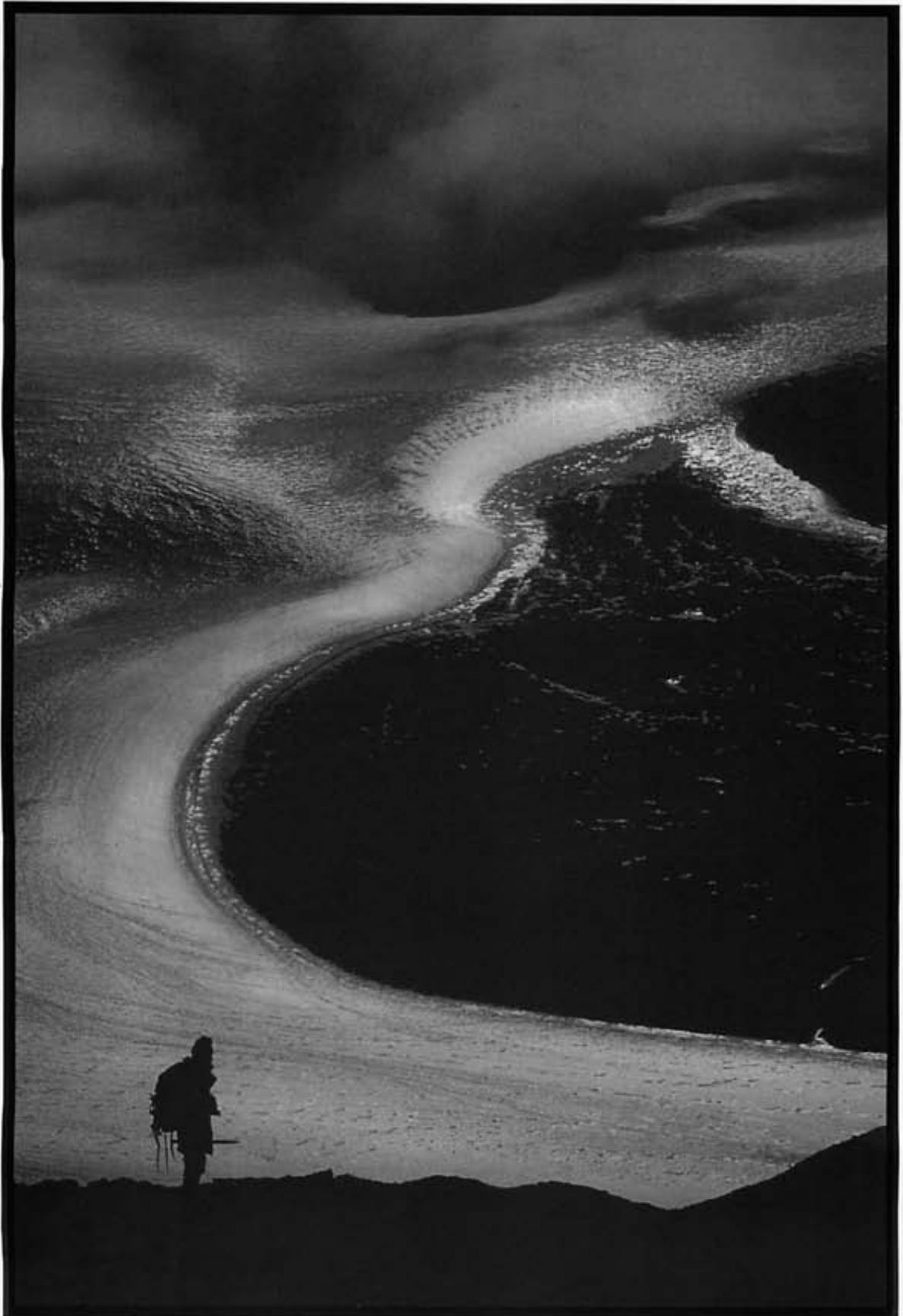


ANTARCTIC



The Journal of the New Zealand Antarctic Society Vol 23, No. 2, 2005





*A mountaineer is silhouetted against the Webb Glacier near Mt. Bastion as it flows from the East Antarctic Ice Sheet toward Victoria Land's Dry Valleys.
Photo by Colin Monteath.*

COVER



View from a helo flying over the McMurdo Ice Shelf. Photo by Chris Dolder.

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Please address all publication enquiries to:

PUBLISHER

Warren Head

'Antarctic Magazine'

P.O. Box 2369, Christchurch 8015,

New Zealand

Tel 03 365 0344, Fax: 03 365 4255

Email: headconsultants@xtra.co.nz

EDITOR

Michelle Rogan-Finnemore

P.O. Box 404, Christchurch 8015,

New Zealand

Email: michelle.finnemore@canterbury.ac.nz

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Halley Station Designs

1

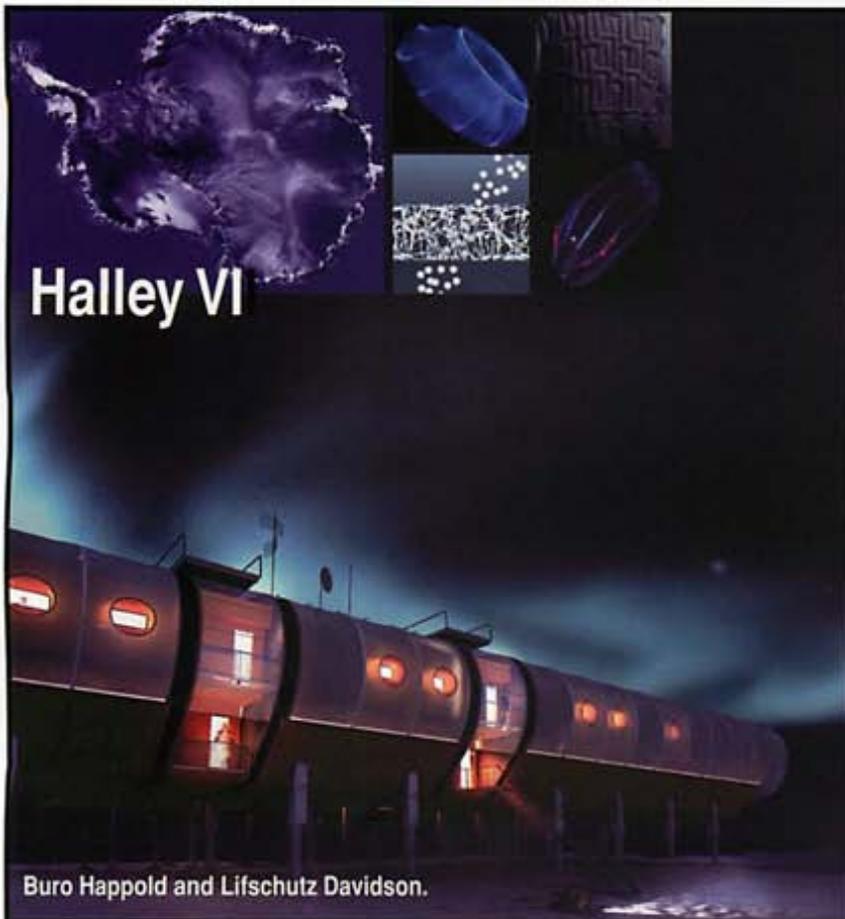


The three short-listed designs for the proposed Halley VI Research Station are innovative and functional, yet aesthetically pleasing in the Antarctic environment.

The British Antarctic Survey (BAS) released these drawing for the three short-listed design teams, who now have until September 2005 to refine their designs before a winner is announced (*see full story in Antarctic, Vol 22, No 4, 2004*).

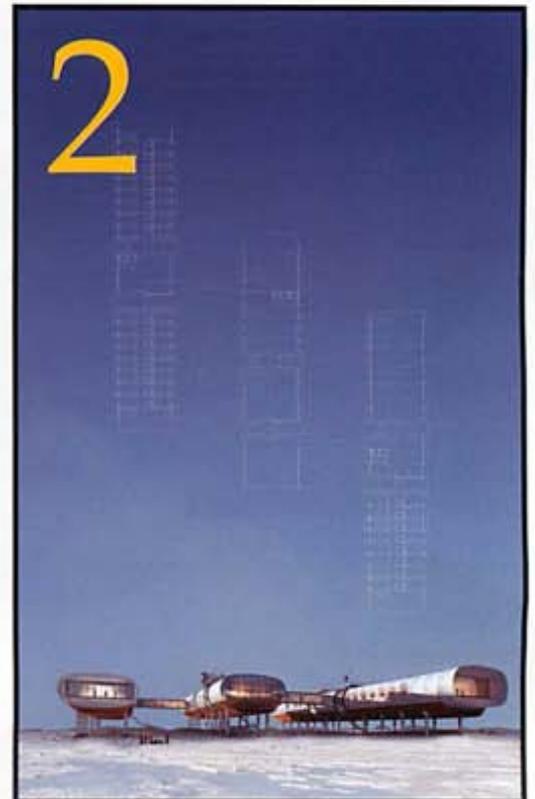
Thanks to Athena Dinar, Press and PR Officer at BAS for sending through the designs and giving us permission to reprint them here.

Above: Halley VI Concept Design, Exterior view of living accommodation.
Graphics by Hopkins Architects, Expedition Engineering HL Technik, RWD1, Davis Langdon.



Halley VI

Buro Happold and Lifschutz Davidson.



Above: Exterior and plan design of base by Buro Happold and Lifschutz Davidson.

Left: Artists rendition of Buro Happold and Lifschutz Davidson Base by night.

3

HALLEY VI ARCHITECTURE AND SUSTAINABILITY

FABER MAUNSELL
HUGH BROUGHTON ARCHITECTS*The Central Module = the Heart of Halley VI*

Faber Maunsell's design (Hugh Broughton Architects) of a central module at the heart of Halley VI.

