

SANAE 51



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



SPRINGTIME AT SANAE

Read about what the team has been up to lately, the latest hair trends, birthday snowbaths, and more...

OF DOGS AND MEN

Stefanie Strachan

"Look kindly oh Lord, on these, Thy creatures, for we are dependent on them, and they with us, are utterly dependent on Thee" – cover of the Dog Diary, Davis Station

Dogs are more than simply "man's best friend", they are also his most loyal workers. For thousands of years, humans have used dogs for numerous tasks, some of them quite dangerous and exhausting. Sled dogs are used extensively in the colder regions of the Earth, and no place on the planet is colder than the



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Antarctic. In addition to being among the most beautiful dogs in the world, they are also among the strongest. Their tremendous lung capacity and ability to work extremely well together enable them to pull a sled loaded with freight (and the musher) over long distances for extended periods of time. And they do it in the world's most inhospitable conditions.



* picture found at naa.gov.au

In 1945 huskies were brought down to the Antarctic from Labrador to support the work of the Falkland Islands Dependencies Survey (later known as the British Antarctic Survey). In these early days small bases were set up by ship on the Antarctic coast and the only way to travel inland was to use dog sleds. At one time over 200 dogs were being used and challenging journeys, lasting months, were made over mountains, sea ice and ice shelves.

The working life of these husky dogs came to an end in 1975, by which time aircraft, tractors and skidoos had taken their place. Some teams were left and played an important part in the life and morale of the bases, especially during the isolated winter months. The dogs provide the link with Scott,

Shackleton and the dogs of Amundsen's Pole journey in 1911, and the link with the British Grahamland Expedition which had first explored these areas of the Antarctic Peninsula in the 1930s.

Under the 1991 Protocol to the Antarctic Treaty, the dogs had to leave the continent by April 1, 1994, as they were deemed by the international community to be non-indigenous species.

Doing a bit of research into the lives of the dog sledding Antarctic expedition members reveal that these dogs were more than just reliable and cuddly transportation. In Mawson station's 1961 dog report a few of the intricacies of caring for these dogs are revealed. *"All pups were weaned at about four weeks. They were fed powdered milk and warm water at first, twice a day.*

Gradually, as they grew, other ingredients were added. Egg

powder, vitamin capsules, and Bonox. Chopped seal meat was given soon after weaning and whole pieces as soon as they could handle it. ...Pups were usually allowed to run loose until the age of five months. On no account should they be tethered before four months. During this time plenty of freedom and exercise is necessary to promote growth and strength, so they should be left free until public opinion becomes overwhelmingly opposed to the idea (caused by chewing of gloves, socks etc.)." It goes



* picture found at illustratedpast.com



* picture found at illustratedpast.com

on to explain the best way of chaining up the animals to keep them in the best conditions, what to do with bitches about to whelp, what helps when dogs seem to be 'depressed' during the winter months, the general care of the animals, etc. Feeding of the animals is of course one of the most important parts and is discussed in great detail. *"The main diet is seal meat and should be fed whenever possible whether in camp or in the field. When seal was unavailable, Emperor penguins were also used for dog food, possessing as they do a large quantity of good red meat. However, for biological reasons, penguins should only be used as a last resort."* The dogs were issued 9-10pounds of seal meat every three days. In very cold conditions, this was supplemented with half a gallon of 'mush' consisting of powdered milk, hot water, meat bits, powdered egg, vitamin capsules, and Bonox. The feeding instructions were also accompanied with instructions on sealing and storing of the cut up seal meat. Other instructions

also included the training of the dogs, how to load sleds and harness dogs, field work and feeding while out in the field, and the different commands used while sledding.

As a modern overwinterer, I cannot begin to imagine the interaction and relationships shared between these men and their K9 companions, but reading about their tales sure does leave me missing my own fluffy puppy a whole lot more. ☺



* picture found at corbisimages.com

CAT TRAIN PREP

Johan du Plessis

The preparation for a Cat train is filled with contrasts, which makes it a challenging and potentially exhausting exercise.

Seeing that we are so isolated and that the resources at base are limited the Cat train will arguably always be its own best rescue team. My point is that during winter there will be 4 members on a Cat train, from the remaining 6 on base maybe 2 will be free to leave the base. Two Challengers will be on the Cat train, only an additional 1 is available for a possible search and rescue. The question is if 4 people with two

Challengers ran into trouble what would the additional 2 in one additional vehicle be able to do?

