



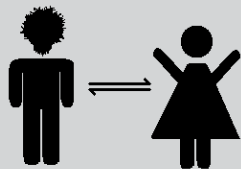
SANAE 49 NEWSLETTER

FINAL EDITION (Nov. '10 to Jan. '11)

Vol. 10

MONTHLY NEWSLETTER OF THE 49TH SOUTH AFRICAN NATIONAL ANTARCTIC EXPEDITION OVER-WINTERING TEAM

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EDITORS: James Hayes & Ryno Jordaan

GUEST EDITOR: Dr Lowellen Clarke

GAME OVER - NEW HIGH SCORE!



The official SANAE 49 team photo, which was taken at the waypoint called V2K5 with our winter home in the background. Front row, from left: André Harms, Ryno Jordaan, Lowellen Clarke, Roger van Schie and Tyrell Sassen. Back row, from left: James Hayes, Marlon Manko, Etienne Kruger, Robert Schoeman and Johan Nortje.

THAT'S ALL, FOLKS!

André Harms

"On behalf of the team I thank all those who made this expedition possible and who supported us during the time away."

Wow, can you believe that this year (or rather, our 14 month stint) is already coming to an end?

It seems like the other day that we boarded the Agulhas, all starry eyed and bushy tailed - and very much green behind the ears.

Browsing through some of the previous SANAE 49 newsletter issues and looking at the quantity (and quality, of course) of articles, I realise that we actually experienced a heck of a lot. Still, this year felt like it flew past us; this can probably be explained by the adage: "time flies when you're having fun". What fun we've had; it was probably the best year of my life and I will never forget it - and I believe I might not only be speaking for myself. Location, company, variety and quality of activities, uniqueness and level of adventure made this a magnificent experience and an exciting challenge.

You might still think that we are crazy to have left our loved ones, civilisation, many comforts and conveniences behind for over

14 months to stay in the big freezer. I say we would have been crazy not to grab this amazing opportunity and exclusive privilege. For those that are slow on the uptake: if you had to ask me whether I would have made the same decision again if I had to turn back time; from the above it should be obvious that the answer would be a roaring "Heck, yes!"

I hope this series of newsletters gave you at least some insight into our lives here, and the unique beauty of this place. It was great to see that our efforts of compiling these publications were enjoyed and followed to this extent and I am sure it makes James and Ryno's (our talented editorial team) efforts and sleepless nights worthwhile.

Besides being sad to leave the place we called home for the last year, we are very much looking forward to seeing you all back in 'normal life' ... just a heads-up: we might no longer be normal! ●

FROM THE EDITORS:

After a year of faithfully churning out these newsletters, it is with a bittersweet relief that we sign off. This final publication is a succinct take on the activities and events that led to the final take-over by the new over-wintering team, SANAE 50.

This fourteen-month experience has weighed and measured us, and not found us wanting. It was an adventure par none, a fateful gathering of kindred minds, and a forge for lifelong friendships - another notch in the belt of existentialistic ultimates, so to speak. We hope that through the newsletters, we have succeeded in conveying honest insights and fleeting glimpses of what we have experienced on the Ice.

We concede that our feet had a predilection to wander everywhere but to the editing PC, and that there was always something more pressing or interesting than writing articles. If it weren't for the constant interest, encouragements and feedback from our readers, the articles and this newsletter itself would never have become what it is. The last editing touches on this publication were done aboard the SA Agulhas during our return voyage, and by the time the ink is dry on your personal copy, we would have already set foot on Mother Africa - who knows, by the time you read this, we'll hopefully be well on our way to being reintegrated into the flow of South African society. Reintegrated, yes, but changed forever.

FIRST CONTACT - WE'RE NOT ALONE

Ryno Jordaan

A lot of my friends, family and previous colleagues thought that coming to Antarctica to overwinter was a crazy idea. And mostly they were not concerned about the -40°C temperatures, constant darkness, losing fingers to frostbite or the fact that it is a rather dangerous place. What bothered them most about the idea was spending three quarters of a year in isolation with only nine not-so-normal guys to keep me company. Although it was not as difficult as most people would make it out to be, I would be lying if I said that we were not excited when we heard that a group of 19 people from the British Antarctic Survey (BAS), two pilots and a flight attendant guy (a.k.a the FAG) were coming to stay at SANAE on the 11th of November 2010. Unfortunately we also heard that they would all be male, and that our isolation from the fairer sex would last a bit longer.

They were heading to the Halley Research Station; one of the two permanent bases which BAS operates on the continent (apart from their other bases on some Antarctic islands). They flew in from CT and were delayed for a few days at Novo due to poor weather conditions at their destination, Halley. Limited space at Novo, compounded by incoming flights necessitated that they find alternative accommodation until the weather at Halley had cleared.

Although a bit late for spring, we decided to give the base a good clean the day before their arrival. After observing the obsessive-

compulsive disorder antics that Doc exhibited during the spring clean ordeal, I now know what married women go through before their mothers-in-law come to visit. Of course the runway also had to be graded and flags planted, beds had to be made, food prepared, et cetera.

When the passengers started offloading their luggage from the plane (ALCI's Basler BT-67 plane called Lydia) it was apparent that most of the group had been to Antarctica before – they knew the drill and promptly formed a human chain to facilitate the offloading process. Riding and chatting with them on the sled behind the Challenger revealed that this was true. Their summer base commander as well as most of their engineers and technical crew had overwintered more than once on this beautiful continent.

For this summer season BAS is not taking any scientists as all places are filled with construction crew and support personnel building the new Halley VI station. This made our tours of the base (we split them in three groups) quite interesting as they were very inquisitive on how the systems at SANAE work. In turn, we received impromptu explanations on how the new Halley base will operate. Their most frequent comment regarded the sheer size of our base, comparable to the space they had in their Antarctic bases. One of the BAS engineers told me that he saw the plans for SANAE IV back in the nineties before it was built, and he thought



The welcoming party (minus André the cameraman) with ALCI's Basler BT-67 plane in the background.

it would be impossible to build something of this size so far away from the Antarctic coastline.

After a meal of pork leg stuffed with cranberries, baked potatoes, and a variety of vegetables, accompanied by excellent wine from our sponsors, we proceeded with festivities in the Sastrugi Inn, our local bar. Sticking to the age-old Antarctic principle of "what happens on the Ice stays on the Ice", I shall not divulge much of the naked truth. It suffices to say that it was very memorable and that we enjoyed the company of the Brits and the pilots tremendously.

