

University of Waterloo Weather Station Annual Summary - 2017

There weren't that many individual notable moments during 2017, but what was notable was how many times there were consecutive days of interesting weather leading me to call this the "year of streaks". There is no official measure of streaks so it can't be said definitively that it was the most ever, but it seemed like there were lots of them.

It started in January when we saw 12 days in a row that went over 0 degrees, this is something that we had not seen since 1944. There were also a lot of days where the sun did not make an appearance, leading me to invent something called "dreary" days and there were more of these in January than in any other January in the history of the UW Weather Station.

The next streak came in February with another 12 days in a row above 0, something that hasn't happened in the over 100 years of weather data in the region and leading to it being the warmest February we have seen. Also notable was the high of 15.1°C on the 23rd which was the highest February temperature we have ever seen in the region, while in second place was the 15.0°C which happened the day before.

Then for only the 5th time in 100 years March was colder than February followed by a warm April and the season continued with a cold May. The summer was generally very close to average with not a lot of really hot or cold days.

It wasn't till the end of September that we saw the longest heat wave of the "summer". The most significant streak was the 15 days above 25°C between the 12th and the 26th, which is something we have never seen before in September.

In October there were 12 days where the temperature was over 20°C, we haven't seen that many since October 1971. But the most significant day was the 22nd when the temperature topped out at 25°C, this was tied with 1947 as the latest day of the year with a temperature above 25°C.

However, the cold temperatures came back with a vengeance in December, the coldest one since 2000, that featured a streak of very cold days at the end that went into the next year. It was so cold that during the last 6 days of the month, the daily high temperatures didn't even get above the average daily low temperatures for those days.

Overall the year was 1.1 degrees above average, making it the tenth warmest we have seen in the region.

The first half of the year was the second wettest on record, fueled by a very wet April followed by an even wetter May. The rest of the year was more or less average with the final total of 988.6 mm coming in just within the above average range.

Frank Seglenieks
weather@uwaterloo.ca
University of Waterloo Weather Station Coordinator

Summary for 2017 (averages from 1981-2010 data for the Waterloo-Wellington Airport):

Average Daily High Temperature: 13.09°C (average 12.05°C)

Average Daily Low Temperature: 3.20°C (average 1.94°C)

Total Precipitation: 988.6 mm (average 916.3 mm)

Extremes for 2017 (all time UW weather station extreme in brackets):

Highest temperature:

32.2 °C Sep 24 3:30 pm (35.7 °C July 21, 2011 3:00 pm)

Highest humidex:

40.6 Sept 24 3:30 pm (47.6 July 17, 2013 5:00 pm)

Lowest temperature:

-28.1 °C Dec 31 11:45 pm (-35.5 °C Feb 16 7:00 am)

Lowest windchill:

-32.1 Dec 26 9:30 am (-47.3 Feb 15 6:15 am)

Greatest temperature drop in 15 minutes:

-6.5 °C Apr 27 3:45 pm (-9.5 °C July 19, 2013 5:00 pm)

Greatest temperature drop in 60 minutes:

-10.0 °C Aug 1 5:45-6:45 pm (-11.8 °C July 19, 2013 4:45-5:45 pm)

Greatest temperature rise in 15 minutes:

3.2 °C Feb 8 8:15 am (8.6 °C Jan 2, 2001 6:15 am)

Greatest temperature rise in 60 minutes:

6.5 °C Dec 31 8:45 - 9:45 am (12.2 °C Jan 2, 2001 4:45-5:45 am)

Highest precipitation in 15 minutes:

8.0 mm Aug 11 11:15-11:30 pm (12.8 mm Sep 29 1:45-2:00 pm)

Highest precipitation in 60 minutes:

14.6 mm Jul 16 3:30-4:30 pm (17.8 mm Aug 10 3:30-4:30 pm)

Highest Precipitation in 1 day:

32.8 mm Apr 20 (78.0 mm July 11, 2008)

Highest 15 minute average wind speed:

30.1 km/h Jan 10 11:30 pm (44.6 km/h Mar 9, 2002 6:30 pm)

Highest wind gust:

44.2 km/h Mar 8 11:30 am (44.4 km/h Apr 13, 2015 2:30 pm)

Last time the temperature went below 0 before the summer:

May 9 6:30 am (Has ranged between Apr 26- May 23)

First time the temperature went below 0 after the summer:

Oct 26 1:15 am (Has ranged between Oct 2-29)

Length of frost-free season

170 Days (Has ranged between 146-175 days)

Highest daily low temperature:

20.2 °C July 11 (25.3 °C Aug 1, 2006)

Lowest daily high temperature:

-13.6 °C Dec 26 (-20.6 °C Feb 15)

Largest daily temperature range:

21.0 °C Oct 3 (29.6 °C Feb 19, 2007)

Smallest daily temperature range:

0.9 °C Jan 18 (0.45 °C Dec 7, 2005)