With this in mind a simple 3-day trip, 50 km (i.e. 4 hours drive) from base, becomes quite an involved logistical exercise. Herein also lies the contrast, you must prepare diligently enough to be ready for an unfortunate but possible life threatening event yet you must remember that time is of the essence and preparing for a Cat train is not being on a Cat train. You must have a keen eye for detail, as small details could be the first link in a chain of catastrophe yet you must be able to live with the chaos of 4 people making

a 6 by 3 meter container their home. You must have the patience of an old man as things on this



weirdly wonderful continent sometimes take a bit longer that you might expect yet you must have the impatience of a young man as weather gaps are blessings you can surely lose. You must have the seriousness needed to

bring a project of this nature to a close yet you must have the sense of humour needed to laugh at hard working hours that sometimes bear no fruit. You must trust your fellow participating Cat train members with responsibilities but not get

disheartened when you need to pick up the slack left by passengers. Lastly, you must enjoy and savour the privilege to see this untouched wilderness but also respect the acute remoteness of our location. ☺

20 QUESTIONS - PART 1

After almost a year away from home, we decided to ask the team some questions to learn more about each member's unique experience of Antarctica (questions 11 to 20 will appear in the following newsletter).

1. If you could go back to Nov 2011, would you do this SANAE trip again?
2. What have you not done yet that you wanted to do?
3. What is your plan when you get back?
4. Was this year easier or tougher than expected?
5. What two things do you miss most (people not included)?
6. Would you be able to do another year back to back?
7. If you could add one room to the base, what would it be?
8. What do you think the ideal team size would be?
9. What is your favorite SANAE dish?
10. If TV was possible, would you want it?

MUGSHOT	ANSWERS
	<p>Jako Bester</p> <ol style="list-style-type: none"> 1. Yes 2. There are too many to list, the year was busier and "shorter" than I thought, but one that I still aim to complete is my photography course 3. Long holiday 4. Tougher 5. Rain and trees 6. Probably, but not willingly 7. Bowling alley 8. 20 9. Leg of lamb 10. No
	<p>Vincent Rademeyer</p> <ol style="list-style-type: none"> 1. No 2. Learn another language 3. Do a diving course 4. Tougher 5. Rain and trees 6. No 7. Swimming pool 8. 20 9. Pancakes 10. No



Braam Beukes

1. No
2. Try out the sauna
3. Visit family and friends
4. Tougher
5. Fresh fruit and long walks along the beach
6. No
7. Solarium
8. 12
9. Cottage pie
10. Yes



Elrich Delpont

1. Most definitely
2. Made a plaque to put in my bar
3. No immediate plans, but would most definitely go visit people who have lost loved ones while I was away
4. Difficult to say, had the best of both worlds. I would say easier
5. Most definitely the sea and wildlife
6. No
7. Room with a built in braai!
8. 10 is good, maybe 12 would be better, with a chef
9. Oxtail casserole
10. All sport and nature programs



Johan du Plessis

1. Yes
2. Inspect a crevasse - it is not allowed anymore
3. Look for a job
4. Easier in most respects, except maybe the 'Team' aspect. There is no 'Team' in 'I' or how does it go...
5. Ordering food from a menu and holidays
6. If I had to but the enthusiasm I had a year ago is gone now
7. A triple layered glass room on the roof, with a Jacuzzi
8. One (just kidding). It is too dependent on who they are, between 5 and 20
9. Mcabango's Dombole (almost like dumplings) in stew. This man can cook
10. Maybe a news and sports channel. It might help with the socialising



Jonathan Ward

1. Yes
2. Pigger, Knotten
3. Go on holiday somewhere far away from ice/snow
4. Yes
5. My dog and sushi
6. No - not without seriously resupplying and being able to see family/friends
7. Common room downstairs and get rid of library
8. 20 - inclusive of designated chef and skivvy personnel (hey, some people would do anything to go to Antarctica!)
9. Any dish in which the meat is not like leather (seriously overcooked)
10. No - only sport



Mcabango Biyela

1. Yes
2. Welding skills
3. Back to school
4. Normal to easier
5. When I'm back home, I will miss cooking supper for the team and smellying the most
6. No ways
7. Study room in the library
8. 7
9. Everyone's dishes, especially leg of lamb
10. Yes



Stefanie Strachan

1. Yes
2. Dozer run - maybe
3. Finish my studies in Sweden
4. Easier in some aspects and tougher in others
5. Shopping and rain
6. Yes - sorry Mom
7. A glass room on top of the base with comfy couches to watch Aurora or sunsets/rises on windy nights
8. 16
9. Ribs and chips
10. No

SPRING BIRTHDAYS

Braam Beukes

The month of September hails the beginning of Spring and it inspires images of renewal and rebirth. With those images in mind it was wonderful to have two team members who celebrate their birthdays in this month. The two lucky ones were Mcabango and Jon. Mcabango celebrated his birthday on the 4th of September. As usual, there was a cake and singing as part of the festivities. Unfortunately, the weather would not allow our local weather guy to have his



snow bath on his birthday. This opportunity only presented itself on the 17th of September.

