0	4.5	se.	17	w.	13	8	7	15	6.5	45
Columbus [4]	822	90	110	985.8	1,015.6	−4.7	55	41	48.0	+6.1	71	5	30	14	24	510	38	75	3.99	+1.2	1.07	13	1	T	.0	9.6	s.	36	se.	19	9	5	16	6.5	47
Dayton [2]	1,003	6	55	978.3	1,014.9	−5.1	54	38	46.0	+5.6	67	4	28	14	26	573	38	77	5.52	+2.7	2.33	12	1	T	.0	12.7	s.	38	w.	16	6	7	17	6.6	43
Elkins [2]	1,947	5	45	947.5	1,018.0	−3.7	58	32	45.0	+5.7	75	5	21	18	45	603	36	81	3.55	+.7	.95	15	1	T	.0	7.3	s.	35	w.	20	6	8	16	6.6	46
Parkersburg	637	77	84	----	----	----	59	39	49.4	+5.6	83	5	28	25	38	474	39	77	3.67	+1.1	.98	13	0	T	.0	6.5	se.	21	nw.	13	7	7	16	6.6	43
Pittsburgh [2]	842	39	54	985.8	1,016.6	−3.4	56	40	48.0	+6.8	80	5	30	11	33	511	37	74	2.60	+.3	.48	14	0	.8	.0	10.6	s.	33	sw.	13	6	8	16	6.8	42
LOWER LAKES									46.2	+7.4								77	3.88	+1.0														7.7	
Buffalo [2]	768	34	96	986.8	1,015.2	−2.8	54	40	47.1	+8.6	76	5	31	14	29	536	38	76	4.01	+1.0	1.23	18	0	1.3	.0	13.9	sw.	45	sw.	17	0	7	23	8.4	17
Canton	448	10	61	999.0	1,015.2	−2.1	52	36	43.9	+8.9	76	6	19	30	29	632	36	79	4.61	+1.4	1.47	17	0	T	T	8.8	sw.	31	sw.	17	2	10	18	7.8	35
Oswego	335	71	85	----	----	----	53	41	47.1	+7.7	74	6	30	29	27	536	----	--	3.79	+.4	.98	17	0	T	.0	9.9	s.	32	nw.	13	0	10	20	8.0	27
Rochester [2]	523	4	69	996.3	1,015.6	−2.7	54	38	46.2	+7.5	74	5	31	14	29	564	38	80	2.92	+.4	1.32	13	0	T	.0	9.7	sw.	38	sw.	17	0	9	21	8.2	32
Syracuse [2]	596	5	57	994.2	1,016.6	−2.0	55	38	46.7	+9.5	75	6	27	30	30	551	38	78	4.34	+1.3	1.59	18	0	1.8	.0	10.0	sw.	34	w.	20	0	5	25	8.4	31
Erie [4]	714	57	81	989.2	1,015.6	−2.7	55	43	48.9	+7.5	77	5	36	29	30	487	36	74	3.99	+.7	.89	16	1	T	.0	10.3	se.	29	sw.	17	2	8	20	7.8	21
Cleveland [2]	762	27	54	986.8	1,014.9	−4.1	55	40	47.0	+8.0	75	5	28	25	28	541	38	75	3.46	+.8	.68	17	0	T	.0	12.3	s.	50	w.	17	3	9	18	7.6	31
Sandusky	629	5	67	991.2	1,014.2	−4.4	53	40	46.8	+5.7	70	5	30	14	24	545	----	--	4.33	+1.9	1.48	15	2	T	.0	10.3	sw.	34	sw	16	6	10	14	6.8	38
Toledo [2]	628	5	47	990.9	1,013.9	−5.4	52	37	44.8	+6.1	67	4	28	25	29	605	38	79	3.74	+1.3	1.38	14	2	T	.0	12.3	sw.	40	sw.	16	4	7	19	7.3	30
Fort Wayne [2]	857	5	34	982.4	1,013.9	−5.4	52	37	44.2	+5.4	66	4	27	14	28	624	38	80	3.36	+.5	1.13	13	2	.4	.0	10.7	sw.	36	s.	16	7	5	18	7.1	42
Detroit [2]	730	5	77	987.5	1,014.2	−4.4	52	40	45.6	+6.4	66	4	31	14	22	580	37	74	4.14	+1.7	1.34	13	2	T	.0	11.1	sw.	36	sw.	16	3	5	22	7.8	25
UPPER LAKES									39.8	+5.4								82	3.69	+1.3														8.1	
