

SANAE 51

THE NEWSLETTER OF THE 51st SOUTH AFRICAN NATIONAL ANTARCTIC OVERWINTERING EXPEDITION



**Photo courtesy of Lodewick van den Berg

VOYAGE AND TAKE-OVER

8 December 2012 - Official departure day for S51. Nervous excitement filled the air as we set off on our journey to the great white beyond...

HELLO'S AND GOODBYES

Jako Bester

All aboard...

On our departure day, the pier was abuzz with many voices and people eagerly organising their last luggage and spending some time with loved ones. Everyone gathered at the East Pier at the V&A waterfront to see off South Africa's historic ice-strengthened research vessel, the SA Agulhas, on her final voyage to Antarctica.

The 34 year old ship has been a cornerstone in South Africa's involvement in the Antarctic and southern oceans research and is due for retirement in 2012 when the new SA Agulhas II will be commissioned.



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The ship has had a long and illustrious career during her service of South Africa's research stations in Antarctica and the Gough and Marion islands as part of the South African National Antarctic Program.



The SA Agulhas with its crew of 40 can remain at sea for about 3 months and has a range of 17 000 nautical miles (28 000 Km). Cruising at a

speed 12,5 knots it would be taking us, team 51 and the complement of takeover personnel down to Antarctica at a steady pace.

After a unique ceremony, a few slight delays and some extended last minute goodbyes to loved ones, the ship threw of her bowlines and we departed into the horizon.

The initial up and down motion of the ship over the steady swells was initially something fun to get used to and allowed for a few laughs while taking some pretty pictures off the stern side. In the process you could easily pick out the unsure-

footed landlubbers amongst the passengers

However we all soon realised that the trip down south will most definitely not remain uneventful. The queue at the sickbay painted the



Seasickness had started to take its toll on most and even on some old hands...or should I say feet... or hands... wait, which side is up again?

picture quite adequately. Seasickness had started to take its toll on most and even on some old hands...or should I say feet... or hands... ...which side is up again?



This was also soon to pass, for some slower than others ... eventually most settled in and started to enjoy the amazing journey that so few

ever have the privilege to experience.



The journey was filled with breathtaking sights, sunsets, icebergs and the occasional curious local inhabitants as we neared the the Ice shelf, getting closer to our new home for the next fourteen months. ☺



FREEZING TRADITIONS

Stefanie Strachan

66.33°South, pam pam paam!! The dreaded initiation ceremony that nobody wants to give us any proper information on has finally arrived. Everyone crossing the

Polar circle for the first time will be a victim of the tradition...

It all started the night of the 18th of December with the Night of the Bears, where all the ship's passengers got sent to our cabins and told we had to stay there and wait, for what exactly, nobody was sure...The yelling, banging sounds, and screams from down

the corridor only increased the nervous excited feeling we all had. Then EVENTUALLY, after what felt like forever, seven HUGE cloaked and masked men burst into the room and threw us on the floor (yes threw, I totally had a blue bruise on my forehead to prove it!). They then emptied a few bottles of water out over us and if we even tried to move or



squirm we got a wack with a paddle or a nudge in the ribs with a boot. King Neptune's herald (aka Mr DCO) then entered and read out each person's (ridiculous) offense - these ranged from being the friendliest emo ever to liking the island life too much.

The ceremony continued the next day at 14:00 sharp. We all had to report to the Helipad to get our punishment and ask King Neptune if we may please pass over his Polar circle. Half naked and freezing, we were all very excited for whatever they had planned for us, so after some jumping around to stay warm, the

infamous Bears burst out of the hangar and started all the madness. Team 51 did manage to start a bit of an uprising by chanting our name, but

we were quickly silenced by an eager Bear with a paddle. Everyone had to lie face down till they read your name and sentence, you then got up (or got jerked up by the arm,

depending on the speed of your reaction or the distance between you and the closest Bear), got dunked in a bath filled with freezing sea water, got egged by King Neptune, floured by his wife,

smearing some really stinky mushy stuff, and then finally they squirted a Tabasco/vinegar mixture in your mouth. Thank goodness the last 'station' was a friendly face holding a hosepipe with clean warm water to wash off all the grossness before heading back to our rooms to take a very welcome shower.