On the 17th Mcabango came down the steps of the base looking 'fighting fit' as he adorned boxing gloves for the occasion. Fearless in his approach, he dispatched with the boxing gloves with a dramatic wave of his arms before he dived into the snowbath.



As was the custom, singing accompanied the piling of snow/ice onto the 'victim' in the bath. After Mcabango was back in the base and operating within acceptable body temperatures he thanked everyone for their participation.

Jon's birthday was held on the 19th of September. Jon was lucky in the sense that he could have his snowbath on the same day as his birthday and would not have to wait to experience being covered with snow and ice. As was the case with Mcabango, Jon was also presented with a cake and singing



on the day of his birthday. Jon was one of the very few snowbath candidates that made recommendations for his snowbath. One of these recommendations were for the snowbath to be 'as deep as possible'. The team, always eager to help, tried to honour the request as best they could by foregoing the normal location for a hole on one of the massive sastrugi that form on the leeward side of the base.

As we all are aware, Jon is proudly South African and this was no more apparent than when Jon came

jogging down the steps of the base wearing his South African speedo. As he dove into the hole the shovels wasted no time in dispatching ice onto the body of Jon while the funnel was put to good use dispatching a beverage down Jon's throat. Strangely enough, no words of wisdom were uttered by Jon during his snowbath, and it took a little while for Jon to start conversing with people afterwards. When asked how it was the reply came back 'It was not that bad'.

Thanks to Mcabango and Jon for celebrating their birthdays with us and providing us with more memories of our time on the ice. May you both have many more years of adventure and good times. I hope that you will look back with fondness on the unique way you celebrated your birthdays this year. ☺



ICE CAVE

Stefanie Strachan

We have a massive sastrugi forming in front of the base, so it was decided that it would be perfect to build/dig an ice cave in. This would also serve as a good exercise session, and not just in the sense that you are pretty exhausted after a few hours of digging, but also because it is good to know how to be able to dig an ice cave in case we are ever in an emergency situation where we need a makeshift shelter to spend the night in.



Take 1: The first attempt was in April, on a warm-ish Saturday afternoon. About 5 of us took turns digging a tunnel into the ice that would later form the entrance to the cave. After a few hours of digging everyone was sweaty and

pretty tired. Luckily we were saved by the dinner bell. Since the wind did not play along the following day, the cave just remained a tunnel that slowly filled up again over the next few months.

Take 2: Since we were still set on having an ice cave, the mission was continued after the winter. Since all traces of the previous

attempt were now wiped out by the wind, we had to start from scratch. This time, since we were fewer people, we employed the help of a chainsaw to start us off. It couldn't be used for too long into the



mission though, so after a bit we had to go back to using our trusty shovels. After a day and a half of fervent digging, we finally had our ice cave that was big enough for three people to comfortably sit in!

So the next task was to 'pimp it out' so that it was more comfortable to spend time inside it. Grabbing a couple of sponge mattresses from the base and forcing them into the cave through

the mini tunnel proved to be harder than imagined, and our ridiculously tired muscles didn't help at all. Eventually we had the 'insulatory seats' ready and we could go back into the base for dinner and a shower. The cave is now rigged with a door and a location indicator flag, so hopefully we will be able to have a few more days of hanging out in the ice cave before we have to go home. ☺



SANAE HAIRCUTS

Jon Ward

There are many different personalities and styles to be found amongst the S51 team members. Some of the previous editions of this newsletter have focused on different aspects of these styles, including something

about our beards, hobbies and unique fashion choices. All these things are good ways of coping with the isolation and for expressing one's individuality without the fear of judgement by the outside world. Needless to say, this has resulted in several very distinctive hairstyles throughout the year, which we are going to reveal to you now, for your amusement and ours!



Fauxhawk - pronounced 'fo-hawk'

Description - In this case, aka the 'Frohawk', this hairstyle is an approximation of a Mohawk made without completely shaving or 'buzzing' the hair on the sides of the head.

Quote - "When you really want a Mohawk but don't want to join a biker gang or get fired from your job. "



Mullet - aka 'the neckwarmer'

Description - One who is found to have sincere business in the front, yet an unmistakable party in the back. It will always be in style. Contrary to popular belief, there is no such thing as a bad mullet.