Alpena	609	5	89	989.5	1,012.2	−4.7	46	37	41.7	+7.3	62	4	28	14	17	701	37	84	2.70	+.1	1.51	14	0	.4	.0	11.8	sw.	42	e.	19	0	7	23	8.8	11
Escanaba	612	51	72	988.2	1,010.8	−6.1	42	35	38.3	+5.2	57	5	25	24	13	802	34	82	5.69	+3.6	1.35	15	1	7.1	T	10.3	w.	35	nw.	16	3	6	21	8.1	20
Grand Rapids [4]	707	70	244	986.1	1,012.2	−5.8	49	39	44.1	+5.7	66	5	29	29	21	625	36	80	2.83	+.1	.80	17	3	T	.0	12.7	sw.	45	sw.	16	1	8	21	8.3	22
Lansing [4]	878	5	90	980.4	1,013.2	−4.8	49	37	42.9	+5.7	66	5	25	29	24	663	36	79	2.49	.0	.67	15	1	T	.0	10.8	sw.	43	w.	17	3	8	19	7.8	25
Marquette	734	44	73	983.1	1,010.5	−6.1	41	33	37.4	+4.1	62	1	22	23	16	832	33	82	5.08	+2.2	1.59	19	0	17.0	1.9	8.1	w.	25	nw.	17	1	5	24	8.5	13
Sault Sainte Marie [2]	614	10	52	988.2	1,011.2	−5.4	42	33	37.4	+7.0	56	6	21	14	20	827	34	88	5.62	+2.6	1.28	23	0	15.5	2.0	10.9	e.	55	w.	17	0	1	29	9.2	6
Chicago [2]	673	5	38	987.5	1,012.5	−6.1	50	36	43.0	+5.3	67	1	23	30	25	656	36	78	2.41	−.1	.75	11	1	T	.0	10.6	s.	35	w.	16	5	6	19	7.3	38
Green Bay	617	5	32	988.2	1,011.2	−5.7	45	34	39.8	+5.8	68	1	23	29	29	755	34	77	4.99	+2.8	1.57	15	4	.7	.0	8.7	sw.	34	w.	16	2	6	22	8.0	29
Milwaukee [2]	681	33	66	986.5	1,012.2	−5.8	47	35	41.4	+5.5	67	1	22	30	23	704	36	80	2.44	+.7	.66	12	2	T	.0	13.5	sw.	44	w.	16	4	7	19	7.4	33
Duluth [4]	1,133	5	47	969.2	1,011.2	−5.7	38	27	32.5	+2.5	61	1	13	23	20	973	26	85	2.63	+1.2	1.88	10	0	5.9	1.2	12.5	w.	37	ne.	19	4	7	19	7.6	34
NORTH DAKOTA									29.7	+3.4								82	.88	+.2														7.4	
Fargo [2]	940	5	47	976.6	1,012.2	−6.1	36	22	29.0	+1.9	54	3	1	28	29	1,080	26	86	.87	.0	.31	9	0	10.2	2.0	12.7	n.	35	nw.	6	4	4	22	7.8	19
Bismarck [2]	1,677	5	41	951.2	1,013.2	−6.1	40	23	31.6	+5.1	55	1	11	20	29	1,006	26	80	.70	+.1	.20	9	0	1.1	.0	11.1	nw.	37	nw.	29	5	10	15	7.2	38
Devils Lake	1,478	11	44	957.7	1,012.9	−5.1	34	20	27.0	+2.5	49	3	−2	28	34	1,138	23	82	1.04	+.3	.28	12	0	8.3	3.9	8.7	nw.	27	nw.	6	6	6	18	7.0	40
Williston	1,878	42	50	944.1	1,012.5	−6.1	38	24	31.3	+4.1	48	3	11	20	26	1,008	26	80	.92	+.3	.29	11	0	.5	T	7.1	w.	27	nw.	13	4	6	20	7.4	39
UPPER MISSISSIPPI									41.7	+3.6								79	2.87	+.8														7.1	
Minneapolis-St. Paul [2]	919	43	74	977.0	1,011.2	−6.1	41	29	35.1	+2.7	70	1	16	30	29	897	30	81	1.89	+.6	.93	11	0	2.5	T	10.3	w.	34	w.	6	3	8	19	7.8	25
La Crosse [2]	672	5	29	984.8	1,011.2	−7.8	44	32	38.0	+4.3	70	1	14	30	31	810	33	82	1.73	+.2	.81	12	1	1.4	.0	9.5	nw.	34	w.	16	0	10	20	8.3	28
Madison [2]	974	27	39	975.6	1,011.9	−6.4	46	33	39.5	+5.3	69	1	18	30	33	765	34	80	3.56	+1.8	.92	15	2	.9	.0	11.1	w.	38	w.	16	2	9	19	7.6	23
