FORM MAP C

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

DAILY WEATHER MAP

SECOND EDITION.

SATURDAY, October 20, 1917.—8 A. M.

Washington, D. C., Saturday, October 20, 1917—8 A. M.

WEATHER CONDITIONS AND GENERAL FORECAST.

The trough of low pressure on Friday morning has passed eastward, and this morning what remains of it is central over New England. General rains have fallen in Atlantic coast districts, and it is still raining along the middle Atlantic and southern New England coasts.

The temperature has fallen 20° to 30° over the Appalachian region, the lower Lakes, and the East Gulf States. Heavy to killing frosts are reported from northern Texas eastward to Georgia; also in Arkansas and southern Tennessee.

Generally fair and cool weather is probable Saturday night and Sunday in all parts of the Washington forecast district, except in the Lake region, where light snow is probable.

The winds along the Atlantic coast will be fresh northwest; on the east Gulf coast gentle north to northeast.

Steamers departing to-day for European ports will have fresh to strong northwest winds and fair weather to the Grand Banks.

FORECAST TILL 8 P. M. SUNDAY.

For Northern New England, fair to-night and Sunday; colder to-night; fresh northwest to north winds.

For Southern New England, fair and somewhat colder to-night. Sunday fair, continued cold; fresh northwest winds, diminishing.

For Eastern New York, fair to-night and Sunday; continued cool; fresh northwest winds, diminishing.

For Eastern Pennsylvania, New Jersey, and Delaware, fair and somewhat colder to-night. Sunday fair, continued cold; diminishing northwest winds.

For Maryland, fair to-night and Sunday; killing frost to-night; gentle and variable winds.

For the District of Columbia, fair, continued cool to-night; temperature about freezing. Sunday fair, continued cool; moderate northwest winds, diminishing.

For Virginia, fair to-night and Sunday; heavy frost in the interior to-night; light variable winds.

For North Carolina, fair and continued cool to-night; heavy frost in the interior. Sunday fair; moderate northeast to east winds.

For South Carolina, fair to-night and Sunday; cooler to-night on the coast; heavy frost in the interior in exposed places; light northerly winds.

For Georgia, fair, continued cold to-night, with heavy frost in exposed places. Sunday fair; warmer in northwest portion; light variable winds.

For Florida, fair to-night and Sunday; colder to-night, with frost in exposed places in north portion; warmer in northwest portion Sunday; light northerly winds.

For Alabama, fair to-night with frost, heavy in north portion and light frost near the coast. Sunday fair, warmer; light variable winds.

For Mississippi, fair to-night and probably Sunday; heavy frost to-night in north portion and light frost near the coast; warmer Sunday; gentle southeast winds.

For Tennessee, fair to-night; warmer in west portion. Sunday partly cloudy.

For Kentucky, fair, warmer to-night and probably Sunday.

For West Virginia, fair, continued cool to-night. Sunday fair, warmer.

For Western New York, partly cloudy to-night and Sunday; continued cool to-night.

For Western Pennsylvania, partly cloudy to-night and Sunday, except probably snow flurries near Lake Erie.

For Ohio, partly cloudy to-night and Sunday; probably snow flurries near Lake Erie; warmer to-night in central and south portions.

For Indiana, fair, warmer to-night. Sunday partly cloudy.

For Lower Michigan, probably snow flurries to-night and Sunday; no much change in temperature.

For Upper Michigan, probably snow flurries to-night and Sunday; warmer to-night; colder Sunday.

For the Upper Lakes, moderate and variable winds; probably snow to-night. Sunday fair, continued cold.

For the Lower Lakes, moderate westerly winds and cloudy weather to-night and Sunday; probably snow on Lake Erie.

A. J. HENRY, Forecaster.

For Illinois, rain and colder in north and central portions, fair in south portion to-night; warmer in southeast portion. Sunday fair.

For Wisconsin, fair to-night and Sunday, except rain or snow in southeast portion to-night.

