

ASC Meteorological Services

Winterover: Jeffrey De Rosa (SPO-Met@usap.gov)

Quantity	Date	Value
Temperature		
Average		-26.1°C (-15.0°F)
Maximum	23 Dec	-17.8°C (0.0°F)
Minimum	3, 4 Dec	-37.4°C (-35.3°F)
Wind		
Average Wind Speed		12.3 mph (10.7 kts)
Prevailing Direction		Grid North 020°
Maximum Wind Gust	26 Dec	34 mph (30 kts)
Maximum Wind Gust Direction		Grid Southwest
Average Vectedored Wind		021° at 8.0 kts
Atmospheric Pressure		
Average		681.0 mb
Highest	14 Dec	693.8 mb
Lowest	7 Dec	670.5 mb
Physiological Altitude		
Average		3,228 m (10,591 ft)
Highest	7 Dec	3,349 m (10,989 ft)
Lowest	14 Dec	3,082 m (10,112 ft)
Visibility		
		3 days with 1/4 mile or less

Notes

- Installation of the FMQ-23 has occurred. The skiway tower was raised to standard height. However, fans have already stopped working on the temperature sensors. Consequently, our temperature is reading approximately 3°C warmer than they should on windy days, and much more than that when the wind subsides. The Met department is currently using NOAA's data until a permanent fix occurs. NOAA's tower was also utilized to properly orient wind direction.
- A patch was installed on the upper air computer. Since that time, we've had an average of three flights per week terminating before the balloon completes its ascent. On 12/26 a radiosonde failed at 500mb with no indication of a balloon burst (no descent data). This flight was a dual launch with NOAA; their sonde reached 5mb.
- Pressure ports have been added to the skiway tower. The department will no longer add 0.6 mb to each weather observation's pressure reading.
- ActiveX and Macros in the department's Access database have been returned to their default settings by IT. This allows for secure continuation of use of this database for the near future. Moving forward, when exporting a Microsoft Word document from Access, we now need to save to the local computer, i.e. desktop, because the Visual Basic code won't properly save to the department drive with these new settings. The documents can then be moved from the desktop to the drives. The SOP has been updated to reflect this change.

- Training of the new RAs continued this month.
- Settings on the department's email account have been changed to filter station alarms. A popup window (and audible alarm) now appears when a "high/low trip" alarm occurs on station. This makes it easy to decipher when to contact facilities.
- A temperature error that altered the monthly average for May, 2021 by 0.5°C has been fixed in all areas up to and including that month's F-6. The new/corrected information has been disseminated.
- The Air National Guard has increased LC-130 flight operations to South Pole. Consequently, the research associates have been asked to take on longer shifts to help accommodate the needs of these flights; the one meteorologist on station is working all hours while flights are in the air.
- The Helium Half-Rack that was brought on SPOT 1 has been installed in the balloon inflation facility.
- Dual launches with NOAA continue at once per week.
- All other operations continued as normal.

Records

- 12/05: Daily peak wind of 31 mph (27 kts) breaks the previous daily peak wind record of 30 mph (26 kts) set in 2015.
- 12/05: Daily average wind speed of 15.4 mph (13.4 kts) breaks the previous daily average wind speed record of 15.0 mph (13.0 kts) set in 1985.
- 12/17: Daily peak wind of 30 mph (26 kts) ties the previous daily peak wind record set in 1996.
- 12/17: Daily average wind speed of 18.7 mph (16.2 kts) breaks the previous daily average wind speed record of 17.8 mph (15.5 kts) set in 1996.
- 12/18: Daily peak wind of 33 mph (29 kts) breaks the previous daily peak wind record of 29 mph (25 kts) set in 1982.
- 12/22: Daily peak wind of 33 mph (29 kts) breaks the previous daily peak wind record of 32 mph (28 kts) set in 2004.
- 12/22: Daily maximum temperature of -17.8°C (0.0°F) breaks the previous daily record of -18.0°C (-0.4°F) set in 1980.
- 12/26: Daily peak wind of 35 mph (30 kts) breaks the previous daily peak wind record of 30 mph (26 kts) set in 1965.