



# North Dakota Monthly Climate Summary

October 2019

Volume 13, No. 10

## Precipitation

North Dakota State Climate Office: Your Resource for Climate Information

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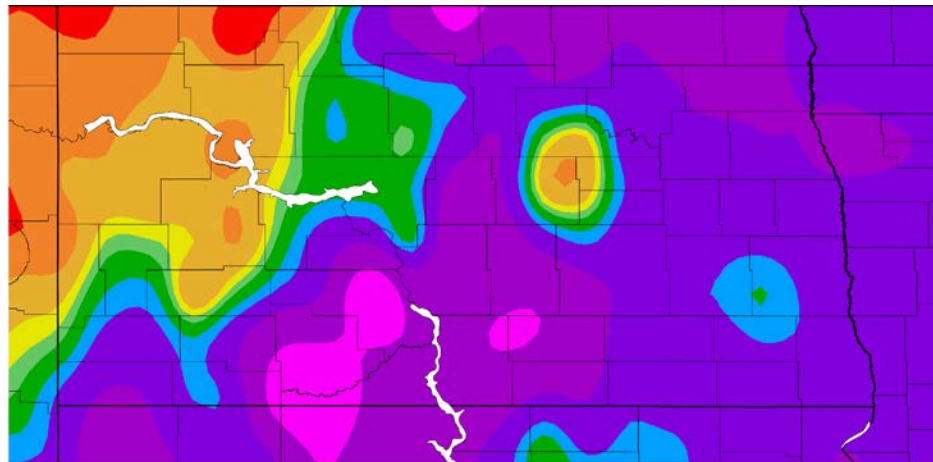
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Based on the National Centers for Environmental Information (NCEI), the statewide average October precipitation was 2.32 inches, which was 3.36 inches less than last month, but 0.93 inch more than in October 2018 and 0.86 inch more than the 1981-2010 average, making it the 13th wettest October in the 125-year period of record (Table 1). The values less than 100 in Figure 1 below are shaded in yellow, orange and red to depict the region with below-average rainfall. In contrast, the values 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 October. The greatest monthly precipitation accumulation was 6.51 inches, recorded at Pretty Rock, Grant County. The greatest monthly snowfall accumulation was 24.7 inches, recorded at Lake Metigoshe State Park, Bottineau County. The greatest 24-hour snowfall was 18 inches, recorded also at Lake Metigoshe State Park, on Oct. 12. Based on historical records, statewide October precipitation showed a positive long-term trend of 0.53 inch per century since 1895. The highest and lowest October precipitation for the state ranged from 4.61 inches in 1982 to 0.09 inch in 1952 (Figure 2).



dated 11/6/2019 at HPRCC using provisional data.

