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Cover photo: Wind turbines in place at the Princess Elisabeth Station, Antarctica. © IPF

From the Editor

The burning down of the A-frame near Ross Island touched a chord with more than the 26 people who are currently wintering over at Scott Base (see the story in this issue of *Antarctic*). I would hate to even venture a guess at how many of us over the years spent a night or two there, recording our thoughts in the A-frame journal, sharing a drink with our colleagues, singing without the aid of a Karaoke machine or just taking the opportunity to spend a quiet few hours alone with a book, some drawing tools or a guitar.

The A-frame was not just “Ed’s haunt” as the headlines in the media boldly proclaimed the day after it was destroyed. Although it is certain that Ed was one of many Antarcticans that spent time there and enjoyed the unique context that the space (so much more than a building) had provided us with.

We all know the building’s history – dragged out of the trash and given a second chance at usefulness and then becoming an iconic symbol of being a shelter in any storm. It was every Antarcticans A-frame. And now it is gone.

So, what next? I ask this of the A-frame and also of myself.

This is my last issue as Editor of *Antarctic*. It’s been a role that I have enjoyed tremendously, even during the times when some people have complained to me that the magazine hasn’t been on time, or wasn’t glossy enough or was too glossy with too many pictures and did not give proper account of the things it should give account to. I loved working on the magazine and I enjoyed it when people would come up to me and say, hey, I did not know that about Antarctica until I read about it in *Antarctic*. It’s the Society’s role to inform and *Antarctic* is one information avenue.

But, everything, even the things we enjoy, has a beginning and an end, like the A-frame. In the end, something new usually comes along – we just have to keep our eyes open for that something.

For the *Antarctic* magazine, the current Assistant Editor Natalie Cadenhead has graciously agreed to take on the role as interim Editor until such time as the Society Officers recommend that the plenary of the next AGM agrees to her appointment officially. Janet Bray will also stay on to assist. With these two staying onboard I have no doubt I leave the magazine in good hands.

As for me, on 1 July I took up my new role as Executive Secretary for the Council of Managers of National Antarctic Programmes (COMNAP) (see the story in this issue of *Antarctic* on this year’s Antarctic Treaty Consultative Meeting and the announcement).

As for the next A-frame...Well, we are no longer allowed to dump any waste in the Antarctic, the strict environmental controls there mean we are unlikely to ever again find a discarded A-frame left in the trash pile. Perhaps those of us who spent time there should begin a collection for a new version so that like the phoenix the “Solar-powered Eco A-Frame” can begin again and be there as a haven for many a future generation of Antarcticans.

A big “thank you” to all of you who provided me with helpful advice and support over my years as Editor...you know who you are. Safe travels, Michelle



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Photo by Andy Mahoney

A-Frame Hut Destroyed by Fire

The iconic A-frame building, which had become a landmark near Scott Base in Antarctica, burnt down on 23 May. Only a few months into a winter-over season for the Scott Base and McMurdo Station personnel that would make use of it in winter. A routine inspection and change over of diesel fuel tanks, which supplied the heating to the building, was being completed by Scott Base staff. Upon re-ignition of the heater the priming fuel flashed over and set fire to the building. Fortunately no one was seriously injured, but, attempts to fight the fire proved futile as the timber and bitumen hut burnt quickly while outside air temperatures were as low as -35°C (-31°F).



Photo by Matt Vance

CEO of Antarctica New Zealand, Lou Sanson said, "We are extremely thankful that no one was seriously injured in the fire. It is a testimony to the skill of our staff that they were able to think quickly and remove themselves from harm."

The A-frame was moved out onto the Ross Ice Shelf in 1971 from the McMurdo Station ice wharf. Discarded by the US Antarctic Programme, the Kiwis of Scott Base quickly made it their own. It was primarily used as a base for field training of Scott Base staff in the summer and in winter, a weekend retreat. In May 2004 the hut famously survived 12 hours of over 160 kph (100 mph) winds with two Scott Base staff inside and was also the favourite haunt of Sir Edmund Hillary who spent his last night in Antarctica there in 2007.

Lou Sanson said, "The A-frame represented something uniquely Kiwi in Antarctica. The A-frame hut will be sadly missed by all those who have been part of the New Zealand Programme in Antarctica over the last 38 years".

Antarctica New Zealand Announces Invited Artists

New Zealand writer Owen Marshall and painter Peter James Smith, are the two recipients of the 2009/10 Antarctica New Zealand Arts Fellowships. They will travel to Scott Base in January next year to take part in the programme, which targets prominent New Zealand artists.

The Antarctica New Zealand Arts Fellowship programme seeks to increase understanding of Antarctica and its international importance through the work of New Zealand's top artists. Antarctica New Zealand CEO Lou Sanson said, "The Fellowship gives New Zealand artists a rare opportunity to explore artistically the concept of Antarctica and the world-leading science programme we have down there and we hope that the experience of living on the ice will open new doors for our artists and inspire them to expand their creative work."

Owen Marshall is a critically acclaimed New Zealand writer who has written/edited 23 books. He has an honorary Doctor of Letters from the University of Canterbury, where he is adjunct professor and he has held the Katherine Mansfield Memorial Fellowship in Menton, France. His novel *Harlequin Rex* won the Deutz Medal for Fiction at the 2000 Montana New Zealand Book Awards.

Owen Marshall is considered by many critics as among the finest, if not the finest, of New Zealand's short story writers.

"The Antarctica New Zealand Arts Fellowship programme is a fantastic opportunity to go where very few people get to go," said Marshall, "I recently was part of a delegation to China and found that very interesting. I imagine the Antarctic could hardly be more different, but no doubt equally fascinating in its own way, and I look forward to gathering new experiences. I consider myself very fortunate to have the opportunity." Exposure to Antarctica and the science that takes place will provide a unique challenge to Owen Marshall's work which is based on New Zealanders' unique relationship to place.

Peter James Smith's work gathers together phases of scientific endeavour by placing data, text, references and graffiti across landscape imagery.

This mix of mathematics, history and landscape painting provides a unique cocktail of art and science. He has exhibited extensively since 1988 in both New Zealand and Australia. He is Professor of Mathematics and Art at RMIT University in Melbourne, where he is head of the School of Creative Media.

