

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

Month: December
Year: 2017



Temperature:

Mean T_{\max} was 47.2°F which is 4.4° above the 1981-2010 normal for the month. This is the 21st warmest in the 129 year record (1889-2017), tied with 1893. The last December this warm or warmer was 2002 with 47.4°F.

Mean T_{\min} was 20.3°F which is 2.6° above the 1981-2010 normal for the month. This is the 13th warmest in the 129 year record (1889-2017). The last December this warm or warmer was 2010 with 22°F.

Mean T_{mean} was 33.7°F which is 3.5° above the 1981-2010 normal for the month. This is the 15th warmest in the 129 year record (1889-2017), tied with 1976 and 2004. The last December this warm or warmer was 2010 with 34.4°F.

The maximum daily temperature for the month was 68°F and occurred on December 29, 2017.

The minimum daily temperature for the month was 0°F and occurred on December 24, 2017.

Calendar Year 2017 mean temperature was 52.4°F which is 2.1° above the normal for the year. This ranks as the 2nd warmest in the 129 year record (1889-2017). The warmest year on record is 2012 with 53.5°F. The 3rd warmest year on record is 2016 with 52.2°F.

The maximum daily temperature for the calendar year was 100°F and occurred on June 21st, 2017.

The minimum daily temperature for the calendar year was -16 and occurred on January 6th, 2017.

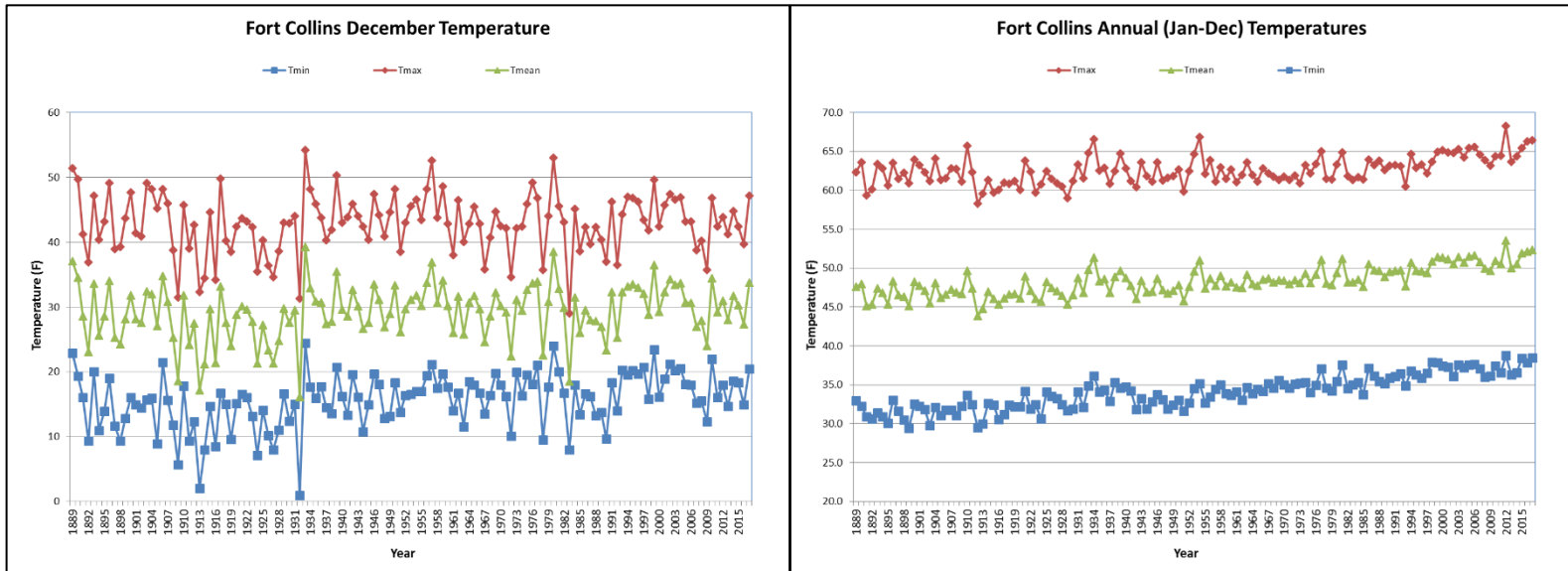


Figure 1: December (left) and calendar year (right) temperature time series.

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

Maximum Daily Temperature Records:

December 29, 2017: The daily maximum temperature of 68°F beat the previous record for the day of 65°F set in 1956.

Highest Minimum Daily Temperature Records:

December 8, 2017: The daily minimum temperature of 37°F beat the previous record high minimum temperature of 36 set in 2015.

