

Colorado State University, Fort Collins, CO Weather Station Monthly Summary Report

Month: December
Year: 2019



Temperature:

Mean T_{\max} was 44.1°F which is 1.3° above the 1981-2010 normal for the month. This is the 51st warmest in the 131-year record (1889-2019). The last December this warm or warmer was 2018 with 45.2°F.

Mean T_{\min} was 20.9°F which is 3.2° above the 1981-2010 normal for the month. This is the 10th warmest in the 131-year record (1889-2019). The last December this warm or warmer was 2010 with 22.0°F.

Mean T_{mean} was 32.5°F which is 2.3° above the 1981-2010 normal for the month. This is the 30th warmest in the 131-year record (1889-2019). The last December this warm or warmer was 2017 with 33.7°F.

The maximum daily temperature for the month was 57°F and occurred on December 3 and 24, 2019.

The minimum daily temperature for the month was 7°F and occurred on December 17 and 31, 2019.

Calendar Year 2019 mean temperature was 49.6°F which is 0.7° below the normal for the year. This ranks as the 94th coolest (38th warmest) in the 131-year record (1889-2019), tied with 1953, 1988, 1995 and 1996. The last year this cool or cooler was 1997 at 49.4°F.

The maximum daily temperature for the calendar year was 99°F and occurred on September 2, 2019.

The minimum daily temperature for the calendar year was -9 and occurred on March 4, 2019.

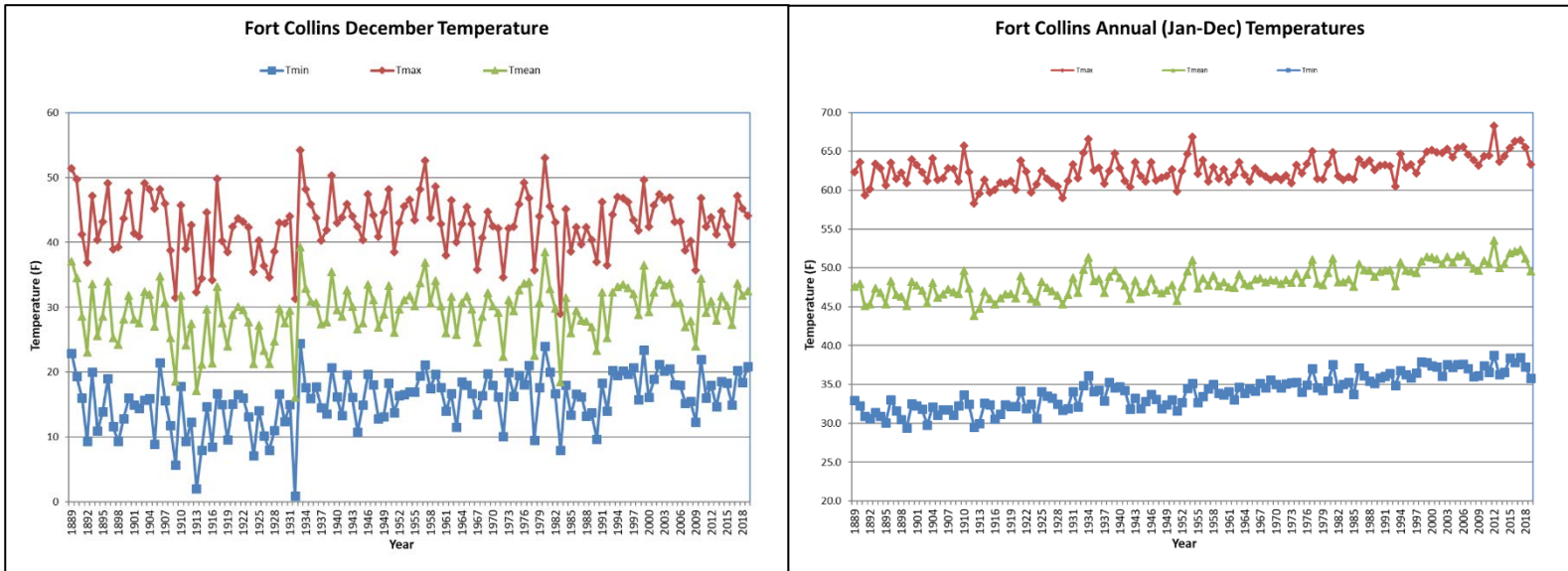


Figure 1: December (left) and calendar year (right) temperature time series.