NOAA Regional Climate Center

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



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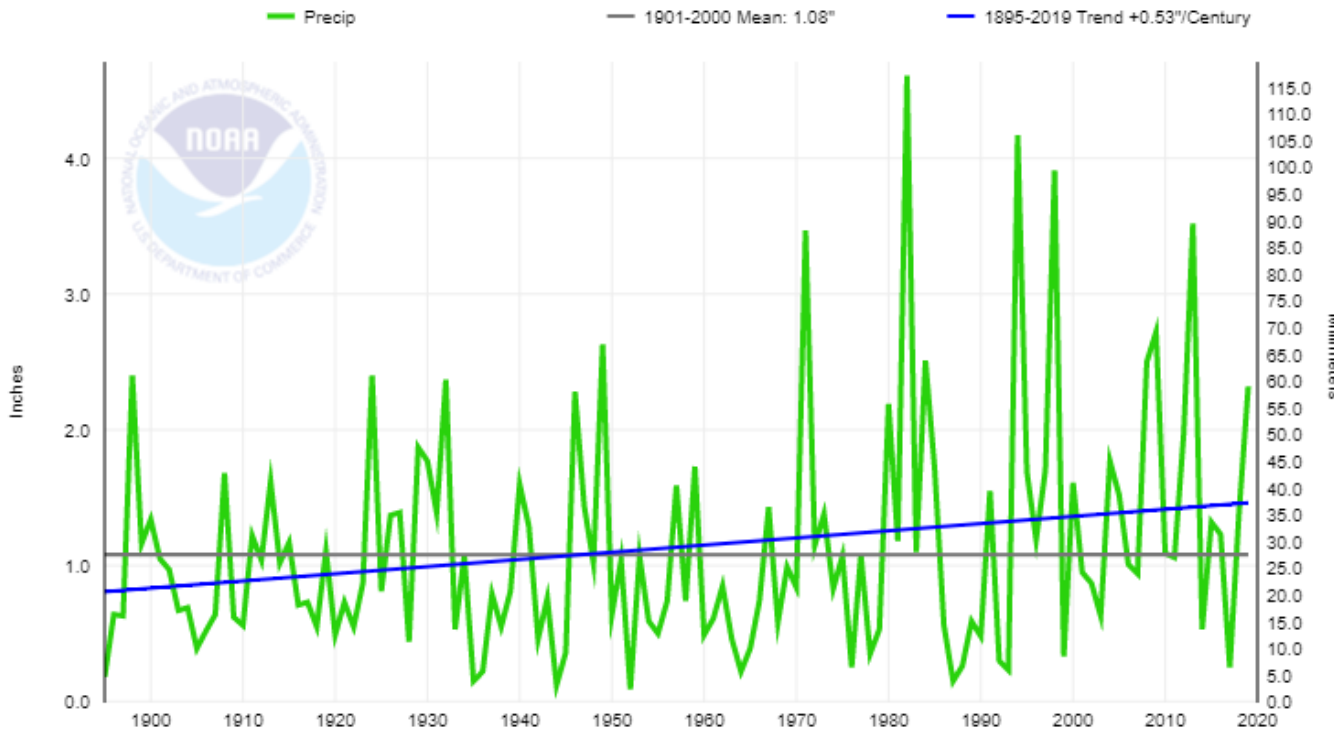


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North Dakota, Precipitation, October



### October Precipitation Statistics

Record high value: 4.61 inches in 1982  
 Record low value: 0.09 inch in 1952  
 Trend: 0.53 inch per century

October 2019 value: 2.32 inches  
 1981-2010 average: 1.46 inches  
 Monthly ranking: 13th wettest  
 Record length: 125 years

Figure 2. Historical October precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota October Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
October 2019	2.32"	1.46"	+ 0.86	113th driest 13th wettest	Driest since 2018 Wettest since 2013	1952 1982



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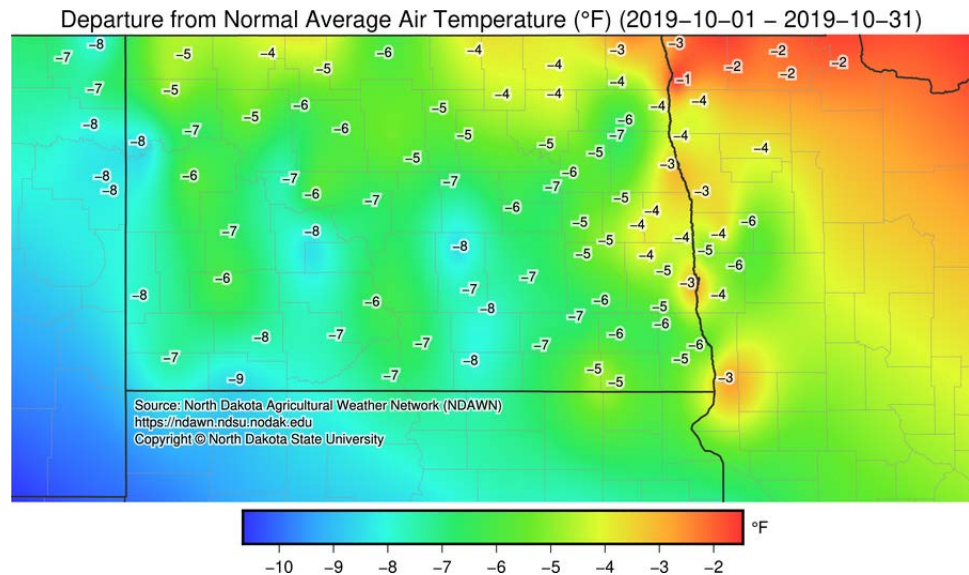
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## Temperature

