

THE

# NUNATAK

SANAE 62 NEWSLETTER FEBRUARY 2023



forestry, fisheries  
& the environment

Department:  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA



# Letter from the editor

**The Nunatak:** Introducing the SANAE 62 newsletter, giving a glimpse into the life of an overwintering expeditioner at the South African National Antarctic Expedition research base.

The overwintering team consists of nine individuals in various roles, where they'll be introducing themselves in this first edition of *The Nunatak*. We are the 62<sup>nd</sup> overwintering team for SANAE.

This year the dedicated team of previous expeditioners and newcomers will make the experience so much more memorable. The energy and overall high spirit of the team for their work and working as a team is exceptional.

Why the name *The Nunatak*? Well, a nunatak is a mountain or rocky outcrop that protrudes from an icy landscape. Making its presence known; noticeable from afar in this white desert where the eye can travel for miles ahead.

We as a team stand out, noticeable with a strong aura.

During the upcoming newsletters, the team will be sharing their experiences and memorable moments here in Antarctica. For most of the team, this is definitely a once in a lifetime opportunity to be stationed on the ice continent. Some of the team members have been part of previous expeditions to SANAE and already done an overwintering expedition.

Regardless of previous expedition experience at SANAE, every year is different and can be cherished in that way for the people you'll be living with for over a whole year and the bonds that may form.

Winter is coming!

The team have been very busy preparing for the winter months with work outside base in the snow and preparations inside base as well. Sharing knowledge and skills is one of the team's best characteristics; learning from each other to get the necessary work done, a whole new experience on its own.

S62, may this be a wonderful year with loads of fun lifelong memories along the way!

Stay strong.

**Editor:** DJ van Wyk



# DR ABBY PATON



Dr Abigail Cornelia Paton, known as Abby. Dr Abby is overwintering at SANAE IV Base for the sixth time as the team's medical doctor and as the S62 team leader. She has accumulated valuable experience from being part of previous SANAE overwintering teams, again as the medical doctor for S50, S54, S55, S56 and S59. Now part of the S62 overwintering team with a record of three overwintering years done consecutively. Her duties include physical and mental care of the team members during the year.

Abby is responsible for all the medical facilities which include a one-bed hospital, a theatre, dental facilities, an x-ray unit and a well-stocked pharmacy. She is also in control of the various food stores, primarily the freezer stock and the dry stores: the team's supply of tinned and packaged foods. As with any team member, duties also include cooking, cleaning, shovelling snow and cargo work.

*"There is always something to do at SANAE – one of the joys of the place. Where else does a doctor get to drive a dozer?"*

# KUSELO VATYANA



Kuselo “Robbie” Vatyana, is the mechanical base engineer for the S62 team and the technical leader. This is his first expedition and first-time overwintering for the South African National Antarctic Programme. His duties comprise of maintenance, fault-finding and repairs on the mechanical and civil services as well as a variety of other equipment at the base, including the power generators, vehicles, air-conditioning system, refrigeration, water reticulation and waste water systems. He is also responsible for operating Caterpillar machines and cargo handling equipment.

Kuselo has a broad background in various fields, from being a junior mechanical reliability engineer to an asset care specialist, before joining the S62 overwintering team. In his free time he likes to unwind at the bar & games area, rest much as possible, watch documentaries and read through various material about SANAE IV base systems and operations.

# STEVE TEBELE



Tlhonlofatso Steve Tebele (Stevovo), is the senior meteorological technician for the S62 overwintering team. His duty is to run the Surface Meteorological and Atmospheric Sciences Research project that is assigned by the South African Weather Service. Steve is also responsible for installing, maintaining and verifying all meteorological equipment that makes up the weather station. Forecasters and researchers both in South Africa and internationally make use of the data that is measured daily to provide vital data inputs to global models, mainly severe weather trends and climate change. Steve has previously worked as a marine biologist, a scientific fisheries observer, and as the meteorological technician overwintering on Marion Island.

