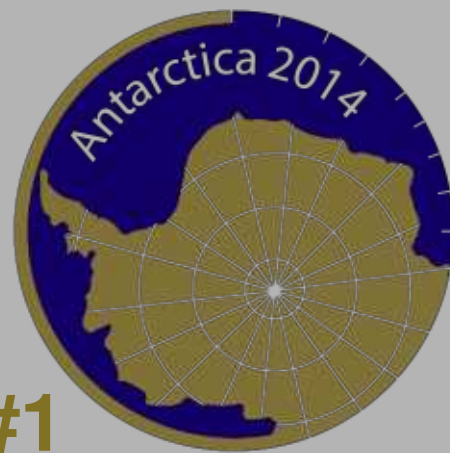


# SANAE53

South African National Antarctic Expedition

Newsletter #1



## GOING SOUTH



Ruan Nel  
Open category winner

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Photo: Heine Smith

**Back: Christiaan Crous, Leonard Maree, Cornelia Oberholzer, Chris Swanepoel, Brandon Knoll, Patrick Sivertsen, Hendrik Krüger**  
**Front: Charles Thomas, Sonja Hofmann, Francois Olivier**



**Sonja Hofmann**  
**Team Leader and Doctor**

I was born on 6 October 1984 in Pretoria, to an Afrikaans mother and German father. I have an older brother and a younger sister. I also grew up and studied in Pretoria, but my parents emigrated to the USA in 2004, taking my sister with them.

I'm the doctor and team leader for the team. So my role is to look after the well-being of the team, physically and mentally, organisational and logistical. I also lead the investigations of a Centre for Space Medicine in Berlin physiology study at SANA E, which comprises of a battery of tests performed monthly on my team mates.

In my free time, I want to delve deeper into said study, aiming to turn it into a PhD. I've also decided that this is a great year to poke my nose into more books, so I'm studying for my correspondence MBA and brought a heap of random books along. For variation, I'm going to increase my fitness, aiming for the Berlin Marathon September 2015, and I brought along paint and canvas and my sewing machine for creative inspiration. To top it off, I'm hoping for team fun with board games, table tennis and at the climbing wall.

A few randoms about me:

I don't aspire to any super hero, but in my previous life I would have liked to be Roald Amundsen, 'cause he was still a "real" man. In my next life, I'll definitely be an extreme rock climber.

My favourite movie is "Die fetten Jahre sind vorbei". It has inspired me to lead the next revolution, but I'm not yet sure what the cause and aim of my revolt will be. I am a theoretical socialist, but a practical capitalist: Marx forgot that people are inherently lazy.

I love the outdoors, especially hiking. My favourite destination is the Drakensberg, which I traversed from North to South, 250km over 13 days during April this year. There I learnt that the most important thing on a hike is Milo. One should never run out of Milo. Ever.

The only thing, of which I'm scared, is that the sky might fall onto our heads. Or the modern day version, that we will destroy our own, very necessary habitat. And, if I'm very honest, I'm also scared of death, because (see above) I'm not a "real" man like Amundsen.



**Patrick Sivertsen**  
Mechanical Engineer and Deputy  
Team Leader

I, Patrick Sivertsen, am the mechanical engineer and deputy team leader for SANAE 53. Born in Namibia in 1987, I now call Cape Town home. Although, for the next 14 months, it will be Antarctica! I read about the South African National Antarctic Programme whilst studying at UCT, and to be a part of it is a dream come true.

I will be responsible for the operation and maintenance of the mechanical systems of the SANAE IV base, such as the diesel generators, heating and ventilation, water supply, waste water purification and vehicle maintenance.

During the long, dark winter I hope to hit the gym, shred on electric guitar, master my new DSLR camera and take up yoga. That's besides all the shenanigans our team will get up to, in

and around the base.

What will I miss most? Family and friends for sure, especially my brother's 30th birthday and two good friends' weddings. And I will day dream of trail running in Newlands and Jonkershoek forests... well, of greenery in general! And I will sorely miss taking water and electricity for granted.





**Leonard Maree**  
Communication Engineer

Farm boy Islander with a background of telecommunication, mining instrumentation, Eskom PABXs and Radio networks.

I was born and raised in the good old Orange Freestate, which somehow lost its oranges along the way. Worked at Telkom (Post Office in those days), a few years at Goldfields and 8 years in Kimberley (gatkant van die wêreld). Then Back to Eskom Bloemfontein, but got tired of that after some time and joined DEAT, which lost its T somehow. Since then I have been an Islander and part time farmer.

My work at SANAE will consist of the installation and maintenance of the satellite communication system, and HF and VHF radio systems for communicating with field parties,

ships, aircrafts and with South Africa (RSA). It also includes the maintenance of IT equipment, servers and IP network for sending scientific and personal data to RSA. Finally I will be responsible for maintaining telephone network and all electronic base equipment at SANAE.

One of the challenging tasks is to do Flight Operations. As soon as any aircraft leave an airfield in Antarctica on its way to other base, via SANAE, it has to be communicated with, position monitored and guided by supplying regular weather updates and other relevant information.

