

SECTION VII.—WEATHER AND DATA FOR THE MONTH.

THE WEATHER OF THE MONTH.

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PRESSURE.

The distribution of the mean atmospheric pressure over the United States and Canada and the prevailing direction of the winds during May, 1915, are graphically shown on Chart VII, while the average values for the month at the several stations, with the departures from normal, are shown in Tables I and III.

For the month as a whole the barometric pressure was moderately high over Lake Superior and westward to the Dakotas, but over other portions of the country the means for the month were nearly everywhere below the normal. The greatest minus departures appear in the extreme eastern Canadian Provinces, and rather marked departures occurred in the New England and the North Pacific States and in the middle Mississippi and lower Ohio Valleys and thence southeasterly into the South Atlantic States.

The month opened with relatively low pressure over nearly all districts, except the extreme northeastern and the central Canadian Provinces where it was near or slightly above the normal, and pressure continued generally low over most districts until toward the end of the first decade, when an area of moderately high pressure moved from the far Southwest easterly to the Atlantic. During the second decade relatively low pressure again prevailed over most districts until near the middle of the month, when well-defined and rather extensive low and high pressure areas followed one another across the country with considerable regularity until early in the third decade, when the pressure again became low over most districts, which condition continued until after the middle of the decade, when several well-marked lows and highs again successively crossed the country. The month closed with relatively low pressure throughout all southern districts and in the extreme northern Rocky Mountain region; elsewhere relatively high pressure prevailed.

The distribution of the highs and lows was generally favorable for southerly winds over the west Gulf States and along the north Pacific coast, southwesterly over the coastal portion of the Southeastern States, and easterly to northeasterly over the upper Mississippi Valley, the Lake region, and portions of the Ohio Valley. Elsewhere variable winds prevailed.

TEMPERATURE.

May opened with low temperatures in the western Mountain districts, the Ohio Valley, and portions of the Gulf States, but in other districts there was some warming up, although the weather was still moderately cool. There were no specially marked changes in temperature until after the middle of the first week, when cooler weather overspread the central valleys and northern districts and extended into the eastern portions of the country with rather general light frost in portions of the Ohio Valley, the Lake region, and the North Atlantic States.

By the end of the week the temperature had risen quite generally in the Lake region, Ohio Valley, and the districts to westward of the Mississippi, except in the northern Rocky Mountain region.

For the week as a whole the mean temperature was much below the normal in the central valleys and in the far Southwest, while over small areas along the Atlantic coast and in the far Northwest and over the upper Lake region the weekly means were above the normal.

There was a general tendency to warmer weather during the first few days of the second week, except that cooler weather overspread the upper Mississippi Valley, the Lake region, the Ohio Valley, and the northeastern districts. By the middle of the week it had become decidedly cooler over the Plateau and Rocky Mountain regions and in the Northeastern States, with heavy frost at points in New York and New England, but in the Middle West temperatures remained comparatively high. Toward the latter part of the week colder weather overspread most northern and central districts east of the Rocky Mountains, with temperatures near or below freezing in the upper Lake region and thence westward to the mountains, while in the far West there was a considerable warming up.

The mean temperature for the second week was below the normal in the eastern portion of the Pacific Coast States and eastward over the northern portion of the country to the Atlantic. Elsewhere it was near or above the normal, being quite high for the season in the central Plains States, portions of Kansas and Missouri, and thence southeastward to the Atlantic.

Cool weather continued over the northern and central districts at the beginning of the third week with a still further lowering of temperature in the middle Rocky Mountain and Great Plains regions. There was some warming up during the following few days, although the temperature continued generally below the normal in all parts of the country, except in portions of the South and in the Ohio Valley and Lake region, where it was somewhat higher, and considerably warmer weather overspread the districts to the eastward by the middle of the week. During the latter part of the week there was a tendency to warmer weather in nearly all districts, and at the close temperatures were still rising in the central valleys and were slightly above the normal elsewhere.

The mean temperature for the third week was below the normal in all portions of the country, save in the Gulf States and at points along the immediate Atlantic and Pacific coasts, it being unusually cold for the season from the Great Lakes westward to the Plateau region and in the great valley of California. However, in portions of the Gulf and South Atlantic States the week was distinctly warm, and along the Atlantic coast from the Carolinas northward temperature averages were near or slightly above the normal, and similar conditions prevailed along the Pacific coast.

At the beginning of the fourth week temperatures were rising in all districts, except in portions of the Atlantic Coast States and in the Northwest. However, during the following few days unusually cold weather for the season of the year overspread most eastern

districts, and temperatures near or slightly below freezing again occurred over much of the Lake region and at points in New York and New England. At the same time, cooler weather prevailed to the westward of the mountains, but in the central valleys and to the southward temperatures continued moderately high, with a tendency to cooler as the week advanced. During the latter portion of the week the temperatures continued very generally below the normal, but by its close they were generally rising and near the seasonal averages in most districts.