*“SANAE IV has always been a dream since 2019 when I was part of the Southern Ocean Seasonal Experiment, where I spent almost two months in the roaring 60-70’s of the Southern Ocean.”*

During his free time, Steve is busy pumping iron with the gents at the gym and socialising in the games area.

*“At times, we are busy playing snooker and having adult beverages. There are those days whereby I am caught up with movies and series of course.”*

*“Not everyone gets the opportunity to come to this continent. I consider myself immensely blessed to be here, to experience summer days where there are no sunsets. I am looking forward to the long dark days of the winter season. It is amazing and beautiful to see!”*

# THEMBA LUPHUWANA



Themba “Roske” Luphuwana, is the communications engineer for the S62 overwintering team. This expedition is his second time overwintering at SANAE IV, having previously been part of the S56 overwintering team.

His duties and responsibilities are the maintenance and successful operation of the V-Sat satellite system, microwave systems, IT networks and the HF and VHF two-way radio equipment with various other system to attend to, also.

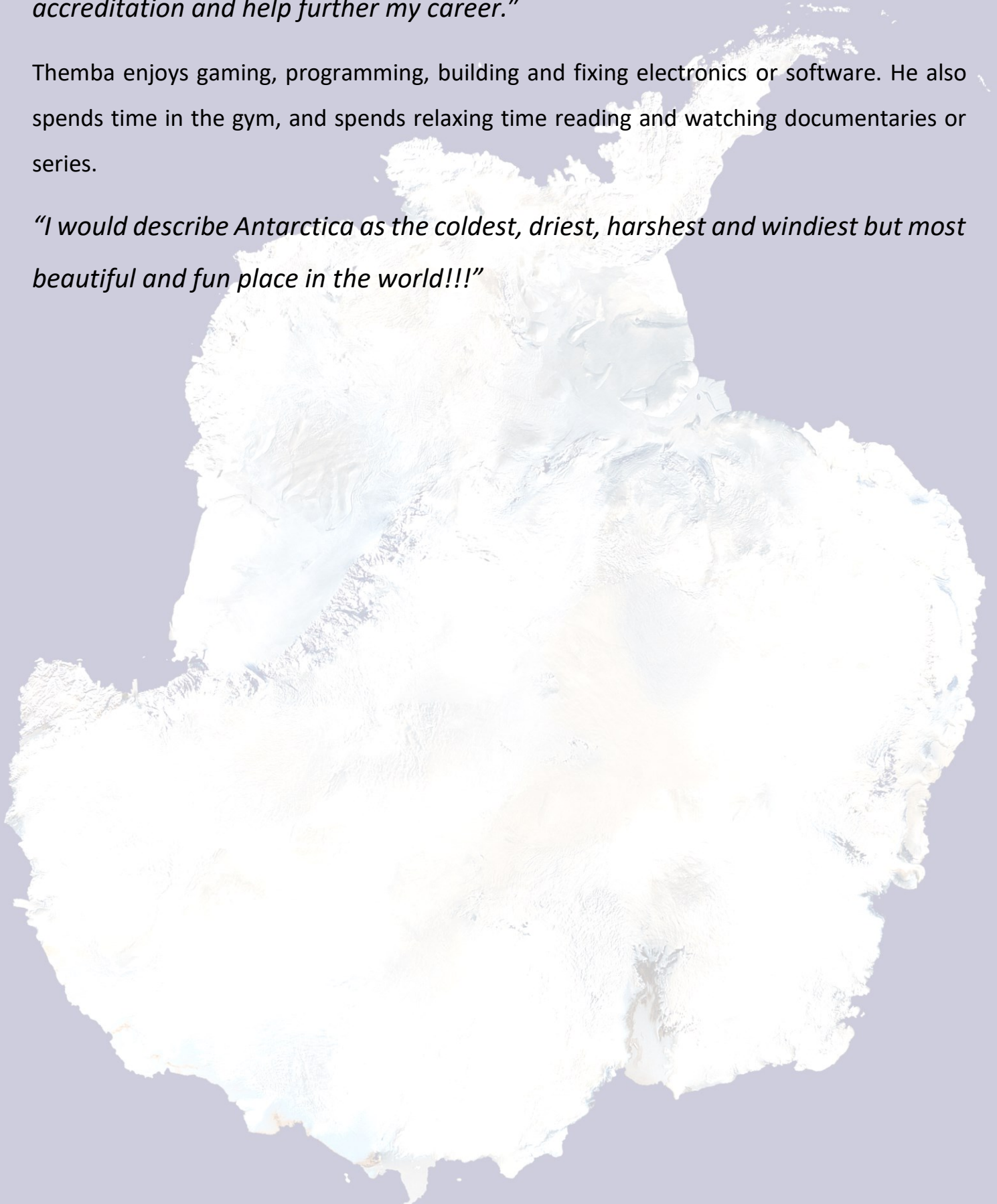
With his vast career background from being a lab technician to an electronics and software engineering consultant, he is a vital part of the S62 overwintering team. He holds a BSc degree in electrical engineering from Wits University.

