



North Dakota Monthly Climate Summary

August 2020

Volume 14, No. 8

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information

NDSU NORTH DAKOTA STATE UNIVERSITY

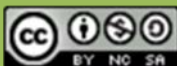
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Based on the National Centers for Environmental Information (NCEI), the statewide average August precipitation was 2.08 inches, which was 1.77 inches less than last month and 0.8 inch less than in August 2019. It was 0.01 inch less than the 1981-2010 average, making it the 60th wettest or 67th driest August in the 126-year period of record (Table 1). It was the wettest August since 2016. 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 August. The greatest monthly precipitation accumulation was 6.5 inches, recorded in Horace, Cass County. Based on historical records, statewide August precipitation showed a slight positive long-term trend of 0.08 inch per century since 1895. The lowest and highest August precipitation for the state ranged from 0.73 inch in 1929 and again in 1933 to 4.54 inches in 1900 (Figure 2).

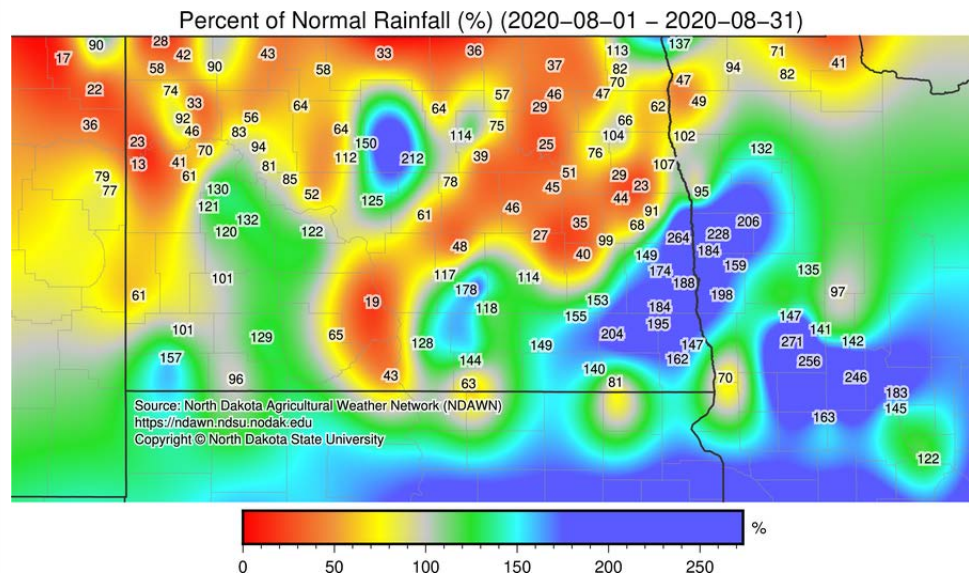


Figure 1. August 2020 precipitation percent of normal for North Dakota. (North Dakota Agricultural Weather Network, NDSU)