The next morning at breakfast, everybody looked a bit worse for wear, except for their summer base commander. He jokingly explained to us: "This is how we choose our base commanders; we have a big night and whoever looks the best the next morning is selected for the post."

The weather at Halley cleared around noon, and we didn't have much time to bid our farewells.

Two days later, another plane with more BAS people arrived unexpectedly. They were already three quarters of the way from Novo to Halley, when the weather at their destination deteriorated to the extent that they could not land. They did not have enough fuel to return to Novo, so they had to land at either Neumayer, SANAE or Troll. SANAE, was the choice destination by virtue of our reputation. By the time they approached our runway, it was covered in mist which had appeared out of nowhere. The pilots could not see the runway, even after we had deployed smoke grenades and flares.

In the end, they found an open patch in the clouds and proceeded to land on the rough ice adjacent to our winter depot – in excess of 1,5 kilometres from the actual runway. The taxi back to the usual parking spot reminded me of Johannesburg International Airport where you sometimes realise that your plane has landed on the other side of Boksburg.

Although the novelty of seeing new faces had worn off, we still had a wonderful time. Their party included two South Africans contracted to work on the construction of Halley VI, one of them also called Marlon – what are the chances? As with the previous group, our generous dispensation of sponsored beverages culminated in a unified Spartan battle cry, ala 300: "THIS IS SANAE!"

They stayed for one night, after which they were able to depart for their destination.

In December, when Lydia had to refuel at SANAE, Etienne was doing the flight following in the radio room (he was standing in for Tyrell, who was away on a CAT-train). He heard radio chatter over the air-band between the aircraft and Troll in the normal aircraft call language: "This is Echo Alfa India," And then, to initiate communication with us, the pilots roared: "THIS IS SANAE!" to which Etienne answered: "I guess this is Echo Alfa India?"

When the SA Agulhas arrived in December, a package from BAS also arrived with it. It included a thank-you note and ten T-shirts and beanies from the RRS Ernest Shackleton, a BAS supply ship. We would like to thank the people at BAS for this kind gesture and wish them all the best with the construction of their new base. ●



The team from the British Antarctic Survey boarding the plane on the way to Halley.

THE ANTARCTIC LOGISTICS CENTRE INTERNATIONAL

Etienne Kruger

As South African expedition members, we are used to the traditional way of reaching Antarctica: by sea. This is the way explorers have come to the white desert since the first humans travelled to Antarctica. These days, it still takes a minimum of almost two weeks to reach the ice shelf from Cape Town. For expeditions from European countries the distance that needs to be travelled is far longer, and sailing all the way South is not a viable option. Fortunately this logistical problem was solved by the Antarctic Logistics Company International, more commonly known as ALCI.

ALCI was founded in 2001 by ANTAARI S.A., a sister company of ANTAARI St. Petersburg, Russia. It offers a full suite of air travel options to the Dronning Maud Land area of Antarctica in the form of Iljushin IL-76 airplanes capable of carrying 20 tons of cargo or 80 passengers for intercontinental flights, and several Basler BT-67 airplanes capable of carrying 2500kg of cargo or 19 passengers

for feeder flights from the main intercontinental runways to the individual bases in the area.

The intercontinental flights to the Dronning Maud Land area (the part of the world that SANAE hails from) touch down at the primary blue ice runway at Novo, a Russian base and logistics hub. An alternative blue ice runway capable of handling one of the massive Iljushins is located at the Norwegian base, Troll. Many feeder flights are scheduled for every summer – these flights service the bases in the area, as most do not have runways where the Iljushins can land.

The intercontinental flights from Cape Town usually start at the end of October and continue to operate until early March. This has the added advantage of extending the summer season somewhat as reaching the continent by sea is very difficult until mid December due to the layer of pack-ice in the ocean surrounding the continent. With the air service offered by ALCI, it is also possible

to reach Antarctica within 6 hours of take-off from the Cape Town International Airport. This makes Antarctica much more accessible and also enables the different bases to get emergency supplies from South Africa with-

in days.

Next time you visit the Cape Town International Airport, keep your eyes open for the flights to Novo or Troll. They are probably the only ones to head South...●



The Iljushin on the Troll blue ice runway (Photo: Jani de Bruin).

PREPARING FOR THE SUMMER INVASION

Roger van Schie

The winter is over, the sun is shining and it's time to start working on our tans whilst sipping cocktails at the pool. Well, that's what the brochure said. So, did we survive the winter? Not only did we survive, we thrived.

It was now time to prepare for summer; time to unpack everything we had stowed away for winter. The sleds in the winter depot had to be moved to the summer depot, the Challengers and skidoos had to be taken down onto the ice and the diesel bowzers parked at the RSA bukta had to be

resurrected from their icy graves (refer to Doc's article).

In the winter depot, the diesel bowzers that were parked on 1,5 metre high ramps before the winter, were now buried so deep under the snow that the tops of them were at knee height (quite impressive, considering that they are about 2,5 metres tall). Thanks to our trusty dozer and doctor (for the record, it was more difficult to start the doctor in the morning than it was to start the dozer, but once they got going, they were both unstoppable), we made light

work (albeit for hours) of digging massive trenches around the bowzers in order to set them free.

The Challengers were brought down by Marlon and co, using our screw lift jack, without too many hair-raising situations presenting themselves. The skidoos either hitched a ride down with the Challengers if there was space, or were lowered with the gantry crane next to the heli-deck (by one of our two trained gantry crane operators). Sounds easy enough, but the Antarctic rule of thumb held true: everything takes

at least twice as long on the Ice as it normally would back home. Considering there were six diesel bowzers, fourteen sleds, four cabooses and the wheel crane in the winter depot, three Challengers and sixteen skidoos in the hangar, and eight diesel bowzers at the RSA bukta, there was enough work to go around that even Etienne lost some of his insulating adipose tissue. The graft was hard and tedious, but just being able to experience the sun shining on our faces whilst working outside again was reward enough. Welcome back Summer! ●

THE FIRST ATKA BUKTA TRIP

André Harms

Some might see the days of planning, preparation, packing, loading, fuelling and hooking in preparation for a field trip as a nuisance. Some would consider the hours and hours of continuous driving, snow clearing, refuelling as tiring and boring. For me though, this is what this amazing place is all about. It is the closest thing my team mates and I get to the real deal – an unadulterated "Antarctic Experience".