Scientific field parties have to be supplied with communication and locating equipment and be monitored throughout their expeditions with regular scheduled radio contacts.

3 But all work and no play.....I am an avid Aveo hobbyist. Building model aircraft is my pastime speciality. I also have a great interest in robotics which I hope to spend some time on this year. I am also keen on improving my knowledge of the Linux operating system and servers as well as Voice over IP systems (VOIP). I've tried to play the guitar at Gough Island on a previous stay, but have given up on that as I do not seem to have any musical talents.





**Charles Thomas**  
Electrical Engineer

**Age:** 47

**Favourite super hero:** Superman

**Home town:** Krugersdorp, Gauteng

**Job at SANAE:**

Maintaining the electrical supply to the base

**Hobbies:**

listening to music, watching TV, sports,  
reading and light exercises

**Plans for the year:**

Was hoping to read my regulations and study  
for my master license, learn some cooking

**What will you miss most:**

My DSTV, kids & skattebolletjie

**Favourite movie:** Star Trek

**Super power I want:** Mental Telepathy

**Zombie apocalypse strategy:**

If you can't beat them join them

**Age:** 50

**Secret Identity:** Don't need one, not married

**Home Town:**

SANAE IV base for the next 14 months

**Hobbies:**

Restoring of old cars and wood work

**To-Do list for the year:**

What I came here for: Diesel Mech

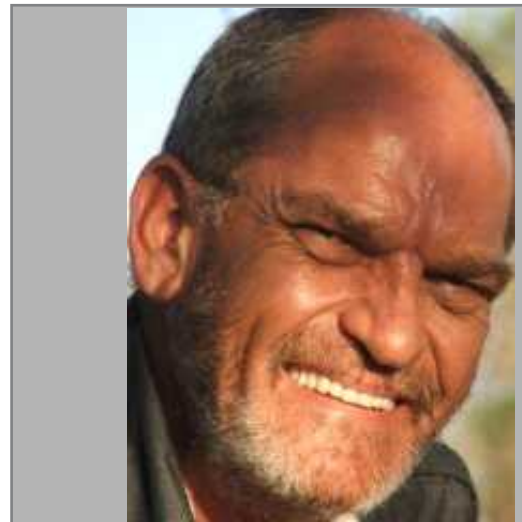
**Things you'll miss most this year:** My car

**Favourite Movie:**

Too many to mention

**Superpower you want:**

I'm perfect the way I am



**Chris Swanepoel**  
Diesel Mechanic

**Age:** 27

**Secret Identity:** I'm the Knight Rider

**Home Town:** Bellville

**What does your mother think you do?**

Build space ships

**What do you actually do?** General worker

**Hobbies:** Speed, sound, outdoors, my wife and  
kids

**To-do for the year:** Survive

**What will you miss most this year?**

My Family

**Favourite movie:** Bad Boys 2

**Superpower you want:**

To Fly and see through walls (Superman)

**Zombie apocalypse strategy:** Run like Forest



**Brandon Knoll**  
Diesel Mechanic





**Cornelia Oberholzer**  
Space Weather Engineer

**Age:** 31

**Secret Identity:** Power Puff Girl

**Home Town:** V-Town

**What does your mother think you do?**

Build rockets (Brandon and I need to team up)

**What do you actually do?**

Spend hours listening to static

**Hobbies:**

Reading, cooking, gymming when the mood strikes me

**To-do for the year:** Stay past takeover

**What will you miss most this year?** Watermelon

**Favourite movie:** Fight Club

**Superpower you want:** Teleportation

**Zombie apocalypse strategy:**

Team up with the Russians at their base. I'm convinced they have some fire power there.

Alternatively the Americans. They definitely have.

Born in Cape Town in '83, grew up in Thabazimbi and Pretoria, I've been back in the Western Cape since post grad studies at Stellenbosch. I'm an Electronic Engineer and will be working at SANAE as a SANSA scientist. SANSA is installing a new digital HF Radar at SANAE and my main responsibility will be to babysit it during winter. The new Radar is very cool and SANAE is awesome, so it's a dream job for me.

**Favorite Superhero:** Bravestar

**Inspired by:** The Dude from The Big Lebowski



**Francois Oliver**  
Radar Engineer

**Age:** 33

**Secret Identity:** Ecuadorian citizen

**Home Town:** L'Agulhas

**What does my mother think I do:**

Read the weather on TV

**What will I actually do:**

Observe the weather in Antarctica

**Hobbies:** Exercise, Guitar

**To-do list for the year:**

To-do lists are the root of all procrastination

**Things I'll miss the most:** Family and friends

**Favourite movie:** Shawshank Redemption

**Superpower I want:** Weather forecasting

**Strategy for impending zombie apocalypse:**

Peaceful negotiations



**Christiaan Crous**  
Meteorologist



**Hendrik Kruger**  
Cosmic Ray Engineer

I have grown up with computers and it has been part of my life since I have been young. But I did not become tired of it and was curious about the inner workings of computers. So I studied computer and electronic engineering at my local university, the North-West University, Potchefstroom campus (“PUKKE”).