Charles City	1,015	10	51	974.9	1,012.5	−6.1	44	32	38.0	+5.0	68	1	18	22	33	805	----	--	3.33	+1.8	1.31	9	2	.1	.0	6.8	nw.	22	w.	6	7	6	17	7.0	35
Moline [2]	606	6	50	990.2	1,012.9	−6.1	49	33	41.3	+3.8	66	4	19	29	38	709	35	77	2.23	+.4	.59	9	2	T	.0	10.1	w.	31	sw.	16	4	11	15	7.2	31
Des Moines [4]	860	5	99	980.7	1,012.5	−6.1	49	34	41.4	+3.0	72	15	20	22	41	708	34	82	3.27	+1.8	2.07	9	1	.1	.0	9.4	nw.	29	nw.	16	6	8	16	6.8	37
Dubuque	699	60	79	986.1	1,011.5	−7.1	47	34	40.6	+3.6	68	1	19	29	31	735	34	80	2.39	+.7	.81	14	2	T	.0	5.6	s.	20	ne.	19	3	5	22	7.7	27
Burlington [2]	702	4	36	986.8	1,012.9	−6.1	50	33	41.4	+2.8	68	4	16	29	36	709	36	84	2.22	+.2	.97	10	3	T	.0	10.3	s.	37	nw.	16	2	11	17	7.1	37
Cairo	357	5	99	1,001.7	1,014.9	−5.8	59	42	50.4	+3.1	74	4	31	29	28	439	----	--	8.25	+4.6	2.35	11	3	.2	.0	9.8	sw.	36	sw.	19	11	6	13	5.9	56
Peoria [2]	609	7	26	990.5	1,012.9	−6.7	51	34	42.8	+3.0	73	4	19	29	34	664	36	77	1.13	−1.2	.43	6	1	T	.0	10.5	sw.	35	w.	16	6	6	18	7.1	45
Springfield, Ill. [4]	636	5	191	989.8	1,013.5	−5.8	53	35	44.0	+4.1	72	4	21	23	33	632	37	78	1.93	−.6	.99	9	1	T	.0	12.7	sw.	54	w.	16	6	6	18	7.2	32
St. Louis [4]	568	33	59	992.2	1,013.2	−6.1	56	41	48.4	+3.0	71	15	26	29	29	499	38	71	2.46	−.4	.73	12	2	T	.0	12.5	s.	40	nw.	16	10	5	15	5.9	50

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 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
MISSOURI VALLEY	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	%
Columbia, Mo.[4]	784	6	66	983.7	1,012.5	−7.1	55	36	40.5	+1.3	78	4	20	29	34	576	35	78	2.29	+.9	3.01	9	3	T	.0	7.5	sw.	26	s.	4	6	7	17	6.5	52
Kansas City [2]	963	38	76	984.4	1,012.2	−7.4	55	38	45.8	+1.7	71	4	23	22	30	563	35	77	1.69	−.5	1.17	8	2	T	.0	10.5	sw.	38	nw.	16	11	4	15	6.6	49
St. Joseph [2]	967	5	51	982.1	1,012.2	−7.1	54	34	46.2	+2.5	73	15	22	29	39	633	35	77	1.27	−.3	.49	9	3	T	.0	8.3	s.	33	nw.	16	10	5	15	6.0	47
Springfield, Mo.[2]	1,324	5	50	967.2	1,013.2	−6.8	56	36	46.2	+1.2	76	4	20	29	32	567	36	78	3.07	+.3	2.10	11	3	T	.0	13.2	s.	36	sw.	19	12	6	12	5.3	53
Topeka [4]	987	65	87	976.6	1,012.5	−6.8	55	36	45.2	+2.4	73	15	21	22	31	589	34	76	1.41	−.1	1.08	6	1	T	.0	9.2	w.	30	nw.	16	10	5	15	6.0	49
Lincoln [4]	1,189	6	81	969.2	1,012.9	−6.4	48	32	39.8	+.7	70	15	14	22	30	756	32	82	3.62	+2.6	1.76	7	2	4.3	.0	9.5	nw.	34	nw.	5	6	7	17	7.1	42
Norfolk, Nebr.[2]	1,551	5	38	956.3	1,013.2	-----	44	25	34.6	−1.8	74	15	9	21	39	910	28	80	1.10	.0	.56	8	2	9.7	3.0	----	nw.	--	-----	--	5	11	14	6.7	--