The official state average October temperature was 38 F, which is 20.8 degrees cooler than last month and 1 degree cooler than in October 2018. The average October temperature was 5.4 degrees cooler than the 1981-2010 average, which made it the eighth coolest October in the 125-year period of record. It was the coolest October since 2009 (Table 2).

The negative numbers in Figure 3 are shaded in

green and blue to depict the region with cooler-than-average temperatures in October. The state's highest and lowest daily temperatures ranged from 80 F on Oct. 9 in Hettinger, Adams County, to 5 F on Oct. 30, again in Hettinger, making the monthly temperature range 75 degrees for Hettinger in October. Based on the historical records, the state average October temperature showed a slight positive long-term trend of 0.1 degree per decade since 1895. The highest and lowest monthly state October average temperatures ranged from 54.8 F in 1963 to 32.6 F in 1925 (Figure 4).



*Figure 3. October 2019 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)*



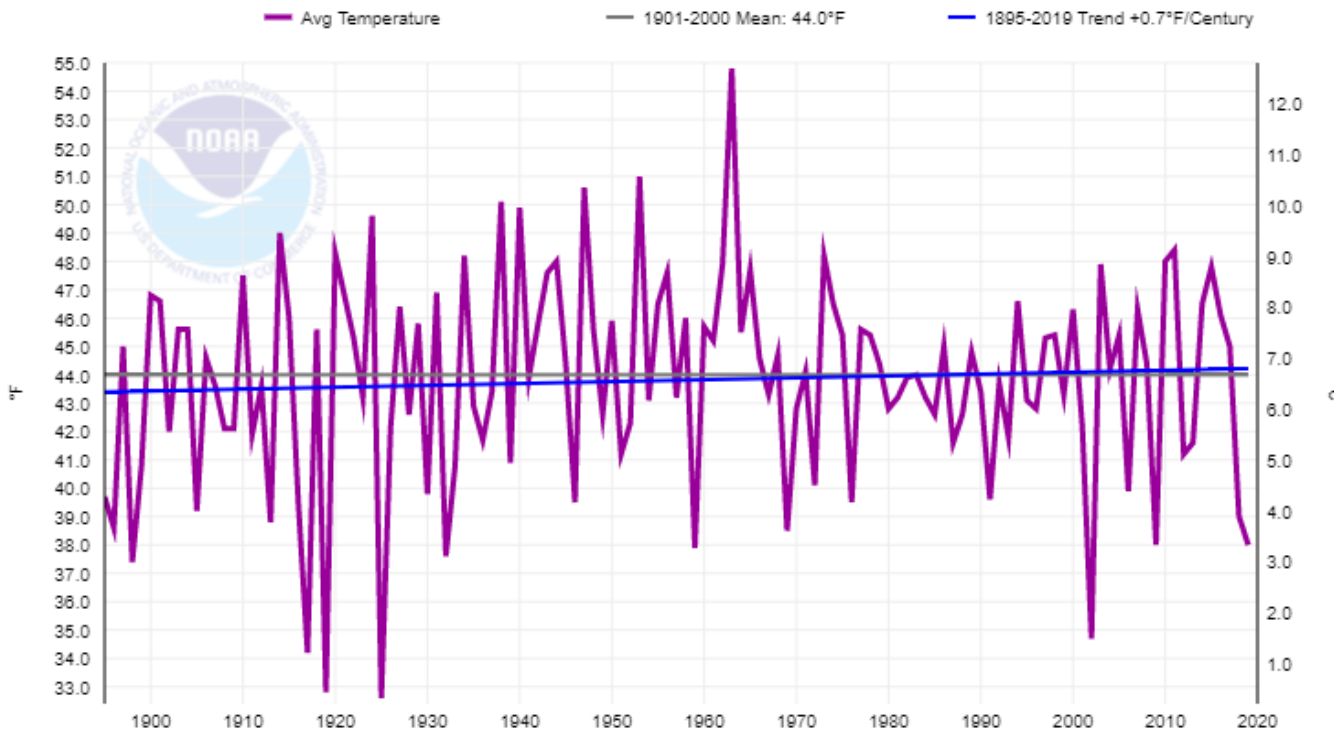


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North Dakota, Average Temperature, October



## October Temperature Statistics

Record high value: 54.8 F in 1963

Record low value: 32.6 F in 1925

Trend: 0.1 degree per decade

October 2019 value: 38 F

1981-2010 average: 43.4 F

Monthly ranking: 8th coolest

Record length: 125 years

Figure 4. Historical October temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota October Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coolest Since	Record Year
October 2019	38	43.4	-5.4	8th coolest 118th warmest	Coolest since 2009 Warmest since 2018	1925 1963



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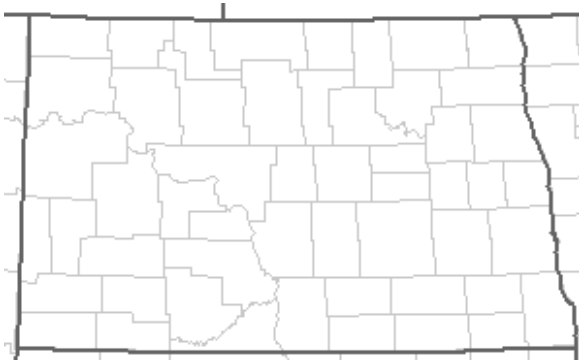
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**Storm Reports:** Table 3 below shows the summary of October Severe Storm Reports in North Dakota (Storm Prediction Center, NOAA).