Each year the Centre for Space Research at the university sends someone down to maintain and operate their monitors. This is known as the “Potchkassie”. This year they also upgrade their monitors, so there is more work, since upgrades are prone to cause problems. My project this year is not only to operate and maintain the monitors but also to develop a

new data management and distribution system, and to improve the current monitors. My work will require software development, web programming, embedded programming and electronics.

In my family, I am the third generation to visit Antarctica, but the first to spend a year there. Ever since I was young I knew about Antarctica and knew that one day I will like to visit it too. The time came faster than I thought. I am still young (22) and up until now, I lived my whole life in Potchefstroom. I view this as a unique opportunity to spread my wings and to gain life experience.

To prevent myself developing cabin fever, I will drag myself away from the computer and exercise (to try and regain my fitness I had when I did cross-country), play board games, enjoy the fact that I’m in Antarctica, try to become a master chef, learn more about photography, try to learn a new language (maybe I must first learn English), and various other personal projects.

I am very grateful to experience this unique opportunity to live in the driest desert and one of the harshest places, but one of the most beautiful untouched places on earth. An experience a lot of people told me they wish they had.



## Chain Slings and Gumboots

Francois

New faces, recent rash decisions and a team kombie, and we were on our way to Barloworld for our practical crane training starting at 9am. If we had known anything about Christiaan at that time, we would have noticed his closed shoes instead of the usual plakkies, which meant that this would be a serious day.

It started with induction from the safety officer at Barloworld and we failed the first PPE (Personal Protective Equipment) check as none of us had safety boots. This was followed by a few calls to DEA and discussions of extensions and cancellation. It ended with a bright idea which took us back to DEA to get gumboots for the training. We returned to Barloworld looking like a tour group at an open day for a mine. This time our funny looking costumes were able to pass PPE regulations and we were through induction and heading towards our first crane for training. I wouldn't expect any of the

Barloworld staff to pitch up the next day with gumboots, but we might have been a large enough crowd to convince some bystanders that there was good reason for it.

It was very exciting to see our first D6 with mounted crane and a SANAP branded logo on it. Alistair, a SANAP veteran, explained the basics for starting the machine and to do various operations, including some tips on operations in Antarctic temperatures. Most comforting was the idea that Alistair was also joining the takeover this year. He has more years of SANAP experience than most of our younger team members have working experience. It was all pretty straight forward and each team member got a chance to play a bit with the crane and to do some basic operations.

After a stop at Spar on the way back we had a few laughs buying lunch in our gumboots. But everything went smooth and comfortable for the new team. I reckon that we are all crazy enough and ready to spend a year down in Antarctica with these random people.





## Fire Fighting Training

Patrick

Fire is a major risk for South Africa's base in Antarctica so the SANAE 53 team was sent for fire-fighting training. The training was conducted by Action Training Academy, in Mowbray, Cape Town. It was a two-day introduction to the basics of fire-fighting, incorporating theory and practice.



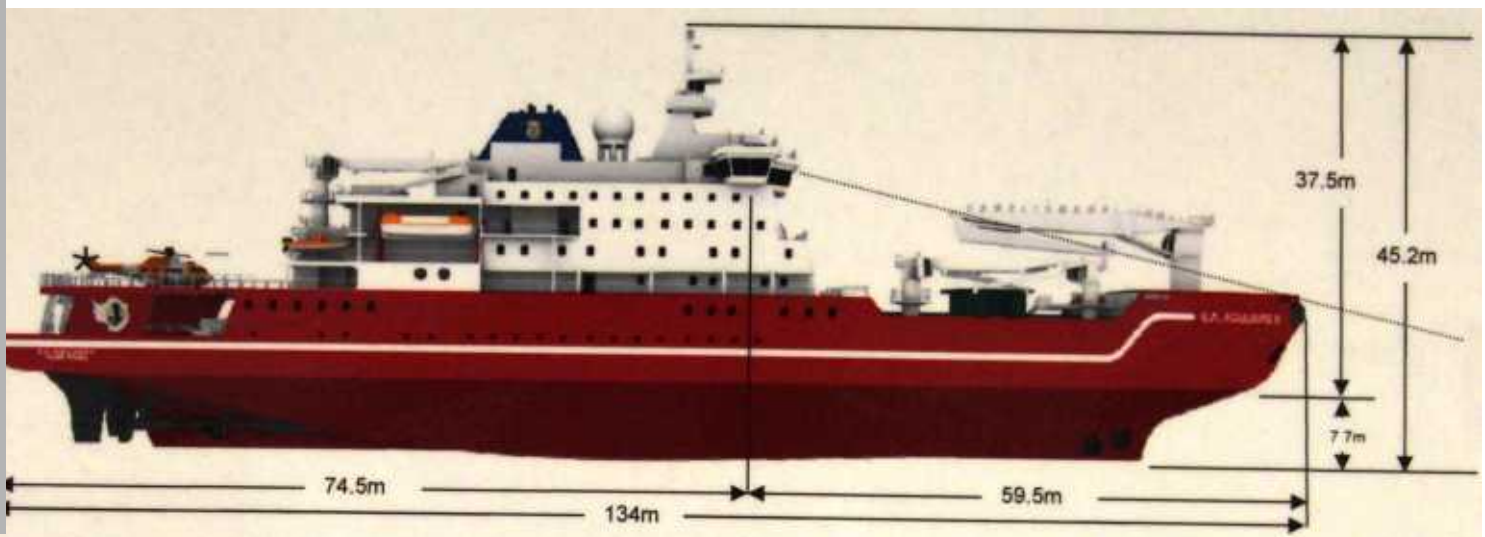
8 The morning of the first day was spent covering theory in the Academy's comfortable class room. Material included sources of ignition, classes of fires, types of fire extinguishers, hose reels, safety requirements of buildings, and so on. The theory portion of the training was examinable, but the trainer did not use the term "exam." He felt it caused unnecessary anxiety. Rather, he referred to the exam as a "celebration of knowledge." And he would highlight potential exam questions by commenting that the section would be celebrated later.