Omaha [2]	1,105	5	68	976.3	1,012.5	−6.8	48	32	39.8	+1.5	71	15	11	22	31	752	32	78	4.05	+3.0	2.53	7	2	2.0	.0	11.2	n.	35	n.	19	5	8	17	6.8	32
Valentine	2,598	46	54	920.8	1,014.6	−5.0	45	24	34.7	+.1	69	15	12	28	37	909	26	75	.39	−.2	.19	6	0	.4	.0	10.1	w.	30	nw.	5	6	5	19	6.7	50
Sioux City [2]	1,138	5	40	971.9	1,012.9	−6.4	45	27	36.0	+2.0	71	15	8	22	40	871	30	86	4.10	+3.1	3.45	7	0	8.8	T	10.9	nw.	34	nw.	6	5	8	17	6.9	48
Huron [2]	1,301	5	41	965.5	1,013.2	−6.1	43	24	33.4	+1.9	66	11	1	28	37	949	28	82	.24	−.4	.12	5	0	2.3	T	12.1	nw.	36	nw.	6	4	4	22	7.7	34
NORTHERN SLOPE																																				
Billings [2]	3,570	16	39	888.9	1,015.2	−5.5	45	28	32.8	+.1	64	14	16	30	32	863	20	68	.64	+.1	-----	.07	3	0	T	.0	13.9	sw.	47	nw.	10	1	10	19	7.4	45
Butte	5,533	44	58	828.0	1,020.7	-----	36	17	36.2	+.8	51	14	3	30	29	1,159	21	51	.09	-----	.12	12	0	8.2	T	----	nw.	--	-----	--	1	3	26	7.3	41
Glasgow	2,086	34	53	937.7	1,013.9	-----	42	23	26.4	−2.9	74	1	11	7	34	977	26	74	.41	.0	.21	10	0	3.4	.0	----	nw.	--	-----	--	2	10	18	7.4	--
Great Falls [2]	3,657	16	75	885.5	1,014.2	-----	43	29	32.4	+4.7	54	1	11	7	34	977	26	74	.69	+.2	.21	10	0	3.4	.0	----	nw.	--	-----	--	2	10	18	7.4	--
Havre	2,507	11	67	923.1	1,013.9	−6.4	43	26	35.6	−.5	58	14	14	27	24	877	23	58	.39	−.3	.22	4	0	3.3	.0	20.2	sw.	52	sw.	28	1	10	19	7.7	31
Helena [2]	4,124	5	43	872.3	1,018.3	−2.4	42	26	34.6	+3.4	56	14	12	27	35	915	25	67	.26	−.4	.08	7	0	1.8	T	10.3	sw.	38	sw.	28	1	11	18	7.5	34
Missoula [2]	3,263	4	32	902.8	1,019.6	−1.1	39	25	33.8	+2.0	61	14	14	30	35	939	23	63	.61	+.2	.49	6	0	1.6	.0	10.6	w.	41	nw.	22	1	5	24	7.9	29
Kalispell	2,973	48	56	911.6	1,016.9	−3.8	38	28	32.2	+.8	53	14	11	27	24	985	27	80	.92	.0	.30	13	0	5.4	T	5.7	nw.	35	sw.	28	0	1	29	8.9	17
Miles City [2]	2,371	5	28	929.2	1,015.2	−5.5	42	24	33.0	+.6	51	14	19	27	20	958	28	78	1.50	+.2	.59	15	0	6.3	T	4.8	w.	22	sw.	28	0	5	25	8.7	14
Rapid City [2]	3,259	5	56	899.1	1,013.9	−6.4	44	24	34.1	−.5	62	2	8	20	39	926	24	72	.29	−.2	.11	7	0	1.6	.0	16.5	nw.	56	nw.	4	5	12	13	6.4	47
Cheyenne [2]	6,094	22	40	808.0	1,016.3	−3.3	42	21	31.2	−3.6	63	14	8	27	35	1,017	18	60	.32	−.2	.13	7	0	3.5	.0	15.1	nw.	48	nw.	24	7	10	13	6.2	44
Lander [2]	5,352	6	30	826.6	1,018.0	−4.0	41	17	28.8	−1.5	60	1	4	8	35	1,086	17	64	1.23	+.6	.58	7	0	20.7	2.0	5.8	se.	38	w.	13	5	13	12	6.1	50
Sheridan [2]	3,790	5	38	876.1	1,016.3	−4.0	43	22	32.3	−.4	59	14	8	19	38	980	23	68	1.05	+.4	.46	12	0	5.3	.0	10.4	nw.	45	nw.	13	2	10	18	7.2	31
