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

Month: December
Year: 2020

Temperature:

Mean T_{max} was 47.7°F which is 4.9° above the 1981-2010 normal for the month. This is the 18th warmest in the 132-year record (1889-2020), tied with 1900. The last December this warm or warmer was 1999 with 49.6°F.

Mean T_{min} was 18.9°F which is 1.2° above the 1981-2010 normal for the month. This is the 31st warmest in the 132-year record (1889-2020), tied with 2001. The last December this warm or warmer was 2019 with 20.9°F.

Mean T_{mean} was 33.3°F which is 3.1° above the 1981-2010 the normal for the month. This is the 22nd warmest in the 132-year record (1889-2020), tied with 1950. The last December this warm or warmer was 2017 with 33.7°F.

The maximum daily temperature for the month was 63°F and occurred on December 4 and 9, 2020.
The minimum daily temperature for the month was 5°F and occurred on December 13 and 30, 2020.

Calendar Year 2020 mean temperature was 51.5°F which is 1.2° above the 1981-2010 normal. This ranks as the 7th warmest year in the 132-year record (1889-2020), tied with 2003 and 2005. The last year this warm or warmer was 2017 with 52.4°F

The maximum daily temperature for 2020 was 99°F, occurring on July 10, 2020.
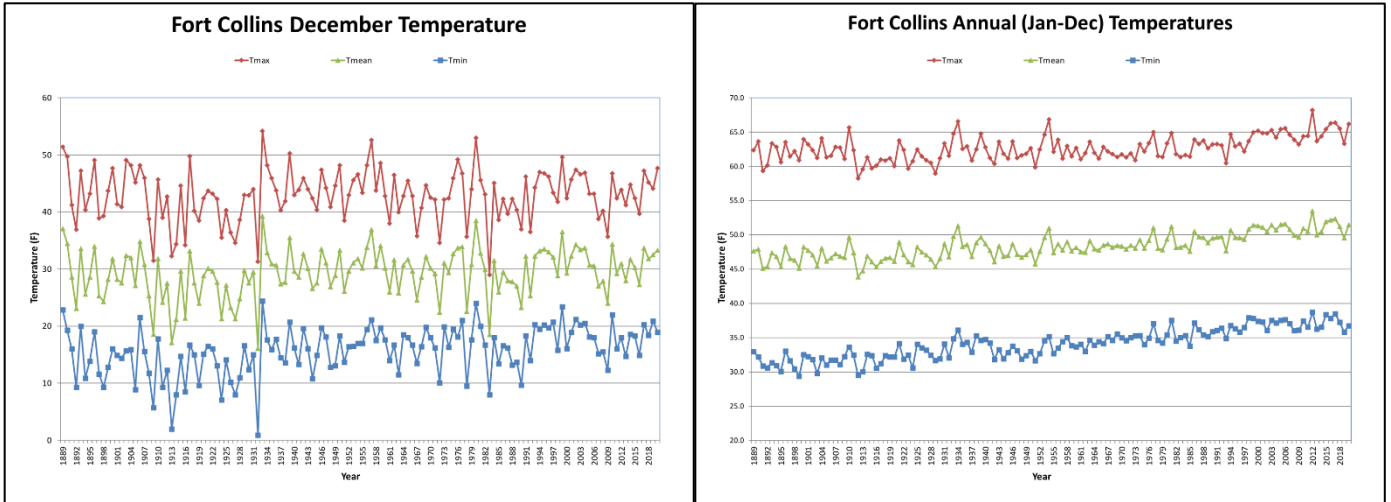The minimum daily temperature for 2020 was -5°F, occurring on February 5, 2020

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

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

No temperature records this December

Year	Mean Temp (F)
2012	53.5
2017	52.4
2016	52.2
2015	52.0
2006	51.6
2003	51.5
2005	51.5
2020	51.5
1999	51.4
2000	51.3
1934	51.3

Figure 2: Top 10 Warmest Calendar Years on Record

Precipitation and Snowfall:

Total monthly precipitation was 0.50" which is the 1981-2010 normal for the month (100% of normal). This ranks as the 49th wettest in the 132-year record (1889-2020). The last December this wet or wetter was 2019 with 0.57" of precipitation.