As during the preceding week, the average temperatures were decidedly below the normal over the greater part of the country. Over the interior valleys and portions of the Great Plains the averages were from 5° to 10° or more below the normal and the deficiencies were nearly as great in the Lake region and portions of the Atlantic Coast States. Over a small area in the Southern States and generally in California, Oregon, and Nevada and at a few points in the Northwest the weekly means were near or slightly above normal.

PRECIPITATION.

At the beginning of the month there was a general absence of precipitation, except in the far Southwest where some heavy local showers occurred, and during the first few days rain became fairly general in the Plains States, and snow fell at points in the middle Rocky Mountain region. By the middle of the first week local heavy rainfalls occurred in the Gulf States and Ohio Valley and lighter rains in nearly all other districts to eastward of the Mississippi. The last days of the week were comparatively free from rain, except locally in the Southeastern States and the far West, where beneficial showers occurred. The rainfall for the week was unusually widespread, no part of the country being without some rain, save in a small area from extreme western Texas and southern New Mexico to the lower Colorado Valley. Heavy rains occurred over the Gulf States to eastward of the Mississippi, thoroughly breaking the rather serious drought that had prevailed in that district, and there were again copious falls over much of Texas and thence northward over Oklahoma, Kansas, and Colorado, where the soil had been unusually wet for several weeks. There were some unseasonably late rains in California.

Early in the second week rains fell over nearly the entire Gulf and Atlantic Coast States, the falls being especially heavy in the Southeastern States, and they were generous in the Middle Atlantic States, where rain was much needed. By the middle of the week light rains had fallen from North Dakota westward to the coast and southward to the middle Plateau region. During the latter part of the week considerable precipitation occurred in the northern portions of the Missouri and upper Mississippi valleys and the Lake region, with light rains eastward to the Atlantic coast and in most sections to the westward of the Rocky Mountains, with some snow in southwestern Wyoming and western Nebraska. For the week as a whole the precipitation was generous to fairly heavy over most of the central and eastern portions of the cotton belt, and good amounts were received in the Atlantic Coast States, the Lake region, and thence westward along the northern border to the Pacific and also in the middle and north Pacific States. The week was practically rainless in the west Gulf States and the southern portions of the Mountain and Plateau districts, and but little precipitation occurred

in the central Mountain region, the Plains States, and the Central Valleys.

The third week opened with light rains in most districts west of the Rocky Mountains, and by the middle of the week substantial amounts had occurred over much of the country surrounding the upper Mississippi Valley, portions of the Lake region, the Ohio Valley, and the North-eastern States. For the latter part of the week rains were more local in character, but good showers occurred over a large area from the central Plains eastward to the Atlantic coast, and light rains were fairly general in the far Northwest. The total precipitation for the week was generous from the middle Atlantic coast westward to the central Rocky Mountain region and thence northwestward to the Canadian border, the falls being unusually heavy in the Great Plains and middle Mississippi Valley. In the more northern districts, however, the falls were comparatively light, practically none occurring in portions of North Dakota and Montana, while over the Southern States there was likewise little rain save in North Carolina and thence westward to and including Oklahoma and portions of northern Texas.

At the beginning of the fourth week there was more or less rain over a wide area from the upper Mississippi Valley eastward, and during the next few days thunder-showers were general from the middle Plains region eastward to the Ohio Valley. By the middle of the week there were thunderstorms with local heavy rains over much of the interior of the country. Some unusually heavy rains occurred in portions of the lower Missouri, middle Mississippi, and lower Ohio valleys, and floods resulted at many points in those districts. Local rains occurred during this period at points in the far Northwest and in the Gulf and South Atlantic States. During the closing days of the week there was a general decrease in the precipitation, but showers persisted in many districts, especially in the East Gulf and South Atlantic States. Over most districts east of the Rocky Mountains the week as a whole was cloudy and wet. The rainfall was heavy to excessive over practically the entire corn belt, in many portions of which the soil was saturated from the heavy rains of the preceding week. There were good rains over the northern Mountain and Plateau districts and in the far Northwest, but in most of the Lake region, the Middle and North Atlantic States, and the central and southern Mountain and Plateau districts the total falls for the week were generally small, while little or no rain occurred in the far Southwest, including California, and in portions of North Dakota and northern Minnesota.

A tornado visited Springfield, Mo., on May 20, at 6:25 p. m.

GENERAL SUMMARY.

The weather of May, 1915, was characterized by copious precipitation over large sections of the principal crop-producing areas, rain having fallen over practically every portion of the country except extreme southwestern Texas, the southern portions of New Mexico and Arizona, and southeastern California. The rainfall over portions of the Great Central Valleys, the South Atlantic and Gulf States, and along the north Pacific Coast was unusually heavy. Unseasonably cold weather accompanied the abundant rain, except in the South Atlantic and Gulf States and along the immediate Pacific coast, where the temperatures were generally above the normal. The weather was unusually cold throughout the central and northern portions of the country, with damaging frosts in some northern districts.

Average accumulated departures for May, 1915.

