



North Dakota Monthly Climate Summary

January 2021

Volume 15, No. 1

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information



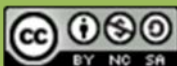
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Based on the National Centers for Environmental Information (NCEI), the statewide average January precipitation was 0.24 inch, which was only 0.01 inch more than last month but 0.14 inch less than in January 2020. It was also 0.25 inch less than the 1981-2010 average, making it the 23rd driest January in the 127-year period of record (Table 1). It was the driest January since 2018.

The counties shaded in brown in Figure 1 indicate drier-than-average conditions. In contrast, the counties shaded in green indicate wetter-than-average conditions in January 2021. A white shading indicates near-average conditions. The numbers inside the counties are the precipitation rankings, with 1 being the lowest ranking (driest) and 127 being the highest ranking (the wettest)

The greatest monthly precipitation accumulation was only 0.78 inch, recorded in Fullerton, Dickey County. The greatest monthly snowfall accumulation, on the other hand, was 10 inches, recorded in McHenry, Foster County. Based on historical records, statewide January precipitation showed a slight negative long-term trend of 0.03 inch during the last century. The lowest and highest January precipitation for the state during this period ranged from 0.09 inch in 1942 and again in 1973 to 1.27 inches in 1916 (Figure 2).

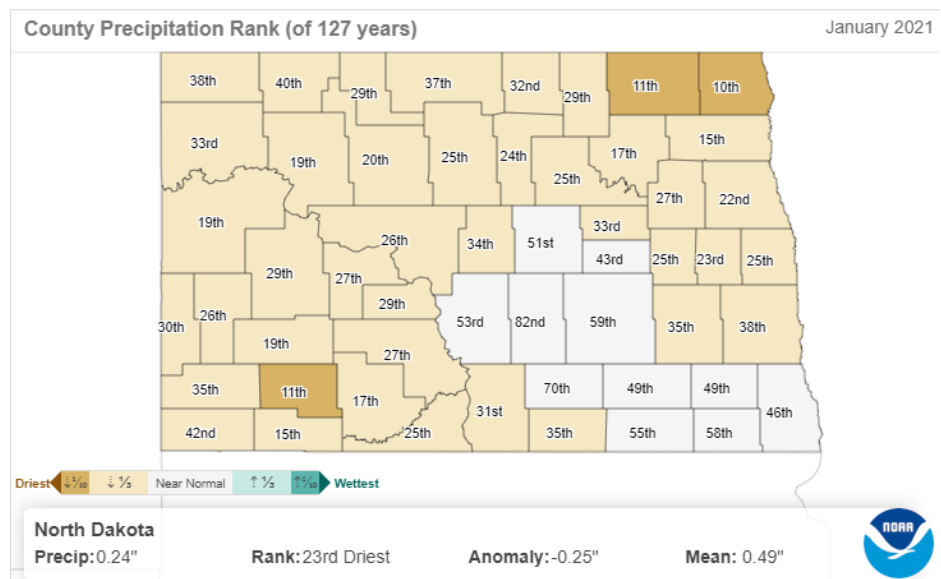


Figure 1. January 2021 county precipitation ranking map of North Dakota. (National Centers for Environmental Information, NOAA)



