North Dakota Monthly Climate Summary

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

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Precipitation

Based on the National Centers for Environmental Information (NCEI), the statewide average January precipitation was 0.49 inches, which was 0.48 inches less than last month but 0.24 inches more than January 2021. It was also 0.02 inches more than the 1991-2020 average, making it the 48th wettest January in the 128-year period of record (Table 1).

The counties shaded in green in Figure 1 indicate wetter-than-average conditions in January 2022. In contrast, the counties shaded in brown indicate drier-than-average conditions in January 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 1.46 inches, recorded in Jamestown, Stutsman County. The greatest monthly snowfall accumulation was 18.6 inches, recorded also in Jamestown, Stutsman County. Based on historical records, statewide January precipitation showed a slight negative long-term trend of 0.03 inches during the last century. The lowest and highest January precipitation for the state during this period ranged from 0.09 inches in 1942 (and 1973) to 1.27 inches in 1916 (Figure 2 and Table 1).

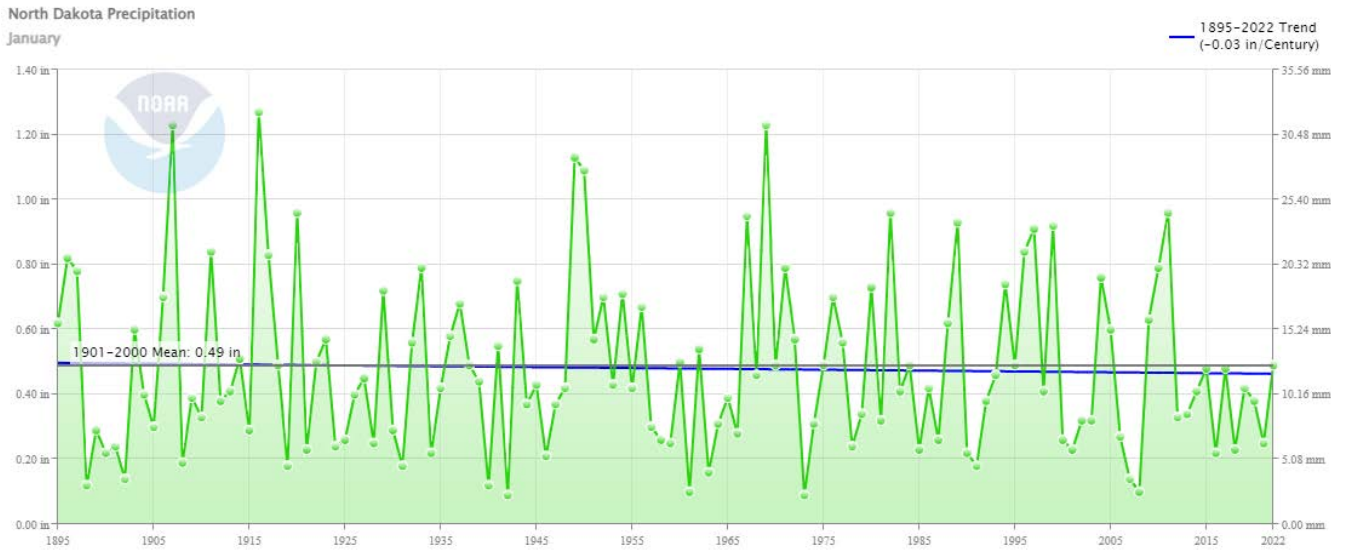*Figure 1. January 2022 county precipitation ranking map of North Dakota. (NCEI, NOAA)*

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 2022	0.49"	0.47"	0.02"	81st driest 48th wettest	Driest since 2021 Wettest since 2021	0.09" (1942, 1973) 1.27" (1916)

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Temperature

The official state average January temperature was 8.7 F, which is 5.4 degrees cooler than last month, and 12.4 degrees cooler than in January 2021 Furthermore, the average January temperature was 1.8 degrees cooler than the 1991-2020 average, making it the 69th coolest January in the 128 years of record (Table 2).
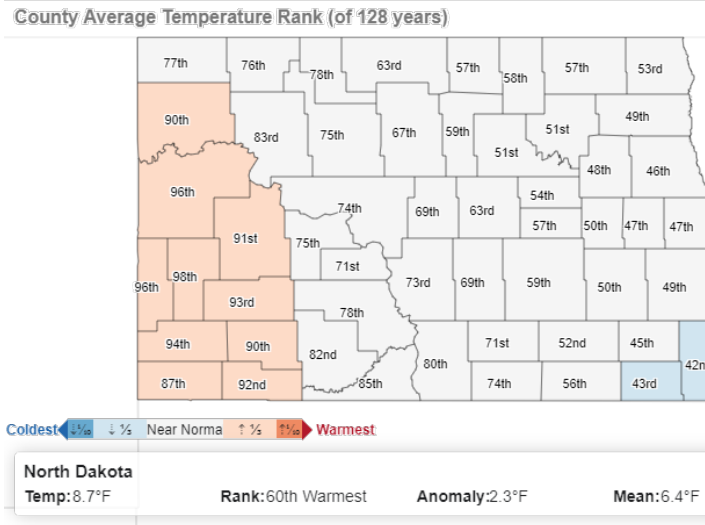
Figure 3. January 2022 county temperature ranking map of North Dakota. (NCEI, NOAA)