For Minnesota, fair, colder to-night. Sunday fair; warmer in west portion.

For Iowa, fair, colder to-night. Sunday fair; warmer in extreme west portion.

For Missouri, fair to-night; colder in northwest portion. Sunday fair; colder in east and south portions.

For Kansas, fair, colder to-night. Sunday fair; warmer in north and west portions.

For Nebraska, fair to-night; colder in central and east portions. Sunday fair, warmer.

For South Dakota, fair to-night; colder in east portion. Sunday fair, warmer.

For North Dakota, fair to-night; colder in southeast portion. Sunday fair, warmer.

For Montana, fair to-night and Sunday, except rain Sunday in extreme northwest portion; warmer in central and east portions.

For Wyoming, fair to-night; warmer in extreme northwest portion. Sunday fair, warmer.

For Colorado, fair to-night, with freezing temperature; colder in southeast portion. Sunday fair; warmer in east portion.

For New Mexico, fair to-night and Sunday; colder in east portion.

For Arizona, fair, warmer to-night. Sunday fair.

For Utah, fair to-night and Sunday.

For California, fair to-night and Sunday.

For Nevada, and Idaho, fair to-night and Sunday; warmer to-night.

For Washington, and Oregon, fair to-night and Sunday; warmer to-night in east portions.

For Louisiana, fair, warmer to-night and Sunday; light easterly winds on the coast.

For Arkansas, fair to-night; warmer in southeast portion. Sunday fair; colder in west portion.

For Eastern Texas, fair to-night; warmer in east and south portions. Sunday fair; colder in the interior; light east to south winds on the coast.

For Western Texas, fair to-night; colder in the Panhandle. Sunday fair; colder in south portion.

For Oklahoma, fair to-night; colder in west and north portions. Sunday fair, colder.

Observations are taken at 8 a. m. and 8 p. m., 75th meridian time.

Barometer readings are reduced to sea level and standard gravity. When heavy dotted red lines appear they indicate regions of marked changes in temperature during the last 24 hours. Shaded areas show regions of precipitation of .01 inch or more during the last 24 hours. Arrows point in the direction the wind is blowing. Solid black lines are isobars and solid red lines isotherms.

Wind velocities of less than 10 miles an hour, and amounts of precipitation of less than .01 of an inch, are not published hereon.

Symbols indicate: ○ clear, ◑ partly cloudy, ● cloudy, R rain, S snow, ⊢◉⊣ storm warnings, CW cold wave warnings, →⊕→ storm track and location of storm center, date above, time (a. m. or p. m.) below, ⊼a, ⊼p, thunderstorms at or near the station during 12 hours ending 8 a. m. or 8 p. m., respectively.

WIND-BAROMETER INDICATIONS.

When the wind sets in from points between south and southeast and the barometer falls steadily a storm is approaching from the west or northwest, and its center will pass near or north of the observer within 12 to 24 hours with wind shifting to northwest by way of southwest and west. When the wind sets in from points between east and northeast and the barometer falls steadily a storm is approaching from the south or southwest, and its center will pass near or to the south or east of the observer within 12 or 24 hours with wind shifting to northwest by way of north. The rapidity of the storm's approach and its intensity will be indicated by the rate and the amount of the fall in the barometer.

Statute Miles

Kilometers

Warmer 20° or more

Colder 20° to 30° or more

Reports from Atlantic and Alaskan Stations.

Stations	Pressure.	Temp., dry bulb.	Wind. Direction.	Wind. Force.*	Weather.
October 20, 1917.					
Hamilton, Bermuda					
Turks Island, W. I.					
Havana, Cuba, W. I.	29.92	82	n.	2	clear.
Nassau, N. P., W. I.	29.94	78	n.	1	p. cloudy.
October 19 (local time).					
Honolulu, H. I., 9 p. m.	29.96	78	e.	1	cloudy.
8 p. m., 135th mer. time.					
Nome, Alaska	30.02	34	ne.		cloudy.
Tanana, Alaska	30.14	14	e.		clear.
Eagle, Alaska					
Valdez, Alaska	29.74	38	0		cloudy.
Sitka, Alaska	29.76	42	e.		rain.
Dutch Harbor, Alaska	29.88	42	se.		clear.
Juneau, Alaska	29.94	40	se.	1	rain.