North Platte [2]	2,821	11	51	913.3	1,014.6	−5.4	46	24	35.0	−1.6	75	15	14	23	46	902	26	74	.77	+.3	.28	8	0	5.0	.0	11.9	nw.	--	-----	--	6	8	16	6.7	49
MIDDLE SLOPE																																				
Denver [4]	5,292	106	113	835.1	1,016.3	−3.7	49	28	42.6	−1.1	73	14	15	19	34	787	16	64	1.53	+.4	-----	.28	7	0	9.3	.0	8.4	s.	34	n.	18	9	14	7	5.2	68
Pueblo [2]	4,690	5	36	850.7	1,015.9	−3.7	54	21	38.4	−.9	73	2	2	28	50	831	16	48	.63	+.1	.08	3	1	.8	.0	8.9	nw.	40	nw.	24	9	9	12	5.1	62
Concordia	1,392	50	58	962.8	1,013.5	−6.5	50	33	37.4	−.1	72	15	23	20	31	711	32	72	.01	−.4	.01	1	0	.8	.0	9.3	nw.	42	n.	19	11	8	11	5.5	61
Dodge City [2]	2,509	5	58	921.8	1,013.9	−6.1	50	29	41.2	−.2	72	15	23	20	31	711	32	72	2.02	+1.0	1.26	7	0	3.9	.0	9.3	nw.	42	n.	19	11	8	11	5.5	52
Wichita [2]	1,358	52	64	962.4	1,012.9	−6.4	53	35	39.5	−3.1	76	17	15	28	38	761	30	75	1.98	+1.2	.62	7	0	13.2	3.0	17.2	nw.	55	nw.	18	12	4	14	5.4	53
Oklahoma City [4]	1,214	10	47	969.9	1,013.9	−6.1	59	39	44.0	−.8	69	3	22	29	31	630	34	72	3.30	+1.9	1.86	7	1	3.6	T	14.4	s.	40	n.	16	13	3	14	5.4	57
Tulsa [2]	674	10	60	988.5	1,013.2	-----	60	37	48.8	.0	77	4	25	29	32	490	34	64	1.78	−.1	1.43	4	1	.6	.0	10.2	s.	26	n.	28	15	7	8	4.5	62
SOUTHERN SLOPE																																				
Abilene [2]	1,755	4	59	952.9	1,014.6	−5.0	65	41	48.6	−.3	84	4	22	23	37	492	36	70	1.00	−1.1	.63	7	2	T	.0	11.9	s.	33	n.	28	13	5	12	5.0	61
Amarillo [2]	3,604	5	42	886.8	1,014.3	−5.0	56	29	49.7	−2.0	82	3	21	29	42	378	34	54	.56	−.7	-----	.08	3	1	.7	.0	16.8	s.	43	nw.	5	17	8	5	3.2	79
Del Rio	960	63	71	981.4	1,015.2	−4.8	69	46	42.4	−1.4	74	17	17	28	43	675	28	62	2.11	+1.2	.25	4	0	.0	.0	15.7	nw.	52	nw.	18	17	8	5	3.5	62
Roswell	3,614	6	29	890.6	1,015.6	−3.4	63	26	57.5	−2.5	91	4	25	29	35	249	40	56	.38	−.9	T	.0	0	T	.0	8.6	nw.	32	nw.	27	20	5	5	2.9	80
Wichita Falls	1,030	4	49	977.3	1,014.2	-----	64	39	44.6	−3.5	83	17	14	29	58	616	18	41	T	−.8	T	0	0	T	.0	8.1	n.	42	w.	17	23	5	2	2.4	84
SOUTHERN PLATEAU																																				
El Paso [2]	3,916	35	85	886.6	1,015.6	−2.4	63	33	51.3	−2.8	80	4	22	29	41	411	34	58	.30	−1.4	.26	4	2	T	.0	----	-----	--	-----	--	17	9	4	3.4	--
Albuquerque [2]	5,314	5	45	837.1	1,015.9	−2.7	53	28	48.9	−3.0	71	3	16	28	35	733	19	35	.03	−.7	-----	.11	1	0	.0	10.6	n.	42	w.	4	23	5	2	2.3	90
Flagstaff	6,907	34	48	790.4	1,020.0	+3.4	50	20	40.6	−2.7	64	1	9	30	49	891	14	44	.11	−.4	.11	1	0	T	.0	9.1	nw.	43	nw.	17	16	13	1	2.3	84
