TABLE I.—*Annual meteorological summary, Weather Bureau Stations*, 1898.

Districts and stations.	Elevation of barometer above sea-level.	Pressure in inches.†			Temperature of the air, in degrees Fahrenheit.							Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation.			Winds.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall, in inches.‡
		Mean actual, 8 a. m. + 8 p. m. ÷ 2.	Mean reduced.	Departure from normal.	Mean max. + min. ÷ 2.	Departure from normal.	Maximum.	Mean maximum.	Minimum.	Mean minimum.	Annual range.			Total, in inches.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Max. velocity. Miles, per hour.	Max. velocity. Direction.					
New England.					48.4	+1.1							80	49.13	+ 5.67									5.9	
Eastport, Me	76	29.91	30.00	+.04	42.7	+1.2	87	49	− 9	36	96	37	83	45.16	− 0.02	153	92,535	s.	72	e.	79	103	183	6.9	86.4
Portland, Me	103	29.88	29.98	.00	46.3	+0.6	97	53	− 6	39	103	38	78	49.76	+ 7.50	148	64,698	sw.	50	e.	93	131	141	5.9	95.0
Northfield, Vt	872	29.08	30.03	+.02	43.0	+1.8	94	53	−24	32	118	36	78	30.52	− 5.22	150	75,073	s.	54	nw.	61	151	153	6.5	96.1
Boston, Mass	125	29.89	30.03	+.03	50.8	+2.2	99	58	0	44	99	42	75	49.86	+ 4.90	130	95,584	w.	60	n.	130	91	144	5.6	51.9
Nantucket, Mass	14	30.02	30.03	.00	50.0	+1.2	85	55	10	45	75	45	86	31.34	− 9.39	141	100,634	sw.	72	ne.	91	105	169	6.5	16.4
Woods Hole, Mass	.....	.....	.....	.....	49.6	+0.8	85	54	5	45	80	.....	.....	51.68	+ 7.07	120	121,413	sw.	78	n.	169	71	125	4.8	27.9
Vineyard Haven, Mass	.....	.....	.....	.....	52.2	+0.9	91	59	6	46	85	.....	.....	59.03	+17.51	137	81,648	sw.	.....	.....	123	97	145	.....	17.4
Block Island, R. I	27	30.02	30.05	+.02	49.6	+0.5	84	54	5	45	79	44	82	62.10	+17.91	144	131,995	sw.	90	ne.	131	135	99	5.0	22.7
Narragansett Pier, R. I	.....	.....	.....	.....	49.5	+0.9	90	57	− 1	42	91	.....	.....	58.10	+10.60	123	.....	nw.	.....	.....	208	81	126	.....	40.5
New Haven, Conn	107	29.93	30.05	+.01	50.7	+1.3	97	58	0	43	97	43	78	53.72	+ 5.81	147	80,149	n.	54	e.	136	107	122	6.1	31.3
Middle Atlantic States.					54.9	+1.5							75	43.46	− 0.29									5.5	
Albany, N. Y	97	29.94	30.05	+.03	50.3	+2.1	100	59	−12	42	112	41	75	38.77	+ 0.91	148	65,129	s.	60	ne.	93	120	152	6.3	60.6
Binghamton, N. Y	875	.....	.....	.....	48.6	+2.2	95	58	− 3	40	98	.....	.....	38.27	+ 0.99	164	56,144	ne.	38	w.	69	137	159	6.5	58.8
New York, N. Y	314	29.72	30.06	+.01	52.9	+1.2	99	60	5	46	94	44	75	45.12	+ 0.32	150	109,716	nw.	78	e.	109	124	132	5.6	20.1
Harrisburg, Pa	377	.....	.....	.....	53.6	+2.1	101	61	6	46	95	.....	.....	45.09	+ 1.03	138	64,769	w.	52	w.	104	120	141	5.8	18.9
Philadelphia, Pa	117	29.94	30.06	.00	55.6	+2.2	100	64	8	48	92	44	71	49.23	+ 9.39	146	86,244	nw.	48	se.	107	111	147	5.8	19.4
Atlantic City, N. J	52	30.01	30.07	+.02	53.1	+1.2	94	59	7	47	87	48	84	38.68	− 4.03	137	98,014	sw.	50	*	123	139	103	5.2	3.7
Baltimore, Md	123	29.94	30.07	.00	56.3	+1.1	104	64	10	48	94	45	68	36.46	− 7.49	125	46,958	w.	54	e.	141	116	108	4.9	10.5
Washington, D. C	112	29.96	30.08	.00	56.1	+1.4	101	65	2	47	99	46	73	37.72	− 5.74	128	56,814	s.	46	nw.	150	115	100	4.8	11.0
Cape Henry, Va	.....	.....	.....	.....	59.7	+1.0	102	67	18	52	84	.....	.....	45.61	− 6.73	142	115,418	s.	.....	.....	102	159	104	.....	T.
Lynchburg, Va	685	29.36	30.10	+.02	57.5	+0.6	99	67	8	48	91	47	74	49.93	+ 7.08	133	36,302	nw.	46	nw.	154	109	102	4.9	3.4
Norfolk, Va	57	30.03	30.09	+.02	60.1	+1.1	96	68	15	52	81	52	82	53.14	+ 1.06	135	72,733	sw.	59	nw.	163	85	117	4.9	T.
Richmond, Va	.....	.....	.....	.....	58.9	.....	99	68	11	50	88	.....	.....	41.65	.....	149	55,115	n.	36	sw.	118	129	118	.....	5.0
South Atlantic States.					64.4	+0.8							77	47.00	− 7.09									4.8	
Charlotte, N. C	773	29.27	30.09	+.01	60.5	+0.6	97	70	12	51	85	48	71	43.07	− 8.85	143	59,532	ne.	45	sw.	138	135	92	5.0	1.0
Hatteras, N. C	11	30.08	30.09	+.02	62.4	+1.0	87	67	22	58	65	57	85	48.20	−18.21	132	120,189	n.	76	n.	167	111	87	4.6	T.
Raleigh, N. C	375	29.71	30.11	+.01	60.7	+1.6	97	70	14	52	83	50	73	43.35	−12.16	140	55,181	sw.	36	*	125	114	126	5.2	1.0
Wilmington, N. C	78	30.02	30.11	+.03	63.6	+0.6	96	72	18	55	78	55	80	42.56	−11.78	124	73,858	sw.	51	w.	129	143	93	4.8	T.
Charleston, S. C	48	30.08	30.13	+.04	66.8	+1.0	98	73	26	60	72	56	74	46.42	−10.32	119	96,207	sw.	62	e.	113	189	63	4.7	0.0
Columbia, S. C	.....	.....	.....	.....	63.8	+0.2	101	74	14	53	87	.....	.....	49.53	+ 1.98	113	.....	ne.	.....	.....	126	118	121	.....	0.2
Augusta, Ga	180	29.90	30.09	+.02	64.5	+0.6	99	74	18	55	81	53	73	43.99	− 4.33	114	54,807	w.	41	w.	146	116	103	4.8	T.
Savannah, Ga	82	30.02	30.10	.00	67.2	+0.8	101	76	23	59	78	57	78	60.18	+ 8.27	117	74,511	s.	76	nw.	155	116	94	4.8	0.0
Jacksonville, Fla	43	30.05	30.10	+.02	69.8	+0.8	98	79	24	61	74	61	82	45.71	− 8.41	135	66,737	ne.	60	w.	147	167	51	4.6	0.0
Florida Peninsula.					74.0	−0.1							77	44.34	− 5.44									3.9	
Jupiter, Fla	28	30.06	30.09	+.01	73.7	+0.1	91	80	31	68	60	65	77	39.10	−18.88	117	89,982	e.	36	ne.	182	145	38	4.0	0.0
Key West, Fla	22	30.06	30.08	+.03	76.6	−0.5	91	81	46	72	45	68	77	43.39	+ 4.93	109	86,120	e.	40	n.	180	143	42	4.1	0.0
Tampa, Fla	36	30.05	30.09	+.01	71.6	0.0	95	81	27	63	68	61	78	50.53	− 2.37	117	57,153	ne.	36	*	178	143	44	3.7	0.0
East Gulf States.					65.7	−0.1							77	55.38	+ 1.13									4.8	
Atlanta, Ga	1,131	28.92	30.11	.00	61.5	+0.3	96	70	13	53	83	50	74	50.56	− 1.41	130	79,615	nw.	52	sw.	114	111	140	5.5	0.8
Pensacola, Fla	56	30.04	30.10	+.02	67.5	−0.1	97	74	20	61	77	59	77	72.20	+15.61	127	81,145	sw.	44	nw.	129	146	90	4.9	0.0
Mobile, Ala	57	30.04	30.10	+.02	66.4	−0.3	97	74	20	58	77	58	80	66.11	+ 3.50	134	64,871	n.	38	nw.	182	115	68	4.0	0.0
Montgomery, Ala	221	29.86	30.09	−.01	65.3	+0.1	100	75	18	56	82	54	73	39.75	−12.97	121	58,349	sw.	38	w.	154	107	104	4.8	0.0
Vicksburg, Miss	247	29.80	30.05	−.04	65.1	−0.2	95	74	21	57	74	57	80	55.67	+ 0.01	122	60,983	se.	50	nw.	149	124	92	4.8	0.0
New Orleans, La	54	30.04	30.10	+.04	68.3	−0.5	97	76	30	61	67	58	77	49.00	−11.52	124	76,422	se.	42	se.	131	127	107	4.9	0.0
West Gulf States.					66.1	+0.3							75	38.33	− 4.82									4.9	