*Beaufort scale.

RIVER STAGES 8 a. m., OCTOBER 20, 1917.

Flood stages.	Stations.	Height above zero.	Change.	Remarks.
Feet.		*Feet.*	*Feet.*	
22	Pittsburgh	6.5	+ 0.5	Rising.
35	Parkersburg	11.5	− 0.7	Falling.
50	Cincinnati	11.5	− 1.0	Falling.
28	Louisville	8.9	+ 0.3	Rising.
85	Evansville	3.0	+ 0.2	Rising.
45	Cairo	6.9	+ 0.1	Rising.
16	Terre Haute	6.3	+ 2.5	Falling.
16	Peoria			
40	Nashville	7.3	0.0	Falling.
33	Chattanooga	8.2	+ 0.2	Rising.
14	Pierre			
17	Sioux City			
19	Omaha	7.7	0.0	Falling.
22	Kansas City	6.6	0.0	Falling.
14	St. Paul	2.0	0.0	Falling.
12	La Crosse	2.3	0.0	Rising.
18	Dubuque	3.0	+ 0.1	Rising.
15	Davenport	2.4	0.0	Falling.
14	Keokuk	1.4	− 0.1	Falling.
30	St. Louis	1.7	− 0.1	Falling.
35	Memphis	3.7	− 0.2	Falling.
45	Vicksburg	4.0	− 0.2	Falling.
18	New Orleans	4.4	− 0.1	Falling.
22	Fort Smith	3.2		Falling.
23	Little Rock	− 1.2	0.0	Falling.
29	Shreveport	− 4.7	0.0	Falling.
32	Augusta	7.4	0.0	Falling.