*“I have chosen to be part of the 62nd expedition at SANAE IV for the wonderful experience I had during S56 and the love for the science the SANAP programme is*

*involved in. Also, being here will help me realize my goal of obtaining my Pr.Eng accreditation and help further my career.”*

Themba enjoys gaming, programming, building and fixing electronics or software. He also spends time in the gym, and spends relaxing time reading and watching documentaries or series.

*“I would describe Antarctica as the coldest, driest, harshest and windiest but most beautiful and fun place in the world!!!”*





# YANGA JONAS



Yanga (YKK) Jonas, is the electro-mechanical technician part of the S62 overwintering team. His responsibilities are to ensure that the base is always supplied with power. This entails providing maintenance and repairs to the electrical, mechanical and civil services. He also attends to a variety of equipment on base and provides support on electrical issues.

*“I work closely with the diesel mechanic on diesel engines, snowmobiles and vehicle maintenance, look after the generators, service heating and air-cooling units, as well as monitor the fire alarm systems.”*

From being a learner technician, he worked his way up in his career to become a mechanical technician and now an electrician before joining the SANAP expedition for the first time as an overwintering team member.

*"I have chosen to join this program because I needed time away from the crowds. I needed a new space, away from people in a remote land. I joined because I was curious about the programme and very interested in the research programmes run by the Department. I regarded this opportunity as a great adventure, and needed to explore a bit, experience the unusual and live a little out of my comfort area."*

He spends most of his free time with the team for a game of pool, throwing darts and video games.

*"If I am not with the team, I will be in my room pumping loud music and in-between forcing myself to watch a movie. I eagerly watch documentaries, read nonfictional books or just trying to go over my emails which can take up to a day downloading a mere **pdf** attachment. Sometimes, I engage with the team in their personal projects and just share ideas around improving some systems whether it is mechanical or electrical. I think of hitting the gym, and I can fairly say I visited only once so far."*

*"This place is exciting! You just need to keep that at the back of your mind. This place is complex; one needs to be alert of one's surroundings as the weather changes drastically at times. Antarctica is also*

*dangerous; nevertheless, it's different understandably since one was not brought up to this sort of environment with snow instead of soil/sand, snow showers instead of rain, what we're used to. You get used to the environment gradually and must just respect it. If your clothing item has a strap, it is there for a motive, trust me. This place at the same time very difficult to describe, it is lovely with great views and sceneries of nature and very harsh cold winds that smack hard when you are improperly geared.*

*It takes a while to get used to waking up with dried nose and lips from the lean air. Once you master the vigorous shortened breathing exercise, with which you later get acquainted, you are good to go!"*

# NKOSI MADAMA



Nkosi Madama is the instrumentation technician for the S62 overwintering team at SANAE IV base. He was part of the recent overwintering team on Gough Island, G67.

