

Travels to Antarctica

Synopsis of presentation by Kathryn Heaton
BPW Pilbara Club Meeting 17th April 2002

How...

- ❖ Kathryn Heaton travelled to Antarctica to provide advice and develop concept design for new wastewater treatment plants at Davis and Mawson bases.
- ❖ Water treatment plants originally designed to cater for 30 people now having to cater to up to 100 at a time.
- ❖ Kathryn was invited by AAA after having completed a Masters of Engineering in Canada in 1998 / 1999 into the investigation of cold weather wastewater treatment technologies.

Background info...

- ❖ First exploration to Antarctica was in the 1800's
- ❖ 1st Winter group was in 1899
- ❖ Treaty was signed in 1961
- ❖ Work conducted on Antarctica is to be exclusively of scientific or peaceful nature.
- ❖ Currently 5000 people working on Antarctica, consisting of 29 nations, 40 stations.
- ❖ 7000 tourists have visited between 1990 and 1998.

Statistics...

- ❖ Antarctica is 14 million square kilometres
- ❖ Consists of 98% ice
- ❖ 90% of the worlds ice
- ❖ 70% of the world's fresh water
- ❖ 2% is rock
- ❖ Ice is 4km thick at geographical South Pole
- ❖ Summer is 24 hours of sunlight
- ❖ Winter is 6 weeks of complete darkness
- ❖ Australia has a 42% territorial claim to Antarctica
- ❖ There are 4 permanent bases, Mawson, Davis, Casey and Macquarie

Trip...

- ❖ Travelled between 29 January and 8 March 2002
- ❖ Spent 12 days on Polar Bird – ship
- ❖ 12days Davis Camp
- ❖ 2 days Mawson
- ❖ 10 days Aurora Australia – ice breaker ship
- ❖ Polar Bird was carrying 44 people – ½ capacity. She is a reinforced cargo ship.
- ❖ Seas consisted of 5 to 20 metre swells. Covered 2800 nautical miles.

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Davis Base...

- ❖ Davis Base is built on rock
- ❖ Looks like a mine site
- ❖ 20 km from Antarctica ice sheet
- ❖ 100 people live there in summer – 25 in winter
- ❖ Is called the “Riviera of the South”
- ❖ Temperatures range from -2°C (avg) to 9°C
- ❖ Worked from 7.30am to 9.00pm
- ❖ Put on 5 kilos due to nature of food, very greasy and fatty and no fresh vegetables after 2 weeks.
- ❖ Meals became very important
- ❖ Everything is made on base and helicopters used for transport
- ❖ Coldest day was -20°C

Mawson Base...

- ❖ Coldest base
- ❖ Very dangerous crevice's and cliffs
- ❖ 100m from Antarctic ice sheet
- ❖ Spectacular scenery

These statistics were accompanied by spectacular photographs and a 15 minute video taken by Kathryn detailing all aspects of her trip.