

## **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° -64.047440° 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.

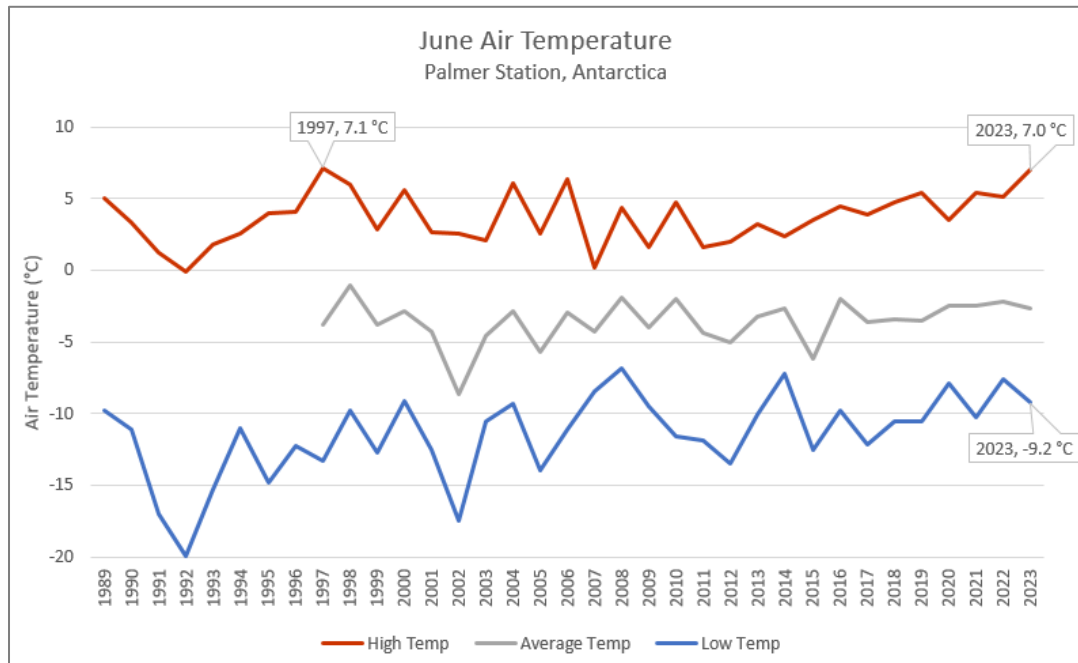
One minute weather data is archived on the AMRC website:

<http://amrc.ssec.wisc.edu/data/ftp/pub/palmer/>.

### Palmer Monthly Met summary for June, 2023

Temperature
<b>Average:</b> -2.7 °C / 27.1 °F
<b>Maximum:</b> 7 °C / 44.6 °F on 2 Jun 19:38
<b>Minimum:</b> -9.2 °C / 15.44 °F on 23 Jun 03:46
Air Pressure
<b>Average:</b> 989.7 mb
<b>Maximum:</b> 1009.7 mb on 29 Jun 23:05
<b>Minimum:</b> 963.6 mb on 10 Jun 21:57
Wind
<b>Average:</b> 10.4 knots / 12 mph
<b>Peak (5 Sec Gust):</b> 53 knots / 61 mph on 19 Jun 08:28 from NE (35 deg)
<b>Prevailing Direction for Month:</b> NNE
Surface
<b>Total Rainfall:</b> 26.9 mm / 1.06 in
<b>Total Snowfall:</b> 52 cm / 20.3 in
<b>Greatest Depth at Snow Stake:</b> 42.8 cm / 16.7 in
<b>WMO Sea Ice Observation:</b> 1-5 bergs, bergy bits, growlers, brash ice, grease ice, and pancake ice
<b>Average Sea Surface Temperature:</b> -0.7 °C / 30.7 °F

On Jun 23, the air temperature reached -9.2 °C, the coldest since September 2021. Nonetheless, warming trends continue. The high temperature this month was the second highest on record for June (1989-present), at 7.0 °C. (The highest was 7.1 °C in June, 1997.) In addition, June's sea surface temperature was the warmest on record (2005-present), at -0.7 °C.



**Figure 9.** Palmer Station June air temperature, 1989-present.