Precipitation and Snowfall:

Total monthly precipitation was 0.30” which is 0.20” below the 1981-2010 normal for the month (60% of normal). This ranks as the 62nd driest in the 129 year record (1889-2017). The last December this dry or drier was 2010 with 0.22”.

Calendar Year 2017 precipitation totaled 17.09” which is 0.99” above the 1981-2010 normal for the season (106% of normal). This ranks as the 38th wettest year on record (1889-2017). The last year this wet or wetter was 2015 with 19.51”.

December snowfall totaled 7.2” which is 1.2” below the 1981-2010 normal for the month (86% of normal). This ranks as the 81st least snowy December in the 129 year record (1889-2017). The last December with this little snow or less was 2013 with 6.3” of snowfall.

Seasonal snowfall for the 2018 snow season through December is 13.4” which is 8.1” below the 1981 – 2010 normal for the season (62% of normal). This ranks as the 62nd least snowy start in the 129 year record (1890-2018). The last season to start with this little snowfall was last year, the 2017 snow season with 11.2” by the end of December 2016.

December had 5 days with measurable precipitation (≥ 0.01 ”) and 6 day with measurable snowfall (≥ 0.1 ”).

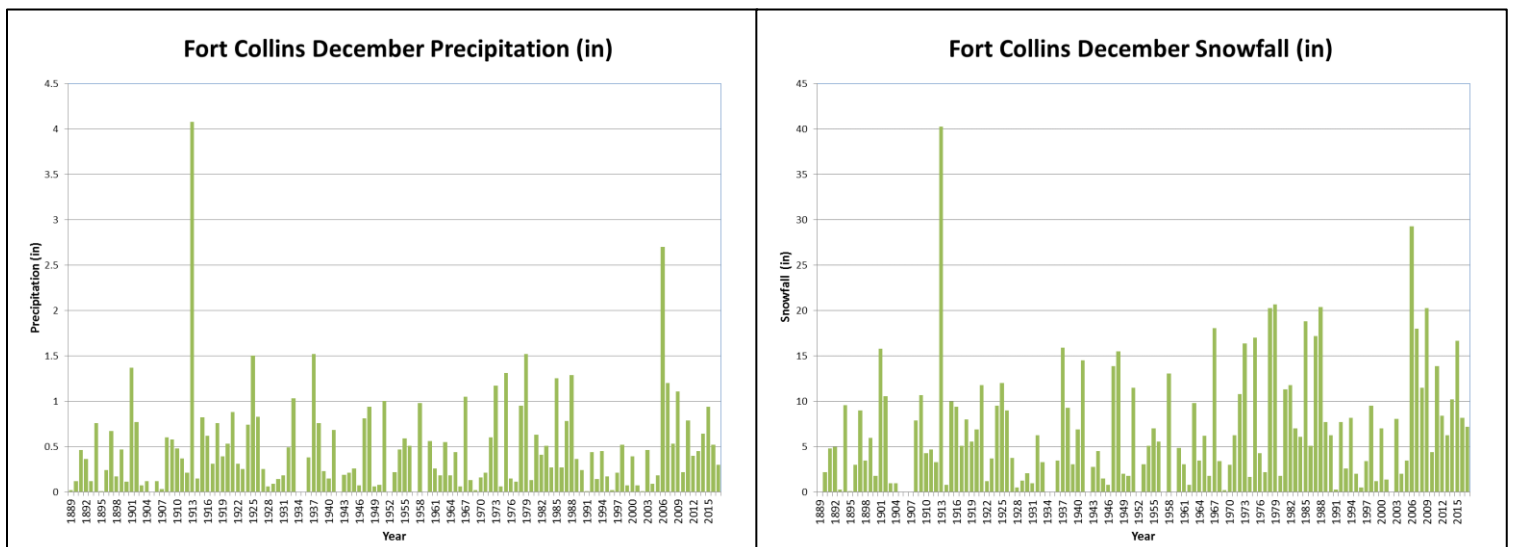


Figure 2: December precipitation (left) and snowfall (right) time series.

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

No precipitation records in December

Days with Snow Depth ≥ 1 inch

December had 7 days with 1" of snow or greater on the ground. This compares to a normal of 12 days in December.

This season has seen 8 days with 1" of snow or greater on the ground at the end of December. This compares to a normal of 18 days.