Shreveport, La	249	29.79	30.05	−.02	65.4	+0.2	98	75	18	56	80	54	72	41.81	− 6.79	107	62,056	se.	39	sw.	140	105	120	5.0	0.0
Fort Smith, Ark	481	29.52	30.03	−.01	61.7	+1.9	99	72	14	52	85	51	74	51.12	+ 6.38	117	54,496	e.	44	*	164	83	118	4.7	2.8
Little Rock, Ark	357	29.69	30.08	+.01	62.0	+0.5	97	71	16	53	81	51	73	49.54	− 4.09	104	63,678	s.	41	nw.	127	119	119	5.4	4.0
Corpus Christi, Tex	20	30.02	30.04	−.01	69.9	−0.2	94	75	28	64	66	63	82	19.32	−10.88	86	107,416	se.	41	ne.	162	120	83	4.2	0.0
Galveston, Tex	54	29.99	30.04	−.01	69.0	−0.8	91	74	28	64	63	61	79	42.00	− 6.68	122	86,985	se.	40	nw.	130	135	100	4.9	0.0
Palestine, Tex	510	29.51	30.05	−.03	65.6	+0.4	101	76	14	56	87	57	81	42.05	− 4.46	106	61,140	s.	36	nw.	125	118	122	5.4	T.
San Antonio, Tex	704	29.29	30.02	−.02	68.8	+0.3	103	79	20	59	83	54	67	22.49	− 7.21	83	80,831	se.	66	nw.	166	97	102	4.6	0.0
Ohio Valley and Tenn.					57.1	+1.2							73	45.16	− 0.29									5.4	
Chattanooga, Tenn	762	29.31	30.12	+.02	60.6	+0.7	97	70	12	52	85	49	72	40.47	−14.50	127	61,895	sw.	58	sw.	117	155	93	5.1	2.2
Knoxville, Tenn	1,004	29.04	30.10	.00	58.8	+1.6	99	69	10	49	89	49	78	42.79	− 8.20	125	64,488	sw.	54	sw.	169	105	91	4.4	3.8
Memphis, Tenn	399	29.66	30.09	+.02	62.2	+1.1	95	70	14	54	81	51	72	48.58	− 4.70	111	85,848	sw.	54	nw.	135	118	112	5.1	6.0
Nashville, Tenn	545	29.50	30.09	+.03	60.1	+0.8	96	69	9	51	87	48	70	50.02	− 0.08	116	60,941	nw.	43	s.	164	114	87	4.4	6.1
Lexington, Ky	990	29.01	30.06	.00	55.8	+0.9	96	64	− 1	47	97	46	74	60.52	+16.14	154	92,443	sw.	60	sw.	91	119	155	6.2	19.3
Louisville, Ky	525	29.50	30.07	.00	58.1	+1.4	97	67	4	49	93	46	70	51.00	+ 5.24	124	73,308	s.	53	w.	123	94	148	5.9	10.6
Evansville, Ind	.....	.....	.....	.....	57.9	.....	96	66	6	50	90	.....	.....	44.78	.....	132	65,171	s.	45	sw.	169	88	108	4.6	1.8
Indianapolis, Ind	823	29.18	30.06	.00	53.6	+0.9	95	62	− 4	45	99	43	71	44.10	+ 1.14	132	91,419	s.	56	sw.	98	119	148	6.0	12.3
Cincinnati, Ohio	628	29.40	30.07	.00	55.9	+0.8	98	64	1	48	97	45	71	38.97	− 0.90	133	68,602	se.	45	w.	154	107	104	4.8	13.0
Columbus, Ohio	824	29.17	30.05	−.01	53.6	+1.5	100	62	− 5	45	105	45	78	41.31	+ 2.42	131	68,716	sw.	38	nw.	124	117	124	5.4	9.7
Pittsburg, Pa	842	29.16	30.06	+.01	54.6	+1.7	99	63	0	46	99	45	74	35.76	− 0.92	151	55,481	sw.	48	nw.	62	156	147	6.5	22.2
Parkersburg, W. Va	638	29.40	30.09	.00	55.1	+1.8	100	65	− 2	45	102	45	75	43.20	+ 1.23	150	48,075	se.	52	nw.	111	106	148	5.8	25.4
Lower Lake Region.					50.3	+2.2							74	35.46	+ 0.01									6.3	
Buffalo, N. Y	768	29.19	30.02	.00	50.3	+3.8	90	56	− 3	43	93	41	74	33.50	− 4.54	155	130,285	sw.	68	*	51	149	165	6.8	51.0
Oswego, N. Y	335	29.64	30.01	−.01	48.4	+2.0	93	55	− 8	42	101	40	75	40.44	+ 5.42	168	96,026	se.	42	n.	94	101	170	6.2	81.7
Rochester, N. Y	523	29.45	30.02	.00	49.9	+3.1	95	58	− 2	42	97	40	73	37.50	+ 2.68	165	69,364	sw.	47	sw.	99	107	159	6.2	91.0
Erie, Pa	714	29.27	30.04	+.02	50.5	+1.8	89	57	− 1	44	90	42	77	34.08	− 7.20	151	98,243	s.	50	s.	85	125	155	6.2	24.1
Cleveland, Ohio	762	29.21	30.03	+.01	50.6	+1.7	95	58	− 4	44	99	41	71	32.54	− 3.75	149	126,342	se.	72	w.	99	138	128	5.8	26.0
Sandusky, Ohio	629	29.36	30.04	−.01	51.8	+1.8	97	59	− 3	44	100	42	74	43.17	+ 8.26	135	73,953	sw.	44	w.	60	107	198	7.0	13.7
Toledo, Ohio	674	29.31	30.04	+.01	51.0	+1.4	95	59	− 5	43	100	41	73	28.10	− 2.83	121	84,539	w.	60	s.	98	120	147	6.0	15.7
Detroit, Mich	730	29.24	30.03	.00	49.9	+1.8	97	57	− 4	42	101	41	75	34.34	+ 2.01	120	84,452	sw.	44	sw.	100	114	151	5.9	43.8
Upper Lake Region.					45.2	+2.0							78	30.40	− 2.21									5.8	
Alpena, Mich	609	29.33	30.00	−.01	44.2	+2.9	94	52	− 8	37	102	38	80	34.07	− 1.01	152	82,950	nw.	46	nw.	97	134	134	6.0	77.2
Grand Haven, Mich	628	29.32	30.00	−.01	48.0	+1.7	90	56	− 1	40	91	40	77	36.02	+ 1.25	142	88,118	nw.	42	*	100	108	157	6.0	68.3
Marquette, Mich	734	29.16	29.96	−.04	42.6	+2.1	94	50	− 8	36	102	36	80	27.48	− 4.89	168	90,969	nw.	52	sw.	62	115	188	6.9	112.5
Port Huron, Mich	639	29.34	30.04	+.03	48.2	+3.0	98	56	− 6	40	104	40	79	33.14	+ 1.54	145	96,916	s.	56	w.	112	137	116	5.5	42.7
Sault Ste. Marie, Mich	624	29.29	29.98	−.02	40.9	+1.9	89	50	−20	32	109	35	83	27.91	− 1.62	154	78,631	nw.	50	se.	80	119	166	6.4	85.8
Chicago, Ill	824	29.15	30.04	+.01	49.2	+0.9	94	56	− 8	43	102	41	77	33.77	− 0.99	133	152,474	s.	76	s.	153	106	106	4.8	36.8
Milwaukee, Wis	671	29.30	30.03	.00	47.3	+2.3	94	55	− 7	40	101	39	75	32.43	+ 0.37	133	89,571	sw.	46	nw.	95	107	163	6.0	94.2
Green Bay, Wis	617	29.33	30.01	+.01	45.2	+1.8	94	54	−11	37	105	36	76	29.08	− 3.22	122	70,475	s.	48	sw.	118	138	109	5.4	43.7
Duluth, Minn	702	29.21	29.99	−.01	40.9	+1.6	90	48	−24	34	114	32	76	19.70	−11.31	106	85,963	ne.	56	nw.	108	162	95	5.2	34.7
North Dakota.					40.2	+1.5							71	15.81	− 3.14									4.5	
Moorhead, Minn	935	28.96	30.00	−.02	40.2	+2.6	96	52	−24	29	120	32	79	19.33	− 4.44	104	92,187	nw.	52	se.	135	129	101	4.9	25.4
Bismarck, N. Dak	1,674	28.21	30.02	+.02	41.3	+1.7	99	53	−18	30	117	27	63	13.67	− 4.71	77	87,518	nw.	50	nw.	198	82	85	4.4	21.2
Williston, N. Dak	1,872	27.99	30.01	+.01	39.2	+0.3	97	51	−26	28	123	28	72	14.44	− 0.26	78	75,381	n.	60	n.	182	134	49	4.3	28.7
Upper Mississippi Valley					51.0	+1.1							74	39.25	+ 5.04									5.1	
Minneapolis, Minn	.....	.....	.....	.....	45.6	+1.3	97	54	−20	37	117	.....	.....	25.92	− 1.29	100	89,486	nw.	55	se.	89	158	118	.....	31.3
St. Paul, Minn	837	29.08	30.00	−.01	45.4	+2.1	95	54	−19	36	114	34	71	25.34	− 2.13	99	66,475	nw.	36	nw.	119	145	101	5.2	38.1
La Crosse, Wis	.....	.....	.....	.....	46.6	+0.6	95	56	−19	37	114	.....	.....	23.49	− 7.19	106	60,152	s.	36	*	132	108	125	5.5	47.7
Davenport, Iowa	599	29.36	30.01	−.03	50.1	+0.9	97	58	− 6	42	103	41	75	38.95	+ 5.23	123	66,369	w.	41	nw.	136	82	147	5.6	46.6
Des Moines, Iowa	867	29.11	30.05	+.02	49.5	+1.0	99	59	−10	40	109	39	72	28.33	− 4.78	106	66,784	n.	40	w.	182	95	88	4.2	42.0
Dubuque, Iowa	698	29.26	30.02	−.01	48.1	+0.5	95	57	−10	39	105	38	74	35.48	− 0.05	124	64,594	nw.	56	nw.	157	110	98	4.7	53.5
Keokuk, Iowa	614	29.37	30.03	.00	53.0	+1.6	97	61	− 4	45	101	43	74	52.48	+17.76	113	68,536	sw.	48	w.	152	93	120	4.8	27.2

