

## **METEOROLOGY**

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Palmer Station is Station 89061 in the World Meteorological Organization (WMO) Worldwide Network. Automated surface synoptic observations are made 8 times each day and emailed to the National Atmospheric and Oceanographic Administration (NOAA) for entry into the Global Telecommunication System (GTS).

The Palmer Automatic Weather Station (PAWS) is a collection of sensors, computers, and software that records the meteorological data and generates synoptic reports. PAWS began recording data in September of 2015. It was a replacement for the Palmer Meteorological Observing System (PalMOS) that was taken down in November 2017. The PAWS sensors and data acquisition hardware are located on a ridge in the backyard at  $-64.774130^{\circ}$   $-64.047440^{\circ}$  at an elevation of 38.3 meters above sea level using the World Geodetic System-84. In addition to the synoptic and METAR reporting, PAWS also archives the current conditions at one-minute intervals and displays both raw data and graphs of the sensor data on our local intranet.

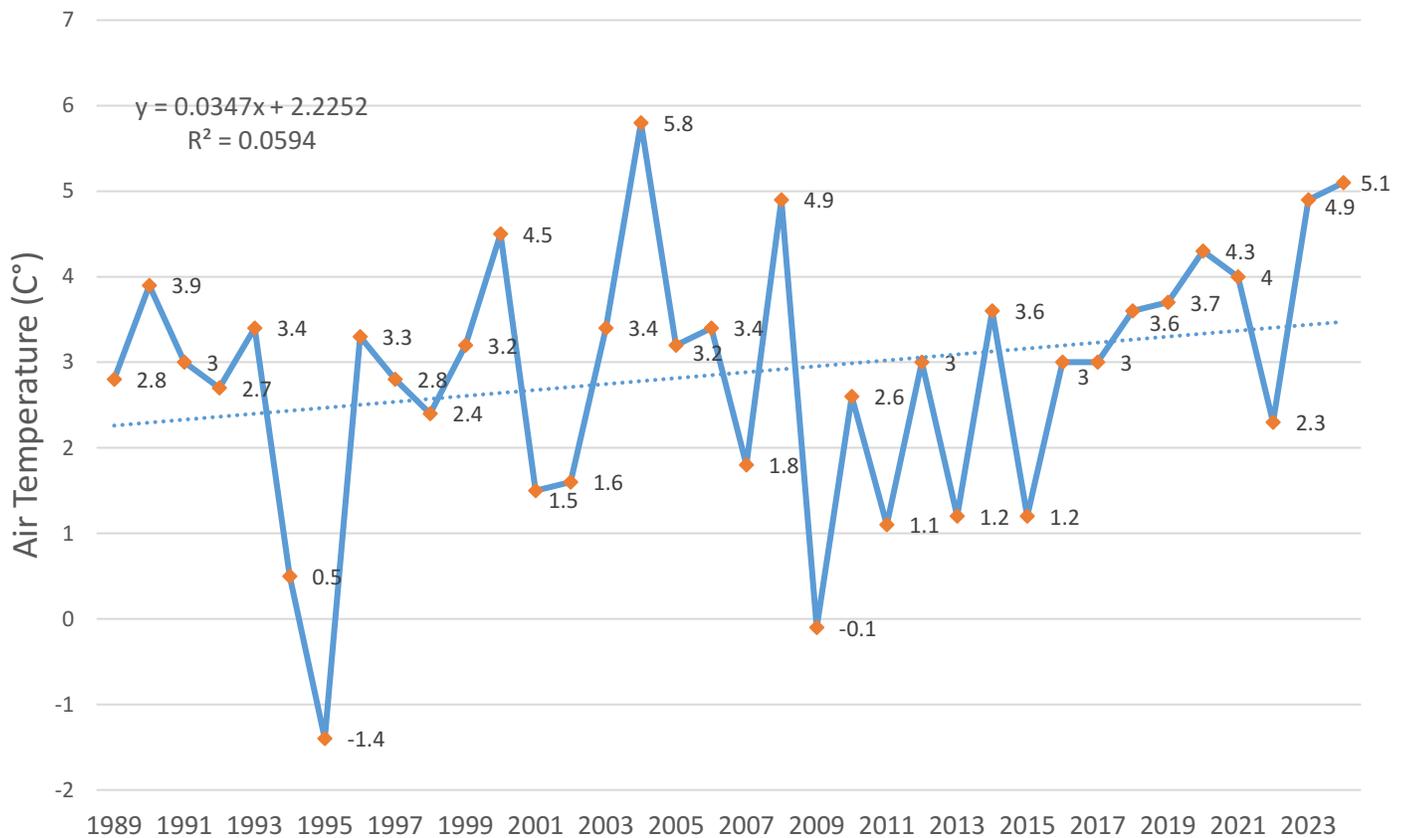
The Research Associate acts as Chief Weather Observer on station, measuring, compiling and distributing all meteorological data. Snow accumulation is physically observed by taking an average of five accumulation stakes found near the PAWS system. All weather data is archived locally and forwarded to the University of Wisconsin on the first day of each month for archiving and further distribution. The system operated normally this month.

During the week of July 15<sup>th</sup>-19<sup>th</sup>, Palmer station experienced a notable heatwave paired with high winds and frequent rainfall. In the early morning of July 17<sup>th</sup>, Palmer experienced the second hottest peak temperature during July of 5.1°C. This follows a small increasing trend in peak July air temperatures over the past 34 years.

An ongoing effort to clean up the AMRC database continued this month, with special emphasis on amassing historical logs from past RAs/science technicians.

One minute weather data is archived on the AMRC website:  
<http://amrc.ssec.wisc.edu/data/ftp/pub/palmer/>.

## July Peak Temperatures at Palmer Station



## Palmer Monthly Met summary for July, 2024

<b>Temperature</b>
<b>Average:</b> -4.4 °C / 24.1 °F
<b>Maximum:</b> 5.1 °C / 41.18 °F on 17 Jul 01:44
<b>Minimum:</b> -12.7 °C / 9.14 °F on 21 Jul 15:14
<b>Air Pressure</b>
<b>Average:</b> 984.1 mb
<b>Maximum:</b> 1014.2 mb on 4 Jul 22:32
<b>Minimum:</b> 944.6 mb on 22 Jul 04:58
<b>Wind</b>
<b>Average:</b> 12.9 knots / 14.8 mph
<b>Peak (5 Sec Gust):</b> 53 knots / 61 mph on 16 Jul 12:13 from NNE (26 deg)
<b>Prevailing Direction for Month:</b> WSW
<b>Surface</b>
<b>Total Rainfall:</b> 16.8 mm / .66 in
<b>Total Snowfall:</b> 62 cm / 24.2 in
<b>Greatest Depth at Snow Stake:</b> 98.6 cm / 38.5 in
<b>WMO Sea Ice Observation:</b> More than 20 bergs, with bergy bits and growlers around station. Some sea ice (frazil and ice rind) is slowly beginning to form at the ends of Hero Inlet and Arthur Harbor
<b>Average Sea Surface Temperature:</b> -1.26 °C / 29.7 °F