His responsibilities are to provide maintenance, fault-finding and repairs of the instruments (all electronic devices and systems) and equipment for the SANAE IV base in Antarctica. Nkosi does various tests for the accuracy of flow meters, pressure gauges, temperature indicators and other recording and controlling instruments (PLC and HMI systems).

With a background as a mechatronics engineer for a number of years, he also does monitoring and maintenance of the Waste Water Treatment Plant (WWTP) and performance testing of drinking water and the WWTP water analyses in the wet lab. He ensures the serviceability and operation of all additional base-related technical systems and equipment.

In his free time, Nkosi is busy with his research in various fields.

# ALAN DANIELS



Alan Daniels is the diesel mechanic for the S62 overwintering team. This is his second overwintering expedition here at SANAE IV Base.

His job duties include the CAT heavy duty vehicle preventive and scheduled maintenance, comprising of D6 dozers, digger-loaders and cranes. These heavy moving equipment are used for all the outside work done at base, grading snow or clearing areas, and moving cargo.

*“Then also, there are the CAT challenger vehicles which require maintenance because they get mostly utilised as means of transportation to the iceshelf as a CAT-train, hauling essential cargo sleds and fuel tankers from the iceshelf to SANAE IV base.”*

*“After being here in 2011 SANAE 50, well I missed this most amazing place and I’m delighted to be back here in Antarctica with the SANAE 62 team members.”*

# DJ VAN WYK



DJ van Wyk is an electronics engineers for the South African National Space Agency (SANSA) under the Space Science division overwintering with the S62 team. He is the deputy team leader for the overwintering team. He holds a MEng degree in electrical engineering and a partial MSc degree in space satellite systems engineering. This is his second overwintering expedition with his first overwintering expedition being on Marion Island for SANSA, with M78.

At SANAE IV, he is responsible for the upkeep and maintenance of the SANSA Polar Space Weather Studies programme's instruments, the DemoGRAPE project and the SuperDARN Radar. This includes data analysis, monitoring and database management, as well as writing of new scripts and updating existing software

related systems for optimal performance of all the space physics instruments.

DJ is mostly busy with his work, growing in the various fields of study and implementing improvements. Occasionally he will be reading a non-fiction book or spend time watching anime. He tends to spend time in the gym with some of the team members.

He has a profound interest in space physics and engineering, with a love and passion for wildlife along with the science behind it. He has held various engineering positions from being a project engineer to a design engineer for international companies. With a keen interest in the science and physics fields, he is serving as a committee member for the Association of Polar Early Career Scientists South Africa (APECSSA).

# NIVEK GHAZI



Nivek Ghazi is one of the two electronic engineers employed by the South African National Space Agency (SANSA) who are responsible for operating, maintaining and upgrading all of the space weather instruments. Nivek holds a BSc degree in Applied Mathematics and Physics, with an Honours degree in Astrophysics from the University of KwaZulu-Natal.

*“The Sun plays a major role in our everyday life, where solar flares and particle ejections can easily disrupt technology we thrive upon. The frequency and intensity of these solar storms can be measured on the ground by a range of instruments such as magnetometers, VLF instruments and GPS receivers, and a SuperDARN Radar. Much of my day is spent ensuring that these*

*instruments are working correctly and that their data is sent to researchers at SANSA.”*

Nivek spends most of his free time watching documentaries and movies as well as reading up on scientific papers and the occasional book.

He had the opportunity to overwinter on Marion Island, part of the M78 expedition.

*“Marion Island has quite a unique environment where you can experience all four seasons of the year all at once, so I thought what would 24hrs of sunlight and night feel like, and Antarctica was the only place I could experience this. I also wanted to see an Aurora.”*





# THANK YOU FOR OUR SPONSORS