TABLE I.—*Annual meteorological Summary, Weather Bureau Stations*, 1898.—Continued.

Districts and stations.	Elevation of barometer above sea-level.	Pressure in inches.†			Temperature of the air, in degrees Fahrenheit.							Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation.			Winds.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall, in inches.‡
		Mean actual, 8 a. m. + 8 p. m. ÷ 2.	Mean reduced.	Departure from normal.	Mean max. + min. ÷ 2.	Departure from normal.	Maximum.	Mean maximum.	Minimum.	Mean minimum.	Annual range.			Total, in inches.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Max. velocity. Miles, per hour.	Max. velocity. Direction.					
U. Miss. Valley—Cont'd.																									
Cairo, Ill	359	29.67	30.06	.00	58.8	+1.1	94	67	7	51	87	51	80	48.66	+ 5.83	132	74,866	s.	56	sw	107	155	103	5.3	0.8
Springfield, Ill	644	29.35	30.04	—.02	52.9	+0.6	96	61	0	45	96	43	74	56.28	+18.27	133	81,612	s.	36	*	105	134	126	5.6	9.5
Hannibal, Mo	534	.....	.....	.....	53.7	+1.2	96	62	— 1	45	97	.....	.....	47.61	+15.65	128	82,090	sw.	44	s.	175	85	105	4.5	19.6
St. Louis, Mo	567	29.45	30.06	.00	57.1	+1.5	96	65	3	49	93	46	72	49.20	+ 8.12	133	86,576	s.	66	sw.	133	106	126	5.2	9.8
Missouri Valley.					50.9	+1.1							70	32.19	+ 1.94									4.8	
Columbia, Mo	.....	.....	.....	.....	54.6	—0.1	99	65	—12	44	111	.....	.....	46.71	+ 6.78	131	74,585	s.	60	w.	125	102	138	5.5	10.2
Kansas City, Mo	963	29.02	30.05	+.01	54.5	+1.3	96	63	— 2	46	98	44	72	50.25	+13.91	117	74,048	se.	50	nw.	148	111	106	4.7	35.3
Springfield, Mo	1,324	28.64	30.04	—.01	55.3	+0.4	91	63	2	47	89	46	75	59.21	+13.49	131	91,751	se.	48	w.	96	183	86	5.0	6.9
Topeka, Kans	.....	.....	.....	.....	54.1	+0.3	100	64	1	44	99	.....	.....	39.22	+ 4.82	97	.....	s.	.....	.....	126	164	75	.....	21.9
Lincoln, Nebr	1,199	28.73	30.02	.....	51.0	+0.9	101	61	— 8	41	109	39	70	28.10	+ 1.79	84	96,990	s.	52	nw.	166	122	77	4.5	43.9
Omaha, Nebr	1,103	28.84	30.02	—.02	50.9	+1.3	100	60	—10	42	110	39	69	27.84	— 3.85	96	69,397	nw.	38	se.	170	97	98	4.4	34.5
Sioux City, Iowa	1,139	.....	.....	.....	47.8	+0.3	101	58	—14	38	115	.....	.....	22.91	— 1.59	82	110,329	nw.	66	nw.	156	91	118	4.8	42.3
Pierre, S. Dak	1,572	28.32	30.00	.....	47.6	+2.0	105	60	—11	36	116	32	61	10.65	— 5.12	78	86,608	se.	60	nw.	152	110	103	4.6	14.4
Huron, S. Dak	1,306	28.60	30.02	—.02	44.6	+2.1	102	57	—20	32	122	32	71	15.62	— 5.41	82	105,288	se.	60	s.	151	148	66	4.7	19.6
Yankton, S. Dak	1,234	.....	.....	.....	48.3	+2.5	100	59	—13	38	113	.....	.....	21.42	— 5.40	79	81,241	nw.	55	s.	160	120	85	4.6	41.9
Northern Slope.					44.2	0.0							61	14.22	— 0.17									4.7	
Havre, Mont	2,494	27.31	29.96	—.05	41.8	+0.7	98	53	—22	31	120	29	69	12.11	— 1.98	92	94,323	sw.	60	sw.	148	143	74	4.8	34.6
Miles City, Mont	2,372	27.46	29.98	—.04	44.9	+0.7	103	56	—13	34	116	32	71	12.45	— 0.35	101	62,258	n.	48	nw.	121	156	88	4.9	28.9
Helena, Mont	4,108	25.84	30.08	+.05	43.0	—0.1	93	52	—16	34	109	26	56	17.40	+ 4.22	109	66,387	sw.	50	sw.	132	117	116	5.0	65.0
Rapid City S. Dak	3,251	26.60	29.99	—.03	46.5	+0.5	102	58	—14	35	116	28	58	10.98	— 5.73	89	71,464	w.	48	*	126	130	109	5.2	26.3
Cheyenne, Wyo	6,084	24.00	30.04	+.01	43.6	—0.8	93	56	—17	31	110	20	48	13.05	+ 0.85	85	96,436	nw.	54	nw.	155	143	67	4.4	53.1
Lander, Wyo	5,372	24.65	30.09	+.05	40.9	—1.3	92	55	—25	27	117	23	60	17.99	+ 4.54	84	37,790	sw.	42	w.	145	152	68	4.6	106.9
North Platte, Nebr	2,826	27.08	30.04	.00	48.5	+0.6	101	61	—12	36	113	35	67	15.54	— 2.73	77	82,666	nw.	49	w.	193	116	56	4.1	35.5
Middle Slope.					53.4	+0.1							62	25.16	+ 2.83									4.0	
Denver, Colo	5,290	24.73	30.04	+.03	49.1	—0.3	98	63	—20	36	118	25	48	12.98	— 1.51	86	69,576	s.	58	sw.	150	162	53	4.4	64.8
Pueblo, Colo	4,682	25.30	30.02	+.02	50.1	—1.0	101	65	—16	35	117	27	51	10.85	— 1.26	78	64,779	nw.	52	n.	164	149	52	4.2	18.1
Concordia, Kans	1,398	28.52	30.01	—.05	53.3	+1.1	106	64	— 5	42	111	40	69	20.33	— 5.16	80	63,389	s.	40	s.	152	134	79	4.7	23.1
Dodge, Kans	2,504	27.40	30.01	+.01	53.5	+0.4	102	66	— 5	41	107	39	67	31.46	+11.62	84	96,791	s.	59	sw.	194	117	54	3.8	31.7
Wichita, Kans	1,351	28.59	30.02	.00	55.6	+0.2	100	66	2	45	98	42	68	39.46	+10.69	84	76,859	s.	40	sw.	195	89	81	4.0	17.1
Oklahoma, Okla	1,218	28.74	30.03	.00	59.0	0.0	97	70	8	48	89	47	72	35.88	+ 2.59	77	92,757	s.	50	s.	233	64	68	3.2	6.9
Southern Slope.					59.0	0.0							60	22.34	+ 0.73									3.6	
Abilene, Tex	1,749	28.22	30.04	.00	63.6	+0.2	102	75	1	53	101	46	61	22.13	— 2.89	66	88,654	se.	60	w.	168	134	63	4.0	4.6
Amarillo, Tex	3,691	26.26	30.02	—.01	54.5	—0.3	95	67	— 1	42	96	35	58	22.54	+ 4.35	85	142,512	s.	68	n.	221	86	58	3.3	13.9
Southern Plateau.					62.8	—0.4							40	6.86	— 1.58									2.7	
El Paso, Tex	3,767	26.19	29.98	—.01	62.3	—1.1	102	76	15	49	87	30	40	6.16	— 3.17	56	96,538	nw.	64	sw.	212	118	35	3.0	0.1
Santa Fe, N. Mex	6,998	23.28	30.01	—.01	47.9	—0.4	91	59	— 6	37	97	22	45	12.97	— 1.28	73	56,530	ne.	41	sw.	201	109	55	3.6	28.4
Phenix, Ariz	1,076	28.77	29.89	.....	69.7	+0.6	111	84	23	56	88	36	36	5.95	— 1.26	33	37,328	e.	40	e.	259	71	35	2.4	0.0
Yuma, Ariz	139	29.73	29.87	—.05	71.5	—0.7	113	86	26	58	87	41	40	2.38	— 0.59	15	59,896	w.	44	*	287	53	25	1.8	0.0
Middle Plateau.					48.8	—1.0							51	9.69	— 2.53									4.3	
Carson City, Nev	4,720	25.27	30.03	.....	49.0	—0.6	100	64	— 5	34	105	24	45	5.89	— 6.08	44	58,378	w.	54	sw.	202	133	30	3.2	30.3
Winnemucca, Nev	4,340	25.67	30.05	+.03	47.8	—0.8	100	62	—16	34	116	30	57	7.08	— 1.40	62	.....	sw.	.....	.....	154	123	88	4.4	25.3
Salt Lake City, Utah	4,344	25.67	30.08	+.03	49.7	—1.6	97	61	— 3	39	100	29	51	16.09	— 0.10	79	50,675	se.	48	ne.	135	114	116	5.3	42.4
Northern Plateau.					47.0	—0.2							63	12.14	— 4.22									5.0	
Baker City, Oreg	3,470	26.46	30.06	+.05	45.1	+0.2	101	56	— 4	34	105	26	56	8.55	— 6.60	103	50,153	s.	34	nw.	117	105	143	5.5	32.2
Idaho Falls, Idaho	4,742	25.26	30.10	+.05	41.3	—1.6	95	55	—33	28	128	27	67	10.58	— 4.69	89	87,600	s.	51	sw.	173	64	128	4.7	66.3
Spokane, Wash	1,943	27.97	30.03	+.01	48.2	+0.4	104	58	— 2	38	106	32	62	13.08	— 5.17	101	53,480	s.	41	s.	131	97	137	5.4	51.8
Walla Walla, Wash	1,018	28.96	30.05	+.01	53.2	0.0	113	63	— 2	43	115	40	68	16.34	— 0.43	109	51,372	s.	34	sw.	143	162	60	4.6	25.0
North Pacific Coast.					51.8	+0.6							77	36.91	— 8.36									5.9	
Fort Canby, Wash	179	29.84	30.04	+.02	50.7	+0.4	87	55	30	46	57	46	87	59.84	— 2.43	218	112,910	n.	78	se.	75	81	209	7.0	2.1
Seattle, Wash	119	29.91	30.04	.....	52.2	+1.3	92	59	27	45	65	43	74	29.28	— 8.16	154	48,254	s.	27	*	109	112	144	5.7	6.9
Tacoma, Wash	213	.....	.....	.....	51.0	+1.2	92	59	22	43	70	.....	.....	35.58	— 9.05	154	52,129	sw.	33	sw.	114	88	163	5.9	4.3
Portland, Oreg	153	29.89	30.05	—.01	52.6	+0.1	97	60	21	45	76	42	72	33.90	—12.93	144	73,877	nw.	46	s.	119	120	126	5.4	6.5
Roseburg, Oreg	521	29.49	30.06	—.02	52.5	—0.2	101	62	20	43	81	42	74	25.93	— 9.23	133	30,364	nw.	28	w.	118	118	129	5.4	18.5
Middle Pacific Coast.					55.8	—0.6							67	15.84	—13.97									4.3	
Eureka, Cal	64	30.02	30.08	+.02	50.8	—0.6	75	56	30	46	45	45	84	30.91	—14.92	133	53,517	nw.	43	nw.	103	107	155	6.1	0.0
Red Bluff, Cal	324	29.64	29.99	—.01	62.5	0.0	112	74	24	50	88	37	48	12.91	—13.20	47	54,042	se.	38	se.	243	68	54	2.9	0.5
Sacramento, Cal	71	29.92	30.00	—.01	59.5	—0.3	110	72	26	47	84	42	58	10.04	—10.83	36	76,726	sw.	42	n.	217	86	62	3.6	T.
San Francisco, Cal	153	29.89	30.05	+.02	54.6	—1.2	89	60	36	49	53	46	79	9.31	—14.40	50	94,334	w.	44	ne.	152	148	65	4.6	T.
Point Reyes Light, Cal	.....	.....	.....	.....	51.4	—0.8	85	56	33	46	52	.....	.....	14.04	—16.52	63	171,887	nw.	80	nw.	168	80	117	.....	0.0
South Pacific Coast.					61.2	+0.3							64	5.36	— 9.23									3.0	
Fresno, Cal	332	29.60	29.95	—.04	63.0	0.0	114	77	24	49	90	38	49	4.99	— 4.01	31	46,186	nw.	32	nw.	262	52	51	2.7	0.0
Los Angeles, Cal	330	29.62	29.97	—.02	62.6	+1.2	99	74	31	51	68	47	68	4.83	—12.47	25	37,291	w.	24	*	160	172	33	3.4	0.0
San Diego, Cal	87	29.87	29.97	—.04	60.5	—0.2	91	67	36	54	55	51	74	4.67	— 5.84	40	50,121	nw.	33	se.	291	26	48	2.6	0.0
San Luis Obispo, Cal	291	29.81	30.03	.....	58.9	+0.2	100	72	25	45	75	43	63	6.93	—14.59	35	44,183	n.	28	s.	226	91	48	3.3	0.0

* More than one direction. † Not reduced to standard gravity. ‡ For the snow year, July 1, 1897, to June 30, 1898.

TABLE II.—*Annual meteorological summary, Canadian stations*, 1898.