Misc. Temperature (record status, thresholds, etc.):

No temperature records in December 2019

*The **minimum** temperature for December 2019 of +7°F is the highest December minimum temperature since 2003, which saw +8°F. This was the 8th warmest December min temperature at the CSU Weather Station.*

Precipitation and Snowfall:

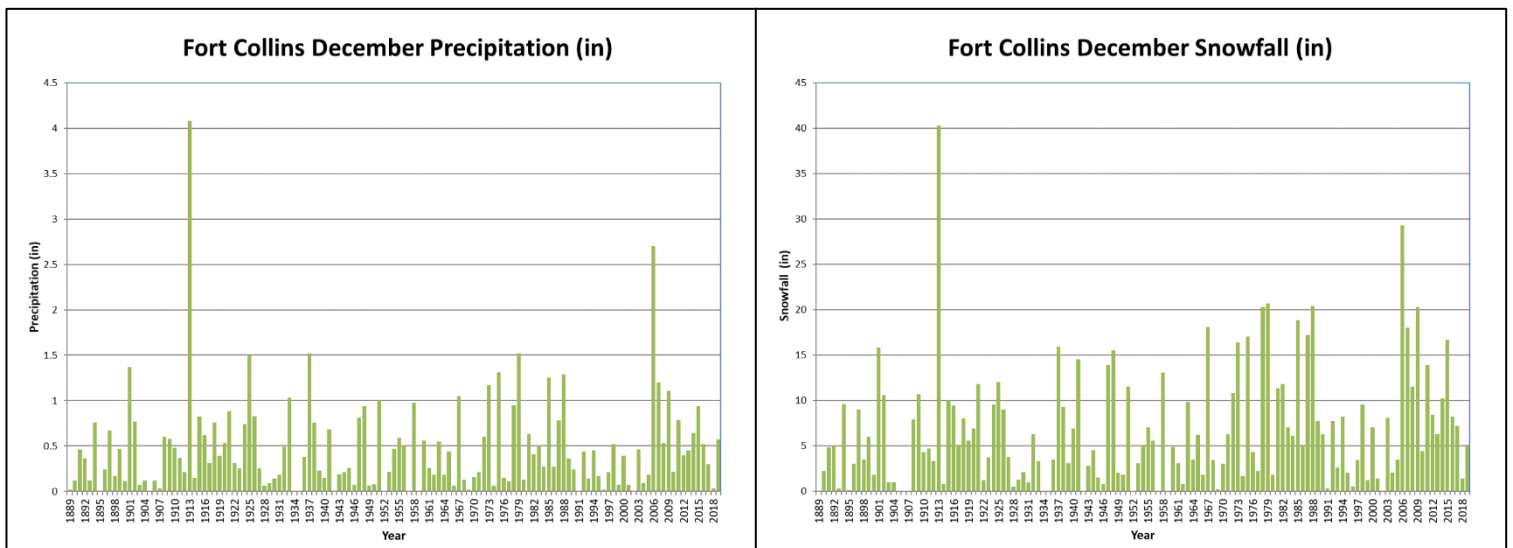
Total monthly precipitation was 0.57” which is 0.07” above the 1981-2010 normal for the month (114% of normal). This ranks as the 40th wettest in the 131-year record (1889-2019). The last December this wet or wetter was 2015 with 0.94”.

Calendar Year 2019 precipitation totaled 15.42” which is 0.68” below the 1981-2010 normal for the season (96% of normal). This ranks as the 76th driest year on record (1889-2019). The last year this dry or drier was 2018 with 13.60”.

December snowfall totaled 5.1” which is 3.3” below the 1981-2010 normal for the month (61% of normal). This ranks as the 66th least snowy December in the 131-year record (1889-2019). The last December with this little snow was 2018 with 1.4” of snowfall.

Seasonal snowfall for the 2020 snow season through December is 37.1” which is 15.6” above the 1981 – 2010 normal for the season (173% of normal). This ranks as the 7th snowiest start in the 131-year record (1890-2020). The last season to start with this much snowfall was 2010 snow season with 52.9” of snow by the end of December 2009.

December had 4 days with measurable precipitation (≥ 0.01 ”) and 3 day with measurable snowfall (≥ 0.1 ”).



Misc. Precipitation (predominant type, record status, etc.):

No precipitation records in December

Days with Snow Depth ≥ 1 inch

December had 31 days with 1" of snow or greater on the ground. This compares to a normal of 12 days in December.

This season has seen 46 days with 1" of snow or greater on the ground at the end of December. This compares to a normal of 18 days.

This is the second highest number of days with at least 1" of snow on the ground through December going back to 1949. The highest is 1985.

Consecutive days with ≥ 1 inch of snow on the ground

Through January 1, 2020, there have been 38 consecutive days with 1" of snow or more on the ground. This is currently the 8th longest streak since 1949.

