



North Dakota Monthly Climate Summary

February 2022

Volume 16, No. 2

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information.



North Dakota State University

College of Agriculture, Food Systems, and Natural Resources

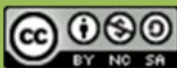
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Based on the National Centers for Environmental Information (NCEI), the statewide average February precipitation was 0.41 inches, which was 0.02 inches less than last month but 0.24 inches more than February 2021. It was also 0.06 inches less than the 1991-2020 average, making it the 59th wettest February in the 128-year period of record (Table 1).

The counties shaded in green in Figure 1 indicate wetter-than-average conditions in February 2022. In contrast, the counties shaded in brown indicate drier-than-average conditions in February 2022. White shading indicates near-average conditions. The numbers inside the counties are the precipitation rankings with one being the lowest (driest) and 128 being the highest (the wettest) ranking.

The greatest monthly precipitation accumulation was 2.03 inches, recorded in Pembina, Pembina County. The greatest monthly snowfall accumulation was 24 inches, recorded in Towner, McHenry County. Based on historical records, statewide February precipitation showed a slight negative long-term trend of 0.07 inches during the last century. The lowest and highest February precipitation for the state during this period ranged from 0.07 inches in 1934 to 1.59 inches in 1998 (Figure 2 and Table 1).

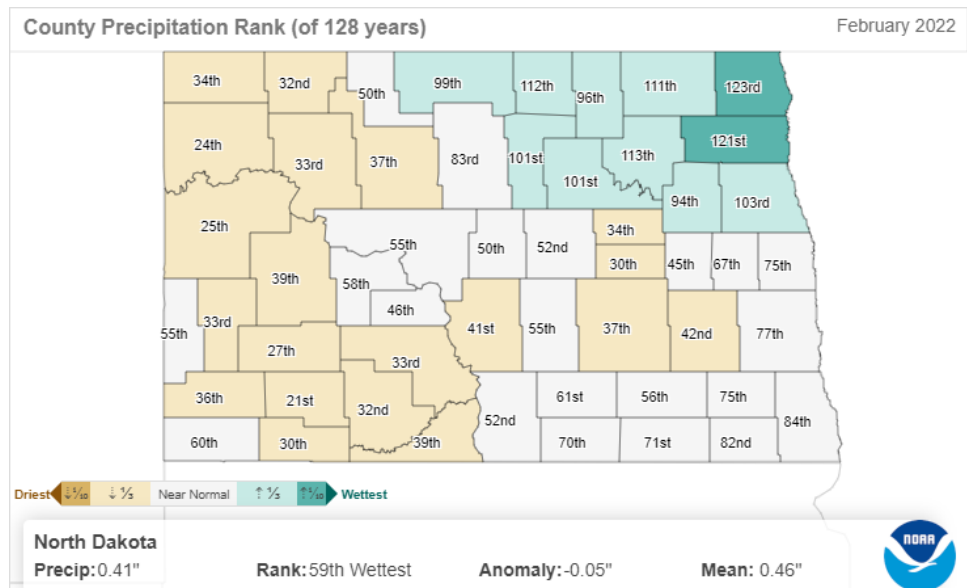


Figure 1. February 2022 county precipitation ranking map of North Dakota. (NCEI, National Oceanic and Atmospheric Administration [NOAA])



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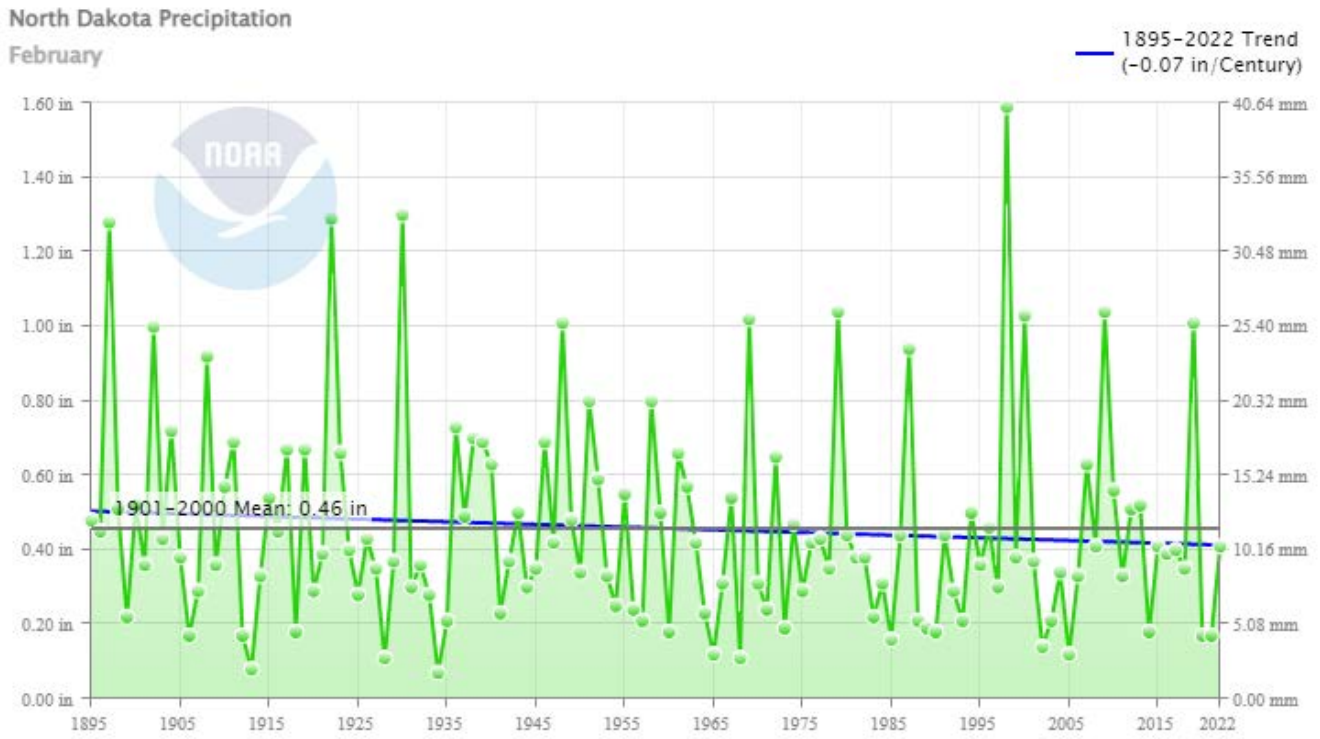