Stations.	Pressure.* Mean not reduced.	Pressure.* Mean reduced.	Pressure.* Departure from normal.	Temperature. Mean.	Temperature. Departure from normal.	Temperature. Mean maximum.	Temperature. Mean minimum.	Precipitation. Total.	Precipitation. Departure from normal.	Total depth of snowfall.†
	Ins.	Ins.	Ins.	°	°	°	°	Ins.	Inches.	Ins.
St. Johns, N. F.	29.76	29.91	−0.01	41.3	+0.8	48.2	34.3	60.02	.....	99.7
Sidney, C. B. I	29.95	29.99	+0.06	43.3	+2.0	51.7	35.0	48.01	− 4.33	93.5
Halifax, N. S.	29.90	30.03	+0.07	45.7	+2.9	53.7	37.8	60.93	+ 5.49	57.9
Grand Manan, N. B	29.94	29.99	+0.01	44.2	+1.4	51.0	37.5	56.00	+11.38	66.9
Yarmouth, N. S.	29.03	30.01	+0.03	44.2	+1.0	51.4	37.0	54.81	+ 8.68	71.5
Charlottetown, P. E. I.	29.94	29.98	+0.03	43.2	+2.2	49.5	36.9	41.36	− 0.42	55.9
Chatham, N. B	29.96	29.98	+0.03	41.0	+2.3	50.5	31.4	38.33	− 5.63	101.2
Father Point, Que	29.94	29.97	+0.03	35.6	+0.8	44.4	26.8	28.93	− 0.87	111.0
Quebec, Que.	29.66	30.00	+0.03	40.9	+2.7	48.7	33.1	41.08	− 1.70	105.6
Montreal, Que	29.79	30.00	+0.02	44.1	+2.6	51.6	36.6	44.49	+ 5.68	69.2
Rockliffe, Ont.	29.47	29.99	+0.01	41.5	+3.9	52.6	30.5	32.58	+ 1.53	74.6
Ottawa, Ont	29.68	30.00	.....	43.9	+3.3	53.5	34.2	36.02	.....	78.5
Kingston, Ont.	29.69	30.01	+0.03	46.2	+3.1	54.2	38.4	31.50	− 2.44	30.6
Toronto, Ont.	29.64	30.02	0.00	47.8	+3.6	56.6	39.2	30.55	− 0.20	52.5
White River, Ont	28.63	30.01	−0.01	33.8	+1.9	46.6	21.0	27.85	+ 4.52	86.0
Port Stanley, Ont.	29.38	30.02	−0.01	47.1	+2.4	55.5	38.9	39.50	+ 5.33	70.6
Saugeen, Ont	29.29	30.01	+0.01	45.3	+2.9	53.3	37.3	30.90	− 3.48	94.9
Parry Sound, Ont.	29.29	30.00	0.00	43.6	+3.4	53.5	33.8	39.99	+ 2.67	118.9
Port Arthur, Ont	29.25	29.96	−0.03	36.8	+2.4	46.6	27.0	28.14	+ 8.14	24.6
Winnipeg, Man	29.11	29.96	−0.05	35.2	+2.1	46.6	23.8	27.11	+ 3.66	57.7
Minnedosa, Man.	28.13	29.99	0.00	34.6	+3.0	45.9	23.3	18.71	+ 0.98	29.9
Qu'Appelle, Assin	27.66	29.97	−0.02	34.2	+0.9	45.0	23.4	21.65	+ 6.71	46.8
Medicine Hat, Assin	27.63	29.95	−0.02	41.0	+0.7	.....	.....	.....	.....	71.8
Swift Current, Assin	27.37	29.99	−0.01	37.9	+0.4	48.6	27.2	15.25	− 0.60	90.3
Calgary, Alberta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Banff, Alberta	25.31	30.01	.....	35.4	.....	46.5	24.3	20.58	.....	101.8
Edmonton, Alberta	27.58	29.91	−0.05	38.2	+2.6	49.9	26.6	10.90	− 2.91	39.6
Prince Albert, Sask	.....	.....	.....	.....	.....	.....	.....	.....	.....	78.1
Battleford, Sask	28.19	29.97	.....	34.0	+1.3	45.4	22.6	14.25	.....	45.8
Kamloops, B. C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Esquimalt, B. C	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 5
Hamilton, Bermuda	29.96	30.12	+0.03	70.3	+0.6	75.4	65.2	48.23	.....	

* Not reduced to standard gravity. † For the snow year, July 1, 1897, to June 30, 1898.

TABLE III.—*Reduction data for* 1898.

Stations.	Elevation.	Latitude.		Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3		4	5	6	7	8	9	10
New England States.	Feet.	°	′	Inches.	° F.	° F.	° F.	Inches.	° F.	Ins.
Eastport, Me	76	44	54	29.91	42.7	37	42.8	30.00	42.9	20.53
Portland, Me	103	43	39	29.88	46.3	38	46.4	29.99	46.5	20.59
Northfield, Vt	872	44	10	29.08	43.0	36	43.9	30.04	45.8	20.57
Boston, Mass	125	42	21	29.88	50.8	42	50.9	30.02	51.0	20.67
Nantucket, Mass	14	41	17	30.01	50.0	45	50.0	30.03	50.0	20.67
Block Island, R. I	27	41	10	30.01	49.6	44	49.6	30.04	49.6	20.67
New Haven, Conn	107	41	18	29.92	50.7	43	50.8	30.04	50.9	20.69
Middle Atlantic States.										
Albany, N. Y	97	42	39	29.93	50.3	41	50.4	30.04	50.5	20.68
New York, N. Y	314	40	43	29.71	52.9	44	53.2	30.05	53.5	20.73
Philadelphia, Pa	117	39	57	29.93	55.6	44	55.7	30.06	55.8	20.78
Atlantic City, N. J	52	39	22	29.99	53.1	48	53.6	30.05	53.7	20.74
Baltimore, Md	123	39	18	29.92	56.3	45	56.4	30.05	56.5	20.79
Washington, D. C	112	38	54	29.94	56.1	46	56.2	30.06	56.3	20.79
Lynchburg, Va	685	37	25	29.34	57.5	47	58.2	30.07	58.9	20.83
Norfolk, Va	57	36	51	30.01	60.1	52	60.2	30.07	60.3	20.86
South Atlantic States.										
Charlotte, N. C	773	35	13	29.24	60.5	48	61.3	30.06	62.1	20.87
Hatteras, N. C	11	35	15	30.05	62.4	57	62.4	30.06	62.4	20.89
Raleigh, N. C	375	35	45	29.68	60.7	50	61.1	30.08	61.5	20.89
Wilmington, N. C	78	34	14	29.99	63.6	55	63.7	30.07	63.8	20.92
Charleston, S. C	48	32	47	30.05	66.8	56	66.9	30.10	67.0	20.99
Augusta, Ga	180	33	28	29.87	64.5	53	64.7	30.06	64.9	20.93
Savannah, Ga	82	32	5	29.99	67.2	57	67.3	30.08	67.4	20.99
Jacksonville, Fla	43	30	20	30.01	69.8	61	69.8	30.06	69.8	21.00
Florida Peninsula.										
Jupiter, Fla	28	26	57	30.01	73.7	65	73.7	30.04	73.7	21.06
Key West, Fla	22	24	34	30.01	76.6	68	76.6	30.03	76.6	21.10
Tampa, Fla	36	27	57	30.01	71.6	61	71.6	30.05	71.6	21.03
Eastern Gulf States.										
Atlanta, Ga	1,131	33	45	28.89	61.5	50	62.6	30.08	63.7	20.91
Pensacola, Fla	56	30	25	30.00	67.5	59	67.6	30.06	67.7	20.97
Mobile, Ala	57	30	41	30.00	66.4	58	66.5	30.06	66.6	20.96
Montgomery, Ala	221	32	23	29.83	65.3	54	65.5	30.06	65.7	20.94
Vicksburg, Miss	247	32	22	29.77	65.1	57	65.4	30.02	65.7	20.91
New Orleans, La	54	29	58	30.00	68.3	58	68.4	30.00	68.5	20.98
Western Gulf States.										
Shreveport, La	249	32	30	29.76	65.4	54	65.6	30.02	65.8	20.91
Fort Smith, Ark	481	35	22	29.49	61.7	51	62.2	30.00	62.7	20.85
Little Rock, Ark	357	34	45	29.66	62.0	51	62.3	30.04	62.6	20.88
Corpus Christi, Tex	20	27	49	29.98	69.9	63	70.8	30.00	70.8	20.97
Galveston, Tex	54	29	18	29.95	69.0	61	69.0	30.01	69.0	20.96
Palestine, Tex	510	31	45	29.47	65.6	57	66.1	30.01	66.6	20.91
San Antonio, Tex	704	29	27	29.25	68.8	54	69.5	29.98	70.2	20.95

TABLE III.—*Reduction data for* 1898—Continued.