"It is a privilege to be invited to one of the last quiet places on earth," said Smith. "As a painter I want to engage in the physical presence and scale of the place and sense its history. The statistician in me wants to delve into the data, models and theories of the scientists. Without doubt this will be an opportunity of a lifetime."

Through their creative explorations, Owen Marshall and Peter James Smith will continue the legacy of New Zealand Artists on the Ice that goes back over 50 years of New Zealand's involvement with Antarctica. ♣



Left: Peter James Smith
Above: Owen Marshall



The 32nd Antarctic Treaty Consultative Meeting

The United States hosted Antarctic Treaty Consultative Meeting (ATCM) XXXII in Baltimore, Maryland from 6–17 April 2009. The meeting began with the first ever joint session of the ATCM and the Arctic Council hosted at the US Department of State and included an address by US Secretary of State Hillary Rodham Clinton. Delegates also listened to science presentations from Principal Investigators with polar research projects that took place during the International Polar Year (IPY).

The Antarctic Treaty Consultative Meeting was attended by nearly 400 diplomats, Antarctic program managers, logistics experts, and polar scientists from 47 countries, including 28 Consultative Parties with a scientific presence in the Antarctic, to discuss several issues, including environmental protection, the advancement of science, bioprospecting and the management of tourism.

The Committee for Environmental Protection (CEP) also met in Baltimore the week before the ATCM and discussed many issues relevant to environmental management in Antarctica. A joint CEP and CCAMLR (Convention for the Conservation of Antarctic Marine Living Resources) Workshop was also held, a first joint meeting of its kind.

At the ATCM, major objectives set by Secretary Clinton in her April 6 speech were met. The Parties agreed by consensus to binding rules related to tourism, including a prohibition on landings by tourists from ships carrying more than 500 passengers, and a requirement that ships land no more than

100 passengers at a time. These rules will become binding once approved by all 28 Consultative Parties. The Parties also agreed to support efforts at the International Maritime Organization (IMO) to promote safety of Antarctic shipping, including stronger lifeboat protections for tourist vessels. In addition, they agreed to work toward protection of the entire Antarctic ecosystem.

Announcements were also made at the ATCM that the new Antarctic Treaty Secretariat would be Manfred Reinke of Germany who would take up this role in September 2009, succeeding Jan Huber, the inaugural Antarctic Treaty Secretariat who successfully completes his term; and the new Council of Managers of National Antarctic Programs (COMNAP) Executive Secretary would be Michelle Rogan-Finnemore, succeeding Antoine Guichard who successfully completes his term in 2009. Information about the ATCM and the Antarctic Treaty Secretariat can be found at www.ats.aq. Information on COMNAP can be found at www.comnap.aq. ¶

Tracking Emperor Penguins from Space

With the great distances and remoteness of Antarctica, researchers have been unable to figure out exactly where colonies of Emperor penguins can be found and if their population numbers are increasing, decreasing or remain stable.

But scientists looking for penguins have stumbled upon what appears to be an effective method: follow their excrement from space. Because the large penguins stay on the same ice for months, their excrement stains make them stand out from space and remote sensing methods can be used to document and track the colonies.

Scientists at the British Antarctic Survey (BAS) found this out by accident when they were looking at satellite images of their Antarctic research bases. A reddish-brown streak on the

white ice was right where they knew a colony was. The stain was penguin excrement and it gave researchers an idea to search for brown stains to find penguins. They found the same telltale trail, usually dark enough to spot from space, all over the continent.

Using satellite data, the scientists found 10 new colonies of penguins, six colonies that had moved from previously mapped positions to new spots and another six that seemed to have disappeared. Overall, 38 colonies were spotted from above, according

to their published paper, *Penguins From Space* in the journal *Global Ecology and Biogeography*.

The research is “incredibly useful,” because the only time to see Emperor penguins is during breeding in winter when weather makes it nearly impossible to get to the colonies, said penguin researcher William Fraser, who wasn’t involved in the study. Fraser noted that salty penguin guano “over time will corrode your boots,” adding that he has lost nearly a dozen pairs to it in 35 years of penguin research. ¶



Penguin colony at Cape Washington. © J Newman, Antarctica NZ Pictorial Collection

The Power of Poetry II

Sarah Thin presents poem two in the series of four poems. Sarah mentions many of the Antarctic items she saw on display at the Canterbury Museum.

There is something light hearted and endearing in Sarah's notion of replicating the heroic age in her own contemporary Christchurch lifestyle. Her poem is a treasure trove of intriguing objects, each with its own history. It reads like a psalm to human creativity and inventiveness and is jauntily optimistic as it looks towards the future. ♫



Fram Antarctic Expedition, 1910–1912 Amundsen at South Pole, 24 Dec 1911. Canterbury Museum 954A

Framed print
"Shackleton's Hut Cape Royds"
from a painting by R M Conly,
1977. Number S/1000.
Canterbury Museum 2007.86.1



Next Time

By Sarah Thin

When I have a baby, I'll call him Edmund,
in honour of Hillary who breathed life into cold

Next time it snows here, I'll travel by sled,
pulled by Amundsen's samoyeds, up and over the Port Hills

Next time I need fuel, I'll use seal blubber,
chop it up, like Shackleton did, into perfectly cut squares

When I need winter shoes, I'll buy caribou skin boots,
like the ones they wore on Expedition Nimrod,
protecting from the ice shelf below

Next time I have a dinner party, I'll use silver and glass,
like the cruet set found in Scott's hut on Cape Evans

When I build a new home, I'll use basement rocks
not schist, collected from East Antarctica in 1821

Next time I go skiing, I'll wear husky fur gloves
as that's what saved Scott's fingers in 1901

When I next draw a map, I'll wrap my tools in blue silk,
like Watson & Son's instruments from 1902

Next time I have a luncheon, I'll serve tongue from a
red tin, like Shackleton's pickled treats from 1907

When Edmund learns to play music, I'll give him a
mandolinetto, like the one Scott's cook played onboard
the Terra Nova



Ice Crash Antarctica: Pilot “Tommy” Thomson, DSC

by Glenn M. Stein, FRGS

On Christmas Eve morning 2007, as I listened intently to the steady and pleasing voice of 85 year old William H “Tommy” Thomson, I detected only a *faint* Scottish accent – not what one usually encounters with a Scottish native. Sensing a story, I asked Thomson about his accent and the past began to roll smoothly off his lips.