Whilst time-consuming, meticulous planning and preparations are utterly necessary to ensure that nothing is forgotten that might be needed, should we find ourselves in a tight (or cold) spot. The trip itself is long but 'gets you out there' and gives you time and perspective to reflect on what the REAL Antarctic explorers of the beginning of the last century must have gone through.

In late November we commenced preparations for our first field trip after the long winter. We were to traverse to Atka Bukta (where our German counterparts and the SANAP Summer Station reside). Our mandate was fairly simple: we had to stock the summer station with food, tools, spares and equipment so that it was ready for the operations during the coming summer campaign. We also had to inspect the station to identify damage from the harsh winter and depot SANAE IV's waste of the year for back-loading onto the ship.

A visit or two to the nearby Neumayer 3 station was perhaps not on our official to-do list, but for us it was a must. It was great to see our German counterparts again after the long, dark winter. Our already strong friendships, that were formed during our previous visits (see March and May issues), were further strengthened. Perhaps the South African-style braai held at the summer station, with plenty good meat and a few Southern African beers, assisted with this 'cementing of international relationships'. We hope that we see our fellow over-winterers again during the summer, but if not, plans are already being made for reunions in Europe or RSA.

Another highlight of this trip was the guided tour to the massive Emperor Penguin colony close to the German base (after hours, off course – one of the perks of having perpetual daylight). Our guides from Neumayer, having visited these hardy Antarctic birds several times, took us straight to the major part of the rookery. The penguins seemed undisturbed by our visit; some curious adults even came to inspect who and what we were - it felt like they were demanding to know what business we had in their neck of the woods.

While they apparently moved slightly every couple of days to escape the horrible colour and stench of their guano, the colony over-wintered only a few hundred metres from where we visited them. After having observed the harsh winter weather over the last few months from the safety of our well insulated base (through triple glazed windows), it was mind-blowing to realize that these creatures had braved the condi-

tions with nothing more than some fur and a rapidly dwindling layer of fat. With loads of patience and determination they defied the odds in incubating their single, fragile egg. These tough, yet beautiful creatures have earned my utter respect and admiration.

After all was said and done at Atka Bukta, we made our way back home with hundreds of photos and invaluable memories as prizes for the hard work and tiring drive.

One of our most definitive "REAL antarctic experience" moments of this trip came on the return-leg back to SANAE. The weather deteriorated and before we were even half-way back to the safety of our tripple glazed windows, it had turned into a full blown white-out. Luckily we only had a few kilometres to go to our halfway caboose (basically a caravan on a sled), so we decided to push on and let the storm blow over whilst resting in the caboose. Easier said than done: the GPS location of the caboose was a few dozen metres out and we could not find it from inside the vehicle as the visibility was only between 2 and 3 metres. So I got out, tied myself firmly to the Challenger using a 50m rope and began searching for the caboose keeping the rope tensioned and circling the vehicle. Whilst almost walking blind, fighting the gale-force wind and being pelted by drifting snow I suddenly felt the rope go slack!

My heart sank. I was convinced my rope had come undone and given the conditions I had no way of retracing my steps. In my anxiety, my mind started with its trickery:

» continued, p. 5



These cute critters weigh in at around 300kg, and used to be hunted for husky-food, as discussed in our October newsletter. These days, the only shooting is done from a safe distance, with our cameras.



The midnight sun cast a golden hue over these Emperor penguin adults, that were posted like sentinels around the chicks.



The clouds that stretched out over Atka bukta showed an abrupt change in colour at the ice-sea interface, where the sun's reflection off the ice no longer illuminated the clouds.

THE RSA BUKTA TRIP

Lowellen Clarke

There exists in the world of the addict a phenomenon whereby he craves “just one last fix” before being bundled off to rehabilitation. Mid-November saw three of the S49 team experience precisely such an aching to venture forth into the Antarctic wilderness on one last CAT-‘trip’ before the SA Agulhas hauled us back to a world filled with warmth, colour, social etiquette and atrocious driving.

Not that CAT-training seems exactly addictive at the time; during the actual trip there is much swearing, sweating, cussing, lurching about and (if driving with Marlon) musical torture. This goes hand in hand with no bathing and little chance of sleeping in between. But it is afterwards, upon reflection of the completed trip with friends and comrades over a glass or two of the amber nectar, that ‘the rush’ and the sense of achievement over what has been accomplished fully sets in. And wham! There it is – the addiction rears its ugly head like Medusa emerging from a Rastafarian dread-locking symposium and lances straight into one’s heart.

As mentioned above, for three of us – myself, Rob and Etienne – the journey to the RSA Bukta, one of approximately 180km, was to be our last CAT-train experience. Our objective was three-fold: to exhume the eight 18 000 litre diesel bowzers stored there during the winter period, prepare them for the diesel pumping operation which would occur once the SA Agulhas arrived, and also to drop off the refurbished and restocked 8-sleeper caboose which would provide shelter and accommodation for successive trips made to the bukta by dedicated personnel during the summer take-over period.

“To realise that in a short time we would be sailing upon that very same blue expanse to our homeland brought about pangs of home-sickness...”

In days of yore, this exhumation would probably have had to be accomplished with that most trusty of Antarctic gear – the humble spade (coupled with an abundance of man-power), but fortunately modern technology has provided us with that mechanised überspade – the bladed bull-dozer. Although this heavyweight can deliver one mean punch, she cannot, however, fly like a butterfly. Crawling at a snail’s pace is more her style (one unstoppable snail once she gets going, mind you!), and consequently she has to be loaded onto a sled and towed by our more ‘speedy’ Challengers.

And so it was that 6 of us left SANAE IV one fine November morning, with 3 Challengers and a bull-dozer, a caboose and a few other sleds in tow. Destination: RSA Bukta, and with that, our first glimpse of the Southern Ocean in nearly a year. The weather was awesome, the spirit was high, and the road was ‘soft’ courtesy of a recent snow fall. For those of us who had not driven this particular route earlier in the year, the fresh scenery was quite spectacular, what with a new angle from which to view Vesleskarvet on which our home is perched, as well as a chance to see the fabled snow petrel breeding ground of Robertskollen, which rolled by to port like a beautiful blossoming belle being latched over by a bunch of boorish boaters – oh so tempting, but definitely not to be touched without dire consequences!

