Meteorological Services

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- The meteorologists replaced the AT/RH#1 sensor with another calibrated unit on the clean air tower on April 3rd. This was done due to a malfunction of the aspirator fan motor.
- A network server switch crashed on the 10th, causing the TDAU server to shut down. All meteorological data between 1930 and 2108 local was lost. Local weather observation data was estimated during this time.
- The meteorologists replaced the AT/RH#1 sensor with a second calibrated unit on the clean air instrument tower on the 15th. This was done due to another malfunction of the aspirator fan motor. Once the fan was brought inside and allowed to warm up, it was connected to a battery source and was found to be operational. This led to the conclusion that the grease applied to the bearings was not removed during testing and calibration by SPAWAR personnel during the summer season. The grease applied to the bearings is not able to withstand the harsh temperatures at Pole, and needs to be replaced with a Teflon spray, as is done on the NOAA meteorological equipment.
- The anemometer located on the skiway instrument tower was replaced with a calibrated unit on the 15th. This was done due to extended periods of data dropouts being recorded on the AWA readout. The problem was initially noted in mid-March however, replacement was delayed due to extended periods of blowing snow and cold temperatures, as well as awaiting consultation with both SPAWAR and Mesotech support personnel. Since replacement, the data dropouts have returned and troubleshooting has resumed in an attempt to find the root cause of the data dropouts.
- All routine data collection and reporting activities continued as normal.

Weather: April 2012

Temperatures:	Date	
Average		-59.6°C / -75.3°F
Maximum	04/26/12	-44.6°C / -48.3°F
Minimum	04/07/12	-73.5°C / -100.3°F
Station Pressure in millibars:		
Average pressure		678.0 mb
Highest pressure	04/08/12	686.8 mb
Lowest pressure	04/13/12	669.4 mb
Physiological altitude in feet and meters:		
Average physio-altitude		10,706 ft/ 3,263 m
Highest physio-altitude	04/13/12	11,031 ft/ 3,362 m
Lowest physio-altitude	04/08/12	10,374 ft/ 3,162 m
Visibility:		0 days with ¼ mile or less

Wind:		
Average Wind Speed		9.9 mph or 8.6 knots
Maximum Gust	04/25/12	33 mph or 29 knots
Maximum Gust Direction		Grid North
Vectored Wind Direction		71 degrees
Vectored Wind Speed		6.7 knots
Prevailing Direction		Grid Southeast

**** Records****

6th: The temperature of -73.4°C/-100.1°F broke the previous minimum temperature record of -71.7°C/-97.1°F set in 1982.

6th: The temperature of -73.4°C/-100.1°F broke the record for the earliest recording of -100.0°F at South Pole. The previous record of -75.2°C/-103.4°F was set on April 7, 1982.

25th: The peak wind speed of 29 kts/33 mph broke the previous record of 27 kts/31 mph set in 1992.