In the early years of the Second World War, Thomson was at Glasgow University – and bored. Since the nearest recruiting station was a naval one, that's where he ended up. Given his education standard it was suggested he try for the Fleet Air Arm, and Thomson duly became a Royal Naval Volunteer Reserve (RNVR) officer. The obvious necessity for clear radio communications while flying meant only one thing: the softening of Thomson's Scottish brogue.

From August 1943 Sub-Lieut Thomson was flying Swordfish with 842 Squadron, aboard the ex-USN escort carrier HMS *Fencer*. The *Fencer* was on convoy duties in the Western Approaches, the area of the Atlantic off the western coast of Great Britain through which most shipping to and from the UK passed. His subsequent combat report of

the probable destruction of a U-boat on 10 February 1944, puts us in the cockpit:

I started to dive from 500 feet and at the same time my Observer reported “Tantivy Attacking”. As I approached, the swirl gradually increased until the first part of the conning tower of a U-boat appeared doing 7–8 knots on a course of about 210 degrees. I dived fairly low to about 20 feet and dropped my depth charges across a point just ahead of the conning tower, about two feet of which was showing. Attack was made from just abaft its port beam. My distributor setting was .3 seconds and speed of 120 knots. The depth charges went off straddling the target although for some reason the middle depth charge went off about three seconds later than the other two. The Observer and Air Gunner saw



the bows of the U-boat lift out of the water with the first two depth charge explosions but the later one obscured everything although the height of the column was not so great as those of the first two. When the water subsided no part of the U-boat was visible but oil came to the surface and gradually spread out to about 350 feet. No wreckage was visible excepting a few pieces of wood. Although several aircraft were in the vicinity not one followed up my attack. I then dropped a Marine Marker to mark the spot.

[ADM 199/466]

Fencer's active anti-U-boat campaign continued, and between April and May she escorted Convoy RA59 from Kola Inlet in the Barents Sea. Treacherous ice and snow storms battered her aircrews, but they doggedly carried out 62 sorties, making 16 sightings and 12 attacks on enemy submarines. As a result, three more U-boats were destroyed, and on 1 May, Thomson circled the area after one such attack.

Naval-History.Net provides a record of 842 Squadron's operations on the first two days of May noting the sinking of three U-boats.

By war's end, Lieut Thomson sported a Distinguished Service Cross (DSC) ribbon on his uniform, for skill and determination in attacking the surfacing U-boat in February 1944. But the fighting was over – now what? A chance meeting at an officers' club led Thomson to join the Falkland Islands Dependencies Survey (FIDS, renamed the British Antarctic Survey in 1962).

Roaming around the club were James M Wordie (geologist on the *Endurance* expedition 1914–1916 and

recipient of the Polar Medal) and James Marr (Boy Scout on the Shackleton-Rowett Expedition 1921–1922, and recipient of the silver Polar Medal *and* bronze Polar Medal. There have been only 18 recipients of both silver and bronze medals).

Wordie and Marr were on a recruiting run for Antarctica and this attracted Thomson's interest, but when he told Marr that he was a pilot the Antarctic veteran's reply was mixed. Marr said there were a lot of pilots around, but that Thomson should apply anyhow. Not having to be asked twice, Thomson did apply and was accepted. Two "small" details were settled before his departure. He hadn't held a pilot's license (there had been no need for one in the Navy), so a temporary licence to fly *in Britain* was acquired, and this served for "activities further afield". Secondly, Thomson married his girl, Nan, before going south.

On his arrival at the bottom of the world in November 1946, there were still strong echoes of childhood heroes Scott and Shackleton and tremendous enthusiasm in everything, with every person supporting one another.

Thomson was the pilot of the survey team at Base E, Marguerite Bay, on the Antarctic Peninsula. He flew the affectionately named Auster *Ice Cold Katy*, having with him biologist Bernard Stonehouse as co-pilot (Polar Medal, Antarctic 1947–1949) and Surveyor Reginald L Freeman as navigator (Polar Medal, Antarctic 1946–1947). Their missions were mostly short trips in support of depot-laying work, to investigate other possible routes to the plateau. Weather was usually difficult or unpredictable.

Continued over ►►



Marguerite Bay. Photo by Damien Carson, 2004

During the latter part of 1947 a twin-engined American aircraft from the Ronne Antarctic Research Expedition (RARE 1946–1948) also based at Marguerite Bay, was set to carry out aerial photography with trimetrogon equipment. This is a system of aerial photography in which one vertical and two oblique photographs are simultaneously taken for use in topographic mapping. The results were to be tied in with mapping by sledgers across the plateau. Thomson explained his part in the mission:

It had been decided that I would fly over the plateau with two companions [Stonehouse and Freeman] in the Auster to a point about ninety miles south, land blind on the snow to check conditions for the landing of the heavier American aircraft, which would be carrying stores to the first depot. The problem was that there could be a thick layer of soft, fluffy snow into which the aircraft could sink and the Auster could more easily touch, taste and take off again.

Thomson and his crew reached the designated spot and touched down without incident. However, their consort was delayed taking off due to trouble starting its engines, so it was some time before the sound of another plane rang in their ears. Thomson “set off the red smoke flare and it sent a thick, blood-red gash across the snow, marvellous and obvious. To our total astonishment, it was not seen and the American aircraft went droning past. Again we waited and waited, but it did not return.”

There was nothing to do now but to head back to base:

We climbed up close to seven thousand feet before crossing the plateau and set off for base. The high cloud ceiling began to lower and I noticed that our ground speed was diminishing. I increased the throttle setting until even with full throttle we were making little progress into a tremendous wind. There was little point in maintaining this course so I turned across the plateau to head down to the sea ice on the same side of the peninsula as the base. The light was beginning to fade, but I could just see a glacier away on the left ... I followed the glacier down, losing height, the aircraft was bucking about in the turbulence, someone was being sick in the back, it was snowing now, the air intake was becoming choked and the starved engine was coughing and spluttering. The glacier curved round to the left and I had to keep in close visual touch with both the steep wall and the ice underneath; it was becoming quite dark.

By the time we reached the sea ice I could see very little, but I thought that I could do a slow carrier-type landing and all would be well. I could only see straight down. Suddenly, to my horror, I saw the ghostly shape of a large tabular berg slide beneath the Auster ... The skis touch and for a couple of seconds I thought we had made it safely. Then one ski caught on a small projecting piece of ice and the aircraft turned slowly onto its back. There was no fire,



only a broken aircraft, no-one was hurt. NO-ONE KNEW WHERE WE WERE.