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North Dakota Precipitation

January

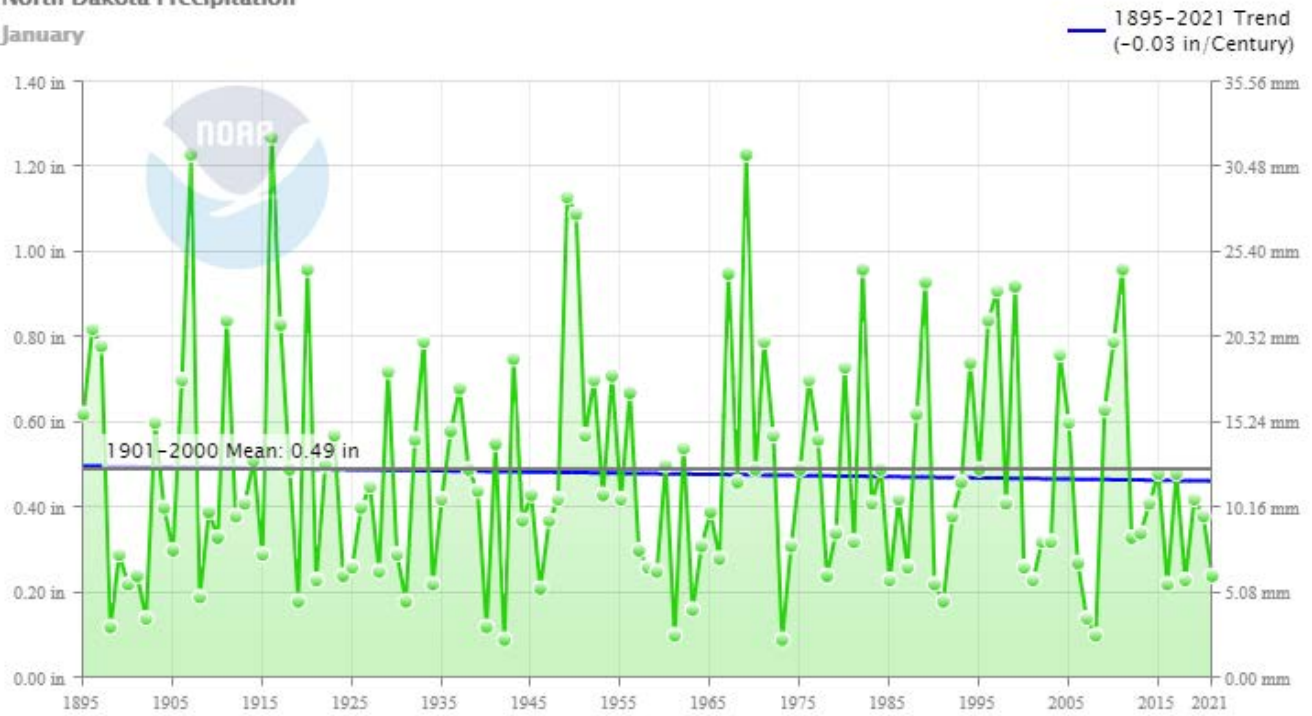


Figure 2. Historical January precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota January Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
January 2021	0.24"	0.49"	-0.25"	23rd driest 105th wettest	Driest since 2018 Wettest since 2020	0.09" (1942,1973) 1.27" (1916)



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Temperature

The official state average January temperature was 20.9 F, which is 2.5 degrees cooler than last month, but 8.1 degrees warmer than in January 2020. The average January temperature also was 10.3 degrees warmer than the 1981-2010 average, making it the third warmest January in the 127 years of record (Table 2).

The counties shaded in pink in Figure 1 indicate warmer-than-average conditions.

The numbers inside the counties are the temperature rankings, with 1 being the lowest ranking (coldest) and 127 being the highest ranking (the warmest).

The state's lowest and highest daily temperatures ranged from minus 40 F on Jan. 28 at Lake Metigoshe State Park, Bottineau County, to 56 F on Jan. 13 in Hettinger, Adams County. Based on the historical records, the state average January temperature showed a positive long-term trend of 5.5 degrees during the last century, the largest trend in the nation. The lowest and highest monthly state January average temperatures during this period ranged from minus 11.9 F in 1950 to 25.9 F in 2006 (Figure 4).

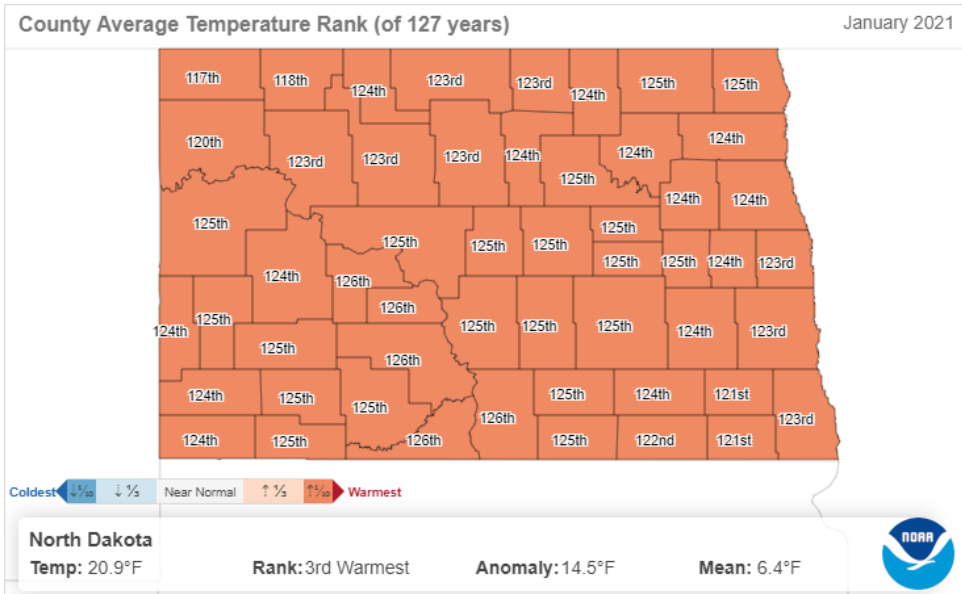


Figure 3. January 2021 county temperature ranking map of North Dakota. (National Centers for Environmental Information, NOAA)



