

**Subject: Scholes cabin 5: Briefings**

**21 December 2009 8:25 UTM 65.0736 S 10.5394 E**

Dear Stirling,

As we approach the unloading area we have lectures every day. The first two days were presentations by the various teams about their plans for the next six weeks. Monday we learned about environmental rules, Tuesday is snow safety, and Wednesday is helicopter safety. It has mostly been very interesting.

The deconstruction crew who will be dismantling the old German base at Neumayer have a huge task - I don't know how they will achieve it in the time they have. But they are all very competent and tough. The base is in two giant horizontal steel tubes, 20 m down in the ice. The tubes will stay in place, but all the contents have to be stripped out, not spilling a drop of oil or water, then shipped back to South Africa for disposal. The actual rooms inside are built out of shipping containers, slid in on rails, bolted together, and connected to plumbing and electricity. About a third of the containers will be recycled as a South African emergency base at Neumayer, this time mounted 4 m above the ice on jacks that can be lifted every year to keep them from being buried.

The snowcat drivers will also work really hard. Several hundred tonnes of supplies and 450 000 litres of fuel need to be ferried to SANAE IV. That is 315 km one way (40 hours) from Neumayer, or 175 km (24 hours) from Penguin Bukta where the fuel is pumped off the ship into big tanks on sleds. The drivers are from the army (Tiffies!) and navy. They work continuously, two per caterpillar, no matter what the weather. If it is a blizzard, they navigate blind, using GPS, and hope to miss the crevasses!

Most of the research at SANAE IV relates to the ionosphere - the upper layer of the atmosphere, where particles from the sun interact with the Earth's magnetic field. There is also a team from University of Stellenbosch who are putting up a wind turbine, specially designed for high winds and low temperatures. The only people doing fieldwork away from the base are Ian Meiklejohn, my cabin mate, who is studying the melting of permafrost as a result of global warming, and Jen Lee, looking at the spread of living things between the little rocky islands that stick up above the snow. It is amazing to me that anything can live there at all.

The overwintering team were practicing mountain rescue on the helicopter deck yesterday - abseiling over the hanger doors and prussiking back up with stretchers. They need the practice.

We had drama with our iron-sampling fish this morning - for the second time, we struck an ice-floe. This time the boom broke, but with lots of help we managed to save the equipment to sample another day.

Missing you and Mom,  
Dad