North Dakota Monthly Climate Summary

February 2025 Volume 19, No. 2

February 2025



North Dakota State Climate Office: Your Resource for Climate Information



Precipitation

February 2025

February was a month with few snowstorms but a swath of moderate rain showers from Western to Southern North Dakota. Northern North Dakota was colder due to lingering snowpack, and missed out on the chances for rain. The highest precipitation total measured in February by the North Dakota Agricultural Weather Network was 0.85 inches at the Stirum (3W) station, but that was equal to average for Southeastern ND. The Red River Valley sees more precipitation on average in February, making this rainfall more substantial in areas such as Billings, Stark, and Emmons Counties that saw similar totals, but around 160% of normal for that area. The least amount of precipitation fell in Cavalier County at the Langdon (1E) NDAWN station with just 0.07 inches.

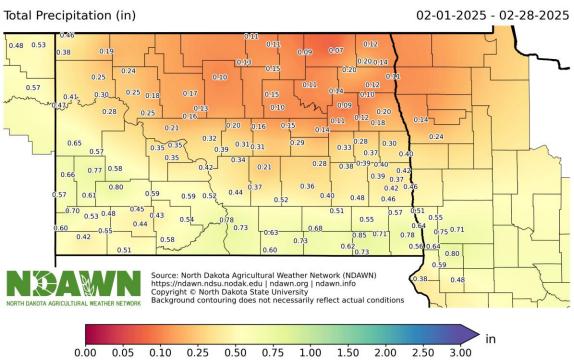


Figure 1: Total Precipitation measured by all NDAWN stations from 2/1/2025-2/28/2025

Precipitation

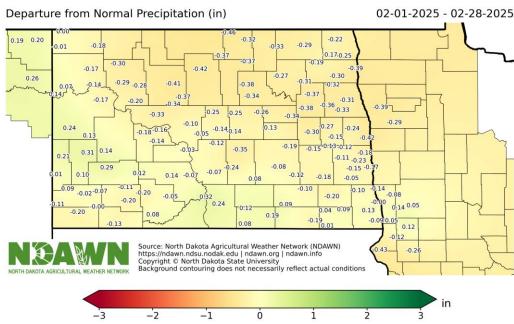
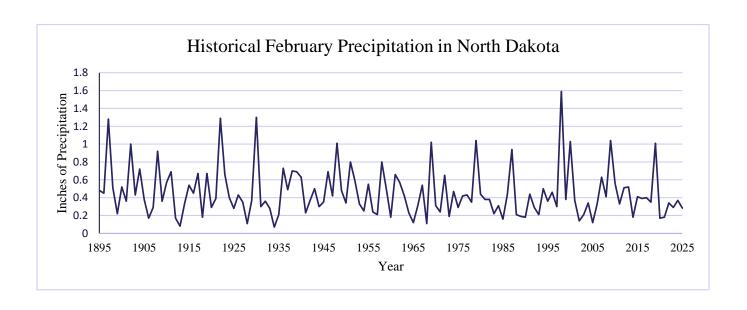


Figure 2: Departure from Normal Precipitation at each NDAWN station from 2/1/2025-2/28/2025

Overall the average precipitation that fell in the month of February totaled 0.28 inches, which is slightly below normal precipitation of 0.52 inches. North Dakota has not seen significantly above average precipitation in February since 2019.



Precipitation

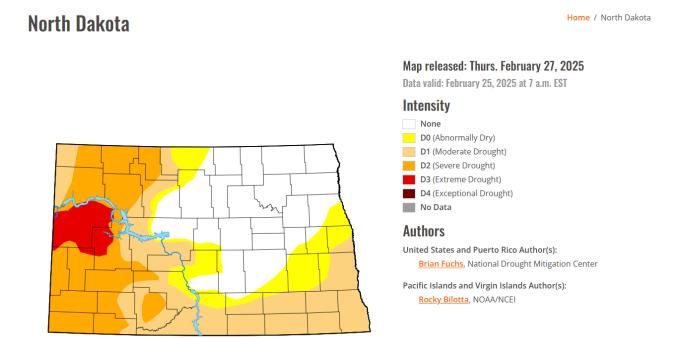


Figure 3: U.S. Drought Monitor conditions throughout the month of February, valid 2/27/2025

Drought conditions have not changed as of the final days of February, as frozen ground has prevented any significant changes to moisture. With the snow melt at the tail end of February from the warm up, bare ground will now be more susceptible to defrosting and moisture changes. A major snowfall still has the potential to change this, the Northern Plains are no stranger to a mild winter and a late snowfall.