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North Dakota Average Temperature
January

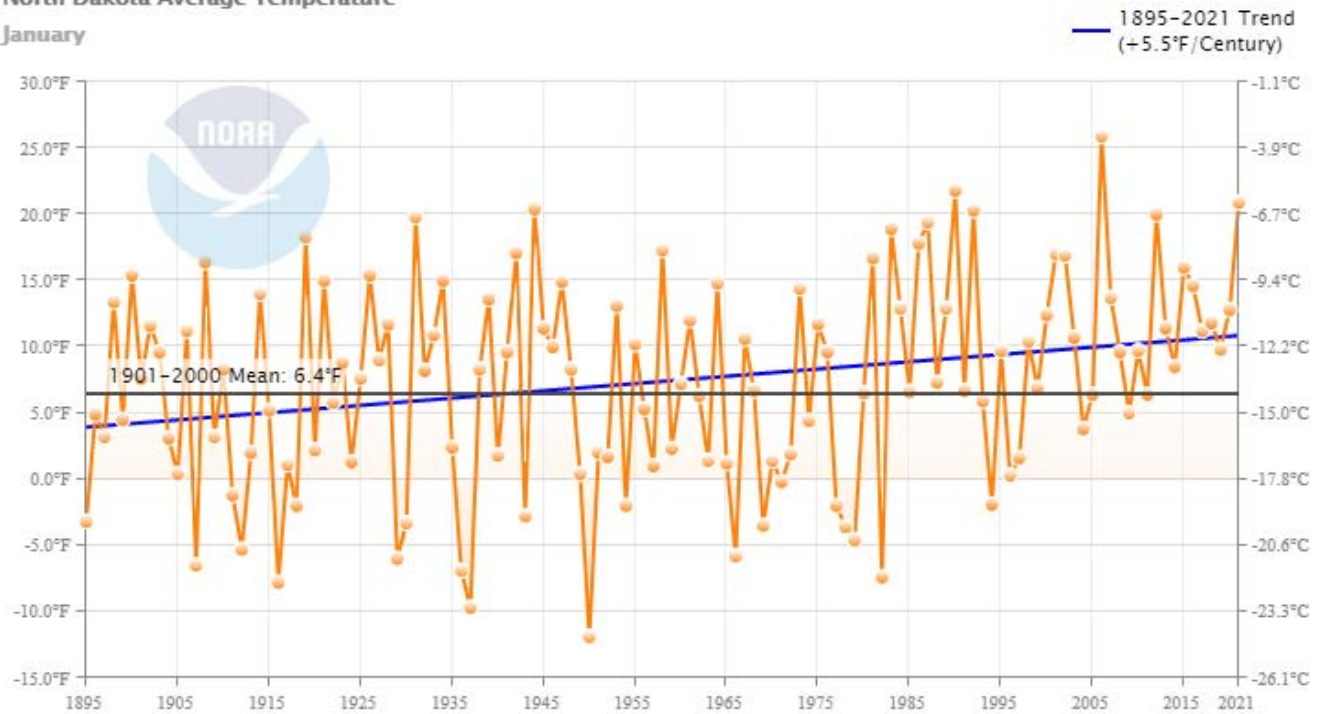


Figure 4. Historical January temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota January Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
January 2021	20.9°	10.6°	10.3°	125th coolest 3rd warmest	Coollest since 2020 Warmest since 2006	-11.9 F (1950) 25.9 F (2006)



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Daily Record Events in January: Across the observation network of weather stations with at least 30 years of history, 55 daily high-temperature records were set or tied. Only a total of seven 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.	18
Highest daily min. temp.	37
Lowest daily max. temp.	0
Lowest daily min. temp.	0
Highest daily precipitation	6
Highest daily snowfall	1
Total	62

The Highlight of the Month*

A highest daily maximum temperature record of 55 degrees was broken in **Dickinson on Jan. 13**, exceeding the previous record that was set in 1996 by **one** degree. (years on record: 72).

*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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