KEY

- 1 Library and quiet reading areas separated from TV lounge with movable acoustically insulated partition (omitted for clarity).
- 2 TV lounge with comfortable furniture and storage for videos, DVDs and equipment. *rew.*
- 3 'Cockpit' lounge with triple glazed rooflight fills space with daylight in summer and allows views of night sky and aurora in winter.
- 4 Communal office and internet room with space for ten people. Space includes triple glazed cockpit rooflight.
- 5 Central feature staircase set within an unexpected double height volume at the heart of the station. The space would be clad in triple glazed units at low level with Nanogel insulated Kalwall above. The clear glazing assists the hydroponic process and allows view out in the summer. The Kalwall achieves a U value of 0.28W/m² C and 15% light transmission. Blinds can drop down and be used as a projection surface for colour lighting in winter, and in summer, to reduce heat gain.
- 6 High insulated semi monocoque bridge link joins module with core.
- 7 Bar games area separated from central space by acoustically insulated movable partition. In summer the partition can be opened to allow the bar and games area to merge. Ample storage is provided to tidy away games and equipment. *ew.*
- 8 Hydroponics glasshouse. An 11m² installation will provide up to three salads per week for a winter crew of 16 people, providing nutrition, recreation and a place of high humidity. The bright lighting and greenery can also help to overcome Seasonal Affective Disorder Syndrome.
- 9 Bar with comfortable furniture. The bar will include lockable storage. The bar can be separated from the central space by a movable acoustically insulated partition (omitted for clarity). *ulgrew.*
- 10 The central module has similar structure to the smaller modules. The legs are supported on three skis. The module is raised for snow management in the same way as the smaller module.

Marsden Medal 2004

By Kate Fox, VUW

Professor Peter Barrett, FRSNZ, Director of the Victoria University of Wellington Antarctic Research Centre, was awarded the prestigious Marsden Medal from the New Zealand Association of Scientists (NZAS), at the Royal Society of New Zealand's 2004 Science Honours Dinner in Christchurch in November 2004.

The Marsden Medal is awarded annually to scientists who have contributed a lifetime of outstanding service to science in New Zealand.

NZAS Chair, Professor Euan Smith, said Professor Barrett has been at the forefront of Antarctic Earth Science for the last 40 years. As a graduate student he made a "missing link" discovery (published in *Science* in 1968) of the first tetrapod fossil to be found in Antarctica. This clinched the land connection be-

tween Antarctica and the other Gondwana continents.

As an educator, Professor Barrett has supervised many postgraduate students, most of whom he has given the unique opportunity of working in Antarctica. Many of his students have themselves progressed to notable careers, both in New Zealand and overseas.

Professor Barrett is currently a Principal Investigator in two Government-funded programmes that are linked to research in Antarctica and climate change.

He says he is honoured to receive the medal.

"I am delighted - all the more so perhaps because it was truly unexpected. It also gives me a chance to thank publicly my colleagues and students who have shared the excitement and the hard work that have led our current understanding of Antarctic ice sheet behaviours which, to our surprise, is becoming increasingly



Professor Peter Barrett accepting the Marsden Medal at the November ceremony.

relevant to the world as a consequence of global warming."

Breaking Ice: Revisiting Antarctica

Adam Art Gallery Exhibition: 30 July - 2 October 2005

A new exhibition related to Antarctica entitled *Breaking Ice: Re-Visioning Antarctica*, curated by Sophie McIntyre, deconstructs the ways in which the 'great white continent' has been described, mapped and imagined, historically, scientifically and culturally. This exhibition is one of the first major contemporary group exhibitions that draws together works by artists from New Zealand and Australia that focus on, and critique the ways in which Antarctica is perceived and represented.

This exhibition investigates what it is that makes this vast, barren, white continent so alluring, and explores how it has become so embedded in the popular imagination.

Breaking Ice sets out to identify the ways in which Antarctica has been represented and indeed exoticised. It takes as its point of departure the 'history of heroism' and nation building in Antarctica and investigates the ways in which Antarctica has been mythologised in exhibitions such as in *Antarctic Heroes: The Race to the South Pole*, and considers more generally how 'the story' of Antarctica is re-constructed in museum displays around the world.

Breaking Ice features a range of new works commissioned specifically for this exhibition, and presents some of New Zealand and Australia's most prominent arts practitioners alongside emerging artists. Artists participating in this exhibition include Phil

Dadson (NZ); Stella Brennan (NZ); Stuart Shepherd (NZ); Anne Noble (NZ); David Stephenson (AUS); Peter Fitzpatrick (AUS) Fiona Davies (AUS); and Stephen Eastaugh (AUS).

This exhibition will be accompanied by a full range of events including artists' talks, lectures, performances and a forum.

For further information about this exhibition at the Adam Art Gallery, Victoria University of Wellington, Gate 3, Kelburn Parade, please contact Emily Cormack (emily.cormack@vuw.ac.nz). www.vuw.ac.nz/adamartgal

ANTARCTIC HERITAGE TRUST FUNDING GETS BOOST

Funding for the New Zealand based Antarctic Heritage Trust (AHT) organisation will be quadrupled through the New Zealand government budget beginning immediately. AHT is also continuing to seek funds from international sources for the refurbishment of the Ross Sea Region historic huts. "The Government's baseline funding to cover the Trust's administrative costs means every dollar we raise ourselves can be spent on restoring heritage on the ice," says Trust Chairman Rob Fenwick. This year the Trust raised NZ\$1m from various philanthropic foundations and individuals principally in the UK and US. This money is being spent on the restoration of the first of the Ross Sea buildings in the project – Ernest Shackleton's hut at Cape Royds.

FUNDING INCREASE FOR ANTARCTICA NZ

Also announced in the New Zealand government's budget was a funding boost for Antarctica New Zealand which will be allocated to the activities scheduled to celebrate New Zealand's Scott Base jubilee. The NZ\$3.4m increase will also go to meet the increasing cost of logistics support for New Zealand's Antarctic science programme including the recent rise in fuel prices. ANDRILL was also a winner, as \$770,000 from the new money is for ANDRILL support.

ANTARCTIC CO-OPERATION

The New Zealand and Australian Antarctic programmes have agreed to work more closely together under a newly signed memorandum of understanding (MOU) signed in Christchurch in May 2004. Under the MOU there will be greater co-operation on research projects in Antarctica which will involve Scott Base and

Australia's three Antarctic bases hosting the other country's scientists and staff.

TREATY MEETING 2005

The XXVIIIth Antarctic Treaty Consultative Meeting (ATCM) was recently held in Stockholm, Sweden. On the agenda for this year's meeting were items related to finalising a liability regime, discussing bioprospecting, preparation for the International Polar Year and reporting on Antarctic tourism and environmental protection issues. The annex on liability was adopted at the meeting marking a successful end to challenging negotiations on the obligations under the annex. Additional information on the ATCM can be found at www.ats.org.ar.

US SEASON

The US Antarctic Program held its annual planning conference in Charleston, South Carolina from 16-19 May 2005. For the US operations out of Christchurch, New Zealand, WINFLY is scheduled to begin on 20 August 2005. There are four C-17 flights south scheduled for the WINFLY period. The first flight of main body is scheduled for 4 October and the first flight into South Pole is scheduled for 21 October. The service to mark the opening of the new Antarctic field season will be held at the Christchurch Cathedral on Sunday 3 October at 10am.

NZ CONFERENCE

Antarctica New Zealand held its Annual Antarctic Science and Planning Conference at the University of Canterbury in Christchurch from 4-6 July. The meeting was an opportunity to present preliminary results from the 2004/05 field season, and to plan for upcoming events. The Conference included an LGP workshop and a workshop on education and outreach for the ANDRILL project.

Mid-Winter Celebrations



Blake McDavitt presents Kevin Rigarsford with the mid-winter ice axe.
Photo by Pete de Joux.

Written by Pete de Joux, Science Technician, Scott Base

The shortest day of the year, 21 June 2005 was a special day in Antarctica at stations all over the continent, with winter-over crews celebrating the solstice. The sun having now passed its lowest point, the crews can look forward to the return of daylight. At Scott Base we will see the sun again in August.

It is traditional to receive mid-winter greetings from other bases. This year, as usual, Scott Base received emails from many other Antarctic stations. Several of these messages were invitations to join them for their mid-winter party!

Scott Base celebrated with a formal dinner for nineteen staff. The chef, Jeff Reid, prepared an excellent six course meal. This was followed by chocolate treats and coffee. The wine flowed freely - and it was good wine that Antarctica New Zealand CEO, Lou Sanson, had sent south for the occasion.

Winter manager, Kevin Rigarsford, was presented with a decorative ice axe that was signed by all members of the winter staff. In various speeches it was acknowledged how well everyone is all working together as a team.

A moment was taken to stop to think about families and friends back home. They are the ones who make it possible to spend the winter in Antarctica, and their support and goodwill is recognised and appreciated.

A Hitchhiker's Guide to the Galaxy

Astrophysicist James Van Allen talks to Leslie Roberts about his long life of curiosity, exploration, and discovery.

James Van Allen may be the original "galactic hitchhiker" beginning with his early rocket launches from the Arctic and Antarctic. On a recent morning, Dr. Van Allen, 90, worked at his desk – as he does five days a week in the same University of Iowa, USA, office he has used for 40 years – tinkering with a museum-bound rocket payload identical to those he shot skyward from the Ross Sea in the late 1950s.

He cast his mind back to 1931, when he studied physics at Iowa Wesleyan with the brilliant innovator Dr. Tomas Poulter. Dr. Poulter was appointed Admiral Richard E. Byrd's Senior Scientist (1933-35) at Little America and invited his promising young student along. However, Dr. Van Allen's Iowan parents forbade it. Antarctica sounded too risky. "I wasn't so keen to go in any case," he added with a smile.