Even though this ceremony was freezing and maybe a tad unpleasant, it was an incredible team bonding experience that none of us will forget any time soon! 🙏

FIRST TASTE OF ICE LIFE

Stefanie Strachan

It has been confirmed..the massive white expanse in front of us is in fact the infamous ice shelf we have been on the lookout for the past few days. Making it even more exciting was the fact that we could see another ship with actual living people on it. The Polarstern (German Antarctic research vessel) was offloading cargo at the ice shelf, so we would have to wait, hopefully not too long!

As soon as the Polarstern fired up its engines and rode off into the non-sunset, the Agulhas could dock and preparations for offloading started. First, would be the drivers accompanied by two of our team, Johan and Mike, then the cargo. All of the non-sensitive cargo that was brought from home had to be offloaded onto the ice shelf, loaded onto sleds, hooked by Challengers (of which some also had to be offloaded from the Agulhas), and hauled across 300 odd kilometers of snow and ice to SANAE IV. The sun was shining and the wind was playing along, so the cargo work could commence.

The rest of the team joined the excited



onlookers up on the monkey deck as the first Challenger was hooked by the crane. We could feel the weight of the load slightly swaying the balance of the ship as it was swung over to the ice. Next, another Challenger, then the Reefers with our food supplies for the year. Off in the distance we could make out two orange spots. It could only be the members of S50 coming from the SA summer station to meet us. Even more exciting was the news Jako brought us - the rest of our team will be joining the drivers on the shelf to help with the offloading.

So off to our cabins to prepare! Thermals, middle layer, freezer suit...wait how many layers of clothes do we need again?? Some of us were pretty clueless as to how warm we should be dressing for our first actual encounter with the ice. After some struggling with putting on Pampoenkoene and even worse, walking around in them, it was finally time to jump in the crane basket and get dangled in the air over freezing water while holding on for dear life.

Setting down on the ice, we were greeted by four members of S50, bearded and company depraved. They seemed happy to see the new faces. There wasn't much time for chit-chat though, the next load was ready to be off hooked and slacking was definitely not allowed. We would be helping to load the cargo onto the sleds and then hook the sleds onto the Challengers - which sounded much more complex back then!

Instructions and guidelines were coming from all sides, don't ever stand under the load, don't get your fingers caught between the pin and the safety clip; no, rather do it like this. Information overload!! We quickly got into the rhythm of what to do, when and how, and it even started to look more like fun than



work. It wasn't long before the layers of clothes started disappearing, apparently working up a sweat in -2°C is fairly easy.

After offloading about half of the cargo and sending back most of S50's waste drums, the weather report came in. It would appear that our spell of perfect weather will soon be over. The wind was picking up

slightly and the ship's crew was ready to pack up for the day - understandable since it was past dinner time already. So we said goodbye to the drivers and our two teammates, not knowing when exactly we will be seeing them again. Tired, hungry, and sun burnt we were swung back to the Agulhas - none of us being able to suppress the excited grin after this first taste of what the Antarctic life will be like.. ☺

ROAD TRIP - ANTARCTICA STYLE

Braam Beukes

Back in South Africa, our team was introduced to the heavy vehicles we were going to use in Antarctica and we had

heard about 'CAT trains', but none of us had any idea what it would be like to actually be on a CAT train.

CAT trains are basically where we ferry cargo and/or passengers from one point to

another by means of big tractors called Challengers. With these vehicles possessing tracks instead of normal wheels it makes them more adept at pulling cargo over the ice covered terrain in Antarctica. The vehicles vary from short wheel base to long wheel base but each of them have features that make them unique for the people operating them, almost a personality one might say.