Phoenix [4]	1,107	39	87	976.6	1,016.3	+1.6	72	42	35.3	−1.9	81	2	29	28	45	344	20	28	.06	−.8	.06	1	0	.0	.0	----	w.	--	-----	--	18	11	1	3.1	--
Tucson [2]	2,555	5	39	926.5	1,015.6	+.7	70	38	57.0	−2.7	82	2	34	28	39	242	25	35	.00	−.7	.00	0	0	.0	.0	5.8	e.	24	w.	8	26	3	1	1.7	98
Yuma	142	9	54	1,008.8	1,016.3	.0	74	45	53.6	−4.1	85	3	37	23	38	181	26	28	.00	−.3	.00	0	0	.0	.0	6.7	nw.	41	n.	8	26	3	1	1.9	97
MIDDLE PLATEAU																																				
Ely [2]	6,262	8	41	810.7	1,022.0	-----	46	15	34.4	−3.5	62	14	5	25	46	1,036	18	63	.58	−.1	-----	.04	4	0	1.3	1.0	10.5	s.	29	nw.	3	9	9	12	5.5	69
Reno [2]	4,527	20	52	866.2	1,022.7	+1.7	57	20	30.4	−2.3	70	13	7	27	50	806	22	58	.10	−.6	.04	4	0	T	.0	7.2	n.	45	se.	1	15	11	4	5.4	80
Winnemucca	4,339	5	56	871.7	1,022.7	+.3	50	21	38.2	−1.5	65	14	9	28	45	889	24	63	.38	−.3	.12	8	0	1.3	1.0	7.6	sw.	39	nw.	30	7	11	12	3.9	80
Salt Lake City [2]	4,357	32	58	870.0	1,021.3	.0	44	26	35.3	−3.1	64	14	13	27	28	890	27	70	1.71	+.6	.33	17	1	11.2	1.7	8.6	se.	38	nw.	24	5	11	14	6.2	50
Grand Junction [2]	4,602	5	26	854.4	1,022.4	+2.8	43	22	35.4	−4.0	64	14	13	27	28	890	27	70	1.71	+.6	.33	17	1	11.2	1.7	8.6	se.	38	nw.	24	5	11	14	6.5	57
NORTHERN PLATEAU																																				
Baker [4]	3,471	36	54	898.4	1,022.4	.0	42	25	32.5	−6.8	62	1	9	28	30	973	22	70	.70	+.3	.27	8	0	7.2	T	6.4	e.	29	nw.	17	10	9	11	5.5	51
Meacham	4,056	7	28	878.1	1,021.7	-----	38	25	36.5	−1.2	57	14	13	8	30	954	25	75	1.73	−.1	-----	.33	15	0	7.8	2	5.6	se.	30	sw.	14	1	10	19	7.7	46
Boise [2]	2,739	5	49	923.8	1,022.0	−1.0	46	28	33.3	−2.7	57	14	13	8	28	999	27	82	3.77	-----	.72	21	0	23.2	8	----	se.	--	-----	--	1	3	26	9.0	--
Lewiston	1,436	4	23	967.8	1,020.7	-----	47	32	37.0	−2.7	62	14	16	8	34	840	28	70	1.02	−.3	.32	11	0	5.5	2	9.9	se.	32	w.	3	2	9	19	7.6	43
Pocatello [2]	4,478	5	31	865.2	1,022.0	.0	42	26	39.6	-----	56	22	21	9	21	761	32	72	.96	-----	.24	12	0	1.6	0	----	s.	--	-----	--	1	5	24	8.4	--
Ellensburg [2]	1,735	5	58	955.3	1,019.3	-----	45	27	33.8	−.3	60	14	10	8	26	935	25	69	2.44	+1.4	.58	15	0	7.9	1	11.5	sw.	32	sw.	3	1	13	16	7.7	38
Spokane [2]	1,929	6	51	948.9	1,019.3	−2.0	41	28	35.8	−.4	56	10	15	8	32	881	30	82	1.08	−.4	.45	11	0	5.3	0	----	nw.	--	-----	--	6	7	17	6.8	--
Walla Walla	991	57	65	983.7	1,020.3	−1.0	51	37	34.8	−3.7	53	14	18	27	28	909	29	78	2.38	+.3	.67	14	0	8.0	T	9.3	sw.	36	sw.	28	3	7	20	7.6	28
Yakima [2]	1,076	4	54	980.0	1,020.0	−.7	50	27	44.0	+1.2	68	14	25	21	25	627	-----	--	1.91	−.1	.60	11	0	T	0	6.6	s.	25	w.	16	1	9	20	7.9	38