Calendar Year 2020 precipitation totaled 11.87" which is 4.23" below the 1981-2010 normal (74% of normal). This ranks as the 28th driest in the 132-year record (1889-2020). The last year this dry or drier was 2016 with 11.63" of precipitation.

Total monthly snowfall for December was 6.9" which is 1.5" below the 1981-2010 normal for the month (82% of normal). This ranks as the 78th least snowy December in the 132-year record (1889-2020), tied with 1920 and 1940. The last December with this little snowfall was 2019 with 5.1".

Seasonal Snowfall for the 2021 snow season totaled 27.8" through December. This is 6.3" above the 1981-2010 normal (129% of normal). This ranks as the 22nd snowiest start to a snow season. The last season to start with this much snow or more was the 2020 snow season with 37.1" of snow through December 2019.

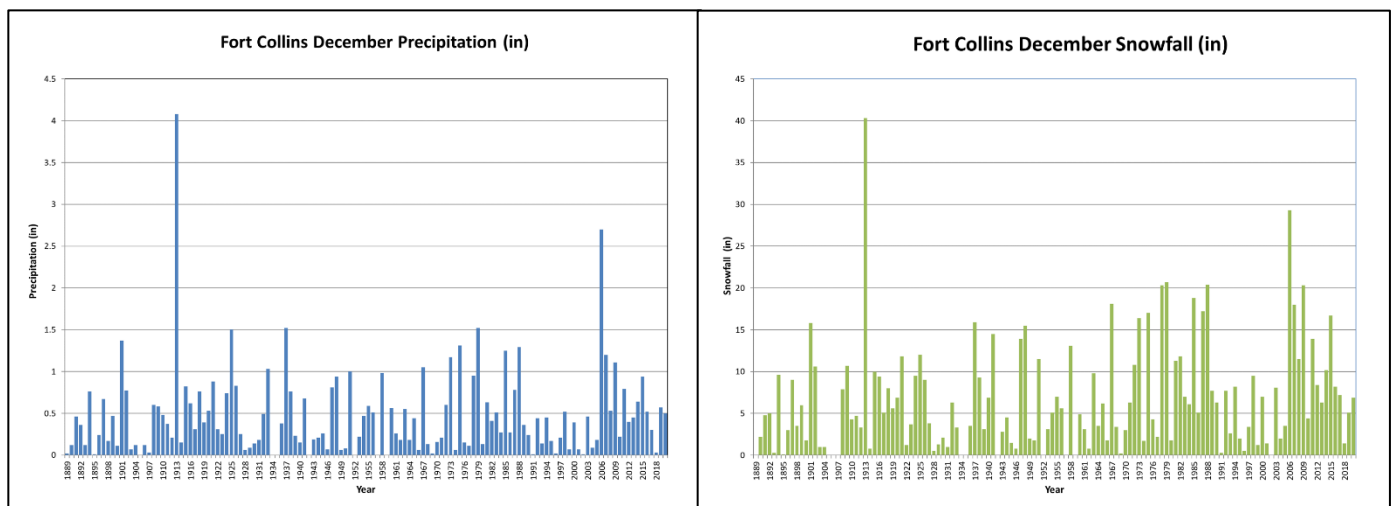December had 7 days with measurable precipitation (≥ 0.01") and 8 days with measurable snowfall (≥ 0.1").

Figure 3: December precipitation (left) and snowfall (right) time series.

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

No precipitation records this December

Days with Snow Depth ≥ 1 inch
December had 11 days with 1" of snow or greater on the ground. This compares to a normal of 12 days in December.

This season has seen 19 days with 1" of snow or greater on the ground through the end of December. This compares to a normal of 18 days.

