



North Dakota Monthly Climate Summary

September 2020

Volume 14, No. 9

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information



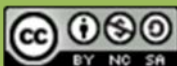
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Based on the National Centers for Environmental Information (NCEI), the statewide average September precipitation was 0.5 inch, which was 1.58 inches less than last month and 5.5 inches less than in September 2019. It was also 1.21 inches less than the 1981-2010 average, making it the ninth driest September in the 126-year period of record (Table 1). It was the driest September since 2012. The values less than 100 in Figure 1 below are shaded in yellow, orange and red to depict the region with below-average rainfall. The greatest monthly precipitation accumulation was only 1.34 inches, recorded in Leonard, Cass County. Based on historical records, statewide September precipitation showed a slight positive long-term trend of 0.38 inch per century since 1895. The lowest and highest September precipitation for the state ranged from 0.2 inch in 2012 to 5.9 inches in 2019 (Figure 2).

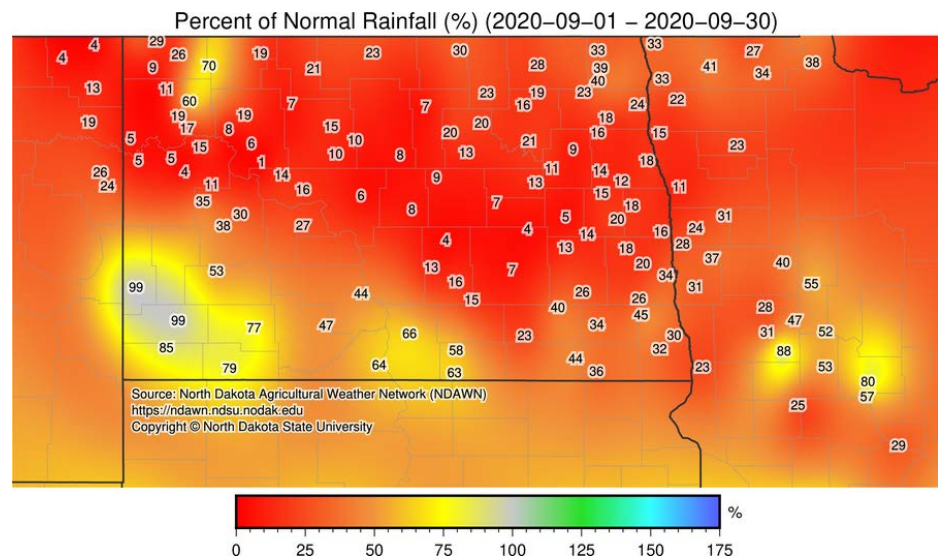


Figure 1. September 2020 precipitation percent of normal for North Dakota. (North Dakota Agricultural Weather Network, NDSU)



