

SITREP 12, February 3, 2013; Written at McMurdo

Donald Voigt, SCO Rep., Chief Scientist at WAIS Divide

I. Passenger movements

A. SCO

1. John Fegyveresi and Emily Longano departed McMurdo on Tuesday.
2. Brad Markle accompanied the cold-deck flight on Thursday, 1/31, D032. He is scheduled to depart McMurdo on Monday, 2/4
3. I departed WAIS Divide on Friday, 2/1, D033, Day 71 at WAIS Divide

B. IDDO

1. N. Mortensen departed WSD on D031.
2. The remaining IDDO personnel departed on D033

II. Cargo Movements

A. Incoming; none.

B. Retro; Ice Core (see below), NICL bound cargo and personal gear.

III. Camp Activities.

A. All three access-ways to the Arch have remained open.

B. Elizabeth Morton (IDDO Safety Officer) and I continued to inspect the Arch and surroundings for Safety issues until the last day in camp.

C. Camp remains in very good condition thanks to continuous grooming and attention by the camp staff.

D. The skiway remains in good condition.

E. The Arch Jamesway was brought down on Tuesday, Science on Thursday.

F. The freezers were running normally and temperature was holding at -25°C to -28°C .

- G. The 225 kW generators were brought down for the season on Friday after the freezers were shut down.
- H. Fuel in camp as of COB 1/31; Bladders, 12,674 gallons. Fuels reports that they have move 114,000 gallons of fuel this season.

IV. Status of Drilling

We had a problem when we tried to clean the chips from the bottom of the main hole and came very close to sticking the replicate coring drill due to ice refreezing on the drill head. We think the chips behaved like toothpaste when the drill tried to core, and oozed around the head rather than cutting like ice would. The chips then refroze on the cold drill. Tension on break was about 36,000 N which is within 2,000 N of the highest core break seen, even though there was no core to break, just chips. There are still about 12 meters of chips in the hole; touch-off was at 3393 meters.

We continued with cleaning runs overnight Monday and considered the problem. Tuesday morning we switched to the configuration with the DISC coring head used for drilling the main borehole. We were only able to get to a depth of 2498 meters before having to ream. This proceeded at a rate of 20 mm/sec. Given the remaining depth to the chip pack, the volume of chips that would be produced by this process and the time available it became clear that we would not reach the bottom. I decided that our best efforts would be in vain and that it was time to call it a season.

- A. Packed and loaded the final ice from replicate core #5. Built the rest of the skid, blanketed and netted AFP#2 with the help of camp staff.
- B. Prepared retro cargo. Because of flight limitations I am limiting the amount of retro cargo going out and packing the rest into the Arch.
- C. Cold deck was scheduled for Wednesday night. Conditions were perfect, -28°C and overcast. The first pallet was brought out of the Arch and the second on the forks when the flight returned to McMurdo due to mechanical.

D. The cold deck was rescheduled for a 10:30 off-deck on Thursday. They launched on time with an ETA of 1:25. Conditions were not as good during the evolution but ambient temperatures were -18°C and dropped two degrees while the aircraft was on the ground. The pallets left the Arch at noon to 12:30 and were loaded at 2:00 and 2:15. Flight deck temperatures were 25°F and dropping 30 minutes before landing. At my request, Brad Markle was permitted to accompany the ice back to McMurdo. The wait for loading the aircraft was interminable, but all went well and Brad reported that the transfer into town went smoothly. I received the temperature loggers from Michael Davis but have not had a chance to download them yet. Michael reports that all went well on the McMurdo end, and I thank him for his efforts in looking after our priceless core.

V. Flights; We have been reduced to six flights for camp pull-out. This raises concerns for the amount of cargo that can be taken from camp and for the amount of fuel that we will be able to stage for next season.

Monday; D031, pax out, took 500 gallons of fuel and cargo (next season's food).

Wednesday; D032 CNX.

Thursday; D032, cold deck plus two cargo pallets. Brought fuel (2800 gallons), one passenger departed to accompany ice.

Friday; D033, 21 passengers plus two pallets.

VI. Other

A. Our early finish allowed IDDO to get a jump on deconstruction and packing of the drill.

B. Limited flight deck space has reduced the amount of retro cargo that could be sent out. We were only able to take two pallets on our pull out flight and there is one pallet of IDDO and SCO equipment that needs to come out of WAIS in order for me to depart McMurdo.

C. Geordan McQuiston (ASC Carpenter Foreman) arrived on D032 to inspect the Arch for consideration of how deconstruction would proceed and what equipment would be required.