Quote - "It keeps the hair out of your eyes, but you can still head-bang and enjoy the freedom of long hair."



Comb-over

Description - a rearrangement of surrounding hair to cover a bald spot as completely as possible. Usually accomplished by flattening strands of hair in widely-spaced parallel stripes across the afflicted region. Rarely successful.

Quote - "The average male is more concerned with just having hair. What it actually looks like is secondary in most cases."



Liberty Spikes

Description - The hair is formed into thick spikes that may radiate outwards in all directions or all point up in the same direction. Mainly sported by punks and emo kids. Usually leads to freakish behaviour.

Quote - "Forming and keeping the shape of liberty spikes is beyond the capacity of most hair styling products, but a combination of glue, shaving cream, handstands, gelatine and egg whites work well"



Fauxlet - pronounced "fo-let"

Description - A type of compensatory mullet that tapers back without such a blunt chop-line. Used when somebody wants a mullet but cannot bring themselves to get one.

Quote - "I'm really too cool to wear a mullet, but I secretly like the style, so I'm going to wear a Fauxlet instead."



Il Pirata - aka 'The pirate'.

Description - When ye wear a bandana or 'skull-cap' around yer head that hides yer actual hair-do. It does a good job o' keepin' a long fringe out o' yer one good eye.

Quote - "arr"



Afro

Description - The manliest hairstyle in the world. Big, puffy and good to hide things in but should never be attempted by white guys.

Quote - "No matter the colour, gender, or size... anyone can jive."



Shaved Head

Description - a shaved head is fresh and clean cut. It's practical, looks cool and it feels good.

Quote - "There's something freeing about shaving your head. It's a clean start. A statement."



The beanie

Description - although useful to keep the head and ears warm outside, this also works well to hide any form of a bad hair-do.

Quote - "Some of the worst mistakes in my life were haircuts."

SANAE SCIENCE - COSMIC RAYS

Stefanie Strachan

Cosmic rays are high energy particles that originate from many sources in the universe. Because of the high energies associated with these particles they are affected by the magnetic fields that stretch throughout our solar system and the rest of the universe. Our planet

has an intrinsic magnetic field that forms a region around Earth which

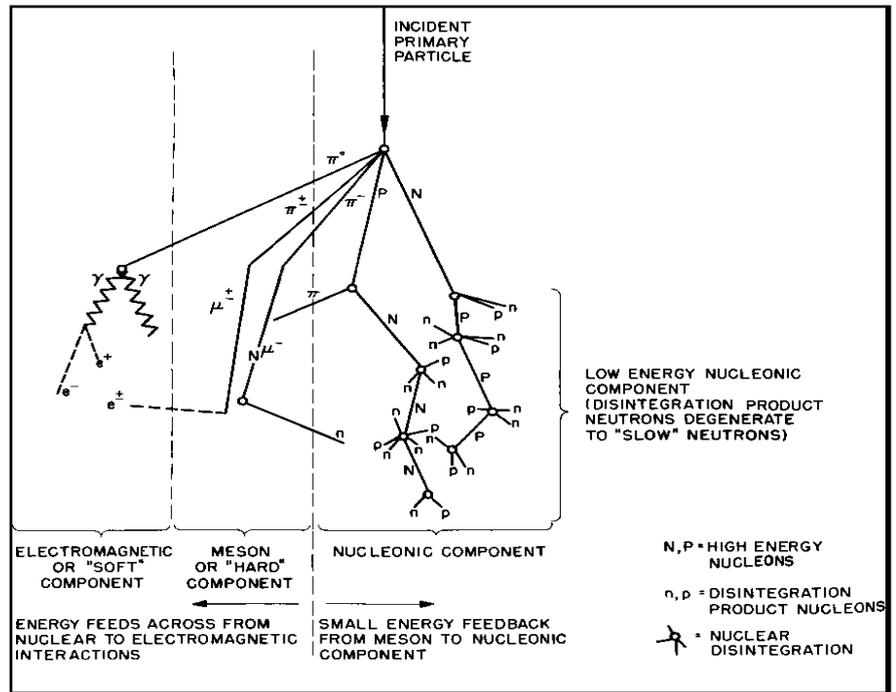


One of the neutron monitors at SANAE

we call the magnetosphere. The magnetosphere acts as a barrier to shield our planet from the solar wind. Without this barrier, life on Earth as we know it would never have been possible.

