SANAE 47

47th South African National Antarctic Expedition

NEWS

August 2008

Newsletter of the 47th South African National Antarctic Expedition Overwintering Team
SANAE IV Research Base, Antarctica Tel +2721 405 9428 Email sanae@sanap.ac.za

In this Newsletter...

Cover photo: In front of the inteferometer, © Daleen Koch 2008

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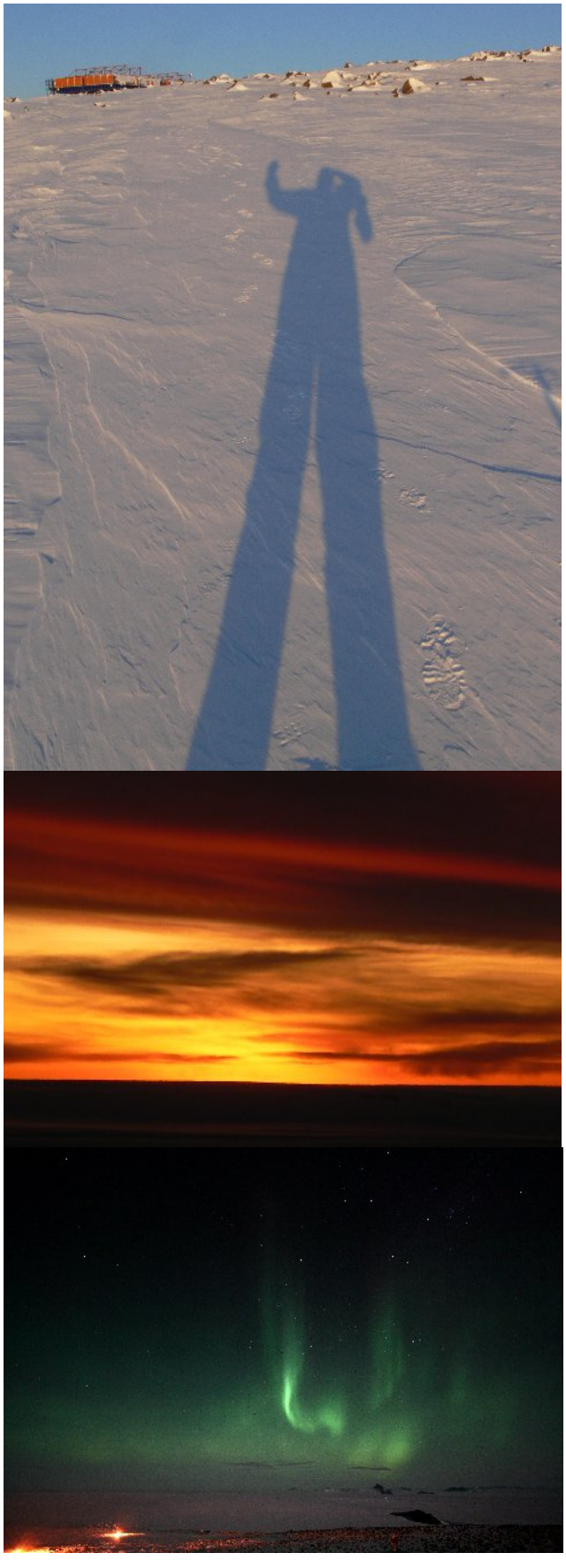
This newsletter reflects the experiences of the individuals in the overwintering expedition team. Opinions may not reflect the official policies of the SA Government, Department of Environmental Affairs and Tourism or the Directorate: Antarctica and the Islands.



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The Month in Focus

August seems to have been a quiet month, and long weeks of very strong winds kept us indoors for much of the time, but there were still many high-lights...

...taking part in the first Winter International Film Festival of Antarctica, from 1-3 August, in which many bases competed to create films containing set elements within a 48-hour time limit. SANAE's entry titled 'Desert of the Real' was commended for it's script, acting and cinematography...

...the ladies getting special attention on August 9, Women's Day in SA...

...almost 3 weeks of storms...

...the darts competition against Marion Island on 16 August (see the story in this newsletter)...

...clearing the build-up of winter snow and ice from the inside of the hangar doors...

The Aurora Australis (Southern Lights)

There have been numerous naturally occurring celestial phenomena observed since the dawn of human history, but few have captured the imagination, curiosity and fear as much as the aurora. The aurora, also called the Northern or Southern Lights, is certainly one of the most spectacular of nature's phenomena.