Nonetheless, Dr. Poulter put him to work on Antarctic-bound equipment – many designed by Dr. Poulter himself – including a tool for tracking meteor trails.

Dr. Van Allen took out a pencil and drew three concentric circles, with radial lines that sort of corresponded to the hands on a clock and a cone with a little eye-piece you gazed through to the sky.

"You could see a shooting star goes across like this," – he drew a line across the circles – "and you write down the coordinates at two o'clock, what have you. Poulter made thousands of observations in the Antarctic." (It was on this expedition that Dr. Poulter saved Byrd's life, leading a



James Van Allen as he appeared on the cover of Time Magazine and as he is today.
All Photos by Tom Weingeist.

dangerous rescue mission after Byrd suffered carbon monoxide poisoning while soloing at a remote camp.)

He recalled another Antarctic-bound tool he helped construct: the Poulter-designed tiltmeter.

"It was a ten-foot long device, suspended, with wires connected to it. Those wires were adjusted so it was very nearly in what we call neutral equilibrium; it's not unstable but if disturbed a little bit, it would swing. We used to set this up in the lab, and

if you walked into the room you'd have to watch out. It was used for studying the ice in Antarctica." Dr. Van Allen laughed delightedly at the recollection.

In 1935, Admiral Byrd, at the height of his fame, arrived at Iowa Wesleyan to speak at commencement – it was the year Dr. Van Allen graduated. "I don't recall what Byrd said, but I do recall what a figure Byrd cut in his white uniform, riding through the town in the parade," he said. He

later received his PhD from Iowa, and set off to work for the Carnegie Institute in Washington, D.C. After service in World War II, where Dr. Van Allen field-tested proximity fuses in the Pacific – he later returned to Iowa in 1950.

But Antarctica remained a part of his destiny. Dr. Van Allen dreamed of a worldwide effort to explore the earth and cosmos. He recalls the dinner party at his home in Silver Spring, Maryland, where he first publicly argued the need for the world's scientists to cooperate, to view Earth and the cosmos free of arbitrary political boundaries, and answer some of the world's most pressing geophysical questions.

In 1957, after worldwide meetings organizing hundreds of scientists and research programmes, Dr. Van Allen's idea launched as the International Geophysical Year. That same year, Dr. Van Allen found himself on the U.S. Navy icebreaker *Glacier*, a scientific hitchhiker as the ship churned from north to south polar regions.

Departing Boston in early autumn, the *Glacier* steamed southward for the Ross Sea, through the Panama Canal, then edged through the equatorial Pacific. One October night, the *Glacier* picked up an unusual beep in the radio room: Sputnik I floated across the sky.

"We knew the Russians had the capability to launch a satellite. We just didn't know when," Dr. Van Allen said. In a rush of excitement the *Glacier's* scientists and radio engineers collaborated to make a recording.

In *Origins of Magnetospheric Physics*, Dr. Van Allen's handwritten notes are reproduced; he describes rushing down to his lab to grab a small Tektronix oscilloscope to look at the signal visually. They also rigged a magnetic tape recorder. "Within five minutes both were in operation and I immediately found the following appearance...I had never heard a similar signal before! Very great thrill!" Dr. Van Allen said many scientists had not taken the Soviets seriously: "They were rudely surprised."

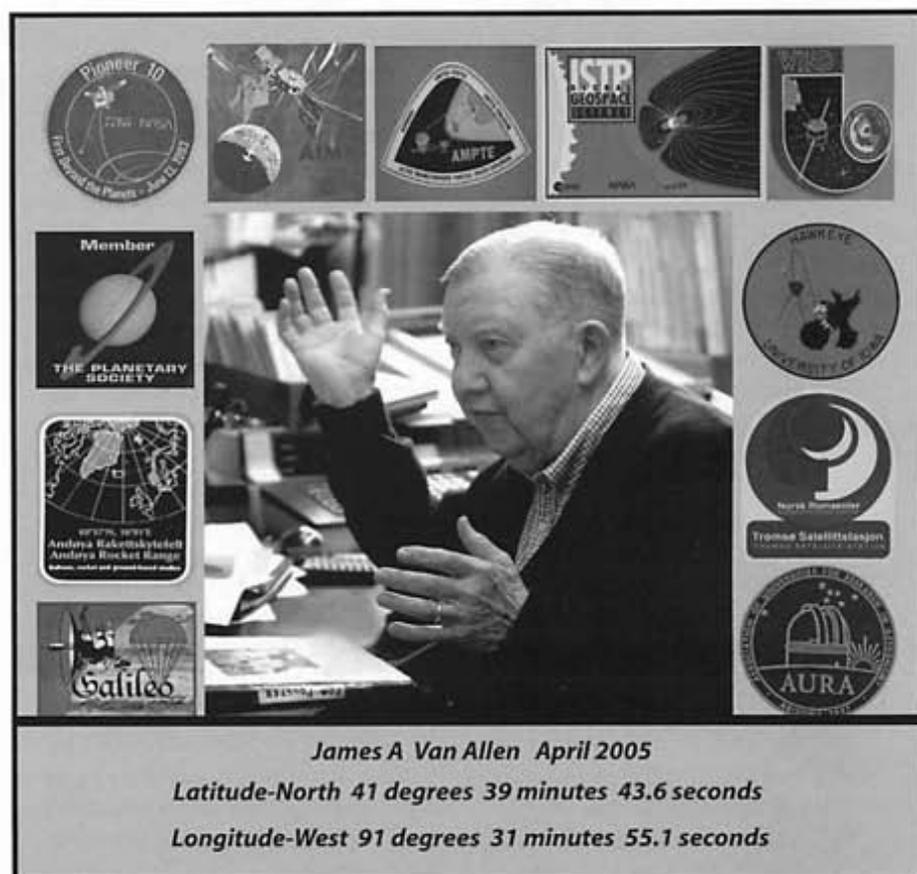
They called at Lyttelton and then a month or so later, were in the Ross Sea shooting off rockoons – balloon launched rockets he designed and

built at Iowa – to gather data. "We never went ashore; the captain had other business there. We were there as guests and lucky for the ride." The Antarctic offered a perfect laboratory for viewing the cosmos.

America's first satellite, Explorer I, launched in January 1958, and Dr. Van Allen watched from the Pentagon as his payload shot skyward to go "eyeball to eyeball" with Earth's magnetosphere. What he "saw" was

space storms – British Antarctic Survey researchers at Halley Research Station work with an international team on the physics of space storms using ground and satellite monitoring.

Many years later after sailing on *Glacier*, Dr. Van Allen found himself back in Christchurch, New Zealand, having the particular thrill of seeing the lab where his hero Ernest Rutherford worked.



James Van Allen surrounded by badges and the logos from projects and organisations he has been involved in over the past 50 years.

All Photos by Tom Weingeist.

an inner radiation zone around Earth – a donut-shaped belt of highly charged particles created when solar radiation is trapped by the earth's magnetic field – later named the Van Allen belts. It was a crucial discovery in the quest to open space for robotic and human exploration: Cosmic radiation degrades equipment – not to mention astronauts.

Antarctic-based scientists are among those who continue to build on Dr. Van Allen's findings. For instance, in efforts to protect spacecraft from so-called "killer electrons" – which can damage satellites during

Did he think there was any correlation between them, both farm boys destined to make key discoveries as physicists? Dr. Van Allen modestly resisted comparison to Rutherford, smiling and shaking his head. "Well, we both were from farm towns but I wouldn't draw any comparisons beyond that."

Dr. Van Allen, long a proponent of less-expensive, unmanned space exploration handed me a copy of his widely publicized article, *Is Human Space Flight Obsolete*. In 2004, he

Continued to Page 28

Diverse range a highlight for Oral Histories

Oral historian Jacqui Foley reports on the progress of the Trans-Antarctic Expedition (TAE) and International Geophysical Year (IGY) Oral History project.

A second phase of recording and collecting interviews with members of the two expeditions, others directly associated and the wives of some members is now well underway.

The project has been made possible by a grant to the New Zealand Antarctic Society from the NZ Lottery Commission's Environment and Heritage Fund and is a continuation of work carried out by Julia Bradshaw in 1997, when ten interviews were recorded. To date, this second phase of the project has seen a further ten interviews completed.

The content of the interviews covers a wide variety of subjects and detail. All of the stories are different and the end result is that they dovetail together to produce a wonderful overview of TAE and IGY.

Subjects covered relate directly to daily life on the expeditions. They include details about the work carried out, the wintering-over period, different aspects of TAE and IGY – the work and journeys of the tractor party, mapping and geology expeditions, the wonderful work of the cook, pilots, mechanics and radio operators.

The interviews also cover such details as, who was the best at giving haircuts, communication with families, presents and mail from home, the celebration of mid-winter and Christmas and the general

organization and running of Scott Base.

Other interview content relates to the design and construction of Scott Base and reporting and media representation of the expeditions. The wives' stories record how the women supported their husbands' involvement in the expeditions, getting on with the business of running the home and taking care of the children. Many talk about the concerns they had for their men's safety, yet at the same time they had total faith in the men's abilities and that they would return home safely.

This oral history collection can only be described as an invaluable resource. The interviews record first hand experiences and detail about TAE and IGY. While there have been publications about the expeditions, the advantage of oral history is in preserving the voices of those with direct experience and involvement, telling their stories in their own way.

For me, it has been an absolute privilege to carry out this work. It has been fascinating and interesting and I am continually struck by the generosity of interviewees, both with their time and their stories. I have received a great deal of help from many people for which I am very grateful. I have also found the web site of Dr. Bernie Gunn to be really helpful.

It is anticipated that the current interviews will be completed in the next couple of months.

The tapes and written abstracts, along with those from the first phase of the project, will then be placed in the Canterbury Museum.