As we were supposed to fly in tandem, the American aircraft had most of our emergency gear ... We had a pup tent, designed for one, one sleeping bag and inner, one petrol primus and seven pounds of pemmican.

The trio settled down to their first night, while outside “the wind dropped and there was only the soft hush of snow on the tent and the penetrating cold. We dare not go to sleep so we talked about tomorrow.” The next day was decision time: stay with the aircraft and wait for help, or start walking the estimated 60 miles back to base. The plane was already camouflaged with fallen snow, making any search from the air a difficult one. Thomson recorded: “I suggested that we remove the petrol tank from the Auster and use it as a sledge to pull along our few pieces of equipment as well as having petrol for the stove.”

And off they went. “When thirsty, we sucked pieces of ice, and walked for ten minutes, followed by five minutes of rest” and despite the soft snow making it tiresome travelling, they covered ten miles the first day.

The following day presented much the same picture as the first for the explorers: low clouds and just a whisper of wind – but then snow began to fall. Much less progress was made that day.

The third day gave us a clear blue sky, but our constant watching of the coastline towards the base brought no results and the fallen snow from the day before made walking very difficult. We floundered along, up to our knees, and made little real progress ... The tent had become much heavier with breath turned to ice and the makeshift sledge had become more difficult to drag through the soft snow ... I sang to keep us awake and this was reasonably effective because I only caught the right note by accident. My songs were those learned during squadron days, sentimental,

Auster T7, RAF Museum, Cosford



"The aircraft made a long lazy turn and lost height towards us. It made a quick circuit to check the ice and landed with a brisk hiss of its skis beside us."

of longing, of loneliness, of love lost and waiting for the emptiness of war-time to go away. In the middle of the night a tremendous storm raged down from the plateau and we could little but cower in our small tent, which was being gradually drifted over and the sides nudged in on us like unwelcome guests ... Thoughts were more sombre. I knew that our position was perilous. Storms usually lasted at least two days. The aircraft would be searching on the other side of the plateau.

The storm lasted for three days, but I had no way of measuring real time. The wind howled and filled our small world with noise that gradually diminished all thought. There was little light to indicate the passage of day and night ... a tiny piece of pemmican twice a day gave us little nourishment, our mouths were fissured with sucking ice ... There was a feeling of slowly shutting down.

Gradually, it broke through into my fuddled brain that the wind had eased a little and that I must get out of this prison. We pushed away at the snow heaped upon us and I broke out into a night sky with light from a bright moon and rags of thin cloud racing across it. We staggered about trying to get some movement into our limbs, broke out the tent which was little more than a block of ice; it would have been so easy, so simple, to remain in that collapsed tent and drift into a deep, deeper sleep. We set off shakily in the direction of the base.

Good fortune smiled on the men when they spotted a seal snoozing in the sun, only a few feet from its blow hole. Thomson killed it with an ice axe and the trio enjoyed some much needed nourishment. The sunshine and that humble aquatic creature "had buoyed our spirits and we set off once again".

Not long afterwards we stopped. No-one spoke. There was a suggestion, a mere hint of a sound, it was not the wind, not the hush of our dragging feet, not the rumour of

growlers far out to the open sea. It became louder, it was an aircraft, but where was it? Then we saw it. It was about twenty miles away and circling to gain height to cross over the plateau. My two companions wanted to set off our one remaining smoke flare at once, but I took it over and waited until the pilot, in his circling, might just be looking in our direction, before releasing it.

The red gash bled across the white snow. We did not breathe. Would it be seen? We waited, hoping, promising in my head to do all sorts of extravagant things if we were saved, to be always kind to others, never say anything nasty, turn the other cheek, help old women across the street, help anyone across the street. The aircraft made a long lazy turn and lost height towards us. It made a quick circuit to check the ice and landed with a brisk hiss of its skis beside us. It was the Nana. The very American voice of Jim Lassiter hailed us and he had us back at base in a few minutes. We had lost some weight – Reg and Bernard twenty-eight pounds, while I lost eighteen. The cold had affected our feet and we had to wear slippers for a day or two, but apart from that we were fine.

Twenty-four hours later, there was another gale and the already weakened sea ice was swept out to sea. We had been so lucky. We could have gone with it.

When Thomson departed the frozen continent in May 1948, he had no wish to return: "I need to have people around, the world was outside and I had a beautiful wife waiting for me. When I returned from the Antarctic I was offered a degree course at Cambridge University, a two-year teaching course or a concentrated one-year course for emergency teaching. I chose the latter because there was an inner desperation to get on with real life," wrote Thomson.

Thomson later recorded that, "[after a few years of teaching] Nan and I reckoned that our restless feet had to be appeased.

Continued over ►►

We thought that it was a good idea to go to Malaya to teach the children of service personnel. I applied and was accepted." The Korean War was on at the time, and the Royal Navy wrote the former pilot, asking him to return to carrier flying as a senior pilot in the conflict: "The pay was great, but we decided that one war was enough for one man."