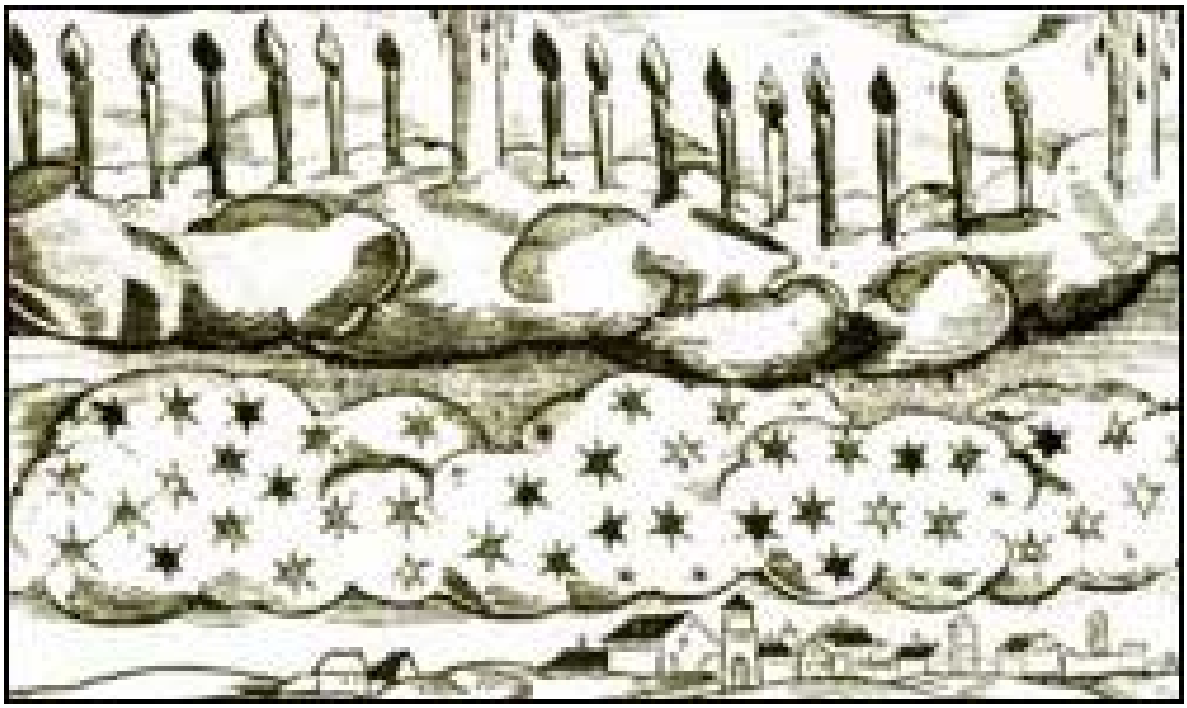
Named after the Roman goddess of dawn, the aurora is a common occurrence near the poles. A*ustralis* is Latin for "of the South".

References to the aurora are contained in the ancient literature from both East and West. Xenophanes, a Greek philosopher in the sixth century B.C. Mentions “moving accumulations of burning clouds”.

The oldest known auroral citing was written in 2600 B.C. in China: "Fu-Pao, the mother of the Yellow Empire Shuan-Yuan, saw strong lightning moving around the star Su, which belongs to the constellation of Bei-Dou, and the light illuminated the whole area." Because the phenomenon was not understood, much fear and superstition surrounded those early sightings.

Auroral lights are produced by particles, originating mostly from the sun, that collide with the atoms and molecules of Earth's upper atmosphere. These particles travel outwards from the sun by the solar wind and get trapped by the earth's magnetic field in the magnetotail. Every now and then the magnetic field lines of the Earth reconnect with that of the sun which accelerates these trapped particles toward Earth. The collisions excite the atoms of the atmosphere and the energy is lost through light emissions. Most aurorae observed at SANAE are green and red emission from collisions with atomic oxygen, but nitrogen molecules and ions can produce a display of red, blue and violet.

Typically the aurora appears either as a diffuse glow or as "curtains" that approximately extend in the east-west direction. At some times, they form "quiet arcs"; at others ("active aurora"), they evolve and change constantly. Each curtain



Early drawing of the aurora, depicted as candles in the sky, 1570. (Original print in Crawford Library, Royal Observatory, Edinburgh)

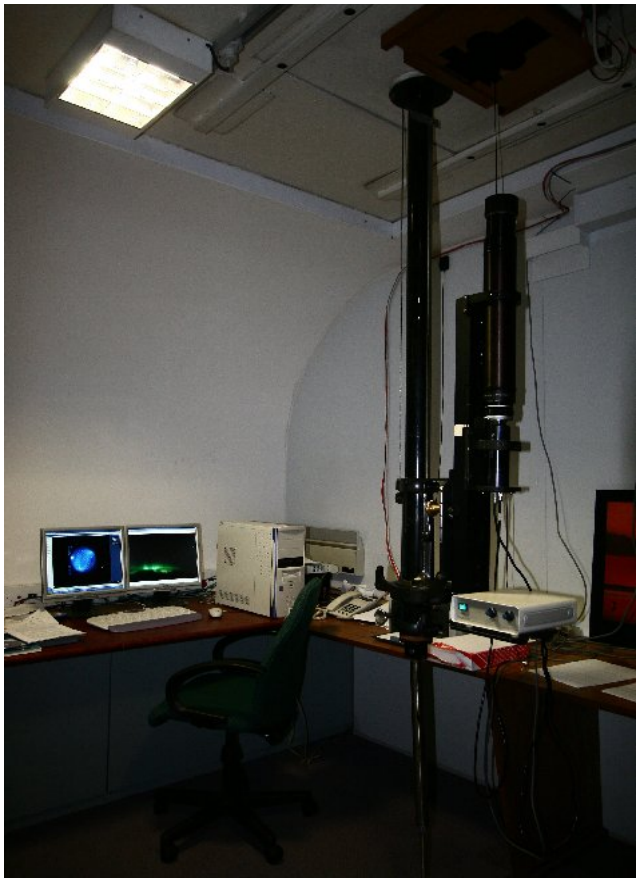
consists of many parallel rays, each lined up with the local direction of the magnetic field lines, suggesting that aurora is shaped by Earth's magnetic field. Aurora can be classified according to their condition, structure, form, brightness and colour.