Unfortunately, this status quo did not last very long. The very thing which made for a smooth ride – the layer of fresh powdered snow – also made for heavy going, and we happened to dig ourselves in quite a number of times, especially on the inclines. And then approximately 60km from our destination, Challenger 5 had to be abandoned due

to a fuel delivery problem, which, despite Marlon’s best efforts to address, rendered her incapable of continuing. This is further expanded on in “Mech Manko’s” article on the right.

Finally, after roughly 16 hours, the last 5 of which was spent cramped 3 to a cab, we arrived at the RSA Bukta and stared in awe at the spectacle of eight diesel bowzers almost completely buried in snow and ice. This stands as a testament to the raw power of Mother Nature at her Antarctic wildest during the long winter, as she incessantly attempts to eradicate all traces of man from this beautiful place. RESPECT! Our task of emancipating these buried contraptions was going to be orders more demanding than the “dusting off” of the winter depot done a few weeks earlier... This was going to take some doing. With that in mind, we set up camp in the 8-sleeper caboose and had an early night.

The next morning saw Roger and I attack the diesel bowzers with a bulldozer, a spade, a plan of sorts and a vengeance second to none. Our other 4 team-mates headed back to the stricken Challenger #5 in order to load her up onto a sled for the trip home. It’s amazing what can be accomplished with little more than a large piece of engineered brute force and relative ignorance! For, by the time the others had returned from their trip, we had freed all of the bowzers barring three. That night saw cause for celebration following the successes of the day, and we being the rounded culinary maestros that we are, braaied and cooked up a storm.

The next morning we all chipped in and finished the job at hand – well ahead of schedule. This then left the afternoon for an excursion to the diesel pumping point on the ice shelf which is used every year. It also provided our first glimpse of the ocean for nearly a year. Notable precautions were taken, whereby we are all roped up together with ice axes at hand.

The short time spent there was soul enriching. The experience was surreal: from the blindingly white ice cliff we beheld a vast writhing expanse of midnight blue water, framed by a gun-metal grey sky as a storm played out in the distance, whilst brilliant shafts of sunlight scythed through to lay a covering of gold leaf at speckled intervals in between. To realise that in a short time we would be sailing upon that very same blue expanse to our homeland brought about pangs of home-sickness and longing for family, friends, significant others and life’s little luxuries. Add to all this the sight of Snow and Antarctic petrels dancing on the winds with a freedom all men desire but can never truly have, and the moment was monumentally moving.

We all felt it. We were all silent, staring into the great beyond, mulling about on our own thoughts whilst simultaneously sharing in a sense of collective comfort and completeness. But alas, the bubble had to burst... It was time to return to SANAE.

The trip back was peppered with irritatingly minor incidents. We were crammed three to a Challenger for over 12 hours – as close as we have become over the last year, we still appreciate our own space. The towing of Challenger #5 proved to be tantamount to dragging an anchor, and consequently we were bogged down in soft snow on numerous occasions. And to rub salt into our wounds, a white-out rolled in when we were approximately 3 hours from our destination.

Nonetheless we persevered and finally made it back all in one piece, to be reunited with our Antarctic brethren. All that was left was to sit out the week-long storm that ensued and ponder the imminent invasion of the summer take-over hordes...●



The problem and the engineer are staring each other in the face...elbow grease and shovels were not going to cut it.



All hail the bulldozer: the solution is always easier when you have the right tools.



The team enjoying a braai at the caboose to celebrate the completed job (hint: finished product to the right).

MECHANICAL INSIGHTS

Marlon Manko

Following the first trip of the new summer season to Atka Bukta, there was some damage control to be done, so that the vehicles would be ready to leave promptly on their next trip to the coast to recover the diesel tankers. We went all guns blazing to get them ready because we had a tight schedule to adhere to.

Challenger #3 had come off the worst with major accelerator problems. On closer inspection it was found that the accelerator

cable was frozen up. Due to this the accelerator linkage suffered. This meant that the operators could only achieve breakneck speeds of 3 km/h on occasion. After changing the cable it was found that the accelerator lever was bent. After a great struggle we managed to get it to a level where it accelerated properly. After that I found that the oil pressure gauge did not indicate any pressure. The problem was fixed by fitting

» continued, p. 5



The injured Challenger 1 hitching a ride on the back of a sled.

« The first Atka Bukta trip, continued

from p3...*It would be game over if I could not find safety in either the vehicle or caboose. Would my team mates be able to find me in this white-out? Did they even have more rope? Would they find me before the wind-chill got me? Heck, would they even miss me?*

It felt like an eternity had passed but split seconds later logic returned to my grey cells and I remembered both the radio and GPS that were tucked away in my pocket. I decided to test the rope first; I pulled in a few metres of slack just to realise that the rope was still attached to the vehicle and had probably only been caught behind a sastrugi (wind-formed heap of snow). Whew!

After more than half an hour of searching like a blind man, the caboose finally jumped

out of the milky soup a mere few steps in front of me. We had made it! It took only about an hour to drag sleeping bags and luggage through the overpowering wind that separated the Challengers from the caboose.

A glass of wine and some nice warm food, combined with soft beds did wonders to calm the nerves. We were all exhausted from the ordeal and needed to unwind. Johan hit the sack almost immediately, James devoured the rations of condensed milk (I might have helped) and Ryno peacefully read *The Odyssey* by the gloomy midnight sunlight that barely filtered through the clouds of blowing snow. ●



One of the massive rookeries on the bay ice - at the time of the SA Agulhas's arrival less than two months later, all this ice was melted away.

« Mechanical insights, continued

from p4... a new oil pressure sensor. A few additional minor problems were rectified and the machine was ready for action within the specified time frame.

On our trip to the RSA bukta we had our share of problems. The main one came when the drivers of Challenger #5 reported that they had a fuel leak and their fuel level was dropping rapidly. On arrival I initially thought it was a faulty injector pipe. We were not that lucky; a fuel pump bonnet, which is the link between the injector pipe and fuel pump, had failed. Due to the fact that we didn't have this particular part with us, nor someone to bring it to us, we were forced to leave the vehicle and go on to our destination. We returned the next day to load it onto a sled so that on our return journey to SANAE we could tow it back.

After our trip back to SANAE the weather was too bad to fix it immediately. We had to

wait for the storm to pass before we were able to bring the machine into the hangar for repairs. As in the previous case, we had a time limit imposed on us. This was because we had received news that the SA Agulhas had arrived – ahead of schedule.