A Hitchhiker's Guide to the Galaxy
Continued from Page 27

opined in a journal of the National Academy of Sciences that astronauts are outdated, too costly, and the science they do is trivial. "I think *Is* is in the wrong place!" he said, laughing.

In the article, he scrutinizes the \$US30-billion international space station (a dollar amount covering only its current, incomplete state). \$US80 billion is the estimated final cost to complete it.

"The space program's important advances in scientific knowledge have been accomplished by hundreds of robotic spacecraft in orbit about Earth and on missions to distant planets...robotic exploration of the planets and their satellites as well as comets and asteroids has truly revolutionized our knowledge of the solar system."

"Let us not obfuscate the issue with false analogies to Christopher Columbus, Ferdinand Magellan, and Lewis and Clark," he wrote, "or visions of establishing a pleasant tourist resort on the planet Mars."

For close to 50 years he worked on launches and only recently did his last satellite lose contact with Earth, fading to our solar system's outer edge.

As we wandered down to the lobby of Van Allen Hall, lined with glass cases highlighting his career – he has won every major science prize except the Nobel – and appeared on the cover of *Time* magazine – I asked Dr. Van Allen if he had plans to see the season's movie blockbuster – *A Hitchhiker's Guide to the Universe*.

He raised bushy eyebrows. "No, no," he said waving a hand in the air. "They always violate the physical laws of the universe in their stories and there's really no reason for that." He smiled, shook his head, and then we headed out under a bright, white spring sky.

Leslie Roberts is a writer currently completing a book on "Antarcticans".

Wandering Robot Tested for New Mission to Antarctica

By Byron Spice of the Pittsburgh Post-Gazette

Robots built at Carnegie Mellon University's Robotics Institute, Pennsylvania, USA, are often christened with names such as Dante, Grace and NavLab, but no moniker has better suited a machine than has Nomad.

First assembled in 1997 as a test bed for a lunar rover, the four-wheeled Nomad has trekked across Chile's bone-dry Atacama Desert and searched for meteorites in bone-chilling Antarctica. And it was on the road yet again last month, ambling across frozen Lake Mascoma in Hanover, New Hampshire, USA.

This latest field test, for which Nomad was outfitted with a wind turbine to generate electric power, is part of a NASA project called Life on Ice: Robotic Antarctic Explorer, or LORAX.

The idea is to eventually send a revamped Nomad to Antarctica to look for microbial life in the ice surrounding a nunatak — the top of a hill or mountain peeking out of the thick glacial ice. And, because this is a NASA project, the experience gained in searching for sparse life in a frozen environment could inform future efforts to find life on Mars.

"In our case," said Liam Pedersen, the principal investigator for LORAX at NASA's Ames Research Center in California, "we're looking at life in the coldest places."

The lowest temperatures in Antarctica are similar to the highest temperatures on Mars, he noted.

Despite the bitter cold of Antarctica, scientists have found that microbes somehow eke out an existence between ice crystals. Not only are they in surface ice, but Russian scientists drilling in frozen Lake Vostok have found microbes two miles below the surface.



Carnegie Mellon University Nomad, equipped with a wind turbine for power, during tests in New Hampshire, USA. Turbines and solar panels are being studied as power sources for its mission to Antarctica. Photo by Carnegie Mellon University.

"When you heat them up," Pedersen said, "they start growing again."

Nomad's mission would be to see what kinds of microbes are in the ice around a nunatak and try to figure out how they got there — whether they originate in the ocean or the land mass, and whether they flow with the ice sheet or are deposited by the wind. The robot would circle a nunatak for about a month, sampling the ice and mapping out concentrations of microbes all the way around.

The microbes are so sparse that the ice would be considered sterile by normal standards, Pedersen said. Perhaps 200 to 5,000 microbes might be in each cubic centimeter of snow and ice, which hardly compares to the hundreds of millions of microbes found in the same volume of soil.

Using a nonpolluting robot, rather than human researchers, would thus minimize the risk of contaminating the site with human-borne microbes

that might skew the analysis, said David Wettergreen of the Robotics Institute.

Nomad — "a good, old horse," according to Carnegie Mellon alumnus Pedersen — now generates its electric power with an on-board gasoline-powered generator. But in last month's field test, the researchers investigated the use of wind to generate power.

"It's often either calm and bright and sunny or it's overcast and windy" in Antarctica, Wettergreen said, so the combination of solar and wind power might be sufficient to keep Nomad running.

Further funding for LORAX is up in the air, along with the rest of the NASA budget, Pedersen said. If the project moves forward, the Nomad chassis would be given a new body, with solar cells on the sides and a wind turbine on top. During a field test, Nomad also traveled more than six miles in a circuit on the frozen lake, using autonomous navigation software borrowed from Zoe, said Wettergreen, who also is a leader for the Life in the Atacama project.

In the Atacama, Zoe uses a life-detection system that sprays the desert surface with fluorescent dyes that attach to building blocks of life such as DNA, lipids, carbohydrates and protein. To analyze microbes in the ice and snow, Nomad would use a drilling mechanism built by the University of Oklahoma to excavate and process a sample and a spectrometer developed by the University of California to look for constituents of life.

It's a slower, more complex process than required in the temperate Atacama Desert, but it's also one that doesn't require melting the sample or using liquid-based dyes.

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Walter Roy Seelig

1920-2005

Patron of the Antarctic Society and Gentleman

By David L. Harrowfield

One wet morning on Monday 18 October 1976, when working at Canterbury Museum, I received a phone call from Norman McPherson of DSIR Antarctic Division.

Norman asked if he could bring Walter Seelig and Ken Moulton, of the US National Science Foundation (NSF) Division of Polar Programs, to view progress with the new R.H. Stewart Hall of Antarctic Discovery.

The "Antarctic Wing" as it was then known, had received from NSF, considerable in-kind assistance and substantial grants exceeding NZ\$74,500. The new wing was opened by HRH the Duke of Edinburgh on 4 March 1977.

This was the first of many visits by Walt and it was not unusual on Sunday, for Walt to call to advise he was bringing a member or members of the United States Antarctic Research Program (USARP) to the museum, for a guided tour. The process at the museum continues to this day.

Walter Roy Seelig, 85, died on 29 April 2005. Born and raised in Brooklyn New York, he received a BSc in geology from Brooklyn College in 1940 and began graduate work in 1941 at the University of Nebraska. On one field trip he recalled, a new species of a fossil giant camel was discovered.

In 1941 he relocated to the Washington DC area and supported the war effort as a cartographer with the U.S. Geological Survey (USGS), working on maps for the U.S. Air Force. He was on the USGS planning staff 1958-1960 and was special assistant to George Whitmore, chief topographic engineer.

In 1959 NSF requested Walt transfer to the NSF Division of Polar Programs, to develop and monitor a plan for the mapping of Antarctica, although he returned to the USGS for nine months in 1960. He then became the NSF geodetic liaison officer and in 1964, Associate Director of the international co-ordination and information program.

In addition to his mapping of the Antarctic, Walt also served since 1969 as International Co-ordinator for the Division of Polar Programs and as USARP representative in New Zealand for eleven Antarctic seasons 1971-1986. In 1964-65 he was scientific co-ordinator for the NZ/US Ross Sea Islands Survey conducted from the USCGC *Glacier*. He was a member of the U.S. Advisory Committee on Antarctic Names 1973-86 and Chairman, 1976-86.

During his 46-year career as a U.S. Government civil servant, he made 17 visits to Antarctica, this including, five visits to the United States Amundsen-Scott South Pole Station and three to the U.S.S.R. Vostok Station. He also made several cruises in the NSF research vessel *Eltanin* including



Walter Seelig in November 1984.
Photo by Paul Rozianko from the collection
of David L. Harrowfield.

one to the South Sandwich Islands and another to the Antarctic Peninsula. In recognition of his accomplishments, Mt Seelig 3020m (9906ft), the tallest peak in the Whitmore Mountains Marie Byrd Land, was named in his honour.

In addition to support for Canterbury Museum, his generous and active support for all the activities of the New Zealand Antarctic Society, included the preservation of the Kinsey cottage at Ferrymead, assistance with the society's 50th anniversary celebrations in 1983 and he was a regular supplier of information to successive editors of the *Antarctic* journal. In 1986 following the death of surveyor and Patron Sir Holmes Miller and in appreciation for his efforts, Mr Seelig was honoured with the appointment of Patron.

During his years in New Zealand and accompanied by his wife Josephine, he was highly regarded as not only a scientific representative, but also as an unofficial 'ambassador' and one who had many friends in New Zealand. A man with great enthusiasm and energy and a friend of the world, he retired from NSF in 1986.

A "people person" Walt, in retirement, was for ten years, a docent for the USGS Visitors' Centre in Montgomery County, Maryland, USA, and he was also a member of the Montgomery Mall 7am walkers group. Mr Seelig is survived by his wife Josephine, two sons Bill and Harold, daughter Andrea, two grandchildren and a great granddaughter.

The Antarctic Society sends their condolences to the family and to NSF.

Thanks are extended to Eugene W. van Reeth (Capt. USN Retd) former Commander Naval Support Forces Antarctica, Margaret Lanyon and *Antarctic* for assistance with this obituary.

Keith Clegg

1928-2004

The ability to work with people under pressure marked the life of Keith Clegg. Whether dealing with media in the Antarctic after the Erebus disaster, organising volunteer workers for the Heart Foundation, or clinching trade deals for governments and corporations, he impressed as capable, caring and principled.

Keith died in Christchurch, New Zealand, on Christmas Eve 2004. He was born and raised in Lower Hutt. Following WWII and after working in Canada, Keith returned to New Zealand taking up a job in trade. Success in trade led him into private consultancy. His work varied and included negotiating the introduction of some American businesses into New Zealand.

While working with the Americans, Keith became involved in the Antarctic, making his first trip to the ice in 1963. In 1968 Keith joined the Antarctic Division of DSIR, in Christchurch, as publicity manager, for which he worked for 20 years.