After an early lunch we piled into our cars and drove to Ottery for the practical.

The first exercise was to navigate through a maze with absolutely zero light, to simulate moving through a smoke filled room or building. The floor was uneven and multi-levelled and at times there was only enough space to crawl through. Patience, concentration and constant communication was key to escaping the pitch black labyrinth. This was followed by a similar exercise, in another blacked-out maze, with the addition of a hidden dummy that needed rescue. After the two brief exercises, we were drenched in sweat. It made one realize just how difficult and frightening the situation would have if the rooms were really on fire.

Back outside in the baking sun, we regrouped for fire extinguisher practice. The facility's secret recipe for fire was a mix of paraffin, petrol, thinners, and all manner of inflammable liquids. A bucket full of this cocktail went up in flames several metres high and emitted intense heat. One by one we took turns using a dry chemical powder (DCP) fire extinguisher to put out the flames of the roaring fire lit especially for us. We were all impressed by how effective the fire extinguisher was, when used properly. The last exercise was the use of a hose reel to extinguish several fires in a large shipping container, simulating a room on fire.

On day two we reported to Action Training Academy in Mowbray again to finish covering the theory. Then it was time to write the "celebration of knowledge." All eleven of us passed the celebration without any issues. And with that, we were certified ready to protect ourselves and the SANAE IV base.



## Roping Training

Christiaan

During our team training in Cape Town, in preparation to go to Antarctica, we got the opportunity to educate ourselves in all sorts of knot-making. The purpose of this was to enable us to use ropes to evacuate a team member in case of emergency.



Possible emergency scenarios in Antarctica include steep cliffs, crevices, as well as getting stuck in our rooms due to over-eating. According to previous islanders, it is as certain as the law of gravity that overwintering teams gain weight during expeditions. The truth of this shall be revealed in 14 months time. In any case, for the first two emergencies a rethreaded figure of 8 knot will suffice; while for the latter any knot that does not resemble something you bought at a fancy bakery (an inside joke).

Luckily the weight of the evacuee does not matter during a vertical emergency, since light work can be made of any load with complicated pulley systems. Unfortunately I cannot report on these systems since I was too busy unthreading the rethreaded figure of 8 while the instructor was busy explaining the pulley equations.

After all the theory, we put the physics into practice at a place called The Quarry, somewhere at the edge of Cape Town suburbia and the feet of Table Mountain. I thought my best bet would be to team up with the team doctor during our 10-20m descend. In retrospect it turned out that the blind were leading the blind, and the instructor had to work overtime untying knots resembling the main character in the Alien movies.

I probably had my most enjoyable day of team training at the quarry. The feeling of letting go at the top of a very high cliff, only hanging by a rope, is quite a rush.

## Cooking up a Storm

Brandon

On the 21st November 2013 at 7:15 our team departed from the DEA office in the V&A Waterfront for the Hurst training academy at the Blackenburg Wine estate in Paarl. On our arrival we were served coffee, tea and muffins with cheese and jam, and received our training modules. We moved from their lovely canteen to an even more beautiful kitchen where our cooking lessons began.



The chef started by demonstrating a lamb curry and then proceeded to make two chicken dishes, one curry and one a stew. After this we all had a chance to prepare dishes on our own in their training kitchen. At around 2 o'clock we all went back to the canteen area where we sat down to a delicious lunch, trying out all the dishes the chef and we had prepared.

## Antarctic Guinea Pigs

Sonja

Since 2012, SANAE team members have participated in a study about human physiological changes during their overwintering stay in Antarctica, which is an initiative of the Centre for Space Medicine in Berlin, Germany and funded by the Max-Planck-Institute. S53 team members are also participating and adding another dimension: Pre-and post-Antarctica examinations, brain MRI scans and a control group were introduced.