Because SANAE is located outside of the auroral oval, a zone between 60 and 80 degrees geomagnetic latitude where aurora is most likely to appear, aurora seldom occur from right above the base. A stable homogeneous green arc in the south-east is the most common appearance, but occasionally the arc explodes in a very active and beautiful rayed band of green and red.

There are two dedicated camera systems at SANAE to record the aurora for scientific research purposes. One has a field of view of 170 degrees so that events over the whole sky can be recorded.

Morgan O'Kennedy

Cosmic Ray Scientist



A rayed band viewed to the south from SANAE-IV *Photo: M. O'Kennedy*

Natural Born Killers

The date: **16TH August 2008**
The game: **Killer darts**
The opponents: **Marion 65 vs SANAE 47**
The venue: **Marion Island SANAE IV**
How: **Video Skype!**

It is true that in every team there exists a natural born organizer and the SANAE 47 team is no different, except that we are blessed with 2 of them: Sanki du Toit and Daleen Koch. Daleen made the suggestion at the dinner table one night. "Hey guys! What do you say to a darts competition against Marion Island?" "Great," I replied, "but how on Earth are you going to manage that?" I got given the look that says 'Are you completely ignorant of technology?' "By video Skype, of course!" was the reply.

Richard and Anton chat to their competition at Marion Island via Video Skype

Daleen then went about putting this competition together and the 16th of August was the agreed date of battle. Ross supplied the laptop and the video camera, Gerhard sorted out the necessary cables and wiring and Llewellyn and Sanki made the snacks and pizza. The beverages were supplied by two of our favourite sponsors S.A. Breweries and Allesverloren Wine Estate. The SANAE team was represented by Anton, Morgan and Richard and the Marion Island team by Big Fish, Clokes and Johnny. By 8:30pm everything was set up and we were able to have a face to face chat to our opponents before the games got under-way. This was a first for me and it was really good to be able to see the guys on Marion. The game decided on was "Killer" The first game saw Anton taking on Big Fish. Anton proved to be a worthy fisherman as he hooked his big fish early on in the game and slowly played him until, unable to continue, the fight the fish succumbed.

Game 2 saw the SANAE lady-killer Morgan doing battle against Marion's Clokes. Morgan's attack was swift and ruthless as he immediately went for the jugular and in no time had Clokes reeling against the ropes. It was all over bar the shouting.

Game 3 saw Marion's Johnny up against SANAE's Richard. Marion had nothing to play for now except pride as the 2 diesel mechs faced each other. The game got off to a good start with Johnny running along nicely until for some unknown reason he developed an air lock. This saw Richard take the lead as he headed unchallenged for the chequered flag and victory. The final score: SANAE 3 Marion 0.

Although the SANAE team emerged as the winners this competition would not have been possible if it had not been for the input of a number of people and the team would like to thank the following:

- DEAT for the upgrade of our internet service which enabled SANAE 47 to become the first South African over wintering team to host a competition of this nature.
- Marion 65 for their participation
- Shadrack and Daleen for organizing the whole event.

Well played Marion, and better luck next time!

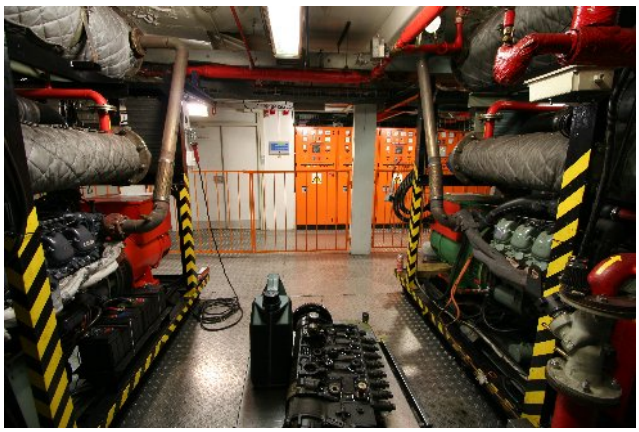
Richard Duncan
Diesel Mechanic

Heating and Ventilation at SANAE IV Research Base

With temperatures as low as – 52ºC with wind-chill outside, how do you keep warm in the coldest, windiest and most remote place on earth?

That is just one of the questions we get asked rather often by friends, family and members of the public. Well, this is not a very tricky question to answer, and if you think about it, it's rather straight forward. As many of you know by now, we at SANAE generate our own power and to do that we need big 260 kilowatt diesel-driven generators to power the whole base and its utilities. With internal combustion engines there is always a great quantity of heat generated as a by-product of power generation, and it is that which we utilise to warm up our base to a comfortable +20ºC.

Think of our generators as your car or motorcycles engine: what happens after you have started it? Yes, it starts to warm up, and in fact it get so hot that it has to be cooled at all times otherwise it will just seize up and stop, making you walk all the way home. Here at SANAE the generators are placed inside the base and have to be cooled down to prevent them from over-heating. This is done by using water.