Although the journey to meet the ship was not incident free, the only real bad luck we had was that we left with three operational Challengers, but ended up pulling Challenger #1 on a sled. This was due to the fact that two wheel nuts had broken off and there was a weird noise coming from that side of the final drive. The decision was made to load it onto a sled and tow it so as to prevent further damage. It was lifted onto the SA Agulhas, and will return to RSA for repairs.

The end is near, and soon our journey is set to play out its last scene. Fare well to all and God speed. ●



Minimalistic beauty - these creatures are as beautiful as they are tough.



"Pick Me! Pick Me!"



As hard as James tried, he just could not fit into the penguin-community's rigid social structure.

THE ARRIVAL OF THE SA AGULHAS

Tyrell Sassen

"It was the best of times, it was the worst of times...it was the spring of hope, it was the winter of despair..." – Charles Dickens, A Tale of Two Cities

I generally consider anyone who starts their article with a quote to be a ponce. I guess I should start revising that view....

This article was supposed to be about the third and final trip before the summer takeover but I'm sure you're as tired of reading about "endless, white plains" and mechanical problems as I am of writing about them.

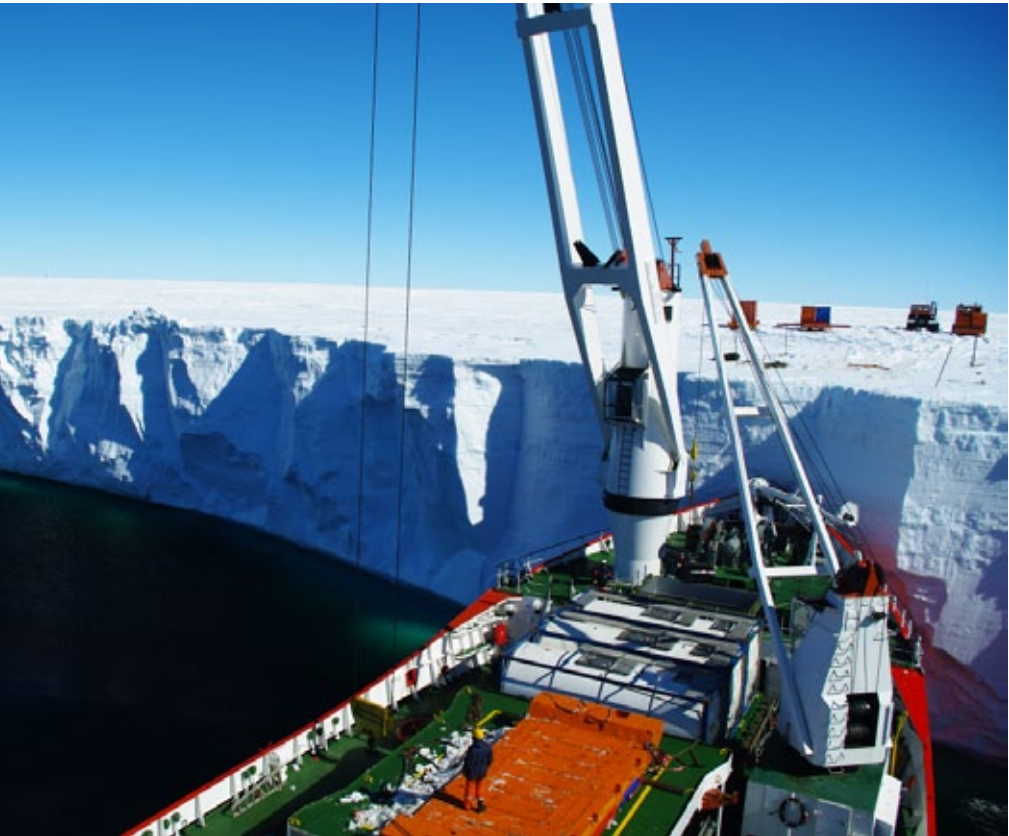
The purpose of the trip was to meet the SA Agulhas at the coast with the final supplies they needed to begin takeover. These transition times always seem to bring up mixed feelings: the excitement of one last time together as a team; the joy of meeting up with old friends from the beginning of the journey last year; the mouth-watering lust for fresh kiwifruit and avocado; the absolute dread of the coming hordes who are about to invade your home.

All that being said, it's amazing how quickly one gets used to the new, old things. Granted, the first day on board the ship with

people standing around you in a semi-circle, trying not to get too close; (probably due to the stench of diesel or the volume of facial hair, I'm not sure which) things are a bit uncomfortable. But after a good salad and a few inappropriate conversations, you end up sliding right back into things. That being said, this time away from the world with a group of (now) extremely close friends is one that has changed me forever.

"It is not good for man to be alone." I suppose we only accept these truths once we've had the chance to experience them for ourselves. ●

The SA Agulhas arrived at Atka Bukta on 20 December 2010 after a 12 day voyage, much quicker than the norm. Six of our team left on the 21st, arrived late at night on the 22nd at SANAE Summer Station and met the ship the next morning at Nordanleger, which was to be the offloading spot at Atka Bukta. Five of the six had to stay on board the Agulhas for a week, due to poor flying conditions after which they were flown out with the rest of the summer personnel to SANAE IV. Ed.



Reintroduction of old acquaintances: "SA Agulhas, meet Ice Shelf. Ice Shelf, meet SA Agulhas".

REPRESENTING THE MOTHER CITY

Felicity Purchase

In October 2010, I was asked by the Director of Antarctica and the Islands, Henry Valentine, whether I would like to join them in December when the Sanae 50 overwintering team set sail, together with the hand-over and maintenance crew for Antarctica on the S.A.Agulhas.

I had been involved in the Antarctic Gateway project, at the request of DEA at the time, when there was an invitation for

the Mayor to attend an Antarctic Gateway Cities summit and a signing of a statement of intent to cooperate as Gateway city to the Antarctic, which was held in Christchurch, New Zealand (October 2009).

The Mayor delegated me as Mayoral Committee Member for Economic Development and Tourism, to go to Christchurch and attend on his behalf. The other Gateway cities are Punta Arenas in Chile, Ushuai in

Argentina, Hobart in Australia and Christchurch itself.

Cape Town is by far the biggest Gateway City and has not really participated as a city administration in any gateway activity. While there, I learnt about the various activities other Gateway cities held. I undertook to lift the profile of Cape Town as a Gateway City by suggesting various strategies as a way forward.