The pre-departure tests were conducted at the Sport Physiology Lab of the University of Pretoria. Blood Pressure, lung function, hand-grip strength, body composition were tested. No good study is complete without some blood test, so the participants had the good fortune of being pricked with a needle. Cognitive function testing is also part of the study, so everyone had their brain grilled with a computer-based questionnaire. And the grand-final, the exercise endurance, or VO2Max testing, where the participant is pushed to his maximum endurance on a treadmill, made everyone realise that the treadmill at SANAE might be a good place to visit occasionally.

The pre-departure brain MRIs were performed at MediClinic in Stellenbosch, scheduled to start at 17h30. The preceding weekend it

On the morning of the 22nd November we returned back at the Hurst cooking academy for our class on making different breakfast dishes. Our chef first had a go at it showing us the ropes (the soufflé omelet was a hit), after which we got to prepare all our favorites, which we got to eat it as well. It was definitely a good day for me and the whole team.

rained enough for the whole of Africa and the MediClinic in Somerset flooded. The patient load at Stellenbosch dramatically increased; and what would have been a 3 hour exercise, carried on until 2am!

At SANAE, monthly testing will continue throughout the year. To the relief of the participants, the torturous treadmill test will not be included in the monthly testing, but only make its reappearance after arrival back in Cape Town.



## Tower of Glory

Hendrik

On Monday 14 November 2013 we had team-development. To be honest, I am not really fond of these types of lectures self-development informative sessions. But at the end I actually learned something. Did you know there exist something as Emotional intelligence (EQ) and it attributes 85% of your success in the workplace were your intelligent coefficient account for only 15%?

During the course we did a tower building exercise where we were divided into two groups (5 people in each group) and each group received a pack of presstick and spaghetti. The goal was to try to build the highest tower. In my team, each of us built different prototypes (OK, four of us, one started to eat the spaghetti. Luckily he left

the press-stick alone) to identify the best method. The problem was that the detestable press-stick to not want to stick to the spaghetti, but it sticks to your fingers willingly.

Well, we identified the best method to build the highest tower 5 minutes before the deadline. It was to break the spaghetti into halves and press-sticked the two halves together. These sticks were used to build cubes. The plan was to stack these cubes on top of each other. We went into production, 4 people were making sticks and the last person build the cubes. But unfortunately the time caught us and we lost. BUT we SHOULD have won, because we had THE BEST METHOD. With 5 more minutes, my team's tower would topple the other team's highly unstable tower which fell over within minutes after completion.

## Leaving Mzansi

Charles

As this was my second trip outside of South Africa, I can say that the feelings are the same: you get goose bumps in your stomach regardless of which way you leave these shores. From the day that you get the call that your voyage is on, the feeling of longing sets in, with the knowledge that you will be leaving your loved ones behind for a very long time (15 months). Already then, you try to prepare yourself and those around you for the dreaded day.

As you prepare yourself, you start going through your list of things to take along on your expedition and making sure you don't leave anything important behind. As time draws near, you start packing and you want to be sure you don't leave anything to the last minute. You are excited and yet sad as time

is moving too fast; the hours seem to be moving faster than you are. The day has come that you dreaded for so long and you try to spend as much time with your loved ones as you can.

Now it's just an hour, minutes and then seconds left to say your farewells. You try your best to be strong but you squeeze in a last big hug and a long-lasting kiss. As you stand on the deck of this beautiful vessel (S.A. Agulhas II) bound for Antarctica, looking at your family and friends whom you will only see in 2015, you contemplate the idea," Why am I here?". Then the ship starts moving slowly, taking you away from home; you wave goodbye, knowing that ahead of you is something that you have wanted to do. As you are leaving your loved ones behind, you get a tear in your eyes, because you realise as you sail that it isn't easy leaving Mzansi - for there is no country like South Africa.



## Southern Ocean Serenade

Leonard

Sitting in my cabin in the middle of the Southern Ocean and clinging to my bed as it tries to throw me off like a bucking horse, I started wondering what made me decide to come back to Antarctica.

Yes, this will be my second visit to SANAE to spend the year. I've been to Marion Island once and Gough Island twice. It just seems that these expeditions tend to grow on you and even if you tell yourself you will not come back a next time, after spending some time in South Africa you start hearing a little voice in your brain that keeps on calling "come home, come home ...". Only when you fly around the last corner in the helicopter at one of these bases and you see the base from above will you realise ... this is home. You cannot wait to get your trowsers and start unpacking so that you can start working and playing and mingling with all the new takeover and old team friends.

Of course you realise that you will not be seeing your loved ones and dogs for a long,

long time, but at least with new technology it has become much easier nowadays to keep in touch and it almost feels like they are just around the corner, just a call or a fax or a whatsapp away.

The organising of this trip was extremely difficult as we were appointed at a very late stage just before training. A lot of shopping had to be done in Cape Town as new technology, hobbies, clothing and camera equipment was required for my trip. I always advise newcomers to take along as many hobbies as possible and start a few new hobbies as well. If you had the opportunity to overwinter at SANAE once you will not slip up in this regard.