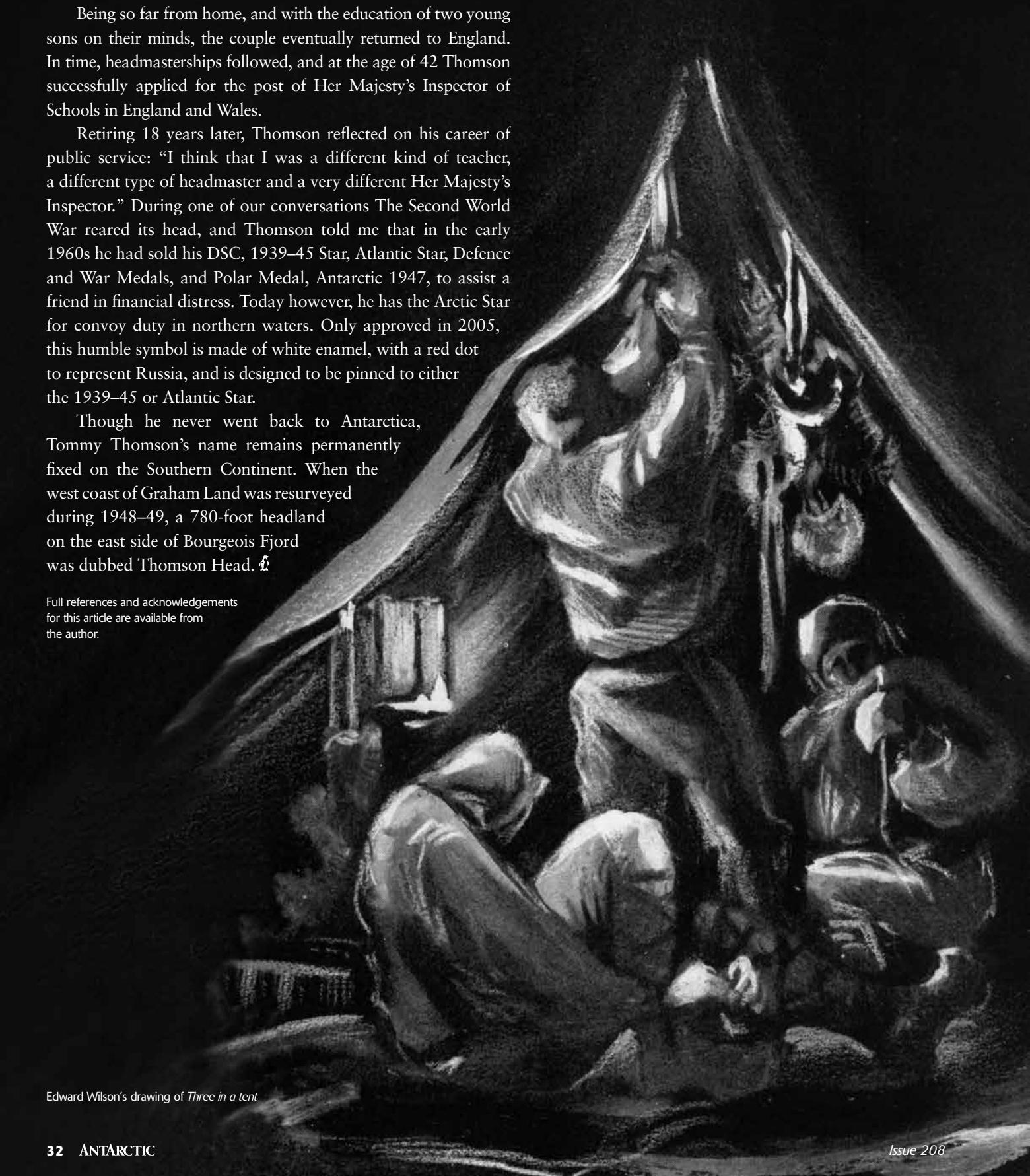
Being so far from home, and with the education of two young sons on their minds, the couple eventually returned to England. In time, headmasterships followed, and at the age of 42 Thomson successfully applied for the post of Her Majesty's Inspector of Schools in England and Wales.

Retiring 18 years later, Thomson reflected on his career of public service: "I think that I was a different kind of teacher, a different type of headmaster and a very different Her Majesty's Inspector." During one of our conversations The Second World War reared its head, and Thomson told me that in the early 1960s he had sold his DSC, 1939–45 Star, Atlantic Star, Defence and War Medals, and Polar Medal, Antarctic 1947, to assist a friend in financial distress. Today however, he has the Arctic Star for convoy duty in northern waters. Only approved in 2005, this humble symbol is made of white enamel, with a red dot to represent Russia, and is designed to be pinned to either the 1939–45 or Atlantic Star.

Though he never went back to Antarctica, Tommy Thomson's name remains permanently fixed on the Southern Continent. When the west coast of Graham Land was resurveyed during 1948–49, a 780-foot headland on the east side of Bourgeois Fjord was dubbed Thomson Head. ¶

Full references and acknowledgements for this article are available from the author.

Edward Wilson's drawing of *Three in a tent*



Edith "Jackie" Ronne 1920–2009

Edith "Jackie" Ronne never intended to be the first American woman to winter-over in Antarctica. But the experience left an impression upon her, she was unable to read over the diary she had kept during her Antarctic stay until 1995. But, by then, she did begin planning a book about the experience, publishing *Antarctica's First Lady* in 2004.

Jackie was living in Bethesda, Maryland USA, when her husband, Finn Ronne, was preparing to depart



for Antarctica. Jackie was to accompany him as far as Texas, where they were meant to say their goodbyes before Finn was to proceed to the Antarctic with his crew. But Finn wanted her to come along on the expedition. Finn, a Norwegian-born former US Navy captain insisted he could not manage his low-budget expedition without her and added that he did not feel he had the language skills to write dispatches for the North American Newspaper Alliance, one of the trip's sponsors.

So, Jackie agreed to join him. But, she insisted that another woman come along as well. It was then that Jennie Darlington, the new wife of the expedition's chief pilot joined the expedition. So Jennie, a Canadian, and Jackie became the first women to ever winter-over in Antarctica in 1947/48. Jennie also published a book about

her experience entitled *My Antarctic Honeymoon: a year at the bottom of the world*.

Jackie kept busy on the expedition, she kept a diary and also took on the role of expedition recorder-historian, her degree in history, from George Washington University, coming in handy for this important task. She also assisted the expedition seismologist and kept tidal records. The expedition was a success. The group explored more than 640,000 km², including both coasts of the Antarctic Peninsula and the Weddell Sea's southern margin.

Jackie returned to Antarctica as a tourist in 1957 and again in 1971 as a guest of the US Navy. In 1995 she revisited the expedition's base which was made an historic monument in 1989. Finn Ronne died in 1980. They are survived by a daughter.

