

Subject: Scholes Cabin 5 (P): Neighbouring bases

7 December 2010 1216 UTM Atka Bukta

Dear Stirling,

Yes, we are still confined to our little watery patch, hemmed in with ice all round. A lovely still, occasionally sunny day, today. I was almost warm as I stood on the poop deck doing the UCTD. We also did a full sample with Rose today, so everyone is a bit less grumpy since they have work to do.

Sandy, the oceanography team leader, had a chance to visit SANAE IV by helicopter. It was meant to be just a one hour fly-in-fly-out trip, but the weather kept her there overnight, and then she flew to Neumayer III because it was too windy and snowy to land on the ship. While she waited for the weather to clear they drove her over to Neumayer II, the old German base that a South African team are dismantling and turning into a new South African emergency base. So she saw three bases in two days, and showed us all her pictures when she got back.

I won't say much about SANAE IV, because I may get lucky and see it myself. I think it was the first of the 'new design' bases that stand on stilts above the snow. If the legs are at least 4 m tall, the snow does not build up, but blows right through. The old SANAE bases, like almost all the other Antarctic bases, was built dug into the snow. It then gets buried deeper and deeper, so each year you need to add another length to the access shaft, and more stairs. Eventually it becomes unsafe because of the ice pressure, which buckles the walls. It is also a bit unpleasant, because there are no windows. SANAE III and Neumayer II both had to be abandoned.

Neumayer III looks just like an ocean liner. It is three stories high, and stands on hydraulic stilts. Every year they lift every alternate stilt and pack snow under it, then push up and do the other stilts. That way the whole structure peeps up with the rising snow level. The snow tractors live under the base, in a 'parking garage' with snowy walls, and a giant trap door, like a drawbridge, to keep the snow out. Inside it looks a bit like a modern office block - all bright colours and polished corridors. Sandy had a delicious German breakfast of three different types of freshly-baked rolls, and cold meats and cheeses.

The unbuilding team at Neumayer II has been doing a great job! They have dismantled the innards from one of the two underground tubes (the tube itself will remain in the ice), and have started to build the new aboveground station using the spare parts. It will be what is called an 'e-base', which is short for 'emergency base'. The big worry here is fire. The bases are often built of flammable material, and there is always lots of diesel and jet fuel around. If your base burns, you have nowhere to stay and probably lose your food, clothing and communications too! So it is a good plan to have a separate base, stocked with fuel and rations, in case you need it.

I hope you are having a good time at the seaside! Sometimes the ice looks just like a beach, and the blue water looks very inviting. But if I fell in I would need to be rescued in less than a minute, because the water is at -0.6 degrees C. The CTD tells us the water at 200 m is nearly as cold as seawater can get before it freezes.

Love,

Dad