Maximum wind velocities, May, 1915.

Districts.	Temperature.			Precipitation.			Cloudiness.		Relative humidity.	
	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure from the normal.	General mean for the current month.	Departure from the normal.
	°F.	°F.	°F.	In.	In.	In.	0-10.		P. ct.	P. ct.
New England.....	52.8	-1.7	+10.7	2.30	-1.00	-3.30	5.6	+0.1	71	-7
Middle Atlantic.....	60.0	-1.7	+8.1	3.18	-0.30	-1.60	5.9	+0.9	70	-2
South Atlantic.....	72.0	+2.2	-1.0	5.93	+2.10	-1.90	4.9	+0.4	78	+2
Florida Peninsula.....	78.9	+1.2	-12.3	5.93	+1.70	+4.10	4.3	+0.1	79	+3
East Gulf.....	74.9	+2.6	-5.8	6.21	+2.70	-2.30	4.9	+0.2	73	+2
West Gulf.....	72.3	+0.2	-6.1	3.60	-0.60	+0.70	5.5	+0.7	75	0
Ohio Valley and Tennessee.....	63.5	-1.6	+0.7	4.69	+1.00	-4.90	6.7	+1.7	70	+2
Lower Lakes.....	52.9	-4.5	+3.6	4.62	-0.50	-3.50	6.2	+0.8	71	0
Upper Lakes.....	49.3	-3.3	+13.2	3.26	-0.20	-2.80	6.4	+0.9	73	+1
North Dakota.....	51.4	-2.8	+23.3	3.11	+0.60	-1.40	6.0	+0.5	65	+3
Upper Mississippi Valley.....	57.9	-4.0	+9.2	6.68	+2.50	+0.60	6.4	+1.1	74	+6
Missouri Valley.....	58.4	-3.6	+6.1	5.78	+1.50	+2.90	5.8	+0.7	72	+7
Northern slope.....	50.5	-2.5	+11.8	2.75	+0.40	+0.20	6.6	+1.1	67	+9
Middle slope.....	59.0	-3.8	-0.4	4.49	+0.60	+3.60	5.1	+0.2	61	+6
Southern slope.....	68.2	-2.4	-9.7	1.54	-1.20	+3.50	3.6	+0.8	57	-4
Southern Plateau.....	61.4	-4.5	-13.2	0.29	-0.10	+1.80	2.7	0.0	38	+6
Middle Plateau.....	54.0	-2.5	-0.1	1.02	-0.20	+0.10	5.8	+1.7	53	+7
Northern Plateau.....	54.8	-2.1	+13.9	3.24	+1.50	+0.60	7.0	+1.9	63	+7
North Pacific.....	54.3	+1.2	+14.7	3.20	+0.60	-4.70	6.9	+0.6	78	+2
Middle Pacific.....	56.1	-1.4	+4.4	2.95	+1.60	+5.10	5.9	+1.9	75	+4
South Pacific.....	60.7	-0.9	+7.0	1.02	+0.40	+4.00	4.9	+0.8	73	+4

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		Mi./hr.				Mi./hr.	
Block Island, R. I.	26	50	nw.	New York, N. Y.	9	50	sw.
Buffalo, N. Y.	8	54	sw.	Do.	21	57	nw.
Cheyenne, Wyo.	14	52	w.	Do.	26	56	n.
Dallas, Tex.	30	54	s.	North Head, Wash.	10	52	se.
Denver, Colo.	14	50	nw.	Do.	24	56	se.
Detroit, Mich.	21	54	sw.	Oklahoma, Okla.	2	54	sw.
Jacksonville, Fla.	8	64	sw.	Pt. Reyes Light, Cal.	1	62	nw.
Little Rock, Ark.	23	50	s.	Do.	9	51	s.
Louisville, Ky.	7	56	se.	Do.	18	57	nw.
Do.	25	74	nw.	Do.	19	60	nw.
Moiena, Utah.	17	50	sw.	Do.	25	51	nw.
Mt. Tamalpais, Cal.	1	54	nw.	Do.	26	54	nw.
Do.	17	62	nw.	Do.	28	70	nw.
Do.	18	78	nw.	Do.	29	69	nw.
Do.	19	69	nw.	Do.	30	61	nw.
Do.	20	64	nw.	Do.	31	51	nw.
Do.	22	63	nw.	St. Paul, Minn.	14	62	se.
Do.	24	59	nw.	Sand Key, Fla.	12	60	w.
Do.	25	62	nw.	Sandy Hook, N. J.	26	58	nw.
Do.	26	54	nw.	Savannah, Ga.	26	52	se.
Do.	27	54	nw.	Sioux City, Iowa.	2	55	se.
Do.	28	65	nw.	Do.	7	64	nw.
Do.	29	61	nw.	Do.	15	50	nw.
Do.	30	52	nw.	Toledo, Ohio.	7	50	w.
Do.	31	78	nw.	Do.	8	51	sw.
New York, N. Y.	8	50	sw.	Do.	21	61	sw.