

National Weather Service Grand Forks



Weather & Climate Review

March-April 2020



March

	AveT	TDept	Pcpn	PDept	Snow
DVL	25.8	0.2	M	M	M
NWS GF	25.5	-0.6	0.38	-0.64	7.0
FAR	27.8	0.0	0.14	-1.16	0.6
BDE	24.7	1.0	M	M	M
PKD	27.7	2.0	M	M	M

Table 1 March 2020 Temperature and Precipitation Statistics

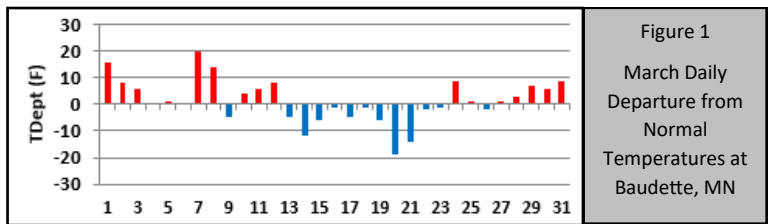


Figure 1
March Daily
Departure from
Normal
Temperatures at
Baudette, MN

Blue Bars = Colder than Normal Days & Red Bars = Warmer than Normal Days

Table 1 shows the March average temperature (AveT), departure from normal temperature (TDept), precipitation (Pcpn), departure from normal precipitation (PDept), and snowfall (Snow) for our 5 main climate sites (Devils Lake (DVL), NWS Grand Forks (NWS GF), Fargo (FAR), Baudette (BDE), and Park Rapids (PKD)). The March average temperature was fairly close to normal at all sites, and exactly normal at Fargo. Precipitation amounts were well below normal at both NWS Grand Forks and Fargo. Figure 1 plots the daily departure from normal temperatures in March 2020 at Baudette, MN. Generally the beginning and ending of the month featured above normal days, while the middle part of the month had below normal days.

Records

At Fargo, the monthly precipitation amount of 0.14 inches is a tie for the 7th driest March on record (with 1886). The monthly snowfall total of 0.6 inches is the 10th least snowfall on record.

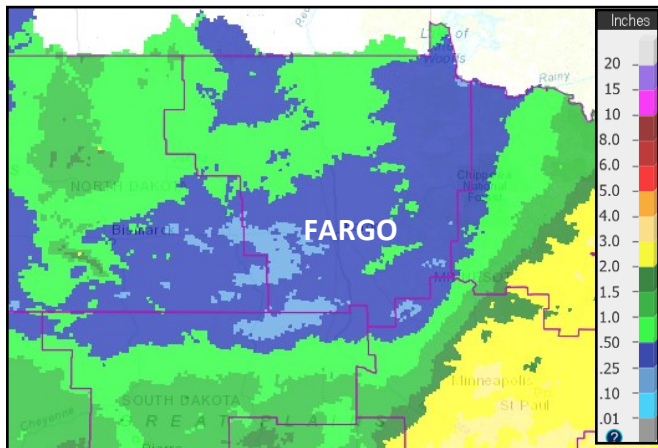


Figure 2 March Observed Precipitation

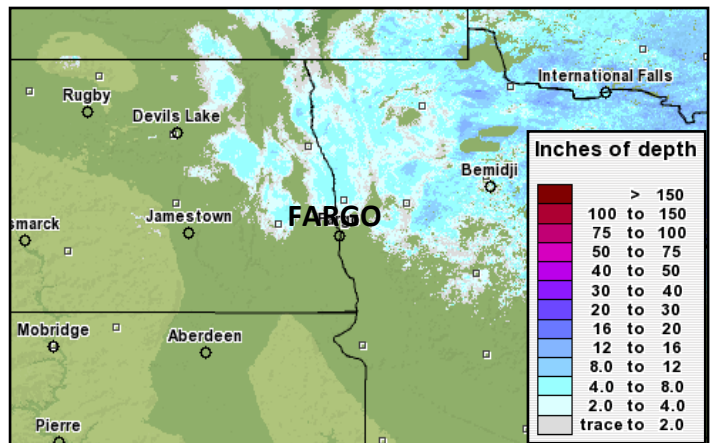
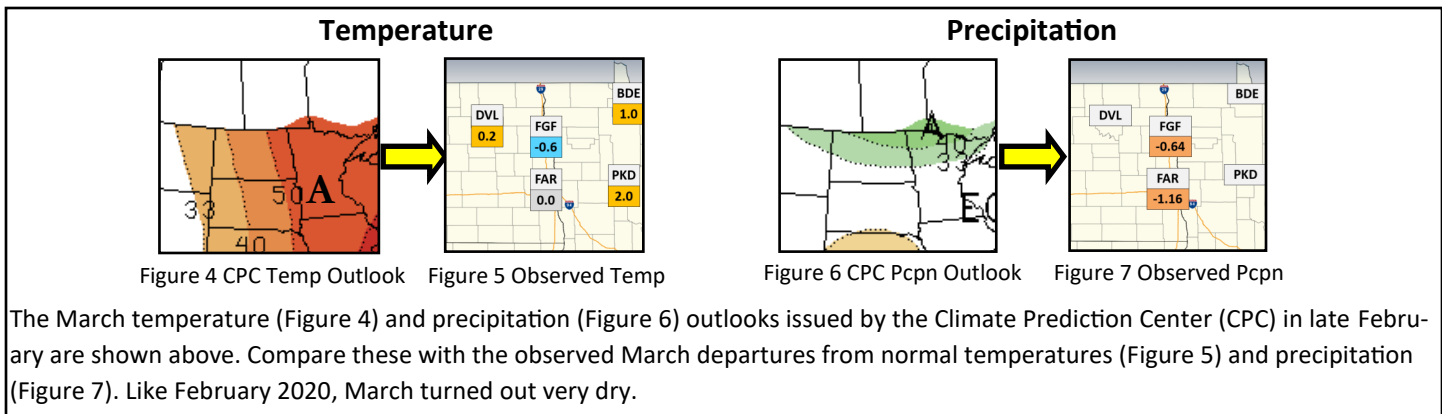