I also want to use this opportunity to thank my support team and friends back home for all their efforts flying and driving long distances to assist me on getting onto the ship and taking care of my belongings back home. This is a very important aspect of every expedition to know that there is people back home that loves you and supports you in your adventures and that your few personal belongings will be safe back in South Africa.



## From the Weather Office

Christiaan

Since we left sunny Cape Town for Antarctica on the 28th of November, we have experienced some exciting weather conditions on-board the Agulhas.

Our first encounter with volatile weather started 44° south on our 5th day of sailing. This region is commonly known as the roaring forties, and is well known for having impressive sea swells. We experienced swells reaching 7m, which lasted until we reached the pack ice at approximately 57° south.

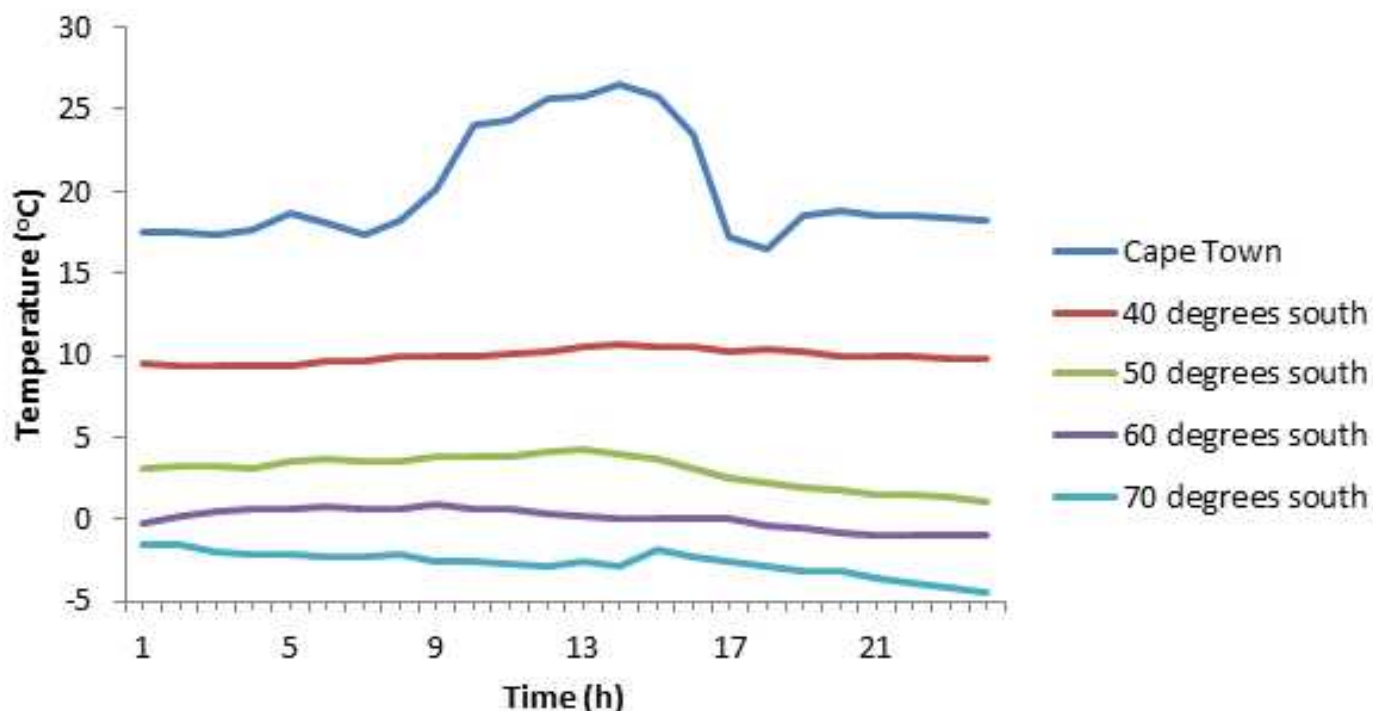
On reaching the pack-ice the temperatures started to plummet. Below is a graph of the daily temperatures we experienced at Cape Town on the day we left, as well as selected daily temperatures at 40°, 50°, 60° and 70° south on our journey.

Keep in mind that moisture and wind chill can drive temperatures even lower, and a lot of the newcomers experienced this chilling effect during the initiation (approximately 65° south). Luckily on that day we did not experience the 100km/h wind gusts of the roaring forties, but it did mark the time we started to see snow falls. From then on it was snowing from above and below; firstly from the clouds and then from below as the wind picks up the snowflakes from the pack ice.

The combined white of snow, clouds and pack

ice effects contrast and visibility badly. However when the visibility is good, we are usually treated with imposingly large ice bergs. Some are kilometres long, and as is the case with the Agulhas, are usually stuck in the pack ice.