Warren George Herrick 1957–2009

Warren Herrick known after his Norwegian ancestry to many friends as Hagar, died at Cape Palliser, Wellington, New Zealand on 15 May 2009. Born in Woodville, New Zealand on 16 October 1957 he was a boarder in Shackleton House, Rathkeale College Masterton and was proficient in mathematics and science. Warren trained as a pharmacist and had a strong passion for the outdoors. In 1980, he realised one of his many dreams – a five month summer traverse of the New Zealand Southern Alps along the west side of the Divide with climbs along the way. His Antarctic service began in 1984 in North Victoria Land, as a New Zealand Antarctic Research Programme (NZARP) field assistant on a University of Canterbury geological expedition associated with the West German and US programs. He returned to Scott

Base in 1986 as an instructor in snow craft and survival training. In 1990 with his wife Liz, completed a 150-day cycling trip the length of New Zealand including Stewart Island, delivering New Zealand's Sesquicentennial message to schools. Warren's last visit to Antarctica was during the 1994/95 season when he ably led the Scott Base winter-over party. This culminated with his fine book *A Year on Ice* which also showed his competency as a photographer. In 1996 and 1997 Warren and Liz cycled the 26 New Zealand ski field roads and his passion for gnomes and Citroen 2CV cars, led to publishing his unique pictorial book documenting 19 'Raids' in Citroens. Liz wrote, "Warren was a perfectionist who had high expectations of himself. There was not much room for compromise and life was about quality not quantity as he himself put it."

It was appropriate that on 21 May 2009 he was farewelled with raised ice axes by Geoff Spearpoint and David Harrowfield who enjoyed their last climb with Warren in the Polar Range.

Obituary compiled by David Harrowfield with assistance from Liz Herrick, John Ansell, Lou Sanson and Paul Woodgate.



Eric William Kevin Walton

1918–2009

Lieutenant Eric William 'Kevin' Walton was born on 15 May in Kobe, Japan. He was interested in climbing by his godfather, Howard Somervell, a member of the 1922 and 1924 Everest expeditions and also by the sight of Shackleton's sledge, which was kept at Monkton Combe School, where he was educated.

He graduated in Civil Engineering from Imperial College, London, and became an engineer officer in the Royal Navy. It was while serving that he heard a sermon by the future Bishop Launcelot Fleming. Fleming inspired Walton with a love of the Antarctic, derived from his own prewar expedition to Graham Land.

As a member of a Falkland Islands Dependencies Survey party sent to establish bases in the South Shetlands and on Goudier Islet, Port Lockroy, Walton was with a four-man team seeking a dog-sledge route up a steep glacier to the plateau of the Graham Land Peninsula. Around midday John Tonkin was walking ahead to encourage the dogs when he disappeared through a badly-bridged crevasse. He fell and became

jammed at chest level in a narrow part of the ice. Ropes were lowered, and he managed to get loops around his forearms but found himself stuck fast. As the most experienced mountaineer in the party, Walton volunteered to go down. On being lowered he found the hard blue walls bristling with large spine-like ice crystals and, when the crevasse narrowed to eight inches could go no lower.

He had himself pulled up, moved a few yards to the side and lowered again to arrive with his feet level with Tonkin's head. He then made himself a tool from the sawn-off spike of an ice-axe, diligently chipping away until he freed Tonkin sufficiently for ropes to be fixed around his shoulders. The men above hauled, and the trapped man came free like a cork from a bottle. The rescue operation took over three hours, and the nerves in Tonkin's arms and wrists were damaged for six months before he was fully active again. When Walton arrived at Buckingham Palace to be invested with the Albert Medal he found himself engaged in a light-hearted exchange with King George VI for wearing the



Photo provided by BAS. AD6/19/3/E1

wrong ribbon. Albert Medals were revoked by Royal Warrant in 1971, but Walton elected to retain his instead of exchanging it for a George Cross.

For seven months he was second-in-command of Duncan Carse's survey mission to South Georgia, where he saved a geologist who had fallen 61 m (200 ft) down a crevasse. On his return home he received the Queen's Commendation.

Walton was awarded the Polar Medal with Antarctic clasp, 1946/47. He wrote *Two Years in the Antarctic* and co-authored *Portrait of Antarctica*. Mount Walton in British Graham Land is named for him. ¶



Len boarding a USAAF C17 at Pegasus Airfield on his homeward journey to Christchurch, New Zealand.
Photo by Len Doe

Teaching Fellowship Provides Opportunity of a Lifetime

With a passion for science and technology, Len Doe applied for a New Zealand Science, Mathematics and Technology Teacher Fellowship for 2008. The topic for his proposed project was “The technology that scientists use to collect data in extreme conditions and environments.” The Teacher Fellowship fund is organised by the Royal Society of New Zealand and gives classroom teachers an opportunity to study a topic of interest, for up to one year, fully funded and with the right to return to their job after completion.

Len was successful with his application, which allowed him to spend his year focussing on four key elements of his project: 1) studying the data collection devices used in flooding and tsunami detection; 2) investigating open and deep ocean research in the Chatham Rise area; 3) participating in the release of an upper atmospheric research instrument package; and 4) in the summer of 2008/09, two different projects in Antarctica. After returning from nine weeks in the McMurdo Sound area, Len writes this piece for *Antarctic* about his experience while completing the Antarctic component of his project.

The first Antarctic project was with Phil Lyver’s Landcare Research

event K122, studying Adelie penguin population responses mediated by climate change, during November and December 2008. Len assisted with collecting field data at Cape Bird and Beaufort Island. The majority of the work was done around the three Cape Bird colonies of approximately 40,000 pairs of penguins and involved searching for and recording band numbers of known age Adelie penguins. When a banded bird was spotted, its band number was written in a book and its breeding status noted. If the bird was sitting on eggs, the nest was marked with a tag and the geographic location was recorded in a Global Positioning System (GPS) unit. All of this information was entered into

a computer database for researchers to analyse at a later date.

Most of the technology used in this field work was “low tech” but reliable. For example, the use of binoculars for reading band numbers and a notebook and pencil for records because ball point pens often freeze in this environment. This did not mean there was no “high tech” equipment in use. Len’s US co-workers had a Wireless Access Point (WAP) installed at Cape Bird Hut which gave access to the internet and also a telephone. In this way it was possible to call Cape Royds and McMurdo direct to get updates on environmental conditions and project planning. The team also had a satellite phone and Len was able

Continued over ►►

to contact his family in New Zealand on Christmas Day. Scott Base provided excellent extreme weather clothing and the training to keep Len safe in Antarctica.

Scott Base staff were a friendly helpful group who had a number of roles. Their primary goal was the health and safety of all visitors to the base, and for reducing human impact on the environment. They also made it their business to give visitors an enjoyable, informative stay.