Stations.	Elevation.	Latitude.		Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3		4	5	6	7	8	9	10
Ohio Val. and Tennessee.	Feet.	°	′	Inches.	° F.	° F.	° F.	Inches.	° F.	Ins.
Chattanooga, Tenn	762	35	4	29.28	60.6	49	61.4	30.09	62.2	20.89
Knoxville, Tenn	1,004	35	56	29.02	58.8	49	59.9	30.08	60.8	20.87
Memphis, Tenn	399	35	9	29.63	62.2	51	62.6	30.05	63.0	20.89
Nashville, Tenn	545	36	10	29.48	60.1	48	60.6	30.06	61.1	20.86
Lexington, Ky	990	38	2	28.99	55.8	46	56.8	30.04	57.8	20.79
Louisville, Ky	525	38	15	29.48	58.1	46	58.6	30.04	59.1	20.82
Indianapolis, Ind	823	39	46	29.16	53.6	43	54.4	30.04	55.2	20.75
Cincinnati, Ohio	628	39	6	29.38	55.9	45	56.5	30.06	57.1	20.79
Columbus, Ohio	824	39	58	29.15	53.6	45	54.4	30.04	55.2	20.75
Pittsburg, Pa	842	40	32	29.15	54.6	45	55.4	30.05	56.2	20.78
Parkersburg, W. Va	638	39	16	29.38	55.1	45	55.7	30.07	56.3	20.78
Lower Lake Region.										
Buffalo, N. Y	768	42	53	29.18	50.3	41	51.0	30.01	51.7	20.67
Oswego, N. Y	335	43	29	29.64	48.4	40	48.7	30.01	49.0	20.63
Rochester, N. Y.	523	43	8	29.44	49.9	40	50.4	30.01	50.9	20.66
Erie, Pa	714	42	7	29.26	50.5	42	51.2	30.03	51.9	20.70
Cleveland, Ohio	762	41	30	29.20	50.6	41	51.3	30.04	52.0	20.70
Sandusky, Ohio	629	41	25	29.35	51.8	42	52.4	30.03	53.0	20.72
Toledo, Ohio	674	41	40	29.30	51.0	41	51.7	30.03	51.4	20.70
Detroit, Mich	730	42	20	29.23	49.9	41	50.6	30.02	51.3	20.67
Upper Lake Region.										
Alpena, Mich	609	45	5	29.33	44.2	38	44.8	30.00	45.4	20.56
Grand Haven, Mich	628	43	5	29.31	48.0	40	48.6	29.99	49.2	20.63
Marquette, Mich	734	46	34	29.16	42.6	36	43.3	29.97	44.0	20.52
Port Huron, Mich	639	43	0	29.33	48.2	40	48.8	30.03	49.4	20.65
Sault Ste. Marie, Mich	624	46	28	29.29	40.9	35	41.5	29.98	42.1	20.50
Chicago, Ill	824	41	53	29.14	49.2	41	50.0	30.03	50.8	20.67
Milwaukee, Wis	671	43	2	29.29	47.3	39	48.0	30.02	48.7	20.63
Greenbay, Wis	617	44	31	29.33	45.2	36	45.8	30.01	46.4	20.58
Duluth, Minn	702	46	47	29.21	40.9	32	41.6	29.98	42.3	20.50
North Dakota.										
Moorhead, Minn	935	46	52	28.96	40.2	32	41.1	29.99	42.0	20.50
Bismarck, N. Dak	1,674	46	47	28.21	41.3	27	42.7	30.02	44.4	20.54
Williston, N. Dak	1,872	48	9	27.99	39.2	28	40.2	30.02	42.1	20.50
Upper Mississippi Valley.										
St. Paul, Minn	837	44	58	29.08	45.4	34	46.2	29.99	47.1	20.59
Davenport, Iowa	599	41	30	29.35	50.1	41	50.7	29.99	51.3	20.66
Des Moines, Iowa	867	41	35	29.10	49.5	39	50.4	30.04	51.3	20.68
Dubuque, Iowa	698	42	30	29.25	48.1	38	48.8	30.01	49.5	20.64
Keokuk, Iowa	614	40	22	29.36	53.0	43	53.6	30.02	54.2	20.73
Cairo, Ill	359	37	0	29.65	58.8	51	59.2	30.03	59.6	20.83
Springfield, Ill,	644	39	48	29.33	52.9	43	53.5	30.02	54.1	20.72
St. Louis, Mo	567	38	38	29.43	57.1	46	57.7	30.04	58.3	20.80
Missouri Valley.										
Kansas City, Mo	963	39	5	29.00	54.5	44	55.5	30.03	56.5	20.75
Springfield, Mo	1,324	37	12	28.62	55.3	46	56.6	30.02	57.9	20.77
Lincoln, Nebr	1,199	40	49	28.72	51.0	39	52.7	30.00	53.9	20.69
Omaha, Nebr	1,103	41	16	28.83	50.9	39	52.0	30.01	53.1	20.69
Pierre, S. Dak	1,572	44	24	28.32	47.6	32	47.7	30.01	49.3	20.61
Huron, S. Dak	1,306	44	21	28.60	44.6	32	47.2	30.01	48.5	20.61
Northern Slope.										
Havre, Mont	2,494	48	34	27.31	41.8	29	43.7	29.96	46.2	20.52
Miles City, Mont	2,372	46	25	27.46	44.9	32	45.8	29.97	48.2	20.56
Helena, Mont	4,108	46	34	25.84	43.0	26	47.0	30.06	51.1	20.64
Rapid City, S. Dak	3,251	44	4	26.59	46.5	28	47.5	29.97	50.8	20.59
Cheyenne, Wyo	6,084	41	8	23.98	43.6	20	48.9	29.99	55.0	20.63
Lander, Wyo	5,372	42	50	24.64	40.9	23	45.9	30.04	51.3	20.61
North Platte, Nebr	2,826	41	8	27.06	48.5	35	51.2	30.01	54.0	20.67
Middle Slope.										
Denver, Colo	5,290	39	45	24.71	49.1	25	52.3	29.97	57.6	20.67
Pueblo, Colo	4,682	38	18	25.28	50.1	27	53.4	29.98	58.1	20.70
Concordia, Kans	1,398	39	35	28.50	53.3	40	55.2	29.98	56.6	20.72
Dodge, Kans	2,504	37	45	27.38	53.5	39	56.3	29.98	58.8	20.73
Wichita, Kans	1,351	37	41	28.57	55.6	42	57.3	30.00	58.7	20.77
Oklahoma, Okla	1,218	35	26	28.71	59.0	47	59.9	30.00	61.1	20.81
Southern Slope.										
Abilene, Tex	1,749	32	23	28.19	63.6	46	64.4	30.00	66.1	20.88
Amarillo, Tex	3,691	35	13	26.23	54.5	35	57.9	29.96	61.6	20.75
Southern Plateau.										
El Paso, Tex	3,767	31	47	26.15	62.3	30	62.5	29.92	68.3	20.80
Santa Fe, N. Mex	6,998	35	41	23.25	47.9	22	55.2	29.97	62.2	20.71
Phenix, Ariz	1,076	33	28	28.74	69.7	36	69.1	29.85	70.2	20.84
Yuma, Ariz	139	32	45	29.70	71.5	42	70.2	29.85	70.3	20.86
Middle Plateau.										
Carson City, Nev	4,720	39	10	25.25	49.0	24	53.7	29.98	58.4	20.70
Winnemucca, Nev	4,340	40	58	25.65	47.8	30	53.8	30.03	59.2	20.78
Salt Lake City, Utah	4,344	40	46	25.65	49.7	29	51.7	30.06	58.0	20.71
Northern Plateau.										
Baker City, Oreg	3,470	44	50	26.46	45.1	26	48.2	30.07	52.0	20.67
Idaho Falls, Idaho	4,742	43	29	25.25	41.3	27	45.8	30.09	50.5	20.65
Spokane, Wash	1,943	47	40	27.97	48.2	32	49.7	30.04	51.6	20.67
Walla Walla, Wash	1,018	46	2	28.96	53.2	40	51.6	30.06	52.6	20.71
North Pacific Coast.										
Fort Canby, Wash	179	46	16	29.84	50.7	46	50.9	30.04	51.1	20.70
Seattle, Wash	119	47	38	29.92	52.2	43	52.3	30.05	52.4	20.72
Portland, Oreg	153	45	32	29.89	52.6	42	52.8	30.06	53.0	20.73
Roseburg, Oreg	521	43	13	29.48	52.5	42	53.0	30.04	53.5	20.73
Middle Pacific Coast.										
Eureka, Cal	64	40	48	30.01	50.8	45	53.0	30.08	53.1	20.75
Red Bluff, Cal	334	40	10	29.63	62.5	37	56.3	29.99	56.6	20.75
Sacramento, Cal	71	38	35	29.90	59.5	42	58.6	29.98	58.7	20.77
San Francisco, Cal	153	37	48	29.87	54.6	46	54.8	30.04	55.0	20.75
South Pacific Coast.										
Fresno, Cal	332	36	43	29.58	63.0	38	60.8	29.93	61.1	20.78
Los Angeles, Cal	330	34	3	29.59	62.6	47	62.6	29.94	62.9	20.81
San Diego, Cal	87	32	43	29.84	60.5	51	63.0	29.93	63.1	20.81
San Louis Obispo, Cal	201	35	18	29.78	58.9	43	59.1	30.00	59.3	20.80

TABLE III.—*Reduction data for* 1898—Continued.

Stations.	Elevation.	Latitude.		Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3		4	5	6	7	8	9	10
Canadian Stations.	*Feet.*	°	′	*Inches.*	° *F.*	° *F.*	° *F.*	*Inches.*	° *F.*	*Ins.*
St. Johns, N. F	125	47	34	29.77	41.3	....	41.4	29.91	41.5	20.50
Sydney, C.B.I	35	46	10	29.95	43.3	....	43.4	29.99	43.5	20.53
Halifax, N. S	118	44	39	29.90	45.7	....	45.8	30 03	45.9	20.59
Grand Manan, N. B	49	44	47	29.94	44.2	....	44.2	30.00	44.2	20.55
Yarmouth, N.S	65	43	50	29.93	44.2	...	44.3	30.00	44.4	20.55
Charlottetown, P.E.I	38	46	14	29.94	43.2	....	43.2	29.98	43.2	20.52
Chatham, N.B.	21	47	3	29.96	41.0	...	41.0	29.98	41.0	20.49
Father Point, Que	20	48	31	29.95	35.6	....	35.6	29.97	35.6	20.40
Quebec, Que	296	46	48	29.66	40 9	....	40.3	29.99	41.5	20.49
Montreal, Que	187	45	30	29.79	44.1	....	44.3	30.00	44.5	20.55
Rockliffe, Ont	472	46	12	29.47	41.5	...	42.0	29.99	42.5	20.52
Ottawa, Ont	294	45	26	29.68	43.9	....	44.2	30.01	44.5	20.55
Kingston, Ont	285	44	13	29.69	46.2	....	46.5	30.00	46.8	20.59
Toronto, Ont	350	43	39	29.64	47.8	....	48.2	30.02	48.5	20.64
Canadian Stations—Con.	*Feet.*	°	′	*Inches.*	° *F.*	° *F.*	° *F.*	*Inches.*	° *F.*	*Ins.*
White River, Ont	1,252	48	20	28.64	33.8	....	36.2	30.02	37.5	20.44
Port Stanley, Ont	592	42	40	29 37	47.1	....	47.7	30.02	48.3	20.62
Saugeen, Ont	656	44	30	29.29	45.3	....	46.0	30.01	46.7	20.59
Parry Sound, Ont	635	49	15	29.29	43.6	....	44.2	29.99	44.8	20.55
Port Arthur, Ont	644	48	27	29.24	36.8	....	36.8	29.96	37.4	20.40
Winnipeg, Man	760	49	53	29.12	35.2	....	36.0	29.96	36.8	20.40
Minnedosa, Man	1,690	50	10	28.14	34.6	....	37.1	29.99	38.8	20.43
Qu'Appelle, Assin	2,115	50	44	27.67	34.2	....	36.5	29.97	38.6	20.41
Medicine Hat, Assin	2,161	50	1	27.64	41.0	....	42.6	29.96	44.8	20.50
Swift Current, Assin	2,439	50	20	27.38	37.9	...	40.6	30.00	42.0	20.50
Edmonton, Alberta	2,158	53	14	27.60	38.2	....	41.3	29.92	43.5	20.45
Battleford, Sask	1,630	52	41	28.21	34.0	....	35.8	29.99	37.4	20.42
Hamilton, Ber	151	32	23	29.93	70.3	....	70.5	30.09	70.7	21.04

TABLE IV.—*Resultant winds from observations at* 8 *a. m. and* 8 *p. m., daily, during the year* 1898.