Districts and Stations.	Pressure. Reduced to sea level and standard gravity.	Pressure. Abnormal in 24 hours.	Temperature. Dry bulb.	Temperature. Change in 24 hours.	Temperature. Highest yesterday.	Temperature. Lowest last night.	Wind velocity in miles per hour.	Precipitation in 24 hours, inches.
Montreal, Que	29.96	+.28	36	− 18	64	36	12	
Greenville, Me	29.92		36	− 6	54	36		.50
Eastport, Me	29.88	−.16	38	− 0	54	36		.30
Northfield, Vt	30.02	+.26	38	−16	66	36		.72
Portland, Me	29.92	− 2	46	− 6	60	46	14	.72
Boston, Mass	29.94	+ 2	50	− 8	72	50	12	.38
Nantucket, Mass	29.86	−.12	54	− 4	64	54	16	1.06
Block Island, R. I	29.90	− 2	50	− 8	64	48	26	.82
Hartford, Conn	30.02	+.12	42	−20	70	42		.66
Canton, N. Y	30.02		38	−26		34		1.00
Syracuse, N. Y	30.12	+.12	36	−28	68	34		.90
Binghamton, N. Y	30.10		34	−30		34		.60
Albany, N. Y	30.02	+.12	40	−20	70	38	10	1.22
New York, N. Y	30.02	+.16	40	−20	66	40	32	.32
Sandy Hook, N. J	30.06	+.22	44	−16	68	42	24	.36
Scranton, Pa	30.14	+.16	38	−26	70	38		.72
Harrisburg, Pa	30.14	+.14	40	−24		38		.64
Philadelphia, Pa	30.16	+.22	46	−18	72	46	12	.76
Atlantic City, N. J	30.06	+.20	44	−18	66	44	12	.28
Baltimore, Md	30.14	+.16	42	−22	74	40		.76
WASHINGTON, D. C	30.18	+.22	42	−25	78	39	12	.90
Norfolk, Va	30.08	+.22	42	−26	78	42	24	.16
Richmond, Va	30.18	+.24	44	−18	82	42	16	.66
Lynchburg, Va	30.16	+.22	40	−24	74	40	14	.30
Wytheville, Va	30.20	+.20	32	−34	68	32		1.02
Charlotte, N. C	30.12	+.22	44	−26	78	44	12	.36
Asheville, N. C	30.22	+.20	34	−28	72	34	12	.28
Raleigh, N. C	30.10	+.22	46	−20	80	46	12	.92
Hatteras, N. C	29.96	+ 8	58	−14	78	58	32	0
Wilmington, N. C	29.98	+.10	58	−16	80	56	14	0
Charleston, S. C	29.96	+.10	62	−12	82	62	10	0
Columbia, S. C	30.06		52	−18		52	12	.02
Greenville, S. C	30.14		44	−24		42		.24
Augusta, Ga	30.04	+.14	54	−18	84	46		.01
Savannah, Ga	30.00	+.14	54	−20	84	52	14	.02
Jacksonville, Fla	29.98	+.10	58	−16	82	58	12	0
Titusville, Fla	29.92	+ 4	72	− 2	86	70		0
Miami, Fla	29.92	+ 2	78	+ 2	82	72		.02
Key West, Fla	29.90		80		86	74		.18
Atlanta, Ga	30.10	+ 4	36	−32	70	34	16	.40
Macon, Ga	30.08	+ 8	40	−32	80	38	10	0
Thomasville, Ga	30.06	+.14	40	−30	86	40		0
Tampa, Fla	29.94	+ 2	72	− 4	86	70		.04
Apalachicola, Fla	30.08	+.14	50	−24	86	40		0
Pensacola, Fla	30.14	+ 8	42	−28	74	42	20	0
Mobile, Ala	30.16	+ 8	44	−26	70	44	18	.02
Montgomery, Ala	30.18	+ 8	40	−32	72	38		0
Birmingham, Ala	30.24	+.12	34	−32	68	34		.02
Meridian, Miss	30.22	+ 6	36	−14	68	36		.04
Corinth, Miss	30.22		32	−12				0
Vicksburg, Miss	30.28		38	− 2	66	36		0
New Orleans, La	30.20	+ 6	48	−12	66	48	12	.08
Burrwood, La	30.12	+ 6	56	−18	76	54	20	0
Shreveport, La	30.24	+ 8	36	− 2	70	34		0
