



North Dakota Monthly Climate Summary

January 2020

Volume 14, No. 1

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information

NDSU NORTH DAKOTA STATE UNIVERSITY

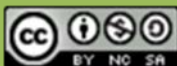
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Based on the National Centers for Environmental Information (NCEI), the statewide average January precipitation was 0.41 inch, which was 0.39 inch less than last month and 0.01 inch less than in January 2018. It also was 0.08 inch less than the 1981-2010 average, making it the 56th driest January in the 126-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 January. The greatest monthly precipitation accumulation was 1.15 inches, recorded in Grand Forks, Grand Forks County. The greatest monthly snowfall accumulation was 12.5 inches, recorded in Streeter, Stutsman County. Based on historical records, statewide January precipitation showed a slight negative long-term trend of 0.02 inch per century since 1895. The highest and lowest January precipitation for the state ranged from 1.27 inches in 1916 to 0.09 inch in 1942 and 1973 (Figure 2).

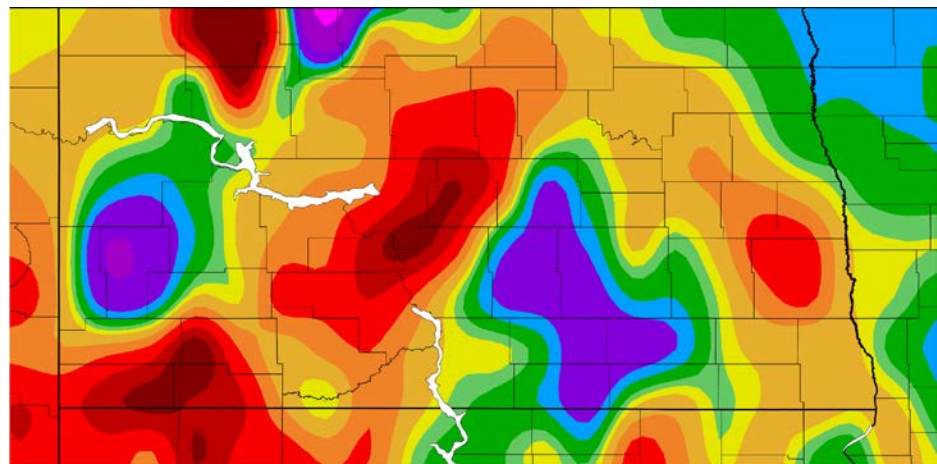


Figure 1. January 2020 precipitation percent of normal for North Dakota. (High Plains Regional Climate Center)