Stations.	Component direction from— N.	S.	E	W.	Resultant. Direction from—	Duration.
New England.	*Hours.*	*Hours.*	*Hours.*	*Hours.*	°	*Hours.*
Eastport, Me	238	215	138	265	n. 80 w.	128
Portland, Me	271	235	105	297	n. 79 w.	195
Northfield, Vt	219	419	45	114	s. 19 w.	211
Boston, Mass	217	197	137	327	n. 84 w.	189
Nantucket, Mass	229	239	159	294	s. 86 w.	136
Woods Hole, Mass.*	78	161	86	128	s. 27 w.	72
Block Island, R. I	516	205	183	323	n. 24 w.	338
New Haven, Conn	295	203	146	220	s. 84 w.	74
Middle Atlantic States.						
Albany, N. Y	235	305	93	195	s. 38 w.	164
Binghamton, N. Y.†	127	72	130	114	n. 16 w.	58
New York, N. Y	249	194	203	262	n. 47 w.	82
Harrisburg, Pa.†	155	92	58	204	n. 67 w.	160
Philadelphia, Pa	248	211	189	163	s. 61 e.	75
Atlantic City, N. J	223	300	203	283	s. 46 w.	110
Baltimore, Md	217	187	211	250	n. 52 w.	49
Washington, D. C	269	221	162	215	n. 47 w.	72
Lynchburg, Va	147	203	206	276	s. 51 w.	90
Norfolk, Va	239	238	242	198	n. 89 e.	56
Richmond, Va	242	233	158	166	n. 42 w.	12
South Atlantic States.						
Charlotte, N. C	208	260	286	126	s. 72 e.	168
Hatteras, N. C	296	238	126	180	n. 43 w.	79
Raleigh, N. C	294	207	150	248	n. 51 e.	130
Wilmington, N. C	218	230	180	263	s. 82 w.	83
Charleston, S. C	236	246	179	222	s. 77 w.	44
Augusta, Ga	216	226	187	298	s. 85 w.	81
Savannah, Ga	218	280	183	206	s. 20 w.	66
Jacksonville, Fla	218	266	247	172	s. 58 e.	88
Florida Peninsula.						
Jupiter, Fla	157	248	302	159	s. 61 e.	165
Key West, Fla	182	147	382	52	n. 85 e.	330
Tampa, Fla	287	138	271	197	n. 26 e.	180
Eastern Gulf States.						
Atlanta, Ga	225	196	226	283	n. 63 w.	62
Pensacola, Fla	260	259	205	202	n. 76 e.	4
Mobile, Ala	313	241	134	173	n. 28 w.	81
Montgomery, Ala	203	224	225	220	s. 13 e.	22
Vicksburg, Miss	216	263	205	142	s. 72 e.	152
New Orleans, La	223	272	240	144	s. 60 e.	111
Western Gulf States.						
Shreveport, La	177	222	276	146	s. 72 e.	135
Fort Smith, Ark	162	129	391	139	n. 78 e.	257
Little Rock, Ark	173	265	225	205	s. 12 e.	94
Corpus Christi, Tex	206	289	348	73	s. 73 e.	289
Galveston, Tex	189	341	307	101	s. 54 e.	254
Palestine, Tex	139	320	228	103	s. 35 e.	218
San Antonio, Tex	257	269	353	55	s. 88 e.	300
Ohio Valley and Tennessee.						
Chattanooga, Tenn	223	261	188	244	s. 56 w.	68
Knoxville, Tenn	277	224	187	233	n. 42 w.	69
Memphis, Tenn	214	259	226	205	s. 25 w.	50
Nashville, Tenn	238	245	172	251	s. 84 w.	80
Lexington, Ky	152	284	209	239	s. 13 w.	135
Louisville, Ky	197	294	171	213	s. 24 w.	105
Evansville, Ind.†	99	142	97	104	s. 9 w.	44
Indianapolis, Ind	229	272	133	256	s. 71 w.	130
Cincinnati, Ohio	178	261	234	228	s. 4 e.	84
Columbus, Ohio	180	266	192	227	s. 23 w.	73
Pittsburg, Pa	223	242	136	284	s. 83 w.	148
Parkersburg, W. Va	195	286	193	213	s. 12 w.	94
Lower Lake Region.						
Buffalo, N. Y	136	260	156	226	s. 29 w.	141
Oswego, N. Y	156	324	184	248	s. 21 w.	180
Rochester, N. Y	168	297	127	369	s. 63 w.	281
Erie, Pa	151	295	121	388	s. 61 w.	304
Cleveland, Ohio	283	325	329	198	s. 72 e	139
Sandusky, Ohio	146	276	173	291	s. 43 w.	174
Toledo, Ohio	159	237	163	317	s. 62 w.	164
Detroit, Mich	191	264	160	289	s. 61 w.	148
Upper Lake Region.						
Alpena, Mich	224	237	150	292	s. 85 w.	142
Grand Haven, Mich	250	218	210	241	n. 44 w.	45
Marquette, Mich	254	230	107	317	n. 83 w.	211
Port Huron, Mich	224	313	133	199	s. 37 w.	110
Sault Ste. Marie, Mich	115	156	260	260	s.	41
Upper Lake Region—Continued.	*Hours.*	*Hours.*	*Hours.*	*Hours.*	°	*Hours.*
Chicago, Ill	216	251	167	244	s. 65 w.	84
Milwaukee, Wis	232	227	177	256	n. 87 w.	80
Green Bay, Wis	202	293	154	221	s 36 w.	114
Duluth, Minn	327	143	188	276	n. 26 w.	205
North Dakota.						
Moorhead, Minn	273	221	233	243	n. 11 w.	53
Bismarck, N. Dak	301	131	214	262	n. 18 w.	181
Williston, N. Dak	294	214	138	241	n. 51 w.	130
Upper Mississippi Valley.						
St. Paul, Minn	232	246	186	267	s. 80 w.	81
La Crosse, Wis.†	108	171	53	87	s. 28 w.	72
Davenport, Iowa	192	213	205	284	s. 76 w.	82
Des Moines, Iowa	269	231	157	224	n. 61 w.	78
Dubuque, Iowa	203	273	160	275	s. 59 w.	133
Keokuk, Iowa	211	261	183	253	s. 54 w.	88
Cairo, Ill	234	296	181	173	s. 11 e.	63
Springfield, Ill	201	291	147	242	s. 46 w.	133
Hannibal Mo.†	90	140	87	132	s. 42 w.	67
St. Louis, Mo	198	282	184	206	s. 15 w.	87
Missouri Valley.						
Columbia, Mo.*	91	125	109	113	s. 7 w.	34
Kansas City, Mo	232	264	231	187	s. 54 e.	54
Springfield, Mo	198	318	238	155	s. 35 e.	146
Lincoln, Nebr	231	290	207	121	s. 13 w.	62
Omaha, Nebr	282	235	158	191	n. 35 w.	57
Sioux City, Iowa†	142	127	94	92	n. 8 e.	15
Pierre, S. Dak	262	204	258	201	n. 44 e.	80
Huron, S. Dak	254	231	205	204	n. 2 e.	23
Yankton, S. Dak†	112	88	79	156	n. 72 w.	80
Northern Slope.						
Havre, Mont	182	168	183	359	n. 85 w.	50
Miles City, Mont	...	...	...	...	...	...
Helena, Mont	142	289	72	425	s. 67 w.	379
Rapid City, S. Dak	238	142	158	372	n. 66 w.	235
Cheyenne, Wyo	291	175	75	343	n. 67 w.	293
Lander, Wyo	173	288	177	304	s. 48 w.	170
North Platte, Nebr	252	232	145	261	n. 80 w.	119
Middle Slope.						
Denver, Colo	225	319	160	186	s. 15 w.	98
Pueblo, Colo	253	138	217	256	n. 19 w.	121
Concordia, Kans	205	306	167	153	s. 8 e.	103
Dodge, Kans	217	293	171	186	s. 10 w.	78
Wichita, Kans	256	319	179	119	s. 43 e.	88
Oklahoma, Okla	222	314	164	111	s. 24 e.	134
Southern Slope.						
Abilene, Tex	178	373	185	161	s. 7 e.	198
Amarillo, Tex	189	358	110	170	s. 20 w.	177
Southern Plateau.						
El Paso, Tex	246	98	289	278	n. 5 e.	148
Santa Fe, N. Mex	226	225	250	161	n. 89 e.	89
Phenix, Ariz	210	99	265	279	n. 8 w.	112
Middle Plateau.						
Carson City, Nev	180	208	124	355	s. 83 w.	232
Winnemucca, Nev	235	231	151	243	n. 88 w.	92
Salt Lake City, Utah	193	254	224	238	s. 13 w.	62
Northern Plateau.						
Baker City, Oreg	199	374	147	156	s. 3 w.	176
Idaho Falls, Idaho	275	344	53	80	s. 12 w.	72
Spokane, Wash	174	306	215	179	s. 15 e.	137
Walla Walla, Wash	100	430	108	191	s. 14 w.	340
North Pacific Coast Region.						
Fort Canby, Wash	235	193	224	193	n. 72 e.	139
Seattle, Wash	190	326	182	161	s. 9 e.	136
Tacoma, Wash	227	277	74	288	s. 77 w.	220
Portland, Oreg	245	257	151	258	s. 44 w.	155
Roseburg, Oreg	316	151	208	214	n. 85 w.	165
Middle Pacific Coast Region.						
Eureka, Cal	254	221	143	310	n. 79 w.	171
Red Bluff, Cal	339	236	178	161	n. 11 e.	95
Sacramento, Cal	218	372	142	181	s. 15 w.	118
San Francisco, Cal	123	305	50	480	s. 67 w.	468
South Pacific Coast Region.						
Fresno, Cal	342	93	116	394	n. 48 w.	374
Los Angeles, Cal	131	179	91	457	s. 83 w.	371
San Diego, Cal	302	143	135	327	n. 50 w.	250
San Luis Obispo, Cal	411	126	45	283	n. 39 w.	373

* From observations at 8 p. m. only. † From observations at 8 a. m. only.