Fort Smith, Ark	30.20	− 2	36	+ 4	68	36		0
Little Rock, Ark	30.24	0	40	0	64	38		0
Palestine, Tex	30.20	− 6	40	0	64	38		0
Port Arthur, Tex	30.22		50	0		42		0
Galveston, Tex	30.22	0	54	0	64	54		0
Houston, Tex	30.22		46	− 4		44		0
Taylor, Tex	30.24		42	+ 2		40		0
San Antonio, Tex	30.22	− 2	44	0	66	44		0
Corpus Christi, Tex	30.22	− 2	50	− 6	68	44		0
Brownsville, Tex	30.18		46	−10	72	44		0
Memphis, Tenn	30.28	+ 2	42	+ 2	60	38		0
Nashville, Tenn	30.26	+ 6	32	+ 8	64	32		.01
Chattanooga, Tenn	30.24	+ 6	36	−16	64	34	12	.08
Knoxville, Tenn	30.22	+ 6	36	−20	66	34		.44
Lexington, Ky	30.32		34	− 6		32		.02
Louisville, Ky	30.30	+ 6	32	− 6	44	32		0
Evansville, Ind	30.24	0	36	− 4	48	34		
Terre Haute, Ind	30.22	+ 2	32	− 4	48	30		
Indianapolis, Ind	30.28	+ 6	32	− 4	38	30	10	0
Cincinnati, Ohio	30.30	+ 6	30	− 8	40	28		.02
Dayton, Ohio	30.26		30	− 6		28		0
Columbus, Ohio	30.26		32	−10	42	32		.08
Elkins, W. Va	30.26	+.16	32	−32	68	30		.76
Parkersburg, W. Va	30.30	+.10	36	−16	62	30		.60
Pittsburgh, Pa	30.24	+ 8	34	−26	60	34	12	1.08
Oswego, N. Y	30.06	+ 8	42	−22	66	38	14	.94
Rochester, N. Y	30.12		36	−26		34		.74
Buffalo, N. Y	30.14	+.14	36	−28	64	36	14	.52
Erie, Pa	30.16	+.10	40	−10	60	38		.60
Cleveland, Ohio	30.22	+ 8	34	−10	44	34	12	.12
Toledo, Ohio	30.26	+.10	36	− 4	42	34	10	0
Detroit, Mich	30.22	+.10	34	− 4	38	32	10	0
Saginaw, Mich	30.20		34	− 4		32		0
Alpena, Mich	30.18	+.20	32	− 6	42	28		0
Sault Ste. Marie, Mich	30.20	+.22	28	−10	38	28		.02
Houghton, Mich	30.12		28	− 4		28		.04
Marquette, Mich	30.18	+.12	34	−12	54	28	12	.01
Escanaba, Mich	30.20	+.12	26	− 8	38	24		0
Green Bay, Wis	30.18	+.10	26	− 4	36	26		0
Ludington, Mich	30.18		36	0	36	36		0
Grand Haven, Mich	30.18	+ 6	36	0	36	36		0
Grand Rapids, Mich	30.22	+ 8	36	0	36	36		0
Fort Wayne, Ind	30.26	+ 8	30	− 4	34	30		0
Chicago, Ill	30.20	+ 4	34	0	38	32	10	0
Milwaukee, Wis	30.20	+ 2	30	− 2	34	30		0
Duluth, Minn	30.12	+ 2	26	+ 2	30	20		0
St. Paul, Minn	30.06	0	30	+ 4		30		.04
Madison, Wis	30.18	+ 2	30	0	32	26		0
La Crosse, Wis	30.10		30	0	32	26		.01
Charles City, Iowa	30.06	− 6	34	+ 8	38	32		0
Dubuque, Iowa	30.14	− 4	34	+ 6	36	30		0
Davenport, Iowa	30.12	− 4	38	+ 8	40	34		0
Des Moines, Iowa	30.06	− 8	42	+16	42	36		0
Keokuk, Iowa	30.10	− 8	44	+ 8	44	40		0
Peoria, Ill	30.16		36	+ 4		34		0
Springfield, Ill	30.16	0	36	0	44	36	10	0
St. Louis, Mo	30.16	0	38	0	46	36	14	0
Cairo, Ill	30.22	0	36	− 2	50	34		0
Springfield, Mo	30.14	− 6	38	+12	48	36	12	0
St. Joseph, Mo	30.12		44	+18	48	40	18	0
Kansas City, Mo	30.12	− 2	44	+14	60	42	10	0
Wichita, Kans	30.12	+ 6	44	+20	62	42		0
Concordia, Kans	30.22	+12	40	+12	62	40	12	0
Omaha, Nebr	30.18	+10	38	+16	46	38	12	0
Lincoln, Nebr	30.20		40	+22		38	12	0