The highest one-day precipitation total for December 2020 was 0.19" falling on December 19th. The highest one-day snowfall total for the month was 2.4" on December 19th.
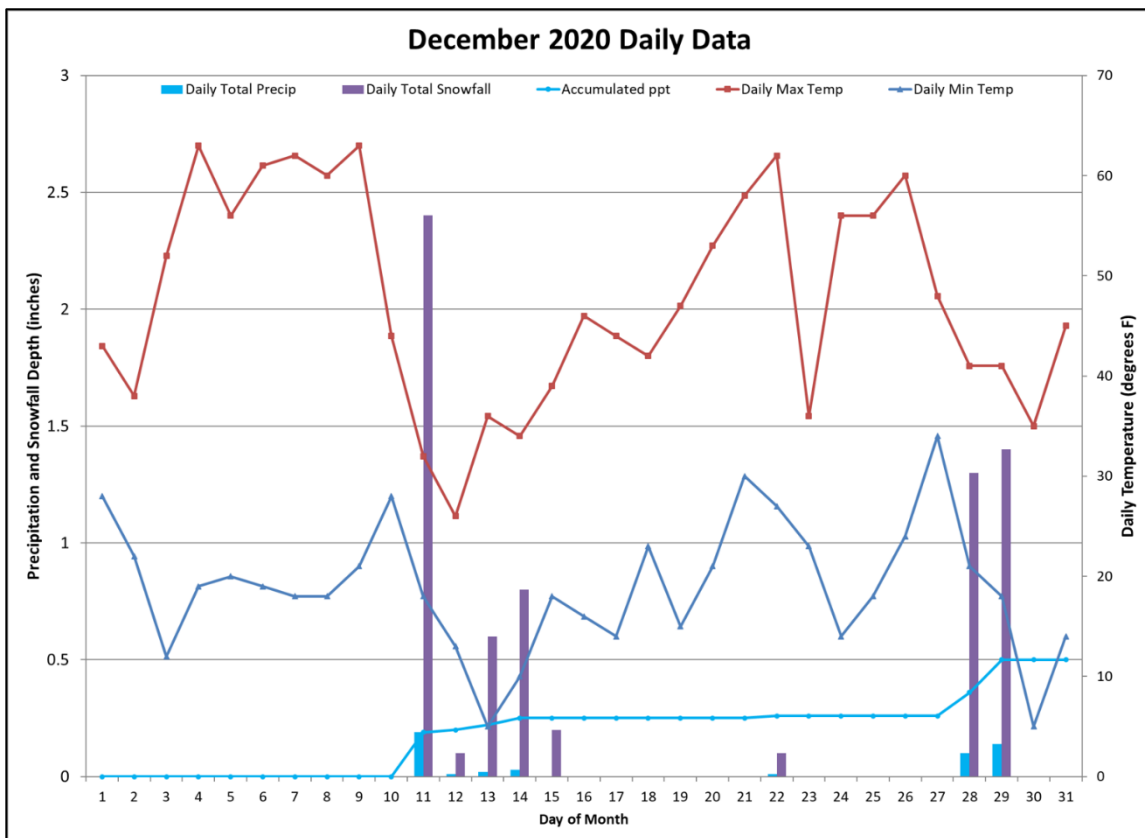

Figure 4: Daily Data for December 2020. Precipitation and temperature both show up on this graph. The y-axis on the left is for precipitation and snowfall. The y-axis on the right is for temperature.

Wind:

In December 2020 there were 11 days with maximum wind gusts ≥ 20 mph and 2 days ≥ 30 mph.

