# Decorah Weather - December 2023 & Annual Summary

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Weather data available online at http://faculty.luther.edu/ $\sim\!\rm bernatzr/DecWx/$ 

## 1. December 2023 Temperatures

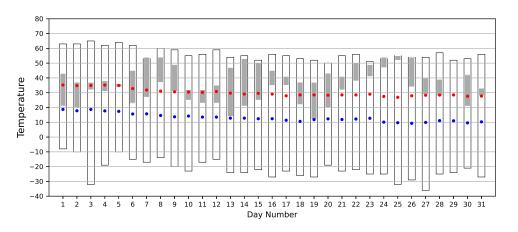


Figure 1: Grey Bar: Observed temperature range for 2023, Clear Bar: Record temperature range, Average temperature range: Red circle for average high, blue circle for average low.

Temperature (° F)	December 2023	Historical	Deviation
Average High	43.4	30.4	+13.0
Average Low	28.7	13.5	+15.2
Daily Average	36.0	21.9	+14.1

Table 1: December 2023 average temperatures compared to Historical averages.

- December 2023
  - Eight record temperatures (Previous record in parentheses). **24-hour maximum:**  $54^{\circ}$  F on the 7th ( $53^{\circ}$  F in 1951),  $54^{\circ}$  F on the 24th ( $53^{\circ}$  F in 1893),  $55^{\circ}$  F on the 25th (tied with 1936),  $54^{\circ}$  F on the 26th (tied with 1936). **Maximum 24-hour minimum:**  $38^{\circ}$  F on the 22nd ( $37^{\circ}$  F 1931),  $41^{\circ}$  F on the 23rd ( $36^{\circ}$  F 1965),  $47^{\circ}$  F on the 24th (tied with 1936),  $52^{\circ}$  F on the 25th ( $41^{\circ}$  F 1936)
  - Average temperature :  $36.0^{\circ}$  F,  $14.1^{\circ}$  F warmer than average
  - Warmest temperature :  $55^{\circ}$  F on the 25th
  - Coldest temperature :  $12^{\circ}$  F on the 19th
  - Maximum temperature exceeded the daily average every day in December
  - Except for one day, the minimum daily temperature exceeded the daily average in December
  - Heating Degree Days : 868.5, 463.8 less than the average of 1332.3
- All Decembers Since 1893 (131 years)
  - Compared with December 2023 , no Decembers were warmer and 130 were cooler.
  - Warmest average :  $36.0^{\circ}$  F in 2023
  - Coldest average :  $8.5^{\circ}$  F in 1983 and 1985
  - Warmest temperature :  $69^{\circ}$  F on the 15th of 2021
  - Coldest temperature : -36° F on the 27th of 1950

### 2. December 2023 Precipitation

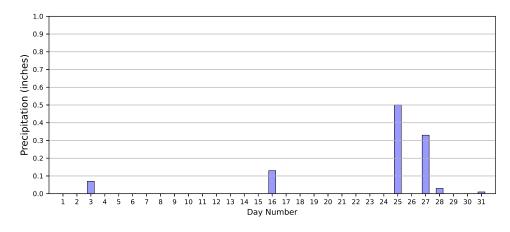


Figure 2: December precipitation for Decorah.

- December 2023
  - Total precipitation for December 2023 : 1.07 inches, 0.14 inch less than the average of 1.21 inches
  - Greatest 24-hour total for December 2023 : 0.50 inches on the 25th.
  - Six days with measurable precipitation, the average is five to six days
  - Total snowfall for December 2023 : 0.7 inches, 7.9 inches less than the average of 8.6 inches
  - Three days with measurable snowfall, the average is four to five days
- All Decembers since 1893 (131 years)
  - Compared to December 2023, 70 Decembers were wetter, one was the same, and 59 were drier
  - Wettest December : 4.78 inches in 2015
  - Driest December : 0.10 inches in 1998

## 3. 2023 Summary

		Ave Temp	Deviation	Rank†	Precip	Deviation	Rank‡
Month	Year	$(^{o}\mathbf{F})$	$(^{o}\mathbf{F})$	(#/Total)	(inches)	(inches)	(#/Total)
January	2023	24.4	+8.1	11/130	2.17	+1.12	12/130
February	2023	26.6	+6.5	21/113	2.00	+1.04	9/129
March	2023	36.2	+3.4	36/131	1.89	-0.11	70/131
April	2023	50.5	+3.2	23/130	2.84	-0.26	66/130
May	2023	63.0	+4.1	17/128	4.19	-0.04	58/127
June	2023	71.1	+2.8	22/129	2.36	-2.39	109/129
July	2023	72.5	-0.1	63/129	3.32	-0.76	69/130
August	2023	74.9	+4.5	11/131	0.91	-3.14	125/131
September	2023	69.3	+7.0	1/130	5.54	+1.84	26/130
October	2023	54.3	+4.0	19/130	2.78	+0.45	46/130
November	2023	40.0	+4.7	19/131	0.18	-1.65	128/131
December	2023	36.0	+14.1	1/131	1.07	-0.14	71/131

Table 2: A summary of the last twelve months.  $\dagger$ - The smaller the number (#), the warmer the month.  $\ddagger$ - The smaller the number (#), the wetter the month. Boxed entries are within the historical top or bottom ten.

#### 2023 Temperatures:

- There are 124 years of complete annual data for Decorah.
- The year of 2023 is the warmest calendar year on record.
  - $-\,$  The average temperature for 2023 was 51.75° F, 5.26° F warmer than the annual average of 46.49° F.
  - $-\,$  The previous warmest year was 2012 with an average temperature of 51.60° F, 5.11° F warmer than average.
  - The coldest year is 1917 with an average temperature of 41.00° F, 5.48° F colder than average.
- Eleven months of 2023 were warmer than average.
- September and December of 2023 were the warmest on record for their respective months.

#### 2023 Precipitation:

- Precipitation for 2023 totaled 29.15 inches, 4.16 inches less than the average amount of 33.31 inches, making 2023 the 95th wettest (31st driest) year of the 126 years of complete precipitation data.
  - The year of 2016 is the wettest on record with a total 57.58 inches, 24.26 inches above average.
  - The year of 1910 is the driest on record with 18.51 inches, 14.80 inches below average.
- The were 96 days in 2023 with measurable precipitation, resulting in an average of 0.30 inches per precipitation day.
  - The average number of days per year with measurable precipitation is 92.6, with an amount average of 0.36 inch per precipitation day.
  - The year with the largest number of precipitation days is 1993 with 203.
  - The year with the fewest precipitation days is 1910 with 50.
- Monthly precipitation totals for 2023 resulted in eight months with below average precipitation and four months with above average precipitation.
- February of 2023 is the ninth wettest February on record with 2.00 inches of liquid precipitation, 1.04 inches more than average.
- August was the seventh driest with 0.91 inches of precipitation, 3.14 inches less than average.
- November was the fourth driest November on record with a precipitation total of 0.18 inches, 1.65 inches less than average.
- Precipitation deviations (in inches) by intervals. last three months : -1.33, last six months : -3.41, last nine months: -6.11, last twelve months: -4.16