							38.2	+.1	58	10	18	8	33	808	30	74	1.12	−.1	.46	8	0	3.0	0	----	w.	--	-----	--	7	9	14	6.4	--

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 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	%
NORTH PACIFIC COAST																				+1.1														8.1	
Kelso [2]	750	38	76	-----	-----	-----	49	34	41.8	-----	55	5	23	8	26	694	39	83 86	6.97 8.62	-----	1.53	24	0	0	0	----	s.	--	-----	--	1	3	26	8.7	--
North Head	211	5	55	1,012.2	1,020.0	+2.0	49	41	45.1	−3.1	53	5	36	8	13	599	42	86	9.06	+.6	1.61	26	0	0	0	18.0	se.	67	se.	16	1	9	20	7.9	31
Seattle [4]	125	90	321	1,014.9	1,019.6	+1.0	50	40	45.0	−1.8	54	22	34	8	15	602	39	84	6.07	+1.0	1.32	22	3	T	0	12.4	se.	47	sw.	14	2	7	21	8.0	22
Tacoma	194	172	201	1,012.5	1,019.6	+1.3	49	38	43.6	−1.0	54	22	30	8	16	638	----	--	6.06	−.2	1.02	20	1	T	0	11.4	s.	34	s.	27	2	8	20	7.9	24
Tatoosh Island	86	5	61	1,014.2	1,017.6	+1.0	49	41	45.0	−.9	51	14	36	26	14	603	40	84	17.60	+5.7	2.81	23	0	0	0	17.8	w.	66	s.	29	1	6	23	8.4	21
Burns	4,162	35	47	876.1	1,022.0	-----	45	23	33.8	−1.4	56	12	13	18	40	936	26	71	1.34	.0	.78	10	0	5.0	1	----	w.	--	-----	--	1	15	14	7.1	--
Eugene [2]	433	4	35	1,008.8	1,023.0	-----	50	34	42.4	-----	60	2	24	9	26	679	40	89	6.19	-----	.92	21	1	0	0	----	s.	--	-----	--	2	4	24	8.3	--
Medford [2]	1,329	29	58	975.3	1,024.4	+3.4	52	31	41.4	−2.5	65	1	23	8	37	707	36	83	2.57	+.2	.56	13	0	T	0	----	n.	--	-----	--	1	7	22	7.9	--
Portland, Oreg. [4]	154	68	106	1,016.3	1,022.0	+2.4	50	40	45.2	−1.6	58	22	35	11	16	593	39	84	7.75	+1.6	1.34	22	0	0	0	6.4	se.	24	s.	27	1	8	21	8.5	16
Roseburg	510	45	76	1,004.7	1,023.7	+3.4	52	38	45.0	−.9	64	2	26	8	25	600	----	--	4.45	−.2	1.05	17	0	T	0	4.0	sw.	25	sw.	1	0	3	27	8.6	21
MIDDLE PACIFIC COAST																																			
									52.8	−1.0								66	1.49	−1.6													4.8	
Eureka	60	72	88	1,022.0	1,024.4	+4.1	55	41	47.7	−3.4	65	2	34	27	24	518	44	83	3.19	−2.0	.83	14	0	.0	.0	6.5	se.	28	sw.	1	6	8	16	6.7	53
Red Bluff [2]	353	5	26	1,008.5	1,021.3	-----	64	42	53.2	−.6	82	10	27	28	35	358	34	52	1.01	−2.0	.58	7	0	.0	.0	8.2	nw.	37	se.	1	13	6	11	5.1	71
Sacramento [4]	66	92	115	1,018.6	1,021.0	+1.7	64	43	53.5	−.1	72	12	33	27	30	347	37	61	.59	−1.3	.30	6	0	.0	.0	6.9	nw.	27	nw.	7	17	7	6	3.7	72
San Francisco [4]	155	112	132	1,015.6	1,021.3	+2.0	64	49	56.6	+.3	73	13	42	28	25	256	43	70	1.18	−1.2	.51	8	0	.0	.0	6.9	w.	27	w.	25	17	6	7	3.8	72
SOUTH PACIFIC COAST																																			