During his stay at Scott Base between and after events, Len was able to take advantage of activities organised by Scott Base staff. On one occasion he accompanied a group exploring an area of crevasses close to the Base. He was introduced to a number of alpine techniques used to lower and lift people in and out of a crevasse, as well as becoming better acquainted with his instructors and other personnel. There was time to visit McMurdo for their weekly "Sunday Brunch" then check out Scott's Discovery Hut close by. That was quite a time warp, eating an excellent omelette in the comfort of McMurdo, then seeing at first hand the seal blubber stove and cramped, smoke blackened quarters that the early Polar explorers used. The comparison made one very grateful for modern conveniences.

Len was next flown into the Miers Valley with Craig Cary's University of Waikato K020 event, collecting data to predict bio-complexity in Dry Valley ecosystems. Craig is leading a multinational, multidisciplinary team working from several tent camps in and north of the Miers Valley. The camp was palatial compared to Discovery Hut. For one thing, chemical tests were carried out in the Polar Haven tent which had a diesel heater to keep chemical reagents from freezing. Polar sleeping kits were modern, warm and comfortable, a far cry from the animal hide sleeping bags used in the early 20th century.

But in the field, collecting soil samples, again it was the reliable "low tech" equipment that was used, such as measuring tape and trowel, hand-lens and direct observation, pencil, data sheets and clipboard. Len was shown how to look for mosses and lichens beneath marble and quartz stones, growing about a centimetre below the soil surface.

The marble and quartz transmit light to an ecosystem that is less harsh than above ground where wind speeds may reach 200 kph (125 mph) and temperatures dip to -40°C (-40°F), especially during winter. Len was also asked to look for springtails (*Gomphiocephalus hodgsoni*). At about 2 mm (0.08 in) in length, this species of springtail is the largest animal that permanently survives on the Antarctic continent. He was on the lookout for a mite that grows to about 1 mm (0.04 in), as well.

As at Cape Bird, there were also "high tech" solutions to safely sampling in remote, hostile environments including regular, daily radio schedules with Scott Base and the use of satellite phones for keeping field teams up to date with sampling regimes and weather conditions in other Valleys being sampled. When there was a snow dump, the ground could not be seen so sampling was stopped, particularly on higher ground.

A project of personal interest to Len was the assembly and testing of a time lapse camera system that is being used to record snow cover during the 2009 winter. This was set up in an area of the Miers Valley that K020 has had temperature sensing "iButtons" deployed at 100 m (328 ft) altitude intervals. The photos produced will be used to augment satellite images when cloud obscures a view of the ground from space.

Len brings home with him memories of being insignificant, dwarfed by the size of Antarctica's landscape. He felt the mood of the



places he visited was determined by sunshine. In the Miers Valley, sunlight gave the hills a honey coloured warmth that seemed to turn to grey on overcast days. And to the classroom Len brings back tales of life underground, both plant and animal. Of penguins nesting in colonies for thousands of years, on the bones and guano of tens of thousands of predecessors. Of the delicate balance of the environment in polar regions, and how small changes in these high latitude locations may affect the whole world. Of "low-tech" pencil, paper and legible handwriting, of observation and thinking about questions to answer about our planet and its ecosystems. Although the tools of technology are important, it is the science questions and analysis that allows us some understanding of what is happening on our planet.

Finally Len would like to acknowledge the help and support from the New Zealand Science, Mathematics and Technology Teacher Fellowship, the Royal Society of New Zealand staff, Phil Lyver and colleagues, Landcare Research, Lincoln, Craig Cary and his team, University of Waikato and last but not least his family support network, particularly his partner Alina. ♫

◀ Mark Stevens (left), Craig Cary (middle) and Len (right) setting up a time lapse camera in the Miers Valley. Photo by Craig Cary



Len brings home with him memories of being insignificant, dwarfed by the size of Antarctica's landscape.

Len accompanied by Emperor penguins on the sea ice near Beaufort Island, Ross Sea. Photo by Melissa Fries



Princess Elisabeth Station

It is not easy being green, particularly in the frozen and unforgiving Antarctic. But Belgium's Princess Elisabeth Station has taken up that challenge in striking style, building the world's first polar base that runs solely on renewable energy.

In 1898, a team of Belgian explorers aboard the whaling ship *Belgica* became the first expedition to ever winter in the Antarctic. In the late 1950s, Belgium became one of the original signatory countries to the Antarctic Treaty 1959. As a consultative state member nation, it has a long association with Antarctica. But, in 1967, Belgium closed its only Antarctic research base, known as King Baudoin Station. As, after only ten years of operations, the facility was being buried by snow and was no longer safe for human habitation.

The new station, is named for Princess Elisabeth, the young granddaughter of Belgian King Albert II. Located in eastern Antarctica, the new facility cost US\$28 million to complete and was officially opened on 15 February 2009. The building sits on stilts to stop the build-up of snow. It's the first polar base operating entirely on renewable energies, getting all its energy requirements from

solar and wind power. The design is one from the International Polar Foundation (IPF), a Brussels-based private non-profit organisation that the Belgian government commissioned to design and build the facility.

IPF president and Princess Elisabeth Station's program director, Alain Hubert, said of the project, "Constructing the first zero emission research station in the Antarctic, despite its extreme climate and unfriendly weather conditions, is an achievement that goes to show that the necessary know-how and technology actually exist. If it's possible to build a zero emission facility in the extreme conditions of Antarctica, the same must be possible anywhere else in the world. All you have to do is want it."

Unsurprisingly though, wanting it and constructing it were two totally different things! Developing the project took four years, but only two Antarctic seasons were needed to achieve the construction of the station

itself. At certain times, the construction team reached 60 people at site on the Utsteinen Nunatak, Antarctica. In late January 2009, the construction crew worked on the cabling for the eight wind turbines that will provide up to two-thirds of the station's electrical power.

From the outset, IPF knew that it needed to build the structure twice. By early September of 2007, IPF had completely constructed the Princess Elisabeth Station's outer core, not in Antarctica, but inside the Tour and Taxis Centre in Brussels, where citizens could look at it for four days.

"The pre-assembly served several purposes, including giving Belgium's general public the opportunity to see the station in person," Hubert explains. Significantly, it also allowed the construction crew who will later rebuild it in Antarctica a trial run to see if everything fit properly. The project team then broke down the outer shell in Brussels and packed it for the



All photos © IPF

November 2007 shipping to Antarctica.