The first approach was to encourage a festive atmosphere around the departure of the ship each year, and thereby generate publicity for this event. To do this, we brought Cape Town Tourism on board for the entertainment. The second thing was to get our universities to let us know what science they were undertaking in Antarctica, through CHEC, which is the consortium of higher education centres in Cape Town. This year we introduced the blessing of the team at a service at St Georges Cathedral on the Sunday before they sailed, followed by a tea.

Because of time constraints, I was not able to sail with the ship, but did get to fly down with ALCI on the Iljushin aeroplane. I flew with Hennie Stassen, who was coming to oversee work on the SANAE summer station. We took off the evening at half past eleven and landed on the hard blue ice at the Russian Station, Novo, at 3am. The flight was almost six hours. Once there, we were given instructions to wait until the plane was offloaded and then taken to a tent allocated to the various groups. The weather to the west was too bad for them to fly us to SANAE. The arrangement was that we would be accommodated in the tents, and we could help ourselves to food and drinks in the yellow canteen tent.

We were then approached by a Russian man who told me he had been instructed to take me down to the Russian guesthouse until the weather improved. Weighing up the options between the tent and a warm bed in a guesthouse, I made up my mind quickly, and jumped into his Toyota while he loaded my luggage. We spent two days there. We walked on the glaciers guided by a tour guide working for ALCI, and were taken on a tour of the Russian base. Members of the Russian team then came down in the

evening for drinks. I also met the Indian team, who came down to visit us. On the Tuesday morning, we flew to Neumayer 3 via the Troll and Sanae IV bases.

At Neumayer 3, we were given refreshments and then caught a lift to the SANAE summer base, on a sled that was towed by a skidoo. I visited the decommissioned Neumayer 2 base that is right next to the summer base. Two days later, I went by Cat train to the shelf and was lifted by crane onto the Agulhas, which was offloading against the shelf. The idea was that I would fly to SANAE IV by helicopter the next day. We finished offloading the ship and sailed out through the bay ice toward RSA Bukta, from where we would fly. The weather worsened and I spent a week on the ship before we could finally fly to SANAE IV. What a palace that was compared to the summer station.

I have participated in skivvy duties, from cleaning in the kitchen to making water by throwing ice into the smelly, and have learnt about the scientific work undertaken here. I have done skidoo training and I've driven in one of the bulldozers. I have explored the surroundings of the base, and done some hiking, but the highlight was definitely the visit to the wind scoop and Crystal Palace. I have never seen such beauty.

We have played cricket in the snow in tee shirts and I have also experienced 4 days of white-out conditions, as snow-filled gales made it unsafe to leave the base. It has become apparent that the weather dominates every aspect of life here.

I certainly have a much better understanding of the conditions at SANAE IV, the challenges faced, and sacrifices the overwintering team makes when they remain here for 14 months. I also realise the importance of the physics programmes such as investigations on space weather, in terms of providing an early warning system to us back home.

I would like to thank the SANAE 49 team as well as all others who were part of my experience in Antarctica, and wish SANAE 50 good luck for their stay. ●

Felicity Purchase is an alderman of the City of Cape Town.



Cape Town alderman, Felicity Purchase, during her brief stay at Troll Station.



The bowels of the decommissioned Neumayer II sparkled with fresh ice crystals.

SANAE DOUBLE B-DAY COMBO

Robert Schoeman

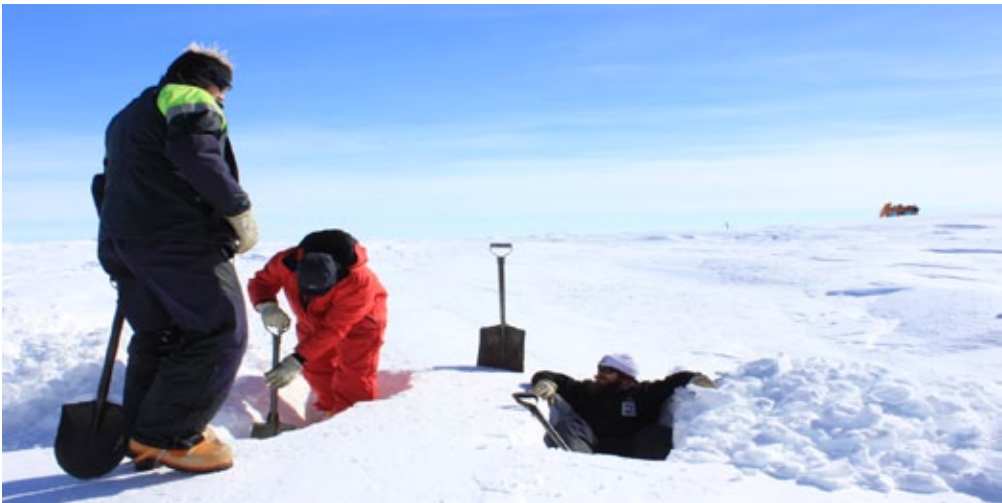
The 1st of November brought about a double birthday and snow-bath-day. The last of the SANAE birthdays were upon us. Our electronics engineer, Tyrell Sassen (who turned 29), and our cosmic ray engineer, Etienne Kruger (who turned 27) gave us the pleasure of digging 2 big holes in the SANAE snow.

Fortunately, the weather allowed us to give our two tech-champs their long awaited "special SANAE surprise". It was agreed that both birthday boys would be buried in the snow right next to each other, at the same time. Double the digging, double the

singing... and double the nudity as Etienne and Tyrell burst out of the door together in a chilling -16.5 °C and 10 knots of Antarctic wind to take their place amongst the rest of the snow-baptised 49'ers.

The entertaining snow bath was followed by yet another great feast and real SANAE-style festivities. Thanks guys for the unforgettable party.

Happy birthday Tyrell and Etienne. Wishing you many more "rock-star" birthdays in future. To the rest of the SANAE 49 team, it has been such a pleasure to share your birthdays in Antarctica with you. ●



The snowbath engineers (and doctor) ensured that all snowbaths were excavated according to the required specifications.



"Hey guys, we were thinking, maybe next year we can put both of you in one snowbath?"



Cool customers: Tyrell (left) and Etienne (right) maintained their composure throughout their little 'ordeal'.

TOYOTA 4x4 REACHES SANAE IV

Geoff Dalglish

If the **motoring history** of Antarctica was contained in a book, it would be a rather slim volume, although a new page was turned on January 6, with the arrival of a bold blue Toyota Hilux 3.0 D-4D at SANAE IV.