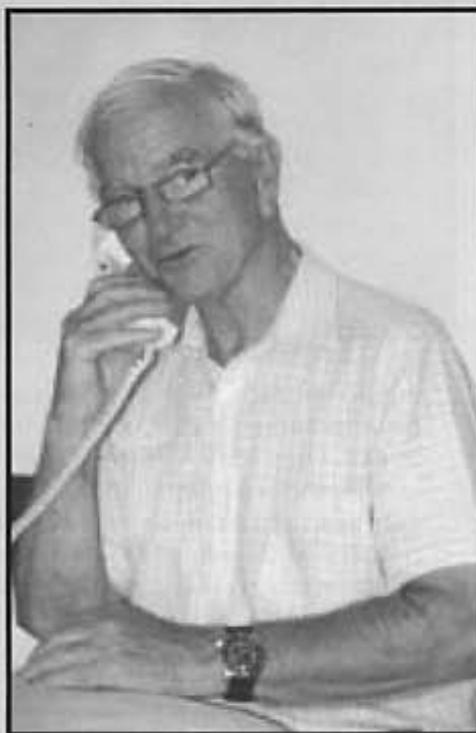
He made 30 trips to Antarctica, including one to the South Pole. He escorted many notable people south, including Ernest Shackleton's son and Prime Minister Robert Muldoon.

The Erebus disaster was a traumatic time for Keith. He managed a team of international journalists visiting the Antarctica and when one photographer from this group broke Keith's rule that no photographs be taken of the dead, that photographer was immediately dispatched back to New Zealand.

Emeritus Professor George Knox, who himself was involved in much Antarctic research, says of Keith that, "He could establish rapport with people. He was a people's person." He was well liked and had a good sense of humour. He was very confident and knew how to get things done. While he had a smooth approach, he was most honourable. Keith met his second wife, Virginia, an editor, while she was working on a book about Scott Base personnel. They were married in 1995. Virginia says of him, "To me he was a kind, loving extraordinary man with an enormous capacity to know people – kind and generous to a fault to those he liked and that was many. Almost had to stop him giving the 'shirt off his back' sometimes."

After retiring from DSIR he worked as an Antarctic consultant to the Christchurch International Airport Company for the development of the International Antarctic Centre.

Keith Oswald Clegg, born March 2, 1928, died December 24, 2004.



Peter Wilkniss

1935-2005

Peter E. Wilkniss set the agenda for polar science at the National Science Foundation (NSF) during the late 1980's and early 1990's and his legacy of leadership continues today.

He died in June 2005 at the age of 70 at his home in Anchorage, Alaska, USA.

While at NSF, he served as director of the Division of Polar Programs (DPP) when it was part of the Directorate for Geosciences. He made numerous contributions to the advancement of polar science.

During his tenure, construction began to consolidate laboratory spaces at McMurdo Station into a single building, which is known as the Albert P. Crary Science and Engineering Center. Wilkniss received the American Institute of Architects' Presidential Citation in 1993 for his work.

He was a prime mover in the late 1980's to establish the Council of Managers of National Antarctic Programs (COMNAP), and he oversaw the completion of the ice-breaking research vessel, *Nathaniel B. Palmer*.

He was a key player in establishing NSF's Arctic research programmes and was also influential in encouraging greater participation by women in polar science.

'Australian Antarctic Science' The first 50 years of ANARE

Edited by H.J. Marchant, D.J. Lugg and P.G. Quilty. Published by the Australian Antarctic Division, 2002.

Review by Professor Bryan Storey

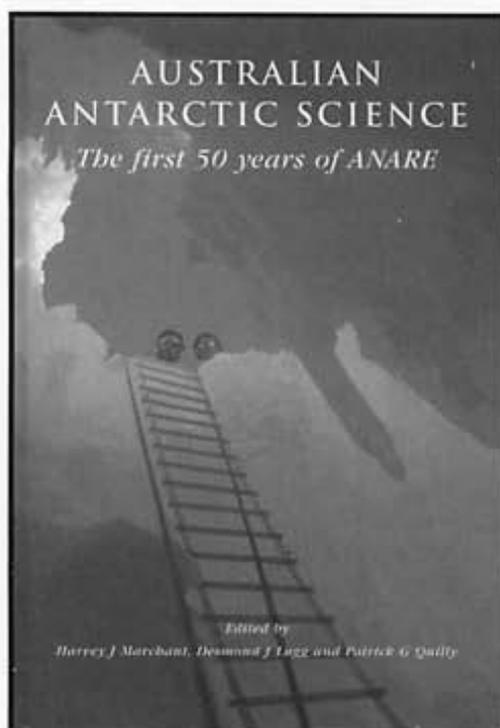
In 1997 the Australian National Antarctic Research Expeditions (ANARE) celebrated fifty years of Antarctic research following the first expedition that set out from Melbourne in 1947.

As part of the activities to mark the jubilee, a small group of scientists organized a symposium on the Australian contribution to Antarctic research. It consisted of oral and poster presentations that, highlighted their scientific achievements over the past 50 years, discussed the relevance and importance of the activities in a broader global context, and indicated future challenges and research directions.

There was certainly good reason for celebration at that time. The Australian Antarctic Division, the current organization responsible for Antarctic activities in Australia, and ANARE can look back with pride on a history of 50 years of great achievement and significant contributions to the advancement of modern science.

This book is a wonderful record of that meeting and of 50 years of polar research by a single nation. The volume includes a full record of both the opening addresses and of the major discipline areas of science undertaken within ANARE.

The book records the opening address by Sir Guy Green Governor of Tasmania, the symposium welcome by Senator Ian Macdonald, Parliamentary Secretary for the Antarctic, a keynote address by John Heap on *The scope of Antarctic Science*, a talk entitled *Developing ANARE research programs* by Dr Philip Law, the first ANARE Chief Scientist, and a match-



ing presentation by the then incumbent chief scientist Pat Quilty on *Antarctic Science – the ANARE perspective*.

With the exception of the last two chapters the remainder of the book contains 16 discipline based chapters that summarize the contribution of ANARE in the various fields. As such the book is an excellent multidisciplinary review of 50 years of Antarctic research by recognized experts in their own field and has wide appeal as a reference document.

In some ways, however, it would have been better to see fewer chapters and more integration of the disciplines. This is particularly true of my own subject area, the Earth Sciences where we have separate chapters on geological evolution and solid earth geophysics. It is more challenging to integrate the disciplines but more rewarding for the reader.

Moreover, there is a certain lack of consistency in the discipline chapters. Some authors take a very historic approach and document the history of exploration in that field. Others, more interestingly have integrated the ANARE findings into a successful review of the subject areas. It's a pity the book did not use colour plates, although I am sure this was a cost-cutting decision. Many of the superb images lack impact due to use of low contrasting grey tones and I am overall disappointed by the low quality of some of the maps and figures used in the volume. Nevertheless, the volume is a superb record of 50 years of research and will serve as a milestone for years to come.

The book concludes with two summary chapters, one by John Heap *An overview of the Australian contribution to Antarctic Sciences*, and the other by Pat Quilty on *Influences on the future directions of Australian Antarctic research*.

I was excited by the title of John Heap's final contribution but disappointed by the content. The book was in need of a summary chapter for those that wish to browse but this chapter has been mis-titled and as it more accurately reflects future trends than past achievements. Nevertheless, I concur with his parting statement, "As long as your guiding star is the pursuit of scientific excellence, I do not believe you can go far wrong".

Professor Bryan Storey is the Director of Gateway Antarctica, the Centre for Antarctic Studies and Research at the University of Canterbury, Christchurch, New Zealand.

Substantial Fine for Toothfish Poacher

The owners and master of longline vessel *Elqui* have been fined for illegally fishing for Patagonian toothfish in South Georgia waters.

At the end of a one day trial held on Monday, the Falklands Island's Senior Magistrate, Mrs. Clare Faulds, declared *Elqui's* owners, Geneagles Corporation, and her master, guilty of permitting the boat to be used for fishing without a licence.

Elqui was arrested in the South Georgia zone on March 2 after reports were made by two cruise ships to Fishery Patrol Vessel *Sigma*. *Sigma* caught up with *Elqui* and she was boarded by a Fishery Patrol Officer.

Both parties had earlier pleaded guilty to charges of failing to notify the South Georgia Marine Officer when Guinea-flagged *Elqui* entered the zone, and of permitting the vessel to carry an unstowed fishing line and gear without a licence.

Mrs. Faulds fined Geneagles a to-

tal of £250,000 for the three offences and ordered the company to pay approximately £59,000 in prosecution costs. The ship's master was fined a total of £2,000 and will pay £500 prosecution costs.

On inspection of the vessel, the Falkland Islands Government Fisheries Officer discovered 247 boxes of baited longline, "ready to be deployed".

Further inspection revealed a number of rice sacks and boxes filled with frozen toothfish. The ship's master, confirmed to the officer that there were approximately thirteen tonnes of toothfish aboard the vessel.

The Falkland Island's fisheries patrol vessel *Sigma* escorted *Elqui* to Stanley following her arrest.

In court in April 2005, the master said *Elqui* in his defence that he had been fishing north of the South Georgia zone between Feb-

ruary 19 and 28 2005.

He said he was steaming through the South Georgia zone on 1 March 2005 when the vessel began to experience engine problems.

He told the court that it was commonplace on fishing vessels that the hooks should have frozen bait put on them.

He said the bait could then be used "one, two or three days later".



Patagonian Toothfish.
Photo by V. Metcalf.

New Book Planned

A new Antarctic history being compiled by David Harrowfield will be released in 2007 to mark 50 years of New Zealand's continued presence in the Ross Sea region.

The book to be published by David Bateman Ltd will have 15 chapters, 200 pages and an extensive pictorial content.

