

June 2020 Volume 14, No. 6

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 June precipitation was 2.55 inches, which was 1.12 inches more than last month but 0.52 inch less than in June 2019. It also was 0.79 inch less than the 1981-2010 average, making it the 30th driest June in the 126-year period of record (Table 1). It was the driest June since 2017. 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 June. The greatest monthly precipitation accumulation was 6.7 inches, recorded in Fullerton, Dickey County. Based on historical records, statewide June precipitation showed a slight positive long-term trend of 0.2 inch per century since 1895. The lowest and highest June precipitation for the state ranged from 1.11 inches in 1974 to 7.01 inches in 2005 (Figure 2).

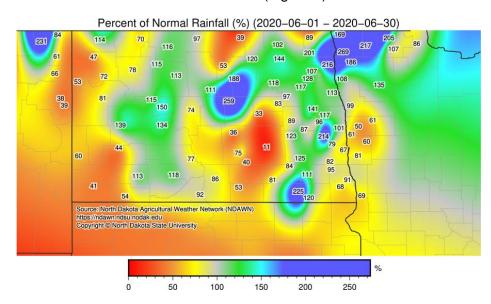


Figure 1. June 2020 precipitation percent of normal for North Dakota. (North Dakota Agricultural Weather Network, NDSU)



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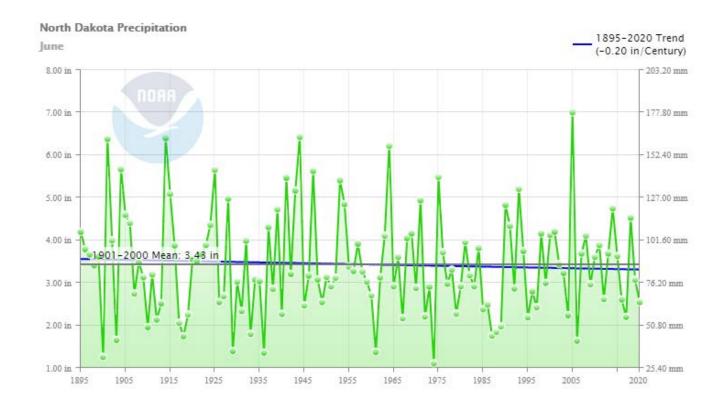


Figure 2. Historical June precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota June Precipitation Ranking Table.

| | | | Anomaly | Rank | Wettest/Driest Since | Record Year |
|-----------|-------|-------|---------|-----------------------------|---|------------------------------|
| June 2020 | 2.55" | 3.34" | -0.79" | 30th driest 97th wettest | Driest since 2017 Wettest since 2019 | 1.11" (1974) 7.01" (2005) |



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Temperature

The official state average June temperature was 67 F, which is 14.9 degrees warmer than last month and 3 degrees warmer than in June 2019. The average June temperature also was 3.7 degrees warmer than the 1981-2010 average, which made it the 12th warmest June in the 126 years of record (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict the region with cooler-than-average

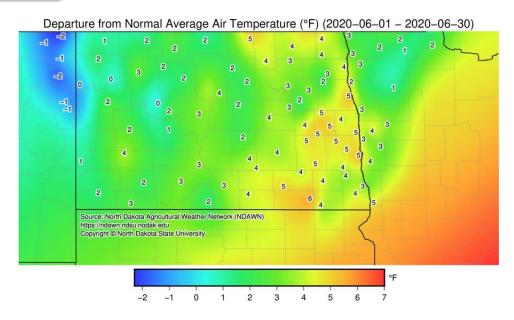


Figure 3. June 2020 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)

temperatures in June. In contrast, the positive numbers in the same figure are shaded in red and orange to illustrate the region with warmer-than-average temperatures in June. The state's lowest and highest daily temperatures ranged from 34 F on June 19 in Hettinger, Adams County, to 99 F on June 7 in Fargo, Cass County. Based on the historical records, the state average June temperature showed a slight positive long-term trend of 0.2 degree per decade since 1895. The lowest and highest monthly state June average temperatures ranged from 56.8 F in 1915 to 74.1 F in 1988 (Figure 4).



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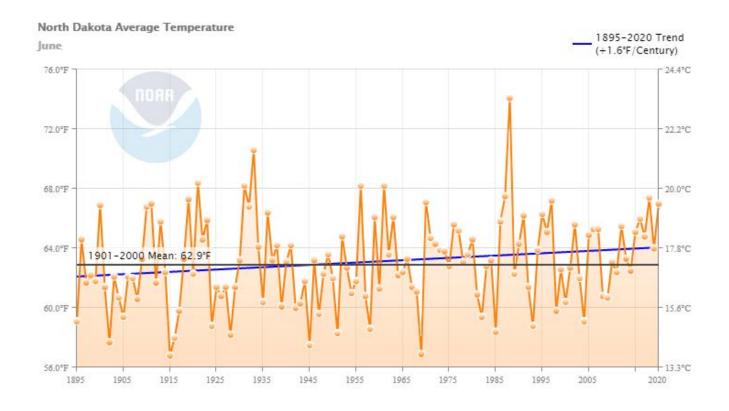


Figure 4. Historical June temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota June Temperature Ranking Table.

| Period | Value | Normal | Anomaly | Rank | Warmest/Coolest Since | Record Year |
|-----------|-------|--------|---------|-------------------------------|--|--------------------------------|
| June 2020 | 67° | 63.3° | 3.7° | 115th coolest 12th warmest | Coolest since 2019 Warmest since 2018 | 56.8 F (1915) 74.1 F (1988) |



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

The NOAA Storm Report showed 12 tornado, 106 hail and 93 damaging wind reports, with a total of 211 significant storm events in June. Table 3 summarizes the number of tornado, hail and damaging wind reports in June, while Figure 5 geographically displays the locations of these storms.

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

| Category | Number of Reports |
|-----------------|-------------------|
| Tornado reports | 12 |
| Hail reports | 106 |
| Wind reports | 93 |
| Total | 211 |

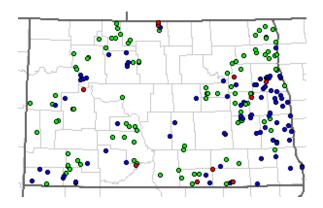


Figure 5. Map of June 2020 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in June: Across the observation network of weather stations with at least 30 years of history, 40 daily high- and four daily low-temperature records were set or tied. A total of 10 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 June. (NCEI Daily Weather Records)

| Category | Number of |
|-----------------------------|-----------|
| | Records |
| Highest daily max. temp. | 19 |
| Highest daily min. temp. | 21 |
| Lowest daily max. temp. | 0 |
| Lowest daily min. temp. | 4 |
| Highest daily precipitation | 10 |
| Highest daily snowfall | 0 |
| Total | 54 |

The Highlight of the Month*

A highest daily maximum temperature record of **99** degrees was tied in **Fargo** on **June 7**, tying the previous record that was set in **1959**. (years on record: 129).

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^{*}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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