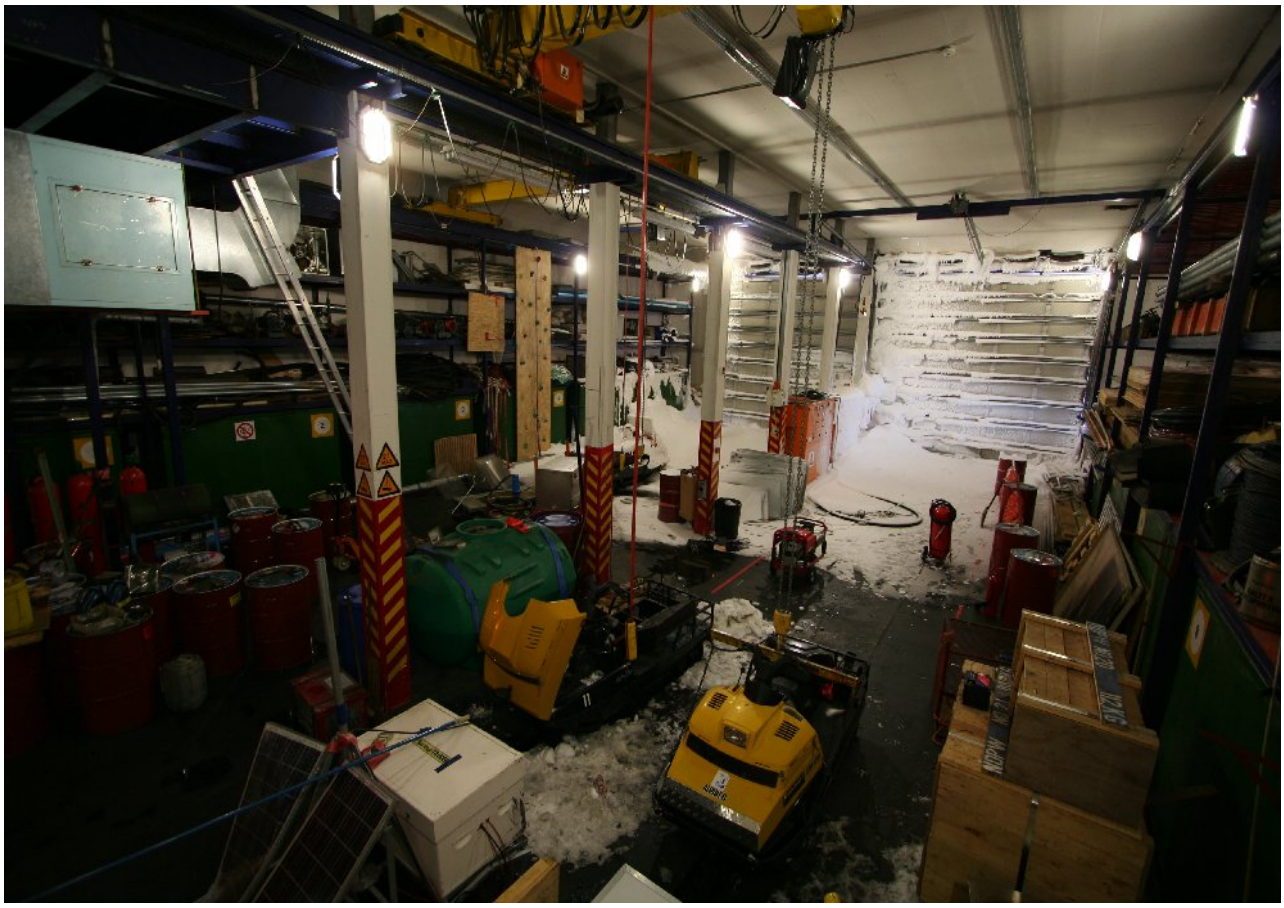
Two of the large diesel generator used to power SANAE IV

Water cools down the engines the same way it cools down your car's engine but with a small difference: as your car moves forward air cools down the water in the radiator which in turn keeps the engine cool. As our engines are inside the base and with freezing air temperatures outside this type of cooling is not possible so we use water once again to cool the water cooling the engine. This water is called the primary hot water.

The primary hot water enters the generators cooling system at ~ 65ºC and leaves at ~ 75ºC - this rise in temperature is only obtained from the heat transfer in the water tube heat-exchanger (radiator) of the engine. Because we want to heat up the primary water to an even higher temperature so we can use this heated water to do "work" with, the water is heated even feather in an exhaust gas water tube heat-exchanger.

As exhaust gasses leaving the diesel engines are in access of 500ºC this very intense heat is used to bring the primary hot water from ~75ºC to ~95ºC depending on the load of the diesel engine. This almost boiling water is now ready to be used to perform work in the sense that we can utilize the stored heat energy in the water to heat up our hot water to ~ 65ºC without using any external heating to obtain this temperature. By using a system designed like this the thermal efficiency of the engine is greatly increased, otherwise this waste heat would only have been dumped into the atmosphere.

Coming back now to how the base gets heated up: the very hot primary hot water is pumped through a APV plate heat exchanger, with a 310 kilowatt heating capacity. In this heat exchanger heat (enthalpy) is transferred from the primary hot water to the fan coil unit water (in short FCU water). As the primary hot water is not sufficiently cooled by the FCU and hot water system an external heat dump is fitted and the excesses heat is dumped in the hanger.



The hangar, showing the heat-dump at the top left of the picture. Extreme winds and temperatures during winter keep the hangar very cold, allowing snow which is forced in through tiny gaps to build up at the back where the hot air does not reach.