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North Dakota Precipitation

August

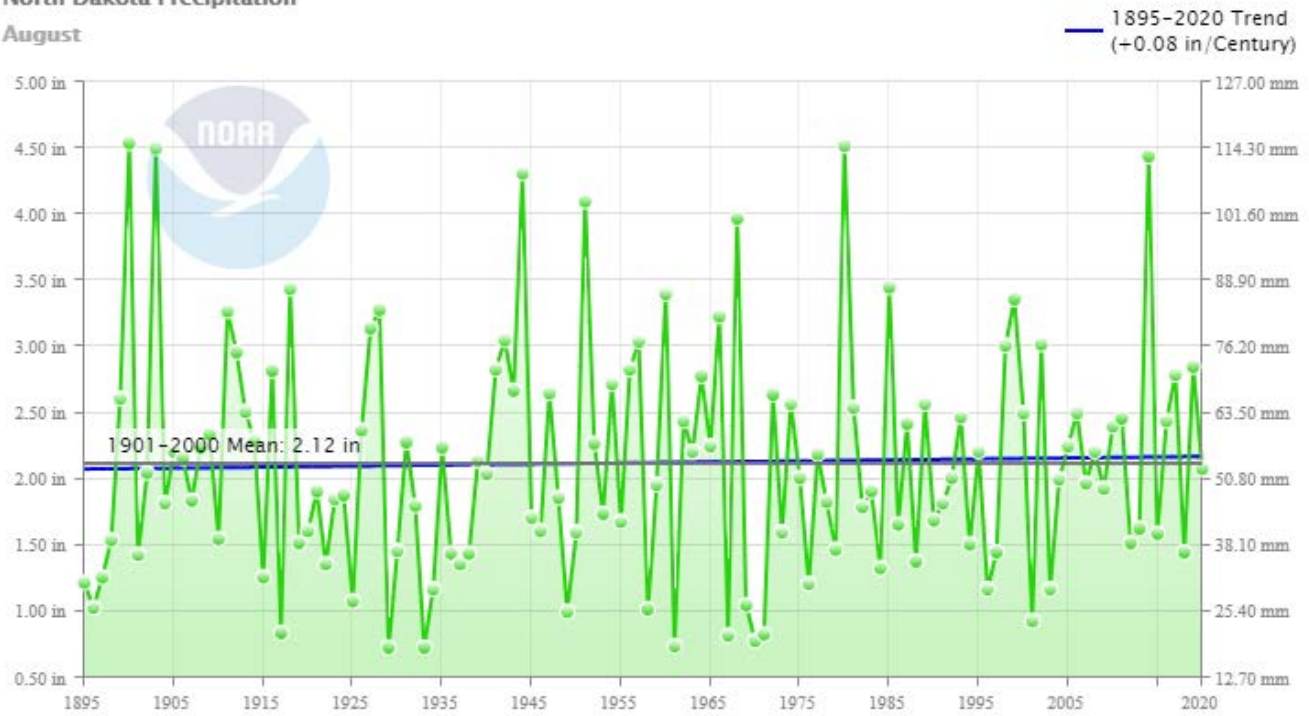


Figure 2. Historical August precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota August Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
August 2020	2.08"	2.09"	-0.01"	67th driest 60th wettest	Driest since 2018 Wettest since 2019	0.73" (1929,1933) 4.54" (1900)



North Dakota Monthly Climate Summary

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Temperature

The official state average August temperature was 69.1 F, which is 1.4 degrees cooler than last month, but 3.6 degrees warmer than in August 2019. The average August temperature also was 1.5 degrees warmer than the 1981-2010 average, which made it the 24th warmest August in the 126 years of record (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict the area with cooler-than-average temperatures in August. In contrast, the positive numbers in the same figure are shaded in red and orange to illustrate the area with warmer-than-average temperatures in August. The state's lowest and highest daily temperatures ranged from 35 F on Aug. 8 in New Salem, Morton County, to 102 F on Aug. 18 in Williston, Williams County. Based on the historical records, the state average August temperature showed a slight positive long-term trend of 0.2 degree per decade since 1895. The lowest and highest monthly state August average temperatures ranged from 61.2 F in 1977 to 73.8 F in 1983 (Figure 4).

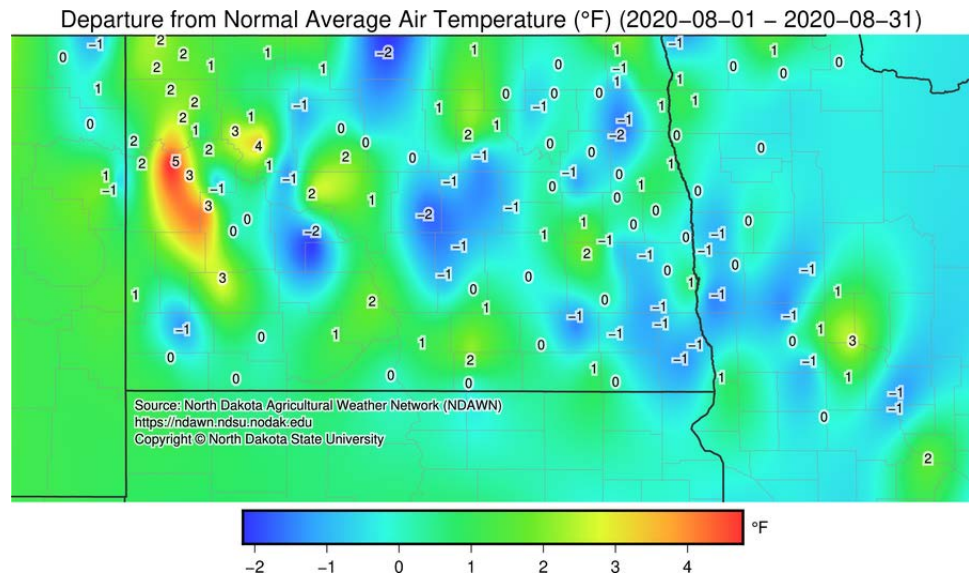


Figure 3. August 2020 temperature departure from average for North Dakota. (North Dakota Agricultural Weather Network)



