



North Dakota Monthly Climate Summary

March 2019

Volume: 13, No: 3

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information



North Dakota State University

College of Agriculture, Food Systems, and Natural Resources

304 Morrill Hall, Fargo, N.D. 58108

www.ndsu.edu/ndSCO

Adnan.Akyuz@ndsu.edu

701-231-6577

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Based on the National Centers for Environmental Information (NCEI), the statewide average March precipitation was 0.56 inch, which was 0.48 inch less than last month, 0.81 inch less than in March 2018 and 0.27 inch less than the 1981-2010 average, making it the 51st driest March in the 125-year period of record. It was the driest March since 1930 (Table 1). The numbers less than 100 in Figure 1 below are shaded in yellow and red to depict the region with below-average rainfall. In contrast, the numbers that are greater than 100 in the same figure are shaded in green, blue and purple to depict the region with above-average rainfall in March. The greatest monthly precipitation accumulation was 2.56 inches, recorded in Edgeley, LaMoure County. The greatest 24-hour precipitation was 1.51 inches, recorded in Fargo, Cass County, on March 10. The greatest monthly snowfall accumulation was 27.1 inches, recorded in Fullerton, Dickey County. The greatest 24-hour snowfall was 18 inches, recorded also in Fullerton on March 9. That was the record daily snowfall amount for Fullerton on March 9. Based on historical records, statewide March precipitation showed no long-term trend since 1895. The highest and lowest March precipitation for the state ranged from 2.31 inches in 1902 to 0.11 inch in 1930 (Figure 2).

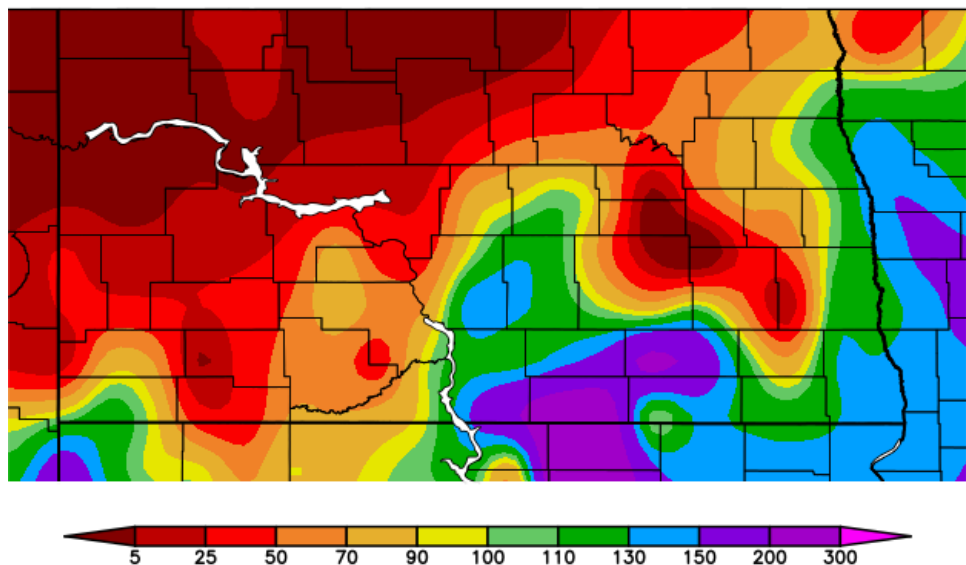


Figure 1. March 2019 precipitation percent of normal for North Dakota. (High Plains Regional Climate Center)