We are very close to our destination now, and while we are moving slowly, the next weather report should be from SANAE base.



### “ It must be a fantastic adventure!?”

The rush of excitement and the pang of loss when saying goodbye to South Africa for 14 months. Settling into the new routine on the ship. Trying to sleep through the first couple of days of seasickness. The relief when the sway stops inducing nausea and I find my sea legs. The thrill of the roaring forties, seven meter waves breaking over the bow of the ship. Making new friends and reconnecting with old. Snapping photos of whales, penguins, seals and sea birds. The anticipation and dread leading up to the Crossing the Line ceremony. Celebrating birthdays, celebrating the insignificant, celebrating the first ice.

The ice is magnificent, white as far as the eye can see. The ship ploughs through ice two meters thick, flipping massive chunks onto their sides, exposing the green algae covered undersides. Penguins and seals scuttle out of our way, often with an indignant squawk. Every day we are getting closer to the continent, to SANAE, to our year on the ice.

### “ Well ... yes and no ”

We are still stuck. Not in the Shackleton expedition sense of the word, the ship slowly being crushed by the ice. As in: we are going nowhere slowly. The pack ice is six meters thick at times and we are reduced to a crawl. The S.A. Agulhas II rams the ice, trying to

cause cracks in the sheets; or attempts to crush a piece under the weight of the ship. Forwards and backward, like my attempts at parallel parking. Sometimes we are at a dead stop for hours at a time. Some mornings we wake up to hear that the pack ice is actually moving faster than we are, slowly pulling us miles off course. Some days we travel north instead of south as the ice captain tries to find an easier route to our destination.

We should have been at our offloading point two weeks ago. So we wait... We eat, we sleep, and we have a drink. Play board games, card games, dominoes. Sonja, our doctor, has her “insulting hours” (like consulting hours, but more fun) and Christiaan has his weather ... stuff. We have beach parties, “C” parties; “dress up in someone else’s clothes” parties. We watch movies, read books; sleep past noon. The gym-bunnies gym, the flexible do yoga and those with rhythm offer beginner dancing classes.

Still we wait ... Each day has around 16 hours that needs to be filled. And with the arrival date constantly “another week” away, one day starts merging into another. Slowly the absolute, stupefying boredom sets in. The conversations dry up, card games become just another bland pursuit and the prospect of a gin and tonic after dinner loses its appeal.

How I wish I could get back onto the ice again. To hear the crush of snow under my boots, to feel the wind bite at my skin. To plan, to build; to work until we fall exhausted into our beds at night. Spent, but elated by another day at SANAE.

It draws closer every day. I can hear it calling to me. Soon, I tell myself. Soon.



## Happy Snappies

### Photo competition on the S.A.Agulhas

Given the unique and beautiful surroundings we encounter on our way to SANAE IV many whiled away their time by playing with their new (and old) cameras, snapping amazing photos along the way. To showcase these photos and to decide who would be crowned the King of Kodak, a photo competition was launched. The categories were split into “Science”, “Wildlife” and “Anything and Everything Else”. Our own Patrick walked away with first place in the Science category and second in the general category. Below are some of the fantastic contributions.

