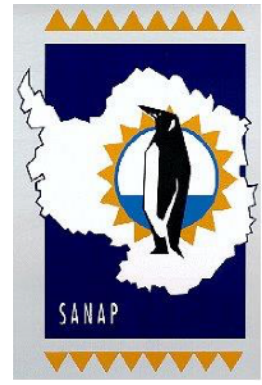




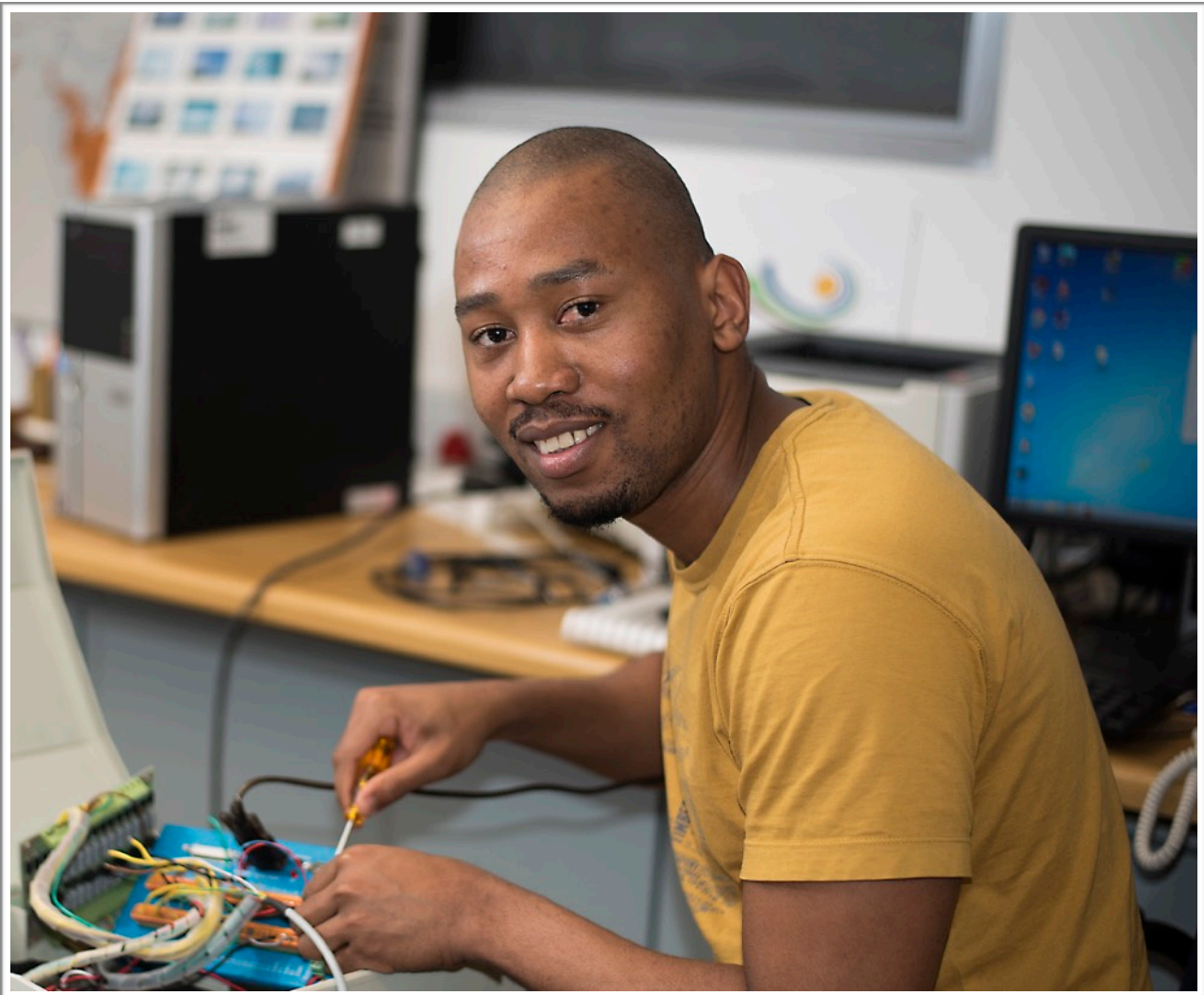
71° Below

SANAE 57 Newsletter
May 2018



It seems that I am getting to the newsletters later and later each month! I will try harder to get it out on time next month! We are now setting into the routine of base life nicely, with a few hiccups along the way. We have had some technical issues with the new systems which we have solved. Mostly just teething issues which can be expected when a new system is implemented. In this issue I will be handing over to two of my team mates who will tell you a bit about themselves.

