



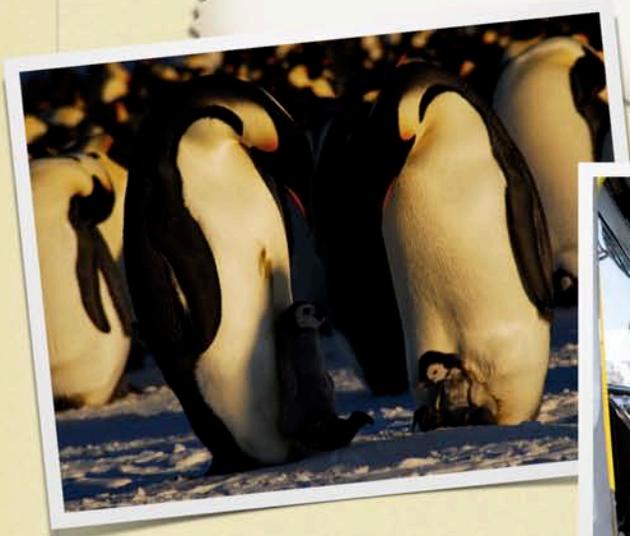
Antarctica

August 11 - Doing IT Around the World





Roselin ~
Antarctica
Communications
Technical
Officer



About My Career
About Me

Interview with Roselin – Communications Technical Officer (Electrical Engineer) @ Mawson Base Antarctica

What do you do?

Communications is a vital part of Antarctic life and here at Mawson Station, where I am working and living for 15 months, our systems include satellite, network, phone, email, paging, HF and VHF radio.

My role is to maintain and support communications within the station, between station and science parties working in the field, and between the station and the rest of the world. In addition, I provide science support with regular geomagnetic observations, collecting tide gauge data, and travelling off station to assist with an emperor penguin project.

Community roles include being on the fire team, training as a theatre nurse assistant in the event of a medical emergency, conducting sea ice drilling, working as the station librarian, plus general kitchen and cleaning duties. With the variety of work, there is no typical work day, especially as weather and wind determines when we can work outdoors.

What was your first day at work like?

My first day was hectic and daunting, with a very short changeover with the previous person working here. My colleague and I then had to organise all the computer, phone and email set-ups for the 22 new people on station. We also provided ongoing radio equipment support such as radio operations for air operations, summer boating activities and field parties. We also monitored VHF and HF radio for search and rescue training and activities.

What do you enjoy the most?

Being in Antarctica has always been a goal of mine. Because of the variety of work down here, nearly every day is different.

Any challenges?

Temperatures around Mawson Station drop to -30°C (-22°F), we have regular blizzards, and experience wind speeds up to 180 kms per hour (112 mph). Being outside in cold and windy conditions is a challenge, as is working with gloves, especially when dealing with tiny nuts and bolts, or tools.

Apart from the weather - what are the cool parts of your job?

Living and working in Antarctica. I really enjoy the variety of work that I would not normally experience at home, for instance, assisting with science projects, training as a theatre nurse, and being part of the fire team. I also love being able to work closely with the penguins.

What has been your BEST experience?

Apart from working with the Adelie and Emperor penguins, a great experience has been working with different technology. A recent project was to install a wind generator at a field hut, 45 kilometres from station. Travel to and from the station is across the sea ice on four-wheel drive motorbikes, or driving a Hägglunds over-snow vehicle.

Continued interview with Roselin – Communications Technical Officer (Electrical Engineer) @ Mawson Base Antarctica

How far reaching do you think your work has been?

An Antarctic station is one of the world's most remote locations, being physically isolated once the ocean freezes over during autumn and winter months. Effective communication enables the station to be part of a larger world, it provides vital support for field parties, and allows those living at Mawson Station to be in touch with family and friends at home. The science projects I am involved in have national and international significance.

What have been your most significant achievements?

- Installing a wind generator that provides power to an outlying field hut.
- Locating and retrieving a half tonne tide gauge from beneath the sea ice.
- Providing technical assistance to scientists at nearby Bechervaise Island, as part of an Adelie penguin monitoring programme. Assisting scientists at Auster Rookery, 55 kms from station, as part of a study into the presence of viruses in emperor penguins

How did you get started on this career?