									58.3	+.8								58	.04	−.9													2.8	
Fresno [2]	327	5	34	1,008.8	1,021.3	+1.7	68	37	52.9	+.5	79	14	27	29	40	364	36	57	.02	−.9	.02	1	0	.0	.0	3.8	nw.	29	nw.	26	16	11	3	3.7	90
Los Angeles	338	236	263	-----	-----	-----	75	49	62.1	+1.2	86	6	42	27	33	101	----	--	T	−1.2	T	0	0	.0	.0	6.8	e.	37	nw.	26	21	8	1	2.5	93
San Diego [2]	87	20	55	1,013.9	1,016.9	.0	72	48	60.0	+.7	79	6	40	27	32	152	43	58	.10	−.7	.06	4	0	.0	.0	5.0	n.	20	nw.	26	22	7	1	2.3	92
WEST INDIES																																			
San Juan, P. R.	82	9	54	1,010.8	1,013.5	-----	83	74	78.6	+.2	87	2	71	30	12	0	74	86	7.49	+.7	1.55	23	7	.0	.0	9.2	e.	30	e.	18	2	15	13	6.7	35
ALASKA																																			
Anchorage [2]	132	6	44	995.6	1,000.7	-----	21	7	14.2	−8.2	43	10	−20	27	23	1,523	10	77	1.36	+.3	.61	8	0	10.4	3.0	5.7	n.	26	s.	10	7	6	17	6.4	40
Annette Island	113	5	53	1,003.1	1,007.1	-----	43	35	39.2	-----	49	21	21	28	13	773	36	86	12.09	-----	1.64	28	0	7.2	T.	----	s.	--	-----	--	0	5	25	8.7	--
Barrow	29	5	27	1,011.2	1,011.5	-----	2	−12	−5.2	-----	28	11	−40	25	34	2,105	−7	84	.12	-----	.04	6	0	1.8	10.0	10.1	se.	31	e.	3	6	14	10	5.9	--
Bethel [2]	28	5	31	1,003.1	1,004.4	-----	15	5	10.1	-----	37	7	−23	30	25	1,649	8	85	.77	-----	.34	10	0	5.6	1.0	10.7	s.	34	-----	22	12	3	14	5.4	--
Cordova [2]	45	5	32	994.9	996.6	-----	32	15	23.4	−6.8	47	2	−17	27	33	1,248	23	95	9.02	−.4	3.52	20	0	27.3	14.0	----	e.	--	-----	--	4	6	20	7.5	--
Fairbanks [2]	455	5	63	990.5	1,008.8	-----	4	−8	−2.0	-----	48	10	−38	26	32	2,011	−6	78	.54	-----	.20	12	0	5.9	2.0	3.2	n.	20	s.	10	9	3	18	6.4	35
Juneau [2]	80	6	30	1,000.3	1,003.4	-----	36	28	31.8	−.2	49	2	−3	28	22	996	27	82	10.38	+5.0	1.71	26	0	27.5	6.0	11.2	se.	36	se.	3	2	0	28	8.9	6
Kotzebue [2]	20	5	31	1,008.1	1,008.5	-----	5	−7	−1.0	-----	34	10	−36	24	24	1,978	−3	85	.35	-----	.11	11	0	3.9	7.0	8.1	ne.	36	se.	26	7	7	16	6.3	--
McGrath [2]	341	5	31	993.6	1,007.1	-----	5	−13	−4.1	−6.5	35	10	−49	25	30	2,073	−3	80	1.11	+.1	.48	12	0	14.1	14.0	----	nw.	--	-----	--	12	3	15	5.2	--
Northway [2]	1,718	5	32	942.4	1,008.5	-----	1	−13	−5.9	-----	31	11	−55	27	26	2,131	----	--	.60	-----	.14	12	0	10.3	12.0	----	nw.	--	-----	--	4	6	20	7.9	--
HAWAII																																			
Honolulu [4]	38	86	98	1,014.2	1,015.6	-----	79	70	74.8	+.3	82	6	64	29	12	0	65	71	3.10	−.7	2.05	18	2	.0	.0	9.7	ne.	28	ne.	28	1	17	12	7.1	58

[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.

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