The maximum daily wind gust for the month was 37 mph and occurred on December 22, 2020 at 6:29 PM MST from 270° (W).
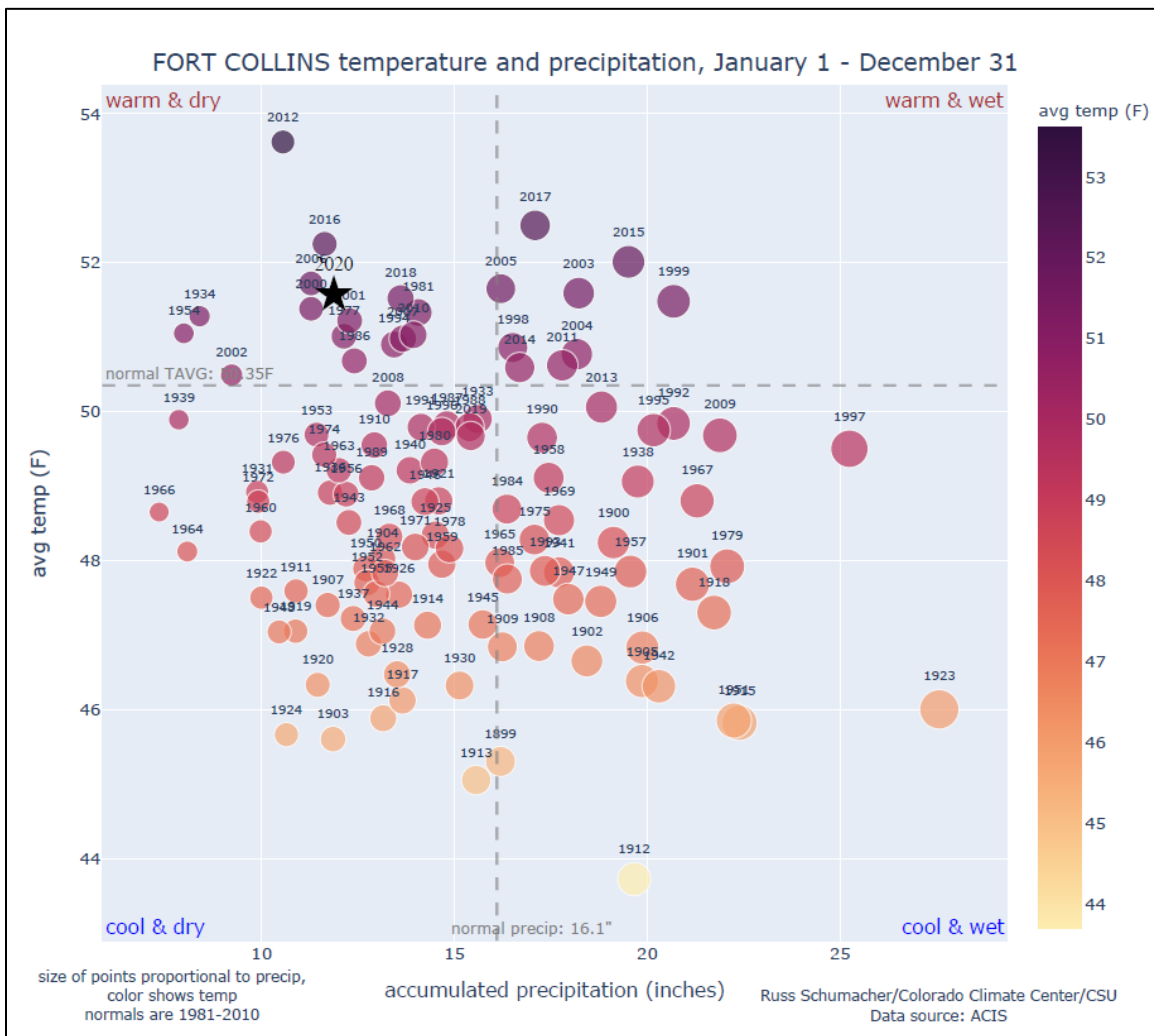
Calendar Year Data

Figure 5: Calendar year precipitation and temperature data graph. Each dot plots the year for average temperature and precipitation statewide in Colorado, going back to 1895. From left to right, annual precipitation is shown on the x-axis, where the wettest years are plotted furthest to the right. Dot sizes are proportional to precipitation amounts. From bottom to top on the y-axis, average annual temperature is shown, where the warmest years are plotted towards the top. The dots are also color coded with darker colors indicating higher temperatures. The horizonal and vertical dotted lines indicate the 1981-2010 normals

Calendar Year 2020 Records:

Number of daily records broken or tied in 2020:

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

4 daily precipitation records broken
4 daily snowfall records broken

Monthly stats of interest in 2020:
January 2020: 7th warmest January on record
      2nd driest January on record with just a trace. Driest is January 1931
      2nd least snowy on record with just a trace. Least snowy is January 1931

July 2020: 5th driest July on record

August 2020: 3rd warmest August on record (2011 and 1983)
      Tied for most 90°F days in August (2011)
      12 consecutive days at or above 90°F, longest streak in August.

September 2020: Tied the highest September temperature of 99°F (September 2, 2019)
      Latest 99°F on record
      9th snowiest September on record
      Earliest measurable snowfall on record with 2.3" on Sept 8, 2020 (previous September 12, 1989)

October 2020: Coldest October maximum temperature, 19°F on October 26, 2020

November 2020: 8th warmest November on record

Summer 2020: 5th warmest summer on record
2nd most 90°F days: 49 days at or above 90°F (2012 with 57 days).

9 months were warmer than normal
3 months were colder than normal

8 months were drier than normal
3 months wetter than normal
1 month saw normal precipitation