Figure 3 March 31st Snow Depth

Table 1 only gives observed precipitation for 5 sites, which does not cover much of eastern North Dakota and the northwest quarter of Minnesota. Therefore Figure 2 is included, which gives an estimate for the entire area. Looking at the color scale on the right of Figure 2, most of eastern North Dakota and the northwest quarter of Minnesota received less than a half inch of precipitation (blue colors). Figure 3 is also included, which gives an idea of how much snow existed over eastern North Dakota and northern Minnesota on March 31st. The light blue shades show the least snow depth, or about 2 to 10 inches, over the central and northern Red River Valley into northwest Minnesota. Most of the southern Red River Valley into adjacent areas of west central Minnesota had little or no snow left. As of March 31st, the NWS Grand Forks reported a T of snow depth and Fargo reported 0.



6 Month Trend

Looking at just the Fargo climate site (FAR), Figures 8 and 9 show how March 2020 fits into the previous 5 months. Figure 8 plots the monthly departures from normal temperatures at Fargo. The blue bars represent months that were colder than normal, while the red bars represent months that were warmer than normal. Figure 9 plots the monthly departures from normal precipitation at Fargo. The green bars represent months that were wetter than normal, while the brown bars represent months that were drier than normal.

Figure 8 shows that January 2020 was slightly warmer than normal, February was slightly cooler than normal, and March was right at normal. Figure 9 shows that after the especially wet months of October and December of 2019, January, February, and March of 2020 have been drier than normal.

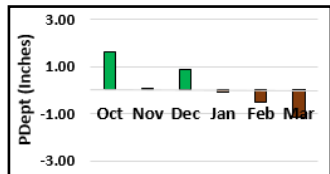
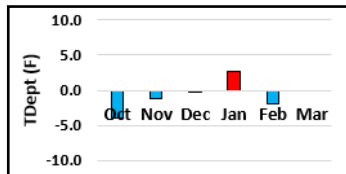


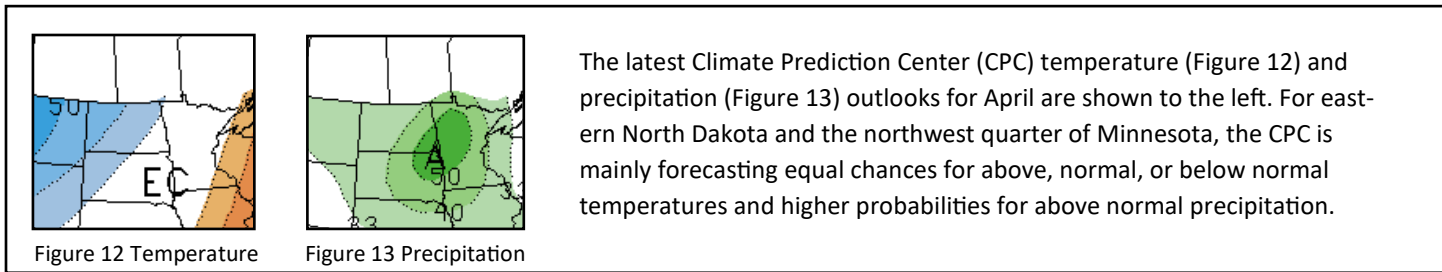
Figure 8 Monthly Departures from Normal Temps at Fargo, ND

Figure 9 Monthly Departures from Normal Pcpn at Fargo, ND

Warnings

No winter weather warnings were issued in March 2020.