The FCU water, now at a temperature of ~ 38ºC is pumped through the base to the gym in C-block and the laundries in A- and B-block, where the actual fan coil units are situated. The hot FCU water is circulated through the coil (radiator) back to the engine room and reheated. This is a closed circuit and the same water is pumped and heated over and over again. Now here is where the actual heating of the base takes place: a variable speed drive fan draws in cold fresh air from outside through air ducting. As the cold air passes over the hot coil unit the temperature of the air is increased. There is ducting from the FCU to each room and office through out the whole base.

Each vented area has a louvre vent where the hot air enters. By varying the speed of the fan and the temperature of the FCU water the base temperature can be increased or decreased. As temperatures can drop very low here it is not always possible to heat up the FCU water to a workable degree so external in-line water heaters were fitted to help to heat up the water to the desired temperature in extreme conditions. The old stale air is drawn out of the base via an extraction fan arrangement situated in the ends of each block ensuring good circulation.

So now you can see how fresh air is circulated and heat is distributed to all the relevant areas in the base.

Anton van Zyl
Mechanical Engineer

Antarctic Phenomena – The Dry Valleys

Is it the snow, the glaciers, or the isolation that makes the Antarctic capture our imaginations? I think it is the absolute extremes. There is no other place on Earth where humans are exposed to air this dry, winds this strong, or temperatures this low. The one place on the continent that pushes the boundaries of extremes even further is the McMurdo Dry Valleys.

The Dry Valleys were first stumbled upon in 1903 during the Age of Exploration by the Discovery Expedition, led by Robert Falcon Scott. The men came across this ice-free desert, and immediately dubbed it the *Valley of the Dead*. Modern science describes it as the driest and coldest desert on Earth, and this 4 800 km² are represents a large proportion of the 2% of Antarctica that is ice-free. The Valleys are located near the Ross Ice Shelf, in the area known as Victoria Land, west of McMurdo Sound. The three main valleys are the Wright Valley, Victoria Valley and Taylor Valley.

But what makes the Dry Valleys so special? It is dry. It redefines the term dry. It is theorized that most of the Valleys have not seen rain in two million years, and the only source of water is glacial melt-water, snaking down from the ridges to feed summer lakes. These are known as ephemeral streams, and are only present for short periods. Most of the time the glaciers that descend into the valleys sublime - the ice changes directly from its solid state into that of a gas, not contributing the slightest bit of moisture to the Valley.

With almost no moisture, virtually all processes are slowed down. Erosion happens a lot slower than anywhere else on Earth. The remarkable result is that the Dry Valleys serve as our window on prehistoric geology and geomorphology. This enables scientists to study the geological processes that formed this fantastic continent. It is believed that the Dry Valleys had their origin approximately 20-25 million years ago, during one of the Earth's extensive glacial periods. The bare bedrock was ground and obliterated as huge glaciers, originating from the East Antarctic Ice Sheet, carved their way through the Trans-Antarctic Mountains.

The climatic conditions in the Valleys can be explained by the katabatic wind phenomenon. The air gets cooled by the elevated glaciers, resulting in cold, dense molecules at a high elevation. Gravity pulls on these molecules, resulting in the downwards movement of air, and thus causing a wind. The winds can rush down at hurricane speeds, with the low humidity evaporating any water, snow and ice as it howls down the Valley slopes. The wind sculpts the landscape surface into a mosaic of shapes, giving it an ethereal beauty seen nowhere else on Earth.

The dry air has the amazing capability to preserve carbon-based life forms. Seals and penguins that venture so far inland usually die of starvation and dehydration, and the carcasses are mummified and preserved for thousands of years. The Dry Valleys represent a region where life approaches its environmental limits. Irrespective of this, microbial life still manages to exist in these conditions. The McMurdo Dry Valley Lakes Microbial Observatory has measured the absolute minimum soil temperature as -58°C, and still it sustains living organisms. Similar to Lake Vostok, life seems to exists in areas no human though possible. Three invertebrate taxa is found here: tardigrades, rotifers and nematodes.

The lakes that do exist in the area are permanently covered in ice. Micro-organisms observed are mainly prokaryotes and protists, and some metazoans have been found. The ecosystems present in these permalakes follow a whole different pattern than that of a normal lake. One of the most interesting aspects is the seasonal photoautotrophic and heterotrophic processes, and how it differs from normal lake ecology. About 4 months of light during summer and continuous darkness during winter, as well as high salinity and almost no water movement, makes this environment a treasure trove for biogeosciences as well as microbial and geochemical diversity studies.

Other life forms, like green algae, are present near sources of glacial melt-water. At Wharton Creek, located in the Chad basin in Taylor Valley, mats of algae exist in a dehydrated state, awaiting the austral summer and its accompanying precious melt-water. Some mats have an estimated age of over 8 000 years, and no one knows for how long the algae can exist in this dehydrated stage without cell damage. Only

20 minutes in water is needed to breathe life into these organisms. Other communities of moss are found close to the ephemeral streams, and also present in glacial stream beds. So far scientists have found a total of 30 taxa of cyanobacteria and chlorophytes and 45 species of diatoms in these areas – an incredible feat for an environment that cannot sustain human life.

The impression one gets from the Valleys is almost extraterrestrial. It feels more like Mars than Earth, which made it the perfect testing ground for Martian and Lunar exploration. Researchers and engineers see it as an analogue environment, especially to the Martian mid-latitudes. Recent space experiments run at McMurdo Research Station were a prototype inflatable habitat, developed for astronaut housing on the Moon by NASA and ILC Dover. Other test projects were the Viking Project in the Seventies, as well as the recent testing of the Dante robot in Mount Erebus in the Nineties.