### Science category winner Patrick Sivertsen



### Open category 2de place Patrick Sivertsen





**Wildlife category second place  
Catherine Paverd**



**Wildlife category winner  
Rosie Dwight**



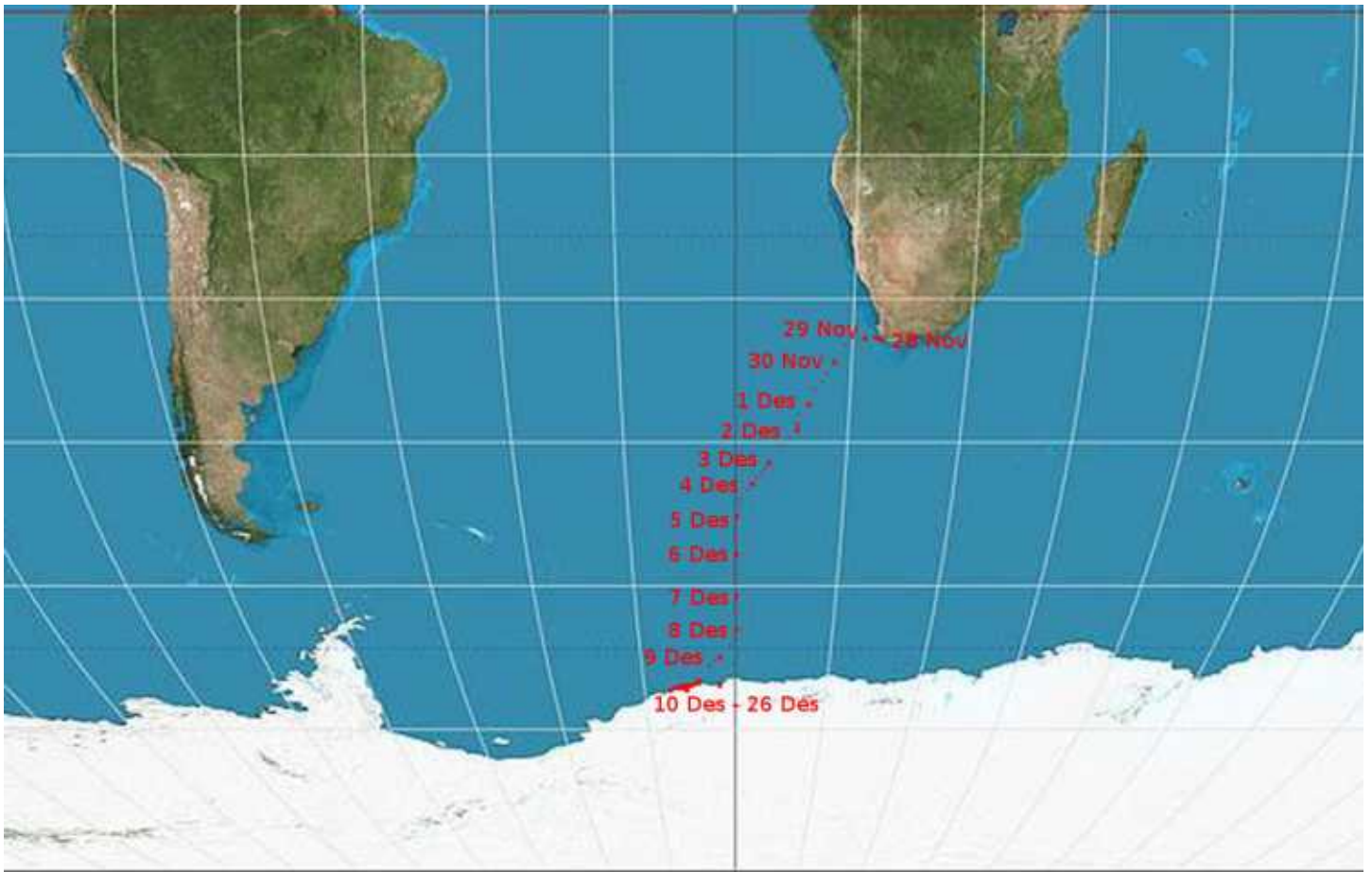
# The Continent of Extremes

Sonja

The area in the high North, where the constellation of the bear “Arktos” does not disappear beneath the horizon, the Greek called the “arctic circle”. Opposite to the Arctic lies the ant-arctic, the counter balance to the North Pole, therefore the region around the South Pole.

Antarctica has rightly been named the continent of superlatives:

- Most isolated continent: It is not connected to another continent via any land bridge or island group. The closest land, Cape Horn, is located 990km from Antarctica.
- Most inaccessible continent: It is surrounded by the roughest seas and pack ice. This pack ice has the smallest distribution at the end of summer in February and extends up to 1000km out in September and reaches a thickness of 3m.
- Highest continent: Antarctica has an average height of 2300 – 2500m above sea level. The average of the continents is 875m.
- Coldest continents: The average temperature is 30°C lower than in the Arctic. The lowest temperature measured was -89.2°C on 21 July 1983 at Vostok, a Russian station. The average temperature is -50°C on the plateau and -15°C at the coast.
- Stormiest continent: Wind speeds up to 300km/h are no rarity, driven by cold air flowing from the plateau to the ocean, often canalised through glacier valleys. The highest wind speed was measured at Dumont D’urville in July 1972: 327km/h
- Driest continent: The average inland precipitation lies at 50mm per annum, which is only slightly higher than that of the Sahara desert. In contrast, the precipitation at the Antarctic Peninsula lies at 900 – 1000mm per annum.
- Largest sweet water reservoir: 80% of global sweet water is stored in Antarctic ice.
- Largest ice shield: About 30 million km<sup>3</sup> cover the continent in an almost continuous shield, extending onto the sea in some areas, e.g. Ross Ice Shelf. Periodically, parts may break up and drift North, up to 45°S in the Pacific and 35°S in the Atlantic or Indian Ocean. The largest ice berg was observed in 1956, measured 31 000 km<sup>2</sup> and was larger than Belgium. The average depth of ice is 2160m and the record depth 4776m (Adélie Land, 1983).
- Geologically least known: Due to the ice covering, Antarctica is also the least explored continent: Only 0,4% of its surface is exposed: 48 300 km<sup>2</sup>. Nunataks, the mountain tops, are usually the only parts extending beyond the ice.
- Largest glacier, loneliest river: The Lambert glacier extends over 80 x 500 km. Antarctica has only one intermittently flowing river: The Onyx river originates from a coastal glacier approximately 30km inland where it flows into the Lake Vanda in the Wright Valley in Victoria Land. This river only flows during February and March.
- Dimension: Antarctica is the third smallest continent, being larger than the whole of Europe and 1,5 times as big as Australia.



**Quote of the month: Sonja (Our team doctor)**  
**‘ I don't believe in medicine ’**

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