April



Last Year & Normals

April 2019 was a slightly colder and mainly drier than normal month. Table 2 shows that departure from normal temperatures ranged from 1.1 degrees below normal at Fargo and Baudette to 3.5 degrees below normal at Devils Lake. All sites except the NWS Grand Forks ended with below normal precipitation. April 2019 was a busy flood month, with the areal flood warned counties shown in red in Figure 14. One Winter Storm Warning (Figure 15), one Blizzard Warning (Figure 16), and one Red Flag Warning (not pictured) were issued for the area in April 2019.

	AveT	TDept	Pcpn	PDept	Snow
DVL	39.8	-3.5	0.78	-0.18	M
NWS GF	41.6	-1.4	1.95	0.97	6.9
FAR	43.1	-1.1	1.27	-0.09	6.1
BDE	39.1	-1.1	0.54	-0.85	M
PKD	40.0	-1.2	1.74	-0.11	M

Table 2 April 2019 Temperature and Precipitation Statistics

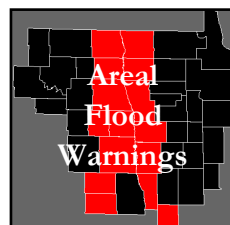


Figure 14 April

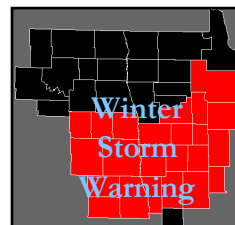


Figure 15 April 10-12

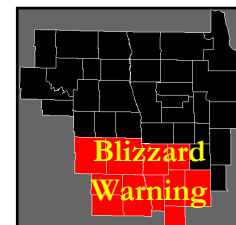


Figure 16 April 10-12

So what are normal temperatures in April? Figure 17 shows normal highs and lows on April 1st for selected cities across eastern North Dakota and northwest Minnesota. Figure 18 shows how normal highs and lows change by April 30th. As an example, at Grand Forks on April 1st, the normal high is 45 and the normal low is 25. By April 30th at Grand Forks, the normal high rises to 63 and the normal low rises to 37. Figures 19 and 20 show the normal precipitation and normal snowfall amounts at the same sites as Figures 17 and 18 (although a few sites do not have a normal snowfall amount). As an example, the normal precipitation at Grand Forks in April is 0.98 inches and the normal snowfall is 1.0 inches.

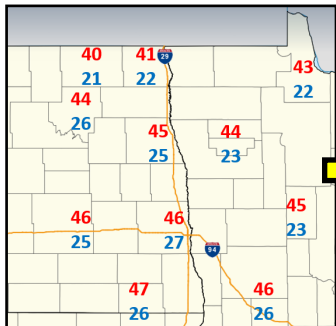


Figure 17 Normal Temps April 1

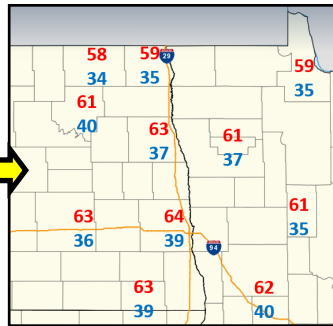


Figure 18 Normal Temps April 30

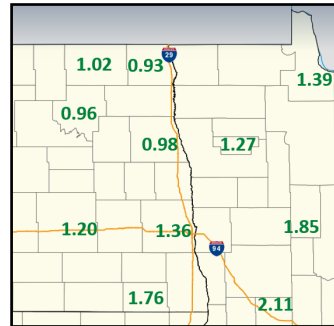


Figure 19 Normal April Pcpn

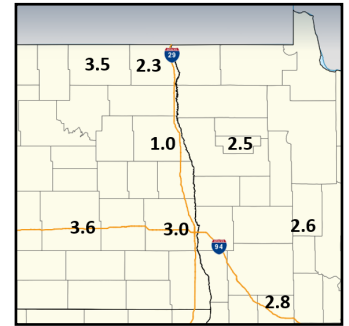


Figure 20 Normal April Snow

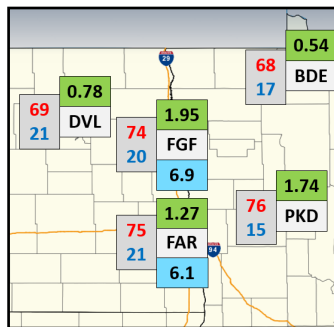


Figure 21 April 2019 Data

As a comparison to normal values, Figure 21 shows various observed data from last year (2019). As an example, in Fargo (FAR), 1.27 inches of precipitation (green box) and 6.1 inches of snow (blue box) fell. The highest temperature was 75 degrees (red number), while the lowest temperature was 21 degrees (blue number).

Miscellaneous

Spring Flood

The latest river levels and forecasts can be found at:

<https://water.weather.gov/ahps2/index.php?wfo=FGF>

Photographs

The winner of our March photo contest was Annie, who submitted a photograph of a frosty winter scene (Page 1, top right). The pictures below are from the Grand Forks area during late March, when the snowmelt was most intense.