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North Dakota Precipitation

January

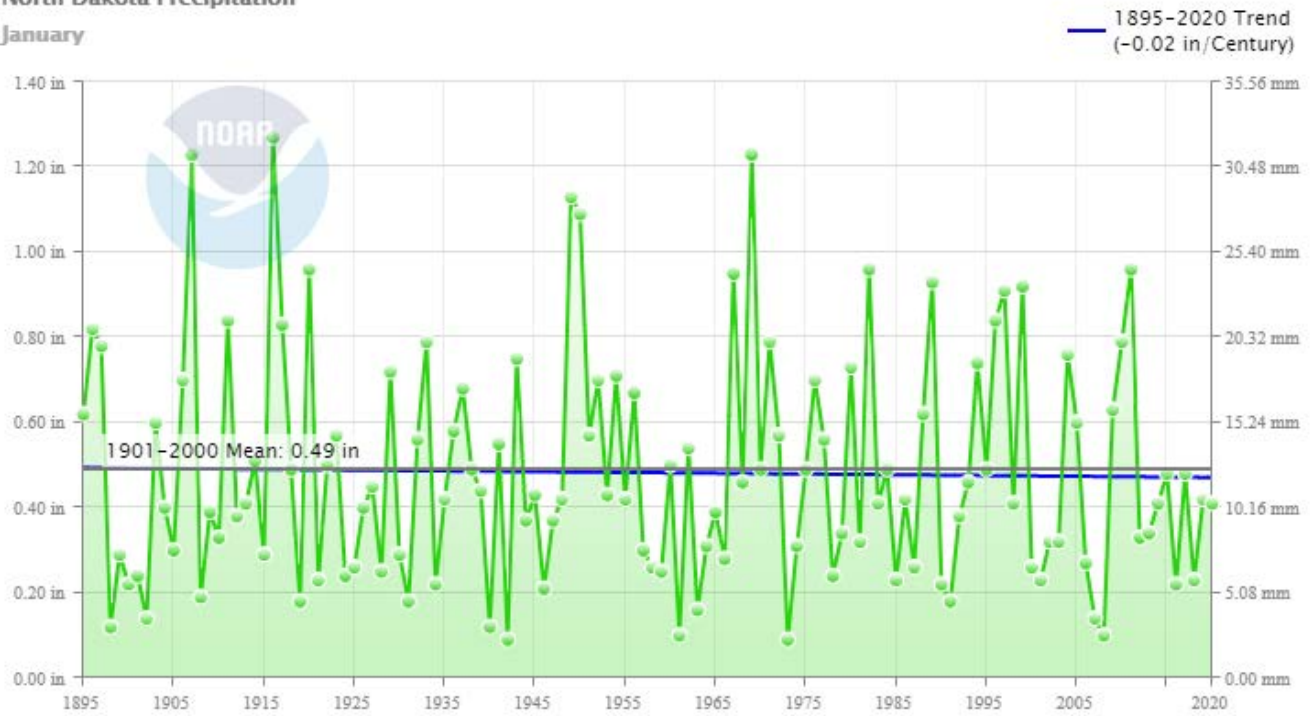


Figure 2. Historical January precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota January Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
January 2020	0.41"	0.49"	-0.08"	56th driest 71st wettest	Driest since 2018 Wettest since 2019	0.09" (1942, 1973) 1.27" (1916)



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Temperature

The official state average January temperature was 13 F, which is 3.2 degrees cooler than last month but 3.1 degrees warmer than in January 2018. The average January temperature was 2.4 degrees warmer than the 1981-2010 average, which made it the 31st warmest January in the 126 years of record. It was the warmest January since 2016 (Table 2). The negative numbers in Figure 3 are shaded in

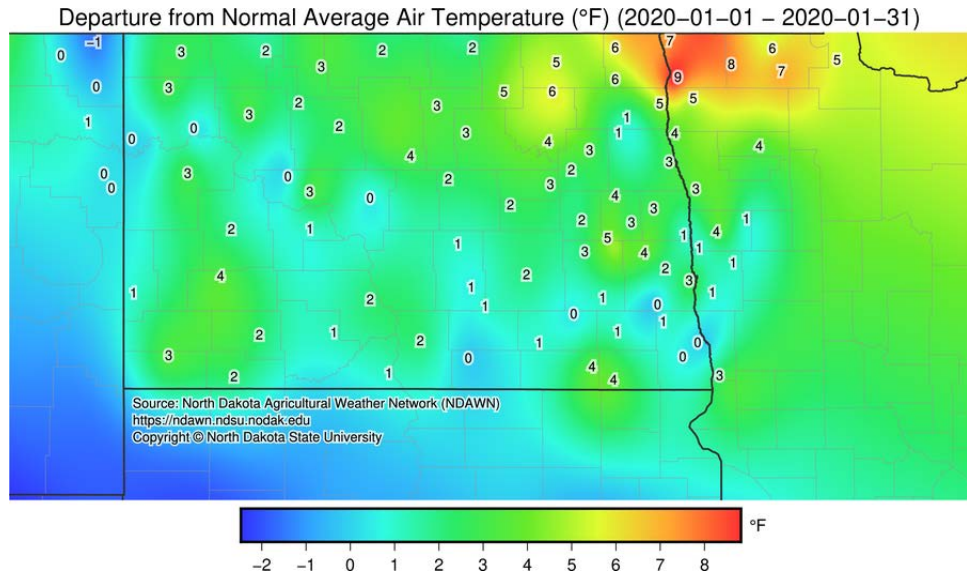


Figure 3. January 2020 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)

green and blue to depict the region with cooler-than-average temperatures in January. In contrast, the positive numbers in the same figure are shaded in red and orange to depict the region with warmer-than-average temperatures in January. The state's highest and lowest daily temperatures ranged from 50 F on Jan. 22 in Hettinger, Adams County, to minus 38 F on Jan. 16, at Lake Methigoshe State Park, Bottineau County. Based on the historical records, the state average January temperature showed a hard positive long-term trend of 0.5 degree per decade since 1895. The highest and lowest monthly state January average temperatures ranged from 25.9 F in 2006 to minus 11.9 F in 1950 (Figure 4).



