

SITREP 8 - January 9, 2011
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Written at WAIS Divide

- I. Passenger movements
 - A. SCO
 - 1. K.Taylor (PI), M.Twickler and TJ Fudge arrived WSD on 07Jan.
 - 2. M.Stan and J.Polk (NSF Media) also arrived WSD on 07Jan.
 - B. NICL
 - 1. n/a
 - C. IDDO
 - 1. J.Johnson arrived WSD on 05Jan.
- II. Cargo Movements
 - A. No ice has been retro'ed back to MCM since the occurrence of a potentially warm cold deck on 23Dec.
 - 1. Negotiations are on-going to identify, evaluate and resolve any potential shortcomings to the overall process of returning ice to CONUS via MCM from WSD.
- III. Camp Activities
 - A. Current camp population as of 09Jan is 43: 15 RPSC, 4 NANA, 10 I-477, 1 I-478, 10 T-350, 1 I-157, 2 NSF (Media).
 - B. I-157 is ready to depart "Site 2" for their "Site 3" via KBA Basler. Unfortunately, weather and scheduling have thwarted their recent efforts.
 - C. PIG Traverse returned to WSD ... briefly. A couple days of well-deserved R&R in beautiful WSD was all they could afford before hitting the cold, snowy road back to Byrd.
 - D. Drilling? Yes we are. Making a difference? With every run!
- IV. Drill Depth and Time
 - A. 2892m and ~33.4kyr as of 0730, 09Jan (per T.Neumann's calculation using standard Nye correction).
- V. Status of Drilling (# of runs, meters of ice drilled, core quality) [operationally from 01Jan to 09Jan]
 - A. 38 Runs (Run 1578; drill was down for approximately 3.5 days)
 - B. 112m of ice drilled (Section 2866, as of 0730, 09Jan)
 - C. Core quality remains excellent. The core diameter has remained consistent (121.6 to 121.7 mm). Run breaks have been good to fair (some spalling has occurred off the dog marks).
 - D. FED performance is regularly monitored (cleanings occur when fluid extraction capacity diminishes).
 - E. Cloudy "bands" continue to appear in the core. Though none have been as distinct as the band in our 2nd core of the season, there have been runs with multiple bands.

- F. The drill was down hard this week due to a kink in the cable; this will be addressed by the IDDO representative (DISC: K.Dahnert/J.Johnson) in their weekly SitRep. Suffice it to say that everything is going well now, post cable/fiber optic terminations, and we are drilling as I type up this SitRep! Those drillers are an amazing lot, and they deserve HUGE kudos!
- G. Extra caution is being exercised when logging ice core "chips" and "pieces" for "missing" chips and pieces can potentially act as foreign object debris (FOD) to the drill. It is possible that the drill (sonde) was most recently put down by some FOD "floating" in the borehole that jammed the sonde against the borehole during descent, kinking the cable.

VI. Other

- A. The SCO team continues to streamline and improve operations via daily meetings that discuss safety and procedural challenges.
- B. There was a "warm" cold-deck on the 23Dec ice retro flight into MCM. Skids 17-20 of I-477 and 2 skids of I-158 were affected (though I-158 were transporting firn cores, so hopefully the spike in temperature will not be too detrimental). The effects are as yet unknown, but we now have loggers from all the pallet positions and 2 "interior" loggers from inside the ISC boxes.
 - 1. We are still on a temporary "no-go" for ice retro flights from WSD to MCM. "Go" status will be granted upon satisfactory procedural mitigation on the part of the ANG, Fixed Wing, SciCo, WSD Camp and the SCO. K.Taylor, who is now at WSD, will likely deal with the situation in-person (on the MCM side of things) and declare the "go" status, if earned.
 - 2. G.Hargreaves, who is now in NZ (somewhere fun!), had "read" two loggers placed in the top-most boxes of the aforementioned "skids"/AFPs. Temperatures from one box were slightly warmer than -20C for 4 hours, but temperatures from another box were warmer than -20C (peak of -7C) for 12 hours.
 - 3. K.Taylor is looking to initiate some procedural changes in the protocol so as to sufficiently "cold-soak" the aircraft. We hope to be able to test on-board temperatures right before cargo on-load to see how cool the aircraft is. We have at our disposal a high-end Omega temperature probe on-site.
- C. The drill was, unfortunately, down hard for a significant portion of this past week. ~86 hours.
 - 1. V.Gkinis and T.Cox helped adjust the WSD satellite dish to improve the camp's Internet connectivity. They effectively gained 1.5 hours of Internet!
- D. Still waiting (for good weather, mainly) to send some I-157 ice back to MCM. We currently have 7 ISC boxes waiting for some "Site 2" ice ... due to the weather, their cargo estimate has grown from 9 to 12 to 14 to ... ?
- E. We observe a discrepancy between the Euro Marks (and associated "absolute depths") and the Cut Marks (and their associated "absolute depths"). Without