Chapters include the Commonwealth Trans-Antarctic Expedition and International Geophysical Year; development of the New Zealand Antarctic programme; Scott Base and science; Vanda Station and Dry Valley science; 'deep field' expeditions including those by mountaineers; historic hut conservation; artists, writers and edu-

cation programmes; the environment; international cooperation; tourism and private expeditions.

The book is being compiled with generous in-kind support from Antarctica New Zealand and will build on David's previous books these including, *Scott Base* (1997) and *Vanda Station* (1999), published by the New Zealand Antarctic Society.

David would be pleased to hear from any members with records or photographs that may be of interest and can be contacted at P.O. Box 36-269, Christchurch, New Zealand or via email at d.harrowfield@xtra.co.nz.

DO YOU KNOW THIS PERSON?

George Lewis was leader at Scott Base 1961-62, and is believed to be now living in the UK. Michael Atkins was in the Antarctic at the same time and is keen to get in contact with George.

If any reader has contact details for George Lewis, could they get in touch with Michael at: Michael Atkins, 67 Greers Road, Ilam Christchurch, New Zealand. (0064-3) 3585 747, aitkmsmh@hotmail.com

Unlocking Climate Records Trapped in the ice

Leading climate scientists have looked at temperature records all over the world and have found an increase of 0.6 of a degreeC increase over the past 50 years.

This is roughly equivalent to the difference between the climates of Christchurch and Wellington. Experts predict, however, that an increase of up to 5.8 degreesC by the end of the century from increased greenhouse gases (carbon dioxide, methane and water vapour) released into the atmosphere could occur. With these types of predictions in mind, a number of researchers are looking at past climates and how they reacted to changing conditions to better understand what might be in store for us in the not so distant future.

Dr. Nancy Bertler and her team from Victoria University of Wellington spent half of her summer in Antarctica retrieving ice cores from two sites in the McMurdo

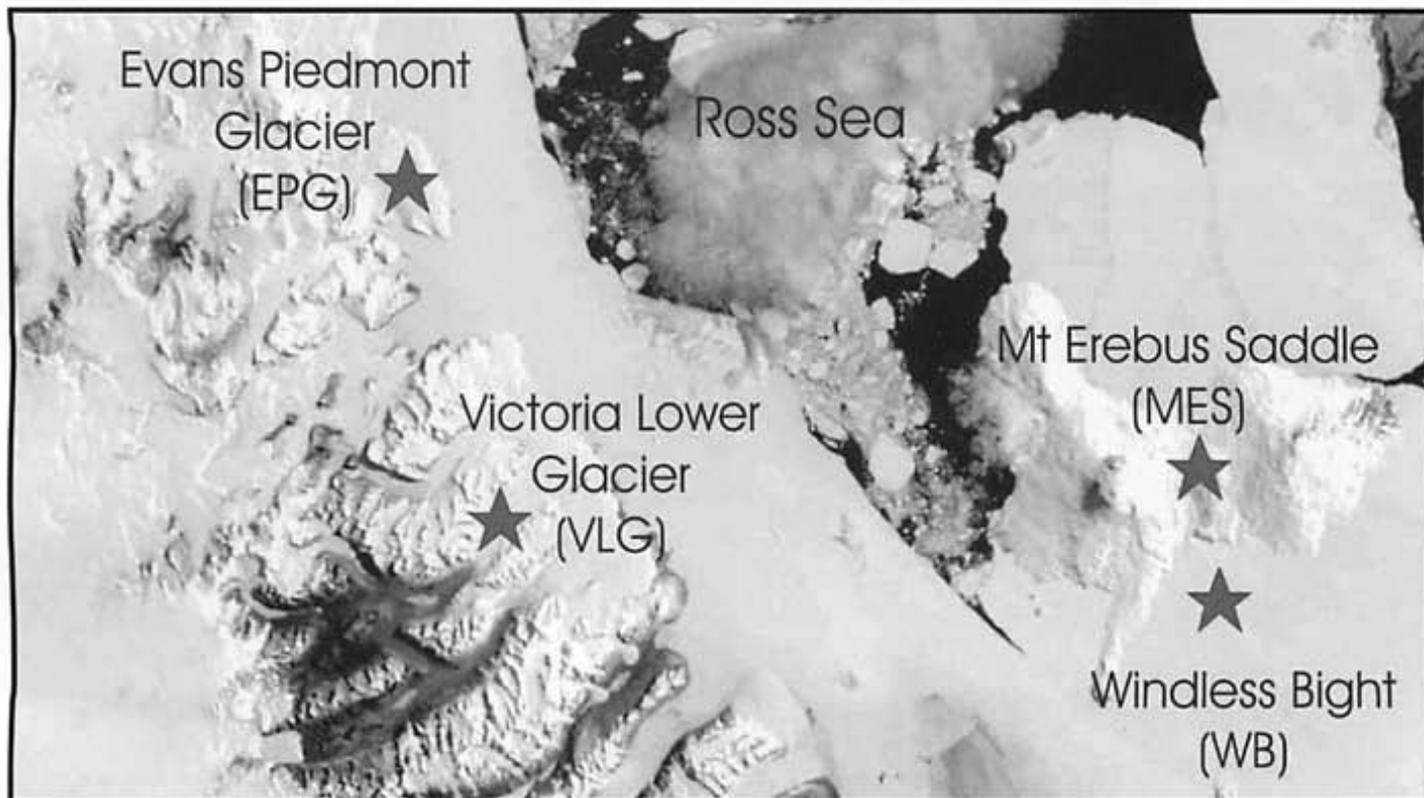


*Looking down the length of the core.
Photo by Brien Barnett, US National Science Foundation.*

Sound area. The ice cores contain tiny bubbles of ancient air. The deeper the bubbles are in the ice, the older the air is. These bubbles will help us better understand the past climates of the area and what influenced them over the last 10,000 years.

The two sites chosen give very different, but complementary information about the causes and effects of past climate variability. The first site is located along the Victoria coast on Evans Piedmont Glacier. Because the site is marine in nature, it provides exciting insights into the teleconnections between the tropics and the poles, e.g. the tropical El Niño Southern Oscillation and Antarctic climate change. With New Zealand situated in-between the Antarctic -

Tropic power-play, this ice core will also unravel important information on our local climate outlook. The second site, on the slopes of Mt. Erebus is chronic for its strong wind conditions posing a difficult



Map showing ice core sights in the McMurdo Sound area.

challenge to work up there and retrieve the samples needed.

However, the conditions worked in favour of the science as it meant that the atmospheric gas is trapped more rapidly in the wind-crusted snow than elsewhere. Therefore, the resolution of the record is very high, perhaps the highest ever reported.

This record will be used to focus on rapid changes that occur over very short timeframes, which could not be studied in detail before.

The ice core samples will be melted and analysed by scientists at Victoria University and Geological and Nuclear Sciences in collaboration with experts from the National Institute for Water and Atmospheric Research.

The results will be compared with the findings from the international ANDRILL scientific drilling programme in Antarctica, which will reveal more about whether climate change is driven by changes in the ocean or on land.

While it is no longer a question of whether global warming is happening, more information is needed to understand and ultimately predict the local effects of global warming, both in Antarctica and in New Zealand.



Carefully retrieving the ice core from the drilling mechanism.
Photo by Brien Barnett, US National Science Foundation.

Concordia's first winter

By Guillaume Dargaud, Antarctic Sun

The Franco-Italian station of Concordia at Dome C has opened for year round operation, after five years of challenging construction. Dome C at 75°S 123°E, is not too far south but its high altitude (3,260 m) makes for a pretty cold and unforgiving place. By April the temperature already reached -76°C, not far from the -84°C expected later in the season. The site of Dome C is interesting for various reasons: high altitude, very low snow accumulation, absence of auroras (good for astronomers but not so much for the larger public), very flat terrain, low winds and turbulence, absence of ice motion and finally easy communication with geostationary satellites.

Last year, as the personnel were selected for the first winter, there was still a lot of uncertainties about whether the construction would be finished in time. And indeed it wasn't! Summer construction workers were still working on the buildings on the morning the last

plane was to leave. The two main buildings are raised on hydraulic feet to avoid having the station disappear under snow over the years. One is a quiet building with the bedrooms, laboratories and a hospital. The other building is 'noisy' with workshops, gym, TV room and a 3-star panoramic restaurant.

The power generators and water recycler are in a large container next to the building. Also outside are the many fuel tanks, water tanks and the garage also acting as a balloon inflation shed.

For this first "evaluation" winter, 13 people are currently on station. Eight are part of the technical team, five have scientific activities, six are newcomers to this cold land, eleven are French, but three are counted as Italian.

The area where the station is built is the site where, in December, after eight years of work, the Epica drilling project stopped a few meters from the bedrock having extracted the oldest ice in the world, a core spanning 3,270 m and 900,000 years. It covered a full eight glacial cycles, putting global warming in perspective.

New SCAR Executive Officer appointed

Dr. Marzena Kaczmarek joined the SCAR Office at the Scott Polar Research Institute in Cambridge, UK, on 1 June 2005 to take over from Peter Clarkson as the SCAR Executive Officer. Marzena has a PhD in Glaciology from the University of Silesia, in Katowice, Poland. For her thesis she studied the role of climate in relation to the calving of tidewater glaciers in the Arctic.

While at the University of Silesia, she taught courses on mapping methods, analysis of air photos, and an introduction to remote sensing. In April 2000 she became a Research Assistant at the Norwegian Polar Institute in Tromsø, working on ice cores, on mass

balance data from Svalbard glaciers, and on sea ice charts from the Barents Sea. From December 2001 to December 2003 she held a post-doctoral position where she worked on the European Programme for Ice Coring in Antarctica (EPICA), which involved field work as part of the drilling team at Kohnen Station in Dronning Maud Land.