North Dakota Monthly Climate Summary

August 2020

Volume 14, No. 8

North Dakota Average Temperature
August

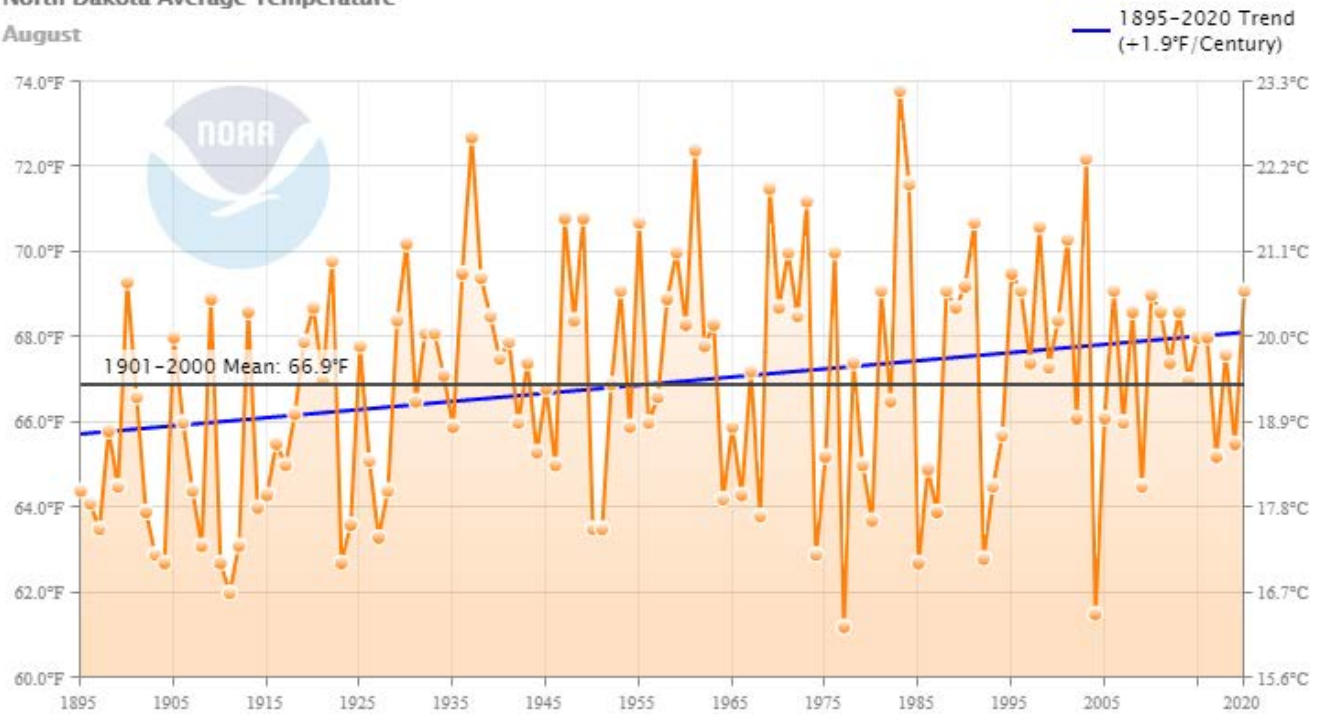


Figure 4. Historical August temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota August Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
August 2020	69.1°	67.6°	1.5°	103rd coolest 24th warmest	Coollest since 2019 Warmest since 2006	61.2 F (1977) 73.8 F (1983)



North Dakota Monthly Climate Summary

August 2020

Volume 14, No. 8

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

The NOAA Storm Report recorded four tornadoes, and 46 hail and 26 damaging wind reports, with a total of 79 significant storm events in August. Table 3 summarizes the number of tornado, hail and damaging wind reports in August while Figure 5 geographically displays the locations of these storms.

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

Category	Number of Reports
<i>Tornado reports</i>	4
<i>Hail reports</i>	49
<i>Wind reports</i>	26
Total	79

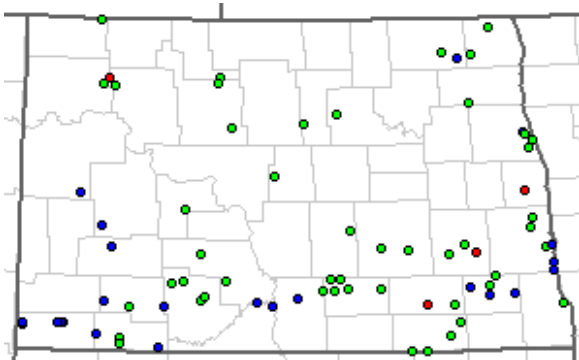


Figure 5. Map of August 2020 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



North Dakota Monthly Climate Summary

August 2020

Volume 14, No. 8

Daily Record Events in August: Across the observation network of weather stations with at least 30 years of history, 20 daily high- and 10 daily low-temperature records were set or tied. A total of 11 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 August. (NCEI Daily Weather Records)

Category	Number of Records
Highest daily max. temp.	13
Highest daily min. temp.	7
Lowest daily max. temp.	5
Lowest daily min. temp.	5
Highest daily precipitation	11
Highest daily snowfall	0
Total	41

The Highlight of the Month*

A highest daily maximum temperature record of **100** degrees was broken in **Crosby** on **Aug. 18**, exceeding the previous record that was set in **1983** by **2** degrees. (years on record: 113).

*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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