

## Meteorological Services

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- The 12z upper air balloon launch was terminated on the 3<sup>rd</sup> due to the completion of WINFLY operations at McMurdo Station.
- The Campbell-Stokes Sunshine Recorders were taken out of storage and placed on the roof of the B2 Science Lab on the 18<sup>th</sup> for summer use. Due to the low sun angle and lack of burn/trace on the suncards, the meteorologists estimated the amount of sunshine each day from sunrise through the end of the month.
- Sunrise occurred on the 21<sup>st</sup> at 0553UTC. The time of sunrise is based on the US Naval observatory time as sunrise was obscured by clouds, freezing fog, and blowing snow.
- A network outage at ARO on the 24<sup>th</sup> caused a loss of all weather data from the Clean Air tower between 0641UTC and 1006UTC. The outage was caused by a blown server switch. Data collection resumed as normal once the blown switch was replaced.
- All routine data collection and reporting activities continued as normal.

### *Weather: September 2011*

Temperatures:	Date	
Average		-59.5°C / -75.1°F
Departure from Normal		-0.5°C / -0.9°F
Maximum	09/30/11	-38.3°C / -36.9°F
Minimum	09/15,16/11	-72.8°C / -99.0°F
Station Pressure in millibars		
Average pressure		677.8 mb / 20.015 in. Hg
Departure from Normal		+2.0 mb / +0.059 in. Hg
Highest pressure	09/10/11	691.9 mb / 20.432 in. Hg
Lowest pressure	09/18/11	660.9 mb / 19.516 in. Hg
Physiological altitude in feet and meters:		
Average physio-altitude		10,712 ft/ 3,265 m
Highest physio-altitude	09/18/11	11,359 ft/ 3,462 m
Lowest physio-altitude	09/10/11	10,184 ft/ 3,104 m
Visibility:		13 days with ¼ mile or less
Wind:		
Average Wind Speed		15.9 mph / 13.8 knots
Maximum Gust	09/27/11	58 mph / 50 knots
Maximum Gust Direction		Grid North
Vectored Wind Direction		049 degrees
Vectored Wind Speed		9.7 knots
Prevailing Direction		Grid East or 100 degrees

## **\*\* Records\*\***

Day 21: The peak wind speed of 41 kts/47mph broke the previous record of 40 kts/46mph set in 1989.

Day 21: The average daily wind speed of 26.6kts/30.6mph broke the previous highest average daily wind speed record of 21.0kts/24.2mph set in 1989.

Day 22: The peak wind speed of 37kts/43mph broke the previous record of 36kts/41mph set in 1960.

Day 22: The average daily wind speed of 25.2kts/29.0mph broke the previous highest average daily wind speed record of 20.9kts/24.1mph set in 1963.

Day 24: The peak wind speed of 31kts/36mph broke the previous record of 29kts/33mph set in 1963.

Day 25: The peak wind speed of 45kts/52mph broke the previous record of 37kts/43mph set in 1958.

Day 25: The daily average wind speed of 29.4kts/33.9mph broke the previous highest average daily wind speed record of 23.8kts/27.4mph set in 1958.

Day 26: The peak wind speed of 46kts/53mph broke the previous record of 35kts/40mph set in 1989.

Day 26: The daily average wind speed of 31.7kts/36.5mph broke the previous highest average daily wind speed record of 22.3kts/25.7mph set in 1989.

Day 27: The peak wind speed of 50kts/58mph broke the previous record of 35kts/40mph set in 1997.

Day 27: The daily average wind speed of 27.0kts/31.1mph broke the previous highest average daily wind speed record of 20.5kts/23.6mph set in 1997.

The peak wind speed of 50kts/58mph broke the record for the strongest September peak wind gust. The previous record of 45kts/52mph was set on September 16th, 1965.

The daily average wind speed of 31.7kts/36.5mph recorded on September 26th broke the record for the highest average daily wind speed for the month of September. The previous record of 29.7kts/34.2mph was set on September 16th, 1965.

The peak wind speed of 50kts/58mph broke the record for the all-time strongest wind speed at South Pole. The previous record of 48kts/55mph was set on August 24th, 1989.