Figure 2. Historical February precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota February Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
February 2022	0.41"	0.47"	-0.06"	70th driest 59th wettest	Driest since 2021 Wettest since 2019	1.59" (1998) 0.07" (1934)



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Temperature

The official state average February temperature was 9.6 F, which is 0.9 degrees warmer than last month, and 3.8 degrees warmer than in February 2021. Furthermore, the average February temperature was 5 degrees cooler than the 1991-2020 average, making it the 50th coolest February in the 128 years of record (Table 2).

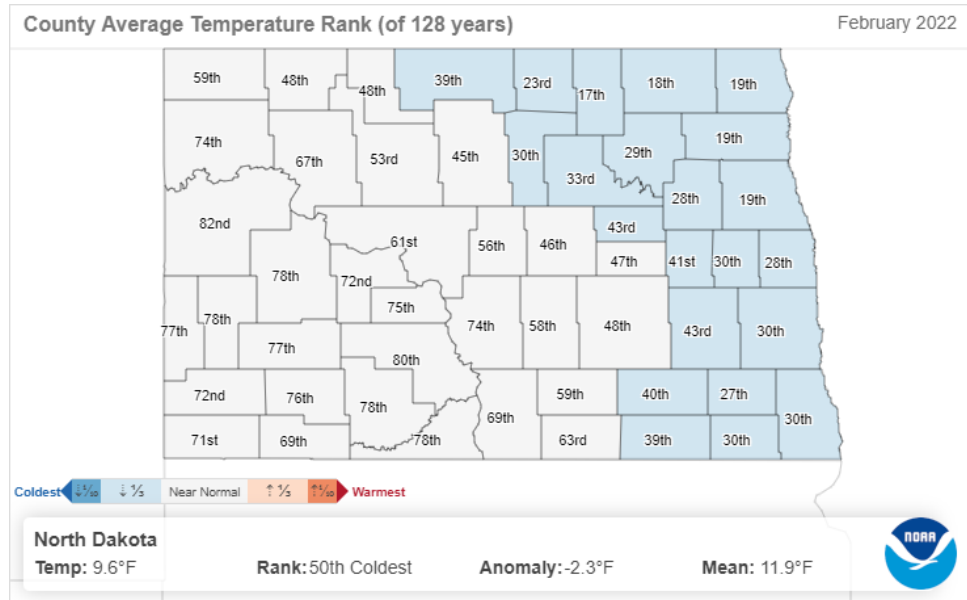


Figure 3. February 2022 county temperature ranking map of North Dakota. (NCEI, NOAA)

The counties shaded in blue in Figure 3 indicate cooler-than-average conditions, and white shading indicates near-average conditions. The numbers inside the counties are the temperature rankings, with one being the lowest (coldest) and 128 being the highest (warmest).

The state’s highest and lowest daily temperatures ranged from 58 F on Feb. 19¹ in Hettinger, Adams County, to -46 F on Feb. 4 in Willow City, Bottineau County (the record cold daily temperature since 1895 for this location). Based on the historical records, the state average February temperature showed a strong positive long-term trend of 5.7 degrees during the last century. The lowest and highest monthly state February average temperatures during this period ranged from -14.1 F in 1936 to 29.6 F in 1954 (Figure 4 and Table 2).