The Dry Valleys also led to the first conservation area in Antarctica, known as ASMA (Antarctic Specially Managed Area) in June 2004.

As the research progresses in the McMurdo Dry Valleys, the awe and the brilliance of life in extreme environments will baffle our minds. Its ice-covered lakes, sculpted rocks and freeze dried atmosphere will continue to amaze us, just as it amazed Scott and his men when they first set foot in the *Valley of the Dead.*

Daleen Koch
IPY Scientist

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Antarctica – Mike Lucas

Antarctic History

Looking back on the month of August

1866, August 2
Adrien de Gerlache de Gomery is born

Born in Hasselt, Belgium, de Gerlache led the Belgian Antarctic Expedition of 1897-1899, as an officer in the Belgian Royal Navy. Originally an engineer by trade, he joined the navy and was assigned to a hydrography ship, before he realised his dream to explore Antarctica. His biggest claim to fame was as the captain of the *Belgica*, and being the first of the great Antarctic explorers that overwintered in the Bellinghausen sea after the expedition became trapped in the ice. He published his book, *Quinze Mois dans l'Antarctique*, in 1901.

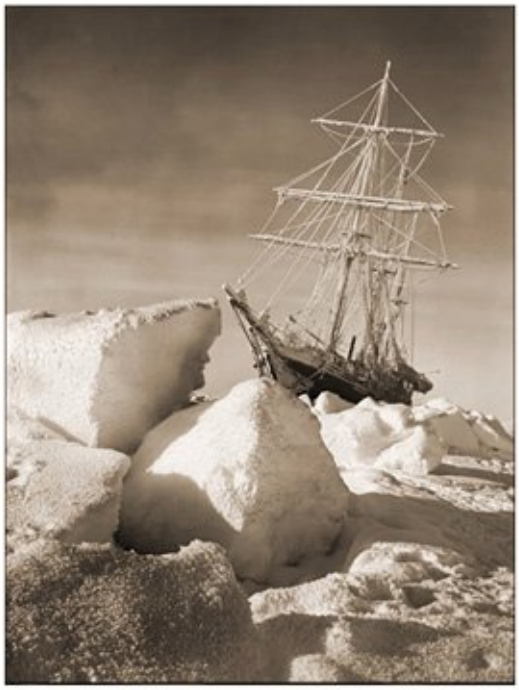
1897, August 16
The *Belgica* leaves from Antwerp

Originally a Norwegian built whaling ship, *Patria*, the *Belgica* was purchased and renamed by Adrien de Gerlache de Gomery, for his epic expedition in 1897. The crew included the likes of Roald Amundsen, Frederick Cook, Antoni Bolesław Dobrowolski, Henryk Arctowski and Emil Racovita, making the ship and the voyage a historical event in itself. The *Belgica* was stuck in ice for 13 months, and many a sailor suffered a great deal of insanity and scurvy, until the Antarctic winter released its hold on the vessel. The ship remained in service until 1913.

1898, August 22
The *Southern Cross* leaves London

The Norwegian born Carsten Borchgrevink led the British Antarctic Expedition of 1898-1900. Settling at Cape Adare, the team made history in being the first planned overwintering expedition to the continent. Borchgrevink received financial backing from the magazine publisher Sir George Newnes, and purchased a sealing vessel, the *Pollux*, which was renamed to the *Southern*

Cross. Also purchased was 80 sledge dogs from Greenland and Siberia, making these the first dogs to set paw on the continent for overwintering and sledging. One of the dogs, Joe, even accompanied Louis Bernacchi on the Discovery Expedition. The *Southern Cross* set sail from St. Katherine's Dock, with the "purposes of survey and extension of the British Empire". The success of the expedition infuriated the Royal Geographical Society, particularly since only 2 Englishmen formed part of the team, not to mention the fame lost of not being the first British Expedition to the South.



1901, August 6
The *Discovery* leaves England

At last the Royal Geographic Society got their chance to set sail to the Antarctic. The British National Antarctic Expedition (1901-1904), more famously known as the Discovery Expedition, had a total cost of £90,000 (today approximalely £4.5 million). The *SS Discovery* did indeed make great discoveries, including the McMurdo Dry Valleys and the Cape Crozet Emperor colonies. The famous exploration voyage of Captain Scott set sail from the Isle of Wight, and sighted the Antarctic coastline 5 months later. It remained locked in the ice for more than two years, and returned home on 10 September 1904. Captain Robert Falcon Scott later returned to Antarctica, leading the ill-fated and doomed Terra Nova Expedition in 1910.

1916, August 30
The *Yelcho* rescues the Endurance crew

The *Yelcho* was a Chilean steam tug boat, captained by Luis Pardo. After the Endurance, Sir Ernest Shackleton's ship, was crushed by ice and sank, the captain and crew made managed to reach Elephant Island, in the South Shetland Archipelago. Shackleton and 5 crew members sailed an incredible 800 miles to Chile, where they persuaded the Chilean government to provide the *Yelcho* to save the rest of the marooned sailors. This epic tale of bravery took place at the height of the Antarctic winter, making this rescue mission an incredible feat in the annals of Antarctic History.