Subsequently she held a post-doctoral position within the Norwegian Antarctic Research Expedition (NARE) programme, and also worked in the Climate and Cryosphere (CliC) Project Office, where she helped to organize the first CliC International Science Conference in Beijing, China.

The Last Vanda Station Reunion 2005

Old Antarcticans came from far and wide to celebrate the 'Last Vanda Station Reunion' at Twizel, New Zealand, 22-23 April 2005. Attended by 150 individuals, with at least 10 from overseas, the event was well organised by Antarctic personalities John Alexander (Convenor), David Harrowfield, Deirdre Sheppard and Pete Mason.

The MacKenzie Country Inn at Twizel was 'commandeered' for the event, providing splendid comfort at a cold time of the year, demonstrated by the fresh snow that fell on the night of the dinner. A great deal of effort had been made to provide the venue with a distinctly Vanda flavour. Many participants brought a large number of artefacts from Vanda, as well as maps, photographs and geological samples to provide the appropriate atmosphere. In pride of place was the well known "Vanda Oasis" sign over the entrance to the dining hall.

After registration in a special corner of the Inn, during which participants could listen to an old tape of Vanda radio chatter, the reunion got

In 1968 New Zealand built its only scientific station on the Antarctic continent beside Lake Vanda in the Wright Dry Valley. The station was occupied for three winters, it was essentially a summer base, important for parties working locally or further afield. Vanda existed for longer than intended, and by the mid-1980s there was concern that the rising level of Lake Vanda might reach the station and become contaminated. The New Zealand Antarctic Programme decided to close the station, and in 1994-95 all traces were removed, although two small refuge huts were established on the opposite side of the lake. (Extracted from "Vanda Station: History of an Antarctic Outpost 1968-1995" by David Harrowfield on sale through the New Zealand Antarctic Society).



Left: Special label for the wine sponsored by the Armed Forces Canteen Council.

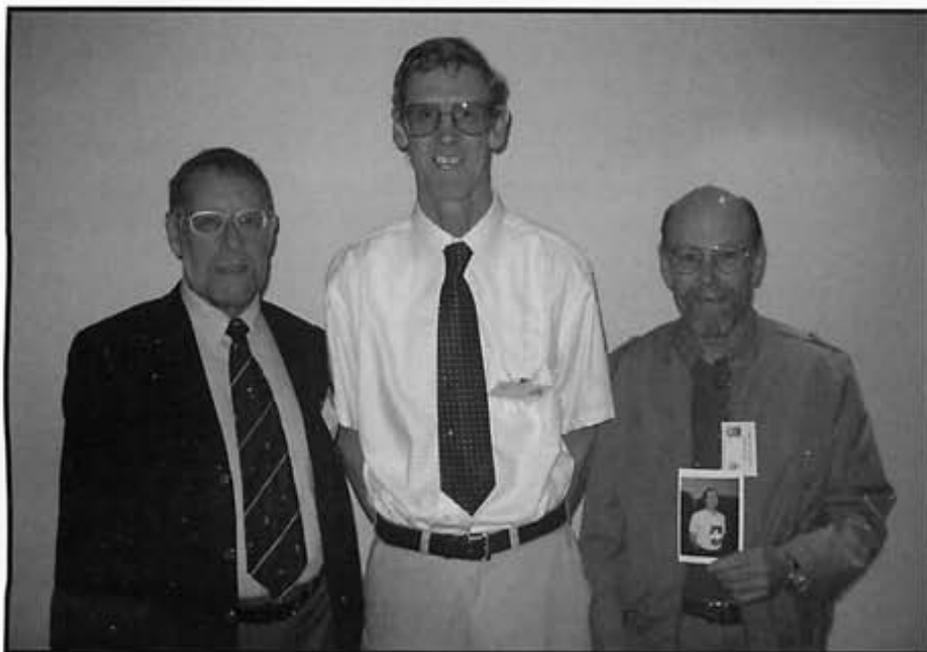


under way with a lively bar-b-que in the Omahau Downs woolshed, a sheep farm not far from Twizel. Asgaard Ranger, Pete Mason, welcomed the participants, surrounded by large colour prints of Vanda, while an early visitor to the base, Lou

Sanson, now CEO of Antarctica NZ, who had generously contributed the liquid refreshment as well as the meat supply, also spoke. In the words of John Alexander, "It was a great night. The case of Gluhwein disappeared in minutes, but there was still beer and food left over, so we must be learning to pace ourselves, or just getting old!"

Participants had the following Saturday morning to recover, and after lunch for some at Charlie Hobb's Old Mountaineer's Café at Mt Cook, the afternoon was spent refreshing old memories watching a video of Vanda Station made by Max Quinn of Natural History New Zealand Ltd, and also seeing a slide show of Vanda scenes and personalities that continued on into the Reunion Dinner that night. Early Saturday evening was also the time when group photographs were taken for posterity – the tractor train party who hauled the huts into the Wright Valley, amassed Vandals and grouped Asgaard Rangers.

Before the dinner, drinks were shouted at the bar by Dr. Torri, conveyed by Dr. Yoshio Yashida, who



Three of the first Vanda winter-overers (1969).
Left to right; Bill Lucy, Simon Cutfield, Warren Johns.
Photo by John Alexander.



A Visit to Mt. Nipha, White Island

By Peter de Joux

Pete is currently wintering-over in Antarctica, with 18 others, at New Zealand's Scott Base as the base's science technician.

Looking south from Scott Base across the ice of McMurdo Sound, there are two islands about 50 km away.

On the right is Black Island, with most of its snow stripped away by the winds.

On the left is White Island, which remains snow-covered. Between these islands is White Strait, which we call "Herbie Alley" because that's where the worst storms (or "Herbies") first become apparent. We get a couple of hours warning when we notice a build-up of cloud near these islands.

In mid-April 2005 we'd had cold conditions for a few weeks, and the ice was solid enough for safe and easy travel, so we decided to run a series of recreational trips to White Island and hopefully to climb its highest point; Mt Nipha (792 m). It was a chance to test the newest of our hagglands-tracked vehicles, which had just been put into service a few days earlier. It's also nice to get away from the base and become more familiar with the area.

Travelling in a vehicle on Antarctic ice is something you

need to do quite carefully. The standard routes are marked with flags, and have been checked for crevasses and tide cracks. But conditions change, and cracks can appear. If you venture off the marked track you must find your own safe path. Even reasonably gentle slopes can contain quite



Above: Erebus, Cloud formation above Mt Erebus. Far at top: The sun is barely visible on the horizon from the top of White Island. All photos by Pete de Joux.



The Mt. Nipha team, Pete is second from left.

large crevasses, and the transition from ice onto solid land is often quite treacherous. Detailed safety and logistics plans were prepared and submitted for management approval. Antarctica New Zealand is pretty good at allowing these sorts of trips as long as the plan is properly prepared and documented.

Like most events in the Antarctic, the journey was not without incidents-albeit minor ones. The first group made it out to the bottom of White Island, before their vehicle developed a fuel starvation problem. Their mechanic diagnosed the problem, and they slowly returned to base with the engine unable to reach full revs. A rubber seal in the fuel selector valve had rotated and partially blocked the fuel outlet. The temperature outside was -40 deg C, which may have caused the rubber to shrink.

A few days later, with the vehicle repaired and a reasonable weather forecast, my group left at 8 am. We made good progress, and had timed our arrival at White Island for the middle of the day when we'd still have enough light to pick out any crevasses. We were following a GPS-route and we also had trip notes from

similar expeditions in 2004 and 2002.

Travel along the marked route was easy. White Strait contains a broken-up area where dust and gravel from Black Island has been deposited onto the ice. The darker colour of the gravel attracts solar radiation, and melting occurs around these rocks in summer. Adjacent cleaner areas of ice don't melt as quickly.

The result is a broken and jagged ice landscape that would be difficult to traverse if the Americans hadn't recently cleared the road using their bulldozers. They need to maintain a safe route to their satellite communications station on Black Island.

We had an uneventful trip, with no crevasses spotted on our path.

At -30 deg C the temperature was warmer than the previous group had experienced, and the vehicle performed faultlessly. We traversed across White Island in a north-easterly direction with the terrain climbing gently until we reached Mt Henderson. We stopped to refuel the vehicle from drums of diesel, and took lots of photos.

Then we turned north, and headed towards the base of Mt Nipha, where we parked the haggglunds and scrambled up the 100 vertical metres to a

point near the summit.

It was a mixture of frozen scree, ice, and soft snow. We took a few more photos and it was time to head home before it became too dark. On the way home we were lucky to see the sun peeping over the horizon. We'd already had our last sunset at Scott Base a week earlier, but from the elevated position on White Island we were treated to an amazing sunset. There was a strata layer of cloud in front of Mt Erebus that was glowing red, with the shadow of the mountain projected onto it - a truly magical sight.

The trip home was easy, since we could follow our own tracks and be reasonably sure that no crevasses were present. By the time we arrived home, it was completely dark, but with a clear and starry sky.

The third group went out the next day, and experienced colder temperatures. They were able to follow our tracks, and also climbed Mt Nipha. On their way home they experienced a reoccurrence of the fuel problem with the vehicle. Once again their mechanic checked it, and they were able to drive home at reduced speed.

Perhaps this wasn't a very significant mountaineering expedition, but it was an opportunity to venture a bit further from the base than we'd normally be able to. We were all grateful to Antarctica New Zealand for allowing us this fantastic opportunity.



During the brief period of daylight, the team climbs Mt. Nipha.

GETTING POLITICAL ON ICE

This letter to the editor was submitted by Debs Martin of Forest & Bird (Antarctic and Southern Ocean Coalition member). It is food for thought for all of us in New Zealand who will go to the polls (not the Pole) in the next few months.

Camped on the Ross Ice Shelf, wrapped up in extreme cold weather gear and watching Mt Erebus puff gently away over a hazy white-washed horizon, the world of politics seems such an anathema.