One morning, having had almost no sleep the night before due to pumping diesel from the diesel bowsers into the bladders contained in the diesel bunker, I was requisitioned to partake in a CAT

exposure to what a CAT train was like from a previous trip, but this would be my first trip where I would

train to transport more diesel from the ship to SANAE. At least I had a little

get some sleep in the bunk behind the driver's seat. After tossing and turning for a while I sat up to admire the scenery going by.

As we were driving along admiring crevasses on a distant hill a loud noise jerked our attention to the front of the vehicle. Luckily Johan had the presence of mind to switch the vehicle off shortly after we heard the noise. Next, there where enquiries over the radio about why we suddenly stopped. Johan reported that we had heard something like an explosion coming from the nose of our Challenger.

be joined by a team mate and not an old hand.

Johan was to be my co-pilot on this arduous journey and our Challenger would be Challenger number 5. Challenger 5 is a long wheel base Challenger which means she handles the bumps better than the short wheel base Challengers. Our journey began with me trying to

Lucky for us Dolf (one of the old hands) was nearby in another Challenger and on his way to assist.

After Dolf arrived we had a look at the nose of the Challenger and we found that the batteries, which supply 24 volts, had exploded. I can still hear Dolf speaking to Essie over the

radio: "The batteries exploded" said Dolf. Essie's amazed reply: "What?"



Exploded?". These particular batteries were not essential for the operation of the Challenger we would find with relief.

It took us a while to clear up the mess. Only later would we discover the holes in our clothing eaten away by the battery acid we had inadvertently come into contact with. After that rude awakening, we were

on our way again. That is the nature of CAT trains, we would learn. You never know what can happen and the journey will definitely test you in one way or another.

The weather held up and although the journey was tough (getting stuck here and there), we had achieved what we had set out to do and brought back diesel

from the ship. We also got to know the drivers better, the men who come along for Takeover to do these trips year after year.

After a trip like this, you usually feel exhausted but learn to appreciate things a little more - Like a cup of steaming hot chocolate in a place where even your eye lashes freeze up. ☺

AGING ON ICE

Johan du Plessis

When you live on a continent as barren as Antarctica you really need to think hard what to give someone for his or her birthday. Here are no flowers to pick or shopping malls to scavenge. So long ago when SANAE was still an expedition, someone had a great idea for a birthday gift...he dug a hole in the ice. As overly minimalist as it sounds, it actually stuck and has become tradition at SANAE. I am holding out on a few details like the fact that the birthday boy or girl must undress into his or her swimming trunks (I am sure it was less friendly to sensitive viewers in the past) and climb into the hole so that his

team mates can cover him with ice. The ecstatic birthday boy or girl can then sip on a beer while his or her teammates sing "Happy Birthday".

The proceedings are normally over within a few minutes due to the fear for either a) criticism for trying to fly 2008 summer fashion past your teammates or b) frostbite.

Trying to get to the point: Jako took on this challenge for SANAE 51 in the true spirit of leadership, by doing it first. On the 13th of January Jako turned 29 and he got his, what is now called, snow bath.

Happy birthday Jako, may this be one of many, best years of your life!!! ☺



THE SNOW BATH PROCEEDINGS





ALL ABOARD...THE CAT TRAIN

Jon Ward

All our heavy vehicles and generators run on polar diesel. Regular diesel cannot be used in Antarctica as it has a wax lubricant, which solidifies in sub-zero temperatures and turns it into slush. Polar diesel, on the other hand, has a Teflon based lubricant, which can withstand the frigid temperatures.

The generators operate throughout the entire year and all the vehicles are used during the take-over period. Unsurprisingly, this requires large reserves of polar diesel to be available at the base. SANAE IV can store 600000 litres of polar diesel in six bladders that hold 100000 litres each. The bladders are situated inside the diesel bunker a short distance away from the main base. The fuel is then pumped up to the base as needed and temporarily stored in smaller tanks before use. It is estimated that the base uses about 300000 litres of polar diesel per year, so the reserves have to be replenished once per year during the summer take-



over. However, the base usually keeps enough diesel to last two years, just in case.

