

## University of Waterloo Weather Station Annual Summary - 2006

Again the temperature was the story during 2006, it was the third hottest year on record and that is going back almost 100 years. The average temperature for 2006 was 8.5 °C, which is about 1.6 degrees above the long term average for the region. The two hottest years on record are 1998 when the average temperature was 9.0 °C and then way back in 1931 when the average was 8.7 °C.

This is consistent with what has been found around the world for 2006. It is being reported that it will be the sixth warmest year globally, the third warmest in the US, while Spain and England are reporting 2006 as the warmest.

At the University of Waterloo weather station, it was consistently warm in 2006 with only one month (October) coming in below average, while 6 registered temperatures significantly above average. The other 5 were higher than average but not enough to be considered significantly above average.

The year started out very warm with January coming in at 6 degrees above average, not only was this the warmest January ever, but the most that any particular month had ever been above its average. Spring was also warmer than average, with May 29th's high of 32.7 °C ending up the second warmest day of the year.

The summer started off really warm in June and July, however after the high temperature of the year was reached on August 1st (33.7 °C) it never again got above 30. The fall was generally pretty average, but a couple of warmer spells in late November and mid-December put the season above average. The year ended as it began with December being one of the warmest ever recorded.

One significant temperature record that occurred during 2006 was on August 1st when the temperature for the day never went lower than 25.3 °C; this is highest daily low temperature we have ever recorded. Also significant was the low temperature of the year, -19.7 °C on Feb 27th, as typically we get a few temperatures in the mid -20s, but we never even got close to that in 2006.

Just like the temperature, we had consistently above average precipitation for pretty much all of 2006. June and August were the only months that were significantly below average compared to six months that were significantly above average. The 152.2 mm we saw in July was the most every recorded in a single month at the station and not surprisingly the single day with the greatest precipitation was the 47.0 mm that fell on July 12th.

The final precipitation total of 1076.6 was the most we have ever recorded at the UW weather station and a lot more than the average of 904.0 mm. However, it should be noted that during the first few years of the operation of the UW weather station, the winter precipitation readings were not reliable and thus we only have 4 years of annual precipitation. Looking back at other weather records in the area, it was the wettest year since 1997, but certainly not an all time record.

**Summary for 2006 (averages from 1970-2000 data for the Waterloo Wellington Airport):**

Average Daily High Temperature: 12.97 °C (average 11.93 °C)

Average Daily Low Temperature: 3.96 °C (average 1.73 °C)

Total Precipitation: 1076.6 mm (average 904.0 mm)

**Extremes for 2006 (all time weather station extreme in brackets):**

Highest Temperature:

33.7°C Aug 1 3:00 pm (35.4°C Aug 8, 2001 4:30 pm)

**Highest Humidex:**

**46.8 June 24 3:00 pm (NEW EXTREME)**

Lowest Temperature:

-19.7 °C Jan 27 7:45 am (-32.3 °C Jan 27, 2005 7:45 am)

Lowest Windchill:

-23.3 Feb 18, 5:15 am (-37.2 Jan 14, 1999 4:15 am)

**Greatest temperature drop in 15 minutes:**

**-5.4 °C June 8 1:30 pm (NEW EXTREME)**

Greatest temperature drop in 60 minutes:

-7.8 °C Aug 2 9:00-10:00 pm (-9.8°C July 17, 1999 11:15-12:15 pm)

Greatest temperature rise in 15 minutes:

3.9 °C Oct 30 11:30 pm (8.6°C Jan 2, 2001 6:15 am)

Greatest temperature rise in 60 minutes:

7.2 °C May 3 7:30 - 8:30 am (12.2°C Jan 2, 2001 4:45-5:45 am)

Highest Precipitation in 15 minutes:

13.8 mm July 20 2:45 pm (16.2 mm Jun 27, 1999 4:45 pm)

Highest Precipitation in 60 minutes:

23.7 mm July 20 2:45 - 3:45 pm (36.7 mm Jun 16, 1998 1:15-2:15 pm)

Highest 15 minute average wind speed:

8.4 m/s Dec 6 12:00 pm (12.4 m/s March 9, 2002 6:30 pm)

First time the temperature went below 0 after the summer:

Oct 7 6:15 am (Has ranged between Oct 2-20)

Last time the temperature went below 0 before the summer:

May 7 6:00 am (Has ranged between Apr 29- May 21)

**Highest daily low temperature:**

**25.3 °C Aug 1 (NEW EXTREME)**

Lowest daily high temperature:

-9.8 °C Feb 19 (-16.1 °C Jan 9, 2004)

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