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North Dakota Precipitation

September

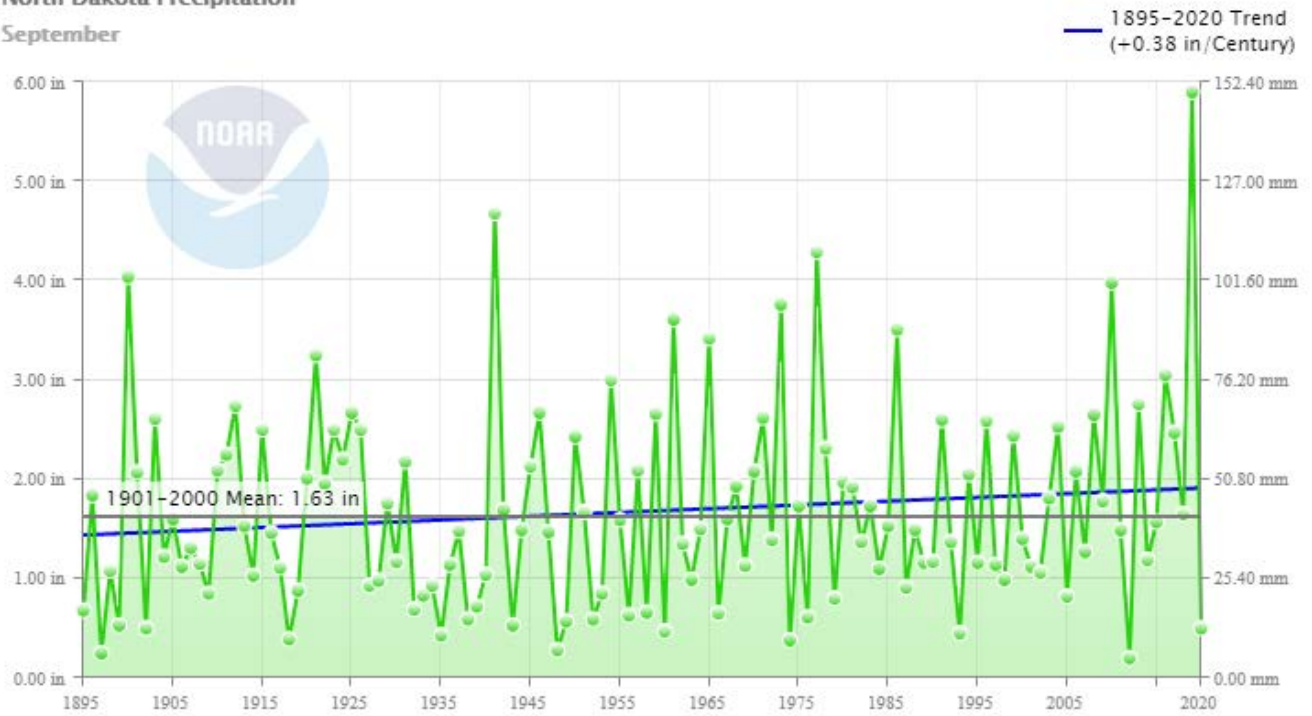


Figure 2. Historical September precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota September Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
September 2020	0.5"	1.71"	-1.21"	9th driest 117th wettest	Driest since 2012 Wettest since 2019	0.2" (2012) 5.9" (2019)



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Temperature

The official state average September temperature was 57 F, which is 12.1 degrees cooler than last month, and 1.3 degrees cooler than in September 2019. The average September temperature also was only 0.1 degree warmer than the 1981-2010 average, which made it the 52rd warmest (or 71st coolest) September 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 September. 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 September.

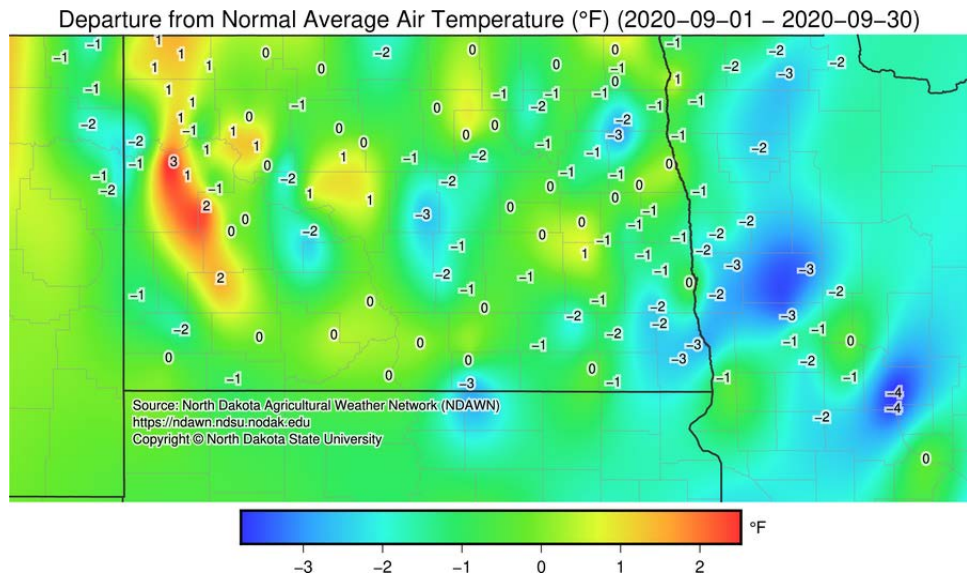


Figure 3. September 2020 temperature departure from average for North Dakota. (North Dakota Agricultural Weather Network)

The state's lowest and highest daily temperatures ranged from 20 F on Sept. 8 in Fortuna, Divide County, to 93 F on Sept. 2 in Bismarck, Burleigh County. Based on the historical records, the state average September temperature showed a slight positive long-term trend of 0.2 degree per decade since 1895. The lowest and highest monthly state September average temperatures ranged from 45.4 F in 1965 to 63.5 F in 1897 (Figure 4).



