

University of Waterloo Weather Station Annual Summary - 2015

A quick look at the temperature graph for the year pretty much tells you the story for this year. First is the large amount of blue (indicating lower than average temperatures) in February and the lack of blue (meaning higher than average temperatures) in December. These were both record months for the 100 years of weather data in our region.

The year started off really cold with only a few warmer than average days during January, but this was only a foreshadowing of what was to come. Not only was it followed by the coldest February in the region, but it was the coldest of any month. Also of note was the low temperature on February 16th of -35.5°C , which was the coldest day we have recorded in the 17 year history of the UW Weather Station.

The spring started out cold with March being at a little more than a degree below average (it turned out to be the last colder than average month of the year). Then April was exactly average followed by May which jumped up to being over 3 degrees warmer than average. Even with the warm temperatures in May, a cold snap late in the month resulted in the temperature going below zero on May 23rd, this was the latest in the history of the UW weather station.

The summer saw its share of both hot and cold days resulting in it coming out to pretty much average in the end. The rest of the year was warm, starting with September at 4 degrees above average, which was the second warmest ever in the region, followed by October that was just about a degree above. November came in at 3 degrees above average and had both the second and third warmest November temperatures since records began in the region.

Then came December, which ranked as the warmest ever seen in the region by a full 2 degrees and it didn't have any colder than average days. Overall for the year, it was 0.43 degrees above average during the year, this puts us pretty much in middle of the pack for the last 10 years.

As for precipitation, the year started off on the dry side and by the end of May it was approaching the extreme low for that time of the year. However, June was the wettest month of the year which almost put the total back into the average range. The rest of the year saw mostly drier than average months with October being the only exception.

The total precipitation for the year was 814.2 mm which is around 100 mm less than the average of 916.3 mm. This puts it in the below average range, but not historically low by any means.

Summary for 2015 (averages are calculated from 1981-2010 data for the Waterloo-Wellington Airport):

Average Daily High Temperature: 12.96 °C (average 12.24 °C)

Average Daily Low Temperature: 2.01 °C (average 1.86 °C)

Total Precipitation: 814.2 mm (average 916.3 mm)

Extremes for 2015 (all time UW weather station extreme in brackets):

Highest temperature:

32.4 °C Sep 7 3:30 pm (35.7 °C July 21, 2011 3:00 pm)

Highest humidex:

40.7 Sept 7 3:00 pm (47.6 July 17, 2013 5:00 pm)

Lowest temperature:

-35.5 °C Feb 16 7:00 am (New extreme)

Lowest windchill:

-47.3 Feb 15 6:15 am (New extreme)

Greatest temperature drop in 15 minutes:

-4.4 °C Sep 3 3:45 pm (-9.5 °C July 19, 2013 5:00 pm)

Greatest temperature drop in 60 minutes:

-9.6 °C Sep 3 3:15-4:15 pm (-11.8 °C July 19, 2013 4:45-5:45 pm)

Greatest temperature rise in 15 minutes:

4.7 °C Jan 7 11:30 pm (8.6 °C Jan 2, 2001 6:15 am)

Greatest temperature rise in 60 minutes:

9.5 °C Feb 16 7:45 - 8:45 am (12.2 °C Jan 2, 2001 4:45-5:45 am)

Highest precipitation in 15 minutes:

12.8 mm Sep 29 1:45-2:00 pm (23.7 mm Aug 2 3:45-4:00 pm)

Highest precipitation in 60 minutes:

17.8 mm Aug 10 3:30-4:30 pm (57.4 mm Aug 2 3:30-4:30 pm)

Highest Precipitation in 1 day:

31.2 mm Aug 10 (78.0 mm July 11, 2008)

Highest 15 minute average wind speed:

29.9 km/h Apr 13 2:30 pm (44.6 km/h March 9, 2002 6:30 pm)

Last time the temperature went below 0 before the summer:

May 23 6:15 am (Has ranged between Apr 26- May 21, new late extreme)

First time the temperature went below 0 after the summer:

Oct 17 8:15 pm (Has ranged between Oct 2-29)

Length of frost-free season

147 Days (Has ranged between 146-175 days)

Highest daily low temperature:

21.0 °C Sep 8 (25.3 °C Aug 1, 2006)

Lowest daily high temperature:

-20.6 °C Feb 15 (new extreme)

Largest daily temperature range:

28.9 °C Jan 17 (29.6 °C Feb 19, 2007)

Smallest daily temperature range:

1.6 °C Dec 30 (0.45 °C Dec 7, 2005)

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