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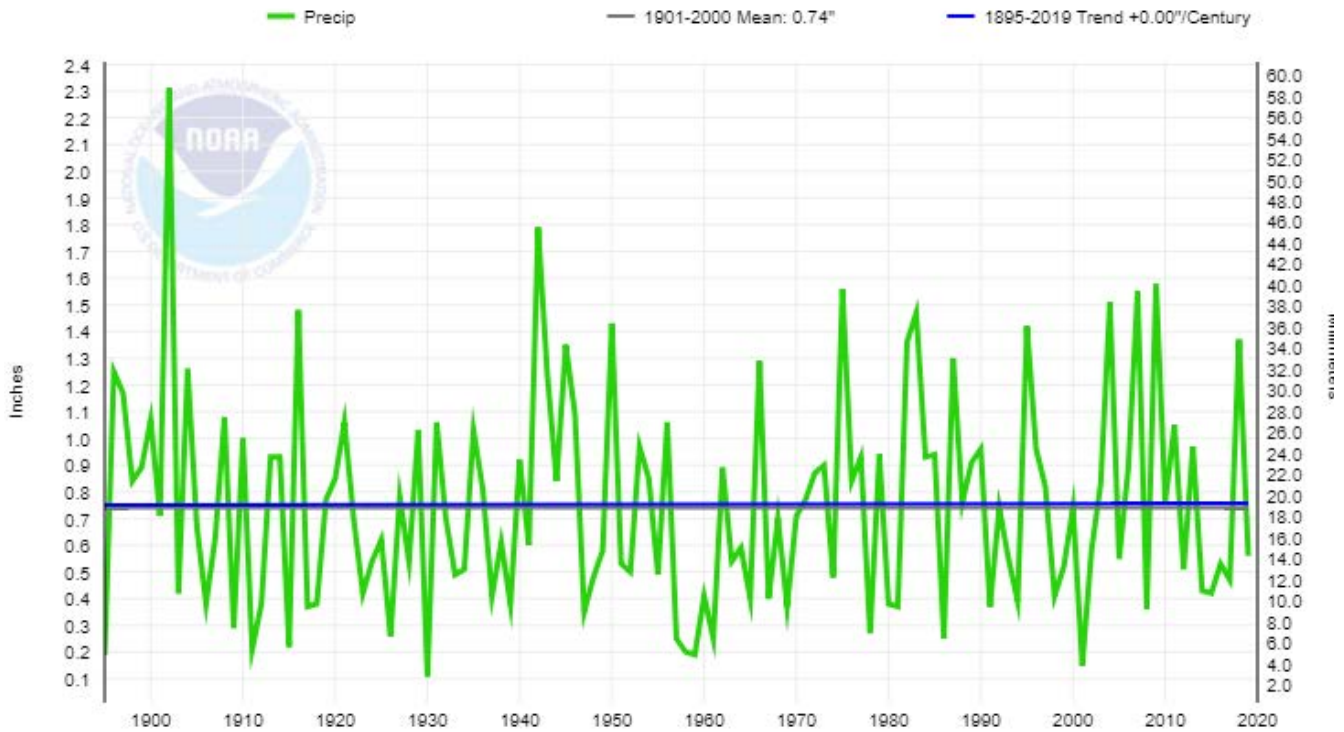


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North Dakota, Precipitation, March



March Precipitation Statistics

Record high value: 2.31 inches in 1902
 Record low value: 0.11 inch in 1930
 Trend: 0 inch per century

March 2019 value: 0.56 inch
 1981-2010 average: 0.83 inch
 Monthly ranking: 51st driest
 Record length: 125 years

Figure 2. Historical March precipitation time series for North Dakota.

Table 1. North Dakota March Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
March 2019	0.56"	0.83"	- 0.27	51st driest 75th wettest	Driest since 2017 Wettest since 2018	1930 1902



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Temperature

The official state average March temperature was 21.9 F, 24.8 F warmer than last month but 2.8 F cooler than in March 2018. The average March temperature was 5.6 F cooler than the 1981-2010 average, making it the 43rd coldest March in the 125-year period of record. It was the coldest March since 2013 (Table 2). The negative numbers in Figure 3 are shaded in

green and blue to depict the region with below-average temperatures in March. The state's highest and lowest daily temperatures ranged from 65 F on March 27 in Watford City, McKenzie County, to minus 26 F on March 3 in Bowman, Bowman County. Based on the historical records, the state average March temperature showed a positive long-term trend of 0.6 F per decade since 1895. The highest and lowest monthly state March average temperatures ranged from 40.6 F in 2012 to 7 F in 1899 (Figure 4).

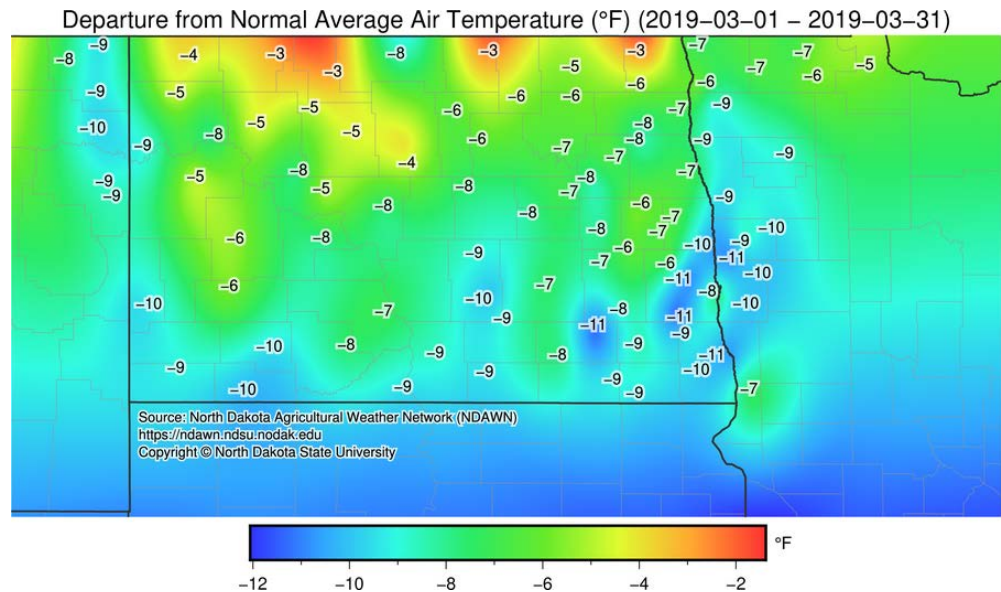


Figure 3. March 2018 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)