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North Dakota Average Temperature
January

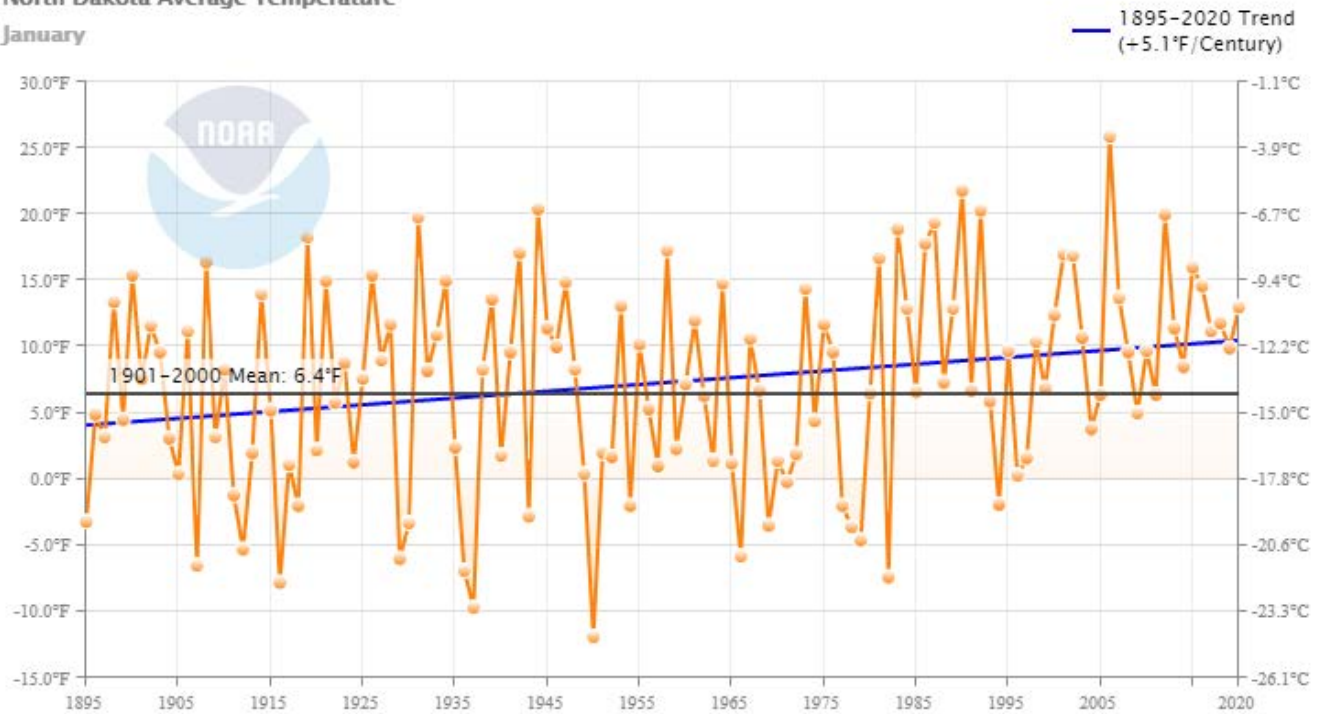


Figure 4. Historical January temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota January Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coolest Since	Record Year
January 2020	13°	10.6°	2.4°	96th coolest 31st warmest	Coolest since 2019 Warmest since 2016	-11.9 F (1950) 25.9 F (2006)



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

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

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

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

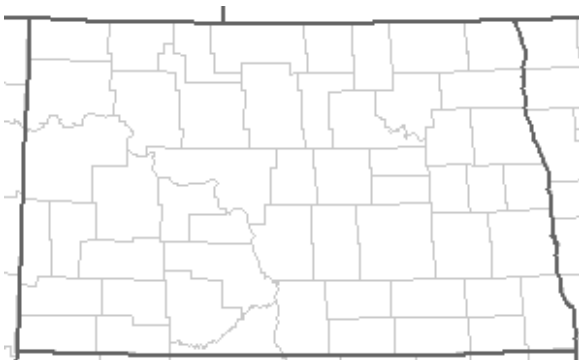


Figure 5. Map of January 2020 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in January: Across the observation network of weather stations with at least 30 years of history, seven daily high- and three daily low-temperature records were set or tied. A total of 83 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 January. (NCEI Daily Weather Records)

Category	Number of Records
Highest daily max. temp.	0
Highest daily min. temp.	4
Lowest daily max. temp.	3
Lowest daily min. temp.	0
Highest daily precipitation	10
Highest daily snowfall	10
Total	27

The Highlight of the Month*

A highest daily snowfall record of **5.2 inches** was set in **Grand Forks** on **Jan. 18**, exceeding the previous record that was set in **1987** by 2.5 inches (years on record: 79).

**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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