1978, August 22
***Chapel of the Snows* burns at McMurdo**

Located at McMurdo Station on Ross Island, the original *Chapel of the Snows* was the southernmost religious building in the world. Though not part of the original station design, it was constructed by volunteers from surplus building material. Building took place during 1955 and 1956, and the chapel was ready for services at the start of the International Geophysical Year (1957-1958). It was believed that the source of the blaze was a building heater, and the blaze destroyed the chapel. A new chapel was erected in 1989, and 80 people gathered on 29 January 1989 in the new *Chapel of the Snows*.

Daleen Koch
IPY Scientist

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Antarctic 48-hour Film Festival 2008

McMurdo Station (United States) and Scott Base (New Zealand), started a competition on producing a film in Antarctica between the bases. This year they extended invitation to everyone on the white continent.

SANAE 47 Team Leader, the Boss, took the opportunity with both hands and mobilized his team members into being the first South African team to take part in this competition.

Procedure:
You'll be given list of things to include in the film on Friday, you then go and make a film over the weekend. Everyone to submit their final product by Sunday midday. This is the list of the 4 items we had to include in our film...

- Prop: A large cardboard box
- Line of dialogue: "What do you mean you want a day off for mid-winter?"
- Character: FNG or "fingy" (a new guy)
- Sound: Any bodily noise that isn't speech

The movie must be 5 seconds to 5 minutes long.

On Friday 1 August we received the instructions as above, and began making a plan. We started practising our lines and action rehearsal, in preparation for the following day. By the end of these sessions, we all had Matrix movie lines as our second nature.

Saturday came, and although the weather seemed dodgy, the spirit was high and the preparations were going well until our trusted form of transport bailed out on us because of cold. As if it was fuel on fire, SANAE 47 team member's soldiered on in making the event a success. We spent the whole day from 09h00 till 17h00 outside in cold weather sometimes with our camera freezing and even ourselves. By the end of the day, all outside shooting was done, we had to do the inside and do sound touch-up then editing.

We didn't have a problem with shooting inside, as it was warm and also all the necessary resources were available. The shooting was finished and we were only left with editing, which happened up until Sunday, with the BOSS having only 3 hours sleep. As he was working through this, there was a team of people that was motivating and encouraging him with all sorts of different things including his favourite drink MILO. From that there was a name for the support crew "PEANUT GALLERY".

By Sunday lunch time, the movie was not yet finished, we had sound tracks to include and few editing. At about 14H00, the movie was finished and it was a 900MB size movie! We managed to compress it to 99MB and had it uploaded to the link by the evening.

You can see 'Desert of the Real' by going to http://www.youtube.com/watch?v=9vTwMhCobNM

JOB WELL DONE TEAM!

Saziso Nginda
Electrical Engineer

THE AMAZING ADVENTURES OF

SASTRUGIANA, CABOOSE, ARNOLD AND MAYA

SANAE 47 Supporters

The team of has been privileged to have enthusiastic support of individuals and companies back home in South Africa, who have shown their personal and social commitment to furthering scientific knowledge through applied research. Although the team's necessities are met by the Department of Environmental Affairs and Tourism's Directorate: Antarctica and the Islands, under which SANAE falls, we have had many personal donations of comfort items, specialised clothing and equipment to make our long year of isolation more enjoyable. In no order of importance, our supporters include:

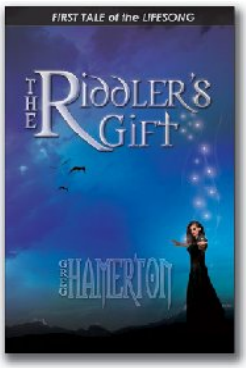
First Ascent (www.firstascent.co.za) are a South African company who have a long history of making top quality mountaineering and outdoor clothing used by many of SA's top climbers and outdoor enthusiasts. They were delighted to support the team as we expanded on our already extensive wardrobes of issued clothing, making sure that we'll all be warm, dry and comfortable while working in the world's harshest environment.

Specialist suppliers **RAM Mountaineering** (www.rammountain.co.za) gave us incredible support in acquiring outdoor equipment of the highest quality, from headlamps through to crampons.

BondiBlu (www.bondiblu.co.za) make eyewear strictly for the adventurous, and have a strong tradition of supporting the Antarctic teams. They donated a pair of high-quality sunglasses to each team member…and then threw in sun and skin-care products as well, keeping our eyes and skins safe from the intense radiation in summer.

Adventure film-makers **Fresh Air Crew** gave each member of the team a peak cap, warm fleece beanie (a real favourite) and a t-shirt in support. See some of their prize-winning work at www.freshaircrew.com.

Kanu Wines are a well-known wine farm between Cape Town and Stellenbosch, and have won several awards for their produce. They donated wonderful wines, including the sublime Limited Reserve Merlot which has blown off our woolly socks.



Cape Town author **Greg Hamerton** kindly donated a copy of his new fantasy novel "**The Riddler's Gift**" to the team, which will be added to the SANAE IV library. The book, published by Eternity Press (www.eternitypress.co.za) is the first in the Lifesong trilogy, an epic fantasy tale.

Previous SANAE expedition leader and doctor **Farouk Parker** (SANAE 40) contacted us out of the blue with a donation of hundreds of movies and many hours of music, which has been added to the base library to be enjoyed in the dark winter months.