Valentine, Nebr	30.34	+.28	36	+16	56	34	14	0
Sioux City, Iowa	30.20	+14	36	+16	44	36	26	0
Huron, S. Dak	30.24	+24	30	+16	42	30	14	0
Pierre, S. Dak	30.36	+32	28	+12	46	28		0
Moorhead, Minn	30.20	+20	28	+14	32	28	12	.10
Bismarck, N. Dak	30.36	+32	26	+ 6	36	26	12	.02
Devils Lake, N. Dak	30.32	+30	26	+ 8	32	26	10	.04
Williston, N. Dak	30.32	+26	30	− 2	36	26		.02
Havre, Mont	30.42	+12	30	− 8	40	30		.04
Billings, Mont	30.40		26	−18	54	26		0
Helena, Mont	30.50	+14	24	−18	50	24		0
Yellowstone P'k, Wyo	30.46	+34	18	−14	48	18		0
Miles City, Mont					44			
Miscoula, Mont			28	−10				0
Kalispell, Mont	30.42	+14	24	− 8	52	24		0
Lewiston, Idaho	30.42		22	−12		22		0
Baker, Oreg	30.46		30	−10		30	12	0
Pocatello, Idaho	30.42	+24	28	−10	56	28		0
Boise, Idaho	30.44	+12	36	− 4	60	34		0
Rapid City, S. Dak	30.44	+30	32	+ 4	52	32	12	.01
Sheridan, Wyo	30.50	+30	28	−14	48	28		.20
Lander, Wyo	30.46		24	+ 2		24		0
Salt Lake City, Utah	30.32	+10	42	+ 6	60	42		0
Modena, Utah	30.26	+ 6	30	+12	64	28		0
Grand Junction, Colo	30.26	+10	22		64	28		0
Durango, Colo	30.22	−12	22		62	20		0
Cheyenne, Wyo	30.36	+36	24	−14	54	24	18	.04
North Platte, Nebr	30.34	+38	24	+16	60	24		0
Denver, Colo	30.40	+44	30	−12	60	30		.04
Pueblo, Colo	30.26	+24	36	+12	66	36		0
Dodge City, Kans	30.34	+28	32	+20	68	42	14	0
Oklahoma, Okla	30.12	− 6	40	+14	64	40	12	0
Altus, Okla	30.02		36	+ 8	68	34		0
Muskogee, Okla	30.04		40	+ 6	60	26		0
Amarillo, Tex	30.04	− 6	42	+14	68	36	12	0
Dallas, Tex	30.18	− 4	40	+ 4		40		0
Fort Worth, Tex	30.18	− 4	42	+ 2	68	42		0
Abilene, Tex	30.08	−12	46	+14	66	46	12	0
El Paso, Tex	30.10	− 2	38	0	68	38		0
Del Rio, Tex	30.18		42	− 6		42		0
Roswell, N. Mex	30.02	0	42	+14	70	34		0
Santa Fe, N. Mex	30.02	− 6	40	+14	66	44	12	0
Flagstaff, Ariz	30.18	0	20	+ 6	60	20		0
Phoenix, Ariz	30.02	+ 2	44	+ 2	86	42		0
Yuma, Ariz	30.00	+ 2	52	+ 6	84	52		0
Needles, Cal	30.06	+ 4	44	−14	82	44		0
Tatoosh Island, Wash	30.30	− 6	46	− 2	54	46	14	0
Spokane, Wash	30.44	+ 4	28	− 4	58	28		0
Walla Walla, Wash	30.38	+ 8	40	+12	64	40		0
Seattle, Wash	30.36	+ 2	40	− 8	60	40		0
Portland, Oreg	30.32	− 2	46	− 4	64	46		0
North Head, Wash	30.32	− 4	48	− 2	56	48		0
Roseburg, Oreg	30.32	+ 4	36	0	64	36		0
Reno, Nev	30.30	+ 6	34	+ 6	70	34		0
Tonopah, Nev	30.24	+ 4	44	+ 6	60	42		0
Winnemucca, Nev	30.38	+ 6	32	+12	66	28		0
Eureka, Cal	30.08	0	58	+12	62	46		0
Red Bluff, Cal	30.12	− 6	58	+ 8	84	54		0
Sacramento, Cal	30.08	− 2	52	− 4	82	52		0
San Francisco, Cal	30.06	− 2	56	0	80	56		0
Fresno, Cal	30.06	− 2	54	+ 2	80	52		0
San Luis Obispo, Cal	30.02	− 2	54	+ 2	80	54		0
Los Angeles, Cal	30.00	− 4	68	+ 8	88	64	10	0
San Diego, Cal	29.96	− 2	66	− 2	76	66		0