Cosmic rays have energies orders of magnitude higher than particles from even the most powerful man-made particle accelerators. Even though they don't generally reach the surface of the Earth due to collisions with atoms in our atmosphere, we can still quantify the levels of cosmic ray particles reaching our planet by measuring the secondary emissions of these collisions.

At SANA IV we specifically measure the resulting high-energy neutrons using two neutron monitors. The first is located in the hangar, and the second is actually a scaled down design called a neutron moderated detector and is located in its own dedicated room because it is very sensitive to changes in metal objects in close proximity to it. These monitors consist of tubes filled with a specific gas (boron-tri-fluoride) at a very low pressure. High voltage electronic



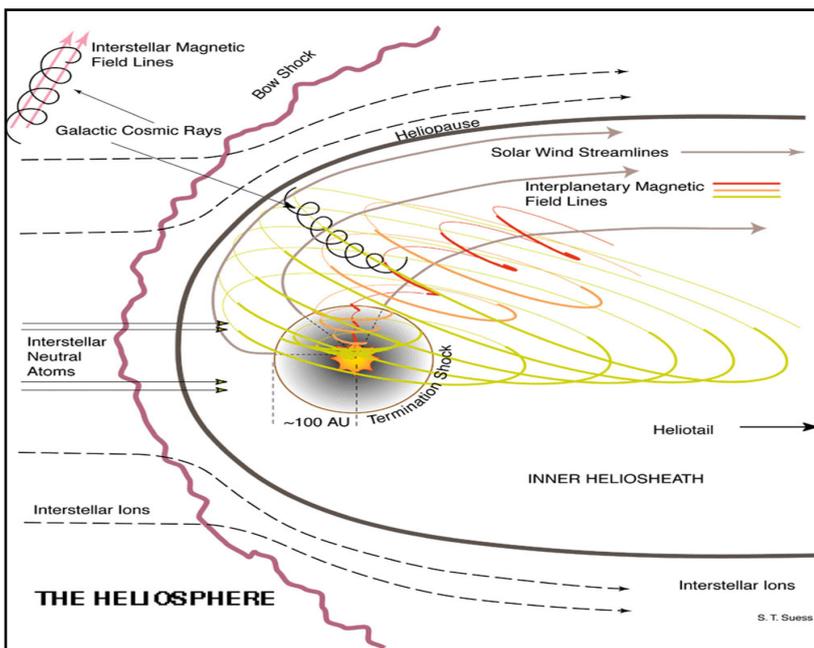
Schematic diagram of a cosmic ray shower

*Picture found at sott.net

equipment interface to these tubes, and measure a small electric pulse for every incident high energy particle. The recording systems can then give us a count representing the relative number of particles that strike the tube during any given time period.

Cosmic rays are affected by magnetic fields, spiralling around them, and therefore cannot easily

penetrate the magnetic field that surrounds Earth. Because the magnetic field is directed into the crust of the earth close to the South Pole and out close to the North Pole, particles require less energy to penetrate the magnetic field at the poles than closer to the equator. We call this minimum energy the cut-off rigidity of a specific location on the surface of Earth. Neutron monitors in Antarctica are very important to scientists because of their low cut-off rigidity compared to the monitors located closer to the equator. The North-West University also has neutron monitors at Hermanus, Potchefstroom, and Tsumeb in Namibia. The data gathered by the North-West University is intensively used by scientists all around the world to do research on the magnetic fields present in the Heliosphere, the solar cycle and other events related to the Sun. In the long run, cosmic rays can help us better understand the complex relationship between Earth and the rest of the universe. ☺



*Picture found at nasa.gov

SANAE TRENDS

Temperature

Maximum	-7.9 °C
Average Max	-17.5 °C
Average	-20.7 °C
Average Min	-23.9 °C
Minimum	-29.6 °C

Pressure

Maximum	890.9 hPa
Average Max	881.7 hPa
Average	877.5 hPa
Average Min	872.9 hPa
Minimum	853.7 hPa

Humidity

Maximum	100%
Average	73%
Minimum	15%

Wind speed

Mean	31.0 Knots (50.4 km/h)
Maximum Gust	102.6 Knots (175.6 km/h)

Daytime lengths

Average day length	19.2 hrs
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Quote of the month

Stef: "You suck!"

Johan: "No, I don't. Whats the opposite of suck? Blow? I blow!"

Movie of the month

Black Hawk Down

Song of the month

The Bird and the Worm - The Used

Dish of the month

Fillet and roast veggies

THANKS TO OUR SUPPORTERS:



MEERLUST





Support also by the following individuals:

Homemade Buffs – Mrs du Plessis

Homemade Ginger Biscuits – Mr and Mrs Knoesen, Mrs Bester