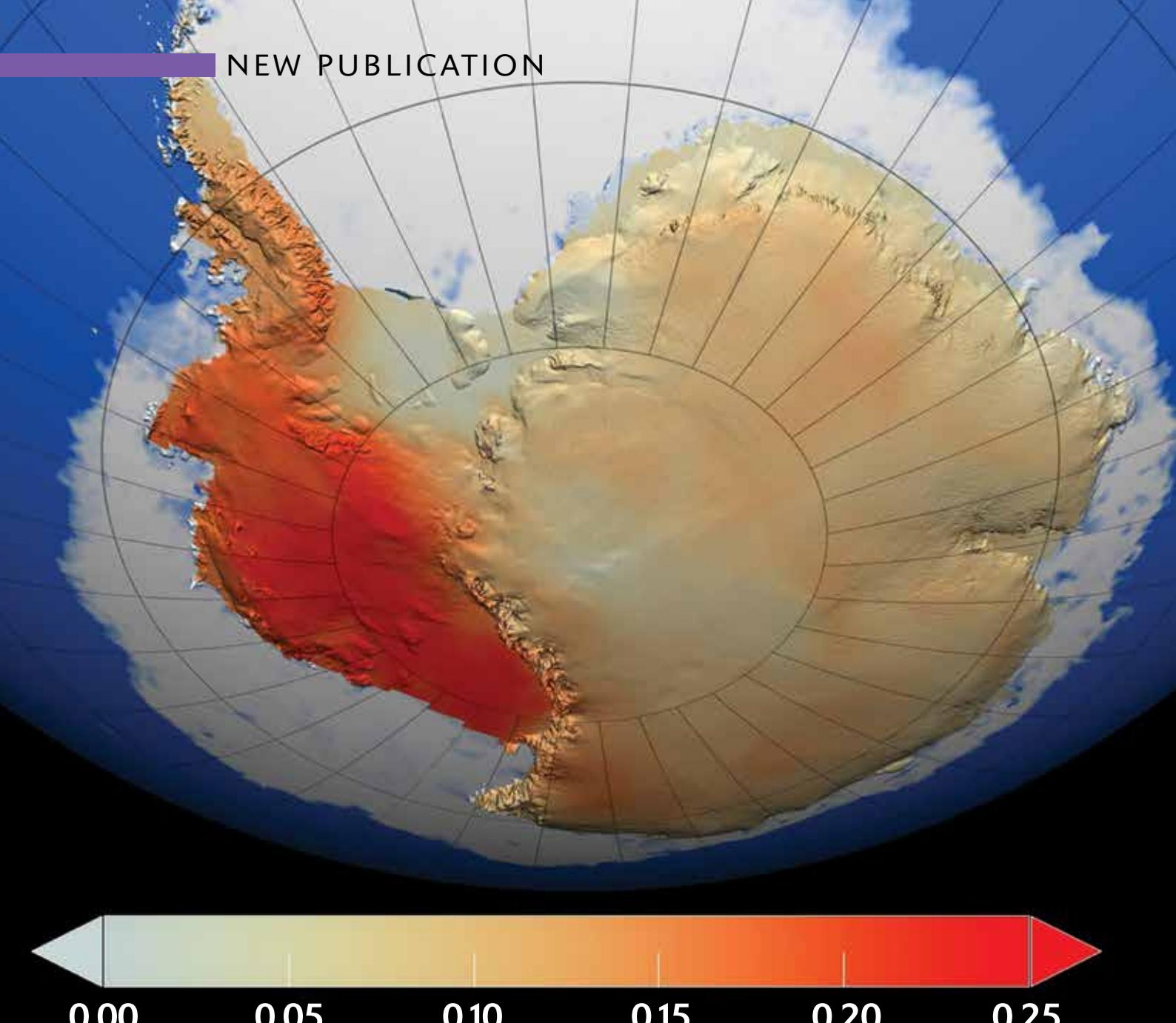
Loaded aboard the *Ivan Papanin*, the parts for the building arrived in Antarctica's Crown Bay on 21 December 2007. This Russian ship docked as close as it could get to the Utsteinen base camp, but that was still 190 km (119 miles) from the site. The parts were taken, bit by bit, in containers over the ice by three snow tractors, trailing lines of sledges behind. Each tractor's roundtrip, 18 in all, from the ship to the base camp took 40 hours, moving at an average speed of 10 km (6 miles) per hour. Despite the logistical obstacles, the Antarctic team stayed on schedule during the austral summer of 2007/08. By the time they left in March of 2008, the station's outer core was fully complete.

The second construction season saw the integration of the station's core systems (solar thermal and solar photovoltaic panels, water treatment unit, systems control unit and cabling of the wind turbines) and living quarters. Even a severe storm in late January 2009 could not stop the completion of the station. ♦

More information on the new station can be found at www.antarcticstation.org

More information on the IPF can be found at www.polarfoundation.org





Red represents areas where temperatures have increased the most during the last 50 years, particularly in West Antarctica, while dark blue represents areas with a lesser degree of warming. Temperature changes are measured in degrees Celsius. Credit: NASA/GSFC Scientific Visualization Studio

Warming Across Antarctica

In recent decades, there is no doubt that data has shown that there has been rapid warming of the western edge of the Antarctic Peninsula.

Although alarming, scientists thought that the warming was a localized phenomenon. But a team led by Eric Steig of the University of Washington in Seattle, USA, has shown in a recent scientific paper published in the journal *Nature*, that Antarctic warming extends beyond the Peninsula region and covers most of West Antarctica.

Why has this information only come to light now, given that we have accurate temperature records for the

Antarctic going back as far as 1957? Well, it turns out that earlier studies of Antarctic warming were only based on data from sparsely-distributed, ground-level automatic weather stations. The new publication and the new map uses satellite-derived data that included previously missing information from West Antarctica itself.

Read more about this new work in *Nature*, Volume 457, Number 7228, starting on page 459. ↗



New Zealand Antarctic Society Membership

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, science, wildlife or adventure.

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

- *Antarctic*, the quarterly publication of the Society. 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, Southern Ocean and Subantarctic Islands. It has worldwide circulation.
- Attend occasional meetings and fun events which are held by the Auckland, Wellington, Canterbury and Otago Branches of the Society.

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Just another day in Antarctica! New Zealand Antarctic Programme personnel demonstrate the use of a hand ice auger. Photo by Chris Dolder