TABLE V.—*Total number of days with thunderstorms at selected stations*, 1898.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Alabama.													
Mobile	1	4	0	6	4	16	17	14	4	4	1	1	72
Montgomery	0	2	0	4	3	13	19	11	3	1	0	1	57
Scottsboro	3	0	5	2	8	9	18	6	6	0	0	0	57
Arizona.													
Defiance, Fort	1	0	0	4	1	5	18	11	1	1	0	0	42
Holbrook	0	0	3	1	0	6	18	22	0	0	0	0	50
Phenix	1	0	0	1	1	0	4	12	0	0	0	0	19
Tucson	0	0	0	0	0	0	1	0	0	0	0	0	1
Whitehills	0	0	0	0	1	1	1	14	0	0	0	0	17
Yuma	0	0	1	0	0	0	0	3	0	0	0	0	4
Arkansas.													
Elon	3	3	0	7	3	6	5	3	1	4	2	1	38
Fort Smith	2	0	2	5	7	13	10	9	2	4	1	0	55
Keesees Ferry	1	3	13	7	11	18	14	6	6	3	1	0	83
Little Rock	2	1	6	6	8	9	5	5	2	0	1	0	45
Picayune	5	0	4	2	9	8	5	2	3	0	0	0	38
Pocahontas	1	2	3	2	10	2	12	6	3	3	2	0	46
*California.**													
Eureka	1	0	0	0	0	0	0	1	0	0	0	0	2
Red Bluff	0	2	0	0	1	2	0	0	1	0	0	0	6
Colorado.													
Denver	0	0	0	2	10	14	10	10	0	0	0	0	46
Durango	0	0	0	4	6	4	10	7	1	1	0	0	33
Fort Collins	0	0	0	0	8	9	11	4	0	0	0	0	32
Pueblo	0	0	0	2	7	10	14	11	1	0	0	0	45
Salida	0	0	0	0	0	13	9	0	0	0	0	0	22
Connecticut.													
Hartford	0	0	1	1	2	2	5	9	6	0	0	0	26
New Haven	0	0	2	0	3	1	5	8	2	1	0	0	22
Voluntown	0	1	0	3	1	2	4	2	2	0	0	0	15
Winsted	0	0	1	1	3	1	2	8	3	0	0	0	19
Dist. of Columbia.													
Washington	1	0	1	1	5	6	9	5	2	0	0	1	31
Florida.													
Grasmere	0	3	0	0	0	14	12	13	5	3	0	0	50
Jacksonville	0	1	0	1	4	9	12	9	4	0	0	3	43
Jupiter	0	0	1	3	4	5	11	11	3	4	0	3	45
Key West	0	0	1	0	1	2	6	11	1	3	1	1	27
Merritts Island	0	0	0	2	5	10	22	19	5	0	0	1	64
Myers	0	2	0	3	12	26	22	29	27	3	0	0	114
Pensacola	0	2	0	1	1	11	9	10	0	1	0	1	36
Tampa	0	2	0	0	1	13	8	15	5	1	0	1	46
Georgia.													
Allentown	2	0	0	7	9	10	20	9	6	5	1	2	71
Atlanta	1	0	1	2	5	8	17	6	4	1	0	2	47
Augusta	1	0	0	2	5	9	10	9	3	2	0	0	41
Clayton	3	1	4	2	8	12	20	19	10	0	0	1	80
Piscola	1	4	0	3	4	0	2	2	0	0	0	3	19
Poulan	1	0	0	3	2	7	4	4	0	0	0	1	22
Idaho.													
Burnside	0	0	0	2	9	5	7	10	0	1	0	0	34
Downey	0	0	1	0	5	14	3	6	2	0	0	0	31
Idaho Falls	0	0	0	0	3	6	4	0	0	0	0	0	13
Murray	0	0	0	1	2	2	3	1	0	1	0	0	10
Salubria	0	0	0	0	6	6	2	5	1	1	0	0	21
Illinois.													
Cairo	0	0	7	3	12	14	12	10	8	2	1	0	69
Chicago	1	0	3	0	4	7	5	6	8	2	0	0	36
Olney	0	0	6	2	11	10	6	8	6	1	0	0	50
Peoria	1	0	0	1	6	8	2	2	5	0	0	0	25
Rantoul	3	0	5	1	10	11	11	10	8	2	1	0	62
Springfield	2	0	5	4	11	12	6	8	6	1	1	0	56
Winnebago	0	0	3	1	3	7	4	4	1	2	1	0	26
Indiana.													
Angola	0	0	4	1	4	4	7	4	4	0	0	0	28
Cambridge, City	1	0	2	0	5	8	4	7	5	0	1	0	33
Evansville	1	0	2	2	8	5	9	4	6	1	1	0	39
Huntington	1	0	3	0	5	6	3	0	2	1	1	0	22
Indianapolis	2	0	4	0	9	10	8	7	7	2	1	0	50
Seymour	2	0	2	0	3	5	6	3	4	1	1	0	27
Worthington	2	0	4	1	5	6	2	8	7	0	1	0	36
Iowa.													
Davenport	0	0	6	2	9	9	5	8	3	0	1	0	43
Des Moines	1	0	1	3	8	9	6	5	4	1	0	0	38
Dubuque	0	0	2	2	6	9	5	5	7	0	1	0	37
Keokuk	2	0	7	4	8	10	6	8	8	1	1	0	55
Sioux City	0	0	2	0	3	7	7	2	4	3	0	0	28
Kansas.													
Concordia	0	1	1	4	8	4	4	7	1	2	0	0	32
Dodge	0	0	1	4	9	7	9	3	2	1	0	0	36
Topeka	0	0	5	6	10	9	4	5	4	2	0	0	45
Wichita	0	1	4	6	12	10	9	4	5	3	1	0	55
Kentucky.													
Hopkinsville	3	1	4	0	4	3	7	1	2	1	0	0	26
Lexington	1	1	2	1	4	9	9	9	4	2	2	0	44
Louisville	1	0	3	1	5	5	6	7	5	1	1	0	35
Middlesboro	2	2	2	1	8	10	11	8	7	0	0	0	51
Louisiana.													
Lawrence	0	3	0	1	2	6	5	6	8	1	2	0	34
Melville	3	1	1	3	3	22	31	20	7	5	4	1	101
New Orleans	0	5	0	2	1	13	9	9	0	1	2	1	43
Shreveport	0	3	0	4	3	13	8	8	1	3	1	1	45
Maine.													
Belfast	1	0	0	0	0	2	3	2	3	0	0	0	11
Eastport	1	0	0	0	2	2	1	1	1	0	0	0	8
Flagstaff	0	0	0	0	1	1	1	3	3	0	0	0	9
Portland	0	0	0	0	1	3	2	4	5	0	0	0	15
Maryland.													
Baltimore	1	0	0	1	6	4	7	9	1	0	0	1	30
Grantsville	1	1	2	2	8	9	16	11	6	0	0	0	56
Princess Anne	2	0	1	3	6	4	2	4	2	0	0	1	25
Massachusetts.													
Adams	0	0	0	0	2	1	1	4	2	0	0	0	10

TABLE V.—*Total number of days with thunderstorms, etc.*—Continued.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Massachusetts-Con.													
Boston	0	1	0	0	0	0	5	6	3	1	0	0	16
Ludlow	0	0	1	5	2	2	5	5	2	0	0	0	22
Nantucket	0	2	0	2	2	1	4	4	4	0	0	0	19
New Bedford	1	0	0	4	1	0	3	3	3	0	1	1	17
Vineyard Haven	0	1	1	1	0	0	2	3	1	1	0	0	10
Woods Hole	1	0	0	1	0	0	4	2	1	0	0	0	9
Michigan.													
Alpena	0	0	0	0	3	7	2	4	3	1	0	0	20
Detroit	0	0	1	0	7	7	5	3	6	1	0	0	30
Grand Haven	0	0	0	0	3	5	2	2	4	1	0	0	17
Lansing	0	0	1	1	4	5	3	1	6	0	1	0	22
Marquette	0	0	0	0	2	3	8	1	6	0	0	0	20
Port Huron	1	0	0	1	3	6	6	4	3	0	1	0	25
Sault Ste. Marie	0	0	0	0	2	4	5	3	5	0	0	0	19
Minnesota.													
Duluth	0	0	1	0	2	6	7	5	5	2	0	0	28
Luverne	0	0	0	0	0	8	4	5	3	0	0	0	20
Minneapolis	0	0	1	1	5	7	3	5	2	3	0	0	27
Moorhead	0	0	0	0	3	6	7	9	2	0	0	0	27
St. Cloud	0	0	0	0	1	2	4	4	1	1	0	0	13
Mississippi.													
Biloxi	0	5	0	2	1	3	4	6	5	2	1	2	31
Vicksburg	5	3	2	6	6	19	18	10	6	2	2	2	81
Water Valley	2	1	1	7	8	13	14	8	3	3	1	0	61
Missouri.													
Columbia	4	1	3	3	13	14	10	5	8	5	1	0	67
Hannibal	3	1	5	2	12	9	8	6	12	3	2	0	63
Kansas City	2	1	6	3	13	13	8	5	6	3	1	0	61
St. Louis	4	0	6	1	13	15	11	7	6	1	1	0	65
Springfield	2	2	9	7	10	14	9	6	6	3	0	0	68
Montana.													
Havre	0	0	0	0	0	6	4	5	2	0	0	0	17
Helena	0	0	0	0	6	12	5	8	0	0	0	0	31
Kipp	0	0	0	0	0	5	9	10	11	3	0	0	38
Manhattan	0	0	0	0	5	6	1	1	0	0	0	0	13
Miles City	0	0	0	0	3	6	8	2	0	0	0	0	19
Missoula	0	0	0	0	0	1	1	6	2	0	0	0	10
Nebraska.													
Lincoln	0	0	1	3	4	2	3	3	1	3	0	0	20
North Platte	0	0	0	2	9	6	6	9	2	1	0	0	35
Omaha	0	0	2	2	7	6	6	5	2	4	0	0	34
Nevada.													
Carson City	0	0	0	0	0	2	1	6	0	0	0	0	9
Winnemucca	0	0	0	1	0	2	0	3	0	0	0	0	6
New Hampshire													
Bethlehem	0	0	2	0	1	1	2	6	4	1	0	0	17
Nashua	0	0	0	0	0	2	2	6	3	1	0	0	14
New Jersey.													
Atlantic City	0	0	0	0	7	5	5	3	2	0	0	0	22
Somerville	0	1	1	2	6	7	12	8	3	1	0	2	43
New Mexico.													
Santa Fe	0	0	1	3	0	9	21	20	2	2	2	0	60
Whiteoaks	0	1	0	1	0	6	7	3	0	0	1	0	19
New York.													
Albany	0	0	0	0	2	5	3	10	5	1	0	0	26
Binghamton	0	0	2	0	2	5	6	8	3	0	0	0	26
Buffalo	2	0	2	1	5	5	6	6	5	2	0	0	34
New York	0	0	2	2	6	5	7	5	2	1	0	0	30
Oswego	1	0	1	0	3	5	6	5	4	0	0	0	25
Rochester	1	0	2	0	6	4	8	8	5	1	0	0	35
Saranac Lake	0	0	0	0	0	4	4	4	2	0	0	0	14
South Canisteo	1	0	2	2	4	8	9	5	6	1	0	0	38
North Carolina.													
Charlotte	0	0	2	2	13	9	13	9	5	2	0	0	55
Hatteras	0	0	2	1	4	5	4	8	0	0	0	0	24
Linville	0	0	1	0	11	6	8	6	3	1	0	0	36
Raleigh	0	0	1	2	10	8	10	9	3	0	0	0	43
Wilmington	0	0	1	2	8	12	16	11	5	2	0	1	58
North Dakota.													
Bismarck	0	0	0	0	2	6	8	2	1	2	0	0	21
Churchs Ferry	0	0	0	0	1	4	5	1	0	0	0	0	11
Dickinson	0	0	0	0	1	1	0	1	0	0	0	0	3
Williston	0	0	0	0	1	3	0	0	1	0	0	0	5
Ohio.													
Cincinnati	1	1	2	0	6	7	7	6	4	0	1	0	35
Cleveland	2	0	1	1	9	15	8	10	9	0	0	0	55
Columbus	1	1	4	0	4	4	4	7	3	0	1	0	29
Sandusky	1	0	1	1	6	8	9	7	9	0	0	0	42
Toledo	0	0	2	1	3	7	6	5	5	0	0	0	29
Oklahoma.													
Oklahoma	2	1	2	4	6	5	5	2	2	0	0	0	29
Oregon.													
Baker City	0	0	0	0	3	3	5	2	0	0	0	0	13
Portland	0	0	0	0	0	1	1	0	1	0	0	0	3
Roseburg	0	0	0	0	2	0	0	1	1	0	0	0	4
Pennsylvania.													
Dushore	0	0	2	1	4	4	3	8	2	0	0	1	25
Erie	1	0	1	0	7	7	5	7	5	0	0	0	33
Harrisburg	0	0	0	2	6	6	9	8	3	0	0	0	34
Philadelphia	0	1	0	1	7	6	7	6	5	0	0	1	34
Pittsburg	1	0	1	1	6	8	6	8	1	0	0	0	32
Rhode Island.													
Block Island	1	1	0	0	1	4	4	6	3	0	0	0	20
Narragansett	0	0	0	0	1	1	3	6	3	0	0	0	14
South Carolina.													
Charleston	0	1	1	4	8	12	17	19	5	2	0	2	71
Columbia	0	0	0	3	6	9	10	12	3	1	0	0	44
South Dakota.													
Huron	0	0	1	0	2	6	12	2	2	1	0	0	26
Pierre	0	0	1	0	3	8	13	6	1	0	0	0	32
Rapid City	0	0	0	1	4	8	10	4	0	2	0	0	29
Yankton	0	0	1	1	7	7	6	4	3	1	0	0	30