Imagine my delight and amazement when I received a call from Toyota SA Motors asking: "Would you like to go to Antarctica?" Is a frog waterproof?

It turned out that Henry Valentine, Director of the Antarctica and Islands division of the Department of Environmental Affairs, had agreed that we should assess the vehicle, explaining: "We have a requirement for an agile and fast personnel carrier to transport research teams to and from our base in Antarctica and the specially adapted Hilux will be evaluated to determine whether this type of vehicle would fit the bill."

My job (if you can call such an adventure a 'job') was to be a custodian of the brawny, high-riding Hilux on its unusual journey aboard the SA Agulhas to The Ice and then on to the scientific research base, where I'd put it through its paces. Yay! What a way to spend Christmas, New Year and a few days on either side of those auspicious dates.

Of course, things don't always work out exactly as planned and I've decided to adopt a rule called 'AWA'- for the uninitiated, it's

short for 'Antarctica Wins Again'. Initially the brand new GPS didn't work properly, we lacked an antenna for the radio, and on the appointed day for my heroic journey I was conspicuously missing a co-pilot. Hey, were these guys trying to tell me something?

So the best-laid plans had to wait an agonising fortnight. Fast-forward and I was at last on my way with techno whiz Johan Hoffman (SANAE 50's radio technician) as my enthusiastic co-pilot.

What a good time it turned out to be. In sharp contrast with the off-loading onto the ice shelf (where the vehicle was bogged down within seconds after 'touching down', due to the deep, soft snow), the Toyota was in its element.

It is now a matter of public record that it became the first conventional 4x4 to make the 300km journey and breezed over the icescape. What a privilege to make this pioneering journey and what a delight to do it under near-ideal conditions, knowing I had the back-up of a Challenger Cat Train following a few kilometres behind.

The Ice Truckers that drive the Cat Train are my new heroes, even demonstrating how to braai at the halfway caboose under a midnight sun at minus 10 degrees Celsius. I was less excited by the charming idea of

ablutions constituting a black plastic bag that would ultimately be shipped back to SA!

Arriving at the base there were hugs, whoops of delight and high fives. And at dinner I found myself sitting next to some attractive lady members of the Summer team, prompting the quip: "Now the oke with the Bakkie is pulling the chicks."

It's still early days, but I feel the Toyota showed great potential and we look forward to seeing how it performs after the storms

that have deposited deep snow and confined everybody to base in recent days. ●

Editor's note: Geoff flew out from SANAE on 13 January, and the trusty Toyota has remained behind for last-minute playtime. It will return onboard the SA Agulhas. The editorial team is burning to have a go at it – in the spirit of thorough automotive journalism, naturally. We wish him the best for his future adventures.



No one could stand in the way of these tough oukes and their trusty 'bakkies'.



First test: touch-down in slushy snow.



Phew! The Toyota, the Geoff, the DCO (Mr Shiraan Watson) and the SANAE IV base.

HERE'S TO THE NEW 'KIDS' ON THE BLOCK

Ryno Jordaan

There are a few moments in your life that you will never forget. It can be something you do or see, or something that somebody says. Before coming to Antarctica, I vividly remember saying goodbye to my family in Pretoria, and my father saying to me: "Maybe I'll see you on the ice next year." I believe at that stage it was only a crazy idea that he entertained, fueled by a bit of jealousy at the fact that I was about to embark on this gigantic adventure. A little more than a year later, I experienced one of the most unforgettable moments of my life: meeting my dad on the SA Agulhas at Atka Bukta.

He managed to secure his place on the SANAE 50 overwintering team as the mechanical engineer. At an age of 63, he is most probably the oldest team member in the history of SANAE - and definitely the first to come down and take over from his son.

It was fun to have the roles reversed for a change; me giving my dad advice and teaching him the ropes on how things are done in Antarctica - and the odd strong 'reprimand' when it was not done to my liking. The most remarkable of our father-son experiences was when we co-piloted a Challenger on the CAT Train from Atka Bukta to SANAE on Christmas day, and the few days after that at the base when all the summer personnel were still stuck on the ship.

Now the summer take-over has come and gone, and SANAE 50 has been left by

themselves on the most inhospitable of continents. Surely as we were, they are a bit uncertain about what the future holds and whether they will be able to do what needs to be done, not only to survive, but also to make the most of this wonderful opportunity. When I consider each individual on the team, I am convinced that they have the ability and the willpower to do just that.

On behalf of the SANAE 49 team, I want to wish SANAE 50 a year filled with good memories, friendship, accomplishments and adventure. And off course: "Good luck!"

To my dad - and this might sound strange, but in light of the fact that our roles have been reversed this last month - I want to say: "I am proud of you for embarking on this brave endeavour!" ●

The new SANAE 50 team consists of eleven team members, due to the newly designated position, namely the Space Physics Research Institute support engineer. S50 has a few firsts in the history of SANAE: A married couple, Kevin and Beatrice van Eden (who will be looking after the HMO projects along with Ruan Nel), the oldest person to ever over-winter (Tiki Jordaan, 63) and the first to take over as an overwintering expeditioner from his son. We would also like to congratulate the South African National Antarctic Program on sending its 50th over-wintering team to Antarctica. Ed.



There's some catching up to do between this father and son: Junior (left) sporting a massive manly moustache, and Senior trying to catch up on the ruggedness (Image courtesy of Mr. di Domenico).



The SANAE 50 team from left to right: Paul Lee (team leader and meteorologist), Winston Ndwane (diesel mechanic), Alan Daniels (diesel mechanic), Beatrice van Eden (SPRI engineer), Tiki Jordaan (mechanical engineer), Gerhard de Jong (electrical technician), Kevin van Eden (space weather engineer), Renier Fuchs (cosmic ray engineer), Ruan Nel (radar engineer) and Abigail Paton (medical doctor). Absent: Johan Hofman (radio technician).

SAILING THE SOUTHERN OCEAN

Robert Schoeman

The summer bouy run, exotic islands, pretty oceanographers & scary seals - our fearless ‘metkassie’ tells his tale.

One of the year’s highlights for the SANAE meteorologist is the prospect of being able to go on the annual Buoy Run, which involves spending between 18 and 23 days sailing the picturesque Southern Ocean on the SA Agulhas. This usually happens right in the beginning of the takeover period, once all of the take over personnel have been flown to the base. I was lucky enough to crack the nod, along with team leader Danie Ferreira and assistant Enrich Rossouw.