While travelling in New Zealand I met a woman who had worked in Antarctica at McMurdo Station. As Antarctica had always been a dream of mine, she suggested I check out the Australian Antarctic Division's website for potential job opportunities. After applying for my position, the selection process was rigorous, with several days of interviews at a live-in selection centre, medical and psychological assessments, and three months of pre-departure training in Hobart, Tasmania.

Training included:

- One week at Geoscience Australia, located in Canberra.
- Two weeks training at Royal Hobart Hospital learning how to be a theatre nurse this involved assisting the surgeon by passing instruments and cutting sutures.
- Seven days of Fire Training - the course involved putting out real fires whilst wearing a 15kg breathing apparatus.
- One week Zodiac inflatable boat course.
- Safety at heights course.
- Other courses consisted of:
 - Obtaining licenses for a Forklift and Marine Radio and First Aid training.
 - IT training involved Active directory, Servers, Asterisk (VOIP) and an understanding of the Network.
 - Maintenance and fixing problems with the X-ray machine and photocopier.
 - Field training which included abseiling.

What about travel?

It took 35 days of sea travel to reach Mawson Station via an icebreaker *Aurora Australis*. Australia has three continental Antarctic stations and during the voyage we stopped for several days at Casey and Davis Stations for their annual changeover and resupply. At Mawson station we travel both for work and recreation to field huts located in the nearby Framnes Mountain Range, and across the sea ice to Auster Rookery.

Will you continue?

I love to work in a field that has a lot of variety and is located in an amazing part of the world which only a few people are able to visit.

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What are 3 words that describe you?

Adventurous, Determined, Goal-orientated

What motivates you?

Challenges, solving complex problems, learning new concepts/skills.

What qualities do you have that make you good at what you do?

I am highly enthusiastic with strong communication skills and a strong desire to learn. I am passionate about solving complex problems and overcoming technical challenges. I thrive on challenges.

What hobbies do you have?

Travelling especially to third-world countries, trekking, photography, reading, road trips.

What studies have you completed?

Bachelor of Electrical Engineering Diploma in Engineering Experience, Cisco Certified Network Administrator.

Have you had any previous jobs, what were they?

Telstra-upgrading Analogue network to a Digital network throughout regional NSW.
Nokia Australia-RF Engineer in Research and Development.
Vertical Telecoms - fixed and mobile radio telecommunications solutions for Voice and Data networks.
Optus –small team specialising in secure data network management.
EDS - network management for CBA and Bank of Queensland.

What is your advice for other women about a technology career?

- Never be intimidated
- Don't be afraid to ask questions and research if you do not understand
- Do your best and
- Always learn from your mistakes.

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Extra Information for you about my career and what I do

<http://www.aad.gov.au/asset/webcams/mawson/default.asp> is the link to the Mawson Webcam.

- Providing general IT assistance with requests for help with various computer problems ranging from email, network and application problems. Assisting expeditions in the use of MFD's for scanning, faxing and general printing.
- Maintenance of the satellite system, radio repeaters and radios.
- Maintenance VOIP phone system.
- Network monitoring and management.
- Maintenance and backup of servers.
- Active Directory Management.
- Email servers and clients.
- Cisco switch optimisation.
- Responsible for the paging system.
- Windows update of servers and PCs.
- Radio Operation for field parties.
- Science related support such as:
 - Conducting weekly geomagnetic observations for Geoscience Australia.
 - Maintenance of the seismic and GPS equipment for Geoscience Australia.
 - Maintenance of the ionosonde for IPS Radio and Space Services, an upper atmosphere spectrometer in the Aeronomy laboratory for La Trobe University and the Cosray observatory for the AAD Ice, Ocean, Atmosphere and Climate programme.
 - Retrieving and downloading tide gauge data.
 - Providing technical support for the Bechervaise Island Adelie penguin monitoring programme.
 - Assisting the scientists in the Emperor penguin project.

Also have community related roles such as:

- Fire team
- Theatre Nurse Assistant
- Librarian
- Multimedia
- Hydroponic
- Sea ice drilling
- Cane line
- General Station Duties: Slushy (kitchen), Saturday cleaning duties

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