TABLE V.—*Total number of days with thunderstorms, etc.*—Continued.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Tennessee.													
Chattanooga	2	0	4	2	10	10	16	7	5	0	0	0	56
Knoxville	1	0	0	0	5	8	13	6	5	0	1	0	39
Memphis	4	1	7	4	5	12	11	6	4	2	1	0	57
Nashville	1	0	2	5	10	13	13	4	6	0	0	0	54
Texas.													
Abilene	0	2	2	2	4	9	4	6	2	1	1	0	33
Amarillo	0	0	0	3	11	9	11	7	2	4	1	0	48
Corpus Christi	0	2	3	2	4	5	2	4	4	1	1	0	28
El Paso	0	0	1	4	0	4	10	2	2	0	0	0	23
Galveston	1	4	3	6	3	7	9	14	3	3	2	0	55
Palestine	2	3	1	1	3	11	9	8	1	6	0	0	45
San Antonio	1	2	0	2	1	5	4	4	2	0	0	0	21
Utah													
Salt Lake City	0	0	0	1	2	2	4	5	2	0	0	0	16
Vermont.													
Northfield	0	0	0	0	1	4	6	8	3	0	0	0	22
Vernon	1	0	0	0	2	6	4	11	7	2	0	0	33
Virginia.													
Cape Henry	0	0	1	3	5	6	5	7	2	0	1	1	31
Dale Enterprise	0	1	2	0	11	12	15	17	3	1	1	0	63
Lynchburg	0	0	0	0	7	6	5	5	3	0	0	0	26
Norfolk	0	0	1	3	5	5	5	6	1	0	0	1	27
Richmond	0	0	0	1	8	5	7	5	3	0	0	0	29
Wytheville	0	0	0	1	6	2	5	2	4	4	1	0	25
Washington.													
Fort Canby	0	0	0	0	0	0	0	0	3	1	2	0	6
Pysht	0	0	0	0	0	0	0	0	0	0	0	0	0
Seattle	0	0	0	0	1	1	1	0	1	0	0	0	4
Spokane	0	0	0	0	1	2	3	0	1	0	0	0	7
Tacoma	0	0	0	0	1	0	0	0	1	0	0	0	2
Walla Walla	0	0	0	0	1	1	1	0	0	0	0	0	3
West Virginia.													
Elkhorn	1	1	3	1	6	1	8	5	2	0	1	0	29
Parkersburg	0	0	1	0	5	8	8	9	3	0	0	0	34
Upper Tract	1	0	1	1	4	10	7	7	4	0	0	0	35
Wisconsin.													
Beloit	0	0	1	2	3	3	2	1	1	0	0	0	13
Green Bay	0	0	1	1	5	4	5	3	3	0	1	0	23
La Crosse	0	0	0	0	1	7	2	2	1	0	0	0	13
Medford	1	0	1	1	2	10	5	5	3	1	0	0	29
Milwaukee	0	0	1	1	2	6	3	3	3	2	1	0	22
Wyoming.													
Cheyenne	0	0	0	2	9	11	12	9	1	0	0	0	44
Lander	0	0	0	0	5	8	4	10	0	0	0	0	27

*There was one thunderstorm at Sacramento, one at San Diego, and none at Fresno, Los Angeles, San Francisco, and San Luis Obispo.

TABLE VI.—*Number of days on which thunderstorms were reported*, 1898.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Alabama	9	6	0	8	15	25	31	22	13	7	4	3	143
Arizona	4	1	4	16	6	15	28	31	8	0	1	1	115
Arkansas	14	6	20	17	20	29	23	19	15	10	4	1	178
California	2	5	4	7	12	8	8	16	5	5	1	3	76
Colorado	0	0	3	14	28	25	30	27	6	5	1	1	140
Connecticut	2	2	3	3	6	7	10	13	9	2	0	0	57
Delaware	0	0	1	4	10	10	8	9	2	0	0	1	45
Dist. of Columbia	0	0	1	1	3	6	9	5	2	0	0	1	28
Florida	1	4	1	3	19	25	31	31	25	6	2	0	148
Georgia	9	6	7	15	19	21	29	28	12	4	3	5	158
Idaho	0	2	2	5	24	22	15	21	6	7	0	0	104
Illinois	9	2	14	15	26	22	22	24	19	8	5	0	166
Indiana	7	2	10	4	18	17	17	26	16	5	2	0	124
Indian Territory	1	2	10	8	14	14	7	10	2	3	1	0	72
Iowa	1	2	14	7	20	26	21	19	18	6	3	0	137
Kansas	5	4	14	17	27	22	18	14	16	9	2	0	148
Kentucky	5	5	11	8	22	19	24	17	12	4	3	0	130
Louisiana	18	11	11	14	16	30	31	31	20	15	10	6	208
Maine	2	0	1	1	3	4	12	10	9	0	0	0	42
Maryland	3	2	7	9	24	15	19	18	11	2	4	3	117
Massachusetts	2	4	4	3	6	10	14	18	18	2	1	1	78
Michigan	1	0	8	4	12	23	22	18	21	5	3	0	117
Minnesota	0	0	6	6	11	21	19	21	12	6	0	0	102
Mississippi	12	8	9	11	13	30	28	31	18	8	4	4	176

TABLE VI.—*Number of days on which thunderstorms were reported*—Cont'd.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Missouri	7	11	19	18	24	28	34	20	19	15	5	0	190
Montana	0	0	1	3	17	26	22	17	5	1	0	0	92
Nebraska	0	5	7	14	25	19	25	16	11	6	1	0	129
Nevada	0	0	1	4	15	17	15	22	6	0	0	0	80
New Hampshire	2	0	2	0	2	10	10	13	11	2	0	0	52
New Jersey	3	1	7	5	14	15	19	19	9	3	0	5	100
New Mexico	0	1	4	11	6	20	31	21	7	2	0	0	103
New York	6	3	6	5	19	20	23	28	17	6	2	1	136
North Carolina	3	1	12	9	24	18	25	29	17	11	3	4	156
North Dakota	0	0	1	3	4	20	28	15	6	4	0	0	81
Ohio	5	7	13	[illegible]	22	17	23	23	19	4	3	3	146
Oklahoma	4	2	11	8	17	13	13	8	8	3	1	0	88
Oregon	1	1	2	5	16	14	13	17	10	0	5	4	88
Pennsylvania	7	3	12	7	21	22	23	23	15	4	3	2	142
Rhode Island	1	1	0	1	2	4	5	12	7	0	0	0	33
South Carolina	5	2	10	12	21	19	28	11	16	8	0	5	137
South Dakota	0	0	6	5	17	22	25	14	7	6	0	0	102
Tennessee	8	3	8	12	24	23	29	18	15	4	4	1	149
Texas	8	13	15	15	17	28	25	27	15	10	6	1	180
Utah	0	0	1	7	13	9	15	21	3	0	0	0	69
Vermont	2	0	2	0	5	16	11	15	11	1	0	0	63
Virginia	1	2	7	7	22	16	19	23	12	4	2	2	117
Washington	0	2	1	1	6	10	11	11	9	3	5	1	60
West Virginia	2	5	5	4	16	15	18	19	10	0	3	1	98
Wisconsin	0	0	7	6	13	25	15	11	14	8	3	0	102
Wyoming	0	0	0	6	13	16	17	18	2	2	0	0	74

TABLE VII.—*Number of days on which auroras were reported*, 1898.

Alabama	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	0	0	0	0	0	0	0
Arkansas	0	0	3	0	0	0	0	0	0	0	0	0	3
California	0	0	0	0	0	0	0	0	0	0	0	0	0
Colorado	2	1	4	0	0	0	0	0	0	0	0	0	7
Connecticut	2	0	4	1	0	0	0	1	1	0	1	0	10
Delaware	0	0	1	0	0	0	0	0	0	0	0	0	1
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	3	1	0	0	3	4	5	0	0	0	16
Illinois	7	4	3	4	1	2	5	4	4	0	0	1	35
Indiana	2	0	3	1	0	1	0	0	1	0	1	0	9
Indian Territory	0	0	0	0	0	0	0	0	0	0	0	0	0
Iowa	1	1	5	3	1	0	0	1	4	1	0	1	18
Kansas	0	1	3	0	0	0	0	0	2	0	0	0	6
Kentucky	0	0	3	0	0	0	0	0	0	0	0	0	3
Louisiana	0	0	0	0	0	0	0	0	0	0	0	0	0
Maine	1	1	5	2	0	1	0	0	6	1	3	2	22
Maryland	2	0	5	3	0	0	0	0	5	0	2	0	17
Massachusetts	1	0	5	3	1	1	0	1	2	1	0	0	15
Michigan	3	2	5	2	1	2	4	2	5	1	2	2	31
Minnesota	6	10	11	5	2	4	4	4	6	3	3	9	67
Mississippi	0	0	0	0	0	0	1	0	0	0	0	0	1
Missouri	0	0	3	0	0	0	1	0	0	1	3	0	8
Montana	13	15	5	5	2	3	2	5	4	6	9	6	75
Nebraska	3	2	9	1	0	0	0	0	0	0	0	0	15
Nevada	6	3	4	0	0	0	0	0	0	0	0	0	13
New Hampshire	4	1	6	3	0	2	2	4	5	2	2	3	34
New Jersey	0	1	1	2	0	0	0	1	2	2	0	0	9
New Mexico	0	0	0	0	0	2	0	0	0	0	0	0	2
New York	3	2	8	3	0	1	5	0	8	1	2	3	36
North Carolina	0	0	0	0	0	0	0	0	0	0	0	0	0
North Dakota	13	7	9	8	5	4	5	5	10	6	4	3	79
Ohio	6	7	5	6	7	5	8	3	5	5	7	7	71
Oklahoma	0	0	0	0	0	0	1	0	0	0	0	0	1
Oregon	0	0	4	1	0	0	0	0	0	0	0	0	5
Pennsylvania	0	3	5	1	0	0	0	0	2	0	1	1	13
Rhode Island	0	0	3	0	0	0	0	0	2	0	0	0	5
South Carolina	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	5	5	8	2	0	0	3	0	7	0	0	1	31
Tennessee	0	0	0	0	0	0	0	0	0	0	0	0	0
Texas	0	0	0	0	0	0	0	0	0	0	0	0	0
Utah	0	0	2	0	0	0	0	0	2	0	0	0	4
Vermont	1	0	6	3	0	1	0	0	1	1	2	0	15
Virginia	0	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	4	0	2	0	0	0	4	1	0	0	11
West Virginia	0	0	0	0	0	0	0	0	1	0	0	0	1
Wisconsin	0	1	10	3	5	4	3	6	13	0	4	1	50
Wyoming	0	0	2	0	0	0	0	0	4	0	0	0	6