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North Dakota Average Temperature
September

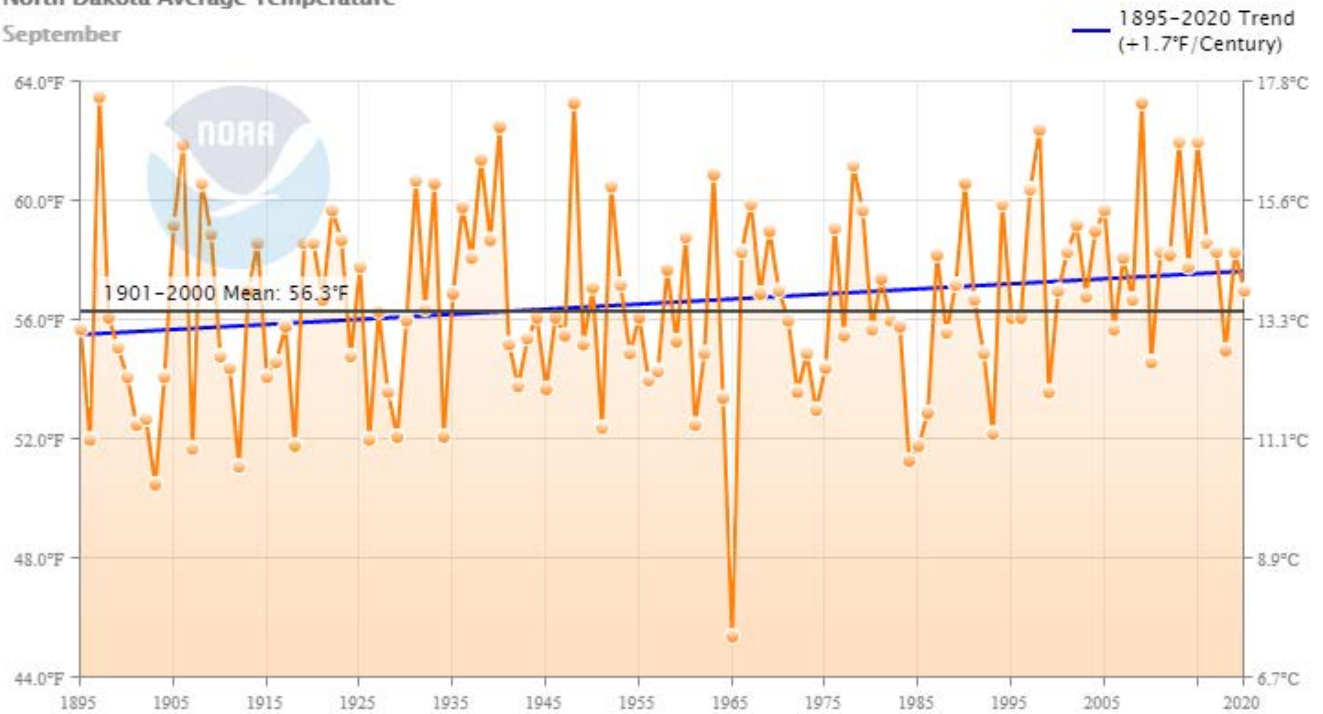


Figure 4. Historical September temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota September Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
September 2020	57.0°	56.9°	0.1°	71st coolest 53rd warmest	Coollest since 2018 Warmest since 2019	45.4 F (1965) 63.5 F (1897)



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

The NOAA Storm Report recorded no tornadoes and no hail but 13 damaging wind reports, with a total of 13 significant storm events in September. Table 3 summarizes the number of tornado, hail and damaging wind reports in September while Figure 5 geographically displays the locations of these storms.

Table 3. Summary of September 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>	13
Total	13

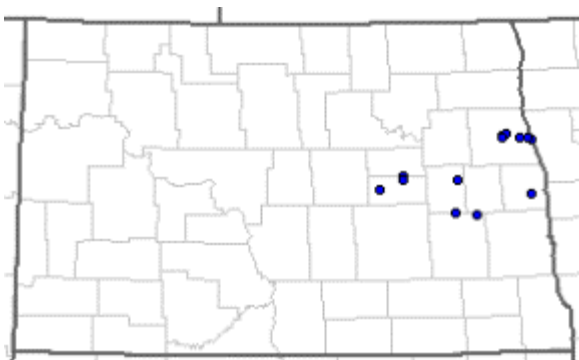


Figure 5. Map of September 2020 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in September: Across the observation network of weather stations with at least 30 years of history, nine daily high- and 61 daily low-temperature records were set or tied. A total of 70 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 September. (NCEI Daily Weather Records)

Category	Number of Records
Highest daily max. temp.	6
Highest daily min. temp.	3
Lowest daily max. temp.	24
Lowest daily min. temp.	37
Highest daily precipitation	0
Highest daily snowfall	0
Total	70

The Highlight of the Month*

A lowest daily minimum temperature record of **26** degrees was broken in **Crosby** on **Sept. 8**, exceeding the previous record that was set in **1976** by **4** 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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