- going into the details, Euro Marks are made on the whole centimeter and Cut Marks are made on the whole meter. We have noticed (over the past ~250 meters) a trend between the two that indicates a 10mm "discrepancy". Rough calculations for the season would put the total discrepancy (from this one component) at 25mm. We feel this is due to how we are cutting the ice on the Cut Mark, and that the Euro Mark (and associated "absolute depths") are holding "true" for this season and that, if anything, the Cut Marks (this season) may be migrating 1mm every 25 meters.
- F. Shift work continues ... albeit with one major change. We will be shifting to three shifts of "eight" starting next week. Discussions (formal and informal) occurred to monitor the efficacy of 2 "twelves", and we implemented a number of mitigation measures to counter potential fatigue in our operations. With T.Fudge at WSD, we are anxious to reduce our work load to a more civilized 8-hour day.
1. Mid-season "evaluations" (conversations, one-on-one and group) occurred, both as part of the "8 v. 12" debate and to see how the crew is doing.
 2. H.Roop, B.Bencivengo and myself have discussed the time-management required of QA/QC, outreach and general core-handling oversight. We feel we've come up with an efficient way to deal with the requirements set forth this season.
 3. H.Roop and myself "switched" schedules so as to cover as much of the working crews as possible while still maintaining a decent sleep schedule.
- G. In addition to the drill being repaired, this week also saw a little more "spring" cleaning:
1. R. Kummelehne finished building a box to retro the MK aluminum.
 2. Balluffs were calibrated every ~36 hours (once with a fiberglass measuring tape and the rest with a steel measuring tape) and the Omega thermometers were calibrated once.
 - A trial of the fiberglass measuring tape revealed an inherent 'stretch' that was deemed unacceptable. A metal measuring tape is now the 'official' Balluff calibration stick.
 3. 4 "skids" of I-477 are on an AFP, with an additional 2 "skids" topside. We have cleaned up the Arch along the south wall to accommodate as much ice as possible without having to use the basement. Should we need it, however, the basement is ready to receive full skids of ice core.
- H. H.Roop provided WSD Camp with a "Sunday Science Lecture" (02Jan) discussing ice cores, lake sediments and climate.
- I. H.Roop hosted the 2nd of 3 PolarTREC events on 08Jan (07Jan in CONUS). This one was about "camp life" and there were many in attendance (from WSD) and roughly 600+ participants via the internet!
- J. J.Fegyveresi, B.Bencivengo & myself extended the casing for WDC05A.

- K. Regarding I-157's ice cores ... we have a 7-box "skid" sitting on an AFP now. We are awaiting a planned deep-field retrograde flight of I-157 ice to arrive to make a 3-skid AFP. This will go first, on its own, when we resume cold decks.
- L. Hand planers were delivered from MCM (thank you, Carp Supply). A test was done to discern any difference between the power planer and the hand planer. It has been decided that the hand planer is more suitable for our 1m-resolution, isotope sampling plan.
- M. New Year's good tidings in the form of D.Ferris' charity fundraiser. This year WSD raised \$2000!! For comparison's sake, MCM's Women's Soiree (an annual charity fundraiser) raised ~\$1800 last year. WSD has roughly 40 folks and MCM has over 1500 folks! Half of the monies will be going to a NZ-based charity assisting with earthquake relief ... and the other half will go to a charity of the iTouch winner's choice. In addition to the grand prize iTouch, there was a signed print from last year's Artist in Residence (A.McKee), a signed copy of ALONE (book by Adm. Byrd), and a vintage GISP2 patch. Cheers, from WSD!!