Elias Seabi



Elias Seabi, Snr Meteorological Technician

Two weeks after returning from Gough Island expedition I received a job offer to work in Antarctica. It was a bittersweet moment; part of me was filled with great pleasure and happiness and in the same breath I felt nervous about the decision I had to make. Nervous because I was not sure if I am recharged enough to spend another year away

from civilization and loved ones, but you see what made it more difficult to decline the offer was I love travelling, connecting and meeting new places and people, so I knew this might be a once in a lifetime ticket to see Antarctica and get paid for it. After speaking to my loved one and family about the opportunity the rest was history, a month down the line I was again on board SA Agulhas II this time on a voyage to Antarctica.

I was born and bred in Limpopo and after completing high school in 2010, I went to start my tertiary education in Cape Town at the University of the Western Cape the following year. I studied BSc Honours in Applied Geology until 2015, and at honours level I majored in both general mining geology and petroleum geoscience. Although I do not hold a qualification specializing in meteorology, during my undergraduate studies I completed an Earth Science module, which covered a course in climatology. Just a week before closing date I found out about this government SANAP program when I was actually searching for geology jobs over the Internet. And because of my academic background and specialization I was not confident on applying for the job, but then what motivated me to submit my application was fact that I met all job requirements on the advert, which mainly included an Honours degree in science.

My journey in SANAP started in 2016 shortly after completing university when I worked at Gough Island from September 2016 until October 2017 as a Senior Meteorological Technician on behalf of South African Weather Services. I worked with two assistant technicians and my main duties included daily observation and capturing of surface and atmospheric weather data, maintenance of equipment and administrative duties etc. One might ask why the South African government is collecting weather data at this British territory? Gough Island is a hotspot volcanic island located west of Southern Atlantic along similar range of mid-latitudes as Cape Town, however further south. Cold fronts passing along this mid-latitude region brings in plentiful rainfall on the island and other areas along the region of mid latitude region such as Cape Town further east of this island. This passing cold fronts arrives in Western Cape region few days down the line bringing in wet weather conditions in areas such as Cape Town as they move from West to East. Therefore due to suitable geographic position of this island it is for this reason the island has been exploited for weather data by South African Weather Services, data collected from the weather station at this island is used to forecast weather for Western Cape area. This island is not only a cornerstone for Western Cape weather forecast, but also scientific research base for flora and fauna studies. The overall expedition team was the 63rd overwintering team made of 9 team members, who included 3 meteorological technicians, 2 conservationists from UK and 3 support staff made of an electrician, diesel mechanic and comms Engineer.

Moving further South to the pole one might ask why remote Antarctica is important in the warming world? Isolated as it is, Antarctica is a key player in the global weather systems and balancing of global sea temperatures. From cold easterly polar fronts in the southern hemisphere which plays key factor in development of mid-latitude cyclones, to cold Antarctic currents which balances global sea temperature and ultimately affecting air temperature, it is imperative to monitor climate change in Antarctica in order to predict global climate impact. Antarctica is covered by thick kilometers of ice sheets and if the ice sheets were to melt due to global warming Antarctica would raise global sea level. This would result in very huge disaster, as coastal areas will be engulfed into the sea. No scientist is suggesting that all ice sheets will melt over the next centuries but even a small loss could have global repercussions. Where, when and how quickly the ice sheets might melt due to global warming is a major research focus in scientific community.

After returning from Gough Island in October 2017, I came to work in Antarctica from December 2017 as a Senior meteorological technician on behalf of South African Weather Services. My main duty here is to manage South African Weather Service office at SANAE base; collecting and capturing surface weather data and maintenance of weather equipment, surface weather observation on daily basis includes observation of current weather; cloud types, cover and height; and visibility. This visual observation

data is entered into a program and combined with automatically populated temperature, humidity, and wind data from the sensors to create an hourly weather synop/report. The raw weather data is sent to South Africa and used to monitor climate change in Antarctica, and research on global warming. Hostile as it is, what I love most about Antarctica is the fact that it's a totally different place on earth and it is out of the ordinary; from seasonal changes in day and night to totally unique landform, I learned a little bit of skiing, a once in a life time recreational activity that I do not think I will ever have another opportunity to do again. To make it more interesting is 9 men I live with at the base, people with good team spirit and great personalities, always looking out for one another, which is what keeps me going.

William 'Bo' Orton



A *ice cold* greeting(though warm at heart) to all the readers of 71 Below.

My name is William Orton. My friends and family call me Bo and so do most of my fellow teammates.