But like it or not, politics plays a crucial role in determining human activity in the Antarctic. It is arguable that it is the most politicised region on Earth. Certainly its politics are like nowhere else.

The 1959 Antarctic Treaty dedicated the area south of 60 degrees to peace and science. It is fortunate for this continent that such an agreement was reached – if not, the ice may well have been awash with military uniforms of many persuasions, mining rigs, fishing stations, tourist hotels ... in short, a far call from the place we know.

In New Zealand, legislation strictly controls who and what goes where as our country upholds its obligations under the Antarctic Treaty and associated agreements. But the subtle nuances of New Zealand Antarctic decision-making are modelled by the hands of our politicians. The politics of the late 1980s shouldn't be easily forgotten. As NZ officials were deliberately progressing the establishment of the un-ratified minerals regime, CRAMRA; it was just as quickly being unravelled by politics. Geoffrey Palmer, then Minister for the Environment and Prime Minister, argued in deciding to abandon the lengthy minerals negotiations "...risks had to be taken to keep the policy growth up to the speed of world opinion."¹

Now in 2005, with an election looming large, and many debates focussed on the usual tax, education, health, law and order – the Antarctic may not seem a key election issue. But when you consider the immediate importance of the Antarctic continent and oceanic waters to our small island nation – its significance grows in stature.

Most of New Zealand's political parties have policies on the Antarctic – to a greater or lesser degree. They can generally be uncovered in policies on Conservation, Environment or Fisheries. Some parties have failed to include them in their manifestos – and may not do so at all before the election.

A call to the National's parliamentary office revealed surprise at the question – with staff remarking nobody had ever asked them about Antarctic policies before. Trolling through United Future's website revealed nothing – but an email from Mr Dunne's office turned up with a brief statement. Labour still has their 2002 policy on the website and New Zealand First has a one sentence statement. The Greens included a brief paragraph in their Environment Policy, but it took a second look before I could find it.

It seems that given the size, proximity and legal status of the Ross Sea region (or more correctly – Ross Dependency), greater weight would be accorded to the Antarctic.

Perhaps it is because there are no voters living there – or because its perceived as a vast 'wasteland' of ice with no real significance to New Zealand. Whatever the reason, its lack of relevance causes concern for those of us for whom 'the ice' does matter.

POLICIES²

Whilst Greens are the only political party to explicitly identify World Park status for the entire region south of 60 degrees; Labour, Greens and United Future all recognise the importance of retaining the continent of Antarctica free from resource exploitation and other threats – as well as preserving the sanctity of peace and science. Labour advocates World Park status for the continental area.

New Zealand First also appears to have some sympathy with this position, although their entire Antarctic policy is summed up in the following sentence:

"New Zealand First will continue to advocate against the exploitation of Antarctica, and for the cessation of all whaling."³

Both Greens and United Future view tourism as a legitimate Antarctic activity – provided it is well regulated and managed. We know that Labour also supports this position through its 2003 tourism statement.

National currently have an absence of Antarctic policy⁴ – except in the area of fishing. They state they will "promote New Zealand's fishing interests in the Antarctic."⁵ Neither New Zealand First nor United Future make any reference to commercial fishing in the Southern Ocean.

Labour has always continued to pursue fishing in the Antarctic under CCAMLR – although they also advocate the development of specially protected marine areas for the Ross Sea. Both Labour and the Greens express the importance of curbing illegal, unreported and unregulated (IUU) fishing – but the Greens differ from other political party positions by advocating Southern Ocean World Park status and refusing to permit any commercial activity, including fishing.

Such political positioning will have an important influence on what happens 'on the ice' over the next three years. So as you go to the polls to cast your vote, you may also want to cast a thought to the South.

¹ Palmer, G. (1990). *Environmental Politics: A Greenprint for New Zealand*. John McIndoe Ltd: Dunedin.

² This policy analysis was limited to those parties that are either a major party; are currently polling over 5%; or are likely to win seats in the next election. It excluded those minor parties that did not have specific policies relating to the Antarctic or who were polling well below 5%. All political party policies can be found on the following websites: www.greens.org.nz; www.labour.org.nz; www.national.org.nz; www.nzfirst.org.nz; www.unitedfuture.org.nz

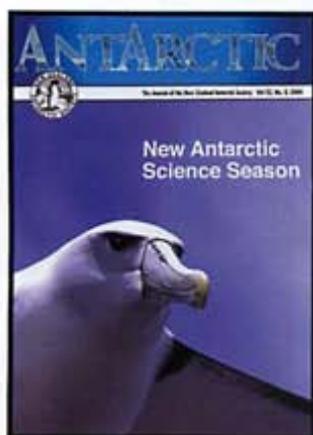
³ New Zealand First website: <http://www.nzfirst.org.nz/policies/conservation.php>

⁴ Although parliamentary staff advised further policies were forthcoming which MAY include policy on the Antarctic.

⁵ National website: <http://www.national.org.nz/Article.aspx?ArticleId=4490>



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Antarctic Magazine correspondence and articles should be addressed to:

EDITOR

Michelle Rogan-Finnemore
New Zealand Antarctic Society
P O Box 404, Christchurch 8015,
New Zealand
Email: michelle.finnemore@canterbury.ac.nz
www.antarctic.org.nz

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The New Zealand Antarctic Society Inc was formed in 1933. It comprises New Zealanders and overseas friends, many of whom have been to the Antarctic and all of whom are interested in some phase of Antarctic exploration, history, development or research.

A membership to the New Zealand Antarctic Society entitles members to:

- Antarctic which is published quarterly April, July, October, December/January.

It is unique in Antarctic literature as it is the only periodical which provides regular and up to date news of the activities of all nations at work in the Antarctic and Sub-Antarctic. It has worldwide circulation.

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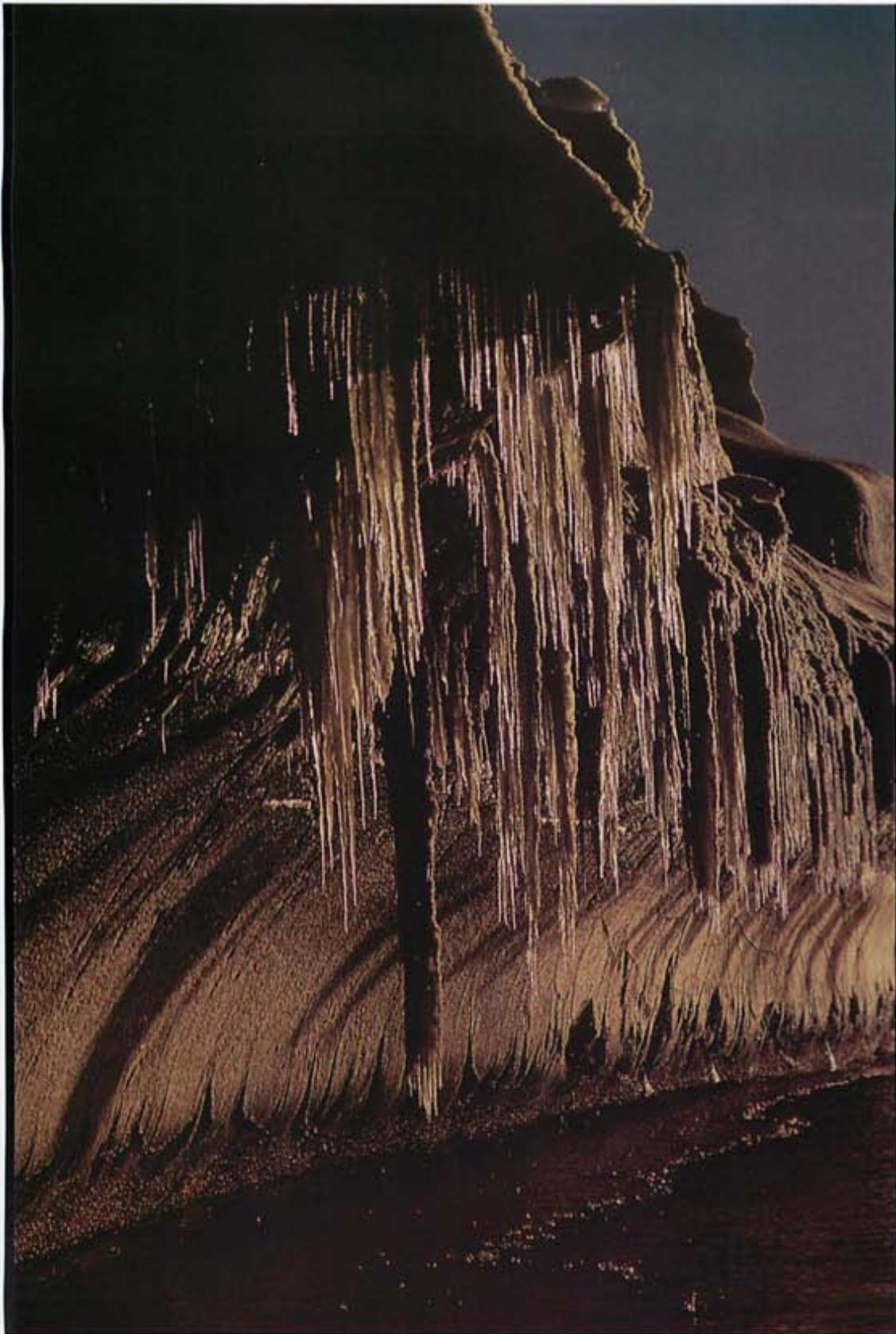
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Membership Secretary Mariska Wouters

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*In midsummer a considerable amount of melting takes place from glacier fronts and icebergs around the edge of the Southern Ocean.
This Terre Adelie Land iceberg's ten-foot icicles are running with fresh water.
Photo by Colin Monteath.*