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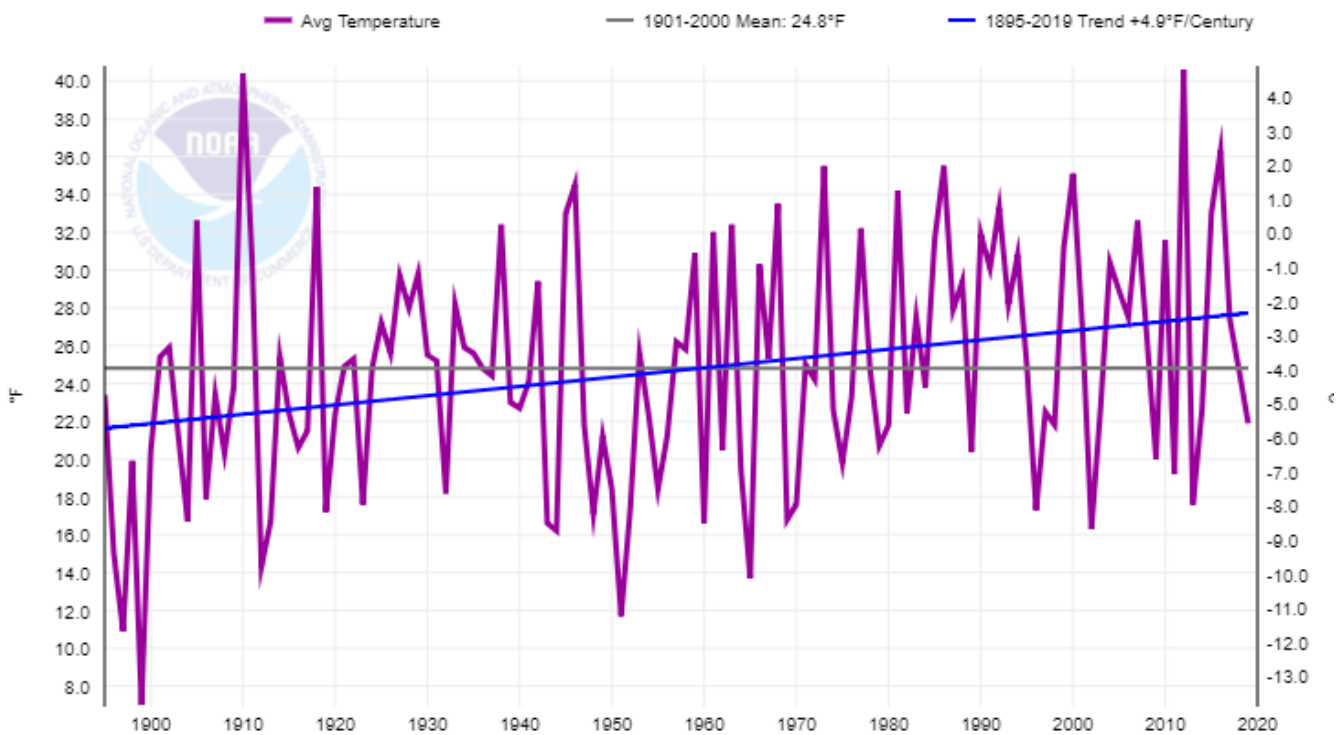


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North Dakota, Average Temperature, March



March Temperature Statistics

Record high value: 40.6 F in 2012
 Record low value: 7 F in 1899
 Trend: 0.6 F per decade

March 2019 value: 21.9 F
 1981-2010 average: 27.5 F
 Monthly ranking: 43rd coldest
 Record length: 125 years

Figure 4. Historical March temperature time series for North Dakota.

Table 2. North Dakota March Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
March 2019	21.9	27.5	- 5.6	43rd coldest 83th warmest	Coollest since 2013 Warmest since 2018	1899 2012



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Storm Reports: NDAWN's highest 10-meter peak gust in March was 56 mph, recorded at the Mooreton weather station in Richland County on March 14, 2019.

Daily Record Events in March: Across the observation network of weather stations with at least 30 years of history, a total of zero daily high but 33 daily low-temperature-related records were set or tied. A total of 41 highest daily precipitation-related records were set or tied. Details of the records are in Table 3 below.

Table 3. Summary of daily records broken or set in North Dakota in March. (NCEI Daily Weather Records)

<i>Category</i>	Number of Records
<i>Highest daily max. temp.</i>	0
<i>Highest daily min. temp.</i>	0
<i>Lowest daily max. temp.</i>	24
<i>Lowest daily min. temp.</i>	9
<i>Highest daily precipitation</i>	18
<i>Highest daily snowfall</i>	23
Total	74

*Highlight of the Month**

*A lowest daily temperature record of minus 20 degrees was set in **Fargo** on **March 3**, breaking the previous record for that date by 5 degree, which was set in 1952 (years on record: 128).*

**The records in this box may be different than the record on Pages 1 and 3 due to the fact that this page only includes records for stations with at least 30 years of history.*

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