I am a registered industrial electrician from Mthatha in the Eastern Cape and have been doing the same thing in the same place for the past 10 years. Coming to Antarctica has been an incredible change of scenery for me and one that I am immensely grateful for. I have already experienced an almost endless list of firsts and have smiled through at least 98% of them :p

I came across the program while perusing Google Earth for isolated islands. I found Marion Island (having never heard of it or the SANAP program before) and saw the base structures. After some click click around the Google machine, I discovered all about the program and was intensely intrigued. Actually, I became a little bit obsessed and knew straight away that overwintering was something I *really* wanted to do. I've always been interested in the untouched natural world and places that are very isolated because they are quite rare now. Initially, I wanted to go to Marion Island and considered Antarctica to be an extreme that was possibly a second option. Cut a long story short and 2 years

later when I felt I had the necessary qualifications and was ready to embark (if chosen), there was only a post for Antarctica and was expiring in several days. Obviously I applied (really, who wouldn't?), was selected and now I'm here. To me, being here is a privilege like no other and a real dream come true.

So my official reason for being here is to look after all things electrical in and around the base. However I think I have done more non-electrical related tasks/jobs than I ever thought I might. Please note that I am in no way complaining. Some of the work has been challenging and interesting and has certainly kept things feeling "fresh". The base is unlike any other building or structure that I have been in before in that is literally a living, breathing entity that must be monitored all the time and attended to regularly. Both the generators and us "pumpkin shoe" wearing simpletons get our diesel and water respectively from outside the base and so apart from

all that happens inside, there are two external but vital structures that need care and protection from the elements. Working outside has really made me appreciate being inside the base and after my hands started freezing a few times through multiple layers of gloves and inners, I now accept any task *inside* the base with absolute pleasure. We're approaching the end of May now and being outside for extended periods of time is unpleasant at best...

What does Bo like about Antarctica? Hmm... First of all, the beauty of the place for me anyway, is unmatched. The mountains in the distance are my favourite aspect and seeing them is a constant novelty. I quickly learnt here that the weather is king and most things are related to "how's the weather looking?" -I enjoy and appreciate how fast and powerful the wind can be and how low the temperature can drop (some of the firsts I mentioned earlier). If you don't respect the weather here, the wind will flick you off Antarctica's shoulder as you would a fly and your ego will vanish with you.

I mentioned the complexity of the base and although it can be frustrating at times, there is so much to learn from a technical point of view. No matter what experience or skills you bring with you on the SA Agulhas II, there will be challenges that you're going to have to learn about before you can rectify... who doesn't like learning new things or gaining experience you never had? Anyone?

One of the most interesting parts of this whole experience is how I knew absolutely nothing beforehand and was reading the experiences of past expedition members in an attempt to better prepare myself for what I needed to bring and prepare for etc. That information only went so far and after arriving, I soon realized that with such a vastly different environment and situation, you learn the best information through experience. From simple things like which glove/inner combination works for *you* to more deeper issues like how often you'll be phoning a loved one.

I already know now that when I get home and people ask "how was it?", all I'll be able to say is "you had to be there".



Bo, our gentle giant, is 6'8" (205cm) tall and doesn't quite fit in the corridors! Thankfully all the rooms have high ceilings where he can stand normally! I also like the fact that his hoodie is all about Big Foot!

Last Sunset

The final sunset of the year was on 19 May. The sun peeked its eyebrows above the horizon for an hour or so, and then sunk gracefully out of sight, thus affording us a final sunrise of the season also! Thankfully the weather wasn't too bad and we got to head outside and even go for a walk around the Northern Buttress. Midwinter is next month and then the days will get brighter until the first sunrise of the next season.



Other activities

The last couple of months we have been in contact with a few schools that are interested in Antarctic research and the people living on the bases out here. My niece Sophie (12), who lives in America, did a presentation for her Globetrotter class about Antarctica and her uncle out here. The teacher then asked the whole class to come up with questions for us, which we have answered, and also with some photos. There were A LOT of penguin questions as you can imagine! If anyone wants to read these I can send them on.

Through FaceBook I was put in touch with a teacher who needed help with her Antarctic project. Every year her primary school classes draw flags about Antarctica which she then sends down with one of the scientists on the British expedition so the flags can be photographed in Antarctica. Sadly the British expedition did not sail and so the flags never made it. She reached out to FB and, through a scientist that had been at SANAE this summer, was put in touch with me. She sent me the scans of the flags, which we printed out, and took a photo of outside (when the weather allowed it!).



We were also asked to make a short 1 min greeting video for some Chilean high schools, in celebration of the Antarctic Treaty and commemorating Antarctica as a continent set aside for peace, research and international cooperation. We had fun making that video. If you want to see it just follow this link: https://drive.google.com/file/d/1h45ova0BWRdr2ISb9QW6_F0IP8XSHJit/view?usp=sharing

Weather news

As you can imagine it is getting colder by the day. We saw our last sunset of the season on the 19 May. The light periods are getting progressively shorter and the weather progressively more harsh.

Maximum temperature:	-4.5°C
Minimum temperature:	-32.2°C
Strongest wind gust:	47.8m/s (172.1 km/hr or 92.9 knots)

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