In order to get the diesel from the SA Agulhas into the diesel bunkers at SANAE, the fuel has to be pumped into free-standing 25 000 litre tanks, sitting on top of sleds, and towed nearly 170 km from the RSA

Bukta. Each sled can weight over 30 tonnes! Enter the Caterpillar Challenger, the workhorse of SANAE. These machines are extremely impressive and have been specially modified to cope with the cold weather; each Challenger can pull about 50 tonnes of cargo. The vehicle itself is actually quite easy to drive. The entire team received training in Cape Town before departure.

Pulling cargo, however, is a different story, a skill that comes with experience. Enter the Drivers, members of the Defence Force, who make the annual trip to Antarctica to operate the heavy vehicles and tow all the cargo and fuel to and from the SANAE base.



The vehicles all drive together with their sleds attached, one behind the other. Seen from afar, it resembles a train, a train of Caterpillars...a CAT train! Each CAT has two drivers, who usually take it in turns to drive and sleep. The cabins have been made larger so that there

is more space for the second driver to rest comfortably and to store adequate supplies for the journey. The trip

and then the fuel is pumped from the tanks on the Agulhas to the empty tanks up on the ice-shelf. This takes quite a long time and one has to keep a close eye on the fill levels before switching over to the next empty tank. During the first trip we were able to pump just over 270000l of the 400000l total.



The return journey takes about 25 hours, but of course this is weather and snow condition dependent. By this

to the RSA Bukta takes about 12 hours. The vehicles are equipped with GPS and the route is pre-programmed. The top speed of a Challenger is a mere 20 km/h and the return trip will take even longer with all the extra weight.

The fuel pumping itself is pretty straight forward. The system is first pressure tested to ensure no hoses are leaking

stage you are so tired that sleeping in a noisy, vibrating Challenger is no problem at all. This trip really made me appreciate and respect the work that the Drivers do for the entire take-over. They would head out again for the same trip in 24 hours! It also gave me a deep respect for the machines and what they are capable of in these conditions; I could not image what life at SANAE would be like without them. 🙏



SNOW SOCCER MADNESS

Mcabango Biyela

The soccer matches started early on a Saturday morning. The excitement could be felt as teams checked the announcement board

for who they would be up against first.

The highly anticipated third game of the day was between SANAE 50 and SANAE 51 (sporting RED socks) - the old team versus the new. I don't think SANAE 51 were the favorites, but we managed to beat SANAE 50 with a 4-1 score thriller. Before the

Takeover games winners

Soccer: Titan
 Pool doubles: Johan & Elrich (S51)
 Pool singles: Sazi (NDPW)
 Table tennis singles: Johan (S51)
 Tug of war: Drivers
 Boot throw (men): Wessie (NDPW)
 Boot throw (women): Stef (S51)
 Darts doubles: Lood & Gavin
 Darts singles: Wessie (NDPW)
 Foolsball doubles: Roger & Kristen

second half our coach, Elrich, added Stef to the mid-field to counter the Tsunami shots that were coming from the SANAE 50 defenders, Tiki and Abi. The SANAE 50 goalkeeper, Renier, was very solid, but SANAE 51 striker Mcabango Biyela managed to score three goals, with the last goal coming off the boot of Jon Ward.

After fierce competition the teams were narrowed down to the final three, SANAE 51, the Drivers and team Titan. Team Titan were to play the Drivers for rights to the final.

Titan won 3-1 on aggregate against the Drivers, who were ahead in the first-half.