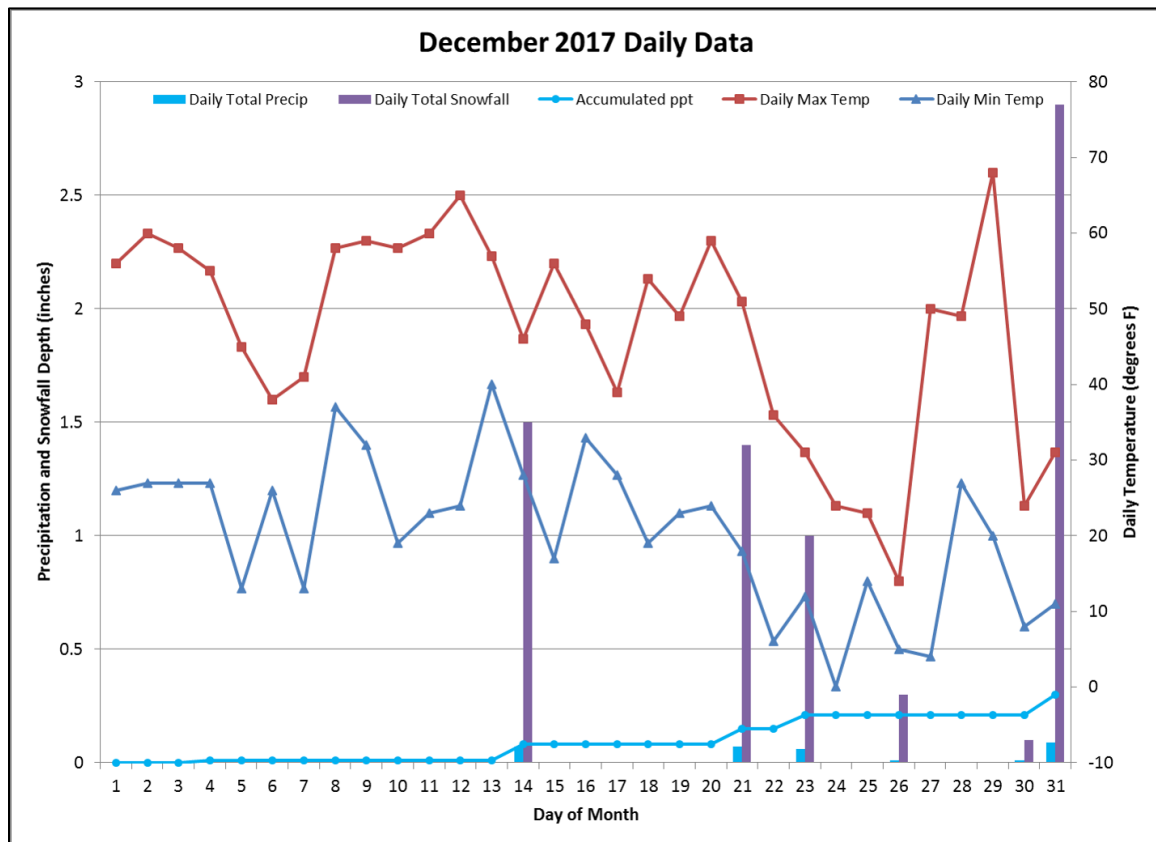


Figure 3: Daily Data for December 2017. Precipitation and temperature both show up on this graph. The y-axis on the left is for precipitation and snowfall. The y-axis on the right is for temperature.

Wind:

In December 2017 there were 12 days with maximum wind gusts ≥ 20 mph and 1 day ≥ 30 mph.

The maximum daily wind gust for the month was 37 mph and occurred on December 27th at 7:40 PM MST from 290°.

Calendar Year 2017 Records:

Number of daily records broken or tied in 2017:

- 8 maximum daily temperature records broken, 2 ties
- 7 highest minimum daily temperature records broken, 4 ties
- 2 coldest maximum daily temperature records broken
- 4 daily precipitation records broken
- 4 daily snowfall records broken
- 0 coldest minimum temperature records were broken

Monthly records in 2017:

2 maximum monthly temperature records broken:

The maximum temperature on February 10 of 77°F broke the previous record warmest February temperature of 76°F from February 25, 1986.

The maximum temperature on September 3 of 98°F beat the previous record warmest September temperature of 97°F from September 6, 2013 and September 13, 1990

February 2017 was the 2nd warmest February on record (1954 the warmest)

March 2017 was the 2nd warmest March on record (2012 the warmest)

November 2017 was the 3rd warmest November on record (1949 warmest and 2016 second warmest)

June 2017 brought the first 100°F temperature since 2012

October 2017 saw the first measurable snowfall in an October since 2013

November 2017 was the first time on record the temperature failed to drop below 20°F in November. Coldest temperature November 2017 was 21°F. This is also a record warmest minimum monthly temperature.