

ASC Meteorological Services

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Weather

Quantity	Date	Value
Temperature		
Average		-28.7°C (-19.7°F)
Maximum	Dec 20 & 21	-22.3°C (-8.1°F)
Minimum	Dec 1	-35.3°C (-31.5°F)
Atmospheric Pressure		
Average		682.6 mb
Highest	Dec 3	694.9 mb
Lowest	Dec 25	671.2 mb
Physiological Altitude		
Average		3,210 m (10,530 ft)
Highest	Dec 25	3,341 m (10,962 ft)
Lowest	Dec 3	3,075 m (10,090 ft)
Visibility		
		2 day with 1/4 mile or less
Wind		
Average Wind Speed		9.0 mph (7.8 kts)
Maximum Wind Gust	Dec 8	22 mph (19 kts)
Maximum Wind Gust Direction		Grid North
Average Vecteded Wind		354° at 5.4 kts
Prevailing Direction		Grid North 010°

Notes

- The department established new safety protocol pertaining to balloon launches and unannounced tourist flights. Station management has communicated our balloon launch times to the companies. In return, we will not launch outside those two-hours per day
- Smartcard enforcement began this month. An exception has been made for the upper air computers in the BIF
- The Python script for backing up monthly files has been eliminated. The process has been simplified
- A request from AMRC helped discover a corrected error in average temperatures from 1982. These files will be fixed locally in all appropriate forms. The department is now investigating other potential errors

- A Helium inventory has been conducted. It is confirmed we have a full half rack (in addition to the Helium cylinder status posted above) going into the winter of 2024. The Helium log has been updated
- Protocol for training of RAs has been revamped. The results are that RAs are far more advanced at this time of the year than they have been in years past
- A change in the “AMPS” models occurred on December 11th. Communication with UCAR disclosed these changes will equate to higher percentages of humidity shown on the models. South Pole Meteorology disseminated this information to other continental organizations who use the data. In the short-term, it seems the models have become less accurate and/or more difficult to interpret
- NASA’s Micropulse Lidar (MPL) which is located at ARO has been fixed. Meteorology has been granted access to use this device. The result will be improved accuracy in coding cloud heights and providing pilots information about thickness.
- All computers in the meteorology department have been upgraded from eight to sixteen GB of RAM.
- Dual launches with NOAA now occur approximately every ten days.
- All other meteorological operations continued as normal

Records

- The daily average sky cover of 6/8ths ties the 1993 daily average of 6/8ths for the most coverage for the month of December.
- The number of clear days (1) breaks the record for least amount of clear days of 2 previously set in 1993.