¹ Indicates multiple occurrences



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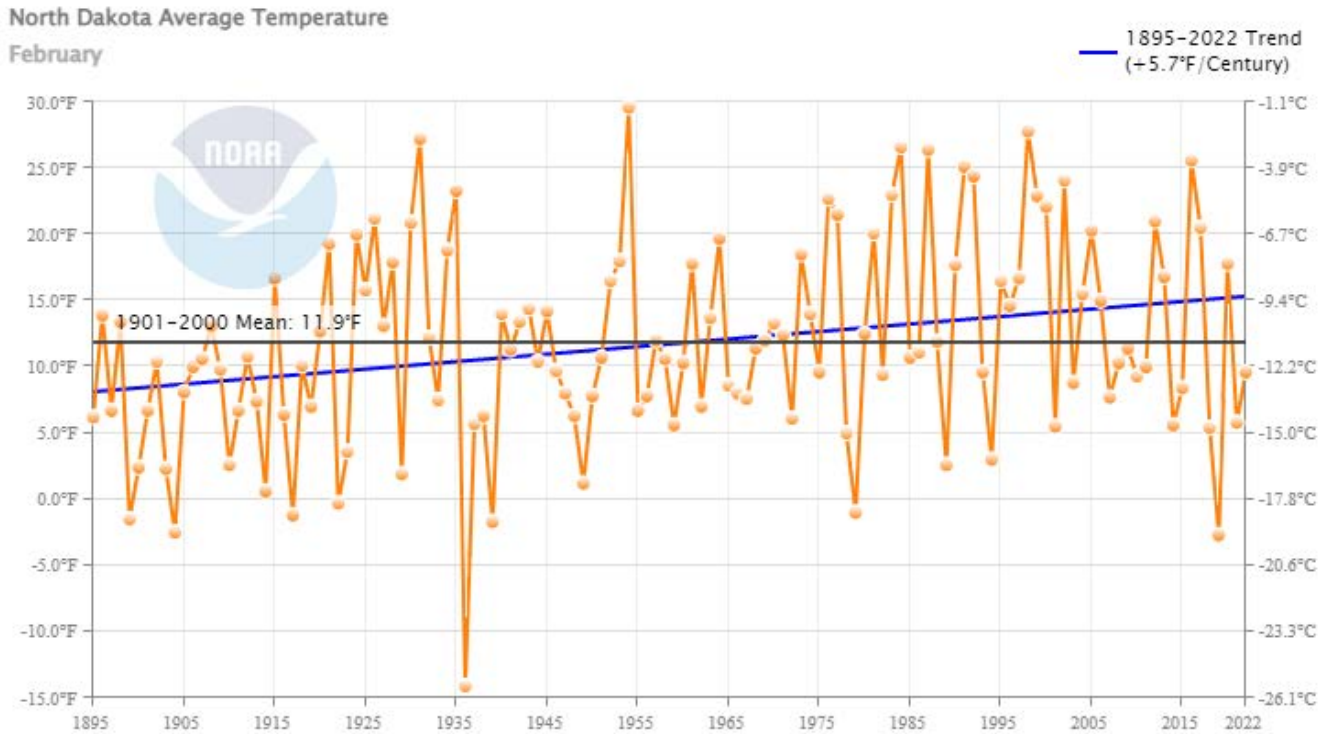


Figure 4. Historical February temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota February Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
February 2022	9.6°	14.6°	-5°	50th coolest 79th warmest	Coollest since 2021 Warmest since 2020	-14.1 F (1936) 29.6 F (1954)



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Storm Reports: Table 3 below shows the summary of February severe storm reports in North Dakota (Storm Prediction Center, NOAA).

The NOAA Storm Report recorded zero tornados, zero hail and zero damaging wind reports with zero significant storm events in February. Table 3 summarizes the number of tornado, hail and damaging wind reports in February, while Figure 5 geographically displays the locations of these storms.

Table 3. Summary of February 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

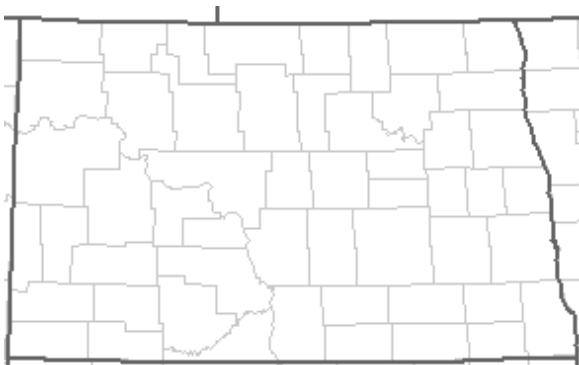


Figure 5. Map of February 2022 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in February: Across the observation network of weather stations with at least 30 years of history, nine daily high and 44 daily low-temperature records were set or tied. In addition, a total of 24 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 February. (NCEI Daily Weather Records)

<i>Category</i>	Number of Records
<i>Highest daily max. temp.</i>	2
<i>Highest daily min. temp.</i>	7
<i>Lowest daily max. temp.</i>	34
<i>Lowest daily min. temp.</i>	10
<i>Highest daily precipitation</i>	12
<i>Highest daily snowfall</i>	12
Total	77

The Highlight of the Month*

A lowest daily temperature record of **-46 F** was broken in **Willow City on Feb. 4**, exceeding the previous record that was set in **1895** by **6 degree** (years on record: 129).

**The records in this box may differ from those on pages 1 and 3 because this page only includes records for stations with at least 30 years of history.*

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