Businessman **Tom Cook** donated a new set of weights and exercise equipment to the base, to supplement the excellent gym. Hopefully by the time summer comes around again we'll be fit enough to lift all the boxes of new supplies ;)

Orms ProPhoto in Cape Town has a longstanding relationship with the Antarctic Expedition, and honoured this as usual with very competitive rates on all types of camera equipment for the team. Considering some of us spent several month's salary making sure we have the best kit to record our expedition for posterity, the generosity of Mike Ormrod and his excellent team was well appreciated. They can be found online at www.orms.co.za

Pepperdew Piquanté Peppers make something special, a fruit somewhere between a tomato and a red pepper. If you haven't tasted pepperdews, you don't know what you are missing. Perfect on pizza, we despaired at the thought of leaving them behind, until Pepperdew donated enough peppers and pepperdew sauce to last us through the year. Awesome!

Allesverloren Wine Estate is well-known in the Cape, and jumped at the opportunity to donate wine to the team, which has been a firm favourite.

Cape Town artist and graphic designer **Jacob Krynauw** of **K2 Design** produced the wonderful SANAE 47 logo *pro bono*, and then went on to design the striking expedition t-shirts which have become very sought-after.The shirt, of course, would be incomplete without the prefect Antarctic cartoon, supplied by freelance cartoonist **Royston Robertson**. See more of his work at www.royston.dircon.co.uk

JP Bredell Wines donated some of their fine wines and incredible John Platter 5-star port to the team. Their dark label brings immediate smiles to the dinner table.

An entire box of **new books** was donated by the **Kane Book Club**, which has been added to the base library to be enjoyed by teams for years to come.

Caturra Coffee is behind many of the best cups of coffee you've tasted at restaurants around SA, and now they are helping us wake up with a smile in Antarctica as well. With 100kg of their finest coffees, we'll be warm in the darkest winter months, ensuring 'a lifestyle with taste'.

KWV is a well-known South African cellar who have supported the Antarctic teams many times in the past, and we were luckily no exception. To stave off the cold they donated some of their excellent 5-year brandy and sweet Red Muscadel.

Peninsula Beverages made a very kind donation of cases of soft drinks including Coke, Fanta, Sprite, etc. Although we have large supplies of food and drink, there is something wonderful about opening a cold Coke so far from home – it becomes a real treat.

You can always trust **South African Breweries** to come to the party – they donated cases of assorted beers to the team, for the end of those hot days out in the blazing sun….uh, well, you get the idea.

Ask any South African to name things unique to out beautiful country, and it won't be long before they mention **Mrs Balls Chutney**. Mrs Balls is an institution of its own, and has spread around the world. When they heard of the expedition they immediately sent hordes of chutney and personalised Mrs Balls tops to show their support.

Weltevreden Wine Estate jumped at the opportunity to provide some fine wines for the team, which have complemented our dinners and brought warmth and mirth. I imagine I can taste the smells of Africa…

The **Overberg Paragliding Club** gave each team-member a long-sleeved shirt, perfect for wear around the base or as a base-layer when venturing out into the cold. Find out more about paragliding and the club at www.overbergparagliding.com

Rosendal Private Cellar are best known to our team for their beautiful rosé wine, but came to the party and donated many wonderful bottles.

Martingraphix (www.martingreaphix.co.za) are a Cape Town company specialising in graphic design, advertising and promotional items who were absolutely indispensable in getting the shirts, badges, stickers and banner done for the team, at discounted rates. We couldn't have done it without them!

Clinique very kindly donated skincare products to the team, to keep our mug's healthy and hearty.

McGinty's Pub in Benoni were so taken with the idea of the project that the owner immediately pledged his support – thanks guys, we'll have one on you!

(Please, if I've omitted you from this list, contact me immediately so that I can rectify my egregious mistake. Mail Ross on ross.hofmeyr@sanae.sanap.ac.za)

How Can I Find Out More About the Expedition?

The Antarctic Expedition is full of interesting aspects, encompassing the scientific work we do, the logistics of working in such a distant and isolated location, and the human factors of being alone for so long. We love to hear from you and grow public awareness of the projects, and for you to be involved. Here are some ideas to learn more:

- Visit the official SANAE website at www.sanap.org.za and learn more about the base, the logistics, the science and the people.
- Email the team at sanae@sanap.ac.za with your questions or news.
- Email team-members directly, using the format below: firstname.lastname@sanae.sanap.ac.za
- Visit the websites of our sister projects at Marion and Gough Islands: marion.sanap.org.za, and gough.sanap.org.za
- Many of the organisations involved have their own pages, and some team-members have personal blogs.
    - The links page on the official SANAP website has plenty- http://www.sanap.org.za/links.html
    - The Scientific Committee on Antarctic Research (SCAR) – www.scar.org
    - The Hermanus Magnetic Observatory - www.hmo.ac.za
    - Ross' blog about living in Antarctica - www.doctorross.co.za

Finally, you can CALL US at normal South African telephone rates by dialling:

021 405 9428/9

WEATHER STATS: AUGUST 2008

	Maximum		Minimum		Average
Pressure	896.1 hPa	11-Aug	847.4 hPa	19-Aug	877.4 hPa
Temperature	-15.4°C	19-Aug	-35.9°C	29-Aug	-25.1°C
Humidity	91%	19-Aug	56%	2-Aug	68%
Wind Gust	48.5m.s^{-1}	19-Aug			
	174.6km.h^{-1}				

Parting Shot – A fine specimen of *Spheniscus demersus daleeni* admiring the view on a windy day down South

photograph © Sanki du Toit 2008