Before we get into the details of this specific adventure, I would like to explore the purpose of having a Buoy Run in the first place. The Buoy Run entails a ship return-voyage from the coastline close to SANAE to the South Thule (59° 27’S, 27° 18’W) and South Georgia Islands (54° 30’S, 37° 00’W). The South African Weather Service (SAWS) uses this voyage to deploy weather buoys into the ocean at specific coordinates. These weather buoys send information about the sea temperature, air pressure and the revised coordinates of the weather buoys as they float along with the currents. There are a total of 27 weather buoys deployed, six of which are given to South Georgia and will be deployed during the course of the year. One weather buoy is used on Southern Thule Island itself, and sends air temperature and air pressure data to the SAWS offices. This is the only reason why this magnificent island is visited.

The oceanographers from CSIR and the University of Cape Town are continuously studying the subtle changes in our seas on the Agulhas’s voyage south to Antarctica and on its return. They use the buoy run to study the deeper ocean layers at high resolution to investigate physical and biological processes in the Southern Ocean. The team of 14 dashing and daring oceanographers become extremely busy during this leg of the cruise and work around the clock to analyse the ocean at over 170 stations. This includes performing more than 50 CTD (Conductivity Temperature and Depth) casts and the collecting of water samples to a depth of 500m. The CTD is an instrument which measures physical, chemical and biological characteristics of the unknown depths, often attracting the attention of the courageous and caring in the process.

All members on board the SA Agulhas look forward to setting foot on the South Georgia and Southern Thule Islands. For most of us, this is a once in a life time opportunity.

South Georgia was the first Antarctic territory discovered during the 16th Century. During the 19th Century, the island was used by sealers. Then in the 20th Century, it was

used by whalers and was the world’s largest whaling centre, until the 1960’s, when whaling was abolished.

South Georgia is also home to the final resting place of the famous Antarctic explorer , Sir Ernest Shackleton. This remarkable man, together with six men, travelled 16 days over 1,300 kilometres of ocean in a small boat to reach South Georgia. Upon their landing, they then hiked across the Island to the whaling station in search of help.

South Georgia and the South Sandwich Islands cover a total of 3, 903 square kilometres. South Georgia is a tiny island (167,4 kilometres long and 1,4 to 37 kilometres wide) that is governed by the United Kingdom. It is home to a small band of permanent inhabitants, which include a British Government Officer and a Deputy Postmaster. There is also a temporary contingent of support staff from the British Antarctic Survey, which constitutes a few scientists and researchers. The Island itself is often subjected to poor weather that makes it very difficult to approach by ship. Fortunately, the SA Agulhas was able to enter the bay with no difficulty at all.

Southern Thule is one of three islands that make up the South Sandwich Islands, and is the most southerly of the three. The island has an enchanted appearance as the snow capped peaks suddenly seem to emerge from the icy ocean. The SA Agulhas was greeted with choppy seas and suboptimal weather on arrival at Southern Thule. This made our climb down the wood and rope ladder, as well as the trip to the island on board a tiny rubber duck, very interesting indeed. The island’s shores are completely covered in pebbles, so one has to negotiate the best location for landing on the shore, as well as the best manner in which to do so. To achieve this, we made multiple reconnaissance trips up and down the coast line. The island is almost completely populated with curious and rather innocuous Adele, Chinstrap and Gentoo penguins. The rest of the space is taken up by seals. These include Fur seals and some monstrous Elephant seals, whose sheer size compels one want to walk a good couple of meters around them. The two meteorologists and three SA Agulhas crew had a breath-taking hike to the “weather station” situated on one on the island’s many hills. We were very lucky to spend the amount of time that we did on the island, as the weather took a turn for the worse on the walk back to the rubber duck. We were caught in a snow storm as we motored back to the ship which now



South Georgia: the SA Agulhas arrived just in time for Rob to break up a fight between two frisky elephant seals .



Ernest Shackleton’s grave on South Georgia Island.

seemed to be swallowed by the snow. The SA Agulhas was met by much better weather while approaching the bay at South Georgia. The ship was met by the Governor, who checked our passports and then allowed us to explore the seal- and penguin-packed island. We were given two hours in which to experience as much of the island as possible. One of the must-do’s is to visit the grave of Sir Ernest Shackleton and other Antarctic explorers. To do so, one must navigate through a field filled with Elephant and Fur seals. The feistiest of the seals seem to be the baby Fur seals, who are very cute... until they reveal those flesh-ripping teeth and then decide to charge straight for you. The Elephant seals, as intimidating as they may look, don’t seem to be too bothered

by people walking between them. King penguins march around all over the island and look as if they are in fact real royalty. Besides its mind-blowing scenery, the island offers a very quaint town, equipped with an enlightening museum and souvenir shop, a post office and a church.

This part of the SANAP summer expedition is definitely an amazing experience and an adventure that none of those involved will ever forget. To add to this, something that will stay with me forever will be the warm welcome I received by my team mates, who are now very close friends, as I climbed off the helicopter back at the SANAE base. It is very evident that we have become an extremely close “SANAE family”. ●



The decommissioned whaling station on South Georgia Island.



The forboding front of Southern Thule Island’s beaches.

PARTING SHOTS

The Knotten Trip



On the last weekend of take-over, the DCO was gracious enough to permit S49 to take a day off to visit the nearby nunatak called Knotten. This image features three of the S49-ers looking down into Knotten's windscoop with Lorentzenpiggen just visible on the horizon.

The X-mas halo and “sundog”



A stunning show of atmospheric optics manifested on Christmas day, 2010, in the form of this halo which was bordered by two sundogs.

« PARTING SHOTS, continued

The (d)evolution of SANAÉ 49: Spot the difference in these photographs...



This photo was taken on the SA Agulhas poop deck during the down voyage: 2009 - 12 - 13

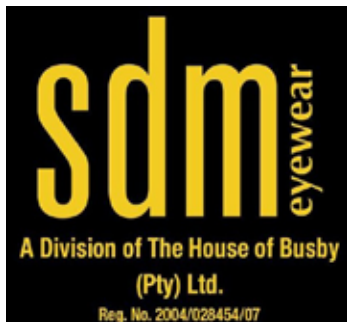


Assuming positions, during the return voyage: the SA Agulhas poop deck: 2011 - 02 - 11

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