Marumo equalized early in the second half for team Titan, then Janneman's penalty set up their win. There was however

some debate about the second decision when Gideon was alleged to have pulled down

As expected it was SANAE 51 and Titan who progressed into the final, but not without a few shocks at SANAE Base as SANAE 51 gave it a shake



Johan Hoffman from a corner, especially with the Drivers' team missing out on a spot kick early in the second half. The win was sealed for Titan with Thomas scoring a third goal from close range.

Mr. Dudley Foote, coach of Titan, hailed his side when he said: "We were facing a team that have won the greatest achievement at driving CAT's, a side with very good players. We

had 21 shots on goal against the Drivers, they had 3."

The final was between SANAE 51 and the mighty Titan team. It was a very tight and hard game for everyone because we were all tired - running in 'Pampoekskoene' is definitely not for the faint hearted. Titan managed to beat us in the last minutes of the game by one goal to nil.

Congratulations to the Titan team and good luck for next year! 🍀

HATS OFF TO THE GERMANS

Jon Ward

A During the final days of the take-over period, six of the ten over-wintering team members travelled to the South African Summer Base, which is located about 15 km away from the ice-shelf. Due to bad weather, we were running rather late and the take-over crew were getting rather anxious to leave.



The Summer Base is built to accommodate 20 people. However, by the time we arrived, there were 26 people under the same roof. This put great strain on the sleeping arrangements as well as on the food supplies. Unfortunately, the weather was still not letting up and we had to spend nearly a week in the confines of the Summer Base.



Eventually the weather cleared and we were able to get the remaining members of the take-over team to the ice-shelf, from where they would be flown back to the

SA Agulhas. The weather had brought in a massive pack of bay ice and the Agulhas could only manage to get as close as 15 miles. The remaining cargo would have to be flown off the ice as well, but most of it would have to be left in the garage until the following year.



more modern bases on the continent. Like SANAE IV, Neumeyer III is raised on stilts, but because it is not built on solid rock, the base has to be constantly raised using hydraulics. It was very interesting to see how this new technology has been integrated into the base design and it seems to be working very well for them.

At long last the 51st over-wintering team were alone. Or were we? Actually, the trip to the Summer Base takes us right past our nearest neighbours, the Germans, and their base, Neumeyer III. Although we still had plenty of cargo work to finish as well as the shutdown procedure for the Summer Base, we were able to spare some time and make a couple of trips to visit Neumeyer III and meet our German counterparts.

The German hospitality was amazing and they spoil us with beer and snacks, which was a welcome relief as our supply of luxuries at the Summer Base had dwindled during our long week of confinement. We also exchanged gifts of wine and beer as well as team memorabilia, which we had brought from South Africa.

We were also able to have a very well guided tour of the base, which had recently been completed in 2009, which makes it one of the

After a much longer trip than we initially anticipated, we were finally ready to leave. Overall it was a very enjoyable trip and I look forward to the opportunity to go back at the end of the year and to share over-wintering stories with our new German friends over some amber liquid! 🍷



SANAE TRENDS

Temperature

Maximum	-5.1°C
Average Max	-12.8 °C
Average	-15.8°C
Average Min	-19.0°C
Minimum	-27.7°C

Pressure

Maximum	896.4 hPa
Average Max	887.2 hPa
Average	884.9 hPa
Average Min	882.3 hPa
Minimum	865.2 hPa

Humidity

Maximum	94%
Average	67%
Minimum	21%

Wind speed

Mean	19.8 Knots (40 km/h)
Maximum Gust	59.6 Knots (119.2 km/h)

Daytime lengths

Average day length	10:31 hrs
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Quote of the month

Mike, randomly at the dinner table (with mean face):
"Machete don't text"

Movie of the month

The Star Wars series

Song of the month

Run - Collective soul

Dish of the month

Dombolo (Dumplings on potjie - Bango style)

THANKS TO OUR SUPPORTERS:



MEERLUST





Support also by the following individuals:

Homemade Buffs – Mrs du Plessis

Homemade Ginger Biscuits – Mr and Mrs Knoesen, Mrs Bester