The NOAA Storm Report showed no significant storm events in October. Table 3 summarizes the number of tornado, hail and damaging wind reports in October, while Figure 5 geographically displays the locations of these storms.

*Table 3. Summary of October Severe Storm Reports in North Dakota. (Storm Prediction Center, NOAA)*

<b>Category</b>	<b>Number of Reports</b>
<i>Tornado reports</i>	0
<i>Hail reports</i>	0
<i>Wind reports</i>	0
<b>Total</b>	<b>0</b>



*Figure 5. Map of October 2019 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)*



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**Daily Record Events in October:** Across the observation network of weather stations with at least 30 years of history, zero daily high- and 71 daily low-temperature records were set or tied. A total of 87 highest daily precipitation-related records were set or tied. Details of the records are in Table 4.

Table 4. Summary of daily records broken or set in North Dakota in October. (NCEI Daily Weather Records)

Category	Number of Records
Highest daily max. temp.	0
Highest daily min. temp.	0
Lowest daily max. temp.	71
Lowest daily min. temp.	0
Highest daily precipitation	22
Highest daily snowfall	65
<b>Total</b>	<b>158</b>

### The Highlight of the Month\*

A highest daily snowfall record of **14** inches was set in **Napoleon on Oct. 12**, exceeding the previous record that was set in 1902 by 10 inches (years on record: 125).

\*The records in this box may be different from the record on Pages 1 and 3 because this page only includes records for stations with at least 30 years of history.

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This work is supported by the USDA National Institute of Food and Agriculture, Hatch/Multi State project ND1005365.



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