

SITREP 5, December 18, 2011, Day 26 at WSD

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Written at WAIS Divide

I. Passenger movements

A. SCO

1. Jeff Severinghaus, Giff Wong and John Fegyveresi arrived in McMurdo on schedule. Logan Mitchell transitioned from Taylor Gl. to McMurdo. Their flight to WSD is scheduled for Tuesday, 20 December.
2. Frank Urban returned to McMurdo and redeployed to the CONUS as scheduled

B. IDDO

1. C. Zander arrived from McMurdo on D017

II. Cargo Movements

A. Cargo arriving from CONUS

1. N/A

B. Cargo arriving from McMurdo

1. Ice core boxes

III. Camp Activities

- A. Current camp population, 37, 6 T-350, 1 I-477, 1 I-122, 3 I-161, 3 I-162, 1 I-168, 1 O-283, 16 RPSC, 5 NANA; All is well
- B. Camp continues to be kept in outstanding condition. This was our first week without 20+ knot winds.
- C. The 953 Cat has been repaired, even though the wrong parts were sent from McMurdo. The Pisten Bully is being repaired. "Unavailable" parts were found and arrived from McMurdo on Thursday.
- D. The D-4 has broken down halfway between the Arch and town. No word on the seriousness of the failure. With one person to maintain all the heavy equipment and the two diesel generators it might take some time for repairs to be made. Shawn Duheme deserves a special thanks for his work at camp. Above his normal work schedule he worked with the seismic team all Friday night turning the generator off and on during our shooting schedule. Meanwhile during the night, in his "spare time", he also repaired the 953. Without Shawn's hard work, science at WAIS would grind to a halt.
- E. Work on the third Arch access door (the Moose door) has moved forward. The surface was graded down about 10 to 15 feet and the chute to the door down another 20 feet. I am hopeful that with the 953 working again the door will be opened by Wednesday, even if the PB is not working. Loss of the D-4 may pose a challenge though.

- F. Both Arch doors are cleared and the grades are in good condition.
- G. The processing-side freezer units are running.
- H. The generators have been monitored by Camp Staff, and have suffered no further shutdowns.
- I. Two science teams (A-108 and A-357) were able to depart camp having finished their work ahead of schedule (again, thanks to the efforts of the Camp Staff). O-283 arrived and started work on maintaining the AWS.
- J. Ryan Bay presented a talk at our Monday Night Science Series.

IV. Drill Depth and Time

- A. T-350 has completed work spooling and terminating the new cable.
- B. Two McMurdo Carpenters arrived to reinstall the ductwork that had to be removed during widening of the drill trench. That work should be completed by Monday.

V. Status of Drilling (# of runs, meters of ice drilled, core quality)

- A. If all goes well this week I expect to start drilling on schedule.

VI. Status of Borehole Logging

- A. The second round of logging was completed.
 - 1. Temperature logging; Additional temperature experiments were carried out and the critical work of calibrating depth was completed. This was a two day task measuring the cable which then required significant analytical effort. This work was carried out while logging continued. Frank Urban departed and will be missed.
 - 2. No additional optical logging was done as the optical experiment was completed in the first round of logging.
 - 3. The sonic logging tool was successfully repaired with one transmitter (of two) disabled. A log was obtained to the bottom and back. One receiver (of two) stopped working on the way up. An additional log may be attempted this coming week if the work around the borehole is completed and time allows.

4. A second seismic VSP (Vertical Seismic Profile) was completed. The seismic team worked some very long days in order to prepare for one night of shooting. The experiment started at 8 PM Friday night. Shots were taken at five locations with the borehole seismometer at each of eight depths. The shots were taken over a 30 minute period with one hour allowed for travel of the seismometer tool to the new depth. During the shooting interval the camp generator was shut down and all vehicle traffic halted. One interval was missed during the arrival and departure of an LC-130. The experiment was completed at 8:30 on Saturday morning. Thanks to the camp staff for bearing with the interruptions caused by this effort. It would not have been possible without the cooperation of the camp.
5. For future reference; we need to remember to include time in the schedule for analysis of data. Both the temperature measurements and seismic data have required significant time to analyze. Meanwhile there is other work on the schedule as well. Arriving at a measurement of ice remaining at the bottom of the borehole has been one of the more difficult analytical challenges of the season. The borehole temperature numbers were provided to Jeff via Iridium today by Gary (our internet was down today) and the results of the seismic work should be released very shortly.

VII. Other

- A. The original duct work is being replaced and should be completed in time for the drilling to start on schedule.
- B. The third Arch access should be opened in order for drilling to start on schedule.
- C. Safety continues to be a primary focus of all residents at WAIS Divide.
- D. K. Dahnert, E. Morton, G. Clow and D. Voigt have continued to inspect the worksites at the Arch and Logging Winch to evaluate progress and assess the work environment. Safety concerns have been addressed with the Camp Manager and corrections continue to be made. Special concern is directed towards areas around the Arch where excavation is ongoing. During periods of flat light and poor surface definition changing surface topography presents a particularly serious problem. Even small drops on the surface can be very dangerous on a snowmobile.

VIII. Special thanks go out to Dean and all of the camp staff for their continued effort to make Science a priority at WAIS Divide.