Temperature

The temperatures kept things interesting this February in the State of North Dakota. Many areas across the Midwest endured a great temperature swing, but can't compare to this state. In just days, North Dakota saw a temperature swing of 105°F! However, the cold dominated the state throughout the month, and the average air temperature for the month of February sits at just 5°F, nearly 9.5°F below normal.

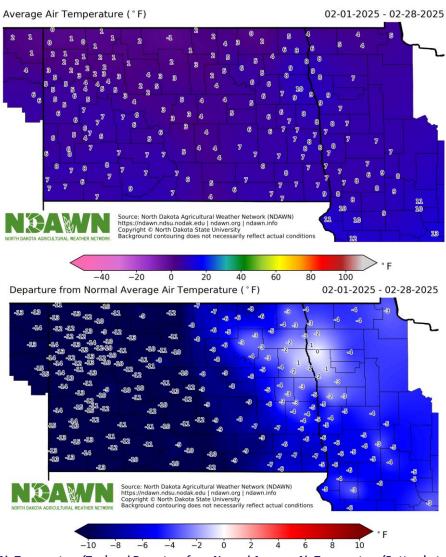


Figure 4: Average Air Temperature (Top) and Departure from Normal Average Air Temperature (Bottom) at all NDAWN stations

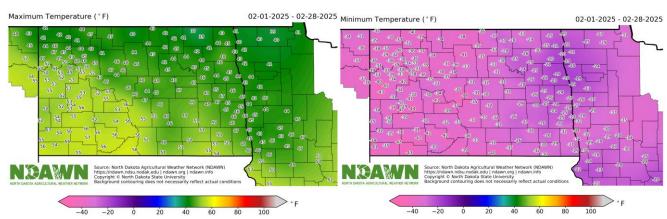
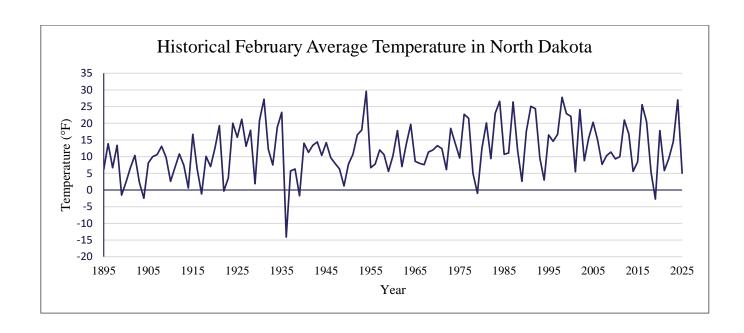


Figure 5: Maximum Temperature (Left) and Minimum Temperatures (Right) recorded at each NDAWN Station in February

Temperatures in February were quite cold throughout the month, with very few days above freezing. A cold snap brought record breaking temperatures to the region, NDAWN tied its record for coldest recorded temperature: -47°F at the New Hradec station in Dunn County. Just over a week later, the Fort Yates station in Sioux County recorded the warmest temperature in February, 58°F! Plenty of snow was melted leaving fields bare, helping to increase temperatures.



Temperature

North Dakota February Precipitation Summary

February 2025	Precipitation	Normal	Anomaly	Rank	Record Year
	0.28"	0.52"	-0.24"	99 th Wettest	1998
				33 rd Driest	1934

Table 1: Ranking from NCEI NOAA based on data from February 1895-2025. Precipitation amounts averaged from records at NDAWN stations in North Dakota.

North Dakota February Temperature Summary

February 2025	Average T	Avg max T	Avg min T	Maximum	Minimum			
Temperature Summary	5.04°F	14.76°F	-4.68°F	58°F	-47°F			
Anomaly	-0.9°F	-1.2°F	-0.5°F					
Rank								
Warmest	113 th	114 th	109 th					
	warmest	Warmest	warmest					
Coolest	19 th	18 th	23 rd					
	Coldest	Coldest	Coldest					
Record								
Warmest	29.6°F (1954)	38.7°F (1954)	21.2°F (1998)	73°F (Bismarck, 2016)				
Coolest	-14.1°F (1936)	-4.7°F (1936)	-23.4°F (1936)		-60°F (Parshall, 1936)			

Table 2: February temperature summary for North Dakota. 2025 statistics from NDAWN station data. Ranking and records based on NCEI climate data (1895-2025) (NOAA).