The counties shaded in peach in Figure 3 indicate warmer-than-average conditions. In contrast, the counties shaded in blue color 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 56 F on Jan. 23 in Dunn Center, Dunn County, to -41 F on Jan. 21 in Willow City, Bottineau County. Based on the historical records, the state average January temperature showed a positive long-term trend of 5.4 degrees during the last century. The lowest and highest monthly state January average temperatures during this period ranged from -11.9 F in 1950 to 25.9 F in 2006 (Figure 4 and Table 2).
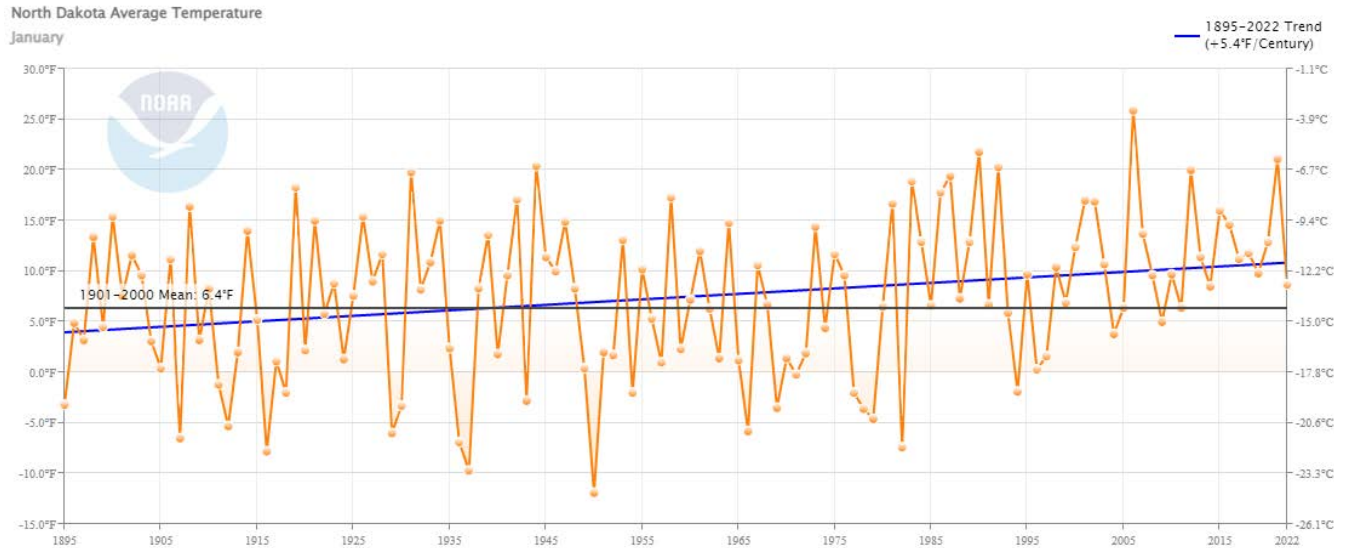
Figure 4. Historical January temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota January Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coolest Since	Record Year
January 2022	8.7°	10.5°	-1.8°	69th coolest 60th warmest	Coolest since 2014 Warmest since 2021	-11.9 F (1950) 25.9 F (2006)

Storm Reports: Table 3 below shows the summary of January 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 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
Tornado reports	0
Hail reports	0
Wind reports	0
Total	**0**
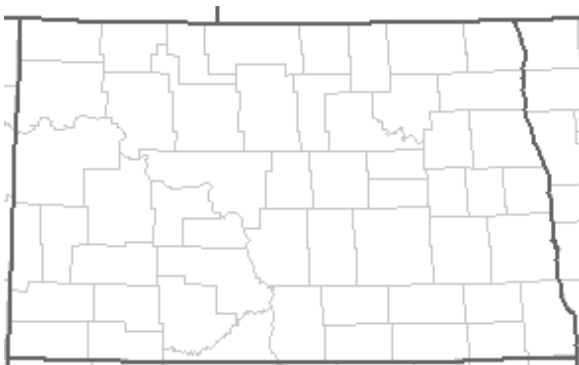
Figure 5. Map of January 2022 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)

Daily Record Events in January: Across the observation network of weather stations with at least 30 years of history, five daily high- and 38 daily low-temperature records were set or tied. In addition, a total of 23 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.	5
Lowest daily max. temp.	25
Lowest daily min. temp.	13
Highest daily precipitation	10
Highest daily snowfall	13
Total	**66**

The Highlight of the Month*

A lowest daily temperature record of -41 **degrees** was broken in **Willow City** on **Jan. 21,** exceeding the previous record that was set in **1954** by **1** 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.