Note: reliable snow depth data is not available before 1949.

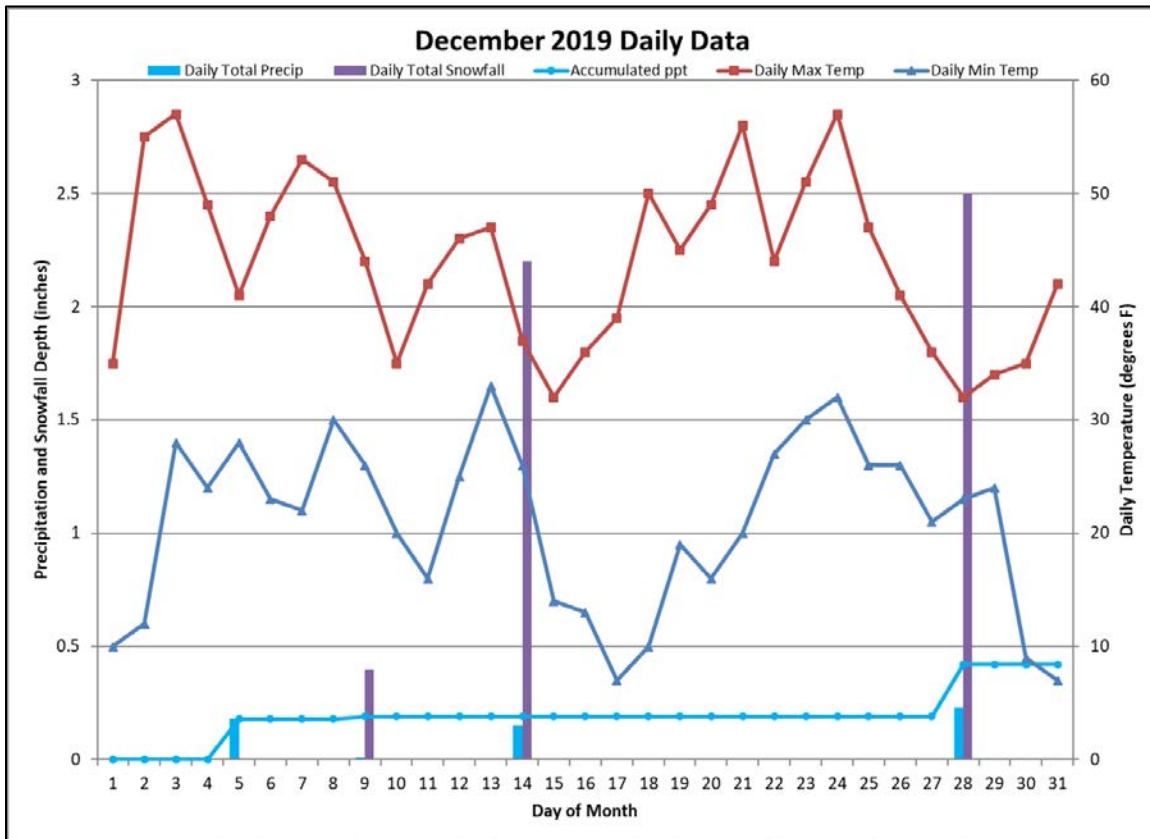


Figure 3: Daily Data for December 2019. Precipitation and temperature both show up on this graph. The y-axis on the left is for precipitation and snowfall. The y-axis on the right is for temperature.

Wind:

In December 2019 there were 4 days with maximum wind gusts ≥ 20 mph and 1 day ≥ 30 mph.

The maximum daily wind gust for the month was 31 mph and occurred on December 13, 2019 at 11:40 MST from 290°.

Calendar Year 2019 Records:

Number of daily records broken or tied in 2019:

7 maximum daily temperature records broken, 1 tie
2 highest minimum daily temperature records broken, 3 ties
2 coldest maximum daily temperature records broken
1 minimum daily temperature record broken

5 daily precipitation records broken
5 daily snowfall records broken, 1 tie

Monthly records in 2019:

1 maximum monthly temperature records broken:

The maximum temperature on September 2 of 99°F broke the previous record warmest September temperature of 98°F from September 3, 2017

August 2019 was the 3rd warmest August on record (2011 the warmest and 1983 second warmest)

September 2019 was the 2nd warmest September on record (2013 the warmest)

October 2019 was the 7th coldest October on record

August 2019 was the 10th driest August on record

November 2019 was the 5th wettest and 7th snowiest November on record

September 2019 saw the highest temperature of the year, only the 4th time the summer max occurred in September

March 2019 saw the coldest temperature of the winter season (starting in December 2018), the 12th time the winter min occurred in March.